

Schlumberger

MELBOURNE LOG INTERPRETATION CENTRE

VERTICAL SEISMIC PROFILE

ZERO OFFSET VSP PLOT 4

WAVESHAPING DECONVOLUTION

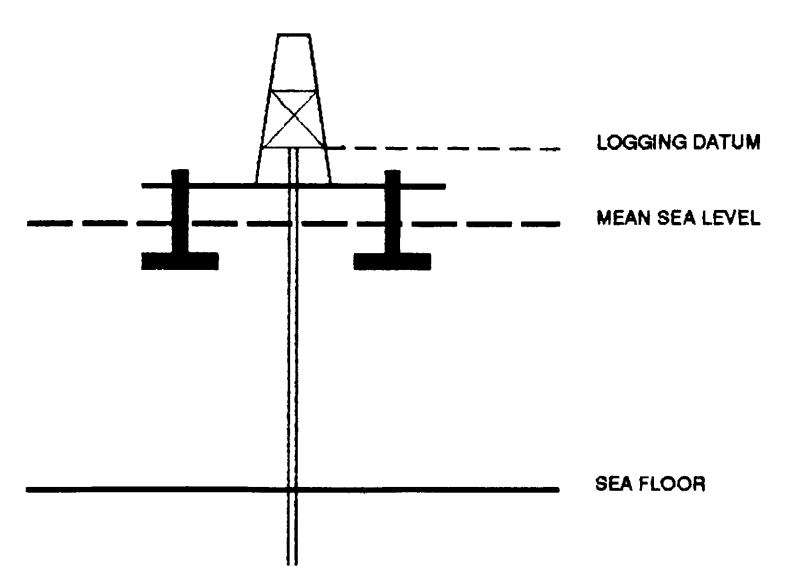
Company: BHP PETROLEUM
 Well: MINERVA -2A
 Field: WILDCAT
 Country: AUSTRALIA
 Reference No: 560960 Interval: 2160.0 to 600.0
 Date Logged: 14-OCT-1993 Date Processed: 23/10/93
 Location: 142 57' 20.80" N 38 43' 04.54" E
 Elevations: KB: 25.30 DF: 25.00 GL: -85.00
 Permanent Datum: MSL Depth Units: METRES

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



Total Number of Levels: 57
 Depth Reference: SRD
 Time Reference: SRD

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	80.0

REMARKS

All interpretations are opinions based on information 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 claimed by anyone resulting from any interpretations made by any of our officers, agents or employees. These interpretations are also subject to change without notice. Terms and Conditions as set out in our current Price Schedule.

**** WAVESHAPING ****

DOWNGOING WAVEFIELD
 PROCESSING SEQUENCE:
 MEDIAN COHERENCY STACK APPLIED
 STATIC CORR.TO MSL : 8.0 MS
 BAND PASS FILTER : 5-100 HZ
 NORMALISATION GATE : 100 MS

7 LEVEL MEDIAN ESTIMATE OF
 DOWNGOING WAVEFIELD
 10-60 HZ WAVESHAPING DECONVOLUTION

SCALE : 10 CM/SEC
 POLARITY (S.E.G.) : NORMAL

**** WAVESHAPING ****

RESIDUAL WAVEFIELD
 PROCESSING SEQUENCE:
 MEDIAN COHERENCY STACK APPLIED
 STATIC CORR.TO MSL : 8.0 MS
 BAND PASS FILTER : 5-100 HZ
 NORMALISATION GATE : 100 MS

DOWNGOING WAVEFIELD SUBTRACTION
 10-60 HZ WAVESHAPING DECONVOLUTION

SCALE : 10 CM/SEC
 POLARITY (S.E.G.) : NORMAL

**** WAVESHAPING ****

RESIDUAL WAVEFIELD
 PROCESSING SEQUENCE:
 MEDIAN COHERENCY STACK APPLIED
 STATIC CORR.TO MSL : 8.0 MS
 BAND PASS FILTER : 5-100 HZ
 NORMALISATION GATE : 100 MS

