

MICROFILMED
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PROGRESS REPORT
ON RESULTS
OF THE
SHITTIM I.
STRATIGRAPHIC HOLE
CONDOR OIL INVESTMENTS PTY LTD
EL 1/88

MURRAYFIELD, NORTH BRUNY ISLAND

Report to (- Directors of Condor Oil Investments)
(- Director of Mines)
(- Minister of Mines)

Prepared by :- Malcolm Roy Bendall
Managing Director

November, 1994

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J	-	LETTER	G.R. Garrott	02.12.1994

FOREWORD

There seems to have arisen a lot of confusion with the T.D.R. over Condor's drilling programme.

This report is written in order to clarify Condor's position.

The Company is very pleased to report that there are continued signs of gas inflow from drill holes on Bruny Island and as a safety precaution we are happy to drill with a BOP as has been suggested by our drillers and the Mines Department and insisted upon by the Company.

Condor has investigated arrangements for a BOP (Appendix 4) and upon approval it will be shipped over as soon as possible.

INTRODUCTION

This report outlines the continued signs of gas inflow at near surface onshore Tasmania. Potentially it sets the scene for the establishment of a whole new industry in the State.

As a consequence of extensive scientific research over a 10 year period by various explorers, costing in excess of 3 million dollars, enough data was collected (summary Appendix (1)) to determine the location for a stratigraphic hole onshore Bruny Island.

After a site inspection with the T.D.R. Representatives (Carol Bacon and Dennis Burgess) on 17 November, the prerequisite requirements were stated. These requirements were addressed by my letter of 19 November, 1994, and the first hole, Shittim 1, was commenced on 21 November by K.M.R. Drilling.

To ensure a good start to the hole, a five and a half inch rock hammer was used, as a good pre-collar increases the chances of successful completion to total depth.

It was intended to pre-collar the first 100 metres of the hole prior to drilling NQ to 1000 metres.

INTRODUCTION

The correspondence from the T.D.R., dated 23 November, 1994, confirms "The hole is to be diamond drilled at core size H or equivalent pre-collar near surface", confirming Dr David Leaman's advice in his letter of 21 November, 1994. (Appendices 5E and 5F)

Whilst the rig was set up to pre-collar, it was thought prudent to put down the first 100 metres of Gilgal 1 and Jericho 1, so as their casing could be concreted in and set before drilling re-commenced. As is outlined further in the Report, due to gas inflow to Shittim 1 at 60 metres and gas inflow to Gilgal 1 at 50 metres, the pre-collar for Jericho 1 (figure 1) was abandoned. This was at the advice of the Registrar of Mines, this verbal instruction (Appendix 5 H) being confirmed by later advice in a letter of 28.11.1994 (Appendix 5 I). The rig which was moved off site and stopped drilling, clearly has the capacity of coring N Q size as per Appendix 1 specifications, the intention being to core to 500 metres then swap to a greater capacity rig. The driller has a first option on the greater capacity rig, which subject to approval is scheduled to be on site in early December, 1994, on target for December 31st completion date.

Drilling records, sampling and detailed accounts of the two holes are included in this Report.

INTRODUCTION

Condor Oil is anxious to continue on its programme and is awaiting clarification of the Departments new requirements.

DRILLINGSHITTIM 1

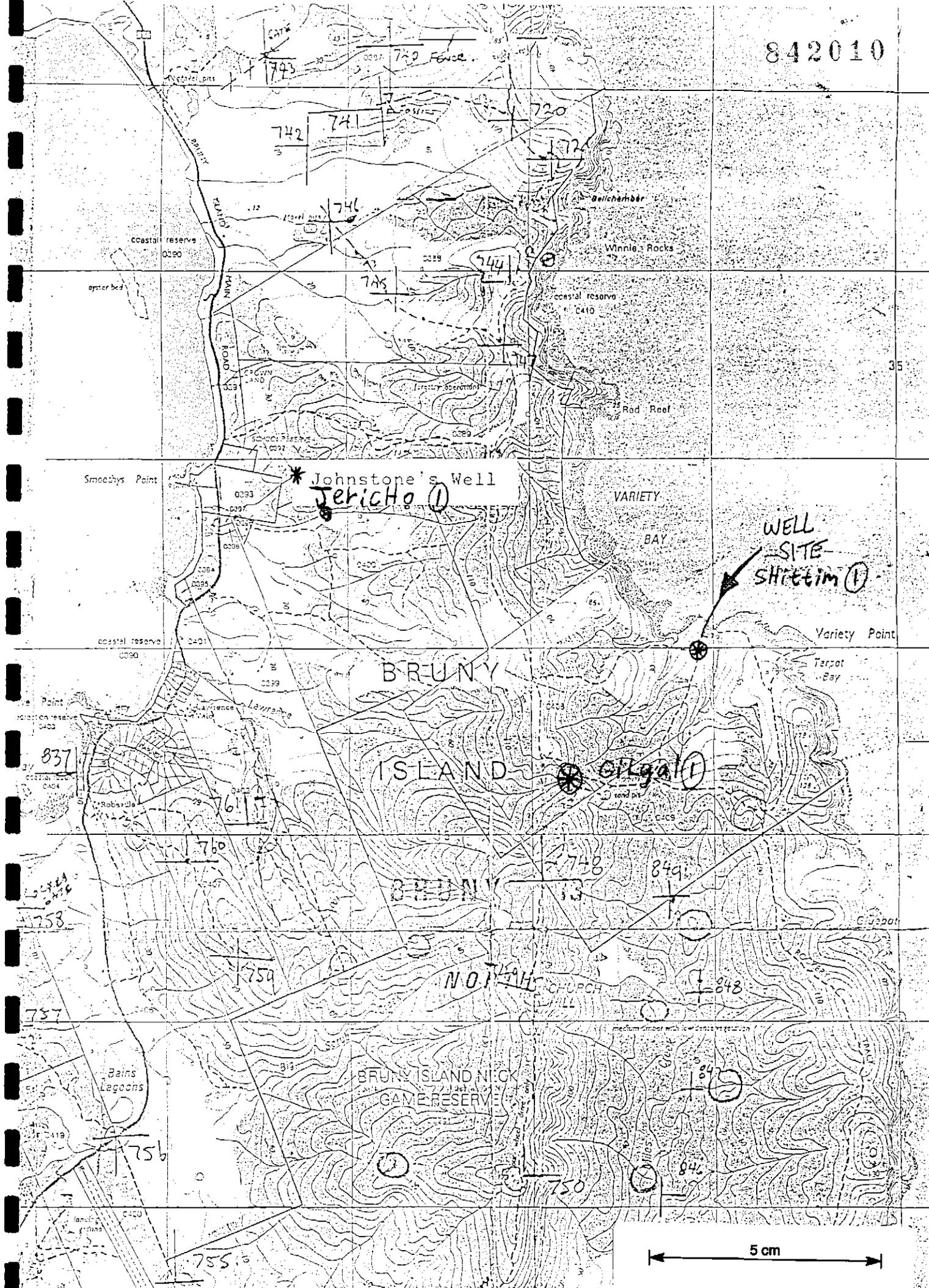
The location of Shittim 1 (Figure 1) was determined by Dr David Leaman through examination of geological, geochemical, geophysical and topographical data.

Appendix 1 outlines his logic for siting the hole and was accepted as a legitimate position for a stratigraphic well by the T.D.R. (Appendix 5, 14.11.1994) on their visit to the site on Thursday, 17 November, 1994. On that visit a further letter from Dr David Leaman was requested (Appendix 1B) as well as other requirements including copies of notification of the land owner which was covered in my letter dated 19 November, 1994.

Having covered all statutory requirements, the rig was shipped onto Bruny Island on the 9.30 am ferry and was located on site (Picture 1) 30 metres above sea level and drilling by 12 noon on Monday, 21 November, 1994 (Picture 1). Six and one half inch casing was set to 2.5 metres by 12.30 pm (Picture 2) and drilling ceased at a total depth of 81 metres (Diameter 5 1/2 inches) at 4.30 pm, Tuesday, 22 November, 1994.

The hole was dry for the first 64 metres until hot brine returned at a rate of 7000 gallons per hour with a distinctive strong odour (Picture 3.) The drill dropped about .3 metre into a cavity at this point and hit numerous calcite line cavities further down.

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CONDOR OIL INVESTMENTS - LOCATION OF WELL NORTH BRUNY ISLAND
FIGURE 1

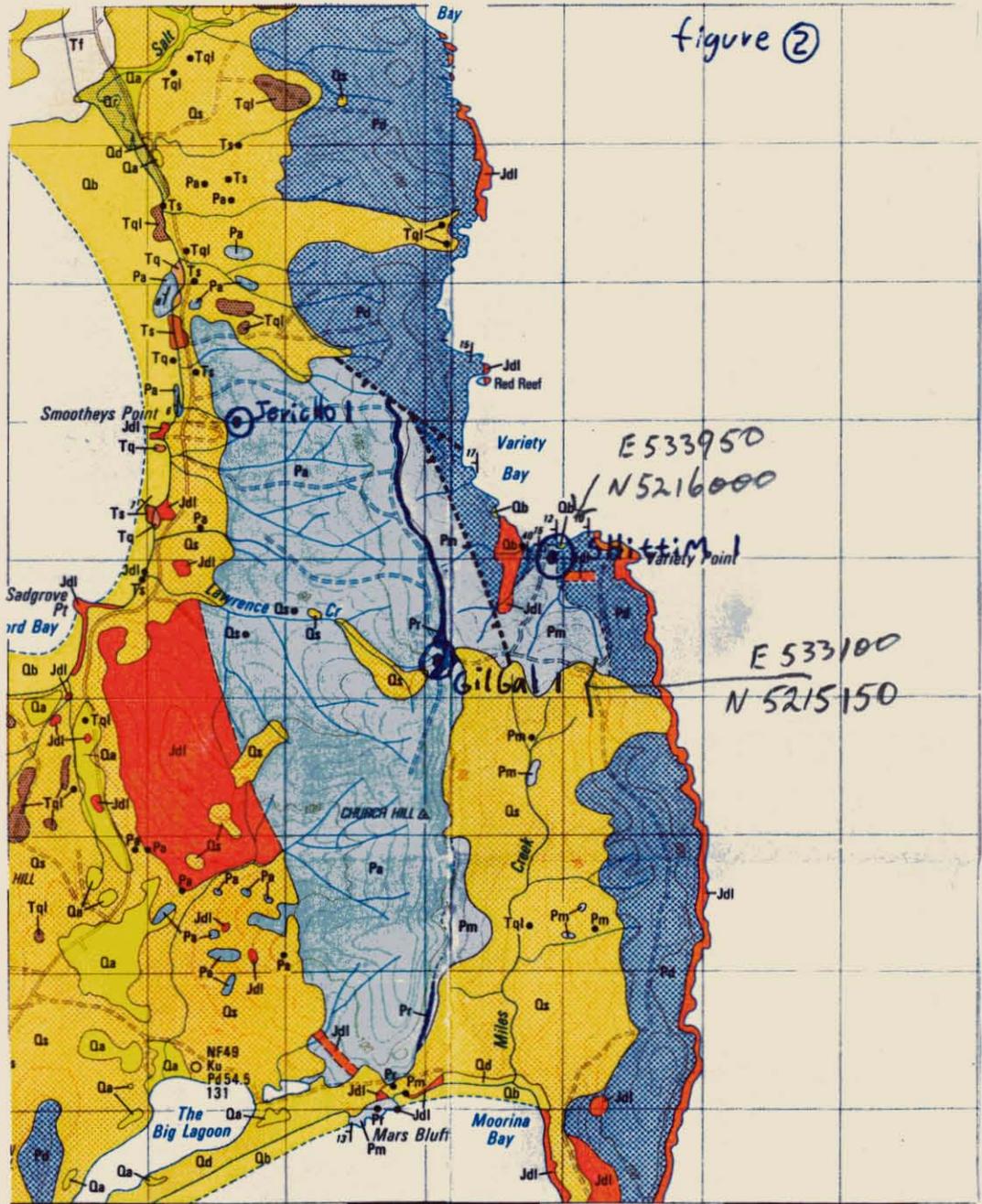
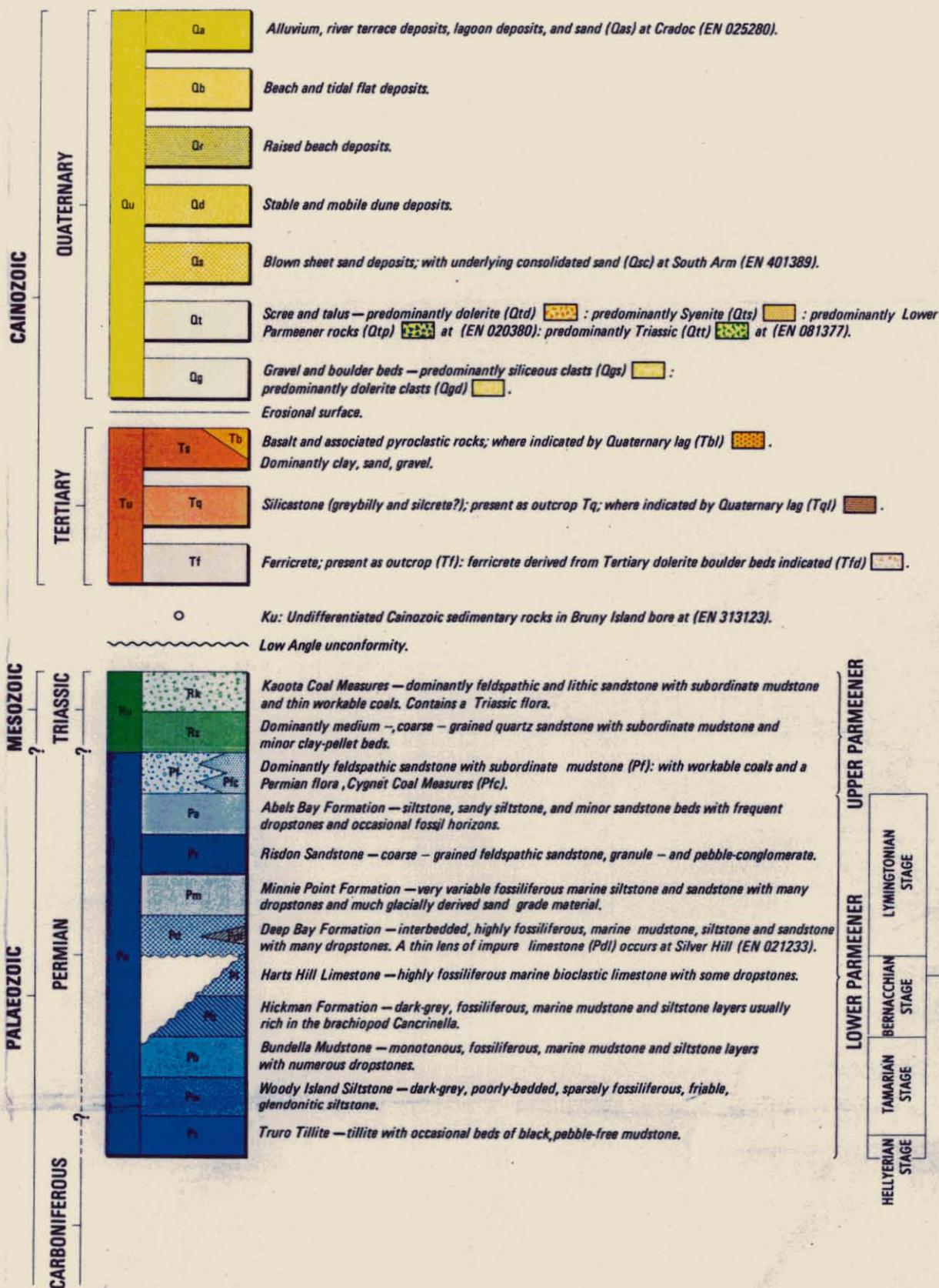


figure ②

REFERENCE



①



②



③



④



DRILLING

SHITTIM 1

The weight of the water slowed the progress of the hole considerably along with pervasive silicification, it taking 45 minutes to complete the last three metres of the hole.

An increase in the odour at the same time precipitated the decision to abandon the hole. Appendix 2 and 3 summaries the hole geology, sampling and observations whilst drilling.

