REDFIRE RESOURCES NL

ACN 009 423 858

EXPLORATION LICENCE 5650

Gorge
NORTHERN TERRITORY

THIRD and FINAL REPORT

To 12 February 1997

Prepared by N.H. Martin

May 1997

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SUMMARY

Exploration Licence 5650 forms part of the Slab Top Hill Diamond Project conducted by Redfire Resources NL and located within the Batten graben in the Northern Territory of Australia.

The Batten Graben is a known diamondiferous province and has been intensively explored for diamonds since the early 1980's by CRA Exploration and the Australian Diamond Exploration Joint Venture, leading to the discovery of the Emu, Coanjula, Abner Range, Merlin, Ivanhoe, Dog Leg Creek and Lancelot Prospects. Diamondiferous Kimberlites have been found by follow-up of anomalous number of diamonds (including micro diamonds) and chromites from stream, loam and drill samples and by loaming and drill testing geophysical and geomorphological anomalies.

Exploration was carried out by Ashton Mining Ltd. under the terms of the Australian Diamond Joint Venture with Redfire Resources. Work completed in the current reporting period has been a review of the previous diamond exploration data and the collection of eight regional gravel stream samples. All of which tested negative for diamonds and indicator minerals.

Due to the lack of encouraging results it is recommended that EL5650 be relinquished.

In summary, exploration carried out during the life of the tenement has been;

1988 - 1994 (MIM Exploration Pty. Ltd.)
Regional soil and rock chip sampling on Area 1 did not produce results warranting further work(max. values of 75ppm Cu, 23ppm Pb and 165ppm Zn for soils and 48ppm Cu, 140ppm Pb and 100ppm Zn for rock chips)

Two base metal anomalies in soil were identified on Area 2 (max. 56ppm Cu, 360ppm Pb and 350ppm Zn). This was followed up with four percussion drill holes. This drilling defined weak mineralisation with best intercept:

GP1: 4m @ 0.24% Pb from 10m.
GP2: 2m @ 0.35% PB and 0.25% Zn from 102m.

1995 (Perilya Mines NL)
Data review into diamond prospectivity

1996 (Redfire Resources/Ashton Mining)
Helicopter assisted gravel sampling. A total of five samples were collected with none returning positive for diamond or indicator minerals.

1997
Relinquish tenement

cover is present around major drainages. Coastal sands are present on the Mount Young sheet.

Folding of the Tawallah and McArthur Group sequences is gentile to moderate, with steep dips locally developed in proximity to major faults. The Nathan and Roper Group strata are gently folded with shallow dips.

The dominant structural feature within the licence area is the north west trending Abner Fault which is believed to be a splay of the Tawallah Fault. It is one of a series of faults delineating the Western margin of the Batten Trough.

4. PREVIOUS EXPLORATION

Most of the licence area has been at least partly covered by reconnaissance level stream and or soil geochemical sampling since the mid 1970's.

Perilya Mines NL conduced reconnaissance sampling and geophysics over this area as EL5877 for the McArthur River Joint Venture from 1988 (Thornett, 1989; 1990; 1991; Thornett and Kwiecien, 1992). Most of their work consisted of aerial photography, reconnaissance geology, stream sediment sampling, soil and rock chip geochemistry and airborne magnetic and radio-metric geophysical survey.

A comprehensive review of work conducted by MIM during the period 1988 to 1994 under the MRRJV is detailed in Lawrence (1994). A decision was made to retain a Area 2 on EL5650 which contained base metal anomalous soil samples in the Reward Dolomite. Three drill holes and a water hole were drilled to test this anomaly. Weak base metal mineralisation was intersected however, no further work was recommended. No Barney Creek formation was identified within the tenement. Details of this programme are presented in Crabb, 1995.

With the discovery of the Merlin kimberlite field by Ashton Mining Ltd. exploration focus has now turned to the diamond potential for the area.

5. CURRENT EXPLORATION

Exploration undertaken on the tenements from March 1996 to February 1997 by Ashton Mining Ltd. under the terms of the Diamond Joint Venture consisted of the following:

5.1 Data Review

Prior to commencing field work, a comprehensive data review of diamond results and previous exploration in the tenement areas was undertaken. These highlighted areas that had not been adequately explored. Proposed gravel sample locations were then selected.

5.2 Gravel Sampling

During the reporting period a stream sediment sampling programme which collected five samples from EL5650. The samples were delivered to Ashton Mining Ltd's Perth laboratory for diamond and indicator analysis. All samples were negative.

1. LOCATION AND ACCESS

EL5650 is located on the Bauhinia Downs (SE 53-03) 1:250,000 sheet and Mullapunyah 1:100000 sheet in the McArthur River Basin (Figure 1).

The tenement is accessed from Darwin by sealed and gravel roads, although during the wet season there are times when the roads are impassable due to rain. Access is via the Stuart Highway to Daly Waters, via the Carpentaria Highway to Cape Crawford and then along the Tablelands Highway to the Mallapunyah Station turn-off. Access is then along various dirt tracks and graded fence lines and station roads. During the wet these tracks become impassable.

2. TENURE

Exploration Licence 5650 was initially granted to Top End Resources NL and Quilpie Pty. Ltd. on 13 July 1988. A consortium involving Noranda Pty. Ltd., Perilya Mines NL together with the licence holders formed the McArthur River Joint Venture in June 1988 to explore this as well as other exploration licences in the area. MIM Ltd. formed a joint venture (McArthur River Regional Joint Venture, MRRJV) on 14 December 1992. Renewal of a reduced portion of EL5650 was made in July 1994 for a further two years. In April 1995, MIM decided to withdraw from this exploration licence and it was subsequently transferred to Perilya Mines NL. This tenement formed part of Perilya's Batten Trough Project. Exploration licence 5650 was renewed for a further two years on 12 June 1996.

Redfire subsequently negotiated an agreement with Perilya to explore EL5650 in conjunction with other tenements for their diamond potential in exchange for a net royalty return. Subsequently this tenements was joint ventured on 20.2.95 by Redfire to Ashton Mining Ltd. under the terms of the Diamond Joint Venture. This gave Ashton the right to earn a 60% interest in diamond deposits within the licences area. Ashton withdrew from the joint venture on 23.12.96.

Due to a lack of positive results for both diamonds and base metals it has been recommended that EL5650 be relinquished.

3. REGIONAL GEOLOGY AND STRUCTURE

The licence occurs within the Batten Trough of the Palaeo/Meso Proterozoic McArthur Basin on the Bauhinia Downs (SE 53-3) 1:250,000 sheet and on the Mallapunyah (6065) 1:100,000 scale topographic map.

The regional geology is described in detail by Pietsch et al (1991).

The licence area is largely underlain by the dolomitic sedimentary sequence of the McArthur Group. Locally, inliers of the older volcanic and siliciclastic Tawallah Group and outliers of the younger, dolomitic Nathan Group and siliciclastic Roper Group are present.

Platform cover of the Cambrian Bukalara Sandstone masks the Proterozoic rocks to the east and the south-east and thin (<20m) Cretaceous, terrestrial to shallow marine, sediments are locally present. Soil cover is generally thin and skeletal although laterally extensive alluvial

Sampling was completed using helicopters as they pose the most practical mode of transportation with the advantage of ease of access and navigation. They also enable the geologist to scan for potential trap sites. The best quality heavy mineral traps in the vicinity of the pre-selected site was chosen for sampling.

Once a suitable site was located, approximately 40kg of gravel is gathered, sieved ad the minus four millimetre fraction collected in calico bags for laboratory examination. This fraction generally weighs between 25 and 30kg and is usually contained within two bags. The bags are then sent to Ashton Mining's Perth laboratory for diamond and indicator analysis.

Sample locations are provided in Figure 2. A list of sample results is provided in Appendix 1.

5.3 Laboratory Procedure

The samples are processed by Ashton Mining Ltd. laboratory in Perth, where they are concentrated by Wilfley Table and heavy liquid separation techniques. The heavy liquid used is tetrabromoethane with specific gravity of 2.96.

The concentrates are then screened into various size fractions, further concentrated by magnetic and electrostatic separation techniques and a comprehensive grain by grain examination carried out on the minus 1.0mm plus 0.425mm fractions.

5.4 Rehabilitation

No work undertaken that caused substantial disturbance and therefore no rehabilitation work was necessary. All rehabilitation required for previous disturbance have been completed.

6. RECOMMENDATIONS

Due to the lack of encouraging results and the lack of additional diamond targets no further work is justified and hence it is recommended that EL5650 be relinquished.

REFERENCES

Crabb, D.M., 1995. Report to the Department of Mines and Energy on Exploration Licence 8456 "Gorge", Area 2. NT year ended 25 March 1995. MIM Exploration Pty. Ltd.

Kwiecien, B.S., 1992. Report to the Department of Mines and Energy on the Relinquished Portions of Exploration Licences 5605, 5606, 5649, 5650, 5787, 5788 and 5877. Perilya Mines NL

Lawrence, R.J.J. & Crabb, D.M., 1995. Final Report to the Department of Mines and Energy on Exploration Licences 5605,5650, 5788 & 5877 "McArthur River Regional Joint Venture" NT year ended 12 July 1994. MIM Exploration Pty. Ltd.

Pietsch, B.A., Rawlings, D.J., Creaser, P.M. et al, 1991. 1:250000 Geological Map Series Explanatory Notes Bauhinia Downs SE53-3. Northern Territory Geological Survey, Department of Mines and Energy, Darwin.

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FIGURES

BATTEN TROUGH - DIAMOND PROJECT

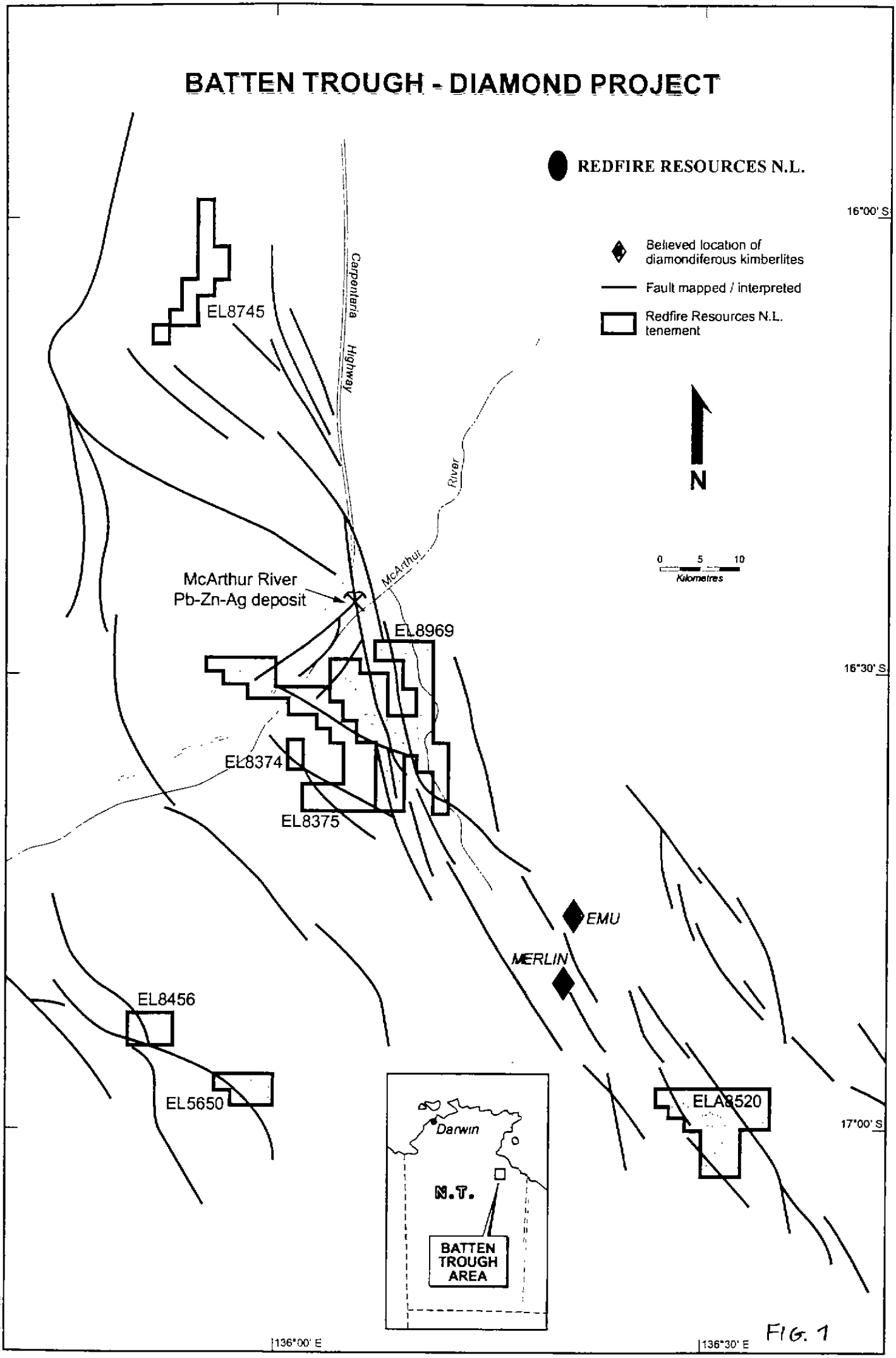
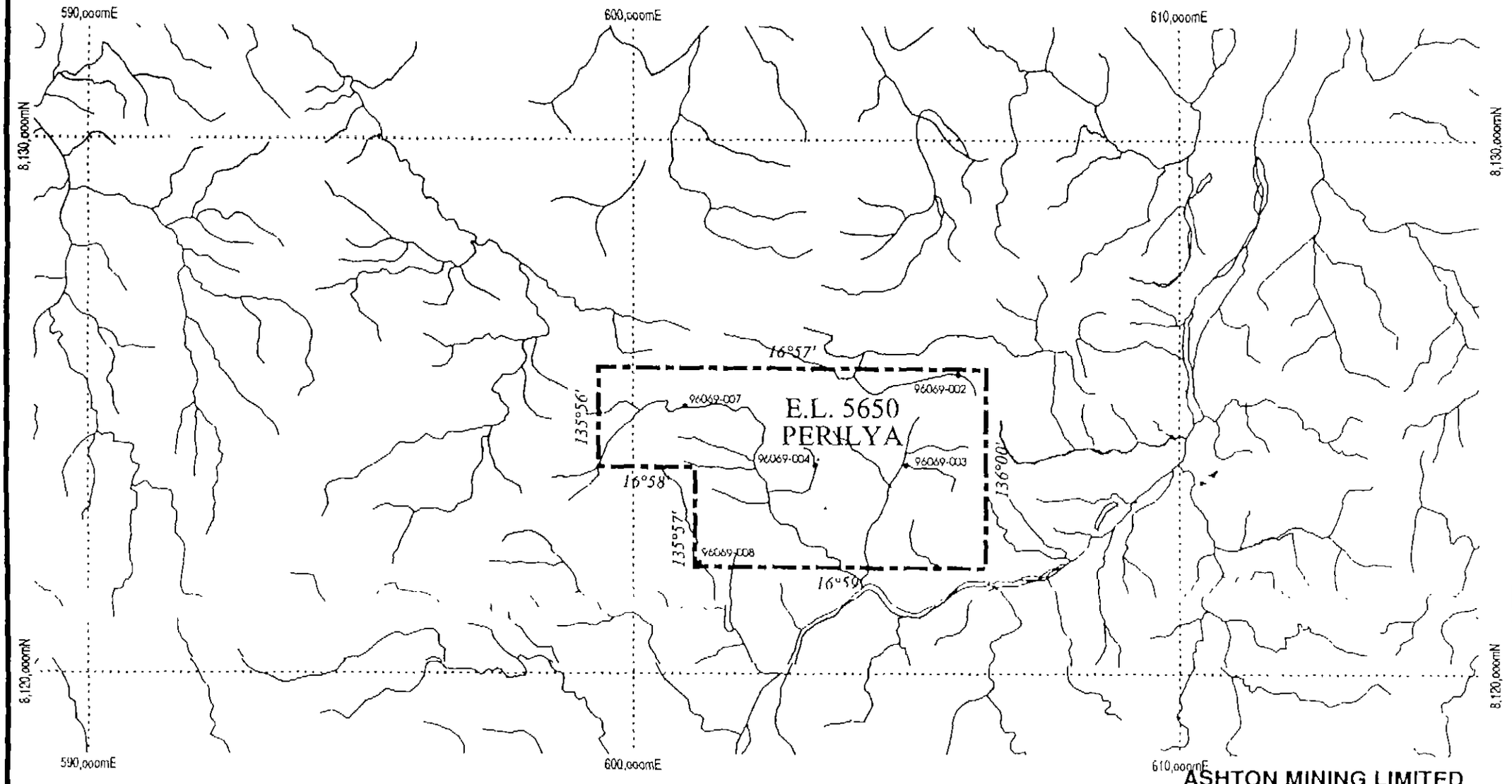


FIG. 1



ASHTON MINING LIMITED
A.D.E. JOINT VENTURE

REDFIRE JOINT VENTURE
FINAL REPORT
EXPLORATION LICENCE 5650
FIGURE 2
SAMPLE LOCATIONS

APRIL, 1997

- Sample - not yet processed
- Sample - negative
- Sample - chromite positive
- Sample - diamond positive
- Sample - other indicators
- Geochemical sample location
- Drill hole location

KILOMETRES
0 1 2 3 4 5
1 : 100,000

Appendix 1
Gravel sample results

Sample	Type	Result	Diamond		Chromite	Other
			Macro	Micro		
6069-002	G	neg	-	-	-	-
6069-003	G	neg	-	-	-	-
6069-004	G	neg	-	-	-	-
6069-007	G	neg	-	-	-	-
6069-008	G	neg	-	-	-	-

OTE: G = Gravel sample

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FIGURES (cont.)

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Exploration during the current period was carried out by Ashton Mining Ltd. under the terms of the Australian Diamond Joint Venture with Redfire Resources. Work completed included a review of the previous diamond exploration data and the collection of eight regional gravel stream samples. All of which tested negative for diamonds and indicator minerals.

Due to the lack of encouraging results it is recommended that EL5650 be relinquished.

In summary, exploration carried out during the life of the tenement has been;

1988 - 1994 (MIM Exploration Pty. Ltd.)
Regional soil and rock chip sampling on Area 1 did not produce results warranting further work(max. values of 75ppm Cu, 23ppm Pb and 165ppm Zn for soils and 48ppm Cu, 140ppm Pb and 100ppm Zn for rock chips)

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GP1: 4m @ 0.24% Pb from 10m.
GP2: 2m @ 0.35% PB and 0.25% Zn from 102m.

1995 (Perilya Mines NL)
Data review into diamond prospectivity.

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Helicopter assisted gravel sampling. A total of five samples were collected with none returning positive for diamond or indicator minerals.

1997 (Redfire Resources)
Relinquish tenement.

All relevant data related to work undertaken on EL5650 during the life of the tenement is presented in this report.

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Figures 1 - 7 show the tenure history of EL5650.

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A comprehensive review of work conducted by MIM during the period 1988 to 1994 under the MRRJV is detailed in Lawrence (1994). Exploration carried out during this period was;

1988 - 1989 (MIM Exploration Pty. Ltd.)
A review of open file exploration data held at the NT Department of mines and Energy Library in Darwin together with interpretation of published geological maps identified seven targets for evaluation. These targets are: Kilgour River, Little Creek Sub-Basin, Mariner, Mystery Sub-Basin, Johnstons, Top Spring and Dingo Creek. The work conducted on each area and results for sample assay are summarised in Appendix 1. The geological and geochemical plans for each Prospect are presented in Figures 8 - 18.

1989 - 1990 (MIM Exploration Pty. Ltd.)
Further research on open file data produced a new target area, Mallapunyah Dome North. The first phase of sampling consisted of 12 rock chip samples. Peak values returned were 155ppm Cu, 12ppm Pb, 35ppm Zn and 0.08ppm Au. These results were considered disappointing and no further work on the Mallapunyah Dome North Prospect was recommended. Results are presented in Appendix 2 and plans are presented in Figures 19 - 20.

1990 - 1991 (MIM Exploration Pty. Ltd.)
A regional airborne (QUESTEM) was the only work conducted on the tenement during this field season. No plans of this survey were presented to the Joint Venture Partners.

1991 - 1992 (MIM Exploration Pty. Ltd.)
No field work undertaken

1992 - 1993 (MIM Exploration Pty. Ltd.)
Ninety four soil samples and five rock chip samples were collected on the Copper King Prospect. Results are presented in Appendix 3. Plans of sampling programme are presented in Figures 21 - 32 together with results from the 1993/94 field season. Results indicated that weak Cu in soil anomalism is possibly structurally controlled (Lawrence 1994).

1993 - 1994 (MIM Exploration Pty. Ltd.)
One hundred and three soil samples were collected on a thin sequence of Reward Dolomite and Barney Creek Formation folded around a south plunging syncline. Results were generally low with peak values being 75ppm Cu, 23ppm Pb and 165ppm Z. Seven rock chip samples were collected but failed to produce anomalous results. Assay data is presented in Appendix 4. Plans are presented in Figures 21 - 32.

1994 (MIM Exploration Pty. Ltd.)
A decision was made to retain a Area 2 on EL5650 which contained base metal anomalous soil samples in the Reward Dolomite. Three drill holes and a water hole were drilled to test this anomaly. Drilling encountered traces of vein galena in all holes which was considered adequate explanation for the surface and down hole anomalism. Drill logs and results are presented in Appendix 5. Plans for drilling are presented in Figures 33 - 35.

1995 (Perilya Mines NL)
With the discovery of the Merlin kimberlite field by Ashton Mining Ltd. exploration focus has now turned to the diamond potential for the area. No field work was undertaken.

5. CURRENT EXPLORATION

Exploration undertaken on the tenements from March 1996 to February 1997 by Ashton Mining Ltd. under the terms of the Diamond Joint Venture consisted of the following:

5.1 Data Review

Prior to commencing field work, a comprehensive data review of diamond results and previous exploration in the tenement areas was undertaken. These highlighted areas that had not been adequately explored. Proposed gravel sample locations were then selected.

5.2 Gravel Sampling

During the reporting period a stream sediment sampling programme which collected five samples from EL5650. The samples were delivered to Ashton Mining Ltd's Perth laboratory for diamond and indicator analysis. All samples were negative.

Sampling was completed using helicopters as they pose the most practical mode of transportation with the advantage of ease of access and navigation. They also enable the geologist to scan for potential trap sites. The best quality heavy mineral traps in the vicinity of the pre-selected site was chosen for sampling.

Once a suitable site was located, approximately 40kg of gravel is gathered, sieved ad the minus four millimetre fraction collected in calico bags for laboratory examination. This fraction generally weighs between 25 and 30kg and is usually contained within two bags. The bags are then sent to Ashton Mining's Perth laboratory for diamond and indicator analysis.

Sample locations are provided in Figures 36 - 37. A list of sample results is provided in Appendix 6.

5.3 Laboratory Procedure

The samples are processed by Ashton Mining Ltd. laboratory in Perth, where they are concentrated by Wilfley Table and heavy liquid separation techniques. The heavy liquid used is tetrabromoethane with specific gravity of 2.96.

The concentrates are then screened into various size fractions, further concentrated by magnetic and electrostatic separation techniques and a comprehensive grain by grain examination carried out on the minus 1.0mm plus 0.425mm fractions.

5.4 Rehabilitation

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6. RECOMMENDATIONS

Due to the lack of encouraging results and the lack of additional diamond targets no further work is justified and hence it is recommended that EL5650 be relinquished.

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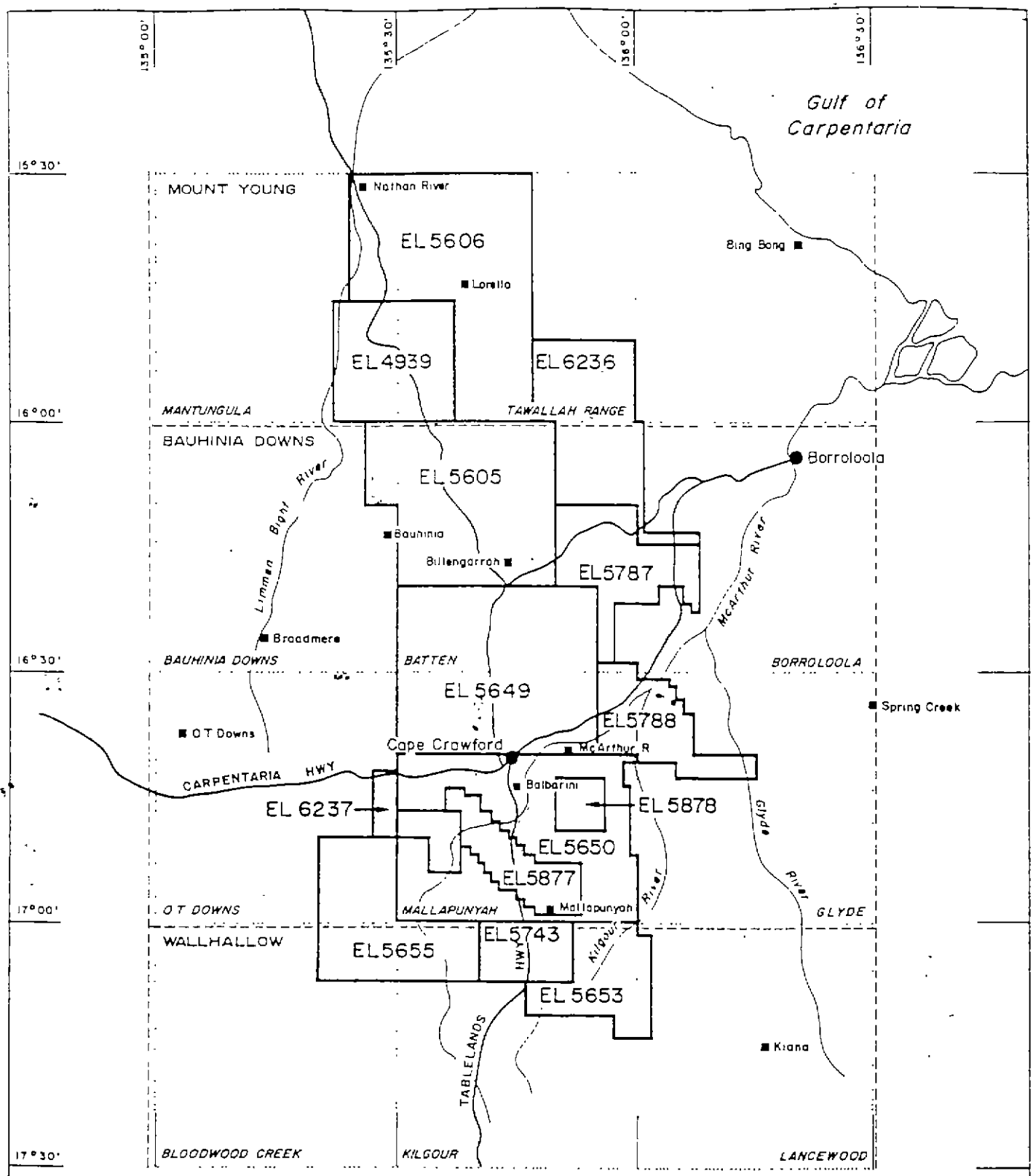
FIGURES



GLYDE 1:100 000 MAP SHEETS

MT YOUNG 1:250 000 MAP SHEETS

0 10 20 30 40 50km

SCALE 1:1 250 000

PERILYA MINES N.L.

McARTHUR RIVER JOINT VENTURE

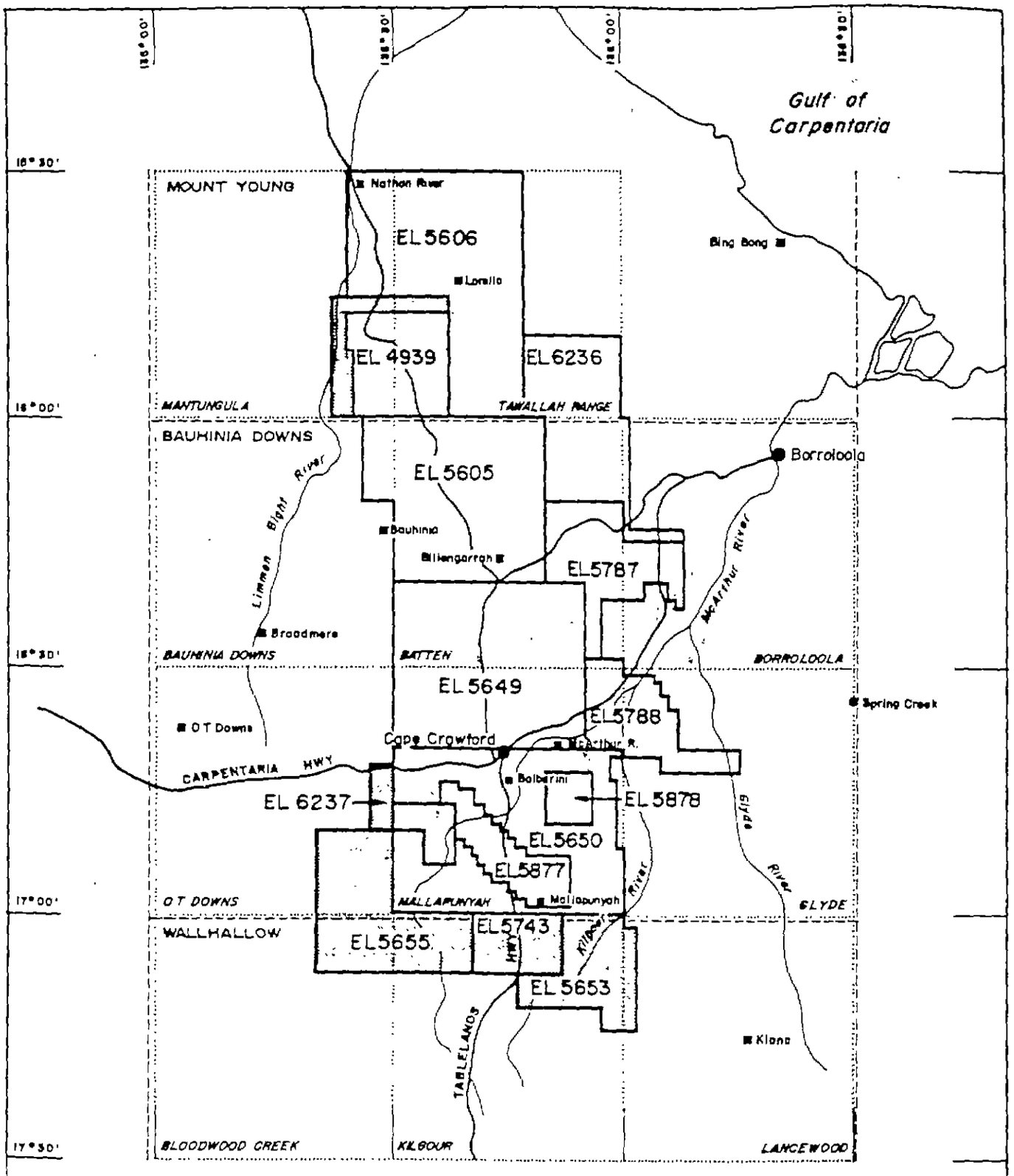
LOCATION MAP

SHOWING

EXPLORATION LICENCES

1988 - 1989

FIGURE 1



GLYDE 1:100 000 MAP SHEETS

MT YOUNG 1:250 000 MAP SHEETS

GROUND SURRENDERED SINCE 12-7-1989

0 10 20 30 40 50km

SCALE 1:1 250 000

1989-1990

PERILYA MINES N.L.

