

CHAMPION-1, VIC/P30
WELL COMPLETION REPORT
BASIC DATA - VOLUME TWO
Well Seismic Processing Report

DEPT. NAT. RES & ENV



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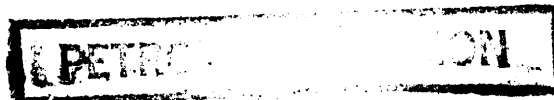
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WELL COMPLETION REPORT
BASIC DATA
VOLUME TWO

Well Seismic Processing Report

PREPARED BY: C. Ellis

71584.WCR

DATE: November, 1995



NOV 1995

Schlumberger

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BHP PETROLEUM
WELL SEISMIC PROCESSING REPORT
Zero Offset VSP and Geogram

CHAMPION-1

FIELD : EXPLORATION

COUNTRY : AUSTRALIA

COORDINATES : 011 17' 37.35" S
: 125 29' 04.70" E

LOCATION : VICTORY

DATE OF SURVEY : 15 AUG 1995

REFERENCE NO. : SYJ.561142/561143

INTERVAL : 1845 - 338 M

CONTENTS

1. Introduction	1
2. Data Acquisition	1
3. Sonic Calibration Processing	2
3.1 Sonic Calibration	2
3.2 Open Hole Logs	3
3.3 Correction to Datum and Velocity Modelling	3
3.4 Sonic Calibration Results	3
4. Synthetic Seismogram Processing	4
4.1 Depth to Time Conversion	4
4.2 Primary Reflection Coefficients	4
4.3 Primaries with Transmission Loss	5
4.4 Primaries plus Multiples	5
4.5 Multiples Only	5
4.7 Polarity Convention	5
4.8 Convolution	6
5. VSP Processing	6
5.1 Stacking	6
5.2 Spherical Divergence Correction and Bandpass Filter	6
5.3 Velocity Filter	7
5.4 Waveshaping Deconvolution	7
5.5 VSP Acoustic Impedance Inversion	8

A	Summary of Geophysical Listings	9
A1	Geophysical Airgun Report	9
A2	Drift Computation Report	10
A3	Sonic Adjustment Parameter Report	10
A4	Velocity Report	11
A5	Time Converted Velocity Report	11

List of Tables

1	Survey Parameters	1
2	Sonic Drift	3

List of Figures

1	Wavelet Polarity Convention	
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1. Introduction

Two vertical seismic profile was recorded with the Combinable Seismic Imager tool (CSI) at the *CHAMPION-1* well. The data was processed using the conventional zero offset processing chain using only the vertical component.

2. Data Acquisition

The data was acquired in a single logging run using the three component Combinable Seismic Imager tool (CSI). An array of three sleeve air guns were used as the source. The gun was positioned 5 meters below mean sea level . Recording was made on the Schlumberger Maxis 500 Unit using DLIS format .

Table 1. Survey Parameters

Elevation of KB	25.30M
Elevation of DF	25.0 M
Elevation of GL	- 54.0 M
Total Depth	1507 M
Energy Source	3 X 150 cu in. airguns
Source Offset	45 M
Source Depth	5 M below MSL
Reference Sensor	Hydrophone
Hydrophone Offset	45 M
Hydrophone Depth	10 M below MSL
Source & Hyd. Azimuth	90 Degr.

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.

$$\frac{\Delta \text{drift}}{\Delta \text{depth}} < 0$$

For a negative drift the sonic time is greater than the seismic time over a certain section of the log.

For a positive drift $\frac{\Delta \text{drift}}{\Delta \text{depth}} > 0$, 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 $\mu\text{sec}/\text{ft}$.

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:

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

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

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

3.2 Open Hole Logs

The sonic log has been recorded from 1845.0 to 1220.0 metres below DF. This 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 condition.

The gamma ray and caliper 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 the seismic reference datum . Static corrections are applied to correct for source offset and source depth. This involves using a water velocity of 1524 m/sec.

3.4 Sonic Calibration Results

The top of the sonic log (1220.0 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 below.

Table 2: Sonic Drift

Depth Interval (metres below KB)	Block Shift $\mu\text{sec}/\text{mt}$	Δt_{min} $\mu\text{sec}/\text{mt}$	Equiv Block shift $\mu\text{sec}/\text{mt}$
0 - 1200	0.00	-	0.00
1220- 1845.0	5.76	-	5.76

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:

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

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

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

After splicing, reordering and selecting the raw shots, 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.

The data quality is fairly good with the vertical component stacks displaying a consistent signature and a high signal to noise ratio, as seen on Plot 1.

5.2 Spherical Divergence Correction and Bandpass Filter

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

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

where T is the recorded time, T_0 is the first break time and $\alpha = 1.0$

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 milliseconds was used (see plot 2).

5.3 Velocity filter

The downgoing coherent energy is estimated using a seven levels 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 levels filter. The data is now displayed in two way time (plot 3).

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 1000 ms. The desired outputs were chosen to be zero phase with a band width of 7-95 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 trace by trace deconvolution is applied in order to collapse the multiple sequence of shear arrivals, diffractions or out of plane reflections. The result of waveshaping deconvolution on the upgoing wavefield is shown in Plot 4.

A corridor stack was computed on the data after zero phase waveshaping deconvolution by defining a constant 150 ms timing window 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.

Plots 6 and 7 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 a fairly good 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: *tim0*, 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, $\frac{dsrd}{shtm}$.
8. Delta depth between shots: $\Delta depth$, the vertical distance between each level.
9. Delta time between shots: $\Delta time$, the difference in vertical travel time (*shtm*), between each level.
10. Interval velocity between shots: the average seismic velocity between each level, $\frac{\Delta depth}{\Delta time}$.

A2 Drift Computation Report

1. Level number: the level number starting from the top level (includes any imposed shots).
2. Vertical depth from KB: the depth in 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 Δt_{\min} .
7. reduction factor: see section 4 of report.
8. Equivalent blockshift: the gradient of the imposed drift curve.

A4 Velocity Report

1. Level number: the level number starting from the top level (includes any imposed shots).
2. Vertical depth from KB: the depth in metres from 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.

$$v_{rms} = \sqrt{\sum_1^n v_i^2 t_i / \sum_1^n t_i}$$

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 = 1000 M).

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

where:

- Δt = 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 = 1500 M).

8. Third normal moveout: the correction time in millisecs to be applied to the two way travel time for a specified moveout distance (default = 2000 M)

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.

SCHLUMBERGER (SEG-1976) WAVELET POLARITY CONVENTION

INTERVAL VELOCITY REFLECTION COEFF. ZERO PHASE MINIMUM PHASE

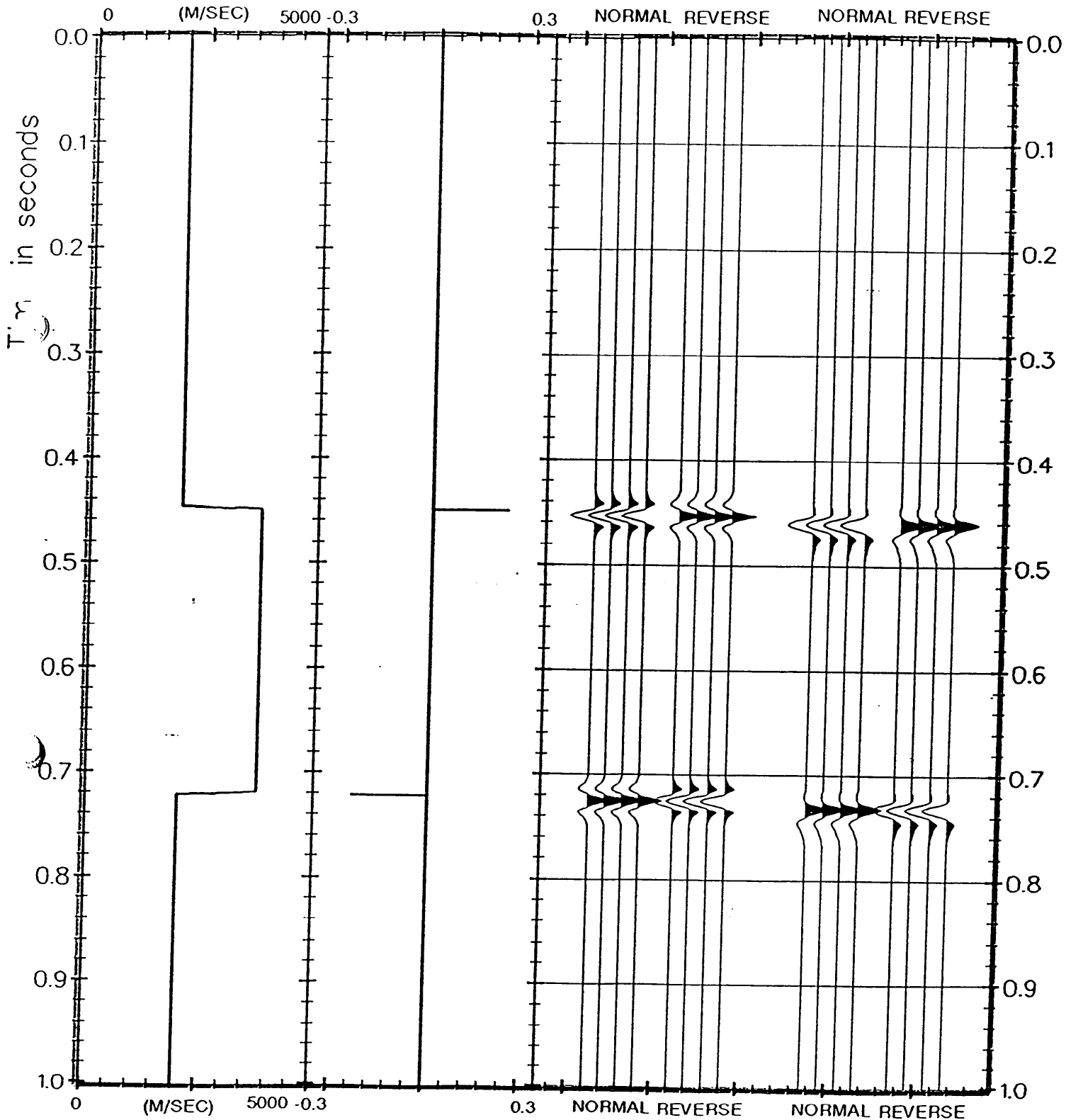


Figure 1 Wavelet Polarity Convention

VSP/SEISMIC

VSP Phase Matching to Surface Seismic

Well: Champion #1 Seismic line: OH94-203

A VSP (or synthetic seismogram) should be a better representation of the subsurface reflectivity at the borehole, so it is reasonable to use this information to calculate and apply a phase and static correction to the surface seismic data. This is the MATCH processing and the method assumes that the VSP follows the convolution model so that the two traces (VSP and surface seismic trace) share the same underlying reflectivity series at the well location.

The matching filter is based on the following relationships for the two traces:

$$S(t) = W_S(t) * R(x,t) + N_S(x,t)$$

$$V(t) = W_U(t) * R(t) + N_U(t)$$

where

$S(t)$ = Surface seismic trace at well trajectory

$V(t)$ = VSP or synthetic trace

$R(t)$ = Reflectivity series along well

$W_S(t)$ = Surface seismic wavelet

$N_S(t)$ = Surface seismic noise term

$W_U(t)$ = VSP or Synthetic wavelet

$N_U(t)$ = VSP noise term

The matching filter function $h(t)$ is defined as :

$$W_U(t) = h(t) * W_S(t)$$

The differences between the traces are assumed to come from a spatially invariant disparity in the wavelet W , and/or a spatially variable noise term. After rearranging the above equations:

$$V(t) = h(t) * S(t) + \text{Error}$$

Where *Error* denotes the error due to noise :

FILTER CALCULATION

The procedure for computing matching filter is handled in three stages.

- Gross time shift correction
- Time gate selection
- Filter computation

Computation of the gross time shift

A gross correlation function $C(t)$ of the VSP $V(t)$ and the surface seismic trace corresponding to the well $S(t)$ is computed as :

$$C(t) = \int_{t_1}^{t_2} S(t) V(t + \tau) dt$$

Picking the maxima of the envelope of the cross-correlation will yield an accurate gross time shift accounting for a linear phase distortion.

Time gate selection

To allow for non-stationary wavelets or time variant phase rotation , time zones can be defined. These are selected using well logs and cover approximately the same section of stratigraphy on each line. However designing a time variant filter is a delicate operation and one should keep in mind that fixed time gates are more often used in the upstream seismic processing sequence. In

most cases, it is better to use a single time gate, and use sub-windows only in tests to verify the stability of the filter parameters.

Filter Computation

The matching filters are designed on the spectra of the time window segment inside a specific timegate . There are four filter calculation methods.

- (a) **Spectral Division** : filter matches both amplitude and phase spectrum. It uses white noise or colored noise for prewhitening the spectrum of the original trace.
- (b) **All Pass filter** : matches only the phase spectrum. It is equivalent to a Spectral Division filter with infinite white noise.
- (c) **Phase rotation filter** : applies a bulk phase rotation. The rotation angle is a weighted average phase difference in the selected frequency bandwidth.
- (d) **Do nothing**: filter does not change any spectral characteristics. It exists to apply only time shifts.

Generally the Surface Seismic data and the VSP data is matched using the **Phase Rotation** filter, as this provides a softer match which extrapolates away from the well more reliably. Using the Spectral Division or All Pass filters tend to force the Surface Seismic data to match the VSP or synthetic.

Results for Champion #1 VSP and Seismic Line OH94-203

The Champion #1 VSP was matched to Seismic Line OH94-203 to provide a phase rotation and static shift . The following results depict the quality of the calculation.

-TABLE -1 Filter Calculation Summary

Seismic Line	Reference Well	TIME ZONE		
		1		
		Interval Msec	Time Shift Msec	Phase Rotation Deg
OH94-203	Champion -1	1145	-11.5	-45
		1415		

-Figure -1 Power spectra of VSP and Surface Seismic trace at the Champion -1 well. The reference trace refers to the VSP and the original refers to the Seismic trace.

