WCR VOL 1

GUMMY-1 (W1028)

SHELL AUSTRALIA E. & P. OIL AND GAS

SDA 976

GUMMY-1
WELL COMPLETION REPORT

VOLUME 1
BASIC DATA

EXO TEAM

December, 1990

Keywords: Exploration, casing, cement, mud log, wireline, RFT, sidewall core, velocity survey, deviation, lithological.

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ENCLOSURES

1. INTRODUCTION

Gummy-1 was drilled by the semi-submersible drilling unit the "Zapata Arctic". Operations commenced on May 1, 1990 when the rig was released from Devilfish-1. The rig proceeded under tow, assisting with its own power, to the Gummy-A location and Gummy-1 was spudded on May 4, 1990. The total depth of 3563m was reached after a total of 28.4 days drilling. Rough weather caused 0.9 days lost time during anchor handling at the beginning of the well. A further 1.7 days were lost during the drilling of the well due to; the slickline parting during a survey (0.4 days), working stuck pipe free and tripping to check BHA (0.9 days) and recutting the 20 and 30" casing during abandonment (0.4 days).

The well was plugged and abandoned and the Zapata Arctic released on June 10, 1990. The total time taken to complete the well was 39.6 days, 0.4 days less than programmed.

2. WELL DATA

Note: All Depths in this report are metres below drill floor (bdf) unless stated otherwise.

Well :	Gummy-1
Well Type :	Exploration
Permit:	VIC/P19
Operator :	The Shell Company of Australia Ltd (40%)
Joint Venture Partners:	News Corporation (20%) TNT (20%) Crusader (15%) Petroz (5%)
Location :	Latitude 38° 17′ 59.56" S Longitude 148° 44′ 21.28" E U.T.M. Zone 55 C.M. 147o E East 652087m North 5759473.5m
Drilling Contractor :	Zapata Off-Shore Company.
Drilling Unit :	Zapata Arctic (Semi-Submersible)
Permanent Datum :	Mean Sea Level (msl)
Drill Floor Elevation :	28.4m above msl
Water Depth :	156m below msl
Total Depth :	3563m bdf
Geothermal Gradient :	3.3 oC/100m
Start of Operations :	1700 hours 1 May, 1990
Spudded :	2130 hours 4 May, 1990
Drilling Completed :	0800 hours 2 June, 1990
Rig Released :	0800 hours 10 June, 1990
Total Days :	39.6 (start operations to rig release)
Total Cost :	A$7.812 million
Final Well Status :	Plugged and Abandoned

2. SUMMARY OF WELL DATA (cont.)

Hole size and depth : 36" to 247m
26" to 570m
16" to 1205m
12 1/4" to 2646m
8 1/2" to 3563m

Wellhead : 18 3/4" Vetco SG5, top at 181.6m bdf

Casing Summary : 30" to 243m
20" to 557m
12 1/4" to 1194m
9 5/8" to 2634.6m

Wireline Logging :

Suite 1; 12 1/4" hole

Run 1.	DLL-LSSL-LDL-CNL-MSFL-CAL-GR-SP (CNL and MSFL logged to 2030m, GR to seabed)	2639-1192.5M
Run 2.	CST-GR	Shot 30, Recovered 29

Suite 2; 8 1/2" hole

Run 1.	DLL-LSSL-GR-MSFL-CAL	3562.5-2634.5m
Run 2.	LDL-CAL-CNL-GR (CNL-GR to 2575)	3566.5-2634.5m
Run 3.	SHDT-FMS-GR (FMS scan 3480-3380m and 2950-2850m)	3567-2634.5m
Run 4.	WSS (17 levels)	3563-1200m
Run 5.	RFT (66 pressure levels)	3555-2729m
Run 6.	RFT, samples taken at 3421.5m and 3201.5m.	

Wireline Logging Contractor : Schlumberger Seaco Inc.

Production Testing : None Performed
Contractor : Schlumberger Seaco Inc. (Flopetrol)

Abandonment Plugs :	Plug 1		3550 - 3450m
	Plug 2		3085 - 2985m
	Plug 3		2685 - 2550m
	Plug 4	EZSV Bridge Plug	2485m
	Plug 5	EZSV Bridge Plug	274m
	Plug 6		229m to Seabed

3. DRILLING OPERATIONS

3.1 Site Survey

Racal Survey (Australia) performed a side scan sonar survey and an echo sounding survey for the Gummy-A location. This was carried out from the 12th to the 16th of April, 1990, aboard the survey vessel "M.T. Wongara". An area of 2,000 square metres was surveyed, centred on lat 38° 18′ 00.3" S, long 148° 44′ 21.46" E, using Syledis[1] radio navigation system position determination. The sea floor topography was determined by echo sounding and side scanning sonar was used to determine the nature of the sea floor and to resolve any sea floor features.

The water depth survey showed that the seabed slopes north to south from approximately 140m to approximately 160m (1:50 slope). From the 160m contour which runs generally east/west through the centre of the survey area, the seabed drops down at a steep slope to more than 210m over a distance of less than 200m (1:3 slope), in places. The slope levels out to approximately 230m at the southern side of the survey area.

To avoid any problems which way have arisen from the steep slope found during the bathymetry survey the proposed location was revised to lat 38° 17′ 59.33" S, long 148° 44′ 21.44" E (30m north of the original location). The seabed appeared to be relatively smooth and comprised uniform fine grained sediments. Anchoring was unlikely to create any problems so long as the severely sloped area was avoided. No evidence of gas seepage from the seabed was visible on either the echo sounder or the side scan sonar.

Note 1: Syledis beacons were installed on the following points;

a. Carrajung Lookout	lat 38° 22′ 28.29" S long 146° 40′ 32.54" E
b. Flounder Platform	lat 38° 18′ 46.16" S long 148° 26′ 17.93" E
c. West Kingfish Platform	lat 38° 35′ 39.73" S long 148° 06′ 15.11" E
d. Jemmy Lookout	lat 37° 52′ 56.23" S long 147° 57′ 46.22" E

3.2 Rig Navigation & Positioning

Racal Surveys (Australia) was contracted to position the "Zapata Arctic" on location at Gummy-A. A four base station Syledis positioning system was established and was linked to a HP9826 series microcomputer, supported by Qubit Trac IV Navigation System Rig Move Software. Syledis stations were located at the same sites as for the site survey, except for the Carrajung beacon which was relocated to Cape Conran (lat 37° 51′ 23.89" S, long 148° 43′ 51.08" E). Final position was determined by differential G.P.S. Satellite Positioning. A GPS 'Reference Station' was established at Lake Tyres (lat 37° 51′ 46.72" S long 148° 04′ 05.34" E) near Lakes Entrance to provide differential corrections for the final fix operation. The rig was positioned over the proposed Gummy-A location on May 3, 1990. The final GPS fix was taken during the morning on May 5. The final location results were :

Latitude 38° 17' 59.56" S	Longitude 148° 44' 21.28" E
Easting 652 083.2m	Northing 5 759 466.5m
Rig Heading 277°	

Which lies 8.1m at 209.1° from the intended location.

3.3 Drilling Operations Summary (Figure 2)

Rig Move

The semi-submersible drilling unit "Zapata Arctic" was released from Devilfish-1 at 1700hrs May 1, 1990. It proceeded under tow, assisting with its own power to the Gummy-A location, a distance of 97.6 km taking 14 hours. Prior to making the final approach onto location the move was halted to allow cargo to be unloaded from one of the work boats (the Sonya Viking) to clear its' decks for anchor handling.

Number 7 anchor was dropped on the approach to location and the rig ran over location. Due to the rough weather conditions the rig was unable to hold position and the anchor was picked up again. The operation was stopped for 0.9 days while waiting for the conditions to abate. Operations proceeded without further major problems although anchors 6 and 7 required repositioning after becoming caught in the cow catcher when being dropped and anchors 3 and 5 required repositioning as they were not holding.

After final positioning, ballasting down to operational draft commenced and the 30" casing string was made up and hung in the moonpool. Picked up the 36" BHA, RIH and tagged the seabed at 184m (operations observed with ROV). The float system in the 30" casing was tested and found to be blocked (probably by scale from the inside of the casing, the casing had been in the Port Welshpool yard for several years). The BHA was pulled to surface again and a 5" drillpipe stinger ran inside the 30" casing and it was circulated clean.

Anchors were pretensioned to 133,000 daN (#1 to 90,000 daN as it was a smaller anchor) and the emergency power shutdown system tested. Details of BHA's used can be found in section 3.6.3. Bit, Cementation (including Abandonment Plugs) and Casing data can be found in Sections 4.0 - 6.0.

36" hole for 30" casing

A 36" BHA was used to drill this phase. Gummy-1 was spudded at 2130 hours on May 4, 1990. Drilled 36" hole to a depth of 247m. The hole was displaced with 43m^3 hi-vis mud and the bit was pulled to seabed for a wiper trip. The hole was rested for an hour and the bit run back to bottom (no fill), a further 43m^3 hi-vis mud were displaced and the bit was pulled to surface. The 30" casing string was run to bottom without problems (shoe at 243m) and cemented. Good returns of cement were observed with the ROV after approximately 180% of the theoretical hole volume of cement had been pumped.

26" hole for 20" casing

The 30" shoe track was drilled out with a 26" bit, then an 8 1/2" BHA was run and a pilot hole was drilled to 570m, with 4m^3 hi-vis mud sweeps being pumped on connections. The pilot hole was then opened to 26" with 4m^3 hi-vis pills being pumped every second connection. The hole was displaced with 120m^3 of hi-vis mud and the bit pulled to surface. The 20" casing was run and latched into the 30" wellhead, casing was circulated with 79.5m^3 of seawater and then cemented. Good returns were observed throughout with the ROV, cement was observed at

seabed after approximately 150% of the theoretical hole volume of cement had been pumped.

The BOP's and riser were then run but as the slip joint was being picked up and manoeuvred into a vertical position for connection to the previous riser joint (held in slips) the lifting cap separated from the slip joint pin. The joint was being manoeuvred by the racking arm with the bottom end of the joint attached to the starboard aft crane by a sling. As the joint fell the box end swung back and hit the matting, the pin end tilted forward falling onto the racking arm, the joint then rolled off the racking arm and onto the rig floor. The injured party ran from next to the forward starboard side air winch under the falling joint towards the draw-works and tripped, severely bruising his ribs as he fell. He was taken from the rig to the district hospital in Sale by helicopter where he was examined and allowed to leave. Six hours of operational time was lost as a result of the accident. Operations were stopped for 3.5 hrs while the injured man was evacuated from the rig and to allow the medic to fly with him to the hospital and return. Once the medic was back on board operations recommenced, the racking arm had been badly damaged and was removed, the damaged slip joint was laid out and the spare joint picked up, taking a further 2.5 hrs.

The slip joint was connected to the riser string and the BOP's were landed without any further problems. BOP's were pressure tested as per the ODOM. 1.5 hrs down time occurred when testing the #1 annular as the o-ring on the test plug failed and had to be replaced.

16" hole for 13 3/8" casing

A 16" B9M+ PDC bit was used to drill the 20" shoe track. New hole was drilled to 575m where a formation integrity test was performed. The formation fractured at an equivalent mud weight of 1.32sg. Drilled 16" hole to 1205m with seawater/gel/native clay mud. Made a wiper trip to the 20" shoe (no fill), displaced 16m^3 hi-vis mud and POH. Rigged to and ran 13 3/8" casing (shoe at 1194m), latched into 18 3/4" wellhead, circulated with 92.6m^3 seawater and cemented. BOP's were tested as per the ODOM. RIH the 12 1/4" BHA (1.1.6 tricone), performed strip-in drill and completed trip in.

12 1/4" hole for 9 5/8" casing

Drilled out 13 3/8" shoe track and drilled new hole to 1210m, performed a formation integrity test, the formation fractured at 1.64sg. Results of this and the 20" test show that to avoid breaking down the Gippsland Limestone, formation integrity tests shallower than 500m (310m ss) should have an upper limit equivalent to an EMW of 1.3sg. For tests deeper than 310m ss the test pressure should be limited to an EMW of 1.3sg plus 0.052sg for every 100m deeper than 310m ss.

POH and picked up new BHA (PDC bit),RIH to shoe and displaced to KCL/PHPA mud. drilled to 1356m, attempted to take Totco survey, unable to recover with overshot, POH to recover survey barrel. Changed bit and RIH (PDC bit), drilled ahead to 2401m, flow checked drilling break at 2081m and pumped 6.4m3 hi-vis sweeps and flushed riser at 1837m, 2071m, 2099m and 2401m. POH for 10 stand wiper trip, tight hole 2395-2169m, 35000 daN overpull, worked tight hole, no fill. Drilled to 2496m, POH for new bit, no hole problems.

Made up new bit (5.1.7 tricone) and RIH. Drilled to 2646m, made 6 stand wiper trip (35600 daN overpull 2574-2516m), no fill. POH, rigged to and logged hole. RIH for wiper trip, washed and reamed 2635-2646m (2m fill), POH.

Ran 9 5/8" casing, washed from 2626m to shoe depth at 2634.6m and latched into 18 3/4" wellhead. Circulated 120% of casing volume and cemented. Pressure tested BOP's as per the ODOM, RIH 8 1/2" BHA.

8 1/2" Hole

Drilled shoe track (cement still green), drilled new hole to 2651m, POH. Ran gyro deviation survey inside 9 5/8" casing. RIH with 8 1/2" BHA (PDC bit), circulated hole and performed formation integrity test emw=1.69sg. Drilled to 2965m, made a 6 stand wiper trip and drilled to 3001m, POH for new bit. RIH (PDC bit), washed 2968-3001m, drilled to 3066m, POH for new bit. RIH (5.3.7 tricone), washed and reamed 3052-3066m, drilled to 3226m.

String became stuck while picking up to make a connection, attempted to work free (53500 daN up, 35600 daN down) without success. Pumped a 3.2m^3 Envirospot pill around collars and allowed to soak while working pipe, pumped a second 3.2m^3 Envirospot pill around collars and allowed to soak while working pipe. Circulated to reduce mud weight from 1.12 while working pipe, string came free at 1.08sg (formation normally pressured). Increased mud weight to 1.10sg and POH to check compensator and string for damage during jarring. Pressure tested BOP's as per ODOM and RIH with new BHA (picked up 3x6 1/2" DC, 12xHWDP and 5.3.7 tricone). Washed 3188-3198m, washed and reamed 3198-3226m, drilled to 3445m and POH for new bit. RIH (5.1.7 tricone and new first string stabiliser), washed and reamed 3415-3445m, drilled to 3561m with up to 30000 daN on connections, reduced mudweight from 1.10sg to 1.09sg. Circulated samples at 3480m, 3500m, 3521m and 3542m. Pipe stuck on connection at 3561m, pulled free (40000 daN up and 75650 daN down). Drilled to 3563m (rotary table stalling).

Made check trip to 3250m, no drag or fill. POH and logged well. Made wiper trip between logging run #4 and #5 (2m fill). Completed logging. A total of 3.5 hrs were lost during the logging sequence due to tool problems.

3.4 Abandonment

RIH 3 1/2" open ended tubing on 5" drillpipe and set plug #1 (3550-3450m). Pulled above plug and circulated clean, pulled back to 3085 and set plug #2 (3085-2985m), pulled above plug and circulated clean. While waiting on cement POH to shoe and laid down excess drillpipe. RIH and tagged plug #2 at 2997m with 6675 daN, pulled back to 2685m and set plug #3 (2685-2560m), pulled above plug and circulated clean. Laid out excess drillpipe while waiting on cement. Tagged plug #3 at 2550m with 6675 daN, POH. RIH with gauge ring and junk basket to 2502m (HUD). RIH and set 9 5/8" EZSV Bridge Plug at 2485m, pressure tested bridge plug to 10350 kPa. RIH with 9 5/8" Pengo Cutter and cut 9 5/8" casing at 285m. Retrieved 9 5/8" casing hanger and casing stub. RIH with gauge ring and junk basket to 280m, RIH and set 13 3/8" EZSV Bridge Plug at 274m. RIH with 13 3/8" Pengo Cutter and cut 13 3/8" casing at 250m. Retrieved 13 3/8" casing hanger and casing stub.

Displaced riser to seawater, laid out remaining drillpipe and pulled riser and BOP's. Cut 20" and 30" casings at 189.8m, attempt to pull free (max overpull 178000 daN), recut 20"/30" casings at 189.8m, retrieved permanent guide base, 18 3/4" wellhead and 20"/30" casing stubs. Set plug #6 (229m-seabed). Laid out remaining tubulars and carried out seabed survey with ROV. Deballasted rig to transit draft, lifted and racked anchors. Released rig.
Note: Plug details are given in Section 6.0 and Figure 3.

4. BIT RECORD

GUMMY-1 BIT RECORD

RUN # (RR)	SIZE (inch)	TYPE	IADC CODE	JETS	DEPTH IN (m)	M DRILLED	HOURS	ROP	WOB (daN)	RPM	FLOW (m3/min)	PRESS (kPa)	CONDITION	REMARKS
1	36	V L3A	111	OPEN	184	63	2.0	31.5	560	65	2.6	2065	1-1-I	30" casing
2	26	V L3A	111	3x22	247	3	0.5	6.0	4450	70	2.7	6550	1-2-I	Drill shoe
3	8 1/2	HTC X3A	114	3x18	250	320	10.0	32.0	3340	110	2.3	9270	1-3-I	Pilot hole
4 RR2	26	V L3A	111	3x18	250	320	14.0	22.9	4450	120	3.2	14340	1-1-I	20" csg pt
5	16	HTC B9M+	PDC	3x13 3x14 2x16	570	635	38.0	16.7	5280	110	3.6	13870	10%-I	13 3/8" csg
6	12 1/4	HTC ATJ1	116	3x18	1205	5	1.0	5.0	6680	100	3.7	16200	1-3-I	FIT point
7	12 1/4	DBS PDXU	PDC	6x13	1210	146	17.0	8.6	7680	100	3.1	12160	100%-I	POH to recover survey bbl
8	12 1/4	HYC DS46H	PDC	4x16	1356	1140	67.0	17.0	8621	110	2.9	11000	60%-I	POH FNB

GUMMY-1 BIT RECORD (Cont'd.)

RUN # (RR)	SIZE (inch)	TYPE	IADC CODE	JETS	DEPTH IN (m)	M DRILLED	HOURS	ROP	WOB (daN)	RPM	FLOW (m3/min)	PRESS (kPa)	CONDITION	REMARKS
9	12 1/4	HTC ATJ22	517	2x14 1x16	2496	150	19.0	7.9	11870	85	2.7	17435	3-3-I	12 1/4" TD
10 RR3	8 1/2	HTC X3A	114	3x13	2646	5	1.5	3.3	11125	60	1.7	13250	3-4-I	FIT point
11	8 1/2	CHR R437	PDC	4x10	2651	350	46.0	7.6	6275	95	1.5	13920	10%-I	POH FNB
12	8 1/2	HYC DS49H	PDC	3x14	3001	65	12.5	5.2	8240	80	1.6	8860	10%-I	POH FNB
13	8 1/2	HTC ATM33	537	3x12	3066	160	45.0	3.6	13350	80	1.7	16000	2-6-I	POH to check string
14	8 1/2	HTC ATJ33	537	3x13	3226	219	50.5	4.3	14700	90	1.7	17250	4-5-1	POH FNB
15	8 1/2	REED HP-51	517	3x13	3445	118	20.3	5.8	16650	90	1.7	16960	2-4-3	TD

5. CASING RECORD

GUMMY-1 CASING RECORD

SIZE (inches)	WEIGHT (lbs/ft)	GRADE	COUPLING	LENGTH (m)	SHOE (m)	NO. JOINTS	REMARKS
30	310	B	ATD	60.40	242.9	5	Plus PGB and 30" wellhead
20	133	X-56	LS	392.98	557.4	31	Plus 18 3/4" SG5 wellhead
13 3/8	68	K-55	BTC	1011.01	1194.0	86	Plus pup jt and csg hanger
9 5/8	47	L-80	BTC	2452.31	2634.6	206	Plus pup jt and csg hanger

6. CEMENTING DATA

GUMMY-1 CEMENTING DETAILS

JOB	SACKS	TONS	MIXWATER	SLURRY WEIGHT (SG)	VOLUME OF SLURRY (cubic m)	TOC (m)	REMARKS
30"	1370	58.5	S/W mixed with 1% CaCl2 (BWOC)	1.90	44.66	Seabed	200% excess on theoretical hole volume
20" LEAD	1380	59.0	S/W mixed with 2% CaCl2 (BWOC) plus 3.9% Econolite (BWOW)	1.58	72.50	Seabed	100% excess on theoretical hole volume
TAIL	1125	48.0	S/W neat	1.90	36.80	457 theoretical	100% excess on theoretical hole volume
13 3/8" LEAD	475	20.2	S/W mixed with 3.9% Econolite (BWOW) plus 0.003 m3/T HR6L	1.50	29.00	242	20% excess on caliper
TAIL	435	18.5	S/W mixed with 0.0005 m3/T HR6L	1.90	8.22	970 theoretical	20% excess on caliper
9 5/8" LEAD	500	21.3	S/W mixed with 3.9% Econolite (BWOW) plus 0.018 m3/T HR6L	1.50	30.80	1094 theoretical	20% excess on caliper
TAIL	780	33.2	S/W mixed with 0.005 m3/T HR6L	1.90	25.40	1920 theoretical	20% excess on caliper

GUMMY-1 CEMENTING DETAILS (Cont'd.)

ABANDONMENT PLUGS

PLUG	SACKS	TONS	MIXWATER	SLURRY WEIGHT	VOLUME OF SLURRY	TOC	REMARKS
Plug 1	131	5.59	D/W mixed with 0.8% V/V HR6-L	1.90	4.29	3450	3550m-3450m
Plug 2	170	7.33	D/W mixed with 0.8% V/V HR6-L	1.90	5.61	2997	3085m-2997m Tagged 6675daN
Plug 3	165	7.15	D/W mixed with 0.7% V/V HR6-L	1.90	5.46	2550	2685m-2550m Tagged 6675daN
Plug 4						2485	EZSV bridge plug Tested
Plug 5						274	EZSV bridge plug Tested 10350 kPa
Plug 6	330	14.00	S/W neat	1.90	12.70	229	229m-seabed

7. FORMATION EVALUATION

7.1 Mudlogging Services

Geoservices carried out real time evaluation and description of formations during drilling using their computerised Advanced Logging System. Gas was extracted from the mud and its relative concentration measured. It was also analysed by a Flame Ionisation Detector (FID) chromatograph which could detect concentrations of gas above 0.001%. Cuttings were routinely examined in a fluoroscope for direct and cut hydrocarbon shows. Detailed records and interpretations of overpressure parameters were kept. This data was then transmitted to Shell's Melbourne office for further examination. Cuttings samples were caught, washed, dried, bagged and distributed.

Cuttings descriptions are included as Appendix 1.

7.2 Wireline Logging

Schlumberger ran logs in the 12 1/4" and 8 1/2" phases for definitive formation evaluation. The logging programme also provided for CSTs and RFTs contingent upon the evaluation of data already collected.

A Super-Combo configuration of logging tools was run in 12 1/4" hole, considerably reducing logging time.

7.3 Sidewall Core Samples

A total of 30 sidewall cores were attempted in 12 1/4" hole, 29 cores were recovered and 1 bullet was empty. Sidewall cores were not taken in 8 1/2" hole.

Sidewall core descriptions are included as Appendix 2.

7.5 Velocity Survey (Appendix 4)

A velocity survey was carried out at TD. A total of 17 levels were shot.

7.4 Repeat Formation Testing (Appendix 3)

RFT pressure tests were taken at TD. A total of 66 pressure points were taken and 2 samples (at 3421.4m and 3201.5m).

8. DEVIATION RECORD

TOTCO DEVIATION RECORD

SURVEY NO.	DEPTH (m)	INCLINATION (deg)	TVD (m)	MAX. HORIZONTAL DISPLACEMENT M	DOG LEG (deg/10m)
1	196	0.50	196.00	0.86	0.03
2	247	0.50	219.00	1.31	0.00
3	403	1.25	402.98	3.69	0.05
4	570	0.75	569.95	6.60	0.03
5	709	1.25	708.93	9.03	0.04
6	859	0.75	858.91	11.65	0.03
7	1002	0.75	1001.90	13.52	0.00
8	1204	1.00	1203.88	16.60	0.01
9	1356	0.50	1355.87	18.59	0.03
10	1505	0.25	1504.87	19.57	0.02
11	1650	0.25	1649.87	20.20	0.00
12	1895	1.00	1894.85	22.87	0.03
13	2145	1.00	2144.81	27.23	0.00
14	2395	0.25	2394.79	29.96	0.03
15	2646	0.50	2645.78	31.60	0.01
16	2800	1.00	2799.77	33.62	0.03
17	2950	0.50	2949.76	35.58	0.03
18	3098	1.50	3097.74	38.16	0.07
19	3226	1.75	3225.69	41.79	0.02
20	3368	0.50	3367.66	44.58	0.09
21	3445	0.75	3444.66	45.42	0.03
22	3563	1.00	3652.65	47.22	0.02

FIGURES

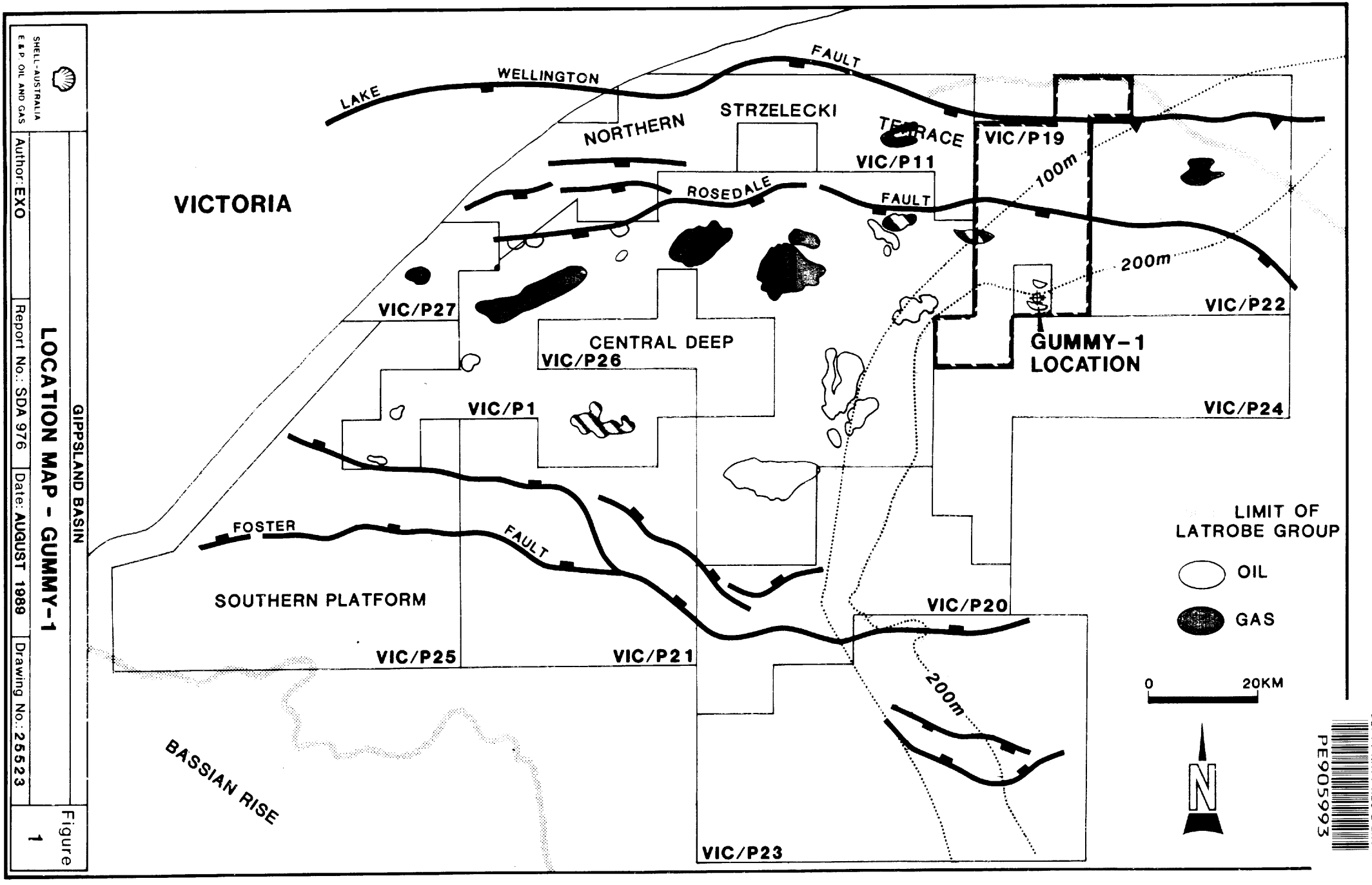
PE905993

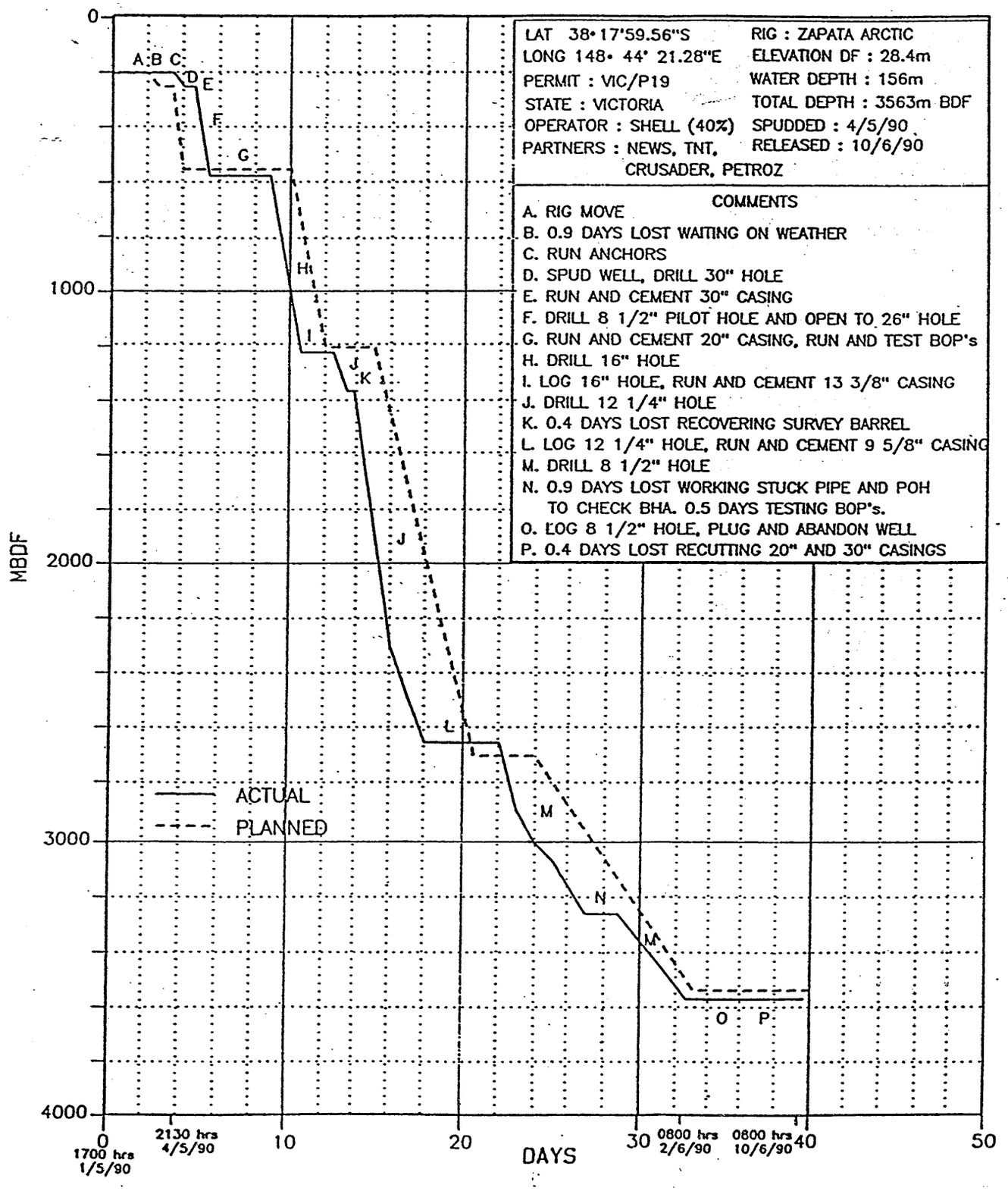
This is an enclosure indicator page.
The enclosure PE905993 is enclosed within the container PE902076 at this location in this document.

The enclosure PE905993 has the following characteristics:

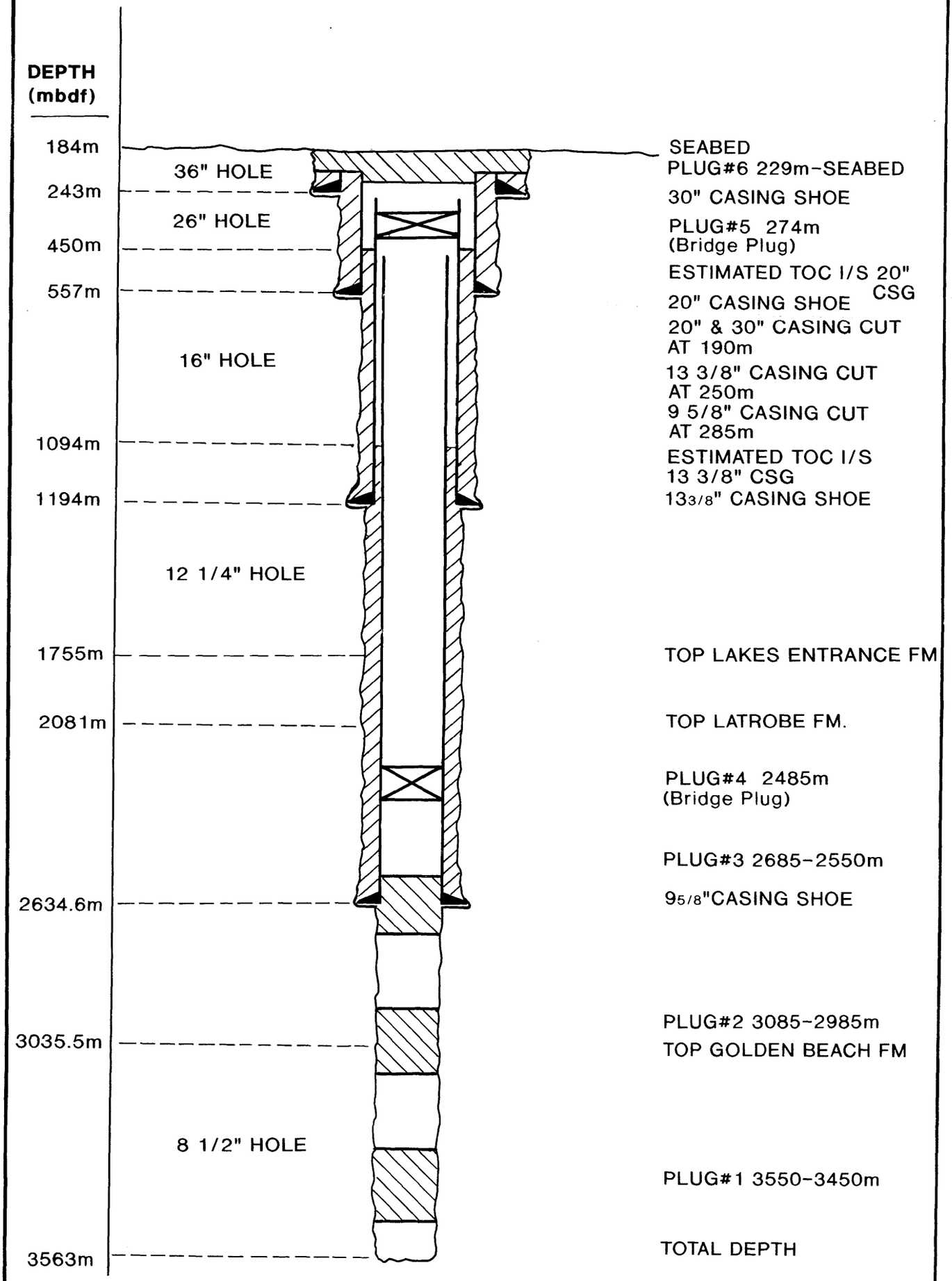
ITEM_BARCODE	= PE905993
CONTAINER_BARCODE	= PE902076
NAME	= Location Map
BASIN	= GIPPSLAND BASIN
PERMIT	= VIC/P19
TYPE	= WELL
SUBTYPE	= MAP
DESCRIPTION	= Location map (figure 1 of WCR) for Gummy-1
REMARKS	=
DATE_CREATED	= 31/08/89
DATE_RECEIVED	=
W_NO	= W1028
WELL_NAME	= GUMMY-1
CONTRACTOR	=
CLIENT_OP_CO	= SHELL AUSTRALIA E.& P. OIL AND GAS

(Inserted by DNRE - Vic Govt Mines Dept)





SHELL-AUSTRALIA E.& P. OIL AND GAS	GIPPSLAND BASIN				Figure 2
	DRILLING TIME vs DEPTH – GUMMY–1				
	Author: EXO	Report No.: SDA 976	Date: JAN 1991	Drawing No.: 26621	



SHELL-AUSTRALIA E.& P. OIL AND GAS	GIPPSLAND BASIN				Figure
	GUMMY-1 P & A WELLBORE STATUS				3
	Author: EEO/21	Report No.: SDA 976	Date: JUNE 1990	Drawing No.: 26179	

PE600938

This is an enclosure indicator page.
The enclosure PE600938 is enclosed within the container PE902076 at this location in this document.

The enclosure PE600938 has the following characteristics:

ITEM_BARCODE	= PE600938
CONTAINER_BARCODE	= PE902076
NAME	= Master Log - geological evaluation
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= MUD_LOG
DESCRIPTION	= Master Log - geological evaluation (from WCR vol.1) for Gummy-1
REMARKS	=
DATE_CREATED	= 02/06/1990
DATE_RECEIVED	= 01/02/1991
W_NO	= W1028
WELL_NAME	= Gummy-1
CONTRACTOR	= Geoservices
CLIENT_OP_CO	= Shell Australia

(Inserted by DNRE - Vic Govt Mines Dept)

Appendix 1
Lithological Descriptions

APPENDIX 1

CUTTINGS DESCRIPTIONS

All depths are quoted below derrick floor (28m above mean sea level). Drill cuttings were collected at 9m intervals throughout the Seaspray Group and 3m intervals in the Latrobe and Golden Beach Groups. No returns were collected above 576m.

DEPTH	% LITHOLOGY	DESCRIPTION
576m	100%	CALCARENITE: wh-off wh, vf-med, dom med grn, srt, (ang)-(rnd), (sph), frm, wk-mod Cmt, tr arg mtrx, abd Foss Frag, pred foram, (bent), tr Glc, loc Pyr Aggr, nil-(por), pale yel-orng Min Fluor
	tr	CALCILUTITE: wh-off wh, sft-frm, pred sft, (arg), disp, amr, tr Glc, loc Pyr Aggr, abd Foss Frag
594-648m	100%	CALCARENITE : a/a, tr micrxln Calc, suc i/p, mnr carb detr, abd Foram, (high torque)
	tr	CALCILUTITE: a/a
657m	100%	CALCARENITE: a/a, pred mod hd, tr frm, tr-rr Glc
	tr%	CALCILUTITE: a/a
666-684m	90%	CALCARENITE: a/a
	10%	CALCILUTITE: wh-off wh, sft-frm, pred sft, sli arg, disp, amr, rr Glc, loc Pyr Aggr
693-711m	90%	CALCARENITE: off wh-wh, lt buff i/p, f-med, pred f, suc, srt, (ang)-(rnd), (sph), frm-mod hd, pred mod hd, wk-mod Cmt, tr wh arg Mtrx, abd Foss Frag, pred Foram (bent), tr Glc, loc Pyr Aggr + nod, nil-(por), pale yel-orng Min Fluor
	10%	CALCILUTITE: wh-off wh, gy i/p, sft-frm, disp, amr, (blky)-blky, microlam i/p, tr Glc, Pyr Nod & Aggr i/p, abd Foram
720-747m	90%	CALCARENITE: pale gy, (wh) gy, sucr, crs xln, srt, (rnd)-rnd, (sph), frm, cons, calc Cmt, (wh) gy Mtrx, com macro-Foss Frag, no Fluor
	10%	CALCILUTITE: off wh, pale gy, dom f, frm, calc Cmt, abd (gy) wh Mtrx, tr Glc, com Foss Frag, no Fluor
756m	80%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
765m	70%	CALCARENITE: a/a
	30%	CALCILUTITE: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
774m	70%	CALCARENITE: a/a
	30%	CALCILUTITE: a/a
783m	70%	CALCARENITE: lt-med gy, (wh) gy, vf-f, (srt), (ang)-(rnd), frm, tr Forams, tr Min Fluor
	30%	CALCILUTITE: (wh) gy, med micrxln, arg Mtrx, tr carb frags, tr ye Min Fluor
792m	70%	CALCARENITE: a/a
	30%	CALCILUTITE: a/a
801m	70%	CALCARENITE: pale gy, (wh) gy, suc, crs xln, srt, frm, cons, calc Cmt, (wh) gy arg Mtrx i/p, com macro-Foss, no Fluor
	30%	CALCILUTITE: (wh) gy, med micrxln, (wh) gy arg Mtrx, tr carb Frag, tr Foss, tr ye Min Fluor
810m	60%	CALCARENITE: a/a
	40%	CALCILUTITE: a/a
819m	50%	CALCARENITE: a/a
	50%	CALCILUTITE: a/a
	tr	MARL: lt gy, lt (gn) gy, vf, amr, stky, no Fluor
828m	40%	CALCARENITE: a/a
	50%	CALCILUTITE: a/a
	10%	MARL: a/a
837m	40%	CALCARENITE: pale gy, (wh) gy, suc, crs xln, srt, frm, cons, calc Cmt, (wh) gy arg Mtrx i/p, com macro-Foss, no Fluor
	50%	CALCILUTITE: a/a
	10%	MARL: lt gy, lt (gn) gy, vf, amr, stky, no Fluor
846m	40%	CALCARENITE: a/a
	40%	CALCILUTITE: a/a
	20%	MARL: a/a
855m	30%	CALCARENITE: a/a
	40%	CALCILUTITE: a/a
	30%	MARL: a/a
864m	30%	CALCARENITE: pale gy, (wh) gy, suc, crs xln, srt, frm, cons, calc Cmt, (wh) gy arg Mtrx, com macro-Foss, no Fluor
	40%	CALCILUTITE: (wh) gy, med micrxln, (wh) gy arg Mtrx, tr carb Frag, tr Foss, no Fluor
	30%	MARL: lt gy, lt (gn) gy, vf, amr, stky, no Fluor
873m	20%	CALCARENITE: a/a
	40%	CALCILUTITE: a/a
	40%	MARL: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
882m	20%	CALCARENITE: pale gy, (wh) gy, suc, crs xln, srt, frm, cons, calc Cmt, arg Mtrx, com macro-Foss, no Fluor
	30%	CALCILUTITE: (wh) gy, med micrxln, (wh) gy arg Mtrx, tr carb Frag, tr Foss, no Fluor
	50%	MARL: lt gy, lt (gn) gy, vf, amr, stky, no Fluor
891m	20%	CALCARENITE: a/a
	30%	CALCILUTITE: a/a
	50%	MARL: a/a
900m	20%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
	60%	MARL: a/a
909m	20%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
	60%	MARL: a/a
918m	30%	CALCARENITE: a/a tr lit Frag, com Foram, tr coral Frag
	10%	CALCILUTITE: a/a
	60%	MARL: a/a
927m	30%	CALCARENITE: lt gy-off wh, wh i/p, sucr, f-med gr, srt, frm, mod hd i/p, cons, calc Cmt, tr wh arg Mtrx, tr micro Foss, Foram & tr coral, microxln calc i/p, tr lit Frag, pale yel, Min Fluor, non por
	10%	CALCILUTITE: off wh-lt gy, sft-frm, disp, amr, tr Glc
	60%	MARL: lt gy-gy, disp, sft-fm, (blky)-blky, amr, mic-lam, rr micro Foss, Foram & tr coral, grdg to calcarenite i/p
936m	30%	CALCARENITE: a/a
	10%	CALCILUTITE: a/a
	60%	MARL: a/a
945m	10%	CALCARENITE: a/a
	10%	CALCILUTITE: a/a
	80%	MARL: a/a
954m	10%	CALCARENITE: a/a, tr Pyr Aggr + Nod
	10%	CALCILUTITE: a/a
	80%	MARL: a/a
963m	10%	CALCARENITE: a/a
	10%	CALCILUTITE: a/a
	80%	MARL: a/a
972m	50%	CALCARENITE: a/a
	tr	CALCULITITE: a/a
	50%	MARL: lt gy-gy, lt brn i/p, sft-fm, pred sft, (blky)-blky, amr, stky, disp, tr Glc, Pyr Aggr i/p, grdg to calcarenite i/p

DEPTH	% LITHOLOGY	DESCRIPTION
981m	70%	CALCARENITE: lt gy - off wh, wh i/p, pred Frm, mod hd, i/p, com wh arg Mtrx, tr Glc
	tr	CALCILUTITE: a/a
	30%	MARL: a/a
999m	70%	CALCARENITE: a/a
	10%	CALCILUTITE: a/a
	20%	MARL: a/a
1008m	80%	CALCARENITE: lt gy-off wh, wh i/p, sucr, f-med gr, srt, frm, mod hd i/p, cons, calc Cmt, wh arg Mtrx, rr-com Pyr Aggr, tr Foram
	10%	CALCILUTITE: wh-off wh, sft-frm, (blky)-blky, disp, amr, stky, rr Pyr
	10%	MARL: lt gy-gy, sft-frm, pred sft, mic-lam, grd to calcilutite i/p
1017m	80%	CALCARENITE: lt gy-off wh, occ lt brn-buff incr w/ depth, mod hd, sucr, f-med gr, crs i/p, med xln, grds to LST i/p. rr-com Glc
	10%	CALCILUTITE: a/a
	10%	MARL: a/a
1026m	80%	CALCARENITE: a/a
	10%	CALCILUTITE: a/a
	60%	MARL: a/a
1035m	70%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
	10%	MARL: a/a
1044m	70%	CALCARENITE: gen a/a, lt gy-off wh, occ lt brn-buff, dom mod hd, frm i/p, sucr, f-med gr, xln i/p, med wh arg Mtrx, occ calc Cmt, tr lit Frag, rr Mic + Pyr, tr glc, tr Foram & coral
	20%	CALCILUTITE: gen a/a, arg Mtrx
	10%	MARL: a/a
1053m	60%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
	20%	MARL: a/a
1062m	60%	CALCARENITE: lt gy, (wh) gy, sucr, micrxln, frm, cons, calc Cmt, arg Mtrx, rr Pyr, tr Foram, no Fluor
	20%	CALCILUTITE: a/a
	20%	MARL: lt gy-gy, sft, amr, stky, tr carb Frag
1071m	60%	CALCARENITE: pale gy, (wh) gy, sucr, crs xln, srt, (rnd)-rnd, (sph), frm, cons, calc Cmt, (wh) gy Mtrx, com Foss, no Fluor
	20%	CALCILUTITE: (wh) gy, med-micrxln, srt, (rnd), frm, arg Mtrx, tr carb Frag, (por), no Fluor
	20%	MARL: lt (gn) gy, vf, amr, stky, disp i/p, no Fluor

DEPTH	% LITHOLOGY	DESCRIPTION
1080m	60%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
	20%	MARL: a/a
1089m	60%	CALCARENITE: a/a
	10%	CALCILUTITE: a/a
	30%	MARL: a/a
1098m	60%	CALCARENITE: a/a
	10%	CALCILUTITE: a/a
	30%	MARL: a/a
1107m	60%	CALCARENITE: pale gy, (wh) gy, sucr, crs xln, srt (rnd)-rnd, (sph), frm, cons, calc Cmt, (wh) gy Mtrx, com Foss, no Fluor
	20%	CALCILUTITE: (wh) gy, med microxln, srt, (rnd), frm, arg Mtrx, tr carb Frag, (por), no Fluor
	20%	MARL: lt (gn) gy, vf, amr, stky, disp i/p, no Fluor
1116m	60%	CALCARENITE: a/a
	10%	CALCILUTITE: a/a
	30%	MARL: a/a
1125m	50%	CALCARENITE: pale gy, (wh) gy, sucr, crs xln, srt, (rnd)-rnd, (sph), frm, cons, calc Cmt, (wh) gy Mtrx, com Foss, no Fluor
	20%	CALCILUTITE: (wh) gy, med micrxln, srt, (rnd), frm, arg Mtrx, tr carb Frag, (por), no Fluor
	30%	MARL: lt (gn) gy, fv, amr, stky, disp i/p, no Fluor
1134m	50%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
	30%	MARL: a/a
1143m	50%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
	30%	MARL: a/a
1152m	60%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
	20%	MARL: a/a
1161m	50%	CALCARENITE: pale gy, (wh) gy, sucr, crs, xln, srt, (rnd)-rnd, (sph), frm, cons, calc Cmt, (wh) gy Mtrx, tr Foss, no Fluor
	30%	CALCILUTITE: (wh) gy, med micrxln, srt, (rnd), frm, arg Mtrx, tr carb Frag, no Fluor
	20%	MARL: lt (gn) gy, vf, amr, stky, disp i/p, no Fluor

