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*PREMIER OIL AUSTRALASIA*  
**WELL SEISMIC PROCESSING REPORT**  
**VSP/GEOGRAM**

***YOLLA-2***

FIELD: YOLLA

COUNTRY: AUSTRALIA

COORDINATES: 039 51' 33.820" S  
: 145 48' 38.530" E

DATE OF VSP SURVEY: 17 May 1998

REFERENCE NO: AMF-561266/561267

INTERVAL: 3085 - 1325 M

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OR-0447A

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## 1. Introduction

One vertical seismic profile was recorded with a Combinable Seismic Imager tool (CSI) at the YOLLA-2 well. The survey was run on 17 May 1998.

The VSP data were edited and processed using the conventional VSP processing chain in vertical well.

## 2. Data Acquisition

The data were acquired in one logging run using the three components Dual Combinable Seismic Imager tool (CSI). An array of three Air-Guns was used as the source. The guns were 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	12.5 M
Elevation of DF	12.5 M
Elevation of GL	- 81.5 M
Energy Source	3 X 150 cu in. Air-guns
Source Offset	46.0 M
Source Depth	5 M below MSL
Reference Sensor	Hydrophone
Hydrophone Offset	46.0 M
Hydrophone Depth	10 M below MSL
Source & Hyd. Azimuth	135.0 Degrees
Tool Type	CSI
Tool Combination	Stand Alone
De-coupled Geophones	Yes
Shaker Fitted	Yes
Number of Axis	3
Geophone Type	SM-4
Frequency Response	10-150 Hz
Sampling Rate	0.5 ms.
Recording Time	3.0 sec.
Acquisition Unit	MAXIS
Recording Format	DLIS

### 3. Well Seismic Edit

Each shot of the raw geophone data was evaluated and edited as necessary. The hydrophone data were also evaluated for signature changes and timing shifts.

The good shots at each level were stacked, using a median stacking technique, to increase the signal to noise ratio of the data. The transit time of each trace was re-computed after stacking.

#### 3.1 Data Quality

The overall quality of the data is very good. Note the following:

- Vertical component (Z) shows a consistent signature and a high signal to noise ratio, as seen in Figure 1.
- There is some amount of downgoing shear energy in the horizontal components . The downgoing shear is likely to come from mode conversion of direct compressional energy.

#### 3.2 Transit Time Measurement

The transit time measured,  $\Delta t$ , corresponds to a difference between arrivals recorded by surface and downhole sensors. The reference time (zero time) is the physical recording of the source signal by accelerometers on the gun or sensors positioned near the source. In this case, a hydrophone positioned 5 m below the gun was used as the reference. First break picking algorithms were used on both the hydrophone and the geophone.

#### 3.3 Correction to Datum

Seismic Reference Datum (SRD) is at Mean Sea Level (MSL).

The source was suspended 5 meters below the sea surface. A hydrophone was attached to the source 5 meters below the outlet ports and was used as the time reference. A static correction of 6.7 msec (OWT) was thus applied to all data to correct it to SRD.

#### 3.4 Geophysical Airgun Report

The Geophysical Airgun Report listing contains all downhole seismic measurements obtained by analyzing stacked shots.

The level number, corresponding KB and SRD depth, observed (non-vertical) transit times and corrected (vertical) transit times from the source and from SRD are listed. Also included are average velocities between SRD and geophone together with level separation and corresponding transit times and finally interval velocities between levels.

Vertical transit times have been corrected for the effects of geometry. The interval velocities listed are those computed from corrected (i.e. vertical) transit times.

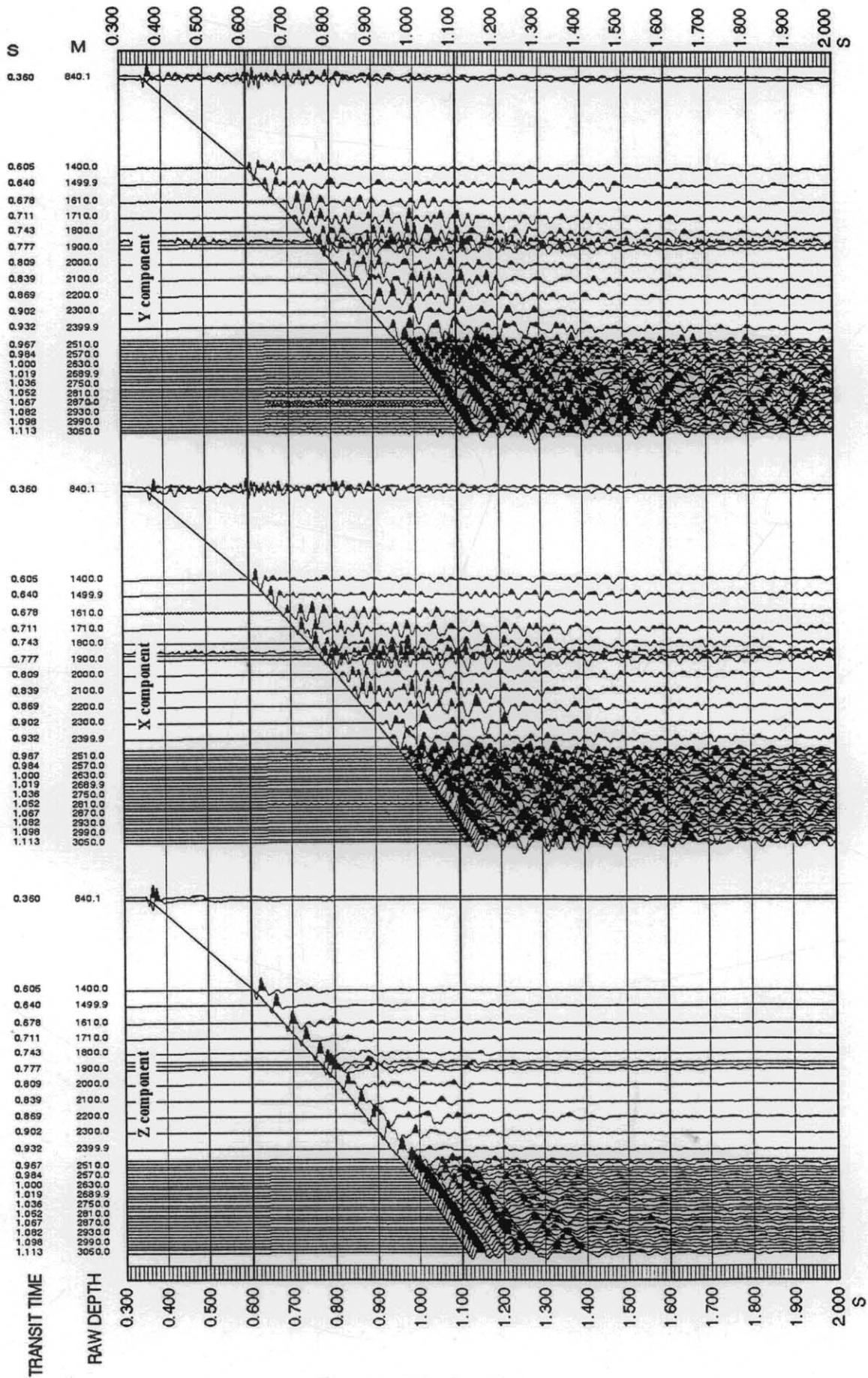


Figure 1. Y, X, Z stacked data

5 cm

## 4. Sonic Calibration Processing

### 4.1 Sonic Calibration

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

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

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

For a positive drift ( $\Delta\text{drift}/\Delta\text{depth} > 0$ ), 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.  $\Delta T$  Minimum. In the case of negative drift a second method is used, called  $\Delta$  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  $\Delta t$  values which are higher than a threshold, the  $\Delta t_{\text{min}}$ . Values of  $\Delta$  which are lower than the threshold are not corrected. The correction is a reduction of the excess of  $\Delta t$  over  $\Delta t_{\text{min}}$ ,  $\Delta t - \Delta t_{\text{min}}$ .

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

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

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

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

## 4.2 Open Hole Logs

The BHC sonic log was recorded from 3085 to 1065 m below KB. The sonic data has been edited to alleviate cycle skipping and spiky data. A lot of cycle skipping occurred to the sonic between 1325 to 1065 m due to large washouts in the wellbore. This interval was found unrecoverable and not included for further processing.

The density log has been edited to take into account bad hole condition.

The gamma ray, deep resistivity and caliper logs are included as correlation curves.

## 4.3 Correction to Datum and Velocity Modeling

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. A correction for the source depth involves using a water velocity of 1524 m/sec.

## 4.4 Sonic Calibration Output

### Drift Computation Report

The Drift Computation Report contains the basic comparison of raw seismic and edited sonic integrated times at checkshot levels.

The level number, measured depth and vertical depth for all levels, vertical checkshot times adjusted to SRD and corresponding integrated sonic times are compiled in the listing. The drift between two adjacent checkshot levels is listed in milliseconds and the corrections to be applied to the sonic log in  $\mu\text{sec}/\text{ft}$  are also listed for all intervals between two adjacent levels.

### Sonic adjustment parameter report

This listing shows the depth of selected knees from KB and SRD together with the measured drift. The amount of sonic adjustment and the type of correction (block shift or Delta T Minimum) plus the corresponding reduction factor G if applicable are all printed out.

### Drift Computation Report

The Drift Computation Report and Sonic Adjustment Report are graphically summarised on the Drift Curve Plot. The raw and selected (smoothed) drift curves, position of knees, and corresponding drift at all checkshots and knees are all indicated on the Drift Curve Plot.

### Raw and Drift Corrected Report Sonic Plot

The effect of the shifts listed in the Sonic Adjustment Parameter Report on the edited sonic log and the results of sonic adjustment for drift are graphically displayed on the Raw and Corrected Sonic Plot.

### Drift Computation Report

The interval velocities between two adjacent checkshot levels computed from corrected (adjusted) sonic log are listed in the Velocity Report. The residual errors between checkshots and integrated sonic times after calibration (adjustment) are also listed in the Velocity Report for every checkshot level.

### Time and Velocity vs. Depth Plot

Four velocities - Average, Interval, Continuous and Root Mean Square together with Time vs. Depth curve are computed for all checkshot levels. The results are plotted as a function of depth on the Time and Velocity vs. Depth Plot.

Interval velocities ( $v_{int}$ ) are those computed between two adjacent checkshot levels from corrected sonic logs and listed in the Velocity Report. Interval velocity is defined as

$$v_{int} = \frac{z_n - z_{n-1}}{t_n - t_{n-1}}$$

where  $z_n$  is the depth of  $n$ th layer and  $t_n$  its corresponding integrated sonic time.

Average velocities ( $v_{ave}$ ) are computed by dividing SRD depth of checkshots and their corresponding integrated sonic times from corrected sonic log.

$$v_{ave} = \frac{\sum v_n t_n}{\sum t_n}$$

The continuous velocity curve is an inverse of sonic log displayed not as slowness in  $\mu\text{sec}/\text{ft}$  but as velocity in meters/second.

Root Mean Square Velocity ( $v_{rms}$ ) is computed from calibrated sonic logs by

$$v_{rms} = \sqrt{\frac{\sum v_n^2 t_n}{\sum t_n}}$$

where  $v_n$  is an interval velocity over some specific time increment  $\Delta t_n$  of calibrated sonic log.

The Time vs. Depth Curve is the result of integration of the calibrated sonic log and is plotted as one way time (OWT) against depth.

### Time Converted Velocity Report

This listing is obtained from the calibrated sonic log. Average, RMS and Interval velocities are computed at one millisecond intervals one way time (OWT). The results are listed against two way time (TWT) together with corresponding measured (KB) and seismic datum (SRD) depths.

Interval velocities are between two adjacent computations (two milliseconds TWT apart) whereas average and RMS are from SRD.

#### 4.5 Sonic Calibration Results

The top of the sonic log (1325 metres below KB) 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 $\mu\text{sec/m}$	$\Delta t_{\text{min}}$ $\mu\text{sec/m}$	Equiv Block shift $\mu\text{sec/m}$
1325.0 - 1875.0	12.73		12.73
1875.0 - 2212.0	5.93		5.93
2212.5 - 2465.5	24.00		24.00
2465.6 - 2812.5	17.14		17.14
2812.5 - 3085.0	3.67		3.67

A depth of bottom VSP level is 3050 m below KB. A dummy checkshot was introduced at 3085 m in attempt to generate a synthetic from the bottom of log interval. A transit time at 3085 m was estimated using of gradient of the drift curve above this depth.

Seismic Calibration Log shows the sonic calibration output in 22" format at a 1:5000 scale.

Drift Corrected Sonic displays the raw and calibrated sonic curves on an 8.5" plot at a 1:200 scale.

The drift exhibits a positive gradient for entire interval, obtaining a cumulative value of 22 ms at TD.

Knees are selected from the raw drift curve and lithological boundaries marked by the well logs. The depths of the knees define the zones for the adjustment.

## 5. Synthetic Seismogram Processing

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

The presentations include both normal and reverse polarity on a time scale of 20 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

### 5.1 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.

### 5.2 Primary Reflection Coefficients

Sonic and density data are averaged over chosen time intervals (normally 1 or 2 millisecs). Reflection coefficients are then computed using:

$$R = \frac{r_2 \cdot v_2 - r_1 \cdot v_1}{r_2 \cdot v_2 + r_1 \cdot v_1}$$

where:

$r_1$  = density of the layer above the reflection interface

$r_2$  = 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 0.5 msec time interval to generate a set of primary reflection coefficients without transmission losses.

### 5.3 Primaries with Transmission Loss

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

$$A_n = (1 - R_1^2) \cdot (1 - R_2^2) \cdot (1 - R_3^2) \dots (1 - R_n^2)$$

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

$$Primary_n = R_n \cdot A_{n-1}$$

#### **5.4 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.

#### **5.5 Multiples Only**

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

#### **5.6 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

#### **5.7 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 5.

#### **5.8 Convolution**

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

## 6. VSP Processing

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

- edit and sort raw VSP traces
- stack X, Y and Z component
- gain correction and bandpass filter
- up & downgoing wavefield separation
- deconvolution

### 6.1 Stacking

After splicing, reordering and selecting the raw shots for a median stack was performed on the vertical and horizontal component data. In this method of stacking, at each sample time, the amplitudes of the input traces are read and sorted in ascending order. The output is the median amplitude value from this ordering. If an even number of traces are input, the first is dropped and a median calculated. Then the last is dropped and another median found. The final output is the average of these two median values. The surface sensor (hydrophone) breaks are used as the zero time for stacking. The break time of each trace is recomputed after stacking.

Power spectrum (squared amplitude) of vertical component for entire interval is presented in Figure 2. It shows the trend of the VSP wavelet's frequency content with depth. The axis towards is the frequency axis from 0 to 125 Hz. Axis towards back right is the depth of geophone. The amplitude scale is in decibels.

Alternative view of power spectrum across the whole VSP survey as a 2D map is shown in Figure 3. The contours are the power ratio in decibel units (dB). Iso-energy lines are every 10 dB.

### 6.2 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 :

$$Gain(T) = \left( \frac{T}{T_0} \right)^a$$

where T is the recorded time,  $T_0$  is the first break time and  $a = 1.2$

Trace equalization was applied by normalizing the RMS amplitude of the first break to correct for transmission losses of the direct wave. A normalization window of 60 millisecs was used (Plot 2).

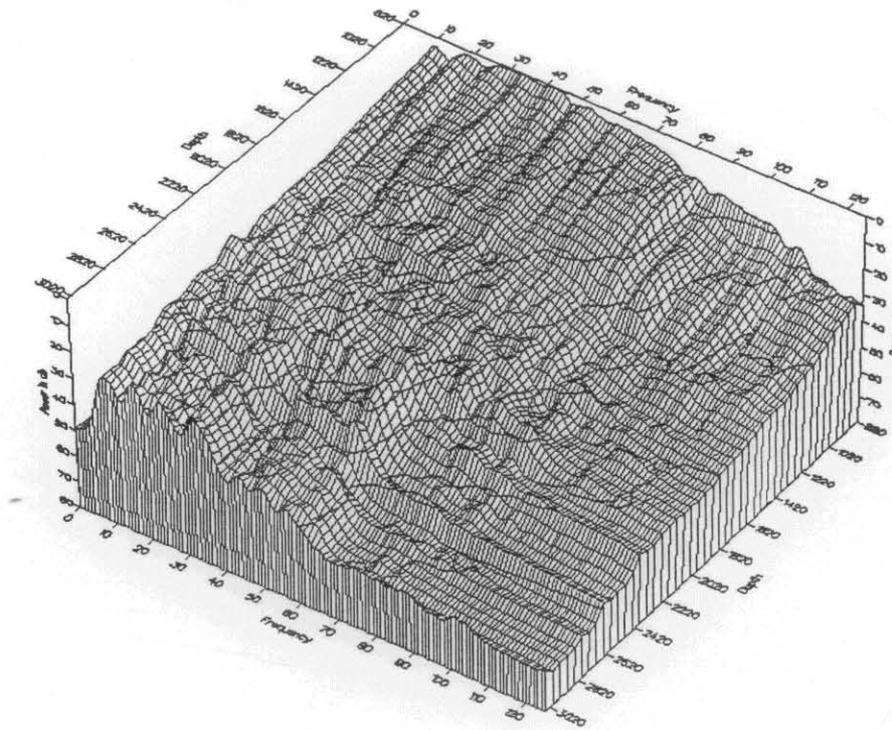


Figure 2. 3D power spectrum on Z component indexed in TVD (m).

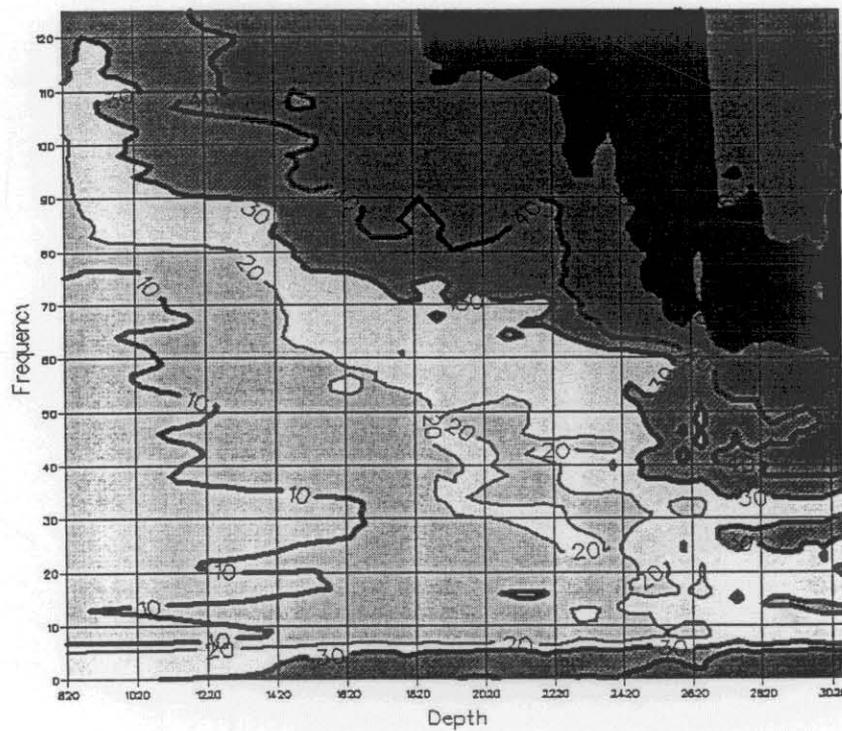


Figure 3. 2D power spectrum on Z component indexed in TVD (m)  
Iso-energy lines are every 10 dB

5 cm

### 6.3 Velocity filter

A median velocity filter is applied to extract downgoing waves, remove them from wavefields, and to enhance upgoing events.

The downgoing coherent energy is estimated using 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).

### 6.4 Waveshaping Deconvolution

The waveshaping deconvolution is applied to remove multiples, source signature effects, and to improve resolution. Downgoing wave is considered to be the wavetrain which is reflected by reflection coefficients, producing the upgoing waves.

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 5-60 Hz. Once the design is made upon the downgoing wavefield, it is applied to the downgoing and subtracted wavefield at the same level. The upgoing compressional wavefield is enhanced in an exactly analogous manner as before. A Butterworth bandpass filter 5-80 Hz was applied after enhancement.

The trace by trace deconvolution is applied in order to collapse the multiple sequence of compressional arrivals, diffractions or out of plane reflections. The result of waveshaping deconvolution on the upgoing wavefield is shown in Plot 4.

### 6.5 VSP Corridor Stack

A corridor stack was computed on the data after zero phase waveshaping deconvolution by defining a constant 100 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.

Automatic Gain Control (AGC) using a window length of 200 msec was applied to the corridor stack.

The final upgoing wavefield and the corridor stacks are displayed in both polarities Plot 5.

### 6.6 VSP/Geogram composite presentation

Plots 6, 7 are composite displays of the VSP data, 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 (Figure 5). There are some mismatches between VSP and Geogram at 2.060 sec (TWT) or 2696 m (TVD) and 2.178 sec (TWT) or 2918 m (TVD). VSP upgoing wavefield and corridor stack shows coherent reflections at 2.060 sec and 2.178 sec which are not observed on the Geogram at 25 Hz, 35Hz

and 45 Hz. It should be noted that the quality of the sonic log is very good at these depth intervals and the drift looks normal. Reflectivity coefficients were computed for each 0.5 msec time interval to have a high resolution input for convolution.

An explanation of this mismatch is 1) a difference in horizontal resolution between VSP and Geogram and 2) increasing thickness of layers away from well. Generally the VSP can see surrounding rocks hundreds of meters away from the well, whereas the Geogram computes a synthetic using log data which represents rocks only a few inches away from the borehole.

A first order Fresnel zone defines the smallest lateral resolution of the VSP data. The radius of the first order Fresnel zone is related to the source-to-reflector distance  $a$ , and to the reflector-to-geophone distance  $b$  by the equation:

$$R^2 = \lambda(ab)/(a+b) \quad (1)$$

where  $\lambda$  is VSP wavelength =  $V_{int}/\text{Freq}_{max}$   
 $R$  is radius of the first order Fresnel zone

The VSP reflection at 2.178 sec is more likely to come from a coal layer at 2919 m (TVD). The coal layer is 1.5m thick and can not be resolved on the Geogram (DT=105 us/ft,  $R_{hob}=1.47 \text{ g/c}^3$ ). There are positive and negative reflectivity peaks at 2.178 sec generated from the top and bottom of the coal layer, which after convolution with a Ricker wavelet will produce a zero amplitude reflection output. We need a higher frequency than a 45 Hz Ricker wavelet to resolve this coal layer using the Geogram.

The radius of the first order Fresnel zone or the VSP horizontal resolution was estimated as 88 m. This estimation assumes the depth  $a=2918 \text{ m}$  and VSP geophone is positioned at  $b=200 \text{ m}$  above the coal layer, and that the VSP wavelength is 42 m long.

A comparison of the VSP results and surface seismic line (provided by BORAL) across the well confirms that the thickness of the coal layer increases away from the well.

There is a subtle correlation between VSP and surface seismic reflection at 2.060 sec. The correlation becomes better 40-60 m away from the well suggesting that 1) thickness of the layer is increasing or 2) there is a pinch out or 3) truncation.

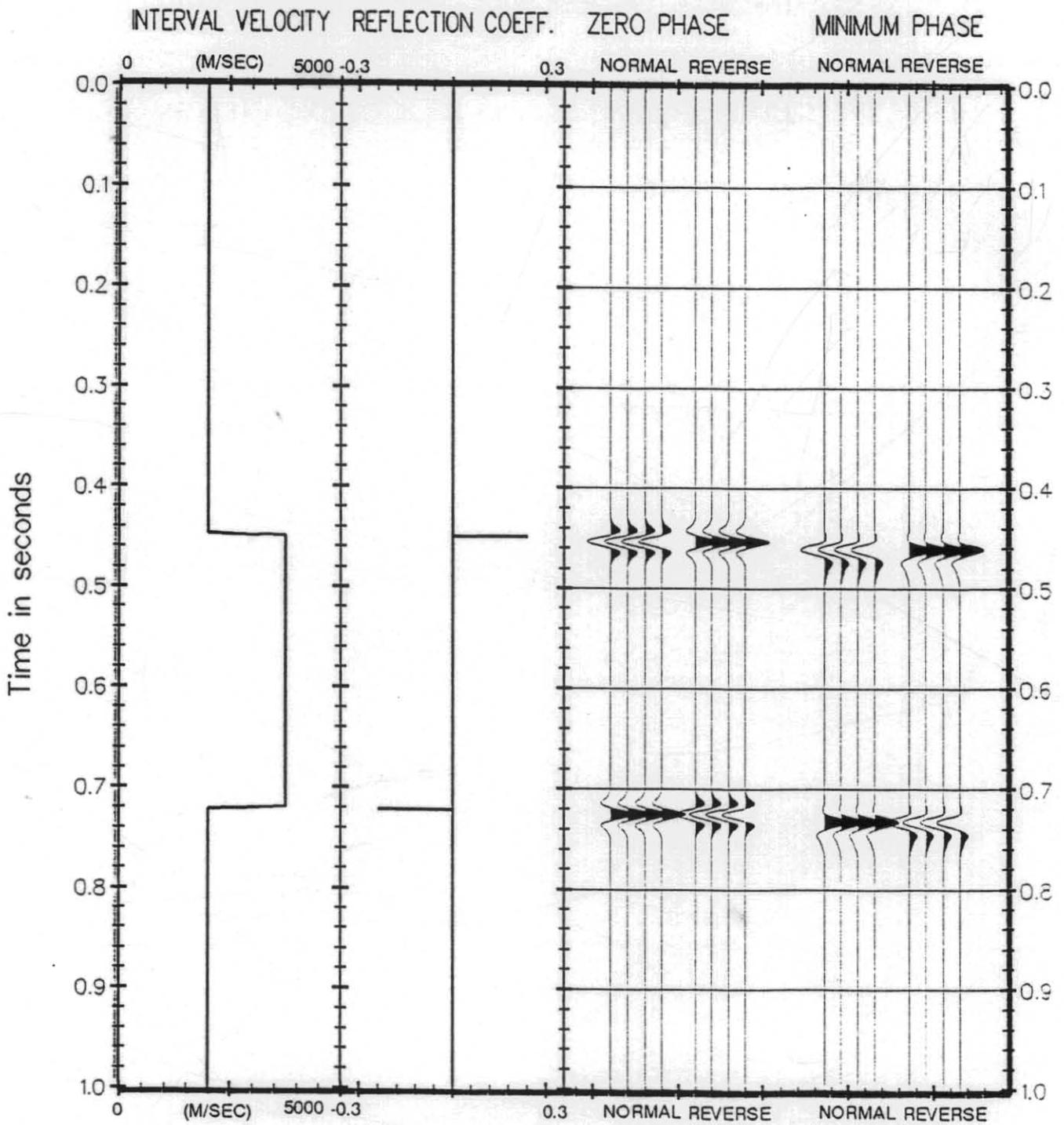
## 6.7 Recommendations

- 1) Some time and amplitude variations between VSP and surface seismic data have been observed during the interpretation. Phase matching processing would estimate this discrepancy and enhance surface seismic interpretation.
- 2) Q estimation processing could be run to evaluate attenuation of surface seismic using VSP data. Applying Q compensation to surface seismic can improve its vertical resolution.



