

WCR VOL 1

GUDGEON - I

W 1120

WELL COMPLETION REPORT

PETROLEUM DIVISION

GUDGEON 1

13 MAY 1995

VOLUME 1

BASIC DATA

GIPPSLAND BASIN, VICTORIA

ESSO AUSTRALIA LTD

Compiled By: Greg Clota
April 1995

WELL COMPLETION REPORT

VOLUME 1: BASIC DATA

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1. WELL DATA RECORD

LOCATION	:	Latitude : 38° 30' 54.26" South Longitude : 148° 28' 04.97" East X = 627987.5mE Y = 5735998.2mN Map Projection: UTM Zone 55 Geographical Location: Bass Strait, Victoria Field : Wildcat
PERMIT	:	Vic/L6
ELEVATION	:	25m
WATER DEPTH	:	279.4m
TOTAL DEPTH	:	3837m MDKB (Driller)
PLUG BACK TYPE	:	Cement Plug
REASONS FOR PLUGGING BACK	:	Cased and suspended
MOVE IN	:	09/03/95 0726 hours
SPUDDED	:	10/03/95 1500 hours
REACHED TD	:	24/04/95 0700 hours
RIG RELEASED	:	11/05/95
OPERATOR	:	Esso Australia Resources Ltd.
PERMITTEE OR LICENCEE	:	BHP Petroleum (Bass Strait) Pty Ltd and Esso Australia Resources Ltd.
ESSO INTEREST	:	50%
OTHER INTEREST	:	50%
CONTRACTOR	:	Diamond Offshore General Company
RIG NAME	:	Ocean Bounty
EQUIPMENT TYPE	:	Semi-submersible
TOTAL RIG DAYS	:	63.42
DRILLING AFE NO	:	L61015100
TYPE COMPLETION	:	95/8" casing run to 3200m MD
WELL CLASSIFICATION	:	Before Drilling: Wildcat After Drilling: New Field Discovery - Oil

2. OPERATIONS SUMMARY

1. MOVING/MOORING

After completing the rig inspection at Rabbit Island the Ocean Bounty departed for Gudgeon 1 and was underway at 1000 hours on the 8th March, 1995. The Maersk Bona Vista and Lady Dawn were used to lift anchors and for the tow.

The Ocean Bounty was on location with the #6 anchor at drop point at 0726 hours 9th March, 1995. After running anchors the rig ballasted down to drilling draft prior to running the TGB. The final location was 17.8m on a bearing of 259° 38' 24" from the called location.

2. DRILLING OPERATIONS

36" Hole/30" Casing

A Hughes ATX-11 14 " bit plus 26" and 36" hole openers were made up and used to spud Gudgeon 1 at 1500 hours 10th March, 1995. The 36" hole section was drilled from 304.4m to 344m. The well was circulated clean and a wiper trip was made to the seabed. The well was displaced with hi-vis mud in stages during the trip out before running casing. Hole deviation was 1½° at 341m.

30" casing was run with the PGB and cemented with returns to seafloor. The casing shoe was set at 339m.

17½" Hole/13¾" Casing

A Smith 17½" SDS-C bit plus 26 " hole opener were made up and used to drill out the 30" casing float shoe to 343m. A trip was made to lay out the 26" hole opener and then drilling continued from 343m to 1130m. Hi vis sweeps were regularly pumped and single shot surveys were run at the following intervals 499m 1° S10.8°W, 561m 1° S10.8°W, 672m ½° S26.7E, 812m ½° N84.2E, 958m 1½° S36E, 1125 1° S27.8E.

A wiper trip was made to the 30" casing shoe prior to running E-logs. Suite #1 Run #1 was LDL-AS-GR-CAL-AMS. The logs were run riserless and without the motion compensator engaged. The logging string was directed to the wellhead by running the tools to the seafloor supported by the rig's utility guideframe.

67 joints of 68lb/ft K55 13¾" casing plus 2 joints of 20" casing and wellhead joint were run and cemented with the shoe set at 1116.8m.

The BOP's were run with the riser, latched, pressure and function tested along with the choke, kill and surface lines.

12½" Hole

A 12½" Hughes R-475 was made up with an F2000 Dynadrill tandem mud motor (with 1° angle) and RIH. The float collar and shoe track were drilled out and the rathole cleaned to 1130m. New formation was drilled from 1130m to 1133m where the hole was circulated clean and displaced with a KCl/PHPA/Glycol mud system. A Phase II PIT was performed (EMW=11.02ppg) and the drilling proceeded from 1133m to 1496m. During this vertical hole section the MWD tool failed. A trip was made at 1496m just above the Kick Off Point to replace the MWD tool. Drilling continued using the same bit and BHA from 1496m to 1522m from where it was attempted to steer the drilling assembly. It was not possible to build angle over the interval 1522m to 1595m and a trip was made to change the BHA and bit.

A Reed 12 $\frac{1}{4}$ " HP43A was made up to the F2000 tandem mud motor (with 1 1/4° angle) and two stabilisers were laid out prior to RIH and drilling and steering ahead from 1595m to 1948m. A trip was made after attaining the required inclination and azimuth.

A used Diamond Boart QP19L bit was made up to the F2000S tandem mud motor and two more stabiliser (total of four) were made up and the RIH. Rotary drilling and steering continued from 1948m to 2208m. Corrective steering to stop a dropping trend was needed throughout the interval with resultant low ROP. A trip was made at 2208m when the tandem mud motor failed.

The Diamond Boart QP19L was made up to a rotary drilling BHA with a variable gauge stabiliser to enable build or drop in inclination. Drilling proceeded from 2208m to 3063m. After circulating a sample for geological evaluation at 3063m. It was decided to cut a core. On the trip out of the hole the top drive make-up tong locked. The drillstring was reciprocated at 2930m whilst repairs were effected on the TDS.

A 12 $\frac{1}{4}$ " Hughes ARC-425 was made up to an 18m core barrel and RIH. Core #1 was cut from 3063m to 3081m. At surface 17.1m (95%) was recovered and the core barrel was redressed and RIH for core #2. Core #2 was cut from 3081m to 3088m where the core barrel jammed off after cutting 7m. The recovery at surface was 4m (57%). After testing the BOP's a rotary BHA was made up.

A 12 $\frac{1}{4}$ " Diamond Boart B27+2 was made up to a rotary drilling assembly including a variable gauge stabiliser and RIH to drill ahead from 3088m to 3173m. The abrasive nature of the Latrobe Formation had worn and grooved the bit.

A 12 $\frac{1}{4}$ " Reed HP51HJKS with an F2000S mud motor steerable BHA was made up and used to drill and steer from 3173m to 3282m. High torque was experienced on bottom coupled with low ROP (All three cones were left in the hole).

A fishing assembly consisting of a reverse circulation junk sub was RIH and retrieved fill from the bottom of the hole with no junk. A junk mill and junk sub were made and RIH. After milling on bottom from 3282m to 3283m the milling assembly was tripped. Mainly, junk from the mill was retrieved from the junk sub.

A 12 $\frac{1}{4}$ " Hughes JG8 bit and junk sub were run and milled on bottom for 4.6 hours. At surface part of a cone, bearings and inserts (1.3kg) were recovered from the junk sub.

The wireline loggers were rigged up and ran Suite 2 Run 1 DLL-MSFL-LDL-CNL-NGR-CAL-SP-ACT. After logging a junk mill assembly was run and 5kg of junk was recovered from the hole. A magnet and 2 junk subs were RIH. The magnet assembly collected 3.3kg of junk from the hole.

A 12 $\frac{1}{4}$ " Hughes JG8 junk bit and junk sub were RIH to mill on junk. No new formation was drilled and at surface the bit was green with the junk subs full of formation only. A flat bottom mill was RIH. When the mill was inspected at surface there was no evidence that it had been milling on junk and the junk subs were full of formation.

A 12 $\frac{1}{4}$ " Reed EHP51HJKS and rotary drilling BHA with a variable gauge stabiliser was RIH and used to drill ahead from 3283m to 3285m. There was a 500psi pressure loss in the drillstring and a trip was made for a washout (cracked box at 1550m). After locating the washout drilling continued from 3285m to 3374m. A bit trip was made due to very low ROP.

Another new 12 $\frac{1}{4}$ " Reed EHP51HJKS was made up and RIH to drill ahead from 3374m to 3438m. A bit trip was made due to very low ROP.

A 12 $\frac{1}{4}$ " Hughes ATM P22G was RIH and drilled ahead from 3438m to 3531m where a bit trip was made due to a poor penetration rate. The MWD probe was changed out at surface as excessive vibration downhole whilst drilling had caused the spear connection to wear out causing a short circuit and consequent tool failure.

A 12 $\frac{1}{4}$ " Reed EHP53HD was made up and RIH to drill ahead from 3531m to 3552m. A standpipe pressure loss of 300psi occurred and a trip was made for a suspected washout. The variable gauge stabiliser had a washout on a stabiliser pad and was laid out.

A new 12 $\frac{1}{4}$ " Reed EHP53HD was made up and RIH and drilled ahead from 3552m to 3657m. A bit trip was made due to the drilling hours on the bit. A new bit was made up and the MWD tools were laid out.

A 12 $\frac{1}{4}$ " Smith F30D was made up with a new rotary BHA and RIH. Drilling continued from 3657m. The penetration rate dropped to zero at 3700m and the bit was tripped to surface. Failed bearing seals caused the cones to lock.

A 12 $\frac{1}{4}$ " Hughes ATJ 44D was made up and RIH to drill ahead from 3700m to 3837m TD. A 20 stand wiper trip was made and the hole was circulated clean prior to tripping out of the hole to run E-logs.

The wireline loggers were rigged up and ran E-logs Suite 3 FMI-DSI-DLL-MSFL-GR-ACTS-SP, VSP (Vertical Incident), MDT-GR-AMS, CMR-LDL-CNL-NGS-AMS, CST-GR.

While logging a repeat pass over the zone of interest at 3108m (Top of Latrobe), the FMI-DSI-DLL-MSFL-GR-ACTS-SP tool became stuck. Attempts to fish the tool were unsuccessful. The logging tool string was pushed to bottom and the hole conditioned to resume logging operations. The interval from 3749m to Total Depth(3837m MDKB) was not covered by wireline logs.

The DLL-MSFL-AS-GR was run and logged from 3650m to 1116m (13 $\frac{3}{8}$ " casing shoe). This was followed by a velocity survey acquiring data at 17 levels.

The hole was then conditioned prior to running MDT-GR tool. Twenty five pretests were obtained in a pressure run to a depth of 3308m MDKB.

A sample run with the MDT-GR was made following the pressure run and acquired three samples.

The SHDT-NGT log was then successfully run over the interval 3250m-2945m and was followed by a wiper trip.

The LDT-CNL-NGT was then run but could not pass 2320m. A gun (60 slots) of sidewall cores was run with a recovery of 19 usable cores. This was followed by a conditioning trip with the bit and a second successful attempt to run the LDT-CNT-NGT-AMS.

The hole was conditioned prior to running joints of 47 lb/ft L-80 LT&C 95/8" casing to 3200m. The casing was cemented in place and a 85 sack surface cement plug was set at 315m inside the casing.

The drill pipe as laid down, riser and BOPS pulled and anchors recovered.

The rig was released at 07:34 hours 11 May 1995.

3. CASING SUMMARY

GUDGEON 1 - CASING DATA

							API & Manufacturer Performance Properties without Safety Factors			
Casing OD	Interval, m (MD RT)	Nom. ID (inches)	Drift ID (inches)	Weight (ppf)	Grade	Connection	Tensile Rating (kips)	Conn. Burst (psi)	P. Body Burst (psi)	P. Body Collapse (psi)
30"	302.4 housing 302.4 - 338 shoe at 338m	28 28	27 27	309.72 309.72	B X-52	DQ SF-60 Vetco ST-2	2080 C 2130 C	1500 1500	2100 3189	1364 1631
20" x 13-3/8"	301.2 housing 301.2 - 322 322 - 1117 shoe at 1117m	18.75 12.415	18.25 C 12.259	129.33 68	X-56 K-55	DQ HD-90 BTC	2250 C 1069 P	3000 3450	3220 3450	1449 1950
9-5/8"	Production shoe at 3200m	8.681	8.525	47	L-80	LTC	893 C	6870	6870	4760

Notes:

1. Casing designs are based on the following Safety Factors:
 - Tensile : Pipe Body = 1.333; Connection = 1.5
 - Burst : 30", 20", 13-3/8" & 9-5/8" Prot = 1.375; 9-5/8" if used for Prod only = 1.25
 - Collapse : 30", 20", 13-3/8" & 9-5/8" Prot = 1.0; 9-5/8" if used for Prod = 1.125
2. The 30" Casing string was run as follows:
 - 30" DQ WH Housing w/ 30" OD x 1.00" WT x 11.5m Grade B extension w/ DQ SF-60 Quik-Stab box down
 - Intermediate Jt, 30" OD x 1.000" WT, X-52 , Range III w/ DQ SF-60 pin up x Vetco ST-2 box down
 - Shoe Joint, 30" OD x 1.000" WT, X-52 , Range III w/ Vetco ST-2 pin up x Halliburton Float Shoe down
4. One intermediate joint of 20" casing was run below the 18-3/4" wellhead housing extension joint to provide sufficient room to cut 20" & 30" casing strings if the well were to be permanently abandoned. The 20" x 13-3/8" X-O swedge was run below the 20" intermediate joint. All casing below the X-O is 13-3/8" 68 ppf, K-55, BTC.

4. CEMENTING DATA

GUDGEON 1 - CEMENT DATA

Casing OD	Shoe Depth (m MD RT)	Slurry Composition	Quantity (sacks)	Slurry Volume (bbls)	Slurry Density (ppg)	Mix Water (gal/sk)	Yield (ft ³ /sack)	Notes
30"	ML at 304.4 shoe at 338m	Class G + neat	800	164	15.8	5.0 SW	1.15	cement to ML
20" x 13-3/8"	1117	Lead: Class G + 0.45 gal/sk Econolite Liquid Extender Tail: Class G "neat"	1430 730	555 150	12.5 15.8	12.76 total SW + additives 5.0 SW	2.18 1.15	cement to ML.
9-5/8"	3200	Lead: Class G + 0.65 gal/sk Econolite Tail: Class G	950 550	369 633	12.5 15.8	12.76 total FW + additives 5.0	2.18 1.15	full returns
Open hole plug back	3364 - 3218	Class G + 0.06gps SCR100 + 0.12gps Hallad 322SL	355	73	15.8	5.0 FW	1.15	tag at 3220m
Cased hole suspension plug	390-320	Class G + 2% ClCl2	85	17.5	15.8	5.0 FW	1.15	tag at 319m

Note: Final cement blends/additives were based on laboratory pilot tests.

5. SAMPLES, CONVENTIONAL CORES, SIDEWALL CORES

CUTTINGS

<u>Interval</u> (m)	<u>Type</u>
1130 - 3837	Cuttings samples - 3 sets of washed and oven dried and 1 set of lightly washed and air dried cuttings. Samples from 1130 - 2070m at 30m intervals. Samples from 2070 - 2770m at 10m intervals. Samples from 2770 - 3837m at 5m intervals.
1130 - 3837	1 set of washed and air dried composite cuttings samples for fission track analysis. Samples from 1130 - 2100m at 90m intervals. Samples from 2100 - 3837m at 100m intervals.

CORES

Two cores were cut:

Depth Int (mKB)	CoreNo.	Cut (m)	Recovered (m)	Recovered (%)
3063-3081	1	18.0	17.1	95%
3081-3088	2	7.0	4.0	57%

SIDEWALL CORES

Depth Int (mKB)	Shot	Recovered	Empty	Missing
3580-3010	60	11 (28%)	21	22

WIRELINE LOGS AND SURVEYS

Type	Scale	From	To
<i>Suite 1</i>			
LDL-AS-GR-CAL-AMS	1:200	1130	343
<i>Suite 2</i>			
DLL-MSFL-LDL-CNL-NGT-CAL-SP-ACT	1:200	3267	1117
<i>Suite 3</i>			
FMI-DSI-DLL-MSFL-GR-ACTS-SP	1:200	tool string lost down hole	
DLL-MSFL-AS-AMS-GR-SP	1:200	3737	3200
CSI	(17 levels)	3749	1110
MDT-GR	(25 pretests) (3 samples)	3308 3084	3054 3059
SHDT-NGT	1:200	3250	2945
CST-GR	(60 shot)	3580	3010
LDL-CNL-NGT-AMS	1:200	3734	3200

7. **SUMMARY OF FORMATION TEST PROGRAMME**

ESSO AUSTRALIA LTD - PRESSURE DATA FORM

Well		Gudgeon-1			Page			4	of	4
Date		3-May-95			Geologist-Engineer			Mike Scott/John Phillips/Jon Elliott		
Tool Type (MDT, RFI)		Schlumberger MDT			KB (metres):			25.3 (12-1/4" hole)		
Gauge Type		CQG/Sapphire			Probe type			Martineau		
Pressure units (psia, psig)		PSIA			Temperature units (degF, degC)			degC		
Run-Seat Number	Depth		Initial Hydrostatic Pressure	Time Set (HH:MM)	Minimum Flowing Pressure	Formation Pressure	Temp	Time Retract (HH:MM)	Final Hydrostatic Pressure	Delta Time (MM:SS)
	m MDRKB	m TVDSS	PPg	PPg	PPg	PPg	PPg	PPg	PPg	Comments Including Test Quality and Fluid Type.
2/1	3084.0	2858.3	5270.8 10.81	1:18	3919.0	4040.50 8.28	85.9	1:24	-	06:00 Martineau Probe 20cc pretest
	Pump out sub operation		-	1:24	3517.9	-	86.1	1:28	-	04:00 OFA=Green R=22.5 ohm.m Pump volume=2340cc
	Open 1 gallon chamber		-	1:29	789.0	4040.00 8.28	87.1	1:38	-	09:00 R=22.5 ohm.m 1 gallon filled and sealed
	Retract tool		-	1:38	-	-	87.1	1:39	5270.0 10.80	01:00 Good sample MD/CP=76.1
2/2	3058.6	2837.3	5233.2 10.73	1:48	3865.3	4005.32 8.21	87.1	1:51	-	03:00 Martineau Probe 200cc pretest
	Pump out sub operation		-	1:52	3672.1	-	87.2	1:54	-	02:00 OFA=Green R=22.0 ohm.m Pump volume=1170cc
	Open 6 gallon chamber		-	1:56	1679.4	4004.38 8.21	86.9	2:10	-	14:00 R=23.2 ohm.m 6 gallon filled and sealed
	Open 1 gallon chamber		-	2:11	2709.2	4005.25 8.21	86.2	2:21	-	10:00 R=22.1 ohm.m 1 gallon filled and sealed
	Retract tool		-	2:21	-	-	86.2	2:24	5232.4 10.73	03:00 Good samples MD/CP=108.8

ESSO AUSTRALIA LTD - PRESSURE DATA FORM

Well		Gudgeon-1			Page			1 of 4			
Date		2-May-95			Geologist-Engineer			Mike Scott/John Phillips/Jon Elliott			
Tool Type (MDT, RFT)		Schlumberger MDT			KB (metres):			25.3 (12-1/4" hole)			
Gauge Type		CQG/Sapphire			Probe type			Long nose			
Pressure units (psia, psig)		PSIA			Temperature units (degF, degC)			degC			
Run-Seat Number	Depth		Initial Hydrostatic Pressure	Time Set (HH:MM)	Minimum Flowing Pressure	Formation Pressure	Temp	Time Retract (HH:MM)	Final Hydrostatic Pressure	Delta Time (MM:SS)	Comments
	m MDRKB	m TVDSS	PPg			PPg			PPg		Including Test Quality and Fluid Type.
P											
P											
1/1	3058.6	2837.3	5231.0 10.72	13:21	4001.7	4005.90 8.21	77.4	13:24	5227.3 10.72	03:00	20cc pre-test volume Good MD/CP=1340.6
1/2	3061.5	2839.7	5233.5 10.73	13:28	3930.1	4008.21 8.22	77.6	13:33	5231.8 10.73	05:00	Good MD/CP=89.4
1/3	3064.0	2841.8	5236.5 10.74	13:36	3869.3	4010.12 8.22	77.8	13:40	5235.2 10.73	04:00	Good MD/CP=66.4
1/4	3082.4	2857.0	5266.3 10.80	13:47	4036.3	4039.02 8.28	78.2	13:50	5262.7 10.79	03:00	Good MD/CP=379.8
1/5	3084.5	2858.7	5269.3 10.80	13:56	4031.6	4041.63 8.29	78.7	14:00	5266.6 10.80	04:00	Good MD/CP=285.8
1/6	3086.5	2860.3	5271.3 10.81	14:05	4041.1	4042.93 8.29	79.2	14:09	5269.6 10.80	04:00	Good MD/CP=5225.4
1/7	3089.0	2862.4	5274.9 10.81	14:14	4039.4	4044.94 8.29	79.7	14:19	5273.3 10.81	05:00	Good MD/CP=809.7
1/8	3083.0	2857.4	5265.7 10.79	14:25	4009.1	4039.64 8.28	80.2	14:28	5264.3 10.79	03:00	Good MD/CP=312.8
1/9	3095.0	2867.3	5284.5 10.83	14:33	3422.7	4052.14 8.31	80.7	14:38	5282.2 10.83	05:00	Good MD/CP=18.7
1/10	3106.0	2876.4	5300.9 10.87	14:43	4064.5	4064.88 8.33	81.5	14:47	5298.9 10.86	04:00	Good MD/CP=20919.1

ESSO AUSTRALIA LTD - PRESSURE DATA FORM

Well		Gudgeon-1				Page			2 of 4			
Date		2-May-95				Geologist-Engineer			Mike Scott/John Phillips/Jon Elliott			
Tool Type (MDT, RFT)		Schlumberger MDT				KB (metres):			25.3 (12-1/4" hole)			
Gauge Type		CQG/Sapphire				Probe type			Long nose			
Pressure units (psia, psig)		PSIA				Temperature units (degF, degC)			degC			
Run-Seat Number	P=Press S=Sample	Depth		Initial Hydrostatic Pressure PPg	Time Set (HH:MM)	Minimum Flowing Pressure PPg	Formation Pressure PPg	Temp	Time Retract (HH:MM)	Final Hydrostatic Pressure PPg	Delta Time (MM:SS)	Comments Including Test Quality and Fluid Type.
		m MDRKB	m TVDSS									
1/11	P	3149.0	2912.0	5365.1 11.00	15:06	4022.8	4114.25 8.43	84.0	15:09	5362.1 10.99	03:00	Re-correlate depth Good MD/CP=54.7
1/12	P	3196.0	2950.4	5439.8 11.15	15:17	4159.3	4168.65 8.55	85.0	15:21	5431.7 11.14	04:00	Good MD/CP=571.6
1/13	P	3261.0	3003.1	5537.0 11.35	15:29	4166.3	4243.35 8.70	85.2	15:33	5527.1 11.33	04:00	Good MD/CP=33.2
1/14	P	3308.0	3041.2	5602.5 11.49	15:42	4290.5	4296.62 8.81	85.4	15:47	5595.2 11.47	05:00	Good MD/CP=1213.4
1/15	P	3101.4	2872.6	5294.2 10.85	16:11	3431.1	4058.70 8.32	86.2	16:15	5292.0 10.85	04:00	Return to TOL Good MD/CP=10.6
1/16	P	3092.0	2864.9	5278.1 10.82	16:22	3294.1	4047.82 8.30	86.2	16:26	5277.8 10.82	04:00	Good MD/CP=9.8
1/17	P	3083.5	2857.9	5265.7 10.79	16:32	3905.2	4039.60 8.28	86.0	16:36	5265.5 10.79	04:00	Good MD/CP=51.2
1/18	P	3085.5	2859.5	5268.9 10.80	16:42	3955.2	4041.23 8.28	85.6	16:46	5268.8 10.80	04:00	Good MD/CP=166
1/19	P	3086.5	2860.3	5270.4 10.80	16:52	3476.2	4042.27 8.29	85.5	16:55	5270.5 10.80	03:00	Good MD/CP=67.8
1/20	P	3078.0	2853.3	5257.8 10.78	17:02	18.0	n/a n/a	84.5	17:07	5257.5 10.78	05:00	Tight-Aborted MD/CP=0

ESSO AUSTRALIA LTD - PRESSURE DATA FORM

Well	Gudgeon-1				Page	3	of	4			
Date	2-May-95				Geologist-Engineer	Mike Scott/John Phillips/Jon Elliott					
Tool Type (MDT, RFT)	Schlumberger MDT				KB (metres):	25.3	(12-1/4" hole)				
Gauge Type	CQG/Sapphire				Probe type	Long nose					
Pressure units (psia, psig)	PSIA				Temperature units (degF, degC)	degC					
Run-Seat Number	Depth		Initial Hydrostatic Pressure	Time Set (HH:MM)	Minimum Flowing Pressure	Formation Pressure	Temp	Time Retract (HH:MM)	Final Hydrostatic Pressure	Delta Time (MM:SS)	Comments Including Test Quality and Fluid Type.
	m MDRKB	m TVDSS	PPg		PPg	PPg			PPg		
1/21	3079.0	2854.1	5259.5 10.78	17:11	1009.3	4039.10 8.28	85.0	17:17	5258.7 10.78	06:00	10cc pre-test volume set Tight - Good Test MD/CP=1.8
1/22	3073.0	2849.2	5250.0 10.76	17:23	2038.6	4024.54 8.25	84.3	17:28	5249.7 10.76	05:00	Good MD/CP=4.7
1/23	3071.5	2848.0	5248.2 10.76	17:33	2904.2	4023.33 8.25	84.0	17:39	5247.8 10.76	06:00	Good MD/CP=2.8
1/24	3056.6	2835.7	5226.2 10.71	17:47	2461.0	4003.54 8.21	83.6	17:51	5226.1 10.71	04:00	Good MD/CP=4.6
1/25	3054.4	2833.5	5223.6 10.71	17:56	3487.7	4005.98 8.21	83.4	18:00	5222.9 10.71	04:00	Good - potentially s/c MD/CP=5.0

ESSO AUSTRALIA LTD

WELL: MUDGEON -1...

OBSERVER: MIKE SCOTT

DATE: 03 MAY 1995

RUN No.: 2/1

(PUMP OUT SUB + OFA USED)	CHAMBER 1 (44) 1 GALLON	CHAMBER 2 (lit.)
SEAT NO.	2/1	
DEPTH	3084.0	m
A. RECORDING TIMES		
Tool Set	01:18	hrs
Pretest Duration	6.0	mins
Chamber Open	01:29	hrs
Chamber Full	01:38	mins
Seal Chamber	01:38	hrs
Fill Time	9.0	mins
Finish Build Up	01:38	hrs
Build Up Time	9.0	mins
Tool Retract	01:39	hrs
Total Time	21.0	mins
B. SAMPLE PRESSURE		
Initial Hydrostatic	5270.8	psia
Initial Formation Pressure (Pretest)	4040.5	psia
MIN Initial Flowing Pressure	789.04	psia
Final Flowing Pressure	—	psia
Final Form'n Pressure	4040.0	psia
Final Hydrostatic	5270.0	psia
C. TEMPERATURE		
Temp. @ Sample Depth (AMS)	86.4	deg C
Rm @ Sample Depth (AMS)	0.04	ohm-m
D. SAMPLE RECOVERY		
Surface Pressure		psia
Volume Gas		cu ft
Volume Oil		lit
Volume Condensate		lit
Volume Water (Total)		lit
E. SAMPLE PROPERTIES		
Gas Composition		
C1		ppm
C2		ppm
C3		ppm
C4		ppm
C5		ppm
C6+		ppm
CO2/H2S	8%	ppm
Oil/Cond. Properties	deg API @	deg C
Colour		
Fluorescence		
GOR		
Pour Point		
Water Properties		
Resistivity	ohm-m @	deg C
NaCl Equivalent		ppm
Cl-itrated		ppm
Tritium		DPM
pH		
Est. Water Type		
F. MUD FILTRATE PROPERTIES		
Resistivity	ohm-m @	deg C
NaCl Equivalent		ppm
Cl-itrated		ppm
pH		
Tritium (in Mud)		DPM
G. GENERAL CALIBRATION		
Mud Weight	10.7 - 10.8	spg
Calc. Hydrostatic	5271	psi
Serial No. (Preserved)	MRSC #19 (1 GALLON)	
Choke Size/Probe Type	MDT VARIABLE - 100% - 1/4" MARTINEAU	
REMARKS	PRESERVED MIN FBHP = 3400 psi VIA THROTTLE	

ESSO AUSTRALIA LTD

WELL: GUDGEON - 1

OBSERVER: MIKE SCOTT

DATE: 03 MAY 1995

RUN No.: 2/2

PUMP OUTSUE + OFA USED)	CHAMBER 1 (lit) 6 GALLON	CHAMBER 2 (lit) 1 GALLON
SEAT NO.	2/2	2/2
DEPTH	3058.6 m	3058.6 m
A. RECORDING TIMES		
Tool Set	01:48 hrs	— hrs
Pretest Duration	3.0 mins	— mins
Chamoer Open	01:56 hrs	02:11 hrs
Chamber Full	02:10 mins	02:21 mins
Seal Chamber	02:10 hrs	02:21 hrs
Fill Time	14.0 mins	10.0 mins
Finish Build Up	02:10 hrs	02:21 hrs
Build Up Time	14.0 mins	10.0 mins
Tool Retract	— hrs	02:24 hrs
Total Time	— mins	36.0 mins
B. SAMPLE PRESSURE		
Initial Hydrostatic	5233.2 psia	— psia
Initial Formation Pressure (Pretest)	4005.3 csia	— osia
MIN Initial Flowing Pressure	1679.4 psia	2709.2 osia
Final Flowing Pressure	— psia	— osia
Final Form'n Pressure	4004.38 osia	4005.26 psia
Final Hydrostatic	— osia	5232.35 psia
C. TEMPERATURE		
Temp. @ Sample Depth (AMS)	87.2 deg C	86.2 deg C
Rm @ Sample Depth (AMS)	0.04 ohm-m	0.04 ohm-m
D. SAMPLE RECOVERY		
Surface Pressure		
Volume Gas	"SEM PRESERVE" PIPELINE RHEOLOGY	psia
Volume Oil	cu ft	cu ft
Volume Condensate	lit	lit
Volume Water (Total)	lit	lit
E. SAMPLE PROPERTIES		
Gas Composition		
C1	ppm	ppm
C2	ppm	ppm
C3	ppm	ppm
C4	ppm	ppm
C5	ppm	ppm
C6+	ppm	ppm
CO2/H2S	% / ppm	% / ppm
Oil/Cond. Properties	deg API @	deg C
Colour		
Fluorescence		
GOR		
Pour Point		
Water Properties		
Resistivity	ohm-m @	deg C
NaCl Equivalent	ppm	ppm
Cl-litrated	ppm	ppm
Tritium	DPM	DPM
pH		
Est. Water Type		
F. MUD FILTRATE PROPERTIES		
Resistivity	ohm-m @	deg C
NaCl Equivalent	ppm	ppm
Cl-litrated	ppm	ppm
pH		
Tritium (in Mud)	DPM	DPM
G. GENERAL CALIBRATION		
Mud Weight	10.7 - 10.8 sg	10.7 - 10.8 sg
Calc. Hydrostatic	5233.2 osia	5233.2 osia
Serial No. (Preserved)	MRSC #22	MRSC #71
Choke Size/Probe Type	MDT VARIABLE - 100% = 1/4" / MARTINEAU	MDT VARIABLE - 100% = 1/4" / MARTINEAU
REMARKS	SAMPLE "SEM PRESERVE" FIX PIPELINE RHEOLOGY WORK.	PRESERVED

SAMPLING DATA SHEET

CORE LABORATORIES

CLIENT	: ESSO AUSTRALIA LTD.
WELL	: GUDGEON 1
LOCATION	: OFFSHORE BASS STRAIT, VICTORIA
SAMPLING POINT	: 6 GAL. CHAMBER - MDT RUN 2
SAMPLED BY	: THOMAS A. SAMUEL
DATE	: 3rd MAY 1975

ANALYSIS #	TUTWEILER	ORSAT	DRAGER TUBES	REMARKS
MDT RUN 2 (6 GAL. CHAMBER)	- NO GAS	- NO GAS-	1. CO ₂ < 1 % 2. CO ₂ < 1 %	* OPENING PRESSURE OF MDT CHAMBER AT RIG FLOOR 100PSI
			1. H ₂ S 0 ppm 2. H ₂ S 0 ppm	
ANALYSIS #	API	POUR	CLOUD	REMARKS
	GRAVITY	POINT	POINT	
MDT RUN 2 (6 GAL. CHAMBER)	43.8 @ 60°F	27.0 °C	—	

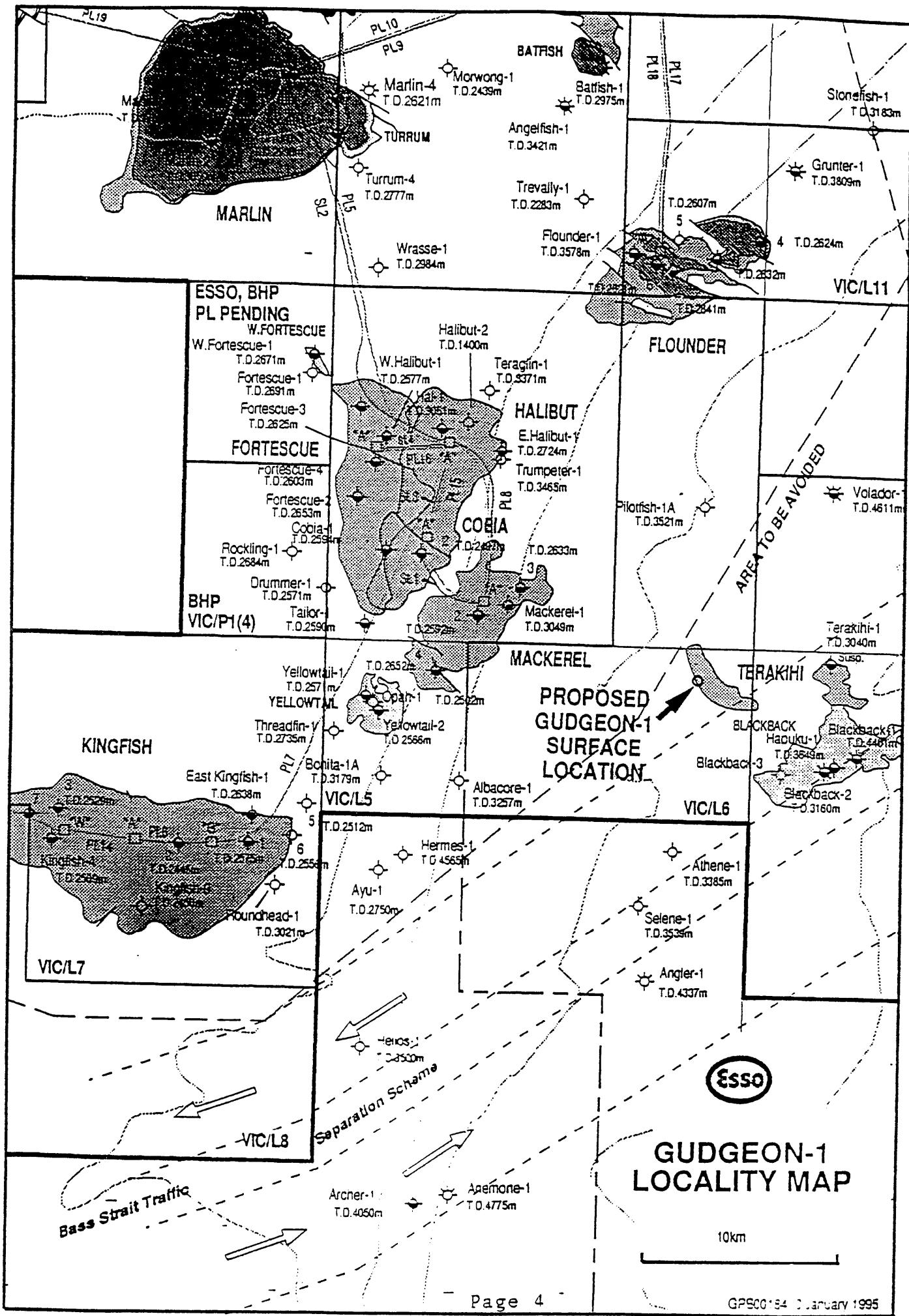
REMARKS:

