

**NORMANDY
POSEIDON**

POSEIDON EXPLORATION LIMITED

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FINAL REPORT ON EXPLORATION ACTIVITIES EXPLORATION LICENCE:

6289 WONGALARA

1/12/88 TO 8/11/93

ROPER RIVER JOINT VENTURE

URAPUNGA 1:250 000 SHEET SD 53-10
THROSBY 1:100 000 SHEET 5769
BENDA 1:100 000 SHEET 5869

VOLUME 1 OF 1

Author: S.A. BOOTH

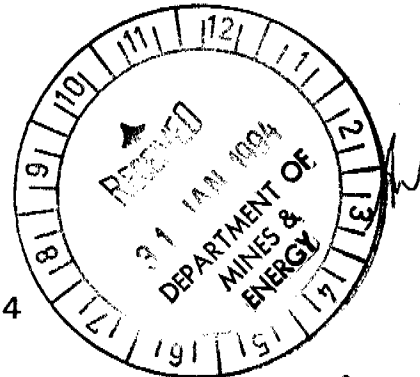
Date: 27 January, 1994

Commodities: Lead, Zinc, Diamonds

Authorised by:

Distribution:

NT Department of Mines and Energy(1)
Posex, Darwin(1)
Posex, Adelaide(2)
Stockdale Prospecting Ltd(1)



[Handwritten initials]
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CR 94/094 VOL 1 of 1.

Report No. 11854

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REPORT NO. 11854
TITLE **FINAL REPORT ON EXPLORATION LICENCE**
6289, WONGALARA
1/12/88 TO 8/11/93

AUTHOR: S.A. Booth
DATE: 27/1/94



SUMMARY

Exploration Licence 6289 was granted to Stockdale Prospecting Ltd on 1 December 1988 for a period of six years. It is the sole tenement remaining in the Roper River Joint Venture between Stockdale Prospecting Limited and Poseidon Exploration Limited.

The licence area was originally applied for to target economic diamond deposits, however more recent exploration has targeted base metal mineralisation.

This report details exploration within the remaining portion of the tenement prior to surrender on 8 November 1993 and summarises previous exploration.

Exploration has included:

- . Stream sediment and loam sampling for diamonds;
- . -80# stream sediment sampling for base metals;
- . Grid soil sampling;
- . IP and TDEM geophysical surveys; and
- . Diamond drilling.

Results from the diamond exploration revealed six non kimberlitic ilmenite grains and a singleton diamond which was not repeated during follow up sampling. Base metal exploration of the Wongalara prospect resulted in the drilling of three diamond drill holes. Although weak $Pb \pm Zn$ mineralisation was intersected, no further work is recommended.

The tenement was surrendered on 8 November 1993.

1. INTRODUCTION

Exploration Licence 6289 is the sole tenement remaining in the Roper River Joint Venture between Stockdale Prospecting Limited (SPL) and Poseidon Exploration Limited. The licence was granted to Stockdale Prospecting Ltd on 1 December, 1988 for a period of six years.

It was subsequently partially reduced on the 18 February 1991 and the 30 November 1992 and surrendered on 8 November 1993.

The area was originally applied for to target economic diamond deposits but more recent exploration has concentrated on base metal exploration.

2. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Potential diamond targets highlighted during reconnaissance sampling when tested were found to be unrepeatable.

Base metal exploration of the Wongalara prospect resulted in the drilling of three diamond drill holes. Although weak Pb ± Zn mineralisation was intersected, no further work is recommended.

Recommendations

Surrender of tenement.

3. TENEMENT

Exploration Licence 6289 (Wongalara) was granted to Stockdale Prospecting Limited on the 1 December 1988 for a period of six years. In early 1991 Poseidon Exploration Limited entered into the Roper River Joint Venture with Stockdale Prospecting Ltd.

A statutory 50% reduction of the area was carried out during 1991 and 1992. Table 1 details the progressive reduction.

Table 1: Reduction of EL 6289

	<u>Blocks</u>	<u>Sq Km</u>
Original Area (1988)	500	1610
Reduced Area (1991)	339	1092
Reduced Area (1992)	170	547

4. LOCATION AND ACCESS

The licence area is located on Mainoru Station on the Urapunga (SD 53-10) 1:250,000 map sheet, Figure 1. It is centred 250 km east of Katherine. The unsealed Bulman road provides access to the project area. Access east from Mainoru Station is via station tracks over thick bulldust of the Mainoru River floodplain.

Access within the licence is by station tracks and across country and is limited during the wet season (commonly December-March). Within areas where topography is more rugged or east of the Wilton River, access is by foot or helicopter.

Access across the Wilton River to Wongalara prospect was established in 1992. Refurbishment is necessary after each wet season. Prior clearance of the route and drilling area was obtained from the Aboriginal Areas Protection Authority.

5. PHYSIOGRAPHY

The licence area is dominated by the Wilton River Plateau which is part of Stewart's (1954) physiographic classification of the Gulf Fall. It is a mature, dissected plateau of flat-lying sandstone capped, in places, by strongly jointed sandstone with variable laterite development.

The Wilton River and its tributaries cross the Plateau in well developed valleys up to 1-2 km wide. The margin of the plateau is best observed in the north of the licence area as it grades down to the east-flowing Mainoru River. Here it grades into the rounded hills and shallow dip slopes more typical of the Gulf Fall.

The Mainoru River and its extensive alluvial floodplain dominates the north of the licence area. The confluence of the Mainoru River and the south-flowing Wilton River occurs at the northern edge of the Wilton River Plateau near Herbert Bluff and is marked by an area subject to extensive inundation and numerous waterholes.

Small creeks draining the Wilton River Plateau often consist of a small gully containing rock jumble and boulders. Third order streams are generally sand-choked and are not suitable for sampling.

6. GEOLOGY

6.1 Regional and Tenement Geology

The tenement is situated in the north of the Urapunga 1:250,000 mapsheet (Throsby, 5769 and Benda, 5869, 1:100,000 mapsheets).

The detailed geology of the tenement area is relatively straight forward and is dominated by flat-lying to shallow-dipping, middle Roper Group sediments which unconformably overlie the McArthur Group and Mt Rigg Group, Figure 2.

The Crawford Formation is the basal unit within the licence area and outcrops extensively in the north. The Crawford Formation is generally a

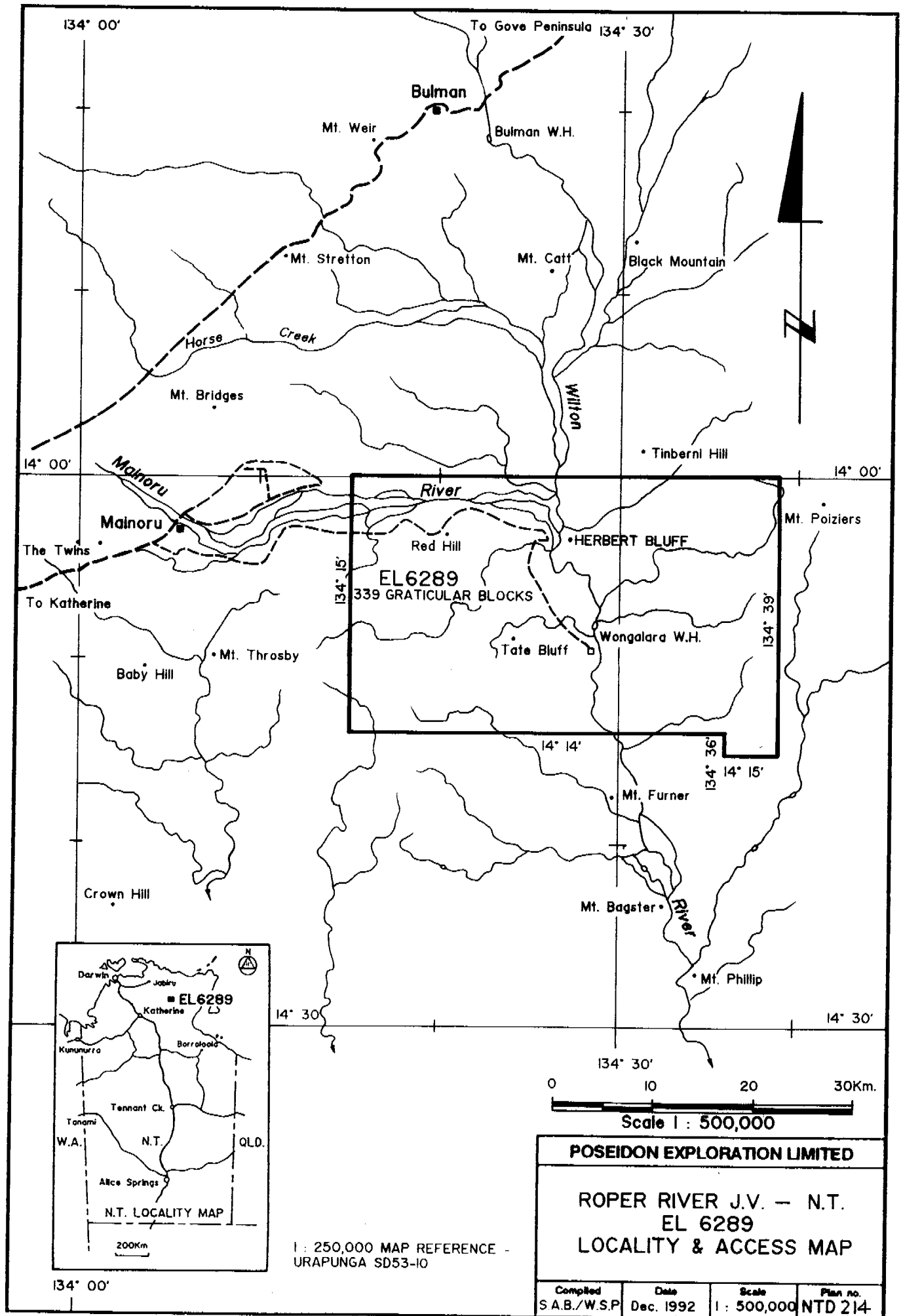


Fig. 1

pink and buff, micaceous, feldspathic, quartz greywacke with minor fine micaceous siltstone. Glauconite is a diagnostic mineral in the Formation.

The Abner Sandstone conformably overlies the Crawford Formation and is sub-divided into four conformable members, of which the uppermost three are represented in the licence area. The Jalboi Member consists of blocky and flaggy micaceous sandstone and greywacke, siltstone and shale and dominates the licence area.

The overlying Hodgson Sandstone Member is restricted to the southeast and southwest and is a relatively clean friable, massive to coarse sandstone with minor siltstone.

The Munyi Member is the uppermost member of the Abner Sandstone and has a restricted outcrop in the southeast of the licence. It consists of ferruginous sandstone and siltstone with minor shale.

The Roper Group sediments within the licence area are consistent with deposition in a gross fluvial environment alternating with short-lived, shallow marine transgressions, in places locally reducing.

Several dolerite sills have intruded the upper Roper Group and have an extensive distribution, particularly in the south of the licence area.

Cainozoic sand and alluvium represent much of the area's valley fill whilst a thin veneer of laterite is developed over ferruginous sandstone on the Wilton River Plateau.

The rocks are folded and faulted, although folding is poorly developed due to shallow burial depths. Most folding, where observed, appears to be adjacent to major faults.

Most external stress has resulted in faulting, particularly during the Precambrian, with the dominant fault trend being north or east. The Showell Creek Fault is the most prominent fault system and is observed in the east of the licence area. This fault system parallels the trend of the Batten-Walker Trough Zone observed in the adjacent mapsheet.