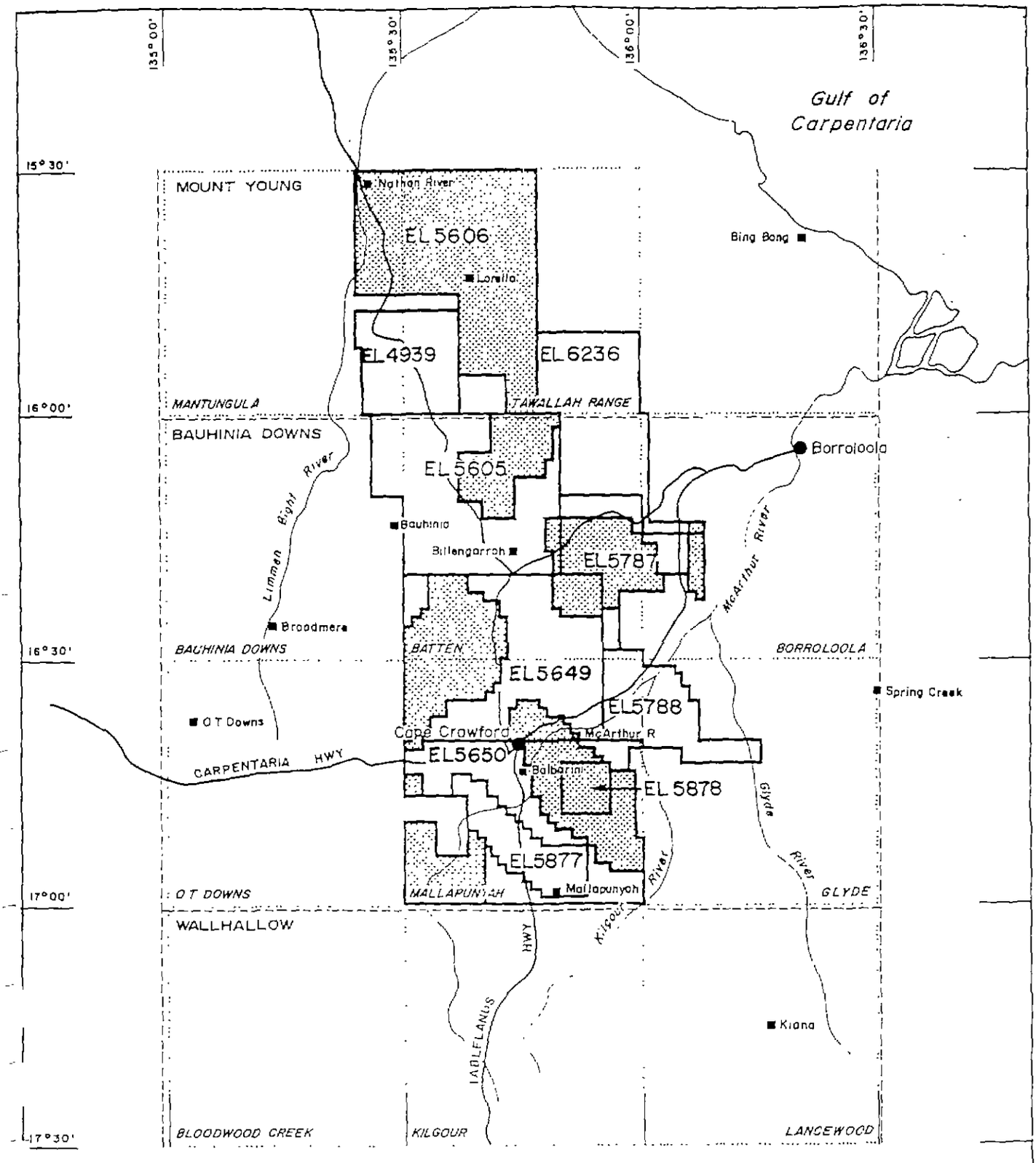
McARTHUR RIVER JOINT VENTURE

LOCATION MAP

SHOWING

CURRENT EXPLORATION LICENCES AND SURRENDERED GROUND

FIGURE 2



GLYDE 1:100 000 MAP SHEETS

MT YOUNG 1:250 000 MAP SHEETS

GROUND SURRENDERED ON 12.7.1990

0 10 20 30 40 50km

SCALE 1:1 250 000

1990 - 1991

PERILYA MINES N.L.

McARTHUR RIVER JOINT VENTURE

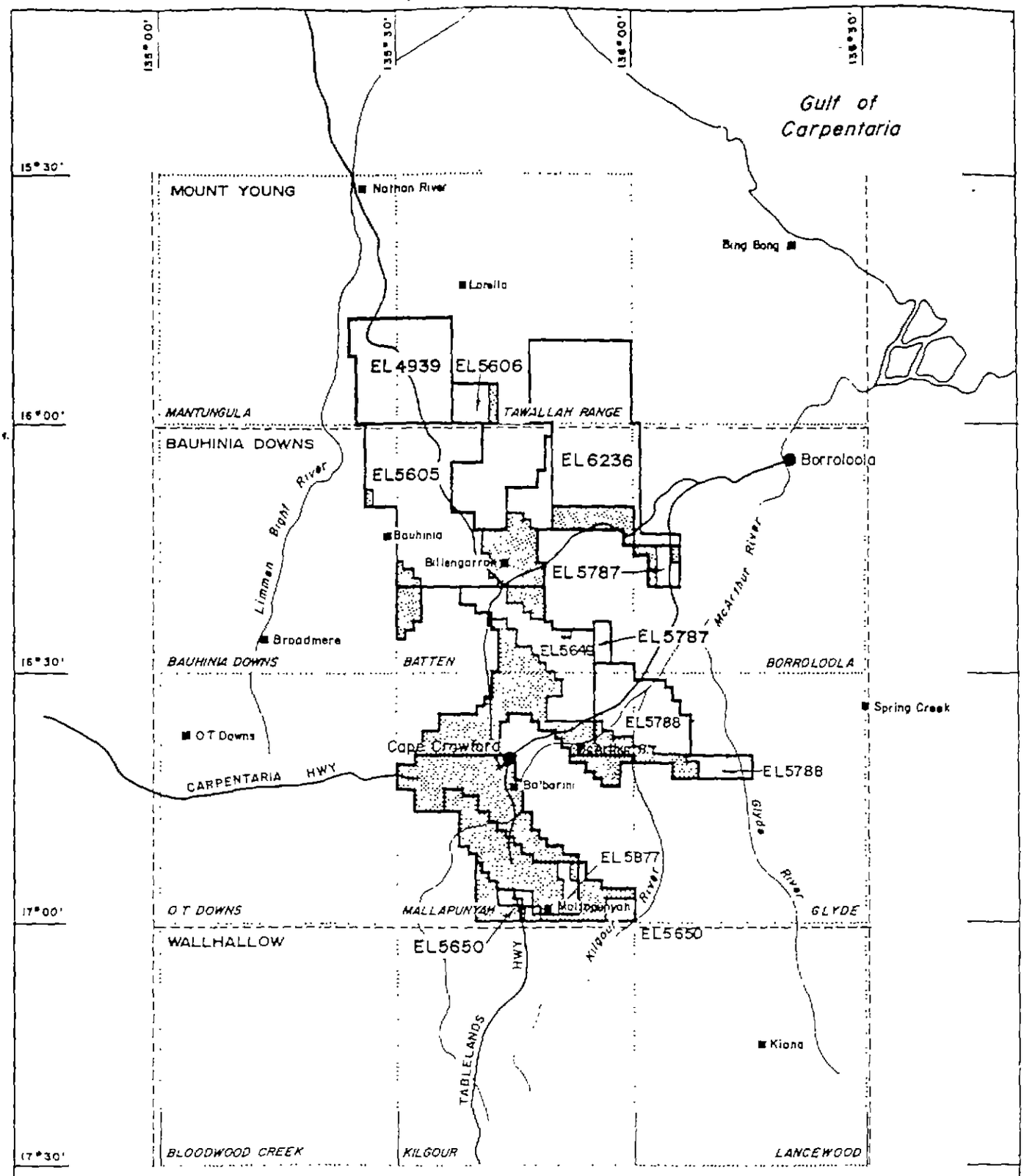
LOCATION MAP

SHOWING

CURRENT EXPLORATION LICENCES

AND GROUND SURRENDERED ON 12.7.1990

FIGURE 3



GLYDE 1:100 000 MAP SHEETS

MT YOUNG 1:250 000 MAP SHEETS

0 10 20 30 40 50km

SCALE 1:1 250 000

GROUND SURRENDERED ON 12.7.1991

1991 – 1992

PERILYA MINES N.L.

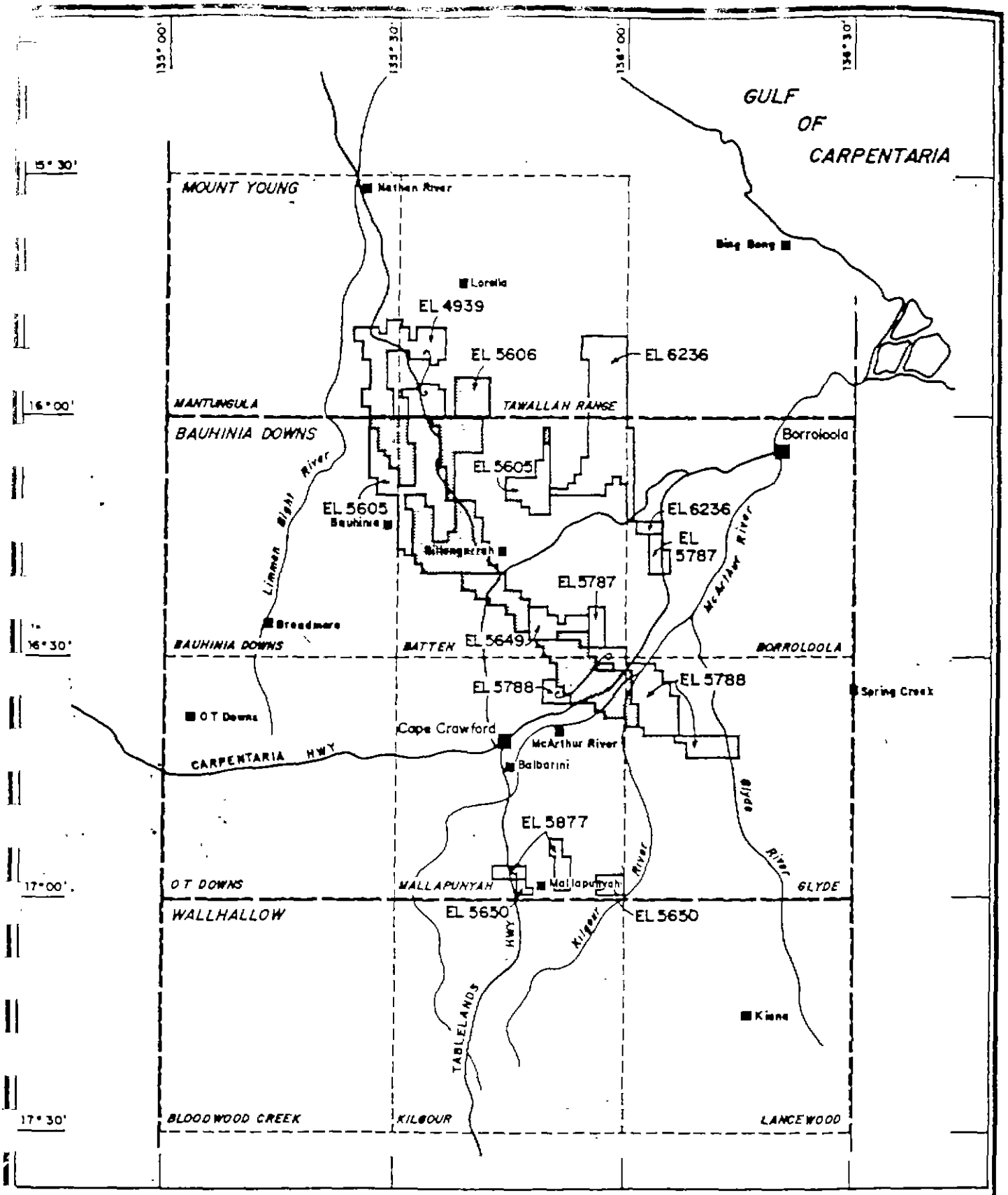
McARTHUR RIVER JOINT VENTURE

LOCATION MAP

SHOWING

CURRENT EXPLORATION LICENCES AND GROUND SURRENDERED ON 12.7.1991

Figure 4



LEGEND

- 1:100 000 MAP SHEET
- 1:250 000 MAP SHEET
- GROUND SURRENDERED 1992

1992-1993

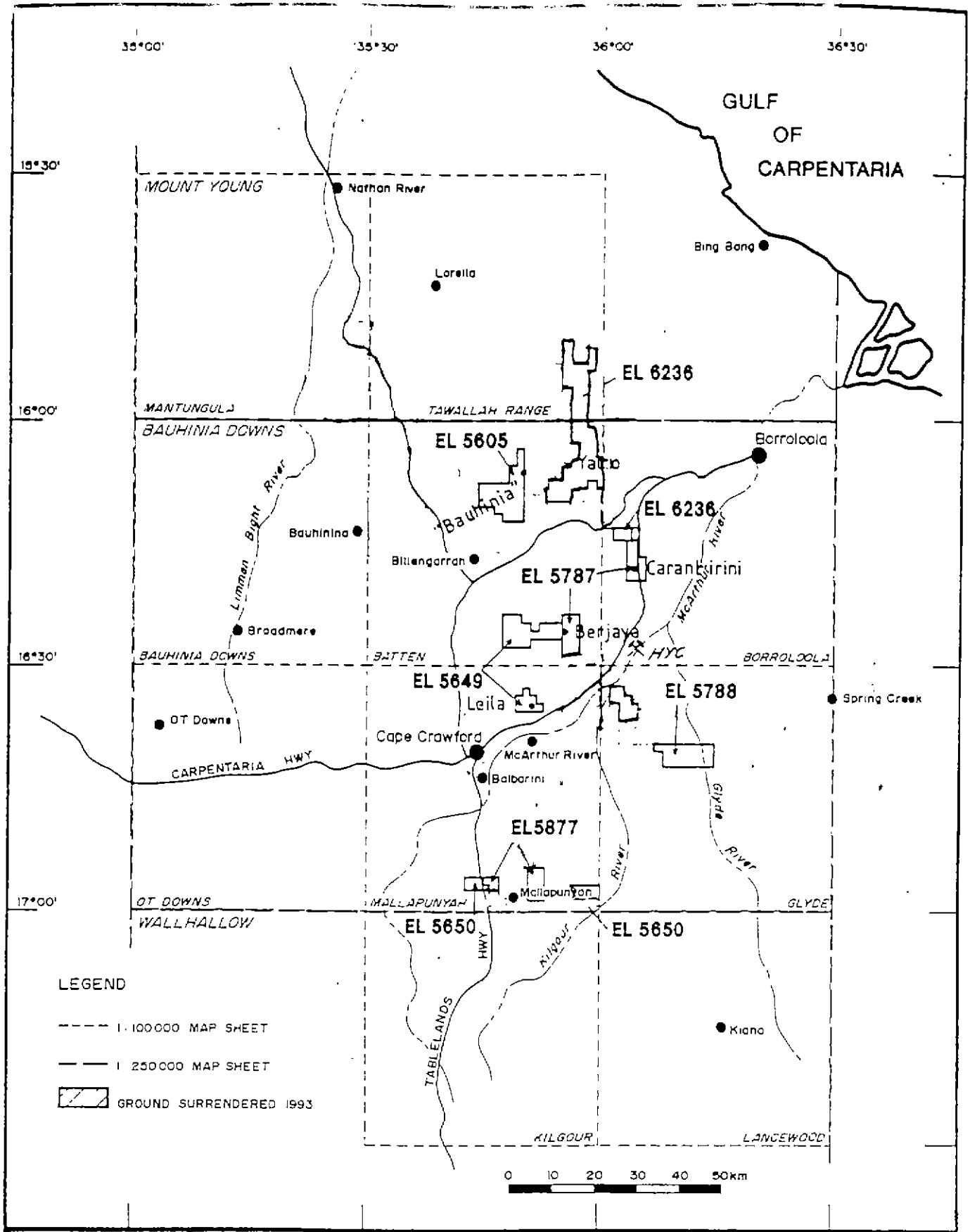
PERILYA MINES N.L.

McARTHUR RIVER JOINT VENTURE

LOCATION MAP

SHOWING CURRENT EXPLORATION LICENCES AND GROUND SURRENDERED DURING 1992

SCALE 1 : 1 250 000	DATE AUG 92	PLAN No. Figure 5



REVISION		SCALE: 1:1250000	M.I.M. EXPLORATION PTY. LTD.
		GEO I.B	McARTHUR JOINT VENTURE, N.T.
		DRAFT: E.I.K.	
		CHECKED.	**LOCATION MAP** 1994
		DATE: July '93	SHOWING CURRENT EXPLORATION LICENCES AND GROUND SURRENDERED DURING 1993
		1:250 000	
		1:100 000	
		MINING FIELD OR DISTRICT: FIGURE 6	DRG No.:

BATTEN TROUGH - DIAMOND PROJECT

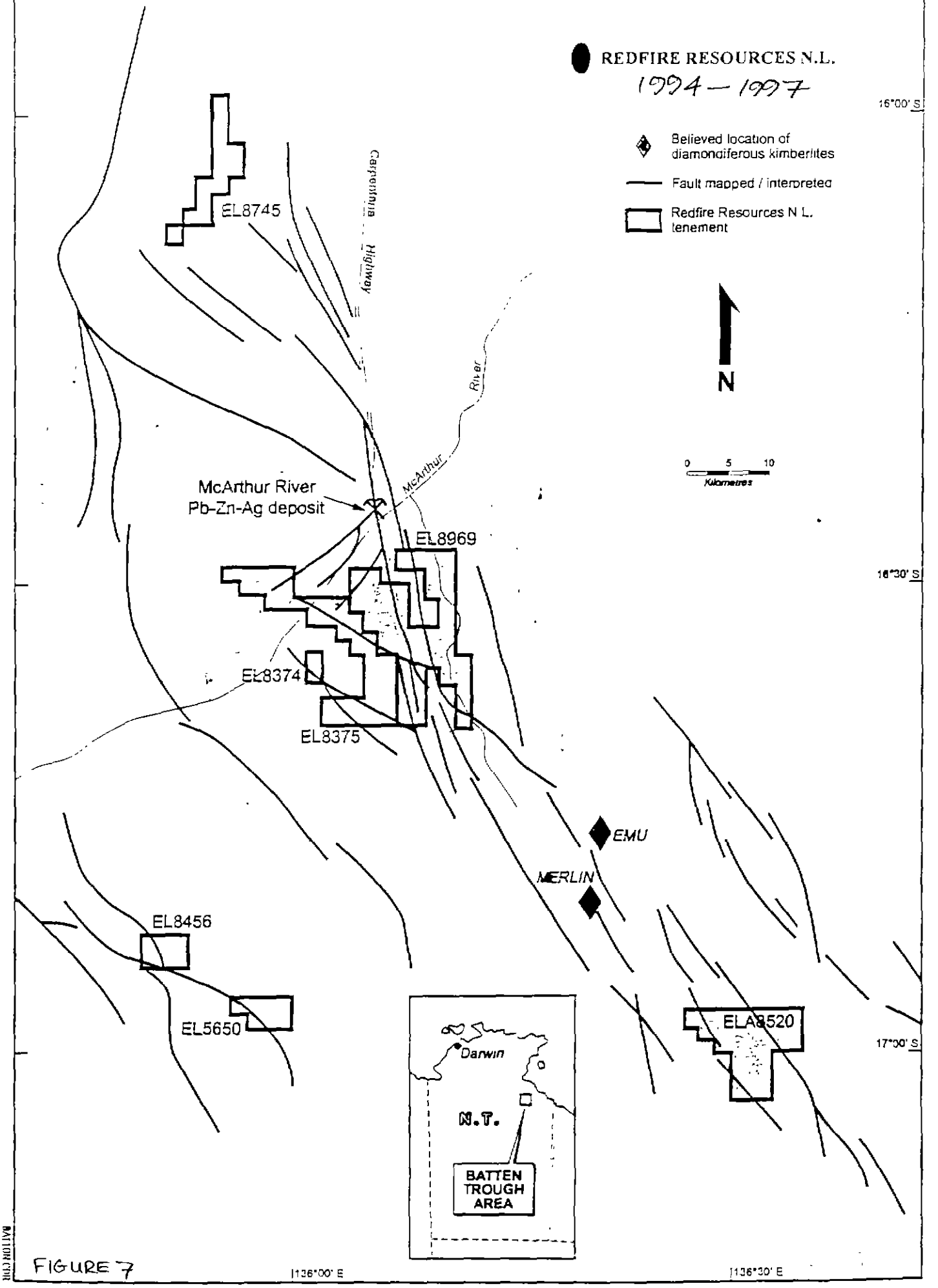


FIGURE 7

LEGEND

	Qal/Cz	Quaternary, Cainozoic
	Kl	Cretaceous
UPPER PROT	Pr	Roper group (undivided)
MIDDLE PROTEROZOIC	Pn	Nathan group (undivided)
	Pmb	Balten sub-group (undivided)
	Pmnd	Donnegan member
	Pmbc	Caranbirini member
	Pm	Umbalooga sub-group
	Pmx	Reward dolomite
	Pmq	Barney Creek formation
	Pmc	Coxco dolomite member
	Pmp	Teena dolomite
	Pme	Emmerugga dolomite
	Pmf	Myrtle shale
	Pmi	Leila sandstone
	Pmt	Tooganinie formation
	Pmd	Tatoola sandstone
	Pma	Amelia dolomite
	Pml	Mallapunyah formation
	Pms	Masterton sandstone
	Pt	Tawallah group (undivided)
		Gossan

Pn

8 125 000mN

Pmb

Pmc

Pmx

Pmp

Pmq

Pmx

Pmb

Pmq

Pme

Pmc

Cz

Pme

Pmx

Pme

Pmi

€

Pmx

Pmp

Pmc

Pmx

Pmb

Pme

Pmq

Pmq

Pmc

Pmq

Pmc

Cz

10

40

N

0

500

1000m

SCALE 1 25 000

105 000mE

PERILYA MINES N.L.

McARTHUR RIVER JOINT VENTURE

KILGOUR RIVER PROSPECT

GEOLOGY

AMG ZONE 53

FIGURE 8

GEOCHEMISTRY OVERLAY

PERILYA MINES N.L.

McARTHUR RIVER JOINT VENTURE

KILGOUR RIVER PROSPECT

FIGURE 9

SCALE 1:25 000

AMG ZONE 53

0 500 1000m

8 125 000mN

605 000mE

△ 9948 - 770, 1620, 46, 210, <1
△ 9949 - 145, 1220, 295, 590, <1
△ 9950 - 170, 1520, 195, 810, <1

7837 ○ 7, <5, 8, <1
7836 ○ 14, 19, 63, <1
7835 ○ 7, 10, 24, <1
7834 ○ 3, 14, 31, <1
7833 ○ 8, 27, 93, <1
7832 ○ 12, <5, 14, 2
7831 ○ 9, <5, 41, <1
7830 ○ 10, <5, 12, 1

7829 = 21, 6, 6, <1
7828 = 22, 70, 26, <1
7827 = 22, 23, 36, <1

△ 9542 - 12, 41, 300, 155, <1
△ 9543 - 8, 32, 210, 340, <1
△ 9544 - 53, 53, 860, 7600, <1
△ 9545 - 18, 30, 155, 220, <1
△ 9546 - 20, 21, 77, 250, <1
△ 9547 - 8, 24, 800, 1240, <1

7819 □ 26, 41, 34, 2

7818 □ 31, 60, 26, 2

7820 □ 19, 28, 23, 1

7821 □ 14, 30, 21, 1

7822 □ 24, 145, 34, 1

N

LEGEND

SAMPLE NUMBER — Au RESULT IN PPB

9655 △ 700, 17, 24, 125, <10

Cu, Pb, Zn, (Ba) RESULTS IN PPM

△ ROCK CHIP SAMPLE

□ STREAM SEDIMENT SAMPLE

○ SOIL SAMPLE

LEGEND

	Qal/Cz	Quaternary, Cainozoic
	Kl	Cretaceous
UPPER PROT.	Pr	Roper group (undivided)
MIDDLE PROTEROZOIC	Pn	Nathan group (undivided)
	Pmb	Batten sub-group (undivided)
	Pmnd	Donnegan member
	Pmbc	Caranbirini member
	Pm	Umbolooga sub-group
	Pmx	Reward dolomite
	Pmq	Barney Creek formation
	Pmc	Coxco dolomite member
	Pmp	Teena dolomite
	Pme	Emmerugga dolomite
	Pmf	Myrtle shale
	Pmi	Lelia sandstone
	Pmt	Tooganinie formation
	Pmd	Tatoola sandstone
	Pma	Amelia dolomite
	Pml	Mallapunyah formation
	Pms	Masterton sandstone
	Pt	Tawallah group (undivided)
		Gossan

8 155 000mN

N

570 000mE

SCALE 1:25 000

0 500 1000m

PERILYA MINES N.L.

