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REPORT ON THE OYSTER BAY SEISMIC SURVEY,  
SWANSEA, TASMANIA, PEL20/81

FOR

MEEKATHARRA MINERALS LIMITED

**MICROFILMED**

AUTHOR

R. D. SHAW\*

E-L. 20/81

NOVEMBER 1982

\*Flower Doery Buchan Pty. Ltd.  
North Sydney, N.S.W.

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## SUMMARY

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A total of 19.7km of 1200% CDP reflection data was recorded along three traverses in PEL 20/81 during the Oyster Bay Seismic Survey. Overall, seismic data quality was poor to fair due to the combined effects of poor penetration (through a shallow Jurassic doleritic intrusive complex) and low acoustic impedance contrasts within pre-Tertiary sediments.

A maximum Tertiary sediment thickness of approximately 280m only, was encountered along the traverses. Variations in thickness of the Tertiary section, as determined from seismic, correspond well with thickness variations determined from previous gravity survey data. Extrapolated across the region interpreted gravity data indicate that within the onshore graben Tertiary sediment thicknesses are generally less than 300m. Only one thicker accumulation, perhaps extending offshore, of 400-450m was located on the eastern end of Nine Mile Beach.

Tertiary sediments unconformably overlie Jurassic intrusive relief. The intrusives are also discordant with underlying sediments. Underlying sediments (probably the Mesozoic-Palaeozoic Parmeener Supergroup) exhibit regional south to south west dip. Within these sediments one example of two-way roll-over (partially fault dependent) is observed along the western end of Line 3. Additional seismic is required to ascertain whether valid four-way closure exists.

Maximum thickness of the Mesozoic-Palaeozoic section and depth to basement could not be determined from the present survey results. High interval velocities (5000-6000m/s) within this unit however suggest that reflectors located at 400-500msecs below the Tertiary section may be at depths of 1000m and more. High interval velocities also suggest negligible primary porosities within the Mesozoic-Palaeozoic section.

## 1. INTRODUCTION

The Oyster Bay Seismic Survey was conducted within the Tasmania Basin in Petroleum Exploration Licence 20/81 on behalf of Meekatharra Minerals Limited, licence holder. Detailed gravity survey results support an ERTS imagery interpretation that the Permit lies within a NNE trending depression or graben located at Oyster Bay and containing an unknown thickness of sediments.

The Oyster Bay Seismic Survey was experimental in nature. The primary objectives of the survey were to ascertain the likely sediment thickness within the graben and evaluate its petroleum potential. An additional objective was to evaluate the suitability of the seismic reflection method in this area.

The survey was conducted in open, cleared or partially cleared countryside. Lines were located along property boundaries and existing tracks where disruption to pasture and natural flora was minimal. No line clearing was necessary.

Line chaining commenced on the 29th July 1982. Experimental noise analysis commenced on the 4th August 1982, and full production recording was completed on the 8th August 1982. Upon completion 293 shots had been recorded along three lines (Enclosure 1) totalling 19.7km of 1200% CDP reflection data. Approximately one day's recording was lost due to high wind noise.

Base camp for the survey was situated at Swansea, located 2-8km from the survey site.

Land permitting and depermitting was undertaken by Mr. W. R. Thornthwaite of Meekatharra Minerals Ltd. Shot hole tamping and line restoration was undertaken by a local contractor, Mr. B. Lewis.

South Eastern Exploration Services Pty. Ltd. of Strathpine Brisbane, conducted the seismic data acquisition under the directions of R. D. Shaw geophysicist of Flower Doery Buchan

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Pty. Ltd., North Sydney. Data were processed by Seismic Data Processors Pty. Ltd., North Sydney. Processing supervision and data interpretation by Flower Doery Buchan Pty. Ltd. were undertaken for and on behalf of Meekatharra Minerals Limited.

## 2. GEOLOGICAL SETTING

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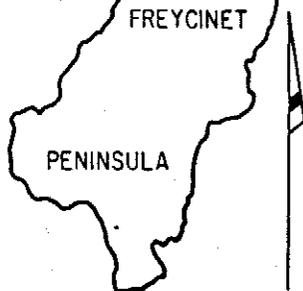
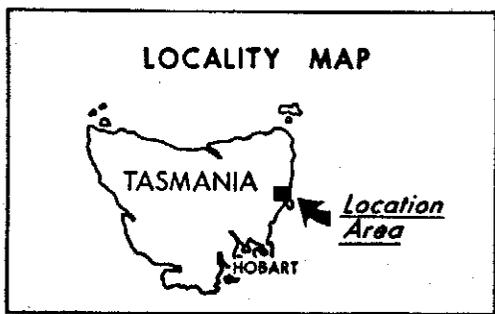
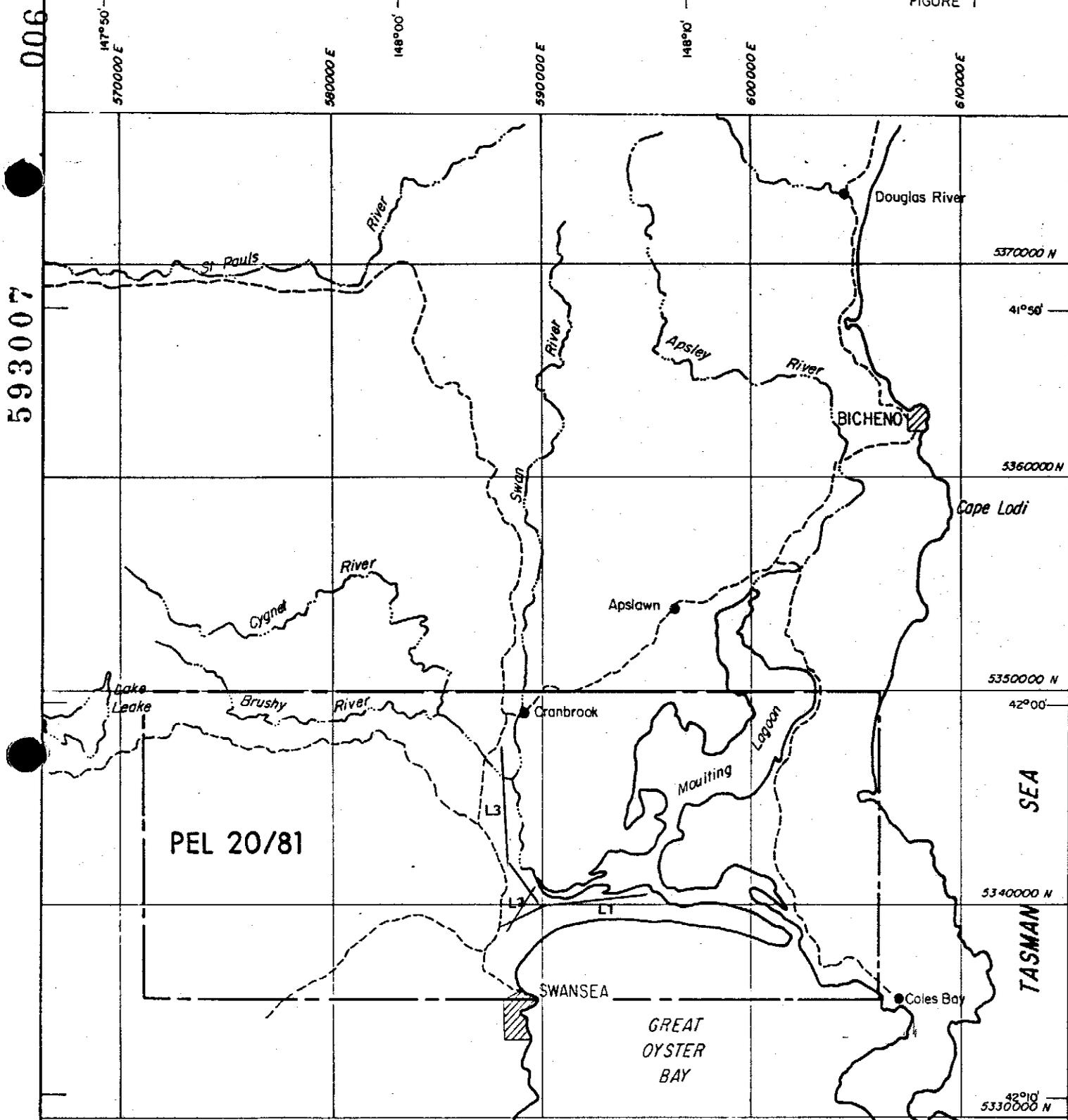
PEL20/81 lies within portion of the Tasmania Basin (Figure 1). Sediments of the Tasmania Basin comprise the Parmeener Supergroup (Banks 1973), unconformably overlain by Jurassic volcanics and a thin veneer of Tertiary-Recent alluvium (Figure 2).

The Parmeener Supergroup consists of two sequences; a lower regressive-transgressive-regressive Permo-Carboniferous glacio-marine sequence and an upper fresh water, Triassic, sequence. In eastern Tasmania the upper sequence probably rests unconformably on the lower sequence. Total known thickness of the Parmeener Supergroup rarely exceeds 500m (Clarke et al., 1976).

Faulting during the Tertiary has resulted in the development of three graben like or depression structures at Midlands, Oyster Bay, and Derwent.

Interpreted ERTS imagery suggests that the present survey area lies within a depression at Oyster Bay which for the most part is covered by Jurassic dolerite sheets, Tertiary sands, clays and laterites, and Quaternary alluvium deposits along the rivers and bay fronts. Outcrops of the Parmeener Supergroup are restricted to the edge of the Freycinet Peninsula and, to the northwest, along the drainage channels of Pauls River.

At both localities basement rocks appear to comprise Upper Devonian adamellites and granite intrusives. Parmeener Supergroup sediments are faulted against basement rocks along the Freycinet Peninsula by a series of NW, NNW to N-S faults. ERTS imagery interpretations suggest that these faults may form part of the eastern flank of a graben which is oriented NNE-SSW, oblique to the overall NNW elongation of the Tasmania Basin (Meekatharra 1980). The western limb of the Oyster Bay graben is masked by dolerite sheets, but probably coincides with the line of topographic highs trending NNE adjacent to the Swan River drainage system, and west of the Swansea-Crankbrook Road.



**OYSTER BAY SEISMIC SURVEY  
 LOCATION MAP**  
 MEEKATHARRA MINERALS N.L.  
 1:250000

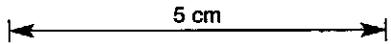
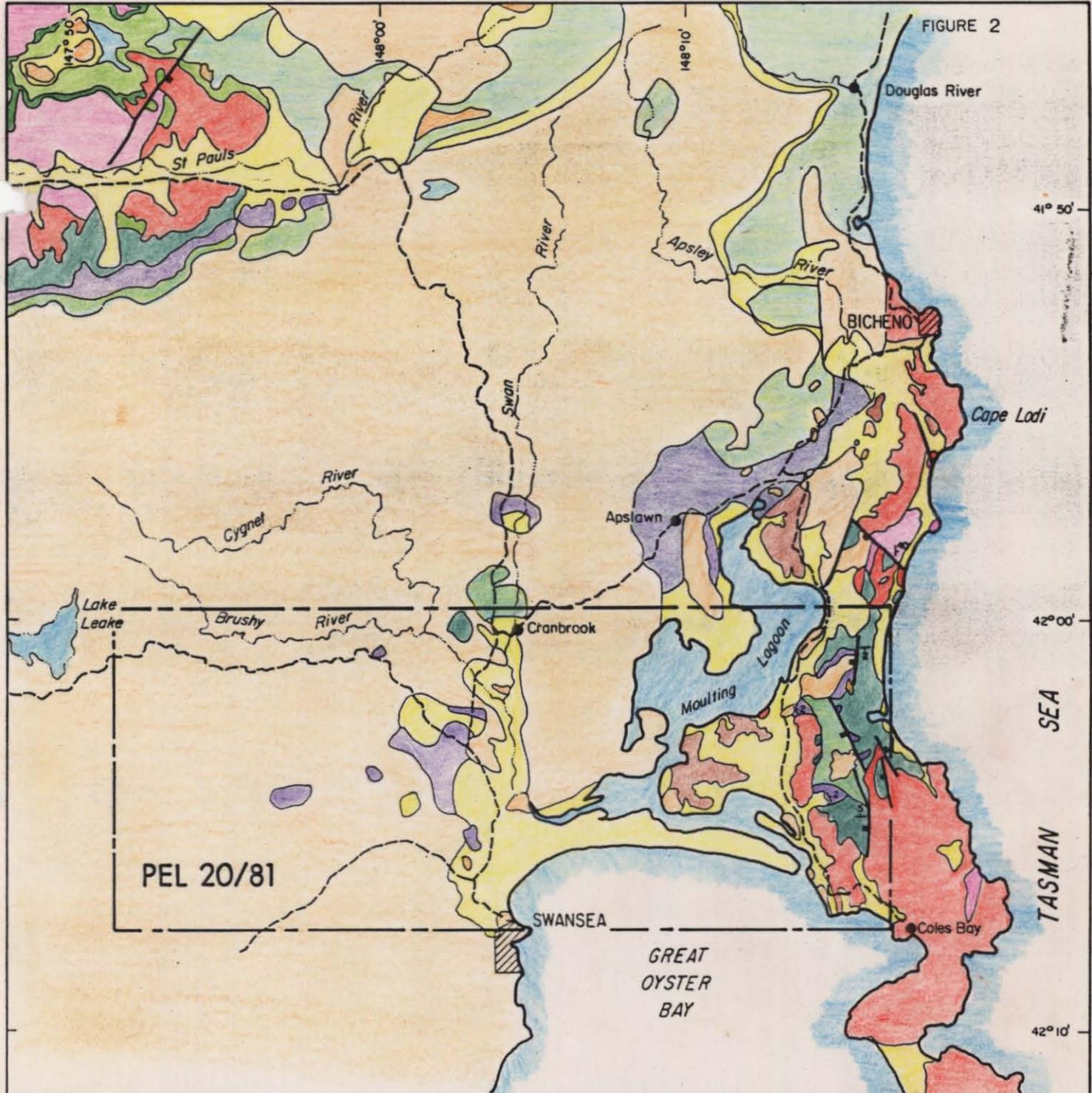


FIGURE 2

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- Alluvium, sand, gravel and talus
- Marine limestone
- Basalt and related igneous rock types
- Fluvio-lacustrine sequences of sandstone, siltstone, mudstone
- Fluvio-lacustrine sequences of sandstone, siltstone, mudstone with carbonaceous sequences indicated
- Upper glacio-marine, pebbly mudstone, sandstone and limestone
- Fresh water sequence with some coal measures
- Lower glacio-marine, pebbly mudstone, sandstone, minor limestone, Tasmanite oil shale and basal tillite
- Micaceous quartzwacke turbidite sequences dominant
- Basalt and related rock types
- Dolerite and related rock types
- Dominantly adamellite-granite; biotite-hypersthene-adamellite porphyry

- HOLOCENE
- TERTIARY
- TRIASSIC
- PERMIAN
- UPPER CARBONIFEROUS
- LOWER DEVONIAN - TREMADOCIAN - CAMBRIAN
- TERTIARY
- JURASSIC
- LOWER CARBONIFEROUS - UPPER DEVONIAN

 Fault with relative downthrown side indicated  
 Generalised strike and dip of beds

5 cm

**OYSTER BAY SEISMIC SURVEY  
GEOLOGICAL MAP**

MEEKATHARRA MINERALS N.L.

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### 3. PREVIOUS GEOPHYSICAL STUDIES

Previous geophysical studies within the Permit area have been summarised by Meekatharra (1980). Results of these studies pertinent to the present survey include a surface magnetic survey and a detailed University of Tasmania gravity survey.

The magnetic survey results are inconclusive due to the shallow, magnetically responsive, Jurassic dolerites. A strong gradient recorded west of Cranbrook may coincide with portion of the western margin of the Oyster Bay graben as defined by gravity data.

Detailed gravity measurements have been made in the Nine Mile Beach, Swansea, Cranbrook areas. Results show a low located north of Lake Leake, a low located across Moulting Lagoon and a high located between Lake Leake and Cranbrook (Figure 4). Meekatharra (1980) suggest that the elongate NE trending low at Moulting Lagoon coincides with a thickening within the graben of sediments from at least 500 to 750m.

Seismic reflection surveys have not been previously conducted within the Permit. However high resolution seismic surveys have been conducted in similar settings. At Clifton Beach in southern Tasmania for example a small 42 shot survey was conducted (Leaman & Richardson 1980) using a 8 channel system, 0.5msec sample rate. Frequencies for shallow reflectors ranged from 96-256Hz whereas those reflectors between 550-600ms had dominant frequencies of 64-192Hz. Only short spreads were used (array spacing 10m) and average velocities down to 650msec of 1750m/s were obtained, suggesting a maximum sediment (Tertiary) thickness of 450m.

#### 4. DATA ACQUISITION

##### 4.1 Method

Information regarding near surface conditions and optimum seismic reflection spread geometry were obtained from a noise analysis test and shot comparison test.

The noise analysis was conducted using a "walk-away" shooting technique with four shot points separated by 235m (Figure 3). The geophone spread comprised 48 traces of 12 geophones per trace bunched at 5m intervals, resulting in 1 common trace per shot. Each shothole was loaded with a 2kg charge buried to 3.3m. The noise analysis was located on Line 1 at SP 124. With four shots this configuration enabled a far offset of 955m to be achieved.

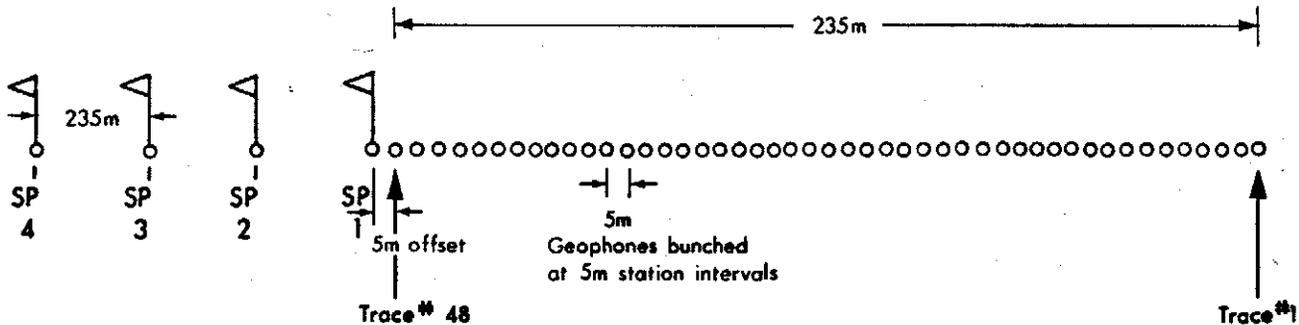
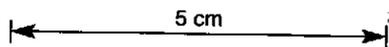
Comparison shooting consisted of single shot comparison of several different charge sizes and depths of burial, using a 48 trace, 35m trace spacing and off-end shooting geometry. The shot comparison test was conducted from SP 336, Line 3.

##### 4.2 Results of Noise Analysis

The noise analysis (Enclosure 6) shows a clear first break and prominent ground-roll wave trains. The first break wave train velocity is approximately 1570m/sec. Beyond a critical offset of approximately 480m a second higher velocity refraction can be observed. First break refraction analysis during processing indicated velocities of 4500-6000m/sec for this second higher velocity layer with intercept times of 20-250msec.

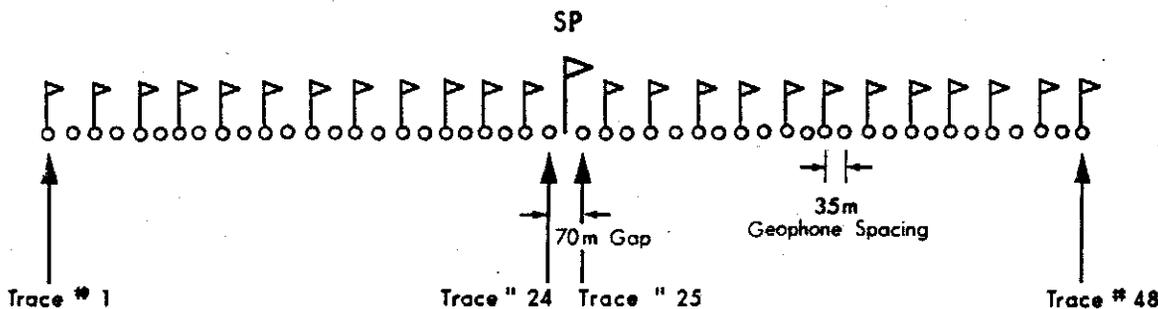
Ground roll velocity estimated from the first cycle on near traces is 400m/sec. With a period of 110msec this corresponds to a wavelength of 44m. Subsequent cycles, and cycles on far offsets display dispersion, with frequencies as low as 6Hz and velocities reduced to 250m/sec. To counter the low frequency effect of ground roll, a 12.5 low cut filter was used together with a weighted array designed particularly to attenuate noise whose wave number exceeded .025.

