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THE SHELL COMPANY OF AUSTRALIA LIMITED
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EL5/61 GRAY
TASMANIA

GEOLOGY AND COAL RESOURCES OF THE DALMAYNE, DOUGLAS RIVER AND APSLEY RIVER AREAS, EASTERN TASMANIA

by

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SUMMARY

This report reviews the results of more than a century of exploration activities in the 500 km^2 portion of Exploration Licence 5/61 south of the Fingal Valley and north of the Tasman Highway. Together with earlier reports on Mt. Nicholas, Harefield, Mt. Elephant and Mt. Peter/Mt. Paul it completes the series of reports covering the whole of the original licence area.

Boreholes have intersected up to six coal seams in a 300m interval of Triassic sediments which are overlain by massive dolerite of Jurassic age. Erosion in some valleys has cut down to the level of the coal seams, but most valley slopes are covered with thick accumulations of boulder colluvium.

The seams are generally flat lying, but large faults are interpreted from seam levels in boreholes. Small faults have been found in outcrops and underground workings.

Two seams, coalescing to one in the north, have local developments of thickness and quality which are regarded as potentially economic. These seams have mineable sections varying in thickness between 1.5 and 3.5m, and minimum acceptable yields of 70% for a 22.5% ash product. The indicated quality for such a product is similar to Mt. Nicholas coal, i.e. high volatile bituminous with low sulphur content, high ash fusion temperatures and moderate Hardgrove grindability indices.

Exploration to date has been concentrated in the north (Dalmayne) and in the lower water catchment area of the Douglas River. Total Indicated In Situ Reserves in the economically attractive seams are 188 million tonnes.

1. INTRODUCTION

1.1 Scope

Since 1978, The Shell Company of Australia Ltd. (SCOA) has been conducting an exploration programme for economic coal deposits on the east coast of Tasmania. The results of this work has been summarised recently in a series of reports discussing the geology and coal resources of different parts of the region (Bornman 1981, Ford 1982 a, b, Patterson 1982, 1983, Wollff 1982).

The purpose of this report is to complete the series by reviewing and integrating all the previous geological work, within an area south of the Fingal Valley and north of the Tasman Highway (Fig. 1, Encl. 1), an area of about 500 km^2.

It is intended to provide an overview of the coal resource based upon information obtained from the literature, surface mapping, drilling and air photo interpretation, and to enable the selection of prospective areas for further exploration. To simplify the description the area was subdivided into four parts: Dalmayne, Douglas River, Apsley River and the Coastal Plain, based on location and topographic features (Encl. 1).

1.2 Mining Tenure and Mineral Rights

The ownership of coal rights in Tasmania depends on the date of individual land purchases or grants. The Crown Lands Act 1905 and the Crown Lands Act 1911 provided for the reservation of all minerals in all subsequent land grants. Prior to 1905, the situation is uncertain. Before 1859, mineral rights excluding gold and silver were vested in the land title. Between 1859 and 1893, a policy was adopted of not granting land known to contain minerals, but no reservations appear to have been included in grants that were made. The Mining Act 1911 established the principle of Crown ownership of specified minerals including coal from November 14, 1893 (Lang and Crommelin 1979).

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The location of Exploration Licence (EL) 5/61 is illustrated in Fig. 1 and Encl. 1. It was granted to Industrial and Mining Investigations Pty. Ltd. (IMI) on February 23, 1961. SCOA formed a joint venture with IMI in 1978 and commenced exploration activities during that year.

This study covers the southern two-thirds of Area 1 on Fig. 1. However, an area exempted from EL 5/61 in 1981 (SR32/81), measuring about 57 km^2, has been excluded from this report. The exemption of this portion was revoked in April 1984.

1.3 Topography, Climate, Flora and Fauna

The east coast consists of an elevated dolerite plateau about 550m above sea level, and a narrow, low lying coastal plain which extends from Mt. Elephant to Bicheno and also includes the poorly drained lower reaches of the Apsley River. A prominent escarpment mantled in colluvium and drained by small streams separates the two areas. The northern region consists of rolling poorly drained country forming the headwaters of several large rivers that have deeply dissected the central and southern portions of the plateau. Three rivers - Douglas, Apsley and Swan drain into the Tasman Sea' while the St. Pauls river flows west to join the South Esk river at Avoca. The coastal plain varies in width from 1km to 3km, and consists of truncated Permian and Triassic sediments overlain by a veneer of unconsolidated gravels and sands. A sand beach backed by dunes restricts drainage, and several small lagoons have formed at the mouth of creeks.

The climate is classified as temperate marine, with mild summers and cool winters (MacKinnon 1980). The number of hours of daylight ranges from 15 in summer to nine in winter. There is a rainfall gradient across the lease: St. Marys receives an average annual rainfall of 1019mm while Bicheno receives 680mm. Rainfall is more frequent in the winter months. Heavy rain (defined as ≧ 20mm/24 hours) may occur 13 days/year whilst exceptionally heavy falls (defined as ≧ 100mm/24 hours) may happen 1 day/year. These falls tend to be more frequent in autumn when small depressions track off

the east coast causing strong onshore winds (MacKinnon 1980). The prevailing wind direction is from the west and northwest although topographical channelling can produce local effects. From December to March sea breezes develop in the afternoon often causing local cloud to form on the coastal hills. The temperature decreases by approximately 1°C/100m altitude and the daily variation increases from 9°C to 12°C inland (Allen 1983). During winter, Bicheno receives about five days frost per year, however, at higher elevations and inland areas, frosts occur more frequently.

The elevated areas and the middle and upper reaches of the main river valleys are mostly covered in open forest vegetation dominated by Callitris rhomboidea and six species of Eucalyptus sp. Understorey species include Acacia dealbata, Olearia argophylla, Bedfordia saliana, Beyeria viscosa, Pomaderris apetala and grassland species. The distribution of species depends on soil type, drainage, climate, fire frequency and logging operations. Small remnants of temperate rainforest dominated by Nothofagus cunninghamii - Atherosperma moschatum are restricted to closed valleys and south facing slopes. The coastal plain was cleared of its former woodland and developed into improved and semi-improved pasture.

A number of threatened plant species grow in EL 5/61, and three reserves have been recommended in the lower Douglas River, Denison Rivulet, and middle reaches of the Apsley River (Kirkpatrick et al. 1980).

A report published by Town and Country Planning Commission (1981) contains a list of native animals known to live in the east coast region.

1.4 Local Communities, Access and Land Use

Encl. 1 shows the location of roads, railway and local communities. St. Marys (population 677, 1976 census) is situated in the Fingal Valley, a traditional coal mining area. Local employment is based on coal mining, farming and forestry. The Esk highway and a 1069mm gauge railway connect St. Marys with the main population and industrial centres - Hobart, Launceston, Burnie and Devonport. The

second largest community, Bicheno (population 414, 1976 census), is situated on the coast, its economy is based on tourism, fishing and extensive farming. Each community provides a range of services including schools, hotels and post office.

The Tasman Highway generally follows the coastline, and links Bicheno with St. Marys. Several unsealed roads permit access to the lower reaches of the river valleys. An all weather unsealed road constructed by the Forestry Commission crosses the western side of the lease to join an old coach road. A network of four wheel drive tracks has been constructed across the plateau to provide access for logging activities and drilling operations.

Forestry is the principal economic activity in the region. Tasmanian Pulp and Forest Holdings hold the concession over the area and extract timber mostly for woodchips. The low lying coastal plain is used for grazing.

1.5 Land Tenure and Administration

Encl. 2 shows the distribution of land tenure within EL 5/61. About 75% of the study area is vested in the Crown, and is administered by the Forestry Commission. The Crown land overlaps two forestry districts. The area north of a line which follows the Douglas and Mayson Rivers to Dukes Marsh and Dukes River, is administered from Fingal. The southern area is controlled from Swansea. The Commission is responsible for the control and management of forest operations on State Forest. This includes supervising the construction of roads, bridges, and the location and rehabilitation of drill-sites.

In March 1984, the Australian Heritage Commission announced its intention to include the Douglas River and Denison Rivulet catchments measuring 150 km^2 and a small area measuring 4.2 km^2 south of Mt. Elephant, on the Registrar of the National Estate. Registration places no legal constraints on owners of private property, state or local government property.

Privately owned land is mostly situated on the coastal plain and lower reaches of the escarpment. Two areas at Llandaff (2.5 km^2) and Seymour (2 km^2) have been set aside as Town Reserves.

1.6 Exploration

Coal exploration on the east coast began in the middle of the 19th century and continued into the early 20th century with an intensive period of prospecting. Numerous adits and shafts were constructed adjacent to coal outcrops, and eight boreholes were drilled by the Department of Mines at Llandaff and Seymour (Boreholes S1-5, LL1-3 on Encl. 1 and Appendix 2). Government geologists carried out extensive surveys culminating in 1922 with a report by Hills et al. - 'The Coal Resources of Tasmania.' Exploration work declined until the 1940s and 50s when a small mine was established at Dalmayne, and two additional boreholes were drilled at Seymour by the Department of Mines. A description of this early work is summarised in reports by Hills et al. (1922), Taylor et al. (1977) and Bacon and Calver (1984a, 1984b). An account is given below of exploration activities since 1965.

1.6.1 Geological Mapping

The first detailed geological mapping in the lease area was carried out by McNeil (1965) (Fig. 2). He was able to subdivide the lower division of the Parmeener Supergroup into four mappable units but grouped the coal measures as a single unit. Although no accurate topographical basemaps were available, McNeil was able to infer a number of faults in the Piccaninny and Wardlaw Creeks from the relative elevations of outcrops. The results of his work were incorporated directly into the survey - the 'North East Coalfields' by Threader (1965), the 1:250,000 geological map - Launceston (McClenaghan and Baillie 1974), and early compilation maps prepared by SCOA geologists.

Between 1979 and 1980, about 870 km^2 of the north eastern Tasmanian coalfield were mapped in detail; the areas and geologists responsible are shown in Fig. 2. The area south of the Dalmayne Mine, between the Douglas River and the coast was examined by Ivett (1979). Sansom

(1979) mapped the middle and lower parts of the Douglas River basin, the Denison Rivulet and the lower parts of the Apsley river. He described coal outcrops and compiled a geological map of the lease. During the 1982 season he remapped the middle Douglas river but he did not prepare a geological map. The southeastern corner of the lease was mapped by Bacon (1980) as part of a dissertation on the coal measures. She discovered tuffs in the upper part of the coal measures in borehole 986620 and outcrops. The west and north sides of the lease were mapped by Department of Mines geologists for the St. Marys 1:50,000 sheet (Turner et al. 1984). The lower division of the Parmeener Supergroup was subdivided into four informal formations, and coal outcrops were reported. From the Mt. St. John area and south side of the Fingal Valley all authors have grouped the coal measures as a single unit because of poor outcrop, the homogeneous appearance of sandstones and lack of distinctive marker beds. Extensive deposits of dolerite talus and colluvium obscure the outcrop and the contact between dolerite and coal measures.

A comprehensive list of coal outcrops is provided in Appendix 1 and locations of these outcrops are shown on Encl. 3.

1.6.2 Drilling

In 1974, IMI drilled two boreholes (DDH1 and DDH2) west of the Dalmayne Mine, and intersected five seams. Following the joint venture agreement, 15 boreholes (GY1-4,6,9-18) were drilled on a 2km grid west of the Dalmayne Mine, with the intention of tracing the seams to the west. In addition three scout holes (GY5,7,8) were placed to test the potential of the south and west portions of the lease. All holes of this programme were drilled by Longyear Australia Pty. Ltd. in the period May 1978 to February 1979. Wireline logs were run in 13 boreholes (see Appendix 2).

As part of a regional gravity survey (Leaman and Richardson 1981), the Department of Mines drilled five stratigraphic boreholes (Encl. 1). Two boreholes - 045732 and 040675 were placed on the coastal plain. Wireline logs were run in 045732. Another two boreholes - 992637 and 963546 were placed on the lower Apsley flood plain, they encountered less than 21m of coal measures and finished

in granite. Borehole 986620 was sited on the plateau about 3km northwest of GY8, and it intersected 214.10m of coal measures. To date most of these boreholes were only described in general terms by Sansom (1979) and Leaman and Richardson (1981). Borehole 986620 was examined in detail by Bacon (1980), and the lower division sequence in 045732 is the subject of detailed paleontological study by Calver et al. (1984).

During the period from late 1979 to mid 1980 ten additional holes were drilled. Two (GY19, 20) were drilled by Mono Pumps (Aust.) Pty. Ltd and eight were drilled by Associated Diamond Drillers. GY19 was abandoned before intersecting any coal seams. Eight holes (GY19-23, 25, 27, 29) were placed on a 2km grid to test the extent of the DD seam in the Douglas River region. The other two holes (GY30, 32) were drilled on the northern end of the plateau to determine if the seams extended through to the Break-O'Day plain (Sansom 1980).

During the period December 1981 to February 1982 drilling rigs provided by the Mines Department drilled three boreholes (GY103, 104, 105) on a 0.5 - 2km spacing south of the Douglas river adit (GYDRA). Channel and ply samples were collected from the adit. Wireline logs were run in GY103, 104 and 27, but caving resulted in GY105 being only partially wireline logged and prevented sondes being run in GY23, 25 and 29.

Surveyed positions and levels are available only for the Douglas River adit (GYDRA) and six holes in the area to the south west (GY25, 27, 29, 103, 104 and 105). All other holes have been located with the aid of the topographic map and a barometer. The accuracy of the collar level of the unsurveyed holes is estimated at ±20m, which reduces the value of structural interpretation based on these holes. It is also estimated that the location of these holes will be accurate within 100m.

Cementing of boreholes has been limited to 50m sections containing the potentially economic seams in GY2, 3 and 14, as well as the coal measure intervals in GY103, 104 and 105. All other holes with coal seams that could be mined in the future, remain to be cemented.

1.6.3 Photo Interpretation

Photogeological studies were undertaken by Layton & Associates (1978) and Kind (1978) to establish structural trends and to identify areas which contained relatively few faults. These studies resulted in a number of plans showing lineaments greater than 2km in length, the strike of fractures, and the floor elevation of the dolerite sill.

1.6.4 Geophysical Surveys

From 1973 to 1980, the Department of Mines embarked on a geophysical survey of the east coast coal resource to identify suitable areas for coal exploration, to improve interpretations of the structure and distribution of the dolerite intrusions, and to test which techniques were the most useful and cost effective (Leaman 1980). Five potential methods - gravity, air and surface magnetometry, resistivity, airborne radiometrics and direct method - seismic reflection were tried.

Resistivity and radiometric surveys failed to produce any significant results. The regional gravity survey was the most successful in identifying feeders and thick sheets of dolerite which have probably truncated the coal measures. However, the interpretation becomes ambiguous for residual Bouguer anomaly values in the range -20 to +10 10$\mu m/s^2$. Various combinations of dolerite and sediment thickness may yield similar values or granite intrusives can produce large negative anomalies similar to a thick sequence of sediments. A detailed gravity survey of the Fingal Tier implied that feeders consisted mostly of small clusters of pipes and extensive faulting was present in the coal measures.

The aerial magnetic survey contributed little new information and supported the interpretation based on the gravity data. Surface magnetic traverses were useful. From variations in the amplitude and frequency of the response it was possible to distinguish between the colluvium, dolerite and coal measures.

Trial seismic reflection lines were run on the Fingal Tier and at Seymour. At Seymour, the results showed two shallow seams cut by minor faulting. On the Fingal Tier, the signal became attenuated by the dolerite although it was possible to pick the base of the sill and parts of the coal seams. The disadvantages of this method are the relatively high cost and the sophisticated processing requirements (Richardson and Leaman 1980).

2. GEOLOGY

2.1 Regional Setting

The east coast region of Tasmania consists of a sequence of nearly flatlying marine and fluviatile sediments which were originally deposited in the shallow Tasmania Basin from late Carboniferous to late Triassic (Fig. 3). These rocks rest unconformably on an irregular basement of tightly folded beds composed of quartzwacke and mudstone (Mathinna Beds) Ordovician to Devonian in age, and late Devonian granitic rocks (Leaman and Richardson 1981).

During the Triassic, Tasmania was situated in the polar latitudes. A large river system supplied sediment to the Tasmania Basin from Western Tasmania and adjacent Victoria Land, Antarctica (Kemp et al. 1982). An active volcanic area which lay to the southwest of New Zealand probably contributed volcanic detritus and tuffs (Coombs et al. 1976).

During the Jurassic, thick dolerite sills and dykes accompanied by faulting, were intruded into the upper part of the Tasmania Basin, and now form the widespread undulating plateau obscuring the underlying sediments.

The separation of Antarctica and Australia began in the Late Cretaceous and was followed in the early Tertiary by the formation of the Tasman Sea. The initial period of rifting was marked by tensional stress and led to the formation of north-northwest and south-southeast striking normal faults. Later, the opening of the Tasman Sea was associated with a second set of faults striking north-northeast - south-southwest (Hale 1962, Smith 1982). Joint patterns with a similar trend occur in Late Paleozoic rocks and overlying sediments, which suggests that tensional stress fields may have persisted from the late Paleozoic to the early Tertiary (McNeil 1965, Williams 1967). During the rejuvenation of the landscape in the early Tertiary, fluvial and lacustrine sediments were deposited in fault controlled basins (Spry and Banks 1962).

During the Pleistocene, periglacial activity produced thick deposits of colluvium and talus at the base of the dolerite escarpments (Davies 1962) and small streams reworked the debris to form colluvial fans. The river valleys contain fluviatile sediments derived from the dolerite and rocks of the Parmeener Supergroup. Beach and dune sands form a thin cover along the coast.

Banks and Clarke (1973) introduced the name Parmeener Supergroup to include all of the sediments deposited in the Tasmania Basin. This unit has been subdivided into two broad lithofacies, a lower division comprising mostly marine and glacial sediments, and an upper division consisting of fluviatile sediments (Forsyth et al. 1974). In the east coast region the total sequence is diminished, the lower marine unit is absent. Evidence from megaspores and potassium-argon dating indicates a major disconformity separates the Lower Division (Permian) from the Upper Division (mid Triassic to early Jurassic?) (Calver and Castelden 1981, Townrow 1962).

2.2 Geology of the Dalmayne, Douglas River and Apsley River areas

Fig. 4 summarises the sequence of rocks within the study area. The various units recognised within the study are described below:

2.2.1 Mathinna Beds

The Mathinna Beds are exposed in the steeply dissected terrain northeast of Dalmayne and on the coast at Piccaninny and Long Points. Department of Mines boreholes (045732, 040675) show that they underlie the coastal plain north of Bicheno. The rocks consist of thin to medium bedded, fine to medium grained, quartzwackes and mudstones which have undergone low grade metamorphism (McNeil 1965). They are considered to be Ordovician to Devonian in age (Turner 1980). At Long and Piccaninny Points, granite intrusions have metamorphosed the Mathinna Bed sediments to hornfels facies (McNeil 1965, Bacon and Calver 1984).

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2.2.2 Granites

Granitic rocks crop out east of St. Marys, Long Point and in the Bicheno area. Granite and granite derived sediments were encountered near the base of boreholes in the Apsley River and Seymour areas.

Two intrusions have been recognised, an earlier quartz feldspar-pyroxene porphyry (St. Marys Porphyry) which was later intruded by adamellite. The St. Marys Porphyry was dated at 375 million years (McDougall and Leggo 1965).

2.2.3 Granite Derived Sediments

The lowest part of the sedimentary sequence in three southern Apsley River boreholes (GY8 - 30.35m, LL1 ≅5m, LL2 ≅21m) consists of quartzofeldspathic sandstones interbedded with quartz sandstones and granite conglomerates which are probably derived from the adjacent granite stock. At Seymour, borehole S4 finished in a granite conglomerate.

The stratigraphic relationship of these sediments with the coal measures is unclear. The presence of a granite conglomerate below the lower division in MS4 suggests that it is Permian in age and that the granite intrusions were exposed at that time. However, the apparent absence of lower division sediments in GY8, LL1, LL2 implies that the stock may have continued to be a sediment source into the Triassic or alternatively they were eroded prior to the deposition of the coal measures.

2.2.4 Parmeener Supergroup - Lower Division (Permian)

Evidence from drilling indicates that the Lower Division sediments occur throughout most of the area. They crop out in the hillsides in the vicinity of Elephant Pass, and in the catchments of Funny Knob, Wardlaws and Piccaninny Creeks. The sequence is estimated to be 120m thick in the Dalmayne area. Complete sections were intersected in the Department of Mines boreholes on the coastal plain - S4, 045732 and 040675.

In the southern Apsley River area the sequence thins to a thickness of 1.13m in 986620, and it cannot be identified with certainty in the boreholes LL1, LL2 or LL3.

As a result of recent mapping, the local stratigraphy of the Lower Division was revised, and subdivided into four unnamed formations (Turner et al. 1984, Bacon and Calver 1984b). Table 1 summarises the stratigraphic nomenclature. The following description of the four formations is based upon McNeil (1965) and Bacon and Calver (1984b):

The lowest unit consists of well sorted quartz sandstones, interbedded with carbonaceous mudstone, mudstone and conglomerates. The conglomerates and coarse sandstone are poorly sorted and composed of quartz, quartzite and Mathinna Bed sediments. Upwards there is a general decrease in grainsize from conglomerate to medium and fine grained sandstone interbedded with shale. Crossbedding indicates that the sediments originated from the northwest. The unit is 38m thick, and is equivalent to the Lower Freshwater Sequence described by Forsyth et al. (1974).

Overlying the lowest is a predominantly calcareous unit with abundant marine fossils. The lithology varies from thickbedded bioclastic limestone and calcareous mudstone to poorly sorted, pebbly quartz sandstone and siltstone. The limestone crops out almost continuously in Picanniny and Wardlaw Creek catchments and forms a useful stratigraphic marker bed.

The third unit comprises a poorly sorted, medium grained glauconitic sandstone and siltstone. Pebbles are abundant throughout the unit and are sometimes concentrated to form conglomerate beds. The pebbles vary in size from 10mm up to 0.3m and are composed of quartzite, muscovite schists, and conglomerate, and they are believed to be derived from floating ice. The thickness of this unit increases from 2.4m at Dalmayne to 7m at borehole S4, Seymour.

The top unit is a poorly sorted, light to dark grey mudstone with scattered fine-medium quartz grains, and grey siltstone. Marine fossils are rare. Thickness varies from 30m at Elephant Pass to 37m at Seymour.

2.2.5 Parmeener Supergroup Upper Division (Upper Triassic)

2.2.5.1 Stratigraphy

Upper Division sediments occur throughout the study area and the best exposures are found in the river valleys and stream beds.

The appearance of Upper Triassic coal measures marks the resumption of terrestrial conditions. The contact between the upper and lower division sediments is marked by a change in lithology from mudstone to well sorted quartz sandstone and grit with carbonaceous fragments and mudstone clasts. The base is often erosional and a pebble conglomerate may be present.

The lack of distinctive lithologies, the predominance of thick sections of similar sandstones, and the repetition of sequences have prevented recognition in the field of separate units within the upper division. The general practice has been either to map it as a distinct unit e.g. Sansom (1979), Ivett (1979) or subdivide it on the basis of dominant lithologies e.g. Baillie and Calver (1980).

The lithocolumns (Encls. 8-13) show that the proportion of sandstone, carbonaceous/coal and mudstone facies varies both laterally and vertically. No detailed sedimentological study was attempted but several general observations can be made.

Assuming that the correlations are largely correct, the vertical section can be subdivided into three broad lithofacies whose essential features are summarized in Table 2. The sequence is characterised by varying proportions of sandstone vertically and laterally. The potentially economic coal seams D and E are contained in the middle predominantly sandstone facies, and the upper part of the lower sequence. From north to south there is an increasing proportion of sandstone throughout the sequence.

The presence of thick beds of sandstones showing fining up cycles, erosional basal contacts, mudstone intraclasts, trough and ripple crossbedding, plant fossils and dull low sulphur coal are typical of sediments deposited on the upper part of a flood plain. The

transition from sandstone to siltstone to mudstone to coal reflects the lateral transition from channel deposits to levee to floodplain and swamp (Wollff et al. 1981).

2.2.5.2 Lithology

The principal lithologies found within the Upper Division are described below:

Quartz Sandstone

This unit is composed of well sorted coarse to fine grained quartz sandstone and grits, with occasional beds of quartz pebble conglomerate (Baillie and Calver 1980). Carbonaceous streaks and lenses and mudstone fragments are common. The sandstones are interbedded with mudstones, carbonaceous mudstone and lithic sandstone. Individual beds may range up to 3m in thickness, and trough crossbedding is common.

Lithic Sandstone

The lithic sandstones are a moderately well sorted, medium to fine grained, grey in colour. They form medium to thick beds, often showing sharp basal contacts, fining up sequences, and trough crossbedding. Fragments of mudstone, siltstone, carbonaceous mudstone and coal are common particularly near the base of sandstone units. This lithology predominates in the coal measures and occurs interbedded with siltstone, mudstone, carbonaceous mudstone, conglomerate and rare tuff.

Mudstone and Carbonaceous Mudstone

The mudstone is quartz rich and grey to dark brown in colour reflecting the proportion of carbonaceous material. Frequently there is a gradation between mudstone, carbonaceous mudstone and coal. A green mudstone may be found near the base of the upper division. Bacon (1980) states that the green colour is caused by the presence of glauconite and chlorite. Mudstones frequently contain plant

fossils, lenses of fine sand, silt or coal, bioturbation, coal fragments and streaks.

Siltstone

The siltstones represent a gradation between mudstone and sandstone facies. They are light grey, grey or brown in colour, composed of quartz with a high proportion of fine matrix (50%) (Bacon 1980), and often show laminations, smallscale disturbed bedding and crossbedding. Laminations may be caused by fluctuations in the content of carbonaceous material or changes in grain size e.g. mudstone/siltstone or sandstone/siltstone.

Conglomerate

A persistent conglomerate (Dalmayne Conglomerate) and scattered pebbles occur in the upper part of the sequence. An outcrop situated in a stream (grid reference 006891 on Encl. 3) near Mt. Elephant saddle may represent the same horizon. The pebbles are wellrounded up to 150mm diameter, and composed of quartzite, quartz, hornfels, chert, tuff and rare granite (Baillie and Calver 1980).

Tuffs

White or brown acid tuffs were discovered by Bacon and Everard (1981) in borehole 986620, and in outcrops near Bicheno and in the Denison Rivulet. Baillie and Calver (1980) reported a tuff overlying a coal seam in Woodheads Creek near Mt. St. John.

Tuffs were subsequently recognized in core from boreholes in the Douglas River area. They were identified in their colour and texture but no thin sections have been prepared to confirm these observations.

Table 3 summarises all reported accounts of tuffs. They grade in colour from white to light brown which may reflect the proportion of extraneous sediment. Thickness ranges from 20mm up to 1.5m.

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In the Douglas River area they occur in the middle and upper part of the coal measures at fairly consistent stratigraphic horizons - 20-40m, 78-79m, 100m and 162m above the DD seam. This correlation is tentative, but if the tuffs can be characterised either by their mineralogy or trace elements they will prove to be an extremely useful datum to correlate between boreholes and tie outcrops into the sequence.

2.2.5.3 Thickness

Encl. 4 shows isopachs of the Upper Division sediments, constructed from borehole data and significant negative residual Bouguer anomalies taken from the survey by Leaman and Richardson (1981). Where the borehole did not penetrate the entire sequence, the stratigraphic thickness was estimated by measuring the depth from a common reference point e.g. base of a coal seam to the base of the coal measures in neighbouring borehole(s), and adding it to the intersected thickness above the reference point. In GY6/6A the dolerite was assumed to be a dyke or a small feeder rather than a widespread transgressive contact. The subcrop was taken from the geological map (Encl. 3).

The coal measures vary generally between 300-350m in thickness and appear to thicken towards the west. The maximum thickness intersected was 389.38m in GY9, although a thickness of 454m is predicted for GY27. Variations in thickness appear primarily a reflection of the degree of erosion or whether the dolerite intrusion is concordant or transgressive.

The uniform thickness of the coal measures does imply that in the gross sense the dolerite was intruded as a concordant sill above the Dalmayne A seam. In the vicinity of feeders the thickness is presumed to decrease because of transgressive contacts. On the coast the results from Department of Mines holes suggest that coal measures thicken towards the south which is consistent with the regional dip of 2-3° towards the south-southeast. However, in the southern Apsley River area, the thickest coal measures underlie the dolerite.

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2.2.6 Dolerite (Jurassic)

Dolerite of Jurassic age overlies a large proportion of the coal measures in the study area. Encl. 7 shows the distribution of dolerite based on drilling, regional and detailed geophysical surveys. The intrusion forms a roughly concordant sheet varying between 100-200m in thickness, except for an inlier of about 4 km^2 of coal measures which crops out west of the Douglas River. Transgressive contacts occur in GY14, 105, 25 and thin sills or dykes were encountered in GY48, 6/6A, 1, 22 and S3.

Fresh dolerite is grey and hard, and is usually medium to fine grained. Coarse grained dolerite was intersected in the upper parts of GY13 and GY15, and mapped in the Coggle Hills (Baillie and Calver 1980). Generally, the dolerite is widely jointed with a spacing up to 15m, although there are occasional zones which show closely spaced, steeply dipping joints with abundant talc, calcite and chlorite infillings.

At the contact with the underlying coal measures the dolerite is dark grey and fine grained with incipient joints. The intruded rocks are hardened, jointed and often difficult to distinguish from the dolerite (Leaman 1978). Visible alteration usually extends a few metres from the contact, however, in GY20 sediments were baked about 20m below the contact, and exhibited ferruginous staining, secondary mineral formation and silica remobilization. Leaman (1978) has suggested that the metamorphic effects of dolerite may be more pervasive and subtle than was previously realized.

Further remarks relating to the type and shape of the dolerite intrusions are made in Section 2.3.3.

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2.2.7 Tertiary Gravels

Small remnant deposits of rounded gravels are situated in the middle Fingal Valley and the lower reaches of the Apsley River (Bacon 1980, Baillie and Calver 1980). They are composed of quartzite, mudstone, granite and quartz sandstone pebbles, and are assumed to be Tertiary in age.

2.2.8 Recent Deposits

Thick deposits of dolerite talus and colluvium mantle the slopes below the dolerite outcrop. The debris is being redistributed downslope by landslides and small streams (Sansom 1979). Recently formed deposits consist of boulders in contact with little matrix, while older deposits consist of weathered boulders in a clay matrix.

Alluvial sands and gravels are presently being deposited on the lower floodplains of the Douglas, Denison and Apsley rivers. The coastal plain is covered in a veneer of dune and beach sand and gravels.

2.3 Structure

The structural history of the region is dominated by igneous intrusions of Devonian and Jurassic age and by Cretaceous and Early Tertiary faults.

During the early phases of the Early-Mid Devonian Tabberabberan orogeny, the Mathinna Beds underwent low grade regional metamorphism and were deformed into steeply dipping, tightly folded beds striking north-northwest. In the later stages of the orogeny, granitic rocks were emplaced as a series of thick lenticular bodies (Turner 1980).

A pronounced angular unconformity occurs at the base of the Parmeener Supergroup sediments, which were deposited on an irregular landscape composed of Mathinna Beds and granitic rocks. In the southern part of the lease coal measures rest directly on granite implying that a 'high' area persisted during the Permian or the lower division sediments were eroded prior to the deposition of the coal measures (Hale 1962). Residual Bouguer anomalies and structural contours on

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top of the granite illustrated in Fig. 5 suggest that a hidden stock underlies the southern part of the lease.

Elsewhere in Tasmania, the disconformity between the upper and lower division sediments is marked by a slight difference in dip and dip direction, and the presence of Permian sediments in the basal coal measures (Hale 1962). Within the lease area except in the south, the contact appears to be conformable. From outcrop and closely spaced drilling at Harefield the coal measures show regional dip 2-3° to the southeast (Baillie and Calver 1980, Wollff 1982).

Encls. 5 and 6 illustrate the structure of the area. Because of the variation in precision of the collar elevations, wide spacing of the boreholes, and uncertainties in the correlation, a simple interpretation is presented.

Interpretations from the photogeological studies were not used in the preparation of structure maps. The usefulness of airphoto interpretations is questionable in this region. Field mapping and drilling have confirmed that some of the lineaments are faults but the others may be caused by jointing or superficial features. Detailed mapping in the Hobart district and geophysical surveys by Leaman (1972), and Leaman and Richardson (1981), demonstrate that the structural relationships between the dolerite and the coal measures are complex, with multiple intrusions, transgressive contacts and numerous feeders.

The structure of the coal measures was inferred from contours drawn on the top of the Lower Division and base of the DD seam, as well as from field mapping. The top of the Lower Division was used as a horizon partly because it avoids the problem of correlating between coal seams and because it is a widespread reference surface. Elevations were based on borehole data, where the lower division was not reached, its depth was estimated from neighbouring boreholes. For the area north of the Apsley river it was assumed that the coal measures were deposited on a flat or gently sloping landscape. Any error caused by topographic relief is considered to be negligible compared with the assumed error of ±20m at the collar elevation. It was assumed that the sediments have a dip of 2 - 3° to the southeast.

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The subcrop was projected from the boreholes or taken off the geological map (Encl. 2).

On the maps the faults are distinguished according to the reliability of the evidence.

2.3.1 Faults

These were observed in the field from displaced lithologies. The amount of throw was estimated from the difference in the relative heights of the beds.

A major fault (Cornwall Fault) strikes north-south across the Fingal Valley and curves southeast through Elephant Pass. Drilling at Harefield and surface outcrops indicate that the coal measures are downthrown 60m to the west (Baillie and Calver 1980, Wollff 1982). Turner et al. (1984), Bacon and Calver (1984b) and Ivett (1979) have mapped several smaller faults in Wardlaws and Piccaninny Creeks. At Long Point, a major north-south striking fault has downthrown coal measures against granite and small outcrops of metamorphosed Mathinna Beds. The amount of throw is estimated to be at least 270m (Bacon and Calver 1984a). This fault may extend south where a major fault downthrown to the west has exposed granitic rocks in the vicinity of Bicheno (Bacon 1980).

On his field map, Ivett (1979) has postulated a number of faults based on the relative elevation of dolerite. However this difference in elevation may also be caused by transgressive contacts, and difficulty in distinguishing between in situ dolerite and boulder colluvium.

Sansom (1979) and Ivett (1979) have observed several small faults in the Douglas River Valley. In one of the tributaries - Possum Creek (grid reference 987757) dolerite is downthrown against a coal seam which shows a marked drag dip of 45°. One and a half kilometres to the northeast (grid reference 993762) sandstone is faulted against a coal seam.

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These faults were interpreted based on structural contouring. Only faults with a displacement ≧ 50m are shown except where the boreholes are closely spaced and the collar elevation was surveyed. Where the elevation of a horizon could not be reconciled with the general dip in adjacent boreholes then the discrepancy was assumed to be caused by a fault rather than flexing. The real situation is probably more complex with both faulting and flexing occurring.

In the northern part of Dalmayne, a 60m fault downthrown to the east was extrapolated south to the east of GY48 and GY32. The elevations of coal seams in GY48 and GY32 imply an average 2° dip to the south from Harefield. A small fault downthrown to the north or a change in strike direction may account for the reversal of this trend in GY18. Two step faults downthrown to the west and striking parallel to the Cornwall fault are postulated to reconcile the difference in elevations between GY16, GY18 and an outcrop in Wardlaws Creek.

The central Dalmayne area appears to comprise a north-south trending graben. GY10, GY10A, GY2, GY3 and GY20 are situated on a downthrown flatlying block. The northern end of the graben appears to be terminated by an east-west striking fault which appears from outcrops in Wardlaws Creek to be offset by the southern extension of the Cornwall fault. The Dalmayne Mine and boreholes DDH1, DDH2 are situated on a block bounded by step faults. A southern extension of the Cornwall fault lies immediately to the east of the Dalmayne Mine and upthrown Lower Division sediments. The workings of this mine were stopped against faults on the western and southern side (Edyvean, 1975).

In the Douglas River area, GY23, GY25, and S5 are situated on the downthrown block of a major fault. The strike of the fault is uncertain; the elevation of the DDL seam in GY22, GY103, GY104 and GYDRA discount the possibility of a north-south strike. The tentative correlation of S5 with the general sequence suggests that the fault may strike northeast - southwest between GY22 and S5. To the south, the difference in elevation indicates that a fault may exist between GY29 and GY25. Small faults separate GY104, GY103, GY105 and their strike is uncertain.

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The difference in elevation between the Seymour and the Douglas River boreholes implies that a fault separates the two areas. The presence of granite at Long Point and Bicheno suggests that a major fault lies just offshore and forms the eastern limit to the coalfield. The coal measures dip towards the southeast and attain a thickness of 212.66m in borehole 040675. Fig. 6 shows the structure of the Seymour coalfield. Structure contours were drawn on the base of the upper seam with an assumed dip of 1.5° to the south east. The area of shallow, accessible seam has been enhanced by the probable presence of a fault downthrown to the north about 60m between boreholes 040675 and S2.

In the Apsley River area, the structure is complicated by the absence of the Lower Division sediments, an irregular granite surface and some uncertainty with the location and correlation between boreholes in this area. However, a fault of indeterminate strike may separate 986620 from 992637 and GY8.

Minor faulting with throws <10m was detected at Seymour by a seismic reflection traverse (Richardson and Leaman 1980), and inferred from closely spaced drilling at Harefield and Mt. Nicholas (Patterson 1982, Wollff 1982). From these occurrences minor faulting can be expected to occur throughout the coal measures.

2.3.2 Intrusion Determined Structures

Thick dolerite sheets and feeders intrude the coal measures. Their positions are inferred from strong positive gravity anomalies, and outcrops at anomalously low elevations. The average distance between the feeders is about 3-4km, except in the southern Apsley River area where the presence of a granite stock may have inhibited the intrusion of dolerite (Leaman and Richardson 1981).

The style and shape of the intrusions in the exploration area is difficult to determine because of the dolerite sill which connects the feeders, and insufficient outcrops. Leaman (1975) has examined in detail the type and shape of dolerite intrusions in the Hobart district - an area which comprises part of the Tasmania Basin, and is

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geologically similar to the study area. The following description is based on his work and the intrusion shapes are summarised in Fig. 7.

In profile (Fig. 7 ref.I) most intrusions show a crude T shape consisting of a series of inclined sheets originating from single or multiple sources. This results in a vertical extension of the sequence, although a horizontal component is present in the vicinity of feeders (Fig. 7 ref.L). In detail the basal contact between the sill and the coal measures is not concordant but consists of a series of small transgressive steps (Fig. 7 ref. C,K,M). The sheet thicknesses show a bimodal distribution, either less than 1m thick or 300-450m thick.

The sheets are connected by dykes (Fig. 7, ref. G,H,J,L), which may vary from a relatively narrow feature 50-100m thick to a massive intrusion which is 1km wide and extends for 15-20km. A large feeder or pipe may result in considerable elevation of the roof rocks or thickening of the dyke limbs. A dolerite dyke dipping at 60° was intersected in GY 6 about 25m below the dolerite sill. The coal measure sediments showed evidence of strong shearing and fracturing. A second hole (GY6A) was drilled 50m away from GY6. It intersected an additional 98m of dolerite, and the DDL seam was highly sheared and not recovered. Wireline logs indicate that the seam contained 1.68m of burnt coal. Because of their resistance to erosion, large dykes may form prominent ridges.

The study area differs from the situation presented on Fig. 7 in that there is no evidence of any coal measures spared from erosion on top of the dolerite sills.

Faulting accompanies and in some instances, may control the intrusion either by stopping a particular horizon or initiating transgression. Other faults show a more complicated movement history involving multiple injections and reactivation of preintrusion faults.

Leaman suggests that the dolerites were intruded during four to five injection periods. After an initial period of fracturing the dolerite was intruded under hydrostatic pressure. The development of a sheet depended on pressure of overlying sediments, lithology and bedding of the host rock and confining pressures.

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3. DESCRIPTION OF THE COAL SEAMS

3.1 Introduction

This assessment of the coal resource is based on 35 boreholes drilled by SCOA and IMI, a detailed description and sampling of the Douglas River adit (GYDRA) and 15 holes drilled by the Mines Department (Encl. 1, Appendix 2). It excludes three boreholes - GY13 and GY15 which finished in dolerite, and GY19 which was open holed and then abandoned before reaching the target seam. Most of the Dalmayne holes were drilled on a 2km grid except on the southern side of the Fingal Valley where three boreholes GY48, GY32, and GY30 were placed about 500m apart. In the Douglas River area, the borehole spacing varies from 500m in the vicinity of the adit to 2.5km (Encl. 1). General and detailed wireline logs were run in 14 Dalmayne boreholes, and four Douglas River boreholes, although GY105 was only partially logged (Appendix 2). The logs were used solely for the purpose of stratigraphic correlation, and not to check on the proportion of core recovery or the driller's depths.

Of the 15 Department of Mines boreholes three were drilled in the Apsley River area and 12 on the Coastal Plain (Encl. 1). The Coastal Plain boreholes can be located with reasonable accuracy on the 1:100,000 Break O'Day topographic sheet. However, the description of the location of the three Apsley River holes and the sketch map contained in the report by Hills et al. (1922) is contradictory. The description which gives bearings based on property boundaries has been assumed to be correct, and the boreholes have been positioned using an old land tenure map.

3.2 Seam Nomenclature and Correlation

The upper division unit in the Dalmayne and Douglas River areas contain eight coal facies (Encl. 11). Taylor and Brunton (1978) discarded the old terminology - alpha, beta, gamma etc., developed by Hills et al. (1922) and named the facies as seams - DA to DG in descending order but they did not select a reference borehole. For this study GY3 is nominated as the type borehole. It is centrally

located, contains a complete section of the Upper Division including the eight seams, and geophysical logs are available.

Seam correlation across the lease presents many difficulties. This is the result of the depositional environment of the coal measures which produced similar, often repetitive lithologies without any marker horizons. The correlations presented here have been arrived at by applying the following criteria:-

- wireline logs, particularly the response of the neutron-neutron to the DB and DC seams
- stratigraphic position above the Lower Division
- associated lithofacies.

These criteria were applied to the Dalmayne and Douglas River areas but the general seam stratigraphy could not confidently be extended to the seams in the Apsley River area and the Coastal Plain, and therefore these areas are treated separately. The original correlation developed by Taylor and Brunton (1979) and used by Sansom (1980), is largely unchanged except for two seams encountered in GY32 which were recorrelated with the DE and DE2 seams. In the Douglas River area the correlation is less reliable as the sequence contains a greater proportion of sandstone, and the character and the geophysical response of the seams is different. Although the seams appear to be stratigraphically equivalent to those in the Dalmayne boreholes it is not certain whether they are the same seams or a new seam has developed. However, rather than developing a local system of seam names for the Douglas River seams with all its attendant problems it has been assumed that the seams are continuous with the Dalmayne area, and the same nomenclature has been applied throughout. Encls. 8-13 show the general lithology and seam correlations for the entire area.

In the east coast area the term coal seam has traditionally been applied to the coal facies regardless of the relative proportion of coal and other carbonaceous lithologies. The definition of a seam was not rigorously applied partly because several of the seams e.g. DB, DC - although essentially consisting of mudstone interbedded with coal - form useful stratigraphic horizons but also at times they were

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subject of small scale mining. This study emphasises those seams e.g. DD, DDU and DDL in which coal is the dominant lithology and wherever possible the roof and the floor of the seams are based upon sample boundaries. In many instances the seams exhibit a vertical and lateral gradation from coal to mudstones. A cutoff of 45% raw ash has been used to distinguish between coal and non-coal material.

Generally this study agrees with the conclusions reached by Taylor and Brunton (1979) and Sansom (1980) regarding the economic potential of the seams. The DA, DB, DC seams typically consist of dull to heavy dull coal interbedded with carbonaceous mudstone and mudstone. Analysed cores for the DB and DC seams show a high raw ash content (40 - 60%) and washing to an acceptable ash level (20 - 30%) produces low yields (40 - 50%) (Appendix 5.2). However, the DB seam has been mined successfully in the Dalmayne Mine (Bacon and Calver, 1984b), but nearby boreholes indicate that the worked area is a localised improvement only.

The DD seam is the most widespread and has the best economic potential. Over most of the area it is divided into two seams - DDU and DDL except in northern Dalmayne where the split disappears and it forms a single thick seam. This seam may have developed either by the DDU and DDL combining and a new coal ply forming, or one of the seams has disappeared and the other has thickened. Because of these uncertainties in correlations, the three seams : DD, DDU and DDL are discussed separately.

Four other seams DE, DE2, DC1 and DF have local developments of mineable thickness. The DE and DE2 seams are situated in the lower lithofacies unit which is characterised by vertical and lateral lithological variations over short distances. As a consequence, the correlation must be regarded as tentative. Two other seams (DC1 and DF) are also described below.

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3.3 DD Seam

3.3.1 Distribution and Thickness

This seam is situated in the northern part of the Dalmayne area and extends from the line defining the DDU-DDL split in the south to the Fingal Valley in the north. Its boundaries are defined by subcrop to the north and faults to the east and west (Encl. 14). The seam appears to be best developed on a northwest to southeast axis extending from GY30 to DDH 1 and thinning towards the north. The seam is absent in GY32 and GY16. The thickest section (5.26m) has been intersected in GY30 (Table 4).

3.3.2 Macrolithology

Encl. 15 shows a graphic log of the seam and sample intervals. With the exception of GY30 and GY12 the individual seams are variable and it is difficult to correlate individual plies between boreholes. In GY30 and GY12, the seam is similar; it consists of three coal plies separated by an upper split of mudstone and sandstone - 1.33 to 2.67m thick and a lower split composed of mudstone and carbonaceous mudstone 1.31 to 1.67m thick. The top ply consists of dull to heavy dull coal with a 0.37m mudstone band. The lower two plies consist of dull coal, with bands of bright coal, heavy dull coal and mudstone.

3.3.3 Working Section

The middle ply which contains the thickest section of coal has been selected as the working section for GY30 and GY12 (Encl. 20).

In DDH1, the seam contains one mudstone band but otherwise it appears uniform over its entire thickness of 4.56m. For the purpose of reserve calculations it has been assumed that the maximum working section thickness for this borehole will be 3.5m. However in DDH2, a 1.53m mudstone split separates the seam and the upper ply forms the mining section. Further north in GY18, the seam forms two plies of dull coal with a few bright bands separated by 2.15m of mudstone. The lower ply has been selected as the mining horizon.

3.4 DDU Seam

3.4.1 Distribution and Thickness

The DDU seam extends from the central Dalmayne area to the Douglas River. The seam is best developed in the central graben where it has an average thickness of about 1.5m. The seam thins and deteriorates to the south where it is replaced by carbonaceous mudstone in GY20, and east where it consists of mudstone interbedded with dull heavy coal in GY1 and heavy dull coal in GY6A. In the Douglas River area the seam is thin with an average thickness of 0.5m except in GY29 which intersected 1.12m (Encl. 14, Table 4).

3.4.2 Macrolithology

The seam is composed of dull and heavy dull coal with a few bright bands (Encl. 15, 16). In the Dalmayne area, two mudstone bands up to 0.56m thick divide the seam into three plies. The roof and the floor generally consists of grey-brown mudstone or carbonaceous mudstone except in the roof of GY3, GY9, GY17 where these sediments have been replaced by lithic sandstone.

3.4.3 Working Section

Over most of the area the workable section coincides with the geological section. Exceptions are GY3 and GY2 where thick mudstone bands raise the raw ash content of the full seam. As a result the thickest coal ply is chosen as the mining section, which has a thickness of 1.23m and 1.36m in GY2 and GY3 respectively. Apart from GY3 only two other holes (GY4 and GY17) have working sections in excess of 1.5m.

3.5 DDU and DDL Interseam Sediments

South of GY12 and DDH2 the DDU and DDL seams are separated by a split composed of medium to fine grained sandstone and siltstone with mudstone and carbonaceous mudstone in the vicinity of the seams. Towards the Douglas River area the split thickens, the proportion of sandstone increases, and the average grain size appears to become

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coarser. The thinning in GY105 may reflect local thinning in sedimentation or be the result of about 5 - 6m of section being faulted out (Encls. 18, 11).

3.6 DDL Seam

3.6.1 Distribution and Thickness

Encl. 19 shows that the DDL seam is the most prospective target in the coal measures. The eastern boundary of the seam is defined by the subcrop and faulting. From the tentative correlation in GY5 and GY7, the seam exhibits a general thinning and deterioration to the southwest. To the north, in GY10, GY10A the seam is replaced by carbonaceous mudstone.

In the Dalmayne area, the seam thickens towards the graben and the thickest section 2.82m occurs in GY3. Further west, 2.59m has been intersected in GY14. However, the dolerite feeder immediately to the south has probably removed most of the seam. In GY22, the seam is thin and overlain by a massive lithic sandstone which may indicate that part of the seam was removed by a washout.

A separate seam named DDL lower, which is probably a split of the DDL seam occurs in the eastern portion of the Douglas River area (Encl. 21). This seam is only very thin in GY3, but it thickens towards the south where it reaches a mineable thickness in GY29 (Table 4). The split has an average thickness of 2.2m, and a maximum in GY29 of 3.68m, and consists of mudstone, carbonaceous mudstone and siltstone. South of the Douglas River adit, the upper and lower plies seem to coalesce and form a single seam over five metres thick in the area of GY25 and GY105 (Encl. 19).

3.6.2 Macrolithology

The macroscopic appearance of the DDL seam is similar to the DDU; it is composed of dull to heavy dull coal with thin mudstone bands (Encls. 15 and 16). A carbonaceous mudstone band is often present near the top of the seam and in GY14 it has partially replaced the upper part of the seam.

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In the Douglas River area, bright lithotypes are more abundant and there is often an upward decrease in the brightness profile. Thin mudstone bands are common and they can be traced from GYDRA to GY103 and GY104. In GY105 and GY25 the bands have combined and divide the seam into three coal plies.

The roof sediments consist of either a gradational sequence of varying carbonaceous to grey mudstone, or they are composed of lithic sandstone particularly in the south. The seam rests on grey to grey brown mudstone or carbonaceous mudstone which grades down into sandstone.

3.6.3 Working Section

In the Dalmayne area the mining section generally corresponds to the geological seam (Encls. 15 and 16). A thick mudstone band near the upper part of the seam in GY14 has been included in the working section. In GY11 the band has nearly replaced the upper part of the geological seam. Therefore, the working section has been restricted to the lower ply in GY11.

Generally, in the Douglas River area, the upper split has been taken to be the mining section (Encls. 17, 19, 20). Where the DDL coalesces to form a single thick seam the section containing the lowest proportion of raw ash has been selected. In GY25 and GY105 the stratigraphically equivalent middle and upper plies including a mudstone band form the working horizon.

The lower portion of GY27 contains better quality coal but the broad sampling of the seam makes it difficult to nominate a specific mining section. For the purposes of reserves calculations a maximum mineable thickness of 3.5m has been taken.

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3.7 Minor Seams

3.7.1 DC1

On the western side of the lease a new seam (DC1) develops between the DDU and the DDL (Encl. 10). Sections thicker than 2m have been found in GY5 and GY7 (Table 4). Although there is an insufficient number of boreholes to draw reliable isopachs, the seam appears to thin towards the north and east (Encl. 21).

The seam contains 40 - 50% dull coal with bright bands interbedded with heavy dull coal. Mudstone bands are common and in GY5 and GY7 two thick bands occur near the roof and the middle of the seam (Encl. 22). In GY9 the seam is composed entirely of heavy dull coal and overlain by a medium grained lithic sandstone which may possibly be a washout.

3.7.2 DE

The DE seam thickens to form a roughly circular deposit underlying the south side of the Fingal Valley and extending north into the Harefield prospect (Encl. 21). Faults probably form the eastern and western boundaries to the seam while to the south, the seam thins and deteriorates.

The thickest section (2.84m) has been intersected in GY48 (Table 4). The seam generally consists of high ash dull coal with a thin mudstone band (Encl. 24). A fault zone forms the roof of the seam in GY48. In GY16 the seam consists of heavy dull coal interbedded with mudstone.

3.7.3 DE2

Encl. 23 shows the distribution and thickness of the seam. It extends over the northern and central part of the area. A small potentially mineable deposit is centred on GY1 which contains a section 2.20m thick, and is limited to the east by faulting and subcrop. In the vicinity of GY14, GY9 and GY7, most of the seam has probably been removed by dolerite intrusions.

In general, the seam consists of dull to heavy dull coal with occasional bands of bright coal and numerous mudstone bands (Encls. 24 and 25).

3.7.4 DF

The DF seam is situated about 40m above the base of the coal measures. In DDH1 it is 1.10m thick, to the south and west the seam thins and in GY1 it is replaced by carbonaceous mudstone. The subcrop and faults form the eastern boundary and there are no boreholes to indicate the northern extent of the seam.

3.7.5 Other Seam Intersections

Occasionally, some boreholes have intersected seams thicker 1.0m which represent either an improvement in the quality in the DB and DC seams or isolated developments of uncorrelated seams. Some of these intersections may be indications of localised improvements with economic potential.

Essential details of these intersections are listed in Table 6 and are summarised on Encl. 27.

3.8 Seymour Coalfield

The Seymour coalfield contains three shallow coal seams which dip to the southeast. The coalfield is bounded to the east and west by faults, and to the north by a dolerite feeder and subcrop (Fig. 6).

The seams have been mined periodically since the 19th century. Between 1863 and 1880 about 2.5ha was mined from the upper seam and about 3.2ha from the middle seam. During 1923 - 1931 and 1959 - 1964 more coal was extracted from the middle seam (Bacon and Calver 1984a). The upper seam is the thickest and most extensive seam although it is subject to rapid lateral facies change (Table 5, Fig. 8). In S6 and S4 the seam is replaced by carbonaceous mudstone (Encl. 26). Near the centre of the seam there are persistent

mudstone bands, described by Cundy (1931) as "composed of shale mudstone, and coaly matter".

The middle seam varies in thickness from 0.43m in S4 to 1.44m in S6. To the south in borehole 040675 it is replaced by carbonaceous mudstone. The seam contains fewer mudstone bands than the upper seam (Encl. 26). In Fig. 8 the isopachs show that the seam is thin and uneconomic. However, the seam could be thicker and more extensive if the conglomerate which overlies it in S4 is interpreted as a 'local washout'.

The lower seam is too thin to be of any economic interest.

3.9 Apsley River Area

Although some coal seams of mineable thickness have been found in the Apsley River area, none of these has analytical data indicating potentially economic quality. However, the seam descriptions suggest a high ash content in most instances.

It is considered that the little information available for this area is insufficient to exclude the occurrence of economically attractive coal, but it is unlikely that deposits of the quality and size found further north will exist.

4. COAL QUALITY

4.1 Sampling Methods and Analytical Procedures

The selection of sample sections and the analytical programmes varied during the three drilling seasons. These variations were mainly in the degree of detail and the combined results for mineable seams can normally be correlated between boreholes.

4.1.1 1978 Programme

During the first year of drilling (Boreholes GY1 - 19) the ply samples were taken on the basis of coal lithotypes and generally included separate roof and floor samples. Samples of all 48mm cores were crushed to -12mm. Only one hole (GY14) had larger size cores: 64mm. Core samples from this hole were crushed to -38mm.

The normal procedures for the 48mm cores were to test relative density and ash content for each ply, which would be followed by determining proximate analysis, total sulphur and specific energy for those plies with less than 20% ash. All sections containing coal were then submitted to float/sink analysis, usually in the relative density range 1.5 to 1.8, with 0.1 increments. Following this, a product with an ash content below 25% ash would be selected by combining suitable plies to form a mining section. Further analyses on composite seam samples, which could be composed of washed or raw coal, included proximate analysis, total sulphur, specific energy, ash analysis, ash fusion temperatures, Hardgrove grindability, ultimate analysis and chlorine determination.

Treatment of the 64mm diameter cores started by determining the size consist for composites of three seams after crushing to -38mm. Degradation of the coal was evaluated by size analysis after dry and wet tumbling. Float/sink tests were performed on the recombined +0.5mm fractions, after wet tumbling, using 0.05 increments in the range 1.35 to 1.60 relative density and 0.1 increments from 1.6 to 2.0 relative density. The 0.5 x 0.1mm fractions were float/sink tested at 1.5 relative density only. All other properties for seam composites from this hole were measured on raw coal only.

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4.1.2 1980 Programme

The selection of sample sections during the second year of drilling (boreholes GY19 to 32) was normally done by visually separating the preferred mining sections. All samples taken from 48mm diameter cores were hand crushed to -25mm and the basic raw coal tests were as for the ply samples during the first year's programme. Float/sink tests were generally limited to a split at 1.70 relative density only. Further testing for each washed sample section included proximate analysis, total sulphur and specific energy. More detailed analyses, such as ash fusion temperatures, ash analysis and Hardgrove grindability, were only performed on the best seam sections.

4.1.3 1982 Programme

Procedures for the first two holes drilled during the third year (GY103 and 104) were almost the same as during the second year. The 48mm diameter core samples from two portions of the selected working section were crushed to -25mm and raw coal tests were carried out as for the 1980 programme. The float/sink tests were performed on each sample at relative densities 1.6, 1.7 and 1.8. For both holes the floats at 1.7 relative density were composited for the two samples embracing the selected working sections. Tests on these composites were restricted to proximate analysis, total sulphur and specific energy.

Cores with 48mm diameter from the third hole (GY105) drilled during the third year were crushed to -5.6mm. A total of 11 ply samples were taken from one seam. Each of the plies was tested for ash, moisture and relative density. Full proximate analyses were performed on the better plies. Float/sink tests at 1.4, 1.6, 1.7, 1.8 and 2.0 were carried out on the composite from all 11 samples and proximate analysis, total sulphur and specific energy were determined on the cumulative floats at 1.7 relative density.

Procedures at the Douglas River adit were designed to allow a comprehensive assessment of the washability characteristics and steaming coal properties. Samples were taken from a total of eight coal plies and one stone band. All plies were tested for proximate

analysis, total sulphur and specific energy. Two channel samples each weighing more than 100kg were taken from the same locality. One channel sample was sized to -45mm and the size consist determined. An evaluation of the degradation of run of mine coal during transport and coal preparation was made by repeating the size consist measurements after dry and wet tumbling. Float/sink tests in the range 1.4 to 2.0 relative density at 0.1 increments were performed on the pretreated recombined size fractions 45 x 5.6mm and 5.6 x 0.5mm WW. The -0.5mm WW fraction was tested by froth flotation.

The pretreated cumulative floats at 1.7 relative density were then recombined for comprehensive testing of all steaming coal properties, including relative density, proximate and ultimate analysis, carbonate, chlorine, phosphorus, forms of sulphur, specific energy, Hardgrove grindability, ash fusion temperatures, ash analysis, maceral analysis, vitrinite reflectance and abrasion index.

The second channel sample was crushed to -25mm. A size analysis was performed and proximate analysis was determined on the raw coal. Float/sink tests were carried out at 1.6, 1.7 and 1.8 relative density.

4.2 Reporting of Results

The positions of the sample sections are shown alongside the detailed lithological columns presented on Encl. 15 to 17, 22 and 27 to 26.

All analyses have been conducted by Australian Coal Industry Research Laboratories Ltd (ACIRL) and standard test result sheets issued by that organization are available. However, all test results, except maceral analysis and abrasion test, have been computer coded and reproduced on the standard SCOA analytical reports, which are attached in Appendix 5.

In order to facilitate comparison between major intersections of the same seams, the results for these seams have been summarised on Tables 7 to 11. Results for very high ash and/or thin seams have been excluded from these tables.

The usefulness of analyses performed before 1978 is only limited. The two holes drilled by IMI (DDH1 and 2) provide relative density, proximate analysis, total sulphur and specific energy on raw coal samples only. Similar results are reported from the Dalmayne workings (Bacon and Calver, 1984b), which appear to have been in the lower 1.4m portion of the DB seam.

Most analytical results in the Seymour area are on channel samples without the "removable" dirt bands (Bacon and Calver, 1984a). As the thickness of the dirt bands is not reported, these results can not be used for an assessment of the coal quality in this area.

Analytical information for the Douglas River area reported by Hills et al. (1922) and Twelvetrees (1902) has not been used for this report, as more detailed analyses are now available from the SCOA boreholes in the area and from the channel samples taken from the adit. Similarly, proximate analysis from the Denison Rivulet area reported by Twelvetrees (1902), have been omitted from this report, as the intersections are all less than one metre thick.

4.3 Raw Coal Quality

The composition of the coal seams throughout the study area is predominantly dull coal with variable proportions of ash and stone bands. Dull coal plies with a relatively low ash content may change laterally into high ash dull coal and carbonaceous mudstone. Similarly, lateral variations in stone band thickness may reduce the percentage of recoverable coal in mineable sections to below economic levels. Despite these variations, there is evidence from the widely spaced boreholes that reasonably consistent mineable intervals are present over large areas in the DDL seam, and over restricted areas in the DD and DDU seams.

4.3.1 Proximate Analysis

The basic coal quality parameters on Table 7 show that the ash content and the ash dependent characteristics (relative density and specific energy) are the most variable. Raw coal ash contents of the selected mining sections for the DD and DDU seams are shown on

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Encl. 28 and for the DDL seam on Encl. 29. The lowest ash levels are found for the DDU seam. However, only three holes GY3, 4 and 17 have intersections thicker than 1.5m.

The wide ash content variations of the DD seam in the north and the DDL seam in the Douglas River area are largely due to stone bands, which are either included in the working section or, when too thick, excluded to form a roof or floor.

Average ash contents for the intersections thicker than 1.5m of the three best seams are: 27.1% for the DD seam, 22.7% for the DDU seam and 30.9% for the DDL seam. Average apparent relative densities for the same intervals are 1.50, 1.45 and 1.57 respectively, which indicates the same relationship between ash and apparent relative density as found for Mt. Nicholas, i.e. Apparent RD = (0.012 x Ash) +1.18 (Patterson and Ward, 1982).

Measurements of air dried moisture vary between 2.2 and 5.3% but average values for the three seams are close to 4.0%. It is noteworthy that this average is 2% lower than at Mt. Nicholas. Volatite matter content on a dry ash free basis varies between 30.5 and 38.1% (excluding the questionable result for GY11), with seam averages close to 35%. Apart from a tendency for somewhat higher volatile matter values found for the intersections south of the Douglas River, there are no apparent variations with depth in individual holes, nor are there any variations between nearby boreholes, even when the seams are displaced by faulting. These findings indicate very low geothermal gradients during the coalification process.

4.3.2 Total Sulphur

Total sulphur contents are invariably low for all seams. The average content for the three seams is between 0.31 and 0.34%; with all values falling within the range 0.21 to 0.41%.

4.3.3 Specific Energy

Specific energy values range between 18.64 and 26.15 MJ/kg, with an average of about 23 MJ/kg.

4.3.4 Grindability

Hardgrove grindability indices on Table 7 vary between 48 and 67, but normally values are in the mid fifties. These values are in line with measurements for the deposits adjacent to the Fingal Valley.

4.4 Washability

4.4.1 Sizing

Size analyses are available for the 64mm cores from GY14 which have been crushed to -38mm and on the two bulk samples taken from the Douglas River adit which have been reduced to -45mm (GYDRA1) and -25mm (GYDRA2). Rosin-Rammler plots for all size analyses are shown on Fig. 9 for the DDU seam in GY14, on Fig. 10 for the DDL seam in GY14 and on Fig. 11 for the DDL seam in the Douglas River adit. Full details are listed in Appendix 5.4.

The plots have a size distribution coefficient of 0.75 which is as expected for the relatively hard (HGI 55), dull Triassic coals of Tasmania. The graphs show a close similarity with the findings for Mt. Nicholas (Patterson and Ward, 1982).

It is noteworthy that there is very little breakdown of shales during wet tumbling and that the percentage of slimes remains small. In practice, troublesome shales may be included in the run of mine product by dilution and the generation of slimes may be significantly higher than indicated by the test results.

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4.4.2 Float/Sink Tests

Float/sink analyses on slim bore cores vary between determinations at one to a range of five separation relative densities. More extensive tests have been carried out for the 64mm cores of GY14 and the bulk sample taken from the Douglas River adit.

All available float/sink tests results are presented in Appendix 5.2. Samples relating to potentially mineable seams which produce acceptable yields at ash levels generally below 20%, have been subjected to further testing. Results for the major seam intersections on Table 8 show that ash levels in the 15 to 20% range and theoretical yields generally between 70 and 85% are achievable for most DDL seam intersections at separation relative densities between 1.7 and 1.8. The theoretical yields at similar ash levels for the DD and DDU seam intersections are generally higher than for the DDL seam.

4.4.3 Evaluation of Coal Preparation Options

Consideration of coal preparation potential and product qualities is based on those samples for which a sufficient number of float/sink data sets is available to permit an evaluation of the amenability to upgrading. The only samples for which suitable results are available, are the bulk sample taken from the Douglas River adit (GYDRA1) and three seam intersections (DDU, DDL and DE2 seams) with 64mm cores intersected in GY14.

The DDU seam in GY14 is too thin for inclusion in the reserves, but the quality parameters are similar to the thicker intersections to the south. Therefore, general conclusions drawn from the detailed tests for this seam are also relevant to thicker intersections. The DDL seam in GY14 is also used for the evaluation although the theoretical yield at 22.5% ash is below the 70% cut-off for inclusion in the reserves (see Section 5.2). The results for the DE2 seam in GY14 are not interpreted as this seam contains far too much ash to be worth economic consideration.

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Standard washability curves for +0.5mm material are presented in Fig. 12 (GY14) for the DDU seam and in Figs. 13 (GY14) and 14 (GYDRA1) for the DDL seam.

4.4.3.1 DDU Seam

Fig. 12 indicates the suitability of relatively simple water based gravity processes (jigs, tables, spirals) as is the case with coals from Mt. Nicholas. Taking the generally accepted limit of 10% near-gravity (±0.1 RD) material for water based separation processes, cut points as low as 1.59 RD are acceptable. At this cut point a theoretical yield of 76% (65% plant feed basis) and a 14% product ash are indicated. Practical inefficiencies of process units would reduce the actual yield at this ash, probably to 69% or below (59% plant feed basis). Taking RD 1.9 as a readily achievable upper limit to practical operation, a theoretical product of 17% ash and a yield of 82% is indicated (70% plant feed basis). This yield is likely to be approached in practice due to the ease of separation (near gravity 2%). Higher ash product targets would permit the inclusion of high ash fines or the bypassing of some feed unwashed, leading to higher yields.

4.4.3.2 DDL Seam

For the DDL seam two useful data sets are available, from the adit (GYDRA1) and from borehole GY14. Of the two, the adit sample shows markedly superior washing characteristics (although not as good as the DDU seam in borehole GY14). As with the Mt. Nicholas coals, the curves indicate the suitability of relatively simple water based gravity processes for products with more than 20% ash, but heavy media processes (baths or cyclones) may be necessary for lower ash products.

Again using the technical limits to operation of 10% near gravity and 1.9 RD, the theoretical and estimated actual results from the two samples cover the range shown below. Figures relevant to the DDU seam are included for comparison.

SAMPLE LOCATION SEAM	GYDRA1 ADIT DDL SEAM	GY14 BOREHOLE DDL SEAM	 DDU SEAM
Lowest ash, %	19	24	14
Theor. yield, +0.5mm, %	80	75	76
Theor. yield, plant feed basis, %	71	66	65
Estimated yield, plant feed basis %	64	60	59
Highest ash, %	22	26	17
Theor. yield, +0.5mm, %	87	79	82
Theor. yield, plant feed basis, %	78	69	70
Near gravity (± 0.1 RD), %	4	8	2
Estimated yield, plant feed basis, %	75	64	69

In view of the consistently higher ash levels of the finer sizes (Appendix 5.4), inclusion of unwashed -0.5 + 0.1mm or -0.5 + 0mm material into the product will result in a deterioration of quality, or of yield if product quality is maintained. A small overall benefit may accrue if fines are washed but the feasibility of this would depend upon the required product ash.

4.4.3.3 Feed Size Considerations

The possibility of reducing the top size of feed to achieve improved washability characteristics by liberation cannot be evaluated directly as no float/sink data are available on re-crushed coarser fractions. However experience would suggest that any benefit would be marginal and outweighed by the increased proportion of fines. Although not directly comparable it is worth noting that the DDL sample from borehole GY14, which was crushed to -38.1mm and had 87.6% +0.5mm, exhibited appreciably inferior washability characteristics to the sample from the same seam taken in the adit (GYDRA1) which was crushed to 45mm topsize and which had 89.2% + 0.5mm.

No data are available to evaluate the alternative possibility of coarser feeds (and subsequent product crushing), although this would be an attractive option if metallurgically acceptable as processing

costs would be reduced. Large core or, preferably, bulk samples would be necessary to permit testing of this possibility.

4.5 Washed Coal Quality

Washed coal analyses for the selected working sections are summarised in Tables 8 to 11. Only those intersections of the DD, DDU and DDL seams recognised as mineable in Section 5.2 are considered below.

4.5.1 Proximate Analysis

Ash levels of samples selected for further testing are generally below 20%, but slightly higher levels in some DDL intersections reflect the somewhat poorer quality of this seam.

Air dried moisture levels and volatile matter contents are within the same ranges as found for the raw coal analyses.

4.5.2 Sulphur

Total sulphur measurements are low for all seams and show very little change from the raw coal test results. Forms of sulphur determined on the washed adit sample (Appendix 5.8) indicate that about two-thirds of the sulphur has an organic origin.

4.5.3 Specific Energy

Specific energy results for those intersections recognised as mineable (see Section 5.2) range between 24 and 28 MJ/kg, with an average of 26.17 MJ/kg. Application of the relationship between specific energy (ad) and moisture + ash (ad), as described in Patterson and Ward (1982), results in figures which are generally between one and two units lower than those actually determined. As the volatile matter (daf) content hardly varies throughout the whole of EL5/61 and as there do not appear to be large variations in coal type, it is difficult to explain this apparent difference in specific energy values.

4.5.4 Hardness and Abrasion

Hardgrove grindability indices of the washed coal are similar to those measured on the raw coal, i.e. values vary between 45 and 68, but average values are in the mid fifties. Only one abrasion index has been measured on the cumulative floats at 1.7 RD for the adit bulk sample. The determined value of 24 (equivalent to a Y.G.P. index of 96) indicates a low abrasiveness.

4.5.5 Ultimate and Elemental Analysis

The summarised ultimate analysis results on Table 9 are within the same range as found at Mt. Nicholas. The averages for the mineable seam intersections (see Section 5.2) are almost identical to those shown on Table 7.4 of Patterson and Ward (1982).

Chlorine contents as shown on Table 9 are invariably low in line with the findings for Mt. Nicholas. The same applies to the one measurement of phosphorus content : 0.003% determined for the adit bulk sample.

4.5.6 Ash Analysis

The ash compositions as summarised on Table 11 show little variation between seams and are similar to the findings at Mt. Nicholas. All except one of the mineable seam intersections have a bituminous-type ash. The exception is the DD seam in GY12 which has a lignite-type ash.

The slagging and fouling factors have been calculated using the following formulae:

Slagging factor Rs = B/A x % sulphur in dry coal in which

$$B/A = \frac{Fe_2O_3 + CaO + MgO + Na_2O + K_2O}{SiO_2 + Al_2O_3 + TiO_2}$$

Fouling factor Rf = B/A x % Na_2O in ash.

The values found for Rs are between 0.014 and 0.029 indicating a very low propensity for slagging. Similarly, values for Rf are all below 0.022 which also indicates a very low propensity for fouling (Patterson and Ward, 1982).

4.5.7 Ash Fusion Temperatures

Measurements of ash fusion temperatures (reducing atmosphere) on mineable seam intersections (as defined in Section 5.2) are invariably high. The lowest deformation temperature measured on these intersections is 1420°C and the spherical, hemisphere and flow temperatures are all 1600°C or higher. These findings are in line with results for Mt. Nicholas.

4.5.8 Coal Petrology

Macerals have been counted on the adit bulk sample only. The maceral composition for this sample is similar to the Middle 1 seam results shown on Table 7.9 in Patterson and Ward (1982). However, the predominance of dull and banded dull lithotypes in the descriptions for most seam intersections indicates that lower vitrinite percentages, more in line with the findings for the Lower 2 and Middle 2 seams at Mt. Nicholas, can be expected in the study area.

The only reflectance result available is for the adit bulk sample. This result for R_o max - 0.64% is within the range found for Mt. Nicholas also pointing at a similar rank.

4.5.9 Classification

The classification of coal from the mineable intersections according the various systems is identical to the Mt. Nicholas coal, i.e:

International	800
A.S.T.M.	Bituminous High Volatile B
Australian	800(5) (washed)

5. RESERVES

5.1 Introduction

The level of knowledge for the major portions of the study area varies considerably. The Dalmayne and Douglas River deposits can be described as having been taken to the completion of the Commercial Evaluation stage (Australian Standard 2519-1982) by virtue of a spacing of roughly 2km between boreholes. The distance between boreholes in the area south of the Douglas River deposit is far greater, indicating that the examination of this portion is still in the Regional Assessment Stage.

The reserves are calculated and reported in accordance with the Code for Calculating and Reporting Coal Reserves (Standing Committee on Coalfield Geology of New South Wales, 1984). It is considered that the borehole spacing of about 2km in the Douglas River and Dalmayne areas is sufficient for conceptual mine planning and, therefore, Mineable In Situ Reserves are quoted in the Indicated category.

Although economically attractive seams have been intersected in boreholes outside the areas with Indicated Reserves, it is considered that reserves should only be quantified if lateral consistency of these occurrences is demonstrated by additional boreholes.

5.2 Reserve Criteria

Although up to six separate coal seams may be recognised in individual boreholes, only few of these seam intersections are thick enough and have an acceptably low ash content to be worth considering for future extraction.

In order to allow comparison with the Mt. Nicholas deposit, the criteria for minimum thickness and quality are the same as in the most recent reserve calculation for that area (Patterson and Ward, 1982). Therefore, the minimum seam thickness included in the reserves is 1.5m. The few intersections with thick seams have either been reduced to a maximum extraction thickness of 3.5m (DDH1 and GY27) or, where possible, a new composite has been selected which

comprises ply samples with a combined thickness approaching 3.5m (GY105).

The minimum acceptable yield for a 22.5% ash product is 70%. All intersections for the DD, DDU and the DDL seams in the Dalmayne area easily meet this criterion (Table 8). The limited washability information for several intersections of the DDL seam in the Douglas River area indicates that yields are close to this margin (GYDRA, GY25 and GY105). The yield for GY29 is below this margin and reserves for the area of influence of this borehole have been excluded.

5.3 Reserve Areas

The areas of influence containing Indicated Reserves for each borehole have been arrived at by extending the tangentially extended radii of influence of 1km for the definition of the outer limits of the reserves area (Encls. 30 and 31). The boundary of areas of influence between individual boreholes is taken halfway between the boreholes. The same applies between two boreholes of which one falls within and the other outside the criteria for thickness and quality.

The interpreted major faults on Encls. 30 and 31 divide the reserves areas in fault blocks for which reserves have been calculated separately. Minor adjustments have been made to the polygon boundaries in order to avoid the creation of very small triangles. The interpreted split line between the DDL and DDU seams has been taken as the boundary between the areas of influence of DDH2 for the DD seam and GY1 for the DDL seam.

5.4 Reserve Calculations

The tonnages within each area of influence have been obtained by multiplying the surface area for each borehole with the relative density and seam thickness as listed on Table 7. Where the mineable thickness exceeds 3.5m the reductions explained in Section 5.2 above have been made.

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The resulting tonnages for each area of influence are given in Table 12 and the summarised Indicated In Situ Reserves for the various reserve blocks are given below.

	Reserve Block		Million Tonnes
DD Seam	Dalmayne North		16.3
	Dalmayne Graben		5.3
	Dalmayne East		16.7
		Total	38.3
DDU Seam	Dalmayne Graben		8.8
	Dalmayne West		18.4
		Total	27.2
DDL Seam	Dalmayne East		6.9
	Dalmayne Graben		35.9
	Dalmayne West		18.7
		Total	61.5
	Douglas River North		38.4
	Douglas River South		22.4
		Total	60.8
	TOTAL DDL SEAM		122.3
	TOTAL ALL SEAMS		188.0

5.5 Recoverable and Marketable Reserves

In view of the known and interpreted disturbances in the form of faults and intrusions, the likely mining method will be by continous miners. These disturbances will have a reducing influence on the reserves that can be economically extracted. Therefore, a recovery factor of 40% is considered realistic at this stage to arrive at the Recoverable Reserves, i.e. 75 million tonnes. The recovery factor in the portion of Dalmayne where two mineable seams are indicated (GY3

059 and GY17) is still taken as 40% for both seams as they are more than 10m apart.

The marketable tonnage will depend on the ash level required. Although the float/sink data are somewhat limited, it is obvious from Table 8 that most coal can be easily washed to 20% ash. The washery recoveries for such a product would be in the order of 80 to 85%, indicating that a least 50 million tonnes would be available for marketing.

5.6 Potential for Additional Reserves

It is clear from the available information that the resources in the study area are considerably larger than the abovementioned reserves, and that there is substantial scope for increasing the reserves by further drilling. The most likely areas for locating further potentially economic coal in the DDL seam are in between and to the west of the known Douglas River and Dalmayne deposits (Encl. 31). Additional Indicated Reserves would be available by calculating the reserves contained in the areas of influence of good quality intersections thinner than 1.5m in the DDU seam. This has not been done, as such a thickness is considered too thin to be of economical importance.

Small deposits of coal falling within the present criteria for thickness and quality may be located by further drilling in the areas where isolated boreholes have indicated the possible presence of such deposits (Tables 7 and 8). Other similar deposits may also be present in the unexplored portions of the area. Any attempt to quantify the resources in these deposits is considered premature at this stage.

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6. CONCLUSIONS AND RECOMMENDATIONS

The investigations to date have demonstrated the existence of two potentially economic deposits, one located to the west of the old Dalmayne mine, and the other in the catchment area of the Douglas River. Both deposits contain coal similar in quality to the fully explored Mt. Nicholas deposit, and mining is expected to become economic to supplement or replace production from the Mt. Nicholas mine depending on the total requirements of the domestic market.

The level of knowledge reached for these two deposits is sufficient for conceptual mine planning only, and considerable additional exploration will be necessary before detailed mine planning can take place. However, the possibility of frequent presence of disturbances like faulting and intrusions indicates that mining of these deposits will be a high risk operation, and will always remain so, no matter how comprehensively the areas are explored. Under these circumstances it appears essential to gain access to the seam at the outcrop, and to conduct initial mining at a small scale only.

It is therefore recommended that, as soon as improved market conditions indicate a possible requirement for coal from this area, the exploration activities are concentrated on investigating an outcrop entry into the DD seam in the Dalmayne area. If such an entry would be possible, a conceptual study should be conducted to determine whether this site is to be preferred to the Douglas River. This should be followed by drilling sufficient boreholes to achieve Measured Reserve status in the area with the most feasible entry in order to prove a deposit large enough to supply the foreseen market.

The information on coal occurrences in the Apsley River area is largely unfavourable and it appears unlikely that deposits comparable in quality and size to Dalmayne and Douglas River, will be found. With this in mind and the large expenditure involved in proving the presence or otherwise of such deposits, it is considered that further exploration of the Apsley River area is not justified under the present economic outlook.

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TABLE 1 - STRATIGRAPHIC NOMENCLATURE OF THE LOWER DIVISION SEDIMENTS

	Forsyth et al. (1974)	McNeil (1965)	This Report Turner et al. (1984) Bacon and Calver (1984b)
Lower Division of Parmeener Supergroup	Upper Marine Sequence	Ferntree Mudstone	Poorly bedded, unfossiliferous grey mudstone.
		Correlate of Risdon sandstone	Thin pebbly glauconitic sandstone
		Berridale Limestone Gray Siltstone and Sandstone.	Poorly sorted, fossiliferous marine sandstone, siltstone, mudstone and bioclastic limestone
	Lower Freshwater Sequence	Mt. Elephant Sandstone	Quartz arenite, shale and minor basal conglomerate
	Lower Marine Sequence	Absent	Absent

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TABLE 2 - THE PRINCIPAL LITHOFACIES IN THE COAL MEASURES

	DALMAYNE AND COASTAL PLAIN	DOUGLAS RIVER	APSLEY RIVER
UPPER FACIES	Lithic sandstone beds alternating with mudstone and carbonaceous mudstone beds (25-30m thick). Coal, carbonaceous mudstone, mudstone beds (2-15m) Persistent conglomerate bed - Dalmayne Conglomerate and scattered pebbles. 100-160m	Lithic sandstone beds (5-20m) interbedded with beds of coal, carbonaceous mudstones and mudstone (5-15m). Thick bed mudstone (40m) at top of GY27 and GY29. Rare tuffs. Conglomerate (2-9m) in GY105, 5,7,23. 130-150m max. 240m in GY27	Mudstone, carbonaceous mudstone and thin coals interbedded with sandstone (10-15m) 50-60m
MIDDLE FACIES	Predominantly lithic sandstone Coal seams mudstone and carbonaceous mudstone 50m from top 100-110m	Predominantly lithic sandstone Coal seams, mudstone and carbonaceous mudstone 100m from top. Rare tuffs In GY7, more regular sequence of coal seams separated by 20-30m sandstone. 100-130m	Predominantly lithic sandstone with a few thin mudstone, carbonaceous mudstone, and coal beds. In GY8, the sequence is reduced implying either a facies change or the sequence is faulted out. 80-90m
LOWER FACIES	Mudstone, carbonaceous mudstone, lithic sandstone, (2-10 m), thin coal seams (10-35m) Lithic sandstone (10-30m) Quartz and lithic sandstone interbedded mudstones, glauconitic mudstone, carbonaceous mudstone scattered pebbles (5-25m) 79-90m	Thick lithic sandstone beds (10-15m) interbedded with mudstone (2-3m) Thin coal seams. 80-90m	Sandstone (2-3m) interbedded with mudstone (3-8m). Granite or granite sediments. 70-120m

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TABLE 3 - DESCRIPTION OF TUFFS

Location	Lithology	Depth to Base(1) (m)	Thickness (m)	Elevation Above MSL
Dalmayne				
FP012890	Vitric tuff			500
Douglas River				
GY21	White tuff with coal traces	241.86	0.14	188
GY25	Grey brown tuff with biotite fragments	296.53	1.5	69.17
	80% grey brown tuff 20% carbonaceous mudstone	297.37	0.12	68.33
	grey brown tuff	298.19	0.32	67.51
	grey brown tuff	309.74	0.61	55.96
GY27	White tuff	218.27	0.38	234.83
GY103	Light brown tuffaceous mudstone with carbonaceous mudstone lenses	134.49	0.27	153.11
	Light brown tuffaceous mudstone with coal fragments	134.98	0.09	152.62
GY104	75% light brown tuffaceous mudstone			
	25% cream tuffaceous mudstone 60% grey tuffaceous sandstone	65.40	0.12	185.70
	40% mudstone fragments, carbonaceous mudstone	118.21	0.15	132.89
GY105	Cream tuff	168.21	0.59	297.89
	Cream tuff	169.16	0.49	296.94
	Light brown tuffaceous mudstone	218.55	0.17	247.55
	Light brown tuffaceous mudstone with carbonaceous mudstone bands	219.27	0.26	246.84
	Cream tuffaceous mudstone	219.97	0.07	246.13
	85% cream tuffaceous mudstone 15% carbonaceous mudstone bands	220.18	0.17	245.92
	Cream tuffaceous mudstone	220.82	0.35	245.28
	Light brown tuffaceous mudstone	253.51	0.08	212.59
	Cream tuffaceous mudstone	313.63	0.02	152.47

Location	Lithology	Depth to Base(1) (m)	Thickness (m)	Elevation Above MSL
Denison Rivulet				
FP014686				100
Apsley River				
986620	White tuff	64.79	0.75	235
	Light grey carbonaceous tuff	65.54	0.03	234
	White micaecous tuff	66.88	0.65	233
EP989619				260
EP997567 (float)				60
EP995566 (float)				100
Mt. St. John				
EP865706	Tuff overlying coal and grey mudstone			425

Grid References e.g. EP865706 refer to the 1:100,000 sheet - Break-O'Day.

Published: Bacon (1980)

Sources : Bacon and Calver (1984b)

Baillie and Calver (1980)

TABLE 4 - SEAM DATA FOR DALMAYNE - DOUGLAS RIVER AREAS

	DC1				DD				DDU				DDL (upper ply)				DDL (lower ply)			
Bore hole	Thick ness	Depth to Floor	Depth to Roof	Floor Elevation	Thickness	Depth to Floor	Depth to Roof	Floor Elevation	Thickness	Depth to Floor	Depth to Roof	Floor Elevation	Thickness	Depth to Floor	Depth to Roof	Floor Elevation	Thickness	Depth to Floor	Depth to Roof	Floor Elevatic
(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
GY1									0.73	193.19	192.46	257	1.68	206.98	205.30	243				
GY2									2.33	348.55	346.22	126	2.79	359.85	357.06	115				
GY3									2.85	363.82	360.97	116	2.82	379.50	376.68	101	0.16	381.21	381.05	99
GY4									1.77	303.92	302.15	226	1.44	318.52	317.08	212				
GY5	2.24	266.00	263.76	204																
GY6																				
GY6A									0.56	215.72	215.16*	229	1.68	225.72	224.04*	219				
GY7	2.60	316.43	313.83	274					1.00	335.00	334.00	255	0.09	352.93	352.84	237				
GY9	0.56	247.17	246.61	283					1.39	269.41	268.02	261	1.13	284.51	283.38[1]	246				
GY10									1.26	365.64	364.38	164	1.36	384.34	382.98[1]	146				
GY10A									1.25	367.15	365.90	163	0.83	384.20	383.37[1]	146				
GY11	0.99	290.20	289.21	280					1.27	311.23	309.96	279	1.43	327.40	325.97	263				
GY12					4.74	381.52	376.78	184												
GY14									1.19	267.29	266.10	268	2.59	281.30	278.71	254				
GY16																				
GY17									1.52	468.27	466.75	202	1.95	483.49	481.54	187				
GY18					1.51	222.80	221.29	267												
GY20									1.15	419.71	418.56	80	2.06	436.41	434.35	64	0.71	438.95	438.24	61
GY21													1.18	285.90	284.72	144	0.77	289.34	288.57	140
GY22									0.26	179.90	179.64	90	0.22	213.45	213.23		0.79	215.47	214.68	54
GY23													1.20	338.76	337.56	-99	1.19	342.24	341.05	-102
GY25									0.42	452.37	451.95	-86.67	5.50	479.34	473.84	-113.64				
GY27	0.20	305.74	305.54	147.36					0.60	323.07	322.47	130.03	4.00	351.16	347.16	101.94				
GY29									1.12	260.31	259.19	122.39	2.09	282.12	280.03	100.58	1.44	287.24	285.80	95.4
GY30					5.26	269.32	264.06	236												
GY32																				
GY48					0.55	54.16	53.61	286.01												
GY103									0.44	192.74	192.30	94.86	1.89	225.86	223.97	61.74				
GY104									0.98	127.68	126.70	123.42	1.78	160.06	158.28	91.04				
GY105									0.29	314.78	314.49	151.32	5.25	337.50	332.25	128.60				
GYDRA(adit)													2.51			94.99				
DDH1					4.56	164.15	159.59	252												
DDH2					2.14	194.76	192.62	217												
S5													1.29	188.17	186.88	-78				

* Core loss, seam thickness is determined from wireline logs

1 Seam replaced by carbonaceous mudstone

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TABLE 4 SEAM DATA FOR DALMAYNE - DOUGLAS RIVER AREAS

	DE				DE2				DF			
Borehole (m)	Thickness (m)	Depth to Floor (m)	Depth to Roof (m)	Floor Elevation (m)	Thickness (m)	Depth to Floor (m)	Depth to Roof (m)	Floor Elevation (m)	Thickness (m)	Depth to Floor (m)	Depth to Roof (m)	Floor Elevation (m)
GY1					2.20	256.48	254.28	194	0.88	283.52	282.64	167
GY2					0.76	407.32	406.56	68	0.50	433.18	432.68	42
GY3					0.44	424.15	423.71	56	0.71	441.03	440.32	39
GY4												
GY5					0.79	368.49	367.70	102				
GY6A	0.58	254.68	254.10	190	0.97	263.92	262.95	181	0.29	286.95	286.66	158
GY7					0.65	408.72	408.07	181				
GY9					1.07	337.68	336.61	192				
GY10					0.55	431.65	431.10	98				
GY10A												
GY11					0.89	381.24	380.35	209				
GY12	0.36	438.53	438.17	126	0.72	443.74	443.02	121				
GY14	0.22	325.73	325.51	209	1.15	330.91	329.76	204				
GY16	0.85	244.31	243.46	301	0.49	249.61	249.12	295				
GY17					1.14	530.85	529.71	139				
GY18												
GY20												
GY21												
GY22					1.02	269.19	268.17	1				
GY23												
GY25					0.62	534.79	534.18	-169.09				
GY27												
GY29					0.97	336.50	335.53	46.20				
GY30												
GY32	2.13	201.72	199.59	198	0.70	207.61	206.91	192				
GY48	2.84	120.52	117.68	220.19	0.76	127.06	126.30	213.65	1.00	148.00	147.00	192.71
GY103												
GY104												
GY105												
GYDRA												
DDH1	0.72	202.95	202.23	213	1.43	210.91	209.48	205	1.10	232.54	231.44	184
DDH2												

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TABLE 5 SEAM DATA FOR THE SEYMOUR COALFIELD

Borehole	UPPER SEAM				MIDDLE SEAM			
	Thickness (m)	Depth to Floor (m)	Depth to Roof (m)	Floor Elevation (m)	Thickness (m)	Depth to Floor (m)	Depth to Roof (m)	Floor Elevation (m)
S1	1.38	9.32	7.94	1	0.94	44.92	43.98	-35
S2	1.90	32.68	30.78	-22	1.14	71.69	70.55	-62
S3	1.66	25.79	24.13	12	0.95	61.26	60.31	-23
S4	2.80	36.33	33.53*	-31	0.43	80.68	80.25	-76
S6	1.07	4.88	3.81	5	1.44	43.58	42.14	-34
S7	3.05	6.71	3.66*	6	1.10	47.40	46.03	-37
045732	1.00	19.58[1]	18.58[1]	0	-	-	-	-

* Seam replaced by carbonaceous mudstone

1 Depths based on wireline logs

TABLE 6 - OTHER SEAM INTERSECTIONS > 1.0m

Borehole	Thickness (m)	Depth to Floor (m)	Depth to Roof (m)	Floor Elevation (m)	Raw Ash (%)	Thickness (m)	Depth to Floor (m)	Depth to Roof (m)	Floor Elevation (m)	Raw Ash (%)	Thickness (m)	Depth to Floor (m)	Depth to Roof (m)	Floor Elevation (m)	Raw Ash (%)
GY4	1.46	220.12	218.66	310											
GY7	1.51	207.25	205.74	383		1.08	254.60	253.52	335		1.03	281.76	280.73	308	
GY8	2.20	152.85	150.65	147											
GY11	2.20	264.60	262.40	325											
GY16	1.01	50.82	49.81	494		1.01	106.07	105.06	439						
GY18	1.01	88.55	87.54	402											
GY23	1.47	225.69	224.22	14											
GY25	1.15	340.03	338.88	25.67											
GY27	1.17	149.31	148.14	304		1.13	256.90	255.77	196						
GY29	1.28	200.38	199.10	182											
040675	1.56	135.06	133.50	-115											

RAW COAL ANALYSIS RESULTS FOR MAJOR SEAM INTERSECTIONS

TABLE 7

Seam	Borehole Number	Depth to Floor (m)	Thickness (m)	Sample Number(s)	Relative Density	Proximate Analysis (ad) Moisture %	Ash %	Volatile Matter %	Fixed Carbon %	Total Sulphur % (ad)	Specific Energy MJ/kg (ad)	Hardgrove Grinda-bility Index	Volatile Matter (daf %)
DC 1	GY 5	266.00	2.24	3,4,5	1.55*		36.0*						
	GY 7	316.43	2.60	4,5,6	1.61*		37.9*					48	
DD	GY 12	378.74	1.86	8	1.52	3.0	28.5	25.5	43.0	0.30	21.87	54	37.2
	GY 18	222.80	1.51	2	1.48	5.0	25.0	22.8	47.2	0.29	23.03	54	32.6
	GY 30	266.79	2.73	1	1.54	5.1	32.3				19.77		
	DDH 1	164.15	4.56	74,75,76	1.54+	3.6+	30.3+	23.0+	43.1+	0.29+			34.8+
	DDH 2	194.76	2.14o	85,86	1.42	2.8	19.6	26.8	50.8	0.37	25.41		34.5
DDU	GY 2	347.45	1.23	16	1.42	3.0	18.8	26.7	51.5	0.32	26.14		34.1
	GY 3	363.82	1.86	2	1.40	4.2	17.2	28.5	50.1	0.35	26.15	49	36.3
	GY 4	303.92	1.77	7	1.40	4.4	21.7	24.9	49.0	0.34	24.83	56	33.7
	GY 9	269.41	1.39	6	1.43	4.0	20.5	27.0	48.5	0.33	25.41		35.8
	GY 10	365.64	1.26	9	1.59		33.1						
	GY 11	311.23	1.27	2	1.49	4.9	26.5	36.2	32.4	0.36	23.06		52.8
	GY 14	267.29	1.19	7,8,9	1.54	4.2	29.4	24.8	41.6	0.24	21.92	56	37.3
	GY 17	468.27	1.52	1	1.54	3.8	29.2	24.3	42.7	0.33	22.13	51	36.3
DDL	GY 1	206.98	1.68	1	1.46	4.4	22.9	22.2	50.5	0.41	23.88	67	30.5
	GY 2	359.85	2.79	9,10	1.53*	2.2	28.9	24.2	44.7	0.35	22.22	53	35.1
	GY 3	379.50	2.82	3,4	1.47*	4.4*	24.1*	25.1*	46.4*	0.29*	23.91*	53	35.1
	GY 4	318.52	1.44	9	1.53	5.3	29.9	20.8	44.0	0.30	20.74	58	32.0
	GY 9	284.51	1.01	8	1.50	4.6	26.8	22.1	46.5	0.30	22.45		32.2
	GY 11	327.40	1.43	4	1.47	4.9	24.0	23.1	48.0	0.34	23.32		32.5
	GY 14	281.30	2.59	10-13	1.63	3.9	37.0	22.5	36.6	0.21	18.64	58	38.1
	GY 17	483.49	1.95	3	1.52	4.0	24.4	23.8	47.8	0.35	23.77	53	33.2
	GY 20	436.41	2.06	1	1.53		22.8			0.24	24.61		
	GY 23	338.76	1.20	2	1.55	4.7	28.1				21.86		
	GY 25	477.01	3.17	1,2,3	1.57*		31.5*						
	GY 27	351.16	4.00	1,2	1.51*	4.8*	27.1*				22.40*		
	GY 29	282.12	2.09	1,2,3	1.69*		44.5*						
	GY103	225.86	1.89	1,2	1.59*		33.6*						
	GY104	160.06	1.78	1,2	1.52*		35.4*						
	GY105	335.63	3.38	1-6	1.67*		39.4*						
	GY105	337.50	5.25	1-11	1.75*	2.6*	46.0*						
	GYDRA	-	2.51	3-11	1.56		29.0						
	GYDRA1	-	2.51	bulk	1.55	4.6	30.2	24.7	40.5				37.9
	GYDRA2	-	2.51	bulk	1.58	3.7	31.8	24.2	40.3				37.4
DE2	GY 1	256.48	2.20	4	1.57		33.6						
	GY 6A	263.92	1.42	1,2	1.61*		37.2*						
Unnamed	GY 8	152.85	2.20	1	1.62		38.4						
	GY 11	264.60	2.20	1	1.62		38.8					57	

\+ excl. 0.06m stone band
* calculated composite
o top 0.32m core loss

Doug K.
DK

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WASHED COAL ANALYSIS RESULTS FOR MAJOR SEAM INTERSECTIONS

TABLE 8

Seam	Borehole Number	Thickness (m)	Sample Number(s)	Separation RD	Yield %	Proximate Analysis (ad) Moisture %	Ash %	Volatile Matter %	Fixed Carbon %	Total Sulphur % (ad)	Specific Energy MJ/kg (ad)	Hardgrove Grindability Index	Volatile Matter %(daf)
DC1	GY 5	2.24	3,4,5	1.80	70.5	4.1	18.5	30.1	47.3	0.48	26.41		38.9
	GY 7	2.60	4,5,6	1.80	74.0	3.8	22.6	28.6	45.0	0.36	24.44	48	38.9
DD	GY 12	1.86	8	1.80	80.6	3.8	18.4	26.9	50.9	0.34	25.05	57	34.6
	GY 18	1.51	2	1.80	93.8	3.7	22.8	25.2	48.3	0.30	24.40		34.3
	GY 30	2.73	1	1.70	66.8	5.6	17.4	27.2	49.8	0.26	25.37	68	35.3
DDU	GY 2	1.23	16	1.70	91.7		14.1						
	GY 3	1.86	2	1.70	91.9	3.9	13.4	30.2	52.5	0.33	28.06	47	36.5
	GY 4	1.77	7	1.55	83.4	4.0	15.8	27.5	52.7	0.31	27.10	55	34.3
	GY 9	1.39	6	1.60	90.9	3.4	17.3	28.1	51.2	0.34	26.82		35.4
	GY 10	1.26	9	1.80	77.0	4.3	18.2	26.6	50.9	0.34	26.07		34.3
	GY 11	1.27	2	1.60	80.7	4.2	17.4	28.5	49.9	0.38	26.60		36.4
	GY 14	1.19	7,8,9	1.80°	69.3		16.2						
	GY 17	1.52	1	1.80	82.5	4.1	18.3	27.9	49.7	0.35	25.92		36.0
DDL	GY 1	1.68	1	1.55	82.5	3.1	17.4	23.5	56.0	0.35	25.94	68	29.6
	GY 2	2.79	9,10	1.55	66.4*	2.5*	15.8*	27.3*	54.4*	0.39*	26.82*	52	33.4
	GY 3	2.82	3,4	1.55	76.4*	3.5*	14.5*	27.1*	54.9*	0.46*	27.56*	(51)	33.0
	GY 4	1.44	9	1.60	71.4	5.3	23.1	23.0	48.6	0.32	24.06	57	32.1
	GY 9	1.01	8	1.60	72.4	3.9	20.5	23.5	52.1	0.37	24.83		31.1
	GY 11	1.43	4	1.70	93.5		21.7						
	GY 14	2.52	10-13	1.80°	65.5		24.4						
	GY 17	1.95	3	1.80	89.1	3.8	19.2	25.5	51.5	0.29	25.73		33.1
	GY 20	2.06	1	1.70	83.4	4.4	14.3	28.0	53.3	0.31	28.12		34.4
	GY 23	1.20	2	1.70	75.1	4.7	15.9	29.3	50.1		26.82		36.9
	GY 25	3.17	1,2,3	1.70	67.9*	3.1*	19.0*	26.9*	51.0*	0.27*	26.04*		34.5
	GY 27	4.00	1,2	1.70	81.3*	5.0*	19.1*	26.1*	48.8*	0.23*	25.51*		34.4
	GY 29	2.09	1,2,3	1.70	57.8*	3.7*	18.4*	28.3*	49.6*	0.37*	26.36*		36.3
	GY 103	1.89	1,2	1.70	73.9	3.1	20.6	29.7	46.6	0.40	25.81		38.9
	GY 104	1.78	1,2	1.70	71.7	3.5	20.3	29.5	46.2	0.39	25.81		38.7
	GY 105	5.25	1-11	1.80	60.2	4.4	18.6	27.0	50.0	0.37	25.38		35.1
	GYDRA1	2.51	bulk	1.80°	71.8	2.7	20.0	27.8	49.5	0.28	25.33	45	36.0
DE2	GY 1	2.20	4	1.70	66.2		21.5						
	GY 6A	1.42	1,2	1.70	63.6	4.0	21.3	24.1	50.6	0.42	24.65		31.8
Unnamed	GY 3	2.20	1	1.70	61.5	2.9	22.5	28.4	46.2	0.47	24.54		38.1
	GY 11	2.20	1	1.80	67.3	5.1	23.2	26.6	45.1	0.37	23.74		37.1

° excl. -0.5mm fraction
* calculated composite

ULTIMATE AND ELEMENTAL ANALYSES OF MAJOR SEAM INTERSECTIONS

TABLE 9

Seam	Borehole Number	Thickness (m)	Sample Number(s)	Sample State	Carbon %	Hydrogen %	Oxygen %	Nitrogen %	Sulphur %	Carbonate %	Chlorine %
DD	GY 8	1.86	8	raw	80.40	4.88	12.88	1.40	0.44	0.22	
	GY 8	1.86	8	Cu F1.80	78.90	4.41	14.82	1.44	0.43	0.46	
	GY 18	1.51	2	raw	81.60	4.57	11.96	1.46	0.41	0.09	
	GY 18	1.51	2	Cu F1.80	81.60	4.41	12.27	1.31	0.41	0.18	
DDU	GY 3	1.86	2	raw							0.05
	GY 3	1.86	2	Cu F1.70	83.40	4.80	9.93	1.47	0.40	0.22	
	GY 4	1.77	7	raw							0.08
	GY 4	1.77	7	Cu F1.55	79.00	4.34	14.95	1.34	0.37	0.10	
	GY 14	1.19	7,8,9	raw	71.20	4.41	22.86	1.17	0.86	0.14	
	GY 17	1.52	1	raw	82.00	5.12	10.97	1.42	0.49	0.11	
	GY 17	1.52	1	Cu F1.80	82.20	4.80	11.07	1.48	0.45	0.08	
DDL	GY 1	1.68	1	raw							0.09
	GY 1	1.68	1	Cu F1.55	75.20	4.12	18.68	1.55	0.45	0.07	
	GY 2	2.79	9,10	raw							0.08*
	GY 2	2.01	10	Cu F1.55	82.90	4.65	10.55	1.42	0.48	0.14	
	GY 3	2.82	3,4	raw							0.06
	GY 3	2.82	3,4	Cu F1.55	83.23*	4.72*	10.05*	1.44*	0.56*	0.19*	
	GY 4	1.44	9	raw							0.05
	GY 4	1.44	9	Cu F1.60	82.80	4.23	8.55	1.45	0.45	0.10	
	GY 14	2.59	10,13	raw	79.60	4.94	13.75	1.35	0.36	0.66	
	GY 17	1.95	3	raw	81.60	4.76	11.77	1.38	0.49	0.15	
	GY 17	1.95	3	Cu F1.80	82.00	4.90	11.30	1.42	0.38	0.16	
	GYDRA1	2.51	bulk	WTCuF1.80[o]	82.10	4.54	11.53	1.46	0.37	0.04	0.20

[o] excl. -0.5mm fraction
* calculated composite

TABLE 10

ASH FUSION TEMPERATURES OF MAJOR SEAM INTERSECTIONS
(REDUCING ATMOSPHERE)

Seam	Borehole Number	Thickness (m)	Sample Number(s)	Sample State	Deformation °C	Spherical °C	Hemisphere °C	Flow °C
DC1	GY 5	2.25	3,4,5	Cu F1.65	1420	1580	1590	1600+
	GY 5	2.25	3,4,5	Cu F1.80	1430	1600+	1600+	1600+
	GY 7	2.60	4,5,6	Cu F1.80	1450	1600+	1600+	1600+
DD	GY 12	1.86	8	raw	1550	1600+	1600+	1600+
	GY 12	1.86	8	Cu F1.80	1580	1600+	1600+	1600+
	GY 18	1.51	2	raw	1600+	1600+	1600+	1600+
	GY 18	1.51	2	Cu F1.80	1600+	1600+	1600+	1600+
	GY 30	2.73	1	F1.70	1570	1600+	1600+	1600+
DDU	GY 3	1.86	2	Cu F1.70	1450	1600+	1600+	1600+
	GY 4	1.77	3	Cu F1.55	1430	1600+	1600+	1600+
	GY 9	1.39	6	raw	1300	1580	1590	1590
	GY 9	1.39	6	Cu F1.60	1410	1550	1560	1570
	GY 10	1.26	9	Cu F1.50	1430	1520	1530	1540
	GY 10	1.26	9	Cu F1.80	1360	1430	1450	1460
	GY 11	1.27	2	raw	1380	1460	1490	1500
	GY 11	1.27	2	Cu F1.60	1400	1520	1530	1540
	GY 14	1.19	7,8,9	raw	1380	1600+	1600+	1600+
	GY 17	1.52	1	raw	1280	1570	1585	1600+
	GY 17	1.52	1	Cu F1.80	1420	1600+	1600+	1600+
DDL	GY 1	1.68	1	Cu F1.55	1590	1600+	1600+	1600+
	GY 2	2.79	9,10	Cu F1.55	(1590)	1600+	1600+	1600+
	GY 3	2.82	3,4	Cu F1.55	(1520)	1600+	1600+	1600+
	GY 4	1.44	9	Cu F1.60	1540	1600+	1600+	1600+
	GY 9	1.01	8	raw	1420	1600+	1600+	1600+
	GY 9	1.01	8	Cu F1.60	1510	1600+	1600+	1600+
	GY 11	1.43	4	raw	1450	1600+	1600+	1600+
	GY 14	2.59	10-13	raw	1350	1600+	1600+	1600+
	GY 17	1.95	3	raw	1600+	1600+	1600+	1600+
	GY 17	1.95	3	Cu F1.80	1600+	1600+	1600+	1600+
	GY 20	2.06	1	raw	1600+	1600+	1600+	1600+
	GY 20	2.06	1	Cu F1.70	1600+	1600+	1600+	1600+
	GY 27	4.00	1,2	Cu F1.70	(1600)	1600+	1600+	1600+
	GYDRA1	2.51	bulk	WTCu F1.70	1600+	1600+	1600+	1600+
DE2	GY 9	1.07	10	raw	1390	1600+	1600+	1600+
	GY 9	1.07	10	Cu F1.70	1400	1600+	1600+	1600+

ASH ANALYSES OF MAJOR SEAM INTERSECTIONS

TABLE 11

Seam	Borehole Number	Thickness (m)	Sample Number(s)	Sample State	SiO_2 %	Al_2O_3 %	TiO_2 %	Fe_2O_3 %	CaO %	MgO %	Na_2O %	K_2O %	P_2O_5 %	SO_3 %	Mn_3O_4 %
DD	GY 12	1.86	8	raw	55.70	37.30	1.00	2.30	1.90	0.48	0.22	0.29	0.04	0.53	0.04
	GY 12	1.86	8	Cu F1.80	55.50	34.60	1.30	2.88	3.10	0.58	0.25	0.32	0.05	1.12	0.05
	GY 18	1.51	2	raw	59.60	32.00	1.36	3.04	0.50	0.81	0.35	0.69	0.03	0.25	0.04
	GY 18	1.51	2	Cu F1.80	60.60	30.40	1.45	3.09	0.66	0.91	0.36	0.54	0.02	0.17	0.03
	GY 30	2.73	1	F1.70	60.20	33.30	1.57	2.52	0.84	0.40	0.20	0.45	0.25	0.01	0.04
DDU	GY 3	1.86	2	Cu F1.70	62.90	28.50	1.19	3.40	0.50	0.85	0.10	0.60	0.03	0.08	0.05
	GY 4	1.77	7	Cu F1.55	67.00	26.10	0.86	3.08	0.54	0.43	0.14	0.60	0.01	0.10	0.02
	GY 14	1.19	7,8,9	raw	60.80	30.00	0.71	3.82	1.85	0.42	0.25	0.80	0.01	0.69	0.02
	GY 17	1.52	1	raw	67.60	24.10	0.81	3.14	0.79	0.98	0.27	1.83	0.02	0.15	0.04
	GY 17	1.52	1	Cu F1.80	66.50	25.40	0.72	3.62	0.88	0.92	0.25	1.10	0.04	0.12	0.05
DDL	GY 1	1.68	1	Cu F1.55	67.40	21.60	1.68	3.86	0.73	0.46	0.23	0.90	0.01	0.38	0.01
	GY 2	2.79	9,10	Cu F1.55	67.50*	24.20*	1.55*	3.36*	0.39*	0.26*	0.18*	0.42*	0.02*	0.15*	0.03*
	GY 3	2.82	3,4	Cu F1.55	62.50*	29.90*	1.16*	2.86*	0.53*	0.65*	0.15*	0.68*	0.03*	0.07*	0.02*
	GY 4	1.44	9	Cu F1.60	59.00	32.20	1.30	4.10	0.56	0.75	0.16	0.70	0.03	0.08	0.02
	GY 14	2.59	10-13	raw	56.90	33.10	0.91	2.96	3.10	0.33	0.21	0.92	0.01	0.88	0.02
	GY 17	1.95	3	Cu F1.80	59.50	32.60	1.28	3.09	0.24	0.51	0.28	0.46	0.06	0.08	0.03
	GYDRA1	2.51	bulk	WTCu F1.70[o]	67.60	26.50	1.08	2.72	0.59	0.65	0.01	0.78	0.03	0.01	0.03

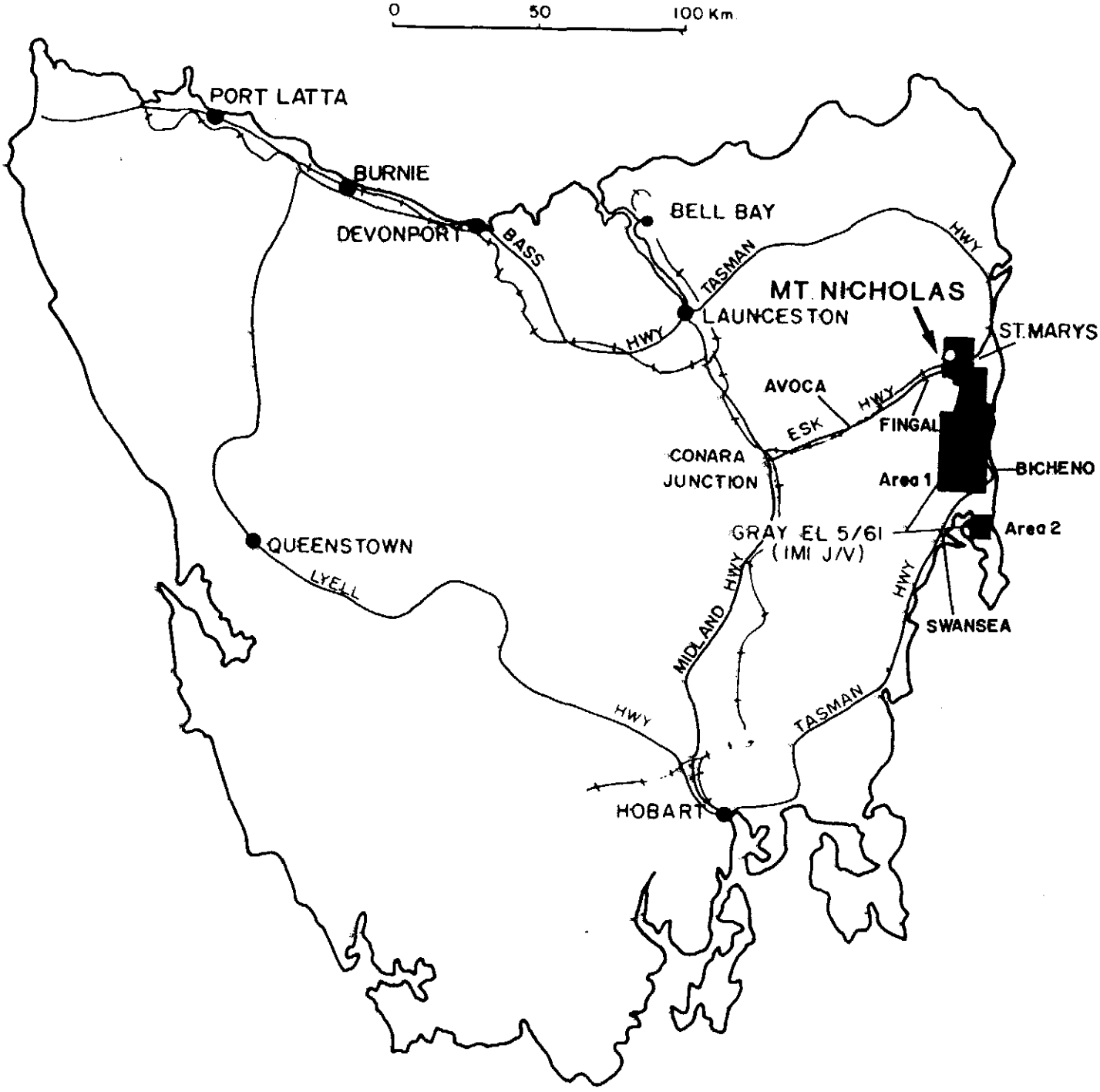
[o] excl. -0.5mm fraction
* calculated composite

126084

TABLE 12 - INDICATED IN SITU RESERVES

Seam	Reserve Block	Area Number	Area (ha)	Thickness (m)	Relative Density	Tonnes x 1000
DD	Dalmayne North	GY 18	234.5	1.51	1.48	5241
		GY 30	223.4	2.73	1.54	9392
		GY 12B	60.6	1.86	1.52	1713
		Total	518.5			16346
DD	Dalmayne Graben	GY 12A	187.9	1.86	1.52	5312
DD	Dalmayne East 1	DDH 1	196.3	3.50	1.54	10581
		DDH 2A	131.4	2.14	1.42	3993
		Total	327.7			14574
DD	Dalmayne East 2	DDH 2B	168.4	2.14	1.42	2079
DD	Dalmayne	Total	1102.5			38311
DDU	Dalmayne Graben	GY 3A	337.6	1.86	1.40	8791
DDU	Dalmayne West	GY 4	346.7	1.77	1.40	8591
		GY 17	357.8	1.52	1.54	8375
		GY 3B	54.5	1.86	1.40	1419
		Total	759.0			18385
DDU	Dalmayne	Total	1096.6			27176
DDL	Dalmayne East	GY 1A	281.1	1.68	1.46	6895
DDL	Dalmayne Graben	GY 1B	65.6	1.68	1.46	1609
		GY 2A	314.4	2.79	1.53	13421
		GY 3A	326.5	2.82	1.47	13535
		GY 20A	297.2	2.06	1.53	9367
		Total	1003.7			35932
DDL	Dalmayne West	GY 2B	47.3	2.79	1.53	2019
		GY 3B	45.1	2.82	1.47	1870
		GY 20B	136.9	2.06	1.53	4315
		GY 17	355.2	1.95	1.52	10528
		Total	584.5			18732
DDL	Dalmayne	Total	1869.3			61559
DDL	Douglas River North	GY DRA	202.4	2.51	1.56	7925
		GY 103	249.2	1.89	1.59	7489
		GY 109	90.1	1.78	1.52	2438
		GY 105A	140.5	3.38	1.67	7931
		GY 27	238.5	3.50	1.51	12605
		Total	920.7			38388
DDL	Douglas River South	GY 25	336.9	3.17	1.57	16767
		GY 27B	57.5	3.50	1.51	3048
		GY 105B	46.1	3.38	1.67	2602
		Total	440.5			22417
DDL	Douglas River	Total	1361.2			60805
DDL	Dalmayne & Douglas River	Total	3230.5			122364

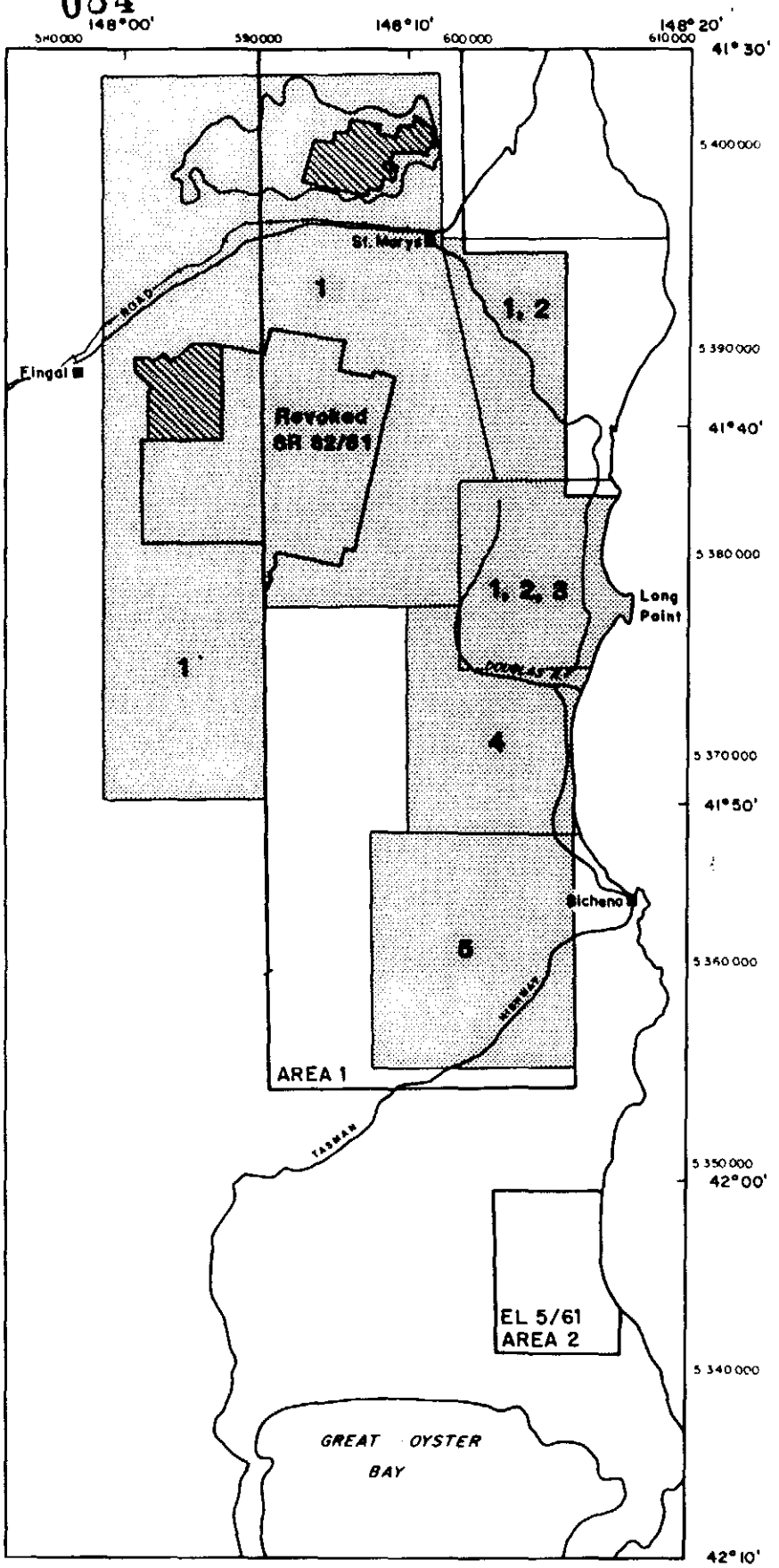
LOCATION OF EL 5/61 - TASMANIA



Author : Coal Division	Date : May 1984	Fig. 1
Report No: CEPR 10/84	Drawing No: 3363	

084

126086



SOURCE

1 **Baillie and Calver (1980), Turner et. al. 1984**

2 **McNeil (1965)**

3 **Ivett (1979)**

4 **Sansom (1979) (1983)**

5 **Bacon (1980)**

Cornwall Coal Mining Company's Leases

0 12

5 cm

DISTRIBUTION OF FIELD MAPPING IN EL 5/61

Author : Coal Division	Date : May 1984	Fig. 2
Report No: CEPR 10/84	Drawing No: 3364	

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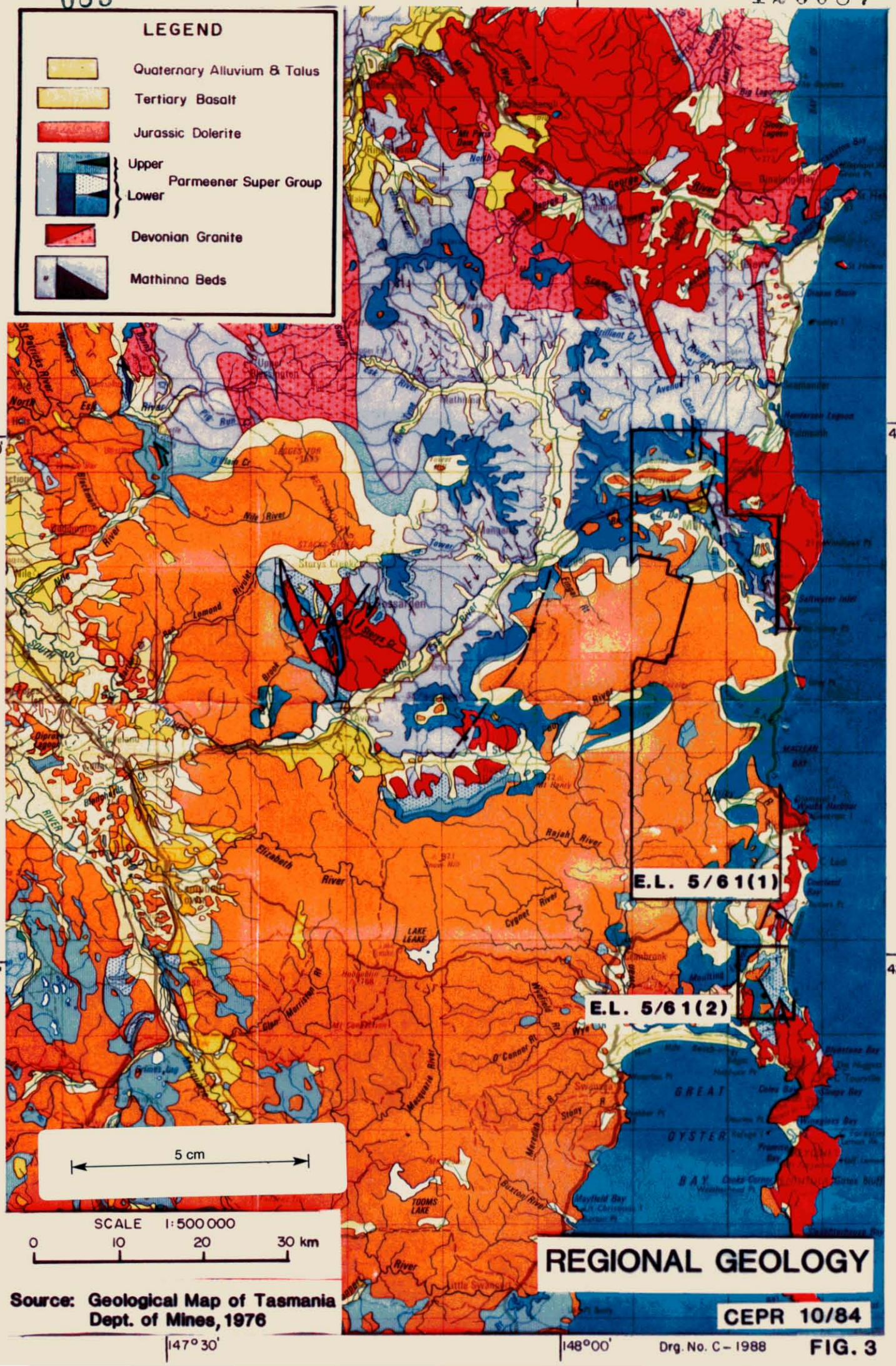


REGIONAL GEOLOGY

CEPR 10/84

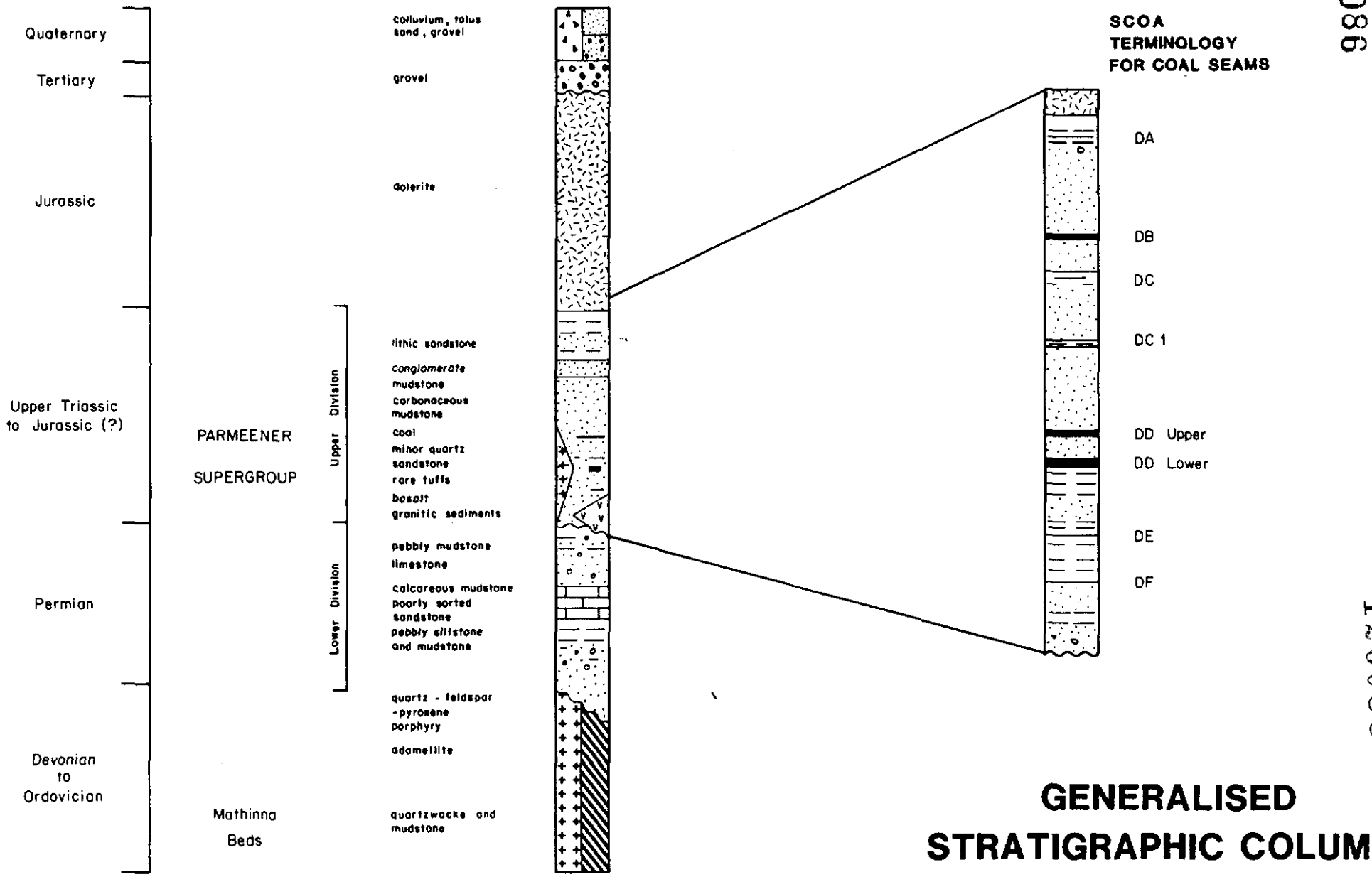
Drg. No. C – 1988

FIG. 3

EAST COAST

UPPER DIVISION
PARMEENER SUPERGROUP

080



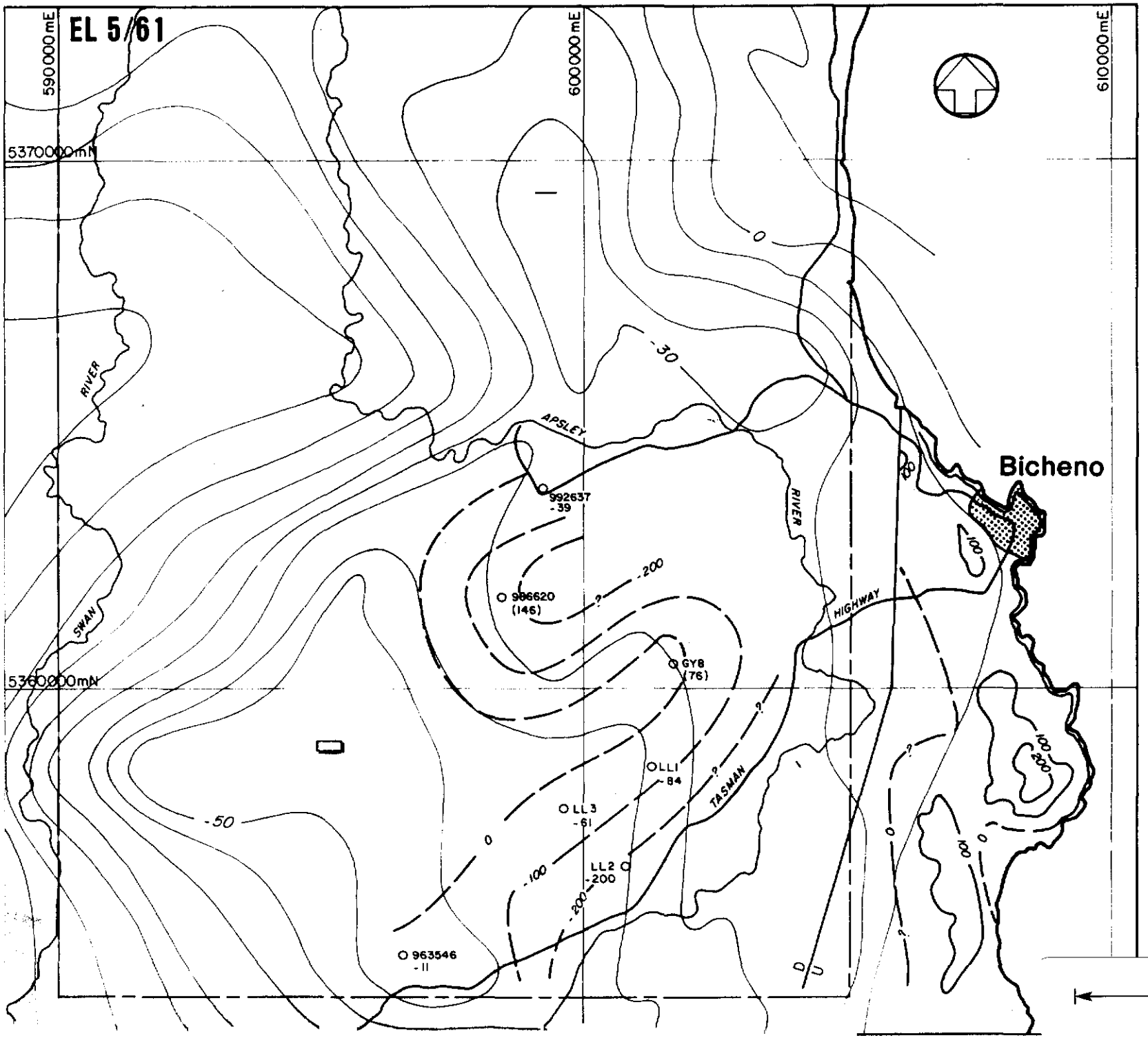
126088

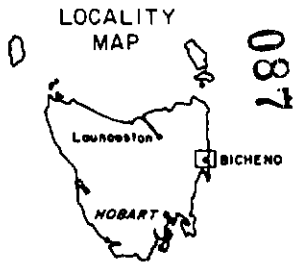
GENERALISED STRATIGRAPHIC COLUMNS

NOT TO SCALE

Fig. 4

Drg. No. 3366





0871 126089

LEGEND

- Boundary EL 5/61
- 100 — Structural contours on granite surface above M.S.L. 100m interval
- -30 — Bouguer anomaly contribution due to shallow basement effects Contour interval 10um/s² (Source: Leaman & Richardson, 1981)
- D/U — Fault
- o — Borehole location
- -39 — Elevation of granite surface (m) above M.S.L.
- (-200) — Inferred elevation of granite surface (m) above M.S.L.

SCALE 1:100 000

0 5 km

STRUCTURE OF LYNES SUGARLOAF STOCK

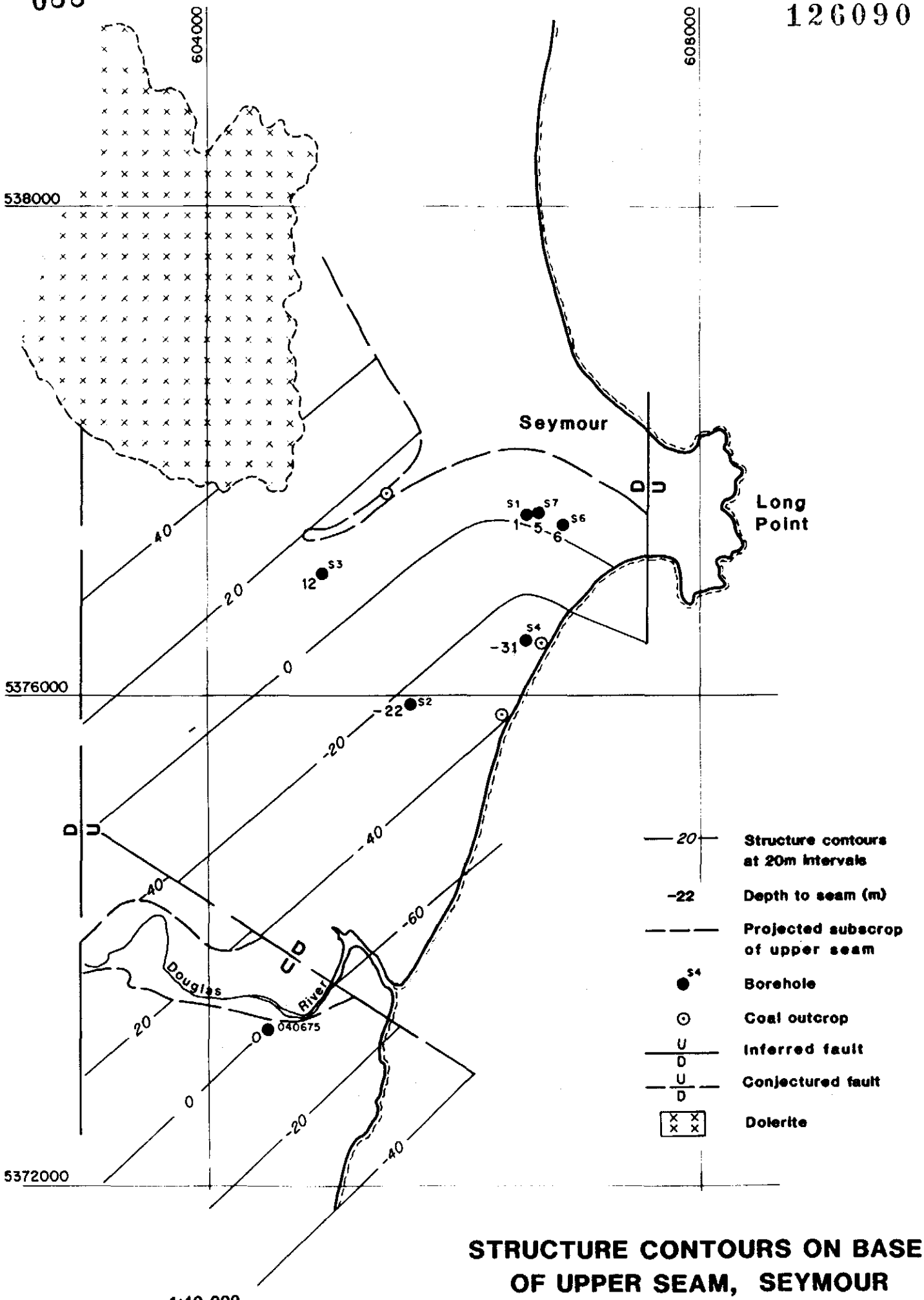
5 cm

Fig. 5

Drg. No. 3367

088

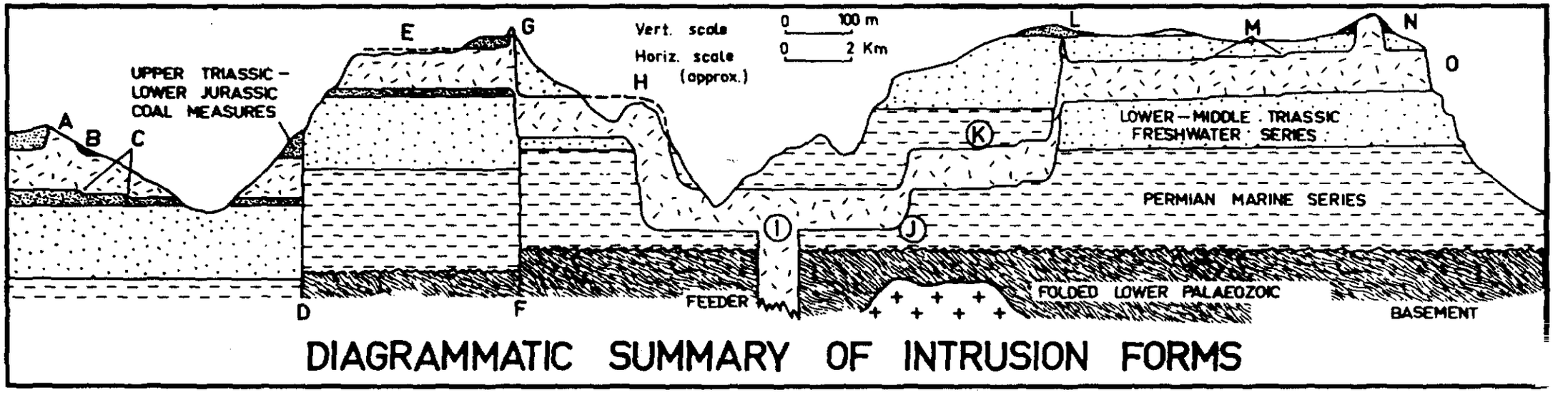
126090



STRUCTURE CONTOURS ON BASE OF UPPER SEAM, SEYMOUR COAL FIELD

Fig. 6

D. N. 3368



DIAGRAMMATIC SUMMARY OF INTRUSION FORMS

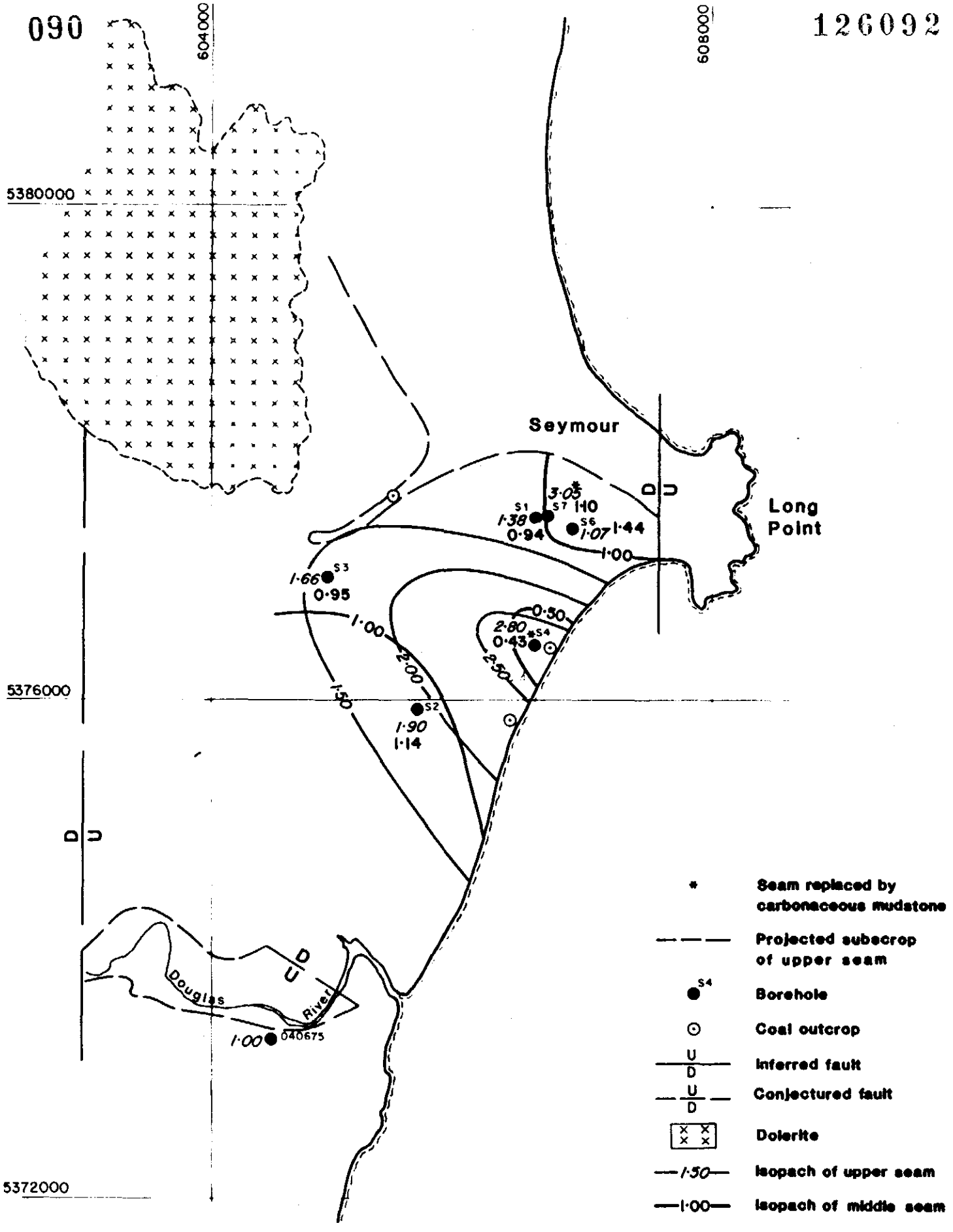
Fig. 7

NOTE: See text for explanation

(Source Leaman 1975)

090

126092



ISOPACHS OF SEYMOUR COAL SEAMS

Fig. 8

Drg No 3370

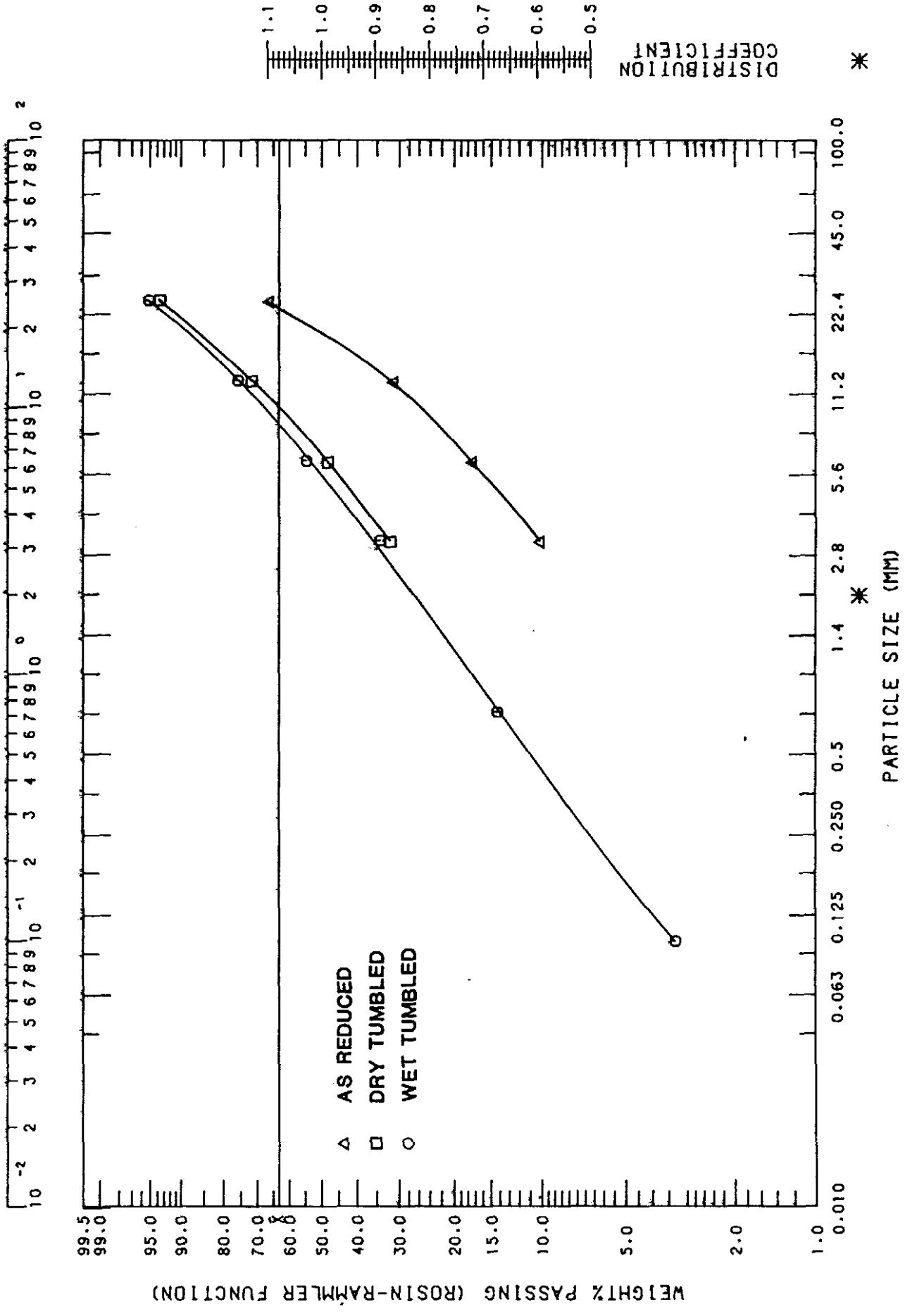


Fig. 9
Drg. No. 3460

GY14 - DDL SEAM

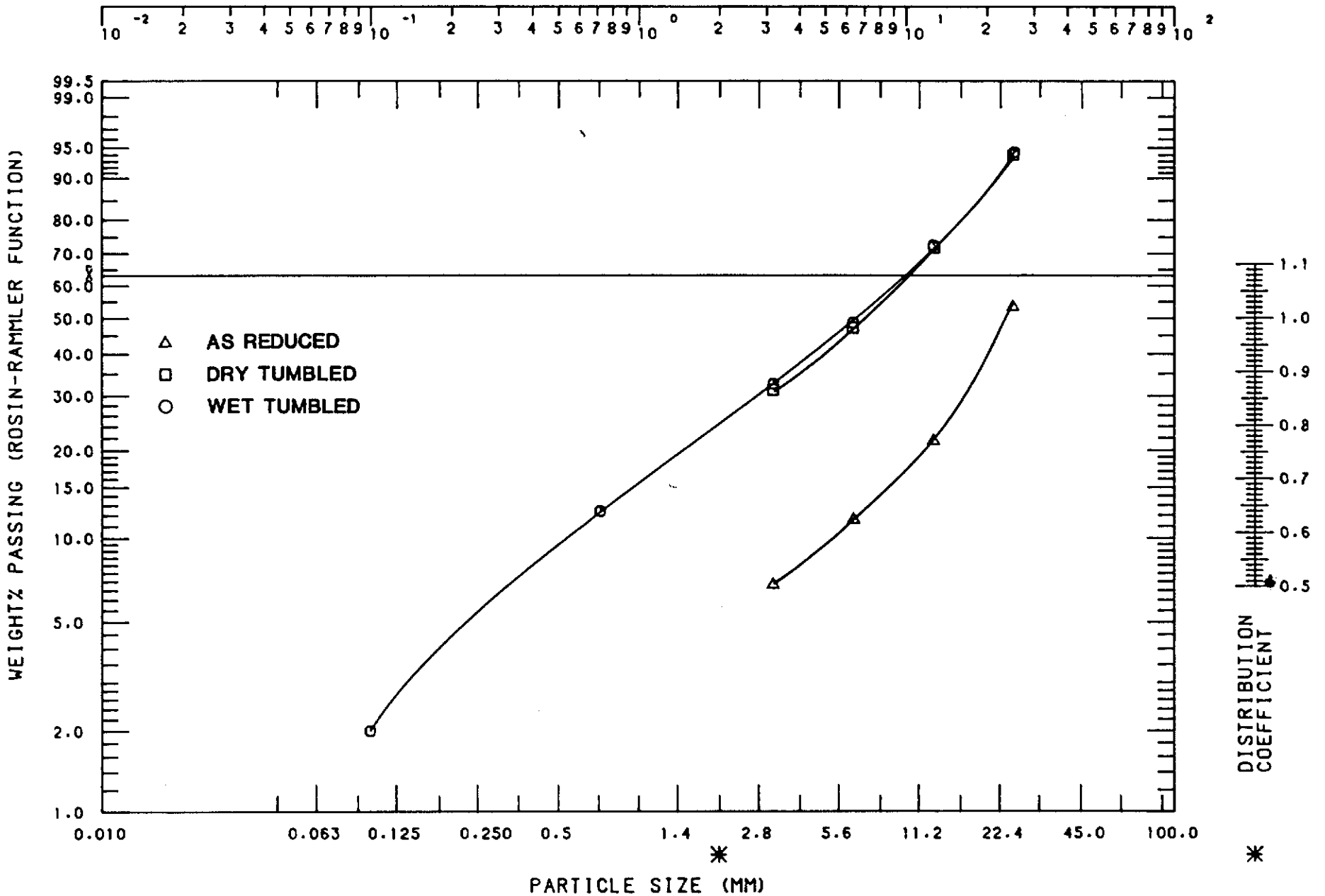


Fig. 10
Drg. No. 3461

092

1260094

GYDRA1 - DDL SEAM

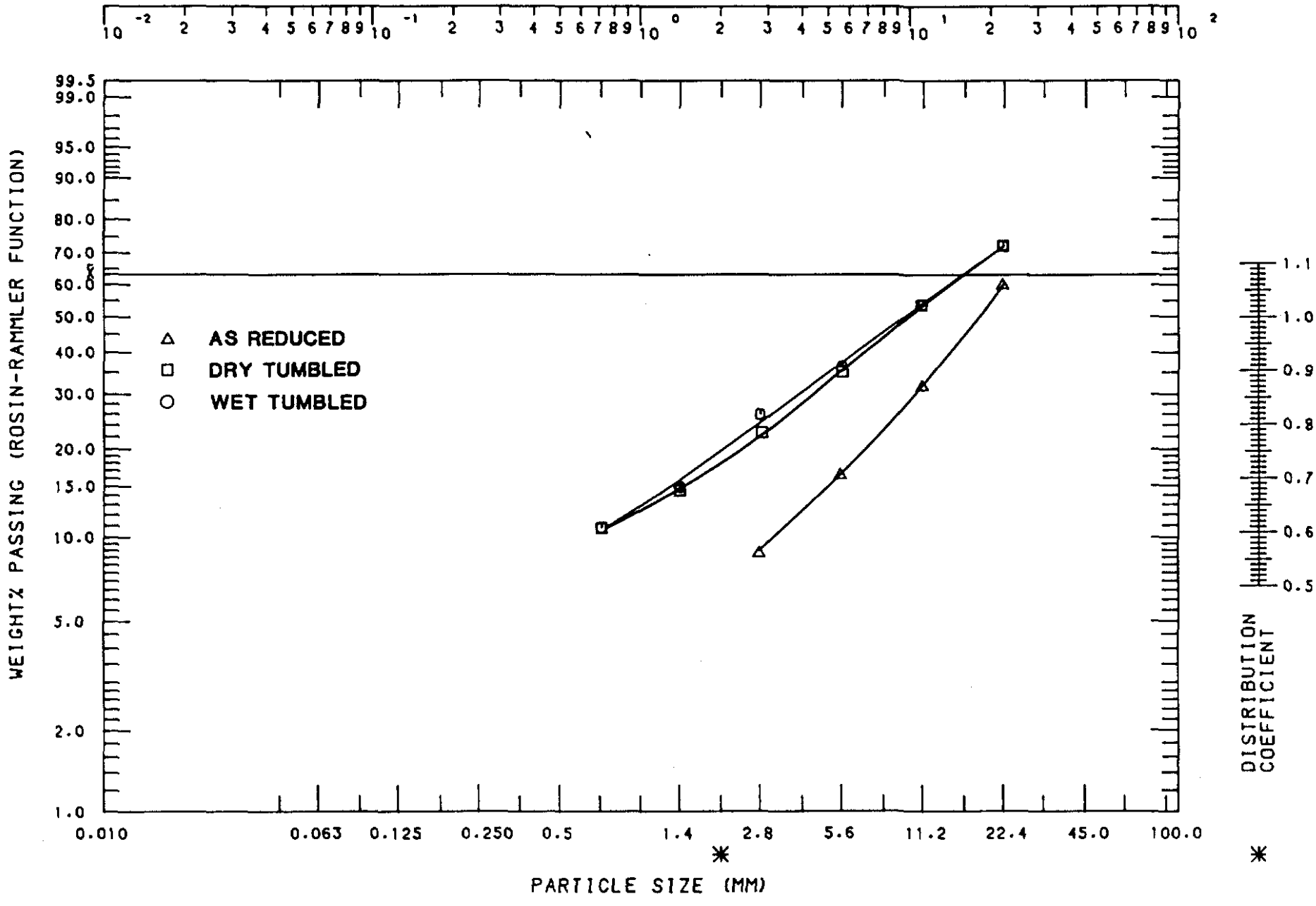
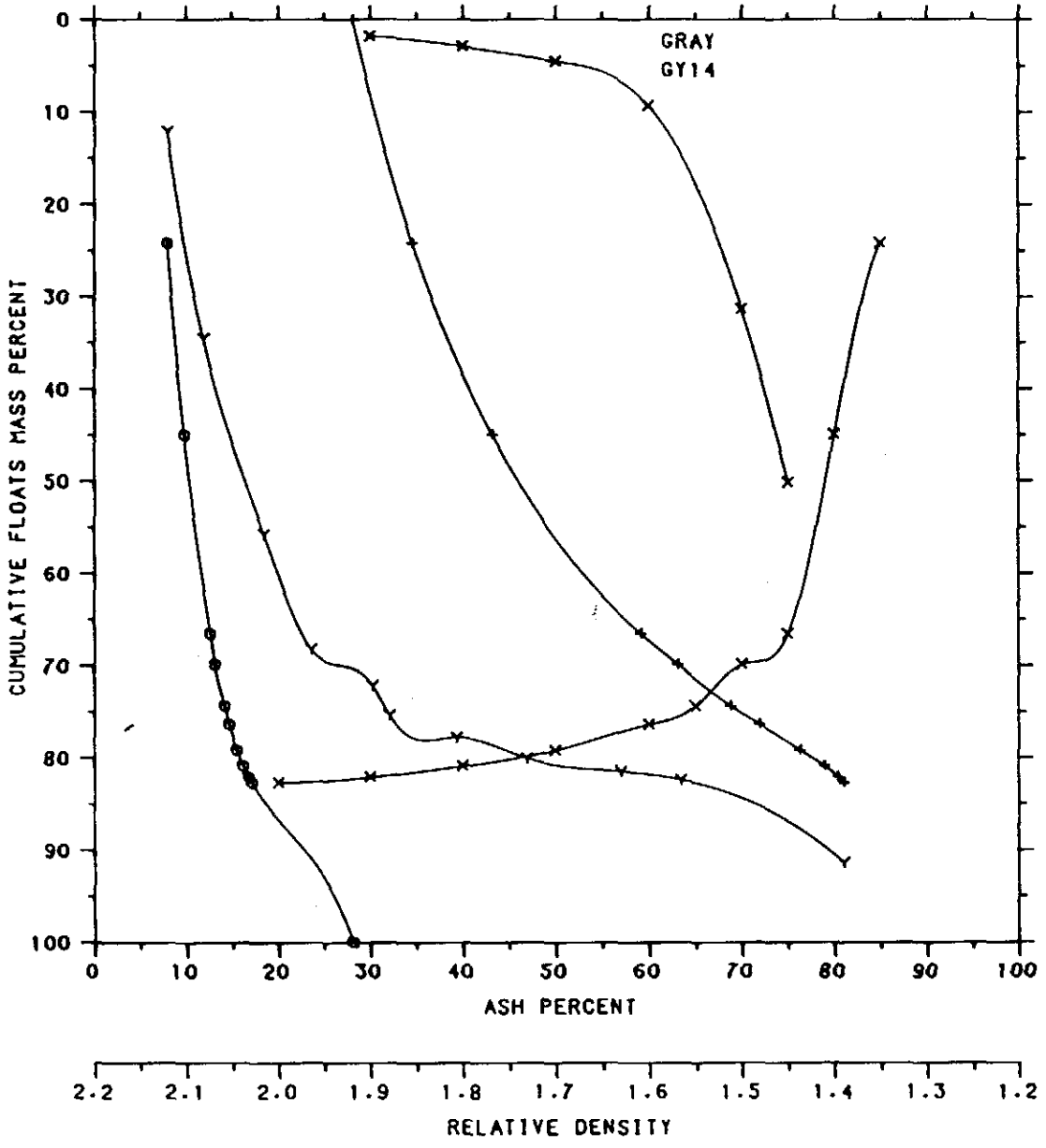


Fig. 11
Drg. No. 3462

093

126093

WASHABILITY CURVES FOR DDU SEAM - GY14



LEGEND:
- ⊙ CUMULATIVE FLOATS CURVE
- \+ CUMULATIVE SINKS CURVE
- × RELATIVE DENSITY CURVE
- Y INSTANTANEOUS ASH CURVE
- × +/- 0.1 RD CURVE
- ⊙ +/- 0.05 RD CURVE

SAMPLE: 1
SIZE: 381 005
0.0 % OF SAMPLE

Fig. 12
Drg. No. 3463

WASHABILITY CURVES FOR DDL SEAM - GY14

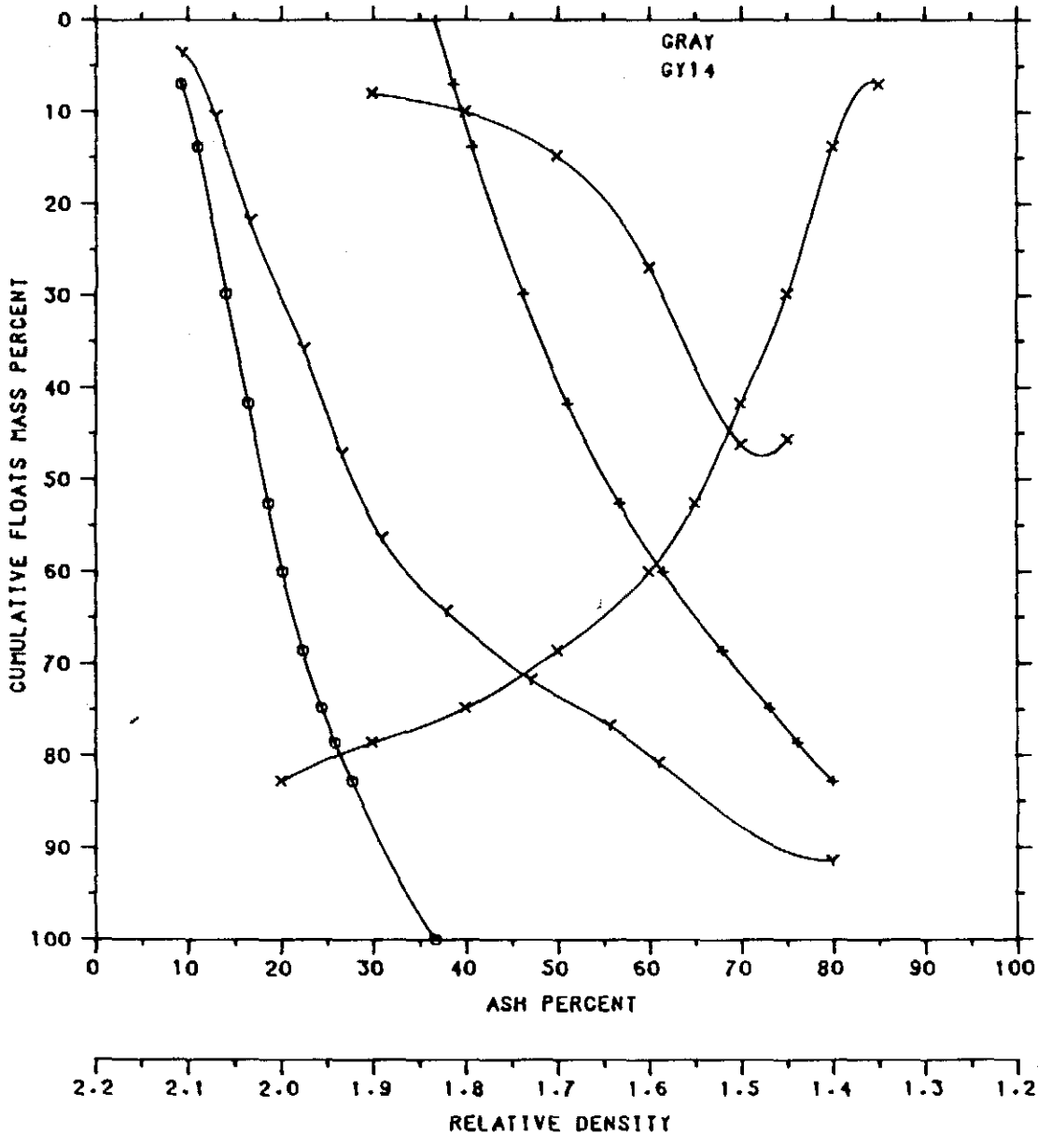


Fig. 13
Drg. No. 3464

WASHABILITY CURVES FOR DDL SEAM - GYDRA1

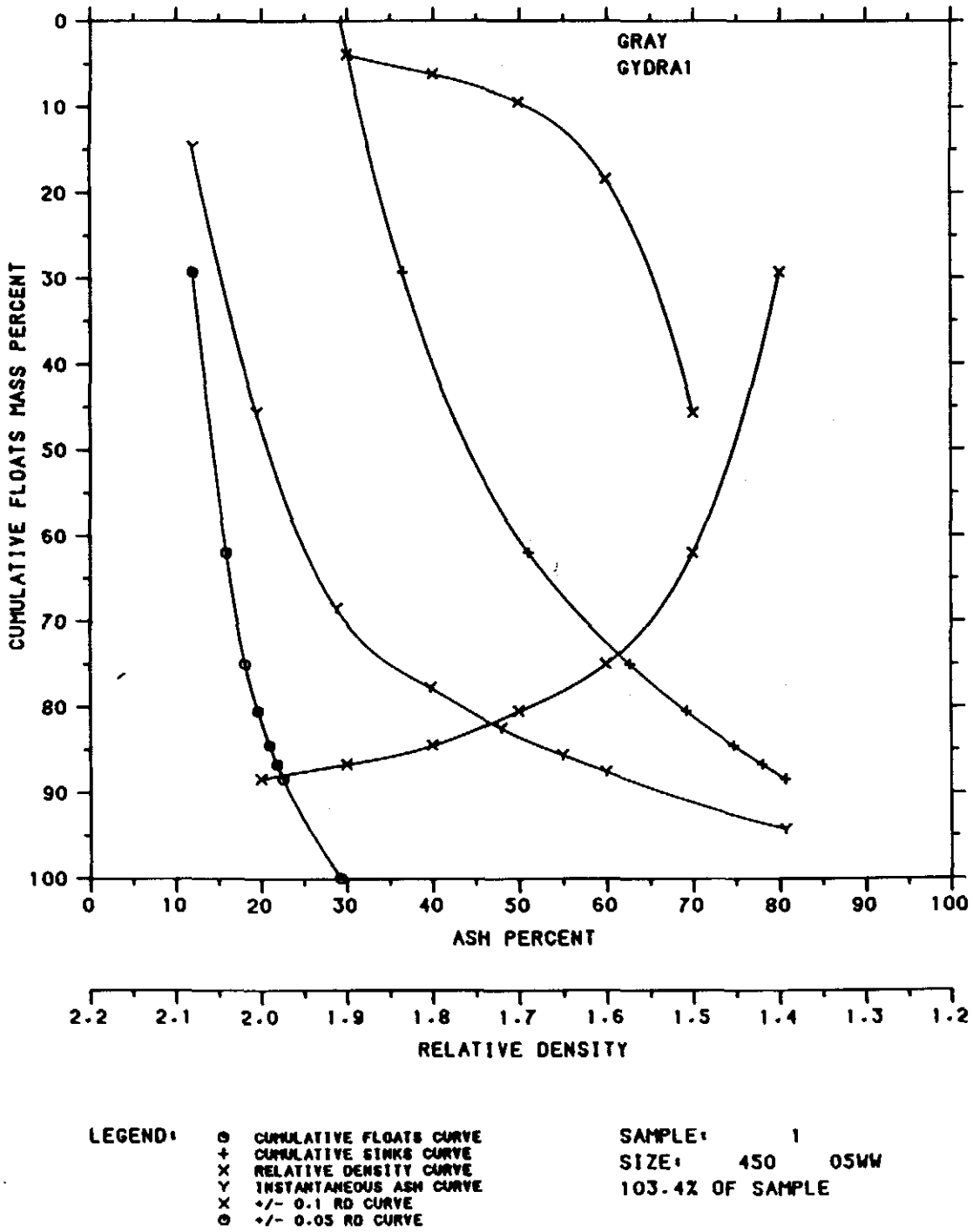


Fig. 14
Drg. No. 3465

APPENDIX 1

LIST OF COAL OUTCROPS

The location and description of coal outcrops in EL 5/61 south of the Fingal Valley, and including the Mt. John - St. Pauls River headwaters are listed below. The outcrops are listed according to general areas - Dalmayne, Douglas River, Apsley River and Coastal Plain, and within each area they are subdivided according to catchments or localities. The locations of the numbered outcrops are shown on Encl. 3, except for the Mt. St. John area, which falls outside the boundaries of the licence area.

The information was obtained from published and unpublished reports and maps. Frequently the same outcrop was described several times by different geologists. Where possible, the results from more recent mapping were used and supplemented if necessary with information from old reports and plans, which are less reliable as they are based on sketch maps and barometric levelling. An acception is the Llandaff area where the early reports constituted the sole source of information.

APPENDIX 1

DESCRIPTION OF COAL OUTCROPS AND OLD MINE WORKINGS

098

OUTCROP NUMBER	DESCRIPTION	THICKNESS (m)	GRID REFERENCE	APPROX. ALTITUDE (m)	REFERENCE
Prefix D	DALMAYNE				
	Micks Creek				
1	Dull coal overlain by lithic sandstone, base not exposed.	0-7	929 918	300	Baillie & Calver (1980)
2	Good quality coal with some thin clay bands, contacts not exposed.	1	933 911	350	" " " "
3	Contacts not exposed.	1	932 908	380	" " " "
4	Good quality coal, with 30% thin beds of grey mudstone and sandstone, contacts not exposed.	1-2	931 903	480	" " " "
5	Contacts not exposed.	0.6	931 901	500	" " " "
	South side of Fingal Valley				
6	-	-	992 905	330	Hill et al. (1922)
	Funnyknob Creek				
7	-	-	006 904	335	McNeil (1965)

1290100

OUTCROP NUMBER	DESCRIPTION	THICKNESS (m)	GRID REFERENCE	APPROX. ALTITUDE (m)	REFERENCE
Prefix D	Wardlaws Creek				
8	-	-	013 894	370	"
9	-	-	012 894	490	"
10	-	-	009 893	420	"
11	-	-	015 878	300	"
12	-	-	013 878	340	"
13	-	-	012 878	380	"
14	-	-	017 876	250	"
15	-	-	015 876	280	"
16	-	-	013 875	360	"
17	-	-	017 858	440	"
18	Outcrop reported by McNeil but wasn't found later by Ivett	-	028 854	318	McNeil (1965), Ivett (1979)
19	"	-	032 852	280	"
	Piccaninny Creek				
20	-	-	030 839	280	Ivett (1979)
21	-	-	029 837	320	"
22	-	-	029 830	385	"

126104

OUTCROP NUMBER	DESCRIPTION	THICKNESS (m)	GRID REFERENCE	APPROX. ALTITUDE (m)	REFERENCE
Prefix D	Dalmayne Mine				
23	Adit		FP 026 854	340	Bacon and Calver (1984-b)
24	Adit		FP 026 854	340	" " "
25	Adit		FP 027 854	330	" " "
26	Adit		FP 029 853	320	" " "
Prefix R	DOUGLAS RIVER AREA				
	Coal Creek				
1	Minor coal, carbonaceous shale, shale		022 737	50	Ivett (1979)
2	Dull coal with scattered bright bands. Thin mudstone band 0.75m below roof. Overlain by mudstone, carbonaceous mudstone, and sandstone. 8ft. tunnel driven in outcrop.	1.55	019 735	90	Sansom (1979) Twelvetrees (1901)
3	'Coaly Clod' with standstone roof and resting on a clay floor.	0.9	015 726 "1 mile" up Coal Creek	290	Twelvetrees (1901)

126102

OUTCROP NUMBER	DESCRIPTION	THICKNESS (m)	GRID REFERENCE	APPROX. ALTITUDE (m)	REFERENCE
Prefix R	Douglas River				
4	-	-	013 743	70	Ivett (1979)
5	Lithic Sandstone Coal Band Coal Band Coal Parting Coal Band Stony Coal Coal base not exposed Dip 5° to SE Adit drills into the outcrop on north side of river.	1.0	007 743	90	Twelvetrees (1901)
6	-	-	009 740	140	Sansom (1979)
7	-	-	002 744	90	" "
	Unnamed Side Creek				
8	-	-	995 745	250	" "
9	-	-	994 744	278	" "

126103

OUTCROP NUMBER	DESCRIPTION	THICKNESS (m)	GRID REFERENCE	APPROX. ALTITUDE (m)	REFERENCE
Prefix R					
10	GYDRA Adit driven in on the south side of river, 50m to south. At 30m point a crosscut was driven 48m to the east.				Hills et al. 1922 Appendix 4
11	-	-	997 751	110	Ivett (1979)
12	Mayson River Sandstone Coal Sandstone Coal Mudstone Coal Mudstone Coal Mudstone Coal Base not exposed.	2.10	992 761	160	Sansom (1979)
13	- Possum Creek	-	990 769	260	Sansom (1979)
14	Thin coal seams, interbedded with mudstone and carbonaceous mudstone	0.8	988 756	270	Sansom (1979)

1261104

OUTCROP NUMBER	DESCRIPTION		THICKNESS (m)	GRID REFERENCE	APPROX. ALTITUDE (m)	REFERENCE
Prefix R	Douglas River					
15	-		-	995 777	240	Ivett (1979)
16	-		-	000 786	370	Sansom (1979)
17	Denison Rivulet		-	028 688	38	Sansom (1979)
18	Sandstone Roof					
	Dull coal with scattered thin bright bands. Contains 40mm mudstone band		1.05	016 686	85	Sansom (1979)
19	Mudstone Roof	mm	3.2	016 686	100	Sansom (1979)
	Dull coal scattered bright bands	500				
	Mudstone	280				
	Dull coal with scattered bright bands	250				
	Mudstone sandy near near the base	700				
	Dull coal with scattered bright bands interbedded with thin mudstone bands	1510				

129103

OUTCROP NUMBER	DESCRIPTION		THICKNESS (m)	GRID REFERENCE	APPROX. ALTITUDE (m)	REFERENCE
Prefix R						
20	Mudstone Roof	mm	3.05	015 686	120	Sansom (1979)
	Dull coal with scattered thin bright bands	900				
	Mudstone	250				
	Coal	100				
	Mudstone	160				
	Sandstone	1000				
	Mudstone with coal bands	500				
	Dull coal	40				
	Mudstone band	20				
	Dull coal with scattered thin bright bands	260				
	Mudstone	80				
	Dull coal with scattered mudstone bands	190				
	Mudstone Floor					
21	Inner Mines		-	029 685	0	Hills et al. 1922
	Several shafts were sunk, a 2.44m seam was intersected at 32m.					

1261106

OUTCROP NUMBER	DESCRIPTION	THICKNESS (m)	GRID REFERENCE	APPROX. ALTITUDE (m)	REFERENCE
Prefix R	Aspley River				
22	-	-	017 658	55	Sansom (1979)
23	-	-	008 664	170	Sansom (1979)
24	-	-	995 664	260	Hills et al. (1922)
25	-	-	984 656	100	Hills et al. (1922)
26	-	-	987 658	165	" " " "
27	-	-	987 659	174	" " " "
28	-	-	987 659	192	" " " "
29	-	-	989 659	204	" " " "
30	Seam contains two "blackstone" bands	-	990 662	238	" " " "

126107

OUTCROP NUMBER	DESCRIPTION		THICKNESS (m)	GRID REFERENCE	APPROX. ALTITUDE (m)	REFERENCE
Prefix L	APSLEY RIVER AREA					
	Aspley River					
		mm				
1	Baked Clay	233	3.2	995 631	85	Hills et al. 1922
	Hard stony coal poor quality	686				
	Blackstone	76				
	Clay Baked	102				
	Hard Stony Coal	152				
	Very hard sandstone	533				
	Clay	76				
	Coal	76				
	Clay	51				
	Very hard sandstone	914				
	Stony coal (anthracitic locally)	305				
	Shale Floor					
2	-		-	006 629	120	Hills et al. 1922
3	-		-	004 572	38	Hills et al. 1922

126108

OUTCROP NUMBER	DESCRIPTION		THICKNESS (m)	GRID REFERENCE	APPROX. ALTITUDE (m)	REFERENCE
Prefix L	Lynes Creek (= Steep Creek)					
		mm				
4	Coal	216	0.94	005 581	52	Hills et al. 1922
	White band	25				
	Coal	191				
	White band	25				
	Coal	305				
	White band	51				
	Coal	127				
5	"Poor quality coal"		0.76	001 586	137	Hills et al. 1922
6	"Coal outcrop not proved"		-	999 588	152	Twelvetrees (1901)
7		mm				
	Smudge	279	1.45	998 588	160	Hills et al. 1922
	Shale	330				
	Coal	203				
	White band	25				
	Coal	140				
	Black band	50				
	Coal	114				
	Shale	305				
	Sandstone					

126109

OUTCROP NUMBER	DESCRIPTION		THICKNESS (m)	GRID REFERENCE	APPROX. ALTITUDE (m)	REFERENCE
Prefix L						
8	-		-	996 579	186	Twelvetrees (1901)
9	-		-	996 579	190	Twelvetrees (1901)
10	-		-	996 579	198	Twelvetrees (1901)
		mm				
11	Coal	152	2.03	999 582	150	Twelvetrees (1901)
	Clay band	229				
	Coal	229				
	Band	432				
	Coal with clay parting	991				
	Floor not observed					
	Stingles Creek (Pikes Creek)					
		mm				
12	Sandstone Roof					
	Coal	305	0.97	985 575	106	Hills et al. 1922
	White band	51				
	Coal	229				
	White band	25				
	Coal	25				
	Blackstone band	76				
	Coal	254				
	Shale Floor					
	Swan River					
13	-		-			Hills et al. 1922

129110

OUTCROP NUMBER	DESCRIPTION	THICKNESS (m)	GRID REFERENCE	APPROX. ALTITUDE (m)	REFERENCE
Prefix C	COASTAL PLAIN				
	Seymour				
1	-		067 764	2	Hills et al. (1922)
2	-		064 758	0	Hills et al. (1922)
3	-		054 776	40	Bacon and Calver (1984a)
4	Bedggoods Shaft		053 774	20	" " " "
5	Rollisons Shaft		062 775	10	" " " "
6	Circular Shaft		071 771	5	" " " "
7	Main Dip Tunnel		070 772	5	" " " "
	Old Mines Lagoon (Outer Mines)				
8	Several shafts were sunk. Three seams encountered. 2.44m at 32m ASL - at 28M ASL 1.5-2.1m thick at 59m ASL with 0.5m of coal		042 663	0	Hills et al. (1922)

1261111

OUTCROP NUMBER	DESCRIPTION	THICKNESS (m)	GRID REFERENCE	APPROX. ALTITUDE (m)	REFERENCE
Prefix S	MT. ST. JOHN AREA (not shown on Encl. 3)				
	Creek West of Cutoff Hill				
1	-	0.10	890 776	310	Waters (1978)
2	-	0.42	888 784	360	" "
3	-	2.87	889 787	420	" "
	Unnamed Creek north of Mt. St. John				
4	Contacts not exposed	0.3	897 755	430	Baillie and Calver (1980)
	Sunken Creek				
5	Contains 30% white clay bands, contacts not exposed	0.5	893 751	420	" " " "
6	Coal and shale	0.3-0.45	878 737	380	Waters (1978)
7	-	0.20	878 735	410	" "
8	-	0.45	877 732	520	" "
9	-	0.15	876 731	530	" "
	Woodheads Creek				
10	-	0.60	866 706	420	" "
11	-	0.52	865 708	430	" "
12	Contains 30% grey mudstone overlain by tuff, base not exposed (N.B.: 11 and 12 may be the same outcrop)	1.0	865 706	425	Baillie and Calver (1980)

126112

APPENDIX 2

SUMMARY OF BOREHOLE DATA

Borehole	Source	ELEVATION Collar R.L. (M)	Method	Vertical Accuracy (±M)	LOCATION Easting (M AMG)	Northing (M AMG)	Open Hole (M)	Core (M)	Total Depth (M)	WIRELINE LOGS Caliper	LSD	BRD	HRD		N-N	SPR	FE
DDH1	EDY	416	Barom	20	602,279	5,385,347		284.0	284.0								
DDH2	EDY	412	Barom	20	602,247	5,384,347		199.95	199.95								
GY 1	SCOA	450	Barom	20	602,050	5,382,850		335.00	335.00								
GY 2	"	475	"	"	600,050	5,382,600		510.50	510.50	*	*	*	*	*	*		
GY 3	"	480	"	"	600,050	5,380,950		487.19	487.19	*	*	*	*	*	*		
GY 4	"	530	"	"	598,150	5,383,000		452.00	452.00	*	*	*	*	*	*		
GY 5	"	470	"	"	592,400	5,370,800		455.00	455.00								
GY 6	"	440	"	"	602,000	5,381,000		151.70	151.70								
GY 6A	"	445	"	"	602,050	5,381,000		341.00	341.00	*	*	*	*	*	*		
GY 7	"	590	"	"	593,300	5,375,900		418.00	418.00	*	*	*	*	*	*		
GY 8	"	300	"	"	601,700	5,360,400		265.50	265.50								
GY 9	"	530	"	"	595,800	5,383,100		425.00	425.00	*	*	*	*	*	*		
GY 10	"	530	"	"	600,100	5,385,200		500.60	500.60	*	*	*	*	*	*		
GY 10A	"	530	"	"	600,100	5,385,200		391.60	391.60	*	*	*	*	*	*		
GY 11	"	590	"	"	596,000	5,385,000		473.00	473.00	*	*	*	*	*	*		
GY 12	"	565	"	"	600,000	5,387,300		515.00	515.00	*	*	*	*	*	*		
GY 13	"	685	"	"	596,100	5,386,800		457.60	457.60								
GY 14	"	535	"	"	597,700	5,385,100		410.00	410.00	*	*	*	*	*	*		
GY 15	"	570	"	"	598,000	5,387,000		445.60	445.60								
GY 16	"	545	"	"	600,700	5,388,900		320.25	320.25	*	*	*	*	*	*		
GY 17	"	670	"	"	598,000	5,381,600		604.00	604.00	*	*	*	*	*	*		
GY 18	"	490	"	"	598,000	5,389,000		271.00	271.00	*	*	*	*	*	*	*	*
GY 19	"	625	"	"	598,000	5,379,000	454.0	24.40	478.40								
GY 20	"	500	"	"	599,600	5,379,000	384.0	87.0	471.50								
GY 21	"	430	"	"	601,700	5,377,800		308.40	308.40								
GY 22	"	270	"	"	601,100	5,375,900		319.80	319.80								
GY 23	"	240	"	"	602,100	5,372,800		361.60	361.60								
GY 25	"	365.7	Survey	0.5	599,975	5,373,033		594.50	594.50								
GY 27	"	453.1	Survey	0.5	597,989	5,373,075		388.70	388.70	*	*	*		*	*		
GY 29	"	382.7	Survey	0.5	599,018	5,371,168		430.80	430.80								
GY 30	"	505	Baron	20	599,400	5,387,600		274.50	274.50								
GY 32	"	400	"	20	598,900	5,389,800		277.40	277.40								
GY 48	"	340.71	Survey	0.1	598,407	5,389,955		160.55	160.55	*	*	*		*	*		
GY 103	"	287.60	"	0.5	598,827	5,375,219		238.12	238.12	*	*	*		*	*		
GY 104	"	251.10	"	"	599,242	5,374,718		172.50	172.50	*	*	*		*	*		
GY 105	"	466.10	"	"	598,876	5,373,627		346.60	346.60	*	*	*		*	*		
GY DRA	"	97.50	"	"	599,780	5,374,969	Adit	Adit	2.82								
63546(MDBiNo.7)	DM	20.0	Map	20	596,480	5,354,800		47.0	47.0								
86620(MDBiNo.3A)	DM	300.0	Map	20	598,400	5,361,680		351.76	351.76								
40675(MDBiNo.5)	DM	20.0	Map	20.0	604,480	5,373,240	-	438.05	438.05								
92637(MDBiNo.4)	DM	80.0	Map	20.0	599,200	5,363,720	-	127.35	127.35								
45732(MDBiNo.10)	DM	5.0	Map	20.0	604,080	5,367,520	-	344.00	344.00	*	*	*	*	*	*		
S1	Bacon	10.0	Map	20.0	606,700	5,377,600	-	51.65	51.65								
S2	"	10.0	"	"	605,600	5,375,900	-	93.97	93.97								
S3	"	38.0	"	"	604,900	5,377,000	-	75.33	75.33								
S4	"	5.0	"	"	606,700	5,376,700	-	271.96	271.96								
S5	Hills	110.0	"	"	601,400	5,374,600	-	183.22	196.63								
S6	Bacon	10.0	"	"	606,900	5,377,400	-	76.20	76.20								
S7	Bacon	10.0	"	"	606,700	5,377,500	-	48.46	48.46								
LL1	Hill	58.0	"	"	601,300	5,358,400	-	144.78	144.78								
LL2	"	22.0	"	"	600,800	5,356,500	-	218.85	218.85								
LL3	"	160.0	"	"	599,600	5,357,600	-	228.90	228.90								

DY = Edyvean (1977) SCOA = Shell Co. of Australia DM = Department of Mines Hills et al. (1922) Bacon = Bacon and Calver (1984a)

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APPENDIX 3
BOREHOLE STRATIGRAPHY

Borehole	RL(M) Surface	THICKNESS INTERSECTED (m) Superficial Deposits	Dolerite	Upper Division	Lower Division	Granite	Mathinna	DEPTH TO TOP (m) Lower Division	Granite	Mathinna	ELEVATION OF SURFACE ABOVE M.S.L. (m) Lower Division	Granite	Mathinna
DDH 1	416	16.15	-	265.90	1.95	-	-	282.05	-	-	134	-	-
DDH 2	412	13.82	-	186.13	-	-	-	-	-	-	-	-	-
GY 1	450	3.65	-	313.74	17.61	-	-	317.39	-	-	133	-	-
GY 2	475	-	145.25	322.03	43.22	-	-	467.28	-	-	8	-	-
GY 3	480	-	135.50	349.23	2.46	-	-	484.73	-	-	5	-	-
GY 4	530	-	77.03	362.66	12.31	-	-	439.69	-	-	90	-	-
GY 5	470	12.00	89.20 [1]	339.46	14.34	-	-	440.66	-	-	29	-	-
GY 6	440	-	93.80 [1]	57.90	-	-	-	-	-	-	-	-	-
GY 6A	445	-	192.35 [1]	139.67	8.98	-	-	332.02	-	-	113	-	-
GY 7	590	-	146.80	271.20	-	-	-	-	-	-	-	-	-
GY 8	300	51.40	-	214.10*	-	-	-	-	-	-	-	-	-
GY 9	530	-	33.06	388.18	3.76	-	-	421.24	-	-	109	-	-
GY 10	530	-	196.13	302.67	1.80	-	-	498.80	-	-	31	-	-
GY 10A	530	-	197.60	194.00	-	-	-	-	-	-	-	-	-
GY 11	590	-	125.92	332.76	14.32	-	-	458.68	-	-	131	-	-
GY 12	565	-	207.95	305.17	1.88	-	-	513.12	-	-	52	-	-
GY 13	685	-	457.60	-	-	-	-	-	-	-	-	-	-
GY 14	535	-	170.72	232.84	6.44	-	-	403.56	-	-	131	-	-
GY 15	570	-	445.60	-	-	-	-	-	-	-	-	-	-
GY 16	545	21.50	-	286.27	12.48	-	-	307.77	-	-	237	-	-
GY 17	670	-	254.80	348.58	0.52	-	-	603.48	-	-	67	-	-
GY 18	490	60.50	-	210.50	-	-	-	-	-	-	-	-	-
GY 19	625	-	250.28	228.12	-	-	-	-	-	-	-	-	-
GY 20	500	9.21	154.79	307.50	-	-	-	-	-	-	-	-	-
GY 21	430	27.45	-	280.95	-	-	-	-	-	-	-	-	-
GY 22	270	79.60	-	238.66	1.54	-	-	318.26	-	-	-48	-	-
GY 23	240	138.62	-	222.98	-	-	-	-	-	-	-	-	-
GY 25	365.70	-	286.86 [1]	302.16	5.48	-	-	589.02	-	-	-233.3	-	-
GY 27	453.10	6.85	-	381.85	-	-	-	-	-	-	-	-	-
GY 29	382.70	16.00	25.67	379.97	9.16	-	-	421.64	-	-	-39.9	-	-
GY 30	505	30.33	-	244.17	-	-	-	-	-	-	-	-	-
GY 32	400	9.98	-	259.93	7.49	-	-	269.91	-	-	130	-	-
GY 48	340.71	11.14	-	149.41	-	-	-	-	-	-	-	-	-
GY 103	287.60	29.30	-	208.82	-	-	-	-	-	-	-	-	-
GY 104	251.10	11.00	-	161.50	-	-	-	-	-	-	-	-	-
GY 105	466.10	3.50	131.06 [1]	212.04	-	-	-	-	-	-	-	-	-
GY DRA	97.50	-	-	-	-	-	-	-	-	-	-	-	-
63546(MDBiNo.7)	20	-	-	21.0	10.0	16.0	-	21.0	31.0	-	-1	-11	-
86620(MDBiNo.3A)	300	-	19.62	331.01	1.13			350.63	-	-	-51	-	-
40675(MDBiNo.5)	20	4.0	-	212.66	213.84	-	7.55	216.66	-	430.5	-197	-	-411
92637(MDBiNo.4)	80	-	-	23.40	95.25	8.7	-	23.40	118.65	-	57	-39	-
45732(MDBiNo.10)	20	7.0	-	84.84	243.16	-	9.0	91.84	-	335.0	-72	-	-315
S1	10	1.57	-	50.08	-	-	-	-	-	-	-	-	-
S2	10	1.37	-	92.6	-	-	-	-	-	-	-	-	-
S3	38	3.66	1.73 [2]	69.94	-	-	-	-	-	-	-	-	-
S4	5	1.52	-	102.70	167.74	-	-	104.22	-	-	-99	-	-
S5	110	13.41	-	183.22	-	-	-	-	-	-	-	-	-
S6	10	2.13	-	74.07	-	-	-	-	-	-	-	-	-
S7	10	3.66	-	44.88	-	-	-	-	-	-	-	-	-
LL1	58	2.13	-	139.60*	-	3.05	-	-	141.73	-	-	-84	-
LL2	22	0.76	-	169.78*	49.07	-	-	170.54	-	-	-149	-	-
LL3	160	7.62	-	213.66	-	7.62	-	-	221.28	-	-	-61	-

Lower portion of coal measures consists of quartz and quartzofeldspathic sandstones [1] Transgressive dolerite contact [2] Borehole stopped in dolerite

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THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

APPENDIX 4 BOREHOLE LITHOLOGICAL DESCRIPTIONS

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 1

HOLE TYPE	CORE	
EASTING	602,050 M	GRID
NORTHING	5,382,850 M	GRID
ELEVATION	450.00 M	
TOTAL DEPTH DRILLED	335.00 M	
DRILLING STARTED	13/ 5/78	
DRILLING TIME	20 DAYS	
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
0.40	0.40	80		90% CLAY 10% DOLERITE	RED-BROWN. FRAGMENTS. COMPLETELY WEATHERED, SOFT.
0.75	0.35	70		100% DOLERITE	YELLOW-BROWN, HIGHLY WEATHERED, WEAK ROCK.
1.85	1.10	80		100% CLAY	YELLOW-BROWN, COMPLETELY WEATHERED, SOFT.
2.25	0.40	80		100% CLAY	FERRUGINOUS, STAINING, YELLOW-BROWN, MODERATELY WEATHERED, FIRM.
3.65	1.40	70		100% CLAY	FERRUGINOUS, STAINING, WHITE, SLIGHTLY WEATHERED, STIFF.
3.95	0.30	90		100% CLAYSTONE	FERRUGINOUS, STAINING, YELLOW-GREY, MODERATELY WEATHERED, VERY WEAK ROCK.
4.00	0.05	100		100% SANDSTONE	FINE GRAINED, YELLOW-GREY, MODERATELY WEATHERED, WEAK ROCK.
4.50	0.50	70		100% SILTSTONE	FERRUGINOUS, STAINING, WHITE, SLIGHTLY WEATHERED, VERY WEAK ROCK.
4.80	0.30	0		CORE LOSS	
5.50	0.70	80		100% CLAY	FERRUGINOUS, STAINING, LIGHT GREY, SLIGHTLY WEATHERED, FIRM.
6.00	0.50	80		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, SLIGHTLY WEATHERED, VERY WEAK ROCK.
6.50	0.50	70		100% SILTSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, UNWEATHERED, VERY WEAK ROCK.
6.55	0.05	70		100% CLAYSTONE	CARBONACEOUS, DARK GREY, STIFF.
6.65	0.10	70		100% SILTSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, VERY WEAK ROCK.
6.70	0.05	70		100% CLAYSTONE	CARBONACEOUS, DARK GREY, STIFF.
6.85	0.15	70		100% CLAYSTONE	CARBONACEOUS, LAMINAE, GREY, VERY WEAK ROCK.
8.65	1.80	0		CORE LOSS	
8.70	0.05	60		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY.
8.80	0.10	60		100% MUDSTONE	CARBONACEOUS, BLACK, COMPACT.
8.90	0.10	60		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, VERY WEAK ROCK.
9.00	0.10	70		100% SANDSTONE,FINE GRAINED	SILTSTONE, LENSES, LIGHT GREY, VERY WEAK ROCK.
11.55	2.55	70		100% CARBONACEOUS SHALE	COALY, BANDS, BLACK. NOTE: VARIES IN STRENGTH FROM MODERATELY WEAK ROCK TO COMPACT
11.60	0.05	80		100% COAL, HEAVY DULL	CARBONACEOUS, BANDS.
12.10	0.50	70		100% CARBONACEOUS SHALE	COALY, BANDS, BLACK, VERY WEAK ROCK.
12.30	0.20	70		100% COAL, HEAVY DULL	CARBONACEOUS, BANDS.
12.85	0.55	70		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
12.90	0.05	90		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK.
13.20	0.30	70		100% MUDSTONE	CARBONACEOUS, BLACK, VERY WEAK ROCK.
13.30	0.10	80		100% CARBONACEOUS SHALE	
13.33	0.03	90		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	WITH PYRITE ON CLEAT.
13.48	0.15	80		100% MUDSTONE	CARBONACEOUS, BLACK, VERY WEAK ROCK.
13.58	0.10	90		100% COAL, INTERBANDED DULL AND BRIGHT	
13.70	0.12	80		100% MUDSTONE	CARBONACEOUS, BLACK, VERY WEAK ROCK.
14.00	0.30	70		100% CARBONACEOUS SHALE	COALY, LAMINAE.
14.71	0.71	80		100% MUDSTONE	CARBONACEOUS, BLACK, VERY WEAK ROCK.
14.97	0.26	90		100% SILTSTONE	MUDSTONE, LENSES, GREY, VERY WEAK ROCK.
15.60	0.63	100		100% SILTSTONE	GREY, VERY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, WITH LOAD CASTS.
15.90	0.30	100		100% SILTSTONE	GREY, WEAK ROCK, THINLY LAMINATED.
16.15	0.25	100		100% MUDSTONE	SILTSTONE, BANDS, DARK GREY, WEAK ROCK.
16.45	0.30	90		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
17.05	0.60	90		100% MUDSTONE	GREY, WEAK ROCK.
17.25	0.20	100		100% MUDSTONE	DARK GREY, WEAK ROCK.
17.30	0.05	100		100% MUDSTONE	GREY, WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS.
17.32	0.02	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, DARK GREY, WEAK ROCK, WITH LOAD CASTS.
17.76	0.44	100		70% SILTSTONE 30% MUDSTONE	GREY. GREY. WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS.
17.86	0.10	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, GREY, WEAK ROCK.
18.18	0.32	100		50% SANDSTONE 50% MUDSTONE	FINE GRAINED, GREY. GREY. WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS.
18.57	0.39	100		90% SANDSTONE 10% MUDSTONE	VERY FINE GRAINED, GREY. GREY. WEAK ROCK, THINLY LAMINATED.
18.60	0.03	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, WEAK ROCK.
18.78	0.18	100		100% SILTSTONE	SANDSTONE, LAMINAE, GREY, WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
18.81	0.03	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, WEAK ROCK.
18.94	0.13	100		50% SILTSTONE 50% SANDSTONE	GREY. MED.-FINE GRAINED, GREY. WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
18.99	0.05	100		100% SILTSTONE	SANDSTONE, LENSES, GREY, WEAK ROCK.
19.03	0.04	100		100% SANDSTONE	MEDIUM GRAINED, GREY, WEAK ROCK.
19.07	0.04	100		60% SILTSTONE 40% SANDSTONE	GREY. MED.-FINE GRAINED, GREY. WEAK ROCK, THINLY LAMINATED.
19.09	0.02	100		100% SILTSTONE	GREY.
19.14	0.05	100		60% SILTSTONE 40% SANDSTONE	GREY. FINE GRAINED, GREY. WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS.
19.25	0.11	100		50% SILTSTONE 50% SANDSTONE	GREY. FINE GRAINED, GREY. WEAK ROCK, THINLY LAMINATED.
19.27	0.02	100		100% SILTSTONE	GREY, WEAK ROCK.
19.30	0.03	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, WEAK ROCK.
19.33	0.03	100		100% SILTSTONE	GREY, WEAK ROCK, WITH LOAD CASTS.
19.46	0.13	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, GREY, WEAK ROCK.
19.50	0.04	100		100% MUDSTONE	SANDSTONE, BANDS, DARK GREY, WEAK ROCK, WITH LOAD CASTS.
19.52	0.02	100		100% SANDSTONE	MEDIUM GRAINED, GREY, WEAK ROCK, WITH LOAD CASTS.
19.54	0.02	100		100% SILTSTONE	SANDSTONE, LAMINAE, GREY, WEAK ROCK, WITH LOAD CASTS.
19.67	0.13	100		100% SANDSTONE	MEDIUM GRAINED, GREY, WEAK ROCK.
19.70	0.03	100		100% SILTSTONE	GREY, WEAK ROCK.
19.72	0.02	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, WEAK ROCK.
19.90	0.18	100		70% SILTSTONE 30% SANDSTONE	GREY. MED.-FINE GRAINED, GREY. WEAK ROCK, THICKLY LAMINATED, WITH LOAD CASTS.
20.00	0.10	100		80% SANDSTONE 20% SILTSTONE	MED.-FINE GRAINED, GREY. GREY. WEAK ROCK, THICKLY LAMINATED.
20.12	0.12	100		50% SANDSTONE 50% SILTSTONE	MED.-FINE GRAINED, GREY. GREY. WEAK ROCK, THINLY LAMINATED.
20.20	0.08	100		100% SILTSTONE	SANDSTONE, LAMINAE, GREY, WEAK ROCK, THINLY LAMINATED.
20.23	0.03	100		50% SANDSTONE 50% SANDSTONE	FINE GRAINED, GREY. FINE GRAINED, LIGHT GREEN. WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
20.45	0.22	100		90% SANDSTONE 10% SANDSTONE	VERY FINE GRAINED, GREY. VERY FINE GRAINED, LIGHT GREEN. WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS, WITH CROSS LAMINATION.
20.87	0.42	100		100% CLAYSTONE	STIFF, THINLY LAMINATED. NOTE: GRADING FROM GREY TO GREEN: SHARP BASAL CONTACT
20.95	0.08	70		100% PEBBLE CONGLOMERATE	WEAKLY CEMENTED. NOTE: GREEN COARSE GRAINED GROUNDMASS
21.60	0.65	0		CORE LOSS	
22.10	0.50	70		100% PEBBLE CONGLOMERATE	WEAKLY CEMENTED. NOTE: YELLOW COARSE GRAINED GROUNDMASS, PEBBLES MAINLY ROCK FRAGMENTS & QUARTZ WITH MINOR FELDSPAR
23.10	1.00	0		CORE LOSS	
23.89	0.79	100		100% SANDSTONE	VERY COARSE GRAINED, GREY-GREEN, MODERATELY STRONG ROCK, THICKLY LAMINATED, BEDS DIP 20 DEG., VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
23.93	0.04	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREEN, MODERATELY WEAK ROCK.
24.07	0.14	100		100% SANDSTONE	VERY COARSE GRAINED, GREY-GREEN, MODERATELY STRONG ROCK.
24.17	0.10	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREEN, MODERATELY STRONG ROCK.
24.37	0.20	100		100% SANDSTONE,COARSE GRAINED	MUDSTONE, LAMINAE, LIGHT GREEN, MODERATELY STRONG ROCK.
24.68	0.31	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LAMINAE, GREY-BROWN, MODERATELY STRONG ROCK.
24.70	0.02	100		100% COAL, HEAVY DULL	SANDSTONE, BANDS.
24.87	0.17	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, STRONG ROCK. NOTE: WITH COALY LENSES AND NUMEROUS MUDSTONE PEBBLES IN BASAL 5 CM, BASAL CONTACT DIPPING AT 30 DEG.
26.72	1.85	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK. NOTE: WITH CARBONACEOUS FRAGMENTS IN DISCRETE BANDS
26.78	0.06	0		CORE LOSS	
26.88	0.10	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
26.93	0.05	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, WEAK ROCK, WITH LOAD CASTS.
27.00	0.07	0		CORE LOSS	
27.87	0.87	100		100% SANDSTONE	MEDIUM GRAINED, BUFF, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
					NOTE: SILICEOUS CEMENT
27.95	0.08	100		100% CLAY	BUFF, SOFT.
27.98	0.03	100		100% CLAY	LIGHT BROWN, WITH FRAGMENTS OF QUARTZ, SOFT.
28.35	0.37	100		60% MUDSTONE 30% CARBONACEOUS SHALE 10% MUDSTONE	CARBONACEOUS, BLACK. BROWN. MODERATELY WEAK ROCK, THICKLY LAMINATED.
28.47	0.12	0		CORE LOSS	
28.66	0.19	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, GREY-BROWN, WEAK ROCK.
29.60	0.94	100		100% MUDSTONE	SILTSTONE, BANDS, GREY, THINLY LAMINATED, WITH CROSS LAMINATION, CLOSELY SPACED JOINTS, TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
29.80	0.20	100		100% SILTSTONE	GREY, WEAK ROCK, CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
29.95	0.15	80		100% CLAYSTONE	GREY, STIFF, VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
30.35	0.40	100		100% SANDSTONE	VERY FINE GRAINED, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
30.40	0.05	80		100% CLAYSTONE	GREY, *****, STIFF, VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
30.55	0.15	100		100% SILTSTONE	GREY, WEAK ROCK, CLOSELY SPACED JOINTS, TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
31.00	0.45	80		100% MUDSTONE	GREY, WEAK ROCK, THINLY LAMINATED, CLOSELY SPACED JOINTS, TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
31.20	0.20	100		100% SANDSTONE	VERY FINE GRAINED, GREY-BROWN, VERY WEAK ROCK.
31.43	0.23	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, STREAKS, GREY, WEAK ROCK.
31.48	0.05	100		100% SANDSTONE	VERY FINE GRAINED, GREY-BROWN, VERY WEAK ROCK.
31.62	0.14	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, FRIABLE, GREY, WEAK ROCK, WITH LOAD CASTS.
31.72	0.10	100		40% SANDSTONE 40% MUDSTONE 20% SANDSTONE	VERY FINE GRAINED, GREY-BROWN. CARBONACEOUS, BLACK. FINE GRAINED, GREY. VERY WEAK ROCK, WITH LOAD CASTS.
31.89	0.17	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK.
32.00	0.11	100		100% CLAYSTONE	LIGHT GREEN, FIRM.
32.08	0.08	0		CORE LOSS	
32.10	0.02	100		100% CLAYSTONE	GREY-BROWN, STIFF.
32.13	0.03	100		100% COAL, HEAVY DULL	
32.22	0.09	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
32.65	0.43	100		100% CLAYSTONE	GREY-BROWN, WEAK ROCK, CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
32.72	0.07	100		100% SILTSTONE	GREY, WEAK ROCK.
32.76	0.04	100		100% SANDSTONE	FINE GRAINED, GREY, WEAK ROCK.
32.93	0.17	100		100% SILTSTONE	SANDSTONE, LAMINAE, GREY, WEAK ROCK.
33.53	0.60	100		100% MUDSTONE	SANDSTONE, LAMINAE, GREY, WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS.
35.33	1.80	100		100% SANDSTONE	COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 10 DEG.
37.10	1.77	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 10 DEG., WITH CROSS LAMINATION.
37.20	0.10	100		100% SANDSTONE	VERY COARSE GRAINED, GREY-GREEN, MODERATELY WEAK ROCK. NOTE: WITH MUDSTONE PEBBLES
37.27	0.07	100		100% SANDSTONE	VERY COARSE GRAINED, GREY-GREEN, MODERATELY WEAK ROCK. NOTE: BASAL CONTACT DIPPING AT 20 DEG.
37.42	0.15	100		100% SANDSTONE	MED.-COARSE GRAINED, ARGILLACEOUS, GREY-GREEN, WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 20 DEG.
37.54	0.12	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK, VERY THINLY BEDDED, BEDS DIP 30 DEG.
37.67	0.13	100		100% SANDSTONE	MED.-FINE GRAINED, ARGILLACEOUS, LIGHT GREEN, WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 30 DEG.
37.95	0.28	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK, VERY THINLY BEDDED, BEDS DIP 20 DEG.
38.10	0.15	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREEN, MODERATELY WEAK ROCK. NOTE: WITH MUDSTONE PEBBLES
40.17	2.07	100		100% SANDSTONE,COARSE GRAINED	SILTSTONE, STREAKS, LIGHT GREEN, MODERATELY WEAK ROCK.
40.37	0.20	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREEN, MODERATELY WEAK ROCK.
43.56	3.19	100		100% SANDSTONE	COARSE GRAINED, LIGHT GREEN, MODERATELY STRONG ROCK. NOTE: EXTENSIVE ORANGE STAINING
43.76	0.20	0		CORE LOSS	
43.79	0.03	100		100% SANDSTONE	COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
43.96	0.17	100		70% SILTSTONE 30% SILTSTONE	DARK GREY. LIGHT GREY. WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
44.30	0.34	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, LAMINAE, LIGHT GREY, WEAK ROCK, WITH CROSS LAMINATION.
44.50	0.20	100		100% SANDSTONE,COARSE GRAINED	MUDSTONE, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
44.66	0.16	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK. NOTE: WITH MUDSTONE PEBBLES
44.68	0.02	100		70% MUDSTONE 30% SANDSTONE	DARK GREY. MEDIUM GRAINED, LIGHT GREY. WEAK ROCK, THINLY LAMINATED, BEDS DIP 30 DEG.
44.80	0.12	100		100% SANDSTONE	COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK. NOTE: WITH MUDSTONE PEBBLES AT TOP AND BASE
44.81	0.01	100		100% COAL, HEAVY DULL	
45.09	0.28	100		100% SANDSTONE	COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK. NOTE: WITH BANDS OF MUDSTONE PEBBLES AND CARBONACEOUS FRAGMENTS
45.29	0.20	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK. NOTE: WITH BANDS OF MUDSTONE PEBBLES AND CARBONACEOUS FRAGMENTS
45.60	0.31	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
45.90	0.30	100		50% MUDSTONE 50% SANDSTONE	DARK GREY. MED.-COARSE GRAINED, LIGHT GREY. WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
46.60	0.70	100		100% SILTSTONE	MUDSTONE, LENSES, GREY, WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
46.66	0.06			100% MUDSTONE	CARBONACEOUS, BLACK, WEAKLY CEMENTED.
46.81	0.15			100% MUDSTONE	DARK GREY, VERY WEAK ROCK.
47.54	0.73			100% SILTSTONE	GREY, WEAK ROCK.
47.71	0.17			100% SILTSTONE	DARK GREY, WEAK ROCK.
47.75	0.04			100% MUDSTONE	CARBONACEOUS, BLACK, STIFF.
47.82	0.07			80% MUDSTONE 20% SANDSTONE	COALY, LAMINAE, DARK GREY. MEDIUM GRAINED, LIGHT BROWN. VERY WEAK ROCK.
48.04	0.22			100% CARBONACEOUS SHALE	
48.06	0.02			100% SANDSTONE	FINE GRAINED, GREY, WEAK ROCK.
48.15	0.09			100% CARBONACEOUS SHALE	
48.21	0.06			100% SILTSTONE	LIGHT BROWN, VERY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 10 DEG.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
48.34	0.13			100% CARBONACEOUS SHALE	
48.38	0.04			100% COAL, HEAVY DULL	
48.43	0.05			100% CARBONACEOUS SHALE	
48.46	0.03			100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
48.59	0.13			100% CARBONACEOUS SHALE	
48.61	0.02			100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, STIFF.
48.73	0.12			100% CARBONACEOUS SHALE	
48.78	0.05			100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, VERY WEAK ROCK.
48.84	0.06			100% CARBONACEOUS SHALE	
49.10	0.26			100% MUDSTONE	DARK GREY, VERY WEAK ROCK.
49.90	0.80			100% MUDSTONE	GREY, VERY WEAK ROCK.
50.10	0.20	0		CORE LOSS	
50.33	0.23	100		100% MUDSTONE	SILTSTONE, FRIABLE, GREY, VERY WEAK ROCK.
50.64	0.31	100		100% MUDSTONE	SILTSTONE, GREY, VERY WEAK ROCK.
50.92	0.28	100		100% MUDSTONE	DARK GREY, VERY WEAK ROCK.
50.94	0.02	100		100% CARBONACEOUS SHALE	MUDSTONE, LENSES, BEDS DIP 20 DEG.
51.19	0.25	100		100% MUDSTONE	GREY-GREEN, VERY WEAK ROCK.
51.27	0.08	100		100% CLAYSTONE	CARBONACEOUS, BANDS, BUFF, FIRM, BEDS DIP 10 DEG.
51.28	0.01	100		100% CARBONACEOUS SHALE	MUDSTONE, BANDS, BEDS DIP 10 DEG.
51.31	0.03	100		100% MUDSTONE	DARK GREY, VERY WEAK ROCK, BEDS DIP 10 DEG., WITH CARBONACEOUS WISPS, WITH LOAD CASTS.
51.32	0.01	100		100% MUDSTONE	COALY, LENSES, GREY, VERY WEAK ROCK, BEDS DIP 10 DEG., WITH CARBONACEOUS WISPS, WITH LOAD CASTS.
51.41	0.09	100		100% CARBONACEOUS SHALE	MUDSTONE, BANDS, BEDS DIP 10 DEG., WITH LOAD CASTS.
51.60	0.19	0		CORE LOSS	
51.63	0.03	60		100% CARBONACEOUS SHALE	MUDSTONE, BANDS.
51.66	0.03	100		100% MUDSTONE	CARBONACEOUS, LENSES, DARK GREY, VERY WEAK ROCK, BEDS DIP 10 DEG.
51.72	0.06	100		100% MUDSTONE	COALY, LENSES, GREY, VERY WEAK ROCK, WITH LOAD CASTS.
51.87	0.15	80		100% CARBONACEOUS SHALE	COALY, BANDS.
51.92	0.05	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, VERY WEAK ROCK.
51.98	0.06			100% SILTSTONE	MUDSTONE, LAMINAE, GREY, WEAK ROCK, WITH FLAME/PULL STRUCTS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
52.11	0.13			100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, WITH LOAD CASTS, WITH CARBONACEOUS WISPS.
52.91	0.80			80% SANDSTONE 15% MUDSTONE 5% CARBONACEOUS SHALE	MED.-FINE GRAINED, GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
53.10	0.19			100% MUDSTONE	GREY, WEAK ROCK.
54.47	1.37	100		80% SANDSTONE 20% MUDSTONE	MED.-FINE GRAINED, GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
54.60	0.13	100		70% MUDSTONE 30% SANDSTONE	GREY. FINE GRAINED, GREY. WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
54.79	0.19	100		50% MUDSTONE 50% SANDSTONE	GREY. FINE GRAINED, GREY. WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
54.99	0.20	100		100% SILTSTONE	SANDSTONE, LENSES, GREY, WEAK ROCK, THICKLY LAMINATED, BEDS DIP 10 DEG., WITH CROSS LAMINATION.
55.11	0.12	100		80% SANDSTONE 20% SILTSTONE	COARSE GRAINED, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 10 DEG., WITH CROSS LAMINATION, WITH CARBONACEOUS WISPS.
55.40	0.29	100		100% SANDSTONE	COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, BEDS DIP 10 DEG., WITH CARBONACEOUS WISPS.
55.47	0.07	100		100% SANDSTONE	MEDIUM GRAINED, LIGHT GREY, WEAK ROCK, WITH CROSS LAMINATION, WITH CARBONACEOUS WISPS.
55.48	0.01	100		100% SANDSTONE	COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
55.63	0.15	100		100% SANDSTONE	MEDIUM GRAINED, LIGHT GREY, WEAK ROCK, WITH CROSS LAMINATION.
55.80	0.17	100		100% SANDSTONE	COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
55.85	0.05	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, GREY, WEAK ROCK, WITH CROSS LAMINATION.
57.68	1.83	100		100% SANDSTONE	COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS. NOTE: BASAL CONTACT DIPPING AT 20 DEG. LARGE SILTSTONE LENSE NEAR BASE
57.83	0.15	100		100% SILTSTONE	GREY, WEAK ROCK, THINLY LAMINATED, BEDS DIP 20 DEG., WITH CROSS LAMINATION. NOTE: LARGE SANDSTONE LENSE NEAR BASE
57.95	0.12	100		100% SANDSTONE,COARSE GRAINED	MUDSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK. NOTE: BASAL CONTACT DIPPING AT 20 DEG.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
58.00	0.05	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 20 DEG.
				NOTE:	WITH NUMEROUS COAL AND MUDSTONE LENSES
59.10	1.10	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 20 DEG.
64.80	5.70	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, VERY THINLY BEDDED, BEDS DIP 20 DEG.
				NOTE:	WITH OCCASIONAL MUDSTONE AND CARBONACEOUS FRAGMENTS ON BEDDING PLANES
64.92	0.12	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
				NOTE:	WITH NUMEROUS CARBONACEOUS FRAGMENTS AND MUDSTONE PEBBLES
65.10	0.18	0		CORE LOSS	
65.22	0.12	80		100% SANDSTONE,COARSE GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
				NOTE:	WITH NUMEROUS CARBONACEOUS FRAGMENTS AND MUDSTONE PEBBLES
65.36	0.14	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, BANDS, LIGHT GREY, WEAK ROCK, WITH CROSS LAMINATION.
65.62	0.26	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
				NOTE:	WITH NUMEROUS MUDSTONE PEBBLES AND COAL LENSES
65.66	0.04	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, LAMINAE, LIGHT GREY, WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
65.81	0.15	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
				NOTE:	WITH NUMEROUS MUDSTONE PEBBLES AND COAL LENSES
66.13	0.32	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, WEAK ROCK.
66.17	0.04	100		100% SANDSTONE	VERY FINE GRAINED, GREY, WEAK ROCK.
66.20	0.03	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
66.35	0.15	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.
66.60	0.25	100		100% SILTSTONE	GREY, WEAK ROCK.
66.63	0.03	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
67.09	0.46	100		100% SANDSTONE,MEDIUM GRAINED	COALY, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
67.34	0.25	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, BEDS DIP 20 DEG.
				NOTE:	WITH NUMEROUS MUDSTONE PEBBLES AND COAL LENSES, TRUNCATED UPPER CONTACT
68.31	0.97	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
68.53	0.22	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
				NOTE:	WITH ABUNDANT COAL STREAKS AND LENSES
68.83	0.30	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
				NOTE:	WITH ABUNDANT COAL STREAKS AND LENSES AND MUDSTONE PEBBLES
69.05	0.22	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
					NOTE: WITH ABUNDANT MUDSTONE PEBBLES IN BASAL 3 CM
69.10	0.05	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
69.54	0.44	100		100% SANDSTONE,COARSE GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
69.65	0.11	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
70.15	0.50	80		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
70.17	0.02	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, STIFF.
70.30	0.13	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
70.37	0.07	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, VERY WEAK ROCK.
70.42	0.05	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
70.66	0.24	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, FIRM.
70.77	0.11	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
70.88	0.11	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BUFF, FIRM.
71.05	0.17	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
71.10	0.05	0		CORE LOSS	
71.14	0.04	100		100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, FIRM.
71.60	0.46	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY-GREEN, STIFF.
71.63	0.03	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, VERY WEAK ROCK.
71.90	0.27	80		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
72.00	0.10	0		CORE LOSS	
72.03	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
72.08	0.05	100		100% MUDSTONE	DARK GREY, WEAK ROCK, WITH FLAME/PULL STRUCTS.
72.26	0.18	100		100% MUDSTONE	GREY, WEAK ROCK.
					NOTE: WITH NUMEROUS MUDSTONE AND CARBONACEOUS FRAGMENTS AT TOP AND BASE, BASAL CONTACT RIPPLED AND DIPPING AT 20 DEG.
72.38	0.12	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK, WITH RIPPLES, WITH LOAD CASTS.
72.82	0.44	100		100% SILTSTONE	COALY, LENSES, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
73.27	0.45	100		70% SANDSTONE 30% SILTSTONE	FINE GRAINED, LIGHT GREY. GREY. WEAK ROCK, THICKLY LAMINATED.
74.10	0.83	100		100% SILTSTONE	GREY, WEAK ROCK.
75.16	1.06	100		100% SILTSTONE	SANDSTONE, BANDS, GREY, WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS.
75.29	0.13	100		100% MUDSTONE	DARK GREY, VERY WEAK ROCK, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
75.31	0.02	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
75.33	0.02	100		100% MUDSTONE	DARK GREY, SOFT.
75.39	0.06	100		100% MUDSTONE	CARBONACEOUS, STREAKS, CREAM, SOFT.
75.60	0.21	80		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
75.69	0.09	100		100% CARBONACEOUS SHALE	MUDSTONE, LENSES.
75.93	0.24	100		100% MUDSTONE	DARK GREY, WEAK ROCK.
76.03	0.10	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, FIRM.
76.12	0.09	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK. NOTE: JOINT WITH SLICKENSIDES AT BASE
77.02	0.90	100		100% SANDSTONE	VERY FINE GRAINED, GREY, WEAK ROCK.
77.36	0.34	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, WEAK ROCK.
77.51	0.15	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, WEAK ROCK, WITH CROSS LAMINATION.
78.66	1.15	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, WEAK ROCK.
80.10	1.44	100		100% SILTSTONE	GREY, WEAK ROCK.
80.22	0.12	100		100% MUDSTONE	LIGHT GREY, VERY WEAK ROCK.
81.72	1.50	100		100% SILTSTONE	GREY, WEAK ROCK.
81.83	0.11	100		100% SANDSTONE,COARSE GRAINED	GREY-BROWN, MODERATELY WEAK ROCK, WITH FLAME/PULL STRUCTS. NOTE: WITH ABUNDANT MUDSTONE AND CARBONACEOUS FRAGMENTS
82.26	0.43	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	GREY. GREY. WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
82.72	0.46	100		100% SILTSTONE	GREY, WEAK ROCK.
82.82	0.10	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, GREY, WEAK ROCK.
82.96	0.14	100		100% MUDSTONE	SILTSTONE, DARK GREY, WEAK ROCK.
83.05	0.09	100		80% SILTSTONE 20% SANDSTONE	GREY. MED.-FINE GRAINED, LIGHT GREY. WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
83.10	0.05	100		100% SANDSTONE,FINE GRAINED	GREY, WEAK ROCK. NOTE: WITH COARSE SANDSTONE LENSES AND ABUNDANT MUDSTONE FRAGMENTS
83.15	0.05	100		100% SANDSTONE,MEDIUM GRAINED	DARK GREY, WEAK ROCK. NOTE: WITH NUMEROUS COAL AND MUDSTONE FRAGMENTS
83.23	0.08	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, DARK GREY, WEAK ROCK. NOTE: WITH COARSE SANDSTONE LENSES
83.36	0.13	100		100% SILTSTONE	GREY-BROWN, MODERATELY WEAK ROCK. NOTE: WITH ABUNDANT MUDSTONE PEBBLES AND FRAGMENTS

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
83.82	0.46	100		100% SILTSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
					NOTE: WITH NUMEROUS CARBONACEOUS AND MUDSTONE FRAGMENTS
83.88	0.06	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK.
83.91	0.03	100		100% MUDSTONE	LIGHT BROWN, SOFT.
83.99	0.08	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK.
84.02	0.03	100		100% MUDSTONE	BROWN, VERY WEAK ROCK.
84.15	0.13	100		100% CLAYSTONE	LIGHT BROWN, FIRM.
84.18	0.03	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
84.60	0.42	100		100% SILTSTONE	GREY-GREEN, WEAK ROCK, CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
85.00	0.40	100		100% SILTSTONE	MUDSTONE, BANDS, GREY-GREEN, WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
85.95	0.95	100		100% CLAYSTONE	GREY-GREEN, FIRM.
86.45	0.50	100		100% SILTSTONE	COALY, FRIABLE, GREY-GREEN, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
86.65	0.20	100		100% SANDSTONE,MEDIUM GRAINED	GREY, WEAK ROCK.
86.76	0.11	100		100% SANDSTONE,FINE GRAINED	GREY-GREEN, WEAK ROCK.
86.94	0.18	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY-GREEN, WEAK ROCK.
87.02	0.08	100		100% MUDSTONE	GREY-GREEN, WEAK ROCK.
87.10	0.08	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
87.15	0.05	100		100% MUDSTONE	GREY, WEAK ROCK.
87.20	0.05	100		100% SILTSTONE	SANDSTONE, LENSES, BROWN, WEAK ROCK.
87.30	0.10	100		50% SANDSTONE,MEDIUM GRAINED 50% SILTSTONE	SILTSTONE, FRIABLE, LIGHT GREY. GREY. WEAK ROCK.
					NOTE: INTERFINGURING OF SANDSTONE WITH SILTSTONE
89.10	1.80	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 10 DEG.
89.85	0.75	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 10 DEG., WITH CROSS LAMINATION, WITH CARBONACEOUS WISPS.
94.94	5.09	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, THICKLY LAMINATED, BEDS DIP 10 DEG., WIDELY SPACED JOINTS, TIGHT NON PLANAR, INFILLED WITH CALCITE.
95.17	0.23	100		100% CLAYSTONE	COALY, LENSES, GREY-GREEN, STIFF.
95.59	0.42	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
96.60	1.01	100		100% SANDSTONE,COARSE GRAINED	GREY, MODERATELY STRONG ROCK. NOTE: WITH ABUNDANT COAL LENSES AND MUDSTONE FRAGMENTS
96.86	0.26	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, GREY, MODERATELY WEAK ROCK.
96.94	0.08	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY STRONG ROCK.
97.10	0.16	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, GREY, MODERATELY WEAK ROCK.
97.21	0.11	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY STRONG ROCK, BEDS DIP 20 DEG.
97.31	0.10	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, MODERATELY WEAK ROCK, BEDS DIP 20 DEG.
97.45	0.14	100		100% SANDSTONE,COARSE GRAINED	MUDSTONE, LENSES, LIGHT GREY, MODERATELY STRONG ROCK, BEDS DIP 20 DEG.
97.55	0.10	100		100% SANDSTONE,COARSE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY STRONG ROCK, BEDS DIP 20 DEG.
97.65	0.10	100		100% SANDSTONE,COARSE GRAINED	MUDSTONE, LENSES, GREY, MODERATELY STRONG ROCK.
97.75	0.10	100		100% SANDSTONE	MED.-COARSE GRAINED, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, BEDS DIP 0 DEG.
98.85	1.10	100		100% SANDSTONE,COARSE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY STRONG ROCK. NOTE: WITH CARBONACEOUS AND MUDSTONE FRAGMENTS
99.30	0.45	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
99.55	0.25	100		100% SILTSTONE	GREY, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
101.10	1.55	100		100% SILTSTONE	GREY, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: SOME JOINTS INFILLED WITH CALCITE
101.60	0.50	100		100% DOLERITE	VERY FINE GRAINED, DARK GREY, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
103.00	1.40	100		100% DOLERITE	MED.-FINE GRAINED, DARK GREY, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
103.50	0.50	90		100% DOLERITE	VERY FINE GRAINED, GREY, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
104.35	0.85	80		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK. NOTE: CONTAINS COAL BAND WITH NUMEROUS JOINTS INFILLED WITH CALCITE,COAL APPEARS BURNT, SURROUNDING MUDSTONE HAS PURPLE TINT
105.26	0.91	100		100% SILTSTONE	LIGHT GREY, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
					NOTE: IRREGULAR STEEPLY ANGLED BASAL CONTACT
		TOP OF	DALMAYNE B : 344.74 M R.L.		
106.00	0.74	70		100% COAL	BURNT. NOTE: FINE CALCITE FILLED JOINTS IN TOP 3 CM.
108.00	2.00	0		CORE LOSS	
108.20	0.20	80		100% CARBONACEOUS SHALE	
110.00	1.80	100		100% SILTSTONE	GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
112.28	2.28	100		100% SILTSTONE	GREY, WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS.
113.04	0.76	100		100% MUDSTONE	SANDSTONE, BANDS, BLACK, WEAK ROCK, THINLY LAMINATED, BEDS DIP 10 DEG.
113.10	0.06	100		100% CARBONACEOUS SHALE	
113.23	0.13	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
113.67	0.44	100		100% SILTSTONE	GREY, WEAK ROCK.
113.91	0.24	100		100% MUDSTONE	DARK GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
114.10	0.19	100		100% MUDSTONE	GREY-GREEN, WEAK ROCK.
114.20	0.10	100		100% CLAYSTONE	GREY-GREEN, STIFF.
114.30	0.10	100		100% SILTSTONE	GREY-GREEN, VERY WEAK ROCK.
114.45	0.15	100		100% MUDSTONE	GREY, VERY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, WITH SLICKENSIDES.
114.62	0.17	100		100% MUDSTONE	GREY-BROWN, VERY WEAK ROCK.
114.74	0.12	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
114.77	0.03	100		100% CARBONACEOUS SHALE	
114.82	0.05	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, VERY WEAK ROCK.
114.85	0.03	100		100% COAL, HEAVY DULL	
114.97	0.12	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, VERY WEAK ROCK.
115.05	0.08	100		100% CARBONACEOUS SHALE	
115.22	0.17	100		100% MUDSTONE	GREY, WEAK ROCK.
115.31	0.09	100		100% CARBONACEOUS SHALE	MUDSTONE, BANDS.
115.35	0.04	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, WEAK ROCK.
115.36	0.01	100		100% COAL, HEAVY DULL	BRIGHT COAL, CONCRETIONS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
115.43	0.07	100		100% MUDSTONE	COALY, LENSES, DARK GREY, VERY WEAK ROCK.
				BASE OF DALMAYNE B : THICKNESS= 10.17 M; SAMPLED THICKNESS= 0.00 M	
115.46	0.03	100		60% SANDSTONE 40% MUDSTONE	FINE GRAINED, LIGHT GREY. GREY. MODERAYELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINAYION.
115.57	0.11	100		100% MUDSTONE	SANDSTONE, BANDS, GREY, WEAK ROCK.
115.59	0.02	100		100% MUDSTONE	LIGHT BROWN, STIFF, EXTREMELY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, WITH SLICKENSIDES.
115.68	0.09	100		100% MUDSTONE	DARK GREY, WEAK ROCK.
115.90	0.22	100		60% SANDSTONE 40% MUDSTONE	FINE GRAINED, LIGHT GREY. CARBONACEOUS, BLACK. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
116.02	0.12	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
116.26	0.24	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY WEAK ROCK, WITH FLAME/PULL STRUCTS.
				NOTE: WITH LARGE MEDIUM GRAINED SANDSTONE LENSES	
119.35	3.09	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
120.40	1.05	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY STRONG ROCK.
121.00	0.60	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
121.90	0.90	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
				NOTE: WITH NUMEROUS CARBONACEOUS LENSES AND MUDSTONE FRAGMENTS	
127.36	5.46	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
128.66	1.30	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
128.72	0.06	100		100% MUDSTONE	GREY, WEAK ROCK.
128.78	0.06	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
				NOTE: WITH ABUNDANT MUDSTONE PEBBLES	
129.38	0.60	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
130.20	0.82	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
				NOTE: WITH NUMEROUS COALY FRAGMENTS AND LENSES	
130.35	0.15	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
				NOTE: WITH ABUNDANT COALY LENSES	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
				TOP OF DALMAYNE C : 319.65 M R.L.	
130.49	0.14	100		100% COAL, DULL	
130.57	0.08	100		100% MUDSTONE	LIGHT BROWN, STIFF.
130.82	0.25	100		100% CARBONACEOUS SHALE	
130.83	0.01	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.
130.87	0.04	100		100% CARBONACEOUS SHALE	
130.88	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
130.90	0.02	100		100% CARBONACEOUS SHALE	MUDSTONE, FRIABLE.
130.92	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
131.00	0.08	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
131.07	0.07	100		100% COAL, HEAVY DULL	
131.10	0.03	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
131.13	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
131.19	0.06	100		100% CARBONACEOUS SHALE	
131.21	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
131.31	0.10	100		100% CARBONACEOUS SHALE	
131.43	0.12	100		100% MUDSTONE	BRIGHT COAL, STREAKS, BLACK, STRONG ROCK.
131.47	0.04	100		100% COAL, HEAVY DULL	
131.50	0.03	100		100% MUDSTONE	LIGHT BROWN.
131.70	0.20	100		100% MUDSTONE	CARBONACEOUS, BLACK, STRONG ROCK.
131.84	0.14	100		100% CARBONACEOUS SHALE	
131.85	0.01	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
131.91	0.06	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
131.95	0.04	100		100% COAL, HEAVY DULL	MUDSTONE, BANDS.
131.97	0.02	100		100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, MODERATELY WEAK ROCK.
132.00	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
132.04	0.04	100		100% CARBONACEOUS SHALE	BRIGHT COAL, LENSES.
132.08	0.04	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
132.10	0.02	100		100% CARBONACEOUS SHALE	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
132.14	0.04	100		100% CARBONACEOUS SHALE	BRIGHT COAL, LENSES.
132.18	0.04	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
132.21	0.03	100		100% CARBONACEOUS SHALE	
				BASE OF DALMAYNE C : THICKNESS= 1.86 M; SAMPLED THICKNESS= 0.00 M	
132.22	0.01	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE C : 317.78 M R.L.	
132.34	0.12	100		100% MUDSTONE	CARBONACEOUS, BLACK, STRONG ROCK.
				BASE OF DALMAYNE C : THICKNESS= 0.12 M; SAMPLED THICKNESS= 0.00 M	
132.39	0.05	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE C : 317.61 M R.L.	
132.78	0.39	100		100% MUDSTONE	CARBONACEOUS, BLACK, STRONG ROCK.
				BASE OF DALMAYNE C : THICKNESS= 0.39 M; SAMPLED THICKNESS= 0.00 M	
133.03	0.25	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE C : 316.97 M R.L.	
133.21	0.18	100		100% MUDSTONE	CARBONACEOUS, BLACK, STRONG ROCK.
				BASE OF DALMAYNE C : THICKNESS= 0.18 M; SAMPLED THICKNESS= 0.00 M	
133.23	0.02	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE C : 316.77 M R.L.	
133.26	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, STRONG ROCK.
				BASE OF DALMAYNE C : THICKNESS= 0.03 M; SAMPLED THICKNESS= 0.00 M	
133.27	0.01	100		100% COAL, DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
			TOP OF DALMAYNE C : 316.73 M R.L.		
133.29	0.02	100		100% MUDSTONE	CARBONACEOUS.
			BASE OF DALMAYNE C : THICKNESS= 0.02 M; SAMPLED THICKNESS= 0.00 M		
133.30	0.01	100		100% COAL, BRIGHT	
			TOP OF DALMAYNE C : 316.70 M R.L.		
133.41	0.11	100		100% COAL, HEAVY DULL	
			BASE OF DALMAYNE C : THICKNESS= 0.11 M; SAMPLED THICKNESS= 0.00 M		
133.42	0.01	100		100% MUDSTONE	CARBONACEOUS.
			TOP OF DALMAYNE C : 316.58 M R.L.		
133.47	0.05	100		100% SILTSTONE	CARBONACEOUS, STREAKS, LIGHT GREY.
			BASE OF DALMAYNE C : THICKNESS= 0.05 M; SAMPLED THICKNESS= 0.00 M		
133.64	0.17	100		100% MUDSTONE	CARBONACEOUS, BLACK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
			TOP OF DALMAYNE C : 316.36 M R.L.		
133.76	0.12	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
			BASE OF DALMAYNE C : THICKNESS= 0.12 M; SAMPLED THICKNESS= 0.00 M		
133.80	0.04	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
			TOP OF DALMAYNE C : 316.20 M R.L.		
133.81	0.01	100		100% MUDSTONE	CARBONACEOUS, BLACK.
			BASE OF DALMAYNE C : THICKNESS= 0.01 M; SAMPLED THICKNESS= 0.00 M		

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
133.82	0.01	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY-BROWN, MODERATELY STRONG ROCK.
				TOP OF DALMAYNE C : 316.18 M R.L.	
133.86	0.04	100		100% MUDSTONE	CARBONACEOUS, BLACK.
				BASE OF DALMAYNE C : THICKNESS= 0.04 M; SAMPLED THICKNESS= 0.00 M	
133.96	0.10	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
				TOP OF DALMAYNE C : 316.04 M R.L.	
133.97	0.01	100		100% COAL, BRIGHT	
				BASE OF DALMAYNE C : THICKNESS= 0.01 M; SAMPLED THICKNESS= 0.00 M	
134.00	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
				TOP OF DALMAYNE C : 316.00 M R.L.	
134.06	0.06	100		100% MUDSTONE	DARK BROWN, STRONG ROCK.
				BASE OF DALMAYNE C : THICKNESS= 0.06 M; SAMPLED THICKNESS= 0.00 M	
134.07	0.01	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE C : 315.93 M R.L.	
134.15	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK GREY.
134.25	0.10	100		50% CARBONACEOUS SHALE 50% COAL, BRIGHT	THINLY LAMINATED.
134.52	0.27	100		100% MUDSTONE	COALY, LENSES, DARK GREY, WEAK ROCK.
				BASE OF DALMAYNE C : THICKNESS= 0.45 M; SAMPLED THICKNESS= 0.00 M	
135.21	0.69	100		100% MUDSTONE	GREY, WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, CLOSELY SPACED JOINTS, TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
135.95	0.74	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
136.08	0.13	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
140.96	4.88	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, WITH CARBONACEOUS WISPS.
141.06	0.10	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
141.68	0.62	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
142.05	0.37	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
142.50	0.45	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
143.14	0.64	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
143.58	0.44	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK. NOTE: WITH NUMEROUS CARBONACEOUS LENSES
144.92	1.34	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK. NOTE: WITH NUMEROUS CARBONACEOUS LENSES
144.99	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
145.54	0.55	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK. NOTE: WITH NUMEROUS CARBONACEOUS LENSES AND MUDSTONE FRAGMENTS
145.65	0.11	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BLACK, WEAK ROCK.
145.70	0.05	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
145.90	0.20	100		100% MUDSTONE	DARK GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
146.18	0.28	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
147.76	1.58	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
147.81	0.05	100		100% SANDSTONE,MEDIUM GRAINED	DARK GREY, WEAK ROCK.
148.32	0.51	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
148.43	0.11	100		100% SANDSTONE,COARSE GRAINED	DARK GREY, MODERATELY WEAK ROCK.
149.01	0.58	100		100% SANDSTONE	MED.-COARSE GRAINED, GREY, MODERATELY WEAK ROCK.
149.07	0.06	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK. NOTE: WITH ABUNDANT MUDSTONE PEBBLES
149.11	0.04	100		100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
149.40	0.29	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
					NOTE: WITH ABUNDANT MUDSTONE PEBBLES
149.44	0.04	100		100% MUDSTONE	GREY, WEAK ROCK.
149.57	0.13	100		100% SANDSTONE	VERY COARSE GRAINED, GREY, MODERATELY WEAK ROCK.
149.65	0.08	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, WITH NORMAL GRADED BEDDING.
149.84	0.19	100		100% SANDSTONE	VERY COARSE GRAINED, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
149.87	0.03	100		100% SANDSTONE,FINE GRAINED	GREY, WEAK ROCK.
150.49	0.62	100		100% SANDSTONE	VERY COARSE GRAINED, GREY, MODERATELY WEAK ROCK.
150.70	0.21	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, GREY, WEAK ROCK.
151.15	0.45	100		100% SANDSTONE	VERY COARSE GRAINED, GREY, MODERATELY WEAK ROCK.
					NOTE: WITH ABUNDANT MUDSTONE PEBBLES AND COAL LENSES
154.25	3.10	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
154.35	0.10	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
154.43	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
158.74	4.31	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
159.00	0.26	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
159.06	0.06	100		100% MUDSTONE	GREY-BROWN, VERY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
159.09	0.03	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
					NOTE: WITH MUDSTONE AND CARBONACEOUS FRAGMENTS
159.25	0.16	100		100% MUDSTONE	GREY, VERY STRONG ROCK.
					NOTE: SILICIFIED
159.61	0.36	100		100% SANDSTONE,MEDIUM GRAINED	BROWN, MODERATELY WEAK ROCK.
164.25	4.64	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
167.16	2.91	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
167.56	0.40	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
					NOTE: WITH NUMEROUS MUDSTONE PEBBLES
167.91	0.35	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
169.85	1.94	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
171.76	1.91	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
172.61	0.85	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
172.76	0.15	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, GREY-BROWN, MODERATELY STRONG ROCK.
173.29	0.53	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
173.34	0.05	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH FLAME/PULL STRUCTS.
173.55	0.21	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
173.62	0.07	100		100% CARBONACEOUS SHALE	
176.70	3.08	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
177.24	0.54	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, STRONG ROCK.
178.33	1.09	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE.
178.80	0.47	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY STRONG ROCK.
179.11	0.31	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, STRONG ROCK.
179.34	0.23	100		100% SANDSTONE NOTE:	VERY COARSE GRAINED, LIGHT GREY, STRONG ROCK. WITH ABUNDANT MUDSTONE PEBBLES
179.68	0.34	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, STRONG ROCK.
182.00	2.32	100		100% SANDSTONE,COARSE GRAINED NOTE:	LIGHT GREY, STRONG ROCK. WITH NUMEROUS COAL LENSES AND MUDSTONE FRAGMENTS
182.24	0.24	100		100% SANDSTONE,COARSE GRAINED NOTE:	LIGHT GREY, STRONG ROCK. WITH NUMEROUS MUDSTONE PEBBLES AND CARBONACEOUS LENSES
182.34	0.10	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, STRONG ROCK.
182.79	0.45	100		100% SANDSTONE,COARSE GRAINED NOTE:	LIGHT GREY, STRONG ROCK. WITH ABUNDANT CARBONACEOUS LENSES
183.09	0.30	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, STRONG ROCK.
183.22	0.13	100		100% SANDSTONE,COARSE GRAINED NOTE:	LIGHT GREY, STRONG ROCK. WITH NUMEROUS CARBONACEOUS LENSES
183.34	0.12	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, STRONG ROCK.
183.90	0.56	100		100% SANDSTONE,COARSE GRAINED NOTE:	LIGHT GREY, STRONG ROCK. WITH NUMEROUS CARBONACEOUS LENSES
185.54	1.64	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, STRONG ROCK.
185.70	0.16	100		100% SANDSTONE,COARSE GRAINED NOTE:	LIGHT GREY, STRONG ROCK. WITH LARGE MUDSTONE LENSES

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
187.70	2.00	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK, BEDS DIP 5 DEG.
190.96	3.26	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, STRONG ROCK. NOTE: VERY COARSE GRAINED IN PART
191.00	0.04	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
191.01	0.01	100		100% COAL, HEAVY DULL	
191.25	0.24	100		100% CARBONACEOUS SHALE	
191.35	0.10	100		100% MUDSTONE	DARK GREY, WEAK ROCK.
192.28	0.93	100		100% MUDSTONE	GREY, WEAK ROCK, THICKLY LAMINATED.
192.42	0.14	100		100% MUDSTONE	DARK GREY, WEAK ROCK.
192.43	0.01	100		100% CARBONACEOUS SHALE	
192.46	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, VERY STRONG ROCK.
			TOP OF DALMAYNE D UPPER : 257.54 M R.L.		
192.54	0.08	100		100% COAL, HEAVY DULL	
192.70	0.16	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, VERY STRONG ROCK.
192.78	0.08	100		100% COAL, DULL	
192.92	0.14	100		100% MUDSTONE	CARBONACEOUS, BLACK, VERY STRONG ROCK.
193.19	0.27	100		100% COAL, HEAVY DULL	
			BASE OF DALMAYNE D UPPER : THICKNESS= 0.73 M; SAMPLED THICKNESS= 0.00 M		
193.27	0.08	100		100% MUDSTONE	CARBONACEOUS, BLACK, VERY STRONG ROCK.
194.09	0.82	100		100% MUDSTONE	GREY, WEAK ROCK.
194.92	0.83	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
195.56	0.64	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
196.10	0.54	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, LENSES, LIGHT GREY, MODERATELY STRONG ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
196.60	0.50	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
196.90	0.30	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, LENSES, LIGHT GREY, MODERATELY STRONG ROCK, WITH CROSS LAMINATION.

