From WCR

ENCLOSURE 4

LINE M088-52

M088 – 52

NORTH

..... = RESIDUAL SHOT STATICS

——— = RESIDUAL RECEIVER STATICS

——— = RECEIVER STATICS

——— = ELEVATION

STATICS IN MS

ELEVATION IN M.

SOUTH

NORTH

WINDERMERE–2

SYNTHETIC: REVERSE POLARITY
10–60 Hz ZERO PHASE
± 0 SHIFT

VP 520

TIME	VRMS	VINT	DEPTH
0	1750	1817	0
250	1817	1817	227
550	1915	2033	542
800	2070	2263	825
1150	2269	2666	1291
1450	2583	3083	1779
1850	2835	3085	2548
2250	3071	3230	3336
2650	3723	6635	4952
3250	4180	6836	6319
4000	4800		8883

DATUM CORR= -36 MS

VP 460

TIME	VRMS	VINT	DEPTH
0	1750	1787	0
250	1787	1948	179
550	1891	2236	520
700	1970	2697	687
1050	2199	3087	1142
1350	2585	3159	1594
1450	2491	4056	1768
1900	2938	4538	2698
2200	3267	5169	3368
2600	3651	6042	4142
2800	3651	6336	5042
3400	4393	6486	6843
4000	4750		8865

DATUM CORR= -45 MS

VP 300

TIME	VRMS	VINT	DEPTH
0	1750	1815	0
150	1815	1982	136
400	1878	2803	374
550	1915	2545	536
800	2075	2547	887
1000	2259	3331	1388
1250	2538	4419	2088
1600	2938	5481	3585
2000	3267	3572	4398
2400	3651	5481	5658
3000	4393	6336	6843
4000	4750	6821	8822

DATUM CORR= -59 MS

VP 260

TIME	VRMS	VINT	DEPTH
0	1750	1818	0
200	1818	1948	181
500	1898	2242	482
650	1975	2581	675
800	2052	2680	915
1000	2175	2913	1401
1250	2375	3852	1901
1550	2748	4801	2441
1750	2915	4444	2943
2050	3185	4598	3118
2450	3455	5858	4459
3000	4145	6836	6376
4000	4765		8483

DATUM CORR= -61 MS

VP 226

TIME	VRMS	VINT	DEPTH
0	1750	1945	0
410	1945	2316	399
610	2075	2365	631
910	2175	2760	985
1200	2330	3396	1395
1400	2515	4189	2084
1600	2815		2580
2150	3180	4428	3275
2450	3485	5123	4069
3110	4185	5987	5983
4000	4750	6501	8884

DATUM CORR= -63 MS

VP 195

TIME	VRMS	VINT	DEPTH
0	1750	1755	0
210	1755	1938	184
510	1865	2186	475
810	1998	2619	883
1058	2158	3526	1117
1258	2345	3686	1461
1658	2645	3686	2061
1958	3005	4178	2886
2458	3415	4489	3869
4000	4768	6378	8852

DATUM CORR= -64 MS

VP 140

TIME	VRMS	VINT	DEPTH
0	1750	1858	0
208	1858	1937	204
510	1908	2271	484
610	1995	2187	666
808	2055	3321	983
1158	2458	3691	1581
1658	2758	3691	2381
2410	3315	4318	3617
2810	3730	5815	4548
4000	4755	6569	8849

DATUM CORR= -65 MS

UPHOLE

LINE OPP85A-06 VP.343.2 | LINE M088-59 VP. 319.6 | LINE OPP85B-32 VP. 452.7 | LINE M088-58 VP.331.9 | LINE OPP85A-04 VP.686.7 | LINE OPP85A-02 VP.919.5 | LINE OS71A-108 VP.100.6

V.P. 560 540 520 500 480 460 440 420 400 380 360 340 320 300 280 260 240 220 200 180 160 140 120 100 V.P.

DATUM: MEAN SEA LEVEL

0.00

CLIFTON FM.

DILWYN FM.

PEBBLE POINT FM.

BASE BELFAST MUDSTONE 1.00

BASE UPPER EUMERALLA

HEATHFIELD MEMBER

EUMERALLA

LOWER EUMERALLA COALS

WINDERMERE MEMBER

CRAYFISH FM.

HEATHFIELD MEMBER

EUMERALLA

WINDERMERE MEMBER

CRAYFISH FM.

CASTERTON BEDS

2.00

3.00

4.00

MINORA RESOURCES LTD.

MINORA RESOURCES N.L.