Minor north-east trending faults are present in the northwest of the licence area and appear to parallel the Mainoru Fault Zone.

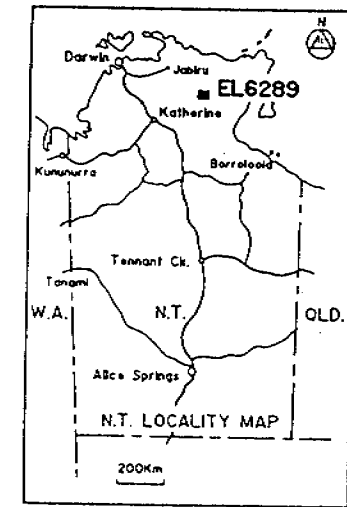
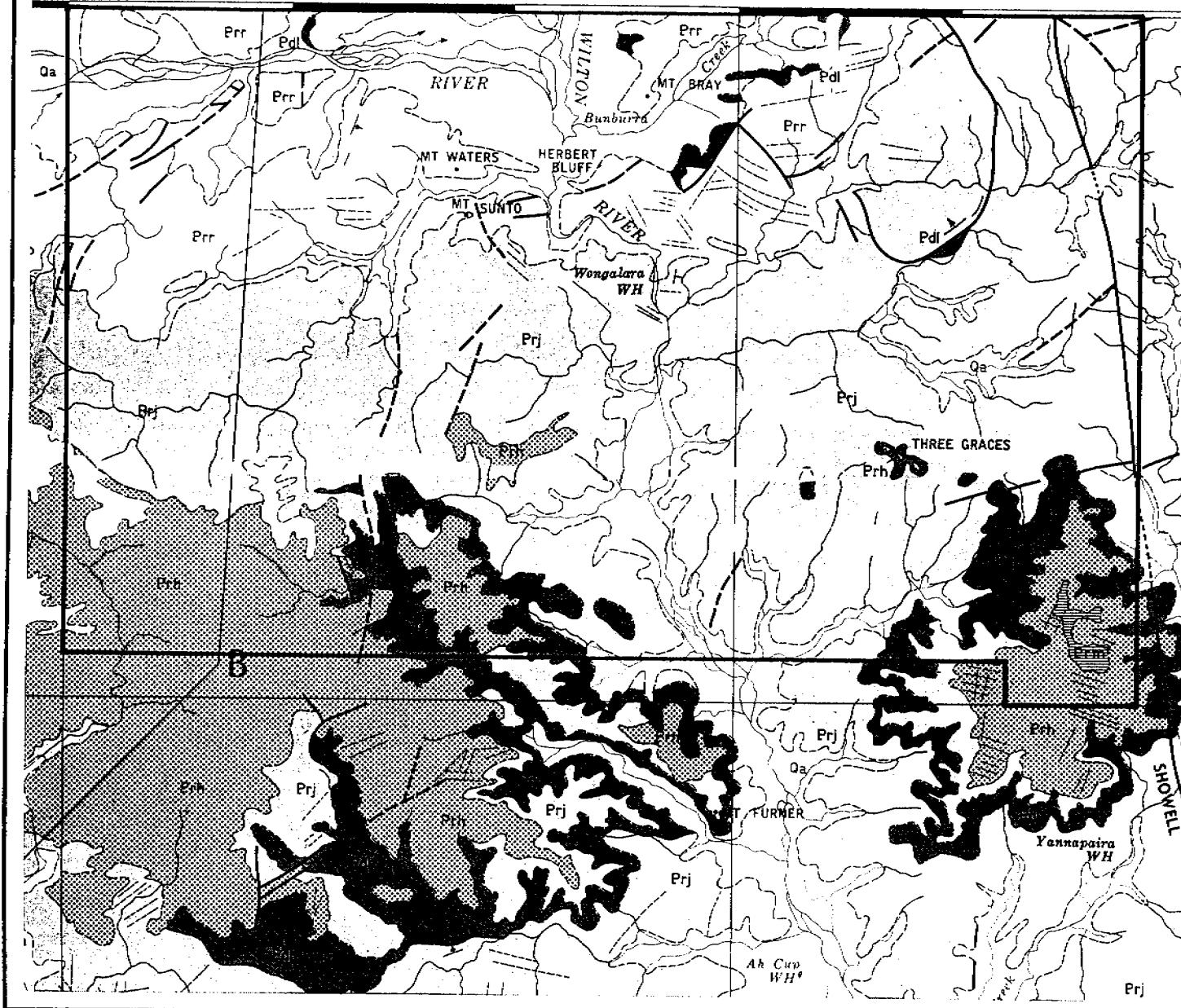
6.2 Mineralisation

No economic mineralisation has been reported within the project area.

At Bulman, (Mt Marumba SD 53-6) NNW of EL 6289, lead-zinc mineralisation was mined on an intermittent basis between 1908 and 1925. Enterprise Exploration (CRA) explored the immediate area during the late 1950's to early 1960's and developed a drill defined resource of 375,000 tons at 15% Zn and 2% Pb. Mineralisation at Bulman is associated with the Dook Creek Formation, locally remobilised by the Mt. Weir Dolerite.

Immediately east of Wongalara Waterhole (EL 6289) Anglo American Corporation of South Africa identified strongly anomalous lead and zinc geochemistry within ferruginous arkosic sandstones of the Jalboi Member, although no drilling was undertaken to assess the source.




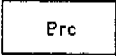











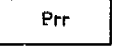
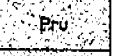



EL6289



ACKNOWLEDGEMENT -
 This map is a direct copy of the
 BMR 1 : 250,000 series, URAPUNGA SD53-10

POSEIDON EXPLORATION LIMITED			
ROPER RIVER J.V. - N.T.			
EL 6289			
REGIONAL & TENEMENT GEOLOGY			
PARTIAL RELINQUISHMENT			
Compiled S.A.B./W.S.P.	Date January, 1993	Scale 1 : 250,000	Plan no. NTD215a

Fig. 2

Antrim Plateau Volcanics		<i>Amýgdaloidal basalt, feldspathic sandstone</i>	
		<i>Dolerite sills</i>	
Undifferentiated		<i>Quartz sandstone</i>	
Maiwok Sub-Group	Chambers River Formation		<i>Blocky quartz sandstone, flaggy micaceous quartz sandstone, siltstone</i>
	McMinn Formation		<i>Flaggy friable quartz sandstone, ferruginous sandstone</i>
	Bukalorkmi Sandstone Member		<i>Flaggy quartz sandstone, micaceous quartz greywacke, siltstone, cone-in-cone dolomite</i>
	Kyalla Member		<i>Pisolitic and oolitic ironstone, ferruginous sandstone</i>
	Sherwin Ironstone Member		<i>Blocky coarse sandstone, interbedded siltstone and shale</i>
	Moroak Sandstone Member		<i>Pink calcareous greywacke, calcareous siltstone, laminated shale</i>
	Velkerri Formation		<i>Massive white friable quartz sandstone</i>
Roper Group	Bessie Creek Sandstone		<i>Micaceous fine-grained sandstone, shale, minor limestone</i>
	Corcoran Formation		<i>Ferruginous sandstone and siltstone, shale</i>
	Abner Sandstone		<i>Massive and blocky quartz sandstone</i>
	Munyi Member		<i>Blocky and flaggy quartz sandstone, interbedded with pink slumped micaceous quartz greywacke; siltstone and shale</i>
	Hodgson Sandstone Member		<i>Massive and blocky quartz sandstone</i>
	Jalboi Member		<i>Massive and flaggy slumped micaceous quartz greywacke, micaceous siltstone; few glauconite bands</i>
	Arnold Sandstone Member		<i>Micaceous siltstone, blocky chert, pink to cream silicified siltstone</i>
	Crawford Formation		<i>Flaggy quartz greywacke, micaceous greywacke, few glauconite bands</i>
	Mainoru Formation		<i>Grey flaggy limestone, brown marl, glauconitic in places</i>
	Wooden Duck Member		<i>Massive and flaggy silicified quartz sandstone, micaceous quartz greywacke; basal quartz pebble conglomerate</i>
Mountain Valley Limestone Member			
Limmen Sandstone			

GEOLOGICAL REFERENCE

ACKNOWLEDGEMENT -
 This map is a direct copy of the
 BMR 1 : 250,000 series, URAPUNGA SD53-10

POSEIDON EXPLORATION LIMITED			
ROPER RIVER J.V. - N.T. EL 6289 REGIONAL & TENEMENT GEOLOGY			
Compiled S.A.B./W.S.P.	Date January, 1993	Scale 1 : 250,000	Plan no. NTD 217b

Fig. 2

7. EXPLORATION PROGRAMME 1989 - 1992

7.1 Diamond Exploration

Reconnaissance stream sediment and loam sampling was completed by SPL during the initial term of tenure.

During reconnaissance sampling a total of 99 stream samples and 9 loam samples were collected. A sample density of 1:10 sq km was attained.

The heavy mineral samples were sent to SPL's Darwin treatment plant and underwent primary concentration. Further concentration and mineral examination took place in the Company's laboratory in Melbourne. The results revealed six samples containing possible kimberlitic ilmenites and one sample containing a diamond.

The mineral chemistry of all ilmenite grains proved to be non-kimberlitic after microprobing.

The singleton 0.003ct diamond was followed up with 16 stream sediment samples. At each site 100 ltrs of stream sediment was excavated. A sample density of 1:1.3 sq km was achieved within the area of interest.

The follow up sampling failed to repeat the original positive result or detect a heavy mineral dispersion trail. The original diamond recovered was probably released from a secondary source horizon e.g. Cretaceous sediments.

Full details of these programmes, including maps, are reported in Podolsky (1990, 1991a, 1991b) and Price (1993).

7.2 Regional Base Metal Exploration

Stream sediment geochemical samples were collected in conjunction with the diamond sampling. An approximate sample density of 1:8 sq km was achieved.

All samples were screened to -80# by SPL and then forwarded to Anglo American Research Laboratories in Johannesburg, South Africa, for simultaneous 36 element analysis by XRF and Au/Pd analysis by Fire Assay.

All results were forwarded to geochemical consultants, Gilfillan Assoc., who were contracted to produce a regional geochemical interpretation and recommend areas for further work.

Full details of the geochemical programme are contained in the Common Reports to NTDM 31/1/90 for EL's 6286-6301 (Podolsky 1990), 31/1/91 for EL's 6286-6301 (Podolsky 1991a) and 31/1/92 for EL's 6287-6293 and 6296-6299 (Podolsky 1991b) and Booth (1991).

7.3 Wongalara Prospect

Wongalara prospect (Throsby 5769, GR 441397) was located by Australian Anglo American in the early 1980's through follow up of anomalous Pb/Zn values from stream sediment samples. Maximum

values were 40 ppm Pb and 30 ppm Zn. Follow up drainage sampling produced further anomalous values with maxima of 2500 ppm Pb and 1800 ppm Zn. The geochemistry defined two areas, one lying along a distinctive NNW-SSE trending lineament/fracture, with the other area located immediately north. Subsequent rock chip and soil sampling provided further encouragement with rock chip values to 2.2% Pb and 0.46% Zn.

Geological mapping revealed that the anomalous zones essentially consisted of a fault bounded plateau of shallow to horizontally bedded arkosic sandstone (Jalboi Member). The plateau is capped by 20 to 30 cm of laterite with well developed pisolites up to 1 cm in size.

Crone EM was undertaken and a strong conductor associated with the northern gossan was interpreted. This was modelled as a shallow dipping, stratabound anomaly. The southern anomaly was interpreted to be fault related. Drilling was recommended but not undertaken.