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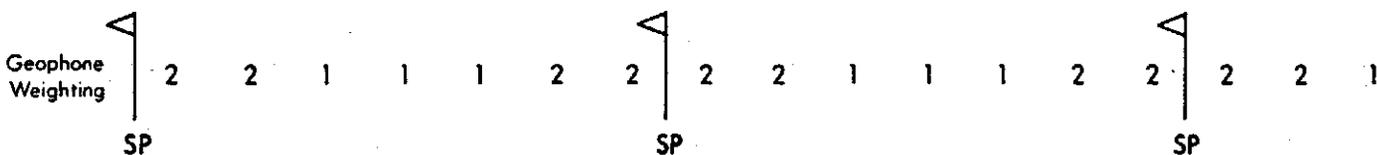
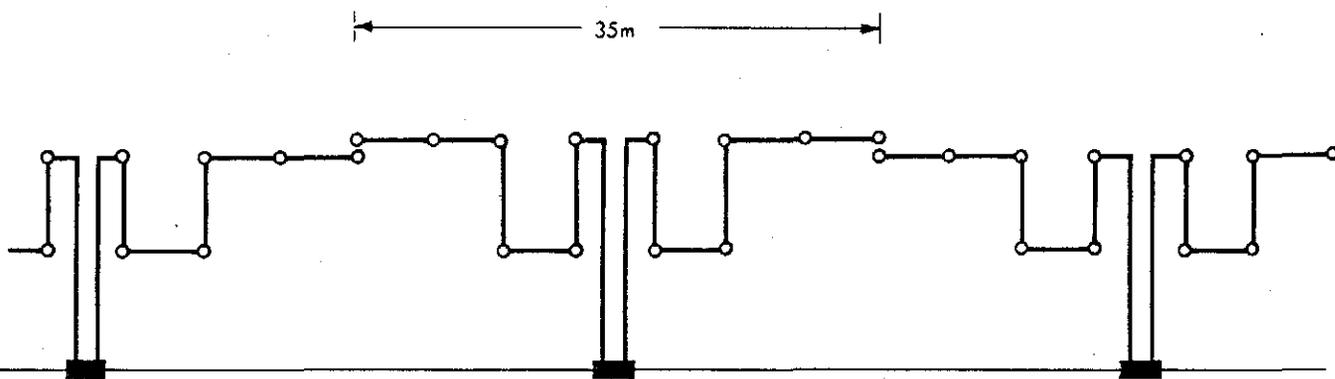
Location SP1 positioned at SP124, Line 1

### NOISE ANALYSIS LAYOUT



o Geophone location  
P Shot point location

### SPREAD LAYOUT



o Geophone location

### GEPHONE LAYOUT

Events prior to the ground roll wave train include primary reflections manifest as coherent line-ups of peaks and troughs over intervals of 10-20 traces (50-100m). Reflectors at far-offsets are visible on the field monitors down to 1.5 seconds two way time, indicating good energy penetration.

#### 4.3 Results of Shot Comparison

Individual shots were fired and then stacked on the GUS compositor. For offset shooting the results indicated that 3kg charge was just satisfactory to obtain adequate record quality on far traces (traces #40+). Ground roll was not more prominent with these larger charges and the stacked 5,2 & 1 kg charges monitors show a prominent reflector at 1.1 seconds.

#### 4.4 Field Recording Parameters

On the basis of the interpretation of the noise analysis and shot comparison the following specifications were adopted for production recording:-

Spread Configuration	In line, split spread
Group Interval	35m
Shot Point Interval	70m
Group Patern	1 1 2 2 2 2 1 1 centred on station
Geophone Spacing	5m
Shot Offset	35m
Charge Size	2kg
Depth of Burial	3.3
Field Filter Settings	Low 12.5Hz; High 250Hz anti-aliasing
Sample Rate	1msec

## 5. DATA PROCESSING

Processing of the Oyster Bay Seismic Survey data was undertaken by Seismic Data Processors International (SDP) of Mount St., North Sydney. Details of the processing sequence adopted are outlined in Appendix 2. In the absence of strong, deep reflectors extensive tests were undertaken to improve the overall data quality. These tests included:

### 1. Detailed Velocity Analysis

Constant velocity stacks were produced every 20-30 shot points. Each CVS consisted of a panel of 20 traces to which 25 different stacking velocities, ranging from 2000 to 6000m/sec, were applied. Stacking velocities below the near surface strong reflectors were found to be much higher than previously anticipated.

### 2. Deconvolution Tests

A wide range of predictive and spiking deconvolution operators were tested on records from Line 1 and Line 3 in an attempt to further enhance the signal to noise ratio of reflectors, in both the before and after stack stages.

### 3. Gain Tests

Several different gain functions were applied on a number of records in order to ascertain the presence or otherwise of deep reflected signals.

### 4. F-K Filtering

F-K filtering before stack was attempted to remove coherent noise trains, including the refraction events, which appeared to be distorting near trace signals.

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## 5. Detailed Weathering Analysis

First break profiles computed by SDP were checked with recorded field monitors to identify possible erroneous events (reflected refractions etc.) and hence erroneous velocities which may have been input into the weathering statics.

## 6. Residual Statics

Both surface consistent and non-consistent model residual statics were evaluated. CDP trim-statics applied after residual statics markedly improved overall coherency of deeper events. This improvement suggests that vertical ray path assumptions made for residual statics software are largely invalidated for the shallow data.

## 7. Migration

Wave equation migration was attempted to try and improve the coherency of a band of reflectors emanating from depths of 250-400msec.

However due to the overall low fold of the data within this zone of interest, migration proved to be relatively ineffectual in improving data quality.

## 6. INTERPRETATION

## 6.1 First Break Analysis

Refraction analysis of first breaks by SDP generally showed the presence of a thin weathering layer ( $V_0 = 600\text{m/sec}$ ), an intermediate velocity layer ( $V_1 : 1750-2150\text{m/sec}$ ), and a high velocity layer ( $V_2 : 500-6500\text{m/sec}$ ).

The high velocity refractor coincides with the strong, high amplitude reflection event of 25-30Hz frequency recorded along Lines 1 and 2 at depths of 200-400msecs. On Line 3 the high velocity refractor lies just below a thin veneer of surface weathering. Hard dolerite was encountered whilst drilling shot holes on Line 3 and the northern end of Line 2. The high velocity refractor is interpreted to emanate from this near surface doleritic layer.

Velocities of 1750-2150m/sec, lying above the high velocity refractor, correspond to consolidated sediments. Lying below the near surface weathering layer these consolidated sediments are interpreted to be of Tertiary age.

Estimates of the depth of weathering for statics correction and thickness of the Tertiary section were determined from the first break profiles supplied by SDP. For intercept time reductions, the following velocities were used:

$V_0$  = Weathering layer velocity, 600m/sec (assumed)

$V_1$  = Tertiary section, 2,000 m/sec

$V_2$  = Dolerite, 6,000m/sec

Thickness of the weathered zone,  $Z_0$ , and Tertiary section,  $Z_2$ , were determined from intercept times  $T_{0i}$  and  $T_{1i}$  as follows:

$$Z_0 = \frac{T_{0i} V_0 V_1}{2\sqrt{V_1^2 - V_0^2}}$$

$$Z_2 = \frac{1}{2} \left( T_{1i} - \frac{2Z_0 \sqrt{V_2^2 - V_0^2}}{V_0 V_2} \right) \frac{V_1 V_2}{\sqrt{V_2^2 - V_1^2}}$$

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First break analysis with intercept time estimates were calculated at every sixth shot point. A contour plan of the depth to the base of the Tertiary section ( $Z_0 + Z_1$ ) is included in Enclosure 2. Depth estimates are considered to have an accuracy of approximately 10%. Enclosure 2 shows that the thickest Tertiary section lies at the southwestern end of Line 1.

## 6.2 Seismic Horizon Identification

The strong reflection observed on Lines 1 and 2 between 100 and 220 msec is interpreted to coincide with the boundary below which the 5000-6000m/sec refractor emanates (Enclosures 3 & 4). Interval velocities above this reflection are typically 2000-3000m/sec whereas those below this reflector are consistently high, 5000-6500m/sec. As such this reflector is interpreted to coincide with the base of the Tertiary section and top of the Jurassic dolerite intrusive. Depth calculations based on refraction information show no more than 280m of Tertiary section present.

## 6.3 Tertiary-Recent Sediments

The interpreted Tertiary-Recent section lies within the shallow mute zone. As such the section appears to be acoustically transparent with only minor horizontal layering evident. Nevertheless these layers onlap the strong dolerite reflector, at some locations, with marked angular discordance (e.g. Line 2). Being dominantly aggradational this section infills underlying Jurassic intrusive relief.

## 6.4 Jurassic Dolerite

Jurassic dolerites outcrop extensively throughout the Permit and surrounding region (Forsyth & Gulline, 1979). The strong reflector corresponding to the top of this dolerite exhibits smooth undulating relief along Line 1 (SP's 124-226) and Line 2 (SP's 101-190). Within this area the dolerite complex forms a thin, irregular sill presumably intruded into an originally thicker Triassic sequence.

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Lying within the mute zone and occurring in outcrop, the strong event thought to originate from the top of the dolerite layer is not observed along Line 3 (Enclosure 5). Instead the upper 150msecs of this section consists of a noisy section of high frequency energy bursts (SP 220-320).

#### 6.5 Pre-Jurassic Reflectors

Reflectors below the dolerite intrusives are observed along all lines. Layered reflectors suggest a sedimentary sequence. Based on regional geological correlations, these sediments presumably comprise part of the Mesozoic-Palaeozoic Parmeener Supergroup. Along Lines 2 and 3 these sediments are observed to dip regionally to the south and southwest at angles of up to approximately  $6^{\circ}$ . A marked angular discordance is observed along Lines 1 and 2 between these sediments and the overlying Jurassic intrusive complex. Similar disconformities, with angular discordances of up to  $30^{\circ}$ , have been noted at other localities (Jennings & Williams, 1967). The relief exhibited by the Jurassic intrusives bears no obvious relationship with that of the underlying sediment structure.

Line 3, a dip line, best illustrates the nature of these sediments as comprising a northerly thinning wedge 100-300msec thick, overlying a distinctly more acoustically transparent zone (Enclosure 5).

Because of the shallow position, the boundary between the dolerites and these deeper sediments along the western end of Line 3 is uncertain. The high interval velocity wedge of high amplitude reflectors shows some apparent internal features (possible prograding - Line 3, SP's 270-320, 100-200msec; wedge-out - Line 2, SP's 160-200, 200-300msec). The high amplitude energy of this unit may be partially attributable to both interbedded intrusives and Mesozoic coals, the later occurring in outcrop to the north of the Permit.

Truncation of reflectors such as at Line 3, SP's 150-180, and Line 2, SP's 110-145, suggest that the boundary between this

shallow unit and the deeper more transparent unit is unconformable.

This unconformity could not be identified along the poorer quality Line 1 which traverses sub-parallel to strike. Nevertheless this unconformity may be of regional consequence and may coincide with the boundary between the Mesozoic dominantly fresh water coaly facies and underlying glacio-marine Palaeozoic facies of the Parmeener Supergroup. Along Lines 2 & 3 this unconformity ranges in depth estimates from 150-300+m.

Overall poor seismic data quality limited the maximum depth to which these deeper reflectors could be observed to only 700msec (approx. 1500m). The noise analysis test did however indicate the presence of coherent results down to 1100msec. The absence of deep coherent events and absence of a basement reflector, corresponding to the base of the Parmeener Supergroup, within anticipated basement depths may be the result of transitional boundary between sediments and underlying igneous basement.

Poor data quality also prevented reliable correlation of the unconformity surface within the deeper sediment sequence and the construction of a structure time contour map at this level.

#### 6.6 Structure

Only minor structural deformation is observed within the penetrated section. Deep (intra-Parmeener Supergroup?) reflectors at 450msec depth on Line 3 show some apparent roll-over into a possible fault, down thrown to the west between SP's 260 and 310. Roll-over may be 40msecs or more, 20-30msec of which appears to be fault independent. Additional seismic would be required to establish whether valid four-way closure exists or not over this structure. Small faults are also interpreted offsetting shallow reflectors along Line 1 at SP252 and SP168.

## 6.7 Integration with Gravity Results

For the reduction of Bouguer gravity data recorded within the Permit area the following densities were used (Leaman & Richardson, 1980):

Tertiary sediments	1.92t/m <sup>3</sup>
Jurassic dolerite	2.90t/m <sup>3</sup>
Triassic sequence	2.45t/m <sup>3</sup>
Devonian granite/adamellite	2.62t/m <sup>3</sup>

Applying these values large negative anomalies should be only related to deeply rooted granite bodies or thick accumulations of Permo-Triassic sediments. A 300m succession of coal measures overlying a 150m succession of Permian sediments should contribute  $-40\mu\text{m/s}^2$  to the local Bouguer anomaly (Leaman & Richardson, 1980). Positive anomalies are attributed to dolerite sheets. Western areas of the Permit, coinciding with outcropping Jurassic dolerites, have anomalies of +20 to  $+30\mu\text{m/s}^2$  (Figure 4). Gravity lows lying within the Moulting Lagoon, Nine Mile Beach area have been interpreted as due to the presence of Tertiary sediments of varying thicknesses. Leaman & Richardson (1980) attribute a low on the eastern end of Nine Mile Beach, with a central minimum of  $-110\mu\text{m/s}^2$ , to a Tertiary sediment thickness of 350-400m. A smaller low, lying just to the north of Swansea ( $-65\mu\text{m/s}^2$ ) implies approximately 200m of sediment thickness. The anomaly offset around outcropping dolerite suggests that its contribution is only some  $5\mu\text{m/s}^2$ .

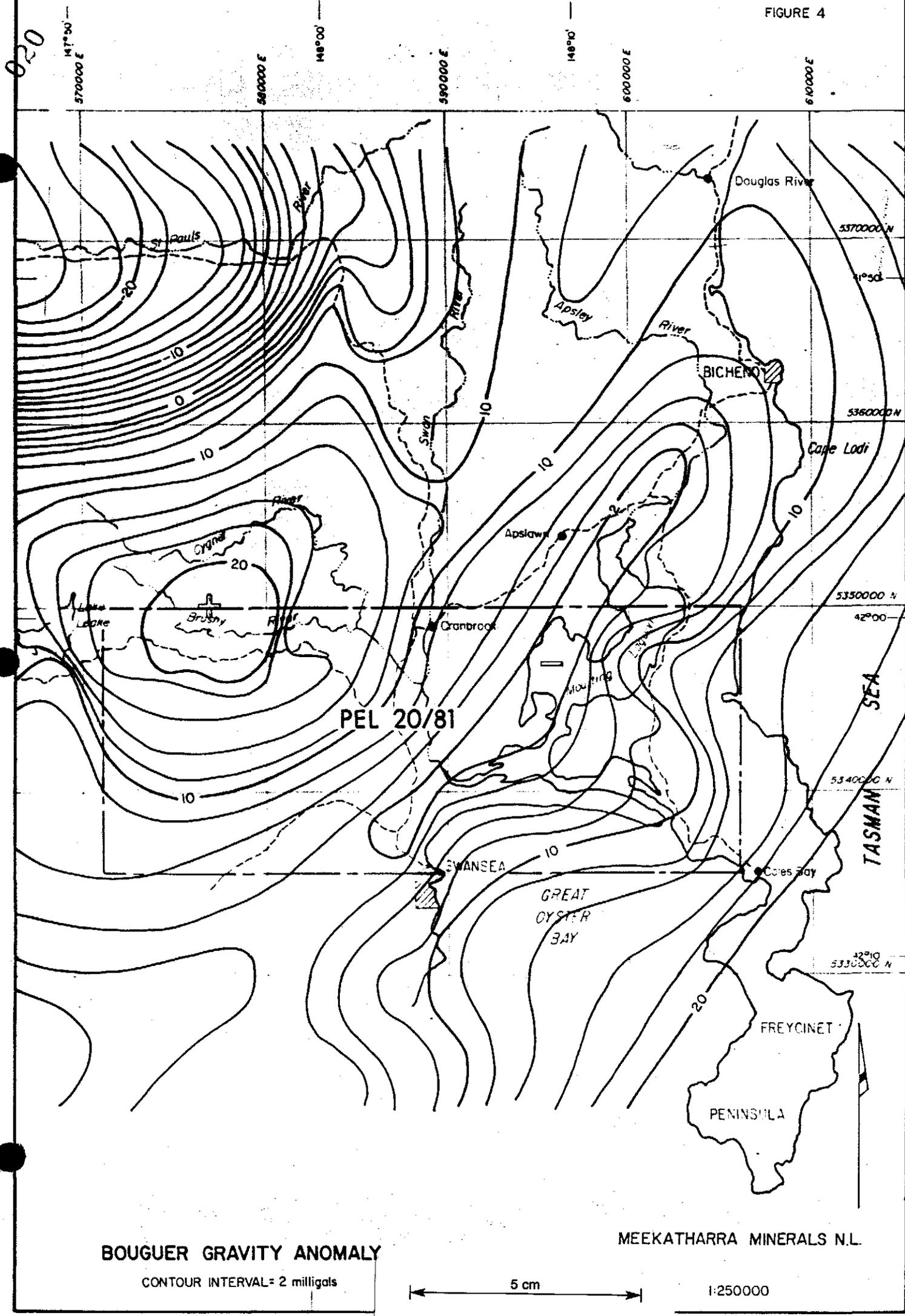
Gravity contour values intersected along seismic Line 1 range from  $-50\mu\text{m/s}^2$  near SP104 to  $+10\mu\text{m/s}^2$  near SP320.

Gravity contour values intersected along seismic Line 2 range from  $-50\mu\text{m/s}^2$  near SP102 to  $+30\mu\text{m/s}^2$  near SP218. Values intersected along Line 3 show only minor variations from  $0\mu\text{m/s}^2$ .

These gravimetric variations are consistent with variations of Tertiary sediment thickness interpreted from the seismic data. Regionally extended this relationship implies that the maximum

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thicknesses of Tertiary sediments onshore would be typically no more than 300m, except for one local accumulation at the eastern end of Nine Mile Beach where thicknesses may exceed 400-450m. Local thickening here may be related to down faulting west of the Freycinet Peninsular, and may extend offshore.



**BOUGUER GRAVITY ANOMALY**

CONTOUR INTERVAL = 2 milligals

5 cm

1:250000

MEEKATHARRA MINERALS N.L.

PEL 20/81

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7. DISCUSSION

Notwithstanding the overall poor quality of the seismic data the Oyster Bay Seismic Survey was successful firstly, in that the thickness of the Tertiary sediment sequence unconformably overlying the Jurassic intrusive complex was established. Secondly, the presence and structure of an older, pre-Jurassic, (presumably Mesozoic-Palaeozoic Parmeener Supergroup) sediment sequences was established. Two way possibly fault dependent roll-over is implied by one intra-sequence reflector along Line 3 between SP's 260-310.

The poor data quality is most likely due to the combination of low acoustic impedance contrasts present within the older section, and the selective absorption of energy by the near surface dolerite. Shot-holes drilled below the intrusives or high frequency/high resolution surveys should ameliorate the latter of these factors in future surveys.

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8. CONCLUSIONS

(i) Only a thin Tertiary sequence has been identified along seismic traverses recorded within PEL 20/81.

(ii) Correlation between variations in Tertiary sediment thicknesses identified from seismic and those interpreted from gravity are very consistent. Extrapolated across the Permit, Tertiary sediment thicknesses are, with one exception, unlikely to exceed 300m. A local accumulation of 400-450m of Tertiary sediments lies on the down side of a fault near the eastern end of Nine Mile Beach.

(iii) Maximum Tertiary thicknesses encountered within PEL 20/81 are insufficient to provide maturation of any basal Tertiary source rocks, although the possibility of significant sediment thicknesses offshore cannot be discounted.

(iv) Layered sequences (probably Parmeener Supergroup) extend below the Jurassic dolerites to depths of at least 1500m. Relief on the Jurassic dolerites does not reflect underlying sediment structural relief.

(v) One example of two-way roll-over, (partially fault dependent) is observed within the deeper section on the northern end of Line 3. Additional seismic coverage, at least one cross line, would be necessary to establish whether valid four way structural closure exists at this location.

(vi) Interval velocities suggest that the Mesozoic-Palaeozoic sedimentary sequence is highly indurated and primary porosity may be negligible.

(vii) Maximum thickness of these deeper, Pre-Jurassic intrusive aged sediments and depth to igneous basement could not be ascertained from the present survey results.