DOWNGOING WAVEFIELD SUBTRACTION
 10-60 HZ WAVESHAPING DECONVOLUTION

SCALE : 10 CM/SEC
 POLARITY (S.E.G.) : NORMAL

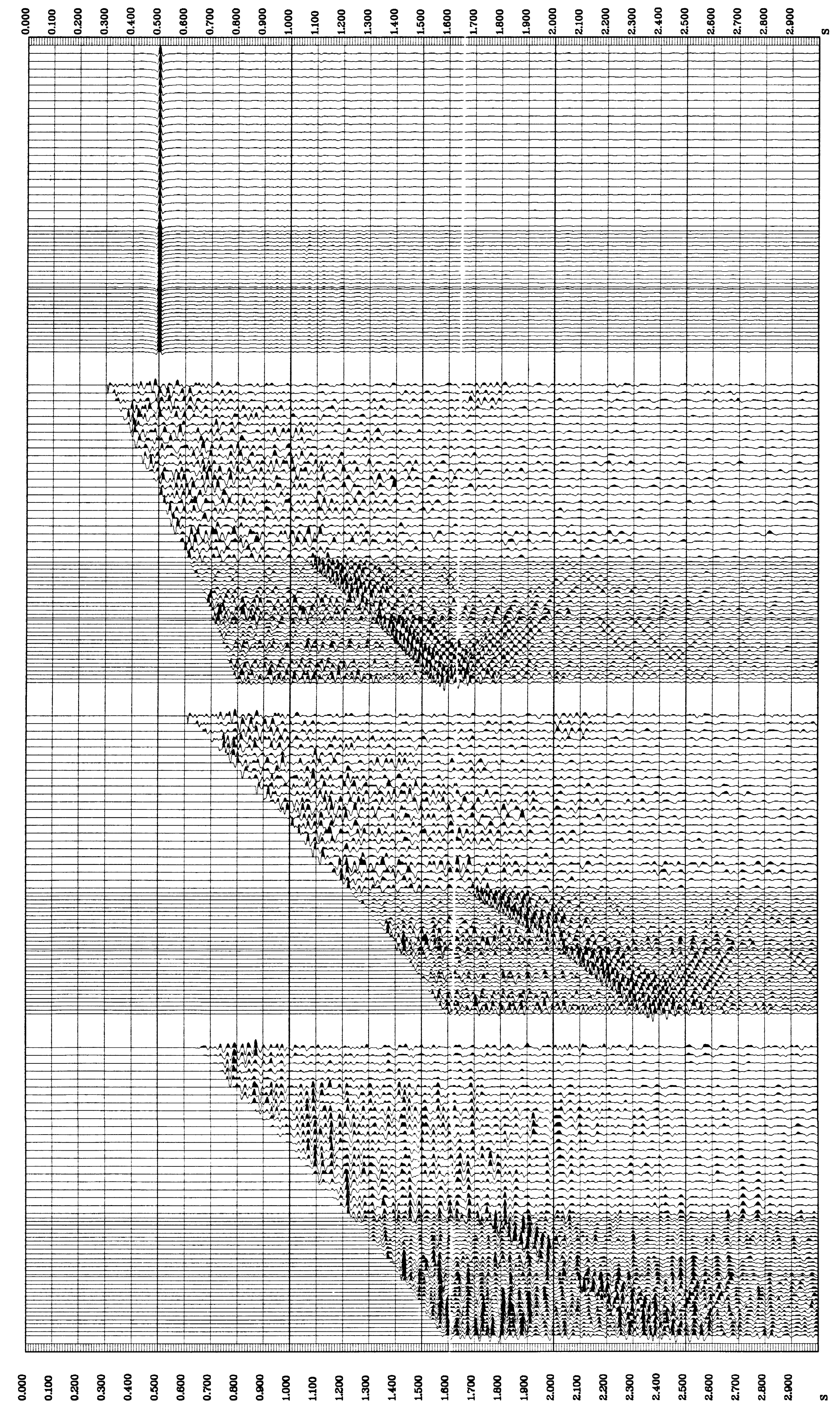
**** WAVESHAPING ****

ENHANCED UPGOING WAVEFIELD
 PROCESSING SEQUENCE:
 MEDIAN COHERENCY STACK APPLIED
 STATIC CORR.TO MSL : 8.0 MS
 BAND PASS FILTER : 5-100 HZ
 NORMALISATION GATE : 100 MS

DOWNGOING WAVEFIELD SUBTRACTION
 10-60 HZ WAVESHAPING DECONVOLUTION
 5 LEVEL ENHANCEMENT ON UPGOING

SCALE : 10 CM/SEC
 POLARITY (S.E.G.) : NORMAL

RAW DEPTH M	TRUE VERTICAL DEPTH MSL M	TRANSIT TIME S	LEVEL NO
840.0	814.0	0.305	56
860.0	834.0	0.318	54
790.0	803.9	0.334	53
800.0	793.9	0.348	52
800.0	773.8	0.365	51
840.0	813.7	0.380	50
860.0	833.7	0.395	49
820.0	803.6	0.407	48
860.0	833.6	0.421	47
1000.0	973.5	0.435	46
1040.0	1013.4	0.449	45
1080.0	1053.4	0.465	44
1120.0	1093.3	0.478	43
1160.0	1133.3	0.490	42
1200.0	1173.2	0.503	41
1240.0	1213.2	0.516	40
1280.0	1253.1	0.528	39
1320.0	1293.0	0.542	38
1360.0	1333.0	0.555	37
1400.0	1372.9	0.567	36
1440.0	1412.9	0.581	35
1480.0	1452.8	0.595	34
1520.0	1492.7	0.609	33
1560.0	1532.7	0.623	32
1600.0	1572.6	0.636	31
1640.0	1612.6	0.649	30
1680.0	1652.5	0.662	29
1724.0	1696.4	0.677	28
1770.0	1742.4	0.689	27
1810.0	1782.3	0.701	26
1840.0	1822.3	0.709	25
1880.0	1862.2	0.722	24
1920.0	1902.1	0.731	23
1960.0	1942.1	0.742	22
2000.0	1982.0	0.753	21
2040.0	2021.9	0.763	20
2080.0	2061.8	0.773	19
2120.0	2101.8	0.783	18
2160.0	2141.8	0.793	17



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

Schlumberger