DEPTH	% LITHOLOGY	DESCRIPTION
1170m	50%	CALCARENITE: pale gy, (wh) gy, sucr, crs xln, srt (rnd)-rnd, (sph), frm, cons, calc Cmt, (wh) gy Mtrx, tr Foss, no Fluor
	20%	CALCILUTITE: (wh) gy, med micrxln, sft-frm, tr calc Cmt, tr carb Frag, tr Foss, rr Pyr, no Fluor
	30%	MARL: lt (gn) gy, vf, amr, stky, no Fluor
1179-1197m	50%	CALCARENITE: a/a
	10%	CALCILUTITE: a/a
	40%	MARL: a/a
1206m	50%	CALCARENITE: pale gy, (wh) gy, sucr, crs, xln, srt, (rnd)-rnd, (sph), frm, cons, calc Cmt, (wh) gy Mtrx, tr Foss, rr Pyr, (por), no Fluor
	10%	CALCILUTITE: (wh) gy, med micrxln, srt, (rnd), frm, arg Mtrx, tr carb Frag, tr Foss, no Fluor
	40%	MARL: lt (gn) gy, vf, amr, stky, no Fluor
1215-1232m		Poor returns, NO SAMPLES OVER SHAKERS
1232	Tr	CALCARENITE: a/a
	30%	CALCILUTITE: wh-off wh, lt gy i/p, sft-frm, disp, (blky)-blky, amr, com wh arg Mtrx
	Tr	CALCAREOUS CLAYSTONE:
	70%	MARL: off wh-lt gy, med gy i/p, (blky)-blky, sft-frm, pred sft, amr, disp, stky, mic-lam, tr Pyr Aggr, tr Foram
1251m	tr%	CALCARENITE: a/a
	40%	CALCILUTITE: a/a
	tr	CALCAREOUS CLAYSTONE:
	60%	MARL: a/a
1260m	40%	CALCILUTITE: a/a
	tr	CALCAREOUS CLAYSTONE:
	60%	MARL: a/a
1269m	20%	CALCILUTITE: a/a
	tr	CALCAREOUS CLAYSTONE:
	80%	MARL: a/a
1278m	10%	CALCILUTITE: a/a
	tr	CALCAREOUS CLAYSTONE:
	90%	MARL: a/a, tr Glc, carb detr i/p
1287-1305m	tr%	CALCILUTITE: a/a
	tr	CALCAREOUS CLAYSTONE:
	100%	MARL: lt gy-off wh, lt gy incr w/ depth, grdg to arg calcilutite i/p
1314m	100%	MARL: lt gy, lt (gn) gy, vf, amr, v stky, tr Foram, tr pale ye Min Fluor
1323m	tr	CALCILUTITE: a/a
	100%	MARL: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
1332m	100%	MARL: lt gy, vf, amr, stky, tr Forams, tr ye Min Fluor
1341m	tr	CALCILUTITE: a/a
	100%	MARL: lt gy, off wh, occ buf, sft, vf, micrxln-amr, stky, calc Cmt i/p, rr Forams, tr micro carb Frag, rr Glc, no Fluor
1350m	tr	CALCARENITE: off wh, buf, xln, frm-hd, cons i/p, calc Cmt, tr Glc, no Fluor
	10%	CALCILUTITE: (wh) gy, buf, micrxln, frm, occ hd, tr carb Frag, rr Glc, no Fluor
	90%	MARL: a/a grds to Calcilutite i/p
1359m	tr	CALCARENITE: a/a
	tr	CALCILUTITE: a/a, tr Pyr Nod
	100%	MARL: lt gy, off wh, sft, vf micrxln, amr, stky, tr micro carb Frag, rr Glc, no Fluor
1368m	tr	CALCARENITE: a/a
	10%	CALCILUTITE: a/a
	90%	MARL: lt gy, off wh, sft, vf micrxln, amr, stky, tr micro carb Frag, rr Glc, no Fluor
1377m	tr	CALCARENITE: a/a
	10%	CALCILUTITE: a/a
	90%	MARL: a/a
1386m	10%	CALCARENITE: pale gy, (wh) gy, buf, sucr, crs, xln, srt, rnd-(rnd), frm, cons, calc Cmt, arg Mtrx, tr Foss, rr Glc, no Fluor
	20%	CALCILUTITE: (wh) gy, buf, micrxln, frm, occ hd, tr carb Frag, rr Glc, no Fluor
	70%	MARL: lt gy, off wh, occ buf, sft, vf micrxln-amr, stky, calc Cmt i/p, tr micro carb Frag, rr Glc, no Fluor
1395m	10%	CALCARENITE: a/a
	30%	CALCILUTITE: a/a
	60%	MARL: a/a
1404m	20%	CALCARENITE: pale gy, (wh) gy, buf, sucr, crs xln, srt, rnd-(rnd), frm, occ hd, calc Cmt, arg Mtrx i/p, tr Foss, rr Glc, no Fluor
	30%	CALCILUTITE: (wh) gy, buf, micrxln, frm, occ hd, tr carb Frag, rr Glc, no Fluor
	50%	MARL: lt gy, off wh, occ buf, sft, vf micrxln-amr, stky, calc Cmt i/p, tr micro-carb Frag, rr Glc, no Fluor
1413m	30%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
	50%	MARL: a/a
1422m	30%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
	50%	MARL: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
1431m	40%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
	40%	MARL: a/a
1440m	40%	CALCARENITE: a/a
	20%	CALCILUTITE: (wh) gy, buf, micrxln, frm, occ hd, tr carb Frag, rr Glc, no Fluro
	40%	MARL: lt gy, off wh, occ buf, sft, vf micrxln-amr, stky, tr calc Cmt, tr micro-carb Frag, rr Glc, no Fluor
1449-1467m	30%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
	50%	MARL: a/a
1476m	30%	CALCARENITE: pale gy, (wh) gy, buf, sucr, crs xln, srt, rnd-(rnd), frm, occ hd, cons, calc Cmt, arg Mtrx i/p, tr Foss, rr Glc, no Fluor
	20%	CALCILUTITE: (wh) gy, buf, micrxln, frm, occ hd, tr carb Frag, rr Glc, no Fluor
	50%	MARL: It gy, off wh, occ buf, sft, vf micrxln - amr, stky, tr calc Cmt, tr micro carb Frag, rr Glc, no Fluor
1485-1503m	40%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
	40%	MARL: a/a
1512m	10%	CALCARENITE: lt-pale gy, sucr, frm - hd, arg i/p, rr Glc, no Fluor
	30%	CALCILUTITE: (wh) gy, micrxln, frm, tr carb Frag, tr Glc, no Fluor
	60%	MARL: lt gy, off wh, sft, vf, stky, tr micro carb Frag, rr Glc, no Fluor
1530m	40%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
	40%	MARL: a/a
1538m	40%	CALCARENITE: lt-pale gy, sucr, fn xln, frm, occ hd, cons, arg i/p, rr Glc, no Fluor
	20%	CALCILUTITE: (wh) gy, micrxln, frm, tr carb Frag, rr Glc no Fluor
	40%	MARL: lt gy, off wh, sft, vf, stky, tr micro Frag, rr Glc, no Fluor
1548m	40%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
	30%	MARL: a/a
1557m	30%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
	50%	MARL: a/a
1566m	40%	CALCARENITE: a/a
	20%	CALCILUTITE: a/a
	40%	MARL: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
1575m	30%	CALCARENITE: a/a
	30%	CALCILUTITE: a/a grds to arg Calcilutite
	40%	MARL: a/a
1584m	30%	CALCARENITE: lt-pale gy, sucr, micrxln, srt, (rnd), frm, occ hd, cons, arg Mtrx i/p, tr Glc, no Fluor
	40%	CALCILUTITE: a/a
	30%	MARL: lt gy, off wh, sft, vf, stky, tr micro carb Frag, no Fluor
1593m	20%	CALCARENITE: a/a
	50%	CALCILUTITE: a/a
	30%	MARL: a/a
1602-1620m	20%	CALCARENITE: a/a
	60%	CALCILUTITE: a/a
	20%	MARL: a/a
1629m	20%	CALCARENITE: pale - (wh) gy, f-crs xln, srt, frm - occ hd, cons, arg Cmt i/p, rr Glc, rr Foss
	60%	CALCILUTITE: lt-(wh) gy buf, micrxln, frm - occ hd, tr carb Frag, rr Glc, no Fluor
	20%	MARL: lt gy, off wh, sft, vf, stky, micro carb Frag, rr Glc, no Fluor
1638m	20%	CALCARENITE: a/a
	70%	CALCILUTITE: a/a
	10%	MARL: a/a
1647m	20%	CALCARENITE: a/a
	70%	CALCILUTITE: a/a
	10%	MARL: a/a
1656-1683m	20%	CALCARENITE: a/a
	60%	CALCILUTITE: a/a
	20%	MARL: a/a
1692-1719m	20%	CALCARENITE: pale gy, (wh) gy, f-crs xln, frm, occ hd, cons, arg Cmt i/p, rr Glc, rr Foss, no Fluor
	70%	CALCILUTITE: lt gy, (wh) gy, buf, micrxln, frm, tr carb Frag, rr Glc, no Fluor
	10%	MARL: lt gy, off wh, sft, vf, stky, micro carb Frag, rr Glc, no Fluor
1728m	10%	CALCARENITE: a/a
	50%	CALCILUTITE: a/a
	40%	MARL: a/a
1737m	10%	CALCARENITE: a/a
	60%	CALCILUTITE: a/a
	30%	MARL: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
1746m	10%	CALCARENITE: pale gy, (wh) gy, f-crs xln, frm, cons, arg i/p, no Fluor
	60%	CALCILUTITE: lt gy, (wh) gy, micxln, frm, tr carb Frag, rr Glc, no Fluor
	30%	MARL: lt gy, off wh, sft, vf, stky, no Fluor
1755m	10%	CALCARENITE: a/a
	60%	CALCILUTITE: a/a
	30%	MARL: a/a
1764m	tr	CALCARENITE: a/a
	80%	CALCILUTITE: lt gy, (wh) gy, micrxln, frm, tr carb Frag, rr Glc, no Fluor
	20%	MARL: lt gy, off wh, sft, vf, stky, no Fluor
1773m	tr	CALCARENITE: a/a
	80%	CALCILUTITE: a/a
	20%	MARL: a/a
1782m	40%	CALCILUTITE: a/a
	40%	MARL: a/a
	20%	CALCAREOUS CLAYSTONE: med gy, amr, sft-v sft, pred stky, tr carb Frag, tr Mic, no Fluor
1791m	40%	CALCILUTITE: a/a
	40%	MARL: a/a
	20%	CALCAREOUS CLAYSTONE: a/a
1800m	30%	CALCILUTITE: a/a
	50%	MARL: a/a
	20%	CALCAREOUS CLAYSTONE: a/a
1809m	20%	CACILUTITE: a/a
	40%	MARL: a/a
	40%	CALCAREOUS CLAYSTONE: a/a
1818m	20%	CALCILUTITE: a/a
	40%	MARL: a/a
	40%	CALCAREOUS CLAYSTONE: a/a
1827m	20%	CALCILUTITE: lt gy, (wh) gy, micrxln, frm, rr Glc, no Fluor
	30%	MARL: lt gy, off wh, sft, vf, stky, no Fluor
	50%	CALCAREOUS CLAYSTONE: med gy, amr, sft-v sft, pred stky, tr carb Frag, tr Mic, no Fluor
1836m	10%	CALCILUTITE: lt gy, (wh) gy, micrxln, frm, no Fluor
	30%	MARL: lt gy, off wh, sft, stky, no Fluor
	60%	CALCAREOUS CLAYSTONE: med gy, amr, sft-v sft, pred stky, tr carb Frag, tr Mic, no Fluor
1845m	tr	CALCILUTITE: a/a
	30%	MARL: a/a
	70%	CALCAREOUS CLAYSTONE: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
1854m	20%	MARL: lt gy, off wh, sft, stky, tr carb Frag, no Fluor
	80%	CALCAREOUS CLAYSTONE: med gy, pred amr, occ vf micrxln, sft, stky, tr carb Frag, tr Mic, rr Glc
1863m	20%	MARL: a/a
	80%	CALCAREOUS CLAYSTONE: a/a, tr Pyr Nod, rr micro Foss, no Fluor
1872m	10%	MARL: a/a
	90%	CALCAREOUS CLAYSTONE: a/a
1881m	10%	MARL: a/a
	90%	CALCAREOUS CLAYSTONE: a/a
1890m	tr	CALCILUTITE: a/a
	90%	MARL: lt-med gy, sft, occ frm, stky, tr carb Frag, rr Glc, tr Pyr Nod, rr micro Foss, no Fluor
	10%	CALCAREOUS CLAYSTONE: med-gy, amr occ vf microxln, sft-frm, stky, tr carb Frag, tr Pyr Nod, rr micro Foss, no Fluor, (grds to Marl)
1908m	tr	CALCILUTITE: a/a
	100%	MARL: a/a
	tr	CALCAREOUS CLAYSTONE: a/a
1917m	80%	MARL: a/a
	20%	CALCAREOUS CLAYSTONE: a/a
1926m	10%	MARL: a/a
	90%	CALCAREOUS CLAYSTONE: a/a
1935m	10%	MARL: a/a
	90%	CALCAREOUS CLAYSTONE: a/a
1944m	10%	MARL: med gy, amr, occ vf microxln, sft-frm, stky, tr carb Frag, rr Foss, tr Glc, tr Pyr Nod, no Fluor
	90%	CALCAREOUS CLAYSTONE: med gy, amr, occ vf microxln, sft-frm, stky, tr carb Frag, rr Foss, tr Glc, tr Pyr Nod, no Fluor
1953-1980m	100%	CALCAREOUS CLAYSTONE: a/a, tr disem Pyr
1989m	100%	CALCAREOUS CLAYSTONE: med gy, amr, occ microxln, sft-frm, stky, rr carb Frag, tr Foss, rr Glc, no Fluor, tr disem Pyr
1998m	100%	CALCAREOUS CLAYSTONE: a/a
2007m	100%	CALCAREOUS CLAYSTONE: a/a, bec less calc
2016m	100%	CALCAREOUS CLAYSTONE: a/a
2025m	100%	CALCAREOUS CLAYSTONE: less calc, grds to Claystone

DEPTH	% LITHOLOGY	DESCRIPTION
2034m	100%	CALCAREOUS CLAYSTONE: med gy, amr, occ micrxln, sft, occ frm, stky, rr carb Frag, tr Fos, tr Pyr, rr Glc, no Fluor
2040m	100%	CALCAREOUS CLAYSTONE: a/a
2046m	100%	CALCAREOUS CLAYSTONE: a/a
2052m	100%	CALCAREOUS CLAYSTONE: a/a, sl inc in micro Foss
2058-2082m	100%	CALCAREOUS CLAYSTONE: med gy, pred amr, occ micrxln, sft, occ frm, stky, rr carb Frag, tr Foss, rr Glc, rr Pyr, no Fluor
2085m	100%	CALCAREOUS CLAYSTONE: pale -lt gy, amr-occ micxln, sft-occ frm, stky, tr-com Glc, Foss, tr Pyr, no Fluor
	tr	SANDSTONE: buff-lt gy, vf, srt, hd-(frm), (calc) Cmt, (Por), no Fluor
2088m	50%	CALCAREOUS CLAYSTONE: a/a
	30%	SANDSTONE: qz, yel brn, (off wh), f-gran, (srt), (ang)-rnd, disag-(hd), Glc Nod, fe oxid, nil-(Por), no Fluor
	20%	SILTSTONE: yel-mauve brn, s, sft-hd, Glc Nod, fe oxid, non-calc, (Mic)
2091m	40%	CALCAREOUS CLAYSTONE: a/a
	20%	SANDSTONE: a/a
	40%	SILTSTONE: a/a
2094m	30%	SANDSTONE: qz, yel brn, clr m-gran (ang)-rnd (srt), dom disag, glc, occ v pyr, fe oxid, nil-(Por),no Fluor
	40%	SILTSTONE: yel-mauve brn, mauve gy, s, sft-hd, glc, occ v Pyr (fe oxid) non calc
	30%	CALCAREOUS CLAYSTONE: a/a
2097m	40%	SANDSTONE: a/a dom, lse crs-gran grains
	30%	SILTSTONE: a/a, (mic)
	10%	CALCAREOUS CLAYSTONE: a/a
2100m	20%	SANDSTONE: a/a
	80%	SILTSTONE: a/a
2106m	20%	SANDSTONE: a/a
	80%	SILTSTONE: a/a
2112m	80%	SANDSTONE: qz, clr-trns, m-gran, (occ f), (srt), (ang)-rnd, disag, glc, (Pyr Aggr), (Por)-Por inferred, no Fluor
	20%	SILTSTONE: lt gy-lt gn gy (mauve gy), off wh, sndy, glc, (Pyr) aren, (calc i/p), sft-(hd), gdes to SST

DEPTH	% LITHOLOGY	DESCRIPTION
2118m	90%	SANDSTONE: qz, pale-lt gy, f-gran, dom f, srt, (ang)-(rnd), disag-fri, (occ hd), slty/arg Mtrx (calc i/p), glc, (Pyr Aggr), (Por), no Fluor, gdes to SLTST
	10%	SILTSTONE: a/a gdes to SST
2124m	80%	SANDSTONE: qz, pale-lt gy, (lt gn gy), trnsl, dom vf-f, (occ m-gran), srt (ang)-rnd, disag-occ hd, (strng calc Cmt i/p), (arg/slty Mtrx), glc, Pyr Aggr, mic, (Por) inf, tr wh yel min Fluor, no cut
	20%	SILTSTONE: lt-med gy, (lt brn gy), sndy, aren, glc, pyr, mic, sft-frm (hd), gdes to SST
2130m	90%	SANDSTONE: a/a
	10%	SILTSTONE: a/a
2136m	100%	SANDSTONE: qz, clr-trnsl, f-m (tr crs-gran), srt, (ang)-rnd, disag, glc, Pyr Aggr, (tr arg Mtrx), Por inferred, no Fluor
2142m	100%	SANDSTONE: a/a
2148m	100%	SANDSTONE: a/a
2154m	100%	SANDSTONE: a/a
2160m	100%	SANDSTONE: (1) qz, clr-mky, crs-v crs, srt, (rnd)-rnd, disag, Por inferred no Fluor (2) qz, clr-mky, f-m, (ang)-rnd, srt, disag, Glc, Pyr Aggr, Por inferred, no Fluor
2166m	100%	SANDSTONE: qz, clr-mky, dom f-m, (mnr crs-v crs), srt, (ang)-(rnd), dom disag, (sil Cmt), Glc, Pyr Aggr, Por inferred, no Fluor
2172m	100%	SANDSTONE: a/a
2178m	100%	SANDSTONE: qz, clr-trnsl, mky, m-v crs, (srt)-srt, (ang)-rnd, disag, com Glc, com Pyr Aggr, Por inferred, no Fluor
2184m	100%	SANDSTONE: a/a bec more f-m
2190m	80%	SANDSTONE: a/a, com Pyr Cmt
	20%	SILTSTONE: lt gy, (med brn), sft, (arg i/p), glc, (pyr), (mic)
2199m	90%	SANDSTONE: qz, clr-trnsl, crs-v crs, (m), srt, (ang)-rnd, dom disag, (sil + Pyr Cmt), (glc), Por-Por inferred, no shows
	10%	SILTSTONE: lt gy, sft-(frm), glc, Pyr dissem, (calc), blky
2208m	100%	SANDSTONE: a/a
2217m	100%	SANDSTONE: a/a, dom crs-v crs.

DEPTH	% LITHOLOGY	DESCRIPTION
2223m	90%	SANDSTONE: qz, clr-trnsl, m-v crs, (srt)-srt, (ang)-rnd, unconsol, Pyr Cmt, (glc), Por inferred, no shows
	10%	SILTSTONE: lt gy, frm-(hd), (glc), (sndy), (dissem Pyr), (tr carb detr), calc, blky
2226m	70%	SANDSTONE: a/a dom m-crs
	30%	SILTSTONE: lt-med gy, aren i/p, frm-(hd), glc, (sndy), (pyr), calc, blky
2232m	90%	SANDSTONE: qz, clr-trnsl, m-v crs, dom m, (srt)-srt, (ang)-rnd, uncons, (Pyr Aggr), Por inferred, no shows
	10%	SILTSTONE: a/a
2238m	90%	SANDSTONE: qz, clr-trnsl, m-v crs, (srt)-srt, (ang)-rnd, uncons, (Pyr Aggr), Por inferred, no shows
	10%	SILTSTONE: lt-med gy, aren i/p, frm-(hd), glc, (pyr), calc, blky
2244m	90%	SANDSTONE: a/a
	10%	SILTSTONE: a/a
2250m	80%	SANDSTONE: a/a
	20%	SILTSTONE: a/a
2256m	80%	SANDSTONE: qz, clc-trnsl, m-c crs, dom m (srt)-srt, (ang)-rnd, uncons, (Pyr Aggr), Por inferred, no shows
	20%	SILTSTONE: lt-med gy, buf, aren i/p, frm-(hd), glc, pyr, calc, blky, no shows
2262m	70%	SANDSTONE: qz, clr-trnsl, m-v crs, dom crs, (srt)-srt, (ang)-rnd, uncons, Pyr Aggr, Por inf, no shows
	30%	SILTSTONE: lt med gy, buf, aren i/p, frm-(hd) glc, pyr, mic, calc, blky, no show
2268m	60%	SANDSTONE: a/a,dom m
	40%	SILTSTONE: a/a, arg
2274m	60%	SANDSTONE: qz, clr-trnsl, m-v crs, dom v crs, (srt)-srt, (ang)-rnd, uncons, Pyr Aggr, Por inferr, no show
	40%	SILTSTONE: lt-med gy, buf, aren & arg i/p, frm-(hd), glc, sl calc, mic, blky, tr carb Frag, no show
2283m	50%	SANDSTONE: qz, clr-trnsl, m-vcrs dom crs-vcrs, (srt)-srt, (ang)-rnd, uncons, Por infer, no show
	50%	SILTSTONE: lt med gy, aren + arg + mica i/p, glc, tr carb, no show
2292m	80%	SANDSTONE: a/a, dom crs, Pyr Aggr, Por inf, no show
	20%	SILTSTONE: a/a, aren + mic, no show

DEPTH	% LITHOLOGY	DESCRIPTION
2201m	90%	SANDSTONE: a/a
	10%	SILTSTONE: a/a
2310m	90%	SANDSTONE: a/a
	10%	SILTSTONE: a/a
2319m	40%	SANDSTONE: qz. clr-trnsl, m-vcrs, pred crs, (srt)-srt, (ang)-rnd, uncons, Pyr Aggr, Por infer, no show
	60%	SILTSTONE: lt-med gn gy, frm, aren + arg, glc, pyr, tr carb frag, no show
2328m	50%	SANDSTONE: a/a
	50%	SILTSTONE: a/a
2334m	70%	SANDSTONE: a/a, pred crs-vcrs, abd Pyr, no Fluor
	30%	SILTSTONE: a/a, sl calc, no Fluor
2337m	70%	SANDSTONE: qz, clr-trnsl, m-vcrs, dom crs, srt, (arg)-rnd, uncons-(cons), (sil) + Pyr Cmt, (arg), glc, Por inf, no show
	30%	SILTSTONE: lt-med gn gy, sft-(frm), abd dissem Pyr, glc, arg, mic, tr carb Frag, (calc), no show
2340m	80%	SANDSTONE: gy, clr-trnsl, m-vcrs, (srt)-srt, (ang)-rnd, uncons-(cons), (arg), Pyr Cmt, glc, Por inf, no show
	20%	SILTSTONE: a/a, Fe oxid, calc, carb
2346m	60%	SANDSTONE: qz, clr-trnsl, m-vcrs, dom arg, (srt)-srt, (ang)-rnd, uncons, (arg), occ Pyr Cmt, glc + pyr, Por inf, no show
	40%	SILTSTONE: lt-med gn gy, sft-(frm), glc + pyr, arg, mic, tr carb Frag, sl calc, no shows
2352m	60%	SANDSTONE: a/a
	40%	SILTSTONE: a/a
2358m	40%	SANDSTONE: qz, clr-trnsl, m-vcrs, dom m, (srt)-srt, (ang)-rnd, uncons-(cons), Por inf, tr Pyr Cmt, glc, Por inf, no show
	60%	SILTSTONE: a/a, no show
2364m	30%	SANDSTONE: a/a, 8% Dol Cmt, no show
	70%	SILTSTONE: a/a, v glc + arg
2370m	30%	SANDSTONE: qz, clr-trnsl, m-vcrs, dom m, (srt)-srt, (ang)-rnd, uncons-(cons), tr Pyr Cmt, glc, nil-(Por), no show
	70%	SILTSTONE: lt-med gn gy, sft-frm), glc + pyr, mic, tr carb Frag, no show
2376m	30%	SANDSTONE: a/a
	70%	SILTSTONE: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
2382m	60%	SANDSTONE: qz, clr-trnsl, m-vcrs, (srt), ang-rnd, (uncons)-cons, Glc, Pyr Aggr, (Por), no show
	40%	SILTSTONE: a/a, dec Glc, no show
2388m	60%	SANDSTONE: a/a, dom crs
	40%	SILTSTONE: a/a, aren, carb, mic
2394m	20%	SANDSTONE: qz, clr-trnsl, m-vcrs dom crs, (srt)-srt, (ang)-rnd, uncons, tr Pyr + Glc, nil-(Por), no Fluor
	80%	SILTSTONE: lt-dk gy, sft-frm, v carb (low coal), v aren, mic, glc, pyr, shaly i/p, blky-fis
2397m	20%	SANDSTONE: a/a
	80%	SILTSTONE: a/a
2400m	10%	SANDSTONE: a/a
	90%	SILTSTONE: lt-med gy, aren, sft-frm, (Glc), (dissem Pyr), (carb detr), mic, (shaly i/p), gdes to vf SST i/p
2403m	10%	SANDSTONE: qz, clr-trnsl, lse m-vcrs, Pyr cmtd f-m, (srt)-srt, (ang)-rnd, Pyr Aggr, (Glc), nil - (Por), no shows
	90%	SILTSTONE: lt gy, med-dk brn gy, aren-(arg), (sndy), com carb detr + lam, sft-(hd), mic, (dissem Pyr) blky-(fis)
2406m	40%	SANDSTONE: qz, clr-trnsl, m-v crs, dom m-crs, srt, (ang)-(rnd), uncons, Pyr Aggr, Por inf, no shows
	60%	SILTSTONE: lt-med gy, aren, com carb detr & lam, mic, dissem Pyr, (glc), frm-(hd), blky-occ (fis), arg i/p, no shows
2409m	70%	SANDSTONE: a/a
	30%	SILTSTONE: a/a, occ lt-med brn gy, arg
2415m	70%	SANDSTONE: a/a, dom m, occ f Aggr, Por inf, no shows
	30%	SILTSTONE:lt-med gy, (med-dk brn gy), aren, carb detr + lam, pyr, (glc), mic, sft-frm, blky
2421m	20%	SANDSTONE: qz, clr-trnsl, m-vcrs, (ang)-rnd, (srt), lse, Pyr Aggr, Por inf, no show
	80%	SILTSTONE: a/a
2427m	10%	SANDSTONE: a/a
	90%	SILTSTONE: lt-med brn gy, aren, carb detr, mic, (Pyr Aggr + dissem), arg i/p, non calc, blky
2430m	20%	SANDSTONE: a/a, m-crs
	80%	SILTSTONE: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
2442m	50%	SANDSTONE: qz, clr-trnsl, m-crs, dom m, srt-srt, (ang)-rnd, uncons, (tr Cht), (Pyr Aggr), Por inf, no shows
	50%	SILTSTONE: med brn gy, aren, carb lam + det, mic, (dissem Pyr), arg i/p, frm-(hd), blky, non calc
2448m	90%	SANDSTONE: qz, clr-trns, m-crs, srt, (ang)-rnd, uncons, (Pyr Aggr), Por inf, no shows
	10%	SILTSTONE: a/a
2451m	80%	SANDSTONE: a/a
	20%	SILTSTONE: med (brn) gy, aren, com carb det + lam, mic, Pyr Aggr, frm-(hd), blky
2457m	70%	SANDSTONE: a/a, m-crs, dom crs
	30%	SILTSTONE: a/a
2463m	40%	SANDSTONE: a/a, m-vcrs
	60%	SILTSTONE: a/a
2469m	100%	SANDSTONE: qz, clr-trnsl, (mky), crs-gran, (rnd)-rnd, srt-srt, uncons, (sil Cmt), (Pyr Aggr), (carb Frag), (Cht), Por inf, tr yel orng Min Fluor, no cut
2475m	100%	SANDSTONE: a/a
2481m	100%	SANDSTONE: a/a m-gran, srt
2487m	100%	SANDSTONE: qz, clr-trnsl, (lt-med gy), f-v crs, (srt)-srt, (rnd)-rnd, uncons-(aggr), (strng sil Cmt), abd dissem + Aggr Pyr, (glc) com Cht, (Por)-Por inf, occ dull orng Min Fluor, no cut
2490m	100%	SANDSTONE: qz, clr-trnsl, mky, lt-med gy, m-v crs, (rnd)-rnd, (srt)-srt, disag-cons, strng sil Cmt, com dissem + Aggr Pyr, (Glc), (carb frag), com ?Cht, (Por), tr dull orng Fluor, no cut
2496m	100%	SANDSTONE: a/a
2499m	100%	SANDSTONE: a/a, predom uphole contam (Lakes Entrance Fm) following bit change
2502m	100%	SANDSTONE: a/a, abd uphole cvgs (Lakes Entrance Fm)
2505m	100%	SANDSTONE: qz, clr-trnsl, f-m (crs), srt-srt, (rnd)-rnd, uncons-(aggr), strng sil Cmt, (Pyr), (Glc), (carb Frag), (Por)-Por, no shows

DEPTH	% LITHOLOGY	DESCRIPTION
2508m	100%	SANDSTONE: qz, clr-trnsl, (lt gy), m-crs, srt, (rnd)-rnd, uncons-(Aggr), strng sil Cmt, (dissem + Aggr Pyr), (Por)-Por, no shows
2511m	100%	SANDSTONE: a/a
2514m	100%	SANDSTONE: a/a
2517m	80%	SANDSTONE: qz, clr-trnsl, lt gy, vf-crs, (srt)-srt, (ang)-rnd, m-crs, uncons, vf-f Aggr, wk-strng sil Cmt, (slty Mtrx i/p), Pyr Aggr + dissem, (carb Frag), (Glc), (Por), no shows
	20%	SILTSTONE: lt gy-(gn) gy, aren, sndy, (Glc), dissem Pyr, (carb detr), (calc i/p), frm-(hd), blky, gdes from SST
2520m	20%	SANDSTONE: qz, lt-med gy, vf-f, srt, (ang)-(rnd), fri, slty/arg Mtrx i/p, (pyr), (glc), nil-(Por), no shows, gdes to SLTST
	80	SILTSTONE: lt-med gy, aren, sndy, sft-(frm), disp, arg i/p, mic, (glc), dissem Pyr
2523m	10%	SANDSTONE: a/a
	90%	SILTSTONE: a/a, gdes to vf SST
2526m	10%	SANDSTONE: qz, lt-med gy, vf-f, srt, (ang)-(rnd), fri, slty i/p, arg Mtrx, (pyr) (glc), nil-(Por), no shows, grades to SLTST
	90%	SILTSTONE: lt gy-(gn) gy, aren, sndy, (glc), dissem Pyr, (calc i/p), frm-(hd), (blky)-blky
2529m	10%	SANDSTONE: a/a
	90%	SILTSTONE: lt gy, aren, sndy, arg i/p, glc, dissem Pyr, (calc), com carb det + (lam), mic, sft-(hd), blky-(blky)
2532m	60%	SILTSTONE: a/a
	30%	COAL: blk-dk gy, dull-subvit, hd, pyr, (sbconc Frac), blky-(blky), gdes to carb SLTST
2535m	10%	SANDSTONE: qz, lt gy, vf-crs, (srt), (arg)-(rnd), uncons-Aggr, (sil Cmt), slty Mtrx, com Glc, pyr, (Por), no show
	80%	SILTSTONE: lt gy, (med brn gy), aren, sndy, arg i/p, dissem Pyr, Glc, carb det, sft-(hd), (blky)
	10%	COAL: a/a
2538m	80%	SANDSTONE: qz, lt gy, clr-trnsl, m-crs, srt, (ang)-(rnd), uncons-(Aggr), (sil Cmt), Pyr Aggr, Por-Por inf, no shows
	20%	SILTSTONE: a/a, v carb i/p, mic

DEPTH	% LITHOLOGY	DESCRIPTION
2541m	60%	SANDSTONE: a/a
	30%	SILTSTONE: med-dk brn gy, arg, v carb, frm-(hd), (blky)-(fis), mic, gdes to COAL i/p
	10%	COAL: blk-dk brn gy, dull-occ vit, hd, earthy i/p, gdes to carb SLTST
2544m	40%	SANDSTONE: a/a
	40%	SILTSTONE: lt gy, med brn gy, frm-(hd), carb, (pyr), mic, blky-(blky), arg i/p
	20%	COAL: a/a
2547m	100%	SANDSTONE: qz, clr-trnsl, (lt gy), m-crs, srt, (ang)-(rnd), (uncons), sil Cmt, com Pyr Cmt + Aggr, (Cht), Por, no shows
2550m	90%	SANDSTONE: a/a
	10%	SILTSTONE: lt gy, med gy brn, carb i/p, mic, (aren), blky-(blky) frm
2553m	80%	SANDSTONE: a/a, m-vcrs, (v crs)
	20%	SILTSTONE: a/a
2556m	80%	SANDSTONE: qz, cl-trnsl, crs-vcrs, srt (ang)-(rnd), (uncons), sil Cmt, (Pyr Aggr), Por-Por, no shows
	10%	SILTSTONE: med brn gy, carb detr, arg i/p, mic, (pyr), frm, blky-(blky)
	10%	COAL: blk, (vit), (conch), hd, gdes to carb CLYST i/p
2559m	90%	SANDSTONE: a/a m-vcrs
	10%	SILTSTONE: a/a
2562m	80%	SANDSTONE: a/a m-vcrs, com Pyr Aggr
	10%	CLAYSTONE: med (gy) brn, carb det + lam, mic, (sndy), frm, (blky)
	10%	COAL: blk, (vit), (conch), hd, dissem Pyr
2565m	100%	SANDSTONE: qz, clr-trnsl, (lt gy), f-vcrs, (srt), (ang)-(rnd), (uncons), sil Cmt, (dissem Pyr), (?Cht), Por, no show
2568m	70%	SANDSTONE: a/a, m-vcrs, occ vf-f Aggr, com Pyr Cmt
	20%	SILTSTONE: lt gy, med gy brn, aren i/p, carb, (pyr), (mic), frm-(hd), blky.
	10%	CLAYSTONE: med (gy) brn, carb det + lam, mic (dissem Pyr), frm, (blky)
2571m	70%	SANDSTONE: a/a
	10%	SILTSTONE: a/a gdes to vf SST i/p
	20%	CLAYSTONE: lt - med (gy) brn, carb det + lam, mic, (dissem Pyr), frm-(hd), (blky)-(fis).
2574m	70%	SANDSTONE: a/a, m-vcrs, dom m, com Pyr Cmt, Por inf, no shows
	20%	SILTSTONE: a/a
	10%	CLAYSTONE: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
2577m	50%	SANDSTONE: a/a
	10%	SILTSTONE: lt-(med) gy, aren, carb detr, (dissem Pyr), (frm), blky, non calc.
	40%	CLAYSTONE: lt-dk (gy) brn, carb detr + lam, mic, dissem Pyr, frm-(hd), (blky)-(fis), non calc.
2580m	60%	SANDSTONE: a/a
	10%	SILTSTONE: a/a
	30%	CLAYSTONE: a/a
2583m	80%	SANDSTONE: qz, trnsl-mky, crs, srt, (ang)-(rnd), uncons-aggr, strng sil Cmt, (tr Pyr Cmt), Por inf, no shows
	10%	CLAYSTONE: a/a
	10%	COAL: blk, (vit)-vit, conch, hd, slty i/p, (dissem Pyr)
2586m	90%	SANDSTONE: a/a, f-crs, (srt)-srt, Por inf, no shows
	10%	CLAYSTONE: a/a
2589m	70%	SANDSTONE: qz, lt gy, clr-trnsl, f-crs, (vf), (srt), (ang)-(rnd), (uncons), sil Cmt, (slty Mtrx), (tr Pyr Cmt), (mic), (Por), no shows
	10%	SILTSTONE: lt gy, aren, carb det, mic, pyr, frm-hd, blky-(blky), gdes-vf SST
	20%	CLAYSTONE: lt-dk (gy) brn, carb detr + lam, mic, (dissem Pyr), frm-(hd), (blky)-(fis)
2592m	30%	SANDSTONE: a/a
	30%	SILTSTONE: a/a
	40%	CLAYSTONE: a/a
2595m	90%	SANDSTONE: qz, clr-trnsl, m-crs, srt, (ang)-(rnd), (uncons), sil + (Pyr) Cmt, Por infer, no shows
	10%	SILTSTONE: a/a
2598m	70%	SANDSTONE: a/a
	10%	SILTSTONE: a/a
	20%	CLAYSTONE: a/a
2601m	90%	SANDSTONE: a/a dom m, srt, Por inf, no shows
	10%	CLAYSTONE: a/a
2604m	70%	SANDSTONE: a/a, m-crs, srt, Por-Por inf, no shows
	30%	SILTSTONE: lt-med gy, (brn) gy, aren, v arg i/p, disp, mic, carb detr, sft-(hd), blky
2607m	20%	SANDSTONE: a/a, also vf-f aggr, com carb detr, slty Mtrx, mic, pyr, (Por), no shows
	20%	SILTSTONE: a/a
	60%	CLAYSTONE: lt-dk (gy) brn, (aren) i/p, carb detr + lam, mic, Pyr, non calc, frm-(hd), (blky)-fis

DEPTH	% LITHOLOGY	DESCRIPTION
2610m	10%	SANDSTONE: a/a
	20%	SILTSTONE: lt-med gy, (brn) gy, aren, v arg i/p, disp, mic, carb detr, sft-(hd), blky.
	70%	CLAYSTONE: lt-dk (gy) brn, (aren), carb detr + lam, mic, Pyr, non calc, frm, (blky)-(fis).
2613m	20%	SANDSTONE: qz, clr-trnsl, m-crs, srt, (ang)-(rnd), (uncons), sil Cmt i/p, pyr, Por inf, no shows
	40%	SILTSTONE: lt-med gy, (brn) gy, aren, v arg i/p, disp, mic, carb detr, sft-(hd), blky
	40%	CLAYSTONE: a/a
2616m	30%	SANDSTONE: a/a
	40%	SILTSTONE: lt-med gy, (brn) gy, aren, v arg i/p, mic, carb detr, sft-(hd), blky
	30%	CLAYSTONE: a/a
2619m	20%	SANDSTONE: a/a
	20%	SILTSTONE: a/a
	60%	CLAYSTONE: a/a
2622m	20%	SANDSTONE: a/a
	20%	SILTSTONE: a/a
	60%	CLAYSTONE: a/a
2625m	20%	SANDSTONE: a/a
	20%	SILTSTONE: a/a
	60%	CLAYSTONE: a/a
	tr	COAL
2628m	20%	SANDSTONE: a/a
	20%	SILTSTONE: lt-med (brn) gy, aren, carb detr, mic, arg i/p, (disp), frm-hd, blky
	60%	CLAYSTONE: lt-dk (gy) brn, carb detr + lam, mic, aren i/p, frm-(hd), (blky)-(fis)
2631m	40%	SANDSTONE: a/a, 20% yel orng Min Fluor, no cut
	30%	SILTSTONE: a/a, v disp.
	30%	CLAYSTONE: a/a, disp i/p
2634m	60%	SANDSTONE: qz, lt gy, trnsl, f-crs, (srt), (ang)-(rnd), strng dol Cmt, (pyr), (Por) 80% brt yel Min Fluor, no cut
	30%	SILTSTONE: a/a, arg, v disp.
	10%	CLAYSTONE: a/a, disp i/p
2637m	30%	SANDSTONE: a/a, 80% brt yel Min Fluor, no cut
	50%	SILTSTONE: lt (brn) gy, v arg, v disp, carb detr, mic, uncons-(frm).
	20%	CLAYSTONE: lt-dk (gy) brn, carb, mic, (pyr), disp i/p, frm-(hd), (blky)-(fis).
2640m	30%	SANDSTONE: a/a, Pyr Cmt, 40% brt yel Min Fluor, no cut
	50%	SILTSTONE: a/a
	20%	CLAYSTONE: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
2643m	30%	SANDSTONE: qz, clr-trnsl, m-vcrs, (srt), (ang)-(rnd), hd, (uncons)-(cons), Pyr, (Mic), 40% brt yel Fluor, no cut
	40%	SILTSTONE: lt gy, uncons-(frm), v arg, v disp, carb detr, mic.
	30%	CLAYSTONE: a/a
	tr	COAL
2646m	30%	SANDSTONE: a/a
	40%	SILTSTONE: a/a
	30%	CLAYSTONE: lt-dk (gy), brn, carb + coaly, disp i/p, frm, (blky)-(fis)
	tr	COAL
2649m	70%	SANDSTONE: qz, clr-trnsl, m-v crs, (srt), (ang)-(rnd), (sph), mod hd, cons-wl cmt, dol, (Por), 20% dull orng Fluor, no cut
	20%	SILTSTONE: dk gy-brn gy, sft-mod hd, v arg, com carb detr, (Pyr), mic i/p, v slty i/p, blky
	10%	CLAYSTONE: lt-dk gy, sft-frm, com carb detr, (Pyr), mic i/p, blky, v slty i/p
2652m	20%	SANDSTONE: a/a, contam mostly by cmt
	40%	SILTSTONE: a/a
	40%	CLAYSTONE: a/a
2655m	80%	SANDSTONE: cl-trnsl, qz, v lt gy, m-crs, (srt)-srt, ang, (sph) - sph, lse-fri, mnr sil + dol Cmt, (uncons), (Pyr), Por, 5% dull orng Fluor, no cut
	20%	SILTSTONE: a/a
2658m	80%	SANDSTONE: a/a
	20%	SILTSTONE: a/a
2661m	60%	SANDSTONE: a/a
	40%	SILTSTONE: lt-v dk gy, lt-dk brn gy, sft-frm, arg, com v f qz snd, carb i/p, (mic), blky-(fis), com carb lams.
2664m	20%	SANDSTONE: a/a
	70%	SILTSTONE: a/a
	10%	COAL: blk, dull-occ vit, (woody text i/p), earthy i/p, sft-brit, blky-(conch)
2667m	70%	SANDSTONE: cl-trnsl, v lt gy, m-crs, srt, ang-(ang) (sph), mnr sil Cmt, mnr slty Mtrx, tr Pyr
	30%	SILTSTONE: lt-med gy, sft-frm, arg, com vf qz snd, mic, carb i/p, mnr coaly lams, blky
2670m	90%	SANDSTONE: a/a
	10%	SILTSTONE: a/a
2673m	90%	SANDSTONE: a/a
	10%	SILTSTONE: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
2676m	90%	SANDSTONE: cl-trnsl, v lt gy, med-v crs, (srt), arg, (sph), fri- mod hd, mnr sil Cmt, tr slty Mtrx, tr Pyr, Por, no Fluor
	10%	SILTSTONE: lt-dk gy, frm, arg, sndy i/p carb i/p, (Pyr), blky.
2679m	60%	SANDSTONE: a/a
	40%	SILTSTONE: lt gy, med-dk gy brn, frm, arg, sndy, mic, carb, rr Pyr, blky-(fis)
2682m	80%	SANDSTONE: clr-trnsl, v lt gy, m-vcrs, (gran), (srt), ang-(ang), (elong)-(sph), sil Cmt, fri-mod hd, (wh arg Mtrx), tr-occ Pyr Aggr, (Por), no Fluor
	20%	SILTSTONE: a/a
2685m	90%	SANDSTONE: a/a
	10%	SILTSTONE: a/a
2688m	60%	SANDSTONE: a/a
	40%	SILTSTONE: lt gy, lt-med brn gy, frm, arg, sndy,com carb Flks, mic, blky-(fis)
2691m	90%	SANDSTONE: clr-trnsl, lt gy, m-crs, srt, ang-(ang), (elong-sph), fri-hd, sil Cmt, clean, (Pyr), (Por), no Fluor
	10%	SILTSTONE: a/a
2694m	90%	SANDSTONE: a/a
	10%	SILTSTONE: a/a
2697m	80%	SANDSTONE: clr-trnsl, v lt gy, m-vcrs, (srt), ang-rnd, (sph)-sph, fri, sil Cmt, (Pyr), (Por)
	20%	SILTSTONE: a/a
2700m	90%	SANDSTONE: a/a
	10%	SILTSTONE: a/a
2703m	60%	SANDSTONE: a/a
	40%	SILTSTONE: med-dk brn gy, sft, arg, sndy, carb i/p, occ coaly lams, blky-(fis)
2706m	10%	SANDSTONE: a/a
	90%	SILTSTONE: a/a
2709m	20%	SANDSTONE: a/a
	80%	SILTSTONE: a/a
2712m	90%	SILTSTONE: med-dk brn gy, (occ lt gy), arg, abd carb detr + lam, (mic), (Pyr Aggr), sft-(frm), (blky)-(fis), non calc
	10%	COAL: blk, dull-vit, (conch) Frac, hd-brit.
2715m	70%	SANDSTONE: a/a
	30%	COAL: a/a, occ slty/earthy
2718m	100%	SILTSTONE: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
2721m	100%	SILTSTONE: a/a
	tr	CLAYSTONE:
2724m	tr	SANDSTONE: wh-lt gy, vf-f, srt, mod sil + tr dol Cmt, non por-(Por), no Fluor.
	100%	SILTSTONE: a/a
	tr%	COAL: a/a
2727m	100%	SANDSTONE: clr-trnsl, f-m, dom m, srt, (ang)-ang, fri-(hd), mod sil Cmt, (calc), mic, (chlor), (Pyr Aggr), Por, no Fluor
	tr	SILTSTONE: a/a
	tr	CLAYSTONE:
	tr	COAL: a/a
2730m	90%	SANDSTONE: a/a
	10%	SILTSTONE: dk brn gy, aren, carb, sft-frm, (blky)-(fis)
	tr	COAL: blk, dull-(vit), occ (conch), brit, blky
2733m	70%	SANDSTONE: a/a, com Pyr Cmt
	30%	SILTSTONE: lt gy - med brn gy, aren, arg i/p, abd carb detr + lam, (mic), pyr, sft-frm, blky-(fis)
2736m	30%	SANDSTONE: a/a, com Pyr Cmt
	70%	SILTSTONE: lt gy-med gy brn, (occ dk gy brn), aren, arg i/p, abd carb detr + lam, mic, (Pyr Aggr), sft-frm, blky-(fis)
2739m	10%	SANDSTONE: a/a
	90%	SILTSTONE: lt-med gy, lt-med brn gy, aren, gdes to v f SST i/p, arg i/p, (carb), (mic), (pyr), sft-frm, blky-(fis)
2742m	20%	SANDSTONE: qz, clr-trnsl, f-m (crs), srt, (ang), mod sil Cmt, Pyr Aggr, (Por)-Por, no Fluor.
	80%	SILTSTONE: lt gy-med gy brn, (occ dk gy brn), aren, arg i/p, v carb i/p, lam, Pyr Aggr, mic, sft-(frm), blky-(fis)
2745m	70%	SANDSTONE: a/a, Por, no Fluor
	10%	SILTSTONE: a/a
	20%	COAL: blk, dull-(vit), earthy i/p, blky-(conch), brit, gdes to carb CLYST
2748m	80%	SANDSTONE: a/a, Por-Por, no Fluor
	20%	SILTSTONE: a/a
	tr	COAL: a/a
2751m	80%	SANDSTONE: a/a, Por-Por, no Fluor
	20%	SILTSTONE: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
2754m	20%	SANDSTONE: a/a
	60%	SILTSTONE: med-dk gy brn, (occ lt gy), arg, abd carb detr + lam, gdes to COAL, mic, frm, blky-(blky)
	20%	COAL: blk, dull, earthy, occ (vit), blky, frm-brit
2757m	90%	SILTSTONE: a/a
	10%	COAL: a/a
2760M	10%	SANDSTONE: clr-trnsl, f-m, fri-mod hd, mod sil Cmt, Por, no Fluor
	90%	SILTSTONE: med-dk gy brn, occ lt gy, aren, arg i/p, carb det + lam, (Pyr Aggr), mic, sft-(frm), blky-(blky)/
2763m	10%	SANDSTONE: clr-trnsl, f-m, fri-mod hd, mod sil Cmt, tr Pyr Cmt, Por, no Fluor
	90%	SILTSTONE: med-dk gy brn, occ lt gy, aren, arg i/p, lam, v. carb, mic, Pyr Aggr, sft-(frm) blky, no Fluor
2766m	80%	SANDSTONE: clr-trnsl, f-m occ crs, (srt)-srt, (ang)-ang, fri-(hd), (mod) sil Cmt, Por, no Fluor
	20%	SILTSTONE: a/a
	tr	COAL:
2769m	10%	SANDSTONE: clr-trns, f-m, occ crs, fri-mod hd, mod sil Cmt, Por, no Fluor.
	90%	SILTSTONE: a/a
2772m	10%	SANDSTONE: a/a, no Fluor
	90%	SILTSTONE: med-dk gy, brn, occ lt gy, aren, arg i/p, lam, v. carb, mic, sft-(frm), blky, Pyr Aggr, no Fluor.
2775m	10%	SANDSTONE: a/a, no Fluor
	90%	SILTSTONE: a/a, no Fluor
2778m	90%	SANDSTONE: clr-trnsl, f-m, dom m, (srt)-srt, (ang)-ang, fri-mod hd, (mod) sil Cmt, Por, no Fluor
	10%	SILTSTONE: a/a, no Fluor
	tr	COAL:
2781m	80%	SANDSTONE: a/a
	20%	SILTSTONE: a/a
2784m	80%	SANDSTONE: clr-trnsl, f-m, dom m occ crs, (srt)-srt, (ang)-ang, (mod) sil Cmt, tr Pyr Cmt, Pyr (dissem), Mic, Por, no Fluor
	20%	SILTSTONE: med-dk gy brn, occ lt gy, aren, arg i/p, lam, v. carb, mic, sft-(frm), blky, Pyr (Aggr), no Fluor.

DEPTH	% LITHOLOGY	DESCRIPTION
2787m	90%	SANDSTONE: a/a, no Fluor
	10%	SILTSTONE: a/a, no Fluor
2790m	10%	SANDSTONE: a/a, no Fluor
	90%	SILTSTONE: med-dk gy brn, occ lt gy, aren, arg i/p, lam, v. carb, mic, sft-(frm), Pyr diss-(Aggr), No Fluor
2793m	30%	SANDSTONE: clr-dom trnsl, f-m, dom m, (srt)-srt, (ang)-ang, (mod) sil Cmt, Pyr, Mic, Por, no Fluor.
	70%	SILTSTONE: a/a, no Fluor.
2796m	100%	SANDSTONE: clr-trnsl, f-m, dom m, (srt)-srt, (ang)-ang, (mod) sil Cmt, tr Pyr, Mic, Por, no Fluor
	tr	SILTSTONE: a/a
2799m	80%	SANDSTONE: a/a, no Fluor
	20%	SILTSTONE: a/a, sl calc, no Fluor
2802m	10%	SANDSTONE: a/a, no Fluor
	90%	SILTSTONE: m-dk gy brn, occ lt gy, aren, arg i/p, lam, v. carb, mic, calc, (sndy), sft-(frm), Pyr dissem, no Fluor.
2805m	50%	SANDSTONE: clr-trnsl, f-m, (srt)-srt, (ang)-ang, (mod) sil Cmt, pyr, mic, Por, no Fluor
	50%	SILTSTONE: a/a, no Fluor
2808m	20%	SANDSTONE: a/a
	70%	SILTSTONE: a/a, + lt gn gy, calc.
	10%	COAL: blk, v dk brn, earthy, occ vit, frm-brit, gdes to carb SLTST
2811m	80%	SILTSTONE: med-dk gy brn, (lt gy), aren, lam, v carb, (Pyr Aggr), sft-frm, (blky), occ lt gn gy, calc.
	20%	COAL: a/a
2814m	10%	SANDSTONE: qz, clr-trnsl, (mky), f-m, (occ vf + v crs), (srt)-srt, (ang), mod hd, mod sil Cmt, (Por), no Fluor
	90%	SILTSTONE: lt brn gy, med-dk gy brn, aren, arg i/p, lam i/p, v carb i/p, mic, (Pyr Aggr), sft-frm, (blky)-(fis).
2817m	60%	SANDSTONE: qz, clr-trnsl, (mky), f-m, srt, (ang), mod hd, mod sil Cmt, occ Pyr Cmt, Por, no Fluor.
	30%	SILTSTONE: a/a
	10%	COAL: blk, dull-vit, earthy i/p, (conch) Frac i/p, blky, pyr, hd-brit.
2820m	40%	SANDSTONE: a/a, f-crs (tr vf + v crs), (srt)-srt, Por, no Fluor.
	60%	SILTSTONE: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
2823m	10%	SANDSTONE: a/a, (tr vcrs)
	90%	SILTSTONE: a/a, (sl) calc.
2826m	10%	SANDSTONE: a/a
	80%	SILTSTONE: a/a no
	10%	COAL: blk, dull-vit, (conch) Frac, brit-hd
2829m	80%	SILTSTONE: lt-med brn gy, arg, com v f snd, sft-frm, (mic), carb, tr Pyr Aggr, lam i/p, blky-(fis)
	20%	COAL: a/a
2832m	90%	SILTSTONE: a/a
	10%	COAL: a/a
2835m	10%	SANDSTONE: v lt gy, f-m, srt, (rnd)-rnd, (sph), fri, sil Cmt, wh arg Mtrx, occ carb Flk, (Por), no Fluor
	80%	SILTSTONE: a/a
	10%	COAL: a/a
2838m	10%	SANDSTONE: a/a
	90%	SILTSTONE: a/a
	tr	COAL: a/a
2841m	20%	SANDSTONE: v lt gy, f-m, srt, (rnd)-rnd, (sph), fri, sil Cmt, com v lt gy-lt brn slty Mtrx, com carb Flks, (Por) no Fluor.
	70%	SILTSTONE: a/a
	10%	COAL: a/a
2844m	10%	SANDSTONE: a/a
	80%	SILTSTONE: a/a
	10%	COAL: black, dull-(vit), earthy i/p, v mic i/p, com Pyr, hd, brit.
2847m	20%	SANDSTONE: a/a, occ grdg to crs
	70%	SILTSTONE: a/a
	10%	COAL: a/a
2850m	10%	SANDSTONE: cl-trnsl, lt gy, f-m, (srt), (rnd)-ang, (sph)-sph, fri, sil Cmt, mnr arg Mtrx, (Por), no Fluor
	90%	SILTSTONE: a/a
2853m	30%	SANDSTONE: a/a
	70%	SILTSTONE: a/a, w/ com pyr lam
2856m	90%	SANDSTONE: cl-trnsl, v lt gy, m-crs, srt, rnd-(rnd), (sph), lse-fri, sil Cmt, clean, (Por)-Por, no Fluor.
	10%	SILTSTONE: a/a
2859m	40%	SANDSTONE: a/a, occ grdg to v crs, ang
	60%	SILTSTONE: lt gy, lt-med brn gy, sft-frm, v arg i/p, v com vf snd i/p, (mic), com carb Flks & lam, tr Pyr, lam i/p

DEPTH	% LITHOLOGY	DESCRIPTION
2862m	40%	SANDSTONE: a/a
	60%	SILTSTONE: a/a, occ coaly lam
2865m	70%	SANDSTONE: cl-trnsl, v lt gy, f-m, srt, (ang)-(rnd), (sph), sil Cmt, com wh-lt gy arg Mtrx
	30%	SILTSTONE: a/a
2868m	10%	SANDSTONE: lt gy, vf-f, srt, (rnd)-rnd, sph, fri, sil Cmt, com wh arg Mtrx, tr Pyr, tr carb Flks, (Por), no Fluor
	90%	SILTSTONE: med gy-med gy brn, sft-frm, arg, com v f snd i/p, mic, occ carb, occ coaly Flks & lams, tr Pyr, blky
2871m	90%	SANDSTONE: cl-trnsl, lt gy, m-crs, srt, (ang)-(rnd), sph, lse-fri, sil Cmt, clean, Por, no Fluor.
	10%	SILTSTONE: a/a
2874m	10%	SANDSTONE: a/a
	90%	SILTSTONE: lt brn gy-med gy brn, sft, v arg i/p, com carb Flks & lam, occ coaly lam, rr Pyr, sndy i/p, blky.
2877m	10%	SANDSTONE: a/a
	90%	SILTSTONE: a/a
2880m	20%	SANDSTONE: a/a
	60%	SILTSTONE: a/a
	20%	COAL:blk-v dk brn, earthy, dull-occ vit, lam, slty i/p, blky, brit-hd
2883m	70%	SANDSTONE: cl-trnsl, lt gy, f-m, (tr vf), srt, ang-(rnd), sph, lse-fri, cons, sil Cmt, v com Pyr Aggr, Por, no Fluor
	20%	SILTSTONE: lt-med gy brn, (dk gy brn), aren, lam i/p, carb, mic, frm, blky-occ (fis)
	10%	COAL: a/a
2886m	80%	SANDSTONE: qz, clr-trnsl, m-crs, srt, (ang)-(rnd), fri-mod hd, mod sil Cmt, com Pyr Aggr, Por-Por, no Fluor.
	20%	SILTSTONE: lt-med brn gy, occ dk gy brn, aren, tr-occ carb, mic, frm-(hd), blky-occ (fis).
	tr	COAL: a/a
2889m	80%	SANDSTONE: a/a, Por, no Fluor
	20%	SILTSTONE: a/a
2892m	40%	SANDSTONE: a/a, Por, no Fluor
	60%	SILTSTONE: a/a
2895m	90%	SANDSTONE: cl-trnsl, v lt gy, m-crs, srt, ang-(rnd), (elong)-(sph), fri, sil Cmt, cln, Por, no Fluor
	10%	SILTSTONE: a/a
	tr	COAL: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
2898m	30%	SANDSTONE: a/a
	60%	SILTSTONE: med-dk gy brn, occ lt gy brn, sft-frm, v arg, occ vf snd, mic, tr Pyr, blky-occ (fis)
	10%	COAL: blk, hd, brit, dull, conc Frac, earthy, com Pyr
2901m	80%	SANDSTONE: a/a
	10%	SILTSTONE: a/a
	10%	COAL: a/a
2904m	70%	SANDSTONE: a/a
	20%	SILTSTONE: a/a
	10%	COAL: a/a
2907m	tr	SANDSTONE: a/a
	90%	SILTSTONE: lt-med brn gy, arg, aren i/p, occ lam, com carb Flks, mic, tr pyr, sft-frm.
	10%	COAL: a/a, tr Vit w/ brt lt yel Fluor, slow crush cut Fluor, v wk lt yel ring resid Fluor
2910m	60%	SANDSTONE: cl-trnsl, v lt gy, f-m, srt, (ang)-rnd, sph, fri, occ mot, hd, sil Cmt, tr pyr, tr carb Flks, (Por)-Por
	40%	SILTSTONE: a/a
	tr	COAL: tr Vitrinite Fluor a/a
2913m	40%	SANDSTONE: a/a
	60%	SILTSTONE: a/a
2916m	10%	SANDSTONE: a/a
	80%	SILTSTONE: med-dk (gy) brn, arg, v lam, v carb, frm-sl (ind), (fis)-fis, occ lt gy, aren, tr carb.
	10%	COAL: dk brn-blk, dull-occ (vit), slty, blky-(blky), brit-frm, gdes to carb SLTST
2919m	tr	SANDSTONE: lt brn gy, vf-f, srt, rnd, sph, fri-mod hd, sil Cmt, wh arg Mtrx, com pyr, (Por), tr dull yel nat Fluor, v slow strmg lt yel cut Fluor, tr dull yel ring resid Fluor
	90%	SILTSTONE: a/a
	10%	COAL: a/a
2922m	90%	SANDSTONE: cl-trnsl, lt gy, m-crs, srt, (ang)-(rnd), (elong)-(sph), fri-mod hd, sil Cmt, tr wh arg Mtrx, tr pyr, (Por), no Fluor.
	10%	SILTSTONE: a/a
	tr	COAL: a/a
2925m	90%	SANDSTONE: a/a
	5%	SILTSTONE: a/a
	5%	COAL: a/a
2928m	70%	SANDSTONE: a/a
	20%	SILTSTONE: a/a
	10%	COAL: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
2931m	60%	SANDSTONE: a/a
	30%	SILTSTONE: med-dk brn gy, frm, arg, mic, v carb i/p, tr pyr, occ coaly lam, blky-(fis)
	10%	COAL: a/a
2934m	80%	SANDSTONE: qz, clr-trnsl, f-m, (occ crs), srt, (ang)-(rnd), mod hd, sil Cmt, tr-occ Pyr Aggr, (mic), (Por)-Por, no Fluor
	20%	SILTSTONE: a/a
2937m	40%	SANDSTONE: a/a, occ wh arg Mtrx, (Por), no Fluor
	60%	SILTSTONE: lt-dk gy brn, a/a
2940m	60%	SANDSTONE: a/a
	40%	SILTSTONE: a/a
	tr	COAL: a/a, tr Vitrinite w/ brt lt yel nat Fluor, v slow dim lt yel cut Fluor, tr v pale ring res.
2943m	70%	SANDSTONE: a/a
	30%	SILTSTONE: a/a
	tr	COAL: a/a
2946m	80%	SANDSTONE: qz, clr-trnsl, f-m, dom m, (srt)-srt, (ang)-ang, mic, pyr (diss), (mod) sil Cmt, tr Pyr Cmt, (hd), (Por)-Por, no Fluor
	10%	SILTSTONE: m-dk gy bwn, lt gy, sft-(frm), lam, blky, mic, aren, carb i/p Pyr, no Fluor
	10%	COAL: dk brn-blk, brit, vit-(vit), conch-(conch), frm-(hd), grds - carb SLTST, no Fluor.
2949m	100%	SANDSTONE: a/a
	tr	SILTSTONE: a/a, lt gn gy
	tr	COAL: a/a
2952m	80%	SANDSTONE: a/a
	10%	SILTSTONE: a/a
	10%	COAL: a/a
2955m	60%	SANDSTONE: a/a, tr Pyr + calc Cmt, arg Mtrx i/p, no Fluor
	40%	SILTSTONE: a/a, no Fluor
2958m	60%	SANDSTONE: a/a, occ crs-vcrs, no Fluor
	40%	SILTSTONE: a/a, no Fluor
	tr	COAL: a/a, no Fluor
2961m	20%	SANDSTONE: a/a, no Fluor
	70%	SILTSTONE: a/a, v carb, no Fluor
	10%	COAL: a/a, no Fluor