TRANSFERED ALL SAMPLE FROM MDT RUN 2, 6 GAL. CHAMBER INTO ONE CORE LAB 20 L. CYLINDER S/N 3475A USING SPRAGUE PUMP. BALANCE OF 300 cc FLUID COLLECTED FROM MDT CHAMBER - 150 cc CRUDE OIL AND 150 cc MUD. PRESSURE OF 20 L CYLINDER 500 PSIG @ 15 °C

8. TEMPERATURE RECORD

Logging Run (Suite 2)	Depth (m)	Max Recorded Temperature °C	Time After Circulation Stopped (t) (hours)
DLL-MSFL-LDL-CNL	3279	86	13.33
AS-DLL-MSFL-CAL-AMS-OP	3737	86	8.92
CSAT	3749	100	23.67
MDT (pretests)	3308	87	14.08
MDT (samples)	3084	87	22.50
SHDT-GR	3250	94	28.83
CDT-SR	3580	86	17.83
LDL-LNL-NGI-AMS	3784	89	9.08

FIGURES



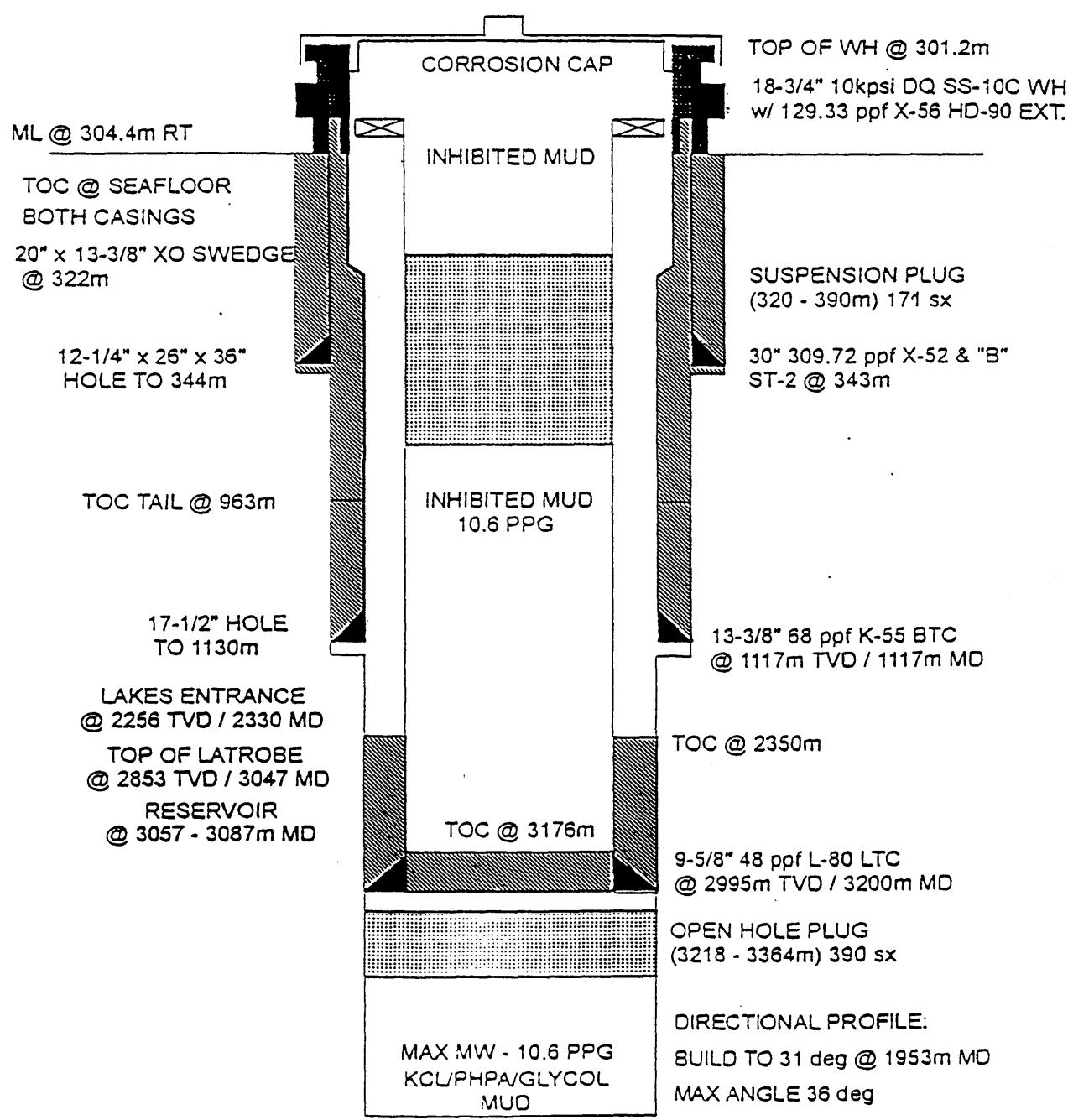
ESSO AUSTRALIA LTD.
GUDGEON-1 PROPOSED WELLBORE SKETCH

ROTARY TABLE (RT)

MSL @ 25 m RT

ALL DEPTHS FROM RT

WATER DEPTH = 279.4 m



DJW 2-MAY-95

DEPTHS "m" = METERS

GUD-958.PRE

GUDGEON 1 EXTRAPOLATED BOTTOM HOLE TEMPERATURE

Extrapolated BHT = 112 C

KB = 25m

Water Depth = 279.4m

Total Depth = 3440m TVDKB

Sea Bottom Temp = 10C

Geothermal Gradient = 3.25degs C/100m

LDL/CNL Suite 3

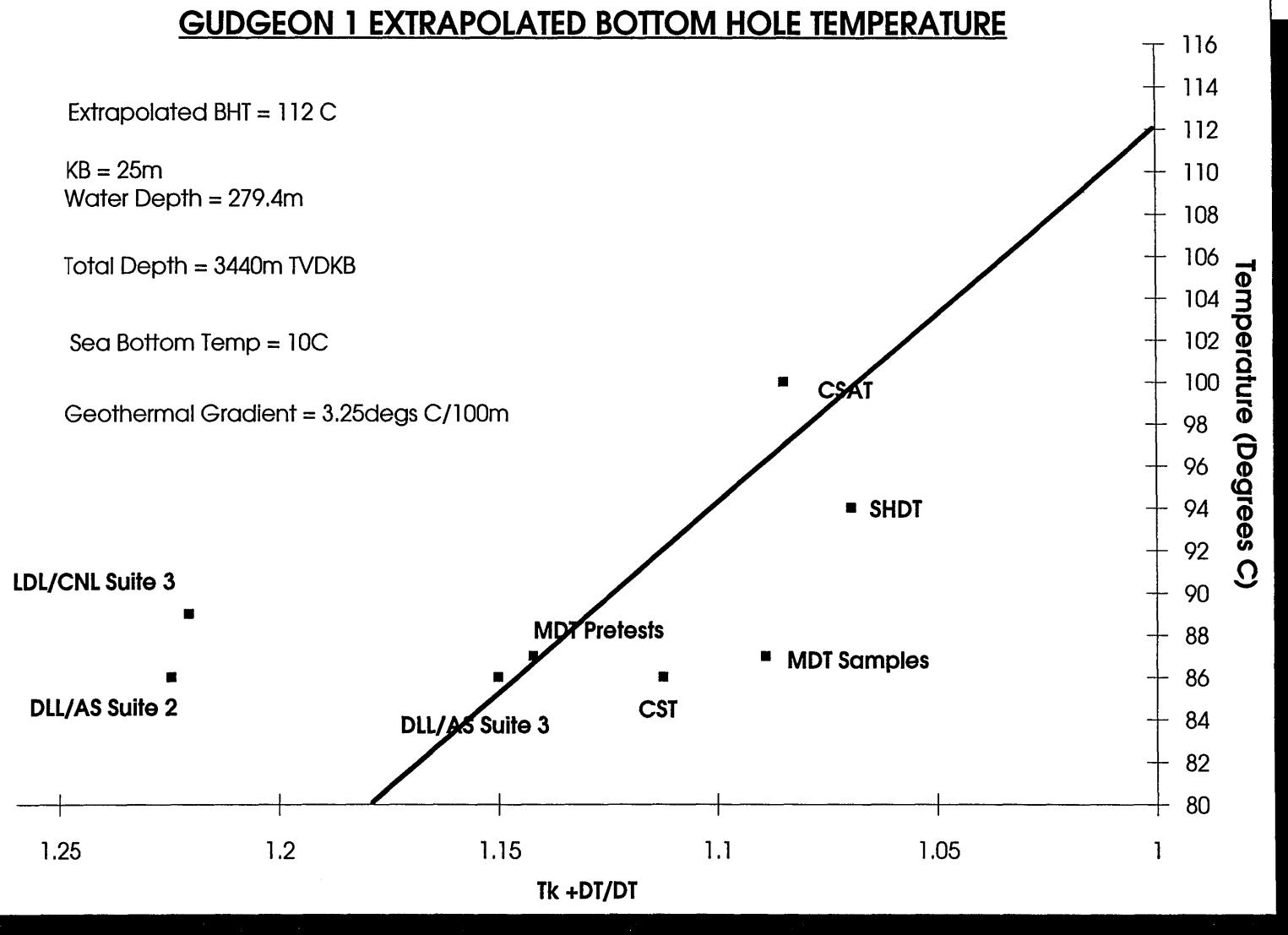
DLL/AS Suite 2

MDT Pretests

DLL/AS Suite 3

CST

MDT Samples



Appendix 1



5th Cut
A4 Dividers
Re-order Code 97052

APPENDIX I

LITHOLOGY DESCRIPTIONS

LITHOLOGY DESCRIPTIONS

<u>Depth</u>	<u>%</u>	<u>Description</u>
(Riser run after 17½" hole section at 1130m.)		
1140	100	<u>LIMESTONE</u> : Pale grey, light grey brown, calcilutite grades to calcisiltite, micritic cement, moderately argillaceous, trace carbonaceous fragments, soft to slightly dispersive, massive to amorphous.
1170	100	<u>LIMESTONE</u> : Pale grey, occasionally medium grey, calcilutite, micritic, moderately argillaceous, trace lithic fragments, trace to common carbonaceous fragments, soft to slightly dispersive, massive to amorphous.
1200	100	<u>LIMESTONE</u> : Pale grey to grey brown, calcilutite, micritic, moderately argillaceous, trace carbonaceous fragments, trace lithic fragments, rare forams, soft to firm, slightly dispersive, massive to amorphous.
1230	100	<u>LIMESTONE</u> : Predominantly as above, trace ooids, soft to sticky, massive to amorphous.
1260	100	<u>LIMESTONE</u> : Pale grey to light grey, grey brown in part, calcisiltite, micritic, moderately argillaceous, trace very fine calcareous sand, trace carbonaceous fragments, rare forams, firm, massive.
1290	100	<u>LIMESTONE</u> : Predominantly as above, calcisiltite grades in part to calcarenite, very fine, trace lithic fragments, firm, massive.
1320	100	<u>LIMESTONE</u> : Predominantly as above, calcisiltite, common very fine calcareous sand.
1350	100	<u>LIMESTONE</u> : light grey, brown grey, calcisiltite, micritic, trace very fine calcareous sand, trace carbonaceous specks, trace lithics, moderately hard, blocky.

1380	100	<u>LIMESTONE</u> : Light grey, grey brown, calcarenite, very fine to fine, trace spar cement, slightly argillaceous, trace lithic fragments, trace forams, trace carbonaceous specks, moderately hard, blocky.
1410	100	<u>LIMESTONE</u> : Light brown grey, light grey, calcisiltite, micritic, moderately argillaceous, common off white calcarenite inclusions, trace carbonaceous fragments, trace lithic fragments, firm, massive to blocky.
1440	100	<u>LIMESTONE</u> : Light brown grey, calcarenite grades to calcisiltite, very fine to fine, micritic, slightly argillaceous, trace lithic and carbonaceous fragments, moderately hard to firm, blocky.
1470	100	<u>LIMESTONE</u> : As above.
1500	100	<u>LIMESTONE</u> : Light brown grey, calcarenite, very fine to fine, micritic, slightly argillaceous, trace forams, common carbonaceous fragments, firm to occasionally moderately hard, blocky.
1530	100	<u>LIMESTONE</u> : Light grey, grey brown in part, occasionally off white, calcisiltite, micritic, slightly argillaceous, trace carbonaceous fragments, firm to occasionally moderately hard, blocky.
1560	100	<u>LIMESTONE</u> : Grey brown, olive grey in part, calcisiltite, micritic, slightly argillaceous, trace carbonaceous fragments, trace very fine grained calcarenite inclusions, firm, blocky.
1590	100	<u>LIMESTONE</u> : As above.
1620	100	<u>LIMESTONE</u> : Grey brown, olive grey in part, calcarenite, very fine to fine, trace spar cement, slightly argillaceous, trace lithic/carbonaceous specks, firm, occasionally moderately hard, blocky.
1650	100	<u>LIMESTONE</u> : Olive grey, medium grey in part, calcisiltite grades to calcilutite, micritic, moderately argillaceous in part, trace lithic/carbonaceous fragments, trace birdseye calcite infill, soft to firm, massive to blocky.

1680	100	<u>LIMESTONE</u> : Light grey brown, light grey, calcisiltite grades to very fine calcarenite, micritic, slightly argillaceous, trace carbonaceous fragments, occasionally off white cryptocrystalline calcarenite inclusions, firm to occasionally moderately hard, blocky.
1710	100	<u>LIMESTONE</u> : Predominantly as above, becomes predominantly calcisiltite, locally very argillaceous in part.
1740	100	<u>LIMESTONE</u> : Light grey, off white, light brown grey, calcisiltite, micritic, locally moderately argillaceous, trace very fine calcareous sand, trace fossil fragments, trace ooids, trace carbonaceous specks, firm, blocky.
1770	100	<u>LIMESTONE</u> : Predominantly as above, trace off white to light grey calcarenite inclusions.
1800	100	<u>LIMESTONE</u> : Predominantly as above, calcisiltite grading to calcarenite in part, very fine to fine, trace spar cement, firm to moderately hard.
1830	100	<u>LIMESTONE</u> : Light grey, olive grey, calcisiltite, micritic, slightly argillaceous, trace very fine calcareous sand, trace lithic/carbonaceous fragments, firm to moderately hard, blocky.
1860	100	<u>LIMESTONE</u> : As above calcisiltite.
1890	100	<u>LIMESTONE</u> : Light to medium grey, occasionally olive grey, moderately to locally very argillaceous, trace carbonaceous fragments, trace grey brown cryptocrystalline slightly dolomite inclusions, soft to firm, massive to blocky.
1920	100	<u>LIMESTONE</u> : Light to medium grey, olive grey in part, calcisiltite occasionally grades to calcarenite, very fine, micritic, slightly argillaceous, locally common carbonaceous/lignitic laminations, trace lithic fragments, firm, blocky to massive.

1950	100	<u>LIMESTONE</u> : Off white to light grey, olive grey, calcisiltite grades to calcilutite, micritic, locally very argillaceous, trace carbonaceous specks, trace very fine calcareous sand, firm, blocky.
1980	100	<u>LIMESTONE</u> : Light to medium grey, calcilutite, micritic, slightly silty in part, trace carbonaceous fragments, firm, blocky.
2010	100	<u>LIMESTONE</u> : Predominantly as above, becomes increasingly silty grades calcisiltite in part, trace off white very fine grained calcarenite inclusions
2040	100	<u>LIMESTONE</u> : Light to predominantly medium grey, calcilutite, micritic, slightly argillaceous, trace carbonaceous fragments, trace very fine calcareous sand, rare lithic fragments, soft to firm, blocky.
2070	100	<u>LIMESTONE</u> : Medium grey, brown grey, calcisiltite, micritic, moderately to locally very argillaceous, trace carbonaceous fragments, trace to locally common lithic fragments, trace very fine calcareous sand, firm, blocky.
2080	100	<u>LIMESTONE</u> : Predominantly as above, becomes very argillaceous in part grades to calcilutite.
2090	100	<u>LIMESTONE</u> : Predominantly as above, calcisiltite grades to calcilutite.
2100	100	<u>LIMESTONE</u> : As above.
2110	100	<u>LIMESTONE</u> : Predominantly as above, becomes olive grey, calcilutite, slightly silty in part.
2120	100	<u>LIMESTONE</u> : Brown grey, olive grey, calcilutite, micritic, slightly silty in part, trace carbonaceous specks, trace lithic fragments, trace very fine calcareous sand, firm, blocky.
2130	100	<u>LIMESTONE</u> : As above.
2140	100	<u>LIMESTONE</u> : As above.

2150	100	<u>LIMESTONE</u> : Olive grey, calcisiltite, moderately to very argillaceous grades to calcilutite, trace ooids, trace forams, trace carbonaceous fragments, firm, moderately hard in part, blocky.
2160	100	<u>LIMESTONE</u> : Predominantly as above, becomes very argillaceous grades to calcilutite.
2170	100	<u>LIMESTONE</u> : As above, calcisiltite grades to calcilutite.
2180	100	<u>LIMESTONE</u> : Brown grey, olive grey, calcilutite, micritic, slightly to occasionally moderately silty, trace carbonaceous specks, trace off white very fine grained calcarenite inclusions, firm, blocky.
2190	100	<u>LIMESTONE</u> : Predominantly as above, calcilutite grades to calcisiltite in part, locally trace very fine calcareous sand.
2200	100	<u>LIMESTONE</u> : Predominantly as above, calcilutite grades in part to calcisiltite, trace carbonaceous fragments.
2210	100	<u>LIMESTONE</u> : Medium brown grey, olive grey, calcisiltite, micritic, locally moderately to very argillaceous grades in part to calcilutite, trace carbonaceous/lithic fragments, firm to occasionally moderately hard, blocky.
2220	100	<u>LIMESTONE</u> : Light to medium grey, calcilutite, micritic, slightly silty in part, trace lithic fragments, homogeneous, firm, blocky.
2230	100	<u>LIMESTONE</u> : Predominantly as above, calcilutite, trace chlorite in part, firm, blocky.
2240	100	<u>LIMESTONE</u> : Predominantly as above, calcilutite, becomes locally very silty grades in part to calcisiltite.
2250	100	<u>LIMESTONE</u> : Predominantly as above, medium grey to olive grey, calcilutite.
2260	100	<u>LIMESTONE</u> : Predominantly as above, becomes grey brown to olive grey, calcisiltite grades to calcilutite.

2270	100	<u>LIMESTONE</u> : Light brown grey, olive grey in part, calcisiltite, micritic, moderately to very argillaceous in part, trace lithic/carbonaceous fragments, trace to common very fine calcareous sand, soft to firm, blocky to massive.
2280	100	<u>LIMESTONE</u> : Predominantly as above, calcisiltite, becomes locally very arenaceous grades in part to calcarenite, very fine to fine, trace spar cement, firm, massive to blocky.
2290	100	<u>LIMESTONE</u> : Predominantly as above, calcisiltite grades to calcarenite, locally becomes very argillaceous.
2300	100	<u>LIMESTONE</u> : Predominantly calcisiltite, becomes very argillaceous grades to calcilutite.
2310	100	<u>LIMESTONE</u> : Light grey brown, off white, calcisiltite, micritic, very argillaceous, trace ooids, trace to locally common very fine to fine calcareous sand locally grades to calcarenite, trace lithic fragments, firm, massive to blocky.
2320	100	<u>LIMESTONE</u> : Light grey to occasionally medium grey brown, calcilutite, slightly silty, micritic, trace carbonaceous fragments, trace fine calcareous sand, rare fossil fragments, soft to firm, massive to blocky.
2330	90	<u>LIMESTONE</u> : Predominantly as above, calcilutite grades to calcisiltite.
	10	<u>CLAYSTONE</u> : Pale grey, light grey brown, moderately calcareous, slightly silty, trace carbonaceous specks, homogeneous, soft to plastic, firm, blocky.
2340	80	<u>LIMESTONE</u> : Light to medium grey, olive grey in part, calcilutite grades to calcisiltite, micritic, trace lithic/carbonaceous fragments, trace very fine calcareous sand, soft to firm, massive to blocky.
	20	<u>CLAYSTONE</u> : Pale grey, light grey brown, moderately to very calcareous, slightly silty in part, trace lithic fragments, rare carbonaceous specks, soft to firm, blocky.

	2350	60 40	<u>LIMESTONE</u> : As above. <u>CLAYSTONE</u> : Predominantly as above, becomes slightly fossiliferous in part, trace forams, trace disseminated pyrite.
	2360	60 40	<u>LIMESTONE</u> : As above. <u>CLAYSTONE</u> : Predominantly as above, becomes medium grey in part, trace forams.
	2370	70 30	<u>LIMESTONE</u> : As above. <u>CLAYSTONE</u> : As above.
	2380	50 50	<u>LIMESTONE</u> : Predominantly as above, calcilutite, locally very silty grades to calcisiltite. <u>CLAYSTONE</u> : As above.
	2390	60 40	<u>LIMESTONE</u> : As above, calcilutite. <u>CLAYSTONE</u> : As above.
	2400	60 40	<u>CLAYSTONE</u> : Medium grey, olive grey, grey brown in part, slightly to moderately calcareous, slightly silty, trace carbonaceous fragments, slightly micromicaceous in part, soft to firm, blocky. <u>LIMESTONE</u> : Light grey, pale brown grey, calcilutite, trace lithic fragments, trace carbonaceous specks, trace forams in part, firm, massive to blocky.
	2410	80 20	<u>CLAYSTONE</u> : As above. <u>LIMESTONE</u> : As above.
	2420	70 30	<u>CLAYSTONE</u> : As above. <u>LIMESTONE</u> : Predominantly as above, calcilutite, locally common very fine calcareous sand, trace ooids & forams.
	2430	90 10	<u>CLAYSTONE</u> : Light to medium grey, occasionally olive grey, slightly silty, moderately to occasionally very calcareous grades in part to calcilutite, trace nodular pyrite, trace lithic fragments, soft to firm, occasionally moderately hard, blocky to massive. <u>LIMESTONE</u> : As above.

2440	80	<u>CLAYSTONE</u> : Light to predominantly medium grey, occasionally brown grey, slightly silty, moderately to locally very calcareous grades in part to calcilutite, trace chlorite, trace nodular pyrite, trace carbonaceous/lithic fragments, soft to firm, blocky to massive. <u>LIMESTONE</u> : Light brown, off white, calcarenite, very fine, micritic, moderately argillaceous, trace forams, trace lithic/carbonaceous fragments, firm to loose in part, blocky, no porosity.
2450	90 10	<u>CLAYSTONE</u> : As above. <u>LIMESTONE</u> : Predominantly as above, calcarenite becomes increasingly argillaceous grades to calcisiltite in part.
2460	90 10	<u>CLAYSTONE</u> : As above. <u>LIMESTONE</u> : Predominantly as above, calcarenite grades to calcisiltite.
2470	100	<u>CLAYSTONE</u> : Grey brown, medium grey, slightly silty in part, moderately calcareous, trace chlorite, trace nodular pyrite in part, rare very fine calcareous sand, trace carbonaceous specks, trace light brown very fine calcarenite inclusions, firm to occasionally moderately hard, blocky.
2480	100	<u>CLAYSTONE</u> : Predominantly as above, slightly silty in part, homogeneous.
2490	100	<u>CLAYSTONE</u> : As above.
2500	100	<u>CLAYSTONE</u> : Light to predominantly medium grey, olive grey in part, slightly silty, moderately calcareous occasionally very calcareous grades to calcilutite in part, trace disseminated pyrite in part, locally trace very fine calcareous sand, trace carbonaceous fragments, marly texture in part, soft to firm, massive to blocky.
2510	100	<u>CLAYSTONE</u> : Predominantly as above, trace ooids & forams.
2520	100	<u>CLAYSTONE</u> : Predominantly as above, slightly micromicaceous, trace disseminated pyrite.
2530	100	<u>CLAYSTONE</u> : Predominantly as above, trace forams.

2540	100	<u>CLAYSTONE</u> : Medium grey, olive grey, slightly silty, moderately calcareous, occasionally very calcareous grades to calcilutite in part, trace disseminated pyrite, rare glauconite, trace forams & ooids, trace carbonaceous flecks, soft to firm, occasionally moderately hard, blocky to massive.
2550	100	<u>CLAYSTONE</u> : Predominantly as above, trace nodular pyrite.
2560	100	<u>CLAYSTONE</u> : Predominantly as above, trace very fine calcareous sand, trace ooids.
2570	100	<u>CLAYSTONE</u> : Predominantly as above, becomes olive grey, slightly silty homogeneous.
2580	100	<u>CLAYSTONE</u> : As above.
2590	100	<u>CLAYSTONE</u> : As above.
2600	100	<u>CLAYSTONE</u> : Light to medium grey brown, slightly silty, moderately calcareous, trace off white to white calcite infill, trace glauconite, trace carbonaceous specks, trace fossil fragments, trace disseminated/nodular pyrite, soft to firm, massive to blocky.
2610	80	<u>CLAYSTONE</u> : Predominantly as above, common white calcite infill with trace glauconite.
	20	<u>LIMESTONE</u> : Off white, pale grey, calcarenite, very fine, micritic, slightly sparry, moderately argillaceous, trace glauconite, trace carbonaceous specks, rare medium grained quartz float, firm, blocky, no porosity.
2620	90	<u>CLAYSTONE</u> : Predominantly as above, trace free white calcite infill.
	10	<u>LIMESTONE</u> : As above.
2630	90	<u>CLAYSTONE</u> : As above.
	10	<u>LIMESTONE</u> : As above.
2640	100	<u>CLAYSTONE</u> : Light to medium brown grey, olive grey, slightly silty, slightly to occasionally moderately calcareous, slightly micromicaceous, slightly chloritic in part, rare carbonaceous specks, trace lithic fragments, firm, blocky.

2650	100	<u>CLAYSTONE</u> : Predominantly as above, trace fossil fragments, homogeneous.
2660	100	<u>CLAYSTONE</u> : Predominantly as above, slightly chloritic, trace disseminated pyrite.
2670	100	<u>CLAYSTONE</u> : Light to medium grey, occasionally olive grey, slightly silty, slightly to moderately calcareous, trace disseminated pyrite, trace carbonaceous specks, slightly chloritic in part, soft to firm, blocky.
2680	90 10	<u>CLAYSTONE</u> : As above. <u>LIMESTONE</u> : Off white to light grey, calcisiltite, micritic, slightly to moderately argillaceous, trace forams/oids, trace to common fine calcareous sand occasionally grades to calcarenite, firm, blocky.
2690	80 20	<u>CLAYSTONE</u> : Predominantly as above, trace nodular pyrite. <u>LIMESTONE</u> : Predominantly as above, calcisiltite grades to calcarenite, common very fine calcareous sand.
2700	90 10	<u>CLAYSTONE</u> : As above. <u>LIMESTONE</u> : Predominantly as above, calcisiltite, trace fossil fragments (gastropods).
2710	80 20	<u>CLAYSTONE</u> : As above. <u>LIMESTONE</u> : Predominantly as above calcisiltite, trace to common very fine to fine calcareous sand.
2720	100	<u>CLAYSTONE</u> : Pale grey, light to medium grey, grey brown in part, slightly silty, moderately calcareous, trace very fine calcareous spar inclusions, rare disseminated pyrite, trace lithic/carbonaceous specks, firm, blocky.
2730	100	<u>CLAYSTONE</u> : Predominantly as above, trace fossil fragments, occasionally slightly chloritic.
2740	100	<u>CLAYSTONE</u> : Predominantly as above, becomes pale brown grey, trace fine calcareous sand, slightly dispersive, soft to firm, massive to blocky.

2750	90 10	<u>CLAYSTONE</u> : As above. <u>LIMESTONE</u> : Light grey to light brown, calcarenite, fine, slightly sparry, moderately argillaceous, trace fossil fragments, trace forams, common ooids, trace lithic fragments, loose to firm, blocky in part, no porosity.
2760	90 10	<u>CLAYSTONE</u> : As above. <u>LIMESTONE</u> : Predominantly as above, trace limonitic staining.
2770	90 10	<u>CLAYSTONE</u> : As above. <u>LIMESTONE</u> : Predominantly as above, common limonitic staining.
2775	100	<u>CLAYSTONE</u> : Light grey, brown grey in part, slightly silty, slightly to moderately calcareous, occasionally grades to calcilutite, trace carbonaceous specks, trace nodular/disseminated pyrite, trace fossil fragments, trace gastropods, firm, blocky, massive.
2780	100	<u>CLAYSTONE</u> : As above.
2785	100	<u>CLAYSTONE</u> : Predominantly as above, becomes grey brown.
2790	100	<u>CLAYSTONE</u> : Predominantly as above, brown grey, becomes slightly dispersive, massive to blocky.
2795	100	<u>CLAYSTONE</u> : As above.
2800	100	<u>CLAYSTONE</u> : Brown grey, medium grey in part, slightly silty in part, slightly to occasionally moderately calcareous, trace disseminated pyrite, slightly micromicaceous, trace off white very fine calcarenite inclusions, soft to slightly dispersive, massive to amorphous in part.
2805	100	<u>CLAYSTONE</u> : As above.
2810	100	<u>CLAYSTONE</u> : As above.
2815	100	<u>CLAYSTONE</u> : Predominantly as above, very dispersive in part.
2820	100	<u>CLAYSTONE</u> : Light grey, brown grey, occasionally olive grey, slightly to occasionally moderately calcareous, slightly silty, trace carbonaceous specks, rare nodular & disseminated pyrite, plastic to firm, massive to blocky.

2825	100	<u>CLAYSTONE</u> : As above.
2830	100	<u>CLAYSTONE</u> : As above.
2835	100	<u>CLAYSTONE</u> : Predominantly as above, moderately silty in part, slightly dispersive.
2840	100	<u>CLAYSTONE</u> : Light grey, light brown grey, occasionally medium grey, moderately silty, slightly to moderately calcareous, trace disseminated pyrite, slightly micromicaceous, trace lithic/carbonaceous specks, trace fine calcareous sand, soft to firm, slightly dispersive, massive to occasionally blocky.
2845	100	<u>CLAYSTONE</u> : As above.
2850	100	<u>CLAYSTONE</u> : Predominantly as above, trace nodular pyrite.
2855	100	<u>CLAYSTONE</u> : As above.
2860	100	<u>CLAYSTONE</u> : Predominantly as above, trace off white, very fine calcarenite inclusions.
2865	100	<u>CLAYSTONE</u> : As above.
2870	100	<u>CLAYSTONE</u> : Pale grey, light brown, slightly silty, slightly calcareous, trace forams in part, slightly micromicaceous, rare lithic & carbonaceous fragments, soft, slightly dispersive in part, massive to amorphous.
2875	100	<u>CLAYSTONE</u> : As above.
2880	100	<u>CLAYSTONE</u> : Predominantly as above, slightly dispersive, predominantly firm, blocky to massive.
2885	100	<u>CLAYSTONE</u> : As above.
2890	100	<u>CLAYSTONE</u> : Light brown grey, light grey, slightly silty, slightly calcareous, trace lithic fragments, trace fossil fragments, rare fine calcareous sand, slightly micromicaceous, slightly chloritic in part, trace disseminated/nodular pyrite, soft to firm, massive to blocky.

2895	100	<u>CLAYSTONE</u> : Predominantly as above, becomes light to medium grey, trace fine calcareous sand, trace disseminated pyrite, soft to firm, slightly dispersive, massive to blocky.
2900	100	<u>CLAYSTONE</u> : As above.
2905	100	<u>CLAYSTONE</u> : Light grey brown, light grey, slightly silty, slightly calcareous, slightly micromicaceous, trace lithic fragments, trace nodular pyrite, soft to occasionally firm, slightly dispersive, massive to occasionally blocky.
2910	100	<u>CLAYSTONE</u> : As above.
2915	100	<u>CLAYSTONE</u> : Predominantly as above, slightly to moderately dispersive.
2920	100	<u>CLAYSTONE</u> : As above.
2925	100	<u>CLAYSTONE</u> : Light brown, light grey, pale grey brown in part, slightly silty, trace fine calcareous sand, slightly calcareous, trace fossil fragments, trace nodular pyrite, slightly micromicaceous, trace carbonaceous specks, firm, blocky to massive. (Trace calcarenite inclusions in part)
2930	100	<u>CLAYSTONE</u> : As above.
2935	100	<u>CLAYSTONE</u> : Light brown, light to medium grey, slightly silty, slightly calcareous, trace very fine calcareous sand, trace fossil fragments, trace lithic fragments, trace carbonaceous specks, slightly micromicaceous, rare nodular pyrite, soft to firm, massive to blocky.
2940	100	<u>CLAYSTONE</u> : Predominantly as above, trace fossil fragments, trace nodular pyrite, slightly dispersive, massive to occasionally blocky.
2945	100	<u>CLAYSTONE</u> : As above.
2950	100	<u>CLAYSTONE</u> : Light grey brown, light grey, slightly silty in part, slightly calcareous, trace disseminated/nodular pyrite, slightly micromicaceous, rare fossil fragments, trace lithic fragments, soft to occasionally firm, massive to blocky in part.
2955	100	<u>CLAYSTONE</u> : As above.

2960	100	<u>CLAYSTONE</u> : Light grey brown, occasionally light to medium grey, slightly silty in part, slightly calcareous, slightly micromicaceous, trace lithic fragments, slightly chloritic in part, firm, blocky.
2965	100	<u>CLAYSTONE</u> : As above.
2970	100	<u>CLAYSTONE</u> : Light to occasionally medium grey, pale brown grey, slightly silty, slightly calcareous, trace lithic & carbonaceous fragments, trace off white calcarenite inclusions, trace nodular pyrite, firm, blocky.
2975	100	<u>CLAYSTONE</u> : As above.
2980	100	<u>CLAYSTONE</u> : Light brown grey, pale grey, slightly silty, slightly calcareous, trace very fine quartz & calcareous sand, slightly micromicaceous, trace carbonaceous specks, soft to firm, massive to blocky.
2985	100	<u>CLAYSTONE</u> : As above.
2990	100	<u>CLAYSTONE</u> : Predominantly as above, trace biotite, trace cryptocrystalline dolomitic inclusions.
2995	100	<u>CLAYSTONE</u> : Light brown grey, slightly silty, slightly calcareous, slightly micromicaceous, trace light brown slightly dolomitic calcarenite inclusions, trace lithic fragments, firm, blocky.
3000	100	<u>CLAYSTONE</u> : As above.
3005	100	<u>CLAYSTONE</u> : Predominantly as above, trace forams, trace disseminated pyrite.
3010	100	<u>CLAYSTONE</u> : Predominantly as above, trace disseminated pyrite, trace arenaceous inclusions.
3015	100	<u>CLAYSTONE</u> : Pale grey, light grey brown, slightly silty in part, slightly calcareous trace disseminated pyrite, trace carbonaceous specks, slightly micromicaceous, soft to firm, massive to blocky.
3020	100	<u>CLAYSTONE</u> : As above.
3025	100	<u>CLAYSTONE</u> : Predominantly as above, trace dolomitic inclusions.

3030	100	<u>CLAYSTONE</u> : Predominantly as above, rare glauconite, trace nodular pyrite.
3035	100	<u>CLAYSTONE</u> : Light brown, light grey, slightly silty, slightly calcareous, trace arenaceous inclusions, slightly glauconitic, slightly micromicaceous, trace nodular pyrite, trace lithic fragments, soft to firm, occasionally moderately hard, blocky.
3040	100	<u>CLAYSTONE</u> : As above.
3045	100	<u>CLAYSTONE</u> : Predominantly as above, moderately silty in part, slightly glauconitic in part.
3050	100	<u>CLAYSTONE</u> : Light brown, light grey, slightly to occasionally moderately silty, slightly calcareous, trace glauconite, trace nodular pyrite, slightly micromicaceous, trace very fine to occasionally fine grained calcareous cemented arenaceous inclusions, soft to firm, massive to blocky in part. <u>SILTSTONE</u> : Medium grey, very argillaceous, slightly arenaceous in part, trace biotite flecks, trace carbonaceous specks, moderately hard to blocky.
3055	10	<u>SANDSTONE</u> : Off white, clear to translucent, frosted, fine to medium, subangular to subrounded, moderate sorting, trace to common kaolinitic matrix, common glauconite, trace nodular pyrite, trace to common milky quartz, friable to loose, poor to fair porosity, no fluorescence. <u>SILTSTONE</u> : As above. <u>CLAYSTONE</u> : As above.
3060	40	<u>SANDSTONE</u> : Clear to translucent, frosted, medium to predominantly coarse, angular to subrounded, moderate sorting, common kaolinitic matrix, common glauconite, trace nodular pyrite, loose, fair to good porosity. FLUORESCENCE: 10% Pin point to patchy moderately bright pale yellow fluorescence, weak slow cut, no ring residue. <u>SILTSTONE</u> : Light grey, grey brown, very argillaceous, slightly micromicaceous, slightly arenaceous in part, firm, blocky.
	10	<u>CLAYSTONE</u> : As above.
	50	<u>CLAYSTONE</u> : As above.