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
197.09	0.19	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
197.18	0.09	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
197.56	0.38	100		100% SILTSTONE	SANDSTONE, LENSES, GREY, MODERATELY WEAK ROCK.
197.91	0.35	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
199.29	1.38	100		100% SANDSTONE	MUDSTONE, LENSES, LIGHT GREY, MODERATELY STRONG ROCK, WITH CROSS LAMINATION. NOTE: GRADING FROM FINE TO COARSE GRAINED
199.54	0.25	100		100% SILTSTONE	GREY, WEAK ROCK.
199.68	0.14	100		100% SILTSTONE	SANDSTONE, LENSES, GREY, WEAK ROCK.
199.78	0.10	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
200.80	1.02	100		80% SANDSTONE,MEDIUM GRAINED 20% SILTSTONE	CARBONACEOUS, LENSES, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
200.95	0.15	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
201.05	0.10	100		100% SILTSTONE	SANDSTONE, LENSES, GREY, MODERATELY WEAK ROCK.
201.13	0.08	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
201.42	0.29	100		100% SILTSTONE	SANDSTONE, LENSES, GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
201.48	0.06	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
201.57	0.09	100		50% SILTSTONE 50% SANDSTONE	GREY. MED.-FINE GRAINED, LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
201.63	0.06	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
201.78	0.15	100		50% SANDSTONE 50% SILTSTONE	MED.-FINE GRAINED, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
201.93	0.15	100		100% SILTSTONE	SANDSTONE, LENSES, GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
203.15	1.22	100		50% SANDSTONE,MEDIUM GRAINED 50% SILTSTONE	CARBONACEOUS, LENSES, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
203.30	0.15	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
203.51	0.21	100		70% SANDSTONE,MEDIUM GRAINED 30% SILTSTONE	CARBONACEOUS, LENSES, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
203.76	0.25	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
204.20	0.44	100		80% SANDSTONE,MEDIUM GRAINED 20% SILTSTONE	CARBONACEOUS, STREAKS, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
205.10	0.90	0		CORE LOSS	NOTE: LITTLE RECOVERY - PEBBLES OF GREY SILTSTONE, DARK GREY AND DARK BROWN MUDSTONES, AND SOFT, BUFF COLOURED CLAYSTONE
205.30	0.20	0		CORE LOSS	
				TOP OF DALMAYNE D LOWER : 244.70 M R.L.	
205.34	0.04	100	1	100% COAL, DULL	
205.37	0.03	100	1	100% MUDSTONE	CARBONACEOUS, BROWN, MODERATELY WEAK ROCK.
205.43	0.06	100	1	100% COAL, HEAVY DULL	JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
205.53	0.10	100	1	100% COAL, DULL	
205.87	0.34	100	1	100% COAL, HEAVY DULL	
206.07	0.20	100	1	100% COAL, DULL	
206.34	0.27	100	1	100% COAL, HEAVY DULL	
206.36	0.02	100	1	100% COAL, BRIGHT	VERY CLOSE JOINT SPACING, TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE.
206.77	0.41	100	1	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
206.98	0.21	100	1	100% COAL, DULL	
				BASE OF DALMAYNE D LOWER : THICKNESS= 1.68 M; SAMPLED THICKNESS= 1.68 M	
207.08	0.10	100	2	100% MUDSTONE	CARBONACEOUS, BLACK, STRONG ROCK.
207.12	0.04	100	2	100% MUDSTONE	CARBONACEOUS, DARK GREY.
207.24	0.12	100		100% MUDSTONE	DARK BROWN, WEAK ROCK.
207.39	0.15	100		100% SILTSTONE	BROWN, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
207.64	0.25	100		100% SANDSTONE,FINE GRAINED	BROWN, MODERATELY WEAK ROCK.
208.22	0.58	100		100% SANDSTONE,FINE GRAINED	GREY-BROWN, MODERATELY WEAK ROCK.
209.14	0.92	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
210.81	1.67	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
218.98	8.17	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
				NOTE: WITH LARGE MUDSTONE LENSES AT 218 M	
219.12	0.14	100		100% MUDSTONE	GREY-BROWN, WEAK ROCK, WITH LOAD CASTS.
236.51	17.39	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
				NOTE: GRADING TO VERY COARSE IN PART, OCCASIONAL BANDS OF MUDSTONE PEBBLES AND CARBONACEOUS LENSES	
236.55	0.04	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
236.65	0.10	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
				NOTE: WITH NUMEROUS COAL LENSES AND MUDSTONE FRAGMENTS	
237.70	1.05	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
238.21	0.51	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
238.29	0.08	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
238.44	0.15	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
238.46	0.02	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
240.23	1.77	100		100% MUDSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
240.49	0.26	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK.
241.21	0.72	100		100% MUDSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
249.31	8.10	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
				NOTE: OCCASIONAL CROSS BEDDED INTERVALS	
249.57	0.26	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
249.84	0.27	100		100% SANDSTONE,COARSE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY STRONG ROCK.
				NOTE: WITH NUMEROUS CARBONACEOUS LENSES	
250.69	0.85	100		100% CLAYSTONE	GREY, MODERATELY WEAK ROCK.
251.00	0.31	100		50% MUDSTONE 50% MUDSTONE	DARK GREY. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH BURROWING, WITH RIPPLES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
251.58	0.58	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
252.55	0.97	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
252.73	0.18	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
253.08	0.35	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
253.40	0.32	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
254.18	0.78	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
254.20	0.02	100	3	100% MUDSTONE	GREY.
254.28	0.08	100	3	100% CARBONACEOUS SHALE	
		TOP OF	DALMAYNE E2 : 195.72 M R.L.		
254.40	0.12	100	4	100% COAL, HEAVY DULL	DULL COAL, BANDS.
254.46	0.06	100	4	100% MUDSTONE	CARBONACEOUS, BLACK.
254.87	0.41	100	4	100% COAL, HEAVY DULL	DULL COAL, BANDS.
254.89	0.02	100	4	100% MUDSTONE	CARBONACEOUS, DARK BROWN.
255.11	0.22	100	4	100% COAL, DULL	
255.15	0.04	100	4	100% COAL, HEAVY DULL	
255.32	0.17	100	4	100% COAL, HEAVY DULL	DULL COAL, BANDS.
255.37	0.05	100	4	100% MUDSTONE	CARBONACEOUS, DARK GREY.
255.39	0.02	100	4	100% SANDSTONE	COALY, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
255.43	0.04	100	4	100% MUDSTONE	CARBONACEOUS, DARK GREY.
255.59	0.16	100	4	100% COAL, HEAVY DULL	DULL COAL, BANDS.
255.62	0.03	100	4	100% MUDSTONE	CARBONACEOUS, BLACK, WITH NODULES OF SIDERITE.
255.77	0.15	100	4	100% COAL, HEAVY DULL	DULL COAL, BANDS.
255.80	0.03	100	4	100% MUDSTONE	CARBONACEOUS.
255.95	0.15	100	4	100% COAL, HEAVY DULL	DULL COAL, BANDS, WITH MINOR CALCITE.
255.96	0.01	100	4	100% CARBONACEOUS SHALE	
256.05	0.09	100	4	100% COAL, DULL	WITH MINOR CALCITE.
256.06	0.01	100	4	100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN.
256.16	0.10	100	4	100% COAL, DULL	WITH TRACES OF CALCITE.
256.18	0.02	100	4	100% COAL, BRIGHT	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
256.30	0.12	100	4	100% COAL, HEAVY DULL	DULL COAL, BANDS.
256.32	0.02	100	4	100% COAL, HEAVY DULL	
256.33	0.01	100	4	100% MUDSTONE	BROWN.
256.35	0.02	100	4	100% COAL, BRIGHT	WITH ABUNDANT CALCITE.
256.41	0.06	100	4	100% COAL, BRIGHT WITH FEW DULL BANDS	WITH ABUNDANT CALCITE.
256.43	0.02	100	4	100% COAL, DULL	
256.48	0.05	100	4	100% COAL, HEAVY DULL	
				BASE OF DALMAYNE E2 : THICKNESS= 2.20 M; SAMPLED THICKNESS= 2.20 M	
256.50	0.02	100	5	100% MUDSTONE	BROWN.
256.60	0.10	100	5	100% MUDSTONE	CARBONACEOUS, DARK GREY.
256.64	0.04	100	5	100% CARBONACEOUS SHALE	COALY, LENSES.
256.82	0.18	100		100% MUDSTONE	GREY.
256.84	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK GREY.
256.96	0.12	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS, WITH CALCITE ON CLEAT.
257.00	0.04	0		CORE LOSS	
257.01	0.01	100		100% COAL, BRIGHT	
257.23	0.22	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK.
257.32	0.09	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK.
257.55	0.23	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
257.83	0.28	100		60% SANDSTONE,FINE GRAINED 40% MUDSTONE	CARBONACEOUS, STREAKS, GREY. CARBONACEOUS, STREAKS, GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED.
258.08	0.25	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
258.26	0.18	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
258.34	0.08	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK. NOTE: WITH ABUNDANT CARBONACEOUS STREAKS
258.40	0.06	100		100% MUDSTONE	CARBONACEOUS, STREAKS, DARK BROWN, WEAK ROCK.
258.68	0.28	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
258.72	0.04	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
258.96	0.24	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK.
258.99	0.03	100		100% CARBONACEOUS SHALE	
259.00	0.01	100		100% CLAYSTONE	LIGHT BROWN, STIFF.
259.18	0.18	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
259.21	0.03	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, BROWN, STIFF.
259.79	0.58	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
260.17	0.38	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK.
261.13	0.96	100		100% SANDSTONE,COARSE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
261.52	0.39	100		100% MUDSTONE	SANDSTONE, BANDS, DARK GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 5 DEG., WITH CROSS LAMINATION.
261.81	0.29	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
261.95	0.14	100		50% MUDSTONE 50% SANDSTONE,COARSE GRAINED	DARK GREY. LIGHT GREY. MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 5 DEG., WITH CARBONACEOUS WISPS.
262.02	0.07	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
262.05	0.03	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
262.09	0.04	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK, BEDS DIP 5 DEG.
262.13	0.04	100		60% SANDSTONE,FINE GRAINED 40% MUDSTONE	GREY. DARK GREY. MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 5 DEG., WITH CARBONACEOUS WISPS.
262.43	0.30	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
262.59	0.16	100		70% MUDSTONE 30% SANDSTONE,COARSE GRAINED	CARBONACEOUS, STREAKS, DARK GREY. CARBONACEOUS, STREAKS, LIGHT GREY. MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH LOAD CASTS.
262.77	0.18	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
264.60	1.83	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK. NOTE: VERY COARSE GRAINED IN PART, WITH BANDS CONTAINING ABUNDANT CARBONACEOUS MATERIAL AND OCCASIONAL BANDS OF MUDSTONE FRAGMENTS
268.14	3.54	100		100% SANDSTONE,COARSE GRAINED	MUDSTONE, FRIABLE, LIGHT GREY, MODERATELY WEAK ROCK.
272.57	4.43	100		100% SANDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
					NOTE: GRADING FROM MEDIUM TO VERY COARSE GRAINED
273.39	0.82	100		100% MUDSTONE	SILTSTONE, BANDS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
273.41	0.02	100		100% MUDSTONE	CARBONACEOUS, BLACK, STRONG ROCK.
273.43	0.02	100		100% COAL, HEAVY DULL	
273.48	0.05	100		100% MUDSTONE	CARBONACEOUS, BLACK, STRONG ROCK.
273.80	0.32	100		100% CARBONACEOUS SHALE	
274.44	0.64	100		100% SILTSTONE	FINE GRAINED SANDSTONE, BANDS, DARK GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
275.50	1.06	100		50% SILTSTONE 50% SANDSTONE	DARK GREY. MED.-FINE GRAINED, LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION, WITH LOAD CASTS.
276.90	1.40	100		100% SANDSTONE	LIGHT GREY, MODERATELY STRONG ROCK. NOTE: GRADING FROM MEDIUM TO COARSE GRAINED, WITH NUMEROUS BANDS AND LENSES OF CARBONACEOUS MATERIAL
277.15	0.25	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY STRONG ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
277.53	0.38	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
278.06	0.53	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
278.36	0.30	100		100% CARBONACEOUS SHALE	
278.38	0.02	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, BROWN, STIFF.
278.43	0.05	100		100% MUDSTONE	ARENACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
278.66	0.23	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY-BROWN, MODERATELY WEAK ROCK.
278.74	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
278.82	0.08	100		100% SANDSTONE	VERY FINE GRAINED, GREY-BROWN, MODERATELY WEAK ROCK.
279.07	0.25	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
279.08	0.01	100		100% CLAYSTONE	GREY-GREEN, FIRM.
279.16	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
279.17	0.01	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
279.85	0.68	100		100% SANDSTONE	MED.-FINE GRAINED, GREY-BROWN, MODERATELY STRONG ROCK, THICKLY LAMINATED. NOTE: WITH AN 8 CM THICK BAND CONTAINING ABUNDANT MUDSTONE FRAGMENTS NEAR BASE
280.52	0.67	100		50% SILTSTONE 50% SANDSTONE	GREY. MED.-FINE GRAINED, GREY. MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CROSS LAMINATION.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
280.75	0.23	100		100% MUDSTONE	CARBONACEOUS, BLACK, STRONG ROCK.
280.80	0.05	100		100% MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
281.68	1.08	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
282.20	0.32	100		100% MUDSTONE	CARBONACEOUS, LENSES, DARK BROWN, MODERATELY WEAK ROCK.
282.24	0.04	100	6	100% MUDSTONE	CARBONACEOUS, DARK GREY, STRONG ROCK.
282.64	0.40	100	6	100% MUDSTONE	BLACK, STRONG ROCK.
				TOP OF DALMAYNE F : 167.36 M R.L.	
282.74	0.10	100	7	100% COAL, HEAVY DULL	
282.77	0.03	100	7	100% CARBONACEOUS SHALE	
282.81	0.04	100	7	100% COAL, HEAVY DULL	
283.08	0.27	100	7	100% COAL, HEAVY DULL	DULL COAL, BANDS.
283.11	0.03	100	7	100% MUDSTONE	DARK GREY, WITH NODULES OF SIDERITE.
283.52	0.41	100	7	100% COAL, HEAVY DULL	DULL COAL, BANDS.
				BASE OF DALMAYNE F : THICKNESS= 0.88 M; SAMPLED THICKNESS= 0.80 M	
283.55	0.03	100		100% CARBONACEOUS SHALE	
283.61	0.06	100		100% MUDSTONE	GREY-BROWN, VERY CLOSE JOINT SPACING, TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
283.72	0.11	0		CORE LOSS	
283.74	0.02	100		100% MUDSTONE	COALY, LENSES, GREY.
283.77	0.03	100		100% SHALE	GREY, VERY WEAK ROCK.
284.68	0.91	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
284.83	0.15	100		100% MUDSTONE	DARK BROWN, WEAK ROCK.
285.42	0.59	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY WEAK ROCK.
285.47	0.05	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
285.57	0.10	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.
291.50	5.93	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
291.85	0.35	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, EXTREMELY CLOSELY SPACED JOINTS.
295.51	3.66	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
					NOTE: GRADING TO VERY COARSE GRAINED AT BASE, IRREGULAR BASAL CONTACT DIPPING AT 60 DEG.
295.81	0.30	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
					NOTE: WITH ABUNDANT BANDS AND LENSES OF CARBONACEOUS MATERIAL, NUMEROUS MUDSTONE FRAGMENTS NEAR BASE
295.83	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK GREY.
295.86	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	CARBONACEOUS, LAMINAE.
295.91	0.05	100		100% COAL, BRIGHT WITH FEW DULL BANDS	WITH CALCITE ON CLEAT.
296.00	0.09	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
296.01	0.01	100		100% COAL, BRIGHT	
296.09	0.08	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
296.12	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
296.21	0.09	100		100% COAL, HEAVY DULL	DULL COAL, BANDS.
296.25	0.04	100		100% COAL, HEAVY DULL	
296.40	0.15	100		60% MUDSTONE 40% SILTSTONE	CARBONACEOUS, DARK BROWN. GREY. MODERATELY STRONG ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
296.50	0.10	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, GREY.
296.52	0.02	100		100% MUDSTONE	CARBONACEOUS.
296.69	0.17	100		100% CARBONACEOUS SHALE	
296.76	0.07	100		100% COAL, HEAVY DULL	
296.99	0.23	100		100% CARBONACEOUS SHALE	
297.07	0.08	100		50% MUDSTONE 50% SILTSTONE	CARBONACEOUS. GREY.
297.34	0.27	100		100% CARBONACEOUS SHALE	
297.38	0.04	100		100% COAL, DULL	
297.44	0.06	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN.
297.48	0.04	100		100% COAL, DULL	
297.62	0.14	100		100% CARBONACEOUS SHALE	
298.10	0.48	100		100% MUDSTONE	SANDSTONE, BANDS, GREY-BROWN, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
299.39	1.29	100		70% SANDSTONE,FINE GRAINED 30% SILTSTONE	GREY. GREY. MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CROSS LAMINATION, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
299.92	0.53	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
299.94	0.02	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
300.13	0.19	100		100% COAL, HEAVY DULL	
300.15	0.02	100		100% MUDSTONE	BLACK, MODERATELY WEAK ROCK.
300.39	0.24	100		100% SILTSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK.
300.67	0.28	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
301.67	1.00	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
302.21	0.54	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
302.61	0.40	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
303.21	0.60	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
303.37	0.16	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
303.47	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
304.44	0.97	100		100% SILTSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
304.54	0.10	100		50% SANDSTONE,MEDIUM GRAINED 50% MUDSTONE	LIGHT GREY. CARBONACEOUS, DARK GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH LOAD CASTS.
307.54	3.00	100		100% SILTSTONE	SANDSTONE, BANDS, DARK GREY, MODERATELY WEAK ROCK. NOTE: INTERLENSING AT BASAL CONTACT
308.23	0.69	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK. NOTE: WITH NUMEROUS BANDS AND LENSES OF CARBONACEOUS MATERIAL
308.60	0.37	100		70% SANDSTONE,MEDIUM GRAINED 30% SILTSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED.
309.28	0.68	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
309.43	0.15	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, LAMINAE, LIGHT GREY, WITH CROSS LAMINATION.
309.58	0.15	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	GREY-BROWN. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED.
309.78	0.20	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, STRONG ROCK.
309.79	0.01	100		100% SILTSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
309.91	0.12	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, STRONG ROCK.
309.95	0.04	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.
309.99	0.04	100		100% CARBONACEOUS SHALE	MUDSTONE, LAMINAE.
310.04	0.05	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, MODERATELY WEAK ROCK.
310.08	0.04	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
310.09	0.01	100		100% COAL, HEAVY DULL	
310.10	0.01	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
310.11	0.01	100		100% COAL, HEAVY DULL	
310.22	0.11	100		100% COAL, DULL	CARBONACEOUS, LAMINAE.
310.23	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
310.82	0.59	100		100% CLAYSTONE	GREY, MODERATELY WEAK ROCK.
311.19	0.37	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION, WITH LOAD CASTS.
311.45	0.26	100		100% MUDSTONE	SANDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS. NOTE: GRADATIONAL BASAL BOUNDARY
311.70	0.25	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
311.72	0.02	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY STRONG ROCK. NOTE: WITH COARSE QUARTZ GRAINS
311.96	0.24	100		100% SILTSTONE	SANDSTONE, LENSES, GREY, MODERATELY WEAK ROCK.
312.14	0.18	100		100% SILTSTONE	SANDSTONE, BANDS, DARK GREY, MODERATELY WEAK ROCK, WITH LOAD CASTS.
312.54	0.40	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS. NOTE: SHEARED IN TOP 15 CM, COARSE SANDSTONE LENSE AT BASE, INTER LENSING AT BASAL CONTACT
312.74	0.20	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
312.88	0.14	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
314.08	1.12	100		60% MUDSTONE 40% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, DARK BROWN. LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED.
314.36	0.36	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, STRONG ROCK. NOTE: WITH NUMEROUS CARBONACEOUS BANDS AND LENSES
314.68	0.32	100		50% SANDSTONE,COARSE GRAINED 50% MUDSTONE	COALY, LENSES, LIGHT GREY. CARBONACEOUS, DARK BROWN. MODERATELY STRONG ROCK, THICKLY LAMINATED, WITH CARBONACEOUS WISPS.
317.29	2.61	100		100% SANDSTONE	MODERATELY STRONG ROCK. NOTE: GRADING FROM FINE (GREY) TO VERY COARSE (LIGHT GREY) WITH P EBBLE SIZE QUARTZ GRAINS IN BASAL 47 CM
317.39	0.10	100		100% PEBBLE CONGLOMERATE	STRONG ROCK. NOTE: QUARTZ PEBBLES IN GREEN FINE SAND MATRIX
317.64	0.25	100		100% SILTSTONE	GREEN, MODERATELY WEAK ROCK.
321.83	4.19	100		100% SILTSTONE	GREY, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: FRACTURED ZONE FROM 317.90 TO 318.15 M
322.49	0.66	100		100% LIMESTONE	LIGHT GREY, VERY STRONG ROCK.
335.00	12.51	100		100% SILTSTONE	GREY, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: WITH BANDS CONTAINING NUMEROUS CALCITE VEINS, FRACTURED ZON E FROM 330.5M TO 331.5M,SCATTERED SAND SIZE QUARTZ GRAINS

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	0.00 M	105.26 - 115.43 M	10.17 M
DC	0.00 M	130.35 - 132.21 M	1.86 M
DC	0.00 M	132.22 - 132.34 M	0.12 M
DC	0.00 M	132.39 - 132.78 M	0.39 M
DC	0.00 M	133.03 - 133.21 M	0.18 M
DC	0.00 M	133.23 - 133.26 M	0.03 M
DC	0.00 M	133.27 - 133.29 M	0.02 M
DC	0.00 M	133.30 - 133.41 M	0.11 M
DC	0.00 M	133.42 - 133.47 M	0.05 M
DC	0.00 M	133.64 - 133.76 M	0.12 M
DC	0.00 M	133.80 - 133.81 M	0.01 M
DC	0.00 M	133.82 - 133.86 M	0.04 M
DC	0.00 M	133.96 - 133.97 M	0.01 M
DC	0.00 M	134.00 - 134.06 M	0.06 M
DC	0.00 M	134.07 - 134.52 M	0.45 M
DDU	0.00 M	192.46 - 193.19 M	0.73 M
DDL	1.68 M	205.30 - 206.98 M	1.68 M
DE2	2.20 M	254.28 - 256.48 M	2.20 M
DF	0.88 M	282.64 - 283.52 M	0.88 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	205.30 - 206.98 M	1.68 M
2	206.98 - 207.12 M	0.14 M
3	254.18 - 254.28 M	0.10 M
4	254.28 - 256.48 M	2.20 M
5	256.48 - 256.64 M	0.16 M
6	282.20 - 282.64 M	0.44 M
7	282.64 - 283.52 M	0.88 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 2

HOLE TYPE	CORE	
EASTING	600,050 M	GRID
NORTHING	5,382,600 M	GRID
ELEVATION	475.00 M	
TOTAL DEPTH DRILLED	409.91 M	
DRILLING STARTED	7/ 6/78	
DRILLING TIME	21 DAYS	
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
16.70	16.70	70		100% DOLERITE	FERRUGINOUS, ORANGE-YELLOW, HIGHLY WEATHERED, VERY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: WITH MNO2 STAINING ALONG JOINTS, CONTAINING NUMEROUS SLIGHTLY WEATHERED DOLERITE BOULDERS
27.45	10.75	100		100% DOLERITE	FERRUGINOUS, STAINING, GREY, SLIGHTLY WEATHERED, STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
30.70	3.25	100		100% DOLERITE	GREY-GREEN, WITH CALCITE ON JOINTS AND CHLORITE ON JOINTS, UNWEATHERED, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
31.00	0.30	80		100% DOLERITE	BADLY BROKEN, DARK GREEN, WITH CALCITE ON JOINTS AND CHLORITE ON JOINTS, STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, WITH SLICKENSIDES.
37.00	6.00	100		100% DOLERITE	GREY, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
38.00	1.00	20		100% DOLERITE	GREY-GREEN, VERY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, INFILLED WITH CALCITE.
38.70	0.70	100		100% DOLERITE	GREY, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
39.50	0.80	90		100% DOLERITE	GREY-GREEN, VERY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, INFILLED WITH CALCITE.
40.00	0.50	100		100% DOLERITE	GREY, WITH CHLORITE ON JOINTS, VERY STRONG ROCK, CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
48.40	8.40	100		100% DOLERITE	FERRUGINOUS, STAINING, GREY, WITH CHLORITE ON JOINTS, VERY STRONG ROCK, MODERATELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE. NOTE: DIP OF JOINTS VARIABLE
49.00	0.60	100		100% DOLERITE	GREY, VERY STRONG ROCK, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, INFILLED WITH CALCITE.
55.05	6.05	100		100% DOLERITE	GREY, WITH CHLORITE ON JOINTS, VERY STRONG ROCK, MODERATELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE. NOTE: DIP OF JOINTS VARIABLE
55.15	0.10	100		100% DOLERITE	FERRUGINOUS, STAINING, GREY, VERY STRONG ROCK, VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE. NOTE: DIP OF JOINTS VARIABLE

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
56.70	1.55	100		100% DOLERITE	GREY, WITH CALCITE, VERY STRONG ROCK, MODERATELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
57.60	0.90	100		100% DOLERITE	GREY, VERY STRONG ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, INFILLED WITH CALCITE.
77.20	19.60	100		100% DOLERITE	GREY, WITH CALCITE, VERY STRONG ROCK, MODERATELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: TWO SETS OF JOINTS DIPPING AT 30 DEG. AND 70 DEG.
78.95	1.75	100		100% DOLERITE	GREY, WITH CHLORITE ON JOINTS, VERY STRONG ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, INFILLED WITH CALCITE.
85.00	6.05	100		100% DOLERITE	GREY, WITH CALCITE, VERY STRONG ROCK, MODERATELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: TWO SETS OF JOINTS DIPPING AT 30 DEG. AND 70 DEG.
88.10	3.10	100		100% DOLERITE	GREY, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
92.80	4.70	100		100% DOLERITE	GREY, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
101.00	8.20	100		100% DOLERITE	GREY, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
110.90	9.90	80		100% DOLERITE	BADLY BROKEN, GREY-GREEN, WITH CHLORITE ON JOINTS AND MICA, VERY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
111.80	0.90	100		100% DOLERITE	GREY, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
113.80	2.00	100		100% DOLERITE	BADLY BROKEN, GREY-GREEN, WITH CHLORITE ON JOINTS, VERY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
144.55	30.75	100		100% DOLERITE	GREY, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
145.25	0.70	100		100% DOLERITE	FINE GRAINED, STRONG ROCK, MODERATELY SPACED JOINTS, TIGHT NON PLANAR, INFILLED WITH CALCITE. NOTE: CHILLED BASAL CONTACT, CONTAINS LARGE CHLORITE? GRAINS
146.08	0.83	100		100% MUDSTONE	GREY-GREEN, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, TIGHT NON PLANAR, INFILLED WITH CALCITE. NOTE: WITH BANDS CONTAINING DARK GREY MUDSTONE? FRAGMENTS ORIENTED ALONG BEDDING

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
146.43	0.35	100		100% SILTSTONE	GREY, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, TIGHT NON PLANAR, INFILLED WITH CALCITE.
147.08	0.65	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, . NOTE: WITH BANDS CONTAINING DARK GREY MUDSTONE? FRAGMENTS ORIENTED ALONG BEDDING
148.75	1.67	100		100% CLAYSTONE	FERRUGINOUS, STAINING, DARK GREY, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE. NOTE: IRREGULAR VOIDS INFILLED WITH CHLORITE?
149.05	0.30	100		100% CLAYSTONE	LIGHT GREY, MODERATELY STRONG ROCK. NOTE: ELONGATED FRAGMENTS OF SECONDARY MINERAL ALONG BEDDING
149.33	0.28	100		100% CLAYSTONE	DARK GREY, MODERATELY STRONG ROCK, JOINTS DIP 15 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: WITH BANDS CONTAINING BLACK SECONDARY MINERAL FRAGMENTS
149.56	0.23	100		100% MUDSTONE	FERRUGINOUS, STAINING, LIGHT GREY, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, . NOTE: WITH BANDS CONTAINING BLACK SECONDARY MINERAL FRAGMENTS
150.01	0.45	100		100% CLAYSTONE	DARK BROWN, WITH CHLORITE ON JOINTS, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
150.63	0.62	100		100% CLAYSTONE	LIGHT BROWN, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
151.04	0.41	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, WITH CLAY ON JOINTS, STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
153.75	2.71	100		40% MUDSTONE 35% MUDSTONE 25% MUDSTONE	LIGHT BROWN. LIGHT GREEN. BUFF. MODERATELY STRONG ROCK, THINLY BEDDED. NOTE: WITH BAND OF DARK GREEN FRAGMENTS AT 152.10M.
160.10	6.35	100		90% MUDSTONE 10% MUDSTONE	DARK GREY. BUFF. MODERATELY STRONG ROCK, THINLY BEDDED. NOTE: EXHIBITS FERRUGINOUS STAINING, BAKED APPEARENCE, SILICA REMOBILISATION, SECONDARY MINERAL (CHLORITE) FORMATION
160.90	0.80	100		70% MUDSTONE 20% MUDSTONE 10% MUDSTONE	LIGHT GREY. GREY. BUFF. MODERATELY STRONG ROCK, THINLY BEDDED. NOTE: EXHIBITS FERRUGINOUS STAINING, BAKED APPEARENCE, SILICA REMOBILISATION, SECONDARY MINERAL (CHLORITE) FORMATION
161.50	0.60	100		100% MUDSTONE	FERRUGINOUS, STAINING, LIGHT GREEN, MODERATELY STRONG ROCK. NOTE: WITH BANDS OF DARK GREEN (CHLORITE?) NODULES

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
162.95	1.45	100		100% MUDSTONE	LIGHT GREEN, WITH CLAY ON JOINTS, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
163.15	0.20	100		100% MUDSTONE	GREY, WITH CLAY ON JOINTS, MODERATELY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
163.19	0.04	100		100% CARBONACEOUS SHALE	
163.68	0.49	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, TIGHT NON PLANAR, INFILLED WITH CALCITE.
163.70	0.02	100		100% MUDSTONE	LIGHT GREY, STIFF.
163.98	0.28	100		100% MUDSTONE	CARBONACEOUS, DARK GREY.
164.02	0.04	100		100% COAL, HEAVY DULL	
164.06	0.04	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
164.20	0.14	100		100% CLAYSTONE	GREY, MODERATELY WEAK ROCK.
164.46	0.26	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
164.94	0.48	100		100% MUDSTONE	BRIGHT COAL, LENSES, BLACK, MODERATELY STRONG ROCK, TIGHT NON PLANAR, INFILLED WITH CALCITE.
164.95	0.01	100		100% CLAYSTONE	GREY, STIFF.
165.17	0.22	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
165.20	0.03	100		100% COAL, BRIGHT	WITH CALCITE ON CLEAT.
165.22	0.02	100		100% CARBONACEOUS SHALE	
165.23	0.01	100		100% COAL, BRIGHT	WITH CALCITE ON CLEAT.
165.44	0.21	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
165.47	0.03	100		100% COAL, BRIGHT	WITH CALCITE ON CLEAT.
165.75	0.28	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
165.87	0.12	100		100% MUDSTONE	GREY, SOFT.
165.94	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
165.96	0.02	100		100% COAL, BRIGHT	CARBONACEOUS, LAMINAE, MODERATELY STRONG ROCK.
168.46	2.50	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
168.57	0.11	100		100% SILTSTONE	DARK GREY, MODERATELY WEAK ROCK.
168.58	0.01	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
168.65	0.07	100		100% SILTSTONE	DARK GREY, MODERATELY WEAK ROCK.
168.83	0.18	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.
169.11	0.28	100		100% MUDSTONE	BRIGHT COAL, BANDS, BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
169.44	0.33	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
169.68	0.24	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK.
169.86	0.18	0		CORE LOSS	NOTE: CORE LOSS
169.90	0.04	70		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
169.91	0.01	100		100% CLAYSTONE	DARK GREY, SOFT.
169.98	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
170.00	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
170.06	0.06	100		100% MUDSTONE	BRIGHT COAL, BANDS, BLACK.
170.75	0.69	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
170.95	0.20	100		100% MUDSTONE	BRIGHT COAL, LENSES, BLACK.
174.35	3.40	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, LIGHT GREY, STRONG ROCK, THINLY LAMINATED, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
175.52	1.17	100		100% SILTSTONE	MUDSTONE, FRAGMENTS, LIGHT GREY, STRONG ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, WITH SLUMP STRUCTURES.
					NOTE: GRADATIONAL INTO SANDSTONE BELOW
180.85	5.33	100		100% SANDSTONE	MEDIUM GRAINED, LIGHT GREY, STRONG ROCK, THICKLY BEDDED, BASAL CONTACT ABRUPT, WIDELY SPACED JOINTS, TIGHT NON PLANAR, .
					NOTE: CONGLOMERATE PEBBLES MORE PREVALENT TOWARDS THE BASE
182.35	1.50	100		100% COBBLE CONGLOMERATE	LIGHT GREY, MODERATELY STRONG ROCK.
					NOTE: SHARP CONTACT WITH SANDSTONE ABOVE
183.20	0.85	100		99% SANDSTONE 1% MUDSTONE	COALY, FRIABLE, LIGHT GREY. STREAKS. STRONG ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
183.90	0.70	100		98% SANDSTONE 2% MUDSTONE	MED.-FINE GRAINED, BROWN. LENSES. STRONG ROCK, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
184.15	0.25	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK, VERY THINLY BEDDED, BASAL CONTACT ABRUPT.
184.55	0.40	100		100% CLAYSTONE	GREY, MODERATELY STRONG ROCK, THINLY LAMINATED, MODERATELY SPACED JOINTS, TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
184.85	0.30	100		100% MUDSTONE	DARK BROWN, MODERATELY STRONG ROCK, THICKLY LAMINATED, BASAL CONTACT ABRUPT, WITH PLANT REMAINS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
191.00	6.15	100		100% SILTSTONE	SANDSTONE, BANDS, LIGHT GREY, WITH CLAY ON JOINTS, MODERATELY STRONG ROCK, WITH CROSS LAMINATION, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
191.85	0.85	100		100% SILTSTONE	MUDSTONE, STREAKS, LIGHT GREY, MODERATELY STRONG ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
195.93	4.08	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, STREAKS, LIGHT GREY, STRONG ROCK, MEDIUM BEDDED, BASAL CONTACT ABRUPT, WIDELY SPACED JOINTS, TIGHT NON PLANAR, .
198.72	2.79	100		70% MUDSTONE 30% SANDSTONE	ARENACEOUS, DARK BROWN. MUDSTONE, LENSES, GREY. MODERATELY STRONG ROCK.
				NOTE: GREENISH	COARSER PEBBLY FRAGMENTS TOWARDS THE BASE
201.10	2.38	100		100% MUDSTONE	GREY-GREEN, MODERATELY STRONG ROCK, THICKLY LAMINATED, BASAL CONTACT ABRUPT.
201.70	0.60	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, THINLY BEDDED, BASAL CONTACT ABRUPT.
204.25	2.55	100		100% MUDSTONE	COALY, FRAGMENTS, LIGHT GREY, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
206.10	1.85	100		95% MUDSTONE 5% CLAY	CARBONACEOUS, BLACK. LENSES. MODERATELY STRONG ROCK.
212.78	6.68	100		100% MUDSTONE	LIGHT GREY, MODERATELY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
				NOTE: ALTERNATING MUDSTONE AND SANDSTONE TOWARDS THE BASE	
215.94	3.16			100% SANDSTONE	MED.-COARSE GRAINED, FELDSPATHIC, LIGHT GREY, STRONG ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS.
216.16	0.22			100% CLAYSTONE	COALY, STREAKS, DARK BROWN, MODERATELY WEAK ROCK.
217.77	1.61			100% SANDSTONE	MEDIUM GRAINED, LIGHT GREY, STRONG ROCK.
227.38	9.61			70% SANDSTONE 30% SILTSTONE	MUDSTONE, STREAKS, LIGHT GREY. STRONG ROCK, MEDIUM BEDDED, VERY WIDELY SPACED JOINTS, JOINTS DIP 10 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
				NOTE: SEQUENCE	OF ALTERNATING SANDSTONE AND SILTSTONE
227.40	0.02			100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
227.48	0.08			100% SANDSTONE	LIGHT GREY, STRONG ROCK.
227.65	0.17			100% MUDSTONE	COALY, MODERATELY STRONG ROCK.
233.50	5.85			70% SILTSTONE 30% SANDSTONE	COALY, LENSES, LIGHT GREY. LIGHT GREY. STRONG ROCK, MEDIUM BEDDED, BASAL CONTACT ABRUPT.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
					NOTE: SILTSTONE SANDSTONE SEQUENCE
233.60	0.10			100% CLAY	CALCITIC, BUFF, FIRM.
234.90	1.30			100% MUDSTONE	LIGHT BROWN, MODERATELY STRONG ROCK, WIDELY SPACED JOINTS, TIGHT NON PLANAR, .
235.90	1.00			100% SANDSTONE	CARBONACEOUS, STREAKS, GREY-BROWN, MODERATELY STRONG ROCK.
236.40	0.50			100% SANDSTONE	MEDIUM GRAINED, CALCITIC, LIGHT GREY, STRONG ROCK.
238.45	2.05			100% SILTSTONE	CALCITIC, GREY, STRONG ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, WITH SLUMP STRUCTURES.
242.00	3.55			100% MUDSTONE	CONGLOMERATIC, LOWER CONTACT, BROWN, WITH CALCITE ON JOINTS, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
					NOTE: COARSER CONGLOMERITIC OVER LAST 50CM AND BASE 5CM IS A CONGLOMERATE
243.40	1.40			100% MUDSTONE	SILTSTONE, GREY, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
243.90	0.50			100% MUDSTONE	CHLORITIC, SILTSTONE, GREY, STRONG ROCK.
244.35	0.45			100% SANDSTONE	ARGILLACEOUS, BUFF, MODERATELY WEAK ROCK.
250.30	5.95			100% SILTSTONE	SANDSTONE, LAMINAE, LIGHT GREY, STRONG ROCK. WITH CROSS LAMINATION, WITH SLUMP STRUCTURES.
256.84	6.54			100% SANDSTONE	MEDIUM GRAINED, COALY, LIGHT GREY, STRONG ROCK, CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, .
256.94	0.10			100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
257.00	0.06			100% CLAYSTONE	MUDSTONE, BANDS, BUFF, MODERATELY WEAK ROCK.
257.05	0.05			100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
257.45	0.40			100% MUDSTONE	COALY, STREAKS, GREY, MODERATELY STRONG ROCK, THICKLY LAMINATED, BASAL CONTACT ABRUPT.
257.95	0.50			100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
258.50	0.55			100% SANDSTONE	COALY, STREAKS, LIGHT GREY, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
259.05	0.55			100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
					NOTE: COAL FRAGMENTS IN TOP 5CM
259.73	0.68			100% SANDSTONE	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY STRONG ROCK, THICKLY BEDDED, BASAL CONTACT ABRUPT.
259.80	0.07		1	100% CLAYSTONE	CHLORITIC, BUFF, WEAK ROCK, WITH PLANT REMAINS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
		TOP OF	DALMAYNE B : 215.20 M R.L.		
259.90	0.10	80	2	100% MUDSTONE	BRIGHT COAL, LAMINAE, BLACK, MODERATELY STRONG ROCK.
260.00	0.10	0	2	CORE LOSS	
260.44	0.44	100	2	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
260.49	0.05	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
260.62	0.13	100	3	100% CLAYSTONE	CARBONACEOUS, STREAKS, BUFF, FIRM.
260.70	0.08	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
260.73	0.03	100	3	100% SILTSTONE	GREY-BROWN, MODERATELY STRONG ROCK.
260.87	0.14	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
260.98	0.11	100	3	100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, MODERATELY WEAK ROCK.
261.01	0.03	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
261.04	0.03	100	3	100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
261.39	0.35	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
261.68	0.29	100	3	100% MUDSTONE	CARBONACEOUS, BANDS, BUFF, STIFF.
261.97	0.29	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
262.29	0.32	100	4	100% MUDSTONE	CARBONACEOUS, DARK BROWN.
262.30	0.01	100	4	100% SANDSTONE,FINE GRAINED	BROWN, MODERATELY WEAK ROCK.
262.40	0.10	100	4	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
262.42	0.02	100	4	100% MUDSTONE	BRIGHT COAL, LENSES, BLACK, MODERATELY STRONG ROCK.
262.43	0.01	100	4	100% MUDSTONE	BROWN, MODERATELY STRONG ROCK.
262.51	0.08	100	4	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
262.52	0.01	100	4	100% MUDSTONE	BROWN, MODERATELY STRONG ROCK.
262.72	0.20	100	4	100% COAL, DULL WITH FEW BRIGHT BANDS	
262.88	0.16	100	4	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
262.94	0.06	100	4	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
262.96	0.02	100	4	100% COAL, BRIGHT	
262.98	0.02	100	5	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
262.99	0.01	100	5	100% SANDSTONE,FINE GRAINED	GREY-BROWN, MODERATELY STRONG ROCK.
263.25	0.26	100	5	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
					NOTE: WITH ABUNDANT SILICIFIED ROOTLETS IN TOP 3 CM.
263.40	0.15	100	5	100% MUDSTONE	BRIGHT COAL, BANDS, BLACK, MODERATELY STRONG ROCK.
263.47	0.07	100	5	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
263.51	0.04	100	5	100% MUDSTONE	COALY, LENSES, BROWN, MODERATELY STRONG ROCK.
264.09	0.58	100	5	100% CARBONACEOUS MUDSTONE	COALY, BROWN-BLACK, MODERATELY STRONG ROCK.
264.12	0.03	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, MODERATELY STRONG ROCK.
264.26	0.14	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
264.35	0.09	100		100% MUDSTONE	BRIGHT COAL, STREAKS, DARK GREY, MODERATELY STRONG ROCK.
				BASE OF DALMAYNE B : THICKNESS= 4.55 M; SAMPLED THICKNESS= 4.29 M	
266.31	1.96			100% MUDSTONE	SILTSTONE, GREY, MODERATELY STRONG ROCK, THICKLY LAMINATED, BASAL CONTACT ABRUPT.
267.44	1.13			100% SANDSTONE	MEDIUM GRAINED, LIGHT GREY, STRONG ROCK.
267.76	0.32			100% SILTSTONE	LIGHT GREY, STRONG ROCK.
271.90	4.14			100% SANDSTONE	MICACEOUS, LIGHT GREY, STRONG ROCK, VERY WIDELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, INFILLED WITH CALCITE.
272.35	0.45			100% MUDSTONE	SHALY, COALY, DARK BROWN, MODERATELY STRONG ROCK, WITH PLANT REMAINS, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
281.16	8.81			100% SILTSTONE	ARENACEOUS, BANDS, LIGHT GREY, MODERATELY STRONG ROCK, WITH CROSS LAMINATION, WITH SLUMP STRUCTURES.
288.47	7.31			100% SANDSTONE	COALY, STREAKS, LIGHT GREY, STRONG ROCK. NOTE: COAL STREAKS INCREASING TOWARDS BASE
				TOP OF DALMAYNE C : 186.53 M R.L.	
288.49	0.02		6	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
288.50	0.01	100	6	100% MUDSTONE	COALY, LENSES, BROWN, MODERATELY STRONG ROCK.
288.54	0.04	100	6	100% COAL, HEAVY DULL	
288.55	0.01	100	6	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
288.57	0.02	100	6	100% MUDSTONE	BROWN, MODERATELY STRONG ROCK.
288.59	0.02	100	6	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
288.61	0.02	100	6	100% MUDSTONE	BRIGHT COAL, LENSES, DARK BROWN, MODERATELY STRONG ROCK.
288.63	0.02	100	6	100% MUDSTONE	BROWN, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
288.65	0.02	100	6	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
288.68	0.03	0	6	CORE LOSS	
288.85	0.17	100	6	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
288.89	0.04	0	6	CORE LOSS	
289.10	0.21	100	6	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
289.14	0.04	0	6	CORE LOSS	
289.28	0.14	100	6	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
289.31	0.03	0	6	CORE LOSS	
289.34	0.03	100	6	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
289.35	0.01	100	6	100% MUDSTONE	COALY, LENSES, BROWN, MODERATELY WEAK ROCK.
289.38	0.03	100	6	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
289.48	0.10	100	7	100% COAL, HEAVY DULL	
289.51	0.03	100	7	100% COAL, DULL WITH FEW BRIGHT BANDS	
289.61	0.10	100	7	100% COAL, HEAVY DULL	
289.64	0.03	100	7	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
289.65	0.01	100	7	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
289.78	0.13	100	7	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
289.84	0.06	100	7	100% COAL, INTERBANDED DULL AND BRIGHT	CARBONACEOUS, LAMINAE.
289.86	0.02	100	7	100% CARBONACEOUS SHALE	BRIGHT COAL, LENSES.
289.87	0.01	100	7	100% MUDSTONE	COALY, STREAKS, BROWN, MODERATELY WEAK ROCK.
290.00	0.13	100	7	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
290.20	0.20	100	7	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
290.35	0.15	100	7	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	HEAVY DULL COAL, LAMINAE.
290.37	0.02	100	7	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
290.53	0.16	100	7	100% COAL, HEAVY DULL	
290.60	0.07	100	7	100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, MODERATELY WEAK ROCK.
290.64	0.04	100	7	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
290.80	0.16	100	7	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
290.81	0.01	100	7	100% MUDSTONE	COALY, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
290.93	0.12	100	7	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
291.07	0.14	100	8	100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
291.22	0.15	100	8	100% COAL, HEAVY DULL	
291.23	0.01	100	8	100% MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
291.26	0.03	100	8	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
291.38	0.12	100	8	100% COAL, HEAVY DULL	
291.47	0.09	100	8	100% MUDSTONE	COALY, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
291.49	0.02	100	8	100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
291.54	0.05	100	8	100% COAL, HEAVY DULL	
291.56	0.02	100	8	100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
291.57	0.01	100	8	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
291.58	0.01	100	8	100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
291.61	0.03	100	8	100% COAL, HEAVY DULL	
291.62	0.01	100	8	100% MUDSTONE	COALY, STREAKS, BROWN, MODERATELY WEAK ROCK.
291.63	0.01	100	8	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
291.64	0.01	100	8	100% MUDSTONE	COALY, STREAKS, BROWN, MODERATELY WEAK ROCK.
291.69	0.05	100	8	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
291.75	0.06	100	8	100% COAL, HEAVY DULL	
291.81	0.06	100	8	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
291.84	0.03	100	8	100% COAL, BRIGHT	
				BASE OF DALMAYNE C : THICKNESS= 3.37 M; SAMPLED THICKNESS= 3.37 M	
291.88	0.04	100		100% MUDSTONE	BRIGHT COAL, LENSES, DARK BROWN, MODERATELY WEAK ROCK.
291.89	0.01	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
291.91	0.02	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
291.98	0.07	100		100% CARBONACEOUS SHALE	BRIGHT COAL, LENSES.
292.00	0.02	100		100% MUDSTONE	BRIGHT COAL, STREAKS, DARK GREY, MODERATELY WEAK ROCK.
292.02	0.02	100		100% CARBONACEOUS SHALE	BRIGHT COAL, LENSES.
292.07	0.05	100		100% MUDSTONE	BRIGHT COAL, STREAKS, DARK GREY, MODERATELY WEAK ROCK.
292.08	0.01	100		100% COAL, BRIGHT	CARBONACEOUS, LENSES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
292.14	0.06	100		100% MUDSTONE	BRIGHT COAL, LENSES, DARK GREY, MODERATELY WEAK ROCK.
292.36	0.22	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE C : 182.64 M R.L.	
292.38	0.02	100		100% COAL, BRIGHT	
				BASE OF DALMAYNE C : THICKNESS= 0.02 M; SAMPLED THICKNESS= 0.00 M	
293.85	1.47	100		100% MUDSTONE	COALY, STREAKS, GREY, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
					NOTE: GRADATIONAL INTO SANDSTONE BELOW
301.13	7.28	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, STRONG ROCK, WITH CROSS LAMINATION, WIDELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT NON PLANAR, .
					NOTE: GRADING TO COARSER TOWARDS BASE
302.95	1.82	100		100% SANDSTONE,COARSE GRAINED	COALY, STREAKS, LIGHT GREY, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
303.04	0.09	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY STRONG ROCK.
304.62	1.58	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, STRONG ROCK, THINLY LAMINATED.
304.69	0.07	100		50% MUDSTONE 40% SANDSTONE 10% COAL	CARBONACEOUS. MODERATELY STRONG ROCK, BEDS DIP 7 DEG.
305.48	0.79	100		100% SANDSTONE,COARSE GRAINED	COALY, STREAKS, LIGHT GREY, STRONG ROCK, MEDIUM BEDDED.
306.27	0.79	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK, THICKLY LAMINATED.
310.70	4.43	100		100% SANDSTONE,COARSE GRAINED	COALY, LENSES, LIGHT GREY, STRONG ROCK, WITH MUD PELLETS.
310.83	0.13	100		80% MUDSTONE 20% SANDSTONE	CARBONACEOUS. COALY, BANDS. THICKLY LAMINATED.
311.22	0.39	100		100% SANDSTONE	CALCAREOUS, COALY, LIGHT GREY, STRONG ROCK.
311.32	0.10	100		100% MUDSTONE	CARBONACEOUS, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
311.37	0.05	100		100% SANDSTONE	CONGLOMERATIC.
311.47	0.10	100		100% CLAY	FISSILE, BROWN, SOFT.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
311.72	0.25	100		100% SANDSTONE	CONGLOMERATIC, STRONG ROCK, WITH MUD PELLETS.
311.88	0.16	100		100% SHALE	LIGHT GREY, MODERATELY STRONG ROCK.
313.36	1.48	100		100% SANDSTONE,COARSE GRAINED	CALCAREOUS, LIGHT GREY, STRONG ROCK.
313.56	0.20	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, STRONG ROCK, THICKLY LAMINATED.
314.81	1.25	100		100% SANDSTONE,COARSE GRAINED	COALY, STREAKS, LIGHT GREY, STRONG ROCK.
317.00	2.19	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
319.94	2.94	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, STRONG ROCK.
				NOTE: GRADATIONAL INTO MEDIUM COARSE FROM SANDSTONE ABOVE	
320.51	0.57	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, STRONG ROCK.
320.54	0.03	100		100% MUDSTONE	CARBONACEOUS, COALY, BLACK, MODERATELY STRONG ROCK.
323.36	2.82	100		100% SANDSTONE	MED.-COARSE GRAINED, CALCAREOUS, LIGHT GREY, STRONG ROCK, WITH PLANT REMAINS.
323.88	0.52	100		100% SANDSTONE,FINE GRAINED	CALCAREOUS, LIGHT GREY, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
324.58	0.70	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
324.99	0.41	100		100% SANDSTONE	COALY, STREAKS, LIGHT GREY, WITH MUD PELLETS.
325.68	0.69	100		100% MUDSTONE	COALY, STREAKS, LIGHT GREY, WITH CALCITE ON JOINTS, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
326.00	0.32	100		100% SANDSTONE,COARSE GRAINED	PEBBLY, LIGHT GREY, MODERATELY STRONG ROCK, WITH MUD PELLETS.
				NOTE: MUDSTONE PEBBLES ELONGATED IN DIRECTION OF BEDDING	
326.10	0.10	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, STRONG ROCK, WITH MUD PELLETS.
326.15	0.05	100		100% SANDSTONE	CONGLOMERATIC, CALCAREOUS, STRONG ROCK, WITH MUD PELLETS.
329.27	3.12	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, STRONG ROCK, MEDIUM BEDDED.
				NOTE: GRADATIONAL INTO COARSE GRAINED BELOW	
330.87	1.60	100		100% SANDSTONE,COARSE GRAINED	COALY, STREAKS, STRONG ROCK, THINLY BEDDED, WITH MUD PELLETS.
335.16	4.29	100		100% SANDSTONE	MED.-COARSE GRAINED, MICACEOUS, STRONG ROCK.
338.51	3.35	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, STRONG ROCK, WITH MUD PELLETS.
339.20	0.69	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, STRONG ROCK, VERY THINLY BEDDED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
345.51	6.31	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, STRONG ROCK, WITH MUD PELLETS.
345.94	0.43	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH PLANT REMAINS.
346.00	0.06	100	15	100% MUDSTONE	BRIGHT COAL, BANDS, BLACK, MODERATELY STRONG ROCK.
346.09	0.09	100	15	100% MUDSTONE	GREY, MODERATELY STRONG ROCK.
346.17	0.08	100	15	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
346.22	0.05	100	15	100% CLAYSTONE	BROWN, SOFT, WITH PLANT REMAINS.
		TOP OF	DALMAYNE D UPPER : 128.78 M R.L.		
346.34	0.12	100	16	100% COAL, HEAVY DULL	
346.58	0.24	100	16	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
346.63	0.05	100	16	100% MUDSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
346.76	0.13	100	16	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
347.20	0.44	100	16	100% COAL, HEAVY DULL	
347.42	0.22	100	16	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
347.45	0.03	100	16	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
		BASE OF	DALMAYNE D UPPER : THICKNESS= 1.23 M; SAMPLED THICKNESS= 1.23 M		
347.88	0.43	100	17	100% SILTSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
348.11	0.23	100	17	100% MUDSTONE	CARBONACEOUS, DARK GREY.
348.20	0.09	100	18	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
348.35	0.15	100	18	100% COAL, HEAVY DULL	
348.41	0.06	100	18	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
348.46	0.05	100	18	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
348.49	0.03	100	18	100% CARBONACEOUS SHALE	
348.52	0.03	100	18	100% COAL, DULL WITH FEW BRIGHT BANDS	
348.54	0.02	100	18	100% COAL, INTERBANDED DULL AND BRIGHT	
348.55	0.01	100	18	100% CARBONACEOUS SHALE	BRIGHT COAL, STREAKS.
349.25	0.70	100		100% MUDSTONE	FISSILE, GREY, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
351.42	2.17	100		65% SANDSTONE 35% SILTSTONE	COALY, STREAKS. CARBONACEOUS, STREAKS. THINLY BEDDED.
353.81	2.39	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, STRONG ROCK, MEDIUM BEDDED.
355.56	1.75	100		95% SANDSTONE,MEDIUM GRAINED 5% SILTSTONE	CARBONACEOUS, STREAKS, LIGHT GREY. STRONG ROCK, VERY THINLY BEDDED.
357.06	1.50	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, STRONG ROCK, VERY THINLY BEDDED.
				TOP OF DALMAYNE D LOWER : 117.94 M R.L.	
357.08	0.02	100	9	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
357.60	0.52	100	9	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
357.69	0.09	100	9	100% CARBONACEOUS SHALE	BRIGHT COAL, BANDS.
357.75	0.06	100	9	100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
357.78	0.03	100	9	100% CARBONACEOUS SHALE	
357.84	0.06	100	9	100% MUDSTONE	CARBONACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK.
358.07	0.23	100	10	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
358.08	0.01	100	10	100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, MODERATELY WEAK ROCK.
358.68	0.60	100	10	100% COAL, HEAVY DULL	
358.69	0.01	100	10	100% MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
359.00	0.31	100	10	100% COAL, DULL	BRIGHT COAL, STREAKS.
359.76	0.76	100	10	100% COAL, DULL	MUDSTONE, LAMINAE.
359.81	0.05	100	10	100% MUDSTONE	BRIGHT COAL, LENSES, DARK BROWN, MODERATELY WEAK ROCK.
359.85	0.04	100	10	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
				BASE OF DALMAYNE D LOWER : THICKNESS= 2.79 M; SAMPLED THICKNESS= 2.79 M	
359.89	0.04	100	11	100% MUDSTONE	BRIGHT COAL, STREAKS, DARK BROWN, MODERATELY WEAK ROCK.
359.94	0.05	100	11	100% CARBONACEOUS SHALE	BRIGHT COAL, LENSES.
360.52	0.58	100		100% MUDSTONE	ARENACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK, MEDIUM BEDDED.
360.67	0.15	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
361.10	0.43	100		100% SILTSTONE	FISSILE, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH PLANT REMAINS.
367.07	5.97	100		100% SANDSTONE	MED.-COARSE GRAINED, MICACEOUS, GREY, STRONG ROCK, THICKLY BEDDED, WITH MUD PELLETS, WIDELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
376.61	9.54	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, THICKLY BEDDED, WITH MUD PELLETS.
				NOTE: MUDSTONE	PEBBLES INCREASE IN LAST 10CM
377.29	0.68	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
377.49	0.20	100		100% SANDSTONE,COARSE GRAINED	PEBBLY, LIGHT GREY, MODERATELY STRONG ROCK, WITH MUD PELLETS.
377.64	0.15	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
384.67	7.03	100		100% SANDSTONE,COARSE GRAINED	CALCAREOUS, LIGHT GREY, STRONG ROCK, VERY THICKLY BEDDED, WITH MUD PELLETS.
384.71	0.04	100		100% MUDSTONE	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
389.20	4.49	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK, WITH MUD PELLETS.
389.35	0.15	100		100% SILTSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
				NOTE: SHARP IRREGULAR CONTACT WITH ABOVE SANDSTONE	
393.15	3.80	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
393.28	0.13	100		70% SANDSTONE,COARSE GRAINED 30% MUDSTONE	GREEN. CARBONACEOUS, DARK GREY. MODERATELY STRONG ROCK, THINLY LAMINATED, SEPARATION ALONG SOME BEDDING SURFACES, WITH CROSS LAMINATION, WITH LOAD CASTS.
394.81	1.53	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
395.67	0.86	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY STRONG ROCK, THICKLY BEDDED.
398.44	2.77	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY STRONG ROCK, THICKLY BEDDED.
399.14	0.70	100		100% SHALE	FISSILE, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
399.68	0.54	100		40% MUDSTONE 30% SILTSTONE 30% SHALE	CARBONACEOUS, GREY. MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
400.11	0.43	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK, THINLY LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CLAY & TALC.
400.27	0.16	100		100% CARBONACEOUS SHALE	BADLY BROKEN, VERY WEAK ROCK.
401.54	1.27	100		100% MUDSTONE	GREY, WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
402.41	0.87	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, SEPARATION ALONG SOME BEDDING SURFACES. NOTE: FEW BRIGHT BANDS AND CARB SHALE LAYERS
402.81	0.40	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK, THINLY LAMINATED.
403.28	0.47	100		100% SANDSTONE	LIGHT GREY, MODERATELY STRONG ROCK, THINLY BEDDED. NOTE: GRADES TO COARSE TOWARDS THE BASE
403.61	0.33	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
404.05	0.44	100		100% MUDSTONE	ARGILLACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
405.14	1.09	100		100% SILTSTONE	GREY, MODERATELY STRONG ROCK, THICKLY LAMINATED.
406.00	0.86	100		100% SANDSTONE	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION, WITH SLUMP STRUCTURES, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
406.05	0.05	0		CORE LOSS	
406.22	0.17	100	12	100% MUDSTONE	CARBONACEOUS, BLACK.
406.25	0.03	100	12	100% MUDSTONE	GREY, SOFT.
406.32	0.07	100	12	100% MUDSTONE	CARBONACEOUS, BLACK.
406.42	0.10	100	12	100% CARBONACEOUS SHALE	
406.50	0.08	100	12	100% MUDSTONE	CARBONACEOUS, BLACK.
406.52	0.02	100	12	100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
406.54	0.02	100	12	100% MUDSTONE	CARBONACEOUS, BLACK.
406.56	0.02	100	12	100% MUDSTONE	LIGHT BROWN, STIFF.

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
		TOP OF DALMAYNE E2 : 68.44 M R.L.			
406.82	0.26	100	13	100% COAL, HEAVY DULL	
406.83	0.01	100	13	100% MUDSTONE	BROWN.
406.92	0.09	100	13	100% MUDSTONE	CARBONACEOUS, BLACK.
407.00	0.08	100	13	100% COAL, HEAVY DULL	
407.08	0.08	100	13	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
407.11	0.03	100	13	100% COAL, BRIGHT WITH FEW DULL BANDS	
407.19	0.08	100	13	100% CARBONACEOUS SHALE	
407.24	0.05	100	13	100% MUDSTONE	CARBONACEOUS, BROWN.
407.32	0.08	100	13	100% COAL, DULL WITH FEW BRIGHT BANDS	
		BASE OF DALMAYNE E2 : THICKNESS= 0.76 M; SAMPLED THICKNESS= 0.76 M			
407.71	0.39	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
408.06	0.35	100		100% CLAYSTONE	GREY, WEAK ROCK.
408.99	0.93	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
409.34	0.35	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, THINLY BEDDED, SEPARATION ALONG SOME BEDDING SURFACES, WITH PLANT REMAINS.
412.58	3.24	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, SEPARATION ALONG SOME BEDDING SURFACES, WITH PLANT REMAINS, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
413.99	1.41	100		65% MUDSTONE 20% SILTSTONE 15% SANDSTONE	CARBONACEOUS. MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CROSS LAMINATION.
414.22	0.23	100		50% COAL, HEAVY DULL 50% MUDSTONE	CARBONACEOUS, BROWN-BLACK. MODERATELY STRONG ROCK, THICKLY LAMINATED.
415.82	1.60	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH TROUGH CROSS BEDDING, MODERATELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.

NOTE: SHARP CONTACT WITH OVERLYING COAL SEQUENCE

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
416.05	0.23	100		100% CLAYSTONE	GREY, MODERATELY WEAK ROCK.
416.25	0.20	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
					NOTE: GRADATIONAL CONTACT INTO SILTSTONE
418.67	2.42	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH PLANT REMAINS, WIDELY SPACED JOINTS, TIGHT NON PLANAR, WITH SLICKENSIDES.
					NOTE: ALSO ROUGH CALCITE INFILLED JOINTS AT 80D
419.27	0.60	100		100% MUDSTONE	GREY, WEAK ROCK, THICKLY LAMINATED, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, WITH SLICKENSIDES.
419.53	0.26	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY STRONG ROCK, VERY THINLY BEDDED.
422.00	2.47	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, THINLY BEDDED, WITH PLANT REMAINS.
422.43	0.43	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
423.36	0.93	100		60% MUDSTONE 40% SANDSTONE	CARBONACEOUS, DARK GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
					NOTE: SANDSTONE DOMINATES TOWARDS THE BASE
424.37	1.01	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, MODERATELY STRONG ROCK, VERY THINLY BEDDED, SEPARATION ALONG SOME BEDDING SURFACES.
424.56	0.19	100		55% SANDSTONE,COARSE GRAINED 45% MUDSTONE	COALY, STREAKS, GREY. CARBONACEOUS. MODERATELY WEAK ROCK, THINLY LAMINATED.
426.17	1.61	100		100% CLAYSTONE	WEAK ROCK, THINLY LAMINATED, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
426.29	0.12	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
426.72	0.43	100		100% MUDSTONE	COALY, STREAKS, BROWN, WEAK ROCK.
428.00	1.28	100		65% MUDSTONE 35% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
428.85	0.85	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY STRONG ROCK, THICKLY LAMINATED, SEPARATION ALONG SOME BEDDING SURFACES, WITH CROSS LAMINATION.
					NOTE: COAL LENSES,STREAKS
429.38	0.53	100		100% MUDSTONE	GREY-BROWN, WEAK ROCK, THICKLY LAMINATED, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
429.66	0.28	100		100% MUDSTONE	CARBONACEOUS, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
430.27	0.61	100		100% MUDSTONE	DARK BROWN, MODERATELY STRONG ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
430.49	0.22	100		100% CLAYSTONE	FISSILE, BROWN, MODERATELY STRONG ROCK. NOTE: BADLY BROKEN AT BOTH CONTACTS
432.66	2.17	100		100% MUDSTONE	ARENACEOUS, LENSES, BROWN, WITH MUD PELLETS, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, . NOTE: CARB MUD CLASTS COMMON IN THE LAST 30CM
432.68	0.02	100		100% MUDSTONE	CARBONACEOUS, SIDERITIC, BLACK, STRONG ROCK.
				TOP OF DALMAYNE F : 42.32 M R.L.	
432.74	0.06	100	14	100% COAL, DULL	BRIGHT COAL, BANDS.
432.75	0.01	100	14	100% MUDSTONE	CARBONACEOUS, SIDERITIC, BLACK, STRONG ROCK.
432.81	0.06	100	14	100% COAL, DULL	BRIGHT COAL, BANDS.
432.85	0.04	100	14	100% MUDSTONE	CARBONACEOUS, SIDERITIC, BLACK, STRONG ROCK.
432.90	0.05	100	14	100% COAL, DULL	
433.18	0.28	80	14	100% COAL, DULL WITH FEW BRIGHT BANDS	
				BASE OF DALMAYNE F : THICKNESS= 0.50 M; SAMPLED THICKNESS= 0.50 M	
433.48	0.30	100		100% SANDSTONE,MEDIUM GRAINED	BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
433.80	0.32	100		100% SILTSTONE	BROWN, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
436.63	2.83	100		100% SANDSTONE,COARSE GRAINED	COALY, STREAKS, LIGHT GREY, MODERATELY STRONG ROCK, VERY THINLY BEDDED, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
437.93	1.30	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY STRONG ROCK, BEDS DIP 6 DEG., MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
446.10	8.17	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, STRONG ROCK, VERY THINLY BEDDED, SEPARATION ALONG SOME BEDDING SURFACES, WITH MUD PELLETS, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: SHARP CONTACT AT BASE WITH CARB MUDSTONE
446.16	0.06	100		100% COAL, DULL	BRIGHT COAL, LENSES.
446.42	0.26	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
446.54	0.12	100		100% CARBONACEOUS SHALE	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
447.82	1.28	100		60% SANDSTONE 40% MUDSTONE	COALY, STREAKS, LIGHT GREY. CARBONACEOUS, DARK GREY. MODERATELY STRONG ROCK, THINLY LAMINATED, WITH MUD PELLETS, WITH CROSS LAMINATION.
447.85	0.03	100		100% MUDSTONE	BROWN, WEAK ROCK.
448.03	0.18	100		100% COAL, DULL	
448.05	0.02	100		100% CARBONACEOUS SHALE	
448.15	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK GREY.
448.84	0.69	100		70% SILTSTONE 20% MUDSTONE 10% SANDSTONE	LIGHT GREY. BROWN. MODERATELY WEAK ROCK, THICKLY LAMINATED, BASAL CONTACT ABRUPT, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
448.97	0.13	100		100% CLAYSTONE	COALY, STREAKS, GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
449.30	0.33	100		100% SILTSTONE	CARBONACEOUS, BANDS, MODERATELY WEAK ROCK, THINLY LAMINATED, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
449.50	0.20	100		100% MUDSTONE	CARBONACEOUS, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
449.73	0.23	100		100% SHALE	GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
450.28	0.55	100		100% SILTSTONE	LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
450.87	0.59	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH PLANT REMAINS.
451.37	0.50	100		100% SILTSTONE	ARENACEOUS, LENSES, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
451.48	0.11	100		100% SANDSTONE,COARSE GRAINED	CALCAREOUS, LIGHT GREY, STRONG ROCK.
452.04	0.56	100		100% SILTSTONE	MODERATELY STRONG ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
452.14	0.10	100		100% SHALE	DARK GREY, MODERATELY WEAK ROCK.
452.64	0.50	100		100% MUDSTONE	GREY-GREEN, MODERATELY WEAK ROCK, THINLY LAMINATED.
452.71	0.07	100		100% SHALE	DARK GREY, WEAK ROCK.
453.13	0.42	100		100% SILTSTONE	LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
453.88	0.75	100		100% MUDSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
454.12	0.24	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
454.28	0.16	100		100% SANDSTONE	ARGILLACEOUS, MODERATELY STRONG ROCK, THINLY LAMINATED.
455.13	0.85	100		60% SILTSTONE 40% MUDSTONE	DARK GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
456.05	0.92	100		65% SANDSTONE,MEDIUM GRAINED 35% MUDSTONE	DARK GREY. MODERATELY STRONG ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, WITH SLUMP STRUCTURES.
456.60	0.55	100		100% SILTSTONE	LIGHT GREY, MODERATELY STRONG ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
458.36	1.76	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK, THICKLY LAMINATED, WITH MUD PELLETS.
458.78	0.42	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
458.89	0.11	100		100% MUDSTONE	DARK BROWN, WEAK ROCK.
458.92	0.03	100		100% CARBONACEOUS SHALE	BRIGHT COAL, BANDS.
458.93	0.01	100		100% CLAYSTONE	LIGHT BROWN, WEAK ROCK, WITH PLANT REMAINS.
458.98	0.05	100		100% CARBONACEOUS SHALE	BRIGHT COAL, BANDS.
459.00	0.02	100		100% MUDSTONE	COALY, STREAKS, LIGHT GREEN, WEAK ROCK, WITH PLANT REMAINS.
459.04	0.04	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
459.06	0.02	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
459.07	0.01	100		100% MUDSTONE	LIGHT GREEN.
459.10	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
460.50	1.40	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
460.60	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
462.24	1.64	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, MODERATELY STRONG ROCK, THINLY LAMINATED, WITH PLANT REMAINS.
462.80	0.56	100		100% SANDSTONE	CALCAREOUS, LIGHT GREY, MODERATELY STRONG ROCK, THICKLY LAMINATED, WITH MUD PELLETS, WITH FLAME/PULL STRUCTS.
462.91	0.11	100		100% MUDSTONE	COALY, STREAKS, DARK BROWN, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
463.09	0.18	100		100% SANDSTONE,COARSE GRAINED	CALCAREOUS, LIGHT GREY, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
					NOTE: POSSIBLY A GRIT TOWARDS THE BASE
463.50	0.41	100		100% SILTSTONE	GREY, MODERATELY STRONG ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, MODERATELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
463.94	0.44	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
466.83	2.89	100		100% SILTSTONE	ARENACEOUS, LENSES, GREY, MODERATELY STRONG ROCK, THINLY LAMINATED, SEPARATION ALONG SOME BEDDING SURFACES, WITH PLANT REMAINS.
466.93	0.10	100		60% MUDSTONE 40% SANDSTONE	MODERATELY STRONG ROCK.
467.28	0.35	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, WITH MUD PELLETS.
					NOTE: LARGE MUDSTONE CLASTS AND QUARTZ FRAGMENTS
468.50	1.22	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
469.60	1.10	100		100% MUDSTONE	DARK GREY, WITH FRAGMENTS OF QUARTZ, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
469.82	0.22	100		100% MUDSTONE	WITH QUARTZ AND FRAGMENTS OF CALCITE, MODERATELY STRONG ROCK.
470.52	0.70	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, WITH FRAGMENTS OF QUARTZ, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
475.00	4.48	100		100% SILTSTONE	GREY, WITH FRAGMENTS OF QUARTZ, STRONG ROCK, THINLY LAMINATED, WITH SAND LINEATION, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
					NOTE: SANDSTONE LENSES
475.07	0.07	100		100% LIMESTONE	SILTSTONE, STRONG ROCK.
477.00	1.93	100		100% SILTSTONE	GREY, WITH FRAGMENTS OF QUARTZ, STRONG ROCK, THINLY LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
477.18	0.18	100		100% LIMESTONE	SILTSTONE, STRONG ROCK.
479.97	2.79	100		100% SILTSTONE	GREY, WITH FRAGMENTS OF QUARTZ, STRONG ROCK, THINLY LAMINATED.
482.00	2.03	100		100% SILTSTONE	QUARTZITIC, PEBBLY, GREY, STRONG ROCK, WITH MUD PELLETS, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
					NOTE: QUARTZ PEBBLES AND LARGE ANGULAR FRAGMENTS ARE ABUNDANT WHIL E MINOR MUDSTONE AND CHLORITIC CLASTS ARE ALSO PRESENT
483.06	1.06	100		100% SILTSTONE	GREY, WITH FRAGMENTS OF QUARTZ, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
483.17	0.11	100		100% LIMESTONE	SILTSTONE, STRONG ROCK.
506.45	23.28	100		100% SILTSTONE	ARENACEOUS, GREY, WITH FRAGMENTS OF QUARTZ, MODERATELY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
					NOTE: SANDSTONE AND MUDSTONE BANDS OCCUR WITH FLAME STRUCTURES ALONG THE SANDSTONE CONTACTS AND SOME REGIONS HIGHLY VIENED BY CALCITE
506.50	0.05	100		100% PEBBLE CONGLOMERATE	BANDS, STRONG ROCK.
506.82	0.32	100		100% SANDSTONE	QUARTZITIC, PEBBLY, LIGHT GREY, STRONG ROCK.
506.85	0.03	100		100% PEBBLE CONGLOMERATE	BANDS, STRONG ROCK.
507.66	0.81	100		100% SANDSTONE	CONGLOMERATIC, BANDS, GREY, WITH FRAGMENTS OF QUARTZ, STRONG ROCK.
					NOTE: INCREASING GREENISH MINERAL CONTENT
510.50	2.84	100		100% SANDSTONE,COARSE GRAINED	GREEN, WITH FRAGMENTS OF QUARTZ, STRONG ROCK.
					NOTE: MINOR SILTSTONE PEBBLES

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	4.29 M	259.80 - 264.35 M	4.55 M
DC	3.37 M	288.47 - 291.84 M	3.37 M
DC	0.00 M	292.36 - 292.38 M	0.02 M
DDU	1.23 M	346.22 - 347.45 M	1.23 M
DDL	2.79 M	357.06 - 359.85 M	2.79 M
DE2	0.76 M	406.56 - 407.32 M	0.76 M
DF	0.50 M	432.68 - 433.18 M	0.50 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	259.73 - 259.80 M	0.07 M
2	259.80 - 260.44 M	0.64 M
3	260.44 - 261.97 M	1.53 M
4	261.97 - 262.96 M	0.99 M
5	262.96 - 264.09 M	1.13 M
6	288.47 - 289.38 M	0.91 M
7	289.38 - 290.93 M	1.55 M
8	290.93 - 291.84 M	0.91 M
15	345.94 - 346.22 M	0.28 M
16	346.22 - 347.45 M	1.23 M
17	347.45 - 348.11 M	0.66 M
18	348.11 - 348.55 M	0.44 M
9	357.06 - 357.84 M	0.78 M
10	357.84 - 359.85 M	2.01 M
11	359.85 - 359.94 M	0.09 M
12	406.05 - 406.56 M	0.51 M
13	406.56 - 407.32 M	0.76 M
14	432.68 - 433.18 M	0.50 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 3

HOLE TYPE	CORE	
EASTING	600,050 M	GRID
NORTHING	5,380,950 M	GRID
ELEVATION	480.00 M	
TOTAL DEPTH DRILLED	489.54 M	
DRILLING STARTED	30/ 6/78	
DRILLING TIME	27 DAYS	
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION	
PETROPHYSICAL WIRELINE LOGS RUN :		

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
9.00	9.00	70		100% DOLERITE	FERRUGINOUS, STAINING, ORANGE-YELLOW, HIGHLY WEATHERED, VERY WEAK ROCK.
					NOTE: WITH NUMEROUS SLIGHTLY WEATHERED DOLERITE BOULDERS
13.40	4.40	80		100% DOLERITE	MED.-FINE GRAINED, BADLY BROKEN, GREY-GREEN, SLIGHTLY WEATHERED, VERY STRONG ROCK.
15.40	2.00	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, SLIGHTLY WEATHERED, VERY STRONG ROCK.
16.00	0.60	80		100% DOLERITE	BADLY BROKEN, GREY-GREEN, SLIGHTLY WEATHERED, VERY STRONG ROCK.
16.80	0.80	100		100% DOLERITE	MEDIUM GRAINED, UNWEATHERED, VERY STRONG ROCK.
17.00	0.20	80		100% DOLERITE	BADLY BROKEN, GREY-GREEN, WITH CALCITE ON JOINTS AND TALC ON JOINTS, VERY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
					NOTE: FRACTURE ZONE
19.80	2.80	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG POCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CLAY & TALC.
20.60	0.80	100		100% DOLERITE	BADLY BROKEN, GREY-GREEN, WITH CALCITE ON JOINTS AND TALC ON JOINTS, VERY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, .
					NOTE: FRACTURE ZONE
22.00	1.40	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, MODERATELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, .
23.60	1.60	80		100% DOLERITE	BADLY BROKEN, GREY-GREEN, VERY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CLAY & TALC.
					NOTE: FRACTURE ZONE
26.00	2.40	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CLAY & TALC.
27.00	1.00	80		100% DOLERITE	BADLY BROKEN, GREY-GREEN, VERY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, INFILLED WITH CLAY & TALC.
					NOTE: FRACTURE ZONE
28.20	1.20	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
28.60	0.40	80		100% DOLERITE	BADLY BROKEN, GREY-GREEN, WITH CALCITE ON JOINTS AND TALC ON JOINTS, VERY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, .
					NOTE: FRACTURE ZONE

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
48.20	19.60	100		100% DOLERITE	MEDIUM GRAINED, GREY, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CLAY & TALC.
54.26	6.06	100		100% DOLERITE	MEDIUM GRAINED, GREY, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CLAY & TALC.
54.50	0.24	80		100% DOLERITE	BADLY BROKEN, GREY-GREEN, VERY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, INFILLED WITH CLAY & TALC. NOTE: FRACTURE ZONE
58.60	4.10	100		100% DOLERITE	MEDIUM GRAINED, GREY, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CLAY & TALC.
59.20	0.60	80		100% DOLERITE	BADLY BROKEN, GREY-GREEN, VERY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, INFILLED WITH CLAY & TALC. NOTE: FRACTURE ZONE
66.50	7.30	100		100% DOLERITE	MEDIUM GRAINED, GREY, VERY STRONG ROCK.
86.00	19.50	100		100% DOLERITE	MEDIUM GRAINED, GREY, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CLAY & TALC.
134.00	48.00	100		100% DOLERITE	MEDIUM GRAINED, GREY, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CLAY & TALC.
135.00	1.00	100		100% DOLERITE	MED.-FINE GRAINED, GREY, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
135.50	0.50	100		100% DOLERITE	VERY FINE GRAINED, GREY, MODERATELY STRONG ROCK. NOTE: CHILLED BASAL CONTACT
137.35	1.85	100		100% MUDSTONE	FINE GRAINED SANDSTONE, BANDS, GREY, WITH CHLORITE ON JOINTS, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: BAKED APPEARENCE; SHEARED IN PART;
137.76	0.41	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK, WITH MUD PELLETS, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
141.60	3.84	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: WITH SANDSTONE BANDS
144.50	2.90	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
144.75	0.25	100		60% MUDSTONE 20% MUDSTONE 20% MUDSTONE	CARBONACEOUS, DARK GREY. CARBONACEOUS, DARK BROWN. BUFF. WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
					NOTE: BROKEN CORE
145.55	0.80	0		CORE LOSS	NOTE: CORE LOSS
145.68	0.13	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
152.03	6.35	100		100% MUDSTONE	SHALY, GREY-GREEN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES. NOTE: MINOR FERRUGINOUS STAINING
154.83	2.80	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
155.40	0.57	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK. NOTE: WITH NUMEROUS LARGE CHLORITE PELLETS IN TOP 15 CM.
156.35	0.95	100		100% SILTSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
158.50	2.15	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK. NOTE: GRADING INTO VERY COARSE SANDSTONE IN BASAL 25 CM.
158.78	0.28	100		100% CLAYSTONE	BUFF, WEAK ROCK.
160.73	1.95	100		100% MUDSTONE	ARENACEOUS, GREY, MODERATELY WEAK ROCK. NOTE: MINOR RED AND GREEN STAINING
165.80	5.07	100		90% MUDSTONE 10% MUDSTONE	FERRUGINOUS, STAINING, RED-BROWN. GREY. MODERATELY WEAK ROCK, THINLY BEDDED, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
167.63	1.83	100		100% MUDSTONE	GREY-GREEN, WITH PELLETS OF CHLORITE, WEAK ROCK.
168.88	1.25	100		100% MUDSTONE	GREY, WEAK ROCK.
171.17	2.29	100		50% MUDSTONE 30% CLAYSTONE 20% CARBONACEOUS SHALE	GREY. CARBONACEOUS, STREAKS, LIGHT BROWN. COALY, BANDS. MODERATELY WEAK ROCK, THINLY BEDDED.
171.68	0.51	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
174.10	2.42	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
174.15	0.05	100		100% CLAYSTONE	GREY-GREEN, WEAK ROCK.
175.96	1.81	100		100% MUDSTONE	ARENACEOUS, GREY-GREEN, MODERATELY WEAK ROCK.
177.42	1.46	100		100% MUDSTONE	SANDSTONE, BANDS, DARK GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
178.70	1.28	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
179.18	0.48	100		100% MUDSTONE	COALY, BANDS, GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
179.45	0.27	100		100% MUDSTONE	GREY-GREEN, MODERATELY WEAK ROCK.
179.99	0.54	100		100% MUDSTONE	CARBONACEOUS, BANDS, DARK GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
181.85	1.86	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
183.35	1.50	100		100% MUDSTONE	FINE GRAINED SANDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK.
185.00	1.65	100		60% SANDSTONE 40% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION, WITH LOAD CASTS.
189.75	4.75	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, MODERATELY STRONG ROCK.
189.92	0.17	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, LENSES, GREY-BROWN, MODERATELY WEAK ROCK.
190.12	0.20	100		100% PEBBLE CONGLOMERATE	GREY-BROWN, MODERATELY STRONG ROCK.
190.42	0.30	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, LENSES, GREY-BROWN, MODERATELY WEAK ROCK.
194.55	4.13	100		100% SANDSTONE	LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS. NOTE: FINE GRADING TO COARSE; CARBONACEOUS BANDS AND LENSES; FRIABLE TOWARDS BASE
198.63	4.08	100		50% SANDSTONE,MEDIUM GRAINED 50% SANDSTONE,COARSE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY. COALY, LENSES, LIGHT GREY. MODERATELY STRONG ROCK, MEDIUM BEDDED, WITH MUD PELLETS, WITH CROSS LAMINATION.
199.06	0.43	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK.
199.18	0.12	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, WITH MUD PELLETS.
202.80	3.62	100		100% SANDSTONE	MED.-COARSE GRAINED, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
203.37	0.57	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
205.10	1.73	100		100% MUDSTONE	FINE GRAINED SANDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK.
208.64	3.54	100		80% MUDSTONE 20% SANDSTONE,FINE GRAINED	CARBONACEOUS, FRIABLE, DARK GREY. LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
209.00	0.36	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY STRONG ROCK.
210.30	1.30	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
213.57	3.27	100		50% MUDSTONE 50% SANDSTONE	GREY. MED.-FINE GRAINED, LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION, WITH LOAD CASTS.
214.78	1.21	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
215.11	0.33	100		100% MUDSTONE	GREY-GREEN, MODERATELY WEAK ROCK.
215.38	0.27	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
216.59	1.21	100		100% MUDSTONE	GREY-GREEN, MODERATELY WEAK ROCK.
219.26	2.67	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK. NOTE: LAMINATED BELOW 218 M.
219.56	0.30	100		100% CLAYSTONE	MICACEOUS, LIGHT GREEN, WEAK ROCK.
219.81	0.25	100		100% CARBONACEOUS SHALE	
219.86	0.05	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
219.88	0.02	100		100% CARBONACEOUS SHALE	
219.95	0.07	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
220.01	0.06	100		100% CARBONACEOUS SHALE	
220.05	0.04	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY-BROWN, MODERATELY WEAK ROCK.
220.08	0.03	100		100% CARBONACEOUS SHALE	
220.30	0.22	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
221.17	0.87	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
222.12	0.95	100		100% SILTSTONE	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
222.19	0.07	100		100% CLAYSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, WEAK ROCK.
223.34	1.15	100		100% SILTSTONE	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
229.68	6.34	100		70% SANDSTONE 30% SILTSTONE	MED.-FINE GRAINED, GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION. NOTE: SAND/SILT RATIO INCREASES TOWARDS BASE
231.45	1.77	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, WITH CARBONACEOUS WISPS. NOTE: FRIABLE IN PART; OCCASIONAL MUDSTONE BANDS
241.15	9.70	100		100% SANDSTONE,COARSE GRAINED	COALY, LENSES, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
241.24	0.09	100		100% COAL, HEAVY DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
241.29	0.05	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
241.55	0.26	100		100% COAL, HEAVY DULL	MUDSTONE, BANDS.
242.02	0.47	100		100% MUDSTONE	CARBONACEOUS, LENSES, GREY-BROWN, MODERATELY WEAK ROCK.
242.57	0.55	100		70% CARBONACEOUS SHALE 30% MUDSTONE	CARBONACEOUS, STREAKS, BROWN. WEAK ROCK, VERY THINLY BEDDED.
242.86	0.29	100		100% CLAYSTONE	MICACEOUS, GREY-GREEN, STIFF.
243.07	0.21	100		100% MUDSTONE	CARBONACEOUS, LENSES, DARK GREY, MODERATELY WEAK ROCK.
246.47	3.40	100		100% SANDSTONE	MUDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK. NOTE: FINE GRADING TO MEDIUM
246.57	0.10	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
246.60	0.03	100		100% CARBONACEOUS SHALE	MUDSTONE, LAMINAE.
246.64	0.04	100		100% CLAYSTONE	BUFF, STIFF.
247.97	1.33	100		100% SILTSTONE	MUDSTONE, BANDS, DARK GREY, MODERATELY WEAK ROCK.
248.35	0.38	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK. NOTE: WITH 4 CM THICK BAND OF CALCITE VEINLETS AT 248.27 M.
248.40	0.05	100		100% CLAYSTONE	MUDSTONE, BANDS, LIGHT BROWN, WEAK ROCK.
248.61	0.21	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, LENSES, GREY-BROWN, MODERATELY WEAK ROCK.
250.97	2.36	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK. NOTE: WITH BANDS CONTAINING ABUNDANT CALCITE VEINLETS
251.40	0.43	100		100% CLAYSTONE	MICACEOUS, GREY-GREEN, WEAK ROCK. NOTE: WITH MINOR BANDS OF CALCITE VEINLETS
252.02	0.62	100		100% SANDSTONE	VERY FINE GRAINED, DARK GREY, MODERATELY WEAK ROCK.
253.04	1.02	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
253.70	0.66	100		100% SANDSTONE	VERY FINE GRAINED, GREY-GREEN, MODERATELY WEAK ROCK.
254.77	1.07	100		100% SANDSTONE,FINE GRAINED	GREY-GREEN, MODERATELY WEAK ROCK.
256.23	1.46	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
256.41	0.18	100		100% CLAYSTONE	LIGHT GREEN, WEAK ROCK, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
256.61	0.20	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
257.11	0.50	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
258.19	1.08	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, BANDS, LIGHT GREEN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
259.67	1.48	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
261.95	2.28	100		70% SANDSTONE,FINE GRAINED 30% SANDSTONE,MEDIUM GRAINED	GREY. MUDSTONE, LAMINAE, LIGHT GREY. MODERATELY WEAK ROCK, THINLY BEDDED.
263.00	1.05	100		70% SANDSTONE 30% SANDSTONE,FINE GRAINED	VERY FINE GRAINED, GREY. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
265.38	2.38	100		50% MUDSTONE 50% MUDSTONE	GREY. CARBONACEOUS, LAMINAE, DARK GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, WITH LOAD CASTS.
265.67	0.29	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
265.82	0.15	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
266.30	0.48	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
272.00	5.70	100		100% SANDSTONE,COARSE GRAINED NOTE: FRIABLE IN PART	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE B : 208.00 M R.L.	
272.16	0.16	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK, WITH MUD PELLETS.
272.58	0.42	100		100% CLAYSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, WEAK ROCK.
272.73	0.15	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
272.75	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
272.76	0.01	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
273.20	0.44	100		100% SANDSTONE,COARSE GRAINED NOTE: CALCAREOUS IN BASAL 20 CM.	LIGHT GREY, MODERATELY WEAK ROCK.
273.24	0.04	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, WEAK ROCK.
273.25	0.01	100		100% CARBONACEOUS SHALE	
273.33	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
273.78	0.45	100		100% CLAYSTONE	GREY-GREEN, STIFF.
273.86	0.08	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
273.91	0.05	100		100% CLAYSTONE	GREY-GREEN, STIFF, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
274.16	0.25	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
274.20	0.04	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN, MODERATELY WEAK ROCK.
274.22	0.02	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
274.33	0.11	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK. NOTE: GRADING TO HEAVY DULL COAL IN PART
274.57	0.24	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
274.67	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
274.75	0.08	100		100% MUDSTONE	SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
274.99	0.24	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
275.02	0.03	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY-GREEN, MODERATELY WEAK ROCK.
275.22	0.20	100		100% CLAYSTONE	GREY-GREEN, FIRM.
276.06	0.84	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
276.08	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
276.38	0.30	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
276.41	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES, WITH CALCITE ON CLEAT.
276.60	0.19	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
276.67	0.07	100		100% COAL, DULL WITH FEW BRIGHT BANDS	WITH CALCITE ON CLEAT.
276.76	0.09	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
276.77	0.01	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, MODERATELY WEAK ROCK.
276.78	0.01	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
276.80	0.02	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, MODERATELY WEAK ROCK.
276.89	0.09	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
276.91	0.02	100		100% COAL, BRIGHT	
276.94	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
276.99	0.05	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
277.22	0.23	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
277.26	0.04	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN, MODERATELY WEAK ROCK.
277.27	0.01	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
277.30	0.03	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
277.35	0.05	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
277.36	0.01	100		100% MUDSTONE	GREY-GREEN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
277.38		00		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
277.46		00		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
277.48	0.[illegible]	.00		100% COAL, BRIGHT	
				BASE OF DALMAYNE B : THICKNESS= 5.48 M; SAMPLED THICKNESS= 0.00 M	
277.53	0.05	100		100% MUDSTONE	BRIGHT COAL, LENSES, GREY-BROWN, MODERATELY WEAK ROCK.
278.12	0.59	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY-BROWN, WEAK ROCK.
278.93	0.81	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, BEDS DIP 6 DEG. NOTE: BECOMING SILTY TOWARDS BASE
279.57	0.64	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, BEDS DIP 6 DEG.
280.60	1.03	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION, WITH SLUMP STRUCTURES.
287.75	7.15	100		100% MUDSTONE	CARBONACEOUS, BANDS, DARK GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
287.76	0.01	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
287.82	0.06	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
287.84	0.02	100		100% CARBONACEOUS SHALE	
287.90	0.06	100		100% CLAYSTONE	WEAK ROCK.
287.93	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
287.97	0.04	100		100% CLAYSTONE	GREY, WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
288.21	0.24	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK.
290.96	2.75	100		50% MUDSTONE 50% MUDSTONE	GREY. DARK GREY. MODERATELY WEAK ROCK, BEDS DIP 7 DEG., WITH LOAD CASTS.
301.34	10.38	100		100% SANDSTONE,COARSE GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK. NOTE: CALCEROUS FROM 298.16-298.97 M; FRIABLE IN PART; BANDS OF MUDSTONE PEBBLES IN BASAL 1.0 M.
301.64	0.30	100		100% SANDSTONE,FINE GRAINED	SCREE, LENSES, GREY, MODERATELY WEAK ROCK.
302.15	0.51	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
302.81	0.66	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	SILTSTONE, GREY. LIGHT GREY. MODERATELY WEAK ROCK, BEDS DIP 7 DEG.
303.01	0.20	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
303.11	0.10	100		100% CLAYSTONE	CARBONACEOUS, BANDS, BUFF, WEAK ROCK.
303.25	0.14	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
303.30	0.05	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
303.33	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
303.40	0.07	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
303.58	0.18	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
303.64	0.06	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
303.66	0.02	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
303.68	0.02	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
303.69	0.01	100		100% MUDSTONE	BUFF, MODERATELY WEAK ROCK.
304.14	0.45	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
			TOP OF DALMAYNE C : 175.86 M R.L.		
304.33	0.19	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS. NOTE: FRACTURED; GRADING TO DULL COAL AND CARB MUDSTONE IN PART
304.35	0.02	100		100% MUDSTONE	BRIGHT COAL, STREAKS, BROWN-BLACK, MODERATELY WEAK ROCK.
304.51	0.16	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
304.52	0.01	100		100% MUDSTONE	BRIGHT COAL, STREAKS, BROWN-BLACK, MODERATELY WEAK ROCK.
304.55	0.03	100		100% COAL, HEAVY DULL	
304.64	0.09	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
304.65	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK.
304.70	0.05	100		100% COAL, DULL	
304.86	0.16	100		100% COAL, HEAVY DULL	MODERATELY STRONG ROCK.
			BASE OF DALMAYNE C : THICKNESS= 0.72 M; SAMPLED THICKNESS= 0.00 M		
305.04	0.18	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
305.13	0.09	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
305.17	0.04	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
305.24	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
305.34	0.10	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
305.49	0.15	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
305.65	0.16	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
305.69	0.04	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
305.80	0.11	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
305.83	0.03	100		100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, MODERATELY WEAK ROCK.
305.94	0.11	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
305.97	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
305.98	0.01	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
306.15	0.17	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
308.88	2.73	100		70% SANDSTONE,FINE CRAINED 30% MUDSTONE	CARBONACEOUS, LAMINAE, GREY. GREY. MODERATELY WEAK ROCK, MEDIUM BEDDED.
312.07	3.19	100		70% SANDSTONE,FINE GRAINED 30% SANDSTONE	MUDSTONE, LAMINAE, GREY. MED.-FINE GRAINED, LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
312.45	0.38	100		60% MUDSTONE 40% MUDSTONE	GREY. DARK GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
318.01	5.56	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION. NOTE: FRIABLE IN PART; ABUNDANT MUDSTONE PEBBLES AND CARBONACEOUS LENSES IN BASAL 40 CM.
318.12	0.11	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
318.42	0.30	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
318.48	0.06	100		100% CLAYSTONE	LIGHT BROWN, STIFF.
318.83	0.35	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
319.26	0.43	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK. NOTE: NUMEROUS MUDSTONE PEBBLES IN TOP 16 CM.
320.15	0.89	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
					NOTE: FRIABLE IN PART
321.65	1.50	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
322.49	0.84	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
322.85	0.36	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
					NOTE: NUMEROUS COAL LENSES AND MUDSTONE PEBBLES
323.05	0.20	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
323.97	0.92	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
					NOTE: NUMEROUS COAL LENSES AND MUDSTONE PEBBLES
331.84	7.87	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
					NOTE: GRADING TO VERY COARSE IN PART WITH MUDSTONE PEBBLES AND COAL LENSES
332.12	0.28	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
354.60	22.48	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
					NOTE: GRADING TO VERY COARSE IN PART; MUDSTONE PEBBLES FROM 333.15-333.90M AND 350.00-350.15M; CALCAREOUS FROM 337.10-337.60M CARBONACEOUS LENSES FROM 340.10-340.45M; FRIABLE IN PART BELOW 346.60M.
355.06	0.46	100		100% MUDSTONE	SCREE, LENSES, GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
360.97	5.91	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
					NOTE: GRADING TO VERY COARSE IN PART; CALCAREOUS FROM 357.00-357.80 M.
				TOP OF DALMAYNE D UPPER : 119.03 M R.L.	
361.06	0.09	100	1	100% COAL, HEAVY DULL	CARBONACEOUS, BANDS.
361.43	0.37	100	1	100% COAL, HEAVY DULL	DULL COAL, BANDS.
361.48	0.05	100	1	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
361.64	0.16	100	1	100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
361.67	0.03	100	1	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
361.70	0.03	100	1	100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
361.81	0.11	100	1	100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
361.84	0.03	100	1	100% COAL, HEAVY DULL	MUDSTONE, LAMINAE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
361.87	0.03	100	1	100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
361.92	0.05	100	1	100% CARBONACEOUS SHALE	BRIGHT COAL, STREAKS.
361.94	0.02	100	1	100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
361.96	0.02	100	1	100% CARBONACEOUS SHALE	BRIGHT COAL, STREAKS.
362.04	0.08	100	2	100% COAL, DULL	
362.64	0.60	100	2	100% COAL, DULL	NOTE: FRACTURED IN PART
363.68	1.04	100	2	100% COAL, DULL	
363.70	0.02	100	2	100% CARBONACEOUS SHALE	
363.82	0.12	100	2	100% COAL, DULL	
				BASE OF DALMAYNE D UPPER : THICKNESS= 2.85 M; SAMPLED THICKNESS= 2.85 M	
363.83	0.01	100		100% CARBONACEOUS SHALE	BRIGHT COAL, STREAKS.
363.90	0.07	100		100% MUDSTONE	BRIGHT COAL, BANDS, DARK BROWN, MODERATELY WEAK ROCK.
363.97	0.07	100		100% MUDSTONE	COALY, LENSES, GREY, WEAK ROCK, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
364.00	0.03	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, FIRM.
365.46	1.46	100		100% MUDSTONE	GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
365.61	0.15	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
365.77	0.16	100		80% SANDSTONE,FINE GRAINED 20% SILTSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
365.86	0.09	100		60% SANDSTONE,FINE GRAINED 40% SANDSTONE,COARSE GRAINED	LIGHT GREY. LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
					NOTE: GRADATIONAL BASAL CONTACT
366.55	0.69	100		100% SANDSTONE,COARSE GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
366.70	0.15	100		60% SILTSTONE 40% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
					NOTE: GRADATIONAL BASAL CONTACT
376.68	9.98	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
					NOTE: POORLY DEVELOPED FINE BEDDING FROM 370.35-373.10M; CALCAREOUS FROM 371.20-372.15M; NUMEROUS COAL LENSES AND MUDSTONE FRAGMENTS FROM 373.10-375.45M.
			TOP OF	DALMAYNE D LOWER : 103.32 M R.L.	
377.00	0.32	100	3	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
377.10	0.10	100	3	100% COAL, HEAVY DULL	CARBONACEOUS, BANDS.
377.16	0.06	100	3	100% CARBONACEOUS SHALE	BRIGHT COAL, LENSES.
377.23	0.07	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
377.30	0.07	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
					NOTE: 0.5 CM LIGHT BROWN MUDSTONE BAND AT BASE
377.44	0.14	100	4	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
377.45	0.01	100	4	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
					NOTE: GRADATIONAL BASAL CONTACT
377.47	0.02	100	4	100% MUDSTONE	BRIGHT COAL, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
377.48	0.01	100	4	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK, WITH MUD PELLETS.
377.98	0.50	100	4	100% COAL, HEAVY DULL	CARBONACEOUS, BANDS, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
377.99	0.01	100	4	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
378.45	0.46	100	4	100% COAL, HEAVY DULL	MUDSTONE, BANDS.
					NOTE: GRADING TO DULL COAL IN PART
378.75	0.30	100	4	100% COAL, HEAVY DULL	DULL COAL, BANDS, EXTREMELY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
378.80	0.05	100	4	100% COAL, HEAVY DULL	MUDSTONE, BANDS.
378.86	0.06	100	4	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
379.20	0.34	100	4	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
379.22	0.02	100	4	100% MUDSTONE	CARBONACEOUS, DARK BROWN, FIRM.
379.50	0.28	100	4	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
			BASE OF	DALMAYNE D LOWER : THICKNESS= 2.82 M; SAMPLED THICKNESS= 2.82 M	
379.78	0.28	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK.
379.81	0.03	100		100% CLAYSTONE	LIGHT BROWN, FIRM, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
379.83	0.02	100		100% CARBONACEOUS SHALE	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
381.02	1.19	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
381.05	0.03	100		100% MUDSTONE	COALY, LENSES, DARK GREY, WEAK ROCK, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
381.07	0.02	100		100% COAL, BRIGHT	
381.15	0.08	100		100% MUDSTONE	COALY, LENSES, DARK GREY, WEAK ROCK, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
381.21	0.06	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
381.77	0.56	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, WEAK ROCK.
382.32	0.55	100		60% SANDSTONE,FINE GRAINED 40% MUDSTONE	GREY. GREY. WEAK ROCK, THINLY LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
384.62	2.30	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
384.63	0.01	100		100% CLAYSTONE	LIGHT BROWN, FIRM.
384.80	0.17	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
384.84	0.04	100		100% CLAYSTONE	LIGHT GREY, STIFF.
385.16	0.32	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
385.19	0.03	100		100% CLAYSTONE	BROWN, FIRM.
385.28	0.09	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
385.29	0.01	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
385.32	0.03	100		100% COAL, HEAVY DULL	
385.41	0.09	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
385.42	0.01	100		100% CARBONACEOUS SHALE	
386.12	0.70	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
386.23	0.11	100		100% MUDSTONE	CARBONACEOUS, BANDS, DARK GREY, MODERATELY WEAK ROCK.
386.33	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
387.75	1.42	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
387.84	0.09	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, WEAK ROCK.
387.88	0.04	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
387.91	0.03	100		100% CARBONACEOUS SHALE	
387.94	0.03	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
388.00	0.06	100		100% CLAYSTONE	LIGHT BROWN, FIRM.
388.10	0.10	100		100% COAL, HEAVY DULL	
388.17	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
388.40	0.23	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED.
395.57	7.17	100		100% MUDSTONE	FINE GRAINED SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
395.66	0.09	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.
398.13	2.47	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
399.82	1.69	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
400.16	0.34	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
406.68	6.52	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, FRAGMENTS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
409.72	3.04	100		90% MUDSTONE 10% MUDSTONE	GREY. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, WITH LOAD CASTS.
410.10	0.38	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
411.31	1.21	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
411.49	0.18	100		100% CLAYSTONE	GREY, FIRM, WITH PLANT REMAINS.
411.57	0.08	0		CORE LOSS	NOTE: CORE LOSS
412.23	0.66	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, WEAK ROCK, THINLY LAMINATED.
412.40	0.17	100		60% SANDSTONE,FINE GRAINED 40% MUDSTONE	GREY. GREY. MODERATELY WEAK ROCK, THINLY BEDDED.
412.76	0.36	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
413.49	0.73	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
413.96	0.47	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, WEAK ROCK, THINLY LAMINATED, VERY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
415.70	1.74	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	LIGHT GREY. CARBONACEOUS, LAMINAE, GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION. NOTE: SAND/MUD RATIO INCREASES TOWARDS BASE.
416.28	0.58	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
417.69	1.41	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
418.47	0.78	100		80% MUDSTONE 20% MUDSTONE	CARBONACEOUS, BLACK. CARBONACEOUS, STREAKS, GREY-BROWN. MODERATELY WEAK ROCK, VERY THINLY BEDDED.
419.07	0.60	100		90% SANDSTONE,FINE GRAINED 10% MUDSTONE	LIGHT GREY. CARBONACEOUS, STREAKS, GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
419.75	0.68	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	LIGHT GREY. CARBONACEOUS, LAMINAE, GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
421.01	1.26	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
421.58	0.57	100		80% MUDSTONE 20% MUDSTONE	CARBONACEOUS, BLACK. CARBONACEOUS, STREAKS, GREY-BROWN. MODERATELY WEAK ROCK, VERY THINLY BEDDED.
423.63	2.05	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	LIGHT GREY. CARBONACEOUS, STREAKS, GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
423.68	0.05	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, THINLY LAMINATED, TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
423.71	0.03	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY-BROWN, SOFT.
				TOP OF DALMAYNE E2 : 56.29 M R.L.	
424.15	0.44	100		100% COAL, HEAVY DULL	MUDSTONE, BANDS.
				BASE OF DALMAYNE E2 : THICKNESS= 0.44 M; SAMPLED THICKNESS= 0.00 M	
430.69	6.54	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	LIGHT GREY. CARBONACEOUS, BANDS, GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, VERY WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
432.90	2.21	100		50% MUDSTONE 50% MUDSTONE	CARBONACEOUS, STREAKS, GREY. LIGHT GREY. MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
433.03	0.13	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
433.13	0.10	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, VERY THINLY BEDDED, VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
434.67	1.54	100		70% SANDSTONE 30% MUDSTONE	LIGHT GREY. CARBONACEOUS, GREY-BROWN. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION. NOTE: SAND/MUD RATIO INCREASES TOWARDS BASE; SANDSTONE GRADES FRO M FINE TO MEDIUM GRAINED
437.32	2.65	100		100% SANDSTONE	LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, WITH PLANT REMAINS. NOTE: VERY FINE GRADING TO MEDIUM GRAINED
437.53	0.21	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK, THINLY LAMINATED.
437.73	0.20	100		80% CARBONACEOUS SHALE 20% CLAYSTONE	BRIGHT COAL, LENSES. CARBONACEOUS, STREAKS, LIGHT BROWN. FIRM.
439.36	1.63	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
439.77	0.41	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
439.80	0.03	100	5	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
439.89	0.09	100	5	100% CARBONACEOUS MUDSTONE	
439.93	0.04	100	5	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
439.96	0.03	100	5	100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
440.00	0.04	100	5	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
440.19	0.19	100	5	100% COAL, HEAVY DULL	CARBONACEOUS, BANDS.
440.26	0.07	100	5	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
440.28	0.02	100	5	100% MUDSTONE	CARBONACEOUS, STREAKS, GREY-BROWN, MODERATELY WEAK ROCK.
440.32	0.04	100	5	100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
		TOP OF DALMAYNE F : 39.68 M R.L.			
440.70	0.38	100	6	100% COAL, HEAVY DULL	CARBONACEOUS, BANDS.
440.71	0.01	100	6	100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
441.03	0.32	100	6	100% COAL, HEAVY DULL	CARBONACEOUS, BANDS, WITH CALCITE AND PYRITE.
		BASE OF DALMAYNE F : THICKNESS= 0.71 M; SAMPLED THICKNESS= 0.71 M			
443.46	2.43	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH MUD PELLETS.
450.41	6.95	100		50% SANDSTONE 50% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. GREY. MODERATELY WEAK ROCK.
461.70	11.29	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS. NOTE: CARBONACEOUS MUDSTONE LENSES CONTAINING CALCITE ARAGMENTS FROM 459.27-459.29;COAL STREAKS; POORLY DEVELOPED PINE BEDDING IN PART
462.30	0.60	100		60% SANDSTONE,FINE GRAINED 40% SANDSTONE,MEDIUM GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, WITH MUD PELLETS.
463.94	1.64	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS. NOTE: CARBONACEOUS LENSES WITH CALCITE FRAGMENTS AT 463.23M LAST 14 CMS CONTAINS MUDSTONE AND SANDSTONE FRAGMENTS
464.57	0.63	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES. NOTE: GRADATIONAL CONTACT AT BASE
466.14	1.57	100		50% MUDSTONE 50% SILTSTONE	GREY. LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED.
467.19	1.05	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
467.88	0.69	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	CARBONACEOUS, BANDS, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
469.65	1.77	100		100% SANDSTONE	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS. NOTE: MEDIUM-FINE GRADING TO VERY COARSE WITH DEPTH. LAST 10 CMS -GRIT WITH MUDSTONE FRAGMENTS;SILTSTONE BANDS FROM 468.61-469.15M
469.95	0.30	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
471.01	1.06	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	CARBONACEOUS, BANDS, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
471.47	0.46	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
472.18	0.71	100		50% SANDSTONE 50% SILTSTONE	MED.-FINE GRAINED, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
472.85	0.67	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK. NOTE: VERY FINE SANDSTONE BANDS AT TOP
473.09	0.24	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
473.15	0.06	100		100% MUDSTONE	BUFF, STIFF.
473.18	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
473.24	0.06	100		100% MUDSTONE	BUFF, FIRM.
473.26	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
473.29	0.03	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BUFF, WEAK ROCK.
473.31	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
473.36	0.05	100		100% COAL, DULL	
473.39	0.03	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, MODERATELY WEAK ROCK.
473.44	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WITH CALCITE ON JOINTS, MODERATELY WEAK ROCK. NOTE: JOINT AT BASE CONTAINING CALCITE
473.48	0.04	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, MODERATELY WEAK ROCK.
473.66	0.18	100		100% MUDSTONE	ARENACEOUS, GREY, MODERATELY WEAK ROCK.
473.98	0.32	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
474.47	0.49	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED.
474.77	0.30	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK. NOTE: SILTY IN PART
474.94	0.17	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
475.02	0.08	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK.
475.52	0.50	100		100% SILTSTONE	ARGILLACEOUS, GREY, MODERATELY WEAK ROCK.
475.85	0.33	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED.
476.09	0.24	100		100% SANDSTONE,MEDIUM GRAINED	MODERATELY WEAK ROCK. NOTE: SILTSTONE BANDS
476.24	0.15	100		50% SANDSTONE 50% SILTSTONE	MED.-FINE GRAINED, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH PLANT REMAINS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
476.55	0.31	100		100% MUDSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
477.17	0.62	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
477.98	0.81	100		100% SANDSTONE	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH MUD PELLETS. NOTE: GRADING FROM FINE TO VERY COARSE AT BASE-GRIT:SILTSTONE BANDS AT TOP OF UNIT;MUDSTONE AND QUARTZ FRAGMENTS IN BASAL GRIT
479.31	1.33	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, GREY-GREEN, WITH CALCITE ON JOINTS, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES. NOTE: SANDY BANDS AT TOP OF UNIT;SILTY AT BASE
479.40	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN, MODERATELY WEAK ROCK.
479.77	0.37	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY. NOTE: SANDSTONE AND CARBONACEOUS BANDS IN BASAL 10CMS
482.59	2.82	100		70% SANDSTONE,MEDIUM GRAINED 30% MUDSTONE	COARSE GRAINED, BANDS, GREY. DARK GREY. MODERATELY WEAK ROCK, WITH CROSS LAMINATION. NOTE: COARSE SANDSTONE CONTAINS MUDSTONE,QUARTZ AND FELDSPAR FRAGMENTS PLUS COAL STREAKS MEDIUM TO FINE SANDSTONE CONTAINS CARBONACEOUS STREAKS
484.41	1.82	100		100% SANDSTONE,COARSE GRAINED.	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK. NOTE: FINE SANDSTONE BANDS;CARBONACEOUS FRAGMENTS;COAL STREAKS AND QUARTZ FRAGMENTS PRESENT
484.73	0.32	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK. NOTE: SANDSTONE FINER GRAINED AT TOP OF UNIT; SANDSTONE AND MUDSTONE FRAGMENTS AND SANDSTONE PEBBLES AT BASAL CONTACT -BASE OF TRIASSIC
486.23	1.50	100		100% SILTSTONE	DARK GREY, WITH CALCITE ON JOINTS AND FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES. NOTE: COLOUR BECOMING LIGHTER WITH DEPTH DUE TO AN INCREASE IN QUARTZ FRAGMENTS
486.81	0.58	100		100% SILTSTONE	GREY, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK. NOTE: GRADING TO CONGLOMERATE WITH DEPTH WITH AN INCREASE IN QUARTZ AND ROCK FRAGMENTS
486.99	0.18	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, MODERATELY STRONG ROCK. NOTE: MUDSTONE FRAGMENTS
487.19	0.20	100		100% SILTSTONE	DARK GREY, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	0.00 M	272.00 - 277.48 M	5.48 M
DC	0.00 M	304.14 - 304.86 M	0.72 M
DDU	2.85 M	360.97 - 363.82 M	2.85 M
DDL	2.82 M	376.68 - 379.50 M	2.82 M
DE2	0.00 M	423.71 - 424.15 M	0.44 M
DF	0.71 M	440.32 - 441.03 M	0.71 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	360.97 - 361.96 M	0.99 M
2	361.96 - 363.82 M	1.86 M
3	376.68 - 377.30 M	0.62 M
4	377.30 - 379.50 M	2.20 M
5	439.77 - 440.32 M	0.55 M
6	440.32 - 441.03 M	0.71 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

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HOLE TYPE	CORE	
EASTING	598,150 M	GRID
NORTHING	5,383,000 M	GRID
ELEVATION	530.00 M	
TOTAL DEPTH DRILLED	453.44 M	
DRILLING STARTED	1/ 8/78	
DRILLING TIME	18 DAYS	
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION	
PETROPHYSICAL WIRELINE LOGS RUN :		

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
10.21	10.21	10		60% DOLERITE 40% DOLERITE	FRIABLE, MEDIUM GRAINED, GREY. FERRUGINOUS, ORANGE-YELLOW. HIGHLY WEATHERED, VERY WEAK ROCK. NOTE: MN OXIDE STAINING
11.00	0.79	90		100% CLAY	FERRUGINOUS, ORANGE-YELLOW, COMPLETELY WEATHERED, SOFT. NOTE: MN OXIDE STAINING
18.60	7.60	60		60% DOLERITE 40% DOLERITE	FERRUGINOUS, ORANGE-YELLOW. FRIABLE, MEDIUM GRAINED, GREY. HIGHLY WEATHERED, VERY WEAK ROCK, VERY CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CLAY & TALC. NOTE: MN OXIDE STAINING
25.50	6.90	60		90% DOLERITE 10% DOLERITE	FERRUGINOUS, ORANGE-YELLOW. FRIABLE, MEDIUM GRAINED, GREY. HIGHLY WEATHERED, VERY WEAK ROCK. NOTE: MN OXIDE STAINING
27.50	2.00	100		100% DOLERITE	MEDIUM GRAINED, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: MN AND FE OXIDE STAINING ON JOINTS
29.00	1.50	90		100% DOLERITE	FERRUGINOUS, ORANGE-YELLOW, HIGHLY WEATHERED, VERY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: MN OXIDE STAINING
37.00	8.00	100		100% DOLERITE	MEDIUM GRAINED, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK, CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: MN AND FE OXIDE STAINING ON JOINTS; DIP OF JOINTS RANGES FR OM 30 TO 80 DEG.
37.20	0.20	100		100% DOLERITE	FERRUGINOUS, ORANGE-YELLOW, HIGHLY WEATHERED, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: MN OXIDE STAINING
39.30	2.10	100		100% DOLERITE	MEDIUM GRAINED, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: MN AND FE OXIDE STAINING ON JOINTS
39.40	0.10	70		100% DOLERITE	FERRUGINOUS, BADLY BROKEN, ORANGE-YELLOW, HIGHLY WEATHERED, WEAK ROCK. NOTE: MN OXIDE STAINING
42.70	3.30	100		100% DOLERITE	MEDIUM GRAINED, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: MN AND FE OXIDE STAINING ON JOINTS
44.80	2.10	70		100% DOLERITE	MEDIUM GRAINED, BADLY BROKEN, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK. NOTE: MN AND FE OXIDE STAINING ON JOINTS

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
45.40	0.60	100		100% DOLERITE	MEDIUM GRAINED, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK, CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: MN AND FE OXIDE STAINING ON JOINTS
46.80	1.40	70		100% DOLERITE	MEDIUM GRAINED, BADLY BROKEN, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK. NOTE: MN AND FE OXIDE STAINING ON JOINTS
47.45	0.65	100		100% DOLERITE	MEDIUM GRAINED, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: MN AND FE OXIDE STAINING ON JOINTS
60.50	13.05	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH CHLORITE ON JOINTS AND CALCITE ON JOINTS, UNWEATHERED, VERY STRONG ROCK, CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, . NOTE: DIP OF JOINTS 10-30 DEG. AND 60-80 DEG.; NUMEROUS FINE FRACTURES IN PART
67.50	7.00	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH CHLORITE ON JOINTS AND CALCITE ON JOINTS, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: NUMEROUS FINE FRACTURES IN PART
72.60	5.10	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH CHLORITE ON JOINTS AND CALCITE ON JOINTS, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
75.00	2.40	100		100% DOLERITE	MED.-FINE GRAINED, GREY, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: NUMEROUS FINE FRACTURES IN PART
75.90	0.90	100		100% DOLERITE	MED.-FINE GRAINED, GREY, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, INFILLED WITH CALCITE.
76.65	0.75	100		100% DOLERITE	FINE GRAINED, CHLORITIC, GREY-GREEN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, INFILLED WITH CALCITE.
76.75	0.10	100		100% DOLERITE	VERY FINE GRAINED, CHLORITIC, DARK GREEN, MODERATELY WEAK ROCK.
77.02	0.27	100		100% DOLERITE	VERY FINE GRAINED, GREY-GREEN, MODERATELY WEAK ROCK. NOTE: IRREGULAR BASAL CONTACT; MOTTLED IN PART
80.00	2.98	100		100% MUDSTONE	CLAYSTONE, BANDS, GREY-GREEN, MODERATELY WEAK ROCK. NOTE: BAKED APPEARENCE
81.00	1.00	90		100% MUDSTONE	GREY-GREEN, MODERATELY WEAK ROCK. NOTE: MOTTLED APPEARENCE CAUSED BY DARK GREEN AND PURPLE-RED STAINING
82.00	1.00	70		100% MUDSTONE	FERRUGINOUS, STAINING, GREY-BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
84.50	2.50	70		100% MUDSTONE	FERRUGINOUS, STAINING, DARK GREY, MODERATELY WEAK ROCK. NOTE: WITH NUMEROUS IRREGULAR "LENSES" OF CREAM CLAYSTONE
84.85	0.35	100		100% CLAYSTONE	FERRUGINOUS, STAINING, CREAM, WEAK ROCK.
85.35	0.50	100		100% MUDSTONE	FERRUGINOUS, STAINING, BLUE-GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
85.55	0.20	100		100% MUDSTONE	FERRUGINOUS, STAINING, GREY, WITH ABUNDANT MICA, STIFF.
91.50	5.95	100		100% MUDSTONE	FERRUGINOUS, STAINING, GREY, WEAK ROCK. NOTE: SHALY IN PART,MOTTLED IN PART, MINOR SOFT CLAY BANDS
97.85	6.35	100		40% MUDSTONE 40% MUDSTONE 20% MUDSTONE	CARBONACEOUS, BANDS, GREY. GREY-BROWN. GREY-GREEN. WEAK ROCK, MEDIUM BEDDED. NOTE: MINOR IRON STAINING; MOTTLED IN PART
97.95	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
98.00	0.05	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
98.10	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
98.22	0.12	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
99.53	1.31	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, WEAK ROCK.
99.88	0.35	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
101.13	1.25	100		100% CLAYSTONE	LIGHT GREY, WEAK ROCK, WITH CARBONACEOUS WISPS.
101.50	0.37	100		100% CLAYSTONE	GREY-GREEN, WEAK ROCK.
101.56	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
102.00	0.44	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, WEAK ROCK.
104.80	2.80	100		100% MUDSTONE	FERRUGINOUS, STAINING, GREY, WEAK ROCK.
105.15	0.35	100		100% MUDSTONE	FERRUGINOUS, RED-BROWN, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
105.75	0.60	100		100% MUDSTONE	FERRUGINOUS, STAINING, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
105.85	0.10	100		100% MUDSTONE	FERRUGINOUS, STAINING, DARK GREY, WEAK ROCK.
109.15	3.30	100		100% MUDSTONE	FERRUGINOUS, RED-BROWN, WEAK ROCK. NOTE: OCCASIONAL UNSTAINED GREY SECTIONS

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
110.80	1.65	100		70% MUDSTONE 20% MUDSTONE 10% CLAYSTONE	GREY. LIGHT GREEN. LIGHT GREY. WEAK ROCK, THINLY BEDDED, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: MINOR IRON STAINING; IRREGULAR GREEN (CHLORITE?) FRAGMENTS
111.81	1.01	100		100% MUDSTONE	GREY-GREEN, WEAK ROCK.
112.16	0.35	100		100% MUDSTONE	GREY, WEAK ROCK.
112.61	0.45	100		100% CLAYSTONE	GREY-BROWN, WEAK ROCK.
115.17	2.56	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY-BROWN, WEAK ROCK. NOTE: THIN BANDS OF SOFT LIGHT BROWN CLAYSTONE
115.23	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
115.79	0.56	100		100% CLAYSTONE	LIGHT BROWN, WEAK ROCK.
115.89	0.10	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
117.80	1.91	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK. NOTE: IRREGULAR CLAYSTONE AND CARB MUDSTONE BANDS AND LENSES
123.32	5.52	100		40% CLAYSTONE 30% MUDSTONE 30% MUDSTONE	CALCITIC, FRAGMENTS, LIGHT BROWN. CARBONACEOUS, GREY-BROWN. COALY, BLACK. THINLY BEDDED, WITH FLAME/PULL STRUCTS, WITH LOAD CASTS. NOTE: STRENGTH RANGES FROM WEAK TO MOD STRONG
123.45	0.13	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
125.09	1.64	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
125.78	0.69	100		100% SANDSTONE,MEDIUM GRAINED	FINE GRAINED SANDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
128.46	2.68	100		100% SANDSTONE,COARSE GRAINED	MEDIUM GRAINED, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
129.06	0.60	100		100% PEBBLE CONGLOMERATE	GREY, MODERATELY STRONG ROCK.
129.27	0.21	100		100% SANDSTONE,COARSE GRAINED	SILTSTONE, LENSES, GREY, MODERATELY WEAK ROCK.
131.62	2.35	50		100% PEBBLE CONGLOMERATE	GREY, MODERATELY WEAK ROCK. NOTE: FRIABLE IN PART; COARSE SAND MATRIX; PEBBLES MAINLY ROCK FRAGMENTS
132.51	0.89	100		100% SANDSTONE,COARSE GRAINED	CREAM, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS. NOTE: GRADES TO PALE BROWN IN PART
132.83	0.32	100		100% SANDSTONE,COARSE GRAINED	COALY, LENSES, BROWN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
133.35	0.52	100		100% SANDSTONE,COARSE GRAINED	COALY, LENSES, CREAM, MODERATELY WEAK ROCK, WITH MUD PELLETS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
135.98	2.63	100		100% SANDSTONE,COARSE GRAINED	CREAM, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS. NOTE: GRADES TO PALE BROWN IN BASAL 20 CM.
136.64	0.66	100		100% SANDSTONE,COARSE GRAINED	BROWN, MODERATELY WEAK ROCK.
136.88	0.24	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WITH FLAME/PULL STRUCTS.
138.98	2.10	100		100% SANDSTONE,COARSE GRAINED	FINE GRAINED SANDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
141.71	2.73	100		100% SANDSTONE,MEDIUM GRAINED	COARSE GRAINED, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
142.99	1.28	100		100% SANDSTONE,COARSE GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
143.95	0.96	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
148.37	4.42	100		100% SANDSTONE,COARSE GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
148.97	0.60	100		100% SANDSTONE,COARSE GRAINED	LIGHT BROWN, MODERATELY WEAK ROCK.
149.11	0.14	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, BROWN, WEAK ROCK.
149.20	0.09	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
150.01	0.81	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
150.04	0.03	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK.
150.12	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
150.15	0.03	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, FIRM.
150.25	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
150.60	0.35	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
150.64	0.04	100		100% CLAYSTONE	CREAM, SOFT.
150.67	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
150.70	0.03	100		100% CLAYSTONE	CREAM, SOFT.
150.97	0.27	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
151.78	0.81	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
152.42	0.64	100		100% CLAYSTONE	CREAM, VERY WEAK ROCK.
152.44	0.02	100		100% CLAYSTONE	GREY, WEAK ROCK.
152.49	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
152.59	0.10	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
152.69	0.10	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
152.75	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
152.82	0.07	100		100% MUDSTONE	CARBONACEOUS, LENSES, GREY-BROWN, MODERATELY WEAK ROCK.
152.86	0.04	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
152.91	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
153.01	0.10	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
153.04	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
153.07	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
153.12	0.05	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
153.15	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
153.17	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
153.19	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
153.23	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
153.27	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
153.31	0.04	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
153.98	0.67	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
154.01	0.03	100		100% MUDSTONE	ARENACEOUS, CREAM, MODERATELY WEAK ROCK.
154.06	0.05	100		100% COAL, HEAVY DULL	
154.14	0.08	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
154.16	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
154.17	0.01	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
154.20	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
154.24	0.04	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LENSES, LIGHT BROWN, MODERATELY WEAK ROCK.
154.36	0.12	100		100% MUDSTONE	SANDSTONE, LENSES, GREY-BROWN, MODERATELY WEAK ROCK.
154.42	0.06	100		100% CLAYSTONE	CALCITIC, LENSES, CREAM, SOFT.
154.49	0.07	100		100% MUDSTONE	SANDSTONE, STREAKS, GREY-BROWN, MODERATELY WEAK ROCK.
154.52	0.03	100		100% MUDSTONE	BROWN-BLACK, MODERATELY STRONG ROCK.
154.55	0.03	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, WEAK ROCK.
154.66	0.11	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
154.95	0.29	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
154.96	0.01	100		100% SANDSTONE,FINE GRAINED	LIGHT BROWN, MODERATELY WEAK ROCK.
155.14	0.18	100		60% MUDSTONE 40% MUDSTONE	CARBONACEOUS, BROWN-BLACK. CARBONACEOUS, STREAKS, LIGHT BROWN. MODERATELY WEAK ROCK, VERY THINLY BEDDED.
155.40	0.26	100		100% MUDSTONE	MICACEOUS, CREAM, WEAK ROCK.
157.30	1.90	100		90% MUDSTONE 10% MUDSTONE	CARBONACEOUS, BROWN-BLACK. BRIGHT COAL, STREAKS, LIGHT BROWN. MODERATELY WEAK ROCK, VERY THINLY BEDDED.
157.80	0.50	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
158.00	0.20	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, WEAK ROCK.
160.16	2.16	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
161.10	0.94	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
161.32	0.22	100		100% SANDSTONE,FINE GRAINED	MEDIUM GRAINED, LENSES, GREY, MODERATELY WEAK ROCK.
161.46	0.14	100		100% SANDSTONE,MEDIUM GRAINED	FINE GRAINED SANDSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
161.76	0.30	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
161.98	0.22	100		100% SANDSTONE,FINE GRAINED	MEDIUM GRAINED, LENSES, GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
162.40	0.42	100		100% SANDSTONE,MEDIUM GRAINED	FINE GRAINED SANDSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
163.08	0.68	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
163.22	0.14	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.
163.32	0.10	100		100% SANDSTONE,MEDIUM GRAINED	FINE GRAINED SANDSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
163.62	0.30	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
169.61	5.99	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
169.87	0.26	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
179.83	9.96	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK. NOTE: CALCAREOUS IN PART; BANDS WITH MUDSTONE LENSES AND COAL LENSES
179.97	0.14	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
180.07	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN, MODERATELY WEAK ROCK.
180.72	0.65	100		100% CLAYSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, VERY WEAK ROCK.
181.81	1.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
182.04	0.23	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
183.44	1.40	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
186.11	2.67	100		100% SILTSTONE	FINE GRAINED SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK.
186.16	0.05	100		100% CLAYSTONE	CREAM, STIFF.
186.18	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
186.39	0.21	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
187.29	0.90	100		100% SANDSTONE,FINE GRAINED	BROWN, MODERATELY WEAK ROCK.
188.41	1.12	100		100% SANDSTONE,FINE GRAINED	SANDSTONE, LENSES, GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
188.78	0.37	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK. NOTE: GRADATIONAL LOWER BOUNDARY
189.57	0.79	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK. NOTE: GRADATIONAL LOWER BOUNDARY
190.32	0.75	100		100% MUDSTONE	GREY, WITH GRANULAR CALCITE, MODERATELY WEAK ROCK.
191.06	0.74	100		100% CLAYSTONE	LIGHT GREY, WITH LAMINAE OF CALCITE, WEAK ROCK.
191.07	0.01	100		100% SANDSTONE,MEDIUM GRAINED	MICACEOUS, CREAM, MODERATELY WEAK ROCK.
193.00	1.93	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
193.24	0.24	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, GREY-GREEN, MODERATELY WEAK ROCK.
194.33	1.09	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
194.56	0.23	100		100% CLAYSTONE	CREAM, FIRM.
194.68	0.12	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
194.84	0.16	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
194.88	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
195.21	0.33	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
195.34	0.13	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
195.52	0.18	100		100% MUDSTONE	CARBONACEOUS, LENSES, BROWN, MODERATELY WEAK ROCK.
195.76	0.24	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
196.36	0.60	100		100% MUDSTONE	ARENACEOUS, GREY-BROWN, MODERATELY WEAK ROCK, WITH PLANT REMAINS, WITH MUD PELLETS.
196.47	0.11	100		100% SANDSTONE,FINE GRAINED	FRIABLE, GREY, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
196.81	0.34	100		100% MUDSTONE	SILTSTONE, BADLY BROKEN, GREY, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
197.45	0.64	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
198.00	0.55	100		100% CLAYSTONE	CREAM, FIRM, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, INFILLED WITH CALCITE.
198.29	0.29	100		100% MUDSTONE	CARBONACEOUS, LENSES, GREY-BROWN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
201.32	3.03	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH LOAD CASTS, WITH SLUMP STRUCTURES, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
					NOTE: CLOSELY FRACTURED BETWEEN 199.15-199.35 M.
202.45	1.13	100		90% SANDSTONE,FINE GRAINED 10% SANDSTONE,MEDIUM GRAINED	MUDSTONE, BANDS, GREY. LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH LOAD CASTS, WITH CROSS LAMINATION.
204.58	2.13	100		45% SANDSTONE,FINE GRAINED 45% SANDSTONE,MEDIUM GRAINED 10% CLAYSTONE	GREY. CARBONACEOUS, FINE GRAINED SANDSTONE, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS, WITH CROSS LAMINATION.
205.16	0.58	100		45% SANDSTONE,FINE GRAINED 45% CLAYSTONE 10% MUDSTONE	GREY. GREY. DARK GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS, WITH CROSS LAMINATION.
212.06	6.90	100		100% SANDSTONE	MED.-COARSE GRAINED, GREY, MODERATELY WEAK ROCK. NOTE: CALCAREOUS IN PART, COALY LENSES AND MUDSTONE PEBBLES IN PART, 7 CM CARB MUDSTONE BAND AT 211.50 M.
215.05	2.99	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK. NOTE: FRIABLE IN PART,MUDSTONE PEBBLES AND CARB LAMINAE
				TOP OF DALMAYNE B : 314.95 M R.L.	
215.06	0.01	100	1	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
215.31	0.25	100	1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
215.34	0.03	100	1	100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
215.40	0.06	100	1	100% CLAYSTONE	FISSILE, CREAM, SOFT.
215.42	0.02	100	1	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
215.52	0.10	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	
215.62	0.10	100	1	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
215.68	0.06	100	1	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
216.17	0.49	100	1	100% COAL, HEAVY DULL	NOTE: GRADING TO CARB MUDSTONE IN PART
216.20	0.03	100	2	100% MUDSTONE	CARBONACEOUS, ARENACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
216.23	0.03	100	2	100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, GREY-GREEN, WEAK ROCK.
216.31	0.08	100	2	100% CLAYSTONE	FISSILE, CREAM, SOFT.
216.53	0.22	100	2	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
216.62	0.09	100	2	100% CARBONACEOUS MUDSTONE	
216.65	0.03	100	2	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
216.75	0.10	100	2	100% CLAYSTONE	FISSILE, LIGHT BROWN, SOFT.
216.76	0.01	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
216.95	0.19	100	3	100% COAL, DULL WITH FEW BRIGHT BANDS	
216.99	0.04	100	3	100% COAL, HEAVY DULL	
217.02	0.03	100	3	100% MUDSTONE	ARENACEOUS, FISSILE, BROWN, SOFT.
217.04	0.02	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
217.37	0.33	100	3	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
217.51	0.14	100	3	100% COAL, DULL WITH FEW BRIGHT BANDS	
217.54	0.03	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
217.61	0.07	100	4	100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
217.88	0.27	100	4	100% CLAYSTONE	FISSILE, LIGHT GREY, SOFT.
217.99	0.11	100	5	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
218.12	0.13	100	5	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
218.22	0.10	100	5	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
218.39	0.17	100	5	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
218.42	0.03	100	5	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
218.47	0.05	100	5	100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, WEAK ROCK.
218.53	0.06	100	5	100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
218.54	0.01	100	5	100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
218.70	0.16	100	5	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
218.74	0.04	100	5	100% MUDSTONE	BRIGHT COAL, LENSES, DARK BROWN, MODERATELY WEAK ROCK.
218.80	0.06	100	5	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
218.89	0.09	100	5	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
218.94	0.05	100	5	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
218.98	0.04	100	5	100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, WEAK ROCK.
219.02	0.04	100	5	100% MUDSTONE	CARBONACEOUS, DARK BROWN.
219.18	0.16	100	5	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
219.23	0.05	100	5	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
219.25	0.02	100	5	100% COAL, BRIGHT	
219.34	0.09	100	5	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
				BASE OF DALHAYNE B : THICKNESS= 4.29 M; SAMPLED THICKNESS= 4.29 M	
219.38	0.04	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
219.39	0.01	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
219.43	0.04	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
219.59	0.16	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
220.62	1.03	100		70% SILTSTONE 30% MUDSTONE	CARBONACEOUS, LENSES, LIGHT GREY. CARBONACEOUS, BROWN-BLACK. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH LOAD CASTS, WITH SLUMP STRUCTURES.
220.84	0.22	100		100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, MODERATELY WEAK ROCK.
220.95	0.11	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
220.97	0.02	100		50% COAL, BRIGHT 50% CARBONACEOUS SHALE	THINLY LAMINATED.
221.09	0.12	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK. NOTE: ABUNDANT COAL AND MUDSTONE LENSES
221.23	0.14	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
221.43	0.20	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK. NOTE: ABUNDANT COAL AND MUDSTONE LENSES
238.68	17.25	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK. NOTE: GRADING TO MEDIUM IN PART, FRIABLE IN PART, MUDSTONE PEBBLES AND COAL LENSES IN PART
238.79	0.11	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
238.81	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
238.86	0.05	100		100% CLAYSTONE	BUFF, VERY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
					NOTE: WITH GREEN MUD PELLETS
238.87	0.01	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
238.90	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
241.60	2.70	100		60% SANDSTONE,FINE GRAINED 40% MUDSTONE	GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED.
243.05	1.45	100		50% SANDSTONE,FINE GRAINED 50% SANDSTONE,MEDIUM GRAINED	GREY. CARBONACEOUS, LAMINAE, LIGHT GREY. MODERATELY WEAK ROCK, THINLY BEDDED.
					NOTE: COAL LENSES AND MUDSTONE PEBBLES IN PART
243.15	0.10	0		CORE LOSS	NOTE: CORE LOSS
				TOP OF DALMAYNE C : 286.85 M R.L.	
243.21	0.06	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, WEAK ROCK.
243.23	0.02	100		100% CLAYSTONE	CREAM, SOFT.
243.26	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK.
243.30	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
243.32	0.02	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, WEAK ROCK.
243.37	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
243.39	0.02	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
243.41	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
243.42	0.01	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
243.44	0.02	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, FIRM.
243.47	0.03	100		100% CLAYSTONE	CARBONACEOUS, BROWN-BLACK, FIRM.
243.56	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
243.65	0.09	100		70% MUDSTONE 30% MUDSTONE	GREY-BROWN. CARBONACEOUS, BROWN-BLACK. WEAK ROCK, THICKLY LAMINATED.
243.69	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
243.89	0.20	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
243.97	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
244.02	0.05	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, WEAK ROCK.
244.19	0.17	100		100% CLAYSTONE	LIGHT BROWN, VERY WEAK ROCK.
244.37	0.18	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
244.40	0.03	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
244.49	0.09	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
244.52	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
244.55	0.03	100		100% CLAYSTONE	LIGHT BROWN, STIFF.
244.56	0.01	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
244.62	0.06	100		100% MUDSTONE	CARBONACEOUS, LENSES, LIGHT BROWN, WEAK ROCK.
244.72	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
244.74	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
244.75	0.01	100		100% COAL, BRIGHT	
244.80	0.05	100		100% CARBONACEOUS SHALE	BRIGHT COAL, LENSES.
244.88	0.08	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, FIRM.
244.89	0.01	100		100% MUDSTONE	LIGHT GREY, WEAK ROCK.
245.00	0.11	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
245.14	0.14	100		100% MUDSTONE	CARBONACEOUS, SHALY, BROWN-BLACK, WEAK ROCK.
245.41	0.27	100		100% MUDSTONE	BROWN-BLACK, MODERATELY WEAK ROCK, WITH MUD PELLETS.
245.43	0.02	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
245.59	0.16	100		100% CARBONACEOUS MUDSTONE	BRIGHT COAL, LAMINAE, BROWN-BLACK, MODERATELY STRONG ROCK.
245.64	0.05	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, WEAK ROCK.
245.72	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK..
245.80	0.08	100		100% COAL, HEAVY DULL	MUDSTONE, LENSES.
245.86	0.06	100		100% COAL, DULL WITH FEW BRIGHT BANDS	MUDSTONE, LENSES.
246.05	0.19	100		100% COAL, HEAVY DULL	
246.08	0.03	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK.
246.14	0.06	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
246.51	0.37	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
				NOTE: GRADING TO HEAVY DULL COAL IN PART	
246.54	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
246.60	0.06	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
246.67	0.07	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
246.68	0.01	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
246.86	0.18	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
246.95	0.09	100		100% CARBONACEOUS MUDSTONE	MODERATELY STRONG ROCK.
247.00	0.05	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
247.03	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
247.12	0.09	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
247.16	0.04	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
247.34	0.18	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
247.51	0.17	100		100% CLAYSTONE	CARBONACEOUS, BANDS, LIGHT GREY, WEAK ROCK.
247.55	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
247.77	0.22	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY-BROWN, WEAK ROCK.
			BASE OF DALMAYNE C : THICKNESS= 4.82 M; SAMPLED THICKNESS= 0.00 M		
248.00	0.23	100		100% MUDSTONE	GREY, WEAK ROCK.
248.49	0.49	100		100% MUDSTONE	GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
249.19	0.70	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.
249.30	0.11	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
249.99	0.69	100		90% SANDSTONE,FINE GRAINED 10% SANDSTONE,MEDIUM GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, WITH LOAD CASTS.
251.11	1.12	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: FRIABLE IN PART
262.80	11.69	80		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK. NOTE: FRIABLE IN PART, CLOSELY JOINTED AND FRACTURED IN PART
265.55	2.75	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK. NOTE: CALCAREOUS IN PART, FRACTURED MUDSTONE PEBBLES
282.09	16.54	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, . NOTE: CALCAREOUS IN PART,
285.23	3.14	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK. NOTE: FRIABLE IN PART, NUMEROUS CARB LENSES AND MUDSTONE PEBBLES
287.81	2.58	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK. NOTE: CALCAREOUS IN PART
289.13	1.32	100		100% SANDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
					NOTE: MEDIUM GRADING TO COARSE; MUDSTONE LENSES IN PART
290.05	0.92	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
297.29	7.24	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
297.57	0.28	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
298.61	1.04	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
298.84	0.23	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, BEDS DIP 45 DEG., CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
299.09	0.25	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
					NOTE: MUDSTONE PEBBLES AND CARB LENSES
299.25	0.16	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
299.33	0.08	100		100% MUDSTONE	GREY-BROWN, WEAK ROCK.
299.80	0.47	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
					NOTE: MUDSTONE PEBBLES AND CARB LENSES
301.85	2.05	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
301.88	0.03	100	6	100% CARBONACEOUS MUDSTONE	MODERATELY STRONG ROCK.
301.93	0.05	100	6	100% CARBONACEOUS MUDSTONE	MODERATELY WEAK ROCK.
301.96	0.03	100	6	100% CLAYSTONE	BUFF, FIRM, THINLY LAMINATED.
302.15	0.19	100	6	100% CARBONACEOUS MUDSTONE	CARBONACEOUS, BADLY BROKEN, BLACK, MODERATELY STRONG ROCK.
				TOP OF DALMAYNE D UPPER : 227.85 M R.L.	
303.57	1.42	100	7	100% COAL, DULL	MUDSTONE, LAMINAE, WITH CALCITE AND PYRITE.
					NOTE: GRADING TO CARB. MUDSTONE IN PART
303.60	0.03	100	7	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
303.92	0.32	100	7	100% COAL, HEAVY DULL	MUDSTONE, LAMINAE.
					NOTE: GRADING TO DULL COAL IN PART
				BASE OF DALMAYNE D UPPER : THICKNESS= 1.77 M; SAMPLED THICKNESS= 1.77 M	
304.00	0.08	100		100% MUDSTONE	BRIGHT COAL, LAMINAE, GREY-BROWN, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
304.20	0.20	100		100% MUDSTONE	COALY, LENSES, GREY, WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
305.88	1.68	100		100% MUDSTONE	GREY, WEAK ROCK.
306.55	0.67	100		60% SANDSTONE,FINE GRAINED 40% MUDSTONE	LIGHT GREY. SILTSTONE, GREY. MODERATELY WEAK ROCK, THINLY BEDDED, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
307.11	0.56	100		100% MUDSTONE	SANDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, WITH LOAD CASTS.
307.44	0.33	100		100% MUDSTONE	GREY, WEAK ROCK, THINLY LAMINATED.
314.28	6.84	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK. NOTE: GRADING TO MEDIUM IN PART; FRIABLE IN PART
314.34	0.06	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
314.52	0.18	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK. NOTE: CLOSELY FRACTURED IN BASAL 4 CM.
314.72	0.20	100		100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT GREY, WEAK ROCK.
314.93	0.21	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
314.98	0.05	100		100% CLAYSTONE	LIGHT BROWN, SOFT, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
315.92	0.94	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK. NOTE: FISSILE AND FINELY FRACTURED IN BASAL 12 CM.
316.04	0.12	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
316.08	0.04	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
316.30	0.22	100		100% CLAYSTONE	FISSILE, GREY, STIFF, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
316.40	0.10	100		100% MUDSTONE	GREY, WEAK ROCK.
316.62	0.22	100		100% CLAYSTONE	FISSILE, GREY, STIFF. NOTE: FINELY FRACTURED IN BASAL 8 CM.
316.67	0.05	100		100% CLAYSTONE	FISSILE, CREAM, FIRM, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
317.00	0.33	100		60% MUDSTONE 40% MUDSTONE	GREY. CARBONACEOUS, BROWN-BLACK. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH LOAD CASTS, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
317.08	0.08	100	8	100% CARBONACEOUS SHALE	

TOP OF DALMAYNE D LOWER : 212.92 M R.L.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
317.15	0.07	0	9	CORE LOSS	NOTE: CORE LOSS
317.19	0.04	100	9	100% COAL, HEAVY DULL	MUDSTONE, BANDS.
317.51	0.32	100	9	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
317.56	0.05	100	9	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, WITH MUD PELLETS.
318.01	0.45	100	9	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS. NOTE: GRADING TO DULL COAL IN PART; MUD PELLETS IN UPPER 15 CM.
318.14	0.13	100	9	100% COAL, DULL WITH FEW BRIGHT BANDS	
318.41	0.27	100	9	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
318.45	0.04	100	9	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
318.46	0.01	100	9	100% COAL, BRIGHT	
318.52	0.06	100	9	50% COAL, BRIGHT 50% CARBONACEOUS SHALE	THINLY LAMINATED.
				BASE OF DALMAYNE D LOWER : THICKNESS= 1.44 M; SAMPLED THICKNESS= 1.44 M	
318.72	0.20	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK.
318.75	0.03	100		100% MUDSTONE	CARBONACEOUS, SHALY, DARK BROWN, WEAK ROCK.
319.24	0.49	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
319.36	0.12	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
319.38	0.02	100		100% COAL, BRIGHT	
319.56	0.18	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
319.65	0.09	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
320.06	0.41	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
320.34	0.28	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
324.72	4.38	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK. NOTE: CALCAREOUS IN PART; FRIABLE IN PART
325.06	0.34	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
330.53	5.47	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK. NOTE: CALCAREOUS IN PART;
331.48	0.95	100		100% SANDST	[illegible] MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
332.21	0.73	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
343.00	10.79	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK. NOTE: CALCAREOUS IN PART; LARGE CARB. LENSES AT 336.05 M.
343.54	0.54	100		100% SANDSTONE	MED.-COARSE GRAINED, CALCAREOUS, LIGHT GREY, WITH BANDS OF CALCITE, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
349.98	6.44	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK. NOTE: CALCAREOUS IN PART; FRIABLE IN PART
349.99	0.01	100		100% CLAYSTONE	SHALY, BUFF, SOFT.
350.00	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
350.06	0.06	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
350.08	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
351.64	1.56	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH PLANT REMAINS, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
352.00	0.36	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	CARBONACEOUS, TRACES, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH SLUMP STRUCTURES, WITH LOAD CASTS.
354.37	2.37	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED. NOTE: CLOSELY JOINTED IN PART
354.46	0.09	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH LOAD CASTS.
354.91	0.45	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH PLANT REMAINS.
355.36	0.45	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH LOAD CASTS.
356.04	0.68	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
356.10	0.06	100		100% COAL, HEAVY DULL	
356.22	0.12	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
356.24	0.02	100		100% SANDSTONE,FINE GRAINED	GREY-BROWN, MODERATELY WEAK ROCK.
356.43	0.19	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
356.59	0.16	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
358.11	1.52	100		80% SANDSTONE,FINE GRAINED 20% MUDSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
359.00	0.89	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
360.79	1.79	100		100% MUDSTONE	SANDSTONE, LENSES, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
361.31	0.52	100		50% MUDSTONE 30% MUDSTONE 20% SANDSTONE,FINE GRAINED	GREY. CARBONACEOUS, DARK GREY. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
361.57	0.26	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
361.83	0.26	100		50% MUDSTONE 50% MUDSTONE	CARBONACEOUS, DARK GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
362.62	0.79	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
362.68	0.06	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
362.82	0.14	100		60% MUDSTONE 40% MUDSTONE	CARBONACEOUS, FISSILE, DARK BROWN. GREY. WEAK ROCK, THICKLY LAMINATED.
362.88	0.06	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY-BROWN, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE E : 167.12 M R.L.	
362.90	0.02	100		100% COAL, BRIGHT	
362.95	0.05	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
				BASE OF DALMAYNE E : THICKNESS= 0.07 M; SAMPLED THICKNESS= 0.00 M	
362.96	0.01	100		100% CARBONACEOUS SHALE	BRIGHT COAL, STREAKS.
363.10	0.14	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
363.68	0.58	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK.
363.86	0.18	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
364.03	0.17	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
364.43	0.40	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
365.10	0.67	0		CORE LOSS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
				NOTE: CORE LOSS	
365.20	0.10	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
367.73	2.53	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
367.84	0.11	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY WEAK ROCK.
368.04	0.20	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
368.06	0.02	100		100% MUDSTONE	SILTSTONE, CREAM, MODERATELY WEAK ROCK.
368.10	0.04	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
368.16	0.06	100		100% COAL, HEAVY DULL	
368.22	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
368.23	0.01	100		100% SHALE	BROWN, SOFT, WITH PLANT REMAINS.
368.29	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
368.30	0.01	100		100% COAL, BRIGHT	
368.32	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
368.35	0.03	100		100% CLAYSTONE	LIGHT BROWN, SOFT.
368.38	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
368.40	0.02	100		100% COAL, BRIGHT	
368.45	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
368.49	0.04	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
368.78	0.29	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
368.87	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN.
369.40	0.53	100		100% MUDSTONE	CARBONACEOUS, GREY, MODERATELY WEAK ROCK.
369.84	0.44	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
371.15	1.31	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY WEAK ROCK.
				NOTE: FRIABLE IN UPPER 50 CM; CALCITE BAND AT 370.39 M.	
372.53	1.38	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.
373.53	1.00	0		CORE LOSS	
				NOTE: CORE LOSS	
373.58	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
373.68	0.10	100		100% MUDSTONE	SANDSTONE, LENSES, BROWN-BLACK, MODERATELY WEAK ROCK.
373.71	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
374.02	0.31	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
					NOTE: ABUNDANT CARB. LENSES AND LAMINAE
375.36	1.34	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
375.59	0.23	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
375.65	0.06	100		100% CARBONACEOUS SHALE	MUDSTONE, LAMINAE, STIFF.
375.67	0.02	100		100% COAL, HEAVY DULL	
375.74	0.07	100		100% SANDSTONE	VERY FINE GRAINED, CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
375.86	0.12	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
375.91	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
375.97	0.06	100		100% SILTSTONE	SANDSTONE, LENSES, GREY, MODERATELY WEAK ROCK.
376.11	0.14	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
377.00	0.89	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
					NOTE: CLOSELY FRACTURED NEAR BASE
377.49	0.49	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
377.97	0.48	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
					NOTE: CLOSELY JOINTED AT TOP AND BASE
379.14	1.17	100		90% SANDSTONE,FINE GRAINED 10% SILTSTONE	SILTSTONE, STREAKS, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
380.21	1.07	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
381.20	0.99	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, WITH CARBONACEOUS WISPS.
383.09	1.89	100		100% MUDSTONE	SANDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
383.23	0.14	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
383.40	0.17	0		CORE LOSS	NOTE: CORE LOSS
384.05	0.65	100		100% MUDSTONE	SILTSTONE, BANDS, GREY, MODERATELY WEAK ROCK.
384.57	0.52	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
386.51	1.94	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
					NOTE: ABUNDANT MUDSTONE AND CARB. LENSES AND LAMINAE
387.48	0.97	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
388.27	0.79	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
388.46	0.19	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
388.48	0.02	100		100% CLAYSTONE	FISSILE, BROWN, SOFT.
388.50	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
388.57	0.07	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
388.72	0.15	100		100% SILTSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
389.00	0.28	100		100% SANDSTONE	MUDSTONE, BANDS, LIGHT BROWN, MODERATELY WEAK ROCK.
					NOTE: FINE GRADING TO MEDIUM
389.35	0.35	100		100% MUDSTONE	ARENACEOUS, GREY, MODERATELY WEAK ROCK.
392.04	2.69	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
					NOTE: ABUNDANT MUDSTONE AND CARB. LENSES AND LAMINAE
411.70	19.66	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
					NOTE: MUDSTONE AND CARB. BANDS AND LENSES IN PART; CLOSELY FRACTURED FROM 406.5 - 407.5 M; GREENISH TINGE IN PART
413.65	1.95	100		100% SILTSTONE	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
418.55	4.90	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
					NOTE: CLOSELY JOINTED AND FRACTURED IN PART
419.43	0.88	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
419.44	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
419.49	0.05	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK, THINLY LAMINATED.
419.54	0.05	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
420.03	0.49	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
420.72	0.69	100		60% SANDSTONE,FINE GRAINED 40% MUDSTONE	LIGHT GREY. CARBONACEOUS, GREY-BROWN. MODERATELY WEAK ROCK, THINLY BEDDED.
421.50	0.78	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	CARBONACEOUS, LAMINAE, GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
421.69	0.19	100		70% MUDSTONE 20% MUDSTONE 10% SANDSTONE,FINE GRAINED	CARBONACEOUS, DARK BROWN. LIGHT GREY. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS.
423.03	1.34	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
423.41	0.38	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	GREY. CARBONACEOUS, TRACES, LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
423.46	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
423.83	0.37	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
424.48	0.65	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
424.86	0.38	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
425.15	0.29	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
425.92	0.77	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
426.38	0.46	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
426.63	0.25	100		50% MUDSTONE 50% CLAYSTONE	CARBONACEOUS, BROWN-BLACK. FISSILE, LIGHT BROWN. WITH LENSES OF CALCITE, VERY WEAK ROCK.
426.84	0.21	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
426.97	0.13	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
428.00	1.03	100		100% SANDSTONE	MUDSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION. NOTE: FINE GRADING TO MEDIUM; FINELY FRACTURED IN PART
428.22	0.22	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
428.29	0.07	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
428.51	0.22	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
428.99	0.48	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
429.40	0.41	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	LIGHT GREY. SILTSTONE, GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
429.45	0.05	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
429.52	0.07	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
431.01	1.49	100		100% SILTSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
431.03	0.02	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
431.12	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
431.14	0.02	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, CREAM, MODERATELY WEAK ROCK.
431.17	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
431.20	0.03	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
431.44	0.24	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
432.85	1.41	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	SILTSTONE, GREY. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH BURROWING.
433.12	0.27	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
433.96	0.84	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, FRIABLE, LIGHT GREY, MODERATELY WEAK ROCK.
434.01	0.05	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
434.41	0.40	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
434.92	0.51	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
435.32	0.40	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
435.37	0.05	100		100% SANDSTONE,MEDIUM GRAINED	CREAM, MODERATELY WEAK ROCK.
435.41	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, THINLY LAMINATED.
436.67	1.26	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
436.80	0.13	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, THINLY LAMINATED.
436.84	0.04	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, CREAM, MODERATELY WEAK ROCK.
437.49	0.65	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
437.98	0.49	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH BURROWING.
438.38	0.40	100		100% SANDSTONE,MEDIUM GRAINED NOTE: SLIGHTLY CALCAREOUS	CARBONACEOUS, TRACES, CREAM, MODERATELY WEAK ROCK.
438.87	0.49	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, CREAM, MODERATELY WEAK ROCK, WITH BURROWING.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
439.11	0.24	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
439.20	0.09	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY WEAK ROCK.
439.69	0.49	100		100% SANDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, WITH POOR SORTING. NOTE: FINE GRADING TO COARSE,GREENISH GRIT AT BASE
439.76	0.07	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
445.12	5.36	100		100% SILTSTONE	GREY, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK. NOTE: GRADING TO POORLY SORTED SANDSTONE IN BASAL METRE; CLOSELY JOINTED AND FRACTURED IN PART
452.00	6.88	100		100% SILTSTONE	GREY, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK. NOTE: CALCITE VEINLETS AT 450 M.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	4.29 M	215.05 - 219.34 M	4.29 M
DC	0.00 M	243.15 - 247.77 M	4.62 M
DDU	1.77 M	302.15 - 303.92 M	1.77 M
DDL	1.44 M	317.08 - 318.52 M	1.44 M
DE	0.00 M	362.88 - 362.95 M	0.07 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	215.05 - 216.17 M	1.12 M
2	216.17 - 216.75 M	0.58 M
3	216.75 - 217.54 M	0.79 M
4	217.54 - 217.88 M	0.34 M
5	217.88 - 219.34 M	1.46 M
6	301.85 - 302.15 M	0.30 M
7	302.15 - 303.92 M	1.77 M
8	317.00 - 317.08 M	0.08 M
9	317.08 - 318.52 M	1.44 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 5

HOLE TYPE	CORE	
EASTING	592,400 M	GRID
NORTHING	5,370,800 M	GRID
ELEVATION	470.00 M	
TOTAL DEPTH DRILLED	455.00 M	
DRILLING STARTED	8/ 8/78	
DRILLING TIME	25 DAYS	
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
12.00	12.00			100% DOLERITE	SCREE.
13.10	1.10	60		100% DOLERITE	MED.-COARSE GRAINED, ORANGE-YELLOW, HIGHLY WEATHERED, VERY WEAK ROCK.
16.19	3.09	100		100% DOLERITE	MED.-COARSE GRAINED, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK, CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CLAY & TALC.
23.00	6.81	100		100% DOLERITE	MED.-COARSE GRAINED, UNWEATHERED, VERY STRONG ROCK, CLOSELY SPACED JOINTS.
24.50	1.50	100		100% DOLERITE	MED.-COARSE GRAINED, GREY, WITH TALC ON JOINTS, VERY STRONG ROCK, VERY CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, .
26.66	2.16	100		100% DOLERITE	MED.-COARSE GRAINED, GREY, WITH TALC ON JOINTS, VERY STRONG ROCK, MODERATELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, .
36.20	9.54	100		100% DOLERITE	MED.-COARSE GRAINED, GREY, WITH TALC ON JOINTS AND CALCITE ON JOINTS, VERY STRONG ROCK, CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, .
41.09	4.89	100		100% DOLERITE	MED.-COARSE GRAINED, GREY, WITH TALC ON JOINTS AND CALCITE ON JOINTS, SLIGHTLY WEATHERED, VERY STRONG ROCK, VERY CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
44.63	3.54	100		100% DOLERITE	MED.-COARSE GRAINED, GREY, VERY STRONG ROCK, CLOSELY SPACED JOINTS.
47.47	2.84	100		100% DOLERITE	MED.-COARSE GRAINED, STRONGLY FRAGMENTED, GREY, WITH TALC ON JOINTS AND CALCITE ON JOINTS, SLIGHTLY WEATHERED, VERY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
50.28	2.81	100		100% DOLERITE	MED.-COARSE GRAINED, GREY, WITH TALC ON JOINTS AND CALCITE ON JOINTS, VERY STRONG ROCK, CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, .
56.84	6.56	100		100% DOLERITE	MED.-COARSE GRAINED, GREY, WITH TALC ON JOINTS AND CALCITE ON JOINTS, VERY STRONG ROCK, CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, .
73.68	16.84	100		100% DOLERITE	MED.-COARSE GRAINED, STRONGLY FRAGMENTED, GREY, WITH TALC ON JOINTS AND CALCITE ON JOINTS, VERY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
87.57	13.89	100		100% DOLERITE	MED.-COARSE GRAINED, GREY, WITH CALCITE ON JOINTS AND CHLORITE ON JOINTS, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
88.58	1.01	100		100% DOLERITE	MEDIUM GRAINED, BADLY BROKEN, GREY, WITH TALC ON JOINTS AND CHLORITE ON JOINTS, VERY STRONG ROCK, CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
89.60	1.02	100		100% DOLERITE	MEDIUM GRAINED, BADLY BROKEN, GREEN, WITH CALCITE ON JOINTS AND CHLORITE ON JOINTS, STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, .
92.52	2.92	100		100% DOLERITE	MEDIUM GRAINED, BADLY BROKEN, GREEN, MODERATELY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
100.56	8.04	100		100% DOLERITE	MED.-FINE GRAINED, BADLY BROKEN, GREY, WITH CHLORITE ON JOINTS AND CALCITE ON JOINTS, STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS.
101.20	0.64	100		100% DOLERITE	FINE GRAINED, BADLY BROKEN, GREY, WITH CALCITE ON JOINTS AND TALC ON JOINTS, MODERATELY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS.
101.55	0.35	100		100% SANDSTONE,COARSE GRAINED	CREAM, MODERATELY WEAK ROCK.
102.16	0.61	100		100% MUDSTONE	BAKED, FERRUGINOUS, YELLOW-BROWN, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CLAY & TALC.
103.44	1.28	100		100% SANDSTONE,COARSE GRAINED	MUDSTONE, LENSES, LIGHT GREY, WITH TALC ON JOINTS AND CHLORITE ON JOINTS, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
106.69	3.25	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
106.97	0.28	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
111.32	4.35	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, WITH CHLORITE ON JOINTS AND TALC ON JOINTS, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, .
112.23	0.91	100		100% MUDSTONE	BADLY BROKEN, GREY, MODERATELY WEAK ROCK.
112.70	0.47	100		60% SANDSTONE,FINE GRAINED 40% SILTSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, VERY THINLY BEDDED.
114.96	2.26	100		100% SANDSTONE	MED.-COARSE GRAINED, MODERATELY WEAK ROCK, WITH MUD PELLETS, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
116.00	1.04	60		100% MUDSTONE	SILTSTONE, BADLY BROKEN, GREY, MODERATELY WEAK ROCK.
119.44	3.44	100		100% SANDSTONE,COARSE GRAINED	MUDSTONE, LENSES, GREY-GREEN, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CROSS LAMINATION.
121.17	1.73	100		70% SANDSTONE 30% PEBBLE CONGLOMERATE	VERY COARSE GRAINED, LIGHT GREY. MODERATELY WEAK ROCK.
122.70	1.53	100		100% PEBBLE CONGLOMERATE	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
122.90	0.20	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, VERY WEAK ROCK.
125.72	2.82	100		100% MUDSTONE	BADLY BROKEN, GREY, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
126.05	0.33	40		100% MUDSTONE	SILTSTONE, BADLY BROKEN, LIGHT GREY, VERY WEAK ROCK.
126.34	0.29	100		100% MUDSTONE	BADLY BROKEN, GREY, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
127.14	0.80	100		70% MUDSTONE 30% MUDSTONE	CARBONACEOUS, DARK GREY. CARBONACEOUS, STREAKS, GREY. MODERATELY WEAK ROCK, THINLY BEDDED, CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
128.27	1.13	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
130.85	2.58	100		100% SANDSTONE	VERY FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
131.74	0.89	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
132.99	1.25	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
134.11	1.12	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
141.53	7.42	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
141.62	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
141.83	0.21	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY-BROWN, MODERATELY WEAK ROCK.
143.10	1.27	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
143.71	0.61	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
143.85	0.14	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
143.86	0.01	100		100% MUDSTONE	CARBONACEOUS, BLACK, VERY WEAK ROCK.
143.90	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
143.94	0.04	100		100% COAL, INTERBANDED DULL AND BRIGHT	CARBONACEOUS, LAMINAE, WITH CALCITE ON CLEAT AND LIMONITE ON CLEAT.
144.08	0.14	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WITH CALCITE ON CLEAT AND LIMONITE ON CLEAT, MODERATELY WEAK ROCK.
144.10	0.02	100		100% COAL, DULL WITH FEW BRIGHT BANDS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
144.12	0.02	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
144.15	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
144.18	0.03	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
144.20	0.02	100		100% COAL, INTERBANDED DULL AND BRIGHT	WITH CALCITE ON CLEAT AND LIMONITE ON CLEAT.
144.21	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
144.28	0.07	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
144.31	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	WITH CALCITE ON CLEAT AND LIMONITE ON CLEAT.
144.41	0.10	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES, WITH CALCITE ON CLEAT AND LIMONITE ON CLEAT.
144.51	0.10	100		100% MUDSTONE	CARBONACEOUS, BLACK, WITH LIMONITE ON CLEAT, MODERATELY STRONG ROCK.
144.65	0.14	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
144.71	0.06	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS, WITH CALCITE ON CLEAT.
144.75	0.04	100		100% COAL, BRIGHT WITH FEW DULL BANDS	WITH CALCITE ON CLEAT.
144.79	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
144.83	0.04	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
144.88	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
144.97	0.09	100		100% COAL, DULL	
144.99	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
145.59	0.60	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY WEAK ROCK.
146.03	0.44	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
146.26	0.23	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, MODERATELY WEAK ROCK.
146.56	0.30	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK, JOINTS DIP 90 DEG.
146.84	0.28	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK, BEDS DIP 10 DEG.
146.99	0.15	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, BROWN-BLACK, WEAK ROCK.
147.15	0.16	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
147.27	0.12	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
147.33	0.06	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
147.63	0.30	100		100% COAL, INTERBANDED DULL AND BRIGHT	HEAVY DULL COAL, BANDS, WITH CALCITE ON CLEAT.
148.31	0.68	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
149.28	0.97	100		100% SILTSTONE	SANDSTONE, BANDS, WITH CALCITE ON JOINTS, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
164.28	15.00	100		90% SANDSTONE,MEDIUM GRAINED 10% SANDSTONE,MEDIUM GRAINED	FRIABLE, BANDS, LIGHT GREY. CALCAREOUS, LIGHT GREY. MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
164.43	0.15	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
164.51	0.08	100		100% MUDSTONE	CARBONACEOUS, STREAKS, YELLOW-GREY, MODERATELY WEAK ROCK.
164.73	0.22	100		100% SILTSTONE	BADLY BROKEN, GREY-BROWN, VERY WEAK ROCK.
164.83	0.10	100		100% CLAYSTONE	YELLOW-GREY, VERY WEAK ROCK.
164.87	0.04	100		100% CLAYSTONE	YELLOW-GREY, SOFT.
165.04	0.17	100		100% MUDSTONE	CARBONACEOUS, BADLY BROKEN, BROWN-BLACK, VERY WEAK ROCK.
165.21	0.17	100		100% MUDSTONE	BADLY BROKEN, DARK GREY, SOFT.
165.34	0.13	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
165.58	0.24	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK.
166.82	1.24	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
167.00	0.18	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
167.05	0.05	100		100% CLAYSTONE	LIGHT BROWN, WEAK ROCK.
167.64	0.59	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK.
168.14	0.50	100		60% SANDSTONE 40% SILTSTONE	VERY FINE GRAINED, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH LOAD CASTS.
168.43	0.29	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
168.64	0.21	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
169.09	0.45	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
169.39	0.30	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
170.30	0.91	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
170.62	0.32	100		50% SANDSTONE 50% SILTSTONE	VERY FINE GRAINED, LIGHT GREY. GREY. MODERATELY WEAK ROCK, WITH LOAD CASTS.
171.42	0.80	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CROSS LAMINATION, VERY CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
174.42	3.00	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
175.76	1.34	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
176.61	0.85	100		100% SANDSTONE,MEDIUM GRAINED	BRIGHT COAL, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, TIGHT NON PLANAR, .
176.89	0.28	100		100% MUDSTONE	BADLY BROKEN, FISSILE, CREAM, VERY WEAK ROCK.
193.52	16.63	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS, WIDELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
196.97	3.45	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
197.79	0.82	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
199.31	1.52	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
				TOP OF DALMAYNE B : 270.69 M R.L.	
200.30	0.99	100		70% MUDSTONE 30% MUDSTONE	CARBONACEOUS, BROWN-BLACK. BUFF. MODERATELY WEAK ROCK, VERY THINLY BEDDED.
200.51	0.21	0		CORE LOSS	
201.62	1.11	100		50% MUDSTONE 50% MUDSTONE	CARBONACEOUS, BROWN-BLACK. ARENACEOUS, BANDS, BUFF. MODERATELY WEAK ROCK, THINLY BEDDED.
201.69	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
201.89	0.20	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
201.98	0.09	100		100% CLAYSTONE	ARENACEOUS, CREAM, WEAK ROCK.
202.50	0.52	100		90% MUDSTONE 10% MUDSTONE	CARBONACEOUS, BROWN-BLACK. CARBONACEOUS, STREAKS, LIGHT BROWN. MODERATELY WEAK ROCK, THICKLY LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
202.67	0.17	100		100% CLAYSTONE	FISSILE, CREAM, STIFF, RAPID SLAKING.
202.74	0.07	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, MODERATELY WEAK ROCK.
202.81	0.07	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
202.85	0.04	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.
202.89	0.04	100		100% MUDSTONE	CARBONACEOUS, LENSES, BROWN, MODERATELY WEAK ROCK.
202.95	0.06	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
203.09	0.14	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
203.13	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
203.29	0.16	100		100% CLAYSTONE	CREAM, VERY WEAK ROCK, SLOW SLAKING.
203.57	0.28	100		100% CLAYSTONE	FISSILE, CREAM, STIFF, RAPID SLAKING.
203.64	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
203.70	0.06	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
203.79	0.09	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	CARBONACEOUS, LAMINAE.
				BASE OF DALMAYNE B : THICKNESS= 4.48 M; SAMPLED THICKNESS= 0.00 M	
203.96	0.17	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
205.06	1.10	100		100% SILTSTONE	GREY, WITH CALCITE ON JOINTS, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
205.23	0.17	100		100% MUDSTONE	FISSILE, YELLOW-GREY, VERY WEAK ROCK.
206.00	0.77	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
206.06	0.06	100		100% CLAYSTONE	GREY-BROWN, VERY WEAK ROCK, WITH CARBONACEOUS WISPS.
206.15	0.09	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
206.52	0.37	100		100% SILTSTONE	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK.
206.66	0.14	100		100% MUDSTONE	SILTSTONE, BANDS, GREY, MODERATELY WEAK ROCK.
207.21	0.55	100		100% SILTSTONE	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK.
207.53	0.32	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
208.22	0.69	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
209.03	0.81	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
210.99	1.96	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, WITH CARBONACEOUS WISPS.
211.55	0.56	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
212.45	0.90	100		100% CLAYSTONE	SILTSTONE, BANDS, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
224.42	11.97	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS.
225.16	0.74	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
225.81	0.65	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
226.25	0.44	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
226.92	0.67	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
227.58	0.66	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
227.62	0.04	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
227.64	0.02	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK.
227.66	0.02	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
227.68	0.02	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK.
227.70	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
227.78	0.08	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
228.05	0.27	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
228.54	0.49	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
229.39	0.85	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
230.07	0.68	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
231.68	1.61	100		60% SANDSTONE 40% SILTSTONE	MED.-FINE GRAINED, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, WITH LOAD CASTS.
232.39	0.71	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.

TOP OF DALMAYNE C : 237.61 M R.L.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
232.96	0.57	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
233.00	0.04	100		100% CLAYSTONE	LIGHT GREY, VERY WEAK ROCK.
233.44	0.44	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY-BROWN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
233.59	0.15	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
233.74	0.15	100		100% CLAYSTONE	FISSILE, LIGHT GREY, VERY WEAK ROCK.
233.79	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
234.36	0.57	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS.
				BASE OF DALHAYNE C : THICKNESS= 1.97 M; SAMPLED THICKNESS= 0.00 M	
234.51	0.15	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
234.87	0.36	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
235.58	0.71	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
235.85	0.27	100		50% SANDSTONE 50% SILTSTONE	MED.-FINE GRAINED, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
236.05	0.20	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
236.23	0.18	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
245.09	8.86	100		100% SANDSTONE,COARSE GRAINED	CALCAREOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, VERY WIDELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
245.82	0.73	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
253.75	7.93	100		100% SANDSTONE,COARSE GRAINED	CALCAREOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
253.85	0.10	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
255.60	1.75	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
255.80	0.20	100		100% SANDSTONE,COARSE GRAINED	CALCAREOUS, WHITE, WITH BANDS OF CALCITE, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
256.68	0.88	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
256.91	0.23	100		100% SANDSTONE,COARSE GRAINED	CALCAREOUS, WHITE, WITH BANDS OF CALCITE, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
260.36	3.45	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
262.84	2.48	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
262.98	0.14	100	1	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
263.14	0.16	100	1	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
263.18	0.04	100	1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
263.21	0.03	100	2	100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK.
263.24	0.03	100	2	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
263.59	0.35	100	2	100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK.
263.62	0.03	100	2	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
263.69	0.07	100	2	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
263.72	0.03	100	2	100% MUDSTONE	GREY-BROWN, WEAK ROCK.
263.76	0.04	100	2	100% CLAYSTONE	LIGHT BROWN, FIRM.
				TOP OF : 206.24 M R.L.	
263.93	0.17	100	3	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
263.99	0.06	100	3	100% MUDSTONE	FISSILE, LIGHT BROWN, STIFF.
264.04	0.05	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
264.15	0.11	100	3	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
264.56	0.41	100	3	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	CARBONACEOUS, LAMINAE.
264.57	0.01	100	4	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
264.71	0.14	100	4	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
264.83	0.12	100	4	100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
264.87	0.04	100	5	100% COAL, HEAVY DULL	
264.88	0.01	100	5	100% MUDSTONE	ARENACEOUS, LIGHT BROWN, MODERATELY WEAK ROCK.
264.91	0.03	100	5	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
265.03	0.12	100	5	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
265.05	0.02	100	5	100% MUDSTONE	CARBONACEOUS, LAMINAE, LIGHT BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
265.14	0.09	100	5	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
265.16	0.02	100	5	100% MUDSTONE	CARBONACEOUS, LAMINAE, LIGHT BROWN, MODERATELY WEAK ROCK.
265.26	0.10	100	5	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	CARBONACEOUS, LAMINAE.
265.62	0.36	100	5	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
265.88	0.26	100	5	100% COAL, DULL WITH FEW BRIGHT BANDS	HEAVY DULL COAL, BANDS.
265.90	0.02	100	5	100% COAL, BRIGHT	
266.00	0.10	100	5	50% COAL, BRIGHT 50% CARBONACEOUS SHALE	THINLY LAMINATED.
				BASE OF : THICKNESS= 2.24 M; SAMPLED THICKNESS= 2.24 M	
266.05	0.05	100		100% MUDSTONE	CARBONACEOUS, SHALY, DARK BROWN, WEAK ROCK.
266.16	0.11	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK, LAMINATED.
266.54	0.38	100		100% MUDSTONE	COALY, TRACES, GREY, MODERATELY WEAK ROCK, LAMINATED.
267.17	0.63	100		100% MUDSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, LAMINATED.
267.30	0.13	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK.
267.79	0.49	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
267.81	0.02	100		100% CARBONACEOUS SHALE	COALY, LAMINAE.
267.89	0.08	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
267.95	0.06	100		100% CARBONACEOUS SHALE	COALY, LAMINAE.
268.05	0.10	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
268.36	0.31	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
268.59	0.23	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
268.61	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
268.85	0.24	100		100% MUDSTONE	FISSILE, GREY-BROWN, MODERATELY WEAK ROCK, LAMINATED.
269.28	0.43	100		70% SANDSTONE,FINE GRAINED 30% MUDSTONE	MUDSTONE, LAMINAE, GREY. FISSILE, GREY. MODERATELY WEAK ROCK, THINLY BEDDED.
287.65	18.37	100		100% SANDSTONE,COARSE GRAINED	CALCAREOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
287.72	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
289.84	2.12	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
291.36	1.52	100		100% SILTSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, BEDS DIP 20 DEG., WITH CROSS LAMINATION.
291.48	0.12	100		60% SANDSTONE,COARSE GRAINED 40% MUDSTONE	LIGHT GREY. CARBONACEOUS, DARK BROWN. MODERATELY WEAK ROCK, THICKLY LAMINATED.
292.36	0.88	100		100% SILTSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, LAMINATED.
293.40	1.04	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS.
304.70	11.30	100		100% SANDSTONE,COARSE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
304.85	0.15	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
304.94	0.09	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
304.98	0.04	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
305.06	0.08	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
305.60	0.54	100		100% SANDSTONE	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
306.65	1.05	100		100% SANDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
307.83	1.18	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
308.85	1.02	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
309.10	0.25	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
310.47	1.37	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
310.65	0.18	100		100% CALCITE	SANDSTONE, BANDS, WHITE, MODERATELY WEAK ROCK.
314.82	4.17	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
314.97	0.15	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
332.23	17.26	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
334.98	2.75	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
335.12	0.14	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
335.35	0.23	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
335.78	0.43	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
336.37	0.59	100		50% MUDSTONE 50% MUDSTONE	CARBONACEOUS, BROWN-BLACK. GREY-BROWN. MODERATELY WEAK ROCK, VERY THINLY BEDDED.
337.10	0.73	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, LAMINATED.
337.60	0.50	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
338.00	0.40	0		CORE LOSS	
338.02	0.02	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
338.14	0.12	100		100% SANDSTONE,FINE GRAINED	CALCAREOUS, LIGHT GREY, MODERATELY WEAK ROCK.
339.06	0.92	100		70% SANDSTONE,FINE GRAINED 30% MUDSTONE	GREY. SILTSTONE, GREY. MODERATELY WEAK ROCK, LAMINATED.
340.63	1.57	100		70% SANDSTONE 30% SILTSTONE	MED.-FINE GRAINED, LIGHT GREY. SANDSTONE, LAMINAE, GREY. MODERATELY WEAK ROCK, THINLY BEDDED.
341.40	0.77	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
346.74	5.34	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
346.99	0.25	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
350.26	3.27	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
350.89	0.63	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS.
352.80	1.91	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
352.90	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
353.07	0.17	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
353.88	0.81	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
354.38	0.50	100		90% MUDSTONE 10% MUDSTONE	CARBONACEOUS, LAMINAE, DARK GREY. LIGHT GREY. MODERATELY WEAK ROCK, LAMINATED.
354.46	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
354.69	0.23	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, LAMINATED.
355.09	0.40	100		70% MUDSTONE 30% MUDSTONE	CARBONACEOUS, DARK GREY. GREY. MODERATELY WEAK ROCK, LAMINATED.
355.30	0.21	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, LAMINATED.
355.53	0.23	100		70% SANDSTONE,FINE GRAINED 30% MUDSTONE	LIGHT GREY. CARBONACEOUS, BROWN-BLACK. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
355.93	0.40	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, LAMINATED.
356.37	0.44	100		100% SANDSTONE	VERY FINE GRAINED, CREAM, MODERATELY WEAK ROCK.
356.63	0.26	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, LAMINATED.
356.84	0.21	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
356.94	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
357.40	0.46	100		70% SANDSTONE,FINE GRAINED 30% SILTSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, LAMINATED.
357.80	0.40	100		100% MUDSTONE	BADLY BROKEN, GREY, MODERATELY WEAK ROCK.
358.80	1.00	0		CORE LOSS	
359.05	0.25	100		100% MUDSTONE	BADLY BROKEN, GREY, MODERATELY WEAK ROCK.
359.35	0.30	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
359.61	0.26	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, LAMINATED.
360.87	1.26	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
363.15	2.28	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
363.80	0.65	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
364.25	0.45	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
364.37	0.12	100		100% SILTSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
364.59	0.22	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	GREY-BROWN. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
365.07	0.48	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK, LAMINATED.
365.23	0.16	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
366.13	0.90	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, LAMINATED.
366.61	0.48	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	SILTSTONE, GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
367.08	0.47	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
367.40	0.32	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
367.57	0.17	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK, LAMINATED.
367.62	0.05	100	6	100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK
367.66	0.04	100	6	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
367.70	0.04	100	6	100% MUDSTONE	BROWN, WEAK ROCK.
				TOP OF DALMAYNE E2 : 102.30 M R.L.	
367.84	0.14	100	7	100% COAL, HEAVY DULL	
367.86	0.02	100	7	100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
368.02	0.16	100	7	100% COAL, HEAVY DULL	
368.13	0.11	100	7	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
368.20	0.07	100	7	100% COAL, HEAVY DULL	
368.49	0.29	100	7	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	MUDSTONE, LAMINAE.
				BASE OF DALMAYNE E2 : THICKNESS= 0.79 M; SAMPLED THICKNESS= 0.79 M	
368.50	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
369.17	0.67	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, BROWN, MODERATELY WEAK ROCK.
369.55	0.38	100		100% CLAYSTONE	GREY, VERY WEAK ROCK, LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
370.11	0.56	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
370.40	0.29	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
371.16	0.76	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
377.35	6.19	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
377.68	0.33	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
378.00	0.32	100		100% MUDSTONE	SILTSTONE, DARK GREY, MODERATELY WEAK ROCK, LAMINATED.
379.00	1.00	0		CORE LOSS	
379.21	0.21	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
380.60	1.39	80		100% MUDSTONE	SILTSTONE, LIGHT GREY, MODERATELY WEAK ROCK, LAMINATED.
381.60	1.00	80		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
382.35	0.75	100		70% MUDSTONE 30% SANDSTONE,FINE GRAINED	GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
383.70	1.35	80		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
383.92	0.22	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, LAMINATED.
384.83	0.91	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK, LAMINATED.
385.50	0.67	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, LAMINATED.
386.35	0.85	90		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WITH BANDS OF CLAY, MODERATELY WEAK ROCK, LAMINATED.
386.50	0.15	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
388.30	1.80	100		50% SILTSTONE 50% SANDSTONE	CARBONACEOUS, STREAKS, GREY. MED.-FINE GRAINED. MODERATELY WEAK ROCK, THINLY LAMINATED.
389.52	1.22	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
389.54	0.02	100		100% CLAYSTONE	FISSILE, BUFF, WITH LENSES OF CALCITE, STIFF.
390.00	0.46	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
390.18	0.18	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
390.44	0.26	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
390.46	0.02	100		100% CLAYSTONE	FISSILE, BUFF, STIFF.
391.14	0.68	100		50% MUDSTONE 50% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, DARK GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
392.07	0.93	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
392.95	0.88	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
393.36	0.41	100		100% SANDSTONE,FINE GRAINED	GREY-GREEN, WITH FRAGMENTS OF CALCITE, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, LAMINATED.
393.74	0.38	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, LAMINATED.
393.84	0.10	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK, LAMINATED.
394.82	0.98	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, LAMINATED.
395.33	0.51	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	SILTSTONE, GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
396.55	1.22	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, LAMINATED.
399.75	3.20	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK, LAMINATED.
401.93	2.18	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH POOR SORTING.
402.23	0.30	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
402.45	0.22	100		100% SANDSTONE,COARSE GRAINED	PEBBLY, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
403.58	1.13	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH POOR SORTING.
404.00	0.42	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
404.98	0.98	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
406.60	1.62	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
406.79	0.19	100		50% SILTSTONE 50% SANDSTONE	GREY. MED.-COARSE GRAINED, LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, BEDS DIP 60 DEG., WITH CARBONACEOUS WISPS.
406.84	0.05	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
407.18	0.34	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
407.27	0.09	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
407.51	0.24	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
410.00	2.49	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
410.98	0.98	100		100% SANDSTONE	MED.-COARSE GRAINED, PEBBLY, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
411.65	0.67	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
412.24	0.59	100		100% SILTSTONE	SANDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, LAMINATED.
412.48	0.24	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
412.62	0.14	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
416.00	3.38	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
416.27	0.27	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
416.88	0.61	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
417.02	0.14	100		100% SANDSTONE,MEDIUM GRAINED	GREY-BROWN, MODERATELY WEAK ROCK.
418.20	1.18	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY WEAK ROCK, LAMINATED, WITH PLANT REMAINS.
419.65	1.45	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, LAMINATED.
420.95	1.30	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY WEAK ROCK, LAMINATED.
421.45	0.50	100		100% LIMESTONE	LIGHT GREY, MODERATELY WEAK ROCK.
422.22	0.77	100		100% SANDSTONE,MEDIUM GRAINED	CALCAREOUS, LIGHT GREY, MODERATELY WEAK ROCK.
424.84	2.62	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
425.10	0.26	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, LAMINATED.
431.62	6.52	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
432.36	0.74	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, LAMINATED.
432.55	0.19	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK.
432.60	0.05	100		50% COAL, DULL 50% MUDSTONE	ARENACEOUS, GREY-BROWN. MODERATELY WEAK ROCK, THICKLY LAMINATED.
432.68	0.08	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
433.16	0.48	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK, LAMINATED.
433.22	0.06	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, LAMINATED.
433.28	0.06	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, LAMINATED.
434.36	1.08	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT BROWN, WITH FRAGMENTS OF QUARTZ, MODERATELY STRONG ROCK, WITH BURROWING.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
435.21	0.85	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	LIGHT BROWN. GREY-BROWN. WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK, THINLY LAMINATED.
435.36	0.15	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, LAMINATED.
435.58	0.22	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, LAMINATED.
435.82	0.24	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, BANDS, GREY-BROWN, MODERATELY WEAK ROCK.
435.91	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK, LAMINATED.
435.95	0.04	100		100% SANDSTONE	VERY FINE GRAINED, BROWN, MODERATELY WEAK ROCK.
436.09	0.14	100		100% SANDSTONE,FINE GRAINED	BROWN, MODERATELY WEAK ROCK.
436.37	0.28	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK, LAMINATED.
436.67	0.30	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
436.78	0.11	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT BROWN, MODERATELY WEAK ROCK.
436.92	0.14	100		100% SANDSTONE,FINE GRAINED	LIGHT BROWN, MODERATELY WEAK ROCK.
438.13	1.21	100		60% SANDSTONE,FINE GRAINED 40% MUDSTONE	MODERATELY WEAK ROCK, THINLY LAMINATED.
438.62	0.49	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
438.85	0.23	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREEN, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK.
439.55	0.70	100		50% SANDSTONE,MEDIUM GRAINED 50% MUDSTONE	GREY-GREEN. SILTSTONE, GREY-GREEN. MODERATELY WEAK ROCK, THICKLY LAMINATED.
439.76	0.21	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREEN, WITH FRAGMENTS OF QUARTZ, MODERATELY STRONG ROCK.
440.09	0.33	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREEN, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK.
440.50	0.41	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREEN, WITH FRAGMENTS OF QUARTZ, MODERATELY STRONG ROCK.
440.66	0.16	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREEN, WITH FRAGMENTS OF QUARTZ, MODERATELY STRONG ROCK.
441.04	0.38	100		100% MUDSTONE	SILTSTONE, GREY-GREEN, MODERATELY WEAK ROCK, LAMINATED.
441.34	0.30	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK.
442.20	0.86	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREEN, MODERATELY WEAK ROCK.
444.77	2.57	100		60% MUDSTONE 40% MUDSTONE	SILTSTONE, GREY. SILTSTONE, GREEN. MODERATELY WEAK ROCK, THICKLY LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
445.61	0.84	100		100% SANDSTONE,FINE GRAINED	CALCAREOUS, MICACEOUS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
445.89	0.28	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, LAMINATED.
446.41	0.52	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
447.26	0.85	100		100% SANDSTONE,FINE GRAINED	MICACEOUS, LAMINAE, LIGHT GREEN, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
449.00	1.74	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, WITH FRAGMENTS OF CALCITE AND LAMINAE OF MICA, MODERATELY WEAK ROCK.
452.74	3.74	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREEN, WITH STREAKS OF MICA, MODERATELY WEAK ROCK.
453.39	0.65	100		100% LIMESTONE	SANDSTONE, FRAGMENTS, CREAM, MODERATELY STRONG ROCK.
455.00	1.61	100		100% SANDSTONE	MED.-COARSE GRAINED, ARGILLACEOUS, LIGHT GREEN, WITH STREAKS OF MICA, MODERATELY WEAK ROCK.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	0.00 M	199.31 - 203.79 M	4.48 M
DC	0.00 M	232.39 - 234.36 M	1.97 M
DC1	2.24 M	263.76 - 266.00 M	2.24 M
DE2	0.79 M	367.70 - 368.49 M	0.79 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	262.84 - 263.18 M	0.34 M
2	263.18 - 263.76 M	0.58 M
3	263.76 - 264.56 M	0.80 M
4	264.56 - 264.83 M	0.27 M
5	264.83 - 266.00 M	1.17 M
6	367.57 - 367.70 M	0.13 M
7	367.70 - 368.49 M	0.79 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

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HOLE TYPE	CORE	
EASTING	602,000 M	GRID
NORTHING	5,381,000 M	GRID
ELEVATION	440.00 M	
TOTAL DEPTH DRILLED	151.70 M	
DRILLING STARTED	22/ 8/78	
DRILLING TIME	16 DAYS	
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
15.10	15.10	80		100% DOLERITE	BADLY BROKEN, FERRUGINOUS, ORANGE-YELLOW, HIGHLY WEATHERED, VERY WEAK ROCK.
18.50	3.40	100		100% DOLERITE	FERRUGINOUS, STAINING, GREY, MODERATELY WEATHERED, STRONG ROCK.
29.00	10.50	100		100% DOLERITE	FERRUGINOUS, STAINING, GREY, SLIGHTLY WEATHERED, STRONG ROCK, MODERATELY SPACED JOINTS. NOTE: VARIABLE DIP AND TYPE OF JOINTS
32.00	3.00	100		100% DOLERITE	MEDIUM GRAINED, GREY, STRONG ROCK, MODERATELY SPACED JOINTS. NOTE: VARIABLE DIP AND TYPE OF JOINTS
32.85	0.85	100		100% DOLERITE	MEDIUM GRAINED, BADLY BROKEN, GREY, WITH TALC ON JOINTS, STRONG ROCK.
36.00	3.15	100		100% DOLERITE	MEDIUM GRAINED, GREY, STRONG ROCK, MODERATELY SPACED JOINTS. NOTE: VARIABLE DIP AND TYPE OF JOINTS
37.00	1.00	100		100% DOLERITE	ORANGE-GREY, WITH TALC ON JOINTS, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
81.50	44.50	100		100% DOLERITE	MEDIUM GRAINED, GREY, STRONG ROCK, WIDELY SPACED JOINTS. NOTE: VARIABLE DIP AND TYPE OF JOINTS, SOME CALCITE AND CHLORITE ALONG JOINTS
91.00	9.50	100		100% DOLERITE	MEDIUM GRAINED, GREY, STRONG ROCK, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
93.25	2.25	100		100% DOLERITE	MED.-FINE GRAINED, GREY, WITH CHLORITE ON JOINTS AND CALCITE ON JOINTS, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
93.60	0.35	100		100% DOLERITE	FINE GRAINED, GREY, WITH CHLORITE ON JOINTS AND CALCITE ON JOINTS, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
93.80	0.20	100		100% DOLERITE	VERY FINE GRAINED, GREY-GREEN, WITH CHLORITE ON JOINTS AND CALCITE ON JOINTS, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
93.87	0.07	100		100% MUDSTONE	GREY-GREEN, MODERATELY WEAK ROCK. NOTE: BAKED
94.16	0.29	100		100% MUDSTONE	CARBONACEOUS, TRACES, CREAM, MODERATELY WEAK ROCK. NOTE: BAKED
94.46	0.30	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK. NOTE: SLIGHTY BURNT; CALCITE STREAKS
95.08	0.62	100		100% MUDSTONE	CARBONACEOUS, TRACES, GREY-BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
96.95	1.87	100		80% SANDSTONE,FINE GRAINED 20% SANDSTONE,MEDIUM GRAINED	MUDSTONE, BANDS, GREY-BROWN. LIGHT GREY. MODERATELY WEAK ROCK, VERY THINLY BEDDED, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
98.10	1.15	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
98.25	0.15	100		100% SANDSTONE,FINE GRAINED	GREY-BROWN, MODERATELY WEAK ROCK.
99.55	1.30	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK. NOTE: CALCITE INFILLED FRACTURES IN PART
99.73	0.18	100		100% MUDSTONE	CREAM, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
100.23	0.50	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
100.53	0.30	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, WEAK ROCK. NOTE: REVERSE FAULT AT BASE
100.80	0.27	100		100% MUDSTONE	BADLY BROKEN, DARK GREY, WEAK ROCK.
100.90	0.10	0		CORE LOSS	NOTE: CORE LOSS
101.21	0.31	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, MODERATELY WEAK ROCK.
102.08	0.87	100		100% MUDSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 20 DEG., WITH LOAD CASTS.
102.30	0.22	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
102.36	0.06	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
102.72	0.36	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
102.80	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
105.50	2.70	100		100% MUDSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, BEDS DIP 50 DEG., WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
105.64	0.14	100		100% MUDSTONE	SANDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, BEDS DIP 60 DEG.
106.07	0.43	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, BEDS DIP 50 DEG.
106.90	0.83	100		100% MUDSTONE	SANDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, BEDS DIP 50 DEG.
107.05	0.15	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, BEDS DIP 50 DEG.
107.15	0.10	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	GREY. CARBONACEOUS, DARK GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, BEDS DIP 45 DEG.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
108.00	0.85	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
110.00	2.00	100		80% MUDSTONE 20% COAL, HEAVY DULL	CARBONACEOUS, STRONGLY FRAGMENTED, BROWN-BLACK. STRONGLY FRAGMENTED. MODERATELY STRONG ROCK.
114.36	4.36	100		50% SANDSTONE 50% MUDSTONE	LITHIC, MICACEOUS, GREY. GREY. UNWEATHERED, MODERATELY STRONG ROCK, VERY THINLY BEDDED, BASAL CONTACT ABRUPT, BEDS DIP 2 DEG., VERY WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE.
116.00	1.64	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE.
116.60	0.60	100		50% MUDSTONE 50% MUDSTONE	CARBONACEOUS, DARK GREY. GREY-GREEN. UNWEATHERED, WEAK ROCK.
116.82	0.22	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
117.82	1.00	100		50% MUDSTONE 50% SANDSTONE	CARBONACEOUS, BLACK. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY STRONG ROCK, THINLY BEDDED, BASAL CONTACT TRANSITIONAL, WITH CROSS LAMINATION.
118.50	0.68	100		100% SANDSTONE	CARBONACEOUS, FINE GRAINED, DARK GREY, UNWEATHERED, MODERATELY STRONG ROCK.
119.40	0.90	100		100% DOLERITE	FINE GRAINED, GREY-GREEN, UNWEATHERED, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE.
125.05	5.65	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, UNWEATHERED, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE.
125.60	0.55	100		100% DOLERITE	FINE GRAINED, GREY, UNWEATHERED, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE.
128.00	2.40	100		100% SANDSTONE	MEDIUM GRAINED, MICACEOUS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, BASAL CONTACT ABRUPT, BEDS DIP 1 DEG., CLOSELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE.
131.60	3.60	100		100% SANDSTONE	MED.-COARSE GRAINED, MICACEOUS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, MEDIUM BEDDED, BEDS DIP 1 DEG.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
132.10	0.50	100		100% SANDSTONE	CONGLOMERATIC, MICACEOUS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BASAL CONTACT ABRUPT, BEDS DIP 1 DEG.
136.50	4.40	100		100% SANDSTONE	MED.-COARSE GRAINED, MICACEOUS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, MEDIUM BEDDED, BEDS DIP 1 DEG., VERY WIDELY SPACED JOINTS, JOINTS DIP 50 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, .
137.00	0.50	100		100% SANDSTONE	COALY, FRAGMENTS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 50 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, .
140.10	3.10	100		100% SANDSTONE	MEDIUM GRAINED, CARBONACEOUS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY THICKLY BEDDED, BASAL CONTACT ABRUPT, BEDS DIP 1 DEG.
143.00	2.90	65		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, WEAK ROCK.
143.70	0.70	40		100% MUDSTONE	MUDSTONE, FAULT GOUGE, LIGHT GREY, UNWEATHERED, WEAK ROCK.
144.20	0.50	50		100% MUDSTONE	CARBONACEOUS, FAULT GOUGE, BLACK, UNWEATHERED, WEAK ROCK, VERY THINLY BEDDED, BASAL CONTACT ABRUPT, BEDS DIP 45 DEG.
144.25	0.05	100		100% MUDSTONE	FAULT GOUGE, BROWN, UNWEATHERED, WEAK ROCK, THICKLY LAMINATED, BASAL CONTACT ABRUPT, BEDS DIP 45 DEG.
146.60	2.35	100		100% MUDSTONE	COALY, FAULT GOUGE, BLACK, UNWEATHERED, WEAK ROCK, VERY THINLY BEDDED, BASAL CONTACT ABRUPT, BEDS DIP 45 DEG.
149.50	2.90	100		100% MUDSTONE	FRAGMENTED, LIGHT GREY, UNWEATHERED, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 50 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
150.50	1.00	100		100% MUDSTONE	STRONGLY FRAGMENTED, FAULT GOUGE, LIGHT GREY, UNWEATHERED, VERY WEAK ROCK.
151.00	0.50	100		70% MUDSTONE 30% SANDSTONE	STRONGLY FRAGMENTED, GREY. FINE GRAINED, STRONGLY FRAGMENTED, DARK GREY.
151.70	0.70	100		100% SANDSTONE	FINE GRAINED, STRONGLY FRAGMENTED, GREY.