FIGURE 5.

SCHLUMBERGER (SEG-1976) WAVELET POLARITY CONVENTION



## 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 from SRD: *dsrd*, the depth in metres from seismic reference datum.
4. Observed travel time HYD to GEO: *tim0*, the transit time picked from the stacked data by subtracting the surface sensor first break time from the downhole sensor first break time.
5. Vertical travel time SRC to GEO: *timv*, is corrected for source to hydrophone distance and for source offset.
6. Vertical travel time SRD to GEO: *shtm*, is *timv* corrected for the vertical distance between source and datum.
7. Average velocity SRD to GEO: the average seismic velocity from datum to the corresponding checkshot level,  $\frac{dsrd}{shtm}$ .
8. Delta depth between shots:  $\Delta depth$ , the vertical distance between each level.
9. Delta time between shots:  $\Delta time$ , the difference in vertical travel time (*shtm*), between each level.
10. Interval velocity between shots: the average seismic velocity between each level,  $\Delta depth / \Delta time$

### 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

$(\frac{\Delta \text{drift}}{\Delta \text{depth}})$ .

### A3 Sonic Adjustment Parameter Report

1. Knee number: the knee number starting from the highest knee. (The first knees listed will generally be at SRD and the top of sonic. The drift imposed at these knees will normally be zero.)
2. Vertical depth from KB: the depth in metres from kelly bushing
3. Vertical depth from SRD: the depth in metres from seismic reference datum.
4. Drift at knee: the value of drift imposed at each knee.
5. Blockshift used: the change in drift divided by the change in depth between any two levels.
6. Delta-T minimum used: see section 4 of report for an explanation of  $\Delta t_{\min}$ .
7. reduction factor: see section 4 of report.
8. Equivalent blockshift: the gradient of the imposed drift curve.

### A4 Velocity Report

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

$$v_{rms} = \sqrt{S \sum_{i=1}^n v_i^2 t_i / S \sum_{i=1}^n t_i}$$

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).

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

where:

$$\begin{aligned} \Delta t &= \text{normal moveout (secs)} \\ X &= \text{moveout distance (metres)} \\ t &= \text{two way time (secs)} \\ v_{rms} &= \text{rms velocity (metres / sec)} \end{aligned}$$

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.

The Schlumberger logo consists of a white rectangular box with a black border, containing the word "Schlumberger" in a bold, black, sans-serif font.The GeoQuest logo consists of a white rectangular box with a black border, containing the word "GeoQuest" in a bold, black, sans-serif font.

## **VSP PLOTS**

Plot 1 Stacked Data

Plot 2 Amplitude Recovery

Plot 3 Velocity Filter

Plot 4 Waveshaping Deconvolution Zero Phase

Plot 5 Waveshaping Deconvolution - Corridor Stack

Plot 6 VSP and GEOGRAM Composite - normal polarity 20 cm/sec

Plot 7 VSP and GEOGRAM Composite - reverse polarity 20 cm/sec

## **GEOGRAM PLOTS**

Drift Corrected Sonic

Seismic Calibration Log

25 Hz zero phase GEOGRAM 20 cm/sec

35 Hz zero phase GEOGRAM 20 cm/sec

45 Hz zero phase GEOGRAM 20 cm/sec

ANALYST: HERKASHNEV

29-MAY-98 16:43

PROGRAM: GSHOT 007.E09

542023

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GEOPHYSICAL AIRGUN REPORT

COMPANY : PREMIER OIL AUSTRALASIA  
WELL : YOLLA-2  
FIELD : YOLLA  
STATE : TASMANIA  
COUNTRY : AUSTRALIA  
REFERENCE: AMF-561266/561267  
LOGGED : 17-05-1998

LONG DEFINITIONS

GLOBAL

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

MATRIX

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

SAMPLED

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

(GLOBAL PARAMETERS)

(VALUE)

ELEV OF KB AB. MSL (WST)	KB	:	12.5000	M
ELEV OF SRD AB. MSL (WST)	SRD	:	0	M
Elevation of Kelly Bushi	EKB	:	12.5000	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	32.5	-32.5	-10.0	32.5	-32.5

542023

	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	94.0	94.0	81.5	0
2	819.6	819.6	807.1	0
3	840.1	840.1	827.6	0
4	1325.0	1325.0	1312.5	0
5	1400.0	1400.0	1387.5	0
6	1499.9	1499.9	1487.4	0
7	1610.0	1610.0	1597.5	0
8	1710.0	1710.0	1697.5	0
9	1800.0	1800.0	1787.5	0
10	1854.4	1854.4	1841.9	0
11	1875.0	1875.0	1862.5	0
12	1900.0	1900.0	1887.5	0
13	2000.0	2000.0	1987.5	0
14	2100.0	2100.0	2087.5	0
15	2200.0	2200.0	2187.5	0
16	2300.0	2300.0	2287.5	0
17	2399.9	2399.9	2387.4	0
18	2470.0	2470.0	2457.5	0
19	2490.0	2490.0	2477.5	0
20	2510.0	2510.0	2497.5	0
21	2527.9	2527.9	2515.4	0
22	2550.1	2550.1	2537.6	0
23	2570.0	2570.0	2557.5	0
24	2590.0	2590.0	2577.5	0
25	2610.0	2610.0	2597.5	0
26	2630.0	2630.0	2617.5	0
27	2649.9	2649.9	2637.4	0
28	2670.0	2670.0	2657.5	0
29	2689.9	2689.9	2677.4	0
30	2710.0	2710.0	2697.5	0
31	2730.0	2730.0	2717.5	0
32	2750.0	2750.0	2737.5	0
33	2769.9	2769.9	2757.4	0
34	2790.0	2790.0	2777.5	0
35	2810.0	2810.0	2797.5	0
36	2830.0	2830.0	2817.5	0
37	2850.0	2850.0	2837.5	0
38	2870.0	2870.0	2857.5	0
39	2890.0	2890.0	2877.5	0
40	2910.0	2910.0	2897.5	0

41	2930.0	2930.0	2917.5	0	0
42	2950.0	2950.0	2937.5	0	0
43	2970.0	2970.0	2957.5	0	0
44	2990.0	2990.0	2977.5	0	0
45	3009.9	3009.9	2997.4	0	0
46	3030.0	3030.0	3017.5	0	0
47	3050.0	3050.0	3037.5	0	0
48	3085.0	3085.0	3072.5	0	0

542026

542027

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	94.0	81.5	55.29	50.20	53.48	1524	725.6	304.20	2385
2	819.6	807.1	351.70	354.40	357.68	2256	20.5	8.62	2380
3	840.1	827.6	360.30	363.01	366.29	2259	484.9	217.91	2225
4	1325.0	1312.5	578.00	580.92	584.20	2247	75.0	26.62	2817
5	1400.0	1387.5	604.60	607.54	610.83	2272	99.9	35.33	2828
6	1499.9	1487.4	639.90	642.87	646.15	2302	110.1	38.03	2895
7	1610.0	1597.5	677.90	680.90	684.18	2335	100.0	32.72	3056
8	1710.0	1697.5	710.60	713.62	716.90	2368	90.0	32.12	2802
9	1800.0	1787.5	742.70	745.73	749.01	2386	54.4	19.11	2847
10	1854.4	1841.9	761.80	764.84	768.12	2398	20.6	6.60	3120
11	1875.0	1862.5	768.40	771.44	774.73	2404	25.0	8.90	2808
12	1900.0	1887.5	777.30	780.35	783.63	2409	100.0	31.21	3204
13	2000.0	1987.5	808.50	811.56	814.84	2439	100.0	30.61	3267
14	2100.0	2087.5	839.10	842.18	845.46	2469	100.0	30.21	3310
15	2200.0	2187.5	869.30	872.39	875.67	2498	100.0	32.71	3057
16	2300.0	2287.5	902.00	905.10	908.38	2518	99.9	30.11	3318
17	2399.9	2387.4	932.10	935.21	938.49	2544	70.1	22.91	3060
18	2470.0	2457.5	955.00	958.11	961.39	2556	20.0	6.20	3225
19	2490.0	2477.5	961.20	964.31	967.59	2560	20.0	5.40	3702
20	2510.0	2497.5	966.60	969.72	973.00	2567	17.9	4.60	3890
21	2527.9	2515.4	971.20	974.32	977.60	2573	22.2	7.10	3126
22	2550.1	2537.6	978.30	981.42	984.70	2577	19.9	5.80	3430
23	2570.0	2557.5	984.10	987.22	990.50	2582	20.0	5.50	3635
24	2590.0	2577.5	989.60	992.72	996.00	2588			

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	2610.0	2597.5	994.70	997.82	1001.10	2595	20.0	5.10	3920
26	2630.0	2617.5	1000.20	1003.33	1006.61	2600	20.0	5.50	3635
27	2649.9	2637.4	1005.90	1009.03	1012.31	2605	19.9	5.70	3490
28	2670.0	2657.5	1012.60	1015.73	1019.01	2608	20.1	6.70	2999
29	2689.9	2677.4	1018.90	1022.03	1025.31	2611	19.9	6.30	3158
30	2710.0	2697.5	1024.70	1027.83	1031.11	2616	20.1	5.80	3465
31	2730.0	2717.5	1030.30	1033.43	1036.71	2621	20.0	5.60	3570
32	2750.0	2737.5	1035.80	1038.93	1042.21	2627	20.0	5.50	3635
33	2769.9	2757.4	1040.80	1043.94	1047.22	2633	19.9	5.00	3979
34	2790.0	2777.5	1045.60	1048.74	1052.02	2640	20.1	4.80	4187
35	2810.0	2797.5	1051.70	1054.84	1058.12	2644	20.0	6.10	3278
36	2830.0	2817.5	1056.30	1059.44	1062.72	2651	20.0	4.60	4346
37	2850.0	2837.5	1062.10	1065.24	1068.52	2656	20.0	5.80	3448
38	2870.0	2857.5	1067.20	1070.34	1073.62	2662	20.0	5.10	3920
39	2890.0	2877.5	1072.00	1075.14	1078.42	2668	20.0	4.80	4165
40	2910.0	2897.5	1076.80	1079.94	1083.23	2675	20.0	4.80	4166
41	2930.0	2917.5	1081.80	1084.95	1088.23	2681	20.0	5.00	3999
42	2950.0	2937.5	1087.30	1090.45	1093.73	2686	20.0	5.50	3636
43	2970.0	2957.5	1092.70	1095.85	1099.13	2691	20.0	5.40	3703
44	2990.0	2977.5	1098.00	1101.15	1104.43	2696	20.0	5.30	3773
45	3009.9	2997.4	1102.70	1105.85	1109.13	2702	19.9	4.70	4233
46	3030.0	3017.5	1107.50	1110.65	1113.93	2709	20.1	4.80	4187
47	3050.0	3037.5	1112.60	1115.75	1119.03	2714	20.0	5.10	3921
48	3085.0	3072.5	1121.60	1124.75	1128.04	2724	35.0	9.00	3888

542028

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
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542029

ANALYST: HERKASHNEV

29-MAY-98 16:44

PROGRAM: GDRIFT 007.E10

542030

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*          SCHLUMBERGER              *  
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DRIFT COMPUTATION REPORT

COMPANY : PREMIER OIL AUSTRALASIA  
WELL : YOLLA-2  
FIELD : YOLLA  
STATE : TASMANIA  
COUNTRY : AUSTRALIA  
REFERENCE: AMF-561266/561267  
LOGGED : 17-05-1998

LONG DEFINITIONS

542031

GLOBAL

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

ZONE

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

SAMPLED

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

(GLOBAL PARAMETERS)

(VALUE)

ELEV OF KB AB. MSL (WST)	KB	:	12.5000	M
ELEV OF SRD AB. MSL(WST)	SRD	:	0	M
Elevation of Kelly Bushi	EKB	:	12.5000	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	94.0	81.5	53.48	53.48	0	0
2	819.6	807.1	357.68	357.68	0	0
3	840.1	827.6	366.29	366.29	0	0
4	1325.0	1312.5	584.20	584.20	0	5.85
5	1400.0	1387.5	610.83	610.39	.44	10.02
6	1499.9	1487.4	646.15	644.71	1.44	16.13
7	1610.0	1597.5	684.18	680.96	3.22	8.58
8	1710.0	1697.5	716.90	712.82	4.07	16.18
9	1800.0	1787.5	749.01	743.48	5.53	15.91
10	1854.4	1841.9	768.12	761.73	6.40	13.10
11	1875.0	1862.5	774.73	768.06	6.67	12.10
12	1900.0	1887.5	783.63	776.66	6.97	4.71
13	2000.0	1987.5	814.84	807.40	7.44	5.85
14	2100.0	2087.5	845.46	837.43	8.02	6.15
15	2200.0	2187.5	875.67	867.03	8.64	30.15
16	2300.0	2287.5	908.38	896.72	11.65	17.49
17	2399.9	2387.4	938.49	925.09	13.40	25.98
18	2470.0	2457.5	961.39	946.17	15.22	31.62
19	2490.0	2477.5	967.59	951.74	15.85	7.45
20	2510.0	2497.5	973.00	956.99	16.00	1.33
21	2527.9	2515.4	977.60	961.57	16.03	44.51
22	2550.1	2537.6	984.70	967.68	17.02	10.36
23	2570.0	2557.5	990.50	973.28	17.22	19.37
24	2590.0	2577.5	996.00	978.39	17.61	

542032

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	2610.0	2597.5	1001.10	983.05	18.06	22.52
26	2630.0	2617.5	1006.61	988.71	17.89	-8.36
27	2649.9	2637.4	1012.31	994.26	18.05	7.92
28	2670.0	2657.5	1019.01	1000.22	18.79	36.64
29	2689.9	2677.4	1025.31	1005.70	19.61	41.27
30	2710.0	2697.5	1031.11	1011.06	20.05	21.97
31	2730.0	2717.5	1036.71	1016.37	20.34	14.70
32	2750.0	2737.5	1042.21	1021.53	20.68	16.96
33	2769.9	2757.4	1047.22	1026.55	20.67	-.72
34	2790.0	2777.5	1052.02	1031.58	20.44	-11.26
35	2810.0	2797.5	1058.12	1037.22	20.90	22.75
36	2830.0	2817.5	1062.72	1042.51	20.21	-34.09
37	2850.0	2837.5	1068.52	1047.55	20.97	37.60
38	2870.0	2857.5	1073.62	1052.61	21.01	2.19
39	2890.0	2877.5	1078.42	1057.59	20.83	-8.79
40	2910.0	2897.5	1083.23	1062.51	20.71	-6.08
41	2930.0	2917.5	1088.23	1067.54	20.68	-1.48
42	2950.0	2937.5	1093.73	1072.62	21.10	20.97
43	2970.0	2957.5	1099.13	1077.88	21.25	7.11
44	2990.0	2977.5	1104.43	1082.85	21.58	16.56
45	3009.9	2997.4	1109.13	1087.62	21.51	-3.48
46	3030.0	3017.5	1113.93	1092.38	21.55	2.09
47	3050.0	3037.5	1119.03	1097.49	21.54	-.38
48	3085.0	3072.5	1128.04	1106.08	21.95	11.74

542033

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
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542034

ANALYST: MERKASHNEV

29-MAY-98 17:06

PROGRAM: GADJST 008.E09

542035

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SONIC ADJUSTMENT PARAMETER REPORT

COMPANY : PREMIER OIL AUSTRALASIA  
WELL : YOLLA-2  
FIELD : YOLLA  
STATE : TASMANIA  
COUNTRY : AUSTRALIA  
REFERENCE: AMF-561266/561267  
LOGGED : 17-05-1998

542036

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)

USER DRIFT ZONE (WST)	ZDRIFT	:	22.00000	MS	3085.00	-	2812.50
			21.00000		2812.50	2462.50	
			15.00000		2462.50	2212.50	
			9.000000		2212.50	1875.00	
			7.000000		1875.00	1325.00	
			0		1325.00	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	:	2225.000	M/S	1325.00	-	840.100
			2380.000		840.100	819.600	
			2385.000		819.600	94.0000	
			1524.000		94.0000	0	

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	1325.0	1312.5	0	0			0
3	1875.0	1862.5	7.00	12.73			12.73
4	2212.5	2200.0	9.00	5.93			5.93
5	2462.5	2450.0	15.00	24.00			24.00
6	2812.5	2800.0	21.00	17.14			17.14
7	3085.0	3072.5	22.00	3.67			3.67

542037

ANALYST: HERKASHNEV

29-MAY-98 17:00

PROGRAM: GADJST 008.E09

542038

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* SCHLUMBERGER *  
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VELOCITY REPORT

COMPANY : PREMIER OIL AUSTRALASIA  
WELL : YOLLA-2  
FIELD : YOLLA  
STATE : TASMANIA  
COUNTRY : AUSTRALIA  
REFERENCE: AMF-561266/561267  
LOGGED : 17-05-1998

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	:	12.5000	M
ELEV OF SRD AB. MSL (WST)	SRD	:	0	M
Elevation of Kelly Bushi	EKB	:	12.5000	M
UNIFORM EARTH VELOCITY	UNERTH	:	1524.00	M/S

(ZONED PARAMETERS)

(VALUE)

(LIMITS)

LAYER OPTION FLAG VELOC	LOFVEL	:	0	30479.7	-	0
USER VELOC (WST)	LAYVEL	:	2225.000	M/S	1325.00	- 840.100
			2380.000		840.100	819.600
			2385.000		819.600	94.0000
			1524.000		94.0000	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	94.0	81.5	53.48	53.48	0	0	1524
2	819.6	807.1	357.68	357.68	0	0	2385
3	840.1	827.6	366.29	366.30	0	0	2379
4	1325.0	1312.5	584.20	584.20	0	0	2225
5	1400.0	1387.5	610.83	611.33	.44	-.51	2764
6	1499.9	1487.4	646.15	646.93	1.44	-.77	2807
7	1610.0	1597.5	684.18	684.58	3.22	-.40	2924
8	1710.0	1697.5	716.90	717.72	4.07	-.82	3018
9	1800.0	1787.5	749.01	749.52	5.53	-.51	2830
10	1854.4	1841.9	768.12	768.45	6.40	-.33	2874
11	1875.0	1862.5	774.73	775.05	6.67	-.32	3122
12	1900.0	1887.5	783.63	783.80	6.97	-.17	2857
13	2000.0	1987.5	814.84	815.13	7.44	-.29	3192
14	2100.0	2087.5	845.46	845.75	8.02	-.29	3266
15	2200.0	2187.5	875.67	875.94	8.64	-.27	3312
16	2300.0	2287.5	908.38	907.81	11.65	.57	3137
17	2399.9	2387.4	938.49	938.56	13.40	-.08	3249
18	2470.0	2457.5	961.39	961.28	15.22	.11	3086
19	2490.0	2477.5	967.59	967.19	15.85	.40	3383
20	2510.0	2497.5	973.00	972.77	16.00	.22	3583
21	2527.9	2515.4	977.60	977.68	16.03	-.08	3650
22	2550.1	2537.6	984.70	984.17	17.02	.53	3422
23	2570.0	2557.5	990.50	990.11	17.22	.39	3350
24	2590.0	2577.5	996.00	995.56	17.61	.44	3667

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
							4013
25	2610.0	2597.5	1001.10	1000.55	18.06	.56	3319
26	2630.0	2617.5	1006.61	1006.57	17.89	.04	3384
27	2649.9	2637.4	1012.31	1012.45	18.05	-.14	3182
28	2670.0	2657.5	1019.01	1018.77	18.79	.24	3422
29	2689.9	2677.4	1025.31	1024.58	19.61	.73	3526
30	2710.0	2697.5	1031.11	1030.28	20.05	.83	3538
31	2730.0	2717.5	1036.71	1035.93	20.34	.78	3634
32	2750.0	2737.5	1042.21	1041.44	20.68	.78	3714
33	2769.9	2757.4	1047.22	1046.80	20.67	.42	3742
34	2790.0	2777.5	1052.02	1052.17	20.44	-.15	3337
35	2810.0	2797.5	1058.12	1058.16	20.90	-.04	3712
36	2830.0	2817.5	1062.72	1063.55	20.21	-.83	3906
37	2850.0	2837.5	1068.52	1068.67	20.97	-.15	3897
38	2870.0	2857.5	1073.62	1073.80	21.01	-.18	3961
39	2890.0	2877.5	1078.42	1078.85	20.83	-.43	4003
40	2910.0	2897.5	1083.23	1083.85	20.71	-.62	3919
41	2930.0	2917.5	1088.23	1088.95	20.68	-.72	3876
42	2950.0	2937.5	1093.73	1094.11	21.10	-.38	3751
43	2970.0	2957.5	1099.13	1099.44	21.25	-.31	3967
44	2990.0	2977.5	1104.43	1104.48	21.58	-.05	4110
45	3009.9	2997.4	1109.13	1109.33	21.51	-.19	4159
46	3030.0	3017.5	1113.93	1114.16	21.55	-.23	3858
47	3050.0	3037.5	1119.03	1119.34	21.54	-.31	4014
48	3085.0	3072.5	1128.04	1128.06	21.95	-.03	

COMPANY

REMIER OIL AUSTRALASIA

WEL : YOLLA-2

PAGE 6

542042

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

ANALYST: HERKASHNEV

2-JUN-98 16:00

PROGRAM: GTRFRM 001.E14

542043

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*                                     *  
*                                     *  
*                                     *  
*          SCHLUMBERGER              *  
*                                     *  
*                                     *  
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TIME CONVERTED VELOCITY REPORT

COMPANY : PREMIER OIL AUSTRALASIA  
WELL : YOLLA-2  
FIELD : YOLLA  
STATE : TASMANIA  
COUNTRY : AUSTRALIA  
REFERENCE: AMF-561266/561267  
LOGGED : 17-05-1998

## 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	:	12.5000	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	: 2225.000 M/S	1325.00 - 840.100
		2380.000	840.100 819.600
		2385.000	819.600 94.0000
		1524.000	94.0000 0
LAYER OPTION FLAG DENS	LOFDEN	:-1.000000	30479.7 - 0
USER SUPPLIED DENSITY DA	LAYDEN	: 0 G/C3	0 - 0

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
								1524
0	12.5	0						1524
2.00	14.0	1.5	1524	1524	654.17	982.25	1310.34	1524
4.00	15.5	3.0	1524	1524	652.18	980.26	1308.34	1524
6.00	17.1	4.6	1524	1524	650.20	978.27	1306.35	1524
8.00	18.6	6.1	1524	1524	648.22	976.28	1304.36	1524
10.00	20.1	7.6	1524	1524	646.24	974.30	1302.37	1524
12.00	21.6	9.1	1524	1524	644.28	972.32	1300.39	1524
14.00	23.2	10.7	1524	1524	642.32	970.35	1298.41	1524
16.00	24.7	12.2	1524	1524	640.36	968.38	1296.43	1524
18.00	26.2	13.7	1524	1524	638.41	966.42	1294.46	1524
20.00	27.7	15.2	1524	1524	636.47	964.46	1292.49	1524
22.00	29.3	16.8	1524	1524	634.54	962.50	1290.52	1524
24.00	30.8	18.3	1524	1524	632.61	960.54	1288.56	1524
26.00	32.3	19.8	1524	1524	630.68	958.60	1286.59	1524
28.00	33.8	21.3	1524	1524	628.77	956.65	1284.63	1524
30.00	35.4	22.9	1524	1524	626.85	954.71	1282.68	1524
32.00	36.9	24.4	1524	1524	624.95	952.77	1280.73	1524
34.00	38.4	25.9	1524	1524	623.05	950.84	1278.78	1524
36.00	39.9	27.4	1524	1524	621.15	948.91	1276.83	1524
38.00	41.5	29.0	1524	1524	619.27	946.99	1274.89	1524
40.00	43.0	30.5	1524	1524	617.39	945.06	1272.95	1524
42.00	44.5	32.0	1524	1524	615.51	943.15	1271.01	1524
44.00	46.0	33.5	1524	1524	613.64	941.24	1269.07	1524
46.00	47.6	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	49.1	36.6	1524	1524	609.92	937.42	1265.21	1524
50.00	50.6	38.1	1524	1524	608.07	935.52	1263.29	1524
52.00	52.1	39.6	1524	1524	606.23	933.62	1261.37	1524
54.00	53.6	41.1	1524	1524	604.39	931.73	1259.45	1524
56.00	55.2	42.7	1524	1524	602.55	929.84	1257.53	1524
58.00	56.7	44.2	1524	1524	600.73	927.96	1255.62	1524
60.00	58.2	45.7	1524	1524	598.91	926.08	1253.71	1524
62.00	59.7	47.2	1524	1524	597.09	924.20	1251.80	1524
64.00	61.3	48.8	1524	1524	595.28	922.33	1249.90	1524
66.00	62.8	50.3	1524	1524	593.48	920.46	1247.99	1524
68.00	64.3	51.8	1524	1524	591.68	918.60	1246.10	1524
70.00	65.8	53.3	1524	1524	589.89	916.74	1244.20	1524
72.00	67.4	54.9	1524	1524	588.11	914.88	1242.31	1524
74.00	68.9	56.4	1524	1524	586.33	913.03	1240.42	1524
76.00	70.4	57.9	1524	1524	584.55	911.18	1238.53	1524
78.00	71.9	59.4	1524	1524	582.79	909.34	1236.65	1524
80.00	73.5	61.0	1524	1524	581.03	907.50	1234.77	1524
82.00	75.0	62.5	1524	1524	579.27	905.66	1232.90	1524
84.00	76.5	64.0	1524	1524	577.52	903.83	1231.02	1524
86.00	78.0	65.5	1524	1524	575.78	902.00	1229.15	1524
88.00	79.6	67.1	1524	1524	574.04	900.18	1227.28	1524
90.00	81.1	68.6	1524	1524	572.31	898.36	1225.42	1524
92.00	82.6	70.1	1524	1524	570.59	896.54	1223.56	1524
94.00	84.1	71.6	1524	1524	568.87	894.73	1221.70	1524