3063	40	<u>SANDSTONE</u> : Predominantly as above, trace limonitic stained quartz, common milky quartz, common glauconite, trace nodular pyrite, fair to good porosity. FLUORESCENCE: 10% As above.
	10	<u>SILTSTONE</u> : As above.
	50	<u>CLAYSTONE</u> : As above.
(Beginning of core chip descriptions - Core 1 3063m to 3081, Core 2 3081m to 3088m)		
3063		<u>SANDSTONE</u> : Clear to translucent, frosted, coarse to granular, angular to subrounded, poor sorting, very weak siliceous cement, trace pyritic cement, trace rock fragments, abundant granular milky quartz, very friable, excellent porosity. FLUORESCENCE: 60% Patchy bright pale yellow fluorescence, instant cut, thick ring residue. Moderate petroliferous odour.
3064		<u>SILTSTONE</u> : Medium to dark grey, moderately argillaceous, slightly arenaceous, trace carbonaceous specks, common lithic fragments, slightly micromicaceous, trace nodular pyrite, hard, massive.
3065		<u>SILTSTONE</u> : Predominantly as above, trace red garnet.
3066		<u>SILTSTONE</u> : As above, with interlaminated <u>SANDSTONE</u> : Off white to light grey, fine, subangular, good sorting, trace kaolinitic matrix, strong siliceous cement, common biotite, trace disseminated pyrite, hard, tight. No fluorescence. (laminae 2-3mm thick).
3067		Interlaminated <u>SILTSTONE</u> and <u>SANDSTONE</u> : As above. (laminae 1-2mm thick)
3068		<u>SANDSTONE</u> : Off white to light grey, fine, subangular, good sorting, strong siliceous cement, common argillaceous/silty matrix, common biotite, trace glauconite, common rock fragments, abundant dark brown grey silty laminae, hard, tight, no fluorescence.

- 3069 SANDSTONE: Light grey, fine to medium, subangular, good sorting, strong siliceous cement, trace pyritic cement, common rock fragments, trace glauconite, trace biotite, trace quartz overgrowths, hard, very poor to nil porosity, no fluorescence.
- 3070 SANDSTONE: Medium to dark grey, fine to predominantly medium, subangular, moderate to good sorting, strong siliceous cement, abundant argillaceous matrix, common carbonaceous microlaminations, trace rock fragments, hard, tight, no fluorescence.
- 3070.4 SANDSTONE: Light grey, clear to translucent, coarse to very coarse, occasionally granular, subangular to subrounded, poor sorting, moderate siliceous cement, common quartz overgrowths, trace disseminated pyrite, trace rock fragments, trace very coarse to granular milky quartz, trace biotite, moderately hard, poor to fair porosity, no fluorescence. (Mud flushing evident-rotary table stalled at this depth. Drillstring was lifted to start rotary and continue coring.)
- 3071 COAL: Dark brown/black, vitreous lustre, conchoidal fracture, slightly argillaceous, bituminous, brittle, blocky to massive.
- 3072 SILTSTONE: Dark grey, very argillaceous, slightly siliceous, moderately arenaceous, slightly micromicaceous, trace muscovite, trace coal/carbonaceous fragments, hard, massive.
- 3073 SANDSTONE: Light grey, off white, fine to medium, subangular to subrounded, good sorting, strong siliceous cement, common silty/argillaceous matrix, trace biotite, slightly chloritic, trace rock fragments, trace very coarse milky quartz float, very poor porosity, n fluorescence.
- 3074 SILTSTONE: Dark grey, very argillaceous, very carbonaceous, trace arenaceous inclusions, trace biotite, slightly micromicaceous, hard, massive.

- 3075 SILTSTONE: Predominantly as above, common nodular pyrite.
- 3076 SANDSTONE: Clear to translucent, frosted, medium, subangular to subrounded, good sorting, weak siliceous cement, trace silty/argillaceous matrix, trace smoky quartz, trace disseminated pyrite, trace smoky quartz, trace rock fragments, friable, good to fair porosity. FLUORESCENCE: 80% Moderately bright patchy pale yellow fluorescence, moderate instant cut, thin ring residue.
- 3077 SANDSTONE: Clear to translucent, light grey, medium, subangular to subrounded, moderate to good sorting, moderate siliceous cement, common kaolinitic matrix, trace rock fragments, trace disseminated pyrite, trace muscovite, very poor to nil porosity, no fluorescence.
- 3078 SANDSTONE: Light grey, off white, fine, subangular, good sorting, weak siliceous cement, common argillaceous matrix, trace disseminated pyrite, trace carbonaceous micro laminations, hard, very poor porosity, no fluorescence. Common interlaminated dark grey SILTSTONE.
- 3079 SANDSTONE: Clear to translucent, frosted, coarse to predominantly very coarse to granular, subangular to rounded in part, moderate to poor sorting, trace siliceous cement, trace biotite, common granular milky quartz, very friable, excellent porosity. FLUORESCENCE: 50-60% Bright pale yellow patchy fluorescence, moderate to strong instant cut, thick ring residue.

- 3080.1 SANDSTONE: As above.
 FLUORESCENCE: 50% As above.
- 3081 SANDSTONE: Clear to translucent, light grey, coarse to very coarse, granular in part, subrounded, moderate to poor sorting, weak siliceous cement, trace biotite, trace carbonaceous fragments, common granular milky quartz, friable, good sorting. FLUORESCENCE: 40% Moderately bright pale yellow patchy to spotty fluorescence, weak to moderate instant cut, thin ring residue, very weak petroliferous odour.
- 3082 SANDSTONE: Clear to translucent, light grey, coarse to very coarse, subrounded, moderate sorting, weak siliceous cement, trace smoky quartz, trace nodular pyrite, trace carbonaceous specks, very friable, good to excellent porosity. FLUORESCENCE: 30% Moderately bright patchy pale yellow fluorescence, moderate instant cut, thin to moderate ring residue.
- 3083 SANDSTONE: Clear to translucent, light grey, coarse to granular, subrounded, moderate sorting, weak siliceous cement, common milky quartz, trace carbonaceous specks, trace disseminated pyrite, very friable, good to excellent porosity. FLUORESCENCE: 30% Moderately bright patchy pale yellow fluorescence, weak instant cut, thin patchy ring residue.
- 3084 SANDSTONE: As above.
 FLUORESCENCE: 20% As above.
- 3084.5 SANDSTONE: Clear to translucent, medium to very coarse, granular in part, subrounded, poor sorting, very weak siliceous cement, common granular milky quartz float, trace rock fragments, very friable, good to excellent porosity. FLUORESCENCE: 20% Moderately bright patchy pale yellow fluorescence, weak instant cut, thin ring residue.

3085

SANDSTONE: Clear to translucent, medium to very coarse, occasionally granular, subrounded, poor sorting, very weak siliceous cement, trace kaolinitic matrix, trace nodular pyrite, trace smoky quartz, common granular milky quartz float, very friable, good porosity, no fluorescence. (Possibly flushed with mud when core jammed)

(End of core chip descriptions)

3090

20

SANDSTONE: Clear to translucent, frosted, medium to very coarse, angular to subrounded, poor sorting, trace pyritic cement, common very coarse milky quartz, rare glauconite, good porosity, no fluorescence.

60

SILTSTONE: Medium to dark grey, slightly siliceous, very argillaceous, trace carbonaceous specks, trace lithic fragments, trace disseminated pyrite, moderately hard to hard, blocky to subfissile.

20

CLAYSTONE: Light brown grey, light grey, slightly to moderately calcareous, slightly silty, trace glauconite, trace lithic/carbonaceous fragments, soft to firm, blocky.

3095

40

SANDSTONE: Clear to translucent, frosted in part, medium to coarse, angular to subrounded, poor sorting, trace pyritic cement and nodular pyrite, trace to common coarse milky quartz, loose, good porosity, no fluorescence.

50

SILTSTONE: Medium grey, medium brown grey, olive grey in part, very argillaceous, slightly siliceous, micromicaceous, trace carbonaceous fragments, moderately hard, blocky to subfissile.

10

CLAYSTONE: Pale grey, light grey brown, slightly to moderately calcareous, slightly silty, trace lithic/carbonaceous fragments, firm to soft, blocky to massive.

3100	80	<u>SANDSTONE</u> : Clear to translucent, frosted, medium to coarse, occasionally very coarse, angular to subangular, poor sorting, trace siliceous cement, trace pyritic cement and nodular pyrite, trace very coarse milky quartz, trace carbonaceous fragments and microlaminations, loose, fractured grains, good porosity, no fluorescence. <u>SILTSTONE</u> : Light to medium grey, grey brown in part, slightly siliceous, very argillaceous, slightly calcareous in part, trace lithic/carbonaceous fragments, trace nodular pyrite, slightly micromicaceous, moderately hard, blocky to subfissile.
	20	
3105	70	<u>SANDSTONE</u> : Predominantly as above, becomes very coarse, common milky quartz. <u>SILTSTONE</u> : As above.
	30	
3110	70	<u>SANDSTONE</u> : Predominantly as above, becomes medium to coarse. <u>SILTSTONE</u> : Medium brown, moderately argillaceous, common carbonaceous/coaly microlaminations, trace disseminated pyrite, slightly micromicaceous, firm, subfissile to blocky. (Coaly fraction has dull orange fluorescence - no cut)
	30	
3115	80	<u>SANDSTONE</u> : As above. <u>SILTSTONE</u> : As above.
	20	
3120	90	<u>SANDSTONE</u> : Predominantly as above, coarse to very coarse, loose, good porosity, no fluorescence. <u>SILTSTONE</u> : As above.
	10	
3125	100	<u>SANDSTONE</u> : Predominantly as above, trace calcareous cement, trace rock fragments, trace nodular pyrite. <u>SILTSTONE</u> : As above.
	Trace	
3130	100	<u>SANDSTONE</u> : Predominantly as above, trace kaolinitic matrix, common smoky quartz, trace rock fragments, loose, good porosity, no fluorescence.

3135	100	<u>SANDSTONE</u> : Clear to translucent, frosted, coarse to very coarse, angular to subangular, moderate sorting, trace siliceous cement, trace pyritic cement, trace smoky quartz, common milky quartz, loose, good porosity, no fluorescence. <u>SILTSTONE</u> : Medium grey, green grey in part, slightly calcareous & siliceous, very argillaceous, slightly carbonaceous, slightly micromicaceous, hard, subfissile.
3140	70	<u>SANDSTONE</u> : Predominantly as above, becomes fine to medium, common kaolinitic/silty matrix, common coarse milky quartz float, loose, fair porosity. <u>SILTSTONE</u> : As above.
3145	90	<u>SANDSTONE</u> : Predominantly as above, becomes medium to coarse. <u>SILTSTONE</u> : As above.
3150	80	<u>SANDSTONE</u> : Clear to translucent, fine to medium, occasionally coarse, subangular to subrounded, moderate sorting, common silty/argillaceous matrix, common kaolinite, trace nodular pyrite, common coarse milky quartz float, trace rock fragments, trace carbonaceous specks, loose, fair porosity, no fluorescence. <u>SILTSTONE</u> : As above.
3155	90	<u>SANDSTONE</u> : As above, common pyritic cement and nodular pyrite, trace kaolinite, common very coarse milky quartz float, fair porosity, no fluorescence. <u>SILTSTONE</u> : As above.
3160	100	<u>SANDSTONE</u> : Clear to translucent, frosted, medium to predominantly coarse to very coarse, angular to subangular, poor sorting, trace pyritic cement, trace kaolinitic matrix, common very coarse milky quartz float, trace rose quartz, loose, fractured grains, good porosity, no fluorescence.
3165	100	<u>SANDSTONE</u> : Predominantly as above, becomes fine to predominantly medium to coarse, trace kaolinitic matrix, common smoky quartz, trace rock fragments.

3170	100	<u>SANDSTONE</u> : Predominantly as above, common pyritic cement and nodular pyrite, locally common argillaceous matrix, common to abundant kaolinite, trace smoky quartz, loose, no fluorescence.
3175	80	<u>SANDSTONE</u> : Clear to translucent, medium to coarse, occasionally very coarse, angular to subrounded, poor sorting, trace pyritic cement, moderate kaolinitic matrix, trace coarse milky quartz, trace nodular pyrite, trace rose quartz, trace carbonaceous fragments, loose, good porosity, no fluorescence. <u>SILTSTONE</u> : Medium grey, olive grey, slightly siliceous, slightly calcareous, very argillaceous, trace carbonaceous specks, locally common disseminated pyrite, moderately hard, blocky to subfissile.
	20	
3180	60	<u>SANDSTONE</u> : Predominantly as above, medium, loose, fair porosity, no fluorescence.
	40	<u>SILTSTONE</u> : Predominantly as above, moderately calcareous in part, slightly arenaceous.
3185	90	<u>SANDSTONE</u> : Clear to translucent, fine to medium, subangular to subrounded, moderate sorting, trace argillaceous/silty matrix, trace to common nodular pyrite, trace coarse milky quartz float, trace rock fragments, trace smoky quartz, loose, fair porosity, no fluorescence. <u>SILTSTONE</u> : As above.
	10	
3190	60	<u>SANDSTONE</u> : Clear to translucent, frosted, medium to predominantly coarse to very coarse, angular to subangular, poor sorting, common kaolinitic matrix, trace pyritic cement and nodular pyrite, common very coarse milky quartz, loose, fractured grains, good porosity, no fluorescence.
	40	<u>SILTSTONE</u> : Medium grey, olive grey, grey brown in part, slightly siliceous, slightly calcareous, very argillaceous, slightly carbonaceous, trace to common disseminated pyrite, trace lithics, slightly micromicaceous, hard, subfissile.

3195	60	<u>SANDSTONE</u> : Predominantly as above, common kaolinitic matrix, common very coarse to granular milky quartz float, loose, good porosity, no fluorescence. <u>SILTSTONE</u> : As above.
3200	70	<u>SANDSTONE</u> : Predominantly as above, fine to coarse, occasionally very coarse, trace pyritic cement, common kaolinitic matrix, fair porosity, no fluorescence. <u>SILTSTONE</u> : As above.
3205	70	<u>SANDSTONE</u> : Predominantly as above, trace glauconite, common rock fragments. <u>SILTSTONE</u> : As above.
3210	90	<u>SANDSTONE</u> : Clear to translucent, frosted, medium to occasionally coarse, subangular to subrounded, moderate sorting, trace siliceous cement, trace pyritic cement & nodular pyrite, common kaolinitic matrix, trace smoky/milky quartz, trace rock fragments, trace carbonaceous specks, loose, fair to good porosity, no fluorescence. <u>SILTSTONE</u> : Medium grey, olive grey, slightly calcareous, moderately to very argillaceous, slightly arenaceous in part, micromicaceous, trace carbonaceous fragments, moderately hard, blocky to subfissile.
3215	20	<u>SANDSTONE</u> : Predominantly as above, becomes fine to medium, abundant kaolinitic matrix, trace hard aggregates, very poor porosity, no fluorescence. <u>SILTSTONE</u> : Predominantly as above, becomes light grey in part, common carbonaceous fragments, mottled texture in part, firm to moderately hard, massive to blocky.
3220	60	<u>SANDSTONE</u> : Predominantly as above, becomes predominantly medium to occasionally coarse, trace siliceous cement, common kaolinitic matrix, fair porosity, no fluorescence. <u>SILTSTONE</u> : Predominantly as above, becomes olive grey, occasionally grey brown, slightly calcareous.

3225	70	<u>SANDSTONE</u> : Predominantly as above, becomes fine to medium, common kaolinitic matrix, fair porosity, no fluorescence. <u>SILTSTONE</u> : As above.
3230	40	<u>SANDSTONE</u> : Predominantly as above, fine to medium, common kaolinitic matrix. <u>SILTSTONE</u> : As above.
3235	60	<u>SANDSTONE</u> : Clear to translucent, light grey, fine to medium, subangular to subrounded, moderate sorting, trace kaolinitic matrix, trace biotite, trace nodular pyrite, trace coarse milky quartz float, trace carbonaceous fragments, trace rock fragments, loose, fair to poor porosity, no fluorescence. <u>SILTSTONE</u> : Light to medium grey, olive grey, very argillaceous, trace carbonaceous fragments, slightly micromicaceous, trace disseminated pyrite, firm to occasionally moderately hard, blocky to subfissile.
3240	70	<u>SANDSTONE</u> : Predominantly as above, becomes predominantly medium, trace glauconite in part. <u>SILTSTONE</u> : As above.
3245	80	<u>SANDSTONE</u> : Clear to translucent, light grey, fine to medium, occasionally coarse, angular to subrounded, moderate sorting, trace kaolinitic matrix, trace milky/smoky quartz, trace rock fragments, trace glauconite, trace biotite/muscovite, trace nodular pyrite, loose, fair porosity, no fluorescence. <u>SILTSTONE</u> : Light to medium grey, brown grey, very argillaceous, slightly micromicaceous, slightly arenaceous in part, trace disseminated pyrite, firm to moderately hard, blocky to subfissile.
3250	90	<u>SANDSTONE</u> : As above.
	10	<u>SILTSTONE</u> : As above.
3255	70	<u>SANDSTONE</u> : As above.
	30	<u>SILTSTONE</u> : As above.

3260	40	<u>SANDSTONE</u> : Clear to translucent, light grey, fine to occasionally medium to coarse, subangular to subrounded, moderate sorting, common argillaceous/silty matrix, trace carbonaceous fragments, trace biotite, trace rock fragments, friable to loose, poor porosity, no fluorescence. <u>SILTSTONE</u> : Light grey, light brown grey, occasionally olive grey, very argillaceous, micromicaceous, trace lithic fragments, soft to firm, occasionally moderately hard, massive to blocky.
3265	10	<u>SANDSTONE</u> : Predominantly as above, trace very coarse milky quartz float, trace pyritic cement. <u>SILTSTONE</u> : As above.
3270	10	<u>SANDSTONE</u> : Predominantly as above, becomes coarse to very coarse, common kaolinitic matrix, poor porosity, no fluorescence. <u>SILTSTONE</u> : As above.
3275	30	<u>SANDSTONE</u> : Clear to translucent, frosted, coarse to very coarse, angular to subangular, moderate sorting, trace pyritic cement, common kaolinitic matrix, abundant very coarse milky quartz, loose, fractured grains, fair porosity, no fluorescence. <u>SILTSTONE</u> : Predominantly as above, locally becomes very argillaceous grades to claystone in part, moderately hard, subfissile in part.
3280	10 90	<u>SANDSTONE</u> : As above. <u>SILTSTONE</u> : As above.
3285	100	<u>SILTSTONE</u> : Medium to dark grey, slightly siliceous, very argillaceous grades to claystone in part, trace disseminated pyrite, slightly micromicaceous, moderately carbonaceous, moderately hard to hard, blocky to subfissile.
3290	100	<u>SILTSTONE</u> : As above.
3295	100	<u>SILTSTONE</u> : As above.

3300	20	<u>SANDSTONE</u> : Clear to translucent, frosted, coarse, subangular to subrounded, moderate sorting, trace pyritic cement, trace kaolinitic matrix, trace milky quartz, loose, fair porosity, no fluorescence. <u>SILTSTONE</u> : As above.
3305	80	<u>SANDSTONE</u> : Predominantly as above, common nodular pyrite & pyritic cement, trace rock fragments, common biotite, loose, fair porosity, no fluorescence. <u>SILTSTONE</u> : As above.
3310	20	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to medium, occasionally coarse, subangular to subrounded, poor sorting, trace pyritic cement, trace to locally common kaolinitic matrix, common milky quartz, trace rock fragments, loose, occasionally fractured grains, fair to good porosity, no fluorescence. <u>SILTSTONE</u> : Light to medium grey, occasionally brown grey, very argillaceous grades to claystone in part, slightly micromicaceous, trace carbonaceous fragments, trace biotite, firm to moderately hard, blocky to subfissile.
3315	10	<u>SANDSTONE</u> : Predominantly as above, becomes fine to medium, trace biotite, trace carbonaceous fragments. <u>SILTSTONE</u> : As above.
3320	40	<u>SANDSTONE</u> : Predominantly as above, becomes medium to coarse, trace to locally common kaolinitic matrix, trace nodular pyrite, common coarse milky quartz.
3325	60	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to medium, occasionally coarse, subangular to subrounded, moderate sorting, trace calcareous & pyritic cement, trace kaolinitic matrix, trace rock fragments, trace nodular pyrite, trace smoky quartz, loose, fair porosity, no fluorescence. <u>SILTSTONE</u> : Light to medium grey, grey brown in part, very argillaceous, trace biotite, slightly micromicaceous, trace carbonaceous/lithic fragments, firm to moderately hard, blocky to predominantly subfissile.

	3330	40	<u>SANDSTONE</u> : Predominantly as above, medium to coarse, weak calcareous cement, common kaolinitic matrix. <u>SILTSTONE</u> : As above.
		60	
	3335	30	<u>SANDSTONE</u> : As above.
		70	<u>SILTSTONE</u> : As above.
	3340	80	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to predominantly medium to coarse, subangular to subrounded, poor to moderate sorting, moderate calcareous cement, trace kaolinitic/silty matrix, trace nodular pyrite, trace carbonaceous fragments, trace coarse milky quartz, loose, fair porosity, no fluorescence. <u>SILTSTONE</u> : As above.
		20	
	3345	70	<u>SANDSTONE</u> : Predominantly as above, fine to medium, moderate calcareous cement, moderate argillaceous silty matrix, poor porosity, no fluorescence. <u>SILTSTONE</u> : As above.
		30	
	3350	80	<u>SANDSTONE</u> : Predominantly as above, becomes medium to coarse, weak calcareous cement, trace to locally common kaolinitic matrix, poor porosity, no fluorescence. <u>SILTSTONE</u> : As above.
		20	
	3355	80	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to predominantly medium to coarse, subangular to subrounded, poor sorting, weak calcareous cement, slightly silty/argillaceous matrix, common coarse milky quartz float, trace nodular pyrite, trace coaly fragments, trace nodular pyrite, loose, poor to fair porosity, no fluorescence. <u>SILTSTONE</u> : Light to medium grey, very argillaceous grades to claystone in part, micromicaceous, trace carbonaceous fragments, trace biotite, firm to moderately hard, slightly dispersive, massive to blocky.
		20	
	3360	90	<u>SANDSTONE</u> : Predominantly as above, common coarse milky/smoky quartz float. <u>SILTSTONE</u> : As above.
		10	

3365	10	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to medium, subangular to subrounded, moderate to good sorting, weak calcareous cement, moderate argillaceous/silty matrix, trace coarse milky/smoky quartz float, trace biotite, trace rock fragments, poor porosity, no fluorescence.
	90	<u>SILTSTONE</u> : Light to medium grey, brown grey, very argillaceous, slightly calcareous, micromicaceous, trace biotite, trace carbonaceous fragments, firm to very dispersive, occasionally moderately hard, massive to amorphous.
	Trace 100	<u>SANDSTONE</u> : As above. <u>SILTSTONE</u> : As above, slightly calcareous, trace coaly fragments.
3375	90	<u>SANDSTONE</u> : Predominantly as above, trace coarse milky quartz float.
	10	<u>SILTSTONE</u> : Predominantly as above, very dispersive.
3380	90	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to medium, subangular to subrounded, moderate to good sorting, weak calcareous cement, trace glauconite, trace nodular pyrite, trace loose coarse quartz float, trace biotite & muscovite, trace rock fragments, loose, fair porosity, no fluorescence.
	10	<u>SILTSTONE</u> : Brown grey, light grey, moderately argillaceous, slightly calcareous, common biotite, micromicaceous, trace microglauconite, common disseminated pyrite, firm, massive to blocky.
3385	70	<u>SANDSTONE</u> : Predominantly as above, common coarse quartz float.
	30	<u>SILTSTONE</u> : Predominantly as above, becomes slightly dispersive.
3390	80	<u>SANDSTONE</u> : Predominantly as above, fine to predominantly medium, trace glauconite, trace coaly fragments.
	20	<u>SILTSTONE</u> : As above.

3395	70	<u>SANDSTONE</u> : Predominantly as above, fine to medium, trace kaolinite, trace altered feldspar, trace to common coarse quartz float.
	30	<u>SILTSTONE</u> : Medium grey, brown grey, very argillaceous, trace lithic fragments, trace carbonaceous specks, trace microglauconite, trace disseminated pyrite, soft to firm, slightly dispersive in part, massive to blocky.
3400	100	<u>SANDSTONE</u> : Predominantly as above, fine to occasionally medium.
	Trace	<u>SILTSTONE</u> : As above.
3405	80	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to medium, occasionally coarse, subangular to subrounded, moderate sorting, weak calcareous cement, trace pyritic cement in part, trace kaolinite, trace to common coaly fragments, trace smoky quartz, rare glauconite, loose, fair porosity, no fluorescence.
	20	<u>SILTSTONE</u> : Medium grey, brown grey, very argillaceous grades to claystone in part, trace microglauconite, trace disseminated pyrite, trace carbonaceous fragments, trace lithic fragments, firm to moderately hard, blocky to subfissile.
3410	100	<u>SANDSTONE</u> : Predominantly as above, fine to predominantly medium, good sorting, trace nodular pyrite.
	Trace	<u>SILTSTONE</u> : As above.
3415	100	<u>SANDSTONE</u> : Clear to translucent, frosted, coarse to very coarse, angular to subangular, moderate sorting, weak calcareous cement, trace pyritic cement, trace kaolinite, trace rock fragments, common milky quartz, trace coaly fragments, loose, good porosity, no fluorescence.
	Trace	<u>SILTSTONE</u> : As above.
3420	100	<u>SANDSTONE</u> : Predominantly as above, becomes fine to predominantly medium, trace coarse quartz float, trace rock fragments, fair to good porosity, no fluorescence.

	3425	90	<u>SANDSTONE</u> : Predominantly as above, fine to medium, common kaolinitic matrix.
		10	<u>SILTSTONE</u> : Brown grey, light grey, moderately argillaceous, slightly siliceous, slightly micromicaceous, trace lithic fragments, moderately hard to occasionally hard, blocky to subfissile in part.
	3430	90	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to medium, occasionally coarse, subangular to subrounded, moderate sorting, trace pyritic cement, trace kaolinitic matrix, trace coarse milky quartz, trace nodular pyrite, loose, fair porosity, no fluorescence.
		10	<u>SILTSTONE</u> : Light brown, grey brown, slightly siliceous, very argillaceous, slightly micromicaceous, trace disseminated pyrite, trace lithic and carbonaceous fragments, moderately hard to hard in part, blocky to subfissile.
	3435	100	<u>SANDSTONE</u> : Predominantly as above, predominantly medium, trace coarse smoky/milky quartz, trace biotite, loose, fractured grains, poor porosity, no fluorescence.
		Trace	<u>SILTSTONE</u> : As above.
	3440	100	<u>SANDSTONE</u> : Clear to translucent, frosted, trace kaolinitic matrix, weak calcareous cement, trace pyritic cement, trace biotite, trace yellow (limonitic?) stained quartz, loose, occasionally fractured grains, fair to good porosity, no fluorescence.
	3445	80	<u>SANDSTONE</u> : Clear to translucent, frosted, medium to occasionally coarse, angular to subrounded, moderate sorting, weak calcareous cement, trace kaolinitic matrix, trace rose & milky quartz, trace nodular pyrite, loose, common fractured grains, fair porosity, no fluorescence.
		20	<u>SILTSTONE</u> : Light to medium grey, very argillaceous grades to claystone, slightly calcareous, slightly siliceous in part, trace carbonaceous specks, moderately hard to hard, blocky to subfissile.

	3450	80	<u>SANDSTONE</u> : Predominantly as above, becomes coarse to very coarse, rare pyritic cement, common very coarse milky quartz, loose, common fractured quartz grains, fair porosity, no fluorescence. <u>SILTSTONE</u> : As above.
		20	
	3455	90	<u>SANDSTONE</u> : Clear to translucent, frosted, medium to coarse, angular to subangular, moderate sorting, trace siliceous cement, trace calcareous/dolomitic cement, trace kaolinitic matrix, trace rock fragments, common milky quartz, loose, trace fractured grains, poor to fair porosity, no fluorescence. <u>SILTSTONE</u> : As above.
		10	
	3460	100	<u>SANDSTONE</u> : Predominantly as above, coarse to very coarse, moderate siliceous cement, trace nodular pyrite, loose, occasionally hard aggregates, poor porosity, trace mineral fluorescence only. <u>SILTSTONE</u> : As above.
		Trace	
	3465	90	<u>SANDSTONE</u> : Predominantly as above, medium to predominantly coarse to very coarse, weak siliceous/calcareous cement, common kaolinitic matrix, loose, common fractured grains, poor to fair porosity, no fluorescence. <u>SILTSTONE</u> : As above.
		10	
	3470	90	<u>SANDSTONE</u> : As above.
		10	<u>SILTSTONE</u> : As above.
	3475	100	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to medium, occasionally coarse, angular to subrounded, moderate sorting, trace calcareous cement, trace kaolinitic matrix, common milky quartz, trace smoky quartz, rare nodular pyrite & rock fragments, loose, fair porosity, no fluorescence.

	3480	90	<u>SANDSTONE</u> : Predominantly as above, becomes coarse to very coarse, trace pyritic cement & nodular pyrite, common kaolinitic matrix, loose, fair porosity, no fluorescence.
		10	<u>SILTSTONE</u> : Light brown, light grey, slightly siliceous, very argillaceous, trace carbonaceous fragments, slightly micromicaceous, slightly arenaceous in part, moderately hard to hard in part, blocky to subfissile.
	3485	90	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to predominantly medium, subangular to subrounded, moderate sorting, common kaolinitic matrix, trace coarse milky quartz float, trace rock fragments, trace altered feldspar, rare coaly fragments, loose, trace fractured grains, fair porosity, no fluorescence.
		10	<u>SILTSTONE</u> : Light grey, light brown grey, slightly siliceous, slightly calcareous, moderately to very argillaceous, slightly arenaceous in part, trace disseminated pyrite, trace carbonaceous specks, moderately hard to hard in part, blocky to subfissile.
	3490	90	<u>SANDSTONE</u> : Predominantly as above, becomes coarse to very coarse, trace nodular pyrite, common fractured grains.
		10	<u>SILTSTONE</u> : As above.
	3495	100	<u>SANDSTONE</u> : Predominantly as above, becomes coarse to very coarse, weak calcareous cement, loose, fractured grains, fair porosity, no fluorescence.
	3500	100	<u>SANDSTONE</u> : Predominantly as above, weak calcareous cement, common kaolinitic matrix.
		Trace	<u>SILTSTONE</u> : Light grey, light brown grey, slightly siliceous, slightly calcareous, moderately to very argillaceous grades to claystone in part, trace disseminated pyrite, trace carbonaceous fragments, moderately hard to hard, blocky to subfissile.
	3505	100	<u>SANDSTONE</u> : Predominantly as above, locally common very coarse to granular milky quartz float, loose, common fractured grains, poor to fair porosity, no fluorescence.
		Trace	<u>SILTSTONE</u> : As above.

	3510	90	<u>SANDSTONE</u> : Predominantly as above, medium to very coarse, trace nodular pyrite.
		10	<u>SILTSTONE</u> : Light brown, light grey brown, slightly siliceous, trace lithic/carbonaceous fragments, micromicaceous, occasionally slightly arenaceous, moderately hard to hard, blocky.
	3515	100	<u>SANDSTONE</u> : Clear to translucent, frosted, medium to coarse, occasionally very coarse, angular to subrounded, poor to moderate sorting, strong siliceous cement, trace quartz overgrowths, trace nodular pyrite, common granular milky quartz float, trace rock fragments, loose, trace hard aggregates, common fractured grains, poor to very poor porosity, no fluorescence.
	3520	100	<u>SANDSTONE</u> : Predominantly as above, becomes coarse to very coarse, trace quartz overgrowths, loose, trace fractured grains, poor porosity, no fluorescence.
		Trace	<u>SILTSTONE</u> : Light to medium grey, medium brown, very argillaceous grades to claystone in part, slightly siliceous, micromicaceous, trace carbonaceous fragments, moderately hard to predominantly hard, blocky to subfusile.
	3525	100	<u>SANDSTONE</u> : Predominantly as above, becomes fine to medium, weak siliceous cement, moderate kaolinitic matrix, trace biotite, rare glauconite, trace rose quartz, loose, fair porosity, no fluorescence.
		Trace	<u>SILTSTONE</u> : As above.
	3530	80	<u>SANDSTONE</u> : Predominantly as above, becomes fine to medium, weak calcareous/siliceous cement, common kaolinitic matrix, loose, fractured grains, poor porosity, no fluorescence.
		20	<u>SILTSTONE</u> : Predominantly as above, trace carbonaceous/coaly microlaminations in part.

	3535	90	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to predominantly medium, subangular to subrounded, moderate sorting, trace kaolinitic matrix, trace nodular pyrite, trace coarse milky quartz float, trace altered feldspar, trace rose quartz, loose, fair porosity, no fluorescence.
		10	<u>SILTSTONE</u> : Light brown, light brown grey, slightly siliceous, very argillaceous grades to claystone, slightly micromicaceous, trace carbonaceous specks, moderately hard to hard, blocky to occasionally subfissile.
	3540	20	<u>SANDSTONE</u> : Predominantly as above, becomes coarse to very coarse, trace glauconite in part, loose, fair porosity, no fluorescence.
		80	<u>SILTSTONE</u> : Light to medium grey, olive grey, slightly siliceous, slightly calcareous, trace disseminated pyrite, micromicaceous, trace carbonaceous flecks, slightly arenaceous in part, hard, blocky.
	3545	30	<u>SANDSTONE</u> : Clear to translucent, frosted, medium to predominantly coarse to very coarse, angular to subangular, poor sorting, strong siliceous cement, moderate calcareous cement, rare pyritic cement & nodular pyrite, trace quartz overgrowths, trace milky quartz, rare rose quartz, trace forams, loose, fractured grains, occasionally hard aggregates, poor porosity, no fluorescence.
		70	<u>SILTSTONE</u> : Predominantly as above, trace lithic fragments.
	3550	40	<u>SANDSTONE</u> : Predominantly as above, locally common kaolinitic matrix.
		60	<u>SILTSTONE</u> : As above.
	3555	80	<u>SANDSTONE</u> : Clear to translucent, frosted, medium to coarse, angular to subangular, moderate sorting, moderate calcareous cement, trace siliceous cement, common milky quartz, loose, fractured grains, poor to fair porosity, trace mineral fluorescence only.
		20	<u>SILTSTONE</u> : Predominantly as above, trace disseminated pyrite.

	3560	90	<u>SANDSTONE</u> : Predominantly as above, trace pyritic cement & nodules, trace mineral fluorescence only.
		10	<u>SILTSTONE</u> : Predominantly as above, locally becomes very argillaceous grades to claystone in part.
	3565	60	<u>SANDSTONE</u> : Predominantly as above, moderate calcareous/dolomitic cement, trace mineral fluorescence only.
		40	<u>SILTSTONE</u> : Medium grey, olive grey, dark brown grey, very argillaceous grades to claystone in part, slightly calcareous, trace carbonaceous/coaly microlaminations, slightly micromicaceous, moderately hard to hard in part, blocky to subfissile.
	3570	50	<u>SANDSTONE</u> : As above.
		50	<u>SILTSTONE</u> : As above.
	3575	60	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to medium, moderate sorting, subangular to subrounded, poor to moderate sorting, moderate calcareous cement, weak siliceous cement in part, trace kaolinitic matrix, common coarse milky quartz float, trace nodular pyrite, trace rock fragments, loose, fair porosity, trace mineral fluorescence only.
		40	<u>SILTSTONE</u> : Medium grey, light brown grey, very argillaceous, slightly calcareous, slightly siliceous, trace carbonaceous specks, slightly micromicaceous, moderately hard to hard, blocky to subfissile.
	3580	70	<u>SANDSTONE</u> : Predominantly as above, becomes medium to coarse, trace dolomitic/calcareous cement, common fractured grains, loose, poor porosity, trace mineral fluorescence only.
		30	<u>SILTSTONE</u> : Predominantly as above, grades to claystone in part.
	3585	80	<u>SANDSTONE</u> : Predominantly as above, becomes medium, trace dolomitic cement, trace pyritic cement, trace kaolinitic matrix, trace rose quartz, trace coal fragments, predominantly loose, occasionally hard aggregates, poor porosity, trace mineral fluorescence only.