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

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HOLE TYPE	CORE	
EASTING	602,050 M	GRID
NORTHING	5,381,000 M	GRID
ELEVATION	445.00 M	
TOTAL DEPTH DRILLED	341.00 M	
DRILLING STARTED	8/ 9/78	
DRILLING TIME	25 DAYS	
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
12.53	12.53	80		100% DOLERITE	FERRUGINOUS, STAINING, GREY, MODERATELY WEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
20.55	8.02	70		100% DOLERITE	BADLY BROKEN, FERRUGINOUS, YELLOW-GREY, HIGHLY WEATHERED, WEAK ROCK.
37.19	16.64	100		100% DOLERITE	FERRUGINOUS, STAINING, GREY, SLIGHTLY WEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
41.10	3.91	100		100% DOLERITE	FERRUGINOUS, STAINING, ORANGE-GREY, WITH CALCITE ON JOINTS AND CHLORITE ON JOINTS, MODERATELY WEATHERED, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
43.11	2.01	100		100% DOLERITE	FERRUGINOUS, STAINING, GREY, SLIGHTLY WEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
52.59	9.48	100		100% DOLERITE	FERRUGINOUS, STAINING, GREY, WITH CALCITE ON JOINTS, SLIGHTLY WEATHERED, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
54.75	2.16	100		100% DOLERITE	FERRUGINOUS, STAINING, YELLOW-GREY, WITH CALCITE ON JOINTS, MODERATELY WEATHERED, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
66.78	12.03	100		100% DOLERITE	MEDIUM GRAINED, GREY, SLIGHTLY WEATHERED, STRONG ROCK, MODERATELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
100.27	33.49	100		100% DOLERITE	MEDIUM GRAINED, GREY, UNWEATHERED, STRONG ROCK, WIDELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
128.14	27.87	100		100% DOLERITE	MEDIUM GRAINED, GREY, STRONG ROCK, MODERATELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
134.36	6.22	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS.
172.50	38.14	100		100% DOLERITE	MEDIUM GRAINED, GREY, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
187.54	15.04	100		100% DOLERITE	MED.-FINE GRAINED, GREY, WITH CALCITE ON JOINTS, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
188.54	1.00	100		100% DOLERITE	FINE GRAINED, GREY-GREEN, WITH CALCITE ON JOINTS, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
192.35	3.81	100		100% DOLERITE	FINE GRAINED, GREY-GREEN, WITH CALCITE ON JOINTS, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
193.10	0.75	100		100% MUDSTONE	DARK GREY, WITH CALCITE ON JOINTS, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
194.96	1.86	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	SILTSTONE, GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
199.49	4.53	100		100% SANDSTONE	VERY FINE GRAINED, ARGILLACEOUS, GREY, MODERATELY WEAK ROCK.
202.33	2.84	100		100% SANDSTONE,MEDIUM GRAINED	LIMONITIC, LIGHT GREEN, MODERATELY WEAK ROCK.
202.77	0.44	100		100% SANDSTONE,COARSE GRAINED	LIMONITIC, LIGHT GREY, MODERATELY WEAK ROCK, BEDS DIP 20 DEG.
203.80	1.03	100		100% SANDSTONE,COARSE GRAINED	LIMONITIC, LIGHT GREEN, MODERATELY WEAK ROCK.
204.80	1.00	100		100% SANDSTONE,MEDIUM GRAINED	LIMONITIC, LIGHT GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
206.32	1.52	100		100% SANDSTONE,COARSE GRAINED	LIMONITIC, LIGHT GREY, WEAK ROCK.
208.55	2.23	100		100% SANDSTONE	VERY COARSE GRAINED, LIMONITIC, LIGHT GREY, WEAK ROCK.
208.84	0.29	100		100% MUDSTONE	GREY, WEAK ROCK.
211.32	2.48	90		100% SANDSTONE,COARSE GRAINED	LIMONITIC, LIGHT GREEN, VERY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
212.13	0.81	100		100% SANDSTONE	VERY COARSE GRAINED, LIMONITIC, LIGHT GREEN, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
215.13	3.00	100		100% SANDSTONE	MED.-COARSE GRAINED, LIMONITIC, LIGHT GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
215.16	0.03	100		100% MUDSTONE	GREY-GREEN, WEAK ROCK.
				TOP OF DALMAYNE D UPPER : 229.84 M R.L.	
215.72	0.56	31		100% COAL, HEAVY DULL	BLACK, MODERATELY WEAK ROCK.
				BASE OF DALMAYNE D UPPER : THICKNESS= 0.56 M; SAMPLED THICKNESS= 0.00 M	
216.12	0.40	100		100% CLAYSTONE	GREY-BROWN, FIRM, SLOW SLAKING, MODERATELY STICKY.
216.17	0.05	100		100% MUDSTONE	GREY, WEAK ROCK, SLOW SLAKING, NON STICKY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
216.72	0.55	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. WEAK ROCK, THINLY LAMINATED, VERY CLOSELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
216.78	0.06	100		100% MUDSTONE	GREY, FIRM.
217.13	0.35	100		100% SANDSTONE	MED.-FINE GRAINED, LIMONITIC, LIGHT GREY, WEAK ROCK.
217.23	0.10	100		100% SILTSTONE	STRONGLY FRAGMENTED.
217.52	0.29	100		100% SANDSTONE	MED.-FINE GRAINED, LIMONITIC, LIGHT GREY, WEAK ROCK.
218.08	0.56	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, WEAK ROCK.
219.32	1.24	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, WITH PYRITE ON JOINTS, WEAK ROCK, THINLY LAMINATED, BEDS DIP 10 DEG., CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
220.37	1.05	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, WITH PYRITE ON JOINTS, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
220.57	0.20	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, WEAK ROCK.
221.72	1.15	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, WEAK ROCK.
222.62	0.90	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, WITH PYRITE ON JOINTS AND CALCITE ON JOINTS, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
222.91	0.29	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, WITH CALCITE ON JOINTS, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
223.26	0.35	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, STREAKS, LIGHT GREY, WEAK ROCK.
223.50	0.24	63		100% CARBONACEOUS MUDSTONE	BADLY BROKEN, BLACK, MODERATELY WEAK ROCK.
224.04	0.54	0		CORE LOSS	
		TOP OF DALMAYNE D LOWER : 220.96 M R.L.			
225.72	1.68	0		CORE LOSS	NOTE: CORE LOSS INTERPRETED FROM WIRELINE LOGS
		BASE OF DALMAYNE D LOWER : THICKNESS= 1.68 M; SAMPLED THICKNESS= 0.00 M			
229.25	3.53	100		100% SANDSTONE	MED.-FINE GRAINED, LIMONITIC, GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
229.54	0.29	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
240.68	11.14	100		100% SANDSTONE	MED.-COARSE GRAINED, LIMONITIC, LIGHT GREY, WITH PYRITE ON JOINTS, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
241.51	0.83	100		100% SANDSTONE	MED.-FINE GRAINED, LIMONITIC, LIGHT GREY, MODERATELY WEAK ROCK.
242.08	0.57	100		100% SANDSTONE	MED.-FINE GRAINED, LIMONITIC, LIGHT GREY, MODERATELY WEAK ROCK.
242.16	0.08	100		100% MUDSTONE	SHALY, GREY, WEAK ROCK.
242.27	0.11	100		100% SANDSTONE,MEDIUM GRAINED	LIMONITIC, LIGHT GREY, WEAK ROCK.
247.50	5.23	80		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
247.85	0.35	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, WEAK ROCK, THINLY LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
248.60	0.75	100		100% MUDSTONE	GREY, WEAK ROCK, LAMINATED, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
249.04	0.44	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
249.27	0.23	100		100% MUDSTONE	GREY, WEAK ROCK, LAMINATED.
249.31	0.04	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, WEAK ROCK.
249.83	0.52	100		100% MUDSTONE	GREY, WEAK ROCK, LAMINATED.
250.85	1.02	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	GREY. CARBONACEOUS, STREAKS, LIGHT GREY. WEAK ROCK, VERY THINLY BEDDED, WITH CROSS LAMINATION, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
251.80	0.95	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
252.20	0.40	100		100% MUDSTONE	SILTSTONE, GREY, WEAK ROCK, LAMINATED.
252.97	0.77	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
254.00	1.03	100		100% MUDSTONE	GREY, WEAK ROCK, LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
254.04	0.06	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
254.10	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
				TOP OF DALMAYNE E : 190.90 M R.L.	
254.24	0.14	100		100% COAL, HEAVY DULL	
254.26	0.02	100		100% COAL, HEAVY DULL	MUDSTONE, LAMINAE.
254.68	0.42	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
				BASE OF DALMAYNE E : THICKNESS= 0.58 M; SAMPLED THICKNESS= 0.00 M	
255.15	0.47	100		100% MUDSTONE	CARBONACEOUS, BANDS, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
255.53	0.38	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, LIGHT GREY, WEAK ROCK, BEDS DIP 30 DEG., WITH CROSS LAMINATION, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
256.01	0.48	100		100% MUDSTONE	GREY, WEAK ROCK, BEDS DIP 20 DEG., WITH LOAD CASTS, LAMINATED, VERY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
257.02	1.01	100		100% MUDSTONE	GREY, WEAK ROCK, BEDS DIP 20 DEG., LAMINATED, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
257.27	0.25	100		70% MUDSTONE 30% MUDSTONE	CARBONACEOUS, DARK GREY. LIGHT GREY. MODERATELY WEAK ROCK, BEDS DIP 20 DEG., LAMINATED, WITH CROSS LAMINATION.
257.30	0.03	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, BEDS DIP 20 DEG., WITH LOAD CASTS.
258.70	1.40	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, BEDS DIP 20 DEG., LAMINATED, WITH LOAD CASTS, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
259.90	1.20	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
262.35	2.45	100		70% SANDSTONE,FINE GRAINED 30% MUDSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, LAMINATED, WITH LOAD CASTS.
262.50	0.15	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
262.70	0.20	100	1	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WITH CALCITE ON CLEAT, MODERATELY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
262.74	0.04	100	1	100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
262.78	0.04	100	1	100% CARBONACEOUS SHALE	
262.79	0.01	100	1	100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, WEAK ROCK.
262.86	0.07	100	1	100% COAL, HEAVY DULL	
262.95	0.09	100	1	70% MUDSTONE 30% MUDSTONE	CARBONACEOUS, BROWN-BLACK. CARBONACEOUS, STREAKS, BROWN. MODERATELY STRONG ROCK, THICKLY LAMINATED.
				TOP OF DALMAYNE E2 : 182.05 M R.L.	
263.23	0.28	100	2	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
263.32	0.09	100	2	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
263.92	0.60	100	2	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
				BASE OF DALMAYNE E2 : THICKNESS= 0.97 M; SAMPLED THICKNESS= 0.97 M	
263.93	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
263.95	0.02	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
263.96	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
264.17	0.21	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK.
264.65	0.48	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, WITH SLICKENSIDES.
264.77	0.12	100		100% COAL, DULL WITH FEW BRIGHT BANDS	MUDSTONE, LENSES.
264.79	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
264.81	0.02	100		100% COAL, BRIGHT WITH FEW DULL BANDS	WITH CALCITE ON CLEAT AND PYRITE ON CLEAT.
267.10	2.29	100		100% SILTSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, LAMINATED, MODERATELY SPACED JOINTS, TIGHT NON PLANAR, WITH SLICKENSIDES.
268.15	1.05	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, STREAKS, GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
269.40	1.25	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
270.20	0.80	100		100% SILTSTONE	SANDSTONE, BANDS, GREY-BROWN, BEDS DIP 10 DEG.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
270.27	0.07	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
270.64	0.37	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
270.83	0.19	100		100% MUDSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, LAMINATED.
270.88	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
271.35	0.47	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
271.45	0.10	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LIGHT GREY, MODERATELY WEAK ROCK, WITH LOAD CASTS, LAMINATED.
272.95	1.50	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED, CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
273.65	0.70	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	LIGHT GREY. SILTSTONE. MODERATELY WEAK ROCK, LAMINATED, WITH BURROWING.
274.86	1.21	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, LAMINATED.
274.92	0.06	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
275.59	0.67	100		100% MUDSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY WEAK ROCK.
277.90	2.31	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	GREY. CARBONACEOUS, STREAKS, LIGHT GREY. MODERATELY WEAK ROCK, LAMINATED, WITH LOAD CASTS.
278.10	0.20	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
278.24	0.14	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
280.46	2.22	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED, JOINTS DIP 70 DEG.
281.15	0.69	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
282.53	1.38	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
282.95	0.42	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
283.90	0.95	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
284.89	0.99	100		100% MUDSTONE	CARBONACEOUS, SHALY, DARK GREY, MODERATELY WEAK ROCK.
285.02	0.13	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
285.73	0.71	100		100% MUDSTONE	SILTSTONE, DARK GREY, MODERATELY WEAK ROCK, LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
285.88	0.15	100		70% SANDSTONE 30% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. DARK GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
286.03	0.15	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, DARK GREY. CARBONACEOUS, BANDS, LIGHT GREY. MODERATELY WEAK ROCK, LAMINATED.
286.05	0.02	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
		TOP OF	DALMAYNE F : 158.95 M R.L.		
286.18	0.13	100	3	100% COAL, HEAVY DULL	
286.25	0.07	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
286.55	0.30	100	3	100% COAL, HEAVY DULL	
286.56	0.01	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
286.61	0.05	100	3	100% COAL, HEAVY DULL	
286.63	0.02	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
286.65	0.02	100	3	100% MUDSTONE	SILTSTONE, BROWN, MODERATELY WEAK ROCK.
286.66	0.01	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
286.82	0.16	100	3	100% COAL, HEAVY DULL	
286.92	0.10	100	3	100% COAL, HEAVY DULL	
286.95	0.03	100	3	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
		BASE OF	DALMAYNE F : THICKNESS= 0.90 M; SAMPLED THICKNESS= 0.90 M		
287.00	0.05	0		CORE LOSS	
287.02	0.02	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
287.45	0.43	100		100% MUDSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY WEAK ROCK.
287.64	0.19	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
288.01	0.37	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
288.84	0.83	100		60% SANDSTONE 40% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. CARBONACEOUS, DARK BROWN. MODERATELY WEAK ROCK, THINLY LAMINATED.
289.05	0.21	100		100% MUDSTONE	ARENACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
289.22	0.17	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
289.45	0.23	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK, WITH MUD PELLETS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
290.05	0.60	100		100% MUDSTONE	SHALY, GREY-BROWN, MODERATELY WEAK ROCK.
290.38	0.33	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
290.90	0.52	100		100% MUDSTONE	GREY-BROWN, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
291.23	0.33	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
293.73	2.50	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
294.23	0.50	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, STREAKS, LIGHT GREY, WITH CROSS LAMINATION.
294.57	0.34	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
295.21	0.64	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
296.60	1.39	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
304.56	7.96	100		100% SANDSTONE,MEDIUM GRAINED	LIMONITIC, LIGHT GREY, MODERATELY WEAK ROCK.
304.61	0.05	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
304.74	0.13	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS, WITH PYRITE ON JOINTS.
304.85	0.11	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
304.95	0.10	100		100% COAL, HEAVY DULL	
305.00	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
305.20	0.20	100		100% COAL, HEAVY DULL	
305.29	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
305.45	0.16	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	LIMONITIC, LIGHT GREY. CARBONACEOUS, BROWN-BLACK. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH MUD PELLETS.
306.29	0.84	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
307.03	0.74	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, LAMINATED, WITH CROSS LAMINATION.
307.45	0.42	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
308.78	1.33	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY WEAK ROCK.
308.88	0.10	100		100% COAL, HEAVY DULL	MUDSTONE, BANDS.
309.08	0.20	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, SLOW SLAKING.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
309.92	0.84	100		100% SILTSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, LAMINATED.
310.23	0.31	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, LAMINATED.
311.32	1.09	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, LAMINATED.
311.66	0.34	100		100% MUDSTONE	CALCAREOUS, LIGHT GREY, MODERATELY WEAK ROCK.
312.61	0.95	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, LAMINATED, WITH CROSS LAMINATION.
312.75	0.14	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
313.05	0.30	100		50% MUDSTONE 50% MUDSTONE	CARBONACEOUS, DARK GREY. GREY. MODERATELY WEAK ROCK, LAMINATED.
313.42	0.37	100		100% MUDSTONE	GREY, LAMINATED.
313.47	0.05	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
313.53	0.06	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH POOR SORTING.
313.88	0.35	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
314.00	0.12	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH POOR SORTING.
314.24	0.24	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
314.67	0.43	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
315.17	0.50	100		100% SILTSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
315.64	0.47	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	CARBONACEOUS, GREY-BROWN. GREY. MODERATELY WEAK ROCK, LAMINATED.
316.58	0.94	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
317.07	0.49	100		100% MUDSTONE	SILTSTONE, GREY.
319.28	2.21	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	GREY. CARBONACEOUS, BANDS, GREY. MODERATELY WEAK ROCK, LAMINATED, WITH LOAD CASTS.
319.55	0.27	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
320.67	1.12	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	LIGHT GREY. CARBONACEOUS, DARK GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS.
320.87	0.20	100		100% MUDSTONE	BROWN-BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
322.14	1.27	100		100% MUDSTONE	SANDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, LAMINATED.
322.51	0.37	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
322.95	0.44	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
323.88	0.93	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	CARBONACEOUS, BANDS, LIGHT GREY. SILTSTONE, GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH LOAD CASTS.
324.04	0.16	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
324.20	0.16	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
324.25	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN, MODERATELY WEAK ROCK.
324.37	0.12	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
324.49	0.12	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN, MODERATELY WEAK ROCK.
325.03	0.54	100		100% SANDSTONE,FINE GRAINED	ARGILLACEOUS, QUARTZITIC, CREAM, MODERATELY WEAK ROCK, WITH POOR SORTING, WITH MUD PELLETS.
325.10	0.07	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
325.24	0.14	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
325.43	0.19	100		100% SANDSTONE,FINE GRAINED	ARGILLACEOUS, CREAM, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK, WITH POOR SORTING, WITH MUD PELLETS.
325.54	0.11	100		100% MUDSTONE	MODERATELY WEAK ROCK, WITH MUD PELLETS.
325.64	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
326.87	1.23	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	GREY. GREY. MODERATELY WEAK ROCK.
327.12	0.25	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
327.16	0.04	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
327.19	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
327.46	0.27	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
327.75	0.29	100		100% SANDSTONE,FINE GRAINED	ARGILLACEOUS, CREAM, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK, WITH POOR SORTING.
327.86	0.11	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
328.56	0.70	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	GREY. CARBONACEOUS, STREAKS, GREY. MODERATELY WEAK ROCK, LAMINATED.
328.60	0.04	100		100% COAL, HEAVY DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
328.69	0.09	100		100% SANDSTONE,COARSE GRAINED	ARGILLACEOUS, GREY, WITH POOR SORTING, WITH MUD PELLETS.
328.95	0.26	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
329.00	0.05	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
329.06	0.06	100		100% COAL, HEAVY DULL	
329.65	0.59	100		100% MUDSTONE	COALY, LENSES, CREAM, MODERATELY WEAK ROCK, WITH MUD PELLETS.
330.42	0.77	100		100% SILTSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, WITH LOAD CASTS.
330.48	0.06	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS.
331.05	0.57	100		100% SANDSTONE,COARSE GRAINED	CREAM, MODERATELY WEAK ROCK, WITH MUD PELLETS.
331.13	0.08	100		100% SANDSTONE,FINE GRAINED	COALY, LENSES, LIGHT GREY, WITH POOR SORTING, WITH LOAD CASTS.
332.02	0.89	100		100% SANDSTONE	VERY COARSE GRAINED, CREAM, WITH FRAGMENTS OF QUARTZ, WITH MUD PELLETS.
334.09	2.07	100		100% SILTSTONE	SANDSTONE, LENSES, GREY, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK.
337.70	3.61	100		100% SILTSTONE	GREY, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
338.19	0.49	100		100% LIMESTONE	MUDSTONE, LENSES, LIGHT GREY, MODERATELY STRONG ROCK.
341.00	2.81	100		100% SILTSTONE	GREY, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DDU	0.00 M	215.16 - 215.72 M	0.56 M
DDL	0.00 M	224.04 - 225.72 M	1.68 M
DE	0.00 M	254.10 - 254.68 M	0.58 M
DE2	0.97 M	262.95 - 263.92 M	0.97 M
DF	0.90 M	286.05 - 286.95 M	0.90 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	262.50 - 262.95 M	0.45 M
2	262.95 - 263.92 M	0.97 M
3	286.05 - 286.95 M	0.90 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 7

HOLE TYPE	CORE	
EASTING	593,300 M	GRID
NORTHING	5,375,900 M	GRID
ELEVATION	590.00 M	
TOTAL DEPTH DRILLED	418.92 M	
DRILLING STARTED	3/ 9/78	
DRILLING TIME	13 DAYS	
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
4.00	4.00	100		100% DOLERITE	ARGILLACEOUS, BADLY BROKEN, ORANGE-BROWN, HIGHLY WEATHERED, WEAK ROCK.
17.50	13.50	100		100% DOLERITE	BADLY BROKEN, ORANGE-GREY, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
21.00	3.50	100		100% DOLERITE	BADLY BROKEN, FISSILE, ORANGE-YELLOW, HIGHLY WEATHERED, VERY WEAK ROCK.
26.50	5.50	100		100% DOLERITE	BADLY BROKEN, GREY-GREEN, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
30.50	4.00	100		100% DOLERITE	MEDIUM GRAINED, GREY, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
42.00	11.50	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, SLIGHTLY WEATHERED, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
45.50	3.50	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, UNWEATHERED, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
54.00	8.50	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 15 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
59.00	5.00	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 75 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
60.50	1.50	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, UNWEATHERED, VERY STRONG ROCK.
68.50	8.00	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
76.50	8.00	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, WITH CALCITE ON JOINTS, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 10 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
78.00	1.50	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
87.50	9.50	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, WITH CALCITE ON JOINTS, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 55 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
94.50	7.00	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, UNWEATHERED, VERY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
95.20	0.70	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, UNWEATHERED, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
95.50	0.30	100		50% DOLERITE 50% CALCITE	BADLY BROKEN. CHLORITIC.
104.00	8.50	100		100% DOLERITE	MEDIUM GRAINED, GREY, UNWEATHERED, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CLAY & TALC.
117.00	13.00	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH CALCITE ON JOINTS, UNWEATHERED, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
124.00	7.00	100		100% DOLERITE	MOTTLED, GREY, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
136.00	12.00	100		100% DOLERITE	MEDIUM GRAINED, GREY, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
138.90	2.90	100		100% DOLERITE	MEDIUM GRAINED, GREY, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
140.65	1.75	100		100% DOLERITE	CHLORITIC, BADLY BROKEN GREY-GREEN, UNWEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
146.80	6.15	100		100% DOLERITE	FINE GRAINED, CHLORITIC, DARK GREY, UNWEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
148.73	1.93	100		100% SANDSTONE	MED.-COARSE GRAINED, GREEN, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
150.07	1.34	100		100% SANDSTONE,COARSE GRAINED	LITHIC, GREY-GREEN, UNWEATHERED, MODERATELY STRONG ROCK, WITH MUD PELLETS.
151.52	1.45	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, GREEN, UNWEATHERED, MODERATELY STRONG ROCK.
151.74	0.22	100		100% PEBBLE CONGLOMERATE	LITHIC, RED-BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
154.40	2.66	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, GREY-GREEN, UNWEATHERED, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
154.87	0.47	100		100% SILTSTONE	FISSILE, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
154.92	0.05	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
154.96	0.04	100		100% COAL, HEAVY DULL	
155.22	0.26	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, UNWEATHERED, MODERATELY STRONG ROCK.
155.42	0.20	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
156.60	1.18	100		100% SILTSTONE	GREY, WITH PYRITE ON JOINTS, UNWEATHERED, MODERATELY STRONG ROCK, VERY THINLY BEDDED.
157.97	1.37	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 20 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
158.63	0.66	100		100% SANDSTONE,COARSE GRAINED	LITHIC, CARBONACEOUS, GREY, WITH MUD PELLETS, MODERATELY SPACED JOINTS, JOINTS DIP 20 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
159.08	0.45	100		100% MUDSTONE	CARBONACEOUS, BLACK, WITH PYRITE ON JOINTS, UNWEATHERED, WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
160.45	1.37	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, COALY, GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
160.70	0.25	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
161.43	0.73	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, COALY, GREY, UNWEATHERED, MODERATELY STRONG ROCK, VERY THINLY BEDDED.
161.78	0.35	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, DARK GREY, UNWEATHERED, WEAK ROCK, VERY CLOSELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, WITH SLICKENSIDES.
163.35	1.57	100		100% SANDSTONE	LITHIC, CARBONACEOUS, GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
163.71	0.36	100		100% SANDSTONE,COARSE GRAINED	PEBBLY, CARBONACEOUS, GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH MUD PELLETS.
163.89	0.18	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, CARBONACEOUS, GREY, UNWEATHERED, MODERATELY STRONG ROCK.
168.50	4.61	100		100% PEBBLE CONGLOMERATE	ARENACEOUS, BANDS, GREY, UNWEATHERED, MODERATELY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
168.84	0.34	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
170.67	1.83	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
170.80	0.13	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, WEAK ROCK.
170.87	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
171.07	0.20	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
171.19	0.12	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
171.26	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
171.34	0.08	100		100% COAL, HEAVY DULL	
171.39	0.05	100		100% MUDSTONE	SILTSTONE, GREY, UNWEATHERED, MODERATELY STRONG ROCK.
172.10	0.71	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, WEAK ROCK.
172.20	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, WITH SLICKENSIDES.
172.24	0.04	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
172.58	0.34	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, WITH SLICKENSIDES.
172.61	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
172.80	0.19	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
172.84	0.04	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
172.89	0.05	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
173.01	0.12	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
174.60	1.59	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, GREY, UNWEATHERED, MODERATELY STRONG ROCK, THICKLY LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
174.67	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
174.70	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
176.40	1.70	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
176.46	0.06	100		100% COAL, HEAVY DULL	
176.52	0.06	100		100% COAL, INTERBANDED DULL AND BRIGHT	
176.54	0.02	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
176.59	0.05	100		100% COAL, HEAVY DULL	
176.68	0.09	100		100% COAL, DULL WITH FEW BRIGHT BANDS	WITH CALCITE ON CLEAT.
176.73	0.05	100		50% COAL, BRIGHT 50% MUDSTONE	CARBONACEOUS, BLACK. MODERATELY STRONG ROCK, THINLY LAMINATED.
176.77	0.04	100		80% MUDSTONE 20% COAL, BRIGHT	CARBONACEOUS. LENSES.
176.86	0.09	100		100% COAL, INTERBANDED DULL AND BRIGHT	WITH CALCITE ON CLEAT.
176.88	0.02	100		70% MUDSTONE 30% COAL, BRIGHT	CARBONACEOUS.
177.95	1.07	100		100% MUDSTONE	GREY, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
178.00	0.05	100		70% COAL, BRIGHT WITH NUMEROUS DULL BANDS 30% MUDSTONE	CARBONACEOUS, BANDS.
179.25	1.25	100		100% MUDSTONE	COALY, STREAKS, DARK GREY.
179.81	0.56	100		70% MUDSTONE 30% SANDSTONE,FINE GRAINED	CARBONACEOUS, DARK GREY. LIGHT GREY.
180.10	0.29	100		100% MUDSTONE	CARBONACEOUS, DARK GREY.
180.47	0.37	100		100% SANDSTONE,FINE GRAINED	COALY, LENSES, LIGHT GREY.
180.65	0.18	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
180.80	0.15	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
181.30	0.50	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
181.42	0.12	100		100% CARBONACEOUS SHALE	BLACK, UNWEATHERED, VERY WEAK ROCK.
182.35	0.93	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
183.06	0.71	100		100% MUDSTONE	SILTSTONE, COALY, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
183.96	0.90	100		100% SANDSTONE,FINE GRAINED	COALY, STREAKS, GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
184.01	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
184.04	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
185.20	1.16	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
188.89	3.69	100		100% SILTSTONE	COALY, STREAKS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
188.96	0.07	100		100% CARBONACEOUS SHALE	BLACK, UNWEATHERED, WEAK ROCK.
189.54	0.58	100		100% SILTSTONE	ARENACEOUS, COALY, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
189.95	0.41	100		100% SANDSTONE,FINE GRAINED	COALY, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH MUD PELLETS, WITH PLANT REMAINS.
194.00	4.05	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
198.72	4.72	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH MUD PELLETS.
199.14	0.42	100		100% SANDSTONE,FINE GRAINED	PEBBLY, BANDS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH MUD PELLETS.
202.66	3.52	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS, WIDELY SPACED JOINTS, JOINTS DIP 75 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
203.42	0.76	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
204.93	1.51	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
205.34	0.41	100		100% SANDSTONE,FINE GRAINED	COALY, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK.
205.56	0.22	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
205.74	0.18	100		100% SANDSTONE,FINE GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
205.85	0.11	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	
205.91	0.06	100	1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
205.95	0.04	100	1	100% CLAY	FISSILE, BROWN, UNWEATHERED, VERY WEAK ROCK.
206.15	0.20	100	1	100% COAL, HEAVY DULL	
206.22	0.07	100	1	100% MUDSTONE	ARENACEOUS, BROWN, UNWEATHERED, WEAK ROCK.
206.26	0.04	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	
206.29	0.03	100	1	100% MUDSTONE	CARBONACEOUS, DARK BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
206.36	0.07	100	1	100% MUDSTONE	ARENACEOUS, BROWN, UNWEATHERED, WEAK ROCK.
206.39	0.03	100	1	100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
206.55	0.16	100	1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
206.59	0.04	100	1	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
206.64	0.05	100	1	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
206.75	0.11	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	
206.97	0.22	100	1	100% COAL, HEAVY DULL	
207.07	0.10	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	
207.11	0.04	100	1	100% COAL, DULL	
207.25	0.14	100	1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	CARBONACEOUS, LAMINAE.
207.44	0.19	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
207.64	0.20	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
209.00	1.36	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
209.77	0.77	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, UNWEATHERED, MODERATELY STRONG ROCK.
209.95	0.18	100		100% SILTSTONE	ARGILLACEOUS, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
211.60	1.65	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
211.80	0.20	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
212.30	0.50	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
214.73	2.43	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH CROSS LAMINATION.
215.90	1.17	100		50% SANDSTONE 50% SILTSTONE	MED.-FINE GRAINED, LIGHT GREY. CARBONACEOUS, LAMINAE, GREY. UNWEATHERED, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
217.78	1.88	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
217.88	0.10	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
218.90	1.02	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, UNWEATHERED, MODERATELY STRONG ROCK.
223.54	4.64	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH CROSS LAMINATION, WIDELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
224.17	0.63	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, GREY, UNWEATHERED, STRONG ROCK.
224.32	0.15	100		100% SANDSTONE	COALY, LENSES, GREY, UNWEATHERED, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
225.34	1.02	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, GREY, UNWEATHERED, STRONG ROCK.
225.54	0.20	100		80% SANDSTONE 20% COAL	MED.-FINE GRAINED, LITHIC, GREY. LENSES. UNWEATHERED, MODERATELY STRONG ROCK.
226.05	0.51	100		100% SANDSTONE	COALY, LENSES, GREY, UNWEATHERED, MODERATELY STRONG ROCK.
229.50	3.45	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS.
230.36	0.86	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
233.39	3.03	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
233.85	0.46	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, UNWEATHERED, STRONG ROCK.
234.28	0.43	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, UNWEATHERED, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, .
235.12	0.84	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
236.17	1.05	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
237.70	1.53	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH MUD PELLETS.
240.10	2.40	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
240.48	0.38	100		100% SANDSTONE,FINE GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS.
242.00	1.52	100		100% SANDSTONE	LITHIC, MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS.
243.60	1.60	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS, VERY WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
245.93	2.33	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
246.11	0.18	100		100% CARBONACEOUS SHALE	COALY, LENSES, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
246.23	0.12	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, UNWEATHERED, VERY WEAK ROCK.
246.58	0.35	100		60% CARBONACEOUS SHALE 40% MUDSTONE	BLACK. CARBONACEOUS, BANDS, BLACK.
246.61	0.03	100		100% SILTSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
246.67	0.06	100		100% CARBONACEOUS SHALE	BLACK, UNWEATHERED, WEAK ROCK.
246.72	0.05	100		100% COAL, HEAVY DULL	
246.85	0.13	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
247.79	0.94	100		60% MUDSTONE 40% MUDSTONE	CARBONACEOUS, BANDS, DARK BROWN. SILTSTONE, BANDS, BROWN. UNWEATHERED, MODERATELY WEAK ROCK.
247.84	0.05	100		100% CLAYSTONE	BUFF, UNWEATHERED, VERY WEAK ROCK.
248.45	0.61	100		60% CARBONACEOUS SHALE 40% MUDSTONE	COALY, BLACK. CARBONACEOUS, BANDS, DARK BROWN. UNWEATHERED, MODERATELY WEAK ROCK.
248.52	0.07	100		100% SANDSTONE,FINE GRAINED	ARGILLACEOUS, BUFF, UNWEATHERED, WEAK ROCK.
249.06	0.54	100		70% CARBONACEOUS SHALE 30% MUDSTONE	COALY, BLACK. CARBONACEOUS, DARK BROWN. UNWEATHERED, MODERATELY WEAK ROCK.
249.36	0.30	100		100% CLAYSTONE	BUFF, UNWEATHERED, WEAK ROCK.
249.50	0.14	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
249.55	0.05	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
249.63	0.08	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
249.76	0.13	100		100% COAL, HEAVY DULL	
249.88	0.12	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, DARK BROWN, UNWEATHERED, MODERATELY STRONG ROCK, WITH CROSS LAMINATION.
250.01	0.13	100		100% CARBONACEOUS SHALE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
250.13	0.12	100		100% CLAYSTONE	BUFF, UNWEATHERED, WEAK ROCK.
250.18	0.05	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN.
250.40	0.22	100		100% CLAYSTONE	BUFF, UNWEATHERED, WEAK ROCK.
250.83	0.43	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, UNWEATHERED, MODERATELY STRONG ROCK, WITH CROSS LAMINATION.
251.18	0.35	100		100% CLAYSTONE	CARBONACEOUS, BANDS, BUFF, UNWEATHERED, WEAK ROCK.
251.30	0.12	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
251.39	0.09	100		100% CLAYSTONE	BUFF, UNWEATHERED, WEAK ROCK.
251.85	0.46	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
252.13	0.28	100		100% SILTSTONE	ARGILLACEOUS, LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
252.37	0.24	100		100% CLAYSTONE	BUFF, UNWEATHERED, VERY WEAK ROCK.
252.54	0.17	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
252.60	0.06	100		100% SILTSTONE	ARGILLACEOUS, LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
252.73	0.13	100		100% CARBONACEOUS SHALE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
253.00	0.27	100		100% SILTSTONE	ARGILLACEOUS, LIGHT BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
253.50	0.50	100		60% SILTSTONE 40% MUDSTONE	CARBONACEOUS, LIGHT GREY. CARBONACEOUS, BANDS, DARK BROWN. UNWEATHERED, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE B : 336.50 M R.L.	
253.52	0.02	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
253.60	0.08	100	2	100% COAL, HEAVY DULL	
253.63	0.03	100	2	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
253.66	0.03	100	2	100% COAL, HEAVY DULL	
253.80	0.14	100	2	100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY STRONG ROCK.
253.97	0.17	100	2	100% COAL, INTERBANDED DULL AND BRIGHT	
254.00	0.03	100	2	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
254.12	0.12	100	2	100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY STRONG ROCK.
254.28	0.16	100	2	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	SANDSTONE, LENSES, WITH CALCITE ON CLEAT.
254.34	0.06	100	2	100% COAL, DULL WITH FEW BRIGHT BANDS	
254.35	0.01	100	2	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
254.37	0.02	100	2	100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
254.60	0.23	100	2	100% COAL, DULL WITH FEW BRIGHT BANDS	WITH CALCITE ON CLEAT.
				BASE OF DALMAYNE B : THICKNESS= 1.10 M; SAMPLED THICKNESS= 1.08 M	
254.69	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
254.74	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
254.81	0.07	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
254.86	0.05	100		100% CARBONACEOUS SHALE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
255.01	0.15	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH MUD PELLETS.
258.10	3.09	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
262.02	3.92	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, THICKLY BEDDED, WITH MUD PELLETS.
262.05	0.03	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
272.34	10.29	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, THICKLY BEDDED, WITH MUD PELLETS, WIDELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
272.37	0.03	100		100% CARBONACEOUS SHALE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
272.76	0.39	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH MUD PELLETS.
272.92	0.16	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
278.92	6.00	100		100% SANDSTONE	COALY, STREAKS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
278.94	0.02	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
279.36	0.42	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
280.73	1.37	100		100% SANDSTONE	CARBONACEOUS, LAMINAE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH PLANT REMAINS.
				TOP OF DALMAYNE C : 309.27 M R.L.	
280.76	0.03	100	3	100% COAL, HEAVY DULL	
280.80	0.04	100	3	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
280.97	0.17	100	3	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
281.00	0.03	100	3	100% SANDSTONE	CARBONACEOUS, GREY.
281.04	0.04	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
281.09	0.05	100	3	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
281.10	0.01	100	3	100% COAL, BRIGHT	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
281.25	0.15	100	3	100% COAL, HEAVY DULL	
281.27	0.02	100	3	100% COAL, DULL	
281.35	0.08	100	3	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
281.40	0.05	100	3	100% MUDSTONE	CARBONACEOUS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
281.44	0.04	100	3	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
281.47	0.03	100	3	100% COAL, DULL WITH FEW BRIGHT BANDS	
281.51	0.04	100	3	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
281.57	0.06	100	3	100% COAL, DULL	
281.76	0.19	100	3	100% CARBONACEOUS MUDSTONE	BROWN-BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
				BASE OF DALMAYNE C : THICKNESS= 1.03 M; SAMPLED THICKNESS= 1.03 M	
282.39	0.63	100		70% MUDSTONE 30% SILTSTONE	CARBONACEOUS, DARK BROWN. GREY. UNWEATHERED, MODERATELY WEAK ROCK.
283.31	0.92	100		85% SILTSTONE 15% SANDSTONE	CARBONACEOUS, LENSES, GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, CLOSELY SPACED JOINTS, JOINTS DIP 25 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
283.80	0.49	100		100% SANDSTONE	SILTSTONE, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
284.12	0.32	100		100% SANDSTONE	SILTSTONE, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH MUD PELLETS, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
284.37	0.25	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
293.44	9.07	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
293.60	0.16	100		100% SILTSTONE	MUDSTONE, LENSES, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
293.62	0.02	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
293.82	0.20	100		100% SILTSTONE	COALY, STREAKS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
294.41	0.59	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
294.47	0.06	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
296.00	1.53	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
297.56	1.56	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
298.12	0.56	100		100% SANDSTONE	COALY, STREAKS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
298.85	0.73	100		100% SANDSTONE	SILTSTONE, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
301.03	2.18	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
301.33	0.30	100		100% SANDSTONE,MEDIUM GRAINED	COALY, BANDS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
301.93	0.60	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
302.14	0.21	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH MUD PELLETS.
302.74	0.60	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS.
303.62	0.88	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH MUD PELLETS.
304.20	0.58	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
305.51	1.31	100		100% SANDSTONE	CARBONACEOUS, BANDS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
305.60	0.09	100		100% CLAYSTONE	BUFF, UNWEATHERED, MODERATELY WEAK ROCK.
305.91	0.31	100		100% SANDSTONE	MEDIUM GRAINED, LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS.
306.12	0.21	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, DARK BROWN, UNWEATHERED, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
309.80	3.68	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH MUD PELLETS, WITH PLANT REMAINS.
313.83	4.03	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.

TOP OF : 276.17 M R.L.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
313.86	0.03	100	4	100% CLAYSTONE	SHALY, BROWN, SOFT.
313.93	0.07	100	4	100% MUDSTONE	CARBONACEOUS, SHALY, BROWN-BLACK, MODERATELY WEAK ROCK.
313.97	0.04	100	4	100% COAL, HEAVY DULL	BLACK, MODERATELY STRONG ROCK.
314.00	0.03	100	4	100% COAL, HEAVY DULL	BLACK, MODERATELY WEAK ROCK.
314.09	0.09	100	4	100% COAL, HEAVY DULL	
314.16	0.07	100	4	100% COAL, DULL	
314.19	0.03	100	4	100% COAL, HEAVY DULL	
314.21	0.02	100	4	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
314.26	0.05	100	4	100% MUDSTONE	SHALY, BROWN, FIRM.
314.32	0.06	100	4	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
314.40	0.08	100	5	100% COAL, HEAVY DULL	
314.43	0.03	100	5	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
314.46	0.03	100	5	100% COAL, DULL	
314.47	0.01	100	5	100% MUDSTONE	BROWN, SOFT.
314.60	0.13	100	5	100% COAL, DULL	
314.61	0.01	100	5	100% MUDSTONE	SILTSTONE, LIGHT BROWN, MODERATELY WEAK ROCK.
314.66	0.05	100	5	100% COAL, DULL	
314.68	0.02	100	5	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
314.69	0.01	100	5	100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, MODERATELY WEAK ROCK.
314.83	0.14	100	5	100% COAL, DULL WITH FEW BRIGHT BANDS	WITH CALCITE ON CLEAT.
314.84	0.01	100	5	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
314.87	0.03	100	5	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
314.89	0.02	100	5	100% COAL, HEAVY DULL	
314.96	0.07	100	5	100% COAL, DULL	
315.19	0.23	100	5	100% COAL, DULL WITH FEW BRIGHT BANDS	
315.22	0.03	100	5	100% COAL, HEAVY DULL	
315.26	0.04	100	5	100% COAL, DULL	
315.31	0.05	100	5	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
315.38	0.07	100	5	100% COAL, DULL	
315.42	0.04	100	5	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
315.43	0.01	100	5	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
315.44	0.01	100	5	60% COAL, BRIGHT 40% SHALE	LIGHT BROWN. LAMINATED.
315.52	0.08	100	5	100% COAL, DULL WITH FEW BRIGHT BANDS	WITH CALCITE ON CLEAT.
315.56	0.04	100	5	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
315.71	0.15	100	6	100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
315.83	0.12	100	6	100% COAL, DULL WITH FEW BRIGHT BANDS	WITH CALCITE ON CLEAT.
315.84	0.01	100	6	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
315.86	0.02	100	6	100% COAL, DULL WITH FEW BRIGHT BANDS	
316.25	0.39	100	6	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
316.28	0.03	100	6	100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
316.43	0.15	100	6	100% COAL, HEAVY DULL	
				BASE OF : THICKNESS= 2.60 M; SAMPLED THICKNESS= 2.60 M	
316.44	0.01	100	7	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
316.46	0.02	100	7	100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
316.62	0.16	100	7	100% MUDSTONE	CARBONACEOUS, SHALY, BROWN-BLACK, MODERATELY WEAK ROCK.
317.80	1.18	100		100% SILTSTONE	CARBONACEOUS, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
320.91	3.11	100		60% SILTSTONE 40% SANDSTONE	CALCAREOUS, GREY. MED.-FINE GRAINED, LITHIC, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
321.76	0.85	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
323.08	1.32	100		100% SILTSTONE	CARBONACEOUS, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH PLANT REMAINS.
330.32	7.24	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
331.88	1.56	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS.
332.00	0.12	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
333.60	1.60	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS.
333.65	0.05	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
333.87	0.22	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS, WITH PLANT REMAINS.
334.00	0.13	100		100% CARBONACEOUS SHALE	
		TOP OF DALMAYNE D UPPER : 256.00 M R.L.			
335.00	1.00	0		CORE LOSS	
		BASE OF DALMAYNE D UPPER : THICKNESS= 1.00 M; SAMPLED THICKNESS= 0.00 M			
335.65	0.65	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
336.23	0.58	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
338.35	2.12	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
343.97	5.62	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
344.12	0.15	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH MUD PELLETS.
347.54	3.42	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
347.63	0.09	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
347.75	0.12	100		100% SILTSTONE	STRONGLY FRAGMENTED, GREY, UNWEATHERED, WEAK ROCK.
352.31	4.56	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
352.49	0.18	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH MUD PELLETS.
352.64	0.15	100		100% MUDSTONE	CARBONACEOUS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
352.84	0.20	100		100% MUDSTONE	BRIGHT COAL, LENSES, DARK BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
		TOP OF DALMAYNE D LOWER : 237.16 M R.L.			
352.92	0.08	100		100% COAL, HEAVY DULL	MUDSTONE, BANDS.
352.93	0.01	100		100% COAL, DULL	
353.00	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
353.03	0.03	100		100% COAL, HEAVY DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
				BASE OF DALMAYNE D LOWER : THICKNESS= 0.19 M; SAMPLED THICKNESS= 0.00 M	
353.05	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
353.08	0.03	100		100% CLAYSTONE	FISSILE, BUFF, UNWEATHERED, WEAK ROCK.
353.11	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN.
353.13	0.02	100		100% COAL, HEAVY DULL	
353.14	0.01	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
353.22	0.08	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
353.48	0.26	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
355.52	2.04	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
356.14	0.62	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, UNWEATHERED, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
356.19	0.05	100		100% CARBONACEOUS SHALE	BLACK, UNWEATHERED, WEAK ROCK.
358.59	2.40	100		100% SILTSTONE	CARBONACEOUS, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
358.75	0.16	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
359.67	0.92	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
361.00	1.33	100		100% SILTSTONE	FISSILE, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
362.00	1.00	0		CORE LOSS	
362.29	0.29	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED.
362.86	0.57	100		100% SANDSTONE	CARBONACEOUS, BANDS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH MUD PELLETS.
363.43	0.57	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
365.22	1.79	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
368.32	3.10	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
368.43	0.11	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
368.47	0.04	100		100% CARBONACEOUS SHALE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
368.70	0.23	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
371.50	2.80	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
372.40	0.90	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS.
377.04	4.64	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
377.55	0.51	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WITH PLANT REMAINS.
380.15	2.60	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
381.98	1.83	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS, WITH MUD PELLETS.
390.31	8.33	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
390.38	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK.
390.39	0.01	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
390.42	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
390.49	0.07	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
390.58	0.09	100		100% COAL, HEAVY DULL	CARBONACEOUS, LENSES.
390.60	0.02	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
390.80	0.20	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
390.92	0.12	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
390.96	0.04	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
391.10	0.14	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
391.23	0.13	100		100% MUDSTONE	COALY, STREAKS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
391.25	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
391.41	0.16	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, WEAK ROCK.
391.44	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, WEAK ROCK.
392.00	0.56	100		100% SILTSTONE	CARBONACEOUS, BANDS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
392.57	0.57	100		80% SILTSTONE 20% SANDSTONE	CARBONACEOUS, BANDS, DARK GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK.
393.06	0.49	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
394.38	1.32	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
395.00	0.62	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
395.07	0.07	100		100% CARBONACEOUS SHALE	DARK GREY, UNWEATHERED, WEAK ROCK.
395.18	0.11	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
395.21	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
395.32	0.11	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
395.62	0.30	100		100% SILTSTONE	ARENACEOUS, BANDS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH CROSS LAMINATION.
396.06	0.44	100		100% SILTSTONE	CARBONACEOUS, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
396.67	0.61	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK.
397.95	1.28	100		100% SILTSTONE	FISSILE, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
398.58	0.63	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
399.68	1.10	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
400.24	0.56	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
401.00	0.76	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
401.13	0.13	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
401.34	0.21	100		100% SANDSTONE,FINE GRAINED	CALCAREOUS, LIGHT GREY, MODERATELY WEAK ROCK.
401.67	0.33	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK, LAMINATED.
402.50	0.83	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, LAMINATED.
403.52	1.02	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK.
404.14	0.62	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
404.56	0.42	100		100% SANDSTONE,FINE GRAINED	FRIABLE, GREY, WEAKLY CEMENTED.
404.80	0.24	100		100% MUDSTONE	FISSILE, GREY, STIFF, LAMINATED.
407.59	2.79	100		100% SILTSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
407.61	0.02	100		100% CLAYSTONE	LIGHT BROWN, FIRM.
407.94	0.33	100		100% MUDSTONE	CARBONACEOUS, SHALY, BLACK, MODERATELY WEAK ROCK.
407.99	0.05	100		100% MUDSTONE	SILTSTONE, LIGHT BROWN, VERY WEAK ROCK.
408.07	0.08	100		100% MUDSTONE	CARBONACEOUS, SHALY, BLACK, MODERATELY WEAK ROCK.
			TOP OF	DALMAYNE E2 : 181.93 M R.L.	
408.21	0.14	100		100% COAL, HEAVY DULL	
408.44	0.23	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
408.57	0.13	100		100% COAL, DULL	
408.72	0.15	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
			BASE OF	DALMAYNE E2 : THICKNESS= 0.65 M; SAMPLED THICKNESS= 0.00 M	
410.11	1.39	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, LAMINATED.
410.84	0.73	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
410.87	0.03	100		100% COAL, BRIGHT	
411.10	0.23	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
416.55	5.45	100		100% SILTSTONE	SANDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, LAMINATED.
416.77	0.22	100		100% COAL, DULL WITH FEW BRIGHT BANDS	MUDSTONE, BANDS.
416.82	0.05	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK, LAMINATED.
417.43	0.61	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK, LAMINATED.
418.00	0.57	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, LAMINATED, WITH CROSS LAMINATION.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	1.08 M	253.50 - 254.60 M	1.10 M
DC	1.03 M	280.73 - 281.76 M	1.03 M
DC1	2.60 M	313.83 - 316.43 M	2.60 M
DDU	0.00 M	334.00 - 335.00 M	1.00 M
DDL	0.00 M	352.84 - 353.03 M	0.19 M
DE2	0.00 M	408.07 - 408.72 M	0.65 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	205.74 - 207.25 M	1.51 M
2	253.52 - 254.60 M	1.08 M
3	280.73 - 281.76 M	1.03 M
4	313.83 - 314.32 M	0.49 M
5	314.32 - 315.56 M	1.24 M
6	315.56 - 316.43 M	0.87 M
7	316.43 - 316.62 M	0.19 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 8

HOLE TYPE	CORE
EASTING	601,700 M AM GRID
NORTHING	5,360,400 M AM GRID
ELEVATION	300.00 M
TOTAL DEPTH DRILLED	265.50 M
DRILLING STARTED	11/ 9/78
DRILLING TIME	9 DAYS
CORE SIZE	
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
51.40	51.40			100% DOLERITE	SCREE.
53.40	2.00	100		100% SHALE	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
53.52	0.12	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY STRONG ROCK.
53.60	0.08	100		100% CARBONACEOUS SHALE	COALY, DARK GREY, UNWEATHERED, MODERATELY STRONG ROCK.
53.98	0.38	100		100% SHALE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
54.92	0.94	100		100% SHALE	GREY, UNWEATHERED, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
57.14	2.22	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, UNWEATHERED, MODERATELY STRONG ROCK.
57.37	0.23	100		100% SILTSTONE	COALY, LENSES, GREY, UNWEATHERED, MODERATELY STRONG ROCK.
57.55	0.18	100		100% SHALE	COALY, STREAKS, GREY, UNWEATHERED, WEAK ROCK.
57.56	0.01	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
57.57	0.01	100		100% MUDSTONE	CARBONACEOUS, BLACK.
57.68	0.11	100		100% COAL, HEAVY DULL	
57.85	0.17	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY STRONG ROCK.
58.26	0.41	100		100% SILTSTONE	CARBONACEOUS, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
58.32	0.06	100		100% CLAYSTONE	BROWN, UNWEATHERED, WEAK ROCK.
58.41	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY STRONG ROCK.
58.48	0.07	100		100% CLAYSTONE	FISSILE, BROWN, UNWEATHERED, WEAK ROCK.
58.60	0.12	100		100% CARBONACEOUS SHALE	COALY, DARK GREY, UNWEATHERED, WEAK ROCK.
58.80	0.20	100		100% MUDSTONE	DARK BROWN, UNWEATHERED, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
65.84	7.04	100		100% SILTSTONE	COALY, STREAKS, GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
68.15	2.31	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS, VERY WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
68.33	0.18	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
72.12	3.79	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
72.16	0.04	100		100% SILTSTONE	GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
75.96	3.80	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
76.19	0.23	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
76.26	0.07	100		100% SILTSTONE	LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH TROUGH CROSS BEDDING.
76.76	0.50	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
76.85	0.09	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
77.32	0.47	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
77.48	0.16	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
77.68	0.20	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
82.50	4.82	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 15 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
82.54	0.04	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
82.60	0.06	100		100% MUDSTONE	FISSILE, LIGHT BROWN, UNWEATHERED, WEAK ROCK.
82.61	0.01	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
82.68	0.07	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
82.82	0.14	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
82.84	0.02	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
82.87	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK.
82.94	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN.
83.14	0.20	100		100% SILTSTONE	COALY, LENSES, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
83.19	0.05	100		100% CLAYSTONE	COALY, BUFF, VERY WEAK ROCK.
83.27	0.08	100		100% MUDSTONE	COALY, BANDS, DARK BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
83.52	0.25	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
84.35	0.83	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN, UNWEATHERED, WEAK ROCK, WITH PLANT REMAINS.
84.53	0.18	100		100% MUDSTONE	FISSILE, BROWN, UNWEATHERED, VERY WEAK ROCK, WITH PLANT REMAINS.
84.76	0.23	100		100% MUDSTONE	BROWN, UNWEATHERED, WEAK ROCK, WITH PLANT REMAINS.
85.74	0.98	100		100% MUDSTONE	FISSILE, BROWN, UNWEATHERED, VERY WEAK ROCK, WITH PLANT REMAINS.
85.94	0.20	100		100% MUDSTONE	CARBONACEOUS, LENSES, DARK BROWN, UNWEATHERED, WEAK ROCK, WITH PLANT REMAINS.
86.93	0.99	20		100% MUDSTONE	CARBONACEOUS, BADLY BROKEN, DARK GREY.
87.09	0.16	100		100% CLAYSTONE	FISSILE, BUFF, UNWEATHERED, VERY WEAK ROCK.
87.49	0.40	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
87.64	0.15	100		100% SILTSTONE	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK.
87.69	0.05	100		100% CLAYSTONE	FISSILE, BUFF, UNWEATHERED, WEAK ROCK.
87.95	0.26	100		100% MUDSTONE	CARBONACEOUS, BLACK.
88.38	0.43	100		100% CLAYSTONE	FISSILE, BUFF, UNWEATHERED, VERY WEAK ROCK.
88.55	0.17	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
89.00	0.45	0		CORE LOSS	
89.15	0.15	100		100% MUDSTONE	CARBONACEOUS, BADLY BROKEN, BLACK.
89.24	0.09	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
89.39	0.15	100		100% CLAYSTONE	FISSILE, BUFF, UNWEATHERED, VERY WEAK ROCK.
89.63	0.24	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
89.74	0.11	100		100% SILTSTONE	CARBONACEOUS, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
89.86	0.12	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
90.00	0.14	0		CORE LOSS	
90.45	0.45	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED.
90.65	0.20	100		100% CLAYSTONE	FISSILE, BUFF, UNWEATHERED, VERY WEAK ROCK.
91.15	0.50	100		100% MUDSTONE	CARBONACEOUS, BLACK.
91.30	0.15	100		100% CLAYSTONE	FISSILE, BUFF, UNWEATHERED, VERY WEAK ROCK.
91.86	0.56	100		100% MUDSTONE	CARBONACEOUS, BLACK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
92.02	0.16	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
94.20	2.18	100		100% SILTSTONE	FISSILE, BANDS, GREY, UNWEATHERED, WEAK ROCK, WITH PLANT REMAINS.
94.68	0.48	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
94.75	0.07	100		100% SHALE	BADLY BROKEN, GREY.
94.93	0.18	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
95.49	0.56	100		70% SILTSTONE 30% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
98.44	2.95	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	COALY, LENSES, LIGHT GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH PLANT REMAINS, WITH CROSS LAMINATION.
103.36	4.92	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
104.05	0.69	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, WITH PLANT REMAINS.
105.70	1.65	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
105.84	0.14	100		100% SANDSTONE,COARSE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
105.85	0.01	100		100% CLAYSTONE	BUFF, SOFT.
105.87	0.02	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
105.93	0.06	100		100% COAL, HEAVY DULL	
106.02	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
106.14	0.12	100		100% COAL, INTERBANDED DULL AND BRIGHT	MUDSTONE, LAMINAE, WITH CALCITE ON CLEAT.
106.17	0.03	100		100% MUDSTONE	SHALY, CARBONACEOUS, GREY-BROWN, WEAK ROCK.
106.31	0.14	100		100% MUDSTONE	GREY, WEAK ROCK.
106.35	0.04	100		100% SHALE	GREY, FIRM.
106.36	0.01	100		100% SHALE	LIGHT BROWN, FIRM.
106.50	0.14	100		100% MUDSTONE	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK.
106.70	0.20	100		50% MUDSTONE 50% MUDSTONE	CARBONACEOUS, BROWN-BLACK. CARBONACEOUS, GREY. MODERATELY WEAK ROCK, THINLY BEDDED.
109.20	2.50	100		100% MUDSTONE	SILTSTONE, GREY, WEAK ROCK, THINLY LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
109.25	0.05	100		100% CLAYSTONE	LIGHT BROWN, SOFT.
109.31	0.06	100		100% CLAYSTONE	FISSILE, BROWN, SOFT, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
109.37	0.06	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, SOFT, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
109.49	0.12	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
109.51	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
109.56	0.05	100		100% CLAYSTONE	BROWN, SOFT.
109.60	0.04	100		100% MUDSTONE	BROWN, WEAK ROCK.
109.98	0.38	100		50% MUDSTONE 50% MUDSTONE	CARBONACEOUS, BLACK. SILTSTONE, BROWN. MODERATELY WEAK ROCK, THINLY BEDDED.
110.14	0.16	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
110.19	0.05	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
110.39	0.20	100		100% COAL, HEAVY DULL	MUDSTONE, BANDS.
110.65	0.26	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, GREY-BROWN.
112.20	1.55	100		100% SANDSTONE,FINE GRAINED	GREY, VERY THINLY BEDDED, WITH LOAD CASTS, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
114.85	2.65	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
115.83	0.98	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
117.85	2.02	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
118.40	0.55	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, WEAK ROCK.
121.60	3.20	100		100% SANDSTONE,COARSE GRAINED	FRIABLE, LITHIC, LIGHT GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
122.20	0.60	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, WEAK ROCK.
122.85	0.65	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, WEAK ROCK.
123.06	0.21	100		100% MUDSTONE	GREY, VERY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
126.00	2.94	100		100% SANDSTONE,COARSE GRAINED	LITHIC, LIGHT GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
128.45	2.45	100		100% SANDSTONE,COARSE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
130.20	1.75	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
130.34	0.14	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
130.55	0.21	100		100% SANDSTONE,COARSE GRAINED	LITHIC, FRIABLE, LIGHT GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
130.74	0.19	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
133.38	2.64	100		100% SANDSTONE,COARSE GRAINED	LITHIC, FISSILE, LIGHT GREY, WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
134.00	0.62	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
137.00	3.00	100		100% SANDSTONE,COARSE GRAINED	LITHIC, FRIABLE, LIGHT GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
137.35	0.35	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
137.70	0.35	100		100% CLAYSTONE	BADLY BROKEN, GREY, MODERATELY STRONG ROCK.
143.30	5.60	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, FRIABLE, LIGHT GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
144.05	0.75	100		100% SILTSTONE	FRIABLE, GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
144.50	0.45	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
144.83	0.33	100		100% SILTSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
145.55	0.72	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
147.20	1.65	100		100% SANDSTONE,COARSE GRAINED	LITHIC, FISSILE, LIGHT GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
149.70	2.50	100		100% SANDSTONE,MEDIUM GRAINED	FRIABLE, LITHIC, LIGHT GREY, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
150.05	0.35			100% SANDSTONE,COARSE GRAINED	LITHIC, FRIABLE, LIGHT GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
150.45	0.40			100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
150.65	0.20			100% MUDSTONE	BADLY BROKEN, GREY, VERY WEAK ROCK.
150.90	0.25		1	100% MUDSTONE	CARBONACEOUS, BADLY BROKEN, BLACK, VERY WEAK ROCK.
152.04	1.14		1	100% MUDSTONE	CARBONACEOUS, BLACK, VERY WEAK ROCK.
152.14	0.10		1	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
152.32	0.18		1	100% MUDSTONE	CARBONACEOUS, BLACK, VERY WEAK ROCK.
152.42	0.10		1	100% MUDSTONE	SILTSTONE, COALY, DARK BROWN, VERY WEAK ROCK.
152.62	0.20		1	100% MUDSTONE	CARBONACEOUS, BLACK, VERY WEAK ROCK.
152.73	0.11		1	100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK.
152.75	0.02		1	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
152.85	0.10		1	100% SILTSTONE	CARBONACEOUS, LENSES, GREY, WEAK ROCK.
153.04	0.19			100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
153.17	0.13			100% SILTSTONE	COALY, LENSES, GREY, WEAK ROCK.
153.40	0.23			100% SILTSTONE	LAMINAE, GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
156.68	3.28			100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
157.84	1.16			100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
158.43	0.59			70% SILTSTONE 30% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, GREY. LIGHT GREY. MODERATELY WEAK ROCK, WITH PLANT REMAINS.
161.64	3.21			100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
162.12	0.48			100% SILTSTONE	GREY, WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
162.48	0.36			100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
162.53	0.05			100% SHALE	GREY, VERY WEAK ROCK, WITH PLANT REMAINS.
162.71	0.18			100% MUDSTONE	CARBONACEOUS, FRIABLE, BLACK, VERY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
162.80	0.09			100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
162.87	0.07			100% MUDSTONE	CARBONACEOUS, ARENACEOUS, DARK GREY, WEAK ROCK.
163.24	0.37			100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
163.66	0.42			100% MUDSTONE	CARBONACEOUS, FRIABLE, BLACK, VERY WEAK ROCK.
164.44	0.78	100		100% SHALE	GREY, VERY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
165.55	1.11	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, FRIABLE, LIGHT GREY, WEAK ROCK.
170.03	4.48	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
170.92	0.89	100		100% SANDSTONE,FINE GRAINED	LITHIC, GREY, MODERATELY WEAK ROCK.
175.90	4.98	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, WEAK ROCK, WITH PLANT REMAINS.
176.03	0.13	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
176.11	0.08	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
176.18	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
176.19	0.01	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
176.21	0.02	100		100% MUDSTONE	CARBONACEOUS, BLACK.
176.27	0.06	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
176.43	0.16	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
177.58	1.15	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, THICKLY LAMINATED, WITH PLANT REMAINS.
177.80	0.22	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
178.36	0.56	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, GREY, WEAK ROCK.
179.00	0.64	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
179.48	0.48	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, THICKLY LAMINATED, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
181.81	2.33	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
181.83	0.02	100		100% CARBONACEOUS SHALE	BLACK, VERY WEAK ROCK.
181.96	0.13	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
182.18	0.22	100		100% SILTSTONE	CARBONACEOUS, GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS, WIDELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
182.40	0.22	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
183.52	1.12	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH PLANT REMAINS.
187.50	3.98	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
188.37	0.87	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH PLANT REMAINS, WITH CROSS LAMINATION.
188.68	0.31	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
191.37	2.69	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
191.51	0.14	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
191.84	0.33	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
192.32	0.48	100		100% SILTSTONE	CARBONACEOUS, ARENACEOUS, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
193.18	0.86	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.
196.06	2.88	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
196.31	0.25	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
196.45	0.14	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
198.10	1.65	100		100% SILTSTONE	CARBONACEOUS, GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
198.83	0.73	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK.
199.52	0.69	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
200.05	0.53	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
208.45	8.40	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
209.75	1.30	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, DARK GREY, MODERATELY WEAK ROCK.
209.87	0.12	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
210.71	0.84	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.
211.20	0.49	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
211.55	0.35	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, DARK GREY, WEAK ROCK, THICKLY LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
212.00	0.45	100		100% MUDSTONE	SILTSTONE, FRIABLE, DARK GREY, VERY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
212.20	0.20	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK.
212.43	0.23	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
213.15	0.72	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, WEAK ROCK.
213.56	0.41	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK, WITH PLANT REMAINS.
214.02	0.46	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, DARK GREY, WEAK ROCK.
214.44	0.42	100		100% MUDSTONE	CARBONACEOUS, SHALY, BLACK, WEAK ROCK.
214.91	0.47	100		100% MUDSTONE	ARENACEOUS, BANDS, DARK GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH TROUGH CROSS BEDDING.
214.98	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
215.35	0.37	100		100% MUDSTONE	ARENACEOUS, BANDS, DARK GREY, MODERATELY WEAK ROCK.
215.51	0.16	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, DARK GREY, WEAK ROCK.
215.75	0.24	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
216.02	0.27	100		100% SANDSTONE,COARSE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
216.16	0.14	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK, WITH PLANT REMAINS.
217.23	1.07	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
217.53	0.30	100		100% SHALE	CARBONACEOUS, BANDS, GREY, WEAK ROCK, WITH PLANT REMAINS.
218.54	1.01	100		100% SILTSTONE	ARENACEOUS, LENSES, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH PLANT REMAINS.
219.67	1.13	100		100% SILTSTONE	FISSILE, BANDS, GREY, WEAK ROCK, THINLY LAMINATED, WITH PLANT REMAINS, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
222.07	2.40	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH TROUGH CROSS BEDDING.
222.69	0.62	100		100% SILTSTONE	CARBONACEOUS, ARENACEOUS, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH PLANT REMAINS.
223.20	0.51	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
223.46	0.26	100		100% SILTSTONE	CARBONACEOUS, BANDS, GREY, WEAK ROCK, WITH PLANT REMAINS.
223.88	0.42	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
224.02	0.14	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
224.30	0.28	100		100% SILTSTONE	GREY, WEAK ROCK, WITH PLANT REMAINS.
224.96	0.66	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, DARK GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
225.17	0.21	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK, WITH PLANT REMAINS.
225.28	0.11	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
225.51	0.23	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK, WITH PLANT REMAINS.
226.88	1.37	100		70% SILTSTONE 30% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, GREY. LIGHT GREY. MODERATELY WEAK ROCK, WITH PLANT REMAINS.
227.18	0.30	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
227.86	0.68	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
228.40	0.54	100		100% SILTSTONE	CARBONACEOUS, ARENACEOUS, DARK GREY, MODERATELY WEAK ROCK.
228.51	0.11	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
228.72	0.21	100		100% SILTSTONE	GREY, WEAK ROCK, WITH PLANT REMAINS.
228.92	0.20	100		100% SILTSTONE	FISSILE, BADLY BROKEN, GREY, VERY WEAK ROCK.
229.27	0.35	100		100% SILTSTONE	CARBONACEOUS, ARENACEOUS, DARK GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
230.78	1.51	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, WEAK ROCK, WITH MUD PELLETS.
230.80	0.02	100		100% COAL, HEAVY DULL	WITH PYRITE ON CLEAT.
230.86	0.06	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, WEAK ROCK, WITH MUD PELLETS.
231.36	0.50	100		100% SILTSTONE	FISSILE, BANDS, GREY, WEAK ROCK.
231.65	0.29	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
231.72	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
232.07	0.35	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK, WITH TROUGH CROSS BEDDING.
232.09	0.02	100		100% COAL, DULL	
232.18	0.09	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, DARK GREY, MODERATELY WEAK ROCK.
233.50	1.32	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, LENSES, GREY, WITH MICA, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
234.25	0.75	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, WEAK ROCK.
234.45	0.20	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
235.23	0.78	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, GREY, MODERATELY WEAK ROCK.
235.65	0.42	100		100% SANDSTONE,COARSE GRAINED	FISSILE, LIGHT GREY, WEAK ROCK.
237.00	1.35	100		100% SANDSTONE	MED.-COARSE GRAINED, QUARTZOSE, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
237.88	0.88	100		100% SANDSTONE,COARSE GRAINED	QUARTZOSE, LIGHT GREY, WITH FRAGMENTS OF FELDSPAR, WEAK ROCK, WITH MUD PELLETS.
239.56	1.68	100		100% SANDSTONE	MED.-COARSE GRAINED, QUARTZOSE, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
246.76	7.20	100		100% SANDSTONE,COARSE GRAINED	PEBBLY, QUARTZOSE, LIGHT GREY, MODERATELY STRONG ROCK.
247.40	0.64	100		100% SANDSTONE,MEDIUM GRAINED	QUARTZOSE, LIGHT GREY, MODERATELY STRONG ROCK.
254.70	7.30	100		100% SANDSTONE,COARSE GRAINED	QUARTZOSE, LIGHT GREY, MODERATELY STRONG ROCK, WITH MUD PELLETS.
257.44	2.74	100		100% SANDSTONE,MEDIUM GRAINED	QUARTZOSE, LIGHT GREY, MODERATELY STRONG ROCK.
257.70	0.26	100		100% SANDSTONE,COARSE GRAINED	QUARTZOSE, LIGHT GREY, MODERATELY WEAK ROCK.
260.54	2.84	100		100% SANDSTONE,MEDIUM GRAINED	QUARTZOSE, LIGHT GREY, MODERATELY STRONG ROCK.
260.67	0.13	100		100% SANDSTONE,COARSE GRAINED	QUARTZOSE, LIGHT GREY, MODERATELY STRONG ROCK.
260.85	0.18	100		100% SANDSTONE,MEDIUM GRAINED	QUARTZOSE, LIGHT GREY, MODERATELY STRONG ROCK.
261.05	0.20	100		100% SANDSTONE,COARSE GRAINED	QUARTZOSE, LIGHT GREY, MODERATELY STRONG ROCK.
261.65	0.60	100		100% SANDSTONE,MEDIUM GRAINED	QUARTZOSE, LIGHT GREY, MODERATELY STRONG ROCK.
261.75	0.10	100		100% SANDSTONE,COARSE GRAINED	QUARTZOSE, LIGHT GREY, MODERATELY STRONG ROCK.
262.22	0.47	100		100% SANDSTONE,MEDIUM GRAINED	QUARTZOSE, LIGHT GREY, MODERATELY STRONG ROCK.
262.31	0.09	100		100% SANDSTONE,COARSE GRAINED	QUARTZOSE, LIGHT GREY, MODERATELY STRONG ROCK.
262.56	0.25	100		100% SANDSTONE,MEDIUM GRAINED	QUARTZOSE, LIGHT GREY, MODERATELY STRONG ROCK.
262.64	0.08	100		100% SANDSTONE,COARSE GRAINED	QUARTZOSE, LIGHT GREY, WITH FRAGMENTS OF FELDSPAR, MODERATELY STRONG ROCK.
264.33	1.69	100		100% SANDSTONE,MEDIUM GRAINED	QUARTZOSE, LIGHT GREY, MODERATELY STRONG ROCK.
265.50	1.17	100		100% SANDSTONE,COARSE GRAINED	QUARTZOSE, LIGHT GREY, MODERATELY STRONG ROCK.

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	150.65 - 152.85 M	2.20 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 9

HOLE TYPE	CORE	
EASTING	595,800 M	GRID
NORTHING	5,383,100 M	GRID
ELEVATION	530.00 M	
TOTAL DEPTH DRILLED	426.20 M	
DRILLING STARTED	17/ 9/79	
DRILLING TIME	17 DAYS	
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
10.00	10.00	100		100% DOLERITE	BADLY BROKEN, RED-GREY, HIGHLY WEATHERED, VERY WEAK ROCK.
26.00	16.00	100		100% DOLERITE	ARGILLACEOUS, YELLOW-BROWN, COMPLETELY WEATHERED, WEAK ROCK.
32.80	6.80	100		100% DOLERITE	BADLY BROKEN, GREY-BROWN, MODERATELY WEATHERED, VERY WEAK ROCK.
33.06	0.26	100		100% CLAY	ORANGE-YELLOW, SLIGHTLY WEATHERED, VERY WEAK ROCK.
33.21	0.15	100		100% CLAYSTONE	FRIABLE, GREY, UNWEATHERED, WEAK ROCK.
34.64	1.43	100		100% CLAYSTONE	YELLOW-BROWN, SLIGHTLY WEATHERED, WEAK ROCK.
35.62	0.98	100		100% CLAYSTONE	GREY-GREEN, UNWEATHERED, VERY WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
36.45	0.83	100		100% CLAYSTONE	SHALY, VARIAGATED COLOUR, SLIGHTLY WEATHERED, VERY WEAK ROCK.
36.60	0.15	100		100% SILTSTONE	GREY, UNWEATHERED, WEAK ROCK.
38.10	1.50	100		100% CLAYSTONE	FRIABLE, SHALY, VARIAGATED COLOUR, UNWEATHERED, VERY WEAK ROCK.
38.63	0.53	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, UNWEATHERED, WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
39.08	0.45	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, VERY WEAK ROCK, THICKLY LAMINATED.
39.45	0.37	100		100% SILTSTONE	CARBONACEOUS, SHALY, DARK GREY, UNWEATHERED, VERY WEAK ROCK.
39.56	0.11	100		100% PEBBLE CONGLOMERATE	CARBONACEOUS, DARK GREY, VERY WEAK ROCK.
40.74	1.18	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, DARK GREY, WEAK ROCK, THICKLY LAMINATED.
43.57	2.83	100		100% SILTSTONE	SHALY, BANDS, GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
45.88	2.31	100		100% SILTSTONE	ARENACEOUS, GREY-GREEN, WEAK ROCK, MODERATELY SPACED JOINTS, TIGHT NON PLANAR, .
47.00	1.12	100		100% MUDSTONE	SHALY, FRIABLE, GREY, VERY WEAK ROCK.
47.17	0.17	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
48.87	1.70	100		100% SILTSTONE	ARGILLACEOUS, BANDS, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
49.23	0.36	100		60% SILTSTONE 40% SANDSTONE,FINE GRAINED	CARBONACEOUS, DARK GREY. GREY. WEAK ROCK, THICKLY LAMINATED, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
50.30	1.07	100		100% SILTSTONE	ARGILLACEOUS, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
50.87	0.57	100		100% SILTSTONE	COALY, STREAKS, GREY, VERY WEAK ROCK.
51.85	0.98	100		70% SILTSTONE 30% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, GREY. LIGHT GREY. WEAK ROCK.
56.90	5.05	100		100% CLAYSTONE	ARENACEOUS, BANDS, VARIAGATED COLOUR, VERY WEAK ROCK.
57.11	0.21	100		100% CLAYSTONE	PEBBLY, BUFF, VERY WEAK ROCK.
58.20	1.09	100		100% CLAYSTONE	SHALY, BANDS, YELLOW-GREY, VERY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
59.85	1.65	100		100% CLAYSTONE	SILTSTONE, BANDS, VARIAGATED COLOUR, WEAK ROCK.
60.13	0.28	100		100% SANDSTONE,COARSE GRAINED	ARGILLACEOUS, GLAUCONITIC, GREEN, WEAK ROCK.
67.60	7.47	100		100% CLAYSTONE	ARENACEOUS, BANDS, BROWN, VERY WEAK ROCK.
70.60	3.00	100		100% MUDSTONE	CARBONACEOUS, BADLY BROKEN, DARK GREY, VERY WEAK ROCK.
71.05	0.45	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
71.45	0.40	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
71.60	0.15	100		100% SANDSTONE,FINE GRAINED	ARGILLACEOUS, BUFF, VERY WEAK ROCK.
71.95	0.35	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
72.73	0.78	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
74.00	1.27	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
75.27	1.27	100		100% MUDSTONE	SILTSTONE, DARK BROWN, WEAK ROCK.
75.60	0.33	100		100% SILTSTONE	SHALY, GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
77.50	1.90	100		100% SILTSTONE	ARENACEOUS, LAMINAE, LIGHT GREY, WEAK ROCK, VERY THINLY BEDDED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
78.87	1.37	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
79.60	0.73	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
82.40	2.80	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
83.02	0.62	100		100% SANDSTONE,COARSE GRAINED	PEBBLY, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
83.47	0.45	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
83.56	0.09	100		100% PEBBLE CONGLOMERATE	ARENACEOUS, GREY-GREEN, MODERATELY WEAK ROCK.
83.65	0.09	100		100% SANDSTONE,FINE GRAINED	LITHIC, SILTSTONE, GREY, MODERATELY WEAK ROCK.
84.30	0.65	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
84.65	0.35	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
85.00	0.35	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
85.47	0.47	100		100% SANDSTONE,COARSE GRAINED	PEBBLY, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
86.54	1.07	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
87.00	0.46	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.
87.25	0.25	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
87.51	0.26	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK.
87.72	0.21	100		100% CARBONACEOUS SHALE	DARK GREY, VERY WEAK ROCK.
88.65	0.93	100		100% SILTSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
88.80	0.15	100		100% SHALE	DARK BROWN, WEAK ROCK.
89.38	0.58	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, WEAK ROCK.
89.58	0.20	100		100% MUDSTONE	SHALY, BROWN, WEAK ROCK.
89.89	0.31	100		100% SHALE	GREY, VERY WEAK ROCK.
90.75	0.86	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.
92.23	1.48	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
92.71	0.48	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, GREY, WEAK ROCK.
94.22	1.51	100		80% MUDSTONE 20% SILTSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN. GREY. WEAK ROCK.
94.25	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
94.35	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
95.28	0.93	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
96.02	0.74	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH TROUGH CROSS BEDDING.
98.60	2.58	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY STRONG ROCK.
98.66	0.06	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
98.75	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
99.23	0.48	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, BROWN, WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
99.58	0.35	100		100% SILTSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
101.89	2.31	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
102.23	0.34	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY STRONG ROCK.
102.40	0.17	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY STRONG ROCK, WITH MUD PELLETS.
102.61	0.21	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY STRONG ROCK.
104.73	2.12	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY STRONG ROCK.
105.07	0.34	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, MODERATELY WEAK ROCK.
105.44	0.37	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY STRONG ROCK.
106.36	0.92	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, MODERATELY WEAK ROCK.
106.49	0.13	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
106.67	0.18	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, MODERATELY WEAK ROCK.
107.90	1.23	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
108.04	0.14	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, MODERATELY WEAK ROCK.
108.76	0.72	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
109.20	0.44	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, MODERATELY WEAK ROCK.
109.37	0.17	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
109.89	0.52	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, MODERATELY WEAK ROCK.
110.16	0.27	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
110.61	0.45	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
110.84	0.23	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
110.89	0.05	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, MODERATELY WEAK ROCK.
110.91	0.02	100		100% COAL, DULL	BADLY BROKEN.
113.77	2.86	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
114.43	0.66	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
116.44	2.01	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, COALY, LIGHT GREY, MODERATELY WEAK ROCK.
117.50	1.06	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
118.20	0.70	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, GREY, WEAK ROCK.
119.68	1.48	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, GREY, MODERATELY WEAK ROCK.
119.86	0.18	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, GREY, MODERATELY WEAK ROCK.
120.71	0.85	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
121.08	0.37	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, GREY, MODERATELY WEAK ROCK.
121.33	0.25	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, GREY, MODERATELY WEAK ROCK.
123.17	1.84	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, GREY, MODERATELY WEAK ROCK.
123.43	0.26	100		100% CLAYSTONE	LIGHT GREY, VERY WEAK ROCK.
123.87	0.44	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
124.46	0.59	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
125.24	0.78	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, WEAK ROCK.
126.22	0.98	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
128.47	2.25	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
130.22	1.75	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, WEAK ROCK, WITH CROSS LAMINATION.
130.94	0.72	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
131.18	0.24	100		100% SILTSTONE	GREY, WEAK ROCK, WITH PLANT REMAINS, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
131.44	0.26	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
131.80	0.36	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, WEAK ROCK, WITH PLANT REMAINS.
132.17	0.37	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK, WITH PLANT REMAINS.
132.33	0.16	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK, WITH PLANT REMAINS.
133.15	0.82	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, WEAK ROCK, WITH PLANT REMAINS, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
133.25	0.10	100		100% MUDSTONE	CARBONACEOUS, SHALY, DARK GREY, VERY WEAK ROCK.
140.20	6.95	100		100% SILTSTONE	ARGILLACEOUS, GREY, WEAK ROCK, WITH PLANT REMAINS, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
141.00	0.80	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK, WITH PLANT REMAINS.
141.43	0.43	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LITHIC, GREY, MODERATELY WEAK ROCK.
148.42	6.99	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
150.80	2.38	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
151.81	1.01	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, WEAK ROCK.
151.83	0.02	100		100% COAL, BRIGHT	
152.05	0.22	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
152.16	0.11	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
153.78	1.62	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
154.42	0.64	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, WEAK ROCK.
154.44	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BADLY BROKEN.
154.47	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, VERY WEAK ROCK.
154.49	0.02	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
154.68	0.19	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
154.72	0.04	100		100% COAL, DULL	
154.77	0.05	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
156.23	1.46	100		100% SILTSTONE	GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
156.48	0.25	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
156.92	0.44	100		100% SILTSTONE	GREY, WEAK ROCK.
158.03	1.11	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
158.25	0.22	100		85% SILTSTONE 15% SANDSTONE,FINE GRAINED	CARBONACEOUS, GREY. LIGHT GREY. WEAK ROCK.
158.46	0.21	100		80% SANDSTONE 20% SILTSTONE	MED.-FINE GRAINED, LIGHT GREY. CARBONACEOUS, BANDS, GREY. WEAK ROCK.
159.21	0.75	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, WEAK ROCK.
159.59	0.38	100		100% CLAYSTONE	FISSILE, BUFF, VERY WEAK ROCK.
159.70	0.11	100		100% SILTSTONE	ARGILLACEOUS, BUFF, WEAK ROCK.
159.89	0.19	100		100% SILTSTONE	LIGHT BROWN, VERY WEAK ROCK.
160.35	0.46	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK.
161.03	0.68	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LENSES, GREY, WEAK ROCK.
161.21	0.18	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, WEAK ROCK.
162.32	1.11	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
162.38	0.06	100		100% CLAYSTONE	FISSILE, FRAGMENTED, BUFF, VERY WEAK ROCK.
162.44	0.06	100		100% MUDSTONE	CARBONACEOUS, SHALY, BLACK, VERY WEAK ROCK.
162.51	0.07	100		100% CLAY	BUFF, VERY SOFT.
162.57	0.06	100		100% MUDSTONE	CARBONACEOUS, BLACK, SOFT.
163.48	0.91	100		100% SILTSTONE	GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
165.51	2.03	100		100% SANDSTONE,FINE GRAINED	LITHIC, MICACEOUS, LIGHT GREY, MODERATELY WEAK ROCK.
165.78	0.27	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
166.06	0.28	100		100% CLAYSTONE	FISSILE, MICACEOUS, BUFF, VERY WEAK ROCK.
166.48	0.42	100		100% SILTSTONE	CARBONACEOUS, GREY, WEAK ROCK.
167.05	0.57	100		100% CLAYSTONE	FISSILE, PEBBLY, LIGHT BROWN, VERY WEAK ROCK.
171.82	4.77	100		100% SILTSTONE	LAMINAE, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WIDELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
172.02	0.20	100		100% CLAYSTONE	FISSILE, MICACEOUS, BUFF, VERY WEAK ROCK.
172.07	0.05	100		100% COAL, HEAVY DULL	
172.13	0.06	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
172.17	0.04	100		100% COAL, HEAVY DULL	
172.23	0.06	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
172.46	0.23	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, DARK GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
172.74	0.28	100		100% CLAYSTONE	FISSILE, MICACEOUS, BUFF, VERY WEAK ROCK.
172.79	0.05	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
172.82	0.03	100		100% COAL, INTERBANDED DULL AND BRIGHT	
172.98	0.16	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
173.00	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
173.04	0.04	100		100% SILTSTONE	COALY, LENSES, GREY, WEAK ROCK.
176.87	3.83	100		100% SILTSTONE	GREY, WEAK ROCK, WITH CROSS LAMINATION.
178.94	2.07	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
181.00	2.06	100		100% SILTSTONE	GREY, WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
181.24	0.24	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, WEAK ROCK.
181.61	0.37	100		100% SILTSTONE	ARENACEOUS, BANDS, LIGHT GREY, WEAK ROCK.
182.31	0.70	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, WEAK ROCK.
182.44	0.13	100		100% CLAYSTONE	FISSILE, BUFF, VERY WEAK ROCK.
183.16	0.72	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
183.23	0.07	100		100% SANDSTONE,FINE GRAINED	COALY, LENSES, BROWN, MODERATELY WEAK ROCK.
183.60	0.37	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
184.13	0.53	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED.
184.32	0.19	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
184.33	0.01	100		100% COAL, BRIGHT	
184.54	0.21	100		100% SANDSTONE,FINE GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
184.82	0.28	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, MODERATELY WEAK ROCK.
184.90	0.08	100		100% SILTSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
185.15	0.25	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
185.95	0.80	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE B : 344.05 M R.L.	
186.04	0.09			100% COAL, HEAVY DULL	

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
186.05	0.01			100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
186.33	0.28			100% CLAYSTONE	FISSILE, BUFF, VERY WEAK ROCK.
186.46	0.13		1	100% MUDSTONE	CARBONACEOUS, BLACK.
186.47	0.01		1	100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
186.50	0.03		1	100% MUDSTONE	CARBONACEOUS, BLACK.
186.61	0.11		1	100% MUDSTONE	CARBONACEOUS, BLACK.
186.92	0.31		1	100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
187.09	0.17		1	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
187.19	0.10		1	100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
187.33	0.14		2	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
187.41	0.08		2	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
187.49	0.08		2	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
187.50	0.01		2	100% MUDSTONE	SILTSTONE, LIGHT BROWN, MODERATELY WEAK ROCK.
187.55	0.05		2	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
187.60	0.05		2	70% MUDSTONE 30% COAL, BRIGHT	CARBONACEOUS, BROWN-BLACK. MODERATELY STRONG ROCK, LAMINATED.
187.68	0.08		2	100% COAL, HEAVY DULL	BLACK, MODERATELY STRONG ROCK.
187.70	0.02		2	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
187.88	0.18		2	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
187.98	0.10		2	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
187.99	0.01		3	100% COAL, BRIGHT	
188.28	0.29		3	100% COAL, HEAVY DULL	BLACK, VERY WEAK ROCK.
188.35	0.07		3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
188.42	0.07		3	100% MUDSTONE	SILTSTONE, FISSILE, LIGHT BROWN.
188.59	0.17		3	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
188.97	0.38		3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
189.07	0.10		3	100% CLAYSTONE	LIGHT BROWN, FISS.
189.43	0.36		4	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
189.53	0.10		4	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
189.56	0.03		4	100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
189.77	0.21		4	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
189.79	0.02		4	100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
189.90	0.11		4	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
189.94	0.04		4	100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
190.00	0.06		4	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
190.07	0.07		4	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
190.15	0.08	100	4	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
190.20	0.05	100	5	100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
190.23	0.03	100	5	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
190.29	0.06	100	5	100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
		BASE OF DALMAYNE B : THICKNESS= 4.34 M; SAMPLED THICKNESS= 3.96 M			
190.75	0.46	100		100% MUDSTONE	SHALY, GREY-BROWN, VERY WEAK ROCK.
190.85	0.10	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN, VERY WEAK ROCK.
191.15	0.30	100		100% SILTSTONE	LIGHT GREY, WEAK ROCK.
191.18	0.03	100		100% CLAYSTONE	FISSILE, BUFF, VERY WEAK ROCK.
192.10	0.92	100		100% SILTSTONE	LIGHT GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
192.50	0.40	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LIGHT GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS, WITH CROSS LAMINATION.
192.90	0.40	100		100% SILTSTONE	GREY, WEAK ROCK.
193.15	0.25	100		100% MUDSTONE	COALY, STREAKS, GREY, WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
194.51	1.36	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK, WITH PLANT REMAINS, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
194.94	0.43	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
199.68	4.74	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
200.00	0.32	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
200.60	0.60	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY, WEAK ROCK, WITH PLANT REMAINS.
200.81	0.21	100		100% MUDSTONE	CARBONACEOUS, BANDS, DARK GREY, WEAK ROCK, WITH PLANT REMAINS.
201.34	0.53	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY, WEAK ROCK, WITH PLANT REMAINS.
202.14	0.80	100		60% SILTSTONE 40% SANDSTONE,FINE GRAINED	BANDS, GREY. SILTSTONE, LAMINAE, LIGHT GREY. WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 25 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
202.37	0.23	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
202.85	0.48	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
203.85	1.00	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
204.58	0.73	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
205.77	1.19	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
205.89	0.12	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
207.48	1.59	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
208.58	1.10	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
209.00	0.42	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
210.74	1.74	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
210.96	0.22	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
211.00	0.04	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
211.96	0.96	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
212.82	0.86	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
213.05	0.23	100		100% SILTSTONE	ARENACEOUS, GREY, MODERATELY WEAK ROCK.
213.21	0.16	100		100% SILTSTONE	GREY, WEAK ROCK.
213.23	0.02	100		100% CLAYSTONE	FISSILE, BUFF, VERY WEAK ROCK.
			TOP OF DALMAYNE C : 316.77 M R.L.		
213.48	0.25	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
213.90	0.42	100		100% MUDSTONE	CARBONACEOUS, BROWN, VERY WEAK ROCK.
213.93	0.03	100		100% CLAYSTONE	BROWN, [illegible] WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
214.09	0.16	100		100% MUDSTONE	CARBONACEOUS, BROWN, VERY WEAK ROCK.
214.32	0.23	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
214.37	0.05	100		100% CARBONACEOUS SHALE	DARK GREY, VERY WEAK ROCK.
214.39	0.02	100		100% CLAYSTONE	BUFF, VERY WEAK ROCK.
214.51	0.12	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
214.68	0.17	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK.
214.76	0.08	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
214.86	0.10	100		100% MUDSTONE	BROWN, WEAK ROCK.
214.96	0.10	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
215.11	0.15	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
215.44	0.33	100		100% MUDSTONE	DARK BROWN, WEAK ROCK.
215.51	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
215.80	0.29	100		100% CLAYSTONE	FISSILE, BUFF, SOFT.
216.00	0.20	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
216.05	0.05	100		100% MUDSTONE	ARENACEOUS, CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
216.09	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
216.14	0.05	100		100% MUDSTONE	ARENACEOUS, BROWN, WEAK ROCK, SLOW SLAKING.
216.37	0.23	100		100% COAL, HEAVY DULL	BLACK, MODERATELY STRONG ROCK.
216.53	0.16	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
216.65	0.12	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
216.67	0.02	100		100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
216.69	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
216.71	0.02	100		100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
217.05	0.34	100		100% COAL, HEAVY DULL	BLACK, MODERATELY STRONG ROCK.
217.12	0.07	100		100% CARBONACEOUS SHALE	
217.17	0.05	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
217.18	0.01	100		100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
217.21	0.03	100		100% CLAYSTONE	CARBONACEOUS, BLACK, FIRM.
217.29	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
217.32	0.03	100		100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
217.35	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
217.38	0.03	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
217.63	0.25	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
217.65	0.02	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
217.77	0.12	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
217.87	0.10	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
217.97	0.10	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN, MODERATELY WEAK ROCK.
218.17	0.20	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
218.22	0.05	100		100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
218.23	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
218.24	0.01	100		100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
218.27	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
218.28	0.01	100		100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
218.40	0.12	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
218.45	0.05	100		100% COAL, HEAVY DULL	
218.53	0.08	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
218.56	0.03	100		100% CARBONACEOUS SHALE	
218.63	0.07	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
218.72	0.09	100		100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, WEAK ROCK.
218.80	0.08	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
				BASE OF DALMAYNE C : THICKNESS= 5.57 M; SAMPLED THICKNESS= 0.00 M	
219.09	0.29	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK.
219.19	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
219.26	0.07	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK.
219.29	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
219.60	0.31	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK.
219.69	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
219.78	0.09	100		100% MUDSTONE	BADLY BROKEN, GREY, WEAK ROCK.
219.91	0.13	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
219.96	0.05	100		100% MUDSTONE	BADLY BROKEN, GREY.
221.00	1.04	0		CORE LOSS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
221.64	0.64	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
222.80	1.16	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
223.08	0.28	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
223.60	0.52	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, WEAK ROCK.
223.73	0.13	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
224.57	0.84	100		100% SANDSTONE	LITHIC, MED.-FINE GRAINED, LIGHT GREY, WEAK ROCK.
226.61	2.04	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
227.80	1.19	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
229.13	1.33	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, WEAK ROCK.
229.27	0.14	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, WEAK ROCK.
229.65	0.38	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
229.78	0.13	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK.
230.00	0.22	0		CORE LOSS	
230.31	0.31	100		100% SANDSTONE,MEDIUM GRAINED	ARGILLACEOUS, LENSES, GREY, VERY WEAK ROCK.
230.38	0.07	100		100% CLAY	LIGHT BROWN, SOFT.
232.40	2.02	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
232.60	0.20	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, MODERATELY WEAK ROCK.
232.74	0.14	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
233.20	0.46	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
234.10	0.90	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
235.56	1.46	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
237.00	1.44	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
242.00	5.00	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
244.26	2.26	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
244.40	0.14	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK.
244.46	0.06	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
244.56	0.10	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
244.66	0.10	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
245.31	0.65	100		100% PEBBLE CONGLOMERATE	ARENACEOUS, GREY, MODERATELY WEAK ROCK.
245.52	0.21	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
245.62	0.10	100		100% SILTSTONE	GREY, WEAK ROCK.
246.61	0.99	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
		TOP OF : 283.39 M R.L.			
247.17	0.56	100		100% COAL, HEAVY DULL	
		BASE OF : THICKNESS= 0.56 M; SAMPLED THICKNESS= 0.00 M			
247.27	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, VERY WEAK ROCK.
247.95	0.68	100		100% SILTSTONE	GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
248.17	0.22	100		100% MUDSTONE	CARBONACEOUS, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
252.30	4.13	100		100% SILTSTONE	GREY, WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
252.33	0.03	100		100% CARBONACEOUS SHALE	BLACK, VERY WEAK ROCK.
252.38	0.05	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, WEAK ROCK.
252.44	0.06	100		100% MUDSTONE	CARBONACEOUS, SHALY, DARK GREY, VERY WEAK ROCK.
252.63	0.19	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
252.70	0.07	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, GREY, VERY WEAK ROCK.
252.83	0.13	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, WEAK ROCK.
252.96	0.13	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, WEAK ROCK.
253.14	0.18	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, WEAK ROCK.
253.46	0.32	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
253.60	0.14	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
253.80	0.20	0		CORE LOSS	
255.01	1.21	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
255.31	0.30	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
256.19	0.88	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
256.21	0.02	100		100% MUDSTONE	CARBONACEOUS, BLACK, VERY WEAK ROCK.
256.81	0.60	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
257.02	0.21	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, WEAK ROCK.
257.51	0.49	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED.
257.86	0.35	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
258.02	0.16	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
258.78	0.76	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
260.60	1.82	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
261.23	0.63	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
261.46	0.23	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, WEAK ROCK, THICKLY LAMINATED.
262.11	0.65	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, WEAK ROCK.
265.28	3.17	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
265.31	0.03	100		100% SILTSTONE	COALY, LENSES, LIGHT GREY, WEAK ROCK.
265.34	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, VERY WEAK ROCK.
265.41	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
265.80	0.39	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, WEAK ROCK, WITH MUD PELLETS.
266.90	1.10	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
267.00	0.10	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, WEAK ROCK.
268.02	1.02	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE D UPPER : 261.98 M R.L.	
268.03	0.01	100	6	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
268.06	0.03	100	6	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
268.34	0.28	100	6	100% COAL, HEAVY DULL	
268.38	0.04	100	6	100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
268.72	0.34	100	6	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
269.14	0.42	100	6	100% COAL, DULL WITH FEW BRIGHT BANDS	
269.15	0.01	100	6	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
269.41	0.26	100	6	100% COAL, DULL	
		BASE OF DALMAYNE D UPPER : THICKNESS= 1.39 M; SAMPLED THICKNESS= 1.39 M			
269.63	0.22	100	7	100% MUDSTONE	SHALY, DARK BROWN, MODERATELY WEAK ROCK.
269.68	0.05	100	7	100% COAL, DULL WITH FEW BRIGHT BANDS	
269.79	0.11	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
269.82	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
269.87	0.05	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY, WEAK ROCK.
270.80	0.93	100		100% MUDSTONE	SHALY, GREY-BROWN, VERY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
270.89	0.09	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
271.21	0.32	100		100% SILTSTONE	GREY-GREEN, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
272.00	0.79	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
272.40	0.40	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
274.48	2.08	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, WEAK ROCK.
275.88	1.40	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
276.29	0.41	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
277.57	1.28	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
278.04	0.47	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
281.42	3.38	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
281.92	0.50	100		100% SILTSTONE	CARBONACEOUS, ARENACEOUS, DARK GREY, WEAK ROCK.
281.95	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
282.16	0.21	100		100% MUDSTONE	CARBONACEOUS, BLACK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
282.22	0.06	100		100% SILTSTONE	GREY, WEAK ROCK.
282.25	0.03	100		100% CARBONACEOUS SHALE	BLACK, VERY WEAK ROCK.
282.93	0.68	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY, WEAK ROCK.
283.38	0.45	100		100% SILTSTONE	GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
283.50	0.12	100		100% MUDSTONE	BADLY BROKEN, GREY.
		TOP OF	DALMAYNE D LOWER : 246.50 M R.L.		
283.67	0.17	0	8	CORE LOSS	
283.75	0.08	100	8	100% COAL, HEAVY DULL	
283.78	0.03	100	8	100% COAL, HEAVY DULL	
283.84	0.06	100	8	100% COAL, HEAVY DULL	WITH MUD PELLETS.
283.87	0.03	100	8	100% COAL, HEAVY DULL	BADLY BROKEN.
283.88	0.01	100	8	100% MUDSTONE	CARBONACEOUS, BLACK.
284.23	0.35	100	8	100% COAL, HEAVY DULL	
284.25	0.02	100	8	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
284.43	0.18	100	8	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
284.51	0.08	100	8	100% COAL, HEAVY DULL	
		BASE OF	DALMAYNE D LOWER : THICKNESS= 1.01 M; SAMPLED THICKNESS= 1.01 M		
285.39	0.88	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, GREY-GREEN, VERY WEAK ROCK.
285.73	0.34	100		100% SILTSTONE	GREY, WEAK ROCK.
286.80	1.07	100		100% SANDSTONE,FINE GRAINED	FRIABLE, BANDS, LIGHT GREY, WITH MICA, VERY WEAK ROCK.
287.45	0.65	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
287.76	0.31	100		100% SANDSTONE	COALY, STREAKS, LIGHT GREY, WEAK ROCK.
288.65	0.89	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, WITH MICA, WEAK ROCK.
291.83	3.18	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
293.60	1.77	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
295.30	1.70	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
297.70	2.40	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
298.68	0.98	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
299.62	0.94	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
300.77	1.15	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
301.10	0.33	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
301.16	0.06	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
305.54	4.38	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
306.08	0.54	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
308.10	2.02	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
308.33	0.23	100		100% SILTSTONE	GREY, WEAK ROCK.
308.34	0.01	100		100% COAL, DULL WITH FEW BRIGHT BANDS	WITH PYRITE.
309.17	0.83	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
309.81	0.64	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
310.78	0.97	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
310.80	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
311.00	0.20	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, WEAK ROCK.
311.31	0.31	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, GREY, WEAK ROCK.
311.96	0.65	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, WEAK ROCK.
313.03	1.07	100		100% SANDSTONE,FINE GRAINED	LITHIC, MICACEOUS, GREY, WEAK ROCK.
313.67	0.64	100		100% SANDSTONE,FINE GRAINED	QUARTZOSE, LIGHT GREY, WITH CALCITE, MODERATELY WEAK ROCK, .
316.02	2.35	100		100% SANDSTONE,FINE GRAINED	MICACEOUS, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
316.29	0.27	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
317.03	0.74	60		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, WEAK ROCK.
319.40	2.37	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
319.84	0.44	100		100% SANDSTONE,MEDIUM GRAINED	MICACEOUS, CALCAREOUS, LIGHT GREY, MODERATELY WEAK ROCK.
319.88	0.04	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
320.75	0.87	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
321.12	0.37	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
324.60	3.48	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
326.00	1.40	100		100% SANDSTONE,MEDIUM GRAINED	FRIABLE, BANDS, LIGHT GREY, WEAK ROCK.
326.53	0.53	100		100% SILTSTONE	GREY, WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
326.55	0.02	100		100% CARBONACEOUS SHALE	BLACK, VERY WEAK ROCK.
327.32	0.77	100		100% SILTSTONE	GREY, WEAK ROCK.
327.40	0.08	100		100% MUDSTONE	GREY, VERY WEAK ROCK.
327.45	0.05	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
327.46	0.01	100		100% COAL, HEAVY DULL	
327.54	0.08	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
327.90	0.36	25		100% MUDSTONE	CARBONACEOUS, BADLY BROKEN, BLACK.
327.92	0.02	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
327.94	0.02	100		100% COAL, INTERBANDED DULL AND BRIGHT	
328.04	0.10	100		100% MUDSTONE	CARBONACEOUS, BLACK.
328.24	0.20	100		100% CARBONACEOUS SHALE	BRIGHT COAL, LENSES, BLACK, VERY WEAK ROCK.
328.25	0.01	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
328.26	0.01	100		100% CARBONACEOUS SHALE	COALY, BLACK, VERY WEAK ROCK.
329.21	0.95	100		100% SILTSTONE	ARGILLACEOUS, BANDS, GREY, WEAK ROCK.
329.31	0.10	100		100% SANDSTONE	SILTSTONE, PEBBLY, GREY, WEAK ROCK.
331.39	2.08	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
332.34	0.95	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
332.62	0.28	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, WITH MICA, WEAK ROCK.
333.53	0.91	100		100% SILTSTONE	GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
333.68	0.15	100		100% SHALE	CARBONACEOUS, BANDS, GREY, WEAK ROCK.
333.74	0.06	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
333.85	0.11	100		100% SILTSTONE	BADLY BROKEN, GREY.
335.00	1.15	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LIGHT GREY, WEAK ROCK.
336.26	1.26	100		100% SILTSTONE	GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
336.37	0.11	0	9	CORE LOSS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
336.53	0.16	100	9	100% MUDSTONE	CARBONACEOUS, BADLY BROKEN, BLACK, MODERATELY WEAK ROCK.
336.55	0.02	100	9	100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
336.56	0.01	100	9	100% COAL, HEAVY DULL	
336.61	0.05	100	9	100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE E2 : 193.39 M R.L.	
336.70	0.09	100	10	100% COAL, HEAVY DULL	
336.81	0.11	100	10	100% COAL, DULL	
336.82	0.01	100	10	100% MUDSTONE	LIGHT BROWN, WEAK ROCK, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
336.99	0.17	100	10	100% COAL, DULL	
337.01	0.02	100	10	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
337.44	0.43	100	10	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	HEAVY DULL COAL, LAMINAE.
337.53	0.09	100	10	100% COAL, DULL	
337.62	0.09	100	10	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	CARBONACEOUS, BANDS.
337.68	0.06	100	10	100% COAL, BRIGHT WITH FEW DULL BANDS	
				BASE OF DALMAYNE E2 : THICKNESS= 1.07 M; SAMPLED THICKNESS= 1.07 M	
338.00	0.32	100		100% SILTSTONE	GREY, VERY WEAK ROCK.
338.26	0.26	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 15 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
341.24	2.98	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
343.45	2.21	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
348.32	4.87	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
349.02	0.70	100		100% SILTSTONE	GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
349.28	0.26	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
351.16	1.88	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
351.60	0.44	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
351.86	0.26	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
352.55	0.69	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
353.33	0.78	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
353.45	0.12	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
353.53	0.08	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK.
353.95	0.42	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, WEAK ROCK.
354.43	0.48	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, GREY, WEAK ROCK.
354.53	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
355.40	0.87	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, GREY, WEAK ROCK, VERY THINLY BEDDED.
355.85	0.45	100		60% MUDSTONE 40% SANDSTONE	CARBONACEOUS, DARK GREY. CARBONACEOUS, LENSES. WEAK ROCK.
355.95	0.10	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
356.04	0.09	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
356.55	0.51	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, WITH MICA, MODERATELY WEAK ROCK.
357.77	1.22	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, WEAK ROCK, THICKLY LAMINATED.
358.39	0.62	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, WEAK ROCK.
359.10	0.71	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
359.55	0.45	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
363.77	4.22	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, TIGHT NON PLANAR, .
363.92	0.15	100		100% SHALE	COALY, LENSES, GREY, WEAK ROCK.
363.93	0.01	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
363.95	0.02	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
365.00	1.05	100		100% SILTSTONE	GREY, WEAK ROCK.
365.07	0.07	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 25 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
365.64	0.57	100		100% SILTSTONE	FISSILE, BANDS, GREY, WEAK ROCK.
365.82	0.18	100		100% MUDSTONE	FISSILE, ARGILLACEOUS, BROWN, VERY WEAK ROCK.
366.83	1.01	100		100% MUDSTONE	SILTSTONE, BROWN, WEAK ROCK.
366.93	0.10	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, VERY WEAK ROCK.
367.16	0.23	100		100% MUDSTONE	SILTSTONE, BROWN, WEAK ROCK.
367.35	0.19	100		100% MUDSTONE	ARENACEOUS, LENSES, BROWN, WEAK ROCK.
368.10	0.75	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, WEAK ROCK, WITH PLANT REMAINS.
368.85	0.75	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, WITH MICA, WEAK ROCK.
369.60	0.75	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, WITH MICA, WEAK ROCK.
370.15	0.55	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
371.00	0.85	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, WITH MICA. WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
371.11	0.11	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, MICACEOUS, LIGHT GREY, MODERATELY WEAK ROCK.
371.23	0.12	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, WITH MICA, MODERATELY WEAK ROCK.
371.78	0.55	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, WITH MICA, MODERATELY WEAK ROCK.
372.69	0.91	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, WITH MICA, MODERATELY WEAK ROCK.
373.25	0.56	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS, LAMINATED.
373.60	0.35	100		100% SANDSTONE,FINE GRAINED	LITHIC, MICACEOUS, LIGHT GREY, MODERATELY WEAK ROCK.
374.77	1.17	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, WITH MICA, MODERATELY WEAK ROCK.
375.07	0.30	100		100% SANDSTONE,MEDIUM GRAINED	CALCITIC, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
375.35	0.28	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, WEAK ROCK.
375.53	0.18	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
376.08	0.55	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
376.62	0.54	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, WITH CROSS LAMINATION, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
377.03	0.41	100		100% SILTSTONE	ARENACEOUS, LENSES, LIGHT GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
378.00	0.97	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 25 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
378.41	0.41	100		100% SANDSTONE	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
378.63	0.22	100		100% SILTSTONE	GREY, WEAK ROCK, WITH PLANT REMAINS.
379.23	0.60	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
379.88	0.65	100		100% SANDSTONE	MED.-FINE GRAINED, CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
380.35	0.47	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
380.43	0.08	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, WEAK ROCK.
380.63	0.20	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
380.86	0.23	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
381.03	0.17	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
381.09	0.06	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.
381.43	0.34	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
382.17	0.74	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
382.30	0.13	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
382.36	0.06	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, WEAK ROCK, WITH PLANT REMAINS, MODERATELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
383.06	0.70	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, WEAK ROCK, WITH MUD PELLETS.
383.16	0.10	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
383.64	0.48	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, WEAK ROCK, WITH MUD PELLETS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
384.89	1.25	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
385.06	0.17	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, VERY WEAK ROCK, WITH PLANT REMAINS.
385.15	0.09	100		100% SILTSTONE	CARBONACEOUS, GREY, WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
385.38	0.23	100		100% SILTSTONE	ARENACEOUS, LENSES, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
386.00	0.62	100		100% SILTSTONE	GREY, WEAK ROCK.
386.07	0.07	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
386.14	0.07	100		60% MUDSTONE 40% SANDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY. BANDS, LIGHT GREY. WEAK ROCK.
386.22	0.08	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
387.44	1.22	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
387.66	0.22	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK.
388.64	0.98	100		100% SILTSTONE	ARGILLACEOUS, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
388.68	0.04	100		100% MUDSTONE	CARBONACEOUS, COALY, BLACK.
388.71	0.03	100		100% MUDSTONE	CARBONACEOUS, COALY, BLACK.
388.72	0.01	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, DARK GREY.
388.74	0.02	100		100% MUDSTONE	CARBONACEOUS, COALY, BLACK.
388.76	0.02	100		100% COAL, HEAVY DULL	
388.82	0.06	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN.
388.84	0.02	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
388.86	0.02	100		100% MUDSTONE	CARBONACEOUS, COALY, DARK BROWN.
389.50	0.64	100		100% SILTSTONE	GREY, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, INFILLED WITH CALCITE.
390.65	1.15	100		60% SILTSTONE 40% SANDSTONE,FINE GRAINED	BANDS, GREY. BANDS, LIGHT GREY.
390.73	0.08	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
390.79	0.06	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, VERY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
391.34	0.55	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, GREY, WEAK ROCK, WITH CROSS LAMINATION, WITH FLAME/PULL STRUCTS.
391.94	0.60	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
392.00	0.06	100		100% SANDSTONE	CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK.
392.04	0.04	100		100% CLAYSTONE	FISSILE, BADLY BROKEN, BUFF, VERY WEAK ROCK.
392.06	0.02	100		100% CARBONACEOUS SHALE	BLACK, WEAK ROCK.
392.09	0.03	100		100% CLAYSTONE	FISSILE, CARBONACEOUS, BROWN, VERY WEAK ROCK.
392.11	0.02	100		100% SHALE	CARBONACEOUS, STREAKS, GREY, VERY WEAK ROCK.
393.44	1.33	100		100% SILTSTONE	GREY, WEAK ROCK.
393.72	0.28	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
393.98	0.26	100		100% SILTSTONE	GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
394.87	0.89	100		100% SILTSTONE	ARENACEOUS, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
395.25	0.38	100		100% SILTSTONE	ARENACEOUS, BANDS, LIGHT GREY, WEAK ROCK, WITH PLANT REMAINS.
395.87	0.62	100		100% SILTSTONE	GREY, WEAK ROCK, WITH PLANT REMAINS.
396.07	0.20	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
396.24	0.17	100		100% SILTSTONE	ARENACEOUS, LENSES, GREY, WEAK ROCK.
397.00	0.76	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
397.34	0.34	100		60% SANDSTONE,FINE GRAINED 40% SILTSTONE	CALCITIC, LIGHT GREY. CARBONACEOUS, BANDS, DARK GREY. MODERATELY WEAK ROCK.
398.34	1.00	100		100% SILTSTONE	GREY, VERY WEAK ROCK.
398.36	0.02	100		100% COAL, BRIGHT	
398.40	0.04	100		100% MUDSTONE	CARBONACEOUS, COALY, BLACK, MODERATELY WEAK ROCK.
398.75	0.35	100		60% SILTSTONE 40% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, GREY. LIGHT GREY. WEAK ROCK.
398.98	0.23	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
399.11	0.13	100		100% SILTSTONE	GREY, WEAK ROCK, WITH PLANT REMAINS.
399.19	0.08	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
399.73	0.54	100		100% SILTSTONE	ARENACEOUS, GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
400.80	1.07	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
401.30	0.50	100		100% SILTSTONE	GREY, WEAK ROCK.
402.09	0.79	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
402.42	0.33	100		50% SANDSTONE,MEDIUM GRAINED 50% SILTSTONE	CALCITIC, LIGHT GREY. CARBONACEOUS, BANDS, GREY. MODERATELY WEAK ROCK, THINLY BEDDED.
402.61	0.19	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, WITH MICA, MODERATELY WEAK ROCK, THICKLY LAMINATED.
402.98	0.37	100		55% SANDSTONE,MEDIUM GRAINED 45% SILTSTONE	CALCITIC, LIGHT GREY. BANDS, GREY. MODERATELY WEAK ROCK.
403.04	0.06	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
403.39	0.35	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, WEAK ROCK, WITH CROSS LAMINATION, WITH LOAD CASTS.
404.25	0.86	100		80% SILTSTONE 20% SANDSTONE,FINE GRAINED	GREY. MICACEOUS, MICACEOUS, LIGHT GREY. WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
404.95	0.70	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, WITH MICA, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
405.15	0.20	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
405.38	0.23	100		100% SILTSTONE	GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
406.97	1.59	100		65% SILTSTONE 35% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, GREY. CALCITIC, CALCITIC, LIGHT GREY. WEAK ROCK, WITH CROSS LAMINATION, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
407.52	0.55	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, WEAK ROCK, WITH LOAD CASTS.
408.06	0.54	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
408.09	0.03	100		100% COAL, HEAVY DULL	
408.18	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
408.28	0.10	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
408.46	0.18	100		100% SILTSTONE	ARENACEOUS, BROWN, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
408.91	0.45	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, GREY, WEAK ROCK.
409.00	0.09	100		100% SANDSTONE,MEDIUM GRAINED	CALCITIC, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
409.15	0.15	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
409.31	0.16	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, WEAK ROCK.
410.18	0.87	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH TROUGH CROSS BEDDING, WITH LOAD CASTS.
410.30	0.12	100		100% SILTSTONE	GREY, WEAK ROCK.
410.42	0.12	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
411.17	0.75	100		100% SILTSTONE	FISSILE, BANDS, GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
411.47	0.30	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
411.67	0.20	100		60% SILTSTONE 40% CALCITE	GREY.
411.95	0.28	100		100% SILTSTONE	CARBONACEOUS, ARENACEOUS, GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
412.16	0.21	100		100% SANDSTONE,MEDIUM GRAINED	CALCITIC, CARBONACEOUS, LIGHT GREY, MODERATELY WEAK ROCK.
412.52	0.36	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
412.84	0.32	100		100% SANDSTONE,MEDIUM GRAINED	CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK.
412.94	0.10	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
413.07	0.13	100		100% SILTSTONE	CARBONACEOUS, GREY, WEAK ROCK.
414.49	1.42	100		100% SANDSTONE,MEDIUM GRAINED	CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS, WIDELY SPACED JOINTS, TIGHT NON PLANAR, INFILLED WITH CALCITE.
414.76	0.27	100		100% SILTSTONE	ARENACEOUS, ARGILLACEOUS, GREY, WEAK ROCK.
415.64	0.88	100		100% SANDSTONE	SILTSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
415.73	0.09	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
416.40	0.67	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH LOAD CASTS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
416.49	0.09	100		100% SANDSTONE,MEDIUM GRAINED	CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK.
416.55	0.06	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
416.90	0.35	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
417.19	0.29	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, WEAK ROCK.
417.52	0.33	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
418.41	0.89	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
418.55	0.14	100		100% SILTSTONE	GREY, WEAK ROCK.
418.91	0.36	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, CALCITIC, GREY, MODERATELY WEAK ROCK.
419.79	0.88	100		100% SANDSTONE	CARBONACEOUS, LENSES, LIGHT GREY, WEAK ROCK, WITH MUD PELLETS.
419.82	0.03	100		100% CARBONACEOUS SHALE	BLACK, VERY WEAK ROCK.
420.48	0.66	100		100% SANDSTONE	CARBONACEOUS, LENSES, LIGHT GREY, WEAK ROCK.
420.61	0.13	100		100% SILTSTONE	CARBONACEOUS, ARENACEOUS, DARK GREY, WEAK ROCK.
420.73	0.12	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK.
420.91	0.18	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK.
421.14	0.23	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
421.24	0.10	100		100% PEBBLE CONGLOMERATE	CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK.
425.00	3.76	100		100% SILTSTONE	GREY, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	3.96 M	185.95 - 190.29 M	4.34 M
DC	0.00 M	213.23 - 218.80 M	5.57 M
DC1	0.00 M	246.61 - 247.17 M	0.56 M
DDU	1.39 M	268.02 - 269.41 M	1.39 M
DDL	1.01 M	283.50 - 284.51 M	1.01 M
DE2	1.07 M	336.61 - 337.68 M	1.07 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	186.33 - 187.19 M	0.86 M
2	187.19 - 187.98 M	0.79 M
3	187.98 - 189.07 M	1.09 M
4	189.07 - 190.15 M	1.08 M
5	190.15 - 190.29 M	0.14 M
6	268.02 - 269.41 M	1.39 M
7	269.41 - 269.68 M	0.27 M
8	283.50 - 284.51 M	1.01 M
9	336.26 - 336.61 M	0.35 M
10	336.61 - 337.68 M	1.07 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 10

HOLE TYPE	CORE	
EASTING	600,100 M	GRID
NORTHING	5,385,200 M	GRID
ELEVATION	530.00 M	
TOTAL DEPTH DRILLED	500.60 M	
DRILLING STARTED	23/ 9/78	
DRILLING TIME	16 DAYS	
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : GY 10

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
17.50	17.50	30		100% DOLERITE	MED.-COARSE GRAINED, FRIABLE, GREY, WEAK ROCK.
19.00	1.50	70		100% DOLERITE	MED.-COARSE GRAINED, FRIABLE, GREY, WEAK ROCK.
25.60	6.60	100		100% DOLERITE	MED.-COARSE GRAINED, GREY, STRONG ROCK, CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
39.00	13.40	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH CHLORITE ON JOINTS, STRONG ROCK, CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
42.50	3.50	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, WITH CHLORITE ON JOINTS, STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
85.00	42.50	100		100% DOLERITE	MEDIUM GRAINED, GREY, VERY STRONG ROCK, CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
116.60	31.60	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH CHLORITE ON JOINTS, VERY STRONG ROCK, WIDELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
120.40	3.80	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH CHLORITE ON JOINTS, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
122.60	2.20	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH CHLORITE ON JOINTS AND CALCITE ON JOINTS, VERY STRONG ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
126.60	4.00	100		100% DOLERITE	MEDIUM GRAINED, GREY, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
149.60	23.00	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH CHLORITE ON JOINTS, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
152.60	3.00	100		100% DOLERITE	MED.-FINE GRAINED, GREY, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
178.00	25.40	100		100% DOLERITE	MED.-FINE GRAINED, GREY, WITH CHLORITE ON JOINTS, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
180.00	2.00	100		100% DOLERITE	MED.-FINE GRAINED, GREY, VERY STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG.
185.00	5.00	100		100% DOLERITE	FINE GRAINED, GREY, WITH CHLORITE ON JOINTS, STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
186.70	1.70	100		100% DOLERITE	MED.-FINE GRAINED, GREY, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
191.50	4.80	100		100% DOLERITE	MED.-FINE GRAINED, GREY, WITH CHLORITE ON JOINTS, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
193.80	2.30	100		100% DOLERITE	FINE GRAINED, GREY, WITH CHLORITE ON JOINTS, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
195.80	2.00	100		100% DOLERITE	FINE GRAINED, GREY-GREEN, WITH CHLORITE ON JOINTS, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
196.13	0.33	100		100% DOLERITE	VERY FINE GRAINED, GREY-GREEN, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
196.22	0.09	100		100% MUDSTONE	BAKED, BROWN, MODERATELY WEAK ROCK.
196.27	0.05	100		100% MUDSTONE	BAKED, LIGHT GREEN, MODERATELY WEAK ROCK.
196.52	0.25	100		100% MUDSTONE	CREAM, MODERATELY WEAK ROCK.
197.83	1.31	100		100% MUDSTONE	FERRUGINOUS, CHLORITIC, CREAM, MODERATELY WEAK ROCK.
200.95	3.12	100		100% MUDSTONE	FERRUGINOUS, CHLORITIC, GREY.
204.70	3.75	100		100% MUDSTONE	FERRUGINOUS, BANDS, DARK GREY, MODERATELY WEAK ROCK.
207.28	2.58	100		100% MUDSTONE	PEBBLY, BANDS, GREY-GREEN, MODERATELY WEAK ROCK.
210.30	3.02	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
210.80	0.50	100		100% COAL, HEAVY DULL	
211.16	0.36	100		100% MUDSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
213.60	2.44	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
213.80	0.20	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
214.00	0.20	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
214.50	0.50	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
216.50	2.00	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
219.42	2.92	100		50% MUDSTONE 50% MUDSTONE	GREY. LIGHT GREY. MODERATELY WEAK ROCK, LAMINATED.
219.90	0.48	100		100% MUDSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
220.88	0.98	100		50% MUDSTONE 50% MUDSTONE	GREY. LIGHT GREY. MODERATELY WEAK ROCK, LAMINATED.
222.90	2.02	100		100% PEBBLE CONGLOMERATE	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
223.05	0.15	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, MODERATELY WEAK ROCK.
224.45	1.40	100		100% SANDSTONE	VERY FINE GRAINED, CREAM.
224.61	0.16	100		50% MUDSTONE 50% MUDSTONE	GREY. CREAM. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH LOAD CASTS.
225.40	0.79	100		100% MUDSTONE	SILTSTONE, CREAM, MODERATELY WEAK ROCK.
225.42	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
225.50	0.08	100		100% MUDSTONE	LIGHT BROWN.
225.54	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
225.60	0.06	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, WEAK ROCK.
225.73	0.13	100		100% COAL, INTERBANDED DULL AND BRIGHT	CARBONACEOUS, LAMINAE.
225.75	0.02	100		100% CARBONACEOUS SHALE	BRIGHT COAL, LAMINAE.
229.41	3.66	100		80% SILTSTONE 20% SANDSTONE	GREY. MED.-FINE GRAINED, LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
231.52	2.11	100		100% SANDSTONE	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
232.93	1.41	100		60% SILTSTONE 40% SANDSTONE	GREY. FINE GRAINED, LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
233.07	0.14	100		100% CARBONACEOUS SHALE	COALY, BANDS.
233.24	0.17	100		100% MUDSTONE	BROWN, WEAK ROCK.
233.45	0.21	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN-BLACK, MODERATELY STRONG ROCK.
233.50	0.05	100		100% COAL, HEAVY DULL	BRIGHT COAL, LAMINAE.
233.52	0.02	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
233.63	0.11	100		100% COAL, HEAVY DULL	BRIGHT COAL, LAMINAE.
233.96	0.33	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK.
234.00	0.04	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
234.19	0.19	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
234.20	0.01	100		100% MUDSTONE	GREY, WEAK ROCK.
234.25	0.05	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
235.24	0.99	100		100% MUDSTONE	GREY, WEAK ROCK, LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
235.34	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
236.22	0.88	100		100% MUDSTONE	GREY, WEAK ROCK.
236.26	0.04	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
238.40	2.14	100		100% SANDSTONE	VERY FINE GRAINED, GREY, WEAK ROCK, THINLY LAMINATED.
239.65	1.25	100		100% MUDSTONE	SILTSTONE, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
239.76	0.11	100		100% CLAYSTONE	CREAM, STIFF.
240.47	0.71	100		50% MUDSTONE 50% MUDSTONE	CARBONACEOUS, BROWN-BLACK. LIGHT BROWN. MODERATELY STRONG ROCK, VERY THINLY BEDDED.
240.95	0.48	100		50% MUDSTONE 50% MUDSTONE	CARBONACEOUS, BROWN-BLACK. GREY-BROWN. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH LOAD CASTS.
241.42	0.47	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
243.69	2.27	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
244.37	0.68	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
248.78	4.41	100		70% MUDSTONE 30% SANDSTONE,FINE GRAINED	SILTSTONE, GREY. LIGHT GREY. MODERATELY WEAK ROCK, LAMINATED.
257.15	8.37	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
257.96	0.81	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
258.30	0.34	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.
260.32	2.02	100		100% MUDSTONE	SILTSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
260.42	0.10	100		100% CLAYSTONE	CREAM, STIFF.
260.45	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
260.48	0.03	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, STIFF.
260.66	0.18	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
260.74	0.08	100		100% MUDSTONE	LIGHT BROWN, FIRM.
261.58	0.84	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
262.84	1.26	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
262.97	0.13	100		100% CLAYSTONE	CREAM, STIFF.
263.30	0.33	100		100% MUDSTONE	BROWN-BLACK, MODERATELY STRONG ROCK.
263.69	0.39	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK, LAMINATED.
263.79	0.10	100		100% SANDSTONE,FINE GRAINED	CREAM, WITH FRAGMENTS OF CALCITE, MODERATELY WEAK ROCK.
265.25	1.46	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, GREY, WITH BANDS OF CALCITE, MODERATELY WEAK ROCK.
266.58	1.33	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
266.79	0.21	100		100% CLAYSTONE	CREAM, WEAK ROCK.
266.80	0.01	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
267.55	0.75	100		100% MUDSTONE	SILTSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK.
267.85	0.30	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
269.71	1.86	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
270.04	0.33	100		100% CLAYSTONE	ARENACEOUS, CREAM, WEAK ROCK.
270.16	0.12	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, WITH MUD PELLETS.
270.58	0.42	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
272.94	2.36	100		100% MUDSTONE	SILTSTONE, LAMINAE, GREY, WITH CALCITE, MODERATELY WEAK ROCK.
273.39	0.45	100		100% CLAYSTONE	FISSILE, CREAM, VERY WEAK ROCK.
276.40	3.01	100		100% MUDSTONE	SILTSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, WITH LOAD CASTS.
280.35	3.95	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, LAMINATED.
280.70	0.35	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
281.25	0.55	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
287.24	5.99	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
288.32	1.08	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, LAMINATED.
288.40	0.08	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
288.43	0.03	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
288.69	0.26	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
288.72	0.03	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
288.92	0.20	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT BROWN, MODERATELY WEAK ROCK.
			TOP OF	DALMAYNE B : 241.08 M R.L.	
289.02	0.10	100	1	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
289.03	0.01	100	1	100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
289.08	0.05	100	1	100% CLAYSTONE	FISSILE, BROWN, WEAK ROCK.
289.21	0.13	100	1	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
289.23	0.02	100	1	100% MUDSTONE	CARBONACEOUS, DARK GREY, STRONG ROCK.
289.62	0.39	100	1	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
289.69	0.07	100	1	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
289.84	0.15	100	1	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
290.06	0.22	100	2	100% CLAYSTONE	FISSILE, LIGHT BROWN, WEAK ROCK.
290.07	0.01	100	2	100% MUDSTONE	BROWN.
290.12	0.05	100	2	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
290.13	0.01	100	2	100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, WEAK ROCK.
290.17	0.04	100	2	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
290.21	0.04	100	2	100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, WEAK ROCK.
290.32	0.11	100	2	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
290.39	0.07	100	2	100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, WEAK ROCK.
290.43	0.04	100	2	100% MUDSTONE	CARBONACEOUS, BLACK, WITH CALCITE ON CLEAT, MODERATELY STRONG ROCK.
290.45	0.02	100	2	100% MUDSTONE	SILTSTONE, LIGHT BROWN, WEAK ROCK.
290.58	0.13	100	2	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
290.59	0.01	100	2	100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
290.60	0.01	100	2	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
290.66	0.06	100	2	100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
290.72	0.06	100	2	100% CLAYSTONE	CARBONACEOUS, LIGHT BROWN, STRONG ROCK.
290.77	0.05	100	2	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
290.91	0.14	100	2	100% MUDSTONE	SIDERITIC, CARBONACEOUS, DARK BROWN.
291.20	0.29	100	3	100% COAL, HEAVY DULL	
291.22	0.02	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
291.23	0.01	100	3	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
291.33	0.10	100	3	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
291.38	0.05	100	3	100% MUDSTONE	BRIGHT COAL, TRACES, GREY-BROWN, MODERATELY WEAK ROCK.
291.47	0.09	100	3	100% COAL, DULL	
291.56	0.09	100	3	100% COAL, HEAVY DULL	
291.69	0.13	100	3	100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, WEAK ROCK.
291.76	0.07	100	3	100% COAL, HEAVY DULL	
291.78	0.02	100	3	100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, WEAK ROCK.
291.90	0.12	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
292.02	0.12	100	3	100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
292.05	0.03	100	3	100% MUDSTONE	BROWN, WEAK ROCK.
292.35	0.30	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
292.52	0.17	100	3	100% COAL, HEAVY DULL	
292.68	0.16	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
292.71	0.03	100	3	100% MUDSTONE	ARENACEOUS, LIGHT BROWN, MODERATELY WEAK ROCK.
293.01	0.30	100	4	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
293.04	0.03	100	4	100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
293.16	0.12	100	4	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
293.18	0.02	100	4	100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK, SLOW SLAKING.
293.21	0.03	100	4	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
293.23	0.02	100	4	100% CLAYSTONE	FISSILE, LIGHT BROWN, STIFF, RAPID SLAKING.
293.24	0.01	100	4	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
293.26	0.02	100	4	100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
293.42	0.16	100	4	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
293.44	0.02	100	4	100% MUDSTONE	SILTSTONE, LIGHT BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
293.56	0.12	100	4	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
293.61	0.05	100	4	100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
293.67	0.06	100	4	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
293.70	0.03	100	4	100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
293.84	0.14	100	4	100% MUDSTONE	CARBONACEOUS.
293.95	0.11	100	4	100% MUDSTONE	COALY, LENSES, LIGHT BROWN, MODERATELY WEAK ROCK.
294.16	0.21	100	4	100% MUDSTONE	CARBONACEOUS.
294.24	0.08	100	4	100% CLAYSTONE	LIGHT BROWN, SOFT, RAPID SLAKING.
294.27	0.03	100	4	100% MUDSTONE	CARBONACEOUS.
294.31	0.04	100	4	100% MUDSTONE	SILTSTONE, LIGHT BROWN, MODERATELY WEAK ROCK.
294.36	0.05	100	4	100% MUDSTONE	CARBONACEOUS.
294.39	0.03	100	4	100% MUDSTONE	FISSILE, WEAK ROCK.
294.43	0.04	100	4	100% MUDSTONE	FISSILE, STIFF.
294.80	0.37	100	4	100% MUDSTONE	CARBONACEOUS.
294.84	0.04	100	4	100% MUDSTONE	ARENACEOUS, LIGHT BROWN, WEAK ROCK.
294.94	0.10	100	4	100% MUDSTONE	FISSILE, LIGHT BROWN, STIFF.
295.08	0.14	100	4	100% MUDSTONE	CARBONACEOUS.
295.20	0.12	100	4	100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
295.26	0.06	100	4	100% MUDSTONE	CARBONACEOUS.
295.30	0.04	100	4	100% MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
295.38	0.08	100	4	100% MUDSTONE	FISSILE, LIGHT BROWN, STIFF.
295.41	0.03	100	4	100% MUDSTONE	CARBONACEOUS, MODERATELY WEAK ROCK.
295.62	0.21	100	4	100% MUDSTONE	ARENACEOUS, LIGHT BROWN, WEAK ROCK.
295.70	0.08	100	4	100% MUDSTONE	CARBONACEOUS.
295.73	0.03	100	4	100% MUDSTONE	FISSILE, LIGHT BROWN, STIFF.
295.75	0.02	100	4	100% MUDSTONE	CARBONACEOUS.
295.77	0.02	100	4	100% MUDSTONE	FISSILE, LIGHT BROWN, STIFF.
295.90	0.13	100	4	100% MUDSTONE	CARBONACEOUS.
295.95	0.05	100	4	100% MUDSTONE	FISSILE, LIGHT BROWN, STIFF.
296.03	0.08	100	5	100% MUDSTONE	CARBONACEOUS.
296.06	0.03	100	5	100% MUDSTONE	ARENACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
295.34	0.28	100	5	100% MUDSTONE	CARBONACEOUS.
296.39	0.05	100	5	100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
296.61	0.22	100	5	100% MUDSTONE	CARBONACEOUS.
296.86	0.25	100	5	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
296.87	0.01	100	5	100% COAL, BRIGHT	
297.09	0.22	100	5	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
297.11	0.02	100	5	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
297.16	0.05	100	5	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
297.52	0.36	100	6	100% MUDSTONE	COALY, TRACES, GREY, MODERATELY WEAK ROCK.
297.57	0.05	100	6	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
297.62	0.05	100	6	100% COAL, DULL WITH FEW BRIGHT BANDS	
297.77	0.15	100	6	100% MUDSTONE	BRIGHT COAL, LAMINAE, DARK BROWN.
297.95	0.18	100	6	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
				BASE OF DALMAYNE B : THICKNESS= 9.03 M; SAMPLED THICKNESS= 9.03 M	
298.95	1.00	100		100% MUDSTONE	SILTSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK.
299.73	0.78	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, LAMINATED.
302.89	3.16	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
303.27	0.38	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
303.31	0.04	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
303.43	0.12	100		100% MUDSTONE	GREY, WITH LENSES OF CALCITE, MODERATELY WEAK ROCK.
305.45	2.02	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
306.55	1.10	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
307.33	0.78	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
307.58	0.25	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
308.66	1.08	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
308.96	0.30	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
311.02	2.06	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
			TOP OF	DALMAYNE C : 218.98 M R.L.	
311.07	0.05	100		100% MUDSTONE	BROWN, WEAK ROCK.
311.34	0.27	100	7	70% MUDSTONE 30% MUDSTONE	CARBONACEOUS, BROWN-BLACK. LIGHT BROWN. MODERATELY WEAK ROCK, THICKLY LAMINATED.
311.39	0.05	100	7	100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
311.89	0.50	100	7	90% MUDSTONE 10% MUDSTONE	CARBONACEOUS, BROWN-BLACK. BROWN. THICKLY LAMINATED.
311.96	0.07	100	7	100% MUDSTONE	FISSILE, LIGHT BROWN, WEAK ROCK.
312.08	0.12	100	8	100% MUDSTONE	CARBONACEOUS, MODERATELY STRONG ROCK.
312.23	0.15	100	8	100% COAL, HEAVY DULL	
312.33	0.10	100	8	100% MUDSTONE	DARK BROWN, MODERATELY STRONG ROCK.
312.36	0.03	100	8	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
312.42	0.06	100	8	100% COAL, HEAVY DULL	
312.52	0.10	100	8	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
312.60	0.08	100	8	100% MUDSTONE	BLACK, MODERATELY STRONG ROCK.
312.76	0.16	100	8	100% COAL, HEAVY DULL	
312.80	0.04	100	8	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
313.09	0.29	100	8	100% COAL, HEAVY DULL	MUDSTONE, BANDS.
313.10	0.01	100	8	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
313.12	0.02	100	8	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
313.22	0.10	100	8	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
313.33	0.11	100	8	100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
313.44	0.11	100	8	100% COAL, HEAVY DULL	
313.49	0.05	100	8	100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, MODERATELY WEAK ROCK.
313.52	0.03	100	8	100% COAL, HEAVY DULL	
313.61	0.09	100	8	100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
313.73	0.12	100	8	100% COAL, HEAVY DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
313.80	0.07	100	8	60% MUDSTONE 40% MUDSTONE	LIGHT BROWN. CARBONACEOUS. MODERATELY WEAK ROCK.
313.95	0.15	100	8	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
313.96	0.01	100	8	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
313.98	0.02	100	8	100% COAL, HEAVY DULL	
314.01	0.03	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
				BASE OF DALMAYNE C : THICKNESS= 2.99 M; SAMPLED THICKNESS= 2.91 M	
314.19	0.18	100		100% MUDSTONE	SHALY, WEAK ROCK.
314.31	0.12	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
364.38	50.07	100		100% SANDSTONE	MED.-COARSE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
				TOP OF DALMAYNE D UPPER : 165.62 M R.L.	
364.76	0.38	100	9	100% COAL, DULL	BRIGHT COAL, STREAKS.
364.77	0.01	100	9	100% MUDSTONE	ARENACEOUS, LIGHT BROWN, MODERATELY WEAK ROCK.
364.84	0.07	100	9	100% COAL, DULL	
364.92	0.08	100	9	100% MUDSTONE	GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
365.00	0.08	100	9	100% COAL, DULL	
365.24	0.24	100	9	100% COAL, DULL WITH FEW BRIGHT BANDS	
365.25	0.01	100	9	100% MUDSTONE	ARENACEOUS, LIGHT BROWN, MODERATELY WEAK ROCK.
365.27	0.02	100	9	100% COAL, DULL WITH FEW BRIGHT BANDS	
365.28	0.01	100	9	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
365.33	0.05	100	9	100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
365.64	0.31	100	9	100% COAL, DULL WITH FEW BRIGHT BANDS	
				BASE OF DALMAYNE D UPPER : THICKNESS= 1.26 M; SAMPLED THICKNESS= 1.26 M	
366.29	0.65	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
366.52	0.23	100		100% SHALE	GREY, WEAK ROCK.
366.57	0.05	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
366.73	0.16	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
366.98	0.25	100		100% MUDSTONE	SHALY, GREY, MODERATELY WEAK ROCK.
367.19	0.21	100		100% COAL, DULL	
367.26	0.07	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
367.37	0.11	100		100% MUDSTONE	FISSILE, BROWN, VERY WEAK ROCK.
367.77	0.40	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
368.09	0.32	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
368.65	0.56	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
369.05	0.40	100		100% MUDSTONE	SILTSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
369.21	0.16	100		100% MUDSTONE	FISSILE, LAMINAE, GREY, VERY WEAK ROCK.
369.26	0.05	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
369.60	0.34	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.
369.93	0.33	100		50% SILTSTONE 50% SILTSTONE	GREY. LIGHT GREY. MODERATELY WEAK ROCK, LAMINATED.
377.02	7.09	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
377.33	0.31	100		100% SILTSTONE	FISSILE, GREY, MODERATELY WEAK ROCK, LAMINATED.
378.10	0.77	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
379.90	1.80	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
380.00	0.10	100		100% SANDSTONE,COARSE GRAINED	SILTSTONE, LIGHT GREY, MODERATELY WEAK ROCK.
380.05	0.05	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
381.60	1.55	100		100% MUDSTONE	SILTSTONE, BANDS, LIGHT GREY, WEAK ROCK.
382.48	0.88	100		50% SANDSTONE 50% MUDSTONE	FINE GRAINED, LIGHT GREY. LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, BASAL CONTACT TRANSITIONAL.
382.64	0.16	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
382.92	0.28	100		100% SILTSTONE	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
382.95	0.03	100		100% SHALE	CARBONACEOUS, BADLY BROKEN.
382.98	0.03	100		100% MUDSTONE	BADLY BROKEN, LIGHT GREY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
383.01	0.03	100		100% CARBONACEOUS SHALE	
383.02	0.01	100		100% MUDSTONE	LIGHT BROWN.
383.12	0.10	100		50% MUDSTONE 50% MUDSTONE	CARBONACEOUS, BADLY BROKEN. SILTSTONE.
384.05	0.93	0		CORE LOSS	
384.30	0.25	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
384.32	0.02	100		100% MUDSTONE	BROWN, WEAK ROCK.
384.34	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
384.54	0.20	100		100% MUDSTONE	SILTSTONE, LIGHT GREY, MODERATELY WEAK ROCK.
384.60	0.06	100		100% SANDSTONE,MEDIUM GRAINED	BADLY BROKEN, LIGHT GREY, MODERATELY WEAK ROCK.
384.94	0.34	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
385.06	0.12	100		100% SANDSTONE	MUDSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
408.77	23.71	100		100% SANDSTONE,MEDIUM GRAINED	MODERATELY WEAK ROCK, MEDIUM BEDDED, WIDELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, .
408.87	0.10	100		100% IRONSTONE	
409.00	0.13	100		100% MUDSTONE	SILTSTONE, LIGHT GREY.
424.19	15.19	100		100% SANDSTONE,MEDIUM GRAINED	MODERATELY WEAK ROCK, MEDIUM BEDDED, WITH MUD PELLETS, WIDELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, .
424.62	0.43	100		100% MUDSTONE	SILTSTONE, LAMINAE, GREY, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
425.18	0.56	100		60% MUDSTONE 40% MUDSTONE	DARK GREY. LAMINAE, LIGHT GREY.
425.63	0.45	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
425.76	0.13	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
426.45	0.69	100		100% MUDSTONE	GREY, WEAK ROCK.
426.50	0.05	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
427.18	0.68	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
427.42	0.24	100		100% MUDSTONE	GREY, WITH FRAGMENTS OF CALCITE, MODERATELY WEAK ROCK.
427.86	0.44	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
427.96	0.10	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
428.60	0.64	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
430.23	1.63	100		60% SANDSTONE,FINE GRAINED 40% MUDSTONE	LIGHT GREEN. SILTSTONE, GREY. MODERATELY WEAK ROCK, VERY THINLY BEDDED.
430.67	0.44	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
431.00	0.33	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
431.10	0.10	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
			TOP OF DALMAYNE E2 : 98.90 M R.L.		
431.23	0.13	100		100% COAL, HEAVY DULL	
431.25	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
431.27	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
431.45	0.18	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
431.60	0.15	100		100% COAL, HEAVY DULL	
431.65	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
			BASE OF DALMAYNE E2 : THICKNESS= 0.55 M; SAMPLED THICKNESS= 0.00 M		
431.96	0.31	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
432.42	0.46	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.
433.82	1.40	100		100% MUDSTONE	WITH BANDS OF CALCITE, WEAK ROCK.
435.95	2.13	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
435.99	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
436.03	0.04	100		100% COAL, HEAVY DULL	
436.11	0.08	100		100% MUDSTONE	BROWN-BLACK, WITH BANDS OF CLAY, MODERATELY STRONG ROCK.
436.30	0.19	100		100% SILTSTONE	CARBONACEOUS, DARK GREY.
437.02	0.72	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	CARBONACEOUS, DARK GREY. GREY. MODERATELY WEAK ROCK.
			TOP OF DALMAYNE E3 : 92.98 M R.L.		
437.24	0.22	100		100% COAL, HEAVY DULL	WITH BANDS OF CLAY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
			BASE OF DALMAYNE E3 : THICKNESS= 0.22 M; SAMPLED THICKNESS= 0.00 M		
437.33	0.09	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
438.20	0.87	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
443.35	5.15	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	SILTSTONE, GREY. LIGHT GREY. MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH PLANT REMAINS.
444.04	0.69	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, WITH PLANT REMAINS.
444.50	0.46	100		100% MUDSTONE	SANDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK.
444.83	0.33	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS, WITH PYRITE.
444.88	0.05	100		100% MUDSTONE	FISSILE, BROWN, FIRM.
445.25	0.37	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
445.48	0.23	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
446.82	1.34	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
447.36	0.54	100		100% SILTSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
448.02	0.66	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
449.44	1.42	100		100% MUDSTONE	SANDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK.
449.65	0.21	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
449.80	0.15	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
450.68	0.88	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	CARBONACEOUS, DARK GREY. CARBONACEOUS, LAMINAE, GREY-BROWN. MODERATELY WEAK ROCK.
452.09	1.41	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
457.41	5.32	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
457.61	0.20	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK, WITH MUD PELLETS.
458.04	0.43	100		100% SANDSTONE,MEDIUM GRAINED	CALCAREOUS, WHITE, MODERATELY WEAK ROCK.
460.69	2.65	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
460.75	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
460.82	0.07	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
461.19	0.37	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
470.62	9.43	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS.
472.40	1.78	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
472.80	0.40	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
472.92	0.12	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
473.70	0.78	100		100% MUDSTONE	GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
474.65	0.95	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
475.15	0.50	100		100% MUDSTONE	BADLY BROKEN, DARK GREY, WEAK ROCK.
475.30	0.15	0		CORE LOSS	
475.45	0.15	100		100% MUDSTONE	GREY, WEAK ROCK.
475.65	0.20	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK.
475.80	0.15	100		100% MUDSTONE	SILTSTONE, BADLY BROKEN, GREY-BROWN, MODERATELY WEAK ROCK.
475.90	0.10	100		100% MUDSTONE	BADLY BROKEN, GREY, WEAK ROCK.
476.30	0.40	0		CORE LOSS	
476.45	0.15	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
476.51	0.06	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, DARK GREY, MODERATELY WEAK ROCK.
476.52	0.01	100		100% MUDSTONE	CARBONACEOUS, FISSILE, DARK BROWN, VERY WEAK ROCK.
477.28	0.76	100		100% MUDSTONE	LAMINAE, GREY, MODERATELY WEAK ROCK, LAMINATED.
479.40	2.12	100		100% SILTSTONE	GREY-GREEN, MODERATELY WEAK ROCK.
480.06	0.66	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY.
480.16	0.10	100		100% MUDSTONE	DARK GREY.
480.50	0.34	100		100% SILTSTONE	LIGHT GREY.
485.75	5.25	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
486.75	1.00	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
486.83	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK GREY.
486.85	0.02	100		100% MUDSTONE	CALCAREOUS, BROWN, SOFT.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
486.96	0.11	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
487.20	0.24	100		100% LIMESTONE	
488.05	0.85	100		100% MUDSTONE	BADLY BROKEN, LIGHT GREY, MODERATELY WEAK ROCK.
488.80	0.75	100		100% SANDSTONE	VERY FINE GRAINED, LIGHT GREY, THICKLY LAMINATED.
489.10	0.30	100		100% MUDSTONE	GREY.
489.72	0.62	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, THINLY BEDDED.
490.25	0.53	100		100% MUDSTONE	SILTSTONE, LENSES, GREY, THINLY LAMINATED.
490.40	0.15	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
490.90	0.50	100		100% MUDSTONE	CARBONACEOUS, DARK GREY.
491.20	0.30	100		100% SANDSTONE,COARSE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
491.25	0.05	100		100% MUDSTONE	CARBONACEOUS.
492.70	1.45	100		100% MUDSTONE	SILTSTONE, GREY-GREEN.
492.80	0.10	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY.
493.10	0.30	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
493.90	0.80	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, BANDS, CREAM, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
494.75	0.85	100		100% MUDSTONE	CARBONACEOUS, DARK GREY.
496.20	1.45	100		50% SANDSTONE,MEDIUM GRAINED 50% MUDSTONE	LIGHT GREY. DARK GREY. MODERATELY WEAK ROCK.
498.80	2.60	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, WITH FRAGMENTS OF QUARTZ, THINLY BEDDED.
500.60	1.80	100		100% SILTSTONE	GREY, WITH FRAGMENTS OF QUARTZ.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	9.03 M	288.92 - 297.95 M	9.03 M
DC	2.91 M	311.02 - 314.01 M	2.99 M
DDU	1.26 M	364.38 - 365.64 M	1.26 M
DE2	0.00 M	431.10 - 431.65 M	0.55 M
DE3	0.00 M	437.02 - 437.24 M	0.22 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	288.92 - 289.84 M	0.92 M
2	289.84 - 290.91 M	1.07 M
3	290.91 - 292.71 M	1.80 M
4	292.71 - 295.95 M	3.24 M
5	295.95 - 297.16 M	1.21 M
6	297.16 - 297.95 M	0.79 M
7	311.07 - 311.96 M	0.89 M
8	311.96 - 313.98 M	2.02 M
9	364.38 - 365.64 M	1.26 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 10A

HOLE TYPE	CORE	
EASTING	600,100 M	GRID
NORTHING	5,385,200 M	GRID
ELEVATION	530.00 M	
TOTAL DEPTH DRILLED	391.60 M	
DRILLING STARTED	13/11/78	
DRILLING TIME	14 DAYS	
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING	102.60 M	
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : GY 10A

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
197.60	197.60	100		100% DOLERITE	
208.77	11.17	100		100% MUDSTONE	ARENACEOUS, BANDS, MODERATELY WEAK ROCK, THINLY BEDDED.
209.55	0.78	100		100% SANDSTONE	MED.-FINE GRAINED, CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH MUD PELLETS.
210.35	0.80	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
214.85	4.50	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
221.20	6.35	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
223.50	2.30	100		100% PEBBLE CONGLOMERATE	GREY, MODERATELY WEAK ROCK.
224.00	0.50	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
225.40	1.40	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
225.50	0.10	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
226.60	1.10	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
229.40	2.80	100		70% MUDSTONE 30% SANDSTONE,FINE GRAINED	GREY. CARBONACEOUS, TRACES, LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED.
229.43	0.03	100		100% COAL, BRIGHT	
231.05	1.62	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
232.60	1.55	100		70% SILTSTONE 30% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
232.90	0.30	100		100% CLAYSTONE	CREAM, MODERATELY WEAK ROCK.
233.25	0.35	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
235.20	1.95	100		100% MUDSTONE	CARBONACEOUS, BANDS, DARK GREY, MODERATELY WEAK ROCK.
237.05	1.85	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
240.65	3.60	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, LAMINATED.
241.90	1.25	100		60% MUDSTONE 40% MUDSTONE	CARBONACEOUS, BROWN-BLACK. LIGHT BROWN. MODERATELY WEAK ROCK, VERY THINLY BEDDED.
249.90	8.00	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
252.60	2.70	100		100% SANDSTONE,MEDIUM GRAINED	CONGLOMERATIC, BANDS, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
253.35	0.75	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS.
254.50	1.15	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK.
258.52	4.02	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
258.98	0.46	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, DARK GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
259.07	0.09	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
259.14	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
261.30	2.16	100		100% MUDSTONE	SILTSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
261.43	0.13	100		100% CLAYSTONE	FISSILE, GREEN, VERY WEAK ROCK.
261.60	0.17	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
261.68	0.08	100		100% MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
263.86	2.18	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
264.01	0.15	100		100% CLAYSTONE	LIGHT GREEN, VERY WEAK ROCK.
264.25	0.24	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
265.30	1.05	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION. CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
267.52	2.22	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
267.73	0.21	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
268.65	0.92	100		100% MUDSTONE	SILTSTONE, DARK GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
270.55	1.90	100		100% SILTSTONE	MODERATELY WEAK ROCK, THINLY LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
270.85	0.30	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
270.99	0.14	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
271.64	0.65	100		100% SANDSTONE	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
273.50	1.86	100		100% SILTSTONE	CALCITIC, BANDS, GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
274.47	0.97	100		60% CLAYSTONE 40% MUDSTONE	FISSILE, MICACEOUS, LIGHT GREEN. BANDS, SILTSTONE, GREY. VERY WEAK ROCK.
277.80	3.33	100		100% SILTSTONE	COALY, STREAKS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
281.34	3.54	100		65% SILTSTONE 35% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CARBONACEOUS WISPS.
282.24	0.90	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
284.57	2.33	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
284.80	0.23	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
285.96	1.16	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
286.04	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
288.05	2.01	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
289.47	1.42	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
289.60	0.13	100		100% SILTSTONE	ARENACEOUS, LENSES, GREY, MODERATELY WEAK ROCK.
289.65	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
289.72	0.07	100		100% CLAYSTONE	CARBONACEOUS, LENSES, LIGHT GREEN, VERY WEAK ROCK.
289.78	0.06	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
289.79	0.01	100		100% COAL, BRIGHT	
289.84	0.05	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
290.09	0.25	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
290.12	0.03	100		100% COAL, INTERBANDED DULL AND BRIGHT	
290.13	0.01	100		100% MUDSTONE	COALY, LENSES, DARK BROWN, MODERATELY WEAK ROCK.
290.32	0.19	100		100% COAL, HEAVY DULL	
290.37	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
290.45	0.08	100		100% COAL, HEAVY DULL	
290.62	0.17	100		100% CLAYSTONE	ARENACEOUS, LENSES, LIGHT GREEN, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 25 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
290.64	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
290.69	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
290.71	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
290.78	0.07	100		100% COAL, HEAVY DULL	
290.82	0.04	100		100% MUDSTONE	SILTSTONE, LENSES, BROWN, MODERATELY WEAK ROCK.
290.88	0.06	100		100% COAL, HEAVY DULL	
290.95	0.07	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
291.03	0.08	100		100% MUDSTONE	ARGILLACEOUS, BANDS, BROWN, WEAK ROCK.
291.05	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
291.09	0.04	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 40 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
291.31	0.22	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
291.43	0.12	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, WEAK ROCK.
291.47	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
291.53	0.06	100		100% MUDSTONE	BRIGHT COAL, BANDS, BROWN-BLACK, MODERATELY STRONG ROCK.
291.54	0.01	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
291.56	0.02	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
291.61	0.05	100		100% MUDSTONE	CARBONACEOUS, CALCITIC, DARK BROWN, MODERATELY STRONG ROCK.
291.72	0.11	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
291.87	0.15	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
291.98	0.11	100		100% COAL, HEAVY DULL	
291.99	0.01	100		100% MUDSTONE	BROWN.
292.10	0.11	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
292.20	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
292.29	0.09	100		100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, MODERATELY WEAK ROCK.
292.37	0.08	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
292.45	0.08	100		100% COAL, HEAVY DULL	
292.46	0.01	100		100% COAL, INTERBANDED DULL AND BRIGHT	
292.48	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
292.51	0.03	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
292.56	0.05	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
292.58	0.02	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
292.64	0.06	100		100% COAL, HEAVY DULL	
292.75	0.11	100		100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
292.92	0.17	100		100% COAL, HEAVY DULL	
293.03	0.11	100		100% COAL, HEAVY DULL	WITH MUD PELLETS.
293.05	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
293.18	0.13	100		100% COAL, HEAVY DULL	
293.22	0.04	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
293.37	0.15	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
293.39	0.02	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
293.43	0.04	100		100% COAL, HEAVY DULL	
293.49	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
293.55	0.06	100		100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, MODERATELY WEAK ROCK.
293.65	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
293.80	0.15	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS, WITH MUD PELLETS.
293.83	0.03	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
293.86	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
293.88	0.02	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
294.00	0.12	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
294.14	0.14	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
294.24	0.10	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
294.41	0.17	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
294.46	0.05	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
294.53	0.07	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
294.59	0.06	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
294.66	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
294.69	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
294.72	0.03	100		100% SILTSTONE	ARGILLACEOUS, LIGHT GREY, MODERATELY WEAK ROCK.
294.89	0.17	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
294.92	0.03	100		100% MUDSTONE	CALCITIC, DARK BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
294.95	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
294.97	0.02	100		100% MUDSTONE	ARGILLACEOUS, LIGHT BROWN, MODERATELY WEAK ROCK.
295.02	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
295.13	0.11	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, WEAK ROCK.
295.31	0.18	100		100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, MODERATELY WEAK ROCK.
295.33	0.02	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
295.45	0.12	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
295.47	0.02	100		100% MUDSTONE	BROWN, WEAK ROCK.
295.52	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
295.60	0.08	100		100% COAL, HEAVY DULL	
295.69	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
295.83	0.14	100		100% CLAYSTONE	CALCITIC, BANDS, LIGHT GREEN, VERY WEAK ROCK.
296.03	0.20	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
296.07	0.04	100		100% MUDSTONE	COALY, LENSES, BROWN, MODERATELY WEAK ROCK.
296.09	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
296.14	0.05	100		100% MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
296.26	0.12	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, WEAK ROCK.
296.30	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
296.50	0.20	100		100% MUDSTONE	ARGILLACEOUS, LIGHT BROWN, WEAK ROCK.
296.56	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
296.60	0.04	100		100% MUDSTONE	FISSILE, LIGHT BROWN, WEAK ROCK.
296.76	0.16	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
296.80	0.04	100		100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
296.94	0.14	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
296.99	0.05	100		100% COAL, HEAVY DULL	
297.14	0.15	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
297.19	0.05	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
297.23	0.04	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
297.32	0.09	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
297.36	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
297.46	0.10	100		100% CLAYSTONE	CARBONACEOUS, BANDS, LIGHT GREEN, MODERATELY WEAK ROCK.
297.62	0.16	100		100% COAL, HEAVY DULL	
297.80	0.18	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
297.85	0.05	100		100% COAL, DULL	
297.98	0.13	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
298.05	0.07	100		100% MUDSTONE	CARBONACEOUS, BANDS, DARK BROWN, MODERATELY WEAK ROCK.
298.40	0.35	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
298.45	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
298.48	0.03	100		100% COAL, INTERBANDED DULL AND BRIGHT	
298.60	0.12	100		100% COAL, HEAVY DULL	
299.65	1.05	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
303.96	4.31	100		100% SANDSTONE	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
304.46	0.50	100		100% SANDSTONE,FINE GRAINED	CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK.
304.88	0.42	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
305.08	0.20	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
307.43	2.35	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
308.20	0.77	100		100% SANDSTONE,MEDIUM GRAINED	COALY, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
310.60	2.40	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
311.40	0.80	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
311.59	0.19	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
311.61	0.02	100		100% COAL, DULL	
311.63	0.02	100		100% COAL, HEAVY DULL	
311.67	0.04	100		100% MUDSTONE	BROWN, WEAK ROCK.
311.74	0.07	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
311.87	0.13	100		100% MUDSTONE	CARBONACEOUS, BANDS, DARK BROWN, MODERATELY WEAK ROCK.
311.90	0.03	100		100% COAL, HEAVY DULL	
311.91	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
311.97	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
312.00	0.03	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
312.11	0.11	100		100% COAL, HEAVY DULL	
312.30	0.19	100		100% MUDSTONE	FISSILE, LIGHT GREEN, WITH MICA, WEAK ROCK.
312.34	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
312.40	0.06	100		100% COAL, HEAVY DULL	
312.45	0.05	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
312.51	0.06	100		100% COAL, HEAVY DULL	
312.60	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
312.62	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
312.63	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
312.67	0.04	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
312.85	0.18	100		100% COAL, HEAVY DULL	
312.94	0.09	100		100% MUDSTONE	FISSILE, BROWN, WEAK ROCK.
313.12	0.18	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
313.18	0.06	100		100% COAL, HEAVY DULL	
313.24	0.06	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
313.34	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
313.36	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
313.39	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
313.46	0.07	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
313.50	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
313.55	0.05	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
313.58	0.03	100		100% COAL, INTERBANDED DULL AND BRIGHT	
313.70	0.12	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
313.74	0.04	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
313.80	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
313.88	0.08	100		100% COAL, HEAVY DULL	
313.89	0.01	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
313.97	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
314.16	0.19	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
314.18	0.02	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
314.27	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
314.28	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
314.35	0.07	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES, WITH MUD PELLETS.
314.40	0.05	100		100% COAL, HEAVY DULL	WITH MUD PELLETS.
314.43	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS, WITH MUD PELLETS.
314.46	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS, WITH MUD PELLETS.
314.49	0.03	100		100% COAL, HEAVY DULL	WITH MUD PELLETS.
314.57	0.08	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
314.60	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
314.65	0.05	100		100% COAL, INTERBANDED DULL AND BRIGHT	
314.68	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
314.74	0.06	100		100% MUDSTONE	BRIGHT COAL, LENSES, BROWN, MODERATELY WEAK ROCK.
314.76	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
314.79	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
314.89	0.10	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
314.91	0.02	100		100% COAL, INTERBANDED DULL AND BRIGHT	
314.94	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
314.97	0.03	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
315.00	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
315.30	0.30	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
315.65	0.35	100		100% SANDSTONE	SILTSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH FLAME/PULL STRUCTS.
325.90	10.25	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
327.00	1.10	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
327.06	0.06	100		100% MUDSTONE	CALCITIC, FISSILE, BROWN, WEAK ROCK.
333.60	6.54	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
334.10	0.50	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
346.07	11.97	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
346.17	0.10	100		100% SANDSTONE,MEDIUM GRAINED	CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK.
348.08	1.91	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
348.97	0.89	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
351.01	2.04	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
351.41	0.40	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
352.00	0.59	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
365.90	13.90	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE D UPPER : 164.10 M R.L.	
366.16	0.26	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
366.19	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
366.26	0.07	100		100% COAL, DULL	
366.27	0.01	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
366.32	0.05	100		100% COAL, HEAVY DULL	
366.37	0.05	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 15 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
366.39	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
366.52	0.13	100		100% COAL, HEAVY DULL	
366.55	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
366.67	0.12	100		100% COAL, DULL	
366.88	0.21	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
366.96	0.08	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
367.06	0.10	100		100% COAL, DULL	
367.15	0.09	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
				BASE OF DALMAYNE D UPPER : THICKNESS= 1.25 M; SAMPLED THICKNESS= 0.00 M	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
367.46	0.31	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
367.68	0.22	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
367.84	0.16	100		100% MUDSTONE	GREY, WEAK ROCK.
367.92	0.08	100		100% COAL, HEAVY DULL	
367.93	0.01	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.
367.96	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
367.98	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
368.04	0.06	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
368.26	0.22	100		100% MUDSTONE	FISSILE, GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
368.34	0.08	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
368.36	0.02	100		100% MUDSTONE	CARBONACEOUS, FISSILE, DARK GREY, MODERATELY WEAK ROCK.
368.39	0.03	100		100% COAL, HEAVY DULL	
368.43	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
368.53	0.10	100		100% COAL, DULL	
368.59	0.06	100		100% COAL, HEAVY DULL	
368.66	0.07	100		100% COAL, DULL	
368.71	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
370.60	1.89	35		100% MUDSTONE	SILTSTONE, GREY.
370.85	0.25	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
374.05	3.20	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
375.53	1.48	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
376.63	1.10	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
376.92	0.29	100		100% SANDSTONE	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
377.88	0.96	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
378.33	0.45	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
380.53	2.20	100		100% SANDSTONE	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
380.58	0.05	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
380.78	0.20	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
382.60	1.82	40		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
383.37	0.77	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
383.44	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
383.46	0.02	100		100% MUDSTONE	FISSILE, BROWN, WEAK ROCK.
383.48	0.02	100		100% MUDSTONE	FISSILE, LIGHT BROWN, FIRM.
383.94	0.46	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
384.03	0.09	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
384.10	0.07	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, BROWN-BLACK, MODERATELY STRONG ROCK.
384.12	0.02	100		100% MUDSTONE	ARENACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
384.17	0.05	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
384.20	0.03	100		100% MUDSTONE	BRIGHT COAL, LENSES, DARK BROWN, MODERATELY WEAK ROCK.
384.27	0.07	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
384.34	0.07	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
384.49	0.15	100		100% MUDSTONE	ARENACEOUS, GREY, WEAK ROCK.
385.90	1.41	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
385.98	0.08	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LIGHT GREY, MODERATELY WEAK ROCK.
387.75	1.77	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
388.02	0.27	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
389.04	1.02	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
390.45	1.41	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
391.60	1.15	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
	0.00 M	365.90 - 367.15 M	1.25 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 11

HOLE TYPE	CORE	
EASTING	596,000 M	GRID
NORTHING	5,385,000 M	GRID
ELEVATION	590.00 M	
TOTAL DEPTH DRILLED	473.00 M	
DRILLING STARTED	5/10/78	
DRILLING TIME	14 DAYS	
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING	10.00 M	
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
7.80	7.80			100% DOLERITE	MODERATELY WEATHERED.
11.25	3.45			100% DOLERITE	HIGHLY WEATHERED.
14.20	2.95			100% DOLERITE	MED.-COARSE GRAINED, GREY, SLIGHTLY WEATHERED, MODERATELY SPACED JOINTS, JOINTS DIP 25 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
15.00	0.80			100% DOLERITE	BADLY BROKEN, MED.-COARSE GRAINED, GREY, SLIGHTLY WEATHERED, VERY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
20.40	5.40			100% DOLERITE	MED.-COARSE GRAINED, GREY, SLIGHTLY WEATHERED, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
23.00	2.60			100% DOLERITE	MED.-COARSE GRAINED, GREY, UNWEATHERED.
27.50	4.50			100% DOLERITE	MED.-COARSE GRAINED, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
28.50	1.00			100% DOLERITE	MED.-COARSE GRAINED, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
36.00	7.50			100% DOLERITE	MED.-COARSE GRAINED, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
48.50	12.50			100% DOLERITE	MED.-COARSE GRAINED, GREY, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
55.50	7.00			100% DOLERITE	MEDIUM GRAINED, GREY, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
57.50	2.00			100% DOLERITE	MEDIUM GRAINED, LIGHT BROWN, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, .
59.50	2.00			100% DOLERITE	MED.-COARSE GRAINED, GREY, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, .
63.00	3.50			100% DOLERITE	MED.-COARSE GRAINED, GREY, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
75.00	12.00			100% DOLERITE	MED.-COARSE GRAINED, GREY, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
81.00	6.00			100% DOLERITE	MED.-COARSE GRAINED, GREY, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
83.50	2.50			100% DOLERITE	MED.-COARSE GRAINED, GREY, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
89.50	6.00			100% DOLERITE	MED.-COARSE GRAINED, GREY, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
110.00	20.50			100% DOLERITE	MED.-COARSE GRAINED, GREY, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
120.00	10.00			100% DOLERITE	MEDIUM GRAINED, GREY, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
124.00	4.00			100% DOLERITE	MED.-FINE GRAINED, GREY, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
125.00	1.00			100% DOLERITE	FINE GRAINED, GREY, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
125.34	0.34			100% DOLERITE	FINE GRAINED, GREY, MODERATELY STRONG ROCK.
125.92	0.58			100% DOLERITE	FINE GRAINED, GREY-GREEN, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SP CED JOINTS, TIGHT NON PLANAR, .
126.00	0.08			100% MUDSTONE	GREY, WEAK ROCK.
126.74	0.74			100% SANDSTONE	FINE GRAINED, GREY, MODERATELY WEAK ROCK.
133.90	7.16			100% MUDSTONE	GREEN, MODERATELY WEAK ROCK.
135.00	1.10			100% MUDSTONE	ARENACEOUS, LIGHT BROWN, MODERATELY WEAK ROCK.
135.55	0.55			100% SANDSTONE,FINE GRAINED	LIGHT BROWN, MODERATELY WEAK ROCK, THICKLY LAMINATED.
136.50	0.95			100% MUDSTONE	ARENACEOUS, BANDS, CREAM, MODERATELY WEAK ROCK.
136.70	0.20			100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH LOAD CASTS.
137.40	0.70			100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
138.10	0.70			100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, .
138.20	0.10			100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
142.39	4.19			100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, LAMINATED.
143.27	0.88			100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK.
143.50	0.23			80% MUDSTONE 20% COAL, BRIGHT	CARBONACEOUS, BLACK. MODERATELY WEAK ROCK, THICKLY LAMINATED.
143.88	0.38			100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
143.97	0.09			100% MUDSTONE	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
145.00	1.03			100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
145.78	0.78			100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH PLANT REMAINS.
147.00	1.22			100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK, LAMINATED, WITH CROSS LAMINATION.
147.34	0.34			100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
147.44	0.10			100% SILTSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
147.91	0.47			100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
148.00	0.09			100% SANDSTONE,FINE GRAINED	SILTSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
149.22	1.22	45		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, WEAK ROCK.
149.51	0.29	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
150.35	0.84	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, WEAK ROCK.
151.17	0.82	100		70% SANDSTONE,MEDIUM GRAINED 30% PEBBLE CONGLOMERATE	COALY, LENSES, LIGHT GREY. LIGHT GREY. MODERATELY WEAK ROCK.
152.40	1.23	100		100% PEBBLE CONGLOMERATE	ARENACEOUS, BANDS.
152.76	0.36	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.
152.98	0.22	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
153.09	0.11	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.
153.39	0.30	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LIGHT GREY, WEAK ROCK.
153.78	0.39	100		100% SILTSTONE	ARENACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
157.38	3.60	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, WEAK ROCK.
157.54	0.16	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
160.03	2.49	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
161.06	1.03	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
161.86	0.80	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
162.26	0.40	100		100% SANDSTONE,MEDIUM GRAINED	BRIGHT COAL, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
162.55	0.29	100		70% SANDSTONE,FINE GRAINED 30% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY. LIGHT GREY. WEAK ROCK.
163.17	0.62	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
163.78	0.61	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
165.05	1.27	100		100% SANDSTONE	MED.-COARSE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
165.49	0.44	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
166.71	1.22	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, LAMINATED, WITH CROSS LAMINATION.
166.97	0.26	100		60% SANDSTONE,MEDIUM GRAINED 40% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY. SILTSTONE, LAMINAE, GREY. MODERATELY WEAK ROCK.
167.45	0.48	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
169.40	1.95	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
169.67	0.27	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
171.81	2.14	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
171.88	0.07	100		100% SANDSTONE,FINE GRAINED	ARGILLACEOUS, LIGHT GREY, WEAK ROCK.
171.96	0.08	100		100% SILTSTONE	GREY, WEAK ROCK.
172.27	0.31	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
172.61	0.34	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, WEAK ROCK, WITH MUD PELLETS.
172.63	0.02	100		100% SILTSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
172.65	0.02	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
172.75	0.10	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
172.76	0.01	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
172.79	0.03	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK.
172.84	0.05	100		100% MUDSTONE	CARBONACEOUS, BLACK, VERY WEAK ROCK.
172.88	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
173.10	0.22	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK.
174.15	1.05	100		100% SILTSTONE	ARGILLACEOUS, LIGHT GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
174.39	0.24	100		100% SILTSTONE	ARENACEOUS, LIGHT GREY, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
174.95	0.56	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, WEAK ROCK, THICKLY LAMINATED, WITH PLANT REMAINS, WITH CROSS LAMINATION.
175.73	0.78	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, NON-PLANAR DISCONTINUITIES, INFILLED WITH CALCITE.
176.05	0.32	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK, LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
176.14	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
176.32	0.18	100		100% SILTSTONE	CARBONACEOUS, GREY, WEAK ROCK.
176.66	0.34	100		100% MUDSTONE	SILTSTONE, GREY, WEAK ROCK.
176.88	0.22	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK, WITH PLANT REMAINS.
176.97	0.09	100		100% MUDSTONE	CARBONACEOUS, GREY, WEAK ROCK.
177.21	0.24	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
177.50	0.29	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WEAK ROCK, WITH PLANT REMAINS.
177.60	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK.
177.65	0.05	100		100% CLAYSTONE	BADLY BROKEN, LIGHT BROWN, FIRM.
177.68	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
177.86	0.18	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
177.89	0.03	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
177.90	0.01	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
177.92	0.02	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK.
177.95	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
177.97	0.02	100		100% COAL, BRIGHT	
178.05	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
179.00	0.95	100		100% SILTSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
179.06	0.06	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK, WITH MUD PELLETS.
179.09	0.03	100		100% SILTSTONE	LIGHT GREY, WEAK ROCK.
179.20	0.11	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, DARK GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
180.84	1.64	100		100% SILTSTONE	GREY, WEAK ROCK, WITH PLANT REMAINS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
181.07	0.23	100		100% SILTSTONE	CARBONACEOUS, BANDS, DARK GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 25 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
181.53	0.46	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
182.00	0.47	100		100% MUDSTONE	SILTSTONE, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 35 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
184.75	2.75	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, WEAK ROCK.
185.30	0.55	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, GREY-GREEN, MODERATELY WEAK ROCK.
187.90	2.60	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
189.24	1.34	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
189.96	0.72	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
190.16	0.20	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
190.19	0.03	100		100% SANDSTONE,FINE GRAINED	COALY, BANDS, LIGHT GREY, WEAK ROCK.
190.49	0.30	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
190.59	0.10	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
190.70	0.11	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
191.52	0.82	100		100% SILTSTONE	GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
191.57	0.05	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
191.78	0.21	100		100% SILTSTONE	GREY, WEAK ROCK.
193.55	1.77	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
193.70	0.15	100		100% SANDSTONE,MEDIUM GRAINED	CALCITIC, COALY, LIGHT GREY, WEAK ROCK.
194.40	0.70	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, WEAK ROCK.
194.85	0.45	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
194.95	0.10	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, WEAK ROCK.
195.04	0.09	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
195.79	0.75	100		100% SILTSTONE	ARENACEOUS, LENSES, GREY, MODERATELY WEAK ROCK.
196.13	0.34	100		100% PEBBLE CONGLOMERATE	ARENACEOUS, GREY-GREEN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
196.33	0.20	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
196.76	0.43	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
196.91	0.15	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, WEAK ROCK.
198.00	1.09	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
199.45	1.45	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
199.47	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
199.48	0.01	100		100% COAL, INTERBANDED DULL AND BRIGHT	
199.51	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
199.55	0.04	100		100% COAL, HEAVY DULL	
199.80	0.25	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WEAK ROCK.
200.18	0.38	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, WEAK ROCK.
200.26	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
200.28	0.02	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
200.48	0.20	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, WEAK ROCK.
200.75	0.27	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK.
200.78	0.03	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
200.87	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, VERY WEAK ROCK, WITH PLANT REMAINS.
200.91	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, SOFT.
201.15	0.24	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
201.34	0.19	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, VERY WEAK ROCK.
201.40	0.06	100		100% CLAYSTONE	FISSILE, BROWN, SOFT.
201.60	0.20	100		100% CLAYSTONE	LIGHT BROWN, VERY WEAK ROCK.
201.68	0.08	100		100% CARBONACEOUS SHALE	
201.75	0.07	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, MODERATELY WEAK ROCK.
201.92	0.17	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, SOFT.
201.95	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
202.04	0.09	100		100% COAL, HEAVY DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
202.24	0.20	100		100% COAL, INTERBANDED DULL AND BRIGHT	
202.33	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
204.28	1.95	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
204.48	0.20	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREEN, VERY WEAK ROCK.
205.02	0.54	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
206.49	1.47	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
206.61	0.12	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, FIRM.
206.65	0.04	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, BROWN, WEAK ROCK.
206.71	0.06	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, VERY WEAK ROCK.
206.82	0.11	100		100% SILTSTONE	CARBONACEOUS, BANDS, DARK GREY, MODERATELY WEAK ROCK.
206.89	0.07	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
206.95	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, VERY WEAK ROCK.
206.98	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN, MODERATELY WEAK ROCK.
207.55	0.57	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED, WITH PLANT REMAINS, MODERATELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
207.87	0.32	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT GREEN, WITH MICA, VERY WEAK ROCK.
208.28	0.41	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
208.36	0.08	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, BROWN, MODERATELY WEAK ROCK.
208.46	0.10	100		100% CLAYSTONE	FISSILE, MICACEOUS, LIGHT BROWN, VERY WEAK ROCK.
208.56	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
208.63	0.07	100		100% CLAYSTONE	LIGHT BROWN, WEAK ROCK, WITH MUD PELLETS.
208.72	0.09	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WEAK ROCK.
208.94	0.22	100		100% CLAYSTONE	FISSILE, MICACEOUS, LIGHT BROWN, VERY WEAK ROCK.
209.00	0.06	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, MODERATELY WEAK ROCK.
209.09	0.09	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
209.31	0.22	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
209.34	0.03	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
209.43	0.09	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
209.50	0.07	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
209.53	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
209.56	0.03	100		100% SILTSTONE	COALY, STREAKS, GREY, MODERATELY WEAK ROCK.
209.65	0.09	100		100% MUDSTONE	COALY, LENSES, BROWN, MODERATELY WEAK ROCK.
209.75	0.10	100		100% SILTSTONE	COALY, LENSES, GREY, MODERATELY WEAK ROCK.
210.09	0.34	100		100% SILTSTONE	COALY, STREAKS, GREY, WEAK ROCK, LAMINATED, WITH PLANT REMAINS.
211.12	1.03	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
211.47	0.35	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.
214.68	3.21	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
214.91	0.23	100		100% CLAYSTONE	FISSILE, MICACEOUS, LIGHT GREEN, FIRM.
214.95	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
214.97	0.02	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
215.00	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
215.03	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
215.18	0.15	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
215.40	0.22	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, BROWN, WEAK ROCK.
215.59	0.19	100		100% MUDSTONE	COALY, LENSES, BROWN, WEAK ROCK.
215.74	0.15	100		100% SILTSTONE	COALY, LENSES, LIGHT BROWN, WEAK ROCK.
217.11	1.37	100		100% SILTSTONE	GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
218.64	1.53	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, WITH MICA, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
220.36	1.72	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, THINLY BEDDED.
224.76	4.40	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
225.44	0.68	100		100% SANDSTONE,MEDIUM GRAINED	CALCITIC, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
225.89	0.45	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
227.00	1.11	100		100% SANDSTONE,FINE GRAINED	CALCITIC, MICACEOUS, LIGHT GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
227.40	0.40	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
230.42	3.02	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, MICACEOUS, LIGHT GREY, MODERATELY WEAK ROCK.
230.57	0.15	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
230.81	0.24	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
231.30	0.49	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
231.52	0.22	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
231.54	0.02	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
231.74	0.20	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
232.18	0.44	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
232.44	0.26	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
232.54	0.10	100		100% COAL, HEAVY DULL	MUDSTONE, FRAGMENTS.
232.56	0.02	100		100% MUDSTONE	GREY.
232.58	0.02	100		100% COAL, HEAVY DULL	
232.62	0.04	100		100% CARBONACEOUS SHALE	MUDSTONE, FRAGMENTS.
232.65	0.03	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
232.77	0.12	100		100% COAL, HEAVY DULL	CARBONACEOUS, LENSES.
233.18	0.41	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK, RAPID SLAKING.
233.37	0.19	100		100% COAL, HEAVY DULL	CARBONACEOUS, LENSES.
233.39	0.02	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK, RAPID SLAKING.
233.44	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN.
233.50	0.06	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
233.60	0.10	100		100% CARBONACEOUS SHALE	BRIGHT COAL, LENSES.
233.63	0.03	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
233.69	0.06	100		100% MUDSTONE	SIDERITIC, DARK BROWN.
233.75	0.06	100		100% COAL, HEAVY DULL	
233.78	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN.
233.81	0.03	100		100% COAL, HEAVY DULL	
233.82	0.01	100		100% MUDSTONE	GREY.
233.86	0.04	100		100% CARBONACEOUS SHALE	
233.88	0.02	100		100% COAL, HEAVY DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
233.89	0.01	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
233.92	0.03	100		100% MUDSTONE	SIDERITIC, DARK BROWN.
233.99	0.07	100		100% CARBONACEOUS SHALE	HEAVY DULL COAL, LENSES.
234.05	0.06	100		100% MUDSTONE	SIDERITIC, DARK BROWN.
234.32	0.27	100		50% MUDSTONE 50% CARBONACEOUS SHALE	CARBONACEOUS, DARK BROWN. HEAVY DULL COAL, LENSES.
234.34	0.02	100		100% CARBONACEOUS SHALE	
234.38	0.04	100		100% CARBONACEOUS SHALE	BRIGHT COAL, LENSES.
234.40	0.02	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
234.52	0.12	100		100% CARBONACEOUS SHALE	
234.62	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN.
234.77	0.15	100		100% CARBONACEOUS SHALE	
234.79	0.02	100		100% SANDSTONE	LITHIC, GREY, VERY WEAK ROCK.
234.92	0.13	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK, RAPID SLAKING.
235.04	0.12	100		100% CARBONACEOUS SHALE	
235.07	0.03	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK, RAPID SLAKING.
235.10	0.03	100		100% CARBONACEOUS SHALE	
235.16	0.06	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
235.33	0.17	100		100% MUDSTONE	BROWN, VERY WEAK ROCK.
235.56	0.23	100		100% CARBONACEOUS SHALE	MUDSTONE, FRAGMENTS, MODERATELY WEAK ROCK.
235.73	0.17	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, STRONG ROCK.
236.69	0.96	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK, RAPID SLAKING.
236.81	0.12	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, STRONG ROCK.
237.06	0.25	100		100% CARBONACEOUS SHALE	MUDSTONE, FRAGMENTS, STRONG ROCK.
237.09	0.03	100		100% MUDSTONE	GREY, WEAK ROCK, RAPID SLAKING.
237.18	0.09	100		100% COAL, HEAVY DULL	CARBONACEOUS, LENSES, STRONG ROCK.
237.39	0.21	100		100% CARBONACEOUS SHALE	MUDSTONE, LENSES.
237.46	0.07	100		100% MUDSTONE	LIGHT GREY, MODERATELY STRONG ROCK.
237.71	0.25	100		100% CARBONACEOUS SHALE	MUDSTONE, LENSES.
237.86	0.15	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY STRONG ROCK.
237.99	0.13	100		100% CARBONACEOUS SHALE	
238.00	0.01	100		100% MUDSTONE	DARK GREY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
238.02	0.02	100		100% CARBONACEOUS SHALE	
238.05	0.03	100		100% MUDSTONE	GREY.
238.06	0.01	100		100% CARBONACEOUS SHALE	
238.11	0.05	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK.
238.21	0.10	100		100% COAL, HEAVY DULL	CARBONACEOUS, LENSES.
238.26	0.05	100		100% COAL, DULL	
238.30	0.04	100		100% CARBONACEOUS SHALE	
238.33	0.03	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
238.77	0.44	100		100% CARBONACEOUS SHALE	BRIGHT COAL, LENSES, MODERATELY WEAK ROCK.
238.87	0.10	100		100% MUDSTONE	SILTSTONE, BROWN, MODERATELY WEAK ROCK, WITH PLANT REMAINS, WITH MUD PELLETS.
238.90	0.03	100		100% CLAYSTONE	FISSILE, MICACEOUS, LIGHT BROWN, VERY WEAK ROCK.
239.00	0.10	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, BROWN, MODERATELY WEAK ROCK, WITH PLANT REMAINS, WITH MUD PELLETS.
239.35	0.35	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK, WITH PLANT REMAINS.
240.01	0.66	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
240.11	0.10	100		100% CLAYSTONE	FISSILE, MICACEOUS, LIGHT GREEN, VERY WEAK ROCK.
240.14	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
240.63	0.49	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
240.72	0.09	100		100% CLAYSTONE	FISSILE, BROWN, VERY WEAK ROCK.
240.97	0.25	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
241.02	0.05	100		100% CLAYSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, VERY WEAK ROCK.
241.07	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
241.12	0.05	100		100% MUDSTONE	CARBONACEOUS, COALY, BROWN-BLACK, MODERATELY STRONG ROCK.
241.28	0.16	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
241.35	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
241.47	0.12	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WEAK ROCK.
241.59	0.12	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
241.77	0.18	100		100% CLAYSTONE	FISSILE, MICACEOUS, LIGHT GREEN, VERY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
241.84	0.07	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, MODERATELY WEAK ROCK.
241.87	0.03	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
242.00	0.13	100		70% MUDSTONE 30% CLAYSTONE	CARBONACEOUS, BANDS, DARK BROWN. LIGHT BROWN.
242.14	0.14	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, BROWN, MODERATELY WEAK ROCK.
242.30	0.16	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
242.46	0.16	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, MODERATELY WEAK ROCK.
242.52	0.06	100		100% CLAYSTONE	FISSILE, MICACEOUS, LIGHT GREEN, VERY WEAK ROCK.
242.58	0.06	100		100% MUDSTONE	CARBONACEOUS, FISSILE, BROWN-BLACK, WEAK ROCK.
242.61	0.03	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
242.78	0.17	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, MODERATELY WEAK ROCK.
242.85	0.07	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
243.03	0.18	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK, WITH PLANT REMAINS.
243.06	0.03	100		100% COAL, HEAVY DULL	
243.12	0.06	100		100% COAL, DULL	
243.13	0.01	100		100% COAL, BRIGHT	
243.19	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
243.48	0.29	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK, WITH PLANT REMAINS, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
244.60	1.12	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
246.50	1.90	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED, WITH PLANT REMAINS.
247.37	0.87	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH PLANT REMAINS.
248.45	1.08	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
248.97	0.52	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	LIGHT GREY. LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH PLANT REMAINS.
249.05	0.08	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
249.40	0.35	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH PLANT REMAINS.
252.40	3.00	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
254.54	2.14	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
255.47	0.93	100		100% SANDSTONE	MED.-FINE GRAINED, CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK.
258.39	2.92	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
259.40	1.01	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
259.58	0.18	100		100% CLAYSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, WEAK ROCK.
259.63	0.05	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
259.87	0.24	100		100% MUDSTONE	CARBONACEOUS, BROWN.
259.89	0.02	100		100% COAL, HEAVY DULL	STRONG ROCK.
259.93	0.04	100		100% MUDSTONE	CREAM.
259.97	0.04	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN.
260.00	0.03	100		100% COAL, HEAVY DULL	
260.08	0.08	100		100% COAL, INTERBANDED DULL AND BRIGHT	CALCITIC, CHERTY.
260.10	0.02	100		100% MUDSTONE	DARK GREY.
260.11	0.01	100		100% MUDSTONE	BROWN, MODERATELY STRONG ROCK.
260.13	0.02	100		100% MUDSTONE	DARK GREY, MODERATELY STRONG ROCK.
260.16	0.03	100		100% MUDSTONE	BROWN, WEAK ROCK.
260.29	0.13	100		100% MUDSTONE	DARK GREY, MODERATELY STRONG ROCK.
260.53	0.24	100		100% MUDSTONE	GREY-BROWN, VERY WEAK ROCK.
260.60	0.07	100		100% MUDSTONE	CARBONACEOUS, GREY.
260.63	0.03	100		100% MUDSTONE	BROWN, WEAK ROCK.
260.71	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK GREY.
260.79	0.08	100		100% MUDSTONE	BROWN, WEAK ROCK.
261.03	0.24	100		100% MUDSTONE	CARBONACEOUS, BLACK.
261.05	0.02	100		100% COAL, HEAVY DULL	
261.06	0.01	100		100% MUDSTONE	BROWN.
261.20	0.14	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
261.35	0.15	100		100% MUDSTONE	DARK GREY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
261.63	0.28	100		100% MUDSTONE	SILTSTONE, LIGHT BROWN, VERY WEAK ROCK.
261.80	0.17	100		100% CARBONACEOUS SHALE	
261.83	0.03	100		100% MUDSTONE	BROWN.
261.98	0.15	100		100% CARBONACEOUS SHALE	
262.05	0.07	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK.
262.28	0.23	100		100% CARBONACEOUS SHALE	
262.40	0.12	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK.
262.41	0.01	100	1	100% CARBONACEOUS SHALE	
262.43	0.02	100	1	100% COAL, HEAVY DULL	
262.55	0.12	100	1	100% CARBONACEOUS SHALE	
262.69	0.14	100	1	100% COAL, HEAVY DULL	CARBONACEOUS, LENSES.
262.70	0.01	100	1	100% MUDSTONE	BROWN, VERY WEAK ROCK.
262.80	0.10	100	1	100% COAL, HEAVY DULL	CARBONACEOUS, LENSES.
262.85	0.05	100	1	100% MUDSTONE	BROWN.
262.96	0.11	100	1	100% COAL, HEAVY DULL	CARBONACEOUS, LENSES.
263.00	0.04	100	1	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
263.04	0.04	100	1	100% COAL, HEAVY DULL	
263.10	0.06	100	1	100% MUDSTONE	GREY-BROWN.
263.11	0.01	100	1	100% CARBONACEOUS SHALE	
263.18	0.07	100	1	100% COAL, HEAVY DULL	
263.66	0.48	100	1	100% COAL, DULL	HEAVY DULL COAL, LENSES.
263.71	0.05	100	1	100% COAL, HEAVY DULL	
263.85	0.14	100	1	100% CARBONACEOUS SHALE	MUDSTONE, LENSES.
263.94	0.09	100	1	100% COAL, HEAVY DULL	
264.00	0.06	100	1	100% MUDSTONE	CARBONACEOUS, GREY.
264.15	0.15	100	1	100% COAL, HEAVY DULL	STRONG ROCK.
264.22	0.07	100	1	100% MUDSTONE	CARBONACEOUS, GREY.
264.27	0.05	100	1	100% COAL, HEAVY DULL	
264.33	0.06	100	1	100% CARBONACEOUS SHALE	
264.38	0.05	100	1	100% MUDSTONE	BROWN.
264.44	0.06	100	1	100% CARBONACEOUS SHALE	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
264.49	0.05	100	1	100% MUDSTONE	BROWN.
264.60	0.11	100	1	100% COAL, HEAVY DULL	CARBONACEOUS, LENSES.
264.80	0.20	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, WEAK ROCK.
267.29	2.49	100		100% SHALE	CARBONACEOUS, LAMINAE, GREY, WEAK ROCK, WITH PLANT REMAINS, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
269.00	1.71	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
271.98	2.98	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
272.50	0.52	100		100% SANDSTONE	MED.-FINE GRAINED, CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK.
273.57	1.07	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
273.74	0.17	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
274.50	0.76	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
275.13	0.63	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
275.30	0.17	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
275.67	0.37	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
277.12	1.45	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
277.19	0.07	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
277.75	0.56	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
277.87	0.12	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
278.03	0.16	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
279.23	1.20	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
280.64	1.41	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
280.90	0.26	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
281.20	0.30	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
281.90	0.70	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
283.11	1.21	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
284.15	1.04	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
284.52	0.37	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK.
288.19	3.67	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
288.33	0.14	100		100% SANDSTONE,FINE GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
288.85	0.52	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
288.90	0.05	100		100% COAL, INTERBANDED DULL AND BRIGHT	
288.91	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
288.95	0.04	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
288.99	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
289.04	0.05	100		100% CLAYSTONE	CARBONACEOUS, BROWN, FIRM.
289.20	0.16	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
289.21	0.01	100		100% CLAYSTONE	FISSILE, BROWN, FIRM.
				TOP OF : 300.79 M R.L.	
289.29	0.08	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
289.37	0.08	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
289.45	0.08	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
289.76	0.31	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
289.84	0.08	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
289.88	0.04	100		100% COAL, INTERBANDED DULL AND BRIGHT	
289.98	0.10	0		CORE LOSS	
290.00	0.02	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
290.15	0.15	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
290.20	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
				BASE OF : THICKNESS= 0.99 M; SAMPLED THICKNESS= 0.00 M	
290.23	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
290.38	0.15	100		100% SILTSTONE	CARBONACEOUS, GREY, WEAK ROCK, WITH PLANT REMAINS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 35 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
290.45	0.07	100		100% SILTSTONE	CARBONACEOUS, BANDS, GREY, WEAK ROCK, WITH PLANT REMAINS.
290.63	0.18	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LIGHT GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
292.72	2.09	100		100% SILTSTONE	GREY, WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
293.93	1.21	100		60% SANDSTONE,FINE GRAINED 40% SILTSTONE	LITHIC, LIGHT GREY. GREY. MODERATELY WEAK ROCK, WITH PLANT REMAINS.
294.15	0.22	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
294.43	0.28	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
295.11	0.68	100		70% SILTSTONE 30% SANDSTONE,MEDIUM GRAINED	BANDS, GREY. LIGHT GREY. WEAK ROCK.
295.44	0.33	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
295.52	0.08	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
295.60	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK, WITH PLANT REMAINS.
295.67	0.07	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
295.71	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
296.35	0.64	100		100% MUDSTONE	SILTSTONE, FISSILE, GREY, VERY WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 35 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
296.50	0.15	100		100% MUDSTONE	FISSILE, CALCITIC, GREY, VERY WEAK ROCK.
296.59	0.09	100		100% MUDSTONE	FISSILE, SILTSTONE, GREY, VERY WEAK ROCK.
296.62	0.03	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
297.56	0.94	100		100% SILTSTONE	GREY, WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
298.06	0.50	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, WITH MICA, WEAK ROCK.
299.55	1.49	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, WITH MICA, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
300.24	0.69	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
300.80	0.56	100		100% SILTSTONE	MICACEOUS, GREY, MODERATELY WEAK ROCK.
303.49	2.69	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	ARENACEOUS, LAMINAE, GREY. CARBONACEOUS, STREAKS, LIGHT GREY. MODERATELY WEAK ROCK.
303.51	0.02	100		100% PEBBLE CONGLOMERATE	ARENACEOUS, LIGHT GREY, MODERATELY WEAK ROCK.
303.55	0.04	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
303.59	0.04	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, MODERATELY WEAK ROCK.
305.00	1.41	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
305.50	0.50	100		100% SANDSTONE	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
306.32	0.82	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
309.96	3.64	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
				TOP OF DALMAYNE D UPPER : 280.04 M R.L.	
310.05	0.09	100	2	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
310.17	0.12	100	2	100% COAL, HEAVY DULL	STRONG ROCK.
310.20	0.03	100	2	100% COAL, DULL	
310.39	0.19	100	2	100% COAL, HEAVY DULL	
310.46	0.07	100	2	100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
310.71	0.25	100	2	100% COAL, DULL	STRONGLY FRAGMENTED.
310.86	0.15	100	2	100% COAL, HEAVY DULL	STRONGLY FRAGMENTED.
311.06	0.20	100	2	100% COAL, DULL	STRONGLY FRAGMENTED.
311.09	0.03	100	2	100% MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
311.23	0.14	100	2	100% COAL, DULL	
				BASE OF DALMAYNE D UPPER : THICKNESS= 1.27 M; SAMPLED THICKNESS= 1.27 M	
311.48	0.25	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK.
311.62	0.14	100		100% SILTSTONE	CARBONACEOUS, BANDS, GREY, WEAK ROCK, WITH PLANT REMAINS.
311.83	0.21	100		100% SILTSTONE	LAMINAE, GREY, WEAK ROCK, WITH PLANT REMAINS.
312.25	0.42	100		100% SHALE	GREY, VERY WEAK ROCK, WITH PLANT REMAINS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
312.86	0.61	100		100% SILTSTONE	MICACEOUS, GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
312.91	0.05	100		100% SHALE	GREY, VERY WEAK ROCK, WITH PLANT REMAINS.
313.02	0.11	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
314.17	1.15	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 55 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
315.12	0.95	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, WITH MICA, MODERATELY WEAK ROCK.
315.57	0.45	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH PLANT REMAINS, WITH CROSS LAMINATION.
316.16	0.59	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
316.47	0.31	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH PLANT REMAINS.
317.51	1.04	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
317.85	0.34	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED.
318.00	0.15	100		100% SANDSTONE	CARBONACEOUS, BANDS, LIGHT GREY, WEAK ROCK.
318.96	0.96	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
319.26	0.30	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
319.66	0.40	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
319.85	0.19	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED.
321.34	1.49	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
321.62	0.28	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, WEAK ROCK.
322.81	1.19	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
323.27	0.46	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
324.20	0.93	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
324.32	0.12	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
324.64	0.32	100		100% SANDSTONE,MEDIUM GRAINED	FISSILE, LITHIC, LIGHT GREY, WEAK ROCK.
324.75	0.11	100	3	100% COAL, DULL	
324.78	0.03	100	3	100% COAL, HEAVY DULL	
324.86	0.08	100	3	100% COAL, DULL	HEAVY DULL COAL, LENSES, STRONG ROCK.
325.02	0.16	100	3	100% MUDSTONE	COALY, LENSES, BLACK, MODERATELY WEAK ROCK.
325.05	0.03	100	3	100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
325.07	0.02	100	3	100% COAL, BRIGHT	
325.17	0.10	100	3	100% COAL, HEAVY DULL	STRONG ROCK.
325.19	0.02	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
325.28	0.09	100	3	100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
325.30	0.02	100	3	100% CARBONACEOUS SHALE	BLACK.
325.63	0.33	0	3	CORE LOSS	
325.73	0.10	100	3	100% MUDSTONE	FRAGMENTED, CARBONACEOUS, GREY.
325.77	0.04	100	3	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
325.91	0.14	100	3	100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
325.97	0.06	100	3	100% MUDSTONE	CARBONACEOUS, FRAGMENTED, BLACK.
				TOP OF DALMAYNE D LOWER : 264.03 M R.L.	
326.03	0.06	100	4	100% COAL, DULL	FRAGMENTED.
326.04	0.01	100	4	100% COAL, DULL	
326.06	0.02	100	4	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
326.07	0.01	100	4	100% COAL, HEAVY DULL	
326.39	0.32	100	4	100% COAL, DULL	
326.40	0.01	100	4	100% MUDSTONE	GREY.
327.40	1.00	100	4	100% COAL, DULL	
				BASE OF DALMAYNE D LOWER : THICKNESS= 1.43 M; SAMPLED THICKNESS= 1.43 M	
327.86	0.46	100		100% MUDSTONE	FRAGMENTED, GREY, MODERATELY WEAK ROCK.
328.12	0.26	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, WEAK ROCK.
328.94	0.82	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, MICACEOUS, LIGHT BROWN, WEAK ROCK.
328.97	0.03	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, WEAK ROCK, WITH PLANT REMAINS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
329.85	0.88	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
332.68	2.83	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, GREY, MODERATELY WEAK ROCK.
333.19	0.51	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
333.22	0.03	100		100% SANDSTONE,MEDIUM GRAINED	FISSILE, MICACEOUS, GREY, VERY WEAK ROCK.
333.25	0.03	100		100% CALCITE	ARENACEOUS, CREAM, MODERATELY WEAK ROCK.
333.53	0.28	100		100% SANDSTONE	CALCITIC, MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
333.58	0.05	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, GREY-GREEN, VERY WEAK ROCK.
333.62	0.04	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
333.86	0.24	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
334.43	0.57	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
334.52	0.09	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
334.64	0.12	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
335.82	1.18	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
336.01	0.19	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
336.97	0.96	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
339.14	2.17	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, GREY-GREEN, MODERATELY WEAK ROCK.
340.17	1.03	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
340.27	0.10	100		100% SANDSTONE,FINE GRAINED	CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK.
341.00	0.73	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
341.60	0.60	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
341.86	0.26	100		100% SANDSTONE	PEBBLY, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
343.70	1.84	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, GREY-GREEN, MODERATELY WEAK ROCK.
346.47	2.77	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
346.55	0.08	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
347.43	0.88	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
348.24	0.81	100		100% SANDSTONE	CARBONACEOUS, BANDS, LIGHT GREY, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
	0.32	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, GREY-GREEN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
	4.90	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
353.49	0.09	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WEAK ROCK.
353.58	0.03	100		100% MUDSTONE	CARBONACEOUS, FISSILE, BROWN-BLACK.
353.65	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
354.49	0.84	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, WEAK ROCK, LAMINATED, WITH CROSS LAMINATION.
354.51	0.02	100		100% COAL, HEAVY DULL	
354.55	0.04	100		100% SILTSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, WEAK ROCK, WITH PLANT REMAINS.
356.50	1.95	100		100% SILTSTONE	GREY, WEAK ROCK, WITH PLANT REMAINS, LAMINATED, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
356.71	0.21	100		100% SILTSTONE	CARBONACEOUS, BANDS, GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
357.07	0.36	100		100% SILTSTONE	BADLY BROKEN, GREY, VERY WEAK ROCK, WITH PLANT REMAINS.
357.49	0.42	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
362.88	5.39	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
363.55	0.67	100		100% SILTSTONE	GREY, WEAK ROCK, LAMINATED, WITH PLANT REMAINS, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
364.86	1.31	100		100% SILTSTONE	CARBONACEOUS, BANDS, GREY, WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
365.00	0.14	100		100% MUDSTONE	CARBONACEOUS, COALY, BLACK, MODERATELY STRONG ROCK.
365.04	0.04	100		100% COAL, HEAVY DULL	
365.35	0.31	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
365.52	0.17	100		100% SILTSTONE	CARBONACEOUS, GREY, WEAK ROCK.
366.14	0.62	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, WITH MICA, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
366.29	0.15	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
366.39	0.10	100		50% SILTSTONE 50% MUDSTONE	GREY. CARBONACEOUS, DARK BROWN. WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
366.67	0.28	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
366.74	0.07	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
366.94	0.20	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.
367.37	0.43	100		100% SILTSTONE	DARK GREY, MODERATELY WEAK ROCK.
367.95	0.58	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
369.13	1.18	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
370.07	0.94	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
370.14	0.07	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
370.18	0.04	100		100% MUDSTONE	CARBONACEOUS, BLACK, VERY WEAK ROCK.
370.21	0.03	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
370.24	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, VERY WEAK ROCK.
370.36	0.12	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK.
370.57	0.21	100		100% SILTSTONE	GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
370.72	0.15	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK.
371.08	0.36	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK.
371.18	0.10	100		100% MUDSTONE	CARBONACEOUS, FISSILE, BROWN-BLACK.
371.30	0.12	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, BROWN-BLACK, MODERATELY WEAK ROCK.
371.42	0.12	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
371.46	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK.
371.52	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, VERY WEAK ROCK, WITH PLANT REMAINS.
				TOP OF DALMAYNE E : 218.48 M R.L.	
371.56	0.04	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
371.60	0.04	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
			BASE OF DALMAYNE E : THICKNESS= 0.08 M; SAMPLED THICKNESS= 0.00 M		
371.78	0.18	100		100% SILTSTONE	GREY, WEAK ROCK, WITH PLANT REMAINS.
372.14	0.36	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS, LAMINATED.
372.36	0.22	100		100% SILTSTONE	COALY, LENSES, GREY, WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 35 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
372.75	0.39	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
373.37	0.62	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
373.56	0.19	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
373.84	0.28	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
374.93	1.09	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
375.01	0.08	100		100% SANDSTONE,FINE GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
376.93	1.92	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
377.07	0.14	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
377.10	0.03	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
377.57	0.47	100		100% SILTSTONE	GREY, WITH MICA, MODERATELY WEAK ROCK, LAMINATED.
377.64	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
377.67	0.03	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK.
378.25	0.58	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK.
378.57	0.32	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	CARBONACEOUS, BROWN-BLACK. LIGHT GREY. WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
379.32	0.75	100		100% SILTSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
379.55	0.23	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WEAK ROCK.
379.80	0.25	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK.
379.82	0.02	100		100% CLAYSTONE	CARBONACEOUS, BADLY BROKEN, BROWN, SOFT.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
379.95	0.13	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, BROWN, MODERATELY WEAK ROCK.
380.07	0.12	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
380.11	0.04	100		100% MUDSTONE	BROWN, VERY WEAK ROCK.
380.31	0.20	100		100% CARBONACEOUS SHALE	BLACK.
380.33	0.02	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK.
380.35	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
				TOP OF DALMAYNE E2 : 209.65 M R.L.	
380.74	0.39	100	5	100% COAL, HEAVY DULL	DULL COAL, LENSES, STRONG ROCK.
380.76	0.02	100	5	100% MUDSTONE	CARBONACEOUS, BROWN, MODERATELY STRONG ROCK.
380.78	0.02	100	5	100% CARBONACEOUS SHALE	BLACK.
380.82	0.04	100	5	100% COAL, HEAVY DULL	STRONG ROCK.
380.83	0.01	100	5	100% COAL, BRIGHT	WEAK ROCK.
381.01	0.18	100	5	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES, STRONG ROCK.
381.02	0.01	100	5	100% CARBONACEOUS SHALE	BLACK.
381.05	0.03	100	5	100% COAL, INTERBANDED DULL AND BRIGHT	
381.08	0.03	100	5	100% COAL, DULL WITH FEW BRIGHT BANDS	
381.23	0.15	100	5	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES, STRONG ROCK.
381.24	0.01	100	5	100% CARBONACEOUS SHALE	BLACK.
				BASE OF DALMAYNE E2 : THICKNESS= 0.89 M; SAMPLED THICKNESS= 0.89 M	
381.29	0.05	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
381.31	0.02	100		100% CLAYSTONE	FISSILE, BROWN, VERY WEAK ROCK.
381.32	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
381.34	0.02	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
381.37	0.03	100		100% SILTSTONE	CARBONACEOUS, BROWN, MODERATELY WEAK ROCK.
382.84	1.47	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
383.23	0.39	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
385.29	2.06	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
385.34	0.05	100		100% SANDSTONE,FINE GRAINED	FISSILE, LITHIC, LIGHT GREY, VERY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
385.84	0.50	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
386.13	0.29	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
386.79	0.66	100		100% SANDSTONE	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
387.01	0.22	100		100% SANDSTONE,FINE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
388.00	0.99	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
388.96	0.96	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 55 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
390.65	1.69	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
392.84	2.19	100		100% SILTSTONE	GREY, LAMINATED, WITH PLANT REMAINS.
393.02	0.18	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK.
393.22	0.20	100		100% SILTSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
393.46	0.24	100		100% SILTSTONE	CARBONACEOUS, ARENACEOUS, DARK GREY, MODERATELY WEAK ROCK, LAMINATED.
393.82	0.36	100		60% SILTSTONE 40% SANDSTONE,FINE GRAINED	CARBONACEOUS, DARK GREY. LIGHT GREY. MODERATELY WEAK ROCK, LAMINATED.
394.53	0.71	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
394.64	0.11	100		100% SILTSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
394.72	0.08	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WEAK ROCK.
394.78	0.06	100		100% MUDSTONE	CARBONACEOUS, FISSILE, BROWN-BLACK, VERY WEAK ROCK, WITH PLANT REMAINS.
394.96	0.18	100		100% SILTSTONE	CARBONACEOUS, ARENACEOUS, GREY, MODERATELY WEAK ROCK.
395.06	0.10	100		100% SILTSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
395.50	0.44	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	BANDS, LIGHT GREY. CARBONACEOUS, SILTSTONE, DARK BROWN. WEAK ROCK.
395.51	0.01	100		100% COAL, BRIGHT	
395.95	0.44	100		70% SILTSTONE 30% SANDSTONE,FINE GRAINED	CARBONACEOUS, DARK BROWN. CARBONACEOUS, STREAKS, LIGHT GREY. WEAK ROCK, WITH PLANT REMAINS, LAMINATED.
396.77	0.82	100		100% SILTSTONE	GREY, WEAK ROCK, LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
396.89	0.12	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
396.93	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
396.98	0.05	100		100% COAL, HEAVY DULL	
397.01	0.03	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, FIRM.
397.11	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
397.21	0.10	50		100% MUDSTONE	CARBONACEOUS, DARK BROWN.
397.49	0.28	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WEAK ROCK.
397.71	0.22	50		100% MUDSTONE	CARBONACEOUS, DARK BROWN, VERY WEAK ROCK.
397.79	0.08	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WEAK ROCK.
398.00	0.21	40		100% MUDSTONE	CARBONACEOUS, DARK BROWN, VERY WEAK ROCK.
398.25	0.25	100		100% SILTSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
398.89	0.64	100		70% MUDSTONE 30% SANDSTONE,FINE GRAINED	CARBONACEOUS, SILTSTONE, DARK BROWN. WEAK ROCK, LAMINATED.
399.15	0.26	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
399.50	0.35	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
399.56	0.06	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
400.45	0.89	100		100% SILTSTONE	MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
400.51	0.06	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.
400.53	0.02	100		100% CLAY	CARBONACEOUS, DARK GREY, SOFT.
401.25	0.72	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
401.27	0.02	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
402.08	0.81	100		100% SILTSTONE	GREY-BROWN, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
402.52	0.44	100		100% SILTSTONE	CARBONACEOUS, BROWN, MODERATELY WEAK ROCK.
402.56	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK.
402.64	0.08	100		100% SILTSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
402.80	0.16	100		100% MUDSTONE	CARBONACEOUS, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
403.42	0.62	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, BROWN, MODERATELY WEAK ROCK.
403.75	0.33	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
403.92	0.17	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, BROWN, WEAK ROCK.
404.37	0.45	100		100% SANDSTONE	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 40 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
404.41	0.04	100		100% MUDSTONE	CARBONACEOUS, BADLY BROKEN, DARK BROWN.
404.51	0.10	100		100% SANDSTONE	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
407.51	3.00	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, GREY-GREEN, MODERATELY WEAK ROCK.
407.52	0.01	100		100% COAL, BRIGHT	
408.01	0.49	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, BROWN, WEAK ROCK.
408.12	0.11	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
408.26	0.14	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
408.58	0.32	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
409.60	1.02	100		100% MUDSTONE	GREY-BROWN, WEAK ROCK.
409.80	0.20	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK.
411.92	2.12	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT BROWN, MODERATELY WEAK ROCK.
412.05	0.13	100		100% SILTSTONE	LIGHT BROWN, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
413.93	1.88	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT BROWN, MODERATELY WEAK ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
414.27	0.34	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
415.52	1.25	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
417.80	2.28	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
420.67	2.87	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
420.84	0.17	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
420.99	0.15	100		100% SILTSTONE	GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
421.18	0.19	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
421.43	0.25	100		100% MUDSTONE	SILTSTONE, LIGHT BROWN, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
421.52	0.09	100		100% SANDSTONE	MED.-FINE GRAINED, GREY-BROWN, MODERATELY WEAK ROCK.
421.56	0.04	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
422.10	0.54	100		100% SILTSTONE	LIGHT BROWN, WEAK ROCK.
422.13	0.03	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
422.22	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, VERY WEAK ROCK.
422.56	0.34	100		60% SANDSTONE 40% SILTSTONE	COALY, LENSES, GREY-GREEN. GREY. WEAK ROCK.
423.26	0.70	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, GREY-GREEN, MODERATELY WEAK ROCK, THINLY BEDDED.
423.42	0.16	100		100% SANDSTONE	PEBBLY, COALY, GREY-GREEN, MODERATELY WEAK ROCK.
424.83	1.41	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, GREY-GREEN, MODERATELY WEAK ROCK.
425.24	0.41	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
426.29	1.05	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
426.44	0.15	100		100% SANDSTONE	COALY, LENSES, GREY-GREEN, MODERATELY WEAK ROCK.
427.46	1.02	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, GREY-GREEN, MODERATELY WEAK ROCK.
428.55	1.09	100		100% SANDSTONE,FINE GRAINED	COALY, STREAKS, GREY-GREEN, MODERATELY WEAK ROCK.
433.92	5.37	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, GREY-GREEN, MODERATELY WEAK ROCK.
434.15	0.23	100		100% SANDSTONE	COALY, LENSES, GREY-GREEN, WEAK ROCK, WITH MUD PELLETS.
437.71	3.56	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CROSS LAMINATION, WITH PLANT REMAINS.
437.99	0.28	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
438.91	0.92	100		55% SILTSTONE 45% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, GREY. CARBONACEOUS, STREAKS, GREY-GREEN. WEAK ROCK, VERY THINLY BEDDED, WITH PLANT REMAINS, WITH CROSS LAMINATION.
439.18	0.27	100		100% SILTSTONE	GREY, WEAK ROCK, WITH PLANT REMAINS.
439.46	0.28	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WEAK ROCK, WITH PLANT REMAINS.
439.80	0.34	100		100% MUDSTONE	BADLY BROKEN, GREY, VERY WEAK ROCK.
441.10	1.30	100		100% SILTSTONE	ARENACEOUS, LAMINAE, LIGHT GREEN, WITH MICA, WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
441.41	0.31	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
441.81	0.40	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, GREY-GREEN, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CROSS LAMINATION.
441.92	0.11	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WEAK ROCK.
442.67	0.75	100		100% SILTSTONE	GREY-GREEN, WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
442.84	0.17	100		100% MUDSTONE	SILTSTONE, GREY, WEAK ROCK.
442.91	0.07	100		100% COAL, HEAVY DULL	BADLY BROKEN.
444.88	1.97	100		100% SILTSTONE	ARENACEOUS, LAMINAE, LIGHT GREEN, MODERATELY WEAK ROCK, THINLY BEDDED, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
446.00	1.12	100		60% SILTSTONE 40% SANDSTONE	GREY-GREEN. MED.-FINE GRAINED, LIGHT GREEN. MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, TIGHT NON PLANAR, .
446.26	0.26	100		100% SILTSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
447.00	0.74	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
447.36	0.36	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY-GREEN, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
447.86	0.50	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
448.17	0.31	100		100% SILTSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
449.00	0.83	100		100% SILTSTONE	BROWN, MODERATELY WEAK ROCK.
450.63	1.63	100		100% SILTSTONE	BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
453.58	2.95	100		100% SILTSTONE	BROWN, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
454.53	0.95	100		100% SANDSTONE,COARSE GRAINED	QUARTZOSE, ARGILLACEOUS, GREEN, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
458.68	4.15	100		100% SANDSTONE,MEDIUM GRAINED	QUARTZOSE, LIGHT GREEN, WEAK ROCK.
467.30	8.62	100		100% SILTSTONE	BROWN, WITH FRAGMENTS OF QUARTZ, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
467.40	0.10	100		100% MUDSTONE	CALCITIC, FISSILE, GREY, FIRM.
470.45	3.05	100		100% SILTSTONE	GREY-BROWN, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
473.00	2.55	100		100% SILTSTONE	BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DC1	0.00 M	289.21 - 290.20 M	0.99 M
DDU	1.27 M	309.96 - 311.23 M	1.27 M
DDL	1.43 M	325.97 - 327.40 M	1.43 M
DE	0.00 M	371.52 - 371.60 M	0.08 M
DE2	0.89 M	380.35 - 381.24 M	0.89 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	262.40 - 264.60 M	2.20 M
2	309.96 - 311.23 M	1.27 M
3	324.64 - 325.97 M	1.33 M
4	325.97 - 327.40 M	1.43 M
5	380.35 - 381.24 M	0.89 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 12

HOLE TYPE	CORE	
EASTING	600,000 M	GRID
NORTHING	5,387,300 M	GRID
ELEVATION	565.00 M	
TOTAL DEPTH DRILLED	517.00 M	
DRILLING STARTED	5/10/78	
DRILLING TIME	49 DAYS	
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING	0.00 M	
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
10.50	10.50	100		100% DOLERITE	GREY-GREEN, MODERATELY WEATHERED.
14.50	4.00	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, MODERATELY WEATHERED, VERY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
24.00	9.50	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, MODERATELY WEATHERED, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
26.50	2.50	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, SLIGHTLY WEATHERED, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
29.60	3.10	100		100% DOLERITE	BADLY BROKEN, GREY-GREEN, SLIGHTLY WEATHERED, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
31.00	1.40	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, SLIGHTLY WEATHERED.
34.00	3.00	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, SLIGHTLY WEATHERED, VERY CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
40.50	6.50	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, UNWEATHERED, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
48.00	7.50	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, UNWEATHERED, WIDELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
58.10	10.10	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, UNWEATHERED, WIDELY SPACED JOINTS, JOINTS DIP 15 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
59.00	0.90	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, UNWEATHERED, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
61.40	2.40	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, UNWEATHERED, MODERATELY SPACED JOINTS, JOINTS DIP 35 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
70.45	9.05	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, UNWEATHERED, MODERATELY SPACED JOINTS, JOINTS DIP 35 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
72.00	1.55	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, UNWEATHERED, MODERATELY SPACED JOINTS, JOINTS DIP 35 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CLAY & TALC.
73.30	1.30	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, UNWEATHERED, MODERATELY SPACED JOINTS, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CLAY & TALC.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
79.00	5.70	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, UNWEATHERED, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
85.90	6.90	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, UNWEATHERED, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
107.00	21.10	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, UNWEATHERED, VERY WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT NON PLANAR, INFILLED WITH CLAY & TALC.
155.00	48.00	100		100% DOLERITE	FINE GRAINED, GREY-GREEN, UNWEATHERED, VERY WIDELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CLAY & TALC.
169.30	14.30	100		100% DOLERITE	FINE GRAINED, GREY-GREEN, UNWEATHERED, VERY WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
174.30	5.00	100		100% DOLERITE	FINE GRAINED, GREY-BROWN, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH QUARTZ.
178.00	3.70	100		100% DOLERITE	MED.-COARSE GRAINED, GREY-GREEN, UNWEATHERED, VERY STRONG ROCK.
190.50	12.50	100		100% DOLERITE	FINE GRAINED, GREY-GREEN, UNWEATHERED, VERY STRONG ROCK.
207.52	17.02	100		100% DOLERITE	VERY FINE GRAINED, GREY-GREEN, UNWEATHERED, EXTREMELY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
207.95	0.43	100		100% DOLERITE	VERY FINE GRAINED, GREEN, UNWEATHERED, MODERATELY WEAK ROCK.
208.06	0.11	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
208.56	0.50	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
208.90	0.34	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
209.08	0.18	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
209.45	0.37	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
209.53	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
210.03	0.50	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
210.76	0.73	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
211.18	0.42	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
212.40	1.22	80		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
212.95	0.55	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
215.70	2.75	80		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
215.77	0.07	100		100% CLAYSTONE	LIGHT GREEN, WEAK ROCK.
216.15	0.38	100		100% MUDSTONE	CLAYSTONE, BANDS, DARK GREY, MODERATELY WEAK ROCK.
217.58	1.43	100		60% SANDSTONE,FINE GRAINED 40% MUDSTONE	GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED.
219.37	1.79	100		100% SANDSTONE,COARSE GRAINED	COALY, BANDS, GREY, MODERATELY WEAK ROCK.
219.52	0.15	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK.
219.87	0.35	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
219.99	0.12	100		100% SANDSTONE,COARSE GRAINED	CONGLOMERATIC, GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
220.39	0.40	100		100% MUDSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
220.42	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
220.55	0.13	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
220.60	0.05	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
220.84	0.24	100		90% MUDSTONE 10% COAL, BRIGHT	CARBONACEOUS, BROWN-BLACK. MODERATELY STRONG ROCK, THINLY LAMINATED.
221.49	0.65	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK.
222.47	0.98	100		100% SANDSTONE,FINE GRAINED	CONGLOMERATIC, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
223.95	1.48	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
229.41	5.46	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
232.41	3.00	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, MODERATELY WEAK ROCK.
233.57	1.16	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
233.82	0.25	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH DISTURBED BEDDING.
234.49	0.67	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 10 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
235.93	1.44	100		70% MUDSTONE 30% SANDSTONE,FINE GRAINED	SILTSTONE, GREY-BROWN. BANDS, LAMINAE, LIGHT GREY. MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
236.26	0.33	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
236.96	0.70	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
238.20	1.24	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
238.85	0.65	100		100% SANDSTONE	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
239.00	0.15	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
239.14	0.14	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK.
239.22	0.08	100		100% MUDSTONE	CARBONACEOUS, COALY, BLACK, WEAK ROCK.
239.30	0.08	100		100% MUDSTONE	BRIGHT COAL, STREAKS, DARK GREY, MODERATELY WEAK ROCK.
239.39	0.09	100		100% MUDSTONE	CARBONACEOUS, COALY, BROWN-BLACK, WEAK ROCK.
239.48	0.09	100		100% MUDSTONE	COALY, STREAKS, DARK BROWN, WEAK ROCK.
240.12	0.64	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, GREY, WEAK ROCK, WITH DISTURBED BEDDING.
240.15	0.03	100		100% COAL, HEAVY DULL	
240.22	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
240.25	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
240.30	0.05	100		100% COAL, HEAVY DULL	
240.33	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
240.34	0.01	100		100% MUDSTONE	LIGHT BROWN.
240.51	0.17	100		100% COAL, HEAVY DULL	
240.53	0.02	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
240.56	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
240.58	0.02	100		100% MUDSTONE	CARBONACEOUS, PELLETAL, BROWN-BLACK, MODERATELY STRONG ROCK.
240.59	0.01	100		100% CLAYSTONE	LIGHT BROWN, MODERATELY STRONG ROCK.
240.66	0.07	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
240.67	0.01	100		100% CLAYSTONE	BROWN, MODERATELY WEAK ROCK.
240.69	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
240.75	0.06	100		100% CLAYSTONE	MUDSTONE, BANDS, LIGHT BROWN, MODERATELY WEAK ROCK.
240.77	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
241.05	0.28	100		100% CLAYSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
241.08	0.03	100		100% MUDSTONE	CARBONACEOUS, COALY, BROWN-BLACK, MODERATELY WEAK ROCK.
241.35	0.27	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
241.37	0.02	100		100% CLAYSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
241.39	0.02	100		100% COAL, HEAVY DULL	
241.40	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
241.41	0.01	100		100% SANDSTONE	ARGILLACEOUS, PELLETAL, LIGHT BROWN, MODERATELY WEAK ROCK.
241.44	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
241.47	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
241.56	0.09	100		100% COAL, HEAVY DULL	
241.60	0.04	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BADLY BROKEN.
241.63	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
241.64	0.01	100		100% CLAYSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
241.65	0.01	100		100% COAL, DULL	
241.66	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
241.71	0.05	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
241.76	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
241.78	0.02	100		100% CLAYSTONE	CARBONACEOUS, LENSES, LIGHT BROWN, MODERATELY WEAK ROCK.
241.79	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
241.83	0.04	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
241.84	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
241.85	0.01	100		100% CLAYSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
241.87	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
241.88	0.01	100		100% COAL, HEAVY DULL	
241.89	0.01	100		100% COAL, BRIGHT	
241.92	0.03	100		100% COAL, HEAVY DULL	
241.94	0.02	100		100% COAL, BRIGHT	
241.96	0.02	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
242.02	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
242.13	0.11	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
242.16	0.03	100		100% COAL, HEAVY DULL	
242.18	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
242.19	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
242.25	0.06	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
242.48	0.23	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
242.56	0.08	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
242.57	0.01	100		100% COAL, BRIGHT	
242.59	0.02	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
242.69	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
242.77	0.08	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
242.83	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
242.86	0.03	100		100% COAL, HEAVY DULL	
242.88	0.02	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
242.91	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
242.96	0.05	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
242.99	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
243.06	0.07	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
243.32	0.26	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
244.15	0.83	100		100% SILTSTONE	MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
244.37	0.22	100		100% MUDSTONE	SILTSTONE, GREY, WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
244.45	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
244.69	0.24	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN, WEAK ROCK.
244.81	0.12	100		100% MUDSTONE	ARGILLACEOUS, LIGHT BROWN, WEAK ROCK.
245.01	0.20	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, BROWN, WEAK ROCK.
245.11	0.10	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
245.14	0.03	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
245.22	0.08	100		100% MUDSTONE	SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
247.35	2.13	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
247.62	0.27	100		60% SILTSTONE 40% SANDSTONE,FINE GRAINED	ARENACEOUS, LAMINAE, GREY. SILTSTONE, LAMINAE, LIGHT GREY. MODERATELY WEAK ROCK.
248.09	0.47	100		100% SILTSTONE	CARBONACEOUS, BANDS, GREY, WEAK ROCK.
248.23	0.14	100		100% MUDSTONE	CARBONACEOUS, COALY, DARK BROWN, MODERATELY WEAK ROCK.
248.44	0.21	100		100% CLAYSTONE	LIGHT GREEN, WEAK ROCK.
248.56	0.12	100		100% CLAYSTONE	BADLY BROKEN, LIGHT GREEN, VERY WEAK ROCK.
249.22	0.66	100		100% CLAYSTONE	FISSILE, BANDS, LIGHT GREEN, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 25 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
249.52	0.30	100		100% CLAYSTONE	BANDS, LIGHT GREEN, WEAK ROCK, THINLY BEDDED, VERY CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
250.64	1.12	100		100% CLAYSTONE	LIGHT GREEN, WEAK ROCK, THINLY BEDDED, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
250.67	0.03	100		100% SANDSTONE,MEDIUM GRAINED	ARGILLACEOUS, LIGHT GREY, MODERATELY WEAK ROCK.
251.76	1.09	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
252.06	0.30	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	BANDS, LIGHT GREY. BANDS, GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
252.22	0.16	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
252.35	0.13	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
252.63	0.28	100		100% SILTSTONE	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
254.32	1.69	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, THINLY BEDDED.
256.68	2.36	100		100% SANDSTONE	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
256.74	0.06	100		100% CLAYSTONE	LIGHT GREEN, FIRM.
258.13	1.39	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
258.66	0.53	100		100% SANDSTONE	PEBBLY, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
260.54	1.88	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, MEDIUM BEDDED.
261.12	0.58	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
261.39	0.27	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED.
262.15	0.76	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
262.48	0.33	100		100% SANDSTONE	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
262.69	0.21	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
262.76	0.07	100		100% MUDSTONE	CARBONACEOUS, COALY, BLACK, MODERATELY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
263.14	0.38	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
263.62	0.48	100		100% MUDSTONE	ARENACEOUS, CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, WITH PARTING LINEATION, WITH DISTURBED BEDDING.
264.32	0.70	100		100% SANDSTONE,FINE GRAINED	COALY, LENSES, GREY, MODERATELY WEAK ROCK, WITH FLAME/PULL STRUCTS.
264.54	0.22	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
264.68	0.14	100		100% CLAYSTONE	FISSILE, BANDS, LIGHT GREEN, VERY WEAK ROCK.
264.71	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
264.76	0.05	100		100% CLAYSTONE	LIGHT GREEN, VERY WEAK ROCK.
264.84	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
264.85	0.01	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
264.88	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
265.16	0.28	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT BROWN, MODERATELY WEAK ROCK, WITH MUD PELLETS, MODERATELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
265.37	0.21	100		100% SANDSTONE	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS, MODERATELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
265.80	0.43	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY STRONG ROCK.
269.48	3.68	100		100% SANDSTONE,MEDIUM GRAINED	SILICEOUS, LIGHT GREY, MODERATELY STRONG ROCK, MEDIUM BEDDED, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
269.82	0.34	100		100% SANDSTONE,FINE GRAINED	ARGILLACEOUS, FISSILE, LIGHT GREEN, WITH MICA, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
269.88	0.06	100		100% SANDSTONE,FINE GRAINED	ARGILLACEOUS, LIGHT BROWN, MODERATELY WEAK ROCK.
271.42	1.54	100		100% SILTSTONE	DARK GREY, MODERATELY WEAK ROCK.
271.68	0.26	100		100% MUDSTONE	SILTSTONE, DARK BROWN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
271.73	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
271.90	0.17	100		100% CLAYSTONE	ARENACEOUS, BANDS, BROWN, MODERATELY WEAK ROCK.
272.23	0.33	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
272.26	0.03	100		100% COAL, HEAVY DULL	
272.32	0.06	100		100% COAL, INTERBANDED DULL AND BRIGHT	
272.35	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
272.38	0.03	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
272.39	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
272.41	0.02	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
272.43	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
272.51	0.08	100		100% MUDSTONE	ARGILLACEOUS, BANDS, BROWN, MODERATELY WEAK ROCK.
272.62	0.11	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
272.72	0.10	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
273.32	0.60	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
273.69	0.37	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
274.15	0.46	100		100% SILTSTONE	CALCITIC, BANDS, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
274.24	0.09	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
275.15	0.91	100		100% CLAYSTONE	SILTSTONE, BANDS, GREY-GREEN, WEAK ROCK.
275.52	0.37	100		100% SILTSTONE	ARGILLACEOUS, GREY, MODERATELY WEAK ROCK.
275.97	0.45	100		100% CLAYSTONE	LIGHT GREEN, WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
276.90	0.93	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
281.00	4.10	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
281.90	0.90	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, THINLY BEDDED, WITH CROSS LAMINATION.
282.38	0.48	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
282.63	0.25	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
283.08	0.45	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
285.35	2.27	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, WITH MICA, MODERATELY WEAK ROCK.
286.75	1.40	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
287.07	0.32	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
289.55	2.48	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
291.00	1.45	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
291.79	0.79	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
292.29	0.50	100		60% SILTSTONE 40% SANDSTONE,FINE GRAINED	COALY, STREAKS, GREY. LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED.
292.36	0.07	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
292.45	0.09	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
294.71	2.26	100		100% SANDSTONE	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
			TOP OF	DALMAYNE B : 270.29 M R.L.	
294.75	0.04	100	1	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
294.77	0.02	100	1	100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK, SLOW SLAKING, MODERATELY STICKY.
294.87	0.10	100	1	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
295.24	0.37	100	1	80% MUDSTONE 20% MUDSTONE	CARBONACEOUS, BLACK. CARBONACEOUS, SILTSTONE, GREY-BROWN. MODERATELY WEAK ROCK, THICKLY LAMINATED.
295.39	0.15	100	1	100% MUDSTONE	CARBONACEOUS, LENSES, BROWN, WEAK ROCK, NON STICKY.
295.41	0.02	100	1	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
295.44	0.03	100	2	100% COAL, HEAVY DULL	
295.45	0.01	100	2	100% MUDSTONE	CARBONACEOUS, LENSES, GREY-BROWN, MODERATELY WEAK ROCK, NON SLAKING, NON STICKY.
295.57	0.12	100	2	100% COAL, HEAVY DULL	
295.63	0.06	100	2	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
295.69	0.06	100	2	100% MUDSTONE	LIGHT BROWN, WEAK ROCK, SLOW SLAKING, MODERATELY STICKY.
295.73	0.04	100	2	100% MUDSTONE	CARBONACEOUS, LENSES, GREY-BROWN, MODERATELY WEAK ROCK, NON SLAKING, NON STICKY.
296.07	0.34	100	2	100% COAL, HEAVY DULL	MUDSTONE, LAMINAE.
296.10	0.03	100	2	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
296.12	0.02	100	2	100% MUDSTONE	CARBONACEOUS, LENSES, BROWN, MODERATELY WEAK ROCK, NON SLAKING, NON STICKY.
296.31	0.19	100	2	100% COAL, HEAVY DULL	MUDSTONE, LAMINAE.
296.38	0.07	100	2	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
296.42	0.04	100	2	100% MUDSTONE	LIGHT BROWN, WEAK ROCK, NON SLAKING, NON STICKY.
296.44	0.02	100	2	100% CLAYSTONE	LIGHT BROWN, FIRM, RAPID SLAKING, MODERATELY STICKY.
296.53	0.09	100	2	60% MUDSTONE 40% MUDSTONE	LIGHT BROWN. CARBONACEOUS, BROWN-BLACK. MODERATELY WEAK ROCK, THICKLY LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
296.58	0.05	100	2	100% COAL, HEAVY DULL	
296.61	0.03	100	2	100% COAL, BRIGHT WITH FEW DULL BANDS	WITH CALCITE ON CLEAT.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
296.64	0.03	100	2	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
296.67	0.03	100	2	100% COAL, BRIGHT WITH FEW DULL BANDS	
296.68	0.01	100	2	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
296.78	0.10	100	2	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
296.79	0.01	100	2	100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, NON SLAKING, NON STICKY.
296.91	0.12	100	2	100% COAL, HEAVY DULL	
296.93	0.02	100	2	100% MUDSTONE	CARBONACEOUS, LENSES, BROWN, VERY WEAK ROCK, SLOW SLAKING, MODERATELY STICKY.
297.01	0.08	100	2	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
297.04	0.03	100	2	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
297.08	0.04	100	2	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
297.11	0.03	100	2	100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
297.24	0.13	100	2	100% COAL, HEAVY DULL	MUDSTONE, LENSES.
297.25	0.01	100	2	100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
297.34	0.09	100	2	100% COAL, HEAVY DULL	
297.36	0.02	100	2	100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
297.44	0.08	100	2	100% MUDSTONE	BRIGHT COAL, LENSES, BROWN-BLACK, MODERATELY WEAK ROCK.
297.50	0.06	100	2	100% COAL, DULL WITH FEW BRIGHT BANDS	
297.60	0.10	100	2	100% COAL, HEAVY DULL	
297.62	0.02	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
297.65	0.03	100	3	100% MUDSTONE	SILTSTONE, LIGHT BROWN, MODERATELY WEAK ROCK.
297.67	0.02	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
297.68	0.01	100	3	100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
297.74	0.06	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
297.84	0.10	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
297.87	0.03	100	3	100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
297.89	0.02	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
297.91	0.02	100	3	100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
297.95	0.04	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
298.01	0.06	100	3	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
298.07	0.06	100	3	100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
298.15	0.08	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
298.18	0.03	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
298.22	0.04	100	3	100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
298.30	0.08	100	3	70% MUDSTONE 30% MUDSTONE	CARBONACEOUS, BROWN-BLACK. LIGHT BROWN. MODERATELY WEAK ROCK, THICKLY LAMINATED.
298.34	0.04	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
298.38	0.04	100	3	100% COAL, DULL WITH FEW BRIGHT BANDS	
298.45	0.07	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
298.48	0.03	100	3	100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
298.65	0.17	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
298.75	0.10	100	3	100% MUDSTONE	LIGHT BROWN, WEAK ROCK, SLOW SLAKING, NON STICKY.
298.77	0.02	100	3	100% MUDSTONE	BROWN, WEAK ROCK, SLOW SLAKING, NON STICKY.
298.95	0.18	100	3	70% MUDSTONE 30% MUDSTONE	LIGHT BROWN. CARBONACEOUS, BROWN-BLACK. MODERATELY WEAK ROCK, VERY THINLY BEDDED.
299.10	0.15	100	3	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
299.13	0.03	100	3	100% MUDSTONE	LIGHT BROWN, WEAK ROCK, LAMINATED.
299.27	0.14	100	4	100% MUDSTONE	CARBONACEOUS, DARK BROWN.
299.33	0.06	100	4	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
299.44	0.11	100	4	100% CARBONACEOUS MUDSTONE	FISSILE, BROWN-BLACK, STIFF, RAPID SLAKING, VERY STICKY.
299.54	0.10	100	4	100% CARBONACEOUS MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
299.58	0.04	100	4	100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
299.66	0.08	100	4	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
299.69	0.03	100	4	100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, MODERATELY WEAK ROCK.
299.77	0.08	100	4	100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
299.78	0.01	100	4	100% MUDSTONE	SILTSTONE, BROWN, MODERATELY WEAK ROCK.
299.80	0.02	100	4	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
299.83	0.03	100	4	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
299.99	0.16	100	4	100% MUDSTONE	ARENACEOUS, MICACEOUS, LIGHT BROWN, WEAK ROCK.
300.39	0.40	100	4	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
300.42	0.03	100	4	100% MUDSTONE	BROWN, WEAK ROCK.
300.55	0.13	100	4	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
300.61	0.06	100	4	100% COAL, HEAVY DULL	
300.63	0.02	100	4	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
300.72	0.09	100	4	100% MUDSTONE	CARBONACEOUS, ARENACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
300.87	0.15	100	4	70% MUDSTONE 30% MUDSTONE	CARBONACEOUS, BLACK. BROWN. MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH LOAD CASTS, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
300.91	0.04	100	5	100% COAL, HEAVY DULL	
301.25	0.34	100	5	100% CARBONACEOUS SHALE	MUDSTONE, LAMINAE.
301.34	0.09	100	5	100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK.
301.35	0.01	100	5	100% COAL, BRIGHT	
301.48	0.13	100	5	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
301.56	0.08	100	5	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
301.62	0.06	100	5	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
				BASE OF DALMAYNE B : THICKNESS= 6.91 M; SAMPLED THICKNESS= 6.91 M	
301.81	0.19	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, BASAL CONTACT TRANSITIONAL, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
302.20	0.39	100		60% SILTSTONE 40% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, BASAL CONTACT TRANSITIONAL.
302.90	0.70	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, LAMINATED, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
303.05	0.15	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
303.15	0.10	100		100% SILTSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
304.22	1.07	100		100% MUDSTONE	SILTSTONE, BANDS, GREY, MODERATELY WEAK ROCK, LAMINATED.
304.30	0.08	100		100% CLAYSTONE	LIGHT BROWN, STIFF, RAPID SLAKING.
307.54	3.24	100		100% SILTSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
310.32	2.78	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
311.93	1.61	100		100% SANDSTONE,MEDIUM GRAINED	CALCAREOUS, LIGHT GREY, MODERATELY WEAK ROCK.
314.29	2.36	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
			TOP OF DALHAYNE C : 250.71 M R.L.		
314.92	0.63	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
314.93	0.01	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
315.02	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
315.43	0.41	100		50% MUDSTONE 50% MUDSTONE	CARBONACEOUS, BROWN-BLACK. CARBONACEOUS, ARENACEOUS, BROWN. MODERATELY WEAK ROCK, THICKLY LAMINATED.
315.57	0.14	100		100% MUDSTONE	LIGHT BROWN, STIFF, RAPID SLAKING, VERY STICKY.
315.95	0.38	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
316.05	0.10	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES, SLOW SLAKING, MODERATELY STICKY.
316.19	0.14	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
316.50	0.31	100		60% MUDSTONE 40% MUDSTONE	CARBONACEOUS, BROWN-BLACK. BROWN. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH MUD PELLETS.
316.70	0.20	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
316.74	0.04	100		100% MUDSTONE	BLUE-GREY, STIFF, RAPID SLAKING.
316.79	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
317.00	0.21	100		100% CARBONACEOUS MUDSTONE	BROWN-BLACK.
317.20	0.20	0		CORE LOSS	
317.22	0.02	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
317.31	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
317.34	0.03	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
317.46	0.12	100		100% MUDSTONE	BROWN-BLACK, MODERATELY WEAK ROCK.
317.51	0.05	100		100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
317.57	0.06	100		100% COAL, HEAVY DULL	
317.60	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
317.71	0.11	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
317.73	0.02	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
317.79	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
317.93	0.14	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
318.00	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
318.23	0.23	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
318.38	0.15	100		100% COAL, HEAVY DULL	
318.40	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
318.44	0.04	100		100% COAL, HEAVY DULL	
318.45	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
318.52	0.07	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
318.55	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
318.65	0.10	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
318.84	0.19	100		100% COAL, HEAVY DULL	
318.88	0.04	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
318.89	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
318.91	0.02	100		100% MUDSTONE	BUFF, STIFF.
319.12	0.21	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
319.20	0.08	100		50% COAL, BRIGHT 50% MUDSTONE	CARBONACEOUS, BROWN-BLACK. MODERATELY WEAK ROCK, THINLY LAMINATED.
319.28	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
319.45	0.17	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
322.64	3.19	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	SILTSTONE, GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
				BASE OF DALMAYNE C : THICKNESS= 8.35 M; SAMPLED THICKNESS= 0.00 M	
328.12	5.48	100		100% SANDSTONE,MEDIUM GRAINED	COALY, TRACES, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY BEDDED, BASAL CONTACT ABRUPT.
329.64	1.52	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, BASAL CONTACT TRANSITIONAL.
329.77	0.13	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, BASAL CONTACT TRANSITIONAL.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
330.24	0.47	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, MEDIUM BEDDED, BASAL CONTACT EROSIONAL.
331.19	0.95	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
331.29	0.10	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
331.71	0.42	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, LAMINATED.
331.84	0.13	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
331.89	0.05	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
332.06	0.17	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
332.42	0.36	100		100% SANDSTONE,MEDIUM GRAINED	CONGLOMERATIC, LIGHT GREY, MODERATELY WEAK ROCK.
334.70	2.28	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, THINLY BEDDED.
334.84	0.14	100		60% MUDSTONE 40% SANDSTONE,MEDIUM GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK.
335.51	0.67	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, THINLY BEDDED.
336.68	1.17	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, BASAL CONTACT EROSIONAL, BEDS DIP 5 DEG., WITH PLANT REMAINS.
336.79	0.11	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
338.44	1.65	100		100% SANDSTONE,COARSE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
341.94	3.50	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
346.66	4.72	100		100% SANDSTONE	MED.-COARSE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
348.81	2.15	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
350.82	2.01	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
351.77	0.95	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
352.80	1.03	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
353.28	0.48	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
353.57	0.29	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, INFILLED WITH CALCITE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
353.61	0.04	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
353.75	0.14	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, INFILLED WITH CALCITE.
353.84	0.09	100		100% SANDSTONE	LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, TIGHT NON PLANAR, .
353.98	0.14	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, INFILLED WITH CALCITE.
359.34	5.36	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
361.70	2.36	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
363.67	1.97	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
364.69	1.02	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
364.77	0.08	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
366.23	1.46	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
367.89	1.66	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
370.49	2.60	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
370.88	0.39	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
371.05	0.17	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
371.37	0.32	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
372.97	1.60	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
372.98	0.01	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
373.68	0.70	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, LAMINATED, WITH CARBONACEOUS WISPS.
373.77	0.09	100		100% SILTSTONE	COALY, LENSES, GREY, WEAK ROCK.
374.20	0.43	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, LAMINATED, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
374.25	0.05	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
374.26	0.01	100		100% CLAYSTONE	COALY, LENSES, BUFF, VERY WEAK ROCK.
374.28	0.02	100	6	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
374.65	0.37	100	6	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
374.66	0.01	100	6	100% COAL, BRIGHT	
374.67	0.01	100	6	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
374.69	0.02	100	6	100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
374.78	0.09	100	6	100% CARBONACEOUS MUDSTONE	BROWN-BLACK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
374.92	0.14	100	6	100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
375.02	0.10	100	6	100% MUDSTONE	FISSILE, GREY, VERY WEAK ROCK.
375.32	0.30	100	6	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
375.45	0.13	100	6	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK.
375.67	0.22	100	7	100% SILTSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
375.87	0.20	100	7	100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK.
375.98	0.11	100	7	100% COAL, DULL WITH FEW BRIGHT BANDS	
376.01	0.03	100	7	100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
376.65	0.64	100	7	100% MUDSTONE	BRIGHT COAL, LENSES, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
376.76	0.11	100	7	100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK, WITH LOAD CASTS.
376.78	0.02	100	7	100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
		TOP OF		DALMAYNE D : 188.22 M R.L.	
376.80	0.02	100	8	100% COAL, HEAVY DULL	
376.81	0.01	100	8	100% MUDSTONE	ARENACEOUS, LIGHT BROWN, MODERATELY WEAK ROCK.
377.22	0.41	100	8	100% COAL, DULL WITH FEW BRIGHT BANDS	
377.25	0.03	100	8	100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
377.52	0.27	100	8	100% COAL, DULL	
377.88	0.36	100	8	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
377.90	0.02	100	8	100% MUDSTONE	CARBONACEOUS, TRACES, BROWN, MODERATELY WEAK ROCK.
377.92	0.02	100	8	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
378.64	0.72	100	8	100% COAL, DULL WITH FEW BRIGHT BANDS	
378.69	0.05	100	9	100% MUDSTONE	COALY, LAMINAE, LIGHT BROWN, MODERATELY WEAK ROCK.
378.73	0.04	100	9	100% MUDSTONE	BRIGHT COAL, LAMINAE, BROWN-BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
378.96	0.23	100	9	100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.
379.21	0.25	100	9	100% COAL, DULL	
379.27	0.06	100	9	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
379.29	0.02	100	9	100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
379.30	0.01	100	9	100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
379.33	0.03	100	9	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
379.38	0.05	100	9	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
380.01	0.63	100	10	100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
380.12	0.11	100	10	100% MUDSTONE	BROWN, WEAK ROCK.
380.17	0.05	100	10	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
380.18	0.01	100	10	100% MUDSTONE	SHALY, GREY, WEAK ROCK.
380.21	0.03	100	10	100% MUDSTONE	ARENACEOUS, LIGHT BROWN, MODERATELY WEAK ROCK.
380.31	0.10	100	10	100% CARBONACEOUS SHALE	COALY, BANDS, DARK BROWN, WEAK ROCK.
380.39	0.08	100	11	100% COAL, HEAVY DULL	
380.40	0.01	100	11	100% MUDSTONE	ARENACEOUS, BROWN, MODERATELY WEAK ROCK.
380.60	0.20	100	11	100% COAL, HEAVY DULL	
380.80	0.20	100	11	100% COAL, DULL	CARBONACEOUS, BANDS.
381.52	0.72	100	11	100% COAL, DULL WITH FEW BRIGHT BANDS	
				BASE OF DALMAYNE D : THICKNESS= 4.74 M; SAMPLED THICKNESS= 4.74 M	
381.60	0.08	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
381.65	0.05	100		100% MUDSTONE	ARENACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
381.79	0.14	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
384.53	2.74	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
384.81	0.28	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
414.56	29.75	100		100% SANDSTONE,MEDIUM GRAINED	COALY, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
414.58	0.02	100		100% COAL, HEAVY DULL	
414.59	0.01	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
414.71	0.12	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
416.09	1.38	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
421.52	5.43	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
421.59	0.07	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
421.61	0.02	100		100% CLAYSTONE	BROWN, VERY WEAK ROCK.
421.68	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
422.18	0.50	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH LOAD CASTS.
422.26	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
422.98	0.72	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	LIGHT GREY. CARBONACEOUS, DARK GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
423.64	0.66	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, LAMINATED.
423.76	0.12	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY WEAK ROCK, WITH LOAD CASTS.
423.86	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
424.48	0.62	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
424.54	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
424.79	0.25	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
425.04	0.25	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK.
425.60	0.56	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.
426.13	0.53	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
426.43	0.30	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
426.98	0.55	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
427.00	0.02	100		100% COAL, BRIGHT	
427.15	0.15	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
427.59	0.44	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CARBONACEOUS WISPS.
427.72	0.13	100		100% SANDSTONE	MED.-FINE GRAINED, CALCAREOUS, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
428.06	0.34	100		100% SANDSTONE	MED.-FINE GRAINED, CALCAREOUS, WHITE, MODERATELY WEAK ROCK.
430.77	2.71	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
431.07	0.30	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
431.64	0.57	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
431.67	0.03	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
432.26	0.59	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
432.79	0.53	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
433.21	0.42	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
433.43	0.22	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
434.97	1.54	100		100% SILTSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK.
435.62	0.65	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
436.04	0.42	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
436.78	0.74	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION, WITH CARBONACEOUS WISPS.
438.17	1.39	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE E : 126.83 M R.L.	
438.47	0.30	100		100% COAL, HEAVY DULL	MUDSTONE, BANDS.
438.51	0.04	100		100% CLAYSTONE	LIGHT BROWN, WITH LENSES OF CALCITE, FIRM, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
438.53	0.02	100		100% COAL, HEAVY DULL	
				BASE OF DALMAYNE E : THICKNESS= 0.36 M; SAMPLED THICKNESS= 0.00 M	
438.64	0.11	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
439.24	0.60	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK, LAMINATED, WITH CARBONACEOUS WISPS.
439.53	0.29	100		100% MUDSTONE	COALY, LENSES, GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
439.58	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
439.62	0.04	100		100% CLAYSTONE	LIGHT BROWN, FIRM, RAPID SLAKING.
439.70	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
439.74	0.04	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
440.10	0.36	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
441.07	0.97	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, LAMINATED, WITH CARBONACEOUS WISPS.
443.02	1.95	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
				TOP OF DALMAYNE E2 : 121.98 M R.L.	
443.25	0.23	100	12	100% COAL, DULL	MUDSTONE, LAMINAE, WITH PYRITE.
443.27	0.02	100	12	100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
443.29	0.02	100	12	100% COAL, HEAVY DULL	
443.33	0.04	100	12	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
443.34	0.01	100	12	100% COAL, HEAVY DULL	
443.74	0.40	100	12	100% COAL, DULL WITH FEW BRIGHT BANDS	
				BASE OF DALMAYNE E2 : THICKNESS= 0.72 M; SAMPLED THICKNESS= 0.72 M	
443.90	0.16	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
444.31	0.41	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
444.54	0.23	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK.
444.89	0.35	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK.
446.72	1.83	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS.
447.58	0.86	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
448.57	0.99	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
448.86	0.29	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
448.91	0.05	100		100% CLAYSTONE	FISSILE, CALCITIC, LIGHT BROWN, FIRM.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
449.00	0.09	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 25 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
449.25	0.25	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
449.31	0.06	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK.
449.62	0.31	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
449.82	0.20	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
450.45	0.63	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK.
450.92	0.47	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
451.44	0.52	100		70% MUDSTONE 30% SANDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY. COALY, BANDS. MODERATELY WEAK ROCK.
451.94	0.50	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
453.02	1.08	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
454.94	1.92	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
455.01	0.07	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
455.23	0.22	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
455.61	0.38	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH MUD PELLETS.
457.98	2.37	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
458.15	0.17	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
458.75	0.60	100		60% SANDSTONE,FINE GRAINED 40% SILTSTONE	SILTSTONE, LAMINAE, GREY-BROWN. CARBONACEOUS, BANDS, BROWN. MODERATELY WEAK ROCK, THICKLY LAMINATED, MODERATELY SPACED JOINTS, TIGHT NON PLANAR, .
459.09	0.34	100		100% SANDSTONE	SILTSTONE, BANDS, BROWN, MODERATELY WEAK ROCK.
462.62	3.53	100		100% SANDSTONE	ARGILLACEOUS, MICACEOUS, BROWN, MODERATELY WEAK ROCK.
464.54	1.92	100		100% SANDSTONE	ARGILLACEOUS, MICACEOUS, GREY-GREEN, MODERATELY WEAK ROCK.
466.60	2.06	100		100% SANDSTONE	MED.-FINE GRAINED, GREY-GREEN, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
467.59	0.99	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, GREY-GREEN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
469.45	1.86	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CARBONACEOUS WISPS.
472.05	2.60	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS.
483.15	11.10	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, VERY WIDELY SPACED JOINTS, JOINTS DIP 55 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
485.00	1.85	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
485.65	0.65	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
485.90	0.25	100		100% MUDSTONE	SILTSTONE, LIGHT BROWN, MODERATELY WEAK ROCK.
485.99	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK.
486.04	0.05	100		100% PEBBLE CONGLOMERATE	GREY, MODERATELY WEAK ROCK.
486.07	0.03	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, MODERATELY WEAK ROCK.
486.58	0.51	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
486.62	0.04	100		100% MUDSTONE	SILTSTONE, LENSES, GREY-BROWN, MODERATELY WEAK ROCK.
487.25	0.63	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
487.81	0.56	100		100% MUDSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
488.00	0.19	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
489.32	1.32	100		100% SILTSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
489.54	0.22	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
489.79	0.25	100		100% CLAYSTONE	LIGHT BROWN, SOFT, RAPID SLAKING, VERY STICKY.
489.87	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
490.06	0.19	100		100% SILTSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
491.56	1.50	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
491.66	0.10	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
491.83	0.17	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
491.87	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
492.76	0.89	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
493.14	0.38	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS.
493.24	0.10	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
493.26	0.02	100		100% COAL, INTERBANDED DULL AND BRIGHT	
493.28	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
493.35	0.07	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
493.39	0.04	100		100% COAL, INTERBANDED DULL AND BRIGHT	CARBONACEOUS, LAMINAE.
493.57	0.18	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, LAMINATED.
493.77	0.20	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
493.92	0.15	100		100% SANDSTONE,MEDIUM GRAINED	CREAM, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS.
493.95	0.03	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
494.20	0.25	100		100% SANDSTONE,MEDIUM GRAINED	CREAM, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS.
494.28	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
494.32	0.04	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
494.52	0.20	100		100% SANDSTONE,FINE GRAINED	GREY-BROWN, MODERATELY WEAK ROCK.
494.82	0.30	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
495.94	1.12	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	GREY. CARBONACEOUS, LAMINAE, GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS.
496.01	0.07	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
496.24	0.23	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, LIGHT BROWN, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
496.28	0.04	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
496.39	0.11	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, LIGHT BROWN, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
496.43	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
496.52	0.09	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
496.55	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
496.58	0.03	100		100% SANDSTONE,FINE GRAINED	LIGHT BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
496.62	0.04	100		100% SANDSTONE,MEDIUM GRAINED	CREAM, MODERATELY WEAK ROCK.
496.67	0.05	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
496.72	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
497.13	0.41	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
497.22	0.09	100		100% SANDSTONE,MEDIUM GRAINED	CREAM, MODERATELY WEAK ROCK.
497.41	0.19	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
497.56	0.15	100		100% SANDSTONE,FINE GRAINED	CREAM, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
497.87	0.31	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
497.91	0.04	100		100% SANDSTONE,FINE GRAINED	GREY-BROWN, MODERATELY WEAK ROCK.
497.94	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
500.83	2.89	100		70% MUDSTONE 30% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, GREY. CARBONACEOUS, TRACES, CREAM. MODERATELY WEAK ROCK, THINLY BEDDED.
501.19	0.36	100		100% SANDSTONE,COARSE GRAINED	QUARTZOSE, CREAM, MODERATELY WEAK ROCK.
501.27	0.08	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
501.65	0.38	100		100% SANDSTONE,COARSE GRAINED	QUARTZOSE, CREAM, MODERATELY WEAK ROCK.
502.41	0.76	100		100% SANDSTONE	VERY COARSE GRAINED, QUARTZOSE, CREAM, MODERATELY STRONG ROCK.
503.70	1.29	100		50% SANDSTONE 50% MUDSTONE	MED.-FINE GRAINED, CREAM. SILTSTONE, GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS.
505.00	1.30	100		100% SANDSTONE,COARSE GRAINED	QUARTZOSE, CREAM, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
506.13	1.13	100		70% SANDSTONE,FINE GRAINED 30% MUDSTONE	MUDSTONE, LENSES, LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY BEDDED.
506.45	0.32	100		100% MUDSTONE	GREY.
506.69	0.24	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	LIGHT GREY. GREY. THINLY LAMINATED.
506.94	0.25	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
507.20	0.26	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.
507.54	0.34	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, CREAM, MODERATELY WEAK ROCK.
507.81	0.27	100		100% MUDSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
508.01	0.20	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH BURROWING, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
508.19	0.18	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
508.44	0.25	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
508.68	0.24	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
512.37	3.69	100		70% MUDSTONE 30% SANDSTONE,FINE GRAINED	COALY, LENSES, GREY. LIGHT GREY. MODERATELY WEAK ROCK, THINLY BEDDED.
512.59	0.22	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH POOR SORTING, WITH BURROWING.
512.78	0.19	100		100% MUDSTONE	ARENACEOUS, LAMINAE, DARK GREY, MODERATELY WEAK ROCK.
513.12	0.34	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH POOR SORTING.
515.00	1.88	100		100% SILTSTONE	PEBBLY, DARK GREY, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	6.91 M	294.71 - 301.62 M	6.91 M
DC	0.00 M	314.29 - 322.64 M	8.35 M
DD	4.74 M	376.78 - 381.52 M	4.74 M
DE	0.00 M	438.17 - 438.53 M	0.36 M
DE2	0.72 M	443.02 - 443.74 M	0.72 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	294.71 - 295.41 M	0.70 M
2	295.41 - 297.60 M	2.19 M
3	297.60 - 299.13 M	1.53 M
4	299.13 - 300.87 M	1.74 M
5	300.87 - 301.62 M	0.75 M
6	374.26 - 375.45 M	1.19 M
7	375.45 - 376.78 M	1.33 M
8	376.78 - 378.64 M	1.86 M
9	378.64 - 379.38 M	0.74 M
10	379.38 - 380.31 M	0.93 M
11	380.31 - 381.52 M	1.21 M
12	443.02 - 443.74 M	0.72 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 13

HOLE TYPE	CORE	
EASTING	596,100 M	GRID
NORTHING	5,386,800 M	GRID
ELEVATION	685.00 M	
TOTAL DEPTH DRILLED	457.60 M	
DRILLING STARTED	21/10/78	
DRILLING TIME	9 DAYS	
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
4.55	4.55	100		100% DOLERITE	COARSE GRAINED, GREY-GREEN, SLIGHTLY WEATHERED, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 65 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CLAY & TALC.
5.20	0.65	100		100% DOLERITE	VERY COARSE GRAINED, GREY-GREEN, UNWEATHERED, VERY STRONG ROCK.
24.85	19.65	100		100% DOLERITE	COARSE GRAINED, GREY-GREEN, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 66 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CLAY & TALC.
25.45	0.60	100		100% DOLERITE	VERY COARSE GRAINED, GREY-GREEN, VERY STRONG ROCK.
25.50	0.05	100		100% DOLERITE	FINE GRAINED, GREY-GREEN, VERY STRONG ROCK.
25.70	0.20	100		100% DOLERITE	VERY COARSE GRAINED, GREY-GREEN, VERY STRONG ROCK.
25.73	0.03	100		100% DOLERITE	FINE GRAINED, GREY-GREEN, VERY STRONG ROCK.
26.35	0.62	100		100% DOLERITE	VERY COARSE GRAINED, GREY-GREEN, VERY STRONG ROCK.
41.50	15.15	100		100% DOLERITE	COARSE GRAINED, GREY-GREEN, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 65 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
42.50	1.00	100		100% DOLERITE	VERY COARSE GRAINED, GREY-GREEN, VERY STRONG ROCK.
50.00	7.50	100		100% DOLERITE	COARSE GRAINED, GREY-GREEN, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 65 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
76.60	26.60	100		100% DOLERITE	MED.-COARSE GRAINED, GREY-GREEN, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 65 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
103.60	27.00	100		100% DOLERITE	MED.-COARSE GRAINED, GREY-GREEN, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 65 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
127.60	24.00	100		100% DOLERITE	MED.-COARSE GRAINED, GREY-GREEN, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 65 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE.
171.50	43.90	100		100% DOLERITE	MED.-COARSE GRAINED, GREY-GREEN, WITH CALCITE ON JOINTS, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
183.00	11.50	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, WITH CALCITE ON JOINTS AND CLAY ON JOINTS, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
250.00	67.00	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, WITH CALCITE ON JOINTS, MODERATELY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
252.00	2.00	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, WITH CALCITE ON JOINTS, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 65 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
265.60	13.60	100		100% DOLERITE	MEDIUM GRAINED, GREY, MODERATELY STRONG ROCK.
298.00	32.40	100		100% DOLERITE	MED.-FINE GRAINED, GREY, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
299.00	1.00	100		100% DOLERITE	MED.-FINE GRAINED, GREY, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
307.20	8.20	100		100% DOLERITE	MED.-FINE GRAINED, GREY, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
308.60	1.40	100		100% DOLERITE	CHLORITIC, DARK GREEN, WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
330.00	21.40	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS.
335.60	5.60	100		100% DOLERITE	MED.-COARSE GRAINED, CHLORITIC, GREEN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
351.50	15.90	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
352.50	1.00	100		100% DOLERITE	MEDIUM GRAINED, CHLORITIC, GREEN, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
364.00	11.50	100		100% DOLERITE	MED.-FINE GRAINED, GREY, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
385.00	21.00	100		100% DOLERITE	MED.-FINE GRAINED, GREY, STRONG ROCK, VERY WIDELY SPACED JOINTS.
391.50	6.50	100		100% DOLERITE	MED.-FINE GRAINED, GREY, WITH ZEOLITE ON JOINTS, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
415.60	24.10	100		100% DOLERITE	MED.-FINE GRAINED, GREY, WITH ZEOLITE ON JOINTS, STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, NON-PLANAR DISCONTINUITIES, .
442.00	26.40	100		100% DOLERITE	MED.-FINE GRAINED, GREY, WITH ZEOLITE ON JOINTS AND CALCITE ON JOINTS, VERY STRONG ROCK, MODERATELY SPACED JOINTS.
457.60	15.60	100		100% DOLERITE	MED.-FINE GRAINED, GREY, WITH ZEOLITE ON JOINTS AND CALCITE ON JOINTS, VERY STRONG ROCK, WIDELY SPACED JOINTS.