McARTHUR RIVER JOINT VENTURE

LITTLE CREEK SUB-BASIN

GEOLOGY

AMG ZONE 53

FIGURE 10

LEGEND

SAMPLE NUMBER → 9665 △ 700, 17, 24, 125, <10 ← Au RESULT IN PPB

Cu, Pb, Zn, (Ba) RESULTS IN PPM

△ ROCK CHIP SAMPLE

□ STREAM SEDIMENT SAMPLE

○ SOIL SAMPLE

N

8685 ○ 11, 28, 7, <1
8684 ○ 16, 27, 8, <1
8683 ○ 12, 23, 9, 3
8682 ○ 19, 32, 9, <1
8681 ○ 12, 26, 7, <1
8680 ○ 12, 21, 12, <1
8679 ○ 14, 16, 12, <1
8678 ○ 44, 38, 13, 2
8677 ○ 14, 18, 15, <1
8676 ○ 23, 90, 11, <1
8675 ○ 12, 20, 11, <1
8674 ○ 6, 9, 10, <1
8673 ○ 5, <5, 13, <1
8672 ○ 5, 13, 11, <1
8671 ○ 8, 11, 16, <1
8670 ○ 11, 15, 12, 1
8669 ○ 11, 15, 17, 1
8668 ○ 11, 14, 19, 6
8667 ○ 11, 24, 17, <1
8666 ○ 12, 18, 16, <1
8665 ○ 13, 24, 22, <1
8664 ○ 10, 43, 16, <1
8663 ○ 13, 33, 23, <1
8662 ○ 10, 13, 17, 2
8661 ○ 12, 18, 13, <1
8660 ○ 12, 11, 19, <1
8659 ○ 13, 28, 12, <1
8658 ○ 7, 9, 12, <1
8657 ○ 19, 41, 19, 1
8656 ○ 17, 39, 21, 2
8655 ○ 9, 12, 19, 2
8654 ○ 19, 47, 24, 2
8653 ○ 19, 47, 20, 1
8652 ○ 13, 31, 23, <1
8651 ○ 12, 20, 14, <1
8200 ○ 12, 26, 11, <1
8199 ○ 25, 71, 20, 2
8198 ○ 12, 15, 14, 2
8197 ○ 14, 14, 15, <1
8196 ○ 14, 19, 15, <1
8195 ○ 11, 15, 15, 1
8194 ○ 12, 19, 89, <1
8193 ○ 14, 25, 12, <1
8192 ○ 12, 15, 11, <1
8191 ○ 10, 10, 9, <1
8190 ○ 13, 33, 12, <1
8189 ○ 11, 35, 17, 3
8188 ○ 12, 21, 9, <1
8187 ○ 12, 19, 7, 3
8186 ○ 11, 28, 8, <1
8185 ○ 13, 24, 11, <1

8731 ○ 13, 69, 11, <1
8730 ○ 10, 31, 14, 1
8729 ○ 8, 17, 18, <1
8728 ○ 9, 10, 24, <1
8727 ○ 14, 9, 19, 2
8726 ○ 22, 43, 53, 1
8725 ○ 6, 24, 10, 2
8724 ○ 11, 46, 13, 2
8723 ○ 9, 14, 7, <1
8722 ○ 10, 14, 10, <1
8721 ○ 9, 15, 9, <1
8720 ○ 9, 13, 12, 1
8719 ○ 8, 22, 7, 2
8718 ○ 8, 20, 7, <1
8717 ○ 8, 20, 6, <1
8716 ○ 7, 34, 8, <1
8715 ○ 7, 24, 5, <1
8714 ○ 7, 12, 4, <1
8713 ○ 5, 9, 3, <1
8712 ○ 9, 18, 9, 1
8711 ○ 11, 30, 11, <1
8710 ○ 16, 38, 9, <1
8709 ○ 16, 43, 9, 1
8708 ○ 12, 33, 10, 1
8707 ○ 11, 24, 17, 1
8706 ○ 9, 18, 22, 2
8705 ○ 9, 19, 9, 2
8704 ○ 9, 22, 14, <1
8703 ○ 12, 12, 18, <1
8702 ○ 11, 24, 18, 2
8701 ○ 11, 22, 13, 1
8700 ○ 11, 24, 15, 1
8699 ○ 10, 23, 15, 2
8698 ○ 6, 9, 12, <1
8697 ○ 5, 6, 22, <1
8696 ○ 8, 6, 29, <1
8695 ○ 8, 11, 21, <1
8694 ○ 10, 7, 14, 1
8693 ○ 9, 16, 19, 3
8692 ○ 8, 12, 20, <1
8691 ○ 11, 22, 15, <1
8690 ○ 12, 16, 16, <1
8689 ○ 12, 17, 11, <1
8688 ○ 10, 6, 7, <1
8687 ○ 7, 13, 8, <1
8686 ○ 10, 15, 13, <1

8184 ○ 6, 8, 12, <1
8183 ○ 4, 11, 14, <1
8182 ○ 5, 11, 14, 1
8181 ○ 5, 9, 9, 2
8180 ○ 5, 11, 11, 2
8179 ○ 5, 9, 19, 3
8178 ○ 4, 9, 10, <1
8177 ○ 14, <5, 16, 7
8176 ○ 12, 24, 11, 1
8175 ○ 9, 14, 7, <1
8174 ○ 12, 26, 8, <1
8173 ○ 12, 60, 20, <1
8172 ○ 16, 62, 18, <1
8171 ○ 16, 31, 11, <1
8170 ○ 11, 27, 12, <1
8169 ○ 14, 21, 18, <1
8168 ○ 11, 25, 62, <1
8167 ○ 17, 18, 17, <1
8166 ○ 14, 22, 12, <1
8165 ○ 16, 29, 15, 2
8164 ○ 15, 30, 16, <1

670 000 mE

8150

0 500 1000 m

SCALE 1:25 000
AMG ZONE 53

PERILYA MINES N.L.
McARTHUR RIVER JOINT VENTURE

LITTLE CREEK SUB-BASIN

GEOCHEMISTRY OVERLAY

FIGURE 11.

LEGEND

	Qal/Cz	Quaternary, Cainozoic
	Kl	Cretaceous
UPPER PROT.	Pr	Roper group (undivided)
MIDDLE PROTEROZOIC	Pn	Nathan group (undivided)
	Pmb	Batten sub-group (undivided)
	Pmnd	Donnegan member
	Pmbc	Caranbirini member
	Pm	Umbolooga sub-group
	Pmx	Reward dolomite
	Pmq	Barney Creek formation
	Pmc	Coxco dolomite member
	Pmp	Teena dolomite
	Pme	Emmerugga dolomite
	Pmf	Myrtle shale
	Pmi	Lelia sandstone
	Pmt	Tooganinie formation
	Pmd	Tatoola sandstone
	Pma	Amelia dolomite
	Pml	Mallapunyah formation
	Pms	Masterton sandstone
	Pt	Tawallah group (undivided)
		Gossan

8 150 000mN

N

0 500 1000m

SCALE 1:25 000

MYSTERY NORTH GOSSAN (marcasite nodule pseudomorphs)

TABLELANDS HIGHWAY

MYSTERY MINE

PERILYA MINES N.L.

McARTHUR RIVER JOINT VENTURE

MYSTERY SUB-BASIN

GEOLOGY

AMG ZONE 53

FIGURE 12.

576

LEGEND

SAMPLE NUMBER — Au RESULT IN PPB

9695 △ 700, 17, 24, 125, <10

Cu, Pb, Zn, (Ba) RESULTS IN PPM

△ ROCK CHIP SAMPLE

□ STREAM SEDIMENT SAMPLE

○ SOIL SAMPLE

8150 000 mN

N

9504 △ <2, <5, 15, 230, <1

7772 □ 2, 7, 14, <1

9708 △ 7, 6, 98, 3600, <10

? 9508

9519 △ 13, <5, 77, 6100, <10

9520 △ 3, <5, 54, 240, <10

9521 △ 5, <5, 52, 145, <10

9522 △ 3, <5, 24, 520, <10

If so this is anomalous!!

0 500 1000m

SCALE 1:25 000

AMG ZONE 53

7773 □ 6, 10, 13, 3

7774 □ 7, <5, 17, <1

7775 □ <2, <5, 11, <1

7769 □ 11, 10, 11, <1

7770 □ 39, 10, 10, <1

6, <5, 62, 820, <10
9503 △

9501 = 8, <5, 18, 80, <10
9502 = 7, <5, 15, 75, <10

7776 □ 14, 16, 33, <1

7771 □ 18, 20, 52, <1

578 000 mE

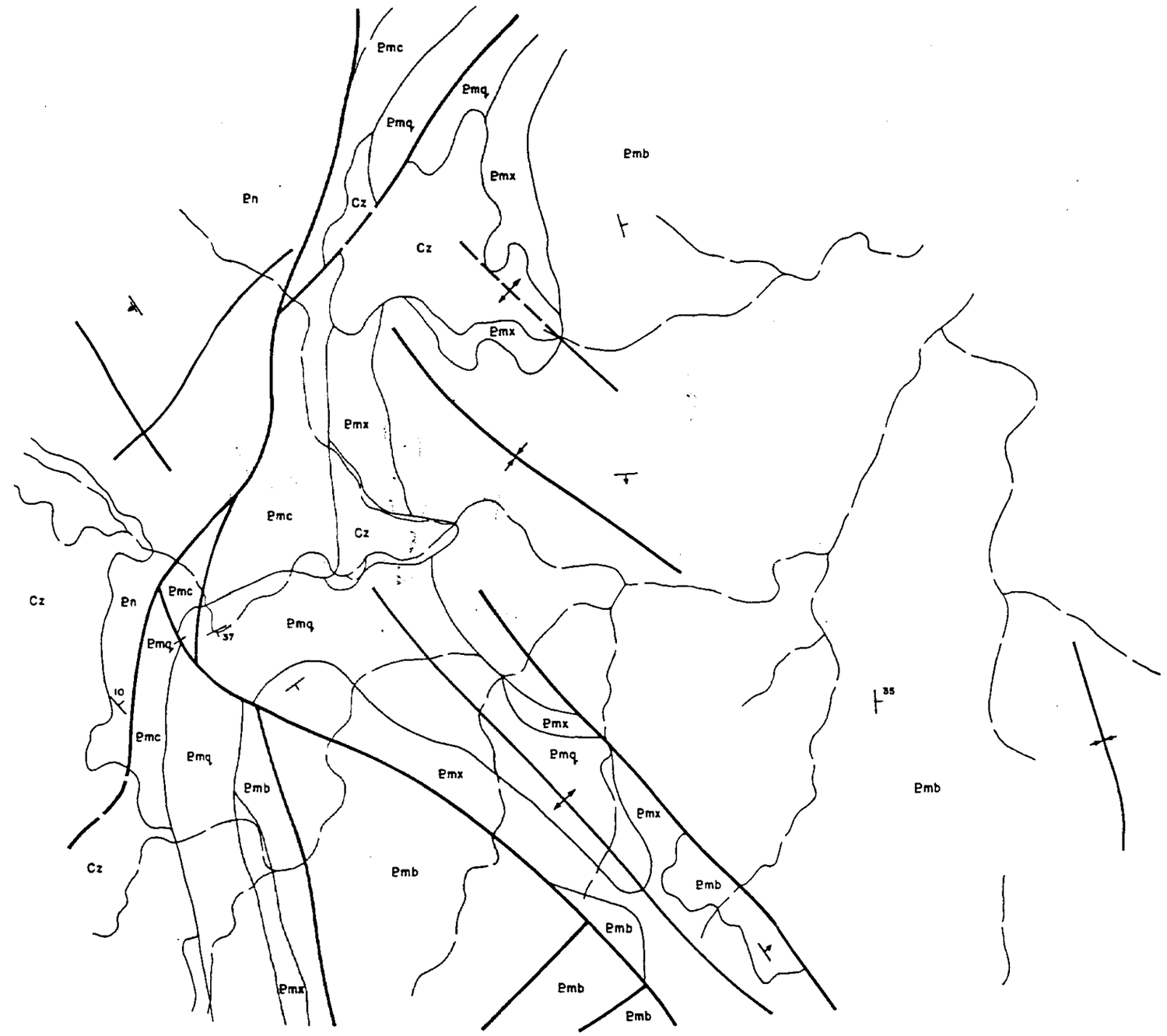
PERILYA MINES N.L.

McARTHUR RIVER JOINT VENTURE

MYSTERY SUB-BASIN

GEOCHEMISTRY OVERLAY

FIGURE 13



LEGEND

	Qal/Cz	Quaternary, Cainozoic
	K1	Cretaceous
UPPER PROT.	Pr	Roper group (undivided)
MIDDLE PROTEROZOIC	Pn	Nathan group (undivided)
	Pmb	Batten sub-group (undivided)
	Pmnd	Donnegan member
	Pmbc	Caranbirini member
	Pm	Umbolooga sub-group
	Pmx	Reward dolomite
	Pmq	Barney Creek formation
	Pmc	Coxco dolomite member
	Pmp	Teena dolomite
	Pme	Emmerugga dolomite
	Pmf	Myrtle shale
	Pmi	Leila sandstone
	Pmt	Tooganinie formation
	Pmd	Tatoola sandstone
	Pma	Amelia dolomite
	Pml	Mallapunyah formation
	Pms	Masterton sandstone
	Pt	Tawallah group (undivided)
		Gossan

N

0 500 1000m

SCALE 1:25 000

PERILYA MINES N.L.

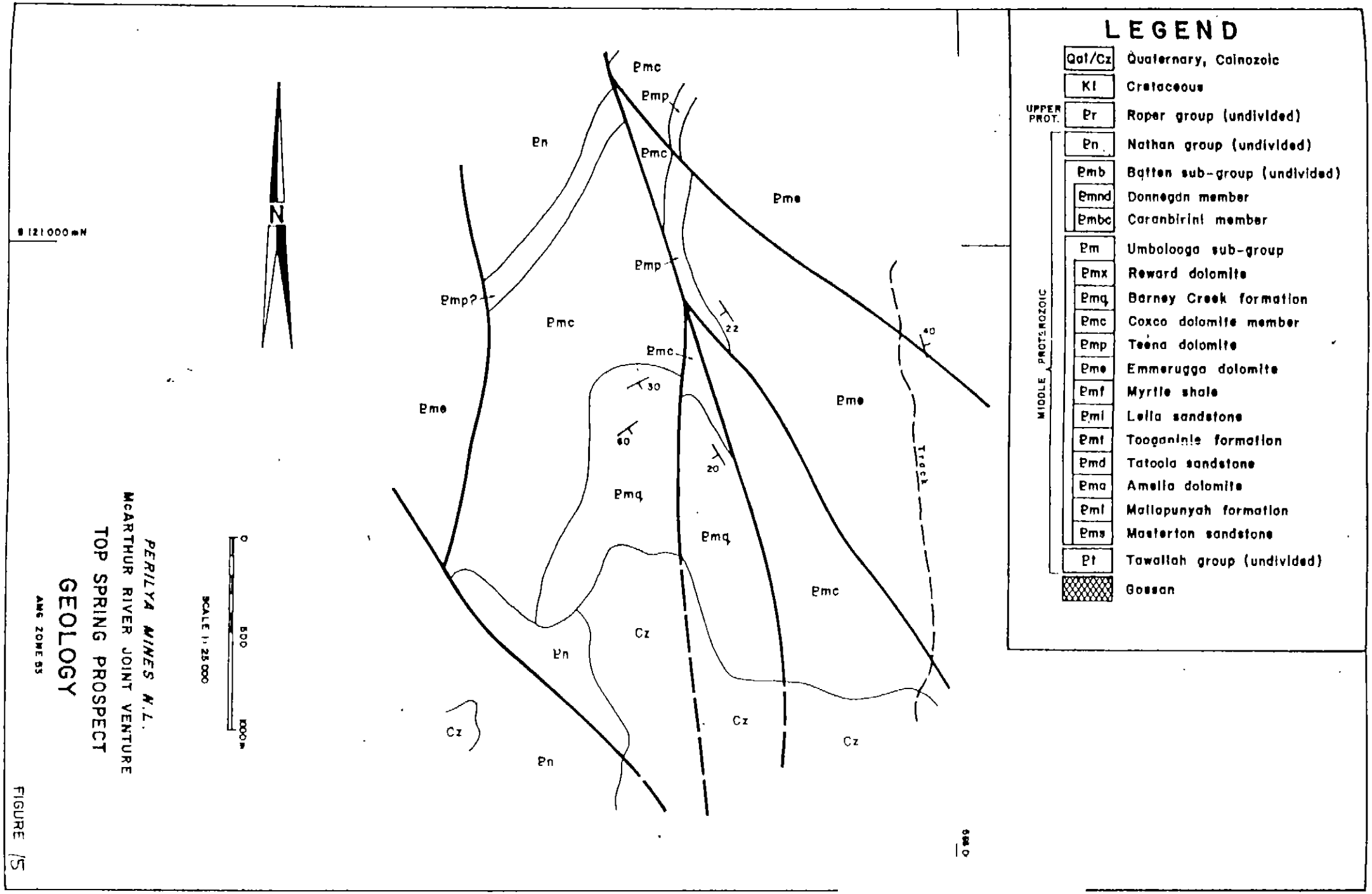
McARTHUR RIVER JOINT VENTURE

LITTLE CREEK SUB-BASIN (NORTH)

GEOLOGY

AMG ZONE 53

FIGURE 14.


LEGEND
Qal/Cz Quaternary, Cainozoic
Kt Cretaceous
UPPER PROT.
Pr Roper group (undivided)
Pn Nathan group (undivided)
Pmb Batten sub-group (undivided)
Pmnd Donnegan member
Pmbc Caranbirini member
Pm Umbolooga sub-group
Pmx Reward dolomite
Pmq Barney Creek formation
Pmc Coxco dolomite member
Pmp Teena dolomite
Pme Emmerugga dolomite
Pmf Myrtle shale
Pmi Lelia sandstone
Pmt Tooganinie formation
Pmd Tatoola sandstone
Pma Amelia dolomite
Pml Mallapunyah formation
Pms Masterton sandstone
MIDDLE PROTEROZOIC
Pt Tawallah group (undivided)
Gossan
8 121 000 mN
N
Pmc
Pmp
Pn
Pmc
Pme
Pmp
Pmp?
Pmc
22
40
Pmc
30
Pme
Pme
60
20
Pmq
Pmq
Pmc
Cz
Pn
Cz
Cz
Pn
0
500
1000m
SCALE 1:25 000
PERILYA MINES N.L.
McARTHUR RIVER JOINT VENTURE
TOP SPRING PROSPECT
GEOLOGY
AMG ZONE 53
FIGURE 15

LEGEND

SAMPLE NUMBER

Au RESULT IN PPB

Cu, Pb, Zn, (Ba) RESULTS IN PPM

9666 △ 700, 17, 24, 125, <10

△ ROCK CHIP SAMPLE

□ STREAM SEDIMENT SAMPLE

○ SOIL SAMPLE

585 000mE

9660 △ 48, 5, 24, 520, <1

8121000mN

N

0 500 1000m

SCALE 1:25 000

AMG ZONE 53

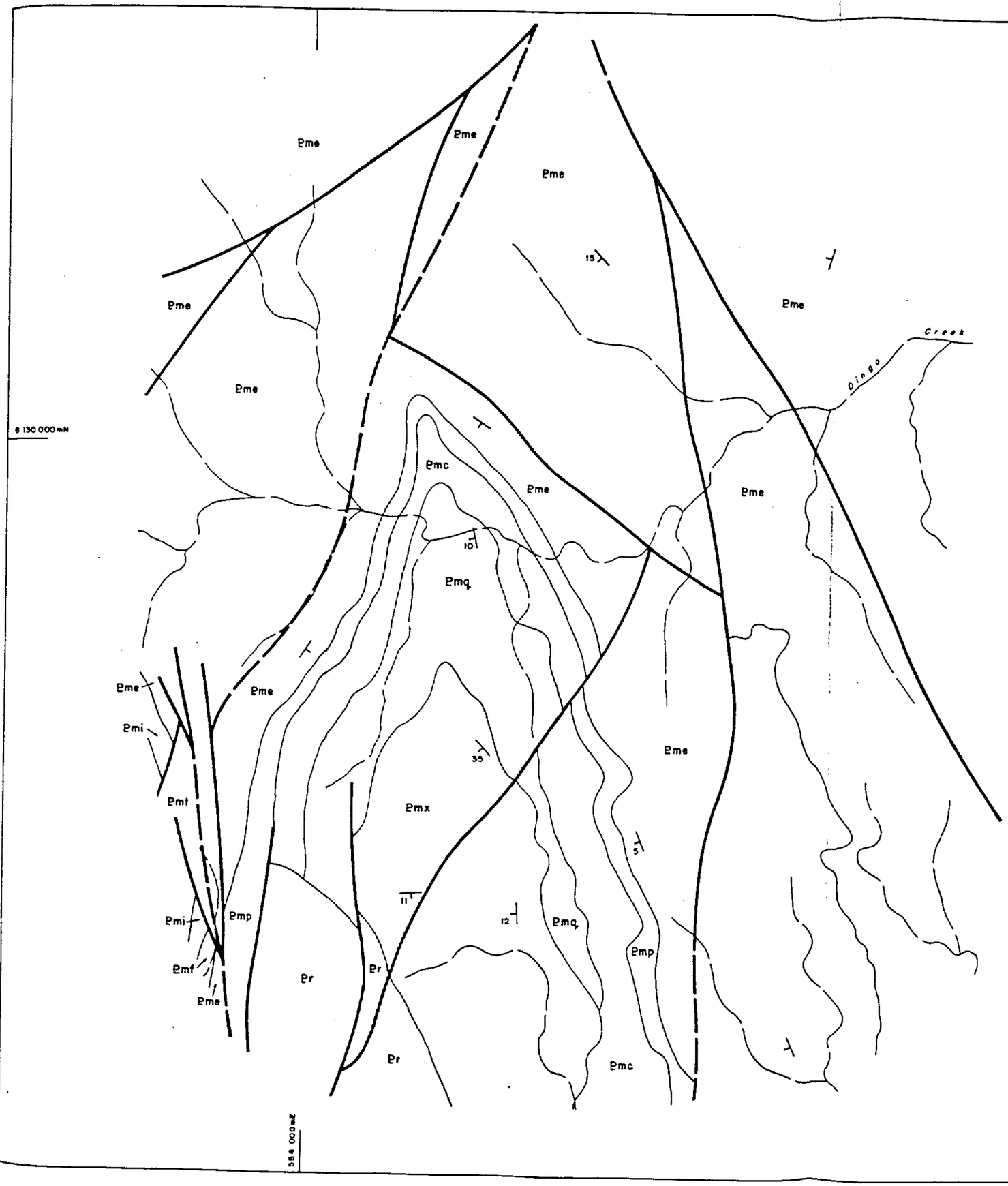
PERILYA MINES N.L.

McARTHUR RIVER JOINT VENTURE

TOP SPRING PROSPECT

GEOCHEMISTRY OVERLAY

FIGURE 16



LEGEND

	Qal/Cz	Quaternary, Cainozoic
	Kl	Cretaceous
UPPER PROT.	Pr	Roper group (undivided)
MIDDLE PROTEROZOIC	Pn	Nathan group (undivided)
	Pmb	Batten sub-group (undivided)
	Pmnd	Donnegan member
	Pmbc	Caranbirini member
	Pm	Umbolooga sub-group
	Pmx	Reward dolomite
	Pmq	Barney Creek formation
	Pmc	Coxco dolomite member
	Pmp	Teena dolomite
	Pme	Emmerugga dolomite
	Pmf	Myrtle shale
	Pmi	Leila sandstone
	Pmt	Tooganinie formation
	Pmd	Tatoola sandstone
	Pma	Ametia dolomite
	Pml	Mallapunyah formation
	Pms	Masterton sandstone
	Pt	Tawallah group (undivided)
		Gossan

N

0 500 1000m

SCALE 1:25 000

PERILYA MINES N.L.

McARTHUR RIVER JOINT VENTURE

DINGO CREEK

GEOLOGY

AMG ZONE 53

FIGURE 17

8130 000 mN

7860 □ 13, 6, 6, <1

9589 △ 67, 240, 305, 280, <10

7859 □ 16, 9, 7, 1

654 000 mE

LEGEND

SAMPLE NUMBER → 9655 △ 700, 17, 24, 125, <10 ← Au RESULT IN PPB

Cu, Pb, Zn, (Ba) RESULTS IN PPM

△ ROCK CHIP SAMPLE

□ STREAM SEDIMENT SAMPLE

○ SOIL SAMPLE

N

0 500 1000 m

SCALE 1:25 000

AMG ZONE 53

PERILYA MINES N.L.

McARTHUR RIVER JOINT VENTURE

DINGO CREEK

GEOCHEMISTRY OVERLAY

FIGURE 18

589 000mE

MALLAPUNYAH

ROAD

N

8120 000mN

LEGEND

Qal/Cz Quaternary, Cainozoic

MIDDLE PROTEROZOIC

UMBOLOOGA SUB-GROUP

- Pma Amelia Dolomite
- Pml Mallapunya Formation
- Pms Masterton Sandstone

TAWALLAH GROUP

- Ptg Gold Creek Volcanics
- Pto Wollogorang Formation
- Pte Settlement Creek Volcanics
- Ptl Sly Creek Sandstone

0 500 1000m

SCALE: 1:25,000

Pml Pms Pto Pte Ptl Cz Pt

600mE

PERILYA MINES N.L.

McARTHUR RIVER JOINT VENTURE

MALLAPUNYAH DOME NORTH PROSPECT

GEOLOGY

AMG ZONE 53

FIGURE 19

589 000mE

12565
12566
12567
12568

13196
13196
13197
13198
13199
13200

13261
13262

N

8 120 000mN

8 120 000mN

GEOCHEMISTRY RESULTS
ROCK CHIP SAMPLES

NUMBER	Cu	Pb	Zn	Au
△ 12565	14	<5	<2	80
12566	21	16	20	<10
12567	4	5	<2	<10
12568	15	<5	4	<10
13196	3	<5	4	<10
13196	22	<5	15	<10
13197	10	<5	8	<10
13198	<2	<5	2	<10
13199	3	9	7	<10
13200	115	5	11	<10
13261	46	12	35	<10
13262	15	5	8	<10
	ppm			ppb

0 600 1000m

SCALE: 1:25,000

589 000mE

PERILYA MINES N.L.

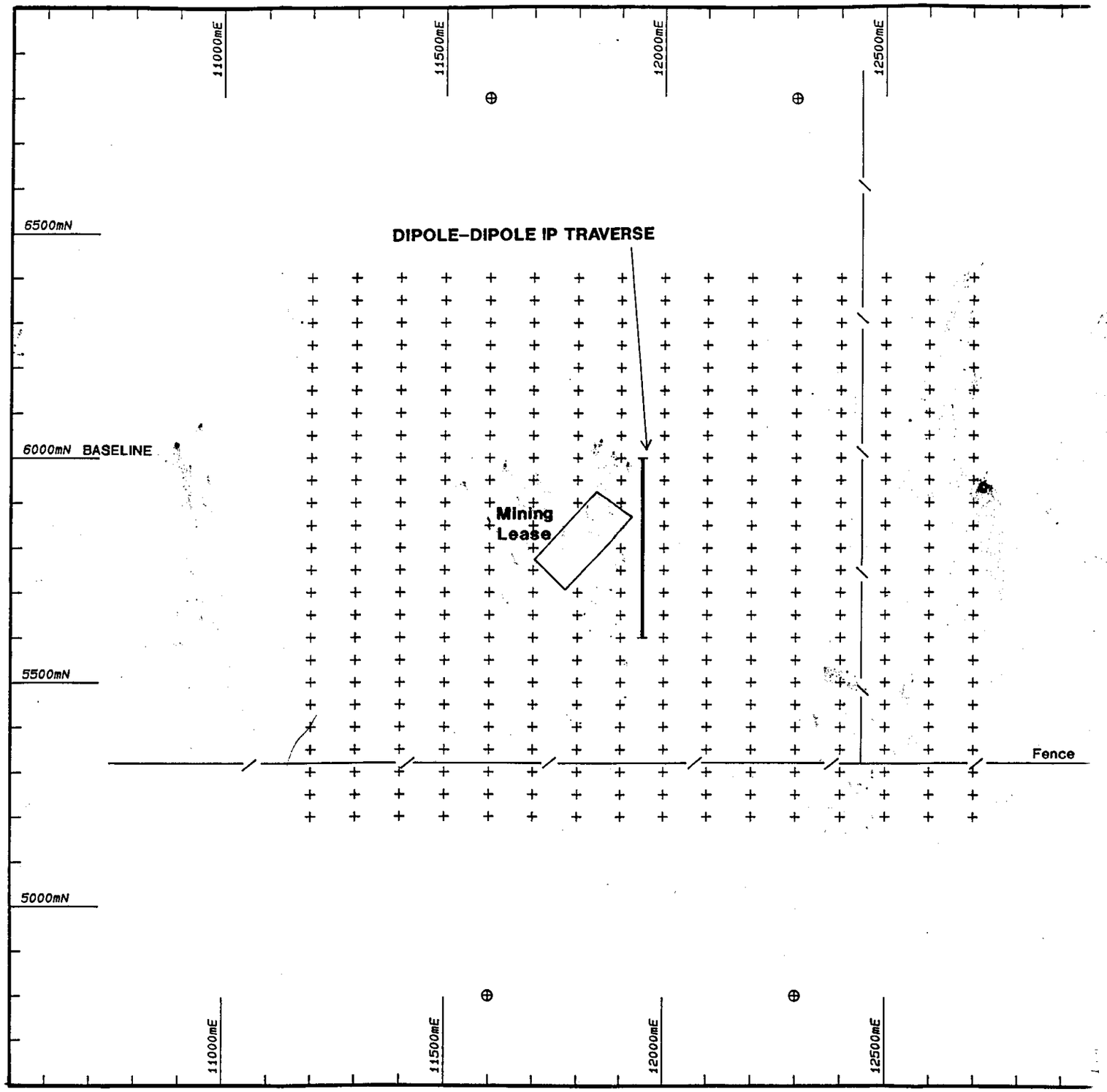
McARTHUR RIVER JOINT VENTURE

MALLAPUNYAH DOME NORTH PROSPECT

GEOCHEMISTRY OVERLAY

AMG ZONE 53

FIGURE 20



NOTES :
LOCAL GRID CO-ORDINATES

+ RX-Electrode

⊕ TX-Electrode

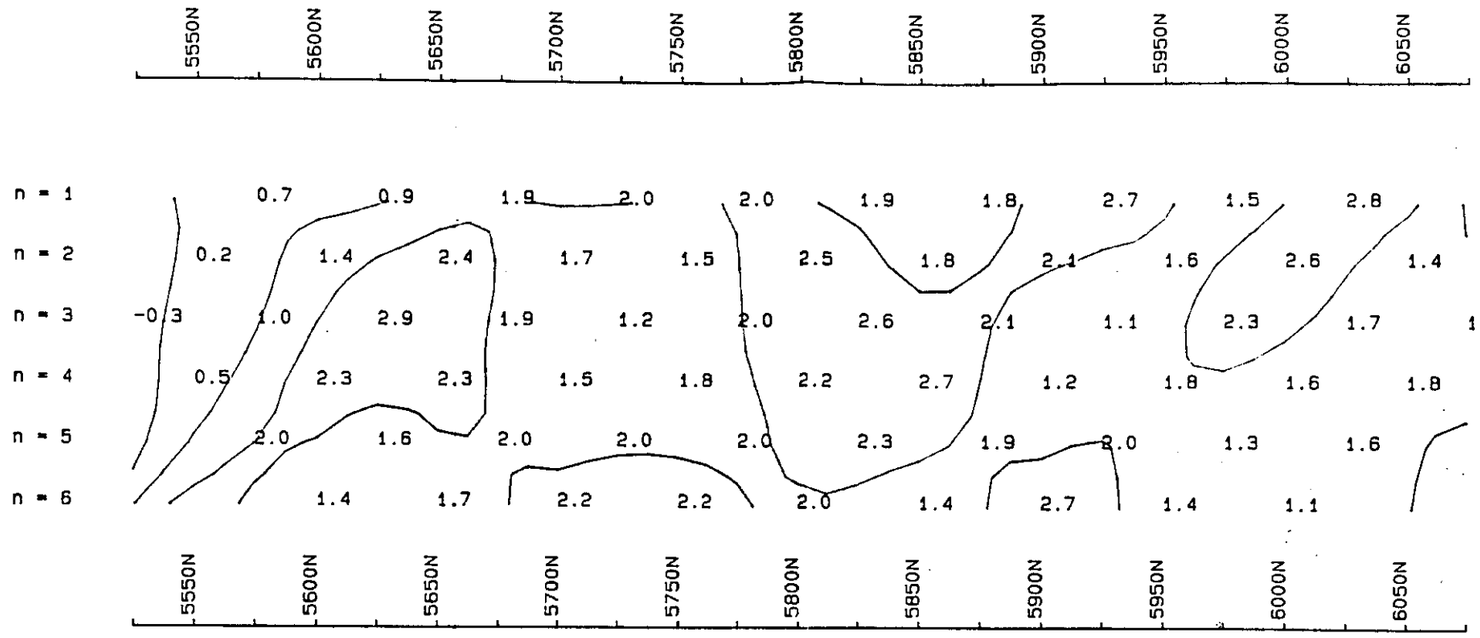
Scale	DATE	SHEET
1: 10000	11/10/94	1 of 1
	REF No.	