DEPTH	% LITHOLOGY	DESCRIPTION
2967m	10%	SANDSTONE: qz, clr-trns, frm, lse, fri-mod hd, sil Cmt, Por, tr dull yel Min Fluor, no cut.
	90%	SILTSTONE: med-dk brn, aren, arg i/p, v carb i/p, carb lam, vf snd i/p, (mic), frm, blky-(fis), gdes to COAL
	tr	COAL: a/a
2970m	70%	SANDSTONE: qz, clr-trnsl, f-m, dom m, srt-srt, (ang)-(rnd), fri-mod hd, mod sil Cmt, tr yel, orng, gn, rd brn lithics, (mic), Por-Por, tr brt yel nat Fluor, slow wk dull wh/yel cut Fluor, faint ring residue.
	30%	SILTSTONE: dk gy brn, v aren, v carb, com v f snd, arg i/p, frm, blky-(fis).
	tr	COAL: a/a
2973m	90%	SANDSTONE: qz, clr-trnsl, m-crs, srt, (ang)-(rnd), fri-mod hd, mod sil Cmt, tr yel, orng, rd lit, mic, Por-Por, no Fluor
	10%	SILTSTONE: med gy brn, aren, arg i/p, com carb lam + frag, vf snd i/p, (mic), frm, blky-(blky).
2976m	10%	SANDSTONE: a/a
	90%	SILTSTONE: a/a, tr blue wh and yel nat Fluor, no cut, tr faint yel ring Res Fluor.
2979m	10%	SANDSTONE: qz, off wh-lt gy, vf, srt, fri-mod hd, sil Cmt, (mic), carb i/p, (Por), no Fluor
	90%	SILTSTONE: lt-med brn gy, v aren, tr-com carb detr, mic, occ Pyr Aggr, sft-frm, blky
2982m	70%	SANDSTONE: qz, clr-trnsl, (off wh), f-crs, (srt)-srt, (ang)-(rnd), fri-mod hd, mod sil Cmt, tr vf snd Mtrx, tr Pyr Aggr, Por, no Fluor
	20%	SILTSTONE: dk gy brn, arg, aren i/p, carb lam, abd carb detr, vf snd i/p, (mic), frm-brit, (blky)-(fis), gdes to COAL.
	10%	COAL: blk-v dk brn, dull-(vit), earthy i/p, (pyr), (conch) Frac i/p, blky, frm-brit.
2985m	100%	SANDSTONE: qz, clr-trnsl, f-crs, dom m, (srt)-srt, (ang)-ang, fri-mod hd, (mod) sil Cmt, Pyr Aggr, tr orng + gn lithics, (mic), Por, tr patchy, pale orng + yel nat Fluor, no cut.
2988m	90%	SANDSTONE: a/a, no Fluor
	10%	SILTSTONE: dk gy brn, aren, carb lam, v carb, (mic), arg i/p, sft-frm, blky, grds to COAL, tr patchy pale-occ brt yel nat Fluor, slow wk dull wh/yel cut Fluor, mod brt yel ring res.
2991m	90%	SANDSTONE: a/a, no Fluor
	10%	SILTSTONE: a/a, no Fluor

DEPTH	% LITHOLOGY	DESCRIPTION
2994m	70%	SANDSTONE: a/a
	30%	SILTSTONE: a/a, calc, tr pale yel-orange Min Fluor
2997m	10%	SANDSTONE: a/a, no Fluor
	90%	SILTSTONE: dk gy brn, aren, v carb, arg i/p, sft-frm, blky, (mic), abd sid/dol Cmt (18%), mod pale yel-orng Min Fluor
3000m	50%	SANDSTONE: qz, clr-trnsl, (off wh), f-m, (srt)-srt, (ang)-ang, fri-(mod) hd, mod sil Cmt, tr vf snd Mtrx, tr Pyr, Por, tr dull orng yel Min Fluor, no cut.
	50%	SILTSTONE: dk gy brn, aren + arg i/p, carb lam, abd carb mat, sid/dol Cmt (3%), (mic), tr pale yel-orng Min Fluor
3003m	50%	SANDSTONE: qz, cl-trnsl, f-crs, dom f, (srt), (ang)-(rnd), sph, fri-hd, sil + sid(10%) Cmt, v com wh arg Mtrx, v com Pyr Cmt + Aggr, tr carb Flks, (Por), com dull yel orng Min Fluor, no cut
	40%	SILTSTONE: lt gy brn-med brn gy, arg, com vf snd i/p, mnr carb mat, mic, fri-mod hd, blky
	10%	COAL: blk, vit-(vit), occ dull, hd-brit, (conch) Frac-blky, earthy i/p.
3006m	90%	SANDSTONE: a/a, incr m-crs lse
	10%	SILTSTONE: a/a
3009m	80%	SANDSTONE: a/a, strng sil + sid(14%) Cmt, com Pyr Cmt + dissem Pyr
	20%	SILTSTONE: a/a
3012m	30%	SANDSTONE: qz, clr-trnsl, off wh-lt gy, f-m, (occ vf), (srt), (ang)-(rnd), mod-hd sil + sid(8%) Cmt, tr-occ pyr cmt, tr wh arg mtx, (Por), no Fluor
	70%	SILTSTONE: lt gy, lt-med gy brn, aren, arg i/p, tr carb mat, mic, com dissem Pyr, frm-hd, blky-(blky), gdes to vf SST i/p
3018m	80%	SANDSTONE: a/a, more com vf-f, 18% sid Cmt
	20%	SILTSTONE: a/a
3021m	90%	SANDSTONE: qz, clr-trnsl, off wh-lt gy, vf-m, (srt)-srt, (ang)-(rnd), lse-mod hd, sil + sid(4%) Cmt, com off wh arg Mtrx, occ Pyr Aggr, Por, tr even dull yel nat Fluor, mky yel slow strmg + crush cut Fluor, mod brt yell ring Res Fluor.
	10%	SILTSTONE: a/a
3024m	90%	SANDSTONE: a/a, dom f-m, mic, tr blk, orng + gn lit, Por-Por, tr even dull yel nat Fluor, slow wk wh strmg cut Fluor.
	10%	SILTSTONE: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
3027m	100%	SANDSTONE: qz, clr-trnsl, f-m (crs), srt, (ang)-(rnd), 100% disag, wk sil Cmt, COAL Frag, com mic, tr-com lit, Por infer, com dull orng (yel) Min Fluor, no cut, tr mod brt yel + dull gn yel nat Fluor, no cut.
	tr	COAL: blk, vit-(vit), hd, (conch) Frac-blky, earthy i/p.
3030m	100%	SANDSTONE: a/a, com dull orng (yel) Min Fluor, no cut, tr mod brt even yel + dull gn yel nat Fluor, no cut (Min Fluor?)
	tr	SILTSTONE: a/a
	tr	COAL: a/a
3033m	70%	SANDSTONE: a/a, Por inf, tr dull orng (yel) + gn yel Min Fluor, no cut.
	30%	SILTSTONE: lt gy brn, aren, mic, carb det, dissem Pyr i/p, sft-frm, blky, occ gn, rd lit.
3036m	30%	SANDSTONE: qz, clr-trnsl, off wh-drty lt gy, vf-m, (srt), (ang), (rnd), lse-mod hd, strng sil + dol/(sid) Cmt, com arg/vf snd Mtrx, tr-com lit (rd, gn, blk), com dissem Pyr, (Por), com dull orng yel Min Fluor, no cut
	40%	SILTSTONE: a/a
	30%	VOLCANICS: lt gy, off wh, pale gn, occ mod gn, f xln text, v altd/weathd, com qz xl, ?trachytic text i/p, altd fd laths, blky, frm-occ hd.
3039m	tr	SANDSTONE: a/a
	100%	VOLCANICS: acid-int, pale gy (occ med-dk gy), pale gn, off wh-buff, com sil grndmass, qz xls, feld laths, v altd, sft-frm, occ hd, blky, com dull orng Min Fluor - sid/dol xls.
3042m	tr	SANDSTONE: a/a, dom sid/dol Cmt, com dull yel + yel orng Min Fluor, no cut (dol/sid).
	10%	SILTSTONE: a/a
	90%	VOLCANICS: a/a
3045m	100%	VOLCANICS: a/a, occ Zeolite/Amygdales, com clr-buff Calc/Dol xls, com dull yel-yel orng Min Fluor, no cut
3048m	100%	VOLCANICS: int-basic, blk-dk gy, mod-dk gn, off wh, (tr rd brn, orng), dom fresh-unaltd, F xln, sil grndmass, hd, blky, tr-occ Zeolites /Amygd, tr-occ Calc/Dol xls, yel orng Min Fluor, no cut.

DEPTH	% LITHOLOGY	DESCRIPTION
3051m	tr	SILTSTONE: a/a
	100%	VOLCANICS: int-basic, blk-dk gy, mod-dk gn, off wh, sl altd, aphanitic text, mod hd-hd, blky, sec mins - cl, (Chlor), sil, (Zeol), Hem, Calc + Sid, Pyr; Ferromags - Hematite; Feldspar - Cl + (Chlor); (Zeol), Calc in veinlets, argillized + silicified, yel orng Min Fluor, no cut
3054m	tr	SILTSTONE: a/a
	100%	VOLCANICS: a/a, marked incr in wh Cl (Kao) altn (30%), lt brn gy ang silicified chips-cherty (?tuff)
3057m	tr	SANDSTONE: a/a
	tr	SILTSTONE: a/a
	100%	VOLCANICS: a/a, dom wh + earthy, off wh, highly altered (80%) (argillized) to wh Cl (Kao), cherty chips, tr yel orng Min Fluor, no cut.
3060m	20%	SANDSTONE: clr-trnsl, qz, m-vcrs, (srt), ang, hd, tr Pyr Cmt + Aggr, no Fluor
	10%	SILTSTONE: lt gy brn, sft-frm, aren, mic, carb det, Pyr dissem, blky, no Fluor
	70%	VOLCANICS: int, dom wh-off wh, mod-dk gn gy, mod-hi altd, earthy, mod hd-(hd), blky, sec mins: Cl, Chlor, Calc, Hem, Sil, Zeol, tr yel-orng Min Fluor, no cut.
3063m	90%	SANDSTONE: qz, clr-trnsl, f-vcrs, dom m, (srt)-srt, ang-(ang), mod hd-(hd), tr Pyr + arg + calc + sil Cmt, Pyr com, (Por)-Por, tr pale yel orng Min Fluor, no cut.
	tr	SILTSTONE: a/a
	10%	VOLCANICS: see 3051m descr, argillized i/p, earthy, wh, sft
3066m	90%	SANDSTONE: a/a, tr pale yel orng Min Fluor, no cut
	tr	SILTSTONE: a/a
	10%	VOLCANICS: a/a
3069m	60%	SANDSTONE: a/a, dom f-m, non por-Por, tr lt yel Min Fluor
	40%	VOLCANICS: Int, v lt gy, v lt bl gy, med gn gy, frm-mod hd, arg & tuffaceous i/p, glassy and cherty i/p, com Pyr, occ acid with flow texture, amygdaloidal i/p w/ Chalcedony/Zeol infill, occ-com Dol vein fill
3072m	90%	SANDSTONE: qz, cl-trnsl, v lt gy, f-m, (ang)-rnd, (srt), sph, mod hd, dol + sil cmt, tr- com blk lit, tr occ Pyr Cmt, non por-(Por)
	10%	VOLCANICS: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
3078m	90%	SANDSTONE: a/a, com Volc lit, com wh arg Mtrx
	tr	VOLCANICS: a/a
	10%	TUFF: lt brn-lt brn gy, arg, v sil, blk lit, (mic), tr-com Pyr, hd-v hd, blky, gdes to SLTST i/p.
3081m	70%	SANDSTONE: qz, clr-trnsl, lt gy, vf-m, (srt)-srt, (ang)-(rnd), mod-hd, sil + dol Cmt, slty Mtrx i/p, tr-com lit, tr-occ Pyr Aggr, (Por), no Fluor
	10%	SILTSTONE: lt-med brn gy, arg, (carb), (mic), sft-frm blky.
	10%	VOLCANICS: int-basic, med blue gy, med-dk gn, blk, a/a, 5% clr-wh Dol xls-vein fill, 5% dull yel Min Fluor, no cut
	10%	TUFF: lt-(dk) brn, arg, slty, (lam), strongly silicified, blk lit, (conch) Frac i/p, occ sft, hd-v hd.
3084m	10%	SANDSTONE: a/a
	90%	VOLCANICS: pale gy, lt-med gy, (pale gn), v altd, argillized, Feld laths - altd to Cl, F xln, amygdaloidal i/p, (Zeol), silicified & pyritised i/p, mnr Chlor altn, frm-hd, up to 50% clr-wh-pale buff Dol xls (crs)-vein/frac fill, up to 20% buff amor Cht (Chalcedony), 50% dull yell Min (Dol) Fluor, no cut.
3087m	100%	VOLCANICS: a/a, occ rd brn ferromag altn.
3093m	100%	VOLCANICS: wh-off wh, lt gn-gy, med-dk gn-gy, earthy, blky, hi altered, dom argillized + silicified, pyr, (mod)hd-hd, sec mins: Cl, sil, Pyr, Chlor, Hem, Zeol, Calc + Sid, occ Cht, occ Cristobalite (low T Qz) + Qz xls in veinlets, up to 50% crs clr-wh Dol xls - vein/frac fill, 10% buff cht, 50% mod brt-pale yel Min Fluor, no cut.
3096m	100%	VOLCANICS: a/a, glassy text i/p, mod - (hi) altd, 20% crs clr-wh dol xls + Pyr vein or frac fill, mod brt-pale yel Min Fluor, no cut
3099	10%	SANDSTONE: qz, clr-trnsl, f-m, ang-(ang), (srt), tr Pyr, Cl, calc Cmt + Mtrx, mod hd-(hd), (Por)
	10%	SILTSTONE: lt gy brn, sft-(frm), aren, mic, occ lam, carb detr, arg i/p
	60%	VOLCANICS: wh-off wh, lt gn-gy, med-dk gn gy, earthy, blky, mod-(hi) altd, a/a, 15% calc min, mod brt-pale yel Min Fluor, no cut.
	20%	TUFF: : lt gy brn, sft-frm, earthy, occ glassy + unaltd, dom alt brn Cl + hem.
3102m	40%	VOLCANICS: see 3096m, occ cherty chips, 40% mod brt-pale yel Min Fluor, no cut
	30%	SILTSTONE: a/a
	30%	SANDSTONE: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
3105m	10%	SANDSTONE: a/a, occ vcrs rnd Qz grns
	70%	SILTSTONE: a/a/, v arg
	20%	VOLCANICS: a/a, 25-30% brt-pale yel Min Fluor, no cut, occ cherty chips
3108m	tr	SANDSTONE : a/a
	tr	SILTSTONE : a/a
	100%	VOLCANICS: wh-off wh, lt-med gn gy dom med-dk gn gy, earthy, blky, hi altd, dom argillized, chloritized, sil, sl pyritized, Pyr + Calc/Dol xls com as vein or frac fill, sec mins: Sil, Cl, Pyr, Chlor, Hem, (Zeol); tr cherty chips, 25% (brt)-pale yel Min Fluor, no cut
3111m	tr	SANDSTONE : a/a
	tr	SILTSTONE : a/a
	100%	VOLCANICS: wh-off wh, dom med-dk gn gy, blky occ earthy, hd, mod-(hi) altd, tr Cht, sec mins: Cl + Chlor + Sil + Pyr + (Calc), Dol, Hem, Cristobalite + (Zeol) + (Calc) Dol vein/frac fill xls, 15% (brt)-pale yel Min Fluor
	tr	COAL: a/a
	tr	TUFF:
3114m	tr	SANDSTONE : a/a
	tr	SILTSTONE : a/a
	100%	VOLCANICS : a/a, 10-15% (brt)-pale yel Min Fluor
3117m	100%	VOLCANICS: wh-off wh, dom lt gn-gy, occ med-dk gn gy, earthy + blky, glassy i/p, tr argillized + chloritized + silicified, mod calc, Pyr + Cristobalite + (Calc)/(Siderite)/Dol vein/frac fill, tr lt gy brn, ang chert, (Hematite), 15-20 (brt)-pale yel Min Fluor
3120m	100%	VOLCANICS: lt-med gn gy, med-dk gn gy, occ wh-off wh, glassy text i/p, dom blky, occ earthy, (hd)-hd, mod-(hi) altered, sec mins a/a, tuff i/p, 5-10% (brt)-pale yel Min Fluor
3123m	100%	VOLCANICS: as for 3117m.
3126m	100%	VOLCANICS: dom, wh-off wh, lt gn gy, med-dk gn gy, earthy, occ glassy, blky, mod calc, (mod) hd-hd, hi altd-Cl, Sil, (Calc)/Dol, chlorite, other sec mins: Pyr, (Zeol), cristob, Calc/Dol vein/frac fill, 15-20% (brt)-pale yel Min Fluor
3129m	tr	SILTSTONE : carb
	tr	COAL: pyr
	100%	VOLCANICS: a/a, tr chert

DEPTH	% LITHOLOGY	DESCRIPTION
3132m	10%	SANDSTONE : qz, vf-m, (srt)-srt, rnd, sph-vsph, mod hd-hd
	tr	SILTSTONE
	tr	COAL
	90%	VOLCANICS: as for 3120m, tr chert, 10-15% (brt)-pale yel Min Fluor
3135m	30%	SANDSTONE: a/a
	60%	VOLCANICS: a/a, com qz frac fill, 15% Min Fluor a/a, tr rnd sil Grn in acid volc
	10%	TUFF: lt-med brn, sft-frm, occ mod hd, earthy, tr pyr, sbvit, cons, micrmic i/p, blky-(fis), gds to SLTST
3138m	60%	SANDSTONE: a/a, grdg to crs
	30%	VOLCANICS: a/a
	10%	TUFF: a/a
3141m	40%	SANDSTONE: a/a
	40%	VOLCANICS: a/a, 15% dull pale yel Min Fluor
	20%	TUFF: a/a
3144m	70%	SANDSTONE: qz, cl-trnsl, v lt gy, f, srt-(srt), ang-(rnd), sph-(sph), mod hd, sil & dol Cmt, tr Pyr, com gy & gn gy lit, (Por), 20% dim yel-orng Min Fluor
	20%	VOLCANICS: a/a, abd Qz veins
	10%	TUFF: a/a
3147m	10%	SANDSTONE: a/a
	80%	VOLCANICS: a/a, abd Qt/Dol vein fill
	10%	TUFF: a/a, dom vit
3150m	10%	SANDSTONE: a/a
	80%	VOLCANICS: Intermediate-basic, occ acid, med-dk gy, dk gn gy, lt gy, frm-mod hd, Felds, Ferromags,occ glassy, com flow texture, com Dol/Siderite & Chalcedony vein fill
	10%	TUFF: a/a
3153m	10%	SANDSTONE: a/a
	90%	VOLCANICS: a/a
3156m	20%	SANDSTONE: a/a
	70%	VOLCANICS: a/a
	10%	TUFF: a/a
3159m	30%	SANDSTONE: a/a
	60%	VOLCANICS: a/a
	10%	TUFF: a/a
3162m	10%	SANDSTONE: a/a
	70%	VOLCANICS: a/a, 20% dim lt yel Min Fluor
	20%	TUFF: a/a
3165m	20%	SANDSTONE: a/a
	70%	VOLCANICS: a/a
	10%	TUFF: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
3168m	10%	SANDSTONE: a/a
	80%	VOLCANICS: acid-basic, v lt gy, med gy, med grn gy, v dk gy, glassy i/p, com Pyr, abd Dol & Qz veins, occ sil amygdales, 15% dim-brt lt yel Min Fluor
	10%	TUFF: a/a
3171m	tr	SANDSTONE: a/a
	tr	SILTSTONE:
	100%	VOLCANICS: a/a, com Pyr
	tr%	COAL:
3174m	tr	SANDSTONE: a/a
	10%	VOLCANICS: lt gy + wh-off wh, med-dk gn gy, earthy i/p, blky, tuff i/p, mod-(hi) altd-Cl, sil, Pyr, Calc/Dol (Siderite), Chlor, Hem, (Zeol), Calc + Dol vein/frac fill, 15-20% (brt) yel Min Fluor
	90%	TUFF: a/a
	tr	SILTSTONE: lt-med gy brn, carb detr, aren/arg i/p, (mic), sft-(frm), lam, blky-(fis), occ fis.
	tr	COAL:
3177m	20%	SANDSTONE: Qz, clr-trnsl, f-m, dom m, (srt), ang-(rnd), (Por)
	tr	SILTSTONE:
	80%	VOLCANICS: lt gy, wh-off wh, med-dk gn gy, glassy text i/p, earthy i/p, mod-(hi) altd, altn a/a, 15-20% (brt)-pale yel Min Fluor
	tr	COAL: a/a
3180m	tr	SANDSTONE: a/a
	tr	SILTSTONE:
	100%	VOLCANICS: a/a, calc, 30% (brt)-pale Min Fluor
	tr%	COAL:
3183m	30%	SANDSTONE: a/a, Dol/Calc + Pyr Mtrx/Cmt
	10%	SILTSTONE: a/a
	60%	VOLCANICS: a/a, 20-25% (brt) pale yel Min Fluor
	tr	COAL
3186m	60%	SANDSTONE: qz, clr-trnsl, f-m, dom m, (srt)-srt, ang-(rnd), (cons), lit, Pyr, Mic, occ blky, (Por), no Fluor.
	20%	SILTSTONE: a/a, no Fluor
	20%	VOLCANICS: a/a, 5-10% (brt)-pale yel Min Fluor
	tr%	COAL:
3189m	60%	SANDSTONE: a/a, Pyr/Dol/Calc/arg Cmt/Mtrx, no Fluor
	20%	SILTSTONE:a/a, no Fluor
	20%	VOLCANICS: a/a, approx 20% pale yel-orng Min Fluor
	tr%	COAL:

DEPTH	% LITHOLOGY	DESCRIPTION
3192m	80%	SANDSTONE: a/a, no Fluor
	tr	SILTSTONE: a/a, no Fluor
	20%	VOLCANICS: a/a, calc, 5-10% pale yel Min Fluor
	tr	COAL:
3195m	50%	SANDSTONE: qz, clr-trnsl, f-m, dom m, (srt), (ang)-(rnd), mod hd, Pyr, Mic, lit, calc/dol Cmt, occ Pyr Cmt, arg Mtrx i/p, (Por), no Fluor
	20%	SILTSTONE: lt-dk brn, aren, mic, arg i/p, carb detr, lam, (mic), sft-(frm), blky-(fis), occ fis.
	30%	VOLCANICS: lt gy, wh-off, m-dk gy gn, glassy text i/p, earthy, hd i/p, mod-(hi) altn, mod calc, sec mins: Cl, Chlor, Sil, Pyr, Hem, (Calc) + Dol + (Siderite), (Zeol), (Cht), 10% (brt)-pale yel Min Fluor
	tr	COAL:
3198m	70%	SANDSTONE: a/a, no Fluor
	10%	SILTSTONE: a/a, no Fluor
	20%	VOLCANICS: a/a, 10-15% (brt)-pale yel Min Fluor, no cut
3201m	80%	SANDSTONE: a/a, no Fluor
	tr	SILTSTONE:
	20%	VOLCANICS: wh-off wh, lt gn gy, lt-med gn gy, med-dk gy gn, hd, earthy i/p, glassy i/p, mod calc, mod-(hi) altd-Cl, Pyr, Hem, Chlor, 5% (brt)-pale yel Min Fluor
	tr	COAL:
3204m	10%	SANDSTONE: a/a, no Fluor
	20%	SILTSTONE: a/a, no Fluor
	70%	VOLCANICS: a/a, 15% (brt)-pale yel Min Fluor
	tr	COAL:
3207m	30%	SANDSTONE: a/a, (Por), 40% even dull gn yel nat Fluor, pale yel crush cut, pale yel ring Res Fluor
	10%	SILTSTONE: a/a
	60%	VOLCANICS: a/a, incr Min Fluor (30-40%), no cut, abd Calc/Dol
	tr	COAL:
3210m	10%	SANDSTONE: a/a, no Fluor
	45	SILTSTONE: a/a, arg i/p, no Fluor
	50%	VOLCANICS: a/a, 15% (brt)-pale yel Min Fluor
	tr	COAL:

DEPTH	% LITHOLOGY	DESCRIPTION
3213m	80%	SANDSTONE: qz, off wh-lt gy, f-m (crs), (srt)-srt, ang-(rnd), (cons), sil Cmt, tr dol Cmt, (arg Mtrx), occ-com lit, com Pyr Aggr, com Mic flak, (Por)-Por, 70% even, dull-mod brt gn yel nat Fluor, wk wh slow strmg cut, pale yel Res ring Fluor
	tr	SILTSTONE:
	20%	VOLCANICS: a/a
3216m	90%	SANDSTONE: qz, clr-trnsl, off wh-(buf), f-m, dom m, (crs-v crs), (srt)-srt, (ang)-dom (rnd), lse-(cons), wk-mod sil Cmt, com Pyr Cmt & Aggr, com Mic flak, occ lit, Por-Por, 25% even dull-mod brt gn yel nat Fluor, wk slow strmg wh cut Fluor.
	10%	VOLCANICS: a/a
3219m	tr	SANDSTONE: qz, a/a, vf-m, (crs-vcrs), (srt), (por), tr-5% dull-brt gn yel nat Fluor, pale wh yel crush cut, wk yel ring Res Fluor.
	tr	SILTSTONE: lt-(dk) brn, aren, vf snd i/p, sil, sft-(frm), ? tuffaceous, lit, Mic, blky-(fis), gdes to vf SST i/p.
	100%	VOLCANICS: a/a
3222m	60%	SANDSTONE: qz, off wh-lt brn gy, vf-f, (m-crs), (srt), (ang)-(rnd), cons, sil + (dol) Cmt, (arg Mtrx), com lit, mic, (Por), tr dull gn yel nat Fluor, no cut.
	20%	SILTSTONE: a/a,
	20%	VOLCANICS: a/a,
3225m	10%	SANDSTONE: a/a
	tr	SILTSTONE: a/a
	90%	VOLCANICS: off wh, wh, pale gn & gy, med gn & gn gy, blu gy, dom v altd, argillized, silicified, tr Hem, pyr i/p, com Dol & Sil vein fill (wh-clr), (Chlor), Cl, (Cht), sft-(v hd)
3228m	100%	VOLCANICS: bec less altd, dk gy-blk (mott), mod-dk gn, occ-com, rd brn altn, com sil gndmass, aphanitic Tex, amyg, qz inclusions, Hem, pyr i/p, arg i/p, frm-v hd, abd wh-clr Dol vein/frac fill, up to 20% dull yel-orng Min Fluor, no cut.
3231m	100%	VOLCANICS: a/a, dom unaltd.
3234m	100%	VOLCANICS : a/a
3237m	tr	SANDSTONE: a/a
	100%	VOLCANICS: a/a, incr vein fill
3240m	20%	SANDSTONE: qz, buf-lt brn, lt gy, vf-f, srt, (ang)-(rnd), cons, sil Cmt, com lit, nil-(Por), no Fluor
	80%	VOLCANICS: a/a, bec more altd

DEPTH	% LITHOLOGY	DESCRIPTION
3243m	10%	SANDSTONE: a/a
	20%	SILTSTONE: lt-med brn gy, aren, lit, carb detr, mic, sft-frm, blky-(fis).
	70%	VOLCANICS: a/a,
3246m	60%	SANDSTONE: qz, buf-lt brn, lt gy, f-m, (crs), (srt), (ang)-(rnd), cons, sil Cmt, com lit, occ Pyr Aggr, (Por), 60% v dull yel gn nat Fluor, pale mky crush cut, dull yel Res ring Fluor.
	20%	SILTSTONE: a/a, tuffaceous
	10%	CLAYSTONE: dk brn, mic, carb lam, frm-(hd), blky-fis
	10%	VOLCANICS: a/a
	tr	COAL: blk, vit, hd, conch Frac.
3249m	10%	SILTSTONE: a/a
	10%	CLAYSTONE: a/a
	80%	VOLCANICS: v lt gy, v lt blu gy, med grn gy, lt gn gy, lt brn, lt brn gy, mod hd-hd, aphanitic-occ flow Tex, com Pyr, com lam, sil, com sil & Dol vein fill, 15% dim pale yel Min Fluor.
3252m	10%	SANDSTONE: v lt gy, vf-f, srt, (ang)-rnd, sph, fri-mod hd, strng sil Cmt, tr dk gy lit, nil-(Por), no Fluor.
	10%	SILTSTONE: a/a
	70%	VOLCANICS: a/a, abd veining
3255m	10%	SANDSTONE: a/a
	90%	VOLCANICS: a/a
3258m	100%	VOLCANICS: a/a
3261m	100%	VOLCANICS: a/a
3264m	10%	SILTSTONE: lt gy-med gy, lt brn, off wh, gn i/p, pred gy, plty-(blky), mic-lam, tr lithic Frag, mic-pyr i/p, amr, sndy i/p, tr wh arg Mtrx, grdg to SST i/p, nil-Por, pale gn yel nat Fluor, mod brt milky wh wk slow strmg cut Fluor, pale yel Res ring Fluor
	90%	VOLCANICS: multicolour, wh-off wh, gn, lt brn, lt-dk gy, f Grn, anhedral, glassy Tex i/p, tr micr-flow Tex, tuff i/p, occ amygdaloidal; primary Mins: plagioclase, olivine, pyroxene; sec Mins: dolomite, calcite, iron oxides
3267m	20%	SANDSTONE: a/a
	10%	SILTSTONE: a/a
	70%	VOLCANICS: a/a
3270m	60%	SANDSTONE: a/a
	10%	SILTSTONE: a/a
	30%	VOLCANICS: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
3273m	60%	SANDSTONE: cl-trnsl, wh-off wh, vf-crs, pred f, srt-srt, (ang)-(rnd), fri-mod hd, com wh arg Mtrx, mnr sil Cmt, (calc), rr-com Pyr Aggr, loc mic-pyr Cmt, nil-(Por), good dir brt-pale gn yel Fluor, slow-mod strmg mlky wh cut, strong wh yel Res ring Fluor.
	30%	SILTSTONE: lt gy-med gy, lt brn-off wh i/p, sft-frm, mod hd i/p, plty-(blky), (amr), tr carb Flks, mirc-lam, rr mic-pyr Aggr + Nod, (sdny), grdg to SST i/p, tr pale yel-wh nat Fluor, no cut
	10%	VOLCANICS: multicolour, wh-off wh, gn, lt brn, lt gy-dk gy, f Grn, glassy Tex i/p, tr micr-flow Tex, tuff i/p; Primary Mins: plagioclase, olivine, pyroxene; Sec Mins: dolomite, calcite, iron oxides
3276m	50%	SANDSTONE: a/a, mod brt-brt gn yel-(blu wh) nat Fluor, (instant) slow-mod strmg mlky wh cut Fluor, strong wh yel Res ring Fluor.
	40%	SILTSTONE: a/a,
	10%	VOLCANICS: a/a
3279m	40%	SANDSTONE: a/a, 20% Fluor & cut a/a
	50%	SILTSTONE: a/a
	10%	VOLCANICS: a/a
3282m	90%	SANDSTONE: qz, clr-trnsl, off wh, vf-m, (crs), (srt)-(srt), (ang)-(rnd), dom lse-(cons), mod dol & sil Cmt, arg Mtrx i/p, com lit, occ-com Pyr Cmt & Aggr, (Por)-Por, tr Fluor & cut a/a, Poss cvgs.
	10%	SILTSTONE: lt brn gy, aren, com lit, com carb detr, (mic), frm-hd, (blky), gdes to vf SST i/p.
3285m	100%	SANDSTONE: a/a, f-m,(crs-vcrs), tr dull gn yel Fluor, v pale mlky crush cut.
	tr	SILTSTONE: a/a
	tr	VOLCANICS: a/a
3288m	40%	SANDSTONE: a/a
	50%	SILTSTONE: a/a
	10%	VOLCANICS: a/a, tr chert.
3291m	10%	SANDSTONE: clr-trnsl, wh-off wh, vf-crs, pred f, srt, (ang)-(rnd), fri-(hd), wh arg Mtrx, sil Cmt, tr mic-Pyr Cmt, tr calc, nil-(Por), occ Por, tr dir pale yel-wh nat Fluor a/a
	10%	SILTSTONE: gy-med gy, lt brn-off wh, plty-(blky), sft-frm, mod hd i/p, tr carb spks, lit Frag i/p, rr mic-pyr Aggr, non por
	80%	VOLCANICS: lt gn-gn, gy-off wh, lt brn, anhedral, f Grn, silicified i/p, glassy Tex i/p, amygdaloid dolomite, zeolite & calcite, chert, primary Mins: feldspar & pyroxene, tuff; Sec Mins: dolomite, calcite, zeolite, chert, iron oxides

DEPTH	% LITHOLOGY	DESCRIPTION
3294m	tr	SANDSTONE: a/a
	10%	SILTSTONE: a/a
	90%	VOLCANICS: a/a
3297m	tr	SANDSTONE: a/a
	100%	VOLCANICS: a/a
3300m	tr	SANDSTONE: a/a
	tr	SILTSTONE: a/a
	100%	VOLCANICS: a/a, Min Fluor, tuff i/p, Pyr, bcmg more gn/brn w/ depth
3303m	tr	SANDSTONE: a/a
	tr	SILTSTONE: a/a
	100%	VOLCANICS: basic, dk gy & gn, rel unaltd, gen a/a, tuff i/p, pred plagioclase & pyroxene, mnr Dol as amygdale fill, Zeol, iron oxide, Min Fluor
3306	tr	SANDSTONE: a/a
	tr	SILTSTONE: a/a
	100%	VOLCANICS: a/a
3309m	tr	SANDSTONE: a/a
	tr	SILTSTONE: a/a
	100%	VOLCANICS: a/a, occ chalcedony/chert, silicified i/p, altd, tuff i/p, Min Fluor
3312m	100%	VOLCANICS: (lt) med-dk gn & gy, buf, wh, (clr), rel unaltd, F xln, sil/glassy grndmass, Cl altn of Feld, occ rd brn Hem altn of mafics, mnr Chlor altn, com qz inclusions, v amyg, buf-wh Chalced amyg, Zeol amr - crs xln, com wh Dol vein fill, abd dull-mod brt yel orng Min Fluor.
3315m	100%	VOLCANICS: a/a, bcmg dom Int-Basic
3318m	80%	SANDSTONE: qz, clr-trnsl, f-m, (crs), (srt), ang-(rnd), cons, strong sil & (dol) Cmt, Pyr, mic, lit, (Por), no Fluor.
	20%	VOLCANICS: a/a, com dull-mod brt yel orng Min Fluor.
3321m	50%	SANDSTONE: a/a
	50%	VOLCANICS: a/a, w/ abd veining
3324m	90%	SANDSTONE: a/a, lse-cons, (Por)-occ Por, 20% patchy dim yel-blue wh Fluor, faint mlky wh crush cut, v wk yel Res ring Fluor.
	tr	CLAYSTONE: dk brn, mic, frm-ind, fis-(fis)
	10%	VOLCANICS: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
3327m	50%	SANDSTONE: qz, clr-trnsl, lt gy, f-m, (crs), (srt), ang-(rnd), (lse)-cons, strong sil + (dol) Cmt, Mic, (Pyr), com lit, (Por), 20% dim gn-blu wh nat Fluor, tr v slow strmg milky wh cut, faint crush cut, faint yel Res ring Fluor
	20%	SILTSTONE: med-dk gy brn, aren i/p, arg i/p, mic, lit, tuffaceous, (lam), (blky)-fis, frm-(hd), (carb lam).
	30%	VOLCANICS: a/a
3330m	80%	SANDSTONE: a/a, (Por), 10% dull gn yel nat Fluor, not cut observed, v pale yel Res ring Fluor.
	20%	VOLCANICS: a/a
3333m	50%	SANDSTONE: a/a, (Por), tr dull gn yel nat Fluor, no cut.
	10%	SILTSTONE: a/a
	40%	VOLCANICS: a/a
3336m	30%	SANDSTONE: a/a, 50% dull yel gn nat Fluor, pale Mlky wh crush cut Fluor, dull wh yel Res ring Fluor.
	30%	SILTSTONE: lt-dk brn, occ gy brn, aren-arg, mic, tuffaceous, i/p, (lit), occ coal Frag, (carb lam), sil i/p, frm-(hd), blky-fis.
	40%	VOLCANICS: pale-dk gn, off wh, buf, (gy), altd-(unaltd), F xln, sil grnd mass i/p, amyg w/ -Cht-Chalcedony-Zeol, rd brn Hem altn, Dol vein fill.
3339m	20%	SANDSTONE: a/a, 10% dim yel gn nat Fluor, wk slow pale mlky wh crush cut Fluor, wk dim mlky ring resid Fluor.
	40%	SILTSTONE: lt brn gy-med brn gy, lt-med gy, v arg i/p, com vf snd i/p, carb, com coaly lam, tuff i/p, mic, sft-frm, blky-(fis)
	40%	VOLCANICS: a/a
3342m	10%	SILTSTONE: a/a
	90%	VOLCANICS: a/a, com vf pyr, chert, occ xln Qz veins, com dull yel Min Fluor.
3345m	20%	SANDSTONE: cl-trnsl, v lt gy, vf-f, (ang)-(rnd), srt, sph, fri, sil Cmt, mnr wh-lt gy arg Mtrx, (Por), tr pinpoint dim yel gn nat Fluor, v slow wk mlky cut Fluor, v wk crush cut Fluor, dim v wk mlky ring resid Fluor
	10%	SILTSTONE: a/a
	70%	VOLCANICS: a/a
3348m	70%	SANDSTONE: cl-trnsl, v lt gy, f-m, srt, rnd, sph-sph, fri, sil Cmt, (Por)-Por, 25% spotty, dim gn blu nat Fluor, v slow strmg, yel wh cut Fluor, wk thin mlky Ring Resid Fluor.
	tr	SILTSTONE: a/a
	30%	VOLCANICS: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
3351m	60%	SANDSTONE: a/a, (Por)-Por, 10% dull-mod brt gn yel-blu wh nat Fluor, inst mod strmg wh cut Fluor from blu wh, crush cut (mlky wh)
	tr	SILTSTONE: a/a
	40%	VOLCANICS: a/a
3354m	20%	SANDSTONE: a/a, (Por), 40% dull gn yel nat Fluor, pale mlky wh crush cut Fluor, pale yel Res ring Fluor.
	10%	CLAYSTONE: a/a
	70%	VOLCANICS: a/a
3357m	10%	SANDSTONE: a/a, (Por)-occ Por, tr mod brt patchy blu wh nat Fluor, inst slow strmg mlky wh cut Fluor, mod brt yel wh Res ring Fluor.
	30%	CLAYSTONE: (lt)-dk brn, aren i/p, mic, com carb lam & detr, sft-frm, (hd), (blky)-fis, ind i/p.
	60%	VOLCANICS: a/a
3360m	10%	SANDSTONE: a/a, (Por), no Fluor
	20%	SILTSTONE: lt-dk brn, aren i/p, (vf snd), (mic), (carb), blky, sft-frm.
	10%	CLAYSTONE: lt-dk brn, mic, v carb, gdes to COAL i/p, (lam), frm-(hd), (blky)-fis.
	60%	VOLCANICS: a/a
3363m	100%	VOLCANICS: trnsl lt-dk gn, off wh-buf, med gy, clr, glassy, amr-F xln, sil, amyg, v Pyr, abd Dol/Sil vein fill, Chalcedony, Cht, occ rd brn Hem altn, frm-hd.
3366m	30%	SANDSTONE: qz/lit, clr-trnsl, off wh-buf, f-m, (crs), (srt)-((srt)), ang-(rnd), sil & (dol) Cmt, (lse)-cons, v com lit, Mic, Pyr, arg Mtrx i/p, (Por)-non por, tr mod brt gn yel nat Fluor, pale mlky wh crush cut, mnr yel wh Res ring Fluor.
	10%	CLAYSTONE: lt-med brn & gy, aren i/p, mic, carb i/p, frm, blky-fis
	50%	VOLCANICS: a/a
	10%	COAL: blk-dk brn, gdes from Carb CLYST, lam, dull-vit, (pyr), hd, splnty, (conch Frac).
3369m	60%	SANDSTONE: qz, clr-trnsl, off wh, f-m, (ang)-rnd, (srt)-srt, dom lse-(cons), wk-mod sil + (dol) Cmt, com arg Mtrx, com-abd lit, (Mic), (Pyr), (Por)-occ Por, 70% dull gn yel nat Fluor, pale mlky wh crush cut, v pale yel Res ring Fluor.
	30%	VOLCANICS: a/a
	10%	COAL: a/a
3372m	10%	SANDSTONE: a/a
	10%	CLAYSTONE: a/a
	tr	VOLCANICS: gen a/a, rr Pyr Aggr & Nod, glassy, tr Cl altn.
	80%	COAL: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
3375m	10%	SANDSTONE: a/a
	10%	CLAYSTONE: a/a
	80%	VOLCANICS: a/a
3378m	10%	SANDSTONE: a/a
	10%	CLAYSTONE: a/a
	80%	VOLCANICS: a/a
3381m	70%	SANDSTONE: pred lse, qz, clr-trnsl, off wh-wh, buff i/p, vf-crs, pred m, (ang)-(rnd), conch Frac i/p, (srt)-srt, tr consol, wh arg Mtrx, sil Cmt i/p, nil-(Por), occ Por, dull dir pale yel Fluor, 40% pale mlky wh crush cut, v wk pale wh res ring Fluor
	10%	CLAYSTONE: a/a
	20%	VOLCANICS: a/a
3384m	50%	SANDSTONE: a/a, 10% Fluor & cut a/a
	10%	CLAYSTONE: a/a
	40%	VOLCANICS: a/a
3387m	70%	SANDSTONE: clr-trnsl, off wh-wh, vf-crs, pred m, disag, (ang)-(rnd), (srt)-srt, occ consol vf-m Aggr, wh arg Mtrx, tr sil Cmt, Pyr Aggr i/p, nil-(Por), occ Por inf, tr pale yel Fluor, no cut
	10%	CLAYSTONE: a/a
	20%	VOLCANICS: a/a
3390m	60%	SANDSTONE: a/a
	tr	CLAYSTONE: a/a
	40%	VOLCANICS: gen a/a
3393m	70%	SANDSTONE: a/a
	tr	CLAYSTONE: a/a
	30%	VOLCANICS: a/a
3396m	40%	SANDSTONE: a/a
	tr	CLAYSTONE: a/a
	60%	VOLCANICS: a/a
3399m	40%	SANDSTONE: qz/lit, off wh-buf, clr-trnsl, vf-m, dom f, (srt)-srt, (ang)-(rnd), (cons), sil & (dol) Cmt, (Por), tr dull gn Fluor, no cut.
	tr	CLAYSTONE: a/a
	60%	VOLCANICS: a/a
3402m	50%	SANDSTONE: a/a
	tr	CLAYSTONE: a/a
	50%	VOLCANICS: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
3405m	60%	SANDSTONE: qz/lit, clr-trnsl, f-m, (srt)-srt, (ang)-(rnd), occ rnd, abd lit, (Pyr Aggr), Por inf, tr dull-mod brt gn yel Fluor, pale mlky wh crush cut, pale yel wh Res ring Fluor.
	40%	VOLCANICS: a/a, suspect much of the argillized volcanics are being washed out in mud - leaving dom amygdaloidal & siliceous components, Dol etc.
3408m	30%	SANDSTONE: a/a, occ f grn Aggr, (Por)-Por, rr-tr Fluor a/a
	70%	VOLCANICS: a/a
3411m	20%	SANDSTONE: gen a/a, bcmg tight, tr dull grn yel nat Fluor, pale mlky wh crush cut, wk pale yel ring resid Fluor
	80%	VOLCANICS: a/a, extensive argillization of feldspars
3414m	20%	SANDSTONE: a/a, com dk gy (volc?) lit, Fluor a/a
	20%	SILTSTONE: lt-mod brn gy, frm, arg, occ vf snd, occ-com carb Flks, mic, blky-(fis)
	60%	VOLCANICS: a/a
	tr	COAL: blk, frm, dull, earthy, mic
3417m	20%	SANDSTONE: a/a,Fluor a/a
	10%	SILTSTONE: a/a, bcmg tuffaceous
	70%	VOLCANICS: a/a
3420m	10%	SANDSTONE: a/a, tr dim yel grn nat Fluor, wk v slow dim creamy wh crush cut Fluor, dim thin mlky ring resid Fluor.
	10%	SILTSTONE: a/a
	80%	VOLCANICS: intermediate-basic, v lt gy, dk grn gy, Cl altn, glassy i/p, aphanitic Tex, sil, amyg, com Feld laths in glassy & sil grndmass, occ flow Tex, abd sil & wh Dol veins.
3423m	70%	SANDSTONE: cl-trnsl, v lt gy, f-m, srt, ang-(rnd), (sph)-sph, fri-mod hd, sil Cmt, wh arg Mtrx, tr Pyr, (Por), tr dim yel gn nat Fluor, slow wk mlky crush cut, thin dull mlky ring resid Fluor.
	30%	VOLCANICS: a/a
3426m	60%	SANDSTONE: a/a, Fluor a/a
	40%	VOLCANICS: a/a
3429m	50%	SANDSTONE: a/a, Fluor a/a
	20%	SILTSTONE: lt-med brn gy, frm, arg, vf aren i/p, mic, com carb Flks i/p, blky-(fis)
	30%	VOLCANICS: a/a
3432m	60%	SANDSTONE: a/a, occ grds to crs
	20%	SILTSTONE: a/a
	20%	VOLCANICS: a/a
	tr	COAL: black, hd, brit, conch Frac, mic.

DEPTH	% LITHOLOGY	DESCRIPTION
3435m	40%	SANDSTONE: qz, off wh-buf, clr-trnsl, f-crs, (srt), (ang)-(rnd), occ rnd, dom lse-(cons), wk sil Cmt, com lit, Por, brt blu wh-blu yel nat Fluor (5% of SST), inst slow-mod strmg mlky wh cut Fluor.
	10%	SILTSTONE: lt brn-lt gy brn, aren, mic, frm, blky.
	30%	CLAYSTONE: lt-dk brn, mic, abd carb Frag & lam, aren i/p, gdes to COAL i/p, frm-(hd), (blky)-fis.
	10%	VOLCANICS: a/a
	10%	COAL: blk, vit, hd, conch Frac.
3438m	60%	SANDSTONE: a/a, dom f, more cons, (Por), tr shows a/a
	20%	SILTSTONE: a/a
	tr	CLAYSTONE: a/a
	20%	VOLCANICS: a/a
3441m	30%	SANDSTONE: vf-f, (m), arg Mtrx i/p, (lit), a/a, nil-(Por), tr v pale mlky wh crush cut.
	10%	SILTSTONE: a/a
	20%	CLAYSTONE: a/a
	40%	VOLCANICS: off wh, pale gy & gn, trnsl mod-dk gn, dom altd-Cl, com Chalc amyg, Dol vein fill
3444m	90%	SANDSTONE: qz, clr-trnsl, off wh, m-crs, dom m, srt, (ang)-(rnd), dom lse, Por-Por inf, no Fluor.
	10%	CLAYSTONE: (lt)-dk brn, mic, f carb detr + crs Frags, frm, fis-(blky).
	tr	VOLCANICS: a/a
	tr	COAL: a/a
3445m	40%	SANDSTONE: a/a, Por, no Fluor
(B.U.) (Trip bit)	20%	SILTSTONE: lt brn gy, aren, v mic, carb Frag, blky, frm-(hd)
	30%	CLAYSTONE: a/a
	10%	VOLCANICS: a/a
	tr	COAL: a/a
3447m	40%	SANDSTONE: a/a, f-m, (crs-vcrs), com Pyr Cmt, tr brt blu yel nat Fluor, wk slow mlky wh strmg cut (poss cvg).
	10%	SILTSTONE: a/a, (tuffaceous), (lam), gdes to vf SST.
	50%	VOLCANICS: blk-dk gn, rd brn altn more com, mod-dk gy, occ lt gy + gn, com glassy grndmass, F-med xln, occ Cl altn (of Feld), com trnsl gn + buf & clr amyg, acid-bec more basic, tuffaceous i/p, occ Pyr altn, com buf Cht, com wh-trnsl Dol vein fill, com yel orng Min Fluor.
	tr	CLAYSTONE

DEPTH	% LITHOLOGY	DESCRIPTION
3450m	30%	SANDSTONE: a/a, f-m, (crs), a/a, (Por), no Fluor.
	10%	SILTSTONE: a/a, bcmg tuffaceous
	10%	CLAYSTONE: a/a
	70%	VOLCANICS: a/a
3453m	20%	SANDSTONE: a/a, occ v crs, occ quartzite, nil-(Por), no Fluor.
	20%	SILTSTONE: a/a, bec more sil, hd-hd, gdes to CLYST i/p
	tr	CLAYSTONE:
	60%	VOLCANICS: a/a, tuffaceous, sil, hd i/p
3456m	20%	SANDSTONE: a/a, nil-(Por), no Fluor
	10%	SILTSTONE: a/a
	20%	CLAYSTONE: a/a
	50%	VOLCANICS: dom off wh, trnsl gn, com dk (rd) brn, med brn-tuffaceous, a/a
3459m	60%	SANDSTONE: qz, off wh, clr-trnsl, f-m, (crs-v crs), (srt), (ang)-(rnd), wl cmtd, sil Cmt, (arg Mtrx), com lit, occ Carb Com, occ vf snd Mtrx, nil-(Por), no Fluor.
	10%	SILTSTONE: a/a
	10%	CLAYSTONE: a/a
	70%	VOLCANICS: a/a, com Pyr dissem
3462m	80%	SANDSTONE: off wh-wh, clr-trnsl, vf-m, pred f, crs i/p, mod hd-fri, srt-srt, (rnd)-rnd, conch Frac i/p, mod wl cmtd, pred wh arg Mtrx, sil Cmt, tr Pyr Aggr, nil-(Por), tr pinpoint dull yel Fluor, no cut
	10%	SILTSTONE: gen a/a, sndy i/p
	tr	CLAYSTONE
	10%	VOLCANICS: gen a/a
3465m	90%	SANDSTONE: cl-trnsl, v lt gy, lt-med gn gy, dom f-m, (crs), (srt)-srt, (ang)-(rnd), (elong)-sph, fri-mod hd, sil Cmt, com lt brn arg Mtrx, v com gn + brn lit, (Por)-occ Por, no Fluor.
	tr	SILTSTONE: a/a
	10%	VOLCANICS: a/a
3468m	100%	SANDSTONE: qz, clr-trnsl, off wh, f, (m), srt-srt, (ang)-(rnd), occ rnd, dom lse, wk sil Cmt, com Volc lit, Por, tr blu yel (mod brt), nat Fluor, inst slow mlky wh strmg cut Fluor, v. pale Res ring Fluor.
	tr	VOLCANICS: a/a
3471m	100%	SANDSTONE: a/a, f-crs, (v crs) (srt)-((srt)), Por, no Fluor.
	tr	VOLCANICS: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
3474m	70%	SANDSTONE: qz, f-crs, (v crs), (srt)-((srt)), (ang)-(rnd), lse-cons, mod sil Cmt, com Volc lit, (arg Mtrx), (Por)-Por, no Fluor.
	10%	SILTSTONE: a/a
	20%	CLAYSTONE: dk brn, mic, dissem Pyr, carb, (lam), frm-hd, blky-fis, gdes to COAL
	tr	COAL: blk, vit, hd, conch Frac.
3477m	90%	SANDSTONE: a/a, occ Pyr Aggr, (Por)-Por, tr mod brt-dull gn yel (?nat) Fluor, tr v pale crush cut.
	10%	CLAYSTONE: a/a, com COAL Frags.
3480m	90%	SANDSTONE: a/a, bec more wl cmtd, (Por), no Fluor.
	tr	SILTSTONE: a/a
	10%	CLAYSTONE: a/a
3481m (B.U.)	10%	SANDSTONE: a/a
	30%	SILTSTONE: med-dk brn, arg, mic, com carb lam & detr, frm-hd, blky
	50%	CLAYSTONE: (med)-dk brn, mic, abd carb detr, Frag & lam, lam i/p, frm-hd, (ind), blky-fis, shaley i/p.
	10%	COAL: a/a, gdes to carb CLYST i/p
3483m	30%	SANDSTONE: qz, off wh, clr-trnsl, vf-m, (srt), (ang)-(rnd), cons-(lse), sil Cmt, lit, (Por), tr mod brt blu yel nat Fluor, slow strmg mlky wh cut Fluor, mod brt yel wh Res ring Fluor.
	30%	SILTSTONE: a/a
	40%	CLAYSTONE: a/a
3486m	100%	SANDSTONE: qz, clr-trnsl, off wh, m-crs, (srt)-srt, (ang)-(rnd), dom lse, wk-mod sil Cmt, (lit), Por, no nat Fluor, tr Res ring Fluor.
	TR	CLAYSTONE: a/a
3489m	70%	SANDSTONE: a/a, Por, no Fluor.
	10%	SILTSTONE: lt-med brn gy, aren i/p, carb detr, mic, blky, frm.
	20%	CLAYSTONE: med-dk brn, slty i/p, mic, abd carb Frags + lam, frm-hd, (blky)-fis.
3492m	40%	SANDSTONE: qz, clr-trnsl, off wh, f, (m), srt-srt, (ang)-(rnd), cons, sil Cmt, (lit), (pyr), (Por), 50% dull gn yel nat Fluor, slow wk mlky wh strmg cut Fluor, faint pale yel wh Res ring Fluor.
	60%	CLAYSTONE: a/a
3495m	20%	SANDSTONE: a/a, 40% of SST shows dull yel-gn yel nat Fluor, pale mlky wh crush cut Fluor.
	80%	CLAYSTONE : a/a

DEPTH	% LITHOLOGY	DESCRIPTION
3498m	90%	SANDSTONE: qz, clr-trnsl, off wh, f-m, (crs), (srt), (ang)-(rnd), dom lse, com Volc lit, (Pyr), Por, no Fluor.
	10%	CLAYSTONE: a/a
3501m	100%	SANDSTONE: a/a, m-crs, Por, no Fluor.
	tr	CLAYSTONE:
	tr	VOLCANICS:
	tr	COAL:
3504m	100%	SANDSTONE: a/a, dom m-crs, Por, no Fluor.
	tr	CLAYSTONE:
	tr	VOLCANICS:
	tr	COAL:
3507m	90%	SANDSTONE: a/a, com lt gy arg Mtrx
	10%	SILTSTONE: lt-med gy brn, frm, com carb detr, arg i/p, mic, blky-(fis)
	tr	COAL: a/a
3510m	80%	SANDSTONE: cl-trnsl, v lt gy, dom f-m, occ crs, srt, (rnd), sph, fri, sil Cmt, com lt gy brn arg Mtrx, com lit, (carb Flks), (Por)-Por, no Fluor
3513m	90%	SANDSTONE: a/a
	10%	SILTSTONE: a/a
	tr	COAL: a/a
3516m	90%	SANDSTONE: a/a
	10%	SILTSTONE: a/a
	tr	COAL: a/a
3519m	100%	SANDSTONE: a/a, mnr wh arg Mtrx
	tr	
3522m	100%	SANDSTONE: qz, clr-trnsl, m-crs, (v crs), (srt)-srt, ang-(rnd), lse-(cons), mod sil Cmt, por, no Fluor.
3525m	100%	SANDSTONE: a/a.
3528m	100%	SANDSTONE: a/a, Por, no Fluor.
3531m	90%	SANDSTONE: a/a
	10%	SILTSTONE: lt-med brn gy, mic, carb Frag, blky, frm-(hd).
	tr	CLAYSTONE: a/a

DEPTH	% LITHOLOGY	DESCRIPTION
3534m	40%	SANDSTONE: off wh-wh, clr-trnsl, opaque i/p, vf-m, pred f, rnd-(rnd), (srt)-srt, fri-mod hd, conch Frac i/p, mod cmtd, com wh arg Mtrx, sil Cmt, tr Pyr Aggr, lit Frag i/p, nil-(Por), occ Por inf, no show
	40%	SILTSTONE: med-(dk) gy, occ lt brn, mod hd-frm, plty-(blky), (fis) i/p, micr-lam, tr carb Flks, sndy i/p, occ lit, gdes- CLYST
	20%	CLAYSTONE: med-dk brn, mic, carb lam & detr, frm-(hd), (ind), (fis)-fis.
3537m	90%	SANDSTONE: gen a/a, f-crs, pred m, (srt), (ang)-(rnd), pred disag, conch Frac i/p, (Por)-Por inf, occ Por, no Fluor
	10%	SILTSTONE: a/a
3540m	100%	SANDSTONE: gen a/a, f-m, (crs), pred disag, no show.
	tr	SILTSTONE: a/a
	tr	CLAYSTONE: a/a
3543m	100%	SANDSTONE: qz, clr-trnsl, f-m, dom m, srt, (ang)-(rnd), disag, (Pyr Aggr), (lit), Por inf, no Fluor.
3546m	100%	SANDSTONE: a/a, no Fluor
3549m	100%	SANDSTONE: a/a, no Fluor
3552m	100%	SANDSTONE: a/a, no Fluor
3555m	100%	SANDSTONE: a/a, no Fluor
3558m	40%	SANDSTONE: a/a, (Por), no Fluor
	30%	SILTSTONE: lt-med brn gy, aren, (mic), carb Frags, blky, frm.
	20%	CLAYSTONE: med-dk brn, mic, carb detr & lam, frm-(hd), fis-(fis)
3561m	100%	SANDSTONE: qz, clr-trnsl, f-crs, (srt), (ang)-(rnd), disag, wk sil Cmt, (prob com arg Mtrx i/p), com lit, (pyr), Por, no Fluor
3563m	90%	SANDSTONE: qz, clr-trnsl, f-crs, (srt), (ang)-(rnd), cons, mod-strong sil Cmt, (lit), (arg Mtrx i/p), (Por), no Fluor.
	10%	SILTSTONE: lt brn gy, aren, mic, carb detr & lam, blky, frm, gdes- CLYST
	tr	CLAYSTONE: med-dk brn & gy brn, lam, carb Frags, mic, fis-(fis), frm-(hd).

