	VCR Dor li					(W59	4A)
* <u></u>	Ura	Pur	ra - l	1		(W59	6A)
*	Carra	anb	alla	<b>C</b> -1	<u> </u>	(W59	7A)
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- FOLIO NUMBERS: Each subject paper attached to a file is to be given a consecutive number by the attaching officer. Papers must not be removed from or attached to a file without approval.
  REFERRAL TO OTHER OFFICERS: When an Officer completes action on the file and further action is required by some other Officer, please initial Column (4) and on the next vacant line, enter the relevant folio number in Column (1), indicate to whom the file is to be forwarded in Column (2) and record the date in Column (3).
- required at a later date, the officer will initial Column (4) and, on the next vacant line, enter the relevant folio number in Column (1), then write "B/U" followed by the action officer's name in Column (2) and the date the file is required in Column (3).
- (4) PUTAWAY MARKINGS: When ALL action on a file is completed the officer concerned will initial Column (4) and, on the next vacant line, write "P/A" in column (2).

#### REGISTRY MUST BE NOTIFIED OF ANY FILE MOVEMENTS BETWEEN OFFICERS

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1

WELL COMPLETION REPORT

DARLINGTON No. 1

W = 94A

•

# WCR for.....

# **DARLINGTON-1**

# **PURA PURA-1**

# **CARRANBALLAC-1**

<u>FTNAL REPORT</u>

VICTORIA

3 SCOUT DRILL HOLES: -DARLINGTON - 1 W594A PURA PURA - 1 W596A CARRANBALLAC-1 W597A

> Melbourne October, 1970.

## TABLE OF CONTENTS

	• • • • •	Page
INTRODUCT	ION	1
EXPLORATI	ON ACTIVITIES	2
1.	Geological	2
2.	Geophysical	2
3.	Drilling	3
4.	Summary of Stratigraphic Data obtained from Drilling	4
CONCLUSIO	NS AND RECOMMENDATIONS	5

ENCLOSURES

1. COMPILATION MAP P.E.P. 76.

2. WELL CORRELATION SECTION P.E.P. 76.

## APPENDICES

I	WELL COMPLETION - DARLINGTON	***
II 	WELL COMPLETION - PURA PURA	See Away A Room 22
III	WELL COMPLETION - CARRANBALLUC	

files

#### P.E.P. 76, VICTORIA - FINAL REPORT

#### INTRODUCTION

Petroleum Exploration Permit No. 76 comprising some 1,310 square miles in the Darlington - Skipton area of Western Victoria was granted to Interstate Oil Limited for a period of two years as from 1st February, 1970.

The permit area is situated on the northern margin of the Otway Basin, a sedimentary accumulation of Mesozoic and Tertiary age considered prospective for petroleum occurrence.

A reconnaisance gravity survey carried out by Frome-Broken Hill Company during 1963 covered portion of P.E.P. 76 and preliminary interpretation of this data indicated an anomalous gravity minimum situated in the central portion of the permit area. A possible explanation of this gravity minimum was the presence of an isolated sedimentary trough or embayment since gravity minima in the Port Campbell and Tyrendarra areas to the south were known to correspond to areas of thicker sedimentary section.

Non prospective pre-Mesozoic rocks outcrop on the northern, eastern and western margins of P.E.P. 76 but the central portion of the permit is covered by recent basalts. Shallow basement was known to be present beneath basalt cover near Derrinallum but no information was readily available from water bores drilled in the area of the main gravity minimum to indicate the nature of the sub-basalt lithology.

An early Geological Survey Report (Murray, 1883) recorded the presence of coal seams within steep dipping sediments below thin basalt cover near Skipton at the northern end of the gravity minimum and this gave support to the proposal that a sedimentary trough may exist in the permit area.

#### EXPLORATION ACTIVITIES

#### 1. Geological:

The general surface geblogy of the area has been mapped by officers of the Victorian Mines Department and is incorporated in the preliminary edition of the 1:250,000 Ballarat Sheet.

A review of available literature relating to the geology of the area was undertaken and field reconnaisance carried out including an unsuccessful attempt to relocate the site of shafts near Skipton in which Murray had reported coal seams.

During the geological evaluation it was observed that the area of the gravity minimum occupies a topographic low relative to surrounding areas and is roughly flanked by a series of volcanic eruption centres and scoria cones. It was considered that these surface indications could be related to the presence of a small graben in the area of main interest.

A detailed study of available boring records was carried out and revealed that none of the Mines Department or private water bores within the zone of the gravity minimum had penetrated through the base of the surface basalts.

#### 2. Geophysical:

No geophysical surveys were undertaken.

A review of the earlier Frome-Broken Hill reconnaisance gravity survey was made and this information was integrated with results from a detailed gravity survey carried out by Shell/Frome late in 1969 in the area immediately to the south of the southern boundary of the permit.

This review confirmed that a significant gravity minimum existed in the central portion of PEP 76 with the minimum axis trending north-easterly from a position some 6 miles west of Darlington on the southern margin to a position some 2 miles north of Skipton in the north-easterly quadrant. The recent Shell/Frome survey suggested a possible connection from the Darlington area to the Port Campbell Embayment via a weak gravity trough with axis situated about 2 miles west of Mortlake.

It was recognised that the intensity of the gravity low in the Darlington - Skipton area is repeated elsewhere in the Otway Basin in only two areas viz. the Torquay Sub-basin and the Port Phillip Embayment.

#### Drilling:

Three scout drill holes were drilled to investigate the cause of the gravity minimum.

Darlington No. 1, Pura Pura No. 1 and Carranballac No. 1 were drilled to depths of 359 feet, 345 feet and 495 feet respectively;

For convenience of access the wells were sited adjacent to the shire road from Darlington to Carranballac which transects the gravity minimum obliquely. They were located 2.5 miles north of Darlington, 2.5 miles north of Pura Pura and 4 miles south-southwest of Carranballac respectively. The two former wells were sited on the eastern side of the road reserve and the latter on private property adjacent to the eastern side of the road reserve.

A fourth hole had originally been proposed situated midway between Darlington and Pura Pura but this was not proceeded with due to considerable drilling difficulties encountered in drilling, the other holes and the geological information already obtained from these earlier holes.

Detailed results of the information obtained in the drilling of the three scout holes are attached hereto as appendices. A complete set of cuttings samples which were collected at 10 feet intervals will be lodged with the Mines Department Core and Cuttings Laboratory. Summary of Stratigraphic Data obtained from Drilling:

-4-

The Pleistocene to Recent basalts and/or Volcanics thicken northwards from 125 feet at Darlington No. 1 to about 260 feet at Pura Pura No. 1 and Carranballac No. 1.

Below the basalt each of the three holes encountered a section of predominantly quartzose clastics which was 173 feet thick in Darlington No. 1 and 152 feet thick in Carranballac No. 1.

In Darlington No. 1 this clastic sequence is marginal marine in character and in part the fine quartz grains are cemented by calcite forming friable sandstone which exhibits finescale cross-bedding. Macro fossils recovered in the lower portion of the sequence suggest a lower, to middle Miocene age (personal communication, T. Darragh - Nat. Museum). Microfossils include foraminifera suggesting (Dower Miocene (lower Longfordian) and Pliocene (Whaler's Bluff) age (C. Abele - V.M.D.).

In Pura Pura No. 1 and Carranballac No. 1 the quartzose clastics are non marine in character being noticeably lignitic in Carranballac No. 1 from which well a microfloral assemblage indicates a flower Miocene to Oligocene age (J. Douglas - V.M.D.). Below the Tertiary quartzose clastics in Darlington No. 1 approximately 50 feet thickness of grantic wash and weathered granite was penetrated and finally fresh, hard, biotite granite was encountered at 350 feet hole depth.

Cap/

In Carranballac No. 1 a section of 85 feet thickness of felspathic quartz grit was penetrated to total depth. This grit is very angular with some composite quartz-felspar grains and traces of mica suggesting derivation from a nearby granitic source. It shows remarkable similarity to present day surface granitic wash and weathered granite overlying granite outcrop in the Flagstaff Hill area immediately to the east of Skipton. It is considered that granite basement would occur at little below total depth in the Carranballac No. 1 well.

#### CONCLUSIONS AND RECOMMENDATIONS

- 5-

The stratigraphic information obtained from the three scout drill holes reveals that a narrow, shallow trough of Tertiary quartzose clastic sediments extends northwards into P.E.P. 76 from the Darlington area toward Skipton beneath surface basalt cover. These Tertiary sediments are somewhat thicken than would be predicted from the known subsurface geology of the adjoining Derrinallum - Lismore area but are of insufficient • thickness to adequately account for the gravity minimum anomaly.

The well information suggests that the Upper Tertiary marine shoreline was situated close to the Darlington No. 1 well and probably considerably south of Pura Pura No. 1.

It appears most unlikely that any lower Tertiary or Mesozoic sediments extend northward into the limits of P.E.P. 76.

The gravity minimum may be produced by a combination of the following factors:

- variation in thickness and/or density of surface basalts and volcanics, \* (minor effect only),
- (2) variation in thickness of pre-basalt sediments (probably minor effect only)

(3) variation in basement lithology.

It is possible that the pre-basalt sediments thicken slightly in a position about 3 miles northwest of Darlington No. 1 but it can be confidently assumed that the thickness and/or areal extent of sediments is insufficient to justify additional petroleum effort - in the area of P.E.P. 76.

It is recommended that P.E.P. 76 be relinquished.