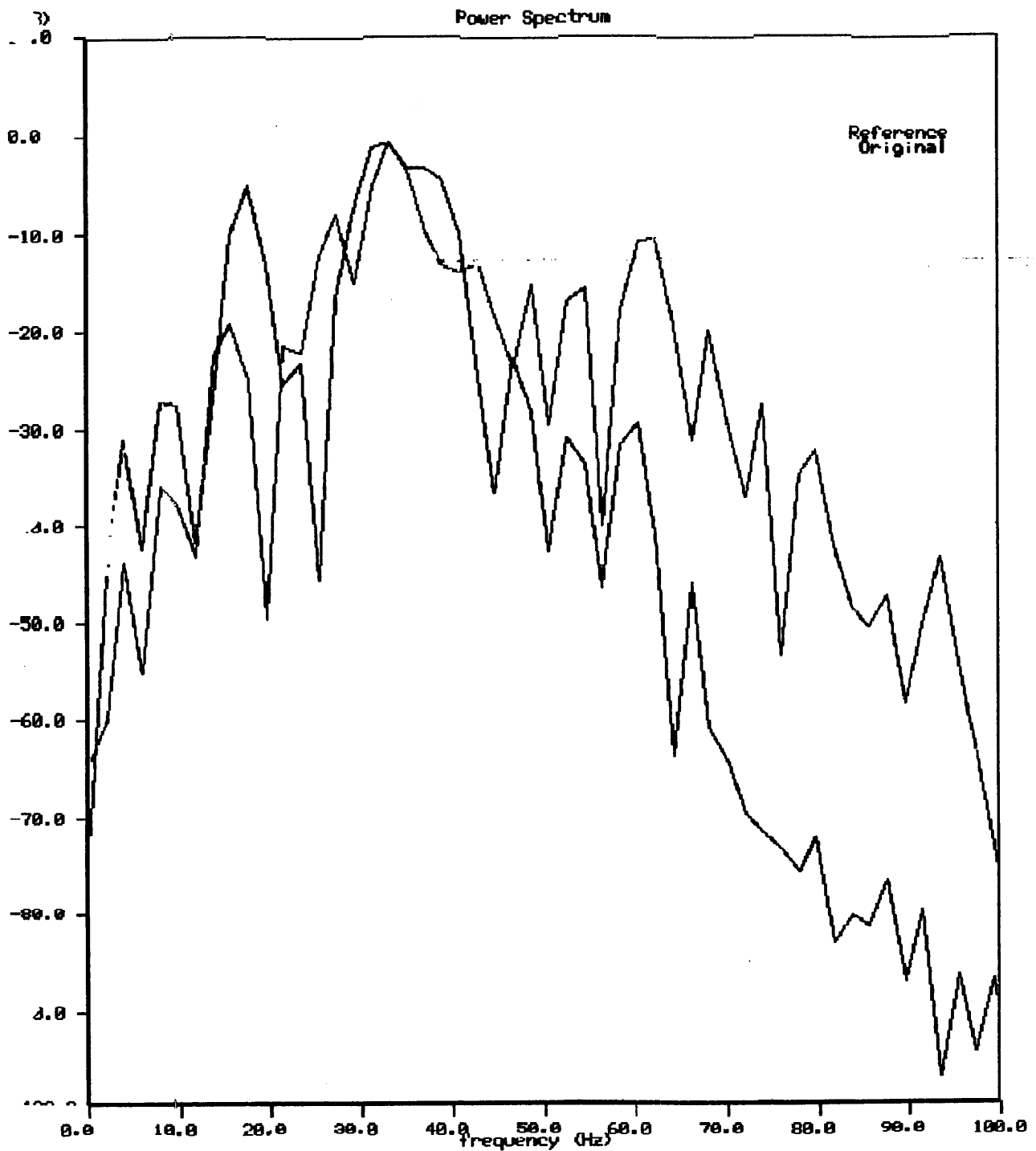
-Figure -2 Vsp and seismic correlation at Champion-1. The cross correlation envelopes and phase trace within the envelope are depicted before and after the static and phase rotation has been applied.

-Plot-1 a) Montage plot. Borehole seismic data with logs (time indexed , with associated depth scale) along with seismic line before and after static and phase correction. (20cm/sec)

b) As above. 40 cm/sec

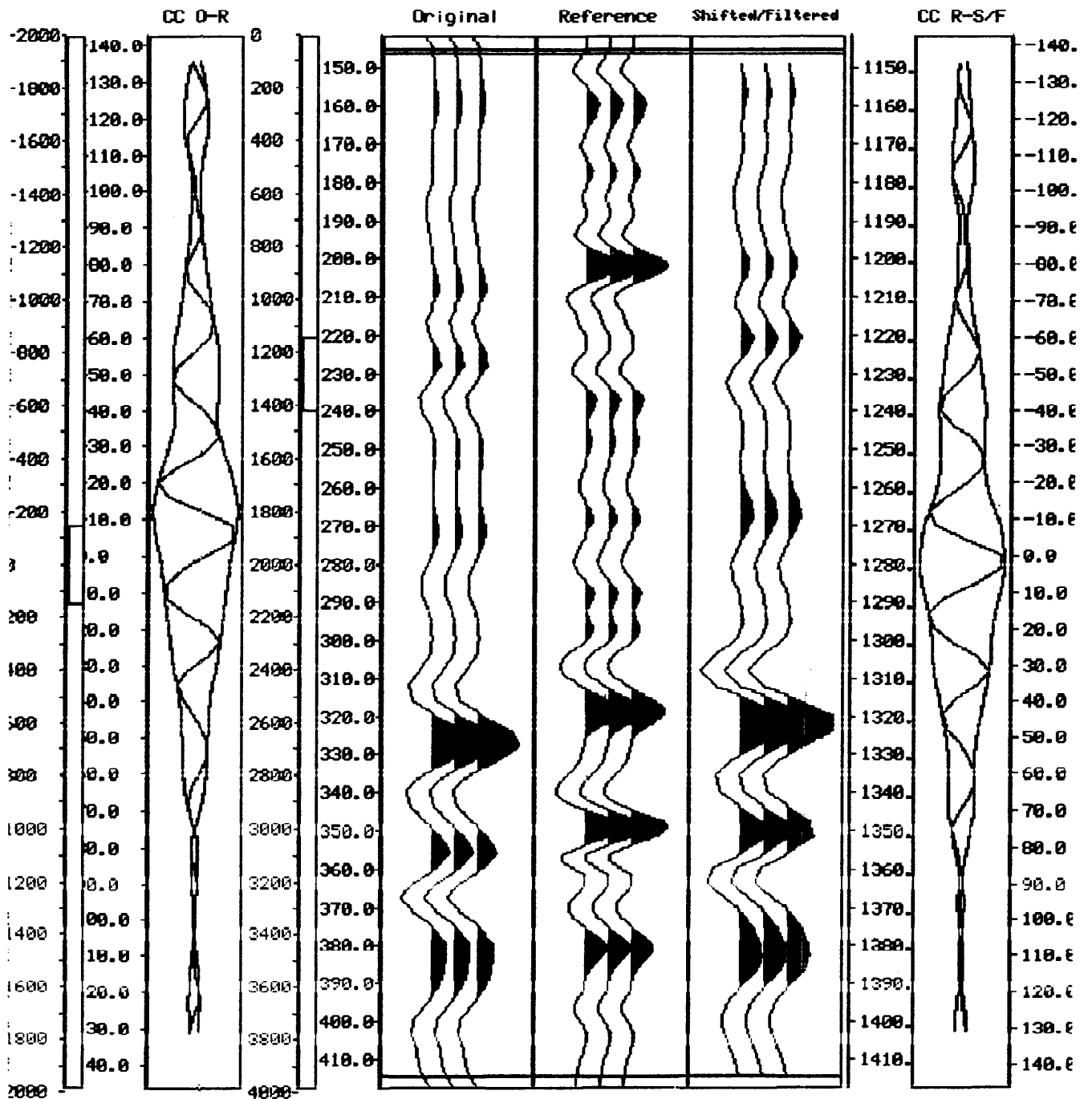
Power Spectrum of Champion#1 seismic trace and VSP

Original= Seismic trace at well
Reference= VSP trace



Correlation Champion#1 VSP and seismic well trace

Original= Seismic trace at well CDP
Reference= VSP trace



SHOTS

ANALYST: TCHERKASHNEV

18-AUG-95 14:01 5

PROGRAM: GSHOT 007.E08

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*          SCHLUMBERGER              *  
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GEOPHYSICAL AIRGUN REPORT

COMPANY : BHPP
WELL : CHAMPION-1
COUNTRY : AUSTRALIA
REFERENCE: 561142/561143

LONG DEFINITIONS

GLOBAL

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

MATRIX

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

SAMPLED

SHOT.GSH - Shot number
 DKB.GSH - Measured Depth from Kelly-Bushing
 DSRD.GSH - Depth from SRD
 TIMO.GSH - Tie In Memorized Output
 TIMV.GSH - Vertical Travel Time from the Source to the Geophone
 SHTM.GSH - Shot time (WST)
 AVGV.GSH - Average Seismic Velocity
 DELZ.GSH - Depth Interval between Successive Shots
 DELT.GSH - Travel Time Interval between Successive Shots
 INTV.GSH - Internal Velocity, Average

(GLOBAL PARAMETERS)

(VALUE)

ELEV OF KB AB. MSL (WST)	KB	:	25.3000	M
ELEV OF SRD AB. MSL (WST)	SRD	:	0	M
Elevation of Kelly Bushing	EKB	:	25.3000	M
VEL SOURCE-HYDRO (WST)	VELHYD	:	1524.00	M/S
VEL SOURCE-SRD (WST)	VELSUR	:	1524.00	M/S

(MATRIX PARAMETERS)

	SOURCE ELV M	SOURCE EW M	SOURCE NS M	HYDRO ELEV M	HYDRO EW M	HYDRO NS M
1	-5.0	45.0	0	-10.0	45.0	0

	TRT HYD-SC MS	TRT SC-SRD MS			
1	3.28	3.28			
	MD @ KB M	VD @ KB M	VD @ SRD M	E-W COORD M	N-S COORD M
1	79.3	79.3	54.0	0	0
2	338.0	338.0	312.7	0	0
3	538.0	538.0	512.7	0	0
4	638.0	638.0	612.7	0	0
5	688.0	688.0	662.7	0	0
6	738.0	738.0	712.7	0	0
7	788.0	788.0	762.7	0	0
8	820.0	820.0	794.7	0	0
9	870.0	870.0	844.7	0	0
10	920.0	920.0	894.7	0	0
11	950.0	950.0	924.7	0	0
12	980.0	980.0	954.7	0	0
13	1030.0	1030.0	1004.7	0	0
14	1080.0	1080.0	1054.7	0	0
15	1130.0	1130.0	1104.7	0	0
16	1180.0	1180.0	1154.7	0	0
17	1200.0	1200.0	1174.7	0	0
18	1213.0	1213.0	1187.7	0	0
19	1240.0	1240.0	1214.7	0	0
20	1260.0	1260.0	1234.7	0	0
21	1280.0	1280.0	1254.7	0	0
22	1300.0	1300.0	1274.7	0	0
23	1320.0	1320.0	1294.7	0	0
24	1340.0	1340.0	1314.7	0	0
25	1360.0	1360.0	1334.7	0	0
26	1380.0	1380.0	1354.7	0	0
27	1400.0	1400.0	1374.7	0	0
28	1420.0	1420.0	1394.7	0	0
29	1440.0	1440.0	1414.7	0	0
30	1460.0	1460.0	1434.7	0	0
31	1480.0	1480.0	1454.7	0	0
32	1500.0	1500.0	1474.7	0	0
33	1520.0	1520.0	1494.7	0	0
34	1528.0	1528.0	1502.7	0	0
35	1540.0	1540.0	1514.7	0	0
36	1560.0	1560.0	1534.7	0	0
37	1580.0	1580.0	1554.7	0	0
38	1602.0	1602.0	1576.7	0	0
39	1617.0	1617.0	1591.7	0	0
40	1625.0	1625.0	1599.7	0	0

COMPANY BHPP

WEL : CHAMPION-1

PAGE 3

41	1645.0	1645.0	1619.7	0	0
42	1665.0	1665.0	1639.7	0	0
43	1685.0	1685.0	1659.7	0	0
44	1705.0	1705.0	1679.7	0	0
45	1725.0	1725.0	1699.7	0	0
46	1745.0	1745.0	1719.7	0	0
47	1765.0	1765.0	1739.7	0	0
48	1785.0	1785.0	1759.7	0	0
49	1805.0	1805.0	1779.7	0	0
50	1825.0	1825.0	1799.7	0	0
51	1845.0	1845.0	1819.7	0	0

LEVEL NUMBER	MEASUR DEPTH FROM KB M	VERTIC DEPTH FROM SRD M	OBSERV TRAVEL TIME HYD/GEO MS	VERTIC TRAVEL TIME SRC/GEO MS	VERTIC TRAVEL TIME SRD/GEO MS	AVERAGE VELOC SRD/GEO M/S	DELTA DEPTH BETWEEN SHOTS M	DELTA TIME BETWEEN SHOTS MS	INTERV VELOC BETWEEN SHOTS M/S
1	79.3	54.0	40.37	32.15	35.43	1524			
2	338.0	312.7	153.40	155.03	158.31	1975	258.7	122.88	2105
3	538.0	512.7	229.90	232.27	235.55	2177	200.0	77.24	2589
4	638.0	612.7	268.60	271.14	274.42	2233	100.0	38.87	2573
5	688.0	662.7	287.90	290.50	293.78	2256	50.0	19.36	2582
6	738.0	712.7	305.70	308.36	311.64	2287	50.0	17.86	2800
7	788.0	762.7	325.10	327.80	331.08	2304	50.0	19.45	2571
8	820.0	794.7	338.40	341.13	344.41	2307	32.0	13.32	2402
9	870.0	844.7	354.80	357.57	360.85	2341	50.0	16.44	3041
10	920.0	894.7	374.30	377.10	380.38	2352	50.0	19.53	2560
11	950.0	924.7	384.80	387.62	390.90	2366	30.0	10.52	2852
12	980.0	954.7	396.00	398.83	402.11	2374	30.0	11.22	2675
13	1030.0	1004.7	413.80	416.66	419.94	2392	50.0	17.83	2805
14	1080.0	1054.7	432.20	435.08	438.36	2406	50.0	18.42	2714
15	1130.0	1104.7	449.70	452.60	455.88	2423	50.0	17.52	2854
16	1180.0	1154.7	467.20	470.12	473.40	2439	50.0	17.52	2854
17	1200.0	1174.7	474.70	477.63	480.91	2443	20.0	7.51	2664
18	1213.0	1187.7	478.40	481.33	484.61	2451	13.0	3.71	3509
19	1240.0	1214.7	487.60	490.54	493.82	2460	27.0	9.21	2932
20	1260.0	1234.7	493.50	496.45	499.73	2471	20.0	5.91	3386
21	1280.0	1254.7	499.90	502.85	506.14	2479	20.0	6.41	3122
22	1300.0	1274.7	506.30	509.26	512.54	2487	20.0	6.41	3122
23	1320.0	1294.7	512.70	515.67	518.95	2495	20.0	6.41	3122
24	1340.0	1314.7	519.00	521.97	525.25	2503	20.0	6.31	3172