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## APPENDIX "A"

## STATISTICAL SUMMARY

## RECORDING

Number of lines	3
Shot Points	Line 1 SP104-320
	Line 2 SP102-218
	Line 3 SP102-336
Shot Point Intersections	Line 1 (SP123) & Line 2 (SP123)
	Line 2 (SP200) & Line 3 (SP123)
Total Length	19.7km
Recording Time	38 hrs
Travel Time	4 hrs
Experimental Time	8 hrs
Stand-by Time	10 hrs
No. of Records	293
Detonators Used	293
	590 kgs
Rate of 1200% coverage	1.86 hrs/km

## DRILLING

Holes drilled	293
Metres drilled	956
Chargeable time	78 hrs
Operator travel	16 hrs
Metres drilled/hr	15.4

025

## EQUIPMENT LIST

1. Seismic-Contractor South Eastern Exploration Pty. Ltd.,  
Strathpine, Qld.

## Recording

Sercel 338 HR, 48 trace recording system  
 GUS CDX MKII 48 channel compositor  
 SIE ERC-10 camera  
 Input/Output shooting system  
 Input/Output 96 trace Roto Long Switch  
 5 FM25 watt radios  
 120 CDP cables with 53m interval take outs  
 100 strings of GSC 10Hz geophones, 12/String

## Vehicles

One Jeep J-20 4WD Recording Truck  
 One Toyota Landcruiser 4WD Shooting Truck  
 Two Toyota Landcruiser 4WD Cable & Geophone Trucks  
 One Toyota Landcruiser 4WD Pre loader Truck

## Personnel

Party Manager/Co-ordinator - M. Jeffries  
 Observer, Instrument Engineer  
 Junior Observer  
 Shooter/Pre loader  
 Line Boss  
 Four Field Assistants

2. Surveying - Contractor: Gutteridge, Haskins & Davey, Hobart

One Commodore S.W.  
 One Surveyor  
 One Assistant Survey  
 Two Chainmen

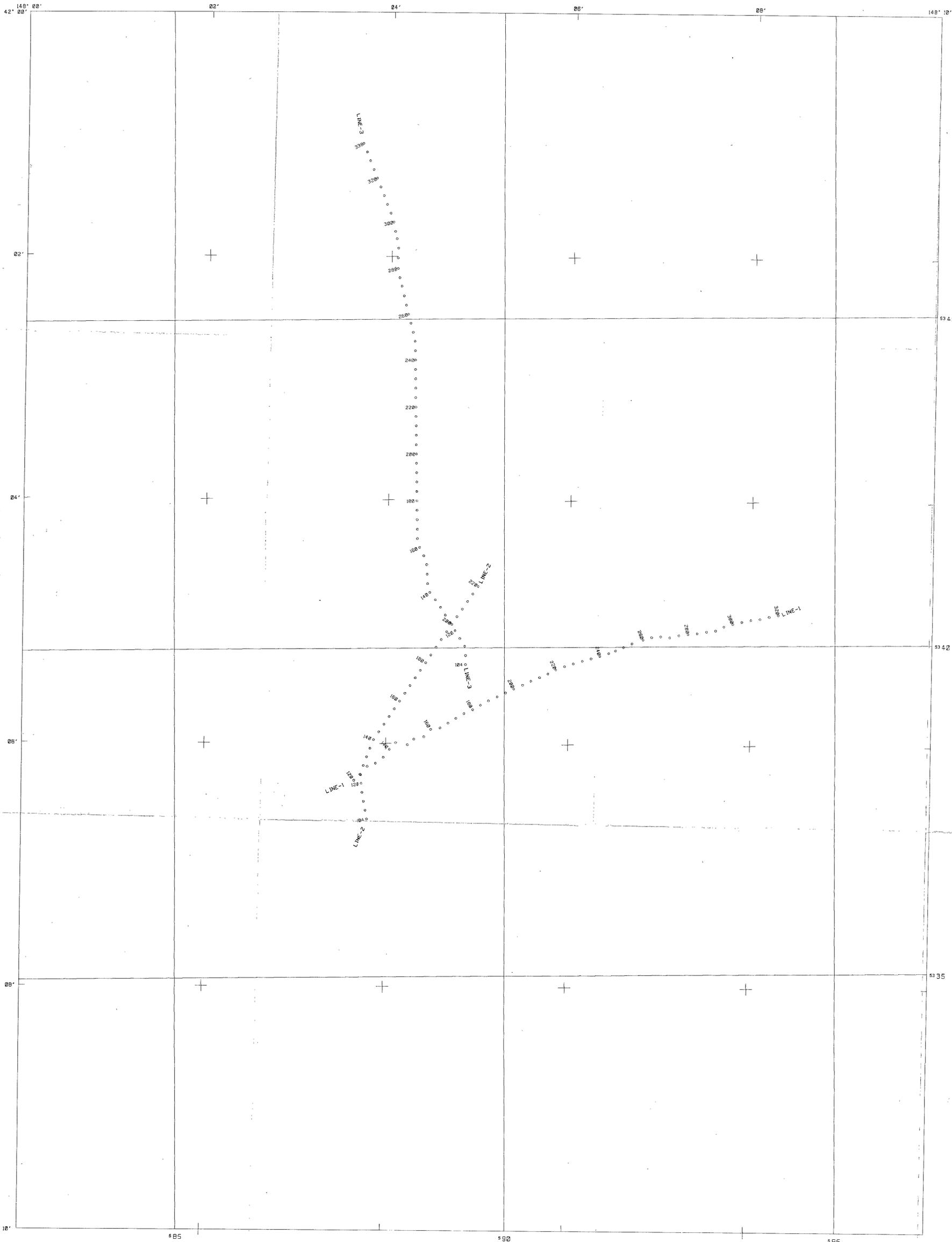
1 EDM Unit  
Stadia  
1 Wild Theodolite

3. Drilling, Contractor - Wreckair Pty. Ltd., Mr. Warren Burns

Airtrack 4" bit  
3 rods  
Hoses, Coupling, Compressor

4. Field Operations

Surveying/Chaining	Commenced 29/7/82	Finished 8/8/82
Drilling	Commenced 1/8/82	Finished 7/8/82
Recording	Commenced 4/8/82	Finished 9/8/82



SCALE 1 : 25 000  
 0.5 0 0.5 1.0 1.5 2.0 2.5  
 KILOMETRES

A. M. S. ZONE 55

593025

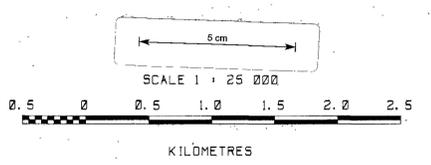
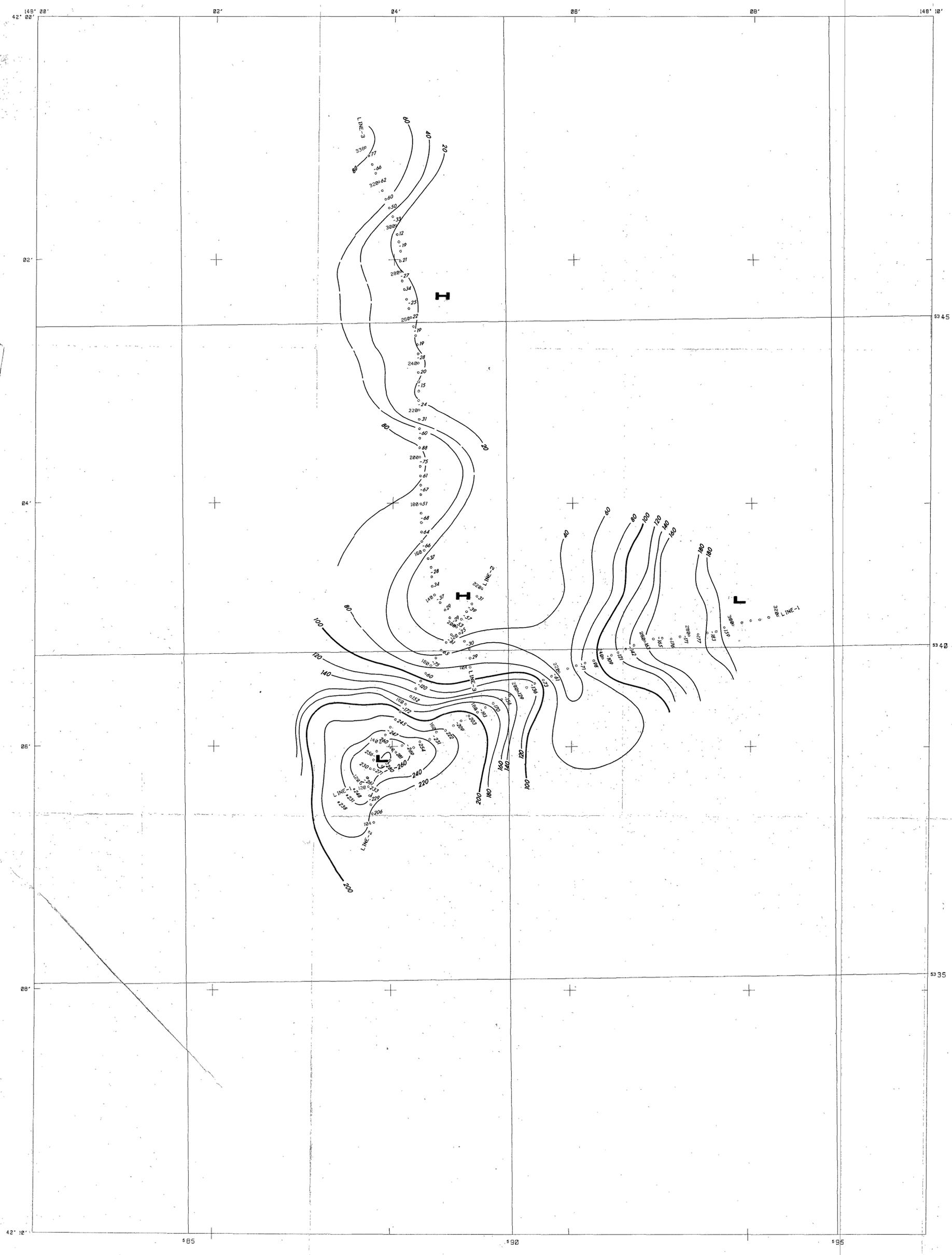
MEEKATHARRA MINERALS LTD

OYSTER BAY SEISMIC SURVEY  
**SHOT POINT BASE  
 MAP**

INTERPRETATION BY FLOWER DOERY BUCHAN P/L

DATE : 30-11-82 ENCLOSURE : 1

MAP PRODUCED BY  
 DIGIMAP GEODATA SERVICES



A. M. G. ZONE 55

593029

MEEKATHARRA MINERALS LTD

OYSTER BAY SEISMIC SURVEY  
**DEPTH TO BASE TERTIARY**  
 (METRES)

NOTE: Additional control provided by gravity data.

INTERPRETATION BY : FLOWER DOERY BUCHAN P/L

DATE : 30.11.82 ENCLOSURE : 2

3091

MAP PRODUCED BY -  
 DIGIMAP GEODATA SERVICES

3092

TIME	U	RMS	U	INT	DEPTH
0.000	1800	1800	1800	0	0
0.200	2050	2050	2050	205	0
0.400	3300	4133	524	1845	0
0.550	4000	4440	1845	1187	0
1.150	4400	5343	2440	1187	0
1.400	4900	5738	3282	1187	0
1.600	5300	6327	4035	1187	0
4.000	6000	6424	11744	1187	0

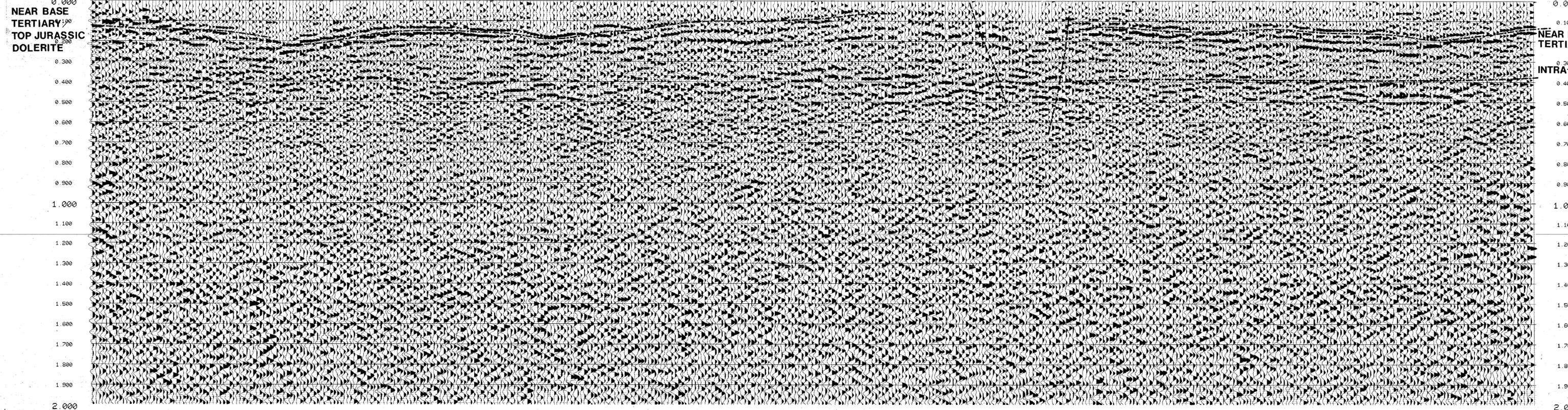
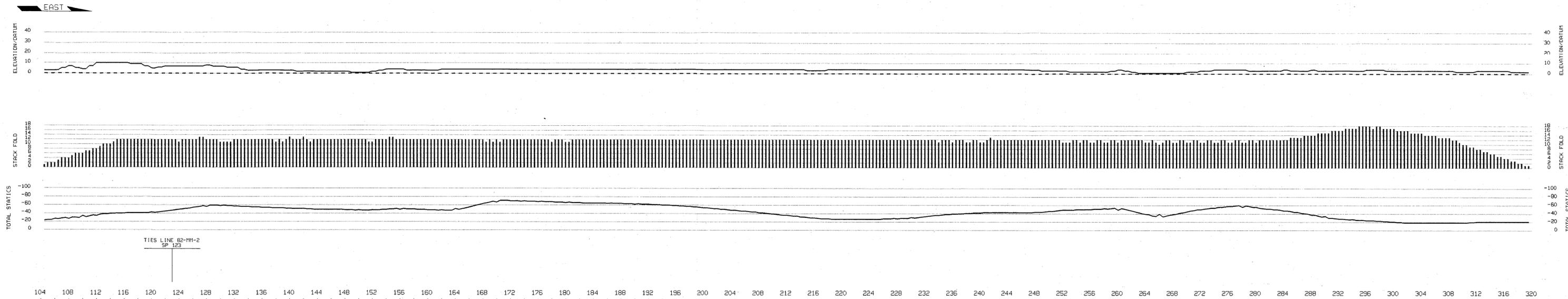
TIME	U	RMS	U	INT	DEPTH
0.000	1800	1800	1800	0	0
0.200	2050	2050	2050	205	0
0.350	3200	4277	523	1187	0
0.500	4200	5292	1187	1187	0
1.050	5200	6291	2603	1187	0
1.500	5800	7003	4178	1187	0
4.000	6000	6117	11824	1187	0

TIME	U	RMS	U	INT	DEPTH
0.000	1800	1800	1800	0	0
0.250	2050	2050	2050	256	0
0.350	3200	4277	523	508	0
0.500	4000	4906	1121	511	0
0.800	4300	5095	1631	511	0
1.000	4900	5789	2310	511	0
1.300	5500	7145	3381	511	0
4.000	6000	6226	11787	511	0

TIME	U	RMS	U	INT	DEPTH
0.000	1800	1800	1800	0	0
0.250	2100	2100	2100	262	0
0.350	3100	4755	500	500	0
0.550	3500	4107	911	511	0
0.800	4100	5181	1559	511	0
1.500	5300	6402	3799	511	0
4.000	6000	6383	11778	511	0

TIME	U	RMS	U	INT	DEPTH
0.000	1800	1800	1800	0	0
0.200	2100	2100	2100	210	0
0.400	3300	4168	627	511	0
0.700	3500	4579	1314	511	0
1.000	4700	6176	2240	511	0
1.700	5500	6474	4506	511	0
4.000	6000	6344	11802	511	0

TIME	U	RMS	U	INT	DEPTH
0.000	1800	1800	1800	0	0
0.300	2100	2100	2100	315	0
0.450	3200	4680	666	511	0
0.800	3700	4257	1411	511	0
1.200	5000	6301	2791	511	0
4.000	6000	6381	11724	511	0



1200% STRUCTURAL STACK

MEEKATHARRA MINERALS LIMITED

AREA: OYSTER BAY, TASMANIA  
 LINE: 82-MM-1  
 SP'S: 104 - 320

RECORDING PARAMETERS

RECORDED BY	S.E. EXPL.	PARTY	101
GROUP INTERVAL	35 M	DATE RECORDED	AUGUST 1982
SHOT INTERVAL	70 M	INSTRUMENT TYPE	SERCEL SN338
CONFIGURATION	SPLIT	TAPE FORMAT	SEGB
NEAR OFFSET	35 M	RECORDING FILTER	12.5/OUT
FAR OFFSET	840 M	RECORD LENGTH	4 SEC
TRACES/RECORD	48	SAMPLE RATE	1 MS
GEOPHONE TYPE	GSC 20D/H 10HZ	ENERGY SOURCE	DYNAMITE
GEOPHONE ARRAY	PATTERNED	CHARGE SIZE/DEPTH	2KG/3.3 M
GEOPHONES/TR.	12@ 5 M	SWEEP FREQUENCY	
TR. 1 LOCATION	WEST	SWEEP LENGTH	
SHOT FROM	EAST TO WEST	SWEEPS/U.P.	

PROCESSING SEQUENCE

- DEMULPLEX
- INITIAL GAIN RECOVERY
- DECONVOLUTION
  - TYPE
  - OPERATOR LENGTH 128 MS
  - PRE-WHITENING 3 %
  - WINDOW 200 - 3000 MS
- FILTER
  - 12/16-45/55 HZ
- TRACE BALANCE
- TRACE EDITING
- VELOCITY ANALYSIS/NMO
- FIRST ARRIVAL WEATHERING CORRECTION
  - DATUM 0 M
  - UO 600 M/SEC
  - UR 2000 M/SEC
- CDP TRIM STATICS
  - 5 TR PILOT
  - WINDOW 100-500 MS
  - MAXIMUM SHIFT 8 MS
- STACK
- TIME VARIANT FILTER
  - 0-670 MS 12/16-45/55 HZ
  - 670-2000 MS 12/16-30/40 HZ
- SCALE
  - WINDOWS 100-500, 300-1200, 1000-2000 MS
- DISPLAY

DATE: DECEMBER 1982 SYSTEM: PHOENIX '11

DISPLAY POLARITY NORMAL X  
 12 TRACES PER INCH  
 5 INCHES PER SEC REVERSE

SP SEISMIC DATA PROCESSORS INT'L SYDNEY, AUSTRALIA

3092

TIME	U RMS	U INT	DEPTH
0.000	1800	1800	0
0.200	2000	2000	200
0.400	3200	4050	505
0.600	4000	5246	1131
0.900	4800	6093	2044
1.300	5400	6552	3355
4.000	6000	6268	11817

TIME	U RMS	U INT	DEPTH
0.000	1800	1800	0
0.300	2200	2200	330
0.500	3700	5193	849
0.900	4900	6075	2074
1.300	5400	6383	3341
4.000	6000	6268	11803

TIME	U RMS	U INT	DEPTH
0.000	1800	1800	0
0.275	2200	2200	302
0.500	3700	4950	859
0.900	4900	6075	2074
1.300	5400	6383	3351
4.000	6000	6268	11814

TIME	U RMS	U INT	DEPTH
0.000	1800	1800	0
0.150	2200	2200	165
0.250	3400	4652	398
0.600	3900	4221	1136
0.900	4500	5507	1962
1.450	5400	6614	3781
4.000	6000	6316	11834

TIME	U RMS	U INT	DEPTH
0.000	1800	1800	0
0.100	2200	2200	110
0.350	3600	4026	613
0.600	4200	4919	1228
0.800	4500	5299	1758
1.600	5800	6858	4501
4.000	6000	6130	11857