R.B. LESLIE

# WCR Darlington-l (W594A)

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WELL COMPLETION REPORT

DARLINGTON No. 1

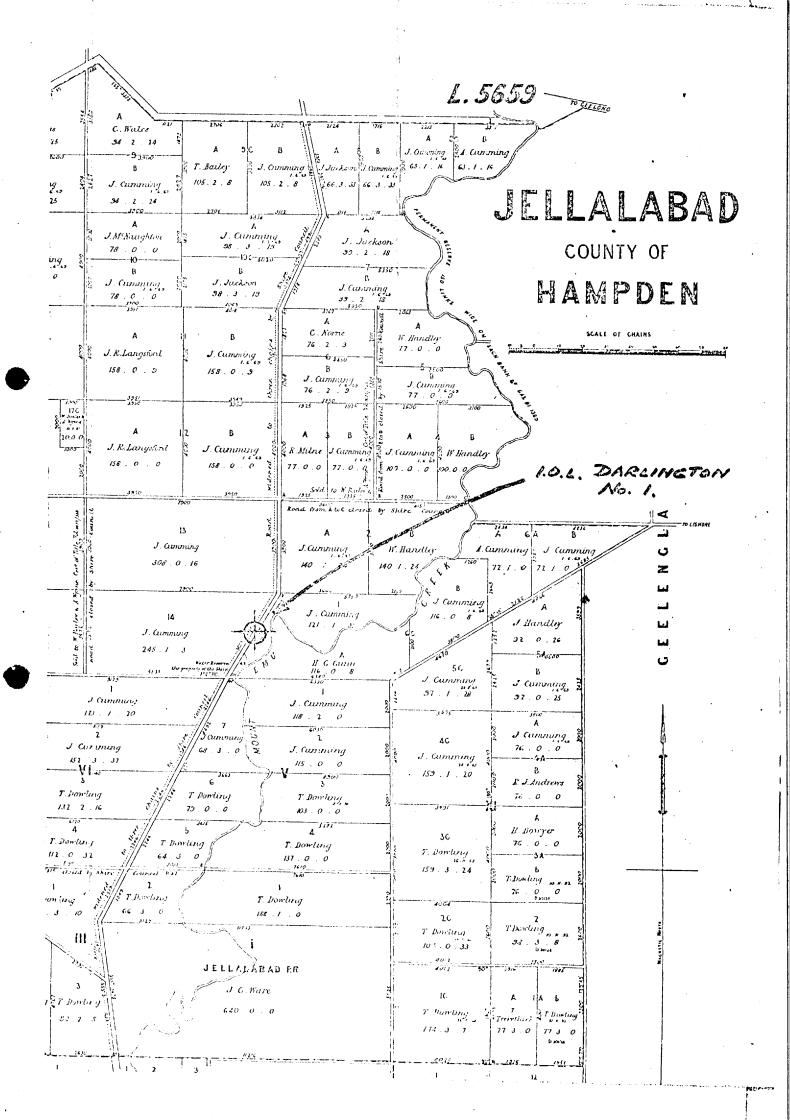
W 594A

Darlington - 1 wc R

DARLINGTO

#### GENERAL DATA

Well name and number Darlington No. 1 : Name and address of Operator : Interstate Oil Ltd. 95 Collins Street Melbourne. Vic. 3000 Tenement Holder Interstate Oil Ltd. : Petroleum Tenement PEP 76 : District Ballarat (1:250,000, SJ 54-8) : Parish Jellalabad : Location Approx. co-ordinates, 37°57 40 S. • 143'03'18"E. (See locality plan attached) Elevation : Not determined - approx. 550' Total Depth 359' : Date drilling commenced 17th June, 1970 • Date total depth reached 26th June, 1970 : Date rig released 28th June, 1970 : Status Abandoned : : Drilling Contractor W.L. Sides & Sons Pty. Ltd. : Drilling Plant "Schramm" Model T64 H-B Drilling Fluid Compressed air : Total Cost Approx. \$3,150



Khillers hag - Darlington #1 0-20' Basalf 20' - 40' mainty clay 40' - 60' Weathered basalt (water at 60' 60' - 96' Basalt hard, with you soft han 96'- 100' Sandy gritty clay Bacelt 100'- 102'6" 102'6" - 110' Green grey + buff gritty clay. Basalt 110'- 125' 125' - 130' Jellow brown gravely sand 130' - 160' Mainly fine sand 160' - 170' Same limps of pandstone 170' - 224 Many fine sand with some green green clay 224'-225' hard hand ? hanstone 225'- 230' ? brown clay 230' - 298' mainly fine sand. hard hand at 298' 300' - 332' Sand with shell forces 332' - 334' hend band 3341 - 3401 Sand. 340' - 350' hand formation 350' - 359' very hand formation 1----

INTERSTATE OIL LIMITED Cuttings Description - Darlington # 1 Jaotage 0 - 10 Basalt, medium light grey, finchy Xtelline, retrealate intergrouth with vesicular cavities Basalt night to medium grey, finchy stallene, accient, weathering to light brown & tan. 10-20 Bealt, medium light pay but mostly weathering to ten and suchy brown. trace pale red bears clay 20 - 30 20 - 40 Daralt, as above Basalt, medium light grey weathering to tan, rust brown and maure, rounded vesicules with infillings calcite and zeolite minor hight brown clay 40-50 Baarlt, medium light grey, mostly weathening to pale yellow brown. 50-60 ( water ingress at approximately to depth). Basalt, dark grey, hard, dense also weathered hasalt as above minor pale red brown to light brown gritty ela trace limonitic material 60 - 70 70 - 80 Baralt, danke grey hand, dense. Basalt, medium dark grey weathering to 80 - 90 red brown. Abundant calcite colorlers to pale leman infilling vericles and as views

INTERSTATE OIL LIMITED Darlington 1 Besalt, medium dark grey weathering to greyish brown, some calcite views Clay, red brown, gritty. 90-100 Baselt, medium dark pey, weathering to quy town, some calcite veins. Clay, red brown, pale grey topeen and manere, quitty with some coarse grandes quarts 100 - 10 Clay, pale green grey, grey-white and buff, very gritty will some coarse granules quak Besalt medium dark grey weathering to red brown. Some calcite neining. 110 - 120 Benit light grey to medium dark grey weathering A yellow brown, vesicalar 120-130 in part. Charg mainly buff, very gritty. Sand, fine to medium grained, angular to well rounded, predominantly clear quan with yellow brown surface staining. ( Abrilling break at 125' depth and water ingress increased to approx 1000 g.p.h. 80% Sand, unconsolidated, yellow brown give to medium grained, augular to well rounded, mainly clear quarts with ge. staining to well polished, minor chert-s polished limanite prins. trice limonite prins. 130-140 10% Clary, pile grey white, soft. 10% Basalt Carings. 

INTEESTATE OIL LIMIT

some fe. staining.

50% loose sand as above.

trace famil pragments

as above

very fine to medium graced, angular to

Consists so % quarty colorles, while, yela

20% chert, lithics and limonite

well rounded , mainly well polished

brown, pink, maure.

strong trace clay, grey white, soft.

30% sandstone, pale buff, very fine

grained with "salt ? pepper" texture, predominantly quarty with dark.

10% Sandstone, tan to dark brown, fine to medicing grained quarty lithic with limanitic clay cement

10 % Class, pale grey green, medlight que, and manore, soft.

trace dolomitic limestone, white

trace Joosil fragmento

heavy mineral bands, Calcile cement

trace foril fragments.

Darlington 1

Sand uncassociated, yellow brown, 150 - 160 -160 - 170 170-180 180-190

140-150

as answe hoose sand as above 50% 10% Sandstone pale haff, as above 10% Sandstone, tan to darke brown, as above 20% Class greigreen to pile grey 10 %? Dolamite, white trace fossil fragments

5% pale buy sandstone, and.

lan to de brown sandstone

30% Clay prey green to pele grey, a. a trace ? dolomate white

to % horse Sand as above

5 %

Darlington 1

trace formil frags. 200-210 60% lose Sand a.a. 40% Clay prey que to pale grey, It brows 5% ten to de brown sandstone a.a. 5% dolomite white a.a. strong trace fossil gragments 210-220 as. above. 220-230 60% hoose Sand as aloue 230-240 240-250

190 - 200

250-260

260-270

270-280

40 % Clay premish grey, med grey, manve. trace sendstone pale huff & tan trace ? dolomite white trace fooil fragment. as above as above as above es above So % loose Send a.a. 10 % forsil gragments Trace ? dolarite white a.a.

Darlington 1

220-290 as showe 290-300 as above 200-310 as showe plus some pale gray to pinkish gray feldspan and nare flakes black histite mica. (water ingress increased to 1500 g.p.h. **9** 293 - 30d Special circulation sample obtained during casing operations. Granitic gravel dirty grey brown, poorly ported, very fine grained to grande and packles of 10 m.m. subangular to well rounded, mainly quarts clear, grey, yellow, some inclusion of histite and feldspoor intergrowths, subordenate feldspar pinkish grey, grey, brown, accasional intergrowth with guarts. Abundant fossils include pelecopodo, gastropols, corals to 4 cm across. Some pignite or mancasite encrusting Jossils. Rare fragments limestone concerco and calcareous, limenitic sandoton (Water ingress increased to soos g. p.h. during circulation and was later cut of hy advancing coving to Soil fact depth !

# INTERSTATE | OIL

Darlington 1

310-326 To To Tranite wash durty grey brown, fine to median grained and granules with accasion of pehble size. Predomina quarty augular to subrounded, clear, white, grey, occasional inclusions hatite and pyrite, subordenate feldspar pare grey to pinkish grey, sub nounded to rounded, traces 8 flakes and mall books brothe mice 25% Clay, greenich grey and huff, silty. 5% Fossil debies (? cavings) trace limestone grey white - brown forsiliferous, trace sandstone date dirty limanitie also some fresh pyrete comenting quarte grains 320-330 as above 330-340 asahous 340-350 · · · · · · · · · · · · no ahave 350-359 50% Granite work as above 50% Biotile Granite Jresh, composite and individual grains couseshing quarts clear to pale grey, feldspar colorless to pale grey, white and pinkich brown, biotite black 359' (circulation sample) 100% shert manite as ahave

1. O. L. DARLINGTON -· 1

> Weathered Basalt E open vesicles.

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60'-

E0'-

56' --100' -107' 5-110'

125'-

165 -

293

334 -

350-

(70) 359-

295

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Clay, bale red-brown, gritty.

Fienthered Basalt infilling vesicles.

Basalt, hard, dense, darkgrey.

Weathered Basatt Some calcite veins & infilling vesicles glass, red-brown, gritty. Clay, grey-green, buff, grilty. Basalt vesicular, partly weathered.

Sand, unconsolidated, feuruginous matrix, yellow-brown, fine to medium grained, angular is well rounded, some polished on the could grains, predominantly quartz, minor lithics, trace fossils.

Sand and Sandstone, unconstituted to poorly and moderately comented with calcite, pale buff, very fine to fine and medium grained, angular to well rounded, predominantly quarts, minon dark heavy mineral grains produce Salt & Pepper Lexture and fine scale X-bedding Interbeds gray- green Clay, silty to sandy in part Trace to common fossil debris.

Converse Gravel, quartz, feldspar, abundant Jessil debris and whole shells, rare limestone.

Granitic wash.

? wentigered granite. Fresh hard granite.

> Scale. linch = 50 feet.

Unpubl. Rept. 1970/50

Darlington 1

ing on, southwestern Victoria).

Samples from the Interstate Oil Ltd. Darlington 1 well were submitted by Mr. R.B.Leslie for micropaleontological investigation. The following samples were examined micropaleontologically in October. 1970:

Micropaleontological Haport on

011

\*(2) miles

00.0081	Carty	ية مات	1 0000	oep-
Depth:	140'		150*	ij
	1901	**	20 <b>0 !</b>	• 1
:	2901		300*	i.
	300*		3101	
	3101	44	320	ł
· ,	3201	-	330 •	
,	330		3401	

The foraminiferal ascemblages present are generally poor and badly contaminated; hence only a few comments of biostratigraphic interest can be made.