Regional stream sampling was undertaken by Stockdale Prospecting Ltd during the 1990 field season with a geochemical sample taken at each diamond sample locality. This programme highlighted two zones of elevated base metal response (K and M). Drainage follow up of these areas concluded that the elevated Pb and Zn was related to laterite development over ferruginous Jalboi Sandstone.

Following Poseidon's entry to the project, the Wongalara prospect was re-located during the 1991 field season and a grid established for confirmatory mapping and detailed soil and rock chip sampling, Booth (1991). Access to the prospect was by boat. Grid soil and rock chip sampling defined a broad zone of anomalous Pb and Zn geochemistry. Approximate anomaly dimensions are 1400m x 450m, striking NE-SW. Maximum values returned were 2290 ppm Pb and 1190 ppm Zn for soil samples and 1.67% Pb and 2.3% Zn for rock chip samples. Anomaly definition was more pronounced for Zn than Pb (Booth, 1991).

The initial sampling programme was followed with infill sampling undertaken in conjunction with a Sirotem survey. Samples were collected at 25 metre intervals along the original lines to more accurately define the zone of anomalous soil geochemistry.

A Sirotem survey (fixed loop with roving vector receiver) was conducted over the northern zone of anomalous Pb-Zn geochemistry. The survey failed to identify any conductive response (Booth, 1991).

Following establishment of access over the Wilton River in late 1992, Search Exploration Services was contracted to conduct an IP survey over the zone of maximum geochemical response. This was completed in late October. Specifications for the IP survey were as follows.

Northern Grid Area

Two gradient blocks with 25 metre dipoles centred over the soil geochemistry anomalies:

Block 1:	Centred:	444400 E	8439700 N
	Coverage:	443900 E to	444900 E
		8439200 N to	8440200 N

Block 2: Centred: 445200 E 8440100 N
 Coverage: 444700 E to 445700 E
 8439600 N to 8440600 N

One dipole-dipole (50 metre dipole) line across the best geochemical response, Line 445100 E, centred about 8440000 N.

Southern Area

A single dipole-dipole line across the postulated "fault controlled" geochemical response on Line 444,300 E.

Details of IP survey specifications are as follows.

	<u>Dipole Dipole</u>	<u>Gradient Array</u>
Receiver	Scintrex IPR-12	Scintrex IPR-12
Transmitter	Scintrex TSQ-4 (12kVA)	Scintrex TSQ-4 (12kVA)
Configuration	Dipole Dipole	Gradient Array
Method	Time Domain	Time Domain
Frequency	0.125Hz	0.125Hz
Current Electrode Separation	50m	
Dipole Spacing		50m
Operator	Search Exploration Services (SES)	SES
Date of Collection	September 1992	September 1992

8. EXPLORATION PROGRAMME, 1993

The IP data was re-processed in early 1993 and provided better definition of a coincident chargeability-apparent resistivity anomaly fringing the zone of maximum geochemical response (Maps 1 and 2). The dipole dipole data is presented in Figure 3.

Thompson Drilling, NT was contracted to complete three diamond drill holes to test the resistivity/chargeability anomaly (WD-1) and maximum soil/rock chip results (WD-2,3).

Hole details are summarised as follows.

Hole	Collar Easting	Collar Northing	Dip	Azimuth	TD
WD-1	444 500	8 493 960	-90°	0°	108.5m
WD-2	445 100	8 440 020	-90°	0°	80.0m
WD-3	444 500	8 439 650	-90°	0°	80.0m

Drill logs are presented in Appendix 1 whilst assay data is presented in Appendix 2. Drill hole collars are shown in Figure 4, whilst drill hole sample numbers and lithologies are presented in Maps 3 and 4, respectively.

A fillet of core was taken from each three metre interval for geochemical analysis and analysed by Amdel Laboratories, Darwin for the following elements.

Element	Pb	Zn	Ag	Fe	Mn	Mo	Mg
Detn limit	2	1	0.1	5	2	0.5	10
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Scheme	AA1M	AA1M	AA1M	AA1M	AA1M	AA1M	IC3E

Better assay results from the geochemical sampling were as follows.

WD-2 9.1m @ 5600ppm Pb, 5140 ppm Zn, from 0m

WD-3 3.1m @ 2670 ppm Pb, 4220 ppm Zn, from 0m
6m @ 4150 ppm Pb, 1800ppm Zn, from 15.1m
6m @ 1460ppm Pb, 1665ppm Zn, from 57.1m

Following receipt of geochemical results, selected intervals of ½ core were analysed by Amdel Laboratories, Darwin for the following elements.

<i>Element</i>	Pb	Zn	Ag	Fe	Mn
<i>Detn limit</i>	2	1	0.1	5	2
<i>Units</i>	ppm	ppm	ppm	ppm	ppm
<i>Scheme</i>	AA1M	AA1M	AA1M	AA1M	AA1M

Better assay results were as follows.

WD-2 1.5m @ 1.26% Pb, 0.97% Zn, from 2.6m

WD-3 2.0m @ 0.57% Pb, 0.45% Zn, from 15.6m

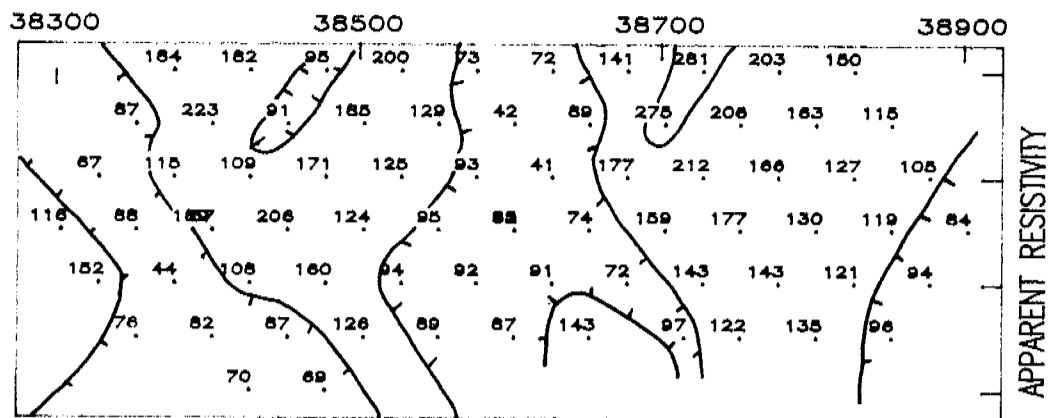
The better mineralisation was located in a light grey/green-light brown fine grained, micaceous sandstone with minor siltstone laminae. Ave 2-5% feathery Fe/Mn Ox after ?sulphide, locally up to 10%.

Five core samples from WD-1, drilled on the IP target, were submitted to Systems Exploration (NSW) Pty Ltd for a range of physical parameter testing. Summary details are as follows.

<u>Sample</u>	<u>Depth</u>	<u>Lithology</u>
#1	11.3m	Banded f grnd sst with pyrite vns & clots
#2	24.6m	F grnd silty sst with py clots
#3	25.3m	F grnd silty sst with py clots
#4	58.1m	F grnd x-bedded sst with slst, py clots & dissem's
#5	82.8m	F grnd sst with dolm vns & carb. slst
#6	107.0m	F grn sst with lam & wispy carb. slst

The report from Systems Exploration (NSW) Pty Ltd is presented in Appendix 3. The contrast between the IP effect in samples #3, #4 and #5 is considered sufficient to produce the IP results observed from the gradient array survey.

Sample #4 was taken from 58.1m depth. Assay results at and around this depth were particularly low, although minor disseminated pyrite was observed.



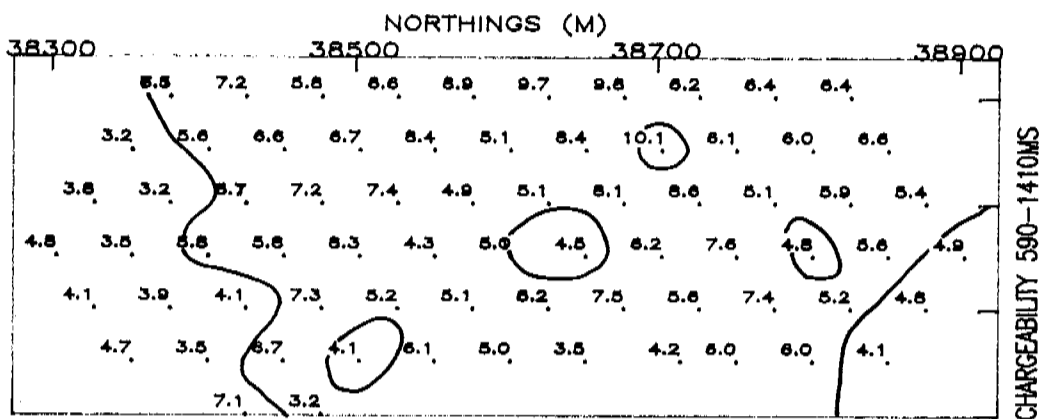
APPARENT RESISTIVITY

POSEIDON EXPLORATION
WONGALARA
LINE 44300E
IP - DIPOLE DIPOLE SURVEY

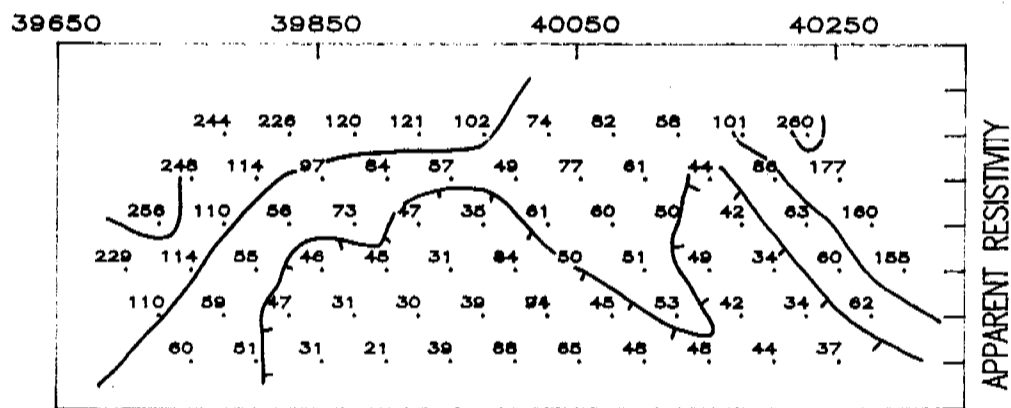
SURVEY SPECIFICATIONS

RECEIVER : Scintrex IPR-12
TRANSMITTER : Scintrex TSQ-4 (12kVA)
CONFIGURATION : Dipole Dipole
METHOD : Time Domain
FREQUENCY : 0.125Hz
CURRENT ELECTRODE SEPARATION : 50m
OPERATORS : Search Exploration Service
SUPERVISOR : A. Foley
DATE OF COLLECTION : September 1992