EL 5650 & EL 5877
COPPER KING
Gradient Array &
Dipole-Dipole
IP Survey Plan

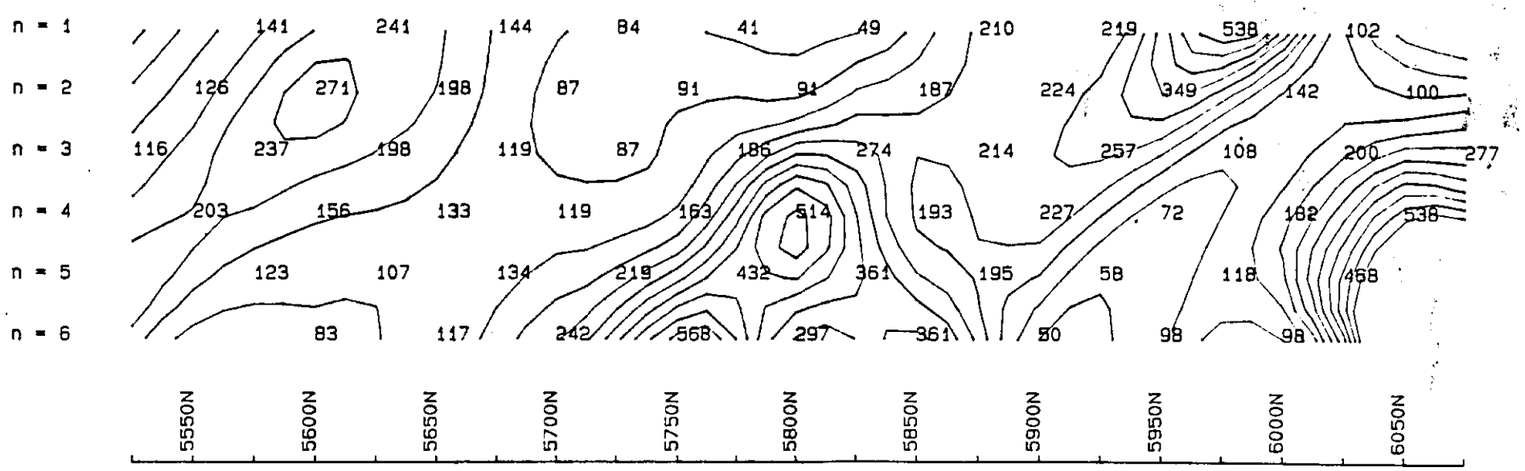
MIM EXPLORATION PTY LTD

41520

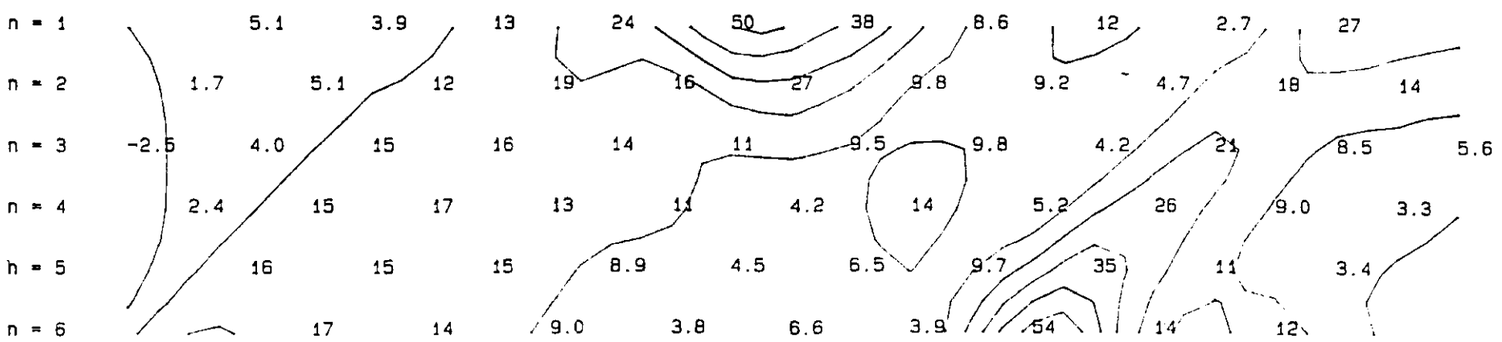
FIGURE 21.



APPARENT CHARGEABILITY (MSECS)



APPARENT RESISTIVITY (OHM-M)



APPARENT METAL FACTOR (Ma/Pa*1000)

SURVEY SPECIFICATIONS

TIME DOMAIN INDUCED POLARISATION

TRANSMITTER:	Scintrex TSQ-4
TIMING:	2 sec on/2 sec off
RECEIVER:	Scintrex IPR-12
INTEGRATION:	0.59 - 1.45msecs
OPERATOR:	Search Exploration
DIPOLE (m):	50

0 50 100 150

SCALE 1 : 2500.

MIM EXPLORATION

COPPER KING

NORTHERN TERRITORY

50m Dipole-Dipole

LINE : 11950E

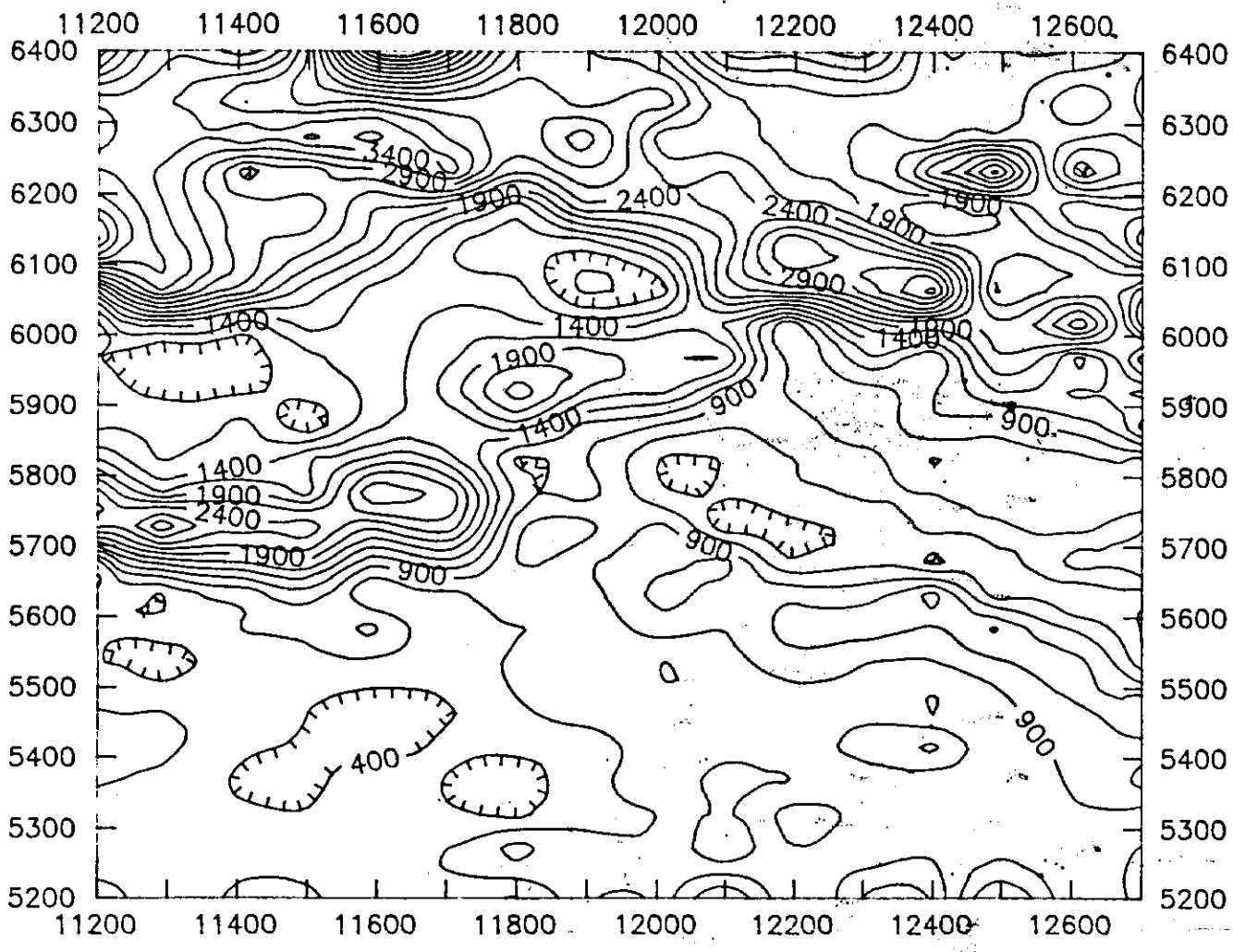
November 1993

41514

FIGURE 22

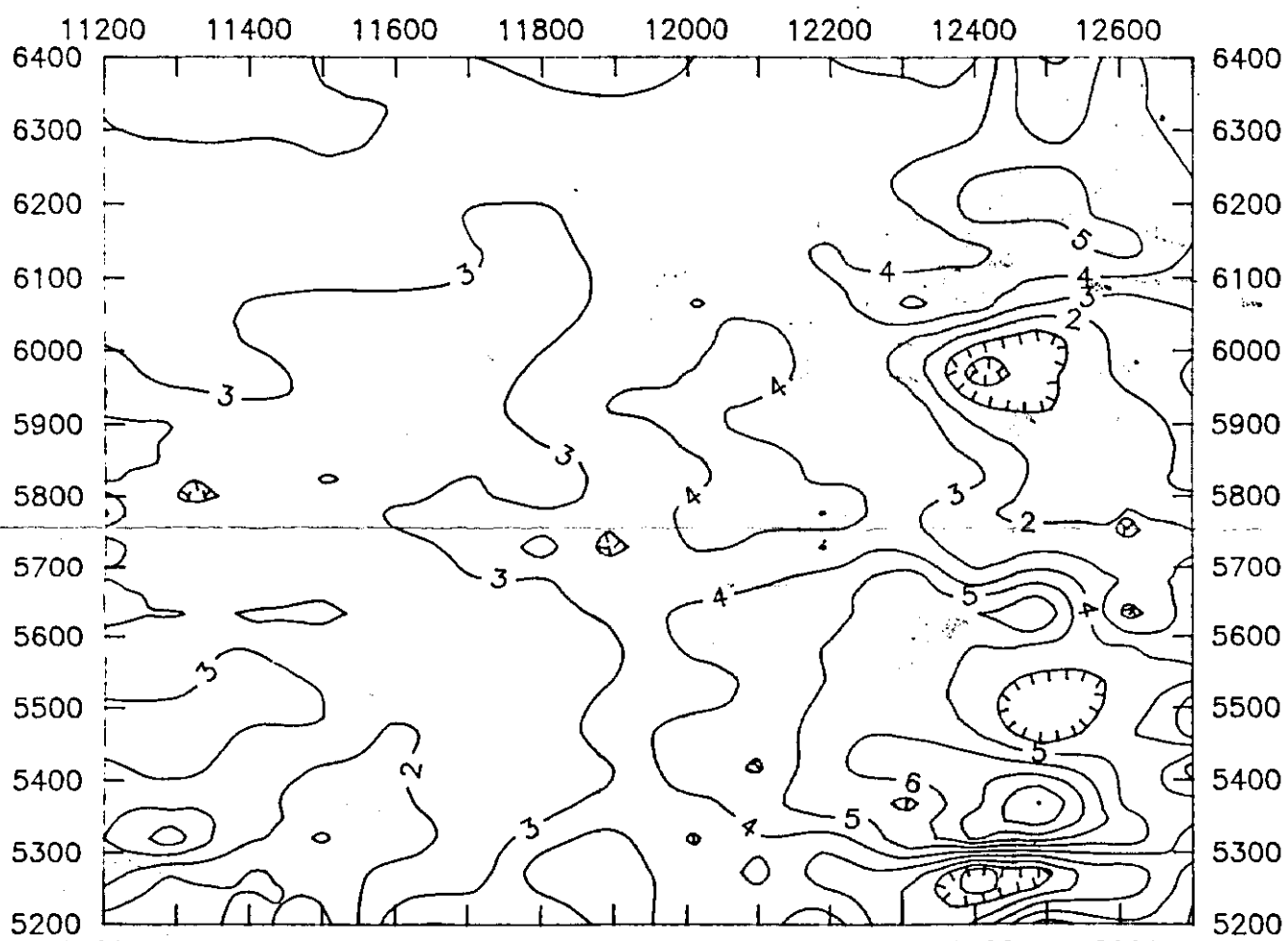
41515

APPARENT RESISTIVITY OHMS M



MIM EXPLORATION
COPPER KING
GRADIENT ARRAY
1:10000

CHARGEABILITY 590-1450MS



Tx TSQ-4
Rx IPR-12
Fx 2 SEC
DEC 1993.

SEARCH EXPLORATION SERVICES

FIGURE 23

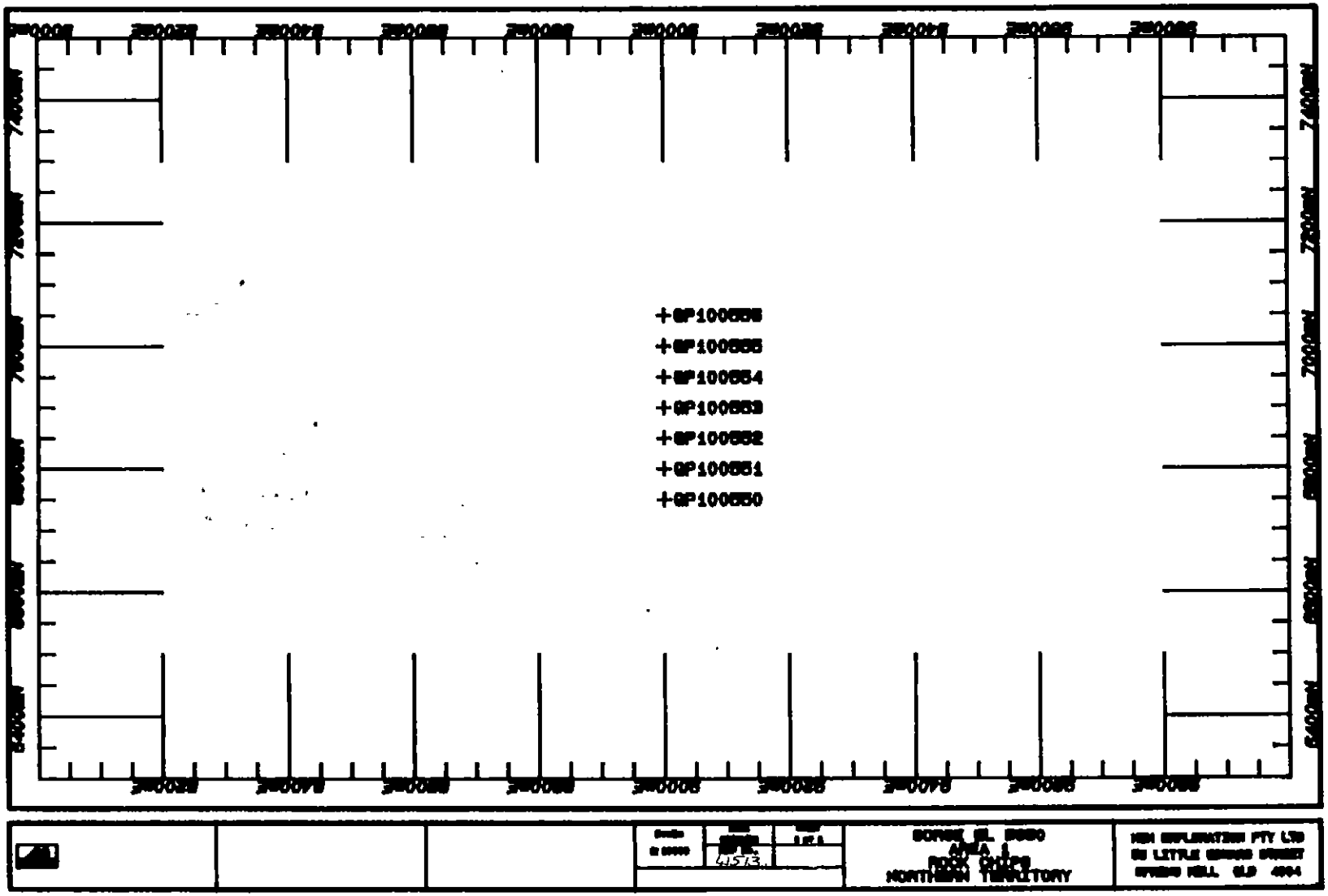
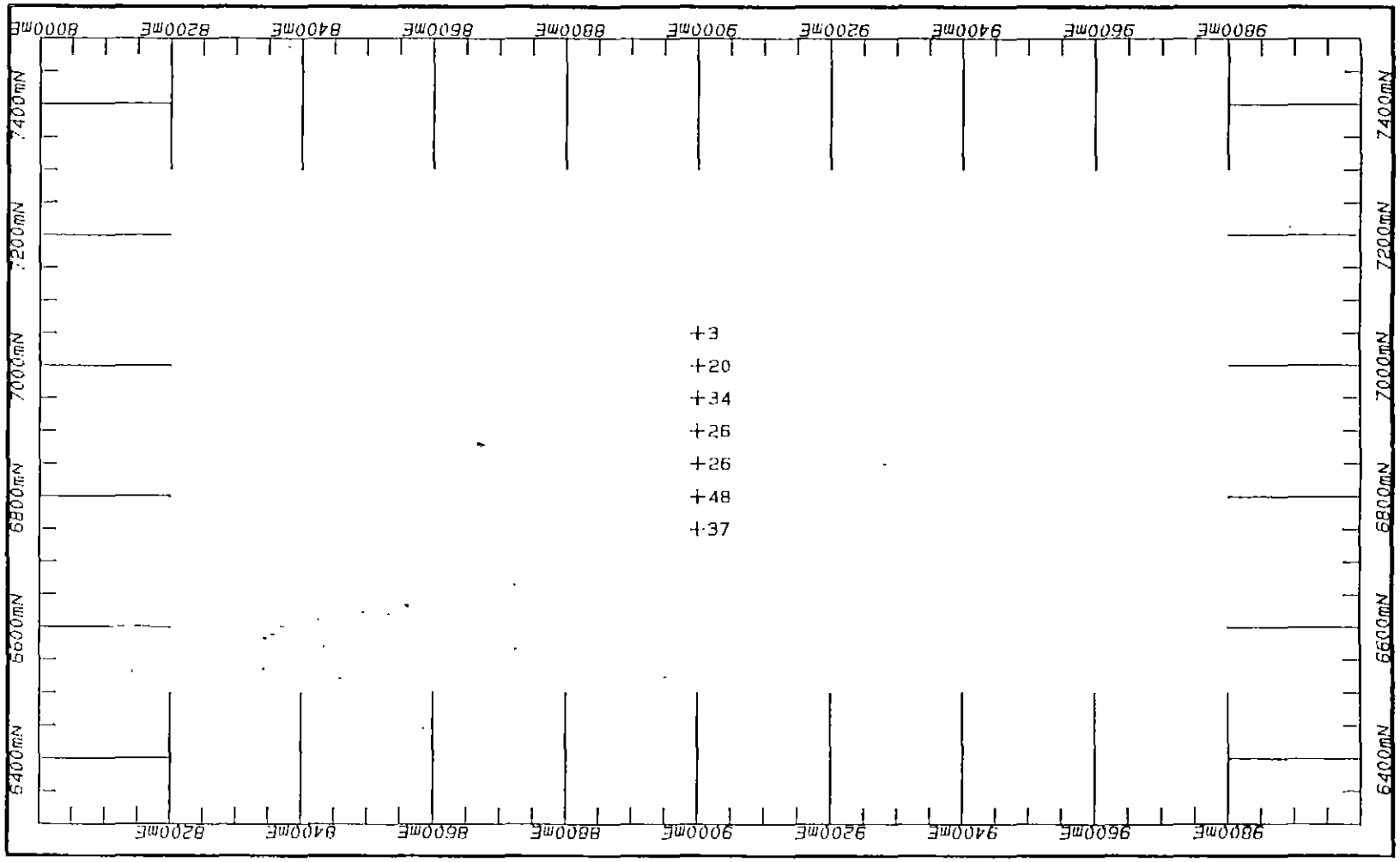

+GP100556
+GP100555
+GP100554
+GP100553
+GP100552
+GP100551
+GP100550
4573.
NORTHERN TERRITORY

FIGURE 24



			Scale 1:5000	GORGE EL 5650 AREA 1 ROCK CHIPS - CU VALUES NORTHERN TERRITORY	MIM EXPLORATION PTY LTD 55 LITTLE EDWARD STREET SPRING HILL QLD 4004

Figure 25

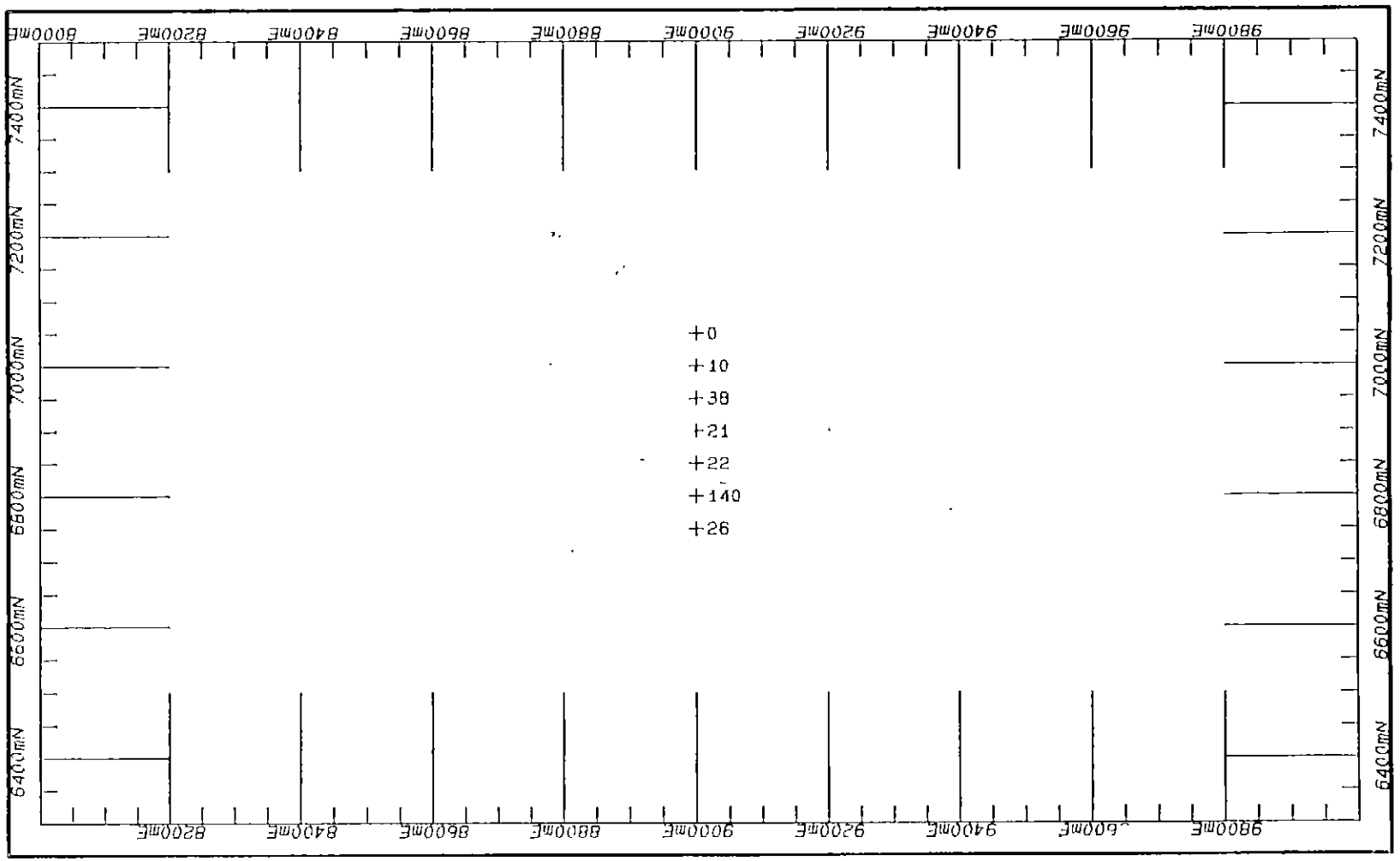

8000mE
8200mE
8400mE
8600mE
8800mE
9000mE
9200mE
9400mE
9600mE
9800mE
7400mN
7200mN
7000mN
6800mN
6600mN
6400mN
+0
+10
+38
+21
+22
+140
+26
CORGE EL 5650
AREA 1
ROCK CHIPS - Pb VALUES
NORTHERN TERRITORY
41511
MIM EXPLORATION PTY LTD
55 LITTLE EDWARD STREET
SPRING HILL QLD 4004

Figure 26

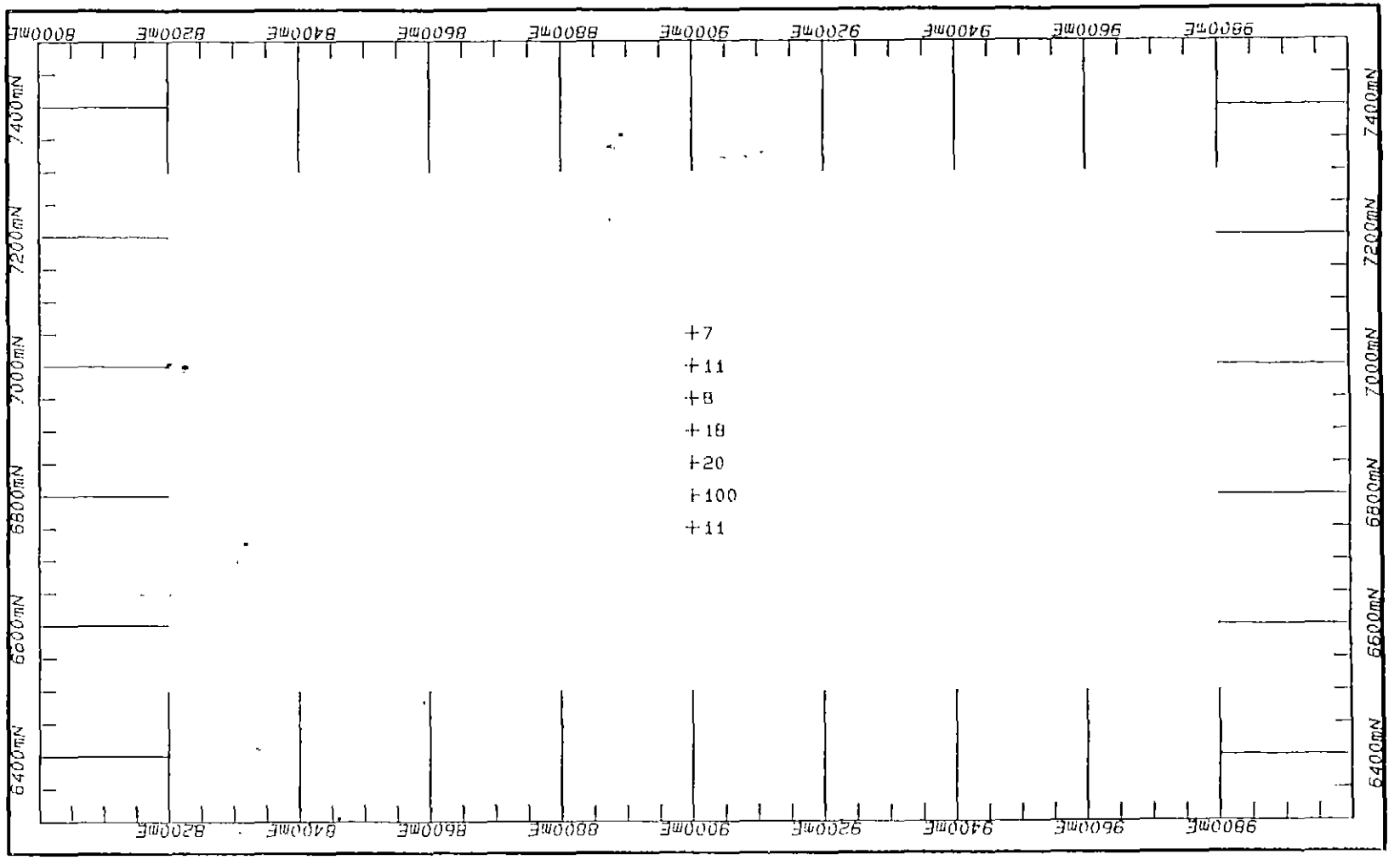
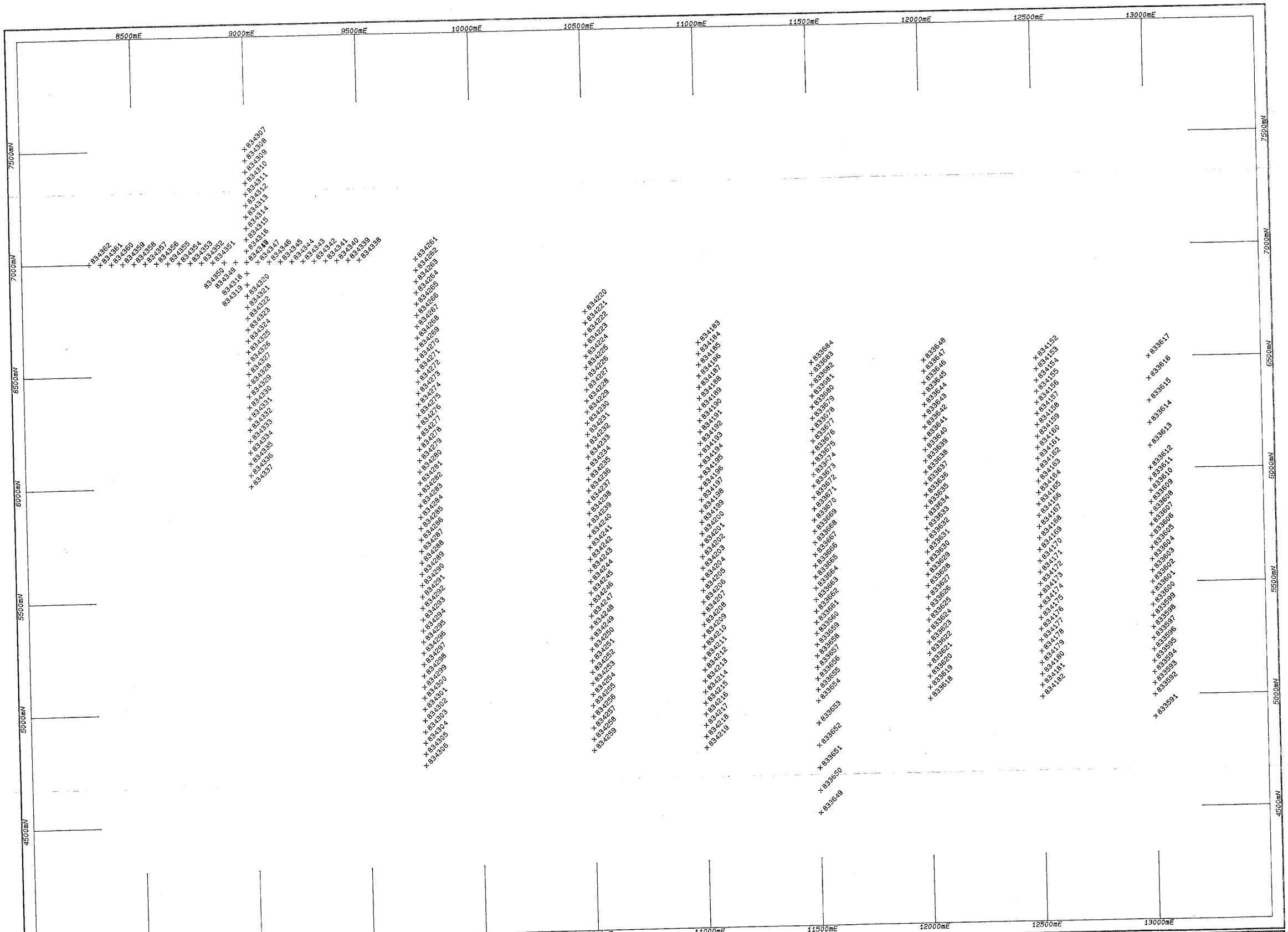

8000mE
8200mE
8400mE
8600mE
8800mE
9000mE
9200mE
9400mE
9600mE
9800mE
7400mN
7200mN
7000mN
6800mN
6600mN
6400mN
+7
+11
+8
+18
+20
+100
+11
ORGE EL 5450
AREA 1
ROCK CHIPS - Zn VALUES
NORTHERN TERRITORY
NEW EXPLORATION PTY LTD
54 LITTLE EDWARD STREET
SPRING HILL QLD 4004

Figure 27.