<u>Calcerine mackey</u>, was recorded from the samples between 290' and 340'. According to Carter (1958, and other papers) this species is limited to his "Faunal Units" 5 and 6; thus the oldest marine strate in the Darlington 1 Well sequence appear to be late Janjukian to early Longfordian (probably the latter, equivalent to Lower Miccens, rather than the former, since <u>Victoriella conoides</u> was not observed) in age.

Very rare specimens of <u>Globigerinoides trilobus</u> were observed in the 290'-300' and 330'-340' samples; these are regarded as contaminents from overlying beds. Similarly, <u>Rotalia</u> <u>beccarii</u> (= <u>Ammonia soteana</u>, according to Nicholls, 1968) was recorded from the 300-310' and 320'-330' samples. This species appears to be restricted to post-Miocene strata in Victoria (Nicholls, 1963); however, the level at which such Pliocene beds, probably equivalent to the Moorabool Visduct Sand in the Geelong district, occur in the Darlington 1 Well sequence cannot be reliably estimated on the basis of available evidence.

27th October, 1970.

Dr.C.ABELE Senior Geologist. O.I.C.Palacontology Section.

### REFERENCES

CARTER, A.N., 1958. Fortiary Foraminifera from the Aire District, Victoria. Geol. Surv. Vict. Bull.55.

NICHOLLS, D.R., 1962 Studies in Victorian Forminifera above the <u>Orbulina universa</u> Datum. M.Sc.thesis, University of

Melbourne (ummibl.).

1 Darlington 1 MINES DEPARTMENT

CHEMICAL BRANCH 5 PARLIAMENT PLACE MELBOURNE, VIC. 3002

28th August, 1970

	2	<b>C</b>	
	Report on	Sampio	e No. 1063/70 U.W.R.S.7513
	Sample :	- (*	Bore Water
		Parial	
•			Jellalabad
	Sender	·····	Mr. Leslie, Interstate Oil Limited,
Particulars:	· · ·	······	95 Collins Street,
Bore		4	MELBOURNE. I.O.L. Darlington No.1
Plant		•	-
Sample			
Date		-	19.6.70
Depth (feet	)	· · · · ·	
Aquifer level (feet		- 1	125-340
Static level (feet	)	- 11	
Drawdown (feet	)	:	
Aquifer type			Sandstone
Yield (gph)	· · · · · · · · · · · · · · · · · · ·		
Test type	•		
Bore cased to (feet	)		
Position			2-5 miles north of Darlington
Owner	•		Interstate Oil Limited
Address	•	•	95 Collins Street.
Remarks		1 1	
Label No.		<b>`</b> :	
Results:		Parts d	er million
Total solids			
in solution			6698
Chloride	(Cl)	;	2780
Carbonate	(CO <sub>3</sub> )	ł,	Nil
Bicarbonate	(HCO <sub>3</sub> )		1296
	(SO <sub>4</sub> )	•	325
	(NO <sub>3</sub> )		Nil
	(Ca)		128
	(Mg)		450
	(Na)		1456
Potassium	(K)		29
•	(Fe)	.	0.3
4.5	(Fe)	2 1	0.10
Silicate	(SiO <sub>3</sub> )		40.0
Total hardness (as	CoCO <sub>3</sub> )		2586
рН			7.4
Electrical Conduct	ivity at 25°C.		10,812 micromhos/cm.
Specific Resistance			102 ohmcm.
		1	

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CHIEF CHEMIST TELEPHONE 630321 GMG: MS An. PM, FF, 3/7

ADDRESS AN COMMUNICATIONS

Darlington 1

## Comment:

Magnesium and calcium salts are precipating from this water.

2]