230  
115

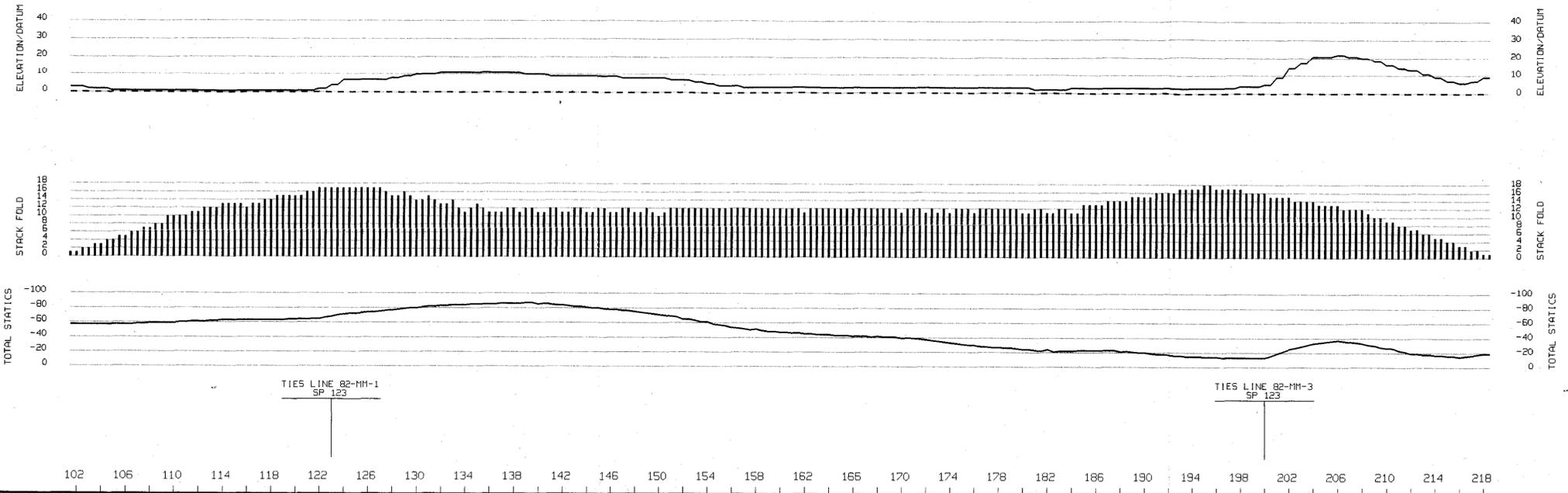
262  
131

312  
156

362  
181

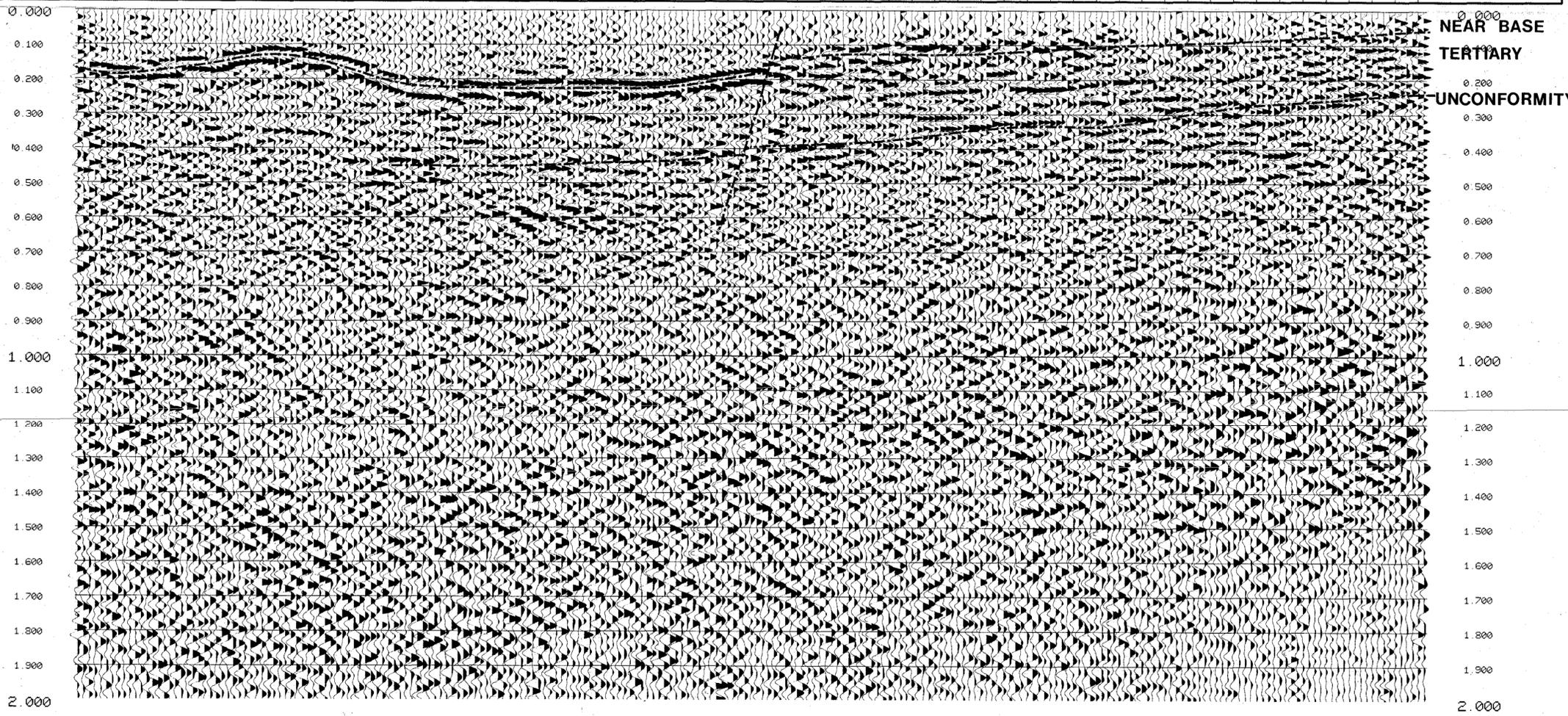
412  
206

NORTHEAST



TIES LINE 82-MM-1  
SP 123

TIES LINE 82-MM-3  
SP 123



# 1200% STRUCTURAL STACK

## MEEKATHARRA MINERALS LIMITED

AREA: OYSTER BAY, TASMANIA  
LINE: 82-MM-2  
SP'S: 102 - 218

### RECORDING PARAMETERS

RECORDED BY	S.E. EXPL.	PARTY	101
GROUP INTERVAL	35 M	DATE RECORDED	AUGUST 1982
SHOT INTERVAL	20 M	INSTRUMENT TYPE	SERCEL SN338
CONFIGURATION	SPLIT	TAPE FORMAT	SEGB
NEAR OFFSET	35 M	RECORDING FILTER	12.5/OUT
FAR OFFSET	840 M	RECORD LENGTH	4 SEC
TRACES/RECORD	48	SAMPLE RATE	1 MS
GEOPHONE TYPE	GSC 200/H 10HZ	ENERGY SOURCE	DYNAMITE
GEOPHONE ARRAY	PATTERNED	CHARGE SIZE/DEPTH	2KG@3.3 M
GEOPHONES/TR.	12@ 5 M	SWEEP FREQUENCY	
TR. 1 LOCATION	NE	SWEEP LENGTH	
SHOT FROM	SW - NE	SWEEPS/U.P.	

### PROCESSING SEQUENCE

- 1 DEMULTIPLEX
- 2 INITIAL GAIN RECOVERY
- 3 DECONVOLUTION
  - TYPE
  - OPERATOR LENGTH
  - PRE-WHITENING
  - WINDOW
- 4 FILTER
  - SPIKING
  - 128 MS
  - 3 %
  - 200 - 3000 MS
  - 12/16-45/55 HZ
- 5 TRACE BALANCE
- 6 TRACE EDITING
- 7 VELOCITY ANALYSIS/NMO
- 8 FIRST ARRIVAL WEATHERING CORRECTION
  - DATUM
  - UO
  - UR
- 9 SURFACE CONSISTENT RESIDUAL STATICS
  - WINDOW
  - MAXIMUM SHIFT
- 10 CDP TRIM STATICS
  - 5 TR PILOT
  - WINDOW
  - MAXIMUM SHIFT
- 11 STACK
- 12 TIME VARIANT FILTER
  - 0-670 MS
  - 670-2000 MS
  - 12/16-45/55 HZ
  - 12/16-30/40 HZ
- 13 SPATIALLY VARIANT SCALE
  - CDP'S 202-402
  - CDP'S 402-436
  - 100-500, 300-800, 600-1200, 1000-2000
  - 0-200, 200-400, 400-1200, 1000-2000
- 14 DISPLAY

5 cm

DATE: DECEMBER 1982 593031 SYSTEM: PHOENIX '1'

DISPLAY POLARITY NORMAL REVERSE X

12 TRACES PER INCH 5 INCHES PER SEC



SEISMIC DATA PROCESSORS INT'L. SYDNEY, AUSTRALIA

3094

TIME	U	RMS	U	INT	DEPTH
0.000	2000	2000	2000	0	0
0.100	2600	2500	130		
0.200	3600	4007	531		
0.300	4300	4966	1027		
0.400	4700	5763	1604		
0.500	5200	6212	2535		
0.600	6000	6244	11901		

TIME	U	RMS	U	INT	DEPTH
0.000	3000	3000	3000	0	0
0.350	3800	3800	655		
0.700	4900	5795	1679		
1.000	5400	6417	3642		
4.000	6000	6187	11922		

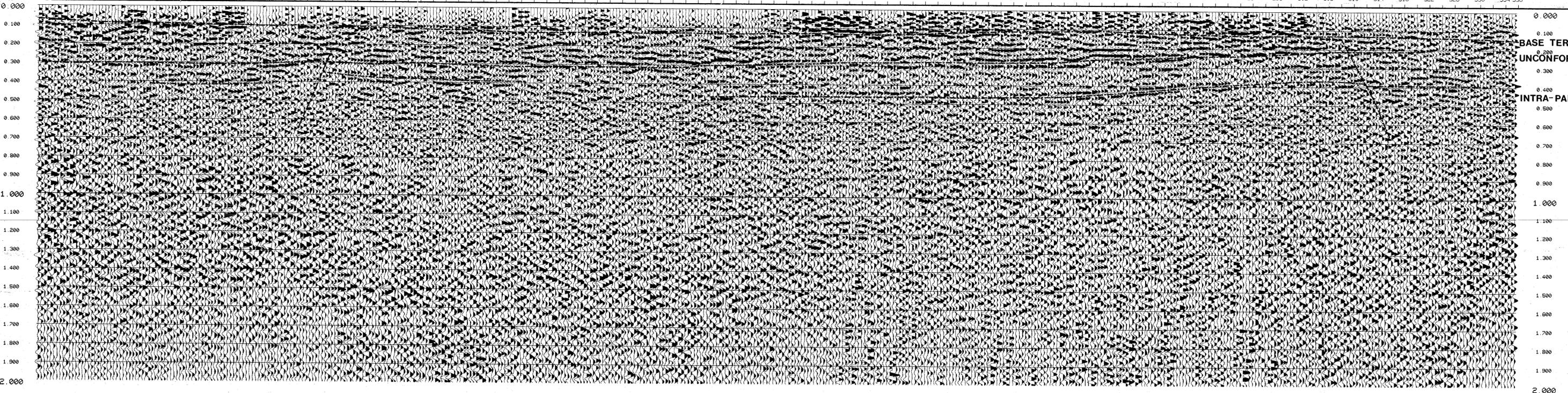
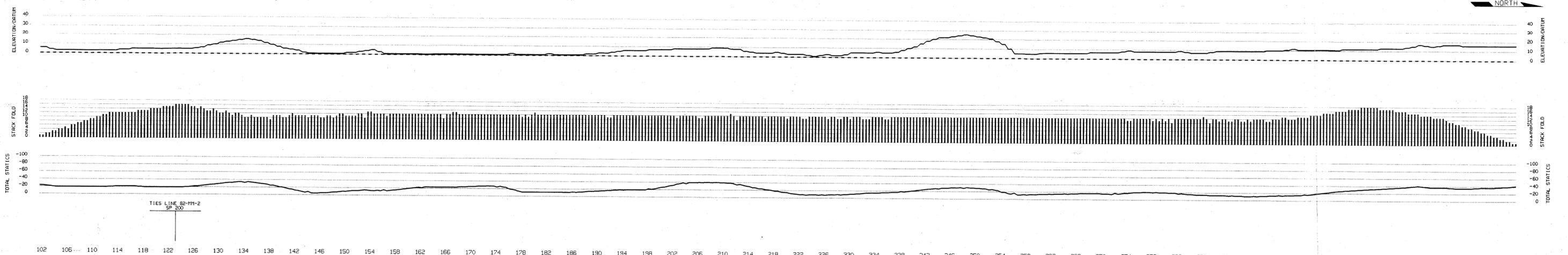
TIME	U	RMS	U	INT	DEPTH
0.000	3500	3500	3500	0	0
0.300	4000	4000	600		
0.500	4600	5376	1136		
0.500	4900	6195	1447		
1.200	5800	6578	3480		
4.000	6000	6094	11937		

TIME	U	RMS	U	INT	DEPTH
0.000	3500	3500	3500	0	0
0.200	3600	3600	360		
0.300	3700	3692	655		
0.500	4700	5890	1144		
0.900	5800	5764	3238		
4.000	6000	6213	11927		

TIME	U	RMS	U	INT	DEPTH
0.000	3500	3500	3500	0	0
0.250	4000	4000	500		
0.500	5200	5593	2318		
4.000	6000	6213	11948		



1200% STRUCTURAL STACK

MEEKATHARRA MINERALS LIMITED

AREA: OYSTER BAY, TASMANIA  
 LINE: 82-MM-3  
 SP'S: 102 - 336

RECORDING PARAMETERS

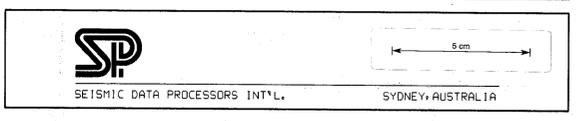
RECORDED BY	S.E. EXPL.	PARTY	101
GROUP INTERVAL	35 M	DATE RECORDED	AUGUST 1982
SHOT INTERVAL	20 M	INSTRUMENT TYPE	SERCEL SN338
CONFIGURATION	SPLIT	TAPE FORMAT	SEGR
NEAR OFFSET	35 M	RECORDING FILTER	12.5/DUT
FAR OFFSET	840 M	RECORD LENGTH	4 SEC
TRACES/RECORD	48	SAMPLE RATE	1 MS
GEOPHONE TYPE	65C 200/H 10HZ	ENERGY SOURCE	DYNAMITE
GEOPHONE ARRAY	PATTERNED	CHARGE SIZE/DEPTH	2KG@3.3 M
GEOPHONES/TR.	128 5 M	SWEEP FREQUENCY	
TR. 1 LOCATION	NORTH	SWEEP LENGTH	
SHOT FROM	S - N	SWEEPS/V.P.	

PROCESSING SEQUENCE

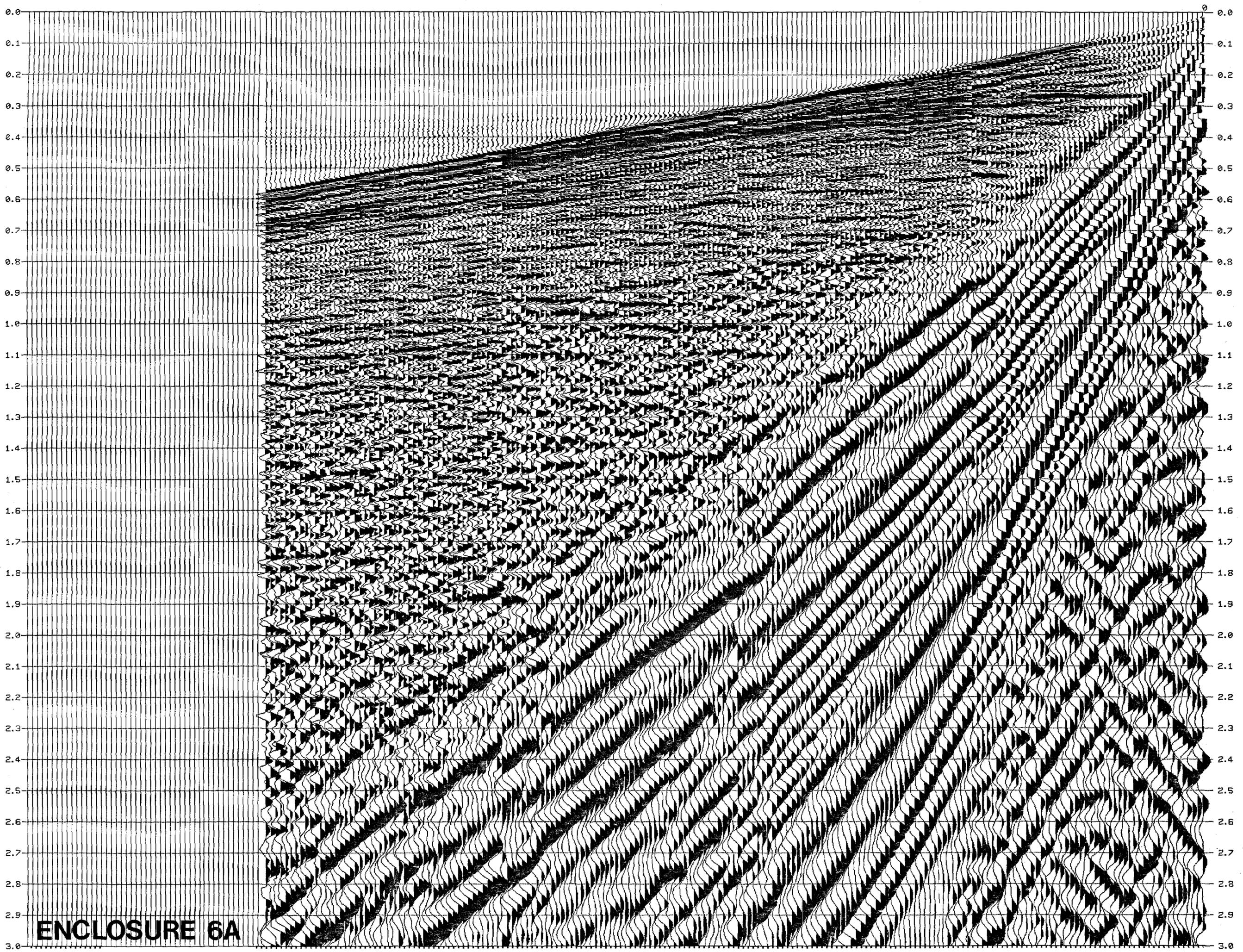
- DEMULPLEX
- INITIAL GAIN RECOVERY
- DECONVOLUTION
  - TYPE
  - OPERATOR LENGTH 128 MS
  - PRE-WHITENING 3 %
  - WINDOW 200 - 3000 MS
- FILTER
  - TRACE BALANCE
  - TRACE EDITING
  - VELOCITY ANALYSIS/NMO
  - FIRST ARRIVAL WEATHERING CORRECTION
    - DATUM 0 M
    - VO 600 M/SEC
    - VR 2000 M/SEC
- CDP TRIM STATICS
  - S TR PILOT
  - WINDOW 100-500 MS
  - MAXIMUM SHIFT 8 MS
- STACK
  - TIME VARIANT FILTER
    - 0-570 MS 12/16-45/55 HZ
    - 670-2000 MS 12/16-30/40 HZ
- SCALE
  - WINDOWS 100-500, 300-1200, 1000-2000 MS
- DISPLAY

DATE: DECEMBER 1982 593032 SYSTEM: PHOENIX '11

DISPLAY POLARITY NORMAL X  
 12 TRACES PER INCH  
 5 INCHES PER SEC



593033



**ENCLOSURE 6A**

3095  $\longleftrightarrow$  5 cm

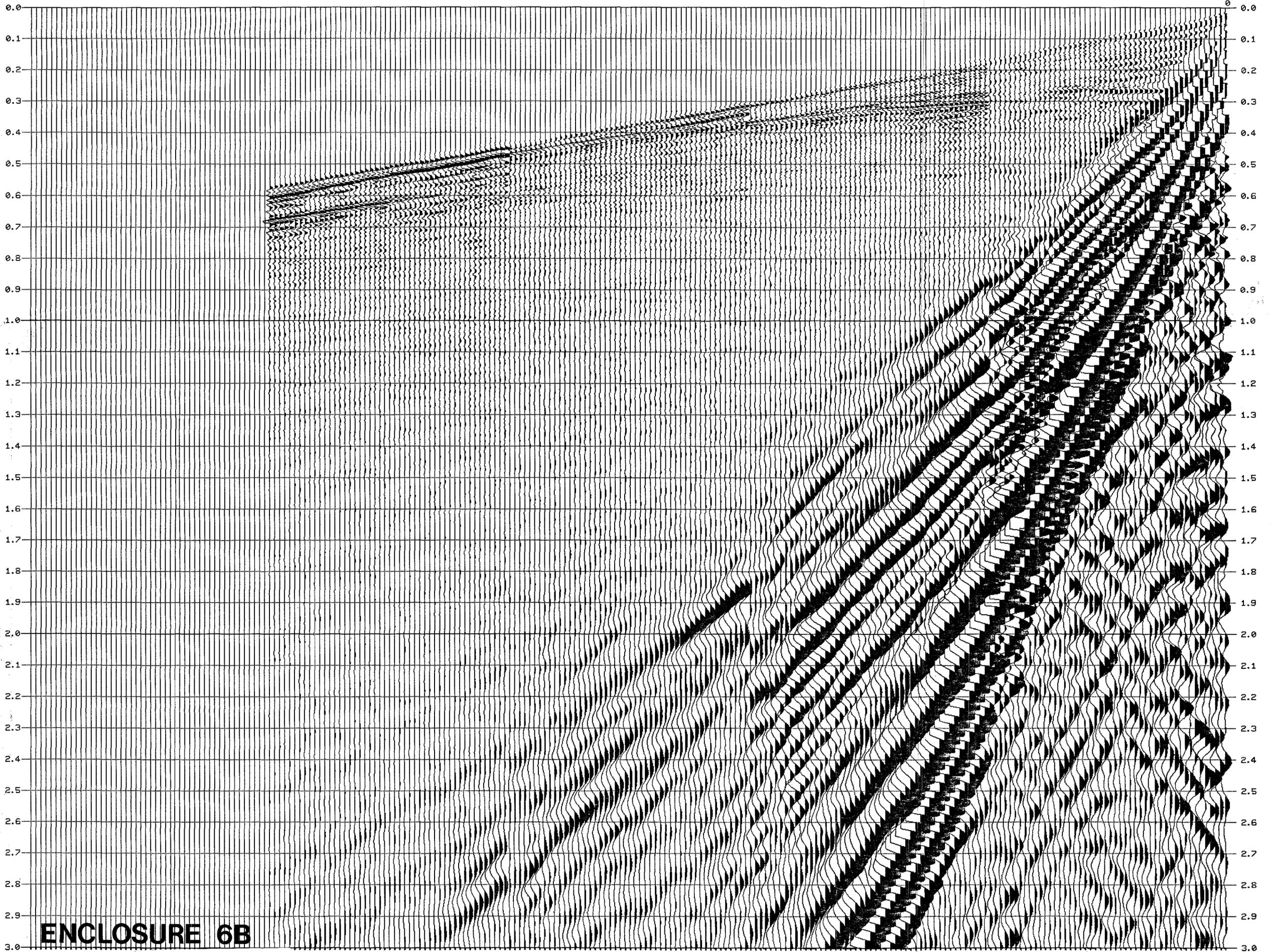
0

4

3

2

1



593034

**ENCLOSURE 6B**

5 cm



**SEISMIC DATA PROCESSORS LTD.**  
 80 Mount Street  
 North Sydney  
 N.S.W. 2060

TCR 83-1957  
 Phone (02) 929 8511 (5 Lines)  
 Telex AA 23976

APPENDIX 3

J of M	A.O.	C.G.	E.O.	D.S.M.E
Received Answered				Registrar
25 MAR 1983				E & IL
DEPT. OF MINES				
REF. No. 2376/83				

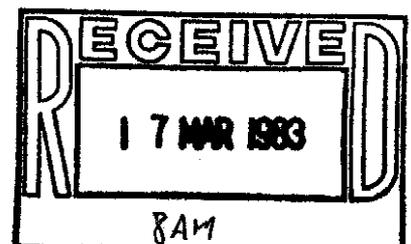
SEISMIC PROCESSING REPORT

FOR

MEEKATHARRA MINERALS LIMITED

ONSHORE SEISMIC SURVEY  
 TASMANIA BASIN EL 20  
 1982 OYSTER BAY SURVEY

DECEMBER, 1982.





1.

The subject of this report is the processing of the Oyster Bay Seismic Survey recorded in the Tasmania Basin (EL20) in August of 1982. The processing was performed during the months of August through December 1982 by Seismic Data Processors International in their Sydney processing centre on behalf of Meekatharra Minerals Limited. Project management and quality control was handled by Mr. R. Shaw of Messrs. Flower Doery and Buchan.