LEVEL NUMBER	MEASUR DEPTH FROM KB M	VERTIC DEPTH FROM SRD M	OBSERV TRAVEL TIME HYD/GEO MS	VERTIC TRAVEL TIME SRC/GEO MS	VERTIC TRAVEL TIME SRD/GEO MS	AVERAGE VELOC SRD/GEO M/S	DELTA DEPTH BETWEEN SHOTS M	DELTA TIME BETWEEN SHOTS MS	INTERV VELOC BETWEEN SHOTS M/S
25	1360.0	1334.7	526.20	529.18	532.46	2507	20.0	7.21	2776
26	1380.0	1354.7	532.80	535.78	539.06	2513	20.0	6.61	3028
27	1400.0	1374.7	539.20	542.19	545.47	2520	20.0	6.41	3122
28	1420.0	1394.7	545.90	548.89	552.17	2526	20.0	6.70	2983
29	1440.0	1414.7	553.00	556.00	559.28	2530	20.0	7.10	2815
30	1460.0	1434.7	559.50	562.50	565.78	2536	20.0	6.50	3075
31	1480.0	1454.7	566.70	569.71	572.99	2539	20.0	7.20	2776
32	1500.0	1474.7	573.30	576.31	579.59	2544	20.0	6.60	3028
33	1520.0	1494.7	580.00	583.01	586.30	2549	20.0	6.70	2983
34	1528.0	1502.7	582.70	585.72	589.00	2551	8.0	2.70	2961
35	1540.0	1514.7	586.50	589.52	592.80	2555	12.0	3.80	3156
36	1560.0	1534.7	593.20	596.22	599.50	2560	20.0	6.70	2983
37	1580.0	1554.7	600.10	603.13	606.41	2564	20.0	6.90	2897
38	1602.0	1576.7	608.30	611.33	614.61	2565	22.0	8.20	2682
39	1617.0	1591.7	613.10	616.13	619.41	2570	15.0	4.80	3123
40	1625.0	1599.7	615.30	618.33	621.62	2573	8.0	2.20	3634
41	1645.0	1619.7	622.10	625.14	628.42	2577	20.0	6.80	2940
42	1665.0	1639.7	629.30	632.34	635.62	2580	20.0	7.20	2777
43	1685.0	1659.7	635.90	638.94	642.23	2584	20.0	6.60	3029
44	1705.0	1679.7	642.90	645.95	649.23	2587	20.0	7.00	2856
45	1725.0	1699.7	649.10	652.15	655.43	2593	20.0	6.20	3224
46	1745.0	1719.7	655.00	658.05	661.34	2600	20.0	5.90	3388
47	1765.0	1739.7	661.70	664.76	668.04	2604	20.0	6.70	2984
48	1785.0	1759.7	667.80	670.86	674.14	2610	20.0	6.10	3277

COMPANY BHPP

WE. : CHAMPION-1

PAGE 6

LEVEL NUMBER	MEASUR DEPTH FROM KB M	VERTIC DEPTH FROM SRD M	OBSERV TRAVEL TIME HYD/GEO MS	VERTIC TRAVEL TIME SRC/GEO MS	VERTIC TRAVEL TIME SRD/GEO MS	AVERAGE VELOC SRD/GEO M/S	DELTA DEPTH BETWEEN SHOTS M	DELTA TIME BETWEEN SHOTS MS	INTERV VELOC BETWEEN SHOTS M/S
49	1805.0	1779.7	674.50	677.56	680.84	2614	20.0	6.70	2984
50	1825.0	1799.7	680.60	683.67	686.95	2620	20.0	6.10	3277
51	1845.0	1819.7	687.00	690.07	693.35	2625	20.0	6.40	3124

DRIFT

ANALYST: TCHERKASHNEV

18-AUG-95 14:01 5

PROGRAM: GDRIFT 007.E09

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*          SCHLUMBERGER              *  
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DRIFT COMPUTATION REPORT

COMPANY : BHPP
WELL : CHAMPION-1
COUNTRY : AUSTRALIA
REFERENCE: 561142/561143

LONG DEFINITIONS

GLOBAL

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

ZONE

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

SAMPLED

SHOT - Shot number
 DKB - Measured Depth from Kelly-Bushing
 DSRD - Depth from SRD
 SHTM - Shot time (WST)
 RAWSONIC - Raw Sonic (WST)
 SHDR - Drift at Shot or Knee
 BLSH - Block Shift between Shots or Knee

(GLOBAL PARAMETERS)

(VALUE)

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

(ZONED PARAMETERS)

(VALUE)

(LIMITS)

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

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL TRAVEL TIME SRD/GEO MS	INTEGRATED RAW SONIC TIME MS	COMPUTED DRIFT AT LEVEL MS	COMPUTED BLK-SHFT CORRECTION US/M
1	79.3	54.0	35.43	35.43	0	0
2	338.0	312.7	158.31	158.31	0	0
3	538.0	512.7	235.55	235.55	0	0
4	638.0	612.7	274.42	274.42	0	0
5	688.0	662.7	293.78	293.78	0	0
6	738.0	712.7	311.64	311.64	0	0
7	788.0	762.7	331.08	331.08	0	0
8	820.0	794.7	344.41	344.41	0	0
9	870.0	844.7	360.85	360.85	0	0
10	920.0	894.7	380.38	380.38	0	0
11	950.0	924.7	390.90	390.90	0	0
12	980.0	954.7	402.11	402.11	0	0
13	1030.0	1004.7	419.94	419.94	0	0
14	1080.0	1054.7	438.36	438.36	0	0
15	1130.0	1104.7	455.88	455.88	0	0
16	1180.0	1154.7	473.40	473.40	0	0
17	1200.0	1174.7	480.91	480.91	0	0
18	1213.0	1187.7	484.61	484.61	0	0
19	1220.1	1194.8	487.04	487.04	0	0
20	1240.0	1214.7	493.82	493.26	.57	28.50
21	1260.0	1234.7	499.73	499.62	.11	-22.93
22	1280.0	1254.7	506.14	506.01	.13	.96
23	1300.0	1274.7	512.54	512.07	.47	17.10
24	1320.0	1294.7	518.95	518.40	.55	3.88

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL TRAVEL TIME SRD/GEO MS	INTEGRATED RAW SONIC TIME MS	COMPUTED DRIFT AT LEVEL MS	COMPUTED BLK-SHFT CORRECTION US/M
25	1340.0	1314.7	525.25	524.88	.37	-8.85
26	1360.0	1334.7	532.46	531.57	.89	25.88
27	1380.0	1354.7	539.06	538.12	.94	2.85
28	1400.0	1374.7	545.47	544.60	.87	-3.71
29	1420.0	1394.7	552.17	551.00	1.17	15.07
30	1440.0	1414.7	559.28	557.64	1.64	23.26
31	1460.0	1434.7	565.78	564.63	1.16	-24.01
32	1480.0	1454.7	572.99	571.51	1.48	16.08
33	1500.0	1474.7	579.59	578.14	1.45	-1.20
34	1520.0	1494.7	586.30	584.81	1.49	1.71
35	1528.0	1502.7	589.00	587.40	1.60	13.65
36	1540.0	1514.7	592.80	591.36	1.44	-13.02
37	1560.0	1534.7	599.50	597.82	1.69	12.30
38	1580.0	1554.7	606.41	604.68	1.73	1.98
39	1602.0	1576.7	614.61	611.94	2.67	43.05
40	1617.0	1591.7	619.41	616.82	2.59	-5.59
41	1625.0	1599.7	621.62	619.55	2.07	-65.46
42	1645.0	1619.7	628.42	626.48	1.94	-6.17
43	1665.0	1639.7	635.62	633.37	2.25	15.53
44	1685.0	1659.7	642.23	640.04	2.18	-3.59
45	1705.0	1679.7	649.23	646.21	3.02	41.75
46	1725.0	1699.7	655.43	652.44	3.00	-1.04
47	1745.0	1719.7	661.34	658.64	2.69	-15.11
48	1765.0	1739.7	668.04	665.18	2.86	8.04

COMPANY BHPP

WE : CHAMPION-1

PAGE 4

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL TRAVEL TIME SRD/GEO MS	INTEGRATED RAW SONIC TIME MS	COMPUTED DRIFT AT LEVEL MS	COMPUTED BLK-SHFT CORRECTION US/M
49	1785.0	1759.7	674.14	671.07	3.07	10.59
50	1805.0	1779.7	680.84	677.39	3.45	19.37
51	1825.0	1799.7	686.95	683.49	3.46	.18
52	1845.0	1819.7	693.35	689.55	3.80	17.23

ANALYST: TCHERKASHNEV

18-AUG-95 14:31.4

PROGRAM: GADJST 008.E08

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*          SCHLUMBERGER              *  
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SONIC ADJUSTMENT PARAMETER REPORT

COMPANY : BHPP
WELL : CHAMPION-1
COUNTRY : AUSTRALIA
REFERENCE: 561142/561143

LONG DEFINITIONS

GLOBAL

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

ZONE

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

SAMPLED

SHOT - Shot number
 VDKB - Vertical Depth Relative to KB
 DSRD - Depth from SRD
 KNEE - Knee
 BLSH - Block Shift between Shots or Knee
 DTMI - Value of Delta-T Minimum used
 COEF - Delta-T MIN Coefficient used in the Drift Zone
 DRGR - Gradient of Drift Curve

(GLOBAL PARAMETERS)

(VALUE)

ORIG OF ADJ DATA (WST)	SRCDRF	:	2.00000	
CONS SONIC ADJST (WST)	CONADJ	:	24.6063	US/M
UNIFORM EARTH VELOCITY	UNERTH	:	1524.00	M/S

(ZONED PARAMETERS)

(VALUE)

(LIMITS)

(ZONED PARAMETERS)	(VALUE)	(LIMITS)
USER DRIFT ZONE (WST)	ZDRIFT	: 3.600000 MS 1845.00 - 1220.00
		0 1220.00 0
ADJUSMNT MODE (WST)	ADJOPZ	:-999.2500 30479.7 - 0
USER DELTA-T MIN (WST)	ADJUSZ	:-999.2500 US/M 30479.7 - 0
LAYER OPTION FLAG VELOC	LOFVEL	: 0 30479.7 - 0
USER VELOC (WST)	LAYVEL	: 2932.000 M/S 1220.00 - 1213.00
		3509.000 1213.00 1200.00
		2664.000 1200.00 1180.00
		2854.000 1180.00 1130.00
		2854.000 1130.00 1080.00
		2714.000 1080.00 1030.00
		2805.000 1030.00 980.00
		2675.000 980.00 950.00
		2852.000 950.00 920.00
		2560.000 920.00 870.00
		3041.000 870.00 820.00
		2402.000 820.00 788.00
		2571.000 788.00 738.00
		2800.000 738.00 688.00
		2582.000 688.00 638.00

COMPANY BHPP

WE : CHAMPION-1

PAGE 2

2573.000	638.000	538.000
2589.000	538.000	338.000
2105.000	338.000	79.3000
1524.000	79.3000	0

COMPANY BHPP

WE : CHAMPION-1

PAGE 3

KNEE NUMBER	VERTICAL DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	DRIFT AT KNEE MS	BLOCKSHIFT USED US/M	DELTA-T MINIMUM USED US/M	REDUCTION FACTOR G	EQUIVALENT BLOCKSHIFT US/M
2	1220.0	1194.7	0	0			0
3	1845.0	1819.7	3.60	5.76			5.76

ANALYST: TCHERKASHNEV

18-AUG-95 14:31

PROGRAM: GADJST 008.E08

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VELOCITY REPORT

COMPANY : BHPP

WELL : CHAMPION-1

COUNTRY : AUSTRALIA

REFERENCE: 561142/561143

LONG DEFINITIONS

GLOBAL

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

ZONE

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

SAMPLED

SHOT - Shot number
 DKB - Measured Depth from Kelly-Bushing
 DSRD - Depth from SRD
 SHTM - Shot time (WST)
 ADJS - Adjusted Sonic Travel Time
 SHDR - Drift at Shot or Knee
 REST - Residual Travel Time at Knee
 INTV - Internal Velocity, Average

(GLOBAL PARAMETERS)

(VALUE)

ELEV OF KB AB. MSL (WST)	KB	:	25.3000	M
ELEV OF SRD AB. MSL (WST)	SRD	:	0	M
Elevation of Kelly Bushi	EKB	:	25.3000	M
UNIFORM EARTH VELOCITY	UNERTH	:	1524.00	M/S

(ZONED PARAMETERS)

(VALUE)

(LIMITS)

LAYER OPTION FLAG VELOC	LOFVEL	:	VALUE	M/S	LIMITS
USER VELOC (WST)	LAYVEL	:	2932.000	M/S	30479.7 - 0
		:	3509.000		1220.00 - 1213.00
		:	2664.000		1213.00 - 1200.00
		:	2854.000		1200.00 - 1180.00
		:	2854.000		1180.00 - 1130.00
		:	2854.000		1130.00 - 1080.00
		:	2714.000		1080.00 - 1030.00
		:	2805.000		1030.00 - 980.000
		:	2675.000		980.000 - 950.000
		:	2852.000		950.000 - 920.000
		:	2560.000		920.000 - 870.000
		:	3041.000		870.000 - 820.000
		:	2402.000		820.000 - 788.000
		:	2571.000		788.000 - 738.000
		:	2800.000		738.000 - 688.000
		:	2582.000		688.000 - 638.000
		:	2573.000		638.000 - 538.000
		:	2589.000		538.000 - 338.000
		:	2105.000		338.000 - 79.3000
		:	1524.000		79.3000 - 0

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL TRAVEL TIME SRD/GEOPH MS	INTEGRATED ADJUSTED SONIC TIME MS	DRIFT = SHOT TIME - RAW SON MS	RESIDUAL = SHOT TIME - ADJ SON MS	ADJUSTED INTERVAL VELOCITY M/S
1	79.3	54.0	35.43	35.43	0	0	1524
2	338.0	312.7	158.31	158.30	0	.01	2105
3	538.0	512.7	235.55	235.54	0	.01	2589
4	638.0	612.7	274.42	274.41	0	.01	2573
5	688.0	662.7	293.78	293.77	0	.01	2582
6	738.0	712.7	311.64	311.63	0	.01	2800
7	788.0	762.7	331.08	331.08	0	.01	2571
8	820.0	794.7	344.41	344.39	0	.02	2403
9	870.0	844.7	360.85	360.84	0	.01	3040
10	920.0	894.7	380.38	380.37	0	.01	2561
11	950.0	924.7	390.90	390.89	0	.01	2852
12	980.0	954.7	402.11	402.10	0	.01	2675
13	1030.0	1004.7	419.94	419.93	0	.01	2805
14	1080.0	1054.7	438.36	438.35	0	.01	2714
15	1130.0	1104.7	455.88	455.87	0	.01	2854
16	1180.0	1154.7	473.40	473.39	0	.01	2854
17	1200.0	1174.7	480.91	480.90	0	.01	2664
18	1213.0	1187.7	484.61	484.60	0	.01	3506
19	1220.1	1194.8	487.04	487.03	0	.01	2937
20	1240.0	1214.7	493.82	493.34	.57	.48	3149
21	1260.0	1234.7	499.73	499.84	.11	-.11	3076
22	1280.0	1254.7	506.14	506.35	.13	-.21	3076
23	1300.0	1274.7	512.54	512.52	.47	.02	3237
24	1320.0	1294.7	518.95	518.96	.55	-.01	3110