ABBREVIATIONS FOR LITHOLOGICAL DESCRIPTIONS

NOTE

- Abbreviations are presented in "informal-abbreviations" and after the oblique (/) "computer-coding", e.g. for siltstone: Slst / ST.
  For a more detailed list of "computer-codings" reference made to Appendix 7.2.

- Adhere to the following rules:

. Initial Letters of Abbreviations	The same abbreviation is used for a noun and the corresponding adjective. However, nouns begin with a capital letter, adjectives and adverbs with a small letter.
. Singular and Plural	No distinction is made between the abbreviation of the singular and the plural of a noun.
. Fullstops (.)	are not used after abbreviations except where confusion might otherwise arise.
. Comma (,)	Used after a group of abbreviations to indicate the end of the group Example sandstone, grey, hard, coarse grained, ferruginous: Sst, gy, hd, crs, fe
. Semi-colon (;)	Used to separate various types of rocks in one description, e.g. when the main rock is intercalated with other components Example shale, brown, soft, with sand layers, fine grained glauconitic: Sh, brn, soft; S Lyr, f, glc
. Dash (-)	Used to indicate the range of a characteristic Example fine to medium, grey to dark grey: f - m, gy - dk gy
. Plus (+)	Used as an abbreviation for "and" Example shale and sandstone: Sh + Sst
. Plus-minus (±)	Used as the abbreviation for "more or less" or "approximate" Example shale with approximately 25% sand: Sh ± 25% S
. Underlining	of an abbreviation is used to indicate emphasis Examples very sandy : s well bedded : bd well sorted : srt
. Brackets	Used to indicate diminutive adjectives or adverbs and indefinite colours Examples slightly sandy : (s) bluish grey : (bl) gy

- For descriptions on drawings it is advisable to use symbols for sedimentary features/structures, fossils and carbonate particles, e.g. bioturbated benthonic foraminiferal pelletoidal Lime Packstone becomes: Pkst,⊕⊛∮

abundant	abd
agglomerate	Ag/..A
aggregate(-d)	Aggr, aggr/AG
algae, algal	Alg, alg/AG
alternation(-ing)	Altrn, altrn
ammonites	Amm/AM
amorphous	amr
and	&
angular	ang/R1-R3 *
anhydrite (-ic)	Anhd, andh/AH
anthracite	Anthr/AT
aphanitic	aph/A
approximate	apprx
aragonite	Arag/AR
arenaceous	aren
argillaceous	arg/A..
arkose (-ic)	Ark, ark/AK
as above	a.a
asphalt (-ic)	Asph, asph/AP
assemblage	Assem
associated	assoc
basalt (-ic)	Ba, ba/EXBS
basement	Bm
bed (-ed)	Bd, bd/B, B1-B9 *
belemnites	Blm/BE
benthonic	bent/..B
bimodal	bimod/..B
bioclast (-ic)	Bcl, bcl/SF
biotite	Biot/BI
bioturbation(-ed)	Biotur, biotur/CB
birdseye	Bdeye/BY
bitumen (-inous)	Bit, bit/BT
bivalves	Biv/LB
black	blk/BK
blocky	blky/BQ
blue	blu/BL
bored	bor/BO
boulder	Bld/BO
boundstone	Bdst/B
brachiopods	Brac/BP
brackish	brack/WB
breccia (-ted)	Brc, brc/BR
brittle	brit
brown	brn/BW
bryozoa	Bry/BZ
buff	buf/BF
burrow (-ed)	Bur, bur/BU
calcisphere	Calsph/OG
calcite (-ic)	Calc, calctc/CA
calcareous	calc/LS
carbonaceous	carb/CO
cast	Cs/X.. *
cavern (-ous)	Cav, cav/CV
cement (-ed)	Cmt, cmt/C5 *
chalk (-y)	Chk, chk/CK
charophytes	Char /CH
chert (-y)	Cht, cht/CT
chitinozoa	Chtz/CZ
chlorite (-ic)	Chlor, chlor/CI
chocolate	choc
clastic	clast
clay	Cl/CL
claystone	Clst/MS
cluster	Clus
coal	C/CO
coarse	crs/C
coating (-ed)	Coat, coat/..CO
cobble	Cbl/CB
colour (-ed)	Col, col
common	com
compact	cpct
complex	Cx/CX
concretion (-ary)	Conc, conc/CC*
conglomerate (-ic)	Cgl, cgl/CG
connected Vugs	Vug c/Y
conodonts	Con/CD
consolidated	cons/C1-C3-C7*
contamination (-ed)	Contam, contam
content	Cont
contorted bedding	cont-bd/BS
convolute bedding	Conv-bd/BV
coquina (-oid)	Coq, coqid
corals	Cor/CR
crinkled bedding	crink-bd/BZ
crinoids	Crin/CS
cross	x
cross-bedded	x-bd/BX
cross-laminated	x-lam
cross-stratified	x-strat
crypto	crypto/CY
crystal (-line)	Xl, xln/XA, X
cutting	Ctg

dark	dk/DK
debris	Deb
dense	dns
detrital	detr/SF
diabase	Db/DYDB
diagenesis(-etic)	Diagn, diagn
diatoms	Diat/DT
dinoflagellates	Dinfl/DF
disconnected vugs	Vug d/N
ditto	" or do
dolomite (-ic)	Dol, dol/DM D..
drusy	dru
echinoids	Ech/EM
elongate	elong/02*
embedded	embd
equivalent	Equiv
euxinic	eux/E
evaporite (-itic)	Evap, evap/EV
extremely	extr
extrusive rock, extrusive	Ex, ex/EX
faecal pellet	Pel,fae/PTFE
fault (-ed)	Flt, flt
feature	Feat
feet	Ft
feldspar (-athic)	Fld, fld/FD
fenestra (-al)	Fen, fen
ferruginous	fe/FG
fine (-ly)	f/F
fish remains	Fish Rem/FH
fissile	fis/FI
flaggy	flg/FY
flake, flaky	Flk, flk/FK
fluorescence (-ent)	Fluor, fluor
foot	Ft
foraminifera foraminiferal	Foram, foram/FF*
formation	Fm/FM
fossil (-iferous)	Foss, foss/F*
fracture (-d)	Frac, frac/FC
fragment (-al)	Frag, frag
frequent	freq
friable	fri/C3
frosted	fros
fusulinids	Fus
gabbro	Gb/INGA
gastropods	Gast/GR
generally	gen
glauconite (-itic)	Glc, glc/GC
gneiss (-ic)	Gns gns/GS
graded bedding	grd-bd/BG
grain (-ed)	Grn, grn
grainstone	Grst/G
granite	Gr/INGN
granule (-ar)	Gran, gran/GR
grapestone	Gpst/PSAG
graptolites	Grap/GP
gravel	Grv/GV
gray, grey	gy/GE
green	gn/GN
grey, gray	gy/GE
greywacke	Gwke/GK
gypsum (-iferous)	Gyp, gyp/GY
hackly	hkl
hard	hd
heterogenous	hetrog
homogenous	hom
horizontal	horz
hornblende	Hrnb/HO
hydrocarbon	Hydc/CD
igneous rock, igneous	Ig, ig/IG
illite	Ill/IL
impermeable	imperm/Kl
including	incl
increasing	incr
indistinct	indst
interbedded	intbd
intercalation (-ed)	Intcal, intcal/IC
intercrystalline	intxln/IX
intergranular	intgran/IG
interlaminated	intrlam
interparticle	intpar/IP
intersticies(-itial)	Intst, intst
interval	Intv
intraclast (-ic)	Intclas, intclas/IT
intracrystalline	Intraxln/VX
intragranular	intragran/VR
intraparticle	intrapar
intraskeletal	intraskel/VS
intrusive rock, intrusive	In, in/IN
invertebrate	Invrtb
ironstone	Fest /FG
irregular (-ly)	irr or irg
joint (-ed, -ing)	Jt, jt/J
kaolinite (-itic)	Kao, kao/KL
lacustrine	lac/L
lamellibranchs	Lbr/LB
lamina (-tions, -ated)	Lam, lam/LM

large	lrg
laterite (-itic)	Lat, lat/LA
layer (-ed)	Lyr, lyr/LY
leached	leach/LE
lens, lenticular	Len, len/LN
light	lt/LT
lignite (-itic)	Lig, lig/LG
limestone	Lst/LS
limonite (-itic)	Lmn, lmn/FG
lineation (-ed)	Lin, lin/Y.. *
lithic	lit/LC
lithoclast	Lcl, lcl/LC
lithology (-ic)	Lith, lith
local	loc
loose	lse/Cl
lower	low
marble	Marb/MMMB
marl (-y)	Mrl, mrl/MR
marlstone	Mrlst/AL
marine	mar/WM
massive	mass
material	Mat
matrix	Mtrx
maximum	max
medium	m or med./MD
member	Mbr/MB
metamorphic	metam/MM
mica (-ceous)	Mic, mic/MC
microcrystalline	micrxln
microfossil (-iferous)	Micrfoss, micrfoss
micrograined	micrgrn
micropelletoid (-al)	Micrpeld,micrpeld/PM
microplankton	Mpl/MP
micropore (-ous))	Micrpor, micrpor
microspar	Micrspr
microstylolite	Micrstyl
middle	Mid
mineral (-ized)	Min, min
moderate	mod/MD
molluscs	Mol/ML
montmorillonite	Mtmo/MO
mottled	mtl/VM
mudcrack	Mdcrk/XM
mudstone (carbonates)	Mdst/M
mudstone (siliciclastics)	Mdst/MS
muscovite (-ic)	purple Musc, musc/MV
nannoplankton	Nanplk/NP
nodules (-ar)	Nod, nod/ND
no sample	NS
numerous	num
occasional	occ
occurrence	Occ
olistolith (-ic)	Olisth, olisth/OH
olistostrome (-ic)	Olistr, olistr/OL
olive	olv/OI
olivine	Olv/OV
onkoid (<2 mm)(-al)	Onk, onk/OK
onkoid (>2 mm)(-al)	Onkd, onk/OK
ooid (-al)	Oo, oo/OD
oolite (-itic)	Ool, ool
orange	orng/ON
organic	org/O..
orthoclase	Orth/OR
ostracod	Ost/OC
overgrowth crystalline	ovgth xln
packstone	Pkst/P
papery	pap/PR
part (-ly)	Part, part/PA
particle	Par, par
patch (-y)	Pch, pch
pebble (-y)	Pbl, pbl/PB
pelagic	pelg/PE
pelecypods	Pelcp/LB
pellet, faecal	Pel, fae / PTFE
pelletoid (-al)	Peld, peld/PT
permeability(-able)	Perm, perm/K1-K7*
phosphate (-atic)	Phos, phos/PP
phyllite, phyllitic	Phy, phy/MMPY
pink	pk/PK
pisoid (-al)	Piso, piso/PD
pitted	pit
plagioclase	Plag/PG
plant remains	Plt Rem/PL
porcelaneous	porcel
porosity, porous	Por, Ø, por/P1-P7 *
possible (-ly)	poss
predominant (-ly)	predom
preserved	pres
primary	prim
probable (-ly)	prob
pseudo-	ps
pseudooid (-tic)	Psoo, psoo/PS
pu or purp/PU	
pyrite(-tized,-itic)	Pyr, pyr/PY
pyroxene	Px/PX

quartz (-ose)	Qz, qz/QZ
quartzite (-ic)	Qzt, qzt/QT
radiolaria	Rad/RA
rauhwacke	Rauhw/RH
recemented	recmt
recovery (-ered)	Rec, rec
recrystallized	rex
red	red/RE
remains	Rem
replaced (-ment)	repl, Repl/RP
residue (-ual)	Res, res/RS
ripple (-ed)	Rpl, rpl/Z..*
rockfragment (lithoclast)	Lcl/LC *
round (-ed)	rnd, rnd/R4-R6
rudist	Rud/RD
salt /-y)	Salt, salt /SL
same as above	a.a.
sample	Spl
sand (-y)	S, s / SA
sandstone	Sst/SS
saturation (-ated)	Sat, sat
scattered	scat
schist (-ose)	Sch, sch/MMSC
sediment (-ary)	Sed, sed
selenite	Sel/GX
shale (-ly)	Sh, sh/SH
siderite (-itic)	Sid, sid/SD
sidewall sample	SWS/SWS
silica (-iceous)	Sil, sil/SI
silt (-y)	Slt, slt/SJ
siltstone	Sltst/ST
similar	sim
skeletal	skel
slate (-y)	Sl, sl
slickenside (-d)	Sks, sks/SK
slightly	add brackets (..)
slump (-ed)	Slump, slump/.S
small	sml
smooth	sm vadose
solution, soluble	Sol, sol/SX
sorted (-ing)	srt, Srt/S1-S9 *
sparry	spar
speckled	speck
spherical	sph/05 *
spicule (-ar)	Spic, spic/SP
splintery	splin
sporomorphs	Spr/PN
spotted (-y)	sptd, spty
stain (-ed), -ing)	Stn, stn
stalactitic	stal
strata (-ified)	Strat, strat
streak (-ed, -y)	Strk, strk/SR
striae (-ted)	Stri, stri
stringer	Strgr
stromatolite(-itic)	Stromlt, stromlt
stromatoporoid	Strom/SM
strongly	indicated by underlining
structure	Struc
stylolite (-itic)	Styl, styl/SE
subangular	(ang) / R3
sublithic	(lit)
subrounded	(rnd) / R4
sucrosic	suc/S
sulphur, sulphurous	Su, su/SU
superficial oolite (-ic)	Oo, spf, spf-oo/OD
supergroup	Supgr
surface	Srf/SF
texture (-d)	Tex, tex
thick	tk
thin	tn
tillite	Tilt/TI
tintinnids	Tin/TT
tongue	Tng/TN
trace	Tr
translucent	trnsl
transparent	trnsp
trilobites	Tril/TL
tuff (-aceous)	Tf, tf/TF
turbidite (-ic)	Turb, turb/TU
type (-ical)	Typ, typ
unbedded	unbd
unconformity(-ably)	Unconf,unconf
unconsolidated	uncons
unimodal	unimod/..U
upper	u or up
Vad, vad	
variations (able)	Var, var or vr
variegated	vgt/VM
varve (-d)	Varv, varv/VV
vein (-ing, -ed)	Vn, vn/VN
veinlet	Vnlet
vertebrates	Vrtb/VE
vertical	vert
very	v or underlining/V
violet	vi

visible	vis
vitreous (-ified)	vit
volcanic rock, volcanic	Vo, vo/V
vug (-gy)	Vug, vug/VG *
wackestone	Wkst/W
weak	wk
weathered	weath/WT
wedge-shaped	Wdg/WD
well	indicated by underlining/repeat code
white	wh/WH
wood, silicified	Wd, si/SW
yellow (ish)	yel/YE

APPENDIX 2
SIDEWALL SAMPLE DESCRIPTIONS

2...

Appendix

Sidewall Sample

Descriptions

APPENDIX 2

SIDEWALL SAMPLE DESCRIPTIONS

SIDEWALL SAMPLE DESCRIPTION

WELL: Gummy-1

DEPTH OF HOLE: 2646m. RUN NO: 1 FIRED: 30 REC: 29 DESCRIPTION BY: M. King DATE: 19/5/90 PAGE 1 OF 3

SHOT NO.	DEPTH (mRT)	RECOVERY (mm)	LITHOLOGICAL DESCRIPTION																				HYDROCARBON INDICATIONS							
			MAIN ROCK TYPE	COLOUR	QUALIFIER TYPE	QUALIFIER %	QUALIFIER TYPE	QUALIFIER %	GRAINSIZE RANGE	GRAINSIZE DOM.	SORTING	ROUNDNESS	HARDNESS	ACCESSORIES	MATRIX TYPE	MATRIX %	CEMENT TYPE	CEMENT %	POROSITY TYPE	POROSITY %	SED. STRUCTURE	REMARKS	NATURAL FLUOR DISTRIB.	NATURAL FLUOR INTENS.	NATURAL FLUOR COLOUR	CUT FLUOR RATE TYPE	CUT FLUOR INTENS.	CUT FLUOR COLOUR	SOLVENT CUT	REMARK (Residue, c staining, acetone)
1	2633·5	NIL																												
2	2631	20	Sst	v lt gy	Slt	35	dol	14	vf-crs	–	((srt))	(ang)-(rnd)	hd	lit, mic, carb frag	slt/arg	40	dol	14	–	(por)	–	v disp, tight 80% brt yel min fluor, no cut	B	4	C	O	O	Z	–	Min flu – dol
3	2619·5	25	Sltst	med (brn) gy									sft-frm	(carb), mic								arg i/p, occ lt gy vf Sst stks, blky	Z	O	Z	O	O	Z	–	
4	2605	40	Coal	blk									brit, frm									dull – occ vit layers, splin	Z	O	Z	O	O	Z	–	
5	2577	35	Sst	lt gy					vf-f	–	srt	(ang)-(rnd)	sft-fri	dk lit, mic, (carb)	slt/arg	15						non calc, (glc)	Z	O	Z	O	O	Z	–	
6	2549	30	Clyst	dk (gy) brn									frm-(hd)	mic, carb								blky	Z	O	Z	O	O	Z	–	
7	2533	25	Sst	lt brn gy					vf		srt		frm-(hd)	dissem/agg pyr, carb, mic	arg	10						grdes to Sltst, com carb stks, lamr	Z	O	Z	O	O	Z	–	
8	2525	25	Sltst	med brn gy	glc	3							frm-hd	glc, mic, (carb)								arenr, blky	Z	O	Z	O	O	Z	–	
9	2454	30	Clyst	dk brn									frm-hd	carb, mic								(fis) – fis, carb lam	Z	O	Z	O	O	Z	–	
10	2423·5	30	Sltst	dk (gy) brn	arg								frm-hd	carb, mic, pyr								(blky) – (fis), arenr i/p, lamr	Z	O	Z	O	O	Z	–	
11	2393·5	25	Sltst	dk (gy) brn	arg								frm-hd	carb, mic, pyr agg								(blky) – (fis), (lam)	Z	O	Z	O	O	Z	–	
12	2368	28	Sltst	dk (brn) gy	glc	10							frm-hd	glc, mic (pyr)								arenr, (blky), non calc	Z	O	Z	O	O	Z	–	
13	2348	30	Sltst	med (brn) gy									frm-hd	glc, mic								arenr, (blky), non calc	Z	O	Z	O	O	Z	–	
14	2318·5	37	Sst	dk (brn) gy	glc	15			vf				frm-hd	glc, mic	slt/arg	10							Z	O	Z	O	O	Z	–	

SIDEWALL SAMPLE DESCRIPTION

WELL: Gummy -1

DEPTH OF HOLE: 2646m RUN NO: 1 FIRED: 30 REC: 29 DESCRIPTION BY: M. King DATE: 19/5/90 PAGE 2 OF 3

SHOT NO.	DEPTH (mRT)	RECOVERY (mm)	LITHOLOGICAL DESCRIPTION: MAIN ROCK TYPE	COLOUR	QUALIFIER TYPE	QUALIFIER %	QUALIFIER TYPE	QUALIFIER %	GRAINSIZE RANGE	GRAINSIZE DOM.	SORTING	ROUNDNESS	HARDNESS	ACCESSORIES	MATRIX TYPE	MATRIX %	CEMENT TYPE	CEMENT %	POROSITY TYPE	POROSITY %	SED. STRUCTURE	REMARKS	HYDROCARBON INDICATIONS: NATURAL FLUOR DISTRIB.	NATURAL FLUOR INTENS.	NATURAL FLUOR COLOUR	CUT FLUOR RATE TYPE	CUT FLUOR INTENS.	CUT FLUOR COLOUR	SOLVENT CUT	REMARK (Residue, o staining, acetone)
15	2279	21	Sltst	med (brn) gy	arg								frm	(glc), mic, carb det								blky - (blky), now calc	Z	O	Z	O	O	Z	-	
16	2259	30	Sltst	lt-med (brn) gy									frm-hd	mic, pyr, carb det								(lam), (blky) - (fis), arew	Z	O	Z	O	O	Z	-	
17	2199.5	25	Sltst	a/a	arg								a/a	a/a								lam, arg i/p, (blky) - (fis).	Z	O	Z	O	O	Z	-	
18	2128	25	Sltst	med-dk (gy) brn									frm-hd	glc, mic carb								(lam), (blky), arew, arg i/p	Z	O	Z	O	O	Z	-	
19	2098	30	Sltst	dk brn gy	glc	25			crs-vcrs		(srt)		frm-hd	glc, mic, (sndy)								occ crs - v crs snd grns	Z	O	Z	O	O	Z	-	
20	2082.5	28	Sltst	med yel brn (mauve)	glc	15	fe oxid		m-vcrs		(srt)		hd	sndy, glc, (mic)								com crs - v crs snd grns, heavily oxidised, arg i/p	Z	O	Z	O	O	Z	-	
21	2078	30	Clyst	lt gy	calc	38							frm-hd	(dissem pyr), carb								silty i/p, blky - (fis)	Z	O	Z	O	O	Z	-	
22	2065	30	Mrl	lt grn gy	calc	62							hd	(glc), (pyr)								(s), blky - (fis)	Z	O	Z	O	O	Z	-	
23	1956	35	Clyst	lt gy	calc	20							frm-hd	(dissem pyr)								blky - (fis)	Z	O	Z	O	O	Z	-	
24	1852	31	Mrl	lt gy	calc	55							frm-hd	(mic), (pyr)								blky - (fis)	Z	O	Z	O	O	Z	-	
25	1788	30	Mrl	lt-med gy	calc	53							frm-hd	rr carb det, foss								micro xln i/p	Z	O	Z	O	O	Z	-	
26	1749	32	Mrl	lt gy	calc	56							frm-hd	foss - foram (glc)								microxln i/p	Z	O	Z	O	O	Z	-	
27	1642	30	Lst	v lt gy	calc	92							frm-fri	foss glc, (carb)								Calcilutite, microxln i/p	Z	O	Z	O	O	Z	-	
28	1519	27	Lst	lt (gn) gy	calc	79	arg		vf-m		(srt)		hd	foss, (carb), (glc)								Calcarenite, microxln, arg	Z	O	Z	O	O	Z	-	

SIDEWALL SAMPLE DESCRIPTION

WELL: Gummy-1

DEPTH OF HOLE: 2646m RUN NO: 1 FIRED: 30 REC: 29 DESCRIPTION BY: M. King DATE: 19/5/90 PAGE 3 OF 3

SHOT NO.	DEPTH (mRT)	RECOVERY (mm)	LITHOLOGICAL DESCRIPTION																				HYDROCARBON INDICATIONS							
			MAIN ROCK TYPE	COLOUR	QUALIFIER		QUALIFIER		GRAINSIZE		SORTING	ROUNDNESS	HARDNESS	ACCESSORIES	MATRIX		CEMENT		POROSITY		SED. STRUCTURE	REMARKS	NATURAL FLUOR			CUT FLUOR			SOLVENT CUT	REMARK (Residue, oi staining, acetone)
					TYPE	%	TYPE	%	RANGE	DOM.					TYPE	%	TYPE	%	TYPE	%			DISTRIB.	INTENS.	COLOUR	RATE TYPE	INTENS.	COLOUR		
29	1387	24	Lst	lt-med gn gy	calc	85	dol	8	vf-(m)		srt		hd	foss, glc, carb								Calcarenite, occ med xln, arg	N	O	N	O	O	N	-	
30	1215	28	Lst	med gn gy	calc	81	arg						hd	foss, (carb)								Calcilutite; occ fnly xlw, arg	N	O	N	O	O	N	-	

Appendix 3 . . .
RFT Results

APPENDIX 3

RFT RESULTS

Pretest Pressures

Depth (m ahbdf)	Minimum Flowing Pressure (psia)	Final Buildup Pressure(psia)	Test Time (sec)	
3555	1708	5144.2	357	
3554.5	13	<25		tight
3553	64	5119	335	
3553.5	3600	5120.3	200	
3548.5	3800	5118.7+	495	
3545	-	-	-	tight
3544	1650	5113.9	255	
3541	3430	5109.9	160	
3538	20	28	85	tight
3537	4632	5110.28	650	
3536	13	-	60	tight
3535.5	111	5110.1	320	
3535	18	-	62	tight
3527	4780	5100.2	160	
3523	5000	5102.4	681	
3522	4717	5100.2	190	
3517	4250	5101.2	789	
3508.5	5033	5097	474	
3508	14.5	-	-	tight
3501	4959	5095.3	698	
3497.5	5039	5093.2	790	
3487.3	4390	-	73	tight
3485.5	45	5096.6	466	
3475.5	32	-	-	tight

+ still building at end of pretest.

069004jr.CWT/PROD/JR

Depth (m ahbdf)	Minimum Flowing Pressure (psia)	Final Buildup Pressure(psia)	Test Time (sec)	
3475		5088.1	508	
3474.5	16.4	-	-	tight
3471.5	4980	5077.9	315	
3449.5	2530	5071.3	471	
3444	4860	5067.7	580	
3439	1200	5067.3	810	
3433	730	4960.1+	540	still building
3431.3	141	3423	210	tight
3425.5	805	5057.9	779	
3425.5	520	5057.6	865	
3421.5	4870	5050.9	426	
3421.5	4922	5052.6	789	
3420.6	5016	5053.1	930	
3420.5	5035	5052	1255	
3388.8	150	5019	515	
3387	46	70	110	tight
3383	36	5012.9	640	
3382	61	5010.7	270	
3351	4907	4942.6	395	
3351	4927	4943.2	130	
3349.7	3970	4914.6	-	
3349.5	29	4915.5	460	
3330.5	-	-	-	seal failure
3330	50	62	58	tight
3327	3410	4847.7	225	
3274.5	4680	4830.2	200	

069004jr.CWT/PROD/JR

Depth (m ahbdf)	Minimum Flowing Pressure (psia)	Final Buildup Pressure(psia)	Test Time (sec)	
3270.5	4600	4820.9	300	
3213.7	4180	4659.8	298	
3213.5	13	28	70	tight
3201.5	4444.2	4653.1	430	
3192	3800	4650.1	155	
3174.5	406	-	-	tight
3170.5	671	-	-	tight
3063.5	4381	4391.5	580	
3061.5	4382	4388.6	413	
2956.5	4184	4227.6	700	
2922	4160	4175.2	462	
2894	4126	4133.9	546	
2871.5	3691	4093.3	565	
2795	3947	3989.4	1213	
2729	3580	3893.2	608	

Sample Data

1. 3201.5m (6 gallon chamber)
Opening Pressure 2430 psi (9°C)

Gas	157.9 ft^3
Condensate	0.95 L
Filtrate	2 L (Rm 0.25512 at 15°C cf 0.219 for mud filtrate)

Gas Composition (%)		
	C_1	91.2
	C_2	5.9
	C_3	2.4
	iC_4	0.1
	nC_4	0.5

2. 3421.5 (2.75 gallon chamber)
Opening Pressure 550 psi (9°C)

Gas	0.75 ft^3
Condensate	- light oil scum observed
Filtrate	9.25L (Rm 0.212 at 15°C cf 0.219 for mud filtrate)

Gas Composition (%)		
	C_1	83
	C_2	9.9
	C_3	5.6
	iC_4	0.5
	nC_4	0.9

Appendix 4 . . .
Velocity Survey

Schlumberger

SHELL AUSTRALIA

SONIC CALIBRATION AND GEOGRAM PROCESSING REPORT

GUMMY #1

FIELD	:	GIPPSLAND BASIN
STATE	:	VICTORIA
COUNTRY	:	AUSTRALIA
COORDINATES	:	38° 17' 59.56" S 148° 44'21.28" E
LOCATION	:	BASS STRAIT VIC/P19
DATE OF SURVEY	:	3 JUN 90
REFERENCE NO.	:	SYJ-56622
INTERVAL	:	3563.0 - 1200.0 M

Contents

List of Tables

1. Introduction

A velocity checkshot survey of the Gummy #1 well has been used to calibrate the sonic log and generate synthetic seismograms using 25, 35 and 45 hertz zero phase Ricker wavelets. The shot times and calibrated sonic times have been corrected to the seismic reference datum (SRD) at mean sea level.

2. Data Acquisition

The data was acquired with the WST(Well Seismic tool) tool. Recording was made on the Schlumberger Cyber Service Unit (CSU) using LIS format at a tape density of 1600 BPI. The Air gun was suspended from the rig with a deck crane.

Table 1: Survey Parameters

Datum	MSL
Elevation KB	28.4 metres AMSL
Elevation DF	28.0 metres AMSL
Elevation GL	-155.4 below MSL
Total Depth	3563.0 metres below KB
Energy Source	Air gun
Source Offset	60.0
Source Depth	5 metres below MSL
Hydrophone Offset	60.0
Hydrophone Depth	10 metres below MSL
Source Azimuth	200.0 deg

3. Sonic Calibration Processing

3.1 Sonic Calibration

A 'drift' curve is obtained using the sonic log and the vertical check level times. The term 'drift' is defined as the seismic time (from check shots) minus the sonic time (from integration of edited sonic). Commonly the word 'drift' is used to identify the above difference, or to identify the gradient of drift versus increasing depth, or to identify a difference of drift between two levels.

The gradient of drift, that is the slope of the drift curve, can be negative or positive.

For a negative drift $\frac{\Delta drift}{\Delta depth} < 0$, the sonic time is greater than the seismic time over a certain section of the log.

For a positive drift $\frac{\Delta drift}{\Delta depth} > 0$, the sonic time is less than the seismic time over a certain section of the log.

The drift curve, between two levels, is then an indication of the error on the integrated sonic or an indication of the amount of correction required on the sonic to have the TTI of the corrected sonic match the check shot times.

Two methods of correction to the sonic log are used.

1. **Uniform or block shift** This method applies a uniform correction to all the sonic values over the interval. This uniform correction is applied in the case of positive drift and is the average correction represented by the drift curve gradient expressed in μsec/ft.

2. **ΔT Minimum** In the case of negative drift a second method is used, called Δt minimum. This applies a differential correction to the sonic log, where it is assumed that the greatest amount of transit time error is caused by the lower velocity sections of the log. Over a given interval the method will correct only Δt values which are higher than a threshold, the Δt_{min}. Values of Δt which are lower than the threshold are not corrected. The correction is a reduction of the excess of Δt over Δt_{min}, Δt - Δt_{min}.

   $\Delta t - \Delta t_{min}$ is reduced through multiplication by a reduction coefficient which remains constant over the interval. This reduction coefficient, named G, can be be defined as:

   $$G = 1 + \frac{drift}{\int (\Delta t - \Delta t_{min}) dZ}$$

   Where drift is the drift over the interval to be corrected and the value $\int (\Delta t - \Delta t_{min}) dZ$ is the time difference between the integrals of the two curves Δt and Δt_{min}, only over the intervals where $\Delta t > \Delta t_{min}$.

   Hence the corrected sonic: $\Delta t = G(\Delta t - \Delta t_{min}) + \Delta t_{min}$.

3.2 Correction to Datum

The corrected sonic log is indexed to true vertical depth and referenced to SRD (SRD at msl).

3.3 Open Hole Logs

The sonic log has been recorded from 3563.0 to 1200.0 metres below KB. The overall log quality is good with small zones of cycle skipping having been patched out.The density log was also recorded in the same interval.

The gamma ray and caliper curves are included as correlation curves.

3.4 Sonic Calibration Results

The top of the sonic log (1200.0 metres below KB) is chosen as the origin for the calibration drift curve. The drift curve indicates a number of corrections to be made to the sonic log. The adjusted sonic curve is considered to be the best result using the available data. A list of shifts used on the sonic data is given in the geophysical listings section.

4. Synthetic Seismogram Processing

GEOGRAM plots were generated using 25, 35 and 45 hertz zero phase Ricker wavelets

.

The presentations include both normal and reverse polarity on a time scale of 10 cm/sec.

GEOGRAM processing produces synthetic seismic traces based on reflection coefficients generated from sonic and density measurements in the well-bore. The steps in the processing chain are the following:

Depth to time conversion
Reflection coefficient generation
Attenuation coefficient calculation
Convolution
Output.

4.1 Depth to Time Conversion

Open hole logs are recorded from the bottom to top with a depth index. This data is converted to a two-way time index and flipped to read from the top to bottom in order to match the seismic section.

4.2 Primary Reflection Coefficients

Sonic and density data are averaged over chosen time intervals (normally 2 or 4 millisecs). Reflection coefficients are then computed using:

$$R = \frac{\rho_2.\nu_2 - \rho_1.\nu_1}{\rho_2.\nu_2 + \rho_1.\nu_1}$$

where:

ρ_1 = density of the layer above the reflection interface
ρ_2 = density of the layer below the reflection interface
ν_1 = compressional wave velocity of the layer above the reflection interface
ν_2 = compressional wave velocity of the layer below the reflection interface

This computation is done for each time interval to generate a set of primary reflection coefficients without transmission losses.

4.3 Primaries with Transmission Loss

Transmission loss on two-way attenuation coefficients is computed using:

$$A_n = (1 - R_1^2).(1 - R_2^2).(1 - R_3^2)...(1 - R_n^2)$$

A set of primary reflection coefficients with transmission loss is generated using:

$$Primary_n = R_n.A_{n-1}$$

4.4 Primaries plus Multiples

Multiples are computed from these input reflection coefficients using the transform technique from the top of the well to obtain the impulse response of the earth. The transform outputs primaries plus multiples.

4.5 Multiples Only

By subtracting previously calculated primaries from the above result we obtain multiples only.

4.6 Wavelet

A theoretical wavelet is chosen to use for convolution with the reflection coefficients previously generated. Choices available include:

Klauder wavelet
Ricker zero phase wavelet
Ricker minimum phase wavelet
Butterworth wavelet
User defined wavelet.

Time variant Butterworth filtering can be applied after convolution.

4.7 Polarity Convention

An increase in acoustic impedance gives a positive reflection coefficent, is written to tape as a negative number and is displayed as a white trough under normal polarity. Polarity conventions are displayed in Figure-1.

4.8 Convolution

The standard procedure of convolving the wavelet with reflection coefficients; the output is the synthetic seismogram.

A Summary of Geophysical Listings

Six geophysical data listings are appended to this report. Following is a brief description of the format of each listing.

A1 Geophysical Airgun Report

1. Level number : the level number starting from the top level (includes any imposed shots).

2. Measured depth from KB : *dkb*, the depth in meters from kelly bushing .

3. Vertical depth from SRD : *dsrd*, the depth in meters from seismic reference datum.

4. Observed travel time HYD to GEO : *tim*0, the transit time picked from the stacked data by subtracting the surface sensor first break time from the downhole sensor first break time.

5. Vertical travel time SRC to GEO : *timv*, is corrected for source to hydrophone distance and for source offset.

6. Vertical travel time SRD to GEO : *shtm*, is *timv* corrected for the vertical distance between source and datum.

7. Average velocity SRD to GEO : the average seismic velocity from datum to the corresponding checkshot level, $\frac{dsrd}{shtm}$.

8. Delta depth between shots : $\Delta depth$, the vertical distance between each level.

9. Delta time between shots : $\Delta time$, the difference in vertical travel time (*shtm*) between each level.

10. Interval velocity between shots : the average seismic velocity between each level, $\frac{\Delta depth}{\Delta time}$.

A2 Drift Computation Report

1. Level number : the level number starting from the top level (includes any imposed shots).

2. Vertical depth from KB : the depth in meters from kelly bushing .

3. Vertical depth from SRD : the depth in meters from seismic reference datum.

4. Vertical travel time SRD to GEO : the calculated vertical travel time from datum to downhole geophone (see column 7, Geophysical Airgun Report).

5. Integrated raw sonic time : the raw sonic log is integrated from top to bottom and listed at each level. An initial value at the top of the sonic log is set equal to the checkshot time at that level. This may be an imposed shot if a shot was not taken at the top of the sonic.

6. Computed drift at level : the checkshot time minus the integrated raw sonic time.

7. Computed blk-shft correction : the drift gradient between any two checkshot levels ($\frac{\Delta drift}{\Delta depth}$).

A3 Sonic Adjustment Parameter Report

1. Knee number : the knee number starting from the highest knee. (The first knees listed will generally be at SRD and the top of sonic. The drift imposed at these knees will normally be zero.)

2. Vertical depth from KB : the depth in meters from kelly bushing .

3. Vertical depth from SRD : the depth in meters from seismic reference datum.

4. Drift at knee : the value of drift imposed at each knee.

5. Blockshift used : the change in drift divided by the change in depth between any two levels.

6. Delta-T minimum used : see section 4 of report for an explanation of Δt_{min}.

7. Reduction factor : see section 4 of report.

8. Equivalent blockshift : the gradient of the imposed drift curve.

A4 Velocity Report

1. Level number : the level number starting from the top level (includes any imposed shots).

2. Vertical depth from KB : the depth in meters from kelly bushing .

3. Vertical depth from SRD : the depth in meters from seismic reference datum

4. Vertical travel time SRD to GEOPH : the vertical travel time from SRD to downhole geophone (see column 7, Geophysical Airgun Report)

5. Integrated adjusted sonic time : the adjusted sonic log is integrated from top to bottom. An initial value at the the top of the sonic is set equal the checkshot time at that level. (The adjusted sonic log is the drift corrected sonic log.)

6. Drift=shot time-raw sonic : the check shot time minus the raw integrated sonic time.

7. Residual=shot time-adj sonic : the check shot time minus the adjusted integrated sonic time. This is the difference between calculated drift and the imposed drift.

8. Adjusted interval velocity : the interval velocity calculated from the integrated adjusted sonic time at each level.

A5 Time Converted Velocity Report

The data in this listing has been resampled in time.

1. Two way travel time from SRD : This is the index for the data in this listing. The first value is at SRD (0 millisecs) and the sampling rate is 2 millisecs.

2. Measured depth from KB : the depth from KB at each corresponding value of two way time.

3. Vertical depth from SRD : the vertical depth from SRD at each corresponding value of two way time.

4. Average velocity SRD to GEO : the vertical depth from SRD divided by half the two way time.

5. RMS velocity : the root mean square velocity from datum to the corresponding value of two way time.

$$v_{rms} = \sqrt{\Sigma_1^n v_i^2 t_i / \Sigma_1^n t_i}$$

where v_i is the velocity between each 2 millisecs interval.

6. First normal moveout : the correction time in millisecs to be applied to the two way travel time for a specified moveout distance (default = 3000 feet).

$$\Delta t = \sqrt{t^2 + (\frac{X}{v_{rms}})^2} - t$$

where:

Δt = normal moveout (secs)
X = moveout distance (meters)
t = two way time (secs)
v_{rms} = rms velocity (meters /sec)

7. Second normal moveout : the correction time in millisecs to be applied to the two way travel time for a specified moveout distance (default = 4500 feet).

8. Third normal moveout : the correction time in millisecs to be applied to the two way travel time for a specified moveout distance (default = 6000 feet).

9. Interval velocity : the velocity between each sampled depth. Typically, the sampling rate is 2 millisecs two way time, (1 millisec one way time) therefore the interval velocity will be equal to the depth increment divided by 0.001. It is equivalent to column 9 from the the Velocity Report.

A6 Synthetic Seismogram Table

1. Two way travel time from SRD : This is the index for the data in this listing. The first value is at the top of the sonic. The default sampling rate is 2 millisecs.

2. Vertical depth from SRD : the vertical depth from SRD at each corresponding value of two way time.

3. Interval velocity : the velocity between each sampled depth. Typically, the sampling rate is 2 millisecs two way time, (1 millisec one way time) therefore the interval velocity will be equal to the depth increment divided by 0.001. It is equivalent to column 9 from the the Velocity Report.

4. Interval density : the average density between two successive values of two way time.

5. Reflect. coeff. : the difference in acoustic impedance divided by the sum of the acoustic impedance between any two levels. The acoustic impedance is the product of the interval density and the interval velocity.

6. Two way atten. coeff. : is computed from the series

$$A_n = (1 - R_1^2).(1 - R_2^2).(1 - R_3^2)...(1 - R_n^2)$$

7. Synthetic seismogram primary : the product of the reflection coefficient at each depth and the two way attenuation coefficient up to that depth.

$$Primary_n = R_n.A_{n-1}$$

8. Primary + multiple : a transform technique is used to calculate multiples from the input reflection coefficients.

9. Multiples only : (Primary + multiple) - (Synthetic seismo. primary)

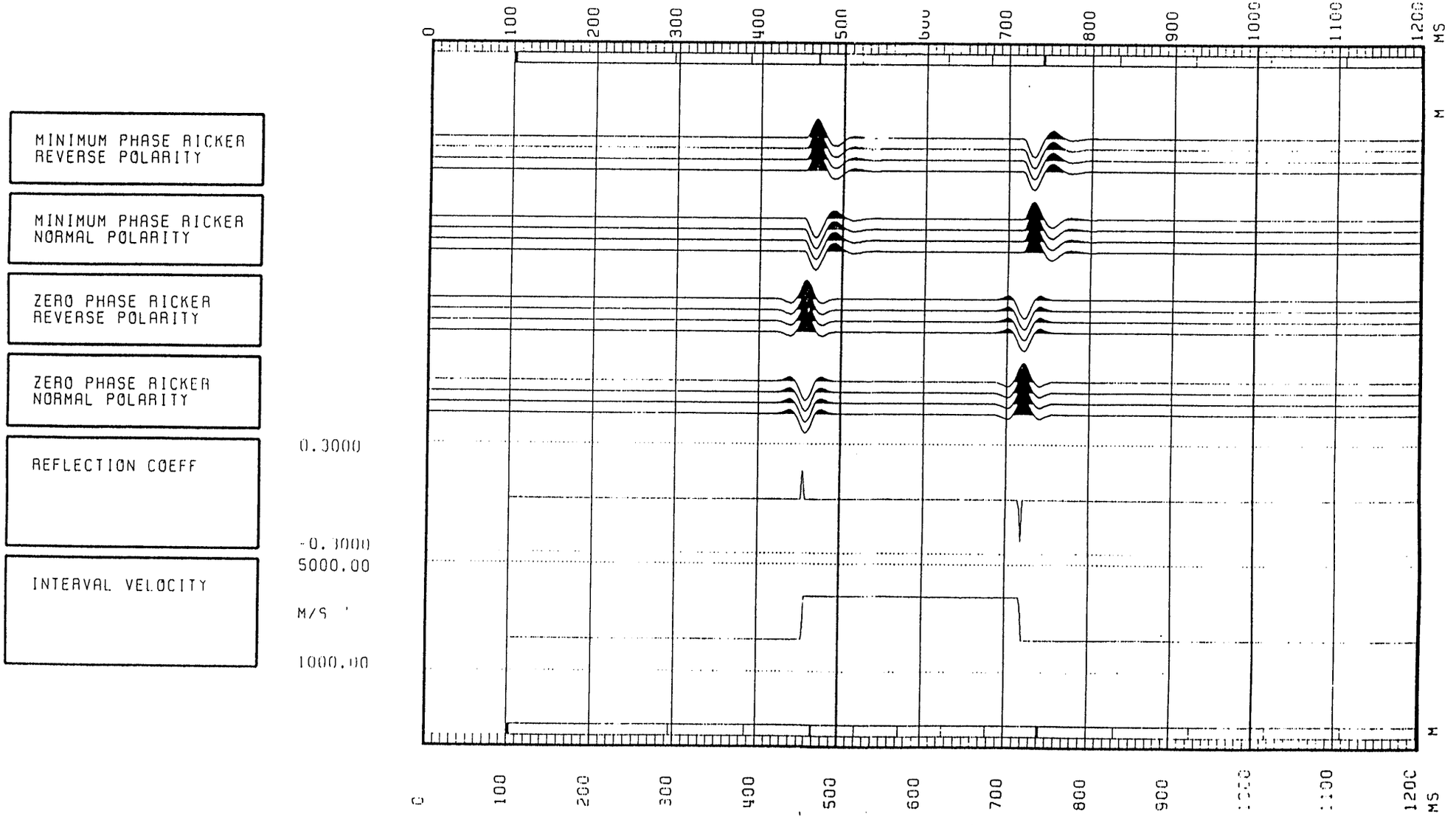
LIST OF ENCLOSURES

Drift Corrected Sonic
Seismic Calibration Log
25 hz zero phase Geogram 10 cm/sec
35 hz zero phase Geogram 10 cm/sec
45 hz zero phase Geogram 10 cm/sec

Figure 1. Wavelet Polarity Convention.
Figure 2. Stacked Data.

SCHLUMBERGER (SEG-1976) WAVELET POLARITY CONVENTION

Figure 1



CLIENT = SHELL AUSTRALIA

FIELD = GIPPSLAND BASIN

WELL = GUMMY 1

RAW DEPTH	M	TRANSIT TIME	S	LEVEL NO
	800.0		0.357	21
	900.0		0.403	20
	950.0		0.432	19
	980.0		0.444	18
	1000.0		0.449	17
	1200.0		0.498	16
	1400.0		0.558	15
	1600.0		0.617	14
	1755.0		0.665	13
	1800.0		0.679	12
	2000.0		0.748	11
	2081.0		0.774	10
	2200.0		0.808	9
	2400.0		0.885	8
	2600.0		0.921	7
	2800.0		0.977	6
	3000.0		1.033	5
	3035.0		1.041	4
	3200.0		1.085	3
	3400.0		1.131	2
	3583.0		1.170	1

ANALYST: Z.KATELIS 26-NOV-90 14:03:52 PROGRAM: GSHOT 007.E08

SCHLUMBERGER

GEOPHYSICAL AIRGUN REPORT

COMPANY : SHELL AUSTRALIA
WELL : GUMMY #1
FIELD : GIPSLAND BASIN
COUNTRY : AUSTRALIA
REFERENCE: SYJ-56622

ANALYST: Z.KATELIS 26-NOV-90 14:03:52 PROGRAM: GSHOT 007.E08

SCHLUMBERGER

GEOPHYSICAL AIRGUN REPORT

COMPANY : SHELL AUSTRALIA
WELL : GUMMY #1
FIELD : GIPSLAND BASIN
COUNTRY : AUSTRALIA
REFERENCE: SYJ-56622

LONG DEFINITIONS

GLOBAL

KB - ELEVATION OF THE KELLY-BUSHING ABOVE MSL OR MWL
SRD - ELEVATION OF THE SEISMIC REFERENCE DATUM ABOVE MSL OR MWL
EKB - ELEVATION OF KELLY BUSHING
GL - ELEVATION OF USERS REFERENCE (GENERALLY GROUND LEVEL) ABOVE SRD
VELHYD - VELOCITY OF THE MEDIUM BETWEEN THE SOURCE AND THE HYDROPHONE
VELSUR - VELOCITY OF THE MEDIUM BETWEEN THE SOURCE AND THE SRD

MATRIX

GUNELZ - SOURCE ELEVATION ABOVE SRD (ONE FOR THE WHOLE JOB; OR ONE PER SHOT)
GUNEWZ - SOURCE DISTANCE FROM THE BOREHOLE AXIS IN EW DIRECTION (CF. GUNELZ)
GUNNSZ - SOURCE DISTANCE FROM THE BOREHOLE AXIS IN NS DIRECTION (CF. GUNELZ)
HYDELZ - HYDROPHONE ELEVATION ABOVE SRD (CF. GUNELZ)
HYDEWZ - HYDROPHONE DISTANCE FROM THE BOREH AXIS IN EW DIRECTION (CF GUNELZ)
HYDNSZ - HYDROPHONE DISTANCE FROM THE BOREH AXIS IN NS DIRECTION (CF GUNELZ)
TRTHYD - TRAVEL TIME FROM THE HYDROPHONE TO THE SOURCE
TRTSRD - TRAVEL TIME FROM THE SOURCE TO THE SRD
DEVWEL - DEVIATED WELL DATA PER SHOT : MEAS. DEPTH, VERT. DEPTH, EW, NS

SAMPLED

SHOT.GSH - SHOT NUMBER
DKB.GSH - MEASURED DEPTH FROM KELLY-BUSHING
DSRD.GSH - DEPTH FROM SRD
DGL.GSH - VERTICAL DEPTH RELATIVE TO GROUND LEVEL (USERS REFERENCE)
TIMD.GSH - MEASURED TRAVEL TIME FROM HYDROPHONE TO GEOPHONE
TIMV.GSH - VERTICAL TRAVEL TIME FROM THE SOURCE TO THE GEOPHONE
SHTM.GSH - SHOT TIME (WST)
AVGV.GSH - AVERAGE SEISMIC VELOCITY
DELZ.GSH - DEPTH INTERVAL BETWEEN SUCCESSIVE SHOTS
DELT.GSH - TRAVEL TIME INTERVAL BETWEEN SUCCESSIVE SHOTS
INTV.GSH - INTERNAL VELOCITY, AVERAGE

(GLOBAL PARAMETERS)		(VALUE)	
ELEV OF KB AB. MSL (WST)	KB	: 28.4000	M
ELEV OF SRD AB. MSL(WST)	SRD	: 0	M
ELEVATION OF KELLY BUSHI	EKB	: 28.4000	
ELEV OF GL AB. SRD(WST)	GL	: -155.400	M
VEL SOURCE-HYDRO(WST)	VELHYD	: 1480.00	M/S
VEL SOURCE-SRD (WST)	VELSUR	: 1480.00	M/S

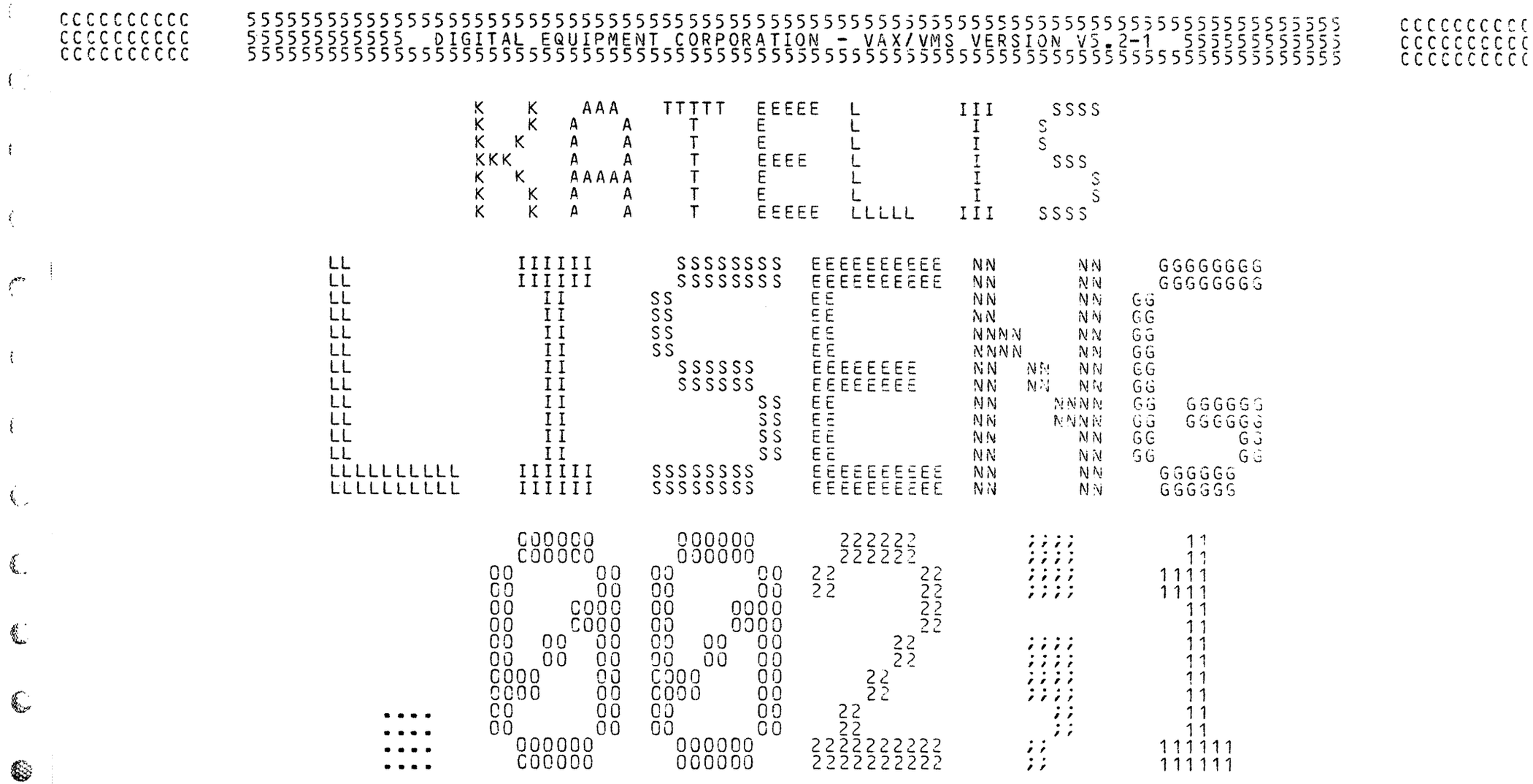
(MATRIX PARAMETERS)

	SOURCE ELV M	SOURCE EW M	SOURCE NS M	HYDRO ELEV M	HYDRO EW M	HYDRO NS M
1	-5.00	-20.52	-56.38	-10.00	-20.52	-56.38

	TRT HYD-SC MS	TRT SC-SRD MS
1	3.38	3.38

	MD @ KB M	VD @ KB M	VD @ SRD M	E-W COORD M	N-S COORD M
1	183.80	183.80	155.40	0	0
2	1200.00	1200.00	1171.60	0	0
3	1400.00	1400.00	1371.60	0	0
4	1600.00	1600.00	1571.60	0	0
5	1755.00	1755.00	1726.60	0	0
6	1800.00	1800.00	1771.60	0	0
7	2000.00	2000.00	1971.60	0	0
8	2081.00	2081.00	2052.60	0	0
9	2200.00	2200.00	2171.60	0	0
10	2400.00	2400.00	2371.60	0	0
11	2600.00	2600.00	2571.60	0	0
12	2800.00	2800.00	2771.60	0	0
13	3000.00	3000.00	2971.60	0	0
14	3035.00	3035.00	3006.60	0	0
15	3200.00	3200.00	3171.60	0	0
16	3400.00	3400.00	3371.60	0	0
17	3563.00	3563.00	3534.60	0	0

LEVEL NUMBER	MEASUR DEPTH FROM KB M	VERTIC DEPTH FROM SRD M	VERTIC DEPTH FROM GL M	OBSERV TRAVEL TIME HYD/GEO MS	VERTIC TRAVEL TIME SRC/GEO MS	VERTIC TRAVEL TIME SRD/GEO MS	AVERAGE VELOC SRD/GEO M/S	DELTA DEPTH BETWEEN SHOTS M	DELTA TIME BETWEEN SHOTS MS	INTERV VELOC BETWEEN SHOTS M/S
1	133.80	155.40	0	106.03	101.62	105.00	1480			
2	1200.00	1171.60	1016.20	498.11	500.83	504.20	2324	1016.20	399.21	2546
3	1400.00	1371.60	1216.20	558.01	560.85	564.23	2431	200.00	60.02	3332
4	1600.00	1571.60	1416.20	616.91	619.83	623.21	2522	200.00	58.99	3391
5	1755.00	1726.60	1571.20	664.57	667.54	670.92	2573	155.00	47.71	3249
6	1800.00	1771.60	1616.20	678.94	681.93	685.30	2585	45.00	14.38	3129
7	2000.00	1971.60	1816.20	747.52	750.55	753.93	2615	200.00	68.62	2914
8	2081.00	2052.60	1897.20	774.13	777.17	780.55	2630	81.00	26.63	3042
9	2200.00	2171.60	2016.20	808.43	811.50	814.88	2665	119.00	34.32	3467
10	2400.00	2371.60	2216.20	864.77	867.87	871.25	2722	200.00	56.37	3548
11	2600.00	2571.60	2416.20	920.67	923.80	927.17	2774	200.00	55.93	3576
12	2800.00	2771.60	2616.20	977.01	980.16	983.54	2818	200.00	56.36	3548
13	3000.00	2971.60	2816.20	1033.35	1036.52	1039.89	2858	200.00	56.36	3549
14	3035.00	3006.60	2851.20	1041.04	1044.21	1047.59	2870	35.00	7.69	4549
15	3200.00	3171.60	3016.20	1084.57	1087.75	1091.13	2907	165.00	43.54	3739
16	3400.00	3371.60	3216.20	1130.67	1133.87	1137.25	2965	200.00	46.12	4337
17	3563.00	3534.60	3379.20	1170.00	1173.21	1176.59	3004	163.00	39.34	4143



FILE _38DUB2:[56622.GEO]LISENG.002;1 (558,58,0), LAST REVISED ON 26-NOV-1990 14:05, IS A 22 BLOCK SEQUENTIAL FILE OWNED BY UIC [DEFAULT]. THE RECORDS ARE VARIABLE LENGTH WITH FORTRAN (FTN) CARRIAGE CONTROL. THE LONGEST RECORD IS 102 BYTES.