COMPANY PREMIER OIL AUSTRALASIA

WELL : YOLLA-2

PAGE 5

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	85.7	73.2	1524	1524	567.15	892.92	1219.84	1524
98.00	87.2	74.7	1524	1524	565.45	891.12	1217.99	1524
100.00	88.7	76.2	1524	1524	563.74	889.32	1216.14	1524
102.00	90.2	77.7	1524	1524	562.05	887.52	1214.29	1524
104.00	91.7	79.2	1524	1524	560.36	885.73	1212.45	1524
106.00	93.3	80.8	1524	1524	558.67	883.94	1210.61	2041
108.00	95.3	82.8	1534	1535	552.29	875.05	1199.27	2385
110.00	97.7	85.2	1549	1555	542.52	861.03	1181.07	2385
112.00	100.1	87.6	1564	1573	533.34	847.88	1164.02	2385
114.00	102.5	90.0	1578	1591	524.69	835.52	1148.03	2385
116.00	104.9	92.4	1592	1608	516.51	823.87	1132.97	2385
118.00	107.2	94.7	1606	1625	508.77	812.85	1118.76	2385
120.00	109.6	97.1	1619	1640	501.41	802.41	1105.32	2385
122.00	112.0	99.5	1631	1655	494.41	792.50	1092.58	2385
124.00	114.4	101.9	1643	1669	487.74	783.07	1080.47	2385
126.00	116.8	104.3	1655	1683	481.36	774.08	1068.95	2385
128.00	119.2	106.7	1667	1696	475.26	765.49	1057.97	2385
130.00	121.6	109.1	1678	1709	469.40	757.28	1047.47	2385
132.00	123.9	111.4	1688	1721	463.79	749.41	1037.43	2385
134.00	126.3	113.8	1699	1733	458.38	741.86	1027.81	2385
136.00	128.7	116.2	1709	1744	453.18	734.60	1018.58	2385
138.00	131.1	118.6	1719	1755	448.17	727.61	1009.71	2385
140.00	133.5	121.0	1728	1766	443.33	720.88	1001.18	2385
142.00	135.9	123.4	1737	1776	438.65	714.38	992.96	2385

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	138.2	125.7	1746	1786	434.13	708.11	985.03	2385
146.00	140.6	128.1	1755	1796	429.74	702.05	977.37	2385
148.00	143.0	130.5	1764	1805	425.49	696.18	969.98	2385
150.00	145.4	132.9	1772	1814	421.37	690.49	962.82	2385
152.00	147.8	135.3	1780	1822	417.37	684.97	955.88	2385
154.00	150.2	137.7	1788	1831	413.48	679.62	949.16	2385
156.00	152.6	140.1	1796	1839	409.69	674.42	942.64	2385
158.00	154.9	142.4	1803	1847	406.01	669.36	936.31	2385
160.00	157.3	144.8	1810	1855	402.42	664.44	930.16	2385
162.00	159.7	147.2	1817	1862	398.92	659.65	924.18	2385
164.00	162.1	149.6	1824	1869	395.50	654.98	918.35	2385
166.00	164.5	152.0	1831	1876	392.17	650.43	912.68	2385
168.00	166.9	154.4	1838	1883	388.92	645.99	907.15	2385
170.00	169.3	156.8	1844	1890	385.74	641.65	901.76	2385
172.00	171.6	159.1	1850	1897	382.63	637.41	896.50	2385
174.00	174.0	161.5	1857	1903	379.59	633.27	891.36	2385
176.00	176.4	163.9	1863	1909	376.61	629.22	886.34	2385
178.00	178.8	166.3	1868	1915	373.69	625.25	881.44	2385
180.00	181.2	168.7	1874	1921	370.84	621.37	876.64	2385
182.00	183.6	171.1	1880	1927	368.04	617.57	871.94	2385
184.00	186.0	173.5	1885	1932	365.29	613.84	867.34	2385
186.00	188.3	175.8	1891	1938	362.60	610.19	862.83	2385
188.00	190.7	178.2	1896	1943	359.95	606.60	858.42	2385
190.00	193.1	180.6	1901	1948	357.36	603.08	854.09	2385

COMPANY PREMIER OIL AUSTRALASIA WEL : YOLLA-2 PAGE 7

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	195.5	183.0	1906	1953	354.81	599.63	849.84	2385
194.00	197.9	185.4	1911	1958	352.31	596.24	845.67	2385
196.00	200.3	187.8	1916	1963	349.85	592.91	841.58	2385
198.00	202.6	190.1	1921	1968	347.43	589.63	837.56	2385
200.00	205.0	192.5	1925	1972	345.06	586.41	833.61	2385
202.00	207.4	194.9	1930	1977	342.72	583.25	829.73	2385
204.00	209.8	197.3	1934	1981	340.42	580.13	825.91	2385
206.00	212.2	199.7	1939	1985	338.15	577.06	822.16	2385
208.00	214.6	202.1	1943	1990	335.93	574.05	818.47	2385
210.00	217.0	204.5	1947	1994	333.73	571.07	814.83	2385
212.00	219.3	206.8	1951	1998	331.57	568.15	811.25	2385
214.00	221.7	209.2	1955	2002	329.44	565.26	807.73	2385
216.00	224.1	211.6	1959	2006	327.35	562.42	804.26	2385
218.00	226.5	214.0	1963	2010	325.28	559.61	800.84	2385
220.00	228.9	216.4	1967	2013	323.24	556.85	797.47	2385
222.00	231.3	218.8	1971	2017	321.23	554.13	794.14	2385
224.00	233.7	221.2	1975	2021	319.25	551.44	790.87	2385
226.00	236.0	223.5	1978	2024	317.30	548.78	787.63	2385
228.00	238.4	225.9	1982	2027	315.37	546.16	784.44	2385
230.00	240.8	228.3	1985	2031	313.47	543.58	781.30	2385
232.00	243.2	230.7	1989	2034	311.59	541.03	778.19	2385
234.00	245.6	233.1	1992	2037	309.74	538.51	775.12	2385
236.00	248.0	235.5	1995	2041	307.91	536.02	772.09	2385
238.00	250.4	237.9	1999	2044	306.10	533.56	769.10	2385

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	252.7	240.2	2002	2047	304.32	531.13	766.14	2385
242.00	255.1	242.6	2005	2050	302.56	528.72	763.22	2385
244.00	257.5	245.0	2008	2053	300.82	526.35	760.34	2385
246.00	259.9	247.4	2011	2056	299.10	524.00	757.48	2385
248.00	262.3	249.8	2014	2059	297.40	521.68	754.66	2385
250.00	264.7	252.2	2017	2061	295.72	519.38	751.87	2385
252.00	267.1	254.6	2020	2064	294.06	517.11	749.11	2385
254.00	269.4	256.9	2023	2067	292.42	514.87	746.39	2385
256.00	271.8	259.3	2026	2070	290.80	512.65	743.69	2385
258.00	274.2	261.7	2029	2072	289.20	510.45	741.01	2385
260.00	276.6	264.1	2031	2075	287.62	508.27	738.37	2385
262.00	279.0	266.5	2034	2077	286.05	506.12	735.75	2385
264.00	281.4	268.9	2037	2080	284.50	503.99	733.16	2385
266.00	283.7	271.2	2039	2082	282.97	501.88	730.60	2385
268.00	286.1	273.6	2042	2085	281.46	499.79	728.06	2385
270.00	288.5	276.0	2045	2087	279.96	497.72	725.54	2385
272.00	290.9	278.4	2047	2090	278.47	495.67	723.05	2385
274.00	293.3	280.8	2050	2092	277.01	493.64	720.59	2385
276.00	295.7	283.2	2052	2094	275.55	491.63	718.14	2385
278.00	298.1	285.6	2054	2096	274.12	489.64	715.72	2385
280.00	300.4	287.9	2057	2099	272.69	487.66	713.32	2385
282.00	302.8	290.3	2059	2101	271.29	485.71	710.94	2385
284.00	305.2	292.7	2061	2103	269.89	483.77	708.58	2385
286.00	307.6	295.1	2064	2105	268.51	481.85	706.24	2385

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TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
288.00	310.0	297.5	2066	2107	267.15	479.95	703.93	2385
290.00	312.4	299.9	2068	2109	265.79	478.06	701.63	2385
292.00	314.8	302.3	2070	2111	264.46	476.19	699.35	2385
294.00	317.1	304.6	2072	2113	263.13	474.34	697.09	2385
296.00	319.5	307.0	2074	2115	261.82	472.50	694.85	2385
298.00	321.9	309.4	2077	2117	260.52	470.67	692.63	2385
300.00	324.3	311.8	2079	2119	259.23	468.87	690.43	2385
302.00	326.7	314.2	2081	2121	257.95	467.07	688.24	2385
304.00	329.1	316.6	2083	2123	256.69	465.30	686.07	2385
306.00	331.5	319.0	2085	2124	255.44	463.53	683.92	2385
308.00	333.8	321.3	2087	2126	254.20	461.78	681.78	2385
310.00	336.2	323.7	2089	2128	252.97	460.05	679.66	2385
312.00	338.6	326.1	2090	2130	251.75	458.33	677.56	2385
314.00	341.0	328.5	2092	2131	250.54	456.62	675.47	2385
316.00	343.4	330.9	2094	2133	249.35	454.92	673.40	2385
318.00	345.8	333.3	2096	2135	248.16	453.24	671.34	2385
320.00	348.1	335.6	2098	2136	246.99	451.57	669.30	2385
322.00	350.5	338.0	2100	2138	245.83	449.92	667.27	2385
324.00	352.9	340.4	2101	2140	244.67	448.27	665.26	2385
326.00	355.3	342.8	2103	2141	243.53	446.64	663.26	2385
328.00	357.7	345.2	2105	2143	242.40	445.02	661.27	2385
330.00	360.1	347.6	2107	2144	241.27	443.41	659.30	2385
332.00	362.5	350.0	2108	2146	240.16	441.82	657.34	2385
334.00	364.8	352.3	2110	2147	239.06	440.23	655.40	2385

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	367.2	354.7	2111	2149	237.96	438.66	653.46	2385
338.00	369.6	357.1	2113	2150	236.88	437.10	651.55	2385
340.00	372.0	359.5	2115	2152	235.80	435.55	649.64	2385
342.00	374.4	361.9	2116	2153	234.73	434.01	647.75	2385
344.00	376.8	364.3	2118	2155	233.68	432.48	645.87	2385
346.00	379.2	366.7	2119	2156	232.63	430.97	644.00	2385
348.00	381.5	369.0	2121	2158	231.59	429.46	642.14	2385
350.00	383.9	371.4	2122	2159	230.56	427.96	640.29	2385
352.00	386.3	373.8	2124	2160	229.53	426.48	638.46	2385
354.00	388.7	376.2	2125	2162	228.52	425.00	636.64	2385
356.00	391.1	378.6	2127	2163	227.51	423.54	634.83	2385
358.00	393.5	381.0	2128	2164	226.51	422.08	633.03	2385
360.00	395.9	383.4	2130	2166	225.52	420.63	631.24	2385
362.00	398.2	385.7	2131	2167	224.54	419.20	629.46	2385
364.00	400.6	388.1	2133	2168	223.57	417.77	627.69	2385
366.00	403.0	390.5	2134	2169	222.60	416.35	625.94	2385
368.00	405.4	392.9	2135	2171	221.64	414.94	624.19	2385
370.00	407.8	395.3	2137	2172	220.69	413.54	622.46	2385
372.00	410.2	397.7	2138	2173	219.75	412.15	620.73	2385
374.00	412.6	400.1	2139	2174	218.81	410.77	619.01	2385
376.00	414.9	402.4	2141	2175	217.88	409.40	617.31	2385
378.00	417.3	404.8	2142	2177	216.96	408.03	615.61	2385
380.00	419.7	407.2	2143	2178	216.05	406.68	613.93	2385
382.00	422.1	409.6	2144	2179	215.14	405.33	612.25	2385

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	424.5	412.0	2146	2180	214.24	403.99	610.58	2385
386.00	426.9	414.4	2147	2181	213.35	402.66	608.92	2385
388.00	429.2	416.7	2148	2182	212.46	401.34	607.28	2385
390.00	431.6	419.1	2149	2183	211.58	400.03	605.64	2385
392.00	434.0	421.5	2151	2184	210.71	398.72	604.01	2385
394.00	436.4	423.9	2152	2185	209.84	397.43	602.38	2385
396.00	438.8	426.3	2153	2186	208.98	396.14	600.77	2385
398.00	441.2	428.7	2154	2187	208.13	394.86	599.17	2385
400.00	443.6	431.1	2155	2189	207.28	393.58	597.57	2385
402.00	445.9	433.4	2156	2190	206.44	392.32	595.98	2385
404.00	448.3	435.8	2158	2191	205.60	391.06	594.41	2385
406.00	450.7	438.2	2159	2192	204.77	389.81	592.84	2385
408.00	453.1	440.6	2160	2193	203.95	388.56	591.27	2385
410.00	455.5	443.0	2161	2194	203.14	387.33	589.72	2385
412.00	457.9	445.4	2162	2194	202.32	386.10	588.17	2385
414.00	460.3	447.8	2163	2195	201.52	384.88	586.64	2385
416.00	462.6	450.1	2164	2196	200.72	383.66	585.11	2385
418.00	465.0	452.5	2165	2197	199.93	382.45	583.58	2385
420.00	467.4	454.9	2166	2198	199.14	381.25	582.07	2385
422.00	469.8	457.3	2167	2199	198.36	380.06	580.56	2385
424.00	472.2	459.7	2168	2200	197.58	378.87	579.06	2385
426.00	474.6	462.1	2169	2201	196.81	377.69	577.57	2385
428.00	477.0	464.5	2170	2202	196.05	376.52	576.09	2385
430.00	479.3	466.8	2171	2203	195.29	375.35	574.61	2385

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	481.7	469.2	2172	2204	194.53	374.19	573.14	2385
434.00	484.1	471.6	2173	2205	193.79	373.04	571.68	2385
436.00	486.5	474.0	2174	2205	193.04	371.89	570.22	2385
438.00	488.9	476.4	2175	2206	192.30	370.75	568.78	2385
440.00	491.3	478.8	2176	2207	191.57	369.62	567.34	2385
442.00	493.6	481.1	2177	2208	190.84	368.49	565.90	2385
444.00	496.0	483.5	2178	2209	190.12	367.37	564.47	2385
446.00	498.4	485.9	2179	2210	189.40	366.25	563.05	2385
448.00	500.8	488.3	2180	2210	188.69	365.15	561.64	2385
450.00	503.2	490.7	2181	2211	187.98	364.04	560.23	2385
452.00	505.6	493.1	2182	2212	187.28	362.95	558.83	2385
454.00	508.0	495.5	2183	2213	186.58	361.85	557.44	2385
456.00	510.3	497.8	2184	2214	185.88	360.77	556.05	2385
458.00	512.7	500.2	2184	2214	185.19	359.69	554.67	2385
460.00	515.1	502.6	2185	2215	184.51	358.62	553.30	2385
462.00	517.5	505.0	2186	2216	183.83	357.55	551.93	2385
464.00	519.9	507.4	2187	2217	183.15	356.49	550.57	2385
466.00	522.3	509.8	2188	2217	182.48	355.43	549.21	2385
468.00	524.7	512.2	2189	2218	181.82	354.38	547.86	2385
470.00	527.0	514.5	2190	2219	181.16	353.34	546.52	2385
472.00	529.4	516.9	2190	2220	180.50	352.30	545.19	2385
474.00	531.8	519.3	2191	2220	179.85	351.26	543.85	2385
476.00	534.2	521.7	2192	2221	179.20	350.24	542.53	2385
478.00	536.6	524.1	2193	2222	178.55	349.21	541.21	2385

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	539.0	526.5	2194	2223	177.91	348.20	539.90	2385
482.00	541.4	528.9	2194	2223	177.28	347.18	538.59	2385
484.00	543.7	531.2	2195	2224	176.64	346.18	537.29	2385
486.00	546.1	533.6	2196	2225	176.02	345.18	535.99	2385
488.00	548.5	536.0	2197	2225	175.39	344.18	534.71	2385
490.00	550.9	538.4	2198	2226	174.77	343.19	533.42	2385
492.00	553.3	540.8	2198	2227	174.16	342.20	532.14	2385
494.00	555.7	543.2	2199	2227	173.55	341.22	530.87	2385
496.00	558.1	545.6	2200	2228	172.94	340.24	529.60	2385
498.00	560.4	547.9	2201	2229	172.33	339.27	528.34	2385
500.00	562.8	550.3	2201	2229	171.73	338.31	527.09	2385
502.00	565.2	552.7	2202	2230	171.14	337.35	525.83	2385
504.00	567.6	555.1	2203	2231	170.55	336.39	524.59	2385
506.00	570.0	557.5	2203	2231	169.96	335.44	523.35	2385
508.00	572.4	559.9	2204	2232	169.37	334.49	522.11	2385
510.00	574.7	562.2	2205	2232	168.79	333.55	520.89	2385
512.00	577.1	564.6	2206	2233	168.21	332.61	519.66	2385
514.00	579.5	567.0	2206	2234	167.64	331.68	518.44	2385
516.00	581.9	569.4	2207	2234	167.07	330.75	517.23	2385
518.00	584.3	571.8	2208	2235	166.50	329.83	516.02	2385
520.00	586.7	574.2	2208	2235	165.94	328.91	514.82	2385
522.00	589.1	576.6	2209	2236	165.38	328.00	513.62	2385
524.00	591.4	578.9	2210	2237	164.82	327.09	512.42	2385
526.00	593.8	581.3	2210	2237	164.27	326.18	511.24	2385

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TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
528.00	596.2	583.7	2211	2238	163.72	325.28	510.05	2385
530.00	598.6	586.1	2212	2238	163.17	324.39	508.87	2385
532.00	601.0	588.5	2212	2239	162.63	323.50	507.70	2385
534.00	603.4	590.9	2213	2240	162.09	322.61	506.53	2385
536.00	605.8	593.3	2214	2240	161.56	321.73	505.37	2385
538.00	608.1	595.6	2214	2241	161.02	320.85	504.21	2385
540.00	610.5	598.0	2215	2241	160.49	319.97	503.05	2385
542.00	612.9	600.4	2216	2242	159.97	319.10	501.90	2385
544.00	615.3	602.8	2216	2242	159.44	318.24	500.76	2385
546.00	617.7	605.2	2217	2243	158.92	317.37	499.62	2385
548.00	620.1	607.6	2217	2243	158.41	316.52	498.48	2385
550.00	622.5	610.0	2218	2244	157.89	315.66	497.35	2385
552.00	624.8	612.3	2219	2244	157.38	314.81	496.22	2385
554.00	627.2	614.7	2219	2245	156.87	313.97	495.10	2385
556.00	629.6	617.1	2220	2245	156.37	313.13	493.98	2385
558.00	632.0	619.5	2220	2246	155.87	312.29	492.87	2385
560.00	634.4	621.9	2221	2246	155.37	311.46	491.76	2385
562.00	636.8	624.3	2222	2247	154.87	310.63	490.66	2385
564.00	639.1	626.6	2222	2247	154.38	309.80	489.56	2385
566.00	641.5	629.0	2223	2248	153.89	308.98	488.46	2385
568.00	643.9	631.4	2223	2248	153.40	308.16	487.37	2385
570.00	646.3	633.8	2224	2249	152.92	307.35	486.28	2385
572.00	648.7	636.2	2224	2249	152.44	306.54	485.20	2385
574.00	651.1	638.6	2225	2250	151.96	305.74	484.12	2385

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	653.5	641.0	2226	2250	151.48	304.93	483.05	2385
578.00	655.8	643.3	2226	2251	151.01	304.13	481.98	2385
580.00	658.2	645.7	2227	2251	150.54	303.34	480.91	2385
582.00	660.6	648.1	2227	2252	150.07	302.55	479.85	2385
584.00	663.0	650.5	2228	2252	149.60	301.76	478.79	2385
586.00	665.4	652.9	2228	2253	149.14	300.98	477.74	2385
588.00	667.8	655.3	2229	2253	148.68	300.20	476.69	2385
590.00	670.2	657.7	2229	2254	148.22	299.42	475.65	2385
592.00	672.5	660.0	2230	2254	147.77	298.65	474.61	2385
594.00	674.9	662.4	2230	2255	147.32	297.88	473.57	2385
596.00	677.3	664.8	2231	2255	146.87	297.11	472.54	2385
598.00	679.7	667.2	2231	2256	146.42	296.35	471.51	2385
600.00	682.1	669.6	2232	2256	145.98	295.59	470.48	2385
602.00	684.5	672.0	2232	2256	145.54	294.84	469.46	2385
604.00	686.9	674.4	2233	2257	145.10	294.09	468.44	2385
606.00	689.2	676.7	2233	2257	144.66	293.34	467.43	2385
608.00	691.6	679.1	2234	2258	144.22	292.59	466.42	2385
610.00	694.0	681.5	2234	2258	143.79	291.85	465.41	2385
612.00	696.4	683.9	2235	2259	143.36	291.11	464.41	2385
614.00	698.8	686.3	2235	2259	142.94	290.38	463.41	2385
616.00	701.2	688.7	2236	2259	142.51	289.64	462.42	2385
618.00	703.6	691.1	2236	2260	142.09	288.92	461.43	2385
620.00	705.9	693.4	2237	2260	141.67	288.19	460.44	2385
622.00	708.3	695.8	2237	2261	141.25	287.47	459.46	2385

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
624.00	710.7	698.2	2238	2261	140.83	286.75	458.48	2385
626.00	713.1	700.6	2238	2262	140.42	286.04	457.50	2385
628.00	715.5	703.0	2239	2262	140.01	285.32	456.53	2385
630.00	717.9	705.4	2239	2262	139.60	284.61	455.56	2385
632.00	720.2	707.7	2240	2263	139.19	283.91	454.60	2385
634.00	722.6	710.1	2240	2263	138.79	283.21	453.63	2385
636.00	725.0	712.5	2241	2264	138.39	282.51	452.68	2385
638.00	727.4	714.9	2241	2264	137.99	281.81	451.72	2385
640.00	729.8	717.3	2242	2264	137.59	281.12	450.77	2385
642.00	732.2	719.7	2242	2265	137.19	280.42	449.82	2385
644.00	734.6	722.1	2242	2265	136.80	279.74	448.88	2385
646.00	736.9	724.4	2243	2265	136.41	279.05	447.94	2385
648.00	739.3	726.8	2243	2266	136.02	278.37	447.00	2385
650.00	741.7	729.2	2244	2266	135.63	277.69	446.07	2385
652.00	744.1	731.6	2244	2267	135.25	277.02	445.14	2385
654.00	746.5	734.0	2245	2267	134.86	276.34	444.21	2385
656.00	748.9	736.4	2245	2267	134.48	275.67	443.29	2385
658.00	751.3	738.8	2245	2268	134.10	275.01	442.37	2385
660.00	753.6	741.1	2246	2268	133.73	274.34	441.45	2385
662.00	756.0	743.5	2246	2268	133.35	273.68	440.54	2385
664.00	758.4	745.9	2247	2269	132.98	273.03	439.63	2385
666.00	760.8	748.3	2247	2269	132.61	272.37	438.72	2385
668.00	763.2	750.7	2248	2269	132.24	271.72	437.82	2385
670.00	765.6	753.1	2248	2270	131.87	271.07	436.92	2385

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
								2385
672.00	768.0	755.5	2248	2270	131.50	270.42	436.02	2385
674.00	770.3	757.8	2249	2271	131.14	269.78	435.13	2385
676.00	772.7	760.2	2249	2271	130.78	269.13	434.24	2385
678.00	775.1	762.6	2250	2271	130.42	268.50	433.35	2385
680.00	777.5	765.0	2250	2272	130.06	267.86	432.47	2385
682.00	779.9	767.4	2250	2272	129.70	267.23	431.59	2385
684.00	782.3	769.8	2251	2272	129.35	266.60	430.71	2385
686.00	784.6	772.1	2251	2273	129.00	265.97	429.83	2385
688.00	787.0	774.5	2252	2273	128.64	265.34	428.96	2385
690.00	789.4	776.9	2252	2273	128.30	264.72	428.09	2385
692.00	791.8	779.3	2252	2274	127.95	264.10	427.23	2385
694.00	794.2	781.7	2253	2274	127.60	263.48	426.36	2385
696.00	796.6	784.1	2253	2274	127.26	262.87	425.51	2385
698.00	799.0	786.5	2253	2275	126.92	262.26	424.65	2385
700.00	801.3	788.8	2254	2275	126.58	261.65	423.80	2385
702.00	803.7	791.2	2254	2275	126.24	261.04	422.94	2385
704.00	806.1	793.6	2255	2276	125.90	260.44	422.10	2385
706.00	808.5	796.0	2255	2276	125.57	259.83	421.25	2385
708.00	810.9	798.4	2255	2276	125.23	259.23	420.41	2385
710.00	813.3	800.8	2256	2276	124.90	258.64	419.57	2385
712.00	815.7	803.2	2256	2277	124.57	258.04	418.74	2385
714.00	818.0	805.5	2256	2277	124.24	257.45	417.90	2383
716.00	820.4	807.9	2257	2277	123.92	256.86	417.08	2379
718.00	822.8	810.3	2257	2278	123.59	256.28	416.26	

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	825.2	812.7	2257	2278	123.27	255.70	415.44	2380
722.00	827.6	815.1	2258	2278	122.95	255.12	414.62	2380
724.00	829.9	817.4	2258	2279	122.63	254.54	413.81	2379
726.00	832.3	819.8	2258	2279	122.31	253.97	413.00	2380
728.00	834.7	822.2	2259	2279	122.00	253.39	412.19	2379
730.00	837.1	824.6	2259	2279	121.68	252.82	411.38	2380
732.00	839.5	827.0	2259	2280	121.37	252.26	410.58	2379
734.00	841.7	829.2	2259	2280	121.09	251.75	409.88	2262
736.00	843.9	831.4	2259	2280	120.82	251.27	409.20	2225
738.00	846.2	833.7	2259	2279	120.56	250.79	408.53	2225
740.00	848.4	835.9	2259	2279	120.29	250.31	407.86	2225
742.00	850.6	838.1	2259	2279	120.02	249.84	407.20	2225
744.00	852.9	840.4	2259	2279	119.76	249.36	406.53	2225
746.00	855.1	842.6	2259	2279	119.50	248.89	405.87	2225
748.00	857.3	844.8	2259	2279	119.24	248.41	405.21	2225
750.00	859.5	847.0	2259	2279	118.98	247.94	404.54	2225
752.00	861.8	849.3	2259	2278	118.72	247.47	403.89	2225
754.00	864.0	851.5	2259	2278	118.46	247.01	403.23	2225
756.00	866.2	853.7	2258	2278	118.20	246.54	402.57	2225
758.00	868.4	855.9	2258	2278	117.94	246.07	401.92	2225
760.00	870.7	858.2	2258	2278	117.69	245.61	401.27	2225
762.00	872.9	860.4	2258	2278	117.43	245.15	400.62	2225
764.00	875.1	862.6	2258	2278	117.18	244.69	399.97	2225
766.00	877.3	864.8	2258	2277	116.93	244.23	399.32	2225