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 14

HOLE TYPE	CORE	
EASTING	597,700 M	GRID
NORTHING	5,385,100 M	GRID
ELEVATION	535.00 M	
TOTAL DEPTH DRILLED	411.09 M	
DRILLING STARTED	23/10/78	
DRILLING TIME	12 DAYS	
CORE SIZE	64.0 MM	
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING	0.00 M	
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
5.50	5.50	0		CORE LOSS	
7.00	1.50	90		100% DOLERITE	MEDIUM GRAINED, GREY, WITH LIMONITE ON JOINTS, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, .
8.50	1.50	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH LIMONITE ON JOINTS, SLIGHTLY WEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
12.00	3.50	80		80% DOLERITE 20% DOLERITE	MEDIUM GRAINED, GREY. MEDIUM GRAINED, FERRUGINOUS, ORANGE-YELLOW. MODERATELY WEATHERED, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
14.00	2.00	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH LIMONITE ON JOINTS, SLIGHTLY WEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
15.00	1.00	90		100% DOLERITE	MEDIUM GRAINED, GREY, WITH LIMONITE ON JOINTS, SLIGHTLY WEATHERED, STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
17.10	2.10	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH LIMONITE ON JOINTS, SLIGHTLY WEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
19.00	1.90	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH LIMONITE ON JOINTS, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
35.00	16.00	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH ZEOLITE ON JOINTS, UNWEATHERED, STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
38.50	3.50	70		80% DOLERITE 20% DOLERITE	MEDIUM GRAINED, FERRUGINOUS, YELLOW-BROWN. MEDIUM GRAINED, GREY. SLIGHTLY WEATHERED, WEAK ROCK.
52.00	13.50	100		100% DOLERITE	MEDIUM GRAINED, GREY, UNWEATHERED, STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
61.00	9.00	100		100% DOLERITE	MEDIUM GRAINED, GREY, UNWEATHERED, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
80.50	19.50	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH LIMONITE ON JOINTS, UNWEATHERED, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
81.00	0.50	80		70% TALC 30% DOLERITE	GREEN. MEDIUM GRAINED, STRONGLY FRAGMENTED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
89.50	8.50	100		100% DOLERITE	MEDIUM GRAINED, FRAGMENTED, GREY, WITH TALC ON JOINTS AND CHLORITE ON JOINTS, UNWEATHERED, STRONG ROCK, VERY CLOSELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, .
124.00	34.50	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH CHLORITE ON JOINTS AND CALCITE ON JOINTS, VERY STRONG ROCK, MODERATELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, .
164.00	40.00	100		100% DOLERITE	MED.-FINE GRAINED, GREY, WITH CHLORITE ON JOINTS AND CALCITE ON JOINTS, STRONG ROCK, MODERATELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, .
168.00	4.00	100		100% DOLERITE	MED.-FINE GRAINED, GREY, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
170.10	2.10	100		100% DOLERITE	FINE GRAINED, GREY, WITH CHLORITE ON JOINTS, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, .
170.72	0.62	100		100% DOLERITE	FINE GRAINED, CHLORITIC, GREY-GREEN, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, INFILLED WITH CALCITE.
170.74	0.02	100		100% SANDSTONE,FINE GRAINED	BAKED, GREY, MODERATELY STRONG ROCK.
172.44	1.70	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, THINLY BEDDED.
176.30	3.86	100		100% SANDSTONE,COARSE GRAINED	LITHIC, FRIABLE, LIGHT GREY, WEAK ROCK.
176.88	0.58	100		100% SANDSTONE	MED.-COARSE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
177.29	0.41	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
177.71	0.42	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, LAMINATED.
178.10	0.39	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
178.51	0.41	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS.
180.98	2.47	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
				TOP OF DALMAYNE B : 354.02 M R.L.	
181.20	0.22	100	1	100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
181.58	0.38	0	1	CORE LOSS	
182.07	0.49	100	1	100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
182.16	0.09	100	1	100% MUDSTONE	GREY, WEAK ROCK.
182.41	0.25	100	1	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
182.61	0.20	100	2	100% MUDSTONE	GREY, WEAK ROCK.
183.00	0.39	100	2	100% MUDSTONE	LIGHT GREY, VERY WEAK ROCK.
183.27	0.27	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
183.41	0.14	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, VERY WEAK ROCK.
183.49	0.08	100	3	100% MUDSTONE	GREY, VERY WEAK ROCK.
183.56	0.07	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, VERY WEAK ROCK.
183.94	0.38	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
183.99	0.05	100	3	100% MUDSTONE	GREY, WEAK ROCK.
184.23	0.24	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
184.27	0.04	100	3	100% MUDSTONE	GREY, WEAK ROCK.
184.60	0.33	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
184.63	0.03	100	3	100% MUDSTONE	GREY, WEAK ROCK.
184.72	0.09	100	3	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
184.73	0.01	100	3	100% MUDSTONE	GREY, WEAK ROCK.
185.15	0.42	100	3	100% MUDSTONE	CARBONACEOUS, SHALY, BROWN-BLACK, MODERATELY WEAK ROCK.
185.48	0.33	100	4	100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
185.64	0.16	100	4	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
186.55	0.91	100	4	100% MUDSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
186.58	0.03	100	4	100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
186.63	0.05	100	4	100% CLAYSTONE	LIGHT GREY, FIRM.
186.93	0.30	100	4	100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
188.00	1.07	100	4	100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
188.05	0.05	100	4	100% MUDSTONE	GREY, VERY WEAK ROCK.
188.95	0.90	100	5	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
191.10	2.15	100	5	80% MUDSTONE 20% MUDSTONE	CARBONACEOUS, BLACK. GREY. MODERATELY WEAK ROCK, THINLY BEDDED.
191.12	0.02	100	5	100% COAL, HEAVY DULL	WITH CALCITE ON CLEAT.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
				BASE OF DALMAYNE B : THICKNESS= 10.14 M; SAMPLED THICKNESS=10.14 M	
191.16	0.04	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
191.45	0.29	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
191.95	0.50	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
197.66	5.71	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, THINLY BEDDED, WITH CROSS LAMINATION.
197.94	0.28	100		100% MUDSTONE	CARBONACEOUS, BADLY BROKEN, DARK GREY, MODERATELY WEAK ROCK.
199.43	1.49	100		100% MUDSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, LAMINATED.
200.34	0.91	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
202.56	2.22	100		100% MUDSTONE	SANDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, LAMINATED, WITH LOAD CASTS.
				TOP OF DALMAYNE C : 332.44 M R.L.	
202.76	0.20	100	6	100% MUDSTONE	CARBONACEOUS, BADLY BROKEN, DARK GREY, MODERATELY WEAK ROCK.
207.22	4.46	90	6	90% MUDSTONE 10% MUDSTONE	COALY, BANDS, BLACK. GREY-BROWN. WITH BANDS OF CLAY, MODERATELY WEAK ROCK, THINLY BEDDED.
207.38	0.16	100	6	100% MUDSTONE	COALY, LENSES, DARK GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
				BASE OF DALMAYNE C : THICKNESS= 4.82 M; SAMPLED THICKNESS= 4.82 M	
208.13	0.75	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
208.65	0.52	100		50% MUDSTONE 50% MUDSTONE	GREY. LIGHT GREY. MODERATELY WEAK ROCK, WITH LOAD CASTS, LAMINATED.
209.33	0.68	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
209.90	0.57	100		70% SANDSTONE,FINE GRAINED 30% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, GREY. LIGHT GREY. MODERATELY WEAK ROCK, LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
210.41	0.51	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
210.70	0.29	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, GREY, MODERATELY WEAK ROCK, THINLY BEDDED, WITH CARBONACEOUS WISPS.
218.13	7.43	100		100% SANDSTONE	MED.-COARSE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, VERY WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
219.03	0.90	100		100% SANDSTONE	MED.-COARSE GRAINED, LITHIC, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS.
219.66	0.63	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, FRIABLE, GREY, MODERATELY WEAK ROCK, LAMINATED.
220.70	1.04	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS.
222.17	1.47	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, GREY, MODERATELY WEAK ROCK.
223.63	1.46	100		100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY WEAK ROCK.
225.56	1.93	100		100% SANDSTONE,MEDIUM GRAINED	CONGLOMERATIC, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
233.62	8.06	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, MEDIUM BEDDED, WITH CARBONACEOUS WISPS.
234.83	1.21	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, LAMINATED.
235.90	1.07	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
236.30	0.40	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
237.30	1.00	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
237.75	0.45	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
237.91	0.16	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
243.72	5.81	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
248.87	5.15	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CARBONACEOUS WISPS.
249.02	0.15	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, THICKLY LAMINATED.
250.82	1.80	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
254.46	3.64	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
254.61	0.15	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
254.72	0.11	100		100% SANDSTONE,COARSE GRAINED	CONGLOMERATIC, LIGHT GREY, MODERATELY WEAK ROCK.
255.86	1.14	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
256.14	0.28	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
257.22	1.08	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, THINLY BEDDED.
257.71	0.49	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
257.92	0.21	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
258.51	0.59	100		100% SANDSTONE	MED.-COARSE GRAINED, CONGLOMERATIC, LIGHT GREY, MODERATELY WEAK ROCK.
259.21	0.70	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
261.48	2.27	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
264.65	3.17	100		100% SANDSTONE,COARSE GRAINED	COALY, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
265.60	0.95	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
265.85	0.25	80		100% MUDSTONE	GREY, FIRM.
266.02	0.17	100		100% MUDSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
266.10	0.08	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, OPEN, NON-PLANAR DISCONTINUITIES, INFILLED WITH CALCITE.
				TOP OF DALMAYNE D UPPER : 268.90 M R.L.	
266.17	0.07	100	7	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
266.20	0.03	100	7	100% COAL, DULL WITH FEW BRIGHT BANDS	
266.33	0.13	100	7	100% COAL, DULL	
266.36	0.03	100	7	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
266.37	0.01	100	8	100% MUDSTONE	ARENACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
266.38	0.01	100	8	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
266.46	0.08	100	8	100% MUDSTONE	BROWN, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
266.61	0.35	100	9	100% COAL, DULL	BRIGHT COAL. STREAKS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
266.82	0.01	100	9	100% MUDSTONE	ARENACEOUS, BROWN, MODERATELY WEAK ROCK.
266.87	0.05	100	9	100% COAL, DULL WITH FEW BRIGHT BANDS	
266.91	0.04	100	9	100% MUDSTONE	BRIGHT COAL, LAMINAE, DARK BROWN, MODERATELY WEAK ROCK.
267.25	0.34	100	9	100% COAL, DULL	BRIGHT COAL, STREAKS.
267.29	0.04	100	9	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
				BASE OF DALMAYNE D UPPER : THICKNESS= 1.19 M; SAMPLED THICKNESS= 1.19 M	
267.69	0.40	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
268.11	0.42	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
268.26	0.15	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
268.38	0.12	100		50% MUDSTONE 50% COAL, HEAVY DULL	BRIGHT COAL, LENSES, DARK BROWN. MODERATELY WEAK ROCK, THICKLY LAMINATED.
268.61	0.23	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
268.71	0.10	100		100% CLAYSTONE	LIGHT BROWN, FIRM.
268.93	0.22	100		100% COAL, HEAVY DULL	BLACK, FIRM.
269.00	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, FIRM.
269.25	0.25	100		100% MUDSTONE	GREY, WEAK ROCK, THICKLY LAMINATED, EXTREMELY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
269.55	0.30	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CARBONACEOUS WISPS.
269.70	0.15	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
270.55	0.85	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
271.00	0.45	100		100% SANDSTONE,MEDIUM GRAINED	COALY, TRACES, LIGHT GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
271.33	0.33	100		100% SILTSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK.
271.67	0.34	100		100% SANDSTONE,MEDIUM GRAINED	COALY, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
271.75	0.08	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
271.94	0.19	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
272.10	0.16	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK, LAMINATED.
272.34	0.24	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
273.75	1.41	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
274.33	0.58	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
278.71	4.38	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, MODERATELY WEAK ROCK.
		TOP OF	DALMAYNE D LOWER : 256.29 M R.L.		
278.78	0.07	100	10	100% COAL, DULL WITH FEW BRIGHT BANDS	
278.87	0.09	100	10	50% COAL, BRIGHT 50% CARBONACEOUS SHALE	THINLY LAMINATED.
279.12	0.25	100	10	100% COAL, DULL	
279.32	0.20	100	11	100% MUDSTONE	CARBONACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK.
279.45	0.13	100	12	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
279.57	0.12	100	12	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
279.66	0.09	100	12	100% COAL, HEAVY DULL	
279.69	0.03	100	12	100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
279.71	0.02	100	12	100% MUDSTONE	ARENACEOUS, BROWN, MODERATELY WEAK ROCK.
279.74	0.03	100	12	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
279.99	0.25	100	13	100% COAL, DULL	
280.00	0.01	100	13	100% MUDSTONE	ARENACEOUS, CREAM, MODERATELY WEAK ROCK.
280.24	0.24	100	13	100% COAL, DULL	MUDSTONE, LAMINAE.
280.25	0.01	100	13	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
280.37	0.12	100	13	100% COAL, DULL	
280.38	0.01	100	13	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
280.72	0.34	100	13	100% COAL, DULL	
280.73	0.01	100	13	100% MUDSTONE	ARENACEOUS, BROWN, MODERATELY WEAK ROCK.
280.79	0.06	100	13	100% COAL, DULL	
280.80	0.01	100	13	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
281.30	0.50	100	13	100% COAL, DULL WITH FEW BRIGHT BANDS	MUDSTONE, LAMINAE.
		BASE OF DALMAYNE D LOWER : THICKNESS= 2.59 M; SAMPLED THICKNESS= 2.59 M			
281.90	0.60	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
282.40	0.50	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, THINLY BEDDED.
282.76	0.36	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK.
282.88	0.12	100		100% SANDSTONE	MED.-FINE GRAINED, PEBBLY, LIGHT GREY, MODERATELY WEAK ROCK.
283.28	0.40	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
283.42	0.14	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
283.76	0.34	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, THINLY BEDDED.
285.81	2.05	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
287.00	1.19	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
287.11	0.11	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
287.27	0.16	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
287.96	0.69	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
290.00	2.04	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
291.88	1.88	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
293.90	2.02	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS.
295.50	1.60	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
295.63	0.13	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
295.87	0.24	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
298.16	2.29	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
298.25	0.09	100		100% MUDSTONE	CARBONACEOUS, BADLY BROKEN, DARK BROWN, WEAK ROCK.
298.37	0.12	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
301.85	3.48	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
302.50	0.65	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
303.18	0.68	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
303.57	0.39	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
304.37	0.80	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS.
304.67	0.30	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
305.20	0.53	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
309.04	3.84	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
309.23	0.19	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
310.11	0.88	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
310.72	0.61	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
312.15	1.43	100		100% SILTSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
312.61	0.46	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES.
312.76	0.15	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
313.22	0.46	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
313.76	0.54	100		100% MUDSTONE	CARBONACEOUS, LENSES, GREY, WEAK ROCK.
313.88	0.12	100		100% CLAYSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, FIRM.
313.91	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BADLY BROKEN.
314.00	0.09	0		CORE LOSS	
315.09	1.09	100		100% MUDSTONE	SILTSTONE, GREY, WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
316.10	1.01	100		100% MUDSTONE	SILTSTONE, GREY, WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
316.55	0.45	100		100% SILTSTONE	GREY, WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
316.75	0.20	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
317.12	0.37	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
318.32	1.20	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
319.16	0.84	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
319.19	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
319.21	0.02	100		100% COAL, HEAVY DULL	
319.23	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
319.34	0.11	100		100% COAL, HEAVY DULL	
319.36	0.02	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
319.38	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
319.39	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
319.41	0.02	100		100% MUDSTONE	CARBONACEOUS, FISSILE, BLACK, VERY WEAK ROCK.
319.52	0.11	100		100% COAL, DULL	
319.62	0.10	100		100% MUDSTONE	CARBONACEOUS, FISSILE, BLACK, VERY WEAK ROCK.
319.76	0.14	100		100% SANDSTONE	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
319.79	0.03	100		100% COAL, INTERBANDED DULL AND BRIGHT	
319.82	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
319.86	0.04	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
319.95	0.09	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
320.02	0.07	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
320.30	0.28	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
321.12	0.82	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, JOINTS DIP 10 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
321.29	0.17	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
322.37	1.08	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
322.44	0.07	100		100% SILTSTONE	FINE GRAINED SANDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK.
324.29	1.85	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
324.72	0.43	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
325.17	0.45	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK.
325.30	0.13	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
325.34	0.04	100		100% MUDSTONE	CARBONACEOUS, BLACK, SOFT.
325.51	0.17	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK.
			TOP OF DALMAYNE E : 209.49 M R.L.		
325.66	0.15	100		100% COAL, HEAVY DULL	BLACK, WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
325.73	0.07	100		100% COAL, HEAVY DULL	BLACK, VERY WEAK ROCK.
			BASE OF DALMAYNE E : THICKNESS= 0.22 M; SAMPLED THICKNESS= 0.00 M		
325.80	0.07	100		100% MUDSTONE	CARBONACEOUS, FISSILE, DARK GREY, FIRM.
325.95	0.15	100		100% MUDSTONE	CALCITIC, FISSILE, BROWN, VERY WEAK ROCK.
326.00	0.05	100		100% MUDSTONE	BADLY BROKEN, FISSILE, GREY, WEAK ROCK.
326.03	0.03	100		100% MUDSTONE	CARBONACEOUS, BADLY BROKEN, BLACK, WEAK ROCK.
326.05	0.02	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
326.07	0.02	100		100% COAL, INTERBANDED DULL AND BRIGHT	
327.41	1.34	100		100% SILTSTONE	ARENACEOUS, GREY, MODERATELY WEAK ROCK, LAMINATED, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
327.60	0.19	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
328.00	0.40	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, WEAK ROCK.
328.24	0.24	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LIGHT GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
328.53	0.29	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
329.00	0.47	100		100% SANDSTONE	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, THINLY BEDDED, WITH CROSS LAMINATION, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
329.42	0.42	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, MODERATELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
329.48	0.06	100		100% MUDSTONE	COALY, LENSES, DARK GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
329.73	0.25	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
329.76	0.03	100		100% SANDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE E2 : 205.24 M R.L.	
329.79	0.03	100	14	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
329.83	0.04	100	14	100% COAL, HEAVY DULL	
329.92	0.09	100	14	100% COAL, DULL	
329.93	0.01	100	14	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
329.96	0.03	100	14	100% SILTSTONE	ARGILLACEOUS, LIGHT BROWN, MODERATELY WEAK ROCK.
330.02	0.06	100	14	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
330.08	0.06	100	14	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
330.09	0.01	100	14	100% COAL, INTERBANDED DULL AND BRIGHT	
330.13	0.04	100	14	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
330.15	0.02	100	14	100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
330.19	0.04	100	14	100% COAL, DULL	
330.21	0.02	100	14	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
330.23	0.02	100	14	100% MUDSTONE	ARGILLACEOUS, FISSILE, BROWN, MODERATELY WEAK ROCK.
330.32	0.09	100	14	100% COAL, HEAVY DULL	
330.33	0.01	100	14	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
330.37	0.04	100	14	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
330.38	0.01	100	14	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
330.40	0.02	100	14	100% MUDSTONE	BRIGHT COAL, STREAKS, BROWN, MODERATELY WEAK ROCK.
330.55	0.15	100	14	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
330.56	0.01	100	14	100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
330.78	0.22	100	14	100% COAL, HEAVY DULL	
330.91	0.13	100	14	100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
				BASE OF DALMAYNE E2 : THICKNESS= 1.15 M; SAMPLED THICKNESS= 1.15 M	
331.90	0.99	100	15	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
333.02	1.12	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
334.46	1.44	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.
334.80	0.34	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, VERY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
334.97	0.17	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
335.06	0.09	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
336.09	1.03	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
336.39	0.30	100		100% SILTSTONE	GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
336.44	0.05	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
337.46	1.02	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
337.55	0.09	100		100% MUDSTONE	SILTSTONE, GREY, WEAK ROCK.
338.88	1.33	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
339.91	1.03	100		100% LIMESTONE	SILTSTONE, GREY, MODERATELY STRONG ROCK, WITH DISTURBED BEDDING.
341.13	1.22	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
342.02	0.89	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
342.82	0.80	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, WITH FLAME/PULL STRUCTS.
344.60	1.78	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
344.73	0.13	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
344.84	0.11	100		100% CARBONACEOUS SHALE	BLACK, WEAK ROCK.
344.96	0.12	100		100% MUDSTONE	CARBONACEOUS, COALY, BROWN-BLACK, MODERATELY WEAK ROCK.
345.38	0.42	100		100% SILTSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 55 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
346.00	0.62	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, DARK GREY. LAMINAE, LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED.
347.33	1.33	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
347.89	0.56	100		100% SILTSTONE	GREY-GREEN, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, LAMINATED.
348.07	0.18	100		100% SANDSTONE	MED.-FINE GRAINED, GREY-GREEN, MODERATELY WEAK ROCK.
349.28	1.21	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS.
349.41	0.13	100		100% MUDSTONE	CARBONACEOUS, COALY, BROWN-BLACK, MODERATELY WEAK ROCK.
349.47	0.06	100		100% CLAYSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, FIRM.
350.00	0.53	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
350.25	0.25	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WITH BANDS OF CLAY, WEAK ROCK.
351.48	1.23	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, MODERATELY WEAK ROCK.
352.44	0.96	100		55% SANDSTONE 45% SILTSTONE	MED.-FINE GRAINED, LIGHT GREY. CARBONACEOUS, LAMINAE, DARK GREY. MODERATELY WEAK ROCK.
353.00	0.56	100		100% SANDSTONE	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
353.03	0.03	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
354.52	1.49	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
354.56	0.04	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
354.73	0.17	100		100% MUDSTONE	SILTSTONE, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
355.11	0.38	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
355.28	0.17	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
356.12	0.84	100		100% MUDSTONE	SILTSTONE, DARK BROWN, MODERATELY WEAK ROCK.
356.60	0.48	100		100% SANDSTONE	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
356.98	0.38	100		100% SILTSTONE	MICACEOUS, GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
357.67	0.69	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
358.00	0.33	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
358.25	0.25	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
361.54	3.29	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
361.62	0.08	100		100% COAL, DULL	
361.76	0.14	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
361.90	0.14	100		100% SILTSTONE	CARBONACEOUS, STREAKS, BROWN, MODERATELY WEAK ROCK.
362.02	0.12	100		100% SANDSTONE	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
362.57	0.55	100		100% SANDSTONE	COALY, LENSES, GREY, MODERATELY WEAK ROCK.
362.66	0.09	100		100% SANDSTONE	BRIGHT COAL, BANDS, GREY, MODERATELY WEAK ROCK.
362.79	0.13	100		100% SANDSTONE	PEBBLY, SILTSTONE, GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
363.37	0.58	100		100% SANDSTONE	MED.-FINE GRAINED, GREY-GREEN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
363.54	0.17	100		100% SANDSTONE,FINE GRAINED	GREY-GREEN, MODERATELY WEAK ROCK, LAMINATED.
364.50	0.96	100		100% SANDSTONE	MED.-FINE GRAINED, GREY-GREEN, MODERATELY WEAK ROCK.
366.63	2.13	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
368.05	1.42	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
368.53	0.48	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
368.77	0.24	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED.
371.47	2.70	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
371.56	0.09	100		100% SILTSTONE	ARGILLACEOUS, GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
372.00	0.44	100		100% SANDSTONE	MEDIUM GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
374.55	2.55	100		100% SANDSTONE,FINE GRAINED	MICACEOUS, GREY-GREEN, MODERATELY WEAK ROCK.
374.73	0.18	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
376.02	1.29	100		100% SANDSTONE,FINE GRAINED	GREY-GREEN, MODERATELY WEAK ROCK.
377.00	0.98	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
377.13	0.13	100		100% SILTSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
377.23	0.10	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
377.48	0.25	100		100% SANDSTONE	MED.-FINE GRAINED, PELLETAL, GREY-GREEN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
377.74	0.26	100		100% SANDSTONE	PEBBLY, MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
378.80	1.06	100		100% SANDSTONE	MED.-FINE GRAINED, GREY-GREEN, MODERATELY WEAK ROCK.
380.02	1.22	100		100% SANDSTONE,FINE GRAINED	GREY-GREEN, MODERATELY WEAK ROCK, VERY THINLY BEDDED.
380.24	0.22	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LIGHT GREY, MODERATELY WEAK ROCK.
380.33	0.09	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
382.20	1.87	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, GREY-GREEN, MODERATELY WEAK ROCK.
382.51	0.31	100		100% SANDSTONE	COALY, BANDS, GREY-GREEN, MODERATELY WEAK ROCK.
383.00	0.49	100		100% SANDSTONE	MED.-FINE GRAINED, GREY-GREEN, MODERATELY WEAK ROCK.
383.35	0.35	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
383.44	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
383.74	0.30	100		100% SANDSTONE,MEDIUM GRAINED	COALY, BANDS, GREY-GREEN, MODERATELY WEAK ROCK.
383.93	0.19	100		100% SANDSTONE	MED.-FINE GRAINED, GREY-GREEN, MODERATELY WEAK ROCK.
384.04	0.11	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LIGHT GREY, MODERATELY WEAK ROCK.
387.13	3.09	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, GREY-GREEN, MODERATELY WEAK ROCK.
387.26	0.13	100		100% SANDSTONE	CARBONACEOUS, LENSES, GREY-GREEN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
387.33	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
387.36	0.03	100		100% SANDSTONE,MEDIUM GRAINED	GREY-GREEN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
387.38	0.02	100		100% MUDSTONE	CARBONACEOUS, BLACK.
387.65	0.27	100		100% SILTSTONE	GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
388.49	0.84	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, WITH MICA, MODERATELY WEAK ROCK, VERY THINLY BEDDED.
389.10	0.61	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
389.58	0.48	100		60% SANDSTONE,FINE GRAINED 40% SILTSTONE	LIGHT GREY. ARENACEOUS, LAMINAE, GREY. MODERATELY WEAK ROCK, THINLY BEDDED.
390.96	1.38	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
390.98	0.02	100		100% COAL, HEAVY DULL	
391.06	0.08	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
391.09	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
391.11	0.02	100		100% MUDSTONE	BROWN, WEAK ROCK.
391.17	0.06	100		100% COAL, HEAVY DULL	
391.20	0.03	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
391.22	0.02	100		100% COAL, HEAVY DULL	BADLY BROKEN.
391.31	0.09	100		100% SILTSTONE	ARGILLACEOUS, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, WITH SLICKENSIDES.
392.11	0.80	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
392.42	0.31	100		100% SILTSTONE	MODERATELY WEAK ROCK.
393.12	0.70	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
395.57	2.45	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
395.94	0.37	100		100% SANDSTONE	SILTSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK.
396.11	0.17	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
396.22	0.11	100		100% MUDSTONE	COALY, STREAKS, BROWN, MODERATELY WEAK ROCK.
396.44	0.22	100		100% SILTSTONE	BROWN, MODERATELY WEAK ROCK.
396.93	0.49	100		100% SILTSTONE	ARENACEOUS, LAMINAE, LIGHT BROWN, MODERATELY WEAK ROCK, THICKLY LAMINATED.
397.03	0.10	100		100% SANDSTONE	CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
398.12	1.09	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
398.16	0.04	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN, WEAK ROCK.
398.49	0.33	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY-BROWN, MODERATELY WEAK ROCK.
398.56	0.07	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
398.59	0.03	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK.
399.25	0.66	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
399.26	0.01	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
399.28	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK.
399.29	0.01	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
399.38	0.09	100		100% MUDSTONE	CARBONACEOUS, FISSILE, DARK BROWN, WEAK ROCK.
399.45	0.07	100		100% SILTSTONE	GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
399.50	0.05	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
400.72	1.22	100		60% SANDSTONE,FINE GRAINED 40% SILTSTONE	LIGHT GREY. LAMINAE, GREY. MODERATELY WEAK ROCK.
401.07	0.35	100		100% SILTSTONE	COALY, STREAKS, GREY, MODERATELY WEAK ROCK.
401.22	0.15	100		100% SANDSTONE	CARBONACEOUS, LENSES, GREY-BROWN, MODERATELY WEAK ROCK, WITH DISTURBED BEDDING.
401.72	0.50	100		100% SILTSTONE	COALY, STREAKS, BROWN, MODERATELY WEAK ROCK.
402.28	0.56	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
402.53	0.25	100		100% SANDSTONE	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
402.72	0.19	100		100% SILTSTONE	BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
402.76	0.04	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
402.77	0.01	100		100% COAL, BRIGHT	
402.79	0.02	100		100% MUDSTONE	COALY, LENSES, BROWN, MODERATELY WEAK ROCK.
402.85	0.06	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
403.15	0.30	100		100% SILTSTONE	CARBONACEOUS, BROWN, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
403.22	0.07	100		100% SILTSTONE	LIGHT BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
403.41	0.19	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT BROWN, MODERATELY WEAK ROCK, THICKLY LAMINATED, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
403.56	0.15	100		100% SANDSTONE,MEDIUM GRAINED	GREY-BROWN, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK.
404.88	1.32	100		100% SILTSTONE	BROWN, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK.
405.59	0.71	100		100% SILTSTONE	GREY-BROWN, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK.
406.00	0.41	100		100% SILTSTONE	ARENACEOUS, LIGHT BROWN, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
407.42	1.42	100		100% SANDSTONE,MEDIUM GRAINED	QUARTZOSE, LIGHT GREEN, MODERATELY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
408.32	0.90	100		100% SILTSTONE	GREY-GREEN, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK.
408.62	0.30	100		100% SILTSTONE	LIGHT GREEN, MODERATELY WEAK ROCK, LAMINATED.
409.77	1.15	100		100% SILTSTONE	BROWN, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK.
410.00	0.23	100		100% SILTSTONE	ARENACEOUS, LENSES, GREY-BROWN, MODERATELY WEAK ROCK.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	10.14 M	180.98 - 191.12 M	10.14 M
DC	4.82 M	202.56 - 207.38 M	4.82 M
DDU	1.19 M	266.10 - 267.29 M	1.19 M
DDL	2.59 M	278.71 - 281.30 M	2.59 M
DE	0.00 M	325.51 - 325.73 M	0.22 M
DE2	1.15 M	329.76 - 330.91 M	1.15 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	180.98 - 182.41 M	1.43 M
2	182.41 - 183.00 M	0.59 M
3	183.00 - 185.15 M	2.15 M
4	185.15 - 188.05 M	2.90 M
5	188.05 - 191.12 M	3.07 M
6	202.56 - 207.38 M	4.82 M
7	266.10 - 266.36 M	0.26 M
8	266.36 - 266.46 M	0.10 M
9	266.46 - 267.29 M	0.83 M
10	278.71 - 279.12 M	0.41 M
11	279.12 - 279.32 M	0.20 M
12	279.32 - 279.74 M	0.42 M
13	279.74 - 281.30 M	1.56 M
14	329.76 - 330.91 M	1.15 M
15	330.91 - 331.90 M	0.99 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 15

HOLE TYPE	CORE	
EASTING	598,000 M	GRID
NORTHING	5,387,000 M	GRID
ELEVATION	570.00 M	
TOTAL DEPTH DRILLED	445.60 M	
DRILLING STARTED	31/10/78	
DRILLING TIME	10 DAYS	
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
18.50	18.50	0		CORE LOSS	
22.70	4.20	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, SLIGHTLY WEATHERED, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
25.60	2.90	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, SLIGHTLY WEATHERED, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
31.30	5.70	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, SLIGHTLY WEATHERED, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
38.75	7.45	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, UNWEATHERED, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
39.25	0.50	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, UNWEATHERED, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
40.00	0.75	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
46.00	6.00	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
49.10	3.10	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
55.50	6.40	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 10 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
61.90	6.40	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
66.00	4.10	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 65 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
70.00	4.00	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
79.20	9.20	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 75 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
101.00	21.80	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
103.00	2.00	100		100% DOLERITE	MED.-FINE GRAINED, GREY, STRONG ROCK.
133.60	30.60	100		100% DOLERITE	MED.-FINE GRAINED, GREY, WITH CHLORITE ON JOINTS AND ZEOLITE ON JOINTS, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
144.00	10.40	100		100% DOLERITE	MED.-FINE GRAINED, GREY, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS.
146.00	2.00	100		100% DOLERITE	MED.-FINE GRAINED, GREY, WITH CHLORITE ON JOINTS, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
152.60	6.60	100		100% DOLERITE	MED.-FINE GRAINED, GREY, VERY STRONG ROCK.
156.50	3.90	100		100% DOLERITE	MED.-FINE GRAINED, GREY, WITH CHLORITE ON JOINTS, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
176.60	20.10	100		100% DOLERITE	MED.-FINE GRAINED, GREY, VERY STRONG ROCK.
178.00	1.40	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, WITH CHLORITE ON JOINTS AND ZEOLITE ON JOINTS, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
283.50	105.50	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, STRONG ROCK, WIDELY SPACED JOINTS, OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
321.20	37.70	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, VERY STRONG ROCK.
323.60	2.40	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
326.80	3.20	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, VERY STRONG ROCK.
328.10	1.30	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, WITH CHLORITE ON JOINTS AND ZEOLITE ON JOINTS, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
401.00	72.90	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
404.80	3.80	100		100% DOLERITE	GREY-GREEN, WITH CHLORITE ON JOINTS AND ZEOLITE ON JOINTS, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
420.70	15.90	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 10 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
422.40	1.70	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, WITH CHLORITE ON JOINTS, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
438.60	16.20	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
445.60	7.00	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 10 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 16

HOLE TYPE	CORE	
EASTING	600,700 M	GRID
NORTHING	5,388,900 M	GRID
ELEVATION	545.00 M	
TOTAL DEPTH DRILLED	321.86 M	
DRILLING STARTED	10/11/78	
DRILLING TIME	17 DAYS	
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING	100.40 M	
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
21.50	21.50	0		CORE LOSS	
21.63	0.13	100		100% MUDSTONE	SILTSTONE, ORANGE-YELLOW, WEAK ROCK.
22.38	0.75	100		100% MUDSTONE	SILTSTONE, GREY, WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
22.98	0.60	100		100% MUDSTONE	GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
23.03	0.05	100		100% CLAYSTONE	FISSILE, BADLY BROKEN, GREY-GREEN, VERY WEAK ROCK.
23.40	0.37	100		100% MUDSTONE	SILTSTONE, DARK GREY, WEAK ROCK.
23.60	0.20	100		100% CLAYSTONE	GREY-GREEN, VERY WEAK ROCK.
24.07	0.47	100		100% MUDSTONE	GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
24.12	0.05	100		100% CLAYSTONE	FISSILE, GREY-GREEN, VERY WEAK ROCK.
24.15	0.03	100		100% MUDSTONE	GREY, WEAK ROCK.
24.23	0.08	100		100% CLAYSTONE	FISSILE, GREY-GREEN, VERY WEAK ROCK.
24.36	0.13	100		100% MUDSTONE	SILTSTONE, WEAK ROCK.
24.80	0.44	100		100% CLAYSTONE	FISSILE, GREY-GREEN, VERY WEAK ROCK.
24.96	0.16	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
25.02	0.06	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
25.24	0.22	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
25.58	0.34	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
25.73	0.15	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
26.06	0.33	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
26.66	0.60	100		100% MUDSTONE	GREY-BROWN, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
26.79	0.13	100		100% CLAYSTONE	FISSILE, GREY-GREEN, WEAK ROCK.
26.83	0.04	100		100% CLAYSTONE	GREEN, WEAK ROCK.
26.92	0.09	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
26.96	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
27.52	0.56	100		100% SILTSTONE	CARBONACEOUS, BANDS, BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
27.66	0.14	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, FIRM, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
27.70	0.04	100		100% COAL, HEAVY DULL	
27.87	0.17	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
27.90	0.03	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
27.92	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
27.94	0.02	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
27.98	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
28.12	0.14	100		100% SILTSTONE	GREY, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
28.13	0.01	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
28.15	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
28.20	0.05	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
28.30	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
28.44	0.14	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
28.47	0.03	100		100% CLAYSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
28.60	0.13	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
28.77	0.17	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
28.81	0.04	100		100% CLAYSTONE	LIGHT BROWN, WEAK ROCK.
28.82	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
29.03	0.21	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
29.05	0.02	100		100% CLAYSTONE	FRIABLE, BROWN, SOFT.
29.06	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
29.12	0.06	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
29.14	0.02	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, FIRM.
29.15	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
29.22	0.07	100		100% CLAYSTONE	FISSILE, CREAM, FIRM.
29.24	0.02	100		100% COAL, DULL	
29.29	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
29.33	0.04	100		100% MUDSTONE	SILTSTONE, BROWN, MODERATELY WEAK ROCK.
29.47	0.14	100		100% CLAYSTONE	FISSILE, BUFF, VERY WEAK ROCK.
29.56	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
29.79	0.23	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
29.94	0.15	100		100% SILTSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, MODERATELY WEAK ROCK.
29.97	0.03	100		100% COAL, HEAVY DULL	
30.00	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
30.01	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
30.22	0.21	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
30.23	0.01	100		100% COAL, HEAVY DULL	
30.28	0.05	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
30.34	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
30.41	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
30.51	0.10	100		100% MUDSTONE	CARBONACEOUS, LENSES, LIGHT BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
30.72	0.21	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
30.78	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
30.83	0.05	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
30.88	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
30.91	0.03	100		100% MUDSTONE	COALY, LENSES, BROWN, WEAK ROCK.
30.92	0.01	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
30.94	0.02	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
30.99	0.05	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
31.53	0.54	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WEAK ROCK.
31.61	0.08	100		100% CLAYSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, VERY WEAK ROCK.
32.00	0.39	100		100% MUDSTONE	SILTSTONE, DARK BROWN, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
34.55	2.55	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
35.05	0.50	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
35.60	0.55	100		100% SILTSTONE	ARENACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
35.97	0.37	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, WEAK ROCK, THINLY BEDDED, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
36.70	0.73	100		100% SANDSTONE,MEDIUM GRAINED	ARGILLACEOUS, LIGHT GREY, WEAK ROCK, VERY THINLY BEDDED.
36.88	0.18	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, WEAK ROCK.
38.00	1.12	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, MEDIUM BEDDED, WIDELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
40.60	2.60	60		100% PEBBLE CONGLOMERATE	LIGHT GREY, WITH MUD PELLETS.
40.83	0.23	100		100% SANDSTONE,FINE GRAINED	ARGILLACEOUS, LIGHT GREY, WEAK ROCK, LAMINATED.
40.87	0.04	100		100% CLAYSTONE	FISSILE, LIGHT GREY, VERY WEAK ROCK.
41.00	0.13	100		100% SILTSTONE	GREY, WEAK ROCK.
41.08	0.08	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, FIRM.
41.18	0.10	100		100% SANDSTONE,FINE GRAINED	ARGILLACEOUS, LIGHT GREY, VERY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
41.25	0.07	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
41.32	0.07	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, WEAK ROCK.
41.39	0.07	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
41.44	0.05	100		100% CLAYSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, VERY WEAK ROCK.
41.45	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
41.46	0.01	100		100% COAL, HEAVY DULL	
41.49	0.03	100		100% COAL, INTERBANDED DULL AND BRIGHT	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
41.51	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
41.64	0.13	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
42.03	0.39	100		100% SILTSTONE	BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
42.11	0.08	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
42.18	0.07	100		100% SILTSTONE	COALY, LENSES, GREY-BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
43.63	1.45	100		100% SILTSTONE	FINE GRAINED SANDSTONE, LAMINAE, BROWN, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
44.18	0.55	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
45.41	1.23	85		100% SANDSTONE	CALCAREOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
45.59	0.18	100		100% SANDSTONE	COALY, BANDS, LIGHT GREY.
45.70	0.11	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
45.77	0.07	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
46.06	0.29	100		100% CLAYSTONE	LIGHT BROWN, VERY WEAK ROCK.
46.09	0.03	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
46.12	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
46.14	0.02	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
46.23	0.09	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
46.24	0.01	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
46.26	0.02	100		100% COAL, INTERBANDED DULL AND BRIGHT	
46.29	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
46.33	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
46.49	0.16	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 55 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
46.51	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
46.54	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
46.57	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
46.60	0.03	100		100% COAL, INTERBANDED DULL AND BRIGHT	
46.61	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
46.73	0.12	100		100% MUDSTONE	COALY, STREAKS, DARK BROWN, MODERATELY WEAK ROCK.
46.76	0.03	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
46.81	0.05	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
46.84	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
46.89	0.05	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
46.90	0.01	100		100% COAL, HEAVY DULL	
46.93	0.03	100		100% COAL, INTERBANDED DULL AND BRIGHT	
46.95	0.02	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
46.96	0.01	100		100% COAL, INTERBANDED DULL AND BRIGHT	
47.00	0.04	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
47.09	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
47.35	0.26	100		100% MUDSTONE	SILTSTONE, BROWN, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
47.40	0.05	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, WEAK ROCK.
47.43	0.03	100		100% CLAYSTONE	FISSILE, GREY-GREEN, VERY WEAK ROCK.
47.47	0.04	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
47.50	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
47.52	0.02	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
47.54	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
47.58	0.04	100		100% MUDSTONE	COALY, LENSES, GREY-BROWN, MODERATELY WEAK ROCK.
47.72	0.14	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
48.36	0.64	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
48.49	0.13	100		100% SILTSTONE	ARGILLACEOUS, FISSILE, GREY-BROWN, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
48.83	0.34	100		100% SILTSTONE	ARENACEOUS, LENSES, BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
49.00	0.17	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
49.22	0.22	100		100% CLAYSTONE	MICACEOUS, LIGHT GREEN, MODERATELY WEAK ROCK.
49.40	0.18	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
49.42	0.02	100		100% MUDSTONE	CARBONACEOUS, BANDS, DARK BROWN, MODERATELY WEAK ROCK.
49.48	0.06	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
49.51	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
49.56	0.05	100		100% COAL, HEAVY DULL	
49.57	0.01	100		100% MUDSTONE	BRIGHT COAL, STREAKS, BROWN, MODERATELY WEAK ROCK.
49.62	0.05	100		100% COAL, HEAVY DULL	
49.68	0.06	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, BROWN, MODERATELY WEAK ROCK.
49.81	0.13	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 15 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
49.87	0.06	100		100% COAL, HEAVY DULL	
49.88	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
49.92	0.04	100		100% COAL, HEAVY DULL	
49.97	0.05	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
49.99	0.02	100		100% COAL, BRIGHT	
50.06	0.07	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
50.08	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
50.17	0.09	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
50.24	0.07	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
50.31	0.07	100		100% COAL, BRIGHT	
50.34	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
50.36	0.02	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
50.38	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
50.46	0.08	100		100% COAL, HEAVY DULL	BADLY BROKEN.
50.55	0.09	100		100% COAL, DULL WITH FEW BRIGHT BANDS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
50.57	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
50.58	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
50.65	0.07	100		100% COAL, HEAVY DULL	
50.68	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
50.70	0.02	100		100% MUDSTONE	COALY, STREAKS, LIGHT BROWN, MODERATELY WEAK ROCK.
50.78	0.08	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
50.82	0.04	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
50.85	0.03	100		100% MUDSTONE	CARBONACEOUS, FISSILE, BROWN-BLACK, VERY WEAK ROCK.
50.95	0.10	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
50.98	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
51.00	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
51.04	0.04	100		100% COAL, HEAVY DULL	
51.09	0.05	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
51.20	0.11	100		100% COAL, HEAVY DULL	
51.21	0.01	100		100% MUDSTONE	BROWN, WEAK ROCK.
51.35	0.14	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
51.40	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
51.46	0.06	100		100% COAL, HEAVY DULL	
51.50	0.04	100		100% COAL, DULL	
51.53	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
51.55	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
51.90	0.35	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
51.95	0.05	100		100% COAL, HEAVY DULL	
51.96	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
51.98	0.02	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
52.00	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
52.09	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
52.19	0.10	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
52.33	0.14	100		100% CLAYSTONE	LIGHT BROWN, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
52.39	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
52.42	0.03	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, BROWN, VERY WEAK ROCK.
52.50	0.08	100		100% COAL, HEAVY DULL	
52.52	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
52.55	0.03	100		100% COAL, HEAVY DULL	
52.58	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
52.62	0.04	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
52.64	0.02	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
52.65	0.01	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
52.67	0.02	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
52.69	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
53.05	0.36	100		100% MUDSTONE	SILTSTONE, BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
53.45	0.40	100		100% SILTSTONE	LIGHT BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
53.85	0.40	100		100% SILTSTONE	GREY-GREEN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
53.93	0.08	100		100% SILTSTONE	GREY, LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
55.23	1.30	100		100% SILTSTONE	GREY-GREEN, MODERATELY WEAK ROCK.
55.38	0.15	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY-GREEN, MODERATELY WEAK ROCK.
56.22	0.84	100		100% SILTSTONE	LIGHT GREEN, MODERATELY WEAK ROCK.
56.32	0.10	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
58.75	2.43	100		100% SILTSTONE	GREY-GREEN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
59.08	0.33	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
59.44	0.36	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
59.77	0.33	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CROSS LAMINATION.
60.10	0.33	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, WITH MICA, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
60.32	0.22	100		60% SANDSTONE,FINE GRAINED 40% SILTSTONE	LIGHT GREY. GREY-BROWN. MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
60.92	0.60	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
60.96	0.04	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
61.66	0.70	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
61.77	0.11	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
62.27	0.50	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
62.38	0.11	100		100% SANDSTONE	COALY, LENSES, GREY-GREEN, MODERATELY WEAK ROCK.
62.68	0.30	100		100% SANDSTONE,MEDIUM GRAINED	GREY-GREEN, MODERATELY WEAK ROCK.
62.84	0.16	100		100% SANDSTONE	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH LOAD CASTS.
63.00	0.16	100		100% SILTSTONE	ARENACEOUS, LENSES, GREY, MODERATELY WEAK ROCK.
63.09	0.09	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
63.19	0.10	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, BANDS, GREY-GREEN, MODERATELY WEAK ROCK.
63.57	0.38	100		100% SANDSTONE	COALY, LENSES, GREY-GREEN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
64.80	1.23	100		100% SANDSTONE	MED.-FINE GRAINED, GREY-GREEN, MODERATELY WEAK ROCK.
64.81	0.01	100		100% COAL, BRIGHT	
65.39	0.58	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
65.85	0.46	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
65.91	0.06	100		100% SILTSTONE	ARENACEOUS, LENSES, GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
66.09	0.18	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
66.12	0.03	100		100% SILTSTONE	FRAGMENTED, GREY.
66.26	0.14	100		100% SILTSTONE	LIGHT GREEN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
69.46	3.20	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
70.50	1.04	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
73.75	3.25	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
74.00	0.25	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
74.34	0.34	100		70% MUDSTONE 30% SANDSTONE	SILTSTONE, GREY. COALY, LENSES, LIGHT GREY. WEAK ROCK, WITH DISTURBED BEDDING, WITH SLUMP STRUCTURES.
74.70	0.36	100		100% SANDSTONE	CARBONACEOUS, LENSES, GREY-GREEN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
75.69	0.99	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
76.00	0.31	100		100% SANDSTONE	CARBONACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
76.06	0.06	100		100% MUDSTONE	PEBBLY, ARENACEOUS, BROWN, WEAK ROCK, WITH MUD PELLETS.
76.10	0.04	100		100% SANDSTONE	COALY, LENSES, MODERATELY WEAK ROCK, WITH MUD PELLETS.
76.30	0.20	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
76.36	0.06	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
76.45	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
76.51	0.06	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN, MODERATELY WEAK ROCK.
76.53	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
76.55	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
76.59	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
76.70	0.11	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
76.71	0.01	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
76.84	0.13	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
76.92	0.08	100		100% COAL, HEAVY DULL	
77.00	0.08	100		100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, MODERATELY WEAK ROCK.
77.03	0.03	100		100% COAL, HEAVY DULL	
77.07	0.04	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
77.09	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, WITH MUD PELLETS.
77.10	0.01	100		50% MUDSTONE 50% PYRITE	BROWN. MODERATELY STRONG ROCK.
77.11	0.01	100		100% COAL, HEAVY DULL	
77.15	0.04	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
77.20	0.05	100		100% COAL, INTERBANDED DULL AND BRIGHT	
77.24	0.04	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
77.27	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
77.29	0.02	100		100% COAL, HEAVY DULL	
77.38	0.09	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
77.40	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
77.42	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
77.48	0.06	100		100% CLAYSTONE	LIGHT BROWN, WEAK ROCK.
77.54	0.06	100		100% CLAYSTONE	FISSILE, GREY-GREEN, WEAK ROCK.
77.58	0.04	100		100% MUDSTONE	ARGILLACEOUS, BANDS, BROWN, MODERATELY WEAK ROCK.
77.67	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
77.73	0.06	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
77.77	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
77.78	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
78.30	0.52	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
78.68	0.38	100		100% SILTSTONE	LIGHT GREEN, WEAK ROCK.
79.94	1.26	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
80.47	0.53	100		100% SILTSTONE	LIGHT GREEN, WEAK ROCK.
80.58	0.11	100		100% SILTSTONE	BADLY BROKEN, GREY.
80.82	0.24	100		100% CLAYSTONE	LIGHT GREEN, WEAK ROCK.
80.90	0.08	100		100% SILTSTONE	ARGILLACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
80.98	0.08	100		100% CLAYSTONE	LIGHT GREEN, WEAK ROCK.
81.45	0.47	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
82.28	0.83	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
82.62	0.34	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
82.97	0.35	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
84.30	1.33	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, WITH MICA, MODERATELY WEAK ROCK.
84.54	0.24	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED.
86.02	1.48	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
86.25	0.23	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
89.18	2.93	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
91.36	2.18	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
91.68	0.32	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
92.31	0.63	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
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92.32	0.01	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
92.35	0.03	100		100% COAL, HEAVY DULL	
92.38	0.03	100		100% MUDSTONE	CARBONACEOUS, LENSES, LIGHT BROWN, MODERATELY WEAK ROCK.
92.44	0.06	100		100% COAL, HEAVY DULL	
92.64	0.20	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK.
92.84	0.20	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, VERY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
92.88	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
93.02	0.14	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
93.07	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
93.12	0.05	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
93.15	0.03	100		100% COAL, INTERBANDED DULL AND BRIGHT	
93.16	0.01	100		100% COAL, HEAVY DULL	
93.18	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
93.20	0.02	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
93.23	0.03	100		100% COAL, HEAVY DULL	
93.24	0.01	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
93.26	0.02	100		100% MUDSTONE	BROWN, WEAK ROCK.
93.31	0.05	100		100% COAL, HEAVY DULL	
93.33	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
93.35	0.02	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
93.37	0.02	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
93.42	0.05	100		100% MUDSTONE	SILTSTONE, LIGHT BROWN, MODERATELY WEAK ROCK.
93.45	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
93.46	0.01	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
93.48	0.02	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
93.50	0.02	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
93.52	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
93.57	0.05	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
93.67	0.10	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY-BROWN, MODERATELY WEAK ROCK, THICKLY LAMINATED.
93.70	0.03	100		100% SILTSTONE	BROWN, MODERATELY WEAK ROCK.
93.81	0.11	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY-BROWN, MODERATELY WEAK ROCK.
94.17	0.36	100		100% SILTSTONE	BROWN, WEAK ROCK.
94.71	0.54	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
95.02	0.31	100		100% SILTSTONE	ARENACEOUS, LAMINAE, BROWN, WEAK ROCK, VERY THINLY BEDDED.
95.14	0.12	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
96.04	0.90	100		100% SANDSTONE	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
96.12	0.08	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
96.98	0.86	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
97.21	0.23	100		100% SANDSTONE	CARBONACEOUS, LENSES, GREY-GREEN, MODERATELY WEAK ROCK.
97.26	0.05	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
97.80	0.54	100		100% SANDSTONE	CARBONACEOUS, STREAKS, GREY-GREEN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
98.20	0.40	100		100% SANDSTONE	CARBONACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK, VERY THINLY BEDDED.
98.77	0.57	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
99.16	0.39	100		100% SANDSTONE	CARBONACEOUS, LENSES, LIGHT GREY, THINLY BEDDED.
99.21	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
99.29	0.08	100		100% COAL, HEAVY DULL	
99.46	0.17	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
99.69	0.23	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
99.77	0.08	100		100% MUDSTONE	BROWN.
99.83	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
99.86	0.03	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
99.92	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
100.02	0.10	100		100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
100.04	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
100.07	0.03	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
100.11	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
100.12	0.01	100		100% MUDSTONE	SILTSTONE, BROWN, WEAK ROCK.
100.23	0.11	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
100.31	0.08	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, WEAK ROCK.
100.56	0.25	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
100.58	0.02	100		100% MUDSTONE	BROWN, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
100.88	0.30	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
101.06	0.18	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK.
101.09	0.03	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
101.10	0.01	100		100% COAL, HEAVY DULL	
101.11	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
101.16	0.05	100		100% COAL, HEAVY DULL	
101.18	0.02	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
101.20	0.02	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
101.26	0.06	100		100% COAL, HEAVY DULL	BADLY BROKEN.
101.33	0.07	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
101.36	0.03	100		100% MUDSTONE	SILTSTONE, BROWN, MODERATELY WEAK ROCK.
101.53	0.17	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
101.56	0.03	100		100% COAL, HEAVY DULL	
101.62	0.06	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
101.68	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
101.70	0.02	100		100% COAL, BRIGHT	
101.71	0.01	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
101.82	0.11	100		100% COAL, HEAVY DULL	
101.83	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN, MODERATELY WEAK ROCK.
101.86	0.03	100		100% MUDSTONE	SILTSTONE, LIGHT BROWN, WEAK ROCK.
101.90	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
101.93	0.03	100		100% COAL, HEAVY DULL	
101.99	0.06	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
102.05	0.06	100		100% COAL, HEAVY DULL	
102.12	0.07	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
102.27	0.15	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 55 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
102.32	0.05	100		100% MUDSTONE	SILTSTONE, LIGHT GREY, MODERATELY WEAK ROCK.
102.34	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
102.37	0.03	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN, MODERATELY WEAK ROCK.
102.44	0.07	50		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
102.49	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
102.53	0.04	100		100% MUDSTONE	LIGHT GREEN, WEAK ROCK.
102.63	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
102.71	0.08	100		100% MUDSTONE	FISSILE, LIGHT BROWN, WEAK ROCK.
102.87	0.16	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
102.94	0.07	100		100% MUDSTONE	CARBONACEOUS, LENSES, BROWN, MODERATELY WEAK ROCK.
103.00	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
103.01	0.01	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
103.08	0.07	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
103.12	0.04	100		100% MUDSTONE	FISSILE, LIGHT BROWN, WEAK ROCK.
103.21	0.09	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, WEAK ROCK.
103.24	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
103.30	0.06	100		100% MUDSTONE	FISSILE, LIGHT BROWN, WEAK ROCK.
103.33	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
103.38	0.05	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT GREEN, WEAK ROCK.
103.44	0.06	100		100% COAL, HEAVY DULL	
103.52	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
103.55	0.03	100		100% COAL, HEAVY DULL	
103.61	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
103.67	0.06	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, WEAK ROCK.
103.75	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
103.76	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN, MODERATELY WEAK ROCK.
103.77	0.01	100		100% MUDSTONE	LIGHT GREEN, WEAK ROCK.
103.82	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
103.95	0.13	100		100% CLAYSTONE	LIGHT BROWN, WEAK ROCK.
103.97	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
104.17	0.20	100		100% MUDSTONE	LIGHT GREEN, WEAK ROCK.
104.27	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK, WITH MUD PELLETS.
104.31	0.04	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, WEAK ROCK.
104.33	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
104.34	0.01	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
104.46	0.12	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
104.49	0.03	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, WEAK ROCK.
104.53	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
104.56	0.03	100		100% COAL, HEAVY DULL	
104.62	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN, MODERATELY WEAK ROCK.
104.84	0.22	100		100% COAL, HEAVY DULL	
104.86	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
104.96	0.10	100		100% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, WEAK ROCK.
105.00	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
105.06	0.06	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
105.22	0.16	100		100% COAL, HEAVY DULL	
105.25	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
105.33	0.08	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
105.35	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
105.40	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
105.42	0.02	100		100% COAL, BRIGHT	
105.58	0.16	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
105.59	0.01	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
105.62	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
105.64	0.02	100		100% COAL, INTERBANDED DULL AND BRIGHT	
105.65	0.01	100		100% COAL, HEAVY DULL	
105.70	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
105.74	0.04	100		100% COAL, INTERBANDED DULL AND BRIGHT	
105.81	0.07	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
105.84	0.03	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
105.88	0.04	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
105.92	0.04	100		100% COAL, INTERBANDED DULL AND BRIGHT	BADLY BROKEN.
105.97	0.05	100		100% COAL, DULL	
106.07	0.10	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
106.17	0.10	100		100% MUDSTONE	CARBONACEOUS, BADLY BROKEN, BROWN-BLACK.
106.19	0.02	100		100% COAL, DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
106.49	0.30	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
				BASE OF DALMAYNE B : THICKNESS= 14.18 M; SAMPLED THICKNESS= 0.00 M	
106.74	0.25	100		100% SILTSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
107.00	0.26	100		100% SILTSTONE	BADLY BROKEN, GREY.
107.98	0.98	100		100% SILTSTONE	LAMINAE, GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
108.20	0.22	100		100% MUDSTONE	BADLY BROKEN, GREY, WEAK ROCK.
109.83	1.63	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
110.14	0.31	100		100% SILTSTONE	GREY-BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 35 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
110.76	0.62	100		100% SILTSTONE	GREY, WEAK ROCK.
111.11	0.35	100		100% MUDSTONE	SILTSTONE, GREY, WEAK ROCK.
111.54	0.43	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
111.79	0.25	100		100% CLAYSTONE	FISSILE, MICACEOUS, LIGHT GREEN, VERY WEAK ROCK.
111.88	0.09	100		100% MUDSTONE	GREY, WEAK ROCK.
111.89	0.01	100		100% CLAYSTONE	LIGHT BROWN, VERY WEAK ROCK.
112.08	0.19	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
112.51	0.43	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK, THICKLY LAMINATED.
112.90	0.39	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.
113.31	0.41	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY STRONG ROCK.
113.98	0.67	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CROSS LAMINATION, WITH FLAME/PULL STRUCTS.
115.97	1.99	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, THINLY BEDDED, WITH CROSS LAMINATION, WIDELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
116.28	0.31	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
			TOP OF DALMAYNE C : 428.72 M R.L.		
116.46	0.18	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
116.49	0.03	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
116.59	0.10	100		100% COAL, HEAVY DULL	
117.22	0.63	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
117.57	0.35	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
117.90	0.33	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
118.03	0.13	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
118.38	0.35	100		100% MUDSTONE	ARGILLACEOUS, FISSILE, LIGHT BROWN, VERY WEAK ROCK.
118.41	0.03	100		100% COAL, HEAVY DULL	
118.44	0.03	100		100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
118.49	0.05	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
118.52	0.03	100		100% MUDSTONE	PYRITIC, FISSILE, LIGHT BROWN, WEAK ROCK.
118.57	0.05	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
118.59	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
118.70	0.11	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, VERY WEAK ROCK.
118.81	0.11	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
119.15	0.34	50		100% MUDSTONE	BROWN, VERY WEAK ROCK.
119.27	0.12	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
119.33	0.06	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
119.94	0.61	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
119.98	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN, MODERATELY WEAK ROCK.
120.09	0.11	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
121.17	1.08	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
121.21	0.04	100		100% MUDSTONE	ARENACEOUS, CARBONACEOUS, DARK BROWN, WEAK ROCK.
121.26	0.05	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
121.28	0.02	100		100% MUDSTONE	BADLY BROKEN, BROWN.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
121.42	0.14	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
			BASE OF DALMAYNE C : THICKNESS= 5.14 M; SAMPLED THICKNESS= 0.00 M		
121.48	0.06	100		100% SILTSTONE	GREY.
121.57	0.09	100		100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
121.88	0.31	100		100% MUDSTONE	DARK BROWN, WEAK ROCK.
122.02	0.14	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
122.23	0.21	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LIGHT GREY, MODERATELY WEAK ROCK.
122.28	0.05	100		100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
123.11	0.83	100		100% SILTSTONE	ARENACEOUS, LIGHT GREY, WEAK ROCK, WITH DISTURBED BEDDING, WITH SLUMP STRUCTURES.
123.23	0.12	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
124.30	1.07	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
124.40	0.10	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, WEAK ROCK.
125.19	0.79	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
127.75	2.56	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
128.34	0.59	100		100% SANDSTONE,MEDIUM GRAINED	BADLY BROKEN, LIGHT GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
128.54	0.20	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
128.89	0.35	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
129.63	0.74	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
130.16	0.53	100		100% SANDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
130.76	0.60	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
131.07	0.31	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
131.48	0.41	100		100% SANDSTONE	COALY, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS, MODERATELY SPACED JOINTS, JOINTS DIP 25 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
131.66	0.18	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, GREY-GREEN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
131.91	0.25	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
133.26	1.35	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
133.72	0.46	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
134.00	0.28	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
135.54	1.54	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
136.08	0.54	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
136.60	0.52	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
136.79	0.19	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
137.20	0.41	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
138.96	1.76	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
142.12	3.16	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
142.18	0.06	100		100% SILTSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK.
145.01	2.83	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
145.16	0.15	100		100% MUDSTONE	SILTSTONE, BROWN, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 15 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
145.68	0.52	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
150.11	4.43	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
150.38	0.27	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
154.60	4.22	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
155.00	0.40	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
157.80	2.80	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
157.83	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
157.92	0.09	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
158.00	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
158.25	0.25	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, MODERATELY WEAK ROCK.
158.36	0.11	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
158.38	0.02	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, MODERATELY WEAK ROCK.
160.55	2.17	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
162.56	2.01	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
163.21	0.65	100		100% SANDSTONE	MED.-COARSE GRAINED, CONGLOMERATIC, LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
164.13	0.92	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
164.68	0.55	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
166.90	2.22	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
169.50	2.60	100		100% SANDSTONE,COARSE GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
170.00	0.50	0		CORE LOSS	
172.85	2.85	100		100% SANDSTONE,MEDIUM GRAINED	ARGILLACEOUS, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
175.90	3.05	100		100% SANDSTONE,MEDIUM GRAINED	ARGILLACEOUS, LIGHT GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
178.67	2.77	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
182.00	3.33	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
182.07	0.07	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
182.26	0.19	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
182.76	0.50	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
183.44	0.68	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
184.54	1.10	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
185.23	0.69	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
185.43	0.20	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
185.45	0.02	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
185.70	0.25	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK, LAMINATED.
190.13	4.43	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
190.70	0.57	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
191.76	1.06	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
193.29	1.53	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
196.15	2.86	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
196.77	0.62	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, .
198.66	1.89	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
199.02	0.36	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
199.41	0.39	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
199.47	0.06	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
199.62	0.15	100		100% MUDSTONE	CARBONACEOUS, BADLY BROKEN, BROWN-BLACK, MODERATELY WEAK ROCK.
199.76	0.14	0		CORE LOSS	
200.00	0.24	100		100% MUDSTONE	CARBONACEOUS, SIDERITIC, BROWN-BLACK, MODERATELY STRONG ROCK.
200.06	0.06	100		100% MUDSTONE	DARK GREY, WEAK ROCK.
200.09	0.03	100		100% CLAYSTONE	GREY-GREEN, VERY WEAK ROCK.
200.12	0.03	100		100% CLAYSTONE	GREEN, VERY WEAK ROCK.
200.21	0.09	100		100% MUDSTONE	CARBONACEOUS, SHALY, BROWN-BLACK, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
202.85	2.64	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
213.82	10.97	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
213.96	0.14	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, MODERATELY WEAK ROCK.
214.03	0.07	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
214.17	0.14	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
215.00	0.83	100		100% SANDSTONE,MEDIUM GRAINED	CONGLOMERATIC, LIGHT GREY, MODERATELY WEAK ROCK.
215.20	0.20	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
216.75	1.55	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
217.35	0.60	100		100% SANDSTONE	MED.-FINE GRAINED, CALCAREOUS, LIGHT GREY, MODERATELY WEAK ROCK.
218.45	1.10	100		100% SANDSTONE	MED.-FINE GRAINED, LIMONITIC, LIGHT GREY, MODERATELY WEAK ROCK.
218.53	0.08	100		100% SANDSTONE,COARSE GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
218.85	0.32	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
219.10	0.25	100		100% SANDSTONE,FINE GRAINED	CALCAREOUS, CREAM, MODERATELY STRONG ROCK.
221.40	2.30	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
222.56	1.16	100		100% SANDSTONE	MED.-FINE GRAINED, CALCAREOUS, LIGHT GREY, MODERATELY WEAK ROCK.
226.46	3.90	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
226.63	0.17	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
226.66	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK.
226.79	0.13	100		100% MUDSTONE	DARK BROWN, MODERATELY STRONG ROCK.
226.84	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK.
227.35	0.51	100		100% SANDSTONE	SILTSTONE, LENSES, GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH MUD PELLETS, WITH FLAME/PULL STRUCTS.
227.49	0.14	100		100% MUDSTONE	SILTSTONE, LENSES, BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
227.67	0.18	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
233.77	6.10	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
234.05	0.28	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
235.34	1.29	90		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
235.90	0.56	100		70% SILTSTONE 30% SANDSTONE,FINE GRAINED	GREY. GREY. MODERATELY WEAK ROCK, VERY THINLY BEDDED.
236.49	0.59	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
236.93	0.44	100		100% SILTSTONE	CARBONACEOUS, ARENACEOUS, DARK GREY, WITH MICA, MODERATELY WEAK ROCK, THINLY LAMINATED.
237.07	0.14	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
237.40	0.33	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, DARK BROWN, WEAK ROCK.
237.84	0.44	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
238.54	0.70	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
238.59	0.05	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, BROWN-BLACK, MODERATELY WEAK ROCK.
238.61	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
238.67	0.06	100		100% CARBONACEOUS SHALE	FISSILE, BLACK, VERY WEAK ROCK.
238.95	0.28	100		100% MUDSTONE	SILTSTONE, GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
238.97	0.02	100		100% COAL, BRIGHT	
239.00	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
239.43	0.43	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
239.50	0.07	100		100% SANDSTONE,FINE GRAINED	CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK.
239.97	0.47	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
240.06	0.09	100		100% SILTSTONE	CALCITIC, ARENACEOUS, GREY, MODERATELY WEAK ROCK.
240.33	0.27	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
240.77	0.44	100		100% SILTSTONE	GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
240.98	0.21	100		100% MUDSTONE	BADLY BROKEN, GREY, VERY WEAK ROCK.
241.50	0.52	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
242.84	1.34	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CARBONACEOUS WISPS, LAMINATED, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
242.86	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
242.94	0.08	100		100% COAL, HEAVY DULL	
242.97	0.03	100		100% CALCITE	ARGILLACEOUS, CREAM, MODERATELY WEAK ROCK.
243.22	0.25	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
243.29	0.07	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
243.46	0.17	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE E : 301.54 M R.L.	
243.90	0.44	100		100% COAL, HEAVY DULL	
243.98	0.08	100		100% MUDSTONE	CARBONACEOUS, COALY, DARK BROWN, MODERATELY WEAK ROCK.
244.07	0.09	100		100% COAL, HEAVY DULL	
244.10	0.03	100		100% COAL, DULL	
244.16	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
244.17	0.01	100		100% MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
244.26	0.09	100		100% COAL, HEAVY DULL	
244.31	0.05	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
				BASE OF DALMAYNE E : THICKNESS= 0.85 M; SAMPLED THICKNESS= 0.00 M	
244.36	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
244.37	0.01	100		100% MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
244.61	0.24	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
244.81	0.20	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WEAK ROCK.
244.84	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
245.01	0.17	100		100% MUDSTONE	SILTSTONE, BROWN, MODERATELY WEAK ROCK.
245.02	0.01	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
245.04	0.02	100		100% COAL, HEAVY DULL	
245.10	0.06	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
245.20	0.10	100		100% SILTSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
245.34	0.14	100		100% SANDSTONE,FINE GRAINED	CALCITIC, SILTSTONE, LIGHT GREY, MODERATELY WEAK ROCK.
246.02	0.68	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
246.04	0.02	100		100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
246.07	0.03	100		100% MUDSTONE	SILTSTONE, DARK BROWN, MODERATELY WEAK ROCK.
246.17	0.10	100		100% COAL, HEAVY DULL	
246.22	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
246.25	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
246.28	0.03	100		100% COAL, HEAVY DULL	
246.39	0.11	100		100% MUDSTONE	SILTSTONE, BROWN, MODERATELY WEAK ROCK.
246.42	0.03	100		100% COAL, HEAVY DULL	
246.47	0.05	100		100% MUDSTONE	BROWN, WEAK ROCK.
246.66	0.19	100		100% COAL, HEAVY DULL	
246.73	0.07	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
246.75	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
246.77	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
246.99	0.22	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
247.56	0.57	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
249.08	1.52	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
249.09	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
249.10	0.01	100		100% CALCITE	CREAM, MODERATELY WEAK ROCK.
249.12	0.02	100		100% MUDSTONE	FISSILE, LIGHT BROWN, WEAK ROCK.
				TOP OF DALMAYNE E2 : 295.88 M R.L.	
249.17	0.05	100		100% COAL, HEAVY DULL	
249.20	0.03	100		100% COAL, DULL	
249.45	0.25	100		100% COAL, HEAVY DULL	
249.46	0.01	100		100% MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
249.55	0.99	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
249.57	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
249.61	0.04	100		100% COAL, INTERBANDED DULL AND BRIGHT	
				BASE OF DALMAYNE E2 : THICKNESS= 0.49 M; SAMPLED THICKNESS= 0.00 M	
250.60	0.99	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, LAMINATED, WIDELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
250.64	0.04	100		100% MUDSTONE	CARBONACEOUS, CALCITIC, BROWN-BLACK, MODERATELY WEAK ROCK.
250.69	0.05	100		50% CLAYSTONE 50% CALCITE	LIGHT GREEN. CREAM. WEAK ROCK.
250.75	0.06	100		100% MUDSTONE	SILTSTONE, COALY, GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
250.83	0.08	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
251.34	0.51	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
254.31	2.97	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
254.96	0.65	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LIGHT GREY, MODERATELY WEAK ROCK.
255.59	0.63	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
256.88	1.29	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
256.91	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
256.92	0.01	100		100% COAL, HEAVY DULL	
257.00	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
257.15	0.15	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
257.22	0.07	100		100% MUDSTONE	PEBBLY, GREY, MODERATELY WEAK ROCK.
257.33	0.11	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
257.44	0.11	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, GREY-BROWN, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH MUD PELLETS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
258.25	0.81	100		100% SANDSTONE	CARBONACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
258.84	0.59	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
259.98	1.14	100		100% SANDSTONE,FINE GRAINED	MICACEOUS, LIGHT GREY, MODERATELY WEAK ROCK.
260.78	0.80	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS.
260.80	0.02	100		100% MUDSTONE	CARBONACEOUS, FISSILE, BLACK, SOFT.
260.85	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
260.86	0.01	100		100% MUDSTONE	BROWN, WEAK ROCK.
260.89	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
260.92	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
260.99	0.07	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK.
261.05	0.06	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, DARK GREY, WEAK ROCK.
261.09	0.04	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
261.11	0.02	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, WEAK ROCK.
261.12	0.01	100		100% MUDSTONE	FISSILE, BROWN, WEAK ROCK.
261.27	0.15	100		100% SANDSTONE	CALCITIC, CREAM, MODERATELY WEAK ROCK.
261.43	0.16	100		100% MUDSTONE	CARBONACEOUS, BLACK, FIRM.
261.60	0.17	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
262.85	1.25	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK, THICKLY LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
263.18	0.33	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
263.65	0.47	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
265.62	1.97	100		50% SANDSTONE 50% MUDSTONE	LIGHT GREY. CARBONACEOUS, SILTSTONE, DARK GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED, WIDELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
266.14	0.52	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED.
267.19	1.05	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
267.31	0.12	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
267.46	0.15	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
267.59	0.13	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
267.61	0.02	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
267.87	0.26	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
268.20	0.33	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, VERY WEAK ROCK.
268.48	0.28	100		100% SANDSTONE,MEDIUM GRAINED	ARGILLACEOUS, LIGHT GREY, VERY WEAK ROCK.
268.83	0.35	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
269.19	0.36	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
270.32	1.13	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
271.61	1.29	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
271.90	0.29	100		100% SANDSTONE,MEDIUM GRAINED	GREY-GREEN, MODERATELY WEAK ROCK.
272.12	0.22	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED, WITH CARBONACEOUS WISPS.
274.08	1.96	100		100% SANDSTONE	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CARBONACEOUS WISPS, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
276.60	2.52	100		100% SANDSTONE,MEDIUM GRAINED	GREY-GREEN, MODERATELY WEAK ROCK.
276.72	0.12	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, GREY-GREEN, MODERATELY WEAK ROCK.
278.13	1.41	100		100% SANDSTONE,MEDIUM GRAINED	GREY-GREEN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
279.95	1.82	100		100% SANDSTONE	MED.-FINE GRAINED, GREY-GREEN, WITH MICA, MODERATELY WEAK ROCK.
280.95	1.00	100		100% SANDSTONE,MEDIUM GRAINED	GREY-GREEN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
281.45	0.50	100		100% SANDSTONE,MEDIUM GRAINED	GREY-GREEN, MODERATELY WEAK ROCK.
284.02	2.57	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
284.45	0.43	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
285.05	0.60	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
285.25	0.20	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
285.35	0.10	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
285.72	0.37	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
285.77	0.05	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
286.91	1.14	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK.
288.08	1.17	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
288.14	0.06	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, LAMINATED.
288.26	0.12	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
288.77	0.51	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, MODERATELY WEAK ROCK.
290.07	1.30	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
290.10	0.03	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS.
290.36	0.26	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
291.81	1.45	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
291.96	0.15	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
292.30	0.34	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED.
293.00	0.70	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
293.23	0.23	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
293.75	0.52	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 25 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
293.89	0.14	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
294.08	0.19	100		100% MUDSTONE	CARBONACEOUS, BANDS, DARK BROWN, MODERATELY WEAK ROCK.
294.12	0.04	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
294.16	0.04	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
294.19	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
294.29	0.10	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
294.42	0.13	100		100% SANDSTONE	ARGILLACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
294.54	0.12	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
294.67	0.13	100		100% MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
294.84	0.17	100		100% MUDSTONE	ARENACEOUS, LENSES, BROWN, MODERATELY WEAK ROCK.
295.07	0.23	100		100% SANDSTONE	CARBONACEOUS, BANDS, GREY-BROWN, MODERATELY WEAK ROCK.
295.11	0.04	100		100% MUDSTONE	SILTSTONE, BROWN, MODERATELY WEAK ROCK.
295.13	0.02	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
295.31	0.18	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, MODERATELY WEAK ROCK.
295.72	0.41	100		100% MUDSTONE	BADLY BROKEN, GREY.
296.25	0.53	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
296.43	0.18	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
296.45	0.02	100		100% MUDSTONE	FISSILE, BROWN, WEAK ROCK.
296.50	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
296.94	0.44	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
297.03	0.09	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK BROWN, MODERATELY WEAK ROCK.
297.13	0.10	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY-BROWN, MODERATELY WEAK ROCK, THINLY LAMINATED.
297.16	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
297.28	0.12	100		100% MUDSTONE	SILTSTONE, GREY, WEAK ROCK.
297.82	0.54	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
298.22	0.40	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LIGHT GREY, MODERATELY WEAK ROCK.
299.38	1.16	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, LAMINATED, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
299.55	0.17	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
299.95	0.40	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
300.13	0.18	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
300.46	0.33	100		60% SANDSTONE 40% SILTSTONE	CARBONACEOUS, LAMINAE, GREY-GREEN. MODERATELY WEAK ROCK, WITH MUD PELLETS.
300.51	0.05	100		100% MUDSTONE	FISSILE, LIGHT BROWN, WEAK ROCK.
300.56	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
300.70	0.14	100		100% MUDSTONE	SILTSTONE, BROWN, MODERATELY WEAK ROCK.
300.71	0.01	100		100% MUDSTONE	LIGHT GREEN, MODERATELY WEAK ROCK.
300.82	0.11	100		100% MUDSTONE	SILTSTONE, BROWN, MODERATELY WEAK ROCK.
301.22	0.40	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
301.67	0.45	100		100% SANDSTONE	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
301.76	0.09	100		100% SANDSTONE	MICACEOUS, ARGILLACEOUS, LIGHT GREY, MODERATELY WEAK ROCK.
301.89	0.13	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK, WITH MUD PELLETS.
301.91	0.02	100		100% COAL, HEAVY DULL	
302.00	0.09	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
302.38	0.38	100		100% SILTSTONE	CARBONACEOUS, BANDS, BROWN, MODERATELY WEAK ROCK.
302.84	0.46	100		100% SILTSTONE	COALY, STREAKS, BROWN, MODERATELY WEAK ROCK.
302.94	0.10	100		100% SANDSTONE,MEDIUM GRAINED	MICACEOUS, LIGHT GREY, MODERATELY WEAK ROCK.
302.95	0.01	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
303.21	0.26	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
303.51	0.30	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
304.04	0.53	100		100% SANDSTONE	SILTSTONE, BANDS, GREY-BROWN, MODERATELY WEAK ROCK, VERY THINLY BEDDED.
304.30	0.26	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
304.39	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
304.44	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
305.21	0.77	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.
305.25	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
305.34	0.09	100		100% SILTSTONE	ARENACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.
305.63	0.29	100		100% SANDSTONE,MEDIUM GRAINED	CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK.
305.73	0.10	100		100% MUDSTONE	BROWN, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
305.97	0.24	100		100% MUDSTONE	SILTSTONE, GREY, WEAK ROCK.
306.03	0.06	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
306.09	0.06	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
306.16	0.07	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
306.22	0.06	100		100% SANDSTONE,MEDIUM GRAINED	CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK.
306.25	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
306.73	0.48	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
306.75	0.02	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT GREEN, MODERATELY WEAK ROCK.
307.03	0.28	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, LAMINATED.
307.05	0.02	100		100% COAL, BRIGHT	
307.25	0.20	100		100% SANDSTONE	SILTSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
307.48	0.23	100		100% MUDSTONE	SILTSTONE, BROWN, MODERATELY WEAK ROCK.
307.57	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
307.67	0.10	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
307.77	0.10	100		100% MUDSTONE	COALY, STREAKS, BROWN, MODERATELY WEAK ROCK.
308.00	0.23	100		100% MUDSTONE	FRAGMENTS, BROWN, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK.
308.24	0.24	100		100% SANDSTONE,MEDIUM GRAINED	GREY-BROWN, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK.
308.81	0.57	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
320.25	11.44	100		100% SILTSTONE	BROWN, WITH FRAGMENTS OF QUARTZ, MODERATELY WEAK ROCK.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	0.00 M	92.31 - 106.49 M	14.18 M
DC	0.00 M	116.28 - 121.42 M	5.14 M
DE	0.00 M	243.46 - 244.31 M	0.85 M
DE2	0.00 M	249.12 - 249.61 M	0.49 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 17

HOLE TYPE	CORE	
EASTING	598,000 M	GRID
NORTHING	5,381,600 M	GRID
ELEVATION	670.00 M	
TOTAL DEPTH DRILLED	605.73 M	
DRILLING STARTED	25/11/78	
DRILLING TIME		
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : GY 17

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
9.00	9.00	0		CORE LOSS	
15.00	6.00	100		100% DOLERITE	MEDIUM GRAINED, BADLY BROKEN, GREY-GREEN, MODERATELY WEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 65 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
23.00	8.00	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, WITH CALCITE ON JOINTS, SLIGHTLY WEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 25 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
23.70	0.70	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, MODERATELY WEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
28.80	5.10	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, UNWEATHERED, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 10 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
37.70	8.90	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, WITH TALC ON JOINTS, STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
52.70	15.00	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
59.52	6.82	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
61.80	2.28	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, WITH TALC ON JOINTS, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
83.10	21.30	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, WITH TALC ON JOINTS, STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
83.30	0.20	100		100% DOLERITE	MEDIUM GRAINED, GREY-BROWN, MODERATELY STRONG ROCK, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
101.59	18.29	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH TALC ON JOINTS, STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
104.65	3.06	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
106.60	1.95	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
111.45	4.85	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, WITH TALC ON JOINTS, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
112.60	1.15	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
114.25	1.65	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
123.10	8.85	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, WITH TALC ON JOINTS, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 15 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
134.20	11.10	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, WITH TALC ON JOINTS, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
138.10	3.90	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
155.00	16.90	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
168.90	13.90	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
174.30	5.40	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, WITH TALC ON JOINTS, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
184.00	9.70	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
206.15	22.15	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 10 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
211.20	5.05	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH TALC ON JOINTS AND CHLORITE ON JOINTS, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
226.20	15.00	100		100% DOLERITE	MEDIUM GRAINED, GREY, WITH TALC ON JOINTS AND CHLORITE ON JOINTS, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
244.70	18.50	100		100% DOLERITE	MED.-FINE GRAINED, GREY-GREEN, WITH CHLORITE ON JOINTS, STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
254.30	9.60	100		100% DOLERITE	FINE GRAINED, GREY, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
254.90	0.60	100		100% DOLERITE	VERY FINE GRAINED, GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
255.00	0.10	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
256.90	1.90	100		100% MUDSTONE	ARENACEOUS, GREY-GREEN, MODERATELY WEAK ROCK.
260.10	3.20	100		100% MUDSTONE	CREAM, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 10 DEG.
263.50	3.40	100		100% MUDSTONE	MODERATELY WEAK ROCK.
268.65	5.15	100		100% MUDSTONE	GREY-GREEN, MODERATELY WEAK ROCK.
270.31	1.66	100		70% MUDSTONE 30% MUDSTONE	GREY. CARBONACEOUS, BLACK. MODERATELY WEAK ROCK, THINLY BEDDED, SHEARING AT BEDDING SEPARATION SURFACE.
270.70	0.39	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
271.07	0.37	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
271.37	0.30	100		100% SANDSTONE,FINE GRAINED	ARGILLACEOUS, GREY, MODERATELY WEAK ROCK.
272.16	0.79	100		80% MUDSTONE 20% MUDSTONE	SILTSTONE, GREY. CARBONACEOUS, BLACK. MODERATELY WEAK ROCK, THINLY BEDDED.
272.30	0.14	100		100% SANDSTONE,FINE GRAINED	ARGILLACEOUS, GREY, MODERATELY WEAK ROCK.
274.95	2.65	100		100% MUDSTONE	SANDSTONE, LENSES, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
275.10	0.15	100		100% MUDSTONE	SANDSTONE, BANDS, DARK GREY, MODERATELY WEAK ROCK.
275.48	0.38	100		100% MUDSTONE	CARBONACEOUS, BANDS, DARK GREY, MODERATELY WEAK ROCK.
276.26	0.78	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, LAMINATED.
276.38	0.12	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH MUD PELLETS.
276.45	0.07	100		100% MUDSTONE	CARBONACEOUS, ARENACEOUS, DARK GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
276.67	0.22	100		100% SILTSTONE	LAMINAE, GREY, MODERATELY WEAK ROCK.
277.03	0.36	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 40 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
277.12	0.09	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
277.72	0.60	65		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
277.75	0.03	100		100% CLAYSTONE	GREEN, MODERATELY WEAK ROCK.
277.84	0.09	100		100% CARBONACEOUS SHALE	BROWN-BLACK, MODERATELY WEAK ROCK.
278.06	0.22	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
278.36	0.30	100		100% MUDSTONE	CARBONACEOUS, COALY, BLACK, MODERATELY WEAK ROCK.
278.53	0.17	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
278.67	0.14	100		100% MUDSTONE	SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
278.80	0.13	100		100% SILTSTONE	GREY-BROWN, MODERATELY STRONG ROCK.
278.90	0.10	100		100% MUDSTONE	SILTSTONE, DARK GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
279.07	0.17	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
279.83	0.76	100		100% SILTSTONE	LIGHT BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
279.92	0.09	100		100% MUDSTONE	BADLY BROKEN, GREY.
280.01	0.09	100		100% MUDSTONE	SILTSTONE, LIGHT BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
280.23	0.22	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
280.31	0.08	100		100% MUDSTONE	CARBONACEOUS, BADLY BROKEN, BROWN-BLACK.
280.36	0.05	100		100% MUDSTONE	FISSILE, GREY-BROWN, WEAK ROCK.
280.65	0.29	65		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
280.93	0.28	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
282.70	1.77	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
283.01	0.31	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
283.60	0.59	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
283.72	0.12	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
284.53	0.81	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
284.89	0.36	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
285.20	0.31	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 55 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
285.86	0.66	100		100% MUDSTONE	CARBONACEOUS, BANDS, DARK GREY, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 50 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
287.21	1.35	90		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
287.54	0.33	100		100% CLAYSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, FIRM.
287.62	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
287.65	0.03	100		100% CLAYSTONE	LIGHT BROWN, FIRM.
287.69	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
287.89	0.20	100		100% CARBONACEOUS SHALE	
287.95	0.06	100		100% CLAYSTONE	BROWN, FIRM.
288.00	0.05	100		100% CARBONACEOUS SHALE	
288.66	0.66	100		100% CARBONACEOUS SHALE	FISSILE, DARK GREY, WEAK ROCK.
288.77	0.11	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
288.83	0.06	100		100% CARBONACEOUS SHALE	COALY, BANDS, DARK GREY, MODERATELY WEAK ROCK.
289.11	0.28	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
289.21	0.10	100		100% SHALE	FISSILE, GREY, WEAK ROCK.
289.30	0.09	100		100% CARBONACEOUS SHALE	COALY, STREAKS, DARK GREY, MODERATELY WEAK ROCK.
289.32	0.02	100		100% COAL, INTERBANDED DULL AND BRIGHT	
289.47	0.15	100		100% MUDSTONE	COALY, LENSES, GREY, MODERATELY STRONG ROCK.
289.59	0.12	100		100% CARBONACEOUS SHALE	COALY, LENSES, DARK GREY, MODERATELY WEAK ROCK.
290.00	0.41	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
290.04	0.04	100		100% SHALE	FISSILE, GREY, WEAK ROCK.
290.07	0.03	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
290.10	0.03	100		100% CARBONACEOUS SHALE	DARK GREY, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
290.18	0.08	100		100% COAL, CANNEL	
290.24	0.06	100		100% CARBONACEOUS SHALE	COALY, BANDS, DARK GREY, MODERATELY STRONG ROCK.
290.29	0.05	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
290.42	0.13	100		100% SILTSTONE	GREY, MODERATELY STRONG ROCK.
290.85	0.43	100		100% SHALE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
291.10	0.25	100		100% SANDSTONE	FINE GRAINED, LITHIC, GREY, MODERATELY WEAK ROCK.
291.16	0.06	100		100% MUDSTONE	COALY, STREAKS, GREY, MODERATELY WEAK ROCK.
291.93	0.77	100		100% SANDSTONE	FINE GRAINED, GREY, MODERATELY STRONG ROCK.
292.04	0.11	100		100% SANDSTONE	LITHIC, MEDIUM GRAINED, GREY, MODERATELY WEAK ROCK.
292.93	0.89	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, GREY, MODERATELY WEAK ROCK.
293.23	0.30	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
293.28	0.05	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY STRONG ROCK.
293.40	0.12	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
293.51	0.11	100		100% SHALE	FISSILE, GREY, MODERATELY WEAK ROCK.
293.57	0.06	100		100% SANDSTONE	COALY, BANDS, GREY, MODERATELY STRONG ROCK.
295.08	1.51	100		100% SILTSTONE	GREY, MODERATELY STRONG ROCK.
295.77	0.69	100		100% SILTSTONE	LIGHT GREY, MODERATELY STRONG ROCK.
295.95	0.18	100		100% SANDSTONE	MEDIUM GRAINED, LITHIC, GREY, MODERATELY STRONG ROCK.
296.12	0.17	100		100% SANDSTONE	MED.-COARSE GRAINED, GREY, MODERATELY STRONG ROCK.
296.17	0.05	100		100% SANDSTONE	SILTSTONE, BANDS, GREY, MODERATELY STRONG ROCK.
296.32	0.15	100		100% SILTSTONE	GREY, MODERATELY STRONG ROCK.
296.80	0.48	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK.
297.18	0.38	100		100% SILTSTONE	GREY, MODERATELY STRONG ROCK.
297.61	0.43	100		100% COBBLE CONGLOMERATE	MODERATELY STRONG ROCK.
299.62	2.01	100		100% SANDSTONE	LITHIC, LIGHT GREY, MODERATELY STRONG ROCK.
300.70	1.08	100		100% SANDSTONE	CONGLOMERATIC, LITHIC, GREY, MODERATELY STRONG ROCK.
300.76	0.06	100		100% SANDSTONE	COARSE GRAINED, LITHIC, LIGHT GREY, MODERATELY STRONG ROCK.
300.80	0.04	100		100% COAL, HEAVY DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
303.00	2.20	100		100% SANDSTONE	COARSE GRAINED, LITHIC, LIGHT GREY, MODERATELY STRONG ROCK.
303.65	0.65	100		100% SANDSTONE	COALY, LENSES, LIGHT GREY, MODERATELY STRONG ROCK.
303.95	0.30	100		100% SANDSTONE	SILTSTONE, LENSES, LIGHT GREY, MODERATELY STRONG ROCK.
304.35	0.40	0		CORE LOSS	
304.75	0.40	100		100% SANDSTONE	SILTSTONE, LENSES, LIGHT GREY, MODERATELY STRONG ROCK.
305.25	0.50	100		100% SANDSTONE	MED.-COARSE GRAINED, LITHIC, LIGHT GREY, MODERATELY STRONG ROCK.
305.26	0.01	100		100% COAL, BRIGHT	
305.50	0.24	100		100% SANDSTONE	MED.-COARSE GRAINED, SILTSTONE, LIGHT GREY, MODERATELY STRONG ROCK.
307.30	1.80	100		100% SANDSTONE	FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
307.42	0.12	100		100% SILTSTONE	MODERATELY STRONG ROCK.
309.30	1.88	100		100% SANDSTONE	SILTSTONE, LAMINAE, LIGHT GREY, MODERATELY STRONG ROCK.
310.00	0.70	100		100% SANDSTONE	MEDIUM GRAINED, LITHIC, LIGHT GREY, MODERATELY STRONG ROCK.
315.40	5.40	100		100% SANDSTONE	COARSE GRAINED, LITHIC, LIGHT GREY, MODERATELY STRONG ROCK.
315.65	0.25	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
316.25	0.60	100		100% SANDSTONE	FINE GRAINED, SILTSTONE, LIGHT GREY, MODERATELY STRONG ROCK.
316.30	0.05	100		100% MUDSTONE	LIGHT GREY, WEAK ROCK.
316.60	0.30	100		100% MUDSTONE	GREY-GREEN, WEAK ROCK.
316.78	0.18	100		100% SHALE	FISSILE, GREY-GREEN, WEAK ROCK.
316.80	0.02	100		100% CARBONACEOUS SHALE	DARK GREY, MODERATELY STRONG ROCK.
316.94	0.14	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK.
318.00	1.06	100		100% MUDSTONE	LIGHT GREY, MODERATELY STRONG ROCK.
319.35	1.35	100		100% SILTSTONE	ARENACEOUS, LIGHT GREY, MODERATELY STRONG ROCK.
319.96	0.61	100		100% SANDSTONE	FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY STRONG ROCK.
320.21	0.25	100		100% MUDSTONE	CARBONACEOUS, LENSES, GREY, MODERATELY STRONG ROCK.
320.29	0.08	100		100% CLAYSTONE	LIGHT BROWN, FIRM.
320.34	0.05	100		100% CARBONACEOUS SHALE	DARK GREY, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
320.47	0.13	100		100% SANDSTONE	MEDIUM GRAINED, LITHIC, GREY, MODERATELY WEAK ROCK.
320.59	0.12	100		100% CARBONACEOUS SHALE	BLACK, MODERATELY STRONG ROCK.
320.49	0.10	100		100% COAL, HEAVY DULL	
324.20	3.51	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
324.30	0.10	100		100% SHALE	FISSILE, GREY, MODERATELY WEAK ROCK.
324.38	0.08	100		100% CLAYSTONE	WHITE, FIRM.
324.42	0.04	100		100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
326.14	1.72	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
326.74	0.60	100		100% SILTSTONE	MUDSTONE, BANDS, GREY, MODERATELY STRONG ROCK.
327.04	0.30	100		100% SANDSTONE	FINE GRAINED, SILTSTONE, GREY, MODERATELY STRONG ROCK.
327.29	0.25	100		100% SILTSTONE	GREY, MODERATELY STRONG ROCK.
327.34	0.05	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK.
327.38	0.04	100		100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
327.48	0.10	100		100% MUDSTONE	LIGHT GREY, MODERATELY STRONG ROCK.
327.94	0.46	100		100% MUDSTONE	SILTSTONE, VARIAGATED COLOUR, MODERATELY STRONG ROCK.
328.02	0.08	100		100% SILTSTONE	PEBBLY, MODERATELY STRONG ROCK.
328.51	0.49	100		100% SILTSTONE	GREY, MODERATELY STRONG ROCK.
328.71	0.20	100		100% CARBONACEOUS SHALE	BLACK.
328.77	0.06	100		100% COAL, HEAVY DULL	CALCITIC, CHERTY.
328.83	0.06	100		100% TONSTEIN	LIGHT BROWN, FIRM.
328.93	0.10	100		100% COAL, HEAVY DULL	
329.00	0.07	100		100% COAL, CANNEL	
329.25	0.25	100		100% COAL, HEAVY DULL	
329.28	0.03	100		100% COAL, INTERBANDED DULL AND BRIGHT	
329.30	0.02	100		100% COAL, HEAVY DULL	
329.40	0.10	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK.
329.45	0.05	100		100% COAL, INTERBANDED DULL AND BRIGHT	
329.53	0.08	100		100% MUDSTONE	COALY, BANDS, GREY, MODERATELY STRONG ROCK.
329.64	0.11	100		100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
329.74	0.10	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
329.86	0.12	100		100% SHALE	FISSILE, GREY, WEAK ROCK.
330.92	1.06	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK.
334.10	3.18	100		100% SANDSTONE	FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY STRONG ROCK.
334.28	0.18	100		100% MUDSTONE	LIGHT GREY, MODERATELY STRONG ROCK.
334.68	0.40	100		100% SILTSTONE	LIGHT GREY, MODERATELY STRONG ROCK.
340.50	5.82	100		100% SANDSTONE	COARSE GRAINED, LITHIC, GREY, MODERATELY STRONG ROCK.
341.56	1.06	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, MODERATELY STRONG ROCK.
344.54	2.98	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
344.93	0.39	100		100% COAL, HEAVY DULL	
345.21	0.28	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
345.25	0.04	100		100% COAL, CANNEL	
345.41	0.16	100		100% COAL, HEAVY DULL	
345.46	0.05	100		100% COAL, CANNEL	
345.47	0.01	100		100% CARBONACEOUS SHALE	
345.54	0.07	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK.
345.55	0.01	100		100% COAL, CANNEL	
345.75	0.20	100		100% SANDSTONE	FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY STRONG ROCK.
345.95	0.20	100		100% SILTSTONE	LIGHT GREY, MODERATELY STRONG ROCK.
347.55	1.60	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK.
350.69	3.14	100		100% SANDSTONE	MEDIUM GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
350.74	0.05	100		100% SILTSTONE	GREY, MODERATELY STRONG ROCK.
350.91	0.17	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK.
351.01	0.10	100		100% COAL, CANNEL	
351.08	0.07	100		100% COAL, HEAVY DULL	
351.38	0.30	100		100% CARBONACEOUS SHALE	DARK GREY, MODERATELY STRONG ROCK.
352.20	0.82	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
353.82	1.62	100		100% SILTSTONE	ARENACEOUS, LIGHT GREY, MODERATELY STRONG ROCK.
355.10	1.28	100		100% SANDSTONE	FINE GRAINED, LITHIC, LIGHT GREY, MODERATELY STRONG ROCK.
355.18	0.08	100		100% CLAYSTONE	LIGHT GREEN, FIRM.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
355.20	0.02	100		100% COAL, CANNEL	
355.40	0.20	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK.
355.46	0.06	100		100% COAL, CANNEL	
355.50	0.04	100		100% MUDSTONE	FISSILE, GREY.
355.54	0.04	100		100% CARBONACEOUS SHALE	DARK GREY, MODERATELY STRONG ROCK.
355.58	0.04	100		100% SHALE	FISSILE, LIGHT GREY.
355.85	0.27	100		100% CARBONACEOUS SHALE	DARK GREY.
355.91	0.06	100		100% COAL, CANNEL	
356.00	0.09	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK.
357.68	1.68	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
359.00	1.32	100		100% SILTSTONE	ARENACEOUS, GREY, MODERATELY STRONG ROCK.
359.20	0.20	80		60% SILTSTONE 40% MUDSTONE	GREY. LIGHT GREY. MODERATELY STRONG ROCK.
360.10	0.90	100		100% SILTSTONE	MUDSTONE, LAMINAE, GREY, MODERATELY STRONG ROCK, THINLY BEDDED, BEDS DIP 1 DEG.
360.40	0.30	100		100% MUDSTONE	TUFFACEOUS, LIGHT GREY, WEAK ROCK.
360.80	0.40	100		100% SILTSTONE	DARK GREY, MODERATELY STRONG ROCK.
362.56	1.76	100		100% MUDSTONE	COALY, BLACK, MODERATELY WEAK ROCK.
363.50	0.94	100		100% SANDSTONE	MEDIUM GRAINED, LIGHT GREY, MODERATELY STRONG ROCK, THICKLY LAMINATED, BEDS DIP 1 DEG.
364.30	0.80	100		100% SANDSTONE	MEDIUM GRAINED, LIGHT GREY, MODERATELY STRONG ROCK, THINLY BEDDED, BEDS DIP 1 DEG.
366.00	1.70	100		100% SANDSTONE	MEDIUM GRAINED, LITHIC, LIGHT GREY, MODERATELY STRONG ROCK, THICKLY BEDDED, BEDS DIP 1 DEG.
366.30	0.30	100		100% MUDSTONE	COALY, LAMINAE, GREY, WEAK ROCK.
366.50	0.20	100		100% SANDSTONE	FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
366.84	0.34	100		100% SANDSTONE	FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
367.19	0.35			100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
369.50	2.31	100		100% SANDSTONE	FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK, THINLY BEDDED, BEDS DIP 1 DEG.
377.40	7.90	100		100% SANDSTONE	MEDIUM GRAINED, LITHIC, LIGHT GREY, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, .
377.70	0.30	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
378.50	0.80	100		100% SANDSTONE	MEDIUM GRAINED, LITHIC, LIGHT GREY, MODERATELY STRONG ROCK.
379.14	0.64	100		100% SANDSTONE	MED.-COARSE GRAINED, LITHIC, LIGHT GREY, MODERATELY STRONG ROCK.
		TOP OF	DALMAYNE B : 290.86 M R.L.		
379.18	0.04	100		100% COAL, BRIGHT	MUDSTONE, BANDS.
380.20	1.02	100		100% SANDSTONE	COALY, FRAGMENTS, GREY, MODERATELY STRONG ROCK.
380.23	0.03	100		100% COAL, HEAVY DULL	
380.33	0.10	100		100% SANDSTONE	FINE GRAINED, GREY.
380.36	0.03	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK.
380.45	0.09	100		100% MUDSTONE	GREY, VERY WEAK ROCK.
380.51	0.06	100		100% MUDSTONE	COALY, FRAGMENTS, DARK BROWN.
380.54	0.03	100		100% MUDSTONE	LIGHT BROWN.
380.68	0.14	100		100% MUDSTONE	CARBONACEOUS, BLACK.
380.81	0.13	100		100% CARBONACEOUS SHALE	
380.89	0.08	100		100% MUDSTONE	GREY-GREEN.
381.01	0.12	100		100% COAL, HEAVY DULL	
381.10	0.09	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
381.16	0.06	100		100% CARBONACEOUS SHALE	MODERATELY WEAK ROCK.
381.23	0.07	100		100% MUDSTONE	GREY-GREEN.
381.37	0.14	100		100% MUDSTONE	CARBONACEOUS, COALY, BLACK.
381.50	0.13	0		CORE LOSS	
381.92	0.42	100		100% MUDSTONE	CARBONACEOUS, COALY, BLACK.
381.96	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN.
		BASE OF	DALMAYNE B : THICKNESS= 2.82 M; SAMPLED THICKNESS= 0.00 M		
382.14	0.18	100		100% MUDSTONE	TUFFACEOUS, GREY-BROWN, VERY WEAK ROCK.
382.28	0.14	100		100% MUDSTONE	CARBONACEOUS, BLACK.
382.31	0.03	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY STRONG ROCK.
382.44	0.13	100		100% MUDSTONE	CARBONACEOUS, BLACK.
382.48	0.04	100		100% MUDSTONE	LIGHT BROWN.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
382.52	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN.
382.65	0.13	100		100% COAL, BRIGHT WITH FEW DULL BANDS	CALCITIC, STREAKS.
382.69	0.04	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
				TOP OF DALMAYNE B : 287.31 M R.L.	
382.81	0.12	100		100% CARBONACEOUS MUDSTONE	
382.83	0.02	100		100% MUDSTONE	GREY.
382.97	0.14	100		100% COAL, HEAVY DULL	
382.98	0.01	100		100% CARBONACEOUS SHALE	
383.12	0.14	100		100% COAL, HEAVY DULL	
383.17	0.05	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
383.38	0.21	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK.
383.50	0.12	100		100% CARBONACEOUS SHALE	MODERATELY STRONG ROCK.
383.54	0.04	100		100% IRONSTONE	BROWN, VERY STRONG ROCK.
383.88	0.34	100		100% CARBONACEOUS SHALE	MODERATELY STRONG ROCK.
384.00	0.12	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN.
384.02	0.02	100		100% MUDSTONE	CARBONACEOUS, BLACK.
384.04	0.02	100		100% MUDSTONE	DARK BROWN.
384.14	0.10	100		100% MUDSTONE	CARBONACEOUS, BLACK.
384.26	0.12	100		100% COAL, DULL	BLACK.
384.27	0.01	100		100% MUDSTONE	DARK BROWN.
384.30	0.03	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
384.31	0.01	100		100% MUDSTONE	DARK BROWN.
384.33	0.02	100		100% COAL, BRIGHT	
384.50	0.17	100		100% COAL, HEAVY DULL	
384.79	0.29	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
384.97	0.18	100		100% COAL, INTERBANDED DULL AND BRIGHT	
385.10	0.13	100		100% COAL, HEAVY DULL	
385.13	0.03	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
385.29	0.16	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
385.31	0.02	100		100% CARBONACEOUS SHALE	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
385.33	0.02	100		100% MUDSTONE	GREY.
385.35	0.02	100		100% CARBONACEOUS SHALE	
385.38	0.03	100		100% MUDSTONE	BROWN.
385.45	0.07	100		100% MUDSTONE	CARBONACEOUS, BLACK.
385.57	0.12	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
385.63	0.06	100		100% COAL, HEAVY DULL	
385.68	0.05	100		100% CARBONACEOUS SHALE	
385.72	0.04	100		100% MUDSTONE	BROWN.
385.96	0.24	100		100% COAL, HEAVY DULL	BLACK.
385.99	0.03	100		100% MUDSTONE	LIGHT BROWN.
386.05	0.06	100		100% COAL, HEAVY DULL	BLACK.
386.08	0.03	100		100% MUDSTONE	LIGHT BROWN.
386.11	0.03	100		100% COAL, HEAVY DULL	BLACK.
386.13	0.02	100		100% MUDSTONE	LIGHT BROWN.
386.30	0.17	100		100% MUDSTONE	CARBONACEOUS, BLACK.
				BASE OF DALMAYNE B : THICKNESS= 3.61 M; SAMPLED THICKNESS= 0.00 M	
387.50	1.20	100		100% MUDSTONE	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, THINLY BEDDED, BEDS DIP 1 DEG.
387.96	0.46	100		100% SILTSTONE	GREY, MODERATELY STRONG ROCK.
389.78	1.82	100		50% SILTSTONE 50% SANDSTONE	GREY. FINE GRAINED, LIGHT GREY. MODERATELY STRONG ROCK, VERY THINLY BEDDED, BEDS DIP 1 DEG.
404.36	14.58	100		100% SANDSTONE	LITHIC, LIGHT GREY, MODERATELY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, .
404.50	0.14	100		100% MUDSTONE	LIGHT GREY, WEAK ROCK.
405.50	1.00	0		CORE LOSS	
406.79	1.29	100		100% SANDSTONE	MEDIUM GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
407.39	0.60	100		100% MUDSTONE	CARBONACEOUS, DARK GREY.
408.46	1.07	100		100% COAL, DULL	BLACK.
408.62	0.16	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
408.70	0.08	100		50% SANDSTONE 50% SILTSTONE	FINE GRAINED, LIGHT GREY. GREY. MODERATELY STRONG ROCK, VERY THINLY BEDDED, BEDS DIP 1 DEG.
408.83	0.13	100		100% SANDSTONE	FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
409.72	0.89	100		60% SILTSTONE 40% SANDSTONE	GREY. FINE GRAINED, LIGHT GREY. MODERATELY STRONG ROCK, THICKLY LAMINATED, BEDS DIP 1 DEG.
409.85	0.13	100		100% SANDSTONE	MEDIUM GRAINED, CARBONACEOUS, LIGHT GREY.
409.88	0.03	100		100% IRONSTONE	BROWN, VERY STRONG ROCK.
				TOP OF DALMAYNE C : 260.12 M R.L.	
410.08	0.20	100		100% COAL, DULL	
410.09	0.01	100		100% CARBONACEOUS SHALE	
410.16	0.07	100		100% MUDSTONE	BROWN.
410.26	0.10	100		100% MUDSTONE	CARBONACEOUS, BLACK.
410.29	0.03	100		100% COAL, DULL	
410.69	0.40	100		100% COAL, HEAVY DULL	CALCITIC, STREAKS.
410.79	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK GREY.
410.88	0.09	100		100% COAL, HEAVY DULL	
410.96	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN.
411.05	0.09	100		100% COAL, HEAVY DULL	
411.10	0.05	100		100% MUDSTONE	DARK GREY.
411.32	0.22	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
411.34	0.02	100		100% MUDSTONE	BROWN.
411.40	0.06	100		100% MUDSTONE	BROWN.
411.70	0.30	100		100% COAL, HEAVY DULL	BLACK.
411.81	0.11	100		100% COAL, HEAVY DULL	BLACK.
411.99	0.18	100		100% COAL, HEAVY DULL	FRAGMENTED.
412.02	0.03	100		100% CARBONACEOUS SHALE	
412.05	0.03	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, LIGHT BROWN.
412.33	0.28	100		100% MUDSTONE	COALY, LAMINAE, GREY.
412.41	0.08	100		100% MUDSTONE	BROWN.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
412.51	0.10	100		100% MUDSTONE	DARK GREY.
412.65	0.14	100		100% COAL, HEAVY DULL	
412.73	0.08	100		100% MUDSTONE	GREY, WITH MUD PELLETS.
412.77	0.04	100		100% MUDSTONE	CARBONACEOUS, BLACK.
412.84	0.07	100		100% COAL, HEAVY DULL	
412.85	0.01	100		100% MUDSTONE	LIGHT BROWN.
412.97	0.12	100		100% COAL, HEAVY DULL	
413.00	0.03	100		100% COAL, BRIGHT	
413.03	0.03	100		100% COAL, HEAVY DULL	
413.20	0.17	100		100% MUDSTONE	LIGHT BROWN.
413.41	0.21	100		100% COAL, HEAVY DULL	BLACK.
413.44	0.03	100		100% MUDSTONE	GREY.
413.47	0.03	100		100% MUDSTONE	LIGHT BROWN.
413.53	0.06	100		100% MUDSTONE	CARBONACEOUS, LENSES, GREY.
413.58	0.05	100		100% COAL, BRIGHT WITH FEW DULL BANDS	CALCITIC, STREAKS.
				BASE OF DALMAYNE C : THICKNESS= 3.70 M; SAMPLED THICKNESS= 0.00 M	
413.84	0.26	100		100% SHALE	GREY.
414.70	0.86	100		100% MUDSTONE	GREY, WEAK ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, .
417.28	2.58	0		CORE LOSS	
417.66	0.38	100		100% SILTSTONE	FERRUGINOUS, GREY.
417.82	0.16	100		100% COAL, HEAVY DULL	SANDSTONE, BANDS.
419.30	1.48	100		100% SANDSTONE	MEDIUM GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
420.60	1.30	100		60% SANDSTONE 40% SILTSTONE	FINE GRAINED, LIGHT GREY. GREY. MODERATELY STRONG ROCK, VERY THINLY BEDDED, BEDS DIP 1 DEG.
421.75	1.15	100		100% MUDSTONE	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
429.10	7.35	100		100% SANDSTONE	LITHIC, LIGHT GREY, MODERATELY STRONG ROCK, MEDIUM BEDDED, BEDS DIP 1 DEG., VERY WIDELY SPACED JOINTS, JOINTS DIP 50 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, .
430.40	1.30	100		100% SANDSTONE	LITHIC, LIGHT GREY, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
431.00	0.60	100		100% SANDSTONE	LITHIC, COALY, LIGHT GREY, MODERATELY STRONG ROCK.
431.07	0.07	100		100% MUDSTONE	COALY, FERRUGINOUS, BROWN, WEAK ROCK.
443.70	12.63	100		100% SANDSTONE	LITHIC, COALY, LIGHT GREY, MODERATELY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, .
444.08	0.38	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
444.50	0.42	100		100% SANDSTONE,MEDIUM GRAINED	BADLY BROKEN, LIGHT GREY, MODERATELY WEAK ROCK.
455.11	10.61	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
455.79	0.68	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
456.60	0.81	100		100% SANDSTONE	MED.-COARSE GRAINED, FRAGMENTS, LIGHT GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
466.12	9.52	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
466.61	0.49	100		100% PEBBLE CONGLOMERATE	GREY, MODERATELY WEAK ROCK.
466.75	0.14	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE D UPPER : 203.25 M R.L.	
466.84	0.09	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	
466.85	0.01	100	1	100% MUDSTONE	ARENACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
466.94	0.09	100	1	100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
466.97	0.03	100	1	100% MUDSTONE	ARENACEOUS, GREY, MODERATELY WEAK ROCK.
467.06	0.09	100	1	100% COAL, HEAVY DULL	BADLY BROKEN.
467.33	0.27	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	BADLY BROKEN.
467.34	0.01	100	1	100% COAL, BRIGHT	
467.58	0.24	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	
467.59	0.01	100	1	100% MUDSTONE	ARENACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
467.96	0.37	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	
468.05	0.09	100	1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	MUDSTONE, LAMINAE.
468.08	0.03	100	1	100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
468.14	0.06	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	
468.16	0.02	100	1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
468.21	0.05	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	
468.27	0.06	100	1	100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
				BASE OF DALHAYNE D UPPER : THICKNESS= 1.52 M; SAMPLED THICKNESS= 1.52 M	
469.25	0.98	100		100% MUDSTONE	SILTSTONE, GREY, WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS.
471.13	1.88	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	SILTSTONE, GREY. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
473.18	2.05	100		80% SANDSTONE,FINE GRAINED 20% MUDSTONE	LIGHT GREY. SILTSTONE, GREY. MODERATELY WEAK ROCK, LAMINATED.
476.18	3.00	100		90% SANDSTONE,FINE GRAINED 10% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, LAMINATED, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
476.60	0.42	100		60% SANDSTONE,FINE GRAINED 40% MUDSTONE	GREY. CARBONACEOUS, LAMINAE, GREY. MODERATELY WEAK ROCK, LAMINATED.
476.74	0.14	100		100% MUDSTONE	GREY, WEAK ROCK, LAMINATED, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
476.84	0.10	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
476.88	0.04	100		100% CARBONACEOUS SHALE	BRIGHT COAL, STREAKS.
476.94	0.06	100		100% SILTSTONE	COALY, LENSES, GREY, MODERATELY WEAK ROCK.
477.30	0.36	100		100% SANDSTONE,MEDIUM GRAINED	CALCAREOUS, LIGHT GREY, MODERATELY WEAK ROCK.
477.47	0.17	100		100% LIMESTONE	MUDSTONE, LENSES, WHITE, MODERATELY STRONG ROCK.
477.86	0.39	100		100% SANDSTONE,MEDIUM GRAINED	CALCAREOUS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS.
480.35	2.49	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 10 DEG.
480.36	0.01	100	2	100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
480.49	0.13	100	2	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
480.59	0.10	100	2	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
480.85	0.26	100	2	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
480.86	0.01	100	2	100% MUDSTONE	GREY, WEAK ROCK, LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
481.35	0.49	100	2	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WITH BANDS OF PYRITE, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
481.39	0.04	100	2	100% COAL, HEAVY DULL	
481.54	0.15	100	2	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
				TOP OF DALMAYNE D LOWER : 188.46 M R.L.	
482.23	0.69	100	3	100% COAL, HEAVY DULL	MUDSTONE, LENSES, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
482.24	0.01	100	3	100% MUDSTONE	ARENACEOUS, DARK GREY, MODERATELY WEAK ROCK.
482.25	0.01	100	3	100% COAL, DULL	
482.26	0.01	100	3	100% COAL, BRIGHT	
482.27	0.01	100	3	100% MUDSTONE	ARENACEOUS, DARK GREY, MODERATELY WEAK ROCK.
482.86	0.59	100	3	100% COAL, DULL WITH FEW BRIGHT BANDS	VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
482.87	0.01	100	3	100% MUDSTONE	ARENACEOUS, DARK GREY, MODERATELY WEAK ROCK.
482.88	0.01	100	3	100% COAL, BRIGHT WITH FEW DULL BANDS	
483.48	0.60	100	3	100% COAL, DULL WITH FEW BRIGHT BANDS	WITH TALC ON JOINTS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
483.49	0.01	100	3	50% COAL, INTERBANDED DULL AND BRIGHT 50% MUDSTONE	CARBONACEOUS, DARK BROWN. MODERATELY WEAK ROCK, THICKLY LAMINATED.
				BASE OF DALMAYNE D LOWER : THICKNESS= 1.95 M; SAMPLED THICKNESS= 1.95 M	
483.73	0.24	100		100% MUDSTONE	BRIGHT COAL, LENSES, GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
483.82	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
486.42	2.60	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, WEAK ROCK.
486.59	0.17	100		100% MUDSTONE	DARK GREY, WEAK ROCK.
486.60	0.01	100		100% CLAYSTONE	LIGHT BROWN, VERY WEAK ROCK.
486.61	0.01	100		100% COAL, HEAVY DULL	
486.62	0.01	100		100% CLAYSTONE	CARBONACEOUS, STREAKS, LIGHT BROWN, VERY WEAK ROCK.
487.03	0.41	100		100% COAL, HEAVY DULL	BRIGHT COAL, LAMINAE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
487.05	0.02	100		100% MUDSTONE	ARENACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
487.08	0.03	100		100% COAL, HEAVY DULL	
487.11	0.03	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
487.14	0.03	100		100% COAL, HEAVY DULL	MUDSTONE, LENSES.
487.23	0.09	100		50% COAL, HEAVY DULL 50% COAL, BRIGHT	LAMINATED.
487.45	0.22	100		100% COAL, HEAVY DULL	
487.54	0.09	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
487.68	0.14	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, TRACES, GREY, MODERATELY WEAK ROCK.
515.25	27.57	100		100% SANDSTONE,MEDIUM GRAINED	CONGLOMERATIC, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
515.85	0.60	0		CORE LOSS	
515.88	0.03	100		100% CLAYSTONE	LIGHT BROWN, FIRM.
517.90	2.02	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
518.55	0.65	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, .
518.68	0.13	100		100% SILTSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
519.01	0.33	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
519.57	0.56	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
520.50	0.93	100		90% SILTSTONE 10% SANDSTONE,FINE GRAINED	CARBONACEOUS, BROWN-BLACK. LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED.
523.22	2.72	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
523.52	0.30	100		100% MUDSTONE	COALY, BANDS, DARK GREY, WEAK ROCK.
523.59	0.07	100		100% CARBONACEOUS SHALE	BADLY BROKEN.
524.25	0.66	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
524.62	0.37	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
524.67	0.05	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
524.84	0.17	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, SHEARING AT BEDDING SEPARATION SURFACE, WITH CROSS LAMINATION.
525.18	0.34	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
525.33	0.15	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
525.72	0.39	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
527.05	1.33	100		70% SANDSTONE,FINE GRAINED 30% MUDSTONE	CARBONACEOUS, LAMINAE, LIGHT GREY. SILTSTONE, GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
527.50	0.45	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
527.53	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
527.64	0.11	100		100% MUDSTONE	ARENACEOUS, GREY, WEAK ROCK, THINLY LAMINATED.
527.74	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
527.89	0.15	100		100% CARBONACEOUS SHALE	
527.90	0.01	100		100% MUDSTONE	FRIABLE, LIGHT GREY, VERY WEAK ROCK.
528.52	0.62	100		100% CARBONACEOUS SHALE	
528.92	0.40	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
529.02	0.10	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
529.11	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN.
529.12	0.01	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
529.31	0.19	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN.
529.36	0.05	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
529.47	0.11	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
529.50	0.03	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
529.71	0.21	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
			TOP OF DALMAYNE E2 : 140.29 M R.L.		
530.10	0.39	100		100% COAL, HEAVY DULL	CARBONACEOUS, BANDS.
530.11	0.01	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, BROWN, MODERATELY WEAK ROCK.
530.57	0.46	100		100% COAL, HEAVY DULL	
530.68	0.11	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK, WITH MUD PELLETS.
530.85	0.17	100		100% COAL, HEAVY DULL	BRIGHT COAL, LAMINAE.
			BASE OF DALMAYNE E2 : THICKNESS= 1.14 M; SAMPLED THICKNESS= 0.00 M		

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
532.76	1.91	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
533.76	1.00	100		100% MUDSTONE	FRIABLE, BANDS, GREY, MODERATELY WEAK ROCK.
534.26	0.50	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
534.48	0.22	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
534.61	0.13	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
537.52	2.91	100		100% MUDSTONE	GREY, WEAK ROCK, LAMINATED.
537.98	0.46	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
538.01	0.03	100		100% MUDSTONE	DARK GREY, WEAK ROCK, LAMINATED.
538.11	0.10	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
			TOP OF DALHAYNE E3 : 131.89 M R.L.		
538.20	0.09	100		100% COAL, HEAVY DULL	
538.22	0.02	100		100% MUDSTONE	CARBONACEOUS, LENSES, BROWN, WEAK ROCK.
538.44	0.22	100		100% COAL, HEAVY DULL	
			BASE OF DALHAYNE E3 : THICKNESS= 0.33 M; SAMPLED THICKNESS= 0.00 M		
538.48	0.04	100		100% MUDSTONE	SILTSTONE, BROWN, MODERATELY WEAK ROCK.
538.49	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
538.50	0.01	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
538.51	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
538.79	0.28	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
541.46	2.69	100		60% SANDSTONE,FINE GRAINED 40% MUDSTONE	CARBONACEOUS, LENSES, GREY. CARBONACEOUS, DARK GREY. MODERATELY WEAK ROCK, MEDIUM BEDDED.
544.40	2.92	100		100% MUDSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
544.62	0.22	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
544.92	0.30	100		100% SILTSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
545.14	0.22	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
545.60	0.46	100		100% MUDSTONE	ARENACEOUS, LAMINAE, DARK GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
546.49	0.89	100		70% SANDSTONE,MEDIUM GRAINED 30% MUDSTONE	CARBONACEOUS, STREAKS, LIGHT GREY. CARBONACEOUS, DARK GREY. MODERATELY WEAK ROCK, THINLY BEDDED.
549.25	2.76	100		60% SANDSTONE,FINE GRAINED 40% MUDSTONE	GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED.
549.46	0.21	100		100% MUDSTONE	DARK GREY, SOFT.
550.83	1.37	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
552.03	1.20	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	SILTSTONE, CARBONACEOUS, DARK GREY. GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED.
552.93	0.90	100		100% SANDSTONE,FINE GRAINED	FRIABLE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
561.74	8.81	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
563.04	1.30	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
563.60	0.56	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, LENSES, GREY, MODERATELY WEAK ROCK.
570.14	6.54	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
570.18	0.04	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
570.29	0.11	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
570.40	0.11	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
570.76	0.36	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	CARBONACEOUS, DARK GREY. CARBONACEOUS, STREAKS, LIGHT GREY. MODERATELY WEAK ROCK, THICKLY LAMINATED.
574.61	3.85	100		80% MUDSTONE 20% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
574.83	0.22	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
574.87	0.04	100		100% COAL, HEAVY DULL	
575.00	0.13	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
577.40	2.40	80		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	GREY. MUDSTONE, LENSES, LIGHT GREY. MODERATELY WEAK ROCK, VERY THINLY BEDDED.
577.63	0.23	100		100% COAL, HEAVY DULL	MUDSTONE, BANDS.
579.40	1.77	100		100% MUDSTONE	ARENACEOUS, BANDS, GREY, VERY WEAK ROCK, THINLY LAMINATED.
582.30	2.90	100		100% SILTSTONE	FRIABLE, BANDS, GREY, WEAK ROCK, THINLY LAMINATED.
582.72	0.42	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
583.02	0.30	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
589.69	6.67	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
589.73	0.04	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
589.80	0.07	100		100% CARBONACEOUS SHALE	
591.06	1.26	100		100% SILTSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK.
592.05	0.99	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	GREY. SILTSTONE, LENSES, LIGHT GREY. MODERATELY WEAK ROCK, THINLY BEDDED.
592.69	0.64	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
592.99	0.30	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH POOR SORTING, WITH CARBONACEOUS WISPS.
593.20	0.21	100		100% SILTSTONE	DARK GREY, MODERATELY WEAK ROCK.
595.41	2.21	100		100% SILTSTONE	SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
595.62	0.21	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH POOR SORTING, WITH CARBONACEOUS WISPS.
595.75	0.13	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
595.87	0.12	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, MODERATELY WEAK ROCK.
596.89	1.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
597.05	0.16	100		100% SANDSTONE,FINE GRAINED	GREY-BROWN, MODERATELY WEAK ROCK, WITH POOR SORTING.
597.17	0.12	100		100% MUDSTONE	BROWN, FIRM.
597.89	0.72	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH POOR SORTING.
598.10	0.21	100		100% MUDSTONE	GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
599.40	1.30	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH POOR SORTING, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
599.56	0.16	100		100% MUDSTONE	STRONGLY FRAGMENTED, GREY, WEAK ROCK.
599.70	0.14	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK.
600.08	0.38	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH POOR SORTING.
600.21	0.13	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
600.33	0.12	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, [illegible] DARK GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
601.24	0.91	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, STREAKS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH POOR SORTING.
602.40	1.16	100		100% MUDSTONE	QUARTZITIC, FRAGMENTS, GREY, MODERATELY WEAK ROCK.
602.97	0.57	100		100% SILTSTONE	QUARTZITIC, FRAGMENTS, DARK GREY, MODERATELY WEAK ROCK.
603.35	0.38	100		100% SANDSTONE,FINE GRAINED	ARGILLACEOUS, GREY-GREEN, MODERATELY WEAK ROCK.
603.48	0.13	100		100% PEBBLE CONGLOMERATE	GREY-GREEN, MODERATELY WEAK ROCK.
603.68	0.20	100		100% MUDSTONE	QUARTZITIC, FRAGMENTS, GREY, MODERATELY WEAK ROCK.
604.00	0.32	100		100% SILTSTONE	QUARTZITIC, FRAGMENTS, DARK GREY, MODERATELY WEAK ROCK.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	0.00 M	379.14 - 381.96 M	2.82 M
DB	0.00 M	382.69 - 386.30 M	3.61 M
DC	0.00 M	409.88 - 413.58 M	3.70 M
DDU	1.52 M	466.75 - 468.27 M	1.52 M
DDL	1.95 M	481.54 - 483.49 M	1.95 M
DE2	0.00 M	529.71 - 530.85 M	1.14 M
DE3	0.00 M	538.11 - 538.44 M	0.33 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	466.75 - 468.27 M	1.52 M
2	480.35 - 481.54 M	1.19 M
3	481.54 - 483.49 M	1.95 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 18

HOLE TYPE	CORE	
EASTING	598,900 M	GRID
NORTHING	5,389,000 M	GRID
ELEVATION	490.00 M	
TOTAL DEPTH DRILLED	271.78 M	
DRILLING STARTED	01/01/79	
DRILLING TIME		
CORE SIZE		
HOLE SIZE	96.1 MM	
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	ANALYTICAL DATA LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : GY 18

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
5.00	5.00	100		100% DOLERITE	PEBBLY, ORANGE-BROWN, HIGHLY WEATHERED.
12.30	7.30	100		100% DOLERITE	GREY-GREEN, MODERATELY WEATHERED.
13.00	0.70	100		100% CLAY	YELLOW-BROWN, HIGHLY WEATHERED, FIRM.
19.50	6.50	100		100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, MODERATELY WEATHERED, STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 15 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
21.50	2.00	100		100% DOLERITE	ORANGE-BROWN, HIGHLY WEATHERED.
44.00	22.50	100		100% DOLERITE	ARGILLACEOUS, YELLOW-BROWN, COMPLETELY WEATHERED, VERY WEAK ROCK.
60.50	16.50	100		100% DOLERITE	ARGILLACEOUS, YELLOW-BROWN, HIGHLY WEATHERED.
60.65	0.15	100		100% MUDSTONE	ORANGE-BROWN, MODERATELY WEATHERED, WEAK ROCK.
60.95	0.30	100		100% MUDSTONE	BADLY BROKEN, GREY, MODERATELY WEATHERED, VERY WEAK ROCK.
61.04	0.09	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEATHERED, VERY WEAK ROCK.
61.56	0.52	100		100% MUDSTONE	FRAGMENTED, GREY, MODERATELY WEATHERED, VERY WEAK ROCK.
61.58	0.02	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEATHERED, VERY WEAK ROCK.
61.83	0.25	100		100% CLAY	FRAGMENTED, ORANGE, HIGHLY WEATHERED, FIRM.
62.06	0.23	100		100% MUDSTONE	FRAGMENTED, GREY, MODERATELY WEATHERED, VERY WEAK ROCK.
62.32	0.26	100		100% MUDSTONE	FRAGMENTED, GREY, UNWEATHERED, VERY WEAK ROCK.
62.44	0.12	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
63.60	1.16	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WIDELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
63.90	0.30	100		100% MUDSTONE	GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
64.50	0.60	100		100% MUDSTONE	SILTSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
64.74	0.24	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
64.82	0.08	100		100% MUDSTONE	FISSILE, GREY, VERY WEAK ROCK.
64.88	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
64.90	0.02	100		100% MUDSTONE	FISSILE, LIGHT GREY, VERY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
64.94	0.04	100		100% MUDSTONE	CARBONACEOUS, BLACK, WEAK ROCK.
66.48	1.54	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, WEAK ROCK.
66.52	0.04	100		100% MUDSTONE	FISSILE, GREY, FIRM.
66.66	0.14	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
66.77	0.11	100		100% MUDSTONE	CARBONACEOUS, FRAGMENTS, LIGHT BROWN, WEAK ROCK.
66.86	0.09	100		100% SILTSTONE	GREY-BROWN, MODERATELY WEAK ROCK, .
68.00	1.14	100		100% SANDSTONE,FINE GRAINED	GREY-BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
68.44	0.44	100		100% SANDSTONE,FINE GRAINED	FISSILE, ARGILLACEOUS, GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
68.50	0.06	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
68.61	0.11	100		100% SANDSTONE,FINE GRAINED	FISSILE, ARGILLACEOUS, LIGHT GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
68.85	0.24	100		100% CLAYSTONE	FISSILE, GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
69.62	0.77	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
69.77	0.15	100		70% MUDSTONE 30% SILTSTONE	FISSILE, DARK GREY. GREY. WEAK ROCK.
69.92	0.15	100		100% SILTSTONE	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK.
70.16	0.24	100		100% MUDSTONE	SILTSTONE, LENSES, GREY-BROWN, WEAK ROCK.
70.41	0.25	100		100% MUDSTONE	COALY, LENSES, BROWN, WEAK ROCK, WITH MUD PELLETS.
70.45	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, WEAK ROCK, WITH MUD PELLETS.
70.52	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
70.63	0.11	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
70.76	0.13	100		100% MUDSTONE	FISSILE, LIGHT BROWN, MODERATELY WEAK ROCK.
70.92	0.16	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, WEAK ROCK.
70.94	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
70.95	0.01	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, WEAK ROCK.
71.00	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
71.03	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
71.11	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
71.27	0.16	100		100% MUDSTONE	COALY, LENSES, DARK BROWN, MODERATELY STRONG ROCK.
71.30	0.03	100		100% MUDSTONE	FISSILE, LIGHT GREY, WEAK ROCK.
71.37	0.07	100		100% MUDSTONE	BRIGHT COAL, LENSES, DARK BROWN, MODERATELY STRONG ROCK.
71.53	0.16	100		100% MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
71.57	0.04	100		100% CLAYSTONE	FISSILE, GREY, WEAK ROCK.
71.71	0.14	100		100% MUDSTONE	SILTSTONE, BROWN, MODERATELY WEAK ROCK.
71.82	0.11	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
71.94	0.12	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
72.01	0.07	100		100% MUDSTONE	COALY, LENSES, BROWN, MODERATELY WEAK ROCK.
72.40	0.39	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
72.91	0.51	100		100% SILTSTONE	DARK GREY, MODERATELY WEAK ROCK.
74.92	2.01	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, MODERATELY SPACED JOINTS, JOINTS DIP 55 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
75.85	0.93	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
76.02	0.17	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, MODERATELY WEAK ROCK.
76.13	0.11	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN-BLACK, WEAK ROCK.
76.23	0.10	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
77.26	1.03	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
77.56	0.30	100		100% MUDSTONE	SILTSTONE, LIGHT BROWN, MODERATELY WEAK ROCK.
78.32	0.76	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
78.58	0.26	100		100% SILTSTONE	COALY, STREAKS, GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
79.00	0.42	100		100% SILTSTONE	DARK GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
79.22	0.22	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
79.25	0.03	100		100% CLAYSTONE	CALCITIC, LIGHT GREEN, WEAK ROCK.
80.08	0.83	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
80.17	0.09	100		100% MUDSTONE	CARBONACEOUS, SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
80.60	0.43	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
80.64	0.04	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
80.91	0.27	100		100% SILTSTONE	CARBONACEOUS, LENSES, DARK GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
81.00	0.09	100		100% MUDSTONE	FISSILE, BADLY BROKEN, DARK GREY, VERY WEAK ROCK.
81.10	0.10	100		100% MUDSTONE	ARENACEOUS, LENSES, DARK GREY, MODERATELY WEAK ROCK.
81.24	0.14	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
81.52	0.28	100		100% SILTSTONE	CARBONACEOUS, ARENACEOUS, DARK GREY, MODERATELY WEAK ROCK.
81.74	0.22	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE.
82.24	0.50	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH FLAME/PULL STRUCTS, WITH LOAD CASTS.
82.44	0.20	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
82.76	0.32	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
82.81	0.05	100		100% MUDSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
82.85	0.04	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
82.90	0.05	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
83.00	0.10	100		100% MUDSTONE	FISSILE, BADLY BROKEN, GREY-BROWN, VERY WEAK ROCK.
83.83	0.83	100		100% SILTSTONE	GREY-GREEN, MODERATELY WEAK ROCK, LAMINATED, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
84.03	0.20	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
84.67	0.64	100		100% MUDSTONE	FISSILE, BANDS, GREY, MODERATELY WEAK ROCK.
85.40	0.73	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
85.59	0.19	100		100% SILTSTONE	ARENACEOUS, LENSES, GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED.
85.75	0.16	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, MODERATELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
85.92	0.17	100		100% MUDSTONE	GREY, WEAK ROCK, LAMINATED.
85.93	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
85.95	0.02	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
86.00	0.05	100		100% COAL, HEAVY DULL	
86.14	0.14	100		100% MUDSTONE	CARBONACEOUS, LENSES, BROWN, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
86.27	0.13	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
86.29	0.02	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, SOFT.
86.34	0.05	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
86.39	0.05	100		100% MUDSTONE	FISSILE, ARENACEOUS, GREY-BROWN, WEAK ROCK.
86.41	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
86.45	0.04	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
86.50	0.05	100		100% COAL, HEAVY DULL	
86.53	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS, WITH MUD PELLETS.
86.56	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
86.64	0.08	100		100% COAL, HEAVY DULL	
86.68	0.04	100		100% COAL, INTERBANDED DULL AND BRIGHT	
86.73	0.05	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
86.87	0.14	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
87.09	0.22	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
87.24	0.15	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
87.27	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
87.32	0.05	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
87.43	0.11	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
87.49	0.06	100		100% COAL, HEAVY DULL	
87.51	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
87.52	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
87.54	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
87.58	0.04	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
87.62	0.04	100		100% COAL, HEAVY DULL	
87.64	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
87.70	0.06	100		100% COAL, BRIGHT	BADLY BROKEN.
87.72	0.02	100		100% COAL, HEAVY DULL	
87.75	0.03	100		100% COAL, INTERBANDED DULL AND BRIGHT	
87.81	0.06	100		100% COAL, HEAVY DULL	
87.82	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
87.84	0.02	100		100% COAL, HEAVY DULL	
87.91	0.07	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
87.94	0.03	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
87.95	0.01	100		100% COAL, HEAVY DULL	
87.96	0.01	100		100% COAL, INTERBANDED DULL AND BRIGHT	
88.02	0.06	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
88.03	0.01	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN.
88.14	0.11	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
88.16	0.02	100		100% COAL, DULL	
88.18	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
88.22	0.04	100		100% COAL, HEAVY DULL	
88.24	0.02	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
88.31	0.07	100		100% COAL, INTERBANDED DULL AND BRIGHT	
88.32	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, VERY WEAK ROCK.
88.34	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
88.38	0.04	100		100% COAL, HEAVY DULL	
88.41	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
88.48	0.07	100		100% MUDSTONE	COALY, STREAKS, BROWN, MODERATELY WEAK ROCK.
88.55	0.07	100		100% COAL, HEAVY DULL	
88.61	0.06	100		100% MUDSTONE	GREY, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
88.63	0.02	100		100% COAL, BRIGHT	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
88.89	0.26	100		100% MUDSTONE	COALY, LENSES, DARK BROWN, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 40 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
88.98	0.09	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
89.10	0.12	100		100% COAL, HEAVY DULL	
89.16	0.06	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
89.25	0.09	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
89.29	0.04	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
89.38	0.09	100		100% MUDSTONE	SILTSTONE, DARK GREY, MODERATELY WEAK ROCK.
89.40	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
89.45	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
89.47	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
89.53	0.06	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
89.67	0.14	100		100% MUDSTONE	SILTSTONE, BROWN, MODERATELY WEAK ROCK.
89.77	0.10	100		100% CLAYSTONE	FISSILE, LIGHT BROWN, VERY WEAK ROCK.
89.78	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
89.80	0.02	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
89.81	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
89.82	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
89.83	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
89.85	0.02	100		100% MUDSTONE	FISSILE, LIGHT BROWN, MODERATELY WEAK ROCK.
89.88	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
89.95	0.07	100		100% COAL, HEAVY DULL	
90.00	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
90.03	0.03	100		100% COAL, DULL	
90.04	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
90.08	0.04	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
90.11	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
90.47	0.36	100		100% SILTSTONE	LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
90.49	0.02	100		100% SILTSTONE	CALCITIC, CREAM, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
91.75	1.26	100		100% SILTSTONE	ARENACEOUS, BANDS, GREY-GREEN, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, .
93.58	1.83	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, GREY-GREEN, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
93.74	0.16	100		100% CLAYSTONE	LIGHT GREEN, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, .
93.77	0.03	100		100% CLAYSTONE	FISSILE, LIGHT GREEN, VERY WEAK ROCK.
95.68	1.91	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
95.89	0.21	100		100% MUDSTONE	BRIGHT COAL, LENSES, BROWN.
96.00	0.11	100		100% SILTSTONE	BROWN, MODERATELY WEAK ROCK.
99.59	3.59	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH CROSS LAMINATION.
99.66	0.07	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED.
101.97	2.31	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
101.99	0.02	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
102.06	0.07	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
102.23	0.17	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS.
102.26	0.03	100		100% MUDSTONE	SANDSTONE, LAMINAE, DARK GREY, MODERATELY WEAK ROCK, LAMINATED.
102.90	0.64	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
104.00	1.10	100		60% SANDSTONE,FINE GRAINED 40% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY. CARBONACEOUS, STREAKS, LIGHT GREY. MODERATELY WEAK ROCK, VERY THINLY BEDDED.
104.16	0.16	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
105.64	1.48	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
105.68	0.04	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
105.87	0.19	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, .
106.05	0.18	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
106.07	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
106.12	0.05	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, WITH MUD PELLETS.
106.14	0.02	100		100% MUDSTONE	BROWN, WEAK ROCK.
106.20	0.06	100		100% CLAYSTONE	GREY-GREEN, STIFF.
106.31	0.11	100		100% COAL, DULL	
106.34	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
106.92	0.58	100		100% MUDSTONE	MICACEOUS, LIGHT BROWN, MODERATELY WEAK ROCK.
108.88	1.96	100		100% CLAYSTONE	SILTSTONE, BANDS, LIGHT BROWN, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
108.93	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
108.96	0.03	100		100% COAL, BRIGHT WITH FEW DULL BANDS	WITH CALCITE ON CLEAT.
108.98	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
109.50	0.52	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	CARBONACEOUS, GREY-BROWN. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH LOAD CASTS.
109.90	0.40	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, BASAL CONTACT TRANSITIONAL.
110.91	1.01	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
111.31	0.40	100		100% MUDSTONE	CARBONACEOUS, MICACEOUS, DARK GREY, MODERATELY WEAK ROCK.
111.43	0.12	100		100% MUDSTONE	SILTSTONE, MICACEOUS, LIGHT BROWN, MODERATELY WEAK ROCK.
111.46	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
111.81	0.35	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
112.15	0.34	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
112.18	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
112.26	0.08	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
112.54	0.28	100		100% MUDSTONE	SILTSTONE, LIGHT BROWN, MODERATELY WEAK ROCK.
112.75	0.21	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
112.77	0.02	100		100% COAL, INTERBANDED DULL AND BRIGHT	
112.78	0.01	100		100% MUDSTONE	CARBONACEOUS, TRACES, LIGHT BROWN, MODERATELY WEAK ROCK.
112.81	0.03	100		100% COAL, INTERBANDED DULL AND BRIGHT	
113.00	0.19	100		100% MUDSTONE	SILTSTONE, MICACEOUS, LIGHT BROWN, MODERATELY WEAK ROCK.
113.13	0.13	100		100% COAL, HEAVY DULL	
113.16	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
113.31	0.15	100		100% COAL, HEAVY DULL	
113.32	0.01	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
113.40	0.08	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
113.52	0.12	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
113.57	0.05	100		100% MUDSTONE	SILTSTONE, LIGHT BROWN, MODERATELY WEAK ROCK.
113.63	0.06	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
113.65	0.02	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
113.74	0.09	100		100% COAL, HEAVY DULL	
113.84	0.10	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
113.86	0.02	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
113.92	0.06	100		100% MUDSTONE	CARBONACEOUS, LENSES, BROWN, MODERATELY WEAK ROCK.
114.05	0.13	100		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS.
114.07	0.02	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, MODERATELY WEAK ROCK.
114.08	0.01	100		100% COAL, HEAVY DULL	
114.12	0.04	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
114.15	0.03	100		100% COAL, HEAVY DULL	
114.20	0.05	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
114.23	0.03	100		100% COAL, HEAVY DULL	BRIGHT COAL, LENSES.
114.24	0.01	100		100% PYRITE	
114.41	0.17	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	WITH CALCITE ON CLEAT.
114.44	0.03	100		100% COAL, HEAVY DULL	
114.57	0.13	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
114.64	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
114.69	0.05	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
114.81	0.12	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
114.82	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
114.89	0.07	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
115.30	0.41	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
115.56	0.26	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
115.82	0.26	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
116.96	1.14	100		100% CLAYSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
117.13	0.20	100		100% CLAYSTONE	LIGHT BROWN, VERY WEAK ROCK.
117.34	0.18	100		100% CLAYSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
119.60	2.26	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
122.14	2.54	100		70% SANDSTONE 30% SANDSTONE,FINE GRAINED	VERY FINE GRAINED, GREY. LIGHT GREY. MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CROSS LAMINATION.
127.32	5.18	100		100% SANDSTONE,MEDIUM GRAINED	LITHIC, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
127.96	0.64	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LEMSES, LIGHT GREY, MODERATELY WEAK ROCK.
128.16	0.20	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
128.28	0.12	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
128.36	0.08	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, LAMINATED.
129.73	1.37	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
129.91	0.18	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
130.31	0.40	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
130.37	0.06	100		100% SILTSTONE	SANDSTONE, LAMINAE, GREY, MODERATELY WEAK ROCK, WITH CROSS LAMINATION.
137.20	6.83	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
137.66	0.46	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, LAMINATED.

TOP OF DALMAYNE B : 352.34 M R.L.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
137.77	0.11	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
137.83	0.06	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
137.96	0.13	100		100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, WEAK ROCK.
138.20	0.24	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
138.74	0.54	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK.
138.77	0.03	100		100% MUDSTONE	BROWN-BLACK, MODERATELY STRONG ROCK.
138.83	0.06	100		100% MUDSTONE	CARBONACEOUS, LENSES, LIGHT BROWN, MODERATELY WEAK ROCK.
139.22	0.39	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
139.35	0.13	100		100% MUDSTONE	LIGHT BROWN, STIFF.
139.51	0.16	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
139.65	0.14	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN, MODERATELY WEAK ROCK.
139.68	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
139.77	0.09	100		100% COAL, HEAVY DULL	
139.95	0.18	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN, MODERATELY WEAK ROCK.
140.40	0.45	100		100% CLAYSTONE	CREAM, STIFF, VERY STICKY.
140.64	0.24	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
141.09	0.45	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
141.18	0.09	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
141.24	0.06	100		100% COAL, HEAVY DULL	
143.30	2.06	100		70% MUDSTONE 30% MUDSTONE	CARBONACEOUS, BROWN-BLACK. LIGHT BROWN. MODERATELY WEAK ROCK, VERY THINLY BEDDED.
143.47	0.17	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
143.72	0.25	100		60% MUDSTONE 40% MUDSTONE	CARBONACEOUS, BROWN-BLACK. BROWN. WEAK ROCK, VERY THINLY BEDDED.
143.92	0.20	100		100% COAL, HEAVY DULL	DULL COAL, BANDS.
143.97	0.05	100		100% MUDSTONE	CARBONACEOUS, SIDERITIC, DARK BROWN, MODERATELY STRONG ROCK.
143.98	0.01	100		100% COAL, HEAVY DULL	
144.02	0.04	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
144.26	0.24	100		100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
144.27	0.01	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
144.35	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY STRONG ROCK.
144.46	0.11	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
144.48	0.02	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
144.51	0.03	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
144.60	0.09	100		100% COAL, HEAVY DULL	
144.66	0.06	100		50% MUDSTONE 50% COAL, BRIGHT	CARBONACEOUS, GREY-BROWN. MODERATELY WEAK ROCK, THINLY LAMINATED.
144.97	0.31	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK.
145.86	0.89	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
146.93	1.07	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
147.06	0.13	100		100% MUDSTONE	FISSILE, GREY, STIFF.
147.40	0.34	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
147.74	0.34	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	LIGHT GREY. GREY. MODERATELY WEAK ROCK, THINLY LAMINATED.
148.54	0.80	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
148.56	0.02	100		100% LIMESTONE	CREAM, MODERATELY WEAK ROCK.
149.00	0.44	100		100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
149.08	0.08	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
149.31	0.23	100		100% COAL, DULL	
149.41	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
				BASE OF DALMAYNE B : THICKNESS= 11.75 M; SAMPLED THICKNESS= 0.00 M	
149.49	0.08	100		100% SANDSTONE,FINE GRAINED	GREY-BROWN, MODERATELY WEAK ROCK.
149.83	0.34	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, MODERATELY WEAK ROCK, WITH LOAD CASTS.
152.00	2.17	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, BASAL CONTACT TRANSITIONAL, WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
155.21	3.21	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS.
155.30	0.09	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
				TOP OF DALMAYNE C : 334.70 M R.L.	
155.98	0.68	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
156.16	0.18	100		50% MUDSTONE 50% MUDSTONE	SILTSTONE, BROWN. CARBONACEOUS, BROWN-BLACK. MODERATELY WEAK ROCK, THINLY LAMINATED.
156.68	0.52	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
157.01	0.33	100		70% MUDSTONE 30% MUDSTONE	SILTSTONE, BROWN. CARBONACEOUS, BROWN-BLACK. MODERATELY WEAK ROCK, THINLY LAMINATED.
161.01	4.00	100		80% MUDSTONE 20% CLAYSTONE	CARBONACEOUS, BROWN-BLACK. LIGHT BROWN. MODERATELY WEAK ROCK.
161.34	0.33	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
				BASE OF DALMAYNE C : THICKNESS= 6.04 M; SAMPLED THICKNESS= 0.00 M	
161.64	0.30	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, MODERATELY WEAK ROCK.
162.17	0.53	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
162.36	0.19	100		100% MUDSTONE	SANDSTONE, LENSES, GREY-BROWN, MODERATELY WEAK ROCK.
162.67	0.31	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, BASAL CONTACT DEFORMED.
162.77	0.10	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
163.93	1.16	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
164.21	0.28	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
164.79	0.58	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
164.98	0.19	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
165.38	0.40	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
165.67	0.29	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
165.79	0.12	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
166.28	0.49	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
167.00	0.72	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
171.40	4.40	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
171.76	0.36	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
171.92	0.16	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
172.00	0.08	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS.
172.71	0.71	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
175.31	2.60	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
175.56	0.25	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS.
175.88	0.32	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
176.41	0.53	100		100% SANDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
179.17	2.76	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
179.40	0.23	100		100% MUDSTONE	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, WITH SLICKENSIDES.
184.99	5.59	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
185.05	0.06	100		100% SANDSTONE	MED.-FINE GRAINED, BROWN, MODERATELY WEAK ROCK.
188.59	3.54	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
188.69	0.10	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
190.21	1.52	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
190.59	0.38	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
191.36	0.77	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
192.36	1.00	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
192.70	0.34	100		100% SANDSTONE,MEDIUM GRAINED	CALCAREOUS, CREAM, MODERATELY WEAK ROCK.
194.27	1.57	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
194.48	0.21	100		100% SANDSTONE,MEDIUM GRAINED	CALCAREOUS, CREAM, MODERATELY WEAK ROCK.
195.87	1.39	100		100% SANDSTONE,MEDIUM GRAINED	CALCAREOUS, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
196.83	0.96	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
197.01	0.18	100		100% SANDSTONE,MEDIUM GRAINED	CALCAREOUS, CREAM, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
197.83	0.82	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
199.55	1.72	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
205.32	5.77	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
206.12	0.80	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
206.20	0.08	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
206.52	0.32	100		100% SANDSTONE,MEDIUM GRAINED	CONGLOMERATIC, LIGHT GREY, MODERATELY WEAK ROCK.
207.59	1.07	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
209.11	1.52	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, WITH CARBONACEOUS WISPS.
210.54	1.43	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
212.69	2.15	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
213.90	1.21	100		100% SANDSTONE,MEDIUM GRAINED	COALY, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
214.89	0.99	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
215.75	0.86	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
216.09	0.34	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
216.69	0.60	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
217.85	1.16	100		100% SANDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
218.13	0.28	80		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
218.24	0.11	100		100% MUDSTONE	BRIGHT COAL, LENSES, GREY-BROWN, MODERATELY WEAK ROCK.
218.26	0.02	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, MODERATELY WEAK ROCK.
218.29	0.03	100		100% MUDSTONE	BROWN, FIRM, MODERATELY STICKY.
				TOP OF DALMAYNE D : 271.71 M R.L.	
218.47	0.18	100	1	100% COAL, DULL	
218.85	0.38	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	
219.14	0.29	100	1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
				BASE OF DALMAYNE D : THICKNESS= 0.85 M; SAMPLED THICKNESS= 0.85 M	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
219.15	0.01	100		100% CARBONACEOUS SHALE	BRIGHT COAL, STREAKS.
219.49	0.34	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK, THINLY LAMINATED, BASAL CONTACT TRANSITIONAL.
219.68	0.19	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
219.74	0.06	100		100% MUDSTONE	GREY, SOFT.
221.29	1.55	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY WEAK ROCK, LAMINATED.
				TOP OF DALMAYNE D : 268.71 M R.L.	
222.21	0.92	100	2	100% COAL, DULL WITH FEW BRIGHT BANDS	CARBONACEOUS, LAMINAE.
222.80	0.59	50	2	100% COAL, DULL	BADLY BROKEN, BLACK.
				BASE OF DALMAYNE D : THICKNESS= 1.51 M; SAMPLED THICKNESS= 1.51 M	
222.82	0.02	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
224.00	1.18	50		100% SANDSTONE,MEDIUM GRAINED	BADLY BROKEN, LIGHT GREY, MODERATELY WEAK ROCK.
227.55	3.55	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
227.60	0.05	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
228.06	0.46	100		100% SANDSTONE	MED.-COARSE GRAINED, CONGLOMERATIC, LIGHT GREY, MODERATELY WEAK ROCK.
229.64	1.58	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
236.94	7.30	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
237.17	0.23	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
238.87	1.70	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
239.10	0.23	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
240.85	1.75	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
240.91	0.06	100		100% MUDSTONE	SANDSTONE, LENSES, GREY, MODERATELY WEAK ROCK.
241.11	0.20	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
241.39	0.28	100		100% MUDSTONE	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK.
244.67	3.28	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
247.77	3.10	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
256.48	8.71	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
262.01	5.53	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
262.37	0.36	100		100% SANDSTONE,MEDIUM GRAINED	CALCAREOUS, CREAM, WITH BANDS OF CALCITE, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
263.18	0.81	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
264.28	1.10	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
265.45	1.17	100		100% SANDSTONE,MEDIUM GRAINED	CALCAREOUS, LIGHT GREY, MODERATELY WEAK ROCK.
265.47	0.02	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
265.76	0.29	100		100% SANDSTONE,MEDIUM GRAINED	GREY-GREEN, MODERATELY WEAK ROCK.
265.79	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
265.90	0.11	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, GREY-GREEN, MODERATELY WEAK ROCK, WITH MUD PELLETS.
266.00	0.10	100		100% COAL, HEAVY DULL	
269.11	3.11	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, TRACES, LIGHT GREY, MODERATELY WEAK ROCK.
269.61	0.50	100		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
269.91	0.30	100		100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK.
270.11	0.20	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, DARK GREY, WEAK ROCK.
271.00	0.89	100		100% MUDSTONE	SILTSTONE, BANDS, DARK GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CROSS LAMINATION.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	0.00 M	137.66 - 149.41 M	11.75 M
DC	0.00 M	155.30 - 161.34 M	6.04 M
DD	0.85 M	218.29 - 219.14 M	0.85 M
DD	1.51 M	221.29 - 222.80 M	1.51 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	218.29 - 219.14 M	0.85 M
2	221.29 - 222.80 M	1.51 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 19

HOLE TYPE	CORE
EASTING	598,000 M AM GRID
NORTHING	5,379,000 M AM GRID
ELEVATION	625.00 M
TOTAL DEPTH DRILLED	478.40 M
DRILLING STARTED	13/11/79
DRILLING TIME	
CORE SIZE	4.5 MM
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	AIR/MUD
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : GY 19

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
250.28	250.28			100% DOLERITE	GREY.
264.00	13.72			100% SEDIMENTARY ROCK	GREY.
265.00	1.00			50% MUDSTONE 25% MUDSTONE 25% MUDSTONE	GREY. GREY-GREEN. RED-GREY.
266.00	1.00			45% MUDSTONE 30% MUDSTONE 25% CARBONACEOUS MUDSTONE	GREY. GREY-GREEN. BLACK.
267.00	1.00			50% MUDSTONE 40% MUDSTONE 10% CARBONACEOUS MUDSTONE	 GREY-GREEN. BLACK.
268.00	1.00			50% MUDSTONE 25% MUDSTONE 25% CARBONACEOUS MUDSTONE	GREY-GREEN. RED-GREY. BLACK.
269.00	1.00			50% MUDSTONE 50% MUDSTONE	GREY-GREEN. RED-GREY.
270.00	1.00			50% MUDSTONE 50% MUDSTONE	GREY-GREEN. RED-GREY.
271.00	1.00			50% MUDSTONE 50% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
272.00	1.00			50% MUDSTONE 50% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
273.00	1.00			100% MUDSTONE	GREY-GREEN.
274.00	1.00			75% MUDSTONE 25% MUDSTONE	GREY-GREEN. RED-GREY.
275.00	1.00			75% MUDSTONE 25% MUDSTONE	GREY-GREEN. RED-GREY.
276.00	1.00			50% MUDSTONE 25% MUDSTONE 25% CARBONACEOUS SHALE	GREY-GREEN. RED-GREY. BLACK.
277.00	1.00			45% MUDSTONE 40% MUDSTONE 15% CARBONACEOUS SHALE	RED-GREY. GREY-GREEN. BLACK.
278.00	1.00			45% MUDSTONE 40% MUDSTONE 15% CARBONACEOUS SHALE	GREY-GREEN. RED-GREY. BLACK.
279.00	1.00			45% MUDSTONE 40% MUDSTONE 15% CARBONACEOUS SHALE	GREY-GREEN. RED-GREY. BLACK.
280.00	1.00			100% MUDSTONE	GREY-GREEN.
281.00	1.00			50% MUDSTONE 50% MUDSTONE	GREY. LIGHT GREEN.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
282.00	1.00			45% MUDSTONE 40% MUDSTONE 15% CARBONACEOUS SHALE	GREY. LIGHT GREEN. BLACK.
283.00	1.00			45% MUDSTONE 40% MUDSTONE 15% CARBONACEOUS SHALE	GREY. RED-GREY. BLACK.
284.00	1.00			50% MUDSTONE 25% MUDSTONE 25% CARBONACEOUS SHALE	GREY. LIGHT GREEN. BLACK.
285.00	1.00			50% MUDSTONE 35% MUDSTONE 15% CARBONACEOUS SHALE	GREY. LIGHT GREEN. BLACK.
286.00	1.00			50% MUDSTONE 25% MUDSTONE 25% CARBONACEOUS SHALE	GREY-GREEN. RED-GREY. BLACK.
287.00	1.00			50% MUDSTONE 35% MUDSTONE 15% CARBONACEOUS SHALE	GREY-GREEN. RED-GREY. BLACK.
288.00	1.00			50% MUDSTONE 25% MUDSTONE 25% CARBONACEOUS SHALE	GREY. LIGHT GREEN. BLACK.
289.00	1.00			60% MUDSTONE 30% MUDSTONE 10% CARBONACEOUS SHALE	GREY-GREEN. LIGHT GREEN. BLACK.
290.00	1.00			75% MUDSTONE 25% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
291.00	1.00			90% MUDSTONE 10% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
292.00	1.00			75% MUDSTONE 25% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
293.00	1.00			90% MUDSTONE 10% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
294.00	1.00			70% MUDSTONE 20% MUDSTONE 10% CARBONACEOUS SHALE	GREY-GREEN. RED-GREY. BLACK.
295.00	1.00			50% MUDSTONE 25% MUDSTONE 25% CARBONACEOUS SHALE	GREY-GREEN. RED-GREY. BLACK.
296.00	1.00			60% MUDSTONE 30% MUDSTONE 10% CARBONACEOUS SHALE	GREY-GREEN. RED-GREY. BLACK.
297.00	1.00			60% MUDSTONE 40% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
298.00	1.00			60% MUDSTONE 40% CARBONACEOUS SHALE	GREY-GREEN. BLACK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
299.00	1.00			60% MUDSTONE 40% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
300.00	1.00			75% MUDSTONE 25% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
301.00	1.00			75% MUDSTONE 25% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
302.00	1.00			50% MUDSTONE 50% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
303.00	1.00			60% MUDSTONE 40% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
304.00	1.00			75% MUDSTONE 25% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
305.00	1.00			50% MUDSTONE 50% CARBONACEOUS SHALE	GREEN. BLACK.
306.00	1.00			100% MUDSTONE	GREY-GREEN.
307.00	1.00			90% MUDSTONE 10% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
308.00	1.00			50% MUDSTONE 50% GNEISS	GREY-GREEN. BLACK.
309.00	1.00			70% CARBONACEOUS SHALE 30% MUDSTONE	BLACK. GREY-GREEN.
310.00	1.00			60% CARBONACEOUS SHALE 40% MUDSTONE	BLACK. GREY-GREEN.
311.00	1.00			60% CARBONACEOUS SHALE 40% MUDSTONE	BLACK. GREY-GREEN.
312.00	1.00			90% MUDSTONE 10% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
313.00	1.00			60% MUDSTONE 40% SANDSTONE	GREY-GREEN. LIGHT GREY.
314.00	1.00			80% MUDSTONE 20% SANDSTONE	GREY-GREEN. LIGHT GREY.
315.00	1.00			90% MUDSTONE 10% SANDSTONE	GREY-GREEN. LIGHT GREY.
316.00	1.00			90% MUDSTONE 10% SANDSTONE	GREY-GREEN. LIGHT GREY.
317.00	1.00			90% MUDSTONE 10% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
318.00	1.00			90% MUDSTONE 10% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
319.00	1.00			80% MUDSTONE 20% SANDSTONE	GREY-GREEN. LIGHT GREY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
320.00	1.00			90% MUDSTONE 10% SANDSTONE	GREY-GREEN. LIGHT GREY.
321.00	1.00			90% MUDSTONE 5% SANDSTONE 5% CARBONACEOUS SHALE	GREY-GREEN. LIGHT GREY. BLACK.
322.00	1.00			80% MUDSTONE 20% SANDSTONE	GREY-GREEN. LIGHT GREY.
323.00	1.00			80% MUDSTONE 20% SANDSTONE	GREY-GREEN. LIGHT GREY.
324.00	1.00			75% SANDSTONE 25% MUDSTONE	LIGHT GREY. GREY-GREEN.
325.00	1.00			75% SANDSTONE 25% MUDSTONE	LIGHT GREY. GREY-GREEN.
326.00	1.00			80% SANDSTONE 20% MUDSTONE	COALY, LIGHT GREY. GREY-GREEN.
327.00	1.00			80% SANDSTONE 20% MUDSTONE	LIGHT GREY. GREY-GREEN.
328.00	1.00			90% SANDSTONE 10% MUDSTONE	LIGHT GREY. GREY-GREEN.
329.00	1.00			90% SANDSTONE 10% MUDSTONE	LIGHT GREY. GREY-GREEN.
330.00	1.00			90% SANDSTONE 10% MUDSTONE	COALY, LIGHT GREY. GREY-GREEN.
331.00	1.00			90% SANDSTONE 10% MUDSTONE	LIGHT GREY. GREY-GREEN.
332.00	1.00			90% SANDSTONE 10% MUDSTONE	LIGHT GREY. GREY-GREEN.
333.00	1.00			90% SANDSTONE 10% MUDSTONE	LIGHT GREY. GREY-GREEN.
334.00	1.00			90% SANDSTONE 10% MUDSTONE	LIGHT GREY. GREY-GREEN.
335.00	1.00			90% SANDSTONE 10% MUDSTONE	LIGHT GREY. GREY-GREEN.
336.00	1.00			90% SANDSTONE 10% MUDSTONE	LIGHT GREY. GREY-GREEN.
337.00	1.00			90% SANDSTONE 10% MUDSTONE	LIGHT GREY. GREY-GREEN.
338.00	1.00			85% SANDSTONE 15% MUDSTONE	LIGHT GREY. GREY-GREEN.
339.00	1.00			80% SANDSTONE 20% MUDSTONE	COALY, LIGHT GREY. GREY-GREEN.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
340.00	1.00			80% SANDSTONE 20% MUDSTONE	COALY, LIGHT GREY. GREY-GREEN.
341.00	1.00			75% SANDSTONE 25% MUDSTONE	LIGHT GREY. GREY-GREEN.
342.00	1.00			75% SANDSTONE 25% MUDSTONE	LIGHT GREY. GREY-GREEN.
343.00	1.00			50% SILTSTONE 50% MUDSTONE	LIGHT GREY. CARBONACEOUS, GREY-GREEN.
344.00	1.00			75% MUDSTONE 25% SILTSTONE	GREY-GREEN. LIGHT GREY.
345.00	1.00			75% MUDSTONE 25% SILTSTONE	GREY-GREEN. LIGHT GREY.
346.00	1.00			85% MUDSTONE 15% SILTSTONE	GREY-GREEN. LIGHT GREY.
347.00	1.00			70% SILTSTONE 30% MUDSTONE	LIGHT GREY. GREY-GREEN.
348.00	1.00			85% SILTSTONE 15% MUDSTONE	LIGHT GREY. GREY-GREEN.
349.00	1.00			85% SILTSTONE 15% MUDSTONE	LIGHT GREY. GREY-GREEN.
350.00	1.00			70% SILTSTONE 30% MUDSTONE	LIGHT GREY. GREY-GREEN.
351.00	1.00			80% SILTSTONE 20% MUDSTONE	LIGHT GREY. GREY-GREEN.
352.00	1.00			80% SILTSTONE 20% MUDSTONE	LIGHT GREY. GREY-GREEN.
353.00	1.00			75% SILTSTONE 25% MUDSTONE	LIGHT GREY. GREY-GREEN.
354.00	1.00			70% SILTSTONE 30% MUDSTONE	LIGHT GREY. GREY-GREEN.
355.00	1.00			70% SILTSTONE 25% MUDSTONE 5% CARBONACEOUS SHALE	LIGHT GREY. GREY-GREEN. BLACK.
356.00	1.00			80% SILTSTONE 10% MUDSTONE 10% CARBONACEOUS SHALE	LIGHT GREY. GREY-GREEN. BLACK.
357.00	1.00			85% SILTSTONE 15% MUDSTONE	LIGHT GREY. GREY-GREEN.
358.00	1.00			80% SILTSTONE 20% MUDSTONE	LIGHT GREY. GREY-GREEN.
359.00	1.00			80% SILTSTONE 20% MUDSTONE	LIGHT GREY. GREY-GREEN.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
360.00	1.00			85% SILTSTONE 10% MUDSTONE 5% CARBONACEOUS SHALE	LIGHT GREY. GREY-GREEN. BLACK.
361.00	1.00			85% SILTSTONE 10% MUDSTONE 5% CARBONACEOUS SHALE	LIGHT GREY. GREY-GREEN. BLACK.
362.00	1.00			85% SILTSTONE 10% MUDSTONE 5% CARBONACEOUS SHALE	LIGHT GREY. GREY-GREEN. BLACK.
363.00	1.00			75% SILTSTONE 20% MUDSTONE 5% CARBONACEOUS SHALE	LIGHT GREY. GREY-GREEN. BLACK.
364.00	1.00			80% SILTSTONE 20% MUDSTONE	LIGHT GREY. GREY-GREEN.
365.00	1.00			80% SILTSTONE 15% MUDSTONE 5% CARBONACEOUS SHALE	LIGHT GREY. GREY-GREEN. BLACK.
366.00	1.00			80% SILTSTONE 20% MUDSTONE	LIGHT GREY. GREY-GREEN.
367.00	1.00			90% MUDSTONE 10% SILTSTONE	GREY-GREEN. CARBONACEOUS, LIGHT GREY.
368.00	1.00			100% MUDSTONE	CARBONACEOUS, GREY-GREEN.
369.00	1.00			100% MUDSTONE	GREY-GREEN.
370.00	1.00			100% MUDSTONE	GREY-GREEN.
371.00	1.00			100% MUDSTONE	CARBONACEOUS, GREY-GREEN.
372.00	1.00			100% MUDSTONE	GREY-GREEN.
373.00	1.00			100% MUDSTONE	GREY-GREEN.
374.00	1.00			100% MUDSTONE	GREY-GREEN.
375.00	1.00			100% MUDSTONE	GREY-GREEN.
376.00	1.00			100% MUDSTONE	GREY-GREEN.
377.00	1.00			100% MUDSTONE	GREY-GREEN.
378.00	1.00			100% MUDSTONE	GREY-GREEN.
379.00	1.00			100% MUDSTONE	GREY-GREEN.
380.00	1.00			100% MUDSTONE	GREY-GREEN.
381.00	1.00			100% MUDSTONE	GREY-GREEN.
382.00	1.00			100% MUDSTONE	GREY-GREEN.
383.00	1.00			100% MUDSTONE	GREY-GREEN.
384.00	1.00			100% MUDSTONE	GREY-GREEN.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
385.00	1.00			100% MUDSTONE	GREY-GREEN.
386.00	1.00			100% MUDSTONE	GREY-GREEN.
387.00	1.00			100% MUDSTONE	GREY-GREEN.
388.00	1.00			100% MUDSTONE	GREY-GREEN.
389.00	1.00			100% MUDSTONE	GREY-GREEN.
390.00	1.00			100% MUDSTONE	GREY-GREEN.
391.00	1.00			100% MUDSTONE	GREY-GREEN.
392.00	1.00			100% MUDSTONE	GREY-GREEN.
393.00	1.00			100% MUDSTONE	GREY-GREEN.
394.00	1.00			100% MUDSTONE	GREY-GREEN.
395.00	1.00			100% MUDSTONE	GREY-GREEN.
396.00	1.00			80% MUDSTONE 20% CARBONACEOUS SHALE	GREY-GREEN. BLACK.
397.00	1.00			90% MUDSTONE 10% MUDSTONE	GREY-GREEN. RED-GREY.
398.00	1.00			100% MUDSTONE	GREY-GREEN.
399.00	1.00			100% MUDSTONE	GREY-GREEN.
400.00	1.00			100% MUDSTONE	GREY-GREEN.
401.00	1.00			100% MUDSTONE	GREY-GREEN.
402.00	1.00			100% MUDSTONE	GREY-GREEN.
403.00	1.00			100% MUDSTONE	GREY-GREEN.
404.00	1.00			100% MUDSTONE	GREY-GREEN.
405.00	1.00			100% MUDSTONE	GREY-GREEN.
406.00	1.00			90% MUDSTONE 10% MUDSTONE	GREY-GREEN. BLACK.
407.00	1.00			100% MUDSTONE	GREY-GREEN.
408.00	1.00			100% MUDSTONE	GREY-GREEN.
409.00	1.00			100% MUDSTONE	COALY, GREY-GREEN.
410.00	1.00			100% MUDSTONE	GREY-GREEN.
411.00	1.00			100% MUDSTONE	GREY-GREEN.
412.00	1.00			100% MUDSTONE	GREY-GREEN.
413.00	1.00			100% MUDSTONE	GREY-GREEN.
414.00	1.00			100% MUDSTONE	GREY-GREEN.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
415.00	1.00			100% MUDSTONE	GREY-GREEN.
416.00	1.00			100% MUDSTONE	GREY-GREEN.
417.00	1.00			100% MUDSTONE	GREY-GREEN.
418.00	1.00			100% MUDSTONE	GREY-GREEN.
419.00	1.00			100% MUDSTONE	GREY-GREEN.
420.00	1.00			100% MUDSTONE	GREY-GREEN.
421.00	1.00			100% MUDSTONE	GREY-GREEN.
422.00	1.00			100% MUDSTONE	GREY-GREEN.
423.00	1.00			100% MUDSTONE	GREY-GREEN.
424.00	1.00			100% MUDSTONE	GREY-GREEN.
425.00	1.00			100% MUDSTONE	GREY-GREEN.
426.00	1.00			100% MUDSTONE	GREY-GREEN.
427.00	1.00			100% MUDSTONE	GREY-GREEN.
428.00	1.00			100% MUDSTONE	GREY-GREEN.
429.00	1.00			100% MUDSTONE	GREY-GREEN.
430.00	1.00			100% MUDSTONE	GREY-GREEN.
431.00	1.00			100% MUDSTONE	GREY-GREEN.
432.00	1.00			100% MUDSTONE	GREY-GREEN.
433.00	1.00			100% MUDSTONE	GREY-GREEN.
434.00	1.00			100% MUDSTONE	GREY-GREEN.
435.00	1.00			100% MUDSTONE	GREY-GREEN.
436.00	1.00			100% MUDSTONE	GREY-GREEN.
437.00	1.00			100% MUDSTONE	GREY-GREEN.
438.00	1.00			100% MUDSTONE	GREY-GREEN.
439.00	1.00			100% MUDSTONE	GREY-GREEN.
440.00	1.00			100% MUDSTONE	GREY-GREEN.
441.00	1.00			100% MUDSTONE	CARBONACEOUS, GREY-GREEN.
442.00	1.00			100% MUDSTONE	GREY-GREEN.
443.00	1.00			50% MUDSTONE 50% MUDSTONE	GREY. GREY-GREEN.
444.00	1.00			50% MUDSTONE 50% MUDSTONE	GREY. GREY-GREEN.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
445.00	1.00			50% MUDSTONE 50% MUDSTONE	BLACK. GREY-GREEN.
446.00	1.00			50% MUDSTONE 45% MUDSTONE 5% COAL	BLACK. GREY-GREEN. BLACK.
447.00	1.00			50% MUDSTONE 45% MUDSTONE 5% COAL	BLACK. GREY-GREEN. BLACK.
448.00	1.00			50% MUDSTONE 45% MUDSTONE 5% COAL	BLACK. GREY-GREEN. BLACK.
449.00	1.00			50% MUDSTONE 45% MUDSTONE 5% COAL	BLACK. GREY-GREEN. BLACK.
450.00	1.00			50% MUDSTONE 45% MUDSTONE 5% COAL	BLACK. GREY-GREEN. BLACK.
451.00	1.00			50% MUDSTONE 45% MUDSTONE 5% COAL	BLACK. GREY-GREEN. BLACK.
452.00	1.00			50% MUDSTONE 30% MUDSTONE 20%	BLACK. GREY-GREEN. RED-GREY.
453.00	1.00			50% MUDSTONE 30% MUDSTONE 20%	BLACK. GREY-GREEN. RED-GREY.
454.00	1.00			50% MUDSTONE 30% MUDSTONE 20%	BLACK. GREY-GREEN. RED-GREY.
				*** CORE DESCRIPTION ***	
454.45	0.45			100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
454.67	0.22			100% SANDSTONE,COARSE GRAINED	GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS.
455.06	0.39			100% MUDSTONE	GREY, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
456.96	1.90			100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
457.02	0.06			100% CARBONACEOUS SHALE	BLACK, UNWEATHERED, STRONG ROCK.
457.13	0.11			100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
459.24	2.11			100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 20 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
459.66	0.42			100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS.
460.01	0.35			100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, STRONG ROCK.
463.09	3.08			100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES.
463.33	0.24			100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, STRONG ROCK.
463.54	0.21			100% SANDSTONE,COARSE GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS.
464.22	0.68			100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
464.29	0.07			100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS.
464.60	0.31			100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 25 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES.
464.87	0.27			100% SANDSTONE,COARSE GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS.
464.93	0.06			100% SANDSTONE,COARSE GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
465.02	0.09			100% SANDSTONE,COARSE GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
465.27	0.25			100% SANDSTONE,COARSE GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
466.72	1.45			100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
469.99	3.27			100% SANDSTONE,COARSE GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
470.15	0.16			100% SANDSTONE,COARSE GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
470.30	0.15			100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
474.16	3.86			100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY WEATHERED, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES.
474.18	0.02			100% CARBONACEOUS SHALE	BROWN-BLACK, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
474.21	0.03			100% SANDSTONE,MEDIUM GRAINED	GREY, SLIGHTLY WEATHERED, STRONG ROCK.
474.27	0.06			100% CARBONACEOUS SHALE	GREY, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
474.34	0.07			50% SANDSTONE,MEDIUM GRAINED 50% MUDSTONE	GREY. GREY-BROWN. UNWEATHERED, STRONG ROCK.
474.41	0.07			100% CARBONACEOUS SHALE	BLACK, UNWEATHERED, STRONG ROCK.
478.23	3.82			100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
478.40	0.17			100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 20

HOLE TYPE	CORE
EASTING	599,600 M AH GRID
NORTHING	5,379,000 M AH GRID
ELEVATION	500.00 M
TOTAL DEPTH DRILLED	471.50 M
DRILLING STARTED	13/12/79
DRILLING TIME	
CORE SIZE	61.0 MM
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION
PETROPHYSICAL WIRELINE LOGS RUN :	

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
9.21	9.21			50% DOLERITE 50% CLAY	SCREE, GREY. FERRUGINOUS, ORANGE-BROWN. COMPLETELY WEATHERED, SOFT.
34.34	25.13			100% DOLERITE	GREY, UNWEATHERED, VERY STRONG ROCK.
52.66	18.32			100% DOLERITE	GREY, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
162.00	109.34			100% DOLERITE	GREY, UNWEATHERED, VERY STRONG ROCK.
163.00	1.00			100% DOLERITE	CHLORITIC, DARK GREY, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
164.00	1.00			50% DOLERITE 50% CARBONACEOUS SHALE	GREY. BAKED, DARK GREY.
165.00	1.00			100% SHALE	BAKED, GREY.
166.00	1.00			60% SHALE 40% SHALE	BAKED, GREY. BAKED, RED-BROWN.
167.00	1.00			70% SHALE 30% SHALE	BAKED, CARBONACEOUS, GREY. BAKED, RED-BROWN.
168.00	1.00			60% SHALE 40% CARBONACEOUS SHALE	GREY. DARK BROWN.
170.00	2.00			50% SHALE 50% CARBONACEOUS SHALE	GREY-BROWN. DARK BROWN.
171.00	1.00			60% SHALE 40% SHALE	GREY. CARBONACEOUS, TRACES, RED-BROWN.
172.00	1.00			80% SHALE 20% SHALE	CARBONACEOUS, TRACES, DARK GREY. RED-BROWN.
173.00	1.00			60% MUDSTONE 40% MUDSTONE	WAXY, GREY-GREEN. PINK-GREY.
178.00	5.00			70% MUDSTONE 30% MUDSTONE	WAXY, GREY-GREEN. PINK-GREY.
182.00	4.00			100% MUDSTONE	SILTSTONE, GREY-GREEN.
				TOP OF DALMAYNE A : 318.00 M R.L.	
184.00	2.00			90% MUDSTONE 10% COAL	GREY.
185.00	1.00			80% MUDSTONE 20% COAL	GREY.
187.00	2.00			70% MUDSTONE 30% COAL	GREY.
188.00	1.00			90% MUDSTONE 10% COAL	GREY.
189.00	1.00			80% MUDSTONE 20% COAL	GREY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
				BASE OF DALHAYNE A : THICKNESS= 7.00 M; SAMPLED THICKNESS= 0.00 M	
190.00	1.00			80% SANDSTONE,FINE GRAINED 20% COAL	ARGILLACEOUS, GREY.
191.00	1.00			90% SANDSTONE,FINE GRAINED 10% COAL	ARGILLACEOUS, GREY.
196.00	5.00			100% SANDSTONE,FINE GRAINED	COALY, TRACES, GREY.
197.00	1.00			70% SANDSTONE,FINE GRAINED 30% CARBONACEOUS SHALE	GREY. DARK GREY.
200.00	3.00			100% CARBONACEOUS SHALE	DARK GREY.
203.00	3.00			100% CARBONACEOUS SHALE	DARK GREY.
205.00	2.00			50% SILTSTONE 50% MUDSTONE	GREY. CARBONACEOUS, DARK GREY.
209.00	4.00			70% CARBONACEOUS SHALE 30% MUDSTONE	DARK GREY. SILTSTONE, GREY.
211.00	2.00			80% CARBONACEOUS SHALE 20% MUDSTONE	DARK GREY. LIGHT GREY.
212.00	1.00			70% MUDSTONE 30% CARBONACEOUS MUDSTONE	GREY. DARK GREY.
213.00	1.00			100% MUDSTONE	GREY.
214.00	1.00			50% MUDSTONE 50% CARBONACEOUS MUDSTONE	GREY. DARK GREY.
215.00	1.00			60% MUDSTONE 40% MUDSTONE	CARBONACEOUS, TRACES, DARK GREY. RED-BROWN.
216.00	1.00			50% MUDSTONE 50% MUDSTONE	GREY-GREEN. RED-BROWN.
217.00	1.00			80% MUDSTONE 20% MUDSTONE	GREY-GREEN. RED-BROWN.
218.00	1.00			80% SILTSTONE 20% SANDSTONE	LIGHT GREY. VERY FINE GRAINED, LIGHT GREY.
219.00	1.00			100% SANDSTONE,FINE GRAINED	LIGHT GREY.
220.00	1.00			80% SANDSTONE 20% SANDSTONE,FINE GRAINED	MED.-COARSE GRAINED, GREY. GREY.
222.00	2.00			100% SANDSTONE,COARSE GRAINED	GREY.
223.00	1.00			80% SANDSTONE,COARSE GRAINED 20% CARBONACEOUS MUDSTONE	GREY. DARK GREY.
224.00	1.00			60% SANDSTONE,MEDIUM GRAINED 40% CARBONACEOUS SHALE	GREY. DARK GREY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
225.00	1.00			70% MUDSTONE 30% CARBONACEOUS MUDSTONE	GREY. DARK GREY.
226.00	1.00			70% CARBONACEOUS MUDSTONE 30% MUDSTONE	DARK GREY. RED-BROWN.
227.00	1.00			50% MUDSTONE 50% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, TRACES, GREY. GREY.
228.00	1.00			60% SILTSTONE 40% CARBONACEOUS MUDSTONE	GREY. DARK GREY.
229.00	1.00			50% SILTSTONE 50% CARBONACEOUS MUDSTONE	GREY. DARK GREY.
230.00	1.00			60% SANDSTONE,MEDIUM GRAINED 40% MUDSTONE	GREY. CARBONACEOUS, TRACES, GREY.
233.00	3.00			60% SILTSTONE 40% MUDSTONE	GREY. CARBONACEOUS, TRACES, DARK GREY.
234.00	1.00			80% SILTSTONE 20% MUDSTONE	CARBONACEOUS, TRACES, BROWN. BENTONITIC, LIGHT BROWN.
235.00	1.00			70% MUDSTONE 30% SILTSTONE	CARBONACEOUS, DARK BROWN. GREY-BROWN.
236.00	1.00			70% SILTSTONE 30% CARBONACEOUS MUDSTONE	GREY. DARK GREY.
237.00	1.00			70% SILTSTONE 30% MUDSTONE	GREY. BLUE-GREY.
238.00	1.00			70% MUDSTONE 30% MUDSTONE	CARBONACEOUS, TRACES, GREY. VARIAGATED COLOUR.
239.00	1.00			60% MUDSTONE 40% CARBONACEOUS MUDSTONE	GREY-BROWN. DARK BROWN.
240.00	1.00			80% MUDSTONE 20% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.
241.00	1.00			50% MUDSTONE 50% MUDSTONE	GREY. VARIAGATED COLOUR.
242.00	1.00			70% MUDSTONE 30% MUDSTONE	LIGHT GREY. CARBONACEOUS, DARK GREY.
243.00	1.00			90% SHALE 10% MUDSTONE	GREY. VARIAGATED COLOUR.
244.00	1.00			90% SILTSTONE 10% MUDSTONE	GREY. CARBONACEOUS, TRACES, DARK BROWN.
245.00	1.00			50% SILTSTONE 50% MUDSTONE	GREY. RED-BROWN.
246.00	1.00			60% MUDSTONE 40% MUDSTONE	CARBONACEOUS, DARK BROWN. GREY.
247.00	1.00			50% MUDSTONE 50% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
248.00	1.00			80% SILTSTONE 20% MUDSTONE	GREY. CARBONACEOUS, DARK BROWN.
249.00	1.00			80% CARBONACEOUS MUDSTONE 20% SILTSTONE	DARK BROWN. GREY.
250.00	1.00			70% SILTSTONE 30% SANDSTONE,MEDIUM GRAINED	GREY. LIGHT GREY.
251.00	1.00			60% MUDSTONE 40% SANDSTONE,FINE GRAINED	GREY. GREY.
252.00	1.00			70% MUDSTONE 30% MUDSTONE	GREY. CARBONACEOUS, BROWN.
253.00	1.00			100% SHALE	GREY.
254.00	1.00			60% SANDSTONE,FINE GRAINED 40% MUDSTONE	GREY. CARBONACEOUS, TRACES, GREY-BROWN.
255.00	1.00			60% SANDSTONE,FINE GRAINED 40% MUDSTONE	GREY. CARBONACEOUS, TRACES, GREY-BROWN.
257.00	2.00			70% SANDSTONE,MEDIUM GRAINED 30% MUDSTONE	GREY. CARBONACEOUS, TRACES, GREY-BROWN.
258.00	1.00			70% SANDSTONE,FINE GRAINED 30% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.
259.00	1.00			60% SANDSTONE,FINE GRAINED 40% MUDSTONE	LIGHT GREY. CARBONACEOUS, TRACES, GREY-BROWN.
260.00	1.00			90% SANDSTONE,MEDIUM GRAINED 10% MUDSTONE	GREY. CARBONACEOUS, TRACES, DARK GREY.
261.00	1.00			80% SANDSTONE,MEDIUM GRAINED 20% MUDSTONE	GREY. CARBONACEOUS, TRACES, GREY.
263.00	2.00			70% MUDSTONE 30% SANDSTONE,FINE GRAINED	CARBONACEOUS, TRACES, GREY-BROWN. GREY.
264.00	1.00			100% SANDSTONE,MEDIUM GRAINED	GREY.
265.00	1.00			90% MUDSTONE 10% CARBONACEOUS MUDSTONE	LIGHT BROWN. BLACK.
266.00	1.00			50% MUDSTONE 50% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.
267.00	1.00			50% MUDSTONE 50% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.
268.00	1.00			80% MUDSTONE 20% MUDSTONE	COALY, BLACK. LIGHT BROWN.
269.00	1.00			60% MUDSTONE 40% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.
270.00	1.00			70% SANDSTONE,MEDIUM GRAINED 30% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
271.00	1.00			70% SANDSTONE,MEDIUM GRAINED 30% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.
273.00	2.00			80% SANDSTONE,MEDIUM GRAINED 20% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.
274.00	1.00			60% SANDSTONE,MEDIUM GRAINED 40% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.
275.00	1.00			80% SANDSTONE,MEDIUM GRAINED 20% MUDSTONE	GREY. CARBONACEOUS, TRACES, DARK GREY.
276.00	1.00			70% SANDSTONE,MEDIUM GRAINED 30% MUDSTONE	GREY. CARBONACEOUS, DARK GREY.
277.00	1.00			100% SANDSTONE,MEDIUM GRAINED	GREY.
278.00	1.00			80% SANDSTONE,MEDIUM GRAINED 20% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.
279.00	1.00			50% SANDSTONE,FINE GRAINED 50% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.
280.00	1.00			80% SANDSTONE,MEDIUM GRAINED 20% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.
281.00	1.00			50% SANDSTONE,FINE GRAINED 50% MUDSTONE	GREY. CARBONACEOUS, TRACES, GREY.
282.00	1.00			90% MUDSTONE 10% SANDSTONE,FINE GRAINED	CARBONACEOUS, TRACES, GREY. GREY.
294.00	12.00			100% SANDSTONE,COARSE GRAINED	GREY.
295.00	1.00			80% SANDSTONE,MEDIUM GRAINED 20% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.
296.00	1.00			90% SANDSTONE,FINE GRAINED 10% MUDSTONE	GREY. CARBONACEOUS, DARK BROWN.
297.00	1.00			50% SANDSTONE,FINE GRAINED 50% MUDSTONE	GREY. CARBONACEOUS, TRACES, BROWN.
298.00	1.00			70% SHALE 30% SANDSTONE	GREY-BROWN. VERY FINE GRAINED, GREY.
299.00	1.00			70% SHALE 30% MUDSTONE	GREY. CARBONACEOUS, DARK BROWN.
300.00	1.00			60% SHALE 40% CARBONACEOUS SHALE	GREY. DARK BROWN.
302.00	2.00			50% SHALE 50% SANDSTONE,FINE GRAINED	CARBONACEOUS, TRACES, GREY-BROWN. GREY.
303.00	1.00			80% MUDSTONE 20% MUDSTONE	CARBONACEOUS, TRACES, GREY-BROWN. BENTONITIC, WHITE.
304.00	1.00			70% SANDSTONE 30% SHALE	VERY FINE GRAINED, GREY. GREY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
305.00	1.00			60% SHALE 40% SANDSTONE,FINE GRAINED	CARBONACEOUS, TRACES, GREY-BROWN. GREY.
306.00	1.00			50% SHALE 50% SANDSTONE,FINE GRAINED	CARBONACEOUS, BROWN. GREY.
307.00	1.00			100% MUDSTONE	CARBONACEOUS, BROWN.
308.00	1.00			80% CARBONACEOUS MUDSTONE 20% MUDSTONE	DARK BROWN. RED-BROWN.
309.00	1.00			60% MUDSTONE 40% MUDSTONE	CARBONACEOUS, BROWN. GREY-BROWN.
310.00	1.00			80% MUDSTONE 20% MUDSTONE	GREY-BROWN. CARBONACEOUS, BROWN.
311.00	1.00			90% MUDSTONE 10% COAL	CARBONACEOUS, DARK BROWN. FRAGMENTS.
312.00	1.00			95% SILTSTONE 5% COAL	ARGILLACEOUS, GREY. FRAGMENTS.
313.00	1.00			70% SILTSTONE 30% CARBONACEOUS MUDSTONE	ARGILLACEOUS, GREY. DARK BROWN.
314.00	1.00			80% MUDSTONE 20% COAL	SILTSTONE, GREY. FRAGMENTS.
315.00	1.00			95% SANDSTONE 5% CARBONACEOUS MUDSTONE	VERY FINE GRAINED, ARGILLACEOUS, LIGHT GREY. FRAGMENTS, DARK BROWN.
316.00	1.00			80% SANDSTONE 20% CARBONACEOUS MUDSTONE	VERY FINE GRAINED, ARGILLACEOUS, LIGHT GREY. FRAGMENTS, DARK BROWN.
317.00	1.00			95% SANDSTONE 5% CARBONACEOUS MUDSTONE	VERY FINE GRAINED, ARGILLACEOUS, LIGHT GREY. FRAGMENTS, DARK BROWN.
318.00	1.00			95% SANDSTONE 5% CARBONACEOUS MUDSTONE	VERY FINE GRAINED, ARGILLACEOUS, LIGHT GREY. FRAGMENTS, DARK BROWN.
319.00	1.00			95% SANDSTONE 5% CARBONACEOUS MUDSTONE	VERY FINE GRAINED, ARGILLACEOUS, LIGHT GREY. FRAGMENTS, DARK BROWN.
320.00	1.00			80% SILTSTONE 20% COAL	ARGILLACEOUS, LIGHT GREY. FRAGMENTS.
323.00	3.00			90% SANDSTONE 10% COAL	VERY FINE GRAINED, ARGILLACEOUS, LIGHT GREY. FRAGMENTS.
324.00	1.00			80% SANDSTONE 20% COAL	VERY FINE GRAINED, ARGILLACEOUS, LIGHT GREY. FRAGMENTS.
325.00	1.00			90% SANDSTONE 10% COAL	VERY FINE GRAINED, ARGILLACEOUS, LIGHT GREY. FRAGMENTS.
326.00	1.00			80% SANDSTONE 20% MUDSTONE	VERY FINE GRAINED, ARGILLACEOUS, LIGHT GREY. COALY, FRAGMENTS, DARK BROWN.