Chief Chemist تعريج

ADDRESS ALL COMMUNICATIONS CHIEF CHEMIST

TELEPHONE: 630321 GMG:MS

An. HM, 31/7



3

Darlington

MINES DEPARTMENT CHEMICAL BRANCH 5 PARLIAMENT PLACE MELBOURNE, VIC. 3002

29th September, 1970

1

Particulars:MELBOURNE.Bore-Plant-Sample-Date25.6.70Depth(feet)Aquifer level (feet)293-304Static level (feet)FlowingDrawdown(feet)Aquifer typeGravelYield (gph)5000Test type-Bore cased to (feet)293Position2.5 miles north of DarlingtonOwnerInterstate Oil Ltd.Address95 Collins St. Melb.Remarks-Label No	•	Sample : Locality : Sender		Inter	Vater	<u>i</u> .,
Plant    -      Sample    -      Date    25.6.70      Dapth    (feet)      Aquifer level (feet)    293-304      Static level (feet)    Plowing      Drawdown (feet)    -      Aquifer type    Gravel      Yield (gph)    5000      Test type    -      Bore cased to (feet)    293      Position    2.5 miles north of Darlington      Owner    Interstate Oil, Ltd.      Address    95 Collins St. Melb.      Remarks    -      Label No.    -      Remarks    -      Label No.    -      Chloride    (C0)      Solution    5553      Chloride    (C0)      Sulphate    (SO4)      Solution    -      Solution    -      Solitom    -      Iron-Totol	Particulars:	**************************************	•••••••	MELBOI	IRNE.	<b>9 9</b>
Sample-Date25.6.70Depth(feet)Aquifer level (feet)293-304Static level (feet)293-304Static level (feet)FlowingDrawdown(feet)Aquifer typeGravelYield (gph)5000Test type-Bore cased to (feet)293Position2.5 miles north of DarlingtonOwnerInterstate 011, Ltd.Address95 Collins St. Melb.Remarks-Lobel NoRemarks-Lobel NoRemarks-Lobel NoChloride(C0)Xolphate(S04)Stophate(S04)Solphate(S04)Solum(No)Potastum-Potastium(K)Potastium-Iron-Soluble(Fe)0.4-Iron-Soluble(Fe)0.1315Stilicate(SiO3)46-	Bore				•	
Date25.6.70Depth(feet)Aquifer level (feet)293-304Static level (feet)293-304Static level (feet)93-304Aquifer typeGravelYield (gph)5000Test type-Bore cased to (feet)293Position2.5 miles north of DarlingtonOwnerInterstate Oil Ltd.Address95 Collins St. Melb.Remarks-Label NoResults:Poits per millionTotal solids5553Chloride(Cl)Solution555Nitrate(NO3)Sulphate(SO4)Sodium(Ma)Potassium(Mg)Sodium(No)Iron-Total(Fe)O.4-Iron-Soluble(Fe)O.1316Silicate(SIO3)46-	Plant				•	
Depth(feet)-Aquifer level (feet)293-304Static level (feet)FlowingDrawdown (feet)-Aquifer typeGravelYield (gph)5000Test type-Bore cased to (feet)293Position2.5 miles north of DarlingtonOwnerInterstate Oil, Ltd.Address95 Collins St. Melb.Remarks-Lobel NoResults:Poits per millionTotal solids5553Chloride(Cl)Sulphate(SO4)Sulphate(SO4)Sodium(Ma)Potassuum-Iron-Total(Fe)O.4-Iron-Soluble(Fe)O.13153Stirate(SI3)46-Total hardness (as CaCO3)-	Sample			-	•	
Aquifer level (feet)293-304Static level (feet)FlowingDrawdown (feet)-Aquifer typeGravelYield (gph)5000Test type-Bore cased to (feet)293Position2.5 miles north of DarlingtonOwnerInterstate Oil Ltd.Address95 Collins St. Melb.Remarks-Label NoResults:Poits per millionTotal colids5553Chloride(Cl)Carbonate(CO3)NillBicarbonateSulphate(SO4)Sodium(No)Potasium-Potasium(K)Iron-Total(Fe)Out0.4Iron-Total(Fe)Out0.1Silicate(SiO3)46-	Date		-	25.6.7	0	
Static level (feet)    Flowing      Drawdown (feet)    -      Aquifer type    Gravel      Yield (gph)    5000      Test type    -      Bore cased to (feet)    293      Position    2.5 miles north of Darlington      Owner    Interstate Oil Ltd.      Address    95 Collins St. Melb.      Remarks    -      Lobel No.    -      Results:    Peits per million      Total solids    5553      Chloride    (Cl)      Qarbonate    (SO4)      Sulphate    (SO4)      Sulphate    (SO4)      Sodium    (No)      Potassium    (K)      Iron-Total    (Fe)      Output    0.1      Sodium    (No)      Sodium    (No)      Sodium    (K)      Potassium    (K)      Iron-Total    (Fe)      O.1    31      Silicate    (SiO3)      Adde    -	Depth	(feet)		-		4
Drawdown (feet)-Aquifer typeGravelYield (gph)5000Test type-Bore cased to (feet)293Position2.5 miles north of DarlingtonOwnerInterstate Oil, Ltd.Address95 Collins St. Melb.Remarks-Label NoResults:Points per millionTotal colids5553Instruction5553Chloride(Cl)Carbonate(CO <sub>3</sub> )NillBicarbonateSulphate(SO <sub>4</sub> )Sodium(No)Potassium(Mg)Sodium(No)Potassium(K)Iron-Totol(Fe)Outlines (siO <sub>3</sub> )46Total hardness (as CaCO <sub>3</sub> )-	Aquifer level	(feet)	1	293-30	)4	
Aquifer typeGravelYield (gph)5000Test type-Bore cased to (feet)293Position2.5 miles north of DarlingtonOwnerInterstate Oil, Ltd.Address95 Collins St. Melb.Remarks-Label NoResults:Poits per millionTotal colids5553Chloride(Cl)26702670Carbonate(CO <sub>3</sub> )NillBicarbonateSulphate(SO <sub>4</sub> )Sodium(No)Potassium(Mg)Sodium(No)Potassium(K)Iron-Totol(Fe)O.1311Silicate(SiO <sub>3</sub> )46-	Static level	(feet)		Flowir	Lg	
Yield (gph)5000Test type-Bore cased to (feet)293Position2.5 miles north of DarlingtonOwnerInterstate Oil, Ltd.Address95 Collins St. Melb.Remarks-Label NoResults:Poits per millionTotal colids5553Chloride(Cl)2670Carbonate(CO3)NillBicarbonate(HCO3)Sulphate(SO4)Sodium(No)Potassium408Magnesium(Mg)Potassium0.4Iron-Totol(Fe)O.1311Silicate(SiO3)46-	Drawdown	(feet)				
Test type-Bore cased to (feet)293Position2.5 miles north of DarlingtonOwnerInterstate Oil, Ltd.Address95 Collins St. Melb.Remarks-Label NoResults:Patts per millionTotal colids5553Chloride(Cl)2670Carbonate(CO3)NillBicarbonate(HCO3)Sulphate(SO4)Sodium(No)Potassium408Magnesium(Mg)Potassium0.4Iron-Total(Fe)O.13164Silicate(SiO3)46-	Aquifer type			Gravel	•	•
Bore cased to (feet)293Position2.5 miles north of DarlingtonOwnerInterstate Oil Ltd.Address95 Collins St. Melb.Remarks-Label NoResults:Paits per millionTotal colids5553Chloride(Cl)2670Carbonate(CO3)NilBicarbonate(HCO3)Sulphate(SO4)Sodium(Na)Potassium(Mg)Sodium(Na)Potassium(K)Iron-Totol(Fe)Outle(SiO3)Address (as CaCO3)-	Yield (gph)	· · · ·		5000	1. Sec. 19	
Position2.5 miles north of DarlingtonOwnerInterstate Oil Ltd.Address95 Collins St. Melb.Remarks-Label NoResults:Parts per millionTotal solids5553Chloride(Cl)Carbonate(CO3)NilBicarbonate(HCO3)Sulphate(SO4)Sodium(No3)NilCarloinm(Co)408Magnesium(Mg)Sodium-Potassium(K)Iron-Totol(Fe)Oduble(Fe)Oluble(Fe)Oluble(SiO3)46Total hardness (as CaCO3)-	Test type	•	- 1			
OwnerInterstate Oil Ltd.Address95 Collins St. Melb.Remarks-Label NoResults:Parts per millionTotal colids5553Chloride(Cl)26702670Carbonate(CO3)Bicarbonate(HCO3)Sulphate(SO4)Solum(No3)Nitrate(NO3)Nitrate(NO3)Potassium(Mg)Sodium-Potassium(K)Iron-Totol(Fe)Outle0.1Silicate(SiO3)46Total hardness (as CaCO3)-	Bore cased to	(feet)		293		
OwnerInterstate Oil Ltd.Address95 Collins St. Melb.Remarks-Label NoResults:Parts per millionTotal solids5553Chloride(Cl)Carbonate(CO3)NilBicarbonate(HCO3)Sulphate(SO4)Solum(No3)Nitrate(NO3)Patassium(K)Iron-Totol(Fe)Odium0.4Iron-Soluble(Fe)Odium3.46Total hardness (as CaCO3)-	Position			2.5 mi	les north o	f Darlington
Address    95 Collins St. Melb.      Remarks    -      Label No.    -      Results:    Paits per million      Total colids    5553      Chloride    (Cl)      Qarbonate    (CO3)      Nill    Bicarbonate      Bicarbonate    (HCO3)      Sulphate    (SO4)      Solution    355      Nitrate    (NO3)      Calcium    (Co)      Magnesium    (Mg)      Sodium    -      Iron-Total    (Fe)      Iron-Soluble    (Fe)      Silicate    (SiO3)      46    Total hardness (as CaCO3)	Owner		-			
Remarks    -      Label No.    -      Results:    Paits per million      Total colids    5553      In solution    5553      Chloride    (Cl)    2670      Carbonate    (CO <sub>3</sub> )    Nil      Bicarbonate    (HCO <sub>3</sub> )    1801      Sulphate    (SO <sub>4</sub> )    355      Nitrate    (NO <sub>3</sub> )    Nil      Calcium    (Co)    408      Magnesium    (Mg)    -      Sodium    (No)    -      Potassium    (K)    -      Iron-Totol    (Fe)    0.4      Silicate    (SiO <sub>3</sub> )    46	Address		•, 5 •		• •	
Results:Pats per millionTotal colids in solution5553Chloride(Cl)Carbonate(CO3)NilBicarbonate(HCO3)Sulphate(SO4)Sulphate(SO4)Nitrate(NO3)Nitrate(NO3)Calcium(Co)Magnesium(Mg)Sodium-Potassium(K)Iron-Total(Fe)Soluble(Fe)Silicate(SiO3)46Total hardness (as CaCO3)-	Remarks					
Total solids in solutionForts per millionTotal solids in solution5553Chloride(Cl)2670Carbonate(CO3)NilBicarbonate(HCO3)1801Sulphate(SO4)355Nitrate(NO3)NilCalcium(Co)408Magnesium(Mg)-Sodium(Noa)-Potassium(K)-Iron-Total(Fe)0.4Iron-Soluble(Fe)0.1Silicate(SiO3)46	Label No.		- 1			
Iotal Solids5553Chloride(Cl)2670Carbonate(CO3)NilBicarbonate(HCO3)1801Sulphate(SO4)355Nitrate(NO3)NilCalcium(Co)408Magnesium(Mg)-Potassium(K)-Iron-Totol(Fe)0.4Iron-Soluble(Fe)0.1Silicate(SiO3)46	Results:					
Carbonate(CO3)NilBicarbonate(HCO3)1801Sulphate(SO4)355Nitrate(NO3)NilCalcium(Co)408Magnesium(Mg)-Sodium(No)-Potassium(K)-Iron-Total(Fe)0.4Iron-Soluble(Fe)0.1Silicate(SiO3)46					• • •	
Carbonate $(CO_3)$ NilBicarbonate $(HCO_3)$ 1801Sulphate $(SO_4)$ 355Nitrate $(NO_3)$ NilCalcium $(Co)$ 408Magnesium $(Mg)$ -Sodium $(Na)$ -Potassium $(K)$ -Iron-Total $(Fe)$ 0.4Iron-Soluble $(Fe)$ 0.1Silicate $(SiO_3)$ 46	Chloride	(CI)		*******	. '	
Bicarbonate $(HCO_3)$ 1801Sulphate $(SO_4)$ 355Nitrate $(NO_3)$ NilCalcium $(Ca)$ 408Magnesium $(Mg)$ -Sodium $(Na)$ -Potassium $(K)$ -Iron-Total $(Fe)$ 0.4Iron-Soluble $(Fe)$ 0.1Silicate $(SiO_3)$ 46	Carbonate		/ 1		: ·	
Sulphate $(SO_4)$ $355$ Nitrate $(NO_3)$ NilCalcium $(Ca)$ $408$ Magnesium $(Mg)$ -Sodium $(Na)$ -Potassium $(K)$ -Iron-Total $(Fe)$ $0.4$ Iron-Soluble $(Fe)$ $0.1$ Silicate $(SiO_3)$ $46$	Bicarbonate	•	Å	÷		
Nitrate(NO3)NilCalcium(Ca)408Magnesium(Mg)-Sodium(Na)-Potassium(K)-Iron-Total(Fe)0.4Iron-Soluble(Fe)0.1Silicate(SiO3)46Total hardness (as CaCO3)-	Calata	•	5			
Calcium(Ca)408Magnesium(Mg)–Sodium(Na)–Potassium(K)–Iron-Totol(Fe)0.4Iron-Soluble(Fe)0.1Silicate(SiO3)46Total hardness (as CaCO3)–	Sulphate					
Magnesium(Mg)Sodium(Na)Potassium(K)Iron-Totol(Fe)O. 4Iron-Soluble(Fe)Silicate(SiO3)46		$(NO_2)$	肩	N T T		
Sodium(Na)-Potassium(K)-Iron-Totol(Fe)0.4Iron-Soluble(Fe)0.1Silicate(SiO3)46Total hardness (as CaCO3)-	Nitrate	•	<u></u> й			• • :
Iron-Totol (Fe) 0.4 Iron-Soluble (Fe) 0.1 Silicate (SiO <sub>3</sub> ) 46 Totol hardness (as CaCO <sub>3</sub> ) -	Nitrate Calcium	(Ca)	月 			
Iron-Soluble (Fe) Silicate (SiO <sub>3</sub> ) Total hardness (as CaCO <sub>3</sub> )	Nitrate Calcium Magnesium Sodium	(Ca) (Mg) (Na)				
Silicate (SiO <sub>3</sub> ) 46 Total hardness (as CaCO <sub>3</sub> ) –	Nitrate Calcium Magnesium Sodium Potassium	(Ca) (Mg) (Na)				
Total hardness (as CaCO <sub>3</sub> )	Nitrate Calcium Magnesium Sodium Potassium Iron-Total	(Ca) (Mg) (Na) (K) (Fe)	料 一 2 一 电口法 一 4 種子 一	408 		
	Nitrate Calcium Magnesium Sodium Potassium Iron-Total Iron-Soluble	(Ca) (Mg) (Na) (K) (Fe) (Fe)		408 _ _ _ 0.4		
pH7.1	Nitrate Calcium Magnesium Sodium Potassium Iron-Total Iron-Soluble Silicate	(Ca) (Mg) (Na) (K) (Fe) (Fe) (SiO <sub>3</sub> )	料 一 一 电 一 一 一	408 _ - 0.4 0.1		
	Nitrate Calcium Magnesium Sodium Potassium Iron-Total Iron-Soluble Silicate	(Ca) (Mg) (Na) (K) (Fe) (Fe) (SiO <sub>3</sub> )		408 _ - 0.4 0.1		

# WCR Pura Pura - I (W596A)

APPENDIX II

PURA PURA-1

Pura Pura-1 WCR

W 596A

## INTERSTATE OIL LIMITED

## WELL COMPLETION REPORT

PURA PURA No. 1

Pura Pura-1

GENERAL DATA

Well name and number Puna Pura No. 1 Name and address of Operator Interstate Oil Ltd. : 95 Collins Street Melbourne. Vic. 3000 Tenement Holder Interstate Oil Ltd. : Petroleum Tenement PEP 76 : District Ballarat (1:250,000, SJ 54-8) : Parish Kornong : Approx. co-ordinates, 37°47'06" S. Location : 143<sup>0</sup>06'03" E. (See locality plan attached) Elevation Not determined - approx. 750' : Total depth 345' • Date drilling commenced 28th June, 1970-: Date total depth reached 1st July, 1970 : Date rig released 2nd July, 1970 ` **:** Status Abandoned : Drilling Contractor W.L. Sides & Sons Pty. Ltd. : Drilling Plant "Schramm" Model T64 H-B Drilling fluid Compressed air Total cost Approx. \$1,350