JOB LISENG (780) QUEUED TO SYJM31$PRINT ON 5-DEC-1990 12:35 BY USER KATELIS, UIC [DEFAULT], UNDER ACCOUNT SYJ AT PRIORITY 100, STARTED ON PRINTER LTA15: ON 5-DEC-1990 12:38 FROM QUEUE SYJM31$PRINT.

DIGITAL EQUIPMENT CORPORATION - VAX/VMS VERSION V5.2-1

ANALYST: Z.KATELIS 26-NOV-90 14:05:44 PROGRAM: GDRIFT 007.E09

DRIFT COMPUTATION REPORT

COMPANY : SHELL AUSTRALIA
WELL : GUMMY #1
FIELD : GIPSLAND BASIN
COUNTRY : AUSTRALIA
REFERENCE: SYJ-56622

ANALYST: Z.KATELIS 26-NOV-90 14:05:44 PROGRAM: GDRIFT 007.E09

SCHLUMBERGER

DRIFT COMPUTATION REPORT

COMPANY : SHELL AUSTRALIA
WELL : GUMMY #1
FIELD : GIPSLAND BASIN
CCUNTRY : AUSTRALIA
REFERENCE: SYJ-56622

LONG DEFINITIONS

GLOBAL

KB - ELEVATION OF THE KELLY-BUSHING ABOVE MSL OR MWL
SRD - ELEVATION OF THE SEISMIC REFERENCE DATUM ABOVE MSL OR MWL
EKB - ELEVATION OF KELLY BUSHING
GL - ELEVATION OF USERS REFERENCE (GENERALLY GROUND LEVEL) ABOVE SRD
XSTART - TOP OF ZONE PROCESSED BY WST
XSTOP - BOTTOM OF ZONE PROCESSED BY WST
GADOO1 - RAW SONIC CHANNEL NAME USED FOR WST SONIC ADJUSTMENT
UNFDEN - UNIFORM DENSITY VALUE

ZONE

LOFDEN - LAYER OPTION FLAG FOR DENSITY : -1=NONE; 0=UNIFORM; 1=UNIFORM+LAYER
LAYDEN - USER SUPPLIED DENSITY DATA

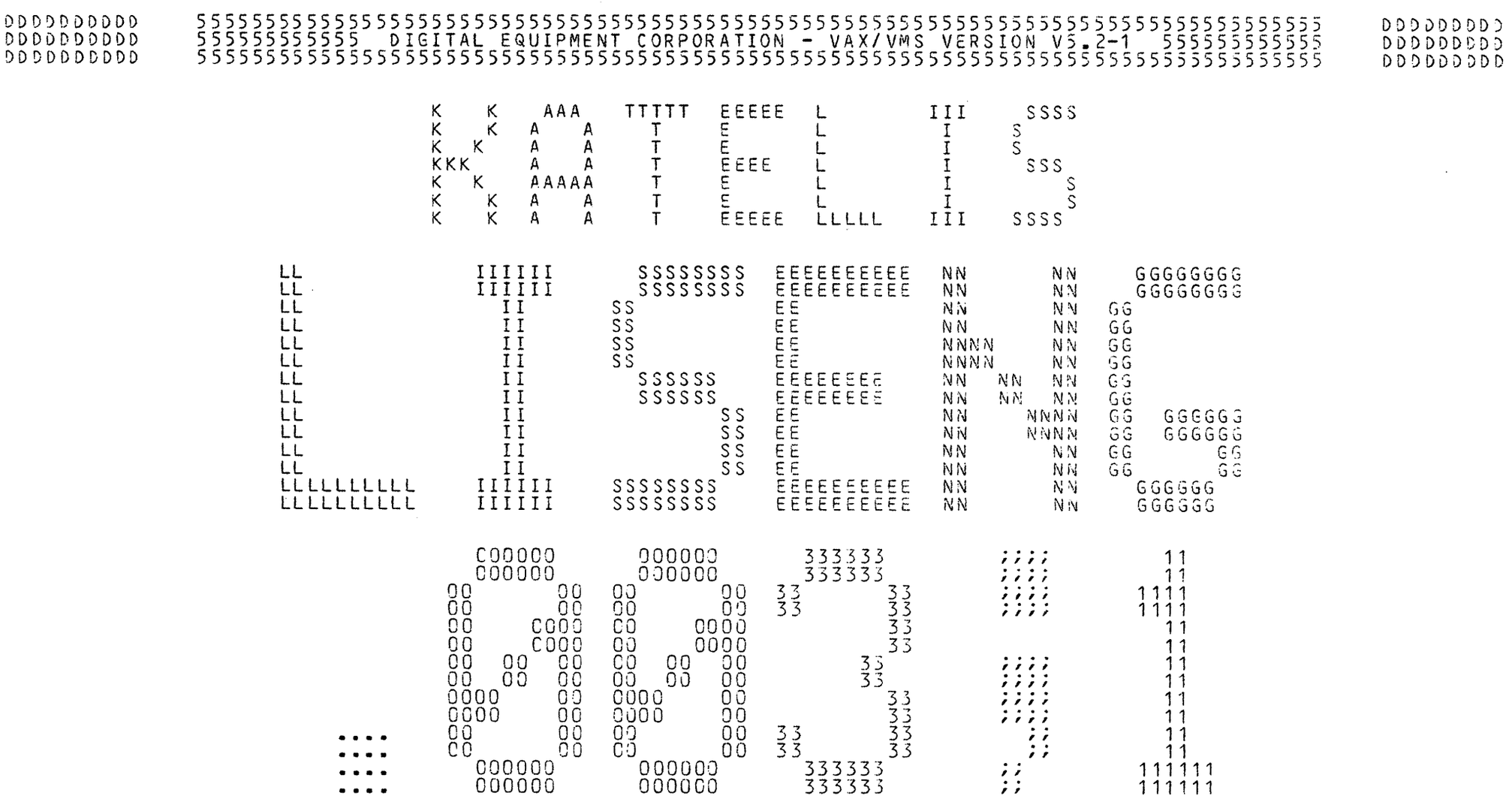
SAMPLED

SHOT - SHOT NUMBER
DKB - MEASURED DEPTH FROM KELLY-BUSHING
DSRD - DEPTH FROM SRD
DGL - VERTICAL DEPTH RELATIVE TO GROUND LEVEL (USERS REFERENCE)
SHTM - SHOT TIME (WST)
RAWS - RAW SONIC (WST)
SHDR - DRIFT AT SHOT OR KNEE
BLSH - BLOCK SHIFT BETWEEN SHOTS OR KNEE

(GLOBAL PARAMETERS)		(VALUE)	
ELEV OF KB AB. MSL (WST)	KB	28.4000	M
ELEV OF SRD AB. MSL(WST)	SRD	0	M
ELEVATION OF KELLY BUSHI	EKB	28.4000	M
ELEV OF GL AB. SRD(WST)	GL	-155.400	M
TOP OF ZONE PROCD (WST)	XSTART	0	M
BOT OF ZONE PROCD (WST)	XSTOP	0	M
RAW SONIC CH NAME (WST)	GADOO1	DT.ATT.002.FLP.*	
UNIFORM DENSITY VALUE	UNFDEN	2.30000	G/C3

(ZONED PARAMETERS)		(VALUE)		(LIMITS)		
LAYER OPTION FLAG DENS	LOFDEN	1.000000		30479.7	-	0
USER SUPPLIED DENSITY DA	LAYDEN	0	G/C3	0	-	0

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	VERTICAL TRAVEL TIME SRD/GEO MS	INTEGRATED RAW SONIC TIME MS	COMPUTED DRIFT AT LEVEL MS	COMPUTED BLK-SHFT CORRECTION US/F
1	183.80	155.40	0	105.00	105.00	0	0
2	1200.00	1171.60	1016.20	504.20	504.20	0	0
3	1400.00	1371.60	1216.20	564.23	561.48	2.74	4.16
4	1600.00	1571.60	1416.20	623.21	619.92	3.30	.84
5	1755.00	1726.60	1571.20	670.92	663.20	7.72	8.70
6	1800.00	1771.60	1616.20	685.30	677.66	7.65	-.49
7	2000.00	1971.60	1816.20	753.93	744.26	9.67	3.08
8	2081.00	2052.60	1897.20	780.55	771.72	8.83	-3.16
9	2200.00	2171.60	2016.20	814.88	806.59	8.28	-1.40
10	2400.00	2371.60	2216.20	871.25	863.36	7.89	-.60
11	2600.00	2571.60	2416.20	927.17	919.59	7.59	-.46
12	2800.00	2771.60	2616.20	983.54	975.05	8.49	1.38
13	3000.00	2971.60	2816.20	1039.89	1030.77	9.12	.96
14	3035.00	3006.60	2851.20	1047.59	1039.49	8.09	-8.97
15	3200.00	3171.60	3016.20	1091.13	1080.29	10.84	5.08
16	3400.00	3371.60	3216.20	1137.25	1129.58	7.67	-4.84
17	3563.00	3534.60	3379.20	1176.59	1170.27	6.32	-2.53



FILE _33DUB2:[56622.GEO]LISENG.003;1 (559,184,0), LAST REVISED ON 26-NOV-1990 14:49, IS A 39 BLOCK SEQUENTIAL FILE OWNED BY UIC [DEFAULT]. THE RECORDS ARE VARIABLE LENGTH WITH FORTRAN (FTN) CARRIAGE CONTROL. THE LONGEST RECORD IS 102 BYTES.

JOB LISENG (780) QUEUED TO SYJM31$PRINT ON 5-DEC-1990 12:35 BY USER KATELIS, UIC [DEFAULT], UNDER ACCOUNT SYJ AT PRIORITY 100, STARTED ON PRINTER LTA15: ON 5-DEC-1990 12:38 FROM QUEUE SYJM31$PRINT.

DDDDDDDDDD 5555555555555555555555555555555555555555555555555555555555555555555555555555555555 DDDDDDDDD
DDDDDDDDDD 555555555555 DIGITAL EQUIPMENT CORPORATION - VAX/VMS VERSION V5.2-1 555555555555 DDDDDDDDD
DDDDDDDDDD 5555555555555555555555555555555555555555555555555555555555555555555555555555555555 DDDDDDDDD

ANALYST: Z.KATELIS 26-NOV-90 14:48:50 PROGRAM: GADJST 008.E08

SCHLUMBERGER

SONIC ADJUSTMENT PARAMETER REPORT

COMPANY : SHELL AUSTRALIA
WELL : GUMMY #1
FIELD : GIPSLAND BASIN
COUNTRY : AUSTRALIA
REFERENCE: SYJ-56622

ANALYST: Z.KATELIS 26-NOV-90 14:48:50 PROGRAM: GADJST 008.E08

SCHLUMBERGER

SONIC ADJUSTMENT PARAMETER REPORT

COMPANY : SHELL AUSTRALIA

WELL : GUMMY #1

FIELD : GIPSLAND BASIN

COUNTRY : AUSTRALIA

REFERENCE: SYJ-56622

LONG DEFINITIONS

GLOBAL

SRCDRF - ORIGIN OF ADJUSTMENT DATA
CONADJ - CONSTANT ADJUSTMENT TO AUTOMATIC DELTA-T MINIMUM = 7.5 US/F
UNERTH - UNIFORM EARTH VELOCITY (GTRFRM)

ZONE

ZDRIFT - USER DRIFT AT BOTTOM OF THE ZONE
ADJOPZ - TYPE OF ADJUSTMNENT IN THE DRIFT ZONE : 0=DELTA-T MIN, 1=BLOCKSHIFT
ADJUSZ - DELTA-T MINIMUM USED FOR ADJUSTMENT IN THE DRIFT ZONE
LOFVEL - LAYER OPTION FLAG FOR VELOCITY: -1=NONE; 0=UNIFORM; 1=UNIFORM+LAYER
LAYVEL - USER SUPPLIED VELOCITY DATA

SAMPLED

SHOT - SHOT NUMBER
VDKB - VERTICAL DEPTH RELATIVE TO KB
DSRD - DEPTH FROM SRD
DGL - VERTICAL DEPTH RELATIVE TO GROUND LEVEL (USERS REFERENCE)
KNEE - KNEE
BLSH - BLOCK SHIFT BETWEEN SHOTS OR KNEE
DTMI - VALUE OF DELTA-T MINIMUM USED
COEF - DELTA-T MIN COEFFICIENT USED IN THE DRIFT ZONE
DRGR - GRADIENT OF DRIFT CURVE

(GLOBAL PARAMETERS)		(VALUE)		
ORIG OF ADJ DATA (WST)	SRCDRF	: 2.00C00		
CONS SONIC ADJST (WST)	CONADJ	: 7.50000	US/F	
UNIFORM EARTH VELOCITY	UNERTH	: 1480.00	M/S	

(ZONED PARAMETERS)		(VALUE)		(LIMITS)		
USER DRIFT ZONE (WST)	ZDRIFT	: 6.1C0000	MS	3563.00	-	3228.00
		10.20000		3228.00		2550.00
		7.60CC00		2550.00		2005.00
		9.70CC00		2005.00		1779.70
		7.600000		1779.70		1200.00
		0		1200.00		0
ADJUSMNT MODE (WST)	ADJOPZ	:-999.2500		30479.7	-	0
USER DELTA-T MIN (WST)	ADJUSZ	:-999.2500	US/F	30479.7	-	0
LAYER OPTION FLAG VELOC	LOFVEL	: 1.000C00		30479.7	-	0
USER VELOC (WST)	LAYVEL	: 2546.C00	M/S	1200.00	-	183.800
		1480.000		183.800		0

KNEE NUMBER	VERTICAL DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	DRIFT AT KNEE MS	BLOCKSHIFT USED US/F	DELTA-T MINIMUM USED US/F	REDUCTION FACTOR G	EQUIVALENT BLOCKSHIFT US/F
					0			0
2	1200.00	1171.60	1016.20	0				
					4.00			4.00
3	1779.70	1751.30	1595.90	7.60				
					2.84			2.84
4	2005.00	1976.60	1821.20	9.70				
						30.50	.87	-1.17
5	2550.00	2521.60	2366.20	7.60				
					1.17			1.17
6	3228.00	3199.60	3044.20	10.20				
						64.37	.58	-3.73
7	3563.00	3534.60	3379.20	6.10				

ANALYST: Z.KATELIS 26-NOV-90 14:48:58 PROGRAM: GADJST 008.E08

SCHLUMBERGER

VELOCITY REPORT

COMPANY : SHELL AUSTRALIA
WELL : GUMMY #1
FIELD : GIPSLAND BASIN
COUNTRY : AUSTRALIA
REFERENCE: SYJ-56622

ANALYST: Z.KATELIS 26-NOV-90 14:48:58 PROGRAM: GADJST 008.EC8

SCHLUMBERGER

VELOCITY REPORT

COMPANY : SHELL AUSTRALIA
WELL : GUMMY #1
FIELD : GIPSLAND BASIN
COUNTRY : AUSTRALIA
REFERENCE: SYJ-56622

LONG DEFINITIONS

GLOBAL

KB - ELEVATION OF THE KELLY-BUSHING ABOVE MSL OR MWL
SRD - ELEVATION OF THE SEISMIC REFERENCE DATUM ABOVE MSL OR MWL
EKB - ELEVATION OF KELLY BUSHING
GL - ELEVATION OF USERS REFERENCE (GENERALLY GROUND LEVEL) ABOVE SRD
UNERTH - UNIFORM EARTH VELOCITY (GTRFRM)

ZONE

LOFVEL - LAYER OPTION FLAG FOR VELOCITY: -1=NONE; 0=UNIFORM; 1=UNIFORM+LAYER
LAYVEL - USER SUPPLIED VELOCITY DATA

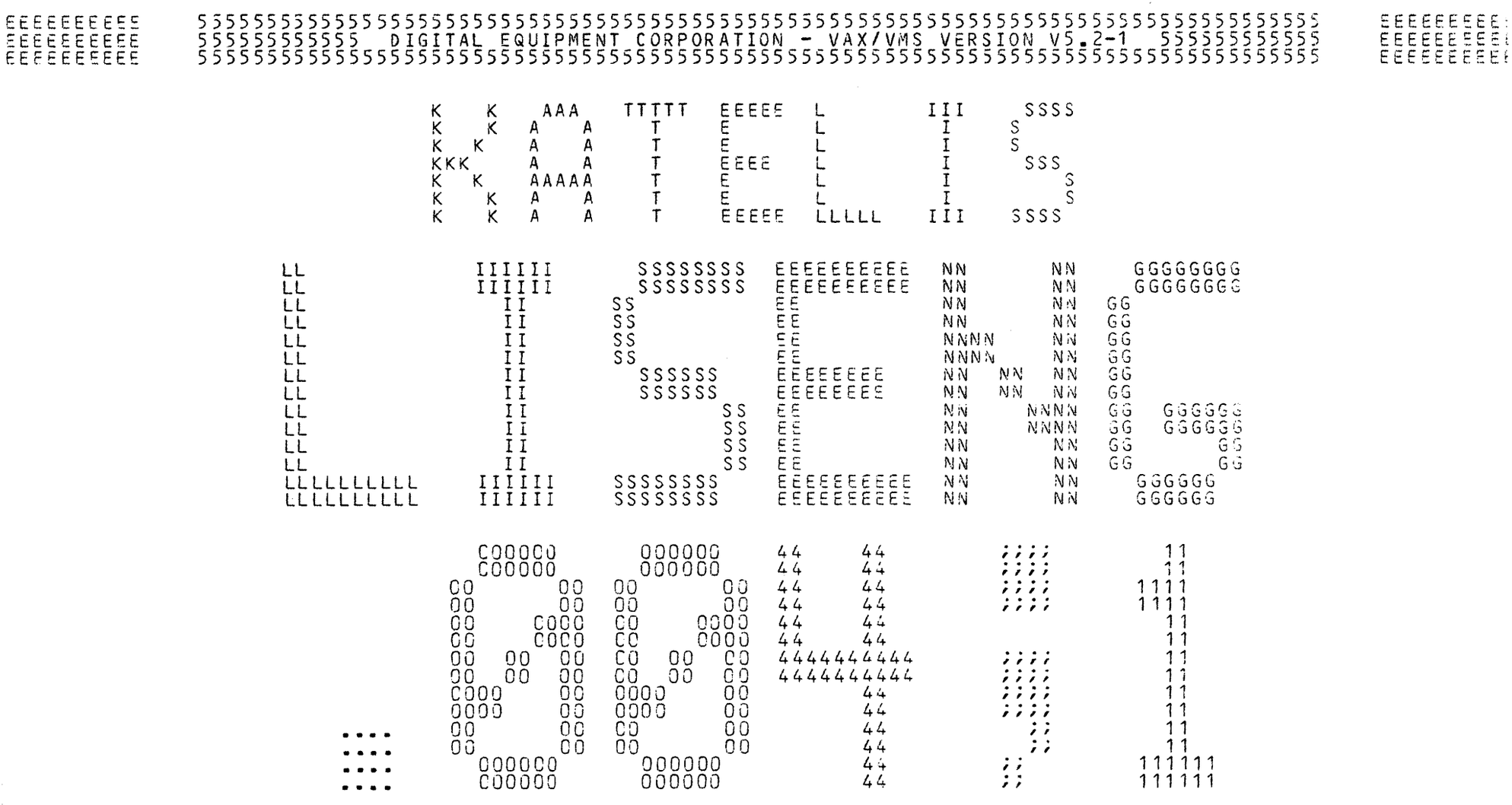
SAMPLED

SHOT - SHOT NUMBER
DKB - MEASURED DEPTH FROM KELLY-BUSHING
DSRD - DEPTH FROM SRD
DGL - VERTICAL DEPTH RELATIVE TO GROUND LEVEL (USERS REFERENCE)
SHTM - SHOT TIME (WST)
ADJS - ADJUSTED SONIC TRAVEL TIME
SHDR - DRIFT AT SHOT OR KNEE
REST - RESIDUAL TRAVEL TIME AT KNEE
INTV - INTERNAL VELOCITY, AVERAGE

(GLOBAL PARAMETERS)		(VALUE)	
ELEV OF KB AB. MSL (WST)	KB	28.4000	M
ELEV OF SRD AB. MSL(WST)	SRD	0	M
ELEVATION OF KELLY BUSHI	EKB	28.4000	M
ELEV OF GL AB. SRD(WST)	GL	-155.400	M
UNIFORM EARTH VELOCITY	UNERTH	1480.00	M/S

(ZONED PARAMETERS)		(VALUE)		(LIMITS)		
LAYER OPTION FLAG VELOC	LOFVEL	1.000000		30479.7	-	0
USER VELOC (WST)	LAYVEL	2546.000	M/S	1200.00	-	183.800
		1480.000		183.800		0

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	VERTICAL TRAVEL TIME SRD/GEOPH MS	INTEGRATED ADJUSTED SONIC TIME MS	DRIFT = SHOT TIME - RAW SON MS	RESIDUAL = SHOT TIME - ADJ SON MS	ADJUSTED INTERVAL VELOCITY M/S
1	183.80	155.40	0	105.00	105.00	0	0	1480
2	1200.00	1171.60	1016.20	504.20	504.20	0	.01	2546
3	1400.00	1371.60	1216.20	564.23	564.09	2.74	.13	3339
4	1600.00	1571.60	1416.20	623.21	625.15	3.30	-1.94	3276
5	1755.00	1726.60	1571.20	670.92	670.47	7.72	.45	3420
6	1800.00	1771.60	1616.20	685.30	685.44	7.65	-.14	3006
7	2000.00	1971.60	1816.20	753.93	753.90	9.67	.02	2921
8	2081.00	2052.60	1897.20	780.55	780.67	8.83	-.12	3026
9	2200.00	2171.60	2016.20	814.88	815.09	8.28	-.21	3458
10	2400.00	2371.60	2216.20	871.25	871.30	7.89	-.06	3558
11	2600.00	2571.60	2416.20	927.17	927.37	7.59	-.20	3567
12	2800.00	2771.60	2616.20	983.54	983.59	8.49	-.06	3557
13	3000.00	2971.60	2816.20	1039.89	1040.08	9.12	-.19	3540
14	3035.00	3006.60	2851.20	1047.59	1048.94	8.09	-1.35	3951
15	3200.00	3171.60	3016.20	1091.13	1090.37	10.84	.77	3983
16	3400.00	3371.60	3216.20	1137.25	1137.21	7.67	.04	4270
17	3563.00	3534.60	3379.20	1176.59	1175.26	6.32	1.33	4283



FILE _38DUB2:[56622.GEO]LISENG.004;1 (564,101,0), LAST REVISED ON 26-NOV-1990 14:51, IS A 556 BLOCK SEQUENTIAL FILE OWNED BY UIC [DEFAULT]. THE RECORDS ARE VARIABLE LENGTH WITH FORTRAN (FTN) CARRIAGE CONTROL. THE LONGEST RECORD IS 102 BYTES.

JOB LISENG (780) QUEUED TO SYJM31$PRINT ON 5-DEC-1990 12:35 BY USER KATELIS, UIC [DEFAULT], UNDER ACCOUNT SYJ AT PRIORITY 100, STARTED ON PRINTER LTA15: ON 5-DEC-1990 12:39 FROM QUEUE SYJM31$PRINT.

SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
DIGITAL EQUIPMENT CORPORATION - VAX/VMS VERSION V5.2-1

ANALYST: Z.KATELIS 26-NOV-90 14:51:03 PROGRAM: GTRFRM 001.E12

SCHLUMBERGER

TIME CONVERTED VELOCITY REPORT

COMPANY : SHELL AUSTRALIA
WELL : GUMMY #1
FIELD : GIPSLAND BASIN
COUNTRY : AUSTRALIA
REFERENCE: SYJ-56622

ANALYST: Z.KATELIS 26-NOV-90 14:51:03 PROGRAM: GTRFRM 001.E12

SCHLUMBERGER

TIME CONVERTED VELOCITY REPORT

COMPANY : SHELL AUSTRALIA
WELL : GUMMY #1
FIELD : GIPSLAND BASIN
COUNTRY : AUSTRALIA
REFERENCE: SYJ-56622

LONG DEFINITIONS

GLOBAL

KB - ELEVATION OF THE KELLY-BUSHING ABOVE MSL OR MWL
SRD - ELEVATION OF THE SEISMIC REFERENCE DATUM ABOVE MSL OR MWL
GL - ELEVATION OF USERS REFERENCE (GENERALLY GROUND LEVEL) ABOVE SRD
UNERTH - UNIFORM EARTH VELOCITY (GTRFRM)
UNFDEN - UNIFORM DENSITY VALUE

MATRIX

MVODIS - MOVE-OUT DISTANCE FROM BOREHOLE

ZONE

LOFVEL - LAYER OPTION FLAG FOR VELOCITY: -1=NONE; 0=UNIFORM; 1=UNIFORM+LAYER
LAYVEL - USER SUPPLIED VELOCITY DATA
LOFDEN - LAYER OPTION FLAG FOR DENSITY : -1=NONE; 0=UNIFORM; 1=UNIFORM+LAYER
LAYDEN - USER SUPPLIED DENSITY DATA

SAMPLED

TWOT - TWO WAY TRAVEL TIME (RELATIVE TO THE SEISMIC REFERENCE)
DKB - MEASURED DEPTH FROM KELLY-BUSHING
DSRD - DEPTH FROM SRD
AVGV - AVERAGE SEISMIC VELOCITY
RMSV - ROOT MEAN SQUARE VELOCITY (SEISMIC)
MVOT - NORMAL MOVE-OUT
MVOT - NORMAL MOVE-OUT
MVOT - NORMAL MOVE-OUT
INTV - INTERNAL VELOCITY, AVERAGE

(GLOBAL PARAMETERS)		(VALUE)	
ELEV OF KB AB. MSL (WST)	KB	: 28.4000	M
ELEV OF SRD AB. MSL(WST)	SRD	: 0	M
ELEV OF GL AB. SRD(WST)	GL	: -155.400	M
UNIFORM EARTH VELOCITY	UNERTH	: 1480.00	M/S
UNIFORM DENSITY VALUE	UNFDEN	: 2.30000	G/C3

(MATRIX PARAMETERS)

	MVOUT DIST M
1	1000.0
2	1500.0
3	2000.0

(ZONED PARAMETERS)		(VALUE)		(LIMITS)
LAYER OPTION FLAG VELOC	LOFVEL	: 1.000000		30479.7 - 0
USER VELOC (WST)	LAYVEL	: 2546.000	M/S	1200.00 - 183.800
		1480.000		183.800 0
LAYER OPTION FLAG DENS	LOFDEN	: 1.000000		30479.7 - 0
USER SUPPLIED DENSITY DA	LAYDEN	: 0	G/C3	0 - 0

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
0	28.40	0						1480
2.00	29.88	1.48	1480	1480	673.68	1011.52	1349.35	1480
4.00	31.36	2.96	1480	1480	671.69	1009.52	1347.36	1480
6.00	32.84	4.44	1480	1480	669.70	1007.53	1345.36	1480
8.00	34.32	5.92	1480	1480	667.72	1005.55	1343.38	1480
10.00	35.80	7.40	1480	1480	665.75	1003.56	1341.39	1480
12.00	37.28	8.88	1480	1480	663.78	1001.58	1339.40	1480
14.00	38.76	10.36	1480	1480	661.82	999.61	1337.42	1480
16.00	40.24	11.84	1480	1480	659.87	997.64	1335.45	1480
18.00	41.72	13.32	1480	1480	657.92	995.67	1333.47	1480
20.00	43.20	14.80	1480	1480	655.97	993.71	1331.50	1480
22.00	44.68	16.28	1480	1480	654.03	991.75	1329.53	1480
24.00	46.16	17.76	1480	1480	652.10	989.80	1327.56	1480
26.00	47.64	19.24	1480	1480	650.18	987.85	1325.60	1480
28.00	49.12	20.72	1480	1480	648.26	985.90	1323.64	1480
30.00	50.60	22.20	1480	1480	646.34	983.96	1321.68	1480
32.00	52.08	23.68	1480	1480	644.43	982.02	1319.73	1480
34.00	53.56	25.16	1480	1480	642.53	980.08	1317.78	1480
36.00	55.04	26.64	1480	1480	640.63	978.15	1315.83	1480
38.00	56.52	28.12	1480	1480	638.74	976.23	1313.89	1480
40.00	58.00	29.60	1480	1480	636.86	974.30	1311.94	1480
42.00	59.48	31.08	1480	1480	634.98	972.38	1310.00	1480
44.00	60.96	32.56	1480	1480	633.11	970.47	1308.07	1480
46.00	62.44	34.04	1480	1480	631.24	968.56	1306.13	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
								1480
48.00	63.92	35.52	1480	1480	629.38	966.65	1304.20	1480
50.00	65.40	37.00	1480	1480	627.52	964.75	1302.28	1480
52.00	66.88	38.48	1480	1480	625.67	962.85	1300.35	1480
54.00	68.36	39.96	1480	1480	623.83	960.95	1298.43	1480
56.00	69.84	41.44	1480	1480	621.99	959.06	1296.51	1480
58.00	71.32	42.92	1480	1480	620.16	957.17	1294.60	1480
60.00	72.80	44.40	1480	1480	618.33	955.29	1292.68	1480
62.00	74.28	45.88	1480	1480	616.51	953.41	1290.77	1480
64.00	75.76	47.36	1480	1480	614.70	951.53	1288.87	1480
66.00	77.24	48.84	1480	1480	612.89	949.66	1286.96	1480
68.00	78.72	50.32	1480	1480	611.09	947.79	1285.06	1480
70.00	80.20	51.80	1480	1480	609.29	945.93	1283.16	1480
72.00	81.68	53.28	1480	1480	607.50	944.07	1281.27	1480
74.00	83.16	54.76	1480	1480	605.72	942.21	1279.38	1480
76.00	84.64	56.24	1480	1480	603.94	940.36	1277.49	1480
78.00	86.12	57.72	1480	1480	602.16	938.51	1275.60	1480
80.00	87.60	59.20	1480	1480	600.40	936.67	1273.72	1480
82.00	89.08	60.68	1480	1480	598.63	934.83	1271.84	1480
84.00	90.56	62.16	1480	1480	596.88	932.99	1269.96	1480
86.00	92.04	63.64	1480	1480	595.13	931.16	1268.08	1480
88.00	93.52	65.12	1480	1480	593.38	929.33	1266.21	1480
90.00	95.00	66.60	1480	1480	591.64	927.50	1264.34	1480
92.00	96.48	68.08	1480	1480	589.91	925.68	1262.48	1480
94.00	97.96	69.56	1480	1480	588.18	923.86	1260.62	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
96.00	99.44	71.04	1480	1480	586.46	922.05	1258.76	1480
98.00	100.92	72.52	1480	1480	584.75	920.24	1256.90	1480
100.00	102.40	74.00	1480	1480	583.04	918.43	1255.05	1480
102.00	103.88	75.48	1480	1480	581.33	916.63	1253.20	1480
104.00	105.36	76.96	1480	1480	579.63	914.84	1251.35	1480
106.00	106.84	78.44	1480	1480	577.94	913.04	1249.50	1480
108.00	108.32	79.92	1480	1480	576.25	911.25	1247.66	1480
110.00	109.80	81.40	1480	1480	574.57	909.47	1245.82	1480
112.00	111.28	82.88	1480	1480	572.90	907.68	1243.98	1480
114.00	112.76	84.36	1480	1480	571.23	905.90	1242.15	1480
116.00	114.24	85.84	1480	1480	569.56	904.13	1240.32	1480
118.00	115.72	87.32	1480	1480	567.90	902.36	1238.49	1480
120.00	117.20	88.80	1480	1480	566.25	900.59	1236.67	1480
122.00	118.68	90.28	1480	1480	564.60	898.83	1234.85	1480
124.00	120.16	91.76	1480	1480	562.96	897.07	1233.03	1480
126.00	121.64	93.24	1480	1480	561.32	895.32	1231.21	1480
128.00	123.12	94.72	1480	1480	559.69	893.56	1229.40	1480
130.00	124.60	96.20	1480	1480	558.07	891.82	1227.59	1480
132.00	126.03	97.68	1480	1480	556.45	890.07	1225.78	1480
134.00	127.56	99.16	1480	1480	554.83	888.33	1223.98	1480
136.00	129.04	100.64	1480	1480	553.23	886.60	1222.18	1480
138.00	130.52	102.12	1480	1480	551.62	884.87	1220.38	1480
140.00	132.00	103.60	1480	1480	550.03	883.14	1218.58	1480
142.00	133.48	105.08	1480	1480	548.44	881.41	1216.79	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
144.00	134.96	106.56	1480	1480	546.85	879.69	1215.00	1480
146.00	136.44	108.04	1480	1480	545.27	877.98	1213.22	1480
148.00	137.92	109.52	1480	1480	543.69	876.26	1211.43	1480
150.00	139.40	111.00	1480	1480	542.13	874.55	1209.65	1480
152.00	140.88	112.48	1480	1480	540.56	872.85	1207.87	1480
154.00	142.36	113.96	1480	1480	539.00	871.15	1206.10	1480
156.00	143.84	115.44	1480	1480	537.45	869.45	1204.33	1480
158.00	145.32	116.92	1480	1480	535.90	867.76	1202.56	1480
160.00	146.80	118.40	1480	1480	534.36	866.07	1200.79	1480
162.00	148.28	119.88	1480	1480	532.82	864.38	1199.03	1480
164.00	149.76	121.36	1480	1480	531.29	862.70	1197.27	1480
166.00	151.24	122.84	1480	1480	529.77	861.02	1195.51	1480
168.00	152.72	124.32	1480	1480	528.25	859.34	1193.75	1480
170.00	154.20	125.80	1480	1480	526.73	857.67	1192.00	1480
172.00	155.68	127.28	1480	1480	525.22	856.00	1190.25	1480
174.00	157.16	128.76	1480	1480	523.72	854.34	1188.51	1480
176.00	158.64	130.24	1480	1480	522.22	852.68	1186.76	1480
178.00	160.12	131.72	1480	1480	520.73	851.03	1185.02	1480
180.00	161.60	133.20	1480	1480	519.24	849.37	1183.29	1480
182.00	163.08	134.68	1480	1480	517.76	847.73	1181.55	1480
184.00	164.56	136.16	1480	1480	516.28	846.08	1179.82	1480
186.00	166.04	137.64	1480	1480	514.81	844.44	1178.09	1480
188.00	167.52	139.12	1480	1480	513.34	842.80	1176.37	1480
190.00	169.00	140.60	1480	1480	511.88	841.17	1174.64	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
192.00	170.48	142.08	1480	1480	510.43	839.54	1172.92	1480
194.00	171.96	143.56	1480	1480	508.97	837.91	1171.21	1480
196.00	173.44	145.04	1480	1480	507.53	836.29	1169.49	1480
198.00	174.92	146.52	1480	1480	506.09	834.67	1167.78	1480
200.00	176.40	148.00	1480	1480	504.65	833.06	1166.07	1480
202.00	177.88	149.48	1480	1480	503.22	831.45	1164.37	1480
204.00	179.36	150.96	1480	1480	501.80	829.84	1162.66	1480
206.00	180.84	152.44	1480	1480	500.38	828.24	1160.96	1480
208.00	182.32	153.92	1480	1480	498.97	826.64	1159.27	1555
210.00	183.88	155.48	1481	1481	497.24	824.55	1156.91	2546
212.00	186.42	158.02	1491	1494	489.97	813.94	1143.03	2546
214.00	188.97	160.57	1501	1508	482.99	803.74	1129.80	2546
216.00	191.51	163.11	1510	1520	476.28	793.94	1117.05	2546
218.00	194.06	165.66	1520	1533	469.80	784.50	1104.77	2546
220.00	196.60	168.20	1529	1545	463.56	775.40	1092.95	2546
222.00	199.15	170.75	1538	1557	457.54	766.63	1081.55	2546
224.00	201.69	173.29	1547	1569	451.72	758.15	1070.54	2546
226.00	204.24	175.84	1556	1580	446.09	749.95	1059.92	2546
228.00	206.79	178.39	1565	1591	440.64	742.02	1049.64	2546
230.00	209.33	180.93	1573	1602	435.36	734.35	1039.69	2546
232.00	211.88	183.48	1582	1612	430.25	726.91	1030.06	2546
234.00	214.42	186.02	1590	1622	425.28	719.69	1020.73	2546
236.00	216.97	188.57	1598	1632	420.46	712.69	1011.67	2546
238.00	219.51	191.11	1606	1642	415.78	705.88	1002.89	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
240.00	222.06	193.66	1614	1652	411.23	699.27	994.35	2546
242.00	224.60	196.20	1622	1661	406.81	692.84	986.05	2546
244.00	227.15	198.75	1629	1670	402.50	686.59	977.98	2546
246.00	229.70	201.30	1637	1679	398.30	680.50	970.13	2546
248.00	232.24	203.84	1644	1688	394.22	674.56	962.48	2546
250.00	234.79	206.39	1651	1697	390.23	668.77	955.03	2546
252.00	237.33	208.93	1658	1705	386.35	663.13	947.77	2546
254.00	239.88	211.48	1665	1713	382.56	657.63	940.68	2546
256.00	242.42	214.02	1672	1721	378.85	652.25	933.77	2546
258.00	244.97	216.57	1679	1729	375.24	647.00	927.02	2546
260.00	247.51	219.11	1685	1737	371.70	641.87	920.42	2546
262.00	250.06	221.66	1692	1745	368.25	636.85	913.98	2546
264.00	252.61	224.21	1699	1752	364.87	631.94	907.68	2546
266.00	255.15	226.75	1705	1759	361.57	627.14	901.52	2546
268.00	257.70	229.30	1711	1766	358.33	622.44	895.49	2546
270.00	260.24	231.84	1717	1773	355.17	617.84	889.59	2546
272.00	262.79	234.39	1723	1780	352.07	613.33	883.81	2546
274.00	265.33	236.93	1729	1787	349.03	608.91	878.14	2546
276.00	267.88	239.48	1735	1794	346.05	604.58	872.59	2546
278.00	270.42	242.02	1741	1800	343.13	600.33	867.15	2546
280.00	272.97	244.57	1747	1807	340.27	596.16	861.82	2546
282.00	275.52	247.12	1753	1813	337.46	592.07	856.58	2546
284.00	278.06	249.66	1758	1819	334.71	588.06	851.44	2546
286.00	280.61	252.21	1764	1825	332.00	584.11	846.40	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
288.00	283.15	254.75	1769	1831	329.35	580.24	841.45	2546
290.00	285.70	257.30	1774	1837	326.74	576.44	836.58	2546
292.00	288.24	259.84	1780	1843	324.18	572.70	831.80	2546
294.00	290.79	262.39	1785	1849	321.67	569.02	827.11	2546
296.00	293.33	264.93	1790	1854	319.20	565.41	822.49	2546
298.00	295.88	267.48	1795	1860	316.77	561.86	817.95	2546
300.00	298.43	270.03	1800	1865	314.38	558.36	813.48	2546
302.00	300.97	272.57	1805	1870	312.03	554.92	809.08	2546
304.00	303.52	275.12	1810	1876	309.72	551.54	804.76	2546
306.00	306.06	277.66	1815	1881	307.44	548.20	800.50	2546
308.00	308.61	280.21	1820	1886	305.21	544.92	796.31	2546
310.00	311.15	282.75	1824	1891	303.01	541.69	792.18	2546
312.00	313.70	285.30	1829	1896	300.84	538.50	788.12	2546
314.00	316.24	287.84	1833	1901	298.71	535.37	784.11	2546
316.00	318.79	290.39	1838	1905	296.60	532.27	780.16	2546
318.00	321.34	292.94	1842	1910	294.54	529.23	776.27	2546
320.00	323.88	295.48	1847	1915	292.50	526.22	772.43	2546
322.00	326.43	298.03	1851	1919	290.49	523.26	768.65	2546
324.00	328.97	300.57	1855	1924	288.51	520.34	764.92	2546
326.00	331.52	303.12	1860	1928	286.56	517.46	761.24	2546
328.00	334.06	305.66	1864	1933	284.64	514.62	757.61	2546
330.00	336.61	308.21	1868	1937	282.74	511.81	754.03	2546
332.00	339.15	310.75	1872	1941	280.88	509.04	750.49	2546
334.00	341.70	313.30	1876	1945	279.03	506.31	747.00	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
336.00	344.25	315.84	1880	1949	277.22	503.62	743.56	2546
338.00	346.79	318.39	1884	1953	275.42	500.95	740.16	2546
340.00	349.34	320.94	1888	1958	273.66	498.32	736.80	2546
342.00	351.88	323.48	1892	1961	271.91	495.73	733.48	2546
344.00	354.43	326.03	1896	1965	270.19	493.16	730.20	2546
346.00	356.97	328.57	1899	1969	268.49	490.63	726.96	2546
348.00	359.52	331.12	1903	1973	266.81	488.13	723.76	2546
350.00	362.06	333.66	1907	1977	265.16	485.65	720.60	2546
352.00	364.61	336.21	1910	1980	263.52	483.21	717.47	2546
354.00	367.15	338.75	1914	1984	261.91	480.80	714.38	2546
356.00	369.70	341.30	1917	1988	260.32	478.41	711.32	2546
358.00	372.25	343.85	1921	1991	258.74	476.05	708.30	2546
360.00	374.79	346.39	1924	1995	257.19	473.71	705.31	2546
362.00	377.34	348.94	1928	1998	255.66	471.41	702.36	2546
364.00	379.88	351.48	1931	2002	254.14	469.12	699.44	2546
366.00	382.43	354.03	1935	2005	252.64	466.87	696.54	2546
368.00	384.97	356.57	1938	2008	251.16	464.63	693.68	2546
370.00	387.52	359.12	1941	2012	249.70	462.43	690.85	2546
372.00	390.06	361.66	1944	2015	248.25	460.24	688.05	2546
374.00	392.61	364.21	1948	2018	246.82	458.08	685.27	2546
376.00	395.16	366.76	1951	2021	245.41	455.94	682.53	2546
378.00	397.70	369.30	1954	2024	244.02	453.82	679.81	2546
380.00	400.25	371.85	1957	2027	242.64	451.73	677.12	2546
382.00	402.79	374.39	1960	2031	241.27	449.65	674.46	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
384.00	405.34	376.94	1963	2034	239.92	447.60	671.82	2546
386.00	407.88	379.48	1966	2037	238.59	445.57	669.21	2546
388.00	410.43	382.03	1969	2039	237.27	443.56	666.62	2546
390.00	412.97	384.57	1972	2042	235.97	441.56	664.05	2546
392.00	415.52	387.12	1975	2045	234.68	439.59	661.52	2546
394.00	418.07	389.67	1978	2048	233.40	437.64	659.00	2546
396.00	420.61	392.21	1981	2051	232.14	435.70	656.51	2546
398.00	423.16	394.76	1984	2054	230.89	433.79	654.04	2546
400.00	425.70	397.30	1987	2056	229.65	431.89	651.59	2546
402.00	428.25	399.85	1989	2059	228.43	430.01	649.17	2546
404.00	430.79	402.39	1992	2062	227.22	428.14	646.76	2546
406.00	433.34	404.94	1995	2065	226.02	426.30	644.38	2546
408.00	435.88	407.48	1997	2067	224.84	424.47	642.02	2546
410.00	438.43	410.03	2000	2070	223.66	422.66	639.68	2546
412.00	440.98	412.58	2003	2072	222.50	420.86	637.36	2546
414.00	443.52	415.12	2005	2075	221.36	419.08	635.06	2546
416.00	446.07	417.67	2008	2077	220.22	417.32	632.77	2546
418.00	448.61	420.21	2011	2080	219.09	415.57	630.51	2546
420.00	451.16	422.76	2013	2082	217.98	413.84	628.27	2546
422.00	453.70	425.30	2016	2085	216.88	412.12	626.04	2546
424.00	456.25	427.85	2018	2087	215.78	410.42	623.84	2546
426.00	458.79	430.39	2021	2090	214.70	408.73	621.65	2546
428.00	461.34	432.94	2023	2092	213.63	407.06	619.48	2546
430.00	463.89	435.49	2026	2094	212.57	405.40	617.32	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
432.00	466.43	438.03	2028	2097	211.52	403.75	615.13	2546
434.00	468.98	440.58	2030	2099	210.48	402.12	613.06	2546
436.00	471.52	443.12	2033	2101	209.45	400.50	610.96	2546
438.00	474.07	445.67	2035	2103	208.43	398.90	608.87	2546
440.00	476.61	448.21	2037	2106	207.42	397.31	606.80	2546
442.00	479.16	450.76	2040	2108	206.42	395.73	604.75	2546
444.00	481.70	453.30	2042	2110	205.42	394.16	602.71	2546
446.00	484.25	455.85	2044	2112	204.44	392.61	600.68	2546
448.00	486.80	458.40	2046	2114	203.47	391.07	598.67	2546
450.00	489.34	460.94	2049	2116	202.50	389.54	596.68	2546
452.00	491.89	463.49	2051	2118	201.55	388.03	594.70	2546
454.00	494.43	466.03	2053	2121	200.60	386.52	592.73	2546
456.00	496.98	468.58	2055	2123	199.66	385.03	590.78	2546
458.00	499.52	471.12	2057	2125	198.73	383.55	588.84	2546
460.00	502.07	473.67	2059	2127	197.81	382.08	586.92	2546
462.00	504.61	476.21	2062	2129	196.89	380.62	585.01	2546
464.00	507.16	478.76	2064	2131	195.99	379.18	583.12	2546
466.00	509.71	481.31	2066	2133	195.09	377.74	581.23	2546
468.00	512.25	483.85	2068	2134	194.20	376.32	579.37	2546
470.00	514.80	486.40	2070	2136	193.32	374.90	577.51	2546
472.00	517.34	488.94	2072	2138	192.45	373.50	575.67	2546
474.00	519.89	491.49	2074	2140	191.58	372.11	573.84	2546
476.00	522.43	494.03	2076	2142	190.72	370.73	572.02	2546
478.00	524.98	496.58	2078	2144	189.87	369.35	570.21	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
480.00	527.52	499.12	2080	2146	189.03	367.99	568.42	2546
482.00	530.07	501.67	2082	2148	188.19	366.64	566.64	2546
484.00	532.62	504.22	2084	2149	187.36	365.30	564.87	2546
486.00	535.16	506.76	2085	2151	186.54	363.96	563.11	2546
488.00	537.71	509.31	2087	2153	185.72	362.64	561.36	2546
490.00	540.25	511.85	2089	2155	184.91	361.33	559.63	2546
492.00	542.80	514.40	2091	2156	184.11	360.02	557.90	2546
494.00	545.34	516.94	2093	2158	183.31	358.73	556.19	2546
496.00	547.89	519.49	2095	2160	182.52	357.44	554.49	2546
498.00	550.43	522.03	2097	2161	181.74	356.17	552.80	2546
500.00	552.98	524.58	2098	2163	180.96	354.90	551.12	2546
502.00	555.53	527.13	2100	2165	180.19	353.64	549.45	2546
504.00	558.07	529.67	2102	2166	179.43	352.39	547.79	2546
506.00	560.62	532.22	2104	2168	178.67	351.15	546.14	2546
508.00	563.16	534.76	2105	2170	177.92	349.92	544.50	2546
510.00	565.71	537.31	2107	2171	177.18	348.69	542.88	2546
512.00	568.25	539.85	2109	2173	176.44	347.48	541.26	2546
514.00	570.80	542.40	2111	2174	175.70	346.27	539.65	2546
516.00	573.34	544.94	2112	2176	174.98	345.07	538.05	2546
518.00	575.89	547.49	2114	2178	174.25	343.88	536.46	2546
520.00	578.44	550.04	2116	2179	173.54	342.69	534.88	2546
522.00	580.98	552.58	2117	2181	172.83	341.52	533.32	2546
524.00	583.53	555.13	2119	2182	172.12	340.35	531.76	2546
526.00	586.07	557.67	2120	2184	171.42	339.19	530.20	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
528.00	588.62	560.22	2122	2185	170.73	338.04	528.66	2546
530.00	591.16	562.76	2124	2187	170.04	336.89	527.13	2546
532.00	593.71	565.31	2125	2188	169.36	335.75	525.61	2546
534.00	596.25	567.85	2127	2189	168.68	334.62	524.09	2546
536.00	598.80	570.40	2128	2191	168.01	333.50	522.59	2546
538.00	601.35	572.95	2130	2192	167.34	332.39	521.09	2546
540.00	603.89	575.49	2131	2194	166.67	331.28	519.60	2546
542.00	606.44	578.04	2133	2195	166.02	330.18	518.12	2546
544.00	608.98	580.58	2134	2197	165.36	329.08	516.65	2546
546.00	611.53	583.13	2136	2198	164.72	328.00	515.19	2546
548.00	614.07	585.67	2137	2199	164.07	326.92	513.73	2546
550.00	616.62	588.22	2139	2201	163.43	325.84	512.29	2546
552.00	619.16	590.76	2140	2202	162.80	324.78	510.85	2546
554.00	621.71	593.31	2142	2203	162.17	323.72	509.42	2546
556.00	624.26	595.86	2143	2205	161.55	322.66	508.00	2546
558.00	626.80	598.40	2145	2206	160.93	321.62	506.58	2546
560.00	629.35	600.95	2146	2207	160.31	320.57	505.18	2546
562.00	631.89	603.49	2148	2209	159.70	319.54	503.78	2546
564.00	634.44	606.04	2149	2210	159.10	318.51	502.39	2546
566.00	636.98	608.58	2150	2211	158.49	317.49	501.00	2546
568.00	639.53	611.13	2152	2212	157.90	316.48	499.63	2546
570.00	642.07	613.67	2153	2214	157.30	315.47	498.26	2546
572.00	644.62	616.22	2155	2215	156.71	314.47	496.90	2546
574.00	647.17	618.77	2156	2216	156.13	313.47	495.54	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
576.00	649.71	621.31	2157	2217	155.55	312.48	494.20	2546
578.00	652.26	623.86	2159	2219	154.97	311.49	492.86	2546
580.00	654.80	626.40	2160	2220	154.40	310.51	491.52	2546
582.00	657.35	628.95	2161	2221	153.83	309.54	490.20	2545
584.00	659.89	631.49	2163	2222	153.26	308.57	488.88	2546
586.00	662.44	634.04	2164	2223	152.70	307.61	487.57	2545
588.00	664.98	636.58	2165	2225	152.15	306.66	486.26	2546
590.00	667.53	639.13	2167	2226	151.59	305.71	484.97	2546
592.00	670.08	641.68	2168	2227	151.05	304.76	483.67	2546
594.00	672.62	644.22	2169	2228	150.50	303.82	482.39	2546
596.00	675.17	646.77	2170	2229	149.96	302.89	481.11	2546
598.00	677.71	649.31	2172	2230	149.42	301.96	479.84	2546
600.00	680.26	651.86	2173	2231	148.89	301.04	478.58	2545
602.00	682.80	654.40	2174	2233	148.36	300.12	477.32	2545
604.00	685.35	656.95	2175	2234	147.83	299.21	476.07	2546
606.00	687.89	659.49	2177	2235	147.31	298.30	474.82	2545
608.00	690.44	662.04	2178	2236	146.79	297.40	473.58	2546
610.00	692.99	664.59	2179	2237	146.27	296.50	472.35	2545
612.00	695.53	667.13	2180	2238	145.76	295.61	471.12	2546
614.00	698.08	669.68	2181	2239	145.25	294.73	469.90	2545
616.00	700.62	672.22	2183	2240	144.74	293.84	468.69	2546
618.00	703.17	674.77	2184	2241	144.24	292.97	467.48	2546
620.00	705.71	677.31	2185	2242	143.74	292.10	466.27	2546
622.00	708.26	679.86	2186	2243	143.24	291.23	465.08	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
624.00	710.80	682.40	2187	2244	142.75	290.37	463.89	2546
626.00	713.35	684.95	2188	2245	142.26	289.51	462.70	2546
628.00	715.90	687.50	2189	2246	141.77	288.66	461.52	2546
630.00	718.44	690.04	2191	2247	141.29	287.81	460.35	2546
632.00	720.99	692.59	2192	2248	140.81	286.97	459.18	2546
634.00	723.53	695.13	2193	2249	140.33	286.13	458.02	2546
636.00	726.08	697.68	2194	2250	139.86	285.30	456.86	2546
638.00	728.62	700.22	2195	2251	139.39	284.47	455.71	2546
640.00	731.17	702.77	2196	2252	138.92	283.64	454.57	2546
642.00	733.71	705.31	2197	2253	138.46	282.82	453.43	2546
644.00	736.26	707.86	2198	2254	137.99	282.01	452.29	2546
646.00	738.81	710.41	2199	2255	137.54	281.20	451.16	2546
648.00	741.35	712.95	2200	2256	137.08	280.39	450.04	2546
650.00	743.90	715.50	2202	2257	136.63	279.59	448.92	2545
652.00	746.44	718.04	2203	2258	136.18	278.79	447.81	2546
654.00	748.99	720.59	2204	2259	135.73	278.00	446.70	2545
656.00	751.53	723.13	2205	2260	135.28	277.21	445.60	2546
658.00	754.08	725.68	2206	2261	134.84	276.42	444.50	2545
660.00	756.62	728.22	2207	2262	134.40	275.64	443.41	2546
662.00	759.17	730.77	2208	2263	133.97	274.86	442.32	2545
664.00	761.72	733.32	2209	2264	133.53	274.09	441.24	2546
666.00	764.26	735.86	2210	2265	133.10	273.32	440.16	2546
668.00	766.81	738.41	2211	2265	132.67	272.56	439.09	2546
670.00	769.35	740.95	2212	2266	132.25	271.80	438.02	2546

