



HardRock Coal Mining Pty Ltd
ACN: 150 741 094

ANNUAL REPORT FOR

EXPLORATION LICENCE EL17/2010

Period covered: November 2013 to November 2014

Licensee: Hardrock Investments Pty Ltd
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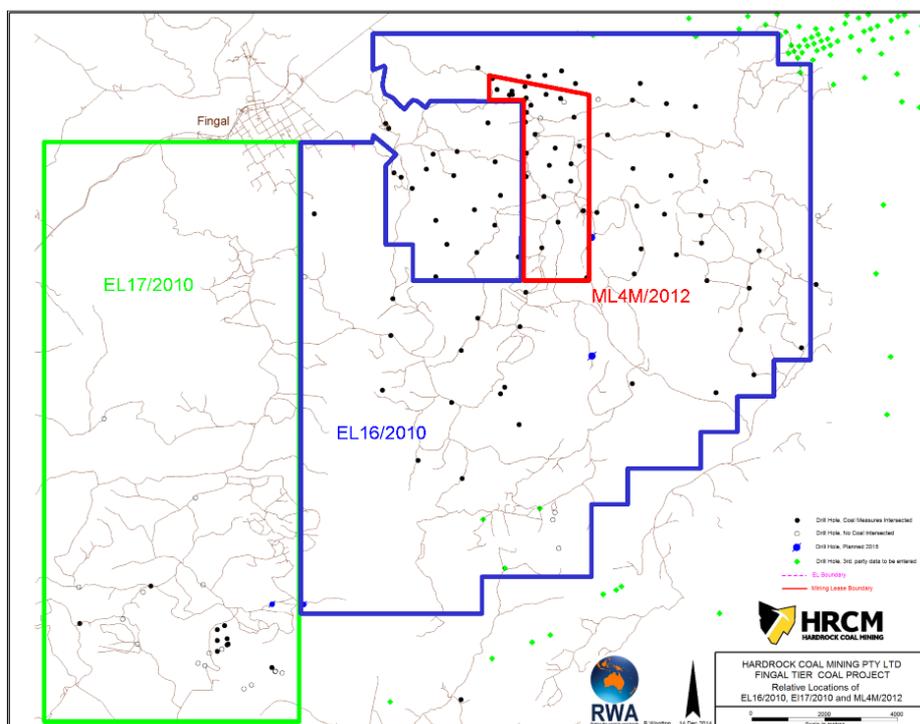
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ABSTRACT

Exploration Licence EL17/2010 lies to the west of EL16/2010.

There has been some exploration drilling in the licence area, firstly by the Tasmanian Department of Mines in the 1970's & 1980's and recently by HardRock Coal Mining (HRCM). Drilling has reduced the prospectively for a significant coal resource within the EL however there still remains the possibility of a resource so exploration is to be continued. HRCM considers EL17/2010 to be part of a larger exploration area that includes EL16/2010 and ML4M/2012 and as such there is a single geological model which covers the three domains. The single geological model and JORC compliant resource statement are, by agreement with Mineral Resources Tasmania (MRT), confidential at this stage.

The relativity of the three domains is shown below with EL17/2010 outlined in green.



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1 Introduction

1.1 Licence Area, Report Datum, Reporting Period

EL17/2010 covers an area of 112 km² and has no exclusion areas. The EL is shown on the attached **Figure 1**, which is the plan contained in the licence document. It is located immediately south west of Fingal township. The Report Datum is GDA94 (MGA Zone 55) and the reporting period is from November 2013 to November 2014.

1.2 Exploration Rationale

The aim of exploration on EL17/2010 is to further define the coal resource within the licence area, particularly the resources adjacent to Exploration Licence EL16/2010.

1.3 Geological Setting

The coal seams of interest lie within the Triassic Upper Parmeener Super Group. The upper limit is defined by outcrop or the overlying Jurassic Dolerite which forms a discordant upper limit to the coal measures. The base of coal bearing strata is defined by a formation highlighted by the presence of white quartz rich sandstone beds.