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD 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
25	1340.0	1314.7	525.25	525.56	.37	-.31	3027
26	1360.0	1334.7	532.46	532.37	.89	.09	2939
27	1380.0	1354.7	539.06	539.03	.94	.03	3001
28	1400.0	1374.7	545.47	545.63	.87	-.16	3032
29	1420.0	1394.7	552.17	552.14	1.17	.03	3068
30	1440.0	1414.7	559.28	558.90	1.64	.38	2960
31	1460.0	1434.7	565.78	566.00	1.16	-.22	2817
32	1480.0	1454.7	572.99	573.00	1.48	-.01	2859
33	1500.0	1474.7	579.59	579.74	1.45	-.15	2967
34	1520.0	1494.7	586.30	586.53	1.49	-.23	2947
35	1528.0	1502.7	589.00	589.16	1.60	-.16	3037
36	1540.0	1514.7	592.80	593.19	1.44	-.39	2977
37	1560.0	1534.7	599.50	599.77	1.69	-.26	3042
38	1580.0	1554.7	606.41	606.74	1.73	-.34	2867
39	1602.0	1576.7	614.61	614.13	2.67	.48	2979
40	1617.0	1591.7	619.41	619.10	2.59	.31	3016
41	1625.0	1599.7	621.62	621.87	2.07	-.26	2887
42	1645.0	1619.7	628.42	628.92	1.94	-.50	2839
43	1665.0	1639.7	635.62	635.93	2.25	-.30	2853
44	1685.0	1659.7	642.23	642.71	2.18	-.48	2948
45	1705.0	1679.7	649.23	649.00	3.02	.23	3182
46	1725.0	1699.7	655.43	655.33	3.00	.10	3157
47	1745.0	1719.7	661.34	661.65	2.69	-.32	3162
48	1765.0	1739.7	668.04	668.31	2.86	-.27	3005

COMPANY BHPP

WE. : CHAMPION-1

PAGE 7

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD 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
49	1785.0	1759.7	674.14	674.32	3.07	-.17	3331
50	1805.0	1779.7	680.84	680.74	3.45	.10	3112
51	1825.0	1799.7	686.95	686.96	3.46	-.01	3217
52	1845.0	1819.7	693.35	693.13	3.80	.21	3239

TIME / DEPTH

ANALYST: TCHERKASHNEV

18-AUG-95 14:3. .9

PROGRAM: GTRFRM 001.E13

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*                                     *  
*          SCHLUMBERGER              *  
*                                     *  
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TIME CONVERTED VELOCITY REPORT

COMPANY : BHPP
WELL : CHAMPION-1
COUNTRY : AUSTRALIA
REFERENCE: 561142/561143

LONG DEFINITIONS

GLOBAL

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

MATRIX

MVODIS - MOVE-OUT DISTANCE FROM BOREHOLE

ZONE

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

SAMPLED

TWOT - Two Way Travel Time (Relative to the Seismic Reference)
 DKB - Measured Depth from Kelly-Bushing
 DSRD - Depth from SRD
 AVGV - Average Seismic Velocity
 RMSV - Root Mean Square Velocity (Seismic)
 MVOT - Normal Move-Out
 MVOT - Normal Move-Out
 MVOT - Normal Move-Out
 INTV - Internal Velocity, Average

(GLOBAL PARAMETERS)

(VALUE)

ELEV OF KB AB. MSL (WST)	KB	:	25.3000	M
ELEV OF SRD AB. MSL(WST)	SRD	:	0	M
ELEV OF GL AB. SRD(WST)	GL	:	0	M
UNIFORM EARTH VELOCITY	UNERTH	:	1524.00	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	: 0	30479.7 - 0
USER VELOC (WST)	LAYVEL	: 2932.000 M/S	1220.00 - 1213.00
		3509.000	1213.00 1200.00
		2664.000	1200.00 1180.00
		2854.000	1180.00 1130.00
		2854.000	1130.00 1080.00
		2714.000	1080.00 1030.00
		2805.000	1030.00 980.000
		2675.000	980.000 950.000
		2852.000	950.000 920.000
		2560.000	920.000 870.000
		3041.000	870.000 820.000
		2402.000	820.000 788.000
		2571.000	788.000 738.000
		2800.000	738.000 688.000
		2582.000	688.000 638.000
		2573.000	638.000 538.000
		2589.000	538.000 338.000
		2105.000	338.000 79.3000
		1524.000	79.3000 0
LAYER OPTION FLAG DENS	LOFDEN	: -1.000000	30479.7 - 0
USER SUPPLIED DENSITY DA	LAYDEN	: 0 G/C3	0 - 0

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
0	25.3	0						1524
2.00	26.8	1.5	1524	1524	654.17	982.25	1310.34	1524
4.00	28.3	3.0	1524	1524	652.18	980.26	1308.34	1524
6.00	29.9	4.6	1524	1524	650.20	978.27	1306.35	1524
8.00	31.4	6.1	1524	1524	648.22	976.28	1304.36	1524
10.00	32.9	7.6	1524	1524	646.24	974.30	1302.37	1524
12.00	34.4	9.1	1524	1524	644.28	972.32	1300.39	1524
14.00	36.0	10.7	1524	1524	642.32	970.35	1298.41	1524
16.00	37.5	12.2	1524	1524	640.36	968.38	1296.43	1524
18.00	39.0	13.7	1524	1524	638.41	966.42	1294.46	1524
20.00	40.5	15.2	1524	1524	636.47	964.46	1292.49	1524
22.00	42.1	16.8	1524	1524	634.54	962.50	1290.52	1524
24.00	43.6	18.3	1524	1524	632.61	960.54	1288.56	1524
26.00	45.1	19.8	1524	1524	630.68	958.60	1286.59	1524
28.00	46.6	21.3	1524	1524	628.77	956.65	1284.63	1524
30.00	48.2	22.9	1524	1524	626.85	954.71	1282.68	1524
32.00	49.7	24.4	1524	1524	624.95	952.77	1280.73	1524
34.00	51.2	25.9	1524	1524	623.05	950.84	1278.78	1524
36.00	52.7	27.4	1524	1524	621.15	948.91	1276.83	1524
38.00	54.3	29.0	1524	1524	619.27	946.99	1274.89	1524
40.00	55.8	30.5	1524	1524	617.39	945.06	1272.95	1524
42.00	57.3	32.0	1524	1524	615.51	943.15	1271.01	1524
44.00	58.8	33.5	1524	1524	613.64	941.24	1269.07	1524
46.00	60.4	35.1	1524	1524	611.78	939.33	1267.14	1524

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
48.00	61.9	36.6	1524	1524	609.92	937.42	1265.21	1524
50.00	63.4	38.1	1524	1524	608.07	935.52	1263.29	1524
52.00	64.9	39.6	1524	1524	606.23	933.62	1261.37	1524
54.00	66.4	41.1	1524	1524	604.39	931.73	1259.45	1524
56.00	68.0	42.7	1524	1524	602.55	929.84	1257.53	1524
58.00	69.5	44.2	1524	1524	600.73	927.96	1255.62	1524
60.00	71.0	45.7	1524	1524	598.91	926.08	1253.71	1524
62.00	72.5	47.2	1524	1524	597.09	924.20	1251.80	1524
64.00	74.1	48.8	1524	1524	595.28	922.33	1249.90	1524
66.00	75.6	50.3	1524	1524	593.48	920.46	1247.99	1524
68.00	77.1	51.8	1524	1524	591.68	918.60	1246.10	1524
70.00	78.6	53.3	1524	1524	589.89	916.74	1244.20	1524
72.00	80.5	55.2	1534	1535	583.53	908.00	1233.12	1873
74.00	82.6	57.3	1549	1553	574.18	894.74	1216.01	2105
76.00	84.7	59.4	1564	1570	565.48	882.45	1200.18	2105
78.00	86.8	61.5	1578	1586	557.34	871.02	1185.49	2105
80.00	88.9	63.6	1591	1601	549.72	860.33	1171.79	2105
82.00	91.0	65.7	1603	1615	542.54	850.31	1158.98	2105
84.00	93.1	67.8	1615	1629	535.76	840.89	1146.96	2105
86.00	95.2	69.9	1627	1641	529.35	832.00	1135.65	2105
88.00	97.4	72.1	1638	1653	523.26	823.59	1124.97	2105
90.00	99.5	74.2	1648	1665	517.46	815.61	1114.87	2105
92.00	101.6	76.3	1658	1675	511.92	808.03	1105.29	2105
94.00	103.7	78.4	1667	1686	506.63	800.80	1096.18	2105

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	105.8	80.5	1677	1695	501.56	793.90	1087.50	2105
98.00	107.9	82.6	1685	1705	496.70	787.29	1079.22	2105
100.00	110.0	84.7	1694	1714	492.02	780.96	1071.30	2105
102.00	112.1	86.8	1702	1722	487.51	774.89	1063.72	2105
104.00	114.2	88.9	1710	1730	483.17	769.04	1056.44	2105
106.00	116.3	91.0	1717	1738	478.97	763.41	1049.44	2105
108.00	118.4	93.1	1724	1746	474.90	757.98	1042.70	2105
110.00	120.5	95.2	1731	1753	470.97	752.73	1036.21	2105
112.00	122.6	97.3	1738	1760	467.15	747.66	1029.95	2105
114.00	124.7	99.4	1744	1767	463.45	742.75	1023.89	2105
116.00	126.8	101.5	1750	1773	459.85	737.98	1018.04	2105
118.00	128.9	103.6	1757	1779	456.35	733.36	1012.37	2105
120.00	131.0	105.7	1762	1785	452.94	728.87	1006.87	2105
122.00	133.1	107.8	1768	1791	449.61	724.50	1001.53	2105
124.00	135.3	110.0	1773	1796	446.37	720.25	996.34	2105
126.00	137.4	112.1	1779	1802	443.21	716.11	991.30	2105
128.00	139.5	114.2	1784	1807	440.11	712.07	986.39	2105
130.00	141.6	116.3	1789	1812	437.09	708.12	981.60	2105
132.00	143.7	118.4	1794	1816	434.13	704.28	976.94	2105
134.00	145.8	120.5	1798	1821	431.24	700.51	972.39	2105
136.00	147.9	122.6	1803	1826	428.40	696.83	967.95	2105
138.00	150.0	124.7	1807	1830	425.62	693.23	963.61	2105
140.00	152.1	126.8	1811	1834	422.89	689.71	959.36	2105
142.00	154.2	128.9	1815	1838	420.22	686.25	955.21	2105

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
144.00	156.3	131.0	1819	1842	417.59	682.86	951.14	2105
146.00	158.4	133.1	1823	1846	415.01	679.54	947.16	2105
148.00	160.5	135.2	1827	1850	412.48	676.28	943.26	2105
150.00	162.6	137.3	1831	1853	409.99	673.07	939.43	2105
152.00	164.7	139.4	1835	1857	407.54	669.93	935.67	2105
154.00	166.8	141.5	1838	1860	405.13	666.83	931.98	2105
156.00	168.9	143.6	1841	1864	402.76	663.79	928.36	2105
158.00	171.0	145.7	1845	1867	400.42	660.80	924.80	2105
160.00	173.1	147.8	1848	1870	398.13	657.85	921.30	2105
162.00	175.3	150.0	1851	1873	395.86	654.95	917.86	2105
164.00	177.4	152.1	1854	1876	393.63	652.10	914.47	2105
166.00	179.5	154.2	1857	1879	391.43	649.28	911.14	2105
168.00	181.6	156.3	1860	1882	389.26	646.51	907.86	2105
170.00	183.7	158.4	1863	1885	387.12	643.78	904.63	2105
172.00	185.8	160.5	1866	1888	385.01	641.08	901.44	2105
174.00	187.9	162.6	1869	1890	382.92	638.42	898.30	2105
176.00	190.0	164.7	1871	1893	380.87	635.79	895.20	2105
178.00	192.1	166.8	1874	1895	378.84	633.20	892.15	2105
180.00	194.2	168.9	1877	1898	376.83	630.64	889.13	2105
182.00	196.3	171.0	1879	1900	374.85	628.11	886.16	2105
184.00	198.4	173.1	1882	1903	372.89	625.61	883.22	2105
186.00	200.5	175.2	1884	1905	370.96	623.15	880.32	2105
188.00	202.6	177.3	1886	1907	369.05	620.71	877.45	2105
190.00	204.7	179.4	1889	1909	367.16	618.30	874.62	2105

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	206.8	181.5	1891	1911	365.30	615.91	871.83	2105
194.00	208.9	183.6	1893	1913	363.45	613.55	869.06	2105
196.00	211.0	185.7	1895	1916	361.62	611.22	866.33	2105
198.00	213.1	187.8	1897	1918	359.82	608.91	863.62	2105
200.00	215.3	190.0	1900	1920	358.03	606.63	860.94	2105
202.00	217.4	192.1	1902	1921	356.27	604.37	858.30	2105
204.00	219.5	194.2	1904	1923	354.52	602.13	855.68	2105
206.00	221.6	196.3	1906	1925	352.79	599.92	853.09	2105
208.00	223.7	198.4	1907	1927	351.07	597.72	850.52	2105
210.00	225.8	200.5	1909	1929	349.38	595.55	847.98	2105
212.00	227.9	202.6	1911	1931	347.70	593.40	845.46	2105
214.00	230.0	204.7	1913	1932	346.04	591.26	842.97	2105
216.00	232.1	206.8	1915	1934	344.39	589.15	840.50	2105
218.00	234.2	208.9	1916	1936	342.76	587.06	838.05	2105
220.00	236.3	211.0	1918	1937	341.15	584.98	835.62	2105
222.00	238.4	213.1	1920	1939	339.55	582.92	833.22	2105
224.00	240.5	215.2	1922	1940	337.96	580.88	830.84	2105
226.00	242.6	217.3	1923	1942	336.39	578.86	828.47	2105
228.00	244.7	219.4	1925	1943	334.84	576.85	826.13	2105
230.00	246.8	221.5	1926	1945	333.30	574.86	823.81	2105
232.00	248.9	223.6	1928	1946	331.77	572.89	821.51	2105
234.00	251.0	225.7	1929	1948	330.26	570.94	819.22	2105
236.00	253.1	227.8	1931	1949	328.76	568.99	816.95	2105
238.00	255.3	230.0	1932	1950	327.27	567.07	814.70	2105