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
672.00	771.90	743.50	2213	2267	131.82	271.04	436.96	2546
674.00	774.44	746.04	2214	2268	131.40	270.29	435.90	2546
676.00	776.99	748.59	2215	2269	130.99	269.54	434.85	2546
678.00	779.53	751.13	2216	2270	130.57	268.79	433.80	2545
680.00	782.08	753.68	2217	2271	130.16	268.05	432.75	2546
682.00	784.63	756.23	2218	2271	129.75	267.31	431.72	2545
684.00	787.17	758.77	2219	2272	129.34	266.58	430.68	2546
686.00	789.72	761.32	2220	2273	128.93	265.85	429.65	2545
688.00	792.26	763.86	2221	2274	128.53	265.12	428.63	2546
690.00	794.81	766.41	2221	2275	128.13	264.40	427.61	2545
692.00	797.35	768.95	2222	2276	127.73	263.68	426.59	2546
694.00	799.90	771.50	2223	2277	127.34	262.97	425.58	2546
696.00	802.44	774.04	2224	2277	126.94	262.26	424.57	2546
698.00	804.99	776.59	2225	2278	126.55	261.55	423.57	2546
700.00	807.54	779.14	2226	2279	126.16	260.84	422.57	2546
702.00	810.08	781.68	2227	2280	125.77	260.14	421.58	2546
704.00	812.63	784.23	2228	2281	125.39	259.45	420.59	2545
706.00	815.17	786.77	2229	2281	125.01	258.75	419.61	2546
708.00	817.72	789.32	2230	2282	124.63	258.06	413.63	2546
710.00	820.26	791.86	2231	2283	124.25	257.38	417.65	2546
712.00	822.81	794.41	2231	2284	123.87	256.69	416.63	2546
714.00	825.35	796.95	2232	2284	123.50	256.01	415.71	2546
716.00	827.90	799.50	2233	2285	123.13	255.34	414.75	2546
718.00	830.45	802.05	2234	2286	122.76	254.66	413.79	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
720.00	832.99	804.59	2235	2287	122.39	253.99	412.83	2546
722.00	835.54	807.14	2236	2288	122.03	253.33	411.88	2546
724.00	838.08	809.68	2237	2288	121.67	252.66	410.93	2545
726.00	840.63	812.23	2238	2289	121.31	252.00	409.99	2546
728.00	843.17	814.77	2238	2290	120.95	251.35	409.05	2545
730.00	845.72	817.32	2239	2291	120.59	250.69	408.12	2546
732.00	848.26	819.86	2240	2291	120.23	250.04	407.19	2545
734.00	850.81	822.41	2241	2292	119.88	249.39	406.26	2545
736.00	853.36	824.96	2242	2293	119.53	248.75	405.34	2545
738.00	855.90	827.50	2243	2293	119.18	248.11	404.42	2546
740.00	858.45	830.05	2243	2294	118.84	247.47	403.50	2546
742.00	860.99	832.59	2244	2295	118.49	246.84	402.59	2546
744.00	863.54	835.14	2245	2296	118.15	246.20	401.68	2546
746.00	866.08	837.68	2246	2296	117.81	245.57	400.78	2546
748.00	868.63	840.23	2247	2297	117.47	244.95	399.88	2545
750.00	871.17	842.77	2247	2298	117.13	244.33	398.98	2545
752.00	873.72	845.32	2248	2298	116.80	243.71	398.09	2546
754.00	876.27	847.87	2249	2299	116.46	243.09	397.20	2545
756.00	878.81	850.41	2250	2300	116.13	242.48	396.32	2545
758.00	881.36	852.96	2251	2300	115.80	241.86	395.43	2545
760.00	883.90	855.50	2251	2301	115.47	241.26	394.56	2545
762.00	886.45	858.05	2252	2302	115.15	240.65	393.63	2545
764.00	888.99	860.59	2253	2302	114.82	240.05	392.81	2546
766.00	891.54	863.14	2254	2303	114.50	239.45	391.94	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
768.00	894.08	865.68	2254	2304	114.18	238.85	391.08	2546
770.00	896.63	868.23	2255	2304	113.86	238.26	390.22	2546
772.00	899.18	870.78	2256	2305	113.54	237.67	389.36	2546
774.00	901.72	873.32	2257	2306	113.22	237.08	388.51	2545
776.00	904.27	875.87	2257	2306	112.91	236.49	387.66	2546
778.00	906.81	878.41	2258	2307	112.60	235.91	386.82	2545
780.00	909.36	880.96	2259	2308	112.29	235.33	385.97	2546
782.00	911.90	883.50	2260	2308	111.98	234.75	385.13	2546
784.00	914.45	886.05	2260	2309	111.67	234.17	384.30	2546
786.00	916.99	888.59	2261	2310	111.36	233.60	383.46	2546
788.00	919.54	891.14	2262	2310	111.06	233.03	382.64	2546
790.00	922.09	893.69	2262	2311	110.75	232.46	381.81	2546
792.00	924.63	896.23	2263	2312	110.45	231.90	380.99	2546
794.00	927.18	898.78	2264	2312	110.15	231.34	380.17	2546
796.00	929.72	901.32	2265	2313	109.86	230.78	379.35	2546
798.00	932.27	903.87	2265	2313	109.56	230.22	378.54	2545
800.00	934.81	906.41	2266	2314	109.26	229.67	377.73	2546
802.00	937.36	908.96	2267	2315	108.97	229.11	376.92	2545
804.00	939.90	911.50	2267	2315	108.68	228.56	376.12	2546
806.00	942.45	914.05	2268	2316	108.39	228.02	375.32	2545
808.00	945.00	916.60	2269	2316	108.10	227.47	374.52	2546
810.00	947.54	919.14	2269	2317	107.81	226.93	373.73	2545
812.00	950.09	921.69	2270	2318	107.53	226.39	372.94	2546
814.00	952.63	924.23	2271	2318	107.24	225.85	372.15	2546

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
816.00	955.18	926.78	2272	2319	106.96	225.32	371.36	2546
818.00	957.72	929.32	2272	2319	106.63	224.79	370.58	2546
820.00	960.27	931.87	2273	2320	106.40	224.26	369.80	2546
822.00	962.81	934.41	2274	2320	106.12	223.73	369.03	2546
824.00	965.36	936.96	2274	2321	105.84	223.20	368.26	2545
826.00	967.91	939.51	2275	2322	105.56	222.68	367.49	2546
828.00	970.45	942.05	2275	2322	105.29	222.16	366.72	2545
830.00	973.00	944.60	2276	2323	105.02	221.64	365.96	2546
832.00	975.54	947.14	2277	2323	104.74	221.12	365.20	2545
834.00	978.09	949.69	2277	2324	104.47	220.61	364.44	2546
836.00	980.63	952.23	2278	2324	104.20	220.10	363.68	2546
838.00	983.18	954.78	2279	2325	103.94	219.59	362.93	2545
840.00	985.72	957.32	2279	2326	103.67	219.08	362.18	2546
842.00	988.27	959.87	2280	2326	103.40	218.57	361.44	2545
844.00	990.82	962.42	2281	2327	103.14	218.07	360.69	2546
846.00	993.36	964.96	2281	2327	102.88	217.57	359.95	2545
848.00	995.91	967.51	2282	2328	102.62	217.07	359.21	2546
850.00	998.45	970.05	2282	2328	102.36	216.57	358.48	2545
852.00	1001.00	972.60	2283	2329	102.10	216.08	357.75	2546
854.00	1003.54	975.14	2284	2329	101.84	215.59	357.02	2546
856.00	1006.09	977.69	2284	2330	101.58	215.10	356.29	2546
858.00	1008.63	980.23	2285	2330	101.33	214.61	355.57	2546
860.00	1011.18	982.78	2286	2331	101.07	214.12	354.85	2546
862.00	1013.73	985.33	2286	2331	100.82	213.64	354.13	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
864.00	1016.27	987.87	2287	2332	100.57	213.16	353.41	2546
866.00	1018.82	990.42	2287	2332	100.32	212.68	352.70	2546
868.00	1021.36	992.96	2288	2333	100.07	212.20	351.99	2545
870.00	1023.91	995.51	2289	2333	99.82	211.72	351.28	2546
872.00	1026.45	998.05	2289	2334	99.58	211.25	350.57	2545
874.00	1029.00	1000.60	2290	2334	99.33	210.78	349.87	2546
876.00	1031.54	1003.14	2290	2335	99.09	210.31	349.17	2545
878.00	1034.09	1005.69	2291	2335	98.84	209.84	348.47	2546
880.00	1036.64	1008.24	2291	2336	98.60	209.37	347.78	2545
882.00	1039.18	1010.78	2292	2336	98.36	208.91	347.09	2546
884.00	1041.73	1013.33	2293	2337	98.12	208.45	346.40	2545
886.00	1044.27	1015.87	2293	2337	97.88	207.99	345.71	2546
888.00	1046.82	1018.42	2294	2338	97.64	207.53	345.02	2546
890.00	1049.36	1020.96	2294	2338	97.41	207.07	344.34	2546
892.00	1051.91	1023.51	2295	2339	97.17	206.62	343.66	2545
894.00	1054.45	1026.05	2295	2339	96.94	206.17	342.98	2546
896.00	1057.00	1028.60	2296	2340	96.71	205.71	342.31	2546
898.00	1059.55	1031.15	2297	2340	96.47	205.27	341.64	2545
900.00	1062.09	1033.69	2297	2341	96.24	204.82	340.97	2546
902.00	1064.64	1036.24	2298	2341	96.01	204.37	340.30	2546
904.00	1067.18	1038.78	2298	2342	95.78	203.93	339.63	2546
906.00	1069.73	1041.33	2299	2342	95.56	203.49	338.97	2546
908.00	1072.27	1043.87	2299	2343	95.33	203.05	338.31	2545
910.00	1074.82	1046.42	2300	2343	95.10	202.61	337.65	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
912.00	1077.36	1048.96	2300	2344	94.88	202.17	337.00	2546
914.00	1079.91	1051.51	2301	2344	94.66	201.74	336.34	2545
916.00	1082.46	1054.06	2301	2345	94.43	201.31	335.69	2546
918.00	1085.00	1056.60	2302	2345	94.21	200.88	335.04	2545
920.00	1087.55	1059.15	2302	2345	93.99	200.45	334.40	2546
922.00	1090.09	1061.69	2303	2346	93.77	200.02	333.75	2545
924.00	1092.64	1064.24	2304	2346	93.55	199.59	333.11	2546
926.00	1095.18	1066.78	2304	2347	93.34	199.17	332.47	2545
928.00	1097.73	1069.33	2305	2347	93.12	198.75	331.83	2546
930.00	1100.27	1071.87	2305	2348	92.90	198.33	331.20	2546
932.00	1102.82	1074.42	2306	2348	92.69	197.91	330.57	2546
934.00	1105.37	1076.97	2306	2349	92.47	197.49	329.94	2545
936.00	1107.91	1079.51	2307	2349	92.26	197.07	329.31	2546
938.00	1110.46	1082.06	2307	2349	92.05	196.66	328.68	2546
940.00	1113.00	1084.60	2308	2350	91.84	196.25	328.06	2545
942.00	1115.55	1087.15	2308	2350	91.63	195.84	327.44	2546
944.00	1118.09	1089.69	2309	2351	91.42	195.43	326.82	2545
946.00	1120.64	1092.24	2309	2351	91.21	195.02	326.20	2546
948.00	1123.18	1094.78	2310	2352	91.01	194.61	325.58	2545
950.00	1125.73	1097.33	2310	2352	90.80	194.21	324.97	2546
952.00	1128.28	1099.88	2311	2352	90.59	193.81	324.36	2545
954.00	1130.82	1102.42	2311	2353	90.39	193.41	323.75	2546
956.00	1133.37	1104.97	2312	2353	90.19	193.01	323.14	2546
958.00	1135.91	1107.51	2312	2354	89.98	192.61	322.54	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
960.00	1138.46	1110.06	2313	2354	89.78	192.21	321.94	2546
962.00	1141.00	1112.60	2313	2355	89.58	191.82	321.34	2546
964.00	1143.55	1115.15	2314	2355	89.38	191.42	320.74	2546
966.00	1146.09	1117.69	2314	2355	89.18	191.03	320.14	2546
968.00	1148.64	1120.24	2315	2356	88.98	190.64	319.55	2546
970.00	1151.19	1122.79	2315	2356	88.79	190.25	318.95	2546
972.00	1153.73	1125.33	2315	2357	88.59	189.86	318.36	2545
974.00	1156.28	1127.88	2316	2357	88.39	189.48	317.78	2546
976.00	1158.82	1130.42	2316	2357	88.20	189.09	317.19	2546
978.00	1161.37	1132.97	2317	2358	88.00	188.71	316.61	2546
980.00	1163.91	1135.51	2317	2358	87.81	188.33	316.02	2546
982.00	1166.46	1138.06	2318	2359	87.62	187.95	315.44	2546
984.00	1169.00	1140.60	2318	2359	87.43	187.57	314.87	2546
986.00	1171.55	1143.15	2319	2359	87.24	187.19	314.29	2546
988.00	1174.10	1145.70	2319	2360	87.05	186.82	313.71	2545
990.00	1176.64	1148.24	2320	2360	86.86	186.44	313.14	2546
992.00	1179.19	1150.79	2320	2361	86.67	186.07	312.57	2545
994.00	1181.73	1153.33	2321	2361	86.48	185.70	312.00	2546
996.00	1184.28	1155.88	2321	2361	86.29	185.33	311.44	2545
998.00	1186.82	1158.42	2321	2362	86.11	184.96	310.87	2546
1000.00	1189.37	1160.97	2322	2362	85.92	184.59	310.31	2545
1002.00	1191.91	1163.51	2322	2362	85.74	184.23	309.75	2546
1004.00	1194.46	1166.06	2323	2363	85.55	183.86	309.19	2545
1006.00	1197.01	1168.61	2323	2363	85.37	183.50	308.63	2546

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1008.00	1199.55	1171.15	2324	2364	85.19	183.14	308.08	2545
1010.00	1202.68	1174.28	2325	2365	84.91	182.58	307.21	3126
1012.00	1205.90	1177.50	2327	2367	84.62	181.99	306.23	3227
1014.00	1209.12	1180.72	2329	2369	84.33	181.40	305.36	3213
1016.00	1212.23	1183.83	2330	2371	84.06	180.86	304.52	3111
1018.00	1215.28	1186.88	2332	2373	83.80	180.35	303.71	3051
1020.00	1218.33	1189.93	2333	2374	83.55	179.83	302.91	3049
1022.00	1221.34	1192.94	2335	2375	83.30	179.34	302.13	3010
1024.00	1224.49	1196.09	2336	2377	83.04	178.79	301.28	3146
1026.00	1227.63	1199.23	2338	2379	82.77	178.26	300.45	3133
1028.00	1230.82	1202.42	2339	2381	82.50	177.71	299.58	3195
1030.00	1233.83	1205.43	2341	2382	82.26	177.22	298.82	3004
1032.00	1236.83	1208.43	2342	2384	82.02	176.74	298.07	3004
1034.00	1240.17	1211.77	2344	2386	81.73	176.15	297.13	3339
1036.00	1243.57	1215.17	2346	2388	81.42	175.53	296.16	3398
1038.00	1246.82	1218.42	2348	2390	81.15	174.98	295.29	3250
1040.00	1250.07	1221.67	2349	2392	80.88	174.42	294.42	3250
1042.00	1253.23	1224.83	2351	2394	80.62	173.91	293.60	3160
1044.00	1256.43	1228.03	2353	2396	80.36	173.38	292.77	3202
1046.00	1259.64	1231.24	2354	2397	80.10	172.85	291.94	3210
1048.00	1262.71	1234.31	2356	2399	79.87	172.37	291.18	3068
1050.00	1265.78	1237.38	2357	2400	79.63	171.90	290.44	3067
1052.00	1268.92	1240.52	2358	2402	79.39	171.40	289.65	3148
1054.00	1272.20	1243.80	2360	2404	79.12	170.86	288.80	3271

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1056.00	1275.56	1247.16	2362	2406	78.84	170.29	287.91	3362
1058.00	1279.05	1250.65	2364	2409	78.55	169.69	286.94	3492
1060.00	1282.53	1254.13	2366	2411	78.25	169.09	285.99	3482
1062.00	1285.93	1257.53	2368	2413	77.98	168.52	285.09	3402
1064.00	1289.23	1260.83	2370	2415	77.72	167.99	284.25	3299
1066.00	1292.44	1264.04	2372	2417	77.47	167.49	283.47	3212
1068.00	1295.64	1267.24	2373	2419	77.23	167.00	282.69	3200
1070.00	1298.82	1270.42	2375	2420	77.00	166.52	281.93	3177
1072.00	1302.14	1273.74	2376	2422	76.74	166.00	281.10	3316
1074.00	1305.68	1277.28	2379	2425	76.45	165.40	280.16	3537
1076.00	1309.23	1280.83	2381	2427	76.16	164.81	279.21	3557
1078.00	1312.65	1284.25	2383	2430	75.90	164.26	278.34	3414
1080.00	1316.00	1287.60	2384	2432	75.64	163.74	277.51	3354
1082.00	1319.44	1291.04	2386	2434	75.38	163.20	276.65	3439
1084.00	1322.67	1294.27	2388	2436	75.15	162.72	275.89	3230
1086.00	1325.75	1297.35	2389	2437	74.94	162.30	275.22	3077
1088.00	1328.98	1300.58	2391	2439	74.71	161.83	274.47	3234
1090.00	1332.51	1304.11	2393	2441	74.43	161.26	273.57	3531
1092.00	1336.14	1307.74	2395	2444	74.15	160.67	272.63	3625
1094.00	1339.72	1311.32	2397	2446	73.87	160.10	271.71	3585
1096.00	1343.23	1314.83	2399	2449	73.61	159.56	270.84	3511
1098.00	1346.71	1318.31	2401	2451	73.35	159.03	270.00	3480
1100.00	1350.24	1321.84	2403	2453	73.08	158.49	269.13	3528
1102.00	1353.82	1325.42	2405	2456	72.82	157.93	268.24	3575

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1104.00	1357.38	1328.98	2408	2458	72.55	157.39	267.37	3562
1106.00	1360.87	1332.47	2410	2461	72.30	156.87	266.53	3496
1108.00	1364.36	1335.96	2411	2463	72.05	156.35	265.71	3484
1110.00	1367.82	1339.42	2413	2465	71.81	155.85	264.91	3461
1112.00	1371.31	1342.91	2415	2467	71.56	155.34	264.09	3491
1114.00	1374.85	1346.45	2417	2470	71.31	154.82	263.25	3539
1116.00	1378.41	1350.01	2419	2472	71.05	154.29	262.41	3562
1118.00	1381.98	1353.58	2421	2474	70.80	153.77	261.57	3571
1120.00	1385.67	1357.27	2424	2477	70.53	153.22	260.68	3683
1122.00	1389.40	1361.00	2426	2480	70.26	152.65	259.77	3730
1124.00	1392.97	1364.57	2428	2482	70.01	152.14	258.95	3571
1126.00	1396.41	1368.01	2430	2484	69.78	151.67	258.19	3445
1128.00	1399.77	1371.37	2432	2486	69.57	151.22	257.47	3357
1130.00	1403.21	1374.81	2433	2488	69.34	150.75	256.72	3441
1132.00	1406.57	1378.17	2435	2490	69.13	150.32	256.02	3354
1134.00	1409.76	1381.36	2436	2491	68.94	149.92	255.38	3197
1136.00	1413.03	1384.63	2438	2493	68.74	149.51	254.73	3265
1138.00	1416.51	1388.11	2440	2495	68.52	149.04	253.97	3480
1140.00	1419.87	1391.47	2441	2497	68.31	148.61	253.28	3365
1142.00	1423.19	1394.79	2443	2498	68.11	148.19	252.61	3317
1144.00	1426.47	1398.07	2444	2500	67.91	147.79	251.96	3274
1146.00	1429.92	1401.52	2446	2502	67.69	147.34	251.24	3451
1148.00	1433.09	1404.69	2447	2503	67.51	146.97	250.64	3171
1150.00	1436.48	1408.08	2449	2505	67.31	146.54	249.95	3393

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1152.00	1440.12	1411.72	2451	2508	67.07	146.05	249.16	3636
1154.00	1443.47	1415.07	2452	2509	66.87	145.64	248.49	3350
1156.00	1446.77	1418.37	2454	2511	66.68	145.24	247.85	3305
1158.00	1450.12	1421.72	2455	2513	66.49	144.83	247.20	3347
1160.00	1453.46	1425.06	2457	2514	66.29	144.43	246.55	3339
1162.00	1456.69	1428.29	2458	2516	66.11	144.05	245.94	3237
1164.00	1459.91	1431.51	2460	2517	65.93	143.69	245.35	3214
1166.00	1463.18	1434.78	2461	2519	65.75	143.31	244.74	3272
1168.00	1466.46	1438.06	2462	2520	65.57	142.93	244.13	3284
1170.00	1469.67	1441.27	2464	2521	65.40	142.57	243.54	3207
1172.00	1472.65	1444.25	2465	2522	65.25	142.26	243.05	2983
1174.00	1475.57	1447.17	2465	2523	65.10	141.96	242.58	2920
1176.00	1478.52	1450.12	2466	2524	64.96	141.66	242.10	2945
1178.00	1481.91	1453.51	2468	2525	64.77	141.27	241.45	3395
1180.00	1485.08	1456.68	2469	2527	64.60	140.92	240.90	3169
1182.00	1488.18	1459.78	2470	2528	64.45	140.60	240.37	3094
1184.00	1491.07	1462.67	2471	2528	64.31	140.32	239.92	2883
1186.00	1494.16	1465.76	2472	2529	64.16	139.99	239.40	3089
1188.00	1497.33	1468.93	2473	2531	63.99	139.66	238.86	3173
1190.00	1500.50	1472.10	2474	2532	63.83	139.32	238.31	3169
1192.00	1503.65	1475.25	2475	2533	63.67	138.99	237.78	3155
1194.00	1507.09	1478.69	2477	2535	63.48	138.59	237.14	3442
1196.00	1510.24	1481.84	2478	2536	63.33	138.27	236.61	3147
1198.00	1513.47	1485.07	2479	2537	63.16	137.92	236.06	3228

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1200.00	1516.57	1488.17	2480	2538	63.01	137.61	235.55	3101
1202.00	1519.93	1491.53	2482	2540	62.84	137.24	234.95	3365
1204.00	1523.29	1494.89	2483	2542	62.66	136.88	234.36	3361
1206.00	1526.69	1498.29	2485	2543	62.48	136.50	233.75	3396
1208.00	1529.92	1501.52	2486	2544	62.32	136.17	233.21	3227
1210.00	1532.97	1504.57	2487	2545	62.18	135.87	232.73	3047
1212.00	1536.33	1507.93	2488	2547	62.01	135.51	232.15	3362
1214.00	1539.59	1511.19	2490	2548	61.85	135.18	231.60	3267
1216.00	1542.92	1514.52	2491	2550	61.68	134.83	231.04	3326
1218.00	1546.22	1517.82	2492	2551	61.52	134.49	230.43	3303
1220.00	1549.48	1521.08	2494	2553	61.36	134.16	229.95	3255
1222.00	1552.57	1524.17	2495	2553	61.22	133.86	229.47	3097
1224.00	1555.77	1527.37	2496	2555	61.07	133.55	228.96	3191
1226.00	1559.23	1530.83	2497	2556	60.89	133.18	228.35	3460
1228.00	1562.74	1534.34	2499	2558	60.71	132.80	227.74	3513
1230.00	1566.20	1537.80	2500	2560	60.54	132.43	227.14	3465
1232.00	1569.59	1541.19	2502	2562	60.37	132.09	226.58	3381
1234.00	1572.96	1544.56	2503	2563	60.21	131.75	226.02	3370
1236.00	1576.42	1548.02	2505	2565	60.04	131.39	225.43	3463
1238.00	1579.85	1551.45	2506	2566	59.87	131.03	224.86	3433
1240.00	1583.23	1554.83	2508	2568	59.71	130.70	224.31	3381
1242.00	1586.53	1558.13	2509	2569	59.56	130.37	223.78	3301
1244.00	1589.73	1561.33	2510	2570	59.41	130.08	223.29	3201
1246.00	1592.92	1564.52	2511	2572	59.27	129.78	222.81	3183

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1248.00	1596.20	1567.80	2513	2573	59.12	129.47	222.30	3287
1250.00	1599.58	1571.18	2514	2574	58.97	129.14	221.76	3380
1252.00	1603.06	1574.66	2515	2576	58.80	128.79	221.19	3472
1254.00	1606.47	1578.07	2517	2578	58.64	128.45	220.65	3412
1256.00	1609.94	1581.54	2518	2579	58.48	128.11	220.09	3469
1258.00	1613.32	1584.92	2520	2581	58.33	127.79	219.56	3378
1260.00	1616.92	1588.52	2521	2583	58.15	127.42	218.95	3606
1262.00	1620.34	1591.94	2523	2584	58.00	127.09	218.42	3415
1264.00	1623.97	1595.57	2525	2586	57.82	126.72	217.81	3631
1266.00	1627.53	1599.13	2526	2588	57.66	126.37	217.23	3559
1268.00	1630.95	1602.55	2528	2589	57.50	126.05	216.71	3419
1270.00	1634.52	1606.12	2529	2591	57.34	125.70	216.13	3573
1272.00	1637.94	1609.54	2531	2593	57.18	125.38	215.61	3422
1274.00	1641.56	1613.16	2532	2595	57.01	125.02	215.02	3624
1276.00	1645.18	1616.78	2534	2597	56.85	124.66	214.43	3613
1278.00	1648.63	1620.23	2536	2598	56.70	124.35	213.91	3448
1280.00	1652.22	1623.82	2537	2600	56.53	124.00	213.34	3596
1282.00	1655.72	1627.32	2539	2602	56.38	123.67	212.80	3501
1284.00	1659.33	1630.93	2540	2604	56.21	123.33	212.24	3608
1286.00	1662.88	1634.48	2542	2605	56.06	122.99	211.69	3550
1288.00	1666.43	1638.03	2544	2607	55.90	122.67	211.15	3543
1290.00	1669.89	1641.49	2545	2609	55.75	122.35	210.64	3464
1292.00	1673.25	1644.85	2546	2610	55.62	122.06	210.16	3357
1294.00	1676.75	1648.35	2548	2612	55.46	121.74	209.63	3503

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1296.00	1680.19	1651.79	2549	2613	55.32	121.44	209.14	3439
1298.00	1683.49	1655.09	2550	2614	55.19	121.16	208.68	3297
1300.00	1686.75	1658.35	2551	2615	55.06	120.89	208.24	3265
1302.00	1690.06	1661.66	2552	2617	54.93	120.62	207.78	3308
1304.00	1693.43	1665.03	2554	2618	54.80	120.33	207.31	3365
1306.00	1696.67	1668.27	2555	2619	54.67	120.07	206.88	3241
1308.00	1700.10	1671.70	2556	2620	54.53	119.78	206.40	3423
1310.00	1703.52	1675.12	2557	2622	54.40	119.48	205.92	3426
1312.00	1706.77	1678.37	2558	2623	54.27	119.22	205.49	3251
1314.00	1709.99	1681.59	2559	2624	54.15	118.97	205.08	3213
1316.00	1713.40	1685.00	2561	2625	54.02	118.69	204.61	3411
1318.00	1716.98	1688.58	2562	2627	53.87	118.37	204.09	3581
1320.00	1720.52	1692.12	2564	2629	53.73	118.07	203.59	3541
1322.00	1724.06	1695.66	2565	2630	53.59	117.76	203.09	3539
1324.00	1727.55	1699.15	2567	2632	53.45	117.47	202.60	3483
1326.00	1730.88	1702.48	2568	2633	53.32	117.21	202.16	3339
1328.00	1734.11	1705.71	2569	2634	53.20	116.96	201.76	3229
1330.00	1737.38	1708.98	2570	2635	53.09	116.71	201.34	3262
1332.00	1740.69	1712.29	2571	2636	52.96	116.45	200.91	3319
1334.00	1743.85	1715.45	2572	2637	52.85	116.21	200.53	3160
1336.00	1747.10	1718.70	2573	2638	52.74	115.97	200.12	3249
1338.00	1750.40	1722.00	2574	2639	52.62	115.72	199.71	3294
1340.00	1753.63	1725.23	2575	2640	52.50	115.47	199.31	3230
1342.00	1756.71	1728.31	2576	2641	52.40	115.26	198.95	3080

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1344.00	1759.72	1731.32	2576	2641	52.30	115.05	198.61	3018
1346.00	1762.90	1734.50	2577	2642	52.19	114.82	198.23	3172
1348.00	1765.87	1737.47	2578	2643	52.10	114.62	197.90	2972
1350.00	1768.93	1740.53	2579	2643	52.00	114.41	197.55	3053
1352.00	1771.85	1743.45	2579	2644	51.91	114.21	197.24	2923
1354.00	1774.80	1746.40	2580	2644	51.82	114.02	196.92	2947
1356.00	1777.76	1749.36	2580	2645	51.72	113.82	196.59	2963
1358.00	1780.81	1752.41	2581	2646	51.63	113.61	196.25	3051
1360.00	1783.79	1755.39	2581	2646	51.53	113.42	195.93	2981
1362.00	1786.74	1758.34	2582	2647	51.44	113.22	195.61	2954
1364.00	1789.67	1761.27	2583	2647	51.35	113.03	195.30	2928
1366.00	1792.65	1764.25	2583	2647	51.26	112.84	194.98	2974
1368.00	1795.59	1767.19	2584	2648	51.17	112.65	194.66	2942
1370.00	1798.80	1770.40	2585	2649	51.07	112.42	194.29	3208
1372.00	1801.79	1773.39	2585	2649	50.97	112.23	193.97	2992
1374.00	1804.86	1776.46	2586	2650	50.88	112.03	193.63	3072
1376.00	1807.89	1779.49	2586	2651	50.78	111.83	193.30	3030
1378.00	1810.90	1782.50	2587	2651	50.69	111.63	192.98	3007
1380.00	1813.86	1785.46	2588	2652	50.60	111.44	192.67	2957
1382.00	1816.75	1788.35	2588	2652	50.52	111.26	192.38	2892
1384.00	1819.67	1791.27	2589	2652	50.43	111.08	192.08	2922
1386.00	1822.69	1794.29	2589	2653	50.34	110.89	191.76	3017
1388.00	1825.73	1797.33	2590	2654	50.25	110.69	191.43	3039
1390.00	1828.90	1800.50	2591	2654	50.15	110.48	191.08	3175

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1392.00	1831.98	1803.58	2591	2655	50.05	110.28	190.75	3083
1394.00	1835.13	1806.73	2592	2656	49.96	110.07	190.40	3151
1396.00	1838.23	1809.83	2593	2657	49.86	109.87	190.07	3095
1398.00	1841.37	1812.97	2594	2657	49.77	109.66	189.73	3145
1400.00	1844.43	1816.03	2594	2658	49.67	109.47	189.41	3052
1402.00	1847.46	1819.06	2595	2658	49.58	109.28	189.09	3039
1404.00	1850.49	1822.09	2596	2659	49.50	109.09	188.78	3028
1406.00	1853.46	1825.06	2596	2659	49.41	108.91	188.48	2970
1408.00	1856.50	1828.10	2597	2660	49.32	108.72	188.17	3038
1410.00	1859.48	1831.08	2597	2661	49.24	108.54	187.87	2984
1412.00	1862.50	1834.10	2598	2661	49.15	108.35	187.56	3019
1414.00	1865.53	1837.14	2598	2662	49.06	108.17	187.25	3032
1416.00	1868.54	1840.14	2599	2662	48.98	107.99	186.95	3006
1418.00	1871.52	1843.12	2600	2663	48.89	107.81	186.66	2979
1420.00	1874.61	1846.21	2600	2663	48.80	107.61	186.34	3090
1422.00	1877.70	1849.30	2601	2664	48.71	107.42	186.02	3093
1424.00	1880.74	1852.34	2602	2665	48.63	107.24	185.72	3035
1426.00	1883.82	1855.42	2602	2665	48.54	107.05	185.40	3082
1428.00	1886.88	1858.48	2603	2666	48.45	106.87	185.10	3059
1430.00	1889.91	1861.51	2604	2666	48.37	106.68	184.79	3033
1432.00	1892.94	1864.54	2604	2667	48.28	106.50	184.50	3029
1434.00	1896.04	1867.64	2605	2667	48.19	106.32	184.18	3097
1436.00	1899.20	1870.80	2606	2668	48.10	106.12	183.86	3161
1438.00	1902.30	1873.90	2606	2669	48.01	105.93	183.55	3106

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1440.00	1905.36	1876.96	2607	2669	47.93	105.75	183.24	3060
1442.00	1908.32	1879.92	2607	2670	47.85	105.58	182.96	2960
1444.00	1911.28	1882.88	2608	2670	47.77	105.41	182.69	2951
1446.00	1914.17	1885.77	2608	2671	47.70	105.25	182.42	2892
1448.00	1917.07	1888.67	2609	2671	47.62	105.09	182.15	2905
1450.00	1920.00	1891.60	2609	2671	47.54	104.93	181.88	2927
1452.00	1923.04	1894.64	2610	2672	47.46	104.75	181.59	3045
1454.00	1925.93	1897.53	2610	2672	47.39	104.59	181.33	2883
1456.00	1928.70	1900.30	2610	2672	47.32	104.45	181.09	2775
1458.00	1931.46	1903.05	2611	2672	47.25	104.31	180.85	2753
1460.00	1934.29	1905.89	2611	2673	47.18	104.16	180.60	2832
1462.00	1937.12	1908.72	2611	2673	47.11	104.01	180.36	2828
1464.00	1939.89	1911.49	2611	2673	47.04	103.86	180.12	2779
1466.00	1942.75	1914.35	2612	2673	46.97	103.71	179.87	2860
1468.00	1945.58	1917.18	2612	2673	46.90	103.56	179.62	2822
1470.00	1948.33	1919.93	2612	2674	46.84	103.42	179.39	2756
1472.00	1951.06	1922.66	2612	2674	46.77	103.29	179.16	2729
1474.00	1953.67	1925.27	2612	2674	46.71	103.16	178.95	2612
1476.00	1956.43	1928.03	2613	2674	46.65	103.02	178.72	2755
1478.00	1959.10	1930.70	2613	2674	46.59	102.89	178.51	2668
1480.00	1961.86	1933.46	2613	2674	46.52	102.75	178.28	2769
1482.00	1964.67	1936.27	2613	2674	46.46	102.61	178.04	2806
1484.00	1967.30	1938.90	2613	2674	46.40	102.49	177.83	2630
1486.00	1970.04	1941.64	2613	2674	46.33	102.35	177.61	2736

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1488.00	1972.73	1944.33	2613	2674	46.27	102.22	177.39	2694
1490.00	1975.52	1947.12	2614	2674	46.21	102.08	177.16	2791
1492.00	1978.32	1949.92	2614	2674	46.14	101.94	176.93	2795
1494.00	1981.01	1952.61	2614	2674	46.08	101.81	176.71	2694
1496.00	1983.72	1955.32	2614	2674	46.02	101.68	176.49	2710
1498.00	1986.54	1958.14	2614	2675	45.95	101.54	176.26	2824
1500.00	1989.28	1960.88	2615	2675	45.89	101.40	176.04	2739
1502.00	1991.98	1963.58	2615	2675	45.83	101.27	175.82	2697
1504.00	1994.68	1966.28	2615	2675	45.77	101.15	175.61	2702
1506.00	1997.43	1969.03	2615	2675	45.71	101.01	175.39	2749
1508.00	2000.36	1971.96	2615	2675	45.64	100.86	175.13	2933
1510.00	2003.23	1974.83	2616	2676	45.57	100.72	174.89	2866
1512.00	2006.02	1977.62	2616	2676	45.50	100.58	174.67	2794
1514.00	2009.00	1980.60	2616	2676	45.43	100.43	174.41	2972
1516.00	2011.87	1983.47	2617	2676	45.36	100.28	174.17	2874
1518.00	2014.78	1986.38	2617	2677	45.30	100.13	173.92	2912
1520.00	2017.66	1989.26	2617	2677	45.23	99.99	173.68	2883
1522.00	2020.61	1992.21	2618	2677	45.16	99.84	173.43	2944
1524.00	2023.58	1995.18	2618	2678	45.09	99.69	173.18	2972
1526.00	2026.70	1998.30	2619	2678	45.01	99.52	172.90	3122
1528.00	2029.95	2001.55	2620	2679	44.93	99.34	172.59	3247
1530.00	2033.04	2004.64	2620	2680	44.85	99.17	172.32	3091
1532.00	2036.11	2007.71	2621	2680	44.77	99.01	172.05	3070
1534.00	2039.14	2010.74	2622	2681	44.70	98.86	171.79	3033

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1536.00	2042.22	2013.82	2622	2681	44.63	98.70	171.52	3077
1538.00	2045.42	2017.02	2623	2682	44.55	98.52	171.23	3196
1540.00	2048.50	2020.10	2624	2683	44.47	98.36	170.96	3088
1542.00	2051.63	2023.23	2624	2683	44.39	98.20	170.69	3130
1544.00	2054.69	2026.29	2625	2684	44.32	98.04	170.43	3052
1546.00	2057.75	2029.35	2625	2684	44.25	97.89	170.16	3065
1548.00	2060.76	2032.36	2626	2685	44.18	97.74	169.91	3003
1550.00	2063.76	2035.36	2626	2685	44.11	97.59	169.66	3003
1552.00	2066.85	2038.45	2627	2686	44.04	97.43	169.40	3092
1554.00	2069.79	2041.39	2627	2686	43.97	97.29	169.16	2934
1556.00	2072.78	2044.38	2628	2687	43.90	97.14	168.92	2992
1558.00	2075.95	2047.55	2628	2687	43.83	96.98	168.64	3168
1560.00	2079.02	2050.62	2629	2688	43.75	96.82	168.38	3069
1562.00	2082.21	2053.81	2630	2688	43.68	96.66	168.10	3192
1564.00	2085.62	2057.22	2631	2690	43.59	96.47	167.79	3411
1566.00	2088.99	2060.59	2632	2690	43.50	96.28	167.48	3373
1568.00	2092.37	2063.97	2633	2691	43.42	96.10	167.16	3382
1570.00	2095.77	2067.37	2634	2693	43.33	95.91	166.85	3395
1572.00	2099.24	2070.84	2635	2694	43.24	95.72	166.53	3468
1574.00	2102.52	2074.12	2635	2694	43.16	95.55	166.24	3281
1576.00	2105.98	2077.58	2637	2696	43.07	95.36	165.92	3466
1578.00	2109.51	2081.11	2638	2697	42.98	95.16	165.58	3531
1580.00	2113.02	2084.62	2639	2698	42.89	94.96	165.26	3501
1582.00	2116.48	2088.08	2640	2699	42.81	94.78	164.94	3467

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1584.00	2119.99	2091.59	2641	2700	42.72	94.58	164.61	3506
1586.00	2123.64	2095.24	2642	2702	42.62	94.37	164.26	3649
1588.00	2127.29	2098.89	2643	2703	42.52	94.17	163.91	3657
1590.00	2130.86	2102.46	2645	2704	42.43	93.97	163.58	3561
1592.00	2134.25	2105.85	2646	2705	42.35	93.79	163.28	3399
1594.00	2137.82	2109.42	2647	2707	42.26	93.60	162.95	3567
1596.00	2141.40	2113.00	2648	2708	42.17	93.40	162.62	3577
1598.00	2144.88	2116.48	2649	2709	42.08	93.22	162.31	3482
1600.00	2148.29	2119.89	2650	2710	42.00	93.04	162.01	3409
1602.00	2151.64	2123.24	2651	2711	41.92	92.87	161.73	3343
1604.00	2155.03	2126.63	2652	2712	41.84	92.70	161.44	3390
1606.00	2158.38	2129.98	2653	2713	41.77	92.53	161.15	3349
1608.00	2161.74	2133.34	2653	2714	41.69	92.36	160.87	3363
1610.00	2165.28	2136.88	2655	2715	41.60	92.18	160.55	3536
1612.00	2168.85	2140.45	2656	2716	41.51	91.99	160.23	3573
1614.00	2172.45	2144.05	2657	2717	41.43	91.79	159.91	3596
1616.00	2175.94	2147.54	2658	2718	41.34	91.62	159.61	3499
1618.00	2179.31	2150.91	2659	2719	41.27	91.45	159.33	3372
1620.00	2182.60	2154.20	2660	2720	41.19	91.29	159.06	3286
1622.00	2185.91	2157.51	2660	2721	41.12	91.13	158.79	3313
1624.00	2189.34	2160.94	2661	2722	41.04	90.96	158.50	3421
1626.00	2192.84	2164.44	2662	2723	40.96	90.78	158.20	3503
1628.00	2196.34	2167.94	2663	2724	40.88	90.61	157.90	3506
1630.00	2199.78	2171.38	2664	2725	40.80	90.44	157.62	3439

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1632.00	2203.30	2174.90	2665	2726	40.72	90.26	157.32	3517
1634.00	2206.85	2178.45	2666	2727	40.63	90.08	157.02	3551
1636.00	2210.44	2182.04	2668	2728	40.55	89.90	156.71	3589
1638.00	2213.94	2185.54	2669	2730	40.47	89.73	156.41	3498
1640.00	2217.40	2189.00	2670	2731	40.39	89.56	156.13	3466
1642.00	2220.91	2192.51	2671	2732	40.31	89.39	155.84	3501
1644.00	2224.41	2196.01	2672	2733	40.23	89.21	155.55	3507
1646.00	2227.95	2199.55	2673	2734	40.15	89.04	155.25	3538
1648.00	2231.45	2203.05	2674	2735	40.08	88.87	154.97	3499
1650.00	2234.98	2206.58	2675	2736	40.00	88.70	154.67	3532
1652.00	2238.49	2210.09	2676	2737	39.92	88.53	154.39	3507
1654.00	2242.10	2213.70	2677	2738	39.84	88.35	154.09	3611
1656.00	2245.62	2217.22	2678	2739	39.76	88.18	153.80	3521
1658.00	2249.20	2220.80	2679	2741	39.68	88.01	153.50	3577
1660.00	2252.77	2224.37	2680	2742	39.60	87.83	153.21	3570
1662.00	2256.35	2227.95	2681	2743	39.52	87.66	152.92	3587
1664.00	2260.06	2231.66	2682	2744	39.43	87.48	152.60	3710
1666.00	2263.78	2235.38	2684	2746	39.35	87.29	152.29	3713
1668.00	2267.53	2239.13	2685	2747	39.26	87.10	151.97	3755
1670.00	2271.28	2242.88	2686	2748	39.18	86.92	151.65	3752
1672.00	2275.02	2246.62	2687	2750	39.09	86.73	151.34	3739
1674.00	2278.79	2250.39	2689	2751	39.00	86.54	151.02	3769
1676.00	2282.37	2253.96	2690	2752	38.93	86.38	150.74	3575
1678.00	2285.75	2257.35	2691	2753	38.86	86.23	150.48	3387

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1680.00	2289.13	2260.73	2691	2754	38.79	36.08	150.23	3375
1682.00	2292.58	2264.18	2692	2755	38.72	85.92	149.97	3455
1684.00	2296.03	2267.63	2693	2756	38.65	85.77	149.71	3443
1686.00	2299.53	2271.13	2694	2757	38.58	85.61	149.44	3500
1688.00	2302.95	2274.55	2695	2758	38.51	85.46	149.19	3422
1690.00	2306.33	2277.93	2696	2759	38.44	85.32	148.94	3381
1692.00	2309.68	2281.28	2697	2759	38.37	85.18	148.70	3348
1694.00	2313.29	2284.89	2698	2761	38.30	85.01	148.42	3612
1696.00	2316.94	2288.54	2699	2762	38.22	84.84	148.13	3654
1698.00	2320.44	2292.04	2700	2763	38.15	84.69	147.87	3492
1700.00	2323.95	2295.55	2701	2764	38.08	84.53	147.61	3510
1702.00	2327.53	2299.13	2702	2765	38.00	84.37	147.34	3581
1704.00	2330.98	2302.58	2703	2766	37.94	84.22	147.08	3458
1706.00	2334.88	2306.48	2704	2767	37.85	84.04	146.76	3898
1708.00	2338.71	2310.31	2705	2769	37.77	83.85	146.45	3825
1710.00	2342.07	2313.67	2706	2770	37.70	83.72	146.22	3358
1712.00	2345.58	2317.18	2707	2771	37.63	83.56	145.96	3516
1714.00	2349.18	2320.78	2708	2772	37.56	83.41	145.69	3597
1716.00	2352.81	2324.41	2709	2773	37.49	83.25	145.42	3629
1718.00	2356.53	2328.13	2710	2774	37.41	83.08	145.13	3723
1720.00	2360.08	2331.68	2711	2775	37.34	82.93	144.88	3545
1722.00	2363.61	2335.21	2712	2776	37.27	82.78	144.62	3534
1724.00	2367.33	2338.93	2713	2777	37.19	82.61	144.34	3717
1726.00	2370.80	2342.40	2714	2778	37.13	82.47	144.09	3471

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1728.00	2374.39	2345.99	2715	2779	37.06	82.31	143.83	3593
1730.00	2378.01	2349.61	2716	2781	36.99	82.16	143.57	3617
1732.00	2381.67	2353.27	2717	2782	36.91	82.00	143.30	3666
1734.00	2385.19	2356.79	2718	2783	36.85	81.85	143.05	3519
1736.00	2388.65	2360.25	2719	2784	36.78	81.71	142.81	3453
1738.00	2392.28	2363.88	2720	2785	36.71	81.56	142.55	3635
1740.00	2395.49	2367.09	2721	2785	36.66	81.44	142.34	3213
1742.00	2398.95	2370.55	2722	2786	36.59	81.30	142.11	3451
1744.00	2402.57	2374.17	2723	2787	36.52	81.15	141.85	3625
1746.00	2406.09	2377.69	2724	2788	36.46	81.01	141.61	3515
1748.00	2409.90	2381.50	2725	2790	36.38	80.84	141.32	3817
1750.00	2413.43	2385.03	2726	2791	36.31	80.70	141.08	3526
1752.00	2416.94	2388.54	2727	2791	36.25	80.55	140.84	3515
1754.00	2420.52	2392.12	2728	2792	36.18	80.41	140.59	3577
1756.00	2424.13	2395.73	2729	2794	36.12	80.26	140.34	3605
1758.00	2427.55	2399.15	2729	2794	36.06	80.13	140.12	3419
1760.00	2431.10	2402.70	2730	2795	35.99	79.99	139.87	3550
1762.00	2434.60	2406.20	2731	2796	35.93	79.85	139.64	3505
1764.00	2438.08	2409.68	2732	2797	35.87	79.72	139.41	3477
1766.00	2441.51	2413.11	2733	2798	35.81	79.59	139.19	3430
1768.00	2444.93	2416.53	2734	2799	35.75	79.46	138.97	3422
1770.00	2448.54	2420.14	2735	2800	35.68	79.31	138.72	3606
1772.00	2452.04	2423.64	2735	2801	35.62	79.18	138.49	3503
1774.00	2455.51	2427.11	2736	2801	35.56	79.04	138.27	3468

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1776.00	2459.11	2430.71	2737	2802	35.49	78.90	138.02	3597
1778.00	2462.72	2434.32	2738	2803	35.43	78.76	137.78	3611
1780.00	2466.41	2438.01	2739	2805	35.36	78.61	137.53	3688
1782.00	2470.04	2441.64	2740	2806	35.29	78.47	137.28	3631
1784.00	2473.55	2445.15	2741	2807	35.23	78.34	137.06	3508
1786.00	2477.12	2448.72	2742	2808	35.17	78.20	136.82	3571
1788.00	2480.76	2452.36	2743	2809	35.10	78.06	136.58	3639
1790.00	2484.39	2455.99	2744	2810	35.04	77.92	136.34	3630
1792.00	2488.00	2459.60	2745	2811	34.98	77.78	136.10	3613
1794.00	2491.58	2463.18	2746	2812	34.91	77.64	135.87	3579
1796.00	2495.17	2466.77	2747	2813	34.85	77.51	135.64	3588
1798.00	2499.20	2470.80	2748	2814	34.77	77.33	135.35	4036
1800.00	2502.76	2474.36	2749	2815	34.71	77.20	135.12	3555
1802.00	2506.30	2477.90	2750	2816	34.65	77.07	134.90	3539
1804.00	2510.14	2481.74	2751	2818	34.58	76.92	134.63	3839
1806.00	2513.81	2485.41	2752	2819	34.52	76.78	134.39	3674
1808.00	2517.45	2489.05	2753	2820	34.46	76.64	134.16	3633
1810.00	2521.43	2493.03	2755	2821	34.38	76.48	133.88	3983
1812.00	2525.23	2496.83	2756	2822	34.31	76.33	133.63	3804
1814.00	2528.97	2500.57	2757	2824	34.25	76.19	133.38	3738
1816.00	2532.58	2504.18	2758	2825	34.19	76.05	133.16	3612
1818.00	2536.06	2507.66	2759	2825	34.13	75.93	132.95	3476
1820.00	2539.54	2511.14	2759	2826	34.08	75.81	132.74	3480
1822.00	2542.74	2514.34	2760	2827	34.03	75.71	132.56	3201

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1824.00	2546.34	2517.94	2761	2828	33.97	75.58	132.34	3603
1826.00	2550.02	2521.62	2762	2829	33.91	75.44	132.11	3673
1828.00	2553.60	2525.20	2763	2830	33.85	75.31	131.89	3582
1830.00	2556.96	2528.57	2763	2830	33.80	75.20	131.70	3365
1832.00	2560.53	2532.13	2764	2831	33.74	75.07	131.48	3564
1834.00	2563.92	2535.52	2765	2832	33.69	74.96	131.29	3393
1836.00	2567.54	2539.14	2766	2833	33.63	74.83	131.07	3617
1838.00	2570.91	2542.51	2767	2833	33.58	74.72	130.87	3377
1840.00	2574.40	2546.00	2767	2834	33.52	74.60	130.67	3486
1842.00	2577.87	2549.47	2768	2835	33.47	74.48	130.47	3467
1844.00	2581.26	2552.86	2769	2836	33.42	74.37	130.28	3395
1846.00	2584.52	2556.12	2769	2836	33.37	74.27	130.10	3255
1848.00	2587.98	2559.58	2770	2837	33.32	74.15	129.91	3469
1850.00	2591.70	2563.30	2771	2838	33.26	74.02	129.68	3723
1852.00	2595.23	2566.83	2772	2839	33.20	73.90	129.47	3526
1854.00	2598.82	2570.42	2773	2840	33.15	73.78	129.26	3593
1856.00	2602.23	2573.83	2774	2840	33.09	73.67	129.07	3408
1858.00	2605.62	2577.22	2774	2841	33.04	73.56	128.88	3393
1860.00	2609.18	2580.78	2775	2842	32.99	73.44	128.68	3559
1862.00	2612.72	2584.32	2776	2843	32.94	73.32	128.48	3539
1864.00	2616.21	2587.81	2777	2844	32.88	73.20	128.28	3489
1866.00	2619.69	2591.29	2777	2844	32.83	73.09	128.08	3473
1868.00	2623.26	2594.86	2778	2845	32.78	72.97	127.88	3578
1870.00	2626.80	2598.40	2779	2846	32.72	72.85	127.68	3539