CR97/374B

Czb	Blacksoil
Cza	Alluvium, grey silt
Czo	Colluvium
Czs	Sand
Czg	Gravels
Sg	Silicified dolomitic Pmx gravels
#	Silicification
DD	Dolostone
DL	Dololulite
DT	Dolosiltstone
∩	Stromatolites
206 X	Rock chip sample (prefixed QP95____.)

REVISION		
	SCALE: 1:10 000	**MIM EXPLORATION PTY LTD**
	GEO I.B.	McARTHUR REGIONAL JOINT VENTURE
	DRAFT: E.I.K.	**EL 5650 – EL 5877**
	CHECKED:	**"COPPER KING" PROSPECT**
	DATE: 11'93	
	1:250 000	FACTUAL GEOLOGY
	1:100 000	
	MINING FIELD OR DISTRICT: FIGURE 28	DRG No.:



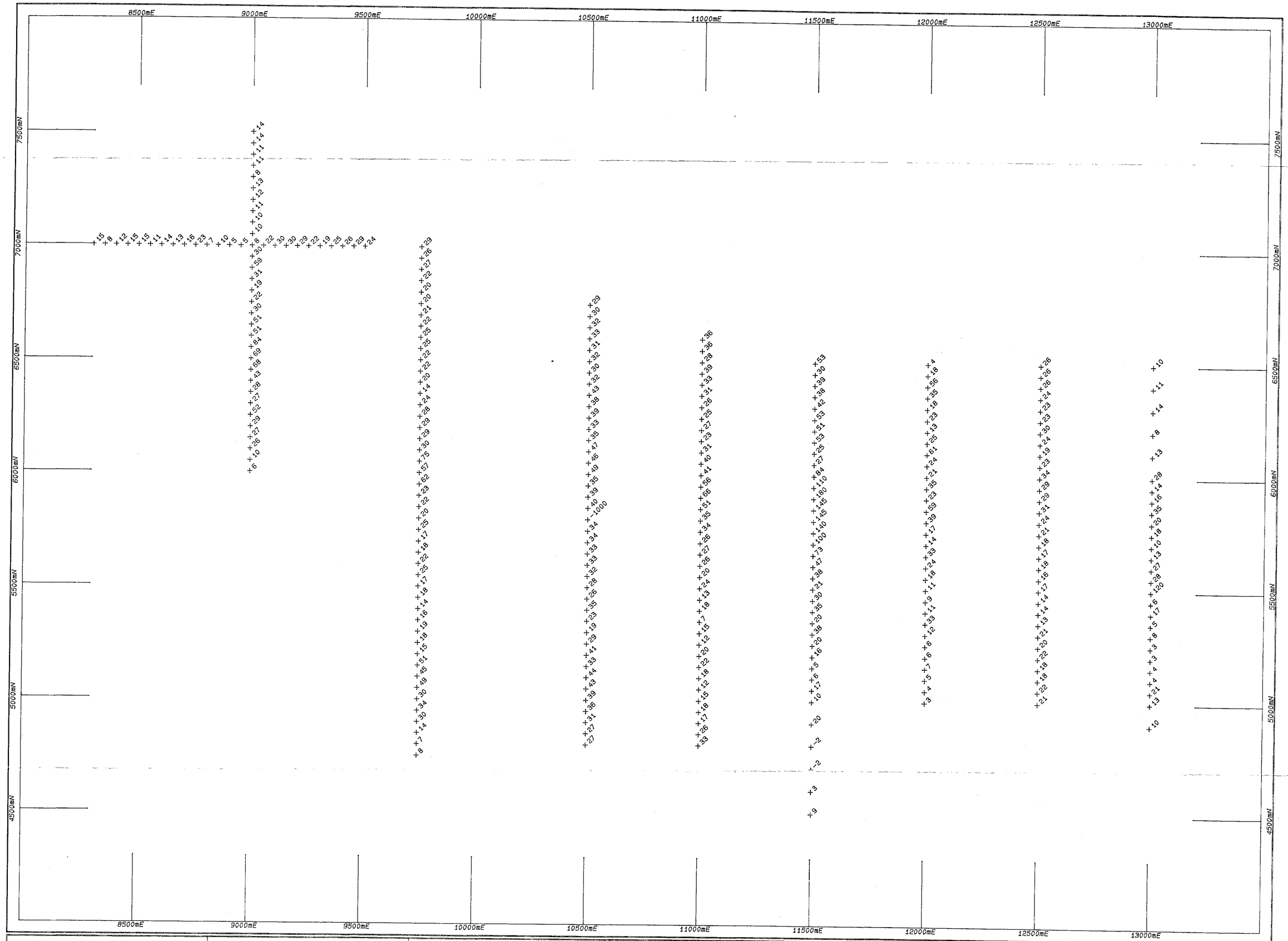
	Scale 1: 10000	DATE 23/06/94	SHEET 1 of 1
		REF No. 4439	
	0 500m		

Mullapunyah Ck. Area 1 "Cu King" Soil Geochemistry Sample Locations

M.I.M. EXPLORATION PTY. LTD. NORTHERN TERRITORY

CR97/374B

FIGURE 29



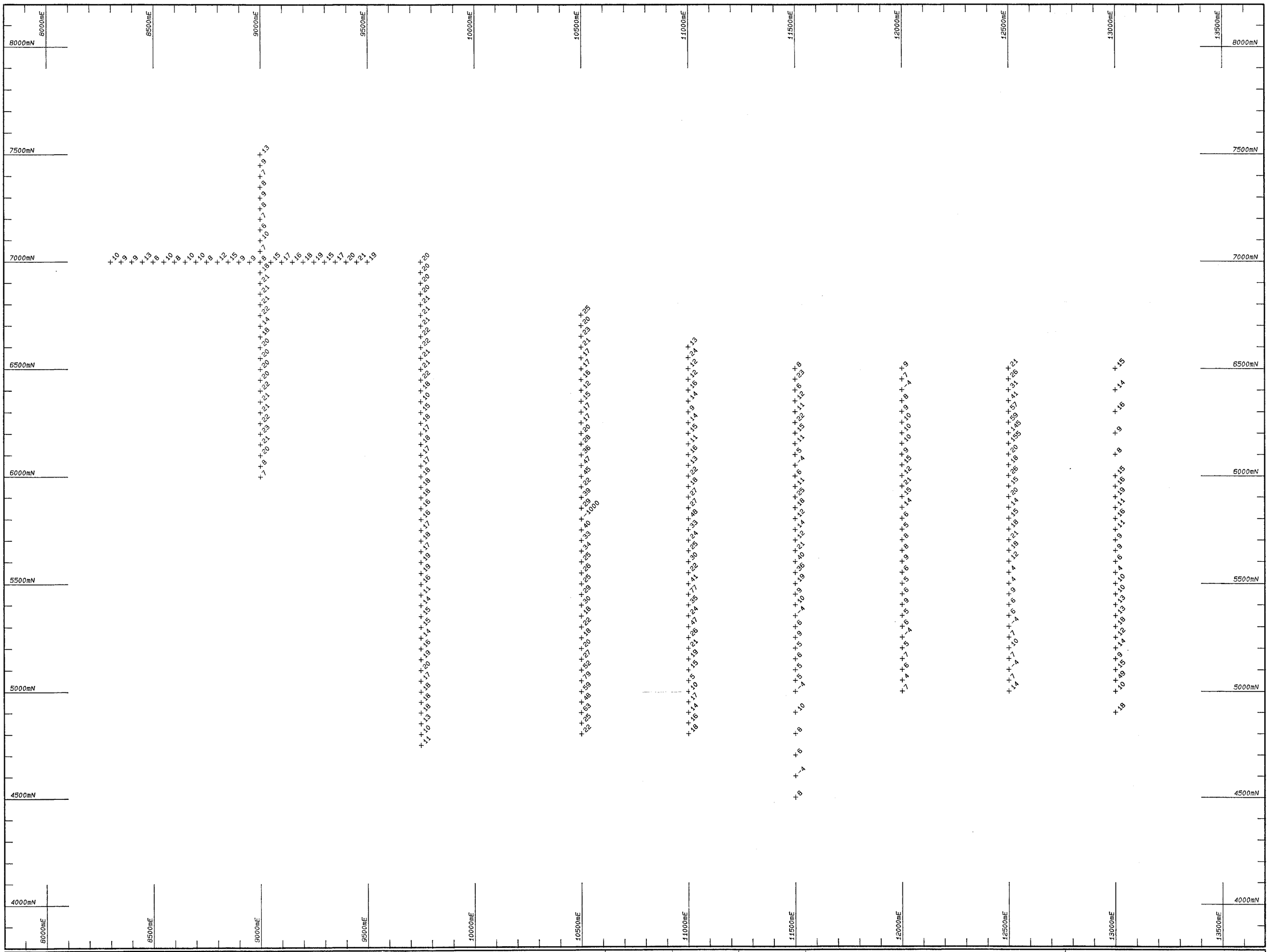
			Scale 1: 10000	DATE 23/06/94	SHEET 1 of 1
				REF No. 41138	
			0 500m		

Mullapunyah Ck. Area 1
"Cu King"
Soil Geochemistry
Cu Values

M.I.M. EXPLORATION
PTY. LTD.
NORTHERN TERRITORY

CR97/374B

FIGURE 30

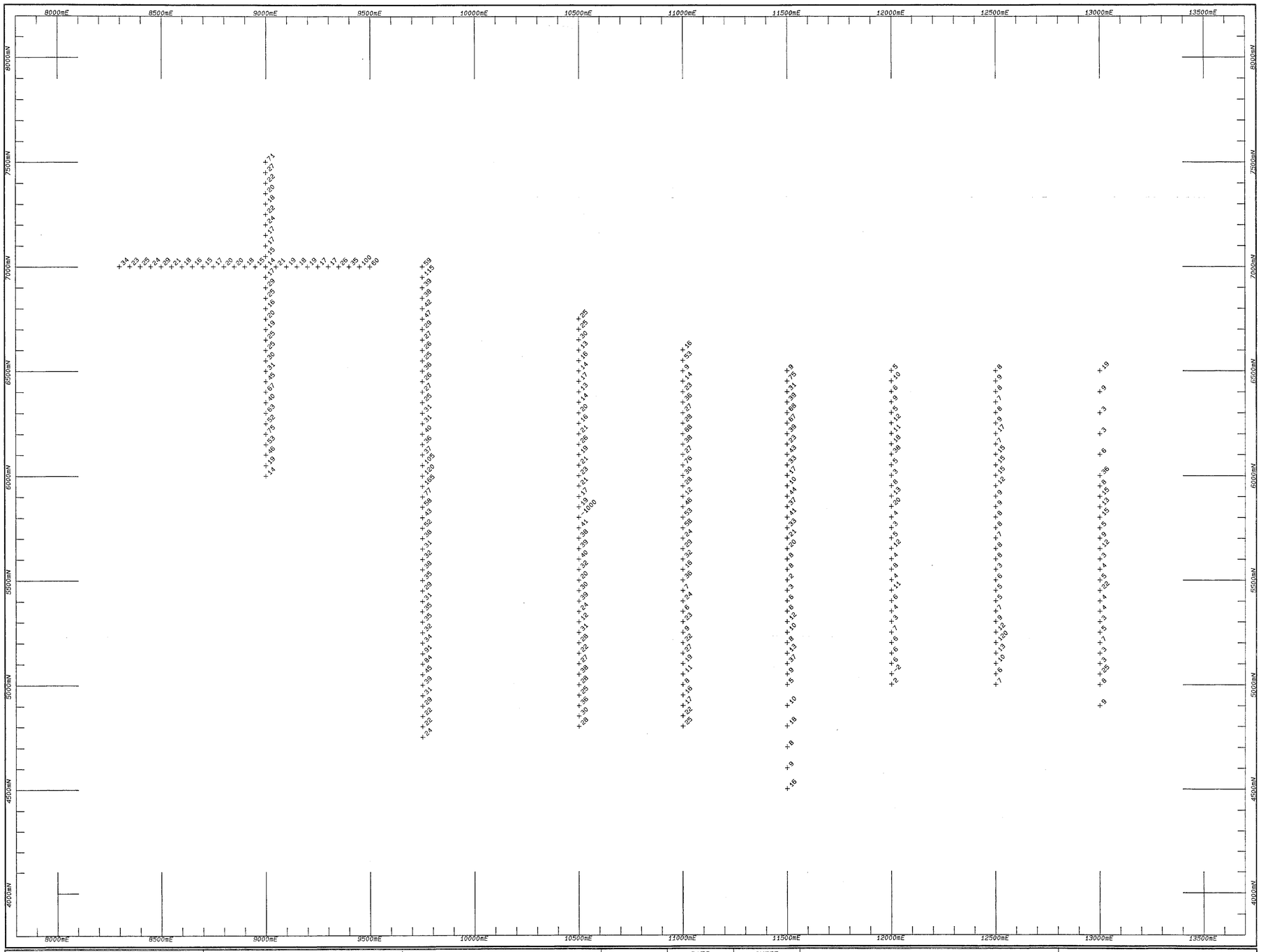


	Scale 1: 10000	DATE 09/10/94	SHEET 1 of 1	Mullapunyah Ck. Area 1 "Cu King" Soil Geochemistry Pb Values
		REF No. 4440		
	0 500m			Pb.

M.I.M. EXPLORATION PTY. LTD.

FIGURE 31

CR97/374B



			Scale	DATE	SHEET	Mullapunyah Ck. Area 1 "Cu King" Soil Geochemistry Zn Values	M.I.M. EXPLORATION PTY. LTD.
			1: 10000	09/10/94	1 of 1		
				REF No. 4439			
			0 500m				

FIGURE 3.2

CR97/374B1

LEGEND

- Outline of outcrop
- Chaotic zone
- 50 — Dip and strike of strata
- Syncline
- F — Fault
- Geological boundary inferred with trend line
- JV boundary
- Creek

STRATIGRAPHY

McARTHUR GROUP	BATTEN SUBGROUP	AMOS FORMATION	P_{ma}
		LOOKING GLASS FORMATION	P_{mn}
		STRETTON SANDSTONE	P_{ms}
		YALCO FORMATION	P_{mj}
		LYNOTT FORMATION — Donnegan Member	P_{mnd}
		LYNOTT FORMATION — Hot Spring Member	P_{mh}
		LYNOTT FORMATION — Caranbirini Member	P_{mnc}
		REWARD DOLOMITE	P_{mx}
		BARNEY CREEK FORMATION	P_{mq}
	UMBOLOOGA SUBGROUP	Coxco Dolomite Member	P_{mpc}
		TEENA DOLOMITE	P_{mp}
		EMMARUGGA DOLOMITE — Mitchell Yard Dolomite Member	P_{mel}
		EMMARUGGA DOLOMITE — Mars Dolomite Member	P_{mes}
		MYRTLE SHALE	P_{mt}
		LEILA SANDSTONE	P_{ml}
		TOOGANINIE FORMATION	P_{mt}
		TATOOLA SANDSTONE	P_{md}

GN: MN

SCALE 1 : 10 000

0 200 400 600 800 1000

metres

REVISION		SCALE : 1: 10000	M.I.M. EXPLORATION PTY LTD
Jan. 1995	T.P.	GEO : T.P.	GORGE JV EL 5650
		DRAFT : CJS	NORTHERN TERRITORY
		CHECKED : CJS	AREA 2
		DATE : JUNE 1994	GEOLOGY
		1:250000 SE 53-3	
		1:100000 6084	
		MINING FIELD OR DISTRICT : NORTHERN	FIGURE 33 ORB No. :

CR97/374B

605000mE
605100mE
605200mE
605300mE

1175mRL
1150mRL
1125mRL
1100mRL
1075mRL
1050mRL
1025mRL
1000mRL
975mRL

Soil line 4 140m @190ppm Pb

GP3

Pmnc

dolosiltstone and minor dolarenite

upper Pmx

massive dolarenite beds

dolosiltstone/dolarenite

Pmx

10% coarse py 3490ppm Pb

grey dolosiltstone

Pmp

Pmpc

EOH 150m

carbonaceous siltstone

transition zone

Pmpc

CR97/374B

	Scale 1:500	DATE 03/03/95	SHEET 1 of 1	GORGE EL 5650 AREA 2 SECTION 8122526mN GEOLOGY GP3
		REF No. 41955		MIM EXPLORATION PTY LTD NORTHERN TERRITORY
		0 25 50m		FIGURE 34

1150mRL
1125mRL
1100mRL
1075mRL
1050mRL
1025mRL
1000mRL
975mRL
950mRL
925mRL

8123000mN
8123100mN
8123200mN

pink dolostone
soil line 3 60m @ 245ppm Pb
bleached dolosiltstone
small subdued o/c of fe slst
coarse arenite at base of slope
120ppm Pb
cherty stromatolitic o/c
GSPD4

Pmnh
Pmnc
Pmx
Pmpc

pink beige dolarenite
algal laminated and dark
dolosiltstone, mudcracks

lower Pmnc
upper Pmx

monotonous green grey
laminated dolosiltstone
minor fine dolarenite

traces py galena 125-137m
intbd arenite/grit intraclastic breccia
laminated dolosiltstone

massive arenite/grit beds
laminated dolosiltstone

laminated thinbedded dolosiltstone
minor fine dolarenite
fractured, calcite pyrite
veining 178.7-189.6m
pyritic siltstone

laminated thinbedded dolosiltstone

bleached transition zone

EOH 228m

bleached dolosiltstone
pink crystalline
dolarenite dolsiltstone

		Scale 1:500	DATE 03/03/95	SHEET 1 of 1
			REF No. 41954	
		0 25 50m		

GORGE EL 5650
AREA 2
SECTION 604656mE
GEOLOGY GPD4

MIM EXPLORATION PTY LTD
NORTHERN TERRITORY

FIGURE 35

CR97/374B

Appendix 1
1988 - 1989 Field season exploration summaries and sample results.

DINGO CREEK

(See figures 21 & 22.)

LOCATION: SW of Abner Range 1:100,000 sheet

HOST ROCKS: Barney Creek Formation

STRUCTURAL SETTING: Small sub-basin between the Yah Yah Fault and the Top Spring Sub-Basin

GEOCHEMISTRY

	ROCK CHIP		SOILS	STREAM SEDIMENTS
Cu	88	ppm.		
Pb	18	ppm.	None	None
Zn	13	ppm.		
Ba	860	ppm.	done	done
Au	<0.01	ppm.		

1 sample

ADDITIONAL COMMENTS: No ferruginous beds or gossanous units, only low dips.

1.10 TOP SPRING

(See figures 19 & 20.)

LOCATION: Extreme S of [illegible] 1:100,000 sheet

HOST ROCKS: Barney Creek Fm

STRUCTURAL SETTING: Small sub-b[illegible] adjacent to [illegible] trending fault [illegible] trending faults

GEOCHEMISTRY

ROCK CHIP			SOILS
Cu	48	ppm.	
Pb	<5	ppm.	None
Zn	24	ppm.	
Ba	520	ppm.	done
Au	<0.01	ppm.	

1 sample

ADDITIONAL COMMENTS: No gossanous or [illegible] noted, minor K-[illegible] 20-25° and in 60°.

1.9 JOHNSTONS

Cu-Pb
(an ex C.R.A. Prospect)
(see FIGS 17 + 18)

LOCATION: W part of the Batten 1:100,000 sheet on the S side of the Cape Crawford-Bauhinia Downs Road

HOST ROCKS: Tooganinie Fm dolomitic siltstones and shales

STRUCTURAL SETTING: Mineralisation developed along the NW trending Johnstons Fault and previously described as shear controlled

GEOCHEMISTRY

	ROCK CHIP	SOILS	STREAM SEDIMENTS
Cu	74 - 50 ppm. - 1.6%		
Pb	.01 - 1.03%	None	None
Zn	27 - 99 ppm.		
Au	both <0.01 ppm.	done	done

Total 2 samples

ADDITIONAL COMMENTS: CRA report 2-3m of 6.6% Cu, 1.75% Pb, 420 ppm Zn, 380 ppm Co, 370 ppm Ni and 79 ppm Ag from a shallow costean. Some of the mineralisation appears to be stratiform within thin dolomitic shale units.

1.8 MYSTERY SUB-BASIN

(including Mystery North Prospect)

(See figures 15 & 16.)

LOCATION: Centre of the Abner Range 1:100,000 sheet immediately West of the Tablelands Highway

HOST ROCKS: Coxco Dolomite, Barney Creek Fm and Reward Dolomite

STRUCTURAL SETTING: In a sub-basin developed between the Abner Range and Tawallah Faults

GEOCHEMISTRY

ROCK CHIP	SOILS	STREAM SEDIMENTS
Cu 3 - 13 ppm.		Cu 2 - 39 ppm.
Pb all <5 ppm.	None	Pb <5 - 20 ppm.
Zn 24 - 54 ppm.		Zn 11 - 52 ppm.
Ba 145 - 6100 ppm.	done	
Au all <0.01 ppm.		Au <1 - 3 ppb.
Total 4 samples		Total 8 samples

ADDITIONAL COMMENTS: A zone of poddy gossans (largest pod 10 x 3m) occur over a strike length of about 250m at the Mystery North Prospect. The gossans contain well developed marcasite nodule pseudomorphs but have a low geochemical signature.

1.7 LITTLE CREEK SUB-BASIN

(See figures 10 to 11.)

LOCATION: NW part of the Abner Range 1:100,000 sheet

HOST ROCKS: Barney Creek Fm, Reward Dolomite. Barney Ckx Fm contains graded turbidite beds containing pyritic black shale shards and black laminated dolomite shales

STRUCTURAL SETTING: Straddles the NW trending Mallapunyah Fault Zone and a major sub-parallel fault zone 6km further north. Steep to overturned beds in some places

GEOCHEMISTRY

ROCK CHIP	SOILS	STREAM SEDIMENTS
Cu 8 - 50 ppm.	Cu 4 - 44 ppm.	Cu 4 - 19 ppm.
Pb <5 - 61 ppm.	Pb <5 - 77 ppm.	Pb 8 - 29 ppm.
Zn 10 - 150 ppm.	Zn 4 - 89 ppm.	Zn 9 - 39 ppm.
Ba 490 - 5000 ppm.		
Au all <0.01 ppm.	Au <1 - 14 ppb.	Au <1 - 18 ppb.
Total 4 samples	Total 252 samples on 9 lines	Total 21 samples

ADDITIONAL COMMENTS: Small poddy gossans occur within Reward Dolomite over a 200 x 30m zone on the W. bank of Little Creek. Significant Au values from streams and soils in central part of prospect area.

1.6 KILGOUR RIVER

(See figures 11 & 12.)

LOCATION: South eastern part of the Abner Range 1:100,000 sheet 15km east of Mallapunyah Homestead

HOST ROCKS: Barney Creek Fm and Reward Dolomite

STRUCTURAL SETTING: Close to where the Mallapunyah and Abner Faults diverge at the southern end of the Abner Graben

GEOCHEMISTRY

ROCK CHIP	SOILS	STREAM SEDIMENTS
Cu 8 - 770 ppm.	Cu 3 - 22 ppm.	Cu 7 - 31 ppm.
Pb 21 - 1620 ppm.	Pb <5 - 70 ppm.	Pb <5 -145 ppm.
Zn 46 - 860 ppm.	Zn 6 - 93 ppm.	Zn 7 - 35 ppm.
Ba 155 - 7600 ppm.		
Au all <0.01 ppm.	Au <1 - 2 ppb.	Au <1 - 2 ppb.
Total 9 samples	Total 11 samples	Total 9 samples

ADDITIONAL COMMENTS: Pods, veins and stratiform gossan zones extend over a strike length of 500-600m and a width of 100m. Complex folding of Barney Creek Fm with some overturned beds. Good geochemistry.

1.5 MARINER

(an ex C.E.C. and B.P. Pb Prospect)
(see FIGURES 9 & 10).

LOCATION: NW corner of the Batten 1:100,000 sheet

HOST ROCKS: Tooganinie Fm (dolomitic siltstones and shales including black shales)

STRUCTURAL SETTING: Adjacent to the N-S to NNW trending Mariner Fault with Tawallah Group basement to the west of the fault

GEOCHEMISTRY

ROCK CHIP

Cu	115	ppm.
Pb	570	ppm.
Zn	10	ppm.
Ba	140	ppm.
Au	<0.01	ppm.

Only 1 sample taken

SOILS

None done during present reconnaissance but extensive sampling by previous explorers showed Pb soil anomalies up to 2700 ppm. over a wide area.

STREAM SEDIMENTS

ADDITIONAL COMMENTS: B.P. discovered low-grade Pb mineralisation over a 6 km strike adjacent to the Mariner Fault within Tooganinie Fm black dolomitic shales dipping 30-40° W towards the fault. Mafic volcanics occur in the basement block and there is potential for Mt. Isa type Zn-Pb-Ag and Cu deposits.