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
								2225
768.00	879.6	867.1	2258	2277	116.68	243.77	398.68	2225
770.00	881.8	869.3	2258	2277	116.43	243.32	398.03	2225
772.00	884.0	871.5	2258	2277	116.18	242.86	397.39	2225
774.00	886.2	873.7	2258	2277	115.93	242.41	396.75	2225
776.00	888.5	876.0	2258	2277	115.68	241.96	396.11	2225
778.00	890.7	878.2	2258	2277	115.43	241.51	395.47	2225
780.00	892.9	880.4	2257	2276	115.19	241.06	394.84	2225
782.00	895.1	882.6	2257	2276	114.94	240.61	394.20	2225
784.00	897.4	884.9	2257	2276	114.70	240.17	393.57	2225
786.00	899.6	887.1	2257	2276	114.46	239.72	392.94	2225
788.00	901.8	889.3	2257	2276	114.22	239.28	392.31	2225
790.00	904.0	891.5	2257	2276	113.97	238.84	391.68	2225
792.00	906.3	893.8	2257	2276	113.73	238.40	391.06	2225
794.00	908.5	896.0	2257	2276	113.50	237.96	390.44	2225
796.00	910.7	898.2	2257	2275	113.26	237.52	389.81	2225
798.00	912.9	900.4	2257	2275	113.02	237.09	389.19	2225
800.00	915.2	902.7	2257	2275	112.78	236.65	388.57	2225
802.00	917.4	904.9	2257	2275	112.55	236.22	387.95	2225
804.00	919.6	907.1	2256	2275	112.32	235.79	387.34	2225
806.00	921.8	909.3	2256	2275	112.08	235.36	386.72	2225
808.00	924.1	911.6	2256	2275	111.85	234.93	386.11	2225
810.00	926.3	913.8	2256	2275	111.62	234.50	385.50	2225
812.00	928.5	916.0	2256	2274	111.39	234.07	384.89	2225
814.00	930.7	918.2	2256	2274	111.16	233.65	384.28	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
816.00	933.0	920.5	2256	2274	110.93	233.22	383.67	2225
818.00	935.2	922.7	2256	2274	110.70	232.80	383.07	2225
820.00	937.4	924.9	2256	2274	110.47	232.38	382.47	2225
822.00	939.6	927.1	2256	2274	110.25	231.96	381.86	2225
824.00	941.9	929.4	2256	2274	110.02	231.54	381.26	2225
826.00	944.1	931.6	2256	2274	109.80	231.13	380.66	2225
828.00	946.3	933.8	2256	2274	109.57	230.71	380.07	2225
830.00	948.5	936.0	2256	2273	109.35	230.30	379.47	2225
832.00	950.8	938.3	2255	2273	109.13	229.88	378.88	2225
834.00	953.0	940.5	2255	2273	108.91	229.47	378.28	2225
836.00	955.2	942.7	2255	2273	108.69	229.06	377.69	2225
838.00	957.4	944.9	2255	2273	108.47	228.65	377.10	2225
840.00	959.7	947.2	2255	2273	108.25	228.24	376.51	2225
842.00	961.9	949.4	2255	2273	108.03	227.84	375.93	2225
844.00	964.1	951.6	2255	2273	107.81	227.43	375.34	2225
846.00	966.3	953.8	2255	2273	107.60	227.03	374.76	2225
848.00	968.6	956.1	2255	2272	107.38	226.63	374.18	2225
850.00	970.8	958.3	2255	2272	107.17	226.22	373.59	2225
852.00	973.0	960.5	2255	2272	106.95	225.82	373.02	2225
854.00	975.2	962.7	2255	2272	106.74	225.43	372.44	2225
856.00	977.5	965.0	2255	2272	106.53	225.03	371.86	2225
858.00	979.7	967.2	2255	2272	106.32	224.63	371.29	2225
860.00	981.9	969.4	2254	2272	106.11	224.24	370.71	2225
862.00	984.1	971.6	2254	2272	105.90	223.84	370.14	2225

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TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
864.00	986.4	973.9	2254	2272	105.69	223.45	369.57	2225
866.00	988.6	976.1	2254	2271	105.48	223.06	369.00	2225
868.00	990.8	978.3	2254	2271	105.27	222.67	368.43	2225
870.00	993.0	980.5	2254	2271	105.07	222.28	367.87	2225
872.00	995.3	982.8	2254	2271	104.86	221.89	367.30	2225
874.00	997.5	985.0	2254	2271	104.65	221.50	366.74	2225
876.00	999.7	987.2	2254	2271	104.45	221.12	366.18	2225
878.00	1001.9	989.4	2254	2271	104.25	220.73	365.62	2225
880.00	1004.2	991.7	2254	2271	104.04	220.35	365.06	2225
882.00	1006.4	993.9	2254	2271	103.84	219.97	364.50	2225
884.00	1008.6	996.1	2254	2271	103.64	219.59	363.94	2225
886.00	1010.8	998.3	2254	2270	103.44	219.21	363.39	2225
888.00	1013.1	1000.6	2254	2270	103.24	218.83	362.84	2225
890.00	1015.3	1002.8	2253	2270	103.04	218.45	362.28	2225
892.00	1017.5	1005.0	2253	2270	102.84	218.07	361.73	2225
894.00	1019.7	1007.2	2253	2270	102.64	217.70	361.18	2225
896.00	1022.0	1009.5	2253	2270	102.45	217.33	360.64	2225
898.00	1024.2	1011.7	2253	2270	102.25	216.95	360.09	2225
900.00	1026.4	1013.9	2253	2270	102.05	216.58	359.54	2225
902.00	1028.6	1016.1	2253	2270	101.86	216.21	359.00	2225
904.00	1030.9	1018.4	2253	2270	101.67	215.84	358.46	2225
906.00	1033.1	1020.6	2253	2269	101.47	215.47	357.92	2225
908.00	1035.3	1022.8	2253	2269	101.28	215.11	357.38	2225
910.00	1037.5	1025.0	2253	2269	101.09	214.74	356.84	2225

COMPANY REMIER OIL AUSTRALASIA WEL. : YOLLA-2 PAGE 22

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	1039.8	1027.3	2253	2269	100.89	214.38	356.30	2225
914.00	1042.0	1029.5	2253	2269	100.70	214.01	355.77	2225
916.00	1044.2	1031.7	2253	2269	100.51	213.65	355.23	2225
918.00	1046.4	1033.9	2253	2269	100.32	213.29	354.70	2225
920.00	1048.7	1036.2	2253	2269	100.14	212.93	354.17	2225
922.00	1050.9	1038.4	2252	2269	99.95	212.57	353.64	2225
924.00	1053.1	1040.6	2252	2269	99.76	212.21	353.11	2225
926.00	1055.3	1042.8	2252	2268	99.57	211.85	352.58	2225
928.00	1057.6	1045.1	2252	2268	99.39	211.50	352.06	2225
930.00	1059.8	1047.3	2252	2268	99.20	211.14	351.53	2225
932.00	1062.0	1049.5	2252	2268	99.02	210.79	351.01	2225
934.00	1064.2	1051.7	2252	2268	98.83	210.43	350.49	2225
936.00	1066.5	1054.0	2252	2268	98.65	210.08	349.97	2225
938.00	1068.7	1056.2	2252	2268	98.47	209.73	349.45	2225
940.00	1070.9	1058.4	2252	2268	98.28	209.38	348.93	2225
942.00	1073.2	1060.7	2252	2268	98.10	209.03	348.41	2225
944.00	1075.4	1062.9	2252	2268	97.92	208.68	347.90	2225
946.00	1077.6	1065.1	2252	2268	97.74	208.34	347.38	2225
948.00	1079.8	1067.3	2252	2267	97.56	207.99	346.87	2225
950.00	1082.1	1069.6	2252	2267	97.38	207.65	346.36	2225
952.00	1084.3	1071.8	2252	2267	97.20	207.30	345.85	2225
954.00	1086.5	1074.0	2252	2267	97.03	206.96	345.34	2225
956.00	1088.7	1076.2	2252	2267	96.85	206.62	344.83	2225
958.00	1091.0	1078.5	2251	2267	96.67	206.28	344.32	2225

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	1093.2	1080.7	2251	2267	96.50	205.94	343.82	2225
962.00	1095.4	1082.9	2251	2267	96.32	205.60	343.31	2225
964.00	1097.6	1085.1	2251	2267	96.15	205.26	342.81	2225
966.00	1099.9	1087.4	2251	2267	95.97	204.93	342.31	2225
968.00	1102.1	1089.6	2251	2267	95.80	204.59	341.81	2225
970.00	1104.3	1091.8	2251	2267	95.63	204.26	341.31	2225
972.00	1106.5	1094.0	2251	2266	95.45	203.92	340.81	2225
974.00	1108.8	1096.3	2251	2266	95.28	203.59	340.31	2225
976.00	1111.0	1098.5	2251	2266	95.11	203.26	339.82	2225
978.00	1113.2	1100.7	2251	2266	94.94	202.93	339.33	2225
980.00	1115.4	1102.9	2251	2266	94.77	202.60	338.83	2225
982.00	1117.7	1105.2	2251	2266	94.60	202.27	338.34	2225
984.00	1119.9	1107.4	2251	2266	94.43	201.94	337.85	2225
986.00	1122.1	1109.6	2251	2266	94.26	201.62	337.36	2225
988.00	1124.3	1111.8	2251	2266	94.10	201.29	336.87	2225
990.00	1126.6	1114.1	2251	2266	93.93	200.97	336.39	2225
992.00	1128.8	1116.3	2251	2266	93.76	200.64	335.90	2225
994.00	1131.0	1118.5	2251	2266	93.60	200.32	335.42	2225
996.00	1133.2	1120.7	2250	2265	93.43	200.00	334.93	2225
998.00	1135.5	1123.0	2250	2265	93.26	199.68	334.45	2225
1000.00	1137.7	1125.2	2250	2265	93.10	199.36	333.97	2225
1002.00	1139.9	1127.4	2250	2265	92.94	199.04	333.49	2225
1004.00	1142.1	1129.6	2250	2265	92.77	198.72	333.01	2225
1006.00	1144.4	1131.9	2250	2265	92.61	198.40	332.53	2225

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	1146.6	1134.1	2250	2265	92.45	198.09	332.06	2225
1010.00	1148.8	1136.3	2250	2265	92.29	197.77	331.58	2225
1012.00	1151.0	1138.5	2250	2265	92.13	197.46	331.11	2225
1014.00	1153.3	1140.8	2250	2265	91.97	197.14	330.64	2225
1016.00	1155.5	1143.0	2250	2265	91.81	196.83	330.17	2225
1018.00	1157.7	1145.2	2250	2265	91.65	196.52	329.70	2225
1020.00	1159.9	1147.4	2250	2265	91.49	196.21	329.23	2225
1022.00	1162.2	1149.7	2250	2264	91.33	195.90	328.76	2225
1024.00	1164.4	1151.9	2250	2264	91.17	195.59	328.29	2225
1026.00	1166.6	1154.1	2250	2264	91.01	195.28	327.83	2225
1028.00	1168.8	1156.3	2250	2264	90.86	194.97	327.36	2225
1030.00	1171.1	1158.6	2250	2264	90.70	194.66	326.90	2225
1032.00	1173.3	1160.8	2250	2264	90.54	194.36	326.44	2225
1034.00	1175.5	1163.0	2250	2264	90.39	194.05	325.97	2225
1036.00	1177.7	1165.2	2249	2264	90.23	193.75	325.51	2225
1038.00	1180.0	1167.5	2249	2264	90.08	193.45	325.06	2225
1040.00	1182.2	1169.7	2249	2264	89.93	193.15	324.60	2225
1042.00	1184.4	1171.9	2249	2264	89.77	192.84	324.14	2225
1044.00	1186.6	1174.1	2249	2264	89.62	192.54	323.69	2225
1046.00	1188.9	1176.4	2249	2264	89.47	192.24	323.23	2225
1048.00	1191.1	1178.6	2249	2263	89.32	191.95	322.78	2225
1050.00	1193.3	1180.8	2249	2263	89.16	191.65	322.33	2225
1052.00	1195.5	1183.0	2249	2263	89.01	191.35	321.88	2225
1054.00	1197.8	1185.3	2249	2263	88.86	191.05	321.43	2225

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	1200.0	1187.5	2249	2263	88.71	190.76	320.98	2225
1058.00	1202.2	1189.7	2249	2263	88.56	190.46	320.53	2225
1060.00	1204.4	1191.9	2249	2263	88.41	190.17	320.08	2225
1062.00	1206.7	1194.2	2249	2263	88.27	189.88	319.64	2225
1064.00	1208.9	1196.4	2249	2263	88.12	189.59	319.19	2225
1066.00	1211.1	1198.6	2249	2263	87.97	189.29	318.75	2225
1068.00	1213.3	1200.8	2249	2263	87.82	189.00	318.31	2225
1070.00	1215.6	1203.1	2249	2263	87.68	188.71	317.86	2225
1072.00	1217.8	1205.3	2249	2263	87.53	188.43	317.42	2225
1074.00	1220.0	1207.5	2249	2263	87.39	188.14	316.99	2225
1076.00	1222.2	1209.7	2249	2263	87.24	187.85	316.55	2225
1078.00	1224.5	1212.0	2249	2262	87.10	187.56	316.11	2225
1080.00	1226.7	1214.2	2249	2262	86.95	187.28	315.67	2225
1082.00	1228.9	1216.4	2248	2262	86.81	186.99	315.24	2225
1084.00	1231.1	1218.6	2248	2262	86.66	186.71	314.81	2225
1086.00	1233.4	1220.9	2248	2262	86.52	186.43	314.37	2225
1088.00	1235.6	1223.1	2248	2262	86.38	186.15	313.94	2225
1090.00	1237.8	1225.3	2248	2262	86.24	185.86	313.51	2225
1092.00	1240.0	1227.5	2248	2262	86.10	185.58	313.08	2225
1094.00	1242.3	1229.8	2248	2262	85.96	185.30	312.65	2225
1096.00	1244.5	1232.0	2248	2262	85.81	185.02	312.22	2225
1098.00	1246.7	1234.2	2248	2262	85.67	184.75	311.80	2225
1100.00	1248.9	1236.4	2248	2262	85.53	184.47	311.37	2225
1102.00	1251.2	1238.7	2248	2262	85.40	184.19	310.95	2225

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	1253.4	1240.9	2248	2262	85.26	183.91	310.52	2225
1106.00	1255.6	1243.1	2248	2262	85.12	183.64	310.10	2225
1108.00	1257.8	1245.3	2248	2261	84.98	183.36	309.68	2225
1110.00	1260.1	1247.6	2248	2261	84.84	183.09	309.26	2225
1112.00	1262.3	1249.8	2248	2261	84.71	182.82	308.84	2225
1114.00	1264.5	1252.0	2248	2261	84.57	182.55	308.42	2225
1116.00	1266.7	1254.2	2248	2261	84.43	182.27	308.00	2225
1118.00	1269.0	1256.5	2248	2261	84.30	182.00	307.59	2225
1120.00	1271.2	1258.7	2248	2261	84.16	181.73	307.17	2225
1122.00	1273.4	1260.9	2248	2261	84.03	181.46	306.76	2225
1124.00	1275.6	1263.1	2248	2261	83.89	181.19	306.34	2225
1126.00	1277.9	1265.4	2248	2261	83.76	180.93	305.93	2225
1128.00	1280.1	1267.6	2248	2261	83.62	180.66	305.52	2225
1130.00	1282.3	1269.8	2247	2261	83.49	180.39	305.11	2225
1132.00	1284.5	1272.0	2247	2261	83.36	180.13	304.70	2225
1134.00	1286.8	1274.3	2247	2261	83.22	179.86	304.29	2225
1136.00	1289.0	1276.5	2247	2261	83.09	179.60	303.88	2225
1138.00	1291.2	1278.7	2247	2260	82.96	179.33	303.47	2225
1140.00	1293.5	1281.0	2247	2260	82.83	179.07	303.07	2225
1142.00	1295.7	1283.2	2247	2260	82.70	178.81	302.66	2225
1144.00	1297.9	1285.4	2247	2260	82.57	178.55	302.26	2225
1146.00	1300.1	1287.6	2247	2260	82.44	178.29	301.86	2225
1148.00	1302.4	1289.9	2247	2260	82.31	178.03	301.45	2225
1150.00	1304.6	1292.1	2247	2260	82.18	177.77	301.05	2225

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	1306.8	1294.3	2247	2260	82.05	177.51	300.65	2225
1154.00	1309.0	1296.5	2247	2260	81.92	177.25	300.25	2225
1156.00	1311.3	1298.8	2247	2260	81.79	176.99	299.86	2225
1158.00	1313.5	1301.0	2247	2260	81.67	176.74	299.46	2225
1160.00	1315.7	1303.2	2247	2260	81.54	176.48	299.06	2225
1162.00	1317.9	1305.4	2247	2260	81.41	176.23	298.67	2225
1164.00	1320.2	1307.7	2247	2260	81.28	175.97	298.27	2225
1166.00	1322.4	1309.9	2247	2260	81.16	175.72	297.88	2225
1168.00	1324.6	1312.1	2247	2260	81.03	175.47	297.49	2616
1170.00	1327.2	1314.7	2247	2260	80.86	175.11	296.93	2616
1172.00	1329.8	1317.3	2248	2261	80.68	174.76	296.37	2632
1174.00	1332.5	1320.0	2249	2262	80.51	174.40	295.80	2504
1176.00	1335.0	1322.5	2249	2262	80.35	174.08	295.30	2443
1178.00	1337.4	1324.9	2249	2262	80.20	173.77	294.82	2704
1180.00	1340.1	1327.6	2250	2263	80.02	173.40	294.23	2634
1182.00	1342.8	1330.3	2251	2264	79.84	173.05	293.67	2731
1184.00	1345.5	1333.0	2252	2265	79.66	172.67	293.07	2735
1186.00	1348.2	1335.7	2252	2266	79.47	172.29	292.47	2858
1188.00	1351.1	1338.6	2253	2267	79.27	171.87	291.82	2792
1190.00	1353.9	1341.4	2254	2268	79.08	171.48	291.19	2889
1192.00	1356.8	1344.3	2255	2269	78.87	171.06	290.53	2721
1194.00	1359.5	1347.0	2256	2270	78.69	170.69	289.94	2769
1196.00	1362.2	1349.7	2257	2271	78.51	170.31	289.34	2927
1198.00	1365.2	1352.7	2258	2272	78.30	169.89	288.66	

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	1368.0	1355.5	2259	2273	78.11	169.50	288.04	2828
1202.00	1371.0	1358.5	2260	2274	77.90	169.06	287.35	2961
1204.00	1374.1	1361.6	2262	2276	77.67	168.59	286.59	3105
1206.00	1377.0	1364.5	2263	2277	77.46	168.16	285.90	2977
1208.00	1379.8	1367.3	2264	2278	77.28	167.80	285.33	2745
1210.00	1382.4	1369.9	2264	2279	77.12	167.47	284.80	2630
1212.00	1385.0	1372.5	2265	2279	76.96	167.14	284.28	2627
1214.00	1387.9	1375.4	2266	2280	76.77	166.74	283.64	2901
1216.00	1390.7	1378.2	2267	2281	76.59	166.37	283.06	2771
1218.00	1393.7	1381.2	2268	2283	76.39	165.96	282.41	2941
1220.00	1396.4	1383.9	2269	2284	76.22	165.60	281.83	2776
1222.00	1399.2	1386.7	2270	2284	76.05	165.25	281.27	2738
1224.00	1401.8	1389.3	2270	2285	75.89	164.94	280.78	2599
1226.00	1404.4	1391.9	2271	2286	75.73	164.62	280.26	2648
1228.00	1406.9	1394.4	2271	2286	75.59	164.32	279.80	2525
1230.00	1409.8	1397.3	2272	2287	75.41	163.95	279.21	2837
1232.00	1412.7	1400.2	2273	2288	75.22	163.55	278.56	2954
1234.00	1415.5	1403.0	2274	2289	75.05	163.21	278.02	2724
1236.00	1418.2	1405.7	2275	2290	74.88	162.86	277.46	2782
1238.00	1420.9	1408.4	2275	2291	74.72	162.53	276.94	2700
1240.00	1423.8	1411.3	2276	2292	74.54	162.15	276.32	2906
1242.00	1426.6	1414.1	2277	2292	74.38	161.81	275.79	2737
1244.00	1429.2	1416.7	2278	2293	74.23	161.52	275.32	2576
1246.00	1431.8	1419.3	2278	2294	74.08	161.21	274.82	2647

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TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1248.00	1434.4	1421.9	2279	2294	73.94	160.91	274.35	2600
1250.00	1437.2	1424.7	2280	2295	73.77	160.56	273.80	2797
1252.00	1439.9	1427.4	2280	2296	73.61	160.24	273.28	2703
1254.00	1442.5	1430.0	2281	2296	73.47	159.94	272.80	2629
1256.00	1445.0	1432.5	2281	2297	73.34	159.68	272.38	2483
1258.00	1447.6	1435.1	2282	2297	73.20	159.39	271.93	2557
1260.00	1450.3	1437.8	2282	2298	73.05	159.08	271.42	2697
1262.00	1453.1	1440.6	2283	2299	72.88	158.74	270.89	2788
1264.00	1455.8	1443.3	2284	2299	72.73	158.42	270.37	2735
1266.00	1458.5	1446.0	2284	2300	72.58	158.11	269.88	2688
1268.00	1461.3	1448.8	2285	2301	72.42	157.78	269.35	2781
1270.00	1464.1	1451.6	2286	2302	72.26	157.45	268.81	2806
1272.00	1467.0	1454.5	2287	2303	72.09	157.09	268.24	2885
1274.00	1469.9	1457.4	2288	2304	71.91	156.72	267.64	2958
1276.00	1473.0	1460.5	2289	2305	71.71	156.32	266.99	3096
1278.00	1476.0	1463.5	2290	2307	71.53	155.93	266.37	3024
1280.00	1479.2	1466.7	2292	2308	71.33	155.52	265.70	3144
1282.00	1482.2	1469.7	2293	2310	71.15	155.13	265.07	3040
1284.00	1485.2	1472.7	2294	2311	70.97	154.77	264.49	2964
1286.00	1488.2	1475.7	2295	2312	70.79	154.40	263.89	2992
1288.00	1491.3	1478.8	2296	2313	70.60	153.99	263.23	3156
1290.00	1494.4	1481.9	2298	2315	70.41	153.61	262.61	3074
1292.00	1497.4	1484.9	2299	2316	70.24	153.25	262.03	2963
1294.00	1500.2	1487.7	2299	2317	70.09	152.93	261.51	2835

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	1503.2	1490.7	2300	2318	69.92	152.57	260.94	2973
1298.00	1506.1	1493.6	2301	2319	69.75	152.23	260.38	2937
1300.00	1509.0	1496.5	2302	2320	69.59	151.89	259.84	2891
1302.00	1511.8	1499.3	2303	2321	69.44	151.59	259.35	2783
1304.00	1514.6	1502.1	2304	2322	69.29	151.27	258.83	2861
1306.00	1517.6	1505.1	2305	2323	69.12	150.92	258.27	2945
1308.00	1520.5	1508.0	2306	2324	68.96	150.59	257.73	2928
1310.00	1523.4	1510.9	2307	2325	68.81	150.27	257.21	2884
1312.00	1526.3	1513.8	2308	2326	68.65	149.94	256.68	2897
1314.00	1529.2	1516.7	2309	2327	68.49	149.61	256.15	2928
1316.00	1532.2	1519.7	2310	2328	68.33	149.28	255.61	2931
1318.00	1535.3	1522.8	2311	2329	68.15	148.89	255.15	3185
1320.00	1538.3	1525.8	2312	2331	67.98	148.55	254.98	2990
1322.00	1541.1	1528.6	2313	2331	67.84	148.25	254.42	2790
1324.00	1544.1	1531.6	2314	2333	67.68	148.25	253.95	3009
1326.00	1547.1	1534.6	2315	2333	67.68	147.91	253.39	2939
1328.00	1550.0	1537.5	2315	2334	67.52	147.58	253.39	2896
1330.00	1552.9	1540.4	2316	2334	67.52	147.27	252.86	2896
1332.00	1555.9	1543.4	2317	2335	67.37	147.27	252.36	2960
1334.00	1558.8	1546.3	2318	2336	67.22	146.94	251.82	2988
1336.00	1561.9	1549.4	2319	2337	67.06	146.61	251.29	2988
1338.00	1564.7	1552.2	2320	2337	67.06	146.61	251.29	2894
1340.00	1567.6	1555.1	2321	2338	66.91	146.30	250.78	3043
1342.00	1570.5	1558.0	2322	2339	66.75	145.96	250.23	2860
					66.60	145.66	249.74	2898
					66.46	145.36	249.25	2898
					66.31	145.04	248.74	2934