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1872.00	2630.32	2601.92	2780	2847	32.67	72.74	127.48	3513
1874.00	2633.79	2605.39	2781	2848	32.62	72.63	127.29	3473
1876.00	2637.23	2608.83	2781	2848	32.57	72.52	127.10	3441
1878.00	2640.62	2612.22	2782	2849	32.52	72.41	126.92	3383
1880.00	2644.22	2615.82	2783	2850	32.47	72.29	126.72	3602
1882.00	2647.75	2619.35	2784	2851	32.41	72.18	126.52	3531
1884.00	2652.06	2623.66	2785	2853	32.34	72.01	126.23	4308
1886.00	2655.67	2627.27	2786	2854	32.28	71.89	126.03	3610
1888.00	2659.11	2630.71	2787	2854	32.23	71.78	125.34	3444
1890.00	2662.77	2634.37	2788	2855	32.18	71.66	125.63	3661
1892.00	2666.41	2638.01	2789	2856	32.12	71.54	125.43	3634
1894.00	2670.05	2641.65	2789	2857	32.07	71.42	125.23	3638
1896.00	2673.56	2645.16	2790	2858	32.02	71.31	125.04	3512
1898.00	2677.19	2648.79	2791	2859	31.97	71.19	124.83	3633
1900.00	2680.98	2652.58	2792	2860	31.91	71.07	124.61	3786
1902.00	2684.67	2656.27	2793	2861	31.85	70.94	124.41	3690
1904.00	2688.22	2659.82	2794	2862	31.80	70.83	124.22	3556
1906.00	2691.93	2663.53	2795	2863	31.75	70.71	124.01	3705
1908.00	2695.54	2667.14	2796	2864	31.69	70.60	123.81	3608
1910.00	2699.07	2670.67	2797	2864	31.64	70.49	123.62	3532
1912.00	2702.57	2674.17	2797	2865	31.60	70.38	123.44	3504
1914.00	2706.09	2677.69	2798	2866	31.55	70.27	123.26	3517
1916.00	2709.90	2681.51	2799	2867	31.49	70.15	123.04	3816
1918.00	2713.19	2684.79	2800	2867	31.45	70.06	122.88	3280

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1920.00	2716.17	2687.77	2800	2868	31.41	69.98	122.75	2981
1922.00	2719.77	2691.37	2801	2868	31.36	69.87	122.56	3600
1924.00	2723.45	2695.05	2802	2869	31.31	69.75	122.36	3686
1926.00	2727.20	2698.80	2802	2870	31.25	69.63	122.15	3745
1928.00	2730.79	2702.39	2803	2871	31.20	69.52	121.96	3597
1930.00	2734.25	2705.85	2804	2872	31.16	69.42	121.79	3460
1932.00	2737.75	2709.35	2805	2873	31.11	69.32	121.61	3497
1934.00	2741.33	2712.93	2806	2874	31.06	69.21	121.43	3582
1936.00	2744.76	2716.36	2806	2874	31.02	69.11	121.26	3424
1938.00	2748.28	2719.88	2807	2875	30.97	69.01	121.08	3521
1940.00	2751.79	2723.39	2808	2876	30.92	68.90	120.90	3503
1942.00	2755.09	2726.69	2808	2876	30.88	68.81	120.75	3304
1944.00	2758.61	2730.21	2809	2877	30.83	68.71	120.57	3513
1946.00	2762.18	2733.78	2810	2878	30.78	68.60	120.39	3576
1948.00	2765.88	2737.48	2811	2879	30.73	68.49	120.19	3700
1950.00	2769.55	2741.15	2811	2880	30.68	68.38	120.00	3662
1952.00	2773.07	2744.67	2812	2880	30.64	68.28	119.83	3527
1954.00	2776.64	2748.24	2813	2881	30.59	68.17	119.65	3571
1956.00	2780.50	2752.10	2814	2882	30.53	68.05	119.44	3853
1958.00	2784.06	2755.66	2815	2883	30.49	67.95	119.26	3558
1960.00	2787.49	2759.09	2815	2884	30.44	67.85	119.10	3437
1962.00	2791.05	2762.65	2816	2884	30.40	67.75	118.92	3556
1964.00	2794.62	2766.22	2817	2885	30.35	67.65	118.74	3576
1966.00	2798.01	2769.61	2818	2886	30.31	67.56	118.59	3387

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1968.00	2801.60	2773.20	2818	2887	30.26	67.45	118.41	3589
1970.00	2805.08	2776.68	2819	2887	30.22	67.36	118.24	3476
1972.00	2808.50	2780.10	2820	2888	30.17	67.26	118.08	3425
1974.00	2811.35	2782.95	2820	2888	30.14	67.20	117.97	2846
1976.00	2814.63	2786.23	2820	2888	30.11	67.11	117.83	3236
1978.00	2818.08	2789.68	2821	2889	30.06	67.02	117.66	3446
1980.00	2821.91	2793.51	2822	2890	30.01	66.90	117.46	3823
1982.00	2825.68	2797.28	2823	2891	29.96	66.79	117.27	3775
1984.00	2828.55	2800.15	2823	2891	29.93	66.73	117.16	2363
1986.00	2831.93	2803.53	2823	2891	29.89	66.64	117.01	3334
1988.00	2835.47	2807.07	2824	2892	29.84	66.54	116.84	3542
1990.00	2839.11	2810.71	2825	2893	29.80	66.44	116.66	3632
1992.00	2842.64	2814.24	2826	2894	29.75	66.34	116.50	3539
1994.00	2846.19	2817.79	2826	2894	29.71	66.24	116.33	3548
1996.00	2849.66	2821.26	2827	2895	29.67	66.15	116.17	3471
1998.00	2853.53	2825.13	2828	2896	29.61	66.04	115.97	3867
2000.00	2857.09	2828.69	2829	2897	29.57	65.94	115.80	3560
2002.00	2860.56	2832.16	2829	2898	29.53	65.85	115.64	3472
2004.00	2864.49	2836.09	2830	2899	29.47	65.73	115.44	3931
2006.00	2868.34	2839.94	2831	2900	29.42	65.62	115.25	3849
2008.00	2871.95	2843.55	2832	2901	29.38	65.52	115.08	3605
2010.00	2875.27	2846.87	2833	2901	29.34	65.43	114.93	3322
2012.00	2878.95	2850.55	2834	2902	29.29	65.33	114.76	3681
2014.00	2882.31	2853.91	2834	2903	29.26	65.25	114.61	3360

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
2016.00	2885.62	2857.22	2835	2903	29.22	65.17	114.47	3307
2018.00	2889.11	2860.71	2835	2904	29.18	65.07	114.32	3494
2020.00	2892.76	2864.36	2836	2904	29.13	64.98	114.15	3645
2022.00	2896.17	2867.77	2837	2905	29.09	64.89	114.00	3409
2024.00	2899.58	2871.18	2837	2906	29.05	64.80	113.85	3413
2026.00	2903.21	2874.81	2838	2906	29.01	64.71	113.68	3628
2028.00	2906.81	2878.41	2839	2907	28.97	64.61	113.52	3600
2030.00	2910.63	2882.23	2840	2908	28.92	64.50	113.33	3321
2032.00	2914.33	2885.93	2840	2909	28.87	64.40	113.16	3700
2034.00	2917.40	2889.00	2841	2909	28.84	64.34	113.04	3077
2036.00	2920.78	2892.38	2841	2910	28.80	64.25	112.90	3375
2038.00	2924.27	2895.87	2842	2910	28.76	64.16	112.75	3490
2040.00	2927.98	2899.58	2843	2911	28.72	64.06	112.57	3711
2042.00	2931.48	2903.08	2843	2912	28.68	63.98	112.42	3500
2044.00	2935.11	2906.71	2844	2913	28.63	63.88	112.26	3625
2046.00	2938.60	2910.20	2845	2913	28.59	63.79	112.11	3497
2048.00	2942.31	2913.91	2846	2914	28.55	63.70	111.94	3702
2050.00	2945.98	2917.58	2846	2915	28.51	63.60	111.77	3676
2052.00	2949.46	2921.06	2847	2916	28.47	63.51	111.62	3483
2054.00	2953.08	2924.68	2848	2916	28.43	63.42	111.46	3611
2056.00	2956.32	2927.92	2848	2917	28.39	63.35	111.34	3247
2058.00	2959.78	2931.38	2849	2917	28.35	63.26	111.19	3462
2060.00	2962.84	2934.44	2849	2917	28.32	63.20	111.08	3060
2062.00	2966.59	2938.19	2850	2918	28.28	63.10	110.91	3745

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
2064.00	2970.04	2941.64	2850	2919	28.24	63.01	110.76	3446
2066.00	2973.65	2945.25	2851	2920	28.20	62.92	110.61	3612
2068.00	2977.11	2948.71	2852	2920	28.16	62.84	110.46	3460
2070.00	2980.56	2952.16	2852	2921	28.12	62.76	110.32	3455
2072.00	2984.28	2955.88	2853	2922	28.08	62.66	110.15	3716
2074.00	2988.19	2959.79	2854	2923	28.03	62.56	109.97	3909
2076.00	2991.96	2963.56	2855	2924	27.99	62.46	109.80	3777
2078.00	2995.90	2967.50	2856	2925	27.94	62.35	109.62	3933
2080.00	2999.80	2971.40	2857	2926	27.89	62.25	109.44	3894
2082.00	3004.01	2975.61	2858	2927	27.84	62.13	109.23	4214
2084.00	3008.15	2979.75	2860	2929	27.78	62.01	109.03	4145
2086.00	3012.11	2983.71	2861	2930	27.74	61.90	108.84	3951
2088.00	3016.02	2987.62	2862	2931	27.69	61.80	108.67	3915
2090.00	3019.98	2991.58	2863	2932	27.64	61.70	108.48	3956
2092.00	3023.85	2995.45	2864	2933	27.60	61.59	108.31	3876
2094.00	3027.56	2999.16	2865	2934	27.55	61.50	108.15	3709
2096.00	3031.30	3002.90	2865	2935	27.51	61.41	107.99	3744
2098.00	3035.31	3006.91	2866	2936	27.46	61.30	107.80	4009
2100.00	3038.89	3010.49	2867	2937	27.43	61.22	107.66	3574
2102.00	3042.56	3014.16	2868	2938	27.39	61.13	107.51	3673
2104.00	3046.68	3018.28	2869	2939	27.33	61.02	107.31	4120
2106.00	3050.93	3022.53	2870	2941	27.28	60.90	107.11	4246
2108.00	3055.26	3026.86	2872	2942	27.23	60.78	106.89	4338
2110.00	3059.08	3030.68	2873	2943	27.18	60.68	106.73	3812

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
2112.00	3062.92	3034.52	2874	2944	27.14	60.59	106.56	3846
2114.00	3066.56	3038.16	2874	2945	27.10	60.50	106.42	3643
2116.00	3070.81	3042.41	2876	2946	27.05	60.38	106.22	4241
2118.00	3074.84	3046.44	2877	2948	27.00	60.28	106.03	4033
2120.00	3078.48	3050.08	2877	2948	26.96	60.19	105.89	3643
2122.00	3082.36	3053.96	2878	2949	26.92	60.10	105.72	3880
2124.00	3085.97	3057.57	2879	2950	26.88	60.02	105.58	3606
2126.00	3090.13	3061.73	2880	2951	26.83	59.91	105.39	4161
2128.00	3094.40	3066.00	2882	2953	26.78	59.79	105.19	4269
2130.00	3098.66	3070.26	2883	2954	26.73	59.68	104.99	4263
2132.00	3102.40	3074.00	2884	2955	26.69	59.59	104.84	3742
2134.00	3105.98	3077.58	2884	2956	26.65	59.51	104.70	3575
2136.00	3110.26	3081.86	2886	2957	26.60	59.39	104.50	4285
2138.00	3114.86	3086.46	2887	2959	26.54	59.26	104.27	4604
2140.00	3119.14	3090.74	2889	2961	26.49	59.15	104.08	4276
2142.00	3123.90	3095.50	2890	2963	26.42	59.01	103.83	4763
2144.00	3128.08	3099.68	2891	2964	26.38	58.90	103.65	4177
2146.00	3131.98	3103.58	2892	2965	26.33	58.81	103.49	3899
2148.00	3135.60	3107.20	2893	2966	26.30	58.73	103.35	3626
2150.00	3139.22	3110.82	2894	2967	26.26	58.65	103.21	3618
2152.00	3143.03	3114.63	2895	2968	26.22	58.56	103.06	3810
2154.00	3146.83	3118.43	2895	2969	26.18	58.47	102.91	3797
2156.00	3150.81	3122.41	2896	2970	26.14	58.38	102.74	3985
2158.00	3155.12	3126.72	2898	2971	26.09	58.27	102.55	4302

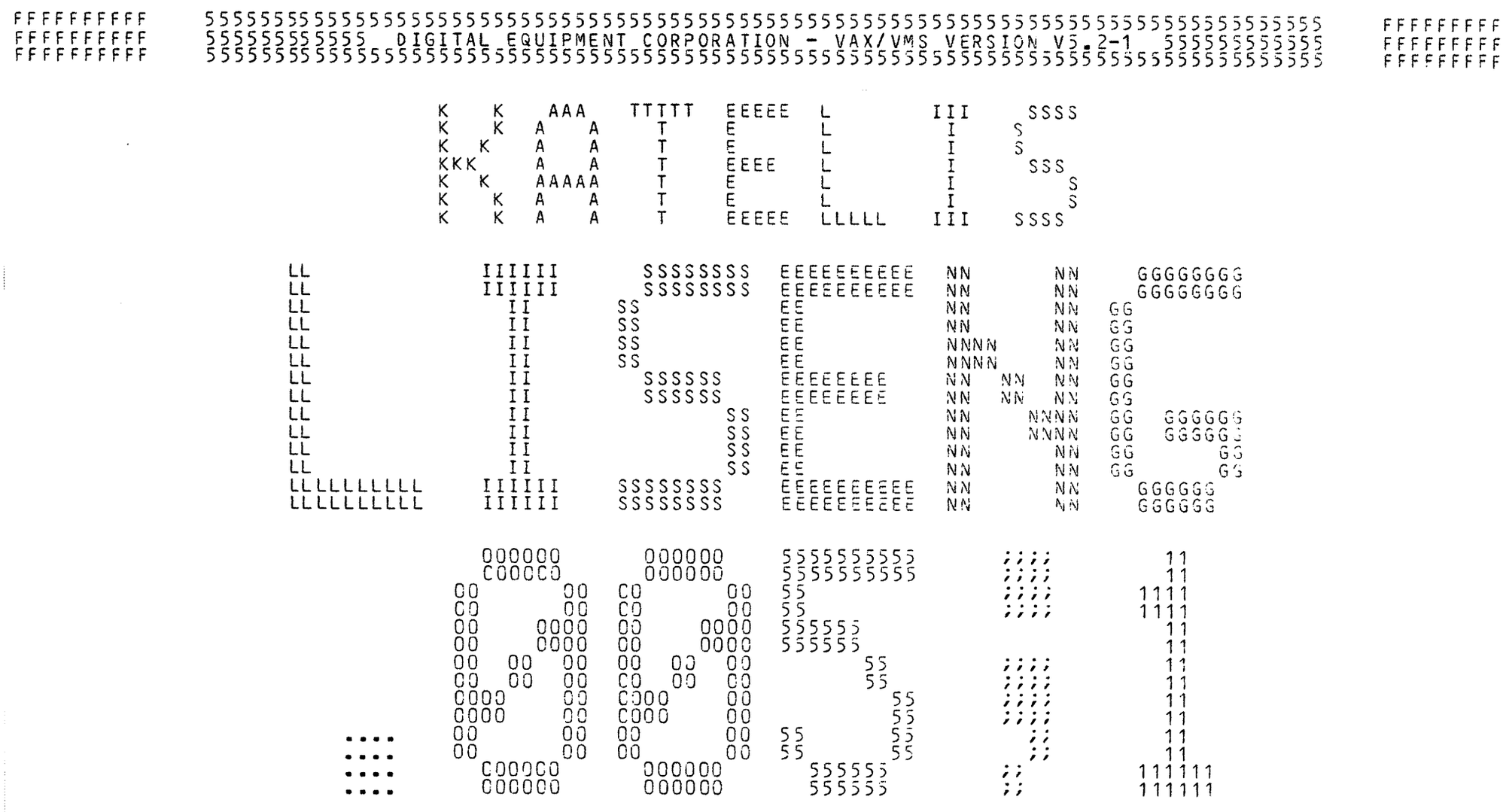
TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
2160.00	3158.97	3130.57	2899	2972	26.05	58.13	102.39	3857
2162.00	3162.81	3134.41	2900	2973	26.01	58.09	102.24	3836
2164.00	3166.68	3138.28	2900	2974	25.97	58.00	102.09	3874
2166.00	3170.51	3142.11	2901	2975	25.93	57.91	101.94	3826
2168.00	3174.51	3146.11	2902	2976	25.89	57.82	101.77	3998
2170.00	3178.54	3150.14	2903	2977	25.84	57.72	101.61	4034
2172.00	3182.45	3154.06	2904	2978	25.80	57.63	101.45	3912
2174.00	3186.59	3158.19	2905	2979	25.76	57.53	101.28	4134
2176.00	3190.60	3162.20	2906	2980	25.71	57.44	101.12	4008
2178.00	3194.65	3166.25	2907	2982	25.67	57.35	100.95	4056
2180.00	3198.66	3170.26	2908	2983	25.63	57.25	100.79	4012
2182.00	3202.51	3174.11	2909	2984	25.59	57.17	100.64	3845
2184.00	3206.48	3178.08	2910	2985	25.55	57.08	100.48	3975
2186.00	3210.55	3182.15	2911	2986	25.51	56.98	100.32	4062
2188.00	3214.49	3186.09	2912	2987	25.47	56.89	100.16	3946
2190.00	3218.52	3190.11	2913	2988	25.42	56.80	100.00	4025
2192.00	3222.57	3194.17	2914	2989	25.38	56.71	99.84	4053
2194.00	3226.55	3198.15	2915	2990	25.34	56.62	99.68	3983
2196.00	3231.00	3202.60	2917	2992	25.29	56.50	99.49	4449
2198.00	3235.64	3207.24	2918	2994	25.24	56.38	99.28	4643
2200.00	3240.03	3211.63	2920	2995	25.19	56.27	99.09	4385
2202.00	3244.03	3215.63	2921	2996	25.15	56.19	98.94	4001
2204.00	3248.24	3219.84	2922	2998	25.10	56.09	98.77	4209
2206.00	3252.36	3223.96	2923	2999	25.06	55.99	98.60	4120

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
2208.00	3256.47	3228.07	2924	3000	25.02	55.90	98.44	4109
2210.00	3260.76	3232.36	2925	3002	24.97	55.80	98.26	4297
2212.00	3265.22	3236.82	2927	3003	24.92	55.69	98.07	4453
2214.00	3269.55	3241.15	2928	3005	24.88	55.59	97.90	4336
2216.00	3273.77	3245.37	2929	3006	24.83	55.49	97.73	4213
2218.00	3278.04	3249.64	2930	3007	24.79	55.39	97.56	4272
2220.00	3282.44	3254.04	2932	3009	24.74	55.29	97.37	4398
2222.00	3286.89	3258.49	2933	3011	24.69	55.18	97.19	4454
2224.00	3291.14	3262.74	2934	3012	24.65	55.08	97.02	4249
2226.00	3295.33	3266.93	2935	3013	24.60	54.99	96.86	4137
2228.00	3299.70	3271.30	2937	3015	24.56	54.89	96.68	4375
2230.00	3304.33	3275.93	2938	3016	24.51	54.77	96.48	4630
2232.00	3308.97	3280.57	2940	3018	24.46	54.66	96.28	4636
2234.00	3313.42	3285.02	2941	3020	24.41	54.55	96.10	4452
2236.00	3317.95	3289.55	2942	3022	24.36	54.45	95.91	4532
2238.00	3322.46	3294.06	2944	3023	24.31	54.34	95.73	4507
2240.00	3326.91	3298.51	2945	3025	24.27	54.24	95.55	4451
2242.00	3331.26	3302.86	2946	3026	24.22	54.14	95.38	4350
2244.00	3335.61	3307.21	2948	3028	24.18	54.04	95.21	4354
2246.00	3339.70	3311.30	2949	3029	24.14	53.95	95.06	4089
2248.00	3343.67	3315.27	2950	3030	24.10	53.87	94.92	3971
2250.00	3348.15	3319.75	2951	3031	24.05	53.77	94.74	4476
2252.00	3352.36	3323.96	2952	3033	24.01	53.68	94.58	4209
2254.00	3356.50	3328.10	2953	3034	23.97	53.59	94.43	4142

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
2256.00	3360.58	3332.18	2954	3035	23.94	53.51	94.28	4077
2258.00	3364.88	3336.48	2955	3036	23.89	53.41	94.12	4298
2260.00	3369.21	3340.81	2956	3038	23.85	53.32	93.96	4333
2262.00	3373.35	3344.95	2958	3039	23.81	53.23	93.81	4138
2264.00	3377.64	3349.24	2959	3040	23.77	53.14	93.65	4290
2266.00	3382.01	3353.61	2960	3042	23.73	53.05	93.48	4374
2268.00	3386.19	3357.79	2961	3043	23.69	52.96	93.33	4178
2270.00	3390.54	3362.14	2962	3044	23.65	52.87	93.17	4353
2272.00	3394.89	3366.49	2963	3046	23.60	52.77	93.00	4351
2274.00	3399.23	3370.83	2965	3047	23.56	52.68	92.84	4332
2276.00	3403.52	3375.12	2966	3048	23.52	52.59	92.69	4290
2278.00	3407.75	3379.35	2967	3049	23.48	52.50	92.54	4235
2280.00	3412.03	3383.63	2968	3051	23.44	52.41	92.38	4279
2282.00	3416.35	3387.95	2969	3052	23.40	52.32	92.22	4320
2284.00	3420.68	3392.28	2970	3053	23.36	52.23	92.07	4326
2286.00	3424.97	3396.57	2972	3055	23.32	52.14	91.91	4298
2288.00	3429.42	3401.02	2973	3056	23.23	52.05	91.74	4451
2290.00	3433.73	3405.33	2974	3058	23.24	51.96	91.59	4304
2292.00	3437.99	3409.59	2975	3059	23.20	51.87	91.44	4259
2294.00	3442.32	3413.92	2976	3060	23.16	51.78	91.28	4333
2296.00	3446.62	3418.22	2978	3061	23.12	51.70	91.13	4301
2298.00	3450.85	3422.45	2979	3063	23.08	51.61	90.99	4224
2300.00	3455.19	3426.79	2980	3064	23.04	51.52	90.83	4348
2302.00	3459.41	3431.01	2981	3065	23.00	51.44	90.69	4215

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
2304.00	3463.83	3435.43	2982	3067	22.96	51.35	90.53	4424
2306.00	3468.43	3440.03	2984	3068	22.92	51.25	90.36	4595
2308.00	3472.81	3444.41	2985	3070	22.88	51.16	90.20	4379
2310.00	3477.09	3448.69	2986	3071	22.84	51.08	90.05	4280
2312.00	3481.32	3452.92	2987	3072	22.80	51.00	89.91	4229
2314.00	3485.48	3457.08	2988	3073	22.77	50.92	89.77	4167
2316.00	3489.73	3461.38	2989	3074	22.73	50.83	89.62	4298
2318.00	3493.80	3465.40	2990	3075	22.69	50.76	89.50	4019
2320.00	3497.89	3469.49	2991	3076	22.66	50.68	89.36	4093
2322.00	3502.09	3473.69	2992	3078	22.62	50.60	89.22	4192
2324.00	3506.40	3478.00	2993	3079	22.59	50.52	89.08	4312
2326.00	3510.60	3482.20	2994	3080	22.55	50.44	88.94	4201
2328.00	3515.04	3486.64	2995	3081	22.51	50.35	88.79	4441
2330.00	3519.28	3490.88	2996	3083	22.47	50.27	88.65	4240
2332.00	3523.49	3495.09	2998	3084	22.44	50.19	88.51	4214
2334.00	3527.63	3499.23	2998	3085	22.40	50.11	88.37	4133
2336.00	3531.97	3503.57	3000	3086	22.37	50.03	88.23	4345
2338.00	3536.29	3507.89	3001	3087	22.33	49.95	88.09	4316
2340.00	3540.58	3512.18	3002	3089	22.29	49.87	87.94	4289
2342.00	3544.86	3516.46	3003	3090	22.26	49.79	87.80	4283
2344.00	3549.10	3520.70	3004	3091	22.22	49.71	87.67	4233
2346.00	3553.44	3525.04	3005	3092	22.18	49.63	87.52	4332
2348.00	3557.65	3529.25	3006	3093	22.15	49.55	87.39	4218
2350.00	3561.88	3533.48	3007	3095	22.11	49.47	87.25	4225

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S



FILE _38DUB2:[56622.GEO]LISENG.005;1 (565,75,0), LAST REVISED ON 26-NOV-1990 16:16, IS A 479 BLOCK SEQUENTIAL FILE OWNED BY UIC [DEFAULT]. THE RECORDS ARE VARIABLE LENGTH WITH FORTRAN (FTN) CARRIAGE CONTROL. THE LONGEST RECORD IS 102 BYTES.

JOB LISENG (780) QUEUED TO SYJM31$PRINT ON 5-DEC-1990 12:35 BY USER KATELIS, UIC [DEFAULT], UNDER ACCOUNT SYJ AT PRIORITY 100, STARTED ON PRINTER LTA15: ON 5-DEC-1990 12:44 FROM QUEUE SYJM31$PRINT.

DIGITAL EQUIPMENT CORPORATION - VAX/VMS VERSION V5.2-1

ANALYST: Z.KATELIS 26-NOV-90 16:15:50 PROGRAM: GMULTP 006.E06

SYNTHETIC SEISMOGRAM TABLE

COMPANY : SHELL AUSTRALIA
WELL : GUMMY #1
FIELD : GIPSLAND BASIN
COUNTRY : AUSTRALIA
REFERENCE: SYJ-56622

ANALYST: Z.KATELIS 26-NOV-90 16:15:50 PROGRAM: GMULTP 006.E06

SCHLUMBERGER

SYNTHETIC SEISMOGRAM TABLE

COMPANY : SHELL AUSTRALIA
WELL : GUMMY #1
FIELD : GIPSLAND BASIN
COUNTRY : AUSTRALIA
REFERENCE: SYJ-56622

THE HEADINGS AND FLAGS SHOWN IN THE DATA LIST ARE DEFINED
AS FOLLOWS:

IGEOFL- FLAG INDICATING MODE OF PROCESSING
IGEOFL = 0 WST DATA AVAILABLE AND PROCESSED
IGEOFL = 1 WST DATA NOT AVAILABLE

LOG INPUT DATA :
GRF001- CHANNEL NAME FOR INPUT DENSITY LOG DATA
GTR001- CHANNEL NAME FOR INPUT SONIC LOG DATA
GCURVE- CORRELATION LOG NAMES

USER DEFINED MODELING

LOFVEL- LAYER OPTION FLAG FOR VELOCITY
LOFDEN- LAYER OPTION FLAG FOR DENSITY
LAYVEL- LAYERED VELOCITY VALUES FOR USER SUPPLIED ZONE LIMIT
WITH RESPECT TO SONIC LOG DATA
LAYDEN- LAYERED DENSITY VALUES FOR USER SUPPLIED ZONE LIMITS
WITH RESPECT TO SONIC LOG DATA
UNERTH- UNIFORM EARTH VELOCITY
UNFDEN- UNIFORM EARTH DENSITY
SRATE SAMPLING RATE IN MS
INIDEP START DEPTH FOR COMPUTING SYNTHETIC SEISMOGRAM
WITH RESPECT TO SONIC LOG DATA
IGESTP STOP DEPTH FOR COMPUTING SYNTHETIC SEISMOGRAM
WITH RESPECT TO SONIC LOG DATA
INITAU TWO WAY TRAVEL TIME FROM TOP SONIC TO SRD
EKB ELEVATION OF KELLY BUSHING WITH RESPECT TO
MEAN SEA LEVEL
SRDGEO SEISMIC REFERENCE DEPTH WITH RESPECT TO
MEAN SEA LEVEL
ICDP FLAG FOR COMPUTING RESIDUAL MULTIPLES
CDPTIM TWO WAY TIME INTERVAL FOR COMPUTATION OF
RESIDUAL MULTIPLES
SCRTIM SURFACE REFLECTOR TWO WAY TIME ABOVE INITAU
SCREFL SURFACE REFLECTION COEFFICIENT
RCMAX REFLECTION COEFFICIENTS THAT ARE EQUAL TO OR
GREATER THAN THIS VALUE SHALL BE FLAGGED

NOTE IN CASE OF MODELING A SYNTHETIC SEISMOGRAM WITHOUT
SONIC LOG DATA ,THE DEPTH REFERENCES SHALL BE USER
DEFINED

OUTPUT DATA

RMSVWE ROOT MEAN SQUARE VELOCITY FOUND FOR THE WELL
SRDTIM TWO WAY TRANSIT TIME BETWEEN INIDEP AND SRDGEO

CHANNNEL NAMES

TWOT- TWO WAY TRAVEL TIME
DSRD- DEPTH OF COMPUTED DATA WITH RESPECT TO SRD
INTV- INTERVAL VELOCITY ON A TIME SCALE
RHOT- INTERVAL DENSITY ON A TIME SCALE
REFL- REFLECTION COEFFICIENT AT GIVEN TWO WAY TRAVEL TIMES
ATTE- ATTENUATION COEFFICIENT AT GIVEN TWO WAY TRAVEL TIMES
PRIM- SYNTHETIC SEISMOGRAM - PRIMARIES
MULT- SYNTHETIC SEISMOGRAM - PRIMARIES + MULTIPLES
MUON- MULTIPLES ONLY

CHANNEL NAMES

CHAN 1 - TWOT.GMU.002.*
CHAN 2 - DSRD.GRF.006.*
CHAN 3 - INTV.GRF.007.*
CHAN 4 - RHOT.GRF.001.*
CHAN 5 - REFL.GRF.001.*
CHAN 6 - ATTE.GRF.001.*
CHAN 7 - PRIM.GRF.001.*
CHAN 8 - MULT.GMU.001.*
CHAN 9 - MUON.GMU.001.*

(GLOBAL PARAMETERS)		(VALUE)	
MODE OF PROC (GEOGRAM)	IGEOFL	0	
INITIALIZE CDP LOGIC	ICDP	0	
CDP TIME	CDPTIM	.200000	S
TIME SAMPLING (WST)	SRATE	2.00000	MS
TOP DEPTH OF PROCESSING	INIDEP	1171.60	M
BOTTOM DEPTH OF PROCESSI	IGESTP	3525.60	M
INITIAL TWO WAY TRAVEL T	INITAU	1.00840	S
SRD FOR GEOGRAM	SRDGEO	-30479.7	M
ELEVATION OF KELLY BUSHI	EKB	0	M
SRD TIME	SRDTIM	0	MS
SURFACE COEFFICIENT OF R	SCRTIM	0	MS
SURFACE COEFFICIENT OF R	SCREFL	-1.00000	
REFLECTION COEFF MAXIMUM	RCMAX	.300000	
RMS VELOCITY IN WELL	RMSVWE	3547.93	M/S
UNIFORM EARTH VELOCITY	UNERTH	1480.00	M/S
UNIFORM DENSITY VALUE	UNFDEN	2.30000	G/C3

(MATRIX PARAMETERS)

1 GR*
2 CALI*

(ZONED PARAMETERS)		(VALUE)		(LIMITS)		
LAYER OPTION FLAG DENS	LOFDEN	: 1.000000		30479.7	-	0
LAYER OPTION FLAG VELOC	LOFVEL	: 1.000000		30479.7	-	0
USER SUPPLIED DENSITY DA	LAYDEN	: 0	G/C3	0	-	0
USER VELOC (WST)	LAYVEL	: 2546.000	M/S	1200.00	-	183.800
		1480.000		183.800		0

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
		3219	2.399					
1010.4	1174.82			.004	.99999	.00365	.00365	0
		3222	2.414					
1012.4	1178.04			-.001	.99999	-.00060	-.00062	-.00001
		3212	2.418					
1014.4	1181.25			-.023	.99948	-.02254	-.02253	0
		3097	2.398					
1016.4	1184.35			-.007	.99943	-.00698	-.00682	.00016
		3053	2.399					
1018.4	1187.40			0	.99943	-.00012	-.00010	.00002
		3042	2.407					
1020.4	1190.45			-.005	.99941	-.00452	-.00504	-.00052
		3015	2.406					
1022.4	1193.46			.024	.99883	.02413	.02385	-.00027
		3145	2.421					
1024.4	1196.61			.005	.99880	.00526	.00502	-.00024
		3173	2.425					
1026.4	1199.78			-.004	.99878	-.00416	-.00438	-.00022
		3150	2.423					
1028.4	1202.93			-.033	.99769	-.03297	-.03191	.00106
		2991	2.388					
1030.4	1205.92			.012	.99755	.01196	.01278	.00082
		3051	2.398					
1032.4	1203.97			.058	.99419	.05791	.05763	-.00028
		3369	2.440					
1034.4	1212.34			.002	.99419	.00165	-.00010	-.00175
		3391	2.432					
1036.4	1215.73			-.024	.99359	-.02425	-.02446	-.00021
		3229	2.432					
1038.4	1218.96			.002	.99359	.00166	.00446	.00281
		3237	2.434					
1040.4	1222.19			-.019	.99323	-.01885	-.01832	.00053
		3165	2.397					
1042.4	1225.36			.004	.99322	.00381	.00453	.00072
		3212	2.380					
1044.4	1228.57			.002	.99321	.00244	.00230	-.00013
		3200	2.401					
1046.4	1231.77			-.025	.99258	-.02499	-.02902	-.00403
		3047	2.398					
1048.4	1234.82			.011	.99246	.01106	.00951	-.00155
		3083	2.423					
1050.4	1237.90			.015	.99225	.01444	.01697	.00252
		3163	2.432					
1052.4	1241.06			.024	.99166	.02425	.02647	.00222
		3289	2.455					
1054.4	1244.35			.017	.99137	.01703	.01627	-.00076
		3386	2.468					
1056.4	1247.74			.020	.99096	.02001	.01611	-.00390
		3497	2.488					

COMPANY : SHELL AUSTRALIA WELL : GUMMY #1

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
1058.4	1251.24			-.004	.99094	-.00420	-.00271	.00149
		3472	2.485					
1060.4	1254.71			-.016	.99069	-.01603	-.01183	.00420
		3382	2.470					
1062.4	1258.09			-.017	.99039	-.01720	-.01568	.00152
		3278	2.462					
1064.4	1261.37			-.014	.99020	-.01343	-.01259	.00084
		3214	2.443					
1066.4	1264.58			-.001	.99020	-.00094	-.00481	-.00387
		3210	2.442					
1068.4	1267.79			-.001	.99020	-.00117	-.00271	-.00154
		3189	2.452					
1070.4	1270.98			.021	.98977	.02071	.02328	.00257
		3329	2.449					
1072.4	1274.31			.050	.98726	.04983	.04910	-.00073
		3617	2.493					
1074.4	1277.93			-.022	.98678	-.02169	-.02425	-.00256
		3452	2.500					
1076.4	1281.38			-.011	.98665	-.01130	-.01050	.00080
		3418	2.467					
1078.4	1284.80			-.007	.98661	-.00682	-.00651	.00031
		3368	2.470					
1080.4	1288.17			.013	.98644	.01303	.01170	-.00133
		3441	2.483					
1082.4	1291.61			-.047	.98428	-.04607	-.04597	.00009
		3180	2.446					
1084.4	1294.79			-.019	.98394	-.01831	-.01663	.00169
		3087	2.428					
1086.4	1297.87			.037	.98257	.03678	.03710	.00031
		3285	2.459					
1088.4	1301.16			.047	.98039	.04621	.04616	-.00005
		3553	2.498					
1090.4	1304.71			.008	.98033	.00820	.00919	.00098
		3622	2.491					
1092.4	1308.33			-.006	.98029	-.00611	-.00216	.00395
		3574	2.494					
1094.4	1311.91			-.011	.98018	-.01034	-.01450	-.00416
		3506	2.489					
1096.4	1315.41			.001	.98018	.00080	-.00395	-.00474
		3491	2.504					
1098.4	1318.90			.006	.98015	.00566	.00925	.00359
		3531	2.504					
1100.4	1322.43			.007	.98010	.00680	.00781	.00101
		3572	2.510					
1102.4	1326.01			-.003	.98009	-.00316	-.00938	-.00622
		3556	2.505					
1104.4	1329.56			-.009	.98000	-.00910	-.00834	.00076
		3496	2.501					
1106.4	1333.06			-.006	.97997	-.00604	.00284	.00888

COMPANY : SHELL AUSTRALIA WELL : GUMMY #1

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
		3472	2.488					
1108.4	1336.53			-.002	.97996	-.00192	.00541	.00733
		3462	2.485					
1110.4	1339.99			.008	.97990	.00795	.00342	-.00453
		3504	2.496					
1112.4	1343.50			.008	.97984	.00738	-.00169	-.00907
		3551	2.500					
1114.4	1347.05			.003	.97984	.00260	-.00220	-.00479
		3559	2.508					
1116.4	1350.61			.002	.97983	.00171	.00165	-.00006
		3569	2.509					
1118.4	1354.17			.024	.97927	.02353	.02726	.00373
		3716	2.528					
1120.4	1357.89			0	.97927	-.00024	-.00199	-.00175
		3723	2.523					
1122.4	1361.61			-.035	.97807	-.03430	-.03387	.00042
		3509	2.495					
1124.4	1365.12			-.007	.97802	-.00680	-.00104	.00576
		3458	2.497					
1126.4	1368.58			-.015	.97779	-.01494	-.00899	.00595
		3373	2.483					
1128.4	1371.95			.007	.97775	.00657	.00707	.00050
		3418	2.484					
1130.4	1375.37			-.011	.97764	-.01031	-.01228	-.00197
		3355	2.477					
1132.4	1378.73			-.035	.97642	-.03457	-.04134	-.00676
		3153	2.456					
1134.4	1381.38			.040	.97489	.03859	.03017	-.00843
		3359	2.495					
1136.4	1385.24			.011	.97477	.01061	.00602	-.00459
		3442	2.488					
1138.4	1388.68			-.018	.97446	-.01758	-.01372	.00387
		3342	2.472					
1140.4	1392.02			.002	.97445	.00223	.00655	.00431
		3333	2.490					
1142.4	1395.36			-.010	.97435	-.00992	-.01287	-.00295
		3267	2.490					
1144.4	1398.62			.029	.97351	.02859	.03051	.00192
		3429	2.515					
1146.4	1402.05			-.045	.97157	-.04351	-.03084	.01267
		3172	2.486					
1148.4	1405.22			.045	.96957	.04402	.04328	-.00074
		3461	2.495					
1150.4	1408.69			.021	.96916	.02003	.01193	-.00811
		3600	2.500					
1152.4	1412.29			-.037	.96787	-.03538	-.04273	-.00735
		3341	2.503					
1154.4	1415.63			-.009	.96779	-.00883	-.00130	.00753
		3298	2.490					

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
1156.4	1418.92			.016	.96754	.01544	.02306	.00762
1158.4	1422.31	3385	2.505	-.017	.96727	-.01624	-.02841	-.01217
1160.4	1425.60	3294	2.489	-.010	.96717	-.00975	-.01068	-.00093
1162.4	1428.84	3236	2.484	-.004	.96716	-.00373	.00219	.00592
1164.4	1432.05	3208	2.486	.014	.96697	.01334	.01033	-.00301
1166.4	1435.34	3289	2.492	.001	.96697	.00101	.00045	-.00055
1168.4	1438.62	3287	2.499	-.021	.96653	-.02066	-.02010	.00056
1170.4	1441.79	3161	2.490	-.035	.96535	-.03374	-.03183	.00192
1172.4	1444.75	2969	2.473	-.013	.96518	-.01272	-.01367	-.00095
1174.4	1447.67	2915	2.453	.020	.96480	.01925	.01742	-.00183
1176.4	1450.68	3013	2.470	.064	.96079	.06220	.06817	.00596
1178.4	1454.07	3384	2.502	-.038	.95943	-.03616	-.04307	-.00690
1180.4	1457.23	3164	2.482	-.023	.95891	-.02237	-.02635	-.00398
1182.4	1460.27	3042	2.464	-.029	.95811	-.02767	-.02324	.00443
1184.4	1463.17	2895	2.444	.051	.95565	.04851	.05107	.00257
1186.4	1466.33	3162	2.475	-.002	.95565	-.00175	.00372	.00547
1188.4	1469.46	3136	2.487	.001	.95565	.00137	-.00188	-.00324
1190.4	1472.61	3147	2.485	.011	.95553	.01067	.00289	-.00778
1192.4	1475.83	3223	2.482	.030	.95467	.02867	.03144	.00276
1194.4	1479.23	3402	2.496	-.041	.95305	-.03925	-.02613	.01312
1196.4	1482.38	3149	2.484	.008	.95299	.00772	.00996	.00224
1198.4	1485.58	3196	2.487	-.013	.95283	-.01241	-.03056	-.01815
1200.4	1488.71	3125	2.479	.045	.95089	.04300	.03649	-.00651
1202.4	1492.10	3398	2.495	-.009	.95080	-.00892	.00361	.01253
1204.4	1495.44	3338	2.492	.013	.95064	.01241	.02316	.01075

COMPANY : SHELL AUSTRALIA WELL : GUMMY #1

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
		3401	2.511					
1206.4	1498.84			-.037	.94933	-.03533	-.04063	-.00530
		3196	2.480					
1208.4	1502.04			-.025	.94872	-.02402	-.02817	-.00415
		3060	2.463					
1210.4	1505.10			.059	.94538	.05628	.06298	.00670
		3402	2.495					
1212.4	1508.50			-.025	.94481	-.02335	-.02807	-.00472
		3237	2.496					
1214.4	1511.74			.018	.94449	.01740	.01625	-.00115
		3342	2.508					
1216.4	1515.08			-.012	.94436	-.01092	-.00681	.00410
		3288	2.491					
1218.4	1518.37			-.007	.94432	-.00617	-.00390	.00226
		3244	2.492					
1220.4	1521.61			-.028	.94358	-.02642	-.03013	-.00372
		3081	2.481					
1222.4	1524.69			.027	.94288	.02578	.03377	.00800
		3237	2.494					
1224.4	1527.93			.041	.94127	.03883	.03411	-.00478
		3480	2.519					
1226.4	1531.41			.003	.94126	.00325	-.00521	-.00846
		3507	2.518					
1228.4	1534.92			-.007	.94122	-.00659	-.01010	-.00351
		3457	2.519					
1230.4	1538.37			-.015	.94100	-.01409	.00155	.01565
		3376	2.503					
1232.4	1541.75			.002	.94100	.00162	.00523	.00361
		3378	2.509					
1234.4	1545.13			.014	.94081	.01350	.00882	-.00468
		3467	2.516					
1236.4	1548.60			-.009	.94073	-.00860	-.01133	-.00272
		3421	2.504					
1238.4	1552.02			-.008	.94067	-.00725	-.01130	-.00405
		3375	2.500					
1240.4	1555.39			-.014	.94049	-.01322	-.02114	-.00792
		3285	2.497					
1242.4	1558.68			-.017	.94023	-.01557	.00316	.01873
		3188	2.489					
1244.4	1561.86			.002	.94023	.00215	-.00013	-.00228
		3200	2.491					
1246.4	1565.07			.016	.93997	.01551	.00358	-.01193
		3293	2.502					
1248.4	1568.36			.017	.93969	.01608	.00892	-.00716
		3399	2.508					
1250.4	1571.76			.010	.93960	.00937	.02274	.01337
		3477	2.501					
1252.4	1575.23			-.010	.93951	-.00912	-.00431	.00481
		3411	2.501					

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
1254.4	1578.65			.001	.93951	.00110	-.00668	-.00778
1256.4	1582.08	3436	2.488	0	.93951	-.00045	-.00734	-.00689
1258.4	1585.50	3420	2.498	.026	.93889	.02420	.03237	.00816
1260.4	1589.11	3611	2.491	-.032	.93793	-.02994	-.02579	.00416
1262.4	1592.52	3410	2.474	.038	.93660	.03541	.04372	.00832
1264.4	1596.17	3649	2.494	-.020	.93622	-.01883	-.02503	-.00615
1266.4	1599.69	3514	2.487	-.006	.93618	-.00540	-.00673	-.00133
1268.4	1603.14	3456	2.500	.015	.93598	.01396	.01328	-.00063
1270.4	1606.68	3543	2.512	-.016	.93575	-.01457	-.01507	-.00051
1272.4	1610.13	3449	2.502	.026	.93514	.02392	.01730	-.00662
1274.4	1613.77	3637	2.497	-.008	.93508	-.00705	-.00914	-.00209
1276.4	1617.36	3593	2.490	-.018	.93478	-.01693	-.01800	-.00102
1278.4	1620.83	3468	2.487	.008	.93472	.00737	.01845	.01103
1280.4	1624.36	3529	2.484	.007	.93467	.00696	.00361	-.00335
1282.4	1627.93	3565	2.495	.004	.93465	.00375	-.00402	-.00777
1284.4	1631.52	3592	2.496	-.005	.93463	-.00499	.00323	.00822
1286.4	1635.07	3557	2.494	-.005	.93460	-.00471	-.00856	-.00385
1288.4	1638.61	3535	2.484	-.014	.93441	-.01334	-.01198	.00137
1290.4	1642.04	3433	2.486	-.009	.93434	-.00803	-.00600	.00204
1292.4	1645.43	3385	2.479	.020	.93398	.01342	.01136	-.00706
1294.4	1648.94	3511	2.485	-.013	.93383	-.01184	-.01702	-.00518
1296.4	1652.36	3419	2.489	-.023	.93334	-.02139	-.02929	-.00791
1298.4	1655.64	3280	2.478	0	.93334	-.00042	.01350	.01392
1300.4	1658.90	3261	2.490	.003	.93333	.00324	.01676	.01352
1302.4	1662.22	3323	2.460	.002	.93332	.00214	-.01801	-.02016

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
		3363	2.443					
1304.4	1665.58			-.013	.93315	-.01255	-.01476	-.00221
		3251	2.459					
1306.4	1668.84			.029	.93236	.02729	.03055	.00326
		3438	2.466					
1308.4	1672.27			-.006	.93232	-.00548	-.00050	.00498
		3409	2.458					
1310.4	1675.68			-.036	.93111	-.03356	-.03177	.00180
		3194	2.441					
1312.4	1678.88			.020	.93074	.01870	.01295	-.00575
		3276	2.478					
1314.4	1682.15			.013	.93059	.01188	.01365	.00176
		3412	2.440					
1316.4	1685.57			.036	.92935	.03389	.02341	-.01048
		3607	2.483					
1318.4	1689.17			-.015	.92916	-.01350	-.00133	.01217
		3532	2.463					
1320.4	1692.70			.001	.92916	.00128	.00580	.00452
		3544	2.461					
1322.4	1696.25			-.011	.92904	-.01033	-.00812	.00226
		3462	2.464					
1324.4	1699.71			-.020	.92865	-.01902	-.01733	.00169
		3315	2.470					
1326.4	1703.03			-.013	.92849	-.01235	-.01970	-.00735
		3234	2.466					
1328.4	1706.26			.005	.92846	.00488	.00597	.00109
		3277	2.459					
1330.4	1709.54			.004	.92844	.00380	-.00682	-.01062
		3313	2.452					
1332.4	1712.85			-.025	.92785	-.02356	-.03042	-.00686
		3146	2.454					
1334.4	1715.99			.020	.92747	.01866	.03341	.01475
		3262	2.464					
1336.4	1719.26			.003	.92746	.00308	.00072	-.00236
		3288	2.461					
1338.4	1722.54			-.015	.92726	-.01376	-.00500	.00876
		3213	2.445					
1340.4	1725.76			-.019	.92691	-.01784	-.02661	-.00877
		3076	2.458					
1342.4	1728.83			-.012	.92679	-.01081	-.01961	-.00880
		3019	2.446					
1344.4	1731.85			.029	.92603	.02653	.02506	-.00147
		3171	2.466					
1346.4	1735.02			-.048	.92391	-.04424	-.03213	.01211
		2932	2.424					
1348.4	1737.95			.033	.92291	.03048	.04471	.01423
		3095	2.453					
1350.4	1741.05			-.038	.92156	-.03523	-.04662	-.01139
		2883	2.440					

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
1352.4	1743.93			.019	.92123	.01769	.00724	-.01045
		2975	2.457					
1354.4	1746.91			-.002	.92122	-.00168	.00997	.01165
		2967	2.454					
1356.4	1749.88			.007	.92118	.00621	.00601	-.00020
		3025	2.440					
1358.4	1752.90			-.006	.92115	-.00523	-.01379	-.00856
		2988	2.442					
1360.4	1755.89			-.002	.92115	-.00223	-.00436	-.00213
		2970	2.445					
1362.4	1758.86			-.010	.92105	-.00916	-.00651	.00264
		2928	2.432					
1364.4	1761.79			.007	.92101	.00656	.00339	-.00316
		2976	2.426					
1366.4	1764.76			-.005	.92099	-.00448	.00507	.00955
		2933	2.439					
1368.4	1767.70			.051	.91859	.04697	.03670	-.01026
		3207	2.470					
1370.4	1770.90			-.032	.91765	-.02941	-.03045	-.00104
		3020	2.460					
1372.4	1773.92			.014	.91747	.01273	.02079	.00806
		3089	2.473					
1374.4	1777.01			-.020	.91712	-.01798	.00675	.02474
		2986	2.460					
1376.4	1780.00			.003	.91711	.00249	-.00181	-.00431
		2997	2.464					
1378.4	1782.99			-.009	.91704	-.00822	-.03144	-.02322
		2962	2.449					
1380.4	1785.95			-.015	.91634	-.01349	-.00974	.00374
		2885	2.441					
1382.4	1788.84			.016	.91659	.01502	.01603	.00101
		2957	2.461					
1384.4	1791.80			.005	.91658	.00425	.00270	-.00155
		3002	2.446					
1386.4	1794.80			.005	.91655	.00491	.01678	.01187
		3040	2.442					
1388.4	1797.84			.024	.91600	.02234	.02982	.00748
		3165	2.463					
1390.4	1801.00			-.010	.91591	-.00950	-.01330	-.00380
		3105	2.459					
1392.4	1804.11			.006	.91588	.00514	-.00757	-.01272
		3135	2.463					
1394.4	1807.24			-.005	.91585	-.00460	-.00068	.00393
		3097	2.468					
1396.4	1810.34			.008	.91579	.00770	.01973	.01204
		3155	2.464					
1398.4	1813.50			-.019	.91546	-.01744	-.03258	-.01514
		3041	2.461					
1400.4	1816.54			.001	.91546	.00070	.00625	.00555

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
		3036	2.468					
1402.4	1319.57			-.002	.91545	-.00211	-.00762	-.00550
		3031	2.461					
1404.4	1822.61			-.010	.91536	-.00939	-.00176	.00763
		2970	2.461					
1406.4	1825.57			.013	.91521	.01145	.00705	-.00441
		3043	2.463					
1408.4	1828.62			-.017	.91496	-.01522	-.00952	.00570
		2966	2.444					
1410.4	1831.58			.016	.91473	.01435	.01220	-.00216
		3036	2.464					
1412.4	1834.62			.001	.91473	.00099	-.00350	-.00449
		3029	2.475					
1414.4	1837.65			-.007	.91469	-.00633	-.00476	.00157
		2997	2.466					
1416.4	1840.65			-.005	.91467	-.00457	-.01544	-.01086
		2978	2.457					
1418.4	1843.62			.023	.91417	.02127	.02261	.00135
		3110	2.465					
1420.4	1846.73			-.002	.91417	-.00179	.00241	.00420
		3085	2.476					
1422.4	1849.82			-.008	.91411	-.00733	.01503	.02236
		3052	2.463					
1424.4	1852.87			.005	.91409	.00424	-.00061	-.00485
		3074	2.468					
1426.4	1855.95			-.005	.91407	-.00438	-.01791	-.01353
		3049	2.464					
1428.4	1858.99			-.004	.91405	-.00379	.00305	.00685
		3031	2.459					
1430.4	1862.03			-.002	.91405	-.00157	-.00400	-.00244
		3023	2.457					
1432.4	1865.05			.020	.91368	.01851	.01881	.00031
		3122	2.477					
1434.4	1868.17			.006	.91365	.00505	-.00011	-.00516
		3148	2.484					
1436.4	1871.32			-.007	.91361	-.00596	-.00052	.00544
		3112	2.480					
1438.4	1874.43			-.012	.91348	-.01093	-.00927	.00166
		3036	2.482					
1440.4	1877.46			-.018	.91317	-.01680	-.02435	-.00755
		2977	2.440					
1442.4	1880.44			-.002	.91317	-.00178	.00787	.00965
		2941	2.460					
1444.4	1883.38			-.014	.91298	-.01293	-.00888	.00405
		2872	2.449					
1446.4	1886.25			.008	.91292	.00739	-.00801	-.01540
		2910	2.456					
1448.4	1889.16			.006	.91289	.00527	.00051	-.00476
		2934	2.465					

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
1450.4	1892.10			.023	.91240	.02114	.01911	-.00202
		3051	2.482					
1452.4	1895.15			-.040	.91097	-.03618	-.02970	.00648
		2897	2.415					
1454.4	1898.05			-.026	.91033	-.02402	-.03167	-.00765
		2737	2.425					
1456.4	1900.78			.002	.91033	.00209	.00608	.00399
		2753	2.422					
1458.4	1903.54			.021	.90993	.01913	.01920	.00007
		2841	2.447					
1460.4	1906.38			-.010	.90984	-.00891	-.01801	-.00910
		2805	2.431					
1462.4	1909.18			.007	.90980	.00607	.02354	.01747
		2822	2.448					
1464.4	1912.00			-.001	.90980	-.00131	-.01566	-.01436
		2819	2.444					
1466.4	1914.82			-.001	.90980	-.00062	.00668	.00730
		2812	2.447					
1468.4	1917.64			-.013	.90965	-.01155	-.01248	-.00094
		2786	2.408					
1470.4	1920.42			-.012	.90951	-.01121	-.01101	.00020
		2690	2.433					
1472.4	1923.11			-.023	.90904	-.02070	-.01989	.00081
		2633	2.375					
1474.4	1925.74			.029	.90826	.02673	.00476	-.02197
		2753	2.409					
1476.4	1928.50			-.016	.90802	-.01475	-.00877	.00598
		2663	2.411					
1478.4	1931.16			.023	.90752	.02114	.03730	.01616
		2779	2.420					
1480.4	1933.94			.004	.90751	.00331	.00416	.00085
		2787	2.432					
1482.4	1936.73			-.040	.90603	-.03667	-.04179	-.00513
		2625	2.381					
1484.4	1939.35			.028	.90530	.02574	.01598	-.00976
		2753	2.403					
1486.4	1942.10			-.020	.90494	-.01794	-.00208	.01585
		2697	2.357					
1488.4	1944.80			.039	.90358	.03518	.02811	-.00708
		2819	2.438					
1490.4	1947.62			-.009	.90351	-.00769	.00007	.00777
		2781	2.430					
1492.4	1950.40			-.033	.90254	-.02965	-.03109	-.00144
		2658	2.380					
1494.4	1953.06			.021	.90215	.01862	.01451	-.00411
		2747	2.401					
1496.4	1955.81			.019	.90183	.01720	.01627	-.00093
		2822	2.427					
1498.4	1958.63			-.032	.90090	-.02890	-.03222	-.00332