Subsequent to the rush of gas into Gilgal 1, the Shittim hole was re-examined. It was found that flammable gas was escaping from the hole, bubbling down the hole being plainly audible for the first three days accompanied after that by a clear hissing noise from gas escaping from strata above the water table of the hole.

The hole is capped with a 150 mm top fitted with a pressure gauge and the immediate area around the hole fenced off with plastic safety fencing.

Picture 6 illustrates apparatus which will be used to sample the gas.

Picture 7 shows it working, this method was used to establish that the gas was flammable.

Pictures 8 and 9 illustrate the discolouration of the polypipe caused by the condensing of the gas fraction

SAMPLING OF SHITTIM 1

Rock chip samples were taken at three metre intervals in Shittim 1. These will be split and delivered to the T.D.R. Water samples were taken on site (Picture 3) and delivered to the C.S.I.R.O. Marine Laboratory for salinity, pH and geochemical tests, the results of which should be available shortly. Preliminary results on the geochemistry however, indicated the presence of a heavy diesel fraction with biomarkers consistent with middle eastern crudes in the brine in the trace amounts. Large rock samples recovered during drilling indicate high porosities and permeabilities in the rock consistent with the flow of 7000 gallons per hour of water.

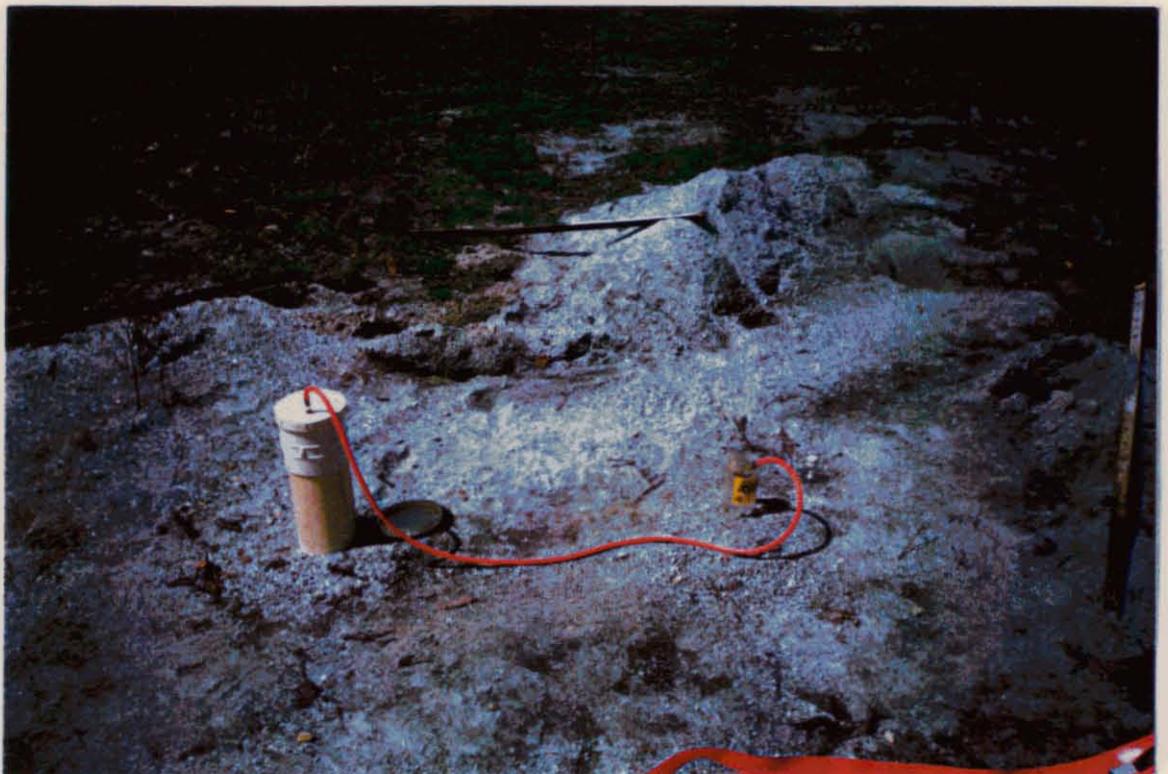
Tony Yeates of The Australian Geological Survey Organisation (A.G.S.O.) is sending down gas sampling devices so as the exact nature of the gas emanating from the hole can be determined. Further testing by A.G.S.O. in these holes is possible in the near future.

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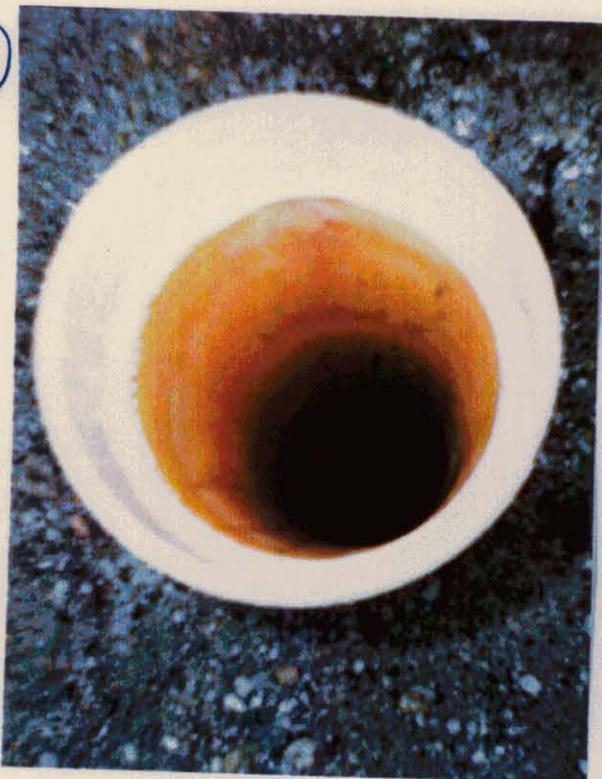
⑥



⑦



⑧



⑨



SHITTIM 1FURTHER WORK TO BE COMPLETED

H W Casing will have to be set to the pre-collar total depth of 81 metres and cemented between the casing and the country rock to establish a solid base for the annular preventor. The portable cellar concrete slab compacted gravel area, mud pits etc. prescribed by Ted McNally and detailed to Hazell Bros. will have to be completed.

Appendix 4 includes pictures of the annular preventor with portable cellar Condor oil has secured and which was used on a similar stratigraphic well in Western Australia.

Once the BOP is fitted to the H W Casing the hole can be cored at NQ to 1000 metre.

DRILLING

GILGAL 1

The location of Gilgal 1 was chosen because it was in a similar geological position to Shittim 1, being some 400 metres off structure, see Figure 1 and 2. The similarity of structural position to Shittim 1 was important as although it is completely different geology to that encountered in that hole, it should be unlikely to encounter a reservoir in that hole and as such was a logical site for a second stratigraphic hole.

Jericho 1 was chosen by the same logic, all the holes were not expected to encounter hydro carbon reservoirs and, in fact, are still not, the shows to date being low pressure surface phenomenon possibly cutting hydrocarbon and brine migration paths updip.

The hole was commenced at 8.40 am, Wednesday, 23 November, 1994, and drilling to a total depth of 51 metres was completed by 4.30 pm the same day.

The hole was cased to 2 metres with 150 mm polypipe, the remainder of the hole being drilled by a 5 1/2 inch hammer. The hole was drilled very fast, 42 metres having been achieved by 11.55 am, 3 hours and 35 minutes after commencement, in excellent competent ground conditions.

DRILLING

GILGAL 1

Moist, clayey fractured conditions started at 42 metres and continued on until the total depth of 51 metres. The last 9 metres was only achieved by introducing water and foam into the hole to establish some sort of return from the hole.

The hole was completely flushed twice with water before the drill rods were withdrawn.

The rods were withdrawn some 71 minutes after drilling ceased, a mirror was used to look into the hole, clouds of gas were observed swirling up the hole and upon listening to the hole, a loud hissing noise was evident, a strong odour accompanied the occurrence.

The rig was moved on to the site of Jericho 1 ready to commence pre-collaring. Expert advice was sought as to proper procedures to control the gas inflow to Gilgal 1. A water truck was subsequently found to fill the hole and kill the gas flow. It stopped the gas, boiling the water about two meters from the top of the hole and only bubbling and effervescing at the top. Grade 9 high pressure 100 mm poly pipe was installed the next morning and concrete was poured between it and the country rock effectively stopping the gas flow. A cap was installed on the 150 mm casing with a pressure gauge and a safety fence was erected around the hole.

10



11



DRILLINGGILGAL 1

The hole flowed gas at a low rate, a high pitched whistle being clearly audible down the hole for 2 days after cementing. The hole started sucking on Sunday, 26 November, 1994, however, by Monday, 27th, was again blowing gas, the smell of the gas is quite distinct from that of Shittim 1., it having an *indescribable musty* smell opposed to the acid acrid smell of the gas in Shittim 1. Appendices 2 and 3 summarise the hole geology, sampling and observations whilst drilling.

12



13



SAMPLING OF GILGAL 1

Rock chip samples were taken at 9 metre intervals as the geology seemed fairly consistent down the hole. These samples will be split and delivered to the T.D.R. Water samples, from the water recovered by filling the hole to surface level the third time, were sent to the C.S.I.R.O. for salinity, pH and Biomarker analysis. The clay which caused drilling problems in the bottom of the hole was found to be immimissible in water, it was recovered from around the top of the rock hammer, it had a very strange *indescribable acrid musty smell* and was sent off to the C.S.I.R.O. for analysis. Initial results indicate a UCM of heavy crude from 25 onward. Further tests on the biomarkers of this are being completed. A.G.S.O. gas sampling equipment is also being sent down by Tony Yeates so they can sample it and determine its composition. A.G.S.O. may also do further tests on the hole to obtain further geological information. Picture 13 shows the apparatus which will be used to sample the gas once containers arrive.

GILGAL 1FURTHER WORK TO BE COMPLETED

This hole is cased with 100 mm high pressure polypipe to a depth of 51 metres (T.D.) H Q casing can be set and concreted inside this pipe to 100 metres before drilling on a 1000 metre NQ cored stratigraphic hole.

JERICHO

Unfortunately due to the gas encountered in Gilgal 1 and the re-examination of Shittim 1 revealing gas emanating from that well, the pre-collar of Jericho 1 was not completed due to instructions from the T.D.R.

SUMMARY OF CURRENT POSITION

Two stratigraphic holes were drilled to depths of 51 m and 81 m in north Bruny Island in late November 1994. Condor is very happy to report that gas flowed continuously from both holes and drilling was discontinued for safety reasons. It is Condor's intention to resume drilling with a Blow Out Preventor as soon as one is delivered from Perth. As drilling was stopped following orders from the T.D.R. we would appreciate an extension of the renewal date of our licence by six weeks from the date of installation of the BOP on site.

CONDOR OIL INVESTMENTS

NORTH BRUNY ISLAND

A PROGNOSIS FOR A STRATIGRAPHIC HOLE

INTRODUCTION

The well defined and described in this prognosis is the first well to be drilled by Condor Oil Investments in Tasmania.

The site chosen stands above Variety Bay on the eastern coast of North Bruny Island and overlooks Storm Bay. See Figure 1.

Location: 533 900 mE
 5215 000 mN
 25 mASL

BACKGROUND INFORMATION

Petroleum products have been reported on North Bruny Island for several decades and active exploration was undertaken more than sixty years ago.

Several wells have already been attempted in the Great Bay and Big Lagoon region. All have been limited by the funds and equipment available. The details of this drilling and the companies involved were described by Bendall (1991).

The most important of these wells was Johnstone's Well drilled in 1929. The site is shown in Figure 1. Although it reached a depth of less than 50 m and no reliable records of formations or hydrocarbons encountered have survived some oil was recovered. It was a light oil and was stored in drums at the site. It was not analysed and none has been preserved. Its source is unknown. The well did not penetrate deeply into the Permian succession due to jamming.

The deepest drilling in the area, at the north end of the isthmus, was to 135 m and this does not appear to have encountered the thick dolerite sheet which could have been expected at this approximate depth.

Any hydrocarbons found in the area, or these holes, must have drained from, or through, the Deep Bay and, more probably, the Minnie Point Formation which includes porous sandstones.

A number of other seepages have been reported in this same general area and all occur in rocks at about the stratigraphic level of the Minnie Point Formation. All these units are Permian in age. Many of these seepages, and tar coatings, have been found around Variety Bay.

The knowledge of this old drilling programme and the company behind it was forgotten for nearly sixty years. As were the seepage reports.

Exploration was renewed by Conga Oil in 1984. The new exploration incorporated an initial literature search and relocation of reported seepage sites. The site of Johnstone's Well was found and samples taken of muds, soil and local fluids. These confirmed the trace presence of hydrocarbons and the chemistry was consistent with a source within the Ordovician Gordon Group limestones of southern Tasmania. Unfortunately the trace amounts recovered do not permit any definite conclusions or complete appraisal of the oil - as might a small jar of the actual oil.

The exploration was expanded to include regional gravity and magnetic surveys (Figures 2, 3) which were interpreted to suggest that possible source rocks may exist to the west and southwest but were most unlikely beneath North Bruny Island itself (Figures 5, 7). This was essentially confirmed by the trial seismic traverse along the ridge from Trumpeter Bay to Church Hill (Figure 4). The geophysical analyses were primary and regional but did provide an understanding of the setting of the region, possible locations of critical structures and older basins, and a context for migration paths (Figure 6). Some work was begun to crystallize the detailed local setting of North Bruny Island but this work was never funded nor completed. Samples of the initial analyses are reproduced in Figures 8 and 9 and this incompleting evaluation provides the information used for location of the present well proposal. Complete details of the status of exploration studies (geophysical and geochemical) actually completed may be found in Leaman (1990, 1991 and Carne, 1992).

There remains scope for much more work but further work would be enriched by some new control information; including depth to basement and seismic velocities.

The seepages recorded in the area can be understood in terms of the structures described regionally. A reservoir to the west, sealed by the base Permian unconformity, may leak up dip to the large dolerite feeder near Ford Bay or the faults marginal to Storm Bay which were reactivated throughout the Tertiary. Given the thermal history of the region it is possible that actual generation did not commence until the Cretaceous and may still be occurring (see Carne, 1992).

Earlier drilling programs may have intersected some near surface migration paths. As would the newer fault fracture systems. All leakage appears to occur slowly and there is no evidence of any high pressures. The association of seepages with seismic activity also suggests a tight, low volume system above the unconformity or seals.

Consequently any new well drilled in the North Bruny region must have a conceptual or stratigraphic basis with the direct aim of further sampling any migration paths and confirmation of sequence.

Such a well would provide proof that oil is indeed migrating through a viable fracture net and that either generation is continuing or that there may be a large reservoir nearby. A reasonable sample would also resolve many of the source and generation issues since it would allow exhaustive chemical analysis.

These are the primary objectives of this well.

HISTORY OF PROPOSALS

Conga Oil proposed re-drilling of the Johnstone's Well site in 1987 in order to prove the veracity of the old records, obtain a small sample and complete chemical appraisals. The recovery of even a small sample from a fracture or bedding seepage would also have been of considerable financial benefit to both the project and the company since it would have established that parts of Tasmania do have petroleum potential - a possibility that had been long dismissed in both large company and government circles and whose attitudes made financing of the exploration difficult indeed. The company itself had sufficient confidence in the project to employ a drilling engineer, review used equipment in North America, and to purchase a rig with a capacity in excess of 2500 m. This equipment was never imported into Australia for reasons beyond the scope of this prognosis and became the source of considerable financial loss to the shareholders.

Drilling of the site was again proposed in 1991 (Bendall, 1991).

Final stage evaluation of the geophysical and structural information available, however, did indicate that the Johnstone's Well site may not provide an optimal stratigraphic section. The nearness of a dolerite feeder and the risk of thickened dolerite coupled with a higher stratigraphic level meant that any hole at the old site may be several hundred metres deeper than one across the hill. This issue became important to the company felt the loss of its own drilling equipment and funds became more restricted in the 1990-1993 period.