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
240.00	257.4	232.1	1934	1952	325.79	565.16	812.47	2105
242.00	259.5	234.2	1935	1953	324.33	563.26	810.25	2105
244.00	261.6	236.3	1937	1954	322.88	561.38	808.06	2105
246.00	263.7	238.4	1938	1956	321.45	559.51	805.87	2105
248.00	265.8	240.5	1939	1957	320.02	557.66	803.71	2105
250.00	267.9	242.6	1941	1958	318.61	555.82	801.55	2105
252.00	270.0	244.7	1942	1959	317.21	553.99	799.42	2105
254.00	272.1	246.8	1943	1960	315.82	552.17	797.30	2105
256.00	274.2	248.9	1945	1962	314.44	550.37	795.19	2105
258.00	276.3	251.0	1946	1963	313.07	548.58	793.10	2105
260.00	278.4	253.1	1947	1964	311.72	546.81	791.02	2105
262.00	280.5	255.2	1948	1965	310.37	545.04	788.96	2105
264.00	282.6	257.3	1949	1966	309.04	543.29	786.91	2105
266.00	284.7	259.4	1951	1967	307.71	541.55	784.87	2105
268.00	286.8	261.5	1952	1968	306.40	539.82	782.84	2105
270.00	288.9	263.6	1953	1969	305.10	538.11	780.83	2105
272.00	291.0	265.7	1954	1970	303.80	536.40	778.83	2105
274.00	293.1	267.8	1955	1971	302.52	534.70	776.85	2105
276.00	295.3	270.0	1956	1972	301.25	533.02	774.87	2105
278.00	297.4	272.1	1957	1973	299.98	531.35	772.91	2105
280.00	299.5	274.2	1958	1974	298.73	529.69	770.96	2105
282.00	301.6	276.3	1959	1975	297.49	528.03	769.02	2105
284.00	303.7	278.4	1960	1976	296.25	526.39	767.09	2105
286.00	305.8	280.5	1961	1977	295.03	524.76	765.18	2105

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	307.9	282.6	1962	1978	293.81	523.14	763.27	2105
290.00	310.0	284.7	1963	1979	292.60	521.53	761.38	2105
292.00	312.1	286.8	1964	1980	291.40	519.93	759.49	2105
294.00	314.2	288.9	1965	1981	290.21	518.33	757.62	2105
296.00	316.3	291.0	1966	1982	289.03	516.75	755.76	2105
298.00	318.4	293.1	1967	1983	287.86	515.18	753.90	2105
300.00	320.5	295.2	1968	1983	286.69	513.61	752.06	2105
302.00	322.6	297.3	1969	1984	285.54	512.06	750.23	2105
304.00	324.7	299.4	1970	1985	284.39	510.51	748.40	2105
306.00	326.8	301.5	1971	1986	283.25	508.98	746.59	2105
308.00	328.9	303.6	1972	1987	282.12	507.45	744.79	2105
310.00	331.0	305.7	1973	1987	280.99	505.93	742.99	2105
312.00	333.1	307.8	1973	1988	279.88	504.42	741.21	2105
314.00	335.3	310.0	1974	1989	278.77	502.92	739.43	2105
316.00	337.4	312.1	1975	1990	277.67	501.42	737.66	2105
318.00	339.8	314.5	1978	1993	276.01	499.02	734.64	2471
320.00	342.4	317.1	1982	1997	274.18	496.31	731.19	2589
322.00	345.0	319.7	1986	2002	272.37	493.64	727.80	2589
324.00	347.6	322.3	1989	2006	270.59	491.01	724.44	2589
326.00	350.2	324.9	1993	2010	268.83	488.41	721.13	2589
328.00	352.8	327.5	1997	2014	267.10	485.84	717.86	2589
330.00	355.4	330.1	2000	2018	265.39	483.31	714.63	2589
332.00	358.0	332.7	2004	2022	263.70	480.80	711.44	2589
334.00	360.5	335.2	2007	2026	262.03	478.33	708.28	2589

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
336.00	363.1	337.8	2011	2030	260.39	475.89	705.17	2589
338.00	365.7	340.4	2014	2033	258.77	473.47	702.09	2589
340.00	368.3	343.0	2018	2037	257.16	471.08	699.04	2589
342.00	370.9	345.6	2021	2041	255.58	468.72	696.04	2589
344.00	373.5	348.2	2024	2044	254.02	466.39	693.06	2589
346.00	376.1	350.8	2028	2048	252.48	464.09	690.12	2589
348.00	378.7	353.4	2031	2051	250.95	461.81	687.21	2589
350.00	381.3	356.0	2034	2055	249.45	459.56	684.33	2589
352.00	383.8	358.5	2037	2058	247.96	457.33	681.49	2589
354.00	386.4	361.1	2040	2062	246.49	455.12	678.67	2589
356.00	389.0	363.7	2043	2065	245.04	452.94	675.88	2589
358.00	391.6	366.3	2046	2068	243.60	450.79	673.13	2589
360.00	394.2	368.9	2049	2072	242.19	448.65	670.40	2589
362.00	396.8	371.5	2052	2075	240.79	446.54	667.70	2589
364.00	399.4	374.1	2055	2078	239.40	444.45	665.02	2589
366.00	402.0	376.7	2058	2081	238.03	442.38	662.38	2589
368.00	404.6	379.3	2061	2084	236.68	440.34	659.76	2589
370.00	407.2	381.9	2064	2087	235.34	438.31	657.16	2589
372.00	409.7	384.4	2067	2090	234.02	436.31	654.59	2589
374.00	412.3	387.0	2070	2093	232.71	434.32	652.05	2589
376.00	414.9	389.6	2072	2096	231.42	432.35	649.53	2589
378.00	417.5	392.2	2075	2099	230.14	430.41	647.03	2589
380.00	420.1	394.8	2078	2102	228.88	428.48	644.56	2589
382.00	422.7	397.4	2081	2105	227.62	426.57	642.11	2589

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
384.00	425.3	400.0	2083	2108	226.39	424.68	639.68	2589
386.00	427.9	402.6	2086	2110	225.16	422.81	637.27	2589
388.00	430.5	405.2	2088	2113	223.95	420.96	634.89	2589
390.00	433.0	407.7	2091	2116	222.75	419.12	632.53	2589
392.00	435.6	410.3	2094	2119	221.57	417.30	630.19	2589
394.00	438.2	412.9	2096	2121	220.39	415.50	627.86	2589
396.00	440.8	415.5	2099	2124	219.23	413.71	625.56	2589
398.00	443.4	418.1	2101	2126	218.08	411.94	623.28	2589
400.00	446.0	420.7	2103	2129	216.94	410.18	621.02	2589
402.00	448.6	423.3	2106	2132	215.82	408.44	618.78	2589
404.00	451.2	425.9	2108	2134	214.70	406.72	616.56	2589
406.00	453.8	428.5	2111	2137	213.60	405.01	614.35	2589
408.00	456.3	431.0	2113	2139	212.51	403.32	612.16	2589
410.00	458.9	433.6	2115	2141	211.43	401.64	609.99	2589
412.00	461.5	436.2	2118	2144	210.36	399.98	607.84	2589
414.00	464.1	438.8	2120	2146	209.30	398.33	605.71	2589
416.00	466.7	441.4	2122	2149	208.25	396.69	603.59	2589
418.00	469.3	444.0	2124	2151	207.21	395.07	601.49	2589
420.00	471.9	446.6	2127	2153	206.18	393.46	599.41	2589
422.00	474.5	449.2	2129	2155	205.16	391.87	597.34	2589
424.00	477.1	451.8	2131	2158	204.15	390.29	595.29	2589
426.00	479.7	454.4	2133	2160	203.15	388.72	593.26	2589
428.00	482.2	456.9	2135	2162	202.16	387.16	591.24	2589
430.00	484.8	459.5	2137	2164	201.18	385.62	589.23	2589

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	487.4	462.1	2139	2166	200.20	384.09	587.24	2589
434.00	490.0	464.7	2142	2169	199.24	382.57	585.27	2589
436.00	492.6	467.3	2144	2171	198.29	381.07	583.31	2589
438.00	495.2	469.9	2146	2173	197.34	379.57	581.36	2589
440.00	497.8	472.5	2148	2175	196.40	378.09	579.43	2589
442.00	500.4	475.1	2150	2177	195.48	376.62	577.52	2589
444.00	503.0	477.7	2152	2179	194.56	375.16	575.61	2589
446.00	505.5	480.2	2154	2181	193.64	373.72	573.72	2589
448.00	508.1	482.8	2156	2183	192.74	372.28	571.85	2589
450.00	510.7	485.4	2157	2185	191.85	370.85	569.98	2589
452.00	513.3	488.0	2159	2187	190.96	369.44	568.14	2589
454.00	515.9	490.6	2161	2189	190.08	368.04	566.30	2589
456.00	518.5	493.2	2163	2191	189.21	366.64	564.47	2589
458.00	521.1	495.8	2165	2193	188.34	365.26	562.66	2589
460.00	523.7	498.4	2167	2195	187.49	363.89	560.87	2589
462.00	526.3	501.0	2169	2196	186.64	362.53	559.08	2589
464.00	528.9	503.6	2170	2198	185.80	361.18	557.30	2589
466.00	531.4	506.1	2172	2200	184.96	359.83	555.54	2589
468.00	534.0	508.7	2174	2202	184.14	358.50	553.79	2589
470.00	536.6	511.3	2176	2204	183.32	357.18	552.05	2581
472.00	539.2	513.9	2178	2205	182.51	355.88	550.34	2573
474.00	541.8	516.5	2179	2207	181.71	354.60	548.65	2573
476.00	544.3	519.0	2181	2209	180.93	353.32	546.98	2573
478.00	546.9	521.6	2183	2210	180.15	352.06	545.31	2573

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	549.5	524.2	2184	2212	179.37	350.80	543.66	2573
482.00	552.1	526.8	2186	2214	178.60	349.55	542.01	2573
484.00	554.6	529.3	2187	2215	177.84	348.32	540.38	2573
486.00	557.2	531.9	2189	2217	177.08	347.09	538.76	2573
488.00	559.8	534.5	2191	2218	176.33	345.87	537.14	2573
490.00	562.4	537.1	2192	2220	175.59	344.65	535.54	2573
492.00	564.9	539.6	2194	2222	174.85	343.45	533.95	2573
494.00	567.5	542.2	2195	2223	174.12	342.25	532.36	2573
496.00	570.1	544.8	2197	2225	173.39	341.06	530.79	2573
498.00	572.6	547.3	2198	2226	172.67	339.88	529.22	2573
500.00	575.2	549.9	2200	2228	171.96	338.71	527.67	2573
502.00	577.8	552.5	2201	2229	171.25	337.54	526.12	2573
504.00	580.4	555.1	2203	2231	170.54	336.39	524.59	2573
506.00	582.9	557.6	2204	2232	169.85	335.24	523.06	2573
508.00	585.5	560.2	2206	2233	169.15	334.10	521.54	2573
510.00	588.1	562.8	2207	2235	168.46	332.96	520.03	2573
512.00	590.7	565.4	2208	2236	167.78	331.83	518.53	2573
514.00	593.2	567.9	2210	2238	167.11	330.71	517.03	2573
516.00	595.8	570.5	2211	2239	166.43	329.60	515.55	2573
518.00	598.4	573.1	2213	2240	165.77	328.50	514.08	2573
520.00	600.9	575.6	2214	2242	165.11	327.40	512.61	2573
522.00	603.5	578.2	2215	2243	164.45	326.31	511.15	2573
524.00	606.1	580.8	2217	2245	163.80	325.22	509.70	2573
526.00	608.7	583.4	2218	2246	163.15	324.14	508.26	2573

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528.00	611.2	585.9	2219	2247	162.51	323.07	506.82	2573
530.00	613.8	588.5	2221	2249	161.87	322.01	505.40	2573
532.00	616.4	591.1	2222	2250	161.24	320.95	503.98	2573
534.00	619.0	593.7	2223	2251	160.61	319.90	502.57	2573
536.00	621.5	596.2	2225	2252	159.99	318.86	501.17	2573
538.00	624.1	598.8	2226	2254	159.37	317.82	499.77	2573
540.00	626.7	601.4	2227	2255	158.76	316.79	498.39	2573
542.00	629.2	603.9	2229	2256	158.15	315.76	497.01	2573
544.00	631.8	606.5	2230	2257	157.54	314.75	495.63	2573
546.00	634.4	609.1	2231	2259	156.94	313.73	494.27	2573
548.00	637.0	611.7	2232	2260	156.35	312.73	492.91	2579
550.00	639.5	614.2	2234	2261	155.75	311.72	491.55	2582
552.00	642.1	616.8	2235	2262	155.16	310.72	490.20	2582
554.00	644.7	619.4	2236	2264	154.57	309.72	488.85	2582
556.00	647.3	622.0	2237	2265	153.99	308.73	487.51	2582
558.00	649.9	624.6	2239	2266	153.41	307.75	486.18	2582
560.00	652.5	627.2	2240	2267	152.83	306.77	484.85	2582
562.00	655.0	629.7	2241	2269	152.26	305.79	483.53	2582
564.00	657.6	632.3	2242	2270	151.69	304.83	482.22	2582
566.00	660.2	634.9	2243	2271	151.13	303.87	480.91	2582
568.00	662.8	637.5	2245	2272	150.57	302.91	479.61	2582
570.00	665.4	640.1	2246	2273	150.01	301.96	478.32	2582
572.00	668.0	642.7	2247	2274	149.46	301.02	477.03	2582
574.00	670.5	645.2	2248	2276	148.91	300.08	475.76	2582

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	673.1	647.8	2249	2277	148.37	299.15	474.48	2582
578.00	675.7	650.4	2251	2278	147.83	298.22	473.22	2582
580.00	678.3	653.0	2252	2279	147.29	297.30	471.96	2582
582.00	680.9	655.6	2253	2280	146.76	296.38	470.71	2582
584.00	683.4	658.1	2254	2281	146.23	295.47	469.46	2582
586.00	686.0	660.7	2255	2282	145.71	294.56	468.22	2639
588.00	688.7	663.4	2256	2284	145.16	293.61	466.92	2800
590.00	691.5	666.2	2258	2285	144.54	292.53	465.41	2800
592.00	694.3	669.0	2260	2287	143.93	291.46	463.92	2800
594.00	697.1	671.8	2262	2289	143.32	290.39	462.44	2800
596.00	699.9	674.6	2264	2291	142.72	289.33	460.96	2800
598.00	702.7	677.4	2265	2293	142.12	288.28	459.50	2800
600.00	705.5	680.2	2267	2295	141.53	287.24	458.04	2800
602.00	708.3	683.0	2269	2297	140.94	286.20	456.60	2800
604.00	711.1	685.8	2271	2299	140.36	285.17	455.16	2800
606.00	713.9	688.6	2272	2301	139.78	284.15	453.73	2800
608.00	716.7	691.4	2274	2302	139.20	283.14	452.32	2800
610.00	719.5	694.2	2276	2304	138.64	282.13	450.91	2800
612.00	722.3	697.0	2278	2306	138.07	281.13	449.50	2800
614.00	725.1	699.8	2279	2308	137.51	280.14	448.11	2800
616.00	727.9	702.6	2281	2309	136.95	279.15	446.73	2800
618.00	730.7	705.4	2283	2311	136.40	278.17	445.35	2800
620.00	733.5	708.2	2284	2313	135.86	277.20	443.99	2800
622.00	736.3	711.0	2286	2315	135.31	276.23	442.63	2800