TOP OF DALMAYNE B : 174.00 M R.L.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
327.00	1.00			60% MUDSTONE 40% COAL	COALY, DARK BROWN. MID LUSTROUS-DULL COAL.
328.00	1.00			70% COAL 30% COAL	MID LUSTROUS-DULL COAL.
329.00	1.00			70% MUDSTONE 30% COAL	GREY-BROWN. MID LUSTROUS-DULL COAL.
330.00	1.00			60% MUDSTONE 40% COAL	GREY-BROWN. MID LUSTROUS-DULL COAL.
332.00	2.00			90% MUDSTONE 10% COAL	GREY-BROWN.
333.00	1.00			50% MUDSTONE 50% COAL	GREY. MID LUSTROUS-DULL COAL.
335.00	2.00			60% MUDSTONE 40% COAL	GREY-BROWN. MID LUSTROUS-DULL COAL.
			BASE OF DALHAYNE B : THICKNESS= 9.00 M; SAMPLED THICKNESS= 0.00 M		
336.00	1.00			70% SILTSTONE 30% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.
337.00	1.00			60% SILTSTONE 40% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.
339.00	2.00			90% SANDSTONE,FINE GRAINED 10% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.
345.00	6.00			90% SANDSTONE,FINE GRAINED 10% COAL	GREY. FRAGMENTS.
347.00	2.00			60% SANDSTONE,FINE GRAINED 40% MUDSTONE	GREY. CARBONACEOUS, TRACES, GREY.
361.00	14.00			95% SANDSTONE,MEDIUM GRAINED 5% COAL	GREY. FRAGMENTS.
			TOP OF DALHAYNE C : 139.00 M R.L.		
362.00	1.00			70% COAL, DULL WITH FEW BRIGHT BANDS 30% MUDSTONE	GREY-BROWN.
363.00	1.00			80% MUDSTONE 20% COAL	GREY-BROWN. MID LUSTROUS-DULL COAL.
			BASE OF DALHAYNE C : THICKNESS= 2.00 M; SAMPLED THICKNESS= 0.00 M		
364.00	1.00			90% SANDSTONE,MEDIUM GRAINED 10% COAL	GREY. FRAGMENTS, MID LUSTROUS-DULL COAL.
372.00	8.00			95% SANDSTONE,MEDIUM GRAINED 5% COAL	GREY. FRAGMENTS, MID LUSTROUS-DULL COAL.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
376.00	4.00			90% SANDSTONE,MEDIUM GRAINED 10% CARBONACEOUS MUDSTONE	GREY. FRAGMENTS, DARK BROWN.
378.00	2.00			95% SANDSTONE,MEDIUM GRAINED 5% CARBONACEOUS MUDSTONE	GREY. FRAGMENTS, DARK BROWN.
380.00	2.00			80% SANDSTONE,COARSE GRAINED 20% COAL	GREY. FRAGMENTS, MID LUSTROUS-DULL COAL.
382.00	2.00			90% SANDSTONE,MEDIUM GRAINED 10% COAL	GREY. FRAGMENTS, MID LUSTROUS-DULL COAL.
383.00	1.00			80% SANDSTONE,MEDIUM GRAINED 20% COAL	GREY. FRAGMENTS.
384.50	1.50			90% SANDSTONE,MEDIUM GRAINED 10% COAL	GREY. FRAGMENTS, MID LUSTROUS-DULL COAL.
				*** CORE DESCRIPTION ***	
385.68	1.18			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
386.34	0.66			70% SANDSTONE,MEDIUM GRAINED 30% MUDSTONE	GREY. PELLETAL, GREY-BROWN. MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 5 DEG.
387.50	1.16			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
391.44	3.94			100% SANDSTONE	MED.-COARSE GRAINED, GREY, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
392.76	1.32			100% MUDSTONE	CARBONACEOUS, TRACES, DARK GREY, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 80 DEG.
392.91	0.15			80% SANDSTONE 20% MUDSTONE	MED.-COARSE GRAINED, GREY. PELLETAL, GREY-BROWN. STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 5 DEG.
393.48	0.57			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 5 DEG.
395.30	1.82			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
395.31	0.01			100% CARBONACEOUS MUDSTONE	DARK BROWN, WEAK ROCK.
396.47	1.16			90% SANDSTONE,MEDIUM GRAINED 10% MUDSTONE	GREY. PELLETAL, GREY. STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 5 DEG.
396.55	0.08			60% SANDSTONE,MEDIUM GRAINED 40% CARBONACEOUS MUDSTONE	GREY. STREAKS, BLACK. STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
401.79	5.24			100% SANDSTONE	MED.-COARSE GRAINED, GREY, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 5 DEG.
405.50	3.71			100% SANDSTONE	MED.-COARSE GRAINED, GREY, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
408.50	3.00			90% SANDSTONE,MEDIUM GRAINED 10% CARBONACEOUS MUDSTONE	GREY. STREAKS. STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
409.53	1.03			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
410.52	0.99			100% SANDSTONE,COARSE GRAINED	LIGHT GREY, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG.
410.55	0.03			100% COAL, DULL	LENSES, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
410.66	0.11			60% SANDSTONE,COARSE GRAINED 40% MUDSTONE	LIGHT GREY. CARBONACEOUS, PELLETAL, DARK GREY. STRONG ROCK.
411.06	0.40			100% SANDSTONE,COARSE GRAINED	LIGHT GREY, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
414.50	3.44			90% SANDSTONE,COARSE GRAINED 10% CARBONACEOUS MUDSTONE	LIGHT GREY. COALY, STREAKS. STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
416.70	2.20			80% SANDSTONE,MEDIUM GRAINED 20% MUDSTONE	GREY. COALY, LAMINAE. STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG.
417.50	0.80			100% SANDSTONE	MED.-COARSE GRAINED, GREY, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
418.56	1.06			100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG.
419.71	1.15			100% CARBONACEOUS MUDSTONE	FRIABLE, DARK GREY, VERY WEAK ROCK.
420.51	0.80			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
423.50	2.99			90% SANDSTONE,MEDIUM GRAINED 10% CARBONACEOUS MUDSTONE	GREY. STREAKS. STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG.
426.50	3.00			90% SANDSTONE 10% CARBONACEOUS MUDSTONE	MED.-COARSE GRAINED, GREY. STREAKS. MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
429.50	3.00			90% SANDSTONE 10% COAL	MED.-COARSE GRAINED, GREY. STREAKS. MODERATELY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 5 DEG.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
432.53	3.03			95% SANDSTONE 5% CARBONACEOUS MUDSTONE	MED.-COARSE GRAINED, GREY. STREAKS. STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
432.95	0.42			90% SANDSTONE,MEDIUM GRAINED 10% CARBONACEOUS MUDSTONE	GREY. STREAKS, DARK BROWN. MODERATELY STRONG ROCK.
433.49	0.54			100% MUDSTONE	GREY-BROWN, WEAK ROCK.
434.04	0.55			100% MUDSTONE	CARBONACEOUS, DARK GREY.
434.16	0.12			90% SANDSTONE 10% CARBONACEOUS MUDSTONE	MED.-FINE GRAINED, DARK GREY. FRAGMENTS, DARK GREY.
434.35	0.19			90% MUDSTONE 10% COAL	CARBONACEOUS, GREY. LENSES.
		TOP OF DALMAYNE D LOWER : 65.65 M R.L.			
434.45	0.10		1====	100% COAL, HEAVY DULL	
434.60	0.15		1====	100% COAL, DULL	
434.63	0.03		1====	100% MUDSTONE	BROWN, MODERATELY STRONG ROCK.
434.75	0.12		1====	100% COAL, HEAVY DULL	
435.37	0.62		1====	90% COAL, DULL 10% CALCITE	BANDS.
435.38	0.01		1====	100% SANDSTONE	GREY.
435.45	0.07		1====	100% COAL, DULL	
435.47	0.02		1====	100% MUDSTONE	BROWN.
435.56	0.09		1====	100% COAL, DULL	MUDSTONE, PARTINGS.
436.00	0.44		1====	100% COAL, DULL	SHALY, PARTINGS.
436.02	0.02		1====	100% MUDSTONE	CARBONACEOUS, DARK BROWN.
436.26	0.24		1====	100% COAL, DULL	SHALY, PARTINGS.
436.29	0.03		1====	100% COAL, BRIGHT	
436.41	0.12		1====	100% COAL, DULL	SHALY, PARTINGS, WITH CALCITE ON FRACTURES.
		BASE OF DALMAYNE D LOWER : THICKNESS= 2.06 M; SAMPLED THICKNESS= 2.06 M			
436.44	0.03		2====	90% MUDSTONE 10% CARBONACEOUS MUDSTONE	DARK GREY. LENSES.
436.48	0.04		2====	100% MUDSTONE	LIGHT BROWN, MODERATELY STRONG ROCK.
436.52	0.04		2====	100% COAL, DULL	CARBONACEOUS, PARTINGS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
436.62	0.10		2====	100% MUDSTONE	CARBONACEOUS, DARK GREY.
436.71	0.09		2====	100% MUDSTONE	GREY.
436.86	0.15		2====	90% CARBONACEOUS SHALE 10% COAL	DARK GREY. BANDS.
438.18	1.32		2====	100% MUDSTONE	LAMINAE, GREY.
438.19	0.01		2====	100% COAL, BRIGHT	
438.24	0.05		2====	100% MUDSTONE	GREY.
		TOP OF DALMAYNE D LOWER : 61.76 M R.L.			
438.26	0.02		3====	100% COAL, DULL	
438.27	0.01		3====	100% MUDSTONE	BROWN.
438.42	0.15		3====	100% COAL, DULL	
438.50	0.08		3====	80% COAL, HEAVY DULL 20% COAL, BRIGHT	BANDS.
438.69	0.19		3====	100% COAL, DULL	
438.71	0.02		3====	100% MUDSTONE	BROWN.
438.78	0.07		3====	100% COAL, DULL	
438.79	0.01		3====	100% CARBONACEOUS MUDSTONE	
438.84	0.05		3====	100% COAL, DULL	
438.86	0.02		3====	100% MUDSTONE	BROWN.
438.95	0.09		3====	100% COAL, DULL	
441.41	2.46			100% MUDSTONE	CARBONACEOUS, TRACES, GREY.
444.44	3.03			100% MUDSTONE	SILTSTONE, GREY.
444.53	0.09			100% MUDSTONE	CARBONACEOUS, TRACES, GREY.
444.54	0.01			100% MUDSTONE	FRIABLE, LIGHT BROWN.
444.57	0.03			100% CARBONACEOUS MUDSTONE	BLACK.
444.61	0.04			100% COAL, DULL	
		BASE OF DALMAYNE D LOWER : THICKNESS= 6.37 M; SAMPLED THICKNESS= 0.71 M			
444.83	0.22			100% MUDSTONE	GREY.
446.18	1.35			100% SILTSTONE	GREY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
447.50	1.32			100% SANDSTONE	MED.-COARSE GRAINED, GREY, MODERATELY WEATHERED, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG.
450.56	3.06			100% SANDSTONE,COARSE GRAINED	MASSIVE, GREY, MODERATELY WEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG.
453.50	2.94			95% SANDSTONE 5% COAL	MED.-COARSE GRAINED, MASSIVE, GREY. FRAGMENTS.
456.76	3.26			100% SANDSTONE	MED.-COARSE GRAINED, MASSIVE, GREY, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
456.80	0.04			100% CARBONACEOUS SHALE	BLACK, STRONG ROCK.
456.86	0.06			90% SANDSTONE,MEDIUM GRAINED 10% CARBONACEOUS MUDSTONE	GREY-GREEN. BLACK.
456.92	0.06			95% SANDSTONE,FINE GRAINED 5% CARBONACEOUS MUDSTONE	GREY-GREEN. TRACES, DARK BROWN.
457.48	0.56			80% SANDSTONE,COARSE GRAINED 20% COAL, DULL	GREY-GREEN. LENSES, FRAGMENTS.
458.59	1.11			100% SANDSTONE	MED.-COARSE GRAINED, MASSIVE, GREY, MODERATELY STRONG ROCK.
458.61	0.02			90% CARBONACEOUS MUDSTONE 10% CALCITE	DARK BROWN. FRAGMENTS, WHITE. WEAK ROCK.
459.50	0.89			100% SANDSTONE	MED.-COARSE GRAINED, MASSIVE, GREY, MODERATELY STRONG ROCK.
462.51	3.01			95% SANDSTONE 5% CARBONACEOUS MUDSTONE	MED.-COARSE GRAINED, MASSIVE, GREY. STREAKS, DARK BROWN. MODERATELY STRONG ROCK.
464.26	1.75			100% SANDSTONE,COARSE GRAINED	MASSIVE, GREY, MODERATELY STRONG ROCK.
464.64	0.38			100% CARBONACEOUS MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
464.76	0.12			60% CARBONACEOUS MUDSTONE 40% SANDSTONE,MEDIUM GRAINED	DARK BROWN. GREY. MODERATELY WEAK ROCK.
466.74	1.98			80% SANDSTONE,MEDIUM GRAINED 20% COAL	MASSIVE, GREY-GREEN. STREAKS, BLACK.
468.47	1.73			100% SANDSTONE	MED.-COARSE GRAINED, MASSIVE, GREY, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
468.50	0.03			100% SANDSTONE	MED.-COARSE GRAINED, GREY, HIGHLY WEATHERED, VERY WEAK ROCK.
470.14	1.64			100% SANDSTONE,MEDIUM GRAINED	MASSIVE, GREY, STRONG ROCK.
470.17	0.03			100% MUDSTONE	CARBONACEOUS, TRACES, GREY, WEAK ROCK.
470.18	0.01			100% CARBONACEOUS MUDSTONE	BLACK, VERY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
471.50	1.32			100% MUDSTONE	CARBONACEOUS, FRAGMENTS, DARK GREY.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DA	0.00 M	182.00 - 189.00 M	7.00 M
DB	0.00 M	326.00 - 335.00 M	9.00 M
DC	0.00 M	361.00 - 363.00 M	2.00 M
DDL	2.06 M	434.35 - 436.41 M	2.06 M
DDL	0.71 M	438.24 - 444.61 M	6.37 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1==	434.35 - 436.41 M	2.06 M
2= =	436.41 - 438.24 M	1.83 M
3====	438.24 - 438.95 M	0.71 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 21

HOLE TYPE	CORE
EASTING	601,700 M AM GRID
NORTHING	5,377,800 M AM GRID
ELEVATION	430.00 M
TOTAL DEPTH DRILLED	308.40 M
DRILLING STARTED	18/12/79
DRILLING TIME	
CORE SIZE	
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION
PETROPHYSICAL WIRELINE LOGS RUN :	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
3.00	3.00			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, HIGHLY WEATHERED, MODERATELY WEAK ROCK.
6.00	3.00			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, WITH CRYSTALLINE PYRITE, HIGHLY WEATHERED, MODERATELY WEAK ROCK.
8.00	2.00			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, MODERATELY WEATHERED, STRONG ROCK.
11.00	3.00			100% DOLERITE	SCREE, GREY-BROWN, COMPLETELY WEATHERED.
14.00	3.00			100% DOLERITE	SCREE, GREY-BROWN, COMPLETELY WEATHERED.
17.00	3.00			70% DOLERITE 30% DOLERITE	SCREE, BROWN. SCREE, GREY.
20.00	3.00			100% DOLERITE	SCREE, MED.-COARSE GRAINED, BROWN, COMPLETELY WEATHERED.
21.68	1.68			100% DOLERITE	SCREE, BROWN, COMPLETELY WEATHERED.
22.86	1.18			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, MODERATELY WEATHERED, STRONG ROCK.
23.00	0.14			100% DOLERITE	SCREE, RED-BROWN, COMPLETELY WEATHERED, SOFT.
25.15	2.15			100% DOLERITE	SCREE, GREY-BROWN, COMPLETELY WEATHERED.
26.00	0.85			100% DOLERITE	SCREE, GREY, MODERATELY WEATHERED, STRONG ROCK.
27.45	1.45			100% DOLERITE	SCREE, RED-BROWN, COMPLETELY WEATHERED, SOFT.
27.59	0.14			100% MUDSTONE	BROWN, VERY WEAK ROCK.
27.90	0.31			100% MUDSTONE	LIGHT GREY, VERY SOFT, VERY STICKY.
27.98	0.08			100% MUDSTONE	CARBONACEOUS, TRACES, PINK-GREY, VERY SOFT, MODERATELY STICKY.
28.20	0.22			100% MUDSTONE	GREY-BROWN, VERY SOFT, WITH MUD PELLETS, VERY STICKY.
28.22	0.02			100% MUDSTONE	COALY, BLACK, STIFF.
28.32	0.10			100% MUDSTONE	CARBONACEOUS, DARK GREY, VERY SOFT, VERY STICKY.
28.36	0.04			100% CARBONACEOUS SHALE	DARK GREY, MODERATELY STRONG ROCK.
28.54	0.18			100% MUDSTONE	COALY, DARK BROWN, MODERATELY WEAK ROCK.
29.00	0.46			100% SILTSTONE	CARBONACEOUS, GREY, MODERATELY STRONG ROCK.
29.36	0.36			100% MUDSTONE	COALY, BLACK, VERY WEAK ROCK.
30.08	0.72			100% SILTSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY STRONG ROCK.
30.09	0.01			100% COAL, MID LUSTROUS - BRIGHT	
30.24	0.15			100% SILTSTONE	COALY, LAMINAE, GREY.
30.49	0.25			100% MUDSTONE	COALY, DARK GREY, VERY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
31.22	0.73			100% SILTSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY STRONG ROCK.
31.25	0.03			100% MUDSTONE	COALY, DARK GREY, WEAK ROCK.
32.00	0.75			100% SILTSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY STRONG ROCK.
32.27	0.27			100% SILTSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY STRONG ROCK.
32.31	0.04			100% MUDSTONE	COALY, DARK GREY, FIRM.
32.32	0.01			100% SILTSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY STRONG ROCK.
33.03	0.71			100% MUDSTONE	CARBONACEOUS, FRIABLE, DARK GREY, VERY SOFT.
34.09	1.06			100% SILTSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
34.46	0.37			100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, STRONG ROCK.
34.53	0.07			100% MUDSTONE	COALY, DARK GREY, MODERATELY STRONG ROCK.
34.62	0.09			100% COAL, MID LUSTROUS - DULL	
34.88	0.26			100% MUDSTONE	CARBONACEOUS, DARK GREY, FIRM.
35.27	0.39			100% MUDSTONE	CARBONACEOUS, GREY, FIRM.
35.31	0.04			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
35.50	0.19			100% CARBONACEOUS MUDSTONE	DARK GREY, VERY WEAK ROCK.
35.72	0.22			100% SILTSTONE	CARBONACEOUS, TRACES, GREY, STRONG ROCK.
35.75	0.03			100% CARBONACEOUS SHALE	DARK BROWN, STRONG ROCK.
35.85	0.10			100% SILTSTONE	CARBONACEOUS, TRACES, GREY, STRONG ROCK.
36.14	0.29			100% CARBONACEOUS MUDSTONE	GREY, MODERATELY STRONG ROCK.
36.56	0.42			100% CARBONACEOUS SHALE	DARK BROWN, STRONG ROCK.
36.66	0.10			100% SILTSTONE	GREY, STRONG ROCK.
37.90	1.24			60% CARBONACEOUS SHALE 40% MUDSTONE	DARK BROWN. LAMINAE, GREY-BROWN.
38.00	0.10			100% MUDSTONE	GREY-BROWN, VERY WEAK ROCK.
38.02	0.02			100% SHALE	COALY, BLACK, STRONG ROCK.
38.12	0.10			100% MUDSTONE	CARBONACEOUS, TRACES, GREY-BROWN, MODERATELY WEAK ROCK.
38.20	0.08			100% CARBONACEOUS SHALE	DARK BROWN, STRONG ROCK.
38.30	0.10			100% SILTSTONE	MICACEOUS, GREY, STRONG ROCK.
38.38	0.08			100% MUDSTONE	COALY, BLACK, MODERATELY STRONG ROCK.
38.49	0.11			100% SILTSTONE	CARBONACEOUS, TRACES, GREY, STRONG ROCK.
38.56	0.07			100% MUDSTONE	COALY, DARK BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
38.59	0.03			100% SILTSTONE	MICACEOUS, GREY-BROWN, MODERATELY STRONG ROCK.
39.37	0.78			100% CARBONACEOUS SHALE	DARK BROWN, STRONG ROCK.
39.49	0.12			100% MUDSTONE	COALY, BLACK, VERY WEAK ROCK.
39.73	0.24			100% CARBONACEOUS MUDSTONE	DARK BROWN, VERY WEAK ROCK.
41.13	1.40			100% SILTSTONE	CARBONACEOUS, MICACEOUS, GREY-BROWN, MODERATELY STRONG ROCK.
41.46	0.33			100% SHALE	FRIABLE, GREY, MODERATELY WEAK ROCK.
41.50	0.04			100% SHALE	FRIABLE, RED-BROWN, WEAK ROCK.
41.56	0.06			100% SHALE	FRIABLE, GREY, MODERATELY WEAK ROCK.
41.62	0.06			100% SHALE	FRIABLE, RED-BROWN, WEAK ROCK.
41.69	0.07			100% SHALE	FRIABLE, GREY-BROWN, WEAK ROCK.
41.72	0.03			100% MUDSTONE	BROWN, VERY SOFT, VERY STICKY.
41.75	0.03			100% SHALE	FRIABLE, GREY-BROWN, WEAK ROCK.
41.82	0.07			100% MUDSTONE	BROWN, VERY SOFT, VERY STICKY.
41.89	0.07			100% SHALE	FRIABLE, GREY-BROWN, WEAK ROCK.
41.98	0.09			100% MUDSTONE	BROWN, VERY SOFT, VERY STICKY.
42.10	0.12			100% SHALE	FRIABLE, GREY, WEAK ROCK.
42.18	0.08			100% SHALE	FRIABLE, WAXY, RED-BROWN, WEAK ROCK.
42.68	0.50			90% SHALE 10% SHALE	FRIABLE, GREY. LAMINAE, RED-BROWN.
42.71	0.03			100% MUDSTONE	GREY-BROWN, VERY SOFT, VERY STICKY.
43.00	0.29			90% SHALE 10% SHALE	FRIABLE, GREY. LAMINAE, RED-BROWN.
43.05	0.05			100% SHALE	FRIABLE, RED-BROWN, WEAK ROCK.
43.39	0.34			95% SHALE 5% SHALE	FRIABLE, GREY. LAMINAE, RED-BROWN.
43.52	0.13			100% MUDSTONE	GREY-BROWN, VERY SOFT, VERY STICKY.
43.56	0.04			100% SHALE	FRIABLE, RED-BROWN, WEAK ROCK.
43.59	0.03			100% MUDSTONE	RED-BROWN, VERY SOFT, VERY STICKY.
43.68	0.09			100% SHALE	FRIABLE, RED-BROWN, WEAK ROCK.
44.00	0.32			100% SHALE	FRIABLE, GREY-BROWN, WEAK ROCK.
44.32	0.32			100% SHALE	CARBONACEOUS, TRACES, GREY, WEAK ROCK.
44.42	0.10			100% SHALE	PINK-GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
45.42	1.00			50% SILTSTONE 50% SILTSTONE	FRIABLE, GREY. FRIABLE, RED-BROWN.
45.80	0.38			100% SHALE	FRIABLE, RED-BROWN, WEAK ROCK.
46.38	0.58			50% SHALE 50% SHALE	FRIABLE, GREY. FRIABLE, RED-BROWN.
46.42	0.04			100% MUDSTONE	RED-BROWN, VERY WEAK ROCK.
46.72	0.30			80% SHALE 20% SHALE	RED-BROWN. DARK GREY.
46.73	0.01			100% SILTSTONE	FRIABLE, GREY-GREEN, WEAK ROCK.
46.85	0.12			100% SILTSTONE	FRIABLE, RED-BROWN, WEAK ROCK.
46.98	0.13			100% SILTSTONE	GREY, MODERATELY STRONG ROCK.
47.00	0.02			100% SILTSTONE	RED-BROWN, MODERATELY STRONG ROCK.
47.25	0.25			100% SILTSTONE	RED-BROWN, MODERATELY STRONG ROCK.
47.34	0.09			100% MUDSTONE	RED-BROWN, VERY SOFT, VERY STICKY.
47.37	0.03			100% SILTSTONE	FRIABLE, GREY-GREEN, WEAK ROCK.
48.72	1.35			60% SILTSTONE 40% SILTSTONE	GREY-GREEN. RED-BROWN.
49.24	0.52			100% SHALE	RED-BROWN, MODERATELY STRONG ROCK.
50.00	0.76			60% SILTSTONE 40% SILTSTONE	RED-BROWN. GREY-GREEN.
50.16	0.16			100% SANDSTONE,FINE GRAINED	GREY-GREEN.
50.17	0.01			100% SILTSTONE	GREEN, COMPLETELY WEATHERED, VERY SOFT.
50.20	0.03			100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK.
50.48	0.28			100% SHALE	GREY, MODERATELY STRONG ROCK.
50.56	0.08			100% SHALE	RED-BROWN, STRONG ROCK.
50.89	0.33			70% SHALE 30% SILTSTONE	GREY. LAMINAE, LIGHT GREY.
52.59	1.70			100% MUDSTONE	MASSIVE, RED-BROWN, STRONG ROCK.
52.78	0.19			100% MUDSTONE	RED-BROWN, STRONG ROCK, WITH MUD PELLETS.
52.81	0.03			100% CLAY	RED-BROWN, VERY SOFT.
53.00	0.19			90% MUDSTONE 10% MUDSTONE	GREEN. LAMINAE, RED-BROWN. MODERATELY STRONG ROCK.
53.46	0.46			100% MUDSTONE	GREY-GREEN, MODERATELY STRONG ROCK, WITH MUD PELLETS, WITH ROOTLET BEDS.
53.94	0.48			100% SILTSTONE	GREY, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
54.35	0.41			100% SILTSTONE	GREY, STRONG ROCK.
54.36	0.01			100% SILTSTONE	GREY-BROWN, WEAK ROCK.
54.51	0.15			100% CARBONACEOUS SHALE	DARK BROWN, STRONG ROCK.
54.61	0.10			100% SILTSTONE	DARK GREY, STRONG ROCK.
54.72	0.11			100% CARBONACEOUS SHALE	DARK BROWN, STRONG ROCK.
54.77	0.05			100% SILTSTONE	MICACEOUS, GREY-BROWN, MODERATELY STRONG ROCK.
55.50	0.73			50% CARBONACEOUS MUDSTONE 50% MUDSTONE	DARK BROWN. LAMINAE, GREY-GREEN. MODERATELY STRONG ROCK.
55.66	0.16			100% CARBONACEOUS SHALE	BLACK, STRONG ROCK.
55.78	0.12			100% MUDSTONE	GREY-BROWN, MODERATELY STRONG ROCK.
56.03	0.25			100% CARBONACEOUS SHALE	BLACK, STRONG ROCK.
56.08	0.05			100% MUDSTONE	GREY-BROWN, VERY WEAK ROCK.
56.34	0.26			70% MUDSTONE 30% CARBONACEOUS MUDSTONE	GREY-BROWN. LAMINAE, DARK GREY. STRONG ROCK.
56.68	0.34			100% CARBONACEOUS MUDSTONE	DARK GREY, STRONG ROCK.
56.87	0.19			100% MUDSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY STRONG ROCK.
56.98	0.11			100% SILTSTONE	CARBONACEOUS, DARK GREY, STRONG ROCK.
57.32	0.34			100% SANDSTONE,FINE GRAINED	CARBONACEOUS, TRACES, GREY-GREEN.
57.36	0.04			100% MUDSTONE	GREY-GREEN, VERY SOFT, VERY STICKY.
57.72	0.36			100% MUDSTONE	GREY-GREEN, STRONG ROCK.
58.52	0.80			80% MUDSTONE 20% MUDSTONE	RED-BROWN. LAMINAE, GREY-GREEN. MODERATELY STRONG ROCK.
58.55	0.03			100% MUDSTONE	COALY, BLACK, WEAK ROCK.
58.73	0.18			80% MUDSTONE 20% MUDSTONE	GREY-GREEN. LAMINAE, RED-BROWN. MODERATELY STRONG ROCK.
59.00	0.27			100% MUDSTONE	GREY, STRONG ROCK.
59.28	0.28			100% CARBONACEOUS SHALE	DARK GREY, STRONG ROCK.
59.47	0.19			100% CARBONACEOUS MUDSTONE	DARK BROWN, VERY WEAK ROCK.
59.63	0.16			100% MUDSTONE	CARBONACEOUS, TRACES, GREY-BROWN, MODERATELY STRONG ROCK.
59.78	0.15			100% CARBONACEOUS MUDSTONE	DARK BROWN, MODERATELY STRONG ROCK.
60.24	0.46			100% MUDSTONE	DARK GREY, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
60.27	0.03			100% CARBONACEOUS MUDSTONE	FRIABLE, DARK BROWN, WEAK ROCK.
60.31	0.04			100% MUDSTONE	GREY-BROWN, VERY SOFT, VERY STICKY.
61.33	1.02			100% MUDSTONE	GREEN-BROWN, MODERATELY WEAK ROCK.
61.96	0.63			60% CARBONACEOUS SHALE 40% SHALE	DARK BROWN. GREY-GREEN. MODERATELY STRONG ROCK.
64.01	2.05			50% CARBONACEOUS SHALE 50% MUDSTONE	DARK BROWN. GREY. MODERATELY WEAK ROCK.
64.38	0.37			100% SILTSTONE	GREY, MODERATELY STRONG ROCK.
64.44	0.06			100% MUDSTONE	FRIABLE, BROWN, WEAK ROCK.
64.84	0.40			100% CARBONACEOUS SHALE	DARK BROWN, STRONG ROCK.
64.91	0.07			100% MUDSTONE	GREY-BROWN, VERY SOFT, VERY STICKY.
64.95	0.04			100% CARBONACEOUS SHALE	DARK GREY, MODERATELY STRONG ROCK.
64.97	0.02			100% MUDSTONE	GREY-BROWN, VERY WEAK ROCK.
65.15	0.18			100% SILTSTONE	CARBONACEOUS, TRACES, GREY.
65.25	0.10			100% SILTSTONE	GREY, STRONG ROCK.
65.27	0.02			100% CARBONACEOUS SHALE	DARK GREY, MODERATELY STRONG ROCK.
65.28	0.01			100% MUDSTONE	FRIABLE, GREY-BROWN, VERY WEAK ROCK.
65.64	0.36			70% SILTSTONE 30% SHALE	GREY. CARBONACEOUS, TRACES, DARK GREY. MODERATELY STRONG ROCK.
65.67	0.03			100% MUDSTONE	GREY-BROWN, VERY SOFT, VERY STICKY.
65.71	0.04			100% CARBONACEOUS MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
67.25	1.54			50% SILTSTONE 50% MUDSTONE	MICACEOUS, GREY. LAMINAE, GREY-BROWN. MODERATELY WEAK ROCK.
67.42	0.17			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY WEAK ROCK.
67.44	0.02			100% MUDSTONE	FRIABLE, GREY-BROWN, VERY WEAK ROCK.
68.00	0.56			50% CARBONACEOUS SHALE 50% MUDSTONE	DARK BROWN. CARBONACEOUS, LAMINAE, GREY-BROWN. WEAK ROCK.
68.04	0.04			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
68.08	0.04			100% MUDSTONE	CARBONACEOUS, LAMINAE, BROWN, MODERATELY WEAK ROCK.
68.10	0.02			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
68.11	0.01			100% COAL, MID LUSTROUS - BRIGHT	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
68.13	0.02			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
68.21	0.08			100% SHALE	DARK GREY, MODERATELY STRONG ROCK.
68.48	0.27			70% CARBONACEOUS SHALE 30% MUDSTONE	DARK BROWN. LAMINAE, BROWN. MODERATELY STRONG ROCK.
70.99	2.51			80% MUDSTONE 20% MUDSTONE	CARBONACEOUS, LAMINAE, BROWN. GREY-BROWN. MODERATELY WEAK ROCK.
71.01	0.02			100% MUDSTONE	BROWN, VERY WEAK ROCK.
71.03	0.02			100% MUDSTONE	SILTSTONE, FRIABLE, BROWN, VERY WEAK ROCK.
72.63	1.60			100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY-BROWN, MODERATELY STRONG ROCK.
72.70	0.07			100% SILTSTONE	GREY, MODERATELY STRONG ROCK.
72.71	0.01			100% COAL, MID LUSTROUS - BRIGHT	
73.34	0.63			60% MUDSTONE 40% CARBONACEOUS SHALE	GREY-BROWN. LAMINAE, DARK BROWN.
73.81	0.47			100% MUDSTONE	GREY-GREEN, MODERATELY WEAK ROCK.
77.00	3.19			100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY-BROWN.
77.25	0.25			100% CARBONACEOUS MUDSTONE	GREY, MODERATELY STRONG ROCK.
77.29	0.04			100% MUDSTONE	FRIABLE, BROWN, WEAK ROCK.
77.82	0.53			100% CARBONACEOUS MUDSTONE	GREY, MODERATELY WEAK ROCK.
77.86	0.04			100% MUDSTONE	FRIABLE, BROWN, VERY WEAK ROCK.
78.08	0.22			100% CARBONACEOUS MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
78.22	0.14			100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY STRONG ROCK.
78.51	0.29			100% MUDSTONE	FRIABLE, BROWN, WEAK ROCK.
78.78	0.27			100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY STRONG ROCK.
78.80	0.02			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
78.95	0.15			100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY STRONG ROCK.
80.67	1.72			80% SANDSTONE,FINE GRAINED 20% SANDSTONE	GREY. MED.-COARSE GRAINED, LENSES, GREY. STRONG ROCK.
82.01	1.34			100% SANDSTONE,COARSE GRAINED	GREY-GREEN, VERY STRONG ROCK.
84.16	2.15			100% SANDSTONE,COARSE GRAINED	COALY, LENSES, GREY-GREEN, STRONG ROCK.
84.55	0.39			100% PEBBLE CONGLOMERATE	HETEROGENEOUS, GREY, VERY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
84.56	0.01			100% MUDSTONE	COALY, BLACK, VERY WEAK ROCK.
84.59	0.03			100% PEBBLE CONGLOMERATE	HETEROGENEOUS, GREY, VERY STRONG ROCK.
85.39	0.80			100% SANDSTONE,COARSE GRAINED	PEBBLY, GREY-GREEN, VERY STRONG ROCK.
85.88	0.49			100% SANDSTONE	LAMINAE, MED.-COARSE GRAINED, GREY-GREEN, VERY STRONG ROCK.
86.12	0.24			100% SANDSTONE,COARSE GRAINED	PEBBLY, GREY-GREEN, VERY STRONG ROCK.
86.41	0.29			100% PEBBLE CONGLOMERATE	HETEROGENEOUS, GREY, MODERATELY WEATHERED, MODERATELY STRONG ROCK.
86.90	0.49			100% MUDSTONE	GREY-GREEN, WEAK ROCK.
87.16	0.26			100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
88.64	1.48			100% SANDSTONE,MEDIUM GRAINED	COALY, LAMINAE, GREY, STRONG ROCK.
88.66	0.02			100% SANDSTONE,MEDIUM GRAINED	GREY, HIGHLY WEATHERED, WEAK ROCK.
89.00	0.34			100% SANDSTONE,MEDIUM GRAINED	GREY, VERY STRONG ROCK.
89.81	0.81			100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, GREY, VERY STRONG ROCK.
90.20	0.39			100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY-BROWN, MODERATELY WEAK ROCK.
90.38	0.18			100% MUDSTONE	FRIABLE, GREY-GREEN, WEAK ROCK.
90.41	0.03			100% MUDSTONE	GREY-GREEN, VERY SOFT, VERY STICKY.
91.20	0.79			100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY-BROWN, MODERATELY WEAK ROCK.
92.60	1.40			50% SILTSTONE 50% CARBONACEOUS MUDSTONE	GREY-BROWN. LAMINAE, DARK GREY. MODERATELY WEAK ROCK.
92.68	0.08			100% CARBONACEOUS MUDSTONE	GREY-BROWN, MODERATELY STRONG ROCK.
92.77	0.09			100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY-BROWN, MODERATELY STRONG ROCK.
94.18	1.41			100% SANDSTONE,FINE GRAINED	GREY, VERY STRONG ROCK.
94.89	0.71			100% SANDSTONE	VERY FINE GRAINED, GREY, VERY STRONG ROCK.
96.73	1.84			100% SILTSTONE	CARBONACEOUS, LAMINAE, GREY, STRONG ROCK.
96.83	0.10			100% CARBONACEOUS MUDSTONE	MID LUSTROUS-BRIGHT COAL, LENSES, DARK BROWN, MODERATELY STRONG ROCK.
97.15	0.32			100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY-BROWN, MODERATELY WEAK ROCK.
97.29	0.14			100% SILTSTONE	GREY-BROWN, MODERATELY STRONG ROCK.
98.00	0.71			100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, GREY, STRONG ROCK.
98.84	0.84			100% SANDSTONE,MEDIUM GRAINED	COALY, LAMINAE, GREY, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
101.00	2.16			100% SANDSTONE,MEDIUM GRAINED	GREY-GREEN, VERY STRONG ROCK.
101.77	0.77			100% SANDSTONE	MED.-COARSE GRAINED, GREY, VERY STRONG ROCK.
102.44	0.67			100% SANDSTONE,MEDIUM GRAINED	MID LUSTROUS-BRIGHT COAL, LENSES, GREY, VERY STRONG ROCK.
104.65	2.21			100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, GREY, VERY STRONG ROCK.
104.66	0.01			100% COAL, MID LUSTROUS - BRIGHT	
105.20	0.54			100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, GREY, STRONG ROCK.
105.89	0.69			100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY.
105.95	0.06			100% MUDSTONE	FRIABLE, GREY, VERY WEAK ROCK.
106.86	0.91			100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY, MODERATELY STRONG ROCK.
106.97	0.11			100% MUDSTONE	MICACEOUS, GREY-GREEN, VERY WEAK ROCK.
107.00	0.03			100% MUDSTONE	GREY-GREEN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS.
108.84	1.84			100% MUDSTONE	WAXY, GREY-GREEN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS.
110.00	1.16			100% CARBONACEOUS MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS.
113.06	3.06			70% MUDSTONE 30% SILTSTONE	CARBONACEOUS, TRACES, GREY-BROWN. LAMINAE, LIGHT GREY. MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS.
114.45	1.39			60% MUDSTONE 40% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, GREY. LAMINAE, LIGHT GREY. MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS.
114.80	0.35			60% SANDSTONE,FINE GRAINED 40% MUDSTONE	GREY. LAMINAE, CARBONACEOUS, GREY. WITH MUD PELLETS, WITH PARTING LINEATION, MODERATELY SPACED JOINTS.
114.85	0.05			100% SANDSTONE,MEDIUM GRAINED	MID LUSTROUS-BRIGHT COAL, LAMINAE, LIGHT GREY, STRONG ROCK, WITH MUD PELLETS, WITH PARTING LINEATION, MODERATELY SPACED JOINTS.
115.05	0.20			50% SANDSTONE 50% MUDSTONE	MED.-COARSE GRAINED, LIGHT GREY. LAMINAE, CARBONACEOUS, GREY. WITH MUD PELLETS, WITH PARTING LINEATION, MODERATELY SPACED JOINTS.
115.75	0.70			100% SANDSTONE,COARSE GRAINED	LIGHT GREY, VERY STRONG ROCK, MODERATELY SPACED JOINTS.
116.35	0.60			80% SANDSTONE,MEDIUM GRAINED 20% CARBONACEOUS MUDSTONE	GREY. LAMINAE, DARK GREY. VERY STRONG ROCK, MODERATELY SPACED JOINTS.
116.37	0.02			100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
116.77	0.40			95% SANDSTONE,MEDIUM GRAINED 5% CARBONACEOUS MUDSTONE	GREY. LENSES, BLACK. VERY STRONG ROCK, MODERATELY SPACED JOINTS.
117.18	0.41			100% MUDSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS.
120.24	3.06			95% SANDSTONE,COARSE GRAINED 5% CARBONACEOUS MUDSTONE	GREY. LAMINAE, DARK BROWN. WEAK ROCK, MODERATELY SPACED JOINTS.
120.69	0.45			100% MUDSTONE	WAXY, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS.
121.81	1.12			60% SANDSTONE 40% CARBONACEOUS MUDSTONE	MED.-COARSE GRAINED, LIGHT GREY. LAMINAE, DARK GREY. MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS.
128.10	6.29			100% SANDSTONE	MED.-COARSE GRAINED, GREY, STRONG ROCK, MODERATELY SPACED JOINTS.
129.09	0.99			70% SANDSTONE 30% CARBONACEOUS MUDSTONE	MED.-COARSE GRAINED, GREY. LAMINAE, DARK GREY. STRONG ROCK, MODERATELY SPACED JOINTS.
133.90	4.81			95% SANDSTONE,COARSE GRAINED 5% COAL	GREY. LENSES, BLACK. STRONG ROCK, MODERATELY SPACED JOINTS.
134.18	0.28			90% SANDSTONE,COARSE GRAINED 10% COAL	GREY. LENSES, BLACK. STRONG ROCK, MODERATELY SPACED JOINTS.
134.37	0.19			100% MUDSTONE	SILTSTONE, LIGHT GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS.
134.53	0.16			50% SANDSTONE,FINE GRAINED 50% MUDSTONE	GREY-BROWN. LAMINAE, GREY. MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS.
135.47	0.94			90% SANDSTONE,MEDIUM GRAINED 10% CARBONACEOUS MUDSTONE	GREY. LAMINAE, DARK BROWN. STRONG ROCK, MODERATELY SPACED JOINTS.
136.15	0.68			95% MUDSTONE 5% CARBONACEOUS MUDSTONE	SILTSTONE, GREY. LAMINAE, DARK GREY. MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS.
137.00	0.85			100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY WEATHERED, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS.
138.87	1.87			95% SANDSTONE,COARSE GRAINED 5% CARBONACEOUS MUDSTONE	GREY. LAMINAE, DARK BROWN. MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS.
139.15	0.28			80% SANDSTONE,COARSE GRAINED 20% CARBONACEOUS MUDSTONE	GREY. LAMINAE, DARK BROWN. MODERATELY STRONG ROCK, WITH MUD PELLETS, WITH PARTING LINEATION, MODERATELY SPACED JOINTS.
139.23	0.08			100% CARBONACEOUS MUDSTONE	FRIABLE, BROWN.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
139.48	0.25			100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS.
140.04	0.56			100% CARBONACEOUS MUDSTONE	WAXY, DARK BROWN, WEAK ROCK, MODERATELY SPACED JOINTS.
140.23	0.19			100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS.
141.34	1.11			85% SILTSTONE 15% CARBONACEOUS MUDSTONE	GREY. LAMINAE, DARK GREY. MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS.
141.37	0.03			100% MUDSTONE	FRIABLE, GREY-BROWN, WEAK ROCK, MODERATELY SPACED JOINTS.
141.44	0.07			60% SILTSTONE 40% CARBONACEOUS MUDSTONE	GREY-BROWN. LAMINAE, DARK GREY. MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS.
142.03	0.59			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS.
142.14	0.11			60% SILTSTONE 40% CARBONACEOUS MUDSTONE	GREY. LAMINAE, DARK GREY. MODERATELY SPACED JOINTS.
142.69	0.55			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS.
143.07	0.38			50% SANDSTONE,MEDIUM GRAINED 50% CARBONACEOUS MUDSTONE	GREY-BROWN. LAMINAE, BROWN. MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS.
144.39	1.32			80% SANDSTONE,MEDIUM GRAINED 20% CARBONACEOUS MUDSTONE	GREY. LAMINAE, DARK GREY. STRONG ROCK.
144.80	0.41			95% SANDSTONE,COARSE GRAINED 5% COAL, MID LUSTROUS	GREY. LAMINAE. STRONG ROCK.
144.85	0.05			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY WEAK ROCK.
144.87	0.02			100% MUDSTONE	MICACEOUS, GREY-BROWN, WEAK ROCK.
144.95	0.08			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
144.97	0.02			100% COAL, MID LUSTROUS	
145.03	0.06			100% MUDSTONE	FRIABLE, LIGHT BROWN, VERY WEAK ROCK.
145.08	0.05			100% COAL, MID LUSTROUS - DULL	
145.16	0.08			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
145.20	0.04			100% COAL, MID LUSTROUS - DULL	
145.25	0.05			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
145.27	0.02			100% COAL, MID LUSTROUS - BRIGHT	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
145.32	0.05			100% CARBONACEOUS SHALE	COALY, LAMINAE, DARK BROWN, MODERATELY STRONG ROCK.
146.03	0.71			100% SILTSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY STRONG ROCK.
146.24	0.21			100% MUDSTONE	MICACEOUS, LIGHT BROWN, SOFT, VERY STICKY.
146.91	0.67			60% CARBONACEOUS MUDSTONE 40% MUDSTONE	LAMINAE, DARK BROWN. MICACEOUS, BROWN. WEAK ROCK.
147.36	0.45			100% MUDSTONE	CARBONACEOUS, TRACES, LIGHT BROWN, WEAK ROCK.
147.41	0.05			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
147.44	0.03			95% MUDSTONE 5% CARBONACEOUS MUDSTONE	MICACEOUS, LIGHT BROWN. LAMINAE, DARK BROWN. MODERATELY WEAK ROCK.
147.50	0.06			100% SHALE	COALY, BLACK, MODERATELY STRONG ROCK.
148.38	0.88			100% SILTSTONE	MASSIVE, GREY, MODERATELY STRONG ROCK.
148.63	0.25			100% MUDSTONE	FRIABLE, LIGHT BROWN, VERY WEAK ROCK.
148.81	0.18			100% SHALE	COALY, BLACK, MODERATELY STRONG ROCK.
148.85	0.04			100% MUDSTONE	SILTSTONE, LIGHT GREY, MODERATELY WEAK ROCK.
148.89	0.04			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
149.00	0.11			100% CARBONACEOUS MUDSTONE	MICACEOUS, DARK GREY, MODERATELY WEAK ROCK.
149.04	0.04			100% CARBONACEOUS MUDSTONE	MICACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
149.06	0.02			80% CARBONACEOUS SHALE 20% MUDSTONE	DARK BROWN. LAMINAE, MICACEOUS, LIGHT BROWN.
149.15	0.09			70% MUDSTONE 30% CARBONACEOUS MUDSTONE	MICACEOUS, LIGHT BROWN. LAMINAE, DARK BROWN.
149.18	0.03			70% CARBONACEOUS SHALE 30% MUDSTONE	DARK BROWN. LAMINAE, LIGHT BROWN.
149.31	0.13			100% MUDSTONE	FRIABLE, LIGHT BROWN, WEAK ROCK.
149.32	0.01			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
149.35	0.03			100% COAL, MID LUSTROUS	
149.53	0.18			90% CARBONACEOUS SHALE 10% COAL, MID LUSTROUS - BRIGHT	DARK BROWN. BANDS. MODERATELY STRONG ROCK.
150.04	0.51			90% SILTSTONE 10% CARBONACEOUS MUDSTONE	GREY. LAMINAE, DARK GREY. MODERATELY STRONG ROCK.
150.41	0.37			70% CARBONACEOUS SHALE 30% MUDSTONE	DARK BROWN. CARBONACEOUS, TRACES, BROWN. MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
150.70	0.29			100% MUDSTONE	CARBONACEOUS, TRACES, GREY-BROWN, MODERATELY WEAK ROCK.
150.75	0.05			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
151.43	0.68			100% MUDSTONE	GREY-BROWN.
151.82	0.39			100% MUDSTONE	FRIABLE, MICACEOUS, GREY-GREEN, VERY WEAK ROCK.
151.92	0.10			100% MUDSTONE	FRIABLE, MICACEOUS, GREY-GREEN.
151.95	0.03			100% MUDSTONE	CARBONACEOUS, TRACES, GREY-BROWN, MODERATELY WEAK ROCK.
152.22	0.27			80% CARBONACEOUS SHALE 20% MUDSTONE	DARK GREY. LAMINAE, BROWN. MODERATELY STRONG ROCK.
153.00	0.78			100% SILTSTONE	MICACEOUS, GREY, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES.
154.40	1.40			100% MUDSTONE	SILTSTONE, GREY, MODERATELY STRONG ROCK.
155.17	0.77			100% MUDSTONE	SILTSTONE, GREY, MODERATELY STRONG ROCK.
155.86	0.69			70% MUDSTONE 30% SANDSTONE	SILTSTONE, GREY. VERY FINE GRAINED, LENSES, LIGHT GREY.
156.00	0.14			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
156.17	0.17			100% MUDSTONE	SILTSTONE, GREY, MODERATELY STRONG ROCK.
156.56	0.39			60% SANDSTONE,MEDIUM GRAINED 40% SANDSTONE	GREY. VERY FINE GRAINED, LAMINAE, LIGHT GREY. STRONG ROCK.
163.17	6.61			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK.
163.35	0.18			100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK.
163.91	0.56			95% SANDSTONE,MEDIUM GRAINED 5% COAL	GREY. LAMINAE. STRONG ROCK.
				TOP OF DALMAYNE B : 266.09 M R.L.	
164.05	0.14			100% COAL, DULL	
164.33	0.28			95% MUDSTONE 5% CARBONACEOUS MUDSTONE	FRIABLE, LIGHT BROWN. LAMINAE, DARK BROWN. VERY WEAK ROCK.
164.64	0.31			100% COAL, DULL	STRONG ROCK.
164.68	0.04			100% MUDSTONE	MICACEOUS, CARBONACEOUS, GREY-BROWN, WEAK ROCK.
164.82	0.14			90% CARBONACEOUS SHALE 10% COAL, MID LUSTROUS - BRIGHT	DARK BROWN. LAMINAE. STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
165.21	0.39			50% MUDSTONE 50% CARBONACEOUS MUDSTONE	FRIABLE, LIGHT BROWN. FRIABLE, DARK BROWN. VERY WEAK ROCK.
165.89	0.68			90% CARBONACEOUS SHALE 10% MUDSTONE	DARK BROWN. LAMINAE, BROWN. STRONG ROCK.
166.40	0.51			100% MUDSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY STRONG ROCK.
166.54	0.14			100% MUDSTONE	GREY, WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
166.60	0.06			100% MUDSTONE	GREY-BROWN, VERY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
166.73	0.13			100% MUDSTONE	GREEN-BROWN, STIFF, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG., VERY STICKY.
166.77	0.04			100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
166.81	0.04			100% CARBONACEOUS SHALE	DARK GREY, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
166.82	0.01			100% COAL, BRIGHT WITH FEW DULL BANDS	WITH CALCITE ON CLEAT.
			BASE OF DALNAYNE 6 : THICKNESS= 2.91 M; SAMPLED THICKNESS= 0.00 M		
168.91	2.09			100% MUDSTONE	SILTSTONE, GREY, MODERATELY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 45 DEG., INFILLED WITH CALCITE.
169.30	0.39			60% SANDSTONE 40% MUDSTONE	VERY FINE GRAINED, LIGHT GREY. CARBONACEOUS, LAMINAE, GREY. MODERATELY STRONG ROCK.
169.68	0.38			80% SANDSTONE,FINE GRAINED 20% CARBONACEOUS MUDSTONE	LIGHT GREY. LAMINAE, DARK GREY. MODERATELY STRONG ROCK.
170.24	0.56			100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
171.42	1.18			60% SHALE 40% SHALE	CARBONACEOUS, DARK GREY. LAMINAE, GREY. MODERATELY STRONG ROCK.
171.53	0.11			50% SHALE 50% MUDSTONE	COALY, LAMINAE, DARK BROWN. MICACEOUS, LIGHT BROWN.
172.00	0.47			100% SHALE	CARBONACEOUS, TRACES, DARK GREY.
172.03	0.03			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY WEAK ROCK.
172.40	0.37			100% SHALE	CARBONACEOUS, TRACES, GREY.
172.73	0.33			100% MUDSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
172.94	0.21			80% CARBONACEOUS SHALE 20% SILTSTONE	DARK GREY. LAMINAE, LIGHT GREY. MODERATELY STRONG ROCK.
173.00	0.06			70% SANDSTONE,FINE GRAINED 30% CARBONACEOUS SHALE	LIGHT GREY. LAMINAE, DARK BROWN. THINLY BEDDED.
173.34	0.34			100% MUDSTONE	SILTSTONE, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
173.47	0.13			100% MUDSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY WEAK ROCK.
173.48	0.01			100% MUDSTONE	FRIABLE, MICACEOUS, LIGHT BROWN, VERY WEAK ROCK.
173.49	0.01			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
173.50	0.01			100% MUDSTONE	FRIABLE, MICACEOUS, LIGHT BROWN, VERY WEAK ROCK.
173.62	0.12			70% CARBONACEOUS SHALE 30% SILTSTONE	DARK BROWN. LENSES, GREY. MODERATELY STRONG ROCK.
173.63	0.01			100% COAL, BRIGHT WITH FEW DULL BANDS	
174.28	0.65			60% CARBONACEOUS MUDSTONE 40% SANDSTONE	GREY-BROWN. VERY FINE GRAINED, LAMINAE, GREY. MODERATELY STRONG ROCK.
174.54	0.26			70% SANDSTONE,FINE GRAINED 30% CARBONACEOUS MUDSTONE	GREY. LAMINAE, DARK GREY. MODERATELY STRONG ROCK.
185.42	10.88			100% SANDSTONE	MED.-COARSE GRAINED, GREY, WITH CARBONACEOUS WISPS.
185.92	0.50			90% SANDSTONE,MEDIUM GRAINED 10% CARBONACEOUS MUDSTONE	GREY. LAMINAE, DARK GREY.
186.11	0.19			100% MUDSTONE	CARBONACEOUS, TRACES, GREY.
186.21	0.10			90% SANDSTONE,MEDIUM GRAINED 10% MUDSTONE	GREY. LAMINAE, DARK GREY.
186.37	0.16			90% MUDSTONE 10% SANDSTONE,FINE GRAINED	DARK GREY. LAMINAE, GREY.
187.40	1.03			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
187.46	0.06			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
187.81	0.35			100% SANDSTONE,FINE GRAINED	SILTSTONE, LENSES, GREY, STRONG ROCK.
188.13	0.32			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
188.23	0.10			90% SANDSTONE,MEDIUM GRAINED 10% COAL	GREY. FRAGMENTS. STRONG ROCK.
188.31	0.08			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
188.41	0.10			90% SANDSTONE,MEDIUM GRAINED 10% COAL	GREY. FRAGMENTS, BLACK. STRONG ROCK.
188.57	0.16			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
188.62	0.05			90% SANDSTONE,MEDIUM GRAINED 10% COAL	GREY. FRAGMENTS, BLACK. STRONG ROCK.
190.24	1.62			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
190.40	0.16			95% SANDSTONE,MEDIUM GRAINED 5% COAL	GREY. FRAGMENTS. STRONG ROCK.
190.75	0.35			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
191.09	0.34			95% SANDSTONE,MEDIUM GRAINED 5% COAL	GREY. FRAGMENTS. STRONG ROCK.
191.16	0.07			100% MUDSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY STRONG ROCK, VERY WIDELY SPACED JOINTS.
191.54	0.38			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
191.74	0.20			95% SANDSTONE,MEDIUM GRAINED 5% COAL	GREY. FRAGMENTS. STRONG ROCK.
191.86	0.12			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
191.94	0.08			95% SANDSTONE,MEDIUM GRAINED 5% COAL	GREY. FRAGMENTS. STRONG ROCK.
192.27	0.33			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
192.95	0.69			100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK.
193.02	0.07			100% CARBONACEOUS SHALE	COALY, LAMINAE, DARK BROWN, MODERATELY WEAK ROCK.
193.07	0.05			60% SANDSTONE,FINE GRAINED 40% CARBONACEOUS SHALE	GREY. LAMINAE, DARK GREY.
193.55	0.48			100% SANDSTONE,FINE GRAINED	SILTSTONE, PARTINGS, GREY, STRONG ROCK.
194.00	0.45			100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, LAMINAE, GREY, STRONG ROCK.
194.80	0.80			95% SANDSTONE,MEDIUM GRAINED 5% COAL	GREY. FRAGMENTS, PARTINGS. STRONG ROCK.
195.73	0.93			75% SILTSTONE 25% SANDSTONE	DARK GREY. VERY FINE GRAINED, DARK GREY. STRONG ROCK.
197.15	1.42			95% SANDSTONE,MEDIUM GRAINED 5% COAL	GREY. FRAGMENTS. STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
			TOP OF DALMAYNE C : 232.85 M R.L.		
197.75	0.60			100% CARBONACEOUS SHALE	DARK GREY, MODERATELY WEAK ROCK, VERY WIDELY SPACED JOINTS.
197.83	0.08			100% SHALE	LIGHT GREY, VERY WEAK ROCK.
198.72	0.89			100% MUDSTONE	CARBONACEOUS, DARK GREY, VERY WIDELY SPACED JOINTS.
			BASE OF DALMAYNE C : THICKNESS= 1.57 M; SAMPLED THICKNESS= 0.00 M		
199.62	0.90			100% SILTSTONE	GREY, STRONG ROCK.
201.15	1.53			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
201.25	0.10			100% SILTSTONE	GREY, STRONG ROCK.
202.42	1.17			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
202.69	0.27			100% SILTSTONE	GREY, STRONG ROCK.
206.39	3.70			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
206.99	0.60			95% SANDSTONE,MEDIUM GRAINED 5% COAL	GREY. FRAGMENTS. STRONG ROCK.
208.91	1.92			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
208.98	0.07			100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK.
209.29	0.31			100% SANDSTONE	MED.-COARSE GRAINED, GREY, STRONG ROCK.
209.54	0.25			100% SANDSTONE	MED.-COARSE GRAINED, GREY, STRONG ROCK, WITH MUD PELLETS.
210.23	0.69			100% SANDSTONE	MED.-COARSE GRAINED, GREY, STRONG ROCK.
210.61	0.38			100% SILTSTONE	GREY, STRONG ROCK.
211.15	0.54			95% SANDSTONE,COARSE GRAINED 5% COAL	GREY. FRAGMENTS. STRONG ROCK.
212.46	1.31			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
212.51	0.05			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK.
212.86	0.35			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
213.16	0.30			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK.
213.45	0.29			100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK.
213.57	0.12			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
213.70	0.13			95% SANDSTONE,MEDIUM GRAINED 5% COAL	GREY. FRAGMENTS. STRONG ROCK.
213.83	0.13			95% SANDSTONE,COARSE GRAINED 5% COAL	GREY. FRAGMENTS. STRONG ROCK.
215.63	1.80			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
215.90	0.27			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK.
217.30	1.40			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
218.18	0.88			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK.
218.30	0.12			100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
218.32	0.02			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
219.20	0.88			100% SHALE	CARBONACEOUS, DARK BROWN, VERY WIDELY SPACED JOINTS.
220.54	1.34			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
220.72	0.18			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK, WITH MUD PELLETS.
222.03	1.31			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
222.36	0.33			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK.
222.64	0.28			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
222.69	0.05			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK, WITH MUD PELLETS.
224.83	2.14			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK.
225.30	0.47			95% SANDSTONE,MEDIUM GRAINED 5% CARBONACEOUS MUDSTONE	GREY. LAMINAE, DARK BROWN. WITH MUD PELLETS.
226.47	1.17			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK.
226.81	0.34			90% SANDSTONE,MEDIUM GRAINED 10% COAL	GREY. LAMINAE. STRONG ROCK.
227.13	0.32			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK.
227.53	0.40			60% SANDSTONE,COARSE GRAINED 40% MUDSTONE	GREY. CARBONACEOUS, PELLETAL. STRONG ROCK, VERY WIDELY SPACED JOINTS.
230.29	2.76			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
230.88	0.59			90% SANDSTONE,COARSE GRAINED 10% CARBONACEOUS MUDSTONE	GREY. LAMINAE, DARK BROWN. STRONG ROCK, WITH MUD PELLETS.
230.89	0.01			100% COAL, BRIGHT	
232.21	1.32			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
232.40	0.19			95% SILTSTONE 5% CARBONACEOUS MUDSTONE	GREY. LAMINAE, DARK BROWN. MODERATELY STRONG ROCK.
232.50	0.10			60% SANDSTONE,COARSE GRAINED 40% MUDSTONE	GREY. PELLETAL, GREY-BROWN. STRONG ROCK.
235.31	2.81			90% SANDSTONE 10% COAL	MED.-COARSE GRAINED, GREY. LENSES, BLACK. STRONG ROCK.
238.32	3.01			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK.
241.00	2.68			95% SANDSTONE,COARSE GRAINED 5% CARBONACEOUS MUDSTONE	GREY. LAMINAE, DARK BROWN. STRONG ROCK, WITH MUD PELLETS.
241.11	0.11			80% SANDSTONE 20% CARBONACEOUS MUDSTONE	MED.-COARSE GRAINED, GREY. LAMINAE, DARK BROWN. STRONG ROCK, WITH MUD PELLETS.
241.72	0.61			95% SANDSTONE,COARSE GRAINED 5% CARBONACEOUS MUDSTONE	GREY. LAMINAE, DARK BROWN. STRONG ROCK.
241.86	0.14			95% TUFF 5% COAL	BAKED, WHITE. TRACES. EXTREMELY SRONG ROCK, WITH CARBONACEOUS WISPS.
244.40	2.54			100% SANDSTONE	MED.-COARSE GRAINED, GREY, STRONG ROCK.
245.84	1.44			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK.
246.24	0.40			50% SANDSTONE,MEDIUM GRAINED 50% MUDSTONE	GREY. PELLETAL, GREY-BROWN. STRONG ROCK.
250.46	4.22			100% SANDSTONE	MED.-COARSE GRAINED, GREY, STRONG ROCK.
251.69	1.23			100% SANDSTONE	MED.-COARSE GRAINED, GREY, STRONG ROCK.
251.86	0.17			90% SANDSTONE 10% COAL	MED.-COARSE GRAINED, GREY. LAMINAE. STRONG ROCK.
253.77	1.91			100% SANDSTONE	MED.-COARSE GRAINED, GREY, STRONG ROCK.
254.14	0.37			100% SANDSTONE,MEDIUM GRAINED	GREY, VERY WEAK ROCK.
259.40	5.26			95% SANDSTONE 5% COAL	MED.-COARSE GRAINED, GREY. LAMINAE.
261.89	2.49			95% SANDSTONE,MEDIUM GRAINED 5% CARBONACEOUS MUDSTONE	GREY. TRACES, DARK BROWN. STRONG ROCK.
263.21	1.32			100% SANDSTONE,MEDIUM GRAINED	GREY, HIGHLY WEATHERED, WEAK ROCK.
263.49	0.28			100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
264.37	0.88			100% SANDSTONE,MEDIUM GRAINED	GREY, HIGHLY WEATHERED, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
265.14	0.77			100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG.
265.40	0.26			50% SANDSTONE,MEDIUM GRAINED 50% MUDSTONE	GREY. CARBONACEOUS, LAMINAE, GREY-BROWN.
265.51	0.11			100% SANDSTONE,FINE GRAINED	DARK GREY, COMPLETELY WEATHERED, VERY SOFT, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG.
265.68	0.17			90% SANDSTONE,FINE GRAINED 10% SANDSTONE,FINE GRAINED	GREY. NON-CLEATED. MODERATELY WEATHERED, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG.
268.57	2.89			95% SANDSTONE,MEDIUM GRAINED 5% CARBONACEOUS MUDSTONE	GREY. TRACES, DARK BROWN. MODERATELY STRONG ROCK.
270.03	1.46			100% SANDSTONE	MED.-COARSE GRAINED, GREY, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG.
270.25	0.22			80% SANDSTONE 20% CARBONACEOUS MUDSTONE	MED.-COARSE GRAINED, GREY. STREAKS, DARK BROWN. MODERATELY STRONG ROCK.
270.42	0.17			100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY STRONG ROCK.
270.61	0.19			90% SANDSTONE,MEDIUM GRAINED 10% CARBONACEOUS MUDSTONE	GREY. LENSES, DARK BROWN. MODERATELY WEAK ROCK.
271.42	0.81			100% SANDSTONE	MED.-COARSE GRAINED, GREY, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG.
272.02	0.60			90% SANDSTONE 10% COAL	MED.-COARSE GRAINED, GREY. PELLETAL, BLACK. VERY THINLY BEDDED.
273.16	1.14			90% MUDSTONE 10% SANDSTONE,MEDIUM GRAINED	FRIABLE, GREY. LENSES, GREY. WEAK ROCK, CLOSELY SPACED JOINTS.
274.40	1.24			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK.
275.65	1.25			95% SANDSTONE 5% COAL	MED.-COARSE GRAINED, GREY. LENSES.
277.34	1.69			80% MUDSTONE 20% MUDSTONE	GREY. LAMINAE, CARBONACEOUS, DARK GREY. MODERATELY WEAK ROCK, WITH CROSS LAMINATION, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., DISCONTINUITIES INFILLED WITH SOIL (<1.
277.68	0.34			60% SANDSTONE,COARSE GRAINED 40% COAL, DULL WITH NUMEROUS BRIGHT BANDS	GREY. LENSES. STRONG ROCK.
280.57	2.89			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG.
281.13	0.56			100% SANDSTONE,COARSE GRAINED	GREY, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
281.23	0.10			95% CALCITE 5% COAL	WHITE. FRAGMENTS. MODERATELY WEAK ROCK.
282.47	1.24			100% SANDSTONE	MED.-COARSE GRAINED, GREY, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., INFILLED WITH CALCITE.
282.52	0.05			90% CALCITE 10% COAL	WHITE. FRAGMENTS. MODERATELY WEAK ROCK.
282.62	0.10			100% SANDSTONE,COARSE GRAINED	GREY, MODERATELY STRONG ROCK.
283.19	0.57			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
283.30	0.11			100% SANDSTONE,COARSE GRAINED	GREY, HIGHLY WEATHERED, VERY WEAK ROCK.
283.40	0.10			100% SANDSTONE,COARSE GRAINED	GREY, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
284.00	0.60			100% SANDSTONE,COARSE GRAINED	GREY, STRONG ROCK.
284.21	0.21		21/1	100% CARBONACEOUS MUDSTONE	COALY, DARK BROWN.
284.31	0.10		21/1	50% MUDSTONE 50% SILTSTONE	GREY. GREY-BROWN.
284.52	0.21		21/1	100% CARBONACEOUS MUDSTONE	DARK BROWN.
284.62	0.10		21/1	100% CARBONACEOUS MUDSTONE	DARK GREY.
284.72	0.10		21/1	100% MUDSTONE	CARBONACEOUS, TRACES, GREY.
		TOP OF	DALMAYNE D LOWER : 145.28 M R.L.		
284.84	0.12		21/2	100% COAL, DULL	
284.88	0.04		21/2	100% CARBONACEOUS MUDSTONE	DARK GREY.
284.90	0.02		21/2	100% MUDSTONE	GREY, VERY WEAK ROCK.
284.92	0.02		21/2	100% MUDSTONE	CARBONACEOUS, DARK GREY.
284.94	0.02		21/2	100% CARBONACEOUS SHALE	DARK GREY.
284.98	0.04		21/2	100% COAL, DULL	WITH CALCITE ON CLEAT.
285.08	0.10		21/2	100% COAL, HEAVY DULL	VERY WEAK ROCK.
285.22	0.14		21/2	100% MUDSTONE	CARBONACEOUS, BANDS, GREY.
285.43	0.21		21/2	100% COAL, DULL	VERY WEAK ROCK, WITH MUD CASTS/CRACKS.
285.45	0.02		21/2	100% MUDSTONE	GREY-BROWN.
285.48	0.03		21/2	100% COAL, DULL	CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., INFILLED WITH CALCITE.
285.50	0.02		21/2	90% MUDSTONE 10% COAL	GREY-BROWN. LAMINAE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
285.79	0.29		21/2	100% COAL, DULL	
285.85	0.06		21/2	100% MUDSTONE	CARBONACEOUS, TRACES, GREY.
285.90	0.05		21/2	100% COAL, DULL	
		BASE OF DALMAYNE D LOWER : THICKNESS= 1.18 M; SAMPLED THICKNESS= 1.18 M			
285.93	0.03			100% MUDSTONE	CARBONACEOUS, TRACES, GREY, WITH CALCITE ON CLEAT, VERY WEAK ROCK.
286.02	0.09			100% SHALE	CARBONACEOUS, GREY-BROWN.
286.14	0.12			80% MUDSTONE 20% COAL	GREY. STREAKS. VERY WEAK ROCK.
286.40	0.26			100% MUDSTONE	GREY, VERY WEAK ROCK.
286.70	0.30			100% MUDSTONE	GREY, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., INFILLED WITH CALCITE.
286.76	0.06			80% MUDSTONE 20% COAL	GREY. MID LUSTROUS-BRIGHT COAL, LAMINAE.
288.49	1.73			100% MUDSTONE	GREY.
288.52	0.03			80% CARBONACEOUS MUDSTONE 20% COAL	DARK BROWN. MID LUSTROUS-BRIGHT COAL, LAMINAE.
288.55	0.03			100% MUDSTONE	GREY.
288.57	0.02			100% MUDSTONE	MICACEOUS, FRIABLE, LIGHT BROWN, VERY WEAK ROCK.
		TOP OF DALMAYNE D LOWER : 141.43 M R.L.			
288.63	0.06		21/3	100% COAL, DULL WITH FEW BRIGHT BANDS	
288.71	0.08		21/3	100% COAL, DULL	
288.74	0.03		21/3	100% COAL, DULL WITH FEW BRIGHT BANDS	
288.81	0.07		21/3	100% COAL, HEAVY DULL	
289.09	0.28		21/3	100% COAL, DULL WITH FEW BRIGHT BANDS	
289.12	0.03		21/3	100% MUDSTONE	WAXY, BROWN, VERY STICKY.
289.27	0.15		21/3	100% COAL, DULL	
289.29	0.02		21/3	100% MUDSTONE	GREY-BROWN, VERY WEAK ROCK.
289.34	0.05		21/3	100% COAL, DULL	CALCITIC, LENSES.
		BASE OF DALMAYNE D LOWER : THICKNESS= 0.77 M; SAMPLED THICKNESS= 0.77 M			

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
289.				90% MUDSTONE 10% COAL	GREY. FRAGMENTS, BLACK. WEAK ROCK.
28[illegible]	[illegible]			95% MUDSTONE 5% COAL	GREY. FRAGMENTS. WEAK ROCK.
289.77	0.04			80% MUDSTONE 20% COAL	GREY. MID LUSTROUS-BRIGHT COAL, BADLY BROKEN. WEAK ROCK.
290.45	0.68			90% MUDSTONE 10% COAL	GREY. FRAGMENTS. WEAK ROCK.
290.48	0.03			100% CARBONACEOUS MUDSTONE	BADLY BROKEN, DARK BROWN, VERY WEAK ROCK.
290.53	0.05			100% COAL, DULL WITH FEW BRIGHT BANDS	
290.59	0.06			100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
290.68	0.09			70% MUDSTONE 30% CARBONACEOUS MUDSTONE	GREY. DARK GREY.
291.67	0.99			95% MUDSTONE 5% CARBONACEOUS MUDSTONE	GREY. FRAGMENTS, DARK BROWN. MODERATELY WEAK ROCK.
291.71	0.04			100% CARBONACEOUS MUDSTONE	DARK BROWN, FIRM, VERY STICKY.
291.76	0.05			100% MUDSTONE	FRIABLE, GREY, VERY WEAK ROCK.
291.79	0.03			100% CARBONACEOUS MUDSTONE	DARK BROWN, FIRM, VERY STICKY.
292.34	0.55			95% MUDSTONE 5% COAL	GREY. FRAGMENTS. WEAK ROCK.
293.10	0.76			100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
294.00	0.90			100% SANDSTONE,FINE GRAINED	MASSIVE, GREY, STRONG ROCK.
296.74	2.74			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
297.21	0.47			90% SANDSTONE 10% COAL	MED.-COARSE GRAINED, GREY. LENSES, MID LUSTROUS-BRIGHT COAL. STRONG ROCK.
304.40	7.19			100% SANDSTONE,MEDIUM GRAINED	MASSIVE, GREY, STRONG ROCK.
307.22	2.82			100% SANDSTONE	MED.-COARSE GRAINED, MASSIVE, GREY, STRONG ROCK.
308.40	1.18			100% SANDSTONE	MED.-COARSE GRAINED, BADLY BROKEN, GREY.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	0.00 M	163.91 - 166.82 M	2.91 M
DC	0.00 M	197.15 - 198.72 M	1.57 M
DDL	1.18 M	284.72 - 285.90 M	1.18 M
DDL	0.77 M	288.57 - 289.34 M	0.77 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
21/1	284.00 - 284.72 M	0.72 M
21/2	284.72 - 285.90 M	1.18 M
21/3	288.57 - 289.34 M	0.77 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 22

HOLE TYPE	CORE
EASTING	601,100 M AM GRID
NORTHING	5,375,900 M AM GRID
ELEVATION	270.00 M
TOTAL DEPTH DRILLED	319.80 M
DRILLING STARTED	24/ 1/80
DRILLING TIME	
CORE SIZE	
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
0.45	0.45			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, MODERATELY WEATHERED, STRONG ROCK.
3.00	2.55			100% DOLERITE	SCREE, ORANGE-BROWN, COMPLETELY WEATHERED.
3.15	0.15			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, MODERATELY WEATHERED, STRONG ROCK.
4.00	0.85			100% DOLERITE	SCREE, ORANGE-BROWN, COMPLETELY WEATHERED.
4.58	0.58			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, HIGHLY WEATHERED, MODERATELY STRONG ROCK.
6.00	1.42			100% DOLERITE	SCREE, ORANGE-BROWN, COMPLETELY WEATHERED.
6.31	0.31			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, MODERATELY WEATHERED, STRONG ROCK.
6.44	0.13			100% DOLERITE	SCREE, ORANGE-BROWN, COMPLETELY WEATHERED.
6.85	0.41			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, MODERATELY WEATHERED, STRONG ROCK.
7.50	0.65			100% DOLERITE	SCREE, ORANGE-BROWN, COMPLETELY WEATHERED.
8.74	1.24			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, MODERATELY WEATHERED, STRONG ROCK.
9.30	0.56			100% DOLERITE	SCREE, ORANGE-BROWN, COMPLETELY WEATHERED.
9.80	0.50			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, MODERATELY WEATHERED, STRONG ROCK.
10.67	0.87			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, MODERATELY WEATHERED, STRONG ROCK.
10.80	0.13			100% DOLERITE	SCREE, ORANGE-BROWN, COMPLETELY WEATHERED.
13.49	2.69			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, MODERATELY WEATHERED, STRONG ROCK.
13.80	0.31			100% DOLERITE	SCREE, ORANGE-BROWN, COMPLETELY WEATHERED.
15.67	1.87			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, HIGHLY WEATHERED, MODERATELY STRONG ROCK.
16.80	1.13			100% DOLERITE	SCREE, ORANGE-BROWN, COMPLETELY WEATHERED.
17.70	0.90			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, MODERATELY WEATHERED, STRONG ROCK.
18.40	0.70			100% DOLERITE	SCREE, FERRUGINOUS, GREY-BROWN, HIGHLY WEATHERED.
19.80	1.40			100% DOLERITE	SCREE, ORANGE-BROWN, COMPLETELY WEATHERED.
22.64	2.84			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, MODERATELY WEATHERED, STRONG ROCK.
22.80	0.16			100% DOLERITE	SCREE, ORANGE-BROWN, COMPLETELY WEATHERED.
25.01	2.21			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, MODERATELY WEATHERED, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
25.80	0.79			100% DOLERITE	SCREE, ORANGE-BROWN, COMPLETELY WEATHERED.
27.33	1.53			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, HIGHLY WEATHERED, MODERATELY STRONG ROCK.
27.40	0.07			100% DOLERITE	SCREE, ORANGE-BROWN, COMPLETELY WEATHERED.
29.68	2.28			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, HIGHLY WEATHERED, MODERATELY STRONG ROCK.
29.80	0.12			100% DOLERITE	SCREE, ORANGE-BROWN, COMPLETELY WEATHERED.
29.94	0.14			100% DOLERITE	SCREE, GREY, HIGHLY WEATHERED.
30.50	0.56			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, SLIGHTLY WEATHERED, STRONG ROCK.
30.83	0.33			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, SLIGHTLY WEATHERED.
31.80	0.97			100% DOLERITE	SCREE, ORANGE-BROWN, COMPLETELY WEATHERED.
34.40	2.60			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK.
34.78	0.38			100% DOLERITE	SCREE, MED.-COARSE GRAINED, GREY, UNWEATHERED.
37.75	2.97			100% DOLERITE	SCREE, GREY, UNWEATHERED, VERY STRONG ROCK.
38.97	1.22			100% DOLERITE	SCREE, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK.
39.84	0.87			100% DOLERITE	SCREE, GREY, HIGHLY WEATHERED, MODERATELY STRONG ROCK.
43.08	3.24			100% DOLERITE	SCREE, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK.
43.80	0.72			100% DOLERITE	SCREE, GREY, HIGHLY WEATHERED.
45.19	1.39			100% DOLERITE	SCREE, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK.
46.80	1.61			100% DOLERITE	SCREE, GREY, MODERATELY WEATHERED, STRONG ROCK.
47.80	1.00			100% DOLERITE	SCREE, GREY, MODERATELY WEATHERED, STRONG ROCK.
48.72	0.92			100% DOLERITE	SCREE, GREY, HIGHLY WEATHERED, MODERATELY STRONG ROCK.
49.04	0.32			100% DOLERITE	SCREE, BROWN, COMPLETELY WEATHERED, VERY WEAK ROCK.
49.65	0.61			100% DOLERITE	SCREE, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK.
50.96	1.31			100% DOLERITE	SCREE, GREY, HIGHLY WEATHERED, MODERATELY STRONG ROCK.
52.41	1.45			100% DOLERITE	SCREE, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK.
53.35	0.94			100% DOLERITE	SCREE, GREY, HIGHLY WEATHERED, MODERATELY STRONG ROCK.
55.19	1.84			100% DOLERITE	SCREE, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK.
55.80	0.61			100% DOLERITE	SCREE, GREY, MODERATELY WEATHERED, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
58.39	2.59			100% DOLERITE	SCREE, GREY, HIGHLY WEATHERED, MODERATELY STRONG ROCK.
58.80	0.41			100% DOLERITE	SCREE, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK.
61.80	3.00			100% DOLERITE	SCREE, GREY, HIGHLY WEATHERED, MODERATELY STRONG ROCK.
63.51	1.71			100% DOLERITE	SCREE, GREY, HIGHLY WEATHERED, MODERATELY STRONG ROCK.
64.80	1.29			100% DOLERITE	SCREE, COMPLETELY WEATHERED.
67.65	2.85			100% DOLERITE	SCREE, GREY, HIGHLY WEATHERED, MODERATELY WEAK ROCK.
67.80	0.15			100% DOLERITE	SCREE, COMPLETELY WEATHERED.
70.65	2.85			100% DOLERITE	SCREE, GREY, HIGHLY WEATHERED, MODERATELY WEAK ROCK.
70.80	0.15			100% DOLERITE	SCREE, COMPLETELY WEATHERED.
76.80	6.00			100% DOLERITE	SCREE, GREY-BROWN, HIGHLY WEATHERED, MODERATELY WEAK ROCK.
79.30	2.50			100% DOLERITE	SCREE, GREY-BROWN, HIGHLY WEATHERED, MODERATELY WEAK ROCK.
79.60	0.30			100% DOLERITE	SCREE, COMPLETELY WEATHERED.
79.80	0.20			100% MUDSTONE	FRIABLE, BADLY BROKEN, GREY, VERY WEAK ROCK.
81.14	1.34			100% MUDSTONE	FRIABLE, GREY, VERY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 5 DEG.
82.87	1.73			70% SILTSTONE 30% SANDSTONE	GREY. VERY FINE GRAINED, LENSES, LIGHT GREY. MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
83.12	0.25			100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
84.16	1.04			100% MUDSTONE	SILTSTONE, GREY, MODERATELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 5 DEG.
85.80	1.64			60% SANDSTONE 40% MUDSTONE	VERY FINE GRAINED, LIGHT GREY. CARBONACEOUS, LAMINAE, GREY. STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
86.99	1.19			80% MUDSTONE 20% SILTSTONE	CARBONACEOUS, TRACES, GREY. LAMINAE, BROWN. STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 5 DEG.
88.80	1.81			100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 5 DEG.
91.63	2.83			100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
				TOP OF DALMAYNE B : 178.37 M R.L.	
91.68	0.05			100% COAL, DULL	
91.70	0.02			100% MUDSTONE	MICACEOUS, LIGHT BROWN.
91.80	0.10			100% COAL, DULL	
92.23	0.43			100% MUDSTONE	FRIABLE, MICACEOUS, LIGHT BROWN, VERY WEAK ROCK.
92.33	0.10			100% COAL, DULL	
92.40	0.07			100% MUDSTONE	FRIABLE, MICACEOUS, LIGHT BROWN.
92.86	0.46			90% COAL, DULL 10% MUDSTONE	LAMINAE, BROWN.
92.91	0.05			100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	WITH CALCITE ON CLEAT.
92.99	0.08			100% COAL, DULL	
93.07	0.08			50% CARBONACEOUS SHALE 50% COAL	DARK BROWN. MID LUSTROUS-BRIGHT COAL, LAMINAE. WITH CALCITE ON CLEAT.
93.16	0.09			100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
93.68	0.52			100% MUDSTONE	SILTSTONE, GREY, MODERATELY STRONG ROCK.
93.92	0.24			100% MUDSTONE	BENTONITIC, FRIABLE, LIGHT BROWN, VERY WEAK ROCK, VERY STICKY.
94.10	0.18			100% CARBONACEOUS MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
94.79	0.69			100% MUDSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY WEAK ROCK.
				BASE OF DALNAYNE B : THICKNESS= 3.16 M; SAMPLED THICKNESS= 0.00 M	
97.10	2.31			100% SILTSTONE	GREY, MODERATELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 5 DEG.
99.90	2.80			70% SANDSTONE,FINE GRAINED 30% CARBONACEOUS MUDSTONE	LIGHT GREY. STREAKS, DARK GREY. STRONG ROCK.
100.67	0.77			60% MUDSTONE 40% SANDSTONE	CARBONACEOUS, TRACES, DARK BROWN. VERY FINE GRAINED, LAMINAE, LIGHT GREY.
103.90	3.23			100% MUDSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY STRONG ROCK, JOINTS DIP 80 DEG., WITH SLICKENSIDES.
110.86	6.96			95% SANDSTONE,MEDIUM GRAINED 5% COAL	MASSIVE, GREY. TRACES.
111.89	1.03			100% MUDSTONE	CARBONACEOUS, TRACES, GREY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
118.80	6.91			90% SANDSTONE,MEDIUM GRAINED 10% COAL	GREY. LENSES. STRONG ROCK.
121.27	2.47			100% SANDSTONE,MEDIUM GRAINED	GREY, VERY STRONG ROCK.
				TOP OF DALMAYNE C : 148.73 M R.L.	
121.33	0.06			100% COAL, DULL	
122.01	0.68			100% MUDSTONE	CARBONACEOUS, TRACES, GREY-BROWN, JOINTS DIP 50 DEG., WITH SLICKENSIDES.
122.41	0.40			100% MUDSTONE	FRIABLE, MICACEOUS, LIGHT BROWN, VERY WEAK ROCK.
122.75	0.34			100% MUDSTONE	CARBONACEOUS, DARK GREY.
124.83	2.08			100% MUDSTONE	GREY, MODERATELY STRONG ROCK.
125.97	1.14			100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
126.13	0.16			100% CARBONACEOUS MUDSTONE	DARK BROWN, STRONG ROCK.
				BASE OF DALMAYNE C : THICKNESS= 4.86 M; SAMPLED THICKNESS= 0.00 M	
126.82	0.69			100% MUDSTONE	CARBONACEOUS, TRACES, GREY.
127.80	0.98			80% SANDSTONE,FINE GRAINED 20% CARBONACEOUS MUDSTONE	GREY. FRAGMENTS, DARK BROWN. STRONG ROCK.
137.84	10.04			100% SANDSTONE,MEDIUM GRAINED	MASSIVE, GREY, VERY STRONG ROCK.
138.67	0.83			90% SANDSTONE,MEDIUM GRAINED 10% COAL	GREY. FRAGMENTS. VERY STRONG ROCK.
142.82	4.15			95% SANDSTONE 5% COAL	MED.-FINE GRAINED, GREY. STREAKS. VERY STRONG ROCK.
143.64	0.82			100% SANDSTONE,MEDIUM GRAINED	MASSIVE, GREY, VERY STRONG ROCK.
144.20	0.56			70% SANDSTONE,MEDIUM GRAINED 30% MUDSTONE	GREY. PELLETAL, GREY-BROWN.
144.41	0.21			80% MUDSTONE 20% SANDSTONE,MEDIUM GRAINED	GREY-BROWN. LENSES, GREY. MODERATELY STRONG ROCK.
144.55	0.14			100% MUDSTONE	FRIABLE, GREY-BROWN, WEAK ROCK.
147.30	2.75			90% SANDSTONE,MEDIUM GRAINED 10% MUDSTONE	GREY. PELLETAL, GREY-BROWN. STRONG ROCK.
147.54	0.24			100% SHALE	BROWN, EXTREMELY SRONG ROCK, WITH SAND LINEATION.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
147.57	0.03			100% SANDSTONE,MEDIUM GRAINED	LENSES, GREY.
147.62	0.05			100% CARBONACEOUS MUDSTONE	DARK BROWN, WEAK ROCK.
147.76	0.14			100% SANDSTONE,MEDIUM GRAINED	GREY-BROWN, VERY STRONG ROCK.
147.84	0.08			100% SHALE	LENSES, BROWN, EXTREMELY SRONG ROCK, WITH SAND LINEATION.
147.93	0.09			100% MUDSTONE	CARBONACEOUS, TRACES, GREEN.
148.34	0.41			100% SANDSTONE,MEDIUM GRAINED	GREY, VERY STRONG ROCK.
148.37	0.03			100% MUDSTONE	CARBONACEOUS, TRACES, BROWN.
156.96	8.59			100% SANDSTONE,MEDIUM GRAINED	GREY, VERY STRONG ROCK.
157.11	0.15			60% SANDSTONE,MEDIUM GRAINED 40% CARBONACEOUS MUDSTONE	GREY. LENSES, DARK BROWN. STRONG ROCK.
159.53	2.42			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
159.69	0.16			70% SANDSTONE,MEDIUM GRAINED 30% MUDSTONE	GREY. GREY. STRONG ROCK.
160.09	0.40			100% MUDSTONE	GREY, WEAK ROCK, VERY STICKY.
160.80	0.71			100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY STRONG ROCK.
162.98	2.18			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
163.49	0.51			80% SANDSTONE,MEDIUM GRAINED 20% COAL	GREY. LENSES. STRONG ROCK.
172.07	8.58			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
172.92	0.85			90% SANDSTONE,MEDIUM GRAINED 10% COAL	GREY. LENSES. STRONG ROCK.
175.77	2.85			100% SANDSTONE	MED.-COARSE GRAINED, GREY, STRONG ROCK.
179.64	3.87			100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY STRONG ROCK.
		TOP OF DALMAYNE D UPPER : 90.36 M R.L.			
179.74	0.10			100% COAL, DULL	
179.83	0.09			100% CARBONACEOUS MUDSTONE	DARK BROWN.
179.90	0.07			100% COAL, DULL	
		BASE OF DALMAYNE D UPPER : THICKNESS= 0.26 M; SAMPLED THICKNESS= 0.00 M			
179.94	0.04			100% CARBONACEOUS SHALE	DARK BROWN, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
179.99	0.05			100% MUDSTONE	CARBONACEOUS, TRACES, GREY-BROWN.
180.67	0.68			100% SILTSTONE	GREY, MODERATELY STRONG ROCK.
181.25	0.58			70% SANDSTONE,MEDIUM GRAINED 30% MUDSTONE	GREY. LENSES, GREY. STRONG ROCK.
181.60	0.35			100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
190.80	9.20			100% SANDSTONE,MEDIUM GRAINED	MASSIVE, GREY, STRONG ROCK.
198.27	7.47			100% SANDSTONE,MEDIUM GRAINED	MASSIVE, GREY, MODERATELY STRONG ROCK.
198.76	0.49			100% SILTSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
198.96	0.20			50% SANDSTONE,MEDIUM GRAINED 50% SILTSTONE	GREY. GREY-BROWN. MODERATELY WEAK ROCK.
199.79	0.83			100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
212.27	12.48			100% SANDSTONE,MEDIUM GRAINED	MASSIVE, GREY, MODERATELY STRONG ROCK.
212.46	0.19			50% SANDSTONE 50% MUDSTONE	MED.-COARSE GRAINED, LIGHT GREY. LENSES, GREY. STRONG ROCK.
213.23	0.77			100% SANDSTONE,MEDIUM GRAINED	MASSIVE, GREY, STRONG ROCK.
				TOP OF DALMAYNE D LOWER : 56.77 M R.L.	
213.32	0.09			100% COAL, DULL	
213.36	0.04			100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, MODERATELY WEAK ROCK.
213.39	0.03			100% SANDSTONE,MEDIUM GRAINED	COALY, DARK BROWN, STRONG ROCK.
213.45	0.06			50% COAL, DULL 50% COAL, BRIGHT	BANDS. WITH CALCITE ON CLEAT.
				BASE OF DALMAYNE D LOWER : THICKNESS= 0.22 M; SAMPLED THICKNESS= 0.00 M	
214.38	0.93			100% MUDSTONE	CARBONACEOUS, FRAGMENTS, DARK GREY, MODERATELY WEAK ROCK.
214.42	0.04			100% CARBONACEOUS MUDSTONE	FRIABLE, DARK BROWN.
214.56	0.14			100% MUDSTONE	CARBONACEOUS, FRAGMENTS, GREY-BROWN.
214.68	0.12			100% CARBONACEOUS MUDSTONE	FRIABLE, DARK BROWN, VERY WEAK ROCK.
				TOP OF DALMAYNE D LOWER : 55.32 M R.L.	
214.72	0.04		22/1	100% COAL, DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
214.74	0.02		22/1	100% MUDSTONE	GREY-GREEN, VERY WEAK ROCK, VERY STICKY.
214.75	0.01		22/1	100% CARBONACEOUS MUDSTONE	DARK BROWN, VERY WEAK ROCK.
214.88	0.13		22/1	100% COAL, DULL	
215.33	0.45		22/1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
215.36	0.03		22/1	100% MUDSTONE	COALY, TRACES, LIGHT BROWN, MODERATELY WEAK ROCK.
215.47	0.11		22/1	100% COAL, DULL	
		BASE OF DALMAYNE D LOWER : THICKNESS= 0.79 M; SAMPLED THICKNESS= 0.79 M			
215.94	0.47			100% MUDSTONE	CARBONACEOUS, FRAGMENTS, GREY, MODERATELY WEAK ROCK.
216.03	0.09			100% CARBONACEOUS MUDSTONE	COALY, BANDS, DARK BROWN.
217.80	1.77			100% MUDSTONE	CARBONACEOUS, TRACES, GREY.
218.79	0.99			100% SILTSTONE	GREY, MODERATELY WEAK ROCK.
219.19	0.40			90% SANDSTONE,MEDIUM GRAINED 10% MUDSTONE	GREY. PELLETAL, DARK GREY.
219.61	0.42			50% SANDSTONE,MEDIUM GRAINED 50% MUDSTONE	GREY. LENSES, DARK GREY. MODERATELY STRONG ROCK.
223.80	4.19			100% SANDSTONE,MEDIUM GRAINED	MASSIVE, GREY, STRONG ROCK.
235.20	11.40			100% SANDSTONE,MEDIUM GRAINED	COALY, TRACES, GREY, STRONG ROCK.
235.29	0.09			50% MUDSTONE 50% SANDSTONE,FINE GRAINED	DARK GREY. GREY. LAMINATED.
235.48	0.19			100% COAL, DULL	
235.57	0.09			100% CARBONACEOUS MUDSTONE	DARK BROWN, WEAK ROCK.
235.65	0.08			100% MUDSTONE	CARBONACEOUS, DARK BROWN, WEAK ROCK.
235.76	0.11			100% MUDSTONE	CARBONACEOUS, FRAGMENTS, DARK GREY, MODERATELY WEAK ROCK.
236.37	0.61			100% MUDSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY WEAK ROCK.
237.33	0.96			50% SILTSTONE 50% MUDSTONE	GREY-BROWN. GREY. MODERATELY STRONG ROCK, LAMINATED.
238.07	0.74			90% SILTSTONE 10% CARBONACEOUS MUDSTONE	GREY-BROWN. STREAKS, DARK GREY.
238.29	0.22			90% SANDSTONE 10% CARBONACEOUS MUDSTONE	VERY FINE GRAINED, GREY. STREAKS, DARK GREY.
238.80	0.51			100% SANDSTONE,FINE GRAINED	GREY, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
244.76	5.96			100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY STRONG ROCK.
246.34	1.58			90% SANDSTONE,MEDIUM GRAINED 10% CARBONACEOUS MUDSTONE	GREY. STREAKS, DARK GREY. MODERATELY WEAK ROCK.
247.80	1.46			100% SANDSTONE,MEDIUN GRAINED	MASSIVE, GREY, MODERATELY WEAK ROCK.
250.33	2.53			50% MUDSTONE 50% SANDSTONE	SILTSTONE, DARK GREY. VERY FINE GRAINED, LAMINAE, GREY.
250.67	0.34			100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
250.70	0.03			100% COAL, DULL	
250.75	0.05			100% CARBONACEOUS MUDSTONE	DARK BROWN, WEAK ROCK.
250.87	0.12			100% COAL, DULL	
250.88	0.01			100% MUDSTONE	FRIABLE, MICACEOUS, LIGHT BROWN.
250.90	0.02			100% CARBONACEOUS SHALE	DARK BROWN, STRONG ROCK.
250.92	0.02			100% MUDSTONE	MICACEOUS, LIGHT BROWN.
250.95	0.03			100% CARBONACEOUS SHALE	DARK BROWN, STRONG ROCK.
250.99	0.04			100% MUDSTONE	CARBONACEOUS, DARK GREY.
251.04	0.05			100% SHALE	COALY, BLACK.
252.58	1.54			100% MUDSTONE	CARBONACEOUS, TRACES, GREY.
252.68	0.10			100% CARBONACEOUS MUDSTONE	DARK BROWN, VERY WEAK ROCK.
252.70	0.02			100% COAL, DULL	
252.71	0.01			100% MUDSTONE	MICACEOUS, LIGHT BROWN.
253.05	0.34			100% CARBONACEOUS MUDSTONE	DARK BROWN, VERY WEAK ROCK.
253.06	0.01			100% COAL, DULL	
253.10	0.04			100% MUDSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY STRONG ROCK.
253.15	0.05			100% COAL, DULL	
253.17	0.02			100% MUDSTONE	MICACEOUS, LIGHT BROWN.
253.20	0.03			100% CARBONACEOUS MUDSTONE	DARK BROWN, VERY WEAK ROCK.
253.33	0.13			100% COAL, DULL	
253.36	0.03			100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
253.61	0.25			100% COAL, DULL	
256.22	2.61			100% MUDSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY WEAK ROCK.
256.24	0.02			100% MUDSTONE	FRIABLE, LIGHT BROWN.
256.39	0.15			100% COAL, DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
256.44	0.05			100% SHALE	COALY, DARK BROWN.
256.80	0.36			100% MUDSTONE	CARBONACEOUS, TRACES, GREY.
257.71	0.91			100% MUDSTONE	SILTSTONE, GREY.
257.72	0.01			100% MUDSTONE	MICACEOUS, FRIABLE, LIGHT BROWN.
257.78	0.06			100% CARBONACEOUS MUDSTONE	DARK BROWN, VERY WEAK ROCK.
258.42	0.64			100% MUDSTONE	SILTSTONE, LAMINAE, GREY.
259.25	0.83			50% MUDSTONE 50% SANDSTONE	DARK GREY. VERY FINE GRAINED, GREY.
262.11	2.86			100% MUDSTONE	SILTSTONE, GREY.
262.20	0.09			100% MUDSTONE	CARBONACEOUS, DARK GREY.
262.36	0.16			100% CARBONACEOUS MUDSTONE	DARK BROWN, WEAK ROCK.
262.56	0.20			100% COAL, DULL	
264.18	1.62			100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY WEAK ROCK.
264.29	0.11			100% CARBONACEOUS MUDSTONE	DARK BROWN, WEAK ROCK.
264.56	0.27			100% MUDSTONE	SILTSTONE, CARBONACEOUS, DARK GREY.
265.88	1.32			70% SANDSTONE,MEDIUM GRAINED 30% CARBONACEOUS MUDSTONE	GREY. LAMINAE, DARK BROWN.
265.97	0.09			90% SANDSTONE,MEDIUM GRAINED 10% CARBONACEOUS MUDSTONE	GREY. STREAKS, DARK BROWN. MODERATELY STRONG ROCK.
266.49	0.52			100% MUDSTONE	GREY, WEAK ROCK.
266.53	0.04			100% CARBONACEOUS MUDSTONE	FRIABLE, DARK BROWN, VERY WEAK ROCK.
266.59	0.06			100% COAL, DULL	
266.61	0.02			100% MUDSTONE	FRIABLE, LIGHT BROWN, VERY WEAK ROCK.
266.64	0.03			100% CARBONACEOUS MUDSTONE	DARK BROWN, WEAK ROCK.
267.49	0.85			100% MUDSTONE	CARBONACEOUS, FRAGMENTS, GREY-BROWN, MODERATELY WEAK ROCK.
268.12	0.63			100% CARBONACEOUS MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
268.17	0.05			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
				TOP OF DALMAYNE E2 : 7.83 M R.L.	
268.35	0.18			100% COAL, DULL	
268.51	0.16			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
268.65	0.14			60% SANDSTONE,MEDIUM GRAINED 40% CARBONACEOUS SHALE	GREY. LAMINAE, DARK BROWN. STRONG ROCK.
268.87	0.22			100% COAL, DULL	
268.88	0.01			100% CARBONACEOUS MUDSTONE	DARK BROWN, WEAK ROCK.
268.93	0.05			100% COAL, DULL	
268.98	0.05			100% CARBONACEOUS MUDSTONE	DARK BROWN, WEAK ROCK.
269.05	0.07			100% COAL, DULL	
269.08	0.03			100% CARBONACEOUS MUDSTONE	DARK BROWN, WEAK ROCK.
269.19	0.11			100% COAL, DULL	
			BASE OF DALMAYNE E2 : THICKNESS= 1.02 M; SAMPLED THICKNESS= 0.00 M		
270.26	1.07			70% CARBONACEOUS MUDSTONE 30% CARBONACEOUS SHALE	DARK BROWN. DARK BROWN.
271.77	1.51			100% MUDSTONE	GREY, WEAK ROCK.
276.04	4.27			100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
276.82	0.78			100% CARBONACEOUS MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
277.80	0.98			100% MUDSTONE	CARBONACEOUS, FRAGMENTS, GREY-BROWN.
278.25	0.45			100% MUDSTONE	CARBONACEOUS, DARK BROWN, MODERATELY STRONG ROCK.
278.68	0.43			100% CARBONACEOUS MUDSTONE	DARK BROWN, MODERATELY STRONG ROCK.
279.23	0.55			70% SANDSTONE,MEDIUM GRAINED 30% MUDSTONE	GREY. CARBONACEOUS, LAMINAE, DARK BROWN. MODERATELY STRONG ROCK.
286.06	6.83			100% SANDSTONE,MEDIUM GRAINED	MASSIVE, GREY, STRONG ROCK.
			TOP OF DALMAYNE F : -16.06 M R.L.		
286.67	0.61			100% COAL, DULL	
286.77	0.10			100% CARBONACEOUS MUDSTONE	DARK BROWN, VERY WEAK ROCK.
286.87	0.10			100% CARBONACEOUS MUDSTONE	DARK BROWN, WEAK ROCK.
287.29	0.42			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
287.90	0.61			60% SANDSTONE,MEDIUM GRAINED 40% CARBONACEOUS SHALE	GREY. LAMINAE, DARK BROWN. MODERATELY STRONG ROCK.
288.15	0.25			100% CARBONACEOUS MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
288.41	0.26			100% MUDSTONE	CARBONACEOUS, FRAGMENTS, GREY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
288.50	0.09			100% CARBONACEOUS SHALE	DARK BROWN, MODERATELY STRONG ROCK.
288.69	0.19			100% COAL, DULL	
289.31	0.62			100% MUDSTONE	CARBONACEOUS, TRACES, GREY.
289.41	0.10			100% COAL, DULL	
			BASE OF DALMAYNE F : THICKNESS= 3.35 M; SAMPLED THICKNESS= 0.00 M		
289.43	0.02			100% CARBONACEOUS MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
290.55	1.12			100% MUDSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY STRONG ROCK.
290.92	0.37			100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK.
293.21	2.29			100% MUDSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY STRONG ROCK.
293.26	0.05			100% COAL, DULL	
293.43	0.17			100% CARBONACEOUS MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
293.75	0.32			100% MUDSTONE	CARBONACEOUS, TRACES, GREY, MODERATELY WEAK ROCK.
293.80	0.05			50% CARBONACEOUS SHALE 50% COAL	DARK BROWN. MID LUSTROUS-BRIGHT COAL, BANDS. MODERATELY STRONG ROCK.
294.86	1.06			100% MUDSTONE	CARBONACEOUS, BANDS, GREY.
295.80	0.94			50% SANDSTONE 50% CARBONACEOUS MUDSTONE	VERY FINE GRAINED, GREY. LAMINAE, DARK BROWN.
295.87	0.07			50% SANDSTONE,FINE GRAINED 50% CARBONACEOUS MUDSTONE	GREY. COALY, FRAGMENTS.
296.53	0.66			50% SANDSTONE,FINE GRAINED 50% MUDSTONE	GREY. DARK GREY.
297.04	0.51			70% SANDSTONE,FINE GRAINED 30% MUDSTONE	GREY. DARK GREY.
297.30	0.26			100% MUDSTONE	GREY-BROWN.
297.77	0.47			80% SANDSTONE,FINE GRAINED 20% CARBONACEOUS MUDSTONE	GREY. DARK BROWN.
297.85	0.08			100% MUDSTONE	BAKED, LIGHT BROWN.
297.88	0.03			100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, EXTREMELY SRONG ROCK.
297.92	0.04			100% MUDSTONE	BAKED, LIGHT BROWN, STRONG ROCK.
298.85	0.93			100% DOLERITE	MEDIUM GRAINED, GREY-GREEN, EXTREMELY SRONG ROCK.
298.86	0.01			100% MUDSTONE	BAKED, LIGHT BROWN, STRONG ROCK.
299.68	0.82			90% MUDSTONE 10% CARBONACEOUS MUDSTONE	BAKED, LIGHT BROWN. LENSES, BAKED, BLACK. STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
303.08	3.40			100% DOLERITE	MEDIUM GRAINED, GREY, EXTREMELY SRONG ROCK.
303.39	0.31			100% MUDSTONE	BAKED, LIGHT BROWN, STRONG ROCK.
304.02	0.63			100% SANDSTONE	SILTSTONE, BAKED, GREY.
304.93	0.91			100% MUDSTONE	GREY.
305.31	0.38			100% SANDSTONE,COARSE GRAINED	PEBBLY, GREY, WITH PEBBLY QUARTZ.
305.32	0.01			100% MUDSTONE	GREY.
306.46	1.14			100% SANDSTONE,COARSE GRAINED	PEBBLY, GREY, WITH PEBBLY QUARTZ.
306.92	0.46			70% MUDSTONE 30% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY.
307.83	0.91			50% SANDSTONE 50% MUDSTONE	QUARTZOSE, LIGHT GREY. GREY. LAMINATED.
308.39	0.56			100% SANDSTONE,MEDIUM GRAINED	QUARTZOSE, LIGHT GREY.
308.85	0.46			70% SANDSTONE,MEDIUM GRAINED 30% MUDSTONE	QUARTZOSE, LIGHT GREY. CARBONACEOUS, TRACES, DARK GREY.
310.81	1.96			100% SANDSTONE,FINE GRAINED	QUARTZOSE, LIGHT GREY.
312.13	1.32			100% SILTSTONE	FRIABLE, GREY-GREEN.
312.78	0.65			90% SANDSTONE,FINE GRAINED 10% SILTSTONE	QUARTZOSE, LIGHT GREY. LAMINAE, GREY.
317.11	4.33			100% SANDSTONE,FINE GRAINED	QUARTZOSE, LIGHT GREY.
317.67	0.56			100% SILTSTONE	CARBONACEOUS, TRACES, GREY.
318.26	0.59			100% SANDSTONE,MEDIUM GRAINED	QUARTZOSE, LIGHT GREY, EXTREMELY SRONG ROCK.
318.53	0.27			100% MUDSTONE	GREY, WITH PEBBLY QUARTZ.
318.60	0.07			70% MUDSTONE 30% QUARTZITE	GREY. STREAKS.
319.80	1.20			100% MUDSTONE	GREY, WITH PEBBLY QUARTZ.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	0.00 M	91.63 - 94.79 M	3.16 M
DC	0.00 M	121.27 - 126.13 M	4.86 M
DDU	0.00 M	179.64 - 179.90 M	0.26 M
DDL	0.00 M	213.23 - 213.45 M	0.22 M
DDL	0.79 M	214.68 - 215.47 M	0.79 M
DE2	0.00 M	268.17 - 269.19 M	1.02 M
DF	0.00 M	286.06 - 289.41 M	3.35 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
22/1	214.68 - 215.47 M	0.79 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 23

HOLE TYPE	CORE
EASTING	602,100 M AM GRID
NORTHING	5,372,870 M AM GRID
ELEVATION	230.00 M
TOTAL DEPTH DRILLED	361.60 M
DRILLING STARTED	18/ 2/80
DRILLING TIME	
CORE SIZE	
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
138.62	138.62			100% DOLERITE	SCREE.
138.92	0.30			100% SANDSTONE,MEDIUM GRAINED	YELLOW-BROWN, MODERATELY WEATHERED, WEAK ROCK.
139.21	0.29			100% SANDSTONE,MEDIUM GRAINED	YELLOW-GREY, MODERATELY WEATHERED, WEAK ROCK.
139.27	0.06			50% PEBBLE CONGLOMERATE 50% SANDSTONE,COARSE GRAINED	YELLOW-GREY. MODERATELY WEATHERED, WEAK ROCK.
139.46	0.19			75% SANDSTONE,COARSE GRAINED 25% PEBBLE CONGLOMERATE	YELLOW-GREY. MODERATELY WEATHERED, WEAK ROCK.
139.62	0.16			100% CARBONACEOUS MUDSTONE	GREY, MODERATELY WEATHERED, VERY WEAK ROCK, WITH CARBONACEOUS WISPS.
139.83	0.21			100% CARBONACEOUS SHALE	BLACK, WITH PYRITE ON JOINTS AND CALCITE ON JOINTS, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
140.01	0.18			100% SHALE	LAMINAE, LIGHT BROWN, SLIGHTLY WEATHERED, VERY WEAK ROCK.
140.17	0.16			100% CARBONACEOUS SHALE	BROWN-BLACK, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
140.23	0.06			100% CARBONACEOUS SHALE	DULL COAL, BLACK, SLIGHTLY WEATHL ATELY WEAK ROCK.
140.25	0.02			100% SHALE	GREY-BROWN, SLIGHTLY WEATHERED, MO WEAK ROCK.
140.27	0.02			100% CARBONACEOUS SHALE	DULL COAL, BLACK, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
140.29	0.02			100% SHALE	GREY-BROWN, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
140.43	0.14			100% CARBONACEOUS SHALE	BLACK, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
140.44	0.01			100% SHALE	GREY-BROWN, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
140.51	0.07			100% CARBONACEOUS SHALE	BLACK, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
140.53	0.02			100% SHALE	GREY-BROWN, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
140.56	0.03			100% CARBONACEOUS SHALE	BLACK, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
140.57	0.01			100% SHALE	GREY-BROWN, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
140.62	0.05			100% CARBONACEOUS SHALE	BLACK, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
140.73	0.11			100% SHALE	GREY-BROWN, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
140.75	0.02			100% CARBONACEOUS SHALE	DULL COAL, BLACK, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
140.81	0.06			100% SHALE	GREY-BROWN, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
140.85	0.04			100% CARBONACEOUS SHALE	BRIGHT COAL, BANDS, BLACK, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
140.90	0.05			100% SHALE	GREY-BROWN, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
140.95	0.05			100% CARBONACEOUS SHALE	DULL COAL, BLACK, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
140.97	0.02			100% SHALE	GREY-BROWN, MODERATELY WEATHERED, WEAK ROCK, WITH PLANT REMAINS.
141.96	0.99			100% MUDSTONE	GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
142.17	0.21			100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
143.17	1.00			100% CARBONACEOUS SHALE	BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
144.29	1.12			100% MUDSTONE	GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
144.83	0.54			100% SANDSTONE,FINE GRAINED	LIMONITIC, LIGHT GREY, STRONG ROCK.
145.26	0.43			100% MUDSTONE	COALY, TRACES, DARK GREY, MODERATELY STRONG ROCK, VERY CLOSE JOINT SPACING, WITH SLICKE[illegible]DINTS DIP 45 DEG.
145.59	0.33			100% SANDSTONE,FINE GRAINED	GREEN-BROWN, MODERATELY WEAK ROCK, LAMI[illegible]D, VERY CLOSE JOINT SPACING, WITH SLICKENSIDES, JOINTS DIP 45 DEG.
146.24	0.65			50% SANDSTONE 50% SANDSTONE,FINE GRAINED	MED.-FINE GRAINED, LIGHT GREY. GREY. MODERATELY STRONG ROCK, WITH DISTURBED BEDDING.
146.42	0.18	100		100% MUDSTONE	FINE GRAINED SANDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
148.23	1.81	100		75% SANDSTONE,FINE GRAINED 25% SANDSTONE	GREY. MED.-FINE GRAINED, INTERCALATIONS, LIGHT GREY. MODERATELY STRONG ROCK.
149.63	1.40	100		100% SANDSTONE,MEDIUM GRAINED	CREAM, MODERATELY STRONG ROCK.
150.03	0.40	100		90% SANDSTONE,FINE GRAINED 10% SANDSTONE	LAMINAE, DARK GREY. MED.-FINE GRAINED, LIGHT GREY. MODERATELY STRONG ROCK.
151.90	1.87	100		100% SANDSTONE	MED.-COARSE GRAINED, CREAM, MODERATELY STRONG ROCK.
151.94	0.04	100		100% SANDSTONE,FINE GRAINED	COALY, PARTINGS, DARK GREY, MODERATELY STRONG ROCK.
153.45	1.51	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, THICKLY LAMINATED.
153.54	0.09	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, MODERATELY STRONG ROCK.
153.76	0.22	100		100% SANDSTONE,FINE GRAINED	LAMINAE, DARK GREY, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
154.06	0.30	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
154.46	0.40	100		100% SANDSTONE,FINE GRAINED	LAMINAE, DARK GREY, MODERATELY STRONG ROCK.
154.77	0.31	100		70% SANDSTONE 30% SANDSTONE,FINE GRAINED	MED.-FINE GRAINED, LIGHT GREY. LAMINAE, DARK GREY. MODERATELY STRONG ROCK.
154.92	0.15	100		100% SANDSTONE,FINE GRAINED	LAMINAE, DARK GREY, MODERATELY STRONG ROCK.
155.27	0.35	100		70% SANDSTONE 30% SANDSTONE,FINE GRAINED	MED.-FINE GRAINED, LIGHT GREY. LAMINAE, DARK GREY. MODERATELY STRONG ROCK.
155.46	0.19	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
155.65	0.19	100		50% SANDSTONE 50% SANDSTONE,FINE GRAINED	MED.-FINE GRAINED, LIGHT GREY. LAMINAE, DARK GREY. MODERATELY STRONG ROCK.
156.59	0.94	100		100% PEBBLE CONGLOMERATE	COALY, LENSES, LIGHT GREY, MODERATELY STRONG ROCK, WITH POOR SORTING.
156.61	0.02	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
157.05	0.44	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
157.10	0.05	100		100% COAL, DULL	
157.13	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
157.21	0.08	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
157.22	0.01	100		100% MUDSTONE	COALY, PARTINGS, BROWN, MODERATELY WEAK ROCK.
157.24	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
158.30	1.06	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
159.70	1.40	100		100% MUDSTONE	LABILE, BANDS, CREAM, MODERATELY WEAK ROCK.
159.72	0.02	100		100% CLAY	LIGHT GREEN, STIFF.
160.04	0.32	100		100% CARBONACEOUS MUDSTONE	BLACK, WEAK ROCK.
160.64	0.60	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, VERY CLOSE JOINT SPACING, WITH SLICKENSIDES, JOINTS DIP 50 DEG.
161.34	0.70	100		100% MUDSTONE	LIGHT GREEN, MODERATELY WEAK ROCK.
161.42	0.08	100		100% COAL, DULL	
161.55	0.13	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
161.65	0.10	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
161.79	0.14	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
162.18	0.39	100		70% MUDSTONE 30% SANDSTONE,FINE GRAINED	DARK GREY. LAMINAE, LIGHT GREY. MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
164.98	2.80	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
166.00	1.02	100		70% MUDSTONE 30% SANDSTONE,FINE GRAINED	DARK GREY. LAMINAE, LIGHT GREY. MODERATELY WEAK ROCK.
167.55	1.55	100		100% SANDSTONE,MEDIUM GRAINED	COALY, PARTINGS, LIGHT GREY, MODERATELY STRONG ROCK.
167.75	0.20	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, MODERATELY STRONG ROCK.
169.05	1.30	100		100% SANDSTONE,MEDIUM GRAINED	COALY, PARTINGS, LIGHT GREY, MODERATELY STRONG ROCK.
175.64	6.59	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
175.96	0.32	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, MODERATELY STRONG ROCK.
182.50	6.54	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
183.06	0.56	100		70% SANDSTONE,FINE GRAINED 30% SANDSTONE,FINE GRAINED	DARK GREY. LAMINAE, LIGHT GREY. MODERATELY STRONG ROCK, THICKLY LAMINATED.
183.29	0.23	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
183.85	0.56	100		100% SANDSTONE	NON-CLEATED, PEBBLY, LIGHT GREY, MODERATELY STRONG ROCK.
184.34	0.49	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
184.41	0.07	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, MODERATELY STRONG ROCK.
184.90	0.49	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
185.00	0.10	100		100% SANDSTONE,MEDIUM GRAINED	COALY, BANDS, LIGHT GREY, MODERATELY STRONG ROCK.
186.35	1.35	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
189.90	3.55	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
189.98	0.08	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
190.02	0.04	100		100% COAL, INTERBANDED DULL AND BRIGHT	
190.04	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
190.12	0.08	100		100% CARBONACEOUS MUDSTONE	BLACK.
190.17	0.05	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
190.19	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
190.21	0.02	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
190.23	0.02	100		100% COAL, DULL	
190.35	0.12	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
190.41	0.06	100		100% COAL, DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
190.49	0.08	100		100% COAL, INTERBANDED DULL AND BRIGHT	
190.64	0.15	100		100% COAL, DULL	
190.79	0.15	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
190.84	0.05	100		100% COAL, BRIGHT	FRAGMENTED, TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
193.19	2.35	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
193.58	0.39	100		50% SANDSTONE,FINE GRAINED 50% SANDSTONE,FINE GRAINED	COALY, BANDS, LIGHT GREY. LAMINAE, GREY. MODERATELY STRONG ROCK.
194.00	0.42	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
194.09	0.09	100		100% COAL, DULL	
194.11	0.02	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
194.12	0.01	100		100% COAL, DULL	UNWEATHERED.
194.35	0.23	100		50% CARBONACEOUS MUDSTONE 50% MUDSTONE	BLACK. BROWN. UNWEATHERED, MODERATELY WEAK ROCK.
194.41	0.06	100		100% COAL, DULL	UNWEATHERED.
194.43	0.02	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
194.44	0.01	100		100% COAL, DULL	UNWEATHERED.
194.50	0.06	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
194.52	0.02	100		100% COAL, DULL	UNWEATHERED.
194.54	0.02	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
194.58	0.04	100		100% COAL, DULL	UNWEATHERED.
194.60	0.02	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
194.78	0.18	100		100% COAL, DULL	UNWEATHERED.
194.86	0.08	100		100% MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
194.97	0.11	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
195.15	0.18	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
195.19	0.04	100		100% CARBONACEOUS MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
195.29	0.10	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
195.32	0.03	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
195.38	0.06	100		100% COAL, DULL	UNWEATHERED.
195.53	0.15	100		100% MUDSTONE	CREAM, UNWEATHERED, MODERATELY WEAK ROCK.
195.61	0.08	100		100% COAL, DULL	UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
195.63	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
195.65	0.02	100		100% COAL, DULL	UNWEATHERED.
195.68	0.03	100		100% SILTSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
195.76	0.08	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	UNWEATHERED.
195.78	0.02	100		100% MUDSTONE	CARBONACEOUS, STREAKS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
195.86	0.08	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	UNWEATHERED.
195.88	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
199.68	3.80	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	LIGHT GREY. LAMINAE, GREY. UNWEATHERED, MODERATELY WEAK ROCK.
199.72	0.04	100		100% MUDSTONE	LIMONITIC, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH POOR SORTING.
199.83	0.11	100		100% MUDSTONE	CREAM, UNWEATHERED, MODERATELY WEAK ROCK.
200.30	0.47	100		100% CARBONACEOUS MUDSTONE	UNWEATHERED, MODERATELY WEAK ROCK.
201.46	1.16	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. UNWEATHERED, MODERATELY STRONG ROCK.
201.78	0.32	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
201.81	0.03	100		100% CLAY	CREAM, UNWEATHERED, STIFF.
204.14	2.33	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
204.92	0.78	100		60% SILTSTONE 40% SANDSTONE	GREY. MED.-FINE GRAINED, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK.
205.77	0.85	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
209.94	4.17	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
210.03	0.09	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH MUD PELLETS, WITH DISTURBED BEDDING.
210.07	0.04	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
210.68	0.61	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
212.09	1.41	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH TROUGH CROSS BEDDING.
212.73	0.64	100		100% MUDSTONE	COALY, STREAKS, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
212.89	0.16	100		100% CARBONACEOUS MUDSTONE	SILTSTONE, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
213.62	0.73	0		CORE LOSS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
214.04	0.42	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
214.08	0.04	100		100% CARBONACEOUS MUDSTONE	COALY, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
214.33	0.25	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
214.46	0.13	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
214.54	0.08	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
214.60	0.06	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
214.63	0.03	100		100% MUDSTONE	BROWN, UNWEATHERED, WEAK ROCK.
214.69	0.06	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
214.76	0.07	100		100% MUDSTONE	BROWN, UNWEATHERED, WEAK ROCK.
215.55	0.79	100		100% CARBONACEOUS MUDSTONE	COALY, LENSES, BLACK, UNWEATHERED, WEAK ROCK.
215.64	0.09	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
215.87	0.23	100		100% CARBONACEOUS MUDSTONE	COALY, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
215.89	0.02	100		100% SILTSTONE	BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
216.33	0.44	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
216.35	0.02	100		100% MUDSTONE	BROWN, UNWEATHERED, WEAK ROCK.
216.46	0.11	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
216.47	0.01	100		100% MUDSTONE	BROWN, UNWEATHERED, WEAK ROCK.
216.61	0.14	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
216.94	0.33	100		100% CARBONACEOUS MUDSTONE	SANDSTONE, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
217.60	0.66	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
217.99	0.39	100		70% SANDSTONE,COARSE GRAINED 30% CARBONACEOUS MUDSTONE	CARBONACEOUS, LENSES, LIGHT GREY. ARENACEOUS, BLACK. UNWEATHERED, MODERATELY STRONG ROCK, WITH POOR SORTING.
218.34	0.35	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
219.07	0.73	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
219.16	0.09	100		100% MUDSTONE	CREAM, UNWEATHERED, WEAK ROCK.
219.71	0.55	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
220.93	1.22	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED.
222.60	1.67	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
223.35	0.75	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
223.73	0.38	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
223.84	0.11	100		100% SILTSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
224.02	0.18	100		100% MUDSTONE	CREAM, UNWEATHERED, WEAK ROCK.
224.19	0.17	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
224.22	0.03	100		100% MUDSTONE	CREAM, UNWEATHERED, WEAK ROCK.
224.36	0.14	100		100% COAL, DULL	
224.37	0.01	100		100% MUDSTONE	DARK BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
224.51	0.14	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
224.58	0.07	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
224.59	0.01	100		100% SILTSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
224.61	0.02	100		100% COAL, DULL	
224.65	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
224.75	0.10	100		100% COAL, DULL WITH NUMERO IGHT BANDS	
224.80	0.05	100		100% COAL, DULL	
225.08	0.28	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
225.09	0.01	100		100% SILTSTONE	BROWN, UNWEATHERED, MODERATELY ROCK.
225.10	0.01	100		100% COAL, DULL	
225.14	0.04	100		100% SILTSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
225.19	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
225.21	0.02	100		100% SILTSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
225.31	0.10	100		100% COAL, DULL	
225.37	0.06	100		100% CARBONACEOUS MUDSTONE	UNWEATHERED, MODERATELY WEAK ROCK.
225.41	0.04	100		100% COAL, DULL	
225.42	0.01	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
225.69	0.27	100		100% COAL, DULL	
226.60	0.91	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
226.97	0.37	100		100% SANDSTONE,FINE GRAINED	LAMINAE, GREY, UNWEATHERED, MODERATELY STRONG ROCK.
229.41	2.44	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
229.64	0.23	100		100% SANDSTONE,FINE GRAINED	LAMINAE, DARK GREY, UNWEATHERED, MODERATELY STRONG ROCK.
232.85	3.21	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
233.04	0.19	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
235.79	2.75	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
235.86	0.07	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
236.02	0.16	100		100% SANDSTONE,FINE GRAINED	LAMINAE, GREY, UNWEATHERED, MODERATELY STRONG ROCK.
236.28	0.26	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
236.33	0.05	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
236.45	0.12	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
237.21	0.76	100		50% SANDSTONE,FINE GRAINED 50% SANDSTONE,MEDIUM GRAINED	DARK GREY. LAMINAE, LIGHT GREY. UNWEATHERED, MODERATELY STRONG ROCK, WITH CONVOLUTED BEDDING.
237.73	0.52	100		100% SANDSTONE,MEDIUM GRAINED	COALY, BANDS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, BEDS DIP 50 DEG.
237.78	0.05	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
238.72	0.94	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
238.77	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
240.19	1.42	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
240.33	0.14	100		100% SILTSTONE	COALY, TRACES, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
240.45	0.12	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, POORLY SORTED, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
240.64	0.19	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
240.77	0.13	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
240.82	0.05	100		100% COAL, DULL	
241.72	0.90	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
243.60	1.88	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
243.76	0.16	100		75% SANDSTONE,FINE GRAINED 25% MUDSTONE	GREY. PARTINGS, BLACK. UNWEATHERED, STRONG ROCK.
244.71	0.95	100		90% SANDSTONE,MEDIUM GRAINED 10% CARBONACEOUS MUDSTONE	GREY. RADIOACTIVE, BLACK. UNWEATHERED, VERY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
244.83	0.12	100		60% SANDSTONE,FINE GRAINED 40% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, BLACK. LAMINAE, GREY. UNWEATHERED, STRONG ROCK.
245.54	0.71	100		60% SANDSTONE,FINE GRAINED 40% SANDSTONE,FINE GRAINED	CARBONACEOUS, BLACK. LAMINAE, GREY. UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
246.28	0.74	100		80% CARBONACEOUS SHALE 20% SANDSTONE,FINE GRAINED	BLACK. LAMINAE, LIGHT GREY. UNWEATHERED, STRONG ROCK.
246.95	0.67	100		75% SANDSTONE,FINE GRAINED 25% CARBONACEOUS SHALE	COALY, LENSES, LIGHT GREY. COALY, LENSES, BLACK. UNWEATHERED, STRONG ROCK.
247.03	0.08	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
247.14	0.11	100		100% CARBONACEOUS SHALE	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, STRONG ROCK.
247.29	0.15	100		100% MUDSTONE	BRIGHT COAL, BANDS, YELLOW-BROWN, UNWEATHERED, WEAK ROCK.
247.51	0.22	100		100% COAL, DULL	
247.71	0.20	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
248.48	0.77	100		100% CARBONACEOUS SHALE	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
248.50	0.02	100		100% MUDSTONE	LAMINAE, GREY, UNWEATHERED, MODERATELY STRONG ROCK.
248.79	0.29	100		50% CARBONACEOUS MUDSTONE 50% CARBONACEOUS SHALE	LAMINAE, BLACK. LAMINAE, BLACK. UNWEATHERED, MODERATELY STRONG ROCK.
254.87	6.08	100		100% MUDSTONE	SANDSTONE, LENSES, GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS, VERY WIDELY SPACED JOINTS.
255.30	0.43	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH PLANT REMAINS, WITH MUD PELLETS.
255.39	0.09	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, STRONG ROCK.
255.57	0.18	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS.
257.57	2.00	100		100% SANDSTONE,MEDIUM GRAINED	SILTY, STREAKS, GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
257.68	0.11	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
258.27	0.59	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, STRONG ROCK.
258.34	0.07	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
260.45	2.11	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
260.54	0.09	100		100% SANDSTONE,COARSE GRAINED	COALY, FRAGMENTS, GREY, UNWEATHERED, VERY STRONG ROCK.
261.13	0.59	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
261.46	0.33	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
261.48	0.02	100		100% SANDSTONE,COARSE GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
262.39	0.91	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
262.58	0.19	100		100% SANDSTONE,MEDIUM GRAINED	COALY, BANDS, GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
262.61	0.03	100		50% PEBBLE CONGLOMERATE 50% SANDSTONE,COARSE GRAINED	GREY. GREY. UNWEATHERED, VERY STRONG ROCK.
262.79	0.18	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, UNWEATHERED, VERY STRONG ROCK.
262.88	0.09	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
263.29	0.41	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
263.36	0.07	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, HIGHLY WEATHERED, MODERATELY WEAK ROCK, VERY WIDELY SPACED JOINTS.
264.48	1.12	100		100% SANDSTONE,COARSE GRAINED	COALY, FRAGMENTS, GREY, UNWEATHERED, VERY STRONG ROCK.
265.27	0.79	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACECUS WISPS.
266.52	1.25	100		75% SANDSTONE,MEDIUM GRAINED 15% SILT 10% SANDSTONE,FINE GRAINED	GREY. GREY. GREY. UNWEATHERED, VERY STRONG ROCK.
266.54	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
266.88	0.34	100		75% SANDSTONE,MEDIUM GRAINED 25% SANDSTONE,COARSE GRAINED	COALY, FRAGMENTS. GREY. UNWEATHERED, WITH MUD PELLETS.
266.92	0.04	100		100% COAL, BRIGHT	MUDSTONE, LAMINAE.
266.98	0.06	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
267.43	0.45	100		75% SANDSTONE,MEDIUM GRAINED 25% SANDSTONE,COARSE GRAINED	COALY, FRAGMENTS, GREY. SILTY, LAMINAE, GREY. UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS, WITH CARBONACECUS WISPS.
267.54	0.11	100		100% SANDSTONE,FINE GRAINED	PEBBLY, GREY, UNWEATHERED, VERY STRONG ROCK.
267.62	0.08	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
267.75	0.13	100		60% SANDSTONE,FINE GRAINED 40% SANDSTONE,MEDIUM GRAINED	GREY. UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
269.44	1.69	100		100% SANDSTONE	MED.-COARSE GRAINED, GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
270.01	0.57	100		100% SANDSTONE,COARSE GRAINED	COALY, FRAGMENTS, GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
271.60	1.59	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
277.62	6.02	100		100% SANDSTONE	MED.-COARSE GRAINED, GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
278.05	0.43	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
278.59	0.54	100		100% SANDSTONE,COARSE GRAINED	COALY, FRAGMENTS, GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS.
280.22	1.63	100		100% SANDSTONE	MED.-COARSE GRAINED, GREY, UNWEATHERED, VERY STRONG ROCK.
280.35	0.13	100		100% SANDSTONE,MEDIUM GRAINED	COALY, TRACES, GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
283.31	2.96	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
283.62	0.31	100		100% SANDSTONE,MEDIUM GRAINED	COALY, TRACES, GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
284.84	1.22	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
284.88	0.04	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
284.94	0.06	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
285.20	0.26	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, STRONG ROCK.
285.42	0.22	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS.
287.79	2.37	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
288.33	0.54	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
290.99	2.66	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
291.04	0.05	100		100% SANDSTONE,MEDIUM GRAINED	COALY, TRACES, GREY, UNWEATHERED, VERY STRONG ROCK.
291.46	0.42	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS.
292.30	0.84	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
292.65	0.35	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
293.54	0.89	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
293.58	0.04	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
295.35	1.77	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
295.41	0.06	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
296.97	1.56	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
297.20	0.23	100		100% SANDSTONE,MEDIUM GRAINED	COALY, TRACES, GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
301.33	4.13	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
301.49	0.16	100		100% SANDSTONE,MEDIUM GRAINED	COALY, TRACES, GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
301.78	0.29	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
301.87	0.09	100		100% SANDSTONE,FINE GRAINED	LIGHT BROWN, UNWEATHERED, STRONG ROCK.
303.55	1.68	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
303.58	0.03	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
303.91	0.33	100		100% SANDSTONE,MEDIUM GRAINED	COALY, TRACES, GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
304.37	0.46	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
304.55	0.18	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
307.33	2.78	100		100% SANDSTONE,MEDIUM GRAINED	COALY, TRACES, GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS.
308.56	1.23	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
308.59	0.03	100		100% CARBONACEOUS SHALE	BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
308.93	0.34	100		50% SANDSTONE 50% MUDSTONE	MED.-COARSE GRAINED, GREY. SANDSTONE, LENSES, GREY. UNWEATHERED, STRONG ROCK, WITH MUD PELLETS.
318.52	9.59	100		100% SANDSTONE	MED.-COARSE GRAINED, GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
318.85	0.33	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
318.99	0.14	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
319.17	0.18	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
319.32	0.15	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
320.43	1.11	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
320.49	0.06	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
320.65	0.16	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
320.77	0.12	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, THICKLY LAMINATED.
321.18	0.41	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, EXTREMELY CLOSELY SPACED JOINTS, WITH SLICKENSIDES.
326.27	5.09	100		100% SANDSTONE,MEDIUM GRAINED	COALY, BANDS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
326.56	0.29	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
327.41	0.85	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
328.95	1.54	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
329.01	0.06	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
329.16	0.15	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
329.50	0.34	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
330.77	1.27	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
330.99	0.22	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, WITH QUARTZ AND BIOTITE, UNWEATHERED, MODERATELY STRONG ROCK.
332.17	1.18	100		100%	UNWEATHERED, VERY STRONG ROCK.
332.33	0.16	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
337.48	5.15	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
337.56	0.08	100	1	100% MUDSTONE	CREAM, UNWEATHERED, VERY WEAK ROCK.
		TOP OF	DALMAYNE D LOWER :-107.56 M R.L.		
337.58	0.02	100	2	100% CARBONACEOUS MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
337.60	0.02	100	2	100% COAL, HEAVY DULL	
337.73	0.13	100	2	100% COAL, DULL	
337.74	0.01	100	2	100% CARBONACEOUS MUDSTONE	UNWEATHERED, MODERATELY WEAK ROCK.
337.78	0.04	100	2	100% COAL, HEAVY DULL	
338.29	0.51	100	2	100% COAL, DULL	
338.36	0.07	100	2	100% MUDSTONE	BROWN, UNWEATHERED, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
338.49	0.13	100	2	100% COAL, DULL	
338.55	0.06	100	2	100% COAL, HEAVY DULL	MUDSTONE, BANDS.
338.76	0.21	100	2	100% COAL, DULL WITH FEW BRIGHT BANDS	
				BASE OF DALMAYNE D LOWER : THICKNESS= 1.20 M; SAMPLED THICKNESS= 1.20 M	
340.80	2.04	100		100% CARBONACEOUS MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
340.85	0.05	100		100% COAL, HEAVY DULL	
341.04	0.19		3	100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
341.05	0.01		3	100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE D LOWER :-111.05 M R.L.	
341.09	0.04		4	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS.
341.11	0.02		4	100% MUDSTONE	GREY, WITH LAMINAE OF CALCITE, MODERATELY WEAK ROCK.
341.14	0.03		4	100% COAL, BRIGHT	CARBONACEOUS, BANDS.
341.52	0.38		4	100% COAL, DULL	WITH CALCITE ON CLEAT.
341.57	0.05		4	100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
341.66	0.09		4	100% COAL, DULL	
341.78	0.12		4	100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
341.99	0.21		4	100% COAL, DULL	
342.00	0.01		4	100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
342.11	0.11		4	100% COAL, DULL	
342.14	0.03		4	100% MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
342.24	0.10		4	100% COAL, DULL WITH FEW BRIGHT BANDS	
				BASE OF DALMAYNE D LOWER : THICKNESS= 1.19 M; SAMPLED THICKNESS= 1.19 M	
342.34	0.10			100% MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
342.41	0.07			100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
342.46	0.05			100% COAL, DULL	
342.68	0.22			100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
343.91	1.23			100% SANDSTONE,FINE GRAINED	GRADING TO, MUDSTONE, GREY.
343.96	0.05			100% COAL, DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
345.87	1.91			100% SANDSTONE,FINE GRAINED	GRADING TO, MUDSTONE, GREY.
346.60	0.73			100% SANDSTONE,FINE GRAINED	GREY.
348.11	1.51			100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
348.34	0.23			100% SANDSTONE,FINE GRAINED	GRADING TO, MEDIUM GRAINED, LIGHT GREY, STRONG ROCK, WITH CARBONACEOUS WISPS.
348.41	0.07			100% SANDSTONE,FINE GRAINED	GREY, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
351.25	2.84			100% SANDSTONE,MEDIUM GRAINED	GREY.
351.32	0.07			100% SANDSTONE	COALY, FRAGMENTS, GREY, WITH CARBONACEOUS WISPS.
351.70	0.38			100% SANDSTONE	MED.-COARSE GRAINED, GREY, WITH CARBONACEOUS WISPS.
351.83	0.13			100% SANDSTONE,MEDIUM GRAINED	COALY, LAMINAE, GREY.
352.02	0.19			100% SANDSTONE,MEDIUM GRAINED	GREY.
353.91	1.89			100% SANDSTONE	MED.-COARSE GRAINED, GREY.
356.59	2.68			100% MUDSTONE	GREY, STRONG ROCK, WITH PLANT REMAINS.
356.67	0.08			100% MUDSTONE	COALY, LAMINAE, GREY, STRONG ROCK, WITH CARBONACEOUS WISPS.
357.41	0.74	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
357.47	0.06	100		100% CARBONACEOUS MUDSTONE	GREY, UNWEATHERED, STRONG ROCK.
358.86	1.39	100		90% MUDSTONE 10% SANDSTONE,FINE GRAINED	GREY. UNWEATHERED, STRONG ROCK.
359.22	0.36	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. UNWEATHERED, VERY STRONG ROCK.
359.59	0.37	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, UNWEATHERED, VERY STRONG ROCK.
359.71	0.12	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. UNWEATHERED, VERY STRONG ROCK.
359.91	0.20	100		100% SANDSTONE	MED.-COARSE GRAINED, GREY, UNWEATHERED, VERY STRONG ROCK.
359.98	0.07	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK.
360.05	0.07	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, BANDS, GREY, UNWEATHERED, VERY STRONG ROCK.
360.10	0.05	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK.
360.12	0.02	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
360.15	0.03	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
360.16	0.01	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK.
360.33	0.17	100		100% MUDSTONE	SANDSTONE, LAMINAE, GREY, UNWEATHERED, VERY STRONG ROCK.
361.09	0.76	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. UNWEATHERED, VERY STRONG ROCK.
361.60	0.51	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, GREY, UNWEATHERED, VERY STRONG ROCK.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DDL	1.20 M	337.56 - 338.76 M	1.20 M
DDL	1.19 M	341.05 - 342.24 M	1.19 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	337.48 - 337.56 M	0.08 M
2	337.56 - 338.76 M	1.20 M
3	340.85 - 341.05 M	0.20 M
4	341.05 - 342.24 M	1.19 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 25

HOLE TYPE	CORE
EASTING	599,975 M AM GRID
NORTHING	5,373,033 M AM GRID
ELEVATION	365.70 M
TOTAL DEPTH DRILLED	594.50 M
DRILLING STARTED	26/ 3/80
DRILLING TIME	
CORE SIZE	63.0 MM
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
232.70	232.70	100		100% DOLERITE	MED.-FINE GRAINED, LIGHT GREY, WITH CALCITE AND TALC.
234.15	1.45	100		100% DOLERITE	MED.-FINE GRAINED, LIGHT GREY, SLIGHTLY WEATHERED, EXTREMELY SRONG ROCK, CLOSELY SPACED JOINTS, INFILLED WITH CALCITE, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES.
234.40	0.25	100		100% DOLERITE	VERY FINE GRAINED, GREY-GREEN, SLIGHTLY WEATHERED, VERY STRONG ROCK.
234.45	0.05	100		100% SANDSTONE,MEDIUM GRAINED	GREY-GREEN, MODERATELY WEATHERED, STRONG ROCK.
235.71	1.26	100		100% SANDSTONE,MEDIUM GRAINED	GREY-BROWN, MODERATELY WEATHERED, STRONG ROCK.
235.80	0.09	100		100% SANDSTONE,MEDIUM GRAINED	GREY-BROWN, MODERATELY WEATHERED, STRONG ROCK, WITH MUD PELLETS.
238.86	3.06	100		75% SILTSTONE 25% MUDSTONE	GREY. GREY. MODERATELY WEATHERED, MODERATELY STRONG ROCK.
242.55	3.69	100		80% SANDSTONE,MEDIUM GRAINED 20% SANDSTONE,FINE GRAINED	LIGHT GREY. LIGHT GREY. MODERATELY WEATHERED, STRONG ROCK.
243.18	0.63	100		100% SANDSTONE,MEDIUM GRAINED	YELLOW-GREY, MODERATELY WEATHERED, MODERATELY STRONG ROCK, BASAL CONTACT DEFORMED.
243.23	0.05	100		100% DOLERITE	VERY FINE GRAINED, GREY-GREEN, MODERATELY WEATHERED, VERY STRONG ROCK.
286.70	43.47	100		100% DOLERITE	MED.-FINE GRAINED, GREY, WITH NODULES OF PYRITE, UNWEATHERED, EXTREMELY SRONG ROCK, WIDELY SPACED JOINTS.
286.86	0.16	100		100% DOLERITE	VERY FINE GRAINED, GREY-GREEN, UNWEATHERED, EXTREMELY SRONG ROCK.
289.70	2.84	100		100% SANDSTONE,MEDIUM GRAINED	BAKED, LIGHT GREY, EXTREMELY SRONG ROCK.
289.82	0.12	100		100% SILTSTONE	GREY, STRONG ROCK.
290.23	0.41	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
290.28	0.05	100		100% CARBONACEOUS SHALE	BLACK, MODERATELY STRONG ROCK.
290.32	0.04	100		100% COAL, HEAVY DULL	
290.35	0.03	100		100% CARBONACEOUS MUDSTONE	GREY, MODERATELY STRONG ROCK.
290.56	0.21	100		100% COAL, HEAVY DULL	
290.64	0.08	100		100% MUDSTONE	CREAM, HIGHLY WEATHERED, WEAK ROCK.
290.71	0.07	100		100% COAL, DULL	
290.79	0.08	100		100% MUDSTONE	GREY, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
290.88	0.09	100		100% SHALE	GREY-BROWN, MODERATELY WEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
291.14	0.26	100		100% COAL, HEAVY DULL	
291.24	0.10	100		100% SHALE	GREY, HIGHLY WEATHERED, WEAK ROCK.
291.30	0.06	100		100% COAL, DULL	
291.39	0.09	100		100% CARBONACEOUS SHALE	BLACK, HIGHLY WEATHERED, MODERATELY WEAK ROCK.
291.62	0.23	100		80% SANDSTONE,MEDIUM GRAINED 20% CARBONACEOUS SHALE	LIGHT GREY. BLACK. SLIGHTLY WEATHERED, VERY STRONG ROCK.
292.61	0.99	100		75% SANDSTONE,MEDIUM GRAINED 25% SANDSTONE,COARSE GRAINED	LIGHT GREY. LIGHT GREY. UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
293.05	0.44	100		80% SILTSTONE 20% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. UNWEATHERED, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS.
293.12	0.07	100		100% MUDSTONE	CREAM, HIGHLY WEATHERED, WEAK ROCK.
293.47	0.35	100		100% CARBONACEOUS SHALE	HEAVY DULL COAL, BLACK, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
293.50	0.03	100		100% MUDSTONE	CREAM, HIGHLY WEATHERED, WEAK ROCK.
293.84	0.34	100		100% MUDSTONE	GREY, SLIGHTLY WEATHERED, STRONG ROCK.
294.24	0.40	100		100% CARBONACEOUS SHALE	BLACK, SLIGHTLY WEATHERED, STRONG ROCK.
294.27	0.03	100		100% CARBONACEOUS SHALE	BADLY BROKEN, BLACK, HIGHLY WEATHERED, WEAK ROCK.
294.43	0.16	100		50% CARBONACEOUS SHALE 50% SANDSTONE,FINE GRAINED	BLACK. GREY. UNWEATHERED, STRONG ROCK.
294.63	0.20	100		100% MUDSTONE	GREY-BROWN, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
294.68	0.05	100		100% CARBONACEOUS SHALE	BLACK, UNWEATHERED, STRONG ROCK.
294.71	0.03	100		100% MUDSTONE	GREY-BROWN, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
294.80	0.09	100		100% COAL, HEAVY DULL	CARBONACEOUS, SHALY.
294.84	0.04	100		100% SANDSTONE,FINE GRAINED	GREY-BROWN, UNWEATHERED, VERY STRONG ROCK.
295.03	0.19	100		100% COAL, HEAVY DULL	CARBONACEOUS, SHALY.
296.53	1.50	100		100% TUFF	FINE GRAINED, GREY-BROWN, WITH FRAGMENTS OF BIOTITE, UNWEATHERED, VERY STRONG ROCK.
296.69	0.16	100		100% COAL, HEAVY DULL	
297.01	0.32	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, STRONG ROCK, VERY WIDELY SPACED JOINTS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
297.25	0.24	100		80% CARBONACEOUS MUDSTONE 20% SANDSTONE,FINE GRAINED	BLACK. GREY. UNWEATHERED, STRONG ROCK.
297.37	0.12	100		80% TUFF 20% CARBONACEOUS MUDSTONE	GREY-BROWN. BLACK. UNWEATHERED, STRONG ROCK.
297.48	0.11	100		100% CARBONACEOUS SHALE	HEAVY DULL COAL.
297.87	0.39	100		50% CARBONACEOUS SHALE 50% TUFF	BLACK. GREY-BROWN. UNWEATHERED, STRONG ROCK.
298.19	0.32	100		100% TUFF	GREY-BROWN.
298.34	0.15	100		100% CARBONACEOUS SHALE	BLACK.
298.64	0.30	100		100% COAL, HEAVY DULL	DULL COAL.
298.68	0.04	100		100% MUDSTONE	GREY.
298.92	0.24	100		100% MUDSTONE	GREY, WITH PLANT REMAINS.
301.13	2.21	100		100% MUDSTONE	GREY.
304.71	3.58	100		60% SILTSTONE 40% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY.
305.85	1.14	100		80% MUDSTONE 20% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. WITH PLANT REMAINS.
305.90	0.05	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, VERY STRONG ROCK, WITH MUD PELLETS.
306.40	0.50	100		100% COAL, DULL	
308.64	2.24	100		100% MUDSTONE	GREY, STRONG ROCK, WITH PLANT REMAINS.
308.69	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK.
308.79	0.10	100		100% MUDSTONE	GREY.
308.88	0.09	100		100% CARBONACEOUS MUDSTONE	BLACK.
309.13	0.25	100		100% MUDSTONE	GREY.
309.68	0.55	100		100% TUFF	GREY-BROWN.
309.74	0.06	100		100% TUFF	GREY-BROWN, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
309.99	0.25	100		100% COAL, HEAVY DULL	DULL COAL.
313.12	3.13	100		75% MUDSTONE 25% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. UNWEATHERED, MODERATELY STRONG ROCK.
313.40	0.28	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
315.16	1.76	100		75% SANDSTONE,FINE GRAINED 25% MUDSTONE	MUDSTONE, BANDS, LIGHT GREY. GREY. UNWEATHERED, MODERATELY STRONG ROCK.
315.23	0.07	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS.
315.31	0.08	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
315.33	0.02	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
315.35	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
315.43	0.08	100		100% MUDSTONE	CREAM, COMPLETELY WEATHERED, VERY WEAK ROCK.
315.44	0.01	100		100% CARBONACEOUS MUDSTONE	BLACK, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
315.58	0.14	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, BANDS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
315.96	0.38	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
316.04	0.08	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
316.10	0.06	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
316.17	0.07	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
316.32	0.15	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
319.02	2.70	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS.
319.13	0.11	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 25 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES.
319.71	0.58	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
319.83	0.12	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK, VERY WIDELY SPACED JOINTS.
322.17	2.34	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
322.81	0.64	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
322.91	0.10	100		100% CARBONACEOUS SHALE	BLACK, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
322.96	0.05	100		100% MUDSTONE	GREY, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
323.03	0.07	100		100% CARBONACEOUS SHALE	BLACK, MODERATELY WEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
327.73	4.70	100		100% MUDSTONE	FINE GRAINED SANDSTONE, BANDS, GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
329.08	1.35	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
329.14	0.06	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
329.32	0.18	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS.
329.62	0.30	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
329.91	0.29	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS.
330.48	0.57	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
330.94	0.46	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
332.12	1.18	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
332.26	0.14	100		100% COAL, DULL	
332.30	0.04	100		100% CARBONACEOUS SHALE	BROWN-BLACK, UNWEATHERED, VERY STRONG ROCK.
332.45	0.15	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
332.50	0.05	100		100% MUDSTONE	BROWN, UNWEATHERED, STRONG ROCK.
332.51	0.01			100% CARBONACEOUS SHALE	
332.54	0.03			100% CARBONACEOUS SHALE	BROWN-BLACK, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
332.58	0.04			100% CARBONACEOUS SHALE	
332.84	0.26			100% COAL, HEAVY DULL	
332.87	0.03			100% CARBONACEOUS SHALE	COALY, TRACES, BROWN, UNWEATHERED, STRONG ROCK.
332.93	0.06			100% MUDSTONE	COALY, FRAGMENTS, GREY-BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
332.96	0.03			100% COAL, HEAVY DULL	
333.01	0.05			100% COAL, BRIGHT	
333.16	0.15			100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, VERY STRONG ROCK.
333.22	0.06			100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
333.28	0.06			100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, VERY STRONG ROCK.
333.32	0.04			100% COAL, DULL	
333.38	0.06			100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, VERY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
333.42	0.04			100% MUDSTONE	LIGHT BROWN, UNWEATHERED, VERY STRONG ROCK.
333.54	0.12			100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
334.04	0.50			100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK.
336.06	2.02			60% MUDSTONE 40% SANDSTONE,FINE GRAINED	FINE GRAINED SANDSTONE, LAMINAE, GREY. MUDSTONE, LAMINAE, LIGHT GREY. UNWEATHERED, STRONG ROCK.
336.39	0.33			75% MUDSTONE 25% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. UNWEATHERED, STRONG ROCK.
337.69	1.30			100% CARBONACEOUS MUDSTONE	GREY, UNWEATHERED, STRONG ROCK.
338.78	1.09			100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
338.88	0.10			100% CARBONACEOUS MUDSTONE	BROWN-BLACK, UNWEATHERED, STRONG ROCK.
338.95	0.07			100% COAL, HEAVY DULL	
338.98	0.03			100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
339.01	0.03			100% COAL, DULL	
339.04	0.03			100% MUDSTONE	COALY, TRACES, BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
339.09	0.05			100% COAL, BRIGHT WITH FEW DULL BANDS	
339.32	0.23			100% COAL, HEAVY DULL	
339.51	0.19			100% COAL, DULL	
339.54	0.03			100% MUDSTONE	BROWN, UNWEATHERED, VERY STRONG ROCK.
339.63	0.29			100% COAL, HEAVY DULL	
339.88	0.05			100% SANDSTONE,FINE GRAINED	BROWN, UNWEATHERED, VERY STRONG ROCK.
340.03	0.15			100% COAL, DULL	
340.11	0.08			100% SANDSTONE,MEDIUM GRAINED	DARK BROWN, UNWEATHERED, VERY STRONG ROCK.
340.16	0.05			100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, VERY STRONG ROCK.
340.21	0.05			100% COAL, DULL	
340.31	0.10	100		100% SANDSTONE,FINE GRAINED	GREY-BROWN, UNWEATHERED, VERY STRONG ROCK.
340.33	0.02	100		100% CARBONACEOUS MUDSTONE	BROWN, UNWEATHERED, STRONG ROCK.
340.43	0.10	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, STRONG ROCK.
340.62	0.19	100		80% MUDSTONE 20% SANDSTONE,FINE GRAINED	BROWN. LIGHT GREY. MODERATELY WEATHERED, MODERATELY STRONG ROCK.
340.75	0.13	100		100% COAL, HEAVY DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
340.87	0.12	100		100% MUDSTONE	GREEN-BROWN, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
340.94	0.07	100		100% COAL, HEAVY DULL	
341.00	0.06	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
341.04	0.04	100		100% COAL, INTERBANDED DULL AND BRIGHT	WITH CALCITE ON CLEAT.
341.12	0.08	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
341.19	0.07	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, STRONG ROCK.
341.20	0.01	100		100% COAL, BRIGHT	
341.35	0.15	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
341.38	0.03	100		100% COAL, HEAVY DULL	
341.53	0.15	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH PLANT REMAINS.
341.84	0.31	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	GREY. GREY. UNWEATHERED, VERY STRONG ROCK.
343.10	1.26	100		75% SANDSTONE,FINE GRAINED 25% MUDSTONE	MUDSTONE, BANDS, LIGHT GREY. FINE GRAINED SANDSTONE, BANDS, GREY. UNWEATHERED, VERY STRONG ROCK.
343.83	0.73	100		100% MUDSTONE	GREY, VERY STRONG ROCK.
344.47	0.64	100		100% MUDSTONE	GREY, VERY STRONG ROCK, WITH PLANT REMAINS.
344.56	0.09	100		100% CARBONACEOUS MUDSTONE	CREAM, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
344.58	0.02	100		100% CARBONACEOUS SHALE	BLACK, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
344.62	0.04	100		100% CARBONACEOUS MUDSTONE	CREAM, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
344.70	0.08	100		100% COAL, DULL	
344.72	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, STRONG ROCK.
344.82	0.10	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
344.88	0.06	100		100% MUDSTONE	CREAM, MODERATELY WEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
345.00	0.12	100		100% MUDSTONE	GREY-GREEN, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
345.03	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
345.05	0.02	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK.
345.07	0.02	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
345.09	0.02	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK.
345.15	0.06	100		100% COAL, DULL WITH FEW BRIGHT BANDS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
345.17	0.02	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK.
345.22	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
345.24	0.02	100		100% COAL, BRIGHT	
345.33	0.09	100		100% COAL, HEAVY DULL	
345.35	0.02	100		100% COAL, BRIGHT	
345.53	0.18	100		100% CARBONACEOUS MUDSTONE	GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
346.33	0.80	100		80% MUDSTONE 20% SANDSTONE,FINE GRAINED	GREY. GREY. UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
346.36	0.03	100		100% CARBONACEOUS SHALE	BLACK, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
346.45	0.09	100		100% SHALE	BROWN, MODERATELY WEATHERED, WEAK ROCK.
346.48	0.03	100		100% CARBONACEOUS SHALE	BLACK, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
346.52	0.04	100		100% SANDSTONE	MED.-FINE GRAINED, GREY-BROWN, UNWEATHERED, STRONG ROCK.
346.59	0.07	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
346.64	0.05	100		100% COAL, HEAVY DULL	
346.93	0.29	100		100% CARBONACEOUS SHALE	BROWN, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
346.96	0.03	100		100% SHALE	LIGHT BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
347.01	0.05	100		100% CARBONACEOUS SHALE	COALY, BLACK, UNWEATHERED, VERY STRONG ROCK.
347.02	0.01	100		100% SHALE	LIGHT BROWN, UNWEATHERED, STRONG ROCK.
347.09	0.07	100		100% CARBONACEOUS SHALE	COALY, BLACK, UNWEATHERED, VERY STRONG ROCK.
347.27	0.18	100		100% SHALE	GREY-GREEN, HIGHLY WEATHERED, WEAK ROCK.
347.30	0.03	100		100% SHALE	BROWN-BLACK, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
347.39	0.09	100		100% SHALE	GREY-GREEN, HIGHLY WEATHERED, WEAK ROCK.
347.44	0.05	100		100% SHALE	BROWN-BLACK, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
347.59	0.15	100		100% SHALE	GREY-GREEN, HIGHLY WEATHERED, WEAK ROCK.
347.66	0.07	100		100% COAL, HEAVY DULL	
347.77	0.11	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, STRONG ROCK.
348.53	0.76	100		75% SANDSTONE,FINE GRAINED 25% MUDSTONE	GREY. GREY. UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS, VERY WIDELY SPACED JOINTS, JOINTS DIP 25 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
348.56	0.03	100		100% MUDSTONE	CREAM, MODERATELY WEATHERED, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
350.44	1.88	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	GREY. GREY. UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
350.62	0.18	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
351.73	1.11	100		75% SANDSTONE,FINE GRAINED 25% MUDSTONE	GREY. GREY. UNWEATHERED, STRONG ROCK.
352.39	0.66	100		75% SANDSTONE,FINE GRAINED 25% MUDSTONE	CARBONACEOUS, LAMINAE, GREY. CARBONACEOUS, LAMINAE, GREY. UNWEATHERED, STRONG ROCK.
352.99	0.60	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK.
353.15	0.16	100		75% SANDSTONE,FINE GRAINED 25% MUDSTONE	GREY. GREY. UNWEATHERED, STRONG ROCK.
354.51	1.36	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
				TOP OF DALMAYNE B : 11.19 M O.D.	
354.52	0.01	100		100% COAL, BRIGHT	
354.58	0.06	100		100% COAL, HEAVY DULL	CARBONACEOUS.
354.64	0.06	100		100% COAL, DULL WITH FEW BRIGHT BANDS	WITH CALCITE ON CLEAT.
354.73	0.09	100		100% CARBONACEOUS MUDSTONE	BLACK, SLIGHTLY WEATHERED, STRONG ROCK.
354.76	0.03	100		100% CARBONACEOUS MUDSTONE	BROWN-BLACK, MODERATELY WEATHERED, MODERATELY STRONG ROCK.
354.94	0.18	100		100% CARBONACEOUS MUDSTONE	LIGHT GREEN, HIGHLY WEATHERED, WEAK ROCK.
355.09	0.15	100		100% CARBONACEOUS MUDSTONE	BROWN-BLACK, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
355.64	0.55	100		100% SHALE	LIGHT GREEN, COMPLETELY WEATHERED, WEAK ROCK.
355.74	0.10	100		100% CARBONACEOUS SHALE	BROWN-BLACK, UNWEATHERED, STRONG ROCK.
355.81	0.07	100		100% SHALE	CARBONACEOUS, FRAGMENTS, LIGHT GREY, SLIGHTLY WEATHERED, STRONG ROCK.
355.87	0.06	100		100% CARBONACEOUS SHALE	BROWN-BLACK, UNWEATHERED, STRONG ROCK.
356.05	0.18	100		100% CARBONACEOUS SHALE	COALY, BROWN-BLACK, UNWEATHERED, STRONG ROCK.
356.08	0.03	100		100% SHALE	LIGHT GREEN, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
356.37	0.29	100		100% CARBONACEOUS SHALE	BLACK, UNWEATHERED, STRONG ROCK.
356.47	0.10	100		100% COAL, HEAVY DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
356.52	0.05	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
356.58	0.06	100		100% CARBONACEOUS SHALE	BLACK, UNWEATHERED, STRONG ROCK.
356.68	0.10	100		85% SANDSTONE,FINE GRAINED 15% CARBONACEOUS SHALE	LIGHT GREY. BLACK. UNWEATHERED, VERY STRONG ROCK.
356.78	0.10	100		100% MUDSTONE	SANDSTONE, LAMINAE, LIGHT GREY, UNWEATHERED, STRONG ROCK, WIDELY SPACED JOINTS, INFILLED WITH CALCITE, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES.
357.54	0.76	100		75% SANDSTONE,FINE GRAINED 25% MUDSTONE	GREY. GREY. UNWEATHERED, STRONG ROCK.
357.89	0.35	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
357.99	0.10	100		100% MUDSTONE	LIGHT GREEN, HIGHLY WEATHERED, MODERATELY WEAK ROCK.
358.15	0.16	100		100% CARBONACEOUS SHALE	BLACK, UNWEATHERED, STRONG ROCK.
358.47	0.32	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	CARBONACEOUS, LIGHT GREY. CARBONACEOUS, GREY. UNWEATHERED, STRONG ROCK.
358.61	0.14	100		100% CARBONACEOUS SHALE	COALY, FRAGMENTS, BROWN-BLACK, UNWEATHERED, STRONG ROCK.
358.77	0.16	100		100% MUDSTONE	GREY, MODERATELY WEATHERED, MODERATELY STRONG ROCK.
359.54	0.77	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, BANDS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
359.64	0.10	100		100% SHALE	CREAM, HIGHLY WEATHERED, WEAK ROCK.
359.83	0.19	100		100% CARBONACEOUS MUDSTONE	HEAVY DULL COAL, BLACK, UNWEATHERED, STRONG ROCK.
359.98	0.15	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, VERY STRONG ROCK.
360.11	0.13	100		100% SHALE	CREAM, HIGHLY WEATHERED, WEAK ROCK.
360.12	0.01	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, VERY STRONG ROCK.
360.18	0.06	100		100% SHALE	CREAM, HIGHLY WEATHERED, WEAK ROCK.
360.53	0.35	100		90% CARBONACEOUS MUDSTONE 10% SHALE	COALY, TRACES, BLACK. CREAM. UNWEATHERED, STRONG ROCK.
360.56	0.03	100		100% SHALE	CREAM, MODERATELY WEATHERED, WEAK ROCK.
360.82	0.26	100		75% CARBONACEOUS MUDSTONE 25% SHALE	BLACK. CREAM. UNWEATHERED, STRONG ROCK.
360.97	0.15	100		100% CARBONACEOUS MUDSTONE	HEAVY DULL COAL, BLACK, UNWEATHERED, STRONG ROCK.
361.00	0.03	100		100% SANDSTONE,FINE GRAINED	DARK GREY, UNWEATHERED, VERY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
361.13	0.13	100		100% CARBONACEOUS MUDSTONE	HEAVY DULL COAL, BLACK, UNWEATHERED, VERY STRONG ROCK.
361.18	0.05	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, DARK GREY, UNWEATHERED, STRONG ROCK.
361.25	0.07	100		100% CARBONACEOUS MUDSTONE	HEAVY DULL COAL, BLACK, UNWEATHERED, STRONG ROCK.
361.30	0.05	100		100% SANDSTONE,FINE GRAINED	COALY, LAMINAE, LIGHT BROWN, SLIGHTLY WEATHERED, STRONG ROCK.
361.48	0.18	100		100% CARBONACEOUS MUDSTONE	COALY, TRACES, BLACK, UNWEATHERED, STRONG ROCK.
361.53	0.05	100		100% SHALE	CREAM, HIGHLY WEATHERED, WEAK ROCK.
361.67	0.14	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEATHERED, STRONG ROCK.
361.68	0.01	100		100% SHALE	CREAM, HIGHLY WEATHERED, WEAK ROCK.
361.70	0.02	100		100% CARBONACEOUS MUDSTONE	HEAVY DULL COAL, BLACK, UNWEATHERED, STRONG ROCK.
361.93	0.23	100		100% CARBONACEOUS MUDSTONE	HEAVY DULL COAL, BLACK, UNWEATHERED, STRONG ROCK.
362.24	0.31	100		100% CARBONACEOUS MUDSTONE	FINE GRAINED SANDSTONE, LENSES, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
362.36	0.12	100		100% MUDSTONE	BROWN, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
362.73	0.37	100		100% CARBONACEOUS MUDSTONE	HEAVY DULL COAL, BLACK, HIGHLY WEATHERED, WEAK ROCK.
363.29	0.56	100		90% CARBONACEOUS MUDSTONE 10% SANDSTONE,MEDIUM GRAINED	BLACK. GREY. UNWEATHERED, STRONG ROCK.
363.82	0.53	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, STRONG ROCK.
363.86	0.04	100		100% SHALE	CREAM, HIGHLY WEATHERED, WEAK ROCK.
364.12	0.26	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, STRONG ROCK.
364.17	0.05	100		100% SHALE	CREAM, HIGHLY WEATHERED, WEAK ROCK.
364.37	0.20	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
364.97	0.60	100		100% MUDSTONE	FINE GRAINED SANDSTONE, BANDS, CREAM, HIGHLY WEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
365.20	0.23	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, STRONG ROCK.
365.28	0.08	100		100% MUDSTONE	CREAM, HIGHLY WEATHERED, WEAK ROCK.
365.55	0.27	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, STRONG ROCK.
365.70	0.15	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK.
365.74	0.04	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
366.28	0.54	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	GREY. GREY. UNWEATHERED, STRONG ROCK.
367.68	1.40	100		100% MUDSTONE	FINE GRAINED SANDSTONE, BANDS, GREY, UNWEATHERED, STRONG ROCK.
367.70	0.02	100		100% SANDSTONE,FINE GRAINED	DARK GREY, UNWEATHERED, STRONG ROCK.
369.48	1.78	100		100% MUDSTONE	COALY, TRACES, GREY, UNWEATHERED, STRONG ROCK, WIDELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 20 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
369.67	0.19	100		100% MUDSTONE	CREAM, WITH STREAKS OF CALCITE, HIGHLY WEATHERED, WEAK ROCK.
370.59	0.92	100		100% CARBONACEOUS MUDSTONE	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
370.80	0.21	100		100% COAL, DULL	
370.84	0.04	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, BROWN, UNWEATHERED, STRONG ROCK.
371.05	0.21	100		100% COAL, DULL	
371.07	0.02	100		100% SANDSTONE,FINE GRAINED	LIGHT BROWN, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
371.27	0.20	100		100% CARBONACEOUS MUDSTONE	COALY, BANDS, BLACK, UNWEATHERED, STRONG ROCK.
371.37	0.10	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK.
371.62	0.25	100		100% CARBONACEOUS MUDSTONE	COALY, BANDS, BLACK, UNWEATHERED, STRONG ROCK.
				BASE OF DALMAYNE B : THICKNESS= 17.11 M; SAMPLED THICKNESS= 0.00 M	
371.72	0.10	100		100% MUDSTONE	COARSE GRAINED, FRAGMENTS, GREY, UNWEATHERED, STRONG ROCK.
371.86	0.14	100		100% SANDSTONE,MEDIUM GRAINED	COARSE GRAINED, FRAGMENTS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS.
371.96	0.10	100		75% SANDSTONE,MEDIUM GRAINED 25% MUDSTONE	LIGHT GREY. GREY. UNWEATHERED, VERY STRONG ROCK.
373.60	1.64	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
373.70	0.10	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, STRONG ROCK.
373.74	0.04	100		100% SANDSTONE,FINE GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
379.70	5.96	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
382.26	2.56	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS, JOINTS DIP 25 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH QUARTZ.
382.36	0.10	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
383.49	1.13	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
383.58	0.09	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
383.81	0.23	100		100% SANDSTONE,FINE GRAINED	COALY, TRACES, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
384.40	0.59	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
385.06	0.66	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
385.66	0.60	100		50% SANDSTONE,MEDIUM GRAINED 50% SANDSTONE,COARSE GRAINED	COALY, FRAGMENTS, LIGHT GREY. COALY, STREAKS, LIGHT GREY. UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
385.86	0.20	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
386.14	0.28	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
386.56	0.42	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
387.68	1.12	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
387.88	0.20	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
388.07	0.19	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
388.40	0.33	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
388.59	0.19	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
389.50	0.91	100		100% MUDSTONE	SILTSTONE, LENSES, GREY, UNWEATHERED, STRONG ROCK.
389.52	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, STRONG ROCK.
389.60	0.08	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
389.70	0.10	100		100% MUDSTONE	CARBONACEOUS, FRAGMENTS, GREY, UNWEATHERED, STRONG ROCK.
389.81	0.11	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK.
389.90	0.09	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, FRAGMENTS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
391.13	1.23	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS, WIDELY SPACED JOINTS, JOINTS DIP 20 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
391.73	0.60	100		100% CARBONACEOUS MUDSTONE	DARK GREY, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
392.23	0.50	100		50% SANDSTONE,FINE GRAINED 50% CARBONACEOUS MUDSTONE	LIGHT GREY. BLACK. UNWEATHERED, STRONG ROCK.
392.38	0.15	100		75% CARBONACEOUS MUDSTONE 25% SANDSTONE,FINE GRAINED	BLACK. LIGHT GREY.
392.45	0.07	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LAMINAE, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
393.05	0.60	100		100% MUDSTONE	COALY, LAMINAE, GREY, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
393.60	0.55	100		100% MUDSTONE	GYPSIFEROUS, HIGHLY WEATHERED, WEAK ROCK.
393.97	0.37	100		50% SANDSTONE,MEDIUM GRAINED 50% CARBONACEOUS MUDSTONE	LIGHT GREY. BLACK. UNWEATHERED, VERY STRONG ROCK.
394.10	0.13	100		75% SANDSTONE,MEDIUM GRAINED 25% CARBONACEOUS MUDSTONE	LIGHT GREY. BLACK. UNWEATHERED, STRONG ROCK.
				TOP OF DALMAYNE C : -28.40 M R.L.	
394.30	0.20	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
394.93	0.63	100		100% CARBONACEOUS MUDSTONE	SANDSTONE, LENSES, BLACK, UNWEATHERED, STRONG ROCK.
395.57	0.64	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEATHERED, MODERATELY STRONG ROCK.
395.79	0.22	100		100% MUDSTONE	CREAM, HIGHLY WEATHERED, WEAK ROCK.
395.83	0.04	100		100% CARBONACEOUS SHALE	BLACK, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
				BASE OF DALMAYNE C : THICKNESS= 1.73 M; SAMPLED THICKNESS= 0.00 M	
395.89	0.06	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
397.42	1.53	100		100% MUDSTONE	SANDSTONE, BANDS, GREY, UNWEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 20 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
397.46	0.04	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
397.60	0.14	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK, VERY WIDELY SPACED JOINTS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
399.00	1.40	100		90% SANDSTONE,FINE GRAINED 10% MUDSTONE	LIGHT GREY. GREY. UNWEATHERED, VERY STRONG ROCK.
401.35	2.35	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
404.68	3.33	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
404.89	0.21	100		100% SANDSTONE,MEDIUM GRAINED	COALY FRAGMENTS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
405.48	0.59	100		100% SANDSTONE,MEDIUN GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
405.71	0.23	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
405.76	0.05	100		100% COAL, BRIGHT	
405.80	0.04	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
406.03	0.23	100		100% SANDSTONE	MED.-FINE GRAINED, COALY, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
406.62	0.59	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
406.70	0.08	100		100% SANDSTONE,MEDIUN GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
407.43	0.73	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
407.54	0.11	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
407.77	0.23	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
407.91	0.14	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
408.64	0.73	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
410.18	1.54	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK.
411.36	1.18	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
411.80	0.44	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
413.32	1.52	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
413.60	0.28	100		100% SANDSTONE,COARSE GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
415.12	1.52	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, INFILLED WITH CALCITE, JOINTS DIP 25 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
415.20	0.08	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
415.50	0.30	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
417.35	1.85	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
417.49	0.14	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
418.67	1.18	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
421.62	2.95	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
421.71	0.09	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
422.06	0.35	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
422.77	0.71	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
423.84	1.07	100		100% SANDSTONE,COARSE GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
427.70	3.86	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
428.09	0.39	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
428.48	0.39	100		100% TUFF	WHITE, UNWEATHERED, EXTREMELY SRONG ROCK.
430.38	1.90	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, MODERATELY SPACED JOINTS, INFILLED WITH CALCITE, JOINTS DIP 25 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
430.56	0.18	100		100% SANDSTONE,COARSE GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
430.63	0.07	100		100% COAL, DULL	
430.77	0.14	100		100% MUDSTONE	SANDSTONE, BANDS, GREY, UNWEATHERED, STRONG ROCK.
431.47	0.70	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 25 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
431.52	0.05	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
432.09	0.57	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, INFILLED WITH CALCITE, JOINTS DIP 25 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
432.55	0.46	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS, WIDELY SPACED JOINTS, JOINTS DIP 25 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
433.01	0.46	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
433.54	0.53	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
433.75	0.21	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, CLOSELY SPACED JOINTS, INFILLED WITH CALCITE, JOINTS DIP 30 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
435.31	1.56	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
435.58	0.27	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
437.83	2.25	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
437.98	0.15	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
438.58	0.60	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
438.73	0.15	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, VERY STRONG ROCK.
439.31	0.58	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
439.34	0.03	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
439.70	0.36	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
440.18	0.48	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
442.13	1.95	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 25 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
442.31	0.18	100		100% SANDSTONE,COARSE GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
442.76	0.45	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, INFILLED WITH CALCITE, JOINTS DIP 20 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
443.36	0.60	100		100% SANDSTONE	MED.-FINE GRAINED, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
445.29	1.93	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, SLIGHTLY WEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
446.40	1.11	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
446.58	0.18	100		100% SANDSTONE	MED.-FINE GRAINED, COALY, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
448.63	2.05	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
448.68	0.05	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK.
448.70	0.02	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
448.83	0.13	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
448.90	0.07	100		100% CARBONACEOUS MUDSTONE	GREY, UNWEATHERED, STRONG ROCK.
449.70	0.80	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, WIDELY SPACED JOINTS, JOINTS DIP 20 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
450.20	0.50	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 20 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
451.95	1.75	100		75% MUDSTONE 25% CARBONACEOUS MUDSTONE	GREY. BLACK. UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 30 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
				TOP OF DALMAYNE D UPPER : -86.25 M R.L.	
452.09	0.14	100		100% COAL, DULL	
452.37	0.28	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
				BASE OF DALMAYNE D UPPER : THICKNESS= 0.42 M; SAMPLED THICKNESS= 0.00 M	
453.15	0.78	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
454.39	1.24	100		75% MUDSTONE 25% SANDSTONE,FINE GRAINED	GREY. GREY. UNWEATHERED, STRONG ROCK.
454.46	0.07	100		100% CARBONACEOUS MUDSTONE	GREY-BROWN, UNWEATHERED, STRONG ROCK.
455.88	1.42	100		75% MUDSTONE 25% SANDSTONE,FINE GRAINED	GREY. GREY. UNWEATHERED, STRONG ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 30 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
456.64	0.76	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 25 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
456.70	0.06	100		75% MUDSTONE 25% SANDSTONE,FINE GRAINED	GREY. GREY. UNWEATHERED, VERY STRONG ROCK.
456.97	0.27	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
457.14	0.17	100		100% SANDSTONE,FINE GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
457.25	0.11	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
457.45	0.20	100		75% MUDSTONE 25% SANDSTONE,FINE GRAINED	COARSE GRAINED, BANDS, GREY. GREY. UNWEATHERED, STRONG ROCK.
457.77	0.32	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
457.84	0.07	100		100% SANDSTONE,FINE GRAINED	COALY, LAMINAE, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
458.10	0.26	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
458.30	0.20	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
458.76	0.46	100		75% MUDSTONE 25% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, GREY. GREY. UNWEATHERED, VERY STRONG ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 20 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
460.43	1.67	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
460.73	0.30	100		100% SANDSTONE,COARSE GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS, WIDELY SPACED JOINTS, JOINTS DIP 20 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
461.16	0.43	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
461.20	0.04	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS.
462.85	1.65	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, VERY WIDELY SPACED JOINTS, INFILLED WITH CALCITE, JOINTS DIP 25 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
463.46	0.61	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
463.77	0.31	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
464.27	0.50	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
464.65	0.38	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 30 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
465.59	0.94	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 20 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
466.04	0.45	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 35 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
466.57	0.53	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
466.81	0.24	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
467.19	0.38	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LAMINAE, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
467.59	0.40	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
469.30	1.71	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS.
469.70	0.40	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 35 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
470.20	0.50	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
470.95	0.75	100		75% MUDSTONE 25% SANDSTONE,FINE GRAINED	GREY. GREY. UNWEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
470.99	0.04	100		100% COAL	BROWN.
472.70	1.71	60		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 25 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
473.43	0.73	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 25 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES.
473.53	0.10			75% SANDSTONE,FINE GRAINED 25% MUDSTONE	GREY. GREY. UNWEATHERED, VERY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES.
473.84	0.31			100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY, UNWEATHERED, STRONG ROCK.
		TOP OF	DALMAYNE D LOWER :-108.14 M R.L.		
473.93	0.09		1	100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, STRONG ROCK.
474.18	0.25		1	100% COAL, DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
474.31	0.13		1	100% COAL, DULL WITH FEW BRIGHT BANDS	
474.49	0.18		1	100% COAL, DULL	
474.53	0.04		1	100% COAL, DULL WITH FEW BRIGHT BANDS	
474.55	0.02		1	100% COAL, BRIGHT	
474.64	0.09		1	100% CARBONACEOUS MUDSTONE	BRIGHT COAL, BANDS.
475.07	0.43		1	100% MUDSTONE	FINE GRAINED SANDSTONE, BANDS, GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS, VERY WIDELY SPACED JOINTS, JOINTS DIP 40 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.
475.17	0.10		1	100% MUDSTONE	GREY-BROWN, HIGHLY WEATHERED, MODERATELY WEAK ROCK.
475.33	0.16		2	100% CARBONACEOUS MUDSTONE	BRIGHT COAL, BANDS, DARK GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
475.47	0.14		3	100% COAL, DULL WITH FEW BRIGHT BANDS	
475.52	0.05		3	100% CARBONACEOUS MUDSTONE	GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
475.70	0.18	100	3	100% COAL, DULL WITH FEW BRIGHT BANDS	
475.76	0.06	100	3	100% COAL, DULL	
475.78	0.02	100	3	100% TONSTEIN	
475.84	0.06	100	3	100% COAL, DULL	
475.85	0.01	100	3	100% CLAY	
475.98	0.13	100	3	100% COAL, DULL	
476.17	0.19	100	3	100% COAL, HEAVY DULL	
476.38	0.21	100	3	100% COAL, DULL	
476.52	0.14	100	3	100% COAL, HEAVY DULL	
476.61	0.09	100	3	100% COAL, DULL WITH FEW BRIGHT BANDS	
476.69	0.08	100	3	100% COAL, DULL	
477.01	0.32	100	3	100% COAL, DULL WITH FEW BRIGHT BANDS	
477.03	0.02	100	3	100% COAL, BRIGHT	
477.08	0.05	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
477.09	0.01	100		100% COAL, BRIGHT	
477.43	0.34	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
477.66	0.23	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
477.76	0.10	100	4	100% CARBONACEOUS MUDSTONE	COALY.
477.94	0.18	100	4	100% COAL, DULL WITH FEW BRIGHT BANDS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
477.96	0.02	100	4	100% TONSTEIN	
478.03	0.07	100	4	100% COAL, DULL WITH FEW BRIGHT BANDS	
478.12	0.09	100	4	100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
478.52	0.40	100	5	100% COAL, DULL	WITH CALCITE ON CLEAT.
478.53	0.01	100	5	100% CLAY	
478.70	0.17	100	5	100% COAL, DULL WITH FEW BRIGHT BANDS	
478.71	0.01	100	5	100% COAL, DULL	
478.73	0.02	100	5	100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
478.87	0.14	100	5	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
479.15	0.28	100	5	100% COAL, DULL	
479.16	0.01	100	5	100% CLAY	
479.21	0.05	100	5	100% COAL, HEAVY DULL	
479.34	0.13	100	5	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
				BASE OF DALMAYNE D LOWER : THICKNESS= 5.50 M; SAMPLED THICKNESS= 4.87 M	
479.49	0.15	100	6	100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
479.52	0.03	100	6	100% CARBONACEOUS MUDSTONE	COALY.
479.59	0.07	100	6	100% COAL, DULL	WITH CALCITE ON CLEAT.
480.05	0.46	100		100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS, VERY WIDELY SPACED JOINTS.
480.11	0.06	100		100% CARBONACEOUS MUDSTONE	
480.20	0.09	100		100% COAL, HEAVY DULL	
480.24	0.04	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
480.27	0.03	100		100% CARBONACEOUS MUDSTONE	GREY-BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
483.10	2.83	100		75% MUDSTONE 25% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, GREY. GREY. UNWEATHERED, STRONG ROCK.
485.03	1.93	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
486.45	1.42	100		100% SANDSTONE,FINE GRAINED	COALY, LAMINAE, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
486.60	0.15	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
497.24	10.64	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
497.31	0.07	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRIABLE, LIGHT GREY, STRONG ROCK.
497.37	0.06	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY.
497.42	0.05	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRIABLE, LIGHT GREY.
498.60	1.18	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY.
498.78	0.18	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY.
504.00	5.22	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY.
504.08	0.08	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY.
508.31	4.23	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY.
508.39	0.08	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
509.35	0.96	100		100% MUDSTONE	GREY.
509.37	0.02	100		100% COAL, DULL	
509.38	0.01	100		100% MUDSTONE	BROWN.
509.39	0.01	100		100% COAL, BRIGHT	BADLY BROKEN.
510.57	1.18	100		100% MUDSTONE	GREY.
512.23	1.66	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	COALY, TRACES, LIGHT GREY. GREY. MODERATELY WEAK ROCK.
513.44	1.21	100		100% MUDSTONE	GREY.
513.98	0.54	100		100% CARBONACEOUS MUDSTONE	BLACK.
514.33	0.35	100		100% CARBONACEOUS MUDSTONE	ARENACEOUS, LENSES, BLACK.
514.49	0.16	100		70% CARBONACEOUS MUDSTONE 30% SANDSTONE,COARSE GRAINED	BLACK. BANDS, LIGHT GREY.
514.95	0.46	100		100% CARBONACEOUS MUDSTONE	BLACK.
516.37	1.42	100		100% MUDSTONE	GREY.
516.97	0.60	100		85% CARBONACEOUS MUDSTONE 15% SANDSTONE,FINE GRAINED	BLACK. BANDS, LIGHT GREY.
517.69	0.72	100		100% MUDSTONE	GREY, WITH TROUGH CROSS BEDDING.
517.83	0.14	100		100% MUDSTONE	GREY.
517.94	0.11	100		100% COAL, DULL	BRIGHT COAL, BANDS, WITH CALCITE ON CLEAT, UNWEATHERED, WITH PLANT REMAINS.
518.05	0.11	100		100% CARBONACEOUS SHALE	HIGHLY WEATHERED.
518.21	0.16	100		100% CARBONACEOUS SHALE	ARENACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
518.32	0.11	100		100% MUDSTONE	GREY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
518.34	0.02	100		100% CARBONACEOUS MUDSTONE	
518.38	0.04	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK.
518.75	0.37	100		100% COAL, DULL	WITH CALCITE ON CLEAT.
518.86	0.11	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
520.94	2.08	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
521.13	0.19	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
521.17	0.04	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
521.56	0.39	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, VERY THINLY BEDDED, MODERATELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT NON PLANAR, WITH SLICKENSIDES.
522.71	1.15	100		70% SANDSTONE,FINE GRAINED 30% MUDSTONE	LIGHT GREY. CARBONACEOUS, STREAKS, GREY. MODERATELY STRONG ROCK, VERY THINLY BEDDED, LAMINATED.
525.56	2.85	100		50% SANDSTONE 50% SANDSTONE,FINE GRAINED	VERY FINE GRAINED, LIGHT GREY. LIGHT GREY. MODERATELY STRONG ROCK.
525.78	0.22	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY STRONG ROCK.
525.84	0.06	100		100% MUDSTONE	DARK BROWN, WEAK ROCK.
525.87	0.03	100		100% MUDSTONE	BROWN, FIRM.
526.23	0.36	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
526.29	0.06	100		100% SANDSTONE	VERY FINE GRAINED, GREY.
526.35	0.06	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT BROWN.
526.37	0.02	100		100% SANDSTONE	VERY FINE GRAINED, GREY.
526.44	0.07	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT BROWN.
527.49	1.05	100		100% MUDSTONE	DARK GREY.
527.52	0.03	100		100% SANDSTONE,FINE GRAINED	GREY-BROWN.
528.09	0.57	100		100% MUDSTONE	ARENACEOUS, BANDS, DARK GREY.
528.23	0.14	100		100% MUDSTONE	GREY.
528.25	0.02	100		100% COAL, DULL	
528.50	0.25	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
528.56	0.06	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY.
528.76	0.20	100		100% MUDSTONE	GREY.
531.93	3.17	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY.
532.03	0.10	100		100% COAL, DULL WITH FEW BRIGHT BANDS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
532.07	0.04	100		100% CLAY	BROWN, SOFT.
532.11	0.04	100		100% COAL, BRIGHT	
532.13	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK.
532.33	0.20	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, GREY.
533.16	0.83	100		50% SANDSTONE,MEDIUM GRAINED 50% CARBONACEOUS MUDSTONE	LAMINATED.
533.27	0.11	100		100% CARBONACEOUS MUDSTONE	ARENACEOUS, BLACK.
533.68	0.41	100		70% SANDSTONE 30% SANDSTONE,FINE GRAINED	VERY FINE GRAINED, CARBONACEOUS, BLACK. GREY. THICKLY LAMINATED.
533.72	0.04	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, CREAM.
534.18	0.46	100		70% SANDSTONE 30% SANDSTONE,FINE GRAINED	VERY FINE GRAINED, CARBONACEOUS, BLACK. GREY.
				TOP OF DALMAYNE E2 :-168.48 M R.L.	
534.79	0.61	100		100% COAL, HEAVY DULL	
				BASE OF DALMAYNE E2 : THICKNESS= 0.61 M; SAMPLED THICKNESS= 0.00 M	
534.91	0.12	100		100% CARBONACEOUS MUDSTONE	BLACK, WITH CALCITE ON CLEAT.
535.47	0.56	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
536.39	0.92	100		100% SANDSTONE	VERY FINE GRAINED, GREY.
536.48	0.09	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY.
537.25	0.77	100		100% SANDSTONE	VERY FINE GRAINED, GREY.
538.70	1.45	100		100% SANDSTONE	VERY FINE GRAINED, BADLY BROKEN, GREY.
541.03	2.33	100		100% SANDSTONE	VERY FINE GRAINED, GREY.
541.11	0.08	100		100% MUDSTONE	BROWN, FIRM.
542.59	1.48	100		100% MUDSTONE	ARENACEOUS, DARK BROWN, MODERATELY WEAK ROCK.
542.94	0.35	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BLACK.
543.19	0.25	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY.
543.63	0.44	100		65% SANDSTONE,FINE GRAINED 35% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BLACK. LIGHT GREY. LAMINATED.
543.86	0.23	100		100% SANDSTONE,FINE GRAINED	GREY.
546.28	2.42	100		100% SANDSTONE	VERY FINE GRAINED, GREY, LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
546.80	0.52	100		100% SANDSTONE,MEDIUM GRAINED	FINE GRAINED SANDSTONE, BANDS, LIGHT GREY.
547.03	0.23	100		100% SANDSTONE	VERY FINE GRAINED, GREY.
547.11	0.08	100		100% SANDSTONE	VERY FINE GRAINED, GREY, LAMINATED.
547.97	0.86	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY.
548.07	0.10	100		100% SANDSTONE	VERY FINE GRAINED, PEBBLY, GREY.
548.54	0.47	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY.
548.89	0.35	100		100% CARBONACEOUS SHALE	ARENACEOUS, BLACK.
549.05	0.16	100		100% CARBONACEOUS SHALE	BLACK.
549.33	0.28	100		100% CARBONACEOUS MUDSTONE	ARENACEOUS, BANDS, BLACK.
549.39	0.06	100		100% COAL, DULL	
549.42	0.03	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BLACK.
549.44	0.02	100		100% MUDSTONE	BROWN.
549.60	0.16	100		100% COAL, HEAVY DULL	
549.65	0.05	100		100% MUDSTONE	BROWN, WITH DISTURBED BEDDING.
549.72	0.07	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
549.75	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
550.23	0.48	100		100% CARBONACEOUS MUDSTONE	BLACK.
550.60	0.37	100		60% SANDSTONE,MEDIUM GRAINED 40% SANDSTONE,FINE GRAINED	LIGHT GREY. CARBONACEOUS, BLACK. LAMINATED.
550.72	0.12	100		100% SANDSTONE	VERY FINE GRAINED, CARBONACEOUS, BLACK.
551.07	0.35	100		100% SANDSTONE,FINE GRAINED	GREY-BROWN.
551.23	0.16	100		100% SANDSTONE,MEDIUM GRAINED	GREY.
551.33	0.10	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, GREY.
551.42	0.09	100		100% SANDSTONE,FINE GRAINED	GREY, WITH PEBBLY QUARTZ.
552.05	0.63	100		100% MUDSTONE	GREY.
552.17	0.12	100		100% SANDSTONE	VERY FINE GRAINED, LIGHT GREY.
552.37	0.20	100		100% MUDSTONE	GREY.
552.48	0.11	100		100% SANDSTONE	VERY FINE GRAINED, GREY, WITH TROUGH CROSS BEDDING.
552.97	0.49	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY.
553.54	0.57	100		100% MUDSTONE	GREY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
553.72	0.18	100		50% SANDSTONE,MEDIUM GRAINED 40% SANDSTONE,FINE GRAINED 10% MUDSTONE	LIGHT GREY. GREY. DETRITAL. THICKLY LAMINATED, LAMINATED.
554.40	0.68	100		100% SANDSTONE	VERY FINE GRAINED, GREY.
554.89	0.49	100		100% MUDSTONE	GREY, LAMINATED.
555.11	0.22	100		100% SANDSTONE,MEDIUM GRAINED	GRADING TO, FINE GRAINED SANDSTONE, LIGHT GREY.
558.44	3.33	100		60% SANDSTONE,MEDIUM GRAINED 40% SANDSTONE	BADLY BROKEN, LIGHT GREY. VERY FINE GRAINED, CARBONACEOUS, BLACK. VERY THINLY BEDDED, LAMINATED.
558.51	0.07	100		100% SANDSTONE,MEDIUM GRAINED	CONGLOMERATIC, LIGHT GREY.
559.08	0.57	100		100% MUDSTONE	GREY.
559.22	0.14	100		100% CARBONACEOUS MUDSTONE	BLACK.
559.23	0.01	100		100% SANDSTONE,FINE GRAINED	GREY.
559.63	0.40	100		100% MUDSTONE	GREY.
559.70	0.07	100		100% CARBONACEOUS MUDSTONE	BLACK.
560.40	0.70	100		100% MUDSTONE	GREY.
560.53	0.13	100		100% CARBONACEOUS MUDSTONE	COALY, BANDS, BROWN.
560.89	0.36	100		100% SANDSTONE	MED.-FINE GRAINED, DARK BROWN, VERY THINLY BEDDED.
561.06	0.17	100		100% CARBONACEOUS MUDSTONE	BLACK.
561.20	0.14	100		100% MUDSTONE	LIGHT GREY, VERY WEAK ROCK.
561.39	0.19	100		100% CARBONACEOUS MUDSTONE	BADLY BROKEN, BLACK.
561.42	0.03	100		100% COAL, BRIGHT	BADLY BROKEN.
563.68	2.26	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, VERY THINLY BEDDED, WITH BURROWING.
564.50	0.82	100		100% MUDSTONE	GREY.
565.45	0.95	100		100% SANDSTONE,FINE GRAINED	GREY.
566.80	1.35	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY.
567.43	0.63	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, VERY THINLY BEDDED, WITH BURROWING.
568.26	0.83	100		100% MUDSTONE	GREY.
568.31	0.05	100		100% COAL, BRIGHT	
568.42	0.11	100		100% MUDSTONE	GREY.
569.40	0.98	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, WITH BURROWING.
569.50	0.10	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, DARK GREY.
569.68	0.18	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, LIGHT GREY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
570.61	0.93	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, WITH CARBONACEOUS WISPS.
570.93	0.32	100		100% MUDSTONE	DARK GREY.
571.04	0.11	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY.
571.98	0.94	100		100% MUDSTONE	GREY.
572.46	0.48	100		100% SANDSTONE,MEDIUM GRAINED	GRADING TO, COARSE GRAINED, LIGHT GREY.
572.52	0.06	100		100% CARBONACEOUS MUDSTONE	COALY, BANDS, DARK BROWN.
572.63	0.11	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, WITH POOR SORTING.
572.69	0.06	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BLACK.
573.09	0.40	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT BROWN, WITH POOR SORTING.
573.31	0.22	100		100% SANDSTONE,FINE GRAINED	DARK GREY.
581.38	8.07	100		100% SANDSTONE	MED.-COARSE GRAINED, CREAM, WITH CARBONACEOUS WISPS.
581.98	0.60	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY.
582.39	0.41	100		100% SANDSTONE,FINE GRAINED	GREY, LAMINATED.
586.58	4.19	100		100% SANDSTONE	MED.-COARSE GRAINED, CREAM.
589.02	2.44	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY.
594.50	5.48	100		100% MUDSTONE	DARK GREY, WITH PEBBLY QUARTZ.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	0.00 M	354.51 - 371.62 M	17.11 M
DC	0.00 M	394.10 - 395.83 M	1.73 M
DDU	0.00 M	451.95 - 452.37 M	0.42 M
DDL	4.87 M	473.84 - 479.34 M	5.50 M
DE2	0.00 M	534.18 - 534.79 M	0.61 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	473.84 - 475.17 M	1.33 M
2	475.17 - 475.33 M	0.16 M
3	475.33 - 477.03 M	1.70 M
4	477.66 - 478.12 M	0.46 M
5	478.12 - 479.34 M	1.22 M
6	479.34 - 479.59 M	0.25 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 27

HOLE TYPE	CORE
EASTING	597,989 M AM GRID
NORTHING	5,373,075 M AM GRID
ELEVATION	453.10 M
TOTAL DEPTH DRILLED	388.70 M
DRILLING STARTED	29/ 4/80
DRILLING TIME	
CORE SIZE	63.0 MM
HOLE SIZE	96.1 MM
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION
PETROPHYSICAL WIRELINE LOGS RUN :	

BOREHOLE : GY 27

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
6.85	6.85	80		60% DOLERITE 40% MUDSTONE	SCREE. FRAGMENTS.
7.80	0.95	100		100% MUDSTONE	GREY-GREEN, MODERATELY WEATHERED, WEAK ROCK, WITH MUD PELLETS.
11.69	3.89	100		100% MUDSTONE	CALCITIC, STREAKS, GREY-GREEN, MODERATELY WEATHERED, WEAK ROCK.
12.40	0.71	100		100% MUDSTONE	GREY-GREEN, WITH MUD PELLETS.
13.90	1.50	100		100% MUDSTONE	GREY-GREEN, COMPLETELY WEATHERED, VERY WEAK ROCK.
14.15	0.25	100		100% MUDSTONE	GREY-GREEN, MODERATELY WEATHERED, WEAK ROCK.
14.21	0.06	100		100% MUDSTONE	RED-BROWN, MODERATELY WEATHERED.
14.43	0.22	100		100% MUDSTONE	CALCITIC, STREAKS, GREY-GREEN, MODERATELY WEATHERED.
15.22	0.79	100		80% MUDSTONE 20% MUDSTONE	GREY-GREEN. RED-BROWN. MODERATELY WEATHERED.
16.84	1.62	100		100% MUDSTONE	CALCITIC, STREAKS, GREY-GREEN, MODERATELY WEATHERED, WITH MUD PELLETS.
16.94	0.10	100		100% MUDSTONE	RED-BROWN, MODERATELY WEATHERED.
17.53	0.59	100		100% MUDSTONE	CALCITIC, STREAKS, GREY-GREEN, MODERATELY WEATHERED, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, JOINTS DIP 35 DEG.
18.37	0.84	100		80% MUDSTONE 20% MUDSTONE	GREY-GREEN. RED-BROWN. MODERATELY WEATHERED.
18.41	0.04	100		100% MUDSTONE	CALCITIC, STREAKS, GREEN-BROWN, MODERATELY WEATHERED.
40.70	22.29	100		80% MUDSTONE 20% MUDSTONE	CALCITIC, STREAKS, GREY-GREEN. RED-BROWN. MODERATELY WEATHERED, WITH MUD PELLETS.
43.76	3.06	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY-GREEN, MODERATELY WEATHERED.
44.36	0.60	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, BANDS, BLACK, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
44.74	0.38	100		100% MUDSTONE	GREY, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
45.28	0.54	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
46.11	0.83	100		100% MUDSTONE	GREY, MODERATELY WEATHERED, MODERATELY STRONG ROCK.
46.64	0.53	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LENSES, LIGHT GREY, SLIGHTLY WEATHERED, STRONG ROCK.
47.13	0.49	100		100% SILTSTONE	GREY, MODERATELY WEATHERED, MODERATELY STRONG ROCK.
48.08	0.95	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
49.90	1.82	100		100% SANDSTONE	MED.-FINE GRAINED, CARBONACEOUS, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
50.15	0.25	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
50.21	0.06	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
50.82	0.61	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
50.90	0.08	100		100% MUDSTONE	GREY, MODERATELY WEATHERED, WEAK ROCK.
51.42	0.52	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
51.50	0.08	100		100% MUDSTONE	GREY, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
54.19	2.69	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
56.31	2.12	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, UNWEATHERED, STRONG ROCK.
58.17	1.86	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, DARK GREY, UNWEATHERED, STRONG ROCK.
58.75	0.58	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS.
59.00	0.25	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, STRONG ROCK.
59.26	0.26	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
61.51	2.25	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
61.66	0.15	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
63.01	1.35	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, COALY, BLACK, UNWEATHERED, STRONG ROCK.
65.81	2.80	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, DARK GREY, UNWEATHERED, STRONG ROCK.
67.70	1.89	100		100% CARBONACEOUS MUDSTONE	BLACK, WITH CALCITE ON CLEAT, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 20 DEG.
68.29	0.59	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
68.46	0.17	100		100% MUDSTONE	FOSSILIFERROUS, DARK GREY, MODERATELY WEAK ROCK.
68.87	0.41	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
70.40	1.53	100		100% SANDSTONE,FINE GRAINED	GRADING TO, CARBONACEOUS, LIGHT GREY, MODERATELY WEAK ROCK.
70.56	0.16	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
70.70	0.14	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
71.20	0.50	100		100% CARBONACEOUS MUDSTONE	BLACK, WITH CALCITE ON FRACTURES, MODERATELY WEAK ROCK.
71.34	0.14	100		100% MUDSTONE	GREY, WEAK ROCK.
71.71	0.37	100		100% MUDSTONE	DARK GREY, WITH CALCITE ON FRACTURES, MODERATELY WEAK ROCK.
74.23	2.52	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
74.85	0.62	100		100% SANDSTONE	MED.-FINE GRAINED, CARBONACEOUS, GREY, MODERATELY STRONG ROCK.
76.15	1.30	100		100% SANDSTONE	MED.-FINE GRAINED, CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
76.70	0.55	100		100% MUDSTONE	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
77.29	0.59	100		100% CARBONACEOUS MUDSTONE	ARENACEOUS, BANDS, BLACK, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
78.25	0.96	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
79.75	1.50	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
80.93	1.18	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
82.53	1.60	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, MODERATELY STRONG ROCK.
84.15	1.62	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, STRONG ROCK, WITH POOR SORTING.
85.18	1.03	100		100% SANDSTONE,MEDIUM GRAINED	GRADING TO, FINE GRAINED SANDSTONE, LIGHT GREY, STRONG ROCK.
85.64	0.46	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
89.36	3.72	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, STRONG ROCK.
89.82	0.46	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY STRONG ROCK.
90.89	1.07	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, STRONG ROCK.
97.77	6.88	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
98.16	0.39	100		100% SANDSTONE	VERY FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
98.40	0.24	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK, WITH POOR SORTING.
98.83	0.43	100		50% MUDSTONE 50% CARBONACEOUS MUDSTONE	BADLY BROKEN, DARK GREY. BADLY BROKEN, BLACK. MODERATELY WEAK ROCK.
98.92	0.09	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
99.04	0.12	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
99.09	0.05	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
99.31	0.22	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, LENSES, BLACK, MODERATELY WEAK ROCK.
99.53	0.22	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
99.62	0.09	100		100% MUDSTONE	PEBBLY, BROWN, WITH PEBBLY CHLORITE, MODERATELY WEAK ROCK.
100.33	0.71	100		100% MUDSTONE	GREY-GREEN, MODERATELY WEAK ROCK.
100.70	0.37	100		100% SANDSTONE,FINE GRAINED	PEBBLY, PINK-GREY, MODERATELY STRONG ROCK, WITH FLAME/PULL STRUCTS.
103.86	3.16	100		100% SANDSTONE,FINE GRAINED	CREAM, WITH TRACES OF SULPHIDES, MODERATELY STRONG ROCK, WITH FLAME/PULL STRUCTS.
104.85	0.99	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREEN, MODERATELY STRONG ROCK.
104.96	0.11	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
107.22	2.26	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY WEAK ROCK, WITH BURROWING.
107.50	0.28	100		100% CARBONACEOUS MUDSTONE	COALY, BANDS, BLACK, MODERATELY WEAK ROCK.
113.30	5.80	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY STRONG ROCK.
113.94	0.64	100		80% SANDSTONE,MEDIUM GRAINED 20% SANDSTONE,FINE GRAINED	LIGHT GREY. GREY. STRONG ROCK, BEDS DIP 6 DEG.
114.39	0.45	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK, WITH CARBONACEOUS WISPS.
115.15	0.76	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREEN, MODERATELY STRONG ROCK.
116.06	0.91	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, STRONG ROCK.
116.96	0.90	100		100% SANDSTONE	MED.-COARSE GRAINED, PEBBLY, LIGHT GREY, STRONG ROCK.
117.78	0.82	100		100% SANDSTONE,FINE GRAINED	BADLY BROKEN, PEBBLY, LIGHT GREY, MODERATELY STRONG ROCK.
118.14	0.36	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
119.77	1.63	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
120.35	0.58	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, STRONG ROCK.
122.98	2.63	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
129.02	6.04	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, STRONG ROCK.
129.21	0.19	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK.
129.28	0.07	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
129.43	0.15	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
130.56	1.13	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, STRONG ROCK.
131.63	1.07	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
133.80	2.17	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, STRONG ROCK.
134.47	0.67	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
134.68	0.21	100		100% COAL, INTERBANDED DULL AND BRIGHT	
134.74	0.06	100		100% MUDSTONE	DARK GREY, WEAK ROCK.
134.94	0.20	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
135.00	0.06	100		100% MUDSTONE	BROWN, VERY WEAK ROCK.
135.06	0.06	100		100% COAL, DULL	
135.29	0.23	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
135.39	0.10	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
135.42	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
135.49	0.07	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
136.56	1.07	100		100% SANDSTONE	MED.-FINE GRAINED, CREAM, MODERATELY STRONG ROCK.
137.17	0.61	100		100% SANDSTONE,MEDIUM GRAINED	CREAM, MODERATELY STRONG ROCK.
139.22	2.05	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
140.17	0.95	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
140.40	0.23	100		100% COAL, HEAVY DULL	MUDSTONE, BANDS.
140.44	0.04	100		100% MUDSTONE	BROWN, WEAK ROCK.
140.49	0.05	100		100% COAL, HEAVY DULL	MUDSTONE, BANDS.
140.60	0.11	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
140.68	0.08	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, LENSES, BLACK, MODERATELY WEAK ROCK.
140.78	0.10	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
140.85	0.07	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
140.88	0.03	100		100% CLAY	LIGHT BROWN, STIFF, RAPID SLAKING, NON STICKY.
141.02	0.14	100		100% COAL, HEAVY DULL	
141.05	0.03	100		100% MUDSTONE	GREY, WEAK ROCK.
141.07	0.02	100		100% SANDSTONE,FINE GRAINED	BROWN, MODERATELY STRONG ROCK.
141.24	0.17	100		100% COAL, HEAVY DULL	
141.28	0.04	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
142.78	1.50	100		100% SANDSTONE,FINE GRAINED	CREAM, MODERATELY STRONG ROCK.
143.00	0.22	100		100% SANDSTONE,FINE GRAINED	LIGHT BROWN, MODERATELY STRONG ROCK.
143.19	0.19	100		100% COAL, HEAVY DULL	
143.22	0.03	100		100% SANDSTONE,MEDIUM GRAINED	GREY-GREEN, MODERATELY WEAK ROCK.
143.53	0.31	100		100% COAL, HEAVY DULL	DULL COAL, BANDS.
143.61	0.08	100		100% SANDSTONE,MEDIUM GRAINED	BROWN, STRONG ROCK.
143.69	0.08	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
143.70	0.01	100		100% MUDSTONE	BROWN, WEAK ROCK.
143.75	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
143.79	0.04	100		100% MUDSTONE	COALY, FRAGMENTS, BROWN, MODERATELY WEAK ROCK.
143.87	0.08	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
143.97	0.10	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
144.01	0.04	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
144.16	0.15	100		100% COAL, DULL	
144.19	0.03	100		100% SANDSTONE,FINE GRAINED	LIGHT BROWN, MODERATELY WEAK ROCK.
144.23	0.04	100		100% COAL, HEAVY DULL	
144.29	0.06	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
145.26	0.97	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
145.33	0.07	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
145.37	0.04	100		100% COAL, HEAVY DULL	
145.99	0.62	100		100% COAL, INTERBANDED DULL AND BRIGHT	WITH CALCITE ON CLEAT.
146.02	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
146.07	0.05	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
146.12	0.05	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
146.62	0.50	100		100% SANDSTONE	VERY FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
146.75	0.13	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY STRONG ROCK.
146.98	0.23	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
147.11	0.13	100		100% CLAY	CREAM, STIFF, SLOW SLAKING, NON STICKY.
147.56	0.45	100		100% SANDSTONE	MED.-FINE GRAINED, CREAM, MODERATELY STRONG ROCK.
147.67	0.11	100		100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
147.93	0.26	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
148.03	0.10	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
148.07	0.04	100		100% SANDSTONE,MEDIUM GRAINED	BROWN, STRONG ROCK.
148.14	0.07	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
148.18	0.04	100		100% COAL, BRIGHT	
148.34	0.16	100		100% COAL, DULL	
148.53	0.19	100		100% COAL, HEAVY DULL	
148.61	0.08	100		100% MUDSTONE	GREY-GREEN, WITH ABUNDANT CALCITE, MODERATELY WEAK ROCK.
148.70	0.09	100		100% COAL, DULL	
148.79	0.09	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
149.10	0.31	100		100% COAL, BRIGHT WITH FEW DULL BANDS	BADLY BROKEN.
149.31	0.21	100		100% COAL, DULL	BADLY BROKEN.
153.13	3.82	100		100% SANDSTONE,FINE GRAINED	CREAM, MODERATELY STRONG ROCK.
153.37	0.24	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, THINLY LAMINATED.
153.62	0.25	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK, THINLY LAMINATED, LAMINATED, WITH TROUGH CROSS BEDDING.
158.78	5.16	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
159.32	0.54	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
159.54	0.22	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
159.58	0.04	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
159.84	0.26	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
159.88	0.04	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
160.02	0.14	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
160.83	0.81	100		100% SANDSTONE	VERY FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK, THICKLY LAMINATED.
161.01	0.18	100		100% COAL, HEAVY DULL	MUDSTONE, LENSES.
161.02	0.01	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
161.05	0.03	100		100% COAL, DULL	
161.07	0.02	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
161.16	0.09	100		100% COAL, HEAVY DULL	
161.57	0.41	100		100% SANDSTONE,FINE GRAINED	ARGILLACEOUS, BANDS, LIGHT BROWN, MODERATELY STRONG ROCK, NON STICKY.
162.19	0.62	100		100% CARBONACEOUS MUDSTONE	COALY, LENSES, BROWN, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
162.45	0.26	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
163.83	1.38	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
170.70	6.87	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
174.24	3.54	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
174.66	0.42	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
175.02	0.36	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
175.34	0.32	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, PEBBLY, LIGHT GREY, STRONG ROCK.
175.88	0.54	100		100% SANDSTONE	VERY FINE GRAINED, LIGHT GREY, STRONG ROCK.
176.04	0.16	100		70% SANDSTONE,MEDIUM GRAINED 30% MUDSTONE	LIGHT GREY. PELLETAL, GREY. STRONG ROCK.
178.90	2.86	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
178.98	0.08	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
179.40	0.42	100		100% MUDSTONE	BROWN, WEAK ROCK.
179.48	0.08	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
179.78	0.30	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, LAMINAE, BLACK, MODERATELY STRONG ROCK, WITH DISTURBED BEDDING.
179.97	0.19	100		100% COAL, HEAVY DULL	
180.19	0.22	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
180.22	0.03	100		100% MUDSTONE	GREY, WITH GRANULAR CALCITE, MODERATELY WEAK ROCK.
180.35	0.13	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
180.72	0.37	100		100% CARBONACEOUS SHALE	MUDSTONE, PEBBLY, BLACK, WEAK ROCK.
180.80	0.08	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, STRONG ROCK.
180.88	0.08	100		100% COAL, HEAVY DULL	
180.92	0.04	100		100% CARBONACEOUS SHALE	MUDSTONE, PEBBLY, BLACK, MODERATELY STRONG ROCK.
181.03	0.11	100		100% MUDSTONE	COALY, BANDS, GREY-BROWN, MODERATELY WEAK ROCK.
181.16	0.13	100		100% CARBONACEOUS SHALE	BLACK, MODERATELY STRONG ROCK.
181.20	0.04	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
181.23	0.03	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
181.44	0.21	100		100% COAL, INTERBANDED DULL AND BRIGHT	WITH CALCITE ON CLEAT.
181.65	0.21	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
183.19	1.54	100		50% SANDSTONE 50% SANDSTONE,FINE GRAINED	MED.-FINE GRAINED, LIGHT GREY. LIGHT GREY. STRONG ROCK, VERY THINLY BEDDED, WITH DISTURBED BEDDING.
183.97	0.78	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
184.24	0.27	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY STRONG ROCK.
184.51	0.27	100		100% COAL, DULL	MUDSTONE, PEBBLY.
184.79	0.28	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	WITH CALCITE ON CLEAT.
185.01	0.22	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
185.32	0.31	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
185.85	0.53	100		50% CARBONACEOUS MUDSTONE 50% MUDSTONE	MUDSTONE, PEBBLY, BLACK. GREY. MODERATELY WEAK ROCK, VERY THINLY BEDDED.
185.96	0.11	100		100% COAL, HEAVY DULL	
186.05	0.09	100		100% SANDSTONE	VERY FINE GRAINED, LIGHT GREY.
186.16	0.11	100		100% COAL, HEAVY DULL	
186.25	0.09	100		100% SANDSTONE,MEDIUM GRAINED	DARK GREY, MODERATELY STRONG ROCK, WITH POOR SORTING.
186.29	0.04	100		100% SANDSTONE	MED.-COARSE GRAINED, GREY, STRONG ROCK, WITH POOR SORTING.
186.41	0.12	100		100% COAL, HEAVY DULL	MUDSTONE, BANDS.
186.44	0.03	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
186.48	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK, WITH MUD PELLETS.
186.59	0.11	100		100% MUDSTONE	BUFF, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
186.65	0.06	100		100% CARBONACEOUS MUDSTONE	BLACK, FIRM.
186.88	0.23	100		100% COAL, HEAVY DULL	
186.99	0.11	100		100% MUDSTONE	CREAM, SOFT.
187.06	0.07	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
188.25	1.19	100		100% MUDSTONE	COALY, FRAGMENTS, GREY, MODERATELY WEAK ROCK.
189.40	1.15	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
197.44	8.04	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
197.76	0.32	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH DISTURBED BEDDING, WITH FLAME/PULL STRUCTS.
198.50	0.74	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, PEBBLY, LIGHT GREY, STRONG ROCK.
206.11	7.61	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
206.34	0.23	100		100% SANDSTONE,COARSE GRAINED	MUDSTONE, PEBBLY, LIGHT GREY, STRONG ROCK.
206.55	0.21	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK, LAMINATED.
208.20	1.65	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY.
208.71	0.51	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY.
208.74	0.03	100		100% SANDSTONE,FINE GRAINED	GREY.
210.31	1.57	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY.
210.37	0.06	100		100% PEBBLE CONGLOMERATE	MUDSTONE, PEBBLY, LIGHT GREY.
211.85	1.48	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY.
212.13	0.28	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY.
212.26	0.13	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY.
212.47	0.21	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY.
				TOP OF DALMAYNE B : 240.63 M R.L.	
212.68	0.21	100		100% MUDSTONE	COALY, LENSES, GREY, WITH DISTURBED BEDDING.
212.81	0.13	100		100% COAL, HEAVY DULL	TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
213.02	0.21	100		100% MUDSTONE	GREY.
213.23	0.21	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, LENSES, BLACK.
213.62	0.39	100		100% MUDSTONE	GREY.
213.69	0.07	100		100% SANDSTONE,FINE GRAINED	LIGHT BROWN, MODERATELY STRONG ROCK.
213.93	0.24	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY STRONG ROCK.
214.03	0.10	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
214.11	0.08	100		100% CLAYSTONE	LIGHT BROWN, VERY WEAK ROCK.
214.14	0.03	100		100% SANDSTONE,FINE GRAINED	BROWN, VERY WEAK ROCK.
214.17	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, WITH PLANT REMAINS.
214.19	0.02	100		100% CLAYSTONE	LIGHT BROWN.
214.29	0.10	100		100% COAL, HEAVY DULL	
214.70	0.41	100		100% MUDSTONE	PEBBLY, BROWN.
214.80	0.10	100		100% CLAYSTONE	LIGHT BROWN.
215.06	0.26	100		50% CLAYSTONE 50% CARBONACEOUS SHALE	LIGHT BROWN. BLACK.
215.22	0.16	100		100% CARBONACEOUS SHALE	BLACK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
215.27	0.05	100		100% MUDSTONE	LIGHT BROWN.
215.48	0.21	100		100% MUDSTONE	CARBONACEOUS, INTERCALATIONS, LIGHT BROWN, WITH DISTURBED BEDDING.
215.58	0.10	100		100% CARBONACEOUS SHALE	BLACK.
215.63	0.05	100		100% CLAYSTONE	CREAM, WITH ABUNDANT CALCITE.
215.84	0.21	100		100% CARBONACEOUS SHALE	CLAYSTONE, BANDS, BLACK.
215.89	0.05	100		100% CLAYSTONE	LIGHT BROWN.
216.28	0.39	100		100% CARBONACEOUS SHALE	ARGILLACEOUS, BANDS, BLACK.
216.60	0.32	100		100% CARBONACEOUS SHALE	BLACK.
216.85	0.25	100		100% MUDSTONE	CREAM, WITH GRANULAR CALCITE.
217.37	0.52	100		100% CARBONACEOUS MUDSTONE	BLACK.
217.95	0.58	100		100% CARBONACEOUS MUDSTONE	ARENACEOUS, LENSES, BLACK.
218.27	0.32	100		100% TUFF	WHITE.
219.28	1.01	100		100% CARBONACEOUS MUDSTONE	ARENACEOUS, BANDS, BLACK.
220.56	1.28	100		85% SANDSTONE 15% SANDSTONE,MEDIUM GRAINED	VERY FINE GRAINED, LIGHT GREY. LIGHT GREY.
221.19	0.63	100		100% MUDSTONE	GREY.
221.33	0.14	100		100% CLAY	CREAM, FIRM, RAPID SLAKING, VERY STICKY.
221.85	0.52	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
224.99	3.14	100		60% SANDSTONE,FINE GRAINED 40% SANDSTONE,MEDIUM GRAINED	GREY. LIGHT GREY. MODERATELY STRONG ROCK, THICKLY LAMINATED, WITH TROUGH CROSS BEDDING, LAMINATED.
227.97	2.98	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK, WITH CARBONACEOUS WISPS.
228.10	0.13	100		100% MUDSTONE	COALY, FRAGMENTS, GREY, MODERATELY WEAK ROCK.
228.24	0.14	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
228.25	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
228.39	0.14	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
228.42	0.03	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
228.77	0.35	100		100% COAL, DULL	
228.81	0.04	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
228.85	0.04	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
229.44	0.59	100		100% MUDSTONE	CARBONACEOUS, LENSES, GREY, MODERATELY WEAK ROCK.
229.48	0.04	100		100% COAL, DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
				BASE OF DALMAYNE B : THICKNESS= 17.01 M; SAMPLED THICKNESS= 0.00 M	
232.25	2.77	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
234.69	2.44	100		70% SANDSTONE,FINE GRAINED 30% MUDSTONE	LIGHT GREY. GREY. MODERATELY STRONG ROCK, THICKLY LAMINATED.
237.77	3.08	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
245.90	8.13	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
251.20	5.30	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
251.63	0.43	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, STRONG ROCK.
254.53	2.90	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
255.77	1.24	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK, WITH CARBONACEOUS WISPS.
				TOP OF DALMAYNE C : 197.33 M R.L.	
255.88	0.11	100		100% COAL, DULL	
255.98	0.10	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
256.10	0.12	100		100% COAL, DULL	
256.12	0.02	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
256.76	0.64	100		100% COAL, HEAVY DULL	BADLY BROKEN.
256.79	0.03	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
256.90	0.11	100		100% COAL, HEAVY DULL	BADLY BROKEN.
257.15	0.25	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
				BASE OF DALMAYNE C : THICKNESS= 1.38 M; SAMPLED THICKNESS= 0.00 M	
257.36	0.21	100		100% CLAY	CREAM, FIRM, SLOW SLAKING, VERY STICKY.
257.53	0.17	100		100% MUDSTONE	DARK GREY, MODERATELY STRONG ROCK.
257.63	0.10	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
257.70	0.07	100		100% MUDSTONE	LIGHT GREY, MODERATELY STRONG ROCK.
263.17	5.47	100		100% MUDSTONE	GREY, WITH PLANT REMAINS.
267.10	3.93	100		80% SANDSTONE 20% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. GREY. MODERATELY STRONG ROCK, THINLY BEDDED, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
267.30	0.20	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
270.58	3.28	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
270.91	0.33	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
271.16	0.25	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
271.43	0.27	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, STRONG ROCK.
272.93	1.50	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
273.76	0.83	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
276.55	2.79	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
276.83	0.28	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
279.56	2.73	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
281.25	1.69	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
281.91	0.66	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
293.88	11.97	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
294.20	0.32	100		100% PEBBLE CONGLOMERATE	GREY, STRONG ROCK.
298.20	4.00	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
305.14	6.94	100		100% SANDSTONE	MED.-FINE GRAINED, COALY, LIGHT GREY, VERY STRONG ROCK.
305.54	0.40	100		100% SANDSTONE	MED.-FINE GRAINED, COALY, LIGHT GREY, VERY STRONG ROCK, WITH MUD PELLETS.
			TOP OF : 147.56 M R.L.		
305.74	0.20	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, MODERATELY STRONG ROCK.
			BASE OF : THICKNESS= 0.20 M; SAMPLED THICKNESS= 0.00 M		
306.02	0.28	100		100% SANDSTONE	MED.-FINE GRAINED, CARBONACEOUS, LIGHT GREY, VERY STRONG ROCK, WITH MUD PELLETS.
308.26	2.24	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, VERY STRONG ROCK.
308.79	0.53	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, VERY STRONG ROCK.
309.75	0.96	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, VERY STRONG ROCK.
310.38	0.63	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, VERY STRONG ROCK.
313.39	3.01	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, VERY STRONG ROCK.
313.75	0.36	100		100% SANDSTONE,COARSE GRAINED	COALY, FRAGMENTS, LIGHY GREY, VERY STRONG ROCK, WITH MUD PELLETS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
313.90	0.15	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
313.95	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
314.19	0.24	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
314.32	0.13	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, VERY STRONG ROCK, WITH MUD PELLETS.
314.66	0.34	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, VERY STRONG ROCK.
315.94	1.28	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, VERY STRONG ROCK.
319.52	3.58	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, VERY STRONG ROCK.
321.94	2.42	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, VERY STRONG ROCK.
322.47	0.53	100		100% MUDSTONE	COALY, FRAGMENTS, GREY, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
				TOP OF DALMAYNE D UPPER : 130.63 M R.L.	
322.65	0.18	100		100% COAL, HEAVY DULL	
322.76	0.11	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
323.07	0.31	100		100% COAL, DULL WITH FEW BRIGHT BANDS	WITH CALCITE ON FRACTURES.
				BASE OF DALMAYNE D UPPER : THICKNESS= 0.60 M; SAMPLED THICKNESS= 0.00 M	
323.86	0.79	100		100% MUDSTONE	BRIGHT COAL, BANDS, GREY, MODERATELY STRONG ROCK.
326.60	2.74	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK.
326.96	0.36	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY STRONG ROCK.
327.52	0.56	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK.
328.47	0.95	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, VERY STRONG ROCK.
329.67	1.20	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, VERY STRONG ROCK.
331.88	2.21	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, LIGHT GREY, VERY STRONG ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS.
334.90	3.02	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, VERY STRONG ROCK.
335.14	0.24	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, LIGHT GREY, VERY STRONG ROCK, WITH MUD PELLETS.
339.74	4.60	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, VERY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
340.70	0.96	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, VERY STRONG ROCK.
341.34	0.64	100		100% SANDSTONE,COARSE GRAINED	COALY, FRAGMENTS, LIGHT GREY, VERY STRONG ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS.
342.72	1.38	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, LIGHT GREY, VERY STRONG ROCK.
342.88	0.16	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK.
343.26	0.38	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, LIGHT GREY, VERY STRONG ROCK.
343.70	0.44	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
347.16	3.46	100		100% SANDSTONE	MED.-FINE GRAINED, CARBONACEOUS, LIGHT GREY, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
				TOP OF DALMAYNE D LOWER : 105.94 M R.L.	
347.23	0.07	100	1	100% COAL, BRIGHT	
347.63	0.40	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	
347.66	0.03	100	1	100% CLAY	PELLETAL, CREAM, STRONG ROCK, NON SLAKING, NON STICKY.
347.96	0.30	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	ARGILLACEOUS, LENSES.
348.55	0.59	100	1	100% COAL, DULL	WITH LENSES OF KAOLINITE, WIDELY SPACED JOINTS, JOINTS DIP 90 DEG.
348.56	0.01	100	1	100% KAOLINITE	CRYSTALINE, PELLETAL, DARK GREY, NON SLAKING, NON STICKY.
348.57	0.01	100	1	100% COAL, BRIGHT	
349.19	0.62	100	1	100% COAL, DULL	
349.65	0.46	100	2	100% COAL, INTERBANDED DULL AND BRIGHT	
349.70	0.05	100	2	100% COAL, BRIGHT	
349.98	0.28	100	2	100% COAL, DULL WITH FEW BRIGHT BANDS	
350.00	0.02	100	2	100% CLAY	LENSES.
350.08	0.08	100	2	100% COAL, DULL WITH FEW BRIGHT BANDS	
350.11	0.03	100	2	100% CARBONACEOUS MUDSTONE	FRIABLE, BLACK.
350.19	0.08	100	2	100% COAL, DULL WITH FEW BRIGHT BANDS	
350.65	0.46	100	2	100% COAL, DULL	
350.66	0.01	100	2	100% MUDSTONE	
350.72	0.06	100	2	100% COAL, DULL WITH FEW BRIGHT BANDS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
350.74	0.02	100	2	100% COAL, BRIGHT	
350.89	0.15	100	2	100% COAL, BRIGHT	
350.91	0.02	100	2	100% MUDSTONE	
350.96	0.05	100	2	100% COAL, BRIGHT WITH FEW DULL BANDS	
351.00	0.04	100	2	100% COAL, HEAVY DULL	
351.16	0.16	100	2	100% COAL, BRIGHT WITH FEW DULL BANDS	
				BASE OF DALMAYNE D LOWER : THICKNESS= 4.00 M; SAMPLED THICKNESS= 4.00 M	
351.20	0.04	100		100% MUDSTONE	BRIGHT COAL, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
351.30	0.10	100		100% MUDSTONE	COALY, FRAGMENTS, GREY, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
351.38	0.08	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
351.80	0.42	100		50% SANDSTONE,MEDIUM GRAINED 50% SANDSTONE,FINE GRAINED	GREY. GREY. MODERATELY WEAK ROCK.
351.81	0.01	100		100% COAL, BRIGHT	PYRITIC, LENSES.
352.50	0.69	100		100% SANDSTONE,FINE GRAINED	COALY, STREAKS, LIGHT GREY, WITH CARBONACEOUS WISPS.
352.70	0.20	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
353.07	0.37	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, VERY STRONG ROCK.
354.32	1.25	100		100% SANDSTONE,FINE GRAINED	GREY-BROWN, VERY STRONG ROCK.
354.66	0.34	100		100% SANDSTONE	MED.-FINE GRAINED, COALY, LIGHT GREY, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
355.88	1.22	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
356.17	0.29	100		100% CARBONACEOUS MUDSTONE	COALY, FRAGMENTS, BLACK, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
356.24	0.07	100		100% CARBONACEOUS MUDSTONE	BROWN, COMPLETELY WEATHERED, VERY WEAK ROCK.
356.37	0.13	100		100% COAL, DULL	
356.46	0.09	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
358.70	2.24	100		75% MUDSTONE 25% SANDSTONE,FINE GRAINED	GREY. GREY. MODERATELY STRONG ROCK, WITH PLANT REMAINS, WIDELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 25 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
359.49	0.79	100		75% SANDSTONE,FINE GRAINED 25% MUDSTONE	COALY, STREAKS, LIGHT GREY. GREY. VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
361.04	1.55	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LAMINAE, LIGHT GREY, VERY STRONG ROCK.
361.18	0.14	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, VERY STRONG ROCK.
361.70	0.52	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, VERY STRONG ROCK.
365.47	3.77	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, VERY STRONG ROCK.
365.77	0.30	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, VERY STRONG ROCK, WITH MUD PELLETS.
366.17	0.40	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, VERY STRONG ROCK.
366.46	0.29	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, VERY STRONG ROCK, WITH MUD PELLETS.
367.14	0.68	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, VERY STRONG ROCK.
367.47	0.33	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, VERY STRONG ROCK.
367.70	0.23	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
370.39	2.69	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, LIGHT GREY, VERY STRONG ROCK, WITH MUD PELLETS.
370.74	0.35	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, VERY STRONG ROCK.
371.67	0.93	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, VERY STRONG ROCK, WITH MUD PELLETS.
372.08	0.41	100		100% SANDSTONE	MED.-FINE GRAINED, CARBONACEOUS, LIGHT GREY, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
374.09	2.01	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, VERY STRONG ROCK.
374.27	0.18	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, LIGHT GREY, VERY STRONG ROCK, WITH MUD PELLETS.
375.87	1.60	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, VERY STRONG ROCK.
376.23	0.36	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, VERY STRONG ROCK.
379.03	2.80	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, VERY STRONG ROCK.
379.24	0.21	100		100% SANDSTONE,FINE GRAINED	COALY, LAMINAE, LIGHT GREY, VERY STRONG ROCK.
379.78	0.54	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, LIGHT GREY, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
380.73	0.95	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, VERY STRONG ROCK.
380.86	0.13	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, VERY STRONG ROCK.
381.44	0.58	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, VERY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
381.62	0.18	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
388.02	6.40	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, VERY STRONG ROCK.
388.22	0.20	100		100% CARBONACEOUS MUDSTONE	BRIGHT COAL, BANDS, BLACK, WITH LENSES OF PYRITE, MODERATELY STRONG ROCK.
388.62	0.40	100		75% SANDSTONE,FINE GRAINED 25% MUDSTONE	CARBONACEOUS, LIGHT GREY. GREY. VERY STRONG ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 20 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES.
388.70	0.08	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, VERY STRONG ROCK.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	0.00 M	212.47 - 229.48 M	17.01 M
DC	0.00 M	255.77 - 257.15 M	1.38 M
DC1	0.00 M	305.54 - 305.74 M	0.20 M
DDU	0.00 M	322.47 - 323.07 M	0.60 M
DDL	4.00 M	347.16 - 351.16 M	4.00 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	347.16 - 349.19 M	2.03 M
2	349.19 - 351.16 M	1.97 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 29

HOLE TYPE	CORE
EASTING	599,018 M AM GRID
NORTHING	5,371,168 M AM GRID
ELEVATION	382.70 M
TOTAL DEPTH DRILLED	430.80 M
DRILLING STARTED	16/ 5/80
DRILLING TIME	
CORE SIZE	61.1 MM
HOLE SIZE	96.1 MM
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : GY 29

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
16.00	16.00	85		100% DOLERITE	SCREE, GREY-GREEN, HIGHLY WEATHERED, STRONG ROCK.
40.80	24.80	95		100% DOLERITE	MED.-COARSE GRAINED, GREY-GREEN, HIGHLY WEATHERED, VERY STRONG ROCK, WIDELY SPACED JOINTS, DISCONTINUITIES INFILLED WITH SOIL (>1.
41.67	0.87	100		100% DOLERITE	MED.-COARSE GRAINED, GREY-GREEN, UNWEATHERED, VERY STRONG ROCK.
79.74	38.07	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
83.66	3.92	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
85.37	1.71	100		80% SANDSTONE,COARSE GRAINED 20% MUDSTONE	COALY, FRAGMENTS, LIGHT GREY. PEBBLY, ROUNDED, GREY. UNWEATHERED, STRONG ROCK.
85.72	0.35	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
87.46	1.74	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
87.73	0.27	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, LAMINAE, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
88.44	0.71	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
88.74	0.30	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, UNWEATHERED, STRONG ROCK.
89.71	0.97	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
89.97	0.26	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
92.41	2.44	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK, LAMINATED, WITH CARBONACEOUS WISPS.
94.72	2.31	100		95% SANDSTONE 5% COAL	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS. UNWEATHERED, STRONG ROCK.
94.95	0.23	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
95.26	0.31	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, STREAKS, GREY, UNWEATHERED, MODERATELY STRONG ROCK.
95.38	0.12	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
95.59	0.21	100		100% SANDSTONE,MEDIUM GRAINED	GREY, UNWEATHERED, STRONG ROCK.
95.87	0.28	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
95.93	0.06	100		100% MUDSTONE	ARENACEOUS, LENSES, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
96.00	0.07	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
96.07	0.07	100		100% CLAY	GREY-BROWN, UNWEATHERED, FIRM, RAPID SLAKING, MODERATELY STICKY.
96.13	0.06	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
96.15	0.02	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
96.52	0.37	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
96.79	0.27	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
96.87	0.08	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
96.99	0.12	100		100% SANDSTONE,FINE GRAINED	CALCITIC, CREAM, UNWEATHERED, MODERATELY STRONG ROCK.
97.08	0.09	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
97.16	0.08	100		100% SANDSTONE,FINE GRAINED	CALCITIC, WHITE, UNWEATHERED, STRONG ROCK.
97.28	0.12	100		100% COAL, DULL	
97.34	0.06	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
97.45	0.11	100		100% COAL, INTERBANDED DULL AND BRIGHT	
97.53	0.08	100		100% SANDSTONE	MED.-FINE GRAINED, BROWN, UNWEATHERED, STRONG ROCK.
97.60	0.07	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
97.80	0.20	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
97.84	0.04	100		100% COAL, DULL	UNWEATHERED.
97.94	0.10	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
98.08	0.14	100		100% COAL, DULL	UNWEATHERED.
98.13	0.05	100		100% SANDSTONE	VERY FINE-GRAINED, GREY, UNWEATHERED, MODERATELY STRONG ROCK.
98.68	0.55	100		100% COAL, DULL WITH FEW BRIGHT BANDS	WITH CALCITE ON CLEAT, UNWEATHERED.
98.70	0.02	100		100% MUDSTONE	COALY, BANDS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
98.83	0.13	100		100% COAL, DULL	WITH CALCITE ON CLEAT, UNWEATHERED.
99.08	0.25	100		100% SANDSTONE	VERY FINE GRAINED, CALCITIC, BUFF, UNWEATHERED, MODERATELY STRONG ROCK.
99.19	0.11	100		100% COAL, DULL	UNWEATHERED.
99.55	0.36	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
99.61	0.06	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
99.78	0.17	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
99.85	0.07	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
99.90	0.05	100		100% COAL, DULL	UNWEATHERED.
99.91	0.01	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
100.17	0.26	100		100% COAL, BRIGHT	UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
100.27	0.10	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
100.35	0.08	100		100% SANDSTONE,FINE GRAINED	LIGHT BROWN, UNWEATHERED, STRONG ROCK.
100.45	0.10	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	UNWEATHERED.
100.47	0.02	100		100% SANDSTONE,FINE GRAINED	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
100.50	0.03	100		100% COAL, BRIGHT WITH FEW DULL BANDS	UNWEATHERED.
100.72	0.22	100		100% COAL, BRIGHT	UNWEATHERED.
100.74	0.02	100		100% COAL, DULL	UNWEATHERED.
100.76	0.02	100		100% MUDSTONE	BRIGHT COAL, BANDS, LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
100.80	0.04	100		100% COAL, DULL	MUDSTONE, BANDS, UNWEATHERED.
100.85	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
101.14	0.29	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
101.17	0.03	100		100% COAL, DULL	UNWEATHERED.
101.21	0.04	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, WEAK ROCK.
101.25	0.04	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
101.29	0.04	100		100% MUDSTONE	BUFF, UNWEATHERED, MODERATELY WEAK ROCK.
101.34	0.05	100		100% COAL, DULL	UNWEATHERED.
101.40	0.06	100		100% SANDSTONE,FINE GRAINED	LIGHT BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
101.56	0.16	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	UNWEATHERED.
102.94	1.38	100		100% SANDSTONE,FINE GRAINED	LIGHT BROWN, WITH DETRITAL BIOTITE, UNWEATHERED, STRONG ROCK.
104.08	1.14	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
104.38	0.30	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
105.07	0.69	100		100% COAL, BRIGHT WITH FEW DULL BANDS	BADLY BROKEN, UNWEATHERED.
105.24	0.17	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY STRONG ROCK.
105.95	0.71	100		100% SANDSTONE	MED.-FINE GRAINED, KAOLINITIC, LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
106.00	0.05	100		100% SANDSTONE,MEDIUM GRAINED	BROWN, UNWEATHERED, STRONG ROCK.
106.21	0.21	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BLACK, UNWEATHERED, STRONG ROCK.
106.28	0.07	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
106.45	0.17	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
106.71	0.26	100		100% COAL, BRIGHT	UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
106.90	0.19	100		100% COAL, DULL	UNWEATHERED.
107.05	0.15	100		100% SANDSTONE	MED.-FINE GRAINED, KAOLINITIC, LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
107.16	0.11	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
107.69	0.53	100		100% COAL, BRIGHT WITH FEW DULL BANDS	BADLY BROKEN, UNWEATHERED.
108.02	0.33	100		100% SANDSTONE,FINE GRAINED	LIGHT BROWN, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
109.11	1.09	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
109.43	0.32	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
109.68	0.25	100		100% MUDSTONE	COALY, FRAGMENTS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
115.63	5.95	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
115.70	0.07	100		100% SANDSTONE,MEDIUM GRAINED	CALCITIC, BROWN, UNWEATHERED, STRONG ROCK.
115.75	0.05	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	UNWEATHERED.
115.85	0.10	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
116.48	0.63	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK, LAMINATED.
116.82	0.34	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
117.41	0.59	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
117.62	0.21	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
118.15	0.53	100		100% SANDSTONE,FINE GRAINED	KAOLINITIC, CALCITIC, BUFF, UNWEATHERED, MODERATELY WEAK ROCK.
118.18	0.03	100		100% CLAY	BUFF, UNWEATHERED, SOFT, VERY STICKY.
118.31	0.13	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
118.35	0.04	100		100% CLAY	CALCITIC, BUFF, UNWEATHERED, FIRM, VERY STICKY.
118.49	0.14	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
118.54	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
118.99	0.45	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
119.07	0.08	100		100% COAL, DULL	UNWEATHERED.
119.11	0.04	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
119.14	0.03	100		100% COAL, DULL	UNWEATHERED.
119.16	0.02	100		100% SANDSTONE,MEDIUM GRAINED	CALCITIC, LIGHT GREEN, UNWEATHERED, MODERATELY STRONG ROCK.
119.29	0.13	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
119.68	0.39	100		100% SANDSTONE,MEDIUM GRAINED	KAOLINITIC, GREEN, UNWEATHERED, MODERATELY WEAK ROCK.
119.96	0.28	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
120.01	0.05	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
120.35	0.34	100		100% COAL, HEAVY DULL	MUDSTONE, BANDS, UNWEATHERED.
120.74	0.39	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
122.18	1.44	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
123.04	0.86	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
128.61	5.57	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
132.70	4.09	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
132.77	0.07	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
132.95	0.18	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BLACK, UNWEATHERED, STRONG ROCK.
133.07	0.12	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREEN, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
133.24	0.17	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BLACK, UNWEATHERED, STRONG ROCK.
133.39	0.15	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
133.59	0.20	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BLACK, UNWEATHERED, STRONG ROCK.
133.76	0.17	100		100% MUDSTONE	COALY, FRAGMENTS, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
133.85	0.09	100		100% COAL, DULL	UNWEATHERED.
133.95	0.10	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREEN, UNWEATHERED, MODERATELY STRONG ROCK.
134.08	0.13	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
134.31	0.23	100		100% COAL, INTERBANDED DULL AND BRIGHT	UNWEATHERED.
134.46	0.15	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
134.63	0.17	100		100% COAL, INTERBANDED DULL AND BRIGHT	UNWEATHERED.
134.71	0.08	100		100% COAL, BRIGHT	UNWEATHERED.
135.17	0.46	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
139.00	3.83	100		85% SANDSTONE 15% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. GREY. UNWEATHERED, MODERATELY STRONG ROCK, THICKLY LAMINATED.
139.91	0.91	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
140.08	0.17	100		100% COAL, DULL	UNWEATHERED, WITH FLAME/PULL STRUCTS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
140.16	0.08	100		100% SANDSTONE,MEDIUM GRAINED	DARK GREY, UNWEATHERED, MODERATELY STRONG ROCK.
140.24	0.08	100		100% COAL, DULL	UNWEATHERED.
140.39	0.15	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BLACK, UNWEATHERED, STRONG ROCK.
140.62	0.23	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
140.77	0.15	100		100% SANDSTONE,MEDIUN GRAINED	LIGHT GREEN, MODERATELY STRONG ROCK.
140.92	0.15	100		100% COAL, HEAVY DULL	
141.28	0.36	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
141.85	0.57	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK, LAMINATED.
142.14	0.29	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREEN, MODERATELY WEAK ROCK.
142.41	0.27	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
142.54	0.13	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
144.26	1.72	100		90% MUDSTONE 10% SANDSTONE,MEDIUM GRAINED	GREY. LIGHT GREY. MODERATELY WEAK ROCK, VERY THINLY BEDDED, LAMINATED.
150.80	6.54	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
151.74	0.94	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
151.80	0.06	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
152.32	0.52	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
152.52	0.20	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
153.27	0.75	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY STRONG ROCK, LAMINATED, WITH DISTURBED BEDDING.
154.76	1.49	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
156.64	1.88	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
156.74	0.10	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK, WITH CARBONACEOUS WISPS.
158.26	1.52	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
158.49	0.23	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK, LAMINATED.
159.25	0.76	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
159.56	0.31	100		65% SANDSTONE,MEDIUM GRAINED 35% SANDSTONE,FINE GRAINED	LIGHT GREY. GREY. STRONG ROCK, VERY THINLY BEDDED, WITH MUD PELLETS, WITH TROUGH CROSS BEDDING.
160.16	0.60	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
160.35	0.19	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, WITH CALCITE ON FRACTURES, STRONG ROCK, WITH CARBONACEOUS WISPS, LAMINATED.
161.50	1.15	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
161.70	0.20	100		100% SANDSTONE,FINE GRAINED	MEDIUM GRAINED, BANDS, GREY, STRONG ROCK.
162.09	0.39	100		80% SANDSTONE,MEDIUM GRAINED 20% MUDSTONE	LIGHT GREY. LENSES, GREY. STRONG ROCK.
162.29	0.20	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
162.54	0.25	100		85% SANDSTONE 15% SANDSTONE,MEDIUM GRAINED	VERY FINE GRAINED, GREY. BANDS, LIGHT GREY. MODERATELY STRONG ROCK.
163.27	0.73	100		90% SANDSTONE 10% SANDSTONE,FINE GRAINED	MED.-FINE GRAINED, LIGHT GREY. GREY. STRONG ROCK, WITH CARBONACEOUS WISPS.
163.52	0.25	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
163.98	0.46	100		50% SANDSTONE 50% SANDSTONE,FINE GRAINED	MED.-FINE GRAINED, LIGHT GREY. GREY. STRONG ROCK, VERY THINLY BEDDED, LAMINATED.
164.98	1.00	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
165.77	0.79	100		85% SANDSTONE,COARSE GRAINED 15% MUDSTONE	COALY, FRAGMENTS, LIGHT GREY. PEBBLY, GREY. STRONG ROCK, WITH PEBBLE LINEATION.
				TOP OF DALMAYNE B : 216.93 M.R.L.	
165.98	0.21	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	WITH CALCITE ON CLEAT.
166.16	0.18	100		100% MUDSTONE	COALY, FRAGMENTS, LIGHT GREY, MODERATELY WEAK ROCK.
166.20	0.04	100		100% COAL, BRIGHT	UNWEATHERED.
166.33	0.13	100		100% COAL, DULL	UNWEATHERED, TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
166.41	0.08	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
166.45	0.04	100		100% COAL, DULL	UNWEATHERED.
166.48	0.03	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
166.71	0.23	100		100% COAL, DULL	UNWEATHERED.
166.86	0.15	100		100% MUDSTONE	KAOLINITIC, LIGHT BROWN, UNWEATHERED, WEAK ROCK.
166.89	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
166.95	0.06	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
167.05	0.10	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
167.41	0.36	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
167.48	0.07	100		100% COAL, HEAVY DULL	UNWEATHERED, MODERATELY WEAK ROCK.
167.54	0.06	100		100% MUDSTONE	HEAVY DULL COAL, BANDS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
167.62	0.08	100		100% COAL, HEAVY DULL	UNWEATHERED.
167.64	0.02	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
167.77	0.13	100		100% COAL, HEAVY DULL	MUDSTONE, BANDS, UNWEATHERED.
168.01	0.24	100		100% CARBONACEOUS SHALE	BLACK, UNWEATHERED, STRONG ROCK.
168.78	0.77	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
168.85	0.07	100		100% COAL, HEAVY DULL	UNWEATHERED.
168.99	0.14	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
169.07	0.08	100		100% SANDSTONE	MED.-FINE GRAINED, DARK GREY, UNWEATHERED, STRONG ROCK.
169.12	0.05	100		100% COAL, HEAVY DULL	UNWEATHERED.
169.17	0.05	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
169.28	0.11	100		100% COAL, HEAVY DULL	UNWEATHERED.
169.35	0.07	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
169.41	0.06	100		100% COAL, HEAVY DULL	UNWEATHERED.
169.50	0.09	100		100% SANDSTONE,MEDIUM GRAINED	COALY, BANDS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
169.61	0.11	100		100% COAL, HEAVY DULL	UNWEATHERED, WITH MUD PELLETS.
169.76	0.15	100		100% COAL, HEAVY DULL	UNWEATHERED.
169.80	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
169.85	0.05	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
169.88	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
170.12	0.24	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT BROWN, UNWEATHERED, STRONG ROCK.
170.15	0.03	100		100% COAL, HEAVY DULL	UNWEATHERED.
170.37	0.22	100		100% MUDSTONE	CARBONACEOUS, BANDS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
170.41	0.04			100% COAL, HEAVY DULL	
170.44	0.03	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
170.59	0.15	100		100% COAL, HEAVY DULL	UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
170.63	0.04	100		100% SANDSTONE	VERY FINE GRAINED, BROWN, UNWEATHERED, STRONG ROCK.
170.74	0.11	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
170.75	0.01	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
170.82	0.07	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
170.89	0.07	100		50% MUDSTONE 50% COAL, DULL WITH FEW BRIGHT BANDS	BROWN. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED.
171.18	0.29	100		100% CLAYSTONE	KAOLINITIC, WAXY, GREY-GREEN, UNWEATHERED.
171.32	0.14	100		100% COAL, DULL	UNWEATHERED.
171.38	0.06	100		100% SANDSTONE,FINE GRAINED	BROWN, UNWEATHERED, STRONG ROCK.
171.43	0.05	100		100% COAL, HEAVY DULL	UNWEATHERED, TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
171.50	0.07	100		100% SANDSTONE,FINE GRAINED	BROWN, UNWEATHERED, STRONG ROCK.
171.66	0.16	100		100% COAL, DULL	UNWEATHERED.
171.74	0.08	100		100% CLAYSTONE	KAOLINITIC, LIGHT GREEN, UNWEATHERED, WEAK ROCK.
171.77	0.03	100		100% COAL, HEAVY DULL	UNWEATHERED.
171.84	0.07	100		100% MUDSTONE	GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
171.86	0.02	100		100% COAL, HEAVY DULL	MUDSTONE, LENSES, UNWEATHERED.
171.89	0.03	100		100% CLAYSTONE	KAOLINITIC, LIGHT GREEN, UNWEATHERED, WEAK ROCK.
172.01	0.12	100		100% COAL, DULL	UNWEATHERED.
172.07	0.06	100		100% COAL, DULL	WITH CALCITE ON CLEAT, UNWEATHERED.
172.11	0.04	100		100% MUDSTONE	GREY-GREEN, UNWEATHERED, MODERATELY WEAK ROCK.
172.18	0.07	100		100% COAL, DULL	BLACK, UNWEATHERED, EXTREMELY SRONG ROCK.
172.25	0.07	100		100% COAL, DULL WITH FEW BRIGHT BANDS	WITH CALCITE ON CLEAT, UNWEATHERED.
172.29	0.04	100		100% MUDSTONE	BROWN, WITH ABUNDANT CALCITE, UNWEATHERED, EXTREMELY SRONG ROCK.
172.68	0.39	100		100% MUDSTONE	GREEN-BROWN, WITH GRANULAR CALCITE, UNWEATHERED, WEAK ROCK.
172.83	0.15	100		100% COAL, HEAVY DULL	UNWEATHERED.
172.84	0.01	100		100% SANDSTONE,FINE GRAINED	LIGHT BROWN, UNWEATHERED, MODERATELY STRONG ROCK.
173.01	0.17	100		100% COAL, DULL	UNWEATHERED.
173.06	0.05	100		100% CARBONACEOUS MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
173.08	0.02	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SANPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
173.19	0.11	100		100% COAL, DULL	UNWEATHERED.
173.70	0.51	100		100% CARBONACEOUS MUDSTONE	ARENACEOUS, BLUE, UNWEATHERED, MODERATELY STRONG ROCK.
174.01	0.31	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
174.13	0.12	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
174.21	0.08	100		100% COAL, HEAVY DULL	UNWEATHERED.
174.28	0.07	100		100% MUDSTONE	ARENACEOUS, DARK GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
174.40	0.12	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
174.41	0.01	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
174.44	0.03	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
174.49	0.05	100		100% COAL, DULL	MUDSTONE, LENSES, UNWEATHERED.
174.69	0.20	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BADLY BROKEN, UNWEATHERED.
174.94	0.25	100		100% COAL, BRIGHT WITH FEW DULL BANDS	BADLY BROKEN, UNWEATHERED.
174.98	0.04	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
175.10	0.12	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	UNWEATHERED.
175.15	0.05	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
175.32	0.17	100		100% COAL, DULL	UNWEATHERED.
175.36	0.04	100		100% COAL, BRIGHT WITH FEW DULL BANDS	UNWEATHERED.
175.42	0.06	100		100% CARBONACEOUS MUDSTONE	COALY, FRAGMENTS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
175.59	0.17	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
175.60	0.01	100		100% CARBONACEOUS SHALE	UNWEATHERED.
175.72	0.12	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
175.80	0.08	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
175.84	0.04	100		100% MUDSTONE	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
176.10	0.26	100		100% COAL, DULL	UNWEATHERED.
176.19	0.09	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
176.20	0.01	100		100% COAL, BRIGHT	UNWEATHERED.