The survey consisted of three lines as follows:-

82 - MM - 1	SP	104 - 320
82 - MM - 2	SP	102 - 218
82 - MM - 3	SP	102 - 336

The project covered approximately 20 kms which were recorded using a 48 trace instrument to obtain 12 fold subsurface coverage using a dynamite source. The data was recorded to 4 seconds at a sample rate of 1ms. The data was resampled to 2ms and processed to 2 seconds. The group interval was constant at 35 m with shots occurring every 70 m.

The topographic relief of the area varied from .5 m to 25 m with surface changes being mostly due to sand dunes.



2.

PROCESSING SEQUENCE (encl.1)

A record was selected from line 82-MM-1 and used as input to our deconvolution and filtering analysis routines. The records responded to the application of deconvolution but were not very sensitive to the variation in the design of the inverse filter. Line 82-MM-1 was provisionally processed with no deconvolution at all, but with poor results. A combination of 128ms deconvolution operator with 3% white noise level and a 14-50 hz digital bandpass filter was finally deemed optimum and applied to the data. This was followed by a single gate trace balance.

At this juncture Line 82-MM-1 was passed through an FK velocity filter prior to CDP sorting and stacking but the results were disappointing so this was abandoned as a viable processing option for this data.

A brute stack was generated for each line using an area velocity function. This was used as a quality control measure and also to assist in the detailed positioning of the velocity analysis sets on the data.

At this stage it was confirmed that the data was of poor quality with some signal in the shallow zones but virtually no coherent signal in the sections below 500 ms.

Constant velocity scans were used to determine stacking velocities. Sets of 12 CDP's were corrected at various constant velocities and stacked. The time velocity coordinate of the optimised stack response are noted at each level and compiled into a full velocity function at any one spacial location.

Due to complex geological factors the data was very sensitive to velocity analysis. The consulting geophysicist, Mr. R. Shaw, determined where each velocity analysis was to be performed.



3.

Each of the lines was stacked using velocity functions following first a slow, and then a medium and finally a fast trend. These were analysed and a final velocity function trend was selected.

Because of the shallow nature of the reflections it was decided not to use a first break mute, and this decision was reinforced by running an 'inside - outside' mute test and analysing the results.

Field static information was calculated from the digitised field monitors and although the initial picking and plotting of the recorded first breaks was accurate the nature of the data made the interpretation of the results difficult.

The weathering model constructed showed dramatic changes in the subsurface refractors as well as the normal weathering layer. The velocities of these refractors however were high and not of the nature of a classical weathering layer. For that reason it was decided to use a replacement velocity of 2000 m/sec, as this would allow for the correction of the excessive delay times in the normal weathering layer while eliminating the deeper and faster layers from the field static calculations.

These statics were calculated to a datum of 0m. A.S.L. with a weathering layer velocity of 600m/sec and a replacement velocity of 2000m/sec.

A second set of field statics using a faster replacement velocity were calculated for each of the lines and applied to the data prior to stack. These were compared with a set of stacks using the statics calculated from the first weathering model. The first set of statics gave markedly better results than the second.

The final velocity/final field static sections produced showed some signal to noise improvement over the unweathered stacks while presenting a true structural picture in time.



4.

Due to the shallow depth and low fold coverage of the main events coupled with the poor signal to noise ratio it was difficult to decide the best method for residual statics derivation in order to produce the best results. All avenues available were tested with varying results.

Surface consistent statics using a preliminary stack model (with a 5 trace pilot) followed by CDP consistent statics produced the best section for line 82-MM-2. Lines 82-MM-1 and 82-mm-3 did not respond as well to surface statics but showed some improvement with CDP statics so this was the only residual static routine used on these two lines.

A further filter analysis was performed from which a cosmetic type final filter was selected. Essentially this filter was used to reduce the noise component of the final section by passband limitation.

A post-stack deconvolution test was run and indicated possible improvements but the final sections using this routine were disappointing so this option was not implemented.

Coherency filtering and spectral whitening were also tested on a trial basis on line 82-MM-2, but neither program produced viable results and were deemed unsuitable for this data.

Wave equation migration (finite difference method) was applied to all three lines but the results were uncertain and seemed to down-grade the quality of the data and so this routine was not included in the processing sequence.



5.

FINAL PRESENTATION

The final structural sections were displayed on film at normal polarity at a scale of 12 t.p.i. and 5 in/sec.

PROCESSING MAINSTREAM

No major problems were encountered with the recording crew although a several month processing delay was caused by lack of accurate survey information.

The data quality was good to fair in some areas and poor in others. The events seen were shallow with high relief. It was felt that the first break refraction plots and subsequent weathering model should be used as an interpretive aid while analysing the final reflection film sections.

The project was completed to the satisfaction of the Geophysicists from Flower Doery and Buchan and SDP International in December 1982.

Upon completion and delivery of the final films an archive tape was produced containing the pre-filter, pre-scale version of the final structural stack of all three lines.

I would like to extend to the South Eastern Exploration Pty Ltd., field crew and the representatives of Flower Doery Buchan our thanks for their advice and co-operation throughout the processing phase of this project.

Respectfully submitted by:

A handwritten signature in cursive script, appearing to read 'N. Payne'.

Ms. N. Payne  
SDP Geophysicist.

A handwritten signature in cursive script, appearing to read 'Nick Blake'.

Mr. N. Blake  
SDP Processing Manager.

for

SEISMIC DATA PROCESSORS INTERNATIONAL (SYDNEY)

ENCLOSURE 1.

The following sequence was adopted, after testing of each individual processing item to the satisfaction of a representative of Meekatharra Minerals Ltd.,

Demultiplex

Initial Gain Recovery

Re-sample

Deconvolution (128 ms spiking operator with 3% white noise)

Filter (Bandpass 14-50 Hz)

Trace Balance

CDP sorting with crooked line geometry input

Velocity Analysis

First Arrival Weathering Correction

Residual Statics

- A) Surface consistent and CDP consistent statics application for line 82-MM-2
- B) CDP consistent statics applications for lines 82-MM-1 and 82-MM-3

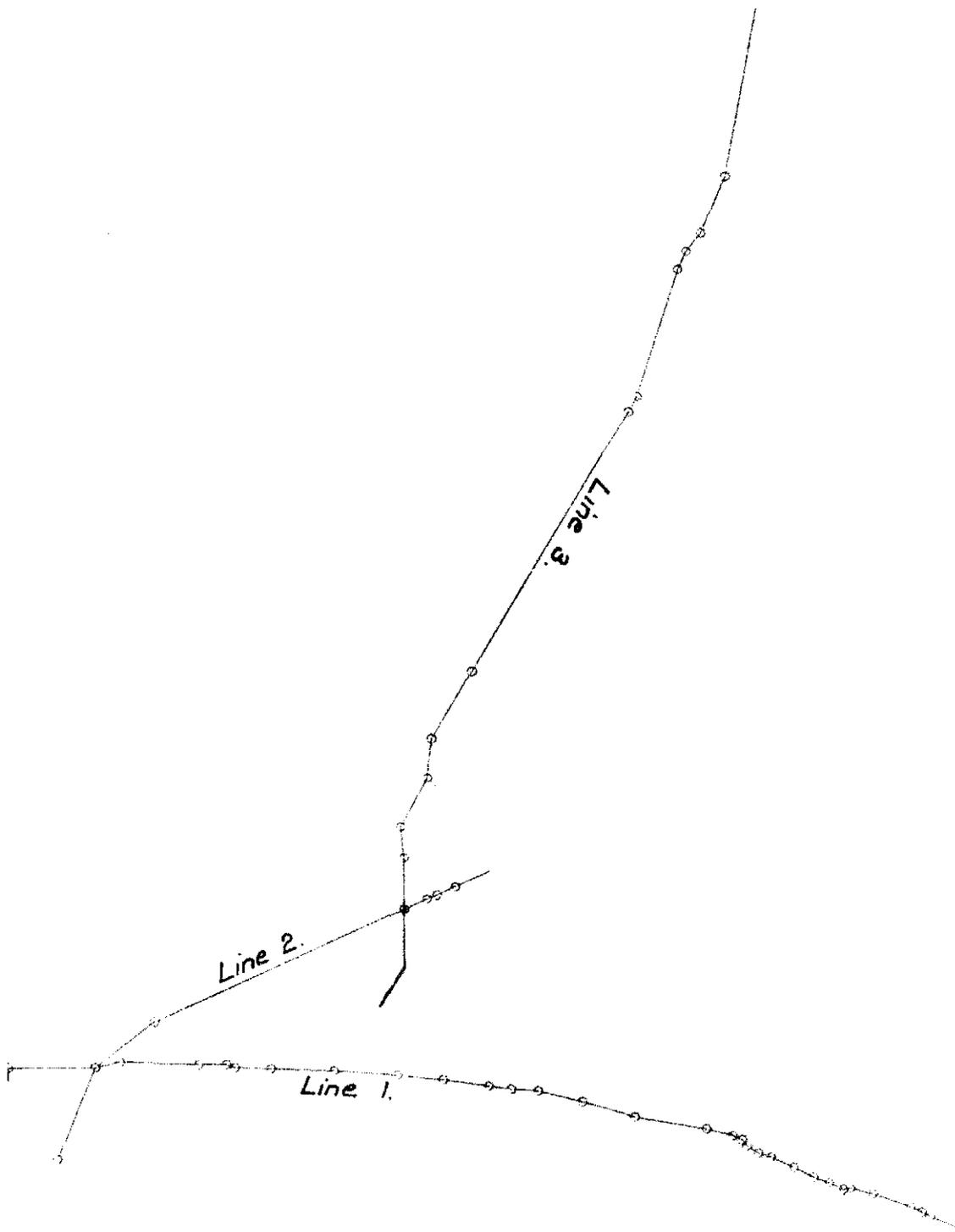
Stack

Filter (Band pass 14-50 Hz)

Scale

Film Displays (12 t.p.i. and 5 in/sec)

Data Archiving



085

PENDIX 4

CO.	C.G.	EC.	D.S.M.E.
			REGISTER
25 MAR 1983			E & N.
DEPT. OF MINES			
PCT. No. 2376/83			

593043

MEEKATHARRA MINERALS PTY LTD

Shooters Reports

Oyster Bay Prospect

EP 20/81 TASMANIA

August 1982 TCR 83-1957

**SOUTH-EASTERN EXPLORATION PTY. LTD.**

**39 KREMZOW RD., STRATHPINE 4500**

**PH. 205 6194**



# South Eastern Exploration Pty. Ltd.

Appx 4

## SHOOTERS REPORT

DATE 9/8/82.

CLIENT MERRATHARA

MURRAY PROSPECT

Oyster Bay.

STATE TAS.

036

LINE No.	S. P. No.	Shot No.	No. Holes Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
82-MM3	300		10'	2		2	1	1				
	302		10'	2		2	1	1				
	304		10'	2		2	1	1				
	306		7'	1		1	1	1				
	308		10	2		2	1	1				
	310		10	2		2	1	1				
	312		10	2		2	1	1				
	314		10	2		2	1	1				
	316		10	2		2	1	1				
	318		10	2		2	1	1				
	320		10	2		2	1	1				
	322		10	2		2	1	1				
	324		10	2		2	1	1				
	326		10	2		2	1	1				
	328		10	2		2	1	1				
	330		10	2		2	1	1				
	332		10	2		2	1	1				
	334		10	2		2	1	1				
	336A		10	2		2	1	1				
	336B		10	1		1	1	1				
	336C		10	2		2	1	1				
	336D		19'	5		5	1	1				
TOTALS												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX	593044
ON HAND					
IN					
USED TODAY	45kg	22			
BALANCE					

SHOOTER

*J.W. [Signature]*



# South Eastern Exploration Pty. Ltd. ①

## SHOOTERS REPORT

038

DATE 8-8-82

CLIENT MEEKATHARRA MINERALS PROSPECT OYSTER BAY

STATE TAS.

LINE No.	S. P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
MM-3	208		10'	2KG	2KG	2KG	1	1				
	210A											
	210B											EXPERIMENTAL
	212											
	214											
	216											
	218											
	220											
	222A											
	222B											
	224		-	-	-	-	-	-				SKIP
	226											
	228											
	230											
	232											
	234											
	236											VERY ROCKY
	238											
	240											
	242											
	244											
	246											
	248											
	250											
	252											
	254											
	256											
	258		10'	2KG	2KG	2KG	1	1				
TOTALS												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX	593045
ON HAND					
IN					
USED TODAY	54	27			
BALANCE					
SHOOTER <i>M. Jaffin</i>					



# South Eastern Exploration Pty. Ltd. ②

037

## SHOOTERS REPORT

DATE 8-8-82

CLIENT

MEEKATHARRA MINERALS PROSPECT

OYSTER BAY

STATE TAS.

LINE No.	S. P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
MM-3	260		10'	2KG	2KG	2KG	1	1				
	262											
	264											
	266											
	268											
	270											
	272											
	274											
	276											
	278											
	280											
	282											
	284		10'	2KG	2KG	2KG	1	1				
	286		-	-	-	-	-	-				SKIP - MASH
	288A		10'	2KG	2KG	2KG	1	1				
	288B											
	290		6'	1KG	1KG	1KG	1	1				
	292		10'	2KG	2KG	2KG	1	1				
	294											
	296											
	298		10'									
<b>TOTALS</b>												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND	-----	-----	-----	-----
IN	-----	-----	-----	-----
USED TODAY	39	20	-----	-----
BALANCE	-----	-----	-----	-----

593046

SHOOTER

*M. J. ...*



# South Eastern Exploration Pty. Ltd. ①

## SHOOTERS REPORT

DATE 7-8-82CLIENT 040 MEEKATHARRA MINERALS PROSPECT OYSTER BAYSTATE TAS.

LINE No.	S. P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
MM-3	102		10'	2KG	2KA	2KG	1	1				START OF LINE
	104											
	106											
	108											
	110											
	112											
	114											
	116											
	118		10'	3KG	3	3	2	2				
	120			2KG	2KA	2KA	1	1				
	122											
	124											
	126											
	128											
	130											
	132											
	134											
	136											
	138											
	140											
	142											
	144											
	146											
	148											
	150											
	152A											
	152B											
	154		10'	-	-	-	-	-				SKIP - CULTIVATION
TOTALS												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND				
IN				
USED TODAY	55	28		
BALANCE				

593047

SHOOTER



# South Eastern Exploration Pty. Ltd. ②

039

## SHOOTERS REPORT

DATE 7-8-82

CLIENT MEEKATHARRA MINERALS PROSPECT ONSTEL BAY

STATE TAS

LINE No.	S.P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
AM-3	156		10'	2KG	2KG	2KG	1	1				
	158											
	160											
	162											
	164											
	166											Blow out
	168											" "
	170											" "
	172											" "
	174											" "
	176		10'									" "
	178A		7'									" "
	178B		10'									" "
	180			-	-	-	-	-				SCIP - RIVER
	182											
	184											
	186											
	188											
	190											
	192											
	194											
	196											
	198											
	200											
	202											
	204											
	206		10'	2KG	2KG	2KG	1	1				
<b>TOTALS</b>												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND				
IN				
USED TODAY	52	26		
BALANCE				

593048

SHOOTER

*M. J. ...*



# South Eastern Exploration Pty. Ltd. ①

043

## SHOOTERS REPORT

DATE 6-8-82

CLIENT MEEKATHARRA MIN. PROSPECT OYSTER BAY STATE TAS.

LINE No.	S. P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
MM-2	102		10'	2kg		2kg	1	1				START OF LINE
	104		10'	2		2	1	1				
	106		10'	2		2	1	1				
	108		10'	2		2	1	1				
	110		10'	2		2	1	1				
	112		10'	2		2	1	1				
	114		10'	2		2	1	1				
	116		10'	2		2	1	1				
	118A		10'	2		2	1	1				
	118B		10'	2		2	1	1				
	120		-	-		-	-	-				SKIP
	122		10'	2		2	1	1				
	124		10'	2		2	1	1				
	126		10'	2		2	1	1				
	128		10'	2		2	1	1				
	130		10'	2		2	1	1				
	132		10'	2		2	1	1				
	134		10'	2		2	1	1				
	136A		10'	2		2	1	1				
	136B		10'	2		2	1	1				
	138		-	-		-	-	-				SKIP - ROAD.
	140		10'	2		2	1	1				
	142		10'	2		2	1	1				
	144		10'	2		2	1	1				
	146		10'	2		2	1	1				
	148		10'	2		2	1	1				
	150		10'	2		2	1	1				
	152		10'	2		2	1	1				
TOTALS												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND				
IN				
USED TODAY	52	26		
BALANCE				

593049

SHOOTER *M. J. ...*



# South Eastern Exploration Pty. Ltd.

②

042

## SHOOTERS REPORT

DATE 6-8-82

CLIENT MEEKATHARRA MIN. PROSPECT OYSTER BAY

STATE TAS.

LINE No.	S.P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
MM-2	154		10'	2kg		2kg	1	1				
	156											
	158											
	160											
	162											
	164											BLOW OUT
	166											" "
	168											" "
	170											
	172											
	174											
	176											
	178											
	180											
	182											BLOW OUT
	184											" "
	186											
	188											
	190											
	192											
	194											
	196											
	198											BLOW OUT
	200											
	202											
	204											
	206											
	208		10'	2kg		2kg	1	1				
TOTALS												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND				
IN				
USED TODAY	56	28		
BALANCE				

593050

SHOOTER

*M. Jaffin*





# South Eastern Exploration Pty. Ltd. ①

046

## SHOOTERS REPORT

DATE 5-8-82

CLIENT MEEKATHARRA MIN. PROSPECT OYSTER BAY

STATE TAS.

LINE No.	S.P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
MM-1	182		10'	2		2	1	1				
	184		10'	2		2	1	1				
	186		10'	2		2	1	1				
	188		10'	2		2	1	1				
	190		10'	2		2	1	1				
	192		10'	2		2	1	1				
	194		10'	2		2	1	1				
	196		10'	2		2	1	1				
	198		10'	2		2	1	1				
	200		10'	2		2	1	1				
	202		10'	2		2	1	1				
	204		10'	2		2	1	1				
	206		10'	2		2	1	1				
	208		10'	2		2	1	1				
	210		10'	2		2	1	1				
	212		10'	2		2	1	1				
	214		10'	2		2	1	1				
	216		10'	2		2	1	1				
	218		10'	2		2	1	1				
	220		10'	2		2	1	1				
	222		10'	2		2	1	1				
	224		10'	2		2	1	1				
	226		10'	2		2	1	1				
	228		10'	2		2	1	1				
	230		10'	2		2	1	1				
	232		10'	2		2	1	1				
	234		10'	2		2	1	1				
	236		10'	2		2	1	1				
<b>TOTALS</b>												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND				
IN				
USED TODAY	56	28		
BALANCE				

593052

SHOOTER

*M. J. Jeffers*



# South Eastern Exploration Pty. Ltd. ②

045

## SHOOTERS REPORT

DATE 5-8-82

CLIENT MEEKATHARRA MIN. PROSPECT OYSTER BAY

STATE TAS.

LINE No.	S. P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	RE MARKS
MM-1	238		10'	2		2	1	1				
	240		10'	2		2	1	1				
	242		10'	2		2	1	1				
	244		10'	2		2	1	1				
	246		10'	2		2	1	1				
	248		10'	2		2	1	1				
	250		10'	2		2	1	1				
	252		10'	2		2	1	1				
	254		10'	2		2	1	1				
	256		10'	2		2	1	1				
	258		10'	2		2	1	1				
	260		10'	2		2	1	1				
	262		10'	2		2	1	1				
	264		10'	2		2	1	1				
	266		10'	2		2	1	1				
	268		10'	2		2	1	1				
	270		10'	2		2	1	1				
	272		10'	2		2	1	1				
	274		10'	2		2	1	1				
	276		10'	2		2	1	1				
	278		10'	2		2	1	1				
	280		10'	2		2	1	1				
	282		10'	2		2	1	1				
	284		10'	2		2	1	1				
	286		10'	2		2	1	1				
	288		10'	2		2	1	1				
	290		10'	2		2	1	1				
	292		10'	2		2	1	1				
<b>TOTALS</b>												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX	593053
ON HAND					
IN					
USED TODAY	56	28			
BALANCE					

SHOOTER *Y. J. Hoff*





# South Eastern Exploration Pty. Ltd.

①

048

## SHOOTERS REPORT

DATE 4-8-82

CLIENT MEEKATHARRA MIN.

PROSPECT OYSTER BAY.

STATE TAS.

