WCR (VOLUME 1)
WIRRAH-2
W797

BASIC DATA

ESSO EXPLORATION AND PRODUCTION AUSTRALIA INC.

WELL COMPLETION REPORT

WIRRAH-2 - 7 MAY 1984

BASIC DATA

VOLUME I

GIPPSLAND BASIN
VICTORIA

ESSO AUSTRALIA LIMITED

Compiled by: J. ROCHE

FEBRUARY, 1984

WIRRAH-2

WELL COMPLETION REPORT

VOLUME 1

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0599L

1. ESSO AUSTRALIA LTD.

COMPLETION REPORT

WELL	:	WIRRAH - 2
LOCATION	:	GIPPSLAND BASIN, VICTORIA Latitude : 38° 11' 00.94" S Longitude : 147° 49' 26.60" E X = 572,170mE Y = 5,773,478mN Map Projection: Transverse Mercator Zone 55; Meridian 147°E; Datum Australia Geodetic Geographical Location: Gippsland Basin, S.E. Victoria Field: Wirrah
PERMIT	:	VIC/L2
ELEVATION	:	21m ASL
WATER DEPTH	:	50m
TOTAL DEPTH	:	3084m Average Angle : 3-1/2°
PLUG BACK TYPE	:	3 open hole balanced plugs 1 balanced plug @ 13-3/8" casing shoe 1 bridge plug 1 balanced plug on retainer
REASONS FOR PLUGGING BACK	:	Plug and Abandonment
MOVE IN	:	1515 hours 21st January, 1983
RIG UP	:	21st January, 1983
SPUDDED	:	1000 hours 21st January, 1983
RIG DOWN COMPLETE	:	5th March, 1983
RIG RELEASED	:	2400 hours 5th March, 1983
OPERATOR	:	Esso Exploration and Production Australia Inc. (EEPA)
LICENCEE	:	BHP Petroleum P/L EEPA
ESSO INTEREST	:	50%
OTHER INTEREST	:	50%
CONTRACTOR	:	South Seas Drilling Co.
RIG NAME	:	Southern Cross
EQUIPMENT TYPE	:	Semi-submersible
TOTAL RIG DAYS	:	44
WELL CLASSIFICATION	:	Before Drilling Outpost/Extension Test After Drilling Extension Well

2. OPERATIONS SEQUENCE

WIRRAH 2

MOVE AND MOOR

The semi-submersible Southern Cross departed the Pilotfish-1A location at 0315 hours on 21st January 1983 and arrived at the Wirrah-2 location at 1515 hours on the same day. The rig was towed 73 km (52 nautical miles) by the workboat Atlas Dampier in 12 hours at an average speed of 6.08 km/hr (4.33 knots).

Anchor No. 8 was dropped by the rig with the remaining seven anchors being run by the workboats Lady Vera, Sydney Tide, and Atlas Dampier in 10 hours.

26" HOLE FOR 20" CONDUCTOR

The drilling template was landed at a seafloor depth of 71m RKB. The 26" hole was drilled to 208m with seawater and displaced at TD with high viscosity gel mud.

The 18-3/4" wellhead and 20" casing were run and cemented at a shoe depth of 193.5m RKB. The BOP stack and riser were run and the casing and collet connector tested against the shear rams to 3450 kPa (500 psi).

17-1/2" HOLE FOR 13-3/8" SURFACE CASING

After drilling out the 20" casing shoe, the 17-1/2" hole was drilled to 825m. The hole was drilled 25m deeper than the programmed depth of 800m in order to avoid setting the 13-3/8" casing in sandstone encountered at the original shoe depth. The hole was logged before 13-3/8" casing was run and cemented at 808m. The 13-3/8" seal assembly was set and tested along with the BOP to 34500 kPa (5000 psi) and casing to 10300 kPa (1500 psi).

12-1/4" HOLE

The 13-3/8" casing shoe and 6 metres of new hole were drilled, and the formation tested to 2.12 SG (17.7 ppg) E.M.W. with no leak off. The hole was drilled to 2253 metres using two X3A, one J7 and two J22 bits. H_2S in small quantities (0-7 ppm) was detected in the mud filtrate from 1637 - 2253 metres, Milgard was added as a scavenger. Core No. 1 was cut from 2253 - 2265 metres with 95% recovery. Drilling then continued to 2450 metres where unprogrammed intermediate logs and 2 RFT's were run.

Following a stack test, drilling continued to 2806 metres using one J22 and three J33 bits. Core No. 2 was cut to 2824 metres with 80% recovery.

Following another stack test, drilling continued to 3084 metres total depth using two more J33 bits. Drilling breaks were encountered at 2885m, 2895m, 2937m, 3039m, 3052m, 3054m, 3076m with mud weight gradually being increased to 10.5 ppg due to abnormal pressure indicators. A 10-10-10 test results at T.D. were 3.0-20.6-14.0. Mud weight was then increased to 10.6 ppg when 50-60 BPH of mud began to be lost to the formation. Mud loss ceased when the weight was reduced to 10.2 ppg. Final logs, velocity survey and one RFT was run. During the RFT operations the tool became stuck apparently at 2252 metres where the tool was set. However after running the overshot and stripping and cutting over the line the tool came free with the overshot at 2556m, indicating that the line was differentially stuck. Mud weight was reduced to 9.9 ppg when sidewall cores were run, prior to the plug and abandonment procedures commencing.

PLUG AND ABANDONMENT

To cover the hydrocarbon bearing zones, and plug off the abnormal pressure section in the deep part of the hole, three open hole plugs were set over the intervals 3084-2984m, 2900-2700m and 1600-1425m. The top open hole plug at 1600-1425m was tagged with 10,000 lbs. The 13-3/8" casing shoe was sealed off with a balanced cement plug set over interval 858-758m and was pressure tested to 8300 kPa (1200 psi) for 15 mins. An EZSV packer used as a bridge plug was set at 396 metres.

The 13-3/8" casing was perforated with a 4" end loaded casing gun from 152-152.5m and an injection rate of 5 bbls/min at 680 psi was established. An EZSV packer used as a cement retainer was set at 141 metres on wireline. A cementing stinger was run on drillpipe and stung into the EZSV. When attempting to establish an injection rate communication between the drillpipe and the drillpipe/casing annulus was detected. The stinger was POOH and inspected - no damage. The shear rams were then closed and an injection rate established. The drill pipe was then run to 104 metres where the cement was bradenhead squeezed into the perforations. The plug was then tested to 690 kPa (1000 psi) for 15 mins.

A Pengo cutter was used at 90 metres to cut the 13-3/8" casing and the casing was retrieved with a casing spear. After displacing the riser with seawater, the BOP stack and riser were pulled. A 20" casing cutter, marine swivel and space out assembly were used to cut the 20" casing; the wellhead casing stub, four post guide base and drilling template were retrieved using the wellhead running tool. The rig was then deballasted to 22 feet draft.

PULLING ANCHORS

The Lady Vera and Bass Tide retrieved all the anchors except anchor No. 8 which was retrieved by the rig. A new anchor chain was fitted on the No. 6 anchor, two pear shaped connecting links and two Kenter links were changed out on No. 2 anchor, one Kenter link was changed out on No. 8 anchor and No. 5 Fairlead Roller was changed before the rig departed at 2400 hours, 5th March 1983 for the Whiting-1 well location.

CASING DATA

3. WELL WIRRAH-2

CSG O.D. IN.	WT. LBS/FT	GRADE	CONN.	CSG LENGTH METRES	SHOE DEPTH R.K.B.	CENTRALIZER POSITION	REMARKS
24	670	-	CC	11.15			PILE JOINT
20	129	X52	JV CC	13.31		1 ACROSS COLLARS FOR FIVE COLLARS ABOVE SHOE	CROSS OVER JOINT
20	94	X52	JV	87.45			7 JOINTS
20	94	X52	JV	13.10	193.50		SHOE JOINT
13-3/8	54.5	K-55	BUTT	3.21		1 ACROSS EACH COLLAR FOR SIX COLLARS ABOVE SHOE 1 ACROSS EACH COLLAR FOR SIX COLLARS INSIDE 20 INCH CASING	HRG & PUP JOINT
13-3/8	54.5	K-55	BUTT	734.68	807.70		60 JOINTS (INCLUDING FLOAT COLLAR & FLOAT SHOE)

CEMENT DATA

4. WELL WIRRAH-2.

DATE	DEPTH METRES	TYPE JOB	TYPE CEMENT	AMOUNT	ADDITIVES	REMARKS
22/1/83	193.5	20" CSG LEAD	CLASS "N"	625 SX	12% GEL 0.5%CFR-2	FRESHWATER SLURRY WT 12.6 PPG
22/1/83	193.5	20" CSG TAIL	CLASS "N"	360 SX		SEAWATER SLURRY WT 15.6 PPG
26/1/83	807.7	13-3/8" CSG	CLASS "N"	1100 SX		SEAWATER SLURRY WT 15.5 PPG
2/3/83	3084 - 2984	P&A OPEN HOLE BAL. PLUG	BLUE CIRCLE CLASS "G"	345 SX	0.5% CFR2 0.6% HR6L	FRESHWATER SLURRY WT 15.6 PPG
2/3/83	2900 - 2700	P&A OPEN HOLE BAL. PLUG	CLASS "G"	699 SX	0.5% CFR2 0.6% HR6L	FRESHWATER SLURRY WT 15.6 PPG
2/3/83	1600 - 1425	P&A OPEN HOLE BAL. PLUG	CLASS "G"	777 SX	0.4% HR6L	FRESHWATER SLURRY WT 15.8 PPG
2/3/83	858 - 758	P&A OPEN HOLE/CSG SHOE BAL. PLUG	CLASS "G"	368 SX		SEAWATER SLURRY WT 15.8 PPG
3/3/83	153.5 - 143	P&A SQUEEZE 13-3/8"x20" ANN.& 13-3/8 CSG.	CLASS "G"	330 SX		SEAWATER
3/3/83	143 - 103	P&A BAL. PLUG ON RETAINER.	CLASS "G"	100 SX		SEAWATER

WELL: WIRRAH - 2

5. SAMPLES, CONVENTIONAL CORES, SIDEWALL CORES

INTERVAL	TYPE
220 - 3084m	Cuttings Samples: 3 sets washed and dried samples, and 3 sacks washed and bagged cuttings every 5m.
220 - 3084m	Unwashed canned samples every 15m.
3067 - 2792.6m	Sidewall Cores: Shot 51, recovered 24. (2nd gun misfired.)
2773.4 - 1577.2m	Sidewall Cores: Shot 51, recovered 46.
2160.5 - 840.0m	Sidewall Cores: Shot 51, recovered 48.
2253.0 - 2265.0m	Conventional Core: Cut 12.0m, recovered 11.4m
2806.3 - 2824.0m	Conventional Core: Cut 17.7m, recovered 14.1m

WELL: WIRRAH - 2

6. WIRELINE LOGS AND SURVEYS

Type and Scale		From	To
	Suite 1		
BHC CAL GR	1:200 1:500	193	825m
	Suite 2		
DLL MSFL GR	1:200 1:500	808	2446m
LDL CNL GR	1:200 1:500	808	2446m
RFT Recording Pretests:	Run 1 22 attempted 18 successful Run 2 2 samples	1521	2425m
HP Pressure Record		1521	2425m
	Suite 3		
DLL MSFL GR	1:200 1:500	2390	3084m
LDL CNLG GR	1:200 1:500	2390	3080m
BHC GR	1:200 1:500	808	3085m
HDT	1:200	1400	3084m
RFT Recording Pretests:	Run 3 6 attempted 2 successful	2452.5	3044.5m
HP Pressure Record		2852.5	3044.5m
CST	Shot 153 Recovered 118	840.0	3067.0m
Seismic VSP & Checkshots	64	712	3074.7m

SUMMARY OF WIRELINE FORMATION TEST PROGRAMME - WIRRAH-2

TEST	SEAT	DEPTH (METRES) K.B.	RECOVERY (LITRES) CHAMBER	OIL	COND.	GAS	FORMATION WATER	FILTRATE	HEWLETT-PACKARD FORMATION PRESSURE MPaa	Psia	HEWLETT-PACKARD HYDROSTATIC PRESSURE MPaa	Psia	REMARKS
			Litres	Litres	Litres	m^3	Litres	Litres					
1.	1	2425.0	Pretest								28.30	4105	Seal failure
	2	2423.5	Pretest						24.26	3518.2	28.29	4103	Valid
	3	2381.5	Pretest						23.32	3382.0	27.79	4031	Valid
	4	2369.5	Pretest						23.27	3374.2	27.64	4008	Valid
	5	2268.0	Pretest								26.43	3833	Tight, invalid
	6	2252.0	Pretest						22.03	3194.5	26.27	3810	Valid
	7	2243.0	Pretest						21.94	3181.4	26.17	3795	Valid
	8	2209.5	Pretest						21.63	3136.6	25.77	3737	Valid
	9	2195.0	Pretest						21.48	3115.2	25.60	3713	Valid
	10	1836.0	Pretest						17.86	2590.6	21.45	3111	Valid
	11	1752.5	Pretest						17.05	2472.7	20.47	2969	Valid
	12	1725.3	Pretest						16.79	2435.3	20.15	2923	Valid
	13	1702.5	Pretest						16.58	2404.5	19.88	2883	Valid
	14	1619.5	Pretest						15.79	2289.8	18.92	2744	Valid
	15	1602.5	Pretest						15.62	2265.9	18.72	2715	Valid
	16	1590.5	Pretest								18.58	2695	Seal failure
	17	1590.0	Pretest						15.49	2247.0	18.58	2694	Valid
	18	1568.0	Pretest								18.32	2657	Seal failure
	19	1569.0	Pretest						15.29	2217.0	18.33	2658	Valid
	20	1550.0	Pretest						15.10	2190.4	18.11	2626	Valid
	21	1530.0	Pretest						14.93	2164.7	17.87	2592	Valid
	22	1521.5	Pretest						14.92	2163.3	17.77	2577	Valid
2	23	1702.5	22.7 lit			0.0269	21.75		16.58	2404.7	19.89	2884	Sampled
	24	1590.0	10.4 lit			0.0184		9.75	15.49	2247.0	18.57	2693	Sampled
3	25	3042.0	Pretest								37.16	5389	Tight, invalid
	26	3044.5	Pretest								37.15	5388	Seal failure
	27	3041.5	Pretest						32.81	4758.2	37.16	5389	Tight, valid
	28	2893.0	Pretest						30.30	4394.2	35.34	5126	Valid
	29	2852.5	Pretest								34.89	5060	Seal failure
	30	2852.8	Pretest								34.90	5061	Seal failure

WIRRAH 2 TEMPERATURE RECORD

LOGGING RUN	THERMOMETER DEPTH (m)	MAX. RECORDED TEMPERATURE (C°)	CIRCULATION TIME (t_k) (hours)	TIME AFTER CIRCULATION STOPPED (t)	HORNER TEMPERATURE (C°)	GEOTHERMAL GRADIENT (C°/km)
Suite 1						
BHC CAL GR	826	43.3	2:15	4:40		
Suite 2						
DLL MSFL GR	2446	88.0	2:45	7:47		
LDL CNLG GR	2446	81.0	1:15	6:00		
Suite 3						
DLL MSFL GR	3085	92.0		10:20		
LDL CNLG GR	3081	96.7	2:15	14:30	111.0	35.5
BHC GR	3085	99.0		18:25		
HDT	3085	104.0		24:15		

10201/6

FIGURES

LOCALITY MAP

WIRRAH - 2

SCALE - 1:250,000

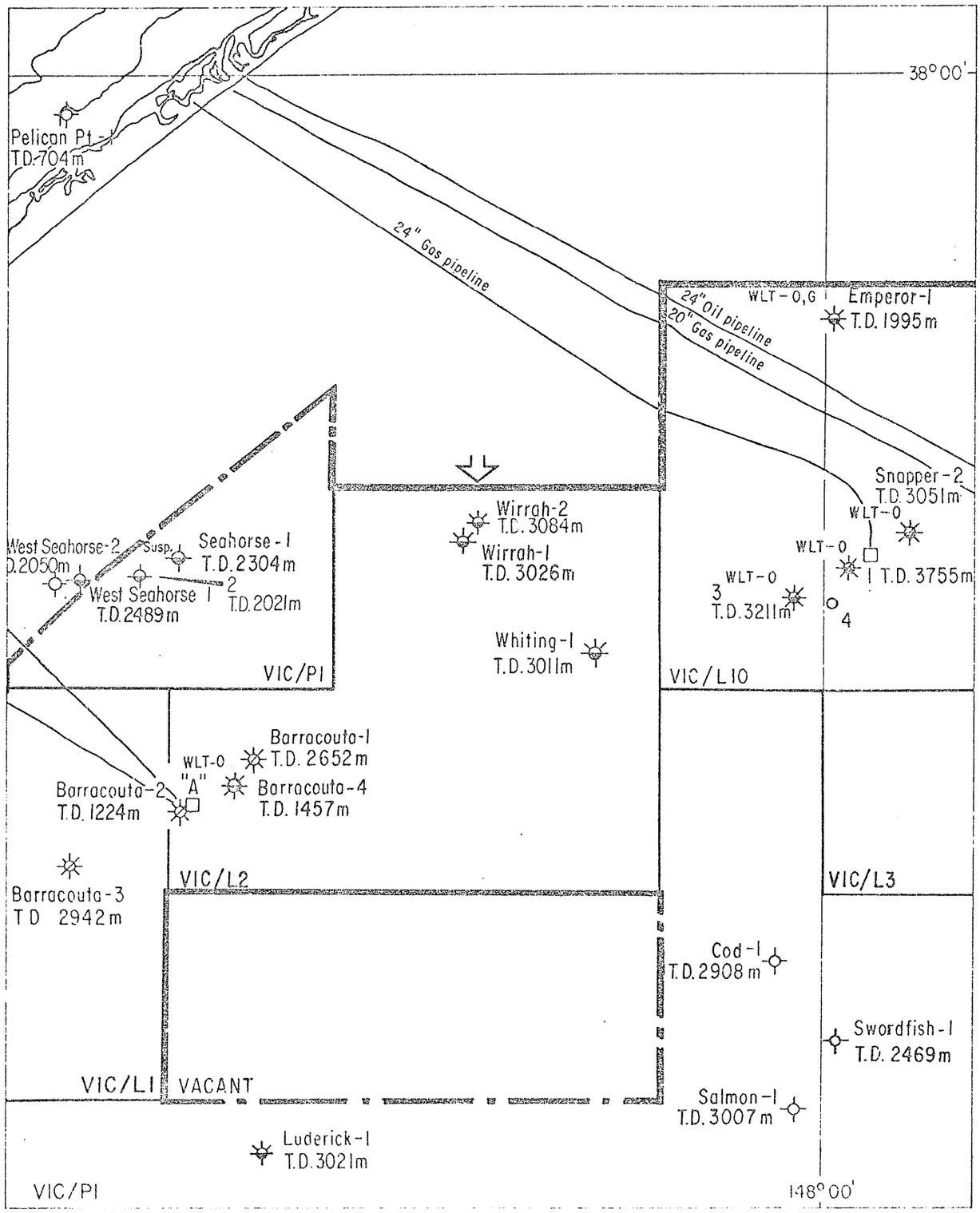
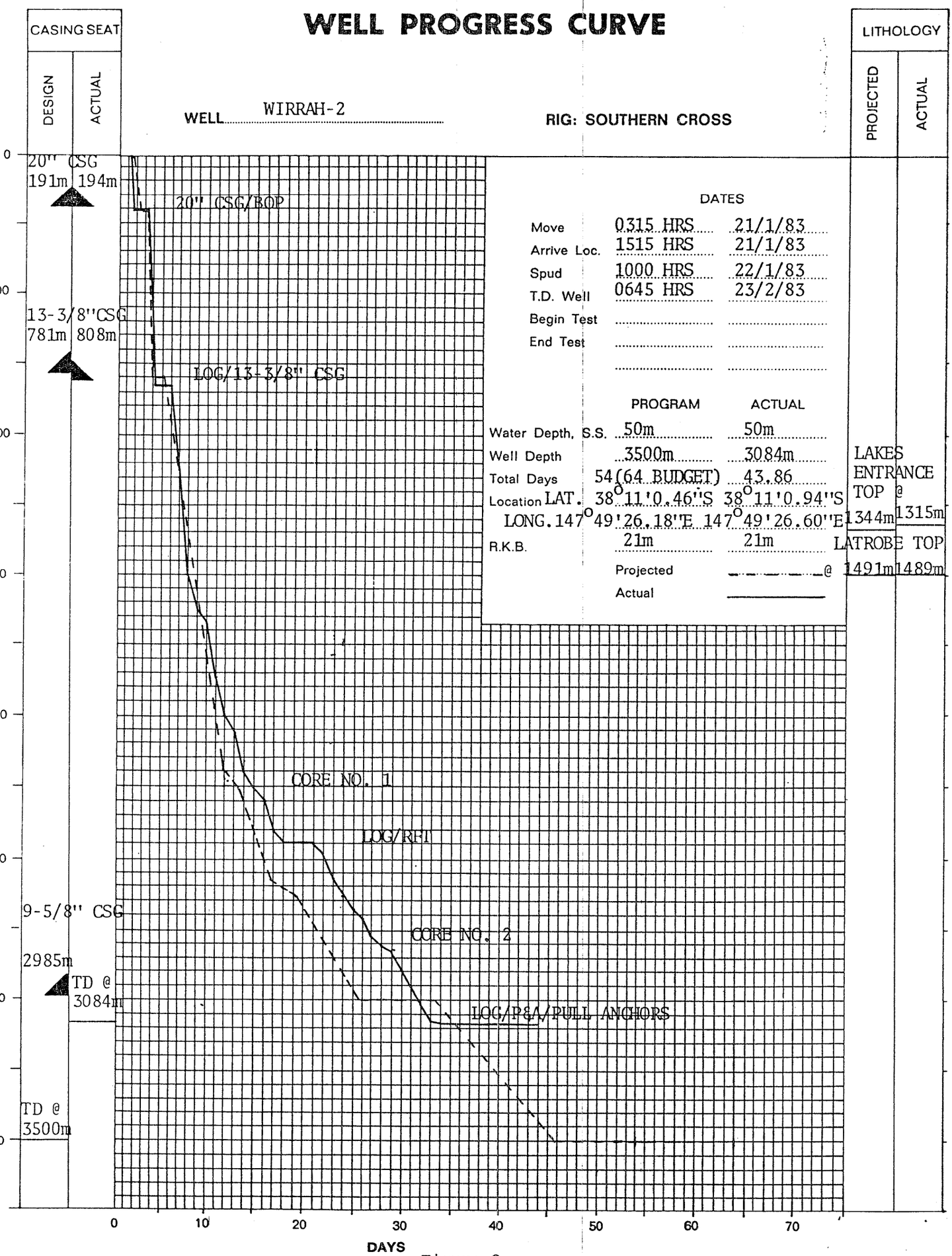


Figure 1

Dwg 2173/OP/1

WELL PROGRESS CURVE

WELL WIRRAH-2 RIG: SOUTHERN CROSS



DATES		
Move	0315 HRS	21/1/83
Arrive Loc.	1515 HRS	21/1/83
Spud	1000 HRS	22/1/83
T.D. Well	0645 HRS	23/2/83
Begin Test		
End Test		

	PROGRAM	ACTUAL
Water Depth, S.S.	50m	50m
Well Depth	3500m	3084m
Total Days	54(64 BUDGET)	43.86
Location LAT.	38°11'0.46"S	38°11'0.94"S
LONG.	147°49'26.18"E	147°49'26.60"E
R.K.B.	21m	21m

Projected _ _ _ _ _

Actual _____

Figure 2.