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	739.0	713.7	2287	2316	134.81	275.34	441.39	2707
626.00	741.5	716.2	2288	2317	134.37	274.56	440.30	2571
628.00	744.1	718.8	2289	2318	133.92	273.78	439.22	2571
630.00	746.7	721.4	2290	2319	133.48	273.00	438.14	2571
632.00	749.3	724.0	2291	2319	133.05	272.23	437.07	2571
634.00	751.8	726.5	2292	2320	132.61	271.46	436.00	2571
636.00	754.4	729.1	2293	2321	132.18	270.70	434.94	2571
638.00	757.0	731.7	2294	2322	131.75	269.94	433.88	2571
640.00	759.5	734.2	2295	2323	131.32	269.19	432.83	2571
642.00	762.1	736.8	2295	2324	130.90	268.43	431.78	2571
644.00	764.7	739.4	2296	2324	130.48	267.69	430.74	2571
646.00	767.3	742.0	2297	2325	130.06	266.94	429.70	2571
648.00	769.8	744.5	2298	2326	129.64	266.20	428.67	2571
650.00	772.4	747.1	2299	2327	129.23	265.47	427.64	2571
652.00	775.0	749.7	2300	2328	128.82	264.73	426.61	2571
654.00	777.5	752.2	2300	2328	128.41	264.00	425.59	2571
656.00	780.1	754.8	2301	2329	128.00	263.28	424.58	2571
658.00	782.7	757.4	2302	2330	127.60	262.56	423.57	2571
660.00	785.3	760.0	2303	2331	127.20	261.84	422.56	2571
662.00	787.8	762.5	2304	2331	126.80	261.13	421.56	2571
664.00	790.2	764.9	2304	2332	126.46	260.52	420.71	2407
666.00	792.6	767.3	2304	2332	126.12	259.91	419.88	2402
668.00	795.0	769.7	2305	2332	125.78	259.31	419.04	2402
670.00	797.4	772.1	2305	2332	125.44	258.71	418.21	2402

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
672.00	799.8	774.5	2305	2333	125.11	258.12	417.38	2402
674.00	802.2	776.9	2305	2333	124.77	257.52	416.56	2402
676.00	804.6	779.3	2306	2333	124.44	256.93	415.74	2402
678.00	807.0	781.7	2306	2333	124.11	256.34	414.92	2402
680.00	809.4	784.1	2306	2333	123.78	255.76	414.10	2402
682.00	811.9	786.6	2307	2334	123.45	255.17	413.29	2402
684.00	814.3	789.0	2307	2334	123.13	254.59	412.47	2402
686.00	816.7	791.4	2307	2334	122.80	254.01	411.67	2402
688.00	819.1	793.8	2307	2334	122.48	253.44	410.86	2402
690.00	821.9	796.6	2309	2336	122.03	252.61	409.68	2813
692.00	824.9	799.6	2311	2338	121.51	251.64	408.26	3041
694.00	828.0	802.7	2313	2340	120.99	250.67	406.86	3041
696.00	831.0	805.7	2315	2343	120.47	249.71	405.47	3041
698.00	834.0	808.7	2317	2345	119.96	248.76	404.09	3041
700.00	837.1	811.8	2319	2347	119.45	247.82	402.71	3041
702.00	840.1	814.8	2321	2350	118.94	246.88	401.35	3041
704.00	843.2	817.9	2323	2352	118.44	245.95	399.99	3041
706.00	846.2	820.9	2325	2354	117.95	245.03	398.65	3041
708.00	849.2	823.9	2328	2356	117.46	244.11	397.31	3041
710.00	852.3	827.0	2330	2358	116.97	243.20	395.98	3041
712.00	855.3	830.0	2332	2361	116.48	242.30	394.67	3041
714.00	858.4	833.1	2334	2363	116.00	241.40	393.36	3041
716.00	861.4	836.1	2335	2365	115.53	240.51	392.05	3041
718.00	864.4	839.1	2337	2367	115.06	239.63	390.76	3041

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	867.5	842.2	2339	2369	114.59	238.75	389.48	3041
722.00	870.4	845.1	2341	2371	114.15	237.94	388.30	2942
724.00	873.0	847.7	2342	2372	113.83	237.35	387.45	2560
726.00	875.6	850.3	2342	2372	113.51	236.76	386.61	2560
728.00	878.1	852.8	2343	2373	113.20	236.18	385.77	2560
730.00	880.7	855.4	2343	2373	112.88	235.60	384.94	2560
732.00	883.2	857.9	2344	2374	112.57	235.02	384.10	2560
734.00	885.8	860.5	2345	2374	112.25	234.44	383.28	2560
736.00	888.4	863.1	2345	2375	111.94	233.87	382.45	2560
738.00	890.9	865.6	2346	2375	111.63	233.30	381.63	2560
740.00	893.5	868.2	2346	2376	111.32	232.73	380.81	2560
742.00	896.0	870.7	2347	2376	111.02	232.16	380.00	2560
744.00	898.6	873.3	2348	2377	110.71	231.60	379.18	2560
746.00	901.2	875.9	2348	2377	110.41	231.03	378.37	2560
748.00	903.7	878.4	2349	2378	110.11	230.48	377.57	2560
750.00	906.3	881.0	2349	2378	109.81	229.92	376.76	2560
752.00	908.8	883.5	2350	2379	109.51	229.37	375.96	2560
754.00	911.4	886.1	2350	2379	109.22	228.81	375.17	2560
756.00	914.0	888.7	2351	2380	108.92	228.27	374.37	2560
758.00	916.5	891.2	2351	2380	108.63	227.72	373.58	2560
760.00	919.1	893.8	2352	2381	108.34	227.18	372.80	2560
762.00	921.8	896.5	2353	2382	108.00	226.54	371.86	2759
764.00	924.7	899.4	2354	2383	107.63	225.85	370.85	2852
766.00	927.5	902.2	2356	2385	107.27	225.17	369.85	2852

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	930.4	905.1	2357	2386	106.92	224.49	368.85	2852
770.00	933.2	907.9	2358	2387	106.56	223.82	367.86	2852
772.00	936.1	910.8	2360	2389	106.21	223.15	366.88	2852
774.00	938.9	913.6	2361	2390	105.86	222.49	365.89	2852
776.00	941.8	916.5	2362	2391	105.51	221.83	364.92	2852
778.00	944.6	919.3	2363	2393	105.16	221.17	363.95	2852
780.00	947.5	922.2	2365	2394	104.82	220.51	362.98	2825
782.00	950.3	925.0	2366	2395	104.48	219.88	362.04	2825
784.00	953.0	927.7	2367	2396	104.19	219.32	361.22	2675
786.00	955.7	930.4	2367	2397	103.89	218.76	360.40	2675
788.00	958.3	933.0	2368	2397	103.60	218.20	359.58	2675
790.00	961.0	935.7	2369	2398	103.30	217.65	358.77	2675
792.00	963.7	938.4	2370	2399	103.01	217.10	357.96	2675
794.00	966.4	941.1	2370	2400	102.72	216.55	357.15	2675
796.00	969.0	943.7	2371	2400	102.44	216.00	356.35	2675
798.00	971.7	946.4	2372	2401	102.15	215.46	355.55	2675
800.00	974.4	949.1	2373	2402	101.87	214.92	354.75	2675
802.00	977.1	951.8	2373	2402	101.58	214.38	353.96	2675
804.00	979.7	954.4	2374	2403	101.30	213.85	353.17	2675
806.00	982.5	957.2	2375	2404	100.99	213.26	352.30	2796
808.00	985.3	960.0	2376	2405	100.69	212.67	351.42	2805
810.00	988.2	962.9	2377	2406	100.38	212.09	350.55	2805
812.00	991.0	965.7	2378	2407	100.08	211.51	349.69	2805
814.00	993.8	968.5	2380	2408	99.78	210.93	348.83	2805

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	996.6	971.3	2381	2410	99.48	210.35	347.97	2805
818.00	999.4	974.1	2382	2411	99.18	209.78	347.11	2805
820.00	1002.2	976.9	2383	2412	98.88	209.21	346.27	2805
822.00	1005.0	979.7	2384	2413	98.59	208.64	345.42	2805
824.00	1007.8	982.5	2385	2414	98.29	208.08	344.58	2805
826.00	1010.6	985.3	2386	2415	98.00	207.52	343.74	2805
828.00	1013.4	988.1	2387	2416	97.71	206.96	342.91	2805
830.00	1016.2	990.9	2388	2417	97.42	206.41	342.08	2805
832.00	1019.0	993.7	2389	2418	97.14	205.85	341.25	2805
834.00	1021.8	996.5	2390	2419	96.85	205.30	340.43	2805
836.00	1024.6	999.3	2391	2420	96.57	204.76	339.61	2805
838.00	1027.4	1002.1	2392	2421	96.29	204.21	338.79	2805
840.00	1030.2	1004.9	2393	2422	96.01	203.68	337.99	2795
842.00	1032.9	1007.6	2393	2422	95.75	203.17	337.24	2714
844.00	1035.6	1010.3	2394	2423	95.49	202.68	336.50	2714
846.00	1038.4	1013.1	2395	2424	95.23	202.18	335.75	2714
848.00	1041.1	1015.8	2396	2425	94.98	201.68	335.01	2714
850.00	1043.8	1018.5	2396	2425	94.72	201.19	334.28	2714
852.00	1046.5	1021.2	2397	2426	94.47	200.70	333.54	2714
854.00	1049.2	1023.9	2398	2427	94.22	200.22	332.81	2714
856.00	1051.9	1026.6	2399	2427	93.97	199.73	332.09	2714
858.00	1054.6	1029.3	2399	2428	93.72	199.25	331.36	2714
860.00	1057.4	1032.1	2400	2429	93.47	198.77	330.64	2714
862.00	1060.1	1034.8	2401	2430	93.22	198.29	329.92	2714

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	1062.8	1037.5	2402	2430	92.98	197.81	329.21	2714
866.00	1065.5	1040.2	2402	2431	92.73	197.34	328.49	2714
868.00	1068.2	1042.9	2403	2432	92.49	196.87	327.78	2714
870.00	1070.9	1045.6	2404	2432	92.25	196.40	327.08	2714
872.00	1073.6	1048.3	2404	2433	92.01	195.93	326.37	2714
874.00	1076.4	1051.1	2405	2434	91.77	195.46	325.67	2714
876.00	1079.1	1053.8	2406	2434	91.53	195.00	324.97	2811
878.00	1081.9	1056.6	2407	2435	91.28	194.50	324.22	2854
880.00	1084.7	1059.4	2408	2436	91.01	193.99	323.44	2854
882.00	1087.6	1062.3	2409	2437	90.75	193.48	322.67	2854
884.00	1090.4	1065.1	2410	2438	90.50	192.97	321.90	2854
886.00	1093.3	1068.0	2411	2439	90.24	192.47	321.14	2854
888.00	1096.1	1070.8	2412	2440	89.98	191.97	320.37	2854
890.00	1099.0	1073.7	2413	2441	89.73	191.47	319.62	2854
892.00	1101.9	1076.6	2414	2442	89.48	190.97	318.86	2854
894.00	1104.7	1079.4	2415	2443	89.22	190.48	318.11	2854
896.00	1107.6	1082.3	2416	2444	88.97	189.99	317.36	2854
898.00	1110.4	1085.1	2417	2445	88.72	189.50	316.62	2854
900.00	1113.3	1088.0	2418	2446	88.48	189.01	315.87	2854
902.00	1116.1	1090.8	2419	2447	88.23	188.53	315.14	2854
904.00	1119.0	1093.7	2420	2448	87.99	188.05	314.40	2854
906.00	1121.8	1096.5	2421	2449	87.74	187.57	313.67	2854
908.00	1124.7	1099.4	2422	2450	87.50	187.09	312.94	2854
910.00	1127.5	1102.2	2423	2451	87.26	186.61	312.22	2854

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	1130.4	1105.1	2423	2452	87.02	186.14	311.49	2854
914.00	1133.2	1107.9	2424	2453	86.78	185.67	310.77	2854
916.00	1136.1	1110.8	2425	2454	86.55	185.20	310.06	2854
918.00	1139.0	1113.7	2426	2455	86.31	184.74	309.35	2854
920.00	1141.8	1116.5	2427	2456	86.07	184.27	308.64	2854
922.00	1144.7	1119.4	2428	2457	85.84	183.81	307.93	2854
924.00	1147.5	1122.2	2429	2458	85.61	183.35	307.23	2854
926.00	1150.4	1125.1	2430	2459	85.38	182.90	306.53	2854
928.00	1153.2	1127.9	2431	2460	85.15	182.44	305.83	2854
930.00	1156.1	1130.8	2432	2461	84.92	181.99	305.13	2854
932.00	1158.9	1133.6	2433	2462	84.69	181.54	304.44	2854
934.00	1161.8	1136.5	2434	2462	84.47	181.09	303.76	2854
936.00	1164.6	1139.3	2434	2463	84.24	180.64	303.07	2854
938.00	1167.5	1142.2	2435	2464	84.02	180.20	302.39	2854
940.00	1170.4	1145.1	2436	2465	83.80	179.76	301.71	2854
942.00	1173.2	1147.9	2437	2466	83.58	179.32	301.03	2854
944.00	1176.1	1150.8	2438	2467	83.36	178.88	300.36	2854
946.00	1178.9	1153.6	2439	2468	83.14	178.45	299.69	2854
948.00	1181.6	1156.3	2440	2468	82.94	178.05	299.08	2729
950.00	1184.3	1159.0	2440	2469	82.75	177.68	298.51	2664
952.00	1187.0	1161.7	2440	2469	82.56	177.31	297.94	2664
954.00	1189.6	1164.3	2441	2470	82.38	176.94	297.38	2664
956.00	1192.3	1167.0	2441	2470	82.19	176.57	296.81	2664
958.00	1195.0	1169.7	2442	2470	82.00	176.20	296.25	2664