LINE No.	S. P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
NOISE SPREAD.												
	'A'		10'	2		2	1	1			ANZ	
	'B'		10'	2		2	1	1			"	
	'C'		10'	2		2	1	1			"	
	'D'		10'	2		2	1	1			"	
PRODUCTION RECORDING												
MM-1	104		10'	2		2	1	1				
	106		10'	3		3	2	2				
	108		10'	2		2	1	1				
	110		10'	2		2	1	1				
	112		10'	2		2	1	1				
	114		10'	2		2	1	1				
	116		10'	2		2	1	1				
	118		10'	2		2	1	1				
	120		10'	2		2	1	1				
	122		10'	2		2	1	1				
	124		10'	2		2	1	1				
	126		10'	2		2	1	1				
	128		10'	2		2	1	1				
	130		10'	2		2	1	1				
	132		10'	2		2	1	1				
	134		10'	2		2	1	1				
	136		10'	2		2	1	1				
	138A		10'	2		2	1	1				
	138B		10'	2		2	1	1				
	140		-	-		-	-	-				SKIP - AIRSTRIP
<b>TOTALS</b>												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND	1000 KG	1000		
IN				
USED TODAY	47	24		
BALANCE				

593055

SHOOTER

*[Signature]*



# South Eastern Exploration Pty. Ltd. (2)

047

## SHOOTERS REPORT

DATE 4-8-82

CLIENT MEEKATHARRA MIN. PROSPECT OYSTER BAY

STATE TAS

LINE No.	S. P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
MM-1	142		-	-	-	-	-	-	-	-	-	SKIP - AIRSTRIP
	144A		10'	2		2	1	1				ANZ
	144B		10'	2		2	1	1				
	146		10'	2		2	1	1				
	148		10'	2		2	1	1				
	150		10'	2		2	1	1				
	152		10'	2		2	1	1				
	154		10'	2		2	1	1				
	156		10'	2		2	1	1				
	158		10'	2		2	1	1				
	160		10'	2		2	1	1				
	162		10'	2		2	1	1				
	164		10'	2		2	1	1				
	166		10'	2		2	1	1				
	168		10'	2		2	1	1				
	170		10'	2		2	1	1				
	172		10'	2		2	1	1				
	174		10'	2		2	1	1				
	176		10'	2		2	1	1				
	178		10'	2		2	1	1				
	180		10'	2		2	1	1				
<b>TOTALS</b>												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX	593050
ON HAND	-----	-----	-----	-----	
IN	-----	-----	-----	-----	
USED TODAY	40	20	-----	-----	
BALANCE	-----	-----	-----	-----	SHOOTER <i>[Signature]</i>

040

APPENDIX 5

J.M.	A.O.	G.G.	E.O.	D.S.M.E.
				Registrar
Received Answered	25 MAR 1983			E & IL
DEPT. OF MINES				
REF. No. 2376/83				

593057

MEEKATHARRA MINERALS PTY LTD

Preloaders Reports  
Oyster Bay Prospect  
EP 20/81 TASMANIA  
August 1982 TCR 83-1457

**SOUTH-EASTERN EXPLORATION PTY. LTD.**

80 KENNEDY RD., STRATHPINE 4500

PH. 205 6194



# South Eastern Exploration Pty. Ltd.

Appx: 5

065

## SHOOTERS REPORT

DATE 31/7/82

CLIENT MEEKATARA MINERALS PROSPECT

STATE TAS.

LINE No.	S. P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
82-M1.	286.		10'	2kg.		2kg.	1	1			ANZ.	
	284											
	282.											
	280											
	278											
	276.											
	274.											
	272.											
	270.											
	268											
	266											
	264.											
	262.											
	260											
	258											
	256.											
	254.											
	252.											
	250											
	248.											
	246.											
	244											
	242.											
	240											
	238.											
	236.											
	234											
	232.											
TOTALS												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND				
IN				
USED TODAY	56kg	28.		
BALANCE				

593058  
 SHOOTER *JW [Signature]*



# South Eastern Exploration Pty. Ltd.

064

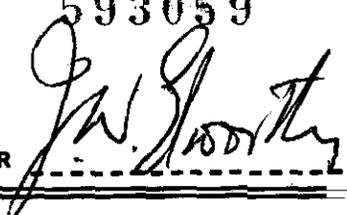
## SHOOTERS REPORT

DATE 31/9/82.  
STATE TAS.

CLIENT MEEKATHARA MINERALS. PROSPECT

LINE No.	S.P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.R.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
2-M1.	230		10'	2kg.		2kg.	1	1			ANZ.	
	228.											
	226.											
	224											
	222											
	220											
	218.											
	216.											
	214											
	212.											
	210											
	208.											
	206.											
	204.											
	202.											
	200											
	198.											
	196.											
	194											
	192.											
	190.											
	188.											
	186.											
	184											
	182.											
	180											
	178.											
	176.											
<b>TOTALS</b>												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND				
IN				
USED TODAY	56 kg	98.		
BALANCE				

593059  
  
 SHOOTER



# South Eastern Exploration Pty. Ltd.

063

## SHOOTERS REPORT

DATE

31/7/82

CLIENT

MEERATHARA MINERALS

PROSPECT

STATE

195

LINE No.	S.P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
J.M.M.	174		10'		2kg	2kg	1	1			Am2	
	172.											
	170.											
	168.											
	166.											
	164											
	162.											
	160											
	158.											
	156											
	154											
	152.											
	150		7'									
	<del>148.</del>											
	<del>146.</del>											
<b>TOTALS</b>												
<b>ON HAND</b>		<b>EXPLOSIVES</b>		<b>CAPS</b>		<b>PRIMERS</b>		<b>GEOFLEX</b>		593060 <i>John Smith</i> SHOOTER		
IN		-----		-----		-----		-----				
USED TODAY		26 kg		13.		-----		-----				
BALANCE		-----		-----		-----		-----				



# South Eastern Exploration Pty. Ltd.

062

## SHOOTERS REPORT

DATE 1/8/82

CLIENT

MEEKATHARA MINERALS

PROSPECT

STATE TAS.

LINE No.	S. P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
52-MM1.	288		10'	2	2		1	1			AN2.	
	290											
	292.											
	294											
	296											
	298											
	300											
	302.											
	304											
	306											
	308.											
	310											
	312.											
	314											
	316											
	318.											
	320.											
	148.											
	146.											
	144A.											
	142.		-		-		-	-				SKIPPED - AIRSTRIK.
	140		-		-		-	-				" "
	138.A											
	138 B.											
	144 B.											
	136											
	134											
	132.											
TOTALS												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND				
IN				
USED TODAY	52kg.	26.		
BALANCE				

593061

*J.W. Howth*

SHOOTER



# South Eastern Exploration Pty. Ltd.

061

## SHOOTERS REPORT

DATE 1/8/82

CLIENT MEERATHARA MINERALS PROSPECT

STATE TAS

LINE No.	S.P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
92-MM1.	151.		10'	2		2	1	1			AW2	NOISE ANALYSIS
	145.		10'	2		2	1	1				
	138		10'	2		2	1	1				
	131.		10'	2		2.	1	1				
TOTALS												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND				
IN				
USED TODAY	8 kg	4		
BALANCE				

593062

SHOOTER

*[Handwritten Signature]*



# South Eastern Exploration Pty. Ltd.

060

## SHOOTERS REPORT

DATE 2/8/82

CLIENT MEERATHANA. WONGKAS. PROSPECT

STATE TAS.

LINE No.	S.P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.R.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
82-MM1.	130.		10'	2.		2.	1	1			ANZ.	
	128											
	126											
	124											
	122.											
	120											
	118											
	116											
	114											
	112.											
	110											
	108											
	106		10'	3		3.	2	2.				
	104.		10'	2		2	1	1				
82-M122.	102.											
	104											
	106											
	108											
	110											
	112.											
	114											
	116											
	118.A.											
	120		-	-		-	-	-				SKIPPED - SWAMP.
	122.											
	124.											
	118 B.											
TOTALS												

ON HAND	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX	<p>593063</p> <p><i>J. W. Shaw</i></p> <p>SHOOTER</p>
IN	5.3kg.	27.			
USED TODAY					
BALANCE					



# South Eastern Exploration Pty. Ltd.

059

## SHOOTERS REPORT

DATE 3/8/82.

CLIENT MEEKATHARA MINERALS PROSPECT

STATE TAS.

LINE No.	S. P. No.	Shot No.	No. Holes Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
92-MM2	126.		10'		2	2	1	1			AN2	
	128											
	130											
	132.											
	134.											
	136A											
	136B.											
	138		-		-	-	-	-				SKIPPED - ROAD.
	140											
	142											
	144											
	146											
	148											
	150											
	152											
	154											
	156											
	158											
	160											
	162.											
	164.											
	166											
	168											
	170											
	172.											
	174											
	176											
	178.											
TOTALS												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND				
IN				
USED TODAY	54kg	27		
BALANCE				

593064

*J.W. [Signature]*

SHOOTER



# South Eastern Exploration Pty. Ltd.

058

## SHOOTERS REPORT

DATE 3/8/82

CLIENT MEERATHARA MINERALS PROSPECT

STATE TAS.

LINE No.	S.P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
2-NM2	180		10'		2	2	1	1			ANZ	
	182											
	184											
	186											
	188											
	190											
	192											
	194											
	196											
	198											
<b>TOTALS</b>												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND				
IN				
USED TODAY	20 kg	10		
BALANCE				

593065

*J.W. Swartz*  
SHOOTER



# South Eastern Exploration Pty. Ltd.

057

## SHOOTERS REPORT

DATE 4/8/82  
STATE TAS.

CLIENT

MEEKATARRA MINERALS PROSPECT

LINE No.	S. P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS	
2-MM2.	200		10'		2	2.	1	1			ANZ.		
	202.												
	204												
	206												
	208												
	210												
	212.												
	214.												
	216												
218.													
82-MM3.	102.												
	104												
	106												
	108.												
	110												
	112												
	116												
	118			10'		3	3	2	2.				
	120												
	122												
	124												
	126												
	128												
	130												
	132												
134													
136													
138.													
TOTALS													

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND				
IN				
USED TODAY	57kg.	29.		
BALANCE				

593066

SHOOTER

*John G. ...*





# South Eastern Exploration Pty. Ltd.

055

## SHOOTERS REPORT

DATE 5/8/82

CLIENT MEEKATHARA MINERALS PROSPECT

STATE TAS

LINE No.	S.P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
82-MM3	152A		10'	2		2	1	1			ANZ	
	152B		10'	2		2	1	1				
	154		—	—	—	—	—	—				SKIPPED - CULTIVATION
	156		10'	2		2	1	1				
	158											
	160											
	162											
	164											
	166											
	168											
	170											
	172											
	174											
	176											
	178A		7'									
	178B		7'									
	180		—	—	—	—	—	—				SKIPPED - RIVER
	182		10'	2		2	1	1				
	184											
	186											
	188											
	190											
	192											
	194											
	196											
	198											
	200											
	202											
TOTALS												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND				
IN				
USED TODAY	52 Kg	26		
BALANCE				

593008

SHOOTER *J. W. [Signature]*



# South Eastern Exploration Pty. Ltd.

054

## SHOOTERS REPORT

DATE 6/8/82

CLIENT MEEKATHANA MINERALS PROSPECT

STATE TAS

LINE No.	S. P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.R.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
82-11M3	204		10'	2kg		2kg	1	1			ANZ.	
	206		10									
	208											
	210A											
	210B.											EXPERIMENTAL HOLE
	212											
	214											
	216											
	218											
	220											
	222A											
	222B.											
	224		—	—		—	—	—				SKIPPED - CRACK.
	226		10	2		2	1	1				
	228											
	230											
	232											
	234											
	236											
	238											
	240											
	242.											
	244											
	246											
	248											
	250											
	252											
	254.											
TOTALS												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND				
IN USED TODAY	54kg.	27.		
BALANCE				

593009

*J. P. Stovon*  
SHOOTER



# South Eastern Exploration Pty. Ltd.

053

## SHOOTERS REPORT

DATE 6/8/82

CLIENT MEEKATHARA MINERALS PROSPECT OYSTER BAY

STATE TAS

LINE No.	S.P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
2-MM3	256		10'	2kg.		2kg.	1	1.			ANZ.	
	258.		10'									
	260											
	262											
	264.											
<b>TOTALS</b>												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND				
IN				
USED TODAY	10 kg.	5		
BALANCE				

593070

SHOOTER JW G... [Signature]



# South Eastern Exploration Pty. Ltd.

052

## SHOOTERS REPORT

DATE 7/8/82

CLIENT MEEKATHARA MINERALS PROSPECT

STATE TAS.

LINE No.	S. P. No.	Shot No.	No. Holes & Depth	Chg/Hole	Chg/S.P.	TOTAL	CAPS	TOTAL	PRIMER	GEOFLEX	OTHER	REMARKS
22-MM3.	266		10	2		2	1	1			ANZ	
	268		10	2		2	1	1				
	270		10	2		2	1	1				
	272		10	2		2	1	1				
	274		10	2		2	1	1				
	276.		6'	1		1	1	1				
	278		10	2		2	1	1				
	280		10	2		2	1	1				
	282.		10	2		2	1	1				
	284		10	2.		2.	1	1				
	286		—	—		—	—	—				SKIPPED - MESH.
	288A		10.	2		2	1	1				
	288B.		7'	2		2	1	1				
	290		6'	1		1	1	1				
	292		10	2		2	1	1				
	294		10	2		2	1	1				
	296		10	2		2	1	1				
	298		10	2		2	1	1				
	300		10	2		2	1	1				
	302		10	2		2	1	1				
	304		10	2		2.	1	1				
	306		7'	1		1	1	1				
	308		10	2		2	1	1				
	310		10	2		2	1	1				
	312		10	2		2	1	1				
	314		10	2		2	1	1				
	316		10	2		2	1	1				
	318.		10	2		2	1	1				
TOTALS												

	EXPLOSIVES	CAPS	PRIMERS	GEOFLEX
ON HAND				
IN				
USED TODAY	52kg	27		
BALANCE				

593071

SHOOTER *J.W. Shandy*





J of M	A.O.	C.G.	E.O.	D.S.M.E
Received Answered			25 MAR 1983	Registered E & IL
DEPT. OF MINES				REF. No. 83-1957/2/2

MEEKATHARRA MINERALS PTY LTD

Observer's Reports

Oyster Bay Prospect

EP 20/81 TASMANIA

August 1982 83-1957 2/2



## OBSERVERS      AUXILIARY      INFORMATION

START OF PROSPECT

LINE 82mm-1

NOISE ~~SPREAD~~ - PHONES GROUPED 5m. SPACING.

SP - 1 - 4

4-SEC RECORDS

TRACE #1 TO EAST

PRODUCTION: LN 82mm-1: LINE RUNS WEST → EAST.

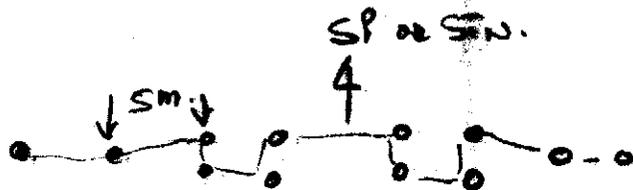
TRACE #1 TO EAST.

70 M GAP

4-SEC RECORD

\* NOTE: SP 144 ON  
TAPE BEFORE SP 142

35 M STN INTERVAL.



GEOPHONIC LAYOUT

068



# South Eastern Exploration Pty. Ltd.

37-39 KREMZOW RD., STRATHPINE, 4500. TEL. (07) 2056194

593076

## OBSERVERS REPORT

PAGE 1 OF       CREW 101 DATE 4-9-82CLIENT MAGNATHESE MINERALS PROSPECT QUINCY BAY STATE TASMANIA LINE No. 82-MM-1 WEATHER FINE - COLD!OBSERVER R. Cooper TIMES: DEP. CAMP 7:45 ARR. FIELD 8:00 DEP. FIELD        ARR. CAMP       

Tape No.	File No.	Shot No.	Shot Pt.	Roll Pos.	Filters	Charge	Depth		Remarks
									4-SEC RECORDS.
									START OF PROSPECT
01	001	1	1	73	OUT/OUT	2 kg	3.3m		blow out. SHOT INTO NOISE SPREAD.
↑	002	2	2	73	"	2 "	3.3m		" " " "
↓	003	3	4	73	"	2 "	3.3m		" " " "
01	004	4	4	73		2 kg	3.3m		" " " "
									70m GAP
02	005	5	104	127	OUT/OUT	2 kg	3.3-		*25-48 DEAD PRODUCTION SPREAD
	006	6	106	125	OUT	"	"		*27-48 -
	007	7	108	123	2'S	"	"		*29-48 -
	008	8	110	121	2'S	"	"		*31-48 "
	009	9	112	119	"	"	"		*33-48 - #26 DEAD
	010	10	114	117	"	"	"		*35-48 -
	011	11	116	115	"	"	"		*37-48 -
	012	12	118	113	"	"	"		*39-48 -
	013	13	120	111	"	"	"		*41-48 -
	014	14	122	109	"	"	"		*43-48 -
	015	15	124	107	"	"	"		*45-48 -
	016	16	126	105	"	"	"		*47-48 "
	017	17	128	103	"	"	"		FULL HOUSE FACILITY 2sec.
	018	18	130	101	"	"	"		
	019	19	132	99	"	"	"		
	020	20	134	97	"	"	"		
	021	21	136	95	"	"	"		
02	022	22	138	93	12'S/200	2 kg	3.3m		

INSTRUMENTS SERVO SN 35812  
 No. of TRACES 48  
 SAMPLE RATE 1/115  
 FORMAT 9-1155 PK 16008A, SEC 2  
 No. SYSTEM       

GEOPHONES         
 FREQUENCY 10 HZ  
 RES/GROUP 1800 Ω  
 MODEL CSE 20 D/H  
 DAMPING 20%

GALVO        AUX. INFO.         
 CLK. T. B. FILTERED         
 RADIO U.H.         
 RADIO CON. T.B.       

TAPE AUX.        SUPPLIES USED: 1-PAPER

069



# South Eastern Exploration Pty. Ltd.

37-39 KREMZOW RD., STRATHPINE, 4500. TEL. (07) 2056194

593077

## OBSERVERS REPORT

PAGE 2 OF 2CREW 101 DATE 4-8-82
 CLIENT MELATHARA MINERALS PROSPECT OSTER BAY STATE TASMANIA LINE NO. 82MM-1 WEATHER FINE

 OBSERVER R. Cooper TIMES : DEP. CAMP \_\_\_\_\_ ARR. FIELD \_\_\_\_\_ DEP. FIELD 5:15 ARR. CAMP 5:30

Tape No.	File No.	Shot No.	Shot Pt.	Roll Pos.	Filters	Charge	Depth	Remarks
02	023	23	140	91	12.5/250	2kg	33m.	* NOTE ORDER OF SP'S 144, 142. (SP 144 ON TAPE BEFORE SP 142)
	024	24	144	87				* OFFSET 70M WEST - DRILLED ON SP 138
	025	25	142	89				* OFFSET 70M EAST - DRILLED ON SP 144
	026	26	146	89				
	027	27	148	83				
	028	28	150	81				
	029	29	152	79				
	030	30	154	77				
	031	31	156	75				
	032	32	158	115				
	033	33	160	118				
	034	34	162	111				
	035	35	164	109				
	036	36	166	107				
	037	37	168	105				
	038	38	170	103				
	039	39	172	101				# 38 DDD
	040	40	174	99				# 33 DDD
	041	41	176	97				# 35 DDD
02	042	42	178	95				
03	043	43	180	93	12.5/250	2kg	33m.	PICK UP CABLES.

## INSTRUMENTS

No. of TRACES \_\_\_\_\_

SAMPLE RATE \_\_\_\_\_

FORMAT \_\_\_\_\_

No. SYSTEM \_\_\_\_\_

## GEOPHONES

FREQUENCY \_\_\_\_\_

RES/GROUP \_\_\_\_\_

MODEL \_\_\_\_\_

DAMPING \_\_\_\_\_

## GALVO

## AUX. INFO

CLK. T. B. FILTERED \_\_\_\_\_

RADIO U.H. \_\_\_\_\_

RADIO CONF. T.B. \_\_\_\_\_

## TAPE AUX.

## SUPPLIES USED:

 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



# South Eastern Exploration Pty. Ltd.

593078

37-39 KREMZOW RD., STRATHPINE, 4500. TEL. (07) 2056194

## OBSERVERS REPORT

PAGE 1 OF     

CREW 10' DATE 5-8-82

CLIENT NICKATHAZA MINERALS PROSPECT OUTER BAY STATE TASMANIA LINE No. 82MM-1 WEATHER FINE - COLD!!

OBSERVER B. Cooper TIMES : DEP. CAMP 7:45 ARR. FIELD 8:00 DEP. FIELD      ARR. CAMP     

Tape No.	File No.	Shot No.	Shot Pt.	Roll Pos.	Filters	Charge	Depth	Remarks
03	044	1	182	121	RS/250	2kg	33m	
	045	2	184	119				
	046	3	186	117				
	047	4	188	115				
	048	5	190	113				
	049	6	192	111				
	050	7	194	109				
	051	8	196	107				
	052	9	198	105				
	053	10	200	103				
	054	11	202	101				
	055	12	204	99				
	056	13	206	97				
	057	14	208	95				
	058	15	210	93				
	059	16	212	91				
	060	17	214	89				
	061	18	216	87				
	062	19	218	85				
	063	20	220	83				
	064	21	222	81				
	065	22	224	79				
	066	23	226	77				
03	067	24	228	75	RS/20	2kg	33m	

LINE VERY SANDY.

INSTRUMENTS SN 338 112  
 No. of TRACES 48  
 SAMPLE RATE 1 ms  
 FORMAT SEC 9-24K P 16, 16000  
 No. SYSTEM     

GEOPHONES 12  
 FREQUENCY 10 Hz  
 RES/GROUP 900-12  
 MODEL 9-SC-20 D/H  
 DAMPING 70%

GALVO      AUX. INFO.       
 CLK. T. B. FILTERED       
 RADIO U.H.       
 RADIO CONF. T.B.     