Wellbore Schematic

Well: Wirrah-2

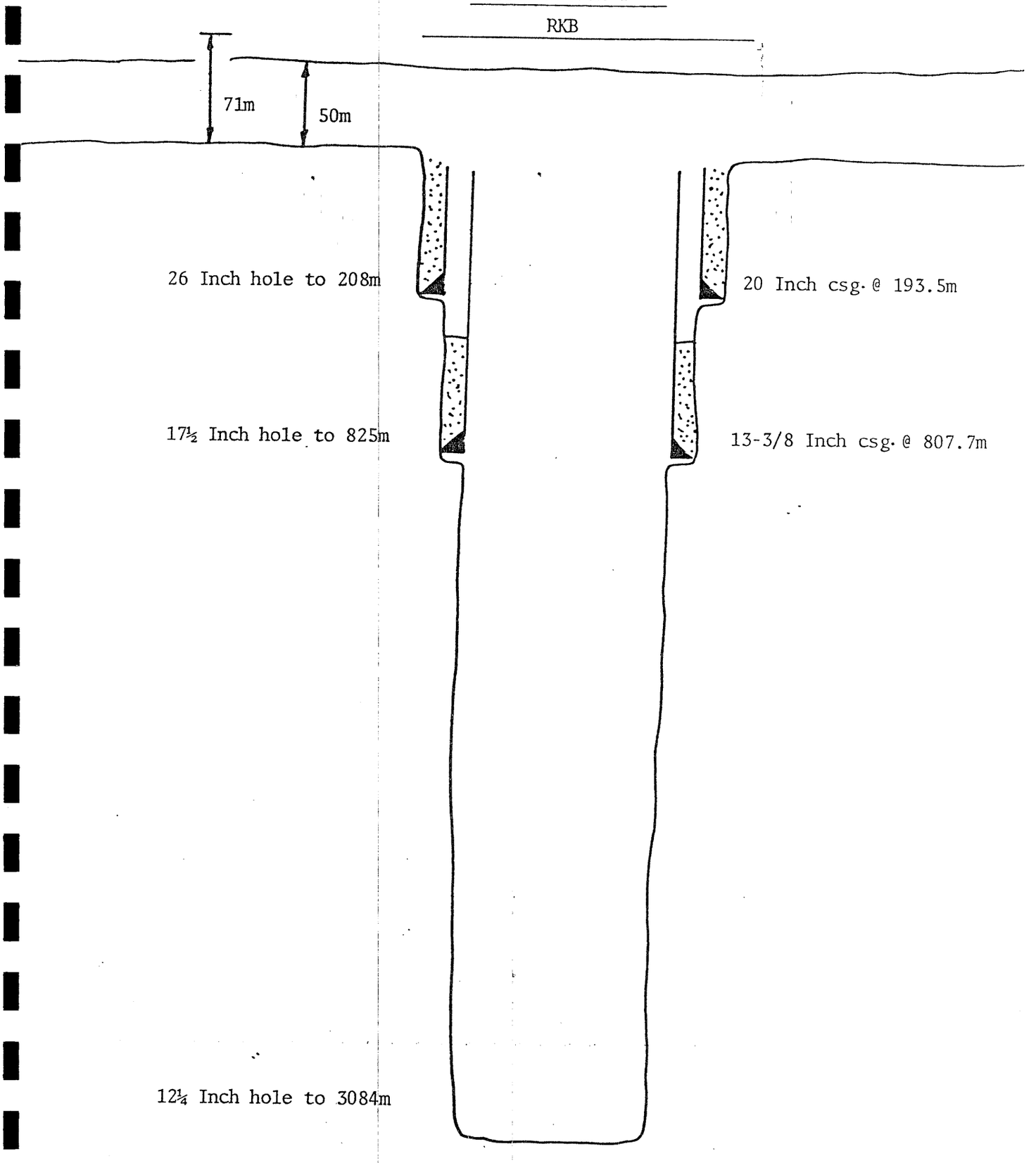


Figure 3.

Abandonment Schematic

Well: Wirrah-2

RKB

71m

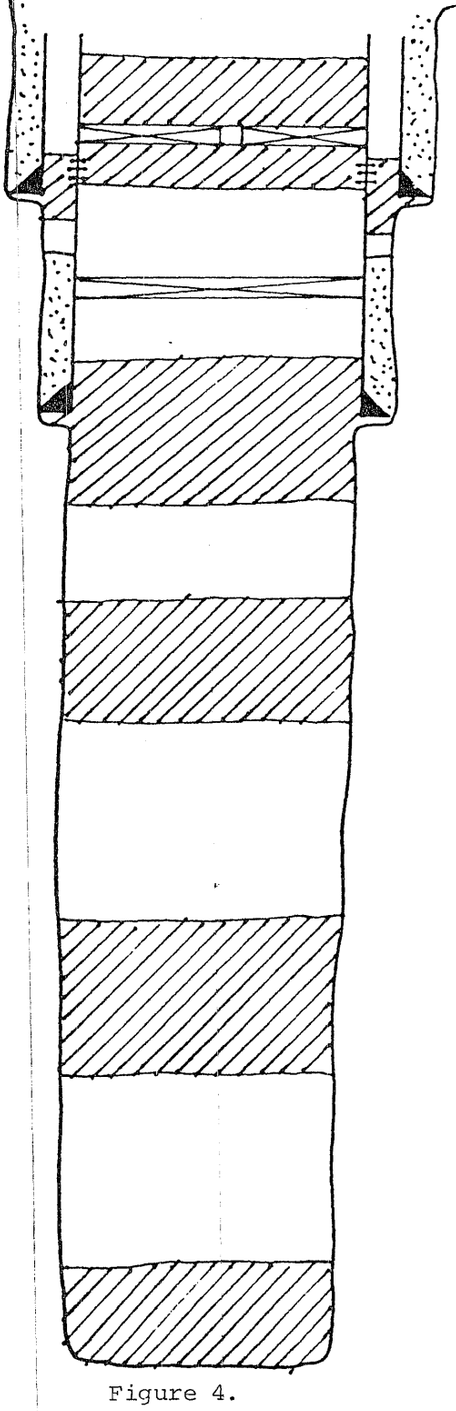
50m

13-3/8" CMT. RET. @ 141m

20" CSG @ 193.5m

CALC TOC @ 350m

13-3/8" CSG @ 808m



PLUG No. 5.

CSG: 153 - 103m
ANNULUS: 234 - 153m
PRESSURE TEST TO 1000 PSI

4" CSG PERFS @ 152 - 152.5m

13-3/8" BRIDGE PLUG @ 396m

PLUG No. 4.

858 - 758m
PRESSURE TEST TO 1200 PSI

PLUG No. 3.

1600 - 1425m
TAG W/10K LBS

PLUG No. 2.

2900 - 2700m

PLUG No. 1.

3084m - 2984m.

Figure 4.

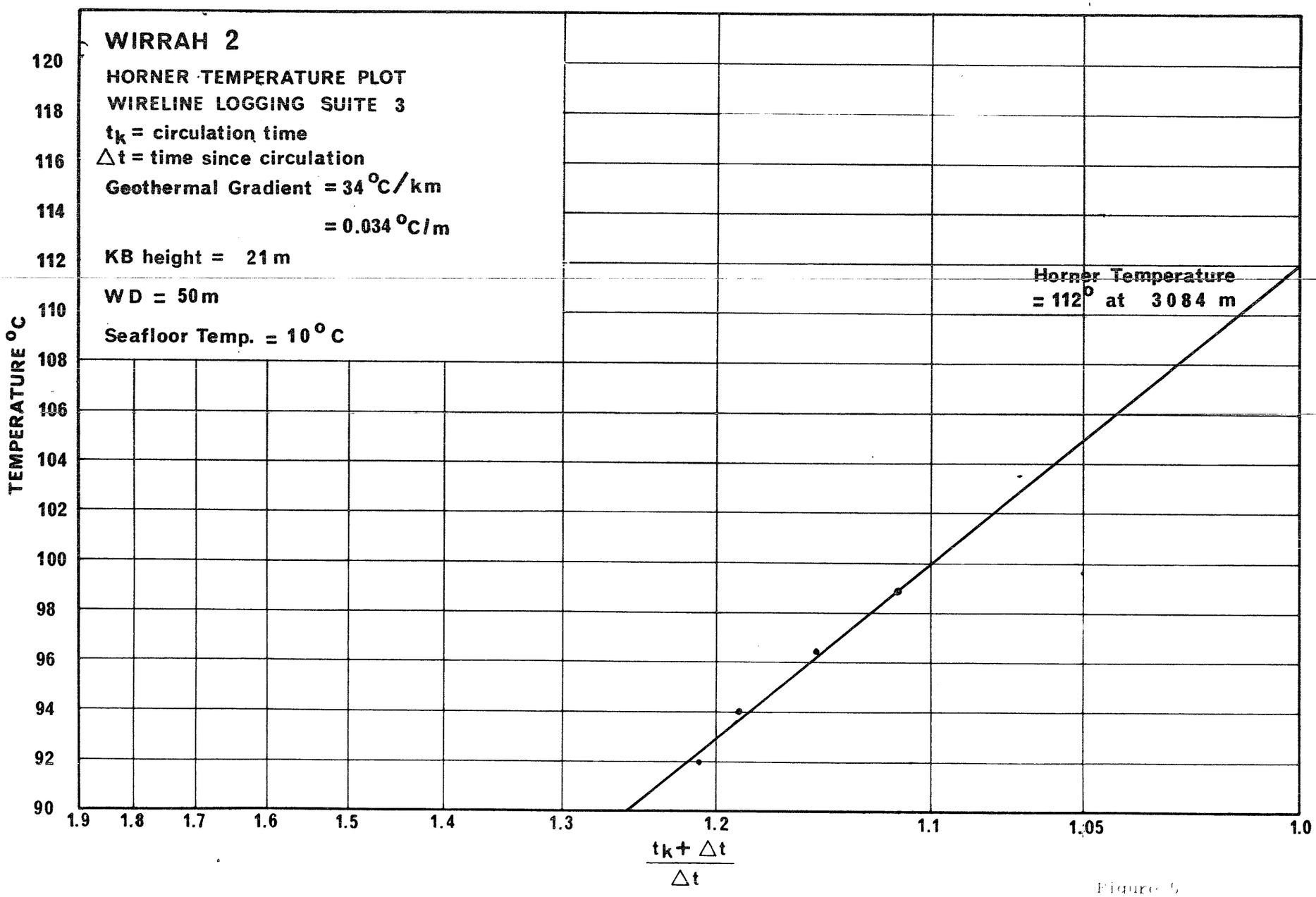

WIRRAH 2
HORNER TEMPERATURE PLOT
WIRELINE LOGGING SUITE 3
t_k = circulation time
Δt = time since circulation
Geothermal Gradient = 34 °C / km
= 0.034 °C / m
KB height = 21 m
WD = 50 m
Seafloor Temp. = 10 °C
Horner Temperature
= 112° at 3084 m
TEMPERATURE °C
120
118
116
114
112
110
108
106
104
102
100
98
96
94
92
90
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.05
1.0
$\frac{t_k + \Delta t}{\Delta t}$

Figure 5

APPENDIX 1

APPENDIX 1

Lithological Descriptions

WIRRAH - 2

LITHOLOGY DESCRIPTIONS

Depth	%	Description
220 - 230m	90	CEMENT:
230 - 240m	100	CALCARENITE: white to very light grey, fine sand size calcite grains are subrounded, well sorted, loosely packed, calcareous cement, aggregates are firm.
	trace	SHELL FRAGMENTS
	trace	BRYOZOA
	trace	LOOSE QUARTZ GRAINS: cream to clear, subangular, coarse grained, hard, have conchoidal fracture.
240 - 250m	100	CALCARENITE: as above.
	trace	SHELL FRAGMENTS
	trace	BRYOZOA
250 - 260m	100	CALCARENITE: light grey, aggregates of calcium carbonate grains in a calcareous matrix. The grains are clear, fine grained, moderately well sorted, subrounded to subangular. The aggregates are soft and poorly packed. Some fine grained dark mineral fragments present are usually platy.
	common	BRYOZOAN FRAGMENTS
	trace	SHELL FRAGMENTS
	trace	GLAUCONITE: dark green, fine grains in the calcarenite aggregates.
260 - 270m	100	CALCARENITE: as above.
	common	BRYOZOA
	trace	SHELL FRAGMENTS
270 - 280m	100	CALCARENITE: as above.
	common	BRYOZOA
	trace	SHELL FRAGMENTS
	trace	ECHINOID SPINES
280 - 290m	100	CALCARENITE: as above.
	common	BRYOZOA
	trace	SHELL FRAGMENTS
	trace	FORAMS
	trace	ECHINOID SPINES
	trace	LOOSE QUARTZ GRAINS
290 - 300m	100	CALCARENITE: as above, matrix has a lot of grey clay material.
	common	BRYOZOA
	common	SHELL FRAGMENTS
	trace	GASTROPODS
	trace	FORAMS
	trace	ECHINOID PLATES
300 - 310m	100	CALCARENITE: as above.
	common	BRYOZOA
	common	SHELL FRAGMENTS
	trace	FORAMS
	trace	ECHINOID PLATES AND SPINES
310 - 320m	100	CALCARENITE: as above.
	common	BRYOZOA
	common	SHELL FRAGMENTS
	trace	FORAMS
	trace	ECHINOID PLATES AND SPINES
	trace	GASTROPODS

320 - 330m	100	CALCARENITE: as above.
	common	BRYOZOA
	common	SHELL FRAGMENTS
	trace	ECHINOID FRAGMENTS
330 - 340m	100	CALCARENITE: bioclastic fraction predominant.
	common	BRYOZOA
	common	SHELL FRAGMENTS
	common	ECHINOID SPINES
	common	FORAMS
	trace	GASTROPODS
340 - 350m	100	CALCARENITE: as above, predominantly aggregates of calcium carbonate with a bioclastic fraction.
	common	BRYOZOA
	common	ECHINOID SPINES
	trace	FORAM FRAGMENTS
	trace	SHELL FRAGMENTS
350 - 360m	100	CALCARENITE: as above.
	common	BRYOZOA
	common	ECHINOID FRAGMENTS
360 - 370m	100	CALCARENITE: light grey to medium light grey aggregates, fine grained clasts of calcium carbonate, clear, subrounded, loosely packed, firm, moderately well sorted, some aggregates have a lot of argillaceous material, calcareous cement, occasional glauconite grains.
	trace	SHELL FRAGMENTS
	trace	BRYOZOA
	trace	PYRITE
	common	LOOSE QUARTZ: amber, clear, red brown, coarse grained, subrounded, vitreous.
370 - 380m	100	CALCARENITE: as above.
	trace	BRYOZOA
	trace	SHELL FRAGMENTS
	trace	QUARTZ
380 - 390m	100	CALCARENITE: as above, bioclastic element becoming more abundant.
	common	BRYOZOA
	common	SHELL FRAGMENTS
	common	ECHINOID SPINES
	trace	LOOSE QUARTZ GRAINS
390 - 400m	100	CALCARENITE: as above, more argillaceous, bioclastic element less common than for 380 - 390m.
	trace	QUARTZ
400 - 410m	100	CALCARENITE: as above, bioclastic element rare.
410 - 420m	100	CALCARENITE/CALCISILTITE: samples appear to be getting finer grained, and more argillaceous. Bioclastic element rare.
420 - 430m	100	CALCARENITE/CALCISILTITE: as above.

430 - 440m	100	CALCARENITE: as above, more arenaceous. The amount of argillaceous material in the samples is probably reduced by washing, so most samples have calcisiltite and clay but if washed thoroughly will show up as calcarenite. Bioclastic fraction more abundant than above.
	trace	LOOSE QUARTZ GRAINS
440 - 450m	100	CALCARENITE/CALCISILTITE: a lot of grey argillaceous material in the sample ie. clay. The clay is calcareous and does not swell in water.
450 - 460m	100	CALCARENITE/CALCISILTITE: as above.
460 - 470m	100	CALCARENITE/CALCISILTITE: as above.
470 - 480m	100	CALCARENITE/CALCISILTITE: as above.
480 - 490m	100	CALCARENITE/CALCISILTITE: as above.
490 - 500m	100	CALCARENITE/CALCISILTITE: as above.
500 - 510m	100	CALCARENITE/CALCISILTITE: as above, more arenaceous.
510 - 515m	100	CALCARENITE/CALCISILTITE: as above, bioclastic part now minor. Note: less clay over shakers.
515 - 520m	100	CALCARENITE/CALCISILTITE: as for 510 - 515m sample. 40% dull yellow mineral fluorescence from calcite.
520 - 530m	100	CALCARENITE/CALCISILTITE: as for 510 - 515m sample. One gastropod. 40% mineral fluorescence as above.
530 - 540m	100	CALCARENITE/CALCISILTITE: mostly calcisiltite, 30% mineral fluorescence as above.
540 - 550m	100	CALCARENITE/CALCISILTITE: as above, 20% mineral fluorescence.
550 - 560m	100	CALCISILTITE/CALCARENITE: as above, 10% mineral fluorescene.
	trace	PYRITE: fine granular aggregates.
	trace	BIOCLASTIC MATERIAL: eg. shell fragments, gastropods, bryozoa.
560 - 570m	100	CALCISILTITE/CALCARENITE: as above, 10% dull yellow mineral fluorescence from calcite.
	trace	BIOCLASTIC MATERIAL
	trace	PYRITE: as above, but seems to occupy the hollow inside some of the bioclastic fragments, eg. bryozoa.
570 - 580m	100	CALCISILTITE/CALCARENITE: as above, 20% mineral fluorescence.
	trace	BIOCLASTIC MATERIAL: as above, including echinoid fragments.
	trace	PYRITE

580 - 590m	90	CALCISILTITE/CALCARENITE: predominantly medium light grey to light grey, aggregates of calcium carbonate, very fine to fine grained, the aggregates are hard to firm, predominantly firm, calcareous cemented, and contain common of argillaceous material. The grains are fine grained to silt sized, subrounded to subangular, mostly calcium carbonate, occasionally dark mineral flakes? This calcarenite/calcisiltite shows evidence of forming a matrix around bioclastic fragments, eg. bryozoa, echinoids, shells and forams.
	10	CALCITE: cream coarse cuttings, subangular, vitreous, hard, could be shell fragments or recrystallised calcite. This gives a dull yellow mineral fluorescence, no cut or crush cut.
	trace	PYRITE: granular, appears to occasionally fill in bryozoan? tests. Slightly clayey over the shakers with some grey sticky calcareous clay.
590 - 600m	90	CALCISILTITE/CALCARENITE: as above, with very rare fine grained, subrounded, glauconite grains.
	10	CALCITE: with mineral fluorescence, as above.
	trace	PYRITE: loose cutting of fine grained granular pyrite.
600 - 610m	100	CALCISILTITE/CALCARENITE: as above, the bioclastic and the calcite cuttings give 10% dull yellow mineral fluorescence. Glauconite as above.
	trace	LOOSE QUARTZ GRAINS: very rare light brown, coarse, hard, vitreous, subangular.
610 - 620m	100	CALCISILTITE/CALCARENITE: as above, 10% mineral fluorescence as above.
	trace	PYRITE: granular cuttings, fine grained.
620 - 630m	100	CALCISILTITE: with minor calcarenite, as above, trace mineral fluorescence.
	trace	PYRITE: granular filling bryozoan test.
630 - 640m	100	CALCISILTITE/CALCARENITE: as above, trace mineral fluorescence.
640 - 650m	100	CALCISILTITE/CALCARENITE: as above, trace mineral fluorescence.
650 - 660m	100	CALCISILTITE/CALCARENITE: as above, trace mineral fluorescence.
660 - 670m	100	CALCISILTITE/CALCARENITE: as above, slightly more calcarenite in sample, trace mineral fluorescence.
670 - 680m	100	CALCISILTITE/CALCARENITE: as above, more arenaceous, with more broken bioclastic element in the sample, 30% dull yellow mineral fluorescence.
	trace	LOOSE QUARTZ GRAINS: subrounded, coarse grained, vitreous, clear, very hard.

680 - 690m	100	CALCISILTITE/CALCARENITE: as for 670 - 680m, glauconite appears to fill some of the smaller tests. 50% dull yellow mineral fluorescence.
690 - 700m	100	CALCARENITE/CALCISILTITE: (In the ratio of 9:1). The calcarenite is more arenaceous than above with a greater proportion of bioclastic material, this material is generally white to very light grey, gives dull yellow mineral fluorescence, with a white to very light grey calcareous cement, very little argillaceous material is present, the cuttings are angular to subangular, hard, occasional glauconite infilling of tests.
700 - 710m	100	CALCARENITE/CALCISILTITE: as above, the white to very light grey sample is 90% of the sample, and gives dull bluish yellow mineral fluorescence.
710 - 720m	100	CALCARENITE/CALCISILTITE: sample as for 700 - 710m, mineral fluorescence as above.
720 - 730m	100	CALCARENITE/CALCISILTITE: the light grey to medium light grey and white to very light grey fractions are now 50:50. Mineral fluorescence as above.
730 - 740m	100	CALCARENITE/CALCISILTITE: the medium light grey, light grey fraction now 90% of the sample and is predominantly calcisiltite. Minor bioclastic fraction with shell fragments, forams, bryozoan fragments. Trace mineral fluorescence as above.
740 - 750m	100	CALCISILTITE/CALCARENITE: sample as for 730 - 740m.
750 - 760m	100	CALCISILTITE/CALCARENITE: predominantly medium grey to light grey, argillaceous, predominantly calcisiltite, firm cuttings. The calcarenite generally forms lighter coloured, harder cuttings, the grains are very fine to fine grained calcium carbonate, with occasional dark mineral flakes, with calcareous light grey cement, and occasional glauconite; occasional bryozoa, shell and foram fragments are present. Trace dull yellow mineral fluorescence.
	trace	PYRITE: granular blocky cuttings.
760 - 770m	100	CALCISILTITE/CALCARENITE: as for 750 - 760m sample.
770 - 780m	100	CALCISILTITE/CALCARENITE: as for 750 - 760m sample, this sample is more arenaceous, trace dull yellow mineral fluorescence.
	trace	LOOSE QUARTZ GRAINS: subrounded, medium to coarse grained, vitreous.

780 - 790m	100	CALCISILTITE/CALCARENITE: as above, trace dull yellow mineral fluorescence.
	trace	SANDSTONE (up to 5%): medium grained, quartzose, light grey to very light grey aggregates, subrounded to subangular, moderately well sorted, occasional dark coloured clasts, mostly clear quartz, calcareous, argillaceous matrix.
	trace	LOOSE QUARTZ GRAINS: medium to coarse grained, clear to frosty, rounded to subrounded.
		The loose grains occur within the sandstone above; ie. this is poorly sorted, subangular, with argillaceous calcareous matrix.
790 - 800m	80	CALCARENITE/CALCISILTITE: as above.
	10	SANDSTONE: as above.
	10	LOOSE QUARTZ GRAINS: as above.
800 - 805m	70	CALCARENITE/CALCISILTITE: as above.
	20	LOOSE QUARTZ GRAINS: as above.
	10	SANDSTONE: as above.
805 - 810m	90	CALCISILTITE: medium light grey to light grey cuttings, hard to soft, very fine grained, calcareous, argillaceous, calcareous cement. Some soft cuttings of very light grey soft calcisiltite, contains widely dispersed clear and light brown grains, these are very fine to fine grained, subrounded, poorly sorted. The cuttings contain some medium grey clay. Occasional fossil fragments: eg. bryozoa, rare echinoid spines.
	10	SANDSTONE: predominantly loose quartz grains, medium to very coarse grained, subrounded to subangular, clear to frosted, some cuttings show grains supported in a matrix of calcisiltite, these are usuallly soft cuttings and could be the result of mixing in the hole. Occasional aggregates of clear quartz grains, medium to fine grained, subangular, moderately well sorted, occasional dark grains and very rare glauconite. One cutting showed a very coarse quartz grain with a calcisiltite matrix containing finer quartz grains stuck to one side.
	trace	PYRITE: granular blocky cuttings.
		A lot of sticky grey calcareous clay is coming over the shakers. Does not react readily with water. Some dull yellow mineral fluorescence from calcite fragments of biogenic origin.
810 - 815m	100	CALCISILTITE: as above, 50% medium grey, 50% very light grey.
	trace	SANDSTONE: as above.
		Much clay (gumbo coming over the shakers).
815 - 825m	100	CALCISILTITE: as above, darker fraction predominates, very few fossil fragments.
		Much clay/gumbo coming over the shakers.
		Some large (1" x 1" x 1-1/4") plates of calcisiltite as above, coming over the shakers.

825 - 830m	100	CALCISILTITE: as above, plenty of gumbo as above, coming over the shakers. Most of the sample is cement.
830 - 835m	100	CALCISILTITE: as above.
835 - 840m	100	CALCISILTITE: as above.
840 - 845m	100	CALCISILTITE: as above, trace bryozoa and forams.
845 - 850m	100	CALCISILTITE: as above.
850 - 855m	100	CALCISILTITE: medium grey to light grey, soft to firm cuttings, argillaceous, calcareous cement, occasional clear very fine grained calcite grains, occasional dark grains and very rare glauconite, rare forams.
	trace	LOOSE QUARTZ GRAINS
	trace	GUMBO
855 - 860m	100	CALCISILTITE: as above.
	trace	LOOSE QUARTZ GRAINS: very fine grained, rounded. Could be scattered through the calcisiltite.
860 - 865m	100	CALCISILTITE: as above.
	trace	LOOSE QUARTZ GRAINS: coarse to medium grained, rounded, clear to frosty. Also very fine grained loose quartz grains. Gumbo as above, proves to be water sensitive when left in water for a long time ie. 15-20 minutes.
865 - 870m	100	CALCISILTITE: slightly more arenaceous in part than above, forams common.
	trace	CALCITE: vitreous, buff, blocky.
	trace	LOOSE QUARTZ GRAINS: very fine grained, as above. GUMBO: as above.
870 - 885m	100	CALCISILTITE: as above.
	trace	CALCITE: as above.
	trace	QUARTZ: as above. GUMBO: as above.
885 - 890m	100	CALCISILTITE: as above. GUMBO: as above.
890 - 895m	100	CALCISILTITE: as above, cuttings appear harder ie. mostly firm to moderately hard, and smaller. Forams common, rare echinoid fragments.
	trace	CALCITE: buff, vitreous, blocky. Gives dull yellow mineral fluorescence, no cut or crush cut.
	trace	LOOSE QUARTZ GRAINS: coarse, very rare, clear, vitreous, subangular to subrounded.
895 - 900m	100	CALCISILTITE: as above.
	trace	CALCITE: as above.
	trace	LOOSE QUARTZ GRAINS: as above.