1.0.L. PURA PURA No.1 Clay, red-brown & nodules white limestone. 0 -5'-Λ  $\wedge$  $\wedge$ Basalt, speckled med grey-white,  $\wedge$  $\wedge$ cellular open cavities.  $\wedge$ Λ  $\wedge$ 40'-Λ Λ  $\wedge$ Basalt, fresh, med. gray, vesicles infilled  $\wedge$  $\wedge$ Λ E ? devitrified glass. Λ  $\sim$ чо**'** — Clay, pole red-brown silty and light grey modules white travertine limestone 107'-- Chy, palegrey-greengrey & limonite pellets  $\mathbf{\Lambda}$ ~ Basalt, weathered, speckled medgrey -white  $\mathbf{\wedge}$  $\mathbf{h}$ 130'v v Volcanics, weathered, red brown - brown grey E pink -red feldspar. Clay, pile grey - greengrey, pile pinkish prey, v 145'-153'  $\wedge$  $\sim$ ~ Λ ゝ Basalt, dense; hard, med. dark grey.  $\sim$  $\overline{}$  $\overline{}$ 195'-? Clay 212'-^ 218'-- Clay Interbed.  $\wedge$ Λ  $\wedge$  $\sim$ Basalt, dense, hard, med. dark grey.  $\wedge$  $\mathbf{\nabla}$  $\overline{}$  $\wedge$  $\sim$ 266'-Sand, pole grey brown, mainly fine grained 100-150 micron, angular, quartzose. Very fine carbonaceous matrix. minor lithics, rare trace mica and shell frags. 300-Sand, pule grey quartzose, fine Emed rers. Some pyrite comenting grains, ? white day matrix. (1:1) :45-

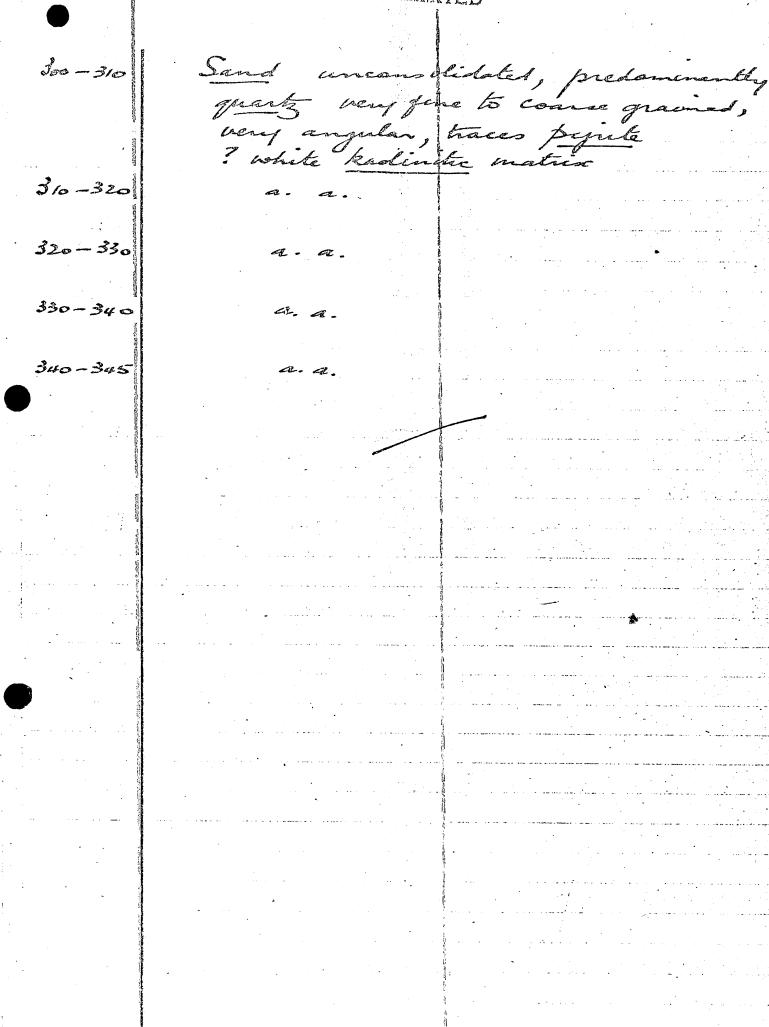
Milles hay Pura Para ## 1 0-5' Clay 5'- 88'6" Frech hapalt 88'6"- 99' Weathered hasalt (water) 99' - 102'6" Chay and sand Limestone (soft) 102'6"- 107 107' - 111' Bankt 111' - 113' Clay ( pulled hammen tool) Bacart ( rock hit ) 113' - 146' ? soften (salty water) 146' - 153' 1531 - 159' Baralt (hand) 1591 - 195' Basalt (very hard) 195' - 210' Softer, with few hard hands 210'-218' Hard hasalt 218' - 220' Softer formation 220' - 230' Very hard basalt 230' - 240'Hard hasalt 240' - 250' Hand hasalt (hammen tool) 250'-266' Hard hasalt 266' - 308' Very fine sand 308' - 345' Coarse sand

INTERSTATE OIL LIMITED Cuttings Description Para Para #1 Tootage Clay red brown with nodules creanywhite Limestone. 0-5 5- 10 90% Basalt speckled white and medice light grey, finely Stalline with reticulat intergrowths and open cellular vesiele and cavities. 10% limestone creamy white ? cavings. 10-20 100 % Babalt as above 20 - 30 100 % Broult a.a. and **f**aile and the second 30-40 100 % Bacalt a.a. 40-50 100 % Basalt medium grey, finelyttle non vesicular, cavities appear infilled with stony, micro criptalline grey green material ? devitified glass. 50-60 ns abare ارو الصالية من المراجع 60-70 as above 70-80 as above and a second 80 - 90 as above Admisstere of pale red brown siltyclar, light grey clary and creamy white 90-100 travertene limestone ( Whilling brack at 88.5 feet depth with ingress & salty water ).

Pura Pura -1 INTERSTATE OL LIMITED as above plas some weathered baset 100-110 110 - 120 as above . 120 - 130 50% weathered Basalt speckled medicin ney and white 20% himestone creamy white, havertine 10% himanite pelleto brown and red trown (buckshot gravel) 10% Clay light gray - green grey 40% weathered volcanics red bows 130-140 brownish grey, finely Stalline with pinkish red geldspan 30 % Clay It grey-green grey 20% himestone cream white 10 % himonite pellets. 140-150 as above 60% Clay light grey, green grey, 150-160 pale pinkich greif. 20% himestone as above 10% himosile pellet 10 % Bamlt deuse, hard, med dark grey. 40% Clay a.a. icasing. 160 - 170 10 % Timestone a.a. ? caving 10 % himestone a.a. ? cavingo 40% Baailt a.a. To % Clary pale penkich grey to 170-180 right grey, light tan and mance. 10% himestore 4. a. 10% himonite pelleto trace quarto, cla 10% Baalt a.a. ang to Sutrang, ma

INTERSTATE OIL LIMITED Pura Pura -1 180-190 as above 190-200 а.а. and the second R- A. 200-20 مراجعة الراجعة ومسروع المراجع الراجع الراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع ال الألي المراجع ا 210 - 220 a.a. 220-236 A.A. and a state of the second s Second A. a. 230-240 240-250 a. a. المستحدة من المالية من المنابقة التي التي التي الم المراجعة المراجعة المالية المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة الم 250-260 *a.a*. ······ 260-270 ( Willing break at 266 geet depth with color & water returns becoming derk green grey). Plus 100 mech sample 270-280 a.a. (100 to 150 microno Predominantly minus 100 mech & Cousisting quarts sand very fine to fine grame mainly colorless, some slightly milky angulin to such angulan? finely divid Carbon accous matrix afc water coloration Up to 1070 lithics and dark helong minerals give same a. a. an overall light brown coloration 280-290 290 - 30a a.a. with some medium to coarse grains & quarts, menor chart and lither subangular to well rounded. Color of water returns changed to milky white at 308 feet depth, with increase in average grain size ).

Pura Pura -1



Pura Para - 1

ADDRESS ALL COMMUNICATIONS CHIEF , CHEMIST

TELEPHONE: 630321 GIAG:MS

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An. HM, FF, 31/7

### MINES DEPARTMENT CHEMICAL BRANCH 5 PARLIAMENT PLACE MELBOURNE, VIC. 3002

18th September, 1970

•	-	11 - - 	
	Report	on Samp	No. 1227/70
· .			U.W.R.S. 7593
•	Sample	:	Bore Water
		y : Parisi	
• •	Sender	r)	Interstate Oil Ltd., 95 Collins Street,
Particulars:	••••		MELBOURNE.
Bore	•		• • • • • • • • • • • • • • • • • • •
Plant		•	
Sample		*. 1 1	1
Sample Date	•	- •	30.6.70
Date Depth	(feet)		220
Depth Aquifer level	• • •		146-153 (Salty water zone)
Static level	(feet)		Flowing
Drawdown	(feet)	<sup>g</sup>	
Aquifer type			
Aquiter type Yield (gph)		st.	300
Test type	•	1	
l est type Bore cased to	(feet)		
Bore cased to Position		· · · · · · · · · · · · · · · · · · ·	- 2.5 miles north of Pura Pura
Position Owner	1 · · · ·		
			Interstate Oil Itd.
Address Remarks	•		95 Collins St. Melb.
Remarks Label No.		î,	Open Hole
Results:		D	per million
Total solids	· ·	rarts	- Sol miniou
		-	
in solution	• • •		9111
	(CI)		
in solution			9111
in solution Chloride	(CO <sub>3</sub> )		9111 4320
in solution Chloride Carbonate Bicarbonate	(CO <sub>3</sub> ) (HCO <sub>3</sub> )		9111 4320 31
in solution Chloride Carbonate Bicarbonate Sulphate	(CO <sub>3</sub> ) (HCO <sub>3</sub> ) (SO <sub>4</sub> )		9111 4320 31 '314
in solution Chloride Carbonate Bicarbonate	(CO <sub>3</sub> ) (HCO <sub>3</sub> ) (SO <sub>4</sub> ) (NO <sub>3</sub> )		9111 4320 31 314 537 Nil
in solution Chloride Carbonate Bicarbonate Sulphate Nitrate Calcium	(CO <sub>3</sub> ) (HCO <sub>3</sub> ) (SO <sub>4</sub> ) (NO <sub>3</sub> ) (Co)		9111 4320 31 314 537 Nil 23
in solution Chloride Carbonate Bicarbonate Sulphate Nitrate	(CO <sub>3</sub> ) (HCO <sub>3</sub> ) (SO <sub>4</sub> ) (NO <sub>3</sub> )		9111 4320 31 314 537 Nil
in solution Chloride Carbonate Bicarbonate Sulphate Nitrate Calcium Magnesium	(CO <sub>3</sub> ) (HCO <sub>3</sub> ) (SO <sub>4</sub> ) (NO <sub>3</sub> ) (Ca) (Mg)		9111 4320 31 314 537 Nil 23 205
in solution Chloride Carbonate Bicarbonate Sulphate Nitrate Calcium Magnesium Sodium	(CO <sub>3</sub> ) (HCO <sub>3</sub> ) (SO <sub>4</sub> ) (NO <sub>3</sub> ) (Ca) (Mg) (Na)		9111 4320 31 314 537 Nil 23 205 2800
in solution Chloride Carbonate Bicarbonate Sulphate Nitrate Calcium Magnesium Sodium Potassium	(CO <sub>3</sub> ) (HCO <sub>3</sub> ; (SO <sub>4</sub> ) (NO <sub>3</sub> ) (Ca) (Mg) (Na) (K) (Fe) (Fe)		9111 4320 31 314 537 Nil 23 205 2800 43
in solution Chloride Carbonate Bicarbonate Sulphate Nitrate Calcium Magnesium Sodium Potassium Iron-Total	(CO <sub>3</sub> ) (HCO <sub>3</sub> ) (SO <sub>4</sub> ) (NO <sub>3</sub> ) (Ca) (Mg) (Na) (K) (Fe)		9111 4320 31 314 537 Nil 23 205 2800 43 76
in solution Chloride Carbonate Bicarbonate Sulphate Nitrate Calcium Magnesium Sodium Potassium Iron-Total Iron-Soluble Silicate	(CO <sub>3</sub> ) (HCO <sub>3</sub> ; (SO <sub>4</sub> ) (NO <sub>3</sub> ) (Ca) (Mg) (Na) (K) (Fe) (Fe)		9111 4320 31 314 537 Nil 23 205 2800 43 76 0.1
in solution Chloride Carbonate Bicarbonate Sulphate Nitrate Calcium Magnesium Sodium Potassium Iron-Total Iron-Soluble Silicate Total hardne	(CO <sub>3</sub> ) (HCO <sub>3</sub> ) (SO <sub>4</sub> ) (NO <sub>3</sub> ) (Ca) (Mg) (Na) (K) (Fe) (Fe) (Fe) (SiO <sub>3</sub> )		9111 4320 31 314 537 Nil 23 205 2800 43 76 0.1 37
in solution Chloride Carbonate Bicarbonate Sulphate Nitrate Calcium Magnesium Sodium Potassium Iron-Total Iron-Total Iron-Soluble Silicate Total hardne	(CO <sub>3</sub> ) (HCO <sub>3</sub> ) (SO <sub>4</sub> ) (NO <sub>3</sub> ) (Ca) (Mg) (Na) (K) (Fe) (Fe) (Fe) (SiO <sub>3</sub> )	 C.	9111 4320 31 314 537 Nil 23 205 2800 43 76 0.1 37 904