WELL PROGNOSIS

Any drilling programme is dependent on the exploration undertaken and in this case only limited regional analysis has been completed. Site selection has been judged, therefore, on the basis of minimum depth to basement (in order to establish the stratigraphy of the region), the location of seepages (in order to maximise opportunities to sample the migration path) and good drilling conditions.

No formation older than the Deep Bay Formation outcrops on North Bruny Island and the site selected lies near the top of this formation.

The prognosis of the well is

Surface to 20	Minnie Point Formation	sandstone/siltstone
20 - 50	Deep Bay Formation	foss. mudstone
50 - 400	dolerite	
400 - 450	Deep Bay Formation	foss. mudstone
450 - 550	Bundella Formation	foss. mudstone
550 - 700	Woody Island Siltstone	mudstone
700 - 1000	Truro Tillite	tillite
uncertainty		
1000 -	Precambrian schists	

Some key unknowns are included in this prediction.

- a) Thickness of dolerite. 350 m is an average estimate.
- b) Only one dolerite sheet is presumed. Two are possible but a basal sheet may be relatively thin.
- c) Thickness of tillite. This may vary from nil to 700 m.
- d) Thickness of the Deep Bay and Bundella Formations. The estimates are representative of local formations but a variation of up to 50% is possible.

Items c) and d) depend upon the location of this site with respect to the basin deposition axes. All formations older than the Minnie Point Formation may occupy active rift stages and their thickness thus depends on the location of this site with respect to the block rotation of the rift. Insufficient work has been completed in southern Tasmania to establish this with certainty but if older structures have been rejuvenated then it is possible that this eastern location is comparable with Glenorchy where the tillite was absent.

Hydrocarbons seepages could be encountered at any level and very careful monitoring of fluorescence within the core recovered will be essential. The site itself has been selected with regard not only to the position of exposed faults disturbed along the Storm Bay coast during the Tertiary but also the likely Jurassic disposition of faults - several of which are either no longer exposed or disguised by intrusions. A comparison of Figure 8 and the regional geological map of the area (Kingborough) will indicate some of these differences. The surface geological map is not, in itself, a reliable guide to fracture foci or faults. The coalescence of structures east of Church Hill and south of Variety Bay may well account for the number of small seepage sightings in this part of the island.

The well will also be used for seismic velocity tests in order to permit review and reprocessing of seismic data.

WELL REQUIREMENTS

Type of well:

Two types of petroleum-related wells may be defined (e.g. Carne, 1991):

1. Exploration well (wildcat) is one drilled to discover whether previously untested trap conditions contains oil or gas, and
2. Stratigraphic well drilled solely to obtain subsurface information on sediments, structure, organic maturity and provide control for geophysical purposes.

The proposed well falls within the second category.

No specific target or source is proposed; indeed, all regional work suggests that the primary target for wildcat drilling lies several kilometres to the west.

The well will be a small diameter diamond hole ('N') which will be continuously cored (a shallow pre-collar may be prepared - option).

A diamond hole to a depth of 1000 m needs few special requirements beyond those normally specified for control of drilling fluids, access and landholder compensation.

Comments on equipment experience:

The history of all previous drilling of this type within Tasmania supports this view. No Mines Department diamond drilling has ever required any special equipment, including the 1000 m hole at nearby Woodbridge. No problems have ever been encountered with high pressure hydrocarbons including the Douglas River hole drilled by the department, and which is still flowing gas. Other drilling in regions with oil shale, whether for the shale or for groundwater, have ever posed pressure problems. The much deeper mineral exploration holes in western Tasmania have, likewise, not presented any experience of problem conditions even though gas risks may increase with depth in any basement type.

The Variety Bay area is not noted for large seepages, or very gassy ones, and there is no ground for any expectation of incidents. The load of a full drill stem in a limited diamond hole is clearly safe given all past experience. Were special regulations to be imposed on this hole, as has been suggested to the company, then this company would respectfully insist that they should also be applied to every water bore in Tasmania and all mineral holes in western Tasmania as well. It would also ask why government drilling did not operate to comparable standards.

Quite different requirements might well apply to a hole aimed directly at a fully investigated petroleum reservoir structure drilled using standard exploration open hole mud-control methods. This is not such a hole.

Detection of hydrocarbons:

It is expected that fluorescence methods will be required to detect any hydrocarbons in the hole/core since no large flows are anticipated in any formation given the seepage styles and seismicity relationships.

HOLE NAME

The name designated for this well is SHITTIM-1.

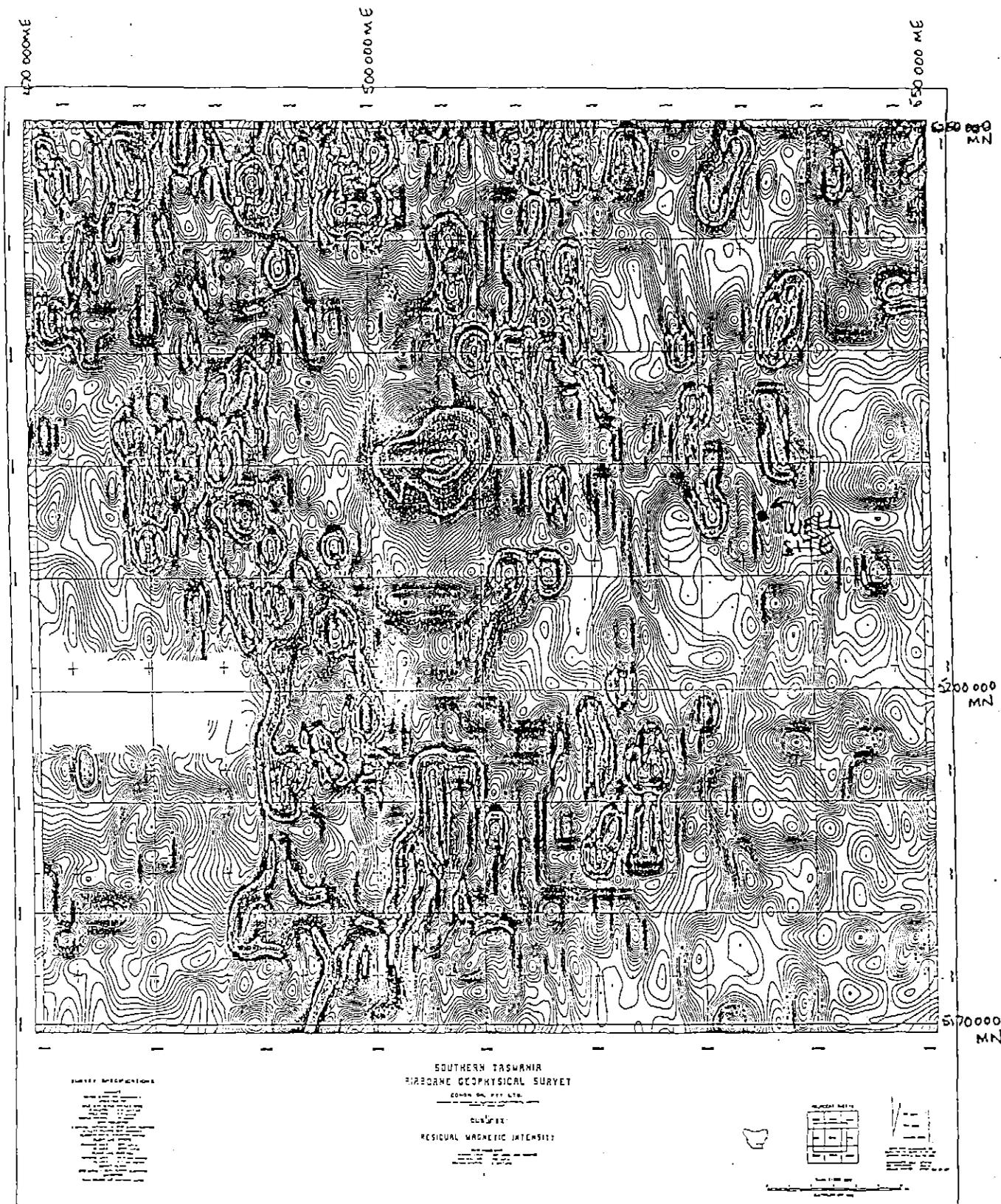
This name has a number of important connotations - for both the company and the area.

The name has historical significance as the place where both a new start and a turning point was achieved. This is clearly what is hoped for on North Bruny and for the company. It might also mean a new start for the way in which this state is viewed by petroleum explorers. It is also the name of an attractive tree whose relatives are common in this country and which produces a useful light oil.

Prognosis submitted on behalf of Condor Oil Investments

by

W. Reaman
Waman Geophysics 19/11/94

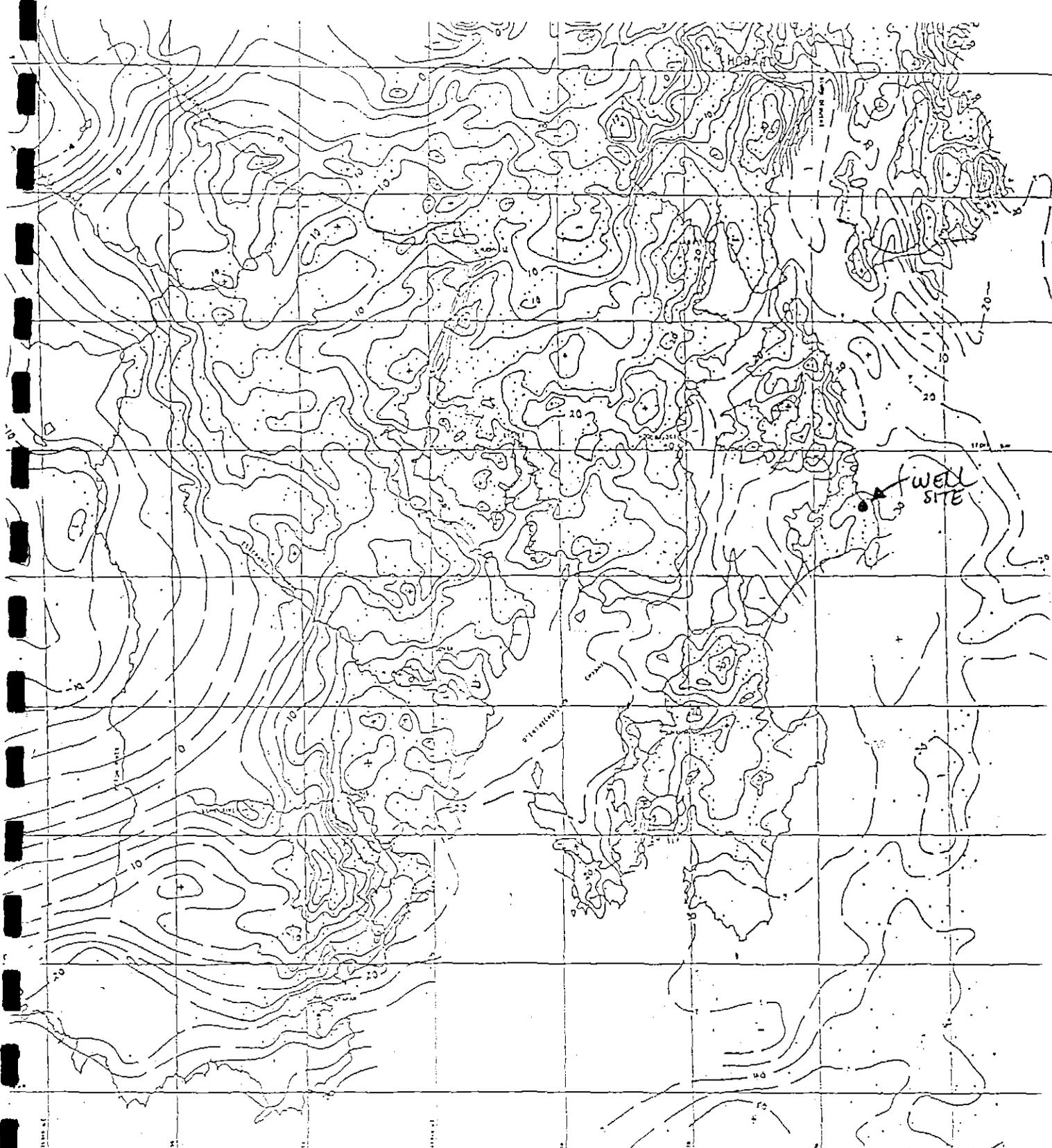


CONDOR OIL INVESTMENTS
FIGURE 2

NORTH BRUNY WELL

COMPILATION MAP: AEROMAGNETIC SURVEY AT 1000 M ASL

(Use transparent geographic overlay to locate positions)



IGA OIL PTY LTD
PROJECT: D'ENTRECASTEAUX GRAVITY SURVEY

BOUGUER ANOMALY (2.57 m/s²)
CONTOUR INTERVAL: 2 mgal (5 mgal estimated)

842036

842037

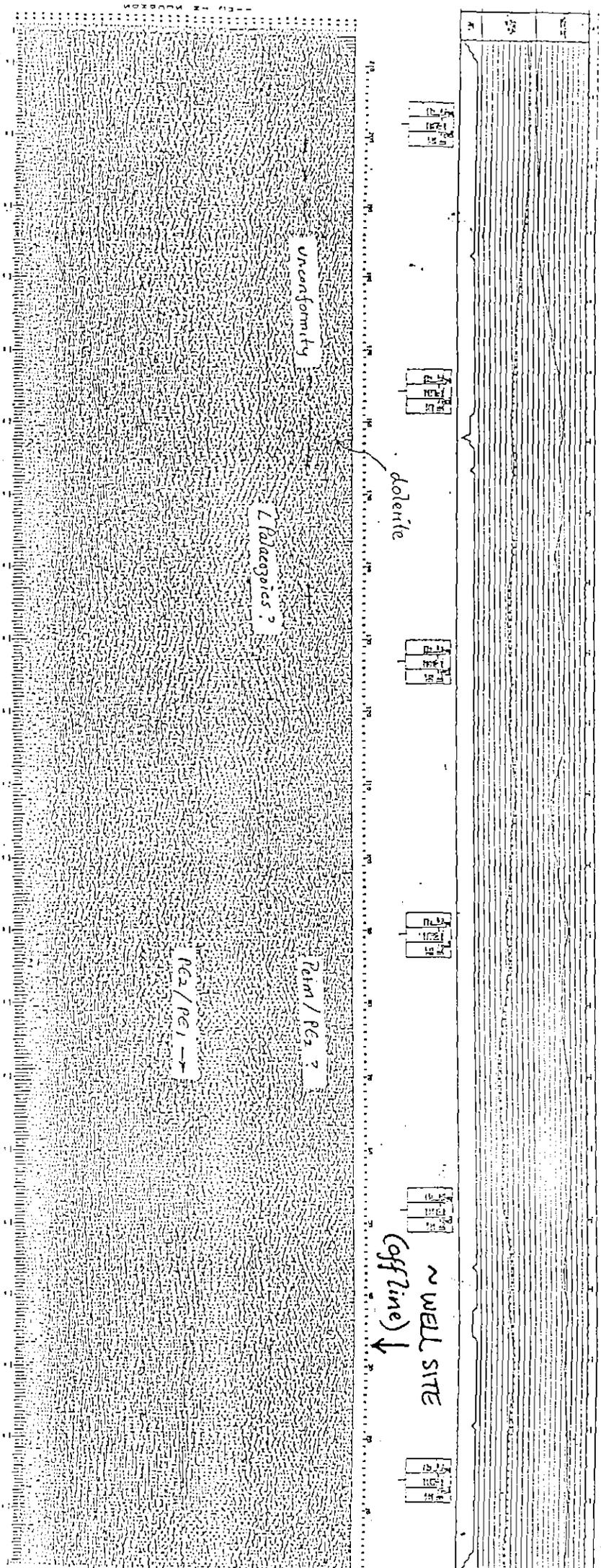
MURRAYFIELD
SP. 210 - 1

CONDOR OIL PTY. LTD.
TEST SURVEY 1
NORTH BRUNY ISLAND, TASMANIA

STACK

DEPTH (m)	LOG	DESCRIPTION	REMARKS
0.0		Surface	
0.5		...	
1.0		...	
1.5		...	
2.0		...	
2.5		...	
3.0		...	
3.5		...	
4.0		...	
4.5		...	
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CONDOR OIL INVESTMENTS
NORTH BRUNY WELL