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
		2731	2.352					
1500.4	1961.36			-.027	.90027	-.02390	-.02360	.00030
		2688	2.267					
1502.4	1964.05			.002	.90026	.00192	0	-.00192
		2693	2.272					
1504.4	1966.74			.040	.89886	.03557	.03176	-.00382
		2787	2.376					
1506.4	1969.53			.038	.89758	.03384	.05253	.01869
		2914	2.450					
1508.4	1972.44			-.011	.89747	-.01016	-.02224	-.01208
		2869	2.433					
1510.4	1975.31			-.018	.89719	-.01583	-.00938	.00645
		2804	2.403					
1512.4	1978.12			.033	.89620	.02986	.02230	-.00756
		2967	2.428					
1514.4	1981.08			-.022	.89575	-.01986	-.01497	.00489
		2880	2.392					
1516.4	1983.96			-.008	.89570	-.00731	.00219	.00950
		2902	2.336					
1518.4	1986.87			-.008	.89563	-.00736	.00593	.01329
		2912	2.290					
1520.4	1989.78			-.015	.89543	-.01351	-.03018	-.01668
		2916	2.219					
1522.4	1992.69			.019	.89510	.01734	.00827	-.00907
		3005	2.238					
1524.4	1995.70			.040	.89366	.03582	.04698	.01116
		3140	2.321					
1526.4	1998.84			.026	.89303	.02368	.02704	.00336
		3215	2.389					
1528.4	2002.05			-.064	.88940	-.05694	-.06835	-.01141
		3107	2.176					
1530.4	2005.16			-.050	.88714	-.04484	-.04684	-.00200
		3045	2.008					
1532.4	2003.21			.006	.88711	.00540	.00915	.00375
		3025	2.045					
1534.4	2011.23			.044	.88540	.03897	.05757	.01860
		3114	2.170					
1536.4	2014.34			.064	.88172	.05707	.02814	-.02892
		3209	2.395					
1538.4	2017.55			-.077	.87652	-.06769	-.04814	.01955
		3077	2.142					
1540.4	2020.63			.041	.87506	.03579	.02612	-.00967
		3130	2.285					
1542.4	2023.76			-.041	.87362	-.03549	-.01941	.01608
		3036	2.172					
1544.4	2026.80			.037	.87244	.03211	.03163	-.00048
		3063	2.317					
1546.4	2029.86			0	.87244	-.00031	.01168	.01200
		3014	2.354					

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
1548.4	2032.87			.008	.87239	.00691	-.00123	-.00815
		3015	2.390					
1550.4	2035.89			-.002	.87239	-.00167	-.01913	-.01746
		3072	2.337					
1552.4	2038.96			-.062	.86900	-.05436	-.04312	.01124
		2911	2.176					
1554.4	2041.87			.069	.86431	.06033	.06422	.00388
		3083	2.362					
1556.4	2044.95			.004	.86479	.00377	.00777	.00400
		3108	2.363					
1558.4	2048.06			-.040	.86344	-.03424	-.04879	-.01455
		3082	2.202					
1560.4	2051.14			.050	.86130	.04300	.03666	-.00634
		3221	2.327					
1562.4	2054.37			.080	.85572	.06932	.09391	.02459
		3422	2.574					
1564.4	2057.79			-.001	.85572	-.00044	-.00450	-.00406
		3370	2.612					
1566.4	2061.16			-.008	.85566	-.00712	.00696	.01408
		3384	2.558					
1568.4	2064.54			-.004	.85564	-.00385	-.01388	-.01004
		3409	2.516					
1570.4	2067.95			.002	.85564	.00178	-.01482	-.01660
		3460	2.490					
1572.4	2071.41			-.066	.85193	-.05631	-.04138	.01493
		3284	2.299					
1574.4	2074.69			.059	.84901	.04986	.04598	-.00388
		3466	2.449					
1576.4	2078.16			.012	.84890	.00977	.01222	.00246
		3539	2.455					
1578.4	2081.70			-.013	.84875	-.01129	-.01684	-.00555
		3500	2.417					
1580.4	2085.20			-.013	.84861	-.01091	.01107	.02197
		3469	2.377					
1582.4	2088.67			.015	.84843	.01235	.01750	.00515
		3524	2.408					
1584.4	2092.19			.032	.84757	.02702	-.00521	-.03223
		3650	2.478					
1586.4	2095.84			.006	.84754	.00527	.01009	.00482
		3651	2.509					
1588.4	2099.49			-.042	.84607	-.03520	-.04152	-.00632
		3495	2.411					
1590.4	2102.99			-.009	.84601	-.00720	-.01787	-.01067
		3454	2.399					
1592.4	2106.44			.022	.84561	.01848	.03948	.02100
		3573	2.423					
1594.4	2110.01			-.015	.84542	-.01253	-.00435	.00818
		3577	2.349					
1596.4	2113.59			-.025	.84489	-.02127	-.01277	.00849

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
		3450	2.316					
1598.4	2117.04			-.005	.84486	-.00456	-.03173	-.02716
		3413	2.316					
1600.4	2120.46			-.026	.84431	-.02171	-.00269	.01902
		3341	2.247					
1602.4	2123.80			.012	.84418	.01012	-.00850	-.01862
		3397	2.264					
1604.4	2127.19			0	.84418	.00005	-.01308	-.01313
		3341	2.302					
1606.4	2130.54			.009	.84411	.00798	-.00233	-.01032
		3373	2.324					
1608.4	2133.91			.030	.84336	.02514	.04054	.01540
		3557	2.339					
1610.4	2137.47			-.009	.84329	-.00782	-.00527	.00255
		3579	2.282					
1612.4	2141.04			.002	.84329	.00135	.00205	.00071
		3580	2.288					
1614.4	2144.63			-.013	.84313	-.01130	-.01616	-.00486
		3495	2.282					
1616.4	2148.12			-.024	.84266	-.01998	-.02510	-.00512
		3345	2.274					
1618.4	2151.47			-.015	.84247	-.01272	-.00732	.00540
		3275	2.254					
1620.4	2154.74			.012	.84234	.01033	.02724	.01691
		3336	2.267					
1622.4	2158.08			.031	.84156	.02572	.01919	-.00653
		3424	2.349					
1624.4	2161.50			.013	.84141	.01119	-.00136	-.01255
		3520	2.346					
1626.4	2165.02			-.004	.84140	-.00319	-.03022	-.02703
		3481	2.354					
1628.4	2168.50			.006	.84137	.00471	.02583	.02117
		3485	2.378					
1630.4	2171.98			-.021	.84099	-.01780	-.00026	.01754
		3499	2.270					
1632.4	2175.48			.001	.84099	.00124	-.01200	-.01323
		3560	2.238					
1634.4	2179.04			.019	.84069	.01586	.01593	.00007
		3585	2.308					
1636.4	2182.63			-.024	.84022	-.01993	-.00598	.01394
		3489	2.261					
1638.4	2186.12			-.002	.84022	-.00192	-.00741	-.00549
		3464	2.268					
1640.4	2189.58			.012	.84010	.00986	.02709	.01724
		3515	2.288					
1642.4	2193.10			-.011	.84001	-.00883	-.03704	-.02815
		3488	2.257					
1644.4	2196.59			.017	.83975	.01469	.01476	.00008
		3556	2.293					

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
1646.4	2200.14			-.016	.83953	-.01353	-.02906	-.01553
		3482	2.267					
1648.4	2203.62			.012	.83941	.01009	.03070	.02061
		3536	2.287					
1650.4	2207.16			0	.83941	.00026	.01644	.01618
		3530	2.292					
1652.4	2210.69			.020	.83909	.01645	-.01035	-.02680
		3578	2.352					
1654.4	2214.27			-.016	.83888	-.01319	-.00521	.00798
		3547	2.299					
1656.4	2217.81			.009	.83881	.00760	.00837	.00077
		3571	2.325					
1658.4	2221.39			-.003	.83880	-.00266	.01388	.01655
		3571	2.311					
1660.4	2224.96			.014	.83863	.01214	.01207	-.00007
		3605	2.356					
1662.4	2228.56			.035	.83757	.02974	.03134	.00159
		3710	2.458					
1664.4	2232.27			.008	.83752	.00659	-.00636	-.01295
		3722	2.489					
1666.4	2235.99			.010	.83743	.00846	.01152	.00306
		3757	2.516					
1668.4	2239.75			-.002	.83743	-.00175	.02543	.02719
		3748	2.511					
1670.4	2243.50			-.001	.83743	-.00109	-.00413	-.00304
		3740	2.510					
1672.4	2247.24			.007	.83739	.00552	-.02935	-.03486
		3771	2.523					
1674.4	2251.01			-.068	.83357	-.05656	-.05027	.00629
		3519	2.361					
1676.4	2254.53			-.054	.83111	-.04534	-.03910	.00624
		3388	2.200					
1678.4	2257.92			.003	.83110	.00259	.03125	.02866
		3390	2.212					
1680.4	2261.31			.018	.83083	.01506	-.02117	-.03623
		3443	2.258					
1682.4	2264.75			-.013	.83069	-.01075	-.01433	-.00358
		3453	2.194					
1684.4	2268.20			.007	.83064	.00600	.01408	.00808
		3499	2.197					
1686.4	2271.70			-.010	.83057	-.00796	.00089	.00885
		3416	2.207					
1688.4	2275.12			-.008	.83051	-.00664	-.01410	-.00745
		3373	2.200					
1690.4	2278.49			-.009	.83044	-.00773	-.01695	-.00922
		3333	2.185					
1692.4	2281.82			.102	.82183	.08456	.07310	-.01147
		3653	2.446					
1694.4	2285.48			.017	.82158	.01435	.02182	.00747

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
		3691	2.507					
1696.4	2289.17			-.048	.81967	-.03959	-.01809	.02149
		3439	2.443					
1698.4	2292.61			.043	.81813	.03552	.06475	.02922
		3646	2.513					
1700.4	2296.25			-.080	.81287	-.06561	-.06876	-.00315
		3437	2.271					
1702.4	2299.69			.016	.81266	.01304	-.02880	-.04183
		3491	2.308					
1704.4	2303.18			.103	.80405	.08369	.08564	.00195
		3949	2.509					
1706.4	2307.13			-.063	.80087	-.05057	-.01558	.03498
		3745	2.333					
1708.4	2310.87			-.081	.79557	-.06511	-.03939	-.02423
		3343	2.220					
1710.4	2314.22			.075	.79105	.06000	.07649	.01649
		3565	2.422					
1712.4	2317.78			.014	.79090	.01076	-.01422	-.02498
		3586	2.474					
1714.4	2321.37			.020	.79057	.01621	.02701	.01080
		3762	2.457					
1716.4	2325.13			-.031	.78980	-.02464	-.01900	.00564
		3599	2.413					
1718.4	2328.73			-.013	.78967	-.01006	-.01783	-.00777
		3526	2.401					
1720.4	2332.26			.027	.78911	.02115	.03122	.01007
		3621	2.466					
1722.4	2335.88			.029	.78843	.02316	.02033	-.00283
		3630	2.609					
1724.4	2339.51			-.027	.78785	-.02141	.01064	.03205
		3466	2.588					
1726.4	2342.97			.010	.78777	.00796	.01259	.00463
		3569	2.565					
1728.4	2346.54			-.006	.78774	-.00474	-.05782	-.05309
		3687	2.453					
1730.4	2350.23			-.002	.78773	-.00172	.01859	.02031
		3652	2.466					
1732.4	2353.88			-.036	.78674	-.02802	-.03627	-.00825
		3473	2.414					
1734.4	2357.35			0	.78674	.00006	.00735	.00728
		3497	2.399					
1736.4	2360.85			.021	.78640	.01625	.03223	.01598
		3546	2.465					
1738.4	2364.40			-.066	.78298	-.05185	-.06700	-.01514
		3262	2.343					
1740.4	2367.66			.048	.78119	.03748	.02492	-.01256
		3514	2.399					
1742.4	2371.17			.015	.78102	.01139	-.01255	-.02394
		3567	2.433					

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
1744.4	2374.74			-.004	.78101	-.00343	.01911	.02254
		3553	2.421					
1746.4	2378.29			.051	.77898	.03976	.04281	.00305
		3816	2.496					
1748.4	2382.11			-.061	.77604	-.04787	-.03249	.01538
		3506	2.403					
1750.4	2385.62			.014	.77590	.01061	-.03156	-.04216
		3537	2.447					
1752.4	2389.15			-.019	.77561	-.01489	.00366	.01855
		3550	2.347					
1754.4	2392.70			.037	.77453	.02899	.03290	.00391
		3623	2.478					
1756.4	2396.32			-.061	.77161	-.04757	-.03886	.00871
		3398	2.336					
1758.4	2399.72			.027	.77106	.02054	.01738	-.00316
		3556	2.354					
1760.4	2403.28			-.020	.77075	-.01531	-.03519	-.01989
		3494	2.303					
1762.4	2406.77			.020	.77044	.01546	.00886	-.00660
		3460	2.421					
1764.4	2410.23			-.032	.76965	-.02475	-.01224	.01252
		3448	2.278					
1766.4	2413.68			-.010	.76956	-.00808	.00511	.01319
		3426	2.245					
1768.4	2417.11			.067	.76614	.05137	.03913	-.01224
		3625	2.425					
1770.4	2420.73			-.020	.76582	-.01563	-.04025	-.02462
		3508	2.406					
1772.4	2424.24			.001	.76582	.00076	.02645	.02569
		3483	2.428					
1774.4	2427.72			-.002	.76581	-.00188	.00769	.00957
		3567	2.359					
1776.4	2431.29			-.010	.76574	-.00740	-.03685	-.02945
		3641	2.267					
1778.4	2434.93			.012	.76564	.00893	.02283	.01389
		3672	2.301					
1780.4	2438.60			-.004	.76562	-.00296	.01554	.01850
		3620	2.316					
1782.4	2442.22			-.023	.76521	-.01792	-.03010	-.01217
		3516	2.276					
1784.4	2445.74			.010	.76513	.00762	.00332	-.00430
		3570	2.287					
1786.4	2449.31			.011	.76504	.00847	.02226	.01380
		3647	2.288					
1788.4	2452.96			-.001	.76503	-.00080	-.01853	-.01773
		3634	2.291					
1790.4	2456.59			-.002	.76503	-.00167	-.00545	-.00378
		3592	2.308					
1792.4	2460.18			-.006	.76501	-.00445	.00555	.01000

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
		3583	2.287					
1794.4	2463.77			-.002	.76500	-.00181	-.00539	-.00358
		3628	2.248					
1796.4	2467.39			.069	.76135	.05283	.05963	.00680
		4000	2.341					
1798.4	2471.39			-.078	.75673	-.05935	-.05792	.00142
		3557	2.252					
1800.4	2474.95			-.003	.75672	-.00219	-.01227	-.01008
		3538	2.252					
1802.4	2478.49			.067	.75335	.05051	.03863	-.01188
		3843	2.369					
1804.4	2482.33			-.024	.75293	-.01777	-.02233	-.00457
		3676	2.363					
1806.4	2486.01			.012	.75282	.00923	.03357	.02434
		3644	2.443					
1808.4	2489.65			.071	.74906	.05320	.05133	-.00187
		4001	2.563					
1810.4	2493.65			-.031	.74833	-.02327	-.03959	-.01633
		3813	2.527					
1812.4	2497.46			-.005	.74831	-.00396	.03494	.03891
		3692	2.583					
1814.4	2501.16			-.052	.74627	-.03907	-.03042	.00866
		3506	2.450					
1816.4	2504.66			-.018	.74603	-.01354	-.04322	-.02968
		3594	2.305					
1818.4	2508.26			-.029	.74542	-.02128	-.00968	.01160
		3370	2.321					
1820.4	2511.63			-.019	.74516	-.01383	-.02683	-.01294
		3333	2.261					
1822.4	2514.96			.051	.74319	.03833	.05170	.01337
		3578	2.335					
1824.4	2518.54			.036	.74223	.02671	-.00038	-.02710
		3669	2.447					
1826.4	2522.20			-.023	.74185	-.01678	-.01565	.00114
		3591	2.389					
1828.4	2525.80			-.047	.74021	-.03484	-.00474	.03010
		3380	2.311					
1830.4	2529.18			.021	.73990	.01520	-.00101	-.01621
		3489	2.333					
1832.4	2532.66			-.017	.73968	-.01287	-.03492	-.02206
		3448	2.280					
1834.4	2536.11			.059	.73708	.04381	.04828	.00447
		3606	2.454					
1836.4	2539.72			-.045	.73559	-.03317	-.02684	.00634
		3392	2.384					
1838.4	2543.11			.005	.73557	.00374	.00223	-.00151
		3396	2.406					
1840.4	2546.51			.025	.73510	.01862	.02067	.00205
		3555	2.418					

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
1842.4	2550.06			-.066	.73186	-.04884	-.00567	.04317
		3270	2.301					
1844.4	2553.33			.022	.73149	.01644	.00308	-.01336
		3356	2.345					
1846.4	2556.69			.021	.73116	.01538	-.01978	-.03517
		3484	2.356					
1848.4	2560.17			.056	.72886	.04103	.05216	.01114
		3718	2.470					
1850.4	2563.89			-.050	.72707	-.03614	-.02411	.01203
		3525	2.359					
1852.4	2567.41			.013	.72694	.00960	-.01186	-.02146
		3582	2.383					
1854.4	2571.00			-.030	.72630	-.02155	-.00904	.01252
		3421	2.352					
1856.4	2574.42			.004	.72629	.00312	.02110	.01798
		3405	2.383					
1858.4	2577.82			.030	.72565	.02151	.01612	-.00538
		3550	2.426					
1860.4	2581.37			-.011	.72557	-.00764	-.00844	-.00080
		3556	2.371					
1862.4	2584.93			-.022	.72521	-.01619	-.02588	-.00968
		3430	2.351					
1864.4	2588.36			.032	.72447	.02321	.04589	.02269
		3529	2.436					
1866.4	2591.89			-.012	.72437	-.00845	-.01827	-.00982
		3563	2.357					
1868.4	2595.45			-.012	.72426	-.00863	.02013	.02881
		3536	2.319					
1870.4	2598.99			.005	.72425	.00340	-.03594	-.03934
		3508	2.359					
1872.4	2602.49			.003	.72424	.00244	-.02831	-.03075
		3473	2.399					
1874.4	2605.97			0	.72424	.00023	.01321	.01293
		3447	2.419					
1876.4	2609.41			-.031	.72355	-.02243	-.00197	.02047
		3358	2.334					
1878.4	2612.77			.072	.71981	.05199	.08000	.02801
		3654	2.477					
1880.4	2616.43			-.049	.71809	-.03517	-.04123	-.00606
		3520	2.332					
1882.4	2619.95			.146	.70270	.10511	.08125	-.02386
		4323	2.550					
1884.4	2624.27			-.116	.69325	-.08152	-.05712	.02440
		3588	2.434					
1886.4	2627.86			-.025	.69281	-.01748	-.03375	-.01627
		3473	2.390					
1888.4	2631.33			.045	.69143	.03089	.01363	-.01726
		3654	2.484					
1890.4	2634.99			-.007	.69140	-.00450	-.00445	.00005

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
		3641	2.461					
1892.4	2638.63			-.028	.69085	-.01958	.01141	.03099
		3603	2.349					
1894.4	2642.23			-.022	.69051	-.01521	-.03921	-.02400
		3514	2.305					
1896.4	2645.74			.049	.68888	.03351	.05749	.02398
		3687	2.421					
1898.4	2649.43			.025	.68847	.01698	.01219	-.00480
		3784	2.479					
1900.4	2653.21			-.023	.68810	-.01582	-.00950	.00632
		3630	2.468					
1902.4	2656.84			-.008	.68806	-.00561	-.00281	.00281
		3566	2.471					
1904.4	2660.41			.020	.68779	.01348	-.00201	-.01549
		3693	2.481					
1906.4	2664.10			-.032	.68710	-.02190	-.04256	-.02066
		3609	2.383					
1908.4	2667.71			-.019	.68685	-.01303	.01744	.03049
		3527	2.347					
1910.4	2671.24			-.001	.68685	-.00084	.00939	.01023
		3484	2.370					
1912.4	2674.72			.048	.68529	.03274	-.02141	-.05415
		3601	2.523					
1914.4	2678.33			.011	.68521	.00722	.00443	-.00279
		3708	2.502					
1916.4	2682.03			-.099	.67844	-.06813	-.01340	.05473
		3199	2.376					
1918.4	2685.23			-.046	.67702	-.03096	-.03546	-.00451
		3162	2.194					
1920.4	2688.40			.128	.66587	.08691	.04427	-.04264
		3612	2.486					
1922.4	2692.01			.019	.66563	.01253	.00240	-.01014
		3690	2.527					
1924.4	2695.70			-.026	.66518	-.01726	.02768	.04494
		3684	2.403					
1926.4	2699.38			-.010	.66512	-.00636	-.01764	-.01128
		3599	2.414					
1928.4	2702.98			-.030	.66451	-.02025	-.02793	-.00768
		3378	2.419					
1930.4	2706.36			.026	.66407	.01708	.02274	.00566
		3579	2.404					
1932.4	2709.94			-.024	.66368	-.01610	-.00424	.01185
		3545	2.312					
1934.4	2713.48			-.033	.66296	-.02180	-.01228	.00953
		3336	2.301					
1936.4	2716.82			.064	.66024	.04248	.01074	-.03174
		3648	2.392					
1938.4	2720.46			-.010	.66018	-.00634	-.02810	-.02176
		3504	2.443					

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
1940.4	2723.97			-.055	.65817	-.03641	-.00081	.03560
		3256	2.354					
1942.4	2727.22			.071	.65486	.04670	.03449	-.01222
		3596	2.457					
1944.4	2730.82			.009	.65481	.00566	-.00760	-.01326
		3605	2.494					
1946.4	2734.43			.008	.65477	.00518	-.01051	-.01569
		3716	2.458					
1948.4	2738.14			-.014	.65464	-.00898	.02780	.03679
		3624	2.452					
1950.4	2741.77			-.014	.65451	-.00922	.00789	.01711
		3523	2.452					
1952.4	2745.29			.003	.65451	.00220	-.00523	-.00743
		3544	2.454					
1954.4	2748.83			.052	.65270	.03435	.02640	-.00795
		3842	2.514					
1956.4	2752.68			-.059	.65041	-.03864	-.00220	.03645
		3573	2.401					
1958.4	2756.25			-.007	.65039	-.00437	.01565	.02002
		3456	2.450					
1960.4	2759.71			.009	.65033	.00604	-.06734	-.07338
		3524	2.447					
1962.4	2763.23			-.014	.65021	-.00886	-.00045	.00840
		3570	2.351					
1964.4	2766.80			-.044	.64894	-.02873	-.05503	-.02630
		3363	2.285					
1966.4	2770.16			.077	.64513	.04975	.09712	.04737
		3591	2.495					
1968.4	2773.75			-.042	.64399	-.02701	-.06099	-.03398
		3442	2.394					
1970.4	2777.20			.015	.64384	.00991	.00361	-.00630
		3446	2.466					
1972.4	2780.64			-.211	.61504	-.13617	-.10189	.03427
		2828	1.955					
1974.4	2783.47			.152	.60083	.09350	.05732	-.03619
		3340	2.250					
1976.4	2786.31			.043	.59974	.02564	.00616	-.01948
		3477	2.353					
1978.4	2790.29			.094	.59441	.05654	.09179	.03525
		3866	2.557					
1980.4	2794.15			-.048	.59305	-.02839	-.00276	.02563
		3598	2.497					
1982.4	2797.75			-.184	.57290	-.10931	-.06870	.04061
		3021	2.048					
1984.4	2800.77			.116	.56513	.06674	-.00998	-.07672
		3335	2.345					
1986.4	2804.11			.054	.56347	.03057	.06242	.03186
		3563	2.446					
1988.4	2807.67			.030	.56296	.01697	.00063	-.01634

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
		3689	2.509					
1990.4	2811.36			-.040	.56206	-.02258	-.01582	.00675
		3443	2.481					
1992.4	2814.80			-.003	.56205	-.00185	.00004	.00189
		3527	2.406					
1994.4	2818.33			.012	.56197	.00692	.01277	.00585
		3526	2.466					
1996.4	2821.86			.068	.55939	.03808	.08774	.04966
		3896	2.557					
1998.4	2825.75			-.099	.55395	-.05515	-.03198	.02317
		3432	2.381					
2000.4	2829.18			.051	.55253	.02808	-.01729	-.04537
		3630	2.492					
2002.4	2832.81			.045	.55139	.02511	-.01696	-.04206
		3906	2.536					
2004.4	2836.72			-.006	.55137	-.00329	.02526	.02855
		3835	2.553					
2006.4	2840.55			-.072	.54850	-.03975	.01567	.05542
		3572	2.372					
2008.4	2844.13			-.016	.54836	-.00879	-.03243	-.02364
		3358	2.444					
2010.4	2847.49			.050	.54701	.02720	-.00798	-.03518
		3672	2.468					
2012.4	2851.16			-.076	.54381	-.04182	-.02856	.01326
		3341	2.327					
2014.4	2854.50			-.015	.54369	-.00801	.00139	.00939
		3275	2.305					
2016.4	2857.77			.066	.54131	.03602	.03785	.00183
		3546	2.431					
2018.4	2861.32			.024	.54099	.01320	-.05489	-.06809
		3666	2.469					
2020.4	2864.99			-.079	.53761	-.04271	.02616	.06887
		3283	2.354					
2022.4	2868.27			.045	.53654	.02404	.01277	-.01127
		3540	2.387					
2024.4	2871.31			.012	.53646	.00636	-.00319	-.00955
		3608	2.399					
2026.4	2875.42			.024	.53617	.01261	-.00975	-.02236
		3649	2.486					
2028.4	2879.07			.025	.53583	.01346	.04540	.03194
		3790	2.516					
2030.4	2882.86			-.024	.53552	-.01290	.03149	.04439
		3647	2.492					
2032.4	2886.50			-.151	.52329	-.08092	-.13176	-.05085
		3027	2.214					
2034.4	2889.53			.098	.51831	.05106	.03130	-.01976
		3427	2.379					
2036.4	2892.96			.014	.51821	.00735	.03516	.02781
		3528	2.377					

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
2038.4	2896.48			.039	.51740	.02046	.02743	.00698
		3606	2.517					
2040.4	2900.09			-.012	.51732	-.00630	-.03820	-.03189
		3628	2.441					
2042.4	2903.72			-.004	.51732	-.00181	.01218	.01400
		3598	2.445					
2044.4	2907.32			-.015	.51719	-.00793	-.01876	-.01082
		3500	2.437					
2046.4	2910.82			.028	.51678	.01460	.05383	.03923
		3692	2.444					
2048.4	2914.51			-.003	.51678	-.00177	.02002	.02179
		3663	2.447					
2050.4	2918.17			-.049	.51553	-.02534	-.11697	-.09162
		3455	2.352					
2052.4	2921.63			.037	.51484	.01893	.06045	.04152
		3670	2.383					
2054.4	2925.30			-.091	.51056	-.04696	-.01179	.03517
		3193	2.281					
2056.4	2928.49			.077	.50752	.03938	.01276	-.02662
		3458	2.458					
2058.4	2931.95			-.082	.50410	-.04165	-.06556	-.02391
		3134	2.301					
2060.4	2935.08			.095	.49957	.04773	.03241	-.01537
		3638	2.397					
2062.4	2938.72			-.017	.49943	-.00846	.01575	.02420
		3521	2.394					
2064.4	2942.24			-.006	.49941	-.00281	.00997	.01278
		3505	2.378					
2066.4	2945.74			.034	.49883	.01703	-.02397	-.04100
		3604	2.476					
2068.4	2949.35			-.055	.49730	-.02764	.02990	.05754
		3430	2.329					
2070.4	2952.78			.052	.49594	.02603	.00606	-.01996
		3701	2.397					
2072.4	2956.48			.051	.49464	.02535	-.00388	-.02923
		3940	2.493					
2074.4	2960.42			-.029	.49422	-.01442	.04535	.05977
		3759	2.466					
2076.4	2964.18			.047	.49313	.02322	.02812	.00490
		3966	2.567					
2078.4	2968.15			-.021	.49291	-.01036	-.03139	-.02103
		3856	2.532					
2080.4	2972.00			.071	.49044	.03492	.02749	-.00744
		4279	2.629					
2082.4	2976.28			-.037	.48977	-.01813	.00624	.02437
		4069	2.568					
2084.4	2980.35			-.002	.48977	-.00097	.00148	.00245
		3993	2.607					
2086.4	2984.34			-.027	.48941	-.01311	.00336	.01647

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
		3946	2.500					
2088.4	2988.29			.003	.48941	.00125	-.01145	-.01270
		3903	2.540					
2090.4	2992.19			-.017	.48927	-.00835	-.04157	-.03322
		3830	2.502					
2092.4	2996.02			-.023	.48901	-.01135	.00812	.01946
		3750	2.440					
2094.4	2999.77			.019	.48882	.00949	-.01378	-.02327
		3818	2.491					
2096.4	3003.59			.017	.48867	.00850	.04938	.04088
		3919	2.513					
2098.4	3007.51			-.118	.48191	-.05747	-.08244	-.02497
		3562	2.183					
2100.4	3011.07			.076	.47910	.03683	.04597	.00913
		3716	2.439					
2102.4	3014.79			.086	.47553	.04135	.01647	-.02488
		4156	2.593					
2104.4	3018.94			-.060	.47384	-.02832	-.01752	.01079
		4316	2.216					
2106.4	3023.26			.045	.47290	.02111	.00812	-.01299
		4234	2.470					
2108.4	3027.49			-.067	.47079	-.03161	-.00535	.02626
		3900	2.345					
2110.4	3031.39			-.013	.47071	-.00630	-.01893	-.01263
		3699	2.407					
2112.4	3035.09			-.011	.47065	-.00536	.03733	.04269
		3682	2.364					
2114.4	3038.77			.098	.46617	.04590	.00230	-.04360
		4237	2.499					
2116.4	3043.01			-.029	.46576	-.01371	-.00043	.01328
		3997	2.497					
2118.4	3047.01			-.053	.46446	-.02467	-.01807	.00660
		3687	2.434					
2120.4	3050.69			-.008	.46443	-.00386	-.02382	-.01996
		3798	2.324					
2122.4	3054.49			-.008	.46440	-.00361	-.03786	-.03424
		3726	2.333					
2124.4	3058.22			.113	.45852	.05225	.05685	.00460
		4252	2.563					
2126.4	3062.47			.013	.45844	.00586	.02600	.02014
		4286	2.608					
2128.4	3066.76			-.019	.45828	-.00860	.01440	.02300
		4127	2.609					
2130.4	3070.88			-.082	.45519	-.03763	.01869	.05632
		3638	2.510					
2132.4	3074.52			-.003	.45519	-.00139	-.08166	-.08027
		3658	2.481					
2134.4	3078.18			.127	.44781	.05794	.05413	-.00381
		4511	2.599					

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
2136.4	3082.69			-.003	.44781	-.00124	.01595	.01719
		4426	2.634					
2138.4	3087.12			-.021	.44762	-.00921	-.02010	-.01089
		4324	2.588					
2140.4	3091.44			.065	.44572	.02915	.11216	.08301
		4791	2.661					
2142.4	3096.23			-.093	.44184	-.04159	-.03394	.00765
		4109	2.573					
2144.4	3100.34			-.023	.44160	-.01032	-.03553	-.02521
		3812	2.647					
2146.4	3104.15			-.045	.44071	-.01977	-.07374	-.05397
		3662	2.519					
2148.4	3107.81			-.007	.44069	-.00297	-.00193	.00103
		3627	2.509					
2150.4	3111.44			.034	.44020	.01478	.03921	.02443
		3804	2.558					
2152.4	3115.24			-.016	.44009	-.00702	-.02437	-.01735
		3797	2.483					
2154.4	3119.04			.045	.43921	.01970	.03602	.01632
		4006	2.574					
2156.4	3123.05			.047	.43824	.02057	.02291	.00234
		4333	2.613					
2158.4	3127.38			-.077	.43562	-.03391	-.04700	-.01309
		3824	2.536					
2160.4	3131.20			.002	.43562	.00086	.03938	.03852
		3816	2.552					
2162.4	3135.02			.007	.43560	.00285	-.03519	-.03805
		3882	2.541					
2164.4	3138.90			-.005	.43559	-.00222	-.03063	-.02842
		3832	2.548					
2166.4	3142.73			.023	.43535	.01009	.00759	-.00250
		4014	2.548					
2168.4	3146.75			.014	.43527	.00617	.03331	.02714
		4050	2.598					
2170.4	3150.80			-.018	.43512	-.00787	.01199	.01986
		3921	2.588					
2172.4	3154.72			.024	.43488	.01030	-.00331	-.01361
		4127	2.578					
2174.4	3158.85			-.007	.43486	-.00304	.00087	.00391
		4023	2.608					
2176.4	3162.87			-.020	.43468	-.00882	.01071	.01953
		4001	2.518					
2178.4	3166.87			.016	.43457	.00703	.02384	.01681
		4051	2.569					
2180.4	3170.92			-.053	.43334	-.02306	-.05613	-.03307
		3837	2.439					
2182.4	3174.76			.046	.43243	.01992	-.03625	-.05616
		3986	2.574					
2184.4	3178.74			.006	.43241	.00250	.02072	.01822

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
		4029	2.576					
2186.4	3182.77			-.010	.43237	-.00440	.02473	.02913
		3993	2.547					
2188.4	3186.77			.007	.43235	.00290	-.00918	-.01209
		4015	2.567					
2190.4	3190.78			-.006	.43233	-.00260	.03646	.03906
		4033	2.525					
2192.4	3194.81			.009	.43230	.00372	.00789	.00417
		4015	2.581					
2194.4	3198.83			.072	.43007	.03104	-.00878	-.03982
		4529	2.641					
2196.4	3203.36			-.008	.43004	-.00338	.00185	.00523
		4579	2.572					
2198.4	3207.94			-.046	.42914	-.01977	-.00386	.01590
		4346	2.472					
2200.4	3212.28			-.030	.42875	-.01295	.03494	.04789
		4023	2.514					
2202.4	3216.31			.027	.42844	.01148	-.01110	-.02258
		4212	2.533					
2204.4	3220.52			-.009	.42840	-.00390	-.05008	-.04618
		4114	2.546					
2206.4	3224.63			-.007	.42838	-.00314	-.00376	-.00062
		4113	2.510					
2208.4	3228.75			.022	.42818	.00923	.02728	.01805
		4296	2.509					
2210.4	3233.04			.041	.42744	.01775	.03873	.02098
		4485	2.611					
2212.4	3237.53			-.040	.42676	-.01710	-.02910	-.01200
		4301	2.514					
2214.4	3241.83			.006	.42675	.00242	.02440	.02198
		4230	2.585					
2216.4	3246.06			-.006	.42673	-.00240	-.02678	-.02437
		4266	2.534					
2218.4	3250.32			.025	.42647	.01063	-.00354	-.01418
		4404	2.580					
2220.4	3254.73			.004	.42646	.00182	-.04846	-.05028
		4477	2.560					
2222.4	3259.21			-.030	.42606	-.01300	-.01341	-.00041
		4221	2.554					
2224.4	3263.43			-.019	.42590	-.00825	.05241	.06067
		4169	2.488					
2226.4	3267.60			.046	.42500	.01968	.03623	.01655
		4440	2.562					
2228.4	3272.04			.043	.42421	.01828	.02375	.00548
		4652	2.665					
2230.4	3276.69			-.014	.42413	-.00574	.00837	.01411
		4580	2.635					
2232.4	3281.27			-.023	.42391	-.00969	-.02647	-.01678
		4478	2.575					

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
2234.4	3285.75			.005	.42390	.00194	.05417	.05222
2236.4	3290.33	4588	2.536	-.001	.42390	-.00027	-.01695	-.01667
2238.4	3294.79	4458	2.607	-.016	.42379	-.00690	-.04776	-.04086
2240.4	3299.20	4405	2.554	-.004	.42378	-.00190	-.01033	-.00844
2242.4	3303.56	4364	2.555	.009	.42375	.00368	.01741	.01373
2244.4	3307.91	4348	2.609	-.056	.42242	-.02373	-.04112	-.01739
2246.4	3312.01	4100	2.474	-.028	.42208	-.01194	.03096	.04290
2248.4	3316.00	3993	2.400	.089	.41876	.03747	.00322	-.03425
2250.4	3320.46	4461	2.567	-.044	.41796	-.01323	-.05313	-.03990
2252.4	3324.66	4194	2.502	-.001	.41796	-.00032	-.00336	-.00305
2254.4	3328.79	4137	2.533	-.011	.41792	-.00442	.04636	.05078
2256.4	3332.86	4070	2.521	.030	.41753	.01268	.00003	-.01265
2258.4	3337.16	4296	2.537	-.028	.41721	-.01157	-.05122	-.03964
2260.4	3341.46	4301	2.398	.011	.41716	.00458	.00429	-.00028
2262.4	3345.63	4173	2.527	.029	.41681	.01214	.02816	.01602
2264.4	3349.95	4315	2.590	-.007	.41679	-.00280	-.01454	-.01174
2266.4	3354.30	4351	2.534	-.016	.41669	-.00653	.04176	.04828
2268.4	3358.50	4195	2.547	.018	.41655	.00751	.01035	.00284
2270.4	3362.84	4347	2.548	.009	.41652	.00377	-.03690	-.04067
2272.4	3367.20	4357	2.589	-.006	.41650	-.00262	-.03150	-.02888
2274.4	3371.53	4331	2.572	-.002	.41650	-.00085	.05590	.05675
2276.4	3375.80	4272	2.597	-.007	.41648	-.00285	-.01243	-.00959
2278.4	3380.04	4236	2.583	.015	.41638	.00638	-.01256	-.01894
2280.4	3384.33	4290	2.630	.001	.41638	.00047	.00123	.00076
2282.4	3388.66	4328	2.613	-.015	.41628	-.00637	-.03768	-.03131

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
		4296	2.553					
2284.4	3392.95			.008	.41626	.00313	.05441	.05128
		4307	2.585					
2286.4	3397.26			.025	.41599	.01057	.05230	.04173
		4493	2.607					
2288.4	3401.75			-.051	.41492	-.02107	-.05255	-.03148
		4272	2.478					
2290.4	3406.02			.010	.41488	.00420	.00020	-.00400
		4248	2.542					
2292.4	3410.27			.022	.41467	.00925	.00931	.00006
		4375	2.582					
2294.4	3414.65			-.017	.41456	-.00691	-.02917	-.02226
		4298	2.541					
2296.4	3418.95			-.020	.41439	-.00838	-.00846	-.00008
		4221	2.486					
2298.4	3423.17			.011	.41434	.00451	.01433	.01031
		4243	2.527					
2300.4	3427.41			.009	.41431	.00363	.01902	.01539
		4274	2.553					
2302.4	3431.68			.035	.41382	.01430	-.01777	-.03207
		4492	2.603					
2304.4	3436.18			.014	.41374	.00561	.03973	.03412
		4590	2.617					
2306.4	3440.77			-.060	.41227	-.02465	-.03666	-.01201
		4320	2.468					
2308.4	3445.09			.013	.41220	.00536	.02074	.01538
		4314	2.537					
2310.4	3449.40			-.029	.41186	-.01196	-.02634	-.01439
		4181	2.470					
2312.4	3453.58			.016	.41175	.00662	-.01124	-.01786
		4231	2.520					
2314.4	3457.81			-.016	.41165	-.00652	-.00660	-.00008
		4259	2.426					
2316.4	3462.07			-.059	.41019	-.02445	-.00411	.02034
		3889	2.359					
2318.4	3465.96			.054	.40901	.02200	-.00070	-.02270
		4205	2.429					
2320.4	3470.17			-.001	.40901	-.00023	-.02134	-.02110
		4202	2.428					
2322.4	3474.37			.039	.40838	.01603	.01010	-.00593
		4327	2.550					
2324.4	3478.69			-.028	.40806	-.01160	.01894	.03054
		4225	2.467					
2326.4	3482.92			.039	.40744	.01585	.00767	-.00818
		4421	2.548					
2328.4	3487.34			-.047	.40654	-.01914	.00230	.02144
		4216	2.432					
2330.4	3491.56			-.004	.40653	-.00166	.02152	.02318
		4198	2.423					

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
2332.4	3495.76			-.009	.40650	-.00350	.00401	.00750
2334.4	3499.90	4143	2.413	.066	.40474	.02680	-.02710	-.05390
2336.4	3504.29	4387	2.601	-.026	.40446	-.01066	-.01558	-.00493
2338.4	3508.59	4302	2.516	-.017	.40435	-.00669	.04961	.05630
2340.4	3512.87	4283	2.445	.003	.40434	.00109	-.00587	-.00696
2342.4	3517.15	4278	2.461	-.010	.40430	-.00414	-.01295	-.00881
2344.4	3521.38	4232	2.438	.026	.40403	.01039	-.01770	-.02809
2346.4	3525.72	4338	2.503	0	0	0	-.01299	-.01299
2348.4							.04931	.04931
2350.4							-.02033	-.02033
2352.4							-.00099	-.00099
2354.4							-.01521	-.01521
2356.4							-.03360	-.03360
2358.4							.05983	.05983
2360.4							.02173	.02173
2362.4							-.02076	-.02076
2364.4							-.01657	-.01657
2366.4							-.01318	-.01318
2368.4							-.00314	-.00314
2370.4							.04164	.04164
2372.4							.03135	.03135
2374.4							-.06010	-.06010
2376.4							-.01582	-.01582
2378.4							.00421	.00421
2380.4							.00375	.00375

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
2382.4							-.00681	-.00681
2384.4							.01943	.01943
2386.4							.02171	.02171
2388.4							-.02000	-.02000
2390.4							.01050	.01050
2392.4							.03891	.03891
2394.4							-.04710	-.04710
2396.4							.00420	.00420
2398.4							.05807	.05807
2400.4							-.05753	-.05753
2402.4							.00969	.00969
2404.4							.00341	.00341
2406.4							-.02044	-.02044
2408.4							-.00851	-.00851
2410.4							-.01308	-.01308
2412.4							.04017	.04017
2414.4							-.01116	-.01116
2416.4							-.02646	-.02646
2418.4							.01922	.01922
2420.4							.00463	.00463
2422.4							.01700	.01700
2424.4							-.00383	-.00383
2426.4							-.00105	-.00105
2428.4							-.02638	-.02638

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
2430.4							.01348	.01343
2432.4							-.00709	-.00709
2434.4							.01538	.01538
2436.4							-.03889	-.03889
2438.4							.01833	.01833
2440.4							-.01141	-.01141
2442.4							.03678	.03678
2444.4							.00180	.00180
2446.4							.02379	.02379
2448.4							-.05038	-.05038
2450.4							-.00844	-.00844
2452.4							.00516	.00516
2454.4							.02791	.02791
2456.4							-.01344	-.01344
2458.4							-.00631	-.00631
2460.4							.01213	.01213
2462.4							-.01684	-.01684
2464.4							.01638	.01638
2466.4							.00038	.00038
2468.4							-.00048	-.00048
2470.4							.01483	.01483
2472.4							.01046	.01046
2474.4							.00256	.00256
2476.4							-.02006	-.02006
2478.4							.04265	.04265

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
2480.4							-.03062	-.03062
2482.4							-.03517	-.03517
2484.4							.00196	.00196
2486.4							.02221	.02221
2488.4							.04040	.04040
2490.4							-.03473	-.03473
2492.4							-.01790	-.01790
2494.4							-.02955	-.02935
2496.4							.02119	.02119
2498.4							.00951	.00951
2500.4							.00858	.00858
2502.4							-.02069	-.02069
2504.4							-.00947	-.00947
2506.4							.01109	.01109
2508.4							.03547	.03547
2510.4							-.01886	-.01886
2512.4							.01772	.01772
2514.4							-.02878	-.02878
2516.4							.03168	.03168
2518.4							-.02688	-.02688
2520.4							.00807	.00807
2522.4							.01718	.01718
2524.4							-.02463	-.02463
2526.4							.02625	.02625

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
2528.4							.00665	.00665
2530.4							.02788	.02788
2532.4							-.06504	-.06504
2534.4							.00741	.00741
2536.4							.02581	.02581
2538.4							.01957	.01957
2540.4							-.04975	-.04975
2542.4							.00160	.00160
2544.4							.01552	.01552
2546.4							.00373	.00373
2548.4							.02626	.02626
2550.4							-.02763	-.02763
2552.4							-.03392	-.03392
2554.4							-.01436	-.01436
2556.4							.02355	.02355
2558.4							.05033	.05033
2560.4							-.02160	-.02160
2562.4							-.03676	-.03676
2564.4							.03360	.03360
2566.4							.00270	.00270
2568.4							.00993	.00993
2570.4							.00568	.00568
2572.4							-.02420	-.02420
2574.4							-.03206	-.03206
2576.4							.02691	.02691

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
2578.4							.00352	.00352
2580.4							-.01301	-.01301
2582.4							-.00380	-.00380
2584.4							-.00768	-.00768
2586.4							.06070	.06070
2588.4							-.01924	-.01924
2590.4							-.01773	-.01773
2592.4							.01436	.01436
2594.4							-.03593	-.03593
2596.4							.01024	.01024
2598.4							.02136	.02136
2600.4							-.02451	-.02451
2602.4							.01968	.01968
2604.4							.02119	.02119
2606.4							-.05215	-.05215
2608.4							.04726	.04726
2610.4							-.06227	-.06227
2612.4							.02682	.02682
2614.4							-.00204	-.00204
2616.4							.01139	.01139
2618.4							.04544	.04544
2620.4							-.02416	-.02416
2622.4							-.01628	-.01628
2624.4							.05354	.05354

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
2626.4							-.03804	-.03804
2628.4							-.03700	-.03700
2630.4							.03581	.03581
2632.4							-.00600	-.00600
2634.4							-.01213	-.01213
2636.4							-.01015	-.01015
2638.4							-.04092	-.04092
2640.4							.01742	.01742
2642.4							-.01022	-.01022
2644.4							.02297	.02297
2646.4							.02678	.02678
2648.4							-.03587	-.03587
2650.4							.02393	.02393
2652.4							-.01940	-.01940
2654.4							.01263	.01263
2656.4							-.00287	-.00287
2658.4							.02470	.02470
2660.4							.00527	.00527
2662.4							.00170	.00170
2664.4							-.02293	-.02293
2666.4							.00749	.00749
2668.4							.00443	.00443
2670.4							-.00581	-.00581
2672.4							.01077	.01077
2674.4							.03045	.03045

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
2676.4							-.02052	-.02052
2678.4							.01944	.01944
2680.4							-.04686	-.04686
2682.4							-.04288	-.04288
2684.4							.04133	.04133
2686.4							.00913	.00913
2688.4							-.00587	-.00587
2690.4							.00239	.00239
2692.4							-.02816	-.02816
2694.4							.01598	.01598
2696.4							-.01219	-.01219
2698.4							.02926	.02926
2700.4							.00564	.00564
2702.4							-.03379	-.03379
2704.4							.03407	.03407
2706.4							-.01392	-.01392
2708.4							-.02331	-.02331
2710.4							.04250	.04250
2712.4							-.03749	-.03749
2714.4							.00328	.00328
2716.4							.02423	.02423
2718.4							-.02631	-.02631
2720.4							.05031	.05031
2722.4							.00481	.00481

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
2724.4							-.06659	-.06659
2726.4							-.01758	-.01758
2728.4							.02422	.02422
2730.4							.02822	.02822
2732.4							-.02149	-.02149
2734.4							.01437	.01437
2736.4							.00926	.00926
2738.4							-.02621	-.02621
2740.4							.01944	.01944
2742.4							-.03013	-.03013
2744.4							.02612	.02612
2746.4							.02122	.02122
2748.4							-.00047	-.00047
2750.4							-.02067	-.02067
2752.4							-.00087	-.00087
2754.4							.00343	.00343
2756.4							-.01590	-.01590
2758.4							.01819	.01819
2760.4							-.00276	-.00276
2762.4							-.01392	-.01392
2764.4							.00435	.00435
2766.4							-.02848	-.02848
2768.4							.03937	.03937
2770.4							-.01587	-.01587
2772.4							-.00152	-.00152

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
2774.4							-.00527	-.00527
2776.4							.02748	.02748
2778.4							.01467	.01467
2780.4							-.06751	-.06751
2782.4							.00597	.00597
2784.4							-.01353	-.01353
2786.4							.04817	.04817
2788.4							-.00247	-.00247
2790.4							-.02003	-.02003
2792.4							-.02250	-.02250
2794.4							.01722	.01722
2796.4							.03297	.03297
2798.4							.00093	.00093
2800.4							-.02017	-.02017
2802.4							-.02249	-.02249
2804.4							.06109	.06109
2806.4							.02101	.02101
2808.4							-.01970	-.01970
2810.4							-.02100	-.02100
2812.4							.02163	.02163
2814.4							-.05210	-.05210
2816.4							.04301	.04301
2818.4							-.00293	-.00293
2820.4							-.00319	-.00319

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
2822.4							-.00824	-.00824
2824.4							-.01491	-.01491
2826.4							.00035	.00035
2828.4							.02173	.02173
2830.4							-.01933	-.01933
2832.4							.01733	.01733
2834.4							.00695	.00695
2836.4							-.01661	-.01661
2838.4							.02282	.02282
2840.4							-.06436	-.06436
2842.4							.04760	.04760
2844.4							.00293	.00293
2846.4							-.04004	-.04004
2848.4							.02248	.02248
2850.4							.01969	.01969
2852.4							-.03078	-.03078
2854.4							.03475	.03475
2856.4							-.03055	-.03055
2858.4							.03037	.03037
2860.4							.01537	.01537
2862.4							-.05052	-.05052
2864.4							.04925	.04925
2866.4							-.03696	-.03696
2868.4							-.00013	-.00013
2870.4							.01241	.01241

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
2872.4							.01403	.01403
2874.4							-.02992	-.02992
2876.4							.00816	.00816
2878.4							-.02815	-.02815
2880.4							.01936	.01936
2882.4							.03681	.03681
2884.4							-.01579	-.01579
2886.4							-.02978	-.02978
2888.4							.00666	.00666
2890.4							.00595	.00595
2892.4							.03864	.03864
2894.4							-.02926	-.02926
2896.4							-.00173	-.00173
2898.4							.01649	.01649
2900.4							-.01990	-.01990
2902.4							.02984	.02984
2904.4							-.02602	-.02602
2906.4							.02228	.02228
2908.4							-.01335	-.01335
2910.4							.01532	.01532
2912.4							-.04308	-.04308
2914.4							.01973	.01973
2916.4							-.02588	-.02588
2918.4							.00430	.00430

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
2920.4							.02541	.02541
2922.4							.00303	.00303
2924.4							-.01401	-.01401
2926.4							-.01829	-.01829
2928.4							-.00595	-.00595
2930.4							.02913	.02913
2932.4							-.00439	-.00439
2934.4							.03778	.03778
2936.4							-.05348	-.05348
2938.4							-.00689	-.00689
2940.4							.01681	.01681
2942.4							.02608	.02608
2944.4							-.03610	-.03610
2946.4							.01984	.01984
2948.4							.03215	.03215
2950.4							-.03615	-.03615
2952.4							.02070	.02070
2954.4							-.01712	-.01712
2956.4							.00729	.00729
2958.4							.00014	.00014
2960.4							.03102	.03102
2962.4							-.02663	-.02663
2964.4							-.02596	-.02596
2966.4							.02310	.02310
2968.4							.01484	.01484

TWO WAY TRAVEL TIME MS	DEPTH FROM SRD (OR TOP) M	INTERVAL VELOCITY M/S	INTERVAL DENSITY G/C3	REFLECT. COEFF.	TWO WAY ATTEN. COEFF.	SYNTHETIC SEISMO. PRIMARY	PRIMARY + MULTIPLES	MULTIPLES ONLY
2970.4							-.03392	-.03392
2972.4							.01873	.01873
2974.4							-.03580	-.03580
2976.4							.01874	.01874
2978.4							.03661	.03661
2980.4							-.02174	-.02174
2982.4							-.00623	-.00623
2984.4							.00670	.00670
2986.4							-.00688	-.00688
2988.4							-.02494	-.02494
2990.4							.03674	.03674
2992.4							-.01475	-.01475
2994.4							.00739	.00739
2996.4							-.03645	-.03645
2998.4							.05055	.05055
3000.4							-.03363	-.03363
3002.4							.05070	.05070
3004.4							-.01505	-.01505
3006.4							-.02522	-.02522
3008.4							.01479	.01479
3010.4							-.00400	-.00400
3012.4							-.01189	-.01189
3014.4							-.03052	-.03052

PE600929

This is an enclosure indicator page.
The enclosure PE600929 is enclosed within the container PE902076 at this location in this document.

The enclosure PE600929 has the following characteristics:

ITEM_BARCODE	= PE600929
CONTAINER_BARCODE	= PE902076
NAME	= Drift Corrected Sonic
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Drift Corrected Sonic (from WCR) for Gummy-1
REMARKS	=
DATE_CREATED	= 26/11/1990
DATE_RECEIVED	= 01/02/1991
W_NO	= W1028
WELL_NAME	= Gummy-1
CONTRACTOR	= Schlumberger
CLIENT_OP_CO	= Shell Australia

(Inserted by DNRE - Vic Govt Mines Dept)

PE600930

This is an enclosure indicator page.
The enclosure PE600930 is enclosed within the container PE902076 at this location in this document.

The enclosure PE600930 has the following characteristics:

ITEM_BARCODE	= PE600930
CONTAINER_BARCODE	= PE902076
NAME	= Seismic Calibration Log - Adjusted continuous velocity
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Seismic Calibration Log - Adjusted continuous velocity (enclosure from WCR vol.1) for Gummy-1
REMARKS	=
DATE_CREATED	= 26/11/1990
DATE_RECEIVED	= 01/02/1991
W_NO	= W1028
WELL_NAME	= Gummy-1
CONTRACTOR	= Schlumberger
CLIENT_OP_CO	= Shell Australia

(Inserted by DNRE - Vic Govt Mines Dept)

PE600931

This is an enclosure indicator page.
The enclosure PE600931 is enclosed within the container PE902076 at this location in this document.

The enclosure PE600931 has the following characteristics:

ITEM_BARCODE	= PE600931
CONTAINER_BARCODE	= PE902076
NAME	= Geogram - Synthetic Seismogram
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= SYNTH_SEISMOGRAM
DESCRIPTION	= Geogram - Synthetic Seismogram
REMARKS	=
DATE_CREATED	= 26/11/1990
DATE_RECEIVED	= 01/02/1991
W_NO	= W1028
WELL_NAME	= Gummy-1
CONTRACTOR	= Schlumberger
CLIENT_OP_CO	= Shell Australia

(Inserted by DNRE - Vic Govt Mines Dept)

PE600932

This is an enclosure indicator page.
The enclosure PE600932 is enclosed within the container PE902076 at this location in this document.

The enclosure PE600932 has the following characteristics:

ITEM_BARCODE	= PE600932
CONTAINER_BARCODE	= PE902076
NAME	= Geogram - Synthetic Seismogram
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= SYNTH_SEISMOGRAM
DESCRIPTION	= Geogram - Synthetic Seismogram
REMARKS	=
DATE_CREATED	= 26/11/1990
DATE_RECEIVED	= 01/02/1991
W_NO	= W1028
WELL_NAME	= Gummy-1
CONTRACTOR	= Schlumberger
CLIENT_OP_CO	= Shell Australia

(Inserted by DNRE - Vic Govt Mines Dept)

PE600933

This is an enclosure indicator page.
The enclosure PE600933 is enclosed within the container PE902076 at this location in this document.

The enclosure PE600933 has the following characteristics:

ITEM_BARCODE	= PE600933
CONTAINER_BARCODE	= PE902076
NAME	= Geogram - Synthetic Seismogram
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= SYNTH_SEISMOGRAM
DESCRIPTION	= Geogram - Synthetic Seismogram
REMARKS	=
DATE_CREATED	= 26/11/1990
DATE_RECEIVED	= 01/02/1991
W_NO	= W1028
WELL_NAME	= Gummy-1
CONTRACTOR	= Schlumberger
CLIENT_OP_CO	= Shell Australia

(Inserted by DNRE - Vic Govt Mines Dept)