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	1573.5	1561.0	2323	2343	66.16	144.73	248.23	2922
1346.00	1576.4	1563.9	2324	2344	66.01	144.42	247.73	2934
1348.00	1579.3	1566.8	2325	2345	65.87	144.12	247.23	2930
1350.00	1582.2	1569.7	2326	2346	65.72	143.81	246.74	2906
1352.00	1585.1	1572.6	2326	2346	65.58	143.52	246.26	2883
1354.00	1588.1	1575.6	2327	2347	65.43	143.20	245.75	2882
1356.00	1591.0	1578.5	2328	2348	65.29	142.91	245.27	2899
1358.00	1593.9	1581.4	2329	2349	65.15	142.62	244.79	2903
1360.00	1596.8	1584.3	2330	2350	65.01	142.32	244.31	2834
1362.00	1599.6	1587.1	2331	2351	64.88	142.04	243.86	2901
1364.00	1602.5	1590.0	2331	2352	64.74	141.75	243.38	2927
1366.00	1605.4	1592.9	2332	2353	64.60	141.45	242.90	2917
1368.00	1608.4	1595.9	2333	2354	64.46	141.16	242.42	2994
1370.00	1611.4	1598.9	2334	2355	64.31	140.85	241.92	2875
1372.00	1614.2	1601.7	2335	2356	64.18	140.57	241.46	3023
1374.00	1617.2	1604.7	2336	2357	64.03	140.26	240.95	2952
1376.00	1620.2	1607.7	2337	2358	63.89	139.96	240.47	2992
1378.00	1623.2	1610.7	2338	2359	63.74	139.66	239.97	2987
1380.00	1626.2	1613.7	2339	2360	63.60	139.36	239.48	3042
1382.00	1629.2	1616.7	2340	2361	63.45	139.05	238.97	3048
1384.00	1632.3	1619.8	2341	2362	63.30	138.74	238.47	2940
1386.00	1635.2	1622.7	2342	2363	63.17	138.45	238.00	2999
1388.00	1638.2	1625.7	2343	2364	63.03	138.16	237.51	2919
1390.00	1641.1	1628.6	2343	2365	62.89	137.87	237.05	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1392.00	1644.2	1631.7	2344	2366	62.75	137.58	236.56	3021
1394.00	1647.3	1634.8	2345	2367	62.60	137.25	236.04	3135
1396.00	1650.3	1637.8	2346	2368	62.46	136.97	235.56	2977
1398.00	1653.2	1640.7	2347	2369	62.33	136.69	235.12	2911
1400.00	1656.3	1643.8	2348	2370	62.19	136.38	234.61	3097
1402.00	1659.3	1646.8	2349	2371	62.05	136.09	234.13	3029
1404.00	1662.3	1649.8	2350	2372	61.91	135.81	233.67	2964
1406.00	1665.4	1652.9	2351	2374	61.76	135.49	233.15	3127
1408.00	1668.4	1655.9	2352	2375	61.63	135.21	232.69	2984
1410.00	1671.3	1658.8	2353	2375	61.50	134.94	232.25	2928
1412.00	1674.3	1661.8	2354	2376	61.37	134.67	231.80	2965
1414.00	1677.4	1664.9	2355	2378	61.22	134.35	231.28	3165
1416.00	1680.5	1668.0	2356	2379	61.09	134.07	230.81	3021
1418.00	1683.5	1671.0	2357	2380	60.96	133.79	230.35	2999
1420.00	1686.8	1674.3	2358	2381	60.79	133.45	229.79	3314
1422.00	1689.8	1677.3	2359	2382	60.66	133.16	229.33	3034
1424.00	1692.9	1680.4	2360	2383	60.53	132.88	228.86	3054
1426.00	1695.9	1683.4	2361	2384	60.39	132.59	228.39	3058
1428.00	1699.0	1686.5	2362	2386	60.25	132.30	227.91	3093
1430.00	1702.0	1689.5	2363	2387	60.12	132.02	227.45	3041
1432.00	1705.2	1692.7	2364	2388	59.98	131.73	226.97	3103
1434.00	1708.1	1695.6	2365	2389	59.86	131.47	226.55	2930
1436.00	1710.9	1698.4	2365	2389	59.75	131.24	226.17	2786
1438.00	1713.7	1701.2	2366	2390	59.64	131.01	225.78	2821

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1440.00	1716.5	1704.0	2367	2391	59.53	130.77	225.40	2800
1442.00	1719.2	1706.7	2367	2391	59.43	130.56	225.06	2687
1444.00	1721.9	1709.4	2368	2391	59.32	130.34	224.69	2751
1446.00	1724.7	1712.2	2368	2392	59.22	130.12	224.33	2758
1448.00	1727.4	1714.9	2369	2393	59.12	129.90	223.97	2731
1450.00	1730.2	1717.7	2369	2393	59.01	129.68	223.60	2775
1452.00	1733.2	1720.7	2370	2394	58.89	129.42	223.18	2989
1454.00	1736.1	1723.6	2371	2395	58.77	129.16	222.76	2955
1456.00	1739.0	1726.5	2372	2396	58.66	128.93	222.37	2880
1458.00	1742.0	1729.5	2372	2396	58.54	128.68	221.96	2950
1460.00	1744.6	1732.1	2373	2397	58.44	128.48	221.63	2639
1462.00	1747.3	1734.8	2373	2397	58.34	128.27	221.29	2723
1464.00	1750.2	1737.7	2374	2398	58.24	128.04	220.91	2853
1466.00	1752.9	1740.4	2374	2398	58.13	127.82	220.56	2747
1468.00	1755.9	1743.4	2375	2399	58.02	127.58	220.15	2945
1470.00	1758.8	1746.3	2376	2400	57.91	127.35	219.77	2882
1472.00	1761.6	1749.1	2377	2401	57.80	127.11	219.38	2891
1474.00	1764.5	1752.0	2377	2401	57.69	126.89	219.02	2820
1476.00	1767.2	1754.7	2378	2402	57.59	126.68	218.67	2752
1478.00	1770.0	1757.5	2378	2403	57.49	126.46	218.31	2821
1480.00	1772.9	1760.4	2379	2403	57.39	126.24	217.95	2816
1482.00	1775.7	1763.2	2379	2404	57.29	126.02	217.60	2802
1484.00	1778.6	1766.1	2380	2405	57.17	125.78	217.20	2963
1486.00	1781.5	1769.0	2381	2405	57.06	125.56	216.82	2889

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1488.00	1784.6	1772.1	2382	2406	56.94	125.30	216.39	3072
1490.00	1787.5	1775.0	2383	2407	56.83	125.06	216.00	2967
1492.00	1790.3	1777.8	2383	2408	56.74	124.86	215.67	2724
1494.00	1793.0	1780.5	2384	2408	56.64	124.65	215.33	2760
1496.00	1795.8	1783.3	2384	2409	56.54	124.45	215.00	2747
1498.00	1798.6	1786.1	2385	2409	56.44	124.24	214.65	2823
1500.00	1801.4	1788.9	2385	2410	56.34	124.02	214.29	2840
1502.00	1804.2	1791.7	2386	2410	56.25	123.82	213.96	2774
1504.00	1806.9	1794.4	2386	2411	56.16	123.63	213.64	2697
1506.00	1809.8	1797.3	2387	2411	56.05	123.40	213.27	2926
1508.00	1812.6	1800.1	2387	2412	55.95	123.20	212.94	2766
1510.00	1815.4	1802.9	2388	2413	55.86	122.99	212.60	2806
1512.00	1818.2	1805.7	2389	2413	55.76	122.79	212.25	2811
1514.00	1821.1	1808.6	2389	2414	55.66	122.57	211.89	2919
1516.00	1823.9	1811.4	2390	2414	55.56	122.36	211.56	2782
1518.00	1826.7	1814.2	2390	2415	55.46	122.16	211.21	2824
1520.00	1829.7	1817.2	2391	2416	55.36	121.93	210.83	2990
1522.00	1832.6	1820.1	2392	2416	55.26	121.72	210.49	2844
1524.00	1835.4	1822.9	2392	2417	55.16	121.51	210.15	2834
1526.00	1838.2	1825.7	2393	2418	55.07	121.31	209.81	2828
1528.00	1841.1	1828.6	2393	2418	54.97	121.10	209.47	2853
1530.00	1843.9	1831.4	2394	2419	54.87	120.90	209.14	2801
1532.00	1846.9	1834.4	2395	2420	54.76	120.67	208.75	3034
1534.00	1850.0	1837.5	2396	2421	54.65	120.43	208.35	3083

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TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1536.00	1853.1	1840.6	2397	2422	54.54	120.20	207.97	3041
1538.00	1856.3	1843.8	2398	2423	54.42	119.94	207.53	3225
1540.00	1859.5	1847.0	2399	2424	54.30	119.68	207.11	3180
1542.00	1862.6	1850.1	2400	2425	54.19	119.44	206.71	3136
1544.00	1865.7	1853.2	2400	2426	54.08	119.21	206.32	3063
1546.00	1868.8	1856.3	2401	2427	53.97	118.96	205.92	3133
1548.00	1871.9	1859.4	2402	2428	53.85	118.73	205.52	3103
1550.00	1874.9	1862.4	2403	2429	53.75	118.50	205.15	3040
1552.00	1877.8	1865.3	2404	2429	53.65	118.30	204.81	2882
1554.00	1880.6	1868.1	2404	2430	53.57	118.12	204.51	2742
1556.00	1883.5	1871.0	2405	2431	53.47	117.91	204.17	2919
1558.00	1886.6	1874.1	2406	2432	53.37	117.68	203.79	3073
1560.00	1889.5	1877.0	2406	2432	53.27	117.47	203.44	2979
1562.00	1892.3	1879.8	2407	2433	53.18	117.29	203.13	2797
1564.00	1895.1	1882.6	2407	2433	53.09	117.11	202.83	2743
1566.00	1897.8	1885.3	2408	2434	53.01	116.93	202.53	2766
1568.00	1900.7	1888.2	2408	2434	52.92	116.73	202.21	2867
1570.00	1903.6	1891.1	2409	2435	52.82	116.53	201.88	2910
1572.00	1906.8	1894.3	2410	2436	52.71	116.29	201.47	3216
1574.00	1909.9	1897.4	2411	2437	52.61	116.06	201.09	3095
1576.00	1912.9	1900.4	2412	2438	52.51	115.85	200.74	2993
1578.00	1915.9	1903.4	2412	2439	52.41	115.64	200.39	3018
1580.00	1919.0	1906.5	2413	2440	52.31	115.42	200.03	3059
1582.00	1922.1	1909.6	2414	2440	52.20	115.20	199.66	3088

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1584.00	1925.2	1912.7	2415	2441	52.10	114.98	199.29	3105
1586.00	1928.3	1915.8	2416	2442	52.00	114.75	198.92	3125
1588.00	1931.5	1919.0	2417	2443	51.89	114.53	198.54	3140
1590.00	1934.6	1922.1	2418	2444	51.79	114.31	198.17	3101
1592.00	1937.9	1925.4	2419	2446	51.67	114.06	197.76	3302
1594.00	1941.1	1928.6	2420	2447	51.56	113.82	197.35	3273
1596.00	1944.4	1931.9	2421	2448	51.44	113.58	196.94	3286
1598.00	1947.7	1935.2	2422	2449	51.33	113.33	196.54	3270
1600.00	1950.9	1938.4	2423	2450	51.22	113.10	196.14	3259
1602.00	1954.3	1941.8	2424	2452	51.11	112.85	195.73	3341
1604.00	1957.5	1945.0	2425	2453	51.00	112.61	195.34	3251
1606.00	1960.7	1948.2	2426	2454	50.89	112.39	194.96	3193
1608.00	1963.6	1951.1	2427	2455	50.80	112.20	194.65	2922
1610.00	1966.9	1954.4	2428	2456	50.70	111.97	194.26	3237
1612.00	1970.2	1957.7	2429	2457	50.59	111.74	193.87	3283
1614.00	1973.4	1960.9	2430	2458	50.48	111.51	193.49	3219
1616.00	1976.8	1964.3	2431	2459	50.37	111.26	193.07	3392
1618.00	1980.1	1967.6	2432	2461	50.26	111.03	192.68	3297
1620.00	1983.3	1970.8	2433	2462	50.15	110.80	192.30	3259
1622.00	1986.6	1974.1	2434	2463	50.05	110.57	191.92	3247
1624.00	1989.8	1977.3	2435	2464	49.94	110.35	191.54	3246
1626.00	1993.0	1980.5	2436	2465	49.84	110.13	191.18	3208
1628.00	1996.4	1983.9	2437	2466	49.73	109.90	190.79	3317
1630.00	1999.7	1987.2	2438	2467	49.63	109.67	190.40	3298

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1632.00	2003.0	1990.5	2439	2469	49.51	109.43	190.00	3390
1634.00	2006.4	1993.9	2441	2470	49.40	109.19	189.59	3398
1636.00	2009.6	1997.1	2441	2471	49.30	108.98	189.24	3185
1638.00	2012.8	2000.3	2442	2472	49.21	108.77	188.90	3157
1640.00	2016.0	2003.5	2443	2473	49.11	108.55	188.53	3266
1642.00	2019.4	2006.9	2444	2475	49.00	108.32	188.14	3366
1644.00	2022.7	2010.2	2446	2476	48.89	108.09	187.76	3300
1646.00	2026.0	2013.5	2447	2477	48.79	107.87	187.39	3302
1648.00	2029.1	2016.6	2447	2478	48.70	107.68	187.07	3046
1650.00	2031.8	2019.3	2448	2478	48.63	107.53	186.82	2762
1652.00	2034.7	2022.2	2448	2479	48.56	107.37	186.54	2855
1654.00	2037.6	2025.1	2449	2479	48.47	107.19	186.25	2963
1656.00	2040.9	2028.4	2450	2480	48.38	106.98	185.90	3236
1658.00	2044.3	2031.8	2451	2482	48.26	106.74	185.49	3467
1660.00	2047.7	2035.2	2452	2483	48.16	106.52	185.13	3321
1662.00	2050.9	2038.4	2453	2484	48.07	106.32	184.78	3207
1664.00	2053.9	2041.4	2454	2485	47.98	106.13	184.48	3057
1666.00	2057.1	2044.6	2455	2486	47.89	105.93	184.13	3213
1668.00	2060.6	2048.1	2456	2487	47.78	105.69	183.73	3492
1670.00	2063.8	2051.3	2457	2488	47.69	105.49	183.40	3203
1672.00	2067.1	2054.6	2458	2489	47.59	105.29	183.05	3263
1674.00	2070.2	2057.7	2458	2490	47.50	105.10	182.73	3141
1676.00	2073.5	2061.0	2459	2491	47.40	104.89	182.38	3292
1678.00	2076.6	2064.1	2460	2492	47.32	104.71	182.07	3079

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1680.00	2079.6	2067.1	2461	2493	47.24	104.53	181.78	3006
1682.00	2083.0	2070.5	2462	2494	47.14	104.31	181.40	3429
1684.00	2086.5	2074.0	2463	2495	47.03	104.08	181.02	3475
1686.00	2090.1	2077.6	2465	2497	46.92	103.83	180.60	3599
1688.00	2093.8	2081.3	2466	2499	46.80	103.58	180.18	3631
1690.00	2097.4	2084.9	2467	2500	46.68	103.33	179.76	3661
1692.00	2101.0	2088.5	2469	2502	46.57	103.09	179.35	3596
1694.00	2104.3	2091.8	2470	2503	46.48	102.89	179.01	3282
1696.00	2107.6	2095.1	2471	2504	46.39	102.69	178.67	3335
1698.00	2110.8	2098.3	2471	2505	46.30	102.50	178.36	3157
1700.00	2114.0	2101.5	2472	2506	46.21	102.32	178.04	3193
1702.00	2117.2	2104.7	2473	2507	46.12	102.12	177.72	3260
1704.00	2120.4	2107.9	2474	2508	46.04	101.94	177.41	3158
1706.00	2123.6	2111.1	2475	2509	45.95	101.76	177.10	3188
1708.00	2127.0	2114.5	2476	2510	45.86	101.55	176.75	3397
1710.00	2130.5	2118.0	2477	2511	45.76	101.33	176.38	3475
1712.00	2133.9	2121.4	2478	2512	45.66	101.11	176.02	3466
1714.00	2137.0	2124.5	2479	2513	45.58	100.95	175.74	3039
1716.00	2139.8	2127.3	2479	2514	45.51	100.81	175.50	2849
1718.00	2143.2	2130.7	2480	2515	45.42	100.60	175.16	3380
1720.00	2146.2	2133.7	2481	2515	45.35	100.44	174.89	3027
1722.00	2149.5	2137.0	2482	2516	45.26	100.26	174.57	3244
1724.00	2152.7	2140.2	2483	2517	45.18	100.07	174.26	3233
1726.00	2155.9	2143.4	2484	2518	45.09	99.89	173.96	3215

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1728.00	2159.3	2146.8	2485	2519	45.00	99.69	173.62	3392
1730.00	2162.9	2150.4	2486	2521	44.90	99.47	173.24	3583
1732.00	2166.6	2154.1	2487	2523	44.79	99.23	172.84	3697
1734.00	2170.0	2157.5	2488	2524	44.69	99.03	172.50	3418
1736.00	2173.4	2160.9	2489	2525	44.60	98.84	172.17	3361
1738.00	2176.7	2164.2	2490	2526	44.52	98.64	171.85	3350
1740.00	2179.7	2167.2	2491	2527	44.44	98.49	171.58	3041
1742.00	2183.2	2170.7	2492	2528	44.35	98.29	171.24	3455
1744.00	2186.3	2173.8	2493	2529	44.28	98.13	170.97	3072
1746.00	2189.7	2177.2	2494	2530	44.19	97.93	170.65	3395
1748.00	2193.2	2180.7	2495	2531	44.09	97.72	170.29	3517
1750.00	2196.8	2184.3	2496	2533	43.99	97.51	169.93	3598
1752.00	2200.3	2187.8	2497	2534	43.90	97.30	169.58	3517
1754.00	2203.8	2191.3	2499	2535	43.81	97.11	169.24	3450
1756.00	2207.0	2194.5	2499	2536	43.73	96.93	168.95	3228
1758.00	2210.4	2197.9	2500	2537	43.64	96.74	168.63	3398
1760.00	2213.1	2200.6	2501	2537	43.58	96.62	168.43	2738
1762.00	2216.2	2203.7	2501	2538	43.51	96.47	168.17	3058
1764.00	2219.5	2207.0	2502	2539	43.43	96.29	167.87	3311
1766.00	2222.6	2210.1	2503	2540	43.36	96.13	167.60	3147
1768.00	2225.7	2213.2	2504	2541	43.28	95.98	167.34	3109
1770.00	2228.8	2216.3	2504	2541	43.22	95.83	167.09	3024
1772.00	2231.6	2219.1	2505	2542	43.16	95.70	166.87	2838
1774.00	2234.9	2222.4	2506	2543	43.08	95.53	166.58	3296

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1776.00	2237.8	2225.3	2506	2543	43.02	95.40	166.36	2862
1778.00	2241.2	2228.7	2507	2544	42.93	95.21	166.04	3433
1780.00	2244.0	2231.5	2507	2544	42.87	95.09	165.84	2762
1782.00	2247.0	2234.5	2508	2545	42.81	94.95	165.60	2994
1784.00	2250.8	2238.3	2509	2547	42.70	94.71	165.19	3879
1786.00	2254.1	2241.6	2510	2548	42.62	94.54	164.91	3264
1788.00	2257.1	2244.6	2511	2548	42.56	94.40	164.68	2976
1790.00	2259.8	2247.3	2511	2548	42.51	94.29	164.48	2728
1792.00	2263.1	2250.6	2512	2549	42.43	94.12	164.19	3305
1794.00	2266.4	2253.9	2513	2550	42.35	93.96	163.92	3246
1796.00	2269.3	2256.8	2513	2551	42.29	93.82	163.69	2966
1798.00	2272.7	2260.2	2514	2552	42.21	93.64	163.39	3399
1800.00	2276.0	2263.5	2515	2553	42.13	93.47	163.10	3314
1802.00	2278.9	2266.4	2515	2553	42.07	93.35	162.89	2859
1804.00	2282.2	2269.7	2516	2554	41.99	93.18	162.60	3361
1806.00	2285.6	2273.1	2517	2555	41.91	93.00	162.31	3368
1808.00	2288.7	2276.2	2518	2556	41.85	92.86	162.07	3069
1810.00	2291.2	2278.7	2518	2556	41.81	92.77	161.91	2470
1812.00	2294.5	2282.0	2519	2557	41.73	92.60	161.62	3371
1814.00	2297.8	2285.3	2520	2558	41.66	92.44	161.36	3224
1816.00	2300.7	2288.2	2520	2558	41.60	92.32	161.14	2924
1818.00	2303.9	2291.4	2521	2559	41.52	92.16	160.88	3238
1820.00	2307.5	2295.0	2522	2560	41.44	91.97	160.56	3540
1822.00	2310.7	2298.2	2523	2561	41.37	91.82	160.29	3264



TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1872.00	2391.7	2379.2	2542	2582	39.64	88.07	153.93	3669
1874.00	2394.9	2382.4	2543	2583	39.58	87.93	153.69	3224
1876.00	2398.0	2385.5	2543	2583	39.52	87.80	153.47	3124
1878.00	2401.5	2389.0	2544	2584	39.44	87.64	153.19	3465
1880.00	2404.9	2392.4	2545	2585	39.37	87.48	152.92	3397
1882.00	2407.2	2394.7	2545	2585	39.34	87.41	152.80	2330
1884.00	2409.3	2396.8	2544	2585	39.32	87.36	152.71	2044
1886.00	2411.4	2398.9	2544	2584	39.29	87.30	152.61	2102
1888.00	2413.6	2401.1	2544	2584	39.26	87.23	152.50	2258
1890.00	2415.9	2403.4	2543	2584	39.22	87.16	152.38	2311
1892.00	2419.2	2406.7	2544	2584	39.16	87.02	152.15	3235
1894.00	2422.2	2409.7	2545	2585	39.11	86.90	151.95	2985
1896.00	2425.8	2413.3	2546	2586	39.03	86.73	151.65	3595
1898.00	2428.7	2416.2	2546	2587	38.98	86.62	151.46	2930
1900.00	2432.1	2419.6	2547	2588	38.91	86.47	151.20	3428
1902.00	2435.5	2423.0	2548	2589	38.84	86.31	150.94	3396
1904.00	2438.9	2426.4	2549	2590	38.77	86.16	150.68	3433
1906.00	2442.3	2429.8	2550	2591	38.70	86.01	150.42	3396
1908.00	2445.4	2432.9	2550	2591	38.64	85.89	150.22	3032
1910.00	2448.9	2436.4	2551	2592	38.57	85.73	149.94	3536
1912.00	2452.3	2439.8	2552	2593	38.50	85.58	149.70	3364
1914.00	2455.3	2442.8	2553	2594	38.45	85.47	149.49	3040
1916.00	2458.7	2446.2	2553	2595	38.38	85.32	149.25	3363
1918.00	2462.2	2449.7	2554	2596	38.31	85.16	148.98	3522

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1920.00	2465.6	2453.1	2555	2597	38.24	85.01	148.72	3438
1922.00	2469.1	2456.6	2556	2598	38.17	84.86	148.46	3474
1924.00	2472.6	2460.1	2557	2599	38.10	84.71	148.19	3496
1926.00	2476.2	2463.7	2558	2600	38.03	84.55	147.92	3564
1928.00	2479.7	2467.2	2559	2601	37.95	84.39	147.65	3532
1930.00	2482.7	2470.2	2560	2602	37.90	84.27	147.46	3039
1932.00	2486.2	2473.7	2561	2603	37.83	84.12	147.20	3499
1934.00	2489.4	2476.9	2561	2603	37.77	84.00	146.98	3188
1936.00	2493.1	2480.6	2563	2605	37.70	83.83	146.70	3634
1938.00	2496.7	2484.2	2564	2606	37.62	83.67	146.43	3618
1940.00	2500.1	2487.6	2565	2607	37.56	83.53	146.18	3410
1942.00	2503.5	2491.0	2565	2608	37.49	83.38	145.93	3456
1944.00	2507.1	2494.6	2566	2609	37.42	83.23	145.67	3540
1946.00	2511.3	2498.8	2568	2611	37.33	83.02	145.31	4170
1948.00	2515.0	2502.5	2569	2613	37.25	82.85	145.02	3747
1950.00	2518.6	2506.1	2570	2614	37.18	82.69	144.75	3581
1952.00	2522.1	2509.6	2571	2615	37.11	82.55	144.51	3469
1954.00	2525.6	2513.1	2572	2616	37.04	82.40	144.25	3544
1956.00	2528.8	2516.3	2573	2617	36.99	82.28	144.04	3184
1958.00	2532.1	2519.6	2574	2617	36.93	82.15	143.82	3317
1960.00	2535.7	2523.2	2575	2619	36.86	81.99	143.56	3584
1962.00	2539.1	2526.6	2576	2620	36.79	81.85	143.32	3439
1964.00	2542.4	2529.9	2576	2620	36.73	81.73	143.10	3318
1966.00	2546.0	2533.5	2577	2622	36.67	81.57	142.84	3591

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1968.00	2549.6	2537.1	2578	2623	36.60	81.43	142.59	3567
1970.00	2553.2	2540.7	2579	2624	36.53	81.28	142.33	3563
1972.00	2556.7	2544.2	2580	2625	36.46	81.13	142.08	3561
1974.00	2560.2	2547.7	2581	2626	36.40	80.99	141.85	3450
1976.00	2563.3	2550.8	2582	2626	36.35	80.88	141.65	3165
1978.00	2566.5	2554.0	2582	2627	36.29	80.76	141.45	3205
1980.00	2569.7	2557.2	2583	2628	36.24	80.64	141.25	3196
1982.00	2573.3	2560.8	2584	2629	36.17	80.50	141.00	3549
1984.00	2576.6	2564.1	2585	2630	36.12	80.38	140.79	3276
1986.00	2580.2	2567.7	2586	2631	36.05	80.22	140.53	3680
1988.00	2584.5	2572.0	2588	2633	35.95	80.02	140.17	4274
1990.00	2588.0	2575.5	2588	2634	35.89	79.88	139.94	3516
1992.00	2591.6	2579.1	2589	2635	35.82	79.74	139.69	3571
1994.00	2595.5	2583.0	2591	2637	35.75	79.56	139.39	3930
1996.00	2599.9	2587.4	2593	2639	35.65	79.35	139.03	4372
1998.00	2604.3	2591.8	2594	2641	35.55	79.14	138.67	4344
2000.00	2608.0	2595.5	2595	2643	35.48	78.99	138.41	3722
2002.00	2612.3	2599.8	2597	2645	35.39	78.79	138.06	4284
2004.00	2615.7	2603.2	2598	2646	35.33	78.66	137.84	3412
2006.00	2618.7	2606.2	2598	2646	35.29	78.56	137.67	3029
2008.00	2621.9	2609.4	2599	2647	35.24	78.45	137.48	3210
2010.00	2625.1	2612.6	2600	2647	35.19	78.34	137.30	3168
2012.00	2628.3	2615.8	2600	2648	35.14	78.23	137.11	3211
2014.00	2631.5	2619.0	2601	2648	35.09	78.12	136.92	3165

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
2016.00	2634.8	2622.3	2601	2649	35.04	78.00	136.72	3306
2018.00	2638.0	2625.5	2602	2650	34.98	77.89	136.52	3288
2020.00	2641.4	2628.9	2603	2651	34.93	77.77	136.32	3354
2022.00	2644.9	2632.4	2604	2652	34.87	77.64	136.10	3471
2024.00	2648.4	2635.9	2605	2653	34.81	77.51	135.87	3517
2026.00	2651.6	2639.1	2605	2653	34.76	77.40	135.69	3194
2028.00	2654.0	2641.5	2605	2653	34.73	77.34	135.58	2454
2030.00	2656.8	2644.3	2605	2653	34.69	77.26	135.45	2766
2032.00	2660.4	2647.9	2606	2654	34.63	77.12	135.21	3599
2034.00	2663.9	2651.4	2607	2655	34.58	77.00	135.00	3481
2036.00	2667.5	2655.0	2608	2656	34.51	76.86	134.76	3601
2038.00	2670.7	2658.2	2609	2657	34.46	76.76	134.58	3211
2040.00	2674.1	2661.6	2609	2658	34.41	76.64	134.38	3360
2042.00	2677.7	2665.2	2610	2659	34.35	76.50	134.15	3630
2044.00	2681.2	2668.7	2611	2660	34.29	76.37	133.92	3558
2046.00	2684.6	2672.1	2612	2661	34.24	76.26	133.72	3370
2048.00	2688.0	2675.5	2613	2661	34.18	76.14	133.52	3420
2050.00	2691.4	2678.9	2614	2662	34.13	76.02	133.32	3412
2052.00	2695.0	2682.5	2614	2663	34.07	75.89	133.10	3513
2054.00	2698.5	2686.0	2615	2664	34.01	75.77	132.89	3504
2056.00	2701.9	2689.4	2616	2665	33.96	75.65	132.68	3464
2058.00	2705.4	2692.9	2617	2666	33.90	75.53	132.47	3496
2060.00	2709.0	2696.5	2618	2667	33.84	75.39	132.24	3620
2062.00	2712.7	2700.2	2619	2668	33.78	75.26	132.01	3664