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	1197.6	1172.3	2442	2471	81.82	175.84	295.69	2664
962.00	1200.4	1175.1	2443	2472	81.62	175.45	295.09	2757
964.00	1203.9	1178.6	2445	2474	81.30	174.80	294.07	3509
966.00	1207.4	1182.1	2447	2477	80.98	174.16	293.06	3509
968.00	1210.9	1185.6	2450	2479	80.67	173.52	292.06	3268
970.00	1214.2	1188.9	2451	2481	80.40	172.97	291.21	2932
972.00	1217.1	1191.8	2452	2482	80.18	172.54	290.54	2939
974.00	1220.0	1194.7	2453	2483	79.97	172.11	289.87	3106
976.00	1223.2	1197.9	2455	2485	79.73	171.62	289.11	2941
978.00	1226.1	1200.8	2456	2486	79.51	171.19	288.44	3038
980.00	1229.1	1203.8	2457	2487	79.29	170.74	287.73	3081
982.00	1232.2	1206.9	2458	2488	79.05	170.27	287.00	2976
984.00	1235.2	1209.9	2459	2489	78.84	169.84	286.33	3259
986.00	1238.5	1213.2	2461	2491	78.58	169.31	285.51	3801
988.00	1242.3	1217.0	2463	2495	78.23	168.60	284.38	3366
990.00	1245.6	1220.3	2465	2497	77.96	168.05	283.52	3075
992.00	1248.7	1223.4	2467	2498	77.74	167.60	282.81	2977
994.00	1251.7	1226.4	2468	2499	77.53	167.18	282.16	2984
996.00	1254.7	1229.4	2469	2500	77.32	166.76	281.50	2908
998.00	1257.6	1232.3	2469	2501	77.12	166.37	280.88	2901
1000.00	1260.5	1235.2	2470	2502	76.93	165.97	280.27	3109
1002.00	1263.6	1238.3	2472	2503	76.71	165.52	279.57	3155
1004.00	1266.7	1241.4	2473	2505	76.48	165.06	278.84	3547
1006.00	1270.3	1245.0	2475	2507	76.19	164.47	277.91	

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	1273.3	1248.0	2476	2508	75.98	164.05	277.25	3023
1010.00	1276.2	1250.9	2477	2509	75.79	163.66	276.64	2945
1012.00	1279.0	1253.7	2478	2510	75.61	163.31	276.09	2800
1014.00	1282.0	1256.7	2479	2511	75.42	162.93	275.49	2909
1016.00	1285.0	1259.7	2480	2512	75.22	162.52	274.86	3012
1018.00	1288.2	1262.9	2481	2513	75.00	162.06	274.13	3202
1020.00	1291.6	1266.3	2483	2515	74.74	161.54	273.30	3416
1022.00	1294.7	1269.4	2484	2517	74.53	161.11	272.62	3113
1024.00	1298.3	1273.0	2486	2519	74.25	160.54	271.73	3565
1026.00	1301.4	1276.1	2487	2520	74.04	160.12	271.06	3115
1028.00	1304.5	1279.2	2489	2522	73.84	159.70	270.40	3099
1030.00	1307.6	1282.3	2490	2523	73.63	159.27	269.72	3155
1032.00	1310.7	1285.4	2491	2524	73.43	158.86	269.08	3056
1034.00	1313.6	1288.3	2492	2525	73.25	158.50	268.51	2919
1036.00	1316.5	1291.2	2493	2526	73.07	158.14	267.95	2919
1038.00	1320.2	1294.9	2495	2529	72.79	157.56	267.03	3663
1040.00	1323.1	1297.8	2496	2529	72.61	157.20	266.46	2925
1042.00	1326.2	1300.9	2497	2531	72.42	156.81	265.83	3083
1044.00	1329.3	1304.0	2498	2532	72.22	156.41	265.20	3089
1046.00	1332.2	1306.9	2499	2532	72.05	156.06	264.65	2917
1048.00	1335.2	1309.9	2500	2534	71.86	155.67	264.05	3037
1050.00	1338.3	1313.0	2501	2535	71.67	155.28	263.42	3096
1052.00	1341.3	1316.0	2502	2536	71.49	154.91	262.85	2988
1054.00	1344.2	1318.9	2503	2536	71.33	154.58	262.32	2876

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	1347.1	1321.8	2503	2537	71.16	154.24	261.78	2911
1058.00	1350.0	1324.7	2504	2538	70.99	153.89	261.23	2941
1060.00	1353.0	1327.7	2505	2539	70.82	153.55	260.69	2927
1062.00	1356.0	1330.7	2506	2540	70.64	153.19	260.12	3003
1064.00	1358.9	1333.6	2507	2541	70.47	152.84	259.56	2966
1066.00	1362.0	1336.7	2508	2542	70.29	152.47	258.98	3055
1068.00	1364.9	1339.6	2509	2542	70.13	152.14	258.47	2870
1070.00	1368.1	1342.8	2510	2544	69.93	151.73	257.82	3215
1072.00	1371.1	1345.8	2511	2545	69.76	151.38	257.26	2994
1074.00	1374.1	1348.8	2512	2546	69.59	151.03	256.71	2998
1076.00	1377.0	1351.7	2512	2546	69.43	150.71	256.20	2891
1078.00	1379.9	1354.6	2513	2547	69.27	150.37	255.66	2962
1080.00	1382.9	1357.6	2514	2548	69.11	150.04	255.13	2950
1082.00	1386.2	1360.9	2516	2550	68.90	149.62	254.45	3317
1084.00	1389.3	1364.0	2517	2551	68.72	149.24	253.86	3127
1086.00	1392.3	1367.0	2518	2552	68.55	148.91	253.32	2986
1088.00	1395.3	1370.0	2518	2552	68.39	148.58	252.80	2954
1090.00	1398.2	1372.9	2519	2553	68.24	148.26	252.30	2918
1092.00	1401.2	1375.9	2520	2554	68.07	147.91	251.74	3053
1094.00	1404.2	1378.9	2521	2555	67.91	147.58	251.22	2985
1096.00	1407.3	1382.0	2522	2556	67.74	147.23	250.66	3066
1098.00	1410.3	1385.0	2523	2557	67.58	146.90	250.13	3012
1100.00	1413.2	1387.9	2524	2558	67.42	146.58	249.63	2941
1102.00	1416.3	1391.0	2524	2559	67.26	146.25	249.09	3019

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	1419.6	1394.3	2526	2560	67.06	145.84	248.44	3335
1106.00	1422.5	1397.2	2527	2561	66.91	145.53	247.95	2910
1108.00	1425.4	1400.1	2527	2561	66.77	145.23	247.47	2903
1110.00	1428.4	1403.1	2528	2562	66.61	144.91	246.96	3004
1112.00	1431.4	1406.1	2529	2563	66.45	144.58	246.44	3021
1114.00	1434.5	1409.2	2530	2564	66.29	144.25	245.91	3044
1116.00	1437.4	1412.1	2531	2565	66.14	143.94	245.42	2957
1118.00	1440.3	1415.0	2531	2566	66.00	143.65	244.96	2866
1120.00	1443.2	1417.9	2532	2566	65.86	143.36	244.49	2879
1122.00	1445.9	1420.6	2532	2566	65.73	143.10	244.08	2747
1124.00	1448.7	1423.4	2533	2567	65.60	142.84	243.66	2760
1126.00	1451.4	1426.1	2533	2567	65.48	142.59	243.26	2703
1128.00	1454.3	1429.0	2534	2568	65.34	142.29	242.78	2945
1130.00	1457.2	1431.9	2534	2568	65.20	142.00	242.33	2871
1132.00	1460.0	1434.7	2535	2569	65.07	141.73	241.90	2809
1134.00	1462.8	1437.5	2535	2569	64.94	141.48	241.49	2752
1136.00	1465.6	1440.3	2536	2570	64.81	141.20	241.06	2841
1138.00	1468.5	1443.2	2536	2570	64.67	140.91	240.59	2932
1140.00	1471.3	1446.0	2537	2571	64.54	140.65	240.18	2778
1142.00	1474.1	1448.8	2537	2571	64.41	140.39	239.75	2810
1144.00	1477.1	1451.8	2538	2572	64.27	140.10	239.28	2957
1146.00	1480.0	1454.7	2539	2573	64.13	139.81	238.82	2940
1148.00	1482.8	1457.5	2539	2573	64.00	139.54	238.40	2823
1150.00	1485.7	1460.4	2540	2574	63.87	139.27	237.97	2858

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	1488.7	1463.4	2541	2574	63.73	138.98	237.49	2996
1154.00	1491.7	1466.4	2541	2575	63.59	138.68	237.02	2982
1156.00	1494.7	1469.4	2542	2576	63.44	138.38	236.53	3037
1158.00	1497.8	1472.5	2543	2577	63.30	138.08	236.04	3052
1160.00	1500.8	1475.5	2544	2578	63.15	137.78	235.57	3022
1162.00	1503.6	1478.3	2544	2578	63.03	137.52	235.15	2849
1164.00	1506.6	1481.3	2545	2579	62.89	137.23	234.68	3001
1166.00	1509.5	1484.2	2546	2580	62.76	136.96	234.25	2896
1168.00	1512.5	1487.2	2547	2580	62.62	136.67	233.79	2985
1170.00	1515.5	1490.2	2547	2581	62.48	136.39	233.34	2975
1172.00	1518.5	1493.2	2548	2582	62.35	136.10	232.88	2997
1174.00	1521.4	1496.1	2549	2582	62.21	135.83	232.44	2942
1176.00	1524.5	1499.2	2550	2583	62.07	135.54	231.97	3035
1178.00	1527.5	1502.2	2550	2584	61.93	135.25	231.50	3049
1180.00	1530.5	1505.2	2551	2585	61.80	134.98	231.06	2941
1182.00	1533.4	1508.1	2552	2585	61.68	134.72	230.65	2889
1184.00	1536.5	1511.2	2553	2586	61.53	134.40	230.14	3185
1186.00	1539.5	1514.2	2553	2587	61.40	134.14	229.71	2922
1188.00	1542.4	1517.1	2554	2588	61.27	133.87	229.28	2977
1190.00	1545.3	1520.0	2555	2588	61.15	133.61	228.86	2898
1192.00	1548.2	1522.9	2555	2589	61.02	133.36	228.45	2900
1194.00	1551.3	1526.0	2556	2590	60.88	133.06	227.97	3113
1196.00	1554.6	1529.3	2557	2591	60.73	132.75	227.47	3208
1198.00	1557.7	1532.4	2558	2592	60.59	132.45	226.98	3161

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	1560.7	1535.4	2559	2593	60.46	132.18	226.55	2971
1202.00	1563.6	1538.3	2559	2593	60.34	131.94	226.15	2869
1204.00	1566.4	1541.1	2560	2594	60.23	131.70	225.77	2845
1206.00	1569.2	1543.9	2560	2594	60.11	131.46	225.39	2813
1208.00	1572.0	1546.7	2561	2594	60.00	131.23	225.02	2796
1210.00	1574.9	1549.6	2561	2595	59.89	130.99	224.63	2874
1212.00	1577.9	1552.6	2562	2596	59.76	130.73	224.21	2976
1214.00	1580.8	1555.5	2563	2596	59.64	130.48	223.80	2935
1216.00	1583.9	1558.6	2563	2597	59.51	130.20	223.35	3095
1218.00	1586.8	1561.5	2564	2598	59.39	129.95	222.95	2917
1220.00	1589.8	1564.5	2565	2598	59.27	129.70	222.54	2957
1222.00	1592.8	1567.5	2565	2599	59.14	129.44	222.12	3016
1224.00	1595.7	1570.4	2566	2600	59.02	129.19	221.71	2955
1226.00	1598.7	1573.4	2567	2600	58.90	128.93	221.30	2989
1228.00	1601.6	1576.3	2567	2601	58.79	128.69	220.91	2916
1230.00	1604.6	1579.3	2568	2601	58.67	128.45	220.51	2945
1232.00	1607.6	1582.3	2569	2602	58.55	128.19	220.09	3007
1234.00	1610.7	1585.4	2570	2603	58.41	127.91	219.64	3148
1236.00	1613.7	1588.4	2570	2604	58.29	127.66	219.23	2996
1238.00	1616.7	1591.4	2571	2604	58.17	127.41	218.83	2987
1240.00	1619.6	1594.3	2571	2605	58.06	127.18	218.45	2885
1242.00	1622.4	1597.1	2572	2605	57.96	126.96	218.09	2835
1244.00	1625.4	1600.1	2572	2606	57.84	126.72	217.70	2949
1246.00	1628.3	1603.0	2573	2606	57.74	126.49	217.34	2864

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	1631.1	1605.8	2573	2607	57.63	126.28	216.98	2831
1250.00	1633.9	1608.6	2574	2607	57.53	126.06	216.64	2802
1252.00	1636.7	1611.4	2574	2607	57.43	125.85	216.29	2811
1254.00	1639.6	1614.3	2575	2608	57.32	125.62	215.92	2895
1256.00	1642.5	1617.2	2575	2608	57.21	125.40	215.56	2868
1258.00	1645.3	1620.0	2575	2609	57.11	125.19	215.22	2792
1260.00	1648.1	1622.8	2576	2609	57.01	124.97	214.87	2867
1262.00	1650.9	1625.6	2576	2609	56.91	124.77	214.54	2766
1264.00	1653.8	1628.5	2577	2610	56.81	124.55	214.18	2860
1266.00	1656.7	1631.4	2577	2610	56.70	124.32	213.81	2938
1268.00	1659.6	1634.3	2578	2611	56.59	124.09	213.44	2932
1270.00	1662.4	1637.1	2578	2611	56.49	123.88	213.10	2823
1272.00	1665.2	1639.9	2578	2611	56.39	123.68	212.77	2782
1274.00	1668.0	1642.7	2579	2612	56.29	123.48	212.44	2789
1276.00	1670.8	1645.5	2579	2612	56.20	123.27	212.11	2791
1278.00	1673.6	1648.3	2579	2612	56.10	123.07	211.78	2781
1280.00	1676.7	1651.4	2580	2613	55.98	122.82	211.37	3114
1282.00	1679.8	1654.5	2581	2614	55.87	122.58	210.97	3067
1284.00	1682.8	1657.5	2582	2615	55.75	122.33	210.58	3066
1286.00	1685.9	1660.6	2583	2615	55.64	122.09	210.18	3059
1288.00	1688.9	1663.6	2583	2616	55.52	121.85	209.79	3051
1290.00	1692.0	1666.7	2584	2617	55.41	121.62	209.41	3018
1292.00	1694.9	1669.6	2584	2617	55.31	121.41	209.06	2918
1294.00	1698.0	1672.7	2585	2618	55.19	121.16	208.65	3145