Large volumes of Jurassic dolerite have intruded the Parmeener Supergroup stratigraphy, and in the project area dolerite outcrop up to >400metres thickness covers most of the coal measures. Cainozoic tectonic rifting and periglacial landscape development processes through the Fingal Valley have produced the escarpment and benched dolerite talus slope morphology which characterizes the landscape of the project area.

Surface geology is shown on the attached **Figure 2**, which is from the MRT 1:25,000 geological map series.

1.4 Coal Geology

There are 8 coal horizons which are identified simply “A” to “H” Seams in descending order. Apart from Seam G, which has areas of economic thickness and coal quality in the southern part of EL17 where it was informally named the Merrywood seam, the other coal beds are either completely removed by the dolerite or are represented by minor coal or carbonaceous shale bands. The Merrywood seam was worked by open cut and underground methods by Merrywood Colliery.

1.5 Other Information

The tenement holder and licence owner is HardRock Investments Pty Ltd of P.O. Box 3051, Prahan East, VIC 3181. There is no joint venture structure and there have been no title transfers during the reporting period.

2 Review of Previous Work

The following review of previous exploration activities have been carried out by HRCM.

2.1 Literature Review

Reports and documents relating to previous exploration and mining activities have been reviewed.

2.2 Air-photo Interpretation

The extent of Jurassic dolerite was mapped from aerial photographs and access for geological mapping and drill sites were assessed.

2.3 Surface Mapping

The extent of dolerite and surface talus were confirmed as drill site access for the planned holes was checked.

3 Exploration

3.1 Desktop Studies

This HRCM has established a database containing this and its adjacent Exploration Licence EL16/2010 together with Mining Lease 4M/2012. Drillhole, mining and geological mapping data is progressively entered into the databases particularly when additional historical drill records and associated data is discovered in archives.

3.2 Regional Exploration Activities

No regional exploration was conducted in 2013-2014

3.3 Prospect-based Exploration Activities

Other than continuation of geological modeling and feasibility work, there were no other activities.

3.4 Drilling

Whilst information for the two drillholes completed in late 2013 (Mt Slaughter 01 and 02), inclusive of the photos of drill core, was provided in the 2012-13 Annual Report, for completeness more recently produced graphic logs and descriptor of borehole symbols are attached as is a location plan **figure 4**.

3.5 Dexon Technology

Dexon Technology Pty Ltd was engaged to undertake both an aerial and ground survey over EL16/2010 and part of EL17/2010 using Dexon Resonance Frequency Geological Technology (DRFGT). In November 2011, the aerial survey and ground survey were

undertaken. No results were provided and no report prepared at the time. Note that Dexon Technology PTY is no longer trading.

Expenditure has been claimed for this assessment so in the absence of results the survey will be repeated in late 2014 and a report submitted.

4 Results

There are no results to discuss and the status of the resource statement is confidential at this stage.

5 Conclusions

The current conclusion is that EL17/2010 has limited prospectivity for a workable coal resource due to the coal measures being eroded by dolerite. The possibility of a coal resource in the south east corner of the licence area around the old Merrywood area and also adjacent to the south west corner of EL16/2010 remains and becomes the target area for exploration within the remaining life of the EL. The current interpretation is shown as south-north cross section is presented on the attached **Figure 4**.

6 Environment

All drillholes have been rehabilitated with the exception of VR10 site and associated sumps which are required for water monitoring installation in 2015.

7 Expenditure

Expenditure, being the total of four quarterly reports spanning 1 Oct 2013 to 30 Sept 2014, is shown below:

Expenditure EL17/2010	
Expense Category	Value
Geoscientific	
Geology	\$ 89,380
Geochemistry	\$ -
Gephysics	\$ -
Remote Sensing	\$ -
Drilling & Gridding	\$ -
Gridding	\$ 7,895
Meters Drilled	0m
Drilling	\$ 35,698
Land Access	\$ 3,600
Rehabilitation	\$ 4,191
Feasibility	\$ 55,425
Other	\$ 20,244
Admin	\$ 16,232
Total	\$232,665

Drilling costs reflect an invoice that was presented too late for inclusion in the 2012-13 Report

8 References

Bacon, C.A. 1991. The Coal Resources of Tasmania. *Bull. Geol. Surv. Tasm.* 64.