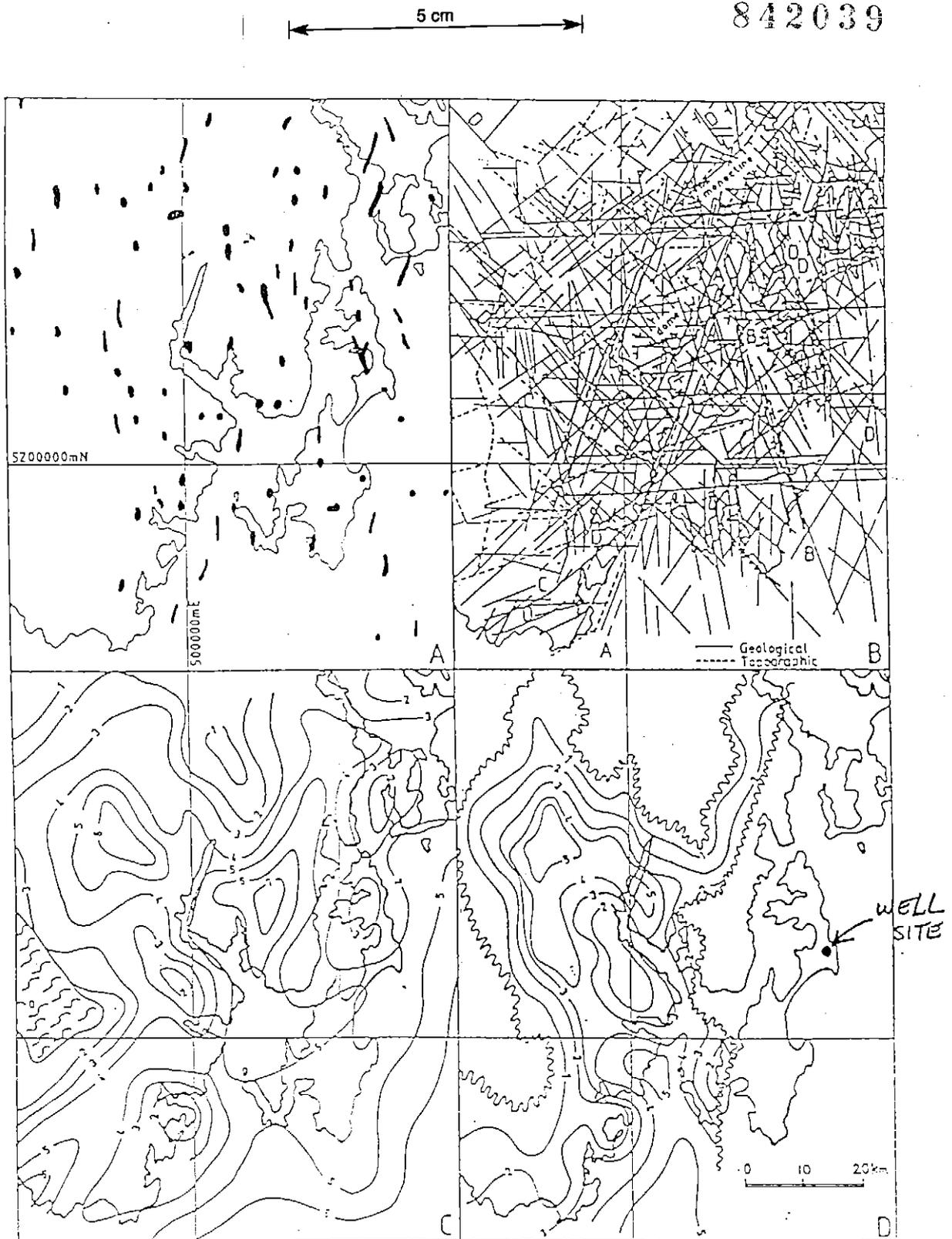


MURRAYFIELD TRAVERSE
NORTH BRUNY ISLAND

CONDOR OIL INVESTMENTS
NORTH BRUNY WELL

FIGURE 4

5 cm



© W. Lewis 1987

CONDOR OIL INVESTMENTS

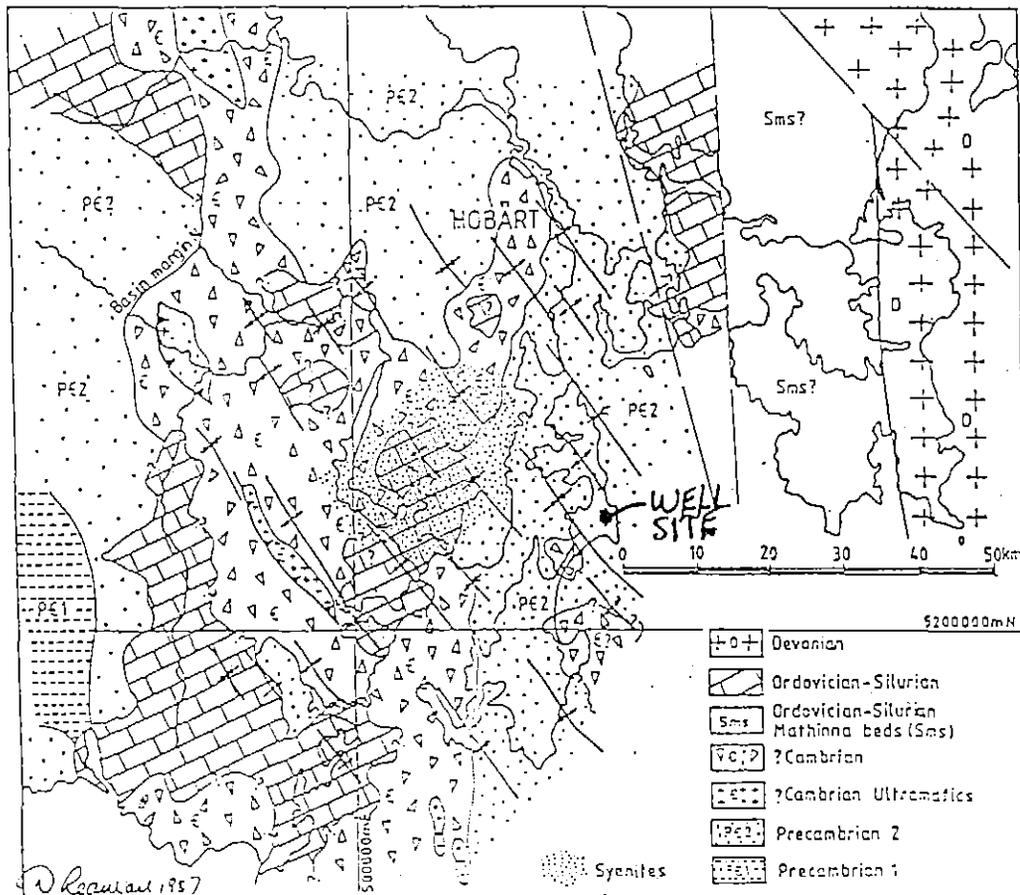
SUMMARY OF STRUCTURAL INFORMATION DEDUCED FROM GRAVITY AND MAGNETIC DATA IN SOUTH EAST TASMANIA. See also Figures 5B, 5D, 5E.

A: Location and orientation of Jurassic dolerite feeders. The pattern is non random and is related to older flexures.

B: Trend summary diagram, all data. Labelled structures exemplify major axes rejuvenated.

C: Contours in km below sea level of depth to crystalline basement.

D: Contours in km below sea level of base of Cambrian (?) units - incl. volcanics. Gap between C and D represents a variable thickness of Late Precambrian dolomitic sequences.



NATURE OF GEOLOGY INFERRED BENEATH PERMIAN UNCONFORMITY IN SOUTHERN TASMANIA

(based on initial geophysical interpretations. Provisional)

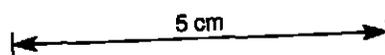
Note that distribution of Ordovician-Silurian rocks is not yet well defined and will be the subject of second order refined analysis. The indicated fold systems are likewise sketchy at this stage.

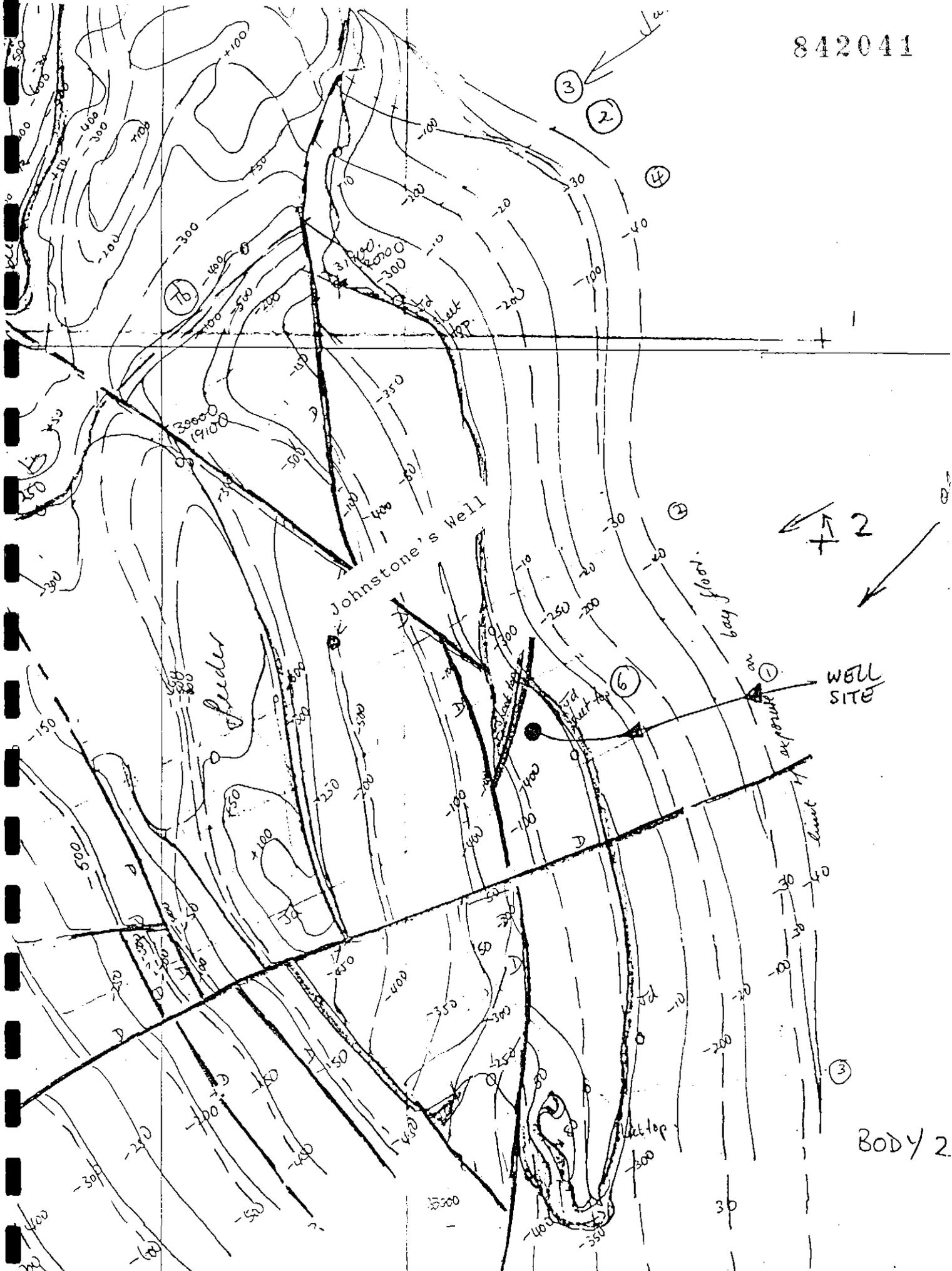
Compare this plan with sections and basin structure contours in

CONDOR OIL INVESTMENTS

NORTH BRUNY WELL

FIGURE 7





CONDOR OIL INVESTMENTS NORTH BRUNY WELL
 SKETCH MAP: PART OF INCOMPLETE 3D INTERPRETATION OF NORTH
 BRUNY REGION SHOWING LOCATION AND CONTINUITY OF DEEPER
 FAULTS
 Analysis by Leaman Geophysics 1988

FIGURE 8

30000

BODY 2

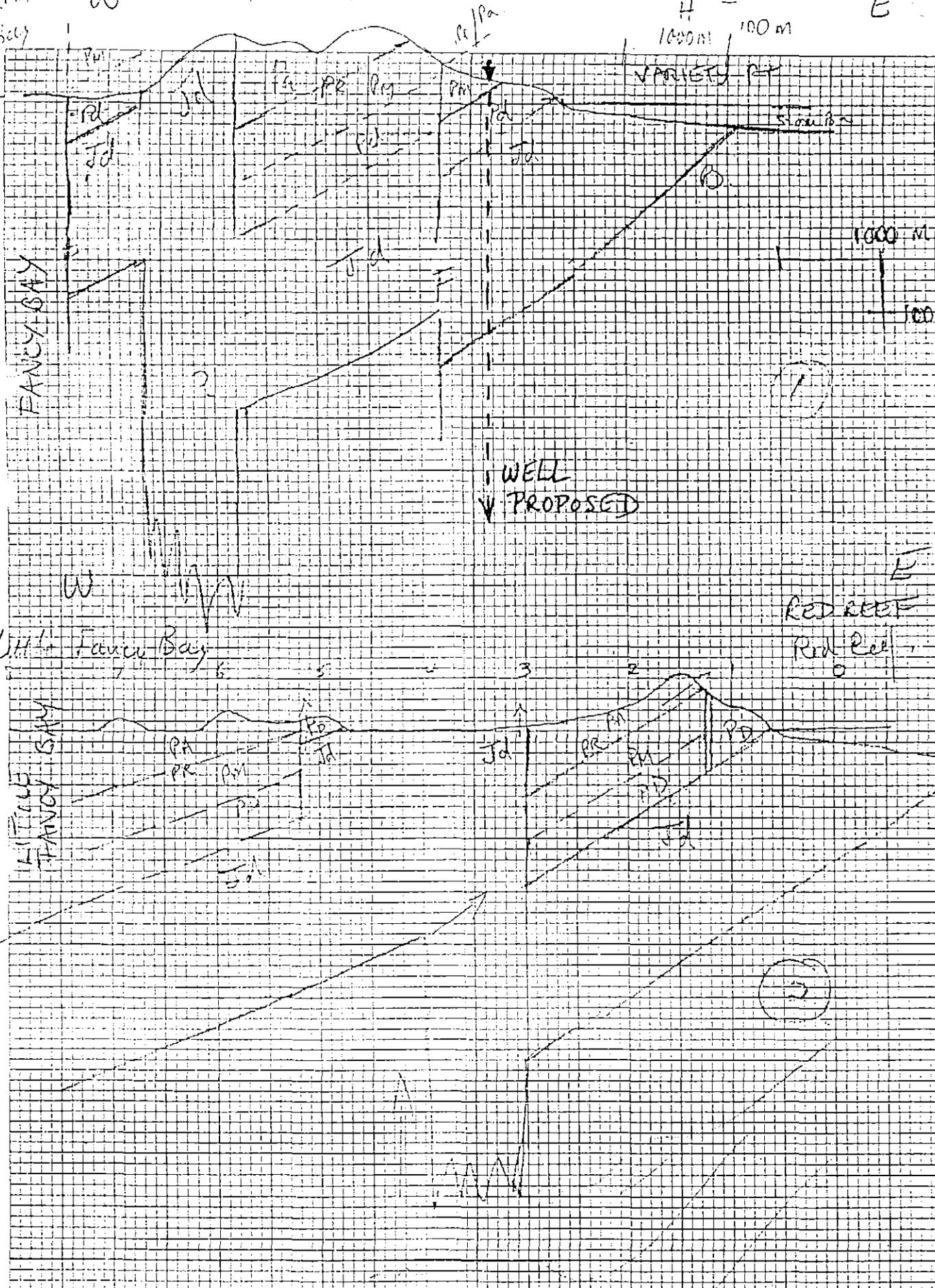
Variety Pt

1 km = 100 m V
E

1 km

W

Bay



CONDOR OIL INVESTMENTS

NORTH BRUNY WELL

SKETCH SECTIONS: VARIETY BAY AND GREAT BAY REGION

Upper section through well site.