	3590	70	<u>SANDSTONE</u> : Predominantly as above, becomes fine to medium, common kaolinitic matrix, poor porosity, no fluorescence.
		30	<u>SILTSTONE</u> : Predominantly as above, becomes medium to dark grey, very argillaceous grades to claystone.
	3595	80	<u>SANDSTONE</u> : clear to translucent, frosted, fine to medium, occasionally coarse, angular to subrounded, moderate sorting, weak calcareous cement, common kaolinitic matrix, trace nodular pyrite, rare biotite, common coarse milky quartz, loose, poor to fair porosity, no fluorescence.
		20	<u>SILTSTONE</u> : Light to medium grey, olive grey, slightly siliceous, slightly calcareous, very argillaceous grades to claystone, slightly micromicaceous, slightly arenaceous in part, trace lithic/carbonaceous fragments, moderately hard to hard, blocky to subfissile.
	3600	70	<u>SANDSTONE</u> : Predominantly as above, common kaolinitic matrix, poor porosity, no fluorescence.
		30	<u>SILTSTONE</u> : As above.
	3605	90	<u>SANDSTONE</u> : Predominantly as above, becomes coarse to very coarse, moderate calcareous cement, common kaolinitic matrix, loose, occasionally hard aggregates, poor porosity, no fluorescence.
		10	<u>SILTSTONE</u> : As above.
	3610	80	<u>SANDSTONE</u> : Clear to translucent, frosted, coarse to very coarse, angular to subrounded, moderate sorting, locally strong siliceous cement, weak calcareous/dolomitic cement, trace pyritic cement, common kaolinitic matrix, common smoky/milky quartz, rare rock fragments, loose, occasionally fractured grains, trace hard aggregates, poor porosity, trace mineral fluorescence only.

3615	60	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to predominantly medium, occasionally coarse, subangular to subrounded, poor to moderate sorting, weak calcareous cement, abundant kaolinitic matrix, trace rock fragments, common coarse milky quartz, loose, poor to fair porosity, no fluorescence. <u>SILTSTONE</u> : Light brown, light to occasionally medium grey, slightly calcareous, very argillaceous, slightly arenaceous in part, slightly micromicaceous, trace carbonaceous fragments, firm to moderately hard, occasionally hard, blocky.
	40	
3620	60	<u>SANDSTONE</u> : As above.
	40	<u>SILTSTONE</u> : As above.
3625	80	<u>SANDSTONE</u> : Clear to translucent, frosted, medium to predominantly coarse to very coarse, angular to subangular, moderate sorting, strong siliceous cement, common kaolinitic matrix, trace pyritic cement, trace quartz overgrowths, trace carbonaceous fragments, common smoky/milky quartz, rare biotite, loose, common fractured grains, occasionally hard aggregates, poor porosity, trace mineral fluorescence only. <u>SILTSTONE</u> : Predominantly as above, becomes medium grey in part.
	20	
3630	60	<u>SANDSTONE</u> : Predominantly as above, becomes medium grained, subangular to subrounded, poor sorting common kaolinitic matrix, weak calcareous cement, loose, poor to fair porosity, trace mineral fluorescence only. <u>SILTSTONE</u> : Predominantly as above, becomes slightly to moderately arenaceous in part.
	40	
3635	60	<u>SANDSTONE</u> : Predominantly as above, moderate calcareous cement, common kaolinitic matrix, poor to fair porosity, mineral fluorescence only. <u>SILTSTONE</u> : As above.
	40	

	3640	80	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to medium, subangular to subrounded, moderate sorting, weak siliceous cement in part, common kaolinitic matrix, common milky/smoky quartz, loose poor to fair porosity, no fluorescence. <u>SILTSTONE</u> : As above.
	3645	90	<u>SANDSTONE</u> : Predominantly as above, fine to predominantly medium to coarse, angular to subrounded, trace coal fragments, loose, fair porosity, no fluorescence. <u>SILTSTONE</u> : As above.
	3650	100	<u>SANDSTONE</u> : Predominantly as above, becomes coarse, common kaolinitic matrix, poor to fair porosity, no fluorescence. <u>SILTSTONE</u> : As above.
	3655	90	<u>SANDSTONE</u> : Clear to translucent, frosted, medium to coarse, angular to subangular, moderate sorting, trace calcareous cement, trace kaolinitic matrix, trace smoky quartz, trace rock fragments, trace disseminated pyrite, loose, occasionally fractured grains, fair porosity, no fluorescence. <u>SILTSTONE</u> : Light grey, grey brown, very argillaceous grades to claystone in part, slightly siliceous, slightly arenaceous in part, micromicaceous, moderately hard to hard, blocky to occasionally subfissile.
	3660	90	<u>SANDSTONE</u> : As above.
	3665	10	<u>SILTSTONE</u> : As above.
	3665	60	<u>SANDSTONE</u> : Clear to translucent, frosted, coarse to very coarse, angular to subangular, moderate sorting, trace siliceous cement, trace pyritic cement, trace kaolinitic matrix, rare glauconite, trace carbonaceous flecks, common very coarse to granular milky quartz, loose, common fractured grains, fair porosity, no fluorescence. <u>SILTSTONE</u> : Light to medium grey, light brown grey, slightly siliceous, trace disseminated pyrite, rare microglauconite, trace carbonaceous/lithic specks, moderately hard to hard, blocky to locally subfissile.
		40	

		3670	50	<u>SANDSTONE</u> : Predominantly as above, becomes medium to coarse, weak calcareous cement, locally strong siliceous cement, common kaolinitic matrix, loose, occasionally hard aggregates, poor porosity, no fluorescence.
			50	<u>SILTSTONE</u> : As above.
		3672	70	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to medium, subangular to subrounded, moderate to good sorting, weak calcareous cement, moderate kaolinitic matrix, trace coarse milky quartz float, trace nodular pyrite, loose, fair porosity, no fluorescence.
			30	<u>SILTSTONE</u> : As above.
		3675	20	<u>SANDSTONE</u> : Clear to translucent, frosted, medium to occasionally coarse, angular to subrounded, moderate sorting, moderate calcareous/dolomitic cement, trace siliceous cement, trace pyritic cement, trace quartz overgrowths, trace very coarse milky quartz, loose, fractured grains, occasionally hard aggregates, poor porosity, trace mineral fluorescence only.
			20	<u>SILTSTONE</u> : As above.
			60	<u>CLAYSTONE</u> : Light brown, medium brown in part, slightly silty, trace disseminated pyrite, trace carbonaceous fragments, trace forams, slightly micromicaceous, firm to moderately hard, slightly dispersive, massive to blocky.
		3680	80	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to medium, subangular to subrounded, moderate to good sorting, trace calcareous cement, trace siliceous cement in part, rare pyritic cement, trace coarse milky quartz, trace nodular pyrite, rare biotite, trace rock fragments, loose, fair porosity, trace mineral fluorescence only.
			10	<u>SILTSTONE</u> : As above.
			10	<u>CLAYSTONE</u> : As above.

	3685	30	<u>SANDSTONE</u> : Predominantly as above, becomes medium to coarse, trace calcareous/dolomitic cement in part, loose, occasionally hard aggregates, poor porosity, trace mineral fluorescence only.
		20	<u>SILTSTONE</u> : Light to medium grey, slightly siliceous, slightly calcareous, vary argillaceous grades to claystone in part, micromicaceous, trace carbonaceous fragments, hard, blocky to subfissile in part.
		50	<u>CLAYSTONE</u> : Light brown, light to medium brown grey, slightly silty, slightly micromicaceous, trace carbonaceous fragments & microlaminations, trace lithic fragments, slightly dispersive, firm to occasionally moderately hard, massive to blocky.
	3690	40	<u>SANDSTONE</u> : Predominantly as above, coarse, common nodular pyrite, common milky quartz.
		20	<u>SILTSTONE</u> : As above.
		40	<u>CLAYSTONE</u> : As above.
	3695	50	<u>SANDSTONE</u> : Predominantly as above, coarse, trace rock fragments, common milky quartz, trace forams, loose, common fractured grains, poor porosity, no fluorescence.
		10	<u>SILTSTONE</u> : As above.
		40	<u>CLAYSTONE</u> : Predominantly as above, locally common coaly microlaminations.
	3700	30	<u>SANDSTONE</u> : As above.
		20	<u>SILTSTONE</u> : As above.
		50	<u>CLAYSTONE</u> : As above.
	3705	70	<u>SANDSTONE</u> : Clear to translucent, frosted, medium to occasionally coarse, subangular to subrounded, moderate to good sorting, weak calcareous cement, trace kaolinitic matrix, trace milk quartz, loose, fair porosity, no fluorescence.
		10	<u>SILTSTONE</u> : As above.
		20	<u>CLAYSTONE</u> : As above.

	3710	80	<u>SANDSTONE</u> : Predominantly as above, becomes coarse to very coarse, trace calcareous/dolomitic cement, trace pyritic cement, common coarse milky quartz, trace biotite, loose, fractured grains, occasionally hard aggregates, poor porosity, trace fluorescence only. <u>SILTSTONE</u> : Predominantly as above, occasionally medium brown, locally common carbonaceous fragments, becomes very argillaceous in part grades to claystone.
	3715	60	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to predominantly medium to coarse, angular to subrounded, poor to moderate sorting, weak siliceous & calcareous cement, trace pyritic cement, trace kaolinitic matrix, trace biotite, trace carbonaceous fragments, trace milky quartz, poor to fair porosity, trace mineral fluorescence only. <u>SILTSTONE</u> : Light grey, light brown, very argillaceous grades to claystone in part, trace carbonaceous fragments, slightly micromicaceous, firm to predominantly moderately hard to hard, massive to blocky, subfissile in part.
	3720	70	<u>SANDSTONE</u> : Predominantly as above, becomes coarse to very coarse, strong siliceous cement, trace kaolinitic matrix, trace nodular pyrite, trace biotite, trace rock fragments, poor porosity, no fluorescence. <u>SILTSTONE</u> : Predominantly as above, locally common carbonaceous fragments.
	3725	70	<u>SANDSTONE</u> : Predominantly as above, common kaolinitic matrix. <u>SILTSTONE</u> : As above.
	3730	60	<u>SANDSTONE</u> : Predominantly as above, becomes fine in part, poor sorting, abundant kaolinitic matrix, common very coarse to granular milky quartz, trace nodular pyrite, common coaly fragments, loose, fractured grains, poor porosity, no fluorescence. <u>SILTSTONE</u> : Light to medium brown, brown grey, very argillaceous grades to claystone in part, micromicaceous, trace carbonaceous/lithic fragments, slightly dispersive in part, firm to moderately hard, massive to blocky.

3735	100	<p><u>SANDSTONE</u>: Clear to translucent, frosted, fine to medium, subangular to subrounded, moderate to good sorting, weak siliceous cement, trace pyritic cement, trace coarse smoky/milky quartz, trace nodular pyrite, trace rock fragments, loose, fair to good porosity, no fluorescence.</p>
	Trace	<p><u>SILTSTONE</u>: As above.</p>
3740	90	<p><u>SANDSTONE</u>: Predominantly as above, becomes medium to coarse, angular to subangular, moderate siliceous cement, trace kaolinitic matrix, trace coal fragments, poor porosity, no fluorescence.</p>
	10	<p><u>SILTSTONE</u>: Light to medium brown, grey brown, very argillaceous in part, trace biotite, trace carbonaceous fragments/microlaminations, occasionally slightly arenaceous, firm to predominantly moderately hard to hard, blocky to subfissile.</p>
3745	90	<p><u>SANDSTONE</u>: Predominantly coarse to very coarse, trace siliceous cement, trace quartz overgrowths, fair porosity, no fluorescence.</p>
	10	<p><u>SILTSTONE</u>: Predominantly as above, becomes grey brown, moderately siliceous, hard, blocky to subfissile.</p>
3750	100	<p><u>SANDSTONE</u>: Clear to translucent, frosted, medium to coarse, angular to subrounded, moderate sorting, trace siliceous cement, locally common milky quartz, loose, common fractured grains, fair porosity, no fluorescence.</p>
	Trace	<p><u>SILTSTONE</u>: As above.</p>
3755	80	<p><u>SANDSTONE</u>: Predominantly as above, locally common kaolinitic matrix, trace rock fragments, no fluorescence.</p>
	20	<p><u>SILTSTONE</u>: Light grey, grey brown, moderately argillaceous, slightly siliceous, slightly arenaceous in part, trace carbonaceous specks, moderately hard to hard, blocky to subfissile.</p>

	3760	70	<u>SANDSTONE</u> : Predominantly as above, moderate argillaceous/silty matrix in part, common kaolinitic matrix in part, common very coarse milky quartz float, poor porosity, no fluorescence. <u>SILTSTONE</u> : Predominantly as above, becomes light brown, very argillaceous grades to claystone in part.
	3765	80	<u>SANDSTONE</u> : Predominantly as above, becomes fine to medium, common kaolinitic matrix. <u>SILTSTONE</u> : As above.
	3770	80	<u>SANDSTONE</u> : Predominantly as above, fine to medium, slightly calcareous/dolomitic cement, occasionally coarse, trace nodular pyrite, trace carbonaceous fragments, poor porosity, trace mineral fluorescence only. <u>SILTSTONE</u> : Predominantly as above, becomes very argillaceous grades to claystone.
	3775	70	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to medium, occasionally coarse, angular to subrounded, moderate sorting, trace calcareous cement, common kaolinitic matrix, common coarse milky quartz, trace rock fragments, loose, fair porosity, trace mineral fluorescence only. <u>SILTSTONE</u> : Light grey, grey brown, very argillaceous grades to claystone in part, slightly siliceous/calcareous, slightly micromicaceous, trace carbonaceous fragments, occasionally slightly arenaceous, firm to moderately hard, massive to blocky.
	3780	60	<u>SANDSTONE</u> : Predominantly as above, trace pyritic cement, common kaolinitic matrix, poor porosity, no fluorescence. <u>SILTSTONE</u> : As above.
	3785	50	<u>SANDSTONE</u> : As above, trace mineral fluorescence. <u>SILTSTONE</u> : As above.
		50	

	3790	40	<u>SANDSTONE</u> : Clear to translucent, frosted, medium to coarse, occasionally very coarse, angular to subangular, moderate sorting, slightly calcareous cement, trace pyritic cement, common kaolinitic matrix, trace carbonaceous fragments, common milky quartz, loose, poor to fair porosity, trace mineral fluorescence only.
		60	<u>SILTSTONE</u> : Light to occasionally medium brown, light grey brown, very argillaceous in part, trace biotite, slightly micromicaceous, trace carbonaceous/coaly fragments, trace lithic fragments, firm to moderately hard, slightly dispersive in part, massive to blocky.
	3795	40	<u>SANDSTONE</u> : Predominantly as above, becomes fine to predominantly medium, trace calcareous cement, common kaolinitic matrix, poor porosity, trace mineral fluorescence.
		60	<u>SILTSTONE</u> : Predominantly as above, locally moderately dispersive.
	3800	20	<u>SANDSTONE</u> : Predominantly as above, becomes fine, poor porosity, trace mineral fluorescence.
		80	<u>SILTSTONE</u> : Predominantly as above, becomes medium brown in part, slightly to moderately dispersive, massive to blocky
	3805	60	<u>SANDSTONE</u> : Clear to translucent, frosted, coarse to very coarse, angular to subangular, moderate sorting, common kaolinitic matrix, trace nodular pyrite, common milky quartz, loose, fair porosity, trace mineral fluorescence only.
		40	<u>SILTSTONE</u> : Predominantly as above, becomes moderately hard, dispersive in part.
	3810	50	<u>SANDSTONE</u> : As above, trace mineral fluorescence only.
		50	<u>SILTSTONE</u> : Light brown, medium grey brown, slightly siliceous in part, very argillaceous, slightly micromicaceous, firm to slightly dispersive, moderately hard to hard in part, blocky to massive.

	3815	60	<u>SANDSTONE</u> : Predominantly as above, trace pyritic cement, trace nodular pyrite, common smoky quartz, poor to fair porosity, trace mineral fluorescence only. <u>SILTSTONE</u> : As above.
		40	
	3820	30	<u>SANDSTONE</u> : As above.
		60	<u>SILTSTONE</u> : Predominantly as above, trace forams.
		10	<u>COAL</u> : Dark brown, brown black, very argillaceous/silty grades to carbonaceous siltstone in part, dull lustre, subbituminous, earthy, brittle, blocky to subfissile, fissile in part.
	3825	30	<u>SANDSTONE</u> : Clear to translucent, frosted, fine to medium, occasionally coarse, subangular to subrounded, poor to moderate sorting, weak calcareous cement, moderate argillaceous/silty matrix, common rock fragments, trace nodular pyrite, loose, poor to fair porosity, no fluorescence. <u>SILTSTONE</u> : Light to occasionally medium brown, light grey, very argillaceous, trace lithic/carbonaceous fragments, slightly micromicaceous, firm to moderately hard, massive to blocky.
		70	
	3830	20	<u>SANDSTONE</u> : As above.
		80	<u>SILTSTONE</u> : Predominantly as above, locally common coaly fragments and microlaminations.
	3835	10	<u>SANDSTONE</u> : As above.
		80	<u>SILTSTONE</u> : As above.
		10	<u>COAL</u> : Brown black, dark brown, very argillaceous/silty grades to carbonaceous siltstone in part, dull lustre, subbituminous, earthy brittle, blocky to subfissile.
	3837TD	Trace	<u>SANDSTONE</u> : As above.
		100	<u>SILTSTONE</u> : As above.
		Trace	<u>COAL</u> : As above.

Appendix 2



5th Cut
A4 Dividers
Re-order Code 97052

APPENDIX II

CORE DESCRIPTIONS

ESSO AUSTRALIA LTD
CORE DESCRIPTION

CORE No.:	1	WELL:	Gudgeon #1
Interval cored:	3063-3081	Recovered:	17.1m (95%)
Cut:	18m	Bit size:	12 1/4"
Bit type:	ARC-425	Date:	28-Mar-95
Described by:	Greg Clota		

Interval	Depth & ROP (m)	Graphic	Shows	Descriptive Lithology
3073	(m/hr)	10 8 6 4 2	0 7	3073 : SST : LT GY, OFF WH, F-M, SA-SR, GD SRTG, STRNG SIL CMT, COM STY/ARG, TR BIO, SL CHLOR, TR RK FRAG, TR VC MILKY QTZ FLOAT, V PR \emptyset , NO FLUOR.
3074			- - - 7	3074 : SLTST : DK GY, V ARG, V CARB, TR AREN INCL, TR BIO, SL MICRMIC, HD, MAS.
3075			- 7 - ◆	3075 SLTST : PRED A/A, COM NOD PYR.
3076			◆	3076 SST : CLR-TRNSL, FROSTED, M, SA-SR, GD SRTG, WK SIL CMT, TR SLY/ARG MTX, TR SMOKY QR, TR DIS PYR, TR RK FRAG, TR DIS PYR, 80% MOD BRI-PTCHY FLUOR, MOD INST CUT, THIN R/R.
3077			◆ . . . 7	3077 SST : CLR-TRNSL, LT GY, M, SA-SR, MOD-GD SRTG, MOD SIL CMT, COM KAOL MTX, TR RK FRAG, TR DIS PYR, TR MUSCOVITE, VPR-NIL \emptyset , NO FLUOR.
3078			◆	3078 : SST : LT GY, OFF WH, F, SA GD, SRTG, WK SIL CMT, COM ARG MTX, TR DIS PYR, TR CARB MIC LAM, COM INTERLAM DK GY SLTN, HD, VPOOR \emptyset , NO FLUOR.
3079		 7	3079 : SST : CLR-TRNSL, FROSTED, C-PRED VC-GRAN, SA-RND IP, MOD-PR SRT, TR SIL CMT, TR BIO COM GRAN MILKY QTZ, V FRI, EX POR, 50-60% BRI PA YELL PTCHY FLUOR, MOD-STRNG INST CUT, THICK R/R.
3080		 7 .	
3081		 7 .	3081.1 SST : A/A. FLUOR 50% A/A.

ESSO AUSTRALIA LTD
CORE DESCRIPTION

CORE No.: 1
 Interval cored: 3063-3081
 Cut: 18m
 Bit type: ARC-425
 Described by: Greg Clota

WELL: Gudgeon #1
 Recovered: 17.1m (95%)
 Bit size: 12 1/4"
 Date: 28-Mar-95

Interval	Depth & ROP	Graphic	Shows	Descriptive Lithology
(m)	(m/hr)		*	
3063	10 8 6 4 2 0		♦	3063 : SST : CLR-TRNSNL, FROSTED, C-GRAN, ANG-SR, PR SRT, VWK SIL CMT, TR PYR CMT, TR RK FRAG, ABNT GRAN MILKY QTZ, V FRI, EX POR, 60% PTCHY BRI PA YELL FLUOR, INST CUT, THICK R/R. MOD PETROL ODOUR.
3064	10 8 6 4 2 0		♦	3064 SILTSTONE : M-DK GY, MOD ARG, SL AREN, TR CARB SPK, COM LITH FRAG, SLMICRMIC, TR NOD PYR, HD, MASSNE.
3065	10 8 6 4 2 0		♦	3065 SLTSTN : A/A TR GARNET.
3066	10 8 6 4 2 0		♦	3066 SLTSTN : A/A W/- LAMINATED SST : OFF WH-LT GY, F, SA, GD SRTG, TR KAOL MTX STRNG SIL CMT, COM BIOTITE, TR DIS PYR, HD, TIGHT, NO FLUOR, LAMINAEE 2-3MM THICK.
3067	10 8 6 4 2 0		♦	3067 LAMINATED SLTN + SST : AS ABOVE, LAMINAEE 1-2MM THICK.
3068	10 8 6 4 2 0		♦	3068 SST OFF WH-LT GY, F, SA GD SRTG, STRNG SILCMT, COM ARG SLTY MTX, COM BIO, TR GLAUC, COM RK FRAG ABNT DK BRN GRY SLTY LAMINAEE, HD, TIGHT, NO FLUOR.
3069	10 8 6 4 2 0		♦	3069 SST : LT GY, F-M, SA, GD SRTG, STRNG SIL CMT, TR PYR CMT, COM RK FRAG, TR GLAUC TR BIO, TR QTZ O'GROWTHS, HD VPR-NIL, NO FLUOR.
3070	10 8 6 4 2 0		♦	3070 SST : M-DK GRY, F-PRED M, SA, MOD SRT, STRNG SIL CMT, ABNT ARG MTX, COM CARB MIRCLAM, TR RK FRAG, HD, TIGHT, NO FLUOR. 3070.4 SST: LT GY, CLR- TRNSL, C-VC, OCC GRAN, SA-SR, P SRTG, MOD SIL CMT, COM QTZ O'GROWTHS, TR DIS PYR, TR RK FRAG, TR VC-GRAN MILKY QR, TR BIO, MOD HD, POOR-FAIR NO FLUOR, (possibly flushed with mud - core torqued @ this depth & was lifted off bottom). 3071 : COAL : DK BRN, BLK, VIT LSTRE, CONCH FRAC, SL ARG, BIT, BRIT, BLKY-MASS.
3071	10 8 6 4 2 0		♦	
3072	10 8 6 4 2 0		♦	3072 : SLTST : DK GY, VARG, SL SIL, V CARB, MOD AREN, SL MICR MIC, TR MUSC, TR COAL/CARB, FRAG, HD, MAS.
3073	10 8 6 4 2 0		♦	

ESSO AUSTRALIA LTD
CORE DESCRIPTION

CORE No.: 2
 Interval cored: 3081-3088m
 Cut: 7m
 Bit type: ARC-425
 Described by: Greg Clota

WELL: Gudgeon 1
 Recovered: 4m (57%)
 Bit size: 12 1/4"
 Date: 30-Mar-95

Interval	Depth & ROP (m)	Graphic	Shows	Descriptive Lithology	
				(m/hr)	
3081			*	8 4 2 0	3081 SST: CLR-TRNSL, LT GY, C-VC, GRAN IP, SR, MOD-P,R SRT, WK SIL CMT, TR BIO, TR CARB FRAG, COM GRAN MILKY QTZ, FRI, GD Ø. 40% MOD BRI PA YELL PTCHY-SPOTTY FLUOR, WK-MOD INST CUT, THIN R/R, VWK PETROL. ODOUR.
3082			*		3082: SST: CLR-TRNSL, LT GY, C-VC, SR MOD SRT, WK SIL CMT TR SMOKY QTZ, TR NOD PYR, TR CARB SPK, V FRI, GD-EX Ø. 30% MOD BRI PTCHY PA YELL FLUOR, MOD INST CUT, THIN-MOD R/R.
3083			*		3083 SST: CLR-TRNSL, LT GY, C-GRAN, SR, MOD SRTG, WK SIL CMT, COM MILKY QTZ, TR CARB SPK TR DIS PYR, V FRI, GD-EX Ø. 30% MOD BRI PTCHY PA YELL FLUOR, WK INST CUT, THIN PTCHY R/R.
3084			*		3084 SST: A/A FLUOR : 20% A/A. 3084.5 SST: CLR-TRNSL, M-VC, GRAN IP, SR, P SRTG, V WK SIL CMT, COM GRAN MILKY QTZ FLOAT, TR RK FRAG, V FRI, GD-EX POR. 20% MOD BRI PTCHY PA YELL FLUOR, WK INST CUT, THIN R/R.
3085			*		3085 : SST : CLR-TRNSL, M-VC, OCC GRAN, SR, PR SRTG, V WK SIL CMT, TR KAOL MTX, TR NOD PYR, TR SMOKY QR, COM GRAN MILKY QTZ FLOAT V FRI, GD Ø. NO FLUOR. (possibly flushed without mud).
3086					
3087					
3088					

Appendix 3



5th Cut
A4 Dividers
Re-order Code 97052

APPENDIX III

SIDEWALL CORE DESCRIPTIONS

ESSO AUSTRALIA LTD
SIDEWALL CORE DESCRIPTIONS

WELL NAME: Gudgeon 1

GUN No: 1

GEOLOGIST: Jon Elliott

SWC No:	DEPTH	REC	BOUGHT REJECT	PALYN EVAL	LITHOLOGICAL DESCRIPTION, FLUORESCENCE ETC....
1	3580.0				Lost Bullet
2	3579.0				Lost Bullet
3	3572.1				Lost Bullet
4	3566.1	27mm	B	E	Sandstone; off white, pale grey, medium to very coarse grained, generally coarse with fair sorting, subrounded, local moderate silica cement, common mid grey brown argillaceous matrix, rare lithics, friable, trace visual porosity, no fluorescence.
5	3562.0				Lost Bullet
6	3527.9				Lost Bullet
7	3525.1	19mm	B	E	Sandstone; white, very fine to coarse grained, poor sorting, subangular, trace very weak calcareous cement, abundant white silica silt matrix, friable, trace visual porosity, trace pale yellow spotted fluorescence with no discernible cut.
8	3522	19mm	B	E	Sandstone; white, fine to very coarse grained, poor sorting, sub to well rounded, abundant white silica silt matrix, clean, trace visual porosity, 10% pale yellow to white patchy fluorescence with no discernible cut.
9	3517.9				Lost Bullet
10	3516.9				Lost Bullet
11	3503.0	23mm	B	E/P	Sandstone; off white, pale brown grey, fine to medium grained with fair sorting, subrounded, no cement, abundant off white argillaceous matrix, common biotite, local nodular pyrite, trace weathered glauconite, friable, no visual porosity, 10% pale yellow to white patchy fluorescence with no discernible cut.
12	3367.0				Lost Bullet
13	3357.0				Lost Bullet
14	3305.5	35mm	B	E/P	Sandstone; mid grey, very fine to medium grained, poor sorting, subangular to subrounded, locally common mid brown argillaceous matrix, no cement, occasional biotite and white mica, occasional carbonaceous material, no visual porosity, no show.
15	3280.0				Lost Bullet
16	3257.5	30mm	B	E/P	Sandstone; pale to mid grey, very fine to fine grained, good sorting, predominantly subrounded, locally common mid grey brown argillaceous material, rare quartz overgrowths, trace disseminated pyrite, occasional biotite and white mica, friable, trace visual porosity, no show.

SWC No:	DEPTH	REC	BOUGHT REJECT	PALYN EVAL	LITHOLOGICAL DESCRIPTION, FLUORESCENCE ETC....
17	3236.0	22mm	B	E/P	Sandstone; pale grey, very fine to coarse grained, poor sorting, subangular, trace weak silica cement, common off white silica silt matrix, local mid brown argillaceous matrix, occasional pyrite, glauconite and biotite. trace visual porosity, no show.
18	3196.0				Lost Bullet
19	3136.0	18mm	B	E/P	Sandstone; pale gray, fine to very coarse, poor sorting, subangular to well rounded, common silica silt matrix, trace weak disseminated pyrite, occasional mid grey argillaceous matrix, friable, trace visual porosity, trace pale yellow white patchy fluorescence with no cut.
20	3109.8				Lost Bullet
21	3060.1	20mm	B	E	Sandstone; off white, occasionally stained yellow brown, very coarse with fine sand matrix, fair sorting, very coarse grains are well rounded, no cement, locally common white argillaceous matrix, trace carbonaceous material, friable, trace visual to fair inferred porosity, 80% bright yellow white to blue white patchy fluorescence with an instant blooming milky white cut and a moderate pale brown residue.
22	3057.1	22mm	B	E	Sandstone; pale grey, fine to medium grained with fair sorting, subangular to subrounded, common silty silica matrix, trace biotite, glauconite and carbonaceous material, rare disseminated pyrite, trace visual porosity, 80% bright yellow white fluorescence with a weak to moderate instant milky white cut and a moderate pale brown residue.
23	3055.0	37mm	B	E	Sandstone; pale green, fine to coarse grained, poor sorting, sub to locally well rounded, very common off white argillaceous matrix, abundant glauconite, friable, trace visual porosity, 60% moderately bright yellow white spotted fluorescence with a thin diffuse milky white cut and trace residue.
24	3053.6	27mm	B	E/P	Sandstone; pale to mid green, medium to very coarse grained, poor sorting, sub to well rounded, abundant off white to pale green argillaceous matrix, 50% weathered glauconite, with massive pyrite laminae, friable, trace pale yellow spotted fluorescence with no cut.
25	3053.1				No recovery
26	3052.1				No recovery
27	3051.0				No recovery
28	3050.0				No recovery
29	3048.0				Lost Bullet
30	3046.0				Lost Bullet

ESSO AUSTRALIA LTD
SIDEWALL CORE DESCRIPTIONS

WELL NAME: Gudgeon 1

GUN No: 2

GEOLOGIST: Jon Elliott

SWC No:	DEPTH	REC	BOUGHT REJECT	PALYN EVAL	LITHOLOGICAL DESCRIPTION, FLUORESCENCE ETC....
31	3045.1				Lost Bullet
32	3044.0				Lost Bullet
33	3042.0				No Recovery
34	3041.1				No Recovery
35	3040.0				No Recovery
36	3039.1				No Recovery
37	3038.1				Mis-fire
38	3037.0				No recovery
39	3036.1	30mm	B	P	Claystone; mid grey brown, firm, subfissile, silty and generally grading to siltstone in part, very calcareous, grading to argillaceous limestone, trace glauconite.
40	3034.9				Lost Bullet
41	3033.0				No Recovery
42	3032.1				No Recovery
43	3031.1				Lost Bullet
44	3030.1	35mm	B	P	Claystone; pale to mid grey brown, moderately firm, blocky to subfissile, moderately to very calcareous, occasional fine grained floating sand grains, trace very fine white mica.
45	3028.1				Lost Bullet
46	3027.0				No Recovery
47	3026.1				Lost Bullet
48	3024.1	50mm	B	P	Claystone; pale to mid grey brown, moderately firm, subfissile, moderately to very calcareous, trace very fine white and biotite mica.
49	3023.1				No Recovery
50	3022.1				No Recovery
51	3021.0				No Recovery
52	3020.0	40mm			Claystone; pale to mid grey brown, moderately firm, blocky to subfissile, moderately to very calcareous, occasional fine grained floating sand grains, trace very fine white mica.
53	3018.1				No Recovery
54	3017.0				Lost Bullet
55	3016.0				Lost Bullet
56	3015.0				No Recovery
57	3014.0	45mm			Claystone; pale grey, firm, subfissile, moderate to very calcareous, common very fine white mica, rare disseminated glauconite.
58	3013.1				No Recovery
59	3012.1				
60	3010.0				No Recovery

Appendix 4



5th Cut
A4 Dividers
Re-order Code 97052

APPENDIX IV

MDT RESULTS

ESSO AUSTRALIA LTD - PRESSURE DATA FORM

Well		Gudgeon-1			Page			4 of 4			
Date	3-May-95			Geologist-Engineer			Mike Scott/John Phillips/Jon Elliott				
Tool Type (MDT, RFT)	Schlumberger MDT			KB (metres):			25.3 (12-1/4" hole)				
Gauge Type	CQG/Sapphire			Probe type			Martineau				
Pressure units (psia, psig)	PSIA			Temperature units (degF, degC)			degC				
Run-Seat Number	Depth		Initial Hydrostatic Pressure	Time Set (HH:MM)	Minimum Flowing Pressure	Formation Pressure	Temp	Time Retract (HH:MM)	Final Hydrostatic Pressure	Delta Time (MM:SS)	Comments Including Test Quality and Fluid Type.
	m MDRKB	m TVDSS	PPg		PPg	PPg			PPg		
2/1	3084.0	2858.3	5270.8 10.81	1:18	3919.0	4040.50 8.28	85.9	1:24	-	06:00	Martineau Probe 20cc pretest
				1:24	3517.9	-	86.1	1:28	-	04:00	OFA=Green R=22.5 ohm.m Pump volume=2340cc
				1:29	789.0	4040.00 8.28	87.1	1:38	-	09:00	R=22.5 ohm.m 1 gallon filled and sealed
				1:38	-	-	87.1	1:39	5270.0 10.80	01:00	Good sample MD/CP=76.1
2/2	3058.6	2837.3	5233.2 10.73	1:48	3865.3	4005.32 8.21	87.1	1:51	-	03:00	Martineau Probe 200cc pretest
				1:52	3672.1	-	87.2	1:54	-	02:00	OFA=Green R=22.0 ohm.m Pump volume=1170cc
				1:56	1679.4	4004.38 8.21	86.9	2:10	-	14:00	R=23.2 ohm.m 6 gallon filled and sealed
				2:11	2709.2	4005.25 8.21	86.2	2:21	-	10:00	R=22.1 ohm.m 1 gallon filled and sealed
				2:21	-	-	86.2	2:24	5232.4 10.73	03:00	Good samples MD/CP=108.8

ESSO AUSTRALIA LTD - PRESSURE DATA FORM

Well		Gudgeon-1			Page		1 of 4			
Date		2-May-95			Geologist-Engineer		Mike Scott/John Phillips/Jon Elliott			
Tool Type (MDT, RFT)		Schlumberger MDT			KB (metres):		25.3 (12-1/4" hole)			
Gauge Type		CQG/Sapphire			Probe type		Long nose			
Pressure units (psia, psig)		PSIA			Temperature units (degF, degC)		degC			
Run-Seat Number	Depth m MDRKB m TVDSS	Initial Hydrostatic Pressure PPg	Time Set (HH:MM)	Minimum Flowing Pressure PPg	Formation Pressure PPg	Temp	Time Retract (HH:MM)	Final Hydrostatic Pressure PPg	Delta Time (MM:SS)	Comments Including Test Quality and Fluid Type.
1/1 P	3058.6	2837.3 5231.0 10.72	13:21	4001.7	4005.90 8.21	77.4	13:24	5227.3 10.72	03:00	20cc pre-test volume Good MD/CP=1340.6
1/2 P	3061.5	2839.7 5233.5 10.73	13:28	3930.1	4008.21 8.22	77.6	13:33	5231.8 10.73	05:00	Good MD/CP=89.4
1/3 P	3064.0	2841.8 5236.5 10.74	13:36	3869.3	4010.12 8.22	77.8	13:40	5235.2 10.73	04:00	Good MD/CP=66.4
1/4 P	3082.4	2857.0 5266.3 10.80	13:47	4036.3	4039.02 8.28	78.2	13:50	5262.7 10.79	03:00	Good MD/CP=379.8
1/5 P	3084.5	2858.7 5269.3 10.80	13:56	4031.6	4041.63 8.29	78.7	14:00	5266.6 10.80	04:00	Good MD/CP=285.8
1/6 P	3086.5	2860.3 5271.3 10.81	14:05	4041.1	4042.93 8.29	79.2	14:09	5269.6 10.80	04:00	Good MD/CP=5225.4
1/7 P	3089.0	2862.4 5274.9 10.81	14:14	4039.4	4044.94 8.29	79.7	14:19	5273.3 10.81	05:00	Good MD/CP=809.7
1/8 P	3083.0	2857.4 5265.7 10.79	14:25	4009.1	4039.64 8.28	80.2	14:28	5264.3 10.79	03:00	Good MD/CP=312.8
1/9 P	3095.0	2867.3 5284.5 10.83	14:33	3422.7	4052.14 8.31	80.7	14:38	5282.2 10.83	05:00	Good MD/CP=18.7
1/10 P	3106.0	2876.4 5300.9 10.87	14:43	4064.5	4064.88 8.33	81.5	14:47	5298.9 10.86	04:00	Good MD/CP=20919.1