BASE OF DALHAYNE B : THICKNESS= 10.43 M; SAMPLED THICKNESS= 0.00 M

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
178.35	2.15	100		100% MUDSTONE	GRADING TO, FINE GRAINED SANDSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
178.81	0.46	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, MODERATELY STRONG ROCK, LAMINATED.
181.33	2.52	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
186.22	4.89	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
186.41	0.19	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
187.59	1.18	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
188.64	1.05	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
188.70	0.06	100		100% COAL, BRIGHT	WITH CALCITE ON CLEAT, UNWEATHERED.
189.03	0.33	100		60% SANDSTONE,FINE GRAINED 40% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, GREY. LIGHT GREY. UNWEATHERED, STRONG ROCK.
192.35	3.32	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
192.97	0.62	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, WITH GRANULAR CALCITE, UNWEATHERED, STRONG ROCK.
194.33	1.36	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
194.35	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
194.59	0.24	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
198.89	4.30	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
198.93	0.04	100		100% SANDSTONE,FINE GRAINED	COALY, TRACES, LIGHT GREY, UNWEATHERED, STRONG ROCK.
198.98	0.05	100		100% SANDSTONE,MEDIUM GRAINED	CONGLOMERATIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
199.10	0.12	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
				TOP OF DALMAYNE C : 183.60 M R.L.	
199.32	0.22	100		100% COAL, DULL	UNWEATHERED.
199.44	0.12	100		100% CARBONACEOUS MUDSTONE	ARENACEOUS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
199.60	0.16	100		100% COAL, DULL	BADLY BROKEN, UNWEATHERED.
199.69	0.09	100		100% CLAYSTONE	KAOLINITIC, UNWEATHERED, WEAK ROCK.
200.00	0.31	100		100% COAL, DULL	MUDSTONE, TRACES, UNWEATHERED, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
200.04	0.04	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
200.30	0.26	100		100% COAL, DULL	UNWEATHERED.
200.33	0.03	100		100% SANDSTONE,FINE GRAINED	COALY, BANDS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
200.38	0.05	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	UNWEATHERED.
				BASE OF DALMAYNE C : THICKNESS= 1.28 M; SAMPLED THICKNESS= 0.00 M	
202.35	2.27	100		100% MUDSTONE	CARBONACEOUS, TRACES, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
203.27	0.62	100		100% SANDSTONE	MED.-FINE GRAINED, UNWEATHERED, STRONG ROCK, LAMINATED.
206.60	3.33	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
207.45	0.85	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
209.36	1.91	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
211.21	1.85	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
211.49	0.28	100		50% SANDSTONE,MEDIUM GRAINED 50% MUDSTONE	LIGHT GREY. PEBBLY, GREY. UNWEATHERED, STRONG ROCK, WITH PEBBLE LINEATION.
211.64	0.15	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
211.80	0.16	0		CORE LOSS	
211.90	0.10	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
212.04	0.14	100		100% SANDSTONE	MED.-FINE GRAINED, PEBBLY, LIGHT GREY, UNWEATHERED, STRONG ROCK.
212.36	0.32	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
212.38	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
212.78	0.40	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
213.00	0.22	100		100% COAL, DULL	UNWEATHERED.
213.15	0.15	100		100% PEBBLE CONGLOMERATE	GREY, UNWEATHERED, STRONG ROCK, WITH POOR SORTING.
213.58	0.43	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
214.14	0.56	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
218.60	4.46	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
218.77	0.17	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
219.23	0.46	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
219.31	0.08	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
219.34	0.03	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
219.39	0.05	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, UNWEATHERED, STRONG ROCK.
220.17	0.78	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
220.80	0.63	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
221.02	0.22	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
221.44	0.42	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, GREY, UNWEATHERED, STRONG ROCK.
221.63	0.19	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
221.87	0.24	100		100% SANDSTONE,FINE GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
222.38	0.51	100		95% SANDSTONE,MEDIUM GRAINED 5% MUDSTONE	COALY, FRAGMENTS, LIGHT GREY. PEBBLY, GREY. UNWEATHERED, STRONG ROCK.
222.42	0.04	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
223.36	0.94	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
224.17	0.81	100		90% SANDSTONE,MEDIUM GRAINED 5% MUDSTONE 5% COAL, DULL	COALY, FRAGMENTS, LIGHT GREY. PEBBLY, GREY. UNWEATHERED, STRONG ROCK.
233.10	8.93	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
233.31	0.21	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
247.93	14.62	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
248.10	0.17	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH POOR SORTING.
252.81	4.71	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
253.28	0.47	100		95% SANDSTONE,MEDIUM GRAINED 5% MUDSTONE	LIGHT GREY. PEBBLY, GREY. UNWEATHERED, STRONG ROCK.
253.32	0.04	100		100% COAL, BRIGHT	UNWEATHERED.
254.62	1.30	100		95% SANDSTONE,MEDIUM GRAINED 5% MUDSTONE	LIGHT GREY. PEBBLY, GREY. UNWEATHERED, STRONG ROCK.
258.99	4.37	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
259.16	0.17	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
259.19	0.03	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE D UPPER : 123.51 M R.L.	
259.24	0.05	100		100% COAL, DULL	UNWEATHERED.
259.53	0.29	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
259.54	0.01	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
259.59	0.05	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
259.60	0.01	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
259.62	0.02	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
259.66	0.04	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
259.76	0.10	100		100% MUDSTONE	COALY, LENSES, GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED, WITH DISTURBED BEDDING.
259.80	0.04	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
259.81	0.01	100		100% CLAY	KAOLINITIC, BROWN, UNWEATHERED, VERY WEAK ROCK, SLOW SLAKING, NON STICKY.
259.87	0.06	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
260.17	0.30	100		100% COAL, DULL	UNWEATHERED.
260.25	0.08	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
260.31	0.06	100		60% COAL, DULL 40% MUDSTONE	GREY. UNWEATHERED, WITH DISTURBED BEDDING.
				BASE OF DALMAYNE D UPPER : THICKNESS= 1.12 M; SAMPLED THICKNESS= 0.00 M	
261.46	1.15	100		100% MUDSTONE	ARENACEOUS, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED, CLOSELY SPACED JOINTS, TIGHT NON PLANAR, WITH SLICKENSIDES.
263.60	2.14	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
263.70	0.10	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
266.56	2.86	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
267.90	1.34	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
272.45	4.55	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
273.36	0.91	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LENSES, LIGHT GREY, UNWEATHERED, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
273.59	0.23	100		100% SANDSTONE,COARSE GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
274.84	1.25	100		90% SANDSTONE 5% COAL 5% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, PEBBLY. PEBBLY, GREY. UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
275.75	0.91	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
276.81	1.06	100		100% SANDSTONE,FINE GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
276.91	0.10	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
277.11	0.20	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
277.89	0.78	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
278.10	0.21	100		100% SANDSTONE,FINE GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
278.59	0.49	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
278.74	0.15	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS.
279.38	0.64	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
279.57	0.19	100		100% SANDSTONE,COARSE GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS.
279.90	0.33	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
279.97	0.07	100		100% SANDSTONE,COARSE GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
280.03	0.06	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
				TOP OF DALMAYNE D LOWER : 102.67 M R.L.	
280.17	0.14	100	1	100% COAL, DULL	UNWEATHERED.
280.49	0.32	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
280.50	0.01	100	1	100% COAL, BRIGHT	UNWEATHERED.
280.57	0.07	100	1	100% COAL, DULL	UNWEATHERED.
280.58	0.01	100	1	100% COAL, BRIGHT	UNWEATHERED.
280.74	0.16	100	1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
280.75	0.01	100	1	100% COAL, BRIGHT	UNWEATHERED.
280.77	0.02	100	1	100% COAL, INTERBANDED DULL AND BRIGHT	UNWEATHERED.
280.83	0.06	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
280.91	0.08	100	1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	WITH CALCITE ON JOINTS, UNWEATHERED.
280.96	0.05	100	1	100% COAL, DULL	KAOLINITIC, PELLETAL, UNWEATHERED.
280.98	0.02	100	1	100% COAL, BRIGHT	UNWEATHERED.
281.18	0.20	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
281.19	0.01	100	1	100% MUDSTONE	UNWEATHERED.
281.26	0.07	100	1	100% COAL, DULL	UNWEATHERED.
281.37	0.11	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
281.38	0.01	100	1	100% COAL, BRIGHT	UNWEATHERED.
281.39	0.01	100	1	100% COAL, DULL	UNWEATHERED.
281.42	0.03	100	1	100% TONSTEIN	BRIGHT COAL, STREAKS, DARK GREY, UNWEATHERED.
281.46	0.04	100	1	100% COAL, DULL	UNWEATHERED.
281.58	0.12	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
281.88	0.30	100	2	100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
281.98	0.10	100	3	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	UNWEATHERED.
281.99	0.01	100	3	100% COAL, BRIGHT	UNWEATHERED.
282.00	0.01	100	3	100% COAL, DULL	UNWEATHERED.
282.03	0.03	100	3	100% MUDSTONE	GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
282.04	0.01	100	3	100% COAL, HEAVY DULL	UNWEATHERED.
282.12	0.08	100	3	100% COAL, BRIGHT WITH FEW DULL BANDS	UNWEATHERED.
				BASE OF DALHAYNE D LOWER : THICKNESS= 2.09 M; SAMPLED THICKNESS= 2.09 M	
282.17	0.05	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
282.33	0.16	100		80% SANDSTONE,FINE GRAINED 20% MUDSTONE	PELLETAL, WHITE. GREY. UNWEATHERED, MODERATELY WEAK ROCK.
284.23	1.90	100		100% SILTSTONE	FINE GRAINED SANDSTONE, LAMINAE, GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
284.63	0.40	100		50% SILTSTONE 50% MUDSTONE	GREY. GREY. UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS, WITH CARBONACEOUS WISPS.
284.65	0.02	100	4	100% CARBONACEOUS MUDSTONE	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
284.66	0.01	100	4	100% MUDSTONE	BRIGHT COAL, BANDS, GREY, UNWEATHERED.
284.71	0.05	100	4	100% COAL, HEAVY DULL	BRIGHT COAL, BANDS, UNWEATHERED.
284.73	0.02	100	4	100% CARBONACEOUS MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
284.89	0.16	100	4	100% COAL, DULL	UNWEATHERED.
284.93	0.04	100	4	100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
285.11	0.18	100	4	100% COAL, DULL	UNWEATHERED.
285.13	0.02	100	4	100% TONSTEIN	HEAVY DULL COAL, TRACES, UNWEATHERED.
285.28	0.15	100	4	100% COAL, HEAVY DULL	GRADING TO, COARSE GRAINED, UNWEATHERED.
285.37	0.09	100	5	100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
285.63	0.26	100	5	100% COAL, HEAVY DULL	UNWEATHERED.
285.80	0.17	100	5	100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
				TOP OF DALMAYNE D LOWER : 96.90 M R.L.	
285.90	0.10	100	6	100% CARBONACEOUS MUDSTONE	GRADING TO, HEAVY DULL COAL, UNWEATHERED.
285.93	0.03	100	6	100% COAL, HEAVY DULL	UNWEATHERED.
286.01	0.08	100	6	100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
286.21	0.20	100	6	100% COAL, DULL	UNWEATHERED.
286.26	0.05	100	6	100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
286.29	0.03	100	6	100% TONSTEIN	UNWEATHERED.
286.35	0.06	100	6	100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
286.41	0.06	100	6	100% CARBONACEOUS MUDSTONE	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
286.43	0.02	100	6	100% COAL, DULL	UNWEATHERED.
286.44	0.01	100	6	100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
286.49	0.05	100	6	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	UNWEATHERED.
286.50	0.01	100	6	100% TONSTEIN	UNWEATHERED.
286.80	0.30	100	6	100% COAL, DULL	UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
286.96	0.16	100	6	100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
286.97	0.01	100	6	100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
286.99	0.02	100	6	100% COAL, DULL	UNWEATHERED.
287.04	0.05	100	6	100% COAL, INTERBANDED DULL AND BRIGHT	UNWEATHERED.
287.09	0.05	100	6	100% COAL, BRIGHT	UNWEATHERED.
287.11	0.02	100	6	100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
287.19	0.08	100	6	100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
287.21	0.02	100	6	100% COAL, BRIGHT	UNWEATHERED.
287.24	0.03	100	6	100% COAL, DULL	UNWEATHERED.
				BASE OF DALHAYNE D LOWER : THICKNESS= 1.44 M; SAMPLED THICKNESS= 1.44 M	
287.28	0.04	100	7	100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
287.43	0.15	100	7	100% CARBONACEOUS MUDSTONE	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
287.45	0.02	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
287.63	0.18	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
287.70	0.07	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
288.04	0.34	100		100% SANDSTONE,MEDIUM GRAINED	GRADING TO, FINE GRAINED SANDSTONE, LIGHT GREY, UNWEATHERED, STRONG ROCK.
288.12	0.08	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
288.24	0.12	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
288.26	0.02	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
288.52	0.26	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
288.57	0.05	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
289.61	1.04	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
290.11	0.50	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
290.98	0.87	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
291.27	0.29	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
291.84	0.57	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
291.87	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
291.93	0.06	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	UNWEATHERED.
291.98	0.05	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
292.01	0.03	100		100% COAL, DULL	UNWEATHERED.
292.16	0.15	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
292.24	0.08	100		100% CARBONACEOUS MUDSTONE	COALY, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
292.29	0.05	100		100% COAL, DULL	COARSE GRAINED, BANDS, UNWEATHERED.
292.31	0.02	100		100% CLAY	UNWEATHERED.
292.47	0.16	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
292.77	0.30	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
293.40	0.63	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, TIGHT NON PLANAR, WITH SLICKENSIDES.
294.02	0.62	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
295.33	1.31	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
295.41	0.08	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
295.88	0.47	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
297.51	1.63	100		95% SANDSTONE 5% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. GREY. UNWEATHERED, STRONG ROCK, MEDIUM BEDDED.
297.87	0.36	100		100% SANDSTONE	VERY FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK, LAMINATED.
303.60	5.73	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
304.97	1.37	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
305.06	0.09	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
305.18	0.12	100		50% SANDSTONE,MEDIUM GRAINED 50% SANDSTONE,FINE GRAINED	LIGHT GREY. GREY. UNWEATHERED, STRONG ROCK, VERY THINLY BEDDED.
307.06	1.88	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
307.86	0.80	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
308.20	0.34	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
310.99	2.79	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
317.87	6.88	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
319.97	2.10	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, WITH SLICKENSIDES, TIGHT NON PLANAR.
320.55	0.58	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK, THICKLY LAMINATED, WITH CARBONACEOUS WISPS, WITH TROUGH CROSS BEDDING.
323.22	2.67	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
324.63	1.41	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
324.95	0.32	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
325.01	0.06	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BLACK, UNWEATHERED, STRONG ROCK.
325.35	0.34	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
325.82	0.47	100		100% SANDSTONE	MED.-FINE GRAINED, CARBONACEOUS, BLACK, UNWEATHERED, STRONG ROCK.
326.59	0.77	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY STRONG ROCK, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, WITH SLICKENSIDES.
327.12	0.53	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, UNWEATHERED, STRONG ROCK.
327.27	0.15	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BLACK, UNWEATHERED, STRONG ROCK.
327.50	0.23	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
328.58	1.08	100		100% SANDSTONE	VERY FINE GRAINED, GREY, UNWEATHERED, MODERATELY STRONG ROCK, LAMINATED.
328.60	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, WEAK ROCK.
328.83	0.23	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
328.90	0.07	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
329.11	0.21	100		100% COAL, HEAVY DULL	UNWEATHERED.
329.16	0.05	100		100% MUDSTONE	BROWN, UNWEATHERED, WEAK ROCK.
329.33	0.17	100		100% COAL, HEAVY DULL	UNWEATHERED.
329.76	0.43	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
330.81	1.05	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
331.07	0.26	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
331.16	0.09	100		100% CARBONACEOUS MUDSTONE	BLACK, WITH LENSES OF CALCITE, UNWEATHERED, MODERATELY WEAK ROCK.
331.17	0.01	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, WEAK ROCK.
331.27	0.10	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
331.98	0.71	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
332.27	0.29	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
332.28	0.01	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	UNWEATHERED.
332.31	0.03	100		100% MUDSTONE	LIGHT BROWN, WITH BANDS OF CALCITE, UNWEATHERED, MODERATELY WEAK ROCK.
333.30	0.99	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, MODERATELY STRONG ROCK, LAMINATED.
334.22	0.92	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, UNWEATHERED, STRONG ROCK, LAMINATED.
335.53	1.31	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED.
				TOP OF DALMAYNE E2 : 47.17 M R.L.	
335.77	0.24	100		100% COAL, HEAVY DULL	UNWEATHERED.
336.37	0.60	100		100% COAL, DULL	UNWEATHERED.
336.39	0.02	100		100% SANDSTONE,FINE GRAINED	LIGHT BROWN, UNWEATHERED, STRONG ROCK.
336.41	0.02	100		100% COAL, HEAVY DULL	UNWEATHERED.
336.42	0.01	100		100% SANDSTONE,FINE GRAINED	LIGHT BROWN, UNWEATHERED, STRONG ROCK.
336.50	0.08	100		100% COAL, DULL	UNWEATHERED.
				BASE OF DALMAYNE E2 : THICKNESS= 0.97 M; SAMPLED THICKNESS= 0.00 M	
337.10	0.60	100		100% SANDSTONE	MED.-FINE GRAINED, GREY-BROWN, UNWEATHERED, STRONG ROCK.
337.34	0.24	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
337.44	0.10	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
337.83	0.39	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, LENSES, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
340.87	3.04	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK, LAMINATED.
341.60	0.73	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
341.63	0.03	100		100% COAL, DULL	UNWEATHERED.
342.46	0.83	100		100% SANDSTONE,FINE GRAINED	GREY-BROWN, UNWEATHERED, STRONG ROCK, LAMINATED.
343.48	1.02	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS, WITH POOR SORTING.
344.05	0.57	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
344.06	0.01	100		100% CLAY	KAOLINITIC, DARK BROWN, UNWEATHERED, VERY WEAK ROCK, SLOW SLAKING, NON STICKY.
344.21	0.15	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
344.34	0.13	100		100% MUDSTONE	ARGILLACEOUS, LENSES, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
344.88	0.54	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
344.93	0.05	100		100% COAL, DULL	UNWEATHERED, TIGHT NON PLANAR, WITH SLICKENSIDES.
347.74	2.81	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, TIGHT, PLANAR, SMOOTH DISCONTINUITIES.
347.81	0.07	100		100% COAL, INTERBANDED DULL AND BRIGHT	UNWEATHERED.
347.97	0.16	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
350.39	2.42	100		75% SANDSTONE,MEDIUM GRAINED 25% CARBONACEOUS MUDSTONE	CARBONACEOUS, BLACK. BLACK. UNWEATHERED, STRONG ROCK.
350.75	0.36	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH POOR SORTING.
351.35	0.60	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, LAMINATED.
351.79	0.44	100		100% CARBONACEOUS MUDSTONE	COALY, LENSES, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
352.13	0.34	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
360.07	7.94	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
360.35	0.28	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH POOR SORTING.
360.64	0.29	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
361.15	0.51	100		70% SANDSTONE,MEDIUM GRAINED 30% MUDSTONE	LIGHT GREY. PEBBLY, GREY. UNWEATHERED, STRONG ROCK.
362.52	1.37	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
362.93	0.41	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
363.44	0.51	100		100% SANDSTONE	MED.-FINE GRAINED, CARBONACEOUS, BLACK, UNWEATHERED, STRONG ROCK.
363.90	0.46	100		50% SANDSTONE,MEDIUM GRAINED 50% SANDSTONE	LIGHT GREY. MED.-FINE GRAINED, CARBONACEOUS, BLACK. UNWEATHERED, STRONG ROCK, THICKLY LAMINATED.
364.18	0.28	100		100% SANDSTONE	VERY FINE GRAINED, GREY, UNWEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
365.49	1.31	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
366.42	0.93	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
366.65	0.23	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
366.71	0.06	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
366.73	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
367.06	0.33	100		100% SANDSTONE	VERY FINE GRAINED, GREY, UNWEATHERED, MODERATELY STRONG ROCK.
367.29	0.23	100		100% MUDSTONE	CARBONACEOUS BANDS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
367.66	0.37	100		60% SANDSTONE,FINE GRAINED 40% SANDSTONE,MEDIUM GRAINED	GREY. LIGHT GREY. UNWEATHERED, STRONG ROCK, VERY THINLY BEDDED, WITH DISTURBED BEDDING.
367.86	0.20	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
368.33	0.47	100		90% SANDSTONE 10% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY. VERY FINE GRAINED, GREY. UNWEATHERED, STRONG ROCK, WITH TROUGH CROSS BEDDING.
368.97	0.64	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
369.11	0.14	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
369.15	0.04	100		100% SANDSTONE,FINE GRAINED	POORLY SORTED, DARK GREY, UNWEATHERED, STRONG ROCK.
369.44	0.29	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
369.91	0.47	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
370.01	0.10	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
370.80	0.79	100		90% SANDSTONE 10% SANDSTONE,FINE GRAINED	MED.-FINE GRAINED, GREY. LENSES, GREY. UNWEATHERED, MODERATELY STRONG ROCK.
372.13	1.33	100		100% SANDSTONE	VERY FINE GRAINED, GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
372.41	0.28	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
372.65	0.24	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
372.66	0.01	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
373.16	0.50	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
373.22	0.06	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BLACK, UNWEATHERED, STRONG ROCK.
373.25	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
373.28	0.03	100		100% MUDSTONE	COALY, TRACES, LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
373.33	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
373.38	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
373.39	0.01	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
373.44	0.05	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
373.55	0.11	100		90% SANDSTONE 10% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY. VERY FINE GRAINED, LENSES, GREY. UNWEATHERED, STRONG ROCK.
373.81	0.26	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
374.16	0.35	100		100% MUDSTONE	FINE GRAINED SANDSTONE, LENSES, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
374.18	0.02	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
374.26	0.08	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
374.52	0.26	100		45% MUDSTONE 30% MUDSTONE 25% SANDSTONE	DARK GREY. DARK GREY. VERY FINE GRAINED, DARK BROWN. UNWEATHERED, MODERATELY STRONG ROCK, THICKLY LAMINATED.
374.67	0.15	100		100% MUDSTONE	GRADING TO, FINE GRAINED SANDSTONE, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
375.52	0.85	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
376.02	0.50	100		100% SANDSTONE	VERY FINE GRAINED, GREY, UNWEATHERED, MODERATELY STRONG ROCK.
376.34	0.32	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
376.36	0.02	100		100% MUDSTONE	KAOLINITIC, LIGHT BROWN, UNWEATHERED, WEAK ROCK.
376.41	0.05	100		100% CARBONACEOUS MUDSTONE	COALY, FRAGMENTS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
376.52	0.11	100		100% CLAYSTONE	LIGHT BROWN, UNWEATHERED, WEAK ROCK, WITH PLANT REMAINS.
376.80	0.28	100		100% SANDSTONE	VERY FINE GRAINED, GREY, UNWEATHERED, MODERATELY STRONG ROCK.
377.02	0.22	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK, VERY THINLY BEDDED.
377.20	0.18	100		100% SANDSTONE	VERY FINE GRAINED, DARK GREY, UNWEATHERED, STRONG ROCK.
379.19	1.99	100		50% SANDSTONE 50% SANDSTONE,FINE GRAINED	VERY FINE GRAINED, DARK GREY. MEDIUM GRAINED, BANDS, LIGHT GREY. UNWEATHERED, STRONG ROCK, VERY THINLY BEDDED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
379.57	0.38	100		100% SANDSTONE	VERY FINE GRAINED, CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY STRONG ROCK.
380.16	0.59	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
381.39	1.23	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK, THICKLY LAMINATED.
381.50	0.11	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
381.54	0.04	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
386.77	5.23	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, WITH GRANULAR CALCITE, UNWEATHERED, STRONG ROCK.
387.06	0.29	100		100% SANDSTONE,MEDIUM GRAINED	CONGLOMERATIC, LIGHT GREY, UNWEATHERED, STRONG ROCK.
387.31	0.25	100		100% SANDSTONE,FINE GRAINED	GRADING TO, VERY FINE GRAINED, GREY, UNWEATHERED, STRONG ROCK.
387.47	0.16	100		100% SANDSTONE	VERY FINE GRAINED, DARK GREY, UNWEATHERED, MODERATELY STRONG ROCK.
387.69	0.22	100		100% SANDSTONE,MEDIUM GRAINED	FINE GRAINED SANDSTONE, LENSES, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH DISTURBED BEDDING.
388.09	0.40	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
388.71	0.62	100		100% SANDSTONE,FINE GRAINED	MEDIUM GRAINED, LENSES, DARK GREY, UNWEATHERED, STRONG ROCK.
389.10	0.39	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LENSES, LIGHT GREY, UNWEATHERED, STRONG ROCK.
389.79	0.69	100		100% SANDSTONE	VERY FINE GRAINED, GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
390.32	0.53	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
390.41	0.09	100		100% SANDSTONE,COARSE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
390.56	0.15	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
390.61	0.05	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
390.71	0.10	100		100% SANDSTONE,FINE GRAINED	MEDIUM GRAINED, LENSES, GREY, UNWEATHERED, STRONG ROCK, LAMINATED.
390.99	0.28	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
391.41	0.42	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK, VERY THINLY BEDDED.
391.44	0.03	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, WITH ANGULAR QUARTZ, UNWEATHERED, STRONG ROCK.
391.53	0.09	100		100% SANDSTONE	MED.-FINE GRAINED, CARBONACEOUS, BLACK, UNWEATHERED, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
391.62	0.09	100		100% CARBONACEOUS MUDSTONE	COALY, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
391.66	0.04	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
391.70	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
391.77	0.07	100		100% COAL, DULL	UNWEATHERED.
391.80	0.03	100		100% SANDSTONE	MED.-FINE GRAINED, DARK GREY, UNWEATHERED, STRONG ROCK.
392.06	0.26	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
392.10	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
392.16	0.06	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
392.25	0.09	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
392.52	0.27	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
392.60	0.08	100		100% MUDSTONE	COALY, LENSES, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
392.80	0.20	100		100% SANDSTONE	VERY FINE GRAINED, GREY, UNWEATHERED, MODERATELY STRONG ROCK.
392.85	0.05	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
392.89	0.04	100		100% COAL, DULL	UNWEATHERED.
392.97	0.08	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
393.04	0.07	100		100% SANDSTONE	VERY COARSE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
393.20	0.16	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, POORLY SORTED, DARK GREY, UNWEATHERED, STRONG ROCK.
393.54	0.34	100		100% SANDSTONE	VERY COARSE GRAINED, POORLY SORTED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
393.67	0.13	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, UNWEATHERED, STRONG ROCK.
393.69	0.02	100		100% MUDSTONE	BROWN, UNWEATHERED, WEAK ROCK.
393.85	0.16	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
393.93	0.08	100		100% MUDSTONE	BROWN, UNWEATHERED, WEAK ROCK.
393.97	0.04	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
394.00	0.03	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
394.31	0.31	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
394.54	0.23	100		100% SANDSTONE,MEDIUM GRAINED	FINE GRAINED SANDSTONE, BANDS, BUFF, UNWEATHERED, STRONG ROCK.
394.71	0.17	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
394.72	0.01	100		100% MUDSTONE	BROWN, UNWEATHERED, WEAK ROCK.
394.83	0.11	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
395.17	0.34	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
395.21	0.04	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, WEAK ROCK.
395.28	0.07	100		100% MUDSTONE	FINE GRAINED SANDSTONE, BANDS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK.
395.30	0.02	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, WEAK ROCK.
395.74	0.44	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
396.15	0.41	100		100% MUDSTONE	FINE GRAINED SANDSTONE, LENSES, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
396.17	0.02	100		100% COAL, DULL	UNWEATHERED.
396.22	0.05	100		100% SANDSTONE,FINE GRAINED	DARK BROWN, UNWEATHERED, STRONG ROCK.
396.33	0.11	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
397.12	0.79	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
397.24	0.12	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
397.39	0.15	100		100% SANDSTONE,FINE GRAINED	MEDIUM GRAINED, LENSES, GREY, UNWEATHERED, STRONG ROCK.
397.68	0.29	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
398.18	0.50	100		100% SANDSTONE,COARSE GRAINED	CREAM, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
398.21	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, WITH BURROWING.
398.27	0.06	100		100% MUDSTONE	COALY, FRAGMENTS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
398.28	0.01	100		100% COAL, DULL	UNWEATHERED.
399.05	0.77	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
399.15	0.10	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, VERY STRONG ROCK, WITH PLANT REMAINS.
399.39	0.24	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
399.40	0.01	100		100% COAL, DULL	UNWEATHERED.
399.41	0.01	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
399.49	0.08	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
399.72	0.23	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
399.94	0.22	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, UNWEATHERED, STRONG ROCK.
400.13	0.19	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
400.51	0.38	100		100% SANDSTONE	MED.-COARSE GRAINED, CREAM, UNWEATHERED, MODERATELY WEAK ROCK.
400.57	0.06	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
400.67	0.10	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
400.80	0.13	0		CORE LOSS	
400.89	0.09	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
400.91	0.02	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
400.93	0.02	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
400.95	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
401.04	0.09	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
401.07	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
401.50	0.43	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
401.98	0.48	100		100% MUDSTONE	MEDIUM GRAINED, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
402.07	0.09	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
402.12	0.05	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
402.68	0.56	100		100% SANDSTONE,FINE GRAINED	GRADING TO, MEDIUM GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK, LAMINATED.
402.99	0.31	100		100% MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
403.49	0.50	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
403.92	0.43	100		95% SANDSTONE 5% COAL	VERY FINE GRAINED, DARK GREY. LENSES. UNWEATHERED, MODERATELY STRONG ROCK.
404.02	0.10	100		100% SANDSTONE	MED.-FINE GRAINED, POORLY SORTED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
404.70	0.68	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK, THINLY BEDDED.
405.59	0.89	100		100% SANDSTONE	VERY FINE GRAINED, DARK GREY, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
405.67	0.08	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
408.44	2.77	100		100% SANDSTONE	VERY FINE GRAINED, DARK GREY, WITH PEBBLY QUARTZ, UNWEATHERED, STRONG ROCK, WITH PLANT REMAINS.
414.57	6.13	100		100% SANDSTONE	VERY FINE GRAINED, DARK GREY, UNWEATHERED, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
414.59	0.82	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
414.78	0.19	100		100% SANDSTONE	VERY FINE GRAINED, DARK GREY, UNWEATHERED, STRONG ROCK.
415.21	0.43	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
415.80	0.59	100		100% SANDSTONE	MED.-FINE GRAINED, QUARTZOSE, LIGHT GREY, UNWEATHERED, STRONG ROCK.
416.23	0.43	100		100% SANDSTONE,MEDIUM GRAINED	QUARTZOSE, POORLY SORTED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
416.34	0.11	100		100% SANDSTONE,FINE GRAINED	QUARTZOSE, LIGHT GREY, UNWEATHERED, STRONG ROCK.
416.47	0.13	100		100% SANDSTONE,MEDIUM GRAINED	QUARTZOSE, PEBBLY, LIGHT GREY, UNWEATHERED, STRONG ROCK.
419.67	3.20	100		100% SANDSTONE	VERY FINE GRAINED, GREY, WITH PEBBLY QUARTZ, UNWEATHERED, STRONG ROCK.
420.28	0.61	100		100% SANDSTONE	MED.-COARSE GRAINED, PEBBLY, LIGHT GREY, WITH PEBBLY QUARTZ, UNWEATHERED, STRONG ROCK.
421.18	0.90	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
421.48	0.30	100		100% SANDSTONE,FINE GRAINED	QUARTZOSE, LIGHT GREY, UNWEATHERED, STRONG ROCK.
421.64	0.16	100		100% SANDSTONE	VERY FINE GRAINED, PEBBLY, GREY, UNWEATHERED, STRONG ROCK, WITH BURROWING.
430.80	9.16	100		100% SANDSTONE	VERY FINE GRAINED, GREY, WITH PEBBLY QUARTZ, UNWEATHERED, VERY STRONG ROCK.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	0.00 M	165.77 - 176.20 M	10.43 M
DC	0.00 M	199.10 - 200.38 M	1.28 M
DDU	0.00 M	259.19 - 260.31 M	1.12 M
DDL	2.09 M	280.03 - 282.12 M	2.09 M
DDL	1.44 M	285.80 - 287.24 M	1.44 M
DE2	0.00 M	335.53 - 336.50 M	0.97 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	280.03 - 281.58 M	1.55 M
2	281.58 - 281.88 M	0.30 M
3	281.88 - 282.12 M	0.24 M
4	284.63 - 285.28 M	0.65 M
5	285.28 - 285.80 M	0.52 M
6	285.80 - 287.24 M	1.44 M
7	287.24 - 287.43 M	0.19 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 30

HOLE TYPE	CORE
EASTING	599,400 M AM GRID
NORTHING	5,387,600 M AM GRID
ELEVATION	505.00 M
TOTAL DEPTH DRILLED	274.50 M
DRILLING STARTED	25/ 6/80
DRILLING TIME	
CORE SIZE	61.1 MM
HOLE SIZE	75.7 MM
LENGTH CASED	173.75 M
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	P.MURPHY
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : GY 30

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
30.33	30.33			100% DOLERITE	SCREE, RED-BROWN, WEATHERED TO SOIL, COMPACT.
31.55	1.22	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEATHERED, WEAK ROCK.
34.60	3.05	100		100% CARBONACEOUS MUDSTONE	BLACK, HIGHLY WEATHERED, VERY WEAK ROCK.
34.80	0.20	100		100% MUDSTONE	GREY, HIGHLY WEATHERED, STIFF.
37.14	2.34	100		100% CARBONACEOUS MUDSTONE	BLACK, WEATHERED TO SOIL, SOFT.
38.28	1.14	100		100% MUDSTONE	GREY, WEATHERED TO SOIL, SOFT.
40.60	2.32	100		100% CARBONACEOUS MUDSTONE	COALY, BANDS, BLACK, HIGHLY WEATHERED, STIFF.
40.74	0.14	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, DARK GREY, SLIGHTLY WEATHERED, WEAK ROCK.
41.32	0.58	100		100% GRANULE CONGLOMERATE	DARK GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
41.40	0.08	100		100% MUDSTONE	GREY, WITH CALCITE ON FRACTURES, HIGHLY WEATHERED, STIFF.
41.72	0.32	0		CORE LOSS	
42.06	0.34	100		100% COAL	BLACK, HIGHLY WEATHERED, SOFT.
42.87	0.81	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, SLIGHTLY WEATHERED, FIRM.
43.29	0.42	100		100% MUDSTONE	GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
43.50	0.21	100		100% GRANULE CONGLOMERATE	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
43.93	0.43	100		100% MUDSTONE	CARBONACEOUS, BANDS, DARK GREY, WITH CALCITE ON JOINTS, SLIGHTLY WEATHERED, WEAK ROCK.
45.20	1.27	100		100% MUDSTONE	GREY, SLIGHTLY WEATHERED, WEAK ROCK.
45.88	0.68	100		100% MUDSTONE	FINE GRAINED SANDSTONE, LENSES, DARK GREY, SLIGHTLY WEATHERED, WEAK ROCK, WITH BURROWING.
48.54	2.66	100		100% MUDSTONE	GREY, SLIGHTLY WEATHERED, WEAK ROCK.
49.78	1.24	100		100% MUDSTONE	DARK GREY, SLIGHTLY WEATHERED, WEAK ROCK.
55.87	6.09	100		100% SANDSTONE,FINE GRAINED	GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
56.01	0.14	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH POOR SORTING.
57.38	1.37	100		100% MUDSTONE	GREY, SLIGHTLY WEATHERED, WEAK ROCK.
58.14	0.76	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, DARK BROWN, COMPLETELY WEATHERED, MODERATELY WEAK ROCK.
59.08	0.94	0		CORE LOSS	
59.50	0.42	100		100% MUDSTONE	SADLY BROKEN, GREY, HIGHLY WEATHERED, WEAK ROCK.
62.54	3.04	0		CORE LOSS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
64.54	2.00	100		50% CARBONACEOUS MUDSTONE 50% MUDSTONE	BLACK. GREY. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED.
64.98	0.44	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, HIGHLY WEATHERED, VERY WEAK ROCK.
65.24	0.26	100		100% CARBONACEOUS MUDSTONE	BLACK, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
68.73	3.49	100		100% MUDSTONE	COALY, TRACES, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
69.06	0.33	100		100% MUDSTONE	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK.
69.50	0.44	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY STRONG ROCK.
69.60	0.10	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
70.41	0.81	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
72.23	1.82	100		50% SANDSTONE 50% SANDSTONE,FINE GRAINED	VERY FINE GRAINED, GREY. MEDIUM GRAINED, LENSES, LIGHT GREY. UNWEATHERED, MODERATELY STRONG ROCK, THICKLY LAMINATED, LAMINATED.
74.48	2.25	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
75.29	0.81	100		100% SANDSTONE	MED.-COARSE GRAINED, PEBBLY, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH POOR SORTING.
75.90	0.61	100		100% MUDSTONE	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK.
76.75	0.85	100		100% MUDSTONE	PEBBLY, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
78.50	1.75	100		100% MUDSTONE	FINE GRAINED SANDSTONE, BANDS, GREY, MODERATELY WEAK ROCK.
79.37	0.87	100		50% SANDSTONE,FINE GRAINED 50% SANDSTONE,FINE GRAINED	LIGHT GREY. CARBONACEOUS, BLACK. STRONG ROCK, THICKLY LAMINATED.
79.50	0.13	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, STRONG ROCK.
79.78	0.28	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, STRONG ROCK, LAMINATED, WITH PLANT REMAINS.
80.07	0.29	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, STRONG ROCK.
80.49	0.42	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
80.78	0.29	100		100% PEBBLE CONGLOMERATE	GREY, STRONG ROCK.
80.83	0.05	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, BANDS, BLACK, MODERATELY WEAK ROCK.
80.99	0.16	100		100% MUDSTONE	LIGHT GREY, WEAK ROCK.
81.18	0.19	100		50% COAL, HEAVY DULL 50% MUDSTONE	LIGHT BROWN. MODERATELY WEAK ROCK, VERY THINLY BEDDED.
81.36	0.18	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
81.43	0.07	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
81.81	0.38	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
82.46	0.65	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
82.51	0.05	100		100% MUDSTONE	BUFF, WEAK ROCK.
83.68	1.17	100		100% MUDSTONE	FINE GRAINED SANDSTONE, TRACES, GREY, MODERATELY WEAK ROCK.
83.71	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
83.82	0.11	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
83.85	0.03	100		100% MUDSTONE	BUFF, WEAK ROCK.
84.30	0.45	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
84.35	0.05	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, WEAK ROCK.
84.40	0.05	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
84.47	0.07	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
84.73	0.26	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
85.82	1.09	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
86.18	0.36	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
87.32	1.14	100		50% MUDSTONE 50% MUDSTONE	DARK GREY. FINE GRAINED SANDSTONE, LENSES, GREY. MODERATELY WEAK ROCK.
87.71	0.39	100		100% SANDSTONE,FINE GRAINED	MEDIUM GRAINED, LENSES, LIGHT GREY, STRONG ROCK.
87.79	0.08	100		100% MUDSTONE	GREY, FIRM.
88.77	0.98	100		100% SANDSTONE,FINE GRAINED	MEDIUM GRAINED, LENSES, GREY, STRONG ROCK.
88.90	0.13	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
89.09	0.19	100		100% SANDSTONE,FINE GRAINED	GREY, WITH CALCITE ON FRACTURES, MODERATELY STRONG ROCK.
89.17	0.08	100		100% MUDSTONE	KAOLINITIC, DARK GREY, WEAK ROCK.
89.32	0.15	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, MODERATELY WEAK ROCK.
89.36	0.04	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY WEAK ROCK.
89.38	0.02	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
89.47	0.09	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK, WITH BURROWING.
89.65	0.18	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
89.86	0.21	100		100% MUDSTONE	BUFF, MODERATELY WEAK ROCK.
90.41	0.55	100		100% SANDSTONE,FINE GRAINED	DARK GREY, STRONG ROCK.
90.66	0.25	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
91.50	0.84	100		100% SANDSTONE,FINE GRAINED	DARK GREY, WITH CALCITE ON FRACTURES, STRONG ROCK.
92.56	1.06	100		100% MUDSTONE	GREY-GREEN, MODERATELY WEAK ROCK.
92.91	0.35	100		100% SANDSTONE,FINE GRAINED	DARK GREY, STRONG ROCK.
93.02	0.11	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
94.65	1.63	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
94.76	0.11	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK, WITH CARBONACEOUS WISPS, WITH SAND LINEATION.
94.87	0.11	100		100% GRANULE CONGLOMERATE	GREEN, STRONG ROCK.
94.88	0.01	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
94.90	0.02	100		100% MUDSTONE	GREY-GREEN, MODERATELY WEAK ROCK.
95.06	0.16	100		100% COAL, HEAVY DULL	MUDSTONE, TRACES.
95.28	0.22	100		100% MUDSTONE	KAOLINITIC, CREAM, WEAK ROCK.
95.32	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
95.33	0.01	100		100% MUDSTONE	KAOLINITIC, CREAM, WEAK ROCK.
95.43	0.10	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
95.44	0.01	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
95.54	0.10	100		100% COAL, DULL	
95.56	0.02	100		100% COAL, BRIGHT	
95.67	0.11	100		100% COAL, DULL WITH FEW BRIGHT BANDS	MUDSTONE, LENSES.
95.75	0.08	100		100% SANDSTONE	VERY FINE GRAINED, DARK GREY, MODERATELY STRONG ROCK.
95.95	0.20	100		100% MUDSTONE	KAOLINITIC, CREAM, WEAK ROCK.
96.09	0.14	100		100% COAL, DULL WITH FEW BRIGHT BANDS	MUDSTONE, LENSES.
96.10	0.01	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
96.17	0.07	100		100% COAL, DULL	MUDSTONE, LENSES.
96.21	0.04	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
96.26	0.05	100		100% COAL, DULL	
96.30	0.04	100		100% COAL, BRIGHT	
96.35	0.05	100		100% COAL, DULL	BRIGHT COAL, LENSES.
96.37	0.02	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
96.45	0.08	100		100% COAL, DULL	
96.54	0.09	100		100% MUDSTONE	LIGHT GREEN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
96.58	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
96.67	0.09	100		100% MUDSTONE	LIGHT GREEN, MODERATELY WEAK ROCK.
96.72	0.05	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
96.73	0.01	100		100% MUDSTONE	LIGHT GREEN, MODERATELY WEAK ROCK.
96.87	0.14	100		100% COAL, DULL WITH FEW BRIGHT BANDS	MUDSTONE, LENSES.
96.89	0.02	100		100% MUDSTONE	LIGHT GREEN, MODERATELY WEAK ROCK.
96.93	0.04	100		100% COAL, DULL	MUDSTONE, LENSES.
96.96	0.03	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BLACK, STRONG ROCK.
97.02	0.06	100		100% SANDSTONE	MED.-FINE GRAINED, CREAM, STRONG ROCK, WITH CARBONACEOUS WISPS.
97.11	0.09	100		100% COAL, DULL WITH FEW BRIGHT BANDS	MODERATELY WEAK ROCK.
99.33	2.22	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK, WITH BURROWING.
101.56	2.23	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
103.50	1.94	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
103.73	0.23	100		100% SANDSTONE	VERY FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
106.25	2.52	100		100% SANDSTONE,MEDIUM GRAINED	CONGLOMERATIC, LIGHT GREY, STRONG ROCK.
106.49	0.24	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
106.66	0.17	100		100% MUDSTONE	KAOLINITIC, LIGHT GREEN, WEAK ROCK.
106.88	0.22	100		100% SANDSTONE,FINE GRAINED	BADLY BROKEN, GREY, MODERATELY STRONG ROCK.
108.03	1.15	100		100% SANDSTONE	VERY FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
110.47	2.44	100		100% SANDSTONE,FINE GRAINED	MEDIUM GRAINED, LENSES, GREY, MODERATELY STRONG ROCK, THICKLY LAMINATED.
111.75	1.28	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, THINLY BEDDED.
112.12	0.37	100		85% SANDSTONE,FINE GRAINED 15% SANDSTONE	BADLY BROKEN, GREY. MED.-FINE GRAINED, LIGHT GREY. STRONG ROCK, VERY THINLY BEDDED.
112.14	0.02	100		100% COAL, HEAVY DULL	
112.15	0.01	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
112.23	0.08	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, LENSES, BLACK, MODERATELY WEAK ROCK.
112.50	0.27	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEAK ROCK.
112.78	0.28	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
113.03	0.25	100		80% COAL, DULL WITH FEW BRIGHT BANDS 20% MUDSTONE	BADLY BROKEN. LIGHT GREY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
113.10	0.07	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
113.26	0.16	100		100% COAL, DULL	BADLY BROKEN.
113.42	0.16	100		100% MUDSTONE	BADLY BROKEN, GREY, MODERATELY WEAK ROCK.
113.75	0.33	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
113.91	0.16	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, TIGHT, PLANAR, SMOOTH DISCONTINUITIES.
114.46	0.55	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
114.51	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
114.54	0.03	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
114.82	0.28	100		100% COAL, DULL	WITH GRANULAR CALCITE.
114.93	0.11	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
115.09	0.16	100		100% COAL, DULL	MUDSTONE, LENSES.
115.35	0.26	100		100% COAL, DULL	
115.37	0.02	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
115.47	0.10	100		80% COAL, DULL 20% MUDSTONE	PEBBLY, LIGHT GREY.
115.50	0.03	100		100% COAL, DULL	
115.77	0.27	100		100% MUDSTONE	PEBBLY, DARK GREY, MODERATELY WEAK ROCK.
116.10	0.33	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
116.26	0.16	100		90% MUDSTONE 10% SAND	GREY. GRANULAR. WEAK ROCK.
116.42	0.16	100		80% COAL, DULL 20% MUDSTONE	PEBBLY, LIGHT GREY.
116.44	0.02	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
116.63	0.19	100		100% COAL, DULL	
116.67	0.04	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
116.80	0.13	100		100% COAL, DULL	MUDSTONE, LENSES, MODERATELY WEAK ROCK.
116.85	0.05	100		100% CARBONACEOUS MUDSTONE	GRADING TO, FINE GRAINED SANDSTONE, LIGHT GREY.
116.91	0.06	100		100% COAL, DULL	MUDSTONE, BANDS.
116.95	0.04	100		100% COAL, BRIGHT WITH FEW DULL BANDS	WITH CALCITE ON CLEAT.
117.02	0.07	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
117.21	0.19	100		100% COAL, DULL	WITH CALCITE ON CLEAT.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
117.29	0.08	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
117.75	0.46	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BADLY BROKEN.
118.40	0.65	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
118.74	0.34	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED.
118.86	0.12	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
119.08	0.22	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK, THINLY LAMINATED.
119.38	0.30	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
119.44	0.06	100		100% SANDSTONE	VERY FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
120.02	0.58	100		50% SANDSTONE 50% SANDSTONE,FINE GRAINED	VERY FINE GRAINED, LIGHT GREY. COALY, TRACES, GREY. STRONG ROCK, VERY THINLY BEDDED, WITH PLANT REMAINS.
122.91	2.89	100		100% SANDSTONE,MEDIUM GRAINED	BUFF, MODERATELY WEAK ROCK.
123.23	0.32	100		100% COAL, HEAVY DULL	MUDSTONE, BANDS.
125.47	2.24	100		100% SANDSTONE	VERY FINE GRAINED, CREAM, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
126.76	1.29	100		100% SANDSTONE	MED.-FINE GRAINED, CREAM, STRONG ROCK, WITH CARBONACEOUS WISPS.
128.12	1.36	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK, VERY THINLY BEDDED.
128.30	0.18	100		100% SANDSTONE,MEDIUM GRAINED	FINE GRAINED SANDSTONE, BANDS, LIGHT GREY, STRONG ROCK.
130.32	2.02	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK, VERY THINLY BEDDED.
131.49	1.17	100		50% SANDSTONE,FINE GRAINED 50% SANDSTONE	GREY. MED.-FINE GRAINED, LIGHT GREY. STRONG ROCK, VERY THINLY BEDDED, WITH DISTURBED BEDDING.
132.74	1.25	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK.
133.01	0.27	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
134.39	1.38	100		60% SANDSTONE 40% SANDSTONE,MEDIUM GRAINED	MED.-FINE GRAINED, GREY. LIGHT GREY. STRONG ROCK, VERY THINLY BEDDED.
140.67	6.28	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK, WITH CARBONACEOUS WISPS.
140.95	0.28	100		50% SANDSTONE,MEDIUM GRAINED 50% SANDSTONE,FINE GRAINED	LIGHT GREY. LIGHT GREY. STRONG ROCK, THICKLY LAMINATED.
141.12	0.17	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
141.31	0.19	100		100% COBBLE CONGLOMERATE	GREY, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
141.56	0.25	100		100% SANDSTONE,MEDIUM GRAINED	DARK GREY, STRONG ROCK.
142.10	0.54	100		100% SANDSTONE	VERY FINE GRAINED, CREAM, MODERATELY STRONG ROCK.
142.36	0.26	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
144.65	2.29	100		100% SANDSTONE	VERY FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
144.73	0.08	100		100% MUDSTONE	CALCITIC, LIGHT GREY, MODERATELY WEAK ROCK.
144.76	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
144.81	0.05	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
144.92	0.11	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
147.63	2.71	100		100% SANDSTONE,FINE GRAINED	MEDIUM GRAINED, BANDS, LIGHT GREY, STRONG ROCK.
147.73	0.10	100		100% MUDSTONE	LIGHT GREY, VERY WEAK ROCK.
147.84	0.11	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
147.89	0.05	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
148.05	0.16	100		100% SANDSTONE	VERY FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
148.31	0.26	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, WITH GRANULAR QUARTZ AND GRANULAR FELDSPAR, WEAK ROCK.
149.44	1.13	100		100% SANDSTONE,FINE GRAINED	PEBBLY, GREY-BROWN, MODERATELY STRONG ROCK.
149.65	0.21	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
149.97	0.32	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY STRONG ROCK.
150.04	0.07	100		100% COAL, HEAVY DULL	
150.07	0.03	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
150.31	0.24	100		100% COAL, HEAVY DULL	
150.52	0.21	100		100% MUDSTONE	COALY, FRAGMENTS, GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
150.54	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
150.60	0.06	100		100% MUDSTONE	LIGHT BROWN.
151.03	0.43	100		100% COAL, DULL	
151.15	0.12	100		100% MUDSTONE	COALY, FRAGMENTS, LIGHT BROWN, MODERATELY WEAK ROCK.
151.18	0.03	100		90% COAL, DULL 10% MUDSTONE	PEBBLY, LIGHT BROWN.
151.22	0.04	100		100% MUDSTONE	PEBBLY, LIGHT BROWN, MODERATELY WEAK ROCK.
151.34	0.12	100		100% COAL, DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
151.50	0.16	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	WITH CALCITE ON CLEAT.
151.53	0.03	100		100% MUDSTONE	COALY, FRAGMENTS, LIGHT GREY, MODERATELY WEAK ROCK.
151.64	0.11	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
151.74	0.10	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
151.84	0.10	100		100% MUDSTONE	COALY, BANDS, DARK GREY, MODERATELY WEAK ROCK.
151.89	0.05	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BANDS, LIGHT GREY, STRONG ROCK.
151.94	0.05	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
152.13	0.19	100		100% MUDSTONE	COALY, FRAGMENTS, LIGHT GREY, MODERATELY WEAK ROCK.
152.21	0.08	100		100% COAL, DULL	MUDSTONE, LENSES.
154.33	2.12	100		100% SANDSTONE,FINE GRAINED	MEDIUM GRAINED, BANDS, LIGHT GREY, STRONG ROCK.
154.37	0.04	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
155.95	1.58	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY STRONG ROCK.
156.24	0.29	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
157.50	1.26	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK, WITH DISTURBED BEDDING.
157.62	0.12	100		100% MUDSTONE	BRECCIATED, LIGHT GREY, MODERATELY WEAK ROCK.
158.69	1.07	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
158.99	0.30	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
160.71	1.72	100		100% SANDSTONE,FINE GRAINED	MEDIUM GRAINED, LENSES, LIGHT GREY, STRONG ROCK.
161.37	0.66	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
166.22	4.85	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
166.31	0.09	100		95% SANDSTONE,MEDIUM GRAINED 5% MUDSTONE	COALY, FRAGMENTS, LIGHT GREY. FRAGMENTS, GREY. STRONG ROCK.
170.10	3.79	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
170.49	0.39	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
170.58	0.09	100		95% CARBONACEOUS MUDSTONE 5% MUDSTONE	ARENACEOUS, BANDS, BLACK. PEBBLY, BROWN. MODERATELY WEAK ROCK.
170.70	0.12	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, BANDS, BLACK, MODERATELY WEAK ROCK.
170.76	0.06	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
170.83	0.07	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
170.87	0.04	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
170.91	0.04	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
171.02	0.11	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
171.10	0.08	100		100% MUDSTONE	PEBBLY, BANDS, DARK GREY, MODERATELY WEAK ROCK.
171.48	0.38	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BADLY BROKEN.
171.68	0.20	0		CORE LOSS	
171.78	0.10	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
173.17	1.39	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
173.19	0.02	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
173.25	0.06	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
173.31	0.06	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
173.37	0.06	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
173.50	0.13	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
173.59	0.09	100		100% SANDSTONE,MEDIUM GRAINED	KAOLINITIC, LIGHT GREY, WEAK ROCK.
173.78	0.19	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY STRONG ROCK, LAMINATED.
174.14	0.36	100		90% SANDSTONE 10% SANDSTONE	VERY FINE GRAINED, GREY. MED.-FINE GRAINED, LIGHT GREY. MODERATELY STRONG ROCK, THICKLY LAMINATED, WITH DISTURBED BEDDING.
174.75	0.61	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, TRACES, LIGHT GREY, STRONG ROCK.
174.86	0.11	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BLACK, STRONG ROCK.
174.91	0.05	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
175.51	0.60	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BLACK, STRONG ROCK.
175.56	0.05	100		100% SANDSTONE	MED.-FINE GRAINED, DARK GREY, STRONG ROCK.
175.79	0.23	100		100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, MODERATELY WEAK ROCK.
175.85	0.06	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
176.30	0.45	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
176.38	0.08	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
176.50	0.12	100		100% SANDSTONE,FINE GRAINED	DARK GREY, STRONG ROCK.
176.59	0.09	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
176.84	0.25	100		100% MUDSTONE	GREY-BROWN, MODERATELY WEAK ROCK.
177.03	0.19	100		100% COAL, DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
177.04	0.01	100		100% SANDSTONE	VERY FINE GRAINED, CREAM, MODERATELY STRONG ROCK.
177.13	0.09	100		100% COAL, DULL	
177.21	0.08	100		95% SANDSTONE 5% MUDSTONE	VERY FINE GRAINED, DARK GREY. PEBBLY, LIGHT BROWN. MODERATELY WEAK ROCK.
177.25	0.04	100		100% MUDSTONE	BUFF, MODERATELY WEAK ROCK.
177.42	0.17	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
177.43	0.01	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
177.50	0.07	100		100% COAL, HEAVY DULL	MUDSTONE, LENSES.
177.52	0.02	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
177.80	0.28	100		100% COAL, DULL	
177.81	0.01	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
177.83	0.02	100		100% COAL, DULL	
177.86	0.03	100		100% SANDSTONE,FINE GRAINED	LIGHT BROWN.
177.95	0.09	100		100% COAL, DULL	MUDSTONE, BANDS.
178.13	0.18	100		50% COAL, DULL 50% MUDSTONE	BROWN. THICKLY LAMINATED, WITH CONVOLUTED BEDDING.
178.28	0.15	100		100% COAL, HEAVY DULL	
178.35	0.07	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
178.40	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
178.51	0.11	100		100% COAL, DULL	
178.52	0.01	100		100% MUDSTONE	BUFF, MODERATELY WEAK ROCK.
178.53	0.01	100		100% COAL, DULL	
178.57	0.04	100		100% MUDSTONE	BUFF, MODERATELY WEAK ROCK.
178.60	0.03	100		100% COAL, DULL	WITH CALCITE ON FRACTURES.
178.64	0.04	100		100% MUDSTONE	BUFF, MODERATELY WEAK ROCK.
178.69	0.05	100		100% COAL, DULL	
178.72	0.03	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
178.82	0.10	100		100% COAL, DULL	
178.85	0.03	100		100% MUDSTONE	LIGHT GREEN, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
178.87	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
178.98	0.11	100		100% COAL, DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
179.04	0.06	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
179.10	0.06	100		100% COAL, DULL	MUDSTONE, LENSES.
179.14	0.04	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
179.33	0.19	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
179.39	0.06	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
179.55	0.16	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
179.56	0.01	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
179.58	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
179.68	0.10	100		100% MUDSTONE	BUFF, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
179.71	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
179.79	0.08	100		100% MUDSTONE	LIGHT GREY, WEAK ROCK.
179.83	0.04	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, BANDS, BLACK, MODERATELY WEAK ROCK.
179.88	0.05	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
180.04	0.16	100		100% COAL, DULL	
180.05	0.01	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
180.20	0.15	100		100% COAL, DULL	
180.36	0.16	100		100% MUDSTONE	LIGHT GREY, WEAK ROCK.
180.48	0.12	100		100% COAL, DULL	
180.52	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
180.53	0.01	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
180.62	0.09	100		100% COAL, DULL	
180.86	0.24	100		100% MUDSTONE	CARBONACEOUS, LENSES, LIGHT GREY, WEAK ROCK, WITH PLANT REMAINS.
180.93	0.07	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
181.01	0.08	100		100% COAL, DULL	
181.20	0.19	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
181.30	0.10	100		100% COAL, DULL	
181.34	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
181.37	0.03	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
181.40	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
181.51	0.11	100		100% COAL, HEAVY DULL	MUDSTONE, LENSES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
181.55	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
181.61	0.06	100		100% COAL, HEAVY DULL	
181.62	0.01	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
181.65	0.03	100		100% COAL, DULL	
181.70	0.05	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
181.80	0.10	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
181.85	0.05	100		100% MUDSTONE	KAOLINITIC, LIGHT GREY, WEAK ROCK.
181.97	0.12	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
182.00	0.03	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
182.04	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
182.08	0.04	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
182.80	0.72	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
182.87	0.07	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
183.32	0.45	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
183.48	0.16	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
183.57	0.09	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
186.16	2.59	100		100% SANDSTONE,FINE GRAINED	MEDIUM GRAINED, LENSES, LIGHT GREY, STRONG ROCK, LAMINATED.
187.15	0.99	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, LAMINATED, WITH PLANT REMAINS.
188.75	1.60	100		50% SANDSTONE,FINE GRAINED 50% SANDSTONE	GREY. MED.-FINE GRAINED, LIGHT GREY. STRONG ROCK, THICKLY LAMINATED.
190.82	2.07	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
194.74	3.92	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
194.81	0.07	100		100% COAL, DULL	
194.86	0.05	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
195.21	0.35	100		100% COAL, DULL	MUDSTONE, BANDS.
195.47	0.26	100		100% MUDSTONE	COALY, BANDS, BROWN, MODERATELY WEAK ROCK.
195.53	0.06	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
195.59	0.06	100		100% COAL, DULL	
195.63	0.04	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
195.70	0.07	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
195.74	0.04	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
195.85	0.11	100		100% COAL, DULL	
196.06	0.21	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
196.13	0.07	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
196.23	0.10	100		100% MUDSTONE	LIGHT GREY, WEAK ROCK.
196.32	0.09	100		100% COAL, DULL	
197.11	0.79	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
197.21	0.10	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
197.90	0.69	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
198.16	0.26	100		100% COAL, DULL	
199.46	1.30	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
199.60	0.14	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BLACK, MODERATELY STRONG ROCK.
199.74	0.14	100		100% SANDSTONE,FINE GRAINED	COALY, FRAGMENTS, LIGHT GREY, MODERATELY STRONG ROCK.
199.88	0.14	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, LENSES, BLACK, MODERATELY WEAK ROCK.
200.11	0.23	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
200.27	0.16	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, LENSES, BLACK, MODERATELY WEAK ROCK.
200.35	0.08	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
200.63	0.28	100		100% COAL, HEAVY DULL	ARENACEOUS, LENSES.
200.70	0.07	100		100% SANDSTONE,MEDIUM GRAINED	COALY, BANDS, LIGHT GREY, STRONG ROCK.
200.90	0.20	100		50% CARBONACEOUS MUDSTONE 40% SANDSTONE,MEDIUM GRAINED 10% MUDSTONE	BLACK. LENSES, LIGHT GREY. BANDS, LIGHT GREY. MODERATELY WEAK ROCK.
210.02	9.12	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
212.18	2.16	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
212.65	0.47	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
212.70	0.05	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
212.86	0.16	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
214.00	1.14	0		CORE LOSS	
214.16	0.16	100		100% MUDSTONE	BADLY BROKEN, LIGHT GREY, MODERATELY WEAK ROCK.
214.84	0.68	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
215.03	0.19	100		100% SANDSTONE	VERY FINE GRAINED, LIGHT BROWN, VERY STRONG ROCK.
215.16	0.13	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
215.83	0.67	100		100% SANDSTONE,FINE GRAINED	COALY, FRAGMENTS, LIGHT GREY, VERY STRONG ROCK.
215.97	0.14	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK, WITH DISTURBED BEDDING, WITH BURROWING.
217.03	1.06	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
217.23	0.20	100		100% SANDSTONE,FINE GRAINED	COALY, FRAGMENTS, LIGHT BROWN, STRONG ROCK.
219.53	2.30	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
221.48	1.95	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
222.44	0.96	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
225.67	3.23	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
225.81	0.14	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
228.11	2.30	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
228.61	0.50	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
238.92	10.31	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
239.29	0.37	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
239.34	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
257.19	17.85	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
257.80	0.61	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, VERY STRONG ROCK.
257.94	0.14	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, VERY STRONG ROCK.
258.81	0.87	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, VERY STRONG ROCK.
258.91	0.10	100		100% SANDSTONE,COARSE GRAINED	LIGHT GREY, VERY STRONG ROCK, WITH MUD PELLETS.
259.21	0.30	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
259.28	0.07	100		100% CARBONACEOUS MUDSTONE	GRADING TO, HEAVY DULL COAL, BLACK, MODERATELY STRONG ROCK, VERY WIDELY SPACED JOINTS.
259.44	0.16	100		100% MUDSTONE	COALY, FRAGMENTS, GREY, MODERATELY STRONG ROCK.
259.48	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, MODERATELY STRONG ROCK.
260.11	0.63	100		90% MUDSTONE 10% SILTSTONE	COALY, STREAKS, GREY. DARK GREY. MODERATELY STRONG ROCK, WITH PLANT REMAINS.
260.14	0.03	100		100% CLAY	DARK GREY, VERY WEAK ROCK, VERY STICKY.
260.45	0.31	100		100% COAL, DULL	
260.50	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
260.56	0.06	100		100% COAL, DULL	
260.61	0.05	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
260.72	0.11	100		100% COAL, DULL	
261.06	0.34	100		100% MUDSTONE	GREY, WEAK ROCK, VERY STICKY.
261.39	0.33	100		100% COAL, DULL	
262.50	1.11	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, LIGHT GREY, STRONG ROCK.
262.60	0.10	100		100% SILTSTONE	GREY, STRONG ROCK.
262.90	0.30	100		60% SILTSTONE 40% SANDSTONE,FINE GRAINED	FINE GRAINED SANDSTONE, STREAKS, BLACK. SILTSTONE, STREAKS, LIGHT GREY. VERY STRONG ROCK.
262.93	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY STRONG ROCK.
263.04	0.11	100		100% COAL, DULL	
263.92	0.88	100		100% MUDSTONE	GREY, STRONG ROCK, WITH PLANT REMAINS.
264.06	0.14	100		100% CARBONACEOUS MUDSTONE	DARK GREY, VERY WIDELY SPACED JOINTS.
				TOP OF DALMAYNE D : 240.94 M R.L.	
264.07	0.01	1		100% COAL, DULL	
264.08	0.01	1		100% TONSTEIN	
264.27	0.19	1		100% COAL, DULL WITH FEW BRIGHT BANDS	
264.44	0.17	1		100% COAL, DULL	
264.61	0.17	1		100% COAL, DULL WITH FEW BRIGHT BANDS	
264.67	0.06	1		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
264.93	0.26	1		100% COAL, DULL	
264.97	0.04	1		100% COAL, INTERBANDED DULL AND BRIGHT	
265.31	0.34	1		100% COAL, HEAVY DULL	
265.37	0.06	1		100% COAL, DULL WITH FEW BRIGHT BANDS	
265.41	0.04	1		100% COAL, DULL	
265.45	0.04	1		100% COAL, HEAVY DULL	BRIGHT COAL, STREAKS, WITH PELLETS OF KAOLINITE.
265.53	0.08	1		100% COAL, DULL	
265.54	0.01	1		100% CARBONACEOUS MUDSTONE	BLACK.
265.56	0.02	1		100% CLAY	NON SLAKING, NON STICKY.
265.57	0.01	1		100% CARBONACEOUS MUDSTONE	BLACK, WITH MUD PELLETS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
265.67	0.10		1	100% COAL, DULL	
265.72	0.05		1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
265.76	0.04		1	100% TONSTEIN	
265.96	0.20		1	100% COAL, DULL WITH FEW BRIGHT BANDS	
266.01	0.05		1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
266.08	0.07		1	100% COAL, DULL WITH FEW BRIGHT BANDS	
266.17	0.09		1	100% COAL, DULL	
266.25	0.08	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	
266.39	0.14	100	1	100% COAL, DULL	
266.46	0.07	100	1	100% COAL, DULL WITH FEW BRIGHT BANDS	
266.58	0.12	100	1	100% COAL, DULL	
266.64	0.06	100	1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	
266.72	0.08	100	1	100% COAL, INTERBANDED DULL AND BRIGHT	
266.75	0.03	100	1	100% COAL, HEAVY DULL	
266.79	0.04	100	1	100% COAL, DULL	
266.86	0.07	100	2	100% CARBONACEOUS MUDSTONE	BLACK.
267.05	0.19	100	2	100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
267.07	0.02	100	2	100% CARBONACEOUS MUDSTONE	
267.35	0.28	100	2	100% COAL, DULL	
267.39	0.04	100	2	100% COAL, DULL WITH FEW BRIGHT BANDS	
267.42	0.03	100	2	100% TONSTEIN	
267.45	0.03	100	2	100% COAL, INTERBANDED DULL AND BRIGHT	
267.67	0.22	100	3	100% CARBONACEOUS MUDSTONE	BRIGHT COAL, BANDS, BLACK, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
267.77	0.10	100	3	100% COAL, INTERBANDED DULL AND BRIGHT	
267.90	0.13	100	3	100% CARBONACEOUS MUDSTONE	BRIGHT COAL, BANDS, BLACK, MODERATELY WEAK ROCK.
268.10	0.20	100	3	100% MUDSTONE	GREY, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
268.30	0.20	100	4	100% COAL, DULL	MUDSTONE, FRAGMENTS, WITH CALCITE ON FRACTURES, WITH MUD PELLETS.
268.50	0.20	100	4	100% COAL, DULL	BADLY BROKEN.
269.32	0.82	100	4	100% COAL, DULL	BRIGHT COAL, BANDS.

DEPTH TO BASE m	THICKNESS m	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
			BASE OF DALMAYNE D : THICKNESS= 5.26 M; SAMPLED THICKNESS= 5.26 M		
269.68	0.36	100		100% MUDSTONE	GRADING TO, FINE GRAINED SANDSTONE, GREY-BROWN, SLOW SLAKING.
271.48	1.80	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, STRONG ROCK, WITH PLANT REMAINS.
276.50	5.02	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, VERY STRONG ROCK.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DD	5.26 M	264.06 - 269.32 M	5.26 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	264.06 - 266.79 M	2.73 M
2	266.79 - 267.45 M	0.66 M
3	267.45 - 268.10 M	0.65 M
4	268.10 - 269.32 M	1.22 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 32

HOLE TYPE	CORE
EASTING	598,900 M AM GRID
NORTHING	5,389,800 M AM GRID
ELEVATION	400.00 M
TOTAL DEPTH DRILLED	277.40 M
DRILLING STARTED	06/07/80
DRILLING TIME	
CORE SIZE	61.1 MM
HOLE SIZE	96.1 MM
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION
PETROPHYSICAL WIRELINE LOGS RUN :	

BOREHOLE : GY 32

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
9.98	9.98	0		CORE LOSS	
				*** CORE DESCRIPTION ***	
10.06	0.08	100		100% CARBONACEOUS MUDSTONE	BLACK, COMPLETELY WEATHERED, MODERATELY WEAK ROCK.
10.13	0.07	100		100% MUDSTONE	DARK GREY, COMPLETELY WEATHERED, STRONG ROCK.
10.23	0.10	100		100% SANDSTONE,FINE GRAINED	DARK GREY, COMPLETELY WEATHERED, VERY STRONG ROCK.
10.26	0.03	100		100% MUDSTONE	BROWN, COMPLETELY WEATHERED, VERY WEAK ROCK.
10.32	0.06	100		100% CARBONACEOUS MUDSTONE	BLACK, HIGHLY WEATHERED, WEAK ROCK.
10.33	0.01	100		100% MUDSTONE	BROWN, COMPLETELY WEATHERED, VERY WEAK ROCK.
10.36	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
10.42	0.06	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK, WITH PLANT REMAINS.
10.46	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
10.51	0.05	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, VERY STRONG ROCK.
10.70	0.19	100		100% MUDSTONE	CREAM, HIGHLY WEATHERED, VERY WEAK ROCK.
10.95	0.25	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, BANDS, BLACK, MODERATELY WEATHERED, WEAK ROCK.
11.04	0.09	100		100% CARBONACEOUS MUDSTONE	GRADING TO, MUDSTONE, GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
11.58	0.54	100		100% MUDSTONE	GREY, HIGHLY WEATHERED, MODERATELY WEAK ROCK.
11.73	0.15	100		100% SANDSTONE	VERY FINE GRAINED, LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
13.08	1.35	100		100% MUDSTONE	BUFF, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
14.40	1.32	100		100% SANDSTONE,FINE GRAINED	CREAM, MODERATELY WEATHERED, MODERATELY STRONG ROCK.
15.00	0.60	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
15.48	0.48	100		100% SANDSTONE,FINE GRAINED	GRADING TO, MUDSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
15.63	0.15	100		100% SANDSTONE	MED.-FINE GRAINED, YELLOW-GREY, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
15.72	0.09	100		100% SANDSTONE	VERY FINE GRAINED, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
15.98	0.26	100		100% SANDSTONE	MED.-FINE GRAINED, YELLOW-GREY, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
16.14	0.16	100		100% SANDSTONE,FINE GRAINED	GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
16.26	0.12	100		100% SANDSTONE	MED.-FINE GRAINED, YELLOW-GREY, SLIGHTLY WEATHERED, MODERATELY STRONG ROCK.
16.36	0.10	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
16.93	0.57	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, MODERATELY STRONG ROCK.
17.04	0.11	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
21.99	4.95	100		95% SANDSTONE,FINE GRAINED 5% SANDSTONE	GREY. MED.-FINE GRAINED, LENSES, LIGHT GREY. UNWEATHERED, MODERATELY STRONG ROCK.
26.11	4.12	100		100% SANDSTONE,MEDIUM GRAINED	YELLOW-GREY, SLIGHTLY WEATHERED, STRONG ROCK.
26.80	0.69	100		90% SANDSTONE,MEDIUM GRAINED 10% MUDSTONE	COALY, FRAGMENTS, LIGHT GREY. PEBBLY, GREY. UNWEATHERED, STRONG ROCK.
28.85	2.05	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK.
29.22	0.37	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
31.70	2.48	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, STRONG ROCK.
32.16	0.46	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
32.54	0.38	100		100% MUDSTONE	DARK GREY, SLIGHTLY WEATHERED, WEAK ROCK.
32.56	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, SLIGHTLY WEATHERED, WEAK ROCK.
32.82	0.26	100		100% MUDSTONE	BLACK, SLIGHTLY WEATHERED, WEAK ROCK.
33.58	0.76	100		100% CARBONACEOUS MUDSTONE	BLACK, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
33.72	0.14	100		100% MUDSTONE	LIGHT BROWN, SLIGHTLY WEATHERED, WEAK ROCK.
33.83	0.11	100		100% CARBONACEOUS MUDSTONE	COALY, LENSES, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
33.94	0.11	100		100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
34.02	0.08	100		100% COAL, DULL	MUDSTONE, BANDS, UNWEATHERED.
34.46	0.44	100		100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT GREY, SLIGHTLY WEATHERED, WEAK ROCK.
34.62	0.16	100		100% COAL, DULL	UNWEATHERED.
34.63	0.01	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEATHERED, VERY WEAK ROCK.
34.74	0.11	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	UNWEATHERED.
35.03	0.29	100		100% MUDSTONE	KAOLINITIC, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK.
35.21	0.18	100		100% COAL, DULL	UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
35.26	0.05	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
35.53	0.27	100		100% COAL, DULL WITH FEW BRIGHT BANDS	UNWEATHERED.
35.67	0.14	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BLACK, UNWEATHERED, STRONG ROCK.
35.79	0.12	100		100% COAL, DULL	
35.80	0.01	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
35.90	0.10	100		100% COAL, DULL	MUDSTONE, BANDS.
36.05	0.15	100		100% COAL, DULL	
36.14	0.09	100		100% MUDSTONE	LIGHT BROWN.
36.16	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
36.28	0.12	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
36.34	0.06	100		100% COAL, DULL	
36.37	0.03	100		100% SANDSTONE	VERY FINE GRAINED, LIGHT BROWN, MODERATELY STRONG ROCK.
36.39	0.02	100		100% TONSTEIN	BLACK, MODERATELY STRONG ROCK.
36.51	0.12	100		100% MUDSTONE	COALY, LENSES, LIGHT BROWN, MODERATELY WEAK ROCK.
36.70	0.19	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
36.84	0.14	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
36.99	0.15	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
37.12	0.13	100		100% COAL, DULL	
37.36	0.24	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
39.98	2.62	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
40.20	0.22	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
40.25	0.05	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, STRONG ROCK.
41.58	1.33	100		100% MUDSTONE	CARBONACEOUS, LENSES, GREY, UNWEATHERED, MODERATELY STRONG ROCK, WITH DISTURBED BEDDING.
42.85	1.27	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
43.15	0.30	100		100% MUDSTONE	YELLOW-GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK.
43.35	0.20	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, PEBBLY, YELLOW-GREY, SLIGHTLY WEATHERED, STRONG ROCK.
46.11	2.76	100		100% SANDSTONE	MED.-FINE GRAINED, YELLOW-GREY, SLIGHTLY WEATHERED, STRONG ROCK.
48.06	1.95	100		100% SANDSTONE	MED.-COARSE GRAINED, YELLOW-GREY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
48.71	0.65	100		100% SANDSTONE,MEDIUM GRAINED	YELLOW-GREY, SLIGHTLY WEATHERED, STRONG ROCK.
50.49	1.78	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, STRONG ROCK.
51.21	0.72	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, BLACK, MODERATELY WEATHERED, MODERATELY WEAK ROCK.
53.70	2.49	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS.
53.80	0.10	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, LENSES, LIGHT GREY, UNWEATHERED, STRONG ROCK.
59.10	5.30	100		95% SANDSTONE 5% COAL	MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS. STRONG ROCK, WITH CARBONACEOUS WISPS.
59.42	0.32	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
59.45	0.03	100		100% CLAYSTONE	CREAM, WEAK ROCK.
59.48	0.03	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, LENSES, BLACK, MODERATELY WEAK ROCK.
59.66	0.18	100		100% MUDSTONE	BADLY BROKEN, LIGHT GREEN, MODERATELY WEAK ROCK.
59.67	0.01	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
59.75	0.08	100		100% MUDSTONE	LIGHT GREEN, WEAK ROCK.
60.00	0.25	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
60.16	0.16	100		100% MUDSTONE	KAOLINITIC, LIGHT BROWN, WEAK ROCK.
60.24	0.08	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
60.31	0.07	100		100% MUDSTONE	KAOLINITIC, LIGHT BROWN, VERY WEAK ROCK.
60.67	0.36	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
60.86	0.19	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
61.01	0.15	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
61.12	0.11	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
61.32	0.20	100		100% CARBONACEOUS MUDSTONE	COALY, BANDS, BLACK, MODERATELY WEAK ROCK.
61.92	0.60	100		100% MUDSTONE	LIGHT GREY, WEAK ROCK.
62.35	0.43	100		100% CARBONACEOUS MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
62.44	0.09	100		100% COAL, HEAVY DULL	
62.78	0.34	100		100% MUDSTONE	COALY, BANDS, DARK BROWN, MODERATELY WEAK ROCK.
62.85	0.07	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
62.88	0.03	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
63.00	0.12	100		100% COAL, DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
63.04	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
63.13	0.09	100		100% MUDSTONE	BROWN, UNWEATHERED, WEAK ROCK.
63.26	0.13	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
63.31	0.05	100		100% COAL, DULL	
63.48	0.17	100		100% MUDSTONE	CARBONACEOUS, LENSES, LIGHT BROWN, MODERATELY WEAK ROCK.
63.54	0.06	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
63.87	0.33	100		100% MUDSTONE	BUFF, WEAK ROCK.
63.92	0.05	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
63.96	0.04	100		100% MUDSTONE	LIGHT GREY, WEAK ROCK.
64.10	0.14	100		100% COAL, HEAVY DULL	
64.70	0.60	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, BROWN, MODERATELY WEAK ROCK.
64.80	0.10	100		100% COAL, DULL	MUDSTONE, LENSES.
64.81	0.01	100		100% MUDSTONE	COALY, FRAGMENTS, LIGHT BROWN, WEAK ROCK.
64.86	0.05	100		100% COAL, DULL	
64.88	0.02	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
64.90	0.02	100		100% COAL, DULL	
64.96	0.06	100		100% COAL, DULL	
65.00	0.04	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK.
65.18	0.18	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BLACK, MODERATELY WEAK ROCK.
65.42	0.24	100		100% MUDSTONE	CARBONACEOUS, BANDS, LIGHT BROWN, MODERATELY WEAK ROCK.
65.70	0.28	100		100% COAL, DULL	
65.77	0.07	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK.
65.83	0.06	100		100% MUDSTONE	LIGHT GREY.
65.86	0.03	100		100% COAL, DULL	LIGHT BROWN.
65.87	0.01	100		100% MUDSTONE	WEAK ROCK.
66.11	0.24	100		100% COAL, HEAVY DULL	
66.12	0.01	100		100% MUDSTONE	LIGHT BROWN, VERY WEAK ROCK.
66.22	0.10	100		100% COAL, HEAVY DULL	
66.37	0.15	100		100% MUDSTONE	CARBONACEOUS, LENSES, DARK BROWN.
66.47	0.10	100		100% COAL, HEAVY DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
66.56	0.09	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
66.58	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
66.63	0.05	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
66.70	0.07	100		100% COAL, DULL	
67.27	0.57	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY STRONG ROCK.
67.33	0.06	100		100% COAL, DULL	MUDSTONE, LENSES.
67.71	0.38	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
69.13	1.42	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
69.21	0.08	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
70.00	0.79	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
70.55	0.55	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
70.60	0.05	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY STRONG ROCK.
70.70	0.10	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
70.88	0.18	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
71.55	0.67	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
72.64	1.09	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
73.93	1.29	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY STRONG ROCK.
73.97	0.04	100		100% MUDSTONE	CALCITIC, BUFF, MODERATELY WEAK ROCK.
74.22	0.25	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
74.64	0.42	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
76.19	1.55	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY STRONG ROCK.
76.43	0.24	0		CORE LOSS	
76.60	0.17	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY STRONG ROCK.
77.01	0.41	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
77.12	0.11	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
77.15	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
77.27	0.12	100		100% COAL, DULL	
77.30	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
77.32	0.02	100		100% MUDSTONE	LIGHT BROWN, MODERATELY WEAK ROCK.
77.38	0.06	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
77.39	0.01	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
77.57	0.18	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
77.68	0.11	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
77.73	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
77.75	0.02	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
77.78	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
77.81	0.03	100		100% MUDSTONE	LIGHT BROWN, WEAK ROCK.
79.01	1.20	100		100% CARBONACEOUS MUDSTONE	ARENACEOUS, LENSES, BLACK, MODERATELY WEAK ROCK.
79.03	0.02	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
79.05	0.02	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	
79.48	0.43	100		100% MUDSTONE	CARBONACEOUS, LENSES, BROWN, WEAK ROCK.
79.53	0.05	100		100% MUDSTONE	LIGHT GREY, WEAK ROCK.
80.20	0.67	100		100% CARBONACEOUS MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
80.45	0.25	100		100% SANDSTONE,FINE GRAINED	GRADING TO, SCREE, BLACK, MODERATELY STRONG ROCK.
80.66	0.21	100		100% SANDSTONE	VERY FINE GRAINED, CARBONACEOUS, DARK GREY, STRONG ROCK.
80.81	0.15	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
80.92	0.11	100		100% MUDSTONE	CALCITIC, LIGHT GREY, VERY WEAK ROCK.
81.23	0.31	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
82.06	0.83	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BLACK, STRONG ROCK.
82.17	0.11	100		100% COAL	FRAGMENTS, CALCITIC, BROWN-BLACK, MODERATELY STRONG ROCK.
82.40	0.23	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK.
82.74	0.34	100		100% SANDSTONE,FINE GRAINED	COALY, LENSES, DARK GREY, STRONG ROCK.
82.84	0.10	100		100% MUDSTONE	LIGHT GREY, WEAK ROCK.
82.89	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
82.91	0.02	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.
83.31	0.40	100		95% SANDSTONE 5% COAL	MED.-FINE GRAINED, CARBONACEOUS, BLACK. FRAGMENTS. STRONG ROCK.
83.77	0.46	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK, WITH PLANT REMAINS.
84.09	0.32	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
84.59	0.50	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
84.08	0.29	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	MUDSTONE, BANDS, LIGHT GREY. FRAGMENTS. STRONG ROCK.
87.82	2.94	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY STRONG ROCK.
88.01	0.19	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
89.69	1.68	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
90.03	0.34	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, STRONG ROCK.
90.33	0.30	100		100% SANDSTONE,FINE GRAINED	COALY, BANDS, LIGHT GREY, STRONG ROCK, WITH POOR SORTING.
90.87	0.54	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, STRONG ROCK, WITH CARBONACEOUS WISPS.
91.16	0.29	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
91.36	0.20	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
91.66	0.30	100		100% SANDSTONE,MEDIUM GRAINED	CONGLOMERATIC, LIGHT GREY, STRONG ROCK.
94.24	2.58	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
95.06	0.82	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
96.03	0.97	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
96.09	0.06	100		100% MUDSTONE	BROWN-BLACK, VERY WEAK ROCK.
96.15	0.06	100		100% SANDSTONE,FINE GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK, WITH POOR SORTING.
96.82	0.67	100		100% SANDSTONE,COARSE GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
97.00	0.18	100		100% SANDSTONE,FINE GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
97.04	0.04	100		100% MUDSTONE	COALY, TRACES, DARK GREY, WEAK ROCK.
97.18	0.14	100		100% COAL, DULL	
97.30	0.12	100		60% COAL, DULL 40% MUDSTONE	BADLY BROKEN. BADLY BROKEN, BROWN. MODERATELY WEAK ROCK.
97.42	0.12	100		100% MUDSTONE	BROWN, WEAK ROCK.
97.70	0.28	100		100% SANDSTONE,FINE GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
98.95	1.25	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
99.25	0.30	100		60% SANDSTONE 40% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY. VERY FINE GRAINED, PEBBLY, LIGHT GREY. STRONG ROCK, WITH POOR SORTING.
100.44	1.19	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK, WITH CARBONACEOUS WISPS.
100.57	0.13	100		100% MUDSTONE	LIGHT GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
100.65	0.08	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, STRONG ROCK.
102.82	2.17	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
103.70	0.88	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
113.47	9.77	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
113.64	0.17	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, STRONG ROCK.
113.89	0.25	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY STRONG ROCK.
114.10	0.21	100		100% SANDSTONE,MEDIUM GRAINED	CONGLOMERATIC, LIGHT GREY, STRONG ROCK.
116.40	2.30	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
116.53	0.13	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, STRONG ROCK.
116.68	0.15	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
117.04	0.36	100		100% SANDSTONE,MEDIUM GRAINED	GRADING TO, FINE GRAINED, LIGHT GREY, STRONG ROCK.
117.23	0.19	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
120.50	3.27	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
121.25	0.75	100		95% SANDSTONE 5% COAL	MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS. STRONG ROCK.
121.49	0.24	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
127.34	5.85	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
128.85	1.51	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
132.06	3.21	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
132.26	0.20	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, STRONG ROCK, WITH PEBBLE LINEATION.
132.44	0.18	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
132.52	0.08	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, STRONG ROCK, WITH PEBBLE LINEATION.
134.10	1.58	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, STRONG ROCK.
138.73	4.63	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
149.90	11.17	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
150.47	0.57	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, STRONG ROCK.
155.06	4.59	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
155.17	0.11	100		100% COAL, HEAVY DULL	
155.31	0.14	100		100% SANDSTONE,MEDIUM GRAINED	GRADING TO, COARSE GRAINED, LIGHT GREY, STRONG ROCK.
157.26	1.95	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
157.36	0.10	100		100% CARBONACEOUS MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
158.52	1.16	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
164.46	5.94	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
166.59	2.13	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
168.32	1.73	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
168.75	0.43	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, MODERATELY WEAK ROCK.
168.77	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
173.77	5.00	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
173.91	0.14	100		100% CALCRETE	BUFF, STRONG ROCK.
175.70	1.79	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
177.58	1.88	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, STRONG ROCK.
177.90	0.32	100		100% CALCRETE	BUFF, STRONG ROCK.
178.51	0.61	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, STRONG ROCK.
179.22	0.71	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
181.12	1.90	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK, THICKLY LAMINATED.
181.18	0.06	100		100% SANDSTONE,FINE GRAINED	GREY-GREEN, STRONG ROCK.
189.53	8.35	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
189.92	0.39	100		100% CALCRETE	BUFF, STRONG ROCK.
190.55	0.63	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, GREY-GREEN, WITH KAOLINITE, STRONG ROCK.
190.70	0.15	100		50% SANDSTONE,MEDIUM GRAINED 50% CARBONACEOUS MUDSTONE	FINE GRAINED SANDSTONE, LENSES, LIGHT GREY. BLACK. MODERATELY STRONG ROCK, VERY THINLY BEDDED, BASAL CONTACT EROSIONAL.
190.74	0.04	100		100% MUDSTONE	SANDSTONE, LENSES, GREY, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
190.86	0.12	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY STRONG ROCK, VERY WIDELY SPACED JOINTS.
191.76	0.90	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, VERY STRONG ROCK.
191.81	0.05	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS.
191.85	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY STRONG ROCK, VERY WIDELY SPACED JOINTS.
191.95	0.10	100		100% SANDSTONE,MEDIUM GRAINED	COARSE GRAINED, FRAGMENTS, LIGHT GREY, VERY STRONG ROCK, WITH MUD PELLETS.
192.09	0.14	100		100% MUDSTONE	GRADING TO, SANDSTONE, GREY, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
192.34	0.25	100		100% SANDSTONE,MEDIUM GRAINED	COARSE GRAINED, FRAGMENTS, LIGHT GREY, VERY STRONG ROCK.
192.38	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY STRONG ROCK.
192.42	0.04	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, FRAGMENTS, VERY STRONG ROCK.
192.54	0.12	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, VERY STRONG ROCK.
192.77	0.23	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
193.25	0.48	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. STRONG ROCK.
193.70	0.45	100		100% MUDSTONE	FINE GRAINED SANDSTONE, BANDS, DARK GREY, STRONG ROCK.
194.63	0.93	100		100% MUDSTONE	FINE GRAINED SANDSTONE, LAMINAE, DARK GREY, STRONG ROCK.
194.91	0.28	100		60% MUDSTONE 40%	DARK GREY. MODERATELY STRONG ROCK.
194.96	0.05	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, VERY STRONG ROCK.
195.01	0.05	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, VERY STRONG ROCK.
195.08	0.07	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, VERY STRONG ROCK.
195.49	0.41	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY, VERY STRONG ROCK.
196.18	0.69	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT BROWN, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
196.91	0.73	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, VERY STRONG ROCK, WITH CARBONACEOUS WISPS.
196.97	0.06	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, VERY STRONG ROCK, WITH MUD PELLETS.
198.23	1.26	100		100% MUDSTONE	FINE GRAINED SANDSTONE, LAMINAE, GREY, STRONG ROCK, WITH PLANT REMAINS, VERY WIDELY SPACED JOINTS.
198.61	0.38	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LAMINAE, LIGHT GREY, STRONG ROCK.
199.56	0.95	100		100% MUDSTONE	GREY, MODERATELY STRONG ROCK.
199.59	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY STRONG ROCK, WITH PLANT REMAINS, VERY WIDELY SPACED JOINTS.
				TOP OF DALMAYNE E : 200.41 M R.L.	
199.88	0.29	100	1	100% COAL, DULL	
199.92	0.04	100	1	100% COAL, HEAVY DULL	
200.06	0.14	100	1	100% COAL, DULL	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
200.10	0.04	100	1	100% COAL, HEAVY DULL	
200.11	0.01	100	1	100% TONSTEIN	
200.13	0.02	100	1	100% COAL, HEAVY DULL	
200.15	0.02	100	1	100% TONSTEIN	
200.20	0.05	100	1	100% COAL, HEAVY DULL	
200.88	0.68	100	1	100% COAL, DULL	
200.93	0.05	100	1	100% COAL, HEAVY DULL	
201.10	0.17	100	2	100% COAL, DULL	
201.12	0.02	100	2	100% TONSTEIN	
201.14	0.02	100	2	100% COAL, DULL	
201.15	0.01	100	2	100% TONSTEIN	
201.43	0.28	100	2	100% COAL, DULL	
201.49	0.06	100	2	100% COAL, HEAVY DULL	
201.66	0.17	100	2	100% COAL, DULL	
[illegible]68	0.02	100	2	100% COAL, HEAVY DULL	
[illegible]3	0.02	100	2	100% TONSTEIN	
201.72	0.02	100	2	100% COAL, HEAVY DULL	
				BASE OF DALMAYNE E : THICKNESS= 2.13 M; SAMPLED THICKNESS= 2.13 M	
202.03	0.31	100		100% MUDSTONE	MODERATELY WEAK ROCK, WITH PLANT REMAINS.
202.07	0.04	100		100% COAL, INTERBANDED DULL AND BRIGHT	
202.08	0.01	100		100% MUDSTONE	CALCITIC, MODERATELY WEAK ROCK.
202.10	0.02	100		100% COAL, INTERBANDED DULL AND BRIGHT	
202.70	0.60	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK, WITH PLANT REMAINS.
203.38	0.68	100		80% SANDSTONE,MEDIUM GRAINED 20% SILTSTONE	LIGHT GREY. STRONG ROCK, VERY THINLY BEDDED.
203.80	0.42	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK, WITH MUD PELLETS.
204.43	0.63	100		100% SANDSTONE	VERY FINE GRAINED, GREY, STRONG ROCK.
204.53	0.10	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
204.61	0.08	100		100% SANDSTONE	MED.-FINE GRAINED, BADLY BROKEN, LIGHT GREY, MODERATELY STRONG ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
204.89	0.28	100		100% SANDSTONE	VERY FINE GRAINED, BADLY BROKEN, GREY, MODERATELY STRONG ROCK.
205.20	0.31	0		CORE LOSS	
205.44	0.24	100		100% MUDSTONE	BADLY BROKEN, LIGHT GREY, MODERATELY WEAK ROCK.
205.70	0.26	100		100% MUDSTONE	FINE GRAINED SANDSTONE, BANDS, LIGHT GREY, MODERATELY WEAK ROCK.
206.22	0.52	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
206.25	0.03	100		100% MUDSTONE	CALCITIC, LIGHT GREEN, WEAK ROCK.
206.74	0.49	100		50% MUDSTONE 50% CARBONACEOUS MUDSTONE	GREY. BLACK. MODERATELY WEAK ROCK, THICKLY LAMINATED, LAMINATED.
206.91	0.17	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
				TOP OF DALMAYNE E2 : 193.09 M R.L.	
206.92	0.01	100		100% COAL, DULL	
206.94	0.02	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
207.02	0.08	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
207.43	0.41	100		100% COAL, HEAVY DULL	
207.53	0.10	100		100% COAL, DULL	
207.61	0.08	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
				BASE OF DALMAYNE E2 : THICKNESS= 0.70 M; SAMPLED THICKNESS= 0.00 M	
208.25	0.64	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK, WITH CARBONACEOUS WISPS, WITH TROUGH CROSS BEDDING.
208.35	0.10	100		100% CARBONACEOUS MUDSTONE	DARK GREY, MODERATELY WEAK ROCK, TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
208.66	0.31	100		100% SANDSTONE	VERY FINE GRAINED, GREY, MODERATELY STRONG ROCK, WITH PLANT REMAINS, TIGHT PLANAR, ROUGH DISCONTINUITIES, WITH SLICKENSIDES.
209.35	0.69	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LENSES, LIGHT GREY, STRONG ROCK.
209.37	0.02	100		100% COAL, BRIGHT	
209.40	0.03	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
209.41	0.01	100		100% COAL, BRIGHT	
209.82	0.41	100		100% SANDSTONE	VERY FINE GRAINED, GREY.
210.00	0.18	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
212.26	2.26	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK, WITH PLANT REMAINS.
212.99	0.73	100		50% SANDSTONE 50% SANDSTONE	LIGHT GREY. VERY FINE GRAINED, GREY. STRONG ROCK, THICKLY LAMINATED, LAMINATED.
214.16	1.17	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
214.70	0.54	100		100% SANDSTONE	VERY FINE GRAINED, GREY, STRONG ROCK, LAMINATED.
				TOP OF DALMAYNE E3 : 185.30 M R.L.	
214.78	0.08	100		100% COAL, DULL	
214.79	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
214.83	0.04	100		100% COAL, DULL	
				BASE OF DALHAYNE E3 : THICKNESS= 0.13 M; SAMPLED THICKNESS= 0.00 M	
214.85	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
215.05	0.20	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK.
215.14	0.09	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BLACK, STRONG ROCK.
215.48	0.34	100		100% CARBONACEOUS MUDSTONE	COALY, LENSES, BLACK, MODERATELY WEAK ROCK.
215.82	0.34	100		100% MUDSTONE	DARK GREY, MODERATELY STRONG ROCK, WITH PLANT REMAINS.
216.16	0.34	100		100% SANDSTONE,FINE GRAINED	DARK GREY, MODERATELY STRONG ROCK.
216.25	0.09	100		100% CARBONACEOUS SHALE	BLACK, MODERATELY STRONG ROCK.
216.42	0.17	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK, WITH CARBONACEOUS WISPS.
216.82	0.40	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
217.70	0.88	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
218.36	0.66	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
219.17	0.81	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
219.82	0.65	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK, LAMINATED.
219.88	0.06	100		100% CARBONACEOUS SHALE	BLACK, MODERATELY STRONG ROCK.
219.96	0.08	100		100% COAL, DULL	
220.00	0.04	100		100% MUDSTONE	COALY, TRACES, DARK BROWN, MODERATELY STRONG ROCK.
220.01	0.01	100		100% COAL, DULL	
220.59	0.58	100		100% MUDSTONE	FINE GRAINED SANDSTONE, LENSES, DARK GREY, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
220.72	0.13	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
220.83	0.11	100		100% CARBONACEOUS SHALE	BLACK, MODERATELY STRONG ROCK.
220.84	0.01	100		100% COAL, BRIGHT	
221.03	0.19	100		100% CARBONACEOUS SHALE	BLACK, MODERATELY STRONG ROCK.
221.29	0.26	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, DARK BROWN, MODERATELY STRONG ROCK.
221.60	0.31	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
222.77	1.17	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LENSES, LIGHT GREY, STRONG ROCK.
224.23	1.46	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK, WITH PLANT REMAINS.
224.58	0.35	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
224.69	0.11	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
224.78	0.09	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
224.99	0.21	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
227.57	2.58	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
229.76	2.19	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
230.38	0.62	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
230.81	0.43	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK, WITH MUD PELLETS.
230.88	0.07	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
231.16	0.28	100		100% COAL, HEAVY DULL	WITH PYRITE ON FRACTURES.
231.41	0.25	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
233.08	1.67	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK.
249.15	16.07	100		100% SANDSTONE	MED.-FINE GRAINED, LITHIC, LIGHT GREY, STRONG ROCK.
249.55	0.40	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
250.66	1.11	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
250.92	0.26	100		100% PEBBLE CONGLOMERATE	LIGHT GREY, STRONG ROCK.
251.71	0.79	100		100% SANDSTONE,MEDIUM GRAINED	GRADING TO, FINE GRAINED, LIGHT GREY, STRONG ROCK.
251.98	0.27	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, STRONG ROCK.
252.21	0.23	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
252.66	0.45	100		100% SANDSTONE,MEDIUM GRAINED	PEBBLY, LIGHT GREY, STRONG ROCK, WITH CARBONACEOUS WISPS.
252.74	0.08	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
253.68	0.94	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
253.81	0.13	100		100% COAL, DULL	MUDSTONE, BANDS.
253.92	0.11	100		100% SANDSTONE,FINE GRAINED	COALY, BANDS, GREY, STRONG ROCK.
253.95	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
254.31	0.36	100		100% MUDSTONE	DARK GREY, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
254.44	0.13	100		100% SANDSTONE,MEDIUM GRAINED	POORLY SORTED, LIGHT GREY, STRONG ROCK.
255.67	1.23	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK, WITH DISTURBED BEDDING.
255.99	0.32	100		100% SANDSTONE,MEDIUM GRAINED	CALCITIC, POORLY SORTED, BUFF, STRONG ROCK.
256.07	0.08	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
256.12	0.05	100		100% MUDSTONE	DARK BROWN, MODERATELY WEAK ROCK.
256.15	0.03	100		100% COAL, HEAVY DULL	
256.16	0.01	100		100% TONSTEIN	DARK BROWN, MODERATELY WEAK ROCK.
256.24	0.08	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
257.15	0.91	100		85% MUDSTONE 15% SANDSTONE,FINE GRAINED	CARBONACEOUS, LENSES, GREY. LENSES, LIGHT GREY. STRONG ROCK.
257.69	0.54	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, STRONG ROCK.
257.73	0.04	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
257.77	0.04	100		100% MUDSTONE	COALY, LENSES, BROWN, MODERATELY WEAK ROCK.
257.89	0.12	100		100% COAL, INTERBANDED DULL AND BRIGHT	
257.94	0.05	100		100% CARBONACEOUS MUDSTONE	DARK GREY, MODERATELY WEAK ROCK.
258.30	0.36	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
258.70	0.40	100		100% SANDSTONE,FINE GRAINED	MUDSTONE, LENSES, LIGHT GREY, MODERATELY STRONG ROCK.
259.56	0.86	100		100% MUDSTONE	FINE GRAINED SANDSTONE, LENSES, LIGHT GREY, MODERATELY WEAK ROCK.
262.86	3.30	100		50% SANDSTONE,FINE GRAINED 50% SANDSTONE	LIGHT GREY. VERY FINE GRAINED, GREY. STRONG ROCK, VERY THINLY BEDDED.
263.03	0.17	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, MODERATELY WEAK ROCK.
263.05	0.02	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK, THICKLY LAMINATED.
263.08	0.03	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
263.14	0.06	100		100% COAL, BRIGHT WITH FEW DULL BANDS	
263.20	0.06	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, GREY, STRONG ROCK.
263.43	0.23	100		100% SANDSTONE,MEDIUM GRAINED	POORLY SORTED, LIGHT GREY, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
263.45	0.02	100		100% COAL, DULL	
263.50	0.05	100		100% MUDSTONE	LIGHT GREY.
263.66	0.16	100		100% SANDSTONE,MEDIUM GRAINED	CALCITIC, WHITE, STRONG ROCK.
263.77	0.11	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, LENSES, BLACK.
264.00	0.23	100		100% SANDSTONE	VERY FINE GRAINED, GREY, STRONG ROCK.
264.16	0.16	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, STRONG ROCK.
264.19	0.03	100		100% MUDSTONE	GREY, MODERATELY WEAK ROCK.
264.24	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
265.65	1.41	100		100% SANDSTONE,FINE GRAINED	GREY, MODERATELY STRONG ROCK.
266.29	0.64	100		95% SANDSTONE 5% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. LENSES, GREY. STRONG ROCK.
266.68	0.39	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, STRONG ROCK.
266.92	0.24	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK.
266.93	0.01	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
267.10	0.17	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK.
267.11	0.01	100		100% COAL, DULL	
267.12	0.01	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK.
267.13	0.01	100		100% COAL, DULL	
267.15	0.02	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK.
267.16	0.01	100		100% COAL, DULL	
267.19	0.03	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK.
267.43	0.24	100		100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
267.50	0.07	100		50% COAL, DULL 50% SANDSTONE,MEDIUM GRAINED	GREY. WITH DISTURBED BEDDING.
267.59	0.09	100		100% COAL, DULL	
267.72	0.13	100		100% SANDSTONE,FINE GRAINED	GREY, STRONG ROCK.
267.84	0.12	100		100% SANDSTONE,MEDIUM GRAINED	GREY, STRONG ROCK.
267.96	0.12	100		100% CARBONACEOUS MUDSTONE	BLACK.
267.97	0.01	100		100% MUDSTONE	WHITE, MODERATELY STRONG ROCK.
268.00	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	
268.01	0.01	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
268.02	0.01	100		100% CARBONACEOUS MUDSTONE	BLACK, MODERATELY WEAK ROCK.
268.04	0.02	100		100% MUDSTONE	BROWN, MODERATELY WEAK ROCK.
268.09	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK.
268.19	0.10	100		100% SANDSTONE,COARSE GRAINED	GRADING TO, FINE GRAINED, GREEN-BROWN, WITH GRANULAR QUARTZ, STRONG ROCK.
269.91	1.72	100		100% SANDSTONE	VERY FINE GRAINED, GREY, WITH GRANULAR QUARTZ, VERY STRONG ROCK.
277.40	7.49	100		100% SILTSTONE	VERY FINE GRAINED, GREY, WITH PEBBLY QUARTZ, VERY STRONG ROCK.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DE	2.13 M	199.59 - 201.72 M	2.13 M
DE2	0.00 M	206.91 - 207.61 M	0.70 M
DE3	0.00 M	214.70 - 214.83 M	0.13 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
1	199.59 - 200.93 M	1.34 M
2	200.93 - 201.72 M	0.79 M

*** FRAME H03***

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 103

HOLE TYPE	CORE
EASTING	598,827 M AM GRID
NORTHING	5,375,219 M AM GRID
ELEVATION	287.60 M
TOTAL DEPTH DRILLED	238.12 M
DRILLING STARTED	16/12/81
DRILLING TIME	10 DAYS
CORE SIZE	61.1 MM
HOLE SIZE	96.1 MM
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION
PETROPHYSICAL WIRELINE LOGS RUN :	

BOREHOLE : GY 103

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
26.00	26.00	5		100% DOLERITE	SCREE, GREY-BROWN, HIGHLY WEATHERED, VERY WEAK ROCK, HIGH PERMIABILITY.
29.30	3.30	75		100% DOLERITE	SCREE, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK, MODERATE PERMIABILITY.
30.51	1.21	50		100% MUDSTONE	BAKED, GREY, SLIGHTLY WEATHERED, STRONG ROCK, MODERATE PERMIABILITY.
32.00	1.49	100		100% MUDSTONE	GREY, MODERATELY WEATHERED, WEAK ROCK, MODERATE PERMIABILITY.
32.10	0.10	90		100% COAL, HEAVY DULL	BLACK, UNWEATHERED, WEAK ROCK, MODERATE PERMIABILITY.
32.40	0.30	90		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, WEAK ROCK, MODERATE PERMIABILITY.
32.48	0.08	90		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	BLACK, UNWEATHERED, WEAK ROCK, MODERATE PERMIABILITY.
32.66	0.18	90		100% MUDSTONE	GREY, UNWEATHERED, WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
32.81	0.15	90		75% CARBONACEOUS MUDSTONE 15% COAL 10% MUDSTONE	BLACK. BRIGHT COAL, BANDS, BLACK. DARK GREY. UNWEATHERED, WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
32.85	0.04	90		100% TONSTEIN	BRIGHT COAL, BANDS, BROWN, UNWEATHERED, WEAK ROCK, MODERATE PERMIABILITY.
32.96	0.11	100		75% CARBONACEOUS MUDSTONE 25% MUDSTONE	BLACK. DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
32.98	0.02	100		100% MUDSTONE	BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
33.03	0.05	100		60% CARBONACEOUS MUDSTONE 40% COAL, HEAVY DULL	BLACK. BRIGHT COAL, BANDS, BLACK. UNWEATHERED, WEAK ROCK, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
33.06	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
33.48	0.42	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, DARK GREY, UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
33.58	0.10	100		60% CARBONACEOUS MUDSTONE 30% MUDSTONE 10% SANDSTONE,MEDIUM GRAINED	BLACK. CARBONACEOUS, DARK GREY. COALY, FRAGMENTS, GREY. UNWEATHERED, VERY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
33.99	0.41	100		100% MUDSTONE	CREAM, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
34.02	0.03	100		100% MUDSTONE	COALY, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
34.14	0.12	100		75% CARBONACEOUS MUDSTONE 25% COAL, NEAVY DULL	BLACK. BLACK. UNWEATHERED, WEAK ROCK, JOINTS DIP 80 DEG., INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
34.60	0.46	100		100% MUDSTONE	GREY, UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 75 DEG., TIGHT NON PLANAR, SLIGHT PERMIABILITY.
34.80	0.20	100		75% MUDSTONE 25% CARBONACEOUS MUDSTONE	GREY. COALY, STREAKS, DARK GREY. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
35.46	0.66	100		75% MUDSTONE 25% SILTSTONE	GREY. GREY. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
36.27	0.81	100		50% MUDSTONE 25% SANDSTONE,FINE GRAINED 25% SILTSTONE	SANDSTONE, LENSES, GREY. LIGHT GREY. LENSES, GREY. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
36.30	0.03	100		100% SANDSTONE,MEDIUM GRAINED	GREY-BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
36.67	0.37	100		90% SANDSTONE,FINE GRAINED 10% SILTSTONE	GREY. GREY. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
36.81	0.14	100		70% MUDSTONE 30% CARBONACEOUS MUDSTONE	GREY. LENSES, DARK GREY. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, WIDELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
37.20	0.39	100		60% SANDSTONE,MEDIUM GRAINED 40% SANDSTONE,FINE GRAINED	LENSES, LIGHT GREY. LIGHT GREY. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
37.89	0.69	100		90% SANDSTONE 10% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, MEDIUM BEDDED, BASAL CONTACT EROSIONAL, BEDS DIP 5 DEG., WITH MUD PELLETS, SLIGHT PERMIABILITY.
38.04	0.15	100		100% MUDSTONE	LENSES, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
41.95	3.91	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, NON-PLANAR DISCONTINUITIES, SLIGHT PERMIABILITY.
42.21	0.26	100		75% SANDSTONE,MEDIUM GRAINED 25% COAL	MASSIVE, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
42.58	0.37	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	MASSIVE, LIGHT GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
42.75	0.17	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY.
42.77	0.02	100		100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
42.78	0.01	100		100% CARBONACEOUS MUDSTONE	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
42.86	0.08	100		100% COAL, BRIGHT WITH FEW DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
42.93	0.07	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
42.96	0.03	100		100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
42.98	0.02	100		100% COAL, BRIGHT WITH FEW DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
43.00	0.02	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
43.03	0.03	100		100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
43.09	0.06	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
43.53	0.44	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
44.75	1.22	100		60% MUDSTONE 40% SILTSTONE	INTERCALATIONS, SILTSTONE, GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 2 DEG., SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
45.40	0.65	100		75% SILTSTONE 25% MUDSTONE	LIGHT GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
45.47	0.07	100		75% SILTSTONE 25% MUDSTONE	LIGHT GREY. GREY. UNWEATHERED, VERY WEAK ROCK, WITH SLICKENSIDES, JOINTS DIP 45 DEG., SLIGHT PERMIABILITY.
45.89	0.42	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
46.06	0.17	100		100% MUDSTONE	GREY, UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
46.27	0.21	100		100% MUDSTONE	CALCAREOUS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 60 DEG., TIGHT NON PLANAR, SLIGHT PERMIABILITY.
46.85	0.58	100		100% MUDSTONE	LIGHT GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
46.93	0.08	100		85% CARBONACEOUS MUDSTONE 15% COAL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
47.03	0.10	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
47.12	0.09	100		95% CARBONACEOUS MUDSTONE 5% COAL	COALY, BLACK. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
47.63	0.51	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
48.02	0.39	100		100% MUDSTONE	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
48.20	0.18	100		80% MUDSTONE 20% CARBONACEOUS MUDSTONE	CARBONACEOUS, DARK GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, BEDS DIP 2 DEG., SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
48.87	0.67	100		80% MUDSTONE 20% SILTSTONE	GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
49.15	0.28	100		50% MUDSTONE 50% SILTSTONE	GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
50.47	1.32	100		50% SANDSTONE,FINE GRAINED 40% SILTSTONE 10% MUDSTONE	INTERCALATIONS, SILTSTONE, LIGHT GREY. GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BASAL CONTACT ABRUPT, BEDS DIP 2 DEG., SLIGHT PERMIABILITY.
50.63	0.16	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED. MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
50.80	0.17	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BEDS DIP 7 DEG., WITH CROSS LAMINATION, SLIGHT PERMIABILITY.
51.67	0.87	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
51.88	0.21	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 3 DEG., WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
51.99	0.11	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
52.13	0.14	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
52.25	0.12	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
52.57	0.32	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 5 DEG., SLIGHT PERMIABILITY.
53.37	0.80	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., DISCONTINUITIES INFILLED WITH SOIL (<1, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
54.09	0.72	100		75% SANDSTONE,MEDIUM GRAINED 25% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
54.67	0.58	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	LIGHT GREY. FRAGMENTS, STREAKS. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
55.03	0.36	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, BEDS DIP 15 DEG., SLIGHT PERMIABILITY.
55.05	0.02	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
55.09	0.04	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
55.17	0.08	100		100% CARBONACEOUS MUDSTONE	SANDSTONE, LAMINAE, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
55.20	0.03	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
55.23	0.03	100		100% COAL, HEAVY DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
55.52	0.29	100		100% COAL, HEAVY DULL	GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
55.54	0.02	100		100% MUDSTONE	GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
55.62	0.08	100		100% COAL, HEAVY DULL	GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
55.64	0.02	100		100% TONSTEIN	COALY, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
55.73	0.09	100		100% COAL, HEAVY DULL	GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
55.82	0.09	100		100% SILTSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
56.01	0.19	100		75% COAL, HEAVY DULL 25% COAL, BRIGHT	GRADING TO, COARSE GRAINED, BLACK. BANDS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
56.33	0.32	100		85% MUDSTONE 15% CARBONACEOUS MUDSTONE	COALY, STREAKS, GREY. COALY, FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, SHEARING AT BEDDING SEPARATION SURFACE, BEDS DIP 7 DEG., WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
56.36	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
58.80	2.44	100		80% MUDSTONE 20% SILTSTONE	SANDSTONE, LENSES, GREY. GREY. UNWEATHERED, WEAK ROCK, THICKLY LAMINATED, BEDS DIP 4 DEG., WITH PLANT REMAINS, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
59.60	0.80	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	INTERCALATIONS, FINE GRAINED SANDSTONE, GREY. SILTSTONE, LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 3 DEG., WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
59.97	0.37	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
66.87	6.90	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MEDIUM BEDDED, SEPARATION ALONG SOME BEDDING SURFACES, BEDS DIP 5 DEG., WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
67.02	0.15	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	LIGHT GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
67.94	0.92	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
69.23	1.29	100		85% SANDSTONE 15% COAL	MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
70.18	0.95	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
70.81	0.63	100		60% SANDSTONE 40% SANDSTONE,MEDIUM GRAINED	MED.-FINE GRAINED, LIGHT GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
71.21	0.40	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
71.56	0.35	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 2 DEG., WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
72.70	1.14	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, BEDS DIP 5 DEG., SLIGHT PERMIABILITY.
73.48	0.78	100		85% SANDSTONE 15% COAL	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
73.98	0.50	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
74.12	0.14	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
74.22	0.10	100		95% MUDSTONE 5% COAL	GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
74.24	0.02	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
74.30	0.06	100		95% MUDSTONE 5% COAL	GREY. LENSES, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
74.33	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, WITH CALCITE ON CLEAT, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
74.62	0.29	100		95% MUDSTONE 5% COAL	CARBONACEOUS, DARK GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
75.27	0.65	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
75.90	0.63	100		90% MUDSTONE 10% MUDSTONE	COALY, STREAKS, GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
75.93	0.03	100		95% COAL, DULL 5% MUDSTONE	BRIGHT COAL, STREAKS, BLACK. LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
76.66	0.73	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
77.00	0.34	100		100% MUDSTONE	COALY, STREAKS, GREY, UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
77.63	0.63	100		100% MUDSTONE	GREY, UNWEATHERED, WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 55 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
78.20	0.57	100		60% SILTSTONE 40% MUDSTONE	MASSIVE, GREY. MASSIVE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
78.56	0.36	100		85% SANDSTONE,FINE GRAINED 15% SILTSTONE	CARBONACEOUS, LAMINAE, LIGHT GREY. LENSES, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
78.90	0.34	100		80% MUDSTONE 20% MUDSTONE	MASSIVE, GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
78.98	0.08	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
80.47	1.49	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
81.00	0.53	100		75% SILTSTONE 25% MUDSTONE	MASSIVE, GREY. MASSIVE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
81.39	0.39	100		85% MUDSTONE 15% MUDSTONE	CARBONACEOUS, DARK GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT NON PLANAR, SLIGHT PERMIABILITY.
81.41	0.02	100		100% COAL, HEAVY DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
81.70	0.29	100		90% CARBONACEOUS MUDSTONE 10% SANDSTONE,FINE GRAINED	COALY, BLACK. LAMINAE, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
81.98	0.28	100		75% CARBONACEOUS MUDSTONE 25% MUDSTONE	COALY, BLACK. LENSES, PELLETAL, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
82.12	0.14	100		100% CARBONACEOUS MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
82.19	0.07	100		100% MUDSTONE	COALY, FRAGMENTS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
82.23	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
82.25	0.02	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
82.32	0.07	100		100% MUDSTONE	COALY, FRAGMENTS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
82.39	0.07	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
82.52	0.13	100		100% MUDSTONE	SILTSTONE, LAMINAE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
82.68	0.16	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
82.92	0.24	100		80% MUDSTONE 20% SILTSTONE	CALCAREOUS, GREY. CALCAREOUS, GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
82.93	0.01	100		100% MUDSTONE	GREY, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
82.98	0.05	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
83.05	0.07	100		100% COAL, HEAVY DULL	GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
83.22	0.17	100		90% COAL, HEAVY DULL 10% COAL, DULL WITH FEW BRIGHT BANDS	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
83.27	0.05	100		100% CARBONACEOUS MUDSTONE	GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
83.29	0.02	100		100% MUDSTONE	LIGHT GREY, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
83.35	0.06	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
83.40	0.05	100		90% MUDSTONE 10% COAL	CARBONACEOUS, GREY-BROWN. LAMINAE, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
83.44	0.04	100		95% CARBONACEOUS MUDSTONE 5% MUDSTONE	BLACK. LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
83.60	0.16	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
83.66	0.06	100		100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
83.74	0.08	100		90% COAL, DULL 10% COAL, BRIGHT	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
83.77	0.03	100		50% TONSTEIN 50% COAL, DULL WITH FEW BRIGHT BANDS	GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
83.81	0.04	100		60% COAL, DULL WITH FEW BRIGHT BANDS 40% COAL, DULL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
83.86	0.05	100		75% COAL, DULL 25% TONSTEIN	BLACK. COALY, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
83.89	0.03	100		100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
84.01	0.12	100		95% MUDSTONE 5% COAL	CREAM. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
84.05	0.04	100		100% CHERT	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
84.09	0.04	100		50% CARBONACEOUS MUDSTONE 30% MUDSTONE 20% COAL	BLACK. CREAM. LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
84.13	0.04	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
84.17	0.04	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
84.19	0.02	100		100% COAL, BRIGHT WITH FEW DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
84.21	0.02	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
84.24	0.03	100		100% MUDSTONE	COALY, STREAKS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
84.30	0.06	100		95% CARBONACEOUS MUDSTONE 5% MUDSTONE	COALY. BANDS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
84.36	0.06	100		50% MUDSTONE 50% MUDSTONE	COALY, STREAKS, CREAM. CALCAREOUS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
84.38	0.02	100		100% COAL, BRIGHT WITH FEW DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
84.42	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
84.49	0.07	100		100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
84.63	0.14	100		85% MUDSTONE 15% COAL	CARBONACEOUS, DARK GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
84.94	0.31	100		100% MUDSTONE	COALY, FRAGMENTS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
85.48	0.54	100		100% MUDSTONE	CALCAREOUS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
85.56	0.08	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
85.59	0.03	100		100% MUDSTONE	CREAM, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
85.82	0.23	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
85.92	0.10	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
85.95	0.03	100		100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
85.96	0.01	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
85.97	0.01	100		100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
86.04	0.07	100		95% CARBONACEOUS MUDSTONE 5% COAL	BLACK. STREAKS, FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
86.19	0.15	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
86.34	0.15	100		75% CARBONACEOUS MUDSTONE 25% MUDSTONE	COALY, BLACK. LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
86.36	0.02	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
86.46	0.10	100		90% CARBONACEOUS MUDSTONE 10% MUDSTONE	BLACK. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
87.02	0.56	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
87.14	0.12	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
87.29	0.15	100		100% MUDSTONE	CARBONACEOUS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
87.31	0.02	100		100% MUDSTONE	CREAM, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
87.58	0.27	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
87.65	0.07	100		100% COAL, DULL	GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
87.80	0.15	100		100% CARBONACEOUS MUDSTONE	GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
88.12	0.32	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
88.36	0.24	100		95% MUDSTONE 5% COAL	SILTSTONE, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.
89.54	1.18	100		50% MUDSTONE 50% SILTSTONE	INTERCALATIONS, SILTSTONE, GREY. LENSES, BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 3 DEG., SLIGHT PERMIABILITY.
89.83	0.29	100		75% SANDSTONE,FINE GRAINED 25% SILTSTONE	INTERCALATIONS, SILTSTONE, LIGHT GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
90.64	0.81	100		80% MUDSTONE 20% SILTSTONE	INTERCALATIONS, SILTSTONE, GREY. LENSES, BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
90.87	0.23	100		90% MUDSTONE 10% SANDSTONE,MEDIUM GRAINED	MASSIVE, GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
91.14	0.27	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
91.32	0.18	100		100% SANDSTONE,MEDIUM GRAINED	CALCAREOUS, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
93.28	1.96	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, BEDS DIP 2 DEG., SLIGHT PERMIABILITY.
93.53	0.25	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY.
93.71	0.18	100		100% SANDSTONE,MEDIUM GRAINED	CALCAREOUS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, JOINTS DIP 70 DEG., TIGHT NON PLANAR, SLIGHT PERMIABILITY.
94.20	0.49	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT NON PLANAR, SLIGHT PERMIABILITY.
94.60	0.40	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
96.10	1.50	100		95% SANDSTONE,MEDIUM GRAINED 5% SANDSTONE	MASSIVE, LIGHT GREY. MED.-FINE GRAINED, SILTSTONE, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
96.51	0.41	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, CALCAREOUS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
97.13	0.62	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
97.30	0.17	100		100% SANDSTONE	MED.-COARSE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, BEDS DIP 7 DEG., SLIGHT PERMIABILITY.
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97.37	0.07	100		90% CARBONACEOUS-MUDSTONE 10% COAL, BRIGHT	BLACK. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
97.39	0.02	100		100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
97.47	0.08	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
97.62	0.15	100		60% CARBONACEOUS MUDSTONE 40% COAL, DULL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
97.68	0.06	100		70% CARBONACEOUS MUDSTONE 20% COAL 10% MUDSTONE	BLACK. STREAKS, BLACK. LENSES, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH DISTURBED BEDDING, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
97.75	0.07	100		95% MUDSTONE 5% COAL	LIGHT BROWN. STREAKS, BLACK. UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
97.77	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
97.82	0.05	100		100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
97.90	0.08	100		100% MUDSTONE	CALCAREOUS, GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
97.95	0.05	100		90% COAL, DULL 10% CARBONACEOUS MUDSTONE	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
98.00	0.05	100		95% MUDSTONE 5% COAL	GREY-BROWN. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
98.10	0.10	100		85% CARBONACEOUS MUDSTONE 15% COAL, DULL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
98.15	0.05	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
98.16	0.01	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
98.18	0.02	100		100% CARBONACEOUS MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
98.36	0.18	100		80% CARBONACEOUS MUDSTONE 10% TONSTEIN 10% COAL, DULL	BLACK. BANDS, CREAM. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
98.56	0.20	100		80% MUDSTONE 20% MUDSTONE	CARBONACEOUS, BROWN-BLACK. COALY, STREAKS, BROWN-BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
98.59	0.03	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
98.66	0.07	100		95% CARBONACEOUS MUDSTONE 5% MUDSTONE	BLACK. PELLETAL, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
98.72	0.06	100		85% COAL, DULL WITH FEW BRIGHT BANDS 15% CARBONACEOUS MUDSTONE	BLACK. BROWN-BLACK. WITH STREAKS OF CALCITE, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
98.76	0.04	100		95% COAL, DULL WITH NUMEROUS BRIGHT BANDS 5% MUDSTONE	BLACK. STREAKS, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
98.86	0.10	100		95% CARBONACEOUS MUDSTONE 5% TONSTEIN	COALY, BROWN-BLACK. BANDS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
98.89	0.03	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
99.02	0.13	100		85% COAL, DULL WITH FEW BRIGHT BANDS 15% CARBONACEOUS MUDSTONE	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
99.14	0.12	100		90% SANDSTONE 10% COAL, BRIGHT	CARBONACEOUS, GREY-BROWN. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
99.37	0.23	100		75% SANDSTONE 25% CARBONACEOUS MUDSTONE	CARBONACEOUS, GREY-BROWN. LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
99.42	0.05	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
99.58	0.16	100		60% SILTSTONE 40% CARBONACEOUS MUDSTONE	CARBONACEOUS, BROWN-BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
99.72	0.14	100		80% SILTSTONE 20% TONSTEIN	LIGHT GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
99.75	0.03	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
99.95	0.20	100		50% MUDSTONE 50% SILTSTONE	CARBONACEOUS, BROWN-BLACK. CARBONACEOUS, BROWN-BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
100.02	0.07	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
100.06	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
100.11	0.05	100		100% COAL, HEAVY DULL	GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
100.20	0.09	100		80% CARBONACEOUS MUDSTONE 20% COAL, DULL WITH FEW BRIGHT BANDS	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
100.23	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
100.24	0.01	100		100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
100.39	0.15	100		60% CARBONACEOUS MUDSTONE 40% COAL, DULL WITH FEW BRIGHT BANDS	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
100.69	0.30	100		100% MUDSTONE	COALY, STREAKS, LIGHT GREY, UNWEATHERED, WEAK ROCK, JOINTS DIP 35 DEG., SLIGHT PERMIABILITY.
100.85	0.16	100		85% COAL, DULL WITH FEW BRIGHT BANDS 10% CARBONACEOUS MUDSTONE 5% MUDSTONE	BLACK. BLACK. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
100.86	0.01	100		100% CARBONACEOUS MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
100.87	0.01	100		100% TONSTEIN	GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
100.91	0.04	100		95% MUDSTONE 5% COAL	LIGHT BROWN. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
100.97	0.06	100		95% CARBONACEOUS MUDSTONE 5% MUDSTONE	BLACK. PELLETAL, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
101.07	0.10	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
101.13	0.06	100		95% CARBONACEOUS MUDSTONE 5% MUDSTONE	COALY, BLACK. PELLETAL, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
101.23	0.10	100		95% MUDSTONE 5% COAL	CREAM. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
101.25	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
101.48	0.23	100		95% SILTSTONE 5% COAL	CALCAREOUS, CREAM. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
101.63	0.15	100		60% COAL, DULL 30% CARBONACEOUS MUDSTONE 10% MUDSTONE	SILTSTONE, LENSES, BLACK. BLACK. PELLETAL, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
101.66	0.03	100		60% MUDSTONE 40% CARBONACEOUS MUDSTONE	CREAM. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
101.74	0.08	100		90% CARBONACEOUS MUDSTONE 10% COAL, DULL	COALY, BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
101.76	0.02	100		100% CARBONACEOUS MUDSTONE	GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
102.08	0.32	100		100% MUDSTONE	COALY, FRAGMENTS, LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 25 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
102.11	0.03	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
102.20	0.09	100		95% MUDSTONE 5% CARBONACEOUS MUDSTONE	GREY-BROWN. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
102.23	0.03	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
102.29	0.06	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
102.48	0.19	100		80% COAL, DULL 20% CARBONACEOUS MUDSTONE	BLACK. MUDSTONE, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
102.58	0.10	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
102.59	0.01	100		50% COAL, BRIGHT WITH NUMEROUS DULL BANDS 50% MUDSTONE	BLACK. BANDS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
102.66	0.07	100		100% COAL, BRIGHT WITH FEW DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
102.67	0.01	100		50% COAL, BRIGHT WITH FEW DULL BANDS 50% MUDSTONE	BLACK. BANDS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
102.71	0.04	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
102.74	0.03	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
102.81	0.07	100		100% COAL, BRIGHT WITH FEW DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
102.92	0.11	100		90% COAL, DULL WITH NUMEROUS BRIGHT BANDS 10% MUDSTONE	BLACK. BANDS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
				BASE OF DALMAYNE B : THICKNESS= 5.62 M; SAMPLED THICKNESS= 0.00 M	
103.12	0.20	0		CORE LOSS	
103.31	0.19	100		100% MUDSTONE	SILTSTONE, CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
103.50	0.19	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
103.80	0.30	100		90% MUDSTONE 10% SILTSTONE	GREY. BANDS, LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
104.67	0.87	100		50% MUDSTONE 25% SILTSTONE 25% SANDSTONE,FINE GRAINED	INTERCALATIONS, SILTSTONE, GREY. LAMINAE, STREAKS, GREY. BANDS, LENSES, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 4 DEG., SLIGHT PERMIABILITY.
105.45	0.78	100		100% SILTSTONE	CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 5 DEG., SLIGHT PERMIABILITY.
105.65	0.20	100		50% SANDSTONE,MEDIUM GRAINED 50% SILTSTONE	LIGHT GREY. LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 5 DEG., SLIGHT PERMIABILITY.
105.87	0.22	100		100% SILTSTONE	SANDSTONE, LAMINAE, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
106.07	0.20	100		100% SANDSTONE	MED.-FINE GRAINED, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
106.12	0.05	100		100% MUDSTONE	GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
106.20	0.08	100		100% MUDSTONE	CREAM, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
106.49	0.29	100		75% SILTSTONE 25% SILTSTONE	CARBONACEOUS, DARK GREY. BANDS, CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
106.65	0.16	100		85% SANDSTONE 15% CARBONACEOUS MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. BANDS, LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
106.76	0.11	100		90% SANDSTONE 10% COAL	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
107.35	0.59	100		90% SANDSTONE,FINE GRAINED 10% COAL	CALCAREOUS, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
107.56	0.21	100		60% SANDSTONE,FINE GRAINED 40% SANDSTONE,FINE GRAINED	CARBONACEOUS, BANDS, LIGHT GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
108.37	0.81	100		85% SANDSTONE 10% COAL 5% CARBONACEOUS MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, SEPARATION ALONG SOME BEDDING SURFACES, BEDS DIP 7 DEG., WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
108.96	0.59	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
109.32	0.36	100		90% SANDSTONE 10% COAL	MED.-FINE GRAINED, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
109.42	0.10	100		75% SANDSTONE,FINE GRAINED 25% MUDSTONE	COALY, STREAKS, DARK GREY. CARBONACEOUS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SEPARATION ALONG SOME BEDDING SURFACES, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
109.80	0.38	100		90% MUDSTONE 10% COAL	CARBONACEOUS, DARK GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
110.01	0.21	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
110.40	0.39	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
110.99	0.59	100		60% SANDSTONE,FINE GRAINED 40% SILTSTONE	CARBONACEOUS, LIGHT GREY. CARBONACEOUS, BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
111.17	0.18	100		95% SANDSTONE 5% CARBONACEOUS MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. SILTSTONE, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
111.32	0.15	100		80% SANDSTONE 15% SILTSTONE 5% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. BANDS, LENSES, DARK GREY. PELLETAL, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
111.72	0.40	100		80% SANDSTONE,FINE GRAINED 20% SILTSTONE	CARBONACEOUS, DARK GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
112.01	0.29	100		90% SANDSTONE,MEDIUM GRAINED 10% SILTSTONE	COALY, STREAKS, LIGHT GREY. LENSES, BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
112.11	0.10	100		95% MUDSTONE 5% COAL	GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SEPARATION ALONG SOME BEDDING SURFACES, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
113.33	1.22	100		60% SANDSTONE,FINE GRAINED 40% SILTSTONE	INTERCALATIONS, SILTSTONE, GREY. LAMINAE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
113.98	0.65	100		90% SANDSTONE,MEDIUM GRAINED 5% COAL 5% SANDSTONE,FINE GRAINED	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. LENSES, BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
114.14	0.16	100		60% SANDSTONE,FINE GRAINED 40% SILTSTONE	LIGHT GREY. LENSES, BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
115.43	1.29	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
116.02	0.59	100		90% SANDSTONE,MEDIUN GRAINED 5% COAL 5% SANDSTONE,COARSE GRAINED	MASSIVE, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. LENSES, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SEPARATION ALONG SOME BEDDING SURFACES, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
116.13	0.11	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
116.31	0.18	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
116.49	0.18	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
117.20	0.71	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MEDIUM BEDDED, BEDS DIP 7 DEG., WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
117.56	0.36	100		100% MUDSTONE	GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
117.67	0.11	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
117.84	0.17	100		100% MUDSTONE	GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
117.96	0.12	100		100% SANDSTONE,FINE GRAINED	CALCAREOUS, LIGHT GREY, WITH BANDS OF CALCITE, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
118.74	0.78	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
119.44	0.70	100		95% SANDSTONE,MEDIUM GRAINED 5% SILTSTONE	MASSIVE, LIGHT GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
121.70	2.26	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
123.00	1.30	100		95% SANDSTONE 5% COAL	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
123.80	0.80	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
123.96	0.16	100		90% SANDSTONE,MEDIUM GRAINED 10% COAL	LIGHT GREY. FRAGMENTS, STREAKS. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
124.50	0.54	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
124.67	0.17	100		80% SANDSTONE,MEDIUM GRAINED 20% MUDSTONE	LIGHT GREY. SILTSTONE, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
125.94	1.27	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
126.21	0.27			60% SANDSTONE,FINE GRAINED 40% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY. COALY, FRAGMENTS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, SEPARATION ALONG SOME BEDDING SURFACES, BEDS DIP 7 DEG., WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
126.66	0.45	100		75% MUDSTONE 25% MUDSTONE	GREY. CARBONACEOUS, LAMINAE, DARK GREY. UNWEATHERED, WEAK ROCK, THICKLY LAMINATED, BEDS DIP 3 DEG., WITH PLANT REMAINS, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 55 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
126.85	0.19	100		75% MUDSTONE 20% MUDSTONE 5% SANDSTONE,FINE GRAINED	GREY. CARBONACEOUS, LAMINAE, DARK GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
127.13	0.28	100		75% MUDSTONE 25% MUDSTONE	GREY. CARBONACEOUS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
127.18	0.05	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
127.34	0.16	100		85% SANDSTONE,MEDIUM GRAINED 10% MUDSTONE 5% COAL	LIGHT GREY. PELLETAL, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
127.54	0.20	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
128.52	0.98	100		80% SANDSTONE,FINE GRAINED 10% SANDSTONE,MEDIUM GRAINED 10% SILTSTONE	COALY, STREAKS, LIGHT GREY. BANDS, LIGHT GREY. LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BASAL CONTACT ABRUPT, BEDS DIP 10 DEG., WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
128.75	0.23	100		90% SANDSTONE 10% MUDSTONE	MED.-COARSE GRAINED, LIGHT GREY. PELLETAL, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
130.22	1.47	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
130.94	0.72	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, CALCAREOUS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
131.94	1.00	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
132.48	0.54	100		90% SANDSTONE,MEDIUM GRAINED 10% COAL	MASSIVE, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
132.71	0.23	100		60% SANDSTONE 30% SILTSTONE 10% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. BANDS, LENSES, DARK GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 15 DEG., WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
133.10	0.39	100		60% SANDSTONE 30% MUDSTONE 10% COAL	MED.-FINE GRAINED, LIGHT GREY. PELLETAL, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
133.27	0.17	100		70% SANDSTONE 15% MUDSTONE 15% COAL	MED.-COARSE GRAINED, LIGHT GREY. PELLETAL, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
134.04	0.77	100		75% SANDSTONE 20% MUDSTONE 5% COAL	MED.-FINE GRAINED, LIGHT GREY. PELLETAL. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
134.11	0.07	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
				TOP OF DALMAYNE C : 153.49 M R.L.	
134.15	0.04	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
134.22	0.07	100		100% CARBONACEOUS MUDSTONE	SANDSTONE, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
134.49	0.27	100		95% MUDSTONE 5% CARBONACEOUS MUDSTONE	TUFFACEOUS, LIGHT BROWN. STREAKS, LENSES, BLACK. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
134.59	0.10	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
134.67	0.08	100		100% CARBONACEOUS MUDSTONE	GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
134.68	0.01	100		50% COAL, HEAVY DULL 50% COAL, BRIGHT	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
134.72	0.04	100		100% CARBONACEOUS MUDSTONE	GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
134.89	0.17	100		75% COAL, DULL 20% CARBONACEOUS MUDSTONE 5% COAL, BRIGHT	BLACK. BLACK. STREAKS, BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
134.98	0.09	100		95% MUDSTONE 5% COAL	TUFFACEOUS, LIGHT BROWN. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
135.07	0.09	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
135.18	0.11	100		60% CARBONACEOUS MUDSTONE 40% MUDSTONE	BLACK. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
135.33	0.15	100		100% COAL, DULL	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
135.36	0.03	100		95% SANDSTONE,FINE GRAINED 5% SANDSTONE,FINE GRAINED	CREAM. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
135.42	0.06	100		90% COAL, DULL 5% COAL, BRIGHT 5% CARBONACEOUS MUDSTONE	BLACK. BANDS, BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
135.43	0.01	100		50% COAL, DULL 50% MUDSTONE	BLACK. BRIGHT COAL, STREAKS, LIGHT BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
135.47	0.04	100		95% COAL, DULL 5% CARBONACEOUS MUDSTONE	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
135.48	0.01	100		100% CARBONACEOUS MUDSTONE	BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
135.64	0.16	100		90% COAL, DULL 5% CARBONACEOUS MUDSTONE 5% COAL, BRIGHT	BLACK. BLACK. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
135.69	0.05	100		60% CARBONACEOUS MUDSTONE 40% SANDSTONE,FINE GRAINED	COALY, BANDS, BLACK. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
135.90	0.21	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
135.94	0.04	100		90% MUDSTONE 10% CARBONACEOUS MUDSTONE	GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
135.98	0.04	100		60% CARBONACEOUS MUDSTONE 40% COAL, BRIGHT	BLACK. STREAKS, LENSES, BLACK. WITH LENSES OF PYRITE, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
136.12	0.14	100		80% MUDSTONE 15% CARBONACEOUS MUDSTONE 5% COAL	GREY. BLACK. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 25 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
136.72	0.60	100		85% MUDSTONE 10% COAL 5% CARBONACEOUS MUDSTONE	GREY. FRAGMENTS, STREAKS, BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
				BASE OF DALMAYNE C : THICKNESS= 2.61 M; SAMPLED THICKNESS= 0.00 M	
137.00	0.28	100		50% SANDSTONE 45% CARBONACEOUS MUDSTONE 5% COAL	MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, LENSES, BLACK. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
137.18	0.18	100		95% SANDSTONE 5% COAL	MED.-FINE GRAINED, LIGHT GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
137.85	0.67	100		85% MUDSTONE 15% SANDSTONE,MEDIUM GRAINED	LENSES, PELLETAL, GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
139.27	1.42	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
145.22	5.95	100		75% SANDSTONE,MEDIUM GRAINED 15% SANDSTONE 10% SILTSTONE	LIGHT GREY. MED.-COARSE GRAINED, BANDS, LIGHT GREY. LAMINAE, BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, BEDS DIP 4 DEG., WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
145.70	0.48	100		85% SANDSTONE,MEDIUM GRAINED 15% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
145.89	0.19	100		95% SANDSTONE,FINE GRAINED 5% COAL	SILTSTONE, BANDS, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
146.10	0.21	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, BEDS DIP 3 DEG., EFFECTIVELY IMPERMIABLE.
147.57	1.47	100		75% SANDSTONE 25% SILTSTONE	MED.-FINE GRAINED, LIGHT GREY. CARBONACEOUS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 20 DEG., WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION, EFFECTIVELY IMPERMIABLE.
148.16	0.59	98		75% SANDSTONE 20% MUDSTONE 5% COAL	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, LENSES, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
148.41	0.25	100		90% SANDSTONE 10% COAL	MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
149.35	0.94	100		85% SANDSTONE 15% COAL	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
150.02	0.67	100		100% SANDSTONE	MED.-COARSE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
150.92	0.90	100		85% SANDSTONE 15% COAL	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
151.67	0.75	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
152.01	0.34	100		90% SANDSTONE 10% COAL	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
152.99	0.98	100		80% SANDSTONE 20% SANDSTONE,MEDIUM GRAINED	MED.-FINE GRAINED, LIGHT GREY. CARBONACEOUS, LAMINAE, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
153.46	0.47	100		80% SANDSTONE 20% COAL	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
154.25	0.79	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
154.80	0.55	100		95% SANDSTONE 5% SILTSTONE	MED.-FINE GRAINED, LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
156.05	1.25	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MEDIUM BEDDED, BEDS DIP 3 DEG., WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
156.72	0.67	100		75% SANDSTONE,MEDIUM GRAINED 25% SANDSTONE,FINE GRAINED	SILTSTONE, BANDS, LIGHT GREY. CARBONACEOUS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, BEDS DIP 5 DEG., WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
157.20	0.48	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
157.55	0.35	100		80% SANDSTONE 15% MUDSTONE 5% COAL	MED.-FINE GRAINED, BANDS, LIGHT GREY. PELLETAL, LENSES, DARK GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
157.91	0.36	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
158.18	0.27	100		50% SANDSTONE 45% SANDSTONE,FINE GRAINED 5% COAL	MED.-COARSE GRAINED, LIGHT GREY. CARBONACEOUS, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
158.58	0.40	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
158.79	0.21	100		80% SANDSTONE,MEDIUM GRAINED 20% MUDSTONE	LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
160.75	1.96	100		60% SANDSTONE 40% SANDSTONE,MEDIUM GRAINED	MED.-FINE GRAINED, MASSIVE, LIGHT GREY. CALCAREOUS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
161.32	0.57	100		70% MUDSTONE 30% SANDSTONE	PELLETAL, FRAGMENTS, GREY. MED.-COARSE GRAINED, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
163.54	2.22	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT EROSIONAL, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
163.66	0.12	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, EFFECTIVELY IMPERMIABLE.
163.75	0.09	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
164.24	0.49	100		75% SANDSTONE,FINE GRAINED 25% COAL	LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 3 DEG., WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
165.24	1.00	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
165.93	0.69	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
166.49	0.56	98		85% SANDSTONE,MEDIUM GRAINED 15% MUDSTONE	COALY, STREAKS, LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
166.67	0.18	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
169.61	2.94	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
170.16	0.55	100		70% SANDSTONE,MEDIUM GRAINED 25% MUDSTONE 5% COAL	MUDSTONE, LENSES, LIGHT GREY. PELLETAL, FRAGMENTS, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
172.20	2.04	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
172.36	0.16	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
173.92	1.56	100		100% SANDSTONE	MED.-COARSE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
174.28	0.36	100		90% SANDSTONE 5% MUDSTONE 5% COAL	MED.-FINE GRAINED, LIGHT GREY. PELLETAL, FRAGMENTS, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT EROSIONAL, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
174.43	0.15	100		100% MUDSTONE	SILTSTONE, LENSES, GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 20 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
175.46	1.03	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
176.40	0.94	100		90% SANDSTONE,FINE GRAINED 10% COAL	COALY, STREAKS, LIGHT GREY. FRAGMENTS, LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BASAL CONTACT TRANSITIONAL, BEDS DIP 3 DEG., WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
177.32	0.92	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
177.54	0.22	100		90% SANDSTONE,MEDIUM GRAINED 10% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
178.70	1.16	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
178.87	0.17	100		80% SANDSTONE 10% COAL 10% MUDSTONE	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. PELLETAL, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
180.80	1.93	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	MASSIVE, LIGHT GREY. STREAKS, FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
181.25	0.45	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
184.32	3.07	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, EFFECTIVELY IMPERMIABLE.
184.72	0.40	100		60% SANDSTONE,FINE GRAINED 40% SILTSTONE	LIGHT GREY. CARBONACEOUS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, THINLY LAMINATED, BASAL CONTACT ABRUPT, BEDS DIP 4 DEG., EFFECTIVELY IMPERMIABLE.
185.30	0.58	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
185.38	0.08	100		80% SANDSTONE,FINE GRAINED 20% SILTSTONE	LIGHT GREY. LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
186.93	1.55	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT EROSIONAL, EFFECTIVELY IMPERMIABLE.
187.02	0.09	100		100% SILTSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
187.15	0.13	100		90% SANDSTONE,FINE GRAINED 10% COAL	LIGHT GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
187.25	0.10	100		70% SILTSTONE 30% COAL, BRIGHT	GREY. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
187.39	0.14	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
188.42	1.03	100		95% SANDSTONE 5% COAL	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, BEDS DIP 15 DEG., WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
188.66	0.24	100		85% SANDSTONE,MEDIUM GRAINED 15% COAL	CALCAREOUS, WHITE. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
188.95	0.29	100		80% SANDSTONE,MEDIUM GRAINED 15% COAL 5% MUDSTONE	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
189.13	0.18	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
189.35	0.22	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT TRANSITIONAL, EFFECTIVELY IMPERMIABLE.
190.04	0.69	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
190.27	0.23	100		95% MUDSTONE 5% COAL	SILTSTONE, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
190.51	0.24	100		80% MUDSTONE 20% SILTSTONE	GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
191.00	0.49	100		50% MUDSTONE 50% SILTSTONE	INTERCALATIONS, SILTSTONE, GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 70 DEG., TIGHT NON PLANAR, SLIGHT PERMIABILITY.
191.50	0.50	100		60% MUDSTONE 40% SILTSTONE	INTERCALATIONS, SILTSTONE, GREY. COALY, STREAKS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 25 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
191.76	0.26	100		70% MUDSTONE 30% SILTSTONE	INTERCALATIONS, SILTSTONE, GREY. COALY, STREAKS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
191.77	0.01	100		100% MUDSTONE	COALY, STREAKS, CREAM, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
191.92	0.15	100		80% MUDSTONE 20% COAL	GREY. FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 25 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
192.30	0.38	100		80% SILTSTONE 20% SILTSTONE	INTERCALATIONS, MUDSTONE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
				TOP OF DALMAYNE D UPPER : 95.30 M R.L.	
192.48	0.18	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
192.67	0.19	100		90% COAL, DULL 10% CARBONACEOUS MUDSTONE	GRADING TO, HEAVY DULL COAL, BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
192.74	0.07	100		70% COAL, HEAVY DULL 30% MUDSTONE	GRADING TO, COARSE GRAINED, BLACK. GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 25 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
				BASE OF DALMAYNE D UPPER : THICKNESS= 0.44 M; SAMPLED THICKNESS= 0.00 M	
193.04	0.30	100		90% MUDSTONE 10% SILTSTONE	GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
193.13	0.09	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
193.47	0.34	100		90% MUDSTONE 5% COAL 5% SILTSTONE	CARBONACEOUS, DARK GREY. FRAGMENTS, STREAKS, BLACK. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
193.60	0.13	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
193.66	0.06	100		95% MUDSTONE 5% COAL	GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
193.95	0.29	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 25 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
194.48	0.53	100		60% SANDSTONE,FINE GRAINED 40% SILTSTONE	INTERCALATIONS, SILTSTONE, LIGHT GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 2 DEG., SLIGHT PERMIABILITY.
194.95	0.47	100		75% SILTSTONE 25% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
196.10	1.15	100		80% SANDSTONE,FINE GRAINED 20% SILTSTONE	SILTSTONE, LENSES, LIGHT GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
196.18	0.08	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
196.25	0.07	100		60% SANDSTONE,MEDIUM GRAINED 40% SANDSTONE,FINE GRAINED	COALY, STREAKS, LIGHT GREY. LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
197.64	1.39	100		95% SANDSTONE 5% SANDSTONE,FINE GRAINED	MED.-COARSE GRAINED, LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
198.49	0.85	100		85% SANDSTONE 15% COAL	MED.-FINE GRAINED, LIGHT GREY. LAMINAE, BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, BEDS DIP 3 DEG., EFFECTIVELY IMPERMIABLE.
203.28	4.79	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
203.57	0.29	100		80% SANDSTONE,MEDIUM GRAINED 15% CARBONACEOUS MUDSTONE 5% COAL	LIGHT GREY. STREAKS, FRAGMENTS, BLACK. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
205.12	1.55	100		95% SANDSTONE 5% COAL	MED.-COARSE GRAINED, LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, MEDIUM BEDDED, SEPARATION ALONG SOME BEDDING SURFACES, BEDS DIP 7 DEG., EFFECTIVELY IMPERMIABLE.
205.42	0.30	100		80% SANDSTONE 20% COAL	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
207.00	1.58	100		45% SANDSTONE,COARSE GRAINED 45% SANDSTONE 10% COAL	BANDS, LIGHT GREY. MED.-FINE GRAINED, BANDS, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 5 DEG., WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
207.82	0.82	100		100% SANDSTONE	MED.-COARSE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
208.10	0.28	100		85% SANDSTONE 15% COAL	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, SEPARATION ALONG SOME BEDDING SURFACES, BEDS DIP 10 DEG., EFFECTIVELY IMPERMIABLE.
208.81	0.71	100		95% SANDSTONE 5% COAL	MED.-FINE GRAINED, LIGHT GREY. STREAKS, LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
209.19	0.38	100		100% SANDSTONE,COARSE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
209.52	0.33	100		95% SANDSTONE,FINE GRAINED 5% COAL	LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 2 DEG., EFFECTIVELY IMPERMIABLE.
209.73	0.21	100		60% SANDSTONE,FINE GRAINED 30% SANDSTONE 10% COAL	LIGHT GREY. MED.-COARSE GRAINED, BANDS, LIGHT GREY. LAMINAE, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
210.01	0.28	100		95% SANDSTONE 5% COAL	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
210.32	0.31	100		60% SANDSTONE 40% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. PELLETAL, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
210.73	0.41	100		85% SANDSTONE,MEDIUM GRAINED 15% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
211.30	0.57	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
211.71	0.41	100		85% SANDSTONE,MEDIUM GRAINED 15% COAL	LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 4 DEG., EFFECTIVELY IMPERMIABLE.
211.95	0.24	100		95% SANDSTONE,FINE GRAINED 5% COAL	LIGHT GREY. FRAGMENTS, LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
212.39	0.44	100		90% SANDSTONE,MEDIUM GRAINED 10% COAL	COALY, STREAKS, LIGHT GREY. STREAKS, LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
213.50	1.11	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
213.65	0.15	100		80% SANDSTONE,MEDIUM GRAINED 20% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
215.17	1.52	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
215.50	0.33	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
215.80	0.30	100		85% SANDSTONE 10% COAL 5% MUDSTONE	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. PELLETAL, STREAKS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
220.36	4.56	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
221.21	0.85	100		90% SANDSTONE,FINE GRAINED 10% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
221.72	0.51	100		85% SANDSTONE 15% MUDSTONE	MED.-COARSE GRAINED, LIGHT GREY. PELLETAL, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
222.75	1.03	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
223.10	0.35	100		100% SANDSTONE	MED.-COARSE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
223.33	0.23	100	103T1	100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
223.40	0.07	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
223.60	0.20	100		95% SANDSTONE 5% MUDSTONE	MED.-COARSE GRAINED, LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
223.67	0.07	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
223.81	0.14	100	103T2	100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
223.97	0.16	100	103T2	100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, BEDS DIP 3 DEG., EFFECTIVELY IMPERMIABLE.
				TOP OF DALMAYNE D LOWER : 63.63 M R.L.	
223.99	0.02	100	103A1	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.07	0.08	100	103A1	100% COAL, MID LUSTROUS	BRIGHT COAL, LAMINAE, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.11	0.04	100	103A1	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
224.12	0.01	100	103A1	50% COAL, DULL 50% COAL, BRIGHT	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.16	0.04	100	103A1	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.20	0.04	100	103A1	100% COAL, MID LUSTROUS - BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.22	0.02	100	103A1	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.24	0.02	100	103A1	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.26	0.02	100	103A1	75% COAL, BRIGHT 25% COAL, MID LUSTROUS - BRIGHT	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.29	0.03	100	103A1	90% COAL, MID LUSTROUS 10% COAL, BRIGHT	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.37	0.08	100	103A1	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.38	0.01	100	103A1	100% COAL, BRIGHT	BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSE JOINT SPACING, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
224.40	0.02	100	103A1	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.41	0.01	100	103A1	100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
224.43	0.02	100	103A1	100% TONSTEIN	BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.45	0.02	100	103A1	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.48	0.03	100	103A1	100% COAL, MID LUSTROUS - DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.49	0.01	100	103A1	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.50	0.01	100	103A1	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.54	0.04	100	103A2	100% CARBONACEOUS MUDSTONE	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.61	0.07	100	103A2	100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.66	0.05	100	103A2	60% CARBONACEOUS MUDSTONE 40% COAL, BRIGHT	BROWN. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.69	0.03	100	103A2	85% COAL, MID LUSTROUS 15% CARBONACEOUS MUDSTONE	BRIGHT COAL, STREAKS, BLACK. BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.72	0.03	100	103A2	100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.75	0.03	100	103A2	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.90	0.15	100	103A2	100% COAL, MID LUSTROUS	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.01	0.11	100	103A2	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.05	0.04	100	103A2	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.07	0.02	100	103A2	100% MUDSTONE	BRIGHT COAL, STREAKS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.08	0.01	100	103A2	50% COAL, BRIGHT 50% COAL, MID LUSTROUS	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.11	0.03	100	103A2	100% COAL, MID LUSTROUS - DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
225.12	0.01	100	103A2	50% COAL, BRIGHT 50% COAL, MID LUSTROUS	BLACK. BRIGHT COAL, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSE JOINT SPACING, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
225.14	0.02	100	103A2	100% COAL, MID LUSTROUS	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.15	0.01	100	103A2	50% MUDSTONE 50% COAL, DULL	BANDS, BROWN. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.18	0.03	100	103A2	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.19	0.01	100	103A2	50% MUDSTONE 50% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BROWN. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.21	0.02	100	103A2	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.24	0.03	100	103A2	50% COAL, BRIGHT 50% CARBONACEOUS MUDSTONE	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.25	0.01	100	103A2	50% COAL, BRIGHT WITH NUMEROUS DULL BANDS 50% CLAY	BLACK. BLACK. UNWEATHERED, VERY WEAK ROCK, RAPID SLAKING, MODERATELY STICKY, SLIGHT PERMIABILITY.
225.34	0.09	100	103A2	60% COAL, DULL WITH FEW BRIGHT BANDS 40% CARBONACEOUS MUDSTONE	BLACK. BRIGHT COAL, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.38	0.04	100	103A2	100% COAL, MID LUSTROUS - BRIGHT	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.39	0.01	100	103A2	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.40	0.01	100	103A2	100% CARBONACEOUS MUDSTONE	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.56	0.16	100	103A2	100% COAL, MID LUSTROUS	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.58	0.02	100	103A2	100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.63	0.05	100	103A2	100% COAL, MID LUSTROUS	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.64	0.01	100	103A2	100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
225.67	0.03	100	103A2	100% COAL, MID LUSTROUS	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.69	0.02	100	103A2	100% COAL, MID LUSTROUS - BRIGHT	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSE JOINT SPACING, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
225.70	0.01	100	103A2	100% CARBONACEOUS MUDSTONE	BRIGHT COAL, STREAKS, GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.76	0.06	100	103A2	100% COAL, MID LUSTROUS	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.80	0.04	100	103A2	100% COAL, MID LUSTROUS - BRIGHT	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.82	0.02	100	103A2	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSE JOINT SPACING, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
225.83	0.01	100	103A2	100% COAL, MID LUSTROUS	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.86	0.03	100	103A2	100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
				BASE OF DALMAYNE D LOWER : THICKNESS= 1.89 M; SAMPLED THICKNESS= 1.89 M	
225.91	0.05	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
226.06	0.15	100	103T4	100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
226.10	0.04	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, NON SLAKING, SLIGHT PERMIABILITY.
226.12	0.02	100		60% MUDSTONE 40% CARBONACEOUS MUDSTONE	CARBONACEOUS, DARK GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
226.18	0.06	100		80% MUDSTONE 20% SILTSTONE	GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.
226.32	0.14	100	103T5	75% MUDSTONE 25% SILTSTONE	GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.
226.42	0.10	100	103T6	100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.
226.45	0.03	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, NON SLAKING, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
226.46	0.01	100		50% MUDSTONE 50% COAL, BRIGHT	GREY. BRIGHT COAL, BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
226.70	0.24	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.
226.74	0.04	100		100% CARBONACEOUS MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
226.75	0.01	100		50% MUDSTONE 50% CLAY	DARK GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
226.78	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
226.79	0.01	100		50% CARBONACEOUS MUDSTONE 50% MUDSTONE	BLACK. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
226.80	0.01	100		100% MUDSTONE	GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
226.82	0.02	100		100% CLAY	GREY, UNWEATHERED, VERY WEAK ROCK, RAPID SLAKING, MODERATELY STICKY, SLIGHT PERMIABILITY.
226.86	0.04	100		95% MUDSTONE 5% COAL	GREY. FRAGMENTS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
226.90	0.04	100		100% CLAY	GREY, UNWEATHERED, VERY WEAK ROCK, RAPID SLAKING, MODERATELY STICKY, SLIGHT PERMIABILITY.
227.00	0.10	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
227.06	0.06	100		60% MUDSTONE 40% MUDSTONE	COALY, STREAKS, GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
227.09	0.03	100		50% MUDSTONE 50% CLAY	GREY. GREY. UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
227.10	0.01	100		100% MUDSTONE	GREY, UNWEATHERED, VERY WEAK ROCK, RAPID SLAKING, MODERATELY STICKY, SLIGHT PERMIABILITY.
227.13	0.03	100		100% CLAY	GREY, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
227.14	0.01	100		100% MUDSTONE	GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
227.16	0.02	100		100% CLAY	GREY, UNWEATHERED, VERY WEAK ROCK, RAPID SLAKING, MODERATELY STICKY, SLIGHT PERMIABILITY.
227.17	0.01	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
227.22	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
227.26	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
227.30	0.04	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
227.35	0.05	100		75% MUDSTONE 25% COAL, DULL	BANDS, LIGHT BROWN. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
227.45	0.10	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
227.76	0.31	100		100% MUDSTONE	MASSIVE, SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT TRANSITIONAL, SLIGHT PERMIABILITY.
228.47	0.71	100		75% MUDSTONE 25% SILTSTONE	MASSIVE, GREY. BANDS, LAMINAE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT TRANSITIONAL, SLIGHT PERMIABILITY.
228.87	0.40	100		95% SANDSTONE,FINE GRAINED 5% SILTSTONE	LIGHT GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 3 DEG., EFFECTIVELY IMPERMIABLE.
230.68	1.81	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
231.50	0.82	100		95% SANDSTONE,FINE GRAINED 5% SILTSTONE	LIGHT GREY. LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 5 DEG., EFFECTIVELY IMPERMIABLE.
232.02	0.52	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
232.09	0.07	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
232.86	0.77	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
233.07	0.21	100		80% SANDSTONE,MEDIUM GRAINED 15% COAL 5% MUDSTONE	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
233.26	0.19	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
233.39	0.13	100		85% SANDSTONE,MEDIUM GRAINED 15% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
234.56	1.17	100		95% SANDSTONE,MEDIUM GRAINED 5% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
234.80	0.24	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
236.18	1.38	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
236.46	0.28	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	LIGHT GREY. STREAKS, FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
238.12	1.66	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	0.00 M	97.30 - 102.92 M	5.62 M
DC	0.00 M	134.11 - 136.72 M	2.61 M
DDU	0.00 M	192.30 - 192.74 M	0.44 M
DDL	1.89 M	223.97 - 225.86 M	1.89 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
103T1	223.10 - 223.33 M	0.23 M
103T2	223.67 - 223.97 M	0.30 M
103A1	223.97 - 224.50 M	0.53 M
103A2	224.50 - 225.86 M	1.36 M
103T4	225.91 - 226.06 M	0.15 M
103T5	226.18 - 226.32 M	0.14 M
103T6	226.32 - 226.42 M	0.10 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 104

HOLE TYPE	CORE
EASTING	599,242 M AM GRID
NORTHING	5,374,718 N AM GRID
ELEVATION	251.10 M
TOTAL DEPTH DRILLED	172.50 M
DRILLING STARTED	19/01/82
DRILLING TIME	10 DAYS
CORE SIZE	61.1 MM
HOLE SIZE	96.1 MM
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
11.00		20		100% DOLERITE	SCREE, GREY-BROWN, COMPLETELY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.
12.00		100		100% MUDSTONE	SILTSTONE, GREY, HIGHLY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.
16.50	4.50	10		75% SANDSTONE 25% COAL, DULL WITH FEW BRIGHT BANDS	BADLY BROKEN, LIGHT GREY. BADLY BROKEN, BLACK. HIGHLY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.
16.70	0.20	50		100% MUDSTONE	GREY, HIGHLY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.
16.77	0.07	50		100% MUDSTONE	GREY, HIGHLY WEATHERED, WEAK ROCK, MODERATE PERMIABILITY.
16.87	0.10	50		100% MUDSTONE	GREY, HIGHLY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.
17.03	0.16	50		100% CARBONACEOUS MUDSTONE	BADLY BROKEN, BLACK, HIGHLY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.
17.24	0.21	50		50% COAL, DULL WITH FEW BRIGHT BANDS 50% CARBONACEOUS MUDSTONE	BADLY BROKEN, BLACK. BLACK. HIGHLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
19.20	1.96	0		CORE LOSS	
19.50	0.30	100		100% MUDSTONE	CREAM, HIGHLY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.
20.38	0.88	100		90% SANDSTONE,MEDIUM GRAINED 10% MUDSTONE	LIGHT GREY. BANDS, GREY. MODERATELY WEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
20.44	0.06	100		100% MUDSTONE	BANDS, GREY, MODERATELY WEATHERED, WEAK ROCK, MODERATE PERMIABILITY.
21.14	0.70	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 55 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
21.45	0.31	0		CORE LOSS	
21.84	0.39	100		75% MUDSTONE 25% SILTSTONE	GREY. GREY. MODERATELY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
22.26	0.42	100		75% MUDSTONE 25% SANDSTONE,FINE GRAINED	GREY. LIGHT GREY. MODERATELY WEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, MODERATE PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
22.50	0.24	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, MODERATELY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
25.50	3.00	30		90% SANDSTONE,MEDIUM GRAINED 10% MUDSTONE	BADLY BROKEN, LIGHT GREY. BADLY BROKEN, GREY. MODERATELY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
25.80	0.30	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, MODERATELY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
26.00	0.20	0		CORE LOSS	
26.20	0.20	100		85% SANDSTONE,FINE GRAINED 15% SILTSTONE	LIGHT GREY. LAMINAE, DARK GREY. MODERATELY WEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT TRANSITIONAL, BEDS DIP 5 DEG., MODERATE PERMIABILITY.
26.40	0.20	0		CORE LOSS	
26.56	0.16	100		100% COAL, DULL	BLACK, MODERATELY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
26.59	0.03	90		100% MUDSTONE	BROWN, MODERATELY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
26.60	0.01	90		100% CLAY	GREY, MODERATELY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.
27.10	0.50	90		100% MUDSTONE	BROWN, MODERATELY WEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 65 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
27.25	0.15	90		100% MUDSTONE	GREY, MODERATELY WEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
27.30	0.05	90		100% CLAY	GREY, MODERATELY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.
27.40	0.10	90		100% MUDSTONE	BADLY BROKEN, GREY, MODERATELY WEATHERED, WEAK ROCK, MODERATE PERMIABILITY.
27.60	0.20	0		CORE LOSS	
27.80	0.20	100		100% MUDSTONE	BADLY BROKEN, GREY, MODERATELY WEATHERED, WEAK ROCK, MODERATE PERMIABILITY.
27.94	0.14	0		CORE LOSS	
28.12	0.18	100		100% MUDSTONE	SILTSTONE, GREY, SLIGHTLY WEATHERED, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
28.82	0.70	100		100% MUDSTONE	MASSIVE, GREY, SLIGHTLY WEATHERED, WEAK ROCK, MODERATE PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
29.00	0.18	0		CORE LOSS	
29.20	0.20	100		100% MUDSTONE	BADLY BROKEN, GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
29.80	0.60	100		75% MUDSTONE 25% SILTSTONE	GREY. BANDS, GREY. SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
30.30	0.50	100		90% SANDSTONE,FINE GRAINED 10% SILTSTONE	LIGHT GREY. LAMINAE, BANDS, DARK GREY. SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
30.60	0.30	100		60% SANDSTONE,FINE GRAINED 40% SILTSTONE	LIGHT GREY. BANDS, GREY. SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
31.50	0.90	100		60% SANDSTONE,FINE GRAINED 40% SILTSTONE	LIGHT GREY. LAMINAE, BANDS, GREY. SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 25 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
32.04	0.54	100		90% SANDSTONE,FINE GRAINED 10% SILTSTONE	BADLY BROKEN, LIGHT GREY. LENSES, BANDS, DARK GREY. SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
32.62	0.58	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LAMINAE, LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
32.70	0.08	0		CORE LOSS	
33.20	0.50	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
33.70	0.50	80		100% SANDSTONE,MEDIUM GRAINED	BADLY BROKEN, LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 55 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
33.80	0.10	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
34.05	0.25	0		CORE LOSS	
35.10	1.05	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
35.37	0.27	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 25 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
35.57	0.20	0		CORE LOSS	
35.73	0.16	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
35.77	0.04	100		50% SILTSTONE 50% SANDSTONE,FINE GRAINED	CARBONACEOUS, DARK GREY. BANDS, LIGHT GREY. SLIGHTLY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.
36.60	0.83	100		100% SANDSTONE,MEDIUM GRAINED	BADLY BROKEN, LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
36.80	0.20	0		CORE LOSS	
37.16	0.36	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
37.36	0.20	0		CORE LOSS	
37.70	0.34	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
37.90	0.20	0		CORE LOSS	
38.10	0.20	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
38.25	0.15	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
38.57	0.32	100		90% SANDSTONE,MEDIUM GRAINED 10% SILTSTONE	LIGHT GREY. LAMINAE, BANDS, DARK GREY. SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
38.77	0.20	100		90% SANDSTONE,MEDIUM GRAINED 5% COAL 5% MUDSTONE	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. PELLETAL, GREY. SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, MODERATE PERMIABILITY.
39.30	0.53	100		100% SANDSTONE,MEDIUM GRAINED	BADLY BROKEN, LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
39.50	0.20	0		CORE LOSS	
39.90	0.40	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
40.20	0.30	0		CORE LOSS	
40.75	0.55	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, SLIGHTLY WEATHERED. MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
				TOP OF DALMAYNE B : 210.35 M R.L.	
42.00	1.25	5		80% COAL 20% MUDSTONE	BLACK. GREY. SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
42.09	0.09	100		100% MUDSTONE	GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
43.50	1.41	5		50% CARBONACEOUS MUDSTONE 25% MUDSTONE 25% COAL	BLACK. GREY. BLACK. SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
44.40	0.90	0		CORE LOSS	
44.55	0.15	100		100% MUDSTONE	GREY, SLIGHTLY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.
44.60	0.05	100		100% CLAYSTONE	GREY, SLIGHTLY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.
45.10	0.50	100		100% MUDSTONE	GREY, SLIGHTLY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.
45.80	0.70	100		100% MUDSTONE	SILTSTONE, MASSIVE, GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
46.21	0.41	100		100% MUDSTONE	SILTSTONE, GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
46.50	0.29	100		100% MUDSTONE	SILTSTONE, BADLY BROKEN, GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.
46.60	0.10	0		CORE LOSS	
46.75	0.15	100		100% MUDSTONE	MASSIVE, GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 55 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
46.90	0.15	0		CORE LOSS	
46.92	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
46.95	0.03	100		100% MUDSTONE	BANDS, CREAM, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
47.00	0.05	100		80% COAL, DULL 20% CARBONACEOUS MUDSTONE	BLACK. BLACK. SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
47.25	0.25	100		90% COAL, DULL 10% MUDSTONE	BADLY BROKEN, BLACK. BROWN. SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
47.30	0.05	100		95% COAL, DULL 5% MUDSTONE	BLACK. LENSES, CREAM. SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, MODERATE PERMIABILITY.
47.33	0.03	100		100% MUDSTONE	BANDS, CREAM, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
47.40	0.07	0		CORE LOSS	
47.43	0.03	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
47.50	0.07	0		CORE LOSS	
47.58	0.08	100		100% CLAYSTONE	LIGHT BROWN, SLIGHTLY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.
47.75	0.17	100		80% COAL, DULL 20% MUDSTONE	BADLY BROKEN, BLACK. BANDS, BADLY BROKEN, LIGHT BROWN. SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
49.50	1.75	50		75% COAL, DULL 25% MUDSTONE	BADLY BROKEN, BLACK. BANDS, BADLY BROKEN, LIGHT BROWN. SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
49.75	0.25	0		CORE LOSS	
49.82	0.07	100		100% CLAYSTONE	CREAM, SLIGHTLY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.
49.90	0.08	100		100% COAL, DULL	BADLY BROKEN, BLACK, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
50.03	0.13	100		100% MUDSTONE	BADLY BROKEN, GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
50.17	0.14	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, SLIGHTLY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMEABILITY.
50.40	0.23	100		100% SANDSTONE,MEDIUM GRAINED	FAULT GOUGE, LIGHT GREY, SLIGHTLY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
50.54	0.14	100		100% COAL	FAULT GOUGE, BLACK, SLIGHTLY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.
				BASE OF DALMAYNE B : THICKNESS= 9.79 M; SAMPLED THICKNESS= 0.00 M	
50.60	0.06	100		100% CLAY	WHITE, SLIGHTLY WEATHERED, VERY WEAK ROCK, MODERATE PERMIABILITY.
50.80	0.20	100		100% SANDSTONE,MEDIUM GRAINED	FAULT GOUGE, LIGHT GREY, SLIGHTLY WEATHERED, WEAK ROCK, MODERATE PERMIABILITY.
51.51	0.71	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
52.17	0.66	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
52.46	0.29	100		90% SANDSTONE,MEDIUM GRAINED 10% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
52.51	0.05	100		50% SANDSTONE,MEDIUM GRAINED 50% MUDSTONE	LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
52.95	0.44	100		75% SANDSTONE,FINE GRAINED 25% MUDSTONE	LIGHT GREY. PELLETAL, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
53.64	0.69	100		85% SANDSTONE,FINE GRAINED 10% MUDSTONE 5% SILTSTONE	MASSIVE, LIGHT GREY. LENSES, GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
53.98	0.34	100		60% SANDSTONE,FINE GRAINED 30% MUDSTONE 10% SANDSTONE,MEDIUM GRAINED	LIGHT GREY. PELLETAL, LENSES, GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
54.24	0.26	100		95% SANDSTONE 5% COAL	MED.-COARSE GRAINED, LIGHT GREY. STREAKS, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
54.42	0.18	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
54.99	0.57	100		80% SANDSTONE,FINE GRAINED 20% COAL	LIGHT GREY. STREAKS, LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 15 DEG., WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
55.19	0.20	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
55.25	0.06	100		60% SANDSTONE,MEDIUM GRAINED 40% MUDSTONE	LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
55.49	0.24	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
55.71	0.22	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
56.10	0.39	100		90% SANDSTONE,MEDIUM GRAINED 5% MUDSTONE 5% COAL	LIGHT GREY. PELLETAL, GREY. LENSES, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
57.80	1.70	100		70% SANDSTONE,MEDIUM GRAINED 20% SANDSTONE,FINE GRAINED 10% COAL	LIGHT GREY. SANDS, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
59.03	1.23	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
59.70	0.67	100		75% SANDSTONE,MEDIUM GRAINED 20% MUDSTONE 5% COAL	LIGHT GREY. PELLETAL, FRAGMENTS, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
60.92	1.22	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
61.00	0.08	100		80% SANDSTONE,MEDIUM GRAINED 20% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
61.02	0.02	0		CORE LOSS	
				TOP OF DALMAYNE C : 190.08 M R.L.	
61.09	0.07	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
61.14	0.05	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
61.16	0.02	100		80% CARBONACEOUS MUDSTONE 20% COAL, DULL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
61.20	0.04	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
61.22	0.02	100		100% CLAY	CREAM, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
61.23	0.01	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
61.30	0.07	0		CORE LOSS	
61.54	0.24	100		100% MUDSTONE	GREY, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
61.57	0.03	0		CORE LOSS	
61.62	0.05	100		100% CLAY	CREAM, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
61.67	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
62.52	0.85	100		90% MUDSTONE 10% MUDSTONE	MASSIVE, GREY. TUFFACEOUS, GREY-BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
62.57	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
64.10	1.53	100		50% MUDSTONE 50% SANDSTONE,FINE GRAINED	BANDS, GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 3 DEG., SLIGHT PERMIABILITY.
65.08	0.98	100		80% MUDSTONE 20% SILTSTONE	CARBONACEOUS, DARK GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
65.19	0.11	100		95% COAL, DULL 5% COAL, BRIGHT	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
65.20	0.01	100		100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
65.28	0.08	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
65.31	0.03	100		70% MUDSTONE 30% CLAY	TUFFACEOUS, CREAM. LIGHT BROWN. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
65.40	0.09	100		100% MUDSTONE	TUFFACEOUS, LIGHT BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
65.45	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
65.49	0.04	100		80% COAL, DULL WITH FEW BRIGHT BANDS 20% MUDSTONE	BLACK. BRIGHT COAL, STREAKS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
65.52	0.03	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
65.53	0.01	100		100% CLAY	LIGHT BROWN, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
65.61	0.08	100		95% CARBONACEOUS MUDSTONE 5% MUDSTONE	DARK GREY. STREAKS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
65.66	0.05	100		50% COAL, DULL WITH NUMEROUS BRIGHT BANDS 50% COAL, BRIGHT WITH FEW DULL BANDS	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
65.68	0.02	100		100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
65.70	0.02	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
65.78	0.08	100		50% COAL, DULL WITH FEW BRIGHT BANDS 50% COAL, MID LUSTROUS	BADLY BROKEN, BLACK. BRIGHT COAL, BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
65.94	0.16	100		75% COAL, DULL 25% COAL, HEAVY DULL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
65.96	0.02	100		95% MUDSTONE 5% COAL	BANDS, WHITE. BANDS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
66.01	0.05	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
66.12	0.11	100		100% CARBONACEOUS MUDSTONE	MASSIVE, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
66.33	0.21	100		75% MUDSTONE 25% CARBONACEOUS MUDSTONE	CARBONACEOUS, DARK GREY. BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
66.47	0.14	100		80% MUDSTONE 15% SILTSTONE 5% MUDSTONE	CARBONACEOUS, DARK GREY. CARBONACEOUS, DARK GREY. BANDS, WHITE. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
66.50	0.03	100		100% MUDSTONE	BANDS, WHITE, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
66.69	0.19	100		60% MUDSTONE 40% CARBONACEOUS MUDSTONE	CARBONACEOUS, SILTSTONE, GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
66.80	0.11	0		CORE LOSS	
66.92	0.12	100		75% MUDSTONE 25% CARBONACEOUS MUDSTONE	GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
66.95	0.03	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
67.05	0.10	100		95% MUDSTONE 5% CARBONACEOUS MUDSTONE	GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
67.08	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
67.15	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
67.20	0.05	100		100% MUDSTONE	BRIGHT COAL, STREAKS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
67.25	0.05	100		80% CARBONACEOUS MUDSTONE 15% COAL 5% MUDSTONE	STREAKS, BLACK. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
67.37	0.12	100		100% MUDSTONE	CARBONACEOUS, STREAKS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
67.42	0.05	100		90% COAL, DULL WITH NUMEROUS BRIGHT BANDS 10% CARBONACEOUS MUDSTONE	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
				BASE OF DALMAYNE C : THICKNESS= 6.40 M; SAMPLED THICKNESS= 0.00 M	
67.60	0.18	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
67.74	0.14	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 25 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
68.04	0.30	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
68.51	0.47	100		75% MUDSTONE 20% CARBONACEOUS MUDSTONE 5% COAL	GREY. LAMINAE, LENSES, DARK BROWN. STREAKS, FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
68.80	0.29	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
69.15	0.35	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
69.38	0.23	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
69.50	0.12	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
69.60	0.10	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
69.78	0.18	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
69.95	0.17	100		100% MUDSTONE	MASSIVE, SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
70.05	0.10	0		CORE LOSS	
70.20	0.15	100		95% MUDSTONE 5% COAL	GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
70.48	0.28	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
70.65	0.17	100		80% SILTSTONE 20% MUDSTONE	GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
71.66	1.01	100		75% SANDSTONE,FINE GRAINED 25% SILTSTONE	LIGHT GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, BEDS DIP 3 DEG., SLIGHT PERMIABILITY.
71.88	0.22	100		50% SILTSTONE 50% MUDSTONE	GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
72.00	0.12	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
72.34	0.34	100		60% MUDSTONE 35% SILTSTONE 5% SANDSTONE,FINE GRAINED	GREY. BANDS, GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
72.49	0.15	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
73.08	0.59	100		90% SANDSTONE 5% MUDSTONE 5% COAL	MED.-COARSE GRAINED, LIGHT GREY. GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
73.34	0.26	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
73.95	0.61	100		80% SANDSTONE,FINE GRAINED 20% SILTSTONE	LIGHT GREY. DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, EFFECTIVELY IMPERMIABLE.
74.13	0.18	100		75% SANDSTONE 25% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. LENSES, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
74.32	0.19	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
75.00	0.68	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
75.20	0.20	100		95% SANDSTONE,FINE GRAINED 5% COAL	LIGHT GREY. LAMINAE, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
75.90	0.70	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
76.80	0.90	100		90% SANDSTONE,FINE GRAINED 5% COAL 5% MUDSTONE	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. PELLETAL, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
77.22	0.42	100		90% SANDSTONE 10% COAL	MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
77.65	0.43	100		95% SANDSTONE 5% COAL	MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
77.75	0.10	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
77.86	0.11	100		95% SANDSTONE,FINE GRAINED 5% SILTSTONE	LIGHT GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
78.39	0.53	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
79.13	0.74	100		90% SANDSTONE 10% COAL	MED.-FINE GRAINED, LIGHT GREY. STREAKS, LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
79.23	0.10	100		60% SANDSTONE,FINE GRAINED 40% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
79.66	0.43	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
80.14	0.48	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, EFFECTIVELY IMPERMIABLE.
80.56	0.42	100		95% SANDSTONE,FINE GRAINED 5% COAL	LIGHT GREY. LAMINAE, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
80.91	0.35	100		70% SANDSTONE 20% COAL 10% MUDSTONE	MED.-COARSE GRAINED, LIGHT GREY. STREAKS, FRAGMENTS, BLACK. PELLETAL, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
82.73	1.82	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
83.10	0.37	100		80% SANDSTONE,FINE GRAINED 20% SANDSTONE,MEDIUM GRAINED	LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
83.43	0.33	100		75% SANDSTONE 20% COAL 5% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
83.94	0.51	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
84.08	0.14	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
84.48	0.40	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
84.78	0.30	100		95% SANDSTONE 5% COAL	MED.-FINE GRAINED, LIGHT GREY. LAMINAE, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 6 DEG., WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
87.40	2.62	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
87.47	0.07	100		100% MUDSTONE	LENSES, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
88.01	0.54	100		75% SANDSTONE 20% COAL 5% MUDSTONE	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. PELLETAL, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
88.22	0.21	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
88.41	0.19	100		75% SANDSTONE,MEDIUM GRAINED 25% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
89.32	0.91	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
90.36	1.04	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
90.82	0.46	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
91.32	0.50	100		70% MUDSTONE 20% CARBONACEOUS MUDSTONE 10% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, DARK GREY. STREAKS, LENSES, DARK GREY. BANDS, LENSES, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, EFFECTIVELY IMPERMIABLE.
91.50	0.18	100		55% SANDSTONE,MEDIUM GRAINED 25% CARBONACEOUS MUDSTONE 20% MUDSTONE	BANDS, LIGHT GREY. STREAKS, LENSES, BLACK. FRAGMENTS, LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
91.55	0.05	0		CORE LOSS	
91.68	0.13	100		75% SANDSTONE,MEDIUM GRAINED 25% MUDSTONE	LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
91.93	0.25	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
99.00	7.07	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
99.08	0.08	100		95% SANDSTONE,MEDIUM GRAINED 5% MUDSTONE	LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
99.18	0.10	100		100% CARBONACEOUS MUDSTONE	LENSES, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
101.58	2.40	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
102.07	0.49	100		95% SANDSTONE,MEDIUM GRAINED 5% MUDSTONE	LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
102.46	0.39	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
102.98	0.52	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
106.23	3.25	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
106.41	0.18	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
106.71	0.30	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
107.32	0.61	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, EFFECTIVELY IMPERMIABLE.
107.65	0.33	100		95% SANDSTONE 5% COAL	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, EFFECTIVELY IMPERMIABLE.
108.97	1.32	100		100% SANDSTONE	MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, EFFECTIVELY IMPERMIABLE.
110.86	1.89	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
111.05	0.19	100		50% SANDSTONE,MEDIUM GRAINED 30% CARBONACEOUS MUDSTONE 20% MUDSTONE	LIGHT GREY. DARK GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
116.90	5.85	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
117.30	0.40	100		95% SANDSTONE,MEDIUM GRAINED 5% MUDSTONE	LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WIDELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, EFFECTIVELY IMPERMIABLE.
117.61	0.31	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
117.63	0.02	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
117.68	0.05	100		100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, STRONG ROCK, EFFECTIVELY IMPERMIABLE.
118.06	0.38	100		80% SANDSTONE,MEDIUM GRAINED 20% COAL	CALCAREOUS, WHITE. STREAKS, FRAGMENTS, BLACK. UNWEATHERED, STRONG ROCK, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
118.21	0.15	100		60% SANDSTONE,FINE GRAINED 25% MUDSTONE 15% CARBONACEOUS MUDSTONE	TUFFACEOUS, GREY. PELLETAL, FRAGMENTS, GREY. DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
118.50	0.29	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
120.10	1.60	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
120.13	0.03	100		50% SANDSTONE,FINE GRAINED 50% COAL	LIGHT GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
120.30	0.17	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
120.60	0.30	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, EFFECTIVELY IMPERMIABLE.
120.93	0.33	100		65% SANDSTONE,MEDIUM GRAINED 20% MUDSTONE 15% COAL	LIGHT GREY. PELLETAL, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, EFFECTIVELY IMPERMIABLE.
121.21	0.28	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, EFFECTIVELY IMPERMIABLE.
123.90	2.69	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
123.98	0.08	100		80% SANDSTONE 20% COAL	MED.-FINE GRAINED, LIGHT GREY. STREAKS, FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, BEDS DIP 4 DEG., WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
124.17	0.19	100		50% MUDSTONE 45% CARBONACEOUS MUDSTONE 5% SANDSTONE	CARBONACEOUS, DARK GREY. BLACK. STREAKS, LENSES, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
124.55	0.38	100		100% MUDSTONE	SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.
124.84	0.29	100		60% SILTSTONE 40% MUDSTONE	GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
124.95	0.11	100		60% SILTSTONE 40% MUDSTONE	GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
125.57	0.62	100		60% SILTSTONE 40% MUDSTONE	GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
125.81	0.24	100		75% MUDSTONE 25% CARBONACEOUS MUDSTONE	GREY. BANDS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
125.94	0.13	100		60% MUDSTONE 40% SILTSTONE	GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
126.20	0.26	100		50% MUDSTONE 50% CARBONACEOUS MUDSTONE	GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
126.45	0.25	100		75% SILTSTONE 25% MUDSTONE	GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
126.54	0.09	100		85% CARBONACEOUS MUDSTONE 15% MUDSTONE	LENSES, BLACK. STREAKS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
126.70	0.16	100		90% MUDSTONE 10% COAL	GREY. STREAKS, FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
				TOP OF DALMAYNE D UPPER : 124.40 M R.L.	
127.12	0.42	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
127.13	0.01	100		100% MUDSTONE	BANDS, CREAM, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
127.16	0.03	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
127.26	0.10	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
127.30	0.04	100		60% MUDSTONE 40% CARBONACEOUS MUDSTONE	GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
127.42	0.12	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
127.44	0.02	100		50% CARBONACEOUS MUDSTONE 50% MUDSTONE	BRIGHT COAL, STREAKS, BLACK. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
127.68	0.24	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
			BASE OF DALMAYNE D UPPER : THICKNESS= 0.98 M; SAMPLED THICKNESS= 0.00 M		
127.75	0.07	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
128.17	0.42	100		100% MUDSTONE	COALY, STREAKS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
128.19	0.02	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
128.21	0.02	100		100% TONSTEIN	COALY, STREAKS, LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
128.26	0.05	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
128.30	0.04	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
128.80	0.50	100		60% SILTSTONE 40% MUDSTONE	GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.
129.53	0.73	100		60% SILTSTONE 20% SANDSTONE,FINE GRAINED 20% MUDSTONE	GREY. BANDS, LIGHT GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, MEDIUM BEDDED, BEDS DIP 3 DEG., WITH PLANT REMAINS, SLIGHT PERMIABILITY.
131.20	1.67	100		60% SILTSTONE 40% MUDSTONE	GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
131.38	0.18	100		60% SILTSTONE 40% MUDSTONE	GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
131.62	0.24	100		60% MUDSTONE 40% SILTSTONE	GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
131.84	0.22	100		60% MUDSTONE 40% SILTSTONE	COALY, STREAKS, GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 25 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
132.22	0.38	100		75% SILTSTONE 15% MUDSTONE 10% COAL	GREY. BANDS, GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CARBONACEOUS WISPS, SLIGHT PERMIABIL
132.50	0.28	100		60% SANDSTONE,FINE GRAINED 40% SILTSTONE	LIGHT GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY [illegible]Y BEDDED, BEDS DIP 5 DEG., SLIGHT PERMI [illegible]TY.
132.90	0.40	100		75% SANDSTONE 25% SILTSTONE	MED.-FINE GRAINED, LIGHT GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
133.12	0.22	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	LIGHT GREY. PELLETAL, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
135.29	2.17	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
135.55	0.26	100		90% SANDSTONE 10% COAL	MED.-FINE GRAINED, CALCAREOUS, LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
135.88	0.33	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, CALCAREOUS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
136.50	0.62	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, CALCAREOUS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY.
136.62	0.12	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
136.94	0.32	100		75% SANDSTONE 25% COAL	MED.-FINE GRAINED, LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 10 DEG., SLIGHT PERMIABILITY.
137.57	0.63	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
137.84	0.27	100		95% SANDSTONE,COARSE GRAINED 5% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
138.52	0.68	100		95% SANDSTONE,MEDIUM GRAINED 5% SANDSTONE,COARSE GRAINED	MASSIVE, LIGHT GREY. COALY, FRAGMENTS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
139.32	0.80	100		80% SANDSTONE,MEDIUM GRAINED 15% COAL 5% SANDSTONE,FINE GRAINED	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
139.62	0.30	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
139.83	0.21	100		75% SANDSTONE,MEDIUM GRAINED 25% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
140.28	0.45	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
140.78	0.50	100		65% SANDSTONE,MEDIUM GRAINED 25% COAL 10% MUDSTONE	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. PELLETAL, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
141.37	0.59	100		80% SANDSTONE,MEDIUM GRAINED 20% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY. MASSIVE, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
141.50	0.13	100		80% SANDSTONE,FINE GRAINED 20% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
141.56	0.06	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
141.66	0.10	100		60% SANDSTONE 40% COAL	MED.-FINE GRAINED, LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 8 DEG., SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
142.79	1.13	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
143.24	0.45	100		85% SANDSTONE 10% COAL 5% COAL	MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
143.40	0.16	100		70% SANDSTONE 25% COAL 5% CARBONACEOUS MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. FRAGMENTS, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
143.67	0.27	100		60% SANDSTONE 20% COAL 20% CARBONACEOUS MUDSTONE	MED.-FINE GRAINED. FRAGMENTS, STREAKS, BLACK. FRAGMENTS, STREAKS, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
144.12	0.45	100		75% SANDSTONE,FINE GRAINED 25% COAL	FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 65 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, EFFECTIVELY IMPERMIABLE.
144.32	0.20	100		95% SANDSTONE 5% COAL	MED.-COARSE GRAINED. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
144.40	0.08	100		100% MUDSTONE	SILTSTONE, LENSES, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
144.43	0.03	100		60% SANDSTONE,MEDIUM GRAINED 40% MUDSTONE	LIGHT GREY. PELLETAL, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
144.48	0.05	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
144.54	0.06	100		90% CARBONACEOUS MUDSTONE 10% COAL	LENSES, BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
144.68	0.14	100		85% SANDSTONE,FINE GRAINED 15% COAL	LIGHT GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
144.81	0.13	100		100% SANDSTONE	COALY, FRAGMENTS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
145.14	0.33	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
145.19	0.05	100		100% SANDSTONE,MEDIUM GRAINED	CALCAREOUS, WHITE, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
145.97	0.78	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
148.40	2.43	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
148.50	0.10	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	CALCAREOUS, WHITE. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
148.52	0.02	100		100% SANDSTONE,MEDIUM GRAINED	COALY, STREAKS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
148.71	0.19	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	CALCAREOUS, WHITE. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
151.41	2.70	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
151.58	0.17	100		100% SANDSTONE,MEDIUM GRAINED	CALCAREOUS, WHITE, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
152.90	1.32	100		60% SANDSTONE,MEDIUM GRAINED 40% COAL	LIGHT GREY. LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
152.99	0.09	100		70% SANDSTONE 20% COAL 10% MUDSTONE	MED.-COARSE GRAINED, LIGHT GREY. STREAKS, FRAGMENTS, BLACK. PELLETAL, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
153.54	0.55	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
154.82	1.28	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
155.06	0.24	100		80% SANDSTONE,MEDIUM GRAINED 15% COAL 5% MUDSTONE	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
155.97	0.91	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
156.14	0.17	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
157.50	1.36	100		100% SANDSTONE	MED.-COARSE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
157.64	0.14	100	104T1	100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
157.79	0.15	100	104T2	100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
157.90	0.11	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
158.05	0.15	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
158.19	0.14	100	104T3	100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
158.28	0.09	100		100% SANDSTONE,MEDIUM GRAINED	COALY, FRAGMENTS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
				TOP OF DALMAYNE D LOWER : 92.82 M R.L.	
158.33	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
158.36	0.03	100	104A1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.42	0.06	100	104A1	90% COAL, MID LUSTROUS 10% COAL, BRIGHT	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.45	0.03	100	104A1	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.50	0.05	100	104A1	75% COAL, MID LUSTROUS 25% COAL, BRIGHT	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.51	0.01	100	104A1	100% COAL, MID LUSTROUS - BRIGHT	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.54	0.03	100	104A1	85% COAL, BRIGHT 15% COAL, MID LUSTROUS	BANDS, BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.55	0.01	100	104A1	100% COAL, MID LUSTROUS - DULL	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.57	0.02	100	104A1	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
158.65	0.08	100	104A1	100% COAL, MID LUSTROUS - DULL	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.66	0.01	100	104A1	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
158.67	0.01	100	104A1	50% COAL, MID LUSTROUS - DULL 50% COAL, BRIGHT	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.69	0.02	100	104A1	100% COAL, MID LUSTROUS - BRIGHT	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.71	0.02	100	104A1	100% COAL, MID LUSTROUS	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.73	0.02	100	104A1	75% COAL, BRIGHT 25% COAL, MID LUSTROUS - BRIGHT	BANDS, BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.74	0.01	100	104A1	50% COAL, BRIGHT 40% TONSTEIN 10% CARBONACEOUS MUDSTONE	BANDS, BLACK. LIGHT BROWN. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.77	0.03	100	104A1	100% TONSTEIN	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.82	0.05	100	104A1	100% COAL, MID LUSTROUS	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.84	0.02	100	104A1	100% COAL, MID LUSTROUS - DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.86	0.02	100	104A1	100% COAL, MID LUSTROUS - BRIGHT	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.88	0.02	100	104A1	60% CARBONACEOUS MUDSTONE 40% MUDSTONE	BLACK. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.94	0.06	100	104A2	100% MUDSTONE	BRIGHT COAL, STREAKS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, NON SLAKING, SLIGHT PERMIABILITY.
158.96	0.02	100	104A2	60% CARBONACEOUS MUDSTONE 40% COAL, HEAVY DULL	COALY, BLACK. BRIGHT COAL, BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.98	0.02	100	104A2	100% COAL, MID LUSTROUS - DULL	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
158.99	0.01	100	104A2	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
159.02	0.03	100	104A2	80% COAL, BRIGHT 20% CARBONACEOUS MUDSTONE	BANDS, BLACK. BANDS, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.03	0.01	100	104A2	50% CARBONACEOUS MUDSTONE 25% COAL, MID LUSTROUS 25% MUDSTONE	BLACK. BRIGHT COAL, BANDS, BLACK. PELLETAL, LIGHT BROWN. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.05	0.02	100	104A2	95% COAL, DULL 5% COAL, BRIGHT	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.06	0.01	100	104A2	100% CARBONACEOUS MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.19	0.13	100	104A2	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.21	0.02	100	104A2	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.24	0.03	100	104A2	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.25	0.01	100	104A2	100% COAL, MID LUSTROUS - BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.47	0.22	100	104A2	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.49	0.02	100	104A2	100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.53	0.04	100	104A2	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
159.54	0.01	100	104A2	50% COAL, DULL 50% CARBONACEOUS MUDSTONE	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.57	0.03	100	104A2	100% COAL, MID LUSTROUS - BRIGHT	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.63	0.06	100	104A2	50% COAL, MID LUSTROUS 50% COAL, BRIGHT	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.64	0.01	100	104A2	100% CARBONACEOUS MUDSTONE	DARK BROWN, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.66	0.02	100	104A2	100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.71	0.05	100	104A2	100% COAL, MID LUSTROUS - DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.72	0.01	100	104A2	100% COAL, MID LUSTROUS - BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.91	0.19	100	104A2	100% COAL, MID LUSTROUS - DULL	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.92	0.01	100	104A2	100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.93	0.01	100	104A2	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.96	0.03	100	104A2	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
160.01	0.05	100	104A2	100% COAL, MID LUSTROUS	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
160.03	0.02	100	104A2	50% COAL, MID LUSTROUS 50% COAL, BRIGHT	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
160.06	0.03	100	104A2	100% COAL, MID LUSTROUS	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
				BASE OF DALHAYNE D LOWER : THICKNESS= 1.78 M; SAMPLED THICKNESS= 1.73 M	
160.12	0.06	100		50% MUDSTONE 50% MUDSTONE	GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
160.13	0.01	100		100% CLAYSTONE	GREY, UNWEATHERED, VERY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, RAPID SLAKING, SLIGHT PERMIABILITY.
160.18	0.05	100		100% MUDSTONE	ARGILLACEOUS, GREY, UNWEATHERED, VERY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, RAPID SLAKING, SLIGHT PERMIABILITY.
160.32	0.14	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
160.40	0.08	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
160.45	0.05	100		75% COAL, DULL WITH NUMEROUS BRIGHT BANDS 25% COAL, HEAVY DULL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
160.58	0.13	100	104T4	100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH PLANT REMAINS, EFFECTIVELY IMPERMIABLE.
160.68	0.10	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, EFFECTIVELY IMPERMIABLE.
160.82	0.14	100	104T5	100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
160.90	0.08	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
160.98	0.08	100		50% MUDSTONE 50% MUDSTONE	GREY. CARBONACEOUS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
161.04	0.06	100		85% MUDSTONE 15% CLAYSTONE	GREY. GREY. UNWEATHERED, VERY WEAK ROCK, RAPID SLAKING, EFFECTIVELY IMPERMIABLE.
161.10	0.06	100		50% MUDSTONE 50% CARBONACEOUS MUDSTONE	GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
161.16	0.06	100		95% CARBONACEOUS MUDSTONE 5% MUDSTONE	BLACK. LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, EFFECTIVELY IMPERMIABLE.
161.18	0.02	100		100% COAL, HEAVY DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
161.19	0.01	100		100% MUDSTONE	BANDS, LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
161.20	0.01	100		100% COAL, HEAVY DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
161.21	0.01	100		100% MUDSTONE	BANDS, LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
161.22	0.01	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
161.28	0.06	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
161.30	0.02	100		100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
161.31	0.01	100		50% COAL, INTERBANDED DULL AND BRIGHT 50% MUDSTONE	BLACK. GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
161.40	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, EFFECTIVELY IMPERMIABLE.
161.48	0.08	100		100% MUDSTONE	SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
162.20	0.72	100		100% MUDSTONE	SILTSTONE, MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
162.65	0.45	100		100% MUDSTONE.	SILTSTONE, MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, EFFECTIVELY IMPERMIABLE.
163.00	0.35	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
163.07	0.07	100		100% MUDSTONE	SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
163.98	0.91	100		100% MUDSTONE	SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
164.46	0.48	100		80% SANDSTONE,FINE GRAINED 20% SILTSTONE	LIGHT GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
164.51	0.05	100		60% SANDSTONE 40% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
164.59	0.08	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
164.71	0.12	100		75% SANDSTONE,FINE GRAINED 25% SILTSTONE	LIGHT GREY. LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
164.73	0.02	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
164.88	0.15	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
164.96	0.08	100		75% SILTSTONE 25% SANDSTONE,FINE GRAINED	CARBONACEOUS, DARK GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
165.04	0.08	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 4 DEG., WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
165.35	0.31	100		70% SANDSTONE,FINE GRAINED 30% SILTSTONE	LIGHT GREY. LAMINAE, BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
165.48	0.13	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
165.58	0.10	100		70% SANDSTONE,FINE GRAINED 30% SILTSTONE	SILTSTONE, LIGHT GREY. LAMINAE, BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
165.64	0.06	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
165.71	0.07	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, EFFECTIVELY IMPERMIABLE.
165.74	0.03	100		100% SILTSTONE	BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, EFFECTIVELY IMPERMIABLE.
165.80	0.06	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, EFFECTIVELY IMPERMIABLE.
172.50	6.70	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	0.00 M	40.75 - 50.54 M	9.79 M
DC	0.00 M	61.02 - 67.42 M	6.40 M
DDU	0.00 M	126.70 - 127.68 M	0.98 M
DDL	1.73 M	158.28 - 160.06 M	1.78 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
104T1	157.50 - 157.64 M	0.14 M
104T2	157.64 - 157.79 M	0.15 M
104T3	158.05 - 158.19 M	0.14 M
104A1	158.33 - 158.88 M	0.55 M
104A2	158.88 - 160.06 M	1.18 M
104T4	160.45 - 160.58 M	0.13 M
104T5	160.68 - 160.82 M	0.14 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 105

HOLE TYPE	CORE
EASTING	598,876 M AM GRID
NORTHING	5,373,627 M AM GRID
ELEVATION	466.10 M
TOTAL DEPTH DRILLED	346.60 M
DRILLING STARTED	10/02/62
DRILLING TIME	17 DAYS
CORE SIZE	45.1 MM
HOLE SIZE	75.7 MM
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	MUD
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	GEOTECHNICAL DATA SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION
PETROPHYSICAL WIRELINE LOGS RUN :	

BOREHOLE : GY 105

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
3.50	3.50	25		100% DOLERITE	SCREE, GREY-BROWN, MODERATELY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY.
19.60	16.10	75		100% DOLERITE	MED.-FINE GRAINED, GREY, WITH TALC ON JOINTS AND CLAY ON JOINTS, UNWEATHERED, EXTREMELY SRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CLAY & TALC, SLIGHT PERMIABILITY.
53.00	33.40	100		100% DOLERITE	MED.-FINE GRAINED, GREY, WITH TALC ON JOINTS AND CLAY ON JOINTS, UNWEATHERED, EXTREMELY SRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CLAY & TALC, SLIGHT PERMIABILITY.
82.84	29.84	100		100% DOLERITE	MED.-FINE GRAINED, GREY, WITH TALC ON JOINTS AND CLAY ON JOINTS, UNWEATHERED, EXTREMELY SRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CLAY & TALC, SLIGHT PERMIABILITY.
83.54	0.70	100		100% DOLERITE	VERY FINE GRAINED, GREY, UNWEATHERED, EXTREMELY SRONG ROCK, SLIGHT PERMIABILITY.
84.12	0.58	100		50% MUDSTONE 50% MUDSTONE	MASSIVE, BAKED, GREY-GREEN. BAKED, PURPLE. UNWEATHERED, VERY STRONG ROCK, SLIGHT PERMIABILITY.
84.40	0.28	100		100% MUDSTONE	CARBONACEOUS, BAKED, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH SLICKENSIDES, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CLAY & TALC, SLIGHT PERMIABILITY.
85.22	0.82	100		100% MUDSTONE	CARBONACEOUS, BAKED, DARK GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
86.95	1.73	100		100% MUDSTONE	MASSIVE, BAKED, PINK-GREY, UNWEATHERED, WEAK ROCK, WITH SLICKENSIDES, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CLAY & TALC, SLIGHT PERMIABILITY.
88.45	1.50	100		75% MUDSTONE 25% MUDSTONE	MASSIVE, BAKED, GREY-GREEN. MASSIVE, BAKED, CREAM. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
89.19	0.74	100		100% MUDSTONE	BAKED, GREY-GREEN, UNWEATHERED, WEAK ROCK, WITH SLICKENSIDES, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CLAY & TALC, SLIGHT PERMIABILITY.
89.45	0.26	100		100% MUDSTONE	GREEN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
92.10	2.65	100		75% MUDSTONE 25% MUDSTONE	GREY-GREEN. GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
94.52	2.42	100		60% MUDSTONE 40% MUDSTONE	CARBONACEOUS, MASSIVE, DARK GREY. MASSIVE, GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
96.30	1.78	100		90% MUDSTONE 10% MUDSTONE	SILTSTONE, MASSIVE, GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
96.46	0.16	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
96.54	0.08	100		100% CARBONACEOUS MUDSTONE	DARK GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
96.60	0.06	100		75% CARBONACEOUS MUDSTONE 25% COAL, BRIGHT	DARK GREY. BANDS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
96.68	0.08	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
96.95	0.27	100		100% COAL	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, WEAK ROCK, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
97.30	0.35	100		85% CARBONACEOUS MUDSTONE 15% COAL	DARK GREY. BRIGHT COAL, BANDS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
97.53	0.23	100		60% CARBONACEOUS MUDSTONE 40% COAL	COALY, BLACK. BANDS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
98.38	0.85	100		95% CARBONACEOUS MUDSTONE 5% COAL, BRIGHT	BLACK. BANDS, STREAKS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
99.10	0.72	100		90% CARBONACEOUS MUDSTONE 10% COAL, BRIGHT	COALY, BLACK. BANDS, BLACK. UNWEATHERED, WEAK ROCK, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CLAY & TALC, SLIGHT PERMIABILITY.
99.74	0.64	100		100% MUDSTONE	CARBONACEOUS, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
100.40	0.66	100		100% SILTSTONE	MASSIVE, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
101.60	1.20	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
103.40	1.80	100		85% MUDSTONE 15% SILTSTONE	MASSIVE, GREY. BANDS, DARK GREY. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
104.58	1.18	100		80% CARBONACEOUS MUDSTONE 15% MUDSTONE 5% COAL	BLACK. BANDS, GREY. BANDS, STREAKS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
104.96	0.38	100		85% SANDSTONE,MEDIUM GRAINED 10% CARBONACEOUS MUDSTONE 5% COAL	CARBONACEOUS, DARK GREY. BANDS, LENSES, BLACK. LENSES, BANDS, BLACK. UNWEATHERED, MODERATELY STRONG ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
105.63	0.67	100		85% SANDSTONE,MEDIUM GRAINED 10% CARBONACEOUS MUDSTONE 5% COAL	LIGHT GREY. BLACK. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
106.20	0.57	100		100% SANDSTONE,MEDIUM GRAINED	BAKED, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
106.50	0.30	100		100% SANDSTONE,MEDIUM GRAINED	BAKED, LIGHT GREY, UNWEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
106.60	0.10	100		100% DOLERITE	VERY FINE GRAINED, GREY, UNWEATHERED, EXTREMELY SRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
107.30	0.70	100		100% DOLERITE	VERY FINE GRAINED, GREY, UNWEATHERED, EXTREMELY SRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
132.00	24.70	100		100% DOLERITE	MASSIVE, MED.-FINE GRAINED, GREY, UNWEATHERED, EXTREMELY SRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
133.60	1.60	100		100% DOLERITE	MED.-FINE GRAINED, GREY, UNWEATHERED, EXTREMELY SRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
134.56	0.96	100		100% DOLERITE	VERY FINE GRAINED, GREY, UNWEATHERED, EXTREMELY SRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY.
134.93	0.37	100		100% SANDSTONE,MEDIUM GRAINED	BAKED, GREY-GREEN, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
135.10	0.17	100		100% SANDSTONE,MEDIUM GRAINED	BAKED, GREY-GREEN, WITH CHLORITE ON JOINTS, UNWEATHERED, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., SLIGHT PERMIABILITY.
136.00	0.90	100		100% SANDSTONE,MEDIUM GRAINED	BAKED, CREAM, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
136.60	0.60	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
138.10	1.50	25		100% PEBBLE CONGLOMERATE	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
138.54	0.44	80		85% SANDSTONE,MEDIUM GRAINED 15% PEBBLE CONGLOMERATE	LIGHT GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
139.20	0.66	80		100% PEBBLE CONGLOMERATE	LIGHT GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
139.50	0.30	90		95% SANDSTONE 5% COAL	MED.-FINE GRAINED, LIGHT GREY. LAMINAE, STREAKS, BLACK. UNWEATHERED, WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
146.19	6.69	20		75% PEBBLE CONGLOMERATE 25% SANDSTONE,MEDIUM GRAINED	LIGHT GREY. LIGHT GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
146.30	0.11	100		40% SANDSTONE 30% CARBONACEOUS MUDSTONE 30% MUDSTONE	MED.-COARSE GRAINED, LIGHT GREY. BLACK. PELLETAL, GREY. UNWEATHERED, WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
146.54	0.24	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY.
146.64	0.10	100		95% COAL, HEAVY DULL 5% MUDSTONE	GRADING TO, COARSE GRAINED, BLACK. STREAKS, GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
146.67	0.03	100		100% MUDSTONE	BANDS, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
146.77	0.10	100		100% COAL, HEAVY DULL	BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
146.79	0.02	100		100% MUDSTONE	BANDS, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
146.90	0.11	100		100% CARBONACEOUS MUDSTONE	GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
146.92	0.02	100		100% MUDSTONE	BANDS, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
146.97	0.05	100		100% COAL, HEAVY DULL	GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
147.05	0.08	100		100% CLAYSTONE	GREY-BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
147.15	0.10	100		100% COAL, DULL	GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
147.16	0.01	100		100% CLAYSTONE	BANDS, GREY-BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
147.22	0.06	100		100% CARBONACEOUS MUDSTONE	GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
147.27	0.05	100		100% CLAYSTONE	COALY, STREAKS, GREY-BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
147.39	0.12	100		100% COAL, HEAVY DULL	BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
147.45	0.06	100		100% CARBONACEOUS MUDSTONE	SILTSTONE, STREAKS, BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
147.58	0.13	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
147.87	0.29	100		60% CARBONACEOUS MUDSTONE 30% MUDSTONE 10% COAL, HEAVY DULL	BLACK. CARBONACEOUS, DARK GREY. BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
148.02	0.15	100		100% MUDSTONE	SILTSTONE, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
148.04	0.02	100		100% CARBONACEOUS MUDSTONE	BANDS, BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
148.12	0.08	100		100% MUDSTONE	SILTSTONE, GREY, UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
148.22	0.10	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
148.25	0.03	100		75% MUDSTONE 25% COAL, DULL	CREAM. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
148.28	0.03	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
148.37	0.09	100		70% MUDSTONE 30% COAL	GREY-BROWN. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
148.44	0.07	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
148.52	0.08	100		85% MUDSTONE 10% MUDSTONE 5% COAL	GREY. CARBONACEOUS, DARK GREY. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
148.59	0.07	100		95% CARBONACEOUS MUDSTONE 5% MUDSTONE	COALY, BLACK. STREAKS, LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
148.61	0.02	100		95% MUDSTONE 5% COAL	CARBONACEOUS, DARK GREY. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
148.81	0.20	100		75% COAL, DULL 25% COAL, HEAVY DULL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
148.89	0.08	100		95% MUDSTONE 5% COAL	GREY. STREAKS, FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
148.93	0.04	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
148.98	0.05	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
149.03	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
149.13	0.10	100		75% MUDSTONE 25% CARBONACEOUS MUDSTONE	CARBONACEOUS, GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
149.17	0.04	100		100% CARBONACEOUS MUDSTONE	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
149.21	0.04	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
149.26	0.05	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
149.31	0.05	100		100% COAL, BRIGHT WITH FEW DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
149.36	0.05	100		60% CARBONACEOUS MUDSTONE 40% COAL, DULL	BLACK. BRIGHT COAL, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
149.38	0.02	100		95% MUDSTONE 5% COAL, BRIGHT	CARBONACEOUS, GREY-BROWN. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
149.42	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
149.60	0.18	100		100% MUDSTONE	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
149.63	0.03	100		60% CARBONACEOUS MUDSTONE 40% MUDSTONE	BLACK. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
150.10	0.47	100		75% MUDSTONE 25% SILTSTONE	INTERCALATIONS, SILTSTONE, GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
150.25	0.15	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
150.54	0.29	100		55% SANDSTONE,FINE GRAINED 45% SANDSTONE,FINE GRAINED	LIGHT GREY. SILTSTONE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
150.64	0.10	100		70% SANDSTONE,FINE GRAINED 30% COAL	SILTSTONE, GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 3 DEG., SLIGHT PERMIABILITY.
151.09	0.45	100		95% SANDSTONE 5% SILTSTONE	MED.-FINE GRAINED, LIGHT GREY. LENSES. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
151.17	0.08	100		55% CARBONACEOUS MUDSTONE 30% MUDSTONE 15% MUDSTONE	BLACK. CARBONACEOUS, DARK GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
151.31	0.14	100		95% MUDSTONE 5% COAL, BRIGHT	GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
151.37	0.06	100		80% COAL, DULL 20% CARBONACEOUS MUDSTONE	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
151.44	0.07	100		100% CARBONACEOUS MUDSTONE	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
151.54	0.10	100		70% MUDSTONE 30% CARBONACEOUS MUDSTONE	GREY. COALY, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
151.60	0.06	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
151.65	0.05	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
151.73	0.08	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
151.79	0.06	100		80% SILTSTONE 20% CARBONACEOUS MUDSTONE	CARBONACEOUS, BLACK. PELLETAL, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
151.97	0.18	100		95% CARBONACEOUS MUDSTONE 5% MUDSTONE	BLACK. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
152.09	0.12	100		60% MUDSTONE 40% CARBONACEOUS MUDSTONE	GREY. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
152.98	0.89	100		55% MUDSTONE 40% SILTSTONE 5% CARBONACEOUS MUDSTONE	GREY. GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
153.20	0.22	100		100% CLAYSTONE	COALY, STREAKS, CREAM, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
153.23	0.03	100		100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
153.28	0.05	100		100% CLAYSTONE	COALY, FRAGMENTS, GREY-BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
153.31	0.03	100		100% COAL, HEAVY DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
153.36	0.05	100		60% CARBONACEOUS MUDSTONE 30% MUDSTONE 10% COAL	BLACK. GREY-BROWN. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
153.39	0.03	100		100% MUDSTONE	COALY, STREAKS, GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
153.47	0.08	100		80% CARBONACEOUS MUDSTONE 20% COAL, BRIGHT	BLACK. BANDS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
154.01	0.54	100		100% CLAYSTONE	COALY, STREAKS, CREAM, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
154.91	0.90	100		100% MUDSTONE	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
155.22	0.31	100		95% COAL, DULL 5% MUDSTONE	GRADING TO, HEAVY DULL COAL, BLACK. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY.
155.23	0.01	100		100% MUDSTONE	BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
155.48	0.25	100		90% COAL, DULL 5% TONSTEIN 5% MUDSTONE	GRADING TO, HEAVY DULL COAL, BLACK. BANDS, GREY-BROWN. BANDS, GREY. WITH PYRITE ON JOINTS, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY.
155.58	0.10	100		100% MUDSTONE	BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
155.67	0.09	100		100% COAL, HEAVY DULL	GRADING TO, DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
155.70	0.03	100		100% MUDSTONE	BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
155.78	0.08	100		50% CARBONACEOUS MUDSTONE 30% MUDSTONE 20% COAL	BLACK. GREY. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
155.95	0.17	100		100% COAL, HEAVY DULL	GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
156.00	0.05	100		70% CLAYSTONE 20% TONSTEIN 10% MUDSTONE	GREY-BROWN. CREAM. BRIGHT COAL, STREAKS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
156.03	0.03	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
156.18	0.15	100		50% MUDSTONE 40% CARBONACEOUS MUDSTONE 10% COAL	CARBONACEOUS, GREY. BLACK. BANDS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
156.23	0.05	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
156.33	0.10	100		50% MUDSTONE 45% MUDSTONE 5% COAL	CARBONACEOUS, DARK GREY. GREY. STREAKS, BLACK. WITH PYRITE ON JOINTS, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY.
156.57	0.24	100		50% MUDSTONE 45% MUDSTONE 5% COAL	CARBONACEOUS, DARK GREY. GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
156.72	0.15	100		100% CLAYSTONE	GREY-BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
156.78	0.06	100		100% CARBONACEOUS MUDSTONE	DARK GREY, UNWEATHERED, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
156.80	0.02	100		100% MUDSTONE	BANDS, LIGHT GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
156.99	0.19	100		90% CARBONACEOUS MUDSTONE 10% MUDSTONE	GRADING TO, HEAVY DULL COAL, BLACK. BANDS, GREY. UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
157.08	0.09	100		100% MUDSTONE	COALY, STREAKS, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
157.15	0.07	100		100% CARBONACEOUS MUDSTONE	COALY, STREAKS, BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
157.34	0.19	100		60% MUDSTONE 40% MUDSTONE	COALY, STREAKS, GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
158.36	1.02	100		95% MUDSTONE 5% MUDSTONE	MASSIVE, GREY. CARBONACEOUS, BANDS, DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
158.84	0.48	100		50% SILTSTONE 45% MUDSTONE 5% CARBONACEOUS MUDSTONE	MASSIVE, GREY. GREY. STREAKS, BLACK. UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 55 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.18	0.34	100		55% MUDSTONE 45% SILTSTONE	MASSIVE, GREY. MASSIVE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.37	0.19	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
159.42	0.05	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
159.63	0.21	100		100% SILTSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
159.79	0.16	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
160.63	0.84	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
161.75	1.12	100		60% SILTSTONE 40% SANDSTONE,FINE GRAINED	INTERCALATIONS, FINE GRAINED SANDSTONE, GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
162.94	1.19	100		80% SANDSTONE 20% SILTSTONE	MED.-FINE GRAINED, INTERCALATIONS, LIGHT GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH PLANT REMAINS, SLIGHT PERMIABILITY.
163.73	0.79	100		70% SANDSTONE 30% SILTSTONE	MED.-FINE GRAINED, INTERCALATIONS, LIGHT GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
164.06	0.33	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT TRANSITIONAL, WITH CROSS LAMINATION, SLIGHT PERMIABILITY.
164.65	0.59	100		60% SILTSTONE 40% SANDSTONE	LAMINAE, INTERCALATIONS, GREY. MED.-FINE GRAINED, LAMINAE, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT EROSIONAL, WITH PLANT REMAINS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
164.96	0.31	100		98% SANDSTONE,FINE GRAINED 2% SILTSTONE	GRADING TO, MED.-FINE GRAINED, LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY.
165.03	0.07	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY.
165.50	0.47	100		80% SANDSTONE,MEDIUM GRAINED 15% SANDSTONE,FINE GRAINED 5% SILTSTONE	BANDS, INTERCALATIONS, LIGHT GREY. LAMINAE, LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY.
165.53	0.03	100		100% COAL	FRAGMENTS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
165.57	0.04	100		100% MUDSTONE	CARBONACEOUS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY.
165.67	0.10	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
165.68	0.01	100		100% TONSTEIN	CREAM, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
165.72	0.04	100		100% CARBONACEOUS MUDSTONE	BROWN-BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
165.99	0.27	100		99% COAL, DULL WITH NUMEROUS BRIGHT BANDS 1% MUDSTONE	BLACK. STREAKS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
166.03	0.04	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
166.31	0.28	100		95% COAL, DULL WITH FEW BRIGHT BANDS 5% MUDSTONE	BLACK. BANDS, PELLETAL. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
166.34	0.03	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
166.43	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
166.55	0.12	100		100% MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT TRANSITIONAL, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 3 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
166.73	0.18	100		100% SILTSTONE	GRADING TO, FINE GRAINED SANDSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
167.08	0.35	100		75% SANDSTONE 25% SANDSTONE	MED.-FINE GRAINED, GRADING TO, GREY. VERY FINE GRAINED, GREY-BROWN. UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY.
167.62	0.54	100		75% SILTSTONE 25% SANDSTONE	GREY. VERY FINE GRAINED. UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
168.21	0.59	100		100% TUFF	CREAM, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, BEDS DIP 8 DEG., SLIGHT PERMIABILITY.
168.26	0.05	100		100% CARBONACEOUS MUDSTONE	TUFFACEOUS, LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
168.27	0.01	100		100% CARBONACEOUS MUDSTONE	BROWN-BLACK, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT TRANSITIONAL, SLIGHT PERMIABILITY.
168.40	0.13	100		100% COAL, HEAVY DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY.
168.47	0.07	100		100% MUDSTONE	CARBONACEOUS, DARK BROWN, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
168.58	0.11	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
168.67	0.09	100		100% CARBONACEOUS MUDSTONE	BROWN-BLACK, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
169.16	0.49	100		100% TUFF	CREAM, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, BEDS DIP 10 DEG., WITH BURROWING, SLIGHT PERMIABILITY.
169.48	0.32	100		70% CARBONACEOUS MUDSTONE 30% COAL	BANDS, INTERCALATIONS, BROWN-BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY.
169.55	0.07	100		95% MUDSTONE 5% COAL	CARBONACEOUS, DARK BROWN. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
169.58	0.03	100		90% MUDSTONE 10% MUDSTONE	INTERCALATIONS, CREAM. CARBONACEOUS, DARK BROWN. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, SLIGHT PERMIABILITY.
169.78	0.20	100		75% SILTSTONE 25% SANDSTONE	BANDS, INTERCALATIONS, GREY. VERY FINE GRAINED, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, SLIGHT PERMIABILITY.
170.31	0.53	100		89% MUDSTONE 10% MUDSTONE 1% SANDSTONE	GREY. CARBONACEOUS, DARK BROWN. VERY FINE GRAINED, LAMINAE, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, SLIGHT PERMIABILITY.
170.78	0.47	100		100% SILTSTONE	LAMINAE, CREAM, UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, CLOSELY SPACED JOINTS, INFILLED WITH CALCITE, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
171.76	0.98	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, TIGHT NON PLANAR, SLIGHT PERMIABILITY.
172.34	0.58	100		90% SANDSTONE 10% SILTSTONE	VERY FINE GRAINED, INTERCALATIONS, GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, SLIGHT PERMIABILITY.
172.52	0.18	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, CLOSELY SPACED JOINTS, JOINTS DIP 67 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
172.72	0.20	100		90% SILTSTONE 10% MUDSTONE	GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
173.39	0.67	100		100% MUDSTONE	SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
173.47	0.08	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, CLOSELY SPACED JOINTS, JOINTS DIP 40 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY.
173.94	0.47	100		100% SANDSTONE	VERY FINE GRAINED, SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CROSS LAMINATION, SLIGHT PERMIABILITY.
174.86	0.92	100		95% SANDSTONE 5% SILTSTONE	MED.-FINE GRAINED, LIGHT GREY. BANDS, LAMINAE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH PLANT REMAINS, WITH CROSS LAMINATION, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
175.99	1.13	100		60% SILTSTONE 40% SANDSTONE	LAMINAE, INTERCALATIONS, GREY. VERY FINE GRAINED, LAMINAE, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, WITH PLANT REMAINS, SLIGHT PERMIABILITY.
176.31	0.32	100		85% SANDSTONE,MEDIUM GRAINED 15% SILTSTONE	LIGHT GREY. LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
176.57	0.26	100		60% SANDSTONE,FINE GRAINED 40% SILTSTONE	LIGHT GREY. LAMINAE, LENSES, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
176.67	0.10	100		100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
176.68	0.01	100		100% COAL, BRIGHT	UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
176.96	0.28	100		60% COAL, INTERBANDED DULL AND BRIGHT 40% COAL, BRIGHT WITH NUMEROUS DULL BANDS	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
177.21	0.25	100		70% COAL, DULL WITH NUMEROUS BRIGHT BANDS 20% COAL, BRIGHT WITH NUMEROUS DULL BANDS 10% MUDSTONE	BLACK. BANDS, STREAKS, GREY-BROWN. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
177.27	0.06	100		60% SILTSTONE 30% SILTSTONE 10% COAL	GREY. CARBONACEOUS, DARK GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
177.42	0.15	100		80% MUDSTONE 20% COAL, BRIGHT	SILTSTONE, CARBONACEOUS, DARK GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
177.73	0.31	100		75% MUDSTONE 25% SILTSTONE	GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
178.01	0.28	100		95% MUDSTONE 5% COAL	GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
178.49	0.48	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.
178.73	0.24	100		95% MUDSTONE 5% COAL	CARBONACEOUS, DARK GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
179.22	0.49	100		90% MUDSTONE 10% SILTSTONE	GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
180.00	0.78	100		95% SANDSTONE,FINE GRAINED 5% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
180.43	0.43	100		80% SANDSTONE,FINE GRAINED 20% COAL	SILTSTONE, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
182.47	2.04	100		60% SILTSTONE 40% MUDSTONE	MASSIVE, GREY. MASSIVE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.
182.86	0.39	100		90% SILTSTONE 10% COAL	GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
183.67	0.81	100		75% MUDSTONE 15% SILTSTONE 10% MUDSTONE	GREY. CARBONACEOUS, DARK GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
184.47	0.80	100		75% SANDSTONE,FINE GRAINED 20% SILTSTONE 5% MUDSTONE	LIGHT GREY. BANDS, LAMINAE, DARK GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
184.87	0.40	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
185.02	0.15	100		100% SILTSTONE	MASSIVE, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
185.17	0.15	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
185.56	0.39	100		70% SANDSTONE,MEDIUM GRAINED 20% COAL 10% MUDSTONE	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
185.84	0.28	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
186.15	0.31	100		75% SANDSTONE 15% COAL 10% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. FRAGMENTS, STREAKS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
186.39	0.24	100		60% SANDSTONE 40% SILTSTONE	MED.-FINE GRAINED, LIGHT GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
186.58	0.19	100		75% SANDSTONE,MEDIUM GRAINED 20% MUDSTONE 5% COAL	LIGHT GREY. FRAGMENTS, PELLETAL, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
186.78	0.20	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
186.82	0.04	100		100% CARBONACEOUS MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
187.07	0.25	100		95% COAL, DULL 5% MUDSTONE	BLACK. BANDS, STREAKS, BROWN. WITH PYRITE ON JOINTS, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT NON PLANAR, SLIGHT PERMIABILITY.
187.10	0.03	100		100% CARBONACEOUS MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

