Schlumberger

B.H.P. PETROLEUM

WELL SEISMIC PROCESSING REPORT

MINERVA-1

FIELD	: WILDCAT
COUNTRY	: AUSTRALIA
COORDINATES	: 038 42' 12.23" S : 142 57' 12.34" E
DATE OF SURVEY	: 5-APRIL-1993
REFERENCE NO.	: VSP :560895 : GEOGRAM:560896
INTERVAL	: 2520.0 - 465.0 M (DF)

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1. Introduction

A vertical seismic profile was recorded over three suites, with overlap between surveys, for the MINERVA-1 well on the 14th and 23rd of March and the 5th of April 1993. The data was processed using the conventional zero offset vertical incidence processing chain using only the vertical component. Synthetics and a seismic calibration log were also produced utilising corrected vertical times.

2. Data Acquisition

The data was acquired using the three component seismic acquisition tool (CSI).
A three sleeve 150 cu inch airgun Array firing at 120 bar was used for all runs. Gun depth was 7 metres below mean sea level. Seven shots per level were taken with the levels selected by BHPP.
Recording was made on the Schlumberger MAXIS, using DLIS format.
A copy of the field logs is given in the enclosure at the back of this report.

Table 1. Survey Parameters

Elevation of KB	25.3 metres AMSL
Elevation of DF	25 metres AMSL
Elevation of GL	57 metres below MSL
Total Depth	2520 metres below DF
Energy Source	3 airgun array
Source Offset	47 metres
Source Depth	7 metres below MSL
Reference Sensor	Hydrophone
Hydrophone Offset	47 metres
Hydrophone Depth	14 metres below MSL
Azimuth of source	50 degrees

3. Sonic Calibration Processing

3.1 Sonic Calibration

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

The gradient of drift, that is the slope of the drift curve, can be negative or positive. For a negative drift $\frac{\Delta drift}{\Delta depth} < 0$, the sonic time is greater than the seismic time over a certain section of the log.

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

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

Two methods of correction to the sonic log are used.

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

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

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

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

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

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

3.2 Open Hole Logs

The sonic log has been recorded from 2520.0 to 465.0 metres below KB. The sonic log has been edited to alleviate cycle skipping and spiky data. The density log has also been edited to take into account bad hole conditions.

The gamma ray and calliper logs are included as correlation curves.

3.3 Correction to Datum and Velocity Modelling

The sonic calibration processing has been referenced to mean sea level which is the seismic reference datum . Static corrections are applied to correct for source offset and source depth. This involves using a velocity of 1524 m/sec.

3.4 Sonic Calibration Results

The top of the sonic log (465 metres below DF) is chosen as the origin for the calibration drift curve.

The drift curve is the correction imposed upon the sonic log. The adjusted sonic curve is considered to be the best result using the available data. A list of shifts used on the sonic data is given in sonic adjustment parameter report provided in the drift listings section of the report.

4. Synthetic Seismogram Processing

GEOGRAM plots were generated using 25, 35, and 45 Hz zero phase ricker wavelets.

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

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

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

4.1 Depth to Time Conversion

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

4.2 Primary Reflection Coefficients

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

$$R = \frac{\rho_2 . v_2 - \rho_1 v_1}{\rho_2 . v_2 + \rho_1 v_1}$$

where:

ρ_1 = density of the layer above the reflection interface
ρ_2 = density of the layer below the reflection interface
v_1 = compressional wave velocity of the layer above the reflection interface
v_2 = compressional wave velocity of the layer below the reflection interface

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

4.3 Primaries with Transmission Loss

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

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

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

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

4.4 Primaries plus Multiples

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

4.5 Multiples Only

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

4.6 Wavelet

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

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

Time variant Butterworth filtering can be applied after convolution.

4.7 Polarity Convention

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

4.8 Convolution

This the standard procedure of convolving the wavelet with reflection coefficients. The output of the convolution is the actual synthetic seismogram.

5. VSP Processing

The vertical component of the VSP data was processed using the conventional zero offset vertical incident processing chain. The following subsections describe the main aspects of the processing chain.

5.1 Stacking

A median stack was performed on the vertical and horizontal component data. The surface sensor (hydrophone) breaks are used as the zero time for stacking. The break time of each trace is recomputed after stacking. At this stage a shot edit is peformed and levels are selected for calibration of the sonic data and Vsp processing.

The data quality is excellent with the vertical component stacks displaying a consistent signature and a high signal to noise ratio.

5.2 Spherical Divergence Correction and Bandpass Filter

A bandpass filter of 5-100 hertz bandwidth was applied and a time varying gain function of the exponential form :

$$GAIN(T) = \left(\frac{T}{T_0}\right)^{\alpha}$$

is also used (T is the recorded time, T_o is the first break time and α = 1.0).

Trace equalisation was applied by normalising the RMS amplitude of the first break to correct for transmission losses of the direct wave. A normalisation window of 100 millisecs was used (see plot 2).

5.3 Velocity filter

The downgoing coherent energy is estimated using a seven level median velocity filter. The filter array is moved down one level after each computation and the process is repeated level by level over the entire dataset. As a result, the deepest and shallowest levels are lost because of edge effects.

The residual wavefield is obtained by subtracting the downgoing coherent energy from the total wavefield. The residual wavefield is dominated by reflected compressional events (plot 3) .
The upgoing wavefield is enhanced by making a median stack of the upgoing aligned traces using a 5 level filter. The data is now displayed in two way time (plot 4).

5.4 Waveshaping Deconvolution

The waveshaping deconvolution operator is a double sided operator and is designed trace by trace opening 20 ms before the first break with a window length of 700 ms. The desired outputs were chosen to be zero phase and minimum phase with a band width of 10-60 hz . Once the design is made upon the downgoing wavefield, it is applied to the downgoing and subtracted wavefield at the same level. The upgoing compressional wavefield is enhanced in an exactly analogous manner to before.

The result of waveshaping deconvolution on the residual wavefield is shown on plot 4. The deconvolution is applied before any coherency enhancement in order to collapse the multiple sequence of shear arrivals, diffractions or out of plane reflections.

A corridor stack was computed on the data after zero phase waveshaping deconvolution by defining a timing window 100 msec wide along the time depth curve and stacking the data onto a single trace. This trace under normal circumstances should satisfy the assumption of one dimensionality and provide the best seismic representation of the borehole. This is displayed on Plot 5 .

5.5 VSP Acoustic Impedance Inversion

The zero phase waveshaping should permit a better interpretation of acoustic contrast, hence the data used for the inversion has been taken from the VSP after zero phase waveshaping deconvolution.

The inversion technique is based on entropy minimisation of the reflection coefficient series. In other words, the algorithm chooses the sparsest sequences of reflection coefficients as the preferred solution. The low frequency trend is extracted from the time depth curve such that the inversion technique is achieved without any input from the logged data.

It is important to point out that the acoustic impedance inversion is obtained without any input from the logged data. The quality of the inversion can be assessed by the similarity of the match between the logged impedance and inverted impedance.
In this case there is an excellent tie between logged impedance and inverted impedance.

Plots 7 and 8 are composite displays of the VSP data, inverted impedance, logged impedance and synthetic seismograms. These displays are a guide to the tie between the geograms and corridor stack.

There is an excellent tie between the synthetic seismogram and VSP. There are some subtle variations on the amplitude of the events. The VSP provides a measure of the earth filter effect whilst the synthetic makes some very basic assumptions to approximate the earth filter effect.

A Summary of Geophysical Listings

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

A1 Geophysical Airgun Report

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

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

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

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

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

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

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

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

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

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

A2 Drift Computation Report

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

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

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

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

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

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

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

A3 Sonic Adjustment Parameter Report

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

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

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

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

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

6. Delta-T minimum used: see section 4 of report for an explanation of $\Delta\, t_{min}$.

7. Reduction factor: see section 4 of report.

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

A4 Velocity Report

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

2. Vertical depth from KB: the depth in metres form kelly bushing.

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

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

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

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

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

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

A5 Time Converted Velocity Report

the data in this listing has been resampled in time.

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

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

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

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

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

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

where v_i is the velocity between each 2 millisecs interval.

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

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

where:

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

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

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

9. Interval velocity: the velocity between each sampled depth. Typically, the sampling rate is 2 millisecs two way time, (1 millisec one way time) therefore the interval velocity will be equal to the depth increment divided by 0.002. It is equivalent to column 9 from the Velocity Report.

SHOTS

SCHLUMBERGER

GEOPHYSICAL AIRGUN REPORT

COMPANY : BHP PETROLEUM
WELL : MINERVA #1
FIELD : WILDCAT
COUNTRY : AUSTRALIA
REFERENCE: 560896

LONG DEFINITIONS

GLOBAL

KB - Elevation of the KELLY-BUSHING Above MSL or MWL
SRD - Elevation of the Seismic Reference Datum Above MSL or MWL
EKB - Elevation of Kelly Bushing
GL - Elevation of Users Reference (Generally Ground Level) Above SRD
VELHYD - VELOCITY OF THE MEDIUM BETWEEN THE SOURCE AND THE HYDROPHONE
VELSUR - VELOCITY OF THE MEDIUM BETWEEN THE SOURCE AND THE SRD

MATRIX

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

SAMPLED

SHOT.GSH - Shot number
DKB.GSH - Measured Depth from Kelly-Bushing
DSRD.GSH - Depth from SRD
DGL.GSH - Vertical Depth Relative to Ground Level (User's Reference)
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	: 25.0000	M
ELEV OF SRD AB. MSL(WST)	SRD	: 0	M
Elevation of Kelly Bushi	EKB	: 25.0000	M
ELEV OF GL AB. SRD(WST)	GL	: -57.0000	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	-10.00	36.00	30.21	-14.00	36.00	30.21

	TRT HYD-SC MS	TRT SC-SRD MS
1	2.62	6.56

	MD @ KB M	VD @ KB M	VD @ SRD M	E-W COORD M	N-S COORD M
1	82.00	81.99	56.99	-.09	-.31
2	200.00	199.99	174.99	-.21	-.76
3	250.00	249.98	224.98	-.27	-.95
4	300.00	299.98	274.98	-.32	-1.14
5	350.00	349.98	324.98	-.37	-1.33
6	400.00	399.97	374.97	-.43	-1.52
7	450.00	449.97	424.97	-.48	-1.71
8	500.00	499.97	474.97	-.53	-1.90
9	535.00	534.96	509.96	-.57	-2.03
10	566.00	565.96	540.96	-.61	-2.15
11	580.00	579.96	554.96	-.62	-2.21
12	600.00	599.96	574.96	-.64	-2.28
13	621.00	620.96	595.96	-.66	-2.36
14	641.00	640.96	615.96	-.69	-2.44
15	660.00	659.96	634.96	-.71	-2.51
16	682.00	681.96	656.96	-.73	-2.59
17	700.00	699.95	674.95	-.75	-2.66
18	720.00	719.95	694.95	-.77	-2.74
19	738.00	737.95	712.95	-.79	-2.81
20	760.00	759.95	734.95	-.81	-2.89
21	780.00	779.95	754.95	-.83	-2.97
22	802.00	801.95	776.95	-.86	-3.05
23	827.00	826.95	801.95	-.88	-3.14
24	840.00	839.95	814.95	-.90	-3.19
25	861.00	860.94	835.94	-.92	-3.27
26	882.00	881.94	856.94	-.94	-3.35
27	904.00	903.94	878.94	-.97	-3.44
28	920.00	919.94	894.94	-.98	-3.50
29	944.00	943.94	918.94	-1.01	-3.59
30	970.00	969.94	944.94	-1.04	-3.69
31	989.00	988.94	963.94	-1.06	-3.76
32	1010.00	1009.93	984.93	-1.08	-3.84
33	1035.00	1034.93	1009.93	-1.11	-3.94

34	1055.00	1054.93	1029.93	-1.13	-4.01
35	1075.00	1074.93	1049.93	-1.15	-4.09
36	1095.00	1094.93	1069.93	-1.17	-4.16
37	1115.00	1114.93	1089.93	-1.19	-4.24
38	1135.00	1134.93	1109.93	-1.21	-4.32
39	1156.00	1155.92	1130.92	-1.24	-4.40
40	1174.00	1173.92	1148.92	-1.25	-4.46
41	1189.00	1188.92	1163.92	-1.27	-4.52
42	1215.00	1214.88	1189.88	-1.88	-5.94
43	1240.00	1239.82	1214.82	-2.47	-7.47
44	1261.00	1260.77	1235.77	-2.99	-8.79
45	1280.00	1279.73	1254.73	-3.50	-10.04
46	1304.00	1303.66	1278.66	-4.23	-11.70
47	1325.00	1324.59	1299.59	-4.91	-13.22
48	1345.00	1344.53	1319.53	-5.59	-14.69
49	1368.00	1367.44	1342.44	-6.42	-16.44
50	1385.00	1384.38	1359.38	-7.05	-17.79
51	1407.00	1406.29	1381.29	-7.92	-19.60
52	1425.00	1424.21	1399.21	-8.62	-21.13
53	1445.00	1444.12	1419.12	-9.39	-22.87
54	1468.00	1467.01	1442.01	-10.30	-24.93
55	1493.00	1491.88	1466.88	-11.30	-27.24
56	1510.00	1508.79	1483.79	-12.00	-28.85
57	1535.00	1533.65	1508.65	-13.04	-31.28
58	1555.00	1553.53	1528.53	-13.88	-33.25
59	1578.00	1576.39	1551.39	-14.86	-35.58
60	1600.00	1598.25	1573.25	-15.76	-37.88
61	1620.00	1618.12	1593.12	-16.56	-40.01
62	1640.00	1637.99	1612.99	-17.30	-42.20
63	1655.00	1652.89	1627.89	-17.80	-43.87
64	1675.00	1672.74	1647.74	-18.42	-46.18
65	1693.00	1690.60	1665.60	-18.97	-48.38
66	1715.00	1712.42	1687.42	-19.60	-51.16
67	1740.00	1737.19	1712.19	-20.23	-54.43
68	1760.00	1757.00	1732.00	-20.69	-57.15
69	1780.00	1776.81	1751.81	-21.06	-59.90
70	1800.00	1796.61	1771.61	-21.33	-62.67
71	1820.00	1816.42	1791.42	-21.53	-65.46
72	1845.00	1841.18	1816.18	-21.78	-68.90
73	1865.00	1860.99	1835.99	-21.92	-71.62
74	1885.00	1880.80	1855.80	-22.02	-74.35
75	1907.00	1902.60	1877.60	-22.08	-77.37
76	1925.00	1920.43	1895.43	-22.05	-79.84
77	1949.00	1944.20	1919.20	-21.93	-83.15
78	1970.00	1964.98	1939.98	-21.68	-86.16
79	1992.00	1986.73	1961.73	-21.30	-89.42
80	2010.00	2004.52	1979.52	-20.92	-92.15
81	2017.00	2011.43	1986.43	-20.75	-93.23
82	2030.00	2024.28	1999.28	-20.14	-95.11
83	2050.00	2044.05	2019.05	-19.01	-97.90
84	2070.00	2063.82	2038.82	-17.89	-100.69
85	2080.00	2073.70	2048.70	-17.32	-102.08
86	2093.00	2086.55	2061.55	-16.59	-103.89

87	2123.00	2116.18	2091.18	-14.54	-108.12
88	2145.00	2137.81	2112.81	-12.41	-111.46
89	2170.00	2162.33	2137.33	-9.52	-115.44
90	2193.00	2184.80	2159.80	-6.52	-119.28
91	2216.00	2207.19	2182.19	-3.15	-123.34
92	2238.00	2228.59	2203.59	.15	-127.22
93	2260.00	2250.00	2225.00	3.39	-131.11
94	2280.00	2269.46	2244.46	6.39	-134.63
95	2302.00	2290.85	2265.85	9.82	-138.46
96	2322.00	2310.29	2285.29	13.02	-141.87
97	2340.00	2327.78	2302.78	15.95	-145.00
98	2362.00	2349.13	2324.13	19.48	-148.97
99	2380.00	2366.58	2341.58	22.48	-152.18
100	2400.00	2385.96	2360.96	25.88	-155.74
101	2420.00	2405.35	2380.35	29.38	-159.22

LEVEL NUMBER	MEASUR DEPTH FROM KB M	VERTIC DEPTH FROM SRD M	VERTIC DEPTH FROM GL M	OBSERV TRAVEL TIME HYD/GEO MS	VERTIC TRAVEL TIME SRC/GEO MS	VERTIC TRAVEL TIME SRD/GEO MS	AVERAGE VELOC SRD/GEO M/S	DELTA DEPTH BETWEEN SHOTS M	DELTA TIME BETWEEN SHOTS MS	INTERV VELOC BETWEEN SHOTS M/S
1	82.00	56.99	-.01	40.98	30.74	37.31	1528			
								117.99	65.67	1797
2	200.00	174.99	117.99	97.73	96.41	102.98	1699			
								50.00	16.69	2996
3	250.00	224.98	167.98	113.24	113.10	119.66	1880			
								50.00	9.34	5351
4	300.00	274.98	217.98	121.81	122.44	129.01	2132			
								50.00	47.21	1059
5	350.00	324.98	267.98	169.00	169.65	176.22	1844			
								50.00	23.57	2122
6	400.00	374.97	317.97	192.28	193.22	199.78	1877			
								50.00	22.34	2238
7	450.00	424.97	367.97	214.40	215.56	222.12	1913			
								50.00	21.01	2379
8	500.00	474.97	417.97	235.24	236.57	243.14	1954			
								35.00	14.60	2397
9	535.00	509.96	452.97	249.74	251.17	257.73	1979			
								31.00	13.91	2228
10	566.00	540.96	483.96	263.58	265.08	271.65	1991			
								14.00	5.85	2393
11	580.00	554.96	497.96	269.40	270.94	277.50	2000			
								20.00	8.47	2361
12	600.00	574.96	517.96	277.83	279.41	285.97	2011			
								21.00	9.00	2333
13	621.00	595.96	538.96	286.79	288.41	294.97	2020			
								20.00	8.39	2385
14	641.00	615.96	558.96	295.14	296.79	303.35	2030			
								19.00	8.47	2243
15	660.00	634.96	577.96	303.58	305.26	311.82	2036			
								22.00	7.01	3138
16	682.00	656.96	599.96	310.55	312.27	318.83	2061			
								18.00	5.77	3119
17	700.00	674.95	617.95	316.29	318.04	324.60	2079			
								20.00	7.40	2703
18	720.00	694.95	637.95	323.66	325.44	332.00	2093			
								18.00	7.74	2325
19	738.00	712.95	655.95	331.38	333.18	339.74	2099			
								22.00	4.64	4745
20	760.00	734.95	677.95	335.98	337.82	344.38	2134			
								20.00	7.63	2620
21	780.00	754.95	697.95	343.59	345.45	352.01	2145			
								22.00	8.14	2701
22	802.00	776.95	719.95	351.71	353.59	360.16	2157			
								25.00	9.47	2638
23	827.00	801.95	744.95	361.16	363.07	369.63	2170			
								13.00	3.31	3933
24	840.00	814.95	757.95	364.45	366.37	372.94	2185			