900 - 905m	100	CALCARENITE & MINOR CALCISILTITE: calcisiltite as above, calcarenite - medium grey to medium light grey, firm cuttings, very fine grained, subangular to subrounded, grains probably of clear quartzite (ie. appear to dissolve in HCl), contains common forams, occasional dark minerals and glauconite. Matrix is argillaceous, calcareous, also contains subangular to subrounded very fine grained clear quartz fragments. Loose forams common.
	trace	CALCITE: as above, probably from fossil fragments, gives a dull yellow mineral fluorescence.
905 - 910m	100	CALCARENITE/CALCISILTITE: as above, in 50:50 proportions.
	trace	GLAUCONITE: as above.
	trace	CALCITE: buff, subangular, loose vitreous grains, gives a dull yellow mineral fluorescence.
910 - 915m	100	CALCARENITE/CALCISILTITE: as above, calcisiltite predominates, no glauconite seen.
	trace	CALCITE: as above.
	trace	QUARTZ: loose, subangular, coarse grained, clear, tan, vitreous. very rare.
915 - 920m	100	CALCISILTITE: as above.
	trace	CALCITE: as above.
920 - 925m	100	CALCISILTITE: as above.
	trace	CALCITE: as above.
925 - 930m	100	CALCISILTITE: as above.
	trace	CALCITE: as above.
	trace	LOOSE QUARTZ: as above.
		Less gumbo coming over the shakers.
930 - 935m	100	CALCISILTITE: as above, with echinoid fragments, rare forams, occasional bryozoa.
	trace	CALCITE: clear to buff, blocky, coarse grains.
935 - 940m	100	CALCISILTITE: as above, forams as above.
	trace	CALCITE: as above.
	trace	LOOSE QUARTZ: coarse, clear, frosty, subrounded.
940 - 945m	100	CALCISILTITE: as above.
	common	CALCITE: as above.
945 - 950m	100	CALCISILTITE: as above.
	trace	CALCILTE: as above.
950 - 955m	100	CALCISILTITE: as above.
	trace	CALCITE: as above.
955 - 960m	100	CALCISILTITE: as above.
	trace	CALCITE: as above.
	trace	LOOSE QUARTZ: one grain subrounded, coarse, frosty quartz.
960 - 965m	100	CALCISILTITE: as above.
	trace	CALCITE: as above.
		Gumbo over the shakers.

965 - 970m	100	CALCISILTITE: as above.
970 - 975m	100	CALCISILTITE: as above.
	trace	CALCITE: as above.
	trace	One quartz grain, coarse, subrounded, vitreous, light red brown.
975 - 980m	100	CALCISILTITE: as above, getting more arenaceous.
	trace	CALCITE: as above.
		No gumbo coming over shakers.
980 - 985m	80	CALCARENITE: very light grey to medium light grey, very fine grained, angular, clear grains, glauconite common, as are dark mineral grains, gives a dull purple yellow fluorescence, forams common.
	20	CALCISILTITE: as above.
985 - 990m	80	CALCARENITE: as above, glauconite grains common.
	20	CALCISILTITE: as above.
	trace	CALCITE
990 - 995m	50	CALCARENITE: as above, glauconite grains common.
	50	CALCISILTITE: as above.
	trace	CALCITE
995 - 1000m	90	CALCISILTITE: as above.
	10	CALCARENITE: as above.
1000 - 1005m	90	CALCARENITE: as above, glauconite very common.
	10	CALCISILTITE: as above.
	trace	LOOSE QUARTZ GRAINS: subangular, coarse grained, clear, very rare.
1005 - 1010m	30	CALCARENITE: as above.
	70	CALCISILTITE: as above, more gumbo present.
1010 - 1015m	90	CALCISILTITE: as above.
	10	CALCARENITE: as above.
	trace	CALCITE: buff, vitreous, subangular blocky cuttings.
1015 - 1020m	60	CALCISILTITE: medium grey to light grey, firm to soft cuttings, calcareous cement, argillaceous.
	40	CALCARENITE: light grey to medium grey, very fine grained, subangular to subrounded, calcium grains in argillaceous calcareous matrix. Occasional dark mineral grains and glauconite.
	trace	CALCITE: clear, blocky, rare.
1020 - 1025m	100	CALCISILTITE: as above.
	trace	CALCITE: as above.
	trace	LOOSE QUARTZ GRAINS: clear, coarse grained, vitreous, subangular to subrounded, rare.
1025 - 1030m	100	CALCISILTITE: as above.
	trace	CALCITE: as above.

1030 - 1035m	100	CALCISILTITE: as above, trace rare echinoid and bryozoan fossil fragments.
	trace	CALCITE: as above.
1035 - 1040m	100	CALCISILTITE: as above.
	trace	CALCITE: as above.
1040 - 1045m	100	CALCISILTITE: as above.
	trace	CALCITE: as above.
1045 - 1050m	100	CALCISILTITE: as above. Occasional fossil fragment.
1050 - 1055m	90	CALCISILTITE: as above.
	trace	CALCITE: as above.
	10	CALCARENITE: as above, occasional fossil fragment.
1055 - 1060m	20	CALCARENITE: as above, with trace glauconite grains.
	80	CALCISILTITE: as above.
	trace	CALCITE: as above, occasional fossil fragments.
1060 - 1065m	20	CALCARENITE: as above.
	80	CALCISILTITE: as above.
	trace	CALCITE: as above. Occasional fossil fragment.
1065 - 1070m	70	CALCARENITE: as above, with rare glauconite.
	30	CALCISILTITE: as above.
	trace	CALCITE Occasional fossil fragment.
1070 - 1075m	60	CALCARENITE: as above, with occasional dark green glauconite grains.
	40	CALCISILTITE: as above.
1075 - 1080m	80	CALCARENITE: as above.
	20	CALCISILTITE: as above.
	trace	CALCITE: as above.
1080 - 1085m	50	CALCARENITE: as above.
	50	CALCISILTITE: as above. Clay in sample reacts slowly with water.
1085 - 1090m	80	CALCISILTITE: as above.
	20	CALCARENITE: as above.
1090 - 1095m	70	CALCISILTITE: as above.
	30	CALCARENITE: as above, with rare glauconite grains.
1095 - 1100m	90	CALCISILTITE: as above.
	10	CALCARENITE: as above, with rare glauconite grains.
1100 - 1105m	80	CALCISILTITE: as above.
	20	CALCARENITE: as above.
1105 - 1110m	90	CALCISILTITE: as above.
	10	CALCARENITE: as above.

1110 - 1115m	90	CALCISILTITE: as above.
	10	CALCARENITE: as above.
	trace	CALCITE: buff, blocky, vitreous, coarse grained.
		Note: some cuttings contain water sensitive clay.
1115 - 1120m	100	CALCISILTITE: as above, very rare bryozoan fragments.
	trace	CALCARENITE: as above.
	trace	CALCITE
1120 - 1125m	100	CALCISILTITE: as above.
	trace	CALCARENITE: as above.
	trace	CALCITE
1125 - 1130m	100	CALCISILTITE: as above.
1130 - 1135m	100	CALCISILTITE: as above.
1135 - 1140m	100	CALCISILTITE: as above.
1140 - 1145m	100	CALCISILTITE: as above.
	trace	CALCITE: as above.
1145 - 1150m	100	CALCISILTITE: as above.
	trace	CALCITE: as above.
1150 - 1155m	100	CALCISILTITE: as above.
1155 - 1160m	100	CALCISILTITE: as above.
1160 - 1165m	100	CALCISILTITE: as above.
1165 - 1170m	100	CALCISILTITE: as above.
1170 - 1175m	100	CALCISILTITE: as above.
1175 - 1180m	100	CALCISILTITE: as above.
	trace	CALCITE
1180 - 1185m	100	CALCISILTITE: as above.
1185 - 1190m	100	CALCISILTITE: as above.
	trace	CALCITE: very rare.
1190 - 1195m	100	CALCISILTITE: as above.
	trace	CALCITE: rare.
1195 - 1200m	100	CALCISILTITE: as above, slightly more arenaceous.
	trace	CALCITE
1200 - 1205m	100	CALCISILTITE: as above, very rare forams.
1205 - 1210m	100	CALCISILTITE: as above.
1210 - 1215m	100	CALCISILTITE: as above.
	trace	CALCITE
1215 - 1220m	100	CALCISILTITE: as above.
	trace	CALCITE: as above.
	trace	PYRITE: one blocky granular cutting.
1220 - 1225m	100	CALCISILTITE: as above, one echinoid spine fragment.

1225 - 1230m	100	CALCISILTITE: as above.
1230 - 1235m	100	CALCISILTITE: as above, much of the sample is water sensitive.
1235 - 1240m	100 trace	CALCISILTITE: as above. CALCITE: as above.
1240 - 1245m	100	CALCISILTITE: as above.
1245 - 1250m	100	CALCISILTITE: as above, sample is extremely argillaceous - clay in the samples is water sensitive, when wetted for a second time.
1250 - 1255m	100 trace	CALCISILTITE: as above. CALCITE: as above.
1255 - 1260m	100 trace	CALCISILTITE: as above. CALCITE: as above.
1260 - 1265m	100 trace	CALCISILTITE: as above. CALCITE: as above, probably from fossil fragments.
1265 - 1270m	100 trace	CALCISILTITE: as above. CALCITE: as above.
1270 - 1275m	100 trace	CALCISILTITE: as above, occasional bryozoan fragment, forams. CALCITE: as above.
1275 - 1280m	100 trace	CALCISILTITE: as above, forams, bryozoans. CALCITE
1280 - 1285m	100	CALCISILTITE: as above.
1285 - 1290m	100	CALCISILTITE: as above.
1290 - 1295m	100	CALCISILTITE: as above.
1295 - 1300m	100 trace	CALCISILTITE: as above, bryozoan fragments. CALCITE: buff, vitreous, blocky, coarse grains. Note: some sticky clay over the shakers.
1300 - 1305m	100 trace	CALCISILTITE: as above. CALCITE:
1305 - 1310m	100 trace	CALCISILTITE: as above, occasional foram. CALCITE: blocky, buff, vitreous, coarse grained cuttings. CLAY
1310 - 1315m	100	CALCISILTITE: as above, occasional arenaceous cuttings with rare glauconite grains. CLAY
1315 - 1320m	100	CALCISILTITE: medium grey to light grey, firm to occasionally soft cuttings, calcareous, argillaceous, rounded to angular cuttings. CLAY
1320 - 1325m	100	CALCISILTITE: as above, occasionally grades to calcarenite with some fine grained, dark green glauconite grains, occasional foram.

1325 - 1330m	100	CALCISILTITE: as above, occasional glauconite grain in the cuttings.
1330 - 1335m	100	CALCISILTITE: as above, glauconite as above, occasional foram.
1335 - 1340m	100	CALCISILTITE: as above, glauconite as above, occasional foram
	trace	CALCITE: white, subangular, coarse grained, blocky cuttings and occasional buff cuttings as above.
1340 - 1345m	100	CALCISILTITE: as above, smaller cuttings than above, these are generally finer than the above.
1345 - 1350m	100	CALCISILTITE: as for the sample 1340 - 1345m, but some of the sample still shows very fine grained grains. Also dark green grains of glauconite are common.
1350 - 1355	100	CALCAREOUS MUDSTONE: (calcilutite) medium grey to medium light grey, firm to soft, subangular cuttings, very calcareous, argillaceous, has a slightly gritty texture, forams.
1355 - 1360m	80	CALCAREOUS MUDSTONE: as above.
	20	CALCISILTITE: as above.
	trace	CALCITE
		CLAY: medium grey, coming over shakers.
1360 - 1365m	90	CALCAREOUS MUDSTONE: as above.
	10	CALCISILTITE: as above.
1365 - 1370m	100	CALCAREOUS MUDSTONE: as above, occasional foram.
1370 - 1375m	100	CALCAREOUS MUDSTONE: as above, fossil fragments; eg. forams, bryozoans.
1375 - 1380m	100	CALCAREOUS MUDSTONE: as above.
1380 - 1385m	100	CALCAREOUS MUDSTONE: as above.
1385 - 1390m	100	CALCAREOUS MUDSTONE: as above.
1390 - 1395m	100	CALCAREOUS MUDSTONE: as above.
1395 - 1400m	100	CALCAREOUS MUDSTONE: as above.
1400 - 1405m	100	CALCAREOUS MUDSTONE: as above. All the calcilutite samples have medium grey clay associated with them. This is calcareous, argillaceous, reacts slightly with H_2O.
1405 - 1410m	100	CALCAREOUS MUDSTONE: as above, with very rare grains of fine grained glauconite as inclusions, predominantly medium light grey.
1410 - 1415m	100	CALCAREOUS MUDSTONE: as above, medium light grey to medium grey.
1415 - 1420m	100	CALCAREOUS MUDSTONE: as above.
1420 - 1425m	100	CALCAREOUS MUDSTONE: as above.

1425 - 1430m	100	CALCAREOUS MUDSTONE: as above, occasional very fine grained dark glauconite grains.
	trace	PYRITE: small granular cuttings.
1430 - 1435m	100	CALCAREOUS MUDSTONE: as above, occasionally get large cuttings of medium grey calcareous mudstone.
1435 - 1440m	100	CALCAREOUS MUDSTONE: as above, traces of glauconite grains embedded in the mudstone.
1440 - 1445m	100	CALCAREOUS MUDSTONE: as above
1445 - 1450m	100	CALCAREOUS MUDSTONE: as above.
1450 - 1455m	100	CALCAREOUS MUDSTONE: as above.
1455 - 1460m	100	CALCAREOUS MUDSTONE: as above, occasional foram present. Still have calcareous clay over the shakers.
1460 - 1465m	100	CALCAREOUS MUDSTONE: some cuttings quite large and sample is predominantly light grey.
	trace	GLAUCONITE: as above, also as dark green, loose, medium, rounded grains. There is some evidence the grains have come out of the calcareous mudstone.
1465 - 1470m	100	CALCAREOUS MUDSTONE: as above, many angular, platy, soft, predominantly medium grey.
	trace	PYRITE: one granular coarse blocky cutting.
1470 - 1475m	100	CALCAREOUS MUDSTONE: as above.
	trace	GLAUCONITE
1475 - 1480m	100	CALCAREOUS MUDSTONE: as above, trace forams.
	trace	GLAUCONITE
1480 - 1485m	100	CALCAREOUS MUDSTONE: as above.
	trace	GLAUCONITE
1485 - 1490m	20	SILTSTONE: (Calcisiltite?), greyish brown, olive grey, subrounded cuttings, contains fine to medium grained, subrounded glauconite, very calcareous, very argillaceous, difficult to tell how much quartz is present.
	80	CALCAREOUS MUDSTONE: as above, occasional forams. Grey clay: argillaceous, calcareous, still coming over the shakers.
1490 - 1495m	20	SILTSTONE: as above.
	80	CALCAREOUS MUDSTONE: as above.
	trace	GLAUCONITE: abundant as loose, rounded to subrounded, medium to coarse grained, dark green grains.
	trace	QUARTZ: loose, very coarse to medium grained, poorly sorted, subangular, clear, frosted.
	trace	CALCITE: buff, blocky coarse cuttings give rare dull yellow mineral fluorescence, no cut or crush cut.

1495 - 1500m	40	SILTSTONE: as above.
	60	CALCAREOUS MUDSTONE: as above.,
	trace	GLAUCONITE: abundant loose grains.
	trace	SHELL FRAGMENTS, FORAMS
1500 - 1505m	50	SILTSTONE: as above.
	50	CALCAREOUS MUDSTONE: as above.
	trace	LOOSE QUARTZ: abundant, clear to frosted, subrounded to subangular, coarse to medium grained.
	trace	PYRITE: granular, blocky cuttings.
1505 - 1510m	50	SILTSTONE: as above.
	50	CALCAREOUS MUDSTONE: as above.
	trace	QUARTZ: loose grains, coarse to medium grained, subangular to subrounded, clear to frosty.
	trace	PYRITE: granular blocky cuttings, sometimes containing fine grained glauconite grains.
1510 - 1515m	80	SANDSTONE: clear to frosty, subangular to subrounded, predominantly subrounded, very coarse to medium grained, loose grains, no visible cement, good visible porosity, moderately well sorted.
	10	SILTSTONE: as above.
	10	CALCAREOUS MUDSTONE: as above.
	trace	PYRITE: as above.
		Very little clay over the shakers, large amounts of fine grained quartz from the desanders.
1515 - 1520m	80	SANDSTONE: as above.
	10	SILTSTONE: as above.
	10	CALCAREOUS MUDSTONE: as above.
	trace	COAL: black, vitreous, conchoidal fractures, blocky cuttings.
	trace	PYRITE: as above.
	trace	GLAUCONITE
	trace	CALCITE: very rare, buff, blocky coarse cuttings, gives dull yellow mineral fluorescence.
1520 - 1525m	60	SANDSTONE: as above.
	10	SILTSTONE: as above.
	30	CALCAREOUS MUDSTONE: as above.
	trace	COAL
	trace	PYRITE
	trace	GLAUCONITE
1525 - 1530m	60	CALCAREOUS MUDSTONE: as above.
	10	SILTSTONE: as above.
	30	SANDSTONE: as above, some of the grains have inclusions of a dark mineral, perhaps rutile.
1530 - 1535m	100	SANDSTONE: loose quartz grains, frosty, vitreous, crystalline habit, very coarse grained to medium grained, subangular, occasionally subrounded, no visible cement.
	trace	COAL
	trace	CALCAREOUS MUDSTONE

1535 - 1540m	80	SANDSTONE: as above, yet occasional buff coloured vitreous loose grains.
	20	CALCAREOUS MUDSTONE: as above, with trace of embedded glauconite grains, fine grained.
	trace	PYRITE: granular blocky cuttings.
	trace	COAL
	trace	DOLOMITE: buff, vitreous, reacts slowly in cool HCl, reaction increased in warmed HCl, shows dull yellow mineral fluorescence, no cut or crush cut.
	trace	Dull yellow fluorsecence from what appears to be quartz grains, could be fluorite. Do not react in HCl.
1540 - 1545m	80	CALCISILTITE: as above.
	20	LOOSE QUARTZ GRAINS: as above.
	trace	DOLOMITE
	trace	PYRITE
	trace	COAL
1545 - 1550m	40	SANDSTONE: as above.
	60	CALCISILTITE: medium grey to light grey to brownish grey, generally calcareous, argillaceous, soft to firm cuttings.
	trace	DOLOMITE: abundant dull yellow mineral pinpoint fluorescence, no cut or crush cut. Cuttings are subangular, coarse grained, sometimes agglomerates of face to face medium grained clasts or crystals. The dolomite is vitreous, does react very slowly in HCl and does not change colour in Alzarian red.
1550 - 1555m	60	CALCAREOUS MUDSTONE: medium grey to medium light grey, large angular cuttings, calcareous, argillaceous.
	20	SILTSTONE: as above, with glauconite.
	20	SANDSTONE: as above.
	trace	PYRITE
	trace	GLAUCONITE: loose, medium grained, rounded.
	trace	DOLOMITE: as above, gives yellow mineral fluorescence.
1555 - 1560m	90	CALCAREOUS MUDSTONE: grades to calcisiltite.
	10	SANDSTONE: as above.
	trace	SILTSTONE: as above.
	trace	DOLOMITE: less abundant than above, gives yellow mineral fluorescence.
1560 - 1565m	50	COAL: brown, vitreous, angular cuttings.
	50	CALCAREOUS MUDSTONE: as above.
	trace	SANDSTONE
	trace	DOLOMITE
1565 - 1570m	90	CALCAREOUS MUDSTONE: as above.
	10	SANDSTONE: as above, loose quartz grains, subangular to subrounded, coarse to medium grained, clear to frosty.
	trace	MICA: white flakes.
	trace	COAL
	trace	SILTSTONE: with glauconitic inclusions.
	trace	PYRITE: granular blocky cuttings.

1570 - 1575m	60	CALCISILTITE: brownish grey to medium grey, predominantly medium light grey, calcareous, argillaceous, blocky and angular cuttings, firm, contain occasional fine to medium grained, rounded to subrounded glauconite grains.
	40	SANDSTONE: clear to frosty, loose quartz grains, angular to subrounded, predominantly angular, coarse to medium grained, poorly sorted, some of the larger quartz grains contain dark mineral flakes.
	trace	COAL: as above
	trace	PYRITE
	rare	MICA: white flakes.
1575 - 1580m	90	CALCISILTITE - CALCAREOUS MUDSTONE: calcisiltite grades to calcareous mudstone.
	10	SANDSTONE: as above.
	trace	PYRITE: as above.
	trace	COAL
	trace	DOLOMITE
	trace	FORAMS
1580 - 1585m	40	COAL
	60	CALCAREOUS MUDSTONE/CALCISILTITE: as above.
	trace	LOOSE QUARTZ
	trace	DOLOMITE
1585 - 1590m	50	COAL: dark grey, vitreous, blocky, slightly silty cuttings.
	40	CALCISILTITE/CALCAREOUS MUDSTONE: as above.
	10	SANDSTONE: as above.
1590 - 1595m	80	COAL: as above.
	10	SANDSTONE: as above.
	10	CALCISILTITE/CALCAREOUS MUDSTONE: as above. Has a trace of dull yellow mineral fluorescence from some cuttings. Gives strong bright yellow steam cut, strong crush cut, leaves a bright yellow residue under U/V.
	trace	DOLOMITE: as above
1595 - 1600m	100	COAL: black, vitreous, blocky, firm cuttings, conchoidal fracture.
	trace	CALCISILTITE(CALCAREOUS SILISTONE)
	trace	CALCAREOUS MUDSTONE
	trace	LOOSE QUARTZ GRAINS
	trace	DOLOMITE
	trace	MINERAL FLUORESCENCE
1600 - 1605m	30	COAL: as above.
	50	CALCAREOUS MUDSTONE/CALCISILTITE: as above.
	20	SILTSTONE: brownish grey, contains carbonaceous flecks, firm, rounded, blocky cuttings, argillaceous, only very slightly calcareous.
	trace	MICA: white flakes.
	trace	LOOSE QUARTZ
	trace	DOLOMITE: associated with mineral fluorescence.

1605 - 1610m	80	SANDSTONE: two types; Type 1 - mostly loose quartz grains, these are clear, predominantly frosted, mostly coarse to medium grained, subrounded to subangular, moderately well sorted; Type 2 - some of the medium grains described in the first description are cemented by dolomite.
	10	CALCISILTITE/CALCAREOUS MUDSTONE: as above.
	10	SILTSTONE: as above.
	trace	COAL
		10% dull yellow mineral fluorescence associated with dolomite cuttings, and sandstone cemented with dolomite. No cut, no crush cut.
1610 - 1615m	100	SANDSTONE: Type 1 - 20% as above; Type 2 - 80% as above, has very little visible porosity, gives 80% dull yellow mineral fluorescence.
	trace	COAL
	trace	CALCISILTITE/CALCAREOUS MUDSTONE
	trace	SILTSTONE
1615 - 1620m	100	SANDSTONE: Type 1 - 90% as above; Type 2 - 10% as above.
	trace	SILTSTONE
	trace	CALCAREOUS MUDSTONE/CALCISILTITE
1620 - 1625m	100	SANDSTONE: Type 1 - 90% as above; Type 2 - 10% as above; no cut or crush cut.
	trace	COAL
	trace	SILTSTONE
	trace	GLAUCONITE: medium grained, loose grains.
1625 - 1630m	90	SANDSTONE: quartzose, transparent to translucent, medium to very coarse grained, predominantly very coarse grained, subrounded, moderately sorted, predominantly loose grained, occasionally wel cemented aggregates with dolomitic cement - dolomite mineral fluorescence, trace pyrite associated with quartz, no cut.
	10	SILTSTONE: medium light grey, firm to soft, calcareous, occasional dark green glauconite pellets.
1630 - 1635m	20	SANDSTONE: as above.
	80	COAL: black, brittle.
	trace	SILTSTONE: as above.
	trace	GLAUCONITE
1635 - 1640m	90	SANDSTONE: rounded to subrounded otherwise as above.
	5	SILTSTONE: as above.
	5	COAL: as above.
	trace	GLAUCONITE
1640 - 1645m	60	SANDSTONE: as above, trace grey grains.
	20	SILTSTONE: as above, slightly carbonaceous.
	20	COAL: as above.
	trace	GLAUCONITE
1645 - 1650m	90	SANDSTONE: as above.
	10	SILTSTONE: as above.
1650 - 1655m	90	SANDSTONE: as above.
	10	SILTSTONE: as above.