TAPE AUX.      SUPPLIES USED:

071



# South Eastern Exploration Pty. Ltd.

37-39 KREMZOW RD., STRATHPINE, 4500. TEL. (07) 2056194

593079

## OBSERVERS REPORT

PAGE 2 OF \_\_\_\_\_CREW 101 DATE 5-8-82CLIENT MEDANUSA MINERALS PROSPECT OYSTER BAY STATE ROMANIA LINE No. 82MM-1 WEATHER FINE - SOME WINDOBSERVER R. Cooper TIMES: DEP. CAMP \_\_\_\_\_ ARR. FIELD \_\_\_\_\_ DEP. FIELD \_\_\_\_\_ ARR. CAMP \_\_\_\_\_

Tape No.	File No.	Shot No.	Shot Pt.	Roll Pos.	Filters	Charge	Depth	Remarks
03	068	25	230	121	12.5/250	214	33m	
1	069	26	232	119				LINE VERY SANDY + THICK FOULIE MAKING PHONE PLANTS VERY DIFFICULT
	070	27	234	117				
	071	28	236	115				
	072	29	238	113				
	073	30	240	111				
	074	31	242	109				
	075	32	244	107				
	076	33	246	105				
	077	34	248	103				
	078	35	250	101				
03	079	36	252	99				
04	080	37	254	98				
1	081	38	256	143				
	082	39	258	141				
	083	40	260	139				
	084	41	262	137				
	085	42	264	135				
	086	43	266	133				
	087	44	268	131				
	088	45	270	129				
	089	46	272	127				
	04	090	47	274	125			
04	091	48	276	123	12.5/250	214	33m	

## INSTRUMENTS

No. of TRACES \_\_\_\_\_

SAMPLE RATE \_\_\_\_\_

FORMAT \_\_\_\_\_

No. SYSTEM \_\_\_\_\_

## GEOPHONES

FREQUENCY \_\_\_\_\_

RES/GROUP \_\_\_\_\_

MODEL \_\_\_\_\_

DAMPING \_\_\_\_\_

## GALVO

## AUX. INFO.

CLK. T. B. FILTERED \_\_\_\_\_

RADIO U.H. \_\_\_\_\_

RADIO CONF. T.B. \_\_\_\_\_

## TAPE AUX.

## SUPPLIES USED: \_\_\_\_\_

072



# South Eastern Exploration Pty. Ltd.

37-39 KREMZOW RD., STRATHPINE, 4500. TEL. (07) 2056194

593080

## OBSERVERS REPORT

PAGE 3 OF 3CREW 101 DATE 5-8-82
 CLIENT MELKATHARA MINERALS PROSPECT OYSTER BAY STATE TASMANIA LINE No. BZ MM-1 WEATHER FINE - SOME WIND

 OBSERVER R. COOPER TIMES: DEP. CAMP \_\_\_\_\_ ARR. FIELD \_\_\_\_\_ DEP. FIELD 5:15 ARR. CAMP 5:30

Tape No.	File No.	Shot No.	Shot Pt.	Roll Pos.	Filters	Charge	Depth		Remarks
04	092	49	278	101	12.5/250	2KG	3.3m.		
	093	50	280	119					
	094	51	282	117					
	095	52	284	115					
	096	53	286	113					*48 noisy
	097	54	288	111					
	098	55	290	109					
	099	56	292	107					
	100	57	294	105					*42 noisy
	101	58	296	103				*48 296 220	
	102	59	298	103				292 296 320	
	103	60	300	103				292 300 319	SHOT WITH 70-CMG WITHOUT CMG.
	104	61	302	103				292 302 319	LAST STR - 319.
	105	62	304	103				292 304 319	
	106	63	306	103				292 306 319	
	107	64	308	103				292 308 319	
	108	65	310	103				292 310 319	
	109	66	312	103				292 312 319	
	110	67	314	103				292 314 319	
	111	68	316	103				292 316 319	
	112	69	318	103				292 318 319	
04	113	70	320	103	12.5/250	2KG	3.3m	292 320 319	END OF FILE.
END OF LINE. PICK UP SPREAD.									

 INSTRUMENTS \_\_\_\_\_  
 No. of TRACES \_\_\_\_\_  
 SAMPLE RATE \_\_\_\_\_  
 FORMAT \_\_\_\_\_  
 No. SYSTEM \_\_\_\_\_

 GEOPHONES \_\_\_\_\_  
 FREQUENCY \_\_\_\_\_  
 RES/GROUP \_\_\_\_\_  
 MODEL \_\_\_\_\_  
 DAMPING \_\_\_\_\_

 GALVO \_\_\_\_\_  
 AUX. INFO. \_\_\_\_\_  
 CLK. T. B. FILTERED \_\_\_\_\_  
 RADIO U.N. \_\_\_\_\_  
 RADIO CONF. T.B. \_\_\_\_\_

 TAPE AUX. \_\_\_\_\_  
 SUPPLIES USED: 1 - PAPER  
 \_\_\_\_\_  
 \_\_\_\_\_

## OBSERVERS      AUXILIARY      INFORMATION

OYSTER BAY      LN: 82 mm = 2

START OF LINE

LINE RUNS APPROX: WEST → EAST.

TRACE #1 TO EAST.

END OF LINE.

074



# South Eastern Exploration Pty. Ltd.

37-39 KREMZOW RD., STRATHPINE, 4500. TEL. (07) 2056194

593082

## OBSERVERS REPORT

PAGE 1 OF       CREW 101 DATE 6-8-82CLIENT WILKINSON MINERALS PROSPECT OWEN Bay STATE TASMANIA LINE No. 82-MM2 WEATHER FINEOBSERVER R-Cooper TIMES : DEP. CAMP 07:30 ARR. FIELD 07:25 DEP. FIELD        ARR. CAMP       

Tape No.	File No.	Shot No.	Shot Pt.	Roll Pos.	Filters	Charge	Depth		#	SP	#1	Remarks
												START of LINE.
OS	114	1	102	121	12.5/250	2KL	3.3m		101	102	148	#11 50 HZ Power Line SIN 130/100
	115	2	104	121					101	104	148	"
	116	3	106	121					101	106	148	"
	117	4	108	121					101	108	148	"
	118	5	110	121					101	110	148	"
	119	6	112	121					101	112	148	"
	120	7	114	121					101	114	148	"
	121	8	116	121					101	116	148	"
	122	9	118A	121					101	118	148	"
	123	10	<del>118B</del>	121					101	118	148	" #33 DEAD
			120						-	-	-	SKIPPED.
	124	11	122	121					101	122	148	
	125	12	124	121					101	124	148	
	126	13	126	120					102	126	150	(70m GAP)
	127	14	128	128					104	128	152	
	128	15	130	116					106	130	153	
	129	16	132	114					108	132	156	
	130	17	134	112					110	134	158	
	131	18	136	110					112	136	160	
	132	19	138	108					114	138	162	OFFSET 70m EAST
	133	20	140	106					116	140	164	
	134	21	142	104					118	142	166	
	135	22	144	102					120	144	168	
OS	136	23	146	100	12.5/250	2KL	3.3m		122	146	170	

INSTRUMENTS SN 338 HLNo. of TRACES 48SAMPLE RATE 1msFORMAT 9-TRACE PK 1600001 S/PNo. SYSTEM       GEOPHONES 12FREQUENCY 10 HZRES/GROUP 900 SMODEL 9.S.C. 20 D/HDAMPING 70%

GALVO

AUX. INFO.

CLK. T. B. FILTERED

RADIO U.H.

RADIO CONF. T.B.

TAPE AUX. SUPPLIES USED:

075



# South Eastern Exploration Pty. Ltd.

593083

37-39 KREMZOW RD., STRATHPINE, 4500. TEL (07) 2056194

## OBSERVERS REPORT

PAGE 2 OF 3CREW 101 DATE 6-8-82CLIENT MURKINAZA MINERALS PROSPECT ASTER BAY STATE TASMANIA LINE No. 82 MM-2 WEATHER FINE - SOME WINDOBSERVER R. COOPER TIMES : DEP. CAMP \_\_\_\_\_ ARR. FIELD \_\_\_\_\_ DEP. FIELD \_\_\_\_\_ ARR. CAMP \_\_\_\_\_

Tape No.	File No.	Shot No.	Shot Pt.	Roll Pos.	Filters	Charge	Depth	<del>SP #</del>	<del>SP #</del>	Remarks
05	137	24	108	98	12.5/250	224	33m		124 148 172	
	138	25	100	96					126 150 174	
	139	26	152	94					128 152 176	
	140	27	154	92					130 154 178	
	141	28	156	90					132 156 180	
	142	29	158	88					134 158 182	
	143	30	160	86					136 160 184	
	144	31	162	84					138 162 186	
	145	32	164	82					140 164 188	LONG DELAYS AROUND
	146	33	166	80					142 166 190	FOXES CAUSING DELAYS
	147	34	168	78					144 168 192	
	148	35	170	76					146 170 194	
	149	36	172	74					148 172 196	
	150	37	174	72					150 174 198	
	151	38	176	70					152 176 200	
05	152	39	178	68					154 178 202	
06	153	40	180	66					156 180 204	
	154	41	182	64					158 182 206	OFFSET 5m NORTH.
	155	42	184	62					160 184 208	
	156	43	186	60					162 186 210	
	157	44	188	58					164 188 212	
	158	45	190	56					166 190 214	
	159	46	192	54					168 192 216	
06	160	47	194	52	12.5/250	224	33m		170 194 218	

## INSTRUMENTS

No. of TRACES \_\_\_\_\_

SAMPLE RATE \_\_\_\_\_

FORMAT \_\_\_\_\_

No. SYSTEM \_\_\_\_\_

## GEOPHONES

FREQUENCY \_\_\_\_\_

RES/GROUP \_\_\_\_\_

MODEL \_\_\_\_\_

DAMPING \_\_\_\_\_

## GALVO

## AUX. INFO.

CLK. T. B. FILTERED \_\_\_\_\_

RADIO U.H. \_\_\_\_\_

RADIO CONF. T.B. \_\_\_\_\_

## TAPE AUX.

## SUPPLIES USED:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

076



# South Eastern Exploration Pty. Ltd.

37-39 KREMZOW RD., STRATHPINE, 4500. TEL. (07) 2056194

593084

## OBSERVERS REPORT

PAGE 3 OF 3CREW 101 DATE 6-8-82
 CLIENT MEEKATHARA MINERALS PROSPECT OYSTER BAY STATE TASMANIA LINE NO. 82MM-2 WEATHER FINE - COLD

 OBSERVER D. COOPER. TIMES : DEP. CAMP \_\_\_\_\_ ARR. FIELD \_\_\_\_\_ DEP. FIELD 5:15 ARR. CAMP 5:30

Tape No.	File No.	Shot No.	Shot Pt.	Roll Pos.	Filters	Charge	Depth	#1	SP	#2	Remarks
06	161	48	196	92	12.5/250	2kg	3.3m	172	196	220	
	162	49	198	92				172	198	219	(GAP CLOSED)
	163	50	200	92				172	200	219	
	164	51	202	92				172	202	219	STN'S 217-219 IN THICK
	165	52	204	92				172	204	219	GORSE.
	166	53	206	92				172	206	219	
	167	54	208	92				172	208	219	
	168	55	210	92				172	210	219	
	169	56	212	92				172	212	219	
	170	57	214	92				172	214	219	
	171	58	216	92				172	216	219	
06	172	59	218	92	12.5/250	2kg	3.3m	172	218	219	NO END OF FILE WRITE 'OVS' - 10 SEC. SP 220 NOT DRILLED. END OF LINE. PICK UP SPREAD

## INSTRUMENTS

No. of TRACES \_\_\_\_\_

SAMPLE RATE \_\_\_\_\_

FORMAT \_\_\_\_\_

No SYSTEM \_\_\_\_\_

## GEOPHONES

FREQUENCY \_\_\_\_\_

RES/GROUP \_\_\_\_\_

MODEL \_\_\_\_\_

DAMPING \_\_\_\_\_

## GALVO

## AUX. INFO.

CLK. T. B. FILTERED \_\_\_\_\_

RADIO U.H. \_\_\_\_\_

RADIO CONF. T.B. \_\_\_\_\_

## TAPE AUX.

## SUPPLIES USED:

1-PAPER.

077



# South Eastern Exploration Pty. Ltd.

37-39 KREMZOW RD., STRATHPINE, 4500. TEL. (07) 2056194

593085

## OBSERVERS REPORT

PAGE 1 OF       

CREW 101 DATE 7-8-82

CLIENT MORAKWARA MINERALS PROSPECT Oyster Bay STATE NSW LINE No. 82 mmz WEATHER Fine

OBSERVER B. COOPER TIMES : DEP. CAMP 0:45 ARR. FIELD 08:00 DEP. FIELD        ARR. CAMP       

Tape No.	File No.	Shot No.	Shot Pt.	Roll Pos.	Filters	Charge	Depth			Remarks
07	173	1	102	121	12.5/200	2kg	3.3m			START OF LINE
	174	2	104	121						GAP CLOSED
	175	3	106	121						
	176	4	108	121						#24-32 Noisy
	177	5	110	121						"
	178	6	112	121						"
	179	7	114	121						"
	180	8	116	121						"
	181	9	118	121						"
	182	10	120	121						"
	183	11	122	121						#25-34
	184	12	124	121						#27-36
	185	13	126	120						#29-38 (30m GAP)
	186	14	128	118						#31-40
	187	15	130	116						
	188	16	132	114						
	189	17	134	112						
	190	18	136	110						Party error 0.35 sec.
	191	19	138	108						
	192	20	140	106						
	193	21	142	104						
	194	22	144	102						
	195	23	146	100						
07	196	24	148	98	12.5/200	2kg	3.3m			

INSTRUMENTS SA 338 Hz  
 No. of TRACES 48  
 SAMPLE RATE 1 ms  
 FORMAT 9-Track P/E 1600BPI P/E  
 No. SYSTEM       

GEOPHONES 12  
 FREQUENCY 10 Hz  
 RES/GROUP 900 Ohm  
 MODEL C.S.C. 202/4  
 DAMPING 30%

GALVO         
 AUX. INFO.         
 CLK. T. B. FILTERED         
 RADIO U.H.         
 RADIO CONF. T.B.       

TAPE AUX.        SUPPLIES USED:

078



# South Eastern Exploration Pty. Ltd.

37-39 KREMZOW RD., STRATHPINE, 4500. TEL. (07) 2056194

593086

## OBSERVERS REPORT

PAGE 2 OF 3CREW 101 DATE 7-8-82
 CLIENT MEERATHARA MINERALS PROSPECT OYSTER BAY STATE QUEENSLAND LINE No. 82 MM3 WEATHER FINE  
 OBSERVER R. COOPER TIMES : DEP. CAMP \_\_\_\_\_ ARR. FIELD \_\_\_\_\_ DEP. FIELD \_\_\_\_\_ ARR. CAMP \_\_\_\_\_

Tape No.	File No.	Shot No.	Shot Pt.	Roll Pos.	Filters	Charge	Depth		#28 SP #1	Remarks
07	197	25	150	96	125/250	2KG	3.3m		126 150 174	
	198	26	152	94					128 152 176	
	199	27	154	92					130 152 178	OFFSET 70m SOUTH. #26 DEAD
	200	28	156	90					132 156 180	#28 "
	201	29	158	88					134 158 182	
	202	30	160	86					136 160 184	STN 179 Grouped
	203	31	162	84					138 162 186	STN 180 Grouped and OFFSET 10m N.
	204	32	164	82					140 164 188	
	205	33	166	128					142 166 190	COP out <del>190</del> SOUTH.
	206	34	168	120					144 168 192	
	207	35	170	118					146 170 194	#28 DEAD
	208	36	172	116					148 172 196	
	209	37	174	114					150 174 198	
07	210	38	176	112					152 176 200	
08	211	39	178	110			2.1m		154 178 202	
	212	40	180	108			2.1m		156 180 204	OFFSET 70m NORTH. (LIVE)
	213	41	182	106			3.3m		158 182 206	
	214	42	184	104					160 184 208	
	215	43	186	102					162 186 210	
	216	44	188	100					164 188 212	
	217	45	190	98					166 190 214	
	218	46	192	96					168 192 216	
	219	47	194	94					170 194 218	
08	220	48	196	92	125/250	2KG	3.3m		172 196 220	

 INSTRUMENTS \_\_\_\_\_  
 No. of TRACES \_\_\_\_\_  
 SAMPLE RATE \_\_\_\_\_  
 FORMAT \_\_\_\_\_  
 No. SYSTEM \_\_\_\_\_

 GEOPHONES \_\_\_\_\_  
 FREQUENCY \_\_\_\_\_  
 RES/GROUP \_\_\_\_\_  
 MODEL \_\_\_\_\_  
 DAMPING \_\_\_\_\_

 GALVO \_\_\_\_\_  
 AUX. INFO. \_\_\_\_\_  
 CLK. T. B. FILTERED \_\_\_\_\_  
 RADIO U.H. \_\_\_\_\_  
 RADIO CONF. T.B. \_\_\_\_\_

 TAPE AUX. \_\_\_\_\_  
 SUPPLIES USED: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



080



# South Eastern Exploration Pty. Ltd.

593088

37-39 KREMZOW RD., STRATHPINE, 4500. TEL. (07) 2056194

## OBSERVERS REPORT

PAGE 1 OF     

CREW 101 DATE 8-8-82

CLIENT MEDANAZA MINERALS PROSPECT OUSTON FAN STATE TASMANIA LINE NO. 82-111-3 WEATHER FINE

OBSERVER R. Cooper TIMES : DEP. CAMP 08:00 ARR. FIELD 08:15 DEP. FIELD      ARR. CAMP     

Tape No.	File No.	Shot No.	Shot Pt.	Roll Pos.	Filters	Charge	Depth	#28	SP	#1	Remarks
08	226	1	208	116	12.5/250	2kg	3.3	184	208	232	
	227	2A	210A	114				186	210	234	
	228	2B	210B	114		2kg	3.3	186	210	234	EXPERIMENTAL SHOT WITH DOHR SINGLE GEOPHONES.
	229	3	212	112				188	212	236	
	230	4	214	110				190	214	238	
	231	5	216	108				192	216	240	
	232	6	218	106				194	218	242	
	233	7	220	104				196	220	244	
	234	8	222	102				198	222	246	
	235	9	224	100				200	224	248	offset 70m SOUTH.
	236	10	226	98				202	226	250	
	237	11	228	96				204	228	252	
	238	12	230	94				206	230	254	
	239	13	232	92				208	232	256	
	240	14	234	90				210	234	258	
	241	15	236	88				212	236	260	
	242	16	238	86				214	238	262	
	243	17	240	84				216	240	264	
	244	18	242	82				218	242	266	
	245	19	244	80				220	244	268	
246	20	246	78				222	246	270		
08	247	21	248	76	12.5/250	2kg	3.3	224	248	272	

INSTRUMENTS SN 32842  
 No. of TRACES 48  
 SAMPLE RATE 1ms  
 FORMAT OTRAC 16000 Hz PLE SGR  
 No. SYSTEM     

GEOPHONES 12  
 FREQUENCY 10Hz  
 RES/GROUP 900 Ohm  
 MODEL GSC 20 D/H  
 DAMPING 20%

GALVO       
 AUX. INFO.       
 CLK. T. B. FILTERED       
 RADIO U.H.       
 RADIO CONF. T.B.     

TAPE AUX.      SUPPLIES USED: 1 Paper

081



# South Eastern Exploration Pty. Ltd.

37-39 KREMZOW RD., STRATHPINE, 4500. TEL. (07) 2056194

593089

## OBSERVERS REPORT

PAGE 2 OF 3CREW 101 DATE 8-8-82CLIENT MEDANARA WINDALS PROSPECT ONSOZ BAY STATE Tasmania LINE No. 82MM3 WEATHER FineOBSERVER R. Cooper TIMES : DEP. CAMP \_\_\_\_\_ ARR. FIELD \_\_\_\_\_ DEP. FIELD \_\_\_\_\_ ARR. CAMP \_\_\_\_\_

Tape No.	File No.	Shot No.	Shot Pt.	Roll Pos.	Filters	Charge	Depth			# SP #1	Remarks
08	248	22	250	128	125/250	2kg	33m			226 250 274	
09.	249	23	252	126						228 252 246	
	250	24	254	124						230 254 278	
	251	25	256	122						252 256 280	Very slow Laying
	252	26	258	120						234 258 282	SPREAD - DIVES & GORSE
	253	27	260	118						236 260 284	STN 285 OFFSET 15m.
	254	28	262	116						238 262 286	#1 DEAD. STN 286 SPREAD -
	255	29	264	114						240 264 288	#3 - UNABLE TO LAY
	256	30	266	112						242 266 290	#5 - PHONES.
	257	31	268	110						244 268 292	#7 -
	258	32	270	108						246 270 294	#9 -
	259	33	272	106						248 272 296	#11 -
	260	34	274	104						250 274 298	#13 - ELECTRIC FORCE ON 299
	261	35	276	102		1kg	18m.			252 276 300	#15 -
	262	36	278	100		2kg	3.3.			254 278 302	#17 -
	263	37	280	98						256 280 304	#19 -
	264	38	282	96						258 282 306	#21 -
	265	39	284	94						260 284 308	#23 -
	266	40	286	92						262 286 310	Offset 70m NORTH.
	267	41	288	90			2m.			264 288 312	#26 -
	268	42	290	88		1kg	2m			266 290 314	#28 -
	269	43	292	86			3.5m			268 292 316	#30 -
	270	44	294	84			"			270 294 318	#32 -
09	271	45	296	82	12.5/250	2kg	"			272 296 320	#34 -

## INSTRUMENTS

No. of TRACES \_\_\_\_\_

SAMPLE RATE \_\_\_\_\_

FORMAT \_\_\_\_\_

No. SYSTEM \_\_\_\_\_

## GEOPHONES

FREQUENCY \_\_\_\_\_

RES/GROUP \_\_\_\_\_

MODEL \_\_\_\_\_

DAMPING \_\_\_\_\_

## GALVO

## AUX. INFO.

CLK. T. B. FILTERED \_\_\_\_\_

RADIO U.H. \_\_\_\_\_

RADIO CONF. T.B. \_\_\_\_\_

## TAPE AUX.

## SUPPLIES USED: \_\_\_\_\_



083



# South Eastern Exploration Pty. Ltd.

37 - 39 KREMZOW RD., STRATHPINE, 4500. TEL. (07) 2056194

593091

## OBSERVERS      AUXILIARY      INFORMATION

OYSTER RAY

LN182-1115.

END OF PROSPECT.

EXPERIMENTAL SP 336. USING GUS STACKED.