Draft section by Leaman Geophysics 1988

FIGURE 9

842042

WEDNESDAY

842043

CASING TO 2 METRES

120M ABOVE SEA LEVEL - 70M ABOVE SHUTTIN 1.

SAMPLE 8.40 AM

GILCAL 1

METRES

GEOLOGY

0 - .5	SOIL
.5 - 1.7	SANDSTONE
1.7 - 7.5	MUDSTONE
7.5 - 9	SANDSTONE & MUDSTONE
9 - 12m	SANDSTONE & MUDSTONE
12 - 15 m	SANDSTONE & MUDSTONE
18 - 24m	MUDSTONE (GREY)
24 - 27m	MUDSTONE
27 - 30m	"
30 - 36m	"
33 36	"
36 -	RED BAKED MUDSTONE
36 - 39	PASCAL YELLOW, TAN, RED MUDSTONE
39 - 42	"
42 - 45	CLAY
45 - 48	"

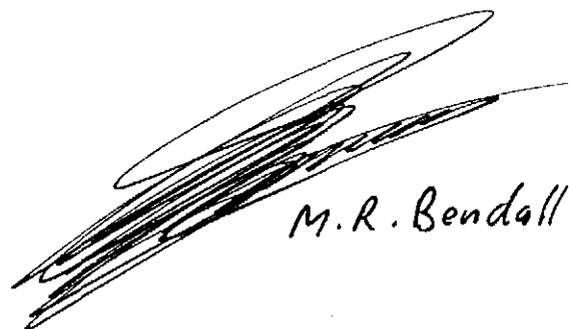
G 1	<u>1</u>	0 - 9m
	<u>1</u>	
	<u>1</u>	
G 2	<u>1</u>	9 - 15m
	<u>1</u>	
	<u>1</u>	
G 3	<u>1</u>	18 - 27m
	<u>1</u>	10.10AM
	<u>1</u>	
G 4	<u>1</u>	27 - 36m
	<u>1</u>	10.45 AM
	<u>1</u>	
	<u>1</u>	
G 5	<u>1</u>	36 - 45m
	<u>1</u>	11.40 ?
	<u>1</u>	
	<u>1</u>	
	<u>1</u>	

SHUTTLE 1.

0 - .3m	SOIL			CASING TO
.3 - 1.2m	CLAY			2.5 METRES
1.2 - 6m	BEDROCK		SANDSTONE	12.20 p.m. MOND.
6 - 9m	BEDROCK		SANDSTONE -	
9m - 12m	"		COARSE GRAVEL	
12 - 15m	"			14m CHANGE (FAULT)
15 - 18m	"		LIMESTONE	THEN GREEN STAIN
18 - 21m	"		"	15.2m CAP
21 - 24m	"		SHALE/MUDSTONE	CHANGE 2.25 PM
24 - 27m	"			
27 - 30m	"			
30 - 33m	"		SILICIFIED	3.10 PM
48m	STOP		CALCIFIED	PYRITE
				5 - 20%
48m	RESTART	WATER WARM/ SALINE	LIMESTONE	
58m			QUARTZITE	NO PYRITE
60m			BANDS	TUE 10.35 AM
64m			WITH LIMESTONE	
64m		GAS	WITH PYRITE	
73m			REPLACEMENT &	1.35PM
			GREEN STAINING	
81m		SWEET GAS INFLOW	STOPPED HOLE	4.30 PM

GILGAL 1

- DRY HOLE FROM SURFACE TO 45 METRES
- 45 M TO 51 M MOIST WITH STICKY CLAY WHICH WAS IMMISSIBLE WITH WATER
- GAS IN FLOW AT PRESSURE (SOUND OF WHISTLING NOISE) AFTER REMOVAL OF DRILL STRING, CLOUDING AS IT MOVED UP THE HOLE, MILD AROMA OF GAS WHEN CAP OF HOLE REMOVED AFTER 30 SECONDS.
- FULL COLUMN OF WATER PUMPED INTO THE HOLE TO FULL, GAS BOILING THROUGH THE WATER UP UNTIL 2 METRES FROM THE TOP THEN BUBBLING AND EFFERVESCENT AT TOP 51 METRES OF WATER HEAD.
- CASING PUT IN 17 HOURS AFTER DRILLING
- GREASE ON JOINTS OF RODS
- MACHINERY OIL FOR HAMMER LUBRICATION
- NO DIESEL SPILT ON THE SITE
- NO DIESEL WAS PUT DOWN THE HOLE.



M.R. Bendall

ANNULAR

SHITTIM 1

- GAS AT 64 M to 81 M
- 1 FT VUGS FROM 64 M ONWARDS
- POROUS S\$CTIONS WERE INTERSECTED
- 7000 GAL PER HOUR WATER
- BRINE MORE THAN 2,000 PPM
- TAR IN JOINTS (BLACK, SOFT, SHINY)
- SMELL OF GAS VERY STRONG (UNPLEASANT SMELL)
- HOT WATER AT 64 METRES (ABOUT 40'C BASED ON BODY TEMP.)
- GREASE ON JOINTS OF RODS
- MACHINERY OIL FOR HAMMER LUBRICATION
- NO DIESEL SPILT ON THE SITE
- NO DIESEL WAS PUT DOWN THE HOLE
- 2 DAYS TO DRILL THE HOLE INCLUDING CASING AT 150 MM TO 2.5 METRES
- 5½ " HOLE FROM 5 M TO 81 M DRILLED BY AN AIR HAMMER OPERATING AT 175 PSI



M. R. Bendall

842047

Pectil Engineering Services
Oil & Gas Drilling Engineering Consultants
26 Colin Street West Perth Western Australia 6005 Tel (09) 481 3322 Fax (09) 481 3330

Mr Malcolm Bendall
Condor Oil Investments Pty Ltd
84 Wells Pde Blackmans Bay
Tasmania 7052

DATED 14/11/94

Dear Sir

the enclosed

**Preliminary Well Plan
Slimhole Stratigraphic Drilling Program
for Condor Oil Investments Pty Ltd**

may assist your company preparing the two hole drilling program we discussed recently. The Well Plan still requires a general stratigraphy description and data search before a schedule, casing plan and mud program can be presented. Costing for each well may then be established. Should your geologist have this information for the area in which you are planning these wells it would assist this process considerably.

In preparing to drill these wells it will be necessary to develop a Well Plan inside an "Operating Procedures and Emergency Response Manual" for the Department of Mineral Resources in your state.

Pectil Engineering Services has developed a Slimhole Oil & Gas Drilling Manual which could assist your company with this work.

I should be pleased if you were to consider using my services in the role of drilling engineer and drilling supervisor for your program since I have considerable experience planning and drilling both conventional and slimhole oil and gas exploration and development wells.

Thank you for your consideration in this matter and I look forward to hearing from you in due course.

Yours faithfully
Pectil Engineering Services

Edward C McNally BSc, CPEng
Manager

Pectil Engineering Services
Oil & Gas Drilling Engineering Consultants
 26 Colin Street West Perth Western Australia 6005 Tel (09) 481 3322 Fax (09) 481 3330

Preliminary Well Plan
Slimhole Stratigraphic Drilling Program
for Condor Oil Investments Pty Ltd

Well Name		State	
Location		Coordinates	
State	Tasmania	Elevation	
		Datum	Fontelamps
		Rig Make	UDR 1500
Anticipated Spud Date	September 1994	Projected Depth	1,500 m

Operator Sydney Oil Company Drilling & Exploration Trust ACN 010 361 350
 C/- Howath & Howath
 Australia Place, 15 William Street Perth WA 6000
 Tel (09) 322 1142, Fax (09) 322 1143

Company Representative Mr Malcolm Bendall

Drilling Contractor Diamond Drilling Pty Ltd
 PO Box 105 Zeehan Tasmania 7460
 Tel (004) 71 6339, Fax (004) 71 6385

Drilling Engineering Pectil Engineering Services
 PO Box 913 West Perth WA 6872
 Tel (09) 481 3322, Fax (09) 481 3330

Drilling Supervisor Edward C. McNally

Geological Supervisor

Drill Fluid Engineering Pectil Engineering Services

Geophysical Logging BPB Australia

Mud Logging Exlog

Casing Western Deep Hole Drilling

Cementing Local Contract

Surveying Ace Drilling Pty Ltd

Blowout Preventer Stack Pectil Engineering Services

Production Testing Haliburton

Pectil Engineering Services
Oil & Gas Drilling Engineering Consultants

26 Colin Street West Perth Western Australia 6005 Tel (09) 481 3322 Fax (09) 481 3330

Preliminary Well Plan
Slimhole Stratigraphic Drilling Program
for Coulour Oil Investments Pty Ltd

Well Configuration

	Hole Size	Casing Size	GD (in)	OD (mm)	ID (in)	ID (mm)	Weight (kg/m)
Conductor	6.625"	PW	5.5	139.7	4.94	125.5	23.14
Surface Hole	4.875"	HW	4.5	114.5	4.00	101.4	16.83
Intermediate	3.782"	HQ	3.5	88.9	3.063	77.8	11.45
Objective Hole	2.98	NQ	2.70	70.0			

Drilling Program

	Hole Size	Casing Size	Drilling Method	Max Depth	Mud System	Drilling Method
Conductor	6.625"	PW	A. Percussion			DHBT
Surface Hole	4.875"	HW	Mud Rotary	900m	FW Gel	Button Tricone
Intermediate	3.782"	HQ	Diamond Core	1,200m	Brine Polymer	Impregnated
Objective Hole	2.98	NQ	Diamond Core	1,800m	Brine Polymer	Impregnated

Anticipated Drilling Schedule

Activity	Time
Mob and unpack	
Rig up	
Establish water bore	
Drill and set PW conductor pipe	
Mud rotary drilling to surface HW casing point.	
Run and cement surface HW casing	
Install and test BOP's	
Diamond HQ core drill to intermediate casing point.	
Run E logs suite	
Run and cement intermediate HQ casing	
Install and test BOP's	
Diamond NQ core drill to TD	
Run E logs suite	
Cement abandonment plugs	
Rig down	
Packup and Demob	

Rig Hourly Rate

S/hour

Drilling Rates

Pre-Collar	0 - 100 m	4 7/8" Mud Rotary Drilling
	100 - 200 m	0 - 600 m
	200 - 300 m	600 - 800 m
		800 - 900 m
		600 - 800 m
HQ Coring	0 - 600 m	NQ Coring
	600 - 800 m	0 - 600 m
	800 - 1000 m	600 - 800 m
	1000 - 1200 m	800 - 1200 m
		1200 - 1600 m
		1600 - 1800 m

Preliminary Well Plan
Slimhole Stratigraphic Drilling Program
for Condor Oil Investments Pty Ltd

Diamond Drilling UDR 1500 Drill Rig Description

- Drill** Universal 1500 all Hydraulic Top Drive
- Mast** 16 m length with 12 m rod pull capacity
- Power** 172 kW GM 6-71N Diesel, 2100 rpm
- Rotation Head** Top drive direct couple. High-Low manual gear range
 5-380 rpm low range, 380-1500 high range
 Stepless speed range
- Rotation Head Torque** Max 6,800 Nm low range, 360 Nm @ 1,500 rpm high range
 Fully automatic torque speed control running diamond bits at maximum
- General Features** 50 mm (2") ID floating hollow spindle, jet lubricated gears and bearings
 possible rpm using maximum available horsepower
 Water to oil heat exchanger.
- Head Traverse** Hydraulic cylinder over chain with 7.32 m of traverse
 Max traverse speed 24 m/min up and 18 m/min down
 Hydraulic head racks back in top mast
- Pull Down** 7,000 kg
Pull Up 15,000 kg
- Water Pump** 2 * FMC Bean triplex pumps
 Rated 140 LPM (36 USG/min), 7,000 kPa (100 psi)
- Rod Breakout** Hydraulic Rigid Stillsons
 9,500 Nm makeup torque, 12,000 Nm breakout torque
- Rod Clamps** 44.5 mm (1.75") to 168.3 mm (6.625") in rod clamps with 8.75" clamp opening
 Hydraulic, self energizing with hammer wrenches and bit baskets
- Wireline Winch** 2,000 m of 10 mm (3/8") wire rope. 1,800 kg full drum pull at 260 m/min
- Hydraulics** Axial and radial piston pumps designed with 3 independent open loop circuits
 (Main - Water - Cylinders)

Depth Rating

Drilling Method	Hole Size	Rod Size	Rated Depth	Diamond Core
Air Drill	127 mm	73 mm	816 m	
Mud rotary	165 mm	89 mm	663 m	
Diamond Core	122.6 mm	117.5 mm	900 m	PQ
	96.0 mm	89 mm	1,200 m	HQ
	75.7 mm	70 mm	1,800 m	NQ
	60.0 mm	56 mm	2,300 m	BQ

Drill Dimensions

Weight	Length	Width	Height
19,500 kg	16 m	2.5 m	3.6 m
Bare drill on hydraulic jackup tray			

Pectil Engineering Services
Oil & Gas Drilling Engineering Consultants
 26 Colin Street West Perth Western Australia 6005 Tel (09) 481 3322 Fax (09) 481 3330

842051

Preliminary Well Plan
Slimhole Stratigraphic Drilling Program
for Condor Oil Investments Pty Ltd

Slimhole Oil & Gas Drill hole Cost Summary

Description	Supplier	Cost
Location access, site survey and preparation Mobilisation, unpack and establishment Demob, site restoration		
Water trucking Water bore and materials		
Well site drilling supervisor Rig Hire Wages and on costs Camp hire and catering		
Fuel & lubricants		
Mud chemicals and engineering		
Communications Miscellaneous intangibles		
Cement and chemicals Cementing plant rental PW, HW & HQ Casing and casing handling Casing tooling		
Lynes DST tool rental		
Core equipment Core handling and core analysis		
Portable cellar Blowout preventer equipment rental Kill and test pump HW well flange		
Downhole drill and casing tooling Ancillary surface mud handling equipment rental Ancillary mud surface equipment Mud logging Geophysical wireline logging		
Materials transport Personnel transport		
Well insurance Well overheads (3%) Office and administration		

Mineral Drilling Handbook ©

Diamond Core Drilling

Table D3: Physical Properties of Diamond Drill Rods

Rod Size	Nominal OD * ID (mm)	Wall Thickness (mm)	TFI	Coupling Dimension (mm)	Mass kg/m	Rod Capacity litre / 10 m	Rod Plug Displacement litre / 10 m
<i>Original Diamond Core Drill Rods</i>							
E	33.3 * 21.4	6.0		11.1	4.17	3.6	8.71
A	41.3 * 28.6	6.4		14.3	5.64	6.4	
B	48.4 * 35.7	6.4		15.9	6.82	10.0	
N	60.3 * 50.8	4.8		25.4	7.28	20.3	
<i>DCDMA 'W' Series Core Drill Rods</i>							
RW	27.8 * 18.3	4.8	4	10.3	2.82	2.6	6.07
EW	35.0 * 25.4	4.8	3	12.7	3.74	5.1	9.62
AW	43.8 * 34.1	4.8	3	15.9	4.91	9.1	15.07
BW	54.1 * 44.5	4.8	3	19.0	6.23	15.6	23.00
NW	66.8 * 57.2	4.8	3	34.9	8.03	25.7	35.05
HW	89.1 * 77.8	5.7	3	60.3	12.66	47.5	62.35
<i>Longyear Wireline Core Drill Rods</i>							
EQ	34.9 * 26.5	4.2	4	26.5	3.20	5.5	9.6
AQ	44.5 * 34.9	4.8	4	34.9	4.63	9.6	15.6
BQ	55.6 * 46.0	4.8	3	46.0	5.97	16.6	24.3
BCQ-Composite	55.6 * 47.6	4.0	3	46.0	5.15		
NQ	70.0 * 60.3	4.9	3	60.3	7.58	28.6	38.5
NCQ-Composite	69.9 * 61.9	4.0	3	60.3	6.86		
HQ	88.9 * 77.8	5.6	3	77.8	11.45	47.5	62.1
HCQ-Composite	88.9 * 80.9	4.0	3	77.8	8.52		
PQ	114.3 * 103.2	5.6	3	103.2	15.26	83.6	102.6
<i>Longyear Composite Heavy Duty Wireline Core Drill Rods</i>							
CHD 76	69.9 * 60.3	4.8	2.5	55.0	9.2 - 8.3	28.6	38.3
CHD 101			2.5				
CHD 134			2.5				

CQ rods have 'Wedge Lok' tapered thread design

Table D4: Longyear W Series Flush Joint Casing to DCDMA CDDA & BSI Standards

Rod Size	Nominal OD * ID (mm)	Wall Thickness (mm)	Coupling Dimension (mm)	Mass kg/m	Rod Capacity litre / 10 m	Rod Plug Displacement litre / 10 m
EW	46.0 * 38.1	3.95		4.16		
AW	57.1 * 48.4	4.35		5.64		
BW	73.0 * 60.3	6.35		10.43		
NW	88.9 * 76.2	6.35		12.80		
HW	114.3 * 101.6	6.35		16.83		

Joints with 4 thread per inch coupling supplied in 2 (609.6 mm), 5 (1524 mm) and 10 (3048 mm) foot.