Pura Pura I ILTI

ADDRESS ALL COMMUNICATIONS CHIEF CHEMIST TELEPHENS: 630321

> GIG:MS An. HM,FF, 9/7

MINES DEPARTMENT CHEMICAL BRANCH 5 PARLIAMENT PLACE MELBOURNE, VIC. 3002

18th September, 1970

· · ·			-
		1 4000/20	•
	Report on Sampl	e No. 1228/70	~
		U.W.R.S. 7594	
•	Sample :	Bore Water	
	Locality : Parish	Kornong	
	Sender	Interstate Oil Ltd.,	•
		95 Collins Street, MELBOURNE.	
Particulars:			1997 - 19
Bore		<u>-</u>	
Plant		-	
Scmple		_	
Date	-	1.7.70	tan ang ang ang ang ang ang ang ang ang a
Depth (feet)		345	÷
Aquifer level (feet)	· · · · · · · · · · · · · · · · · · ·	266-345	
Static level (feet)	4	Flowing	
Drawdown (feet)			
. – .	•	- Porous quartz sand	
Aquifer type		5000	
Yield (gph)		000	4.
Test type		-	
Bore cased to (feet)		Open hole to 345	~ ~
Position		2-5 miles north of Pu	ira Pura
Owner		Interstate Oil Ltd.	
Address		95 Collins St. Melb.	
Remarks	<b>t</b>	Open Hole.	
Label No.	ą	<b>—</b>	·
Results:	- D - L	ner million	•
Total solids	· Marts	per million	
in solution		9014	•
		4380	
		4,000 Nil	•
۰. <u>۱</u>	:0 <sub>3</sub> )		
	ICO <sub>3</sub> )	356	
-	04)	486	
	10 <sub>3</sub> )	Nil	•
Calcium (C	Ca)	29	
Magnesium (N	Ag)	256	2
Sodium (N	Na)	2712	•
Potassium (I	<b>&lt;)</b>	50	:
Iron-Total (I	Fe)	0.2	
Iron-Soluble (1	Fe)	0.1	
	SiO <sub>3</sub> )	33	
Total hardness (as (		1125	
рН		7•4	
Electrical Conductiv	vity at 25°C.	14,163 micromhos/cm.	وبالمالية مستعالم المسالية الم
Specific Resistonce	<b>.</b> .	79 Johmem. Ch	ief Chemist
apserire ivesisionee		UII	

# WCR Carranballac-l (W597A)

### CARRANBALLACY

Carranboullac-1 WCR APPENDIX II1

### INTERSTATE OLL LIMITED

### WELL COMPLETION REPORT

CARRANBALLUC No. 1

W 597A

Carranballac - 1

### GENERAL DATA

Well name and number

Name and address of Operator :

Tenement Holder

Petroleum Tenement

District

Parish

Location

Elevation

Status

Total depth Date drilling commenced Date total depth reached Date rig released

Drilling Contractor Drilling Plant Drilling fluid

Total cost

Carranballuc No. 1

Interstate Oil Ltd. 95 Collins Street Melbourne. Vic. 3000

Interstate Oil Ltd.

 $PEP_{2}^{1}$  76

:

:

:

Ballarat (1:250,000, SJ 54-8)

: Korhong

: Approx. co-ordinates, 37<sup>0</sup>44'42" S 143<sup>0</sup>08'48" E (See locality plan attached)

Not determined - approx. 750'

: 495

: 3rd July, 1970

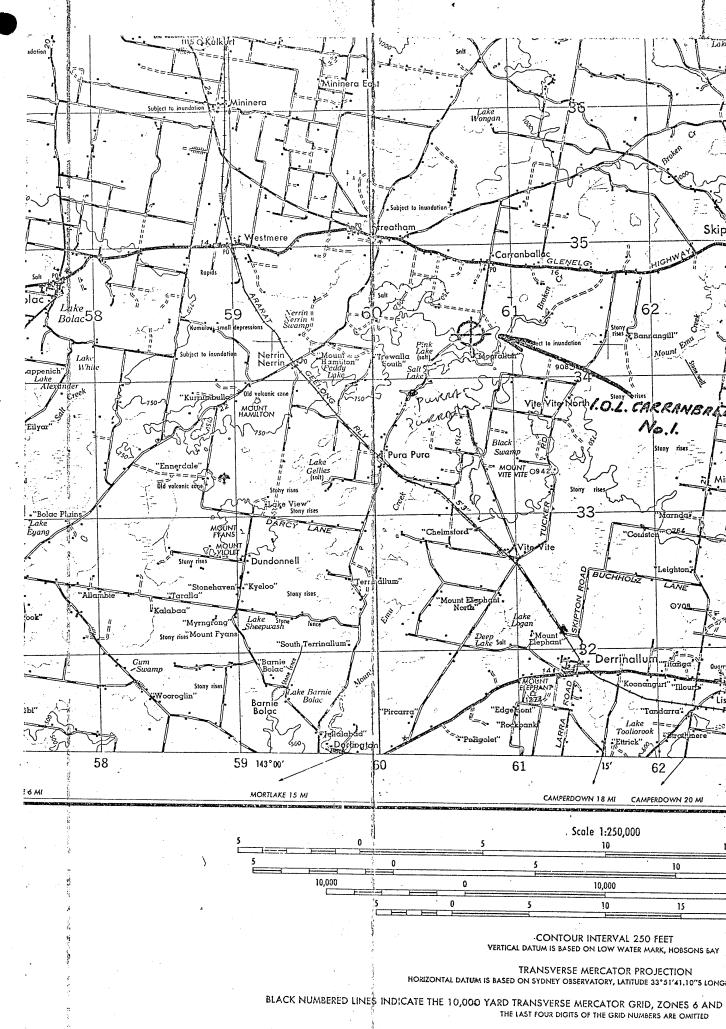
: 30th July, 1970

- : 30th July, 1970
- 30 ft. casing left in hole for conversion to water bore by landowner.
- W.L. Sides & Sons Pty. Ltd.

: "Schramm" Model T64 H-B

: Compressed air, surface to 337' Bentonite mud, 337' to 495'

Approx. \$7,015



1965 MAGNETIC DECUNATION FOR THIS SHEET VARIES FROM 9°30' EASTERLY FOR THE CE EDGE TO 10'00' EASTERLY FOR THE CENTRE OF THE EAST EDGE. MEAN ANNUAL CHANG

1.O.L. CARRANBALLAC No I

----13' Λ  $\wedge$  $\wedge$  $\mathbf{h}$ ~ 30'  $\mathbf{h}$ ~  $\overline{}$ 40' ۷ V V v 60'-Λ Λ Δ Λ Λ ~ ^ 90'-100' Λ 110' 130' ^ Λ 140'. Y v V V Y v V 175'-Λ Λ Λ Λ Λ ~ ゝ 220 224 Λ ~ ~ ^ 258'fe. 272 6.0.0 fe o fe 0 295 -Lig. •.• 0 0 0 · o . Lig. . . o 340 -·:0 365' · 370' · , pyr. 410'felspi falsp (T.D.) 495

Clay, buff with red-brown Limonite pellets Basalt, madium grey, ? Olivine Basalt, weathered, olive grey - yellow grey Valcanics, weathered, pink to pale red brown, olive grey. Basalt, fresh, medium dark grey to green grey Vesicles infilled E ? devitrified glass. Clay, green-grey, sandy = quarts francies. Basalt, wasthered. Clay, yellow grey to light brown, silty & sandy E some course quarts granules. Basalt, fresh, medium grey. Yolcanics, weathered, pale red brown to brick red. Basalt, hard, dense, medium dark grey Clay, Sandy Bosalt, very hard, dense, medium dath grey. Sand, yellow grey & Lan, fine & very course, fe. staining, <u>lateritic matrix</u>, predominantly quarts, minor lithics. Sand and Gravel yellow grey & Fin <u>lateritic</u> matrix, subangular & well r trace miner and rare shell frequents

nents.

Sand and Brevel, grey, angular & subangular subordinate Clayey Sandstone, pake grey minor Carbonaceous Siltstone, dark brown. common Lignite fragments, dark brown-black

Sand, med to coarse and Gravel, quartisose, angular to subangular matrix of white micacous clay

Clay, pele grey, soft buggy, sandy, micaceous, sland

Sand, fine & coarse, and <u>Gravel</u> quartaose, angular to subangular <u>Pyrite</u> cementing some grains

Sand, fine + med + coarse, quartzobe mainly angular

linch to 50 feet.

Common white feldspar fragments increasing with depth to to to the "white micaceous clay matrix clay

Scale.