SURVEYED BY SEARCH EXPLORATION SERVICES



CHARGEABILITY 590-1410MS



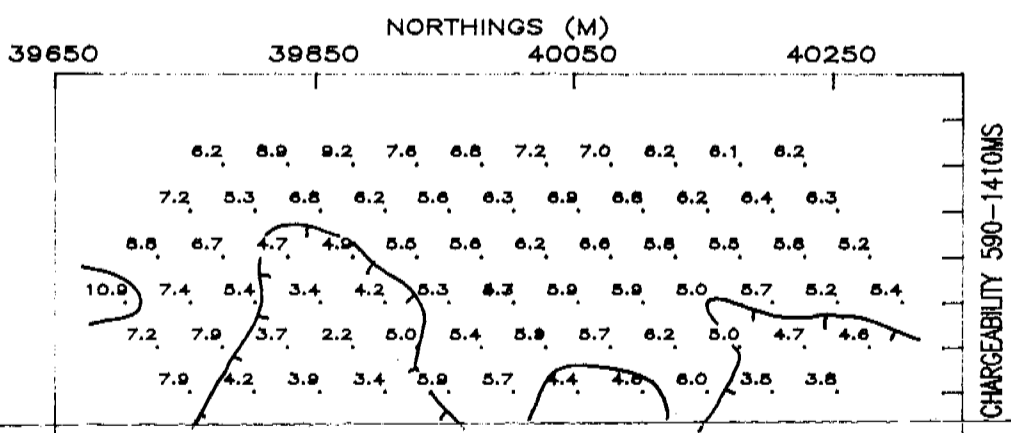
APPARENT RESISTIVITY

POSEIDON EXPLORATION
WONGALARA
LINE 45100E
IP - DIPOLE DIPOLE SURVEY

SURVEY SPECIFICATIONS

RECEIVER : Scintrex IPR-12
TRANSMITTER : Scintrex TSQ-4 (12kVA)
CONFIGURATION : Dipole Dipole
METHOD : Time Domain
FREQUENCY : 0.125Hz
CURRENT ELECTRODE SEPARATION : 50m
OPERATORS : Search Exploration Service
SUPERVISOR : A. Foley
DATE OF COLLECTION : September 1992

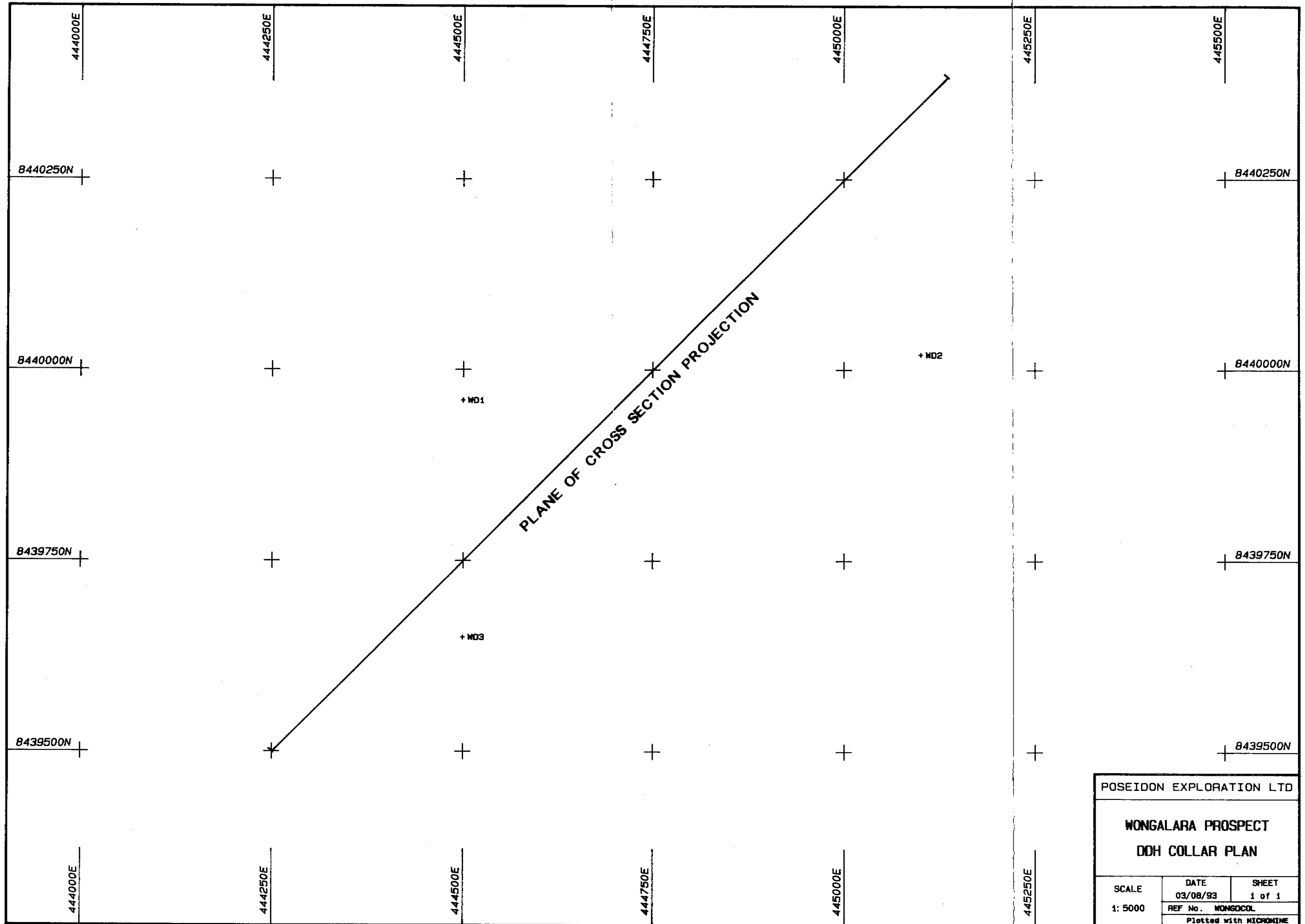
SURVEYED BY SEARCH EXPLORATION SERVICES



CHARGEABILITY 590-1410MS

POSEIDON EXPLORATION LIMITED			
WONGALARA			
IP - DIPOLE DIPOLE SURVEY			
LINES 44300 E & 45100 E			
Compiled A.T.P. / A.E.F.	Date January 1994	Scale —	Plan No. NTD 421

Figure 3



POSEIDON EXPLORATION LTD		
WONGALARA PROSPECT		
DDH COLLAR PLAN		
SCALE	DATE	SHEET
1: 5000	03/08/93	1 of 1
REF No. WONGDCOL		
Plotted with MICROMINE		

NTD 409
Figure 4

9. EXPENDITURE

Exploration expenditure during the final year of tenure was \$71,735.22, comprised of the following.

	\$
Salaries, Wages	13,295.50
Drilling	24,737.40
Assay	1,785.25
Geophysics	1,750.00
Helicopter Charges	3,616.12
Site Preparation/Rehabilitation	6,021.00
Exploration Consumables	1,957.59
Equipment, minor items	267.00
Equipment Maintenance/Repair	331.53
Vehicle Expenses	1,755.51
Travel and Accommodation	731.03
Contracted Services	5,216.26
Drafting	232.10
Computing	197.11
Communications	37.92
Stationery/Office Supplies	55.73
Freight	81.32
Tenement Costs	50.00
Regional Office Costs	7,999.37
Fixed Asset Usage Charge	<u>1,617.48</u>
Total	71,735.22

10. REFERENCES

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APPENDIX 1

DRILL LOGS: WD-1, WD-2, WD-3

POSEIDON EXPLORATION LIMITED

DRILLHOLE LOG

PAGE 1
OF 1

SUMMARY SHEET

PROJECT Roper River	AREA Wongalara	DRILLHOLE TYPE DDH		
CO-ORDS 84 39960 N 444500 E	DECLIN Vertical	AZIMUTH RL	DH No. WD 1	
DATE COMMENCED 11/6/93	DATE COMPLETED 25/6/93	DRILLED BY Thompson Drilling	DRILL RIG	
Non coring to:	HQ Core to:	NQ Core to: 108.5m	BQ Core to:	EOH 108.5m

no surveys, camera **U/S**

SURVEY DATA				INSTRUMENT			
DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	

LOG SUMMARY

DEPTH	ROCK TYPE	MINERALISATION		
		STYLE	GRADE	Intersection width (corr)

SIGNATURE **Andy Price** DATE **25/6/93**

DRILL ADVANCE

LITHOLOGY

LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOV.	% RECOV.	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL %
	0	0-40	0		0-0.4	pink-brown sandy soil					
	0.4	3.5	2.7		0.4-4.55	pink + dark rd/bn + l.gy-wh f.gr sandstone, mottled appearance Fe ox decr ↓ to 4.55			mnr-(mod) fracts @ 15° CA	Fe ox after Py as dissem + fracture fill and minor bands	
	3.5	6.5	2.30								
	6.5	9.5	3.00								
	9.5	12.5	2.60								
	12.5	15.5	2.60								
	15.5	18.1	3.05		4.55-13.8	l.gy f.gr sandstone, mnr-med banding	Base of ox @ 4.85m		bedding def. by wispy carbonac. + lam. 75-90° CA	4.55-4.90 5% sl. ox dissem Py mnr-1% ^{dissem} throughout Py as in lam // to So and minor in fracts	
	18.1	21.2	3.13			mnr wispy carbonac. laminae					
	21.2	24.3	2.97			mnr-med l.crn blebs (poss carbonate cement?) med gr ss 9.7-10.0m					
	24.3	27.4	3.13			core loss b/w 9.5 and 10.0m, core broken + overscored.			→ mnr grainsize variation		
	27.4	30.5	2.78								
	30.5	33.5	2.75			11.2m 100mm v. finely lam carbonac. sst interbedded ± fine gr. ss.			12.1 So @ 65° CA 12.4 So @ 90° CA	11.55-12.6m round + irreg blebs/aggregates of v. fine Py to 15mm but gen < 4mm av 7% Py	
					13.8-14.1	gy-l.gy banded f.gr sst ± fine carbonac. lam					
					14.1-14.6	l.gy sst as before					
					14.6-15.1	gy-l.gy banded f.gr sst ± fine carbon. lam.					
					15.1-33.0	l.gy med banded f.gr sst. mnr-rare fine carbon. lam.			So @ 90° CA gen. except 22.4 - X bed or erosion - contact	mnr-1% Py as dissem + round blebs to 5mm 20.75-25.4 av 7% Py in round blebs + dissem to 5mm	

→ core block wrong

SCALE 1:100

POSEIDON EXPLORATION LIMITED
DRILLHOLE LOG

ASSAYED BY: FROM: TO:
DDH WD1 PAGE 1 OF DATE: 20/6/93

DRILL ADVANCE				LITHOLOGY						
LOST CORE	DRILL ADVANCE	CORE RECOV.	% RECOV.	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL %
DEPTH	INTERVAL									
33.5	36.5	2.92		33.0 - 33.45	interbedded l. gy sst + dk gy shale (carbonac.)				mnr v. fine Py throat	
				33.45 - 34.55	gy-dk ay (carbonac?) shale/slst v. fine-fine qtz grains			mnr sed. slump folding evident	mnr Py	
36.5	39.5	2.94								
39.5	42.5	3.00		34.55 - 36.90	f. gr sst, l. gy ± mnr shale/slst interbeds	major slump fold b/w 35.6 - 36.2		sed. slump folds evident. incl. mnr faulting + plane structure @ 34.8m	mnr Py	
42.5	45.5	2.92								
45.5	48.5	2.93								
48.5	51.5	3.04		36.9 - 37.75	gy shale/slst erosional contact at base fining upwards sst/slst base to gy shale at top				mnr v. fine Py	
51.5	54.5	2.99		37.75 - 53.40	l. gy f. gr sst (silty + mic) mnr shale/slst interbeds. + lam 44.93 - 44.97m 46.8 - 47.1m				37.75 - 37.95 7% diss Py to 2mm	
					45.55 - 45.90 + 45.8 - 50.25m l. gy round splotches? = carbonate appears to be carbonate cemented in places (test with HCl)			2mm Py fract @ 46.3 @ 82°C 46.5 @ 25°C	37.95 - 38.95 1-2% fine Py mnr elsewhere	
									40.0 - 40.5 5-7% v. fine diss Py	
								52.55 2mm Py + (gal) fract @ 40°C	mnr diss Py below 40.5	
								mnr v. fine Py lam @ 48.65	51.35 2mm "dusty" Py fract. @ 43°C	