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187.11	0.01	100		100% CLAYSTONE	GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
187.13	0.02	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
187.15	0.02	100		100% CLAYSTONE	SILTSTONE, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
187.25	0.10	100		100% SILTSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
187.32	0.07	100		100% COAL, HEAVY DULL	GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
187.40	0.08	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
187.45	0.05	100		100% CLAYSTONE	CREAM, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
187.60	0.15	0		CORE LOSS	
187.62	0.02	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
187.77	0.15	100		60% MUDSTONE 40% CARBONACEOUS MUDSTONE	COALY, STREAKS, GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
188.05	0.28	100		90% MUDSTONE 10% CARBONACEOUS MUDSTONE	GREY. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
188.11	0.06	100		80% CARBONACEOUS MUDSTONE 15% COAL, DULL 5% MUDSTONE	BLACK. BLACK. PELLETAL, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
188.13	0.02	100		100% CLAYSTONE	COALY, STREAKS, CREAM, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
188.37	0.24	100		80% COAL, DULL 15% COAL, DULL WITH NUMEROUS BRIGHT BANDS 5% MUDSTONE	BLACK. BLACK. PELLETAL, LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
188.45	0.08	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
188.88	0.43	100		80% MUDSTONE 20% SILTSTONE	GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
188.90	0.02	100		100% CARBONACEOUS MUDSTONE	BROWN-BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
188.95	0.05	100		60% COAL, DULL 40% COAL, DULL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
189.27	0.32	100		90% COAL, DULL WITH FEW BRIGHT BANDS 10% CARBONACEOUS MUDSTONE	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
189.30	0.03	100		70% CARBONACEOUS MUDSTONE 30% MUDSTONE	COALY, BLACK. BANDS, WHITE. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
189.37	0.07	100		100% MUDSTONE	COALY, STREAKS, WHITE, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
189.41	0.04	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
189.43	0.02	100		100% CLAYSTONE	COALY, STREAKS, CREAM, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
189.45	0.02	100		75% COAL, DULL WITH NUMEROUS BRIGHT BANDS 25% MUDSTONE	STREAKS, FRAGMENTS, GREY-BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
189.52	0.07	100		100% MUDSTONE	COALY, STREAKS, WHITE, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
189.65	0.13	100		95% CARBONACEOUS MUDSTONE 5% MUDSTONE	BLACK. PELLETAL, GREY. UNWEATHERED, WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
189.70	0.05	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
189.72	0.02	100		100% MUDSTONE	WHITE, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
189.90	0.18	100		90% COAL, INTERBANDED DULL AND BRIGHT 5% MUDSTONE 5% COAL, BRIGHT WITH FEW DULL BANDS	BLACK. LENSES, PELLETAL, GREY. BLACK. UNWEATHERED, WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
190.04	0.14	100		95% MUDSTONE 5% COAL	GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
190.23	0.19	100		95% COAL, DULL WITH FEW BRIGHT BANDS 5% MUDSTONE	BLACK. LENSES, PELLETAL, GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
190.25	0.02	100		100% MUDSTONE	BANDS, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
190.29	0.04	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
190.30	0.01	100		100% MUDSTONE	BANDS, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
190.42	0.12	100		85% COAL, DULL WITH NUMEROUS BRIGHT BANDS 10% CARBONACEOUS MUDSTONE 5% COAL, BRIGHT WITH FEW DULL BANDS	BLACK. BLACK. BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
190.44	0.02	100		100% COAL, DULL	BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
190.53	0.09	100		90% CARBONACEOUS MUDSTONE 10% COAL	BLACK. STREAKS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
190.87	0.34	100		100% MUDSTONE	COALY, STREAKS, GREY, UNWEATHERED, WEAK ROCK, WITH PLANT REMAINS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
191.40	0.53	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 55 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
191.80	0.40	100		70% MUDSTONE 30% CARBONACEOUS MUDSTONE	MASSIVE, GREY. DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
192.41	0.61	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
192.48	0.07	100		100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
192.67	0.19	100		95% MUDSTONE 5% COAL	GREY. STREAKS, BLACK. UNWEATHERED, WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
192.90	0.23	100		80% MUDSTONE 20% MUDSTONE	GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
193.15	0.25	100		85% CARBONACEOUS MUDSTONE 15% COAL	SILTSTONE, BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
193.19	0.04	100		100% MUDSTONE	GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
193.23	0.04	100		55% MUDSTONE 45% COAL	FRAGMENTS, PELLETAL, GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
193.50	0.27	100		80% COAL, DULL 20% COAL, HEAVY DULL	GRADING TO, HEAVY DULL COAL, BLACK. GRADING TO, COARSE GRAINED, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
193.52	0.02	100		100% MUDSTONE	BANDS, GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
193.62	0.10	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
193.63	0.01	100		100% MUDSTONE	BANDS, CREAM, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
193.89	0.26	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
193.91	0.02	100		60% CARBONACEOUS MUDSTONE 40% MUDSTONE	BLACK. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
194.05	0.14	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
194.12	0.07	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
194.25	0.13	100		100% MUDSTONE	SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
194.28	0.03	100		100% COAL, HEAVY DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
194.53	0.25	100		100% MUDSTONE	CREAM, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
194.87	0.34	100		75% COAL, DULL WITH NUMEROUS BRIGHT BANDS 25% COAL, DULL WITH FEW BRIGHT BANDS	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
194.88	0.01	100		100% MUDSTONE	BANDS, GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
194.98	0.10	100		60% COAL, DULL WITH NUMERGUS BRIGHT BANDS 40% COAL, BRIGHT	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
195.03	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
195.07	0.04	100		75% CARBONACEOUS MUDSTONE 25% MUDSTONE	BROWN-BLACK. LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
195.19	0.12	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
195.42	0.23	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
195.62	0.20	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
196.32	0.70	100		90% MUDSTONE 10% MUDSTONE	GREY. CARBONACEOUS, BROWN-BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
196.80	0.48	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
197.25	0.45	100		95% SANDSTONE,FINE GRAINED 5% COAL	MASSIVE, LIGHT GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
198.20	0.95	100		95% SANDSTONE,FINE GRAINED 5% SILTSTONE	LIGHT GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
198.32	0.12	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
198.58	0.26	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT NON PLANAR, SLIGHT PERMIABILITY.
198.70	0.12	100		100% CLAYSTONE	GREY, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
198.87	0.17	100		95% COAL, HEAVY DULL 5% MUDSTONE	BLACK. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
198.96	0.09	100		85% MUDSTONE 10% COAL 5% CARBONACEOUS MUDSTONE	CARBONACEOUS, GREY. FRAGMENTS, STREAKS, BLACK. BLACK. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
199.01	0.05	100		100% CLAYSTONE	GREY, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
199.23	0.22	100		75% CARBONACEOUS MUDSTONE 15% MUDSTONE 10% COAL	BLACK. BANDS, LIGHT BROWN. STREAKS, BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
199.36	0.13	100		90% COAL, INTERBANDED DULL AND BRIGHT 10% COAL, BRIGHT	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
199.41	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
201.90	2.49	100		90% MUDSTONE 10% SILTSTONE	MASSIVE, GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.
202.83	0.93	100		60% MUDSTONE 30% SILTSTONE 10% SANDSTONE,FINE GRAINED	INTERCALATIONS, SILTSTONE, GREY. BANDS, LAMINAE, GREY. LAMINAE, BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
203.85	1.02	100		75% SANDSTONE,FINE GRAINED 15% SILTSTONE 10% MUDSTONE	INTERCALATIONS, SILTSTONE, LIGHT GREY. BANDS, LAMINAE, GREY. LAMINAE, BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 3 DEG., SLIGHT PERMIABILITY.
204.55	0.70	100		75% MUDSTONE 20% SILTSTONE 5% SANDSTONE,FINE GRAINED	GREY. GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 4 DEG., SLIGHT PERMIABILITY.
206.00	1.45	100		90% MUDSTONE 10% SILTSTONE	MASSIVE, GREY. BANDS, LAMINAE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
206.12	0.12	100		95% MUDSTONE 5% SILTSTONE	INTERCALATIONS, SILTSTONE, GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
207.10	0.98	100		100% SANDSTONE	MED.-FINE GRAINED, CALCAREOUS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
207.53	0.43	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY.
211.20	3.67	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

TOP OF DALMAYNE B : 254.90 M R.L.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
211.26	0.06	100		60% CARBONACEOUS MUDSTONE 40% SANDSTONE	BANDS, BROWN. MED.-FINE GRAINED, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
212.33	1.07	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
212.40	0.07	100		60% CARBONACEOUS MUDSTONE 40% MUDSTONE	BANDS, BROWN-BLACK. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
212.68	0.28	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
212.74	0.06	100		75% SANDSTONE,MEDIUM GRAINED 25% COAL	LIGHT GREY. BANDS, FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
212.80	0.06	100		100% COAL, HEAVY DULL	GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
212.90	0.10	100		60% MUDSTONE 30% CARBONACEOUS MUDSTONE 10% TONSTEIN	GREY. BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
213.08	0.18	100		75% COAL, DULL WITH FEW BRIGHT BANDS 25% COAL, BRIGHT	BLACK. BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
213.32	0.24	100		80% CARBONACEOUS MUDSTONE 15% CARBONACEOUS MUDSTONE 5% MUDSTONE	GRADING TO, HEAVY DULL COAL, BLACK. BRIGHT COAL, STREAKS, BLACK. BANDS, LENSES, GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
213.37	0.05	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
214.02	0.65	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
214.07	0.05	100		95% CLAYSTONE 5% COAL	WHITE. BANDS, BLACK. UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
214.22	0.15	100		65% CARBONACEOUS MUDSTONE 25% MUDSTONE 10% COAL	CARBONACEOUS, DARK GREY. BANDS, STREAKS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
214.24	0.02	100		100% CLAYSTONE	LIGHT BROWN, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
214.27	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
214.37	0.10	100		70% MUDSTONE 30% CLAYSTONE	CARBONACEOUS, GREY. WHITE. UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
214.43	0.06	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
214.67	0.24	100		100% MUDSTONE	GREY, UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
214.74	0.07	100		60% MUDSTONE 40% CARBONACEOUS MUDSTONE	CARBONACEOUS, BLACK. BLACK. UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
214.95	0.21	100		90% CARBONACEOUS MUDSTONE 10% COAL, BRIGHT	BLACK. STREAKS, BANDS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
215.35	0.40	100		60% MUDSTONE 40% MUDSTONE	CARBONACEOUS, DARK GREY. SILTSTONE, STREAKS, GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
215.39	0.04	100		100% MUDSTONE	BANDS, CREAM, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
215.56	0.17	100		95% MUDSTONE 5% MUDSTONE	GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
215.86	0.30	100		85% MUDSTONE 15% MUDSTONE	BRIGHT COAL, STREAKS, GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
216.25	0.39	100		70% MUDSTONE 30% MUDSTONE	MASSIVE, GREY. CARBONACEOUS, LAMINAE, DARK GREY. UNWEATHERED, WEAK ROCK, THICKLY LAMINATED, BEDS DIP 3 DEG., SLIGHT PERMIABILITY.
216.52	0.27	100		75% MUDSTONE 25% SILTSTONE	CARBONACEOUS, DARK GREY. GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
216.78	0.26	100		50% CARBONACEOUS MUDSTONE 30% MUDSTONE 20% MUDSTONE	BLACK. CARBONACEOUS, SILTSTONE, GREY-BROWN. BANDS, STREAKS, GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
216.87	0.09	100		100% CLAYSTONE	LIGHT BROWN, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
217.10	0.23	100		75% CARBONACEOUS MUDSTONE 20% MUDSTONE 5% MUDSTONE	BLACK. CARBONACEOUS, GREY-BROWN. BANDS, STREAKS, GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
217.45	0.35	100		75% MUDSTONE 20% MUDSTONE 5% TONSTEIN	SILTSTONE, GREY. CARBONACEOUS, BANDS, DARK GREY. BANDS, CREAM. UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
217.53	0.08	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
217.55	0.02	100		100% MUDSTONE	BANDS, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
217.60	0.05	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
217.65	0.05	100		100% MUDSTONE	GREY, UNWEATHERED, WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.
217.76	0.11	100		80% CARBONACEOUS MUDSTONE 15% COAL, HEAVY DULL 5% MUDSTONE	BLACK. BLACK. BANDS, LIGHT BROWN. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
217.82	0.06	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
217.95	0.13	100		70% CARBONACEOUS MUDSTONE 30% MUDSTONE	BLACK. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
218.06	0.11	100		100% CARBONACEOUS MUDSTONE	GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
218.09	0.03	100		60% CARBONACEOUS MUDSTONE 40% MUDSTONE	BLACK. BANDS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
218.15	0.06	100		100% CARBONACEOUS MUDSTONE	SILTSTONE, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
218.38	0.23	100		100% CARBONACEOUS MUDSTONE	GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
218.47	0.09	100		100% MUDSTONE	TUFFACEOUS, LIGHT BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
218.55	0.08	100		100% MUDSTONE	TUFFACEOUS, LIGHT BROWN, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
218.77	0.22	100		75% SILTSTONE 25% MUDSTONE	TONSTEIN, BANDS, GREY. BANDS, CARBONACEOUS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
218.90	0.13	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
219.01	0.11	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 55 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
219.27	0.26	100		90% MUDSTONE 10% MUDSTONE	TUFFACEOUS, LIGHT BROWN. CARBONACEOUS, BANDS, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
219.38	0.11	100		95% CARBONACEOUS MUDSTONE 5% COAL	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
219.43	0.05	100		100% CARBONACEOUS MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
219.52	0.09	100		80% CARBONACEOUS MUDSTONE 15% COAL 5% MUDSTONE	BLACK. BANDS, STREAKS, BLACK. PELLETAL, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
219.69	0.17	100		100% COAL, DULL	GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
219.70	0.01	100		100% TONSTEIN	CREAM, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
219.77	0.07	100		100% COAL, DULL	GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
219.90	0.13	100		100% CARBONACEOUS MUDSTONE	GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
219.97	0.07	100		100% MUDSTONE	TUFFACEOUS, CREAM, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
220.01	0.04	100		70% MUDSTONE 30% MUDSTONE	CARBONACEOUS, DARK GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
220.18	0.17	100		85% MUDSTONE 15% CARBONACEOUS MUDSTONE	TUFFACEOUS, CREAM. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
220.29	0.11	100		95% CARBONACEOUS MUDSTONE 5% COAL	BLACK. BANDS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
220.31	0.02	100		100% MUDSTONE	COALY, STREAKS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
220.36	0.05	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
220.37	0.01	100		100% MUDSTONE	BANDS, TUFFACEOUS, CREAM, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
220.47	0.10	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
220.82	0.35	100		100% MUDSTONE	TUFFACEOUS, CREAM, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
220.91	0.09	100		100% CLAYSTONE	CREAM, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
221.06	0.15	100		100% CARBONACEOUS MUDSTONE	GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
221.12	0.06	100		100% CLAYSTONE	CREAM, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
221.30	0.18	100		100% CARBONACEOUS MUDSTONE	GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
221.37	0.07	100		100% CARBONACEOUS MUDSTONE	SILTSTONE, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
			BASE OF DALMAYNE B : THICKNESS= 10.17 M; SAMPLED THICKNESS= 0.00 M		
221.46	0.09	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
221.50	0.04	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
221.90	0.40	100		60% SILTSTONE 20% SANDSTONE,FINE GRAINED 20% MUDSTONE	GREY. LIGHT GREY. BANDS, CARBONACEOUS, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
222.11	0.21	100		90% SANDSTONE,FINE GRAINED 10% SILTSTONE	GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
222.30	0.19	100		100% MUDSTONE	CARBONACEOUS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
222.42	0.12	100		100% MUDSTONE	SILTSTONE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
222.56	0.14	100		100% CLAYSTONE	LIGHT GREY, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
222.77	0.21	100		100% MUDSTONE	SILTSTONE, GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
223.07	0.30	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 65 DEG., TIGHT NON PLANAR, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
223.21	0.14	100		100% CLAYSTONE	CREAM, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY.
223.33	0.12	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
223.50	0.17	100		100% MUDSTONE	SILTSTONE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
224.50	1.00	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.00	0.50	100		75% SANDSTONE,FINE GRAINED 25% SILTSTONE	GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
225.35	0.35	100		75% SANDSTONE,FINE GRAINED 25% SILTSTONE	GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
225.95	0.60	100		70% SANDSTONE,FINE GRAINED 30% SILTSTONE	GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, BEDS DIP 5 DEG., SLIGHT PERMIABILITY.
228.00	2.05	100		80% SANDSTONE,FINE GRAINED 20% SILTSTONE	COALY, LAMINAE, LIGHT GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
229.00	1.00	100		80% SANDSTONE,FINE GRAINED 20% SILTSTONE	COALY, LAMINAE, LIGHT GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
229.18	0.18	100		80% SANDSTONE,FINE GRAINED 20% SILTSTONE	COALY, LAMINAE, LIGHT GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY.
229.76	0.58	100		85% SANDSTONE,FINE GRAINED 15% SILTSTONE	COALY, FRAGMENTS, LIGHT GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
230.60	0.84	100		90% SANDSTONE,FINE GRAINED 10% SILTSTONE	LIGHT GREY. STREAKS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
231.11	0.51	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
231.30	0.19	100		100% SANDSTONE,FINE GRAINED	COALY, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
231.60	0.30	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
232.08	0.48	100		90% SANDSTONE,FINE GRAINED 10% COAL	CARBONACEOUS, LIGHT GREY. STREAKS, LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
232.12	0.04	100		100% CARBONACEOUS MUDSTONE	BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
232.31	0.19	100		50% SANDSTONE,FINE GRAINED 30% CARBONACEOUS MUDSTONE 20% MUDSTONE	LIGHT GREY. COALY, STREAKS, BLACK. BANDS, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
232.60	0.29	100		70% SANDSTONE,FINE GRAINED 15% CARBONACEOUS MUDSTONE 15% MUDSTONE	LIGHT GREY. FRAGMENTS, LENSES, BLACK. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
232.96	0.36	100		60% SANDSTONE 40% MUDSTONE	MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
233.05	0.09	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
233.12	0.07	100		60% CARBONACEOUS MUDSTONE 40% MUDSTONE	FRAGMENTS, BLACK. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
233.46	0.34	100		75% MUDSTONE 20% SANDSTONE,FINE GRAINED 5% CARBONACEOUS MUDSTONE	FRAGMENTS, PELLETAL, GREY. LIGHT GREY. FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
234.83	1.37	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
234.92	0.09	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
235.07	0.15	100		95% SANDSTONE 5% SILTSTONE	MED.-FINE GRAINED, LIGHT GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
235.16	0.09	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
235.28	0.12	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
235.40	0.12	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
235.82	0.42	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
236.42	0.60	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
236.89	0.47	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
237.10	0.21	100		95% SANDSTONE,FINE GRAINED 5% COAL	LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
239.08	1.98	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
240.17	1.09	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
240.42	0.25	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
241.03	0.61	100		80% SANDSTONE,FINE GRAINED 20% COAL	LIGHT GREY. LAMINAE, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
241.23	0.20	100		90% SANDSTONE,MEDIUM GRAINED 10% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
242.28	1.05	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
242.34	0.06	100		100% CARBONACEOUS MUDSTONE	BANDS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
242.80	0.46	100		75% SANDSTONE,MEDIUM GRAINED 25% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
244.26	1.46	100		90% SANDSTONE,MEDIUM GRAINED 10% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
245.66	1.40	100		60% SANDSTONE,MEDIUM GRAINED 30% MUDSTONE 10% COAL	LIGHT GREY. FRAGMENTS, PELLETAL, GREY. LAMINAE, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
246.62	0.96	100		90% SANDSTONE,MEDIUM GRAINED 10% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
252.58	5.96	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY.
				TOP OF DALMAYNE C : 213.52 M R.L.	
253.20	0.62	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
253.36	0.16	100		60% CARBONACEOUS MUDSTONE 40% SANDSTONE,FINE GRAINED	BLACK. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
253.41	0.05	0		CORE LOSS	
253.43	0.02	100		100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
253.51	0.08	100		100% MUDSTONE	TUFFACEOUS, LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
253.60	0.09	100		100% COAL, DULL	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
253.62	0.02	100		60% COAL, DULL 40% CARBONACEOUS MUDSTONE	BLACK. FRAGMENTS, LENSES, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
253.87	0.25	100		55% COAL, DULL 40% COAL, DULL WITH NUMEROUS BRIGHT BANDS 5% COAL, BRIGHT	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
253.89	0.02	100		100% MUDSTONE	SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
254.10	0.21	100		95% CARBONACEOUS MUDSTONE 5% COAL, HEAVY DULL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
254.13	0.03	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
254.55	0.42	100		60% CARBONACEOUS MUDSTONE 25% MUDSTONE 15% MUDSTONE	BLACK. TUFFACEOUS, CREAM. CARBONACEOUS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
254.56	0.01	100		100% COAL, BRIGHT WITH FEW DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
				BASE OF DALMAYNE C : THICKNESS= 1.98 M; SAMPLED THICKNESS= 0.00 M	
254.98	0.42	100		75% MUDSTONE 25% MUDSTONE	GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
255.50	0.52	100		100% MUDSTONE	SILTSTONE, MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
256.80	1.30	100		100% SILTSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
257.68	0.88	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
258.00	0.32	100		70% MUDSTONE 30% MUDSTONE	GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
258.70	0.70	100		85% MUDSTONE 15% SILTSTONE	GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
259.10	0.40	100		85% MUDSTONE 15% SILTSTONE	MASSIVE, GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
259.64	0.54	100		70% MUDSTONE 30% SILTSTONE	MASSIVE, GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
261.10	1.46	100		60% SILTSTONE 40% MUDSTONE	DARK GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 5 DEG., SLIGHT PERMIABILITY.
261.46	0.36	100		70% MUDSTONE 30% SILTSTONE	GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
261.55	0.09	100		100% CLAYSTONE	LIGHT GREEN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
261.71	0.16	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
262.08	0.37	100		75% MUDSTONE 25% SILTSTONE	GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
262.26	0.18	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
263.00	0.74	100		80% SANDSTONE,MEDIUM GRAINED 20% SANDSTONE,FINE GRAINED	COALY, LAMINAE, LIGHT GREY. BANDS. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
263.80	0.80	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
264.20	0.40	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
265.60	1.40	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
268.60	3.00	50		55% SANDSTONE,MEDIUM GRAINED 45% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY. COALY, STREAKS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
270.36	1.76	100		80% SANDSTONE,FINE GRAINED 15% COAL 5% SANDSTONE,MEDIUM GRAINED	LIGHT GREY. LAMINAE, BLACK. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 10 DEG., SLIGHT PERMIABILITY.
270.53	0.17	100		50% SANDSTONE,MEDIUM GRAINED 35% SANDSTONE,FINE GRAINED 15% MUDSTONE	LIGHT GREY. LIGHT GREY. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
270.79	0.26	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
272.34	1.55	100		70% SANDSTONE,MEDIUM GRAINED 25% COAL 5% MUDSTONE	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
273.52	1.18	100		55% SANDSTONE,MEDIUM GRAINED 45% SANDSTONE,FINE GRAINED	COALY, STREAKS, LIGHT GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
274.20	0.68	100		75% SANDSTONE,MEDIUM GRAINED 20% COAL 5% MUDSTONE	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SEPARATION ALONG SOME BEDDING SURFACES, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
274.38	0.18	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
274.67	0.29	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
274.87	0.20	100		90% SANDSTONE,FINE GRAINED 10% COAL	LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
275.91	1.04	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
276.14	0.23	100		90% SANDSTONE 10% COAL	MED.-FINE GRAINED, LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
276.81	0.67	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
277.11	0.30	100		85% SANDSTONE 15% MUDSTONE	MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
277.17	0.06	100		80% SANDSTONE,FINE GRAINED 20% COAL	LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
277.65	0.48	100		100% SANDSTONE	MED.-COARSE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
277.68	0.03	100		100% CARBONACEOUS MUDSTONE	FRAGMENTS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
280.31	2.63	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
280.47	0.16	100		95% MUDSTONE 5% SANDSTONE	GREY. LENSES, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
280.55	0.08	100		70% SANDSTONE 30% MUDSTONE	LIGHT GREY. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
280.66	0.11	100		90% MUDSTONE 10% CARBONACEOUS MUDSTONE	GREY. FRAGMENTS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
281.18	0.52	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	BANDS, GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
281.32	0.14	100		80% SANDSTONE,FINE GRAINED 20% SANDSTONE,MEDIUM GRAINED	LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
281.37	0.05	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
281.47	0.10	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
281.55	0.08	100		75% SANDSTONE,MEDIUM GRAINED 25% SILTSTONE	LIGHT GREY. FRAGMENTS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
281.86	0.31	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
282.08	0.22	100		55% SANDSTONE,FINE GRAINED 45% SILTSTONE	LIGHT GREY. FRAGMENTS, LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
282.88	0.80	100		90% SILTSTONE 10% SANDSTONE,MEDIUM GRAINED	GREY. BANDS, LENSES, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY.
283.00	0.12	100		95% SANDSTONE,MEDIUM GRAINED 5% SILTSTONE	LIGHT GREY. LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
283.04	0.04	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
283.82	0.78	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
283.94	0.12	100		75% SANDSTONE,FINE GRAINED 25% COAL	LIGHT GREY. LAMINAE, FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
284.63	0.69	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
284.72	0.09	100		55% SANDSTONE,MEDIUM GRAINED 30% SANDSTONE,FINE GRAINED 15% COAL	LIGHT GREY. LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
287.15	2.43	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
288.18	1.03	100		60% SANDSTONE,FINE GRAINED 40% SANDSTONE,MEDIUM GRAINED	LIGHT GREY. LIGHT GREY. WITH STREAKS OF CALCITE, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
289.88	1.70	100		100% SANDSTONE,MEDIUM GRAINED	CALCAREOUS, LIGHT GREY, WITH CALCITE ON JOINTS, UNWEATHERED, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
291.15	1.27	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
291.34	0.19	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
291.92	0.58	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
292.70	0.78	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
293.25	0.55	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
293.50	0.25	100		85% SANDSTONE,MEDIUM GRAINED 15% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
293.73	0.23	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
294.08	0.35	100		75% SANDSTONE,MEDIUM GRAINED 25% MUDSTONE	LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
294.25	0.17	100		90% SANDSTONE,FINE GRAINED 10% COAL	LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
295.45	1.20	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, WITH STREAKS OF CALCITE, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
295.60	0.15	100		60% SANDSTONE,FINE GRAINED 40% SANDSTONE,MEDIUM GRAINED	LIGHT GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY.
295.88	0.28	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
296.28	0.40	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, WITH STREAKS OF CALCITE, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
296.40	0.12	100		100% SANDSTONE,FINE GRAINED	CALCAREOUS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
297.18	0.78	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
297.66	0.48	100		95% SANDSTONE,MEDIUM GRAINED 5% MUDSTONE	LIGHT GREY. PELLETAL, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
298.10	0.44	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
299.50	1.40	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT NON PLANAR, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
300.90	1.40	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
301.82	0.92	100		75% SANDSTONE,MEDIUM GRAINED 25% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY. LIGHT GREY. WITH STREAKS OF CALCITE, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
308.54	6.72	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
308.66	0.12	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
309.90	1.24	100		85% SANDSTONE,MEDIUM GRAINED 15% MUDSTONE	LIGHT GREY. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY.
311.06	1.16	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
311.41	0.35	100		90% SANDSTONE,MEDIUM GRAINED 10% MUDSTONE	GREY-GREEN. FRAGMENTS, GREY-GREEN. UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
311.58	0.17	100		60% MUDSTONE 40% SANDSTONE,MEDIUM GRAINED	FRAGMENTS, GREY-GREEN. GREY-GREEN. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
311.76	0.18	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, GREY-GREEN, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
312.52	0.76	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
312.61	0.09	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
312.71	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
313.25	0.54	100		65% MUDSTONE 30% MUDSTONE 5% COAL	GREY. CARBONACEOUS, BANDS, DARK GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
313.61	0.36	100		80% MUDSTONE 15% MUDSTONE 5% COAL	GREY. CARBONACEOUS, DARK GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
313.63	0.02	100		100% MUDSTONE	TUFFACEOUS, CREAM, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
313.95	0.32	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
314.21	0.26	100		90% MUDSTONE 10% CARBONACEOUS MUDSTONE	COALY, FRAGMENTS, GREY. LENSES, STREAKS, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
314.49	0.28	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
				TOP OF DALMAYNE D UPPER : 151.61 M R.L.	
314.62	0.13	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
314.65	0.03	100		100% COAL, BRIGHT WITH FEW DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
314.78	0.13	100		100% COAL, DULL	GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
				BASE OF DALMAYNE D UPPER : THICKNESS= 0.29 M; SAMPLED THICKNESS= 0.00 M	
314.99	0.21	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
315.59	0.60	100		75% MUDSTONE 25% MUDSTONE	SILTSTONE, GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
316.02	0.43	100		55% MUDSTONE 45% CLAYSTONE	COALY, STREAKS, GREY. GREY. UNWEATHERED, VERY WEAK ROCK, WITH CARBONACEOUS WISPS, RAPID SLAKING, SLIGHT PERMIABILITY.
316.15	0.13	100		90% CARBONACEOUS MUDSTONE 10% COAL, DULL	BRIGHT COAL, STREAKS, BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
316.55	0.40	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
316.63	0.08	100		100% MUDSTONE	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
316.78	0.15	100		100% MUDSTONE	SILTSTONE, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
317.04	0.26	100		100% MUDSTONE	SILTSTONE, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
317.30	0.26	100		90% MUDSTONE 10% MUDSTONE	CARBONACEOUS, DARK GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
317.67	0.37	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
317.80	0.13	100		100% MUDSTONE	SILTSTONE, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
318.27	0.47	100		60% MUDSTONE 40% SILTSTONE	GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
318.58	0.31	100		60% MUDSTONE 40% SILTSTONE	GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
318.95	0.37	100		60% SILTSTONE 30% MUDSTONE 10% CARBONACEOUS MUDSTONE	GRADING TO, FINE GRAINED SANDSTONE, GREY. BANDS, GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 4 DEG., SLIGHT PERMIABILITY.
319.18	0.23	100		90% SANDSTONE,FINE GRAINED 10% SILTSTONE	LIGHT GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
319.72	0.54	100		100% SANDSTONE	MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
320.30	0.58	100		85% SANDSTONE,FINE GRAINED 15% COAL	LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 3 DEG., EFFECTIVELY IMPERMIABLE.
320.37	0.07	100		55% SANDSTONE,FINE GRAINED 45% COAL	LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
321.25	0.88	100		95% SANDSTONE 5% COAL	MED.-FINE GRAINED, LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
321.97	0.72	100		90% SANDSTONE,FINE GRAINED 10% COAL	LIGHT GREY. LAMINAE, BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
322.33	0.36	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, EFFECTIVELY IMPERMIABLE.
324.25	1.92	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE.
324.48	0.23	100		100% SANDSTONE,FINE GRAINED	COALY, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
325.04	0.56	100		95% SANDSTONE,MEDIUM GRAINED 5% COAL	LIGHT GREY. FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
328.90	3.86	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
330.23	1.33	100		95% SANDSTONE 5% COAL	MED.-COARSE GRAINED, LIGHT GREY. STREAKS, BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
330.41	0.18	100		55% SANDSTONE,FINE GRAINED 45% COAL	LIGHT GREY. LAMINAE, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 7 DEG., EFFECTIVELY IMPERMIABLE.
330.94	0.53	100		75% SANDSTONE,MEDIUM GRAINED 25% COAL	LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
331.04	0.10	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE.
331.60	0.56	100		90% SANDSTONE 10% COAL	MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
331.72	0.12	100	105T1	100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
331.85	0.13	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
332.10	0.25	100		70% SANDSTONE,FINE GRAINED 25% COAL 5% COAL, BRIGHT	LIGHT GREY. FRAGMENTS, LAMINAE, BLACK. BANDS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE.
332.25	0.15	100	105T2	100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, EFFECTIVELY IMPERMIABLE.
332.25	0.00	100	10512	100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, SLIGHT PERMIABILITY.
				TOP OF DALMAYNE D LOWER : 133.85 M R.L.	
332.26	0.01	100	105A1	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
332.33	0.07	100	105A1	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
332.44	0.11	100	105A1	95% COAL, MID LUSTROUS 5% COAL, BRIGHT	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
332.47	0.03	100	105A1	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
332.52	0.05	100	105A1	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
332.53	0.01	100	105A1	60% COAL, DULL WITH NUMEROUS BRIGHT BANDS 40% COAL, BRIGHT	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
332.56	0.03	100	105A1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
332.57	0.01	100	105A1	80% COAL, DULL 20% MUDSTONE	BLACK. BANDS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
332.61	0.04	100	105A1	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
332.77	0.16	100	105A1	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
332.79	0.02	100	105A1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
332.82	0.03	100	105A1	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
332.90	0.08	100	105A1	85% COAL, MID LUSTROUS - BRIGHT 15% COAL, BRIGHT	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
332.94	0.04	100	105A1	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
332.96	0.02	100	105A1	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
333.07	0.11	100	105A1	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
333.20	0.13	100	105A1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
333.21	0.01	100	105A1	60% COAL, BRIGHT 40% COAL, DULL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
333.22	0.01	100	105A1	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
333.23	0.01	100	105A1	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
333.25	0.02	100	105A1	75% COAL, MID LUSTROUS - BRIGHT 25% COAL, BRIGHT	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
333.33	0.08	100	105A1	80% CARBONACEOUS MUDSTONE 20% COAL, BRIGHT	COALY, BLACK. BANDS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
333.34	0.01	100	105A1	100% COAL, BRIGHT	BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
333.43	0.09	100	105A2	85% MUDSTONE 15% CARBONACEOUS MUDSTONE	COALY, STREAKS, GREY. DARK GREY. UNWEATHERED, WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.
333.56	0.13	100	105T3	100% MUDSTONE	GREY, UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
333.56	0.00	100	105A2	100% MUDSTONE	GREY, UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLOW SLAKING, SLIGHT PERMIABILITY.
333.67	0.11	100	105A2	90% MUDSTONE 10% CARBONACEOUS MUDSTONE	GREY. LENSES, STREAKS, DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
333.76	0.09	100	105A2	60% MUDSTONE 40% MUDSTONE	GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
333.86	0.10	100	105A2	100% CLAYSTONE	DARK GREEN, WITH STREAKS OF CALCITE, UNWEATHERED, VERY WEAK ROCK, WITH PLANT REMAINS, RAPID SLAKING, MODERATELY STICKY, SLIGHT PERMIABILITY.
333.89	0.03	100	105A3	100% CARBONACEOUS MUDSTONE	COALY, STREAKS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
333.93	0.04	100	105A3	60% MUDSTONE 40% CARBONACEOUS MUDSTONE	GREY. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
333.97	0.04	100	105A3	100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
333.98	0.01	100	105A3	100% MUDSTONE	CARBONACEOUS, BANDS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.01	0.03	100	105A3	100% CARBONACEOUS MUDSTONE	COALY, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.04	0.03	100	105A3	60% MUDSTONE 40% MUDSTONE	GREY. CARBONACEOUS, COALY, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.08	0.04	100	105A4	100% COAL, HEAVY DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.09	0.01	100	105A4	55% CARBONACEOUS MUDSTONE 45% MUDSTONE	BANDS, BLACK. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.13	0.04	100	105A4	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
334.18	0.05	100	105A4	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, WITH CALCITE ON JOINTS, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.19	0.01	100	105A4	60% COAL, DULL WITH FEW BRIGHT BANDS 25% MUDSTONE 15% COAL, BRIGHT	BLACK. LENSES, GREY. LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.22	0.03	100	105A4	100% COAL, MID LUSTROUS - DULL	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.23	0.01	100	105A4	55% COAL, BRIGHT 45% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.25	0.02	100	105A4	60% COAL, MID LUSTROUS 40% COAL, DULL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.34	0.09	100	105A4	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.35	0.01	100	105A4	100% COAL, MID LUSTROUS - DULL	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.36	0.01	100	105A5	45% TONSTEIN 30% COAL, MID LUSTROUS 25% CARBONACEOUS MUDSTONE	BANDS, GREY-BROWN. BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.38	0.02	100	105A5	90% TONSTEIN 10% COAL	CLAYSTONE, CREAM. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.42	0.04	100	105A6	100% COAL, MID LUSTROUS	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.45	0.03	100	105A6	100% COAL, MID LUSTROUS - DULL	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.46	0.01	100	105A6	60% COAL, MID LUSTROUS - DULL 40% CLAYSTONE	BLACK. BANDS, LIGHT BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.47	0.01	100	105A6	80% COAL, MID LUSTROUS 20% CLAYSTONE	BRIGHT COAL, STREAKS, BLACK. BANDS, LIGHT BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.72	0.25	100	105A6	100% COAL, MID LUSTROUS	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.73	0.01	100	105A6	100% COAL, MID LUSTROUS - BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
334.74	0.01	100	105A6	60% TONSTEIN 40% COAL, DULL	BANDS, LIGHT GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.83	0.09	100	105A6	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.84	0.01	100	105A6	100% MUDSTONE	CARBONACEOUS, BANDS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.85	0.01	100	105A6	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.86	0.01	100	105A6	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.89	0.03	100	105A6	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.90	0.01	100	105A6	85% COAL, DULL 15% MUDSTONE	BLACK. BANDS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.92	0.02	100	105A6	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.93	0.01	100	105A6	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.94	0.01	100	105A6	90% MUDSTONE 10% COAL, BRIGHT	BANDS, CARBONACEOUS, DARK GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.97	0.03	100	105A6	75% COAL, INTERBANDED DULL AND BRIGHT 25% COAL, BRIGHT	BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
334.99	0.02	100	105A6	55% COAL, BRIGHT 40% COAL, DULL WITH FEW BRIGHT BANDS 5% MUDSTONE	BANDS, BLACK. BLACK. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.09	0.10	100	105A6	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.13	0.04	100	105A6	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.19	0.06	100	105A6	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.20	0.01	100	105A6	60% COAL, BRIGHT 40% COAL, DULL	BANDS, BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
335.22	0.02	100	105A6	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.23	0.01	100	105A6	100% COAL, MID LUSTROUS - BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.24	0.01	100	105A6	100% COAL, BRIGHT	BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.25	0.01	100	105A6	55% MUDSTONE 45% CARBONACEOUS MUDSTONE	GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.27	0.02	100	105A6	75% COAL, DULL WITH NUMEROUS BRIGHT BANDS 25% COAL, BRIGHT	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
335.28	0.01	100	105A6	100% MUDSTONE	CARBONACEOUS, GREY, WITH PYRITE ON JOINTS, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
335.32	0.04	100	105A6	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, WITH PYRITE ON JOINTS, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY.
335.33	0.01	100	105A6	100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.36	0.03	100	105A6	100% COAL, MID LUSTROUS	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.37	0.01	100	105A6	100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.39	0.02	100	105A6	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.40	0.01	100	105A6	100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.43	0.03	100	105A6	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.45	0.02	100	105A6	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.46	0.01	100	105A6	50% COAL, BRIGHT 50% COAL, MID LUSTROUS	BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
335.54	0.08	100	105A6	90% COAL, MID LUSTROUS 10% COAL, BRIGHT	BLACK. BANDS. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.55	0.01	100	105A6	75% COAL, BRIGHT 25% COAL, MID LUSTROUS	BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.56	0.01	100	105A6	100% COAL, MID LUSTROUS	BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.58	0.02	100	105A6	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.63	0.05	100	105A6	100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.64	0.01	100	105A7	55% CARBONACEOUS MUDSTONE 45% COAL, HEAVY DULL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
335.81	0.17	100	105A7	100% MUDSTONE	GREY, UNWEATHERED, WEAK ROCK, SLOW SLAKING, SLIGHT PERMIABILITY.
335.96	0.15	100	105T4	100% MUDSTONE	GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY.
335.96	0.00	100	105A7	100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
336.04	0.08	100	105A7	100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
336.38	0.34	100	105A8	75% COAL, HEAVY DULL 25% COAL, CANNEL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
336.40	0.02	100	105A9	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
336.45	0.05	100	105A9	100% COAL, MID LUSTROUS	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
336.46	0.01	100	105A9	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
336.48	0.02	100	105A9	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
336.54	0.06	100	105A9	100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
336.58	0.04	100	10510	100% TONSTEIN	CARBONACEOUS, STREAKS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
336.62	0.04	100	10511	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
336.64	0.02	100	10511	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
336.66	0.02	100	10511	60% CARBONACEOUS MUDSTONE 40% COAL, BRIGHT	DARK GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
336.69	0.03	100	10511	100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
336.76	0.07	100	10511	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
336.77	0.01	100	10511	100% CLAYSTONE	CARBONACEOUS, STREAKS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
336.81	0.04	100	10511	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
336.96	0.15	100	10511	100% COAL, MID LUSTROUS - DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
336.99	0.03	100	10511	60% COAL, BRIGHT 40% COAL, MID LUSTROUS	BANDS, BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
337.09	0.10	100	10511	100% COAL, MID LUSTROUS - DULL	BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
337.10	0.01	100	10511	75% COAL, BRIGHT 25% MUDSTONE	CALCITIC, BLACK. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
337.13	0.03	100	10511	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
337.14	0.01	100	10511	100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
337.16	0.02	100	10511	60% MUDSTONE 40% COAL, BRIGHT	BRIGHT COAL, STREAKS, GREY. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
337.22	0.06	100	10511	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
337.23	0.01	100	10511	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
337.36	0.13	100	10511	100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
337.38	0.02	100	10511	95% CARBONACEOUS MUDSTONE 5% COAL, BRIGHT	BLACK. BANDS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
337.49	0.11	100	10511	100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
337.50	0.01	100	10511	100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
				BASE OF DALMAYNE D LOWER : THICKNESS= 5.25 M; SAMPLED THICKNESS= 5.25 M	
337.52	0.02	100	10512	100% CARBONACEOUS MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
337.60	0.08	100	10512	100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLOW SLAKING, SLIGHT PERMIABILITY.
337.74	0.14	100	105T5	100% MUDSTONE	SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
337.88	0.14	100	105T6	80% SANDSTONE 20% SANDSTONE,FINE GRAINED	MED.-FINE GRAINED, LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
337.93	0.05	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
338.27	0.34	100		90% SANDSTONE,MEDIUM GRAINED 10% SANDSTONE,FINE GRAINED	LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
338.70	0.43	100		100% SANDSTONE,FINE GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
339.00	0.30	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WIDELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
339.27	0.27	100		60% SANDSTONE,FINE GRAINED 40% COAL	LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
339.61	0.34	100		85% SANDSTONE,FINE GRAINED 15% SILTSTONE	LIGHT GREY. BANDS, FRAGMENTS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, THINLY LAMINATED, BEDS DIP 5 DEG., SLIGHT PERMIABILITY.
339.90	0.29	100		50% SILTSTONE 35% SANDSTONE,FINE GRAINED 15% MUDSTONE	DARK GREY. BANDS, LIGHT GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
340.00	0.10	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
340.03	0.03	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
340.21	0.18	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
340.50	0.29	100		100% MUDSTONE	FRAGMENTS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.
340.52	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
340.65	0.13	100		95% MUDSTONE 5% CARBONACEOUS MUDSTONE	GREY. FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
340.69	0.04	100		60% CARBONACEOUS MUDSTONE 40% MUDSTONE	BLACK. LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
340.78	0.09	100		60% CARBONACEOUS MUDSTONE 25% COAL, HEAVY DULL 15% MUDSTONE	BLACK. BRIGHT COAL, STREAKS, BLACK. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
341.03	0.25	100		95% MUDSTONE 5% CARBONACEOUS MUDSTONE	GREY. BANDS, BROWN-BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.
341.10	0.07	100		80% CARBONACEOUS MUDSTONE 20% COAL, BRIGHT	BLACK. BANDS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
341.14	0.04	100		70% MUDSTONE 30% CARBONACEOUS MUDSTONE	COALY, STREAKS, CREAM. BANDS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
341.16	0.02	100		100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
341.25	0.09	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
341.45	0.20	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
341.75	0.30	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
342.35	0.60	100		55% MUDSTONE 30% MUDSTONE 15% SANDSTONE,FINE GRAINED	GREY. SILTSTONE, GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY.
342.60	0.25	100		60% MUDSTONE 40% SANDSTONE,FINE GRAINED	GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, INFILLED WITH CLAY & TALC, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY.
342.70	0.10	100		100% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
343.15	0.45	100		75% SANDSTONE 25% SILTSTONE	MED.-FINE GRAINED, LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
343.42	0.27	100		90% SANDSTONE,MEDIUM GRAINED 10% SANDSTONE,FINE GRAINED	LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
343.63	0.21	100		100% SILTSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
343.67	0.04	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
343.91	0.24	100		100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
344.50	0.59	100		100% SANDSTONE,FINE GRAINED	SILTSTONE, MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
345.73	1.23	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY.
346.01	0.28	100		100% SILTSTONE	GRADING TO, FINE GRAINED SANDSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
346.05	0.04	100		100% SANDSTONE,FINE GRAINED	COALY, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.
346.60	0.55	100		100% SANDSTONE	VERY FINE GRAINED, SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DB	0.00 M	211.20 - 221.37 M	10.17 M
DC	0.00 M	252.58 - 254.56 M	1.98 M
DDU	0.00 M	314.49 - 314.78 M	0.29 M
DDL	5.25 M	332.25 - 337.50 M	5.25 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
105T1	331.60 - 331.72 M	0.12 M
105T2	332.10 - 332.25 M	0.15 M
10512	332.25 - 332.25 M	0.00 M
105A1	332.25 - 333.34 M	1.09 M
105A2	333.34 - 333.43 M	0.09 M
105T3	333.43 - 333.56 M	0.13 M
105A2	333.56 - 333.86 M	0.30 M
105A3	333.86 - 334.04 M	0.18 M
105A4	334.04 - 334.35 M	0.31 M
105A5	334.35 - 334.38 M	0.03 M
105A6	334.38 - 335.63 M	1.25 M
105A7	335.63 - 335.81 M	0.18 M
105T4	335.81 - 335.96 M	0.15 M
105A7	335.96 - 336.04 M	0.08 M
105A8	336.04 - 336.38 M	0.34 M
105A9	336.38 - 336.54 M	0.16 M
10510	336.54 - 336.58 M	0.04 M
10511	336.58 - 337.50 M	0.92 M
10512	337.50 - 337.60 M	0.10 M
105T5	337.60 - 337.74 M	0.14 M
105T6	337.74 - 337.88 M	0.14 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY DRA

HOLE TYPE	
EASTING	599,780 M AM GRID
NORTHING	5,374,969 M AM GRID
ELEVATION	97.50 M
TOTAL DEPTH DRILLED	2.82 M
DRILLING STARTED	01/02/82
DRILLING TIME	02 DAYS
CORE SIZE	
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : GY DRA

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
0.01	0.01			100% SANDSTONE,MEDIUM GRAINED	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT EROSIONAL.
				TOP OF DALMAYNE D LOWER : 97.49 M R.L.	
0.26	0.25		DRA03	100% COAL, MID LUSTROUS - DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
0.30	0.04		DRA03	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
0.32	0.02		DRA03	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
0.34	0.02		DRA03	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
0.36	0.02		DRA04	50% TONSTEIN 50% CARBONACEOUS MUDSTONE	LIGHT BROWN. BROWN-BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
0.37	0.01		DRA04	100% CARBONACEOUS MUDSTONE	BROWN-BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
0.40	0.03		DRA04	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
0.41	0.01		DRA04	60% CARBONACEOUS MUDSTONE 40% TONSTEIN	BROWN-BLACK. CREAM. UNWEATHERED, MODERATELY WEAK ROCK.
0.47	0.06		DRA04	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
0.48	0.01		DRA04	90% COAL, DULL WITH FEW BRIGHT BANDS 10% TONSTEIN	BLACK. LIGHT BROWN. UNWEATHERED, MODERATELY WEAK ROCK.
0.49	0.01		DRA04	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
0.54	0.05		DRA04	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
0.66	0.12		DRA04	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
0.69	0.03		DRA04	100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
0.77	0.08		DRA05	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
0.79	0.02		DRA05	100% COAL, BRIGHT	BLACK, WITH CALCITE ON CLEAT, UNWEATHERED, MODERATELY WEAK ROCK.
0.88	0.09		DRA05	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
0.89	0.01		DRA05	95% COAL, BRIGHT 5% COAL, DULL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
1.01	0.12		DRA05	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
1.02	0.01		DRA05	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
1.03	0.01		DRA05	80% COAL, BRIGHT 20% TONSTEIN	BANDS, BLACK. LIGHT BROWN. UNWEATHERED, MODERATELY WEAK ROCK.
1.06	0.03		DRA05	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
1.09	0.03		DRA05	90% TONSTEIN 10% COAL, BRIGHT	CREAM. BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
1.12	0.03		DRA05	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
1.14	0.02		DRA05	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
1.16	0.02		DRA05	100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT.
1.26	0.10		DRA06	100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
1.27	0.01		DRA06	100% MUDSTONE	CARBONACEOUS, BROWN-BLACK, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.
1.29	0.02		DRA07	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
1.30	0.01		DRA07	100% CARBONACEOUS MUDSTONE	BROWN-BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
1.33	0.03		DRA07	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
1.36	0.03		DRA07	100% CARBONACEOUS MUDSTONE	BROWN-BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
1.52	0.16		DRA07	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
1.53	0.01		DRA07	50% TONSTEIN 50% COAL, MID LUSTROUS	LIGHT BROWN. BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
1.58	0.05		DRA08	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
1.67	0.09		DRA08	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
1.68	0.01		DRA08	60% MUDSTONE 40% COAL, DULL WITH NUMEROUS BRIGHT BANDS	LIGHT BROWN. BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
1.70	0.02		DRA08	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
1.72	0.02		DRA08	100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT.
1.74	0.02		DRA08	100% MUDSTONE	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT.
1.82	0.08		DRA08	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
1.85	0.03		DRA08	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
1.88	0.03		DRA08	100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
1.93	0.05		DRA09	80% MUDSTONE 20% COAL, BRIGHT	CARBONACEOUS, DARK BROWN. BANDS, BLACK. UNWEATHERED, WEAK ROCK.
1.97	0.04		DRA09	65% CARBONACEOUS MUDSTONE 35% COAL, BRIGHT	BROWN-BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
2.01	0.04		DRA10	100% COAL, BRIGHT WITH FEW DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
2.23	0.22		DRA10	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
2.24	0.01		DRA10	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
2.31	0.07		DRA10	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
2.32	0.01		DRA10	60% MUDSTONE 40% COAL, MID LUSTROUS	BANDS, LIGHT BROWN. BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
2.34	0.02		DRA10	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
2.36	0.02		DRA10	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
2.39	0.03		DRA11	100% TONSTEIN	LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
2.45	0.06		DRA11	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
2.50	0.05		DRA11	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
2.52	0.02		DRA11	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT.
	BASE OF DALMAYNE D LOWER : THICKNESS= 2.51 M; SAMPLED THICKNESS= 2.51 M				
2.82	0.30			100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS.

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DDL	2.51 M	0.01 - 2.52 M	2.51 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
DRA03	0.01 - 0.34 M	0.33 M
DRA04	0.34 - 0.69 M	0.35 M
DRA05	0.69 - 1.16 M	0.47 M
DRA06	1.16 - 1.27 M	0.11 M
DRA07	1.27 - 1.53 M	0.26 M
DRA08	1.53 - 1.88 M	0.35 M
DRA09	1.88 - 1.97 M	0.09 M
DRA10	1.97 - 2.36 M	0.39 M
DRA11	2.36 - 2.52 M	0.16 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY DRA1

HOLE TYPE	
EASTING	599,780 M AM GRID
NORTHING	5,374,969 M AM GRID
ELEVATION	97.50 M
TOTAL DEPTH DRILLED	2.82 M
DRILLING STARTED	01/02/82
DRILLING TIME	02 DAYS
CORE SIZE	
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : GY DRA1 PAGE 1

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CHIP DESCRIPTION ***	GEOLOGICAL DESCRIPTION
2.52	2.51		DRA1	100% COAL	BLACK.

*** FRAME J15***

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
DRA1	0.01 - 2.52 M	2.51 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY DRA2

HOLE TYPE	
EASTING	599,780 M AM GRID
NORTHING	5,374,969 M AM GRID
ELEVATION	97.50 M
TOTAL DEPTH DRILLED	2.82 M
DRILLING STARTED	01/02/82
DRILLING TIME	02 DAYS
CORE SIZE	
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : GY DRA2 PAGE 1

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CHIP DESCRIPTION ***	
2.52	2.51		DRA2	100% COAL	BLACK.

*** FRAME B16***

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
DRA2	0.01 - 2.52 M	2.51 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

963 546

HOLE TYPE	CORE	
EASTING	596,480 M	GRID
NORTHING	5,354,800 M	GRID
ELEVATION	20.00 M	
TOTAL DEPTH DRILLED	47.00 M	
DRILLING STARTED	1/ 1/01	
DRILLING TIME		
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :		

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : 963 546 PAGE 1

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** NO ***	GEOLOGICAL DESCRIPTION

*** ERROR *** : NO CL RECORDS ON FILE

*** FRAME F16***

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

986620

HOLE TYPE	CORE	
EASTING	598,400 M	GRID
NORTHING	5,361,680 M	GRID
ELEVATION	300.00 M	
TOTAL DEPTH DRILLED	351.76 M	
DRILLING STARTED	1/ 1/01	
DRILLING TIME		
CORE SIZE	33.5 MM	
HOLE SIZE	59.9 MM	
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :	LITHOLOGICAL DESCRIPTION	

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
11.00	11.00	0		CORE LOSS	NOTE: START OF BQ CORE
13.10	2.10	64		100% DOLERITE	MED.-FINE GRAINED, GREY, MODERATELY WEATHERED, MODERATELY SPACED JOINTS. NOTE: JOINT DIPS VARY FROM 60 TO 90
13.28	0.18	66		100% DOLERITE	SANDSTONE, BAKED, GREY, MODERATELY WEATHERED. NOTE: TRANSITION ZONE FROM DOLERITE TO HORNFELS SANDSTONE
14.14	0.86	62		100% SANDSTONE	BAKED, GREY-BROWN, MODERATELY WEATHERED, EXTREMELY CLOSELY SPACED JOINTS.
14.45	0.31	84		100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY WEATHERED. NOTE: JOINTS SUBVERTICAL
14.50	0.05	84		100% SANDSTONE,MEDIUM GRAINED	BADLY BROKEN, GREY, MODERATELY WEATHERED.
14.64	0.14	84		100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY WEATHERED.
14.69	0.05	84		100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY WEATHERED, JOINTS DIP 45 DEG.
14.77	0.08	84		100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY WEATHERED.
14.79	0.02	84		100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY WEATHERED, JOINTS DIP 45 DEG.
15.36	0.57	84		100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY WEATHERED.
15.41	0.05	84		100% SILTSTONE	PEBBLY, GREY, MODERATELY WEATHERED.
16.04	0.63	84		100% SANDSTONE,MEDIUM GRAINED	GREY-BROWN, MODERATELY WEATHERED, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG.
19.62	3.58	51		100% DOLERITE	FINE GRAINED, BROWN, MODERATELY WEATHERED, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG.
[illegible]	2.36	95		100% SANDSTONE,MEDIUM GRAINED	GREY, MODERATELY WEATHERED, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG.
22.56	0.58	95		100% SANDSTONE,COARSE GRAINED	GREY, UNWEATHERED.
23.15	0.59	95		100% PEBBLE CONGLOMERATE	QUARTZITIC, WHITE, UNWEATHERED, BEDS DIP 20 DEG.
23.28	0.13	0		CORE LOSS	
24.38	1.10	95		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, BANDS, GREY, UNWEATHERED, SHEARING AT BEDDING SEPARATION SURFACE.
25.18	0.80	13		100% SANDSTONE,COARSE GRAINED	PEBBLY, UNWEATHERED.
26.50	1.32	19		100% COBBLE CONGLOMERATE	SANDSTONE, LIGHT BROWN, UNWEATHERED.
32.50	6.00	2		100% COBBLE CONGLOMERATE	QUARTZITIC, ARGILLACEOUS, LIGHT BROWN, UNWEATHERED.
36.36	3.86	86		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, GREY, UNWEATHERED.
36.82	0.46	86		100% SILTSTONE	BADLY BROKEN, GREY-GREEN, UNWEATHERED.
37.58	0.76	86		100% SANDSTONE,MEDIUM GRAINED	COALY, GREY, UNWEATHERED.
38.50	0.92	86		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, STREAKS, LIGHT BROWN, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
38.69	0.19	0		CORE LOSS	
39.52	0.83	0		CORE LOSS	
40.82	1.30	23		100% MUDSTONE	BADLY BROKEN, SHALY, GREY, UNWEATHERED.
42.52	1.70	43		100% SANDSTONE,FINE GRAINED	BAKED, LIGHT BROWN, UNWEATHERED, JOINTS DIP 45 DEG. NOTE: SILTSTONE AT TOP OF UNIT CORE BROKEN OVER BASAL 25CM
59.19	16.67	100		100% DOLERITE	FINE GRAINED, GREY. NOTE: JOINTS OCCUR IN SETS
59.44	0.25	100		100% SILTSTONE	LIGHT GREY, UNWEATHERED.
60.00	0.56	100		100% SANDSTONE,MEDIUM GRAINED	LIGHT BROWN, UNWEATHERED, BASAL CONTACT TRANSITIONAL, BEDS DIP 20 DEG., WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION.
60.96	0.96	58		100% SILTSTONE	SHALY, GREY, UNWEATHERED, BASAL CONTACT ABRUPT, BEDS DIP 10 DEG.
61.25	0.29	100		100% MUDSTONE	CARBONACEOUS, LIGHT GREY, UNWEATHERED, WITH PLANT REMAINS.
61.27	0.02	100		100% MUDSTONE	SHALY, CREAM, UNWEATHERED, BASAL CONTACT TRANSITIONAL, WITH CARBONACEOUS WISPS.
61.54	0.27			70% SILTSTONE 30% COAL, BRIGHT	CARBONACEOUS, BLACK.
61.84	0.30	70		50% COAL, DULL 50% COAL, BRIGHT	BLACK. BLACK. UNWEATHERED, BASAL CONTACT TRANSITIONAL. NOTE: CLAYSTONE BAND FROM 6162 TO 6164CM
62.40	0.56	46		100% SILTSTONE	BADLY BROKEN, GREY, UNWEATHERED, JOINTS DIP 45 DEG., WITH SLICKENSIDES.
64.04	1.64	88		100% SILTSTONE	MICACEOUS, GREY, WITH CALCITE ON JOINTS, UNWEATHERED. NOTE: JOINT DIPS VARY FROM 60 TO 90 BASAL MUDSTONE WITH MINOR LAMINITE
64.79	0.75	87		100% TUFF	WHITE, UNWEATHERED. NOTE: IDENTIFIED AS IGNIMBRITE BY C. BACON
64.96	0.17	66		100% MUDSTONE	CARBONACEOUS, LIGHT GREY, UNWEATHERED, JOINTS DIP 85 DEG.
65.29	0.33	100		100% MUDSTONE	CARBONACEOUS, SHALY, GREY-BROWN, UNWEATHERED, WITH PLANT REMAINS.
65.40	0.11	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED.
65.45	0.05	100		100% COAL, HEAVY DULL	BLACK, UNWEATHERED.
65.51	0.06	100		100% MUDSTONE	CARBONACEOUS, LIGHT GREY, UNWEATHERED.
65.54	0.03	100		100% TUFF	CARBONACEOUS, LIGHT GREY, UNWEATHERED.
65.93	0.39	87		100% MUDSTONE	SHALY, MICACEOUS, GREY-GREEN, UNWEATHERED, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
66.23	0.30	100		100% COAL, HEAVY DULL	BLACK, UNWEATHERED, THINLY BEDDED, WITH SLICKENSIDES.
66.88	0.65	100		100% TUFF	BAKED, MICACEOUS, WHITE, UNWEATHERED.
67.01	0.13	100		100% COAL, HEAVY DULL	MUDSTONE, BANDS, BLACK, UNWEATHERED, THINLY BEDDED.
67.21	0.20	30		100% CLAYSTONE	SHALY, LIGHT GREEN, UNWEATHERED, THINLY BEDDED, WITH CARBONACEOUS WISPS.
67.49	0.28	82		100% MUDSTONE	CARBONACEOUS, SHALY, GREY-BROWN, UNWEATHERED, THINLY BEDDED.
67.87	0.38	100		100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, WITH MINOR PYRITE, UNWEATHERED.
68.45	0.58	100		100% MUDSTONE	CARBONACEOUS, ARGILLACEOUS, LIGHT BROWN, UNWEATHERED.
68.82	0.37	54		100% COAL, BRIGHT	BADLY BROKEN, MUDSTONE, BLACK, UNWEATHERED, THINLY BEDDED, WITH PLANT REMAINS.
69.48	0.66	100		100% SILTSTONE	MUDSTONE, LAMINAE, LIGHT BROWN, UNWEATHERED, THINLY BEDDED, WITH PLANT REMAINS.
69.85	0.37	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY, UNWEATHERED.
70.13	0.28	64		100% CLAYSTONE	SHALY, MICACEOUS, LIGHT BROWN, UNWEATHERED, THINLY BEDDED.
70.55	0.43	100		100% MUDSTONE	CARBONACEOUS, GREY-BROWN, UNWEATHERED.
70.94	0.38	100		100% COAL, HEAVY DULL	MUDSTONE, BRIGHT COAL, BLACK, UNWEATHERED.
71.14	0.20	100		100% MUDSTONE	GREY, UNWEATHERED, WITH CARBONACEOUS WISPS, WITH SLICKENSIDES.
72.52	1.38	100		100% SANDSTONE,FINE GRAINED	SILTY, MICACEOUS, GREY, UNWEATHERED, WITH CARBONACEOUS WISPS.
73.69	1.17	93		100% MUDSTONE	SILTY, CARBONACEOUS, LIGHT GREY, UNWEATHERED, THINLY BEDDED.
73.72	0.03	100		100% COAL, HEAVY DULL	BLACK, UNWEATHERED.
73.97	0.25	60		100% MUDSTONE	CARBONACEOUS, LIGHT GREY, UNWEATHERED, THINLY BEDDED, WITH SLICKENSIDES, JOINTS DIP 45 DEG.
74.12	0.15	100		100% MUDSTONE	LIGHT BROWN, UNWEATHERED, WITH SLICKENSIDES.
74.38	0.26	100		100% CLAYSTONE	SHALY, MICACEOUS, WHITE, WITH MINOR FELDSPAR AND MINOR BIOTITE, UNWEATHERED.
74.40	0.02	100		100% COAL, HEAVY DULL	ARGILLACEOUS, BLACK, UNWEATHERED.
75.21	0.81	?		100% MUDSTONE	HEAVY DULL COAL, BADLY BROKEN, BROWN, UNWEATHERED.
75.30	0.09	50		100% MUDSTONE	SHALY, ARGILLACEOUS, WHITE, UNWEATHERED.
75.50	0.20	75		100% COAL, HEAVY DULL	BLACK, UNWEATHERED.
75.54	0.04	100		100% MUDSTONE	CARBONACEOUS, LIGHT GREY, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
75.77	0.23	100		100% COAL, HEAVY DULL	COALY, LAMINAE, BLACK, UNWEATHERED.
					NOTE: MINOR BRIGHT AND DULL COAL LAMINAE
76.04	0.27	63		100% COAL, DULL	MUDSTONE, BANDS, BLACK, UNWEATHERED.
76.30	0.26	100		100% MUDSTONE	CARBONACEOUS, BROWN, UNWEATHERED, BEDS DIP 10 DEG.
76.40	0.10	100		100% COAL, HEAVY DULL	CALCITIC, BLACK, UNWEATHERED.
76.42	0.02	100		100% COAL, DULL	BLACK, UNWEATHERED.
76.76	0.34	100		100% MUDSTONE	CARBONACEOUS, GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
76.92	0.16	100		100% CLAYSTONE	SHALY, WHITE, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
77.09	0.17	100		100% MUDSTONE	GRADING TO, DULL COAL, DARK BROWN, UNWEATHERED.
77.25	0.16	100		100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, WITH CALCITE ON CLEAT AND KAOLINITE ON CLEAT, UNWEATHERED.
77.80	0.55	100		100% MUDSTONE	SHALY, DULL COAL, DARK BROWN, WITH ABUNDANT FELDSPAR, UNWEATHERED.
78.99	1.19	87		100% COAL, HEAVY DULL	BADLY BROKEN, MUDSTONE, BLACK, UNWEATHERED, WITH SLICKENSIDES.
80.96	1.97	96		100% SHALE	GREY, UNWEATHERED, WITH SLICKENSIDES.
81.38	0.42	100		100% MUDSTONE	GRADING TO, CARBONACEOUS, GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
81.54	0.16	100		100% CARBONACEOUS MUDSTONE	GRADING TO, HEAVY DULL COAL, DARK BROWN, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
					NOTE: MINOR BRIGHT COAL LAMINAE
81.65	0.11	82		100% COAL, DULL	MUDSTONE, BANDS, BLACK, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
82.01	0.36	88		50% COAL, BRIGHT 50% MUDSTONE	CALCITIC, BADLY BROKEN, BLACK. DULL COAL, LAMINAE. WITH CALCITE ON CLEAT, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
82.09	0.08	100		50% COAL, HEAVY DULL 50% MUDSTONE	BLACK. CARBONACEOUS. UNWEATHERED, BASAL CONTACT TRANSITIONAL, VERY CLOSE JOINT SPACING, JOINTS DIP 85 DEG.
82.72	0.63	94		50% MUDSTONE 50% MUDSTONE	CARBONACEOUS, COALY, DARK BROWN. COALY, GREY-BROWN. UNWEATHERED, BASAL CONTACT TRANSITIONAL, JOINTS DIP 85 DEG.
82.80	0.08	100		100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, WITH CALCITE ON JOINTS, UNWEATHERED, BASAL CONTACT TRANSITIONAL, BEDS DIP 20 DEG., WITH SLICKENSIDES, JOINTS DIP 30 DEG.
84.48	1.68	100		100% MUDSTONE	GRADING TO, CARBONACEOUS, GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL, WITH PLANT REMAINS, WITH MUD PELLETS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
84.91	0.43	100		50% SANDSTONE,FINE GRAINED 50% MUDSTONE	SILTY, GREY. CARBONACEOUS, LAMINAE, GREY. UNWEATHERED, BASAL CONTACT TRANSITIONAL, BEDS DIP 20 DEG., WITH PLANT REMAINS, WITH CARBONACEOUS WISPS.
86.57	1.66	97		100% SANDSTONE,FINE GRAINED	MUDSTONE, BANDS, GREY, WITH MUSCOVITE, UNWEATHERED, BASAL CONTACT TRANSITIONAL, BEDS DIP 10 DEG.
89.44	2.87	100		100% SANDSTONE,FINE GRAINED	GRADING TO, MED.-FINE GRAINED, GREY, UNWEATHERED, WITH CARBONACEOUS WISPS.
96.50	7.06	98		100% SANDSTONE,MEDIUM GRAINED	BADLY BROKEN, COALY, DARK BROWN, UNWEATHERED, BASAL CONTACT TRANSITIONAL, WITH PLANT REMAINS, WITH MUD PELLETS.
97.56	1.06	100		100% MUDSTONE	SHALY, ARGILLACEOUS, GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL, WITH SLICKENSIDES, JOINTS DIP 85 DEG.
97.76	0.20			100% CLAYSTONE	GREY-GREEN, WITH MINOR BIOTITE, UNWEATHERED, BASAL CONTACT TRANSITIONAL, WITH SLICKENSIDES.
97.98	0.22	100		40% COAL, HEAVY DULL 30% CARBONACEOUS MUDSTONE 30% MUDSTONE	BLACK. GREY. UNWEATHERED, WITH PLANT REMAINS.
98.24	0.26	100		100% MUDSTONE	GRADING TO, SILTSTONE, GREY-BROWN, UNWEATHERED, WITH SLICKENSIDES.
98.48	0.24	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL, BEDS DIP 10 DEG.
98.69	0.21	100		100% SILTSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED.
99.12	0.43	100		100% SANDSTONE,FINE GRAINED	GRADING TO, MUDSTONE, LIGHT BROWN, UNWEATHERED, BASAL CONTACT TRANSITIONAL, WITH CARBONACEOUS WISPS.
99.60	0.48	100		100% MUDSTONE	SILTY, GREY-BROWN, UNWEATHERED, BASAL CONTACT TRANSITIONAL, WITH SLICKENSIDES.
				NOTE: SLICKENSIDES ARE SUB-HORIZONTAL	
100.95	1.35	97		100% SILTSTONE	ARGILLACEOUS, COALY, GREY-BROWN, UNWEATHERED, WITH SLICKENSIDES.
101.40	0.45	100		50% SILTSTONE 50% SANDSTONE	CARBONACEOUS, LIGHT GREY. MED.-FINE GRAINED.
103.28	1.88	98		100% SANDSTONE,MEDIUM GRAINED	COALY, WHITE, UNWEATHERED.
103.48	0.20	100		60% COAL, HEAVY DULL 40% CARBONACEOUS MUDSTONE	BLACK. UNWEATHERED.
103.51	0.03	100		100% CLAY	BADLY BROKEN, BROWN, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
103.60	0.09	100		100% CARBONACEOUS MUDSTONE	GRADING TO, MUDSTONE, GREY-BROWN, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
103.90	0.30	100		100% CLAYSTONE	CARBONACEOUS, MUDSTONE, GREY-BROWN, UNWEATHERED, BASAL CONTACT TRANSITIONAL, WITH PLANT REMAINS.
104.63	0.73	100		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	CARBONACEOUS, MUDSTONE, BLACK, WITH CALCITE ON CLEAT AND KAOLINITE ON CLEAT, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
105.27	0.64	100		100% SILTSTONE	MUDSTONE, BANDS, GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL, BEDS DIP 5 DEG., WITH CARBONACEOUS WISPS.
105.70	0.43	100		50% COAL, BRIGHT 30% COAL, DULL 20% MUDSTONE	LAMINAE, BLACK. LAMINAE, BLACK. LAMINAE, GREY. UNWEATHERED.
106.34	0.64	100		100% MUDSTONE	GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL, BEDS DIP 30 DEG., WITH CARBONACEOUS WISPS, WITH PLANT REMAINS.
106.77	0.43	100		60% SILTSTONE 40% MUDSTONE	GRADING TO, MUDSTONE, GREY-BROWN. UNWEATHERED, BASAL CONTACT TRANSITIONAL.
109.88	3.11	15		100% CARBONACEOUS MUDSTONE	BADLY BROKEN, GREY-BROWN, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
110.08	0.20	100		100% MUDSTONE	GRADING TO, CARBONACEOUS, GREY-BROWN, UNWEATHERED, BASAL CONTACT ABRUPT.
110.18	0.10	100		100% COAL, HEAVY DULL	GRADING TO, MUDSTONE, BLACK, UNWEATHERED, BASAL CONTACT EROSIONAL.
110.29	0.11	100		100% CLAYSTONE	BROWN, UNWEATHERED.
110.50	0.21	100		100% COAL, DULL	MASSIVE, BLACK, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
110.79	0.29	100		100% COAL, HEAVY DULL	GRADING TO, MUDSTONE, BLACK, UNWEATHERED.
111.05	0.26	100		100% CLAYSTONE	CARBONACEOUS, BANDS, GREY-GREEN, UNWEATHERED.
111.39	0.34	100		80% CARBONACEOUS MUDSTONE 20% CLAYSTONE	GRADING TO, DULL COAL, DARK BROWN. BROWN. UNWEATHERED.
111.75	0.36	100		100% CLAYSTONE	GRADING TO, MUDSTONE, GREY-GREEN, UNWEATHERED, WITH SLICKENSIDES.
112.06	0.31	100		100% COAL, HEAVY DULL	BLACK, UNWEATHERED.
112.22	0.16	100		100% CLAYSTONE	BROWN, UNWEATHERED, WITH SLICKENSIDES.
112.45	0.23			75% COAL, DULL 25% CARBONACEOUS MUDSTONE	BLACK.
112.55	0.10	100		100% CLAYSTONE	GREY-BROWN, UNWEATHERED, BASAL CONTACT ABRUPT, WITH CARBONACEOUS WISPS.
112.86	0.31	100		100% COAL, DULL	MUDSTONE, BANDS, BLACK, WITH CALCITE ON CLEAT, UNWEATHERED, BASAL CONTACT TRANSITIONAL, WITH MUD PELLETS, WITH SLICKENSIDES.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
113.15	0.29	97		100% MUDSTONE	GRADING TO, CHALY, GREY-BROWN, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
113.55	0.40	100		100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED.
113.94	0.39	86		60% CARBONACEOUS MUDSTONE 40% MUDSTONE	LAMINAE, GREY-BROWN. LAMINAE. UNWEATHERED, WITH CROSS LAMINATION, WITH SLICKENSIDES.
114.18	0.24	100		100% SANDSTONE,FINE GRAINED	COALY, BANDS, GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
116.24	2.06	100		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, GREY, UNWEATHERED.
126.47	10.23	98		100% SANDSTONE,MEDIUM GRAINED	SILTSTONE, BANDS, GREY, UNWEATHERED, BASAL CONTACT ABRUPT, MASSIVE.
126.82	0.35	100		100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
131.75	4.93	100		100% CARBONACEOUS MUDSTONE	GRADING TO, MUDSTONE, GREY-BROWN, UNWEATHERED, WITH SLICKENSIDES.
151.96	20.21	100		100% SANDSTONE,FINE GRAINED	GRADING TO, SCREE, GREY-BROWN, UNWEATHERED, BASAL CONTACT TRANSITIONAL, WITH CARBONACEOUS WISPS, MASSIVE.
157.49	5.53	100		100% SANDSTONE,FINE GRAINED	COALY, LAMINAE, GREY-BROWN, UNWEATHERED, BASAL CONTACT ABRUPT.
157.59	0.10	100		50% COAL, DULL 50% CARBONACEOUS MUDSTONE	BLACK. UNWEATHERED, BASAL CONTACT ABRUPT.
159.85	2.26	99		100% MUDSTONE	BLUE-GREY, UNWEATHERED, BASAL CONTACT ABRUPT, BEDS DIP 5 DEG.
168.80	8.95	100		100% SANDSTONE,MEDIUM GRAINED	COALY, LAMINAE, GREY, UNWEATHERED, BEDS DIP 10 DEG.
169.74	0.94	100		100% MUDSTONE	COALY, SILTY, GREY, UNWEATHERED, WITH SLICKENSIDES.
173.65	3.91	100		100% SANDSTONE,MEDIUM GRAINED	GRADING TO, FINE GRAINED SANDSTONE, GREY, UNWEATHERED, MASSIVE, WITH MUD PELLETS.
225.67	52.02	100		50% SANDSTONE,MEDIUM GRAINED 50% SANDSTONE,FINE GRAINED	INTERCALATIONS, GREY. GREY. UNWEATHERED, MASSIVE, WITH CARBONACEOUS WISPS.
226.00	0.33	97		100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED.
226.59	0.59	100		100% CARBONACEOUS MUDSTONE	GRADING TO, MUDSTONE, GREY-BROWN, UNWEATHERED.
227.11	0.52	100		100% SILTSTONE	ARGILLACEOUS, GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
228.00	0.89			100% SANDSTONE	MED.-FINE GRAINED, LIGHT BROWN, UNWEATHERED.
235.33	7.33	99		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED, BASAL CONTACT ABRUPT, MASSIVE, WITH SLICKENSIDES.
235.64	0.31	67		100% COAL, DULL	MUDSTONE, BANDS, BLACK, UNWEATHERED, BASAL CONTACT ABRUPT.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
236.60	0.96	58		100% MUDSTONE	GRADING TO, CARBONACEOUS, GREY, UNWEATHERED.
237.70	1.10	78		100% MUDSTONE	BLUE-GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
237.84	0.14	100		100% SANDSTONE,MEDIUM GRAINED	ARGILLACEOUS, GREY-BROWN, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
249.57	11.73	88		100% SANDSTONE,MEDIUM GRAINED	BADLY BROKEN, GREY, UNWEATHERED, BEDS DIP 5 DEG., MASSIVE, WITH MUD PELLETS.
250.41	0.84	98		100% MUDSTONE	SILTY, BLUE-GREY, UNWEATHERED, WITH PLANT REMAINS, WITH SLICKENSIDES.
251.44	1.03	100		100% SANDSTONE,FINE GRAINED	CARBONACEOUS, LAMINAE, GREY-BROWN, UNWEATHERED, WITH CROSS LAMINATION, JOINTS DIP 85 DEG.
251.53	0.09	100		100% MUDSTONE	CARBONACEOUS, LAMINAE, GREY-BROWN, UNWEATHERED, BASAL CONTACT ABRUPT.
251.80	0.27	77		100% COAL, DULL	BADLY BROKEN, BLACK, UNWEATHERED.
251.96	0.16			100% SANDSTONE	MED.-FINE GRAINED, LIGHT BROWN, UNWEATHERED.
251.98	0.02	100		100% COAL, DULL	BLACK, WITH MUSCOVITE, UNWEATHERED.
252.01	0.03			100% SANDSTONE	MED.-FINE GRAINED, LIGHT BROWN, WITH CLAY AND PYRITE, UNWEATHERED, BASAL CONTACT ABRUPT.
252.51	0.50	40		100% COAL, DULL	BADLY BROKEN, ARGILLACEOUS, BLACK, UNWEATHERED.
252.81	0.30	33		100% SANDSTONE,FINE GRAINED	BADLY BROKEN, ARGILLACEOUS, GREY-BROWN, UNWEATHERED.
270.91	18.10	99		100% SANDSTONE,MEDIUM GRAINED	CARBONACEOUS, LAMINAE, GREY-BROWN, UNWEATHERED, BASAL CONTACT ABRUPT, BEDS DIP 2 DEG., WITH MUD PELLETS.
271.21	0.30	100		100% COAL, HEAVY DULL	BLACK, UNWEATHERED, BASAL CONTACT ABRUPT.
271.22	0.01	100		100% CLAYSTONE	WHITE, UNWEATHERED, BASAL CONTACT ABRUPT.
271.79	0.57	100		100% COAL, HEAVY DULL	BLACK, UNWEATHERED, WITH SLICKENSIDES.
271.92	0.13	100		50% SANDSTONE,FINE GRAINED 50% SILTSTONE	BROWN. UNWEATHERED, BASAL CONTACT TRANSITIONAL.
272.61	0.69	100		100% MUDSTONE	GREY, WITH CALCITE, UNWEATHERED, BASAL CONTACT ABRUPT, BEDS DIP 18 DEG.
272.72	0.11	100		100% COAL, HEAVY DULL	BLACK, UNWEATHERED.
274.42	1.70	100		100% MUDSTONE	GRADING TO, CARBONACEOUS, GREY, UNWEATHERED, WITH SLICKENSIDES.
277.00	2.58	100		100% MUDSTONE	SILTY, GREY-BROWN, UNWEATHERED, BASAL CONTACT TRANSITIONAL, WITH PLANT REMAINS, WITH SLICKENSIDES.
284.42	7.42			100% SANDSTONE	MED.-FINE GRAINED, GREY, UNWEATHERED, BASAL CONTACT ABRUPT, WITH CARBONACEOUS WISPS, WITH MUD PELLETS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
285.24	0.82	100		100% MUDSTONE	BLUE-GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
285.53	0.29	83		100% COAL, DULL	BADLY BROKEN, BLACK, UNWEATHERED.
285.79	0.26	88		100% COAL, HEAVY DULL	BLACK, UNWEATHERED, WITH PLANT REMAINS.
285.85	0.06	100		100% COAL, DULL	BLACK, UNWEATHERED, BASAL CONTACT ABRUPT.
285.86	0.01	100		100% CARBONACEOUS MUDSTONE	CLAYSTONE, LAMINAE, GREY, UNWEATHERED, BASAL CONTACT ABRUPT.
285.91	0.05	100		100% COAL, DULL	BLACK, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
286.43	0.52	100		100% CARBONACEOUS MUDSTONE	SILTSTONE, LAMINAE, GREY-BROWN, UNWEATHERED.
289.63	3.20	95		80% SANDSTONE,MEDIUM GRAINED 20% SANDSTONE	GREY. QUARTZOSE. UNWEATHERED, BASAL CONTACT TRANSITIONAL, BEDS DIP 5 DEG., WITH CARBONACEOUS WISPS.
290.33	0.70	100		100% MUDSTONE	SILTY, GREY, UNWEATHERED, BASAL CONTACT ABRUPT, BEDS DIP 2 DEG.
290.41	0.08			40% COAL, DULL 30% COAL, BRIGHT 30% CLAYSTONE	LAMINAE, BLACK. LAMINAE, BLACK. LAMINAE, WHITE. UNWEATHERED.
290.54	0.13	100		95% COAL, DULL 5% COAL, BRIGHT	BLACK. LAMINAE, BLACK. UNWEATHERED.
290.56	0.02	100		100% CLAYSTONE	LIGHT BROWN, UNWEATHERED.
290.66	0.10	100		95% COAL, DULL 5% COAL, BRIGHT	BLACK. LAMINAE, BLACK. UNWEATHERED.
290.67	0.01	100		100% CLAYSTONE	LIGHT BROWN, UNWEATHERED.
290.80	0.13	100		95% COAL, DULL 5% COAL, BRIGHT	BLACK. LAMINAE, BLACK. UNWEATHERED.
291.34	0.54	100		100% MUDSTONE	SILTY, GREY-BROWN, UNWEATHERED, BASAL CONTACT TRANSITIONAL, WITH SLICKENSIDES.
291.39	0.05	100		100% COAL, DULL	BLACK, UNWEATHERED.
291.41	0.02	100		100% COAL, BRIGHT	BLACK, WITH CALCITE ON CLEAT, UNWEATHERED.
291.99	0.58	100		100% CARBONACEOUS MUDSTONE	GREY-BROWN, UNWEATHERED, WITH PLANT REMAINS.
292.18	0.19	100		100% CLAYSTONE	LIGHT BROWN, WITH ABUNDANT CALCITE, UNWEATHERED. NOTE: CORE BROKEN OVER BASAL 10CM
292.74	0.56	100		100% CARBONACEOUS MUDSTONE	GREY-BROWN, WITH BANDS OF CALCITE, UNWEATHERED, WITH SAND LINEATION.
292.95	0.21	100		100% MUDSTONE	SANDSTONE, BANDS, GREY-BROWN, UNWEATHERED, BASAL CONTACT TRANSITIONAL, WITH CARBONACEOUS WISPS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
293.63	0.68	100		100% MUDSTONE	SANDSTONE, LAMINAE, GREY, UNWEATHERED.
294.42	0.79	100		60% COAL, HEAVY DULL 40% COAL, DULL	COARSE GRAINED, BANDS, BLACK. MUDSTONE, BANDS, BLACK. UNWEATHERED.
296.48	2.06	67		100% MUDSTONE	GREY-BROWN, UNWEATHERED, MASSIVE, WITH PLANT REMAINS.
296.91	0.43	100		100% COAL, DULL	HEAVY DULL COAL, BANDS, BLACK, WITH CALCITE ON CLEAT AND KAOLINITE ON CLEAT, UNWEATHERED, BASAL CONTACT ABRUPT, JOINTS DIP 85 DEG.
296.95	0.04	100		100% CARBONACEOUS SHALE	BANDS, COALY, BROWN-BLACK, UNWEATHERED.
298.17	1.22	65		100% MUDSTONE	HEAVY DULL COAL, BANDS, GREY, UNWEATHERED.
298.31	0.14	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BADLY BROKEN, BLACK, UNWEATHERED.
299.80	1.49	100		100% MUDSTONE	HEAVY DULL COAL, BANDS, GREY, UNWEATHERED, EXTREMELY CLOSELY SPACED JOINTS, WITH SLICKENSIDES.
300.45	0.65	92		100% SILTSTONE	ARGILLACEOUS, GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
300.70	0.25	100		100% MUDSTONE	BADLY BROKEN, GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL, WITH PLANT REMAINS, WITH SLICKENSIDES.
300.85	0.15	100		100% COAL, DULL	BADLY BROKEN, BLACK, UNWEATHERED, BASAL CONTACT ABRUPT.
301.59	0.74	100		100% MUDSTONE	GRADING TO, SILTSTONE, GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL, WITH PLANT REMAINS.
302.02	0.43	100		100% MUDSTONE	CARBONACEOUS, BANDS, GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
				NOTE: ABUNDANT BROWN COAL CONCRETIONS	
302.14	0.12	100		100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, BASAL CONTACT ABRUPT.
302.61	0.47			80% SANDSTONE 20% SANDSTONE	MED.-FINE GRAINED, LIGHT GREY. QUARTZOSE, ARGILLACEOUS, BUFF. UNWEATHERED, BASAL CONTACT TRANSITIONAL, WITH CARBONACEOUS WISPS.
303.69	1.08	100		80% MUDSTONE 20% CARBONACEOUS MUDSTONE	LAMINAE, ARGILLACEOUS, GREY-BROWN. LAMINAE, GREY-BROWN. UNWEATHERED, BASAL CONTACT ABRUPT, BEDS DIP 10 DEG., WITH CROSS LAMINATION, WITH BIOTURBIDATION.
				NOTE: ABUNDANT BROWN CONCRETIONS	
303.84	0.15	100		60% CARBONACEOUS MUDSTONE 40% COAL, HEAVY DULL	GREY-BROWN. BLACK. UNWEATHERED, BASAL CONTACT TRANSITIONAL.
304.45	0.61	100		50% CARBONACEOUS MUDSTONE 50% MUDSTONE	GREY-BROWN. GREY-BROWN. UNWEATHERED, BASAL CONTACT ABRUPT.
				NOTE: BROWN CONCRETIONS	

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
304.78	0.33	85		50% COAL, HEAVY DULL 50% CARBONACEOUS MUDSTONE	SHALY, BADLY BROKEN, BLACK. GREY-BROWN. UNWEATHERED, BASAL CONTACT TRANSITIONAL.
306.15	1.37	97		50% CARBONACEOUS MUDSTONE 50% MUDSTONE	SANDSTONE, BANDS, GREY-BROWN. GREY. WITH ABUNDANT MUSCOVITE, UNWEATHERED, BEDS DIP 10 DEG., WITH SLICKENSIDES, JOINTS DIP 45 DEG.
310.02	3.87	98		50% SANDSTONE,MEDIUM GRAINED 50% SANDSTONE,MEDIUM GRAINED	QUARTZOSE, CARBONACEOUS, BUFF. HEAVY DULL COAL, BANDS, GREY-BROWN.
				NOTE: MICROFAULTING FROM 30765 TO 30795CM	
310.60	0.58	100		60% MUDSTONE 40% SILTSTONE	LAMINAE, GREY-BROWN. UNWEATHERED, BASAL CONTACT ABRUPT, WITH CROSS LAMINATION.
310.88	0.28			100% SANDSTONE	MED.-FINE GRAINED, GREY, UNWEATHERED, BASAL CONTACT ABRUPT, WITH CROSS LAMINATION, WITH CARBONACEOUS WISPS.
311.63	0.75	100		100% MUDSTONE	FINE GRAINED SANDSTONE, LAMINAE, LIGHT BROWN, UNWEATHERED.
312.58	0.95	85		60% MUDSTONE 40% SILTSTONE	GREY-BROWN. UNWEATHERED, BASAL CONTACT TRANSITIONAL, WITH CARBONACEOUS WISPS.
				NOTE: END OF BQ CORE	
318.23	5.65	96		100% MUDSTONE	SHALY, COALY, GREY, UNWEATHERED, BEDS DIP 5 DEG., WITH CROSS LAMINATION, WITH SAND LINEATION.
				NOTE: START OF AQ CORE	
318.31	0.08	100		100% SHALE	SILTY, DARK BROWN, UNWEATHERED.
318.71	0.40	100		100% SANDSTONE,FINE GRAINED	MASSIVE, GREY, UNWEATHERED, BASAL CONTACT ABRUPT.
318.76	0.05	60		100% SHALE	GREY, UNWEATHERED.
321.76	3.00			70% MUDSTONE 20% SILTSTONE 10% SANDSTONE,FINE GRAINED	ARGILLACEOUS, CALCITIC, GREY-BROWN. GREY-BROWN. LIGHT BROWN.
322.36	0.60	100		100% MUDSTONE	SHALY, SILICEOUS, LIGHT BROWN, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
325.08	2.72	100		100% SANDSTONE,MEDIUM GRAINED	QUARTZOSE, CARBONACEOUS, LIGHT BROWN, UNWEATHERED, BASAL CONTACT ABRUPT, WITH BIOTURBIDATION, WITH CROSS LAMINATION.
326.46	1.38	96		100% SHALE	SILTY, SILICEOUS, GREY, WITH BANDS OF CALCITE, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
333.60	7.14	100		100% MUDSTONE	SILTY, SILICEOUS, GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL, BEDS DIP 20 DEG., WITH CONVOLUTED BEDDING, WITH CROSS LAMINATION.
333.76	0.16	100		100% SANDSTONE	GRADING TO, QUARTZOSE, BROWN-BLACK, WITH ABUNDANT MUSCOVITE AND NODULES OF CALCITE, UNWEATHERED, WITH BIOTURBIDATION, WITH MUD PELLETS.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
334.93	1.17	100		100% SANDSTONE,COARSE GRAINED	QUARTZOSE, LIGHT GREEN, UNWEATHERED, BASAL CONTACT ABRUPT, BEDS DIP 60 DEG., WITH MUD PELLETS.
335.16	0.23	100		100% SILTSTONE	CONGLOMERATIC, SANDSTONE, GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL, EXTREMELY CLOSELY SPACED JOINTS.
335.96	0.80	100		100% SANDSTONE,MEDIUM GRAINED	MASSIVE, GREY, UNWEATHERED, BASAL CONTACT TRANSITIONAL.
340.70	4.74	100		100% MUDSTONE	SILTY, GREY, UNWEATHERED, BASAL CONTACT ABRUPT.
				NOTE: ABUNDANT BROWN CONCRETIONS FROM 34019 TO 34060CM	
350.63	9.93	100		100% SANDSTONE,MEDIUM GRAINED	MUDSTONE, BANDS, GREY-BROWN, UNWEATHERED, BEDS DIP 30 DEG., WITH CROSS LAMINATION.
				NOTE: IRON CONCRETIONS FROM 34251 TO 34266CM BASE OF FRESHWATER SEQUENCE OF THE UPPER PARMEENER SUPERGROUP TOP OF THE GLACIO-MARINE SEQUENCE OF THE PARMEENER SUPERGROUP.	
351.76	1.13	100		100% SILTSTONE	SHALY, GREY-BROWN, WITH ABUNDANT MUSCOVITE AND BANDS OF CALCITE, UNWEATHERED.
				NOTE: ANGULAR QUARTZ CLASTS COMMON QUARTZITE PEBBLES, ROUNDED, AT 35151CM BASE OF HOLE AT 35176CM	

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

992 637

HOLE TYPE	CORE	
EASTING	599,200 M	GRID
NORTHING	5,363,720 M	GRID
ELEVATION	80.00 M	
TOTAL DEPTH DRILLED	127.35 M	
DRILLING STARTED	1/ 1/01	
DRILLING TIME		
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :		

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : 992 637 PAGE 1

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** NO ***	GEOLOGICAL DESCRIPTION

*** ERROR *** : NO CL RECORDS ON FILE

*** FRAME J17***

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

040 675

HOLE TYPE	CORE	
EASTING	604,480 M	GRID
NORTHING	5,373,240 M	GRID
ELEVATION	20.00 M	
TOTAL DEPTH DRILLED	438.05 M	
DRILLING STARTED	1/ 1/01	
DRILLING TIME		
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :		

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : 040 675 PAGE 1

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** NO ***	GEOLOGICAL DESCRIPTION

*** ERROR *** : NO CL RECORDS ON FILE

*** FRAME L17***

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

045 732

HOLE TYPE	CORE	
EASTING	604,080 M	GRID
NORTHING	5,367,520 M	GRID
ELEVATION	5.00 M	
TOTAL DEPTH DRILLED	344.00 M	
DRILLING STARTED	1/ 1/01	
DRILLING TIME		
CORE SIZE		
HOLE SIZE		
LENGTH CASED		
INITIAL WATER LEVEL		
WATER LEVEL AT GEOPHYSICAL LOGGING		
DRILLING FLUID		
DRILLING CONTRACTOR		
GEOPHYSICAL LOGGING CONTRACTOR		
LITHOLOGICAL DESCRIPTION BY		
INFORMATION AVAILABLE :		

PETROPHYSICAL WIRELINE LOGS RUN :

BORENOLE : 045 732 PAGE 1

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** NO ***	GEOLOGICAL DESCRIPTION

*** ERROR *** : NO CL RECORDS ON FILE

*** FRAME B18***

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

LL1

HOLE TYPE	CORE
EASTING	606,700 M AM GRID
NORTHING	5,377,600 M AM GRID
ELEVATION	10.00 M
TOTAL DEPTH DRILLED	51.65 M
DRILLING STARTED	1/ 1/01
DRILLING TIME	
CORE SIZE	
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORNATION AVAILABLE :	LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : LL1

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
1.57	1.57	100		100% CLAY	SOIL, GREY-BROWN, MODERATELY WEATHERED.
2.49	0.92	100		100% SANDSTONE	YELLOW, UNWEATHERED.
3.40	0.91	100		100% SANDSTONE	GREEN, UNWEATHERED.
3.45	0.05	100		100% IRONSTONE	RED-BROWN, UNWEATHERED.
5.99	2.54	100		100% SANDSTONE	YELLOW-GREY, UNWEATHERED.
6.93	0.94	100		100% SHALE	DARK GREY, UNWEATHERED.
					NOTE: HARD AND BRITTLE
7.49	0.56	100		100% SEAT EARTH	GREY-BROWN, UNWEATHERED.
7.59	0.10	100		100% COAL	MUDSTONE, INTERCALATIONS, BLACK, UNWEATHERED.
					NOTE: AND BLACK CLOD
7.94	0.35	100		100% SEAT EARTH	GREY-BROWN, UNWEATHERED.
8.28	0.34	100		100% COAL	BLACK, UNWEATHERED.
8.31	0.03	100		100% MUDSTONE	GREY, UNWEATHERED.
8.33	0.02	100		100% COAL	BLACK, UNWEATHERED.
8.39	0.06	100		100% MUDSTONE	GREY, UNWEATHERED.
8.43	0.04	100		100% COAL	BLACK, UNWEATHERED.
8.45	0.02	100		100% MUDSTONE	GREY, UNWEATHERED.
8.52	0.07	100		100% COAL	BLACK, UNWEATHERED.
8.55	0.03	100		100% MUDSTONE	GREY, UNWEATHERED.
8.57	0.02	100		100% COAL	BLACK, UNWEATHERED.
8.59	0.02	100		100% MUDSTONE	GREY, UNWEATHERED.
8.69	0.10	100		100% COAL	BLACK, UNWEATHERED.
8.72	0.03	100		100% CARBONACEOUS MUDSTONE	DARK GREY, UNWEATHERED.
9.32	0.60	100		100% COAL	BLACK, UNWEATHERED.
					NOTE: VERY BRITTLE
9.40	0.08	100		100% MUDSTONE	GREY, UNWEATHERED.
10.06	0.66	100		100% CLAYSTONE	WHITE, UNWEATHERED.
11.73	1.67	100		100% SEAT EARTH	GREY-BROWN, UNWEATHERED.
11.79	0.06	100		100% COAL	BLACK, UNWEATHERED.
13.36	1.57	100		100% SEAT EARTH	GREY-BROWN, UNWEATHERED.
13.39	0.03	100		100% SANDSTONE	GREY, UNWEATHERED.
14.10	0.71	100		100% SEAT EARTH	GREY-BROWN, UNWEATHERED.
14.38	0.28	100		100% SHALE	BLUE-GREY, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
				NOTE: HARD	
14.43	0.05	100		100% COAL	BLACK, UNWEATHERED.
15.38	0.95	100		100% SEAT EARTH	GREY-BROWN, UNWEATHERED.
16.95	1.57	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED.
24.55	7.60	100		100% SANDSTONE	SHALY, LAMINAE, BLUE-GREY, UNWEATHERED.
25.16	0.61	100		100% SANDSTONE	GREY, UNWEATHERED.
				NOTE: HARD	
25.49	0.33	100		100% SHALE	BLUE, UNWEATHERED.
25.91	0.42	100		100% COAL	SHALY, INTERCALATIONS, BLACK, UNWEATHERED.
26.28	0.37	100		100% SHALE	GREY, UNWEATHERED.
				NOTE: SOFT AND GREASY	
27.04	0.76	100		100% SHALE	BLUE, UNWEATHERED.
28.05	1.01	100		100% SANDSTONE	GREY, UNWEATHERED.
28.36	0.31	100		100% SANDSTONE	GREY, UNWEATHERED.
				NOTE: HARD	
29.38	1.02	100		100% SHALE	BLUE, UNWEATHERED.
29.43	0.05	100		100% COAL	BLACK, UNWEATHERED.
29.45	0.02	100		100% MUDSTONE	GREY, UNWEATHERED.
29.54	0.09	100		100% COAL	MUDSTONE, INTERCALATIONS, BLACK, UNWEATHERED.
				NOTE: CLOD	
31.09	1.55	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED.
31.98	0.89	100		100% SHALE	DARK GREY, UNWEATHERED.
32.23	0.25	100		100% SHALE	LIGHT GREY, UNWEATHERED.
32.74	0.51	100		100% SANDSTONE	DARK GREY, UNWEATHERED.
42.19	9.45	100		100% SANDSTONE	GREY, UNWEATHERED.
42.24	0.05	100		100% COAL	BLACK, UNWEATHERED.
43.93	1.69	100		100% SANDSTONE	GREY, UNWEATHERED.
				NOTE: FIRM	
43.98	0.05	100		100% MUDSTONE	DARK GREY, UNWEATHERED.
				NOTE: HARD	
44.41	0.43	100		100% COAL	BLACK, UNWEATHERED.
44.45	0.04	100		100% MUDSTONE	GREY, UNWEATHERED.
44.92	0.47	100		100% COAL	BLACK, UNWEATHERED.
45.39	0.47	100		100% SHALE	DARK GREY, UNWEATHERED.
46.48	1.09	100		100% SANDSTONE	COALY, STAINING, GREY, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
46.94	0.46	100		100% SANDSTONE	GREY, UNWEATHERED.
49.00	2.06	100		100% SHALE	BLUE, UNWEATHERED.
				NOTE: FIRM	
49.07	0.07	100		100% COAL	BLACK, UNWEATHERED.
49.20	0.13	100		100% SHALE	BROWN, UNWEATHERED.
50.22	1.02	100		100% SHALE	LIGHT GREY, UNWEATHERED.
				NOTE: FIRM	
50.28	0.06	100		100% COAL	BLACK, UNWEATHERED.
50.47	0.19	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, INTERCALATIONS, BLACK, UNWEATHERED.
50.91	0.44	100		100% SHALE	BLACK, UNWEATHERED.
51.07	0.16	100		100% SHALE	LIGHT GREY, UNWEATHERED.
51.21	0.14	100		100% SHALE	DARK GREY, UNWEATHERED.
51.52	0.31	100		100% COAL	BLACK, UNWEATHERED.
51.65	0.13	100		100% SEAT EARTH	GREY-BROWN, UNWEATHERED.

NOTE: INTERPRETATION ONLY. TERMED AS HARD FLOOR IN CORE RECORD

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

LL2

HOLE TYPE	CORE
EASTING	605,600 M AM GRID
NORTHING	5,375,900 M AM GRID
ELEVATION	10.00 M
TOTAL DEPTH DRILLED	93.97 M
DRILLING STARTED	1/ 1/01
DRILLING TIME	
CORE SIZE	
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : LL2

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
1.37	1.37	100		100% BOULDERS	SOIL, GREY-BROWN, MODERATELY WEATHERED.
10.95	9.58	100		100% SANDSTONE	GREY, UNWEATHERED.
11.25	0.30	100		100% SHALE	GREY, UNWEATHERED.
				NOTE: HARD	
12.29	1.04	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED.
12.45	0.16	100		100% SHALE	COALY, STAINING, GREY, UNWEATHERED.
				NOTE: HARD	
15.82	3.37	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED.
21.82	6.00	100		100% SANDSTONE	CONGLOMERATIC, GREY, UNWEATHERED.
29.69	7.87	100		100% SANDSTONE	GREY, UNWEATHERED, WEAK ROCK.
30.78	1.09	100		100% SHALE	DARK GREY, UNWEATHERED.
30.94	0.16	100		100% COAL	BLACK, UNWEATHERED.
30.98	0.04	100		100% MUDSTONE	GREY, UNWEATHERED.
31.24	0.26	100		100% COAL	BLACK, UNWEATHERED.
31.26	0.02	100		100% MUDSTONE	GREY, UNWEATHERED.
31.30	0.04	100		100% COAL	BLACK, UNWEATHERED.
31.31	0.01	100		100% CLAYSTONE	WHITE, UNWEATHERED.
31.41	0.10	100		100% COAL	BLACK, UNWEATHERED.
31.47	0.06	100		100% MUDSTONE	GREY, UNWEATHERED.
31.53	0.06	100		100% COAL	BLACK, UNWEATHERED.
31.56	0.03	100		100% COAL	ARGILLACEOUS, BANDS, BLACK, UNWEATHERED.
31.83	0.27	100		100% COAL	BLACK, UNWEATHERED.
				NOTE: WITH A FEW THIN BANDS	
31.86	0.03	100		100% MUDSTONE	WHITE, UNWEATHERED.
31.92	0.06	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED.
32.16	0.24	100		100% COAL	BLACK, UNWEATHERED.
				NOTE: WITH THIN BANDS	
32.59	0.43	100		100% COAL	BLACK, UNWEATHERED.
32.61	0.02	100		100% MUDSTONE	LIGHT GREY, UNWEATHERED.
32.63	0.02	100		100% COAL	BLACK, UNWEATHERED.
32.66	0.03	100		100% MUDSTONE	GREY, UNWEATHERED.
32.68	0.02	100		100% COAL	BLACK, UNWEATHERED.
33.50	0.82	100		100% SEAT EARTH	GREY-BROWN, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
					NOTE: INTERPRETATION OF THE TERM, FLOOR (?)
34.39	0.89	100		100% SHALE	GREY, UNWEATHERED.
					NOTE: FIRM
34.44	0.05	100		100% COAL	BLACK, UNWEATHERED.
35.55	1.11	100		100% SHALE	SILICEOUS, BROWN, UNWEATHERED.
36.82	1.27	100		100% SHALE	SILICEOUS, LIGHT GREY, UNWEATHERED.
					NOTE: FIRM
37.27	0.45	100		100% SHALE	SILICEOUS, COALY, GREY, UNWEATHERED.
37.30	0.03	100		100% COAL	BLACK, UNWEATHERED.
38.42	1.12	100		100% SHALE	LIGHT GREY, UNWEATHERED.
					NOTE: FIRM
38.72	0.30	100		100% SHALE	DARK GREY, UNWEATHERED.
					NOTE: HARD
40.00	1.28	100		50% SHALE 50% SHALE	INTERCALATIONS, DARK GREY. INTERCALATIONS, LIGHT GREY. UNWEATHERED.
41.35	1.35	100		100% SANDSTONE	COALY, STAINING, GREY, UNWEATHERED.
47.45	6.10	100		100% SHALE	SANDSTONE, BANDS, BLUE-GREY, UNWEATHERED.
49.34	1.89	100		100% SANDSTONE	GREY, UNWEATHERED.
49.56	0.22	100		100% SHALE	BLUE, UNWEATHERED.
50.01	0.45	100		100% SHALE	SILICEOUS, DARK GREY, UNWEATHERED.
50.11	0.10	100		100% COAL	BLACK, UNWEATHERED.
50.85	0.74	100		100% SANDSTONE	COALY, STAINING, GREY, UNWEATHERED.
51.16	0.31	100		100% SHALE	BLACK, UNWEATHERED, WITH PLANT REMAINS.
51.51	0.35	100		100% SANDSTONE	DARK GREY, UNWEATHERED.
52.43	0.92	100		100% SHALE	BLACK, UNWEATHERED.
53.17	0.74	100		100% SANDSTONE	GREY, UNWEATHERED.
					NOTE: FIRM
53.20	0.03	100		100% COAL	BLACK, UNWEATHERED.
53.25	0.05	100		100% MUDSTONE	BROWN, UNWEATHERED.
53.29	0.04	100		100% COAL	BLACK, UNWEATHERED.
54.97	1.68	100		100% SHALE	COALY, BANDS, BLACK, UNWEATHERED.
55.37	0.40	100		100% SANDSTONE	COALY, STAINING, GREY, UNWEATHERED.
55.98	0.61	100		100% SANDSTONE	GREY, UNWEATHERED.
					NOTE: VERY FIRM
63.27	7.29	100		100% SANDSTONE	LIGHT GREY, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
					NOTE: CLEAN
64.62	1.35	100		100% SANDSTONE	CARBONACEOUS, WHITE, UNWEATHERED.
					NOTE: HARD
67.21	2.59	100		100% SHALE	DARK GREY, UNWEATHERED.
					NOTE: VERY HARD
67.67	0.46	100		100% SANDSTONE	COALY, BANDS, DARK GREY, UNWEATHERED.
					NOTE: HARD
68.25	0.58	100		100% PEBBLE CONGLOMERATE	COALY, SHALY, DARK GREY, UNWEATHERED.
68.61	0.36	100		100% PEBBLE CONGLOMERATE	GREY, UNWEATHERED.
69.47	0.86	100		100% SHALE	BLACK, UNWEATHERED.
70.08	0.61	100		100% SANDSTONE	DARK GREY, UNWEATHERED.
70.18	0.10	100		100% PEBBLE CONGLOMERATE	GREY, UNWEATHERED.
70.21	0.03	100		100% COAL	BLACK, UNWEATHERED.
70.55	0.34	100		100% SANDSTONE	DARK GREY, UNWEATHERED.
71.46	0.91	100		100% COAL	BLACK, UNWEATHERED.
71.47	0.01	100		100% CLAYSTONE	GREY, UNWEATHERED.
71.69	0.22	100		100% COAL	BLACK, UNWEATHERED.
71.70	0.01	100		100% MUDSTONE	DARK GREY, UNWEATHERED.
					NOTE: SOFT AND GREASY
71.81	0.11	100		100% COAL	BLACK, UNWEATHERED.
72.07	0.26	100		100% SANDSTONE	GREY, UNWEATHERED.
					NOTE: VERY FIRM
72.38	0.31	100		100% SHALE	DARK GREY, UNWEATHERED.
73.18	0.80	100		100% SANDSTONE	DARK GREY, UNWEATHERED.
73.79	0.61	100		100% SANDSTONE	COALY, STAINING, LIGHT GREY, UNWEATHERED.
74.78	0.99	100		100% SHALE	BLUE, UNWEATHERED.
77.24	2.46	100		100% SEAT EARTH	GREY-BROWN, UNWEATHERED.
77.85	0.61	100		100% SHALE	DARK GREY, UNWEATHERED.
77.86	0.01	100		100% COAL	BLACK, UNWEATHERED.
78.07	0.21	100		100% SHALE	BLACK, UNWEATHERED.
78.45	0.38	100		100% COAL	BANDS, BLACK, UNWEATHERED.
78.91	0.46	100		100% SHALE	BLACK, UNWEATHERED.
79.67	0.76	100		100% SHALE	SILICEOUS, LIGHT GREY, UNWEATHERED.
79.92	0.25	100		100% SHALE	BLACK, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
80.23	0.31	100		100% SANDSTONE	GREY, UNWEATHERED.
81.93	1.70	100		100% SANDSTONE	GREY, UNWEATHERED.
82.46	0.53	100		100% SANDSTONE	DARK GREY, UNWEATHERED.
82.72	0.26	100		100% SHALE	DARK GREY, UNWEATHERED.
82.99	0.27	100		100% SEAT EARTH	GREY, UNWEATHERED.
83.71	0.72	100		100% SANDSTONE	DARK GREY, UNWEATHERED.
83.76	0.05	100		100% COAL	BLACK, UNWEATHERED.
84.62	0.86	100		100% SANDSTONE	GREY, UNWEATHERED.
84.67	0.05	100		100% COAL	BLACK, UNWEATHERED.
84.87	0.20	100		100% SANDSTONE	GREY, UNWEATHERED.
86.55	1.68	100		100% SHALE NOTE: FIRM	SILICEOUS, BLUE, UNWEATHERED.
86.86	0.31	100		100% SHALE	DARK GREY, UNWEATHERED.
87.11	0.25	100		100% SANDSTONE	LIGHT GREY, UNWEATHERED.
87.59	0.48	100		100% SHALE	DARK GREY, UNWEATHERED.
87.69	0.10	100		100% SANDSTONE,COARSE GRAINED NOTE: HARD	GREY, UNWEATHERED.
88.40	0.71	100		100% SHALE	BLUE, UNWEATHERED.
88.77	0.37	100		100% SHALE	DARK GREY, UNWEATHERED.
89.18	0.41	100		100% PEBBLE CONGLOMERATE	GREY, UNWEATHERED.
90.06	0.88	100		100% SHALE NOTE: VERY HARD	LIGHT GREY, UNWEATHERED.
93.97	3.91	100		100% SHALE	MUDSTONE, PEBBLY, GREY, UNWEATHERED.

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

LL3

HOLE TYPE	CORE
EASTING	604,900 M AM GRID
NORTHING	5,377,000 M AM GRID
ELEVATION	38.00 M
TOTAL DEPTH DRILLED	75.33 M
DRILLING STARTED	1/ 1/01
DRILLING TIME	
CORE SIZE	
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : LL3

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
0.46	0.46	100		100% SOIL	GREY-BROWN, WEATHERED TO SOIL.
				NOTE: AND LOAM	
3.66	3.20	100		100% CLAY	LIGHT GREY, WEATHERED TO SOIL.
3.96	0.30	100		100% SANDSTONE	GREY, COMPLETELY WEATHERED.
20.19	16.23	100		100% SANDSTONE	GREY.
			BASE OF WEATHERING		
21.41	1.22	100		100% SHALE	BLUE, UNWEATHERED.
21.87	0.46	100		100% SANDSTONE	GREY, UNWEATHERED.
22.81	0.94	100		100% SHALE	DARK GREY, UNWEATHERED.
24.13	1.32	100		50% SHALE 50% SHALE	INTERCALATIONS, DARK GREY. INTERCALATIONS, LIGHT GREY. UNWEATHERED.
24.14	0.01	100		100% COAL	BLACK, UNWEATHERED.
24.20	0.06	100		100% MUDSTONE	GREY, UNWEATHERED.
24.34	0.14	100		100% COAL	BLACK, UNWEATHERED.
24.42	0.08	100		100% COAL	MUDSTONE, BANDS, BLACK, UNWEATHERED.
24.52	0.10	100		100% COAL	BLACK, UNWEATHERED.
24.53	0.01	100		100% CLAYSTONE	WHITE, UNWEATHERED.
24.64	0.11	100		100% COAL	BLACK, UNWEATHERED.
24.80	0.16	100		100% COAL	MUDSTONE, BANDS, BLACK, UNWEATHERED.
24.93	0.13	100		100% COAL	BLACK, UNWEATHERED.
24.96	0.03	100		100% CLAYSTONE	WHITE, UNWEATHERED.
24.97	0.01	100		100% COAL	BLACK, UNWEATHERED.
24.98	0.01	100		100% CLAYSTONE	WHITE, UNWEATHERED.
25.01	0.03	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED.
25.04	0.03	100		100% COAL	BLACK, UNWEATHERED.
25.16	0.12	100		100% MUDSTONE	DARK GREY, UNWEATHERED.
25.19	0.03	100		100% COAL	MUDSTONE, BANDS, BLACK, UNWEATHERED.
25.20	0.01	100		100% COAL	MUDSTONE, BANDS, BLACK, UNWEATHERED.
25.71	0.51	100		100% COAL	MUDSTONE, BANDS, BLACK, UNWEATHERED.
25.77	0.06	100		100% MUDSTONE	GREY, UNWEATHERED.
25.79	0.02	100		100% COAL	BLACK, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
25.80	0.01	100		100% MUDSTONE	GREY, UNWEATHERED.
26.00	0.20	100		100% SEAT EARTH	GREY-BROWN, UNWEATHERED.
26.87	0.87	100		100% SEAT EARTH	SILICEOUS, GREY, UNWEATHERED.
27.27	0.40	100		100% SEAT EARTH	GREY, UNWEATHERED.
27.32	0.05	100		100% COAL	BLACK, UNWEATHERED.
28.70	1.38	100		100% SEAT EARTH	GREY, UNWEATHERED.
30.02	1.32	100		100% SHALE	SILICEOUS, LIGHT GREY, UNWEATHERED.
30.12	0.10	100		100% SHALE	SILICEOUS, DARK GREY, UNWEATHERED.
32.18	2.06	100		100% SHALE	BLUE, UNWEATHERED.
32.73	0.55	100		100% SHALE	DARK GREY, UNWEATHERED.
33.98	1.25	100		100% SANDSTONE	STAINING, DARK GREY, UNWEATHERED.
36.47	2.49	100		100% SANDSTONE	LIGHT GREY, UNWEATHERED.
40.54	4.07	100		100% SANDSTONE	SHALY, LAMINAE, GREY, UNWEATHERED.
41.43	0.89	100		100% SHALE	GREY-BROWN, UNWEATHERED.
41.66	0.23	100		100% SANDSTONE	COALY, BANDS, LIGHT GREY, UNWEATHERED.
43.29	1.63	100		100% SHALE	BLUE, UNWEATHERED.
43.62	0.33	100		100% SHALE	BLACK, UNWEATHERED.
					NOTE: HARD
45.02	1.40	100		100% SANDSTONE	STAINING, DARK GREY, UNWEATHERED.
45.95	0.93	100		100% SHALE	BLUE, UNWEATHERED.
46.89	0.94	100		100% SHALE	DARK GREY, UNWEATHERED.
					NOTE: HARD AND BRITTLE
47.33	0.44	100		100% SANDSTONE	DARK GREY, UNWEATHERED.
48.37	1.04	100		100% SANDSTONE	LIGHT GREY, UNWEATHERED.
					NOTE: CLEAN
51.62	3.25	100		100% SANDSTONE	LIGHT GREY, UNWEATHERED.
					NOTE: CLEAN AND FIRM
56.00	4.38	100		100% SANDSTONE	GREY, UNWEATHERED.
					NOTE: FIRM
57.32	1.32	100		100% SHALE	DARK GREY, UNWEATHERED.
57.64	0.32	100		100% SANDSTONE	GREY, UNWEATHERED.
57.69	0.05	100		100% COAL	BLACK, UNWEATHERED.
57.91	0.22	100		100% SHALE	DARK GREY, UNWEATHERED.
57.92	0.01	100		100% COAL	BLACK, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
58.07	0.15	100		100% SHALE	BLUE, UNWEATHERED.
58.22	0.15	100		100% SANDSTONE	GREY, UNWEATHERED.
58.55	0.33	100		100% SHALE	GREY, UNWEATHERED.
59.01	0.46	100		100% SANDSTONE	GREY, UNWEATHERED.
59.26	0.25	100		100% SHALE	GREY, UNWEATHERED.
59.43	0.17	100		100% COAL	BLACK, UNWEATHERED.
59.86	0.43	100		100% SANDSTONE	GREY, UNWEATHERED.
60.13	0.27	100		100% SHALE	DARK GREY, UNWEATHERED.
60.31	0.18	100		100% SHALE	VARIAGATED COLOUR, UNWEATHERED.
60.33	0.02	100		100% COAL	BLACK, UNWEATHERED.
60.36	0.03	100		100% MUDSTONE	GREY, UNWEATHERED.
60.41	0.05	100		100% COAL	SHALY, BANDS, BLACK, UNWEATHERED.
60.48	0.07	100		100% SHALE	DARK GREY, UNWEATHERED.
61.26	0.78	100		100% COAL	BLACK, UNWEATHERED.
61.33	0.07	100		100% MUDSTONE	GREY, UNWEATHERED.
61.40	0.07	100		100% SHALE	CARBONACEOUS, DARK GREY, UNWEATHERED.
61.49	0.09	100		100% COAL	BLACK, UNWEATHERED.
62.76	1.27	100		100% SHALE	DARK GREY, UNWEATHERED. NOTE: MOTTLED
63.82	1.06	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED. NOTE: VERY HARD
64.71	0.89	100		100% SHALE	BLUE-GREY, UNWEATHERED. NOTE: VERY FIRM
64.89	0.18	100		100% SHALE	WHITE, UNWEATHERED. NOTE: VERY HARD
65.17	0.28	100		100% COAL	BLACK, UNWEATHERED. NOTE: POOR QUALITY
65.42	0.25	100		100% SHALE	BLACK, UNWEATHERED. NOTE: VERY HARD
65.78	0.36	100		100% SHALE	LIGHT GREY, UNWEATHERED.
65.92	0.14	100		100% COAL	BLACK, UNWEATHERED.
66.33	0.41	100		100% SHALE	GREY, UNWEATHERED.
66.35	0.02	100		100% COAL	BLACK, UNWEATHERED.
66.45	0.10	100		100% SHALE	BLACK, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
					NOTE: VERY HARD
66.48	0.03	100		100% COAL	BLACK, UNWEATHERED.
67.70	1.22	100		100% SHALE	SILICEOUS, GREY, UNWEATHERED.
68.89	1.19	100		100% SANDSTONE	GREY, UNWEATHERED.
					NOTE: FIRM
69.07	0.18	100		100% SHALE	GREY, UNWEATHERED.
69.30	0.23	100		100% SHALE	COALY, BLACK, UNWEATHERED.
70.30	1.00	100		100% SHALE	SILICEOUS, LIGHT GREY, UNWEATHERED.
70.45	0.15	100		100% SHALE	COALY, BLACK, UNWEATHERED.
70.86	0.41	100		100% SHALE	SILICEOUS, LIGHT GREY, UNWEATHERED.
71.01	0.15	100		100% SHALE	DARK GREY, UNWEATHERED.
					NOTE: MOTTLED
71.06	0.05	100		100% SHALE	DARK GREY, UNWEATHERED.
73.60	2.54	100		100% SANDSTONE	GREY, UNWEATHERED.
					NOTE: HARD
75.33	1.73	100		100% DOLERITE	GREY-GREEN, UNWEATHERED.

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

S1

HOLE TYPE	CORE
EASTING	606,700 M AM GRID
NORTHING	5,376,700 M AM GRID
ELEVATION	4.00 M
TOTAL DEPTH DRILLED	271.96 M
DRILLING STARTED	1/ 1/01
DRILLING TIME	
CORE SIZE	
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	

INFORMATION AVAILABLE : LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : S1

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
1.52	1.52	100		100% CLAY	SOIL, GREY-BROWN, MODERATELY WEATHERED.
					NOTE: SURFACE CLAY AND DRIFT
2.54	1.02	100		100% SANDSTONE	YELLOW-GREY, UNWEATHERED.
2.64	0.10	100		100% SHALE	BLACK, UNWEATHERED.
					NOTE: HARD
12.73	10.09	100		100% SANDSTONE	COALY, STAINING, GREY, UNWEATHERED.
13.11	0.38	100		100% SHALE	DARK GREY, UNWEATHERED.
					NOTE: HARD AND CURLY
14.22	1.11	100		100% PEBBLE CONGLOMERATE	GREY, UNWEATHERED.
15.44	1.22	100		100% PEBBLE CONGLOMERATE	DARK GREY, UNWEATHERED.
					NOTE: HARD AND BRITTLE
15.65	0.21	100		100% SHALE	GREY, UNWEATHERED.
					NOTE: HARD AND CURLY
16.51	0.86	100		100% SANDSTONE	COALY, STAINING, GREY, UNWEATHERED.
16.99	0.48	100		100% PEBBLE CONGLOMERATE	GREY, UNWEATHERED.
29.41	12.42	100		100% SANDSTONE	LIGHT GREY, UNWEATHERED.
					NOTE: CLEAN
30.10	0.69	100		100% PEBBLE CONGLOMERATE	SHALY, SILICEOUS, GREY, UNWEATHERED.
33.53	3.43	100		100% SANDSTONE	GREY, UNWEATHERED.
35.14	1.61	100		100% SHALE	BLUE, UNWEATHERED.
35.93	0.79	100		100% SHALE	BLACK, UNWEATHERED.
36.33	0.40	100		100% SHALE	BLUE, UNWEATHERED.
					NOTE: GREASY
40.79	4.46	100		50% SHALE 50% SEAT EARTH	SILICEOUS, GREY. GREY. UNWEATHERED.
41.10	0.31	100		100% SANDSTONE	GREY, UNWEATHERED.
41.54	0.44	100		100% SHALE	COALY, BLACK, UNWEATHERED.
41.78	0.24	100		100% COAL	MUDSTONE, BANDS, BLACK, UNWEATHERED.
42.14	0.36	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED.
43.56	1.42	100		50% SHALE 50% SEAT EARTH	GREY. GREY. UNWEATHERED.
43.61	0.05	100		100% COAL	BLACK, UNWEATHERED.
44.04	0.43	100		100% SHALE	SILICEOUS, BROWN, UNWEATHERED.
46.32	2.28	100		100% SHALE	SILICEOUS, GREY, UNWEATHERED.
46.39	0.07	100		100% SHALE	BLACK, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
46.42	0.03	100		100% COAL	BLACK, UNWEATHERED.
48.02	1.60	100		100% SHALE	BLUE, UNWEATHERED.
48.35	0.33	100		100% SHALE	DARK GREY, UNWEATHERED.
50.69	2.34	100		100% SANDSTONE	COALY, STAINING, GREY, UNWEATHERED.
52.74	2.05	100		100% SANDSTONE	SHALY, LAMINAE, GREY, UNWEATHERED.
53.38	0.64	100		100% SANDSTONE	GREY, UNWEATHERED.
57.24	3.86	100		100% SHALE	GREY, UNWEATHERED.
59.11	1.87	100		100% SHALE	BLUE, UNWEATHERED.
59.13	0.02	100		100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED.
59.28	0.15	100		100% COAL	BLACK, UNWEATHERED.
60.40	1.12	100		100% SHALE	BLACK, UNWEATHERED.
60.68	0.28	100		100% SANDSTONE	COALY, STAINING, GREY, UNWEATHERED.
60.91	0.23	100		100% SHALE	BLUE, UNWEATHERED.
61.19	0.28	100		100% SANDSTONE	GREY, UNWEATHERED.
61.98	0.79	100		100% SHALE	BLUE, UNWEATHERED.
63.27	1.29	100		100% SANDSTONE	COALY, STAINING, GREY, UNWEATHERED.
63.98	0.71	100		100% SHALE	BLACK, UNWEATHERED.
66.73	2.75	100		100% SANDSTONE	DARK GREY, UNWEATHERED.
72.36	5.63	100		100% SANDSTONE	LIGHT GREY, UNWEATHERED.
				NOTE: CLEAN	
72.82	0.46	100		100% SHALE	SILICEOUS, GREY, UNWEATHERED.
				NOTE: FIRM	
73.28	0.46	100		100% SHALE	BLUE, UNWEATHERED.
76.17	2.89	100		100% SHALE	COALY, BANDS, DARK GREY, UNWEATHERED.
76.53	0.36	100		100% SHALE	COALY, BANDS, VARIAGATED COLOUR, UNWEATHERED.
77.22	0.69	100		100% SHALE	BROWN, UNWEATHERED.
77.67	0.45	100		100% SHALE	BLUE, UNWEATHERED.
				NOTE: HARD	
79.31	1.64	100		100% PEBBLE CONGLOMERATE	GREY, UNWEATHERED.
79.44	0.13	100		100% SHALE	DARK GREY, UNWEATHERED.
79.49	0.05	100		100% COAL	BLACK, UNWEATHERED.
80.25	0.76	100		100% PEBBLE CONGLOMERATE	GREY, UNWEATHERED.
80.68	0.43	100		100% COAL	BLACK, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
81.19	0.51	100		100% SHALE	BROWN, UNWEATHERED.
82.23	1.04	100		100% PEBBLE CONGLOMERATE	GREY, UNWEATHERED.
82.32	0.09	100		100% SHALE	COALY, BLACK, UNWEATHERED.
82.85	0.53	100		100% SHALE	SILICEOUS, BLUE, UNWEATHERED.
83.95	1.10	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED.
84.35	0.40	100		100% SHALE	BLUE, UNWEATHERED.
84.37	0.02	100		100% COAL	BLACK, UNWEATHERED.
85.18	0.81	100		100% SHALE	BLUE, UNWEATHERED.
85.69	0.51	100		100% COAL	BLACK, UNWEATHERED.
85.73	0.04	100		100% COAL	MUDSTONE, STREAKS, BLACK, UNWEATHERED.
85.93	0.20	100		100% COAL	BLACK, UNWEATHERED.
85.97	0.04	100		100% MUDSTONE	BLACK, UNWEATHERED.
				NOTE: SOFT	
85.98	0.01	100		100% CLAYSTONE	WHITE, UNWEATHERED.
86.03	0.05	100		100% COAL, BRIGHT	BLACK, UNWEATHERED.
86.06	0.03	100		100% COAL	MUDSTONE, BANDS, BLACK, UNWEATHERED.
88.49	2.43	100		50% SHALE 50% SHALE	DARK GREY. BLUE. UNWEATHERED.
89.10	0.61	100		100% SEAT EARTH	GREY, UNWEATHERED.
89.12	0.02	100		100% COAL	BLACK, UNWEATHERED.
92.32	3.20	100		50% SHALE 50% SHALE	DARK GREY. BLUE. UNWEATHERED.
93.84	1.52	100		100% SANDSTONE	GREY, UNWEATHERED.
				NOTE: VERY JOINTY	
94.75	0.91	100		100% SANDSTONE	WHITE, UNWEATHERED.
95.82	1.07	100		100% PEBBLE CONGLOMERATE	PYRITIC, GREY, WITH CRYSTALLINE PYRITE, UNWEATHERED.
98.56	2.74	100		100% SANDSTONE	GREEN, UNWEATHERED.
99.26	0.70	100		100% PEBBLE CONGLOMERATE	CALCITIC, LIGHT GREY, UNWEATHERED.
100.84	1.58	100		100% PEBBLE CONGLOMERATE	GREY, UNWEATHERED.
102.44	1.60	100		100% SANDSTONE	GREY, UNWEATHERED.
102.69	0.25	100		100% SHALE	COALY, STAINING, GREY, UNWEATHERED.
103.91	1.22	100		100% SANDSTONE	COALY, STAINING, GREY, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
104.22	0.31	100		100% PEBBLE CONGLOMERATE	GREY, UNWEATHERED.
107.99	3.77	100		100% SHALE	MUDSTONE, PEBBLY, GREY, WITH QUARTZ, UNWEATHERED.
				NOTE: FIRM	
108.12	0.13	100		100% SEAT EARTH	GREY, UNWEATHERED.
111.28	3.16	100		100% SHALE	COALY, TRACES, GREY, UNWEATHERED.
				NOTE: MUDDY	
117.41	6.13	100		100% SHALE	MUDSTONE, GREY, UNWEATHERED.
141.10	23.69	100		100% SHALE	MUDSTONE, GREY, UNWEATHERED, WITH TRACE FOSSILS.
148.01	6.91	100		100% SANDSTONE	PEBBLY, GREEN, UNWEATHERED.
150.98	2.97	100		100% LIMESTONE	FOSSILIFERROUS, WHITE, UNWEATHERED.
151.23	0.25	100		100% GRANITE	VARIAGATED COLOUR, UNWEATHERED.
				NOTE: ROCK, LIKE GRANITE	
188.80	37.57	100		100% LIMESTONE	FOSSILIFERROUS, WHITE, UNWEATHERED.
				NOTE: HARD	
227.15	38.35	100		100% LIMESTONE	BLUE, UNWEATHERED.
240.17	13.02	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED.
245.26	5.09	100		100% SANDSTONE	SHALY, CONGLOMERATIC, GREY, UNWEATHERED.
245.95	0.69	100		100% SHALE	CONGLOMERATIC, GREY, UNWEATHERED.
248.84	2.89	100		100% SANDSTONE,COARSE GRAINED	COALY, TRACES, GREY, UNWEATHERED.
255.21	6.37	100		100% SANDSTONE	VERY COARSE GRAINED, CONGLOMERATIC, GREY, UNWEATHERED.
271.96	16.75	100		100% BOULDER CONGLOMERATE	VARIAGATED COLOUR, MODERATELY WEATHERED.
				NOTE: ROTTEN GRANITE BOULDERS	

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

S2

HOLE TYPE	CORE
EASTING	601,400 M AM GRID
NORTHING	5,374,600 N AM GRID
ELEVATION	110.00 M
TOTAL DEPTH DRILLED	196.63 M
DRILLING STARTED	1/ 1/01
DRILLING TIME	
CORE SIZE	
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : S2

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
13.41	13.41	100		100% GRAVEL	SOIL, GREY, MODERATELY WEATHERED.
					NOTE: SURFACE SHAFT
16.92	3.51	100		100% SANDSTONE	ARGILLACEOUS, GREY, UNWEATHERED.
19.20	2.28	100		100% CARBONACEOUS MUDSTONE	SANDSTONE, INTERCALATIONS, GREY, UNWEATHERED.
22.86	3.66	100		100% CARBONACEOUS MUDSTONE	SHALY, BLACK, UNWEATHERED.
					NOTE: SHALE IS HARD AND BRITTLE
28.04	5.18	100		100% SHALE	SILICEOUS, LIGHT GREY, UNWEATHERED.
29.26	1.22	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED.
29.62	0.36	100		100% COAL	BLACK, UNWEATHERED.
					NOTE: INFERIOR QUALITY
35.89	6.27	100		100% SHALE	LIGHT GREY, UNWEATHERED.
40.23	4.34	100		100% SANDSTONE,FINE GRAINED	GREY, UNWEATHERED.
42.24	2.01	100		100% SHALE	GREY, UNWEATHERED.
52.32	10.08	100		100% SANDSTONE	COALY, BANDS, GREY, UNWEATHERED, WEAK ROCK.
					NOTE: THIN COAL PIPES
53.54	1.22	100		100% CARBONACEOUS MUDSTONE	SHALY, BLACK, UNWEATHERED.
					NOTE: COAL VEINS
54.61	1.07	100		100% SEAT EARTH	BLACK, UNWEATHERED.
56.57	1.96	100		100% SHALE	SILICEOUS, GREY, UNWEATHERED.
56.87	0.30	100		100% SANDSTONE	GREY, UNWEATHERED.
57.56	0.69	100		100% SHALE	GREY, UNWEATHERED.
72.64	15.08	100		100% SANDSTONE	COALY, STAINING, GREY, UNWEATHERED.
72.68	0.04	100		100% COAL	BLACK, UNWEATHERED.
141.36	68.68	100		100% SANDSTONE	COALY, STAINING, GREY, UNWEATHERED.
					NOTE: ALSO WITH COAL PIPES
169.00	27.64	100		100% SANDSTONE	GREY, UNWEATHERED.
169.46	0.46	100		100% COAL	BLACK, UNWEATHERED.
					NOTE: ONLY 8 INCHES (203.2MM) OF CLEAN COAL
186.88	17.42	100		100% SANDSTONE,FINE GRAINED	SHALY, GREY, UNWEATHERED.
				TOP OF DALMAYNE D LOWER : -76.88 M R.L.	
186.98	0.10	100		100% COAL	BLACK, UNWEATHERED.
187.03	0.05	100		100% MUDSTONE	BROWN, UNWEATHERED.
187.36	0.33	100		100% COAL	BLACK, UNWEATHERED.
187.41	0.05	100		100% MUDSTONE	GREY, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
187.44	0.03	100		100% COAL	BLACK, UNWEATHERED.
187.45	0.01	100		100% CLAYSTONE	WHITE, UNWEATHERED.
187.51	0.06	100		100% COAL	BLACK, UNWEATHERED.
187.55	0.04	100		100% CLAYSTONE	WHITE, UNWEATHERED.
187.79	0.24	100		100% COAL	BLACK, UNWEATHERED.
187.86	0.07	100		100% CLAYSTONE	WHITE, UNWEATHERED.
188.17	0.31	100		100% COAL	BLACK, UNWEATHERED.
			BASE OF DALMAYNE D LOWER : THICKNESS= 1.29 M; SAMPLED THICKNESS= 0.00 M		
196.63	8.46	100		100% SHALE	SILICEOUS, GREY, UNWEATHERED, WITH PLANT REMAINS. NOTE: HARD

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DDL	0.00 M	186.88 - 188.17 M	1.29 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

S3

HOLE TYPE	CORE
EASTING	601,300 M AM GRID
NORTHING	5,358,400 M AM GRID
ELEVATION	58.00 M
TOTAL DEPTH DRILLED	144.78 M
DRILLING STARTED	1/ 1/0[illegible]
DRILLING TIME	
CORE SIZE	
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : S3

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
2.13	2.13	100		100% CLAY	SANDSTONE, GREY, HIGHLY WEATHERED.
					NOTE: STIFF CLAY AND HARD, BROKEN SANDSTONE
3.05	0.92	100		100% SANDSTONE	GREY, SLIGHTLY WEATHERED.
					NOTE: SOFT
4.88	1.83	100		100% SANDSTONE	GREY, UNWEATHERED.
					NOTE: BROKEN
7.62	2.74	100		100% SANDSTONE	GREY, UNWEATHERED.
					NOTE: SOLID
16.76	9.14	100		100% SANDSTONE	GREY, UNWEATHERED.
					NOTE: BROKEN
24.99	8.23	100		100% SANDSTONE	CARBONACEOUS, GREY, UNWEATHERED, WITH PLANT REMAINS.
34.14	9.15	100		100% SANDSTONE	GREY, UNWEATHERED.
					NOTE: SOLID
37.19	3.05	100		100% SANDSTONE	GREY, UNWEATHERED.
37.59	0.40	100		100% SHALE	BLUE, UNWEATHERED.
38.25	0.66	100		100% SANDSTONE	GREY, UNWEATHERED.
54.86	16.61	100		100% SANDSTONE	GREY, UNWEATHERED, WITH PLANT REMAINS.
63.40	8.54	100		100% SANDSTONE	GREY, UNWEATHERED.
					NOTE: SOLID
67.06	3.66	100		100% SANDSTONE	GREY, UNWEATHERED, WITH PLANT REMAINS.
71.02	3.96	100		100% SANDSTONE	GREY, UNWEATHERED.
					NOTE: BROKEN
72.14	1.12	100		100% SANDSTONE	GREY, UNWEATHERED.
72.36	0.22	100		100% COAL	BLACK, UNWEATHERED.
73.46	1.10	100		100% SHALE	BLUE, UNWEATHERED.
76.56	3.10	100		100% SHALE	BLUE, UNWEATHERED, WITH PLANT REMAINS.
77.72	1.16	100		100% COAL	FRIABLE, BLACK, UNWEATHERED.
79.25	1.53	100		100% SHALE	SANDSTONE, BANDS, GREY, UNWEATHERED.
81.84	2.59	100		100% SHALE	SANDSTONE, BANDS, BLUE, UNWEATHERED.
83.74	1.90	100		100% SHALE	SANDSTONE, BANDS, GREY, UNWEATHERED.
					NOTE: BROKEN SHALE
87.48	3.74	100		100% SHALE	ARGILLACEOUS, BLUE, UNWEATHERED.
89.61	2.13	100		100% SHALE	ARGILLACEOUS, SANDSTONE, GREY, UNWEATHERED.
91.14	1.53	100		100% SHALE	ARGILLACEOUS, GREY, UNWEATHERED.
91.59	0.45	100		100% LIMESTONE	WHITE, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
93.57	1.98	100		100% SHALE	ARGILLACEOUS, GREY, UNWEATHERED.
94.79	1.22	100		100% CLAY	SANDSTONE, BANDS, GREY, UNWEATHERED.
97.08	2.29	100		100% SANDSTONE	GREY, UNWEATHERED, WITH PLANT REMAINS.
97.23	0.15	100		100% COAL	BLACK, UNWEATHERED.
98.76	1.53	100		100% SHALE	SANDSTONE, BANDS, GREY, UNWEATHERED.
102.11	3.35	100		100% SHALE	ARGILLACEOUS, DARK GREY, UNWEATHERED.
102.41	0.30	100		100% COAL	BLACK, UNWEATHERED.
103.94	1.53	100		100% SHALE	ARGILLACEOUS, BLUE, UNWEATHERED.
111.81	7.87	100		100% SANDSTONE	GREY, UNWEATHERED.
111.94	0.13	100		100% COAL	BLACK, UNWEATHERED.
113.54	1.60	100		100% SHALE	ARGILLACEOUS, DARK GREY, UNWEATHERED.
113.77	0.23	100		100% COAL	BLACK, UNWEATHERED.
115.98	2.21	100		100% SHALE	ARGILLACEOUS, DARK GREY, UNWEATHERED.
117.61	1.63	100		100% SHALE	ARGILLACEOUS, GREY, UNWEATHERED.
119.79	2.18	100		100% SANDSTONE	GREY, UNWEATHERED.
123.44	3.65	100		100% SANDSTONE	GREY, UNWEATHERED, WITH PLANT REMAINS.
123.67	0.23	100		100% SANDSTONE	GREY, UNWEATHERED.
128.32	4.65	100		100% SHALE	ARGILLACEOUS, GREY, UNWEATHERED.
129.54	1.22	100		50% SHALE 50% LIMESTONE	ARGILLACEOUS, GREY. WHITE. UNWEATHERED.
130.33	0.79	100		100% SANDSTONE	GREY, UNWEATHERED.
130.76	0.43	100		100% SHALE	ARGILLACEOUS, GREY, UNWEATHERED.
132.74	1.98	100		100% SHALE	ARGILLACEOUS, DARK GREY, UNWEATHERED.
135.94	3.20	100		100% SHALE	SILICEOUS, GREY, UNWEATHERED.
136.09	0.15	100		100% SANDSTONE	WHITE, UNWEATHERED. NOTE: HARD CEMENTED
138.84	2.75	100		100% SANDSTONE	SHALY, GREY, UNWEATHERED. NOTE: BROKEN SANDSTONE
141.35	2.51	100		100% SANDSTONE	SHALY, GREY, UNWEATHERED. NOTE: BROKEN SANDSTONE GIVING PLACE TO GRANITE
141.73	0.38	100		100% GRANITE	SHALY, FRAGMENTS, VARIAGATED COLOUR, UNWEATHERED.
143.56	1.83	100		100% GRANITE	VARIAGATED COLOUR, UNWEATHERED.
144.78	1.22	100		100% GRANITE	VARIAGATED COLOUR, UNWEATHERED.

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

S4

HOLE TYPE	CORE
EASTING	600,800 M AM GRID
NORTHING	5,356,500 M AM GRID
ELEVATION	22.00 M
TOTAL DEPTH DRILLED	218.85 M
DRILLING STARTED	1/ 1/01
DRILLING TIME	
CORE SIZE	
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : S4

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
0.76	0.76	100		100% CLAY	SOIL, GREY-BROWN, MODERATELY WEATHERED. NOTE: SURFACE CLAY
4.88	4.12	100		100% SANDSTONE	GREY, UNWEATHERED.
5.49	0.61	100		100% SHALE	BLUE, UNWEATHERED.
6.55	1.06	100		100% SANDSTONE	GREY, UNWEATHERED.
6.93	0.38	100		100% SHALE	COALY, DARK GREY, UNWEATHERED.
7.24	0.31	100		100% SHALE	BLUE, UNWEATHERED.
7.32	0.08	100		100% COAL	BLACK, UNWEATHERED.
8.53	1.21	100		100% SHALE	BLUE-GREY, UNWEATHERED.
10.06	1.53	100		100% SHALE	BLUE, UNWEATHERED.
10.36	0.30	100		100% SHALE	DARK GREY, UNWEATHERED.
10.41	0.05	100		100% COAL	BLACK, UNWEATHERED.
10.67	0.26	100		100% SHALE	DARK GREY, UNWEATHERED.
10.77	0.10	100		100% COAL	BLACK, UNWEATHERED.
10.97	0.20	100		100% SHALE	DARK GREY, UNWEATHERED.
11.13	0.16	100		100% COAL	BLACK, UNWEATHERED.
11.89	0.76	100		100% SHALE	BLUE, UNWEATHERED.
12.80	0.91	100		100% SHALE	COALY, BANDS, DARK GREY, UNWEATHERED.
17.07	4.27	100		100% SANDSTONE	SHALY, GREY, UNWEATHERED.
27.13	10.06	100		100% SANDSTONE	COALY, LAMINAE, GREY, UNWEATHERED.
32.92	5.79	100		100% SANDSTONE	GREY, UNWEATHERED.
36.88	3.96	100		100% SANDSTONE	BADLY BROKEN, GREY, UNWEATHERED.
39.93	3.05	100		100% SANDSTONE	GREY, UNWEATHERED.
40.23	0.30	100		100% SANDSTONE	SHALY, GREY, UNWEATHERED.
45.72	5.49	100		100% SANDSTONE	GREY, UNWEATHERED.
50.44	4.72	100		100% SANDSTONE	GREY, UNWEATHERED, WITH PLANT REMAINS.
64.62	14.18	100		100% SANDSTONE	GREY, UNWEATHERED.
77.42	12.80	100		100% SANDSTONE	COALY, LAMINAE, GREY, UNWEATHERED.
83.82	6.40	100		100% SANDSTONE	GREY, UNWEATHERED.
86.77	2.95	100		100% SANDSTONE	GREY, UNWEATHERED.
88.47	1.70	100		100% SHALE	COALY, BLUE, UNWEATHERED.
88.85	0.38	100		100% SANDSTONE	GREY, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
89.20	0.35	100		100% SHALE	COALY, LAMINAE, BLACK, UNWEATHERED.
89.26	0.06	100		100% SANDSTONE	GREY, UNWEATHERED.
89.56	0.30	100		100% SHALE	BLACK, UNWEATHERED.
93.42	3.86	100		100% SANDSTONE	GREY, UNWEATHERED.
103.94	10.52	100		100% SANDSTONE	GREY, UNWEATHERED.
105.46	1.52	100		100% SANDSTONE	SHALY, INTERCALATIONS, GREY, UNWEATHERED.
105.97	0.51	100		100% COAL	BLACK, UNWEATHERED.
106.02	0.05	100		100% SANDSTONE	SHALY, INTERCALATIONS, GREY, UNWEATHERED.
106.20	0.18	100		100% COAL	BLACK, UNWEATHERED.
107.29	1.09	100		100% SHALE	BLUE-GREY, UNWEATHERED.
107.44	0.15	100		100% COAL	BLACK, UNWEATHERED.
110.49	3.05	100		100% SHALE	ARGILLACEOUS, BLUE-GREY, UNWEATHERED.
113.69	3.20	100		100% SHALE	ARGILLACEOUS, GREY, UNWEATHERED.
115.67	1.98	100		100% SHALE	ARGILLACEOUS, BLUE-GREY, UNWEATHERED.
118.57	2.90	100		100% SANDSTONE	SHALY, GREY, UNWEATHERED.
118.82	0.25	100		100% SHALE	COALY, BLACK, UNWEATHERED.
119.18	0.36	100		100% SHALE	ARGILLACEOUS, BLUE, UNWEATHERED.
123.14	3.96	100		100% SANDSTONE	SHALY, BANDS, GREY, UNWEATHERED.
127.10	3.96	100		100% SANDSTONE	GREY, UNWEATHERED. NOTE: SOLID SANDSTONE
127.36	0.26	100		100% LIMESTONE	WHITE, UNWEATHERED.
127.71	0.35	100		100% SHALE	DARK GREY, UNWEATHERED.
131.29	3.58	100		100% SANDSTONE	GREY, UNWEATHERED.
134.47	3.18	100		100% SHALE	ARGILLACEOUS, GREY, UNWEATHERED.
135.18	0.71	100		100% SHALE	ARGILLACEOUS, BLACK, UNWEATHERED.
143.56	8.38	100		100% SANDSTONE	GREY, UNWEATHERED, WITH PLANT REMAINS.
145.49	1.93	100		100% SANDSTONE	SHALY, BANDS, GREY, UNWEATHERED.
145.69	0.20	100		100% SHALE	COALY, DARK GREY, UNWEATHERED.
146.91	1.22	100		100% SHALE	SILICEOUS, GREY, UNWEATHERED.
153.31	6.40	100		100% SANDSTONE	SHALY, GREY, UNWEATHERED.
158.50	5.19	100		100% SANDSTONE	GREY, UNWEATHERED.
160.32	1.82	100		100% SHALE	ARGILLACEOUS, GREY, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
160.63	0.31	100		100% SHALE	GREY, UNWEATHERED.
160.88	0.25	100		100% LIMESTONE	WHITE, UNWEATHERED. NOTE: WITH CARBONATE OF IRON
162.76	1.88	100		100% SHALE	BLUE-GREY, UNWEATHERED.
165.35	2.59	100		100% SHALE	DARK GREY, UNWEATHERED.
165.66	0.31	100		100% SANDSTONE	SHALY, INTERCALATIONS, GREY, UNWEATHERED.
167.18	1.52	100		100% SANDSTONE,COARSE GRAINED	GREY, UNWEATHERED.
170.54	3.36	100		100% SANDSTONE	SHALY, INTERCALATIONS, GREY, UNWEATHERED.
174.04	3.50	100		100% SHALE	ARGILLACEOUS, SILICEOUS, GREY, UNWEATHERED.
175.03	0.99	100		100% SHALE	ARGILLACEOUS, GREY, UNWEATHERED.
176.61	1.58	100		100% SANDSTONE	SHALY, INTERCALATIONS, GREY, UNWEATHERED.
180.44	3.83	100		100% SANDSTONE	GREY, UNWEATHERED.
182.88	2.44	100		100% SANDSTONE	GREY, UNWEATHERED.
184.40	1.52	100		100% QUARTZITE	WHITE, UNWEATHERED. NOTE: AND CEMENT
185.62	1.22	100		100% SANDSTONE	SHALY, INTERCALATIONS, GREY, UNWEATHERED.
187.15	1.53	100		100% SANDSTONE	GREY, UNWEATHERED.
190.02	2.87	100		100% SANDSTONE	BADLY BROKEN, SHALY, GREY, UNWEATHERED.
192.02	2.00	100		100% SHALE	ARGILLACEOUS, BLUE, UNWEATHERED.
192.56	0.54	100		100% LIMESTONE	SHALY, INTERCALATIONS, LIGHT GREY, UNWEATHERED.
196.06	3.50	100		100% PEBBLE CONGLOMERATE	BADLY BROKEN, GREY, UNWEATHERED.
198.04	1.98	100		100% PEBBLE CONGLOMERATE	SILICEOUS, SHALY, GREY, UNWEATHERED.
199.16	1.12	100		100% GRANITE	CONGLOMERATIC, VARIAGATED COLOUR, UNWEATHERED.
199.72	0.56	100		100% GRANITE	CONGLOMERATIC, FINE GRAINED, VARIAGATED COLOUR, UNWEATHERED.
208.84	9.12	100		100% SANDSTONE,COARSE GRAINED	VARIAGATED COLOUR, UNWEATHERED. NOTE: WITH GRANITIC CEMENT
218.85	10.01	100		100% GRANITE	SANDSTONE, VARIAGATED COLOUR, UNWEATHERED. NOTE: GRANITIC CEMENT

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

S5

HOLE TYPE	CORE
EASTING	599,600 M AH GRID
NORTHING	5,357,600 M AH GRID
ELEVATION	160.00 M
TOTAL DEPTH DRILLED	228.90 M
DRILLING STARTED	1/ 1/0'
DRILLING TIME	
CORE SIZE	
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	

INFORNATION AVAILABLE : LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : S5

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
3.66	3.66	100		100% SOIL	GREY-BROWN, MODERATELY WEATHERED.
7.62	3.96	100		100% DOLERITE	SCREE, GREY, MODERATELY WEATHERED.
12.34	4.72	100		100% IRONSTONE	DETRITAL, PINK-BROWN, MODERATELY WEATHERED.
17.07	4.73	100		100% SHALE	DETRITAL, PEBBLY, GREY, MODERATELY WEATHERED.
18.90	1.83	100		100% SHALE	COALY, LAMINAE, BLUE-GREY, UNWEATHERED.
20.27	1.37	100		100% SHALE	BADLY BROKEN, BLUE, UNWEATHERED.
21.95	1.68	100		100% SHALE	BLUE-GREY, UNWEATHERED.
24.69	2.74	100		100% SHALE	COALY, LAMINAE, GREY, UNWEATHERED.
24.89	0.20	100		100% COAL	MUDSTONE, BANDS, BLACK, UNWEATHERED.
29.92	5.03	100		100% SHALE	BLUE-GREY, UNWEATHERED.
30.68	0.76	100		100% SANDSTONE	GREY, UNWEATHERED.
35.10	4.42	100		50% SHALE 50% SHALE	BLUE. DARK BROWN. UNWEATHERED.
38.71	3.61	100		100% SHALE	ARGILLACEOUS, BLUE, UNWEATHERED.
39.57	0.86	100		100% SANDSTONE	GREY, UNWEATHERED.
45.72	6.15	100		100% SHALE	ARGILLACEOUS, GREY, UNWEATHERED.
46.63	0.91	100		100% SANDSTONE	GREY, UNWEATHERED.
46.74	0.11	100		100% SHALE	DARK GREY, UNWEATHERED.
46.94	0.20	100		100% COAL	BLACK, UNWEATHERED.
49.83	2.89	100		100% SHALE	ARGILLACEOUS, BLUE-GREY, UNWEATHERED.
60.35	10.52	100		100% SHALE	BADLY BROKEN, COALY, BLUE-GREY, UNWEATHERED.
60.96	0.61	100		100% SANDSTONE	LIGHT GREY, UNWEATHERED.
69.19	8.23	100		100% SANDSTONE	COALY, TRACES, LIGHT GREY, UNWEATHERED.
70.41	1.22	100		100% SHALE	COALY, LAMINAE, BLUE-GREY, UNWEATHERED.
71.68	1.27	100		100% SHALE	BLUE-GREY, UNWEATHERED.
72.06	0.38	100		100% COAL	MUDSTONE, BANDS, BLACK, UNWEATHERED.
86.72	14.66	100		100% SANDSTONE	COALY, TRACES, GREY, UNWEATHERED.
87.48	0.76	100		100% SANDSTONE	SHALY, INTERCALATIONS, GREY, UNWEATHERED.
98.04	10.56	100		100% SANDSTONE	COALY, TRACES, GREY, UNWEATHERED.
99.06	1.02	100		100% LIMESTONE	SHALY, INTERCALATIONS, LIGHT GREY, UNWEATHERED.
106.38	7.32	100		100% SANDSTONE	COALY, TRACES, GREY, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
106.60	0.22	100		100% SHALE	COALY, LAMINAE, DARK GREY, UNWEATHERED.
109.12	2.52	100		100% SANDSTONE	GREY, UNWEATHERED.
133.81	24.69	100		100% SANDSTONE	COALY, TRACES, GREY, UNWEATHERED.
137.16	3.35	100		100% SANDSTONE	SHALY, COALY, GREY, UNWEATHERED.
162.31	25.15	100		100% SANDSTONE	COALY, TRACES, GREY, UNWEATHERED.
164.44	2.13	100		100% SHALE	BLUE-GREY, UNWEATHERED.
164.64	0.20	100		100% COAL	BLACK, UNWEATHERED.
165.71	1.07	100		100% SHALE	COALY, BANDS, GREY, UNWEATHERED.
165.86	0.15	100		100% COAL	BLACK, UNWEATHERED.
165.96	0.10	100		100% MUDSTONE	GREY, UNWEATHERED.
166.27	0.31	100		100% COAL	BLACK, UNWEATHERED.
166.42	0.15	100		100% MUDSTONE	GREY, UNWEATHERED.
166.65	0.23	100		100% COAL	BLACK, UNWEATHERED.
167.64	0.99	100		100% SANDSTONE	SHALY, INTERCALATIONS, GREY, UNWEATHERED.
171.60	3.96	100		100% SHALE	BADLY BROKEN, BLUE-GREY, UNWEATHERED.
172.06	0.46	100		100% SHALE	DARK GREY, UNWEATHERED.
174.50	2.44	100		100% SHALE	GREY-BROWN, MODERATELY WEATHERED.
179.53	5.03	100		100% SHALE	SANDSTONE, BADLY BROKEN, GREY, UNWEATHERED.
183.18	3.65	100		100% SHALE	BADLY BROKEN, BLUE-GREY, UNWEATHERED.
186.23	3.05	100		100% SHALE	SANDSTONE, BADLY BROKEN, GREY, UNWEATHERED.
189.59	3.36	100		100% SANDSTONE	BADLY BROKEN, GREY, UNWEATHERED.
198.42	8.83	100		100% SANDSTONE	GREEN, UNWEATHERED.
206.81	8.39	100		50% SANDSTONE 50% SHALE	COALY, TRACES, GREY. COALY, TRACES, GREY. UNWEATHERED.
209.70	2.89	100		50% SANDSTONE 50% SHALE	COALY, BADLY BROKEN, GREY. COALY, BADLY BROKEN, GREY. UNWEATHERED.
217.32	7.62	100		100% SHALE	SANDSTONE, INTERCALATIONS, GREY, UNWEATHERED.
220.68	3.36	100		100% SANDSTONE	WHITE, UNWEATHERED.
221.28	0.60	100		100% SANDSTONE	GREY, UNWEATHERED.
224.64	3.36	100		100% GRANITE	FINE GRAINED, VARIAGATED COLOUR, UNWEATHERED.
228.90	4.26	100		100% GRANITE	VARIAGATED COLOUR, UNWEATHERED.

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

S 6

HOLE TYPE	CORE
EASTING	606,900 M AM GRID
NORTHING	5,377,400 M AM GRID
ELEVATION	10.00 M
TOTAL DEPTH DRILLED	76.20 M
DRILLING STARTED	16/11/44
DRILLING TIME	
CORE SIZE	
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	

PETROPHYSICAL WIRELINE LOGS RUN :

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
1.52	1.52	0		CORE LOSS	
2.13	0.61	100		100% CLAY	
3.81	1.68	100		100% CARBONACEOUS MUDSTONE	BROWN-BLACK.
4.88	1.07	100		100% COAL	BLACK.
10.36	5.48	100		100% SANDSTONE	
23.77	13.41	100		100% SANDSTONE	GREY.
25.60	1.83	100		100% SANDSTONE	CARBONACEOUS, DARK BROWN.
25.65	0.05	100		100% COAL	BLACK.
31.09	5.44	100		100% SANDSTONE	CARBONACEOUS, DARK BROWN.
35.05	3.96	100		100% MUDSTONE	
36.88	1.83	100		100% SANDSTONE	GREY.
37.19	0.31	100		100% CARBONACEOUS MUDSTONE	BROWN-BLACK.
42.14	4.95	0		CORE LOSS	
					NOTE: NO DRILLING RECORDS FROM 37.19M TO 42.14M
42.52	0.38	100		100% COAL	BLACK.
42.60	0.08	100		100% MUDSTONE	
42.90	0.30	100		100% COAL	BLACK.
43.13	0.23	100		100% COAL	BLACK.
43.41	0.28	100		100% COAL	BLACK.
43.58	0.17	100		100% COAL, HEAVY DULL	BLACK.
					NOTE: COAL WAS ANALYSED BUT NO MOISTURE VALUES GIVEN
56.08	12.50	0		CORE LOSS	
					NOTE: NO DRILLING RECORDS FROM 43.58M TO 56.08M
76.20	20.12	100		100% MUDSTONE	

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

S 7

HOLE TYPE	CORE
EASTING	606,700 M AM GRID
NORTHING	5,377,500 M AM GRID
ELEVATION	10.00 M
TOTAL DEPTH DRILLED	48.46 M
DRILLING STARTED	27/02/45
DRILLING TIME	
CORE SIZE	
HOLE SIZE	
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : S 7

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
0.61	0.61	100		100% SOIL	
0.91	0.30	100		100% SAND	
3.66	2.75	100		100% CLAY	ARENACEOUS.
6.71	3.05	60		100% CLAY	BROWN-BLACK, SOFT.
17.68	10.97	47		100% MUDSTONE	
21.95	4.27	84		100% SANDSTONE	LIMONITIC, LIGHT GREY.
33.83	11.88	85		100% SANDSTONE	CARBONACEOUS, FRAGMENTS, LIGHT GREY.
35.66	1.83	83		100% SANDSTONE	LIMONITIC, LIGHT GREY.
36.58	0.92	100		100% MUDSTONE	GREY.
38.10	1.52	100		100% SANDSTONE	LIMONITIC, LIGHT GREY.
39.62	1.52	95		100% SHALE	
46.03	6.41	86		100% SANDSTONE	LIMONITIC, LIGHT GREY.
47.40	1.37	44		100% COAL	BLACK.
48.46	1.06	57		100% SANDSTONE	CARBONACEOUS, FRAGMENTS, LIGHT GREY.

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

DDH1

HOLE TYPE	CORE
EASTING	602,279 M AM GRID
NORTHING	5,385,347 M AM GRID
ELEVATION	416.40 M
TOTAL DEPTH DRILLED	284.00 M
DRILLING STARTED	17/ 6/74
DRILLING TIME	
CORE SIZE	45.1 MM
HOLE SIZE	75.7 MM
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	

INFORMATION AVAILABLE : LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : DDH1

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
11.68	11.68	61		100% DOLERITE	SCREE, ARGILLACEOUS, GREY, MODERATELY WEATHERED.
16.15	4.47	93		100% DOLERITE	PEBBLY, ARGILLACEOUS, GREY, MODERATELY WEATHERED, WITH MUD PELLETS.
21.12	4.97	0		CORE LOSS	NOTE: PROBABLY CLAY AND MUDSTONE
22.25	1.13	100		50% MUDSTONE 50% MUDSTONE	CARBONACEOUS, LIGHT GREY. ARGILLACEOUS, BANDS, DARK GREY. WITH CALCITE ON FRACTURES, UNWEATHERED, BEDS DIP 3 DEG.
27.56	5.31	84		100% MUDSTONE	SILICEOUS, ARGILLACEOUS, LIGHT GREY, WITH CALCITE, UNWEATHERED, WITH CARBONACEOUS WISPS.
28.84	1.28	100		100% MUDSTONE	GRADING TO, SANDSTONE, GREY, UNWEATHERED. NOTE: TRANSITION ZONE
41.15	12.31	100		100% SANDSTONE	COALY, LAMINAE, GREY, UNWEATHERED.
41.75	0.60	100		100% CARBONACEOUS MUDSTONE	GRADING TO, COALY, DARK GREY, UNWEATHERED.
41.97	0.22	100		100% MUDSTONE	SILICEOUS, BRIGHT COAL, GREY, UNWEATHERED.
42.65	0.68	100		100% CARBONACEOUS MUDSTONE	SILICEOUS, GREY, UNWEATHERED.
42.91	0.26	100		100% SANDSTONE	COALY, FRAGMENTS, GREY, UNWEATHERED.
43.80	0.89	100		100% SANDSTONE	COALY, STREAKS, GREY, UNWEATHERED.
44.66	0.86	100		100% MUDSTONE	SANDSTONE, LAMINAE, GREY, UNWEATHERED. NOTE: TRANSITION ZONE
51.75	7.09	100		100% MUDSTONE	SILICEOUS, GREY, UNWEATHERED. NOTE: GRADES TO CARBONACEOUS MUDSTONE OVER LAST 53CM. OCCASIONAL COAL STREAKS FROM 45.10M TO 45.70M. PUGGY ZONE FROM 50.82M TO 51.22M. MUDSTONE LAMINATED IN PART
53.72	1.97	100		100% CARBONACEOUS MUDSTONE	GRADING TO, SILICEOUS, DARK GREY, UNWEATHERED. NOTE: CARBON CONTENT VARIES (SOME MUDSTONE PRESENT)
57.25	3.53	100		100% MUDSTONE	SILICEOUS, LAMINAE, UNWEATHERED, WITH CARBONACEOUS WISPS.
59.00	1.75	100		100% MUDSTONE	GRADING TO, SANDSTONE, GREY, UNWEATHERED. NOTE: TRANSITION ZONE
74.52	15.52	100		100% SANDSTONE	MED.-FINE GRAINED, COALY, GREY, UNWEATHERED. NOTE: MINOR MUDSTONE
74.93	0.41	100	65	100% COAL	MUDSTONE, STREAKS, BLACK, UNWEATHERED, BEDS DIP 4 DEG. NOTE: COAL IS OF POOR QUALITY
75.04	0.11	100		100% COAL	MUDSTONE, STREAKS, BLACK, UNWEATHERED. NOTE: COAL IS OF POOR QUALITY
76.09	1.05	100	66	100% COAL	MUDSTONE, STREAKS, BLACK, UNWEATHERED. NOTE: COAL IS OF POOR QUALITY

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
78.03	1.94	100	66	50% COAL 50% MUDSTONE	INTERCALATIONS, BLACK. INTERCALATIONS, GREY. UNWEATHERED. NOTE: COAL IS OF POOR QUALITY
79.05	1.02	100	67	50% COAL 50% MUDSTONE	INTERCALATIONS, BLACK. INTERCALATIONS, GREY. UNWEATHERED. NOTE: COAL IS OF POOR QUALITY
80.28	1.23	100	68	50% COAL 50% MUDSTONE	INTERCALATIONS, BLACK. INTERCALATIONS, GREY. UNWEATHERED. NOTE: COAL IS OF POOR QUALITY
80.49	0.21	100	69	50% COAL 50% MUDSTONE	INTERCALATIONS, BLACK. INTERCALATIONS, GREY. UNWEATHERED. NOTE: COAL IS OF POOR QUALITY
81.53	1.04	100	69	100% COAL, BRIGHT	ARGILLACEOUS, BLACK, WITH CALCITE, UNWEATHERED. NOTE: THIS SEAM IS PROBABLY THAT MINED AT DALMAYNE COLLIERY
82.55	1.02	100		100% MUDSTONE	GRADING TO, SANDSTONE, GREY, UNWEATHERED. NOTE: CARBONACEOUS IN FIRST 10CM
89.67	7.12	100		100% SANDSTONE	COALY, STREAKS, GREY, UNWEATHERED. NOTE: MINOR MUDSTONE. SANDSTONE COARSER FROM 85.12M
89.82	0.15	100		100% COAL, BRIGHT	CALCITIC, BLACK, UNWEATHERED.
90.12	0.30	100		100% MUDSTONE	SILICEOUS, DARK GREY, UNWEATHERED. NOTE: GRADES TO SOFT AND CRUMBLY LIGHT GREEN-GREY MUDSTONE
90.52	0.40	100		100% MUDSTONE	SILICEOUS, CARBONACEOUS, GREY, UNWEATHERED.
94.49	3.97	100		100% SANDSTONE	MUDSTONE, INTERCALATIONS, GREY, UNWEATHERED. NOTE: SANDSTONE CONTENT INCREASES WITH DEPTH
95.42	0.93	100	70	100% COAL	MUDSTONE, INTERCALATIONS, DARK GREY, UNWEATHERED. NOTE: BANDED COAL SEAM (PREDOMINANTLY POOR QUALITY COAL)
95.73	0.31	100		100% COAL	MUDSTONE, INTERCALATIONS, DARK GREY, UNWEATHERED. NOTE: BANDED COAL SEAM (PREDOMINANTLY POOR QUALITY COAL)
97.15	1.42	100	71	100% COAL	MUDSTONE, INTERCALATIONS, DARK GREY, UNWEATHERED. NOTE: BANDED COAL SEAM (PREDOMINANTLY POOR QUALITY COAL)
98.96	1.81	100	72	100% COAL	MUDSTONE, INTERCALATIONS, DARK GREY, UNWEATHERED. NOTE: BANDED COAL SEAM (PREDOMINANTLY POOR QUALITY COAL)
99.18	0.22	100	73	100% COAL	MUDSTONE, INTERCALATIONS, DARK GREY, UNWEATHERED. NOTE: BANDED COAL SEAM (PREDOMINANTLY POOR QUALITY COAL)
99.25	0.07	100		100% CARBONACEOUS MUDSTONE	SILICEOUS, DARK GREY, UNWEATHERED.
100.35	1.10	100		100% MUDSTONE	GRADING TO, SANDSTONE, UNWEATHERED. NOTE: TRANSITION ZONE
134.18	33.83	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, GREY, UNWEATHERED. NOTE: MINOR FINE BANDS AND STREAKS OF COAL AND FRAGMENTS OF

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
					MUDSTONE (SOME WITH CARBONACEOUS MATERIAL)
134.43	0.25	100		100% CARBONACEOUS MUDSTONE	DARK GREY, UNWEATHERED. NOTE: MUDDY COAL FOR THE LAST 8CM
159.59	25.16	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, GREY, UNWEATHERED. NOTE: MINOR FINE BANDS AND STREAKS OF COAL AND FRAGMENTS OF MUDSTONE
		TOP OF DALMAYNE D : 256.81 M R.L.			
161.14	1.55	84	74	100% COAL, BRIGHT	BLACK, WITH CALCITE, UNWEATHERED. NOTE: SOME FINE POWDERY COAL WASHED AWAY. OCCASIONAL STONE BANDS
		BASE OF DALMAYNE D : THICKNESS= 1.55 M; SAMPLED THICKNESS= 1.55 M			
162.53	1.39	84	75	100% COAL, BRIGHT	BLACK, WITH CALCITE, UNWEATHERED. NOTE: SOME FINE POWDERY COAL WASHED AWAY. OCCASIONAL STONE BANDS
		TOP OF DALMAYNE D : 253.87 M R.L.			
162.59	0.06	84		100% MUDSTONE	SILICEOUS, ARGILLACEOUS, GREY, WITH CALCITE, UNWEATHERED. NOTE: SOME FINE POWDERY COAL WASHED AWAY. OCCASIONAL STONE BANDS
164.15	1.56	84	76	100% COAL, BRIGHT	BLACK, WITH CALCITE, UNWEATHERED. NOTE: SOME FINE POWDERY COAL WASHED AWAY. OCCASIONAL STONE BANDS
		BASE OF DALMAYNE D : THICKNESS= 1.62 M; SAMPLED THICKNESS= 1.56 M			
164.44	0.29	100		100% MUDSTONE	COALY, FRAGMENTS, GREY, UNWEATHERED. NOTE: FIRST 4CM IS CARBONACEOUS (GRADATION FROM COAL ZONE)
165.01	0.57	100		100% MUDSTONE	GRADING TO, SANDSTONE, GREY, UNWEATHERED. NOTE: TRANSITION ZONE
183.77	18.76	100		100% SANDSTONE	MED.-COARSE GRAINED, COALY, GREY, UNWEATHERED. NOTE: MINOR OCCURRENCES OF MUDSTONE. SANDSTONE COARSER WITH DEPTH
184.02	0.25	100		100% COAL	MUDSTONE, SANDSTONE, DARK GREY, UNWEATHERED.
199.61	15.59	100		100% SANDSTONE	COALY, LAMINAE, GREY, UNWEATHERED. NOTE: COAL BANDS UP TO 1.5CM THICK. MUDSTONE FRAGMENTS PRESENT
201.41	1.80	100		100% MUDSTONE	UNWEATHERED, LAMINATED.
202.23	0.82	100		100% MUDSTONE	SANDSTONE, BANDS, GREY, UNWEATHERED, BEDS DIP 3 DEG., LAMINATED, WITH CARBONACEOUS WISPS.
		TOP OF DALMAYNE E : 214.17 M R.L.			
202.95	0.72	100		100% COAL	SANDSTONE, STREAKS, BLACK, UNWEATHERED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
					NOTE: MUDDY
				BASE OF DALMAYNE E : THICKNESS= 0.72 M; SAMPLED THICKNESS= 0.00 M	
203.70	0.75	100		100% SANDSTONE	GRADING TO, MUDSTONE, GREY, UNWEATHERED. NOTE: MINOR FINE BANDS OF CARBONACEOUS MUDSTONE IN FIRST 32CM
205.18	1.48	100		100% MUDSTONE	GRADING TO, SANDSTONE, GREY, UNWEATHERED, WITH PLANT REMAINS. NOTE: MUDSTONE PREDOMINATING
206.07	0.89	100		100% SANDSTONE	MUDSTONE, LAMINAE, GREY, UNWEATHERED. NOTE: LAMINATED LAST 30CM WITH CARBONACEOUS STREAKS
209.48	3.41	100		100% SANDSTONE,MEDIUM GRAINED	COALY, BANDS, GREY, UNWEATHERED.
210.91	1.43	100		100% COAL	MUDSTONE, ARGILLACEOUS, BLACK, UNWEATHERED. NOTE: FIRST 14CM OF BETTER QUALITY COAL BECOMING MUDDY
215.54	4.63	100		100% MUDSTONE	FINE GRAINED SANDSTONE, COALY, GREY, WITH CALCITE, UNWEATHERED. NOTE: MINOR FINE BANDS AND STREAKS OF COAL AND CARBONACEOUS MUDSTONE. MUDSTONE GRADES TO SANDY MUDSTONE WITH CARBONACEOUS MATERIAL OVER LAST 67CM
215.94	0.40	100		100% CARBONACEOUS MUDSTONE	SANDSTONE, LAMINAE, GREY, UNWEATHERED. NOTE: TRANSITION FROM PREVIOUS ZONE
217.77	1.83	100		100% SANDSTONE,COARSE GRAINED	COALY, STREAKS, GREY, UNWEATHERED.
218.02	0.25	100		100% MUDSTONE	COALY, STREAKS, GREY, UNWEATHERED.
225.56	7.54	100		100% SANDSTONE,COARSE GRAINED	COALY, STREAKS, GREY, UNWEATHERED. NOTE: SANDSTONE IS SOFT AND CRUMBLY IN PART (E.G. 220.03M TO 225.56M)
227.13	1.57	100		100% MUDSTONE	GRADING TO, CARBONACEOUS, GREY, UNWEATHERED. NOTE: MUDDY COAL FOR LAST 14CM
228.60	1.47	100		100% SANDSTONE	COALY, BANDS, GREY, UNWEATHERED. NOTE: WITH FINE BANDS OF CARBONACEOUS MUDSTONE. SANDSTONE COARSER WITH DEPTH. MUDSTONE LESS COMMON WITH DEPTH. COAL MORE COMMON WITH DEPTH. FIRST 70CM TRANSITION FROM PREVIOUS ZONE
231.44	2.84	100		100% SANDSTONE	GREY, UNWEATHERED.
				TOP OF DALMAYNE F : 184.96 M R.L.	
232.54	1.10	100		100% COAL	SANDSTONE, BANDS, BLACK, UNWEATHERED. NOTE: BRIGHT COAL FOR FIRST 9CM. CARBONACEOUS MUDSTONE BANDS ALSO. SANDSTONE BANDS INCREASE WITH DEPTH. COAL VARIES IN QUALITY
				BASE OF DALMAYNE F : THICKNESS= 1.10 M; SAMPLED THICKNESS= 0.00 M	
232.76	0.22	100		100% SANDSTONE	COALY, BANDS, GREY, UNWEATHERED. NOTE: MUDDY COAL (?) BANDS (POSSIBLY CARBONACEOUS MUDSTONE)

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
237.39	4.63	100		100% SANDSTONE	COALY, BANDS, BROWN, UNWEATHERED. NOTE: COAL BANDS UP TO 50CM. FRACTURES CONTAIN PUG UP TO 236.27M
238.47	1.08	100		100% SANDSTONE	MUDSTONE, BANDS, GREY, UNWEATHERED.
247.19	8.72	100		100% SANDSTONE	COALY, BANDS, BROWN, UNWEATHERED. NOTE: THE SANDSTONE IS MEDIUM TO COARSE-GRAINED
249.05	1.86	100		100% SANDSTONE,COARSE GRAINED	MUDSTONE, FRAGMENTS, LIGHT GREY, UNWEATHERED. NOTE: COAL BANDS AND FRAGMENTS
251.48	2.43	100		100% SANDSTONE,COARSE GRAINED	GREY, UNWEATHERED. NOTE: FINER-GRAINED THAN ABOVE WITH COARSER ZONE IN FIRST METRE
252.18	0.70	100		100% COAL	BLACK, WITH CALCITE, UNWEATHERED.
254.67	2.49	100		50% MUDSTONE 50% MUDSTONE	COALY, GREY. SILICEOUS, GREY. UNWEATHERED. NOTE: MINOR CARBONACEOUS MUDSTONE. LAMINATED IN PART
255.36	0.69	100		100% SANDSTONE	GRADING TO, COARSE GRAINED, GREY, UNWEATHERED. NOTE: FINE COAL BANDS
255.61	0.25	100		100% CARBONACEOUS MUDSTONE	GRADING TO, SANDSTONE, GREY, UNWEATHERED.
256.78	1.17	100		100% SANDSTONE	GRADING TO, COARSE GRAINED, GREY, UNWEATHERED.
256.94	0.16	100		100% MUDSTONE	SANDSTONE, BANDS, GREY, UNWEATHERED, WITH CARBONACEOUS WISPS. NOTE: SAND-GRAIN BANDS DOMINATE THE LAST 9CM OF CORE
257.00	0.06	100		100% COAL	BLACK, WITH CALCITE, UNWEATHERED. NOTE: BRIGHT FOR FIRST 3CM. SANDSTONE AND MUDSTONE FOR LAST 3CM
259.23	2.23	100		100% MUDSTONE	GREY, UNWEATHERED. NOTE: SHEARED AND FRACTURED WITH PUG IN FRACTURES
260.03	0.80	63		100% MUDSTONE	GREY, UNWEATHERED. NOTE: FAULTING. 30CM CORE LOST. FAULT VISIBLE 259.53M TO 259.63M
260.60	0.57	100		100% MUDSTONE	LAMINAE, SILICEOUS, GREY, UNWEATHERED. NOTE: CARBONACEOUS MUDSTONE PRESENT. LAST 30CM CONTAINS SANDSTONE BANDS
260.89	0.29	100		100% SANDSTONE,FINE GRAINED	LIGHT GREY, UNWEATHERED. NOTE: FRACTURES PRESENT
261.76	0.87	100		100% MUDSTONE	GRADING TO, CARBONACEOUS, DARK GREY, UNWEATHERED. NOTE: POOR-QUALITY MUDDY COAL WITH SANDSTONE BANDS. OCCASIONAL STREAKS OF BRIGHT COAL. FIRST 22CM CONTAINS LITTLE CARBONACEOUS MATERIAL
261.82	0.06	100		100% SANDSTONE	GRADING TO, CONGLOMERATIC, GREY, UNWEATHERED, WITH CARBONACEOUS WISPS. NOTE: MUDSTONE ALSO PRESENT
261.95	0.13	100		100% SANDSTONE	MUDSTONE, FRAGMENTS, GREY, WITH CALCITE, UNWEATHERED.
263.43	1.48	100		100% MUDSTONE	COALY, STREAKS, GREY, UNWEATHERED, LAMINATED.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
					NOTE: CORE FRACTURED AND SHATTERED WITH LAMINATIONS PRESENT
264.46	1.03	100		100% MUDSTONE	GRADING TO, SANDSTONE, GREY, UNWEATHERED, LAMINATED, WITH CARBONACEOUS WISPS.
					NOTE: TRANSITION ZONE
264.69	0.23	100		100% SANDSTONE	COALY, STREAKS, UNWEATHERED.
					NOTE: SANDY MUDSTONE FRAGMENTS IN LAST 4CM
265.07	0.38	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, INTERCALATIONS, DARK GREY, UNWEATHERED.
265.43	0.36	100		100% SANDSTONE	CALCITIC, GREY, UNWEATHERED.
					NOTE: CRYSTALS PRESENT. MINOR CARBONACEOUS MUDSTONE AND MUDDY COAL FRAGMENTS
265.50	0.07	100		100% COAL	SANDSTONE, INTERCALATIONS, GREY, UNWEATHERED.
					NOTE: SHALE-LIKE
269.75	4.25	100		100% MUDSTONE	LAMINAE, SILICEOUS, GREY, WITH CALCITE, UNWEATHERED.
					NOTE: SOME SANDY ZONES, PUG AND CARBONACEOUS MATERIAL. COAL PRESENT, FAULTING OBSERVED
269.96	0.21	100		100% MUDSTONE	COALY, LAMINAE, DARK GREY, UNWEATHERED, WITH CARBONACEOUS WISPS.
					NOTE: FIRST 2CM THE COAL LAMINAE ARE BRIGHT
270.92	0.96	100		100% MUDSTONE	SILICEOUS, COALY, GREY, WITH CALCITE, UNWEATHERED.
					NOTE: FAULT ZONE. SHEARED FRAGMENTARY ZONE INCLUDING COAL, PUG, SAND AND SANDY MUDSTONE. FAULT CONTACT HAS 60 DEGREE DIP
271.56	0.64	100		100% MUDSTONE	SILICEOUS, BANDS, LIGHT GREY, WITH CALCITE, UNWEATHERED, LAMINATED.
					NOTE: FRACTURED
272.42	0.86	100		100% MUDSTONE	COALY, DARK GREY, WITH CALCITE, UNWEATHERED, WITH CARBONACEOUS WISPS, LAMINATED.
					NOTE: FIRST 20CM FRAGMENTARY. SANDSTONE GRADATION OVER LAST 14CM
272.94	0.52	100		100% SANDSTONE,COARSE GRAINED	COALY, STREAKS, LIGHT GREY, WITH CALCITE, UNWEATHERED.
					NOTE: STREAKS AND FINE BANDS OF CARBONACEOUS MATERIAL
273.50	0.56	100		100% MUDSTONE	GREY, UNWEATHERED.
273.65	0.15	100		100% COAL	MUDSTONE, CARBONACEOUS, BLACK, WITH CALCITE, UNWEATHERED.
					NOTE: MUDDY COAL WITH BRIGHT STREAKS
274.05	0.40	100		100% MUDSTONE	SILICEOUS, CARBONACEOUS, GREY, UNWEATHERED.
					NOTE: INCLUDING COAL, CLAY AND PUG. FAULT VISIBLE (60 DEGREE DIP). BRECCIATED
274.32	0.27	100		100% SANDSTONE,COARSE GRAINED	MUDSTONE, FRAGMENTS, GREY, WITH CALCITE, UNWEATHERED.
					NOTE: VERY COARSE AT BASE
274.59	0.27	100		100% MUDSTONE	SILICEOUS, LIGHT GREY, UNWEATHERED.
					NOTE: QUARTZ FRAGMENT
282.05	7.46	100		100% MUDSTONE	CALCITIC, DARK GREY, UNWEATHERED.
					NOTE: CONSIDERABLE SHEARING AND FAULTING. QUARTZ FRAGMENT FROM

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
				*** CORE DESCRIPTION ***	
					279.17M TO 279.20M. PYRITE (?). SHEAR SURFACES SHOW DIPS OF APPROXIMATELY 60 DEGREES
284.00	1.95	100		100% MUDSTONE	SILICEOUS, ARGILLACEOUS, GREY-GREEN, WITH PYRITE, UNWEATHERED. NOTE: ABUNDANT SHELL FRAGMENTS. SHEAR SURFACE DIP OF 60 DEGREES

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DD	1.55 M	159.59 - 161.14 M	1.55 M
DD	1.56 M	162.53 - 164.15 M	1.62 M
DE	0.00 M	202.23 - 202.95 M	0.72 M
DF	0.00 M	231.44 - 232.54 M	1.10 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
65	74.52 - 74.93 M	0.41 M
66	75.04 - 78.03 M	2.99 M
67	78.03 - 79.05 M	1.02 M
68	79.05 - 80.28 M	1.23 M
69	80.28 - 81.53 M	1.25 M
70	94.49 - 95.42 M	0.93 M
71	95.73 - 97.15 M	1.42 M
72	97.15 - 98.96 M	1.81 M
73	98.96 - 99.18 M	0.22 M
74	159.59 - 161.14 M	1.55 M
75	161.14 - 162.53 M	1.39 M
76	162.59 - 164.15 M	1.56 M

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

DDH2

HOLE TYPE	CORE
EASTING	602,247 M AM GRID
NORTHING	5,384,347 M AM GRID
ELEVATION	412.10 M
TOTAL DEPTH DRILLED	199.95 M
DRILLING STARTED	5/ 8/74
DRILLING TIME	
CORE SIZE	45.1 MM
HOLE SIZE	75.7 MM
LENGTH CASED	
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	
INFORMATION AVAILABLE :	LITHOLOGICAL DESCRIPTION

PETROPHYSICAL WIRELINE LOGS RUN :

BOREHOLE : DDH2

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
9.75	9.75	38		100% DOLERITE	SCREE, ARGILLACEOUS, LIGHT GREY, MODERATELY WEATHERED.
13.82	4.07	25		100% DOLERITE	SCREE, SILTY, LIGHT GREY, MODERATELY WEATHERED. NOTE: WATER-WORN GRAVEL. OCCASIONAL DARK GREY PLASTIC MUD WITH PEBBLES
14.69	0.87	81		100% CARBONACEOUS MUDSTONE	MUDSTONE, ARGILLACEOUS, GREY, WITH CALCITE, SLIGHTLY WEATHERED.
15.28	0.59	100		100% CARBONACEOUS MUDSTONE	GRADING TO, COALY, DARK GREY, UNWEATHERED.
23.63	8.35	100		100% CARBONACEOUS MUDSTONE	BRIGHT COAL, STREAKS, DARK GREY, WITH CALCITE, UNWEATHERED. NOTE: MINOR GREY MUDSTONE AND SAND GRAINS PRESENT. GRADES TOWARDS A MUDDY COAL IN PART
24.40	0.77	100		100% CARBONACEOUS MUDSTONE	BRIGHT COAL, BANDS, DARK GREY, WITH BANDS OF CALCITE, UNWEATHERED.
25.91	1.51	100		100% MUDSTONE	GRADING TO, SANDSTONE, GREY, UNWEATHERED. NOTE: TRANSITION ZONE
33.56	7.65	100		100% SANDSTONE	COALY, STREAKS, GREY, WITH FRAGMENTS OF QUARTZ AND FRAGMENTS OF CALCITE, UNWEATHERED.
36.70	3.14	100		100% PEBBLE CONGLOMERATE	COALY, FRAGMENTS, GREY, WITH CALCITE, UNWEATHERED.
36.83	0.13	100		100% COAL	BLACK, WITH CALCITE, UNWEATHERED.
37.12	0.29	100		100% PEBBLE CONGLOMERATE	COALY, FRAGMENTS, GREY, WITH CALCITE, UNWEATHERED.
38.59	1.47	100		100% MUDSTONE	COALY, BANDS, DARK GREY, UNWEATHERED. NOTE: SOFT AND CRUMBLY FOR FIRST 15CM. SANDY
38.71	0.12	100		100% MUDSTONE	SILICEOUS, GREY, UNWEATHERED.
38.94	0.23	100		100% MUDSTONE	SILICEOUS, COALY, GREY, UNWEATHERED. NOTE: CARBONACEOUS MUDSTONE OCCURRENCES
41.02	2.08	100		100% MUDSTONE	SILICEOUS, GREY, UNWEATHERED.
41.30	0.28	100		100% MUDSTONE	SILICEOUS, COALY, GREY, UNWEATHERED. NOTE: CARBONACEOUS MUDSTONE OCCURRENCES
41.37	0.07	100		100% MUDSTONE	SILICEOUS, GREY, UNWEATHERED.
41.86	0.49	100		100% MUDSTONE	SILICEOUS, COALY, GREY, UNWEATHERED. NOTE: CARBONACEOUS MUDSTONE OCCURRENCES
44.55	2.69	100		100% MUDSTONE	SILICEOUS, MUDSTONE, GREY, UNWEATHERED, LAMINATED.
45.09	0.54	100		100% MUDSTONE	SILICEOUS, COALY, GREY, UNWEATHERED.
45.31	0.22	100		100% COAL	BLACK, UNWEATHERED.
45.36	0.05	100		100% MUDSTONE	GRADING TO, SANDSTONE, GREY, UNWEATHERED.
50.40	5.04	100		100% MUDSTONE	COALY, STREAKS, GREY, UNWEATHERED, LAMINATED. NOTE: SANDY IN PART. OCCASIONAL CARBON CONTENT PRESENT IN DARKER MUDSTONE. SOME PUG

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE *** CORE DESCRIPTION ***	GEOLOGICAL DESCRIPTION
54.00	3.60	100		100% COAL	BLACK, UNWEATHERED.
54.20	0.20	100		100% MUDSTONE	GREY-GREEN, UNWEATHERED. NOTE: FIRST FEW CM IS A TRANSITION ZONE FROM COAL
58.01	3.81	100		100% MUDSTONE	GRADING TO, FINE GRAINED SANDSTONE, GREY, UNWEATHERED, LAMINATED. NOTE: TRANSITION ZONE
60.62	2.61	100		100% SANDSTONE,FINE GRAINED	GRADING TO, COARSE GRAINED, GREY, UNWEATHERED, WITH CARBONACEOUS WISPS.
70.18	9.56	100		50% MUDSTONE 50% MUDSTONE	FINE GRAINED SANDSTONE, BANDS, LIGHT GREY. BRIGHT COAL, LAMINAE, DARK GREY. UNWEATHERED, LAMINATED, WITH CARBONACEOUS WISPS. NOTE: COARSER SANDSTONE WITH MUDSTONE AND FINE BANDS OF BRIGHT COAL FROM 64.47M TO 65.14M
72.51	2.33	100		100% SANDSTONE	COALY, STREAKS, GREY, UNWEATHERED. NOTE: MUDSTONE FRAGMENTS
72.64	0.13	100		100% CARBONACEOUS MUDSTONE	SANDSTONE, INTERCALATIONS, GREY, UNWEATHERED, LAMINATED.
72.79	0.15	100		100% CARBONACEOUS MUDSTONE	DARK GREY, UNWEATHERED. NOTE: MUDDY COAL (?)
73.01	0.22	100		100% COAL	BRIGHT COAL, BANDS, BLACK, UNWEATHERED.
73.14	0.13	100		100% COAL	MUDSTONE, INTERCALATIONS, DARK GREY, UNWEATHERED. NOTE: BANDS OF CARBONACEOUS MUDSTONE ALSO
74.73	1.59	100		100% MUDSTONE	SILICEOUS, INTERCALATIONS, GREY, UNWEATHERED, WITH CARBONACEOUS WISPS, LAMINATED. NOTE: OCCASIONAL STREAKS OF MUDDY COAL
75.04	0.31	100		100% COAL	ARGILLACEOUS, CARBONACEOUS, BLACK, UNWEATHERED. NOTE: CARBONACEOUS MUDSTONE PRESENT
75.40	0.36	100		100% MUDSTONE	LAMINAE, GREY, UNWEATHERED.
76.83	1.43	100		100% MUDSTONE	GRADING TO, SANDSTONE, GREY, UNWEATHERED. NOTE: TRANSITION ZONE
78.35	1.52	100		100% SANDSTONE	MUDSTONE, FRAGMENTS, GREY, UNWEATHERED, WITH CARBONACEOUS WISPS.
78.64	0.29	100		100% CARBONACEOUS MUDSTONE	MUDSTONE, INTERCALATIONS, GREY, UNWEATHERED.
84.38	5.74	100		100% MUDSTONE	SILICEOUS, INTERCALATIONS, GREY, UNWEATHERED, WITH CARBONACEOUS WISPS, LAMINATED. NOTE: GRADES TO FINE SANDSTONE. SANDSTONE BANDS IN LAST 14CM
84.88	0.50	100		100% MUDSTONE	BRIGHT COAL, STREAKS, GREY, UNWEATHERED, LAMINATED. NOTE: SANDY MUDSTONE AND CARBONACEOUS MUDSTONE LAMINAE
87.57	2.69	100		100% MUDSTONE	GRADING TO, SILICEOUS, GREY, UNWEATHERED, WITH CARBONACEOUS WISPS, LAMINATED.
89.99	2.42	100		100% MUDSTONE	SILICEOUS, INTERCALATIONS, GREY, UNWEATHERED. NOTE: TRANSITION ZONE

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
100.13	10.14	100		100% SANDSTONE	MUDSTONE, LAMINAE, GREY, UNWEATHERED. NOTE: OCCASIONAL STREAKS AND FRAGMENTS OF COAL AND FRAGMENTS OF MUDSTONE
104.89	4.76	100		100% SANDSTONE	COALY, BANDS, LIGHT GREY, UNWEATHERED, WITH CARBONACEOUS WISPS.
105.30	0.41	100	77	100% COAL	SHALY, MUDSTONE, DARK GREY, WITH CALCITE, UNWEATHERED, BEDS DIP 3 DEG. NOTE: BANDED COAL SEAM (MAINLY POOR QUALITY COAL)
105.47	0.17	100		100% COAL	SHALY, MUDSTONE, DARK GREY, WITH CALCITE, UNWEATHERED, BEDS DIP 3 DEG. NOTE: BANDED COAL SEAM (MAINLY POOR QUALITY COAL)
107.52	2.05	100	78	100% COAL	SHALY, MUDSTONE, DARK GREY, WITH CALCITE, UNWEATHERED, BEDS DIP 3 DEG. NOTE: BANDED COAL SEAM (MAINLY POOR QUALITY COAL)
108.76	1.24	100	79	100% COAL	SHALY, MUDSTONE, DARK GREY, WITH CALCITE, UNWEATHERED, BEDS DIP 3 DEG. NOTE: BANDED COAL SEAM (MAINLY POOR QUALITY COAL)
108.84	0.08	100		100% COAL	SHALY, MUDSTONE, DARK GREY, WITH CALCITE, UNWEATHERED, BEDS DIP 3 DEG. NOTE: BANDED COAL SEAM (MAINLY POOR QUALITY COAL)
111.15	2.31	100	80	100% COAL	SHALY, MUDSTONE, DARK GREY, WITH CALCITE, UNWEATHERED, BEDS DIP 3 DEG. NOTE: BANDED COAL SEAM (MAINLY POOR QUALITY COAL)
112.24	1.09	100	81	100% COAL	SHALY, MUDSTONE, DARK GREY, WITH CALCITE, UNWEATHERED, BEDS DIP 3 DEG. NOTE: BANDED COAL SEAM (MAINLY POOR QUALITY COAL)
115.13	2.89	100		100% MUDSTONE	GRADING TO, SILICEOUS, GREY, UNWEATHERED, WITH CARBONACEOUS WISPS. NOTE: CARBONACEOUS MATERIAL IN FIRST FEW CM
127.04	11.91	100		100% SANDSTONE	MED.-FINE GRAINED, COALY, GREY, UNWEATHERED, WITH CARBONACEOUS WISPS. NOTE: FAULT FROM 124.84M TO 125.84M (BRECCIATED SANDSTONE)
127.45	0.41	100		100% COAL	MUDSTONE, LAMINAE, BLACK, UNWEATHERED, BEDS DIP 3 DEG., WITH CARBONACEOUS WISPS. NOTE: BANDED COAL SEAM (MUDDY TO SHALY TO BRIGHT). MUDSTONE AND CLAY PRESENT
129.12	1.67	100	82	100% COAL	MUDSTONE, LAMINAE, BLACK, UNWEATHERED, BEDS DIP 3 DEG., WITH CARBONACEOUS WISPS. NOTE: BANDED COAL SEAM (MUDDY TO SHALY TO BRIGHT). MUDSTONE AND CLAY PRESENT
129.21	0.09	100		100% COAL	MUDSTONE, LAMINAE, BLACK, UNWEATHERED, BEDS DIP 3 DEG., WITH CARBONACEOUS WISPS. NOTE: BANDED COAL SEAM (MUDDY TO SHALY TO BRIGHT). MUDSTONE AND CLAY PRESENT
130.44	1.23	100	83	100% COAL	MUDSTONE, LAMINAE, BLACK, UNWEATHERED, BEDS DIP 3 DEG., WITH CARBONACEOUS WISPS. NOTE: BANDED COAL SEAM (MUDDY TO SHALY TO BRIGHT). MUDSTONE AND

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION ***
					CLAY PRESENT
131.66	1.22	100	84	100% COAL	MUDSTONE, LAMINAE, BLACK, UNWEATHERED, BEDS DIP 3 DEG., WITH CARBONACEOUS WISPS. NOTE: BANDED COAL SEAM (MUDDY TO SHALY TO BRIGHT). MUDSTONE AND CLAY PRESENT
132.63	0.97	100		100% CARBONACEOUS MUDSTONE	BRIGHT COAL, BANDS, DARK GREY, UNWEATHERED. NOTE: TRANSITION FROM COAL
185.32	52.69	100		100% SANDSTONE	MUDSTONE, BANDS, GREY, UNWEATHERED, WITH CARBONACEOUS WISPS. NOTE: OCCASIONAL STREAKS AND BANDS OF BRIGHT COAL
185.44	0.12	100		100% SANDSTONE	MUDSTONE, BANDS, GREY, WITH CRYSTALLINE PYRITE, UNWEATHERED. NOTE: SOFT BROWN CARBONACEOUS MUDSTONE (LIGNITE ?)
192.62	7.18	100		100% SANDSTONE	MUDSTONE, BANDS, GREY, UNWEATHERED, WITH CARBONACEOUS WISPS.
		TOP OF	DALMAYNE D : 219.48 M R.L.		
192.94	0.32	15		100% COAL	BLACK, UNWEATHERED. NOTE: SOFT AND CRUMBLY
193.86	0.92	89	85	100% COAL, BRIGHT	BLACK, UNWEATHERED, BEDS DIP 3 DEG. NOTE: FRAGMENTARY IN PART
194.76	0.90	89	86	100% COAL, BRIGHT	BLACK, UNWEATHERED, BEDS DIP 3 DEG. NOTE: FRAGMENTARY IN PART
		BASE OF	DALMAYNE D : THICKNESS= 2.14 M; SAMPLED THICKNESS= 1.82 M		
196.29	1.53	10		100% MUDSTONE	ARGILLACEOUS, CARBONACEOUS, GREY, UNWEATHERED. NOTE: OCCASIONAL COAL FRAGMENTS. CONSIDERABLE CORE LOST (PROBABLY CLAY)
197.24	0.95	4		100% COAL	BLACK, UNWEATHERED. NOTE: GOOD QUALITY THROUGHOUT (INDICATED BY WATER RETURN)
197.47	0.23	100		100% MUDSTONE	GREY, UNWEATHERED. NOTE: CARBONACEOUS ON TRANSITION FROM COAL ZONE
199.95	2.48	100		100% SANDSTONE,FINE GRAINED	GRADING TO, COARSE GRAINED, GREY, UNWEATHERED, WITH CARBONACEOUS WISPS. NOTE: HOLE TERMINATED

SEAM SUMMARY

SEAM	SAMPLED THICKNESS	DEPTH RANGE	THICKNESS
DD	1.82 M	192.62 - 194.76 M	2.14 M

SAMPLE SUMMARY

SAMPLE NUMBER	DEPTH RANGE	THICKNESS
77	104.89 - 105.30 M	0.41 M
78	105.47 - 107.52 M	2.05 M
79	107.52 - 108.76 M	1.24 M
80	108.84 - 111.15 M	2.31 M
81	111.15 - 112.24 M	1.09 M
82	127.45 - 129.12 M	1.67 M
83	129.21 - 130.44 M	1.23 M
84	130.44 - 131.66 M	1.22 M
85	192.94 - 193.86 M	0.92 M
86	193.86 - 194.76 M	0.90 M

THE SHELL COMPANY OF AUSTRALIA LTD.

RAW COAL PLY ANALYSIS

GRAY

APPENDIX E1 RAW COAL PLY ANALYSIS

THE SHELL COMPANY OF AUSTRALIA LTD.

RAW COAL PLY ANALYSIS

LEGEND

TOTAL MOISTURE BASIS

	Air Dried
A	As Received
T	Total
B	Bed
Q	Equilibrium
E	Estimated Value

INHERENT MOISTURE BASIS

	Air Dried
E	Estimated Value

TOTAL SULPHUR BASIS

	Air Dried
A	As Received
R	Dry Basis

ASH/VOLATILE MATTER/FIXED CARBON BASIS

	Air Dried
A	As Received
R	Dry Basis
D	Dry, Ash Free
C	Dry, Mineral Matter Free
M	Moist, Ash Free
E	Estimated Value

SPECIFIC ENERGY BASIS

	Air Dried
A	As Received
R	Dry Basis
D	Dry, Ash Free
C	Dry, Mineral Matter Free
M	Moist, Ash Free

INTERVAL MARKER CODE

Cols 1-2: Member/Marker
Col 3: Subseam
Col 4: Seam Split
Col 5: Subsplit

U8	- MT. NICHOLAS UPPER 8
M1	- MT. NICHOLAS MIDDLE 1
M2	- MT. NICHOLAS MIDDLE 2
M3	- MT. NICHOLAS MIDDLE 3
L1	- MT. NICHOLAS LOWER 1
L2	- MT. NICHOLAS LOWER 2
DA	- DALMAYNE A
DB	- DALMAYNE B
DC	- DALMAYNE C
DD	- DALMAYNE D
DDU	- DALMAYNE D UPPER
DDM	- DALMAYNE D MIDDLE
DDL	- DALMAYNE D LOWER
D2	- HAREFIELD 2
D3	- HAREFIELD 3
D4	- HAREFIELD 4
DE	- DALMAYNE E
DE2	- DALMAYNE E2
DE3	- DALMAYNE E3
DF	- DALMAYNE F

SAMPLE NUMBER

* Not Sampled - Assumed Analysis

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY1

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1	DDL	206.98	1.68	1.46				22.9					
2		207.12	0.14	1.64				41.4					
3		254.28	0.10	2.09				71.2					
4	DE2	256.48	2.20	1.57				33.6					
5		256.64	0.16	1.93				65.8					
6		282.64	0.44	1.95				65.8					
7	DF	283.52	0.88	1.59				35.3					
1	DDL	206.98	1.68	1.46			4.4	22.9	22.2	50.5	0.41	23.88	
6		282.64	0.44	1.95			1.3	65.8	15.2	17.7			

SIGNATURE :

*** FRAME C01***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY2

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1		259.80	0.07	2.37				83.5					
2	DB	260.44	0.64	1.58				35.2					
3	DB	261.97	1.53	2.18				69.0					
4	DB	262.96	0.99	1.68				42.0					
5	DB	264.09	1.13	1.65				40.7					
6	DC	289.38	0.89	2.12				71.5					
7	DC	290.93	1.55	1.67				41.9					
8	DC	291.86	0.91	1.94				58.4					
9	DDL	357.84	0.78	1.65				39.3					
10	DDL	359.85	2.01	1.48				24.3					
11	DDL	359.94	0.09	1.83				55.7					
12		406.56	0.51	1.97			4.9	63.1	13.3	18.7			
13	DE2	407.32	0.76	1.66				43.5					
14	DF	433.18	0.50	1.75				41.8					
15		346.22	0.28	2.94				69.1					
16	DDU	347.45	1.23	1.42				18.8					
17	DDU	348.11	0.66	2.32				86.3					
18	DDU	348.55	0.44	1.45				21.4					
3	DB	261.97	1.53	2.18			2.8	69.0	13.3	14.9			
9	DDL	357.84	0.78	1.65			2.1	39.0	22.4	36.5	0.29	18.34	
10	DDL	359.85	2.01	1.48			2.2	24.5	25.0	48.3	0.37	23.90	
16	DDU	347.45	1.23	1.42			3.0	18.8	26.7	51.5	0.32	26.14	
15+16	DDU	347.45	1.51				2.2	32.1	24.2	41.5	0.28	21.16	

SIGNATURE :

*** FRAME 001***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY3

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1	DDU	361.96	0.90	1.83				53.4					
2	DDU	363.82	1.86	1.40				17.0					
3	DDL	377.30	0.62	1.53				29.1					
4	DDL	379.50	2.20	1.46				22.2					
5		440.32	0.55	1.81				49.7					
6	DF	441.03	0.71	1.54				28.6					
2	DDU	363.82	1.86	1.40			4.2	17.2	28.5	50.1	0.35	26.15	
3	DDL	377.30	0.62	1.50			4.1	29.3	24.8	41.8	0.27	22.40	
4	DDL	379.50	2.20	1.46			4.5	22.6	25.2	47.7	0.29	24.35	

SIGNATURE :

*** FRAME EQ1***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GT4

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS				TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
							INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %			
1	DB	216.17	1.12	1.57				38.0					
2	DB	216.75	0.58	1.89				65.2					
3	DB	217.54	0.79	1.51				33.0					
4	DB	217.88	0.34	2.06				78.0					
5	DB	219.34	1.46	1.65				42.2					
6		302.15	0.30	1.62				48.1					
7	DDU	303.92	1.77	1.40				21.6					
8		317.06	0.08	2.03				74.9					
9	DDL	318.52	1.44	1.53				30.0					
7	DDU	303.92	1.77	1.40			4.4	21.7	24.9	49.0	0.34	24.83	
9	DDL	318.52	1.44	1.53			5.3	29.9	20.8	44.0	0.30	20.74	

SIGNATURE :

*** FRAME F01***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : SY5

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1		260.18	0.34	1.34				14.9					
2		263.76	0.98	2.02				81.6					
3	DC1	264.56	0.80	1.59				27.3					
4	DC1	264.83	0.27	2.22				81.5					
5	DC1	266.05	1.17	1.44				26.0					
6		267.70	0.13	2.17				70.6					
7	DE2	268.49	0.79	1.44			3.1	23.1	28.1	45.7	0.48	24.25	

SIGNATURE :

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : SY6A

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1		262.95	0.65	1.80				50.6					
2	DE2	263.92	0.97	1.52				29.9					
3	DF	286.95	0.30	1.47				39.9					

SIGNATURE :

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GT7

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSES: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1		207.35	1.51	1.62				38.6					
2	DB	254.60	1.08	1.67				41.0					
3	DC	281.76	1.03	1.60				37.4					
4	DC1	314.32	0.69	1.70				46.9					
5	DC1	315.56	1.24	1.45				22.0					
6	DC1	316.43	0.87	1.76				51.5					
7		316.62	0.19	2.16				73.4					

SIGNATURE :

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BORENOLE : GY8

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1		152.85	2.20	1.62				38.4					

SIGNATURE :

*** FRAME J01***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY9

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS				TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
							INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %			
1	DB	187.19	0.86	2.03				71.8					
2	DB	187.98	0.79	1.77				52.5					
3	DB	189.07	1.09	2.05				66.4					
4	DB	190.15	1.08	1.97				57.6					
5	DB	190.29	0.14	2.29				80.9					
6	DDU	269.41	1.39	1.43				20.3					
7		269.68	0.27	1.76				53.0					
8	DDL	284.51	1.01	1.50				27.0					
9		336.61	0.35	2.08				66.5					
10	DE2	337.68	1.07	1.43				20.1					
6	DDU	269.41	1.39	1.43			4.0	20.5	27.0	48.5	0.33	25.41	
8	DDL	284.51	1.01	1.50			4.6	26.8	22.1	46.5	0.30	22.45	
10	DE2	337.68	1.07	1.43			3.3	20.3	27.7	48.7	0.42	25.71	

SIGNATURE :

*** FRAME KO1***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : 6Y10

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1	BB	289.84	0.92	1.73				50.9					
2	BB	290.91	1.07	2.02				68.3					
3	BB	292.71	1.80	1.76				50.2					
4	BB	295.95	3.24	1.98				71.9					
5	BB	297.16	1.21	1.77				52.2					
6	BB	297.95	0.79	2.22				78.2					
7	BC	311.96	0.89	2.02				60.7					
8	BC	313.98	2.02	1.87				54.5					
9	BBU	265.64	1.26	1.59				33.1					

SIGNATURE :

*** FRAME L01***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : SY11

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS				TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
							INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %			
1		264.60	2.20	1.62				38.8					
2	DDU	311.23	1.27	1.49				26.0					
							4.9	26.5	36.2	32.4	0.36	23.06	
3		325.97	1.33	1.93				60.0					
4	DDL	327.40	1.43	1.47				23.7					
5	DE2	381.24	0.89	1.47				23.7					
4	DDL	327.40	1.43	1.47			4.9	24.0	23.1	48.0	0.34	23.32	
5	DE2	381.24	0.89	1.47			5.6	23.7	27.4	43.3	0.49	23.59	

SIGNATURE :

*** FRAME A02***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BORENOLE : GY12

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1	DB	295.41	0.70	2.18				72.1					
2	DB	297.60	2.19	1.87				54.9					
3	DB	299.13	1.53	1.95				65.4					
4	DB	300.87	1.74	2.07				70.8					
5	DB	301.62	0.75	1.62				44.4					
6		375.45	1.19	1.65				48.2					
7		376.78	1.33	2.36				80.3					
8	DD	378.64	1.86	1.52				29.3					
9	DD	379.38	0.74	1.81				51.4					
8	DD	378.64	1.86	1.52			3.0	28.5	25.5	43.0	0.30	21.87	
10	DD	380.31	0.93	2.41				78.6					
11	DD	381.52	1.21	1.50				26.7					
12	DE2	443.74	0.72	1.54				30.7					
11	DD	381.52	1.21	1.50			3.1	25.8	24.0	47.1	0.34	22.88	

SIGNATURE :

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY14

SAMPLE SIZE : - 38.1 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1	DB	182.41	1.43	2.10				76.9					
2	DB	183.00	0.59	2.16				82.0					
3	DB	185.15	2.15	2.09				75.3					
4	DB	188.05	2.90	2.37				92.0					
5	DB	191.12	3.07	2.16				81.7					
6	DC	207.38	4.82	2.00				73.0					
15		331.91	0.99	2.15				68.7					
Composite of Samples 7-9													
	DDU	267.29	1.19	1.54			4.2	29.4	24.8	41.6	0.24	21.92	
Composite of Samples 10-13													
	DDL	281.30	2.59	1.63			3.9	37.0	22.5	36.6	0.21	18.64	
14	DE2	330.91	1.15	1.61			4.1	36.1	19.9	39.9	0.21	18.71	

SIGNATURE :

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY17

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1	DDU	468.27	1.52	1.54				29.1					
2		481.54	1.19	2.06				67.6					
3	DDL	483.49	1.95	1.52				24.6					
1	DDU	468.27	1.52	1.54			3.8	29.2	24.3	42.7	0.33	22.13	
3	DDL	483.49	1.95	1.52			4.0	24.4	23.8	47.8	0.35	23.77	

SIGNATURE :

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY18

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1	DD	219.14	0.85	1.36				13.1					
2	DD	222.80	1.51	1.48				24.9					
1	DD	219.14	0.85	1.36			4.1	13.1	32.5	50.3	0.38	27.65	
2	DD	222.80	1.51	1.48			5.0	25.0	22.8	47.2	0.29	23.03	

SIGNATURE :

*** FRAME E02***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY20

SAMPLE SIZE : - 25.4 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1	DDL	436.41	2.06	1.53				22.8			0.24	24.61	
2		438.24	1.83	2.46				85.7					
3	DDL	438.95	0.71	1.57				31.5				20.76	

SIGNATURE :

*** FRAME F02***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY21

SAMPLE SIZE : - 25.4 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1		284.72	0.72	2.22				77.1					
2	DDL	285.90	1.18	1.82				50.2				13.67	
3	DDL	286.34	0.77	1.59				30.2				21.08	

SIGNATURE :

*** FRAME GD2***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY22

SAMPLE SIZE : - 25.4 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1	DDL	215.47	0.79	1.58				30.7				21.62	

SIGNATURE :

*** FRAME H02***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BORENOLE : GY23

SAMPLE SIZE : - 25.4 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1		337.56	0.08	2.50				91.1					
2	DDL	338.76	1.20	1.55			4.7	28.1				21.86	
3		341.05	0.20	2.26				75.7				4.36	
4	DDL	342.24	1.19	1.58				51.2				21.25	

SIGNATURE :

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BORENOLE : GY25

SAMPLE SIZE : - 25.4 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1	DDL	475.17	1.33	1.59			2.7	32.9				21.02	
2	DDL	475.33	0.16	2.04				75.8					
3		477.01	1.68	1.50			3.3	24.6				23.15	
4	DDL	478.12	1.11	1.64			2.4	40.6				16.22	
5	DDL	479.34	1.22	1.59			3.1	34.7				20.02	
Analysed Composite (1) of Samples 4,5													
	DDL	479.34	2.33	1.62				36.3					
6		479.59	0.25	2.17				72.1					

SIGNATURE :

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY27

SAMPLE SIZE : - 25.4 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1	BDL	349.19	2.03	1.49			3.8	24.8				23.60	
2	BDL	351.16	1.97	1.54			5.7	29.4				21.21	

SIGNATURE :

*** FRAME ***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : 6Y29

SAMPLE SIZE : - 25.4 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS				TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
							INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %			
1	DDL	281.58	1.55	1.56			3.6	31.8				21.17	
2	DDL	281.88	0.30	2.50				89.7					
3	DDL	282.12	0.24	1.54			3.5	35.4				20.26	
4		285.28	0.65	1.72			4.6	47.3				14.95	
5		285.80	0.52	2.17				72.7					
6	DDL	287.24	1.44	1.61			3.7	40.0				18.11	
7		287.43	0.19	2.38				86.3					

SIGNATURE :

*** FRAME L02***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BORENOLE : GY30

SAMPLE SIZE : - 25.4 + 0.0 MM

SAMPLE NUMBER	SEAN CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1	DD	266.79	2.73	1.54			5.1	32.3				19.77	
2	DD	267.45	0.66	1.72			4.6	53.1				12.70	
3	DD	268.10	0.65	2.08			4.4	66.9				7.34	
4	DD	269.32	1.22	1.47			5.7	23.5				22.96	

SIGNATURE :

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY32

SAMPLE SIZE : - 25.4 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS				TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
							INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %			
1	DE	200.93	1.34	1.72			5.9	39.1				16.41	
2	DF	201.72	0.79	1.82			4.4	52.0				11.94	

SIGNATURE :

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY103

SAMPLE SIZE : - 25.4 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1	DDL	224.50	0.53	1.47				26.0					
2	DDL	225.86	1.36	1.64				36.2					

SIGNATURE :

*** FRAME C03***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : 6Y104

SAMPLE SIZE : - 25.4 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1	DDL	158.28	0.55	1.49				29.6					
2	DDL	160.06	1.18	1.54				38.2					

SIGNATURE :

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY10S

SAMPLE SIZE : - 5.6 + 0.0 MM

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
A1	DDL	333.34	1.09	1.52			2.1	21.7	24.7	51.5			
A2	DDL	333.86	0.52	2.40			4.1	86.2					
A3	DDL	334.04	0.18	2.00			2.5	65.2					
A4	DDL	334.35	0.31	1.54			2.4	24.4	25.7	47.5			
A5	DDL	336.38	0.03	2.25			2.5	71.6					
A6	DDL	335.63	1.25	1.47			2.3	21.3	26.7	49.7			
A7	DDL	336.04	0.41	2.55			2.7	90.6					
A8	DDL	336.38	0.34	1.89			2.6	54.4					
A9	DDL	336.54	0.16	1.46			2.0	20.8	30.2	47.0			
10	DDL	336.58	0.04	2.41			2.0	81.5					
11	DDL	337.50	0.92	1.63			2.4	37.9					
12		332.25	0.15	2.60			0.4	97.4					
13		337.60	0.10	2.59			2.5	90.9					
Calculated Composite (INCBPL) of Samples A1-11													
	DDL	337.50	5.25	1.75			2.6	46.0					
Calculated Composite of Samples A1,A4,A6,A9,11													
	DDL	337.50	3.73	1.53			2.3	26.0					

SIGNATURE :

*** FRAME E03***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GYDRA

SAMPLE SIZE :

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
3		0.34	0.33	1.53			4.5	22.7	21.9	50.9	0.28	23.48	
4		0.69	0.35	1.57			4.6	26.1	24.5	44.8	0.30	22.55	
5	DOL	1.16	0.47	1.51			3.9	24.4	26.8	44.9	0.35	22.82	
6	DOL	1.27	0.11	1.96				64.2					
7	DOL	1.53	0.26	1.63			3.8	34.9	22.2	39.1	0.28	19.65	
8	DOL	1.88	0.35	1.54			3.1	28.9	27.4	40.6	0.33	22.10	
9	DOL	1.97	0.09	1.63			3.2	31.3	30.7	34.8	0.48	20.83	
10	DOL	2.36	0.39	1.46			3.4	22.2	30.3	44.1	0.41	24.87	
11	DOL	2.52	0.16	1.58			3.4	36.0	28.8	31.8	0.36	19.36	
Analysed Composite of Samples 3-11,													
	DOL	2.52	2.51	1.56				29.0					
Analysed Composite ( ) of Samples 3-5,7-11,													
				1.54			3.8	27.0	26.2	43.0	0.34	22.41	

SIGNATURE :

*** FRAME F03***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GYDRA1

SAMPLE SIZE :

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
1		2.52	2.51	1.55	113.90		4.6	30.2	24.7	40.5			

SIGNATURE :

*** FRAME G03***

RAW COAL PLY ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GYDRA2

SAMPLE SIZE :

SAMPLE NUMBER	SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE RELATIVE DENSITY	SAMPLE MASS KG	TOTAL MOISTURE %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	SPECIFIC ENERGY (MJ/KG)	CRUCIBLE SWELLING NUMBER
2		2.52	2.51	1.58	100.84		3.7	31.8	24.2	40.3			

SIGNATURE :

*** FRAME H03***

THE SHELL COMPANY OF AUSTRALIA LTD.

WASHABILITY ANALYSIS

GRAY

APPENDIX E2 WASHABILITY ANALYSIS

THE SHELL COMPANY OF AUSTRALIA LTD.