McARTHUR RIVER BASIN SAMPLE RESULTS - NUMERICAL ORDER -

TARGET AREA	MAP SHEET	CO-ORDINATES	TRAVERSE	SAMPLE No.	TYPE	Au	Cu	Pb	Zn	Ba
MYSTERY S.B.	ABNER			7769	STREAM	-0.001	11	10	11	
MYSTERY S.B.	ABNER			7770	STERAM	-0.001	39	10	10	
MYSTERY S.B.	ABNER			7771	STREAM	-0.001	13	20	52	
MYSTERY S.B.	ABNER			7772	STREAM	-0.001	2	7	14	
MYSTERY S.B.	ABNER			7773	STREAM	0.003	6	10	13	
MYSTERY S.B.	ABNER			7774	STREAM	-0.001	7	-5	17	
MYSTERY S.B.	ABNER			7775	STREAM	-0.001	-2	-5	11	
MYSTERY S.B.	ABNER			7776	STREAM	-0.001	14	16	33	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7777	SOIL	0.003	12	24	10	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7778	SOIL	0.002	16	20	21	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7779	SOIL	-0.001	17	36	14	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7780	SOIL	0.002	5	-5	13	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7781	SOIL	0.001	11	13	14	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7782	SOIL	-0.001	9	15	12	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7783	SOIL	-0.001	11	14	16	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7784	SOIL	0.001	9	17	11	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7785	SOIL	-0.001	8	16	11	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7786	SOIL	-0.001	8	13	9	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7787	SOIL	-0.001	11	20	19	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7788	SOIL	-0.001	11	17	13	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7789	SOIL	0.001	8	10	13	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7790	SOIL	-0.001	14	20	12	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7791	SOIL	-0.001	14	19	17	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7792	SOIL	-0.001	11	17	12	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7793	SOIL	0.001	12	15	15	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7794	SOIL	-0.001	14	30	13	
LITTLE CREEK SUB-BASIN	ABNER		LCS2	7795	SOIL	-0.001	19	31	10	

TARGET AREA	MAP SHEET	CO-ORDINATES	TRAVERSE	SAMPLE NO.	TYPE	Au	Cu	Pb	Zn	Ba
LITTLE CREEK SUB-BASIN	ABNER		LC82	7796	SOIL	-0.001	13	30	3	
LITTLE CREEK SUB-BASIN	ABNER		LC82	7797	SOIL	-0.001	12	32	6	
LITTLE CREEK SUB-BASIN	ABNER		LC82	7798	SOIL	-0.001	16	41	12	
LITTLE CREEK SUB-BASIN	ABNER		LC82	7799	SOIL	-0.001	10	17	3	
LITTLE CREEK SUB-BASIN	ABNER		LC82	7800	SOIL	0.002	11	10	13	
LITTLE CREEK SUB-BASIN	ABNER		LC82	7801	SOIL	0.002	6	-5	25	
LITTLE CREEK SUB-BASIN	ABNER		LC83	7802	SOIL	-0.001	11	13	22	
LITTLE CREEK SUB-BASIN	ABNER		LC83	7803	SOIL	-0.001	12	22	20	
LITTLE CREEK SUB-BASIN	ABNER		LC83	7804	SOIL	-0.001	17	30	25	
LITTLE CREEK SUB-BASIN	ABNER		LC83	7805	SOIL	0.008	15	21	13	
LITTLE CREEK SUB-BASIN	ABNER		LC83	7806	SOIL	0.014	9	13	30	
LITTLE CREEK SUB-BASIN	ABNER		LC83	7807	SOIL	0.010	8	13	9	
LITTLE CREEK SUB-BASIN	ABNER		LC83	7808	SOIL	0.008	14	16	12	
LITTLE CREEK SUB-BASIN	ABNER		LC83	7809	SOIL	0.005	15	19	33	
LITTLE CREEK SUB-BASIN	ABNER		LC83	7810	SOIL	0.004	15	19	22	
LITTLE CREEK SUB-BASIN	ABNER		LC83	7811	SOIL	0.003	13	15	20	
LITTLE CREEK SUB-BASIN	ABNER		LC83	7812	SOIL	0.003	11	13	16	
LITTLE CREEK SUB-BASIN	ABNER		LC83	7813	SOIL	0.003	17	18	13	
LITTLE CREEK SUB-BASIN	ABNER		LC83	7814	SOIL	0.002	19	23	8	
LITTLE CREEK SUB-BASIN	ABNER		LC83	7815	SOIL	0.002	16	21	14	
LITTLE CREEK SUB-BASIN	ABNER		LC83	7816	SOIL	0.002	20	41	33	
LITTLE CREEK SUB-BASIN	ABNER		LC83	7817	SOIL	0.003	13	22	7	
KILGOUR RIVER	ABNER			7818	STREAM	0.002	31	60	26	
KILGOUR RIVER	ABNER			7819	STREAM	0.002	26	41	34	
KILGOUR RIVER	ABNER			7820	STREAM	0.001	19	28	23	
KILGOUR RIVER	ABNER			7821	STREAM	0.001	14	30	21	
KILGOUR RIVER	ABNER			7822	STREAM	0.001	24	145	34	
KILGOUR RIVER	ABNER			7823	STREAM	-0.001	3	-5	7	
KILGOUR RIVER	ABNER			7824	STREAM	0.001	14	10	16	
KILGOUR RIVER	ABNER			7825	STREAM	-0.001	7	-5	3	
KILGOUR RIVER	ABNER			7826	STREAM	-0.001	11	7	12	
KILGOUR RIVER	ABNER			7827	SOIL	-0.001	22	23	36	
KILGOUR RIVER	ABNER			7828	SOIL	-0.001	22	70	26	
KILGOUR RIVER	ABNER			7829	SOIL	-0.001	21	8	6	
KILGOUR RIVER	ABNER			7830	SOIL	0.001	10	-5	12	
KILGOUR RIVER	ABNER			7831	SOIL	-0.001	9	-5	41	
KILGOUR RIVER	ABNER			7832	SOIL	0.001	12	-5	14	
KILGOUR RIVER	ABNER			7833	SOIL	-0.001	3	27	93	
KILGOUR RIVER	ABNER			7834	SOIL	-0.001	3	14	31	
KILGOUR RIVER	ABNER			7835	SOIL	-0.001	7	10	24	
KILGOUR RIVER	ABNER			7836	SOIL	-0.001	14	19	53	
KILGOUR RIVER	ABNER			7837	SOIL	-0.001	7	-5	2	
KILGOUR RIVER	ABNER			7838	STREAM	-0.001	10	-5	14	
KILGOUR RIVER	ABNER			7839	STREAM	-0.001	3	-5	14	
KILGOUR RIVER	ABNER			7840	STREAM	-0.001	17	11	28	
KILGOUR RIVER	ABNER			7841	STREAM	-0.001	11	-5	14	

TARGET AREA	MAP SHEET	CO-ORDINATES	TRAVERSE	SAMPLE No.	TYPE	Au	Cu	Pb	Zn	Ba
LITTLE CREEK SUB-BASIN	ABNER			7375	SOIL	-0.001	15	13	14	
LITTLE CREEK SUB-BASIN	ABNER			7376	SOIL	0.002	9	9	15	
LITTLE CREEK SUB-BASIN	ABNER			7377	SOIL	0.002	12	22	12	
LITTLE CREEK SUB-BASIN	ABNER			7378	SOIL	-0.001	17	25	11	
LITTLE CREEK SUB-BASIN	ABNER			7379	SOIL	0.004	16	25	15	
LITTLE CREEK SUB-BASIN	ABNER			7380	SOIL	0.001	12	16	12	
LITTLE CREEK SUB-BASIN	ABNER			7381	SOIL	-0.001	15	20	17	
LITTLE CREEK SUB-BASIN	ABNER			7382	SOIL	0.002	22	34	27	
LITTLE CREEK SUB-BASIN	ABNER			7383	SOIL	0.001	12	12	10	
LITTLE CREEK SUB-BASIN	ABNER			7384	SOIL	-0.001	12	13	17	
				7385	SOIL	0.002	10	14	13	

MACARTHUR RIVER BASIN SAMPLE RESULTS

TARGET AREA	MAP SHEET	CO-ORDINATES	TRAVERSE	SAMPLE NO.	TYPE	AU	CU	PB	ZN	SB
LITTLE CREEK S.E.	ABNER		LCS1	7951	SOIL	0.002	12	25	3	
LITTLE CREEK S.E.	ABNER		LCS1	7952	SOIL	0.002	10	32	7	
LITTLE CREEK S.E.	ABNER		LCS1	7953	SOIL	0.002	11	30	3	
LITTLE CREEK S.E.	ABNER		LCS1	7954	SOIL	0.002	13	19	2	

McARTHUR RIVER BASIN SAMPLE RESULTS

TARGET AREA	MAP SHEET	CO-ORDINATES	TRAVERSE	SAMPLE No.	TYPE	Au	Cu	Pb	Zn	Ba
LITTLE CREEK S.B.	ABNER		LCS1	7955	SOIL	0.002	10	30	5	
LITTLE CREEK S.B.	ABNER		LCS1	7956	SOIL	0.002	11	23	5	
LITTLE CREEK S.B.	ABNER		LCS1	7957	SOIL	0.001	12	18	5	
LITTLE CREEK S.B.	ABNER		LCS1	7958	SOIL	0.001	13	17	5	
LITTLE CREEK S.B.	ABNER		LCS1	7959	SOIL	0.001	10	15	7	
LITTLE CREEK S.B.	ABNER		LCS1	7960	SOIL	0.001	8	17	6	
LITTLE CREEK S.B.	ABNER		LCS1	7961	SOIL	0.001	8	16	4	
LITTLE CREEK S.B.	ABNER		LCS1	7962	SOIL	0.004	10	19	5	
LITTLE CREEK S.B.	ABNER		LCS1	7963	SOIL	0.003	11	24	9	
LITTLE CREEK S.B.	ABNER		LCS1	7964	SOIL	0.003	10	19	8	
LITTLE CREEK S.B.	ABNER		LCS1	7965	SOIL	0.001	11	24	7	
LITTLE CREEK S.B.	ABNER		LCS1	7966	SOIL	0.014	10	21	5	
LITTLE CREEK S.B.	ABNER		LCS1	7967	SOIL	0.002	9	22	6	
LITTLE CREEK S.B.	ABNER		LCS1	7968	SOIL	0.002	11	23	5	
LITTLE CREEK S.B.	ABNER		LCS1	7969	SOIL	-0.001	10	16	5	
LITTLE CREEK S.B.	ABNER		LCS1	7970	SOIL	-0.001	11	23	10	
LITTLE CREEK S.B.	ABNER		LCS1	7971	SOIL	0.001	10	16	7	
LITTLE CREEK S.B.	ABNER		LCS1	7972	SOIL	-0.001	17	34	12	
LITTLE CREEK S.B.	ABNER		LCS1	7973	SOIL	0.001	13	36	4	
LITTLE CREEK S.B.	ABNER		LCS1	7974	SOIL	-0.001	10	34	6	
LITTLE CREEK S.B.	ABNER		LCS1	7975	SOIL	-0.001	9	16	6	
LITTLE CREEK S.B.	ABNER		LCS1	7976	SOIL	-0.001	9	19	6	
LITTLE CREEK S.B.	ABNER		LCS1	7977	SOIL	-0.001	10	17	7	
LITTLE CREEK S.B.	ABNER		LCS1	7978	SOIL	-0.001	13	36	7	
LITTLE CREEK S.B.	ABNER		LCS1	7979	SOIL	-0.001	11	39	9	
LITTLE CREEK S.B.	ABNER		LCS1	7980	SOIL	-0.001	13	31	12	
LITTLE CREEK S.B.	ABNER		LCS1	7981	SOIL	0.02	11	29	10	
LITTLE CREEK S.B.	ABNER		LCS1	7982	SOIL	0.002	12	25	13	
LITTLE CREEK S.B.	ABNER		LCS1	7983	SOIL	0.003	10	11	7	
LITTLE CREEK S.B.	ABNER		LCS1	7984	SOIL	-0.001	12	30	14	
LITTLE CREEK S.B.	ABNER		LCS5	7985	SOIL	0.002	9	22	7	
LITTLE CREEK S.B.	ABNER		LCS5	7986	SOIL	-0.001	9	37	11	
LITTLE CREEK S.B.	ABNER		LCS5	7987	SOIL	0.002	11	70	21	
LITTLE CREEK S.B.	ABNER		LCS5	7988	SOIL	0.001	16	53	28	
LITTLE CREEK S.B.	ABNER		LCS5	7989	SOIL	0.001	12	77	29	
LITTLE CREEK S.B.	ABNER		LCS5	7990	SOIL	-0.001	14	53	3	
LITTLE CREEK S.B.	ABNER		LCS5	7991	SOIL	-0.001	11	42	7	
LITTLE CREEK S.B.	ABNER		LCS5	7992	SOIL	-0.001	9	31	6	
LITTLE CREEK S.B.	ABNER		LCS5	7993	SOIL	-0.001	11	32	9	
LITTLE CREEK S.B.	ABNER		LCS5	7994	SOIL	0.001	12	31	7	
LITTLE CREEK S.B.	ABNER		LCS5	7995	SOIL	-0.001	18	53	3	
LITTLE CREEK S.B.	ABNER		LCS5	7996	SOIL	0.001	19	33	20	
LITTLE CREEK S.B.	ABNER		LCS5	7997	SOIL	-0.001	13	30	16	
LITTLE CREEK S.B.	ABNER		LCS5	7998	SOIL	-0.001	15	52	16	
LITTLE CREEK S.B.	ABNER		LCS5	7999	SOIL	-0.001	12	46	20	

TARGET AREA	MAP SHEET	CO-ORDINATES	TRAVERSE	SAMPLE No.	TYPE	Au	Cu	Pb	Zn	Ba
LITTLE CREEK S.B.	ABNER		LC89	3164	SOIL	-0.001	15	30	15	
LITTLE CREEK S.B.	ABNER		LC89	3165	SOIL	0.002	16	29	15	
LITTLE CREEK S.B.	ABNER		LC89	3166	SOIL	-0.001	14	22	12	
LITTLE CREEK S.B.	ABNER		LC89	3167	SOIL	-0.001	17	13	17	
LITTLE CREEK S.B.	ABNER		LC89	3168	SOIL	-0.001	11	25	62	
LITTLE CREEK S.B.	ABNER		LC89	3169	SOIL	-0.001	14	21	13	
LITTLE CREEK S.B.	ABNER		LC89	3170	SOIL	-0.001	11	27	12	
LITTLE CREEK S.B.	ABNER		LC89	3171	SOIL	-0.001	16	31	11	
LITTLE CREEK S.B.	ABNER		LC89	3172	SOIL	-0.001	16	62	13	
LITTLE CREEK S.B.	ABNER		LC89	3173	SOIL	-0.001	12	60	20	
LITTLE CREEK S.B.	ABNER		LC89	3174	SOIL	-0.001	12	26	8	
LITTLE CREEK S.B.	ABNER		LC89	3175	SOIL	-0.001	9	14	7	
LITTLE CREEK S.B.	ABNER		LC89	3176	SOIL	0.001	12	24	11	
LITTLE CREEK S.B.	ABNER		LC89	3177	SOIL	0.007	14	-5	16	
LITTLE CREEK S.B.	ABNER		LC89	3178	SOIL	-0.001	4	9	10	
LITTLE CREEK S.B.	ABNER		LC89	3179	SOIL	0.003	5	9	19	
LITTLE CREEK S.B.	ABNER		LC89	3180	SOIL	0.002	5	11	11	
LITTLE CREEK S.B.	ABNER		LC89	3181	SOIL	0.002	5	9	9	
LITTLE CREEK S.B.	ABNER		LC89	3182	SOIL	0.001	5	11	14	
LITTLE CREEK S.B.	ABNER		LC89	3183	SOIL	-0.001	4	11	14	
LITTLE CREEK S.B.	ABNER		LC89	3184	SOIL	-0.001	6	8	12	
LITTLE CREEK S.B.	ABNER		LC88	3185	SOIL	-0.001	13	24	11	
LITTLE CREEK S.B.	ABNER		LC88	3186	SOIL	-0.001	11	23	8	
LITTLE CREEK S.B.	ABNER		LC88	3187	SOIL	0.003	12	19	7	
LITTLE CREEK S.B.	ABNER		LC88	3188	SOIL	-0.001	12	21	9	
LITTLE CREEK S.B.	ABNER		LC88	3189	SOIL	0.003	11	35	17	
LITTLE CREEK S.B.	ABNER		LC88	3190	SOIL	-0.001	13	33	12	
LITTLE CREEK S.B.	ABNER		LC88	3191	SOIL	-0.001	10	10	9	
LITTLE CREEK S.B.	ABNER		LC88	3192	SOIL	-0.001	12	15	11	
LITTLE CREEK S.B.	ABNER		LC88	3193	SOIL	-0.001	14	25	12	
LITTLE CREEK S.B.	ABNER		LC88	3194	SOIL	-0.001	12	19	39	
LITTLE CREEK S.B.	ABNER		LC88	3195	SOIL	0.001	11	15	15	
LITTLE CREEK S.B.	ABNER		LC88	3196	SOIL	-0.001	14	19	15	
LITTLE CREEK S.B.	ABNER		LC88	3197	SOIL	-0.001	14	14	15	
LITTLE CREEK S.B.	ABNER		LC88	3198	SOIL	0.002	12	15	14	
LITTLE CREEK S.B.	ABNER		LC88	3199	SOIL	0.002	25	71	20	
LITTLE CREEK S.B.	ABNER		LC88	3200	SOIL	-0.001	12	26	11	
LITTLE CREEK S.B.	ABNER			3201	STREAM	-0.001	9	21	71	
LITTLE CREEK S.B.	ABNER			3202	STREAM	-0.001	8	22	32	

TARGET AREA	MAP SHEET	CO-ORDINATES	TRAVERSE	SAMPLE NO.	TYPE	Au	Cu	Pb	Zn	Ba
LITTLE CREEK S.B.	ABNER			3203	STREAM	0.008	4	32	34	
LITTLE CREEK S.B.	ABNER			3204	STREAM	0.015	16	25	23	
LITTLE CREEK S.B.	ABNER			3205	STREAM	0.012	16	25	28	
LITTLE CREEK S.B.	ABNER			3206	STREAM	0.013	15	22	29	
LITTLE CREEK S.B.	ABNER			3207	STREAM	0.009	13	26	31	
LITTLE CREEK S.B.	ABNER			3208	STREAM	0.002	13	29	37	
LITTLE CREEK S.B.	ABNER			3209	STREAM	0.001	11	28	24	
LITTLE CREEK S.B.	ABNER			3210	STREAM	-0.001	17	20	39	
LITTLE CREEK S.B.	ABNER			3211	STREAM	0.003	16	15	27	
LITTLE CREEK S.B.	ABNER			3514	STREAM	0.001	6	10	12	
LITTLE CREEK S.B.	ABNER			3515	STREAM	0.001	3	11	9	
LITTLE CREEK S.B.	ABNER			3516	STREAM	0.001	10	12	9	
LITTLE CREEK S.B.	ABNER			3517	STREAM	0.001	12	11	19	
LITTLE CREEK S.B.	ABNER			3518	STREAM	0.001	14	12	16	
LITTLE CREEK S.B.	ABNER			3519	STREAM	-0.001	12	3	14	
LITTLE CREEK S.B.	ABNER			3520	STREAM	-0.001	13	13	16	
LITTLE CREEK S.B.	ABNER			3521	STREAM	-0.001	13	14	10	
LITTLE CREEK S.B.	ABNER			3522	STREAM	0.001	15	13	19	
LITTLE CREEK S.B.	ABNER			3523	STREAM	0.001	10	13	17	
LITTLE CREEK S.B.	ABNER			3524	STREAM	-0.001	20	14	14	
LITTLE CREEK S.B.	ABNER		LCS6	3601	SOIL	0.002	4	10	10	
LITTLE CREEK S.B.	ABNER		LCS6	3602	SOIL	-0.001	12	23	7	
LITTLE CREEK S.B.	ABNER		LCS6	3603	SOIL	0.001	14	24	10	
LITTLE CREEK S.B.	ABNER		LCS6	3604	SOIL	-0.001	17	32	11	
LITTLE CREEK S.B.	ABNER		LCS6	3605	SOIL	-0.001	16	37	14	
LITTLE CREEK S.B.	ABNER		LCS6	3606	SOIL	-0.001	13	38	11	
LITTLE CREEK S.B.	ABNER		LCS6	3607	SOIL	-0.001	14	33	7	
LITTLE CREEK S.B.	ABNER		LCS6	3608	SOIL	-0.001	13	38	12	
LITTLE CREEK S.B.	ABNER		LCS6	3609	SOIL	-0.001	11	24	7	
LITTLE CREEK S.B.	ABNER		LCS6	3610	SOIL	0.002	9	14	4	
LITTLE CREEK S.B.	ABNER		LCS6	3611	SOIL	0.002	3	19	4	
LITTLE CREEK S.B.	ABNER		LCS6	3612	SOIL	-0.001	13	28	3	
LITTLE CREEK S.B.	ABNER		LCS6	3613	SOIL	-0.001	14	43	7	
LITTLE CREEK S.B.	ABNER		LCS6	3614	SOIL	-0.001	11	23	4	
LITTLE CREEK S.B.	ABNER		LCS6	3615	SOIL	-0.001	10	27	6	
LITTLE CREEK S.B.	ABNER		LCS6	3616	SOIL	-0.001	12	33	5	
LITTLE CREEK S.B.	ABNER		LCS6	3617	SOIL	0.001	14	38	8	
LITTLE CREEK S.B.	ABNER		LCS6	3618	SOIL	0.002	19	34	9	
LITTLE CREEK S.B.	ANBER		LCS6	3619	SOIL	0.002	11	31	7	
LITTLE CREEK S.B.	ABNER		LCS6	3620	SOIL	-0.001	17	24	11	
LITTLE CREEK S.B.	ABNER		LCS6	3621	SOIL	-0.001	14	21	8	
LITTLE CREEK S.B.	ABNER		LCS6	3622	SOIL	-0.001	15	36	10	
LITTLE CREEK S.B.	ABNER		LCS6	3623	SOIL	-0.001	12	27	8	
LITTLE CREEK S.B.	ABNER		LCS6	3624	SOIL	-0.001	15	27	14	
LITTLE CREEK S.B.	ABNER		LCS6	3625	SOIL	-0.001	11	17	15	
LITTLE CREEK S.B.	ABNER		LCS6	3626	SOIL	0.001	10	18	7	
LITTLE CREEK S.B.	ABNER		LCS6	3627	SOIL	-0.001	9	13	7	
LITTLE CREEK S.B.	ABNER		LCS6	3628	SOIL	0.005	7	18	3	
LITTLE CREEK S.B.	ABNER		LCS6	3629	SOIL	0.001	5	15	17	

TARGET AREA	MAP SHEET	CO-ORDINATES	TRAVERSE	SAMPLE No.	TYPE	Au	Cu	Pb	Zn	Ba
LITTLE CREEK S.B.	ABNER		LCS6	3630	SOIL	-0.001	10	24	10	
LITTLE CREEK S.B.	ABNER		LCS6	3631	SOIL	0.002	17	26	12	
LITTLE CREEK S.B.	ABNER		LCS6	3632	SOIL	0.001	12	17	19	
LITTLE CREEK S.B.	ABNER		LCS6	3633	SOIL	-0.001	11	23	17	
LITTLE CREEK S.B.	ABNER		LCS6	3634	SOIL	-0.001	11	17	20	
LITTLE CREEK S.B.	ABNER		LCS6	3635	SOIL	-0.001	11	34	16	
LITTLE CREEK S.B.	ABNER		LCS6	3636	SOIL	-0.001	17	74	34	
LITTLE CREEK S.B.	ABNER		LCS6	3637	SOIL	0.007	15	32	15	
LITTLE CREEK S.B.	ABNER		LCS6	3638	SOIL	0.002	15	27	16	
LITTLE CREEK S.B.	ABNER		LCS6	3639	SOIL	0.002	11	21	11	
LITTLE CREEK S.B.	ABNER		LCS6	3640	SOIL	0.002	12	25	67	
LITTLE CREEK S.B.	ABNER		LCS6	3641	SOIL	0.002	12	15	21	
LITTLE CREEK S.B.	ABNER		LCS6	3642	SOIL	0.002	11	14	17	
LITTLE CREEK S.B.	ABNER		LCS8	3651	SOIL	-0.001	12	20	14	
LITTLE CREEK S.B.	ABNER		LCS8	3652	SOIL	-0.001	13	31	23	
LITTLE CREEK S.B.	ABNER		LCS8	3653	SOIL	0.001	19	47	20	
LITTLE CREEK S.B.	ABNER		LCS8	3654	SOIL	0.002	19	47	24	
LITTLE CREEK S.B.	ABNER		LCS8	3655	SOIL	0.002	9	12	19	
LITTLE CREEK S.B.	ABNER		LCS8	3656	SOIL	0.002	17	39	21	
LITTLE CREEK S.B.	ABNER		LCS8	3657	SOIL	0.001	19	41	19	
LITTLE CREEK S.B.	ABNER		LCS8	3658	SOIL	-0.001	7	9	12	
LITTLE CREEK S.B.	ABNER		LCS8	3659	SOIL	-0.001	13	28	12	
LITTLE CREEK S.B.	ABNER		LCS8	3660	SOIL	-0.001	12	11	19	
LITTLE CREEK S.B.	ABNER		LCS8	3661	SOIL	-0.001	12	18	13	
LITTLE CREEK S.B.	ABNER		LCS8	3662	SOIL	0.002	10	13	17	
LITTLE CREEK S.B.	ABNER		LCS8	3663	SOIL	-0.001	13	33	23	
LITTLE CREEK S.B.	ABNER		LCS8	3664	SOIL	-0.001	10	43	16	
LITTLE CREEK S.B.	ABNER		LCS8	3665	SOIL	-0.001	13	24	22	
LITTLE CREEK S.B.	ABNER		LCS8	3666	SOIL	-0.001	12	18	16	
LITTLE CREEK S.B.	ABNER		LCS8	3667	SOIL	-0.001	11	24	17	
LITTLE CREEK S.B.	ABNER		LCS8	3668	SOIL	0.006	11	14	19	
LITTLE CREEK S.B.	ABNER		LCS8	3669	SOIL	0.001	11	15	17	
LITTLE CREEK S.B.	ABNER		LCS8	3670	SOIL	0.001	11	15	12	
LITTLE CREEK S.B.	ABNER		LCS8	3671	SOIL	-0.001	8	11	16	
LITTLE CREEK S.B.	ABNER		LCS8	3672	SOIL	-0.001	5	13	11	
LITTLE CREEK S.B.	ABNER		LCS8	3673	SOIL	-0.001	5	-5	13	
LITTLE CREEK S.B.	ABNER		LCS8	3674	SOIL	-0.001	6	9	10	
LITTLE CREEK S.B.	ABNER		LCS8	3675	SOIL	-0.001	12	20	11	
LITTLE CREEK S.B.	ABNER		LCS8	3676	SOIL	-0.001	23	90	11	
LITTLE CREEK S.B.	ABNER		LCS8	3677	SOIL	-0.001	14	18	15	
LITTLE CREEK S.B.	ABNER		LCS8	3678	SOIL	0.002	44	38	13	
LITTLE CREEK S.B.	ABNER		LCS8	3679	SOIL	-0.001	14	16	12	
LITTLE CREEK S.B.	ABNER		LCS8	3680	SOIL	-0.001	12	21	12	
LITTLE CREEK S.B.	ABNER		LCS8	3681	SOIL	-0.001	12	26	7	
LITTLE CREEK S.B.	ABNER		LCS8	3682	SOIL	-0.001	19	32	9	
LITTLE CREEK S.B.	ABNER		LCS8	3683	SOIL	0.003	12	23	9	
LITTLE CREEK S.B.	ABNER		LCS8	3684	SOIL	-0.001	16	27	8	
LITTLE CREEK S.B.	ABNER		LCS8	3685	SOIL	-0.001	11	28	7	