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TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
								3642
2064.00	2716.4	2703.9	2620	2669	33.72	75.13	131.78	3553
2066.00	2719.9	2707.4	2621	2670	33.67	75.00	131.57	3453
2068.00	2723.4	2710.9	2622	2671	33.61	74.88	131.37	3412
2070.00	2726.8	2714.3	2622	2672	33.56	74.77	131.17	3570
2072.00	2730.3	2717.8	2623	2673	33.50	74.65	130.95	3640
2074.00	2734.0	2721.5	2624	2674	33.44	74.52	130.73	3558
2076.00	2737.5	2725.0	2625	2675	33.39	74.39	130.52	3603
2078.00	2741.1	2728.6	2626	2676	33.33	74.27	130.30	3607
2080.00	2744.7	2732.2	2627	2677	33.27	74.14	130.08	3696
2082.00	2748.4	2735.9	2628	2678	33.21	74.01	129.86	3795
2084.00	2752.2	2739.7	2629	2680	33.15	73.87	129.62	3824
2086.00	2756.1	2743.6	2630	2681	33.08	73.73	129.38	3756
2088.00	2759.8	2747.3	2632	2682	33.02	73.59	129.14	3692
2090.00	2763.5	2751.0	2633	2683	32.96	73.46	128.92	3533
2092.00	2767.0	2754.5	2633	2684	32.91	73.34	128.72	3725
2094.00	2770.8	2758.3	2634	2686	32.85	73.21	128.49	3675
2096.00	2774.4	2761.9	2635	2687	32.79	73.09	128.27	3745
2098.00	2778.2	2765.7	2637	2688	32.73	72.95	128.04	3692
2100.00	2781.9	2769.4	2638	2689	32.67	72.83	127.82	3857
2102.00	2785.7	2773.2	2639	2690	32.61	72.69	127.58	3734
2104.00	2789.5	2777.0	2640	2692	32.55	72.56	127.36	3687
2106.00	2793.2	2780.7	2641	2693	32.50	72.43	127.14	3275
2108.00	2796.4	2783.9	2641	2693	32.45	72.33	126.97	3304
2110.00	2799.7	2787.2	2642	2694	32.40	72.23	126.80	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
2112.00	2802.9	2790.4	2642	2694	32.36	72.14	126.64	3181
2114.00	2806.2	2793.7	2643	2695	32.32	72.04	126.48	3255
2116.00	2809.5	2797.0	2644	2696	32.27	71.94	126.30	3358
2118.00	2812.9	2800.4	2644	2696	32.22	71.84	126.12	3411
2120.00	2816.6	2804.1	2645	2698	32.17	71.71	125.91	3651
2122.00	2820.4	2807.9	2646	2699	32.11	71.58	125.68	3812
2124.00	2824.3	2811.8	2648	2700	32.05	71.45	125.45	3886
2126.00	2828.0	2815.5	2649	2701	31.99	71.32	125.23	3724
2128.00	2831.9	2819.4	2650	2703	31.93	71.19	125.01	3835
2130.00	2835.6	2823.1	2651	2704	31.87	71.06	124.79	3776
2132.00	2839.3	2826.8	2652	2705	31.82	70.94	124.58	3645
2134.00	2843.3	2830.8	2653	2706	31.75	70.80	124.34	4004
2136.00	2847.4	2834.9	2654	2708	31.69	70.65	124.08	4108
2138.00	2851.4	2838.9	2656	2710	31.62	70.51	123.83	4034
2140.00	2855.4	2842.9	2657	2711	31.56	70.37	123.59	3969
2142.00	2859.4	2846.9	2658	2713	31.49	70.23	123.35	4050
2144.00	2863.1	2850.6	2659	2714	31.44	70.11	123.14	3679
2146.00	2867.0	2854.5	2660	2715	31.38	69.98	122.92	3903
2148.00	2870.9	2858.4	2661	2716	31.32	69.85	122.70	3856
2150.00	2874.8	2862.3	2663	2718	31.26	69.72	122.47	3892
2152.00	2878.6	2866.1	2664	2719	31.21	69.60	122.26	3794
2154.00	2882.6	2870.1	2665	2720	31.14	69.46	122.02	4011
2156.00	2886.6	2874.1	2666	2722	31.08	69.32	121.78	4045
2158.00	2890.7	2878.2	2667	2723	31.02	69.18	121.54	4093

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
2160.00	2894.6	2882.1	2669	2725	30.96	69.05	121.31	3931
2162.00	2898.6	2886.1	2670	2726	30.90	68.92	121.08	4005
2164.00	2902.6	2890.1	2671	2728	30.84	68.78	120.85	3996
2166.00	2906.7	2894.2	2672	2729	30.77	68.64	120.61	4052
2168.00	2910.7	2898.2	2674	2731	30.71	68.51	120.38	4025
2170.00	2914.7	2902.2	2675	2732	30.65	68.38	120.15	3957
2172.00	2918.8	2906.3	2676	2734	30.59	68.24	119.91	4139
2174.00	2922.7	2910.2	2677	2735	30.53	68.12	119.70	3844
2176.00	2926.4	2913.9	2678	2736	30.48	68.00	119.50	3776
2178.00	2930.3	2917.8	2679	2737	30.43	67.88	119.29	3873
2180.00	2934.2	2921.7	2680	2739	30.37	67.76	119.08	3860
2182.00	2938.3	2925.8	2682	2740	30.31	67.62	118.84	4128
2184.00	2942.1	2929.6	2683	2741	30.26	67.50	118.64	3828
2186.00	2946.0	2933.5	2684	2743	30.20	67.39	118.43	3829
2188.00	2949.7	2937.2	2685	2744	30.15	67.27	118.24	3737
2190.00	2953.4	2940.9	2686	2745	30.10	67.16	118.05	3715
2192.00	2957.2	2944.7	2687	2746	30.05	67.05	117.86	3764
2194.00	2961.0	2948.5	2688	2747	30.00	66.94	117.66	3785
2196.00	2964.7	2952.2	2689	2748	29.95	66.83	117.47	3753
2198.00	2968.4	2955.9	2690	2749	29.90	66.72	117.28	3728
2200.00	2972.3	2959.8	2691	2750	29.85	66.60	117.08	3846
2202.00	2976.2	2963.7	2692	2752	29.79	66.48	116.87	3945
2204.00	2980.3	2967.8	2693	2753	29.73	66.35	116.65	4067
2206.00	2984.3	2971.8	2694	2754	29.68	66.23	116.43	3982

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
2208.00	2988.2	2975.7	2695	2756	29.62	66.11	116.23	3938
2210.00	2992.1	2979.6	2697	2757	29.57	65.99	116.02	3924
2212.00	2996.3	2983.8	2698	2759	29.51	65.86	115.79	4159
2214.00	3000.4	2987.9	2699	2760	29.45	65.73	115.56	4145
2216.00	3004.6	2992.1	2700	2762	29.39	65.60	115.34	4124
2218.00	3008.7	2996.2	2702	2763	29.33	65.46	115.11	4153
2220.00	3012.8	3000.3	2703	2765	29.27	65.34	114.89	4116
2222.00	3017.1	3004.6	2704	2766	29.21	65.20	114.65	4251
2224.00	3021.3	3008.8	2706	2768	29.15	65.07	114.42	4211
2226.00	3025.4	3012.9	2707	2770	29.09	64.94	114.20	4143
2228.00	3029.5	3017.0	2708	2771	29.04	64.82	113.99	4020
2230.00	3033.3	3020.8	2709	2772	28.99	64.71	113.81	3836
2232.00	3037.2	3024.7	2710	2773	28.94	64.60	113.61	3942
2234.00	3041.2	3028.7	2711	2775	28.88	64.48	113.40	3990
2236.00	3045.0	3032.5	2712	2776	28.84	64.38	113.23	3755
2238.00	3048.8	3036.3	2713	2777	28.79	64.27	113.04	3787
2240.00	3052.7	3040.2	2714	2778	28.74	64.16	112.85	3969
2242.00	3057.0	3044.5	2716	2780	28.68	64.02	112.61	4293
2244.00	3061.3	3048.8	2717	2782	28.62	63.89	112.38	4281
2246.00	3065.3	3052.8	2718	2783	28.56	63.77	112.18	4005
2248.00	3069.5	3057.0	2720	2784	28.51	63.65	111.97	4156
2250.00	3073.5	3061.0	2721	2786	28.46	63.53	111.77	4026
2252.00	3077.4	3064.9	2722	2787	28.41	63.43	111.58	3868
2254.00	3081.0	3068.5	2723	2788	28.37	63.34	111.42	3621

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TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
2256.00	3084.7	3072.2	2724	2789	28.32	63.24	111.25	3759

Schlumberger MELBOURNE LOG INTERPRETATION CENTRE

# VERTICAL SEISMIC PROFILE

Zero Offset VSP PLOT 1

X, Y, Z STACKED DATA

Company: PREMIER OIL AUSTRALASIA  
 Well: YOLLA-2  
 Field: YOLLA  
 Country: AUSTRALIA

Reference No: SYJ-561266/561267 Interval: 3085.00 to 1325.00

Date Logged: 17 MAY 1998 Date Processed: 28 1998

Location: 039 51' 33.820" S 145 48' 38.530" E

Elevations: KB: 12.50 DF: 212.50 GL: -81.50

Permanent Datum: MSL Depth Units: METRES

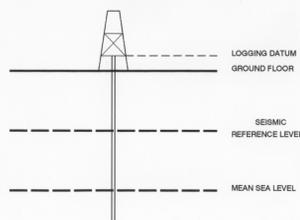
FIELD RECORDING: Engineer: Y.FRANIS/B.HOOKWAY Location: Program Version: 7C0-427

COMPUTATION: Analyst: S.TCHERKASHNEV Centre: SYJ Baseline: 20.5

### ELEVATION ABOVE MEAN SEA LEVEL

Logging Datum: 12.50

Seismic Reference Datum: 0.00



Total Number of Levels: 46

Depth Reference: SRD

Time Reference: SRD

Run	Date	Tool Type	Bit Size/Depth	Casing Size/Depth	Top Depth	Bottom Depth
1	17-05-98	PEX	13.2 IN	12.2 IN	1066 M	3100 M

VSP Run	Date	Gun Offset	Hydro Offset	Gun Elevation	Hydro Elevation	Gun Azimuth	Hydro Azimuth
1	17-05-98	46 M	46 M	5 M BELOW MSL	10 M BELOW MSL	135 DEG	135 DEG

REMARKS



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PREMIER OIL AUSTRALASIA  
 YOLLA  
 YOLLA-2  
 AUSTRALIA

PLOT REFERENCE : STACKED DATA

DATA PROCESSED: 21-MAY-1998

**\*\* Z COMPONENT \*\***  
 (DOWNHOLE DATA)  
 MEDIAN COHERENCY STACK OF THE DOWNHOLE VERTICAL COMPONENT.  
 PROCESSING SEQUENCE:  
 MEDIAN STACK APPLIED  
 BANDPASS FILTER : 5 - 120 HZ  
 VERTICAL SCALE : 10 CM/SEC  
 POLARITY (S.E.G.) : REVERSE  
 TIMES REFERENCED TO HYDROPHONE

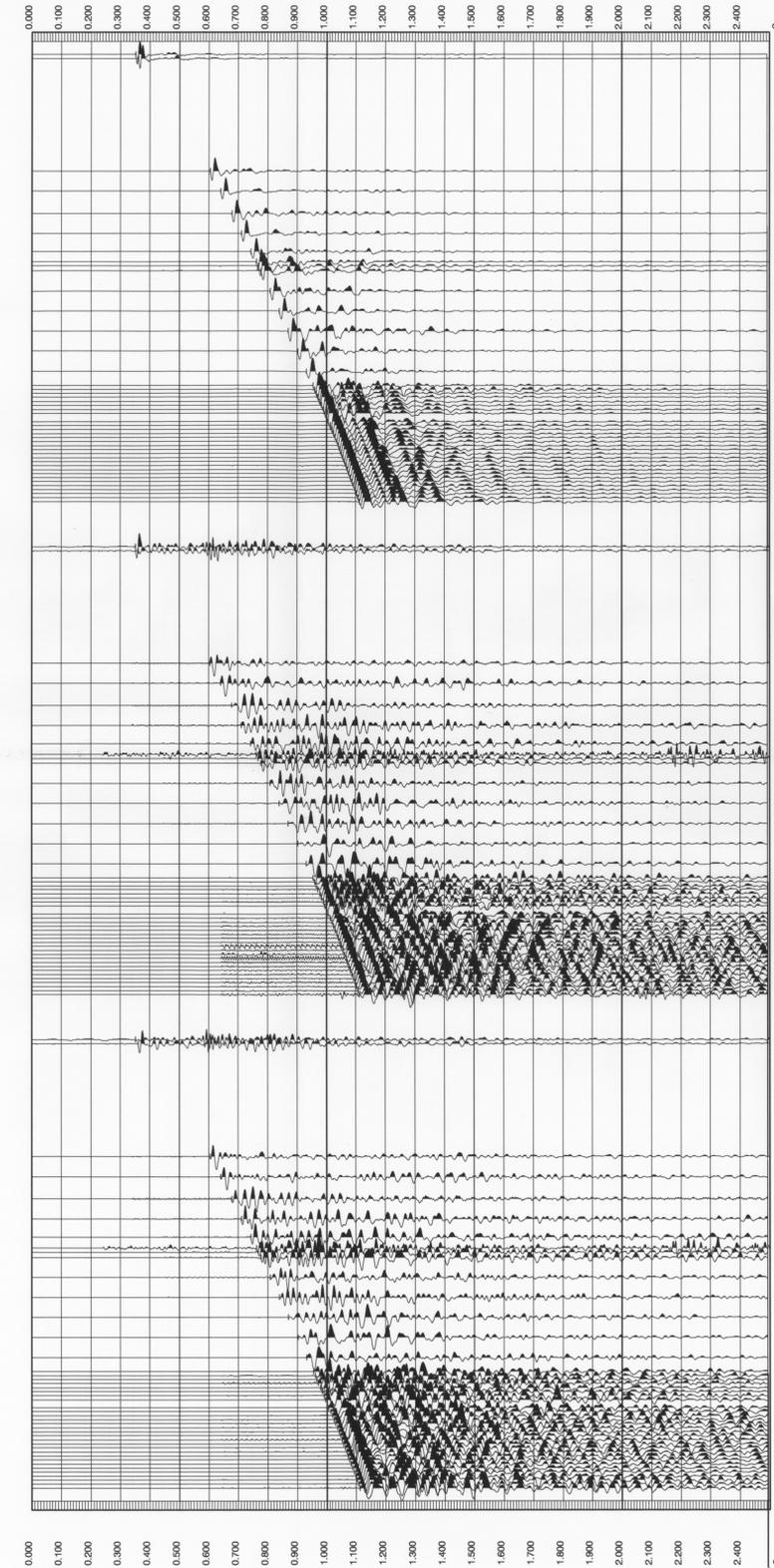
RAW DEPTH M	TRANSIT TIME S	LEVEL NO	MAX AMPLITUDE	MIN AMPLITUDE
840.1	0.380	43	4180.831	-3140.917
1400.0	0.605	42	1416.317	-1012.257
1489.9	0.640	41	1353.893	-816.066
1810.0	0.878	40	940.221	-636.308
1710.0	0.711	39	805.294	-554.484
1800.0	0.743	38	806.643	-548.877
1854.4	0.782	37	797.130	-477.340
1850.0	0.777	36	805.227	-483.278
2000.0	0.809	34	528.648	-396.972
2100.0	0.839	33	611.481	-386.512
2200.0	0.869	32	405.028	-354.018
2300.0	0.902	31	414.143	-298.533
2389.9	0.932	30	536.227	-274.474
2480.0	0.961	28	170.848	-137.379
2577.9	0.971	28	225.566	-127.864
2670.0	0.984	24	197.487	-116.313
2610.0	0.965	22	183.521	-103.508
2648.9	1.006	21	270.334	-188.244
2689.9	1.019	19	133.902	-78.791
2730.0	1.030	17	158.825	-68.028
2789.9	1.041	15	104.524	-56.627
2810.0	1.052	13	121.843	-63.439
2850.0	1.062	11	125.620	-66.191
2890.0	1.072	9	96.408	-56.725
2930.0	1.082	7	103.128	-61.474
2970.0	1.093	5	86.510	-52.235
3009.9	1.103	3	103.170	-67.828
3050.0	1.113	1	102.354	-65.875

**\*\* Y COMPONENT \*\***  
 (DOWNHOLE DATA)  
 MEDIAN COHERENCY STACK OF THE DOWNHOLE 2. HORIZONTAL COMPONENT  
 PROCESSING SEQUENCE:  
 MEDIAN STACK APPLIED  
 BANDPASS FILTER : 5 - 120 HZ  
 VERTICAL SCALE : 10 CM/SEC  
 POLARITY (S.E.G.) : REVERSE  
 TIMES REFERENCED TO HYDROPHONE

RAW DEPTH M	TRANSIT TIME S	LEVEL NO	MAX AMPLITUDE	MIN AMPLITUDE
840.1	0.380	43	161.819	-128.427
1400.0	0.605	42	70.961	-111.882
1489.9	0.640	41	94.234	-96.103
1810.0	0.878	40	158.229	-198.017
1710.0	0.711	39	35.441	-37.064
1800.0	0.743	38	35.511	-40.336
1854.4	0.782	37	48.023	-55.187
1850.0	0.777	36	66.659	-48.239
2000.0	0.809	34	37.967	-39.566
2100.0	0.839	33	45.089	-52.789
2200.0	0.869	32	64.834	-49.851
2300.0	0.902	31	67.782	-92.187
2389.9	0.932	30	63.785	-47.339
2480.0	0.961	28	38.158	-50.521
2577.9	0.971	28	52.193	-53.900
2670.0	0.984	24	32.381	-42.361
2610.0	0.965	22	27.450	-32.142
2648.9	1.006	21	44.114	-35.726
2689.9	1.019	19	14.977	-16.181
2730.0	1.030	17	11.382	-6.632
2789.9	1.041	15	14.289	-8.276
2810.0	1.052	13	11.170	-13.619
2850.0	1.062	11	8.829	-10.001
2890.0	1.072	9	7.048	-7.863
2930.0	1.082	7	10.481	-11.532
2970.0	1.093	5	9.792	-6.044
3009.9	1.103	3	13.784	-13.381
3050.0	1.113	1	8.902	-14.795

**\*\* X COMPONENT \*\***  
 MEDIAN COHERENCY STACK OF THE DOWNHOLE 1. HORIZONTAL COMPONENT  
 PROCESSING SEQUENCE:  
 MEDIAN STACK APPLIED  
 BANDPASS FILTER : 5 - 120 HZ  
 VERTICAL SCALE : 10 CM/SEC  
 POLARITY (S.E.G.) : REVERSE  
 TIMES REFERENCED TO HYDROPHONE

RAW DEPTH M	TRANSIT TIME S	LEVEL NO	MAX AMPLITUDE	MIN AMPLITUDE
840.1	0.380	43	171.801	-121.082
1400.0	0.605	42	65.133	-73.417
1489.9	0.640	41	94.518	-48.955
1810.0	0.878	40	80.211	-85.808
1710.0	0.711	39	35.480	-26.731
1800.0	0.743	38	34.871	-24.344
1854.4	0.782	37	47.307	-40.332
1850.0	0.777	36	29.981	-28.469
2000.0	0.809	34	31.182	-43.565
2100.0	0.839	33	51.276	-32.348
2200.0	0.869	32	60.468	-50.427
2300.0	0.902	31	99.294	-87.084
2389.9	0.932	30	45.882	-53.873
2480.0	0.961	28	44.825	-39.796
2577.9	0.971	28	36.382	-34.501
2670.0	0.984	24	29.981	-42.461
2610.0	0.965	22	22.907	-26.975
2648.9	1.006	21	36.074	-40.042
2689.9	1.019	19	14.642	-14.827
2730.0	1.030	17	15.443	-11.627
2789.9	1.041	15	15.792	-15.182
2810.0	1.052	13	18.081	-18.460
2850.0	1.062	11	15.710	-15.228
2890.0	1.072	9	14.301	-13.239
2930.0	1.082	7	15.266	-18.511
2970.0	1.093	5	16.448	-23.143
3009.9	1.103	3	9.120	-11.324
3050.0	1.113	1	13.774	-13.774



COMPANY PREMIER OIL AUSTRALASIA  
 FIELD YOLLA  
 WELL YOLLA-2  
 COUNTRY AUSTRALIA



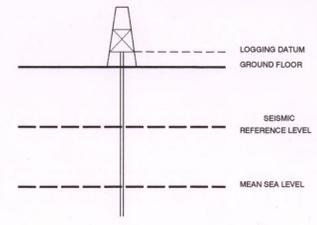
Schlumberger MELBOURNE LOG INTERPRETATION CENTRE

# VERTICAL SEISMIC PROFILE

Zero Offset VSP PLOT 2  
TRUE AMPLITUDE RECOVERY

Company: PREMIER OIL AUSTRALIA  
Well: YOLLA-2  
Field: YOLLA  
Country: AUSTRALIA  
Reference No: SYJ-561266/561267 Interval: 3085.00 to 1325.00  
Date Logged: 17 MAY 1998 Date Processed: 28 1998  
Location: 039 51' 33.820" S 145 48' 38.530" E  
Elevations: KB: 12.50 DF: 212.50 GL: -81.50  
Permanent Datum: MSL Depth Units: METRES  
FIELD RECORDING: Engineer: Y.FRANIS/SHORWAY Location: Program Version: 7CO-427  
COMPUTATION: Analyst: S.TCHERKASHNEV Centre: SYJ Baseline: 20.5

ELEVATION ABOVE MEAN SEA LEVEL  
Logging Datum: 12.50  
Seismic Reference Datum: 0.00



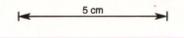
Total Number of Levels: 46  
Depth Reference: SRD  
Time Reference: SRD

Run	Date	Tool Type	Bit Size/Depth	Casing Size/Depth	Top Depth	Bottom Depth
1	17-05-98	PEX	13.2 IN	12.2 IN	1065 M	3100 M

VSP Run	Date	Gun Offset	Hydro Offset	Gun Elevation	Hydro Elevation	Gun Azimuth	Hydro Azimuth
1	17-05-98	46 M	46 M	5 M BELOW MSL	10 M BELOW MSL	136 DEG	136 DEG

REMARKS



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All interpretations are opinions based on information from electrical or other measurements and are correct and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone relying on any interpretation made by any of our officers, agents or employees. These interpretations are also subject to change or modification without notice and are not to be construed as a contract for services.