WASHABILITY ANALYSIS

LEGEND

SAMPLE STATE

Col 1-11:	Wet Tumbled	
	Dry Tumbled	
	Broken	Broken - Not Tumbled
	Wet Scr Fr	Broken - Wet Screened Fractional
	Wet Screen	Broken - Wet Screened
	Froth Conc.	Froth Flotation Concentrates
	Tailings	
Col 12:	blank	
Col 13:	S	Sink Fraction
Col 14-17:	N.NN	Separation Relative Density
Col 18:	-	
Col 19:	F	Float Fraction
Col 20-23:	N.NN	Separation Relative Density

INTERVAL MARKER CODE

Col 1-2: Member/Marker
Col 3: Subseam
Col 4: Seam Split
Col 5: Subsplit

UB	- MT. NICHOLAS UPPER B
M1	- MT. NICHOLAS MIDDLE 1
M2	- MT. NICHOLAS MIDDLE 2
M3	- MT. NICHOLAS MIDDLE 3
L1	- MT. NICHOLAS LOWER 1
L2	- MT. NICHOLAS LOWER 2
DA	- DALMAYNE A
DB	- DALMAYNE B
DC	- DALMAYNE C
DD	- DALMAYNE D
DDU	- DALMAYNE D UPPER
DDM	- DALMAYNE D MIDDLE
DDL	- DALMAYNE D LOWER
D2	- HAREFIELD 2
D3	- HAREFIELD 3
D4	- HAREFIELD 4
DE	- DALMAYNE E
DE2	- DALMAYNE E2
DE3	- DALMAYNE E3
DF	- DALMAYNE F

INHERENT MOISTURE BASIS

	Air Dried
E	Estimated Value

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY1

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1											
DDL	206.98	1.68	- 12.7 + 0.0	Broken	F1.50	77.0	16.9		77.0	16.9	
					S1.50-F1.60	9.6	28.4		86.6	18.2	
					S1.60-F1.70	4.3	36.4		90.9	19.0	
					S1.70-F1.80	2.0	45.7		92.9	19.6	
					S1.80	7.1	73.7		100.0	23.5	
Sample 4											
DE2	256.48	2.20	- 12.7 + 0.0	Broken	F1.50	40.4	13.9		40.4	13.9	
					S1.50-F1.60	11.5	28.6		51.9	17.2	
					S1.60-F1.70	14.3	37.1		66.2	21.5	
					S1.70-F1.80	12.4	45.9		78.6	25.3	
					S1.80	21.4	65.6		100.0	33.9	
Sample 6											
	282.64	0.44	- 12.7 + 0.0	Broken	F1.50	0.8	10.7		0.8	10.7	
					S1.50-F1.70	0.7	27.8		1.5	18.7	
					S1.70-F2.00	22.3	54.2		23.8	52.0	
					S2.00	76.2	70.8		100.0	66.3	
Sample 7											
DF	283.52	0.88	- 12.7 + 0.0	Broken	F1.50	39.9	14.4		39.9	14.4	
					S1.50-F1.70	19.5	28.3		59.4	19.0	
					S1.70-F2.00	24.0	53.2		83.4	28.8	
					S2.00	16.6	72.1		100.0	36.0	

SIGNATURE :

*** FRAME K03***

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : 6Y2

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 2											
DB	260.44	0.64	- 12.7 + 0.0	Broken	F1.50	31.0	17.4		31.0	17.4	
					S1.50-F1.60	31.4	29.3		62.4	23.4	
					S1.60-F1.70	12.4	39.0		74.8	26.0	
					S1.70-F1.80	5.9	46.0		80.7	27.4	
					S1.80	19.3	68.6		100.0	35.4	
Sample 3											
DB	261.97	1.53	- 12.7 + 0.0	Broken	F1.50	2.3	24.2		2.3	24.2	
					S1.50-F1.60	2.8	30.7		5.1	27.8	
					S1.60-F1.70	6.2	40.7		11.3	34.9	
					S1.70-F1.80	8.4	48.7		19.7	40.8	
					S1.80	80.3	77.1		100.0	69.9	
Sample 4											
DB	262.96	0.99	- 12.7 + 0.0	Broken	F1.50	31.5	11.8		31.5	11.8	
					S1.50-F1.60	11.7	28.5		43.2	16.3	
					S1.60-F1.70	10.5	37.5		53.7	20.5	
					S1.70-F1.80	8.7	45.6		62.4	24.0	
					S1.80	37.6	73.9		100.0	42.7	
Sample 5											
DB	264.09	1.13	- 12.7 + 0.0	Broken	F1.50	35.8	11.4		35.8	11.4	
					S1.50-F1.60	7.8	31.9		43.6	15.1	
					S1.60-F1.70	10.0	39.2		53.6	19.6	
					S1.70-F1.80	8.5	46.7		62.1	23.3	
					S1.80	37.9	68.6		100.0	40.5	
Sample 7											
DC	290.93	1.55	- 12.7 + 0.0	Broken	F1.50	40.6	9.0		40.6	9.0	
					S1.50-F1.60	4.8	28.3		45.4	11.0	
					S1.60-F1.70	7.0	39.6		52.4	14.9	
					S1.70-F1.80	6.2	47.4		58.6	18.3	
					S1.80	41.4	75.2		100.0	41.9	
Sample 8											
DC	291.84	0.91	- 12.7 + 0.0	Broken	F1.50	21.2	15.2		21.2	15.2	
					S1.50-F1.60	6.0	30.1		27.2	18.5	
					S1.60-F1.70	5.9	39.1		33.1	22.2	
					S1.70-F1.80	3.9	47.3		37.0	24.8	
					S1.80	63.0	76.9		100.0	57.6	
Sample 9											
DDL	357.84	0.76	- 12.7 + 0.0	Broken	F1.50	44.2	16.1		44.2	16.1	
					S1.50-F1.60	8.2	31.7		52.4	18.5	
					S1.60-F1.70	13.1	37.0		65.5	22.2	
					S1.70-F1.80	6.6	45.5		72.1	26.4	
					S1.80	27.9	77.3		100.0	39.1	

SIGNATURE :

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY2

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 10											
DDL	359.85	2.01	- 12.7 + 0.0	Broken	F1.50	68.1	14.7		68.1	14.7	
					S1.50-F1.60	13.4	29.9		81.5	17.2	
					S1.60-F1.70	5.7	38.2		87.2	18.6	
					S1.70-F1.80	2.6	48.5		89.8	19.6	
					S1.80	10.2	69.6		100.0	24.6	
Sample 13											
DE2	407.32	0.76	- 12.7 + 0.0	Broken	F1.50	38.0	17.4		38.0	17.4	
					S1.50-F1.70	18.3	31.7		56.3	22.0	
					S1.70-F2.00	9.6	52.4		65.9	26.5	
					S2.00	34.1	75.1		100.0	43.1	
Sample 14											
DF	433.18	0.50	- 12.7 + 0.0	Broken	F1.50	20.1	14.2		20.1	14.2	
					S1.50-F1.70	26.7	27.6		46.8	21.8	
					S1.70-F2.00	27.0	46.7		73.8	30.9	
					S2.00	26.2	71.3		100.0	41.5	
Sample 16											
DDU	347.45	1.23	- 12.7 + 0.0	Broken	F1.50	86.5	13.1		86.5	13.1	
					S1.50-F1.60	4.1	29.5		90.6	13.8	
					S1.60-F1.70	1.1	36.0		91.7	14.1	
					S1.70-F1.80	1.2	50.7		92.9	14.6	
					S1.80	7.1	80.9		100.0	19.3	
Sample 18											
	348.55	0.44	- 12.7 + 0.0	Broken	F1.50	84.3	15.9		84.3	15.9	
					S1.50-F1.60	6.1	31.0		90.4	16.9	
					S1.60-F1.70	2.3	39.5		92.7	17.5	
					S1.70-F1.80	0.8	47.1		93.5	17.7	
					S1.80	6.5	65.2		100.0	20.8	

SIGNATURE :

*** FRAME A04 ***

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY3

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1											
DDU	361.96	0.99	- 12.7 + 0.0	Broken	F1.50	36.7	17.8		36.7	17.8	
					S1.50-F1.60	6.3	28.3		43.0	19.3	
					S1.60-F1.70	2.0	38.5		45.0	20.2	
					S1.70-F1.80	3.9	51.3		48.9	22.7	
					S1.80	51.1	83.5		100.0	53.8	
Sample 2											
DDU	363.82	1.86	- 12.7 + 0.0	Broken	F1.50	81.6	11.2		81.6	11.2	
					S1.50-F1.60	8.7	27.4		90.3	12.8	
					S1.60-F1.70	1.6	37.9		91.9	13.2	
					S1.70-F1.80	2.8	47.2		94.7	14.2	
					S1.80	5.3	62.5		100.0	16.8	
Sample 3											
DDL	377.30	0.62	- 12.7 + 0.0	Broken	F1.50	63.1	15.3		63.1	15.3	
					S1.50-F1.60	11.9	28.5		75.0	17.4	
					S1.60-F1.70	3.4	37.4		78.4	18.3	
					S1.70-F1.80	2.7	47.4		81.1	19.2	
					S1.80	18.9	74.9		100.0	29.8	
Sample 4											
DDL	379.50	2.20	- 12.7 + 0.0	Broken	F1.50	69.0	13.2		69.0	13.2	
					S1.50-F1.60	12.4	27.7		81.4	15.4	
					S1.60-F1.70	5.0	35.5		86.4	16.6	
					S1.70-F1.80	5.1	47.2		91.5	18.3	
					S1.80	8.5	67.0		100.0	22.4	
Sample 5											
	440.32	0.55	- 12.7 + 0.0	Broken	F1.50	8.5	17.2		8.5	17.2	
					S1.50-F1.70	29.2	28.9		37.7	26.3	
					S1.70-F2.00	26.6	50.5		64.3	36.3	
					S2.00	35.7	75.2		100.0	50.2	
Sample 6											
DF	441.03	0.71	- 12.7 + 0.0	Broken	F1.50	42.0	14.9		42.0	14.9	
					S1.50-F1.70	30.9	27.7		72.9	20.3	
					S1.70-F2.00	21.7	49.5		94.6	27.0	
					S2.00	5.4	64.3		100.0	29.0	

SIGNATURE :

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY4

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1											
DB	216.17	1.12	- 12.7 + 0.0	Broken	F1.50	40.9	17.9		40.9	17.9	
					S1.50-F1.60	17.3	29.4		58.2	21.3	
					S1.60-F1.70	9.1	36.6		67.3	23.4	
					S1.70-F1.80	6.2	45.7		73.5	25.3	
					S1.80	26.5	70.8		100.0	37.5	
Sample 5											
DB	217.54	0.79	- 12.7 + 0.0	Broken	F1.50	57.7	21.7		57.7	21.7	
					S1.50-F1.60	17.3	33.5		75.0	24.4	
					S1.60-F1.70	7.8	39.4		82.8	25.8	
					S1.70-F1.80	3.8	45.8		86.6	26.7	
					S1.80	13.4	69.7		100.0	32.5	
Sample 5											
DB	219.34	1.46	- 12.7 + 0.0	Broken	F1.50	27.5	16.7		27.5	16.7	
					S1.50-F1.60	15.2	30.0		42.7	21.4	
					S1.60-F1.70	17.6	37.3		60.3	26.1	
					S1.70-F1.80	9.7	44.3		70.0	28.6	
					S1.80	30.0	70.7		100.0	41.2	
Sample 7											
DBU	303.92	1.77	- 12.7 + 0.0	Broken	F1.50	77.8	14.7		77.8	14.7	
					S1.50-F1.60	7.9	30.5		85.7	16.2	
					S1.60-F1.70	3.4	41.7		89.1	17.1	
					S1.70-F1.80	2.7	52.0		91.8	18.2	
					S1.80	8.2	56.8		100.0	21.3	
Sample 9											
DBL	318.52	1.44	- 12.7 + 0.0	Broken	F1.50	44.0	19.4		44.0	19.4	
					S1.50-F1.60	27.4	27.6		71.4	22.5	
					S1.60-F1.70	14.3	35.4		85.7	24.7	
					S1.70-F1.80	4.1	44.8		89.8	25.6	
					S1.80	10.2	61.8		100.0	29.3	

SIGNATURE :

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : 6Y5

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1											
	263.18	0.34	- 12.7 + 0.0	Broken	F1.50	87.4	10.3		87.4	10.3	
					S1.50-F1.60	6.0	30.7		93.4	11.6	
					S1.60-F1.70	3.0	38.3		96.4	12.4	
					S1.70-F1.80	0.7	51.9		97.1	12.7	
					S1.80	2.9	71.7		100.0	14.4	
Sample 2											
	263.76	0.58	- 12.7 + 0.0	Broken	F1.50	4.8	17.6		4.8	17.6	
					S1.50-F1.60	0.9	30.2		5.7	19.6	
					S1.60-F1.70	1.9	39.7		7.6	24.6	
					S1.70-F1.80	1.8	49.2		9.4	29.3	
					S1.80	90.6	86.2		100.0	80.9	
Sample 3											
DC1	264.56	0.80	- 12.7 + 0.0	Broken	F1.50	62.2	12.3		62.2	12.3	
					S1.50-F1.60	10.3	30.2		72.5	14.8	
					S1.60-F1.70	8.8	42.3		81.3	17.8	
					S1.70-F1.80	3.6	47.8		84.9	19.1	
					S1.80	15.1	74.9		100.0	27.5	
Sample 5											
DC1	266.00	1.17	- 12.7 + 0.0	Broken	F1.50	67.7	12.1		67.7	12.1	
					S1.50-F1.60	9.2	29.9		76.9	14.2	
					S1.60-F1.70	4.7	39.7		81.6	15.7	
					S1.70-F1.80	3.8	49.5		85.4	17.2	
					S1.80	14.6	73.7		100.0	25.4	
Sample 7											
DE2	368.49	0.79	- 12.7 + 0.0	Broken	F1.50	65.2	11.9		65.2	11.9	
					S1.50-F1.60	12.4	28.9		77.6	14.3	
					S1.60-F1.70	9.0	38.0		86.6	16.8	
					S1.70-F1.80	3.9	45.7		90.5	18.0	
					S1.80	9.5	69.0		100.0	22.9	

SIGNATURE :

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY6A

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1											
	262.95	0.45	- 12.7 + 0.0	Broken	F1.50	15.4	20.8		15.4	20.8	
					S1.50-F1.70	24.6	31.8		40.0	27.6	
					S1.70-F2.00	25.0	51.1		65.0	36.6	
					S2.00	35.0	78.0		100.0	51.1	
Sample 2											
DE2	263.92	0.97	- 12.7 + 0.0	Broken	F1.50	60.3	15.8		60.3	15.8	
					S1.50-F1.70	16.4	32.0		76.7	19.3	
					S1.70-F2.00	15.2	58.2		91.9	25.7	
					S2.00	8.1	72.6		100.0	29.5	
Sample 3											
DF	286.95	0.90	- 12.7 + 0.0	Broken	F1.50	16.8	19.4		16.8	19.4	
					S1.50-F1.70	43.0	30.4		59.8	27.3	
					S1.70-F2.00	23.4	48.5		83.2	33.3	
					S2.00	16.8	75.1		100.0	40.3	

SIGNATURE :

*** FRAME E04***

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY7

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1											
	207.25	1.51	- 12.7 + 0.0	Broken	F1.50	39.9	19.3		39.9	19.3	
					S1.50-F1.70	23.0	32.0		62.9	23.9	
					S1.70-F2.00	19.4	50.3		82.3	30.2	
					S2.00	17.7	79.9		100.0	39.0	
Sample 2											
DB	254.60	1.08	- 12.7 + 0.0	Broken	F1.50	39.1	10.3		39.1	10.3	
					S1.50-F1.70	15.0	33.1		54.1	16.6	
					S1.70-F2.00	12.1	54.3		66.2	23.5	
					S2.00	33.8	76.7		100.0	41.5	
Sample 3											
DC	281.76	1.03	- 12.7 + 0.0	Broken	F1.50	46.4	13.0		46.4	13.0	
					S1.50-F1.70	15.3	33.4		61.7	18.1	
					S1.70-F2.00	16.3	54.2		78.0	25.6	
					S2.00	22.0	77.5		100.0	37.0	
Sample 4											
DC1	314.32	0.49	- 12.7 + 0.0	Broken	F1.50	18.2	21.3		18.2	21.3	
					S1.50-F1.60	22.3	30.5		40.5	26.4	
					S1.60-F1.70	14.0	39.2		54.5	29.7	
					S1.70-F1.80	9.7	47.4		64.2	32.3	
					S1.80	35.8	71.8		100.0	46.5	
Sample 5											
DC1	315.56	1.24	- 12.7 + 0.0	Broken	F1.50	74.6	13.9		74.6	13.9	
					S1.50-F1.60	8.1	29.8		82.7	15.5	
					S1.60-F1.70	2.6	55.1		85.3	16.7	
					S1.70-F1.80	6.3	37.8		91.6	18.1	
					S1.80	8.4	69.5		100.0	22.4	
Sample 6											
DC1	316.43	0.87	- 12.7 + 0.0	Broken	F1.50	29.1	14.6		29.1	14.6	
					S1.50-F1.60	9.5	29.1		38.6	18.2	
					S1.60-F1.70	8.3	39.2		46.9	21.9	
					S1.70-F1.80	6.7	46.3		53.6	24.9	
					S1.80	46.4	81.1		100.0	51.0	

SIGNATURE :

*** FRAME F04***

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GT8

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1											
	152.85	2.20	- 12.7 + 0.0	Broken	F1.50	42.6	16.6		42.6	16.6	
					S1.50-F1.70	18.9	35.3		61.5	22.3	
					S1.70-F2.00	17.7	48.9		79.2	28.3	
					S2.00	20.8	77.3		100.0	38.5	

SIGNATURE :

*** FRAME G04***

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BORENOLE : GY9

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1											
DB	187.19	0.86	- 12.7 + 0.0	Broken	F1.50	0.1	21.6		0.1	21.6	
					S1.50-F1.60	1.3	37.0		1.4	35.9	
					S1.60-F1.70	1.3	45.1		2.7	40.3	
					S1.70-F1.80	4.9	51.1		7.6	47.3	
					S1.80	92.4	74.5		100.0	72.4	
Sample 2											
DB	187.98	0.79	- 12.7 + 0.0	Broken	F1.50	14.1	22.0		14.1	22.0	
					S1.50-F1.60	19.4	32.7		33.5	28.2	
					S1.60-F1.70	12.1	40.2		45.6	31.4	
					S1.70-F1.80	7.6	50.2		53.2	34.1	
					S1.80	46.8	72.7		100.0	52.1	
Sample 3											
DB	189.07	1.09	- 12.7 + 0.0	Broken	F1.50	2.1	22.4		2.1	22.4	
					S1.50-F1.60	11.8	30.8		13.9	29.5	
					S1.60-F1.70	6.7	39.0		20.6	32.6	
					S1.70-F1.80	6.7	46.4		27.3	36.0	
					S1.80	72.7	77.6		100.0	66.2	
Sample 4											
DB	190.15	1.08	- 12.7 + 0.0	Broken	F1.50	2.9	28.7		2.9	28.7	
					S1.50-F1.60	9.7	33.7		12.6	32.5	
					S1.60-F1.70	15.2	39.9		27.8	36.6	
					S1.70-F1.80	10.0	50.3		37.8	40.2	
					S1.80	62.2	67.2		100.0	57.0	
Sample 6											
DDU	269.41	1.39	- 12.7 + 0.0	Broken	F1.50	81.7	15.7		81.7	15.7	
					S1.50-F1.60	9.2	31.3		90.9	17.3	
					S1.60-F1.70	3.2	36.1		94.1	17.9	
					S1.70-F1.80	1.4	42.7		95.5	18.3	
					S1.80	4.5	74.3		100.0	20.8	
Sample 8											
DDL	284.51	1.01	- 12.7 + 0.0	Broken	F1.50	57.0	19.1		57.0	19.1	
					S1.50-F1.60	15.4	26.3		72.4	20.6	
					S1.60-F1.70	17.2	33.4		89.6	23.1	
					S1.70-F1.80	3.8	41.2		93.4	23.8	
					S1.80	6.6	66.0		100.0	28.6	
Sample 10											
DE2	337.68	1.07	- 12.7 + 0.0	Broken	F1.50	73.4	12.1		73.4	12.1	
					S1.50-F1.60	9.0	26.3		82.4	13.7	
					S1.60-F1.70	6.6	35.1		89.0	15.2	
					S1.70-F1.80	3.4	40.9		92.4	16.2	
					S1.80	7.6	74.1		100.0	20.6	

SIGNATURE :

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY10

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1											
DB	289.84	0.92	- 12.7 + 0.0	Broken	F1.50	14.5	19.1		14.5	19.1	
					S1.50-F1.70	27.2	33.0		41.7	28.2	
					S1.70-F2.00	23.7	50.4		65.4	36.2	
					S2.00	34.6	77.0		100.0	50.3	
Sample 2											
DB	290.91	1.07	- 12.7 + 0.0	Broken	F1.50	2.8	23.3		2.8	23.3	
					S1.50-F1.70	7.4	37.7		10.2	33.7	
					S1.70-F2.00	31.2	56.5		41.4	50.9	
					S2.00	58.6	81.6		100.0	68.9	
Sample 3											
DB	292.71	1.80	- 12.7 + 0.0	Broken	F1.50	15.8	22.1		15.8	22.1	
					S1.50-F1.70	28.1	34.2		43.9	29.8	
					S1.70-F2.00	22.6	52.6		66.5	37.6	
					S2.00	33.5	74.2		100.0	49.8	
Sample 4											
DB	295.95	3.24	- 12.7 + 0.0	Broken	F1.50	0.8	26.1		0.8	26.1	
					S1.50-F1.70	7.2	39.0		8.0	37.7	
					S1.70-F2.00	21.1	58.0		29.1	52.4	
					S2.00	70.9	78.9		100.0	71.2	
Sample 5											
DB	297.16	1.21	- 12.7 + 0.0	Broken	F1.50	23.4	18.3		23.4	18.3	
					S1.50-F1.70	16.3	36.8		39.7	25.9	
					S1.70-F2.00	25.6	53.8		65.3	36.8	
					S2.00	34.7	79.2		100.0	51.5	
Sample 6											
DB	297.95	0.79	- 12.7 + 0.0	Broken	F1.50	3.9	17.7		3.9	17.7	
					S1.50-F1.70	4.2	41.7		8.1	30.1	
					S1.70-F2.00	17.5	57.1		25.6	48.6	
					S2.00	74.4	87.5		100.0	77.5	
Sample 7											
DC	311.96	0.89	- 12.7 + 0.0	Broken	F1.50	4.7	18.4		4.7	18.4	
					S1.50-F1.70	10.0	33.0		14.7	28.3	
					S1.70-F2.00	16.0	53.2		30.7	41.3	
					S2.00	69.3	68.3		100.0	60.0	
Sample 8											
DC	313.98	2.02	- 12.7 + 0.0	Broken	F1.50	20.2	17.1		20.2	17.1	
					S1.50-F1.70	17.7	32.0		37.9	24.1	
					S1.70-F2.00	17.7	55.3		55.6	34.0	
					S2.00	44.4	78.9		100.0	53.9	

SIGNATURE :

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY10

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 9											
DDU	365.64	1.26	- 12.7 + 0.0	Broken	F1.50	63.6	14.9		63.6	14.9	
					S1.50-F1.55	8.8	30.1		72.4	16.7	
					S1.55-F1.70	2.9	38.4		75.3	17.6	
					S1.70-F1.80	1.7	48.3		77.0	18.3	
					S1.80	23.0	81.6		100.0	32.8	

SIGNATURE :

*** FRAME J04***

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY11

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1											
	264.60	2.20	- 12.7 + 0.0	Broken	F1.50	38.8	13.1		38.8	13.1	
					S1.50-F1.60	12.7	29.8		51.5	17.2	
					S1.60-F1.70	9.4	38.7		60.9	20.5	
					S1.70-F1.80	6.4	47.7		67.3	23.1	
					S1.80	32.7	72.7		100.0	39.3	
Sample 2											
DDU	311.23	1.27	- 12.7 + 0.0	Broken	F1.50	73.1	15.4		73.1	15.4	
					S1.50-F1.60	7.6	34.6		80.7	17.2	
					S1.60-F1.70	1.7	37.3		82.4	17.6	
					S1.70-F1.80	5.1	51.3		87.5	19.6	
					S1.80	12.5	74.8		100.0	26.5	
Sample 3											
	325.97	1.33	- 12.7 + 0.0	Broken	F1.50	14.4	17.5		14.4	17.5	
					S1.50-F1.60	4.9	31.1		19.3	21.0	
					S1.60-F1.70	7.7	42.2		27.0	27.0	
					S1.70-F1.80	14.2	49.7		41.2	34.8	
					S1.80	58.8	78.5		100.0	60.5	
Sample 4											
DDL	327.40	1.43	- 12.7 + 0.0	Broken	F1.50	57.3	17.3		57.3	17.3	
					S1.50-F1.60	29.3	26.6		86.6	20.4	
					S1.60-F1.70	6.9	37.1		93.5	21.7	
					S1.70-F1.80	2.6	42.2		96.1	22.2	
					S1.80	3.9	66.1		100.0	23.9	
Sample 5											
DE2	381.24	0.89	- 12.7 + 0.0	Broken	F1.50	69.1	15.7		69.1	15.7	
					S1.50-F1.60	12.1	28.5		81.2	17.6	
					S1.60-F1.70	6.4	38.9		87.6	19.2	
					S1.70-F1.80	4.4	44.6		92.0	20.4	
					S1.80	8.0	65.5		100.0	24.0	

SIGNATURE :

*** FRAME K04***

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY12

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1											
08	295.41	0.70	- 12.7 + 0.0	Broken	F1.50	0.2	24.3		0.2	24.3	
					S1.50-F1.60	0.6	31.0		0.8	29.3	
					S1.60-F1.70	1.2	37.1		2.0	34.0	
					S1.70-F1.80	2.4	44.5		4.4	39.7	
					S1.80	95.6	74.3		100.0	72.8	
Sample 2											
08	297.60	2.19	- 12.7 + 0.0	Broken	F1.50	6.3	19.9		6.3	19.9	
					S1.50-F1.60	13.7	28.9		20.0	26.1	
					S1.60-F1.70	12.3	37.3		32.3	30.3	
					S1.70-F1.80	12.4	47.1		44.7	35.0	
					S1.80	55.3	70.1		100.0	54.4	
Sample 3											
08	299.13	1.53	- 12.7 + 0.0	Broken	F1.50	4.0	24.1		4.0	24.1	
					S1.50-F1.60	3.1	29.3		7.1	26.4	
					S1.60-F1.70	1.8	40.1		8.9	29.1	
					S1.70-F1.80	18.0	49.6		26.9	42.8	
					S1.80	73.1	74.4		100.0	65.9	
Sample 4											
08	300.87	1.74	- 12.7 + 0.0	Broken	F1.50	0.5	25.0		0.5	25.0	
					S1.50-F1.60	1.1	36.7		1.6	33.0	
					S1.60-F1.70	4.0	40.1		5.6	38.1	
					S1.70-F1.80	8.8	50.0		14.4	45.6	
					S1.80	85.6	75.5		100.0	71.2	
Sample 5											
08	301.62	0.75	- 12.7 + 0.0	Broken	F1.50	40.2	18.8		40.2	18.8	
					S1.50-F1.60	6.2	34.8		46.4	20.9	
					S1.60-F1.70	9.1	41.8		55.5	24.4	
					S1.70-F1.80	9.6	47.5		65.1	27.8	
					S1.80	34.9	74.1		100.0	43.9	
Sample 6											
	375.45	1.19	- 12.7 + 0.0	Broken	F1.50	35.4	15.2		35.4	15.2	
					S1.50-F1.60	9.4	31.2		44.8	18.6	
					S1.60-F1.70	5.0	38.6		49.8	20.6	
					S1.70-F1.80	5.2	51.2		55.0	23.5	
					S1.80	45.0	77.3		100.0	47.7	
Sample 7											
	376.78	1.33	- 12.7 + 0.0	Broken	F1.50	4.7	14.6		4.7	14.6	
					S1.50-F1.60	1.1	26.9		5.8	16.9	
					S1.60-F1.70	0.6	36.1		6.4	18.7	
					S1.70-F1.80	0.4	45.5		6.8	20.3	
					S1.80	93.2	85.5		100.0	81.1	

SIGNATURE :

*** FRAME L04***

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY12

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 8											
DD	378.64	1.86	- 12.7 + 0.0	Broken	F1.50	55.5	12.0		55.5	12.0	
					S1.50-F1.60	8.7	25.4		64.2	13.8	
					S1.60-F1.70	8.9	35.6		73.1	16.5	
					S1.70-F1.80	7.5	42.4		80.6	18.9	
					S1.80	19.4	70.5		100.0	28.9	
Sample 9											
DD	379.38	0.74	- 12.7 + 0.0	Broken	F1.50	31.9	13.5		31.9	13.5	
					S1.50-F1.60	9.1	28.6		41.0	16.9	
					S1.60-F1.70	4.3	40.0		45.3	19.0	
					S1.70-F1.80	2.3	47.6		47.6	20.4	
					S1.80	52.4	80.5		100.0	51.9	
Sample 10											
DD	380.31	0.93	- 12.7 + 0.0	Broken	F1.50	4.6	17.5		4.6	17.5	
					S1.50-F1.60	2.4	31.8		7.0	22.4	
					S1.60-F1.70	2.1	40.4		9.1	26.6	
					S1.70-F1.80	3.7	48.1		12.8	32.8	
					S1.80	87.2	86.0		100.0	79.2	
Sample 11											
DD	381.52	1.21	- 12.7 + 0.0	Broken	F1.50	51.0	17.1		51.0	17.1	
					S1.50-F1.60	25.5	24.4		76.5	19.5	
					S1.60-F1.70	9.1	34.2		85.6	21.1	
					S1.70-F1.80	5.0	42.9		90.6	22.3	
					S1.80	9.4	65.8		100.0	26.4	
Sample 12											
DE2	443.74	0.72	- 12.7 + 0.0	Broken	F1.50	51.0	15.6		51.0	15.6	
					S1.50-F1.60	15.8	27.1		66.8	18.3	
					S1.60-F1.70	10.2	36.8		77.0	20.8	
					S1.70-F1.80	5.7	43.5		82.7	22.3	
					S1.80	17.3	68.0		100.0	30.2	

SIGNATURE :

*** FRAME A05***

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY14

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Composite of Samples 7-9											
DDU	267.29	1.19	- 38.1 + 0.5 (85.7% of Sample)	Broken	F1.35	24.2	8.0		24.2	8.0	
					S1.35-F1.40	20.8	11.9		45.0	9.8	
					S1.40-F1.45	21.6	18.5		66.6	12.6	
					S1.45-F1.50	3.3	23.6		69.9	13.1	
					S1.50-F1.55	4.5	30.3		74.4	14.2	
					S1.55-F1.60	2.0	32.1		76.4	14.6	
					S1.60-F1.70	2.8	39.3		79.2	15.5	
					S1.70-F1.80	1.7	46.9		80.9	16.2	
					S1.80-F1.90	1.2	57.0		82.1	16.8	
					S1.90-F2.00	0.6	63.4		82.7	17.1	
					S2.00	17.3	81.0		100.0	28.2	
Composite of Samples 10-13											
DDL	281.30	2.59	- 38.1 + 0.5 (87.6% of Sample)	Broken	F1.35	7.0	9.3		7.0	9.3	
					S1.35-F1.40	6.8	13.0		13.8	11.1	
					S1.40-F1.45	16.0	16.7		29.8	14.1	
					S1.45-F1.50	11.9	22.5		41.7	16.5	
					S1.50-F1.55	10.9	26.7		52.6	18.6	
					S1.55-F1.60	7.4	31.0		60.0	20.1	
					S1.60-F1.70	8.6	37.9		68.6	22.4	
					S1.70-F1.80	6.2	47.1		74.8	24.4	
					S1.80-F1.90	3.8	55.6		78.6	25.9	
					S1.90-F2.00	4.2	61.0		82.8	27.7	
					S2.00	17.2	79.9		100.0	36.7	
Sample 14											
DE2	330.91	1.15	- 38.1 + 0.5 (84.1% of Sample)	Broken	F1.35	12.9	9.7		12.9	9.7	
					S1.35-F1.40	4.9	13.5		17.8	10.7	
					S1.40-F1.45	11.4	15.7		29.2	12.7	
					S1.45-F1.50	6.1	20.2		35.3	14.0	
					S1.50-F1.55	2.6	23.4		37.9	14.6	
					S1.55-F1.60	3.2	27.5		41.1	15.6	
					S1.60-F1.70	15.7	36.7		56.8	21.5	
					S1.70-F1.80	19.5	43.8		76.3	27.2	
					S1.80-F1.90	8.5	51.5		84.8	29.6	
					S1.90-F2.00	3.0	57.1		87.8	30.5	
					S2.00	12.2	74.4		100.0	35.9	

SIGNATURE :

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY14

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE			FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Composite of Samples 7-9												
DDU	267.29	1.19	- 0.5 + 0.1 (11.0% of Sample)	Broken	S1.50	F1.50	48.2 51.8	12.8 58.0		48.2 100.0	12.8 36.2	
Composite of Samples 10-13												
DDL	281.30	2.59	- 0.5 + 0.1 (10.4% of Sample)	Broken	S1.50	F1.50	36.0 64.0	16.7 49.8		36.0 100.0	16.7 37.9	
Sample 14												
DE2	330.91	1.15	- 0.5 + 0.1 (12.9% of Sample)	Broken	S1.50	F1.50	27.2 72.8	11.6 46.8		27.2 100.0	11.6 37.2	

SIGNATURE :

*** FRAME COS***

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BORENOLE : GY17

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1											
DDU	468.27	1.52	- 12.7 + 0.0	Broken	F1.50	66.9	14.7		66.9	14.7	
					S1.50-F1.60	11.2	30.0		78.1	16.9	
					S1.60-F1.70	3.3	39.1		81.4	17.8	
					S1.70-F1.80	1.1	47.9		82.5	18.2	
					S1.80	17.5	78.1		100.0	28.7	
Sample 2											
	481.54	1.19	- 12.7 + 0.0	Broken	F1.50	1.2	23.9		1.2	23.9	
					S1.50-F1.60	0.6	27.5		1.8	25.1	
					S1.60-F1.70	0.8	44.8		2.6	31.2	
					S1.70-F1.80	10.0	49.5		12.6	45.7	
					S1.80	87.4	72.1		100.0	68.8	
Sample 3											
DDL	483.49	1.95	- 12.7 + 0.0	Broken	F1.50	68.7	15.0		68.7	15.0	
					S1.50-F1.60	12.0	27.8		80.7	16.9	
					S1.60-F1.70	4.9	36.8		85.6	18.0	
					S1.70-F1.80	3.5	44.9		89.1	19.1	
					S1.80	10.9	65.9		100.0	24.2	

SIGNATURE :

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY18

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1											
DD	219.14	0.85	- 12.7 + 0.0	Broken	F1.50	89.4	11.1		89.4	11.1	
					S1.50-F1.60	7.8	27.9		97.2	12.4	
					S1.60-F1.70	1.3	34.3		98.5	12.7	
					S1.70-F1.80	0.0	0.0		98.5	12.7	
					S1.80	1.5	53.7		100.0	13.4	
Sample 2											
DD	222.80	1.51	- 12.7 + 0.0	Broken	F1.50	63.8	15.4		63.8	15.4	
					S1.50-F1.60	0.0	0.0		63.8	15.4	
					S1.60-F1.70	7.6	31.1		71.4	17.1	
					S1.70-F1.80	22.4	42.7		93.8	23.2	
					S1.80	6.2	58.9		100.0	25.4	

SIGNATURE :

*** FRAME EOS***

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY20

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE			FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1												
DDL	436.41	2.06	- 25.4 + 0.0	Broken		F1.70	83.4	14.3	4.4	83.4	14.3	4.4
					S1.70		16.6	65.7		100.0	22.8	
Sample 3												
DDL	438.95	0.71	- 25.4 + 0.0	Broken		F1.70	78.4	22.4	4.5	78.4	22.4	4.5
					S1.70		21.6	64.4		100.0	31.5	

SIGNATURE :

*** FRAME F05***

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis
Unless Otherwise Indicated By
Letter Symbol Between Brackets)

BORENOLE : GY21

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE			FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 2												
DDL	285.90	1.18	- 25.4 + 0.0	Broken		F1.70	46.9	25.6	4.2	46.9	25.6	4.2
					S1.70		53.1	72.0		100.0	50.2	
Sample 3												
DDL	289.34	0.77	- 25.4 + 0.0	Broken		F1.70	78.2	20.1	5.3	78.2	20.1	5.3
					S1.70		21.8	66.6		100.0	30.2	

SIGNATURE :

*** FRAME G05***

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis
Unless Otherwise Indicated By
Letter Symbol Between Brackets)

BOREHOLE : 6Y22

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE			FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1												
DDL	215.47	0.79	- 25.4 + 0.0	Broken		F1.70	79.8	21.1	3.9	79.8	21.1	3.9
					S1.70		20.2	68.6		100.0	30.7	

SIGNATURE :

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY23

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE			FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 2												
DDL	338.76	1.20	- 25.4 + 0.0	Broken	S1.70	F1.70	75.1	15.9	4.7	75.1	15.9	4.7
							24.9	66.0		100.0	28.4	
Sample 3												
	341.05	0.20	- 25.4 + 0.0	Broken	S1.70	F1.70	11.3	40.8	3.9	11.3	40.8	3.9
							88.7	80.1		100.0	75.7	
Sample 4												
DDL	342.24	1.19	- 25.4 + 0.0	Broken	S1.70	F1.70	76.0	20.1	3.5	76.0	20.1	3.5
							24.0	66.3		100.0	31.2	

SIGNATURE :

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY25

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE			FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1												
DDL	475.17	1.33	- 25.4 + 0.0	Broken		F1.70	67.7	23.3	2.7	67.7	23.3	2.7
					S1.70		32.3	52.9	2.8	100.0	32.9	2.7
Sample 3												
	477.01	1.68	- 25.4 + 0.0	Broken		F1.70	76.8	15.8	3.4	76.8	15.8	3.4
					S1.70		23.2	53.9	2.9	100.0	24.6	3.3
Sample 4												
DDL	478.12	1.11	- 25.4 + 0.0	Broken		F1.70	53.0	21.4	2.6	53.0	21.4	2.6
					S1.70		47.0	62.2	2.2	100.0	40.6	2.4
Sample 5												
DDL	479.34	1.22	- 25.4 + 0.0	Broken		F1.70	66.9	20.4	3.3	66.9	20.4	3.3
					S1.70		33.1	63.5	2.8	100.0	34.7	3.1
Sample 4+5												
DDL	479.34	2.33	- 25.4 + 0.0	Broken		F1.70	63.2	20.6		63.2	20.6	
					S1.70-F1.80		6.3	38.0		69.5	22.2	
					S1.80		30.5	69.4		100.0	36.3	

SIGNATURE :

*** FRAME J05***

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY27

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1											
DDL	349.19	2.03	- 25.4 + 0.0	Broken	F1.70	85.3	19.4		85.3	19.4	
					S1.70-F1.80	5.0	37.4		90.3	20.4	
					S1.80	9.7	67.7		100.0	25.0	
Sample 2											
DDL	351.16	1.97	- 25.4 + 0.0	Broken	F1.70	77.4	18.8		77.4	18.8	
					S1.70-F1.80	4.3	39.5		81.7	19.9	
					S1.80	18.3	73.0		100.0	29.6	

SIGNATURE :

*** FRAME K05***

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY29

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE			FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1												
DDL	281.58	1.55	- 25.4 + 0.0	Broken		F1.70	74.1	18.2	3.7	74.1	18.2	3.7
					S1.70		25.9	70.7	3.5	100.0	31.8	3.6
Sample 3												
DDL	282.12	0.24	- 25.4 + 0.0	Broken		F1.70	68.7	19.5	3.5	68.7	19.5	3.5
					S1.70		31.3	70.4	3.6	100.0	35.4	3.5
Sample 4												
	285.28	0.65	- 25.4 + 0.0	Broken		F1.70	41.7	20.5	3.8	41.7	20.5	3.8
					S1.70		58.3	66.5	5.1	100.0	47.3	4.6
Sample 6												
DDL	287.24	1.44	- 25.4 + 0.0	Broken		F1.70	65.3	26.7	3.5	65.3	26.7	3.5
					S1.70		34.7	65.1	4.1	100.0	40.0	3.7

SIGNATURE :

*** FRAME L05***

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY30

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE			FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1												
DD	266.79	2.73	- 25.4 + 0.0	Broken		F1.70	66.8	17.4	5.6	66.8	17.4	5.6
					S1.70		33.2	62.3	4.1	100.0	32.3	5.1
Sample 2												
DD	267.45	0.66	- 25.4 + 0.0	Broken		F1.70	45.9	20.2	6.0	45.9	20.2	6.0
					S1.70		54.1	81.1	3.5	100.0	53.1	4.6
Sample 3												
DD	268.10	0.65	- 25.4 + 0.0	Broken		F1.70	16.1	26.7	7.5	16.1	26.7	7.5
					S1.70		83.9	74.6	3.8	100.0	66.9	4.4
Sample 4												
DD	269.32	1.22	- 25.4 + 0.0	Broken		F1.70	91.5	20.1	5.9	91.5	20.1	5.9
					S1.70		8.5	60.0	3.5	100.0	23.5	5.7

SIGNATURE :

*** FRAME A06***

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY32

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE			FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1												
DE	200.93	1.34	- 25.4 + 0.0	Broken	S1.70	F1.70	49.6	21.3	6.3	49.6	21.3	6.3
							50.4	56.7	5.6	100.0	39.1	5.9
Sample 2												
DE	201.72	0.79	- 25.4 + 0.0	Broken	S1.70	F1.70	24.2	31.2	4.9	24.2	31.2	4.9
							75.8	58.6	4.3	100.0	52.0	4.4

SIGNATURE :

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY103

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1											
DGL	224.50	0.53	- 25.4 + 0.0	Broken	F1.60	86.6	21.0		86.6	21.0	
					S1.60-F1.70	4.0	35.2		90.6	21.6	
					S1.70-F1.80	2.0	42.9		92.6	22.1	
					S1.80	7.4	75.0		100.0	26.0	
Sample 2											
DGL	225.86	1.36	- 25.4 + 0.0	Broken	F1.60	62.5	18.9		62.5	18.9	
					S1.60-F1.70	5.6	39.3		68.1	20.6	
					S1.70-F1.80	5.0	47.0		73.1	22.4	
					S1.80	26.9	73.7		100.0	36.2	

SIGNATURE :

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY104

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Sample 1											
DDL	158.88	0.55	- 25.4 + 0.0	Broken	F1.60	78.4	21.4		78.4	21.4	
					S1.60-F1.70	6.1	36.5		84.5	22.5	
					S1.70-F1.80	1.4	43.8		85.9	22.8	
					S1.80	14.1	70.5		100.0	29.6	
Sample 2											
DDL	160.06	1.18	- 25.4 + 0.0	Broken	F1.60	63.5	18.5		63.5	18.5	
					S1.60-F1.70	1.9	35.3		65.4	19.0	
					S1.70-F1.80	2.0	47.2		67.4	19.8	
					S1.80	32.6	76.1		100.0	38.2	

SIGNATURE :

WASHABILITY ANALYSIS

GRAY

(All Results On Air Dried Basis Unless Otherwise Indicated By Letter Symbol Between Brackets)

BOREHOLE : GY105

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	FRACTIONAL MOIST%	CUMULATIVE MASS%	CUMULATIVE ASH%	CUMULATIVE MOIST%
Analysed Composite of Samples A1-11											
[illegible]	337.50	5.25	- 5.6 + 0.0	Broken	F1.40	23.6	8.7		23.6	8.7	
					S1.40-F1.60	27.7	19.8		51.3	14.7	
					S1.60-F1.70	4.7	36.2		56.0	16.5	
					S1.70-F1.80	4.2	47.1		60.2	18.6	
					S1.80-F2.00	3.4	58.4		63.6	20.8	
					S2.00	36.4	86.7		100.0	44.8	

SIGNATURE :

WASHABILITY ANALYSIS

DATE: 28/05/84

GRAY

(ALL RESULTS ON AIR DRIED BASIS UNLESS OTHERWISE INDICATED BY LETTER SYMBOL BETWEEN BRACKETS)

BOREHOLE : GYDRA1

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	CUMULATIVE MASS%	CUMULATIVE ASH%
SAMPLE 1									
	2.52	2.51	- 45.0 + 5.6 (63.6% OF SAMPLE)	WET TUMBLED	F1.40	32.4	13.0	32.4	13.0
					S1.40-F1.50	35.1	20.2	67.5	16.7
					S1.50-F1.60	13.2	29.4	80.7	18.8
					S1.60-F1.70	5.4	40.6	86.1	20.2
					S1.70-F1.80	4.1	48.4	90.2	21.5
					S1.80-F1.90	1.9	56.0	92.1	22.2
					S1.90-F2.00	1.1	61.0	93.2	22.6
					S2.00	6.8	77.5	100.0	26.4
			- 5.6 + 0.5WW (25.6% OF SAMPLE)		F1.40	21.6	8.4	21.6	8.4
					S1.40-F1.50	26.7	17.4	48.3	13.4
					S1.50-F1.60	12.6	27.1	60.9	16.2
					S1.60-F1.70	5.6	37.4	66.5	18.0
					S1.70-F1.80	3.8	46.5	70.3	19.5
					S1.80-F1.90	2.9	53.1	73.2	20.9
					S1.90-F2.00	3.0	59.0	76.2	22.4
					S2.00	23.8	82.8	100.0	36.8
			- 0.5WW + 0.0 (10.8% OF SAMPLE)		FROTH CONC.	36.2	25.3	36.2	25.3
					TAILINGS	63.8	43.7	100.0	37.0
			- 45.0 + 0.5WW (89.2% OF SAMPLE)		F1.40	29.3	12.0	29.3	12.0
					S1.40-F1.50	32.7	19.5	62.0	16.0
					S1.50-F1.60	13.0	28.8	75.0	18.2
					S1.60-F1.70	5.5	39.7	80.5	19.7
					S1.70-F1.80	4.0	47.9	84.5	21.0
					S1.80-F1.90	2.2	54.9	86.7	21.8
					S1.90-F2.00	1.7	59.9	88.4	22.6
					S2.00	11.6	80.6	100.0	29.3

SIGNATURE :

*** FRAME F06***

WASHABILITY ANALYSIS

DATE: 28/05/84

GRAY

(ALL RESULTS ON AIR DRIED BASIS UNLESS OTHERWISE INDICATED BY LETTER SYMBOL BETWEEN BRACKETS)

BORENOLE : GYDRA2

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE SIZE MM	SAMPLE STATE		FRACTIONAL MASS%	FRACTIONAL ASH%	CUMULATIVE MASS%	CUMULATIVE ASH%
SAMPLE 2									
	2.52	2.51	- 25.0 + 0.0 (100.0% OF SAMPLE)	BROKEN	F1.60	70.1	18.1	70.1	18.1
					S1.60-F1.70	5.6	37.1	75.7	19.5
					S1.70-F1.80	3.2	46.3	78.9	20.6
					S1.80	21.1	75.6	100.0	32.2

SIGNATURE :

*** FRAME G06***

THE SHELL COMPANY OF AUSTRALIA LTD.

WASHED COAL / COMPOSITE ANALYSIS

GRAY

APPENDIX E3 : WASH COAL /COMPOSITE ANALYSIS

THE SHELL COMPANY OF AUSTRALIA LTD.

WASHED COAL / COMPOSITE ANALYSIS

LEGEND

TOTAL MOISTURE BASIS

	Air Dried
A	As Received
T	Total
B	Bed
Q	Equilibrium
E	Estimated Value

INHERENT MOISTURE BASIS

	Air Dried
E	Estimated Value

TOTAL SULPHUR BASIS

	Air Dried
A	As Received
R	Dry Basis

ASH/VOLATILE MATTER/FIXED CARBON BASIS

	Air Dried
A	As Received
R	Dry Basis
D	Dry, Ash Free
C	Dry, Mineral Matter Free
M	Moist, Ash Free
E	Estimated Value

SPECIFIC ENERGY BASIS

	Air Dried
A	As Received
R	Dry Basis
D	Dry, Ash Free
C	Dry, Mineral Matter Free
M	Moist, Ash Free

SAMPLE STATE

COL 1-4:	WTFR	Wet Tumbled. Fractional
	DTFR	Dry Tumbled. Fractional
	WTCU	Wet Tumbled. Cumulative
	DTCU	Dry Tumbled. Cumulative
	FR	Broken - Not Tumbled. Fractional
	CU	Broken - Not Tumbled. Cumulative
	BROK	Broken - Not Tumbled.
COL 5:	blank	
COL 6:	S	Sink Fraction
	F	Float Fraction
COL 7-10:	N.NN	Separation Relative Density

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY1

SAMPLE SIZE : - 12.7 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS INHERENT MOISTURE %	PROXIMATE ANALYSIS ASH %	PROXIMATE ANALYSIS VOLATILE MATTER %	PROXIMATE ANALYSIS FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 1 DDL	206.98	1.68	CU F1.55	82.5	3.1	17.4	23.5	56.0	0.35	0.5	25.94	
Sample 4 DE2	256.48	2.20	CU F1.60	51.9	3.1	17.4	24.9	54.6	0.46		26.11	
Sample 7 DF	283.52	0.88	CU F1.60	50.0	4.1	16.5	22.3	57.1	0.33		26.13	

SIGNATURE :

*** FRAME J06***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BORENOLE : GY2

SAMPLE SIZE : - 12.7 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE		YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 2													
DB	260.44	0.64	CU	F1.60	62.4	3.2	23.5	26.5	46.8	0.42		23.99	
Sample 4+5													
DB	264.09	2.12	CU	F1.60	43.4	3.2	16.0	29.5	51.3	0.45		26.32	
Sample 7+8													
DC	291.84	2.46	CU	F1.60	38.0	3.0	13.5	31.6	51.9	0.45		27.51	
Sample 9													
DDL	357.84	0.78	CU	F1.55	48.2	2.4	17.2	27.8	52.6	0.38	1.0	26.45	
Sample 10													
DDL	359.85	2.01	CU	F1.55	74.3	2.5	15.4	27.2	54.9	0.39	1.0	26.93	
Sample 16-18													
	348.55	2.33	CU	F1.80	56.7	2.7	15.6	28.4	53.3	0.35		27.18	
Sample 13													
DE2	407.32	0.76	CU	F1.70	56.3	2.3	22.2	26.9	48.6	0.45		24.39	
Sample 14													
DF	433.18	0.50	CU	F1.70	46.8	1.8	21.9	22.8	53.5	0.34		24.80	

SIGNATURE :

*** FRAME K06***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY3

SAMPLE SIZE : - 12.7 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 1 DDU	361.96	0.99	CU F1.70	45.0	3.7	20.6	28.2	47.5	0.33	0.5	25.54	
Sample 2 DDU	363.82	1.86	CU F1.70	91.9	3.9	13.4	30.2	52.5	0.33	0.5	28.06	
Sample 3 DDL	377.30	0.62	CU F1.55	72.3	3.5	15.8	28.6	52.1	0.30	0.5	27.12	
Sample 4 DDL	379.50	2.20	CU F1.55	77.6	3.5	14.1	26.7	55.7	0.50	0.5	27.68	
Sample 5+6 DF	441.03	1.26	CU F1.70	56.1	3.0	22.3	22.4	52.3	0.49		25.02	

SIGNATURE :

*** FRAME L06***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY4

SAMPLE SIZE : - 12.7 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 1-5 DB	219.34	4.29	CU F1.70	50.6	4.9	26.1	25.2	43.8	0.60		22.53	
Sample 7 DDU	303.92	1.77	CU F1.55	83.4	4.0	15.8	27.5	52.7	0.31	0.5	27.10	
Sample 9 DDL	318.52	1.44	CU F1.60	71.4	5.3	23.1	23.0	48.6	0.32		24.06	

SIGNATURE :

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY5

SAMPLE SIZE : - 12.7 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 3-5												
DC1	266.00	2.24	CU F1.65	64.8	4.4	15.3	30.5	49.8	0.51		27.42	
			CU F1.80	70.5	4.1	18.5	30.1	47.3	0.48		26.41	
Sample 7												
DE2	368.49	0.79	CU F1.65	82.4	3.3	15.7	30.8	50.2	0.48		27.29	

SIGNATURE :

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY6A

SAMPLE SIZE : - 12.7 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 1+2												
DE2	263.92	1.42	CU	F1.70	63.6	4.0	21.3	24.1	50.6	0.42		24.65

SIGNATURE :

*** FRAME C07***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY7

SAMPLE SIZE : - 12.7 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 1+2												
DB	256.60	2.59	CU F1.70	59.2	3.5	21.3	28.5	46.7	0.35		24.85	
Sample 3												
DC	281.76	1.03	CU F1.70	61.7	4.3	18.1	30.6	47.0	0.46		25.92	
Sample 5+6												
DC1	316.43	2.11	CU F1.50	53.5	4.1	14.1	30.9	50.9	0.40		27.68	
Sample 4-6												
DC1	316.43	2.60	CU F1.80	74.0	3.8	22.6	28.6	45.0	0.36		24.44	

SIGNATURE :

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GYB

SAMPLE SIZE : - 12.7 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 1	152.85	2.20	CU F1.70	61.5	2.9	22.5	28.4	46.2	0.47		24.54	

SIGNATURE :

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY9

SAMPLE SIZE : - 12.7 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 6												
DDU	269.41	1.39	CU F1.60	90.9	3.4	17.3	28.1	51.2	0.34		26.82	
Sample 8												
DDL	284.51	1.01	CU F1.60	72.4	3.9	20.5	23.5	52.1	0.37		24.83	
Sample 10												
DE2	337.68	1.07	CU F1.70	89.0	3.2	15.2	29.1	52.5	0.47		27.68	

SIGNATURE :

*** FRAME F07***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Syabol between Brackets)

BOREHOLE : GY10

SAMPLE SIZE : - 12.7 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 9												
DDU	365.64	1.26	CU F1.50	63.6	4.2	14.7	27.9	53.2	0.34		27.23	
			CU F1.80	77.0	4.3	18.2	26.6	50.9	0.34		26.07	

SIGNATURE :

*** FRAME G07***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY11

SAMPLE SIZE : - 12.7 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 1	264.60	2.20	CU F1.80	67.3	5.1	23.2	26.6	45.1	0.37		23.74	
Sample 2 DDU	311.23	1.27	CU F1.60	80.7	4.2	17.4	28.5	49.9	0.38		26.60	
Sample 3+4 DDL	327.40	2.76	CU F1.80	65.9	3.8	26.2	23.5	46.5	0.33		23.73	

SIGNATURE :

*** FRAME H07***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY12

SAMPLE SIZE : - 12.7 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 8												
DD	378.64	1.86	CU F1.80	80.6	3.8	18.4	26.9	50.9	0.34		25.05	
Sample 11												
DD	381.52	1.21	CU F1.80	90.6	3.4	22.3	24.2	50.1	0.33		23.91	

SIGNATURE :

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY14

SAMPLE SIZE : - 0.5 + 0.1 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 7-9												
DDU	267.29	1.19	FR F1.50	48.2		12.8			0.39			
			FR S1.50	51.8		58.0			0.16			
Sample 10-13												
DDL	281.30	2.59	FR F1.50	36.0		16.7			0.34			
			FR S1.50	64.0		49.8			0.21			
Sample 14												
DE2	330.91	1.15	FR F1.50	27.2		11.6			0.37			
			FR S1.50	72.8		56.8			0.19			

SIGNATURE :

*** FRAME J07***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY17

SAMPLE SIZE : - 12.7 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 1												
DDU	468.27	1.52	CU F1.80	82.5	4.1	18.3	27.9	49.7	0.35		25.92	
Sample 3												
DDL	483.49	1.95	CU F1.80	89.1	3.8	19.2	25.5	51.5	0.29		25.73	

SIGNATURE :

*** FRAME K07***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY18

SAMPLE SIZE : - 12.7 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 2 DD	222.80	1.51	CU F1.80		3.7	22.8	25.2	48.3	0.30		24.40	

SIGNATURE :

*** FRAME L07***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Syzbol between Brackets)

BOREHOLE : GY20

SAMPLE SIZE : - 25.4 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 1												
DDL	436.41	2.06	FR F1.70	83.4	4.4	14.3	28.0	53.3	0.31		28.12	
			FR S1.70	16.6		65.7					6.98	
Sample 3												
DDL	438.95	0.71	FR F1.70	78.4	4.5	22.4	28.1	45.0	0.41		24.37	
			FR S1.70	21.6		64.4					7.64	

SIGNATURE :

*** FRAME AOS***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY21

SAMPLE SIZE : - 25.4 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 2												
DDL	285.90	1.18	FR F1.70	46.9	4.2	25.6	24.3	45.9			23.23	
			FR S1.70	53.1		72.0					5.23	
Sample 3												
DDL	289.34	0.77	FR F1.70	78.2	5.3	20.1	28.0	46.6			25.47	
			FR S1.70	21.8		66.6					5.35	

SIGNATURE :

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis Unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : 6Y22

SAMPLE SIZE : - 25.4 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 1 DDL	215.47	0.79	FR F1.70	79.8	3.9	21.1	30.4	44.6	0.49		25.70	
			FR S1.70	20.2		68.6					5.51	

SIGNATURE :

*** FRAME C08***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY23

SAMPLE SIZE : - 25.4 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 2												
DDL	338.76	1.20	FR F1.70	75.1	4.7	15.9	29.3	50.1			26.82	
			FR S1.70	24.9		66.0					6.96	
Sample 3												
	341.05	0.20	FR F1.70	11.3	3.9	40.8	17.6	37.7	0.29		17.41	
			FR S1.70	88.7		80.1					2.70	
Sample 4												
DDL	342.24	1.19	FR F1.70	76.0	3.5	20.1	29.8	46.6	0.45		26.05	
			FR S1.70	24.0		66.3					6.04	

SIGNATURE :

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY25

SAMPLE SIZE : - 25.4 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 1 DDL	475.17	1.33	FR F1.70	67.7	2.7	23.3	25.4	48.6	0.29		24.84	
			FR S1.70	32.3	2.8	52.9					13.02	
Sample 3	477.01	1.68	FR F1.70	76.8	3.4	15.8	28.0	52.8	0.26		26.93	
			FR S1.70	23.2	2.9	53.9					10.62	
Sample 4 DDL	478.12	1.11	FR F1.70	53.0	2.6	21.4	30.3	45.7	0.36		28.86	
			FR S1.70	47.0	2.2	62.2					7.61	
Sample 5 DDL	479.34	1.22	FR F1.70	66.9	3.3	20.4	29.9	46.4	0.41		25.80	
			FR S1.70	33.1	2.8	63.5					8.35	

SIGNATURE :

*** FRAME E08***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY27

SAMPLE SIZE : - 25.4 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS INHERENT MOISTURE %	PROXIMATE ANALYSIS ASH %	PROXIMATE ANALYSIS VOLATILE MATTER %	PROXIMATE ANALYSIS FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 1												
DDL	349.19	2.03	CU F1.70	85.3	4.0	19.4	24.4	52.2	0.19		25.73	
			CU S1.70	14.7	2.7	56.3					11.23	
Sample 2												
DDL	351.16	1.97	CU F1.70	77.4	6.2	18.8	28.0	47.0	0.28		25.26	
			CU S1.70	22.6	4.0	65.5					7.36	

SIGNATURE :

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY29

SAMPLE SIZE : - 25.4 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 1												
DDL	281.58	1.55	FR F1.70	74.1	3.7	18.2	27.8	50.3	0.36		26.36	
			FR S1.70	25.9	3.5	70.7					6.34	
Sample 3												
DDL	282.12	0.24	FR F1.70	68.7	3.5	19.5	31.8	45.2	0.46		26.38	
			FR S1.70	31.3	3.6	70.4					6.84	
Sample 4												
	285.28	0.65	FR F1.70	41.7	3.8	20.5	23.7	52.0	0.28		25.61	
			FR S1.70	58.3	5.1	66.5					7.33	
Sample 6												
DDL	287.24	1.44	FR F1.70	65.3	3.5	26.7	28.1	41.7	0.37		23.38	
			FR S1.70	34.7	4.1	65.1					8.20	

SIGNATURE :

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY30

SAMPLE SIZE : - 25.4 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 1 DD	266.79	2.73	FR F1.70	66.8	5.6	17.4	27.2	49.8	0.26		25.37	
			FR S1.70	33.2	4.1	62.3					8.51	
Sample 2 DD	267.45	0.66	FR F1.70	45.9	6.0	20.2	28.3	45.5	0.28		25.07	
			FR S1.70	54.1	3.5	81.1					2.21	
Sample 3 DD	268.10	0.65	FR F1.70	16.1	7.5	26.7	28.0	37.8	0.48		21.68	
			FR S1.70	83.9	3.8	74.6					4.59	
Sample 4 DD	269.32	1.22	FR F1.70	91.5	5.9	20.1	22.5	51.5	0.23		24.22	
			FR S1.70	8.5	3.5	60.0					9.42	

SIGNATURE :

*** FRAME H08***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY32

SAMPLE SIZE : - 25.4 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 1												
DE	200.93	1.34	FR F1.70	49.6	6.3	21.3	20.5	51.9	0.20		23.58	
			FR S1.70	50.4	5.6	56.7					9.35	
Sample 2												
DE	201.72	0.79	FR F1.70	24.2	4.9	31.2	19.9	44.0	0.23		20.26	
			FR S1.70	75.8	4.3	58.6					9.28	

SIGNATURE :

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BORENOLE : GY103

SAMPLE SIZE : - 25.4 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS INHERENT MOISTURE %	PROXIMATE ANALYSIS ASH %	PROXIMATE ANALYSIS VOLATILE MATTER %	PROXIMATE ANALYSIS FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 1+2												
BDL 225.86	1.89	CU	F1.70	73.9	3.1	20.6	29.7	46.6	0.40		25.74	

SIGNATURE :

*** FRAME J08***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY104

SAMPLE SIZE : - 25.4 + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample 1+2												
DDL	160.06	1.73	CU F1.70	71.7	3.5	20.3	29.5	46.7	0.39		25.81	

SIGNATURE :

*** FRAME K08***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY105

SAMPLE SIZE : - 5.6 + 0.00 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Analysed Composite of samples A1-11												
DDL	337.50	5.25	CU	F1.80	60.2	4.4	18.6	27.0	50.0	0.37		25.38	1.48

SIGNATURE :

*** FRAME LOG***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BORENOLE : GYDRA1

SAMPLE SIZE : - 5.6 + 0.5MM MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample	1 2.52	2.51	WTFR F1.40	21.6		8.4				1.0		

SIGNATURE :

*** FRAME A09***

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GYDRA1

SAMPLE SIZE : - 0.5MM + 0.0 MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS INHERENT MOISTURE %	PROXIMATE ANALYSIS ASH %	PROXIMATE ANALYSIS VOLATILE MATTER %	PROXIMATE ANALYSIS FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample	1		Concent.	36.2		25.3			0.41		23.52	

SIGNATURE :

WASHED COAL / COMPOSITE ANALYSIS

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GYDRA1

SAMPLE SIZE : - 45.0 + 0.5HW MM

SEAM CODE	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	YIELD MASS %	PROXIMATE ANALYSIS: INHERENT MOISTURE %	ASH %	VOLATILE MATTER %	FIXED CARBON %	TOTAL SULPHUR %	CRUCIBLE SWELLING NUMBER	SPECIFIC ENERGY (MJ/KG)	SAMPLE RELATIVE DENSITY
Sample	1		WTCU F1.70	80.5	2.7	20.0	27.8	49.5	0.28		25.33	1.50

SIGNATURE :

THE SHELL COMPANY OF AUSTRALIA LTD.

PRETREATMENT AND SIZING REPORT

GRAY

APPENDIX E4 PRETREATMENT AND SIZING REPORT

PRETREATMENT AND SIZING REPORT

GRAY

BOREHOLE : GY14

SAMPLE DESCRIPTION	SIZE RANGE MM	SAMPLE SIZING (AS REDUCED) MASS%	SAMPLE SIZING (AS REDUCED) ASH%	FEED SIZING (DRY TUMBLED) MASS%	FEED SIZING (DRY TUMBLED) ASH%	PRODUCT SIZING (WET TUMBLED) MASS%	PRODUCT SIZING (WET TUMBLED) ASH%
SAMPLE 10-13 SEAM DDL INITIAL TOP SIZE - 38.1 MM RAW RGI 58	- 38.1 + 25.4	46.7		6.0		5.2	
	- 25.4 + 12.7	31.9		21.9		21.9	
	- 12.7 + 6.35	9.7		24.9		23.9	38.1
	- 6.35 + 3.18	4.9		16.0		16.6	36.5
	- 3.18 + 00.5WW					20.2	38.3
	-00.5WW + 00.1					10.4	37.9
	- 00.1 + 00.0					2.0	43.5
	- 3.18 + 00.0	6.8		31.2			
	- 38.1 + 12.7					27.1	40.4
	- 38.1 + 00.0					100.0	37.0
SAMPLE 14 SEAM DE2 INITIAL TOP SIZE - 38.1 MM RAW RGI 60	- 38.1 + 25.4	41.8		6.0		2.3	
	- 25.4 + 12.7	36.0		22.1			
	- 12.7 + 6.35	10.7		18.1		20.0	38.5
	- 6.35 + 3.18	4.9		16.0		16.9	35.0
	- 3.18 + 00.5WW	6.5		37.8		23.7	31.2
	-00.5WW + 00.1					12.9	36.9
	- 00.1 + 00.0					3.0	41.5
	- 38.1 + 12.7					21.2	39.7
	- 38.1 + 00.0					100.0	36.5

SIGNATURE :

PRETREATMENT AND SIZING REPORT

GRAY

BOREHOLE : GY14

SAMPLE DESCRIPTION	SIZE RANGE MM	SAMPLE SIZING (AS REDUCED) MASS%	ASH%	FEED SIZING (DRY TUMBLED) MASS%	ASH%	PRODUCT SIZING (WET TUMBLED) MASS%	ASH%
SAMPLE 7-9 SEAM DDU INITIAL TOP SIZE - 38.1 MM RAW NGI 56	- 38.1 + 25.4	33.6		6.1		4.9	
	- 25.4 + 12.7	35.3		22.3		19.3	
	- 12.7 + 6.35	13.7		23.3		21.2	24.5
	- 6.35 + 3.18	7.2		16.2		20.3	37.4
	- 3.18 + 00.5WW					20.0	30.8
	-00.5WW + 00.1					11.0	36.2
	- 00.1 + 00.0					3.3	50.0
	- 3.18 + 00.0	10.2		32.1			
	- 38.1 + 12.7					24.2	19.3
	- 38.1 + 00.0					100.0	29.3

SIGNATURE :

*** FRAME F09***

PRETREATMENT AND SIZING REPORT

GRAY

BOREHOLE : SYDRA1

SAMPLE DESCRIPTION	SIZE RANGE MM	SAMPLE SIZING (AS REDUCED) MASS%	SAMPLE SIZING (AS REDUCED) ASH%	FEED SIZING (DRY TUMBLED) MASS%	FEED SIZING (DRY TUMBLED) ASH%	PRODUCT SIZING (WET TUMBLED) MASS%	PRODUCT SIZING (WET TUMBLED) ASH%
SAMPLE 1 SEAM INITIAL TOP SIZE - 45.0 MM RAW HGI	- 45.0 + 22.4	40.1		28.0		27.8	22.5
	- 22.4 + 11.2	27.9		19.0		18.6	28.6
	- 11.2 + 5.6	15.5		18.0		17.2	32.7
	- 5.6 + 2.8	7.6		12.0		10.5	38.2
	- 2.8 + 1.4			8.6		11.0	37.3
	- 1.4 + 0.5WW			3.7		4.1	34.5
	- 0.5WW + 0.0			10.7		10.8	41.9
	- 2.8 + 0.0	8.9					

SIGNATURE :

PRETREATMENT AND SIZING REPORT

GRAY

BOREHOLE : GYDRA2

SAMPLE DESCRIPTION	SIZE RANGE MM	SAMPLE SIZING (AS REDUCED) MASS%	ASH%	FEED SIZING (DRY TUMBLED) MASS%	ASH%	PRODUCT SIZING (WET TUMBLED) MASS%	ASH%
SAMPLE 2 SEAM INITIAL TOP SIZE - 25.0 MM RAW NCB	- 25.0 + 22.4	21.0					
	- 22.4 + 11.2	43.5					
	- 11.2 + 5.6	11.8					
	- 5.6 + 2.8	10.2					
	- 2.8 + 1.4	5.0					
	- 1.4 + 0.5WW	2.6					
	- 0.5WW + 0.0	5.9					

*** FRAME H09***

SIGNATURE :

THE SHELL COMPANY OF AUSTRALIA LTD.

STEAMING COAL PROPERTIES

GRAY

APPENDIX E5 STEAM COAL PROPERTIES

THE SHELL COMPANY OF AUSTRALIA LTD.

STEAMING COAL PROPERTIES

LEGEND

SAMPLE STATE

Col 1-4:	WTFR	Wet Tumbled. Fractional
	DTFR	Dry Tumbled. Fractional
	WTCU	Wet Tumbled. Cumulative
	DTCU	Dry Tumbled. Cumulative
	FR	Broken - Not Tumbled. Fractional
	CU	Broken - Not Tumbled. Cumulative
Col 5:	blank	
Col 6:	S	Sink Fraction
	F	Float Fraction
Col 7-10:	N.NN	Separation Relative Density

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY1

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
1	206.98	1.68	RAW									67
1	206.98	1.68	CU - F1.55					1590	>1600	>1600	>1600	68

SIGNATURE :

*** FRAME K09***

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Syabol between Brackets)

BOREHOLE : GY2

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
9	357.84	0.78	RAW									53
10	359.85	2.01	RAW									53
16	347.45	1.23	RAW					1550	>1600	>1600	>1600	
15+16	347.45	1.51	RAW					1310	1440	1470	1490	
9	357.84	0.78	CU F1.55					>1600	>1600	>1600	>1600	51
10	359.85	2.01	CU F1.55					1580	>1600	>1600	>1600	52
16-18	348.55	2.33	CU F1.80					1400	1540	1560	1580	

SIGNATURE :

*** FRAME L09***

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY3

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
2	363.82	1.86	RAW									49
3	377.30	0.62	RAW									53
4	379.50	2.20	RAW									53
1	361.96	0.99	CU F1.70					1360	1430	1450	1470	44
2	363.82	1.86	CU F1.70					1450	>1600	>1600	>1600	47
3	377.30	0.62	CU F1.55					1430	>1600	>1600	>1600	49
4	379.50	2.20	CU F1.55					1550	>1600	>1600	>1600	52
5+6	461.03	1.26	CU F1.70					1570	>1600	>1600	>1600	

SIGNATURE :

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Syabol between Brackets)

BOREHOLE : GY4

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
7	303.92	1.77	RAW									56
9	318.52	1.44	RAW									58
7	303.92	1.77	CU F1.55					1430	>1600	>1600	>1600	55
9	318.52	1.44	CU F1.60					1540	>1600	>1600	>1600	57

SIGNATURE :

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY5

SAMPLE SIZE : - 12.7 + 0.0 MM

				ASH FUSION TEMPERATURES (DEGREES CELSIUS)								
				OXIDISING ATMOSPHERE				REDUCING ATMOSPHERE				
SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	DEF	SPHER	HEMIS	FLOW	DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
3-5	266.00	2.24	CU F1.65					1420	1580	1590	1600	
3-5	266.00	2.24	CU F1.80					1430	>1600	>1600	>1600	

SIGNATURE :

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY6A

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
1+2	263.92	1.42	CU F1.70					1580	>1600	>1600	>1600	

SIGNATURE :

*** FRAME D10***

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY7

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
1+2	254.60	2.59	CU F1.70					1430	1530	1550	1570	
3	281.76	1.03	CU F1.70					1550	>1600	>1600	>1600	
5+6	316.43	2.11	CU F1.50					1400	1560	1580	1590	51
4-6	316.43	2.60	CU F1.80					1450	>1600	>1600	>1600	48

SIGNATURE :

*** FRAME E10***

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY9

SAMPLE SIZE : - 12,7 + 0,0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
6	269.41	1.39	RAW					1300	1580	1590	1590	
8	284.51	1.01	RAW					1420	>1600	>1600	>1600	
10	337.68	1.07	RAW					1390	>1600	>1600	>1600	
6	269.41	1.39	CU F1.60					1410	1550	1560	1570	
8	284.51	1.01	CU F1.60					1510	>1600	>1600	>1600	
10	337.68	1.07	CU F1.70					1400	>1600	>1600	>1600	

SIGNATURE :

*** FRAME F10***

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY10

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
9	385.64	1.26	CU F1.50					1430	1520	1530	1540	
			CU F1.80					1360	1430	1450	1460	

SIGNATURE :

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : 6Y11

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
1	264.60	2.20	RAW									57
2	311.23	1.27	RAW					1380	1460	1490	1500	59
4	327.40	1.43	RAW					1450	>1600	>1600	>1600	
5	381.26	0.89	RAW					1400	>1600	>1600	>1600	
1	264.60	2.20	CU F1.80					1400	>1600	>1600	>1600	
2	311.23	1.27	CU F1.60					1400	1520	1530	1540	
3+4	327.40	2.76	CU F1.80					1550	>1600	>1600	>1600	

SIGNATURE :

*** FRAME H10***

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY12

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
8	378.64	1.86	RAW					1550	>1600	>1600	>1600	54
11	381.52	1.21	RAW					>1600	>1600	>1600	>1600	59
8	378.64	1.86	CU F1.80					1580	>1600	>1600	>1600	57
11	381.52	1.21	CU F1.80					1480	>1600	>1600	>1600	59

SIGNATURE :

*** FRAME I10***

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY14

SAMPLE SIZE : - 38.1 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
7-9	267.29	1.19	RAW					1380	>1600	>1600	>1600	56
10-13	281.30	2.59	RAW					1350	>1600	>1600	>1600	58
14	330.91	1.15	RAW					1370	>1600	>1600	>1600	60

SIGNATURE :

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis
Unless otherwise indicated by
Letter Symbol between Brackets)

BORENOLE : GY17

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
1	468.27	1.52	RAW					1280	1570	>1585	>1600	51
3	483.49	1.95	RAW					>1600	>1600	>1600	>1600	53
1	468.27	1.52	CU F1.80					1420	>1600	>1600	>1600	
3	483.49	1.95	CU F1.80					>1600	>1600	>1600	>1600	

SIGNATURE :

*** FRAME K10***

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : SY18

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
2	222.80	1.51	RAW					>1600	>1600	>1600	>1600	54
			CU F1.80					>1600	>1600	>1600	>1600	

SIGNATURE :

*** FRAME L10***

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : 6Y20

SAMPLE SIZE : - 25.4 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
1	636.41	2.06	RAW					>1600	>1600	>1600	>1600	
3	638.95	0.71	RAW					1480	>1600	>1600	>1600	
1	636.41	2.06	FR F1.70					>1600	>1600	>1600	>1600	
3	638.95	0.71	FR F1.70					1450	1580	1590	1600	

SIGNATURE :

*** FRAME A11***

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY23

SAMPLE SIZE : - 25.4 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
3	341.05	0.20	RAW					1480	>1600	>1600	>1600	
			FR F1.70					1450	1580	1590	1600	47
4	342.24	1.19	FR F1.70					1490	1580	>1600	>1600	49

SIGNATURE :

*** FRAME B11***

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BORENOLE : GY25

SAMPLE SIZE : - 25.4 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
3	477.01	1.68	RAW					1350	1370	1400	1430	
			FR F1.70					1550	>1600	>1600	>1600	47
4+5	479.34	2.33	FR F1.70					1490	>1600	>1600	>1600	45

SIGNATURE :

*** FRAME C11***

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY27

SAMPLE SIZE : - 25.4 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
1	349.19	2.03	RAW					1570	>1600	>1600	>1600	54
			CU F1.70					>1600	>1600	>1600	>1600	
2	351.16	1.97	CU F1.70					1590	>1600	>1600	>1600	

SIGNATURE :

*** FRAME D11***

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY29

SAMPLE SIZE : - 25.4 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
1	281.58	1.55	FR F1.70					1510	>1600	>1600	>1600	47
6	287.24	1.44	FR F1.70					1550	>1600	>1600	>1600	46

SIGNATURE :

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GY30

SAMPLE SIZE : - 25.4 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
1	266.79	2.73	FR F1.70					1570	>1600	>1600	>1600	60
4	269.32	1.22	FR F1.70					1580	>1600	>1600	>1600	68

SIGNATURE :

*** FRAME F11***

STEAMING COAL PROPERTIES

GRAY

(All Results on Air Dried Basis unless otherwise indicated by Letter Symbol between Brackets)

BOREHOLE : GYDRA1

SAMPLE SIZE : - 45.0 + 22.4 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH FUSION TEMPERATURES (DEGREES CELSIUS) OXIDISING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	REDUCING ATMOSPHERE DEF	SPHER	HEMIS	FLOW	HARDGROVE GRINDABILITY INDEX
1	2.52	2.51	WTCU F1.70	>1600	>1600	>1600	>1600					45

SIGNATURE :

*** FRAME G11***

THE SHELL COMPANY OF AUSTRALIA LTD.

ULTIMATE AND ELEMENTAL ANALYSIS

GRAY

APPENDIX E6 ULTIMATE AND ELEMENTAL ANALYSIS

*** FRAME H11***

THE SHELL COMPANY OF AUSTRALIA LTD.

ULTIMATE AND ELEMENTAL ANALYSIS

LEGEND

ULTIMATE AND ELEMENTAL ANALYSIS BASES

	AIR DRIED
A	AS RECEIVED
R	DRY BASIS
D	DRY, ASH FREE
C	DRY, MINERAL MATTER FREE
E	ESTIMATED VALUE

ULTIMATE AND ELEMENTAL ANALYSIS

GRAY

(ALL RESULTS ON AIR DRIED BASIS UNLESS OTHERWISE INDICATED BY LETTER SYMBOL BETWEEN BRACKETS)

BOREHOLE : GY1

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M		SAMPLE STATE	ULTIMATE ANALYSIS CARBON %	HYDROG %	OXYGEN %	NITROG %	SULPHUR %	CARBONATE %	ELEMENTAL ANALYSIS PHOSPHORUS %	CHLORINE %	ARSENIC PPM	FLUORINE %
Sample 1	206.98	1.68		RAW								0.090		
Sample 1	206.98	1.68	CU	F1.55	75.20	4.12	18.68	1.55	0.45 (D)	0.070				

SIGNATURE :

ULTIMATE AND ELEMENTAL ANALYSIS

GRAY

(ALL RESULTS ON AIR DRIED BASIS UNLESS OTHERWISE INDICATED BY LETTER SYMBOL BETWEEN BRACKETS)

BOREHOLE : 6Y2

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M		SAMPLE STATE	ULTIMATE ANALYSIS CARBON %	HYDROG %	OXYGEN %	NITROG %	SULPHUR %	CARBONATE %	ELEMENTAL ANALYSIS PHOSPHORUS %	CHLORINE %	ARSENIC PPM	FLUORINE %
Sample 9	357.84	0.78		RAW								0.070		
Sample 10	359.85	2.01		RAW								0.090		
Sample 9	357.84	0.78	CU	F1.50	74.20	4.40	19.50	1.43	0.47 (D)	0.100				
Sample 10	359.85	2.01	CU	F1.55	82.90	4.65	10.55	1.42	0.48 (D)	0.140				

SIGNATURE :

*** FRAME K11***

ULTIMATE AND ELEMENTAL ANALYSIS

GRAY

(ALL RESULTS ON AIR DRIED BASIS UNLESS OTHERWISE INDICATED BY LETTER SYMBOL BETWEEN BRACKETS)

BOREHOLE : GY3

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M		SAMPLE STATE	ULTIMATE ANALYSIS CARBON %	HYDROG %	OXYGEN %	NITROG %	SULPHUR %	CARBONATE %	ELEMENTAL ANALYSIS PHOSPHORUS %	CHLORINE %	ARSENIC PPM	FLUORINE %
Sample 2	363.82	1.86		RAW								0.050		
Sample 3	377.30	0.62		RAW								0.080		
Sample 4	379.50	2.20		RAW								0.050		
Sample 1	361.96	0.99	CU	F1.70	83.10	5.22	9.76	1.47	0.45 (D)	0.260				
Sample 2	363.82	1.86	CU	F1.70	83.40	4.80	9.93	1.47	0.40 (D)	0.220				
Sample 3	377.30	0.62	CU	F1.55	83.00	4.73	10.47	1.38	0.37 (D)	0.210				
Sample 4	379.50	2.20	CU	F1.55	83.30	4.76	9.94	1.45	0.41 (D)	0.190				

SIGNATURE :

*** FRAME L11***

ULTIMATE AND ELEMENTAL ANALYSIS

GRAY

(ALL RESULTS ON AIR DRIED BASIS UNLESS OTHERWISE INDICATED BY LETTER SYMBOL BETWEEN BRACKETS)

BOREHOLE : GY4

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M		SAMPLE STATE	ULTIMATE ANALYSIS CARBON %	HYDROG %	OXYGEN %	NITROG %	SULPHUR %	CARBONATE %	ELEMENTAL ANALYSIS PHOSPHORUS %	CHLORINE %	ARSENIC PPM	FLUORINE %
Sample 7	303.92	1.77		RAW								0.080		
Sample 9	318.52	1.44		RAW								0.050		
Sample 7	303.92	1.77	CU	F1.55	79.00	4.34	14.95	1.34	0.37 (D)	0.100				
Sample 9	318.52	1.44	CU	F1.60	82.80	4.32	8.55	1.45	0.45 (D)	0.100				

SIGNATURE :

*** FRAME A12***

ULTIMATE AND ELEMENTAL ANALYSIS

GRAY

(ALL RESULTS ON AIR DRIED BASIS UNLESS OTHERWISE INDICATED BY LETTER SYMBOL BETWEEN BRACKETS)

BOREHOLE : 6Y12

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M		SAMPLE STATE	ULTIMATE ANALYSIS CARBON %	HYDROG %	OXYGEN %	NITROG %	SULPHUR %	CARBONATE %	ELEMENTAL ANALYSIS PHOSPHORUS %	CHLORINE %	ARSENIC PPM	FLUORINE %
Sample 8	378.64	1.86		RAW	80.40	4.88	12.88	1.40	0.44 (D)	0.220				
Sample 11	381.52	1.21		RAW	82.50	4.62	10.94	1.46	0.48 (D)	0.100				
Sample 8	378.64	1.86	CU	F1.80	78.90	4.41	14.82	1.44	0.43 (D)	0.460				
Sample 11	381.52	1.21	CU	F1.80	81.00	4.50	12.52	1.53	0.45 (D)	0.030				

SIGNATURE :

ULTIMATE AND ELEMENTAL ANALYSIS

GRAY

(ALL RESULTS ON AIR DRIED BASIS UNLESS OTHERWISE INDICATED BY LETTER SYMBOL BETWEEN BRACKETS)

BOREHOLE : GY14

SAMPLE SIZE : - 38.1 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ULTIMATE ANALYSIS CARBON %	HYDROG %	OXYGEN %	NITROG %	SULPHUR %	CARBONATE %	ELEMENTAL ANALYSIS PHOSPHORUS %	CHLORINE %	ARSENIC PPM	FLUORINE %
Composite of Samples 7-9	267.29	1.19	RAW	71.20	4.41	22.86	1.17	0.86 (D)	0.140				
Composite of Samples 10-13	281.30	2.59	RAW	79.60	4.94	13.75	1.35	0.36 (D)	0.660				
Sample 14	330.91	1.15	RAW	90.60	5.82	1.68	1.54	0.36 (D)	0.210				

SIGNATURE :

*** FRAME C12***

ULTIMATE AND ELEMENTAL ANALYSIS

GRAY

(ALL RESULTS ON AIR DRIED BASIS UNLESS OTHERWISE INDICATED BY LETTER SYMBOL BETWEEN BRACKETS)

BOREHOLE : GY17

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M		SAMPLE STATE	ULTIMATE ANALYSIS CARBON %	HYDROG %	OXYGEN %	NITROG %	SULPHUR %	CARBONATE %	ELEMENTAL ANALYSIS PHOSPHORUS %	CHLORINE %	ARSENIC PPM	FLUORINE %
Sample 1	468.27	1.52		RAW	82.00	5.12	10.97	1.42	0.49 (D)	0.110				
Sample 3	483.49	1.95		RAW	81.60	4.76	11.77	1.38	0.49 (D)	0.150				
Sample 1	468.27	1.52	CU	F1.80	82.20	4.80	11.07	1.48	0.45 (D)	0.080				
Sample 3	483.49	1.95	CU	F1.80	82.00	4.90	11.30	1.42	0.33 (D)	0.160				

SIGNATURE :

*** FRAME D12***

ULTIMATE AND ELEMENTAL ANALYSIS

GRAY

(ALL RESULTS ON AIR DRIED BASIS UNLESS OTHERWISE INDICATED BY LETTER SYMBOL BETWEEN BRACKETS)

BOREHOLE : GY18

SAMPLE SIZE : - 12.7 + 0.0 MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M		SAMPLE STATE	ULTIMATE ANALYSIS CARBON %	HYDROG %	OXYGEN %	NITROG %	SULPHUR %	CARBONATE %	ELEMENTAL ANALYSIS PHOSPHORUS %	CHLORINE %	ARSENIC PPM	FLUORINE %
Sample 2	222.80	1.51		RAW	81.60	4.57	11.96	1.46	0.41 (D)	0.090				
Sample 2	222.80	1.51	CU	F1.80	81.60	4.41	12.27	1.31	0.41 (D)	0.180				

SIGNATURE :

*** FRAME E12***

ULTIMATE AND ELEMENTAL ANALYSIS

GRAY

(ALL RESULTS ON AIR DRIED BASIS UNLESS OTHERWISE INDICATED BY LETTER SYMBOL BETWEEN BRACKETS)

BOREHOLE : GYDRA1

SAMPLE SIZE : - 45.0 + 0.5W MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ULTIMATE ANALYSIS CARBON %	HYDROG %	OXYGEN %	NITROG %	SULPHUR %	CARBONATE %	ELEMENTAL ANALYSIS PHOSPHORUS %	CHLORINE %	ARSENIC PPM	FLUORINE %
Sample 1	2.52	2.51	WTCU F1.70	82.10	4.54	11.53	1.46	0.37 (D)	0.040	0.003	0.200		(D)

SIGNATURE :

*** FRAME F12***

THE SHELL COMPANY OF AUSTRALIA LTD.

ASH ANALYSIS

GRAY

APPENDIX E7 ASH ANALYSIS

*** FRAME G12***

ASH ANALYSIS

GRAY

BOREHOLE : GY1

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH ANALYSIS SIO2 %	AL2O3 %	TIO2 %	FE2O3 %	CAO %	MGO %	NA2O %	K2O %	P2O5 %	SO3 %	MN3O4 %	MN2O3 %
Sample 1	206.98	1.68	CU F1.55	67.40	21.60	1.68	3.86	0.73	0.46	0.23	0.90	0.01	0.38	0.01	

SIGNATURE :

*** FRAME H12***

ASH ANALYSIS

GRAY

BOREHOLE : GY2

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE		ASH ANALYSIS SIO2 %	AL203 %	TIO2 %	FE203 %	CAO %	MGO %	NA20 %	K20 %	P205 %	S03 %	MN304 %	MN203 %
Sample 9	357.84	0.78	CU	F1.55	69.90	22.20	1.21	3.31	0.48	0.17	0.20	0.76	0.02	0.35	0.03	
Sample 10	359.85	2.01	CU	F1.55	66.80	24.80	1.65	3.38	0.37	0.28	0.18	0.32	0.02	0.10	0.03	

SIGNATURE :

*** FRAME I12***

ASH ANALYSIS

GRAY

BOREHOLE : GY3

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE		ASH ANALYSIS SIO2 %	AL203 %	TIO2 %	FE203 %	CAO %	MGO %	NA20 %	K20 %	P205 %	SO3 %	MN304 %	MN203 %
Sample 1	361.96	0.99	CU	F1.70	64.50	23.50	1.10	6.91	0.47	0.97	0.12	0.70	0.02	0.05	0.06	
Sample 2	363.82	1.86	CU	F1.70	62.90	28.50	1.19	3.40	0.50	0.85	0.10	0.60	0.03	0.08	0.05	
Sample 3	377.30	0.62	CU	F1.55	66.30	27.00	1.07	1.73	0.40	0.41	0.14	0.77	0.02	0.05	0.02	
Sample 4	379.50	2.20	CU	F1.55	61.50	30.60	1.19	3.16	0.56	0.71	0.15	0.65	0.03	0.08	0.02	

SIGNATURE :

*** FRA.S J12***

ASH ANALYSIS

GRAY

BOREHOLE : GY4

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH ANALYSIS SIO2 %	AL2O3 %	TIO2 %	FE2O3 %	CAO %	MGO %	NA2O %	K2O %	P2O5 %	SO3 %	MN3O4 %	MN2O3 %
Sample 7	303.92	1.77	CU F1.55	67.00	26.10	0.86	3.08	0.54	0.43	0.14	0.60	0.01	0.10	0.02	
Sample 9	318.52	1.44	CU F1.70	59.00	32.20	1.30	4.10	0.56	0.75	0.16	0.70	0.03	0.08	0.02	

SIGNATURE :

*** FRAME K12***

ASH ANALYSIS

GRAY

BOREHOLE : GY12

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH ANALYSIS SIO2 %	AL203 %	TIO2 %	FE203 %	CAO %	MGO %	NA20 %	K20 %	P205 %	SO3 %	MN304 %	MN203 %
Sample 8	378.64	1.86	RAW	55.70	37.30	1.00	2.30	1.90	0.48	0.22	0.29	0.04	0.53	0.04	
Sample 11	381.52	1.21	RAW	55.80	37.40	1.36	2.82	0.96	0.82	0.25	0.32	0.03	0.07	0.04	
Sample 8	378.64	1.86	CU F1.80	55.50	34.60	1.30	2.88	3.10	0.58	0.25	0.32	0.05	1.12	0.05	
Sample 11	381.52	1.21	CU F1.80	57.30	36.10	1.09	2.71	0.95	0.83	0.29	0.29	0.03	0.11	0.04	

SIGNATURE :

*** FRAME L12***

ASH ANALYSIS

GRAY

BOREHOLE : GY14

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH ANALYSIS SIO2 %	AL203 %	TIO2 %	FE203 %	CAO %	MGO %	NA20 %	K20 %	P205 %	S03 %	MN304 %	MN203 %
Composite of Samples 7-9	267.29	1.19	RAW	60.80	30.00	0.71	3.82	1.85	0.42	0.25	0.80	0.01	0.69	0.02	
Composite of Samples 10-13	281.30	2.59	RAW	56.90	33.10	0.91	2.96	3.10	0.33	0.21	0.92	0.01	0.88	0.02	
Sample 14	330.91	1.15	RAW	57.80	34.90	1.10	3.68	0.29	0.12	0.26	0.68	0.01	0.07	0.01	

SIGNATURE :

*** FRAME A13***

ASH ANALYSIS

GRAY

BOREHOLE : GY17

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH ANALYSIS SIO2 %	AL2O3 %	TIO2 %	FE2O3 %	CAO %	MGO %	NA2O %	K2O %	P2O5 %	SO3 %	MN3O4 %	MN2O3 %
Sample 1	468.27	1.52	RAW	67.60	24.10	0.81	3.14	0.79	0.98	0.27	1.83	0.02	0.15	0.04	
Sample 3	483.49	1.95	RAW	57.40	34.20	1.28	2.68	0.58	0.71	0.26	0.65	0.03	0.10	0.04	
Sample 1	468.27	1.52	CU F1.80	66.50	25.40	0.72	3.62	0.88	0.92	0.25	1.10	0.04	0.12	0.05	
Sample 3	483.49	1.95	CU F1.80	59.50	32.60	1.28	3.09	0.24	0.51	0.28	0.46	0.06	0.08	0.03	

SIGNATURE :

*** FRAME B13***

ASH ANALYSIS

GRAY

BOREHOLE : GY18

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH ANALYSIS SIO2 %	AL203 %	TIO2 %	FE203 %	CAO %	MGO %	NA20 %	K20 %	P205 %	S03 %	MN304 %	MN203 %
Sample 2	222.80	1.51	RAW	59.60	32.00	1.36	3.04	0.50	0.81	0.35	0.69	0.03	0.25	0.04	
Sample 2	222.80	1.51	CU F1.80	60.60	30.40	1.45	3.09	0.66	0.91	0.36	0.54	0.02	0.17	0.03	

SIGNATURE :

*** FRAME C13***

ASH ANALYSIS

GRAY

BOREHOLE : GY27

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH ANALYSIS SIO2 %	AL2O3 %	TIO2 %	FE2O3 %	CAO %	MGO %	NA2O %	K2O %	P2O5 %	SO3 %	MN3O4 %	MN2O3 %
Sample 1	237.57	2.62	F1.70	61.20	32.20	1.38	2.73	1.36	0.50	0.26	0.54	0.04	0.23	0.06	

SIGNATURE :

ASH ANALYSIS

GRAY

BOREHOLE : GY29

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH ANALYSIS SIO2 %	AL2O3 %	TIO2 %	FE2O3 %	CAO %	MGO %	NA2O %	K2O %	P2O5 %	SO3 %	MN3O4 %	MN2O3 %
Sample 1	281.58	1.55	F1.70	67.90	23.00	0.84	4.24	1.23	0.73	0.19	0.94	0.17	0.10	0.06	

SIGNATURE :

*** FRAME E13***

ASH ANALYSIS

GRAY

BOREHOLE : GY30

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE		ASH ANALYSIS SIO2 %	AL2O3 %	TIO2 %	FE2O3 %	CAO %	MGO %	NA2O %	K2O %	P2O5 %	SO3 %	MN3O4 %	MN2O3 %
Sample 1	266.79	2.73	FR	F1.70	60.20	33.30	1.57	2.52	0.84	0.40	0.20	0.45	0.25	0.01	0.04	

SIGNATURE :

ASH ANALYSIS

GRAY

BOREHOLE : GYDRA1

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	ASH ANALYSIS SIO2 %	AL203 %	TIO2 %	FE203 %	CAO %	MGO %	NA20 %	K20 %	P205 %	SO3 %	MN304 %	MN203 %
Ssaple 1	2.52	2.51	WTCU F1.70	67.60	26.50	1.08	2.72	0.59	0.65	0.01	0.78	0.03	0.01	0.03	

SIGNATURE :

*** FRAME G13***

THE SHELL COMPANY OF AUSTRALIA LTD.

FORMS OF SULPHUR

GRAY

APPENDIX E8 FORMS OF SULPHUR

*** FRAME H13***

THE SHELL COMPANY OF AUSTRALIA LTD.

FORMS OF SULPHUR

LEGEND

TOTAL SULPHUR AND FORMS OF SULPHUR BASIS

AIR DRIED
A AS RECEIVED
R DRY BASIS

RO MAX BASIS

OIL
A AIR
G GLYCERINE

FORMS OF SULPHUR

GRAY

(ALL RESULTS ON AIR DRIED BASIS UNLESS OTHERWISE INDICATED BY LETTER SYMBOL BETWEEN BRACKETS)

BOREHOLE : GYDRA1

SAMPLE SIZE : - 45.0 + 0.5WW MM

SAMPLE NUMBER	DEPTH TO BASE M	THICKNESS M	SAMPLE STATE	TOTAL SULPHUR %	FORMS OF SULPHUR PYRITIC %	FORMS OF SULPHUR ORGANIC %	FORMS OF SULPHUR SULPHATE %	RO MAX %
Sample 1	2.52	2.51	WTCU F1.70	0.28	0.09	0.18	0.01	0.64

SIGNATURE :

*** FRAME J13***

THE SHELL COMPANY OF AUSTRALIA LTD.

MACERAL REPORT

GRAY

APPENDIX E9 MACERAL ANALYSIS REPORT

*** FRAME K13***

MACERAL ANALYSIS

REPORT

*** FRAME L13***

ORB\OLE:SYDRA1

Size -45.00 + 0.5mm WT CU F1.70

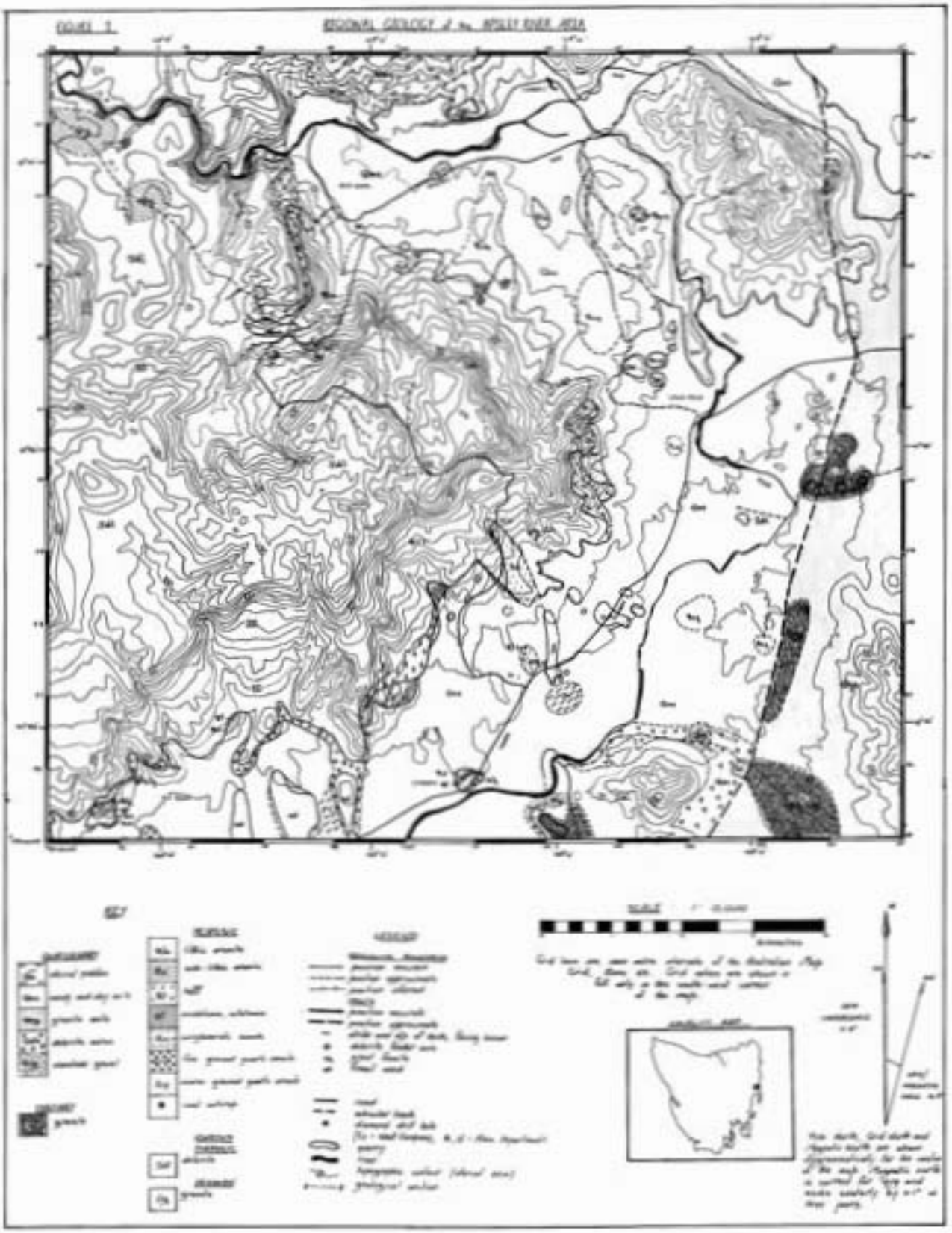
EAN MAXIMUN REFLECTANCE =0.64% (Based on 100 measurements)

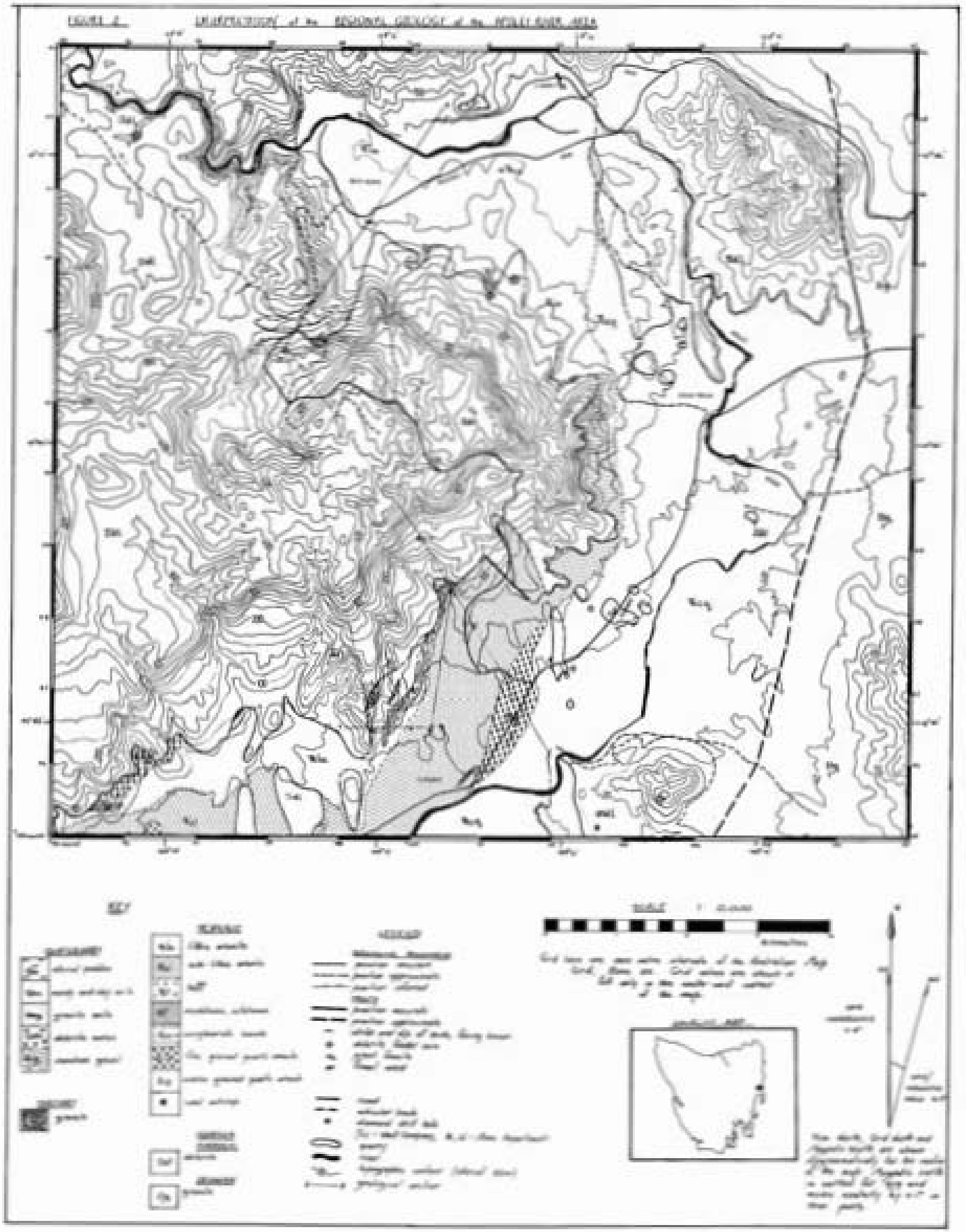
EFLECTANCE MEASUREMENTS AT 546 n m LIGHT WAVELENGTH

IL REFRACTIVE INDEX =1.5180

		NEW MACERAL CLASSIFICATION			
MACERAL	VOLUME %	MACERAL	VOLUME %	MACERAL GROUP	VOLUME %
Vitrinite	35	Vitrinite	35	Vitrinite	35
Resinite	1	Resinite	1		
Sporinite	2	Sporinite	2	Exinite	8
Cutinite	5	Cutinite	5		
Fusinite	2	Fusinite	2		
		Semi fusin	43		
Semi fusin.	43	Macrinite	Tr	Inertinite	50
		Sclerotin.	--		
		Micrinite	--		
		Inertodetr.	5		
Mineral Matter	7	Mineral Matter	7	Mineral Matter	7

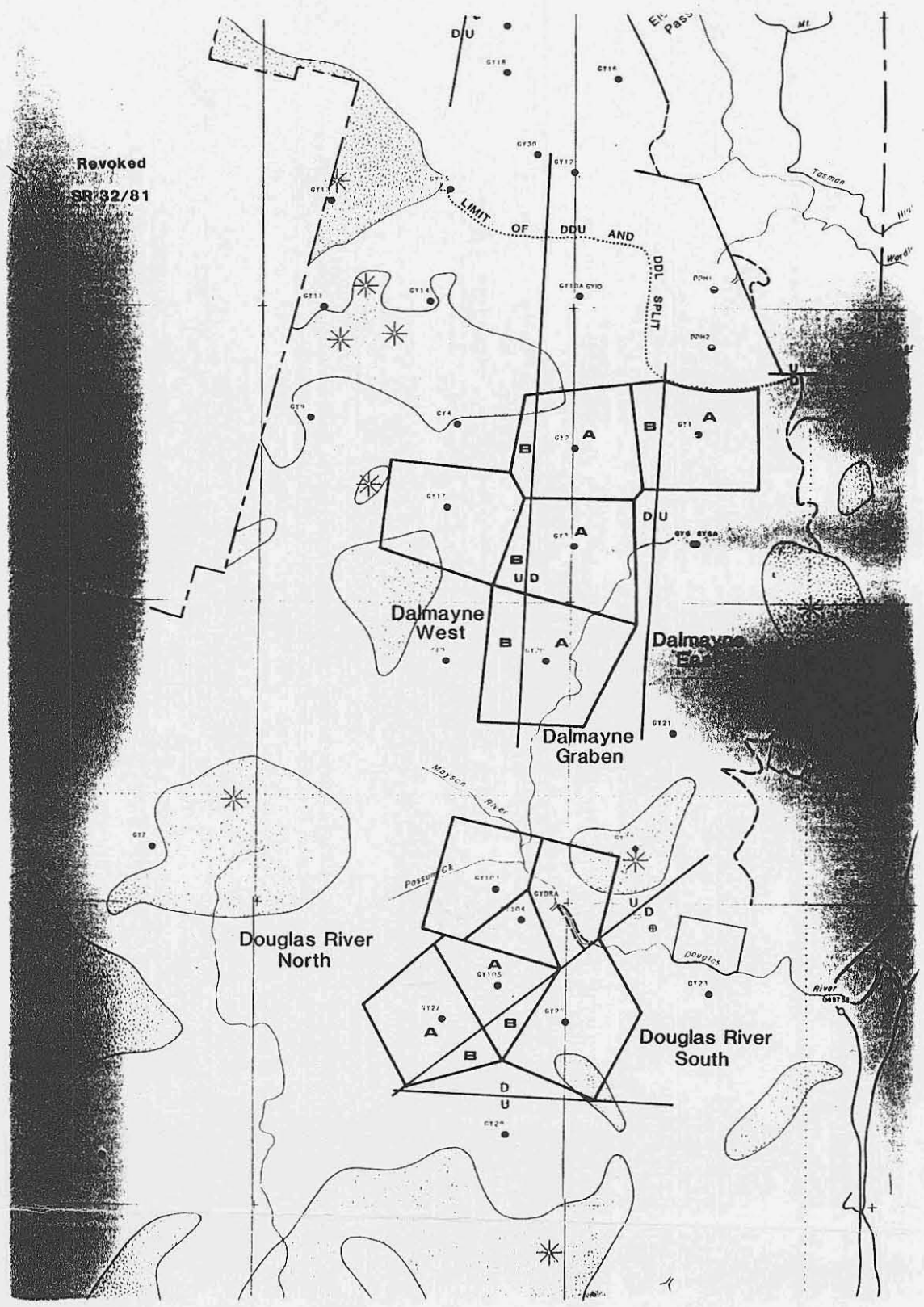
*** FRAME A14***





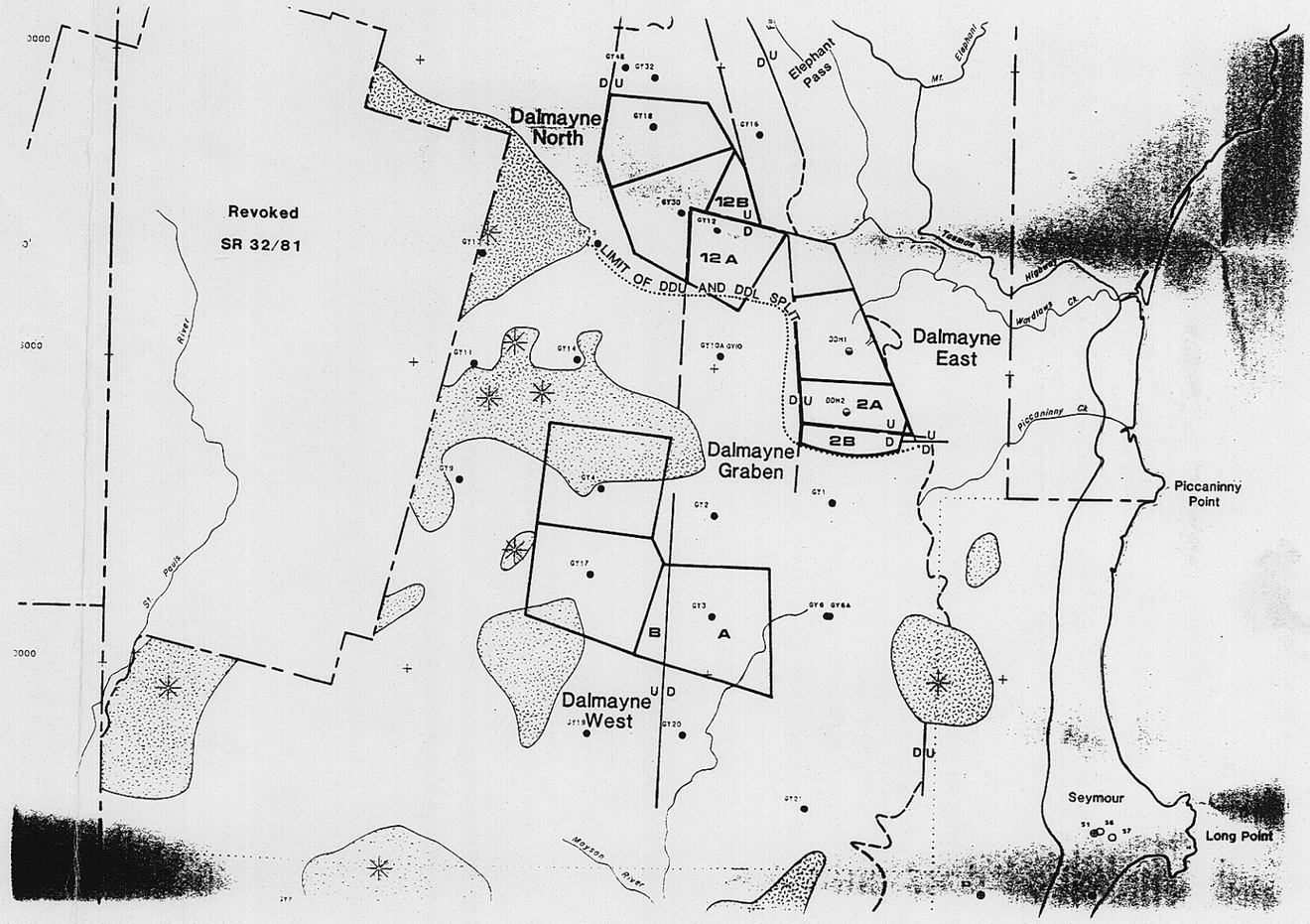
113

126118


Revoked
SR 32/81
LIMIT OF DDU AND DDL SPLIT
DDU
Dalmayne West
Dalmayne Graben
Dalmayne East
Douglas River North
Douglas River South
Moyes River
Possum Ck
Douglas River
Tasman
A
B
U
D

114

126119



114

TASMANIA 1:100 000
TOPOGRAPHIC SURVEY

ST HELENS 30 km

BREAK O'DAY

SCAMANDER 5 km

REFER TO THIS MAP AS: SHEET 8514 EDITION 2 1979
LAND TENURE INDEX SERIES

32M/85 MINING LEASE SOUGHT

CORNWALL COAL 34M/79 CONT LEASE

EQ FQ

EP FP

FINGAL 18 km

FINGAL 4km

ROYAL GEORGE 9 km

SWANSEA 17km

COLES BAY 18 km

Revoked
SR 32/81

EL 5/61

1 2 3 4

GY1 GY2 GY3 GY4 GY5 GY6/SA GY7 GY8 GY9 GY10 GY11 GY12 GY13 GY14 GY15 GY16 GY17 GY18 GY19 GY20 GY21 GY22 GY23 GY24 GY25 GY26 GY27 GY28 GY29 GY30 GY32 GY103 GY104 GY105 DDH1 DDH2

S1 S2 S3 S4 S5 S6 S7

LL1 LL2 LL3

049732 040675 992637 966620 963546

TASMAN SEA

SCALE 1 : 100000

Kilometres 2 1 0 2 4 6 8 10 12 Kilometres

S/1834/79

PRODUCED by the Mapping Division, Lands Department, Hobart, 1979.
NOMENCLATURE: Topographic names on this map have been approved by the Nomenclature Board of Tasmania.
MAP ACCURACY: the average accuracy of this map is ± 25 metres in the horizontal position of well defined detail and ± 5 metres in elevation.
MAP RELIABILITY: Topographic information shown on this map is correct to 1979.
ROAD CLASSIFICATION: Roads are classified according to their intended function as part of the national road system.
The representation of a road or track on this map is no evidence of the existence of a right of way.

CROWN COPYRIGHT RESERVED.

UNIVERSAL GRID REFERENCE

BEFORE GIVING A GRID REFERENCE, CIVILIAN USERS SHOULD STATE THE NUMBER AND NAME OF THIS MAP:
8514 : BREAK O'DAY

GRID ZONE DESIGNATION: 55G	TO GIVE A STANDARD REFERENCE ON THIS SHEET TO NEAREST 100 METRES
100 000 METRE SQUARE IDENTIFICATION: 500 EQ FQ / EP FP / 400	SAMPLE POINT: 778 △ MOUNT ST JOHN
IGNORE the SMALLER figures of any grid number; these are for finding the full co-ordinates. Use ONLY the LARGER figures of the grid number, example: 84000	1 Read letters identifying 100 000 metre square in which the point lies: EP 2 Locate first VERTICAL grid line to LEFT of point and read LARGE figures labelling the line in either the top or bottom margin, or on the line itself: 90 3 Estimate tenths from grid line to point: 2 4 Locate first HORIZONTAL grid line BELOW point and read LARGE figures labelling the line in either the left or right margin, or on the line itself: 73 5 Estimate tenths from grid line to point: 9 SAMPLE REFERENCE: EP902739 If reporting beyond 18° in any direction, prefix Grid Zone Designation, as: 55EP902739

Private Property
State Forest
Timber Reserve
Town Reserve
Other Crown Reserves
Commonwealth Property

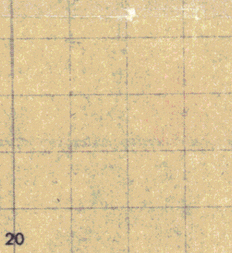
BLACK NUMBERED GRID LINES ARE 1000 METRE INTERVALS OF THE AUSTRALIAN MAP GRID, ZONE 55
GRID VALUES ARE SHOWN IN FULL ONLY AT THE SOUTH WEST CORNER OF THE MAP
HORIZONTAL DATUM: AUSTRALIAN GEODETIC DATUM 1966
VERTICAL DATUM: AUSTRALIAN HEIGHT DATUM
TRANSVERSE MERCATOR PROJECTION
CONTOUR INTERVAL 20 METRES
ELEVATIONS IN METRES

Built-up area; National route marker
Principal road and highway; Cutting
Secondary road; Embankment
Minor road; Road bridge
Vehicular track
Road distance in kilometres
Railway, multiple track; Station; Railway bridge
Railway, single track; Railway tunnel
Light railway or tramway
Power transmission line
Fence; Levee or bank
Mine; Windmill; Yard; Quarry
Building/s; Church; Ruin; Drive-in theatre
Trig station; Bench mark; Spot elevation
Cliff; Contour with value; Depression contour
Forest,dense
Forest,medium
Pine plantation
Orchard
Windbreak
Lake, perennial; Stream, perennial
Lake, intermittent; Stream, intermittent
Lake, mainly dry; Stream, mainly dry
Swamp, perennial; intermittent
Land subject to inundation
Bore or well; Spring; Tank or small dam
Breakwater; Pier; Wharf
Wreck, exposed; Lighthouse
Rock, bare or awash; Foreshore flat; Sand
Reef; Rock ledge

LAND TENURE INFORMATION has been compiled and published as an overprint by the Forestry Commission, Hobart October 1979 from the latest information available. The depiction on this map of land of a particular status does not imply any right of entry or occupation.

FORESTRY COMMISSION a TASMAP publication

INDEX TO ADJOINING MAPS



GN TN MN
GRID CONVERGENCE 0.8°
GRID/MAGNETIC ANGLE 14.6°

TRUE NORTH, GRID NORTH AND MAGNETIC NORTH ARE SHOWN DIAGRAMMATICALLY FOR THE CENTRE OF THE MAP. MAGNETIC NORTH IS CORRECT FOR 1979 AND MOVES EASTERLY BY 0.1° IN ABOUT THREE YEARS.

5413

126120

5 cm

LEGEND

— — Approximate boundary of the Fingal and Swansea Forest Districts

..... Area designated by Australian Heritage Commission (proposed)

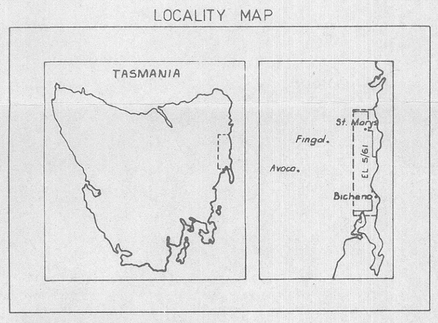
THE SHELL COMPANY OF AUSTRALIA LTD.

TASMANIA BASIN, TASMANIA
SHELL – IMI EL 5/61 GRAY

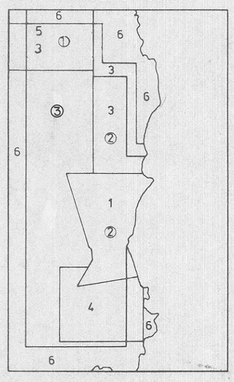
LAND TENURE

Author: Coal Division	Date: May 1984	Encl. 2
Report No: CEPR 10/84	Drawing No: 3372	

LOCALITY MAP



SOURCE DIAGRAM

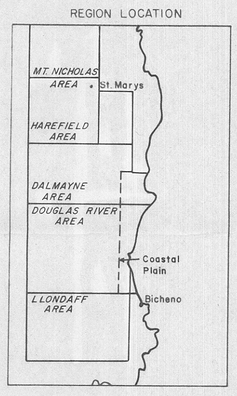


unpublished mapping by :

1. P. Sansom (Shell)
2. J. Ivett (Shell)
3. C. Calver (Tas. Dept. of Mines)
4. C. Bacon (Geology Dept. of University of Tas.)
5. R. Castleden (Tas. Dept. of Mines)
6. D. Leamon (East Coast coal project gravity survey, Part I. Tas. Dept. of Mines. Unpubl. Report 1978/33)

Major Source 1
Minor Source (2)

REGION LOCATION



Piccaninny Point

Long

GEOLOGICAL LEGEND

LITHOLOGY

Qsg / Qa / Qs	Aeolian sand marine sand and gravel (Qsg) alluvial sand and gravel, swamp deposits (Qa) colluvium, scree (Qs)		Quaternary	
Tg	Gravels		? Tertiary	
Low angle unconformity				
Jdl	Dolerite		Jurassic	
TR / Rb	Lithic and quartz sandstone, siltstone carbonaceous mudstone, mudstone conglomerate, tuff basalt flows at base of sequence	Upper Division	Upper Triassic	Parmeener Supergroup
Disconformity				
P	Poorly sorted pebbly lithic sandstone pebbly mudstone, glauconitic sandstone calcareous mudstone, limestone, fossiliferous siltstone and sandstone freshwater quartz sandstone and conglomerate	Lower Division	Permian	
Angular unconformity				
Dg	Quartz–feldspar–pyroxene porphyry (St. Marys porphyry) undifferentiated adamellite		Devonian	
Sm	Interbedded quartzwacke and mudstone	Mathinna Beds	? Silurian – Devonian	

SYMBOLS

- Geological boundary (approx. position)
- U / D — Fault inferred from outcrops
- Concealed fault
- Dolerite feeder inferred from field and geophysical evidence
- Adit (abandoned)
- Shaft (abandoned)
- GY27 ● — SCOA drillhole
- DDH1 ◒ — IMI drillhole
- 045732 ○ — Department of Mines drillhole
- LL1 ⊕ — 19th and early 20th century borehole
- R24 ● — Coal outcrop

5 cm

SCALE 1:50 000

1 0 1 2 3 4 5

KILOMETRES

85-2446

126121

5414

THE SHELL COMPANY OF AUSTRALIA LTD.

TASMANIA BASIN TASMANIA
SHELL – IMI EL 5/61 GRAY

SURFACE GEOLOGY

Scale 1:50 000

Author: R. Ford	Date: March 1984	Encl. 3
Report No: CEPR 10/84	Drawing No: 3373	

5414

From # 1800

E.L. 5/61

Revoked
SR 32/81

GRAY

Elephant Pass

Elephant Mt. Rd

Funny Knob Ck.

Tasman Highway

Wardlaws Ck.

Piccaninny Ck

Piccaninny Point

Seymour

Long Point

Bicheno

River

St. Pauls River

Mayson River

Possum Ck.

Douglas River

Apsley River

Swan River

Tasman Highway

GY48 +156.75 (192)
GY32 259.43
GY18 +210.83 (283)
GY16 287.38
GY30 +244.17 (369)
GY12 306.09
GY15
GY13
GY11 332.95
GY14 233.27
GY10A GY10 +193.92 300.07
DDH1 265.90
DDH2 +186.13 (294)
GY9 389.38
GY4
GY1 313.74
GY2 321.58
GY17 349.4
GY3 350.86
GY6 GY6A +57.90 139.67
GY19 +228.12
GY20 +307.50 (380)
GY21 +280.95 (367)
GY7 +271.57 (333)
GY22
GY103 +208.32 (311)
GYDRA
GY104 +161.50 (256)
S5 +183.22
GY105 +212.04 (313)
GY23 +222.98 (309)
GY27 +381.85 (454)
GY25 302.16
GY29 379.97
GY5 339.46
S1 S6 S7 +50.08 (77)
S3 +69.94 (86)
S4 109.76
S2 +92.6 (101)
045732 84.84
040675 216.66
992637 23.40
986620 331.01
GY8 +214.1 (224)
LL1 139.60
LL3 213.66
LL2 169.78
963546 21.0

Tasmania

E.L. 17/61 | E.L. 5/61
DALMAYNE AREA
DOUGLAS RIVER AREA
LLANDAFF AREA
Bicheno
Coastal Belt
Highway

LEGEND

- GY49 — SCOA drillhole
- DDH1 — IMI drillhole
- 045732 — Department of Mines drillhole
- LL1 — 19th. and early 20th. century drillhole
- Adit
- Dolerite feeder
- Thick bodies of dolerite determined from regional and detailed gravity surveys (Leaman 1980)
- Subcrop of upper division, Parmeener Supergroup
- —100— 100 m contour interval
- —?— Inferred contour interval
- 139.67 — Intersected thickness (m)
- +222.98 — Minimum thickness (m)
- (309) — Estimated thickness (m)
- Significant negative residual Bouguer anomaly (source : Leaman and Richardson 1981)

126122

5 cm

5415

SCALE 1 : 50 000

0 1 2 3 4 5 km.

85-2446

THE SHELL COMPANY OF AUSTRALIA LTD.

TASMANIA — GRAY E.L. 5/61
DALMAYNE, DOUGLAS RIVER & APSLEY RIVER AREAS

ISOPACHS OF UPPER DIVISION PARMEENER SUPERGROUP

Scale 1 : 50 000

Author : R. Ford	Date : May 1984	Encl. 4
Report No : CEPR 10/84	Drawing No : 3374	

5415

E.L. 5/61

Revoked
SR 32/81

GRAY

Elephant Pass

Cornwall Fault

Funny Knob Ck.

Elephant Mt. Rd.

Tasman Highway

Wardlaws Ck.

Piccaninny Ck

Piccaninny Point

Seymour

Long Point

Bicheno

St. Pauls River

Moyson River

Possum Ck.

Douglas River

Apsley River

Swan River

Tasman River

Highway

GY1 133
GY2 8
GY3 -7
GY4 90
GY5 29
GY6 GY6A 113
GY7 (98)
GY8 (34)
GY9 109
GY10A GY10 31
GY11 131
GY12 50
GY13 –
GY14 130
GY15
GY16 237
GY17 67
GY18 (142)
GY19 –
GY20 (-44)
GY21 (36)
GY22
GY23 (-210)
GY25 -233·3
GY27 (-8)
GY29 -39·9
GY30 (110)
GY32 130
GY48 (148)
GY103 (-43)
GY104 (-18)
GY105 (19)
GYDRA
DDH1 142
DDH2 (106)
S1 (-67)
S2 (-78)
S3 (-53)
S4 -99
S5 (-183)
S6
S7
045732 -72
040675 -197
992637 57
986620 -51
963546 -1
LL1 GN
LL2 -149 ?
LL3 GN

Tasmania

E.L. 17/61
E.L. 5/61
DALMAYNE AREA
DOUGLAS RIVER AREA
Coastal Plain
LLANDAFF AREA
Bicheno
Highway

LEGEND

- SCOA drillhole
- IMI drillhole
- Department of Mines drillhole
- 19th. and early 20th. century drillhole
- Adit
- Dolerite feeder
- Thick bodies of dolerite determined from regional and detailed gravity surveys (Leaman 1980)
- Outcrop top of lower division, Parmeener supergroup
- Approximate of position of lower division subcrop
- Fault inferred from outcrop
- Conjectured fault derived from borehole data
- Structure contour on top of lower division (metres)
- Height of lower division relative to mean sea level (metres)
- Estimated height of lower division relative to mean sea level

Contour interval 50m

126123

5 cm

5416

SCALE 1:50 000

0 1 2 3 4 5 km.

85-2446

THE SHELL COMPANY OF AUSTRALIA LTD.

TASMANIA – GRAY E.L. 5/61
DALMAYNE, DOUGLAS RIVER & APSLEY RIVER AREAS

STRUCTURE CONTOURS ON TOP OF LOWER DIVISION, PARMEENER SUPER GROUP

Scale 1:50 000

Author: R. Ford	Date: May 1982	Encl. 5
Report No: CEPR 10/84	Drawing No: 3375	

5416

5417

E.L. 5/61

Revoked
SR 32/81

GRAY

Elephant Pass

Cornwall Fault

Funny Knob Ck.

Elephant Mt. Rd

Tasman Highway

Wardlows Ck.

Piccaninny Ck

Piccaninny Point

Seymour

Long Point

Bicheno

River

St. Pauls River

Mayson River

Possum Ck.

Douglas River

Apsley River

Swan River

Tasman

Highway

GY48 286·55 GY32 –
GY18 267
GY16 –
GY30 236
GY12 183
GY13
GY15
GY11 263
GY14 254
GY10A GY10 (145)
DDH1 252
DDH2 215
GY9 246
GY4 211
GY1 243
GY2 115
GY17 187
GY3 101
GY6 GY6A – 219
GY19 –
GY20 61
GY21 141
GY7
GY22 55
GY103 61·7
GYDRA 95·0
GY104 91·0
S5 –78
GY105 128·6
GY23 –102·2
GY27 101·9
GY25 –113·6
GY29 95·5
GY5 –
GY8 –
045732
040675
992637
986620
963546
S1 S6 S7
S3
S4
S2
LL1
LL3
LL2

~60m ~40m ~50m ~80m ~50m

250 200 150 100 50 150 200 100 100

Tasmania

E.L. 17/61
E.L. 5/61
DALMAYNE AREA
DOUGLAS RIVER AREA
LLANDAFF AREA
Coastal Plain
Bicheno
Highway

LEGEND

- GY49 ● — SCOA drillhole
- DDH1 ◒ — IMI drillhole
- 045732 ○ — Department of Mines drillhole
- LL1 ⊕ — 19th. and early 20th. century drillhole
- Adit
- Dolerite feeder
- Thick bodies of dolerite determined from regional and detailed gravity surveys (Leaman 1980)
- Approximate position of seam subcrop
- U/D — Fault inferred from outcrop
- U/D — Conjectured fault derived from borehole data
- —150— Structure contour on base of DD seam (metres)
- –113·6 ELevation of the base of the DD seam above mean sea level (metres)

Contour interval 50m

126124

5 cm

5417

SCALE 1:50 000

0 1 2 3 4 5 km.

85-2446

THE SHELL COMPANY OF AUSTRALIA LTD.

TASMANIA – GRAY E.L. 5/61
DALMAYNE, DOUGLAS RIVER & APSLEY RIVER AREAS

STRUCTURE CONTOURS ON BASE OF DD SEAM

Scale 1:50 000

Author: R. Ford	Date: May 1984	Encl. 6
Report No: CEPR 10/84	Drawing No: 3376	

5418

E.L. 5/61

GRAY

Revoked
SR 32/81

Elephant Pass

Funny Knob Ck.

Elephant Mt. Rd.

Tasman Highway

Wardlaws Ck.

Piccaninny Ck

Piccaninny Point

Seymour

Long Point

Bicheno

River

St. Pauls

Mayson River

Possum Ck

Douglas River

Apsley River

Swan River

Tasman River

Highway

GY48 GY32 GY18 GY16 GY30 GY12 207·95 GY15 445·6 GY13 457·60 400 300 GY11 125·92 GY14 170·72 200 GY10A GY10 197·60 DDH1 DDH2 100 GY9 33·06 GY4 77·03 GY2 145·25 GY1 GY17 254·90 GY3 135·50 GY6 GY6A 192·35 GY19 250·28 GY20 154·79 GY21 GY22A GY7 146·80 GY103 GY104 GYDRA S1 S6 S7 S3 S4 S2 S5 GY105 131·06 GY23 GY27 GY25 286·86 045732 GY29 25·67 GY5 89·2 040675 992637 986620 19·62 963546 GY8 LL1 LL3 LL2

5390000 5385000 5380000 5375000 5370000 5365000 5360000 5355000

590000 595000 600000 605000 610000

148°10' 148°20'

41°40' 41°50'

Tasmania

E.L. 17/61 E.L. 5/61 DALMAYNE AREA DOUGLAS RIVER AREA Coastal Plain LLANDAFF AREA Bicheno Highway

LEGEND

- GY49 — SCOA drillhole
- DDH1 — IMI drillhole
- 045732 — Department of Mines drillhole
- LL1 — 19th and early 20th. century drillhole
- Adit
- Dolerite feeder
- Thick bodies of dolerite determined from regional gravity survey
- Thick bodies of dolerite determined from detailed gravity and magnetic survey
- Dolerite outcrop
- Dykes
- 25·67 — Dolerite thickness
- —100— 100m contour interval
- Intersected dolerite dyke

References: Baillie and Calver (1980)
Sansom (1979) Leaman and Richardson (1981)

126125

5 cm

5418

SCALE 1:50 000

0 1 2 3 4 5 km.

85-2446 1

THE SHELL COMPANY OF AUSTRALIA LTD.

TASMANIA — GRAY E.L. 5/61
DALMAYNE, DOUGLAS RIVER & APSLEY RIVER AREAS

DOLERITE ISOPACHS

Scale 1:50 000

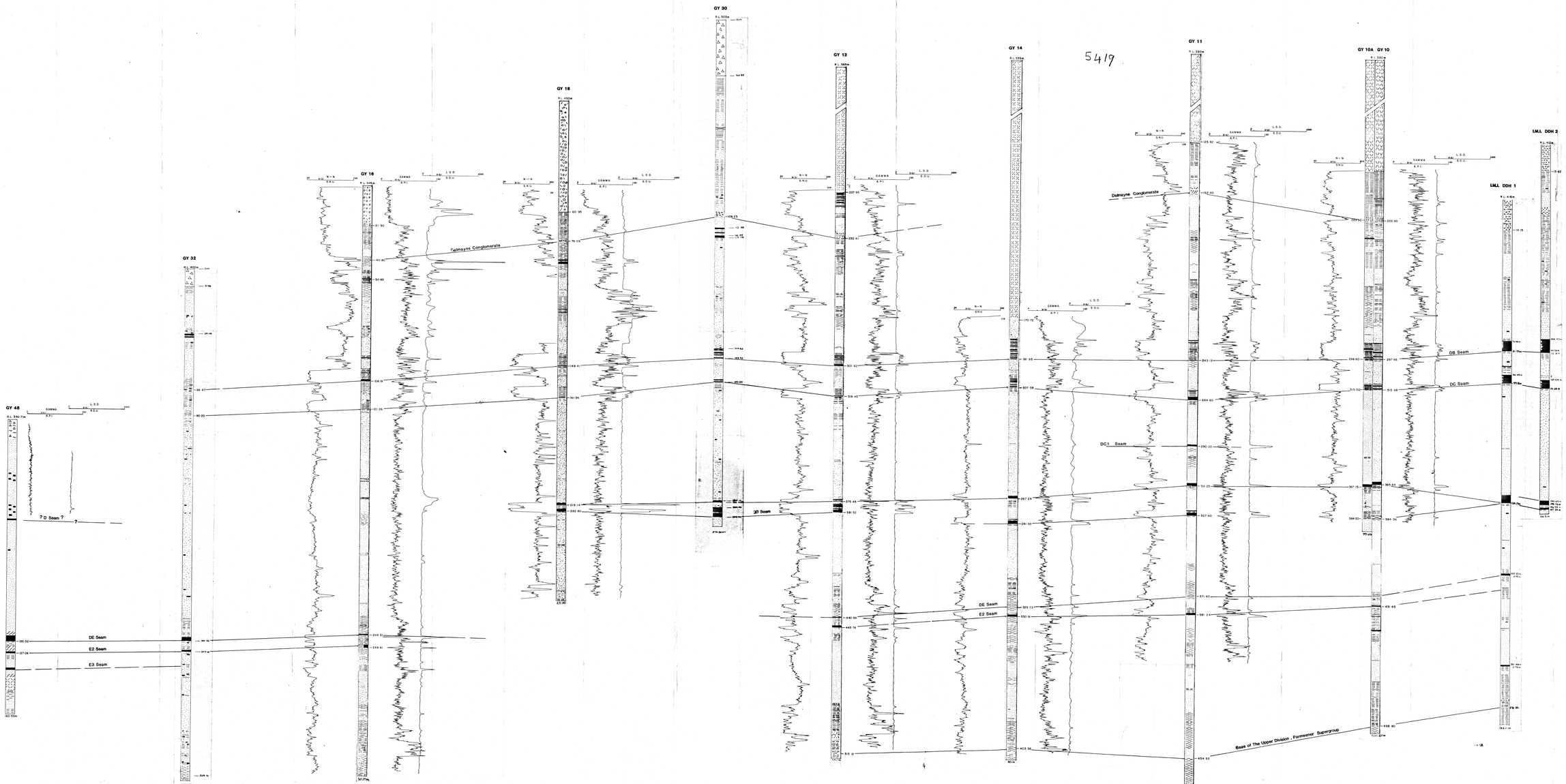
Author: R. Ford	Date: May 1984	Encl. 7
Report No: CEPR 10/84	Drawing No: 3377	

5419

5419

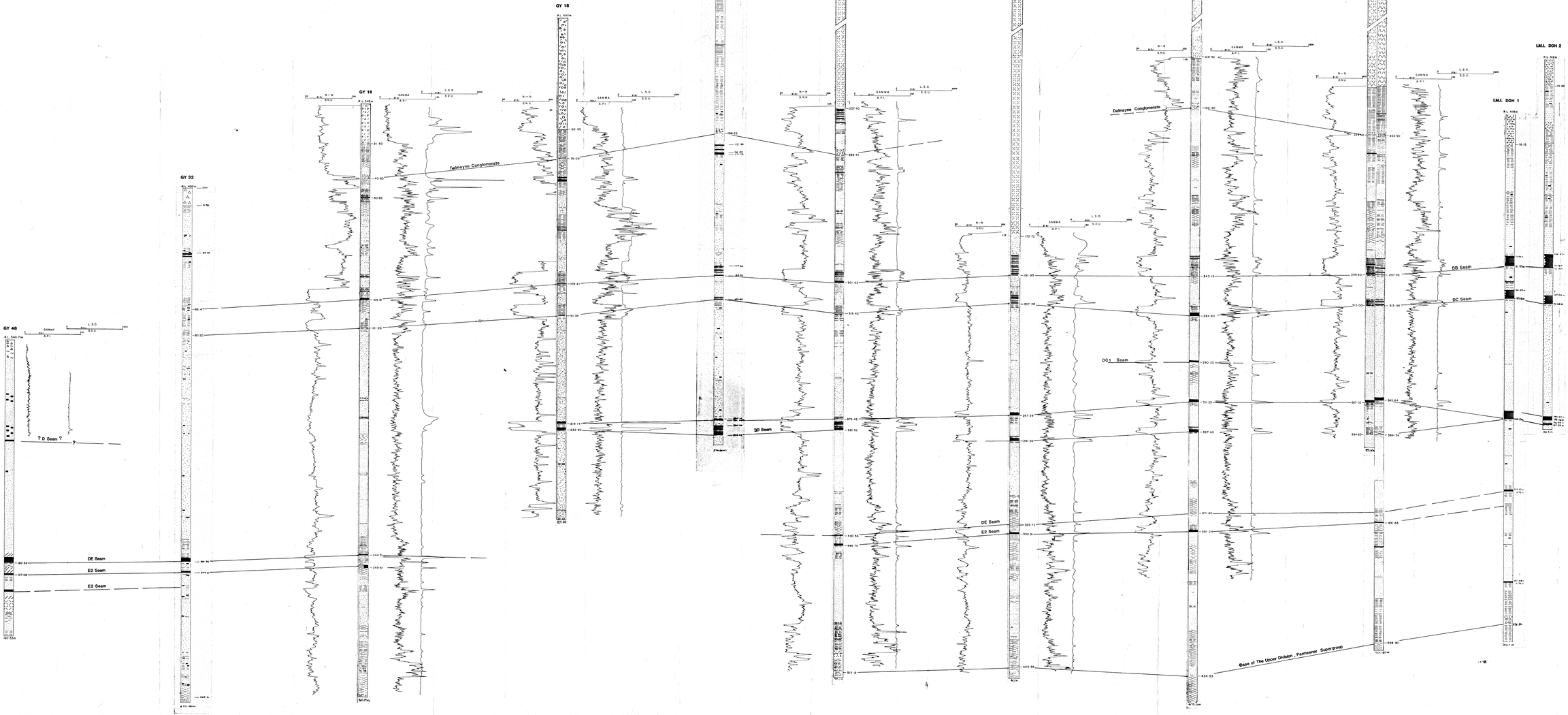
5419

5419



LEGEND

- SURFICIAL DEPOSITS
- GRAVEL, DETRITUS, RUBBLE, SHINGLE CONGLOMERATE
- DETRITUS AND SAND.
- SANDSTONE.
- SILTSTONE.
- SANDSTONE AND BANDS OF MUDSTONE ETC.
- SANDSTONE, COAL TRACES, COAL VEINS, COAL BANDS.
- MUDSTONE.
- MUDSTONE AND SANDSTONE BANDS.
- MUDSTONE, COAL BANDS ETC.
- SHALE.
- CARBONACEOUS SHALE.
- COAL.
- LIMESTONE.
- SIDERITE.
- FAULT ZONE



85-2446

126126

THE SHELL COMPANY OF AUSTRALIA LTD.

GRAY EL 5461, TASMANIA

GENERALISED BOREHOLE LOGS AND COAL SEAM CORRELATIONS DALMAYNE NORTH

Scale 1:500

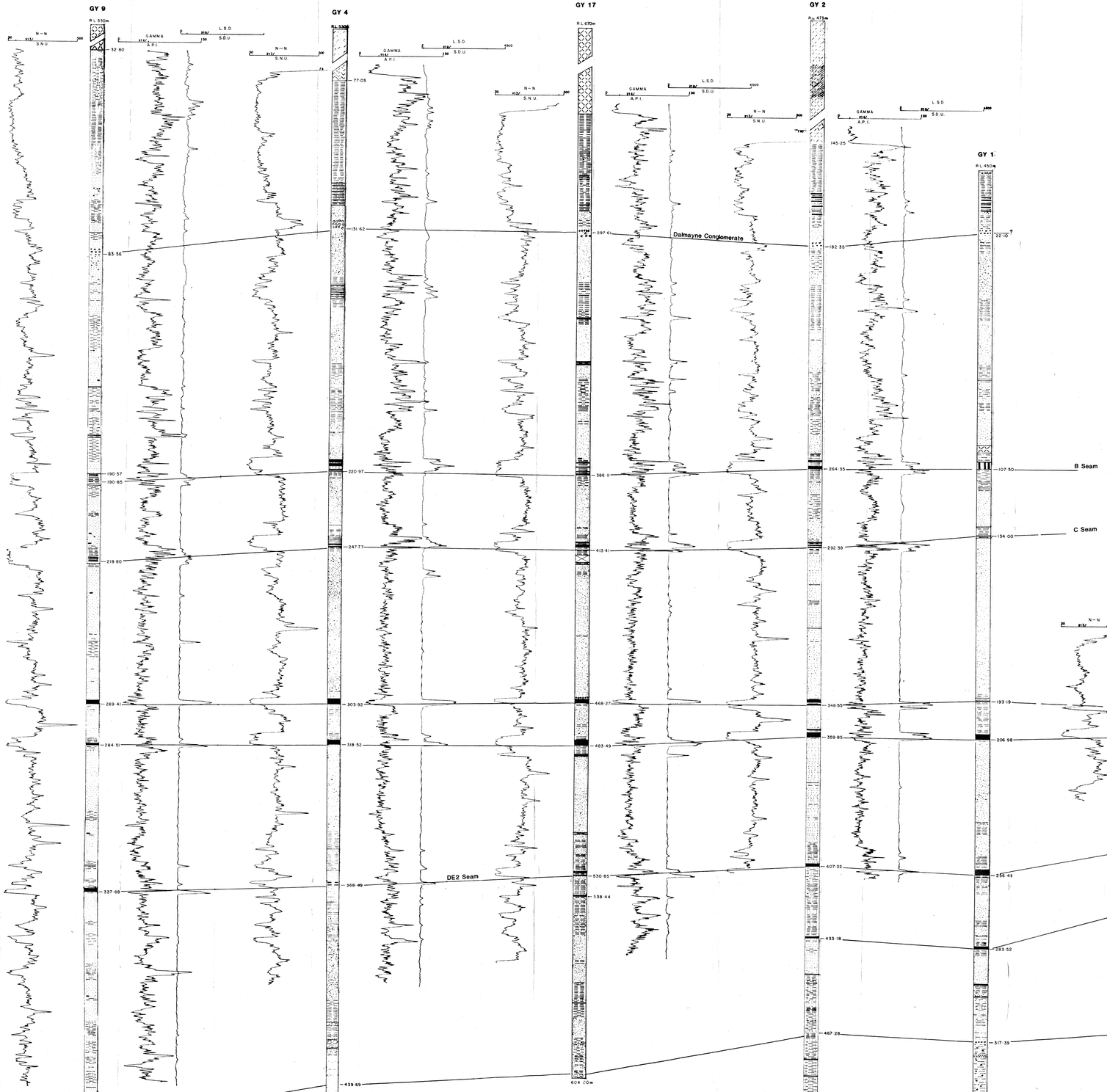
Author: R. Field | Date: May 1984

Project No. CEPR 41/85 | Drawing No. 5338 | Encl. 8

5 cm

-5479

5420



5420

LEGEND

- SUPERFICIAL DEPOSITS
- DOLERITE SCREE
- CONGLOMERATE, PEBBLY SANDSTONE
- SANDSTONE
- SANDSTONE WITH MUDSTONE BANDS
- SANDSTONE WITH COAL FRAGMENTS, STRINGS AND BANDS
- SILTSTONE
- MUDSTONE
- MUDSTONE WITH SANDSTONE BANDS
- MUDSTONE WITH COAL BANDS
- CARBONACEOUS MUDSTONE
- COAL
- DOLERITE

GAMMA API | L.S.D. SDU | N–N SNU

Dalmayne Conglomerate

DE2 Seam

DDU Seam

DDL Seam

DE2 Seam

DF Seam

Base of The Upper Division , Parmeener Supergroup

B Seam

C Seam

GY 1 RL 450m

GY 6A | GY 6 RL 445m | RL 440m

118·5 DOLERITE DIKE 40°

125·6

SHEARED

151·30

425·00m

452·00m

604·20m

510·50m

335·00m

341·00m

478·40m

471·50m

487·19m

308·40m

LEGEND

- ALLUVIAL DEPOSITS
- DOLERITE SCREE
- CONGLOMERATE, PEBBLY SANDSTONE
- SANDSTONE
- SANDSTONE WITH MUDSTONE BANDS
- SANDSTONE WITH COAL FRAGMENTS, STREAKS AND BANDS
- SILTSTONE
- MUDSTONE
- MUDSTONE WITH SANDSTONE BANDS
- MUDSTONE WITH COAL BANDS
- CARBONACEOUS MUDSTONE
- COAL
- DOLERITE
- CORE LOSS

5 cm

0 10 20 30 40 50

VERTICAL SCALE - METRES

85-2446

126127 (5420

THE SHELL COMPANY OF AUSTRALIA LTD.

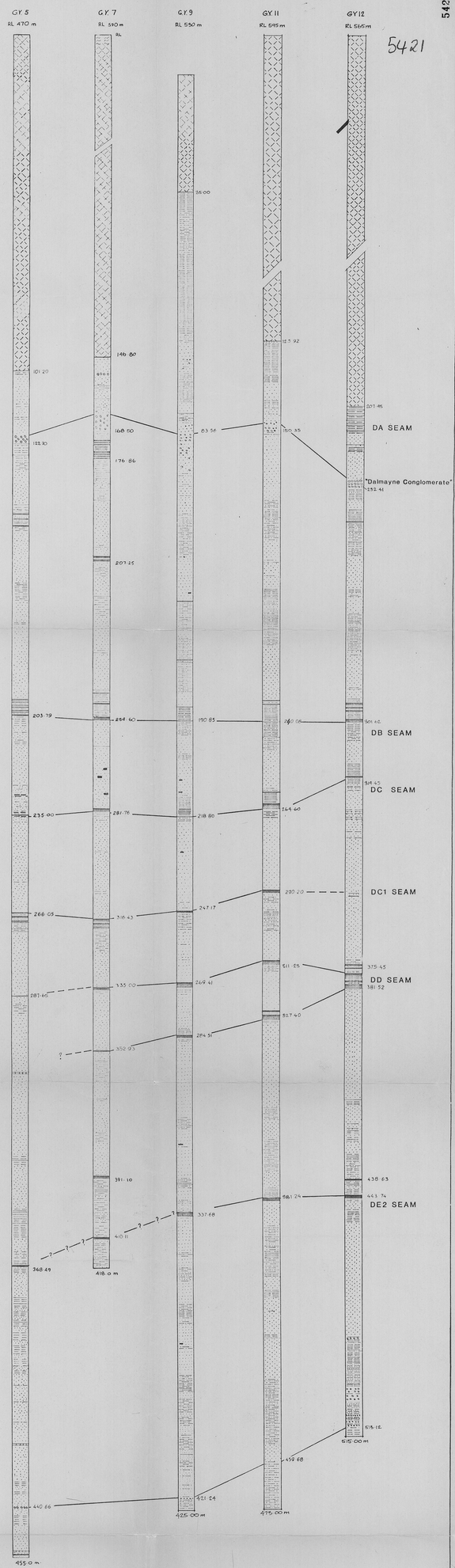
GRAY EL 5/61, TASMANIA

GENERALISED BOREHOLE LOGS AND COAL SEAM CORRELATIONS DALMAYNE SOUTH

Scale 1:500

Author: R. Ford	Date: May 1984	Encl. 9
Report No: CEPR 10/84	Drawing No: 3379	

5421



LEGEND

ALLUVIUM

GRAVEL, DETRITUS, RUBBLE, SHINGLE CONGLOMERATE

DETRITUS AND SAND

SANDSTONE

SILTSTONE

SANDSTONE AND BANDS OF MUDSTONE ETC

SANDSTONE, COAL TRACES, COAL VEINS, COAL BANDS

MUDSTONE

MUDSTONE AND SANDSTONE BANDS

MUDSTONE, COAL BANDS ETC

SHALE

CARBONACEOUS SHALE

COAL

LIMESTONE

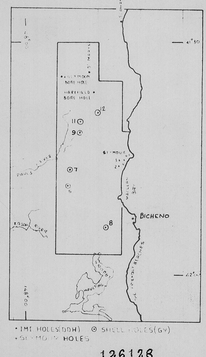
DOLERITE

METAMORPHOSED SHALES ETC

5 cm

VERTICAL SCALE OF METERS

10 0 10 20 30 m



• IME HOLES (SOW) ⊗ SHELL HOLES (GY)
• SEISMIC HOLES

85-2446

126128

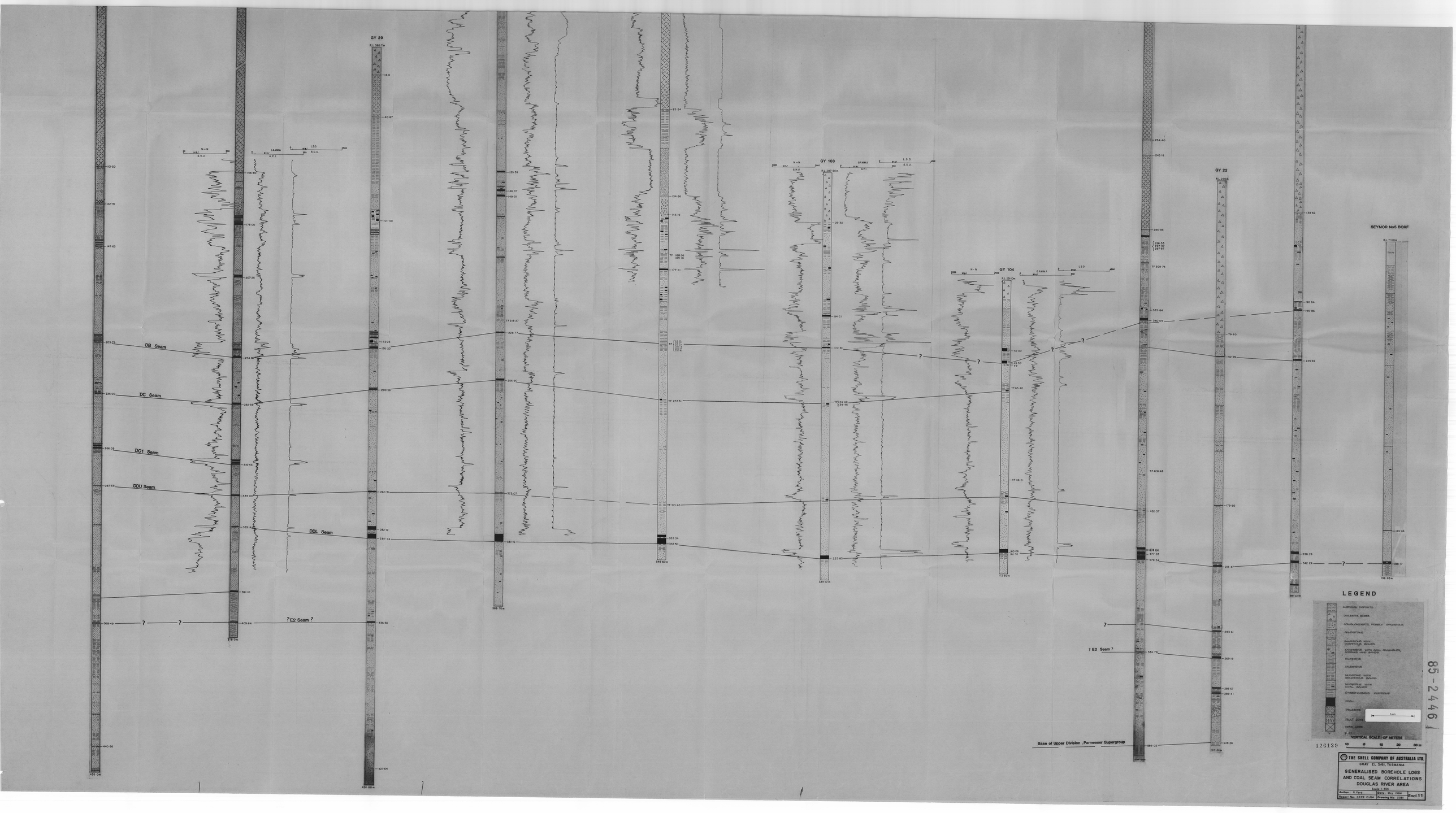
THE SHELL COMPANY OF AUSTRALIA LTD.

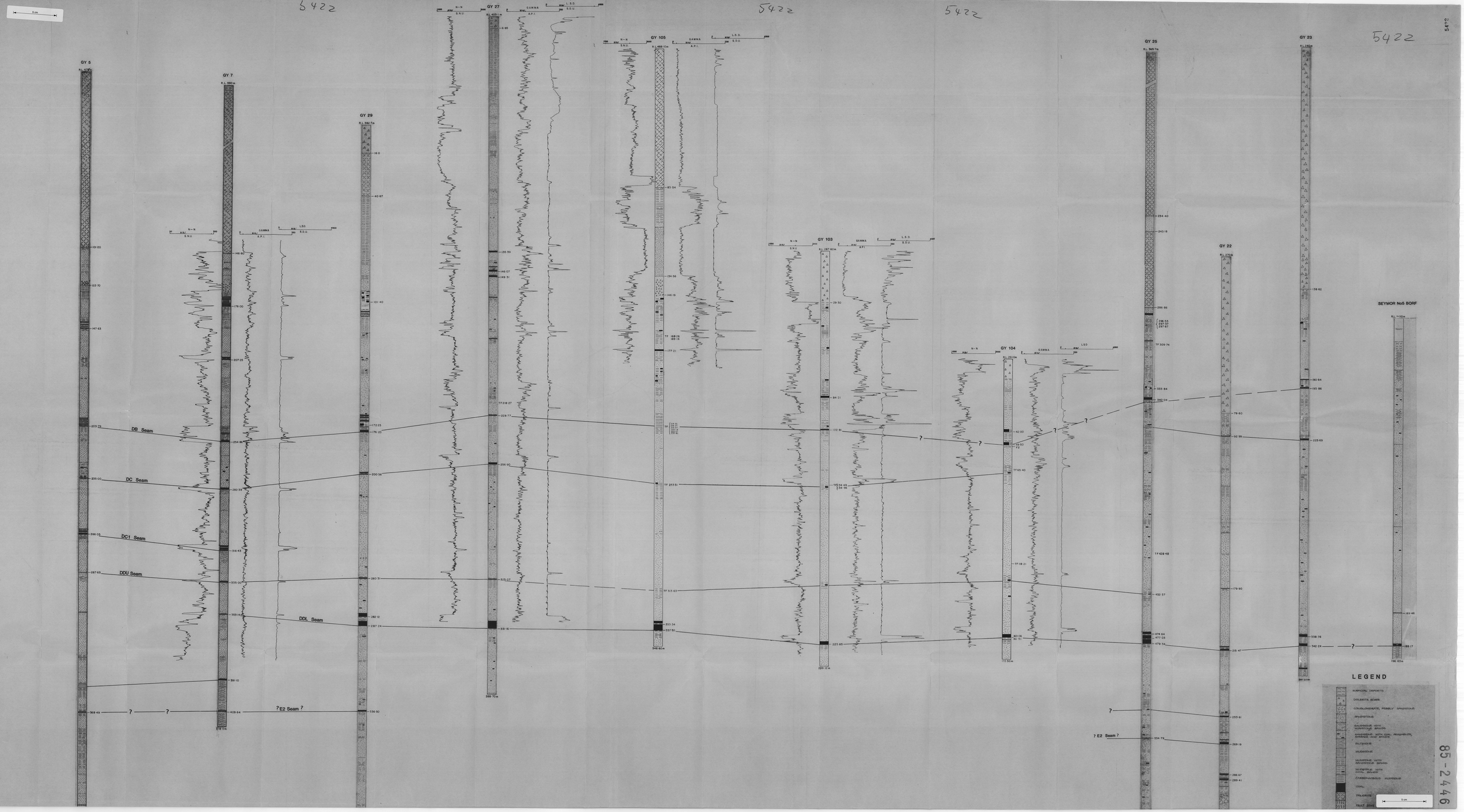
TASMANIAN WEST COAST PROJECT

GENERALIZED BOREHOLE LOGS
GY5-7-9-11-12

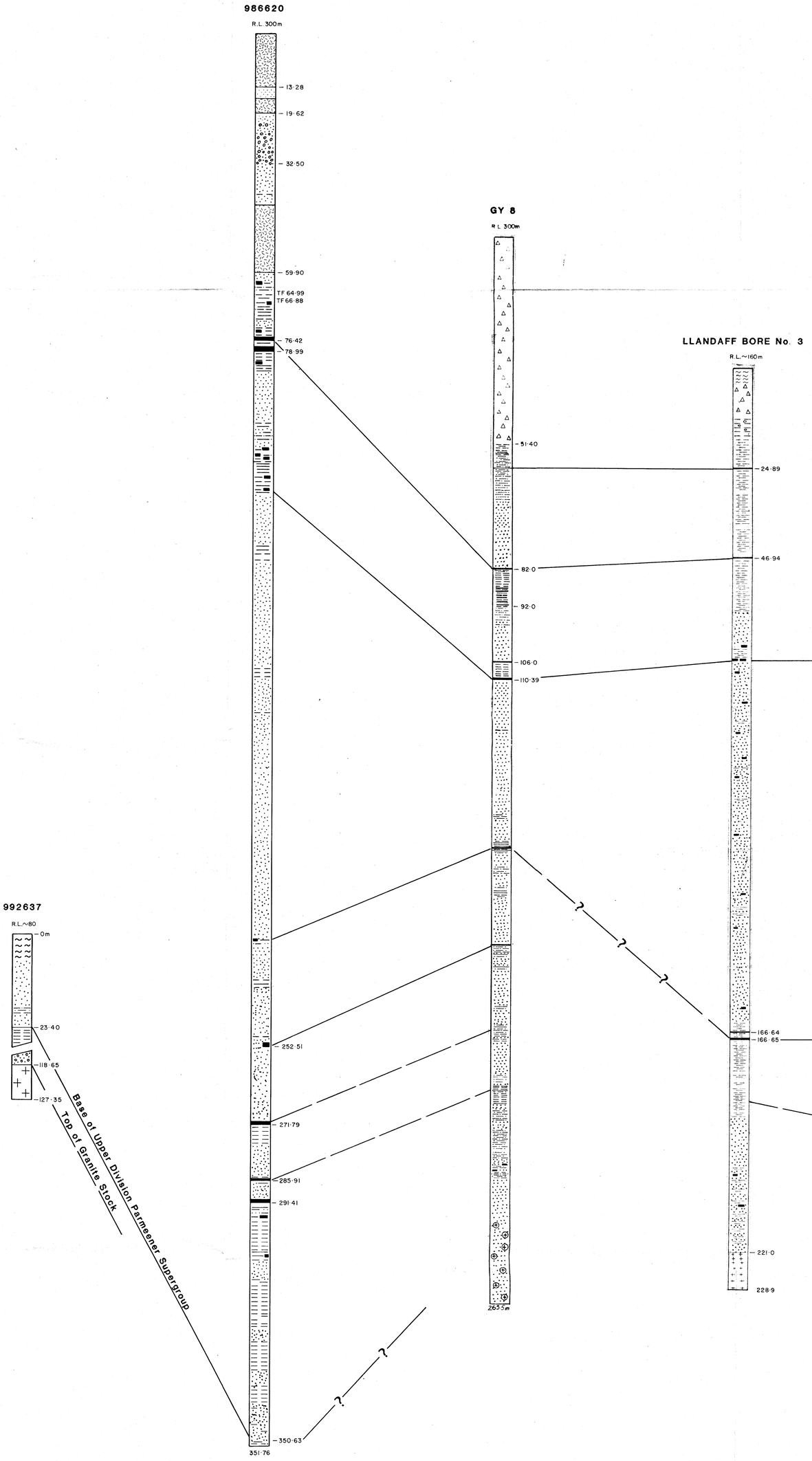
Scale 1:xxx

Author: R Ford	Date: May 1984	Encl 10
Report No: CEPR 10/84	Drawing No: 3380	


GY 29
R.L. 382.7m
GY 103
R.L. 287.60m
GY 104
R.L. 290.0m
GY 22
R.L. 270.0m
SEYMOR No5 BORE
R.L. ~310m
N-N
S.N.U.
GAMMA
A.P.I.
L.S.D.
S.D.U.
DB Seam
DC Seam
DC1 Seam
DDU Seam
DDL Seam
?E2 Seam?
Base of Upper Division , Parmeener Supergroup
LEGEND
SURFICIAL DEPOSITS
DOLERITE, SILLS
CONGLOMERATE, PEBBLY SANDSTONE
SANDSTONE
SANDSTONE, VERY-COARSE TO MEDIUM GRAINED
SANDSTONE, WITH COAL FRAGMENTS, SOMEWHAT WEAK BINDER
SILTSTONE
MUDSTONE
MUDSTONE, WITH SANDSTONE BANDS
MUDSTONE, WITH COAL BANDS
CARBONACEOUS MUDSTONE
COAL
DOLERITE
FAULT ZONE
CORE LOSS
T.D.
5 cm
VERTICAL SCALE OF METERS
10 0 10 20 30 m
126129
THE SHELL COMPANY OF AUSTRALIA LTD.
GRAY EL 5/81, TASMANIA
GENERALISED BOREHOLE LOGS AND COAL SEAM CORRELATIONS DOUGLAS RIVER AREA
Scale 1:200
Author: R. Ford
Date: May 1984
Report No. CCPR 0.84
Drawing No. 3381
Encl.11
85-2446


5422
5422
5422
5422
5422
GY 5
GY 7
GY 29
GY 27
GY 105
GY 103
GY 104
GY 25
GY 22
GY 23
SEYMOR No5 BORF
N-N
S.N.U.
GAMMA
A.P.I.
L.S.D.
S.D.U.
DB Seam
DC Seam
DC1 Seam
DDU Seam
DDL Seam
?E2 Seam ?
?
LEGEND
SURFICIAL DEPOSITS
DOLERITE SCARS
CONGLOMERATE, PEBBLY SANDSTONE
SANDSTONE
SANDSTONE WITH NODULAR BALLOTS
SANDSTONE WITH COAL FRAGMENTS, INTERBEDS AND BANDS
SILTSTONE
MUDSTONE
MUDSTONE WITH SANDSTONE BANDS
MUDSTONE WITH COAL BANDS
CARBONACEOUS MUDSTONE
COAL
TRUST BORE
5 cm

5423



LEGEND

- ALLUVIUM
- GRAVEL, DETRITUS, RUBBLE, SHINGLE CONGLOMERATE DOLERITE SCREE
- DETRITUS & SAND
- SANDSTONE
- SILTSTONE
- SANDSTONE & MUDSTONE SANDSTONE, BANDS OF MUDSTONE, ETC
- SANDSTONE COAL TRACES, COAL VEINS ETC
- MUDSTONE & SANDSTONE MUDSTONE, BANDS OF SANDSTONE ETC
- MUDSTONE
- MUDSTONE, COAL BANDS, VEINS ETC
- COAL & MUDSTONE
- SHALE
- CARBONACEOUS SHALE MUDDY COAL, CARBONACEOUS
- BANDED COAL
- COAL
- LIMESTONE
- IRONSTONE
- DOLERITE SCREE AND COLLUVIUM
- DOLERITE
- SANDSTONE WITH GRANITE BOULDERS

5 cm

5 0 5 10 15 20 25m

SCALE 1:500

83-2446-

5423

126130

THE SHELL COMPANY OF AUSTRALIA LTD.

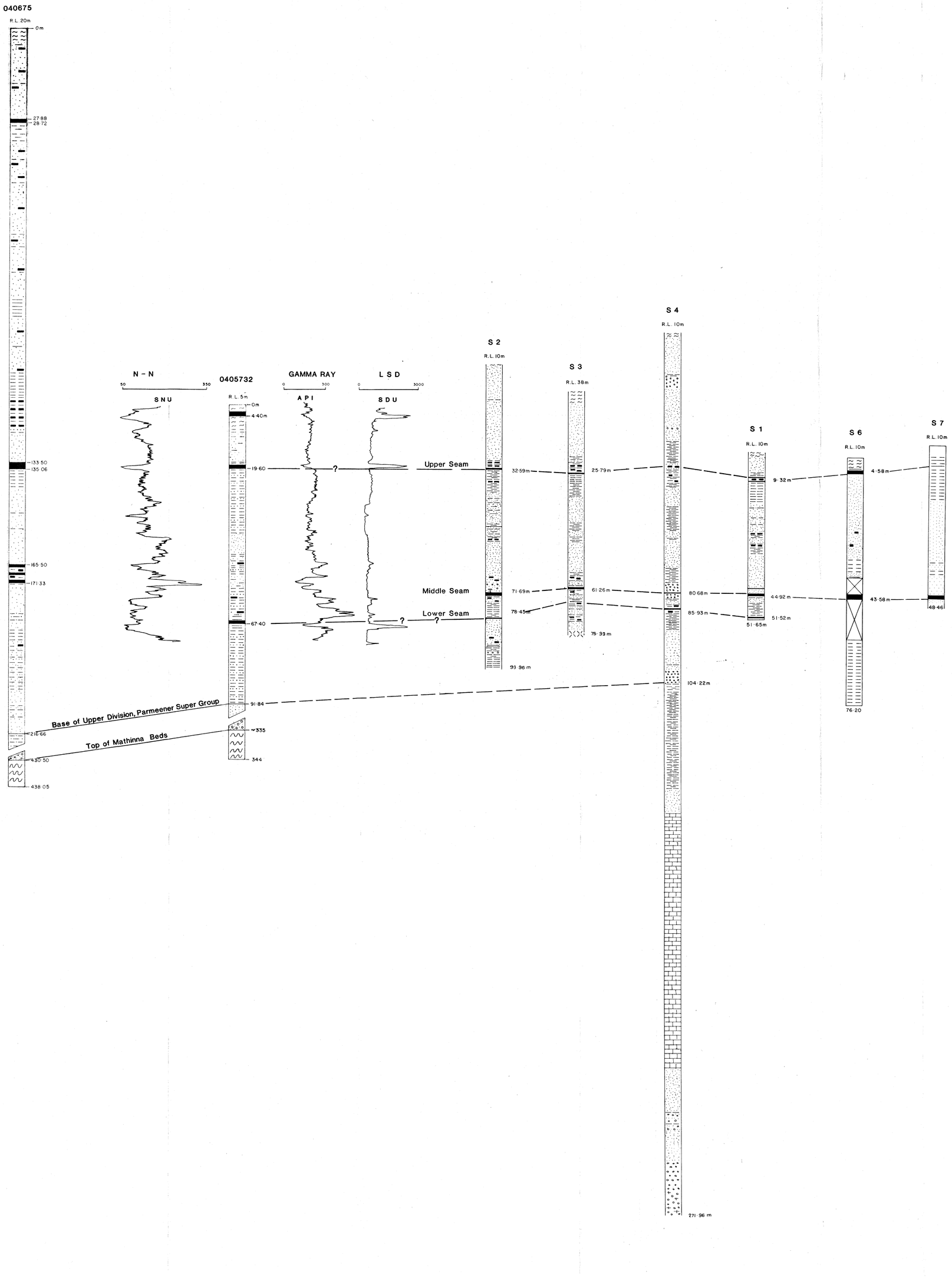
GRAY EL 5/61, TASMANIA

GENERALISED BOREHOLE LOGS AND COAL SEAM CORRELATIONS LLANDAFF AREA

Scale 1:500

Author: R. Ford	Date: May 1984	Encl. 12
Report No: CEPR 10/84	Drawing No: 3382	

5424



LEGEND

- ALLUVIUM
- GRAVEL, DETRITUS, RUBBLE, SHINGLE CONGLOMERATE
- DETRITUS & SAND
- SANDSTONE
- SILTSTONE
- SANDSTONE & MUDSTONE SANDSTONE, BANDS OF MUDSTONE, ETC.
- SANDSTONE, COAL TRACES, COAL VEINS ETC.
- MUDSTONE & SANDSTONE MUDSTONE, BANDS OF SANDSTONE ETC.
- MUDSTONE
- MUDSTONE, COAL BANDS, VEINS ETC.
- COAL & MUDSTONE
- SHALE
- CARBONACEOUS SHALE MUDDY COAL, CARBONACEOUS
- BANDED COAL
- COAL
- LIMESTONE
- NO DRILL RECORDS
- INTERBEDDED QUARTZWACKE AND MUDSTONE (MATHINNA BEDS)
- DOLERITE
- GRANITE

5 cm

METRES
5 0 5 10 15 20 25
SCALE 1:500

85-2476

126131

THE SHELL COMPANY OF AUSTRALIA LTD.

GRAY EL 5/61, TASMANIA

GENERALISED BOREHOLE LOGS AND COALSEAM CORRELATIONS COASTAL PLAIN

Scale 1:500

Author: R.Ford	Date: May 1984	Encl.13
Report No: CEPR10/84	Drawing No: 3383	

5424

5425

E.L. 5/61

Revoked
SR 32/81

LIMIT OF DDU AND DDL SPLIT

GRAY

Elephant Pass

Funny Knob Ck.

Mt. Elephant Rd

Tasman Highway

Waratahs Ck

Piccaninny Ck

Piccaninny Point

Seymour

Long Point

Bicheno

St. Pauls River

Mayson River

Possum Ck

Douglas River

Apsley River

Swan River

GY1 0·73
GY2 1·23
GY3 1·86
GY4 1·77
GY5
GY6 GY6A 0·56
GY7 1·00
GY8
GY9 1·39
GY10A GY10 1·26 1·25
GY11 1·27
GY12 4·74
GY13
GY14 1·19
GY15
GY16
GY17 1·52
GY18 1·51
GY19
GY20 1·15 (Seam replaced by carbonaceous mudstone)
GY21
GY23
GY25 0·42
GY27 0·60
GY29 1·12
GY30 5·26
GY32
GY48
GY103 0·44
GY104 0·98
GY105 0·29
GYDRA
DDH1 4·56
DDH2 2·14
045732
040675
992637
986620
963546
LL1
LL2
LL3
S1 S2 S3 S4 S5 S6 S7

1·0 2·0 3·0 4·0 5·0 0·5 1·0 1·5 1·0 0·5

Tasmania

E.L. 17/61 E.L. 5/61
DALMAYNE AREA
DOUGLAS RIVER AREA
Coastal Plain
LLANDAFF AREA
Bicheno
Highway

LEGEND

- GY49 ● SCOA drillhole
- DDH1 ◒ IMI drillhole
- 045732 ○ Department of Mines drillhole
- LL1 ⊕ 19th and early 20th. century drillhole
- Adit
- Dolerite feeder
- Thick bodies of dolerite determined from regional and detailed gravity surveys (Leaman 1980)
- Approximate position of seam subcrop
- D / U Fault
- 1·0 Isopach of DD seam (m) contour interval 1.0m
- 4·74 Seam thickness (m)
- 0·5 Isopach of DDU seam (m) contour interval 0.5m
- 0·42 Seam thickness (m)

5425
126132

5 cm

SCALE 1:50 000
0 1 2 3 4 5 km.

85-2446

THE SHELL COMPANY OF AUSTRALIA LTD.

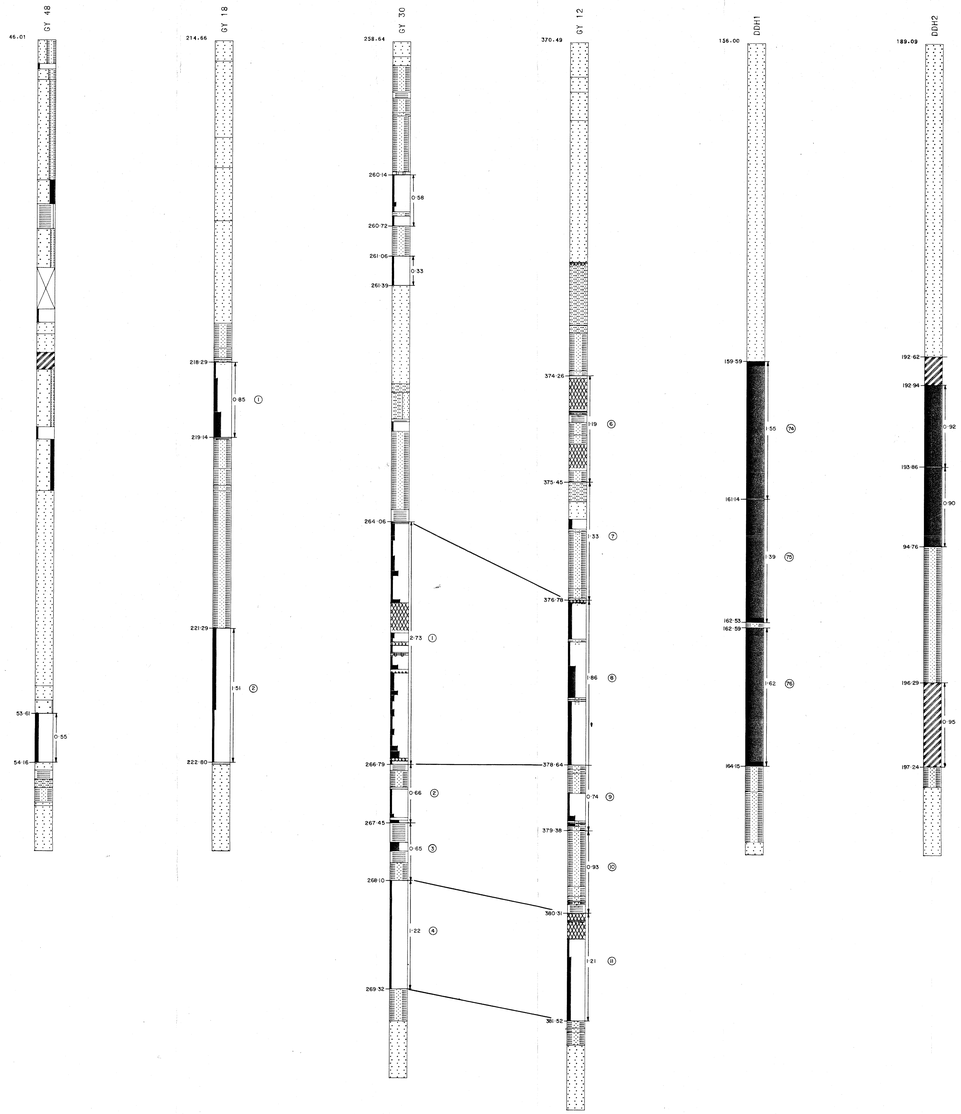
TASMANIA — GRAY E.L. 5/61
DALMAYNE, DOUGLAS RIVER & APSLEY RIVER AREAS

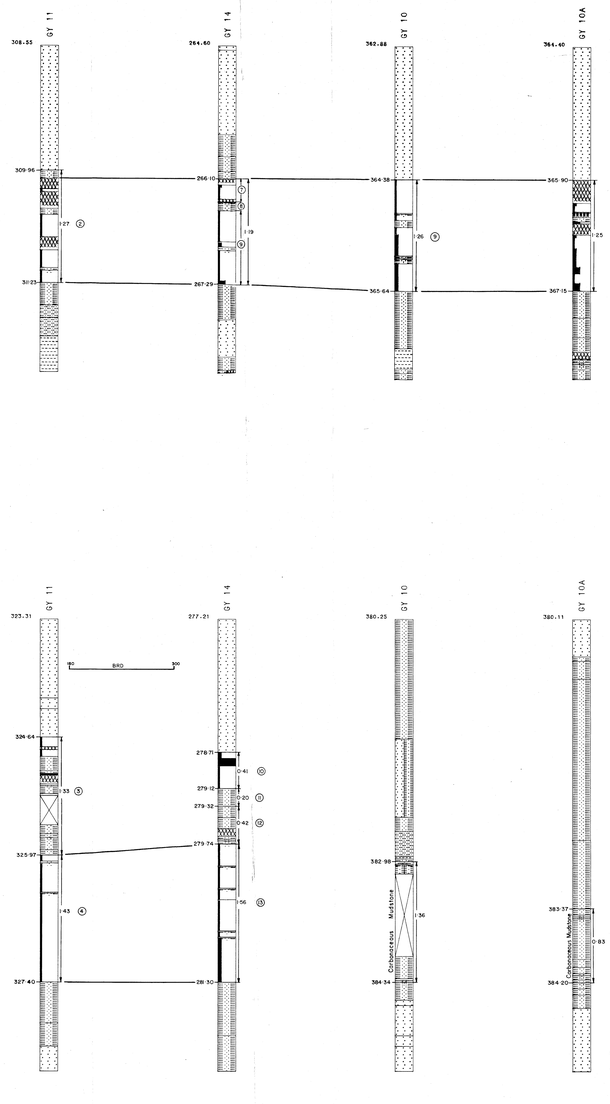
ISOPACHS — DDU AND DD SEAMS

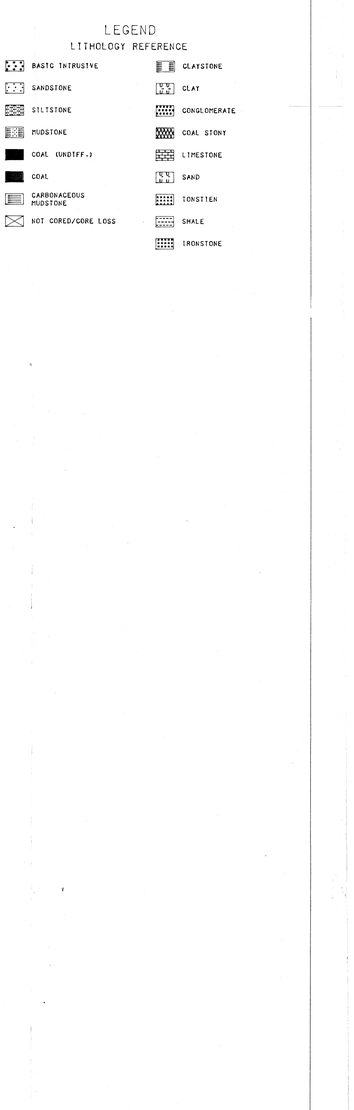
Scale 1:50 000

Author: R. Ford	Date: May 1984	Encl. 14
Report No: CEPR 10/84	Drawing No: 3384	

5426







5cm

VERTICAL SCALE
1 : 20

126133

0.4 0.2 0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0

85-2446

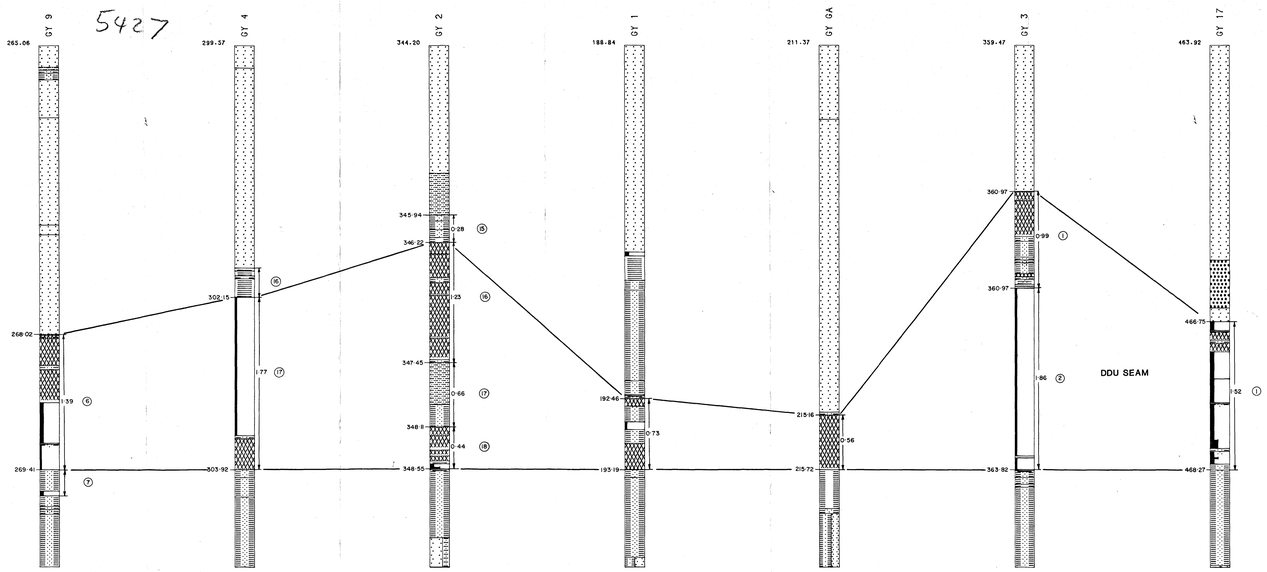
THE SHELL COMPANY OF AUSTRALIA LTD.
COAL DIVISION

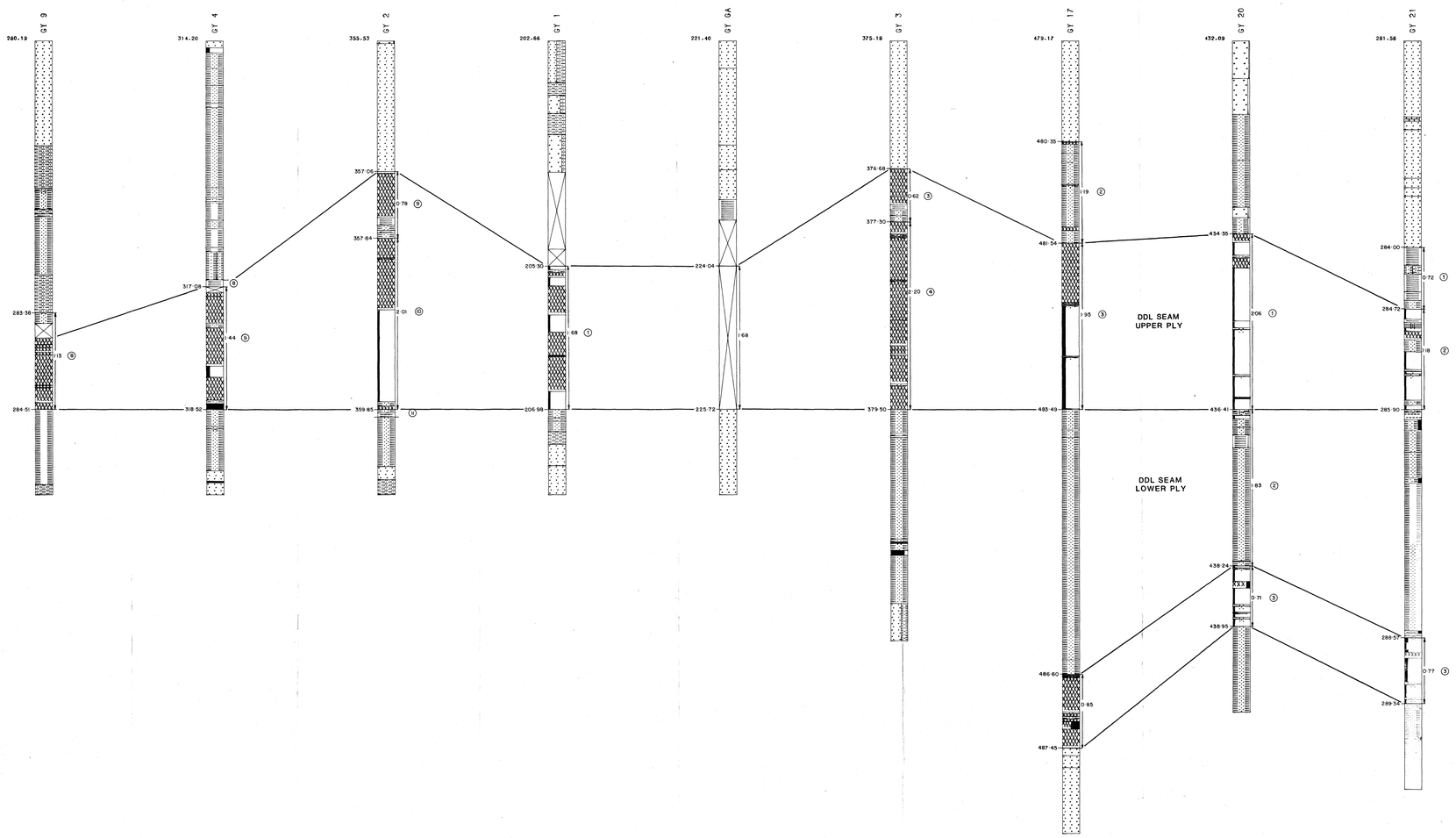
DETAILED SEAM INTERVAL
DD, DDU, AND DDL SEAMS
DALMAYNE NORTH

AUTHOR: R. Ford	DATE: May 1984	ENCL. 15
REPORT NO: CERM 10/84	DRAWING NO: 3385	

5426

5427





LEGEND

LITHOLOGY REFERENCE

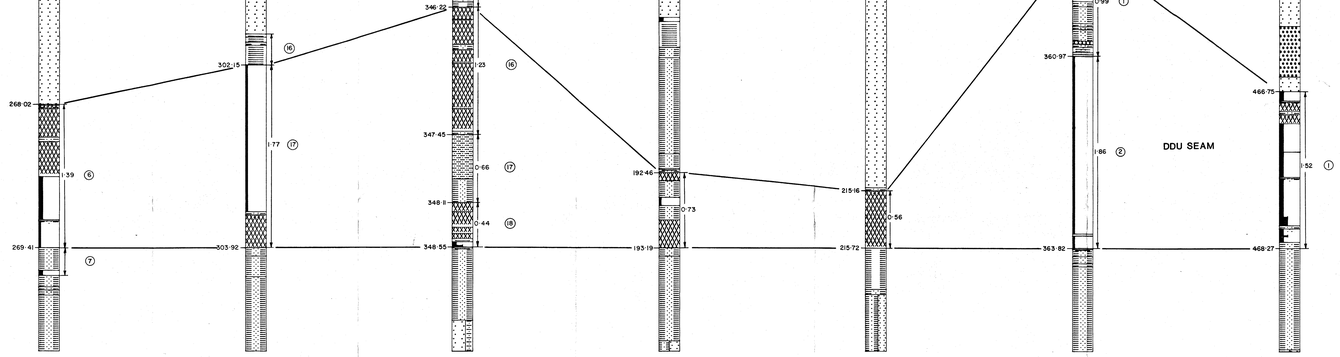
- BASIC INTRUSIVE
- CLAY
- CLAYSTONE
- SILTSTONE
- MUDSTONE
- CONGLOMERATE
- SANDSTONE
- CARBONACEOUS MUDSTONE
- SHALE
- COAL STONY
- COAL
- NOT CORED/CORE LOSS
- LIMESTONE
- COAL (UNDIFF.)
- TONSTEIN
- IRONSTONE
- TUFF

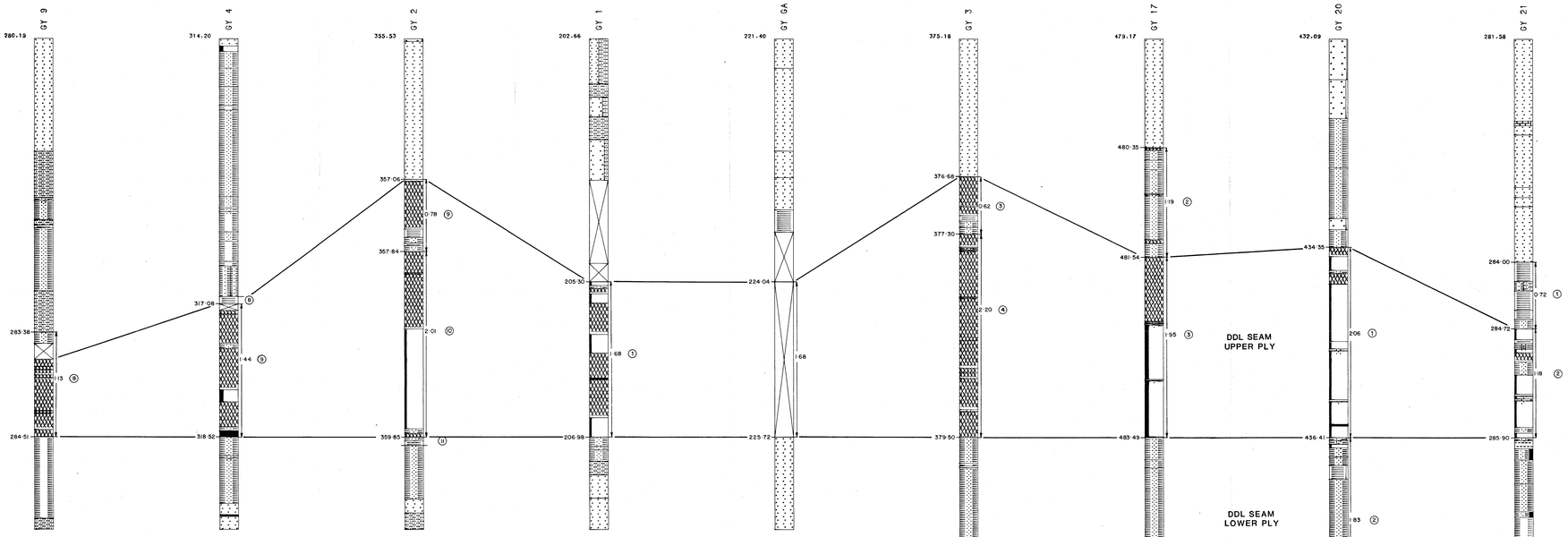
126134

VERTICAL SCALE

1 : 20

0.1 0.2 0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0





LEGEND

LITHOLOGY REFERENCE

- BASIC INTRUSIVE
- CLAY
- CLAYSTONE
- SILTSTONE
- MUDSTONE
- CONGLOMERATE
- SANDSTONE
- CARBONACEOUS MUDSTONE
- SHALE
- COAL STONY
- COAL
- NOT CORED/CORE LOSS
- LIMESTONE
- COAL (UNDIFF.)
- TONSTIEN
- IRONSTONE
- TUFF

126134

VERTICAL SCALE

1 : 20

0·4 0·2 0·0 0·2 0·4 0·6 0·8 1·0 1·2 1·4 1·6 1·8 2·0

5 cm

85-2446

5427

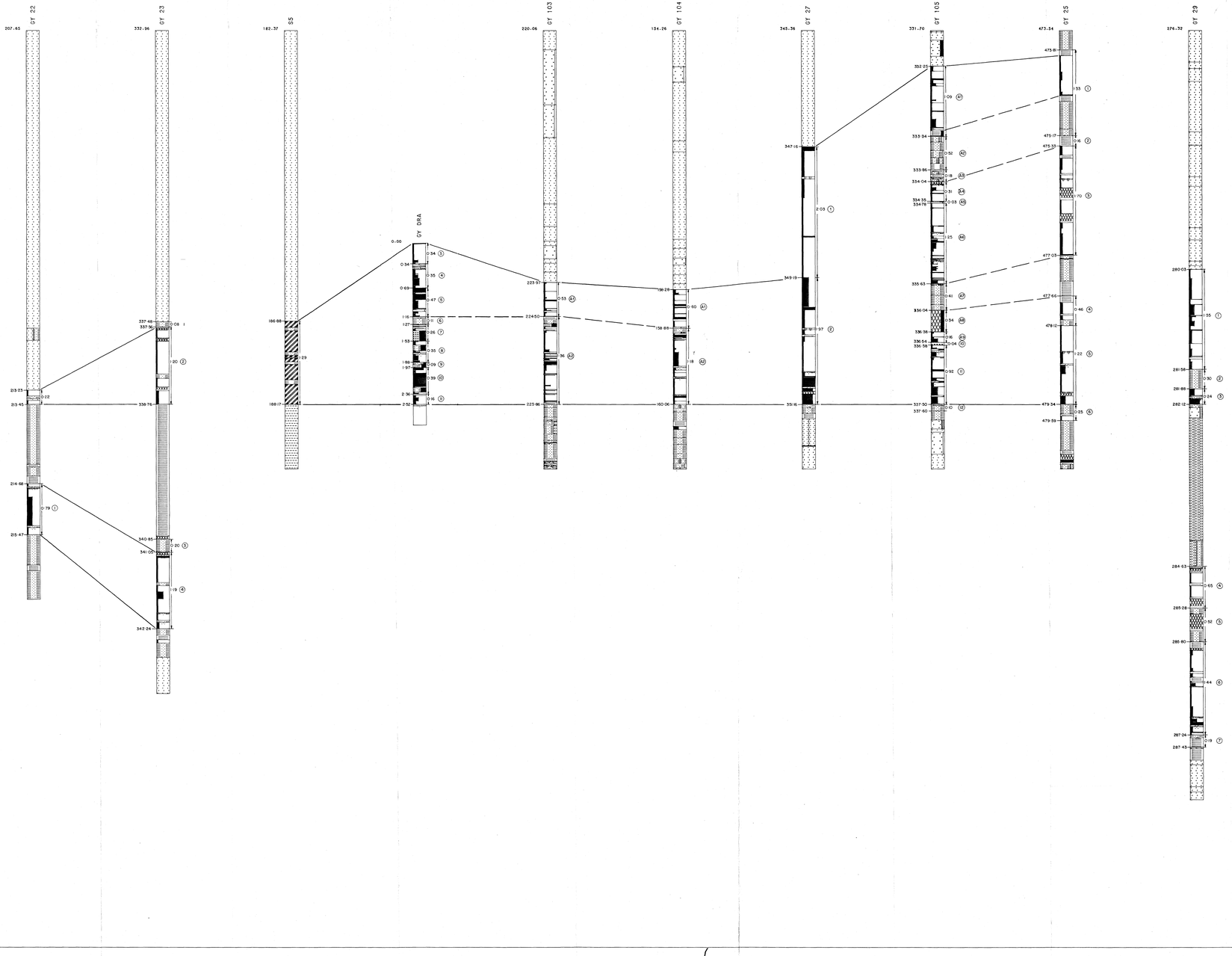
THE SHELL COMPANY OF AUSTRALIA LTD.
COAL DIVISION

DETAILED SEAM INTERVAL
DDU, DDL SEAM
DALMAYNE SOUTH

AUTHOR: R Ford | DATE: May 1984 | ENCL. 16

REPORT NO: CEPR 10/84 | DRAWING NO: 3386

5428



LEGEND

LITHOLOGY REFERENCE

- BASIC INTRUSIVE
- MUDSTONE
- SILTSTONE
- SANDSTONE
- COAL
- CARBONACEOUS MUDSTONE
- COAL (UNDIFF.)
- SHALE
- NOT CORED/CORE LOSS
- CONGLOMERATE
- CLAY
- SILT
- COAL STONY
- GRAVEL
- CLAYSTONE
- TONSTIEN
- TUFF

VERTICAL SCALE
1 : 20

0.4 0.2 0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0

126135

5 cm

85 2446 1

5428

THE SHELL COMPANY OF AUSTRALIA LTD.
COAL DIVISION

DETAILED SEAM INTERVAL
DDL SEAM
DOUGLAS RIVER AREA

AUTHOR: R.Ford	DATE: May 1984		
REPORT NO: CEPR 10/84	DRAWING NO: 3387	ENCL. 17	

5429

E.L. 5/61

Revoked
SR 32/81

LIMIT OF DDU AND DDL SPLIT

GRAY

Elephant Pass

Tasman Highway

Piccaninny Point

Seymour

Long Point

Bicheno

Mayson River

Possum Ck

Douglas River

St Pauls River

Swan River

Funny Knob Ck

Elephant Mt Rd

Wandiana Ck

Piccaninny Ck

GT9 13 97
GT4 13 16
GT11 12 11
GT2 8 51
GT12 13 27
GT13 12 86 1·55
GY6 GY6A 8 32
GT20 14 64 1·83
GT12 2·67
GT17
GT11 14 74
GT14 11 42
GT10A GY10 16 22 17 34
GT103 31 23
GYDRA
GT104 30 60
GT105 17 17
GT24 24 09
GT25 21 47
GT23 2·29
GT29 19 72 3·68
GT15
GT18
GT16
GT36
GT46
GT32

Tasmania

E.L. 17/61 | E.L. 5/61
DALMAYNE AREA
DOUGLAS RIVER AREA
LLANDAFF AREA
Coastal Plain
Bicheno

LEGEND

- SCOA drillhole
- IMI drillhole
- Department of Mines drillhole
- 19th and early 20th century drillhole
- Adit
- Dolerite feeder
- Thick bodies of dolerite determined from regional and detailed gravity surveys (Leaman 1980)
- —30·0— Isopach of split between DDU and DDL seams
  Contour interval 2.0m
- —2·0— Isopach of split between Upper and Lower DDL seams
  Contour interval 0.5m

5 cm

MICROFILMED
FICHE No. 9
TOP CENTRE
126136
85-2446

SCALE 1 : 50 000
0 1 2 3 4 5km

THE SHELL COMPANY OF AUSTRALIA LTD.

TASMANIA – GRAY E.L. 5/61
DALMAYNE, DOUGLAS RIVER & APSLEY RIVER AREAS

ISOPACHS –
DDU–DDL INTERSEAM INTERVAL,
AND DDL INTERSEAM INTERVAL

Scale 1 : 50 000

Author R. Ford	Date: May 1984
Report No CEPR 10/84	Drawing No 3388

Encl. 18

5430

E.L. 5/61

Revoked
SR 32/81

LIMIT OF DDU AND DDL SPLIT

GRAY

Elephant Pass

Funny Knob Ck.

Elephant Mt. Rd.

Tasman Highway

Wardlows Ck.

Piccaninny Ck

Piccaninny Point

Seymour

Long Point

Bicheno

River

Douglas River

Apsley River

Swan River

Possum Ck.

Moyson River

St. Pauls River

Tasmania

E.L. 17/61
E.L. 5/61
DALMAYNE AREA
DOUGLAS RIVER AREA
LLANDAFF AREA
Coastal Plain
Bicheno
Highway

GY1 1·68
GY2 2·79
GY3 2·82
GY5
GY6 GY6A 1·68
GY7
GY8
GY9 1·13
GY10A GY10 1·39
GY11 1·43
GY12
GY13
GY14 2·59
GY14 1·44
GY15
GY16
GY17 1·95
GY18
GY19
GY20 2·06
GY21 1·18 Contains Raw Ash 50%
GY22
GY23 1·20
GY25 5·50
GY27 4·00
GY29 2·09
GY30
GY32
GY48
GY103 1·89
GY104 1·78
GY105 5·25
GYDRA 2·51
DDH1
DDH2
S1
S2
S3
S4
S5 1·29
S6
S7
LL1
LL2
LL3
040675
045732
963546
986620
992637

1·50
2·00
2·50
3·00
3·50
4·00
4·50
5·00
1·00

LEGEND

- GY49 — SCOA drillhole
- DDH1 — IMI drillhole
- 045732 — Department of Mines drillhole
- LL1 — 19th and early 20th century drillhole
- Adit
- Dolerite feeder
- Thick bodies of dolerite determined from regional and detailed gravity surveys (Leaman 1980)
- Approximate position of seam subcrop
- D/U — Fault
- 2·5 — Isopach of DDL seam (m)
- 2·82 — Seam thickness (m)
- Contour interval 0.5m

126137

5 cm

5430

SCALE 1:50 000

0 1 2 3 4 5 km.

85-2446

THE SHELL COMPANY OF AUSTRALIA LTD.

TASMANIA — GRAY E.L. 5/61
DALMAYNE, DOUGLAS RIVER & APSLEY RIVER AREAS

ISOPACHS OF DDL SEAM

Scale 1:50 000

Author: R. Ford	Date: May 1984	Encl. 19
Report No: CEPR 10/84	Drawing No: 3389	

5431

E.L. 5/61

Revoked
SR 32/81

GRAY

Elephant Pass

Mt. Elephant Rd

Funny Knob Ck

LIMIT OF DDU AND DDL SPLIT

Tasman Highway

Wordlaws Ck

Piccaninny Ck

Piccaninny Point

Seymour

Long Point

Bicheno

River

St. Pauls River

Mayson River

Possum Ck

Douglas River

Apsley River

Swan River

Tasman Highway

045732

040675

992637

986620

963546

GY1 1·68
GY2 2·79
GY3 2·82
GY4 1·44
GY5
GY6 GY6A 1·68
GY7
GY8
GY9 1·01
GY10A GY10 1·39
GY11 1·43
GY12 2·60
GY13
GY14 2·59
GY15
GY16
GY17 1·95
GY18 1·51
GY19
GY20 2·06
GY21
GY22 0·22
GY23 1·20
GY25 3·17
GY27 4·00
GY29 2·09
GY30 3·39
GY32 0·55
GY48
GY103 1·89
GY104 1·78
GY105 3·38
GYDRA
DDH1
DDH2 2·14
LL1
LL2
LL3
S1 S2 S3 S4 S5 S6 S7 1·29

0·5 1·0 1·5 2·0 2·5 3·0 3·5 4·0 4·5 6·0
1·50 2·00 2·30 3·00 3·50 4·00

Tasmania

E.L. 17/61
E.L. 5/61
DALMAYNE AREA
DOUGLAS RIVER AREA
Coastal Plain
LLANDAFF AREA
Bicheno
Highway

LEGEND

- SCOA drillhole
- IMI drillhole
- Department of Mines drillhole
- 19th and early 20th. century drillhole
- Adit
- Dolerite feeder
- Thick bodies of dolerite determined from regional and detailed gravity surveys (Leaman 1980)
- Approximate position of seam subcrop
- Fault (D / U)
- 2·82 Selected mining section (m)
- 2·00 Isopach of DDL seam (m)
- 3·0 Isopach of DD seam (m)

Contour interval 0.5m

126138

5 cm

5431

SCALE 1:50 000

0 1 2 3 4 5 km.

85-2446

THE SHELL COMPANY OF AUSTRALIA LTD.

TASMANIA – GRAY E.L. 5/61
DALMAYNE, DOUGLAS RIVER & APSLEY RIVER AREAS

ISOPACHS OF SELECTED MINING SECTION – DD, DDL SEAMS

Scale 1:50 000

Author: R.Ford	Date: May 1984	Encl.20
Report No: CEPR 10/84	Drawing No: 3390	

5432

E.L. 5/61

Revoked
SR 32/81

GRAY

Elephant Pass

Mt. Elephant Rd

Funny Knob Ck

Tasman Highway

Wardlaws Ck.

DF Subcrop

Piccaninny Ck

Piccaninny Point

Seymour

Long Point

Bicheno

St. Pauls River

Mayson River

Possum Ck.

Douglas River

Apsley River

Swan River

Tasman Highway

GY99 GY91 GY94 GY47 1·87 GY48 GY32 2·84 1·34 GY18 1·0 GY16 0·85 GY33 0·5 GY12 0·36 GY13 GY15 GY11 0·99 GY14 0·22 GY10A GY10 GY9 0·56 GY4 GY2 0·5 GY17 GY3 0·71 GY6 GY6A 0·90 0·58 GY19 GY20 0·71 GY21 0·77 GY7 1·24 GY103 GYDRA GY104 GY22 0·71 S5 GY105 GY27 GY25 GY23 1·19 GY29 1·44 GY5 2·24 GY8 LL1 LL3 LL2 S1 S6 S7 S3 S4 S2 DDH1 0·72 1·10 DDH2 GY1 0·88 045732 040675 992637 986620 963546

1·5 2·5 2·0 1·5 1·0 0·5 0·5 1·0 1·0 2·0 0·5 1·0

590000 595000 600000 605000 610000 148°10' 148°20' 5390000 5385000 5380000 5375000 5370000 5365000 5360000 5355000 41°40' 41°50'

Tasmania

E.L. 17/61 E.L. 5/61 DALMAYNE AREA DOUGLAS RIVER AREA LLANDAFF AREA Bicheno Coastal Plain Highway

LEGEND

- GY49 ● SCOA drillhole
- DDH1 ◒ IMI drillhole
- 045732 ○ Department of Mines drillhole
- LL1 ⊕ 19th. and early 20th. century drillhole
- Adit
- Dolerite feeder
- Thick bodies of dolerite determined from regional and detailed gravity surveys (Leaman 1980)
- Approximate position of seam subcrop
- —2·0— Isopach of DC1 seam (m)
- – –1·5– – Isopach of DE seam (m)
- —1·0— Isopach of DDL seam (m)
- – –0·5– – Isopach of DF seam (m)

126139

5 cm

5432

SCALE 1 : 50 000

0 1 2 3 4 5 km.

85-2446

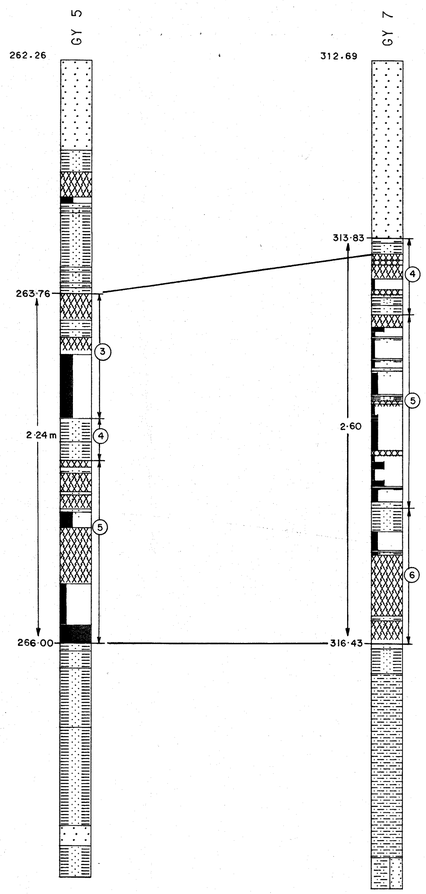
THE SHELL COMPANY OF AUSTRALIA LTD.

TASMANIA — GRAY E.L. 5/61
DALMAYNE, DOUGLAS RIVER & APSLEY RIVER AREAS

ISOPACHS — DC1, DDL (LOWER PLY), DE AND DF SEAMS

Scale 1 : 50 000

Author : R. Ford	Date : May 1984	Encl. 21
Report No: CEPR 10/84	Drawing No: 3391	



LEGEND

LITHOLOGY REFERENCE

- BASIC INTRUSIVE
- SANDSTONE
- MUDSTONE
- SILTSTONE
- CONGLOMERATE
- COAL
- COAL STONY
- CLAYSTONE
- NOT CORED/CORE LOSS
- CARBONACEOUS MUDSTONE
- LIMESTONE
- CLAY
- COAL (UNDIFF.)
- SHALE

VERTICAL SCALE
1: 20

126140

0.4 0.2 0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0

5 cm

85-2446

5433

THE SHELL COMPANY OF AUSTRALIA LTD.
COAL DIVISION

DETAILED SEAM INTERVAL
DC 1 SEAM

AUTHOR: R. Ford	DATE: May 1984	ENCL. 22
REPORT NO: CEPR 10/84	DRAWING NO: 3392	

5434

E.L. 5/61

Revoked
SR 32/81

GRAY

Elephant Pass

Funny Knob Ck.

Mt. Elephant Rd

Tasman Highway

Wardlaws Ck.

Piccaninny Ck

Piccaninny Point

Seymour

Long Point

Bicheno

Mayson River

Possum Ck.

Douglas River

Apsley River

St. Pauls River

Swan River

Tasman Highway

148°10'

148°20'

41°40'

41°50'

590000 595000 600000 605000 610000

5390000 5385000 5380000 5375000 5370000 5365000 5360000 5355000

GY48 0·75 GY32 0·70 GY18 GY16 0·49 GY30 GY12 0·72 GY15 GY13 GY14 1·15 GY11 0·89 GY10A GY10 0·55 GY9 1·07 GY4 0·39 Coal interbedded with mudstone GY2 0·76 GY17 1·14 GY3 0·44 GY6 GY6A 0·97 GY19 GY20 GY21 GY7 0·65 GY22 GY103 GY104 GY105 GY23 GY27 GY25 0·62 GY29 0·97 GY5 0·79 GY8 LL1 LL3 LL2

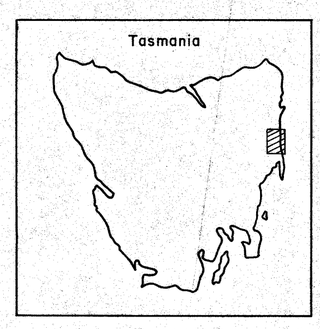
DDH1 1·43 DDH2 GY1 2·20

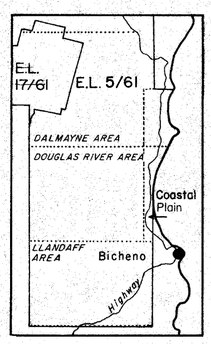
GYDRA S5 S1 S6 S7 S3 S4 S2

045732 040675 992637 986620 963546

1·0 1·5 2·0 0·50

D U





LEGEND

- GY49 — SCOA drillhole
- DDH1 — IMI drillhole
- 045732 — Department of Mines drillhole
- LL1 — 19th and early 20th. century drillhole
- Adit
- Dolerite feeder
- Thick bodies of dolerite determined from regional and detailed gravity surveys (Leaman 1980)
- Approximate position of seam subcrop
- D / U — Fault
- 0·44 — Seam thickness (m)
- 1·5 — Isopach (m)
- Contour interval 0.5m

126141

5 cm

5434

SCALE 1 : 50 000

0 1 2 3 4 5 km.

85-2446

THE SHELL COMPANY OF AUSTRALIA LTD.

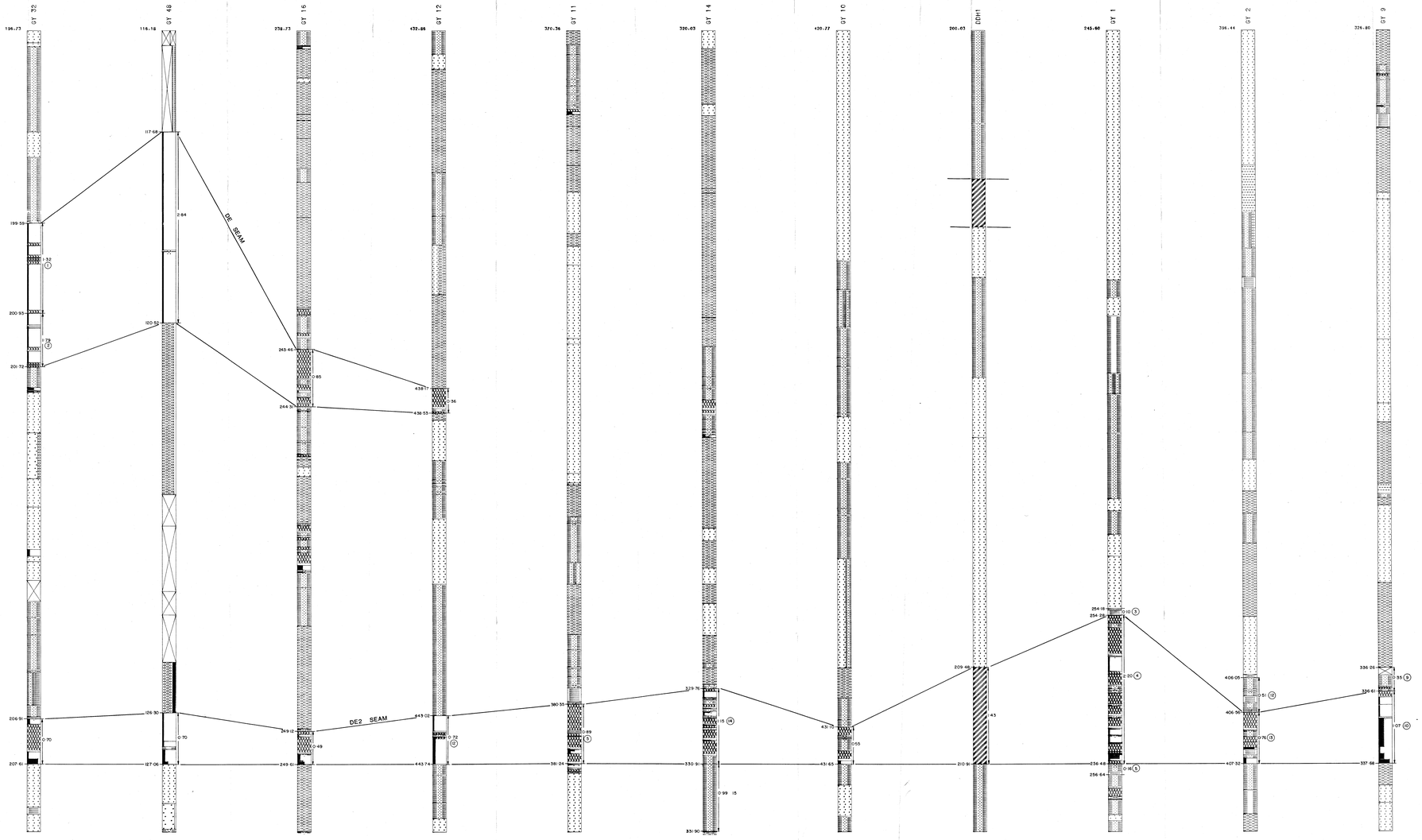
TASMANIA — GRAY E.L. 5/61
DALMAYNE, DOUGLAS RIVER & APSLEY RIVER AREAS

ISOPACHS OF DE2 SEAM

Scale 1 : 50 000

Author : R.Ford	Date : May 1984	Encl. 23
Report No: CEPR 10/84	Drawing No: 3393	

5435



LEGEND

LITHOLOGY REFERENCE

- NOT CORED/CORE LOSS
- CARBONACEOUS MUDSTONE
- MUDSTONE
- SILTSTONE
- SANDSTONE
- BASIC INTRUSIVE
- COAL
- CLAY
- TONSTIEN
- LIMESTONE
- COAL (UNDIFF.)
- SHALE
- CLAYSTONE
- IRONSTONE
- COAL STONY
- CONGLOMERATE

126142

VERTICAL SCALE
1 : 20

0.4 0.2 0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0

5 cm

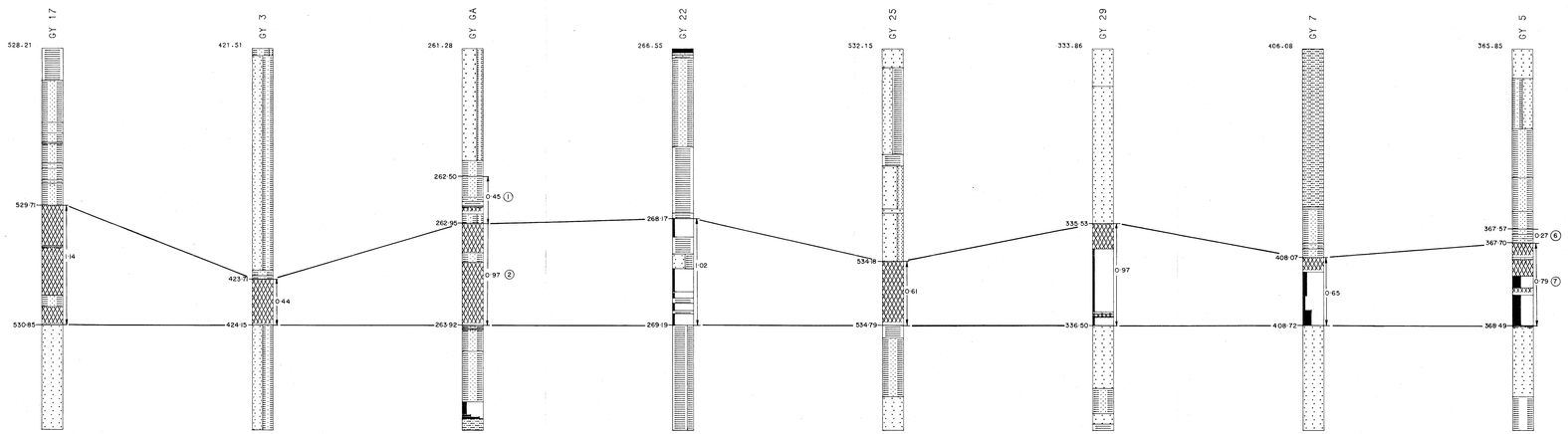
85-2446 I

5435

THE SHELL COMPANY OF AUSTRALIA LTD.
COAL DIVISION

DETAILED SEAM INTERVAL
DE, DE2 SEAM
DALMAYNE NORTH

DRAWN: R.Ford		Date: May 1984	ENCL.24
REPORT NO: CEPR 10/84		Drawing no: 3394	



LEGEND

LITHOLOGY REFERENCE

- NOT CORED/CORE LOSS
- BASIC INTRUSIVE
- MUDSTONE
- SANDSTONE
- SILTSTONE
- CLAYSTONE
- CARBONACEOUS MUDSTONE
- SHALE
- COAL
- CONGLOMERATE
- COAL STONY
- TONSTIEN
- IRONSTONE
- LIMESTONE
- COAL (UNDIFF.)
- TUFF
- CLAY

126143

VERTICAL SCALE

1: 20

0.4 0.2 0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0

5 cm

85-2446

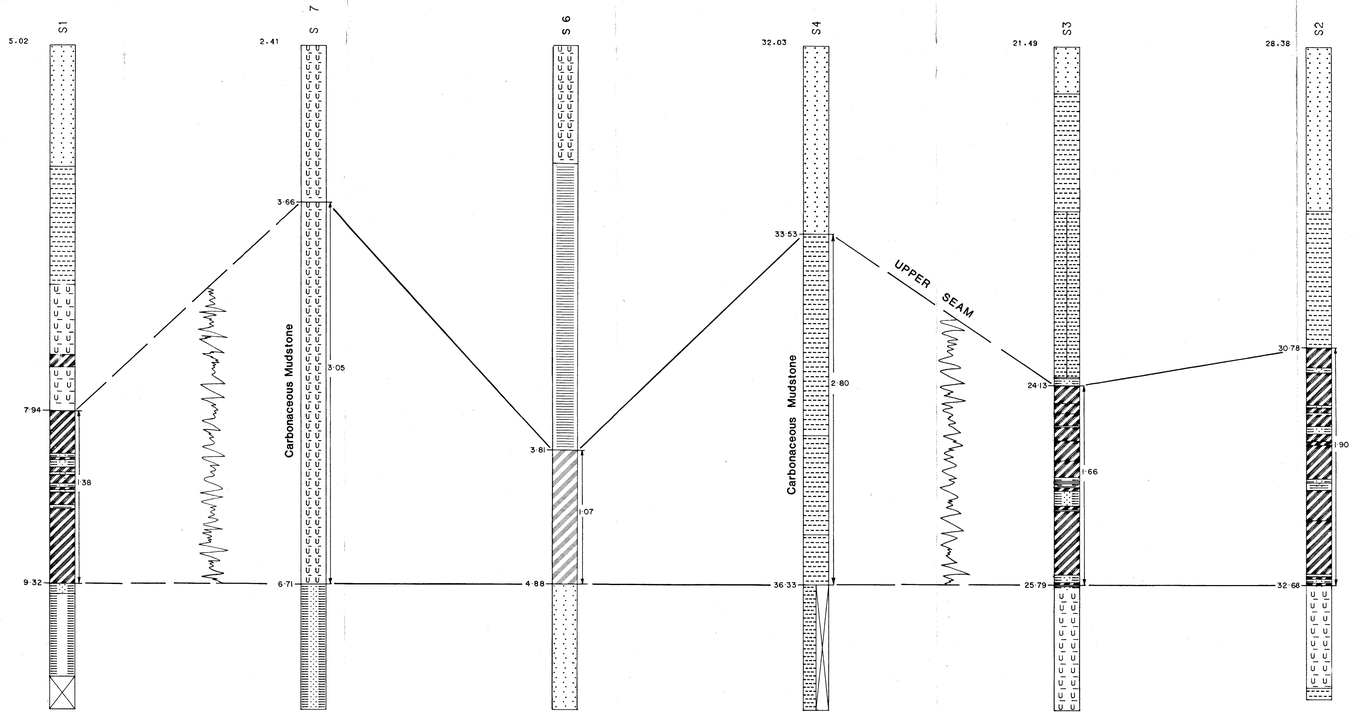
5436

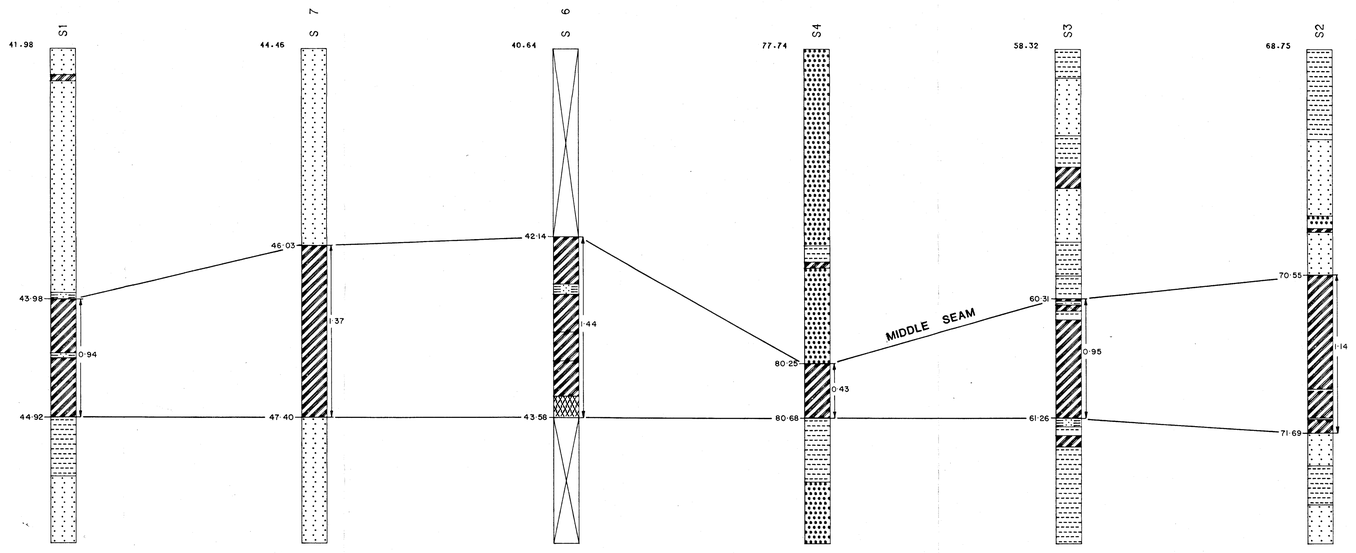
THE SHELL COMPANY OF AUSTRALIA LTD.
COAL DIVISION

DETAILED SEAM INTERVAL
DE2 SEAM
DALMAYNE AND DOUGLAS RIVER

AUTHOR: R. Ford	DATE: May 1984	ENCL. 25
REPORT NO: CEPR 10/84	DRAWING NO: 3395	

5437





LEGEND

LITHOLOGY REFERENCE

- CLAY
- SANDSTONE
- IRONSTONE
- SHALE
- NOT CORED/CORE LOSS
- COAL (UNDIFF.)
- MUDSTONE
- CARBONACEDUS MUDSTONE
- CLAYSTONE
- SOIL
- SAND
- COAL STONY
- CONGLOMERATE
- COAL
- LIMESTONE
- GRANITE
- BASIC INTRUSIVE
- ALLUVIUM

126144

VERTICAL SCALE
1: 20

0.4 0.2 0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0

5 cm

85-2446 1 5437

THE SHELL COMPANY OF AUSTRALIA LTD.
COAL DIVISION

DETAILED SEAM INTERVAL UPPER AND MIDDLE SEAMS SEYMOUR COALFIELD

AUTHOR: R. Ford	DATE: May 1984	ENCL. 26
REPORT NO: CEPR 10/84	DRAWING NO: 3396	

5438

E.L. 5/61

Revoked
SR 32/81

GRAY

Elephant Pass

Funny Knob Ck.

Elephant Mt. Rd.

Tasman Highway

Wardlaws Ck.

Piccaninny Ck

Piccaninny Point

Seymour

Long Point

Bicheno

St. Pauls River

Mayson River

Possum Ck

Douglas River

Apsley River

Swan River

Tasman Highway

GY48 GY32 GY18 1·01/— 88·55 GY16 1·01/— 50·82 1·01/— 106·07 GY30 GY12 GY13 GY15 2·20/38·8 264·65 GY11 GY14 GY10A GY10 DDH1 DDH2 GY9 GY4 1·46/42·2 220·12 GY1 GY2 GY17 GY3 GY6 GY6A GY19 GY20 GY21 1·51/38·6 207·25 GY7 1·08/41·0 254·60 1·08/37·4 281·76 GY22 GY103 GYDRA GY104 S5 GY105 GY23 1·47/— 225·69 045732 1·17/— 149·31 GY27 GY25 1·15/— 340·03 1·13/— 256·90 GY29 1·28/— 200·38 GY5 S1 S6 S7 S3 S4 S2 040675 1·56/— 135·06 992637 986620 1·12/— 76·42 1·90/— 78·99 1·08/— 291·41 1·90/— 78·99 1·08/— 291·41 GY8 2·20/38·4 152·85 LL1 1·16 77·72 LL3 LL2 963546

590000 595000 600000 605000 610000

148°10' 148°20'

5390000 5385000 5380000 5375000 5370000 5365000 5360000 5355000

41°40' 41°50'

Tasmania

E.L. 17/61 E.L. 5/61
DALMAYNE AREA
DOUGLAS RIVER AREA
Coastal Plain
LLANDAFF AREA
Bicheno
Highway

LEGEND

- GY49 — SCOA drillhole
- DDH1 — IMI drillhole
- 045732 — Department of Mines drillhole
- LL1 — 19th. and early 20th. century drillhole
- Adit
- Dolerite feeder
- Thick bodies of dolerite determined from regional and detailed gravity surveys (Leaman 1980)
- 1·15/— / 340·03 — Thickness (m)/Raw ash(%) / Depth to floor (m)

126145
5438

5 cm

SCALE 1 : 50 000

0 1 2 3 4 5 km.

85-2446

THE SHELL COMPANY OF AUSTRALIA LTD.

TASMANIA — GRAY E.L. 5/61
DALMAYNE, DOUGLAS RIVER & APSLEY RIVER AREAS

UNCORRELATED
MINOR SEAMS > 1·0m THICK

Scale 1 : 50 000

Author : R. Ford	Date : May 1984	Encl. 27
Report No: CEPR 40/84	Drawing No: 3397	

5439

E.L. 5/61

Revoked
SR 32/81

LIMIT OF DDU AND DDL SPLIT

GRAY

Elephant Pass

Funny Knob Ck.

Elephant Mt. Rd.

Tasman Highway

Wordlaws Ck.

Piccaninny Ck

Piccaninny Point

Seymour

Long Point

Bicheno

St Pauls River

Mayson River

Possum Ck

Douglas River

Apsley River

Swan River

Tasman Highway

GY48 GY32 GY18 24·9 GY16 GY30 36·7 GY12 36·4 GY15 GY13 GY14 29·4 GY11 26·0 GY10A GY10 33·1 DDH1 31·1 DDH2 19·8 GY9 20·3 GY4 21·6 GY2 18·8 GY1 GY17 29·1 GY3 17·0 GY6 GY6A GY19 GY20 GY21 GY22 GY7 GY103 GYDRA GY104 S5 GY105 GY23 GY27 GY25 GY29 GY5 GY8 LL1 LL3 LL2 S1 S6 S7 S3 S4 S2 045732 040675 992637 986620 963546

Tasmania

E.L. 17/61 E.L. 5/61
DALMAYNE AREA
DOUGLAS RIVER AREA
Coastal Plain
LLANDAFF AREA
Bicheno
Highway

LEGEND

- SCOA drillhole
- IMI drillhole
- Department of Mines drillhole
- 19th and early 20th. century drillhole
- Adit
- Dolerite feeder
- Thick bodies of dolerite determined from regional and detailed gravity surveys (Leaman 1980)
- Approximate position of seam subcrop
- Fault (D / U)
- Isoash (%) DD seam
- Isoash (%) DDU seam
- Contour interval 2%

5439

126146

5 cm

SCALE 1:50 000

0 1 2 3 4 5 km.

85-2446

THE SHELL COMPANY OF AUSTRALIA LTD.

TASMANIA — GRAY E.L. 5/61
DALMAYNE, DOUGLAS RIVER & APSLEY RIVER AREAS

DD AND DDU SEAM, RAW ASH OF SELECTED MINING SECTION

Scale 1: 50 000

Author: R. Ford	Date: May 1984	Encl. 28
Report No: CEPR 10/84	Drawing No: 3398	

5440

E.L. 5/61

Revoked
SR 32/81

LIMIT OF DDU AND DDL SPLIT

GRAY

Elephant Pass

Funny Knob Ck.

Elephant Mt. Rd.

Tasman Highway

Wardlaws Ck.

Piccaninny Ck

Piccaninny Point

Seymour

Long Point

Bicheno

St. Pauls River

Mayson River

Possum Ck.

Douglas River

Apsley River

Swan River

Tasman River

Highway

GY48 GY32 GY18 GY16 GY30 GY12 GY15 GY13

GY11 23·7 GY14 37·0 GY10A GY10

DDH1 DDH2

GY9 27·0 GY4 30·0 GY2 28·8 GY1 22·9

GY17 24·6 GY3 23·7 GY6 GY6A

GY19 GY20 22·8 GY21

GY7 GY22

GY103 33·6 GYDRA 29·0 GY104 35·4

GY105 39·4 GY23 28·1

GY27 27·2 GY25 31·5

GY29 42·44·5

GY5 GY8

LL1 LL2 LL3

S1 S2 S3 S4 S5 S6 S7

045732 040675 992637 986620 963546

28 26 24 22 30 32 34 36 38 40

D U

Tasmania

E.L. 17/61 E.L. 5/61
DALMAYNE AREA
DOUGLAS RIVER AREA
Coastal Plain
LLANDAFF AREA
Bicheno
Highway

LEGEND

- GY49 ● SCOA drillhole
- DDH1 ◒ IMI drillhole
- 045732 ○ Department of Mines drillhole
- LL1 ⊕ 19th and early 20th. century drillhole
- Adit
- Dolerite feeder
- Thick bodies of dolerite determined from regional and detailed gravity surveys (Leaman 1980)
- Approximate position of seam subcrop
- D / U Fault
- —30— Isoash line (%)
- Contour interval 2%

5440

126147

5 cm

SCALE 1:50 000

0 1 2 3 4 5 km.

85-2446

THE SHELL COMPANY OF AUSTRALIA LTD.

TASMANIA — GRAY E.L. 5/61
DALMAYNE, DOUGLAS RIVER & APSLEY RIVER AREAS

DDL SEAM — RAW ASH OF SELECTED MINING SECTION

Scale 1: 50 000

Author: R. Ford	Date: May 1984	Encl. 29
Report No: CEPR 10/84	Drawing No: 3399	

5441

E.L. 5/61

Revoked
SR 32/81

Dalmayne North

Dalmayne East

Dalmayne Graben

Dalmayne West

Elephant Pass

Piccaninny Point

Seymour

Long Point

Bicheno

LIMIT OF DDU AND DDL SPLIT

12B

12A

2A

2B

B

A

GRAY

GY48 GY32 GY18 GY16 GY30 GY12 GY15 GY13 GY10A GY10 GY11 GY14 GY9 GY4 GY1 GY2 GY17 GY3 GY6 GY6A GY19 GY20 GY21 GY7 GY22 GY103 GY104 GY105 GY23 GY27 GY25 GY29 GY5 GY8 LL1 LL3 LL2

DDH1 DDH2

S1 S6 S7 S3 S4 S2 S5

GYDRA

045732 040675 992637 986620 963546

Funny Knob Ck.
Elephant Mt. Rd.
Tasman Highway
Wardlaws Ck.
Piccaninny Ck
River
St. Pauls River
Mayson River
Possum Ck
Douglas River
Apsley River
Swan River
Tasman Highway

590000 595000 600000 605000 610000
148°10' 148°20'
5390000 5385000 5380000 5375000 5370000 5365000 5360000 5355000
41°40' 41°50'

Tasmania

E.L. 17/61 E.L. 5/61
DALMAYNE AREA
DOUGLAS RIVER AREA
Coastal Plain
LLANDAFF AREA
Bicheno
Highway

LEGEND

- GY49 — SCOA drillhole
- DDH1 — IMI drillhole
- 045732 — Department of Mines drillhole
- LL1 — 19th. and early 20th. century drillhole
- Adit
- Dolerite feeder
- Thick bodies of dolerite determined from regional and detailed gravity surveys (Leaman 1980)
- Approximate position of DD/DDU seam subcrop
- D/U — Fault

5441
126148

5 cm

SCALE 1:50 000
0 1 2 3 4 5 km.

85-2446

THE SHELL COMPANY OF AUSTRALIA LTD.

TASMANIA — GRAY E.L. 5/61
DALMAYNE, DOUGLAS RIVER & APSLEY RIVER AREAS

DD AND DDU SEAM — INDICATED IN SITU RESERVES

Scale 1: 50 000

Author: Coal Division	Date: May 1984	Encl. 30
Report No: CEPR 10/84	Drawing No: 3450	

5442

E.L. 5/61

Revoked
SR 32/81

LIMIT OF DDU AND DDL SPLIT

Elephant Pass

GRAY

Mt. Elephant Rd.

Tasman Highway

Wardlaws Ck.

Piccaninny Ck

Piccaninny Point

Seymour

Long Point

Dalmayne West

Dalmayne East

Dalmayne Graben

Douglas River North

Douglas River South

Maxson River

Possum Ck

Douglas River

St. Pauls River

Apsley River

Swan River

Bicheno

Highway

Tasman Highway

Funny Knob Ck.

GY48 GY32 GY18 GY16 GY30 GY12 GY13 GY15 GY11 GY14 GY10A GY10 GY9 GY4 GY2 GY1 GY17 GY3 GY6 GY6A GY19 GY20 GY21 GY7 GY22 GY103 GY104 GY105 GY27 GY25 GY23 GY29 GY5 GY8 LL1 LL3 LL2 DDH1 DDH2 S1 S6 S7 S3 S4 S2 S5 045732 040675 992637 986620 963546

590000 595000 600000 605000 610000

148°10' 148°20'

5390000 5385000 5380000 5375000 5370000 5365000 5360000 5355000

41°40' 41°50'

Tasmania

E.L. 17/61 E.L. 5/61
DALMAYNE AREA
DOUGLAS RIVER AREA
LLANDAFF AREA
Coastal Plain
Bicheno
Highway

LEGEND

- GY49 — SCOA drillhole
- DDH1 — IMI drillhole
- 045732 — Department of Mines drillhole
- LL1 — 19th. and early 20th. century drillhole
- Adit
- Dolerite feeder
- Thick bodies of dolerite determined from regional and detailed gravity surveys (Leaman 1980)
- Approximate position of DDL seam subcrop
- D / U — Fault

126149

5 cm

5442

SCALE 1 : 50 000

0 1 2 3 4 5 km

85-2446

THE SHELL COMPANY OF AUSTRALIA LTD.

TASMANIA — GRAY E.L. 5/61
DALMAYNE, DOUGLAS RIVER & APSLEY RIVER AREAS

DDL SEAM – INDICATED IN SITU RESERVES

Scale 1 : 50 000

Author: Coal Division	Date: May 1984	Encl. 31
Report No: CEPR 10/84	Drawing No: 3451	