ESSO AUSTRALIA LTD - PRESSURE DATA FORM

Well			Gudgeon-1			Page			2 of 4	
Date			2-May-95			Geologist-Engineer			Mike Scott/John Phillips/Jon Elliott	
Tool Type (MDT, RFT)			Schlumberger MDT			KB (metres):			25.3 (12-1/4" hole)	
Gauge Type			CQG/Sapphire			Probe type			Long nose	
Pressure units (psia, psig)			PSIA			Temperature units (degF, degC)			degC	
Run-Seat Number	Depth		Initial Hydrostatic Pressure	(HH:MM)	Minimum Flowing Pressure	Formation Pressure	Temp	Time Retract (HH:MM)	Final Hydrostatic Pressure	Delta Time (MM:SS)
	m MDRKB	m TVDSS								
1/11	3149.0	2912.0	5365.1 11.00	15:06	4022.8	4114.25 8.43	84.0	15:09	5362.1 10.99	03:00
1/12	3196.0	2950.4	5439.8 11.15	15:17	4159.3	4168.65 8.55	85.0	15:21	5431.7 11.14	04:00
1/13	3261.0	3003.1	5537.0 11.35	15:29	4166.3	4243.35 8.70	85.2	15:33	5527.1 11.33	04:00
1/14	3308.0	3041.2	5602.5 11.49	15:42	4290.5	4296.62 8.81	85.4	15:47	5595.2 11.47	05:00
1/15	3101.4	2872.6	5294.2 10.85	16:11	3431.1	4058.70 8.32	86.2	16:15	5292.0 10.85	04:00
1/16	3092.0	2864.9	5278.1 10.82	16:22	3294.1	4047.82 8.30	86.2	16:26	5277.8 10.82	04:00
1/17	3083.5	2857.9	5265.7 10.79	16:32	3905.2	4039.60 8.28	86.0	16:36	5265.5 10.79	04:00
1/18	3085.5	2859.5	5268.9 10.80	16:42	3955.2	4041.23 8.28	85.6	16:46	5268.8 10.80	04:00
1/19	3086.5	2860.3	5270.4 10.80	16:52	3476.2	4042.27 8.29	85.5	16:55	5270.5 10.80	03:00
1/20	3078.0	2853.3	5257.8 10.78	17:02	18.0	n/a n/a	84.5	17:07	5257.5 10.78	05:00

Re-correlate depth
Good
MD/CP=54.7

Good
MD/CP=571.6

Good
MD/CP=33.2

Good
MD/CP=1213.4

Return to TOL
Good
MD/CP=10.6

Good
MD/CP=9.8

Good
MD/CP=51.2

Good
MD/CP=166

Good
MD/CP=67.8

Tight-Aborted
MD/CP=0

ESSO AUSTRALIA LTD - PRESSURE DATA FORM

Well		Gudgeon-1			Page		3 of 4				
Date		2-May-95			Geologist-Engineer		Mike Scott/John Phillips/Jon Elliott				
Tool Type (MDT, RFT)		Schlumberger MDT			KB (metres):		25.3 (12-1/4" hole)				
Gauge Type		CQG/Sapphire			Probe type		Long nose				
Pressure units (psia, psig)		PSIA			Temperature units (degF, degC)		degC				
Run-Seat Number	Depth		Initial Hydrostatic Pressure	Time Set (HH:MM)	Minimum Flowing Pressure	Formation Pressure	Temp	Time Retract (HH:MM)	Final Hydrostatic Pressure	Delta Time (MM:SS)	Comments Including Test Quality and Fluid Type.
	m MDRKB	m TVDSS	PPg			PPg			PPg		
1/21	3079.0	2854.1	5259.5 10.78	17:11	1009.3	4039.10 8.28	85.0	17:17	5258.7 10.78	06:00	10cc pre-test volume set Tight - Good Test MD/CP=1.8
1/22	3073.0	2849.2	5250.0 10.76	17:23	2038.6	4024.54 8.25	84.3	17:28	5249.7 10.76	05:00	Good MD/CP=4.7
1/23	3071.5	2848.0	5248.2 10.76	17:33	2904.2	4023.33 8.25	84.0	17:39	5247.8 10.76	06:00	Good MD/CP=2.8
1/24	3056.6	2835.7	5226.2 10.71	17:47	2461.0	4003.54 8.21	83.6	17:51	5226.1 10.71	04:00	Good MD/CP=4.6
1/25	3054.4	2833.5	5223.6 10.71	17:56	3487.7	4005.98 8.21	83.4	18:00	5222.9 10.71	04:00	Good - potentially s/c MD/CP=5.0

WELL: GUDGEON - 1

RFT PRESSURE DATA

DATE: 03 MAY 1995HOLE SIZE: 12^{1/4}"PAGE 1 OF 1GEOLOGIST-ENGINEER: MIKE SCOTT JOHN PHILLIPS

RFT NO. RUN-SEAT	DEPTH		INITIAL HYDROSTATIC HP/RFT GAUGE psi ppg	TIME SET	MINIMUM FLOWING PRESSURE psi A (PRETEST)	FORMATION PRESSURE HP/RFT GAUGE psi ppg	CQG TEMP °C	TIME RETRACT	FINAL HYDROSTATIC HP/RFT GAUGE psi ppg	COMMENTS (INCLUDE PROBE TYP)
	m MDKB	m TVD ss KB = <u>25.3</u>								
2/1	3084.0	2858.26	5270.8	1:18	3919.0	4040.5	85.9	(1:24)	—	MARTINEAU PROBE 200C PRETEST.
			PUMP OUT SUB	(1:24)	3517.9	—	86.1	(1:28)	—	OFA = GREEN R = 22.5 OHM 2340CC
			OPEN CHAMBER	(1:29)	789.0	4040.0	87.1	(1.38)	—	R = 22.5 OHM .W
			—	—	—	—	87.1	1.39	5270.0	MD CP = 76.1
2/2	3058.6	2837.34	5233.2	1:48	3865.3	4005.32	87.1	(1.51)	—	200C PRETEST
			Pumpout sub	(1:52)	3672.1	—	87.2	(1.54)	—	OFA = GREEN R = 22.0 OHM. 1130CC
			OPEN 6 GALLON	(1:56)	1679.4	4004.38	86.9	(2:10)	—	R = 23.2 OHM.
			OPEN 1 GALLON	(2:11)	2709.2	4005.26	86.2	(2:21)	—	R = 22.1 OHM.
			—	—	—	—	86.2	2:24	5232.35	MD CP = 108.8

T=PRETEST
PT=SAMPLE

RFT 2.85

1107.0P.344

L=LONG NOSE
M=MARTINEAU

ESSO AUSTRALIA LTD

WELL: SUNDOWN -1...

OBSERVER: MIKE SCOTT...

DATE: 03 MAY 1995

RUN No.: 2/1

(PUMP OUT SUB + OFA USED)	CHAMBER 1 (-#) 1 GALLON	CHAMBER 2 (-#)
SEAT NO.	2/1	
DEPTH	3084.0	m
A. RECORDING TIMES		
Tool Set	01:18	hrs
Pretest Duration	6.0	mins
Chamber Open	01:29	hrs
Chamber Full	01:38	mins
Seal Chamber	01:38	hrs
Fill Time	9.0	mins
Finish Build Up	01:38	hrs
Build Up Time	9.0	mins
Tcol Retract	01:39	hrs
Total Time	21.0	mins
B. SAMPLE PRESSURE		
Initial Hydrostatic	5270.8	psia
Initial Formation Pressure (Pretest)	4040.5	psia
MIN Initial Flowing Pressure	789.04	psia
Final Flowing Pressure	—	psia
Final Form'n Pressure	4040.0	psia
Final Hydrostatic	5270.0	psia
C. TEMPERATURE		
Temp. @ Sample Depth (AMS)	86.4	deg C
Rm @ Sample Depth (AMS)	0.04	ohm-m
D. SAMPLE RECOVERY		
Surface Pressure		psia
Volume Gas		cu ft
Volume Oil		lit
Volume Condensate		lit
Volume Water (Total)		lit
E. SAMPLE PROPERTIES		
Gas Composition		
C1		ppm
C2		ppm
C3		ppm
C4		ppm
C5		ppm
C6+		ppm
CO2/H2S	% /	ppm
Oil/Cond. Properties	deg API @	deg C
Colour		deg API @
Fluorescence		deg C
GOR		
Pour Point		
Water Properties		
Resistivity	ohm-m @	deg C
NaCl Equivalent		ppm
Cl-Ionized		ppm
Tritium		DPM
pH		DPM
Est. Water Type		
F. MUD FILTRATE PROPERTIES		
Resistivity	ohm-m @	deg C
NaCl Equivalent		ppm
Cl-Ionized		ppm
pH		
Tritium (in Mud)		DPM
G. GENERAL CALIBRATION		
Mud Weight	10.7 - 10.8	ppg
Calc. Hydrostatic	5271	psia
Serial No. (Preserved)	MRSC #19 (1 GALLON)	
Choke Size/Probe Type	MDT VARIABLE - 100' - 1/4" MARTINEAU	
REMARKS	PRESERVED MIN FBHP = 3400psi VIA THROTTLE	

ESSO AUSTRALIA LTD

WELL : GUDGEON - 1

OBSERVER : MIKE SCOTT

DATE : 03 MAY 1995

RUN No. : 2/2

PUMP OUT SUB + OFA USED)	CHAMBER 1 (+/- 6 GALLON)	CHAMBER 2 / +/- 1 GALLON
SEAT NO.	2/2	2/2
DEPTH	3058.6 m	3058.6 m
A. RECORDING TIMES		
Tool Set	01:48 hrs	— hrs
Pretest Duration	3.0 mins	— mins
Chamber Open	01:56 hrs	02:11 hrs
Chamber Full	02:10 mins	02:21 mins
Seal Chamber	02:10 hrs	02:21 hrs
Fill Time	14.0 mins	10.0 mins
Finish Build Up	02:10 hrs	02:21 hrs
Build Up Time	14.0 mins	10.0 mins
Tool Retract	— hrs	02:24 hrs
Total Time	— mins	36.0 mins
B. SAMPLE PRESSURE		
Initial Hydrostatic	5233.2 psia	— psia
Initial Formation Pressure (Pretest)	4005.3 psia	— psia
Min Initial Flowing Pressure	1679.4 psia	2709.2 psia
Final Flowing Pressure	— psia	— psia
Final Form'n Pressure	4004.38 psia	4005.26 psia
Final Hydrostatic	— psia	5232.35 psia
C. TEMPERATURE		
Temp. @ Sample Depth (AMS)	87.2 deg C	86.2 deg C
Rm @ Sample Depth (AMS)	0.04 ohm-m	0.04 ohm-m
D. SAMPLE RECOVERY		
Surface Pressure	psia	psia
Volume Gas	cu ft	cu ft
Volume Oil	lit	lit
Volume Condensate	lit	lit
Volume Water (Total)	lit	lit
E. SAMPLE PROPERTIES		
Gas Composition		
C1	ppm	ppm
C2	ppm	ppm
C3	ppm	ppm
C4	ppm	ppm
C5	ppm	ppm
C6+	ppm	ppm
CO2/H2S	% / ppm	% / ppm
Oil/Cond. Properties	deg API @	deg API @
Colour	deg C	deg C
Fluorescence		
GOR		
Pour Point		
Water Properties		
Resistivity	ohm-m @	ohm-m @
NaCl Equivalent	ppm	ppm
Cl- titrated	ppm	ppm
Tritium	DPM	DPM
pH		
Est. Water Type		
F. MUD FILTRATE PROPERTIES		
Resistivity	ohm-m @	ohm-m @
NaCl Equivalent	ppm	ppm
Cl- titrated	ppm	ppm
pH		
Tritium (in Mud)	DPM	DPM
G. GENERAL CALIBRATION		
Mud Weight	10.7 - 10.8 pag	10.7 - 10.8 pag
Calc. Hydrostatic	5233.2 psi A	5233.2 psi A
Serial No. (Preserved)	MRSC # 22	MRSC # 71
Choke Size/Probe Type	MDT VARIABLE -100% = 1/4" / MARTINEAU	MDT VARIABLE -100% = 1/4" / MARTINEAU
REMARKS	SAMPLE "SEMI-PRESERVED" FOR PIPELINE RHEOLOGY WORK.	PRESERVED MIN FRHP = 3400 bar (1)IA THICKNESS

SAMPLING DATA SHEET

CORE LABORATORIES

CLIENT	: ESSO Australia Ltd.
WELL	: GUDGEON 1
LOCATION	: OFFSHORE BASS STRAIT, VICTORIA
SAMPLING POINT	: 6 GAL. CHAMBER - MDT RUN 2
SAMPLED BY	: THOMAS A. SAMUEL
DATE	: 3rd MAY 1995

ANALYSIS #	TUTWEILER	ORSAT	DRAGER TUBES	REMARKS
MDT RUN 2 (6 GAL. CHAMBER)	- NO GAS	- NO GAS -	1. CO ₂ < 1 % 2. CO ₂ < 1 %	* OPENING PRESSURE OF MDT CHAMBER AT RIG FLOOR 160PSIA *
			1. H ₂ S 0 ppm 2. H ₂ S 0 ppm	
ANALYSIS #	API	POUR	CLOUD	REMARKS
	GRAVITY	POINT	POINT	
MDT RUN 2 (6 GAL CHAMBER)	43.8 @ 60°F	27.0 °C	—	

REMARKS:

TRANSFERED ALL SAMPLE FROM MDT RUN 2, 6 GAL. CHAMBER
 INTO ONE CORE LAB 20 L. CYLINDER S/N 3475A USING
 SPRAGUE PUMP. BALANCE OF 300 cc FLUID COLLECTED FROM
 MDT CHAMBER - 150 cc CRUDE OIL AND 150 cc MUD.
 PRESSURE OF 20 L CYLINDER 500 PSIG @ 15 °C

Appendix 5



5th Cut
A4 Dividers
Re-order Code 97052

APPENDIX V

VELOCITY SURVEY REPORT

ANALYST: A. WIBISONO

1-JUN-95 19:27:06

PROGRAM: GSHOT 007.E08

vertical incidence
Survey

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* SCHLUMBERGER *
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GEOPHYSICAL AIRGUN REPORT

COMPANY : ESSO AUSTRALIA LTD.
WELL : GUDGEON-1
FIELD : WILDCAT
STATE : VICTORIA
COUNTRY : AUSTRALIA
REFERENCE: SYJ-
LOGGED : 01-MAY-1995

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
 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
 TIMO.GSH - Tie In Memorized Output
 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	:	25.3000	M
ELEV OF SRD AB. MSL(WST)	SRD	:	0	M
Elevation of Kelly Bushi	EKB	:	25.3000	M
VEL SOURCE-HYDRO(WST)	VELHYD	:	1524.00	M/S
VEL SOURCE-SRD (WST)	VELSUR	:	1524.00	M/S

(MATRIX PARAMETERS)

	SOURCE ELV M	SOURCE EW M	SOURCE NS M	HYDRO ELEV M	HYDRO EW M	HYDRO NS M
1	-5.0	178.5	206.8	-10.0	178.5	206.8
2	-5.0	467.5	492.8	-10.0	467.5	492.8
3	-5.0	525.5	561.8	-10.0	525.5	561.8
4	-5.0	582.7	624.6	-10.0	582.7	624.6

COMPANY : ESSO AUSTRALIA LTD.

WELL

: GUDGEON-1

PAGE

2

5	-5.0	698.5	757.8	-10.0	698.5	757.8
6	-5.0	712.6	774.6	-10.0	712.6	774.6

TRT HYD-SC
MS

TRT SC-SRD
MS

1	3.28	3.28
2	3.28	3.28
3	3.28	3.28
4	3.28	3.28
5	3.28	3.28
6	3.28	3.28

	MD @ KB M	VD @ KB M	VD @ SRD M	E-W COORD M	N-S COORD M
1	2335.0	2260.5	2235.2	188.2	225.8
2	3056.0	2860.6	2835.3	460.2	518.6
3	3226.0	3000.1	2974.8	526.3	589.6
4	3373.0	3120.2	3094.9	582.4	653.2
5	3704.0	3400.1	3374.8	694.6	789.4
6	3749.0	3439.7	3414.4	707.7	806.3

COMPANY : ESSO AUSTRALIA LTD.

WELL : GUDGEON-1

PAGE 3

LEVEL NUMBER	MEASUR DEPTH FROM KB M	VERTIC DEPTH FROM SRD 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	2335.0	2235.2	846.90	850.14	853.42	2619	600.1	196.99	3046
2	3056.0	2835.3	1043.90	1047.13	1050.42	2699	139.6	36.60	3814
3	3226.0	2974.8	1080.50	1083.73	1087.01	2737	120.1	26.30	4565
4	3373.0	3094.9	1106.80	1110.03	1113.31	2780	279.9	57.70	4851
5	3704.0	3374.8	1164.50	1167.73	1171.01	2882	39.6	7.90	5017
6	3749.0	3414.4	1172.40	1175.63	1178.91	2896			

ANALYST: A. WIBISONO

1-JUN-95 18:40:00

PROGRAM: GSHOT 007.E08

Rig Source Survey

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* SCHLUMBERGER *
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GEOPHYSICAL AIRGUN REPORT

COMPANY : ESSO AUSTRALIA LTD.

WELL : GUDGEON-1

FIELD : WILDCAT

STATE : VICTORIA

COUNTRY : AUSTRALIA

REFERENCE: SYJ-

LOGGED : 01-MAY-1995

COMPANY : ESSO AUSTRALIA LTD.

WELL : GUDGEON-1

PAGE 1

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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
TIMO.GSH - Tie In Memorized Output
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	:	25.3000	M
ELEV OF SRD AB. MSL (WST)	SRD	:	0	M
Elevation of Kelly Bushi	EKB	:	25.3000	M
VEL SOURCE-HYDRO (WST)	VELHYD	:	1524.00	M/S
VEL SOURCE-SRD (WST)	VELSUR	:	1524.00	M/S

(MATRIX PARAMETERS)

	SOURCE ELV M	SOURCE EW M	SOURCE NS M	HYDRO ELEV M	HYDRO EW M	HYDRO NS M
1	-5.0	47.3	16.3	-10.0	47.3	16.3

COMPANY : ESSO AUSTRALIA LTD.

WELL : GUDGEON-1

PAGE 2

	TRT HYD-SC MS	TRT SC-SRD MS
1	3.28	3.28

	MD @ KB M	VD @ KB M	VD @ SRD M	E-W COORD M	N-S COORD M
1	1110.0	1110.0	1084.7	0	0
2	1540.0	1540.0	1514.7	-6	.3
3	2335.0	2260.5	2235.2	188.2	225.8
4	3056.0	2860.6	2835.3	460.2	518.6
5	3373.0	3120.2	3094.9	582.4	653.2
6	3704.0	3400.1	3374.8	694.6	789.4
7	3749.0	3439.7	3414.4	707.7	806.3

COMPANY : ESSO AUSTRALIA LTD.

WELL : GUDGEON-1

PAGE 3

LEVEL NUMBER	MEASUR DEPTH FROM KB M		VERTIC DEPTH FROM SRD 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
	X 125					X					
1	1110.0	1084.7	522.60	525.32	528.60	2052		430.0	127.00	3386	
2	1540.0	1514.7	649.40	652.32	655.60	2310		720.5	198.23	3635	
3	2335.0	2235.2	852.70	850.55	853.83	2618		600.1	194.80	3081	
4	3056.0	2835.3	1069.30	1045.35	1048.63	2704		259.6	65.77	3948	
5	3373.0	3094.9	1147.40	1111.12	1114.40	2777		279.9	59.95	4668	
6	3704.0	3374.8	1219.10	1171.07	1174.35	2874		39.6	7.82	5069	
7	3749.0	3414.4	1228.20	1178.89	1182.17	2888					

ANALYST: A. WIBISONO

1-JUN-95 18:41:00

PROGRAM: GDRIFT 007.E09

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* SCHLUMBERGER *
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DRIFT COMPUTATION REPORT

COMPANY : ESSO AUSTRALIA LTD.
WELL : GUDGEON-1
FIELD : WILDCAT
STATE : VICTORIA
COUNTRY : AUSTRALIA
REFERENCE: SYJ-
LOGGED : 01-MAY-1995

COMPANY : ESSO AUSTRALIA LTD.

WELL : GUDGEON-1

PAGE 1

* 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
XSTART - TOP OF ZONE PROCESSED BY WST
XSTOP - BOTTOM OF ZONE PROCESSED BY WST
UNFDEN - UNIFORM DENSITY VALUE
GAD001 - RAW SONIC CHANNEL NAME USED FOR WST SONIC ADJUSTMENT

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
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	:	25.3000	M
ELEV OF SRD AB. MSL(WST)	SRD	:	0	M
Elevation of Kelly Bushi	EKB	:	25.3000	M
TOP OF ZONE PROCD (WST)	XSTART	:	0	M
BOT OF ZONE PROCD (WST)	XSTOP	:	0	M
UNIFORM DENSITY VALUE	UNFDEN	:	2.30000	G/C3
RAW SONIC CH NAME (WST)	GAD001	:	DT.EDI.ATT.002.FLP.*	

(ZONED PARAMETERS)

(VALUE)

(LIMITS)

LAYER OPTION FLAG DENS	LOFDEN	:	1.000000	30479.7	-	0
USER SUPPLIED DENSITY DA	LAYDEN	:	0	G/C3	0	0

COMPANY : ESSO AUSTRALIA LTD.

WELL

: GUDGEON-1

PAGE

2

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL TRAVEL TIME SRD/GEO MS	INTEGRATED RAW SONIC TIME MS	COMPUTED DRIFT AT LEVEL MS	COMPUTED BLK-SHFT CORRECTION US/M
1	354.0	328.7	216.78	216.78	0	0
2	1110.0	1084.7	528.60	528.60	0	0
3	1540.0	1514.7	655.60	652.64	2.96	6.89
4	2335.0	2235.2	853.83	843.93	9.90	9.63
5	3056.0	2835.3	1048.63	1033.98	14.65	7.93
6	3373.0	3094.9	1114.40	1101.55	12.85	-6.93
7	3704.0	3374.8	1174.35	1166.08	8.28	-16.35
8	3749.0	3414.4	1182.17	1175.88	6.29	-50.11
9	3750.7	3415.9	1182.52	1176.23	6.29	0

[REDACTED]
ANALYST: A. WIBISONO

2-JUN-95 12:06:43

PROGRAM: GADJST 008.E08

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* SCHLUMBERGER *
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SONIC ADJUSTMENT PARAMETER REPORT

COMPANY : ESSO AUSTRALIA LTD.
WELL : GUDGEON-1
FIELD : WILDCAT
STATE : VICTORIA
COUNTRY : AUSTRALIA
REFERENCE: SYJ-
LOGGED : 01-MAY-1995

COMPANY : ESSO AUSTRALIA LTD.

WELL : GUDGEON-1

PAGE 1

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 ADJUSTMENT 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
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	:	2.00000	
CONS SONIC ADJST (WST)	CONADJ	:	24.6063	US/M
UNIFORM EARTH VELOCITY	UNERTH	:	1516.28	M/S

(ZONED PARAMETERS) (VALUE) (LIMITS)

USER DRIFT ZONE (WST)	ZDRIFT	:	6.290000	MS	3441.20	-	3396.10
		:	8.280000		3396.10		3125.30
		:	12.85000		3125.30		2864.80
		:	14.60000		2864.80		2496.80
		:	11.90000		2496.80		1692.70
		:	4.000000		1692.70		1110.00
		:	0		1110.00		354.000
		:	0		354.000		0
ADJUSMNT MODE (WST)	ADJOPZ	:	-999.2500		30479.7	-	0
USER DELTA-T MIN (WST)	ADJUSZ	:	-999.2500	US/M	30479.7	-	0
LAYER OPTION FLAG VELOC	LOFVEL	:	0		30479.7	-	0
USER VELOC (WST)	LAYVEL	:	1516.280	M/S	354.000	-	0

COMPANY : ESSO AUSTRALIA LTD.

WELL

: GUDGEON-1

PAGE 2

KNEE NUMBER	VERTICAL DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	DRIFT AT KNEE MS	BLOCKSHIFT USED US/M	DELTA-T MINIMUM USED US/M	REDUCTION FACTOR G	EQUIVALENT BLOCKSHIFT US/M
2	354.0	328.7	0	0			0
3	1110.0	1084.7	0	0			0
4	1692.7	1667.4	4.00	6.86			6.86
5	2496.8	2471.5	11.90	9.82			9.82
6	2864.8	2839.5	14.60	7.34			7.34
7	3125.3	3100.0	12.85	228.88	.79		-6.72
8	3396.1	3370.8	8.28	188.24	.60		-16.88
9	3441.2	3415.9	6.29	178.33	.10		-44.12

ANALYST: A. WIBISONO

2-JUN-95 12:06:51

PROGRAM: GADJST 008.E08

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* SCHLUMBERGER *
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VELOCITY REPORT

COMPANY : ESSO AUSTRALIA LTD.
WELL : GUDGEON-1
FIELD : WILDCAT
STATE : VICTORIA
COUNTRY : AUSTRALIA
REFERENCE: SYJ-
LOGGED : 01-MAY-1995

COMPANY : ESSO AUSTRALIA LTD.

WELL : GUDGEON-1

PAGE 3

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
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
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	:	25.3000	M
ELEV OF SRD AB. MSL (WST)	SRD	:	0	M
Elevation of Kelly Bushi	EKB	:	25.3000	M
UNIFORM EARTH VELOCITY	UNERTH	:	1516.28	M/S

(ZONED PARAMETERS)

(VALUE)

(LIMITS)

LAYER OPTION FLAG VELOC	LOFVEL	:	0	30479.7	-	0
USER VELOC (WST)	LAYVEL	:	1516.280	M/S	354.000	

COMPANY : ESSO AUSTRALIA LTD.

WELL

: GUDGEON-1

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LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL TRAVEL TIME SRD/GEOPH MS	INTEGRATED ADJUSTED SONIC TIME MS	DRIFT	RESIDUAL	ADJUSTED INTERVAL VELOCITY M/S
					= SHOT TIME - RAW SON MS	= SHOT TIME - ADJ SON MS	
1	354.0	328.7	216.78	216.78	0	0	1516
2	1110.0	1084.7	528.60	528.57	0	.03	2425
3	1540.0	1514.7	655.60	655.55	2.96	.05	3386
4	2335.0	2235.2	853.83	853.48	9.90	.35	3640
5	3056.0	2835.3	1048.63	1048.51	14.65	.12	3077
6	3373.0	3094.9	1114.40	1114.39	12.85	.01	3941
7	3704.0	3374.8	1174.35	1174.06	8.28	.29	4690
8	3749.0	3414.4	1182.17	1181.40	6.29	.77	5399
9	3750.7	3415.9	1182.52	1181.75	6.29	.77	4303

ANALYST: A. WIBISONO

2-JUN-95 12:09:00

PROGRAM: GTRFRM 001.E13

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* SCHLUMBERGER *
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TIME CONVERTED VELOCITY REPORT

COMPANY : ESSO AUSTRALIA LTD.
WELL : GUDGEON-1
FIELD : WILDCAT
STATE : VICTORIA
COUNTRY : AUSTRALIA
REFERENCE: SYJ-
LOGGED : 01-MAY-1995

COMPANY : ESSO AUSTRALIA LTD.

WELL : GUDGEON-1

PAGE 1

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	:	25.3000	M
ELEV OF SRD AB. MSL(WST)	SRD	:	0	M
ELEV OF GL AB. SRD(WST)	GL	:	0	M
UNIFORM EARTH VELOCITY	UNERTH	:	1516.28	M/S
UNIFORM DENSITY VALUE	UNFDEN	:	2.30000	G/C3

(MATRIX PARAMETERS)

MVOUT DIST
M

1	1000.0
2	1500.0
3	2000.0

COMPANY : ESSO AUSTRALIA LTD.

WELL

: GUDGEON-1

PAGE 2

(ZONED PARAMETERS)

(VALUE)

(LIMITS)

LAYER OPTION FLAG VELOC	LOFVEL	:	0	30479.7	-	0
USER VELOC (WST)	LAYVEL	:	1516.280	M/S	354.000	-
LAYER OPTION FLAG DENS	LOFDEN	:	-1.000000		30479.7	-
USER SUPPLIED DENSITY DA	LAYDEN	:	0	G/C3	0	0

COMPANY : ESSO AUSTRALIA LTD.

WELL

: GUDGEON-1

PAGE 3

TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
0	25.3	0						1516
2.00	26.8	1.5	1516	1516	657.51	987.27	1317.02	1516
4.00	28.3	3.0	1516	1516	655.52	985.27	1315.02	1516
6.00	29.8	4.5	1516	1516	653.54	983.28	1313.03	1516
8.00	31.4	6.1	1516	1516	651.56	981.30	1311.04	1516
10.00	32.9	7.6	1516	1516	649.58	979.31	1309.06	1516
12.00	34.4	9.1	1516	1516	647.62	977.34	1307.07	1516
14.00	35.9	10.6	1516	1516	645.66	975.36	1305.09	1516
16.00	37.4	12.1	1516	1516	643.70	973.39	1303.11	1516
18.00	38.9	13.6	1516	1516	641.75	971.43	1301.14	1516
20.00	40.5	15.2	1516	1516	639.81	969.47	1299.17	1516
22.00	42.0	16.7	1516	1516	637.88	967.51	1297.20	1516
24.00	43.5	18.2	1516	1516	635.95	965.55	1295.24	1516
26.00	45.0	19.7	1516	1516	634.02	963.60	1293.27	1516
28.00	46.5	21.2	1516	1516	632.10	961.66	1291.31	1516
30.00	48.0	22.7	1516	1516	630.19	959.72	1289.36	1516
32.00	49.6	24.3	1516	1516	628.28	957.78	1287.41	1516
34.00	51.1	25.8	1516	1516	626.38	955.85	1285.46	1516
36.00	52.6	27.3	1516	1516	624.49	953.92	1283.51	1516
38.00	54.1	28.8	1516	1516	622.60	951.99	1281.56	1516
40.00	55.6	30.3	1516	1516	620.72	950.07	1279.62	1516
42.00	57.1	31.8	1516	1516	618.84	948.15	1277.69	1516
44.00	58.7	33.4	1516	1516	616.97	946.24	1275.75	1516
46.00	60.2	34.9	1516	1516	615.11	944.33	1273.82	1516

COMPANY : ESSO AUSTRALIA LTD.

WELL

: GUDGEON-1

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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
48.00	61.7	36.4	1516	1516	613.25	942.43	1271.89	1516
50.00	63.2	37.9	1516	1516	611.40	940.53	1269.97	1516
52.00	64.7	39.4	1516	1516	609.56	938.63	1268.04	1516
54.00	66.2	40.9	1516	1516	607.72	936.74	1266.12	1516
56.00	67.8	42.5	1516	1516	605.88	934.85	1264.21	1516
58.00	69.3	44.0	1516	1516	604.05	932.96	1262.29	1516
60.00	70.8	45.5	1516	1516	602.23	931.08	1260.38	1516
62.00	72.3	47.0	1516	1516	600.42	929.20	1258.47	1516
64.00	73.8	48.5	1516	1516	598.61	927.33	1256.57	1516
66.00	75.3	50.0	1516	1516	596.80	925.46	1254.67	1516
68.00	76.9	51.6	1516	1516	595.01	923.60	1252.77	1516
70.00	78.4	53.1	1516	1516	593.21	921.74	1250.87	1516
72.00	79.9	54.6	1516	1516	591.43	919.88	1248.98	1516
74.00	81.4	56.1	1516	1516	589.65	918.03	1247.09	1516
76.00	82.9	57.6	1516	1516	587.87	916.18	1245.21	1516
78.00	84.4	59.1	1516	1516	586.11	914.33	1243.32	1516
80.00	86.0	60.7	1516	1516	584.34	912.49	1241.44	1516
82.00	87.5	62.2	1516	1516	582.59	910.66	1239.56	1516
84.00	89.0	63.7	1516	1516	580.84	908.82	1237.69	1516
86.00	90.5	65.2	1516	1516	579.09	906.99	1235.82	1516
88.00	92.0	66.7	1516	1516	577.35	905.17	1233.95	1516
90.00	93.5	68.2	1516	1516	575.62	903.35	1232.08	1516
92.00	95.0	69.7	1516	1516	573.89	901.53	1230.22	1516
94.00	96.6	71.3	1516	1516	572.17	899.72	1228.36	1516

COMPANY : ESSO AUSTRALIA LTD.

WELL

: GUDGEON-1

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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	98.1	72.8	1516	1516	570.46	897.91	1226.51	1516
98.00	99.6	74.3	1516	1516	568.75	896.11	1224.65	1516
100.00	101.1	75.8	1516	1516	567.05	894.30	1222.80	1516
102.00	102.6	77.3	1516	1516	565.35	892.51	1220.96	1516
104.00	104.1	78.8	1516	1516	563.66	890.71	1219.11	1516
106.00	105.7	80.4	1516	1516	561.97	888.93	1217.27	1516
108.00	107.2	81.9	1516	1516	560.29	887.14	1215.43	1516
110.00	108.7	83.4	1516	1516	558.62	885.36	1213.60	1516
112.00	110.2	84.9	1516	1516	556.95	883.58	1211.76	1516
114.00	111.7	86.4	1516	1516	555.29	881.81	1209.93	1516
116.00	113.2	87.9	1516	1516	553.63	880.04	1208.11	1516
118.00	114.8	89.5	1516	1516	551.98	878.28	1206.29	1516
120.00	116.3	91.0	1516	1516	550.34	876.51	1204.46	1516
122.00	117.8	92.5	1516	1516	548.70	874.76	1202.65	1516
124.00	119.3	94.0	1516	1516	547.06	873.00	1200.83	1516
126.00	120.8	95.5	1516	1516	545.44	871.26	1199.02	1516
128.00	122.3	97.0	1516	1516	543.82	869.51	1197.21	1516
130.00	123.9	98.6	1516	1516	542.20	867.77	1195.41	1516
132.00	125.4	100.1	1516	1516	540.59	866.03	1193.61	1516
134.00	126.9	101.6	1516	1516	538.98	864.30	1191.81	1516
136.00	128.4	103.1	1516	1516	537.39	862.57	1190.01	1516
138.00	129.9	104.6	1516	1516	535.79	860.84	1188.22	1516
140.00	131.4	106.1	1516	1516	534.20	859.12	1186.43	1516
142.00	133.0	107.7	1516	1516	532.62	857.40	1184.64	1516

COMPANY : ESSO AUSTRALIA LTD.