TARGET AREA	MAP SHEET	CO-ORDINATES	TRAVERSE	SAMPLE No.	TYPE	Au	Cu	Pb	Zn	Ba
LITTLE CREEK S.B.	ABNER		LCS7	3626	SOIL	-0.001	10	15	13	
LITTLE CREEK S.B.	ABNER		LCS7	3627	SOIL	-0.001	7	13	8	
LITTLE CREEK S.B.	ABNER		LCS7	3628	SOIL	-0.001	10	6	7	
LITTLE CREEK S.B.	ABNER		LCS7	3629	SOIL	-0.001	12	17	11	
LITTLE CREEK S.B.	ABNER		LCS7	3690	SOIL	-0.001	12	16	16	
LITTLE CREEK S.B.	ABNER		LCS7	3691	SOIL	-0.001	11	22	15	
LITTLE CREEK S.B.	ABNER		LCS7	3692	SOIL	-0.001	3	12	20	
LITTLE CREEK S.B.	ABNER		LCS7	3693	SOIL	0.003	6	16	19	
LITTLE CREEK S.B.	ABNER		LCS7	3694	SOIL	0.001	10	7	14	
LITTLE CREEK S.B.	ABNER		LCS7	3695	SOIL	-0.001	3	11	21	
LITTLE CREEK S.B.	ABNER		LCS7	3696	SOIL	-0.001	3	6	29	
LITTLE CREEK S.B.	ABNER		LCS7	3697	SOIL	-0.001	5	6	22	
LITTLE CREEK S.B.	ABNER		LCS7	3698	SOIL	-0.001	6	9	12	
LITTLE CREEK S.B.	ABNER		LCS7	3699	SOIL	0.002	10	23	15	
LITTLE CREEK S.B.	ABNER		LCS7	3700	SOIL	0.001	11	24	15	
LITTLE CREEK S.B.	ABNER		LCS7	3701	SOIL	0.001	11	22	13	
LITTLE CREEK S.B.	ABNER		LCS7	3702	SOIL	0.002	11	24	18	
LITTLE CREEK S.B.	ABNER		LCS7	3703	SOIL	-0.001	12	12	18	
LITTLE CREEK S.B.	ABNER		LCS7	3704	SOIL	-0.001	9	22	14	
LITTLE CREEK S.B.	ABNER		LCS7	3705	SOIL	0.002	9	19	9	
LITTLE CREEK S.B.	ABNER		LCS7	3706	SOIL	0.002	9	18	22	
LITTLE CREEK S.B.	ABNER		LCS7	3707	SOIL	0.001	11	24	17	
LITTLE CREEK S.B.	ABNER		LCS7	3708	SOIL	0.001	12	33	10	
LITTLE CREEK S.B.	ABNER		LCS7	3709	SOIL	0.001	16	43	9	
LITTLE CREEK S.B.	ABNER		LCS7	3710	SOIL	-0.001	16	38	9	
LITTLE CREEK S.B.	ABNER		LCS7	3711	SOIL	-0.001	11	30	11	
LITTLE CREEK S.B.	ABNER		LCS7	3712	SOIL	0.001	9	18	9	
LITTLE CREEK S.B.	ABNER		LCS7	3713	SOIL	-0.001	5	9	3	
LITTLE CREEK S.B.	ABNER		LCS7	3714	SOIL	-0.001	7	12	4	
LITTLE CREEK S.B.	ABNER		LCS7	3715	SOIL	-0.001	7	24	5	
LITTLE CREEK S.B.	ABNER		LCS7	3716	SOIL	-0.001	7	34	8	
LITTLE CREEK S.B.	ABNER		LCS7	3717	SOIL	-0.001	8	20	6	
LITTLE CREEK S.B.	ABNER		LCS7	3718	SOIL	-0.001	8	20	7	
LITTLE CREEK S.B.	ABNER		LCS7	3719	SOIL	0.002	8	22	7	
LITTLE CREEK S.B.	ABNER		LCS7	3720	SOIL	0.001	9	13	12	
LITTLE CREEK S.B.	ABNER		LCS7	3721	SOIL	-0.001	9	15	9	
LITTLE CREEK S.B.	ABNER		LCS7	3722	SOIL	-0.001	10	14	10	
LITTLE CREEK S.B.	ABNER		LCS7	3723	SOIL	-0.001	9	14	7	
LITTLE CREEK S.B.	ABNER		LCS7	3724	SOIL	0.002	11	46	13	
LITTLE CREEK S.B.	ABNER		LCS7	3725	SOIL	0.002	6	24	10	
LITTLE CREEK S.B.	ABNER		LCS7	3726	SOIL	0.001	22	43	53	
LITTLE CREEK S.B.	ABNER		LCS7	3727	SOIL	0.002	14	9	19	
LITTLE CREEK S.B.	ABNER		LCS7	3728	SOIL	-0.001	9	10	24	
LITTLE CREEK S.B.	ABNER		LCS7	3729	SOIL	-0.001	8	17	18	
LITTLE CREEK S.B.	ABNER		LCS7	3730	SOIL	0.001	10	31	14	
LITTLE CREEK S.B.	ABNER		LCS7	3731	SOIL	-0.001	13	69	11	
TOOGANINIE S.B. SOUTH	ABNER			3732	SOIL	0.001	31	13	15	
TOOGANINIE S.B. SOUTH	ABNER			3733	SOIL	-0.001	30	18	12	

McARTHUR RIVER BASIN SAMPLE RESULTS

TARGET AREA	MAP SHEET	CO-ORDINATES	TRAVERSE	SAMPLE No.	TYPE	Au	Cu	Pb	Zn	Ba
LITTLE CREEK S.B.	ABNER		LCS5	9251	SOIL	-0.001	9	17	3	
LITTLE CREEK S.B.	ABNER		LCS5	9252	SOIL	0.001	14	20	11	
LITTLE CREEK S.B.	ABNER		LCS5	9253	SOIL	-0.001	18	35	10	
LITTLE CREEK S.B.	ABNER		LCS5	9254	SOIL	-0.001	13	22	3	
LITTLE CREEK S.B.	ABNER		LCS5	9255	SOIL	-0.001	11	23	9	
LITTLE CREEK S.B.	ABNER		LCS5	9256	SOIL	-0.001	12	65	9	
LITTLE CREEK S.B.	ABNER		LCS5	9257	SOIL	-0.001	14	27	9	
LITTLE CREEK S.B.	ABNER		LCS5	9258	SOIL	-0.001	12	22	10	
LITTLE CREEK S.B.	ABNER		LCS5	9259	SOIL	-0.001	11	30	10	
LITTLE CREEK S.B.	ABNER		LCS5	9260	SOIL	0.002	14	36	8	
LITTLE CREEK S.B.	ABNER		LCS5	9261	SOIL	-0.001	17	55	22	
LITTLE CREEK S.B.	ABNER		LCS5	9262	SOIL	-0.001	11	33	8	
LITTLE CREEK S.B.	ABNER		LCS5	9263	SOIL	0.003	13	39	6	
LITTLE CREEK S.B.	ABNER		LCS5	9264	SOIL	-0.003	12	20	10	
LITTLE CREEK S.B.	ABNER		LCS5	9265	SOIL	0.002	15	24	16	
LITTLE CREEK S.B.	ABNER		LCS5	9266	SOIL	0.004	13	15	15	
LITTLE CREEK S.B.	ABNER		LCS5	9267	SOIL	0.002	11	17	3	
LITTLE CREEK S.B.	ABNER		LCS5	9268	SOIL	0.001	15	26	11	
LITTLE CREEK S.B.	ABNER		LCS5	9269	SOIL	-0.001	11	34	13	
LITTLE CREEK S.B.	ABNER		LCS5	9270	SOIL	0.003	19	25	12	
LITTLE CREEK S.B.	ABNER		LCS5	9271	SOIL	0.002	15	21	9	
LITTLE CREEK S.B.	ABNER		LCS5	9272	SOIL	0.001	13	18	9	
LITTLE CREEK S.B.	ABNER		LCS5	9273	SOIL	0.001	15	28	12	
LITTLE CREEK S.B.	ABNER		LCS5	9274	SOIL	0.019	12	26	12	
LITTLE CREEK S.B.	ABNER		LCS5	9275	SOIL	0.003	15	36	10	
LITTLE CREEK S.B.	ABNER		LCS5	9276	SOIL	0.003	13	27	13	
LITTLE CREEK S.B.	ABNER		LCS5	9277	SOIL	0.002	14	31	13	
LITTLE CREEK S.B.	ABNER		LCS5	9278	SOIL	0.001	15	24	9	
LITTLE CREEK S.B.	ABNER		LCS5	9279	SOIL	0.002	12	15	15	
LITTLE CREEK S.B.	ABNER		LCS5	9280	SOIL	0.002	41	23	19	
MYSTERY MINE	ABNER			9501	ROCK	-0.01	8	-5	18	30
MYSTERY MINE	ABNER			9502	ROCK	-0.01	7	-5	15	75
MYSTERY S.B.	ABNER			9503	ROCK	-0.01	6	-5	62	820
MYSTERY S.B.	ABNER			9504	ROCK	-0.01	-2	-5	15	230

TARGET AREA	MAP SHEET	CO-ORDINATES	TRAVERSE	SAMPLE No.	TYPE	Au	Cu	Pb	Zn	Ba
				9519	ROCK	-0.01	13	-5	77	6100
				9520	ROCK	-0.01	3	-5	54	240
MYSTERY	ABNER			9521	ROCK	-0.01	5	-5	52	145
MYSTERY	ABNER			9522	ROCK	-0.01	3	-5	24	520
MYSTERY	ABNER			9703	ROCK	-0.01	7	6	98	3600
MYSTERY	ABNER									
MYSTERY S.B.										

Appendix 2
1989 - 1990 Field season sample assay results.

ANALYSIS

SAMPLE MARK	Au ppm
12563	0.02
12564	0.04
12565	0.08
12566	<0.01
12567	<0.01
12568	<0.01

METHOD : FA1

Analysis code AAS1 | Report 9DN0749 | Page G3

Order No. 0758 | Results in ppm

Sample	Cu	Pb	Zn
12511	56	3260	395
12512	15	29	14
12513	23	24	27
12510	98	75	180
13195	3	<5	4
13196	22	<5	15
13197	10	<5	8
13198	<2	<5	2
13199	3	9	7
13200	115	<5	11
13251	46	12	35
13252	15	<5	8
13253	480	34	180
13254	65	12	105
13255	105	8	135
13256	66	12	84
Detn limit	(2)	(5)	(2)

CLASSIC COMLABS LTD

ANALYSIS

SAMPLE MARK	Au ppm
13195	<0.01
13196	<0.01
13197	<0.01
13198	<0.01
13199	<0.01
13200	<0.01
13251	<0.01
13252	<0.01
13253	<0.01
13254	<0.01
13255	<0.01
13256	<0.01

METHOD : FA1

Appendix 3
1992 - 1993 Field season sample assay results.

EL5650 Gr 1 "~~Copper~~ area

amdel

Job: 3DN0758
O/N: 834261

Grab Soils

Final

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Fe	Mn	As	Ba
834261 -80#	29	20	59	3.04%	830	20	220
834262 -80#	26	20	115	2.94%	1600	14	260
834263 -80#	27	20	39	3.10%	1400	16	230
834264 -80#	22	20	38	2.68%	1100	16	230
834265 -80#	20	21	42	2.68%	750	14	210
834266 -80#	20	21	47	2.08%	1210	12	250
834267 -80#	21	21	29	2.02%	1140	14	270
834268 -80#	22	22	27	2.18%	1090	14	290
834269 -80#	25	22	26	2.40%	1260	16	320
834270 -80#	25	21	25	2.78%	1130	16	270
834271 -80#	22	21	36	2.36%	650	18	250
834272 -80#	22	22	26	1.88%	960	14	310
834273 -80#	20	18	27	1.65%	740	12	310
834274 -80#	14	10	25	1.39%	420	10	195
834275 -80#	24	15	31	2.46%	1210	16	280
834276 -80#	28	18	31	2.66%	1430	18	210
834277 -80#	29	17	40	2.24%	1100	16	200
834278 -80#	29	18	36	2.78%	620	16	150
834279 -80#	30	17	37	2.70%	450	16	150
834280 -80#	75	17	105	3.18%	1160	24	195
834281 -80#	57	18	120	3.54%	1290	24	220
834282 -80#	62	18	165	3.52%	300	22	140
834283 -80#	23	18	77	2.06%	200	12	150
834284 -80#	22	16	58	2.36%	560	14	200
834285 -80#	20	16	43	2.42%	590	12	210
834286 -80#	25	17	52	2.88%	630	18	190
834287 -80#	17	18	38	2.60%	450	14	190
834288 -80#	18	17	31	2.26%	400	12	200
834289 -80#	22	19	32	2.22%	440	8	195
834290 -80#	25	19	38	2.40%	570	12	195
834291 -80#	17	16	35	2.40%	540	10	175
834292 -80#	18	11	29	1.66%	480	10	150
834293 -80#	14	14	31	2.04%	390	10	160
834294 -80#	16	15	35	1.59%	430	12	185
834295 -80#	19	15	35	2.18%	820	12	200
834296 -80#	18	14	32	1.93%	1540	14	250
834297 -80#	15	16	34	2.16%	890	10	240
834298 -80#	51	19	91	2.48%	1240	12	260
834299 -80#	45	20	84	2.40%	1000	16	180
834300 -80#	49	17	45	2.04%	390	16	170
834301 -80#	30	18	39	1.92%	540	14	185
834302 -80#	34	18	31	1.68%	510	18	200
834303 -80#	30	18	29	1.97%	1120	12	240
834304 -80#	14	13	22	1.90%	850	10	250
834305 -80#	7	10	22	1.56%	630	10	260
834306 -80#	8	11	24	1.64%	730	12	240
834307 -80#	14	13	71	2.52%	1810	14	250
834308 -80#	14	9	27	2.64%	650	12	210
834309 -80#	11	7	22	1.98%	280	10	210
834310 -80#	11	8	20	1.52%	450	8	210
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DET.LIM	2	4	2	4	4	2	10
SCHEME	AAS1	AAS1	AAS1	AAS1	AAS1	XRF1	XRF1

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Job: 3DN0758
O/N: 834261

Final

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Fe	Mn	As	Ba
834311 -80#	8	9	18	1.51%	400	8	220
834312 -80#	13	8	22	1.71%	730	10	260
834313 -80#	12	7	24	1.70%	840	14	280
834314 -80#	11	6	17	1.39%	1080	10	270
834315 -80#	10	10	17	1.61%	1060	8	280
834316 -80#	10	7	15	1.32%	490	10	230
834317 -80#	8	8	9	9300	450	10	290
834318 -80#	30	18	17	9400	420	18	340
834319 -80#	59	21	29	1.26%	680	20	370
834320 -80#	31	21	25	1.52%	520	16	340
834321 -80#	19	21	16	1.19%	410	14	320
834322 -80#	22	22	20	1.71%	760	16	330
834323 -80#	30	14	19	2.10%	550	8	270
834324 -80#	51	18	25	2.06%	430	14	195
834325 -80#	51	20	25	1.90%	450	14	195
834326 -80#	84	20	30	1.94%	420	14	200
834327 -80#	69	20	31	2.16%	600	14	210
834328 -80#	68	20	45	2.12%	1390	14	230
834329 -80#	43	22	67	2.10%	1680	18	280
834330 -80#	28	21	40	1.94%	1170	14	220
834331 -80#	27	21	63	1.89%	1590	14	280
834332 -80#	52	22	52	1.93%	1770	14	240
834333 -80#	29	23	75	1.81%	1250	16	260
834334 -80#	27	21	53	1.53%	340	12	195
834335 -80#	26	20	46	1.83%	400	12	210
834336 -80#	10	8	19	8700	320	12	145
834337 -80#	6	7	14	6900	155	10	145
834338 -80#	24	19	60	2.14%	1090	14	260
834339 -80#	29	21	100	2.78%	1750	18	290
834340 -80#	26	20	35	2.06%	1230	14	290
834341 -80#	25	17	26	2.02%	1090	16	280
834342 -80#	19	15	17	1.44%	500	14	270
834343 -80#	22	19	17	1.52%	520	16	280
834344 -80#	29	18	19	1.25%	690	10	300
834345 -80#	30	16	18	1.55%	640	18	290
834346 -80#	30	17	19	1.28%	580	12	290
834347 -80#	22	15	21	1.09%	410	10	290
834348 -80#	11	9	14	1.15%	530	12	310
834349 -80#	5	9	15	1.21%	500	8	260
834350 -80#	5	9	18	1.12%	560	24	310
834351 -80#	10	15	20	2.24%	400	14	300
834352 -80#	7	12	20	1.63%	480	14	290
834353 -80#	23	8	17	1.11%	330	12	300
834354 -80#	16	10	15	1.36%	290	12	260
834355 -80#	13	10	16	1.30%	730	12	310
834356 -80#	14	8	18	1.43%	830	10	300
834357 -80#	11	10	21	1.77%	660	10	260
834358 -80#	15	8	29	8800	310	10	135
834359 -80#	15	13	24	2.34%	1210	12	270
834360 -80#	12	9	25	1.74%	690	10	210
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DET.LIM	2	4	2	4	4	2	10
SCHEME	AAS1	AAS1	AAS1	AAS1	AAS1	XRF1	XRF1

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Job: 3DN0758
O/N: 834261

Final

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Fe	Mn	As	Ba
834361 -80#	8	9	23	1.43%	380	8	180
834362 -80#	15	10	34	2.24%	220	8	185
834363 -80#	94	890	260	2.66%	940	38	340

UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DET.LIM	2	4	2	4	4	2	10
SCHEME	AAS1	AAS1	AAS1	AAS1	AAS1	XRF1	XRF1

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Job: 4DN0179
O/N: QP100550

Final

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Fe	Mn
QP100550	37	26	11	1.56	1500
QP100551	48	140	100	1.57	550
QP100552	26	22	20	1.28	350
QP100553	26	21	18	2.79	540
QP100554	34	38	8	1.45	200
QP100555	20	10	11	0.89	990
QP100556	3	<4	7	0.40	150
UNITS	ppm	ppm	ppm	%	ppm
DET.LIM	2	4	2	0.01	4
SCHEME	AA1	AA1	AA1	AA1	AA1

Appendix 4
1992 - 1993 Field season sample assay results.

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Job: 3DN0610
O/N: 833685

Final

ANALYTICAL REPORT

"Copper King SOILS

SAMPLE	Cu	Pb	Zn	Ag	Co	Fe	Mn
833591	10	18	9	<1	19	1.55%	1000
833592	13	10	8	<1	<4	1.09%	310
833593	21	49	25	<1	12	1.17%	360
833594	4	15	3	<1	<4	1.15%	370
833595	4	9	3	<1	5	1.02%	590
833596	3	14	7	<1	15	1.66%	840
833597	3	12	5	<1	5	1.22%	610
833598	8	18	3	<1	19	1.63%	1180
833599	5	13	4	<1	14	1.89%	1040
833600	17	13	4	<1	22	1.63%	1020
833601	6	10	22	<1	<4	6000	500
833602	120	10	5	<1	16	8800	490
833603	28	4	4	<1	4	8300	360
833604	27	6	3	<1	11	9700	340
833605	13	9	12	<1	<4	1.46%	330
833606	10	9	9	<1	<4	1.17%	390
833607	18	11	5	<1	7	1.39%	730
833608	20	16	15	<1	<4	1.28%	490
833609	35	11	13	<1	6	1.14%	530
833610	16	19	15	<1	4	1.35%	600
833611	14	16	8	<1	5	1.45%	550
833612	28	15	36	<1	7	1.04%	370
833613	13	8	6	<1	<4	1.20%	430
833614	8	9	3	<1	<4	1.26%	380
833615	14	16	3	<1	<4	1.43%	370
833616	11	14	9	<1	5	1.83%	450
833617	10	15	19	<1	15	2.10%	1490
833618	3	7	2	<1	<4	9200	380
833619	4	4	<2	<1	<4	5700	22
833620	5	6	6	<1	4	1.71%	380
833621	7	7	6	<1	12	1.21%	400
833622	6	5	6	<1	<4	9500	380
833623	6	<4	7	<1	<4	1.19%	500
833624	12	6	3	<1	6	1.48%	440
833625	33	5	4	<1	12	1.69%	700
833626	11	9	6	<1	<4	1.59%	510
833627	9	6	11	<1	10	1.18%	550
833628	11	5	4	<1	10	1.36%	720
833629	18	6	8	<1	13	1.16%	660
833630	24	9	4	<1	20	1.35%	690
833631	33	8	12	<1	9	1.44%	410
833632	14	8	5	<1	7	1.42%	630
833633	17	5	3	<1	7	1.54%	380
833634	39	6	4	<1	8	1.36%	570
833635	59	14	20	<1	29	1.55%	980
833636	23	15	13	<1	28	1.72%	1080
833637	35	21	8	<1	28	2.14%	990
833638	21	12	3	<1	25	1.78%	1020
833639	24	15	5	<1	26	1.63%	1220
833640	61	9	38	<1	20	1.43%	690
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DET.LIM	2	4	2	1	4	5	4
SCHEME	AAS2	AAS2	AAS2	AAS2	AAS2	AAS2	AAS2

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Job: 3DN0610
O/N: 833685

Final

ANALYTICAL REPORT

SAMPLE	As	Ba	Au	AuDpl
833591	10	280	0.001	--
833592	6	250	0.001	--
833593	8	185	<0.001	--
833594	6	220	<0.001	--
833595	4	190	<0.001	--
833596	6	230	<0.001	--
833597	12	220	<0.001	--
833598	8	230	0.002	--
833599	10	210	<0.001	--
833600	8	230	0.005	--
833601	2	165	0.001	--
833602	2	175	<0.001	--
833603	4	165	<0.001	--
833604	4	160	0.001	--
833605	6	150	0.002	--
833606	4	140	<0.001	--
833607	4	155	<0.001	--
833608	4	145	0.001	--
833609	6	140	<0.001	--
833610	8	150	<0.001	--
833611	2	175	<0.001	<0.001
833612	4	160	<0.001	--
833613	4	145	<0.001	--
833614	<2	160	<0.001	--
833615	4	175	<0.001	--
833616	4	180	<0.001	--
833617	8	300	<0.001	--
833618	8	220	<0.001	--
833619	8	200	<0.001	--
833620	8	240	<0.001	--
833621	4	280	<0.001	--
833622	2	170	<0.001	--
833623	2	220	<0.001	--
833624	<2	250	<0.001	<0.001
833625	2	270	<0.001	--
833626	<2	240	<0.001	--
833627	4	260	<0.001	--
833628	<2	200	<0.001	--
833629	8	230	<0.001	--
833630	2	230	<0.001	--
833631	4	250	<0.001	--
833632	2	250	<0.001	--
833633	4	260	<0.001	<0.001
833634	<2	260	<0.001	--
833635	4	290	<0.001	--
833636	6	290	<0.001	--
833637	6	260	<0.001	--
833638	10	260	<0.001	--
833639	6	280	<0.001	--
833640	4	260	<0.001	<0.001
UNITS	ppm	ppm	ppm	ppm
DET.LIM	2	10	0.001	0.001
SCHEME	XRF1	XRF1	AAS9	AAS9

amdel

Job: 3DN0610
O/N: 833685

inal

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Ag	Co	Fe	Mn
833641	25	10	18	<1	13	1.76%	280
833642	13	10	11	<1	15	1.39%	360
833643	23	10	12	<1	18	1.40%	480
833644	18	9	5	<1	14	1.59%	550
833645	35	8	9	<1	23	1.49%	530
833646	56	<4	6	<1	12	1.18%	440
833647	18	7	10	<1	4	1.05%	330
833648	4	9	5	<1	<4	1.09%	250
833649	9	8	16	<1	11	1.51%	510
833650	3	<4	9	<1	13	1.06%	730
833651	<2	6	8	<1	10	1.08%	500
833652	<2	8	18	<1	26	1.07%	910
833653	20	10	10	<1	27	1.67%	1170
833654	10	<4	5	<1	12	1.23%	530
833655	17	5	9	<1	24	1.35%	750
833656	6	5	37	<1	35	1.79%	1050
833657	5	6	13	<1	25	1.24%	840
833658	16	5	8	<1	15	1.64%	480
833659	20	9	10	<1	8	1.28%	290
833660	38	6	12	<1	19	1.64%	780
833661	20	<4	6	<1	4	1.06%	330
833662	35	10	6	<1	<4	8600	65
833663	30	9	3	<1	5	5400	230
833664	21	19	2	<1	11	5300	230
833665	38	36	8	<1	11	7600	290
833666	47	40	8	<1	14	5600	390
833667	73	21	20	<1	24	1.35%	900
833668	100	12	21	<1	20	1.68%	530
833669	140	14	33	<1	23	1.87%	550
833670	145	12	41	<1	26	1.88%	650
833671	145	18	37	<1	15	1.66%	760
833672	180	25	44	<1	30	1.51%	670
833673	110	11	10	<1	19	1.45%	820
833674	84	6	17	<1	22	1.38%	980
833675	27	<4	33	<1	8	1.21%	610
833676	25	5	43	<1	12	1.30%	620
833677	53	11	23	<1	22	1.80%	980
833678	51	15	39	<1	26	1.60%	970
833679	53	22	67	<1	20	1.67%	360
833680	42	11	68	<1	11	1.82%	260
833681	38	12	39	<1	19	1.99%	490
833682	39	6	31	<1	18	2.18%	540
833683	30	23	75	<1	18	2.38%	670
833684	53	8	9	<1	26	2.36%	480
833685	25	26	115	<1	19	2.46%	1030
833686	45	8	6	<1	21	1.97%	1110
833687	31	<4	8	<1	24	1.78%	660
833688	70	15	17	<1	26	1.96%	720
833689	49	4	8	<1	20	2.12%	710
833690	48	<4	6	<1	22	2.42%	750
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DET.LIM	2	4	2	1	4	5	4
SCHEME	AAS2	AAS2	AAS2	AAS2	AAS2	AAS2	AAS2

EL5877 Area 2

amdel

Job: 3DN0718
O/N: 834152

Final

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Fe	Mn	As	Ba
834152 -80#	26	21	8	1.41%	500	6	190
834153 -80#	26	26	9	1.27%	670	8	200
834154 -80#	26	31	8	1.21%	580	2	200
834155 -80#	24	41	7	1.04%	390	6	185
834156 -80#	23	57	8	8800	460	2	160
834157 -80#	23	59	9	7400	380	4	135
834158 -80#	30	145	17	7700	740	8	125
834159 -80#	24	155	7	6000	370	2	130
834160 -80#	19	20	15	9600	560	6	260
834161 -80#	23	18	15	1.12%	830	9	240
834162 -80#	34	26	15	1.89%	1540	9	290
834163 -80#	29	15	12	1.34%	1050	9	260
834164 -80#	29	20	9	1.50%	1080	8	260
834165 -80#	31	14	9	1.37%	520	12	240
834166 -80#	24	15	8	8600	780	8	240
834167 -80#	21	18	8	9400	1380	14	250
834168 -80#	18	21	7	6900	1140	8	250
834169 -80#	17	18	8	8900	480	10	200
834170 -80#	18	12	8	1.28%	510	8	190
834171 -80#	16	4	3	1.19%	640	6	220
834172 -80#	17	4	6	1.26%	890	8	250
834173 -80#	14	9	5	1.38%	940	12	240
834174 -80#	14	6	5	1.60%	650	14	230
834175 -80#	13	6	7	1.38%	640	8	270
834176 -80#	21	<4	9	1.05%	540	4	220
834177 -80#	20	7	12	1.94%	940	10	240
834178 -80#	22	10	120	1.82%	570	10	270
834179 -80#	18	7	13	1.88%	460	8	220
834180 -80#	18	<4	10	1.61%	550	8	210
834181 -80#	22	7	6	2.04%	820	8	200
834182 -80#	21	14	7	1.86%	1270	12	240
834183 -80#	36	13	16	1.79%	620	8	150
834184 -80#	36	24	53	1.82%	1540	8	230
834185 -80#	28	12	9	1.25%	1280	10	175
834186 -80#	39	12	14	2.08%	430	12	170
834187 -80#	33	16	23	1.87%	550	12	190
834188 -80#	31	14	36	1.77%	310	12	185
834189 -80#	26	9	27	1.27%	310	10	180
834190 -80#	25	14	28	1.12%	320	4	170
834191 -80#	27	15	88	1.28%	380	6	180
834192 -80#	23	11	38	1.05%	380	4	240
834193 -80#	31	16	27	1.14%	360	6	270
834194 -80#	40	13	76	1.00%	900	6	300
834195 -80#	41	22	30	1.34%	1140	10	320
834196 -80#	56	18	28	1.75%	820	8	230
834197 -80#	66	27	12	1.79%	540	10	200
834198 -80#	51	27	46	1.47%	580	12	210
834199 -80#	35	48	53	1.12%	480	8	220
834200 -80#	34	33	58	1.10%	480	12	220
834201 -80#	26	24	24	9600	340	4	210
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DET.LIM	2	4	2	4	4	2	10
SCHEME	AAS1	AAS1	AAS1	AAS1	AAS1	XRF1	XRF1

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Job: 3DN0718
O/N: 834152

Final

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Fe	Mn	As	Ba
834202 -80#	27	25	29	1.13%	1020	8	230
834203 -80#	26	30	32	1.08%	880	10	200
834204 -80#	20	22	16	1.12%	890	6	175
834205 -80#	24	41	36	9700	1310	6	220
834206 -80#	13	77	7	7800	380	4	120
834207 -80#	18	35	24	9900	730	6	165
834208 -80#	7	24	6	9300	310	8	150
834209 -80#	15	47	23	8700	230	8	145
834210 -80#	12	26	9	5300	150	6	150
834211 -80#	20	21	22	9900	300	4	200
834212 -80#	22	19	27	1.43%	880	6	260
834213 -80#	18	15	19	1.68%	730	10	250
834214 -80#	12	5	11	1.11%	500	8	250
834215 -80#	15	10	8	1.24%	760	8	270
834216 -80#	18	17	16	1.59%	1230	8	300
834217 -80#	17	14	17	1.58%	1030	8	280
834218 -80#	26	16	22	1.71%	1150	8	300
834219 -80#	33	18	25	1.58%	1110	8	310
834220 -80#	29	25	25	1.49%	1690	6	190
834221 -80#	30	20	25	1.43%	1660	6	195
834222 -80#	32	23	30	2.14%	2830	14	260
834223 -80#	33	21	13	2.08%	2230	8	200
834224 -80#	31	17	16	1.58%	840	6	125
834225 -80#	32	17	14	1.29%	1080	6	170
834226 -80#	30	16	17	1.04%	250	6	120
834227 -80#	32	12	13	1.16%	180	4	120
834228 -80#	43	15	14	2.06%	260	12	155
834229 -80#	38	17	20	1.65%	195	10	185
834230 -80#	39	17	16	1.63%	210	12	200
834231 -80#	33	20	21	1.32%	330	12	240
834232 -80#	35	28	26	1.57%	390	10	230
834233 -80#	47	36	19	2.38%	330	16	220
834234 -80#	46	47	21	2.22%	2430	12	220
834235 -80#	49	45	23	2.24%	1700	16	290
834236 -80#	35	22	21	1.36%	1080	14	290
834237 -80#	39	39	17	1.90%	1540	10	270
834238 -80#	40	29	19	1.94%	1530	14	270
834239 -80#	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
834240 -80#	34	40	41	2.38%	1750	16	340
834241 -80#	34	33	38	2.38%	1770	14	290
834242 -80#	33	34	39	2.16%	1610	14	300
834243 -80#	33	25	40	2.24%	940	10	250
834244 -80#	32	26	32	1.93%	1040	16	300
834245 -80#	28	25	20	1.99%	1240	14	260
834246 -80#	26	29	30	1.51%	730	10	200
834247 -80#	35	30	39	1.94%	1030	12	260
834248 -80#	23	18	24	1.29%	680	6	220
834249 -80#	19	22	12	8900	175	6	165
834250 -80#	29	18	31	1.41%	560	6	185
834251 -80#	41	20	28	1.48%	540	10	230
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DET.LIM	2	4	2	4	4	2	10
SCHEME	AAS1	AAS1	AAS1	AAS1	AAS1	XRF1	XRF1

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Job: 3DN0718
O/N: 834152

Final

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Fe	Mn	As	Ba
834252 -80#	33	27	22	1.79%	370	12	190
834253 -80#	44	52	27	2.42%	790	16	200
834254 -80#	43	79	38	2.62%	1450	12	220
834255 -80#	39	59	28	2.68%	1240	16	210
834256 -80#	36	48	25	3.00%	710	12	190
834257 -80#	31	63	36	2.16%	370	14	220
834258 -80#	27	25	30	2.24%	1100	6	270
834259 -80#	27	22	28	2.38%	1040	12	270
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DET.LIM	2	4	2	4	4	2	10
SCHEME	AAS1	AAS1	AAS1	AAS1	AAS1	XRF1	XRF1

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Job: 3DN0634
O/N: QP 95206

Final

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Ag	Fe	Mn
QP 95206	14	6	3	<1	1.38%	350
QP 95207	14	10	140	<1	18.6%	4620
QP 95208	11	11	27	<1	2.28%	1200
QP 95209	260	6	26	<1	4100	115
QP 95210	2.02%	74	35	<1	1.27%	59
QP 95211	1.19%	270	78	<1	6.32%	100
QP 95212	5890	250	190	<1	5.86%	270
QP 95213	3650	115	540	<1	10.9%	5620
QP 95214	680	175	155	<1	6.64%	760

Copper King
Rocks

UNITS	ppm	ppm	ppm	ppm	ppm	ppm
DET.LIM	2	4	2	1	5	4
SCHEME	AAS2	AAS2	AAS2	AAS2	AAS2	AAS2
UPPER SCHEME	AAS2C					

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Job: 3DN0634
O/N: QP 95206

Final

ANALYTICAL REPORT

Copper King Rock.