LEVEL NUMBER	MEASUR DEPTH FROM KB M	VERTIC DEPTH FROM SRD M	VERTIC DEPTH FROM GL M	OBSERV TRAVEL TIME HYD/GEO MS	VERTIC TRAVEL TIME SRC/GEO MS	VERTIC TRAVEL TIME SRD/GEO MS	AVERAGE VELOC SRD/GEO M/S	DELTA DEPTH BETWEEN SHOTS M	DELTA TIME BETWEEN SHOTS MS	INTERV VELOC BETWEEN SHOTS M/S
25	861.00	835.94	778.94	371.79	373.73	380.30	2198	21.00	7.36	2853
26	882.00	856.94	799.94	378.95	380.91	387.48	2212	21.00	7.18	2925
27	904.00	878.94	821.94	387.60	389.58	396.14	2219	22.00	8.67	2538
28	920.00	894.94	837.94	393.09	395.08	401.65	2228	16.00	5.50	2907
29	944.00	918.94	861.94	401.85	403.86	410.42	2239	24.00	8.78	2734
30	970.00	944.94	887.94	410.56	412.59	419.15	2254	26.00	8.73	2978
31	989.00	963.94	906.94	418.61	420.65	427.21	2256	19.00	8.06	2357
32	1010.00	984.93	927.93	423.78	425.84	432.40	2278	21.00	5.19	4049
33	1035.00	1009.93	952.93	432.53	434.60	441.16	2289	25.00	8.77	2852
34	1055.00	1029.93	972.93	439.44	441.52	448.09	2299	20.00	6.92	2889
35	1075.00	1049.93	992.93	446.09	448.19	454.75	2309	20.00	6.66	3002
36	1095.00	1069.93	1012.93	453.03	455.14	461.70	2317	20.00	6.95	2877
37	1115.00	1089.93	1032.93	459.38	461.50	468.06	2329	20.00	6.36	3144
38	1135.00	1109.93	1052.93	466.22	468.35	474.91	2337	20.00	6.85	2920
39	1156.00	1130.92	1073.92	473.21	475.35	481.91	2347	21.00	7.00	3000
40	1174.00	1148.92	1091.92	478.51	480.65	487.22	2358	18.00	5.31	3390
41	1189.00	1163.92	1106.92	483.58	485.73	492.29	2364	15.00	5.08	2955
42	1215.00	1189.88	1132.88	492.76	494.90	501.46	2373	25.95	9.17	2831
43	1240.00	1214.82	1157.82	500.96	503.08	509.64	2384	24.95	8.18	3048
44	1261.00	1235.77	1178.77	508.23	510.34	516.90	2391	20.95	7.26	2888
45	1280.00	1254.73	1197.73	515.01	517.10	523.67	2396	18.95	6.77	2801
46	1304.00	1278.66	1221.66	522.70	524.77	531.34	2406	23.93	7.67	3120
47	1325.00	1299.59	1242.59	529.55	531.61	538.17	2415	20.93	6.83	3064
48	1345.00	1319.53	1262.53	536.71	538.75	545.31	2420	19.93	7.14	2792

LEVEL NUMBER	MEASUR DEPTH FROM KB M	VERTIC DEPTH FROM SRD M	VERTIC DEPTH FROM GL M	OBSERV TRAVEL TIME HYD/GEO MS	VERTIC TRAVEL TIME SRC/GEO MS	VERTIC TRAVEL TIME SRD/GEO MS	AVERAGE VELOC SRD/GEO M/S	DELTA DEPTH BETWEEN SHOTS M	DELTA TIME BETWEEN SHOTS MS	INTERV VELOC BETWEEN SHOTS M/S
49	1368.00	1342.44	1285.44	543.94	545.95	552.52	2430	22.92	7.21	3180
50	1385.00	1359.38	1302.38	549.70	551.70	558.26	2435	16.93	5.74	2950
51	1407.00	1381.29	1324.29	557.02	558.99	565.55	2442	21.91	7.29	3003
52	1425.00	1399.21	1342.21	563.41	565.36	571.92	2447	17.92	6.37	2814
53	1445.00	1419.12	1362.12	570.19	572.11	578.67	2452	19.91	6.75	2947
54	1468.00	1442.01	1385.01	577.79	579.68	586.24	2460	22.89	7.57	3024
55	1493.00	1466.88	1409.88	586.02	587.88	594.44	2468	24.87	8.20	3035
56	1510.00	1483.79	1426.79	591.78	593.61	600.18	2472	16.91	5.74	2948
57	1535.00	1508.65	1451.65	599.55	601.35	607.91	2482	24.86	7.73	3215
58	1555.00	1528.53	1471.53	606.16	607.93	614.49	2487	19.89	6.58	3022
59	1578.00	1551.39	1494.39	613.72	615.45	622.01	2494	22.86	7.52	3039
60	1600.00	1573.25	1516.25	621.24	622.93	629.49	2499	21.86	7.48	2921
61	1620.00	1593.12	1536.12	627.04	628.70	635.26	2508	19.87	5.77	3445
62	1640.00	1612.99	1555.99	634.17	635.80	642.36	2511	19.87	7.09	2800
63	1655.00	1627.89	1570.89	638.39	639.99	646.55	2518	14.90	4.20	3551
64	1675.00	1647.74	1590.74	643.47	645.04	651.60	2529	19.86	5.05	3934
65	1693.00	1665.60	1608.60	648.73	650.26	656.83	2536	17.86	5.23	3416
66	1715.00	1687.42	1630.42	656.26	657.75	664.31	2540	21.81	7.49	2914
67	1740.00	1712.19	1655.19	663.89	665.33	671.89	2548	24.78	7.58	3269
68	1760.00	1732.00	1675.00	669.43	670.83	677.39	2557	19.81	5.50	3602
69	1780.00	1751.81	1694.81	675.11	676.47	683.03	2565	19.81	5.64	3513
70	1800.00	1771.61	1714.61	680.89	682.21	688.77	2572	19.80	5.74	3451
71	1820.00	1791.42	1734.42	686.27	687.55	694.11	2581	19.80	5.34	3709
72	1845.00	1816.18	1759.18	692.81	694.04	700.60	2592	24.76	6.49	3815

LEVEL NUMBER	MEASUR DEPTH FROM KB M	VERTIC DEPTH FROM SRD M	VERTIC DEPTH FROM GL M	OBSERV TRAVEL TIME HYD/GEO MS	VERTIC TRAVEL TIME SRC/GEO MS	VERTIC TRAVEL TIME SRD/GEO MS	AVERAGE VELOC SRD/GEO M/S	DELTA DEPTH BETWEEN SHOTS M	DELTA TIME BETWEEN SHOTS MS	INTERV VELOC BETWEEN SHOTS M/S
								19.81	5.34	3710
73	1865.00	1835.99	1778.99	698.19	699.38	705.94	2601	19.81	4.46	4440
74	1885.00	1855.80	1798.80	702.69	703.84	710.40	2612	21.79	5.58	3907
75	1907.00	1877.60	1820.60	708.31	709.42	715.98	2622	17.83	4.70	3797
76	1925.00	1895.43	1838.43	713.04	714.11	720.67	2630	23.77	5.92	4012
77	1949.00	1919.20	1862.20	719.01	720.04	726.60	2641	20.78	4.89	4250
78	1970.00	1939.98	1882.98	723.94	724.93	731.49	2652	21.75	5.33	4085
79	1992.00	1961.73	1904.73	729.31	730.25	736.81	2662	17.79	4.65	3824
80	2010.00	1979.52	1922.52	734.00	734.90	741.46	2670	6.91	1.90	3630
81	2017.00	1986.43	1929.43	735.92	736.81	743.37	2672	12.85	4.53	2833
82	2030.00	1999.28	1942.28	740.48	741.34	747.90	2673	19.77	5.04	3923
83	2050.00	2019.05	1962.05	745.55	746.38	752.94	2682	19.77	4.48	4413
84	2070.00	2038.82	1981.82	750.06	750.86	757.42	2692	9.88	2.57	3840
85	2080.00	2048.70	1991.70	752.65	753.43	759.99	2696	12.85	3.31	3884
86	2093.00	2061.55	2004.55	755.98	756.74	763.30	2701	29.63	8.13	3644
87	2123.00	2091.18	2034.18	764.16	764.87	771.43	2711	21.64	5.46	3961
88	2145.00	2112.81	2055.81	769.66	770.33	776.90	2720	24.51	6.36	3851
89	2170.00	2137.33	2080.33	776.07	776.70	783.26	2729	22.48	5.10	4411
90	2193.00	2159.80	2102.80	781.21	781.79	788.36	2740	22.38	4.87	4596
91	2216.00	2182.19	2125.19	786.13	786.66	793.23	2751	21.40	5.47	3914
92	2238.00	2203.59	2146.59	791.65	792.13	798.69	2759	21.41	5.38	3976
93	2260.00	2225.00	2168.00	797.09	797.52	804.08	2767	19.46	4.38	4443
94	2280.00	2244.46	2187.46	801.52	801.90	808.46	2776	21.39	5.79	3694
95	2302.00	2265.85	2208.85	807.37	807.69	814.25	2783	19.44	4.62	4211
96	2322.00	2285.29	2228.29	812.04	812.30	818.87	2791			

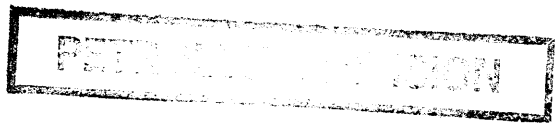
LEVEL NUMBER	MEASUR DEPTH FROM KB M	VERTIC DEPTH FROM SRD M	VERTIC DEPTH FROM GL M	OBSERV TRAVEL TIME HYD/GEO MS	VERTIC TRAVEL TIME SRC/GEO MS	VERTIC TRAVEL TIME SRD/GEO MS	AVERAGE VELOC SRD/GEO M/S	DELTA DEPTH BETWEEN SHOTS M	DELTA TIME BETWEEN SHOTS MS	INTERV VELOC BETWEEN SHOTS M/S
97	2340.00	2302.78	2245.78	816.29	816.50	823.06	2798	17.48	4.20	4163
98	2362.00	2324.13	2267.13	821.79	821.93	828.50	2805	21.35	5.43	3931
99	2380.00	2341.58	2284.58	826.07	826.16	832.72	2812	17.46	4.22	4133
100	2400.00	2360.96	2303.96	830.98	831.00	837.56	2819	19.38	4.84	4001
101	2420.00	2380.35	2323.35	835.37	835.33	841.89	2827	19.38	4.33	4480

ANALYST: A. WIBISONO 20-APR-94 15:44:11 PROGRAM: GDRIFT 007.E09

SCHLUMBERGER

DRIFT COMPUTATION REPORT

COMPANY : BHP PETROLEUM
WELL : MINERVA #1
FIELD : WILDCAT
COUNTRY : AUSTRALIA
REFERENCE: 560896



LONG DEFINITIONS

GLOBAL

KB - Elevation of the KELLY-BUSHING Above MSL or MWL
SRD - Elevation of the Seismic Reference Datum Above MSL or MWL
EKB - Elevation of Kelly Bushing
GL - Elevation of Users Reference (Generally Ground Level) Above SRD
XSTART - TOP OF ZONE PROCESSED BY WST
XSTOP - BOTTOM OF ZONE PROCESSED BY WST
GAD001 - RAW SONIC CHANNEL NAME USED FOR WST SONIC ADJUSTMENT
UNFDEN - UNIFORM DENSITY VALUE

ZONE

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

SAMPLED

SHOT - Shot number
DKB - Measured Depth from Kelly-Bushing
DSRD - Depth from SRD
DGL - Vertical Depth Relative to Ground Level (User's Reference)
SHTM - Shot time (WST)
RAWS - Raw Sonic (WST)
SHDR - Drift at Shot or Knee
BLSH - Block Shift between Shots or Knee

(GLOBAL PARAMETERS)		(VALUE)	
ELEV OF KB AB. MSL (WST)	KB	25.0000	M
ELEV OF SRD AB. MSL(WST)	SRD	0	M
Elevation of Kelly Bushi	EKB	25.0000	M
ELEV OF GL AB. SRD(WST)	GL	-57.0000	M
TOP OF ZONE PROCD (WST)	XSTART	0	M
BOT OF ZONE PROCD (WST)	XSTOP	0	M
RAW SONIC CH NAME (WST)	GAD001	DT.ATT.003.TVD.FLP.*	
UNIFORM DENSITY VALUE	UNFDEN	2.30000	G/C3

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

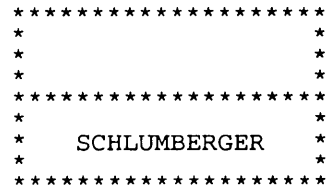
LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	VERTICAL TRAVEL TIME SRD/GEO MS	INTEGRATED RAW SONIC TIME MS	COMPUTED DRIFT AT LEVEL MS	COMPUTED BLK-SHFT CORRECTION US/M
1	82.00	56.99	-.01	37.31	37.31	0	0
2	200.00	174.99	117.99	102.98	102.98	0	0
3	250.00	224.98	167.98	119.66	119.66	0	0
4	300.00	274.98	217.98	129.01	129.01	0	0
5	350.00	324.98	267.98	176.22	176.22	0	0
6	400.00	374.97	317.97	199.78	199.78	0	0
7	450.00	424.97	367.97	222.12	222.12	0	0
8	500.00	474.97	417.97	243.14	243.14	0	0
9	535.00	509.96	452.97	257.73	257.73	0	0
10	551.11	526.08	469.08	264.97	264.97	0	33.53
11	566.00	540.96	483.96	271.65	271.15	.50	-19.89
12	580.00	554.96	497.96	277.50	277.28	.22	3.80
13	600.00	574.96	517.96	285.97	285.67	.30	14.20
14	621.00	595.96	538.96	294.97	294.37	.59	42.93
15	641.00	615.96	558.96	303.35	301.90	1.45	77.27
16	660.00	634.96	577.96	311.82	308.90	2.92	-34.44
17	682.00	656.96	599.96	318.83	316.67	2.16	-13.55
18	700.00	674.95	617.95	324.60	322.68	1.92	25.72
19	720.00	694.95	637.95	332.00	329.57	2.43	98.78
20	738.00	712.95	655.95	339.74	335.53	4.21	-111.41
21	760.00	734.95	677.95	344.38	342.62	1.76	31.35
22	780.00	754.95	697.95	352.01	349.62	2.39	-.57
23	802.00	776.95	719.95	360.16	357.78	2.38	30.13
24	827.00	801.95	744.95	369.63	366.50	3.13	

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	VERTICAL TRAVEL TIME SRD/GEO MS	INTEGRATED RAW SONIC TIME MS	COMPUTED DRIFT AT LEVEL MS	COMPUTED BLK-SHFT CORRECTION US/M
25	840.00	814.95	757.95	372.94	371.03	1.90	-94.17
26	861.00	835.94	778.94	380.30	378.05	2.25	16.25
27	882.00	856.94	799.94	387.48	385.55	1.92	-15.34
28	904.00	878.94	821.94	396.14	393.28	2.86	42.78
29	920.00	894.94	837.94	401.65	399.00	2.64	-13.85
30	944.00	918.94	861.94	410.42	407.29	3.13	20.31
31	970.00	944.94	887.94	419.15	415.75	3.40	10.46
32	989.00	963.94	906.94	427.21	421.73	5.48	109.27
33	1010.00	984.93	927.93	432.40	428.93	3.47	-95.63
34	1035.00	1009.93	952.93	441.16	437.24	3.92	18.15
35	1055.00	1029.93	972.93	448.09	444.06	4.03	5.28
36	1075.00	1049.93	992.93	454.75	450.77	3.98	-2.53
37	1095.00	1069.93	1012.93	461.70	457.43	4.26	14.25
38	1115.00	1089.93	1032.93	468.06	464.00	4.06	-10.26
39	1135.00	1109.93	1052.93	474.91	470.41	4.50	21.84
40	1156.00	1130.92	1073.92	481.91	477.12	4.79	14.04
41	1174.00	1148.92	1091.92	487.22	482.77	4.44	-19.35
42	1189.00	1163.92	1106.92	492.29	487.56	4.73	19.24
43	1215.00	1189.88	1132.88	501.46	495.99	5.47	28.32
44	1240.00	1214.82	1157.82	509.64	504.28	5.36	-4.05
45	1261.00	1235.77	1178.77	516.90	511.42	5.48	5.71
46	1280.00	1254.73	1197.73	523.67	517.81	5.86	19.79
47	1304.00	1278.66	1221.66	531.34	525.44	5.89	1.44
48	1325.00	1299.59	1242.59	538.17	532.21	5.95	2.85