9 Appendices

Figure 1 - Plan of Licence boundary from MRT Approval Document

Figure 2 - Surface Geology Plan from MRT 1:25,000 map series

Figure 3 - Summary South-North Section

Figure 4 – Location of Drillholes MtS01 and MtS02

Graphic Log – Drillhole MtS01

Graphic Log – Drillhole MtS02

Borehole symbols for Graphic Logs of MtS01 and MtS02

10 Listing of Files on Attached CD

Exploration Work Type	Filename	File format
Report	EL172010_201501_01_ANNUAL REPORT.pdf	pdf
Drilling	EL172010_201501_SL_1.xls EL172010_201501_03_DL_1.xls EL172010_201501_04_Lithologycodes.xls	xls xls xls
Surface sampling		
Other (specify)		
Graphic Log - MS01	EL172010_201501_05_BHG MS01.png	png
Graphic Log - MS02	EL172010_201501_06_BHG MS02.png	png
Graphic - Borehole Symbols	EL172010_201501_07_BHG SYMB.png	png
File Verification Listing	EL172010_201501_08_FILELIST.xls	xls

END OF REPORT

ATTACHMENTS

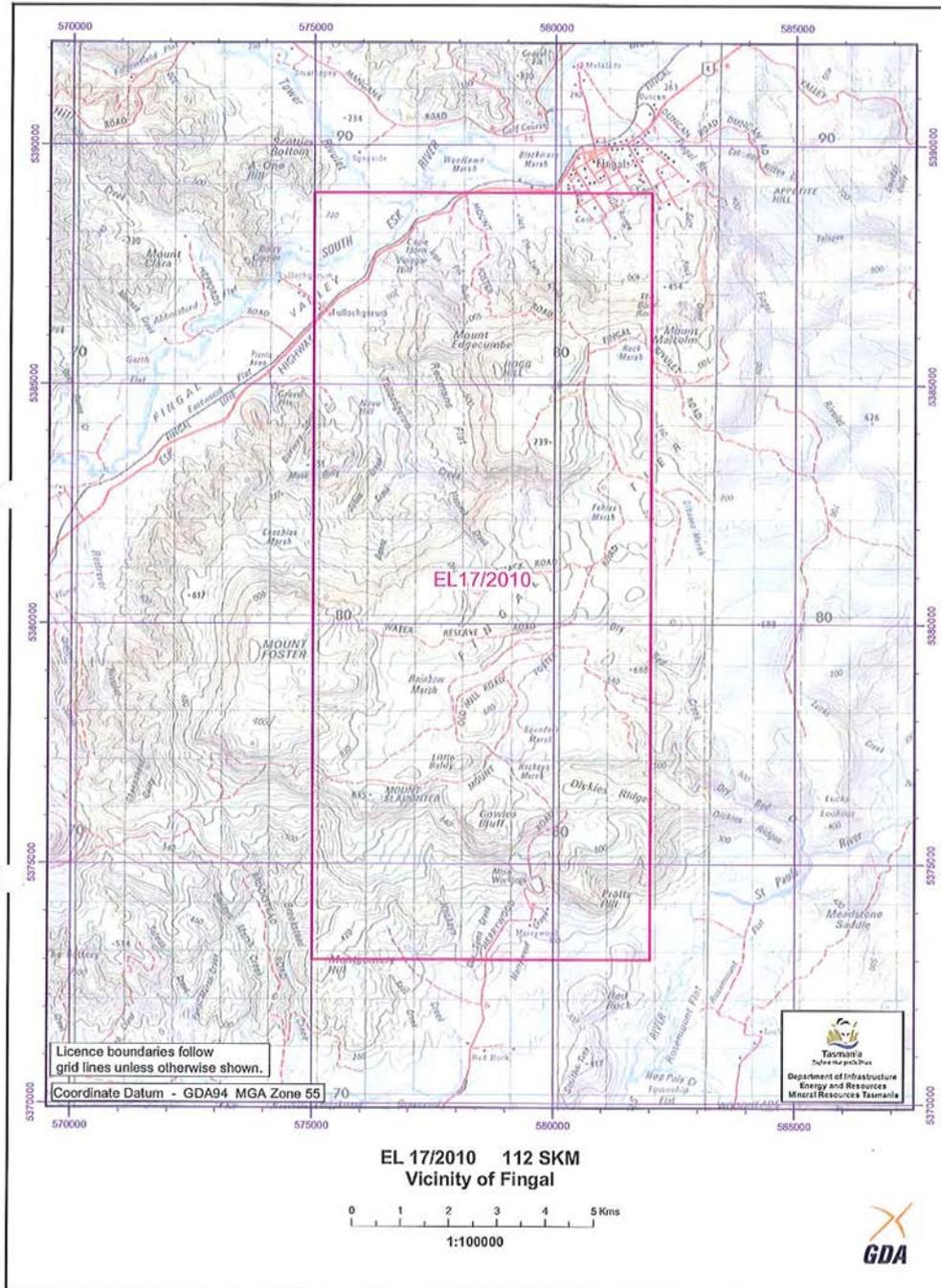


Figure 1 – Location Map for EL17/2010

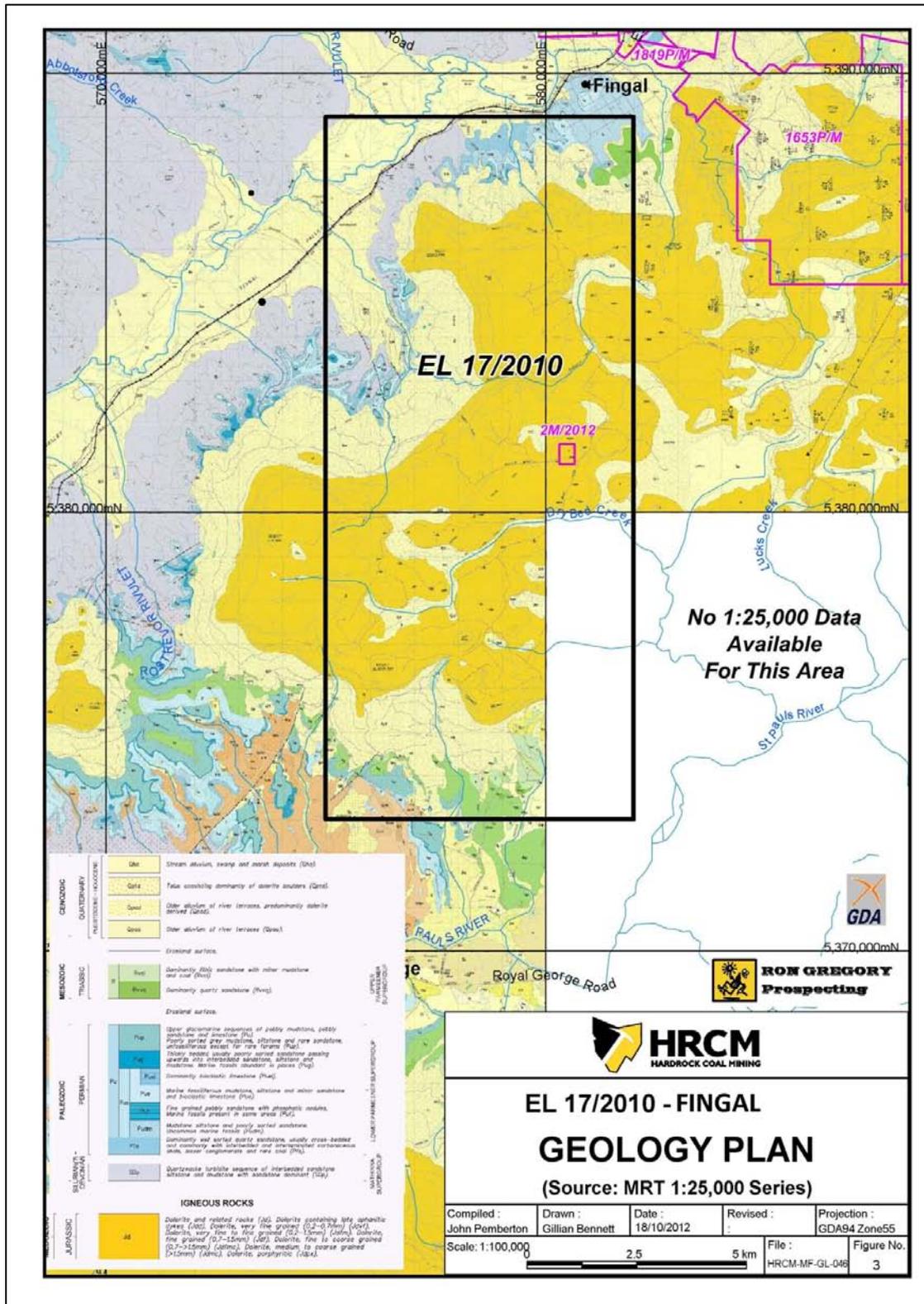