PREMIER OIL AUSTRALIA  
YOLLA  
YOLLA-2  
AUSTRALIA

PLOT REFERENCE : TRUE AMPLITUDE RECOVERY

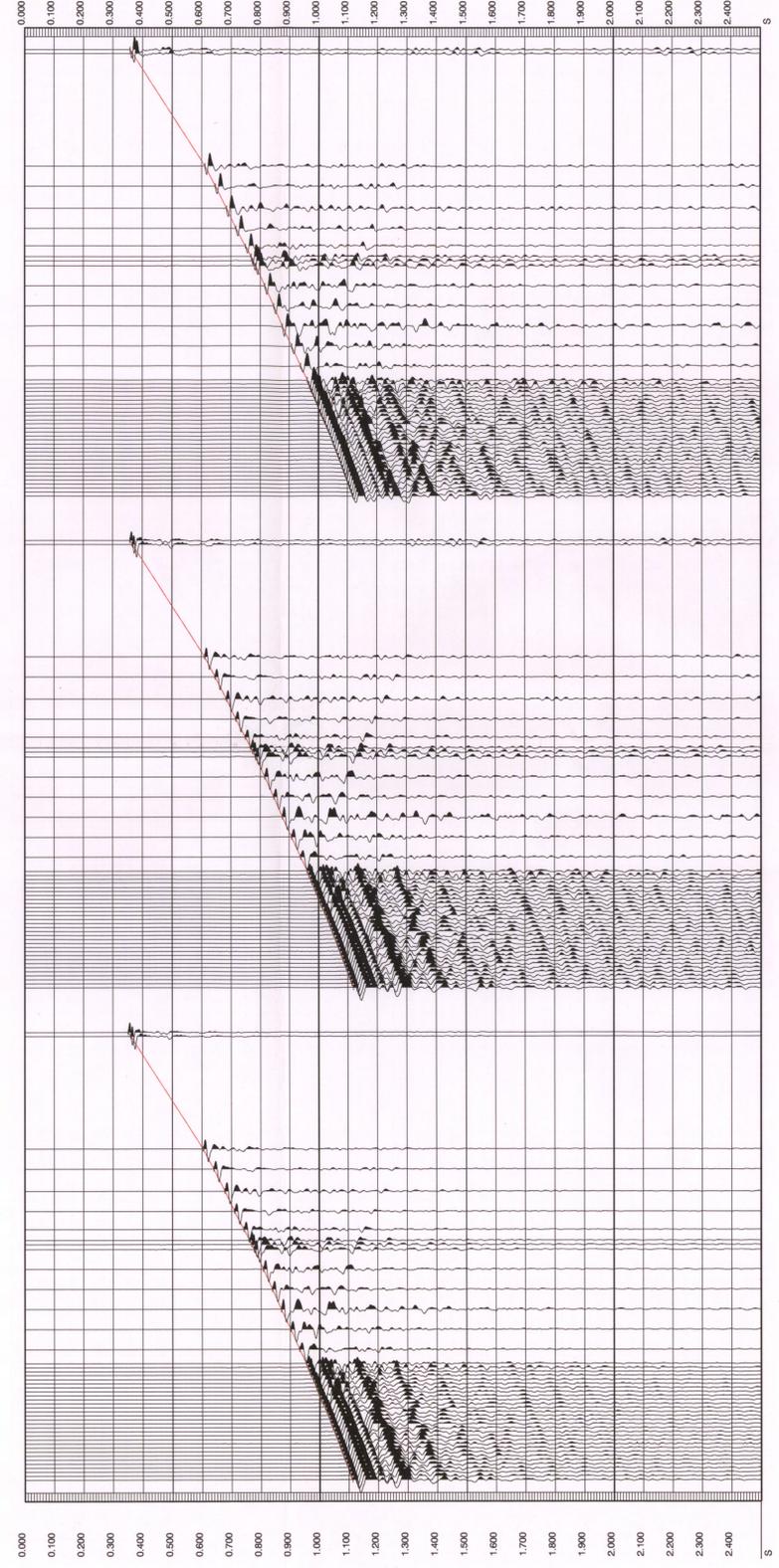
DATA PROCESSED: 21 MAY 1998

**\* AMPLITUDE RECOVERY \***  
VERTICAL COMPONENT.  
PROCESSING SEQUENCE:  
MEDIAN STACK APPLIED  
STATIC CORRECTION TO SDR: APPLIED  
BAND PASS FILTER : 5-100 HZ  
NORMALISATION GATE : 60 MS  
TIME VARYING GAIN : 1/70\*\*1.20  
VERTICAL SCALE : 10 CM/SEC  
POLARITY (S.E.G.) : REVERSE

**\* AMPLITUDE RECOVERY \***  
VERTICAL COMPONENT.  
PROCESSING SEQUENCE:  
MEDIAN STACK APPLIED  
STATIC CORRECTION TO SDR: APPLIED  
BAND PASS FILTER : 5-100 HZ  
NORMALISATION GATE : 60 MS  
TIME VARYING GAIN : 1/70\*\*1.20  
VERTICAL SCALE : 10 CM/SEC  
POLARITY (S.E.G.) : NORMAL

**\* STACKED DATA \***  
VERTICAL COMPONENT.  
PROCESSING SEQUENCE:  
MEDIAN COHERENCY STACK APPLIED  
NO STATIC CORRECTION APPLIED  
BANDPASS FILTER : 5-120 HZ  
VERTICAL SCALE : 10 CM/SEC  
POLARITY (S.E.G.) : NORMAL

RAW DEPTH M	TRANSIT TIME S	LEVEL NO	MAX AMPLITUDE	MIN AMPLITUDE
940.1	0.307	44	89.37	-89.249
1400.0	0.611	40	81.66	-86.012
1488.9	0.646	42	86.19	-81.312
1610.0	0.684	41	79.27	-84.141
1710.0	0.717	40	86.47	-80.477
1800.0	0.749	38	89.84	-80.209
1864.4	0.786	38	82.27	-81.613
1900.0	0.784	38	77.63	-84.329
2000.0	0.815	35	76.49	-82.287
2100.0	0.846	34	83.79	-81.654
2200.0	0.876	33	74.34	-81.500
2300.0	0.908	32	75.19	-86.091
2388.9	0.939	31	76.65	-87.871
2480.0	0.968	29	81.21	-85.052
2577.9	0.978	27	71.13	-82.854
2670.0	0.997	26	73.46	-84.044
2810.0	1.001	23	78.18	-80.894
2848.9	1.012	23	76.49	-83.989
2888.9	1.026	19	86.09	-80.029
2700.0	1.027	17	84.08	-80.941
2768.9	1.047	15	79.36	-80.852
2810.0	1.055	13	80.85	-80.852
2850.0	1.068	11	87.13	-80.100
2890.0	1.079	9	85.49	-80.498
2930.0	1.086	7	86.81	-80.733
2970.0	1.098	5	85.19	-81.182
3008.9	1.109	3	86.43	-80.300
3050.0	1.119	1	70.08	-88.898



COMPANY PREMIER OIL AUSTRALIA  
FIELD YOLLA  
WELL YOLLA-2  
COUNTRY AUSTRALIA



OR-0447A

54200G

Schlumberger

MELBOURNE LOG INTERPRETATION CENTRE

# VERTICAL SEISMIC PROFILE

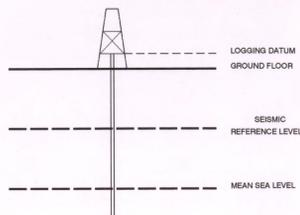
Zero Offset VSP PLOT 3

VELOCITY FILTERING

Company: PREMIER OIL AUSTRALASIA  
 Well: YOLLA-2  
 Field: YOLLA  
 Country: AUSTRALIA  
 Reference No: SYJ-561266/561267 Interval: 3085.00 to 1325.00  
 Date Logged: 17 MAY 1998 Date Processed: 28 1998  
 Location: 039 51' 33.820" S 145 48' 38.530" E  
 Elevations: KB: 12.50 DF: 212.50 GL: -81.50  
 Permanent Datum: MSL Depth Units: METRES  
 FIELD RECORDING: Engineer: Y.FRANSIS/HOOKWAY Location: Program Version: 7CO-427  
 COMPUTATION: Analyst: S.CHERKASHNEV Centre: SYJ Baseline: 20.5

ELEVATION ABOVE MEAN SEA LEVEL

Logging Datum: 12.50  
 Seismic Reference Datum: 0.00



Total Number of Levels: 46  
 Depth Reference: SRD  
 Time Reference: SRD

Run	Date	Tool Type	Bit Size/Depth	Casing Size/Depth	Top Depth	Bottom Depth
1	17-05-98	PEX	13.2 IN	12.2 IN	1065 M	3100 M

VSP Run	Date	Gun Offset	Hydro Offset	Gun Elevation	Hydro Elevation	Gun Azimuth	Hydro Azimuth
1	17-05-98	46 M	46 M	5 M BELOW MSL	10 M BELOW MSL	135 DEG	135 DEG

REMARKS



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PREMIER OIL AUSTRALASIA  
 YOLLA  
 YOLLA-2  
 AUSTRALIA

PLOT REFERENCE : VELOCITY SEPARATION

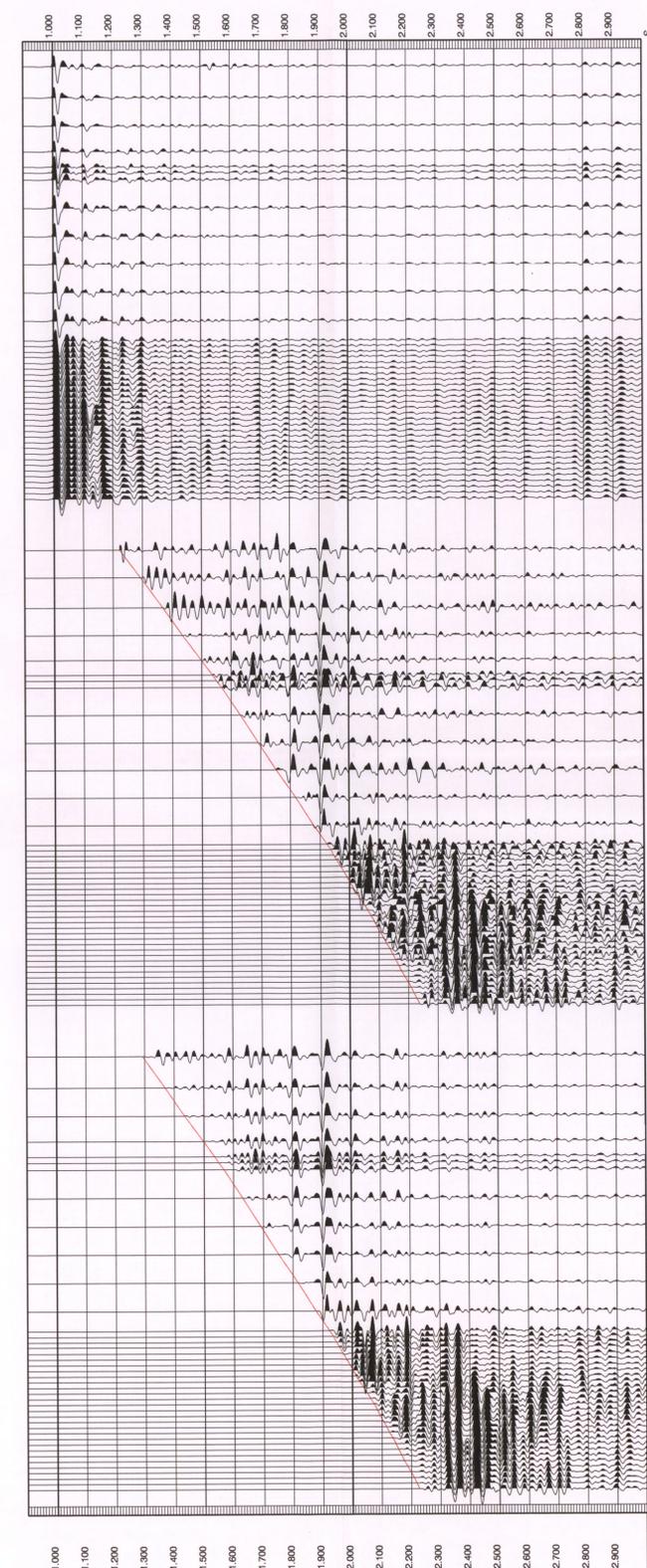
DATA PROCESSED: 21-MAY-1998

**\* VELOCITY FILTER \***  
 VERTICAL COMPONENT.  
 DOWNGOING WAVEFIELD  
 PROCESSING SEQUENCE:  
 MEDIAN STACK APPLIED  
 STATIC CORRECTION TO SDR : APPLIED  
 BAND PASS FILTER : 5-100 HZ  
 NORMALISATION GATE : 60 MS  
 TIME VARYING GAIN : (T/T0)\*\*1.20  
 11 LEVEL MEDIAN ESTIMATE OF DOWNGOING WAVEFIELD  
 VERTICAL SCALE : 10 CM/SEC  
 POLARITY (S.E.G.) : NORMAL  
 1.0 MSEC TIME

**\* VELOCITY FILTER \***  
 VERTICAL COMPONENT.  
 RESIDUAL WAVEFIELD  
 PROCESSING SEQUENCE:  
 MEDIAN STACK APPLIED  
 STATIC CORRECTION TO SDR : APPLIED  
 BAND PASS FILTER : 5-100 HZ  
 NORMALISATION GATE : 60 MS  
 TIME VARYING GAIN : (T/T0)\*\*1.20  
 DOWNGOING WAVEFIELD SUBTRACTION  
 RESIDUAL WAVEFIELD  
 VERTICAL SCALE : 10 CM/SEC  
 POLARITY (S.E.G.) : NORMAL  
 TWO WAY TIME

**\* VELOCITY FILTER \***  
 VERTICAL COMPONENT.  
 ENHANCED UPGOING WAVEFIELD  
 PROCESSING SEQUENCE:  
 MEDIAN STACK APPLIED  
 STATIC CORRECTION TO SDR : APPLIED  
 BAND PASS FILTER : 5-100 HZ  
 NORMALISATION GATE : 60 MS  
 TIME VARYING GAIN : (T/T0)\*\*1.20  
 DOWNGOING WAVEFIELD SUBTRACTION  
 5 LEVEL ENHANCED UPGOING WAVEFIELD  
 VERTICAL SCALE : 10 CM/SEC  
 POLARITY (S.E.G.) : NORMAL  
 TWO WAY TIME

RAW DEPTH M	TRUE VERTICAL DEPTH MSL M	TRANSIT TIME S	LEVEL NO
1488.9	1487.4	0.646	6
1610.0	1597.5	0.684	11
1710.0	1697.5	0.717	16
1800.0	1797.5	0.746	21
1854.4	1841.9	0.756	22
1875.0	1862.5	0.775	23
1900.0	1883.0	0.794	24
2000.0	1983.0	0.815	29
2100.0	2083.0	0.846	34
2200.0	2183.0	0.876	39
2300.0	2283.0	0.909	44
2398.9	2387.4	0.939	49
2475.0	2477.5	0.969	54
2480.0	2477.5	0.969	55
2527.9	2515.4	0.979	56
2550.0	2537.5	0.989	57
2575.0	2560.0	1.000	58
2600.0	2582.5	1.011	59
2625.0	2605.0	1.022	60
2650.0	2627.5	1.033	61
2675.0	2650.0	1.044	62
2700.0	2672.5	1.055	63
2725.0	2695.0	1.066	64
2750.0	2717.5	1.077	65
2775.0	2740.0	1.088	66
2800.0	2762.5	1.099	67
2825.0	2785.0	1.110	68
2850.0	2807.5	1.121	69
2875.0	2830.0	1.132	70
2900.0	2852.5	1.143	71
2925.0	2875.0	1.154	72
2950.0	2897.5	1.165	73
2975.0	2920.0	1.176	74
3000.0	2942.5	1.187	75



COMPANY PREMIER OIL AUSTRALASIA  
 FIELD YOLLA  
 WELL YOLLA-2  
 COUNTRY AUSTRALIA

Schlumberger





OR-0447A

542099



MELBOURNE LOG INTERPRETATION CENTRE

# VERTICAL SEISMIC PROFILE

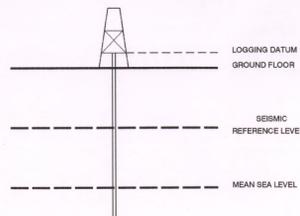
Zero Offset VSP PLOT 6  
VSP/Geogram Composite  
(Normal Polarity 20 cm/sec)

Company: PREMIER OIL AUSTRALASIA  
 Well: YOLLA-2  
 Field: YOLLA  
 Country: AUSTRALIA  
 Reference No: SYJ-561266/561267 Interval: 3085.00 to 1325.00  
 Date Logged: 17 MAY 1998 Date Processed: 28 1998  
 Location: 039 51' 33.820" S 145 48' 38.530" E  
 Elevations: KB: 12.50 DF: 212.50 GL: -81.50  
 Permanent Datum: MSL Depth Units: METRES

FIELD RECORDING: Engineer: Y.FRANSIS.HOOKWAY Location: Program Version: 7CO-427  
 COMPUTATION: Analyst: S.TCHERKASHNEV Centre: SYJ Baseline: 20.5

### ELEVATION ABOVE MEAN SEA LEVEL

Logging Datum: 12.50  
 Seismic Reference Datum: 0.00



Total Number of Levels: 46  
 Depth Reference: SRD  
 Time Reference: SRD

Run	Date	Tool Type	Bit Size/Depth	Casing Size/Depth	Top Depth	Bottom Depth
1	17-05-98	PEX	13.2 IN	12.2 IN	1065 M	3100 M

VSP Run	Date	Gun Offset	Hydro Offset	Gun Elevation	Hydro Elevation	Gun Azimuth	Hydro Azimuth
1	17-05-98	46 M	46 M	5 M BELOW MSL	10 M BELOW MSL	135 DEG	135 DEG

### REMARKS



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 The well name, location and borehole reference data were furnished by the customer.

### WAVESHAPING

STATIC CORRECTION TO MSL: 6.56 MS  
 NORMALISATION GATE: 60 MS  
 TIME VARYING GAIN: (T/T0)\*\*1.20  
 DOWNGOING WAVEFIELD SUBTRACTION  
 WAVESHAPING DECONVOLUTION:  
 5-80 HZ ZERO PHASE WAVELET  
 OPERATOR LENGTH: 1.000 S  
 PREWHITENING: 2 %  
 BPF AFTER DECONVOLUTION: 5-80 HZ  
 5 LEVEL ENHANCED UPGOING WAVEFIELD

VERTICAL SCALE: 20 CM/SEC  
 POLARITY (S.E.G.): NORMAL

### CORRIDOR STACK WINDOW 100 MS

### CORRIDOR STACK + AGC 200 MS AGC WINDOW

### GEOGRAM 25 HZ. ZERO PHASE - NORMAL POLARITY

### GEOGRAM 35 HZ. ZERO PHASE - NORMAL POLARITY

### GEOGRAM 45 HZ. ZERO PHASE - NORMAL POLARITY

### REFLECTION

### LOGGED IMPEDANCE

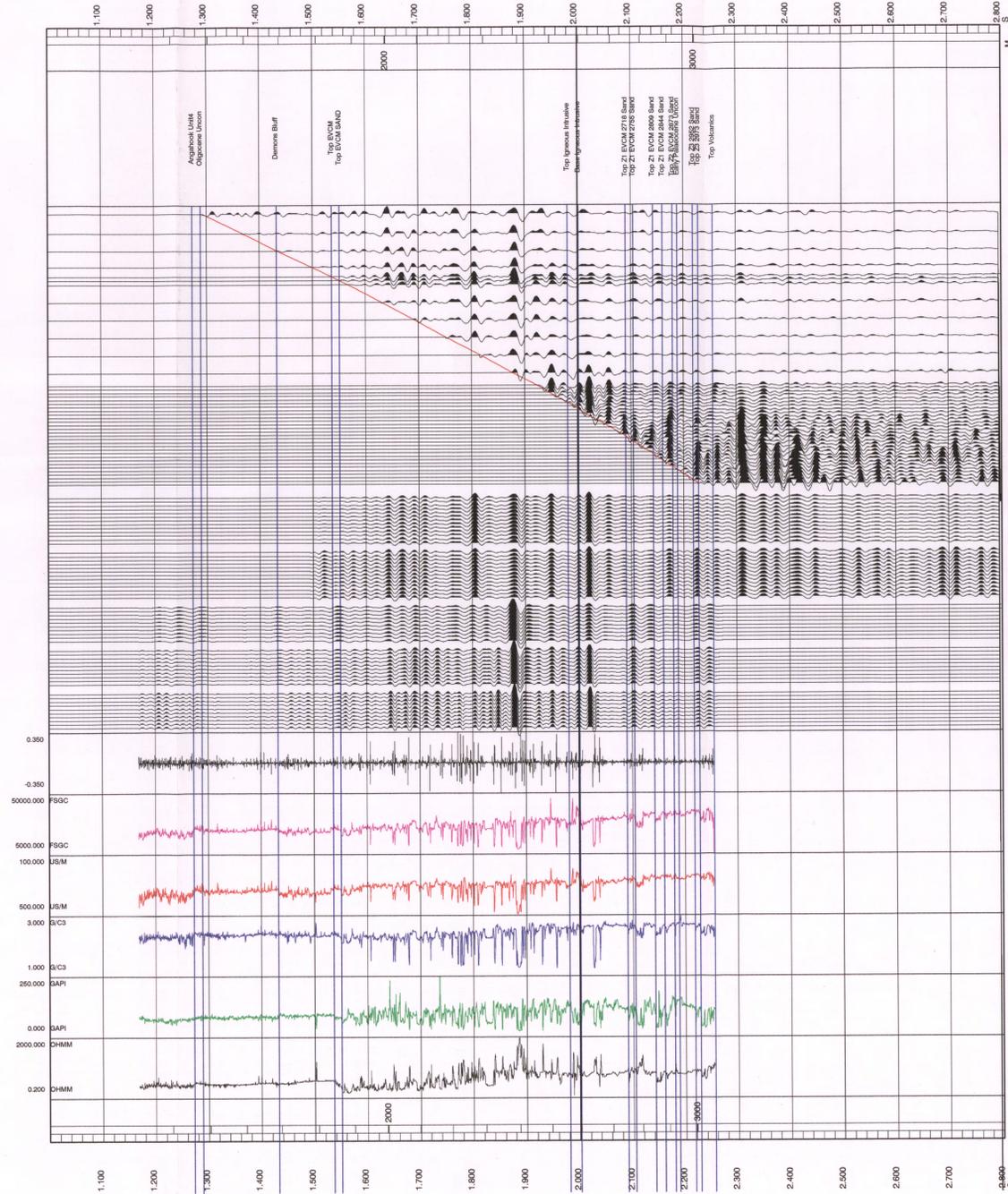
### SONIC

### DENSITY

### GAMMA RAY

### DEEP RESISTIVITY

RAW DEPTH M	TRANSIT TIME SDR S	LEVEL NO
1489.9	1.280	46
1610.0	1.388	45
1715.0	1.454	44
1820.0	1.520	43
1944.4	1.637	42
1960.0	1.668	41
2000.0	1.690	40
2100.0	1.691	39
2200.0	1.750	38
2300.0	1.817	37
2389.9	1.877	36
2470.0	1.939	35
2510.0	1.946	34
2561.1	1.970	33
2580.0	1.980	32
2610.0	2.013	31
2670.0	2.058	30
2710.0	2.080	29
2760.0	2.104	28
2780.0	2.110	27
2810.0	2.147	26
2810.0	2.167	25
2850.0	2.188	24
2900.0	2.200	23
3000.0	2.228	22
0.0	0.000	0
0.0	0.000	1
0.0	0.000	2
0.0	0.000	3
0.0	0.000	4
0.0	0.000	5
0.0	0.000	6
0.0	0.000	7
0.0	0.000	8
0.0	0.000	9
0.0	0.000	10
0.0	0.000	11
0.0	0.000	12
0.0	0.000	13
0.0	0.000	14
0.0	0.000	15
0.0	0.000	16
0.0	0.000	17
0.0	0.000	18
0.0	0.000	19
0.0	0.000	20
0.0	0.000	21
0.0	0.000	22
0.0	0.000	23
0.0	0.000	24
0.0	0.000	25
0.0	0.000	26
0.0	0.000	27
0.0	0.000	28
0.0	0.000	29
0.0	0.000	30
0.0	0.000	31
0.0	0.000	32
0.0	0.000	33
0.0	0.000	34
0.0	0.000	35
0.0	0.000	36
0.0	0.000	37
0.0	0.000	38
0.0	0.000	39
0.0	0.000	40
0.0	0.000	41
0.0	0.000	42
0.0	0.000	43
0.0	0.000	44
0.0	0.000	45
0.0	0.000	46



COMPANY: PREMIER OIL AUSTRALASIA  
 FIELD: YOLLA  
 WELL: YOLLA-2  
 COUNTRY: AUSTRALIA





MELBOURNE LOG INTERPRETATION CENTRE

# VERTICAL SEISMIC PROFILE

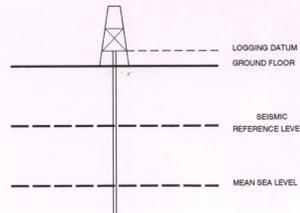
Zero Offset VSP PLOT 7  
 VSP/Geogram Composite  
 (Reverse Polarity 20 cm/sec)

Company: PREMIER OIL AUSTRALIA  
 Well: YOLLA-2  
 Field: YOLLA  
 Country: AUSTRALIA  
 Reference No: SYJ-561266/561267 Interval: 3085.00 to 1325.00  
 Date Logged: 17 MAY 1998 Date Processed: 28 1998  
 Location: 039 51' 33.820" S 145 48' 38.530" E  
 Elevations: KB: 12.50 DF: 212.50 GL: -81.50  
 Permanent Datum: MSL Depth Units: METRES

FIELD RECORDING: Engineer: Y.FRANIS/S.HOOKWAY Location: Program Version: 700-427  
 COMPUTATION: Analyst: S.TCHERKASHNEV Centre: SYJ Baseline: 20.5

ELEVATION ABOVE MEAN SEA LEVEL

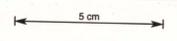
Logging Datum: 12.50  
 Seismic Reference Datum: 0.00



Total Number of Levels: 46  
 Depth Reference: SRD  
 Time Reference: SRD

Run	Date	Tool Type	Bit Size/Depth	Casing Size/Depth	Top Depth	Bottom Depth	
1	17-05-98	PEX	13.2 IN	12.2 IN	1065 M	3100 M	
VSP Run	Date	Gun Offset	Hydro Offset	Gun Elevation	Hydro Elevation	Gun Azimuth	Hydro Azimuth
1	17-05-98	46 M	7.46 M	5 M BELOW MSL	10 M BELOW MSL	135 DEG	135 DEG

REMARKS



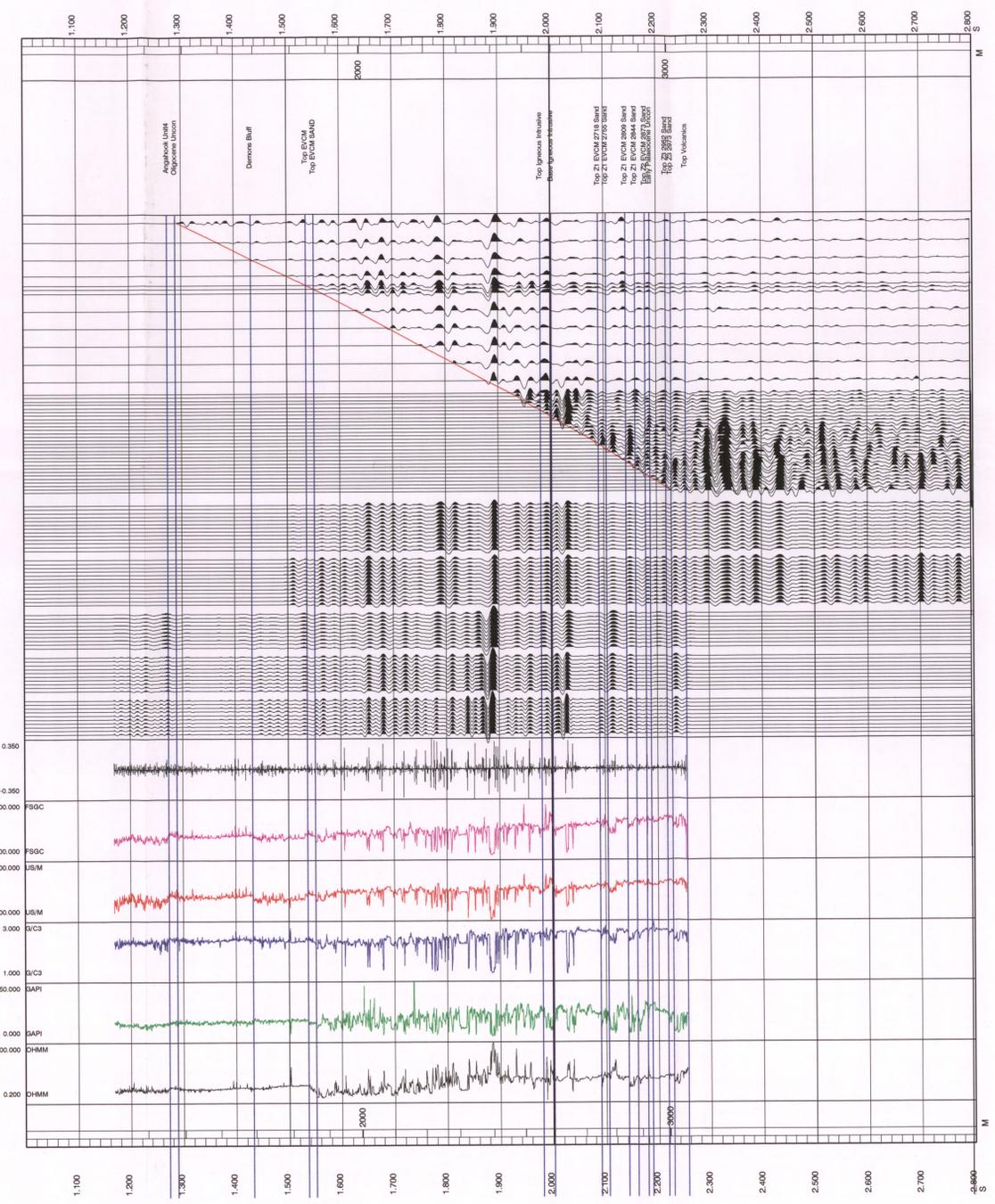
All interpretations are opinions based on information from electrical or other measurements and are correct, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expense incurred or sustained by anyone resulting from any interpretations made by any of our officers, agents or employees. These interpretations are also subject to change if our General Terms and Conditions as set out in our current P100 Schedule.