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	VERTICAL TRAVEL TIME SRD/GEO MS	INTEGRATED RAW SONIC TIME MS	COMPUTED DRIFT AT LEVEL MS	COMPUTED BLK-SHFT CORRECTION US/M
49	1345.00	1319.53	1262.53	545.31	538.83	6.48	26.31
50	1368.00	1342.44	1285.44	552.52	546.57	5.95	-23.08
51	1385.00	1359.38	1302.38	558.26	552.17	6.09	8.16
52	1407.00	1381.29	1324.29	565.55	559.41	6.14	2.47
53	1425.00	1399.21	1342.21	571.92	565.45	6.47	18.12
54	1445.00	1419.12	1362.12	578.67	572.21	6.47	0
55	1468.00	1442.01	1385.01	586.24	579.76	6.48	.73
56	1493.00	1466.88	1409.88	594.44	587.68	6.76	11.10
57	1510.00	1483.79	1426.79	600.18	593.10	7.07	18.55
58	1535.00	1508.65	1451.65	607.91	601.16	6.75	-12.92
59	1555.00	1528.53	1471.53	614.49	607.54	6.95	9.77
60	1578.00	1551.39	1494.39	622.01	615.03	6.99	1.73
61	1600.00	1573.25	1516.25	629.49	622.31	7.18	9.01
62	1620.00	1593.12	1536.12	635.26	628.64	6.62	-28.11
63	1640.00	1612.99	1555.99	642.36	634.81	7.55	46.47
64	1655.00	1627.89	1570.89	646.55	639.06	7.49	-3.60
65	1675.00	1647.74	1590.74	651.60	644.36	7.24	-12.84
66	1693.00	1665.60	1608.60	656.83	649.33	7.49	14.35
67	1715.00	1687.42	1630.42	664.31	655.96	8.35	39.22
68	1740.00	1712.19	1655.19	671.89	663.20	8.69	13.61
69	1760.00	1732.00	1675.00	677.39	668.79	8.60	-4.56
70	1780.00	1751.81	1694.81	683.03	674.37	8.66	3.09
71	1800.00	1771.61	1714.61	688.77	679.89	8.88	11.15
72	1820.00	1791.42	1734.42	694.11	685.19	8.92	1.97

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	VERTICAL TRAVEL TIME SRD/GEO MS	INTEGRATED RAW SONIC TIME MS	COMPUTED DRIFT AT LEVEL MS	COMPUTED BLK-SHFT CORRECTION US/M
73	1845.00	1816.18	1759.18	700.60	691.60	9.00	3.16
74	1865.00	1835.99	1778.99	705.94	696.59	9.35	17.92
75	1885.00	1855.80	1798.80	710.40	701.75	8.65	-35.53
76	1907.00	1877.60	1820.60	715.98	707.43	8.55	-4.47
77	1925.00	1895.43	1838.43	720.67	712.19	8.48	-3.97
78	1949.00	1919.20	1862.20	726.60	718.32	8.28	-8.38
79	1970.00	1939.98	1882.98	731.49	723.46	8.02	-12.27
80	1992.00	1961.73	1904.73	736.81	728.94	7.87	-7.08
81	2010.00	1979.52	1922.52	741.46	733.43	8.04	9.29
82	2017.00	1986.43	1929.43	743.37	735.12	8.25	30.95
83	2030.00	1999.28	1942.28	747.90	738.43	9.47	94.80
84	2050.00	2019.05	1962.05	752.94	743.48	9.46	-.34
85	2070.00	2038.82	1981.82	757.42	748.50	8.92	-27.40
86	2080.00	2048.70	1991.70	759.99	750.95	9.05	12.82
87	2093.00	2061.55	2004.55	763.30	754.23	9.08	2.47
88	2123.00	2091.18	2034.18	771.43	761.98	9.46	12.78
89	2145.00	2112.81	2055.81	776.90	767.49	9.40	-2.52
90	2170.00	2137.33	2080.33	783.26	773.85	9.41	.52
91	2193.00	2159.80	2102.80	788.36	779.07	9.29	-5.70
92	2216.00	2182.19	2125.19	793.23	783.95	9.27	-.71
93	2238.00	2203.59	2146.59	798.69	789.15	9.54	12.63
94	2260.00	2225.00	2168.00	804.08	794.38	9.70	7.47
95	2280.00	2244.46	2187.46	808.46	798.88	9.58	-6.38
96	2302.00	2265.85	2208.85	814.25	804.03	10.22	30.00

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	VERTICAL TRAVEL TIME SRD/GEO MS	INTEGRATED RAW SONIC TIME MS	COMPUTED DRIFT AT LEVEL MS	COMPUTED BLK-SHFT CORRECTION US/M
97	2322.00	2285.29	2228.29	818.87	808.60	10.26	2.23
98	2340.00	2302.78	2245.78	823.06	812.87	10.19	-4.04
99	2362.00	2324.13	2267.13	828.50	818.05	10.45	11.92
100	2380.00	2341.58	2284.58	832.72	822.31	10.41	-2.14
101	2400.00	2360.96	2303.96	837.56	827.02	10.54	6.96
102	2404.57	2365.39	2308.39	838.55	828.24	10.31	-52.40
103	2420.00	2380.35	2323.35	841.89			



SONIC ADJUSTMENT PARAMETER REPORT

COMPANY : BHP PETROLEUM
WELL : MINERVA #1
FIELD : WILDCAT
COUNTRY : AUSTRALIA
REFERENCE: 560896

LONG DEFINITIONS

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

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

SAMPLED
SHOT - Shot number
VDKB - Vertical Depth Relative to KB
DSRD - Depth from SRD
DGL - Vertical Depth Relative to Ground Level (User's Reference)
KNEE - Knee
BLSH - Block Shift between Shots or Knee
DTMI - Value of Delta-T Minimum used
COEF - Delta-T MIN Coefficient used in the Drift Zone
DRGR - Gradient of Drift Curve

(GLOBAL PARAMETERS)		(VALUE)	
ORIG OF ADJ DATA (WST)	SRCDRF	: 2.00000	
CONS SONIC ADJST (WST)	CONADJ	: 24.6063	US/M
UNIFORM EARTH VELOCITY	UNERTH	: 1528.00	M/S

(ZONED PARAMETERS)		(VALUE)		(LIMITS)	
USER DRIFT ZONE (WST)	ZDRIFT	: 10.31000	MS	2390.50	- 1812.00
		8.880000		1812.00	551.000
		0		551.000	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	: 1.000000		30479.7	- 0
USER VELOC (WST)	LAYVEL	: 2228.000	M/S	551.080	- 535.000
		2397.000		535.000	500.000
		2379.000		500.000	450.000
		2238.000		450.000	400.000
		2122.000		400.000	350.000
		1059.000		350.000	300.000
		5351.000		300.000	250.000
		2996.000		250.000	200.000
		1797.000		200.000	82.0000
		1528.000		82.0000	0

KNEE NUMBER	VERTICAL DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	DRIFT AT KNEE MS	BLOCKSHIFT USED US/M	DELTA-T MINIMUM USED US/M	REDUCTION FACTOR G	EQUIVALENT BLOCKSHIFT US/M
					0			0
2	551.00	526.00	469.00	0	7.04			7.04
3	1812.00	1787.00	1730.00	8.88	2.47			2.47
4	2390.50	2365.50	2308.50	10.31				

ANALYST: A. WIBISONO 20-APR-94 16:13:28 PROGRAM: GADJST 008.E08

SCHLUMBERGER

VELOCITY REPORT

COMPANY : BHP PETROLEUM

WELL : MINERVA #1

FIELD : WILDCAT

COUNTRY : AUSTRALIA

REFERENCE: 560896

LONG DEFINITIONS

GLOBAL

KB - Elevation of the KELLY-BUSHING Above MSL or MWL
SRD - Elevation of the Seismic Reference Datum Above MSL or MWL
EKB - Elevation of Kelly Bushing
GL - Elevation of Users Reference (Generally Ground Level) Above SRD
UNERTH - UNIFORM EARTH VELOCITY (GTRFRM)

ZONE

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

SAMPLED

SHOT - Shot number
DKB - Measured Depth from Kelly-Bushing
DSRD - Depth from SRD
DGL - Vertical Depth Relative to Ground Level (User's Reference)
SHTM - Shot time (WST)
ADJS - Adjusted Sonic Travel Time
SHDR - Drift at Shot or Knee
REST - Residual Travel Time at Knee
INTV - Internal Velocity, Average

(GLOBAL PARAMETERS)		(VALUE)	
ELEV OF KB AB. MSL (WST)	KB	25.0000	M
ELEV OF SRD AB. MSL(WST)	SRD	0	M
Elevation of Kelly Bushi	EKB	25.0000	M
ELEV OF GL AB. SRD(WST)	GL	-57.0000	M
UNIFORM EARTH VELOCITY	UNERTH	1528.00	M/S

(ZONED PARAMETERS)		(VALUE)		(LIMITS)	
LAYER OPTION FLAG VELOC	LOFVEL	1.000000		30479.7	- 0
USER VELOC (WST)	LAYVEL	2228.000	M/S	551.080	- 535.000
		2397.000		535.000	500.000
		2379.000		500.000	450.000
		2238.000		450.000	400.000
		2122.000		400.000	350.000
		1059.000		350.000	300.000
		5351.000		300.000	250.000
		2996.000		250.000	200.000
		1797.000		200.000	82.0000
		1528.000		82.0000	0

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	VERTICAL TRAVEL TIME SRD/GEOPH MS	INTEGRATED ADJUSTED SONIC TIME MS	DRIFT = SHOT TIME - RAW SON MS	RESIDUAL = SHOT TIME - ADJ SON MS	ADJUSTED INTERVAL VELOCITY M/S
								1528
1	82.00	56.99	-.01	37.31	37.31	0	0	
								1797
2	200.00	174.99	117.99	102.98	102.97	0	.01	
								2997
3	250.00	224.98	167.98	119.66	119.65	0	.01	
								5329
4	300.00	274.98	217.98	129.01	129.03	0	-.03	
								1060
5	350.00	324.98	267.98	176.22	176.21	0	0	
								2122
6	400.00	374.97	317.97	199.78	199.78	0	0	
								2238
7	450.00	424.97	367.97	222.12	222.11	0	.01	
								2379
8	500.00	474.97	417.97	243.14	243.13	0	.01	
								2397
9	535.00	509.96	452.97	257.73	257.73	0	.01	
								2229
10	551.11	526.08	469.08	264.97	264.96	0	.01	
								2368
11	566.00	540.96	483.96	271.65	271.24	.50	.40	
								2246
12	580.00	554.96	497.96	277.50	277.48	.22	.02	
								2344
13	600.00	574.96	517.96	285.97	286.01	.30	-.04	
								2376
14	621.00	595.96	538.96	294.97	294.85	.59	.12	
								2607
15	641.00	615.96	558.96	303.35	302.52	1.45	.83	
								2667
16	660.00	634.96	577.96	311.82	309.64	2.92	2.18	
								2776
17	682.00	656.96	599.96	318.83	317.57	2.16	1.27	
								2930
18	700.00	674.95	617.95	324.60	323.71	1.92	.89	
								2847
19	720.00	694.95	637.95	332.00	330.74	2.43	1.27	
								2956
20	738.00	712.95	655.95	339.74	336.82	4.21	2.92	
								3037
21	760.00	734.95	677.95	344.38	344.07	1.76	.31	
								2798
22	780.00	754.95	697.95	352.01	351.22	2.39	.80	
								2645
23	802.00	776.95	719.95	360.16	359.53	2.38	.63	
								2811
24	827.00	801.95	744.95	369.63	368.42	3.13	1.21	

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	VERTICAL TRAVEL TIME SRD/GEOPH MS	INTEGRATED ADJUSTED SONIC TIME MS	DRIFT = SHOT TIME - RAW SON MS	RESIDUAL = SHOT TIME - ADJ SON MS	ADJUSTED INTERVAL VELOCITY M/S
								2813
25	840.00	814.95	757.95	372.94	373.04	1.90	-.11	
								2935
26	861.00	835.94	778.94	380.30	380.20	2.25	.10	
								2738
27	882.00	856.94	799.94	387.48	387.87	1.92	-.39	
								2792
28	904.00	878.94	821.94	396.14	395.75	2.86	.39	
								2743
29	920.00	894.94	837.94	401.65	401.58	2.64	.06	
								2837
30	944.00	918.94	861.94	410.42	410.04	3.13	.38	
								3011
31	970.00	944.94	887.94	419.15	418.68	3.40	.48	
								3104
32	989.00	963.94	906.94	427.21	424.80	5.48	2.42	
								2859
33	1010.00	984.93	927.93	432.40	432.14	3.47	.26	
								2946
34	1035.00	1009.93	952.93	441.16	440.63	3.92	.54	
								2874
35	1055.00	1029.93	972.93	448.09	447.59	4.03	.50	
								2920
36	1075.00	1049.93	992.93	454.75	454.43	3.98	.31	
								2938
37	1095.00	1069.93	1012.93	461.70	461.24	4.26	.46	
								2982
38	1115.00	1089.93	1032.93	468.06	467.95	4.06	.11	
								3052
39	1135.00	1109.93	1052.93	474.91	474.50	4.50	.41	
								3063
40	1156.00	1130.92	1073.92	481.91	481.35	4.79	.55	
								3113
41	1174.00	1148.92	1091.92	487.22	487.14	4.44	.08	
								3066
42	1189.00	1163.92	1106.92	492.29	492.03	4.73	.26	
								3012
43	1215.00	1189.88	1132.88	501.46	500.65	5.47	.81	
								2948
44	1240.00	1214.82	1157.82	509.64	509.11	5.36	.54	
								2877
45	1261.00	1235.77	1178.77	516.90	516.39	5.48	.51	
								2903
46	1280.00	1254.73	1197.73	523.67	522.92	5.86	.75	
								3070
47	1304.00	1278.66	1221.66	531.34	530.71	5.89	.62	
								3024
48	1325.00	1299.59	1242.59	538.17	537.64	5.95	.53	

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	VERTICAL TRAVEL TIME SRD/GEOPH MS	INTEGRATED ADJUSTED SONIC TIME MS	DRIFT = SHOT TIME - RAW SON MS	RESIDUAL = SHOT TIME - ADJ SON MS	ADJUSTED INTERVAL VELOCITY M/S
								2950
49	1345.00	1319.53	1262.53	545.31	544.40	6.48	.91	
								2902
50	1368.00	1342.44	1285.44	552.52	552.29	5.95	.22	
								2960
51	1385.00	1359.38	1302.38	558.26	558.02	6.09	.24	
								2962
52	1407.00	1381.29	1324.29	565.55	565.41	6.14	.14	
								2905
53	1425.00	1399.21	1342.21	571.92	571.58	6.47	.34	
								2887
54	1445.00	1419.12	1362.12	578.67	578.48	6.47	.20	
								2968
55	1468.00	1442.01	1385.01	586.24	586.19	6.48	.06	
								3073
56	1493.00	1466.88	1409.88	594.44	594.28	6.76	.16	
								3053
57	1510.00	1483.79	1426.79	600.18	599.82	7.07	.35	
								3017
58	1535.00	1508.65	1451.65	607.91	608.06	6.75	-.15	
								3051
59	1555.00	1528.53	1471.53	614.49	614.58	6.95	-.09	
								2990
60	1578.00	1551.39	1494.39	622.01	622.22	6.99	-.21	
								2938
61	1600.00	1573.25	1516.25	629.49	629.66	7.18	-.17	
								3075
62	1620.00	1593.12	1536.12	635.26	636.13	6.62	-.87	
								3148
63	1640.00	1612.99	1555.99	642.36	642.44	7.55	-.08	
								3427
64	1655.00	1627.89	1570.89	646.55	646.79	7.49	-.23	
								3649
65	1675.00	1647.74	1590.74	651.60	652.23	7.24	-.63	
								3501
66	1693.00	1665.60	1608.60	656.83	657.33	7.49	-.50	
								3216
67	1715.00	1687.42	1630.42	664.31	664.11	8.35	.20	
								3340
68	1740.00	1712.19	1655.19	671.89	671.53	8.69	.36	
								3459
69	1760.00	1732.00	1675.00	677.39	677.26	8.60	.13	
								3465
70	1780.00	1751.81	1694.81	683.03	682.97	8.66	.06	
								3502
71	1800.00	1771.61	1714.61	688.77	688.63	8.88	.14	
								3654
72	1820.00	1791.42	1734.42	694.11	694.05	8.92	.06	

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	VERTICAL TRAVEL TIME SRD/GEOPH MS	INTEGRATED ADJUSTED SONIC TIME MS	DRIFT = SHOT TIME - RAW SON MS	RESIDUAL = SHOT TIME - ADJ SON MS	ADJUSTED INTERVAL VELOCITY M/S
								3827
73	1845.00	1816.18	1759.18	700.60	700.52	9.00	.08	
								3933
74	1865.00	1835.99	1778.99	705.94	705.55	9.35	.38	
								3799
75	1885.00	1855.80	1798.80	710.40	710.77	8.65	-.37	
								3804
76	1907.00	1877.60	1820.60	715.98	716.50	8.55	-.52	
								3707
77	1925.00	1895.43	1838.43	720.67	721.31	8.48	-.63	
								3844
78	1949.00	1919.20	1862.20	726.60	727.49	8.28	-.89	
								4003
79	1970.00	1939.98	1882.98	731.49	732.68	8.02	-1.20	
								3932
80	1992.00	1961.73	1904.73	736.81	738.22	7.87	-1.40	
								3925
81	2010.00	1979.52	1922.52	741.46	742.75	8.04	-1.28	
								4044
82	2017.00	1986.43	1929.43	743.37	744.46	8.25	-1.09	
								3839
83	2030.00	1999.28	1942.28	747.90	747.80	9.47	.10	
								3881
84	2050.00	2019.05	1962.05	752.94	752.90	9.46	.04	
								3898
85	2070.00	2038.82	1981.82	757.42	757.97	8.92	-.55	
								3997
86	2080.00	2048.70	1991.70	759.99	760.44	9.05	-.45	
								3884
87	2093.00	2061.55	2004.55	763.30	763.75	9.08	-.45	
								3786
88	2123.00	2091.18	2034.18	771.43	771.57	9.46	-.14	
								3884
89	2145.00	2112.81	2055.81	776.90	777.15	9.40	-.25	
								3824
90	2170.00	2137.33	2080.33	783.26	783.55	9.41	-.29	
								4260
91	2193.00	2159.80	2102.80	788.36	788.83	9.29	-.47	
								4527
92	2216.00	2182.19	2125.19	793.23	793.77	9.27	-.55	
								4076
93	2238.00	2203.59	2146.59	798.69	799.03	9.54	-.33	
								4058
94	2260.00	2225.00	2168.00	804.08	804.30	9.70	-.22	
								4275
95	2280.00	2244.46	2187.46	808.46	808.85	9.58	-.40	
								4112
96	2302.00	2265.85	2208.85	814.25	814.05	10.22	.19	