1655 - 1660m	90	SANDSTONE: predominantly coarse grained, subangular, otherwise as above.
	10	SILTSTONE: no glauconite, otherwise as above.
	trace	CLAYSTONE: light grey to very light grey, soft, slightly water sensitive.
1660 - 1665m	90	SANDSTONE: loose quartz grains, clear to frosty, dominantly medium to very coarse grain size, subangular, some very coarse grains subrounded to rounded, moderately sorted, no fluorescence or cut.
	10	CLAYSTONE: light grey, soft to firm, blocky, moderately calcareous, occasional carbonaceous laminae, slightly silty in part.
	trace	SILTSTONE
	trace	COAL
	rare	FORAMS
1665 - 1670m	80	SANDSTONE: as above.
	20	CLAYSTONE: as above, rare green glauconite grains.
	trace	SILTSTONE
	trace	COAL
1670 - 1675m	50	SANDSTONE: as above.
	40	COAL: black, very hard, vitreous, brittle, angular.
	10	CLAYSTONE: as above.
	trace	SILTSTONE: brown grey, carbonaceous.
1675 - 1680m	90	COAL: as above.
	10	SANDSTONE: as above.
	trace	CLAYSTONE
	trace	SILTSTONE
1680 -1685m	100	COAL: as above.
	trace	SANDSTONE
	trace	CLAYSTONE
1685 - 1690m	100	COAL: as above.
	trace	SANDSTONE
	trace	CLAYSTONE
1690 - 1695m	40	COAL: as above.
	50	SANDSTONE: as above.
	10	SILTSTONE: brown grey, soft to firm, blocky, argillaceous, carbonaceous, slightly micromicaceous.
	trace	CLAYSTONE
1695 - 1700m	50	SANDSTONE: as above, occasional medium grained aggregates, some very coarse grains appear to be smaller grains welded together.
	30	COAL: as above.
	20	SILTSTONE: as above, grades to fine grained argillaceous sandstone.
	trace	CLAYSTONE
1700 - 1705m	50	SANDSTONE: as above, trace bright yellow mineral fluorescence - dolomite cement.
	30	SILTSTONE: as above, grading to fine grained argillaceous sandstone.
	20	COAL: as above.
	trace	CLAYSTONE

1705 - 1710m	60	SANDSTONE: dominantly loose quartz grains, clear to frosty, dominantly medium to very coarse grain size, angular to subangular, very coarse grains are subrounded, moderately sorted. Also aggregates: moderately cemented, medium grain size, subangular, moderately sorted, possible siliceous cement, poor visible porosity, has bright yellow fluorescence, no cut or crush cut, little reaction with HCl - dolomite cement.
	30	SILTSTONE: as above, becoming less carbonaceous. Also light grey, soft, grading to claystone.
	10	COAL: as above.
1710 - 1715m	60	SANDSTONE: as above, common fluorescent aggregates - dolomite cement.
	40	SILTSTONE: as above, less argillaceous, more quartzose, grading to fine sandstone.
	tr-5	COAL
	tr-5	CLAYSTONE
1715 - 1720m	30	SANDSTONE: as above.
	30	SILTSTONE: light grey to light brown grey, as above.
	40	CLAYSTONE: white to light grey, very soft, dispersive, silty in part, slightly carbonaceous.
	trace	COAL
	trace	MICA FLAKES
	trace	Common white clayey material (kaolinite?).
1720 - 1725m	60	SANDSTONE: medium to very coarse grains as above, common dolomitic fluorescent aggregates as above.
	30	SILTSTONE: as above, micaceous in part.
	10	CLAYSTONE: as above.
	trace	COAL
1725 - 1730m	60	SANDSTONE: as above, dominantly medium grain size (slightly less coarse).
	10	SILTSTONE: as above.
	20	CLAYSTONE: as above, mostly appears to be washed out - few distinct cuttings.
	10	COAL: black, hard, brittle.
1730 - 1735m	90	SANDSTONE: loose quartz grains, clear to dominantly frosty, coarse to dominantly very coarse grain size, angular to subangular, moderately sorted, some very coarse grains are welded aggregates with siliceous overgrowths and rare pyrite cement between grains. Occasional aggregates with fluorescent dolomite cement.
	10	CLAYSTONE: white to very light grey, very soft, dispersive, slightly silty, sticky.
	trace	SILTSTONE
	trace	COAL
1735 - 1740m	60	SANDSTONE: as above.
	40	CLAYSTONE: as above.
	trace	SILTSTONE
	trace	COAL

1740 - 1745m	60	SANDSTONE: as above.
	30	CLAYSTONE: as above.
	10	COAL: black, hard.
	trace	SILTSTONE
1745 - 1750m	90	SANDSTONE: dominantly frosty, very coarse grained, very few dolomite aggregates.
	10	CLAYSTONE: as above.
	trace	SILTSTONE
	trace	COAL
1750 - 1755m	100	SANDSTONE: as above, but coarser - ie. granule (up to 5mm) to very coarse.
	trace	SILTSTONE
	trace	CLAYSTONE
	trace	COAL
1755 - 1760m	90	SANDSTONE: as above.
	10	SILTSTONE: light grey to light brown grey, soft to firm, blocky, quartzose, argillaceous, carbonaceous in part.
	trace	CLAYSTONE
	trace	COAL
1760 - 1765m	80	SANDSTONE: as above, but less coarse - medium to very coarse grained.
	10	SILTSTONE: as above.
	10	CLAYSTONE: white to light grey as previously described.
	trace	COAL
1765 - 1770m	100	SANDSTONE: as above, dominantly clear grains, rare pyrite cement.
	trace	SILTSTONE
	trace	CLAYSTONE
1770 - 1775m	80	SANDSTONE: as above.
	10	SILTSTONE: as above.
	10	CLAYSTONE: as above.
	trace	COAL
1775 - 1780m	100	SANDSTONE: as above.
1780 - 1785m	100	SANDSTONE: predominantly coarse to very coarse grained, otherwise as above.
1785 - 1790m	100	SANDSTONE: medium to very coarse grained, predominantly coarse, moderately sorted, otherwise as above.
1790 - 1795m	100	SANDSTONE: very coarse to granule size, otherwise as above.
1795 - 1800m	100	SANDSTONE: coarse to granule size, otherwise as above.
1800 - 1805m	100	SANDSTONE: as above.
1805 - 1810m	100	SANDSTONE: as above.
	trace	PYRITE: or marcasite - "white pyrite".
	trace	MICA

1810 - 1815m	70	SANDSTONE: poorly sorted, fine to granule size, otherwise as above.
	30	SILTSTONE: buff brown to medium grey, very soft to firm and friable, ranges from claystone to very fine grained sandstone, slightly calcareous, carbonaceous flecks common in part.
	trace	MICA
	trace	PYRITE: coarse grained aggregates of fine crystals.
	trace	COAL: black, brittle.
1815 - 1820m	70	SANDSTONE: as above, more subangular grains.
	30	SILTSTONE: as above.
	trace	COAL
1820 - 1825m	90	SANDSTONE: as above, predominantly medium to coarse grained.
	5	SILTSTONE: as above.
	5	COAL
1825 - 1830m	70	SANDSTONE: 2 types: Type 1 - 60% as above, Type 2 - 40% predominantly fine to medium grained aggregates, dolomite cemented, hard, yellow mineral fluorescence, no cut.
	30	SILTSTONE: as above.
	trace	CLAYSTONE
	trace	PYRITE
	trace	COAL
1830 - 1835m	100	SANDSTONE: 2 types: Type 1 - 90% as above, Type 2 - 10% as above.
	trace	SILTSTONE: as above.
	trace	CLAYSTONE
1835 - 1840m	100	SANDSTONE 2 types: Type 1 - 90% as above, Type 2 - 10% as above.
	trace	SILTSTONE: as above, some very carbonaceous.
1840 - 1845m		No Samples - replacing shaker screens.
1845 - 1850m	100	COAL
	trace	SANDSTONE: Type 2, as above.
1850 - 1855m	100	COAL: as above.
	trace	SANDSTONE: Type 2, as above.
1855 - 1860m	60	COAL: as above.
	40	SILTSTONE: grading to claystone.
	trace	SANDSTONE: as above.
1860 - 1865m	60	CLAYSTONE: white to light grey, very soft, dispersive, sticky.
	20	SANDSTONE: dominantly loose grains as above, medium to very coarse grained, trace dolomitic aggregates.
	10	SILTSTONE: buff to light brown grey, argillaceous, micromicaceous, carbonaceous flecks.
	10	COAL: black, very hard, vitreous with conchoidal fracture, very angular chips, large cuttings over shakers.

1865 - 1870m	50	CLAYSTONE: as above.
	20	SANDSTONE: as above.
	20	SILTSTONE: as above, glauconitic and pyritic in part.
	10	COAL: as above.
	trace	PYRITE
1870 - 1875m	60	CLAYSTONE: as above.
	30	SILTSTONE: as above, grades to claystone.
	10	COAL: as above.
	trace	SANDSTONE
	trace	PYRITE
1875 - 1880m	80	SANDSTONE: dominantly loose quartz grains, clear to frosty, coarse to very coarse grained, angular to subangular, well sorted, occasional dolomitic fluorescent aggregates, no shows, rare pyrite cement.
	10	SILTSTONE: as above.
	10	COAL: as above.
	trace	CLAYSTONE: as above.
1880 - 1885m	90	COAL: black, very hard, angular, vitreous.
	10	SANDSTONE: as above.
	trace	SILTSTONE
	trace	CLAYSTONE
1885 - 1890m	100	COAL: as above.
	trace	SANDSTONE
	trace	SILTSTONE
1890 - 1895m	90	COAL: as above.
	10	SHALE: dark brown grey, firm to hard, subfissile to fissile, very carbonaceous.
	trace	SANDSTONE
	trace	SILTSTONE
1895 - 1900m	60	COAL: as above.
	20	CLAYSTONE: white to light grey as previously described.
	10	SILTSTONE: as above, grades to carbonaceous shale.
	10	SANDSTONE: as above, trace dolomitic cement.
	trace	PYRITE
1900 - 1905m	50	CLAYSTONE: as above, silty in part grading to siltstone.
	30	SILTSTONE: white to light brown grey, soft to firm, blocky, argillaceous, quartzose, micromicaceous in part, carbonaceous flecks common.
	10	SANDSTONE: as above.
	10	COAL: as above.
	trace	PYRITE
1905 - 1910m	50	SANDSTONE: as above.
	40	COAL: as above.
	10	CLAYSTONE: as above.
	trace	SILTSTONE
	trace	PYRITE
1910 - 1915m	40	SANDSTONE: as above.
	40	CLAYSTONE: as above.
	10	SILTSTONE: brown grey, carbonaceous in part, argillaceous.
	10	COAL: as above.

1915 - 1920m	20	SANDSTONE: as above.
	50	CLAYSTONE: as above.
	20	SILTSTONE: as above.
	10	COAL: as above.
	trace	PYRITE
1920 - 1925m	20	CLAYSTONE: shaley in part, otherwise as above.
	80	SILTSTONE: as above.
	trace	SANDSTONE
	trace	PYRITE
	trace	FORAMS
	trace	MICA
1925 - 1930m	10	SANDSTONE: as above.
	30	CLAYSTONE: as above, abundant pyrite.
	60	SILTSTONE: as above, abundant pyrite, grading to very fine grained sandstone.
	common	PYRITE
1930 - 1935m	40	CLAYSTONE: as above.
	60	SILTSTONE: as above.
	trace	SANDSTONE
	trace	PYRITE
1935 - 1940m	90	SANDSTONE: quartzose, loose, transparent to translucent, predominant medium to coarse grained, occasionally very coarse; predominantly subangular, (very coarse grains subrounded), moderately well sorted, trace dolomite cemented agregates.
	trace	CLAYSTONE
	10	SILTSTONE: as above.
	trace	COAL
1940 - 1945m	70	SANDSTONE: as above, becoming more subrounded.
	20	CLAYSTONE: as above.
	10	SILTSTONE: as above.
	trace	PYRITE
	trace	COAL
	trace	GLAUCONITE
1945 - 1950m	80	SANDSTONE: as above.
	15	SILTSTONE: grading to very fine sandstone.
	5	CLAYSTONE: as above, with trace shale.
	trace	PYRITE
1950 - 1955m	90	SANDSTONE: as above, trace grey quartz grains.
	10	SILTSTONE: as above.
	trace	CLAYSTONE: as above.
	trace	PYRITE
	trace	LITHIC FRAGMENTS
1955 - 1960m	95	SANDSTONE: as above.
	5	SILTSTONE: as above.
	trace	CLAYSTONE
	trace	COAL
1960 - 1965m	100	SANDSTONE: as above.
	trace	SILTSTONE
	trace	CLAYSTONE
	trace	COAL

1965 - 1970m	50	SANDSTONE: as above.
	45	SILTSTONE: as above.
	5	CLAYSTONE: as above.
	trace	COAL
1970 - 1975m	90	SANDSTONE: as above.
	10	SILTSTONE: as above.
1975 - 1980m	40	SANDSTONE: as above.
	60	COAL: black, brittle, hard.
	trace	SILTSTONE: as above.
1980 - 1985m	70	SANDSTONE: loose quartz grains, clear to frosty, dominantly coarse to very coarse grained, angular to subangular, moderately sorted, occasional pyrite cement.
	10	SILTSTONE: light grey to light brown grey, blocky, argillaceous, soft to firm, carbonaceous flecks common, sandy in part, grading to argillaceous fine sandstone.
	20	CLAYSTONE: white to buff, very soft, sticky, dispersive, silty grading to argillaceous siltstone.
	trace	COAL
	trace	PYRITE
1985 - 1990m	50	SANDSTONE: as above.
	20	SILTSTONE: as above.
	20	CLAYSTONE: as above.
	10	COAL
	trace	PYRITE
1990 - 1995m	40	SANDSTONE: as above.
	10	SILTSTONE: as above.
	20	CLAYSTONE: as above.
	30	COAL: as above.
	trace	PYRITE
1995 - 2000m	60	SANDSTONE: as above.
	10	SILTSTONE: as above, calcareous in part.
	30	CLAYSTONE: as above, slightly sandy.
	trace	COAL
	trace	PYRITE
2000 - 2005m	40	SANDSTONE: coarse to very coarse loose grains as above. Also quartzose aggregates, friable, dominantly medium to fine grain size, angular to subangular, moderately sorted, silty, argillaceous (white clayey material as in claystone above), slightly micaceous, no shows.
	20	SILTSTONE: as above, sandy.
	40	CLAYSTONE: as above, sandy, grades to argillaceous sandstone.
	trace	COAL
	trace	PYRITE
2005 - 2010m	50	SANDSTONE: loose coarse to very coarse grains as above. Also medium grained, argillaceous aggregates as above, with carbonaceous streaks.
	20	SILTSTONE: as above.
	30	CLAYSTONE: white to buff as above, sandy grading to clayey sandstone aggregates.
	trace	COAL
	trace	PYRITE

2010 - 2015m	70	SANDSTONE: dominantly loose quartz grains, medium to very coarse grained, dominantly coarse, angular to subangular, moderately sorted, some medium grained clayey aggregates as above.
	10	SILTSTONE: as above.
	20	CLAYSTONE: as above.
	trace	COAL
	trace	PYRITE
2015 - 2020m	70	SANDSTONE: as above, occasional aggregates.
	10	SILTSTONE: as above.
	20	CLAYSTONE: as above.
	trace	COAL
	trace	PYRITE
2020 - 2025m	90	SANDSTONE: loose grains as above, very few aggregates.
	10	CLAYSTONE: as above, less sandy.
	trace	SILTSTONE
	trace	COAL
	trace	PYRITE
2025 - 2030m	90	SANDSTONE: as above.
	10	CLAYSTONE: as above.
	trace	SILTSTONE
	trace	COAL
	trace	PYRITE
2030 - 2035m	80	SANDSTONE: as above.
	10	SILTSTONE: light brown to light brown grey, soft to firm, blocky, quartzose, argillaceous, carbonaceous flecks, micaceous in parts.
	10	CLAYSTONE: as above.
	trace	COAL
	trace	PYRITE
2035 - 2040m	50	SANDSTONE: as above.
	10	SILTSTONE: as above.
	20	CLAYSTONE: as above.
	20	COAL
2040 - 2045m	60	SANDSTONE: as above.
	20	CLAYSTONE: as above.
	20	COAL: as above.
	trace	SILTSTONE
	trace	PYRITE
2045 - 2050m	20	SANDSTONE: as above.
	10	SILTSTONE: as above.
	50	CLAYSTONE: as above, white, very soft, silty.
	20	COAL
	trace	PYRITE
2050 - 2055m	10	SANDSTONE: as above.
	50	SILTSTONE: as above.
	30	CLAYSTONE: as above.
	10	COAL
	trace	PYRITE
2055 - 2060m	60	SANDSTONE: as above.
	30	SILTSTONE: as above, with trace glauconite.
	10	CLAYSTONE: as above.
	trace	COAL
	trace	PYRITE

2060 - 2065m	20	SANDSTONE: as above.
	70	SILTSTONE: light grey, firm.
	10	CLAYSTONE: as above.
	trace	COAL
	rare	FORAMS
2065 - 2070m	60	SANDSTONE: loose quartz grains, transparent to translucent, medium to very coarse grain size, dominantly coarse, angular to subangular, moderately sorted, rare pyrite cement coating grains.
	40	SILTSTONE: light grey, white, brown grey; soft to dominantly firm, blocky subangular cuttings, very argillaceous, grading to claystone, grey cuttings are commonly glauconitic and rarely contain forams, white cuttings are only slightly argillaceous, quartzose.
	trace	COAL
	trace	PYRITE
	trace	LOOSE FORAMS
	trace	CLAYSTONE
2070 - 2075m	30	SANDSTONE: as above.
	60	SILTSTONE: dominantly light grey, light brown cuttings are carbonaceous.
	10	COAL: black, hard, brittle.
	trace	CLAYSTONE
	trace	PYRITE
	trace	FORAMS
2075 - 2080m	60	SANDSTONE: as above, occasional medium grained argillaceous aggregates.
	30	SILTSTONE: as above, some cuttings probably cavings.
	10	CLAYSTONE: white, very soft as previously described.
	trace	COAL
	trace	PYRITE
2080 - 2085m	10	SANDSTONE: as above.
	40	SILTSTONE: light grey, light brown grey, soft to firm.
	20	CLAYSTONE: white to light brown, very soft.
	30	COAL: as above.
	trace	PYRITE
		Large caved chunks of coal over shakers.
2085 - 2090m	20	SANDSTONE: as above, some fine to medium grained aggregates, white clayey matrix, occasional calcite cement.
	30	SILTSTONE: as above, light grey cuttings no longer glauconitic or containing forams.
	50	CLAYSTONE: white to light grey, very soft, silty and sandy grading to fine grained argillaceous sandstone.
	trace	COAL
	trace	PYRITE
2090 - 2095m	40	SANDSTONE: as above, dominantly coarse loose grains, subangular.
	20	SILTSTONE: dominantly light brown carbonaceous cuttings as previously described.
	30	CLAYSTONE: as above, silty and sandy.
	10	COAL: as above.
	trace	PYRITE

2095 - 2100m	40	SANDSTONE: as above.
	30	SILTSTONE: as above.
	30	CLAYSTONE: as above.
	trace	COAL
	trace	PYRITE
2100 - 2105m	30	SANDSTONE: as above.
	40	SILTSTONE: dominantly light brown, carbonaceous, argillaceous, soft, sandy.
	20	CLAYSTONE: as above.
	10	COAL
	trace	PYRITE
2105 - 2110m	20	SANDSTONE: as above.
	20	SILTSTONE: as above.
	60	CLAYSTONE: white to light brown, dispersive, mostly disaggregated rather than distinct cuttings.
	common	COAL
	trace	PYRITE
2110 -2115m	70	SANDSTONE: loose quartz grains, medium to coarse grained, as above.
	20	SILTSTONE: as above.
	10	CLAYSTONE: as above.
	common	COAL
	trace	PYRITE
2115 - 2120m	70	SANDSTONE: as above.
	20	SILTSTONE: as above.
	10	CLAYSTONE: as above.
	trace	COAL
	trace	PYRITE
2120 - 2125m	50	SANDSTONE: as above, occasional aggregates.
	20	SILTSTONE: dominantly light brown, carbonaceous.
	10	CLAYSTONE: as above.
	20	COAL: as above.
	trace	PYRITE
2125 - 2130m	80	SANDSTONE: as above.
	10	SILTSTONE: as above.
	10	CLAYSTONE: as above.
	trace	COAL
	trace	PYRITE
2130 - 2135m	70	SANDSTONE: as above.
	20	SILTSTONE: as above.
	10	CLAYSTONE: as above.
	trace	COAL
	trace	PYRITE
2135 - 2140m	60	SANDSTONE: as above, but has become finer - is dominantly medium to coarse grained, transparent to translucent, angular to subangular, well sorted, occasional fine to medium grained aggregates with white clay matrix.
	40	COAL: as above.
	trace	SILTSTONE
	trace	PYRITE

2140 - 2145m	30	SANDSTONE: as above.
	30	SILTSTONE: white to light grey, quartzose, argillaceous (white clay), sandy, light brown, argillaceous, carbonaceous flecks.
	20	CLAYSTONE: white to light brown, very soft, sticky, silty and sandy grading to argillaceous fine grained sandstone.
	20	COAL: as above.
	trace	PYRITE
	trace	FORAMS
2145 - 2150m	40	SANDSTONE: as above, with fine to medium grained aggregates with siliceous cement.
	20	SILTSTONE: as above.
	10	CLAYSTONE: as above.
	30	COAL
	trace	PYRITE
2150 - 2155m	40	SANDSTONE: as above, common fine to medium aggregates, common pyrite cement.
	40	SILTSTONE: dominantly light brown to light brown grey, firm, carbonaceous, argillaceous, slightly micaceous.
	10	CLAYSTONE: as above.
	10	COAL: as above.
	common	PYRITE
2155 - 2160m	10	SANDSTONE: loose medium grains and fine to medium aggregates as above.
	20	SILTSTONE: light brown and brown grey.
	70	CLAYSTONE: white to light grey, very soft, silty and sandy grading to clayey siltstone.
	trace	COAL
	trace	PYRITE
2160 - 2165m	60	SANDSTONE: dominantly loose medium grain size quartz. Occasional aggregates with dolomitic cement - pale yellow fluorescence, no cut or crush cut.
	30	SILTSTONE: light brown, as above.
	10	CLAYSTONE: as above.
	trace	COAL
	trace	PYRITE
2165 - 2168m		Bottoms Up
	20	SANDSTONE: loose grains and fine to medium sized aggregates - no shows.
	50	SILTSTONE: as above.
	30	CLAYSTONE: as above.
	trace	COAL
	trace	PYRITE
2168 - 2170m	80	SANDSTONE: as above.
	20	SILTSTONE: as above.
	trace	CLAYSTONE
	trace	PYRITE
	trace	COAL
	trace	MICA
2170 - 2175m	50	SANDSTONE: as above, occasional aggregates with slightly dolomitic cement.
	20	SILTSTONE: as above, slightly carbonaceous.
	30	CLAYSTONE
	trace	COAL
	trace	PYRITE
	trace	FORAMS