FOLD HERE

<b>WAVESHAPING</b> STATIC CORRECTION TO MSL: 6.56 MS NORMALISATION GATE: 60 MS TIME VARYING GAIN: (T/T0)**1.20 DOWNGOING WAVEFIELD SUBTRACTION WAVESHAPING DECONVOLUTION: 5-60 HZ ZERO PHASE WAVELET OPERATOR LENGTH: 1000 S PREWHITENING: 2 % BPF AFTER DECONVOLUTION: 5-80 HZ 5 LEVEL ENHANCED UPGOING WAVEFIELD VERTICAL SCALE: 20 CM/SEC POLARITY (S.E.G.): REVERSE
<b>CORRIDOR STACK</b> WINDOW 100 MS
<b>CORRIDOR STACK + AGC</b> 200 MS AGC WINDOW
<b>GEOGRAM 25 HZ</b> ZERO PHASE - REVERSE POLARITY
<b>GEOGRAM 35 HZ</b> ZERO PHASE - REVERSE POLARITY
<b>GEOGRAM 45 HZ</b> ZERO PHASE - REVERSE POLARITY
<b>REFLECTION</b>
<b>LOGGED IMPEDANCE</b>
<b>SONIC</b>
<b>DENSITY</b>
<b>GAMMA RAY</b>
<b>DEEP RESISTIVITY</b>

1989.9	1.280	1
1810.0	1.380	2
1710.0	1.434	3
1600.0	1.488	4
1504.4	1.537	5
1500.0	1.588	6
2000.0	1.600	7
2100.0	1.691	8
2200.0	1.782	9
2300.0	1.817	10
2388.9	1.877	11
2470.0	1.930	12
2510.0	1.946	13
2550.0	1.970	14
2600.0	1.988	15
2670.0	2.038	16
2710.0	2.088	17
2750.0	2.138	18
2790.0	2.184	19
2800.0	2.198	20
2870.0	2.147	21
2910.0	2.116	22
2950.0	2.098	23
2990.0	2.088	24
3000.0	2.088	25

RAW DEPTH M TRANSIT TIME SOR S LEVEL NO



COMPANY PREMIER OIL AUSTRALIA  
 FIELD YOLLA  
 WELL YOLLA-2  
 COUNTRY AUSTRALIA





MELBOURNE LOG INTERPRETATION CENTRE

# DRIFT CORRECTED SONIC

PREMIER OIL AUSTRALIA

Well: YOLLA-2

Field: YOLLA

Country: AUSTRALIA



Reference No: SVJ5612661267

Inherent: 3085.00 to 1325.00

Date Logged: 17 MAY 1988

Data Processed: 28 1988

Location: G39 ST 33207' S 145 48'36.6307' E

Elevations: IGB: 12.50 OF: 212.50 OI: 91.50

Permanent datum: MSL Depth Units: METRES

The well name, location and coordinate reference data were furnished by the customer.

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretations made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

FIELD RECORDING: Engineer: YFRANBIS HOOKWAY Location: Program Version: 700-427

COMPUTATION: Analyst: S.TCHERKASHNEV Centre: SVJ Baseline: 20.8

### ELEVATION ABOVE MEAN SEA LEVEL

Logging Datum: 12.50

Seismic Reference Datum: 0.00

Total Number of Levels: 46

Depth Reference: SRD

Time Reference: SRD

### REMARKS

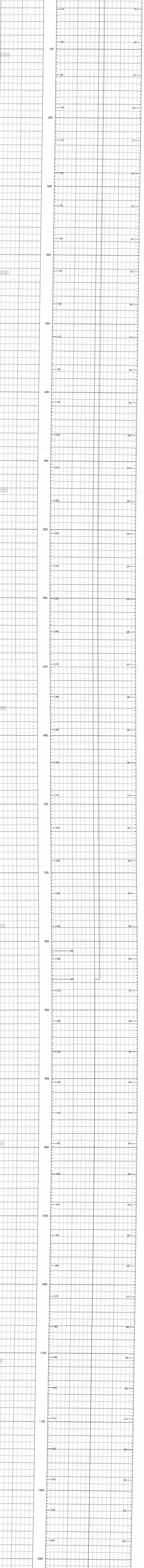
Run	Date	Tool Type	Bit Size Depth	Casing Size Depth	Top Depth	Bottom Depth
1	17-05-88	PEX	13.2 IN	12.2 IN	1066 M	3100 M

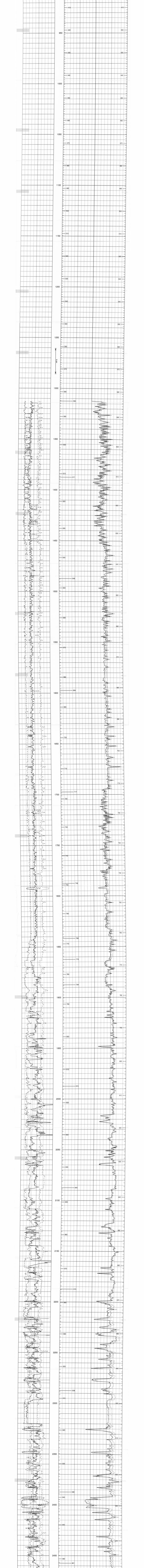
VIP Run	Date	Gun Offset	Hydro Elevation	Gun Elevation	Hydro Elevation	Gun Azimuth	Hydro Azimuth
1	17-05-88	46 M	46 M	6 M BELOW MBL	10 M BELOW MBL	135 DEG	136 DEG

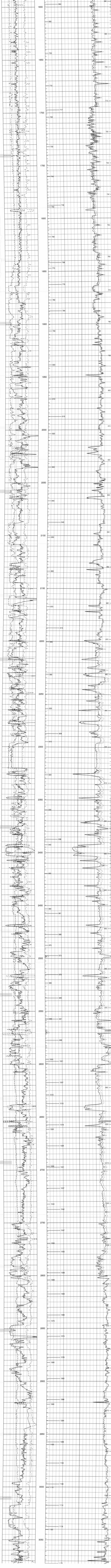
GAMMA RAY	DEPTHS	ADJUSTED SONIC
0.0	700	700
1.0	700	700
5	25	25
0.2	2000.0	2000.0

Scale: 1:500

INTEGRATED CORRECTED SONIC VERTICAL CHECK SHOT TIMES ALLTIMES REFERENCED TO SRD







Schlumberger

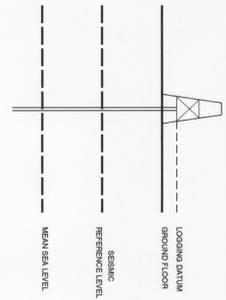
COMPANY PREMIER OIL AUSTRALASIA  
 FIELD YOLLA  
 WELL YOLLA 2  
 COUNTRY AUSTRALIA

← 5 cm →

# SEISMIC CALIBRATION LOG

(Adjusted Continuous Velocity Log)

Company: PREMIER OIL AUSTRALASIA  
 Well: YOLLA-2  
 Field: YOLLA  
 Country: AUSTRALIA  
 Reference No: SVJ561266/961267 Interval: 3065.00 to 1325.00  
 Date Logged: 17 MAY 1999 Date Processed: 29 1999  
 Location: 029 51'33.820" S 145 48'38.530" E  
 Elevations: KB: 12.50 DF: 212.50 GL: -81.50  
 Permanent Datum: MSL Depth Units: METRES  
 FIELD RECORDS: Engineer: Y. FRANKS/HOCONWAY Location: 702-427  
 COORDINATOR: Analyst: S. CHEN/BAKER Centre: SVJ Barcode: 205  
 ELEVATION ABOVE MEAN SEA LEVEL  
 Logging Datum: 12.50  
 Seismic Reference Datum: 0.00

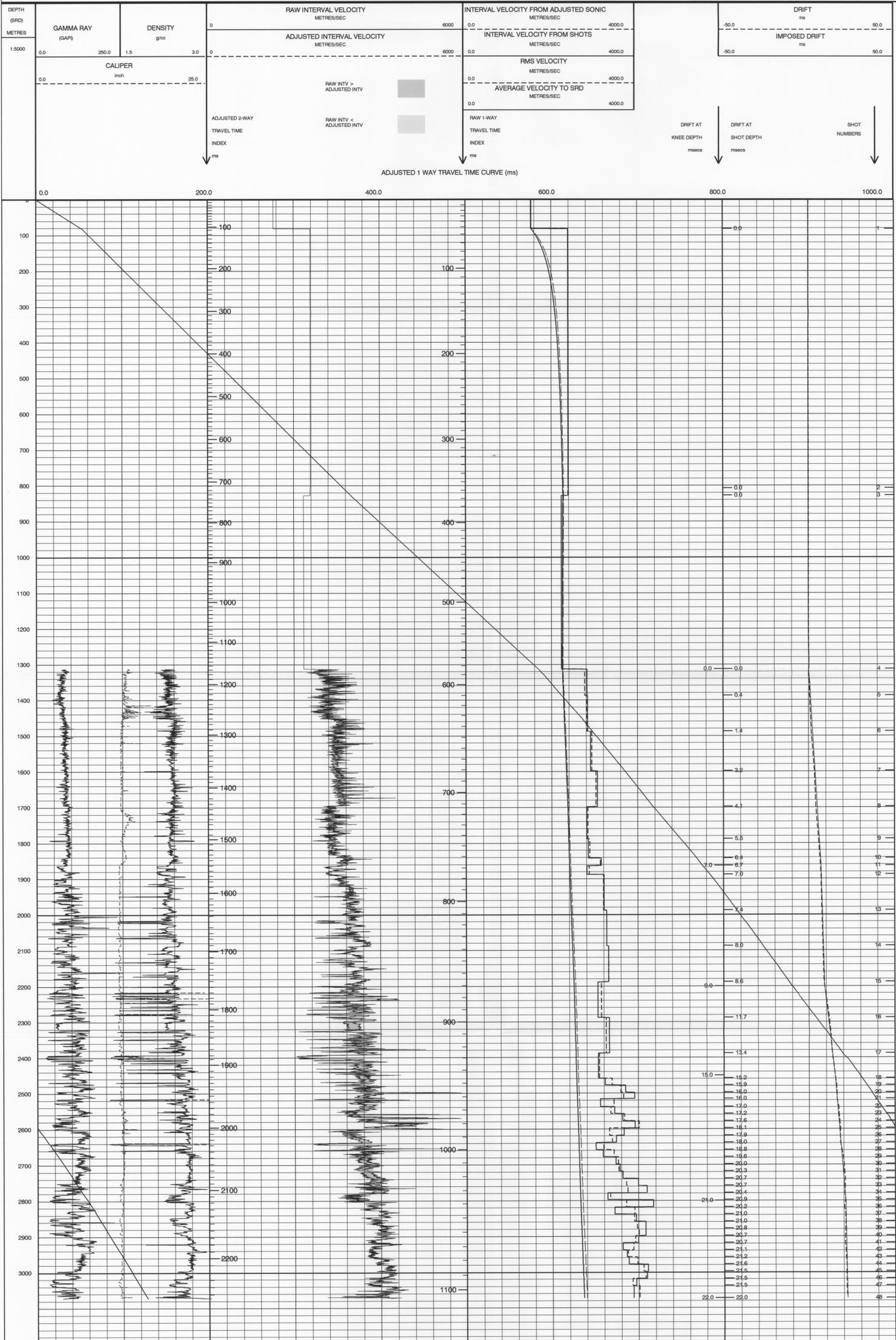


Total Number of Levels: 46  
 Depth Reference: SRD  
 Time Reference: SRD

Run	Date	Type	SRD	SRD	SRD	SRD	SRD
1	17-05-99	TRK	132 IN	132 IN	1065 M	3100 M	

The well name, location and borehole reference data were furnished by the customer.

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expense incurred or sustained by anyone resulting from any interpretations made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.



COMPANY PREMIER OIL AUSTRALASIA  
 FIELD YOLLA  
 WELL YOLLA-2  
 COUNTRY AUSTRALIA

MELBOURNE LOG INTERPRETATION CENTRE

Schlumberger

# GEOGRAM\*

(Synthetic Seismogram)

## 25 Hz Zero Phase Ricker Wavelet

\*Mark of Schlumberger

Company: PREMIER OIL AUSTRALASIA  
 Well: YOLLA-2  
 Field: YOLLA  
 Country: AUSTRALIA  
 Reference No: SVJ561266/651267 Interval: 3065.00 to 1325.00  
 Date Logged: 17 MAY 1998 Date Processed: 28 1999  
 Location: 039 51' 33.820" S 146 48' 38.530" E  
 Elevations: NS: 12.50 DF: 212.50 GL: 91.50  
 Permanent Datum: MSL Depth Units: METRES

### LOG INFORMATION

FIELD RECORDS: Engineer: Y FRANKIS HOCOMAY Location: Program Version: 703-427  
 COMPUTATION: Analyst: S CHIDEMARNEY Centre: STV Beatmeter: 20.5  
 Logging Datum: ELEVATION ABOVE MEAN SEA LEVEL 12.50  
 Seismic Reference Datum: 0.00  
 Sonic Calibration By Check Shots: YES Sonic Edited By Analyst: YES  
 Two-Way Time Sample Interval: 0.5 ms Environment: YES

True Vertical Depth Corrections Applied: YES  
 Source of True Vertical Depth Data: Maximum Hole Deviation: 0

Run	Date	Total Type	BS Start Depth	casing Start Depth	Top Depth	Bottom Depth
1	17-04-98	POX	13.2 IN	12.2 IN	1965 M	3100 M
1	17-04-98	48 M	48 M	5 M BELOW MSL	10 M BELOW MSL	156 DEB 158 DEB

### GEOGRAM MODEL ASSUMPTIONS

Equal time slice model of horizontal plane layers.  
 Plane acoustic waves at normal incidence.  
 No intrinsic attenuation.  
**POLARITY**  
 An upgoing wave, reflected by an increase in acoustic impedance with depth, is displayed as a white trough under normal polarity.  
**SIGNATURES**  
 All signatures displayed in the Geogram result correspond to a wavelet convolved with a reflection coefficient of -0.5 (a decrease in acoustic impedance with depth).

### REMARKS



The well name, location and borehole reference data were furnished by the customer.

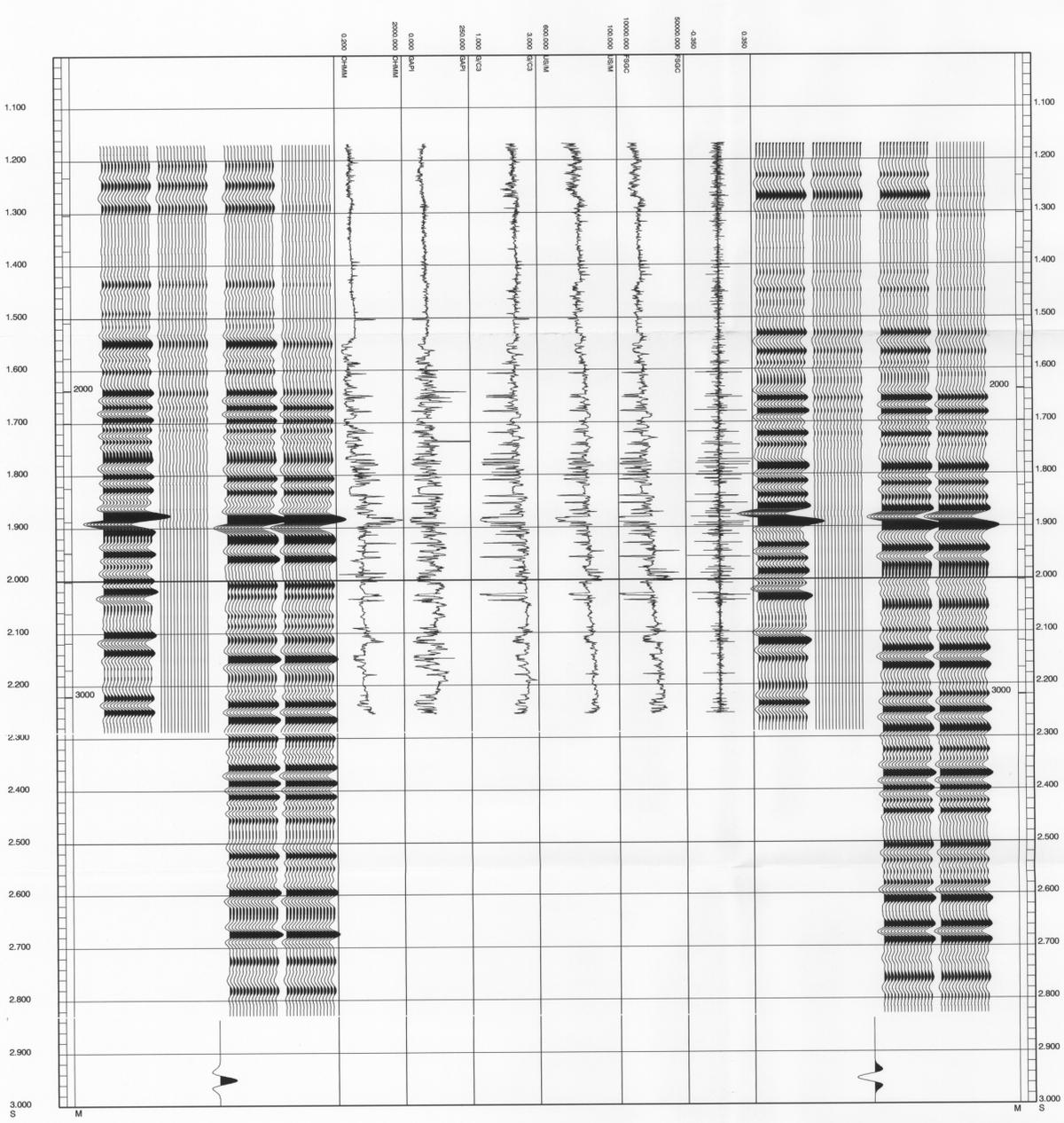
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expense incurred or sustained by anyone resulting from any interpretations made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

## \*\* GEOGRAM \*\*

### 25 HERTZ ZERO PHASE RICKER WAVELET

VERTICAL SCALE = 20 CM/SEC

MULTIPLES ONLY REVERSE POLARITY
PRIMARIES AND MULTIPLES REVERSE POLARITY
PRIMARIES WITH TRANSMISSION LOSS REVERSE POLARITY
PRIMARIES REVERSE POLARITY
REFLECTION
ACOUSTIC IMPEDANCE
SONIC
DENSITY
GAMMA RAY
DEEP RESISTIVITY
MULTIPLES ONLY NORMAL POLARITY
PRIMARIES AND MULTIPLES NORMAL POLARITY
PRIMARIES WITH TRANSMISSION LOSS NORMAL POLARITY
PRIMARIES NORMAL POLARITY



COMPANY PREMIER OIL AUSTRALASIA  
 FIELD YOLLA  
 WELL YOLLA-2  
 COUNTRY AUSTRALIA





**Schlumberger** MELBOURNE LOG INTERPRETATION CENTRE

# GEOGRAM\*

(Synthetic Seismogram)

45 Hz Zero Phase Ricker Wavelet

Company: PREMIER OIL AUSTRALASIA  
 Well: YOLLA-2  
 Field: YOLLA  
 Country: AUSTRALIA  
 Reference No: SYJ-561266/96/187 Interval: 3095.00 to 1325.00  
 Date Logged: 17 MAY 1998 Date Processed: 28 1998  
 Location: 039 51 33.820" S 148 49 38.530" E  
 Elevations: KB: 12.50 DF: 212.50 GL: -91.90  
 Permanent Datum: MSL Depth Units: METRES

**LOG INFORMATION**

FIELD RECORDING: Engineer: V. FRANKS/RODWAY Location: Program Version: 704-47  
 COMPUTATION: Analyst: S. TORREMANENY Centre: SYJ Barometer: 20.5  
 ELEVATION ABOVE MEAN SEA LEVEL  
 Logging Datum: 12.50  
 Seismic Reference Datum: 0.00  
 Sonic Calibration By Check Shot: YES Sonic Edited By Analyst: YES  
 Two-Way Time Sample Interval: 0.5 ms Environment: YES

True Vertical Depth Corrections Applied: YES  
 Source of True Vertical Depth Data: Maximum Hole Deviation: 0

Run	Date	Total Type	BB Size/Depth	Casing Size/Depth	Top Depth	Bottom Depth
1	17-05-98	PEX	113 N /	122 N /	1068 M /	3100 M /
VSP	Date	Gun Offset	Hydro Offset	Gun Elevation	Hydro Elevation	Gun Azimuth
1	17-05-98	48 M	48 M	5 M BELOW HSL	10 M BELOW HSL	135 DEG

**GEOGRAM MODEL ASSUMPTIONS**

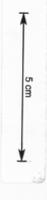
Equal time slice model of horizontal plane layers.  
 Plane acoustic waves at normal incidence.  
 No intrinsic attenuation.

**POLARITY**

An upgoing wave, reflected by an increase in acoustic impedance with depth, is displayed as a white trough under normal polarity.  
 All signatures displayed in the Geogram results correspond to a wavelet convolved with a reflection coefficient of -0.5 (A decrease in acoustic impedance with depth).

**SIGNATURES**

REMARKS

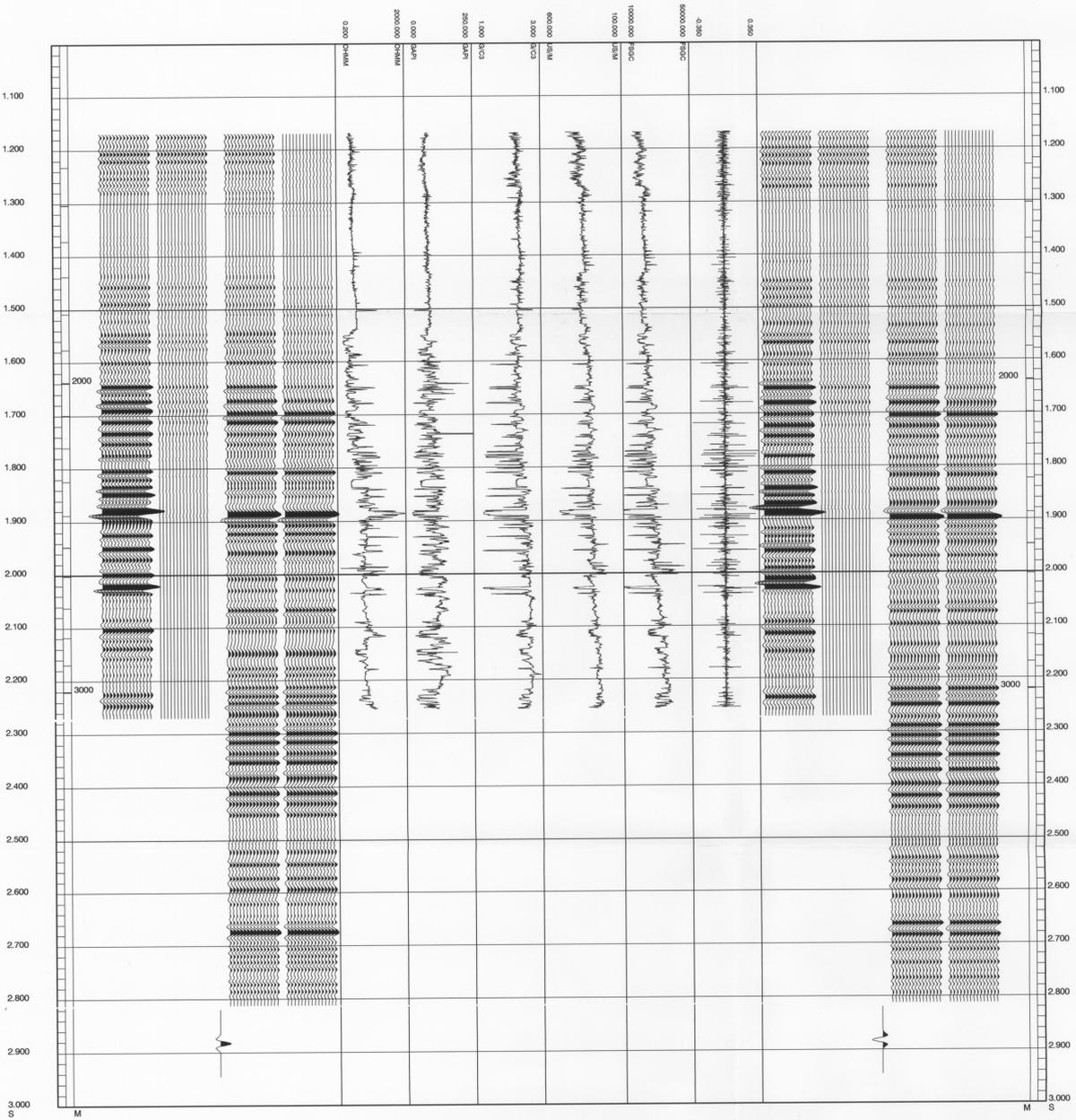


The well name, location and borehole reference data were furnished by the customer.

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretations made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

**\*\* GEOGRAM \*\***  
 45 HERTZ ZERO PHASE RICKER WAVELET  
 VERTICAL SCALE = 20 CM/SEC

MULTIPLES ONLY REVERSE POLARITY
PRIMARIES AND MULTIPLES REVERSE POLARITY
PRIMARIES WITH TRANSMISSION LOSS REVERSE POLARITY
PRIMARIES REVERSE POLARITY
REFLECTION
ACOUSTIC IMPEDANCE
SONIC
DENSITY
GAMMA RAY
DEEP RESISTIVITY
MULTIPLES ONLY NORMAL POLARITY
PRIMARIES AND MULTIPLES NORMAL POLARITY
PRIMARIES WITH TRANSMISSION LOSS NORMAL POLARITY
PRIMARIES NORMAL POLARITY



COMPANY PREMIER OIL AUSTRALASIA  
 FIELD YOLLA  
 WELL YOLLA-2  
 COUNTRY AUSTRALIA

