



MELBOURNE LOG  
INTERPRETATION  
CENTRE

# GEOGRAM\*

(Synthetic Seismogram)

\* A Mark of Schlumberger

Company: BHP PETROLEUM  
Well: MINERVA -2A  
Field: WILDCAT  
Country: AUSTRALIA  
Reference No: 560960 Interval: 2160.00 to 600.00  
Date Logged: 14-OCT-1993 Date Processed: 23/10/93  
Location: 142 57' 20.80" N 38 43' 04.54" E  
Elevations: KB: 25.30 DF: 25.00 GL: -85.00  
Permanent Datum: MSL Depth Units: METRES

### LOG INFORMATION

FIELD RECORDING: Engineer M HELWIG Location Program Version 32.2  
COMPUTATION: Analyst Z.KATELIS Centre SYJ Baseline: 20.4

### ELEVATION ABOVE MEAN SEA LEVEL

Logging Datum: 25.00  
Seismic Reference Datum: 0.00

Sonic Calibration By Check Shots: YES Sonic Edited By Analyst: YES

Two-Way Time Sample Interval: 2 ms Environment:

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

| Run     | Date     | Tool Type  | Bit Size/Depth | Casing Size/Depth | Top Depth       | Bottom Depth |
|---------|----------|------------|----------------|-------------------|-----------------|--------------|
| VSP Run | Date     | Gun Offset | Hydro Offset   | Gun Elevation     | Hydro Elevation | Gun Azimuth  |
| 1       | 14-10-93 | 47 M       | 47 M           | 5 BELOW MSL       | 12 M BELOW MSL  | 60 0         |

### 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 results correspond to a wavelet convolved with a reflection coefficient of -0.5 (A decrease in acoustic impedance with depth).

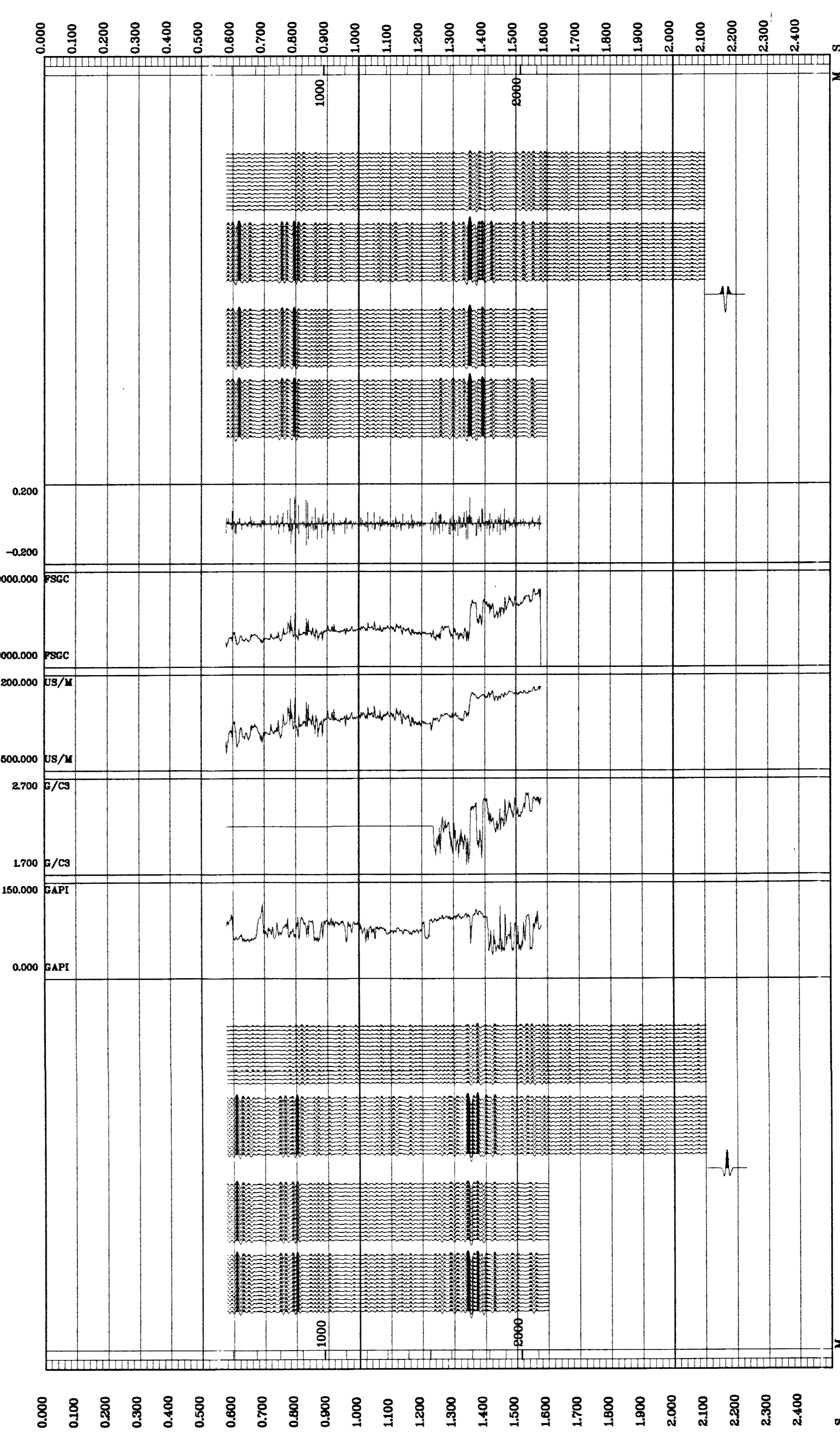
### REMARKS

All interpretations are opinions based on information from electrical or other measurements and are subject to the accuracy of correctness of any measurements and we shall not accept in the case of gross or willful negligence on our part, be liable or responsible for any loss or damage 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.

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**\*\* GEOGRAM \*\***  
**45 HERTZ ZERO PHASE**  
**RICKER WAVELET**  
 VERTICAL SCALE = 10 CM/SEC

|  |
|--|
| MULTIPLES ONLY<br>REVERSE POLARITY                   |
| PRIMARIES AND MULTIPLES<br>REVERSE POLARITY          |
| PRIMARIES WITH TRANSMISSION LOSS<br>REVERSE POLARITY |
| PRIMARIES<br>REVERSE POLARITY                        |
| REFLECTION   |
| ACOUSTIC<br>IMPEDANCE                                |
| SONIC  |
| DENSITY  |
| GAMMA RAY  |
| MULTIPLES ONLY<br>NORMAL POLARITY                    |
| PRIMARIES AND MULTIPLES<br>NORMAL POLARITY           |
| PRIMARIES WITH TRANSMISSION LOSS<br>NORMAL POLARITY  |
| PRIMARIES<br>NORMAL POLARITY                         |



COMPANY BHP PETROLEUM  
 FIELD WILDCAT  
 WELL MINERVA -2A  
 COUNTRY AUSTRALIA