SCALE 1 : 100

POSEIDON EXPLORATION LIMITED
DRILLHOLE LOG

ASSAYED BY: FROM: TO:
 DDH (WD) PAGE 2 OF DATE: 20/6/93

DRILL ADVANCE				LITHOLOGY						
LOST CORE	DRILL ADVANCE	CORE	%	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL %
DEPTH	INTERVAL	RECOV.	RECOV.							
54.5	57.5	2.93		53.4 -	interbedded lgy fgr sst + gy-dk gy shale + silshales.			con graded beds	gen mnr Py as fine fracts + dissem (in sst) → v. fine lam.	
57.5	60.5	2.97		74.9m						
60.5	63.5	3.01			sst sum - 0.5m				54.45-54.65 5-7% disc Py	
63.5	66.5	2.96			slst/sht sum - 30cm				gan deer in Py below 59m	
66.5	69.5	2.96							poss ultra fine gal? in some shale horizons?	
69.5	72.5	3.01							incr in Py below 68m to 74.9 av 1-3%.	
72.5	75.5	2.96							as fine dissem + mnr brecc'd stringers 20-90° CA	
75.5	78.5	2.98							calcite + Py stringers @ 707m	
78.5	81.5	3.03								
81.5	84.5	2.96		74.9 -	lgy fgr sst ± 10% shale/slst lam			mnr sel det.	mnr- 3% (low) disst + fine stringer Py	
84.5	87.5	3.00		92.35						
87.5	90.5	2.97		92.35 -	interbedded lgy sst ± gy-dk gy shale - carb slst layers + lam. finely lam.			mnr slumps + x-beds	mnr- 1% Py as fine dissem + lesser fracts + some clots + bmm	
90.5	93.5	2.93		108.5m						
93.5	96.5	3.00		EOH				So 90° ± 5° CA		
96.5	99.9	3.04			sst units up to 1m				99.55-99.63	
99.5	102.5	2.96			shale/slst units/lam sub mm to 10cm				70% Py (fine gr) ^{sub} // to 50	
102.5	105.5	3.00								
105.5	108.5	3.00								
	EOH									

SCALE 1:100

POSEIDON EXPLORATION LIMITED
DRILLHOLE LOG

ASSAYED BY: FROM: TO:
DDH WD1 PAGE 3 OF 3 DATE: 25/6/93

POSEIDON EXPLORATION LIMITED
DRILLHOLE LOG

PAGE 1
OF 1

SUMMARY SHEET

PROJECT *Koper River* AREA *Wongalara* DRILLHOLE TYPE *DDH*
 CO-ORDS *844 0020 N* DECL_n *vert.* AZIMUTH _____ RL _____ DH No. *WD 2*
445 100 E
 DATE COMMENCED *20/6/93* DATE COMPLETED *21/6/93* DRILLED BY *Thompson Drilling* DRILL RIG _____
 Non coring to: _____ HQ Core to: _____ NQ Core to: *80.0* BQ Core to: _____ EOH *80.0m*

no surveys, camera u/s

SURVEY DATA

INSTRUMENT

DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	

LOG SUMMARY

DEPTH	ROCK TYPE	MINERALISATION		
		STYLE	GRADE	Intersection width (corr)

SIGNATURE *Andy Price* DATE *25/6/93*

DRILL ADVANCE				LITHOLOGY						
LOST CORE	DRILL ADVANCE	CORE RECOV.	% RECOV.	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL %
DEPTH	INTERVAL	RECOV.								
0.0	3.1	3.07		0-1.75	org/bn - (l.gy/bn) f.gr sst. with white mica/saravite	Fe stained.		massive - poorly bedded	av. 5% Fe/Mn Ox after Py?? as irreg - fanthary patches to 4mm mnr round ex Py blebs	
3.1	6.1	2.95								
6.1	9.1	2.98								
9.1	12.1	3.00								
12.1	15.1	2.83		1.75 - 6.30	l. gy/gn - l.bn f.gr sst. (micaceous) mnr silstere lam			So 78-85 CA	av 2.5% fanthary Feox after sulfide locally up to 10%.	
15.1	18.1	3.05								
				6.30 - 12.60	l.pk/bn - mid bn f.gr (mic) sst.			rel. massive	rare MnO dendrites	
				12.60 - 36.05	l.gy - gn/gy f.gr (mic) sst mnr shale + carbonaceous shale interbeds which tend to be sl - mod ox to 18.7m mnr ex carb pits? becomes l.gy only after ~27m	Base of ox @ 18.7m		mnr local xed def structures So ~ 82% CA mnr x beds		
18.1	21.1	2.83								
21.1	23.8	2.80								
23.8	26.9	2.95								
26.9	29.8	3.13								
29.8	32.9	3.10								
32.9	36.1	3.07		36.05 - 36.4	gy-dk gy shale/slst.					
36.1	39.1	2.60		36.4 - 36.87	l.gy f.gr sst.					
				36.87 - 37.7	l.gy sst at base fining upwards to gy-dk gy shale/slst at top					

SCALE 1:100

POSEIDON EXPLORATION LIMITED
DRILLHOLE LOG

ASSAYED BY: FROM: TO:
DDH WD 2 PAGE 1 OF 2 DATE: 21/6/93

DRILL ADVANCE				LITHOLOGY						
LOST CORE	DRILL ADVANCE	CORE RECOV.	% RECOV.	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL %
DEPTH	INTERVAL									
39.1	41.9	3.08		37.7 - 42.5	int. bedded l.gy - l.gn/gy f.gr sst ± lesser gy shale/slst, minr fining ↑ layers/units			minr sed def.		
41.9	45.0	3.04		42.5 - 47.8	l.gy f.gr sst			rel. massive		
45.0	47.8	2.96		47.8 - 50.8	minr - r. carbonate spotting			So 90 ± 5 CA		
47.8	50.8	3.00		50.8 - 54.1				minr core breakage @ 45m		
50.8	54.1	3.03		54.1 - 57.1						
54.1	57.1	3.07		57.1 - 59.5	interbedded l.gy f - v. f.gr sst/slst			finely lam in shales		
57.1	59.5	2.16		59.5 - 63.1	± gy - dk gy shale (carbonac)					
59.5	63.1	3.53		63.1 - 66.1	sst units 5mm to 0.5m			minr - mod x-bed + slumps + bigraded beds		
63.1	66.1	2.99		66.1 - 69.1	slst shale units 5mm to 0.2m			So 90 ± 10 CA		
66.1	69.1	3.03		69.1 - 72.1						
69.1	72.1	2.86		72.1 - 73.25						
72.1	73.25	1.16		73.25 - 75.1						
73.25	75.1	1.80		75.1 - 78.1						
75.1	78.1	2.91		78.1 - 80.0						
78.1	80.0	1.90								

SCALE 1:100

POSEIDON EXPLORATION LIMITED
DRILLHOLE LOG

ASSAYED BY: FROM: TO:
DDH WD 2 PAGE 2 OF 2 DATE: 22/6/93

POSEIDON EXPLORATION LIMITED
DRILLHOLE LOG

SUMMARY SHEET

PROJECT	<i>Roper River</i>	AREA	<i>Wongalara</i>	DRILLHOLE TYPE	<i>DDH</i>
CO-ORDS	<i>84 39 650 N 444 500 E</i>	DECLIN	<i>vertical</i>	AZIMUTH	RL
DATE COMMENCED	<i>22/6/93</i>	DATE COMPLETED	<i>23/6/93</i>	DRILLED BY	<i>Thompson Drilling</i>
				DRILL RIG	

Non coring to: HQ Core to: NQ Core to: *80.0 m* BQ Core to: EOH *80.0m*

NO SURVEYS, CAMERA U/S				SURVEY DATA		INSTRUMENT	
DEPTH	DECLINATION		AZIMUTH	DEPTH	DECLINATION		AZIMUTH
	Uncorr	Corr			Uncorr	Corr	

LOG SUMMARY			
DEPTH	ROCK TYPE	MINERALISATION	
		STYLE	GRADE

SIGNATURE *Andy Price* DATE *25/6/93*

DRILL ADVANCE				LITHOLOGY						
LOST CORE DEPTH	DRILL ADVANCE INTERVAL	CORE RECOV.	% RECOV.	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL %
0	3.1	2.83		0-0.4	org-bn sd + soil + sst frags					
3.1	6.1	3.07		0.4 - 1.10	brick red fgr sst (silty/mic?)	mr wh. alt ⁿ layers to 7mm // to So		So w 90' CA	av 7% Feox/Mnox dissem to 3mm + lesser lam.	
6.1	9.1	3.00		1.10 - 3.60	l.bn - l.gy/bn fgr sst (silty) mr shale lam poss ex carbonate pitting/blebs			mr sd. def.	av. 5% bk MnO/Feox feathery dissem + 3% org (Feox) dissem or carb?	
9.1	12.1	2.98								
12.1	15.1	2.99								
15.1	18.1	2.97								
18.1	21.1	2.97								
21.1	24.1	2.80		3.60 - 6.70	lb/dk pt fgr sst			rel. massive	mr MnO dissem	
24.1	27.1	3.07		6.70 - 11.50	l.gy/l.bn fgr sst mr r. carbonac. lam			rel. massive	mrn dk bn dissem Feox @ 8.0-9.0 av 15% dissem, dk bn feathery? Fe?	
				11.50 - 15.60	l.gy fgr sst mr shale interbed 15.2-15.35 mr carbonac. lam				9.0-9.35 2% a/g 10.0-10.08 15% a/g 10.50-11.50 2% a/g	
				15.6 - 27.7	l.gy-l.bn (above B.ox) lam l.gy/gy sst (silty) glauconite mr-med carbonac. lam	50% ox: 50% MnOx in zones/layers to 24.4 Base ox @ 24.4m		mr-med small scale sd. def.		