2175 - 2180m	trace	SANDSTONE: as above.
	80	SILTSTONE: predominantly medium light grey, soft to firm, very argillaceous, grading from claystone to very fine grained sandstone aggregates, slightly calcareous in part, slightly carbonaceous.
	20	CLAYSTONE: very light grey, soft to very soft.
	trace	PYRITE
	trace	COAL
2180 - 2185m	50	SANDSTONE: quartzose, predominantly loose, some slightly dolomitic aggregates, loose grains fine to medium grained, subangular to rounded, moderately well sorted, some very argillaceous light grey fine aggregates, well sorted, friable to soft.
	30	SILTSTONE: predominantly light grey, occasionally brown grey, firm to soft, grades into very fine grained sandstone and claystone, carbonaceous flecks.
	20	CLAYSTONE: as above.
	trace	MICA
	trace	PYRITE
2185 - 2190m	100	SANDSTONE: quartzose, predominantly (60%) aggregates of medium grained, subangular to subrounded, moderately well sorted, transparent to translucent quartz grains, hard, well cemented with dolomite, mineral fluorescence; 40% loose quartzose sandstone as above; hydrocarbon fluorescence - originally showed no apparent hydrocarbon cut with chlorothene. However; a second application after drying showed cut - bright yellow to cream, pale yellow grey residue - implies very slow crush cut.
2190 - 2195m	100	SANDSTONE: as for 2180 - 2185m trace dolomitic aggregates with both mineral fluorescence and H/C fluorescence, no visible crush cut but pale yellow residue, as above.
	trace	PYRITE
	trace	COAL
	trace	SILTSTONE
2195 - 2200m	70	SANDSTONE: as above, occasional dolomite cemented aggregates.
	30	SILTSTONE: as above, but becoming more carbonaceous and darker.
	trace	CLAYSTONE: as above.
2200 - 2205m	50	SANDSTONE: two types - Type 1 dolomitic aggregates, Type 2 loose fine to medium grains, no shows, mineral fluorescence only.
	35	SILTSTONE: light grey, medium grey, medium dark grey, slightly carbonaceous, firm, grades into very fine grained quartzose sandstone.
	5	COAL
	10	CLAYSTONE: as above.
	trace	PYRITE
2205 -2209m		Bottoms Up.
	40	SANDSTONE: as above.
	60	SILTSTONE: as above.
	trace	COAL
	trace	PYRITE

2209 - 2210m	100	SANDSTONE: as above, Type 1 - 80%; Type 2 - 20%; aggregates have dull yellow cream fluorescence, no cut or crush cut, but get residue ring after drying which has dull cream fluorescence (70% of sample); probable dolomite cement, some aggregates are slightly calcareous, get red stain with Alizarin red - indicates calcite cement, also possible siliceous cement.
	trace	SILTSTONE
	trace	COAL
	trace	PYRITE
2210 - 2215m	30	SANDSTONE: white to light grey, hard, quartzose aggregates, fine to medium grained, angular to subangular, well sorted, slightly calcareous - calcite cement, siliceous cement, minor clay matrix, no visible porosity, dull cream yellow fluorescence, no cut or crush cut (30% of sample) - probable dolomite cement; occasional loose medium sized grains.
	50	SILTSTONE: light grey to light brown, soft to firm, quartzose, argillaceous, grades to argillaceous fine grained sandstone, micromicaceous in part, carbonaceous in part.
	10	CLAYSTONE: white to light brown, light grey, soft, sticky.
	10	COAL
2215 - 2220m	60	SILTSTONE: dominantly light grey, soft to firm, quartzose, blocky, argillaceous, grading to silty claystone, slightly micaceous; also occasional light brown siltstone as above.
	30	CLAYSTONE: white to light grey, soft, blocky, partly dispersive, silty.
	10	SANDSTONE: as above, (10% of sample has fluorescence).
	trace	PYRITE
	trace	COAL
2220 - 2225m		Bottoms Up
	60	SANDSTONE: fine to medium aggregates as above; dull cream yellow fluorescence, no cut or crush cut, faint cream residue ring (10% of sample) - probable dolomite cement.
	30	SILTSTONE: light grey, as above.
	10	CLAYSTONE: white to light grey, as above.
	trace	COAL
	trace	PYRITE
2225 - 2230m	70	SANDSTONE: aggregates as above, little or no visible porosity, siliceous and calcite cement. Bright cream fluorescence, no cut or crush cut, faint cream residue (60% of sample) - probable dolomite cement.
	30	SILTSTONE: as above.
	trace	CLAYSTONE
	trace	COAL
2230 - 2235m	90	SANDSTONE: as above, occasional medium grained loose quartz grains - 60% of sample has cream fluorescence as above.
	10	SILTSTONE: as above.
	trace	CLAYSTONE
	trace	COAL

2235 - 2238m		Bottoms Up
	90	SANDSTONE: dominantly loose quartz grains, fine to dominantly medium grain size, subangular, well sorted, aggregates show fluorescence as above, (20% of sample).
	10	SILTSTONE: as above.
	trace	CLAYSTONE
	trace	COAL
2238 - 2240m	20	SANDSTONE: dominantly fine to medium grained aggregates, some loose grains, 10% of sample has cream fluorescence as above.
	50	SILTSTONE: dominantly light brown, firm, blocky, very carbonaceous, sandy grading to argillaceous sandstone.
	20	CLAYSTONE: white to light grey, soft, as above.
	10	COAL: black, hard.
2240 - 2245m	40	SANDSTONE: as above, dominantly aggregates - 20% bright cream fluorsecence from sample.
	40	SILTSTONE: as above.
	10	CLAYSTONE: as above.
	10	COAL: as above.
2245 - 2250m	30	SANDSTONE: aggregates as above, occasional loose grains, 10% of sample has fluorescence.
	50	SILTSTONE: carbonaceous, as above.
	20	COAL
	trace	CLAYSTONE
2250 - 2253m		Bottoms Up
	80	SANDSTONE: dominantly loose quartz grains, fine to coarse grains, dominantly medium grain size, some aggregates; 10% of sample has cream fluorescence.
	20	SILTSTONE: as above.
	trace	CLAYSTONE
	trace	COAL
2253 - 2265m		See Core Description No. 1.
2265 - 2270m	90	CLAYSTONE: white to light green grey, soft to firm, blocky angular cuttings, silty in part with elongate translucent grains (needle like); occasional quartz grains, occasional pyrite grains.
	10	SANDSTONE: quartzose, white to light grey, well cemented, hard, fine to medium grain size.
	trace	CARBONACEOUS SILTSTONE
	trace	QUARTZOSE SILTSTONE
	trace	COAL
	trace	PYRITE
2270 - 2275m	90	CLAYSTONE: as above.
	10	DOLOMITE: white to buff, translucent, very hard, crystalline texture, dull gold yellow fluorescence, no cut. From veins as seen in core.
	trace	SANDSTONE
	trace	SILTSTONE
	trace	Chert like vein material seen in core.
	common	PYRITE

2275 - 2280m	100	CLAYSTONE: as above.
	trace	DOLOMITE
	trace	SILTSTONE
	trace	PYRITE
	trace	?CHERT
2280 - 2285m	100	CLAYSTONE: as above.
	trace	DOLOMITE
	trace	SILTSTONE
	trace	PYRITE
	trace	?CHERT
2285 - 2290m	90	CLAYSTONE: as above.
	10	DOLOMITE: white to buff, translucent, hard, angular with dull cream to gold yellow fluorescence.
	common	PYRITE
	trace	SILTSTONE
	trace	SANDSTONE
	trace	?CHERT
2290 - 2295m	50	CLAYSTONE: as above.
	20	SANDSTONE: loose grains and aggregates, fine to medium grain size, angular to subangular, moderately sorted, aggregates are well cemented, carbonaceous in part.
	20	SILTSTONE: quartzose, light grey to light brown grey, argillaceous, carbonaceous in part, blocky, micaceous in part.
	10	COAL: black, hard, brittle, angular.
	trace	DOLOMITE
	trace	CHERT?
	trace	PYRITE
2295 - 2300m	70	SANDSTONE: white to light grey, dominantly aggregates, fine to medium grained, poorly sorted, well cemented, some clay matrix, very poor visible porosity.
	10	SILTSTONE: as above, grades to fine grained sandstone.
	20	CLAYSTONE: as above.
	trace	PYRITE
	trace	COAL
2300 - 2305m	70	SANDSTONE: as above.
	20	SILTSTONE: as above.
	10	CLAYSTONE: as above.
	trace	PYRITE
	trace	COAL
	trace	DOLOMITE
2305 - 2310m	30	SANDSTONE: as above.
	50	CLAYSTONE: white to light grey, very soft, slightly sticky, dispersive, slightly pyritic to very pyritic in part; also greenish grey, silty, claystone as above.
	20	SILTSTONE: as above.
	trace	PYRITE
	trace	COAL
2310 - 2315m	20	SANDSTONE: as above.
	20	SILTSTONE: as above.
	60	CLAYSTONE: as above.
	trace	PYRITE

2315 - 2320m	70	SILTSTONE: light grey to light brown grey as above; reddish brown, mottled white/red brown, soft, quartzose, very argillaceous grading to silty claystone, slightly sandy.
	20	CLAYSTONE: as above.
	10	SANDSTONE: as above.
	trace	PYRITE
2320 - 2325m	40	SILTSTONE: light grey, red brown as above, grades to silty claystone.
	40	CLAYSTONE: white to light grey, very soft, as above.
	20	SANDSTONE: mostly aggregates as above, some loose grains.
	trace	PYRITE
2325 - 2330m	20	SANDSTONE: as above, mineral fluorescence.
	50	SILTSTONE: various colours, as above.
	30	CLAYSTONE: as above.
	trace	PYRITE
	trace	DOLOMITE
2330 - 2335m	10	SANDSTONE: as above.
	40	SILTSTONE: as above.
	40	CLAYSTONE: as above.
	10	DOLOMITE: white to light grey brown, very hard, angular, crystalline, cream yellow fluorescence. Probably from veins within claystone as in core.
	trace	PYRITE
2335 - 2340m	50	SILTSTONE: light grey and light brown grey, no reddish brown, clayey, occasional medium sized quartz grains, grades to very fine grained sandstone.
	40	CLAYSTONE: white to light grey, very soft, silty, as above.
	10	SANDSTONE: as above.
	trace	PYRITE
	trace	DOLOMITE
	rare	FORAM
2340 - 2345m	60	SILTSTONE: as above.
	30	CLAYSTONE: as above.
	10	SANDSTONE: as above.
	trace	PYRITE
	trace	DOLOMITE: with dull cream fluorescence and a few grains of bright cream fluorescence.
2345 - 2350m	50	SILTSTONE: as above, but less sandy, more homogeneous texture.
	30	CLAYSTONE: as above.
	10	SANDSTONE: as above.
	10	DOLOMITE: as previously described with dull and bright cream fluorescence.
2350 - 2355m	50	SANDSTONE: dominantly quartzose aggregates, some loose grains, fine to medium grained, moderately sorted, angular to subangular, hard, well cemented, poor visible porosity.
	30	SILTSTONE: as above.
	20	CLAYSTONE: as above.
	trace	COAL
	trace	PYRITE
	trace	DOLOMITE

2355 - 2360m	20	SANDSTONE: as above, slightly carbonaceous.
	70	SILTSTONE: light grey as above, but dominantly grey brown, very carbonaceous, argillaceous, slightly micaceous, grades to fine grained sandstone.
	10	CLAYSTONE: as above.
	trace	COAL
	trace	PYRITE
	trace	DOLOMITE
2360 - 2365m	60	SILTSTONE: light grey and light brown grey, as above; slightly carbonaceous, argillaceous, sandy grading to fine grained sandstone.
	30	SANDSTONE: fine to medium grained aggregates, some medium loose grains, some clay matrix, poor visible porosity.
	10	CLAYSTONE: as above.
	trace	PYRITE
	trace	DOLOMITE
	trace	COAL
2365 - 2370m	60	SANDSTONE: as above, very well cemented, siliceous cement, slightly calcareous - some calcite cement, dull cream fluorescence, no cut or crusch cut - some dolomite cement, poor visible porosity, moderately sorted, angular to subangular.
	30	SILTSTONE: as above.
	10	CLAYSTONE: as above.
	trace	COAL
	trace	DOLOMITE
	trace	PYRITE
2370 - 2375m	40	SANDSTONE: as above, subangular, fine to medium grained, carbonaceous in part, well cemented, minor clay matrix, minor dolomite cement.
	60	SILTSONE: dominantly brown grey, very carbonaceous, slightly micaceous, as above.
	trace	CLAYSTONE
	trace	PYRITE
	trace	DOLOMITE
2375 - 2380m	50	SANDSTONE: as above.
	50	SILTSTONE: as above.
	trace	PYRITE
	trace	CLAYSTONE
	trace	DOLOMITE
2380 - 2385m	50	SANDSTONE: as above.
	20	SILTSTONE: as above.
	30	COAL: black, hard, angular, dull.
	trace	CLAYSTONE
	trace	PYRITE
2385 - 2390m	50	SANDSTONE: as above, but aggregates coarser grained, dominantly medium.
	50	SILTSTONE: as above.
	trace	CLAYSTONE
	trace	COAL
	trace	PYRITE

2390 - 2395m	40	SANDSTONE: as above, minor dolomite fluorescence.
	60	SILTSTONE: as above.
	trace	PYRITE
	trace	COAL
2395 - 2400m	70	SANDSTONE: as above, common patchy dolomite fluorescence.
	30	SILTSTONE: as above.
	trace	PYRITE
	trace	COAL
2400 - 2405m	80	SANDSTONE: as above, dolomite fluorescence.
	20	SILTSTONE: as above.
	trace	CLAYSTONE
	trace	PYRITE
	trace	COAL
2405 - 2410m	50	SANDSTONE: as above, common bright cream dolomite fluorescence.
	40	SILTSTONE: as above.
	10	COAL: as above.,
	trace	PYRITE
	trace	CLAYSTONE
2410 - 2415m	60	SANDSTONE: as above, common dolomite cement.
	40	SILTSTONE: as above.
	trace	CLAYSTONE
	trace	PYRITE
	trace	COAL
2415 - 2420m	40	SANDSTONE: as above, common dolomite.
	60	SILTSTONE: as above, grades to fine grained sandstone.
	trace	CLAYSTONE
	trace	PYRITE
	trace	COAL
2420 - 2425m	80	SANDSTONE: 75% light brown grey quartzose aggregates; firm to moderately friable, fine to very fine grain size, well sorted, subangular to subrounded, slightly calcareous - some calcite cement, 5% of total sample shows dull gold fluorescence with instant slow streaming milky white to cream cut and instant bright cream yellow crush cut. Bright cream fluorescent residue with colourless to light brown residue ring; 20% fine to medium grained, well cemented as above.
	20	SILTSTONE: as above, grades to fine grianed sandstone.
	trace	COAL
	trace	PYRITE
2425 - 2430m	80	SANDSTONE: 80% very fine to dominantly fine grained, moderately friable as above, trace of fluorescence and cut as above; 20% fine to dominantly medium as above.
	20	SILTSTONE: as above.
	trace	COAL
	trace	PYRITE
2430 - 2435m	100	SANDSTONE: trace of fine to very fine grained sandstone; 100% well cemented aggregates as previously described, dominantly medium grain size.
	trace	SILTSTONE
	trace	PYRITE

2435 - 2440m	100	SANDSTONE: as above, abundant dolomite cement. Trace of fine, friable sandstone.
	trace	SILTSTONE
	trace	COAL
2440 - 2445m	70	SANDSTONE: well cemented with common dolomite fluorescence as above.
	30	SILTSTONE: brown grey, carbonaceous as previously described, grades to fine grained, friable sandstone as previously described.
	trace	COAL
	trace	PYRITE
2445 - 2450m		Bottoms Up
	60	SILTSTONE: light brown grey, as above.
	40	SANDSTONE: well cemented aggregates as above, occasional coarse loose grains.
	trace	COAL
	trace	PYRITE
		POOH. Ran DLL-MSFL-GR, LDL-CNL-GR, and RFT's.
2450 - 2455m	60	SILTSTONE: light grey, light grey green, light brown grey, very argillaceous grading to shale, blocky, firm.
	30	SANDSTONE: dominantly loose quartz grains, transparent to translucent, dominantly medium grain size.
	10	CLAYSTONE: white, light grey, soft, slightly dispersive.
	trace	COAL
		Most of sample is various caved litholcgies from up hole.
2455 - 2460m	30	SANDSTONE: loose quartz grains and aggregates, loose grains are dominantly medium, some very coarse; subangular to subrounded, aggregates fine to medium grained, dolomite cement.
	50	SILTSTONE: as above, dominantly light brown.
	20	CLAYSTONE: white to buff, very soft.
	trace	COAL
	trace	PYRITE
2460 - 2465m	50	SILTSTONE: Type 1 - light brown to light brown grey, argillaceous grading to silty shale; carbonaceous flecks, firm, blocky to subfissile, slightly micromicaceous, slightly pyritic in part, grades to fine grained sandstone; Type 2 - light grey, argillaceous grading to silty shale, quartzose, occasional carbonaceous flecks, soft to firm, blocky, slightly calcareous, pyritic in part.
	20	SHALE: light grey, soft to firm, blocky to subfissile, homogeneous texture.
	30	SANDSTONE: light grey, dominantly quartz aggregates, fine to dominantly medium grained, hard, well cemented, subangular to subrounded, moderately sorted, siliceous cement, common dolomite cement with cream fluorescence, some loose grains, medium grain size.
	trace	CLAYSTONE
	trace	PYRITE
	trace	COAL

2465 - 2470m	40	SILTSTONE: light brown grey as above; light grey as above.
	10	SHALE: light grey, as above.
	50	SANDSTONE: as above, occasional loose very coarse grains, common dolomite cement.
	trace	CLAYSTONE
	trace	PYRITE
	trace	COAL
2470 - 2475m	50	SANDSTONE: as above, occasional pyrite matrix.
	30	SILTSTONE: as above.
	10	SHALE: as above.
	10	COAL: black, hard, angular, brittle.
	trace	PYRITE
	trace	CLAYSTONE
2475 - 2480m	80	SANDSTONE: loose grains, medium to coarse grained, occasionally very coarse, fine to dominantly medium aggregates as above, common dolomite cement.
	20	SILTSTONE: as above.
	trace	SHALE
	trace	CLAYSTONE
	trace	COAL
	trace	PYRITE
2480 - 2485m	80	SANDSTONE: as above.
	20	SILTSTONE: as above.
	trace	COAL
	trace	PYRITE
	trace	CLAYSTONE
	trace	SHALE
2485 - 2490m	70	SANDSTONE: as above, occasional clay matrix.
	20	SILTSTONE: as above.
	10	SHALE: light grey, as above.
	trace	COAL
	trace	PYRITE
2490 - 2495m	70	SANDSTONE: as above.
	30	SILTSTONE: dominantly light grey, blocky, slightly argillaceous, quartzose.
	trace	SHALE
	trace	COAL
	trace	PYRITE
2495 - 2500m	80	SANDSTONE: dominantly aggregates, very few loose grains, carbonaceous laminae, abundant dolomite cement.
	20	SILTSTONE: as above.
	trace	SHALE
	trace	COAL
	trace	PYRITE
2500 - 2505m	90	SANDSTONE: as above, some loose grains.
	10	SILTSTONE: as above.
	trace	PYRITE
	trace	COAL
	trace	SHALE
2505 - 2510m	80	SANDSTONE: as above, abundant dolomite cement.
	10	SILTSTONE: as above.
	10	COAL: black, hard, grading to dark grey carbonaceous shale.
	trace	PYRITE

2510 - 2515m	70	SANDSTONE: medium to coarse grained aggregates as above, common loose medium to coarse grains.
	10	SILTSTONE: as above.
	10	SHALE: medium grey, firm, blocky to subfissile, micromicaceous, silty.
	10	COAL
	trace	PYRITE
		Note: from dark grey to black carbonaceous shale - faint spotty gold fluorescence with instant streaming cream cut, and instant cream crush cut (generating hydrocarbons?).
2515 - 2520m	80	SANDSTONE: as above, common cream dolomite fluorescence.
	20	SHALE: medium grey, light grey, firm, slightly to very carbonaceous and slightly micaceous giving mottled appearance, some cuttings have a slightly crystalline texture - well lithified.
	trace	COAL
	trace	SILTSTONE
	trace	PYRITE
2520 - 2525m	70	SANDSTONE: as above, fine to medium aggregates and medium to coarse loose grains, very rare (2-3 cuttings) show faint spotty gold fluorescence, brownish staining, instant streaming cream cut and instant cream white crush cut.
	30	SHALE: medium grey to medium brown grey, firm to hard, blocky to subfissile, micromicaceous, slightly crystalline texture, carbonaceous, silty.
	trace	COAL
	trace	PYRITE
2525 - 2530m	50	SANDSTONE: as above.
	40	SILTSTONE: dark grey to medium grey speckled colour, very carbonaceous, soft, very argillaceous, micromicaceous.
	10	SHALE: as above.
	trace	COAL
	trace	PYRITE
2530 - 2535m	60	SANDSTONE: as above, commonly carbonaceous, slightly argillaceous ie - "dirty sandstone".
	40	SILTSTONE: very carbonaceous as above.
	trace	COAL
	trace	PYRITE
	trace	SHALE
	trace	One cutting - carbonaceous shale with faint gold fluorescence and instant streaming milky white cut and crush cut.
2535 - 2540m	40	SANDSTONE: as above.
	60	SILTSTONE: as above.
	trace	SHALE
	trace	COAL
2540 - 2545m	60	SANDSTONE: as above, slightly finer grained.
	40	SILTSTONE: as above, grading to fine grained sandstone.
	trace	COAL
	trace	SHALE
	trace	PYRITE

2545 - 2550m	60	SANDSTONE: as above, pyritic to very pyritic in part, common cream dolomite fluorescence.
	40	SILTSTONE: as above, pyritic in part.
	trace	COAL
	trace	PYRITE
2550 - 2555m	70	SANDSTONE: as above, very pyritic, occasional light brown clay matrix.
	30	SILTSTONE: as above.
	trace	COAL
	trace	PYRITE
2555 - 2560m	90	SANDSTONE: medium grey, very hard, very well cemented, quartzose aggregates, fine to medium grain size where grains are visible, generally homogeneous texture of translucent quartz and pyrite - abundant pyrite cement, slightly calcareous - minor calcite cement; common dolomite fluorescence - some dolomite cement, no visible porosity; occasional light brown clay matrix, occasional loose quartz grains, dominantly medium grain size.
	10	SILTSTONE: less carbonaceous, less argillaceous.
	trace	CLAYSTONE
	trace	COAL
	trace	PYRITE
2560 - 2565m	80	SANDSTONE: as above.
	10	SILTSTONE: as above.
	10	CLAYSTONE: white to medium grey, soft, mottled colour due to abundant microcrystalline pyrite, rounded cuttings.
	trace	PYRITE
2565 - 2570m	70	SANDSTONE: 45% as above, 55% olive grey, hard, well cemented, quartzose aggregates, fine to medium grain size, poorly sorted, abundant olive grey clay matrix, common elongate grains (quartzose) in oriented position, cuttings are very angular - broken across quartz grains, slightly pyritic, appears to be same lithology as light brown "claystone" in Core No. 1, but with more quartz present, has crystalline texture - weathered volcanics?
	10	SILTSTONE: as above.
	20	CLAYSTONE: as above.
	trace	PYRITE
2570 - 2575m	90	SANDSTONE: as above, 25% as above, 75% olive grey - has crystalline texture - could be a silicified clay of volcanic origin??
	10	SILTSTONE: as above.
	trace	PYRITE
2575 - 2580m	80	SANDSTONE: 50% as above, common dolomite cement with fluorescence, no cut; 50% olive grey, clayey, as above.
	20	COAL: black, dull, hard, angular, silty.
	trace	SILTSTONE
	trace	CLAYSTONE
	trace	PYRITE

2580 - 2585m	70	SANDSTONE: as above, 55% as above, 45% as above.
	20	COAL: as above.
	10	SILTSTONE: medium brown grey, quartzose, firm, slightly carbonaceous, slightly argillaceous, grades to silty coal.
	trace	PYRITE
	trace	CLAYSTONE
2585 - 2590m	70	SANDSTONE: 55% as above, 45% as above.
	30	SILTSTONE: medium brown grey to dark grey, more carbonaceous, argillaceous, pyritic in part.
	trace	CLAYSTONE
	trace	COAL
	trace	PYRITE
2590 - 2595m	70	SANDSTONE: white to light grey, quartzose, dominantly aggregates, hard, well cemented, fine to medium grain size, moderately sorted, siliceous cement, common dolomite cement with cream fluorescence, little visible porosity, subangular to subrounded, pyritic aggregates as above, olive grey clayey aggregates as above.
	30	SILTSTONE: as above.
	trace	COAL
	trace	PYRITE
	trace	CLAYSTONE
2595 - 2600m	90	SANDSTONE: white to light grey aggregates, as above, common loose quartz grains, dominantly medium grain size, common dolomite cement from aggregates; minor amounts of pyritic aggregates; minor amounts of clayey aggregates.
	10	SILTSTONE: as above.
	trace	CLAYSTONE
	trace	COAL
2600 - 2605m		Bottoms Up
	90	SANDSTONE: as above, abundant creamy yellow mineral fluorescence, no cut, no shows.
	10	SILTSTONE: as above, pyrite common.
2605 - 2610m	80	SANDSTONE: as above, no shows.
	20	SILTSTONE: as above.
2610 - 2615m	80	SANDSTONE: as above.
	20	SILTSTONE: as above.
2615 - 2620m	60	SANDSTONE: as above.
	30	SILTSTONE: as above.
	10	COAL: brown to black, dull, earthy, grades to carbonaceous shale.
2620 - 2625m	80	SANDSTONE: loose grains and aggregates, dominantly medium grained, as above.
	20	SILTSTONE: brown grey to dark grey, carbonaceous, as above.
	trace	COAL
	trace	CLAYSTONE
	trace	PYRITE

2625 - 2630m	70	SANDSTONE: as above, some aggregates are carbonaceous, slightly argillaceous.
	30	SILTSTONE: as above, grades to fine grained argillaceous sandstone.
	trace	PYRITE
	trace	COAL
	trace	CLAYSTONE
2630 - 2635m	70	SANDSTONE: as above.
	30	SILTSTONE: as above.
	trace	COAL
	trace	PYRITE
	trace	CLAYSTONE
2635 - 2640m	80	SANDSTONE: dominantly medium grain sized aggregates as above, some pyritic aggregates as previously described, some olive grey clayey "sandstone" as previously described.
	20	SILTSTONE: carbonaceous as above, pyritic in part.
	trace	COAL
	trace	PYRITE
2640 - 2645m	90	SANDSTONE: as above, abundant dolomite.
	10	SILTSTONE: as above.
	trace	PYRITE
	trace	CLAYSTONE
	trace	COAL
2645 - 2650m	80	SANDSTONE: white to light grey, fine to coarse grained, quartzose, very hard, consists entirely of angular aggregates. The grains are angular to subangular, abundant dolomite cement/matrix, common pyrite, no porosity or permeability, abundant bright, cream yellow mineral fluorescence, no cut, no shows.
	20	SILTSTONE: carbonaceous, brittle, hard, common pyrite.
2650 - 2660m	50	SANDSTONE: as above.
	50	SILTSTONE: as above.
2660 - 2670m	50	SANDSTONE: as above.
	50	SILTSTONE: as above.
2670 - 2675m	30	SANDSTONE: as above.
	70	SILTSTONE: as above.
2675 - 2680m	30	SANDSTONE: as above.
	70	SILTSTONE: as above.
2680 - 2685m	30	SANDSTONE: mainly fine to medium quartz grained aggregates, well cemented, with hard dolomite cement, pyrite cement common, cream yellow mineral fluorescence common, no cut, no shows.
	70	SILTSTONE: as above.
2685 - 2690m	30	SANDSTONE: as above.
	70	SILTSTONE: as above.
2690 - 2695m	85	SANDSTONE: mainly dolomitized aggregates as above, and about a half of the sample consists of coarse to very coarse loose quartz grains, mainly angular (conglomerate?).
	15	SILTSTONE: as above.