WELL

: GUDGEON-1

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
144.00	134.5	109.2	1516	1516	531.05	855.69	1182.85	1516
146.00	136.0	110.7	1516	1516	529.48	853.98	1181.07	1516
148.00	137.5	112.2	1516	1516	527.91	852.27	1179.29	1516
150.00	139.0	113.7	1516	1516	526.35	850.57	1177.52	1516
152.00	140.5	115.2	1516	1516	524.80	848.87	1175.75	1516
154.00	142.1	116.8	1516	1516	523.25	847.18	1173.98	1516
156.00	143.6	118.3	1516	1516	521.71	845.49	1172.21	1516
158.00	145.1	119.8	1516	1516	520.17	843.80	1170.45	1516
160.00	146.6	121.3	1516	1516	518.64	842.12	1168.69	1516
162.00	148.1	122.8	1516	1516	517.11	840.44	1166.93	1516
164.00	149.6	124.3	1516	1516	515.59	838.76	1165.17	1516
166.00	151.2	125.9	1516	1516	514.08	837.09	1163.42	1516
168.00	152.7	127.4	1516	1516	512.57	835.43	1161.67	1516
170.00	154.2	128.9	1516	1516	511.07	833.76	1159.93	1516
172.00	155.7	130.4	1516	1516	509.57	832.10	1158.18	1516
174.00	157.2	131.9	1516	1516	508.08	830.45	1156.44	1516
176.00	158.7	133.4	1516	1516	506.59	828.80	1154.71	1516
178.00	160.2	134.9	1516	1516	505.11	827.15	1152.97	1516
180.00	161.8	136.5	1516	1516	503.63	825.51	1151.24	1516
182.00	163.3	138.0	1516	1516	502.16	823.87	1149.51	1516
184.00	164.8	139.5	1516	1516	500.70	822.23	1147.79	1516
186.00	166.3	141.0	1516	1516	499.24	820.60	1146.07	1516
188.00	167.8	142.5	1516	1516	497.78	818.97	1144.35	1516
190.00	169.3	144.0	1516	1516	496.33	817.34	1142.63	1516

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
192.00	170.9	145.6	1516	1516	494.89	815.72	1140.92	1516
194.00	172.4	147.1	1516	1516	493.45	814.11	1139.21	1516
196.00	173.9	148.6	1516	1516	492.02	812.49	1137.50	1516
198.00	175.4	150.1	1516	1516	490.59	810.88	1135.80	1516
200.00	176.9	151.6	1516	1516	489.17	809.28	1134.09	1516
202.00	178.4	153.1	1516	1516	487.75	807.68	1132.40	1516
204.00	180.0	154.7	1516	1516	486.34	806.08	1130.70	1516
206.00	181.5	156.2	1516	1516	484.93	804.48	1129.01	1516
208.00	183.0	157.7	1516	1516	483.53	802.89	1127.32	1516
210.00	184.5	159.2	1516	1516	482.14	801.31	1125.63	1516
212.00	186.0	160.7	1516	1516	480.75	799.72	1123.95	1516
214.00	187.5	162.2	1516	1516	479.36	798.15	1122.26	1516
216.00	189.1	163.8	1516	1516	477.98	796.57	1120.59	1516
218.00	190.6	165.3	1516	1516	476.60	795.00	1118.91	1516
220.00	192.1	166.8	1516	1516	475.24	793.43	1117.24	1516
222.00	193.6	168.3	1516	1516	473.87	791.87	1115.57	1516
224.00	195.1	169.8	1516	1516	472.51	790.31	1113.90	1516
226.00	196.6	171.3	1516	1516	471.16	788.75	1112.24	1516
228.00	198.2	172.9	1516	1516	469.81	787.20	1110.58	1516
230.00	199.7	174.4	1516	1516	468.46	785.65	1108.92	1516
232.00	201.2	175.9	1516	1516	467.13	784.10	1107.27	1516
234.00	202.7	177.4	1516	1516	465.79	782.56	1105.61	1516
236.00	204.2	178.9	1516	1516	464.46	781.02	1103.96	1516
238.00	205.7	180.4	1516	1516	463.14	779.49	1102.32	1516

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
240.00	207.3	182.0	1516	1516	461.82	777.96	1100.67	1516
242.00	208.8	183.5	1516	1516	460.51	776.43	1099.03	1516
244.00	210.3	185.0	1516	1516	459.20	774.91	1097.40	1516
246.00	211.8	186.5	1516	1516	457.89	773.39	1095.76	1516
248.00	213.3	188.0	1516	1516	456.60	771.88	1094.13	1516
250.00	214.8	189.5	1516	1516	455.30	770.36	1092.50	1516
252.00	216.4	191.1	1516	1516	454.01	768.86	1090.87	1516
254.00	217.9	192.6	1516	1516	452.73	767.35	1089.25	1516
256.00	219.4	194.1	1516	1516	451.45	765.85	1087.63	1516
258.00	220.9	195.6	1516	1516	450.18	764.35	1086.01	1516
260.00	222.4	197.1	1516	1516	448.91	762.86	1084.40	1516
262.00	223.9	198.6	1516	1516	447.64	761.37	1082.79	1516
264.00	225.4	200.1	1516	1516	446.39	759.88	1081.18	1516
266.00	227.0	201.7	1516	1516	445.13	758.40	1079.57	1516
268.00	228.5	203.2	1516	1516	443.88	756.92	1077.97	1516
270.00	230.0	204.7	1516	1516	442.64	755.45	1076.37	1516
272.00	231.5	206.2	1516	1516	441.40	753.98	1074.77	1516
274.00	233.0	207.7	1516	1516	440.16	752.51	1073.18	1516
276.00	234.5	209.2	1516	1516	438.93	751.04	1071.58	1516
278.00	236.1	210.8	1516	1516	437.71	749.58	1070.00	1516
280.00	237.6	212.3	1516	1516	436.49	748.13	1068.41	1516
282.00	239.1	213.8	1516	1516	435.27	746.67	1066.83	1516
284.00	240.6	215.3	1516	1516	434.06	745.22	1065.25	1516
286.00	242.1	216.8	1516	1516	432.85	743.78	1063.67	1516

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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	243.6	218.3	1516	1516	431.65	742.33	1062.09	1516
290.00	245.2	219.9	1516	1516	430.45	740.89	1060.52	1516
292.00	246.7	221.4	1516	1516	429.26	739.46	1058.95	1516
294.00	248.2	222.9	1516	1516	428.07	738.03	1057.39	1516
296.00	249.7	224.4	1516	1516	426.89	736.60	1055.82	1516
298.00	251.2	225.9	1516	1516	425.71	735.17	1054.26	1516
300.00	252.7	227.4	1516	1516	424.54	733.75	1052.70	1516
302.00	254.3	229.0	1516	1516	423.37	732.33	1051.15	1516
304.00	255.8	230.5	1516	1516	422.20	730.92	1049.60	1516
306.00	257.3	232.0	1516	1516	421.04	729.51	1048.05	1516
308.00	258.8	233.5	1516	1516	419.88	728.10	1046.50	1516
310.00	260.3	235.0	1516	1516	418.73	726.70	1044.96	1516
312.00	261.8	236.5	1516	1516	417.59	725.30	1043.42	1516
314.00	263.4	238.1	1516	1516	416.44	723.90	1041.88	1516
316.00	264.9	239.6	1516	1516	415.31	722.51	1040.34	1516
318.00	266.4	241.1	1516	1516	414.17	721.12	1038.81	1516
320.00	267.9	242.6	1516	1516	413.04	719.73	1037.28	1516
322.00	269.4	244.1	1516	1516	411.92	718.35	1035.75	1516
324.00	270.9	245.6	1516	1516	410.80	716.97	1034.23	1516
326.00	272.5	247.2	1516	1516	409.68	715.59	1032.71	1516
328.00	274.0	248.7	1516	1516	408.57	714.22	1031.19	1516
330.00	275.5	250.2	1516	1516	407.46	712.85	1029.67	1516
332.00	277.0	251.7	1516	1516	406.36	711.49	1028.16	1516
334.00	278.5	253.2	1516	1516	405.26	710.13	1026.65	1516

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
336.00	280.0	254.7	1516	1516	404.17	708.77	1025.14	1516
338.00	281.6	256.3	1516	1516	403.08	707.41	1023.64	1516
340.00	283.1	257.8	1516	1516	401.99	706.06	1022.13	1516
342.00	284.6	259.3	1516	1516	400.91	704.71	1020.63	1516
344.00	286.1	260.8	1516	1516	399.83	703.37	1019.14	1516
346.00	287.6	262.3	1516	1516	398.76	702.03	1017.64	1516
348.00	289.1	263.8	1516	1516	397.69	700.69	1016.15	1516
350.00	290.6	265.3	1516	1516	396.63	699.35	1014.66	1516
352.00	292.2	266.9	1516	1516	395.57	698.02	1013.18	1516
354.00	293.7	268.4	1516	1516	394.51	696.69	1011.70	1516
356.00	295.2	269.9	1516	1516	393.46	695.37	1010.21	1516
358.00	296.7	271.4	1516	1516	392.41	694.05	1008.74	1516
360.00	298.2	272.9	1516	1516	391.37	692.73	1007.26	1516
362.00	299.7	274.4	1516	1516	390.33	691.42	1005.79	1516
364.00	301.3	276.0	1516	1516	389.29	690.11	1004.32	1516
366.00	302.8	277.5	1516	1516	388.26	688.80	1002.85	1516
368.00	304.3	279.0	1516	1516	387.23	687.49	1001.39	1516
370.00	305.8	280.5	1516	1516	386.21	686.19	999.93	1516
372.00	307.3	282.0	1516	1516	385.19	684.89	998.47	1516
374.00	308.8	283.5	1516	1516	384.17	683.60	997.02	1516
376.00	310.4	285.1	1516	1516	383.16	682.31	995.56	1516
378.00	311.9	286.6	1516	1516	382.16	681.02	994.11	1516
380.00	313.4	288.1	1516	1516	381.15	679.74	992.66	1516
382.00	314.9	289.6	1516	1516	380.15	678.46	991.22	1516

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
384.00	316.4	291.1	1516	1516	379.16	677.18	989.78	1516
386.00	317.9	292.6	1516	1516	378.16	675.90	988.34	1516
388.00	319.5	294.2	1516	1516	377.18	674.63	986.90	1516
390.00	321.0	295.7	1516	1516	376.19	673.36	985.47	1516
392.00	322.5	297.2	1516	1516	375.21	672.10	984.03	1516
394.00	324.0	298.7	1516	1516	374.24	670.84	982.61	1516
396.00	325.5	300.2	1516	1516	373.26	669.58	981.18	1516
398.00	327.0	301.7	1516	1516	372.30	668.32	979.76	1516
400.00	328.6	303.3	1516	1516	371.33	667.07	978.34	1516
402.00	330.1	304.8	1516	1516	370.37	665.82	976.92	1516
404.00	331.6	306.3	1516	1516	369.41	664.58	975.50	1516
406.00	333.1	307.8	1516	1516	368.46	663.34	974.09	1516
408.00	334.6	309.3	1516	1516	367.51	662.10	972.68	1516
410.00	336.1	310.8	1516	1516	366.56	660.86	971.27	1516
412.00	337.7	312.4	1516	1516	365.62	659.63	969.87	1516
414.00	339.2	313.9	1516	1516	364.68	658.40	968.46	1516
416.00	340.7	315.4	1516	1516	363.75	657.17	967.06	1516
418.00	342.2	316.9	1516	1516	362.82	655.95	965.67	1516
420.00	343.7	318.4	1516	1516	361.89	654.73	964.27	1516
422.00	345.2	319.9	1516	1516	360.97	653.51	962.88	1516
424.00	346.8	321.5	1516	1516	360.05	652.30	961.49	1516
426.00	348.3	323.0	1516	1516	359.13	651.09	960.10	1516
428.00	349.8	324.5	1516	1516	358.22	649.88	958.72	1516
430.00	351.3	326.0	1516	1516	357.31	648.68	957.34	1516

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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	352.8	327.5	1516	1516	356.40	647.47	955.96	1516
434.00	354.5	329.2	1517	1517	355.29	645.93	954.11	1636
436.00	356.4	331.1	1519	1519	353.63	643.49	951.01	1920
438.00	358.3	333.0	1521	1521	351.98	641.05	947.91	1925
440.00	360.2	334.9	1522	1523	350.35	638.64	944.85	1923
442.00	362.2	336.9	1524	1525	348.69	636.19	941.73	1943
444.00	364.0	338.7	1526	1527	347.19	633.97	938.93	1878
446.00	366.0	340.7	1528	1529	345.61	631.64	935.97	1918
448.00	367.9	342.6	1529	1531	344.07	629.37	933.09	1907
450.00	369.8	344.5	1531	1533	342.55	627.11	930.23	1906
452.00	371.7	346.4	1533	1535	340.97	624.77	927.24	1940
454.00	373.7	348.4	1535	1537	339.35	622.35	924.14	1971
456.00	375.6	350.3	1536	1539	337.84	620.10	921.29	1884
458.00	377.5	352.2	1538	1541	336.42	617.99	918.63	1861
460.00	379.3	354.0	1539	1542	335.04	615.97	916.07	1901
462.00	381.3	356.0	1541	1544	333.61	613.84	913.37	1936
464.00	383.2	357.9	1543	1546	332.13	611.62	910.55	1971
466.00	385.2	359.9	1544	1548	330.59	609.32	907.59	1973
468.00	387.1	361.8	1546	1550	329.06	607.02	904.65	1935
470.00	389.1	363.8	1548	1552	327.62	604.86	901.90	1957
472.00	391.0	365.7	1550	1554	326.15	602.65	899.07	1957
474.00	393.0	367.7	1551	1556	324.70	600.46	896.27	1981
476.00	395.0	369.7	1553	1558	323.21	598.22	893.39	1989
478.00	396.9	371.6	1555	1560	321.73	595.97	890.50	

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB MS	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
			M/S	M/S	MS	MS	MS	M/S
480.00	399.0	373.7	1557	1562	320.23	593.71	887.59	2001
482.00	401.0	375.7	1559	1564	318.74	591.44	884.67	2009
484.00	403.0	377.7	1561	1566	317.26	589.19	881.77	2010
486.00	405.0	379.7	1562	1568	315.80	586.95	878.89	2011
488.00	407.0	381.7	1564	1570	314.33	584.72	876.00	2017
490.00	409.0	383.7	1566	1572	312.88	582.51	873.15	2015
492.00	411.0	385.7	1568	1574	311.48	580.36	870.39	2000
494.00	413.0	387.7	1570	1576	310.06	578.20	867.60	2011
496.00	415.0	389.7	1572	1578	308.66	576.06	864.84	2010
498.00	417.1	391.8	1573	1580	307.24	573.87	862.01	2034
500.00	419.1	393.8	1575	1582	305.84	571.73	859.24	2023
502.00	421.1	395.8	1577	1584	304.45	569.58	856.46	2033
504.00	423.2	397.9	1579	1587	303.02	567.39	853.61	2057
506.00	425.3	400.0	1581	1589	301.59	565.17	850.72	2071
508.00	427.3	402.0	1583	1591	300.14	562.93	847.80	2090
510.00	429.4	404.1	1585	1593	298.71	560.71	844.90	2088
512.00	431.5	406.2	1587	1596	297.29	558.49	842.02	2092
514.00	433.6	408.3	1589	1598	295.87	556.28	839.13	2101
516.00	435.7	410.4	1591	1600	294.49	554.13	836.33	2081
518.00	437.8	412.5	1593	1602	293.10	551.96	833.50	2097
520.00	439.9	414.6	1595	1604	291.74	549.84	830.73	2085
522.00	442.0	416.7	1597	1607	290.34	547.65	827.86	2120
524.00	444.2	418.9	1599	1609	288.90	545.39	824.89	2157
526.00	446.3	421.0	1601	1611	287.52	543.22	822.04	2127

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
528.00	448.4	423.1	1602	1613	286.23	541.21	819.42	2070
530.00	450.5	425.2	1604	1616	284.88	539.08	816.62	2126
532.00	452.6	427.3	1606	1618	283.54	536.98	813.87	2122
534.00	454.7	429.4	1608	1620	282.21	534.89	811.12	2124
536.00	456.9	431.6	1610	1622	280.88	532.77	808.34	2149
538.00	459.0	433.7	1612	1625	279.54	530.66	805.56	2109
540.00	461.1	435.8	1614	1627	278.27	528.65	802.93	2100
542.00	463.2	437.9	1616	1629	277.02	526.69	800.35	2123
544.00	465.4	440.1	1618	1631	275.76	524.69	797.72	2113
546.00	467.5	442.2	1620	1633	274.52	522.73	795.14	2086
548.00	469.6	444.3	1621	1635	273.33	520.84	792.67	2096
550.00	471.6	446.3	1623	1636	272.13	518.95	790.19	2101
552.00	473.7	448.4	1625	1638	270.94	517.06	787.70	2115
554.00	475.9	450.6	1627	1640	269.74	515.15	785.20	2156
556.00	478.0	452.7	1628	1643	268.50	513.17	782.58	2105
558.00	480.1	454.8	1630	1644	267.33	511.32	780.14	2165
560.00	482.3	457.0	1632	1647	266.10	509.35	777.53	2161
562.00	484.4	459.1	1634	1649	264.89	507.40	774.95	2114
564.00	486.6	461.3	1636	1651	263.74	505.57	772.54	2123
566.00	488.7	463.4	1637	1652	262.60	503.74	770.12	2150
568.00	490.8	465.5	1639	1654	261.43	501.86	767.63	2107
570.00	493.0	467.7	1641	1656	260.27	500.00	765.17	2154
572.00	495.1	469.8	1643	1658	259.17	498.24	762.84	
574.00	497.2	471.9	1644	1660	258.02	496.40	760.40	

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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	499.4	474.1	1646	1662	256.88	494.55	757.95	2164
578.00	501.6	476.3	1648	1664	255.76	492.74	755.55	2150
580.00	503.7	478.4	1650	1666	254.64	490.94	753.16	2154
582.00	505.9	480.6	1652	1668	253.51	489.10	750.71	2182
584.00	508.1	482.8	1653	1670	252.36	487.24	748.23	2196
586.00	510.3	485.0	1655	1672	251.22	485.38	745.75	2205
588.00	512.6	487.3	1657	1675	250.02	483.42	743.12	2263
590.00	514.8	489.5	1659	1677	248.82	481.45	740.47	2276
592.00	517.1	491.8	1661	1679	247.64	479.52	737.87	2265
594.00	519.2	493.9	1663	1681	246.60	477.83	735.63	2146
596.00	521.5	496.2	1665	1683	245.49	476.02	733.21	2219
598.00	523.8	498.5	1667	1686	244.31	474.06	730.57	2299
600.00	526.0	500.7	1669	1688	243.19	472.24	728.12	2241
602.00	528.3	503.0	1671	1690	242.04	470.34	725.57	2286
604.00	530.6	505.3	1673	1693	240.86	468.39	722.93	2324
606.00	533.0	507.7	1676	1696	239.62	466.32	720.12	2391
608.00	535.3	510.0	1678	1698	238.46	464.40	717.51	2325
610.00	537.6	512.3	1680	1700	237.35	462.55	715.03	2292
612.00	539.9	514.6	1682	1703	236.26	460.74	712.58	2283
614.00	542.2	516.9	1684	1705	235.21	459.02	710.26	2244
616.00	544.3	519.0	1685	1706	234.24	457.42	708.11	2182
618.00	546.5	521.2	1687	1708	233.34	455.94	706.14	2117
620.00	548.7	523.4	1688	1710	232.31	454.23	703.84	2256
622.00	551.0	525.7	1690	1712	231.22	452.41	701.35	2330

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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	553.4	528.1	1692	1715	230.15	450.62	698.93	2315
626.00	555.7	530.4	1694	1717	229.09	448.85	696.52	2316
628.00	558.0	532.7	1697	1719	228.01	447.03	694.05	2347
630.00	560.4	535.1	1699	1722	226.88	445.14	691.46	2402
632.00	562.8	537.5	1701	1724	225.78	443.28	688.93	2389
634.00	565.2	539.9	1703	1727	224.72	441.51	686.51	2349
636.00	567.5	542.2	1705	1729	223.72	439.82	684.21	2312
638.00	569.7	544.4	1707	1731	222.76	438.21	682.02	2272
640.00	572.2	546.9	1709	1733	221.67	436.37	679.51	2412
642.00	574.6	549.3	1711	1736	220.60	434.56	677.03	2404
644.00	576.9	551.6	1713	1738	219.56	432.80	674.62	2384
646.00	579.4	554.1	1715	1741	218.47	430.94	672.06	2457
648.00	581.7	556.4	1717	1743	217.48	429.27	669.77	2348
650.00	584.2	558.9	1720	1746	216.40	427.43	667.24	2459
652.00	586.6	561.3	1722	1748	215.40	425.72	664.89	2393
654.00	589.0	563.7	1724	1750	214.37	423.97	662.48	2423
656.00	591.3	566.0	1726	1752	213.48	422.45	660.42	2285
658.00	593.6	568.3	1727	1754	212.56	420.90	658.29	2318
660.00	596.0	570.7	1729	1756	211.64	419.32	656.13	2341
662.00	598.5	573.2	1732	1759	210.57	417.49	653.59	2507
664.00	600.9	575.6	1734	1761	209.61	415.85	651.34	2396
666.00	603.3	578.0	1736	1764	208.65	414.19	649.05	2419
668.00	605.7	580.4	1738	1766	207.65	412.48	646.68	2464
670.00	608.2	582.9	1740	1769	206.69	410.83	644.39	2432

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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	610.7	585.4	1742	1771	205.69	409.10	642.00	2490
674.00	613.1	587.8	1744	1774	204.73	407.46	639.72	2444
676.00	615.4	590.1	1746	1775	203.94	406.11	637.88	2251
678.00	617.9	592.6	1748	1778	202.96	404.40	635.50	2504
680.00	620.2	594.9	1750	1780	202.10	402.93	633.48	2352
682.00	622.6	597.3	1752	1782	201.24	401.45	631.43	2369
684.00	624.9	599.6	1753	1783	200.45	400.09	629.57	2285
686.00	627.3	602.0	1755	1786	199.56	398.56	627.43	2422
688.00	629.7	604.4	1757	1788	198.72	397.09	625.41	2377
690.00	632.1	606.8	1759	1790	197.87	395.63	623.38	2388
692.00	634.5	609.2	1761	1792	197.00	394.10	621.26	2437
694.00	637.0	611.7	1763	1794	196.11	392.56	619.11	2462
696.00	639.5	614.2	1765	1797	195.19	390.95	616.86	2514
698.00	642.0	616.7	1767	1799	194.24	389.30	614.55	2552
700.00	644.5	619.2	1769	1802	193.35	387.73	612.36	2503
702.00	647.0	621.7	1771	1804	192.51	386.27	610.32	2438
704.00	649.4	624.1	1773	1806	191.69	384.83	608.32	2425
706.00	651.9	626.6	1775	1808	190.82	383.31	606.18	2500
708.00	654.4	629.1	1777	1811	189.96	381.80	604.07	2499
710.00	656.8	631.5	1779	1812	189.18	380.44	602.18	2389
712.00	659.3	634.0	1781	1815	188.31	378.91	600.03	2526
714.00	661.8	636.5	1783	1817	187.48	377.45	597.98	2491
716.00	664.3	639.0	1785	1819	186.63	375.94	595.85	2533
718.00	666.7	641.4	1787	1821	185.89	374.64	594.05	2372

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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	669.2	643.9	1789	1823	185.07	373.20	592.03	2497
722.00	671.7	646.4	1791	1826	184.27	371.79	590.03	2488
724.00	674.2	648.9	1793	1828	183.46	370.36	588.02	2505
726.00	676.7	651.4	1795	1830	182.63	368.89	585.96	2542
728.00	679.3	654.0	1797	1833	181.78	367.38	583.82	2587
730.00	681.9	656.6	1799	1835	180.95	365.90	581.73	2572
732.00	684.4	659.1	1801	1837	180.16	364.50	579.74	2523
734.00	686.9	661.6	1803	1839	179.41	363.16	577.86	2475
736.00	689.3	664.0	1804	1841	178.69	361.89	576.08	2426
738.00	691.7	666.4	1806	1843	178.00	360.67	574.36	2393
740.00	694.2	668.9	1808	1845	177.26	359.35	572.50	2487
742.00	696.6	671.3	1810	1847	176.55	358.08	570.71	2445
744.00	699.2	673.9	1811	1849	175.80	356.75	568.83	2514
746.00	701.6	676.3	1813	1851	175.08	355.47	567.02	2471
748.00	704.1	678.8	1815	1853	174.40	354.26	565.31	2427
750.00	706.5	681.2	1817	1855	173.70	353.01	563.55	2461
752.00	709.1	683.8	1819	1857	172.95	351.66	561.63	2559
754.00	711.5	686.2	1820	1859	172.28	350.46	559.93	2436
756.00	714.0	688.7	1822	1860	171.60	349.24	558.20	2463
758.00	716.5	691.2	1824	1863	170.88	347.96	556.39	2521
760.00	719.0	693.7	1826	1865	170.19	346.71	554.61	2506
762.00	721.6	696.3	1827	1867	169.46	345.40	552.74	2563
764.00	724.0	698.7	1829	1868	168.81	344.23	551.07	2454
766.00	726.5	701.2	1831	1870	168.14	343.02	549.36	2489

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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	728.9	703.6	1832	1872	167.53	341.94	547.84	2373
770.00	731.3	706.0	1834	1874	166.91	340.81	546.23	2430
772.00	733.7	708.4	1835	1875	166.31	339.75	544.72	2379
774.00	736.0	710.7	1837	1876	165.73	338.71	543.26	2351
776.00	738.4	713.1	1838	1878	165.18	337.71	541.85	2319
778.00	740.7	715.4	1839	1879	164.63	336.73	540.46	2310
780.00	743.0	717.7	1840	1880	164.09	335.77	539.11	2290
782.00	745.3	720.0	1842	1882	163.51	334.73	537.62	2385
784.00	747.7	722.4	1843	1883	162.96	333.73	536.21	2341
786.00	750.0	724.7	1844	1884	162.43	332.78	534.86	2307
788.00	752.4	727.1	1845	1885	161.87	331.77	533.43	2362
790.00	754.7	729.4	1847	1887	161.31	330.77	532.00	2367
792.00	757.1	731.8	1848	1888	160.77	329.78	530.60	2353
794.00	759.4	734.1	1849	1889	160.25	328.84	529.27	2314
796.00	761.6	736.3	1850	1890	159.77	327.98	528.05	2228
798.00	763.9	738.6	1851	1891	159.28	327.10	526.80	2261
800.00	766.2	740.9	1852	1893	158.75	326.14	525.44	2343
802.00	768.6	743.3	1854	1894	158.22	325.19	524.09	2345
804.00	770.8	745.5	1854	1895	157.77	324.39	522.95	2190
806.00	773.0	747.7	1855	1896	157.29	323.51	521.70	2278
808.00	775.3	750.0	1857	1897	156.79	322.61	520.42	2302
810.00	777.5	752.2	1857	1897	156.37	321.84	519.34	2154
812.00	779.8	754.5	1858	1898	155.89	320.98	518.12	2271
814.00	782.2	756.9	1860	1900	155.34	319.98	516.69	2429

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
816.00	784.7	759.4	1861	1901	154.79	318.96	515.22	2462
818.00	786.8	761.5	1862	1902	154.39	318.25	514.21	2111
820.00	789.1	763.8	1863	1903	153.88	317.31	512.87	2377
822.00	791.3	766.0	1864	1904	153.46	316.57	511.82	2155
824.00	793.6	768.3	1865	1905	153.00	315.73	510.62	2280
826.00	796.0	770.7	1866	1906	152.49	314.80	509.28	2388
828.00	798.3	773.0	1867	1907	152.03	313.96	508.08	2292
830.00	800.7	775.4	1868	1909	151.51	312.99	506.69	2440
832.00	803.1	777.8	1870	1910	151.01	312.08	505.38	2385
834.00	805.6	780.3	1871	1912	150.47	311.09	503.94	2490
836.00	808.0	782.7	1872	1913	149.98	310.19	502.65	2380
838.00	810.5	785.2	1874	1915	149.42	309.15	501.13	2556
840.00	812.8	787.5	1875	1916	149.00	308.38	500.03	2241
842.00	815.3	790.0	1876	1917	148.46	307.38	498.58	2518
844.00	817.6	792.3	1878	1918	147.99	306.51	497.33	2371
846.00	820.1	794.8	1879	1920	147.47	305.55	495.93	2491
848.00	822.6	797.3	1880	1921	146.96	304.61	494.57	2472
850.00	825.1	799.8	1882	1923	146.46	303.68	493.22	2467
852.00	827.4	802.1	1883	1924	146.00	302.83	491.99	2371
854.00	829.9	804.6	1884	1926	145.50	301.89	490.63	2492
856.00	832.4	807.1	1886	1927	144.99	300.94	489.25	2509
858.00	835.0	809.7	1887	1929	144.48	300.00	487.88	2506
860.00	837.5	812.2	1889	1930	143.96	299.04	486.47	2543
862.00	840.0	814.7	1890	1932	143.45	298.07	485.05	2554

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
864.00	842.6	817.3	1892	1934	142.92	297.09	483.62	2579
866.00	845.0	819.7	1893	1935	142.48	296.27	482.42	2387
868.00	847.5	822.2	1894	1936	142.01	295.39	481.15	2458
870.00	849.9	824.6	1896	1938	141.54	294.52	479.87	2468
872.00	852.5	827.2	1897	1940	141.02	293.54	478.44	2596
874.00	855.1	829.8	1899	1941	140.51	292.58	477.03	2591
876.00	857.8	832.5	1901	1943	139.97	291.58	475.55	2654
878.00	860.2	834.9	1902	1945	139.52	290.72	474.30	2467
880.00	862.8	837.5	1903	1946	139.02	289.78	472.92	2584
882.00	865.4	840.1	1905	1948	138.53	288.87	471.58	2485
884.00	867.9	842.6	1906	1949	138.08	288.02	470.33	2523
886.00	870.4	845.1	1908	1951	137.61	287.14	469.04	2299
888.00	872.7	847.4	1909	1952	137.23	286.44	468.01	2627
890.00	875.3	850.0	1910	1953	136.73	285.49	466.62	2602
892.00	877.9	852.6	1912	1955	136.25	284.57	465.26	2637
894.00	880.6	855.3	1913	1957	135.75	283.63	463.87	2530
896.00	883.1	857.8	1915	1958	135.30	282.78	462.62	2701
898.00	885.8	860.5	1916	1960	134.78	281.80	461.17	2622
900.00	888.4	863.1	1918	1962	134.30	280.89	459.82	2667
902.00	891.1	865.8	1920	1964	133.81	279.95	458.43	2744
904.00	893.8	868.5	1922	1966	133.29	278.96	456.95	2770
906.00	896.6	871.3	1923	1968	132.76	277.95	455.46	2674
908.00	899.3	874.0	1925	1970	132.27	277.03	454.08	2769
910.00	902.0	876.7	1927	1972	131.75	276.04	452.61	

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
912.00	904.7	879.4	1929	1974	131.27	275.13	451.25	2676
914.00	907.4	882.1	1930	1976	130.81	274.24	449.94	2643
916.00	910.2	884.9	1932	1978	130.28	273.23	448.42	2827
918.00	912.7	887.4	1933	1979	129.86	272.42	447.23	2545
920.00	915.5	890.2	1935	1981	129.37	271.49	445.83	2743
922.00	918.0	892.7	1937	1983	128.94	270.68	444.63	2564
924.00	920.6	895.3	1938	1984	128.51	269.85	443.40	2602
926.00	923.4	898.1	1940	1986	128.01	268.88	441.95	2808
928.00	926.1	900.8	1941	1988	127.57	268.06	440.72	2620
930.00	928.7	903.4	1943	1990	127.13	267.22	439.46	2643
932.00	931.2	905.9	1944	1991	126.75	266.48	438.38	2490
934.00	933.8	908.5	1945	1992	126.34	265.70	437.21	2574
936.00	936.5	911.2	1947	1994	125.88	264.81	435.88	2732
938.00	939.1	913.8	1948	1996	125.47	264.02	434.70	2603
940.00	941.7	916.4	1950	1997	125.06	263.25	433.54	2579
942.00	944.5	919.2	1952	1999	124.60	262.35	432.20	2771
944.00	947.3	922.0	1953	2001	124.12	261.43	430.82	2807
946.00	950.0	924.7	1955	2003	123.66	260.55	429.49	2773
948.00	952.7	927.4	1956	2004	123.26	259.77	428.32	2622
950.00	955.2	929.9	1958	2006	122.87	259.02	427.20	2579
952.00	958.0	932.7	1959	2008	122.42	258.15	425.90	2770
954.00	960.8	935.5	1961	2010	121.96	257.26	424.55	2813
956.00	963.6	938.3	1963	2012	121.53	256.44	423.31	2725
958.00	966.2	940.9	1964	2013	121.14	255.68	422.17	2626

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
960.00	968.8	943.5	1966	2014	120.76	254.94	421.07	2595
962.00	971.7	946.4	1968	2017	120.27	253.98	419.61	2949
964.00	974.6	949.3	1970	2019	119.79	253.06	418.22	2899
966.00	977.4	952.1	1971	2021	119.38	252.26	417.00	2741
968.00	980.2	954.9	1973	2023	118.93	251.39	415.69	2834
970.00	983.0	957.7	1975	2025	118.50	250.54	414.41	2817
972.00	985.9	960.6	1977	2027	118.04	249.66	413.06	2890
974.00	988.8	963.5	1978	2029	117.58	248.76	411.70	2915
976.00	991.5	966.2	1980	2031	117.19	248.00	410.55	2703
978.00	994.2	968.9	1981	2032	116.82	247.28	409.47	2633
980.00	997.0	971.7	1983	2034	116.39	246.44	408.18	2864
982.00	999.9	974.6	1985	2036	115.94	245.56	406.85	2916
984.00	1002.8	977.5	1987	2038	115.52	244.74	405.60	2839
986.00	1005.5	980.2	1988	2040	115.13	243.98	404.46	2736
988.00	1008.2	982.9	1990	2042	114.75	243.24	403.33	2727
990.00	1011.0	985.7	1991	2043	114.36	242.48	402.18	2746
992.00	1013.7	988.4	1993	2045	114.00	241.77	401.10	2694
994.00	1016.3	991.0	1994	2046	113.64	241.07	400.04	2668
996.00	1019.1	993.8	1996	2048	113.25	240.31	398.88	2788
998.00	1022.1	996.8	1998	2050	112.81	239.44	397.55	2970
1000.00	1024.9	999.6	1999	2052	112.42	238.68	396.40	2796
1002.00	1027.6	1002.3	2001	2054	112.05	237.96	395.30	2740
1004.00	1030.3	1005.0	2002	2055	111.70	237.28	394.26	2684
1006.00	1033.1	1007.8	2004	2057	111.33	236.54	393.14	2776

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
1008.00	1035.9	1010.6	2005	2059	110.94	235.77	391.97	2848
1010.00	1038.7	1013.4	2007	2060	110.57	235.05	390.85	2785
1012.00	1041.6	1016.3	2009	2062	110.18	234.27	389.67	2873
1014.00	1044.6	1019.3	2011	2065	109.74	233.41	388.34	3042
1016.00	1047.6	1022.3	2012	2067	109.33	232.61	387.12	2930
1018.00	1050.5	1025.2	2014	2069	108.94	231.82	385.91	2929
1020.00	1053.4	1028.1	2016	2071	108.55	231.07	384.75	2876
1022.00	1056.5	1031.2	2018	2073	108.10	230.18	383.38	3126
1024.00	1059.5	1034.2	2020	2076	107.69	229.35	382.11	2982
1026.00	1062.5	1037.2	2022	2078	107.29	228.56	380.88	3091
1028.00	1065.6	1040.3	2024	2080	106.86	227.70	379.57	2978
1030.00	1068.6	1043.3	2026	2082	106.46	226.92	378.36	2923
1032.00	1071.5	1046.2	2028	2084	106.08	226.17	377.21	2968
1034.00	1074.5	1049.2	2029	2086	105.70	225.41	376.03	3132
1036.00	1077.6	1052.3	2031	2089	105.27	224.55	374.71	3027
1038.00	1080.6	1055.3	2033	2091	104.87	223.77	373.49	3110
1040.00	1083.7	1058.4	2035	2093	104.46	222.94	372.21	3097
1042.00	1086.8	1061.5	2037	2096	104.05	222.12	370.95	2924
1044.00	1089.8	1064.5	2039	2098	103.69	221.41	369.84	3045
1046.00	1092.8	1067.5	2041	2100	103.30	220.63	368.64	3055
1048.00	1095.9	1070.6	2043	2102	102.91	219.85	367.44	3072
1050.00	1098.9	1073.6	2045	2104	102.52	219.08	366.23	3109
1052.00	1102.0	1076.7	2047	2107	102.12	218.28	365.00	3066
1054.00	1105.1	1079.8	2049	2109	101.74	217.52	363.81	