Whillers hog - - Canan halline #! 0-13' Top poil 13'-30' Basalt. 301-476" Shalk or decomposed basalt hledon posed hasalt 47' ~ 130' Hard hasalt (2000-3000 gp). Water 1301 - 1351 135'- 159' Hand hasalt to 175' (more water) 220'-224 veryhard basalt. 240' 258' top & sand. Hard granite Course quarts sand 272' 310 - 330 and coal. yellow brown water at 258" dark green grey water at 296" hog incomplete due to five different changes of diller during operations at this site. N.B.

INTERSTATE OIL LIMITEI Cutting bleacription - Canan ballac #1 Tootage 0-10 70% Clay cream to buff, silly. 30% Timorite pellato red brown, buckshot. 6 - 20 Basilt medican grey, partly weathered to cream a tan. some yellow green ? divine 20 - 30 weathered Basalt, light dive grey to yellow grey. 30-40 as above 40-50 Weathered Volcanics pink to pale red brows and light olive grey. 50-60 as above, some green-grey hasalt with stoney microcrystalline material ? devitrified glass. trace calcile vein 60-70 Basalt medium dank grey to green grent. Jairly presh with minor? devitified glass traces calcide vering. 70-80 Fasalt as above 80-90 Basalt dark grey, hard. Minor volcame weathered, brick red. traces calcule as veins and infilling vesicles. 90 - 100 hired sample consisting : to & Basselt darkgrey - green grey a. a. 40% Volcenies pale red brown, weathere also brickned as above. 10% Clay greenich gray 5% Quarts med to cro underdand grains 5% Calcule, while Colores, angular 16 mil angu

carranballac - 1

Weathered Brankt, light dive grey to medium neycont brown grey. some inclusions of ? devitrified glass. 100-110 Clay yellow grey to hight brown, silty to sandy with accasional coarse quarts granules. 110-120 120-130 50% Clay as above 50% Basalt medium grey, fairly great. (130-140 80% Clay as above 20% Basalt as above. (water ingress 2000 to 3000 g.p.h.). 140-150 50% Clay as alrace 50% Valcanico pale red brown as alson traces brick red volcanico a.a. 150-160 as above. 160-170 80% Valcanica a.a. 20% Clay a-a. 170-180 40% Basalt medium grey to dive grey weathered in part 30% Volcanico pale red brown a.a. Clay green greng to lt dive greeg with some coarse quarts 30% granules including rose quarts 180-190 as alsoni 190-200 60% Broult as chove 40% Clay as above

200-210

60 % Fricalt as ahave 30% Clary as above 10% Volcanico as above Basalt hard, dense med dark grey. Severe sample contamination due to washing out of surface hole behind stand pipe .

Carranballac - 1

210-250

250-260

260-270

Missed sample. ( Willing break at 258' with color change of water returns to dirty yellow brown).

Sand yellow grey to tan, fine to coarse grained with some granules, poorly sorted, angula to subrounded foredominantly quarts colorles to nilky with fe staining and lateritic cementing & grains. Subordenate lithic grains . Basalt, volcanics & clay cavings

as ahave

280-290

270-280

Sand and Gravel yellow grey to ten, fine to very coarse with granules an pepples 4 to 8 mm. Augular to well rounded, predeminantly quarts colorlas to melky. Common fe staining.

290-300 Sand, pale yellow torown, very fine to fine grained, well sorted, mainly gular, predominantly questo colorless a. to it grey, milkey and yellowish. Traces of mica, rare shall fragments. ( Color change in water neturns at 296 to dark green gr

Camanballac 1

Joo - 310 310 - 320 320-330 330-340

Sand, yellow grey to tan, fine to coarse grained, poorly sorted, angular to sule rounded, predominantly quartz grain colorless to light grey, milky and pale yellow some fe. coating. Quartz Sand colorless to milky, medium to coarse grained, angular to sub angula traces sandstone pale grey consisting very fine grained quarts poorly Commented with non calcareaus grey micaceous clay matrix. Common Carbonised wood and lignite fragments up to 3 inches long. Quartz Sand and Gravel, colorless to wilky fine to coarse grained, angular to such angular quantz Strong trace Sandstone pale grey, fine quartz grains in micaceons clay cement day cement. trace lignitics material & pyrite trace brown micaceous carbonaceous siltstone . accasional milky quarts petitles up to 15 mm. subrounded to rounded ature Shartz Sand and Gravel, light gray to colorles, med to coarse grained with granules and paulies to som my, such rounded to well rounded. Strong trace lignitic material trace brown micaceous a carbonaceou sillatione ( histor returns changed to milky white at 3.40?)

INTERSTATE OIL LIMITED Carranballac 1 840-350 Buarts Sand light grey, medium to very coarse gramed and granule,, angular to subangular Strong trace lignite Common while micaceous clay mataix 350-360 Guartz Sand ap above traces fine grained, silty micaseous quarts sandtane Common large pehble size fragments & angular metamosphic quartite dark brown to brown gray in color traces lignite 360-370 as ahove, very disty and mixed cample. due to casing operations. 365-370 Foredamulus sample recovered at surface after advancin caring beyond drilled depth & later drilling ahead. Yale pay, silty, sandy, pitty, micace clarf, some finely divided carhonaceous material.

as above

Guartz Sand and Gravel Sine to very coarse grained, granule and pehble colorless to milky and pale grey angular to sub angular Strong trace Acquite commenting grain

as above (mainly metto coarse grain,

as above Checoming finer in grainsi

380-3 qo 390-400 400-410

370-380

camanballac\_1

-----

410-420 420-430

As above, probable while to palegrey micaccous knolinitic clay maters trace feldspan as while angular grains As above with increasing white feldspan gragments.

ار آن و د میشانست. ۱

. .

As above with up to 10% white feldspar gragments.

a Maria a serie a serie de la companya de la compa

430-495

ADDRESS ALL COMMUNICATIONS CHIEF CHEMIST TELEPHONE: 630821

GMG:MS

An. HM, FF, 31/7



Cartanballac -1 CBL MINES DEPARTMENT CHEMICAL BRANCH 5 PARLIAMENT PLACE MELBOURNE, VIC. 3002

29th September, 1970

12

e e		_			
		Report o		No. 1226/70	
		•	ļ	J.W.R.S. 7592	
	· .	Sample :		Bore Water	
		Locality :		Kornong	
		Sender	Ì	Interstate Oil Ltd,	
	Particulars:	B	·····	95 Collins Street, MELBOURNE.	·
1	Bore	· .		· ~ ~	
	Plant		•	Carranbelloc No.1	
•				-	
	Sample	•			· · ·
Ť.	Date			6.7.70	
3	Depth	(feet)	A.	240	an a
e1	Aquifer level			-	
	Static level	(feet)	Ļ	Flowing	
•	Drawdown	(feet)	3." ) 	<b></b>	
r.	Aquifer type			Basalt and clays	land and a start of the start o
	Yield (gph)			5000	
	Test type	•			
	Bore cased to	(feet)		Open hole to 240	
Canal S. Int	Position	•		3 miles south of 6a	rranbelloc
. :	Owner	<i>i</i>	- (- 1	Interstate Oil Itd.	
ý. V	Address			95 Collins Street, I	velh.
	Remarks		.   	_	1010.
4 1 1	Label No.				
	Results:	·····	ţ <sup>i</sup>		
) <b>.</b>	Total solids	•	Parts per	million	• •
	in solution			2268	•
• ••	Chloride	(CI)	······	1,058	
3	Carbonate	(CO <sub>3</sub> )	r	Nil	
	Bicarbonate	(HCO <sub>3</sub> )		336	
4	Sulphate	<b>v</b>	. (	20	•
	Nitrate	(SO <sub>4</sub> )	· · ·	Nil	
н Эн Х	Calcium	(NO <sub>3</sub> )			
1		(Ca)	•	43	•
•	Magnesium Sodium	(Mg) (Na)		121	•
	Potassium	(K)	•	587	•
1	Iron-Total	(Fe)	i i s	14	
	Iron-Soluble	(Fe) (Fe)	•	9	
	Silicate	(Fe) (SiO <sub>3</sub> )	•	0.1	
іс — — — — — — — — — — — — — — — — — — —				50	
	lotal hardnes	is (as CaCO <sub>3</sub> )	1 1, 1 1 1	606	,
e i F	pН		<u> </u>	7.4	
	•	nductivity at 25°C.		3875 micromhos/cm.	
51		,			
	Specific Resi	stance at 21°C.		292 /johmcm.	and the stand

ADDRESS ALL COMMUNICATIONS CHIEF CHEMIST

UNCLOSED IN

TELEPHONE: 630321 GIIG: 15 An. 11M, DL, 31/8

1



MINES DEPARTMENT (95) CHEMICAL BRANCH 5 PARLIAMENT PLACE MELBOURNE, VIC. 3002

KJ

23rd October, 1970 Carranballac 1.