2695 - 2700m	85	SANDSTONE: as above.
	15	SILTSTONE: as above.
2700 - 2705m	85	SANDSTONE: as above.
	15	SILTSTONE: as above.
2705 - 2710m	90	SANDSTONE: as above.
	10	SILTSTONE: as above.
2710 - 2715m	90	SANDSTONE: as above.
	10	SILTSTONE: as above.
2715 - 2720m	70	SANDSTONE: as above.
	30	SILTSTONE: as above.
2720 - 2725m	35	SANDSTONE: as above.
	65	SILTSTONE: as above.
2725 - 2730m	60	SANDSTONE: as above.
	40	SILTSTONE: as above.
2730 - 2735m	65	SANDSTONE: as above.
	35	SILTSTONE: as above.
2735 - 2740m	70	SANDSTONE: as above.
	30	SILTSTONE: as above.
2740 - 2745m	75	SANDSTONE: as above.
	25	SILTSTONE: as above.
2745 - 2750m	70	SANDSTONE: as above.
	30	SILTSTONE: as above.
2750 - 2755m	90	SANDSTONE: coarse (2mm) to fine, dolomite and pyrite cement, moderately to poorly rounded, poor sorting, consists of cemented aggregates of fine grains; but also coarse, angular to poorly rounded grains, possibly poorly worked sandstone with some conglomeratic clasts.
	10	SILTSTONE: as above.
	trace	VOLCANICS: mid to light grey, hard to fragile, crystalline.
2755 - 2761m	90	SANDSTONE/CONGLOMERATE: as above, trace crush cut.
	10	SILTSTONE: as above.
	trace	VOLCANICS
2761 - 2763m		Bottoms Up.
	90	SANDSTONE/CONGLOMERATE: as above, abundant mineral fluorescence, low porosity and permeability, no spontaneous cut, very weak crush cut, weak cream yellow fluorescent residue.
	10	SILTSTONE: as above.
	trace	VOLCANICS
2763 - 2765m	80	CONGLOMERATE: as above.
	20	SILTSTONE: mostly light to medium grey, calcareous, firm to soft, some carbonaceous variety as well, non calcareous, hard to brittle, dark grey to black, both types have common pyrite inclusions, trace muscovite in the light variety.
2765 - 2770m	50	CONGLOMERATE: as above.
	50	SILTSTONE: as above.

2770 - 2775m	20	CONGLOMERATE: as above, with trace glauconite.
	80	SILTSTONE: as above.
	trace	COAL: black, shiny, brittle, hard.
2775 - 2780m	20	CONGLOMERATE: as above, with trace glauconite.
	80	SILTSTONE: consists mainy of soft, medium red brown carbonaceous variety, non calcareous, otherwise as above.
2780 - 2785m	20	CONGLOMERATE/SANDSTONE: as above, no shows.
	80	SILTSTONE: as above.
2785 - 2790m	20	CONGLOMERATE/SANDSTONE: as above.
	80	SILTSTONE: as above.
2790 - 2795m	20	CONGLOMERATE/SANDSTONE: as above, no shows.
	80	SILTSTONE: as above.
2795 - 2800m	20	CONGLOMERATE/SANDSTONE: as above.
	80	SILTSTONE: as above.
2800 - 2805m	35	SANDSTONE: consists mainly of fine quartz aggregates, tan colour, friable to hard, trace carbonate cement, subrounded to subangular, well sorted, the rest consists of coarse to very coarse loose quartz grains (perhaps broken pebbles); moderate porosity is indicated, the aggregates display up to 80% bright yellow gold fluorescence which gives a moderate streaming milky white cut and a strong crush cut, leaving a clear residue.
	65	SILTSTONE: as above.
2805 - 2806.3m	60	SANDSTONE: as above, mostly fine grained aggregates, shows as for 2860 - 2865m.
	40	SILTSTONE: as above, pyrite clusters are common.
2806.3 - 2824.0m		See Core Description No. 2.
2824 - 2830m	80	SANDSTONE: mainly loose quartz grains, medium to very coarse grained, angular to subangular, no fluorescence, no shows, also some fine aggregates, firm to hard, with cream white fluorescence giving a slow streaming cut and a moderate crush cut. Good porosity is implied for the loose quartz grains and low permeability for the fine aggregates.
	20	SHALE: various colours, trace calcareous cement, some carbonaceous variety, firm to soft, trace pyrite.
2830 - 2835m	90	SANDSTONE: mainly loose quartz grains as above, but subrounded, medium to coarse grained, moderately well sorted, no fluorescence, no show visible, good porosity is implied.
	10	SHALE: as above.
2835 - 2840m	90	SANDSTONE: as above.
	10	SHALE: as above.

2840 - 2845m	90	SANDSTONE: mainly loose quartz grains, medium to coarse grained, subangular to subrounded, poorly sorted, trace glauconite, trace shows.
	10	SHALE: as above.
2845 - 2850m	90	SANDSTONE: as above.
	10	SHALE: as above.
2850 - 2855m	90	SANDSTONE: as above.
	10	SHALE: as above.
2855 - 2860m	60	SANDSTONE: as above, trace gold fluorescence in aggregates with weak crush cut.
	40	SILTSTONE: mainly quartzose, but also the carbonaceous variety, hard, slightly calcareous, pyrite common.
2860 - 2865m	25	SANDSTONE: as above, trace gold fluorescence in aggregates with weak crush cut.
	75	SILTSTONE: as above.
2865 - 2870m	45	SANDSTONE: as above, no shows.
	55	SILTSTONE: as above.
2870 - 2875m	20	SANDSTONE: as above, no shows.
	80	SILTSTONE: as above.
2875 - 2880m	50	CLAYSTONE: carbonaceous, dark grey, soft to hard, often water sensitive, carbonaceous, clay rich.
	50	SILTSTONE: as above.
2880 - 2884m	10	CLAYSTONE: as above.
	90	SILTSTONE: as above.
	trace	SANDSTONE: loose quartz grains, medium to coarse grained, subangular to subrounded, poorly sorted, no shows, trace fine aggregates, very tight, trace yellow gold fluorescence which gives a weak crush cut.
2884 - 2890m	30	CLAYSTONE: as above.
	70	SILTSTONE: as above.
	trace	SANDSTONE: as above, no shows.
2890 - 2894m	20	CLAYSTONE: as above.
	70	SILTSTONE: as above.
	10	SANDSTONE: as above, trace crush cut, as above.
2894 - 2900m	90	SILTSTONE: as above.
	10	SANDSTONE: as above, no shows.
2900 - 2905m	90	SILTSTONE: as above.
	10	SANDSTONE: as above.
2905 - 2910m	90	SILTSTONE: as above.
	10	SANDSTONE: as above.
2910 - 2915m	90	SILTSTONE: as above.
	10	SANDSTONE: as above.
2915 - 2920m	80	SILTSTONE: as above.
	20	SANDSTONE: as above, trace weak crush cut.

2920 - 2925m	90	SILTSTONE: as above.
	10	SANDSTONE: as above.
2925 - 2930m	90	SILTSTONE: as above.
	10	SANDSTONE: as above.
2930 - 2935m	100	SILTSTONE: as above.
2935 - 2940m	100	SILTSTONE: dark grey, occasionally light grey, blocky, essentially firm but often subfissile to platy, grading in part to shale, argillaceous to very carbonaceous, common pyrite, biotitic in places, trace coaly contact.
	trace	SANDSTONE: clear to multicoloured coarse to medium grained, subangular to subrounded quartz aggregates, very poorly sorted, in a siliceous matrix, tight, no shows, trace yellow gold mineral fluorescence.
	trace	CLAYSTONE: as above.
2940 - 2945m	90	SILTSTONE: as above.
	10	SANDSTONE: as above.
	trace	CLAYSTONE: as above.
2945 - 2950m	90	SILTSTONE: as above.
	10	SANDSTONE: as above.
2950 - 2954m	90	SILTSTONE: as above.
	10	SANDSTONE: as above.
2954 - 2960m	100	SILTSTONE: as above.
	trace	SANDSTONE: as above.
2960 - 2965m	100	SILTSTONE: multicoloured, but mainly dark grey, firm, brittle, subfissile, non calcareous, very carbonaceous. The light coloured variety are slightly calcareous and non fissile. Pyrite is common, trace muscovite flecks.
	trace	SANDSTONE: as above.
2965 - 2970m	90	SILTSTONE: as above.
	10	SANDSTONE: partly loose quartz grains, otherwise fine grained aggregates, the loose fraction consists of medium to coarse grains, subangular, moderately sorted, no visible cement, no shows. The fine grained aggregates consist of multicoloured grains, mainly clear to off white, but quite a few that are black opaque minerals, calcareous silty matrix, trace yellow gold fluorescence that gives a weak milky white crush cut.
2970 - 2975m	100	SILTSTONE: about 20% of sample consists of light coloured, soft, slightly calcareous siltstone. The rest (80%) consists of dark grey coloured, hard, subfissile, angular cuttings, non calcareous, rich in carbonaceous matter.
	trace	SANDSTONE: as above.
2975 - 2980m	100	SILTSTONE: as above.
	trace	SANDSTONE: as above.

2980 - 2985m	100	SILTSTONE: as above.
	trace	SANDSTONE: as above.
2985 - 2990m	100	SILTSTONE: as above.
	trace	SANDSTONE: as above.
2990 - 2995m	100	SILTSTONE: as above.
	trace	SANDSTONE: as above.
2995 - 3000m	100	SILTSTONE: as above.
	trace	SANDSTONE: as above.
3000 - 3005m	100	SILTSTONE: as above.
	trace	SANDSTONE: as above.
3005 - 3010m	100	SILTSTONE: as above.
	trace	SANDSTONE: as above.
3010 - 3015m	100	SILTSTONE: as above.
	trace	SANDSTONE: as above.
3015 - 3020m	90	SILTSTONE: as above.
	10	SANDSTONE: mainly fine grained aggregates, well sorted quartz grains in silty matrix, common pyrite and muscovite, no shows.
3020 - 3025m	90	SILTSTONE: as above.
	10	SANDSTONE: as above.
3025 - 3030m	90	SILTSTONE: as above.
	10	SANDSTONE: as above.
3030 - 3035m	90	SILTSTONE: as above.
	10	SANDSTONE: as above.
3035 - 3040m	90	SILTSTONE: light to medium grey, occasionally dark grey, very fine grained, becoming increasingly arenaceous, argillaceous in part, subfissile to blocky, angular, predominantly non calcareous, firm, no shows.
	10	SANDSTONE: multicoloured medium to coarse grained, subrounded to subangular quartz aggregates in a predominantly silty matrix, common pyrite aggregates, common biotite, hard, very poor sorting, no shows.
3040 - 3045m	90	SILTSTONE: as above.
	10	SANDSTONE: as above.
3045 - 3050m	70	SILTSTONE: grey, arenaceous, blocky to rarely subfissile, argillaceous in part with a predominantly silty matrix, occasional pyrite and mica accessories, firm.
	30	SANDSTONE: white, clear, opaque to tan, medium to coarse grained, subrounded to subangular quartz aggregates in a dominantly siliceous to possibly kaolinitic cement, common mica, muscovite, non calcareous, poor sorting, tight, even dull mineral gold fluorescence, no visible cut.

3050 - 3054m	50	SANDSTONE: Type 1 - buff to light grey, fine grained, subrounded, very well silic cemented quartz aggregates, common mica, poor sorting, blocky, firm, tight, no shows; Type 2 - varicoloured, subangular to subrounded, medium to coarse quartz grained aggregates in a dominantly siliceous, kaolinitic matrix, silty in part, poor sorting, dull yellow mineral gold fluorescence, tight, no shows.
	50	SILTSTONE: as above.
3054 - 3060m	75	SANDSTONE: as above, no shows.
	25	SILTSTONE: as above.
3060 -3065m	80	SILTSTONE: as above.
	20	SANDSTONE: as above, no shows.
3065 - 3070m	80	SILTSTONE: as above.
	20	SANDSTONE: as above.
3070 - 3075m	80	SILTSTONE: as above.
	20	SANDSTONE: as above.
3075 - 3078m	90	SILTSTONE: as above.
	10	SANDSTONE: as above.
3078 - 3084m	80	SILTSTONE: mainly medium grey, occasionally dark grey and light grey, slightly subfissile but mainly blocky, trace calcareous matter, but mainly clay matrix, trace pyrite, trace mica.
	20	SANDSTONE: mainly fine to medium grained aggregates, hard to firm, subangular to subrounded, poorly sorted, non calcareous silty matrix with clay and silica cement, low porosity and permeability, no shows.
	trace	COAL: black, shiny, conchoidal fracture.

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APPENDIX 2

APPENDIX 2

Core Descriptions

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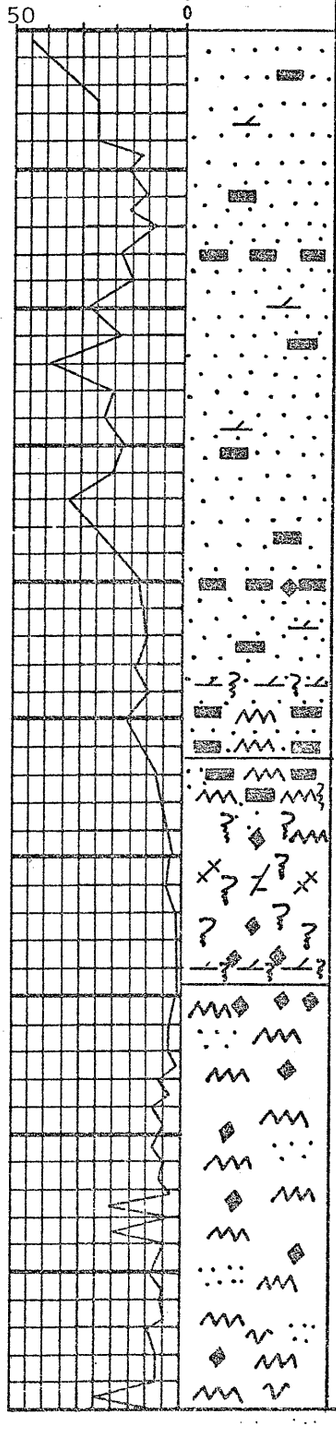
CORE DESCRIPTION

Core No. 1

Well WIRRAH 2

Interval Cored 2253.0-2265.0 m, **Cut** 12.0 m, **Recovered** 11.40 m, (95 %) **Fm.** LATROBE

Bit Type RC 3 **Bit Size** 8-1/2 in., **Desc by** M. FITTALL, N. DAVIDSON **Date** 4/2/83

Depth & Coring Rate (m/hr)	Graphic	Shows	Interval (m)	Descriptive Lithology
50 0			2253	2253.00 - 2258.33m SANDSTONE: light grey, hard to moderately friable, moderately to well cemented, quartzose, ranges from very fine to very coarse grained, dominantly medium grain size, subangular to subrounded, poorly to well sorted, minor to abundant white clay matrix, carbonaceous to very carbonaceous in parts, slightly calcareous - some calcite cement, probable siliceous cement; common dull cream fluorescence, no cut or crush cut - dolomite cement; poor to very poor visible porosity. No shows. Occasional pyrite cement. Dolomite vein (white, crystalline, cream fluorescence) at 2257.84m
			2254	
			2255	
			2256	
			2257	
			2258	2258.33 - 2259.90m CLAYSTONE WITH MINOR SILTSTONE AND COAL Siltstone: dark brown, quartzose, argillaceous, slightly micaceous, very carbonaceous with coaly laminae. Minor well cemented sandstone.
			2259	Claystone: light brown grey, hard, homogeneous texture, abundant crystalline pyrite in parts, common pyritic nodules, needle like translucent grains, common light grey veins - 1-2 mm;, non calcareous, non fluorescent, cherty texture; occasional carbonaceous laminae. Slickensides visible in places.
			2260	
			2261	Zone from 2259.00 - 2259.90m is very fractured, shows slickensides, dolomite and pyrite infilled veins.
			2262	At 2259.73m is fracture at 40° to core axis. Other high angle fractures and thin veins are visible through core down to approximately 2261m.

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CORE DESCRIPTION

Core No. 1. (Page 2)

Well WIRRAH 2

Interval Cored 2253.0 - 2265.0 m, **Cut** 12.00 m, **Recovered** 11.40 m, (95 %) **Fm.** LATROBE

Bit Type RC 3 **Bit Size** 8-1/2 in., **Desc by** M. FITTALL N. DAVIDSON **Date** 4/2/83

Depth & Coring Rate (m/hr)	Graphic	Shows	Interval (m)	Descriptive Lithology
50 0			2263	2259.90 - 2264.20m SILTSTONE: Medium grey, quartzose, pyritic, with pyrite laminae throughout, occasionally abundantly pyritic (ie. pyrite with quartz matrix); very hard, very well cemented, minor to moderate clay matrix, grades to very fine grained sandstone. Bioturbation visible from 2262.4m to 2264.2m Thin veins and high angle fractures visible throughout. At 2261.82m two high angle fractures visible, infilled with dolomite and pyrite, intersect at 120° ie.
			2264	
			2265	
				2264.20 - 2264.40m CLAYSTONE: Light grey, hard, homogeneous texture; common pyrite nodules; needle-like translucent grains (quartz??)
				2264.40 - 2265.00m NO RECOVERY

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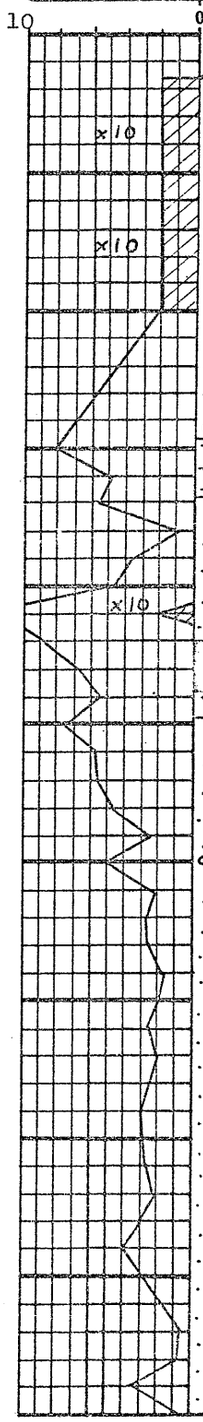
CORE DESCRIPTION

Core No. 2

Well WIRRAH 2

Interval Cored 2806.30-2824.00 m, **Cut** 17.70 m, **Recovered** 14.10 m, (.80 %) **Fm.** LATROBE

Bit Type CHRIST C-20 **Bit Size** 8-15/32 in., **Desc by** A. Lindsay **Date** 18/2/83

Depth & Coring Rate (m/hr)	Graphic	Shows	Interval (m)	Descriptive Lithology
10 0			2806	2806.30 - 2808.94m SANDSTONE WITH MINOR CONGLOMERATE: quartzose, light grey, fine tc coarse grained, dominantly medium; subangular to subrounded, moderate amounts of opaque minerals. Well cemented with dolomite and silica cement, low porosity and permeability; 60% bright yellow/gold/ orange and pink mineral fluorescence. Also trace creamy white fluorescence which gives a milky white crush cut and faint residue.
			2807	
		Trace	2808	
			2809	2806.90m 5-10% hydrocarbon fluorescence which gives a spontaneous cut and a strong crush cut.
			2810	2808.94 - 2809.26m CARBONACEOUS SHALE: dark grey to black, brittle, minor bedding visible, fine and coarse pyrite crystals common, few quartz inclusions.
			2811	
		Trace		2809.26 - 2810.39m SANDSTONE: quartzose, coarse to very coarse, light grey to buff, firm to friable, poorly sorted, low porosity, 5% to 30% spotty and patchy creamy white fluorescence which gives a moderate to good spontaneous streaming cut and a strong crush cut, and a clear residue.
		Trace	2812	
		Trace	2813	2810.30m Granule Conglomerate: firm to friable, granules to coarse quartz grains with black carbonaceous streaks up to 3mm thick. 10% patchy fluorescence which gives a strong instant creamy white cut.
		Trace	2814	
			2815	2810.39 - 2810.77m COAL: black, shiny, hard, brittle conchoidal fracture, subvitreous lustre.

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CORE DESCRIPTION

Core No. 2 (Page 2)

Well . WIRRAH - 2 . .

Interval Cored 2806.30-2824.00 m, Cut 17.70 m, Recovered 14.10 m, (80 %) Fm. LATROBE

Bit Type . . . CHRIST. C-20 . . Bit Size . . 8-15/32 . . . . in., Desc by A. LINDSAY . . . . . Date . 18-2-83 . . . . . .

Depth & Coring Rate (m/hr)	Graphic	Shows	Interval (m)	Descriptive Lithology
10 0			2816	2810.77 - 2810.90m GRANULE CONGLOMERATE and CARBONACEOUS SHALE: Granule Conglomerate - trace patchy fluorescence with moderate crush cut; Carbonaceous Shale - dark grey to black, hard, brittle, massive, fine pyrite crystals (just visible)
			2817	
			2818	2810.90 - 2819.05 SANDSTONE with MINOR GRANULE CONGLOMERATE: mainly medium to fine grained but also grading downwards to granule and pebble sized grains. Discontinuous patchy shows as indicated in "shows" column from trace to 70%.
			2819	
			2820	2819.05 - 2820.40m GRANULE CONGLOMERATE: light grey, friable to hard, medium to granule sized grains, poorly sorted, subangular to subrounded, silty and feldspathic detritus in matrix, slightly calcareous cement, low to moderate porosity, generally no shows in this interval except at 2819.86m. At this depth there is 60% patchy creamy white fluorescence giving a strong instant cut.
			2821	
			2822	
			2823	2820.40 - 2824.00m No Recovery
			2824	

APPENDIX 3

APPENDIX 3

Sidewall Core Descriptions

WIRRAH - 2

SIDEWALL CORE DESCRIPTIONS

No.	Depth	Rec. (mm)	Rock Type	Description
1	3067	15	Siltstone	Pale brown, firm, slightly calcareous, argillaceous.
2	3055.4			No Recovery
3	3053.4	40	Sandstone	Light grey, medium to fine grained, moderately sorted, subangular to subrounded, firm, argillaceous, white clay matrix, trace spotty dull orange mineral fluorescence. Tight.
4	3049.6	38	Siltstone	Medium light grey, soft, water sensitive, very pale fluorescence, no cut.
5	3042.3	30	Sandstone	Light grey, medium grained, moderately sorted, subrounded, firm, white clay matrix, argillaceous, trace spotty dull yellow fluorescence, light yellow cut. Clay is water sensitive, dissolves readily in HCl.
6	3034.6	15	Siltstone	Medium grey, firm, slightly calcareous, argillaceous.
7	3022.3	26	Siltstone	Medium light grey, firm, argillaceous.
8	2992.8	30	Siltstone	Medium grey, moderately hard, slightly calcareus, subfissile, argillaceous.
9	2972.7	26	Siltstone	Medium dark grey, soft, slightly calcareous, subfissile, argillaceous.
10	2959.4			No Recovery
11	2923.0	13	Siltstone	Medium grey, moderately hard, very argillaceous.
12	2905.0	20	Interbedded Sandstone/ Siltstone	Medium light grey to medium grey, very fine grained, moderately sorted, subangular, firm, argillaceous, trace spotty dull yellow fluorescence, dull yellow cut fluorescence, light yellow residue. Water sensitive clay matrix. Tight.
13	2895.5			No Recovery.
14	2891.0	35	Sandstone	Light grey, fine grained, moderately sorted, subrounded, slightly calcareous, argillaceous, water sensitive clay matrix. Low porosity, tight.
15	2887.0			No Recovery
16	2876.0	25	Siltstone	Olive grey, firm, moderately calcareous.