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	VERTICAL TRAVEL TIME SRD/GEOPH MS	INTEGRATED ADJUSTED SONIC TIME MS	DRIFT = SHOT TIME - RAW SON MS	RESIDUAL = SHOT TIME - ADJ SON MS	ADJUSTED INTERVAL VELOCITY M/S
								4205
97	2322.00	2285.29	2228.29	818.87	818.68	10.26	.19	
								4053
98	2340.00	2302.78	2245.78	823.06	822.99	10.19	.07	
								4082
99	2362.00	2324.13	2267.13	828.50	828.22	10.45	.27	
								4059
100	2380.00	2341.58	2284.58	832.72	832.52	10.41	.20	
								4071
101	2400.00	2360.96	2303.96	837.56	837.28	10.54	.28	
								3611
102	2404.57	2365.39	2308.39	838.55	838.51	10.31	.04	
								4426
103	2420.00	2380.35	2323.35	841.89	841.89		0	

TIME/DEPTH

ANALYST: .. WIBISONO 20-APR-94 16:1..11 PROGRAM: GTRFRM 001.E13

SCHLUMBERGER

TIME CONVERTED VELOCITY REPORT

COMPANY : BHP PETROLEUM
WELL : MINERVA #1
FIELD : WILDCAT
COUNTRY : AUSTRALIA
REFERENCE: 560896

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	25.0000	M
ELEV OF SRD AB. MSL(WST)	SRD	0	M
ELEV OF GL AB. SRD(WST)	GL	-57.0000	M
UNIFORM EARTH VELOCITY	UNERTH	1528.00	M/S
UNIFORM DENSITY VALUE	UNFDEN	2.30000	G/C3

(MATRIX PARAMETERS)

	MVOUT DIST M
1	1000.0
2	1500.0
3	2000.0

(ZONED PARAMETERS)		(VALUE)		(LIMITS)
LAYER OPTION FLAG VELOC	LOFVEL	: 1.000000		30479.7 - 0
USER VELOC (WST)	LAYVEL	: 2228.000	M/S	551.080 - 535.000
		2397.000		535.000 500.000
		2379.000		500.000 450.000
		2238.000		450.000 400.000
		2122.000		400.000 350.000
		1059.000		350.000 300.000
		5351.000		300.000 250.000
		2996.000		250.000 200.000
		1797.000		200.000 82.0000
		1528.000		82.0000 0
LAYER OPTION FLAG DENS	LOFDEN	:-1.000000		30479.7 - 0
USER SUPPLIED DENSITY DA	LAYDEN	: 0	G/C3	0 - 0

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
								1528
0	25.00	0						1528
2.00	26.53	1.53	1528	1528	652.45	979.68	1306.90	1528
4.00	28.06	3.06	1528	1528	650.46	977.68	1304.91	1528
6.00	29.59	4.58	1528	1528	648.48	975.69	1302.91	1528
8.00	31.11	6.11	1528	1528	646.50	973.71	1300.92	1528
10.00	32.64	7.64	1528	1528	644.53	971.73	1298.94	1528
12.00	34.17	9.17	1528	1528	642.56	969.75	1296.96	1528
14.00	35.70	10.70	1528	1528	640.60	967.78	1294.98	1528
16.00	37.23	12.22	1528	1528	638.65	965.81	1293.00	1528
18.00	38.75	13.75	1528	1528	636.70	963.84	1291.02	1528
20.00	40.28	15.28	1528	1528	634.76	961.88	1289.05	1528
22.00	41.81	16.81	1528	1528	632.82	959.92	1287.09	1528
24.00	43.34	18.34	1528	1528	630.89	957.97	1285.12	1528
26.00	44.87	19.86	1528	1528	628.97	956.02	1283.16	1528
28.00	46.40	21.39	1528	1528	627.05	954.07	1281.20	1528
30.00	47.92	22.92	1528	1528	625.14	952.13	1279.24	1528
32.00	49.45	24.45	1528	1528	623.23	950.20	1277.29	1528
34.00	50.98	25.98	1528	1528	621.33	948.26	1275.34	1528
36.00	52.51	27.50	1528	1528	619.44	946.34	1273.40	1528
38.00	54.04	29.03	1528	1528	617.55	944.41	1271.45	1528
40.00	55.56	30.56	1528	1528	615.67	942.49	1269.51	1528
42.00	57.09	32.09	1528	1528	613.80	940.57	1267.57	1528
44.00	58.62	33.62	1528	1528	611.93	938.66	1265.64	1528
46.00	60.15	35.14	1528	1528	610.06	936.75	1263.71	

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
								1528
48.00	61.68	36.67	1528	1528	608.21	934.85	1261.78	1528
50.00	63.20	38.20	1528	1528	606.36	932.95	1259.86	1528
52.00	64.73	39.73	1528	1528	604.51	931.05	1257.93	1528
54.00	66.26	41.26	1528	1528	602.67	929.16	1256.01	1528
56.00	67.79	42.78	1528	1528	600.84	927.27	1254.10	1528
58.00	69.32	44.31	1528	1528	599.02	925.39	1252.18	1528
60.00	70.84	45.84	1528	1528	597.19	923.51	1250.28	1528
62.00	72.37	47.37	1528	1528	595.38	921.63	1248.37	1528
64.00	73.90	48.90	1528	1528	593.57	919.76	1246.46	1528
66.00	75.43	50.42	1528	1528	591.77	917.89	1244.56	1528
68.00	76.96	51.95	1528	1528	589.97	916.03	1242.67	1528
70.00	78.49	53.48	1528	1528	588.18	914.17	1240.77	1528
72.00	80.01	55.01	1528	1528	586.40	912.31	1238.88	1528
74.00	81.54	56.54	1528	1528	584.62	910.46	1236.99	1742
76.00	83.28	58.28	1534	1534	580.30	904.77	1229.97	1797
78.00	85.08	60.08	1540	1541	575.47	898.31	1221.93	1797
80.00	86.88	61.87	1547	1548	570.84	892.15	1214.28	1797
82.00	88.67	63.67	1553	1555	566.39	886.26	1206.99	1797
84.00	90.47	65.47	1559	1561	562.12	880.62	1200.02	1797
86.00	92.27	67.26	1564	1567	558.00	875.20	1193.35	1797
88.00	94.07	69.06	1570	1572	554.01	869.98	1186.95	1797
90.00	95.86	70.86	1575	1578	550.16	864.96	1180.80	1797
92.00	97.66	72.65	1579	1583	546.43	860.11	1174.89	1797
94.00	99.46	74.45	1584	1588	542.82	855.43	1169.18	

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	101.25	76.25	1588	1592	539.30	850.89	1163.68	1797
98.00	103.05	78.04	1593	1597	535.89	846.49	1158.36	1797
100.00	104.85	79.84	1597	1601	532.56	842.23	1153.20	1797
102.00	106.64	81.64	1601	1605	529.32	838.08	1148.21	1797
104.00	108.44	83.43	1604	1609	526.15	834.05	1143.36	1797
106.00	110.24	85.23	1608	1613	523.06	830.12	1138.66	1797
108.00	112.03	87.03	1612	1616	520.04	826.29	1134.08	1797
110.00	113.83	88.82	1615	1620	517.09	822.56	1129.62	1797
112.00	115.63	90.62	1618	1623	514.20	818.91	1125.28	1797
114.00	117.42	92.42	1621	1626	511.36	815.34	1121.04	1797
116.00	119.22	94.21	1624	1629	508.58	811.86	1116.91	1797
118.00	121.02	96.01	1627	1632	505.86	808.44	1112.87	1797
120.00	122.81	97.81	1630	1635	503.18	805.10	1108.92	1797
122.00	124.61	99.60	1633	1638	500.56	801.82	1105.05	1797
124.00	126.41	101.40	1635	1641	497.97	798.60	1101.27	1797
126.00	128.21	103.20	1638	1643	495.43	795.44	1097.56	1797
128.00	130.00	104.99	1641	1646	492.93	792.34	1093.92	1797
130.00	131.80	106.79	1643	1648	490.48	789.29	1090.35	1797
132.00	133.60	108.59	1645	1651	488.05	786.30	1086.85	1797
134.00	135.39	110.38	1648	1653	485.67	783.35	1083.41	1797
136.00	137.19	112.18	1650	1655	483.32	780.45	1080.03	1797
138.00	138.99	113.98	1652	1657	481.00	777.59	1076.70	1797
140.00	140.78	115.77	1654	1659	478.71	774.77	1073.43	1797
142.00	142.58	117.57	1656	1661	476.46	772.00	1070.21	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
								1797
144.00	144.38	119.37	1658	1663	474.23	769.26	1067.04	1797
146.00	146.17	121.16	1660	1665	472.03	766.56	1063.92	1797
148.00	147.97	122.96	1662	1667	469.86	763.90	1060.84	1797
150.00	149.77	124.76	1663	1669	467.72	761.27	1057.81	1797
152.00	151.56	126.55	1665	1671	465.60	758.68	1054.81	1797
154.00	153.36	128.35	1667	1672	463.50	756.11	1051.86	1797
156.00	155.16	130.15	1669	1674	461.43	753.58	1048.94	1797
158.00	156.96	131.95	1670	1676	459.39	751.08	1046.07	1797
160.00	158.75	133.74	1672	1677	457.36	748.60	1043.22	1797
162.00	160.55	135.54	1673	1679	455.36	746.15	1040.41	1797
164.00	162.35	137.34	1675	1680	453.38	743.73	1037.64	1797
166.00	164.14	139.13	1676	1682	451.42	741.34	1034.89	1797
168.00	165.94	140.93	1678	1683	449.48	738.97	1032.18	1797
170.00	167.74	142.73	1679	1684	447.55	736.62	1029.50	1797
172.00	169.53	144.52	1680	1686	445.65	734.30	1026.84	1797
174.00	171.33	146.32	1682	1687	443.77	732.00	1024.21	1797
176.00	173.13	148.12	1683	1688	441.90	729.72	1021.61	1797
178.00	174.92	149.91	1684	1690	440.05	727.46	1019.03	1797
180.00	176.72	151.71	1686	1691	438.22	725.23	1016.48	1797
182.00	178.52	153.51	1687	1692	436.40	723.01	1013.96	1797
184.00	180.31	155.30	1688	1693	434.60	720.81	1011.45	1797
186.00	182.11	157.10	1689	1694	432.82	718.63	1008.97	1797
188.00	183.91	158.90	1690	1695	431.05	716.47	1006.51	1797
190.00	185.71	160.69	1692	1697	429.30	714.33	1004.08	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
192.00	187.50	162.49	1693	1698	427.56	712.21	1001.66	1797
194.00	189.30	164.29	1694	1699	425.84	710.10	999.26	1797
196.00	191.10	166.08	1695	1700	424.13	708.01	996.89	1797
198.00	192.89	167.88	1696	1701	422.43	705.93	994.53	1797
200.00	194.69	169.68	1697	1702	420.75	703.88	992.19	1797
202.00	196.49	171.47	1698	1703	419.08	701.83	989.87	1797
204.00	198.28	173.27	1699	1704	417.43	699.80	987.57	1797
206.00	200.15	175.14	1700	1705	415.53	697.40	984.75	1871
208.00	203.15	178.14	1713	1722	408.74	687.40	971.69	2996
210.00	206.15	181.13	1725	1739	402.22	677.82	959.18	2996
212.00	209.14	184.13	1737	1755	395.97	668.62	947.18	2996
214.00	212.14	187.13	1749	1771	389.97	659.79	935.66	2996
216.00	215.14	190.12	1760	1786	384.19	651.29	924.59	2996
218.00	218.13	193.12	1772	1801	378.62	643.10	913.93	2996
220.00	221.13	196.11	1783	1815	373.26	635.22	903.66	2996
222.00	224.13	199.11	1794	1829	368.08	627.60	893.76	2996
224.00	227.12	202.11	1805	1843	363.08	620.25	884.20	2996
226.00	230.12	205.10	1815	1856	358.24	613.14	874.96	2996
228.00	233.11	208.10	1825	1869	353.56	606.27	866.03	2996
230.00	236.11	211.10	1836	1882	349.03	599.61	857.38	2996
232.00	239.11	214.09	1846	1894	344.64	593.15	849.01	2996
234.00	242.10	217.09	1855	1906	340.38	586.89	840.89	2996
236.00	245.10	220.08	1865	1918	336.25	580.81	833.01	2996
238.00	248.10	223.08	1875	1930	332.23	574.91	825.36	

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
								3887
240.00	251.98	226.97	1891	1954	325.20	564.22	811.19	5351
242.00	257.34	232.32	1920	2006	312.14	543.94	783.95	5351
244.00	262.69	237.67	1948	2056	300.22	525.40	759.04	5351
246.00	268.04	243.02	1976	2103	289.29	508.37	736.15	5351
248.00	273.39	248.37	2003	2149	279.23	492.65	715.01	5351
250.00	278.74	253.72	2030	2194	269.93	478.09	695.41	5351
252.00	284.09	259.08	2056	2236	261.30	464.54	677.18	5351
254.00	289.45	264.43	2082	2277	253.26	451.90	660.16	5351
256.00	294.80	269.78	2108	2317	245.75	440.08	644.22	5191
258.00	299.99	274.97	2132	2353	239.15	429.67	630.22	1059
260.00	301.05	276.03	2123	2346	239.31	430.24	631.30	1059
262.00	302.11	277.09	2115	2339	239.46	430.81	632.38	1059
264.00	303.17	278.15	2107	2332	239.61	431.36	633.44	1059
266.00	304.23	279.21	2099	2325	239.75	431.90	634.48	1059
268.00	305.28	280.26	2092	2318	239.89	432.44	635.52	1059
270.00	306.34	281.32	2084	2311	240.03	432.97	636.54	1059
272.00	307.40	282.38	2076	2304	240.16	433.48	637.54	1059
274.00	308.46	283.44	2069	2298	240.28	433.99	638.54	1059
276.00	309.52	284.50	2062	2291	240.41	434.49	639.52	1059
278.00	310.58	285.56	2054	2285	240.52	434.98	640.48	1059
280.00	311.64	286.62	2047	2278	240.64	435.47	641.44	1059
282.00	312.70	287.68	2040	2272	240.75	435.94	642.38	1059
284.00	313.76	288.74	2033	2266	240.85	436.41	643.31	1059
286.00	314.82	289.80	2027	2259	240.95	436.87	644.23	

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	315.88	290.85	2020	2253	241.05	437.32	645.14	1059
290.00	316.93	291.91	2013	2247	241.15	437.76	646.04	1059
292.00	317.99	292.97	2007	2241	241.24	438.20	646.92	1059
294.00	319.05	294.03	2000	2235	241.32	438.62	647.79	1059
296.00	320.11	295.09	1994	2229	241.40	439.04	648.65	1059
298.00	321.17	296.15	1988	2224	241.48	439.46	649.50	1059
300.00	322.23	297.21	1981	2218	241.56	439.86	650.34	1059
302.00	323.29	298.27	1975	2212	241.63	440.26	651.17	1059
304.00	324.35	299.33	1969	2207	241.70	440.65	651.99	1059
306.00	325.41	300.39	1963	2201	241.77	441.04	652.79	1059
308.00	326.47	301.44	1957	2196	241.83	441.41	653.59	1059
310.00	327.53	302.50	1952	2190	241.89	441.78	654.37	1059
312.00	328.58	303.56	1946	2185	241.94	442.15	655.15	1059
314.00	329.64	304.62	1940	2179	241.99	442.50	655.91	1059
316.00	330.70	305.68	1935	2174	242.04	442.85	656.67	1059
318.00	331.76	306.74	1929	2169	242.09	443.20	657.41	1059
320.00	332.82	307.80	1924	2164	242.13	443.53	658.15	1059
322.00	333.88	308.86	1918	2159	242.17	443.86	658.87	1059
324.00	334.94	309.92	1913	2154	242.21	444.19	659.59	1059
326.00	336.00	310.98	1908	2149	242.24	444.51	660.29	1059
328.00	337.06	312.03	1903	2144	242.27	444.82	660.99	1059
330.00	338.12	313.09	1898	2139	242.30	445.13	661.68	1059
332.00	339.17	314.15	1892	2134	242.33	445.43	662.36	1059
334.00	340.23	315.21	1887	2129	242.35	445.72	663.02	