COPY

842053

15th November, 1994.

Pectil Engineering Services,
26 Colin Street,
WEST PERTH W.A. 6005

Dear Sir,

RE: BLOWOUT PREVENTOR PURCHASE

Thank you for your letter of the 14th November, 1994.

We wish to advise that following negotiations with the Mines Department, we will no longer need a Blowout Preventor. We would therefore request that you stop preparations for forwarding same.

Would you please supply an account for your work to date which you indicated would be approximately \$2,000.

Yours faithfully,



M.R. BENDALL
MANAGING DIRECTOR

842054

Facsimile Cover Sheet

To: Malcolm Bendall
Company: Condor Oil Investments
Phone: 002 235 886
Fax: 002 292 153

From: Edward McNally
Company: Pectil Engineering
Phone: (619) 481 3322
Fax: (619) 481 3330

Date: 29/11/94
Pages including this cover page: 8

Comments:

HELLO MALCOLM

THE FOLLOWING ARE NOTES I USED TO PREPARE THE 800M DRILLING PROGRAM AT SANDFIRE LAST YEAR. INCLUDED ARE PICTURES OF THE BOP AND ANCILLARY PLAN I USED FOR WELL CONTROL.

I SHALL BE INSPECTING AND COSTING THE EQUIPMENT THIS WEEK AND WILL FORWARD YOU THE COST FOB

kind regards

Edward McNally
TED

\$250 per

\$9,000

\$8,000 allowance

842055

DRILLING OPERATIONS SD = 1WELL CONTROL

A component diagram and test schedule are included in the following pages. (See Drill Hole BOP diagram).

Practices to shut in the drill hole and control abnormal pressure

1. Drilling
2. Tripping the rods in and out of the hole or
3. With the rods at surface and
4. Pulling the inner core barrel

are described in Slimhole Drilling Operations Manual - E. McNally 1991. A copy of the manual was on the location.

Practices adopted to control abnormal pressure developments (artesian flow) were prepared using the ODCAA - University of Qld. DMME Manual killsheet.

Pressure tests to establish the integrity of HW and HQ casing strings were carried out after cementing and lapping the cement wiper plug. Both strings tested to 800 psi for one minute.

No pressure integrity testing of formation below the HQ/HW casing shoe were conducted to establish leak off. The low integrity of sandstones in the Wallal and Grant had been well demonstrated while drilling and testing would not have assisted the shoe.

DRILLING OPERATIONS SD.1
Drillfluids Programme

Summary of operations drilling 3 7/8" hole from 192 to 487.5 m. (cont.)

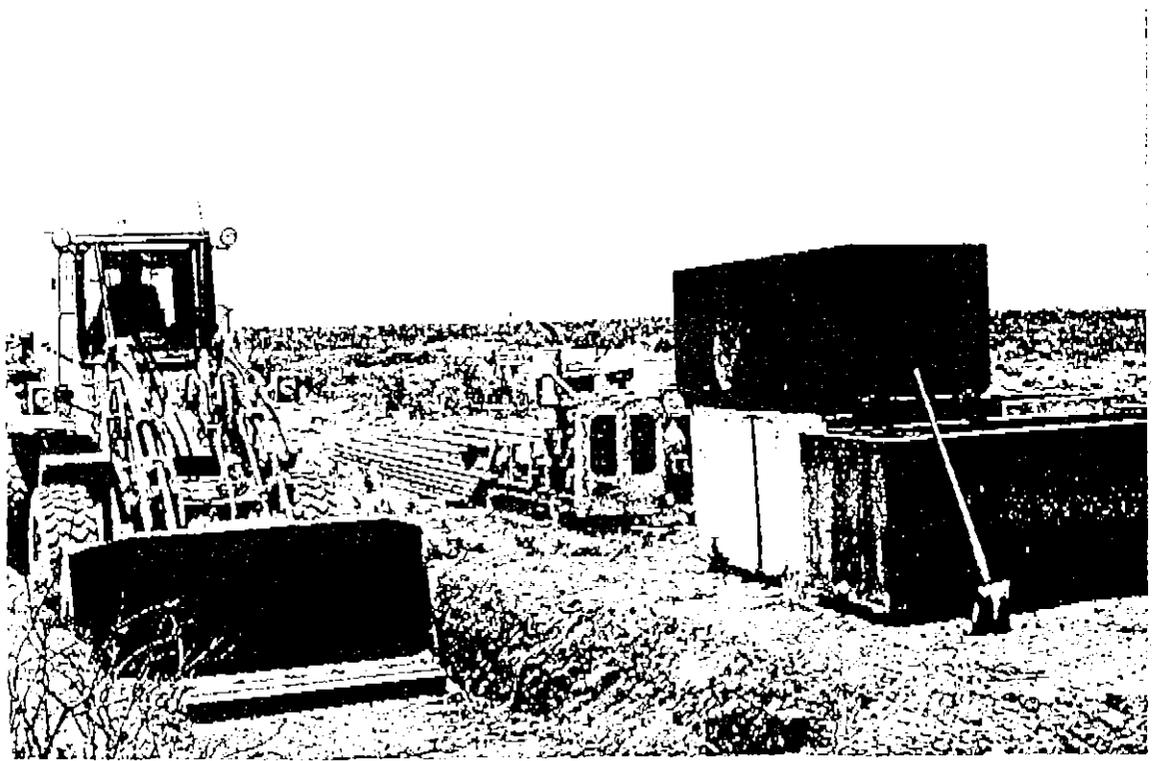
Drilling and balance could be maintained using an 8.8 to 8.9 ppg mud weight. No occurrence of overpull or torque on the rotating rods were noted in the interval while drilling. Tripping even while regulating with minimum pipe speed swabbed the hole and produced flow with a mud weight of 9.2 ppg. It frequently became necessary to displace the kill mud once inside the HW casing during the trip to control the flow. Several trips were completed out of the hole with the well still flowing and the gate valve had to be closed to contain flow while making bit changes.

Q-broxin deflocculant was made up in tank 3 while drilling mud generating clays below 456m. The tank was used to dilute highly viscosified mud returns at the flow line.

Three bits were pulled with plugged cones and locked up bearings because they had been run on bottom after plugging. Each of the bits had flattened cones. Alternating sand, slate, claystone zones made for difficult drilling with the bits and it may have been an improvement if jet or PDC bits had been selected.

Fill on bottom after tripping had to be back reamed and some time was lost atripping back to bottom at 394 and 414 m. The interval did not heave sand or shale while it was open but the bottom section increased mud solids and a thinning agent was needed to reduce viscosity.

*HEIGHT & VOLUME
MUD TANKS*



842059



MALCOLM

BOP inside the Portable Cellar.

842000

DRILLING OPERATIONS SD-1
Casing and Cementing Programme

PROGRAMME

1. Cement plug 40 - 60 m in 8 1/2" conductor hole.
2. Cementing 6 1/2" conductor in 8 1/2" hole at 39 m.
3. Cement plug 160 to 192 m in 5 1/2" surface hole.
4. Cementing HW casing rods at 181.5 m surface.
5. Cementing HQ rod string in 3 7/8" hole at 487.5 m.
6. Cement abandonment plug from 760 m to surface.



Kill line →

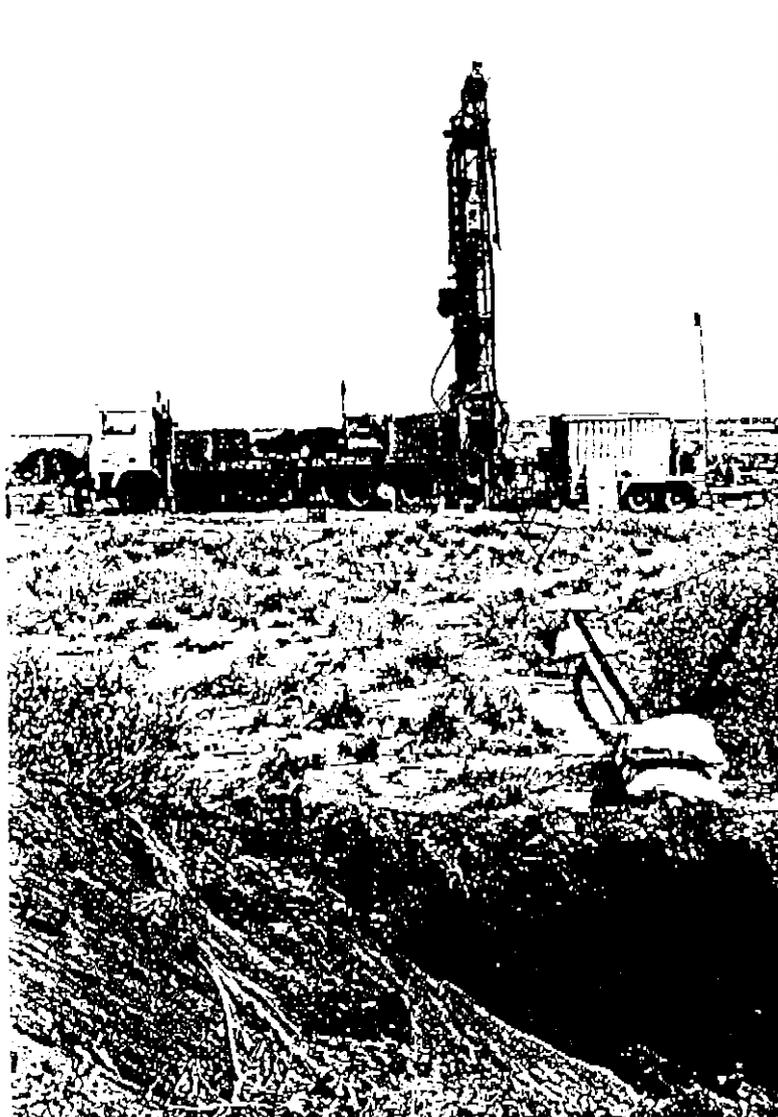
→
*CHOKER
LINE*

842061

SD 1. DRILL HOLE COMPLETION REPORT

CONTENT

- SUMMARY OF RIG EVENTS
- DRILLFLUID PROGRAMME
- CASING AND CEMENTING PROGRAMME
- WELL CONTROL
- DRILL HOLE COST SUMMARY
- APPENDIX



FLARE
LINE

FLARE PIT

COPY

842062



11 November 1994

Director, Exploration
Conga Oil PL
84 Wells Parade
Blackmans Bay TAS 7052

Dear Sir/Madam

Re: Tasmania NGMA Project ("TASGO")

The Australian Geological Survey Organisation and the Tasmanian Department of Minerals and Energy have commenced a series of multi-disciplinary studies under the National Geoscience Mapping Accord (NGMA). We are writing to you to inform you of the project and their progress and to invite you to contact the project leader or staff in the project if you want further information or wish to participate more closely in the work.

This is the first of a new series of communications to explorationists with interests in Tasmania. "TASGO" is one of the new NGMA projects and is being run jointly by AGSO and Mineral Resources Tasmania (MRT). It is designed to understand the major geological events that have influenced the distribution of Tasmania's minerals and petroleum resources.

The project was publicly launched by Tasmania's Premier, Mr Groom, on 21 August 1994. The project plan also received a mention in the August 1994 edition of AGSO's *AusGeo News* and the October/November issue of *PESA News*. It was presented to the Tasmanian Chamber of Mines at its meeting in Launceston on 24 June 1994. A brief update of activities will be given at the Chamber's next meeting in Launceston on 29 November 1994.

The initial phase of the project is dominantly data acquisition (see Attachment 1). Activities include airborne geophysics, land and marine deep reflection seismic surveying, some geochronology and a compilation of relevant geological information. This will be followed by some review work (involving collaboration with Universities and other researchers) and data processing, prior to the substantial interpretive phase.

A synthesis of relevant geological information is underway. A new 1:500,000-scale strato-tectonic map and time-space plots of Tasmania's tectonic elements, with some relevant neighbouring parts of Gondwanaland for comparison, are being compiled using AGSO's new timescale, to provide a basis for interpreting the new data. Compilations are scheduled to become available from about late December 1994.

Airborne geophysical surveying of inshore regions of Tasmania commenced on 11 October 1994. To date 28,000 line kilometres of magnetic data have been acquired at 800m line spacing, representing nearly one third of the survey (see Attachment 2). The King Island portion will be flown at 400m line spacing and will include gamma-ray spectrometry. The data are being acquired to map the continuations of Tasmania's geological provinces and structures offshore, and to ensure that we position the deep marine seismic reflection lines to cross major structures. Data are expected to become available in the first half of 1995.

Planning for onshore deep reflection seismic surveying in February 1995 is well underway. Our budget will allow about 100 line kilometres to be shot. Tasmania's terrain is far from ideal for the seismic method. Of the traverses considered to be logistically feasible, the following have been selected along existing roads: west Dundas Trough; east Dundas Trough; Mathinna Goldfields lineament; and some experimental soundings in the Tasmania Basin, hopefully through windows in the dolerite.

Planning for the marine reflection seismic survey is also underway. An indicative cruise track is shown on Attachment 3. It is thought to cross many significant geological boundaries and structures. Precise cruise positioning will be fine-tuned when the results of aeromagnetic surveying become available later this year. The ship provides a more cost effective method for imaging the geometry of the major geological structures.

Some new zircon dating will continue in 1995. Priority will be accorded to samples that can date or put timing constraints on tectonic events, or which can improve the accuracy of the geochronological timescale at places where there is good biostratigraphic control.

If you would like to participate in any of our activities, or feel that you could assist in any way, please call us at the numbers indicated below. Further information on the project can be obtained from Tony Yeates at AGSO, telephone (06) 249 9335, or Tony Brown, State Chief Geologist MRT, telephone (002) 33 8365. Specific information on the seismic surveying can be provided by Barry Drummond, telephone (06) 249 9381 or Tim Barton, telephone (06) 249 9625.