Figure 2 – Surface Geology Plan from MRT 1:25,000 map series

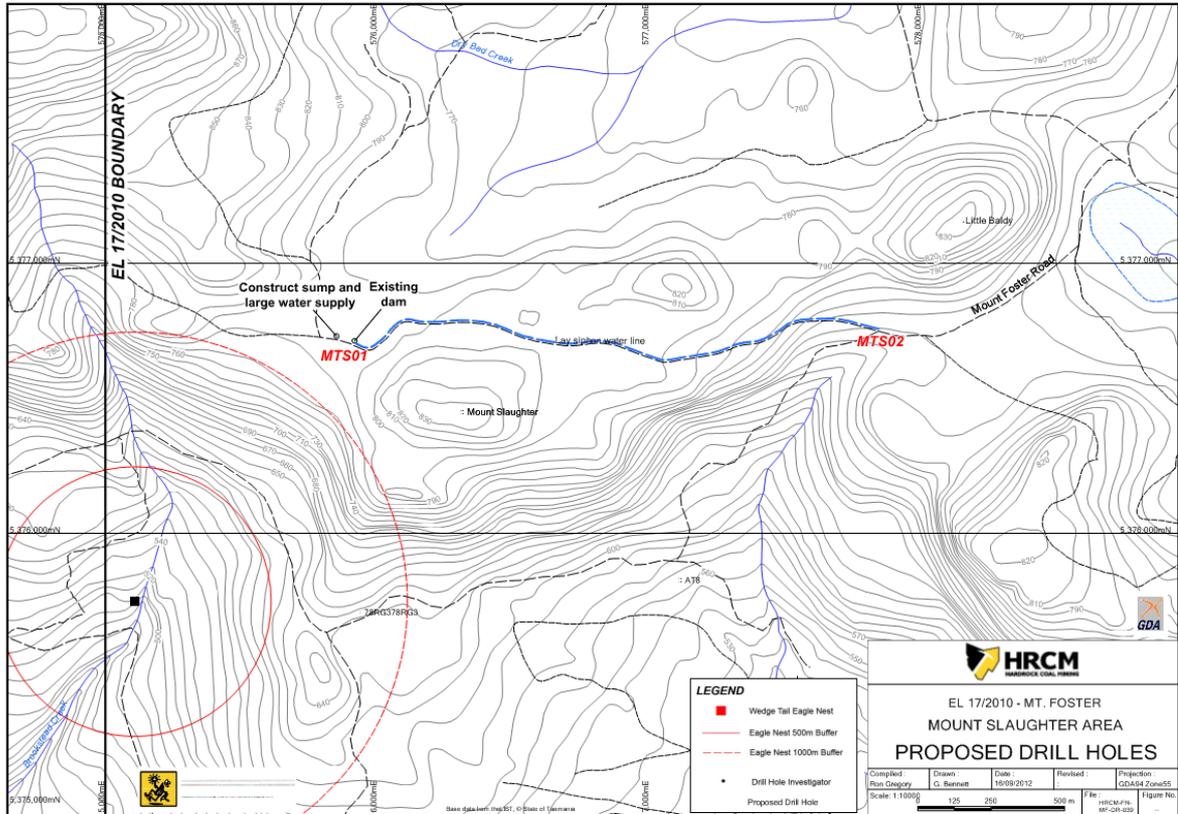


Figure 3 – Location of Drillholes Mts01 and Mts02

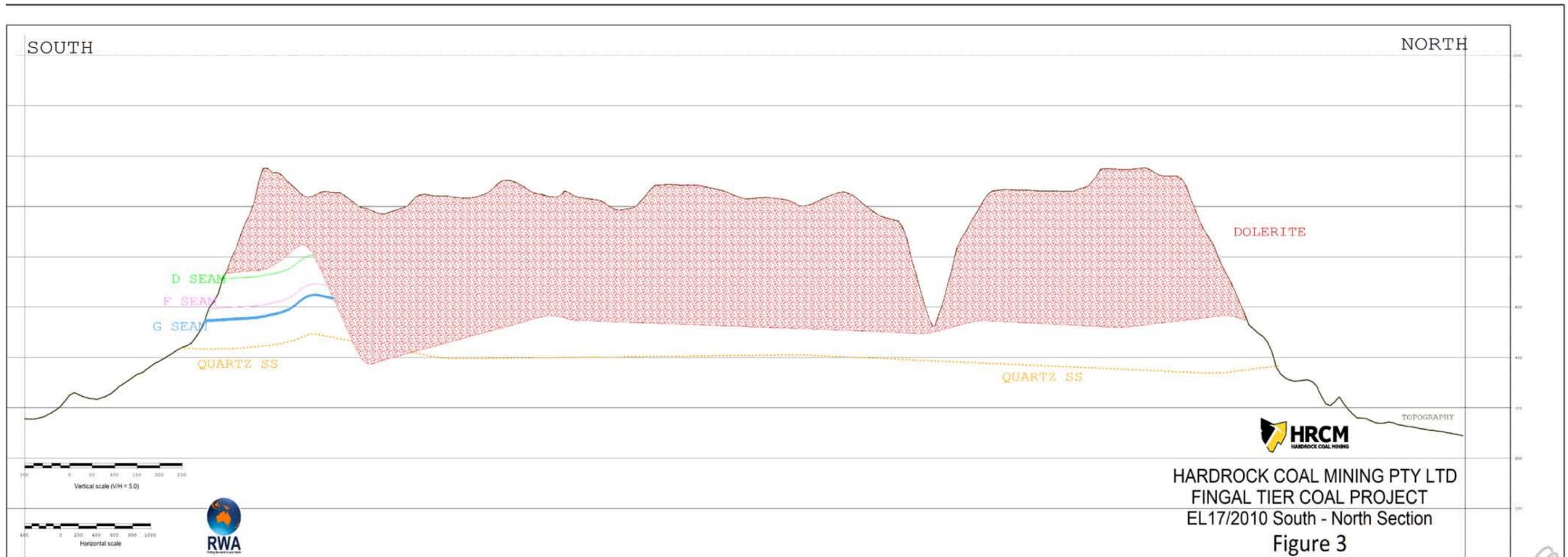
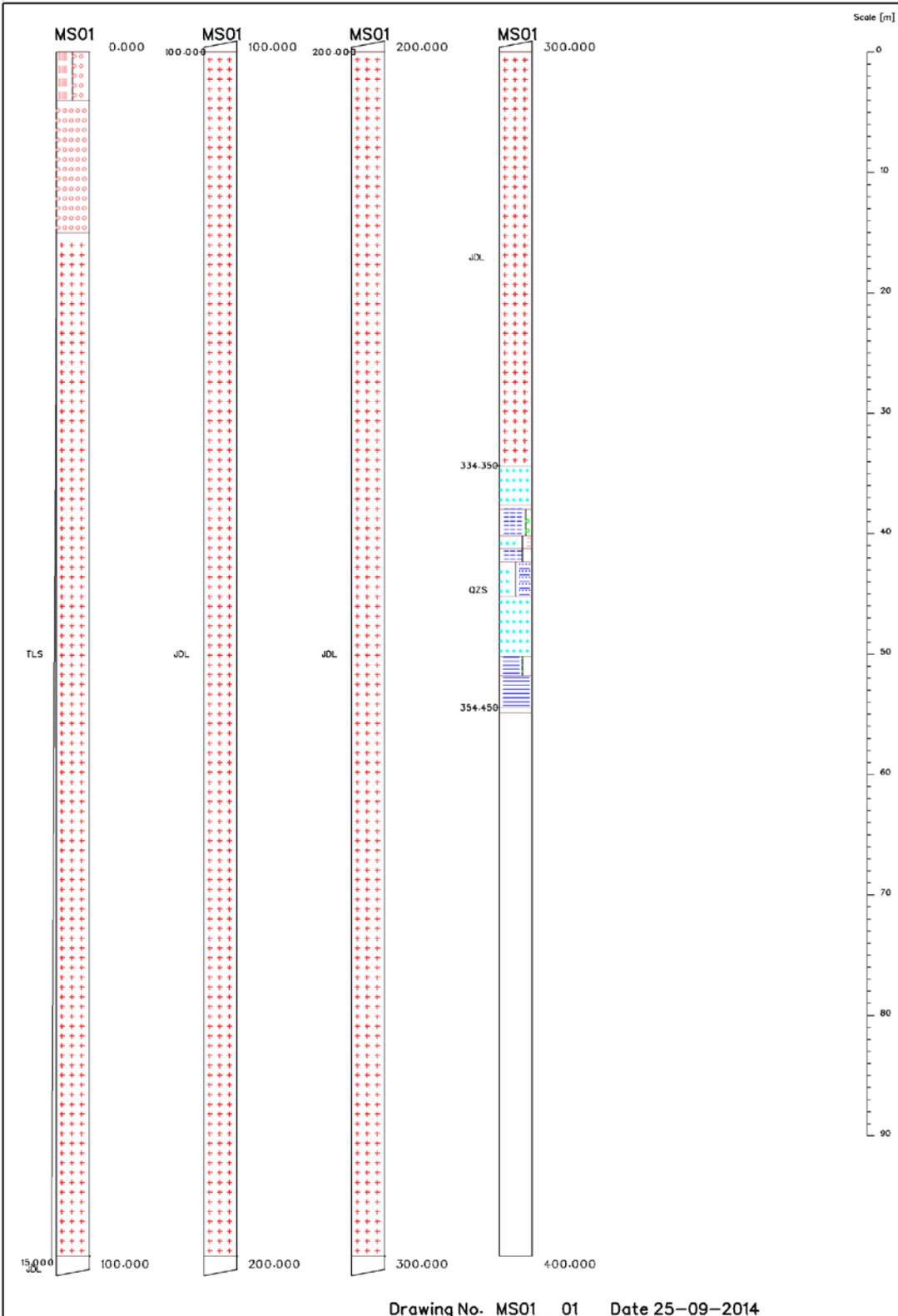