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
								1059
336.00	341.29	316.27	1883	2124	242.37	446.01	663.68	
								1059
338.00	342.35	317.33	1878	2119	242.39	446.29	664.34	
								1059
340.00	343.41	318.39	1873	2115	242.40	446.57	664.98	
								1059
342.00	344.47	319.45	1868	2110	242.42	446.84	665.61	
								1059
344.00	345.53	320.51	1863	2106	242.43	447.10	666.24	
								1059
346.00	346.59	321.57	1859	2101	242.43	447.36	666.85	
								1059
348.00	347.65	322.62	1854	2097	242.44	447.62	667.46	
								1059
350.00	348.71	323.68	1850	2092	242.44	447.87	668.06	
								1059
352.00	349.77	324.74	1845	2088	242.44	448.11	668.65	
								1947
354.00	351.71	326.69	1846	2087	241.77	447.23	667.67	
								2122
356.00	353.83	328.81	1847	2087	240.92	446.06	666.28	
								2122
358.00	355.96	330.93	1849	2087	240.08	444.89	664.90	
								2122
360.00	358.08	333.05	1850	2087	239.25	443.72	663.52	
								2122
362.00	360.20	335.18	1852	2088	238.41	442.56	662.14	
								2122
364.00	362.32	337.30	1853	2088	237.59	441.40	660.77	
								2122
366.00	364.44	339.42	1855	2088	236.77	440.25	659.40	
								2122
368.00	366.57	341.54	1856	2088	235.95	439.11	658.04	
								2122
370.00	368.69	343.66	1858	2088	235.14	437.96	656.68	
								2122
372.00	370.81	345.78	1859	2089	234.33	436.83	655.32	
								2122
374.00	372.93	347.91	1860	2089	233.53	435.69	653.97	
								2122
376.00	375.05	350.03	1862	2089	232.73	434.57	652.63	
								2122
378.00	377.17	352.15	1863	2089	231.93	433.44	651.28	
								2122
380.00	379.30	354.27	1865	2089	231.14	432.32	649.95	
								2122
382.00	381.42	356.39	1866	2089	230.36	431.21	648.61	

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
								2122
384.00	383.54	358.51	1867	2090	229.58	430.10	647.28	2122
386.00	385.66	360.64	1869	2090	228.80	428.99	645.96	2122
388.00	387.78	362.76	1870	2090	228.03	427.89	644.64	2122
390.00	389.90	364.88	1871	2090	227.26	426.80	643.32	2122
392.00	392.03	367.00	1872	2090	226.50	425.70	642.01	2122
394.00	394.15	369.12	1874	2090	225.74	424.62	640.70	2122
396.00	396.27	371.24	1875	2091	224.99	423.53	639.40	2122
398.00	398.39	373.37	1876	2091	224.24	422.45	638.10	2154
400.00	400.55	375.52	1878	2091	223.46	421.33	636.73	2238
402.00	402.78	377.76	1879	2092	222.61	420.08	635.19	2238
404.00	405.02	380.00	1881	2093	221.77	418.84	633.65	2238
406.00	407.26	382.23	1883	2093	220.94	417.60	632.12	2238
408.00	409.50	384.47	1885	2094	220.11	416.37	630.59	2238
410.00	411.74	386.71	1886	2095	219.28	415.15	629.08	2238
412.00	413.97	388.95	1888	2095	218.46	413.93	627.57	2238
414.00	416.21	391.19	1890	2096	217.65	412.72	626.06	2238
416.00	418.45	393.42	1891	2097	216.84	411.51	624.57	2238
418.00	420.69	395.66	1893	2098	216.04	410.31	623.08	2238
420.00	422.93	397.90	1895	2098	215.24	409.12	621.60	2238
422.00	425.17	400.14	1896	2099	214.45	407.94	620.12	2238
424.00	427.40	402.38	1898	2100	213.66	406.76	618.65	2238
426.00	429.64	404.61	1900	2100	212.88	405.58	617.19	2238
428.00	431.88	406.85	1901	2101	212.10	404.42	615.73	2238
430.00	434.12	409.09	1903	2102	211.33	403.25	614.28	

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	436.36	411.33	1904	2102	210.56	402.10	612.84	2238
434.00	438.59	413.57	1906	2103	209.80	400.95	611.40	2238
436.00	440.83	415.80	1907	2104	209.05	399.81	609.97	2238
438.00	443.07	418.04	1909	2104	208.29	398.67	608.54	2238
440.00	445.31	420.28	1910	2105	207.55	397.54	607.13	2238
442.00	447.55	422.52	1912	2105	206.81	396.41	605.71	2238
444.00	449.79	424.76	1913	2106	206.07	395.29	604.31	2371
446.00	452.16	427.13	1915	2107	205.23	393.99	602.64	2379
448.00	454.54	429.51	1917	2109	204.39	392.68	600.97	2379
450.00	456.92	431.89	1919	2110	203.56	391.38	599.30	2379
452.00	459.29	434.26	1922	2111	202.73	390.10	597.65	2379
454.00	461.67	436.64	1924	2112	201.91	388.82	596.01	2379
456.00	464.05	439.02	1926	2114	201.09	387.54	594.37	2379
458.00	466.43	441.40	1928	2115	200.28	386.28	592.74	2379
460.00	468.81	443.78	1929	2116	199.48	385.02	591.13	2379
462.00	471.19	446.16	1931	2117	198.69	383.77	589.52	2379
464.00	473.57	448.54	1933	2119	197.90	382.53	587.92	2379
466.00	475.95	450.92	1935	2120	197.11	381.30	586.33	2379
468.00	478.33	453.30	1937	2121	196.33	380.07	584.75	2379
470.00	480.71	455.68	1939	2122	195.56	378.86	583.18	2379
472.00	483.09	458.06	1941	2123	194.79	377.65	581.61	2379
474.00	485.47	460.43	1943	2124	194.03	376.44	580.06	2379
476.00	487.85	462.81	1945	2125	193.27	375.25	578.51	2379
478.00	490.22	465.19	1946	2127	192.52	374.06	576.97	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
480.00	492.60	467.57	1948	2128	191.78	372.88	575.44	2379
482.00	494.98	469.95	1950	2129	191.04	371.70	573.91	2379
484.00	497.36	472.33	1952	2130	190.30	370.53	572.40	2379
486.00	499.74	474.71	1954	2131	189.58	369.37	570.89	2379
488.00	502.14	477.11	1955	2132	188.84	368.20	569.36	2396
490.00	504.54	479.50	1957	2133	188.11	367.03	567.84	2397
492.00	506.93	481.90	1959	2134	187.38	365.87	566.33	2397
494.00	509.33	484.30	1961	2136	186.66	364.71	564.82	2397
496.00	511.73	486.69	1962	2137	185.95	363.56	563.32	2397
498.00	514.12	489.09	1964	2138	185.24	362.42	561.83	2397
500.00	516.52	491.49	1966	2139	184.53	361.29	560.35	2397
502.00	518.92	493.89	1968	2140	183.83	360.16	558.87	2397
504.00	521.32	496.28	1969	2141	183.14	359.04	557.40	2397
506.00	523.71	498.68	1971	2142	182.45	357.92	555.94	2397
508.00	526.11	501.08	1973	2143	181.76	356.81	554.49	2397
510.00	528.51	503.47	1974	2144	181.08	355.71	553.05	2397
512.00	530.91	505.87	1976	2145	180.40	354.62	551.61	2397
514.00	533.30	508.27	1978	2146	179.73	353.53	550.18	2345
516.00	535.65	510.61	1979	2147	179.10	352.50	548.84	2228
518.00	537.88	512.84	1980	2147	178.54	351.61	547.69	2228
520.00	540.11	515.07	1981	2148	177.98	350.72	546.54	2228
522.00	542.33	517.30	1982	2148	177.43	349.83	545.40	2228
524.00	544.56	519.53	1983	2148	176.88	348.95	544.26	2228
526.00	546.79	521.76	1984	2149	176.33	348.07	543.13	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
528.00	549.02	523.98	1985	2149	175.78	347.20	542.00	2228
530.00	551.25	526.21	1986	2149	175.24	346.33	540.87	2229
532.00	553.49	528.45	1987	2150	174.70	345.45	539.73	2241
534.00	555.72	530.69	1988	2150	174.16	344.58	538.60	2234
536.00	558.01	532.98	1989	2151	173.59	343.66	537.40	2290
538.00	560.40	535.36	1990	2151	172.97	342.64	536.05	2388
540.00	562.81	537.77	1992	2152	172.34	341.61	534.68	2406
542.00	565.48	540.44	1994	2155	171.56	340.28	532.88	2674
544.00	567.74	542.71	1995	2155	171.02	339.41	531.75	2261
546.00	569.99	544.95	1996	2155	170.50	338.56	530.63	2245
548.00	572.28	547.25	1997	2156	169.95	337.66	529.45	2295
550.00	574.54	549.50	1998	2156	169.43	336.80	528.33	2258
552.00	576.78	551.74	1999	2157	168.91	335.97	527.24	2240
554.00	579.01	553.97	2000	2157	168.41	335.14	526.17	2228
556.00	581.17	556.14	2000	2157	167.94	334.38	525.18	2165
558.00	583.35	558.31	2001	2157	167.47	333.62	524.19	2177
560.00	585.51	560.47	2002	2157	167.01	332.87	523.22	2158
562.00	588.10	563.06	2004	2159	166.32	331.70	521.63	2591
564.00	590.67	565.64	2006	2160	165.64	330.56	520.08	2573
566.00	593.11	568.07	2007	2161	165.05	329.56	518.74	2436
568.00	595.45	570.42	2009	2162	164.51	328.66	517.54	2343
570.00	597.76	572.72	2010	2162	163.99	327.80	516.40	2305
572.00	600.03	574.99	2010	2163	163.49	326.98	515.32	2266
574.00	602.30	577.26	2011	2163	163.00	326.15	514.23	2274

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	604.59	579.55	2012	2164	162.49	325.32	513.11	2293
578.00	606.94	581.90	2013	2164	161.97	324.44	511.94	2342
580.00	609.16	584.12	2014	2165	161.50	323.67	510.93	2224
582.00	611.35	586.31	2015	2165	161.06	322.93	509.96	2191
584.00	613.71	588.67	2016	2165	160.53	322.04	508.77	2363
586.00	616.24	591.20	2018	2167	159.93	321.01	507.36	2524
588.00	618.71	593.67	2019	2168	159.35	320.04	506.04	2471
590.00	621.45	596.41	2022	2170	158.64	318.80	504.33	2740
592.00	624.06	599.02	2024	2172	158.00	317.70	502.82	2613
594.00	626.68	601.64	2026	2173	157.37	316.60	501.31	2617
596.00	629.29	604.25	2028	2175	156.74	315.52	499.82	2614
598.00	631.92	606.88	2030	2177	156.11	314.43	498.32	2627
600.00	634.56	609.52	2032	2178	155.48	313.33	496.81	2639
602.00	637.15	612.11	2034	2180	154.88	312.29	495.38	2589
604.00	639.77	614.73	2036	2181	154.26	311.23	493.91	2623
606.00	642.22	617.17	2037	2182	153.74	310.33	492.69	2442
608.00	644.59	619.55	2038	2183	153.25	309.50	491.56	2377
610.00	647.01	621.97	2039	2184	152.75	308.64	490.38	2418
612.00	649.70	624.66	2041	2186	152.12	307.53	488.85	2688
614.00	652.25	627.21	2043	2187	151.56	306.57	487.52	2551
616.00	654.95	629.91	2045	2189	150.93	305.46	485.99	2703
618.00	658.08	633.03	2049	2192	150.09	303.95	483.84	3121
620.00	661.16	636.12	2052	2196	149.27	302.50	481.78	3085
622.00	664.14	639.10	2055	2199	148.52	301.16	479.89	2979

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	666.93	641.88	2057	2201	147.88	300.02	478.29	2785
626.00	669.53	644.48	2059	2202	147.33	299.06	476.95	2602
628.00	672.23	647.19	2061	2204	146.73	298.01	475.49	2704
630.00	674.96	649.92	2063	2206	146.13	296.94	473.99	2733
632.00	677.78	652.74	2066	2208	145.49	295.80	472.39	2819
634.00	680.44	655.40	2068	2210	144.93	294.81	471.01	2661
636.00	683.34	658.30	2070	2212	144.26	293.62	469.32	2900
638.00	686.39	661.35	2073	2215	143.52	292.30	467.44	3045
640.00	689.41	664.37	2076	2218	142.81	291.01	465.61	3021
642.00	692.37	667.32	2079	2221	142.13	289.80	463.88	2954
644.00	695.17	670.12	2081	2223	141.54	288.73	462.37	2804
646.00	698.03	672.99	2084	2225	140.92	287.61	460.79	2862
648.00	700.89	675.84	2086	2228	140.30	286.52	459.24	2854
650.00	703.71	678.67	2088	2230	139.71	285.45	457.73	2828
652.00	706.56	681.51	2091	2232	139.11	284.38	456.21	2844
654.00	709.36	684.31	2093	2234	138.54	283.35	454.75	2798
656.00	712.23	687.18	2095	2236	137.94	282.27	453.21	2873
658.00	715.04	689.99	2097	2238	137.37	281.25	451.77	2806
660.00	717.90	692.86	2100	2240	136.79	280.19	450.26	2867
662.00	720.82	695.77	2102	2243	136.18	279.10	448.70	2915
664.00	723.70	698.66	2104	2245	135.60	278.04	447.19	2886
666.00	726.58	701.54	2107	2247	135.02	276.99	445.69	2879
668.00	729.56	704.51	2109	2249	134.41	275.87	444.09	2974
670.00	732.60	707.55	2112	2252	133.77	274.71	442.42	3043

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
								3042
672.00	735.64	710.59	2115	2255	133.14	273.55	440.76	
								2948
674.00	738.59	713.54	2117	2257	132.55	272.49	439.23	
								3073
676.00	741.66	716.61	2120	2260	131.92	271.32	437.55	
								3018
678.00	744.68	719.63	2123	2263	131.31	270.22	435.96	
								3109
680.00	747.79	722.74	2126	2266	130.68	269.05	434.26	
								3093
682.00	750.88	725.83	2129	2269	130.05	267.90	432.60	
								2943
684.00	753.83	728.78	2131	2271	129.49	266.88	431.13	
								3126
686.00	756.95	731.90	2134	2274	128.87	265.72	429.46	
								2910
688.00	759.86	734.81	2136	2276	128.33	264.74	428.05	
								2857
690.00	762.72	737.67	2138	2278	127.82	263.81	426.70	
								2844
692.00	765.56	740.51	2140	2280	127.32	262.89	425.38	
								2878
694.00	768.44	743.39	2142	2282	126.81	261.95	424.04	
								2854
696.00	771.30	746.24	2144	2283	126.31	261.04	422.72	
								2716
698.00	774.01	748.96	2146	2285	125.87	260.23	421.56	
								2747
700.00	776.76	751.71	2148	2286	125.42	259.40	420.38	
								2708
702.00	779.47	754.42	2149	2288	124.98	258.60	419.24	
								2727
704.00	782.19	757.14	2151	2289	124.54	257.80	418.08	
								2725
706.00	784.92	759.87	2153	2290	124.10	257.00	416.94	
								2494
708.00	787.41	762.36	2154	2291	123.75	256.35	416.02	
								2701
710.00	790.11	765.06	2155	2292	123.32	255.58	414.91	
								2564
712.00	792.68	767.63	2156	2293	122.95	254.89	413.93	
								2733
714.00	795.41	770.36	2158	2294	122.52	254.11	412.80	
								2672
716.00	798.08	773.03	2159	2295	122.12	253.36	411.73	
								2610
718.00	800.69	775.64	2161	2296	121.73	252.66	410.73	

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	803.31	778.25	2162	2297	121.35	251.96	409.73	2611
722.00	806.35	781.29	2164	2300	120.83	250.99	408.31	3039
724.00	809.20	784.15	2166	2301	120.38	250.15	407.09	2855
726.00	811.87	786.81	2168	2303	119.99	249.43	406.06	2665
728.00	814.51	789.45	2169	2304	119.61	248.74	405.05	2640
730.00	817.13	792.07	2170	2304	119.24	248.05	404.07	2621
732.00	819.78	794.73	2171	2305	118.86	247.35	403.06	2657
734.00	822.75	797.70	2174	2308	118.38	246.46	401.76	2969
736.00	825.86	800.81	2176	2310	117.86	245.48	400.32	3109
738.00	828.71	803.65	2178	2312	117.43	244.68	399.16	2844
740.00	831.52	806.47	2180	2313	117.02	243.91	398.03	2813
742.00	834.27	809.21	2181	2315	116.62	243.18	396.97	2749
744.00	837.10	812.05	2183	2316	116.21	242.40	395.84	2833
746.00	839.93	814.87	2185	2318	115.80	241.63	394.71	2826
748.00	842.91	817.85	2187	2320	115.34	240.78	393.46	2977
750.00	845.45	820.40	2188	2320	115.02	240.17	392.59	2548
752.00	848.03	822.97	2189	2321	114.69	239.56	391.71	2571
754.00	850.53	825.47	2190	2321	114.38	238.99	390.88	2502
756.00	853.60	828.54	2192	2324	113.90	238.09	389.56	3067
758.00	856.56	831.50	2194	2326	113.47	237.27	388.35	2963
760.00	860.27	835.21	2198	2330	112.78	235.95	386.37	3707
762.00	863.48	838.42	2201	2333	112.27	234.99	384.94	3214
764.00	866.09	841.04	2202	2334	111.95	234.38	384.06	2613
766.00	868.41	843.35	2202	2334	111.70	233.92	383.40	2315