With best wishes



Dr Tom S Loutit
Co-Chief,
Minerals Petroleum and
Sedimentary Resources Division,
AGSO

Telephone: (06) 249 9674



Mr Mike Ayre
Director of Mines
Mineral Resources Tasmania

Telephone: (002) 33 8333

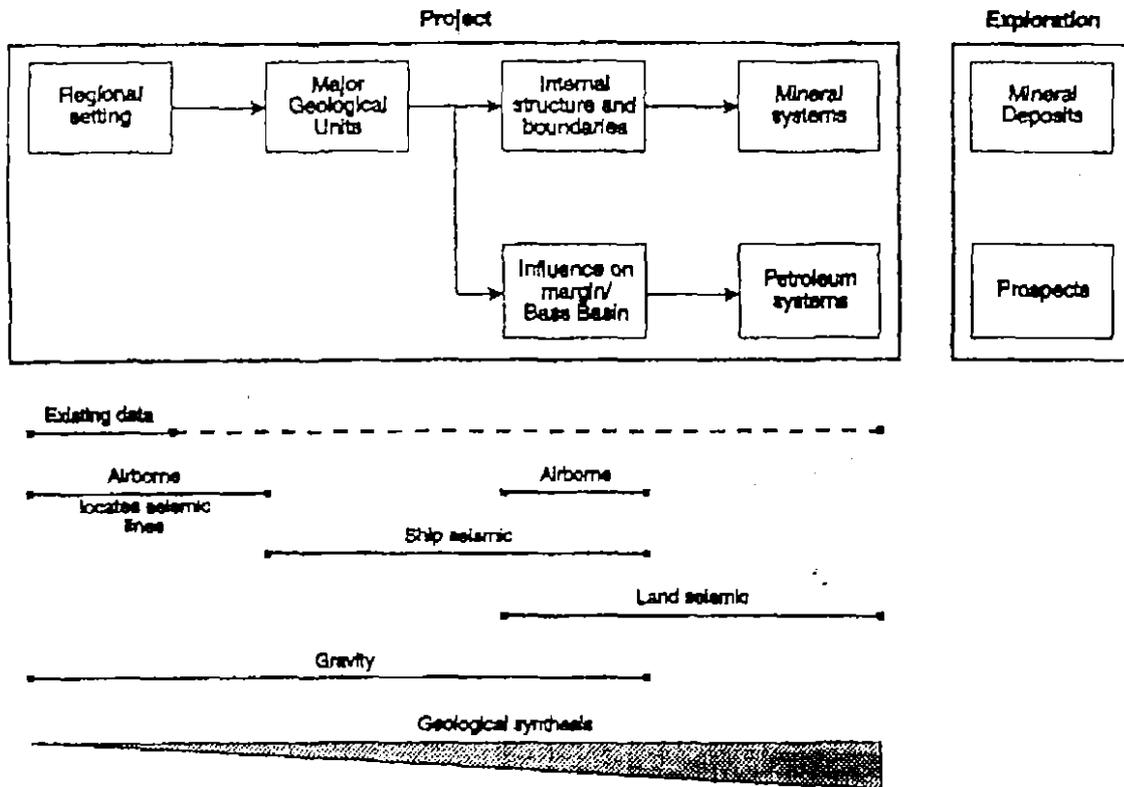


Fig. 1: Project Strategy

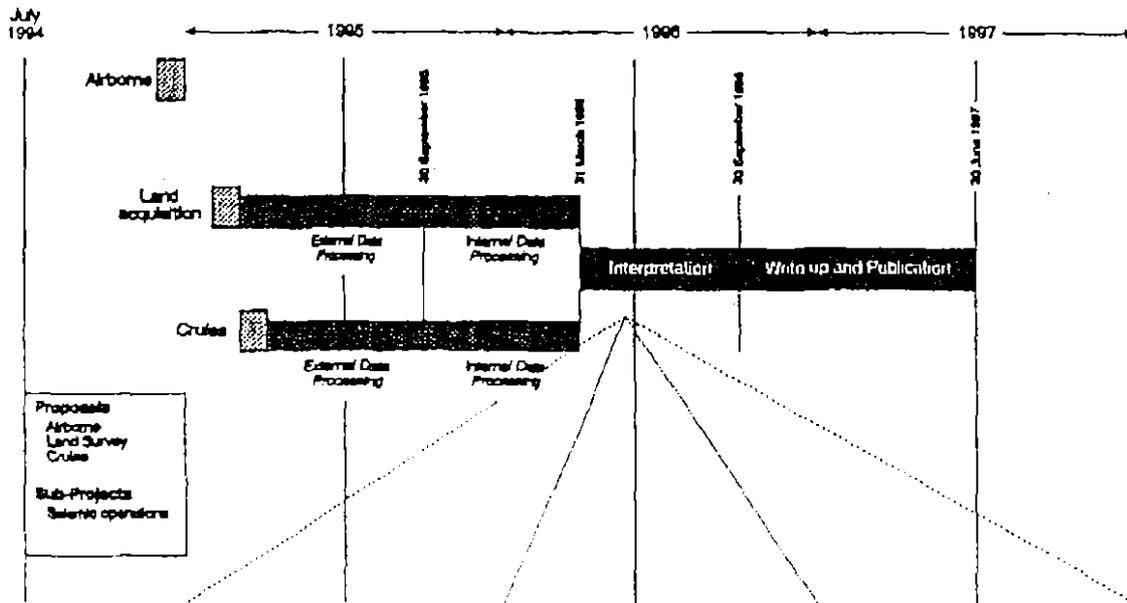
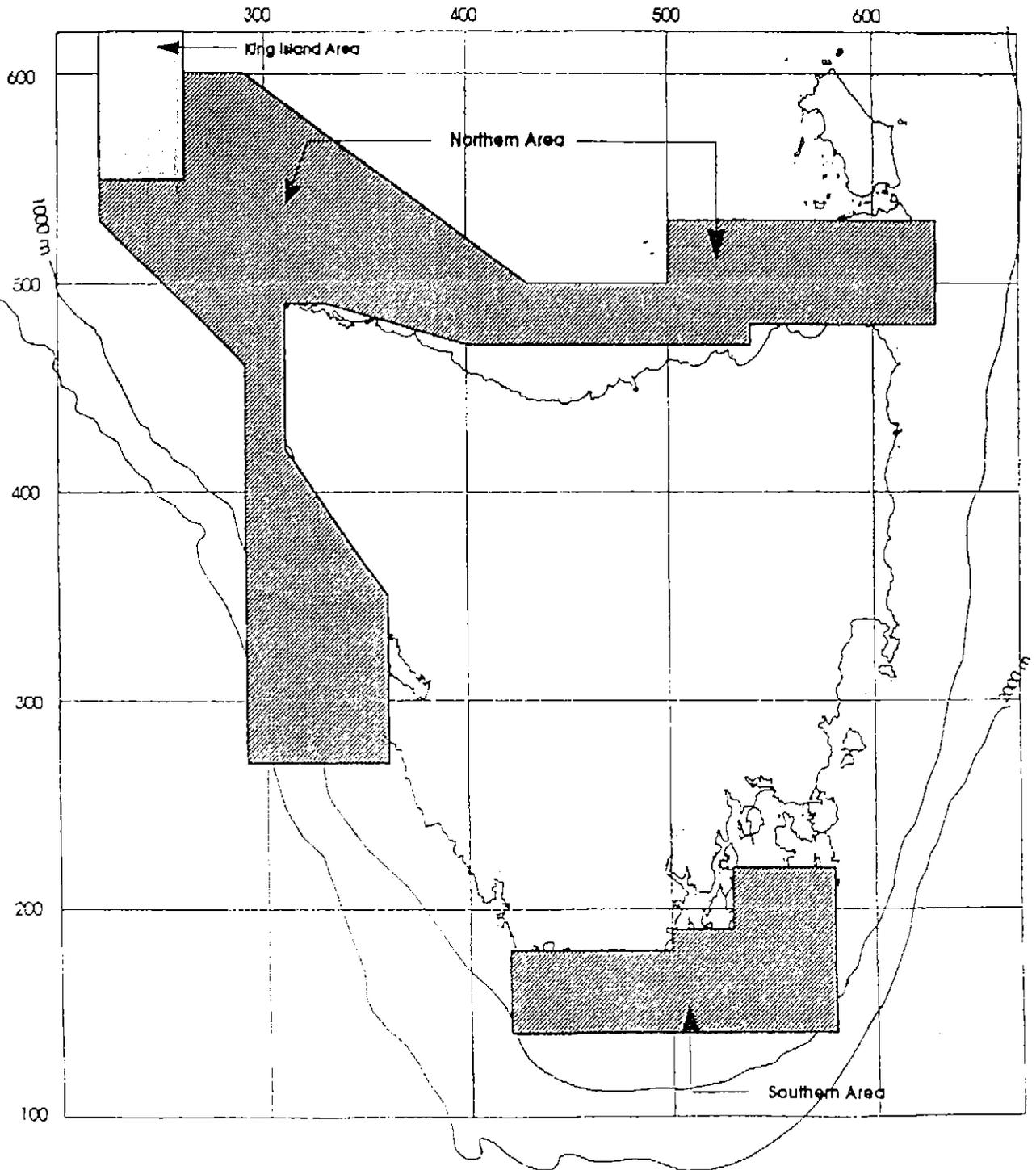


Fig. 2: Project Timetable

ATTACHMENT 2

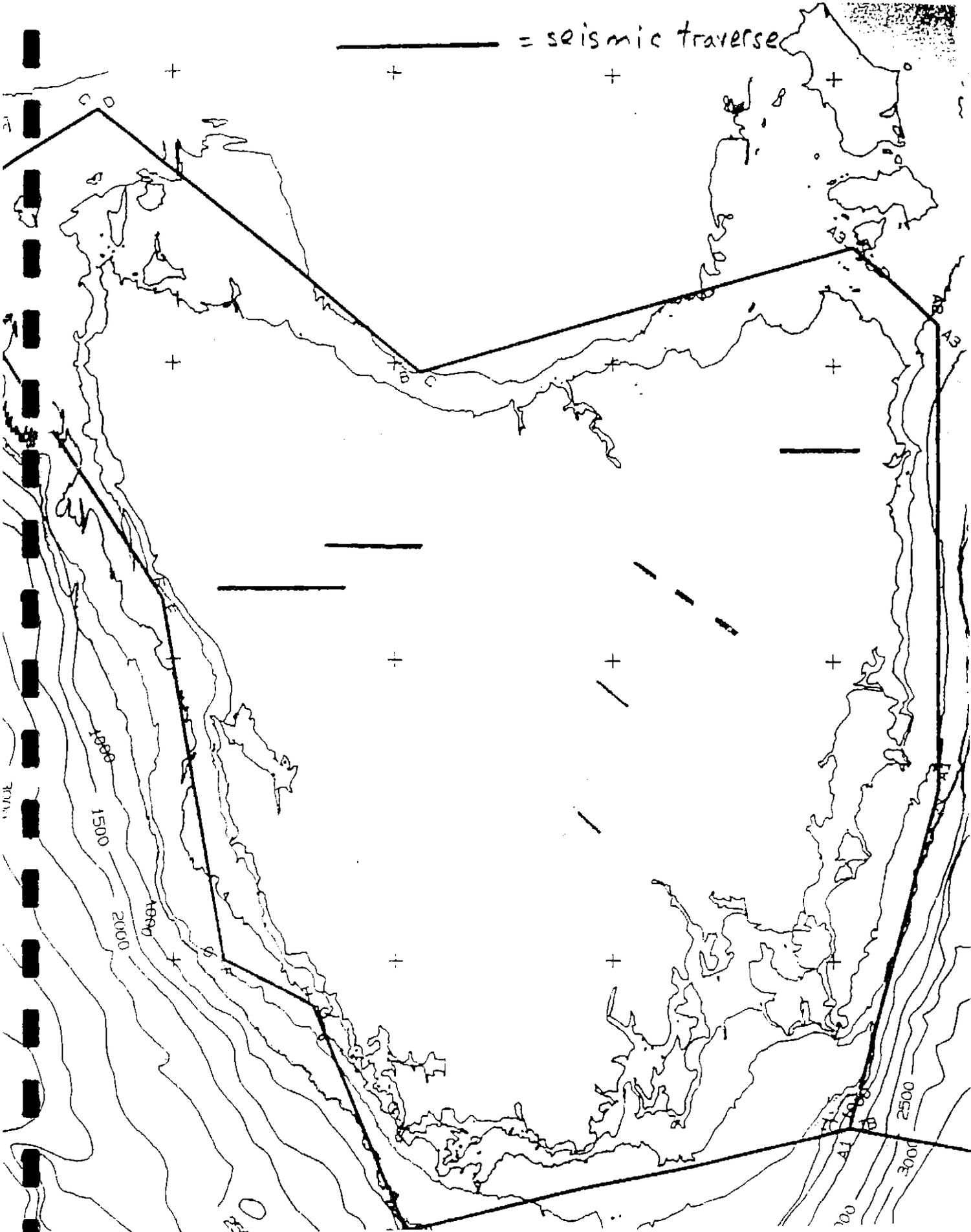
Figure 1 Areas to be covered by geophysical mapping program



-  800m Line Spacing aeromagnetics
-  400m Line Spacing aeromagnetics and γ ray spectrometry (King Island)

ATTACHMENT 3

———— = seismic traverse



Enquiries: Ms C A Bacon
Phone: (002) 33 8326
Your Ref:
Our File: CAB420.94:NW

14 November, 1994

Mr M Bendall
Director
Condor Oil Investments
84 Wells Parade
BLACKMANS BAY TAS 7052

Dear Sir

WORK PROPOSAL EL 1/88

Thank you for the report entitled 'Condor Oil Investments, North Bruny Island, a prognosis for a well'.

As discussed with the Registrar of Mines and myself on Thursday 10 November 1994, Mineral Resources Tasmania would be willing to consider approving the drilling of a stratigraphic borehole on Bruny Island under the same conditions as are required for drilling stratigraphic holes elsewhere in the State.

Your company should write to Mineral Resources Tasmania requesting approval to drill a stratigraphic hole. The work programme should include a signed statement from an acknowledged expert (such as your consultant Dr D E Leaman) that:

- The hole is to be a stratigraphic borehole to be drilled solely to obtain subsurface information on sediments, structure, etc.
- No specific petroleum/gas target or source is proposed.
- The likelihood of encountering gas or liquid hydrocarbons is no greater than in any other previously drilled stratigraphic hole in the south-eastern Tasmania region.

HEAD OFFICE AND
DEVELOPMENT DIVISION
GPO Box 646 Hobart
Tasmania Australia 7001
22 Elizabeth Street Hobart
Tasmania Australia 7000
Tel: 002 33 5888 Fax: 002 33 5800

MINERAL RESOURCES TASMANIA
INDUSTRY SERVICES DIVISION
PO Box 56 Rosny Park
Tasmania Australia 7018
30 Gordons Hill Road Rosny Park
Tasmania Australia 7018
Tel: 002 33 8333 Fax 002 33 8338

- In the opinion of the expert no blowout prevention equipment is necessary.

If there is any suggestion that Condor Oil Investments intend to drill any **other** sort of hole, or intend to drill for oil or gas or drill into a suspected petroleum reservoir than **all** the requisite provisions of Schedule C must be followed.

There is a considerable difference between drilling a hole **for oil or gas** and drilling a stratigraphic hole.

You have been advised previously that EL 1/88 will not be renewed unless the agreed work programme has been substantially completed by the renewal date of 31 December 1994.

This gives very little time to implement the proposed programme.

Yours faithfully



C A Bacon
MANAGING GEOLOGIST
HYDROCARBONS & TENEMENTS

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CONDOR OIL INVESTMENTS PTY. LTD.**A.C.N. 055 403 515****84 Wells Parade
Blackmans Bay, Tasmania 7052****Telephone: 002 29 6576
Facsimile: 002 29 2153**

19th November, 1994.

Ms Carol Bacon,
Mineral Resources Tasmania,
P.O. Box 56
ROSNY PARK Tas. 7018

Dear Carol,

Thank you for your attendance with myself, Dennis Burgess and Mr. Hazell on site, Murrayfield, Bruny Island, thursday November 17th, to inspect the site of shittim - 1, Condor's first stratigraphic well. Appendix (1) and (3) comply with your requests of your letter, dated 14th November, 1994, included as Appendix (2).

I note your comments that with the drilling of a purely stratigraphic well our current Bond of \$30,000 is adequate and that once you had received Appendix (1) we would have automatic same day approval for our hole. Further, at your request, I have included a copy of the Notice of Intention to enter Private Land, given to Robert Hazell, with a copy of "Land Holders Position" as Appendix (4) which you will note Robert Hazell has signed.

I have also given Robert Hazell a copy of the relevant Drilling Pads Section of the Mineral Exploration Code of Practice Manual.

Tony Yeates, the Project co-ordinator for the "TASGO" 3 million dollar project (appendix 5) has also indicated that he views the drilling of shittim 1 as being vital to the processing of new seismic data and the possible re-processing of old data as it will provide the only down hole seismic in the State to calibrate the results correctly.