core loss
w 22.5m

SCALE 1:100

POSEIDON EXPLORATION LIMITED
DRILLHOLE LOG

ASSAYED BY: FROM: TO:
DDH WD 3 PAGE 1 OF DATE: 22/6/93

DRILL ADVANCE				LITHOLOGY						
LOST CORE	DRILL ADVANCE	CORE RECOV.	% RECOV.	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL %
DEPTH	INTERVAL									
27.1	30.1	2.96		27.7 - 28.8	l.gy (-lgn) f.gr sst r. carbon frags/lam					
30.1	33.1	2.97		28.8 - 29.25	l.gy f.gr sst ± lam / interbeds of bk carbon shale v. finely lam					
33.1	36.1	3.00		29.25 - 30.1	l.gy f.gr sst (mic)			mnr x-beds + slumps		
36.1	39.1	2.96		30.1 - 31.7	± shale interbeds @ 39.7-39.9m 36.5-36.7m			So gen. 90 ± 10 CA	r. v.v. fine dissen galena around 37.5m	
39.1	42.1	2.88		31.7 - 33.1	mnr v. fine carbonac. lam elsewhere gen incr ↓ mnr glauc. thru-out.					
42.1	45.1	3.01		33.1 - 34.6	dk gy shale / silst. ± lesser interbeds of l.gy sst / slst.			39.3 - 40.1 slump + soft sed. def.		
45.1	48.1	2.98		34.6 - 36.1	l.gy f.gr sst (mic) mnr shale / slst interbeds @ 41.1-41.3 43.2-43.4			39.9 mnr slicks	mnr smeared platy gal.	
48.1	51.1	2.94		36.1 - 37.6	mnr glauc.				tr? gal? v.v. Fine	
51.1	54.1	3.04		37.6 - 39.1	gy - (l.gy) f.gr sst (mic) mnr shale 56.85-56.95				tr. v. fine gal?	
54.1	57.1	2.96		39.1 - 40.6	interbedded l.gy f.gr sst ± gy-dk gy shale (carb) / slst. sst units 5cm - 1.5cm shale units 5cm - 100cm	carb. x-beds, graded beds mnr slumps etc		mnr x-beds	tr. v. fine gal? -mnr 53.82 4mm R _g unlet @ 80°C	
57.1	60.1	2.95		40.6 - 42.1				tr R _g + v. mnr tr gal is some carbonac layers	60.9 1-2m R _g fract @ 10-20°C	
60.1	63.1	2.99		42.1 - 43.6					61.0 1m R _g ± tr gal @ 5°C	
63.1	66.1	3.01		43.6 - 45.1					61.6 2m R _g ± gal fract @ 25°C	
66.1	69.1	2.95		45.1 - 46.6						
69.1	72.1	2.96		46.6 - 48.1						
72.1	72.66	0.55		48.1 - 49.6						
72.66	75.1	2.50		49.6 - 51.1						
75.1	78.1	2.65		51.1 - 52.6						
78.1	80.0	2.24		52.6 - 54.1						
	EOH			54.1 - 55.6						
				55.6 - 57.1						
				57.1 - 58.6						
				58.6 - 60.1						
				60.1 - 61.6						
				61.6 - 63.1						
				63.1 - 64.6						
				64.6 - 66.1						
				66.1 - 67.6						
				67.6 - 69.1						
				69.1 - 70.6						
				70.6 - 72.1						
				72.1 - 73.6						
				73.6 - 75.1						
				75.1 - 76.6						
				76.6 - 78.1						
				78.1 - 79.6						
				79.6 - 80.0						
				EOH						

SCALE 1:100

POSEIDON EXPLORATION LIMITED
DRILLHOLE LOG

ASSAYED BY: FROM: TO:
DDH WD 3 PAGE 2 OF 2 DATE: 23/6/93

APPENDIX 2

ASSAY RESULTS: WD-1, WD-2, WD-3

HOLE	FROM	TO	SAMPNO	PB	ZN	AG	FE	MN	MO	MG
WD1	0.00	0.40	309951	20	72	-0.1	38800	93	-0.5	1440
WD1	0.40	3.50	309952	12	91	0.4	34400	62	0.5	1160
WD1	3.50	6.50	309953	14	115	0.3	32600	820	-0.5	1650
WD1	6.50	9.50	309954	50	180	0.2	38200	3990	-0.5	3680
WD1	9.50	12.50	309955	230	150	0.1	44400	3460	-0.5	9250
WD1	12.50	15.50	309956	34	145	0.2	48600	3570	-0.5	10000
WD1	15.50	18.10	309957	17	72	-0.1	49600	3220	-0.5	8950
WD1	18.10	21.20	309958	24	110	0.1	55800	2650	-0.5	8850
WD1	21.20	24.30	309959	22	130	0.2	60400	3000	-0.5	9050
WD1	24.30	27.40	309960	18	82	-0.1	37000	1720	-0.5	6350
WD1	27.40	30.50	309961	19	250	0.1	28400	1010	-0.5	7950
WD1	30.50	33.50	309962	27	125	0.2	33000	850	-0.5	8550
WD1	33.50	36.50	309963	31	145	0.3	37200	520	-0.5	7400
WD1	36.50	39.50	309964	39	140	-0.1	37000	990	-0.5	8100
WD1	39.50	42.50	309965	34	200	0.4	29000	1190	-0.5	6100
WD1	42.50	45.50	309966	42	450	0.4	31800	1020	-0.5	6450
WD1	45.50	48.50	309967	115	590	0.4	27000	2520	-0.5	12500
WD1	48.50	51.50	309968	62	200	0.3	26200	3460	-0.5	15600
WD1	51.50	54.50	309969	70	220	0.5	15000	640	-0.5	6150
WD1	54.50	57.50	309970	32	170	0.2	29600	530	-0.5	8250
WD1	57.50	60.50	309971	27	130	0.5	31800	710	-0.5	10100
WD1	60.50	63.50	309972	25	87	-0.1	31200	750	-0.5	9850
WD1	63.50	66.50	309973	22	55	-0.1	28400	530	-0.5	9450
WD1	66.50	69.50	309974	50	105	0.1	31000	890	-0.5	10100
WD1	69.50	72.50	309975	28	27	0.1	21400	450	-0.5	6700
WD1	72.50	75.50	309976	21	34	0.2	22800	430	-0.5	8800
WD1	75.50	78.50	309977	23	49	0.1	24600	440	-0.5	10000
WD1	78.50	81.50	309978	38	51	-0.1	23600	550	-0.5	7600
WD1	81.50	84.50	309979	29	70	-0.1	22600	690	-0.5	8300
WD1	84.50	87.50	309980	18	14	-0.1	20400	710	-0.5	8650
WD1	87.50	90.50	309981	26	55	-0.1	19100	670	-0.5	7100
WD1	90.50	93.50	309982	41	40	0.1	21800	520	-0.5	7700
WD1	93.50	96.50	309983	9	14	-0.1	20800	420	-0.5	7700
WD1	96.50	99.50	309984	12	11	0.1	25400	2410	-0.5	15700
WD1	99.50	102.50	309985	46	30	0.2	28800	500	-0.5	10100
WD1	102.50	105.50	309986	115	470	-0.1	17300	530	-0.5	7700
WD1	105.50	108.50	309987	17	17	-0.1	21200	460	-0.5	9050
WD2	0.00	3.10	316093	6100	2830	0.2	33600	4040	3.8	3200
WD2	3.10	6.10	316094	8360	7760	0.3	39800	2300	3.7	5150
WD2	6.10	9.10	316095	2330	4840	0.1	31000	960	2.2	4580
WD2	9.10	12.10	316096	570	1740	-0.1	30800	590	1.0	5300
WD2	12.10	15.10	316097	9	210	-0.1	32800	1490	1.9	9550
WD2	15.10	18.10	316098	910	2720	-0.1	53800	5740	1.9	12300
WD2	18.10	21.10	316099	630	53	0.1	50600	4340	0.6	9600
WD2	21.10	23.80	316100	97	45	-0.1	51200	6340	2.4	13200
WD2	23.80	26.90	316101	59	45	-0.1	61400	1850	2.1	9750
WD2	26.90	29.80	316102	8	32	-0.1	39000	1970	-0.5	10400
WD2	29.80	32.90	316103	31	32	-0.1	24600	1460	1.7	8450
WD2	32.90	36.10	316104	56	35	-0.1	18800	2450	1.0	8900
WD2	36.10	39.10	316105	8	41	-0.1	28800	290	1.5	7550
WD2	39.10	41.90	316106	8	43	-0.1	35200	540	1.4	8200
WD2	41.90	45.00	316107	3	37	-0.1	24400	2250	1.7	10800
WD2	45.00	47.80	316108	250	135	-0.1	21600	980	0.5	7750

WONGALARA PROSPECT, EL6289

ASSAY RESULTS - GEOCHEMICAL FILLET

HOLE	FROM	TO	SAMPNO	PB	ZN	AG	FE	MN	MO	MG
WD2	47.80	50.80	316109	12	34	-0.1	17300	520	1.8	6900
WD2	50.80	54.10	316110	4	45	-0.1	20600	1670	1.5	10900
WD2	54.10	57.10	316111	-2	33	-0.1	12600	490	2.1	6800
WD2	57.10	59.50	316112	5	40	-0.1	21600	610	2.0	8650
WD2	59.50	63.10	316113	7	50	-0.1	18900	1380	1.8	10000
WD2	63.10	66.10	316114	51	43	-0.1	21200	940	1.6	9150
WD2	66.10	69.10	316115	8	40	-0.1	26200	470	0.7	9150
WD2	69.10	72.10	316116	3	41	-0.1	24800	1200	1.2	12200
WD2	72.10	73.25	316117	5	52	-0.1	28600	460	0.5	10600
WD2	73.25	75.10	316118	4	43	-0.1	26400	440	-0.5	9600
WD2	75.10	78.10	316119	60	41	-0.1	21800	3120	-0.5	15800
WD2	78.10	80.00	316120	4	45	-0.1	23000	550	0.7	9250
WD3	0.00	3.10	316121	2670	4220	-0.1	47400	5690	1.6	4140
WD3	3.10	6.10	316122	490	1620	-0.1	35400	2210	2.0	5450
WD3	6.10	9.10	316123	260	1870	-0.1	39200	2890	0.8	6350
WD3	9.10	12.10	316124	230	1120	-0.1	32800	2470	0.9	6850
WD3	12.10	15.10	316125	230	750	-0.1	35200	1730	1.4	7150
WD3	15.10	18.10	316126	4190	3530	0.1	53200	2840	1.9	9300
WD3	18.10	21.10	316127	4110	78	0.2	42000	6020	3.1	12500
WD3	21.10	24.10	316128	1390	130	-0.1	46600	3260	2.6	10000
WD3	24.10	27.10	316129	440	53	-0.1	60600	1850	4.1	10800
WD3	27.10	30.10	316130	25	52	-0.1	47000	1510	2.7	9500
WD3	30.10	33.10	316131	16	68	-0.1	29200	1920	4.5	10300
WD3	33.10	36.10	316132	40	64	-0.1	26400	480	2.6	5700
WD3	36.10	39.10	316133	57	68	-0.1	27600	310	1.1	7900
WD3	39.10	42.10	316134	34	44	-0.1	30400	400	2.0	7550
WD3	42.10	45.10	316135	17	39	-0.1	21000	390	1.9	6650
WD3	45.10	48.10	316136	15	37	-0.1	26200	1890	1.1	9150
WD3	48.10	51.10	316137	15	29	-0.1	18100	860	-0.5	7950
WD3	51.10	54.10	316138	220	30	-0.1	20600	2560	1.4	10800
WD3	54.10	57.10	316139	570	840	0.1	13200	3340	-0.5	12200
WD3	57.10	60.10	316140	1490	2050	0.1	20400	1660	2.3	11900
WD3	60.10	63.10	316141	1430	1280	-0.1	18000	2090	3.8	10700
WD3	63.10	66.10	316142	200	56	-0.1	25600	990	2.5	8800
WD3	66.10	69.10	316143	15	49	-0.1	27000	480	-0.5	10200
WD3	69.10	72.10	316144	11	46	-0.1	25600	560	1.4	9850
WD3	72.10	75.10	316145	11	45	-0.1	25000	470	2.6	10700
WD3	75.10	78.10	316146	16	38	0.1	21400	1260	2.3	10100
WD3	78.10	80.00	316147	13	39	-0.1	23800	1710	1.6	11700