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	871.28	846.22	2204	2335	111.30	233.18	382.31	2869
770.00	874.11	849.06	2205	2337	110.92	232.46	381.26	2834
772.00	876.82	851.77	2207	2338	110.58	231.82	380.31	2710
774.00	879.62	854.56	2208	2339	110.21	231.13	379.30	2792
776.00	882.38	857.32	2210	2340	109.86	230.46	378.33	2760
778.00	884.96	859.90	2211	2341	109.56	229.89	377.50	2583
780.00	887.70	862.64	2212	2342	109.21	229.24	376.54	2742
782.00	890.61	865.55	2214	2344	108.83	228.51	375.46	2905
784.00	893.52	868.46	2215	2345	108.44	227.78	374.38	2913
786.00	896.57	871.52	2218	2347	108.02	226.97	373.18	3053
788.00	899.23	874.17	2219	2348	107.71	226.38	372.31	2654
790.00	901.98	876.92	2220	2349	107.37	225.75	371.38	2753
792.00	904.68	879.63	2221	2350	107.05	225.14	370.48	2703
794.00	907.17	882.11	2222	2351	106.78	224.64	369.75	2489
796.00	909.89	884.83	2223	2352	106.46	224.03	368.86	2714
798.00	912.54	887.48	2224	2352	106.16	223.45	368.01	2654
800.00	915.85	890.79	2227	2355	105.68	222.53	366.63	3305
802.00	918.52	893.46	2228	2356	105.38	221.96	365.78	2673
804.00	921.17	896.11	2229	2357	105.08	221.39	364.95	2651
806.00	923.84	898.78	2230	2358	104.78	220.83	364.11	2667
808.00	926.50	901.44	2231	2359	104.48	220.26	363.29	2659
810.00	929.16	904.10	2232	2359	104.19	219.70	362.46	2665
812.00	931.87	906.81	2234	2360	103.88	219.12	361.60	2705
814.00	935.19	910.13	2236	2363	103.42	218.23	360.25	3320

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
816.00	937.87	912.80	2237	2364	103.13	217.68	359.43	2675
818.00	940.57	915.51	2238	2365	102.83	217.11	358.59	2705
820.00	943.94	918.88	2241	2368	102.37	216.20	357.22	3373
822.00	946.70	921.64	2242	2369	102.06	215.62	356.35	2755
824.00	949.73	924.67	2244	2371	101.69	214.91	355.28	3029
826.00	952.74	927.68	2246	2372	101.33	214.21	354.23	3016
828.00	955.66	930.59	2248	2374	101.00	213.56	353.26	2911
830.00	958.46	933.40	2249	2375	100.69	212.97	352.38	2809
832.00	961.65	936.59	2251	2377	100.29	212.19	351.21	3186
834.00	964.84	939.78	2254	2380	99.89	211.42	350.04	3187
836.00	967.82	942.76	2255	2381	99.55	210.76	349.05	2983
838.00	971.03	945.96	2258	2384	99.16	209.99	347.88	3205
840.00	973.98	948.92	2259	2385	98.83	209.35	346.92	2952
842.00	976.86	951.80	2261	2386	98.51	208.75	346.01	2883
844.00	980.02	954.96	2263	2388	98.14	208.02	344.90	3161
846.00	982.97	957.90	2265	2390	97.82	207.39	343.97	2941
848.00	986.77	961.71	2268	2394	97.28	206.33	342.33	3806
850.00	989.66	964.60	2270	2396	96.97	205.73	341.44	2890
852.00	992.58	967.52	2271	2397	96.66	205.13	340.53	2921
854.00	995.51	970.44	2273	2398	96.36	204.54	339.63	2924
856.00	998.36	973.30	2274	2399	96.06	203.97	338.78	2854
858.00	1001.20	976.13	2275	2401	95.78	203.42	337.94	2837
860.00	1004.04	978.98	2277	2402	95.49	202.86	337.11	2846
862.00	1006.90	981.84	2278	2403	95.21	202.30	336.27	2856

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
864.00	1009.67	984.60	2279	2404	94.94	201.79	335.49	2767
866.00	1012.45	987.38	2280	2405	94.67	201.27	334.70	2780
868.00	1015.21	990.15	2281	2406	94.41	200.75	333.93	2765
870.00	1018.10	993.03	2283	2407	94.12	200.20	333.09	2885
872.00	1021.00	995.94	2284	2408	93.83	199.63	332.24	2905
874.00	1024.45	999.38	2287	2411	93.43	198.83	331.00	3447
876.00	1027.70	1002.63	2289	2413	93.07	198.12	329.92	3247
878.00	1030.42	1005.35	2290	2414	92.82	197.64	329.20	2722
880.00	1033.27	1008.20	2291	2415	92.55	197.12	328.40	2851
882.00	1036.14	1011.07	2293	2416	92.28	196.59	327.60	2868
884.00	1039.11	1014.04	2294	2418	91.99	196.02	326.73	2966
886.00	1041.98	1016.91	2296	2419	91.72	195.49	325.93	2875
888.00	1044.83	1019.76	2297	2420	91.46	194.97	325.15	2846
890.00	1047.65	1022.58	2298	2421	91.20	194.47	324.38	2823
892.00	1050.52	1025.45	2299	2422	90.94	193.95	323.59	2873
894.00	1053.42	1028.35	2301	2423	90.67	193.43	322.79	2895
896.00	1056.22	1031.15	2302	2424	90.42	192.94	322.05	2800
898.00	1059.15	1034.08	2303	2425	90.15	192.41	321.24	2929
900.00	1062.07	1037.00	2304	2426	89.88	191.88	320.44	2919
902.00	1064.91	1039.84	2306	2427	89.63	191.38	319.68	2844
904.00	1067.89	1042.82	2307	2429	89.35	190.84	318.85	2975
906.00	1070.85	1045.78	2309	2430	89.08	190.31	318.03	2959
908.00	1073.77	1048.70	2310	2431	88.82	189.79	317.25	2919
910.00	1076.66	1051.59	2311	2432	88.57	189.28	316.47	2899

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
912.00	1079.60	1054.53	2313	2433	88.30	188.77	315.68	2935
914.00	1082.49	1057.41	2314	2435	88.05	188.27	314.92	2885
916.00	1085.37	1060.30	2315	2436	87.80	187.78	314.17	2888
918.00	1088.46	1063.39	2317	2437	87.52	187.21	313.30	3085
920.00	1091.42	1066.35	2318	2439	87.26	186.70	312.51	2961
922.00	1094.36	1069.29	2320	2440	87.00	186.19	311.73	2944
924.00	1097.28	1072.21	2321	2441	86.75	185.70	310.97	2920
926.00	1100.21	1075.14	2322	2442	86.50	185.20	310.21	2930
928.00	1103.20	1078.12	2324	2443	86.25	184.69	309.42	2981
930.00	1106.19	1081.12	2325	2445	85.99	184.18	308.63	2994
932.00	1109.24	1084.16	2327	2446	85.72	183.65	307.82	3045
934.00	1112.27	1087.19	2328	2447	85.46	183.13	307.01	3031
936.00	1115.21	1090.14	2329	2449	85.21	182.64	306.26	2947
938.00	1118.24	1093.17	2331	2450	84.95	182.12	305.47	3027
940.00	1121.41	1096.34	2333	2452	84.67	181.56	304.59	3174
942.00	1124.38	1099.30	2334	2453	84.43	181.07	303.84	2963
944.00	1127.44	1102.37	2336	2454	84.17	180.55	303.04	3065
946.00	1130.47	1105.40	2337	2456	83.91	180.05	302.26	3032
948.00	1133.51	1108.44	2338	2457	83.66	179.54	301.48	3038
950.00	1136.55	1111.48	2340	2459	83.41	179.04	300.70	3041
952.00	1139.58	1114.51	2341	2460	83.16	178.55	299.93	3027
954.00	1143.00	1117.93	2344	2462	82.85	177.91	298.94	3422
956.00	1145.98	1120.91	2345	2464	82.61	177.44	298.21	2977
958.00	1148.93	1123.86	2346	2465	82.38	176.98	297.49	2952

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
960.00	1152.00	1126.93	2348	2466	82.13	176.48	296.72	3071
962.00	1155.01	1129.93	2349	2467	81.89	176.00	295.99	3003
964.00	1158.02	1132.95	2351	2469	81.66	175.53	295.25	3016
966.00	1161.12	1136.04	2352	2470	81.41	175.03	294.47	3097
968.00	1164.18	1139.10	2354	2471	81.17	174.55	293.72	3059
970.00	1167.14	1142.06	2355	2472	80.94	174.10	293.02	2958
972.00	1170.26	1145.18	2356	2474	80.70	173.60	292.25	3117
974.00	1173.65	1148.57	2358	2476	80.40	173.01	291.32	3389
976.00	1176.72	1151.64	2360	2478	80.17	172.53	290.58	3073
978.00	1179.68	1154.60	2361	2479	79.95	172.09	289.89	2961
980.00	1182.74	1157.67	2363	2480	79.71	171.62	289.16	3063
982.00	1185.83	1160.76	2364	2481	79.48	171.15	288.42	3090
984.00	1188.97	1163.90	2366	2483	79.23	170.66	287.65	3139
986.00	1192.17	1167.09	2367	2485	78.99	170.15	286.86	3191
988.00	1195.42	1170.33	2369	2486	78.73	169.64	286.05	3243
990.00	1198.64	1173.55	2371	2488	78.48	169.13	285.26	3217
992.00	1201.77	1176.67	2372	2489	78.24	168.65	284.52	3127
994.00	1204.53	1179.43	2373	2490	78.06	168.29	283.96	2755
996.00	1207.33	1182.22	2374	2491	77.88	167.92	283.38	2793
998.00	1210.22	1185.11	2375	2492	77.68	167.53	282.77	2885
1000.00	1213.16	1188.04	2376	2492	77.48	167.12	282.14	2931
1002.00	1216.08	1190.95	2377	2493	77.28	166.72	281.51	2917
1004.00	1219.04	1193.91	2378	2494	77.08	166.31	280.87	2953
1006.00	1221.90	1196.76	2379	2495	76.89	165.94	280.28	2855

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1008.00	1224.80	1199.65	2380	2496	76.70	165.55	279.68	2888
1010.00	1227.73	1202.57	2381	2497	76.51	165.15	279.06	2924
1012.00	1230.61	1205.46	2382	2498	76.32	164.77	278.47	2882
1014.00	1233.57	1208.41	2383	2499	76.12	164.37	277.84	2952
1016.00	1236.69	1211.52	2385	2500	75.90	163.93	277.15	3107
1018.00	1239.75	1214.57	2386	2501	75.69	163.51	276.48	3052
1020.00	1242.65	1217.47	2387	2502	75.50	163.13	275.89	2898
1022.00	1245.57	1220.38	2388	2503	75.32	162.75	275.29	2912
1024.00	1248.46	1223.26	2389	2504	75.13	162.38	274.71	2881
1026.00	1251.32	1226.12	2390	2505	74.95	162.02	274.14	2856
1028.00	1254.11	1228.90	2391	2505	74.79	161.67	273.61	2788
1030.00	1257.00	1231.79	2392	2506	74.60	161.31	273.04	2883
1032.00	1259.90	1234.67	2393	2507	74.42	160.94	272.46	2888
1034.00	1262.92	1237.69	2394	2508	74.23	160.54	271.84	3013
1036.00	1265.91	1240.67	2395	2509	74.04	160.16	271.23	2980
1038.00	1268.83	1243.58	2396	2510	73.86	159.79	270.65	2912
1040.00	1271.70	1246.45	2397	2510	73.68	159.43	270.09	2869
1042.00	1274.58	1249.32	2398	2511	73.51	159.08	269.54	2870
1044.00	1277.49	1252.23	2399	2512	73.33	158.72	268.97	2908
1046.00	1280.28	1255.00	2400	2512	73.17	158.39	268.46	2777
1048.00	1283.14	1257.86	2400	2513	73.00	158.05	267.92	2858
1050.00	1286.04	1260.75	2401	2514	72.82	157.70	267.36	2891
1052.00	1289.00	1263.70	2402	2515	72.64	157.33	266.78	2951
1054.00	1291.97	1266.67	2404	2516	72.46	156.96	266.20	2962

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1056.00	1295.06	1269.74	2405	2517	72.27	156.57	265.58	3074
1058.00	1298.10	1272.77	2406	2518	72.08	156.18	264.97	3033
1060.00	1301.65	1276.31	2408	2520	71.83	155.66	264.13	3541
1062.00	1305.01	1279.67	2410	2522	71.60	155.19	263.39	3353
1064.00	1308.32	1282.96	2412	2524	71.38	154.74	262.68	3295
1066.00	1311.24	1285.87	2413	2525	71.21	154.40	262.14	2909
1068.00	1314.29	1288.91	2414	2526	71.03	154.03	261.55	3040
1070.00	1317.19	1291.81	2415	2526	70.87	153.69	261.01	2899
1072.00	1320.14	1294.75	2416	2527	70.70	153.34	260.47	2940
1074.00	1323.13	1297.73	2417	2528	70.52	152.99	259.91	2976
1076.00	1326.15	1300.73	2418	2529	70.35	152.63	259.34	3008
1078.00	1329.19	1303.77	2419	2530	70.17	152.27	258.76	3032
1080.00	1332.19	1306.76	2420	2531	70.00	151.92	258.20	2992
1082.00	1335.10	1309.66	2421	2532	69.84	151.59	257.68	2903
1084.00	1338.11	1312.66	2422	2533	69.67	151.24	257.12	2995
1086.00	1341.00	1315.54	2423	2533	69.51	150.92	256.62	2879
1088.00	1343.89	1318.42	2424	2534	69.35	150.60	256.11	2880
1090.00	1346.87	1321.39	2425	2535	69.19	150.26	255.57	2969
1092.00	1349.74	1324.24	2425	2536	69.03	149.94	255.08	2859
1094.00	1352.68	1327.18	2426	2536	68.87	149.62	254.56	2934
1096.00	1355.60	1330.09	2427	2537	68.72	149.29	254.05	2909
1098.00	1358.50	1332.97	2428	2538	68.56	148.98	253.55	2887
1100.00	1361.36	1335.83	2429	2538	68.42	148.67	253.06	2853
1102.00	1364.29	1338.74	2430	2539	68.26	148.36	252.56	2917

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	1367.21	1341.66	2431	2540	68.11	148.04	252.05	2912
1106.00	1370.15	1344.58	2431	2541	67.95	147.72	251.55	2925
1108.00	1373.11	1347.53	2432	2541	67.79	147.40	251.03	2953
1110.00	1376.09	1350.50	2433	2542	67.64	147.07	250.51	2969
1112.00	1379.14	1353.54	2434	2543	67.47	146.73	249.97	3035
1114.00	1382.10	1356.49	2435	2544	67.32	146.42	249.47	2947
1116.00	1385.01	1359.39	2436	2545	67.17	146.11	248.98	2906
1118.00	1388.03	1362.40	2437	2546	67.01	145.78	248.45	3007
1120.00	1390.98	1365.33	2438	2546	66.86	145.47	247.96	2931
1122.00	1393.91	1368.26	2439	2547	66.71	145.16	247.47	2926
1124.00	1396.89	1371.22	2440	2548	66.55	144.85	246.96	2969
1126.00	1399.95	1374.27	2441	2549	66.39	144.51	246.43	3045
1128.00	1402.88	1377.19	2442	2550	66.25	144.21	245.95	2919
1130.00	1405.86	1380.15	2443	2550	66.10	143.90	245.46	2962
1132.00	1408.78	1383.06	2444	2551	65.95	143.60	244.98	2908
1134.00	1411.71	1385.98	2444	2552	65.81	143.31	244.50	2920
1136.00	1414.71	1388.96	2445	2553	65.66	142.99	244.01	2981
1138.00	1417.55	1391.79	2446	2553	65.52	142.72	243.56	2831
1140.00	1420.42	1394.64	2447	2554	65.38	142.44	243.11	2855
1142.00	1423.36	1397.58	2448	2554	65.24	142.14	242.64	2931
1144.00	1426.27	1400.47	2448	2555	65.10	141.85	242.18	2899
1146.00	1429.17	1403.35	2449	2556	64.96	141.57	241.73	2881
1148.00	1432.09	1406.26	2450	2556	64.82	141.28	241.26	2909
1150.00	1434.97	1409.14	2451	2557	64.69	141.00	240.82	2871

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	1437.91	1412.06	2451	2558	64.55	140.71	240.35	2925
1154.00	1440.80	1414.94	2452	2558	64.41	140.43	239.91	2875
1156.00	1443.69	1417.81	2453	2559	64.28	140.15	239.46	2877
1158.00	1446.57	1420.68	2454	2559	64.15	139.88	239.02	2870
1160.00	1449.58	1423.68	2455	2560	64.00	139.58	238.54	2997
1162.00	1452.57	1426.65	2456	2561	63.86	139.28	238.07	2976
1164.00	1455.40	1429.47	2456	2561	63.73	139.02	237.65	2815
1166.00	1458.25	1432.30	2457	2562	63.61	138.76	237.23	2831
1168.00	1461.31	1435.34	2458	2563	63.46	138.46	236.74	3044
1170.00	1464.35	1438.37	2459	2564	63.31	138.16	236.26	3029
1172.00	1467.49	1441.50	2460	2565	63.16	137.84	235.74	3126
1174.00	1470.46	1444.45	2461	2565	63.02	137.55	235.29	2955
1176.00	1473.40	1447.38	2462	2566	62.89	137.28	234.85	2922
1178.00	1476.49	1450.45	2463	2567	62.75	136.97	234.35	3077
1180.00	1479.85	1453.79	2464	2568	62.57	136.61	233.77	3341
1182.00	1482.99	1456.93	2465	2570	62.42	136.30	233.26	3133
1184.00	1486.07	1459.99	2466	2570	62.28	136.00	232.78	3064
1186.00	1489.17	1463.07	2467	2571	62.13	135.70	232.30	3082
1188.00	1492.20	1466.09	2468	2572	62.00	135.41	231.83	3014
1190.00	1495.24	1469.10	2469	2573	61.86	135.13	231.37	3018
1192.00	1498.28	1472.13	2470	2574	61.72	134.84	230.91	3027
1194.00	1501.29	1475.12	2471	2575	61.59	134.56	230.46	2992
1196.00	1504.37	1478.19	2472	2575	61.45	134.27	229.99	3070
1198.00	1507.50	1481.30	2473	2576	61.30	133.97	229.51	3104