17	2857.0	35	Siltstone	Medium dark grey to medium grey, firm, silty, argillaceous.
18	2853.0	36	Interbedded Sandstone/ Shale	Coarse grained, angular to subangular, moderately sorted, loose quartz sandstone; and grey to red, argillaceous, moderately calcareous shale. Trace patchy dull orange/yellow fluorescence, dull yellow cut fluorescence, medium yellow cut residue.
19	2852.5			No Recovery.
20	2849.5	30	Interbedded Sandstone/ Shale	Light grey, medium grained, moderately sorted, subangular to subrounded, soft, very calcareous, white matrix, 60% spotty bright yellow mineral fluorescence. Partly water sensitive. Tight.
21	2846.6			No Recovery.
22	2845.5	35	Sandstone	Light grey, coarse to fine grained, poorly sorted, angular to subangular, soft, very calcareous, white matrix, 40% spotty bright straw mineral yellow fluorescence. Poor visible porosity.
23	2842	35	Sandstone	Light grey, medium to fine grained, poorly sorted, angular to subangular, soft, white matrix, water sensitive, 40% spotty bright straw fluorescence. Poor visible porosity.
24	2838	25	Sandstone/ Carbonaceous Interbeds	Light grey, fine grained, well sorted, angular, firm, carbonaceous laminations, 70% spotty dull cream to yellow fluorescence, moderate yellow cut fluorescence, medium yellow cut residue. Poor visible porosity.
25	2830	35	Sandstone	Light grey, medium to fine grained, poorly sorted, subrounded to angular, firm, white cement, very calcareous, 20% spotty bright orange yellow fluorescence. Water sensitive clay. Poor visual porosity.
26	2826.8	30	Sandstone	Light grey, coarse to fine grained, poorly sorted, subangular to angular, firm, very calcareous, 30% patchy dull yellow calcite mineral fluorescence.
27	2824.5	30	Sandstone	Light grey, coarse to medium grained, subangular to angular, hard, moderately calcareous, 20% patchy dull yellow mineral fluorescence. Calcite cement, very poor visible porosity.

28	2823.0	25	Sandstone	White to light grey, coarse to fine grained, poorly sorted, angular to subrounded, very calcareous, soft, slightly argillaceous, 30% spotty bright yellow fluorescence. Common calcite cement, very poor visible porosity.
29	2803.0	40	Sandstone	Medium light grey, fine grained, well sorted, subangular to angular, pyritic, 70% spotty dull gold/yellow fluorescence. Poor visual porosity.
30	2792.6	35	Siltstone with pyrite	Medium light grey, soft, non calcareous, water sensitive.

Shots 31-51 ie. the 2nd gun of Run 1 were not shot. Several bullets fired at once when shooting bullet No. 2, making any further setting uncertain.

52	2773.4	25	Siltstone	Medium dark grey, firm, slightly calcareous.
53	2765.0	30	Siltstone	Medium dark grey, hard, slightly calcareous.
54	2557.5	35	Sandstone	Light grey, medium to fine graned, moderately sorted, subangular to angular, firm, very calcareous, white water sensitive clay matrix, 70% patchy bright yellow fluorescence.
55	2749.8			No Recovery.
56	2728.6	35	Sandstone	Mainly fine to medium grained quartz aggregates, with hard dolomite cement, yellow mineral fluorescence, no cut; also coarse to very coarse, angular, loose quartz grains.
57	2716.9	25	Siltstone	Medium to light grey, soft, moderately calcareous, with coarse quartz grains.
58	2694.0			No Recovery.
59	2673.9	28	Sandstone	Light grey, medium to fine grained, moderately sorted, subangular, moderatly calcareous, firm, 40% spotty bright yellow fluorescence.
60	2669.2	25	Siltstone	Olive grey, firm, slightly calcareous.
61	2662.8	20	Sandstone	Very light grey, medium to fine grained, moderately sorted, angular to subangular, firm, moderately calcareous, possible white clay matrix, water sensitive, trace spotty dull yellow fluorescence.
62	2661.0	20	Siltstone	Medium grey, moderately hard, argillaceous, coal.
63	2648.9	20	Siltstone	Medium dark grey, firm, carbonaceous.
64	2630.0	20	Siltstone	Light grey to dark grey, firm, carbonaceous, argillaceous, laminated.
65	2606.0			No Recovery.

66	2587.2	25	Sandstone/ Siltstone	Brown to light grey, medium to fine grained, moderate sorting, angular to subangular, firm, very calcareous, trace spotty bright yellow fluorescence, bright yellow cut fluorescence, heavy yellow cut residue, moderate porosity.
67	2583.4	35	Claystone	Medium to dark to light grey, firm, slightly calcareous.
68	2545.3	20	Sandstone	Light grey, fine grained, moderately hard, subangular, firm, moderately calcareous, pyritic, white clay matrix, moderate porosity.
69	2540.8	25	Sandstone	Light grey to brown, medium to fine grained, moderately hard, subangular, firm, very calcareous, very argillaceous, 50% spotty bright yellow fluorescence, bright yellow cut fluorescence, medium yellow cut residue, poor visible porosity.
70	2516.6	25	Sandstone	Light grey, fine grained, well sorted, angular to subangular, firm, moderately calcareous, white water sensitive clay matrix, poor visible porosity.
71	2512.7	20	Shale	Medium grey, firm, moderately calcareous, silty.
72	2472.2	25	Sandstone	Light grey, fine grained, well sorted, angular to subangular, firm, slightly calcareous, argillaceous, water sensitive.
73	2447.0	30	Siltstone	Olive grey, firm.
74	2424.9	30	Siltstone	Medium light grey, moderately hard, argillaceous.
75	2422.9	20	Sandstone	Light grey, very fine grained, well sorted, angular to subangular, moderately hard, moderately calcareous, white water sensitive clay.
76	2409.7			No Recovery.
77	2373.0	20	Siltstone	Brown, firm, carbonaceous.
78	2349.6	20	Sandstone	Light grey, very fine grained, well sorted, angular to subangular, moderately hard, pyritic.
79	2337.0	45	Sandstone	Light grey, very fine grained, well sorted, angular to subangular, slightly calcareous, pyritic, clay matrix, trace spotty bright yellow fluorescence, very poor visible porosity.

80	2320	30	Sandstone	Red brown, fine grained, well sorted, subangular to angular, hard, slightly dolomitic, dolomitic accretions, 10% patchy bright straw mineral fluorescence.
81	2312.1	20	Claystone	Light to medium grey, firm, moderately calcareous, pyritic, laminated.
82	2146.2	32	Claystone	Medium light grey, soft, silty.
83	2119.0	20	Siltstone	Medium dark grey, soft, argillaceous.
84	2082.6	25	Sandstone	Medium grey, very fine grained, well sorted, subangular, unconsolidated, silty, very poor visible porosity.
85	2052.0	20	Siltstone	Medium light grey, hard, laminated.
86	2023.3	24	Sandstone	Medium light grey, fine grained, poorly sorted, subangular, unconsolidated, moderately calcareous, silty, calcareous cement, poor visible porosity.
87	1984.9	26	Sandstone	Medium light grey, fine grained, moderately sorted, subrounded, unconsolidated, moderately calcareous, silty, calcareous cement, very poor visible porosity, minor heavy minerals.
88	1946.2	23	Siltstone	Medium dark grey, unconsolidated, slightly calcareous, argillaceous, minor rock fragments, pyritic.
89	1923.0	21	Sandstone	Medium grey, very fine grained, moderately sorted, subrounded, friable, pyritic, argillaceous, laminated.
90	1901.0	24	Sandstone	Light grey, very fine grained, moderately sorted, subrounded, friable, poor visible porosity, very clean sand.
91	1873.3	26	Sandstone	Medium dark grey, very fine grained, moderately sorted, subangular, friable, pyritic, argillaceous, minor rock fragments.
92	1828.0	10	Sandstone	Medium grey, fine to very fine grained, poorly sorted, subangular, unconsolidated, very calcareous, very argillaceous, 50% patchy bright yellow/orange calcite fluorescence.
93	1811.8	20	Sandstone	Medium grey, very fine grained, moderately sorted, subangular, friable, moderately calcareous, argillaceous, pyritic, 10% spotty dull straw calcite fluorescence.
94	1772.6			No Recovery.
95	1761.9	30	Sandstone	Light grey, very fine grained, moderately sorted, subrounded, unconsolidated, pyritic, 2% spotty bright straw fluorescence, clean sand.

96	1710.6	20	Sandstone	Medium grey, very fine grained, moderately sorted, subrounded, friable, argillaceous, laminated.
97	1694.6	34	Sandstone	Olive grey, medium grained, poorly sorted, subrounded, unconsolidated, slightly calcareous, argillaceous, 5% spotty dull straw fluorescence, laminated.
98	1647.4	27	Sandstone	Medium grey, very fine grained, subrounded, moderately sorted, friable, slightly calcareous, argillaceous.
99	1630.7	24	Siltstone	Medium dark grey, poorly sorted, friable, sandy.
100	1598.5	20	Sandstone	Dark grey, fine to very fine grained, moderately sorted, subangular, friable, argillaceous, moderately calcareous, 10% spotty dull straw fluorescence.
101	1590.9	30	Sandstone	Olive grey, medium to fine grained, moderately sorted, subrounded to subangular, soft, moderately calcareous, argillaceous, 80% even dull straw fluorescence, dull yellow cut fluorescence, moderately heavy blue yellow cut residue. Moderate porosity.
102	1577.2	35	Sandstone	Medium grey, fine grained, well sorted, subrounded, friable.
103	1548.8	23	Sandstone	Medium light grey, fine grained, moderately sorted, subangular to subrounded, firm, pyritic.
104	1534.5	40	Sandstone	Medium light grey, medium grained, moderately sorted, subrounded to subangular, moderately hard, slightly calcareous, argillaceous, 40% spotty bright blue yellow fluorescence, bright yellow cut fluorescence, moderately heavy yellow cut residue. Moderate porosity.
105	1533.5	40	Sandstone	Olive brown, medium to fine grained, moderately sorted, subangular to subrounded, moderately hard, slightly calcareous, partly argillaceous, 50% very bright bluey yellow fluorescence, bright yellow cut fluorescence, heavy yellow cut residue. Moderate porosity.
106	1532.4	40	Sandstone	Medium light grey, medium to fine grained, subangular to subrounded, moderately sorted, firm, slightly calcareous, argillaceous, 80% patchy bright blue yellow fluorescence, bright yellow cut fluorescence, heavy yellow cut residue. Moderate porosity.

107	1530.0	22	Sandstone	Dark grey, medium to coarse grained, moderately sorted, unconsolidated, moderately calcareous, argillaceous, moderate to good porosity.
108	1524.4	40	Sandstone	Olive grey, fine grained, well sorted, subangular to angular, firm, very argillaceous, trace patchy dull yellow fluorescence, dull yellow cut fluorescence. Low visible porosity.
109	1522.3	40	Sandstone	Medium grey, fine to very fine grained, subrounded, unconsolidated, argillaceous.
110	1521.3	40	Sandstone	Medium grey, fine grained, well sorted, subangular, soft, slightly calcareous, argillaceous, clay is water sensitive, 70% patchy bright blue yellow fluorescence, dull yellow cut fluorescence, heavy yellow residue, oil odour. Low visible porosity.
111	1518.9	40	Sandstone	Dark grey, coarse to very fine grained, subangular to subrounded, very poorly sorted, friable, very argillaceous.
112	1515.5	40	Sandstone	Dark grey, coarse to very fine grained, poorly sorted, subrounded, friable, very argillaceous, glauconitic.
113	1513.5	45	Sandstone	Dark grey, coarse to very fine grained, subrounded, poorly sorted, friable, very argillaceous, trace glauconitic.
114	1463.7	35	Calcareous Mudstone	Medium dark grey, soft, very calcareous, silty.
115	1456.6	35	Calcareous Mudstone	Medium grey, soft, very calcareous.
116	1453.7	45	Calcareous Mudstone	Medium dark grey, firm, very calcareous, sandy.
117	1450.7	30	Calcareous Mudstone	Medium dark grey, firm, very calcareous, trace glauconitic.
118	1447.8	37	Calcareous Mudstone	Medium dark grey, firm, very calcareous, trace glauconitic.
119	1441.9	50	Calcareous Mudstone	Medium dark grey, firm, very calcareous, pyritic.
120	1432.0	55	Calcareous Mudstone	Dark grey, firm, very calcareous, silty.
121	1380.6	50	Calcareous Mudstone	Dark grey, firm, very calcareous.
122	1314.0	55	Calcisiltite	Medium to dark grey, firm, very argillaceous.
123	1271.2	60	Calcisiltite	Medium to dark grey, firm, very argillaceous.
124	1249.0	50	Calcisiltite	Medium dark grey, firm, very argillaceous.

125	1179.4	50	Calcisiltite	Medium dark grey, firm, very argillaceous.
126	1134.5	50	Calcisiltite	Medium dark grey, firm, very argillaceous.
127	1073.9	35	Calcisiltite	Medium grey, firm, very argillaceous.
128	1029.3	35	Calcisiltite	Dark grey, firm, very argillaceous, 10% spotty dull yellow mineral fluorescence, from calcite veins.
129	975.0	36	Calcisiltite	Medium grey, firm, very argillaceous.
130	933.9	47	Calcisiltite	Medium dark grey, firm, very argillaceous.
131	871.2	40	Calcisiltite	Medium dark grey, firm, very argillaceous.
132	840.0	45	Calcisiltite	Medium dark grey, firm, very argillaceous.
133	2306.2	26	Siltstone	Medium light grey, soft, argillaceous.
134	2301.0	25	Siltstone	Light grey, soft, very argillaceous.
135	2295.9	20	Sandstone	Medium grey, very fine grained, moderately sorted, subangular, unconsolidated, very argillaceous, banded light/dark layers.
136	2290.9	25	Siltstone	Medium grey, firm, argillaceous, carbonaceous.
137	2284.0	30	Siltstone	Medium light grey, friable, sandy.
138	2281.0	45	Claystone	Green grey, firm, sandy, pyritic, 2% spotty dull yellow mineral fluorescence. Weathered volcanics?, silica veining.
139	2275.0	30	Siltstone	Medium grey, firm.
140	2274.3	25	Siltstone	Medium grey, unconsolidated.
141	2268.1	20	Sandstone	Light grey, very fine grained, moderately sorted, subangular, unconsolidated, moderately calcareous, pyritic, 80% even dull straw mineral fluorescence.
142	2263.0	26	Sandstone	Medium light grey, very fine grained, well sorted, subrounded, firm, moderately calcareous, pyritic.
143	2259.4	25	Sandstone	Dark grey, very fine grained, poorly sorted, subangular, friable, argillaceous, rock fragments, 5% spotty bright yellow fluorescence, weak dull yellow green cut fluorescence, 40% fluorescence residue. Weak show, poor visible porosity.

144	2248.0	21	Sandstone	Medium light grey, very fine to medium grained, poorly sorted, subangular, friable, 40% spotty dull yellow mineral fluorescence.
145	2232.0			No Recovery.
146	2229.4			No Recovery.
147	2221.1	23	Siltstone	Medium grey, friable, pyritic.
148	2206.8	21	Siltstone	Grey to black, friable, slightly calcareous, very argillaceous, 2% spotty dull yellow mineral fluorescence.
149	2199.5	18	Sandstone	Medium grey, medium grained, poorly sorted, subangular, friable, very argillaceous layers, 5% spotty faint yellow mineral fluorescence.
150	2195.0	21	Sandstone	Medium light grey, medium grained, moderately sorted, subrounded, unconsolidated.
151	2180.0	10	Sandstone	Medium grey, very fine grained, moderately sorted, subrounded, unconsolidated, slightly calcareous.
152	2169.0			No Recovery.
153	2160.5	27	Sandstone	Light to dark grey, fine grained, poorly sorted, subangular, friable, small coal vein, argillaceous layers.

APPENDIX 4

APPENDIX 4

Velocity Survey Report

VELOCITY SURVEY REPORT

1. Marine velocity survey report.

2. Processing report.

3. Shooting geometry sketch.

4. Check shot data - observed and corrected.

5. Drift calculation sheet.

6. Seismic calibration curve.

7. Time-depth curve.

8. Schlumberger seismic calibration log.

9. Schlumberger check shot field log.

10. Schlumberger geogram.

11. Schlumberger vertical seismic profile report.

12. Vertical seismic profile plots 1-8.

0745L

MARINE VELOCITY SURVEY REPORT

WELL	:	Wirrah#2
BASIN	:	Gippsland
DATE OF SURVEY	:	26.2.83
CONTRACTOR	:	Schlumberger
RECORDED BY	:	G. Miller
WITNESSED BY	:	Chris Paul
WATER DEPTH	:	50.0m
R.T. ELEVATION	:	21.0m
T.D. WHEN SHOT	:	3084mKB
CASING DEPTHS	:	$13^{3/}8$ @ 804.3m
NO. OF SHOOTING LEVELS	:	64

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PROCESSING REPORT
WIRRAH#2

1. SHOT DATA

Level	65.00	-	stacked 5 shots
	712.00	-	stacked 2 shots
	857.00	-	stacked 3 shots (did not use 1 shot due to noise)
	1000.00	-	stacked 2 shots (did not use 1 shot due to noise)
	1150.00	-	stacked 2 shots (did not use 1 shot due to noise)
	1491.00	-	stacked 4 shots (did not use 4 shots due to noise)
	1510.00	-	stacked 4 shots (did not use 2 shots due to noise)
	1537.00	-	stacked 2 shots (did not use 2 shots due to noise)
	1562.00	-	stacked 2 shots (did not use 2 shots due to noise)
	1586.00	-	stacked 2 shots
	1607.00	-	stacked 4 shots
	1633.00	-	stacked 2 shots (did not use 4 shots due to noise)
	1655.00	-	stacked 2 shots (did not use 4 shots due to noise)
	1676.00	-	stacked 2 shots (did not use 1 shot due to noise)
	1691.00	-	stacked 2 shots
	1713.00	-	stacked 2 shots
	1737.00	-	stacked 3 shots
	1761.00	-	stacked 2 shots
	1785.00	-	stacked 2 shots
	1808.00	-	stacked 2 shots (did not use 2 shots due to noise)
	1833.00	-	stacked 2 shots (did not use 2 shots due to noise)
	1854.00	-	stacked 3 shots
	1875.00	-	stacked 2 shots (did not use 3 shots due to noise)
	1894.00	-	stacked 3 shots (did not use 2 shots due to noise)
	1917.00	-	stacked 2 shots
	1940.00	-	stacked 3 shots
	1966.00	-	stacked 4 shots (did not use 2 shots due to noise)
	1990.00	-	stacked 5 shots (did not use 2 shots due to noise)
	2014.00	-	stacked 3 shots (did not use 3 shots due to noise)
	2040.00	-	stacked 3 shots (did not use 2 shots due to noise)
	2065.00	-	stacked 2 shots (did not use 3 shots due to noise)
	2090.00	-	stacked 3 shots
	2116.00	-	stacked 2 shots (did not use 4 shots due to noise)
	2140.00	-	stacked 3 shots (did not use 1 shot due to noise)
	2169.00	-	stacked 2 shots (did not use 2 shots due to noise)
	2195.00	-	stacked 3 shots (did not use 1 shot due to noise)
	2222.00	-	stacked 3 shots (did not use 7 shots due to noise)
	2250.00	-	stacked 2 shots (did not use 1 shot due to noise)
	2279.00	-	stacked 2 shots
	2307.00	-	stacked 3 shots (did not use 1 shot due to noise)
	2336.00	-	stacked 2 shots
	2365.00	-	stacked 5 shots (did not use 1 shot due to noise)
	2394.00	-	stacked 2 shots (did not use 7 shots due to noise)
	2425.00	-	stacked 2 shots (did not use 1 shot due to noise)
	2457.00	-	stacked 4 shots (did not use 3 shots due to noise)
	2488.00	-	stacked 3 shots (did not use 1 shot due to noise)
	2520.00	-	stacked 4 shots (did not use 2 shots due to noise)
	2554.00	-	stacked 5 shots (did not use 1 shot due to noise)
	2587.00	-	stacked 3 shots
	2623.00	-	stacked 4 shots (did not use 4 shots due to noise)
	2652.00	-	stacked 4 shots (did not use 1 shot due to noise)
	2679.00	-	stacked 5 shots
	2714.00	-	stacked 4 shots (did not use 20 shots due to noise)
	2749.00	-	stacked 3 shots
	2778.00	-	stacked 3 shots (did not use 22 shots due to noise)
	2800.00	-	stacked 3 shots (did not use 1 shot due to noise)
	2834.00	-	stacked 4 shots (did not use 9 shots due to noise)
	2864.00	-	stacked 4 shots (did not use 9 shots due to noise)
	2891.00	-	stacked 3 shots (did not use 1 shot due to noise)
	2922.00	-	stacked 4 shots (did not use 4 shots due to noise)
	2952.00	-	stacked 5 shots
	2983.00	-	stacked 5 shots (did not use 2 shots due to noise)
	3017.00	-	stacked 6 shots (did not use 7 shots due to noise)
	3046.00	-	stacked 6 shots
	3075.00	-	stacked 6 shots (did not use 2 shots due to noise)

DATA PROCESSING INFORMATION

Well is assumed vertical. SRD is Sea level.
Rotary Table = 21.0m above SRD.
Ground level = 50.0m below SRD.
Gun and shot sensor distance was calculated to be 45.0m from wellbore using moonpool shots.
Gun was 3.05m below SRD and the time break hydrophone a further 3.05m below the gun, at 6.1m below SRD.
Average velocity used between SRD and G.L. was 1480 m/sec (as requested).