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
1056.00	1108.2	1082.9	2051	2111	101.34	216.72	362.57	3137
1058.00	1111.3	1086.0	2053	2114	100.96	215.97	361.40	3063
1060.00	1114.4	1089.1	2055	2116	100.58	215.19	360.19	3122
1062.00	1117.6	1092.3	2057	2119	100.18	214.39	358.95	3172
1064.00	1120.9	1095.6	2059	2121	99.75	213.54	357.62	3288
1066.00	1124.2	1098.9	2062	2124	99.32	212.67	356.26	3329
1068.00	1127.6	1102.3	2064	2127	98.88	211.79	354.88	3362
1070.00	1130.9	1105.6	2066	2130	98.47	210.95	353.58	3294
1072.00	1134.1	1108.8	2069	2133	98.06	210.14	352.31	3296
1074.00	1137.4	1112.1	2071	2135	97.65	209.31	351.02	3320
1076.00	1140.8	1115.5	2073	2138	97.24	208.48	349.72	3298
1078.00	1144.1	1118.8	2076	2141	96.84	207.67	348.44	3307
1080.00	1147.4	1122.1	2078	2144	96.44	206.86	347.17	3373
1082.00	1150.7	1125.4	2080	2147	96.02	206.02	345.86	3381
1084.00	1154.1	1128.8	2083	2150	95.61	205.19	344.55	3365
1086.00	1157.5	1132.2	2085	2152	95.20	204.37	343.26	3110
1088.00	1160.6	1135.3	2087	2155	94.86	203.68	342.17	3101
1090.00	1163.7	1138.4	2089	2157	94.52	202.99	341.11	3144
1092.00	1166.8	1141.5	2091	2159	94.18	202.30	340.01	3156
1094.00	1170.0	1144.7	2093	2161	93.83	201.60	338.92	3181
1096.00	1173.2	1147.9	2095	2163	93.48	200.89	337.81	3178
1098.00	1176.3	1151.0	2097	2166	93.14	200.19	336.71	3106
1100.00	1179.5	1154.2	2098	2168	92.81	199.53	335.68	3088
1102.00	1182.5	1157.2	2100	2170	92.49	198.88	334.66	

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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	1185.6	1160.3	2102	2172	92.17	198.24	333.65	3084
1106.00	1188.7	1163.4	2104	2174	91.85	197.60	332.65	3072
1108.00	1191.9	1166.6	2106	2176	91.52	196.93	331.59	3170
1110.00	1195.1	1169.8	2108	2178	91.18	196.23	330.49	3244
1112.00	1198.2	1172.9	2110	2180	90.86	195.60	329.49	3099
1114.00	1201.2	1175.9	2111	2182	90.57	195.00	328.55	3028
1116.00	1204.2	1178.9	2113	2184	90.28	194.41	327.63	3007
1118.00	1207.4	1182.1	2115	2186	89.96	193.77	326.62	3138
1120.00	1210.5	1185.2	2116	2188	89.65	193.14	325.63	3133
1122.00	1213.7	1188.4	2118	2190	89.33	192.48	324.59	3197
1124.00	1216.9	1191.6	2120	2193	89.01	191.84	323.58	3183
1126.00	1220.2	1194.9	2122	2195	88.68	191.17	322.52	3258
1128.00	1223.4	1198.1	2124	2197	88.37	190.53	321.50	3199
1130.00	1226.5	1201.2	2126	2199	88.06	189.90	320.51	3172
1132.00	1229.7	1204.4	2128	2201	87.75	189.27	319.51	3198
1134.00	1232.8	1207.5	2130	2203	87.46	188.67	318.57	3107
1136.00	1236.0	1210.7	2132	2205	87.16	188.06	317.60	3175
1138.00	1239.2	1213.9	2133	2207	86.85	187.44	316.62	3195
1140.00	1242.4	1217.1	2135	2210	86.55	186.83	315.65	3187
1142.00	1245.5	1220.2	2137	2211	86.27	186.26	314.75	3087
1144.00	1248.5	1223.2	2139	2213	86.00	185.70	313.87	3060
1146.00	1251.5	1226.2	2140	2215	85.75	185.19	313.06	2945
1148.00	1254.7	1229.4	2142	2217	85.45	184.58	312.10	3209
1150.00	1257.8	1232.5	2144	2219	85.17	184.00	311.18	3156

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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	1260.9	1235.6	2145	2221	84.90	183.45	310.31	3072
1154.00	1264.2	1238.9	2147	2223	84.60	182.84	309.34	3249
1156.00	1267.4	1242.1	2149	2225	84.31	182.25	308.41	3194
1158.00	1270.7	1245.4	2151	2227	84.01	181.63	307.41	3313
1160.00	1274.0	1248.7	2153	2230	83.70	180.99	306.39	3349
1162.00	1277.3	1252.0	2155	2232	83.40	180.37	305.41	3303
1164.00	1280.6	1255.3	2157	2234	83.11	179.78	304.47	3250
1166.00	1283.8	1258.5	2159	2236	82.82	179.20	303.54	3240
1168.00	1287.1	1261.8	2161	2238	82.54	178.62	302.62	3244
1170.00	1290.3	1265.0	2162	2240	82.25	178.03	301.68	3281
1172.00	1293.4	1268.1	2164	2242	81.99	177.50	300.84	3112
1174.00	1296.7	1271.4	2166	2244	81.72	176.93	299.93	3241
1176.00	1300.0	1274.7	2168	2246	81.44	176.35	299.01	3273
1178.00	1303.3	1278.0	2170	2249	81.15	175.76	298.06	3326
1180.00	1306.6	1281.3	2172	2251	80.86	175.16	297.10	3354
1182.00	1310.0	1284.7	2174	2253	80.57	174.57	296.16	3344
1184.00	1313.4	1288.1	2176	2256	80.27	173.96	295.19	3394
1186.00	1316.9	1291.6	2178	2258	79.96	173.30	294.13	3546
1188.00	1320.5	1295.2	2181	2261	79.63	172.63	293.05	3607
1190.00	1323.9	1298.6	2183	2264	79.34	172.04	292.10	3390
1192.00	1327.4	1302.1	2185	2266	79.05	171.42	291.12	3459
1194.00	1330.9	1305.6	2187	2269	78.73	170.78	290.08	3566
1196.00	1334.5	1309.2	2189	2272	78.43	170.15	289.07	3528
1198.00	1338.0	1312.7	2191	2274	78.13	169.53	288.08	3513

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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	1341.5	1316.2	2194	2277	77.83	168.91	287.07	3544
1202.00	1345.1	1319.8	2196	2280	77.52	168.28	286.06	3573
1204.00	1348.7	1323.4	2198	2283	77.22	167.65	285.05	3567
1206.00	1352.1	1326.8	2200	2285	76.95	167.09	284.15	3409
1208.00	1355.4	1330.1	2202	2287	76.69	166.55	283.29	3329
1210.00	1358.9	1333.6	2204	2290	76.41	165.96	282.33	3519
1212.00	1362.6	1337.3	2207	2293	76.10	165.33	281.32	3627
1214.00	1366.2	1340.9	2209	2295	75.80	164.69	280.29	3665
1216.00	1369.9	1344.6	2211	2298	75.50	164.08	279.30	3626
1218.00	1373.4	1348.1	2214	2301	75.21	163.48	278.33	3590
1220.00	1376.8	1351.5	2216	2303	74.95	162.94	277.46	3405
1222.00	1380.5	1355.2	2218	2306	74.66	162.34	276.49	3616
1224.00	1384.0	1358.7	2220	2309	74.39	161.78	275.58	3511
1226.00	1387.5	1362.2	2222	2311	74.12	161.21	274.67	3539
1228.00	1391.1	1365.8	2224	2314	73.85	160.64	273.75	3554
1230.00	1394.6	1369.3	2227	2316	73.57	160.07	272.83	3568
1232.00	1398.1	1372.8	2229	2319	73.31	159.53	271.95	3508
1234.00	1401.7	1376.4	2231	2321	73.04	158.96	271.03	3593
1236.00	1405.3	1380.0	2233	2324	72.76	158.38	270.10	3611
1238.00	1408.9	1383.6	2235	2327	72.49	157.83	269.20	3582
1240.00	1412.5	1387.2	2237	2329	72.23	157.28	268.32	3552
1242.00	1416.0	1390.7	2239	2331	71.98	156.75	267.45	3532
1244.00	1419.5	1394.2	2242	2334	71.73	156.23	266.61	3504
1246.00	1423.0	1397.7	2244	2336	71.48	155.71	265.77	3499

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
1248.00	1426.6	1401.3	2246	2339	71.22	155.17	264.89	3587
1250.00	1430.2	1404.9	2248	2341	70.95	154.62	263.99	3637
1252.00	1433.8	1408.5	2250	2344	70.70	154.08	263.12	3595
1254.00	1437.4	1412.1	2252	2346	70.45	153.57	262.29	3530
1256.00	1440.9	1415.6	2254	2349	70.21	153.06	261.47	3520
1258.00	1444.6	1419.3	2256	2351	69.94	152.49	260.55	3733
1260.00	1448.2	1422.9	2259	2354	69.70	151.99	259.72	3550
1262.00	1451.7	1426.4	2261	2356	69.45	151.47	258.89	3574
1264.00	1455.3	1430.0	2263	2359	69.22	150.98	258.09	3518
1266.00	1458.7	1433.4	2265	2361	68.99	150.50	257.31	3488
1268.00	1462.2	1436.9	2266	2363	68.77	150.04	256.57	3414
1270.00	1465.7	1440.4	2268	2365	68.53	149.56	255.78	3540
1272.00	1469.2	1443.9	2270	2367	68.30	149.07	254.98	3543
1274.00	1472.8	1447.5	2272	2370	68.07	148.59	254.20	3532
1276.00	1476.3	1451.0	2274	2372	67.84	148.11	253.42	3537
1278.00	1479.9	1454.6	2276	2374	67.62	147.63	252.65	3542
1280.00	1483.4	1458.1	2278	2376	67.39	147.16	251.88	3531
1282.00	1486.9	1461.6	2280	2379	67.17	146.69	251.11	3545
1284.00	1490.6	1465.3	2282	2381	66.92	146.18	250.28	3688
1286.00	1494.3	1469.0	2285	2384	66.68	145.67	249.44	3727
1288.00	1497.8	1472.5	2287	2386	66.46	145.22	248.71	3490
1290.00	1501.4	1476.1	2289	2388	66.24	144.75	247.94	3581
1292.00	1505.0	1479.7	2290	2391	66.02	144.29	247.20	3536
1294.00	1508.6	1483.3	2293	2393	65.80	143.81	246.41	3644

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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	1512.2	1486.9	2295	2396	65.57	143.34	245.64	3641
1298.00	1515.9	1490.6	2297	2398	65.34	142.85	244.84	3683
1300.00	1519.5	1494.2	2299	2400	65.12	142.39	244.09	3610
1302.00	1523.2	1497.9	2301	2403	64.90	141.92	243.32	3665
1304.00	1526.9	1501.6	2303	2405	64.67	141.44	242.53	3695
1306.00	1530.6	1505.3	2305	2408	64.44	140.95	241.74	3743
1308.00	1534.3	1509.0	2307	2411	64.21	140.48	240.96	3707
1310.00	1538.0	1512.7	2310	2413	63.99	140.01	240.19	3691
1312.00	1541.6	1516.3	2311	2415	63.78	139.57	239.47	3596
1314.00	1545.3	1520.0	2314	2418	63.57	139.12	238.73	3651
1316.00	1548.8	1523.5	2315	2420	63.37	138.71	238.05	3510
1318.00	1552.3	1527.0	2317	2422	63.18	138.30	237.38	3510
1320.00	1556.1	1530.8	2319	2424	62.95	137.82	236.61	3766
1322.00	1559.9	1534.6	2322	2427	62.73	137.35	235.83	3787
1324.00	1563.5	1538.2	2324	2429	62.52	136.92	235.13	3612
1326.00	1567.1	1541.7	2325	2431	62.33	136.51	234.44	3573
1328.00	1570.7	1545.4	2327	2434	62.12	136.07	233.72	3681
1330.00	1574.4	1549.1	2330	2436	61.91	135.63	233.00	3708
1332.00	1578.0	1552.7	2331	2438	61.72	135.22	232.33	3554
1334.00	1581.7	1556.4	2333	2441	61.51	134.78	231.60	3746
1336.00	1585.3	1559.9	2335	2443	61.32	134.38	230.96	3521
1338.00	1588.6	1563.2	2337	2444	61.16	134.05	230.40	3296
1340.00	1592.0	1566.6	2338	2446	60.99	133.69	229.82	3387
1342.00	1595.6	1570.3	2340	2448	60.80	133.27	229.14	3649

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB MS	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	1599.3	1574.0	2342	2450	60.60	132.85	228.44	3700
1346.00	1603.1	1577.7	2344	2453	60.39	132.42	227.73	3744
1348.00	1606.8	1581.5	2346	2455	60.19	131.98	227.01	3796
1350.00	1610.7	1585.4	2349	2458	59.97	131.53	226.27	3843
1352.00	1614.5	1589.2	2351	2460	59.77	131.10	225.55	3788
1354.00	1618.2	1592.9	2353	2463	59.57	130.68	224.86	3760
1356.00	1622.0	1596.7	2355	2465	59.37	130.26	224.16	3753
1358.00	1625.7	1600.4	2357	2468	59.18	129.85	223.49	3721
1360.00	1629.4	1604.1	2359	2470	58.99	129.45	222.84	3673
1362.00	1633.0	1607.7	2361	2472	58.81	129.07	222.21	3629
1364.00	1636.7	1611.3	2363	2474	58.63	128.68	221.57	3648
1366.00	1640.3	1615.0	2365	2476	58.45	128.30	220.94	3607
1368.00	1644.0	1618.6	2366	2478	58.27	127.93	220.32	3524
1370.00	1647.5	1622.1	2368	2480	58.11	127.58	219.74	3665
1372.00	1651.2	1625.8	2370	2482	57.93	127.20	219.11	3613
1374.00	1654.8	1629.4	2372	2484	57.76	126.83	218.50	3690
1376.00	1658.5	1633.1	2374	2486	57.58	126.45	217.87	3774
1378.00	1662.3	1636.9	2376	2489	57.39	126.05	217.22	3739
1380.00	1666.0	1640.6	2378	2491	57.21	125.66	216.58	3730
1382.00	1669.8	1644.3	2380	2493	57.03	125.28	215.95	3715
1384.00	1673.5	1648.0	2382	2495	56.85	124.90	215.32	3613
1386.00	1677.2	1651.7	2383	2497	56.68	124.55	214.74	3592
1388.00	1680.8	1655.2	2385	2499	56.52	124.20	214.16	3774
1390.00	1684.6	1659.0	2387	2502	56.34	123.82	213.53	

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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	1688.4	1662.8	2389	2504	56.16	123.43	212.88	3820
1394.00	1692.3	1666.7	2391	2506	55.97	123.04	212.24	3825
1396.00	1696.1	1670.5	2393	2509	55.80	122.66	211.61	3792
1398.00	1699.9	1674.2	2395	2511	55.62	122.29	210.99	3762
1400.00	1703.7	1678.0	2397	2513	55.45	121.92	210.38	3767
1402.00	1707.7	1681.9	2399	2516	55.26	121.53	209.72	3900
1404.00	1711.3	1685.5	2401	2518	55.11	121.20	209.18	3584
1406.00	1715.2	1689.3	2403	2520	54.93	120.83	208.56	3799
1408.00	1719.0	1693.0	2405	2522	54.76	120.46	207.96	3777
1410.00	1722.8	1696.8	2407	2524	54.60	120.11	207.37	3758
1412.00	1726.6	1700.5	2409	2526	54.44	119.76	206.79	3705
1414.00	1730.4	1704.3	2411	2529	54.27	119.40	206.19	3803
1416.00	1734.4	1708.2	2413	2531	54.09	119.01	205.55	3937
1418.00	1738.3	1712.0	2415	2533	53.92	118.67	204.97	3756
1420.00	1742.1	1715.7	2417	2535	53.76	118.33	204.41	3710
1422.00	1745.9	1719.5	2418	2537	53.60	117.99	203.85	3738
1424.00	1749.6	1723.1	2420	2539	53.45	117.66	203.31	3646
1426.00	1753.4	1726.8	2422	2541	53.30	117.33	202.76	3710
1428.00	1757.3	1730.6	2424	2543	53.14	116.99	202.19	3774
1430.00	1761.2	1734.4	2426	2546	52.98	116.65	201.62	3786
1432.00	1765.0	1738.1	2427	2548	52.83	116.33	201.08	3692
1434.00	1768.8	1741.8	2429	2550	52.67	116.00	200.55	3700
1436.00	1772.6	1745.4	2431	2551	52.53	115.68	200.02	3681
1438.00	1776.6	1749.4	2433	2554	52.36	115.32	199.41	3931

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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	1780.5	1753.1	2435	2556	52.20	115.00	198.87	3759
1442.00	1784.5	1757.0	2437	2558	52.05	114.66	198.30	3833
1444.00	1788.3	1760.6	2439	2560	51.90	114.35	197.79	3658
1446.00	1792.0	1764.2	2440	2562	51.77	114.07	197.32	3538
1448.00	1796.0	1768.0	2442	2564	51.61	113.73	196.76	3848
1450.00	1799.9	1771.7	2444	2566	51.46	113.41	196.23	3737
1452.00	1803.8	1775.4	2446	2568	51.32	113.11	195.72	3693
1454.00	1807.6	1779.1	2447	2570	51.18	112.81	195.23	3659
1456.00	1811.5	1782.7	2449	2571	51.05	112.52	194.74	3618
1458.00	1815.1	1786.2	2450	2573	50.92	112.25	194.30	3475
1460.00	1819.0	1789.8	2452	2575	50.79	111.96	193.81	3642
1462.00	1822.9	1793.5	2454	2576	50.65	111.66	193.31	3702
1464.00	1826.9	1797.3	2455	2578	50.51	111.36	192.81	3720
1466.00	1830.9	1801.0	2457	2580	50.37	111.06	192.31	3729
1468.00	1834.8	1804.7	2459	2582	50.23	110.77	191.82	3697
1470.00	1838.8	1808.4	2460	2584	50.09	110.47	191.32	3714
1472.00	1842.9	1812.1	2462	2586	49.95	110.17	190.83	3739
1474.00	1846.9	1815.9	2464	2588	49.81	109.88	190.34	3715
1476.00	1850.9	1819.5	2466	2590	49.68	109.59	189.86	3695
1478.00	1855.0	1823.3	2467	2591	49.55	109.30	189.37	3725
1480.00	1859.0	1827.0	2469	2593	49.41	109.02	188.89	3711
1482.00	1863.0	1830.7	2471	2595	49.28	108.73	188.42	3694
1484.00	1867.1	1834.3	2472	2597	49.15	108.46	187.96	3663
1486.00	1871.0	1837.9	2474	2598	49.03	108.19	187.51	3594

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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	1874.9	1841.5	2475	2600	48.91	107.94	187.08	3548
1490.00	1878.8	1845.0	2477	2601	48.79	107.68	186.66	3524
1492.00	1882.9	1848.7	2478	2603	48.66	107.41	186.20	3678
1494.00	1887.1	1852.4	2480	2605	48.53	107.13	185.74	3706
1496.00	1891.2	1856.1	2481	2607	48.41	106.86	185.29	3683
1498.00	1895.2	1859.7	2483	2608	48.28	106.60	184.85	3631
1500.00	1899.2	1863.2	2484	2610	48.17	106.36	184.44	3504
1502.00	1903.1	1866.7	2486	2611	48.06	106.12	184.05	3446
1504.00	1907.0	1870.1	2487	2612	47.96	105.89	183.67	3421
1506.00	1911.2	1873.8	2488	2614	47.83	105.62	183.21	3744
1508.00	1915.7	1877.8	2490	2616	47.69	105.32	182.70	3938
1510.00	1920.1	1881.6	2492	2618	47.56	105.03	182.22	3818
1512.00	1924.5	1885.4	2494	2620	47.42	104.75	181.75	3826
1514.00	1928.9	1889.2	2496	2622	47.30	104.47	181.29	3796
1516.00	1933.3	1893.0	2497	2624	47.17	104.20	180.83	3794
1518.00	1937.6	1896.8	2499	2626	47.04	103.93	180.37	3773
1520.00	1941.9	1900.5	2501	2627	46.92	103.67	179.94	3695
1522.00	1945.9	1903.9	2502	2629	46.82	103.45	179.56	3467
1524.00	1950.0	1907.4	2503	2630	46.71	103.22	179.19	3469
1526.00	1954.2	1911.0	2505	2632	46.60	102.98	178.78	3627
1528.00	1958.5	1914.7	2506	2633	46.49	102.73	178.36	3665
1530.00	1962.7	1918.3	2508	2635	46.37	102.49	177.96	3614
1532.00	1966.9	1921.9	2509	2636	46.26	102.25	177.56	3577
1534.00	1970.8	1925.2	2510	2637	46.17	102.05	177.22	3363

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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	1974.8	1928.7	2511	2638	46.07	101.84	176.87	3409
1538.00	1979.1	1932.4	2513	2640	45.95	101.58	176.43	3762
1540.00	1983.4	1936.0	2514	2642	45.84	101.35	176.04	3623
1542.00	1987.6	1939.7	2516	2643	45.73	101.11	175.63	3661
1544.00	1991.8	1943.3	2517	2645	45.62	100.88	175.25	3588
1546.00	1996.0	1946.9	2519	2646	45.52	100.65	174.87	3564
1548.00	2000.1	1950.4	2520	2647	45.42	100.43	174.50	3540
1550.00	2004.4	1954.1	2521	2649	45.31	100.19	174.09	3686
1552.00	2008.5	1957.6	2523	2650	45.20	99.97	173.72	3572
1554.00	2012.4	1961.0	2524	2651	45.11	99.77	173.39	3523
1556.00	2016.5	1964.5	2525	2653	45.01	99.55	173.03	3587
1558.00	2020.7	1968.1	2526	2654	44.91	99.33	172.65	3601
1560.00	2024.9	1971.7	2528	2656	44.80	99.11	172.28	3631
1562.00	2029.1	1975.4	2529	2657	44.70	98.88	171.90	3497
1564.00	2033.1	1978.8	2530	2658	44.60	98.67	171.54	3333
1566.00	2037.0	1982.2	2532	2659	44.51	98.48	171.23	3293
1568.00	2040.8	1985.5	2532	2660	44.43	98.30	170.92	3792
1570.00	2045.2	1989.3	2534	2662	44.32	98.06	170.51	3791
1572.00	2049.6	1993.1	2536	2664	44.21	97.82	170.10	3676
1574.00	2053.9	1996.7	2537	2665	44.10	97.59	169.72	3735
1576.00	2058.3	2000.5	2539	2667	43.99	97.36	169.33	3846
1578.00	2062.7	2004.3	2540	2669	43.88	97.11	168.92	3760
1580.00	2067.1	2008.1	2542	2670	43.77	96.88	168.52	3673
1582.00	2071.4	2011.7	2543	2672	43.67	96.66	168.15	

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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	2075.7	2015.4	2545	2673	43.57	96.44	167.78	3664
1586.00	2080.0	2019.1	2546	2675	43.47	96.22	167.41	3674
1588.00	2084.3	2022.7	2548	2676	43.37	96.01	167.05	3637
1590.00	2088.4	2026.2	2549	2678	43.27	95.81	166.72	3518
1592.00	2092.5	2029.7	2550	2679	43.18	95.61	166.39	3495
1594.00	2096.7	2033.3	2551	2680	43.09	95.41	166.05	3519
1596.00	2101.0	2036.9	2553	2681	42.99	95.20	165.69	3674
1598.00	2105.4	2040.6	2554	2683	42.89	94.98	165.32	3711
1600.00	2109.6	2044.2	2555	2684	42.80	94.78	164.98	3607
1602.00	2113.7	2047.7	2556	2685	42.71	94.59	164.66	3553
1604.00	2117.9	2051.3	2558	2687	42.62	94.39	164.32	3712
1606.00	2122.2	2055.0	2559	2688	42.52	94.17	163.96	3698
1608.00	2126.6	2058.7	2561	2690	42.42	93.96	163.60	3576
1610.00	2130.8	2062.3	2562	2691	42.33	93.77	163.27	3471
1612.00	2134.9	2065.7	2563	2692	42.24	93.58	162.96	3544
1614.00	2139.0	2069.3	2564	2693	42.16	93.39	162.63	3631
1616.00	2143.3	2072.9	2565	2695	42.06	93.19	162.29	3745
1618.00	2147.7	2076.7	2567	2696	41.96	92.97	161.93	3676
1620.00	2152.0	2080.3	2568	2698	41.87	92.77	161.59	3593
1622.00	2156.3	2083.9	2570	2699	41.78	92.58	161.26	3545
1624.00	2160.5	2087.5	2571	2700	41.69	92.39	160.94	3412
1626.00	2164.5	2090.9	2572	2701	41.61	92.21	160.65	3522
1628.00	2168.6	2094.4	2573	2702	41.53	92.03	160.34	3565
1630.00	2172.8	2098.0	2574	2704	41.44	91.84	160.02	

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
1632.00	2177.1	2101.7	2576	2705	41.35	91.64	159.68	3684
1634.00	2181.5	2105.3	2577	2706	41.26	91.44	159.34	3689
1636.00	2185.8	2109.0	2578	2708	41.17	91.25	159.01	3642
1638.00	2190.0	2112.6	2579	2709	41.08	91.06	158.69	3601
1640.00	2194.2	2116.2	2581	2710	40.99	90.87	158.38	3588
1642.00	2198.5	2119.8	2582	2712	40.91	90.68	158.05	3650
1644.00	2202.8	2123.5	2583	2713	40.82	90.48	157.72	3688
1646.00	2207.1	2127.2	2585	2714	40.72	90.29	157.39	3702
1648.00	2211.4	2130.9	2586	2716	40.64	90.10	157.07	3659
1650.00	2215.7	2134.5	2587	2717	40.55	89.91	156.75	3579
1652.00	2219.9	2138.1	2588	2718	40.47	89.73	156.45	3554
1654.00	2224.1	2141.6	2590	2719	40.39	89.55	156.15	3523
1656.00	2228.2	2145.1	2591	2720	40.31	89.38	155.85	3518
1658.00	2232.4	2148.6	2592	2722	40.23	89.21	155.56	3484
1660.00	2236.5	2152.1	2593	2723	40.15	89.04	155.27	3429
1662.00	2240.5	2155.6	2594	2724	40.07	88.88	155.00	3398
1664.00	2244.5	2159.0	2595	2724	40.00	88.72	154.73	3373
1666.00	2248.5	2162.3	2596	2725	39.93	88.56	154.46	3424
1668.00	2252.5	2165.8	2597	2726	39.85	88.40	154.19	3461
1670.00	2256.6	2169.2	2598	2727	39.78	88.24	153.92	3535
1672.00	2260.8	2172.8	2599	2728	39.70	88.07	153.63	3585
1674.00	2265.0	2176.3	2600	2730	39.62	87.89	153.33	3552
1676.00	2269.2	2179.9	2601	2731	39.54	87.72	153.04	3638
1678.00	2273.5	2183.5	2603	2732	39.46	87.54	152.74	

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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	2277.8	2187.2	2604	2733	39.38	87.36	152.43	3665
1682.00	2282.1	2190.8	2605	2735	39.29	87.19	152.14	3633
1684.00	2286.6	2194.6	2606	2736	39.21	87.00	151.82	3760
1686.00	2291.0	2198.3	2608	2737	39.12	86.82	151.50	3720
1688.00	2295.4	2202.0	2609	2739	39.04	86.64	151.20	3676
1690.00	2299.7	2205.6	2610	2740	38.96	86.46	150.91	3631
1692.00	2303.9	2209.1	2611	2741	38.89	86.30	150.63	3506
1694.00	2308.2	2212.7	2612	2742	38.81	86.13	150.35	3615
1696.00	2312.4	2216.2	2613	2743	38.74	85.97	150.08	3500
1698.00	2316.5	2219.7	2614	2744	38.67	85.82	149.81	3453
1700.00	2320.7	2223.2	2616	2745	38.59	85.66	149.54	3512
1702.00	2324.8	2226.7	2617	2746	38.52	85.51	149.29	3425
1704.00	2328.9	2230.1	2617	2747	38.45	85.36	149.03	3511
1706.00	2333.1	2233.6	2619	2748	38.38	85.20	148.76	3373
1708.00	2337.1	2237.0	2619	2749	38.31	85.06	148.52	3389
1710.00	2341.2	2240.3	2620	2750	38.25	84.91	148.27	3541
1712.00	2345.4	2243.9	2621	2751	38.17	84.75	148.00	3436
1714.00	2349.5	2247.3	2622	2752	38.11	84.60	147.75	3435
1716.00	2353.7	2250.8	2623	2752	38.04	84.46	147.50	3332
1718.00	2357.7	2254.1	2624	2753	37.97	84.32	147.27	3261
1720.00	2361.6	2257.4	2625	2754	37.91	84.19	147.04	3277
1722.00	2365.5	2260.6	2626	2755	37.85	84.05	146.82	3279
1724.00	2369.5	2263.9	2626	2755	37.79	83.92	146.59	3265
1726.00	2373.4	2267.2	2627	2756	37.73	83.79	146.37	

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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	2377.4	2270.5	2628	2757	37.67	83.66	146.14	3311
1730.00	2381.3	2273.7	2629	2757	37.61	83.53	145.93	3230
1732.00	2385.1	2276.9	2629	2758	37.55	83.40	145.71	3231
1734.00	2389.1	2280.2	2630	2758	37.49	83.27	145.49	3244
1736.00	2392.9	2283.4	2631	2759	37.44	83.15	145.28	3192
1738.00	2396.8	2286.6	2631	2759	37.38	83.03	145.07	3213
1740.00	2400.5	2289.7	2632	2760	37.33	82.91	144.87	3106
1742.00	2404.3	2292.9	2632	2760	37.27	82.79	144.67	3167
1744.00	2408.1	2296.0	2633	2761	37.22	82.67	144.48	3135
1746.00	2411.8	2299.1	2634	2761	37.16	82.56	144.28	3115
1748.00	2415.6	2302.2	2634	2762	37.11	82.44	144.08	3080
1750.00	2419.3	2305.3	2635	2762	37.06	82.33	143.89	3137
1752.00	2423.0	2308.4	2635	2763	37.01	82.21	143.69	3094
1754.00	2426.8	2311.5	2636	2763	36.95	82.10	143.50	3111
1756.00	2430.5	2314.6	2636	2763	36.90	81.99	143.31	3122
1758.00	2434.2	2317.8	2637	2764	36.85	81.87	143.11	3086
1760.00	2437.9	2320.9	2637	2764	36.80	81.76	142.93	3124
1762.00	2441.7	2324.0	2638	2765	36.75	81.65	142.73	3119
1764.00	2445.4	2327.1	2638	2765	36.69	81.53	142.54	3096
1766.00	2449.1	2330.2	2639	2765	36.64	81.42	142.35	3113
1768.00	2452.9	2333.3	2639	2766	36.59	81.31	142.16	3129
1770.00	2456.6	2336.4	2640	2766	36.54	81.20	141.97	3087
1772.00	2460.3	2339.5	2641	2767	36.49	81.09	141.78	3058
1774.00	2464.0	2342.6	2641	2767	36.44	80.98	141.60	

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
1776.00	2467.8	2345.7	2642	2767	36.39	80.87	141.41	3159
1778.00	2471.7	2349.0	2642	2768	36.33	80.75	141.20	3255
1780.00	2475.5	2352.2	2643	2769	36.28	80.63	141.00	3209
1782.00	2479.3	2355.4	2644	2769	36.22	80.51	140.81	3177
1784.00	2483.1	2358.5	2644	2770	36.17	80.40	140.62	3135
1786.00	2486.8	2361.7	2645	2770	36.12	80.29	140.43	3148
1788.00	2490.6	2364.8	2645	2770	36.07	80.18	140.24	3115
1790.00	2494.3	2367.8	2646	2771	36.02	80.08	140.06	3068
1792.00	2498.0	2371.0	2646	2771	35.97	79.97	139.88	3076
1794.00	2501.7	2374.0	2647	2772	35.92	79.86	139.70	3074
1796.00	2505.4	2377.1	2647	2772	35.88	79.76	139.52	3037
1798.00	2509.0	2380.1	2648	2772	35.83	79.65	139.34	3057
1800.00	2512.7	2383.2	2648	2773	35.78	79.55	139.17	3209
1802.00	2516.5	2386.4	2649	2773	35.73	79.44	138.97	3225
1804.00	2520.4	2389.6	2649	2774	35.68	79.32	138.78	3208
1806.00	2524.2	2392.8	2650	2774	35.62	79.21	138.59	3133
1808.00	2528.0	2396.0	2650	2775	35.58	79.10	138.40	3156
1810.00	2531.8	2399.1	2651	2775	35.53	78.99	138.22	3134
1812.00	2535.5	2402.3	2652	2775	35.48	78.89	138.04	3133
1814.00	2539.3	2405.4	2652	2776	35.43	78.78	137.85	3099
1816.00	2543.0	2408.5	2653	2776	35.38	78.67	137.68	3089
1818.00	2546.7	2411.6	2653	2777	35.33	78.57	137.50	3071
1820.00	2550.4	2414.7	2653	2777	35.29	78.47	137.33	3073
1822.00	2554.1	2417.7	2654	2777	35.24	78.37	137.16	

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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	2557.9	2420.8	2654	2778	35.19	78.27	136.98	3104
1826.00	2561.5	2423.9	2655	2778	35.15	78.17	136.81	3026
1828.00	2565.3	2427.0	2655	2778	35.10	78.06	136.63	3156
1830.00	2569.1	2430.1	2656	2779	35.05	77.96	136.45	3131
1832.00	2572.7	2433.2	2656	2779	35.00	77.86	136.29	3054
1834.00	2576.5	2436.3	2657	2779	34.96	77.75	136.11	3142
1836.00	2580.3	2439.5	2657	2780	34.91	77.65	135.93	3127
1838.00	2584.0	2442.5	2658	2780	34.86	77.55	135.76	3074
1840.00	2587.8	2445.7	2658	2781	34.82	77.45	135.59	3132
1842.00	2591.5	2448.8	2659	2781	34.77	77.35	135.41	3111
1844.00	2595.4	2452.0	2659	2781	34.72	77.24	135.23	3193
1846.00	2599.1	2455.1	2660	2782	34.67	77.14	135.06	3127
1848.00	2603.1	2458.4	2661	2782	34.62	77.02	134.86	3292
1850.00	2606.8	2461.5	2661	2783	34.58	76.93	134.70	3056
1852.00	2610.4	2464.4	2661	2783	34.54	76.84	134.54	2978
1854.00	2613.9	2467.4	2662	2783	34.49	76.75	134.39	2958
1856.00	2617.5	2470.3	2662	2783	34.45	76.66	134.24	2952
1858.00	2621.0	2473.3	2662	2784	34.41	76.57	134.09	2924
1860.00	2624.4	2476.1	2662	2784	34.38	76.49	133.95	2787
1862.00	2627.8	2478.9	2663	2784	34.34	76.41	133.82	2829
1864.00	2631.1	2481.6	2663	2783	34.31	76.33	133.69	2688
1866.00	2634.4	2484.3	2663	2783	34.27	76.26	133.56	2770
1868.00	2637.8	2487.1	2663	2783	34.23	76.18	133.42	2791
1870.00	2640.9	2489.7	2663	2783	34.20	76.11	133.31	2603

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
1872.00	2644.1	2492.3	2663	2783	34.17	76.04	133.19	2614
1874.00	2647.3	2495.0	2663	2783	34.14	75.97	133.07	2632
1876.00	2650.7	2497.8	2663	2783	34.10	75.89	132.94	2811
1878.00	2654.0	2500.5	2663	2783	34.07	75.82	132.81	2734
1880.00	2657.2	2503.2	2663	2783	34.04	75.75	132.69	2657
1882.00	2660.6	2506.0	2663	2783	34.00	75.67	132.56	2769
1884.00	2663.9	2508.7	2663	2783	33.97	75.60	132.43	2741
1886.00	2667.1	2511.4	2663	2783	33.93	75.52	132.31	2658
1888.00	2670.3	2514.0	2663	2782	33.90	75.46	132.20	2602
1890.00	2673.5	2516.6	2663	2782	33.87	75.39	132.08	2693
1892.00	2677.1	2519.6	2663	2783	33.83	75.30	131.93	2997
1894.00	2680.8	2522.6	2664	2783	33.79	75.21	131.77	2981
1896.00	2684.4	2525.7	2664	2783	33.75	75.12	131.62	3027
1898.00	2687.9	2528.5	2664	2783	33.71	75.04	131.48	2845
1900.00	2691.5	2531.5	2665	2783	33.67	74.95	131.33	3008
1902.00	2694.8	2534.3	2665	2783	33.64	74.88	131.21	2750
1904.00	2698.2	2537.0	2665	2783	33.60	74.80	131.08	2783
1906.00	2701.5	2539.8	2665	2783	33.57	74.73	130.95	2729
1908.00	2704.8	2542.5	2665	2783	33.53	74.65	130.83	2732
1910.00	2707.9	2545.1	2665	2783	33.50	74.59	130.72	2629
1912.00	2711.3	2547.9	2665	2783	33.47	74.51	130.59	2773
1914.00	2714.7	2550.8	2665	2783	33.43	74.43	130.45	2859
1916.00	2718.3	2553.7	2666	2783	33.40	74.35	130.31	2927
1918.00	2721.6	2556.5	2666	2783	33.36	74.28	130.19	2786