In regard to your comments on pre-collaring the first 100 metres of the hole, I would simply point out that at Smithton, where a 700 metre deep wild cat well for gas was put down by your Department on known gas seepages composed in part of explosive methane, without Blowout Prevention gear, on structure, the hole was pre-collared to a depth of 150 metres by a different rig to that used to drill the hole. It is standard industry practice as stated by ex Mines Department Chief Driller (Kerry Richardson) and Peter Sharp (Diamond Drilling Tasmania) to pre-collar deep

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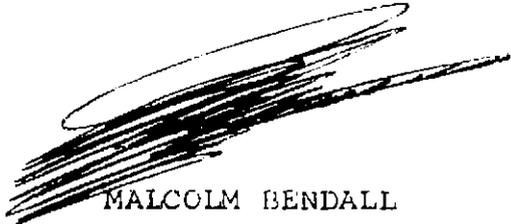
Diamond Drill holes as this practice greatly increases the chances of completing the hole successfully to target depth and also is quicker and half the cost of coring the first 100 metres.

In regard to the hole, shittim 1, the first 100 metres of geology is exposed and readily accessible in the outcrop at Variety Bay. In any case, no geological information not already known will be lost, as we are drilling to find out what we don't know, not that which is already known, it is logically the best practice to pre-collar. We will of course, as a matter of correct scientific procedure, collect the chip samples at three metre intervals, so as anybody interested in the hole may examine them.

Finally, I appreciated your comments that the Department wants this hole drilled as much as I do. I hope that a sorry series of events such as outlined graphically in my letter of the 15th November, 1994, are not allowed to re-occur. In the end, the people of Tasmania are the ones who will suffer from any continuing pedantic disputes between Condor and the Department.

You are also invited to attend an on site inspection with Peter Sharp and myself at a date to be arranged.

Yours sincerely,



MALCOLM BENDALL
MANAGING DIRECTOR

C.C. Robert Hazell
David Leaman
Ray Groom
Peter Sharp

Enquiries: D R Burgess
Phone: (002) 33 8341
Your Ref:
Our File: DRB263.94:NW EL 1/88

21 November, 1994

The Chairman
Condor Oil Investments Pty Ltd
C/- G R Garrott & Co
Level 7, 39 Murray Street
HOBART TAS 7000

Dear Sir

PROPOSED DRILL HOLE - BRUNY ISLAND

Following the site visit by Carol Bacon and Dennis Burgess last week I am writing to express my serious concerns in regard to the quality of information that is being conveyed to Mineral Resources Tasmania by Mr Bendall the Principal Executive Officer of your company.

At a meeting in my office on 24 October 1994 Mr Bendall advised that a **concrete** drill pad was nearing completion at Bruny Island, on Mr Robert Hazell's property.

In a subsequent discussion with Ms Bacon and Mr Burgess, Mr Bendall stated that a compacted gravel drill pad had been completed together with a gravel area prepared for storage of drill pipes.

During the site visit on 17 November 1994 it was noted that no preparation work at all had been undertaken.

Mineral Resources Tasmania has been advised by Mr Bendall that he had arranged for drilling rigs to be on site at short notice.

The Registrar of Mines has spoken to both Mr Kerry Richardson and Mr Peter Sharpe in relation to availability of their drilling rigs.

Mr Richardson's rig is available at reasonably short notice but will not move on to the site unless payment is made up front. To date no specific date has been arranged.

The situation in regard to Mr Sharpe is more complex. He has been asked to provide a quote for a hole and is visiting the site during this week. However the Registrar was advised that no contract will be entered into until money outstanding from the Comstock Project is paid and sufficient money to cover the work is placed in a trust account.

In any case Mr Sharpe's rig is not available until May - July 1995 which is clearly at odds with comments from Condor Oil Investments Pty Ltd.

Apparently misleading statements by your Principal Executive Officer are not in the best interests of Condor Oil Investments Pty Ltd's dealings with this Agency.

In this regard I have clearly stated on several occasions that Mineral Resources Tasmania is supportive of genuine well managed exploration programs and have looked forward to progress on the work programmes committed to by your company.

Yours faithfully



M W D Ayre
DIRECTOR OF MINES

LEAMAN GEOPHYSICS

Registered office:

3 MALUKA STREET, BELLERIVE, TAS. 7018

All correspondence to:

GPO BOX 320 D, HOBART, TAS. 7001

Telephone: (002) 44 1233

Fax: (002) 44 6674

November 21, 1994

Ms C A Bacon,
Managing Geologist,
Hydrocarbons and Tenements,
Mineral Resources Tasmania,
PO Box 56,
Rosny Park Tas 7018

Dear Ms Bacon,

Mr M Bendall, of Condor Oil, has asked me to prepare a statement about the objectives and needs of his proposed stratigraphic hole "SHITTIM 1" for you.

The following summary essentially restates what was included in my prognosis for this hole. That prognosis was prepared, and the hole specified, on the following bases only.

1. The hole is to be diamond-drilled at core sizes H or equivalent pre collar(near surface) and N (remainder).
2. It is to be drilled for stratigraphic purposes only and to permit geophysical logging and seismic velocity tests.
3. No specific hydrocarbon target is proposed or inferred; nor can any be defined at present.
4. There is no expectation that drilling characteristics in this hole, or hydrocarbon encounters, will differ in any material way from comparable stratigraphic holes previously drilled in SE Tasmania.

The prognosis fully discusses these issues.

Any major change, by the company or driller, of hole type (other than of any pre-collar), depth range, drilling method or objective might well change these presumptions. I have indicated to Mr Bendall that I would prefer he avoided the use of a pre-collar since some shallow information might be lost in the subsequent dependence on down hole logging methods near surface. Full chip samples should be retained if a pre-collar is drilled.

Yours faithfully,



Dr. D.E. Leaman

842075

TASMANIA  DEVELOPMENT AND RESOURCES

Enquiries: Ms C A Bacon
Phone: (002) 33 8326
Your Ref.
Our File: CAB440.94:NW

23 November, 1994

Mr G R Garrett
Chairman
Condor Oil Pty Ltd
C/- Level 7, 39 Murray Street
HOBART TAS 7000

Attention: Mr M Bendall

Dear Sir

PROPOSED PROGRAMME EL 1/88

Thank you for your letters of 15 November 1994 and 19 November 1994.

With reference to these letters the following points should be noted:

- EL 1/88 was renewed to 31 December 1994 on the basis of a work programme which included, amongst other activities, the drilling of two oil/gas wells by October 1994, and on the same programme one well was proposed for EL 17/90.
- The request for an increased bond as based on this work programme.
- The renewal of EL 1/88 was quite separate from the acceptance of Exploration Licence Application 10/94, to which we did agree to add the relinquished portion of EL 1/88 following the expiry of the Exploration Tender period. We have made the fact quite clear that EL 1/88 and EL 17/90 will not be renewed if the work programmes for the current renewals are not completed and that ELA 10/94 is being held pending satisfactory work on EL 1/88. The renewal of EL 1/88 was delayed for some months pending payment of the annual rent.

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- The request to drill a stratigraphic hole has only been made recently. A stratigraphic hole would be very useful in expanding the geological knowledge of the south eastern part of Tasmania and Mineral Resources Tasmania is fully supportive of the collection of this data.

By way of a considerable concession, we have been willing to alter the work programme commitment on EL 1/88 for two wells (drilled into an oil/gas targets) to a stratigraphic hole, drilled some kilometres from the original proposal, and which is designed only to collect geoscientific data.

The original work programme outlined a timetable whereby three wells would be drilled by September 1993 on the two exploration licences. Virtually no work at all which is outlined on the 1993-94 work programme has been completed to date.

However, with only a month or so left before the expiry of EL 1/88 your request to drill a stratigraphic hole has been presented to us.

On consideration of the proposal I am prepared to grant approval for the drilling of one stratigraphic hole on Murrayfield, Bruny Island, on the clear and unequivocal understanding that:

- The hole is to be diamond drilled at core sizes H or equivalent pre collar (near surface) and N (remainder).
- It is to be drilled for stratigraphic purposes only and to permit geophysical logging and seismic velocity tests.
- No specific hydrocarbon target is proposed or inferred; nor can any be defined at present.
- There is no expectation that drilling characteristics in this hole, or hydrocarbon encounters, will differ in any material way from comparable stratigraphic holes previously drilled in south east Tasmania.
- The work must be conducted in accordance with the Mineral Exploration Code of Practice.
- The hole must be capped on completion.
- Should groundwater be encountered steps must be taken to ensure there is no pollution of this resource and in the event that the groundwater flows from the hole (artesian conditions) then measures must be taken to permanently cap and contain this resource.

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Please note that in allowing Condor Oil Pty Ltd to change the work programme for two oil wells to one stratigraphic hole represents a significant concession, which we have made in the interests of furthering the geological knowledge of the State.

I am also aware that the rig suggested for this work is, according to our information, unavailable until next May.

You should also be aware that spudding this drill hole, and drilling to 100 metres as a pre-collar will not satisfy the terms of your work programme, and if this is all that has been done by 31 December 1994 your renewal of the licence will not be recommended.

Yours faithfully



M W D Ayré
DIRECTOR OF MINES

RECORD OF TELEPHONE CONVERSATIONS WITH MR. DENNIS BURGESS
ON THURSDAY, 24TH NOVEMBER, 1994.

PHONE CALL 1. THIS CALL WAS FROM DENNIS SAYING THAT MALCOLM HAD RUNG MR. AYRE AND THAT AS MR. AYRE WAS BUSY WITH HIS NEW APPOINTMENT WITH THE DEPARTMENT OF LABOUR AND INDUSTRY, DENNIS HAD BEEN ASKED TO CONTACT MALCOLM. I TOLD HIM I WOULD PASS HIS MESSAGE ON TO HIM.

PHONE CALL 2. DENNIS RANG, IN AN AGITATED STATE, TO SAY THAT THE PREMIERS DEPARTMENT HAD RUNG HIM STATING THAT MALCOLM HAD TOLD THE PREMIERS OFFICE ABOUT THE GAS SHOWS IN THE STRATIGRAPHIC HOLES BEING DRILLED ON BRUNY ISLAND. I REPLIED THAT THAT WAS WHY MALCOLM WANTED TO SPEAK TO MR. AYRE, AND WHEN HE WAS NOT AVAILABLE HE SPOKE TO THE MINISTERS OFFICE.

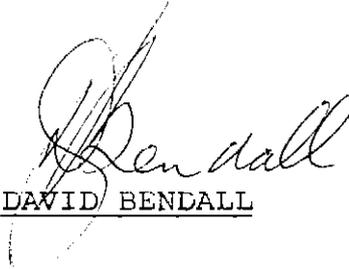
1. I CONFIRMED THAT MALCOLM HAD STRUCK GAS IN TWO HOLES WHILST HE WAS DRILLING A STRATIGRAPHIC HOLE. HE ASKED IF HE HAD AUTHORITY TO PROCEED, AND I TOLD HIM THAT CAROL BACON HAD SET THE REQUIREMENTS THE PREVIOUS WEEK, AND THESE HAD ALL BEEN MET. MR. AYRE SUBSEQUENTLY CONFIRMED THE AUTHORISATION.

2. DENNIS ALSO ASKED WHO WAS DRILLING THE HOLES, AND WHEN I SAID 'RICHARDSON' HE SAID 'WHAT, KERRY RICHARDSON' I SAID 'YES, SHARP WAS NOT AVAILABLE UNTIL NEXT MAY AND KERRY SAID HE COULD START STRAIGHT AWAY'. DENNIS SEEMED SURPRISED.

3. DENNIS SAID THAT HE WAS CONCERNED THAT MALCOLM LIED TO HIM ABOUT ROBERT HAZELL HAVING BUILT A DRILL PAD ON BRUNY ISLAND. I SAID I THOUGHT IT HAD BEEN DONE, BUT DENNIS SAID THAT IT NOT BEING DONE HAD REFLECTED ON MALCOLMS CREDIBILITY. I MADE NO COMMENT, EXCEPT TO SAY THE GAS SEEP IN 'SHITTIM 1' AND THE HEAVY DISCHARGE FROM 'GILGAL 1' WERE REAL AND COULD BE VERIFIED. HE QUESTIONED WHETHER WE EXPECTED TO HIT OIL OR GAS WITH THESE HOLES, AND I TOLD HIM WE WERE VERY SURPRISED BY THESE SHOWS, AS WE WERE DRILLING ON SITES SELECTED BY DAVID LEAMAN AS BEING STRATIGRAPHIC HOLE SITES SITUATED SEVERAL KILOMETRES FROM ANY 'TARJET' AREAS.

DENNIS FORCEFULLY SUGGESTED WE CEASE DRILLING FORTHWITH, AND I REPLIED THAT DRILLING HAD STOPPED THE PREVIOUS DAY AND THAT MALCOLM WAS DEVOTING ALL OF HIS TIME CONTROLLING THE GAS FLOWS, ESPECIALLY FROM 'GILGAL' 1 WHICH, ALTHOUGH BEING CONTROLLED BY THE APPLICATION OF WATER, WAS BEING CASED IN CONCRETE TO MAKE IT SAFE.

DENNIS SAID THERE WAS TO BE NO MORE DRILLING UNTIL A BLOWOUT PREVENTER WAS FITTED TO THE DRILL. I REPLIED THAT I WOULD PASS HIS COMMENTS ON TO MALCOLM.


DAVID BENDALL

TASMANIA  DEVELOPMENT AND RESOURCES 842080

Enquiries: D R Burgess
 Phone: (002) 33 8341
 Your Ref:
 Our File: DRB280.94:NW EL 1/88

28 November, 1994

To Malcolm Bendall
 No. Fax No 292153
 Company
 From G R Garrett
 Company
 No. of Pages 1 Date 2/12/94

Mr G Garrett
 Chairman
 Condor Oil Pty Ltd
 C/- Level 7, 39 Murray Street
 HOBART TAS 7000

Attention: Mr M Bendall

FAX URGENT Post-If Notes

Dear Sir

PROPOSED DRILL HOLE - BRUNY ISLAND

I note recent comments made to the Minister for Mines that signs of oil and gas have been evident in two percussion drill holes on 'Murrayfield' Bruny Island.

Whilst questioning the significance of the results I now have no option other than to require your full compliance with the provisions of Schedule 'C' from this point on.

Specifically completion of SHITTEM1 can take place only with blowout prevention equipment in place as provided by that Schedule.

Yours faithfully


 MWD Ayrc
 DIRECTOR OF MINES

Recd
 2/12/94

842081

G. R. Garrett & Co.

Chartered Accountants

Geoffrey R. Garrett F.C.A.

Telephone: (002) 34 6533

(002) 34 6060

Fax: (002) 31 2805

7th Level, T.B.T. Building, 39 Murray Street, Hobart. 7000

GRG:bg

2nd December 1994

Mr. M.W.D. Ayre
Director of Mines
P O Box 56
ROSNY PARK, TAS 7018

Dear Sir,

CONDOR OIL INVESTMENTS PTY. LTD.

On 19th **Nov**, the Managing Director, M. Bendall, indicated clearly Condor's intention to commence drilling on Shittim 1. The appendix to that letter were all the pre-requisite requirements including notification to the property owner (refer letter dated 19.11.94).

This drill hole was clearly commenced with a drill rig operated by K.M.R. Drilling on Monday 21st November, 1994. This drill rig is capable of coring an NQ stratagraphic hole as specified in the document forwarded to you "A prognosis for a Stratagraphic Hole".

The Managing Director advises that he was instructed by Mr. D. Burgess to cease drilling, due to unidentified gas inflow into the holes, and that the drill rig be moved off site.

These instructions appear to have been officially confirmed by your Department as per your letter dated 28th November, 1994 and received by me today (2nd December, 1994). This letter states that blowout prevention equipment is required, which is conflicting with advice which was acted upon in commencing the drilling programme.

Condor has therefore been compelled to curtail its drilling programme, **On** your instructions. Condor is well advanced to complete the Shittim 1 stratagraphic hole, having secured the supply of blowout prevention equipment, drilling quotation for services, drilling engineer, ancillary personnel and support.

The financing for this drilling programme has been arranged subject to security of tenure.

It is this security of tenure which is required to complete Condor's drilling requirements, which had been planned to be completed by 31st December 1994, and I understand that a drill rig had been reserved for this purpose.

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Condor will now possibly be unable to complete this work by 31st December 1994, in view of the Department's new requirements.

If these requirements are reasonable, the drilling programme should be completed within six weeks of notification.

Yours faithfully,

A handwritten signature in cursive script, appearing to read "G. L. ...".

CHAIRMAN OF DIRECTORS