WONGALARA PROSPECT, EL6289

ASSAY RESULTS - GEOCHEMICAL FILLET

HOLE	FROM	TO	SAMPNO	PB	ZN	AG	FE	MN
WD2	0.00	0.60	316148	4860	3270	0.4	29600	4570
WD2	0.60	1.10	316149	3110	2340	0.2	39200	2800
WD2	1.10	1.60	316150	3290	2020	0.5	37800	1850
WD2	1.60	2.10	316151	6970	1970	0.5	38000	3290
WD2	2.10	2.60	316152	8460	2190	0.4	35000	3070
WD2	2.60	3.10	316153	15700	5120	0.5	41200	3330
WD2	3.10	3.60	316154	15100	10600	0.7	34600	2220
WD2	3.60	4.10	316155	7070	13500	0.6	37400	2480
WD2	4.10	4.60	316156	7480	6220	0.6	32200	3150
WD2	4.60	5.10	316157	3630	3560	0.5	37400	1970
WD2	5.10	5.60	316158	2000	3120	0.4	42000	1220
WD2	5.60	6.10	316159	6660	3310	0.4	37200	1290
WD2	6.10	6.60	316160	3230	5750	0.2	38200	2010
WD2	6.60	7.10	316161	1700	4050	0.2	36400	1080
WD2	7.10	7.60	316162	1900	4740	0.1	32200	530
WD2	7.60	8.10	316163	1890	4610	0.1	26200	640
WD2	8.10	8.60	316164	2170	3640	0.1	33600	1130
WD2	8.60	9.10	316165	1810	3870	0.1	29400	680
WD3	0.00	0.60	316166	1350	1000	0.2	50800	3280
WD3	0.60	1.10	316167	4860	2610	0.1	29800	5710
WD3	1.10	1.60	316168	2230	4700	0.3	33600	4770
WD3	1.60	2.10	316169	2750	5800	0.2	37800	4840
WD3	2.10	2.60	316170	3270	5350	0.2	37600	4570
WD3	2.60	3.10	316171	1390	4610	0.2	36200	4390
WD3	15.10	15.60	316172	590	2190	0.6	50200	1520
WD3	15.60	16.10	316173	5670	8240	0.6	45400	1980
WD3	16.10	16.60	316174	5600	5340	0.5	50200	3700
WD3	16.60	17.10	316175	5420	2930	0.4	43600	2480
WD3	17.10	17.60	316176	6040	1340	0.7	46200	2390
WD3	17.60	18.10	316177	2510	620	0.3	38200	1960
WD3	18.10	18.60	316178	3200	56	0.6	48600	8280
WD3	18.60	19.10	316179	6500	195	0.7	44600	5690
WD3	19.10	19.60	316180	3060	46	0.4	39000	3420
WD3	19.60	20.10	316181	4920	28	0.6	41600	3560
WD3	20.10	20.60	316182	1330	34	0.3	43400	1800
WD3	20.60	21.10	316183	1410	18	0.3	37200	1700
WD3	21.10	21.60	316184	3450	33	0.5	37600	2190
WD3	21.60	22.10	316185	2880	39	0.3	35600	2440
WD3	22.10	22.60	316186	880	51	0.3	36000	3110
WD3	22.60	23.10	316187	145	48	0.3	37000	4060
WD3	23.10	23.60	316188	310	24	0.1	47800	2390
WD3	23.60	24.10	316189	63	31	0.4	60800	1590

WONGALARA PROSPECT, EL6289

ASSAY RESULTS - HALF CORE

APPENDIX 3

PHYSICAL PROPERTY TEST RESULTS

SYSTEMS EXPLORATION (N.S.W.) PTY LIMITED ACN 000 793 699

Data Sheet 1 of 1

Office: "Coach Hill"
River Road
Lower Portland
N.S.W. 2756

Postal Address: Box 6001
Dural Delivery Centre
N.S.W. 2158
Telephone: (045) 791 183
Facsimile: (045) 791 290

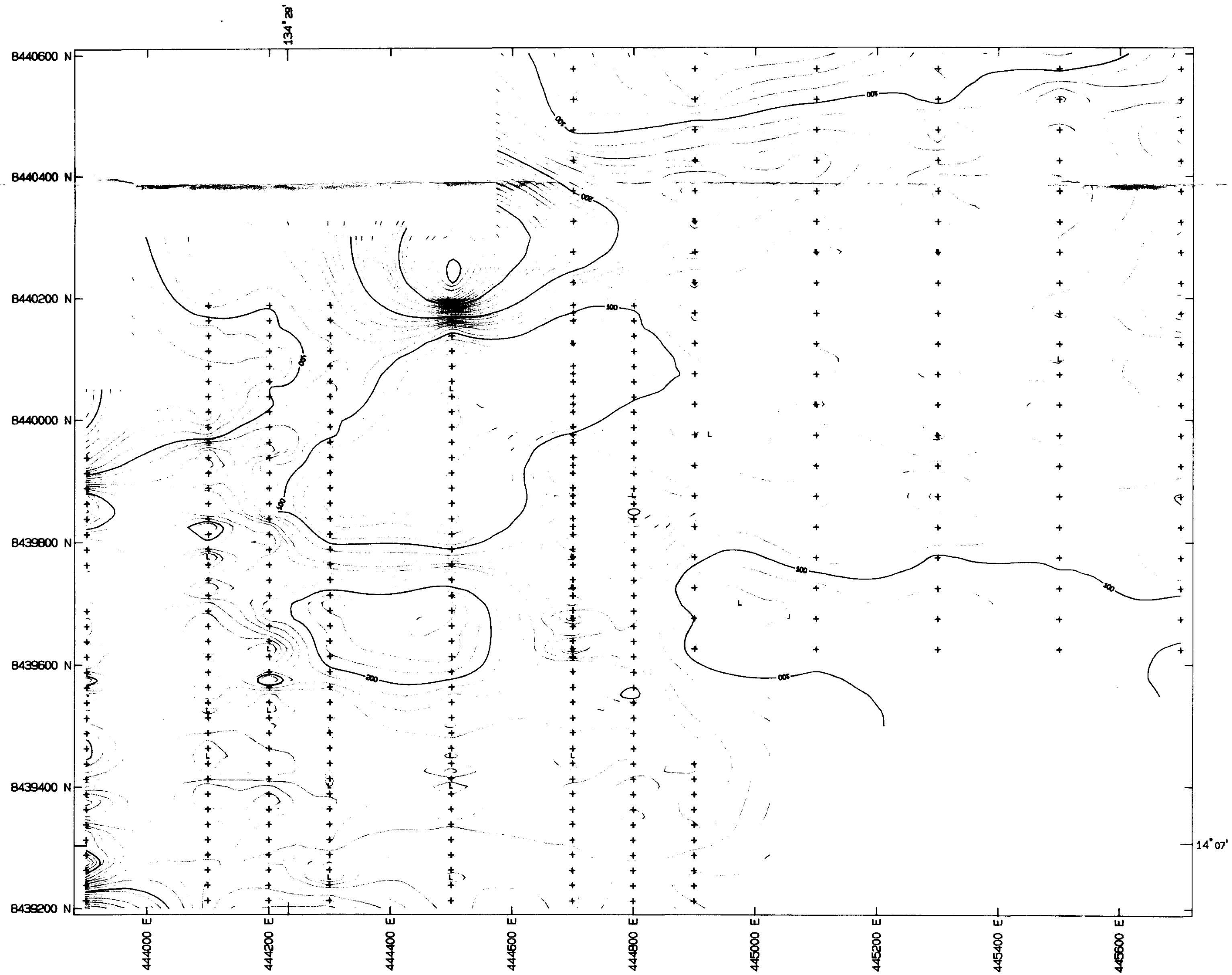
Date 25.7.93

STUDY Poseidon Exploration Lot 93/2

TECHNIQUES Various

REFERENCE P. Smith 11.7.93

SAMPLES		PHYSICAL PROPERTIES						
N.T. Sediments		Dry Bulk Density g/cc	Apparent Porosity %	Magnetic Volume Suscept. $\times 10^{-6}$	Resistivity 0-1Hz Ω	Phase Lag 0-1Hz ϕ mrad	IP Effect	
		t/m ³		$cg \times 10^{-6}$	Ω cm			
1	//bed	2.27	16.6	20	150	19	low	
2	trace sulphide	2.23	17.4	19	201	37	low to moderate	
3	//bed	2.43	6.1	116	449	6	very low	
4	sulphide //bed	2.70	6.7	16	92	235	high	
5	//bed	2.49	6.2	122	209	11	low	
6	//bed	2.41	6.9	16	169	8	very low	
				↑ for SI values multiply by 677				

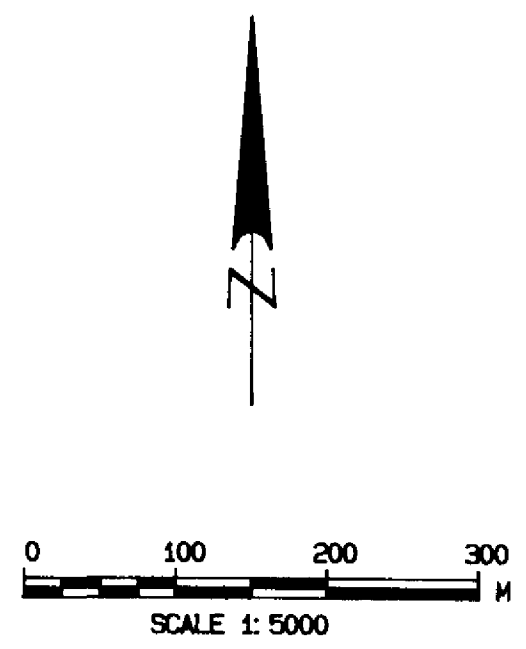


DATA ACQUISITION & PRESENTATION

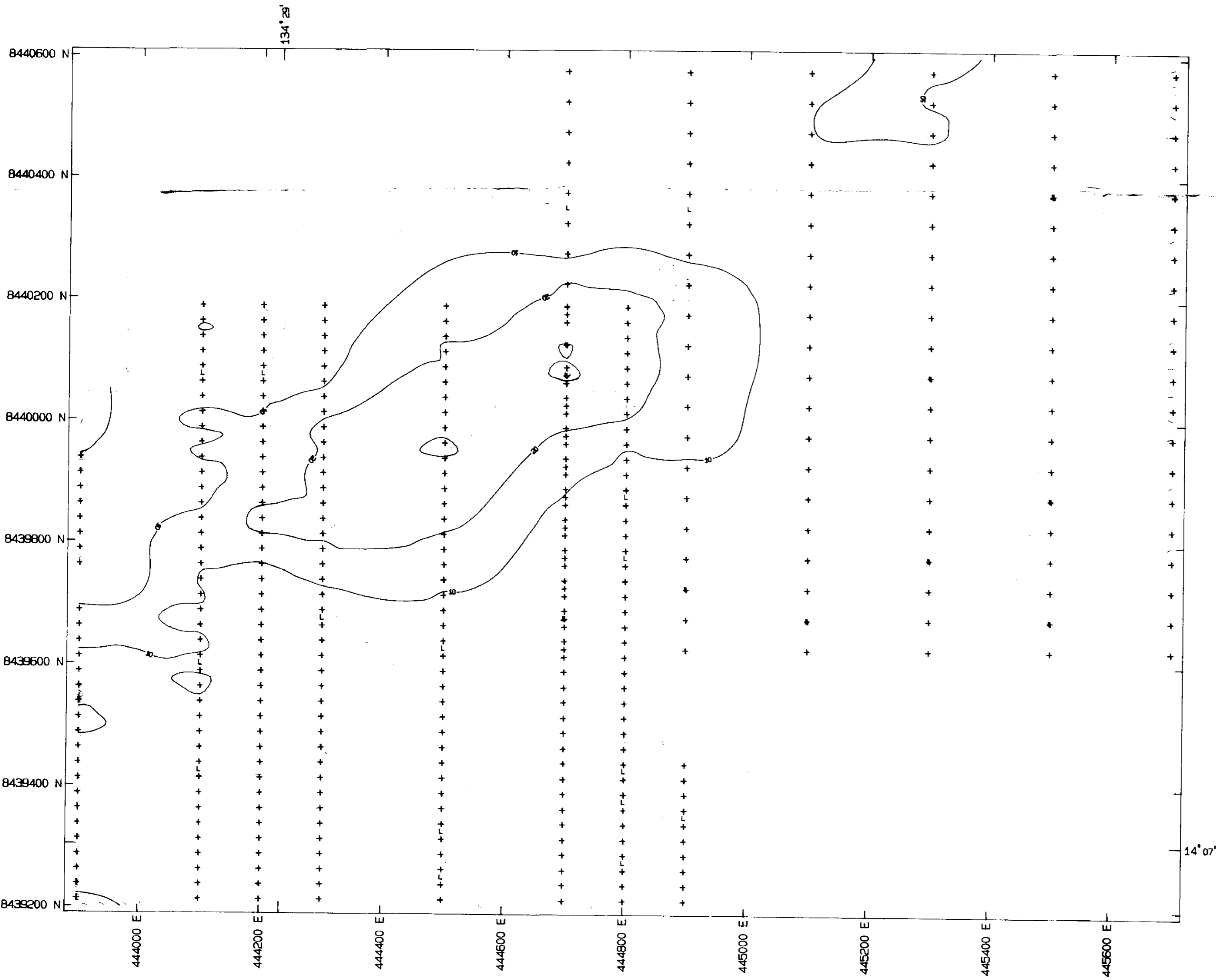
Operator : Search Exploration Ltd.
 Transmitter : Scintrex T90-4
 Receiver : Scintrex IPR-12
 Timing : 2 secs on-off
 Dipole Base : 50m
 Survey Date : Nov '92
 Block centres :
 Block 1 444, 400E B, 439, 700N
 Block 2 445, 200E B, 440, 100N