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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	2725.2	2559.5	2666	2784	33.32	74.19	130.04	2982
1922.00	2728.7	2562.3	2666	2784	33.28	74.11	129.90	2891
1924.00	2732.4	2565.4	2667	2784	33.24	74.02	129.75	3095
1926.00	2736.0	2568.4	2667	2784	33.20	73.94	129.60	2940
1928.00	2739.5	2571.3	2667	2784	33.17	73.85	129.46	2959
1930.00	2743.0	2574.2	2668	2784	33.13	73.77	129.33	2866
1932.00	2746.5	2577.2	2668	2785	33.09	73.69	129.19	2952
1934.00	2749.9	2580.0	2668	2785	33.06	73.62	129.06	2821
1936.00	2753.5	2582.9	2668	2785	33.02	73.53	128.92	2942
1938.00	2756.9	2585.7	2668	2785	32.99	73.46	128.79	2830
1940.00	2760.4	2588.6	2669	2785	32.95	73.38	128.66	2874
1942.00	2764.0	2591.6	2669	2785	32.91	73.30	128.51	3011
1944.00	2767.4	2594.4	2669	2785	32.88	73.22	128.38	2800
1946.00	2770.8	2597.2	2669	2785	32.84	73.15	128.26	2879
1948.00	2774.2	2600.1	2670	2785	32.81	73.07	128.13	2727
1950.00	2777.5	2602.9	2670	2785	32.78	73.00	128.01	2869
1952.00	2781.0	2605.7	2670	2785	32.74	72.92	127.88	2871
1954.00	2784.4	2608.6	2670	2785	32.71	72.85	127.75	2759
1956.00	2787.8	2611.3	2670	2785	32.67	72.78	127.63	2907
1958.00	2791.3	2614.3	2670	2786	32.64	72.70	127.49	2936
1960.00	2794.8	2617.2	2671	2786	32.60	72.62	127.36	3035
1962.00	2798.5	2620.2	2671	2786	32.56	72.53	127.21	3071
1964.00	2802.1	2623.3	2671	2786	32.52	72.45	127.06	3035
1966.00	2805.8	2626.3	2672	2787	32.49	72.36	126.92	

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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	2809.4	2629.4	2672	2787	32.45	72.28	126.77	3023
1970.00	2813.0	2632.3	2672	2787	32.41	72.20	126.64	2977
1972.00	2816.7	2635.4	2673	2787	32.37	72.11	126.49	3035
1974.00	2820.3	2638.4	2673	2788	32.33	72.03	126.35	3050
1976.00	2824.0	2641.5	2674	2788	32.29	71.94	126.20	3106
1978.00	2827.6	2644.5	2674	2788	32.26	71.86	126.06	2966
1980.00	2831.2	2647.5	2674	2788	32.22	71.78	125.92	2963
1982.00	2834.7	2650.4	2675	2788	32.18	71.70	125.79	2979
1984.00	2838.4	2653.4	2675	2789	32.15	71.62	125.65	3051
1986.00	2842.0	2656.5	2675	2789	32.11	71.54	125.51	2983
1988.00	2845.6	2659.5	2676	2789	32.07	71.46	125.37	3029
1990.00	2849.2	2662.5	2676	2789	32.03	71.38	125.23	3066
1992.00	2852.9	2665.6	2676	2790	32.00	71.29	125.09	3027
1994.00	2856.5	2668.6	2677	2790	31.96	71.21	124.95	3092
1996.00	2860.3	2671.7	2677	2790	31.92	71.13	124.80	3035
1998.00	2863.9	2674.7	2677	2791	31.88	71.05	124.66	3060
2000.00	2867.6	2677.8	2678	2791	31.85	70.96	124.52	3103
2002.00	2871.3	2680.9	2678	2791	31.81	70.88	124.37	3135
2004.00	2875.0	2684.0	2679	2791	31.77	70.79	124.22	3107
2006.00	2878.7	2687.1	2679	2792	31.73	70.71	124.08	3109
2008.00	2882.5	2690.2	2680	2792	31.69	70.62	123.93	3071
2010.00	2886.1	2693.3	2680	2792	31.65	70.54	123.79	3127
2012.00	2889.9	2696.4	2680	2793	31.61	70.45	123.65	3202
2014.00	2893.7	2699.6	2681	2793	31.57	70.37	123.49	

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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	2897.6	2702.8	2681	2794	31.53	70.28	123.34	3216
2018.00	2901.4	2706.1	2682	2794	31.49	70.19	123.19	3219
2020.00	2905.2	2709.3	2682	2795	31.45	70.10	123.03	3190
2022.00	2909.1	2712.5	2683	2795	31.41	70.01	122.88	3212
2024.00	2912.9	2715.7	2684	2795	31.37	69.92	122.73	3255
2026.00	2916.7	2718.9	2684	2796	31.33	69.83	122.58	3167
2028.00	2920.6	2722.2	2685	2796	31.29	69.74	122.42	3274
2030.00	2924.4	2725.3	2685	2797	31.25	69.66	122.28	3137
2032.00	2928.2	2728.5	2686	2797	31.21	69.57	122.12	3247
2034.00	2932.0	2731.7	2686	2798	31.17	69.48	121.97	3177
2036.00	2935.7	2734.9	2687	2798	31.13	69.40	121.83	3131
2038.00	2939.6	2738.1	2687	2798	31.09	69.31	121.68	3249
2040.00	2943.5	2741.4	2688	2799	31.05	69.22	121.52	3289
2042.00	2947.4	2744.6	2688	2799	31.01	69.13	121.37	3225
2044.00	2951.3	2747.9	2689	2800	30.97	69.04	121.22	3288
2046.00	2955.2	2751.2	2689	2800	30.93	68.95	121.06	3301
2048.00	2959.1	2754.5	2690	2801	30.89	68.86	120.91	3255
2050.00	2962.9	2757.7	2690	2801	30.85	68.77	120.76	3235
2052.00	2966.9	2761.0	2691	2802	30.80	68.68	120.60	3328
2054.00	2970.7	2764.2	2692	2802	30.77	68.60	120.46	3184
2056.00	2974.5	2767.4	2692	2803	30.73	68.51	120.31	3194
2058.00	2978.2	2770.5	2692	2803	30.69	68.43	120.17	3108
2060.00	2982.0	2773.7	2693	2803	30.65	68.35	120.03	3182
2062.00	2985.9	2777.0	2693	2804	30.61	68.26	119.88	3260

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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	2989.8	2780.2	2694	2804	30.58	68.18	119.73	3233
2066.00	2993.7	2783.5	2695	2805	30.53	68.09	119.58	3318
2068.00	2997.6	2786.8	2695	2805	30.49	68.00	119.43	3276
2070.00	3001.4	2789.9	2696	2806	30.46	67.92	119.29	3165
2072.00	3005.2	2793.1	2696	2806	30.42	67.84	119.15	3154
2074.00	3009.0	2796.3	2697	2807	30.38	67.76	119.01	3194
2076.00	3013.0	2799.6	2697	2807	30.34	67.67	118.86	3307
2078.00	3016.8	2802.8	2698	2807	30.31	67.59	118.72	3156
2080.00	3020.5	2805.9	2698	2808	30.27	67.51	118.58	3147
2082.00	3024.4	2809.1	2698	2808	30.23	67.43	118.45	3172
2084.00	3028.2	2812.3	2699	2809	30.20	67.35	118.31	3360
2086.00	3032.3	2815.6	2700	2809	30.16	67.26	118.15	3398
2088.00	3036.4	2819.0	2700	2810	30.11	67.17	117.99	3538
2090.00	3040.6	2822.6	2701	2811	30.07	67.07	117.82	3536
2092.00	3044.9	2826.1	2702	2811	30.02	66.97	117.65	3661
2094.00	3049.3	2829.8	2703	2812	29.98	66.86	117.47	3714
2096.00	3053.8	2833.5	2704	2813	29.93	66.75	117.28	3584
2098.00	3058.2	2837.1	2705	2814	29.88	66.65	117.11	3740
2100.00	3062.7	2840.8	2706	2815	29.83	66.54	116.92	3922
2102.00	3067.5	2844.7	2707	2816	29.78	66.42	116.71	3903
2104.00	3072.2	2848.6	2708	2818	29.72	66.30	116.51	3703
2106.00	3076.7	2852.3	2709	2819	29.68	66.20	116.32	3906
2108.00	3081.4	2856.2	2710	2820	29.62	66.08	116.12	3914
2110.00	3086.2	2860.2	2711	2821	29.57	65.96	115.92	

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
2112.00	3090.8	2864.0	2712	2822	29.52	65.85	115.73	3796
2114.00	3095.2	2867.6	2713	2823	29.47	65.75	115.55	3679
2116.00	3099.9	2871.6	2714	2824	29.42	65.63	115.35	3930
2118.00	3104.5	2875.3	2715	2825	29.37	65.53	115.16	3746
2120.00	3109.2	2879.2	2716	2827	29.32	65.41	114.96	3895
2122.00	3113.6	2882.8	2717	2827	29.27	65.31	114.79	3634
2124.00	3118.2	2886.7	2718	2829	29.22	65.20	114.60	3866
2126.00	3122.9	2890.5	2719	2830	29.17	65.09	114.41	3814
2128.00	3127.5	2894.4	2720	2831	29.12	64.98	114.22	3873
2130.00	3132.1	2898.2	2721	2832	29.07	64.87	114.03	3763
2132.00	3136.7	2902.0	2722	2833	29.02	64.76	113.85	3826
2134.00	3141.4	2905.8	2723	2834	28.98	64.66	113.66	3812
2136.00	3146.0	2909.7	2724	2835	28.93	64.55	113.47	3862
2138.00	3150.5	2913.4	2725	2836	28.88	64.45	113.30	3694
2140.00	3155.3	2917.3	2726	2837	28.83	64.34	113.10	3916
2142.00	3160.0	2921.2	2728	2838	28.78	64.23	112.91	3890
2144.00	3164.8	2925.1	2729	2840	28.73	64.11	112.72	3915
2146.00	3169.7	2929.1	2730	2841	28.68	64.00	112.52	3994
2148.00	3174.7	2933.2	2731	2842	28.62	63.88	112.31	4106
2150.00	3179.6	2937.2	2732	2844	28.57	63.76	112.11	4020
2152.00	3184.2	2940.9	2733	2845	28.52	63.66	111.94	3743
2154.00	3189.1	2944.9	2734	2846	28.47	63.55	111.74	3978
2156.00	3194.1	2949.0	2736	2847	28.42	63.43	111.54	4033
2158.00	3198.9	2952.9	2737	2848	28.37	63.32	111.35	3950

COMPANY : ESSO AUSTRALIA LTD.

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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	3204.0	2957.0	2738	2850	28.32	63.20	111.15	4075
2162.00	3209.1	2961.1	2739	2851	28.26	63.08	110.94	4156
2164.00	3214.2	2965.3	2741	2853	28.20	62.96	110.72	4187
2166.00	3219.4	2969.5	2742	2854	28.15	62.84	110.51	4195
2168.00	3224.5	2973.6	2743	2856	28.10	62.72	110.30	4128
2170.00	3229.3	2977.5	2744	2857	28.05	62.61	110.12	3874
2172.00	3234.2	2981.5	2745	2858	28.00	62.50	109.93	4018
2174.00	3239.0	2985.4	2746	2859	27.95	62.40	109.75	3887
2176.00	3243.8	2989.3	2748	2860	27.90	62.29	109.57	3883
2178.00	3248.8	2993.3	2749	2862	27.85	62.18	109.38	4027
2180.00	3253.7	2997.3	2750	2863	27.80	62.07	109.19	4003
2182.00	3258.7	3001.3	2751	2864	27.76	61.97	109.00	3995
2184.00	3263.5	3005.2	2752	2865	27.71	61.86	108.83	3866
2186.00	3268.4	3009.1	2753	2867	27.66	61.76	108.65	3947
2188.00	3273.2	3013.0	2754	2868	27.62	61.66	108.47	3897
2190.00	3278.0	3016.9	2755	2869	27.57	61.56	108.29	3892
2192.00	3282.8	3020.9	2756	2870	27.52	61.45	108.12	3813
2194.00	3287.5	3024.7	2757	2871	27.48	61.36	107.95	3917
2196.00	3292.4	3028.6	2758	2872	27.43	61.25	107.77	4008
2198.00	3297.3	3032.6	2759	2873	27.38	61.15	107.59	3975
2200.00	3302.2	3036.6	2761	2874	27.34	61.04	107.41	4019
2202.00	3307.1	3040.6	2762	2876	27.29	60.94	107.22	3937
2204.00	3311.9	3044.5	2763	2877	27.24	60.84	107.05	3964
2206.00	3316.7	3048.5	2764	2878	27.20	60.73	106.87	

COMPANY : ESSO AUSTRALIA LTD.

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB MS	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	3321.7	3052.6	2765	2879	27.15	60.63	106.68	4084
2210.00	3326.7	3056.7	2766	2881	27.10	60.52	106.49	4096
2212.00	3331.7	3060.8	2767	2882	27.05	60.41	106.30	4137
2214.00	3336.7	3064.9	2769	2883	27.00	60.30	106.12	4094
2216.00	3341.7	3069.0	2770	2885	26.95	60.19	105.93	4130
2218.00	3346.7	3073.2	2771	2886	26.90	60.08	105.74	4142
2220.00	3351.7	3077.3	2772	2887	26.85	59.97	105.55	4117
2222.00	3356.6	3081.3	2773	2889	26.81	59.87	105.37	4027
2224.00	3361.4	3085.3	2775	2890	26.76	59.77	105.19	4031
2226.00	3366.3	3089.4	2776	2891	26.71	59.66	105.01	4032
2228.00	3371.1	3093.4	2777	2892	26.67	59.57	104.84	4026
2230.00	3376.0	3097.4	2778	2893	26.62	59.46	104.67	3989
2232.00	3380.8	3101.4	2779	2895	26.58	59.36	104.49	4287
2234.00	3386.0	3105.7	2780	2896	26.53	59.25	104.30	4272
2236.00	3391.1	3109.9	2782	2898	26.47	59.14	104.10	4261
2238.00	3396.3	3114.2	2783	2899	26.42	59.03	103.91	4379
2240.00	3401.6	3118.6	2784	2901	26.37	58.91	103.70	4534
2242.00	3407.1	3123.1	2786	2903	26.31	58.78	103.48	4482
2244.00	3412.5	3127.6	2788	2905	26.26	58.66	103.27	4477
2246.00	3417.9	3132.1	2789	2906	26.20	58.54	103.06	4391
2248.00	3423.2	3136.5	2790	2908	26.15	58.42	102.86	4671
2250.00	3428.8	3141.1	2792	2910	26.09	58.29	102.63	4647
2252.00	3434.4	3145.8	2794	2912	26.03	58.16	102.40	
2254.00	3440.2	3150.6	2796	2914	25.97	58.02	102.16	4783

COMPANY : ESSO AUSTRALIA LTD.

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TWO-WAY TRAVEL TIME FROM SRD	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	3446.0	3155.4	2797	2916	25.91	57.88	101.92	4820
2258.00	3451.7	3160.2	2799	2919	25.85	57.75	101.69	4800
2260.00	3457.7	3165.1	2801	2921	25.78	57.61	101.44	4926
2262.00	3463.5	3170.0	2803	2923	25.72	57.47	101.20	4879
2264.00	3469.4	3174.8	2805	2926	25.66	57.33	100.96	4851
2266.00	3475.2	3179.7	2806	2928	25.60	57.19	100.72	4829
2268.00	3481.0	3184.5	2808	2930	25.53	57.06	100.48	4869
2270.00	3486.9	3189.5	2810	2933	25.47	56.91	100.24	4979
2272.00	3492.9	3194.5	2812	2935	25.41	56.77	99.99	4984
2274.00	3498.4	3199.1	2814	2937	25.35	56.65	99.78	4646
2276.00	3503.8	3203.7	2815	2939	25.30	56.53	99.57	4517
2278.00	3509.5	3208.4	2817	2941	25.24	56.40	99.35	4787
2280.00	3515.4	3213.5	2819	2943	25.18	56.26	99.10	5007
2282.00	3520.9	3218.0	2820	2945	25.12	56.15	98.90	4589
2284.00	3526.6	3222.8	2822	2947	25.06	56.02	98.68	4792
2286.00	3532.3	3227.7	2824	2949	25.01	55.89	98.45	4856
2288.00	3538.2	3232.6	2826	2952	24.94	55.75	98.21	4954
2290.00	3543.9	3237.5	2828	2954	24.89	55.62	97.99	4878
2292.00	3549.6	3242.3	2829	2956	24.83	55.50	97.77	4792
2294.00	3555.4	3247.3	2831	2959	24.77	55.36	97.53	4987
2296.00	3561.3	3252.3	2833	2961	24.71	55.23	97.30	4968
2298.00	3566.5	3256.7	2834	2962	24.66	55.12	97.11	4454
2300.00	3571.8	3261.3	2836	2964	24.61	55.01	96.92	4563
2302.00	3577.0	3265.7	2837	2966	24.56	54.90	96.74	4424

COMPANY : ESSO AUSTRALIA LTD.

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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	3582.1	3270.0	2839	2967	24.52	54.81	96.57	4279
2306.00	3587.1	3274.3	2840	2969	24.47	54.71	96.40	4279
2308.00	3592.3	3278.7	2841	2970	24.43	54.61	96.22	4387
2310.00	3597.7	3283.3	2843	2972	24.38	54.49	96.02	4677
2312.00	3603.6	3288.3	2845	2974	24.32	54.36	95.80	4980
2314.00	3609.1	3293.0	2846	2976	24.26	54.25	95.59	4736
2316.00	3614.5	3297.6	2848	2978	24.22	54.14	95.40	4573
2318.00	3620.1	3302.4	2849	2980	24.16	54.02	95.20	4778
2320.00	3626.2	3307.6	2851	2983	24.10	53.88	94.96	5165
2322.00	3631.6	3312.2	2853	2984	24.05	53.77	94.77	4626
2324.00	3637.1	3316.9	2854	2986	24.00	53.66	94.57	4673
2326.00	3642.7	3321.7	2856	2988	23.95	53.54	94.37	4831
2328.00	3648.6	3326.8	2858	2991	23.89	53.41	94.14	5090
2330.00	3654.8	3332.1	2860	2994	23.82	53.27	93.89	5324
2332.00	3661.1	3337.5	2862	2997	23.76	53.12	93.63	5438
2334.00	3667.2	3342.8	2864	2999	23.69	52.98	93.39	5223
2336.00	3672.4	3347.3	2866	3001	23.65	52.88	93.22	4528
2338.00	3677.6	3351.8	2867	3002	23.60	52.78	93.04	4465
2340.00	3682.7	3356.2	2869	3004	23.56	52.69	92.88	4420
2342.00	3687.7	3360.6	2870	3005	23.52	52.59	92.71	4384
2344.00	3692.8	3365.0	2871	3007	23.48	52.50	92.55	4409
2346.00	3697.8	3369.3	2872	3008	23.43	52.40	92.39	4373
2348.00	3703.6	3374.4	2874	3011	23.38	52.28	92.17	5098
2350.00	3709.8	3379.9	2876	3014	23.31	52.14	91.92	5413

COMPANY : ESSO AUSTRALIA LTD.

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TWO-WAY TRAVEL TIME FROM SRD	MEASURED DEPTH FROM KB	VERTICAL DEPTH FROM SRD	AVERAGE VELOCITY SRD/GEO	RMS VELOCITY	FIRST NORMAL MOVEOUT	SECOND NORMAL MOVEOUT	THIRD NORMAL MOVEOUT	INTERVAL VELOCITY
MS	M	M	M/S	M/S	MS	MS	MS	M/S
2352.00	3716.0	3385.2	2879	3016	23.25	52.00	91.67	5392
2354.00	3722.1	3390.6	2881	3019	23.19	51.86	91.44	5357
2356.00	3728.2	3396.0	2883	3022	23.13	51.72	91.20	5383
2358.00	3734.3	3401.4	2885	3025	23.06	51.59	90.96	5404
2360.00	3740.4	3406.8	2887	3027	23.00	51.45	90.72	5442
2362.00	3746.5	3412.2	2889	3030	22.94	51.31	90.47	

PE906101

This is an enclosure indicator page.
The enclosure PE906101 is enclosed within the
container PE900909 at this location in this
document.

The enclosure PE906101 has the following characteristics:

ITEM_BARCODE = PE906101
CONTAINER_BARCODE = PE900909
NAME = Transit-Times Comparison Graph
BASIN = GIPPSLAND
PERMIT = VIC/L6
TYPE = WELL
SUBTYPE = VELOCITY_CHART
DESCRIPTION = Transit-times Comparison (TVD-MSL) for
Gudgeon-1.
REMARKS =
DATE_CREATED = 01/06/1995
DATE RECEIVED = 13/11/1995
W_NO = W1120
WELL_NAME = GUDGEON-1
CONTRACTOR = SCHLUMBERGER
CLIENT_OP_CO = ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

Appendix 6



5th Cut
A4 Dividers
Re-order Code 97052

APPENDIX VI

DEVIATION SUMMARY

Halliburton Australia Ltd - Drilling Systems

Page 1

Survey Report

Date 24/4/95
 Time: 10:03 pm
 Wellpath ID: gudg1sur
 Date Created: 19/4/95
 Last Revision: 24/4/95

*Calculated using the Minimum Curvature Method
 Computed using WIN-CADD S REV2.1.B
 Vertical Section Plane: 40.81 deg*

Survey Reference: WELLHEAD

Reference World Coordinates: Lat: 38 30.53 S - Long 148.28.04 E

Reference GRID System: UTM Zone: 55, Cent. Merid: 147.00.00 E

Reference GRID Coordinates: (m): 5735995.00 N 627970.00 E

North Aligned To: TRUE NORTH

Vertical Section Reference: WELLHEAD

Closure Reference: WELLHEAD

TVD Reference: WELLHEAD

ESSO AUSTRALIA LTD.

GUDGEON # 1

VICTORIA

BASS STRAIT

Measured Depth (m)	Incl (deg.)	Drift Dir (deg.)	Course Length (m)	TVD (m)	TOTAL Rectangular Offsets (m)		Vertical Section (m)	Build Rate (dg/30m)	Walk Rate (dg/30m)	DLS (dg/30m)	Cum. Dogleg (deg)
0.00	0.00	0.00	0.00	0.00	0.00 N	0.00 E	0.00	0.00	0.00	0.00	0.0
499.00	1.00	191.20	499.00	498.97	4.27 S	0.80 W	-3.79	0.06	0.00	0.08	1.0
672.00	0.50	153.30	173.00	671.96	6.43 S	0.80 W	-5.39	-0.09	-6.57	0.12	1.7
812.00	0.50	84.20	140.00	811.96	6.91 S	0.08 E	-5.18	0.00	-14.81	0.12	2.2
953.00	1.50	144.20	146.00	957.93	8.40 S	1.83 E	-5.16	0.21	12.33	0.17	3.6
1125.00	1.00	152.20	167.00	1124.89	11.46 S	3.79 E	-6.19	-0.09	1.44	0.19	4.1
1153.50	0.30	176.90	28.50	1153.39	11.75 S	3.91 E	-6.34	-0.74	26.00	0.13	4.8
1209.50	0.00	161.10	56.00	1209.39	11.90 S	3.92 E	-6.44	-0.16	0.00	0.15	5.1
1239.50	0.40	204.10	30.00	1239.39	11.99 S	3.88 E	-6.54	0.40	0.00	0.11	5.5
1267.50	0.00	217.00	28.00	1267.39	12.08 S	3.84 E	-6.64	-0.43	0.00	0.11	5.9
1325.00	0.00	259.30	57.50	1324.89	12.08 S	3.84 E	-6.64	0.00	0.00	0.11	5.9
1493.00	0.80	321.00	168.00	1492.89	11.17 S	3.10 E	-6.43	0.14	0.00	0.11	6.7
1524.50	1.30	297.50	31.50	1524.38	10.84 S	2.64 E	-6.47	0.48	-22.33	0.11	7.4
1553.00	1.30	295.70	28.50	1552.87	10.55 S	2.07 E	-6.63	0.00	-1.89	0.11	7.4
1564.00	1.30	299.30	11.00	1563.87	10.43 S	1.84 E	-6.69	0.00	9.82	0.11	7.5
1579.40	1.60	301.90	15.40	1579.27	10.23 S	1.51 E	-6.76	0.58	5.06	0.11	7.8
1607.90	1.60	342.20	28.50	1607.76	9.64 S	1.05 E	-6.61	0.00	42.42	0.11	8.9
1635.50	3.10	16.90	27.60	1635.33	8.56 S	1.15 E	-5.73	1.63	37.72	0.11	10.9
1664.00	5.50	33.60	28.50	1663.75	6.69 S	2.13 E	-3.67	2.53	17.58	0.11	13.6
1693.20	7.80	36.30	29.20	1692.75	3.92 S	4.08 E	-0.31	2.36	2.77	0.11	15.9
1721.80	10.10	39.40	28.60	1721.00	0.42 S	6.82 E	4.14	2.41	3.25	0.11	18.3
1751.40	12.40	40.80	29.60	1750.03	3.99 N	10.54 E	9.91	2.33	1.42	0.11	20.6
1779.10	15.00	40.70	27.70	1776.94	8.96 N	14.82 E	16.47	2.82	-0.11	23.2	
1809.40	18.40	39.50	30.30	1805.96	15.62 N	20.42 E	25.17	3.37	-1.19	26.6	
1837.50	21.80	40.80	28.10	1832.35	23.00 N	26.66 E	34.83	3.63	1.39	0.11	30.0
1866.30	24.40	41.10	26.80	1858.83	31.53 N	34.06 E	46.13	2.71	0.31	0.11	32.6
1894.00	27.00	40.40	27.70	1883.79	40.63 N	41.90 E	53.14	2.82	-0.76	0.11	35.3
1923.00	29.80	39.80	29.00	1909.30	51.18 N	50.78 E	71.93	2.90	-0.62	0.11	38.1
1953.50	31.00	40.40	30.50	1935.61	62.99 N	60.72 E	87.36	1.18	0.59	0.11	39.3
1982.00	30.90	40.30	28.50	1960.05	74.16 N	70.21 E	102.02	-0.11	-0.11	0.11	39.4
2010.70	30.60	41.30	28.70	1984.71	85.27 N	79.80 E	116.69	-0.31	1.05	0.11	40.0
2040.50	30.40	41.00	29.30	2010.39	96.66 N	89.75 E	131.82	-0.20	-0.30	0.11	40.3

Halliburton Australia Ltd - Drilling Systems

P02

Page 2
Date. 24/4/95

Vellpath ID: gdg1sur

Survey Report

Measured Depth (m)	Incl (deg.)	Drift Dir. (deg.)	Course Length (m)	TVD (m)	T O T A L Rectangular Offsets (m)	Vertical Section (m)	Build Rate (dg/30m)	Walk Rate (dg/30m)	DLS (dg/30m)	Cum Dogleg (deg.)
2069.00	31.30	40.90	27.50	2034.00	107.31N	99.00E	145.92	0.98	-0.11	41.2
2095.50	31.80	41.10	27.50	2057.43	118.17N	108.44E	160.31	0.55	0.22	41.7
2123.30	31.60	42.00	28.30	2031.51	129.29N	118.30E	175.18	-0.21	0.95	42.2
2153.00	32.00	41.50	29.20	2106.33	140.77N	128.55E	190.56	0.41	-0.51	42.7
2181.00	31.60	41.70	28.00	2130.12	151.81N	138.34E	205.31	-0.43	0.21	43.1
2188.70	31.50	41.30	7.70	2136.69	154.83N	141.01E	209.34	-0.39	-1.56	43.3
2237.40	31.90	41.20	48.70	2178.12	174.07N	157.88E	234.93	0.25	-0.06	43.7
2266.10	32.10	42.10	28.70	2202.46	185.43N	167.99E	250.14	0.21	0.94	44.2
2295.00	32.80	42.00	28.90	2226.85	196.94N	178.38E	265.64	0.73	-0.10	44.9
2324.30	33.20	41.80	29.30	2251.42	208.52N	189.03E	281.60	0.41	-0.20	45.4
Interpolated top "LAKES ENTRANCE"										
2330.00	33.26	42.02	5.70	2256.19	211.15N	191.12E	284.72	0.31	1.17	45.5
2352.60	33.50	42.90	22.80	2275.23	220.40N	199.59E	297.26	0.32	1.16	46.0
2381.50	33.90	43.10	28.70	2299.10	232.05N	210.45E	313.17	0.42	0.21	46.4
2409.80	33.80	43.20	28.30	2322.61	243.55N	221.23E	328.92	-0.11	0.11	46.6
2439.00	33.50	42.70	29.20	2346.91	255.39N	232.25E	345.09	-0.31	-0.51	47.0
2467.00	33.40	42.60	28.00	2370.28	266.74N	242.71E	360.52	-0.11	-0.11	47.1
2496.00	33.40	42.50	29.00	2394.49	278.50N	253.51E	376.47	0.00	-0.10	47.1
2525.00	33.60	43.20	29.00	2418.67	290.24N	264.39E	392.47	0.21	0.72	47.6
2554.00	33.70	43.10	29.00	2442.81	301.96N	275.38E	408.52	0.10	-0.10	47.7
2582.00	33.90	43.30	28.00	2466.08	313.31N	286.04E	424.09	0.21	0.21	47.9
2610.00	34.00	43.80	28.00	2489.31	324.65N	296.82E	439.71	0.11	0.54	48
2639.00	34.20	43.60	29.00	2513.32	336.40N	308.05E	455.94	0.21	-0.21	48.4
2667.60	34.40	43.40	28.60	2536.95	348.09N	319.15E	472.04	0.21	-0.21	48.7
2696.10	34.10	43.80	28.50	2560.50	359.71N	330.21E	488.06	-0.32	0.42	49.0
2724.70	33.90	43.80	28.60	2584.21	371.25N	341.28E	504.04	-0.21	0.00	49.2
2753.60	34.00	44.10	28.90	2608.19	382.87N	352.48E	520.15	0.10	0.31	49.4
2781.90	33.90	44.00	28.30	2631.66	394.23N	363.47E	535.93	-0.11	-0.11	49.6
2810.10	33.70	43.70	28.20	2655.10	405.54N	374.33E	551.60	-0.21	-0.32	49.8
2838.50	33.60	43.40	28.40	2678.74	416.95N	385.18E	567.31	-0.11	-0.32	50.0
2867.00	33.40	43.90	28.50	2702.50	428.33N	396.03E	583.02	-0.21	0.53	50.3
2896.00	33.30	42.90	29.00	2726.73	439.91N	406.99E	598.95	-0.10	-1.03	50.9
2923.00	32.90	43.10	27.00	2749.35	450.70N	417.04E	613.68	-0.44	0.22	51.3
2953.00	32.80	43.90	30.00	2774.55	462.50N	428.25E	629.94	-0.10	0.80	51.8
2981.00	33.10	43.60	28.00	2798.05	473.50N	438.78E	645.15	0.32	-0.32	52.1
3009.00	33.40	43.20	28.00	2821.46	484.66N	449.32E	660.49	0.32	-0.43	52.5
3037.60	34.00	44.20	28.60	2845.26	496.13N	460.29E	676.33	0.63	1.05	53.3
Interpolated top "LATROBE"										
3047.00	34.31	43.89	9.40	2853.03	499.91N	463.96E	681.60	0.98	-0.99	53.6
3056.00	34.60	43.60	9.00	2860.46	503.60N	467.48E	686.69	0.96	-0.97	54.0
3094.00	34.10	43.70	38.00	2891.83	519.11N	432.28E	708.10	-0.39	0.08	54.5
3123.00	34.20	43.50	29.00	2915.83	530.90N	493.50E	724.36	0.10	-0.21	54.6
3150.50	34.60	43.80	27.50	2938.52	542.15N	504.23E	739.88	0.44	0.33	55.1
3180.00	35.40	43.80	29.50	2962.68	554.36N	515.94E	756.78	0.81	0.00	55
3209.00	35.90	43.10	29.00	2986.25	566.63N	527.56E	773.66	0.52	-0.72	56.5
3237.00	35.70	42.30	28.00	3008.96	578.67N	538.67E	790.03	-0.21	-0.86	57.0
3259.30	36.20	42.10	22.30	3027.01	588.36N	547.46E	803.12	0.67	-0.27	57.5

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Survey Report

Wellpath ID: gudg1sur

Measured Depth (m)	Incl (deg.)	Drift Dir. (deg.)	Course Length (m)	TVD (m)	TOTAL Rectangular Offsets (m)		Vertical Section (m)	Build Rate (dg/30m)	Walk Rate (dg/30m)	DLS (dg/30m)	Cum Dogleg (deg)
3273.00	36.10	42.30	13.70	3039.07	594.35 N	552.89 E	811.20	-0.22	0.44	0.34	57.7
3301.00	35.30	42.00	29.00	3060.81	606.46 N	563.86 E	827.53	-0.86	-0.32	0.88	58.5
3331.00	34.50	40.60	30.00	3085.42	619.36 N	575.19 E	844.69	-0.80	-1.40	1.13	59.6
3358.00	34.30	41.40	27.00	3107.69	630.87 N	585.19 E	859.95	-0.22	0.89	0.55	60.1
Interpolated top "TERROCOTIA"											
3376.00	34.18	41.69	18.00	3122.58	638.44 N	591.92 E	870.07	-0.21	0.82	0.51	60.4
3387.20	34.10	42.20	11.20	3131.85	643.10 N	596.13 E	876.36	-0.20	0.82	0.51	60.6
3416.00	34.10	40.90	28.80	3155.69	655.19 N	606.84 E	892.50	0.00	-1.35	0.76	61.4
3477.00	33.50	40.50	61.00	3206.38	680.91 N	628.97 E	926.44	-0.30	-0.20	0.31	62.0
3512.60	32.50	39.80	35.60	3236.24	695.73 N	641.47 E	945.82	0.84	-0.59	0.90	63.1
3528.00	32.40	40.30	15.40	3249.24	702.06 N	646.79 E	954.09	-0.19	0.97	0.56	63.4
3550.00	31.80	40.00	22.00	3267.87	710.99 N	654.33 E	965.78	-0.82	-0.41	0.35	64.0
3557.00	31.60	39.60	7.00	3273.83	713.82 N	656.68 E	969.45	-0.86	-1.71	1.24	64.3
3586.00	31.70	39.40	29.00	3298.51	725.56 N	666.36 E	984.67	0.10	-0.21	0.15	64.4
3613.00	31.50	39.30	27.00	3321.51	736.50 N	675.33 E	998.81	-0.22	-0.11	0.23	64.6
3635.00	31.30	38.90	22.00	3340.29	745.40 N	682.56 E	1010.27	-0.27	-0.55	0.39	64.9
3824.00	25.00	37.00	189.00	3506.85	815.57 N	737.48 E	1099.27	-1.00	-0.30	1.01	71.3
Projection to bit											
3835.00	24.60	36.85	11.00	3516.84	819.26 N	740.26 E	1103.83	-1.09	-0.41	1.10	71.7

2-5-WT-H-3-1 - WT-PR

Appendix 7



5th Cut
A4 Dividers
Re-order Code 97052

APPENDIX VII

MUDLOG

PE 600730

PE600730

This is an enclosure indicator page.
The enclosure PE600730 is enclosed within the
container PE900909 at this location in this
document.

The enclosure PE600730 has the following characteristics:

ITEM_BARCODE = PE600730
CONTAINER_BARCODE = PE900909
NAME = Formation Evaluation Log
BASIN = GIPPSLAND
PERMIT =
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Formation Evaluation Log
REMARKS =
DATE_CREATED = 24/04/1995
DATE_RECEIVED = 13/11/1995
W_NO = W1120
WELL_NAME = Gudgeon -1
CONTRACTOR = HALLIBURTON ENERGY SERVICES
CLIENT_OP_CO = ESSO

(Inserted by DNRE - Vic Govt Mines Dept)