FILE # 294 IS FINAL COMPOSITE OF SP.

N.B. 66 ms DELAY FROM T/O USING STACKED.

084



# South Eastern Exploration Pty. Ltd.

37-39 KREMZOW RD., STRATHPINE, 4500. TEL (07) 2056194

593092

## OBSERVERS REPORT

PAGE 1 OF 1CREW 101 DATE 9-8-82

CLIENT MURKIN MINERALS PROSPECT Oyster Bay STATE Tasmania LINE No. 82 MM 3 WEATHER 0'cast - WINDY (VERY!)  
 OBSERVER R. Cooper TIMES: DEP. CAMP 07:45 ARR. FIELD 08:00 DEP. FIELD 11:45 ARR. CAMP 12:00

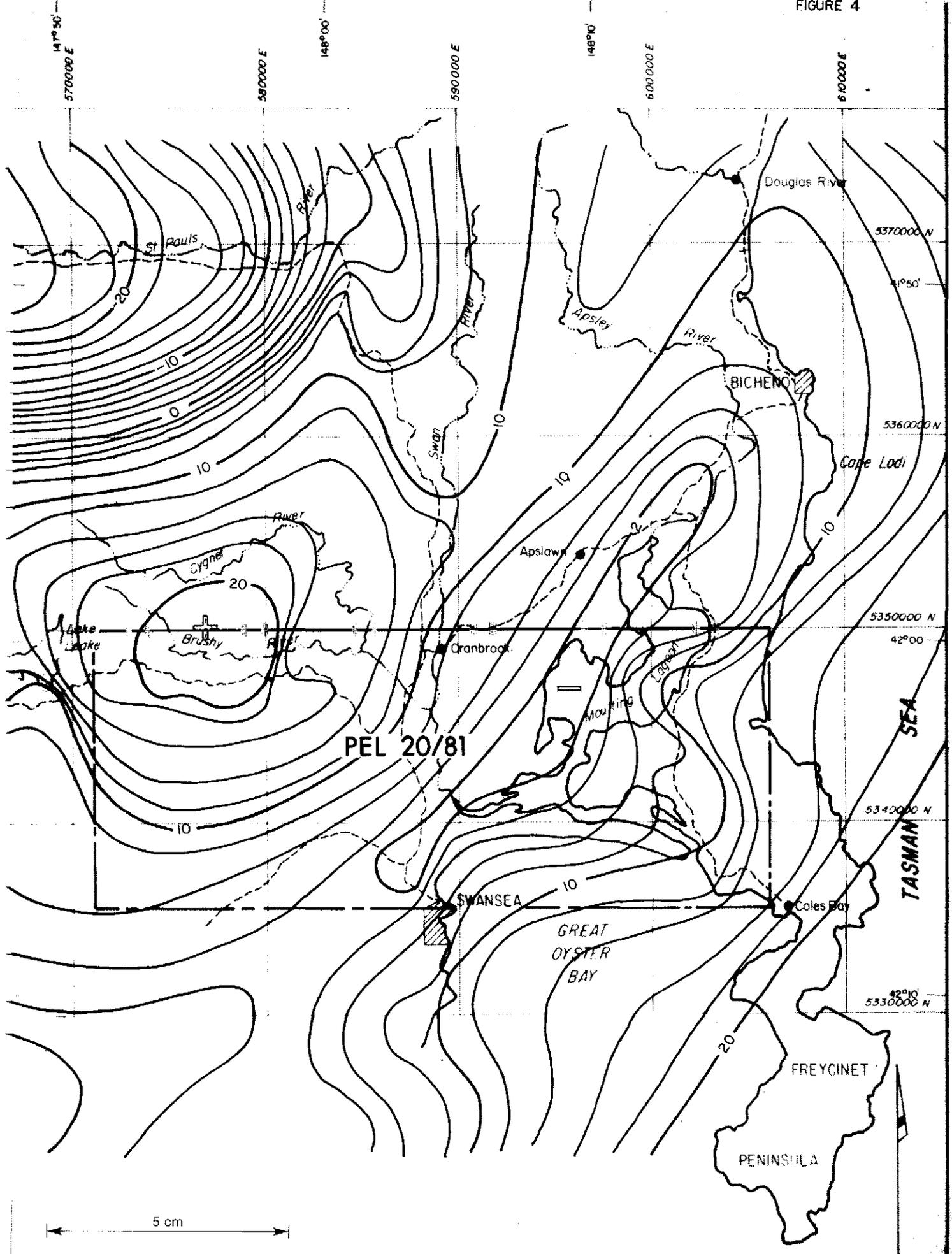
Tape No.	File No.	Shot No.	Shot Pt	Roll Pos.	Filters	Charge	Depth		Remarks
									STN 282-290 SWAMP.
09	273	1	300	126	12.5/250	2KG	3.3-	#39	DEAD (RIVER)
	274	2	302	126				#40	"
	275	3	304	122				#42	" ELECTRIC FENCE
	276	4	306	120		1KG	2.1m	#44	" AT 299, 326
	277	5	308	118		2KG	3.3m	#46	"
	278	6	310	116		2KG		#48	" 240-50HZ
	279	7	312	116				#40	"
	280	8	314	116				#40	"
	281	9	316	114				#40	"
	282	10	318	116				#40	"
	283	11	320	114				#40	"
	284	12	322	114				#40	"
	285	13	324	116				#40	" WIND CROSS
	286	14	326	116				#40	"
09	287	15	328	114				#40	"
10	288	16	330	114				#40	"
	289	17	332	114				#40	"
	290	18	334	116				#40	"
10	291	19	336	116		2KG	3.3m	289	336 336 END OF FILE
10	292	20	336A	116		1KG	10'	389	336 336 USING GUS. STACKED
1	293	21	336B	114		2KG	10'	389	336 336 SMOTS 20+21 STACKED
10	294	22	336C	116	12.5/250	5KG	19'	389	336 336 " 20+21+22 STACKED.
									END OF PROJECT.

INSTRUMENTS SN 338 HE  
 No. of TRACES 48  
 SAMPLE RATE 1/2  
 FORMAT Trace 1/5 160000  
 No. SYSTEM

GEOPHONES 12  
 FREQUENCY 10 Hz  
 RES/GROUP 900-1  
 MODEL CRC 20 D/N  
 DAMPING 70%

GALVO  
 AUX. INFO.  
 CLK. T. B. FILTERED  
 RADIO U.H.  
 RADIO CONF. T.B.

TAPE AUX. SUPPLIES USED:



PEL 20/81

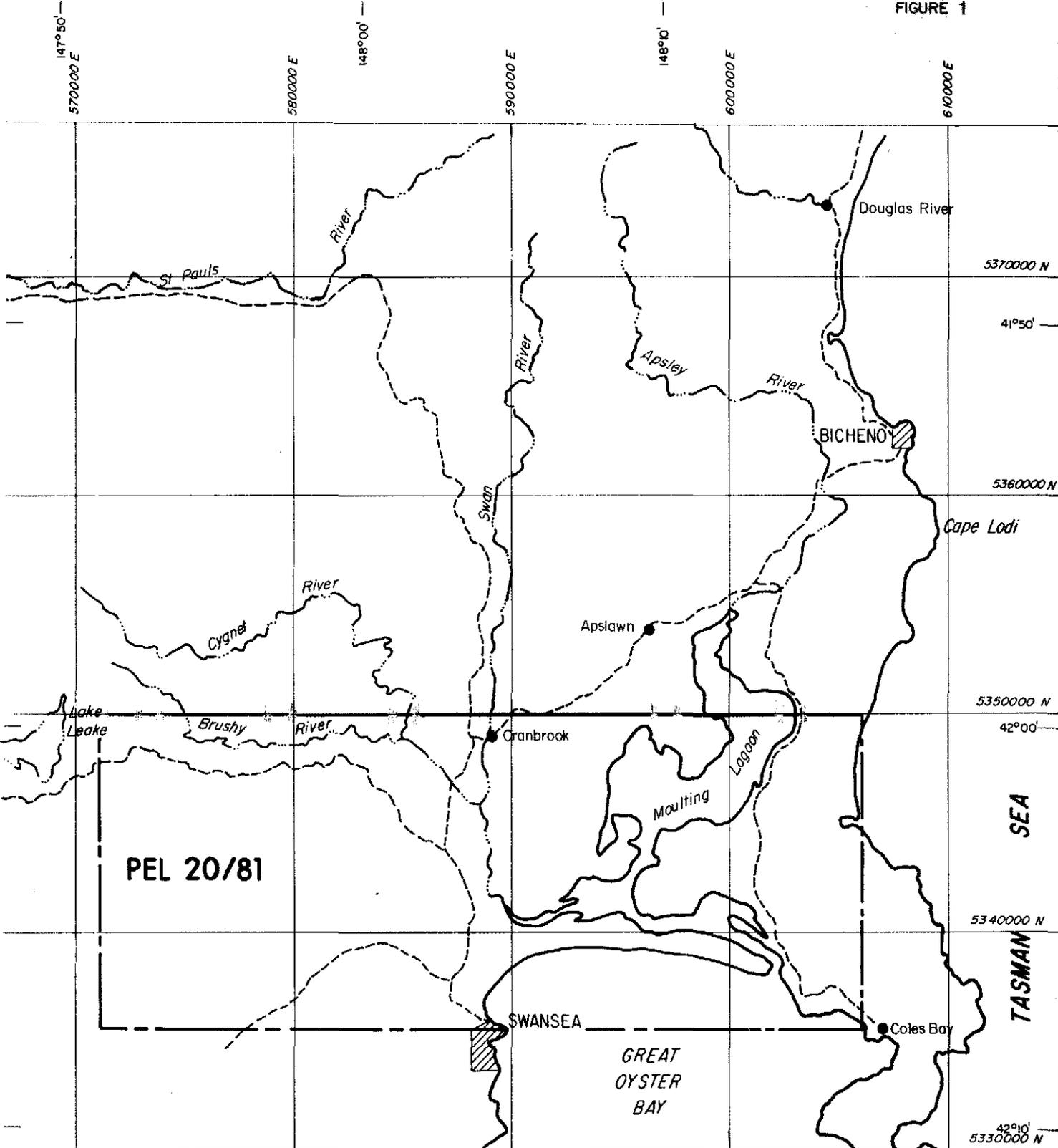
593093

**BOUGUER GRAVITY ANOMALY**

CONTOUR INTERVAL = 2 milligals

MEEKATHARRA MINERALS N.L.

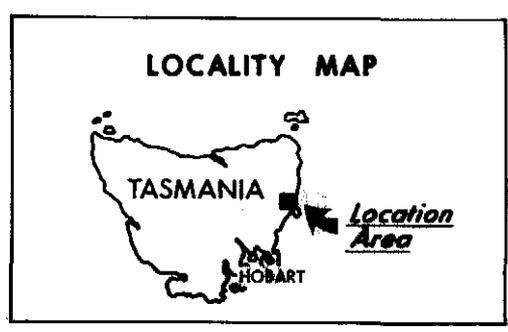
1:250000



PEL 20/81

GREAT OYSTER BAY

TASMAN SEA



5 cm

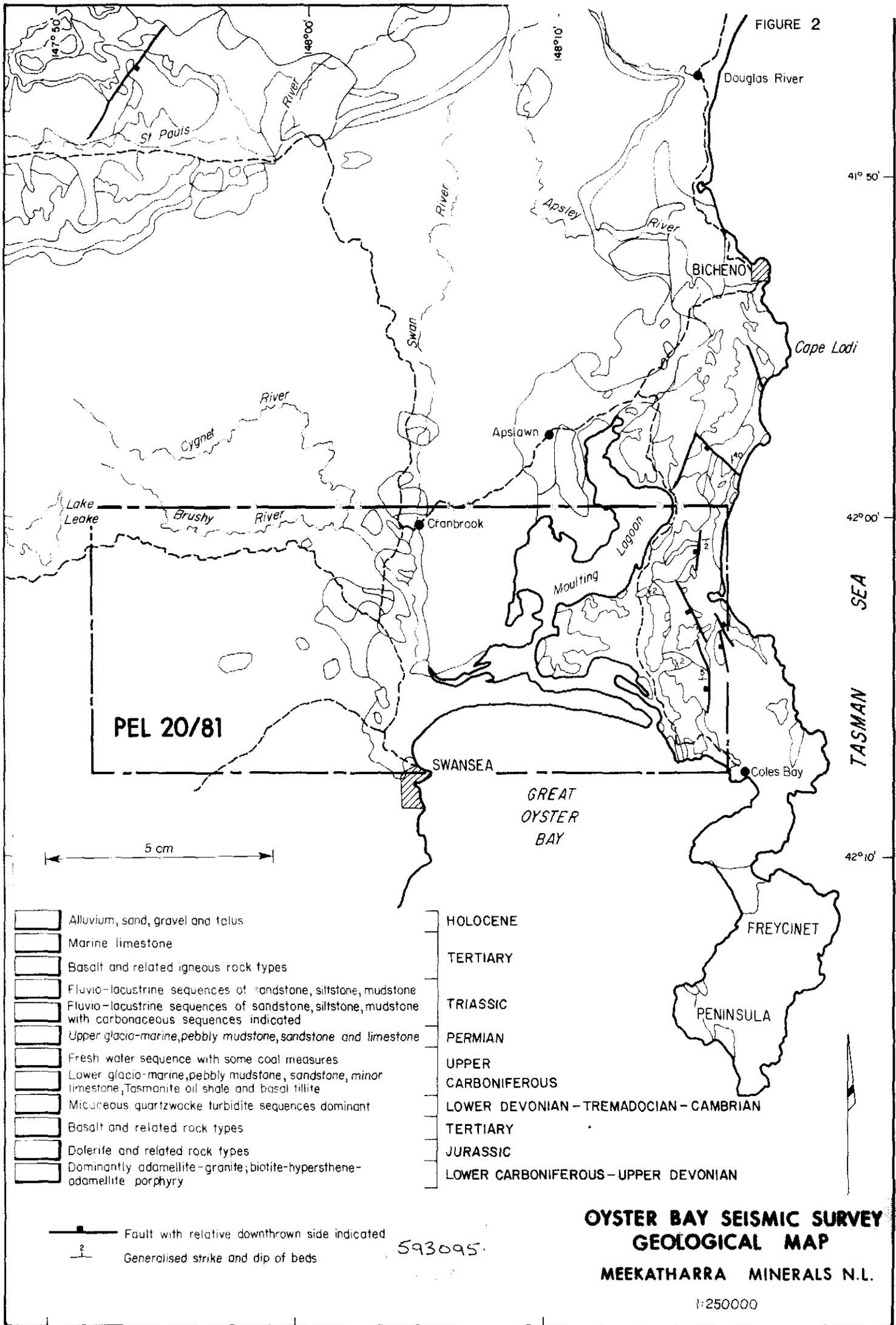
593094

OYSTER BAY SEISMIC SURVEY LOCATION MAP

MEEKATHARRA MINERALS N.L.

1:250000

FIGURE 2



PEL 20/81

5 cm

- Alluvium, sand, gravel and talus
- Marine limestone
- Basalt and related igneous rock types
- Fluvio-lacustrine sequences of sandstone, siltstone, mudstone
- Fluvio-lacustrine sequences of sandstone, siltstone, mudstone with carbonaceous sequences indicated
- Upper glacio-marine, pebbly mudstone, sandstone and limestone
- Fresh water sequence with some coal measures
- Lower glacio-marine, pebbly mudstone, sandstone, minor limestone, Tasmanite oil shale and basal tillite
- Micaceous quartzwacke turbidite sequences dominant
- Basalt and related rock types
- Dolerite and related rock types
- Dominantly adamellite-granite; biotite-hypersthene-adamellite porphyry

- HOLOCENE
- TERTIARY
- TRIASSIC
- PERMIAN
- UPPER CARBONIFEROUS
- LOWER DEVONIAN - TREMADOCIAN - CAMBRIAN
- TERTIARY
- JURASSIC
- LOWER CARBONIFEROUS - UPPER DEVONIAN

Fault with relative downthrown side indicated  
 Generalised strike and dip of beds

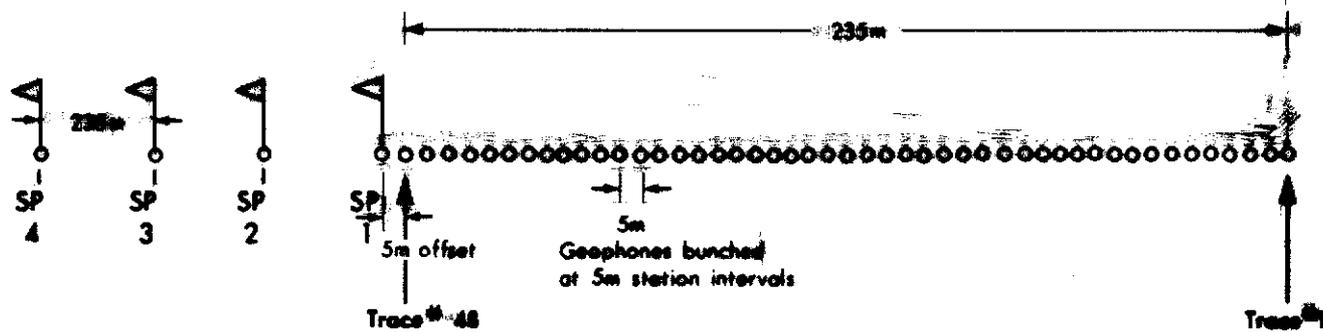
593095

**OYSTER BAY SEISMIC SURVEY  
 GEOLOGICAL MAP**

**MEEKATHARRA MINERALS N.L.**

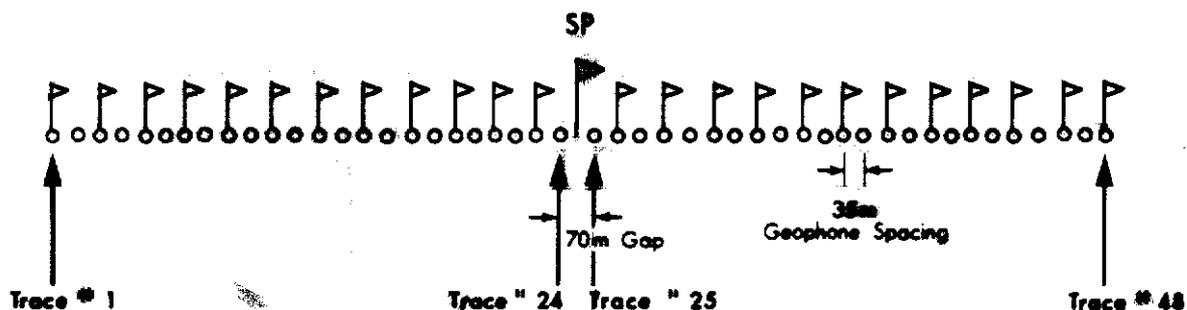
1:250000

FIGURE B



### NOISE ANALYSIS LAYOUT

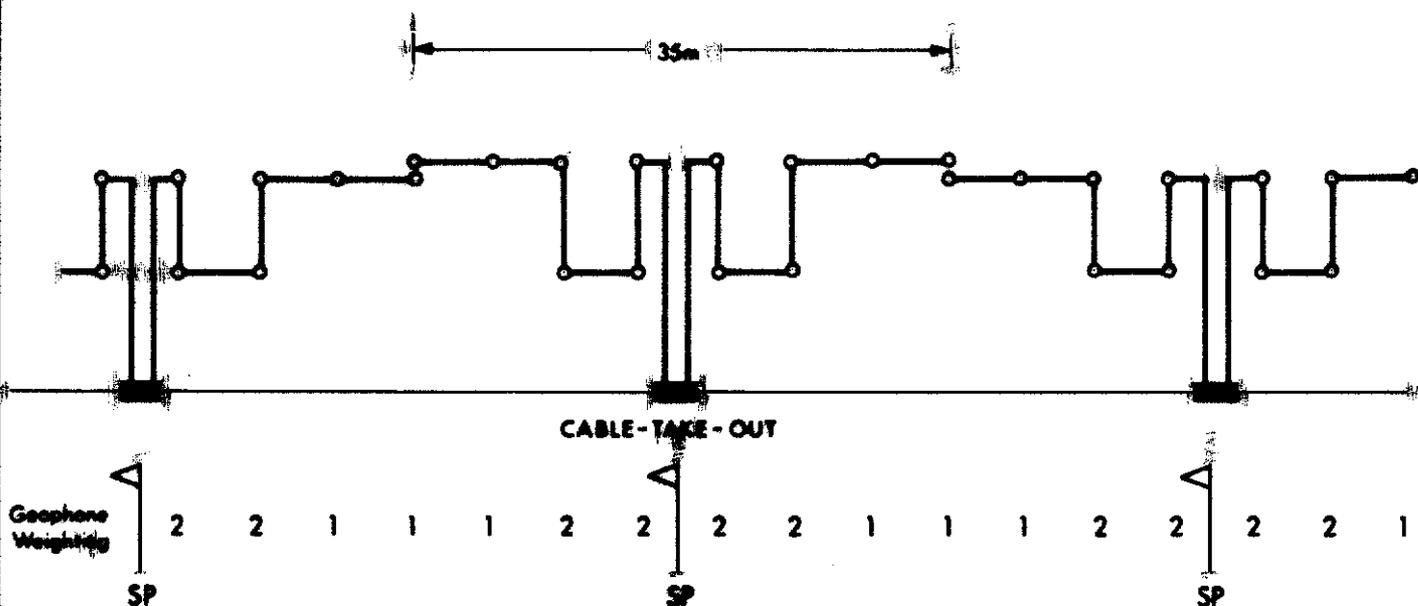
Location SP1 positioned at SP124, Line 1



### SPREAD LAYOUT

○ Geophone location

▴ Shot point location



### GEPHONE LAYOUT

○ Geophone location

S93096

12/1/75