· 26 - 14 		Carra	nballac 1
2 E - (117)	Report on Samp	No. 1342/70	
		U.W.R.S. 7618	
	Sample :	Bore Water	
	Locality : Parish	Kornong	
	Sender	Interstate Oi	<u>l Ltd.</u> ,
Particulars:		" 95 Collins St MELBOURNE.	reet,
Bore		1	
Plant	· ·		
Sample		· · ·	
Date		28.7.70	
Depth (feet)		335	
Aquifer level (feet)		_	
Static level (feet)		· · · ·	
Drawdown (feet)	•	· ·	
Aquifer type			•
Yield (gph)			
Test type			
Bore cased to (feet)		335	
Position		35 miles sout	n of Carranball
Owner	Interstate O:	adjacent to e	ntrance of Moonallan ation (A. Chirpside).
Address .	95 Collins S		n n
<b>-</b> .			•
Remarks		Sample displat	ced to surface by aim
Remarks Label No.		Sample displac	ced to surface by aim
	Parts n		
Label No. <u>Results:</u> Total solids	Parts p	Sample displac - ermillion me/lit:	
Label No. <u>Results:</u>	Parts p 2256	ermillion me/lit:	
Label No. <u>Results:</u> Total solids	2256	ermillion me/lit:	
Label No. <u>Results:</u> Total solids in solution Chloride (C	2256	ermillion me/lit:	
Label No. <u>Results:</u> Total solids in solution Chloride (C Carbonate (C	2256 1) 1049	er million me/lit: 29.5 0.6	
Label No. <u>Results:</u> Total solids in solution Chloride (C Carbonate (C Bicarbonate (H	2256 1) 1045 10 <sub>3</sub> ) 18	er million me/lit: 29.5 0.6 4.9	
Label No. <u>Results:</u> Total solids in solution Chloride (C Carbonate (C Bicarbonate (H Sulphate (Sulphate))	2256 1) 1049 0 <sub>3</sub> ) 18 CO <sub>3</sub> ) 299	- ermillion me/lit: 29.5 0.6 4.9 2.8	
Label No. <u>Results:</u> Total solids in solution Chloride (C Carbonate (C Bicarbonate (H Sulphate (Sulphate))	$\begin{array}{c} 2256\\ 10 & 1049\\ 0_3 & 18\\ CO_3 & 299\\ 0_4 & 136\\ 0_3 & Nil \end{array}$	er million me/lit: 29.5 0.6 4.9 2.8	
Label No. <u>Results:</u> Total solids in solution Chloride (C Carbonate (C Bicarbonate (H Sulphate (SU Nitrate (N Calcium (C Magnesium (M	$\begin{array}{c} 2256\\ 10 \\ 1049\\ 0_3 \\ 1069\\ 0_3 \\ 0_4 \\ 0_3 \\ 0_3 \\ 0_1 \\ 0 \\ 0_1 \\ 0_$	er million me/lit: 29.5 0.6 4.9 2.8 - 2.4 9.5	
Label No. <u>Results:</u> Total solids in solution Chloride (C Carbonate (C Bicarbonate (H Sulphate (Sulphate (Sulphate (N Calcium '(C Magnesium (M Sodium (N	$\begin{array}{c} 2256\\ 10 \\ 1049\\ 1030 \\ 18\\ 1030 \\ 18\\ 10030 \\ 136\\ 030 \\ 136\\ 030 \\ 136\\ 030 \\ 136\\ 030 \\ 116\\ 00 \\ 116\\ 00 \\ 116\\ 00 \\ 190 \\ 116\\ 00 \\ 190 \\ 100 \\ $	er million me/lit: 29.5 0.6 4.9 2.8 2.4 9.5 25.6	re
Label No. <u>Results:</u> Total solids in solution Chloride (C Carbonate (C Bicarbonate (H Sulphate (St Nitrate (N Calcium (C Magnesium (M Sodium (N Potassium (K	$\begin{array}{c} 2256\\ 10\\ 10_3\\ 0_3\\ 0_3\\ 0_4\\ 0_3\\ 0_3\\ 0_3\\ 0_3\\ 0_3\\ 0_3\\ 0_1\\ 0_1\\ 0_1\\ 0_1\\ 0_1\\ 0_1\\ 0_1\\ 0_1$	er million me/lit: 29.5 0.6 4.9 2.8 2.4 9.5 25.6 0.4	re me/litre
Label No. Results: Total solids in solution Chloride (C Carbonate (C Bicarbonate (H Sulphate (St Nitrate (N Calcium (C Magnesium (M Sodium (N Potassium (K Iron-Total (F	$\begin{array}{c} 2256\\ (1) & 1049\\ (0_3) & 18\\ (C0_3) & 299\\ (0_4) & 136\\ (0_3) & N11\\ (a) & 48\\ (g) & 116\\ (a) & 590\\ (a) & 590\\ (b) & 18\\ (e) & 1\end{array}$	er million me/lit: 29.5 0.6 4.9 2.8 - 2.4 9.5 25.6 0.4 4	re <u>me/litre</u> Total Anions 37.9
Label No. <u>Results:</u> Total solids in solution Chloride (C Carbonate (C Bicarbonate (H Sulphate (St Nitrate (N Calcium (C Magnesium (M Sodium (N Potassium (K Iron-Total (F Iron-Soluble (F	$\begin{array}{c} 2256\\ (1) & 1049\\ (0_3) & 18\\ (CO_3) & 299\\ (0_4) & 136\\ (0_3) & N11\\ (a) & 48\\ (g) & 116\\ (a) & 590\\ (b) & 18\\ (e) & 1\\ (c) & 0\\ ($	er million me/lit: 29.5 0.6 4.9 2.8 - 2.4 9.5 25.6 0.4 .4 -	re me/litre
Label No. <u>Results:</u> Total solids in solution Chloride (C Carbonate (C Bicarbonate (H Sulphate (St Nitrate (N Calcium (C Magnesium (M Sodium (N Potassium (K Iron-Total (F Silicate (St	$\begin{array}{c} 2256\\ (1) & 1045\\ (0_3) & 16\\ (CO_3) & 295\\ (0_4) & 136\\ (0_3) & Ni1\\ (0) & 48\\ (g) & 116\\ (a) & 596\\ (a) & 596\\ (b) & 18\\ (c) & 6\\ (c) & 0\\ (0_3) & 5\\ \end{array}$	er million me/lit: 29.5 0.6 4.9 2.8 2.4 9.5 25.6 0.4 4 -1 0.1	re <u>me/litre</u> Total Anions 37.9
Label No. <u>Results:</u> Total solids in solution Chloride (C Carbonate (C Bicarbonate (H Sulphate (St Nitrate (N Calcium (C Magnesium (M Sodium (N Potassium (K Iron-Total (F Iron-Soluble (F	$\begin{array}{c} 2256\\ (1) & 1049\\ (0_3) & 18\\ (CO_3) & 299\\ (0_4) & 136\\ (0_3) & 116\\ (0_3) & 116\\ (0_3) & 596\\ (0_3) & 595\\ (0_3) $	er million me/lit: 29.5 0.6 4.9 2.8 2.4 9.5 25.6 0.4 4 -1 0.1	re <u>me/litre</u> Total Anions 37.9
Label No. <u>Results:</u> Total solids in solution Chloride (C Carbonate (C Bicarbonate (H Sulphate (St Nitrate (N Calcium (C Magnesium (M Sodium (N Potassium (K Iron-Total (F Silicate (St	$\begin{array}{c} 2256\\ (1) & 1049\\ (0_3) & 18\\ (CO_3) & 299\\ (0_4) & 136\\ (0_3) & 116\\ (0_3) & 116\\ (0_3) & 596\\ (0_3) & 595\\ (0_3) $	er million me/lit: 29.5 0.6 4.9 2.8 2.4 9.5 25.6 0.4 4 -1 0.1	re <u>me/litre</u> Total Anions 37.9
Label No. <u>Results:</u> Total solids in solution Chloride (C Carbonate (C Bicarbonate (H Sulphate (St Nitrate (N Calcium (C Magnesium (M Sodium (N Potassium (K Iron-Total (F Iron-Soluble (F Silicate (St Total hardness (as Calcian)	$\begin{array}{c} 2256\\ (1) & 1043\\ (0_3) & 18\\ (C0_3) & 299\\ (0_4) & 136\\ (0_3) & 011\\ (a) & 48\\ (g) & 116\\ (a) & 590\\ (a) & 590\\ (a) & 590\\ (a) & 595\\ ($	er million me/lit: 29.5 0.6 4.9 2.8 - 2.4 9.5 25.6 0.4 4 - 1 0.1	re <u>me/litra</u> Total Anions 37.9 Total Cations 37.9
Label No. <u>Results:</u> Total solids in solution Chloride (C Carbonate (C Bicarbonate (H Sulphate (Su Nitrate (N Calcium (C Magnesium (M Sodium (N Potassium (K Iron-Total (F Silicate (Si Total hardness (as Calcium) pH	$\begin{array}{c} 2256\\ (1) & 1043\\ (O_3) & 18\\ (CO_3) & 299\\ (O_4) & 136\\ (O_3) & N11\\ (a) & 48\\ (g) & 116\\ (a) & 590\\ (a) & 590\\ (a) & 590\\ (a) & 595\\ (aCO_3) & 595\\$	er million me/lit: 29.5 0.6 4.9 2.8 2.4 9.5 25.6 0.4 4 - 1 0.1	re <u>me/litra</u> Total Anions 37.9 Total Cations 37.9

Carrenballac 1

PALYNOLOGICAL EXAMINATION OF BORE SAMPLE.

Samples from the ...Coremballuc... Bore No. L...... were treated by the hydrofluoric acid - Schulze's solution method, and the residues examined under the microscope for acid insoluble microfossils.

### Sample Details.

J	Doole Three	Depth	Microfossils.
Bore No.	Rock Type	Debru	FILCIOLOSSILS.
		310ft.	Nothofagus spy.Triorities sp. Proteacidites sp.etc.
· ·			
CHARMAGE CONTRACT OF THE CHARMAGE OF THE CHARM		335 ft	. None noted
		365-37	Oft. Rare <u>Hothofagus</u> pollens etc fern spores.

#### Remarks

A moderately rich microfloral assemblage was isolated from the 310 ft. sample. <u>Nothofarus</u> spp. were common and indicate a Lower Miocene - Oligocene age. The two deeper samples also appear to be of this age.

DOUGLAS. ISING GEOLOGIST SU

## ENCLOSURES for ....

\* Darlington-1

\* Pura Pura-1

\*Carranballac-1

#### PE907101

This is an enclosure indicator page. The enclosure PE907101 is enclosed within the container PE907100 at this location in this document.

The enclosure PE907101 has the following characteristics: ITEM\_BARCODE = PE907101 CONTAINER\_BARCODE = PE907100 NAME = Compilation Map (PEP 76) BASIN = OTWAY PERMIT = PEP/108: TYPE = TITLE SUBTYPE = PERMIT\_MAP DESCRIPTION = Compilation Map for PEP 76 (enclosure from Combined WCR ) for the 3 Scout Drill Holes...Darlington-1, Para Para-1 and Carranballac-1 REMARKS = Map shows Permit boundary, the 3 Scout Drill Holes, Mesozoic Outcrop, Gravity Contours, Volcanic Cones, Water Bores and Section Lines.  $DATE\_CREATED = 31/07/70$ DATE\_RECEIVED = W\_NO = W594A, W596A, W597A WELL\_NAME = Darlington-1 CONTRACTOR = Interstate Oil Ltd CLIENT\_OP\_CO = Interstate Oil Limited (Inserted by DNRE - Vic Govt Mines Dept)

#### PE907102

This is an enclosure indicator page. The enclosure PE907102 is enclosed within the container PE907100 at this location in this document.

The enclosure PE907102 has the following characteristics: ITEM\_BARCODE = PE907102 CONTAINER\_BARCODE = PE907100 NAME = Well Correlation Section BASIN = OTWAY 41-: PERMIT = PEP/108TYPE = WELL SUBTYPE = WELL\_CORRELATION DESCRIPTION = Well Correlation for PEP 76 (enclosure from Combined WCR ) for the 3 Scout Drill Holes...Darlington-1, Para Para-1 and Carranballac-1 REMARKS =  $DATE\_CREATED = 31/10/70$ DATE\_RECEIVED = W\_NO = W594A, W596A, W597A WELL\_NAME = Darlington-1 CONTRACTOR = Interstate Oil Ltd CLIENT\_OP\_CO = Interstate Oil Limited (Inserted by DNRE - Vic Govt Mines Dept)