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	1510.62	1484.41	2474	2577	61.16	133.68	229.03	3110
1202.00	1513.75	1487.51	2475	2578	61.02	133.38	228.55	3108
1204.00	1516.85	1490.60	2476	2579	60.88	133.09	228.08	3081
1206.00	1519.91	1493.64	2477	2580	60.75	132.81	227.62	3049
1208.00	1522.99	1496.70	2478	2581	60.61	132.53	227.17	3056
1210.00	1526.05	1499.74	2479	2582	60.48	132.25	226.72	3042
1212.00	1529.12	1502.80	2480	2583	60.34	131.97	226.26	3057
1214.00	1532.06	1505.72	2481	2583	60.22	131.72	225.85	2920
1216.00	1534.89	1508.54	2481	2584	60.11	131.48	225.47	2820
1218.00	1537.88	1511.51	2482	2584	59.98	131.22	225.05	2968
1220.00	1540.98	1514.59	2483	2585	59.85	130.94	224.60	3084
1222.00	1544.06	1517.65	2484	2586	59.72	130.66	224.15	3058
1224.00	1547.13	1520.71	2485	2587	59.59	130.39	223.71	3060
1226.00	1550.17	1523.73	2486	2588	59.46	130.12	223.28	3023
1228.00	1553.30	1526.85	2487	2589	59.33	129.84	222.82	3112
1230.00	1556.33	1529.85	2488	2589	59.20	129.58	222.40	3004
1232.00	1559.35	1532.86	2488	2590	59.08	129.32	221.97	3007
1234.00	1562.33	1535.82	2489	2591	58.96	129.07	221.57	2962
1236.00	1565.35	1538.82	2490	2592	58.83	128.81	221.15	3006
1238.00	1568.38	1541.84	2491	2592	58.71	128.56	220.73	3012
1240.00	1571.42	1544.85	2492	2593	58.59	128.30	220.31	3012
1242.00	1574.44	1547.85	2493	2594	58.47	128.04	219.90	3002
1244.00	1577.39	1550.79	2493	2594	58.35	127.80	219.51	2941
1246.00	1580.41	1553.79	2494	2595	58.23	127.55	219.10	3000

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1248.00	1583.43	1556.79	2495	2596	58.11	127.30	218.69	2999
1250.00	1586.54	1559.88	2496	2597	57.98	127.03	218.26	3089
1252.00	1589.48	1562.80	2496	2597	57.87	126.80	217.88	2921
1254.00	1592.53	1565.84	2497	2598	57.75	126.54	217.46	3036
1256.00	1595.58	1568.87	2498	2599	57.63	126.29	217.05	3029
1258.00	1598.16	1571.43	2498	2599	57.54	126.11	216.77	2563
1260.00	1601.05	1574.30	2499	2599	57.44	125.89	216.40	2872
1262.00	1604.09	1577.32	2500	2600	57.32	125.64	216.00	3022
1264.00	1606.97	1580.18	2500	2600	57.21	125.42	215.64	2854
1266.00	1610.18	1583.37	2501	2601	57.08	125.15	215.19	3190
1268.00	1613.34	1586.51	2502	2602	56.96	124.88	214.75	3146
1270.00	1616.51	1589.66	2503	2603	56.83	124.61	214.32	3146
1272.00	1619.66	1592.79	2504	2604	56.71	124.35	213.89	3130
1274.00	1622.82	1595.93	2505	2605	56.58	124.09	213.46	3138
1276.00	1625.98	1599.06	2506	2606	56.46	123.83	213.04	3140
1278.00	1629.16	1602.22	2507	2607	56.33	123.57	212.61	3155
1280.00	1632.31	1605.35	2508	2608	56.21	123.31	212.19	3130
1282.00	1635.47	1608.49	2509	2609	56.09	123.05	211.76	3142
1284.00	1638.64	1611.64	2510	2610	55.96	122.79	211.34	3144
1286.00	1641.83	1614.81	2511	2611	55.84	122.53	210.92	3171
1288.00	1645.06	1618.02	2512	2612	55.71	122.26	210.48	3209
1290.00	1648.36	1621.30	2514	2613	55.58	121.99	210.02	3280
1292.00	1652.22	1625.13	2516	2615	55.40	121.61	209.40	3831
1294.00	1655.86	1628.74	2517	2617	55.25	121.27	208.85	3612

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	1659.55	1632.41	2519	2619	55.08	120.93	208.28	3668
1298.00	1663.13	1635.96	2521	2621	54.93	120.61	207.75	3557
1300.00	1666.78	1639.59	2522	2622	54.78	120.28	207.20	3626
1302.00	1670.43	1643.21	2524	2624	54.62	119.95	206.66	3619
1304.00	1674.23	1646.98	2526	2626	54.45	119.59	206.07	3773
1306.00	1677.86	1650.58	2528	2628	54.30	119.27	205.54	3601
1308.00	1681.42	1654.11	2529	2630	54.16	118.96	205.04	3531
1310.00	1684.96	1657.62	2531	2631	54.01	118.66	204.54	3509
1312.00	1688.52	1661.16	2532	2633	53.87	118.35	204.03	3539
1314.00	1691.96	1664.57	2534	2634	53.74	118.07	203.57	3407
1316.00	1695.30	1667.89	2535	2635	53.61	117.81	203.13	3319
1318.00	1698.52	1671.07	2536	2636	53.50	117.56	202.73	3184
1320.00	1701.72	1674.25	2537	2637	53.38	117.32	202.34	3181
1322.00	1704.94	1677.44	2538	2638	53.27	117.08	201.94	3189
1324.00	1708.14	1680.62	2539	2639	53.15	116.84	201.55	3177
1326.00	1711.36	1683.81	2540	2640	53.04	116.60	201.15	3185
1328.00	1714.69	1687.11	2541	2641	52.92	116.35	200.73	3301
1330.00	1718.02	1690.41	2542	2642	52.80	116.09	200.31	3305
1332.00	1721.47	1693.83	2543	2644	52.67	115.82	199.86	3414
1334.00	1724.85	1697.18	2545	2645	52.55	115.56	199.43	3359
1336.00	1728.25	1700.55	2546	2646	52.43	115.30	199.00	3363
1338.00	1731.55	1703.82	2547	2647	52.31	115.05	198.59	3270
1340.00	1734.92	1707.16	2548	2648	52.19	114.80	198.17	3341
1342.00	1738.21	1710.42	2549	2649	52.08	114.55	197.77	3256

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1344.00	1741.63	1713.81	2550	2650	51.95	114.29	197.34	3390
1346.00	1745.00	1717.15	2551	2652	51.83	114.04	196.92	3344
1348.00	1748.62	1720.73	2553	2653	51.70	113.75	196.44	3582
1350.00	1752.10	1724.18	2554	2655	51.57	113.48	196.00	3444
1352.00	1755.71	1727.75	2556	2656	51.44	113.20	195.53	3574
1354.00	1759.17	1731.18	2557	2658	51.32	112.94	195.09	3428
1356.00	1762.62	1734.60	2558	2659	51.19	112.68	194.67	3419
1358.00	1766.15	1738.09	2560	2660	51.07	112.41	194.22	3493
1360.00	1769.69	1741.60	2561	2662	50.94	112.14	193.77	3508
1362.00	1773.26	1745.13	2563	2663	50.81	111.87	193.32	3533
1364.00	1776.71	1748.55	2564	2664	50.69	111.61	192.90	3416
1366.00	1780.16	1751.97	2565	2666	50.57	111.36	192.48	3421
1368.00	1783.68	1755.45	2566	2667	50.45	111.10	192.05	3485
1370.00	1787.31	1759.05	2568	2669	50.32	110.82	191.59	3593
1372.00	1790.81	1762.51	2569	2670	50.20	110.57	191.17	3464
1374.00	1794.28	1765.95	2571	2671	50.08	110.32	190.75	3439
1376.00	1797.82	1769.45	2572	2673	49.96	110.06	190.32	3500
1378.00	1801.37	1772.97	2573	2674	49.84	109.80	189.89	3523
1380.00	1805.07	1776.63	2575	2676	49.71	109.51	189.42	3662
1382.00	1808.80	1780.33	2576	2678	49.58	109.23	188.94	3692
1384.00	1812.51	1784.00	2578	2679	49.44	108.95	188.48	3676
1386.00	1816.28	1787.74	2580	2681	49.31	108.66	188.00	3734
1388.00	1819.90	1791.31	2581	2683	49.19	108.40	187.56	3578
1390.00	1823.72	1795.10	2583	2684	49.05	108.11	187.07	3783

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	1827.68	1799.02	2585	2687	48.90	107.79	186.55	3927
1394.00	1831.65	1802.95	2587	2689	48.76	107.48	186.03	3930
1396.00	1835.79	1807.06	2589	2691	48.60	107.14	185.46	4104
1398.00	1839.38	1810.61	2590	2693	48.48	106.89	185.04	3552
1400.00	1842.94	1814.14	2592	2694	48.37	106.64	184.63	3526
1402.00	1847.11	1818.26	2594	2697	48.21	106.30	184.06	4128
1404.00	1851.15	1822.27	2596	2699	48.06	105.98	183.53	4008
1406.00	1855.05	1826.14	2598	2701	47.92	105.69	183.04	3864
1408.00	1858.97	1830.02	2599	2703	47.79	105.40	182.55	3884
1410.00	1862.97	1833.98	2601	2705	47.64	105.09	182.04	3962
1412.00	1866.85	1837.82	2603	2707	47.51	104.81	181.57	3838
1414.00	1870.86	1841.80	2605	2710	47.37	104.51	181.06	3979
1416.00	1874.62	1845.52	2607	2711	47.25	104.24	180.62	3725
1418.00	1878.49	1849.35	2608	2713	47.12	103.96	180.16	3831
1420.00	1882.19	1853.02	2610	2715	47.00	103.71	179.73	3667
1422.00	1885.98	1856.77	2611	2716	46.88	103.45	179.29	3752
1424.00	1889.69	1860.45	2613	2718	46.76	103.20	178.87	3677
1426.00	1893.31	1864.03	2614	2719	46.65	102.96	178.48	3584
1428.00	1897.08	1867.77	2616	2721	46.53	102.70	178.04	3737
1430.00	1901.22	1871.87	2618	2724	46.38	102.39	177.52	4103
1432.00	1905.25	1875.86	2620	2726	46.25	102.10	177.04	3987
1434.00	1908.87	1879.45	2621	2727	46.14	101.86	176.64	3591
1436.00	1912.55	1883.09	2623	2729	46.03	101.63	176.24	3640
1438.00	1916.10	1886.61	2624	2730	45.92	101.40	175.87	3520

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	1920.12	1890.59	2626	2732	45.79	101.12	175.40	3976
1442.00	1923.94	1894.37	2627	2734	45.67	100.86	174.97	3786
1444.00	1927.79	1898.19	2629	2736	45.55	100.61	174.54	3813
1446.00	1931.58	1901.95	2631	2737	45.44	100.36	174.12	3760
1448.00	1935.51	1905.84	2632	2739	45.31	100.09	173.67	3887
1450.00	1939.54	1909.82	2634	2741	45.18	99.81	173.20	3989
1452.00	1943.44	1913.69	2636	2743	45.06	99.55	172.77	3862
1454.00	1947.21	1917.43	2637	2745	44.95	99.31	172.36	3740
1456.00	1951.01	1921.19	2639	2746	44.84	99.07	171.96	3760
1458.00	1955.10	1925.23	2641	2749	44.71	98.79	171.48	4046
1460.00	1959.16	1929.25	2643	2751	44.58	98.51	171.02	4022
1462.00	1963.31	1933.36	2645	2753	44.45	98.22	170.54	4108
1464.00	1967.32	1937.33	2647	2755	44.32	97.96	170.09	3967
1466.00	1971.40	1941.36	2649	2757	44.20	97.69	169.63	4035
1468.00	1975.53	1945.44	2650	2759	44.07	97.41	169.17	4079
1470.00	1979.43	1949.31	2652	2761	43.95	97.16	168.75	3864
1472.00	1983.34	1953.17	2654	2763	43.84	96.92	168.34	3860
1474.00	1987.30	1957.08	2655	2765	43.72	96.66	167.92	3916
1476.00	1991.18	1960.93	2657	2767	43.61	96.42	167.51	3842
1478.00	1995.30	1964.99	2659	2769	43.49	96.15	167.06	4065
1480.00	1999.17	1968.82	2661	2771	43.38	95.92	166.66	3828
1482.00	2002.98	1972.58	2662	2772	43.27	95.69	166.28	3761
1484.00	2006.99	1976.55	2664	2774	43.15	95.44	165.86	3969
1486.00	2011.12	1980.63	2666	2776	43.03	95.17	165.41	4080

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	2015.31	1984.77	2668	2779	42.91	94.90	164.95	4137
1490.00	2019.19	1988.60	2669	2780	42.80	94.67	164.56	3835
1492.00	2023.15	1992.51	2671	2782	42.69	94.43	164.16	3907
1494.00	2026.98	1996.29	2672	2784	42.58	94.21	163.78	3782
1496.00	2030.87	2000.14	2674	2785	42.48	93.98	163.40	3847
1498.00	2034.87	2004.09	2676	2787	42.37	93.74	162.99	3952
1500.00	2038.86	2008.04	2677	2789	42.26	93.50	162.59	3946
1502.00	2042.76	2011.89	2679	2791	42.15	93.27	162.21	3858
1504.00	2046.61	2015.70	2680	2792	42.05	93.05	161.84	3805
1506.00	2050.50	2019.54	2682	2794	41.94	92.83	161.46	3841
1508.00	2054.42	2023.42	2684	2796	41.84	92.60	161.08	3880
1510.00	2058.37	2027.32	2685	2798	41.73	92.37	160.69	3905
1512.00	2062.29	2031.19	2687	2799	41.63	92.15	160.32	3867
1514.00	2066.13	2034.99	2688	2801	41.53	91.94	159.95	3804
1516.00	2070.20	2039.02	2690	2803	41.42	91.70	159.55	4023
1518.00	2074.22	2042.99	2692	2805	41.31	91.46	159.16	3967
1520.00	2078.32	2047.04	2693	2807	41.20	91.22	158.75	4050
1522.00	2082.30	2050.97	2695	2808	41.10	91.00	158.37	3937
1524.00	2086.24	2054.87	2697	2810	41.00	90.78	158.00	3895
1526.00	2090.15	2058.74	2698	2812	40.90	90.56	157.64	3867
1528.00	2094.05	2062.59	2700	2813	40.80	90.35	157.28	3856
1530.00	2097.94	2066.44	2701	2815	40.70	90.14	156.92	3845
1532.00	2101.82	2070.27	2703	2817	40.60	89.93	156.57	3834
1534.00	2105.69	2074.09	2704	2818	40.51	89.72	156.22	3823

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	2109.55	2077.91	2706	2820	40.41	89.52	155.88	3812
1538.00	2113.28	2081.59	2707	2821	40.33	89.33	155.56	3681
1540.00	2116.82	2085.08	2708	2822	40.25	89.16	155.27	3493
1542.00	2120.77	2088.97	2709	2823	40.15	88.95	154.91	3894
1544.00	2124.82	2092.97	2711	2825	40.05	88.73	154.54	3995
1546.00	2128.77	2096.86	2713	2827	39.95	88.52	154.19	3893
1548.00	2132.59	2100.61	2714	2828	39.86	88.33	153.86	3753
1550.00	2136.61	2104.57	2716	2830	39.76	88.11	153.50	3956
1552.00	2140.62	2108.51	2717	2832	39.67	87.90	153.14	3939
1554.00	2144.50	2112.32	2719	2833	39.58	87.71	152.81	3815
1556.00	2148.36	2116.11	2720	2835	39.49	87.51	152.48	3791
1558.00	2151.86	2119.54	2721	2836	39.42	87.36	152.22	3431
1560.00	2155.41	2123.03	2722	2837	39.34	87.19	151.95	3483
1562.00	2159.19	2126.73	2723	2838	39.26	87.01	151.64	3704
1564.00	2163.37	2130.83	2725	2840	39.15	86.79	151.26	4101
1566.00	2167.69	2135.06	2727	2842	39.04	86.55	150.86	4230
1568.00	2171.96	2139.25	2729	2844	38.94	86.32	150.47	4183
1570.00	2176.34	2143.53	2731	2846	38.83	86.08	150.06	4280
1572.00	2180.51	2147.61	2732	2848	38.73	85.87	149.70	4083
1574.00	2184.73	2151.73	2734	2850	38.63	85.65	149.32	4117
1576.00	2189.30	2156.19	2736	2853	38.51	85.39	148.89	4464
1578.00	2193.91	2160.69	2739	2856	38.39	85.13	148.45	4499
1580.00	2198.87	2165.53	2741	2859	38.25	84.84	147.94	4837
1582.00	2203.66	2170.19	2744	2862	38.13	84.56	147.47	4662

