

**Schlumberger** SYDNEY LOG INTERPRETATION CENTRE

# GEOGRAM\*

(Synthetic Seismogram)

\* A Mark of Schlumberger

Company: ESSO AUSTRALIA LTD.  
Well: BLACKBACK 1 (ST-1/ST-2)  
Field: WILDCAT  
Country: AUSTRALIA  
Reference No: 58480 Interval: 3905.00 to 575.00  
Date Logged: 18/6/89 Date Processed: 20/7/89  
Location: 38 33.37 S 147 33.42 68 E  
Elevations: KB: 2100 DF: 2070 GL: -4800  
Permanent Datum: MSL Depth Units: METRES

### LOG INFORMATION

FIELD RECORDING: Engineer: G SMITH Location: Program Version: 32.2  
COMPUTATION: Analyst: Z KATZELIS Centre: SVJ Baseline: 16800X3  
ELEVATION ABOVE MEAN SEA LEVEL  
Logging Datum: 2100  
Sonic 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: YES  
Source of True Vertical Depth Data: DPMETER  
Maximum Hole Deviation: 39 DEG

| Run | Date   | Tool Type | Bit Size/Depth | Casing Size/Depth | Top Depth | Bottom Depth |
|-----|--------|-----------|----------------|-------------------|-----------|--------------|
| VSP | Date   | Gun       | Hydro          | Gun               | Hydro     | Gun          |
| Run | Offset | Offset    | Elevation      | Elevation         | Asphalt   | Asphalt      |

**GEOGRAM MODEL ASSUMPTIONS**  
Equal time slice model of horizontal plane layers.  
Plane acoustic waves at normal incidence.  
No intrinsic attenuation.  
**POLARITY**  
An upping 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).

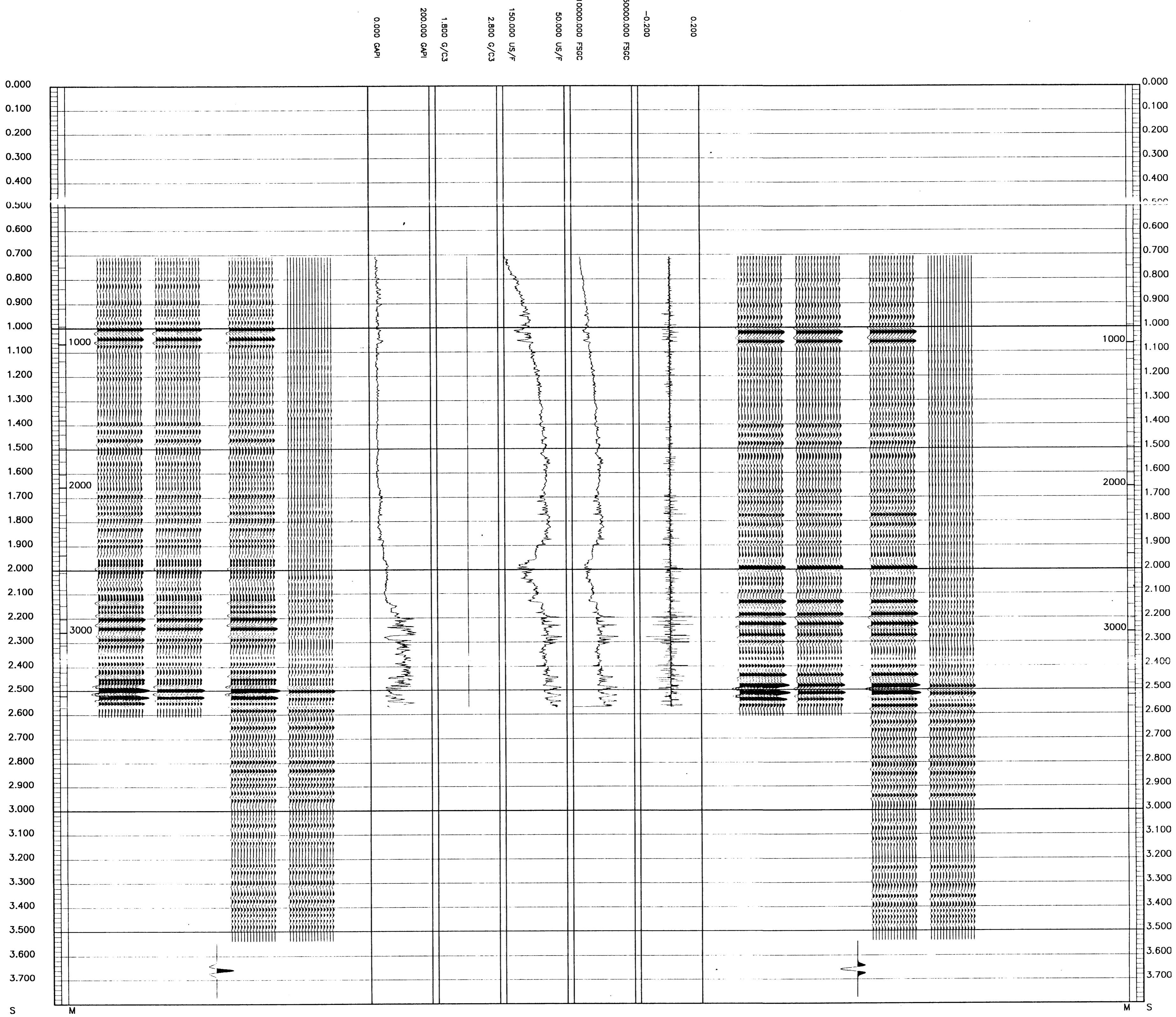
PART A  
25 HERTZ ZERO PHASE  
REMARKS

FOLD HERE

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, damage 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.

CLIENT = ESSO AUSTRALIA LTD.  
FIELD = WILDCAT  
WELL = BLACKBACK 1 (ST-1/ST-2)  
\*\* GEOGRAM \*\*  
25 HERTZ ZERO PHASE  
RICKER WAVELET  
BLACKBACK 1

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| 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 ESSO AUSTRALIA LTD.  
FIELD WILDCAT  
WELL BLACKBACK 1 (ST-1/ST-2)  
COUNTRY AUSTRALIA