Contour Interval : 10 ohm meters

1: 250, 000 SHEET SD53-10



POSEIDON EXPLORATION LTD.	
NORMANDY POSEIDON GROUP	
EL 6289 - ROPER RIVER J.V.	
WONGALARA - GRADIENT ARRAY IP CONTOURED RESISTIVITY (ohm meters)	
Author : P.SMITH	Drawn : P.SMITH
Date : FEB '93	Dwg.#: NTD 250

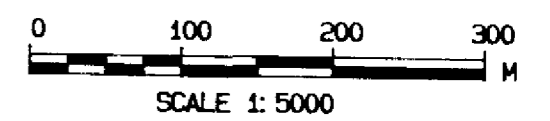


DATA ACQUISITION & PRESENTATION

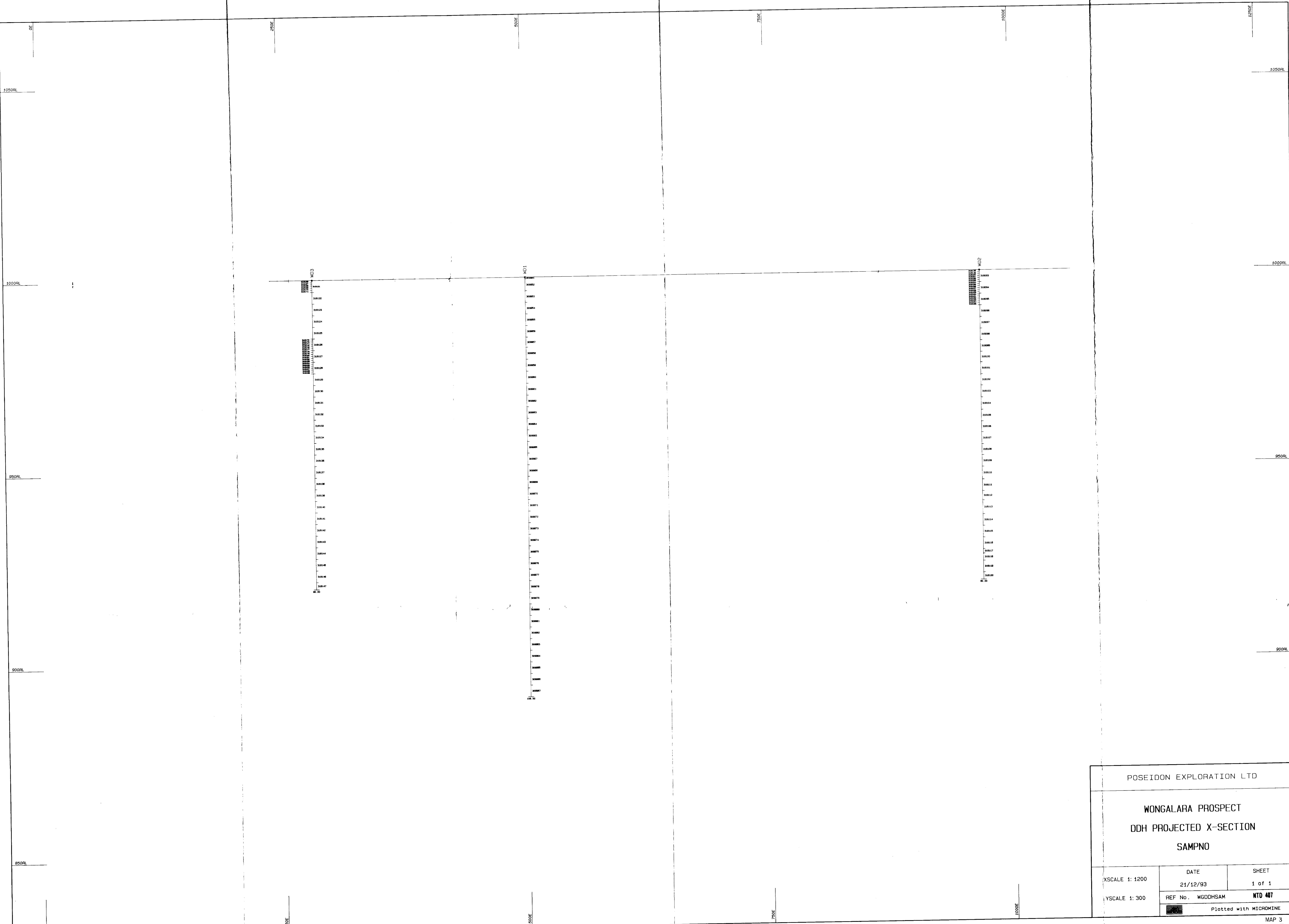
Operator : Search Exploration Ltd.
 Transmitter : Scintrex TSG-4
 Receiver : Scintrex IPR-12
 Timing : 2 secs on-off
 Dipole Size : 50m
 Survey Date : Nov '92
 Block centres :
 Block 1 444, 400E 8, 439, 700N
 Block 2 445, 200E 8, 440, 100N


Contour Interval : 1 mS

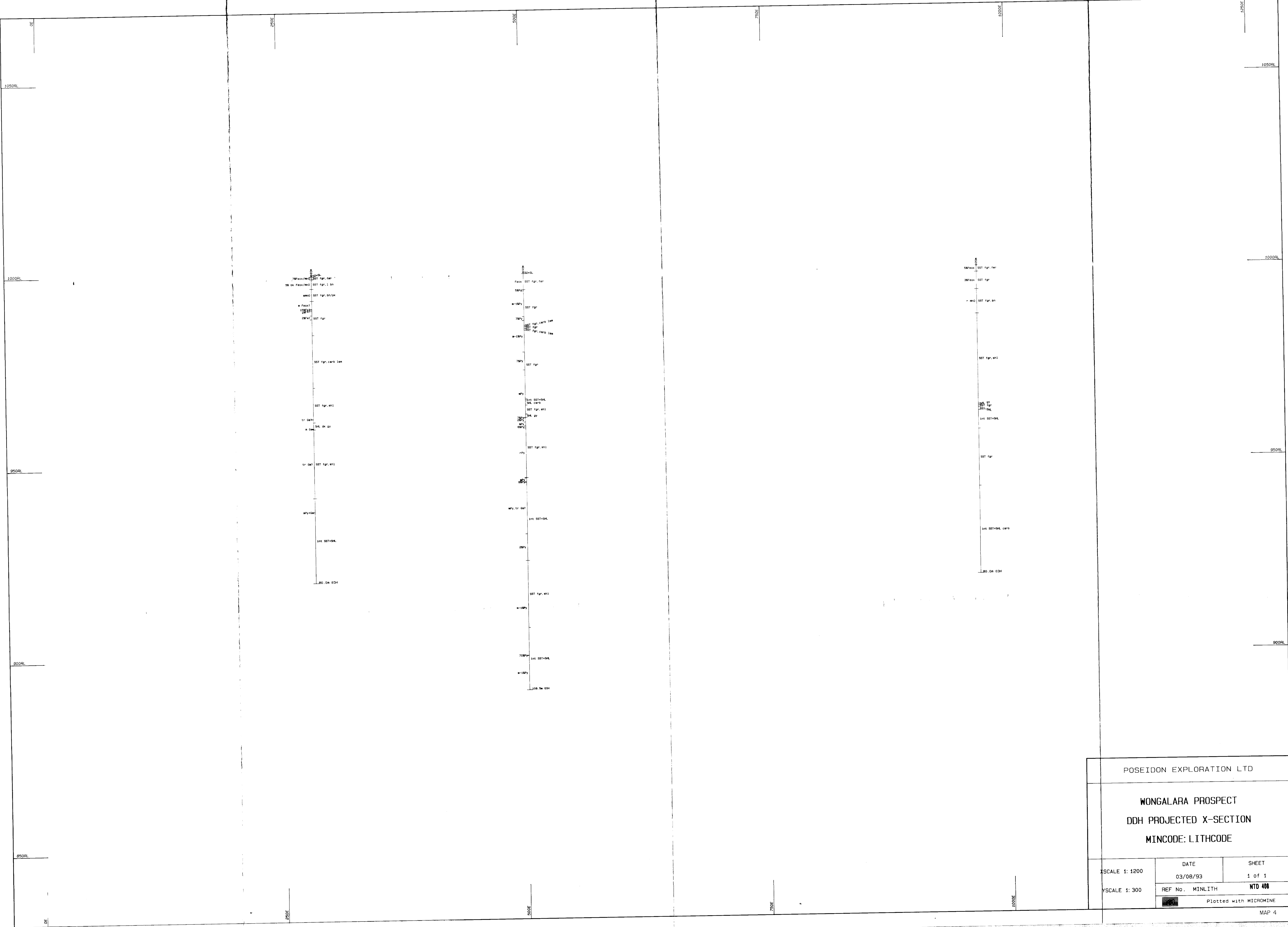
1: 250, 000 SHEET SD53-10



POSEIDON EXPLORATION LTD.	
NORMANDY POSEIDON GROUP	
EL 6289 - ROPER RIVER J.V.	
WONGALARA - GRADIENT ARRAY IP CONTOURED CHARGEABILITY (msecs)	
Author : P.SMITH	Drawn : P.SMITH
Date : FEB '93	Dwg.#: NTD249



POSEIDON EXPLORATION LTD		
WONGALARA PROSPECT DDH PROJECTED X-SECTION SAMPNO		
XSCALE 1: 1200	DATE 21/12/93	SHEET 1 of 1
YSCALE 1: 300	REF No. WGDHDSAM	NTD 407
 Plotted with MICROMINE		



POSEIDON EXPLORATION LTD			
WONGALARA PROSPECT			
DDH PROJECTED X-SECTION			
MINCODE: LITHCODE			
XSCALE 1: 1200 YSCALE 1: 300	DATE 03/08/93	SHEET 1 of 1	
	REF No. MINLITH	NTD 408	
Plotted with MICROMINE		MAP 4	