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	1701.5	1676.2	2587	2620	55.05	120.85	208.14	3476
1298.00	1705.0	1679.7	2588	2621	54.90	120.53	207.62	3533
1300.00	1708.0	1682.7	2589	2622	54.79	120.32	207.27	2938
1302.00	1710.9	1685.6	2589	2622	54.70	120.11	206.94	2882
1304.00	1713.8	1688.5	2590	2623	54.59	119.89	206.58	2957
1306.00	1717.3	1692.0	2591	2624	54.45	119.60	206.09	3449
1308.00	1720.5	1695.2	2592	2625	54.33	119.34	205.67	3244
1310.00	1724.0	1698.7	2593	2627	54.19	119.04	205.18	3450
1312.00	1727.3	1702.0	2595	2628	54.06	118.77	204.73	3360
1314.00	1730.8	1705.5	2596	2630	53.92	118.48	204.25	3457
1316.00	1734.2	1708.9	2597	2631	53.79	118.19	203.77	3444
1318.00	1737.3	1712.0	2598	2632	53.68	117.96	203.40	3067
1320.00	1740.1	1714.8	2598	2632	53.59	117.77	203.09	2831
1322.00	1743.0	1717.7	2599	2632	53.49	117.57	202.76	2915
1324.00	1746.0	1720.7	2599	2633	53.39	117.35	202.40	3014
1326.00	1748.9	1723.6	2600	2634	53.30	117.16	202.08	2888
1328.00	1751.8	1726.5	2600	2634	53.21	116.97	201.77	2835
1330.00	1754.9	1729.6	2601	2635	53.10	116.73	201.39	3134
1332.00	1758.0	1732.7	2602	2635	52.99	116.51	201.02	3072
1334.00	1761.0	1735.7	2602	2636	52.89	116.30	200.67	3046
1336.00	1764.1	1738.8	2603	2637	52.79	116.08	200.31	3064
1338.00	1767.1	1741.8	2604	2637	52.69	115.86	199.96	3043
1340.00	1770.2	1744.9	2604	2638	52.58	115.64	199.59	3110
1342.00	1773.8	1748.5	2606	2640	52.44	115.34	199.10	3576

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	1777.2	1751.9	2607	2641	52.32	115.08	198.66	3378
1346.00	1780.7	1755.4	2608	2643	52.18	114.80	198.19	3508
1348.00	1784.0	1758.7	2609	2644	52.07	114.55	197.78	3316
1350.00	1787.1	1761.8	2610	2644	51.97	114.33	197.43	3063
1352.00	1790.1	1764.8	2611	2645	51.87	114.13	197.10	2977
1354.00	1793.1	1767.8	2611	2646	51.77	113.93	196.76	3045
1356.00	1796.1	1770.8	2612	2646	51.68	113.72	196.42	3030
1358.00	1799.2	1773.9	2613	2647	51.58	113.51	196.07	3077
1360.00	1802.6	1777.3	2614	2648	51.46	113.26	195.66	3351
1362.00	1806.0	1780.7	2615	2649	51.34	113.00	195.23	3394
1364.00	1809.1	1783.8	2616	2650	51.23	112.78	194.86	3198
1366.00	1812.2	1786.9	2616	2651	51.14	112.57	194.52	3065
1368.00	1815.3	1790.0	2617	2651	51.04	112.36	194.17	3115
1370.00	1818.7	1793.4	2618	2653	50.92	112.12	193.77	3334
1372.00	1821.9	1796.6	2619	2654	50.81	111.89	193.39	3236
1374.00	1825.2	1799.9	2620	2655	50.71	111.66	193.01	3254
1376.00	1828.4	1803.1	2621	2655	50.60	111.43	192.64	3241
1378.00	1831.7	1806.4	2622	2657	50.49	111.19	192.24	3322
1380.00	1834.9	1809.6	2623	2657	50.38	110.97	191.88	3216
1382.00	1838.2	1812.9	2624	2659	50.27	110.74	191.49	3316
1384.00	1841.5	1816.2	2625	2659	50.17	110.52	191.12	3243
1386.00	1844.6	1819.3	2625	2660	50.08	110.32	190.79	3064

PE600531

This is an enclosure indicator page.
The enclosure PE600531 is enclosed within the
container PE900616 at this location in this
document.

The enclosure PE600531 has the following characteristics:

ITEM_BARCODE = PE600531
CONTAINER_BARCODE = PE900616
 NAME = Champion 1 Drift Corrected Sonic
 BASIN = Otway
 PERMIT = *
 TYPE = WELL
 SUBTYPE = WELL_LOG
DESCRIPTION = Champion 1 Drift Corrected Sonic
REMARKS =
DATE_CREATED = 8/17/95
DATE_RECEIVED = *
 W_NO = W1139
 WELL_NAME = Champion 1
 CONTRACTOR = Schlumberger
CLIENT_OP_CO = BHP

(Inserted by DNRE - Vic Govt Mines Dept)

PE600532

This is an enclosure indicator page.
The enclosure PE600532 is enclosed within the
container PE900616 at this location in this
document.

The enclosure PE600532 has the following characteristics:

ITEM_BARCODE = PE600532
CONTAINER_BARCODE = PE900616
 NAME = Champion 1 Seismic Calibration Log
 BASIN = Otway
 PERMIT = *
 TYPE = WELL
 SUBTYPE = VELOCITY_CHART
DESCRIPTION = Champion 1 Seismic Calibration Log
REMARKS =
DATE_CREATED = 8/17/95
DATE_RECEIVED = *
 W_NO = W1139
 WELL_NAME = Champion 1
 CONTRACTOR = Schlumberger
CLIENT_OP_CO = BHP

(Inserted by DNRE - Vic Govt Mines Dept)

PE600306

This is an enclosure indicator page.
The enclosure PE600306 is enclosure within the
container PE900616 at this location in this document.

The enclosure PE600306 has the following characteristics:

ITEM_BARCODE	=	PE600306
CONTAINER_BARCODE	=	PE900616
NAME	=	Champion 1 Geogram, 25Hz
BASIN	=	OTWAY
PERMIT	=	
TYPE	=	WELL
SUBTYPE	=	SYNTH_SEISMOGRAPH
DESCRIPTION	=	Champion 1 Geogram, 25Hz
DATE_CREATED	=	8/17/95
DATE_RECEIVED	=	
W_NO	=	
WELL_NAME	=	Champion 1
CONTRACTOR	=	Schlumberger
CLIENT_OP_CO	=	BHP

PE600307

This is an enclosure indicator page.
The enclosure PE600307 is enclosure within the
container PE900616 at this location in this document.

The enclosure PE600307 has the following characteristics:

ITEM_BARCODE	=	PE600307
CONTAINER_BARCODE	=	PE900616
NAME	=	Champion 1 Geogram, 3 5Hz
BASIN	=	OTWAY
PERMIT	=	
TYPE	=	WELL
SUBTYPE	=	SYNTH_SEISMOGRAPH
DESCRIPTION	=	Champion 1 Geogram, 3 5Hz
DATE_CREATED	=	8/17/95
DATE_RECEIVED	=	
W_NO	=	W1139
WELL_NAME	=	Champion 1
CONTRACTOR	=	Schlumberger
CLIENT_OP_CO	=	BHP

PE600308

This is an enclosure indicator page.
The enclosure PE600308 is enclosure within the
container PE900616 at this location in this document.

The enclosure PE600308 has the following characteristics:

ITEM_BARCODE	=	PE600308
CONTAINER_BARCODE	=	PE900616
NAME	=	Champion 1 Geogram, 4 5Hz
BASIN	=	OTWAY
PERMIT	=	
TYPE	=	WELL
SUBTYPE	=	SYNTH_SEISMOGRAPH
DESCRIPTION	=	Champion 1 Geogram, 4 5Hz
DATE_CREATED	=	8/17/95
DATE_RECEIVED	=	
W_NO	=	W1139
WELL_NAME	=	Champion 1
CONTRACTOR	=	Schlumberger
CLIENT_OP_CO	=	BHP

PE900617

This is an enclosure indicator page.
The enclosure PE900617 is enclosed within the
container PE900616 at this location in this
document.

The enclosure PE900617 has the following characteristics:

ITEM_BARCODE = PE900617
CONTAINER_BARCODE = PE900616
 NAME = Champion 1 Montage Line OH94-203
 (40cm/sec) Phase & Static Comparison
 BASIN = Otway
 PERMIT = *
 TYPE = WELL
 SUBTYPE = VELOCITY_CHART
 DESCRIPTION = Champion 1 Montage Line OH94-203
 (40cm/sec) Phase & Static Comparison
 REMARKS =
 DATE_CREATED = *
 DATE_RECEIVED = *
 W_NO = W1139
 WELL_NAME = Champion 1
 CONTRACTOR = *
 CLIENT_OP_CO = BHP

(Inserted by DNRE - Vic Govt Mines Dept)

PE900618

This is an enclosure indicator page.
The enclosure PE900618 is enclosed within the
container PE900616 at this location in this
document.

The enclosure PE900618 has the following characteristics:

ITEM_BARCODE = PE900618
CONTAINER_BARCODE = PE900616
 NAME = Champion 1 Montage Line OH94-203
 (20cm/sec) Phase & Static Comparison
 BASIN = Otway
 PERMIT = *
 TYPE = WELL
 SUBTYPE = VELOCITY_CHART
 DESCRIPTION = Champion 1 Montage Line OH94-203
 (20cm/sec) Phase & Static Comparison
 REMARKS =
 DATE_CREATED = *
 DATE_RECEIVED = *
 W_NO = W1139
 WELL_NAME = Champion 1
 CONTRACTOR = *
 CLIENT_OP_CO = BHP

(Inserted by DNRE - Vic Govt Mines Dept)

PE900619

This is an enclosure indicator page.
The enclosure PE900619 is enclosed within the
container PE900616 at this location in this
document.

The enclosure PE900619 has the following characteristics:

ITEM_BARCODE = PE900619
CONTAINER_BARCODE = PE900616
 NAME = Champion 1 Vertical Seismic Profile,
 Plot 1
 BASIN = Otway
 PERMIT = *
 TYPE = WELL
 SUBTYPE = VELOCITY_CHART
 DESCRIPTION = Champion 1 Vertical Seismic Profile,
 Plot 1
 REMARKS =
 DATE_CREATED = 8/17/95
 DATE_RECEIVED = *
 W_NO = W1139
 WELL_NAME = Champion 1
 CONTRACTOR = Schlumberger
 CLIENT_OP_CO = BHP

(Inserted by DNRE - Vic Govt Mines Dept)

PE900620

This is an enclosure indicator page.
The enclosure PE900620 is enclosed within the
container PE900616 at this location in this
document.

The enclosure PE900620 has the following characteristics:

ITEM_BARCODE = PE900620
CONTAINER_BARCODE = PE900616
 NAME = Champion 1 Vertical Seismic Profile,
 Plot 2
 BASIN = Otway
 PERMIT = *
 TYPE = WELL
 SUBTYPE = VELOCITY_CHART
 DESCRIPTION = Champion 1 Vertical Seismic Profile,
 Plot 2
 REMARKS =
 DATE_CREATED = 8/17/95
 DATE_RECEIVED = *
 W_NO = W1139
 WELL_NAME = Champion 1
 CONTRACTOR = Schlumberger
 CLIENT_OP_CO = BHP

(Inserted by DNRE - Vic Govt Mines Dept)

PE900621

This is an enclosure indicator page.
The enclosure PE900621 is enclosed within the
container PE900616 at this location in this
document.

The enclosure PE900621 has the following characteristics:

ITEM_BARCODE = PE900621
CONTAINER_BARCODE = PE900616
 NAME = Champion 1 Vertical Seismic Profile,
 Plot 3
 BASIN = Otway
 PERMIT = *
 TYPE = WELL
 SUBTYPE = VELOCITY_CHART
 DESCRIPTION = Champion 1 Vertical Seismic Profile,
 Plot 3
 REMARKS =
 DATE_CREATED = 8/17/95
 DATE_RECEIVED = *
 W_NO = W1139
 WELL_NAME = Champion 1
 CONTRACTOR = Schlumberger
 CLIENT_OP_CO = BHP

(Inserted by DNRE - Vic Govt Mines Dept)

PE900622

This is an enclosure indicator page.
The enclosure PE900622 is enclosed within the
container PE900616 at this location in this
document.

The enclosure PE900622 has the following characteristics:

ITEM_BARCODE = PE900622
CONTAINER_BARCODE = PE900616
 NAME = Champion 1 Vertical Seismic Profile,
 Plot 4
 BASIN = Otway
 PERMIT = *
 TYPE = WELL
 SUBTYPE = VELOCITY_CHART
 DESCRIPTION = Champion 1 Vertical Seismic Profile,
 Plot 4
 REMARKS =
 DATE_CREATED = 8/17/95
 DATE_RECEIVED = *
 W_NO = W1139
 WELL_NAME = Champion 1
 CONTRACTOR = Schlumberger
 CLIENT_OP_CO = BHP

(Inserted by DNRE - Vic Govt Mines Dept)

PE900623

This is an enclosure indicator page.
The enclosure PE900623 is enclosed within the
container PE900616 at this location in this
document.

The enclosure PE900623 has the following characteristics:

ITEM_BARCODE = PE900623
CONTAINER_BARCODE = PE900616
 NAME = Champion 1 Vertical Seismic Profile,
 Plot 5
 BASIN = Otway
 PERMIT = *
 TYPE = WELL
 SUBTYPE = VELOCITY_CHART
 DESCRIPTION = Champion 1 Vertical Seismic Profile,
 Plot 5
 REMARKS =
 DATE_CREATED = 8/17/95
 DATE_RECEIVED = *
 W_NO = W1139
 WELL_NAME = Champion 1
 CONTRACTOR = Schlumberger
 CLIENT_OP_CO = BHP

(Inserted by DNRE - Vic Govt Mines Dept)

PE900624

This is an enclosure indicator page.
The enclosure PE900624 is enclosed within the
container PE900616 at this location in this
document.

The enclosure PE900624 has the following characteristics:

ITEM_BARCODE = PE900624
CONTAINER_BARCODE = PE900616
 NAME = Champion 1 Vertical Seismic Profile,
 Plot 6
 BASIN = Otway
 PERMIT = *
 TYPE = WELL
 SUBTYPE = VELOCITY_CHART
 DESCRIPTION = Champion 1 Vertical Seismic Profile,
 Plot 6
 REMARKS =
 DATE_CREATED = 8/17/95
 DATE_RECEIVED = *
 W_NO = W1139
 WELL_NAME = Champion 1
 CONTRACTOR = Schlumberger
 CLIENT_OP_CO = BHP

(Inserted by DNRE - Vic Govt Mines Dept)

PE900625

This is an enclosure indicator page.
The enclosure PE900625 is enclosed within the
container PE900616 at this location in this
document.

The enclosure PE900625 has the following characteristics:

ITEM_BARCODE = PE900625
CONTAINER_BARCODE = PE900616
 NAME = Champion 1 Vertical Seismic Profile,
 Plot 7
 BASIN = Otway
 PERMIT = *
 TYPE = WELL
 SUBTYPE = VELOCITY_CHART
 DESCRIPTION = Champion 1 Vertical Seismic Profile,
 Plot 7
 REMARKS =
 DATE_CREATED = 8/17/95
 DATE_RECEIVED = *
 W_NO = W1139
 WELL_NAME = Champion 1
 CONTRACTOR = Schlumberger
 CLIENT_OP_CO = BHP

(Inserted by DNRE - Vic Govt Mines Dept)