Figure 4 – Summary South – North Cross Section

DRILLHOLE MS01

Coordinates - 0575 906mE 5376 708mN
Drill Collar - 785mRL (scaled)
Drill Contractor - Stacpoole Drilling
Rig - B90 truck mounted rig
Driller - T.Lodge
Drilling <ul style="list-style-type: none">• Down hole hammer chips to 111.0m• HQ3 core from 111.0m - 354.85m

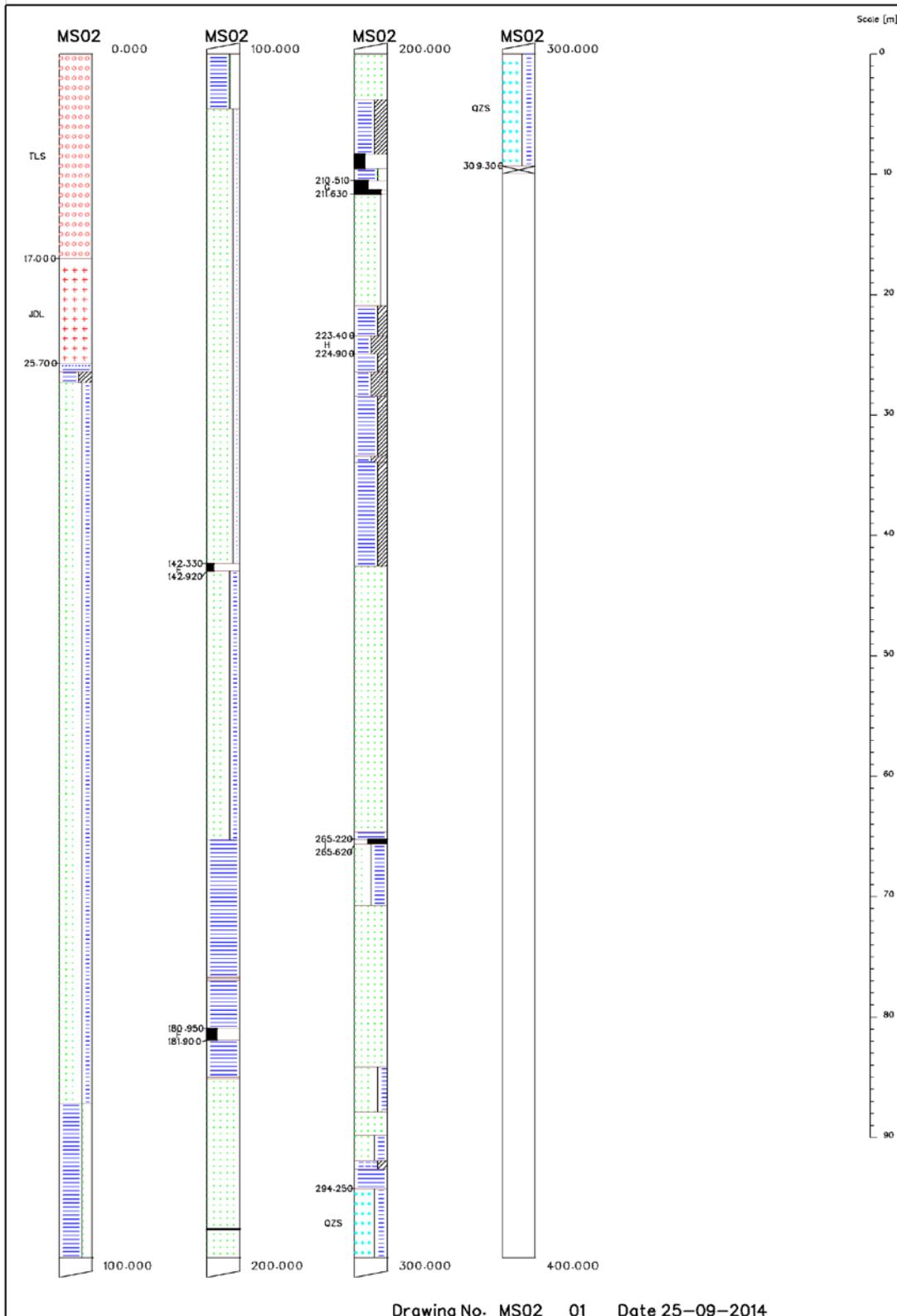
Graphic Log for MS01



DRILLHOLE MS02

Coordinates - 0577 888mE 5376 740mN
Drill Collar - 720mRL (scaled)
Drill Contractor - Stacpoole Drilling
Rig - B90 truck mounted rig
Driller - T.Lodge
Drilling - HQ3 core from 0m - 309.9m

Graphic Log for MS02



Borehole Symbols for MS01 and MS02

FINGAL TIER PROJECT – BOREHOLE GRAPHICS SYMBOLS LEGEND

	Conglomerate		Smut		Caved Hole
	Talus		Permian Pebble Mudst		Pyrite
	Breccia-Sedimentary		Coal		Siderite
	Gravel		Coal Undiffd.		Calcite
	Soil		Dolerite		Calcite
	Coal Stony		Igneous		
	Unconsolidated		Tuff		
	Clay		Carbonaceous Shale		
	Shale Coaly		Carbonaceous Mudston		
	Silt		Fault Zone		
	Sand		Shear Zone		
	Siltstone		Thrust Zone		
	CW Strata		Joint Zone		
	Siltshale		Cindered Coal		
	Sandstone		Heat Altered Coal		
	Shale		Heat Affected Coal		
	STONE		Quartz Sandstone		
	Mudstone		Chert		
	Claystone		Transition Zone		
	Coal Weathered		Core Loss		