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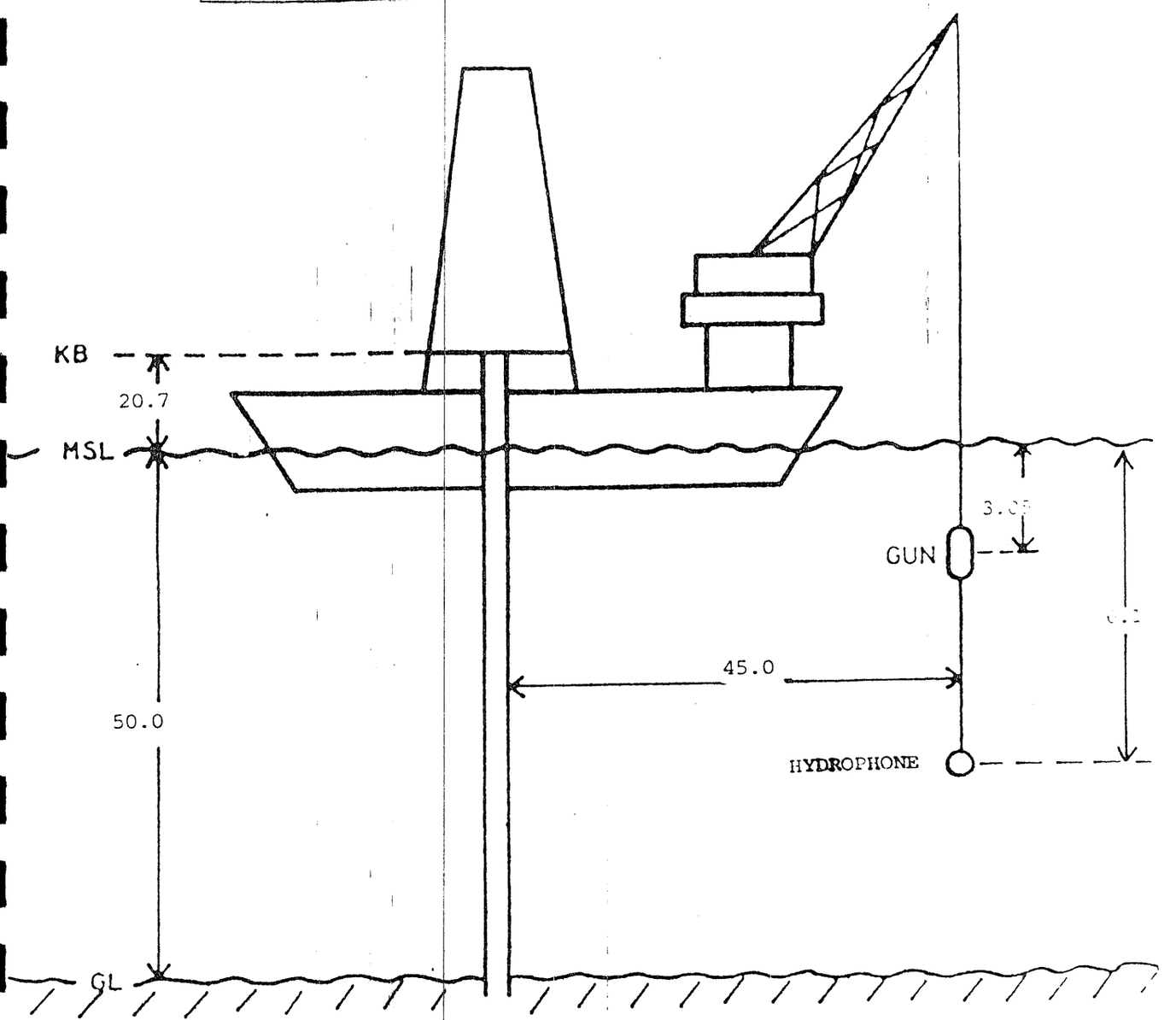
SHOOTING GEOMETRY

WELL : WIRRAH #2



VELOCITY SURVEY - WIRRAH-2

LEVEL NUMBER	MEASURED DEPTH FROM KB (m)	VERTICAL DEPTH FROM MSL (m)	OBSERVED TRAVEL TIME (ms)	VERTICAL TRAVEL TIME MSL/ GEOPHONE (ms)	AVERAGE VELOCITY MSL/GEOPHONE (m/s)	DELTA DEPTH BETWEEN SHOTS (m)	DELTA TIME BETWEEN SHOTS (ms)	INTERVAL VELOCITY BETWEEN SHOTS (m/s)	INTERVAL VELOCITY BETWEEN SHOTS ON T-D CURVE (m/s)
1	712.0	691.3	297.4	298.7	2314				
						145.0	54.7	2651	
2	857.0	836.3	351.9	353.4	2366				
						143.0	46.6	3069	
3	1000.0	979.3	398.4	400.0	2448				
						150.0	45.7	3282	
4	1150.0	1129.3	444.3	445.9	2533				
						341.4	121.8	2803	
5	1491.4	1470.7	566.0	567.7	2591				
						18.6	4.9	3796	
6	1510.0	1489.3	570.9	572.6	2601				
						27.4	9.0	3044	3227
7	1537.4	1516.7	579.9	581.6	2607				
						25.0	7.4	3378	
8	1562.4	1541.7	587.3	589.0	2617				
						23.7	6.2	3823	
9	1586.1	1565.4	593.5	595.2	2650				
						20.6	8.0	2575	3191
10	1606.7	1586.0	601.5	603.2	2629				
						25.9	8.0	3238	
11	1632.6	1611.9	609.4	611.2	2637				
						22.0	6.6	3333	
12	1654.6	1633.9	616.0	617.8	2645				
						21.4	8.7	2460	2945
13	1676.0	1655.3	624.7	626.5	2642				
						15.5	4.9	3163	
14	1691.5	1670.8	629.6	631.4	2646				
						22.2	8.3	2675	
15	1713.7	1693.0	637.9	639.7	2647				
						23.3	6.2	3758	3159
16	1737.0	1716.3	644.1	645.9	2657				
						24.0	7.9	3038	

* Note: i) Values annotated on the Time-Depth Curve differ from the above due to rounding in curve construction program.
ii) Only every third level used in T-D curve construction from -1470.7m to -3054m.

0678L

VELOCITY SURVEY - WIRRAH-2

LEVEL NUMBER	MEASURED DEPTH FROM KB (m)	VERTICAL DEPTH FROM MSL (m)	OBSERVED TRAVEL TIME (ms)	VERTICAL TRAVEL TIME MSL/ GEOPHONE (ms)	AVERAGE VELOCITY MSL/GEOPHONE (m/s)	DELTA DEPTH BETWEEN SHOTS (m)	DELTA TIME BETWEEN SHOTS (ms)	INTERVAL VELOCITY BETWEEN SHOTS (m/s)	INTERVAL VELOCITY BETWEEN SHOTS ON T-D CURVE (m/s)
17	1761.0	1740.3	652.0	653.8	2662				
						24.1	7.1	3394	
18	1785.1	1764.4	659.1	660.9	2670				
						23.1	6.0	3850	3443
19	1808.2	1787.5	665.1	669.9	2680				
						25.1	8.0	3138	
20	1833.3	1812.6	673.1	674.9	2686				
						20.8	6.5	3200	
21	1854.1	1833.4	679.6	681.4	2691				
						21.0	6.3	3333	3195
22	1875.1	1854.4	685.9	687.7	2697				
						18.9	5.8	3259	
23	1894.0	1873.3	691.7	693.5	2701				
						23.0	6.6	3485	
24	1917.0	1896.3	698.4	700.1	2709				
						23.8	7.2	3306	3130
25	1940.8	1920.1	705.5	707.3	2715				
						25.2	8.7	2897	
26	1966.0	1945.3	714.2	716.0	2717				
						24.0	6.6	3636	
27	1990.0	1969.3	720.8	722.6	2725				
						24.5	7.8	3141	3524
28	2014.5	1993.8	728.6	730.4	2730				
						25.5	6.6	3864	
29	2040.0	2019.3	735.2	737.0	2740				
						25.0	6.8	3676	
30	2065.0	2044.3	742.0	743.8	2748				
						25.5	5.6	4554	3974
31	2090.5	2069.8	747.6	749.4	2762				
						25.0	6.9	3623	

* Note: i) Values annotated on the Time-Depth Curve differ from the above due to rounding in curve construction program.
ii) Only every third level used in T-D curve construction from -1470.7m to -3054m.

0678L

VELOCITY SURVEY - WIRRAH-2

LEVEL NUMBER	MEASURED DEPTH FROM KB (m)	VERTICAL DEPTH FROM MSL (m)	OBSERVED TRAVEL TIME (ms)	VERTICAL TRAVEL TIME MSL/ GEOPHONE (ms)	AVERAGE VELOCITY MSL/GEOPHONE (m/s)	DELTA DEPTH BETWEEN SHOTS (m)	DELTA TIME BETWEEN SHOTS (ms)	INTERVAL VELOCITY BETWEEN SHOTS (m/s)	INTERVAL VELOCITY BETWEEN SHOTS ON T-D CURVE (m/s)
32	2115.5	2094.8	754.5	756.3	2770				
						24.5	7.2	3403	
33	2140.0	2119.3	761.7	763.5	2776				
						29.2	7.3	4000	3333
34	2169.2	2148.5	769.0	770.8	2787				
						26.3	9.2	2859	
35	2195.5	2174.8	778.2	780.0	2788				
						26.7	5.7	4684	
36	2222.2	2201.5	783.9	785.7	2802				
						28.0	6.4	4375	4432
37	2250.2	2229.5	790.3	792.1	2815				
						29.5	7.0	4214	
38	2279.7	2259.0	797.3	799.1	2827				
						27.8	6.4	4344	
39	2307.5	2286.8	803.7	805.5	2838				
						28.8	7.4	3892	4290
40	2336.3	2315.6	811.1	812.9	2849				
						29.2	6.7	4359	
41	2365.5	2344.8	817.8	819.6	2861				
						28.7	6.4	4484	
42	2394.2	2373.5	824.2	826.0	2873				
						31.4	6.8	4618	4832
43	2425.6	2404.9	831.0	832.8	2888				
						31.7	6.1	5197	
44	2457.3	2436.6	837.1	838.9	2905				
						30.7	6.5	4723	
45	2488.0	2467.3	843.5	845.4	2919				
						32.2	6.0	5367	5089
46	2520.2	2499.5	849.5	851.4	2936				
						33.8	6.2	5451	

* Note: i) Values annotated on the Time-Depth Curve differ from the above due to rounding in curve construction program.
ii) Only every third level used in T-D curve construction from -1470.7m to -3054m.

0678L

VELOCITY SURVEY - WIRRAH-2

LEVEL NUMBER	MEASURED DEPTH FROM KB (m)	VERTICAL DEPTH FROM MSL (m)	OBSERVED TRAVEL TIME (ms)	VERTICAL TRAVEL TIME MSL/ GEOPHONE (ms)	AVERAGE VELOCITY MSL/GEOPHONE (m/s)	DELTA DEPTH BETWEEN SHOTS (m)	DELTA TIME BETWEEN SHOTS (ms)	INTERVAL VELOCITY BETWEEN SHOTS (m/s)	INTERVAL VELOCITY BETWEEN SHOTS ON T-D CURVE (m/s)
47	2554.0	2533.3	855.7	857.6	2954				
						33.0	5.2	6345	
48	2587.0	2566.3	861.0	862.8	2974				
						36.0	7.3	4932	5158
49	2623.0	2602.3	868.2	870.1	2991				
						29.0	6.2	4677	
50	2652.0	2631.3	874.4	876.3	3003				
						26.9	5.7	4719	
51	2678.9	2658.2	880.1	882.0	3014				
						35.6	6.7	5313	4875
52	2714.5	2693.8	886.8	888.7	3031				
						35.0	7.4	4730	
53	2749.5	2728.8	894.2	896.1	3045				
						28.9	5.4	5352	
54	2778.4	2757.7	899.6	901.5	3059				
						21.6	5.0	4320	4739
55	2800.0	2779.3	904.7	906.5	3066				
						34.8	7.7	4519	
56	2834.8	2814.1	912.3	914.2	3078				
						29.9	5.9	5068	
57	2864.7	2844.0	918.5	920.1	3090				
						26.3	7.1	3704	4589
58	2891.0	2870.3	925.3	927.2	3096				
						31.0	6.5	4769	
59	2922.0	2901.3	931.8	933.7	3107				
						30.0	5.8	5172	
60	2952.0	2931.3	937.8	939.5	3120				
						31.6	8.3	3087	4735
61	2983.6	2962.9	945.9	947.8	3126				
						33.1	5.8	5707	
62	3016.7	2996.0	951.7	953.6	3142				
						29.0	7.1	4085	
63	3045.7	3025.0	958.8	960.7	3149				4143
						29.0	6.7	4328	
64	3074.7	3054.0	965.5	967.4	3156				

*Note: i) Values annotated on the Time-Depth Curve differ from the above due to rounding in curve construction program.
ii) Only every third level used in T-D curve construction from -1470.7m to -3054m.

06781

DRIFT CALCULATION SHEET

WIRRAH-2

Depth Rel.S.L. (m)	Depth Interval (m)	Av. Vertical Travel Time (check shots) (ms)	Ti Check Shots (ms)	Ti Sonic Log (ms) (washout corrected)	Ti - Ti Check Sonic (ms)	Drift (ms)
691.3 836.3	145.0	298.7 353.4	54.7	50.8	3.9	3.9
836.3 979.3	143.0	353.4 400.0	46.6	45.4	1.2	5.1
979.3 1129.3	150.0	400.0 445.9	45.9	44.0	1.9	7.0
1129.3 1470.7	341.4	445.9 567.7	121.8	109.0	12.8	19.8
1470.7 1541.7	71.0	567.7 589.0	21.3	21.0	0.3	20.1
1541.7 1611.9	70.2	589.0 611.2	22.2	21.0	1.2	21.3
1611.9 1670.8	58.9	611.2 631.4	20.2	20.8	-0.6	20.7
1670.8 1740.3	69.5	631.4 653.8	22.4	21.2	1.2	21.9
1740.3 1812.6	72.3	653.8 674.9	21.1	21.1	0.0	21.9
1812.6 1873.3	60.7	674.9 693.5	18.6	18.0	0.6	22.5

DRIFT CALCULATION SHEET

WIRRAH-2

Depth Rel.S.L. (m)	Depth Interval (m)	Av. Vertical Travel Time (check shots) (ms)	Ti Check Shots (ms)	Ti Sonic Log (ms) (washout corrected)	Ti Check - Ti Sonic (ms)	Drift (ms)
1873.3 1945.3	72.0	693.5 716.0	22.5	20.5	2.0	24.5
1945.3 2019.3	74.0	716.0 737.0	21.0	20.7	0.3	24.8
2019.3 2094.8	75.5	737.0 756.3	19.3	20.8	-1.5	23.3
2094.8 2174.8	80.0	756.3 780.0	23.7	21.0	2.7	26.0
2174.8 2259.0	84.2	780.0 799.1	19.1	21.2	-2.1	23.9
2259.0 2344.8	85.8	799.1 819.6	20.5	20.9	-0.4	23.5
2344.8 2436.6	91.8	819.6 838.9	19.3	19.5	-0.2	23.3
2436.6 2533.3	96.7	838.9 857.6	18.7	19.1	-0.4	22.9
2533.3 2631.3	98.0	857.6 876.3	18.7	18.8	-0.1	22.8
2631.3 2728.8	97.5	876.3 896.1	19.8	19.1	0.7	23.5
2728.8 2814.1	85.3	896.1 914.2	18.1	20.3	-2.2	21.3

DRIFT CALCULATION SHEET

WIRRAH-2

Depth Rel.S.L. (m)	Depth Interval (m)	Av. Vertical Travel Time (check shots) (ms)	Ti Check Shots (ms)	Ti Sonic Log (ms) (washout corrected)	Ti Check - Ti Sonic (ms)	Drift (ms)
2814.1 2901.3	87.2	914.2 933.7	19.5	20.5	-1.0	20.3
2901.3 2996.0	94.7	933.7 953.6	19.9	20.3	-0.4	19.9
2996.0 3054.0	58.0	953.6 967.4	13.8	13.6	0.2	20.1

0702L

WIRRAH #2
VSP
PROCESSING REPORT

1. SHOT DATA

The following levels have not been used for VSP computation:

3074.8		
2893.7	–	not stacked either
2605.0		
2680.0	–	not stacked either
2365.5	–	not stacked either
1475.7	–	not stacked either
1150.0		
1000.0		
857.0		
712.0		

Moonpool

The following levels have been edited:

2778.4 in the interval 1.55 – 1.7 sec
2394.2 in the interval 1.4 – 1.5 sec

2. After stacking ran wide band pass filter.
Frequencies: 10 – 70 Hz

3. Ran true amplitude recovery with an operator of 1.2 and made static correction of 4 miliseconds.

4. Alignment and shift to an arbitrary time of 500 m/sec.

5. Ran velocity filter using 7 levels as filter. Separate information into upgoing and downgoing events.

6. Ran predictive deconvolution (PDN) using:

Operator of 57ms; length = 1.8 sec; lag = 1.8 sec

../2

95/95

7. After PDN ran waveshape filtering with a deconvolution window of 1.6 sec and a band pass filter of 14-50 Hz. Ran corridor stack.

8. Back to PDN and ran waveshape filter with a deconvolution window of 1.6 sec and a band pass filter of 14-30 Hz. Ran corridor stack.

9. PLOTS

Plot #1: Includes computing centre stacked data.
Plot #2: Includes wide band pass filter and true amplitude recovery.
Plot #3: After velocity filter (VF) includes up and down going events.
Plot #4: After VF and predictive deconvolution (PDN) includes up and down going events.
Plot #5: After VF, PDN and waveshape filter with a band pass filter of 14-50 Hz, includes up and down going events. Normal Polarity.
Plot #6: As plot #5 but reverse polarity.
Plot #7: As plot #5 but band pass filter is 14-30 Hz.
Plot #8: As plot #7 but reverse polarity.

If you require any further information, please do not hesitate to contact us.

Yours faithfully,
AUSTRALIAN LOG INTERPRETATION CENTRE.

F. SEMINARIO,
LOG ANALYST

PE902589

This is an enclosure indicator page.
The enclosure PE902589 is enclosed within the container PE902587 at this location in this document.

The enclosure PE902589 has the following characteristics:

ITEM_BARCODE	= PE902589
CONTAINER_BARCODE	= PE902587
NAME	= Sonic Calibration Curve
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Sonic Calibration Curve (enclosure from WCR vol.1) for Wirrah-2
REMARKS	=
DATE_CREATED	= 31/12/83
DATE_RECEIVED	= 7/05/84
W_NO	= W797
WELL_NAME	= Wirrah-2
CONTRACTOR	= ESSO
CLIENT_OP_CO	= ESSO EXPLORATION AND PRODUCTION AUSTRALIA LTD

(Inserted by DNRE - Vic Govt Mines Dept)

PE902588

This is an enclosure indicator page.
The enclosure PE902588 is enclosed within the container PE902587 at this location in this document.

The enclosure PE902588 has the following characteristics:

ITEM_BARCODE	= PE902588
CONTAINER_BARCODE	= PE902587
NAME	= Seismic Calibration Log
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Seismic Calibration Log (enclosure from WCR vol.2) for Wirrah-2
REMARKS	=
DATE_CREATED	= 26/02/83
DATE_RECEIVED	= 7/05/84
W_NO	= W797
WELL_NAME	= Wirrah-2
CONTRACTOR	= SCHLUMBERGER
CLIENT_OP_CO	= ESSO AUSTRALIA LTD

(Inserted by DNRE - Vic Govt Mines Dept)

PE902590

This is an enclosure indicator page.
The enclosure PE902590 is enclosed within the container PE902587 at this location in this document.

The enclosure PE902590 has the following characteristics:

ITEM_BARCODE	= PE902590
CONTAINER_BARCODE	= PE902587
NAME	= Waveshape Filter & Predictive Deconvolution Up & Downgoing events reverse polarity
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Waveshape Filter & Predictive Deconvolution Up & Downgoing events reverse polarity for Wirrah-2
REMARKS	=
DATE_CREATED	=
DATE_RECEIVED	= 7/05/84
W_NO	= W797
WELL_NAME	= Wirrah-2
CONTRACTOR	= ESSO
CLIENT_OP_CO	= ESSO

PE902591

This is an enclosure indicator page.
The enclosure PE902591 is enclosed within the container PE902587 at this location in this document.

The enclosure PE902591 has the following characteristics:

ITEM_BARCODE	= PE902591
CONTAINER_BARCODE	= PE902587
NAME	= Waveshape Filter & Predictive Deconvolution Up & Downgoing events normal polarity
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Waveshape Filter & Predictive Deconvolution Up & Downgoing events normal polarity for Wirrah-2
REMARKS	=
DATE_CREATED	=
DATE_RECEIVED	= 7/05/84
W_NO	= W797
WELL_NAME	= Wirrah-2
CONTRACTOR	= ESSO
CLIENT_OP_CO	= ESSO

PE902592

This is an enclosure indicator page.
The enclosure PE902592 is enclosed within the container PE902587 at this location in this document.

The enclosure PE902592 has the following characteristics:

ITEM_BARCODE	= PE902592
CONTAINER_BARCODE	= PE902587
NAME	= Waveshape Filter & Predictive Deconvolution Up & Downgoing events reverse polarity
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Waveshape Filter & Predictive Deconvolution Up & Downgoing events reverse polarity for Wirrah-2
REMARKS	=
DATE_CREATED	=
DATE_RECEIVED	= 7/05/84
W_NO	= W797
WELL_NAME	= Wirrah-2
CONTRACTOR	= ESSO
CLIENT_OP_CO	= ESSO

PE902593

This is an enclosure indicator page.
The enclosure PE902593 is enclosed within the container PE902587 at this location in this document.

The enclosure PE902593 has the following characteristics:

ITEM_BARCODE	= PE902593
CONTAINER_BARCODE	= PE902587
NAME	= Waveshape Filter & Predictive Deconvolution Up & Downgoing events normal polarity
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Waveshape Filter & Predictive Deconvolution Up & Downgoing events normal polarity for Wirrah-2
REMARKS	=
DATE_CREATED	=
DATE_RECEIVED	= 7/05/84
W_NO	= W797
WELL_NAME	= Wirrah-2
CONTRACTOR	= ESSO
CLIENT_OP_CO	= ESSO

PE902594

This is an enclosure indicator page.
The enclosure PE902594 is enclosed within the container PE902587 at this location in this document.

The enclosure PE902594 has the following characteristics:

ITEM_BARCODE	= PE902594
CONTAINER_BARCODE	= PE902587
NAME	= Plot 4 After Predictive Deconvolution Up & Downgoing events normal polarity
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Plot 4 After Predictive Deconvolution Up & Downgoing events normal polarity for Wirrah-2
REMARKS	=
DATE_CREATED	=
DATE_RECEIVED	= 7/05/84
W_NO	= W797
WELL_NAME	= Wirrah-2
CONTRACTOR	= ESSO
CLIENT_OP_CO	= ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

PE902595

This is an enclosure indicator page.
The enclosure PE902595 is enclosed within the container PE902587 at this location in this document.

The enclosure PE902595 has the following characteristics:

ITEM_BARCODE	= PE902595
CONTAINER_BARCODE	= PE902587
NAME	= Plot 3 After Predictive Deconvolution Up & Downgoing events normal polarity
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Plot 3 After Predictive Deconvolution Up & Downgoing events normal polarity for Wirrah-2
REMARKS	=
DATE_CREATED	=
DATE_RECEIVED	= 7/05/84
W_NO	= W797
WELL_NAME	= Wirrah-2
CONTRACTOR	= ESSO
CLIENT_OP_CO	= ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

PE902596

This is an enclosure indicator page.
The enclosure PE902596 is enclosed within the container PE902587 at this location in this document.

The enclosure PE902596 has the following characteristics:

ITEM_BARCODE	= PE902596
CONTAINER_BARCODE	= PE902587
NAME	= Plot 2 Wide Band Pass Filter and True Amplitude Recovery Normal Polarity
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Plot 2 Wide Band Pass Filter and True Amplitude Recovery Normal Polarity for Wirrah-2
REMARKS	=
DATE_CREATED	=
DATE_RECEIVED	= 7/05/84
W_NO	= W797
WELL_NAME	= Wirrah-2
CONTRACTOR	= ESSO
CLIENT_OP_CO	= ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

PE902597

This is an enclosure indicator page.
The enclosure PE902597 is enclosed within the container PE902587 at this location in this document.

The enclosure PE902597 has the following characteristics:

ITEM_BARCODE	= PE902597
CONTAINER_BARCODE	= PE902587
NAME	= Plot 1 Computer Center Stacked Data Normal Polarity
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Plot 1 Computer Center Stacked Data Normal Polarity for Wirrah-2
REMARKS	=
DATE_CREATED	=
DATE_RECEIVED	= 7/05/84
W_NO	= W797
WELL_NAME	= Wirrah-2
CONTRACTOR	= ESSO
CLIENT_OP_CO	= ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

PE902598

This is an enclosure indicator page.
The enclosure PE902598 is enclosed within the container PE902587 at this location in this document.

The enclosure PE902598 has the following characteristics:

ITEM_BARCODE	= PE902598
CONTAINER_BARCODE	= PE902587
NAME	= Geogram from WST Normal Polarity
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= SYNTH_SEISMOGRAM
DESCRIPTION	= Geogram from WST Normal Polarity (encosure from WCR vol.1) for Wirrah-2
REMARKS	=
DATE_CREATED	=
DATE_RECEIVED	= 7/05/84
W_NO	= W797
WELL_NAME	= Wirrah-2
CONTRACTOR	= ESSO
CLIENT_OP_CO	= ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

PE902599

This is an enclosure indicator page.
The enclosure PE902599 is enclosed within the container PE902587 at this location in this document.

The enclosure PE902599 has the following characteristics:

ITEM_BARCODE	= PE902599
CONTAINER_BARCODE	= PE902587
NAME	= Seismic VSP & Check Shots
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Seismic VSP & Check Shots (enclosure from WCR vol.1) for Wirrah-2
REMARKS	=
DATE_CREATED	= 26/02/83
DATE_RECEIVED	= 7/05/84
W_NO	= W797
WELL_NAME	= Wirrah-2
CONTRACTOR	= SCHLUMBERGER
CLIENT_OP_CO	= ESSO

(Inserted by DNRE - Vic Govt Mines Dept)