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	2208.37	2174.78	2746	2865	38.01	84.30	147.03	4588
1586.00	2212.87	2179.14	2748	2867	37.90	84.06	146.62	4365
1588.00	2217.06	2183.22	2750	2869	37.80	83.85	146.27	4081
1590.00	2221.13	2187.17	2751	2871	37.71	83.66	145.95	3950
1592.00	2225.42	2191.35	2753	2873	37.62	83.45	145.58	4181
1594.00	2229.58	2195.40	2755	2874	37.52	83.25	145.24	4044
1596.00	2233.76	2199.47	2756	2876	37.43	83.05	144.90	4070
1598.00	2237.98	2203.57	2758	2878	37.34	82.84	144.56	4099
1600.00	2242.03	2207.52	2759	2880	37.25	82.66	144.24	3950
1602.00	2246.07	2211.44	2761	2881	37.17	82.47	143.92	3927
1604.00	2250.26	2215.52	2762	2883	37.07	82.27	143.59	4080
1606.00	2254.58	2219.72	2764	2885	36.98	82.06	143.23	4199
1608.00	2258.77	2223.80	2766	2887	36.89	81.87	142.90	4078
1610.00	2263.21	2228.12	2768	2889	36.79	81.65	142.52	4322
1612.00	2267.64	2232.43	2770	2891	36.69	81.43	142.15	4311
1614.00	2271.96	2236.63	2772	2893	36.59	81.22	141.80	4201
1616.00	2276.41	2240.96	2773	2895	36.49	81.01	141.43	4328
1618.00	2280.74	2245.18	2775	2897	36.40	80.80	141.09	4219
1620.00	2285.12	2249.44	2777	2900	36.30	80.60	140.73	4256
1622.00	2289.60	2253.80	2779	2902	36.21	80.38	140.36	4361
1624.00	2293.82	2257.90	2781	2904	36.12	80.19	140.04	4099
1626.00	2297.63	2261.60	2782	2905	36.05	80.03	139.78	3702
1628.00	2301.85	2265.70	2783	2906	35.96	79.85	139.46	4103
1630.00	2306.27	2270.00	2785	2909	35.87	79.64	139.10	4299

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1632.00	2310.63	2274.24	2787	2911	35.77	79.44	138.76	4243
1634.00	2315.13	2278.62	2789	2913	35.68	79.23	138.40	4375
1636.00	2319.48	2282.84	2791	2915	35.59	79.03	138.07	4223
1638.00	2323.43	2286.68	2792	2916	35.51	78.87	137.79	3844
1640.00	2327.62	2290.76	2794	2918	35.43	78.69	137.48	4074
1642.00	2331.86	2294.87	2795	2920	35.34	78.50	137.17	4113
1644.00	2335.99	2298.88	2797	2921	35.26	78.33	136.87	4011
1646.00	2340.12	2302.89	2798	2923	35.19	78.16	136.58	4009
1648.00	2344.36	2307.01	2800	2924	35.10	77.97	136.27	4122
1650.00	2348.69	2311.21	2801	2926	35.02	77.79	135.95	4198
1652.00	2353.00	2315.39	2803	2928	34.93	77.60	135.63	4181
1654.00	2357.31	2319.57	2805	2930	34.85	77.42	135.32	4183
1656.00	2361.22	2323.37	2806	2931	34.78	77.27	135.06	3793
1658.00	2365.31	2327.33	2807	2933	34.70	77.10	134.78	3964
1660.00	2369.42	2331.32	2809	2934	34.62	76.94	134.49	3991
1662.00	2373.56	2335.34	2810	2936	34.55	76.77	134.21	4015
1664.00	2377.81	2339.45	2812	2937	34.47	76.59	133.91	4115
1666.00	2382.19	2343.70	2814	2939	34.38	76.41	133.59	4251
1668.00	2386.53	2347.91	2815	2941	34.30	76.23	133.28	4202
1670.00	2391.04	2352.28	2817	2943	34.21	76.03	132.95	4371
1672.00	2394.79	2355.92	2818	2944	34.15	75.90	132.72	3643
1674.00	2398.91	2359.90	2819	2946	34.08	75.74	132.45	3984
1676.00	2402.65	2363.53	2820	2947	34.01	75.60	132.22	3631
1678.00	2406.93	2367.67	2822	2948	33.94	75.43	131.93	4138

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	2411.55	2372.15	2824	2951	33.84	75.23	131.59	4480
1682.00	2416.17	2376.63	2826	2953	33.75	75.03	131.24	4480

PE900084

This is an enclosure indicator page.
The enclosure PE900084 is enclosed within the container PE900079 at this location in this document.

The enclosure PE900084 has the following characteristics:

ITEM_BARCODE	= PE900084
CONTAINER_BARCODE	= PE900079
NAME	= Drift Corrected Sonic for Minerva-1
BASIN	= OTWAY
OFFSHORE?	= N Y
DATA_TYPE	= SEISMIC
DATA_SUB_TYPE	= VELOCITY
DESCRIPTION	= Drift Corrected Sonic for Minerva-1, By Schlumberger (Melbourne Log Interpretation Centre) for BHP Petroleum, 05 April 1993.
REMARKS	=
DATE_WRITTEN	= 05-APR-1993
DATE_PROCESSED	= 20-APR-1994
DATE_RECEIVED	= 16-MAY-1994
RECEIVED_FROM	= BHP Petroleum Pty Ltd
WELL_NAME	= Minerva-1
CONTRACTOR	= Schlumberger
AUTHOR	=
ORIGINATOR	= BHP Petroleum Pty Ltd
TOP_DEPTH	= 551
BOTTOM_DEPTH	= 2405
ROW_CREATED_BY	= FH11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE900081

This is an enclosure indicator page.
The enclosure PE900081 is enclosed within the container PE900079 at this location in this document.

The enclosure PE900081 has the following characteristics:

ITEM_BARCODE	PE900081
CONTAINER_BARCODE	PE900079
NAME	Seismic Calibration Log for Minerva-1
BASIN	OTWAY
OFFSHORE?	~~N~~ Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	VELOCITY
DESCRIPTION	Seismic Calibration Log (Adjusted Continuous Velocity Log) for Minerva-1, By Schlumberger (Melbourne Log Interpretation Centre) for BHP Petroleum, 05 April 1993.
REMARKS	
DATE_WRITTEN	05-APR-1993
DATE_PROCESSED	20-APR-1994
DATE_RECEIVED	16-MAY-1994
RECEIVED_FROM	BHP Petroleum Pty Ltd
WELL_NAME	Minerva-1
CONTRACTOR	Schlumberger
AUTHOR	
ORIGINATOR	BHP Petroleum Pty Ltd
TOP_DEPTH	551
BOTTOM_DEPTH	2405
ROW_CREATED_BY	FH11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE900085

This is an enclosure indicator page.
The enclosure PE900085 is enclosed within the container PE900079 at this location in this document.

The enclosure PE900085 has the following characteristics:

ITEM_BARCODE	= PE900085
CONTAINER_BARCODE	= PE900079
NAME	= Geogram/Synth. Seismogram for Minerva-1
BASIN	= OTWAY
OFFSHORE?	= N Y
DATA_TYPE	= SEISMIC
DATA_SUB_TYPE	= VELOCITY
DESCRIPTION	= Geogram (Synthetic Seismogram) for Minerva-1, 35 Hertz Zero Phase, By Schlumberger (Melbourne Log Interpretation Centre) for BHP Petroleum, 05 April 1993.
REMARKS	=
DATE_WRITTEN	= 05-APR-1993
DATE_PROCESSED	= 20-APR-1994
DATE_RECEIVED	= 16-MAY-1994
RECEIVED_FROM	= BHP Petroleum Pty Ltd
WELL_NAME	= Minerva-1
CONTRACTOR	= Schlumberger
AUTHOR	=
ORIGINATOR	= BHP Petroleum Pty Ltd
TOP_DEPTH	= 551
BOTTOM_DEPTH	= 2405
ROW_CREATED_BY	= FH11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE900082

This is an enclosure indicator page.
The enclosure PE900082 is enclosed within the container PE900079 at this location in this document.

The enclosure PE900082 has the following characteristics:

ITEM_BARCODE = PE900082
CONTAINER_BARCODE = PE900079
NAME = Geogram/Synth. Seismogram for Minerva-1
BASIN = OTWAY
OFFSHORE? = N Y
DATA_TYPE = WELL
DATA_SUB_TYPE = SYNTH_SEISMOGRAM
DESCRIPTION = Geogram (Synthetic Seismogram) for Minerva-1, 45 Hertz Zero Phase, By Schlumberger (Melbourne Log Interpretation Centre) for BHP Petroleum, 05 April 1993.
REMARKS =
DATE_WRITTEN = 05-APR-1993
DATE_PROCESSED = 20-APR-1994
DATE_RECEIVED = 16-MAY-1994
RECEIVED_FROM = BHP Petroleum Pty Ltd
WELL_NAME = Minerva-1
CONTRACTOR = Schlumberger
AUTHOR =
ORIGINATOR = BHP Petroleum Pty Ltd
TOP_DEPTH = 551
BOTTOM_DEPTH = 2405
ROW_CREATED_BY = FH11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE900083

This is an enclosure indicator page.
The enclosure PE900083 is enclosed within the container PE900079 at this location in this document.

The enclosure PE900083 has the following characteristics:

ITEM_BARCODE	= PE900083
CONTAINER_BARCODE	= PE900079
NAME	= Geogram/Synth. Seismogram for Minerva-1
BASIN	= OTWAY
OFFSHORE?	= ✗ Y
DATA_TYPE	= WELL
DATA_SUB_TYPE	= SYNTH_SEISMOGRAM
DESCRIPTION	= Geogram (Synthetic Seismogram) for Minerva-1, 25 Hertz Zero Phase, By Schlumberger (Melbourne Log Interpretation Centre) for BHP Petroleum, 05 April 1993.
REMARKS	=
DATE_WRITTEN	= 05-APR-1993
DATE_PROCESSED	= 20-APR-1994
DATE_RECEIVED	= 16-MAY-1994
RECEIVED_FROM	= BHP Petroleum Pty Ltd
WELL_NAME	= Minerva-1
CONTRACTOR	= Schlumberger
AUTHOR	=
ORIGINATOR	= BHP Petroleum Pty Ltd
TOP_DEPTH	= 551
BOTTOM_DEPTH	= 2405
ROW_CREATED_BY	= FH11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE900089

This is an enclosure indicator page.
The enclosure PE900089 is enclosed within the container PE900079 at this location in this document.

The enclosure PE900089 has the following characteristics:

ITEM_BARCODE	PE900089
CONTAINER_BARCODE	PE900079
NAME	Verical Seismic Profile for Minerva-1
BASIN	OTWAY
OFFSHORE?	~~N~~ Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	VELOCITY
DESCRIPTION	Verical Seismic Profile for Minerva-1, Zero Offset VSP, Waveshaping and Corridor Stack, Plot 5 By Schlumberger (Melbourne Log Interpretation Centre) for BHP Petroleum, 05 April 1993.
REMARKS	
DATE_WRITTEN	05-APR-1993
DATE_PROCESSED	20-APR-1994
DATE_RECEIVED	16-MAY-1994
RECEIVED_FROM	BHP Petroleum Pty Ltd
WELL_NAME	Minerva-1
CONTRACTOR	Schlumberger
AUTHOR	
ORIGINATOR	BHP Petroleum Pty Ltd
TOP_DEPTH	551
BOTTOM_DEPTH	2405
ROW_CREATED_BY	FH11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE900090

This is an enclosure indicator page.
The enclosure PE900090 is enclosed within the container PE900079 at this location in this document.

The enclosure PE900090 has the following characteristics:

ITEM_BARCODE	PE900090
CONTAINER_BARCODE	PE900079
NAME	Verical Seismic Profile for Minerva-1
BASIN	OTWAY
OFFSHORE?	~~N~~ Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	VELOCITY
DESCRIPTION	Verical Seismic Profile for Minerva-1, Zero Offset VSP, Normal Polarity, VSP and Geogram Composite, Plot 6 By Schlumberger (Melbourne Log Interpretation Centre) for BHP Petroleum, 05 April 1993.
REMARKS	
DATE_WRITTEN	05-APR-1993
DATE_PROCESSED	20-APR-1994
DATE_RECEIVED	16-MAY-1994
RECEIVED_FROM	BHP Petroleum Pty Ltd
WELL_NAME	Minerva-1
CONTRACTOR	Schlumberger
AUTHOR	
ORIGINATOR	BHP Petroleum Pty Ltd
TOP_DEPTH	551
BOTTOM_DEPTH	2405
ROW_CREATED_BY	FH11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE900080

This is an enclosure indicator page.
The enclosure PE900080 is enclosed within the container PE900079 at this location in this document.

The enclosure PE900080 has the following characteristics:

ITEM_BARCODE	PE900080
CONTAINER_BARCODE	PE900079
NAME	Verical Seismic Profile for Minerva-1
BASIN	OTWAY
OFFSHORE?	N Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	VELOCITY
DESCRIPTION	Verical Seismic Profile for Minerva-1, Zero Offset VSP, Waveshaping and Deconvolution, Plot 4 By Schlumberger (Melbourne Log Interpretation Centre) for BHP Petroleum, 05 April 1993.
REMARKS	
DATE_WRITTEN	05-APR-1993
DATE_PROCESSED	20-APR-1994
DATE_RECEIVED	16-MAY-1994
RECEIVED_FROM	BHP Petroleum Pty Ltd
WELL_NAME	Minerva-1
CONTRACTOR	Schlumberger
AUTHOR	
ORIGINATOR	BHP Petroleum Pty Ltd
TOP_DEPTH	551
BOTTOM_DEPTH	2405
ROW_CREATED_BY	FH11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE900088

This is an enclosure indicator page.
The enclosure PE900088 is enclosed within the container PE900079 at this location in this document.

The enclosure PE900088 has the following characteristics:

ITEM_BARCODE	PE900088
CONTAINER_BARCODE	PE900079
NAME	Verical Seismic Profile for Minerva-1
BASIN	OTWAY
OFFSHORE?	~~N~~ Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	VELOCITY
DESCRIPTION	Verical Seismic Profile for Minerva-1, Zero Offset VSP, Stacked Data, Plot 1, By Schlumberger (Melbourne Log Interpretation Centre) for BHP Petroleum, 05 April 1993.
REMARKS	
DATE_WRITTEN	05-APR-1993
DATE_PROCESSED	20-APR-1994
DATE_RECEIVED	16-MAY-1994
RECEIVED_FROM	BHP Petroleum Pty Ltd
WELL_NAME	Minerva-1
CONTRACTOR	Schlumberger
AUTHOR	
ORIGINATOR	BHP Petroleum Pty Ltd
TOP_DEPTH	551
BOTTOM_DEPTH	2405
ROW_CREATED_BY	FH11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE900087

This is an enclosure indicator page.
The enclosure PE900087 is enclosed within the container PE900079 at this location in this document.

The enclosure PE900087 has the following characteristics:

ITEM_BARCODE	PE900087
CONTAINER_BARCODE	PE900079
NAME	Verical Seismic Profile for Minerva-1
BASIN	OTWAY
OFFSHORE?	~~N~~ Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	VELOCITY
DESCRIPTION	Verical Seismic Profile for Minerva-1, Zero Offset VSP, Velocity Filtering, Plot 3, By Schlumberger (Melbourne Log Interpretation Centre) for BHP Petroleum, 05 April 1993.
REMARKS	
DATE_WRITTEN	05-APR-1993
DATE_PROCESSED	20-APR-1994
DATE_RECEIVED	16-MAY-1994
RECEIVED_FROM	BHP Petroleum Pty Ltd
WELL_NAME	Minerva-1
CONTRACTOR	Schlumberger
AUTHOR	
ORIGINATOR	BHP Petroleum Pty Ltd
TOP_DEPTH	551
BOTTOM_DEPTH	2405
ROW_CREATED_BY	FH11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE900086

This is an enclosure indicator page.
The enclosure PE900086 is enclosed within the container PE900079 at this location in this document.

The enclosure PE900086 has the following characteristics:

ITEM_BARCODE	PE900086
CONTAINER_BARCODE	PE900079
NAME	Verical Seismic Profile for Minerva-1
BASIN	OTWAY
OFFSHORE?	~~N~~ Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	VELOCITY
DESCRIPTION	Verical Seismic Profile for Minerva-1, Zero Offset VSP, Amplitude Recovery, Plot 2, By Schlumberger (Melbourne Log Interpretation Centre) for BHP Petroleum, 05 April 1993.
REMARKS	
DATE_WRITTEN	05-APR-1993
DATE_PROCESSED	20-APR-1994
DATE_RECEIVED	16-MAY-1994
RECEIVED_FROM	BHP Petroleum Pty Ltd
WELL_NAME	Minerva-1
CONTRACTOR	Schlumberger
AUTHOR	
ORIGINATOR	BHP Petroleum Pty Ltd
TOP_DEPTH	551
BOTTOM_DEPTH	2405
ROW_CREATED_BY	FH11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE900091

This is an enclosure indicator page.
The enclosure PE900091 is enclosed within the container PE900079 at this location in this document.

The enclosure PE900091 has the following characteristics:

ITEM_BARCODE	PE900091
CONTAINER_BARCODE	PE900079
NAME	Verical Seismic Profile for Minerva-1
BASIN	OTWAY
OFFSHORE?	N Y
DATA_TYPE	WELL
DATA_SUB_TYPE	SYNTH_SEISMOGRAM
DESCRIPTION	Verical Seismic Profile for Minerva-1, Zero Offset VSP, Revrse Polarity, VSP and Geogram Composite, Plot 7 By Schlumberger (Melbourne Log Interpretation Centre) for BHP Petroleum, 05 April 1993.
REMARKS	
DATE_WRITTEN	05-APR-1993
DATE_PROCESSED	20-APR-1994
DATE_RECEIVED	16-MAY-1994
RECEIVED_FROM	BHP Petroleum Pty Ltd
WELL_NAME	Minerva-1
CONTRACTOR	Schlumberger
AUTHOR	
ORIGINATOR	BHP Petroleum Pty Ltd
TOP_DEPTH	551
BOTTOM_DEPTH	2405
ROW_CREATED_BY	FH11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

GEOGRAM

Drift Corrected Sonic
Seismic Calibration Log
25 hz zero phase Geogram
35 hz zero phase Geogram
45 hz zero phase Geogram

VSP PLOTS

Plot 1	Stacked data
Plot 2	Amplitude Recovery
Plot 3	Velocity Filter
Plot 4	Waveshaping Deconvolution Zero Phase
Plot 5	Waveshaping Deconvolution - Corridor Stack
Plot 6	VSP and Geogram Composite - normal polarity 10 cm/sec 10-60 hz
Plot 7	VSP and Geogram Composite - reverse polarity 10 cm/sec 10-60 hz