PERMIT : PEP 111

SURVEY : ST.HELEN'S

LINE : M088-52

V.P. : 566 - 100

DEPT. MAT. RES & ENV
PE902150

MIGRATION

ACQUISITION PARAMETERS

CONTRACTOR : GEOSYSTEMS PARTY NO.205
CREW
DATE RECORDED : 3RD FEBRUARY 1988

INSTRUMENT
TYPE : T16
FILTER : OUT - 128 HZ.
CORRELATED LENGTH : 4000 MSEC.
SAMPLE INTERVAL : 2 MSEC
TAPE FORMAT : SEGY CORRELATED STACK 1600 BPI
POLARITY : SEG NORMAL

SOURCE
TYPE : VIBRATORS
NO.OF VIB. USED : 3
SOURCE ARRAY : INLINE
SWEEP LENGTH : 5082 MSEC.
SWEEP TYPE : LINEAR-EXPONENTIAL
NO. OF SWEEPS : 8 COMPOSITES/V.P.
VARISWEEP FREQ . : 10-30.11-44.26-64.44-70.
48-70.22-68.13-52.10-34HZ.
SOURCE INTERVAL : 30 METRES

SPREAD
NO. OF CHANNELS : 440
GROUP INTERVAL : 15 METRES
COP COVERAGE : 140 FOLD NOMINAL
CONFIGURATION : ASYMMETRICAL SPLIT SPREAD

CHANNEL 1 |<---->| 221 V.P 222 |<---->| 440
OFFSET 3307.5M. 7.5M. 7.5M. 3277.5M.

PROCESSING PARAMETERS

[1] REFORMAT TO DIGICON INTERNAL FORMAT
DATA LENGTH : 4.0 SECS.

[2] RESAMPLE TO 4 MSEC.

[3] SPHERICAL DIVERGENCE CORRECTION AND INELASTIC ATTENUATION COMPENSATION
RATE : 3DB/SEC.
GATE : 0.0 - 3.0 SECS.

[4] TRACE EDITING

[5] ZERO TO MINIMUM PHASE CONVERSION FILTER

[6] DECONVOLUTION : DETERMINISTIC AND STATISTICAL (DEFLAT)
DESIRED ZERO PHASE OUTPUT: 10/15 - 70/72 HZ/DB/OCT)
OPERATOR LENGTH : 240 MS.
WHITE NOISE : 1.0%
DESIGN GATES : NEAR OFFSET : 0.2 - 2.5 SEC.
FAR OFFSET : 1.8 - 3.5 SEC.

[7] RECEIVER ARRAY SIMULATION
WITH DECIMATION TO 220 TRACES

[8] COMMON DEPTH POINT GATHER

[9] DATUM STATICS COMPUTATION
METHOD : ELEVATION CORRECTION
REPLACEMENT VELOCITY: 1850 M/SEC.
REFERENCE DATUM : MEAN SEA LEVEL
COMPUTED STATICS TIED TO UPHOLE SURVEY VALUES
DATA CORRECTION TO FLOATING DATUM

[10] VELOCITY ANALYSIS - 1
USING SVEL AT AVERAGE INTERVAL OF 2 KM.

[11] RESIDUAL STATICS COMPUTATION AND APPLICATION
SURFACE CONSISTENT.STATIC LIMIT +16 MSEC.

[12] VELOCITY ANALYSIS - 2
USING SVEL AT AVERAGE INTERVAL OF 1 KM.

[13] NORMAL MOVEOUT CORRECTION (VELOCITY TIMES REFERENCED TO TO FLOATING DATUM) AND MUTING

[14] TIME VARIANT SCALING (GATE LENGTH : 500 MSEC.)

[15] COMMON DEPTH POINT STACK

[16] DECONVOLUTION AFTER STACK
OPERATOR LENGTH : 240 MS.
WHITE NOISE : 1.0%
GAP LENGTH : 32 MS.
DESIGN GATES : 0.2 - 3.0 SEC.

[17] FINITE DIFFERENCE MIGRATION
LAYER THICKNESS : 20 MSEC.
MIGRATION PERFORMED USING 100% OF SMOOTHED STACKING VELOCITIES TO 1.0 SEC.;95% TO 2.2 SEC. AND 85% THEREAFTER.

[18] TIME VARIANT FILTER

TIME (MSECS-100%)	BANDPASS (HZ)
0	15 - 90
500	15 - 80
1000	15 - 75
1500	15 - 70
2000	15 - 60
3000	15 - 50
4000	15 - 40

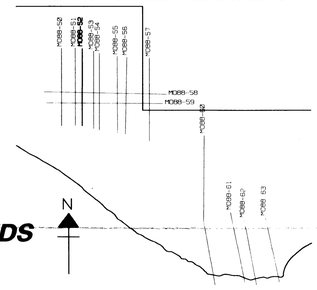
[19] TIME VARIANT SCALING (GATE LENGTH : 1000 MSEC.)

[20] TAU-P DOMAIN FILTERING - COHERENCY OPTION

[21] BULK STATICS SHIFT OF 100 MSEC.

[22] FINAL DATA CORRECTION TO REFERENCE DATUM - MSL

PEP 111 - ST.HELEN'S SEISMIC SURVEY



DISPLAY PARAMETERS

KILOMETRE
0.0 0.5 1.0

HORIZONTAL SCALE : 10 TR/CM
VERTICAL SCALE : 15 CM/SEC
POLARITY : SEG NORMAL(COMPRESSION = -VE NUMBER = TROUGH)

PROCESSED BY :

DIGICON SINGAPORE

+QUALITY CONTROL CHECK+

SEISMIC :
SUPERVISOR :
DATE : MAY 1988