SAMPLE	Au	AuDpl	As	Ba
QP 95206	0.001	--	4	35
QP 95207	<0.001	--	32	690
QP 95208	<0.001	<0.001	4	150
QP 95209	<0.001	--	<2	230
QP 95210	<0.001	--	8	220
QP 95211	<0.001	--	26	220
QP 95212	<0.001	--	4	90
QP 95213	<0.001	--	18	810
QP 95214	0.001	--	38	145
UNITS	ppm	ppm	ppm	ppm
DET.LIM	0.001	0.001	2	10
SCHEME	AAS9	AAS9	XRF1	XRF1

Appendix 5
1994. Drill hole logs and assay sheets.

DRILL HOLE GP1

PROSPECT GORGE — CARPENTARIA EXPLORATION COMPANY PTY. LTD. — HOLE N° GP1

ROTARY PERCUSSION DRILL HOLE LOG

LOCATION

HOLE CO-ORDINATES 602800 E 8123579 N

ROTARY FROM ..... TO .....

HAMMER FROM 0 TO 60

RL. COLLAR —

INCLINATION -90°

DIRECTION —

SAMPLE N°	>100ppm ANALYSES Cu	Pb	Zn	p.p.m/% Fe	Mn	DEPTH METRES	LOG	DESCRIPTION	REMARKS
								Weathered oxidised brown slst	
								" "	
								"	
								"	
								"	
								"	
QP112066							Pmq	"	
67		360						black carbonaceous slst	
						10		" minor tan, trace galena	
68		3710						" abundant tan, trace galena	
								" "	
69	400	1170	150					black carbonaceous siltstone	
								green siltstone, pink dolostone	
70	120	100						pale green to pink dolosiltstone trace pyrite	
								"	
71								" + beige	
								"	
72								yellow-beige to pink dolosiltstone	
						20	Pmnc	"	
73								pale green, beige-pink	
								"	
74								"	
								"	
75								beige-pink, pink-red mottled dololutite	
								"	
76								very pink dolosiltstone & gypsum pseudomorphs	
								"	
77								"	
								"	
78						30		tan beige + pink trace calcite	
								"	
79								"	
								"	
80								"	
								"	
81								"	
								"	
82								"	
								"	
83						40		"	
								"	
84								"	trace py
								"	"
85								"	slightly oxidised
								"	"
86								"	
								"	
87								very pink dolosiltstone	
								"	
88						50		"	
								"	
89								"	
								"	
90								"	
								"	
91								"	
								"	
92								"	
								"	
						60		"	

REASON FOR HOLE:

OTHER DETAILS:

DRILL TYPE: NARMAN 1000 — LOGGED BY: T.P

DRILLER: PONTIL — DATE DRILLED: 26/9/94

SCALE: 1:250

TRACING No. 1/3331

amdel

Job: 4DN1363
O/N: QP112066

Final

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Fe	Mn	
QP112066	33	57	29	2.64	360	DRILL HOLE G.P.1
QP112067	31	360	83	2.06	460	
QP112068	27	3710	84	1.89	440	
QP112069	400	1170	150	1.26	470	
QP112070	120	100	58	0.63	850	
QP112071	17	67	22	0.67	1070	
QP112072	24	95	18	0.67	1170	
QP112073	35	47	21	0.73	1080	
QP112074	8	23	21	0.64	1010	
QP112075	87	15	20	0.68	1080	
QP112076	10	25	21	0.59	1140	
QP112077	6	16	19	0.73	1120	
QP112078	7	6	17	0.55	1050	
QP112079	7	7	19	0.63	1050	
QP112080	11	<4	23	0.48	990	
QP112081	8	8	15	0.54	1030	
QP112082	6	9	14	0.56	1070	
QP112083	4	6	13	0.73	1190	
QP112084	4	5	13	0.57	970	
QP112085	12	17	21	0.67	1210	
QP112086	13	16	23	0.62	1170	
QP112087	7	11	16	0.75	1170	
QP112088	4	7	14	0.75	1130	
QP112089	6	8	16	0.75	1280	
QP112090	5	8	12	0.70	1160	
QP112091	7	12	19	0.64	1150	
QP112092	4	11	18	0.65	1240	

UNITS	ppm	ppm	ppm	%	ppm
DET.LIM	2	4	2	0.01	4
SCHEME	AA1	AA1	AA1	AA1	AA1

DRILL HOLE GW2
(WATER BORE)

PROSPECT: GORGE

CARPENTARIA EXPLORATION COMPANY PTY. LTD
ROTARY PERCUSSION DRILL HOLE LOG

HOLE No: GW2

LOCATION: EL 5650

HOLE CO-ORDINATES: 604349 E 8122735 N

ROTARY FROM .. TO ..

HAMMER FROM: 0 TO 60m

R.L. COLLAR: ...

INCLINATION: -90°

DIRECTION: ...

SAMPLE No	ANALYSES ppm/%	DEPTH METRES	LOG	DESCRIPTION	REMARKS	WATER
				no sample		
QP112093		2		red pink dolosiltstone		
QP112094		6		as above · minor grey chert		
QP112095		10		red brown dolosiltstone, trace calcite. minor chert		
QP112096		14		"	damp sample ↓	
QP112097		18		"		
QP112098		22		red brown yellow brown dolosiltstone with abundant chert		
QP112099		26		" + brown clay		
QP112100		30		"		
QP112101		34		"	Weak water flow ↓	
QP112102		38		"		
QP112103		42		" + grey chert nodules	moderate to strong water flow	
QP112104		46		banded red brown + dark red grey dolosiltstone		
QP112105		50		pink brown dolosiltstone, trace calcite		
QP112106		54		"		
QP112107		58		"		
		60				

REASON FOR HOLE: WATER BORE

OTHER DETAILS: 5½" to 60m. Opened to 8" from 0-42m

DRILL TYPE: WARMAN KCO

DRILLER: ...

SCALE: 1:250

LOGGED BY: P

DATE DRILLED: 27/9/94

DRG/CODE No: ...

TRACING No. 1/339

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Job: 4DN1383
O/N: QP112093

Final

ANALYTICAL REPORT

GW2

SAMPLE	Cu	Pb	Zn	Fe	Mn
QP112093	7	9	42	0.56	1210
QP112094	4	6	34	0.48	1200
QP112095	3	8	53	0.73	1370
QP112096	4	5	39	0.55	1400
QP112097	3	11	34	0.58	1150
QP112098	4	13	50	0.58	1280
QP112099	5	10	45	0.67	1330
QP112100	6	17	49	0.73	1290
QP112101	6	17	61	0.78	1510
QP112102	7	18	67	1.02	1660
QP112103	19	40	145	1.65	2980
QP112104	9	21	125	1.12	1790
QP112105	6	18	51	0.66	1540
QP112106	6	19	45	0.87	1750
QP112107	8	20	51	1.32	2660
UNITS	ppm	ppm	ppm	%	ppm
DET.LIM	2	4	2	0.01	4
SCHEME	AA1	AA1	AA1	AA1	AA1

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Hole GPW2

JOB No.4DN1415
PAGE 2

Results are expressed as mg/L.

Analysis Code WAT 3E.

SAMPLE ID.	GW1 QP112211
Copper	<0.01
Lead	<0.01
Zinc	<0.01

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Water Analysis Report Job No. 4DN1415 Method WAT 2
Page 1

Sample ID. GW1-QP112211

Chemical Composition

		mg/L	me/L
Cations			
Calcium	(Ca)	1.3	0.06
Magnesium	(Mg)	0.4	0.03
Sodium	(Na)	376.0	16.35
Potassium	(K)	3.3	0.08
Anions			
Hydroxide	(OH)		
Carbonate	(CO3)		
Bi-Carbonate	(HCO3	911.7	14.95
Sulphate	(SO4)	2.4	0.05
Chloride	(Cl)	31	0.86
Nitrate	(NO3)	<0.1	
Bromide	(Br)	0.2	

Other Analyses :

Reaction - pH	6.9
Conductivity (E.C) (micro -S/cm at 25°C)	1166
Resistivity Ohm.M at 25°C	8.58

Derived Data

	mg/L
Total Dissolved Solids	
A. Based on E.C.	746
B. Calculated (HCO3=CO3)	870
Total Hardness	5
Carbonate Hardness	5
Non-Carbonate Hardness	
Total Alkalinity (Each as CaCO3)	740

Totals and Balance

Cations (me/L)	16.5	Diff=	0.68
Anions (me/L)	15.9	Sum =	32.4
ION BALANCE (Diff*100/Sum) =			2.09%
Sodium / Total Cation Ratio			98.9%

mg/L = Milligrams per litre
me/L = MilliEqivs.per litre

Name: MIM
Address:

Date Collected UNKNOWN
Date Received 08/10/94
Collected by CLIENT

DRILL HOLE GP3

PROSPECT GORGE — CARPENTARIA EXPLORATION COMPANY PTY. LTD. — HOLE N° GP3

LOCATION EL 5650 — ROTARY PERCUSSION DRILL HOLE LOG — RL. COLLAR ...130... M.

HOLE CO-ORDINATES 605207 / 8122526 — ROTARY: FROM ..... TO ..... — INCLINATION ...-60°...

HAMMER: FROM 0 TO 150 — DIRECTION ...270°AMG

SAMPLE N°	ANALYSES ppm/%	DEPTH METRES	LOG	DESCRIPTION	REMARKS	WATER
GP112110				red brown, yellow brown grey dolosiltstone		
111				yellow brown, green grey laminated dolosiltstone		
112				"		
113				" some dark flecks through grey.		
114				"		
115		10		"		
116				dark streaky (wispy) green-grey dolosiltstone laminated thinbedded grey, yellow grey, green dolosiltstone		
117				mainly grey, light tan grey traces yellow dolosiltstone		
118				pale yellow dolomitic siltstone		
119				yellow pale green-pale grey bleached dol siltstone		
120		20		mainly grey, dark grey streaky laminated dol siltstone dolsiltstone and dolarenite to 48 metres		
121						
122						
123						
124						
125		30				
126						
127						
128						
129						
130		40				
131						
132						
133						
134				Mainly massive tan-grey dolarenite to 52 metres		
135		50				
136				grey, dark grey, tan(?) dolosiltstone and dolarenite.		
137				"		
138				"		
139				" dolarenite dominant		
		60		"		

REASON FOR HOLE: To test soil geochemical anomaly at line 4.

OTHER DETAILS

DRILL TYPE: WARMAN 1000 — LOGGED BY:

DRILLER: TONTIL — DATE DRILLED:

SCALE: — ORD / CORE AU

TRACING No. 1/3131

CARPENTARIA EXPLORATION COMPANY PTY. LTD.
ROTARY PERCUSSION DRILL HOLE LOG

PROSPECT .... HOLE No GP3
LOCATION .... RL COLLAR ....m
ROTARY FROM ...... TO ...... INCLINATION ....°
HOLE CO-ORDINATES HAMMER FROM ...... TO ...... DIRECTION ....°

SAMPLE No.	ANALYSES p.p.m/%	DEPTH METRES	LOG	DESCRIPTION	REMARKS
QP12140		60		"	
				tan grey dolarenite	
141				"	
				"	
142				"	
				"	
143				grey, dark grey, laminated dolosiltstone and minor dolarenite	
				"	
144				green grey, grey, dark laminated + streaky dolosiltstone	
				"	
145		70		grey, dark grey dolosiltstone + dolarenite to 75	
146					
147			Pmx		
				md grey, green laminated dolosiltstone	
148				"	
				"	
149				"	trace pyrite
				"	
150		80		"	
				"	
151				" + minor intraclastic dolarenite	
				"	tr py
152				"	
				mid-dark grey, pale grey weakly laminated dolosiltstone	
153				pale grey - tan grey blotchy dolarenite? or gout	
				"	
154				dark grey, tan grey dolosiltstone	minor quartz
				"	"
155		90		dark grey dolomitic siltstone	
				to 12? metres, variable ...	calcite
156				and ... veining	tr qtz tr py
					"
157					"
					"
158					"
					"
159					"
					tr py
160		100			"
					"
161					5-10% coarse py
					1% py
162					<1% py
					"
163					" tr calcite
					trace py "
164					"
					"
165		110		becoming darker	"
					"
166					"
					"
167					"
					"
168					"
					"
169					"
					"
		120			

REASON FOR HOLE: | DRILL TYPE: WARMAN 1000 | LOGGED BY:

DRILLER: PONTIL | DATE DRILLED:

OTHER DETAILS: Page 2 of 3 | SCALE: | DRG/CODE No:

TRACING No. 1/3431

CARPENTARIA EXPLORATION COMPANY PTY. LTD.
ROTARY PERCUSSION DRILL HOLE LOG

HOLE Nº GR3

PROSPECT
LOCATION
HOLE CO-ORDINATES
ROTARY FROM ... TO ...
HAMMER FROM ... TO ...
RL COLLAR
INCLINATION
DIRECTION

SAMPLE Nº	ANALYSES ppm/%	DEPTH METRES	LOG	DESCRIPTION	REMARKS
GR112 170		120			no py
					tr py
171				"	"
					"
172					"
					"
173					"
174				dark grey and grey gritty dolslst.	1% py
				"	
175		130		dark grey dolslst minor green(tuff?)	
				"	tr py
176				"	"
				"	"
177			Pmq	"	"
				"	no py
178				"	"
				"	"
179				"	tr py
		140		"	tr py
180				"	no py
				" trace grey grittyslst	tr - 1% py
181				"	tr py
				"	tr py
182				"	no py
					<1% py
183				Carbonaceous black dol slst	
				"	
184				"	tr py
				"	tr py
		150			
				150m END OF HOLE	

REASON FOR HOLE: No water in hole
OTHER DETAILS: Page 3 of 3
DRILL TYPE: WARMAN 1000
DRILLER: CONTIL.
SCALE:
LOGGED BY:
DATE DRILLED:
ORD/CODE No.

TRACING No 1/3131

amdel

Job: 4DN1428
O/N: QP112110

Final

ANALYTICAL REPORT

HOLE GP3

	SAMPLE	Cu	Pb	Zn	Mn	Fe
	QP112110	16	380	29	1060	1.97
	QP112111	16	360	19	740	1.46
	QP112112	8	240	29	700	1.37
	QP112113	7	210	23	710	1.32
	QP112114	28	460	29	820	1.42
10m	QP112115	8	185	22	660	1.20
	QP112116	7	280	26	510	1.04
	QP112117	12	155	16	700	0.91
	QP112118	5	180	14	860	1.13
	QP112119	18	250	22	940	1.09
	QP112120	6	330	26	960	1.33
	QP112121	5	230	25	760	1.19
	QP112122	6	160	31	720	1.19
	QP112123	12	94	12	910	1.25
	QP112124	8	60	15	580	1.10
	QP112125	7	43	14	770	1.26
	QP112126	8	64	50	670	1.20
	QP112127	4	105	11	710	1.21
	QP112128	4	200	63	790	1.33
	QP112129	5	200	34	890	1.34
	QP112130	6	135	11	620	1.16
	QP112131	6	105	20	740	1.37
	QP112132	11	150	57	690	1.30
	QP112133	8	125	26	770	1.24
50m	QP112134	5	85	78	820	1.25
	QP112135	5	54	32	860	1.16
	QP112136	8	39	50	770	1.33
	QP112137	10	44	130	800	1.26
	QP112138	7	46	20	890	1.30
	QP112139	6	62	67	770	1.24
	QP112140	6	68	19	730	0.95
	QP112141	5	51	60	820	1.19
	QP112142	36	590	320	790	1.49
	QP112143	5	160	155	570	1.36
	QP112144	9	92	16	880	1.73
	QP112145	32	160	170	910	1.84
	QP112146	9	125	36	690	1.75
	QP112147	8	105	17	610	1.64
	QP112148	8	115	57	620	1.64
	QP112149	8	190	40	720	1.87
	QP112150	9	195	40	690	1.75
	QP112151	14	170	32	680	1.72
	QP112152	85	140	78	770	2.03
	QP112153	12	220	1430	780	1.85
90m	QP112154	87	46	42	750	2.45
	QP112155	9	190	27	620	1.82
	QP112156	7	140	45	530	1.96
	QP112157	9	130	20	490	2.12
	QP112158	12	170	40	410	1.96
	QP112159	25	250	52	440	2.00
	UNITS	ppm	ppm	ppm	ppm	%
	DET.LIM	2	4	2	4	0.01
	SCHEME	AA1	AA1	AA1	AA1	AA1

amdel

Job: 4DN1428
O/N: QP112110

Final

ANALYTICAL REPORT

HOLE GP3

SAMPLE	Cu	Pb	Zn	Mn	Fe
100m QP112160	24	270	390	700	2.39
QP112161	65	3490	2440	920	4.33
QP112162	19	210	79	460	2.72
QP112163	22	610	210	470	3.16
QP112164	20	73	57	350	2.62
QP112165	16	23	64	320	1.92
QP112166	25	22	37	400	2.12
QP112167	40	24	38	420	2.23
QP112168	14	20	48	380	1.93
QP112169	20	28	50	390	1.98
QP112170	21	21	50	350	1.82
QP112171	19	15	49	370	2.04
QP112172	23	20	29	350	1.75
QP112173	24	20	24	360	2.03
QP112174	25	16	25	350	1.97
QP112175	25	15	22	420	2.29
QP112176	27	16	43	370	2.10
QP112177	24	14	45	460	2.39
QP112178	26	18	40	350	2.11
QP112179	26	14	46	290	1.91
QP112180	27	22	18	400	2.30
QP112181	27	19	12	560	3.26
QP112182	29	60	29	560	3.50
QP112183	29	32	21	350	2.52
150m QP112184	26	42	25	320	2.88

UNITS	ppm	ppm	ppm	ppm	%
DET.LIM	2	4	2	4	0.01
SCHEME	AA1	AA1	AA1	AA1	AA1

DRILL HOLE GPD4

PROSPECT GORGE | CARPENTARIA EXPLORATION COMPANY PTY. LTD. | HOLE No. GPD 4

LOCATION EL5650

ROTARY PERCUSSION DRILL HOLE LOG

R.L. COLLAR ...135... m.

HOLE CO-ORDINATES 604656 / 8123253

ROTARY FROM 0 TO 48

REVERSE FROM ... TO ...

INCLINATION -60°

DIRECTION 180T.

SAMPLE No.	ANALYSES p.p.m./%	cm METRES	LOG	DESCRIPTION	REMARKS	WATER
		0				
				"		
QP112185				fine-coarse pink dolarenite and streaky dolosiltstone		
11286				pink dolosiltstone, laminated in part, minor orange clay		
187				mainly pink, minor purple and pale green		
188				purple pink, beige mottled dolosiltstone		
189		10		pink and green dolosiltstone, minor brown stain		
190				purple pink - buff pink minor green		
191				"		
192				green mottled pink dolosiltstone		
193				"		
194		20		"		
195				grey green laminated dololutite and pink dolosiltstone		
196				"		
197				redbrown, green, purple dolosiltstone + dololutite		
198				pink, beige, red mottled dolosiltstone		
199		30		buff pink dolosiltstone green laminated dolosiltstone		
201				redbrown, purple pink and green laminated dolosiltstone		
202				red, grey green laminated and pink dolosiltstone		
203				purple buff pink mottled laminated (algal) dolosiltstone		
204				"		
205		40		"		
206				"		
207				"		
208				"		
				"		
				cream, pale pink, redbrown mottled dolobreccia		
		48m.		"		
				"		
				"		
				"		
				"		
				"		
				"		
				mainly redbrown "		
				"		
				"		
				mainly pink "		
				"		
				pink + cream mottled		
				"		
				"		
				mainly redbrown		
				"		
				redbrown/cream		
				mainly pink-redbrown, minor green		

REASON FOR HOLE: Test geochemical soil anomaly on line 3.

OTHER DETAILS: trace mst @ 36m.

DRILLER: POWELL

SCALE: 1:250

LOGGED BY: TP

DATE DRILLED: 30/9/94

ORG/CODE No.

TRACING No. 1/3131

amdel

Job: 4DN1429
O/N: QP112185

Final

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Mn	Fe
QP112185	5	5	27	1140	0.37
QP112186	3	8	35	1090	0.46
QP112187	2	8	31	1080	0.48
QP112188	3	6	19	960	0.53
QP112189	<2	<4	15	700	0.36
QP112190	<2	<4	16	720	0.47
QP112191	2	<4	12	910	0.58
QP112192	5	<4	18	810	0.53
QP112193	<2	4	16	540	0.67
QP112194	2	5	29	810	0.43
QP112195	2	5	63	900	0.45
QP112196	<2	5	28	870	0.52
QP112197	<2	4	25	680	0.37
QP112198	2	6	31	840	0.55
QP112199	<2	<4	26	780	0.51
QP112200	<2	<4	20	660	0.41
QP112201	9	7	66	740	0.59
QP112202	5	16	110	600	0.65
QP112203	2	8	39	740	0.57
QP112204	2	6	46	710	0.55
QP112205	2	8	65	750	0.44
QP112206	3	10	105	730	0.52
QP112207	4	12	83	690	0.57

UNITS	ppm	ppm	ppm	ppm	%
DET.LIM	2	4	2	4	0.01
SCHEME	AA1	AA1	AA1	AA1	AA1

MIM EXPLORATION PTY. LTD.
GEOLOGICAL LOG

PROSPECT: GORGE | GEOLOGICAL LOG | HOLE No GPDH

from	to	length	recovery m	DESCRIPTION
48.0	57.7			Pink to yellowish-beige, streaky and wavy or ripple-laminated, ripple-bedded, thick-algal-laminated and thinbedded dolosiltstone in main; with minor thin intervals of fine dolarenite and dolomudstone; mod to strong dolomitic/cherty overprint; ex-evaporite? mottled texture; carbonate or feoxide-filled fenestrae; loadcasts common; and common stylolites aligned parallel to bedding.
				51m-53m pronounced ripple-bedded mottled dolosiltstone with abundant fine feoxide and carbonate-filled fenestrae.
				53 - 55.7 abundant fine microfracture, subnormal to bedding + subparallel to core with pale yellow haloes and staining of surfaces
57.7	60.1			yellow-beige-pink to yellow grey, medium to thick bedded (2-30cm) initially, becoming thinbedded, fine to medium qtz dolarenite; and thin coarse quartz arenite and dolosiltstone; planar to wavy bedded; occasional fine microfractures aligned 5° to core
60.1	63.8			Interbedded light grey thin to medium bedded fine dolarenite, (beds 2mm to 30cm) and dark streaky/wispy thinbedded and darkly laminated dolomitic siltstone; common mudcrack and loadcasts, intraclast breccias of fragmented arenite in siltstone due to slumping or collapse, common fine dark stylolites parallel to bedding

MIM EXPLORATION PTY. LTD.
GEOLOGICAL LOG

GEOLOGICAL LOG

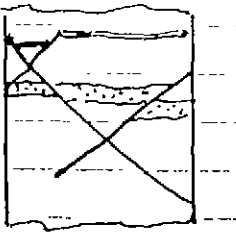
PROSPECT: | HOLE No

from	to	length	recovery m	DESCRIPTION
63·8	65·5			grey grading to beige thick-bedded fine to medium dolarenite, single fracture parallel to core has fe oxide coating and bleached solution halo, occasional stylolites parallel to bedding.
65·5	68·95			yellow-grey, and dark grey, thin to massive(slump) bedded dolosiltstone or fine dolarenite. slump beds contain fine carbon or mud wisps; loadcasts and up-up muds casts are evident; interbedded is fine dolomitic siltstone and minor medium to coarse dolarenite. bedding irregular or wavy due to slumping. common fine microfractures and stylolites subparallel to core. med to coarse arenite beds @ 67·15-67·35 and 68·2-68·95.
68·95	72·7			gradational zone from variable bed thickness and lithologies as described above to more uniform thinbedded and laminated sequence of light grey fine dolarenite (beds often fragmented due to collapse) and tan or yellow grey to dark grey laminated dolomitic siltstone; planar, ripple laminated and slumped, beds 1-2mm up to 2cm. fine oxidised fractures subparallel to core.
72·7	95·5			monotonous thinbedded and thickly laminated sequence of interbedded tan and dark brown grey, and green (possibly tuffaceous) dolosiltstone and minor lenticular or scoured light grey v. fine dolarenite. bedding is planar or rippled with common fragmentation by solution collapse and/or current action, slumping is evidenced by convoluted or contorted bedding from 82·4 to 90m and at 93·1m

MIM EXPLORATION PTY. LTD.
GEOLOGICAL LOG

GEOLOGICAL LOG

PROSPECT: | HOLE No.

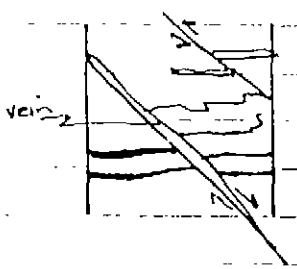
from	to	length	recovery m	DESCRIPTION
	cont...			minor to common fine microfracturing occurs with minor displacement (to several mms) as at 74.4 m 
				traces of pyrite and thin carborate veinlets to 2mm occur especially between 81.9 and 85.7.
				pyrite blebs @ 75.65 (1cm) and 79.07
95.5	107.3			gradational from above becoming paler with more variable bed thickness but generally remaining thinbedded buff, grey green (tuffaceous) dolomitic siltstone and thin intervals of dark grey laminated dololutite or dolosiltstone with rare scoured thin beds of grey fine dolarenite (bed thickness to 10 cm). generally planar laminated or bedded but convoluted in part due to slumping
				common thin calcite veinis to 5mm with normal offsets to several cms. commonly as conjugate sets as pictured above.; traces of fine pyrite commonly found in calcite veining; from 98 to 102m veins are 2 to 20cm apart and more abundant from 102.9 – 104.3 with greater dislocation and brecciation.
				@ 96.6 – 96.8 calcite veining to 5mm contain several pyrite blebs
				@ 97.7 – 100.7 volated bedding (bullseye) i.e. to slumping

MIM EXPLORATION PTY. LTD.
GEOLOGICAL LOG

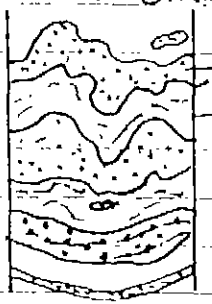
GEOLOGICAL LOG

PROSPECT: | HOLE No.

from	to	length	recovery m	DESCRIPTION
107.3	124.8			similar to above but becoming paler with a bleached dolomitic interval from 107.3 to 108.25. generally interbedded greenish grey, thinbedded (tuffaceous?) dolosiltstone; and buff-dark grey laminated dolosiltstone or lutite; and common thin grey scoured or lenticular dolarenite, dolarenite often display disruptive or displacive ball and pillow structures. occasional small convolute folds due to slumping. minor microfracturing (as previous) and stylolites and calcite veins, offsets to 2mm.
				@ 107.6.



				@ 108.25 – 108.5 green soft tuffaceous? mudstone with large chert/dolomite fragments, and cherty alteration above. fine dolarenite beds are found at @ 111.9 – 112.05. soft-sediment? slumping of fine dolarenite beds as shown @ 112.4 for 5cm @ 113.05 – 113.15 @ 114.2 – 114.8. (sewered). @ 116.4 – 116.7



111.9 – 112.05

MIM EXPLORATION PTY. LTD.
GEOLOGICAL LOG

GEOLOGICAL LOG

PROSPECT: | HOLE No.

from	to	length	recovery m	DESCRIPTION
124·8	141.55.			Change from above with disappearance of green (tuffaceous) beds and increase or appearance of grits, arenites and intraclastic breccia. In general a variable sequence of interbedded grey/beige coarse arenite–grit, and laminated or thinbedded dark grey and tan dololutite or siltstone and thin grey dolarenite, as found previously. -Coarse arenite-grit-breccias commonly contain elongate subrounded clasts of cream or beige dolosiltstone or very fine dolarenite up to 3 cm thick
				124·8 – 128.0 mainly dolosiltstone with dark grey discontinuous or wispy laminations and thin grey dolosiltstone and fine dolarenite, strongly convoluted due to slumping, fine dolarenite beds and clasts display brecciation, rotation
				128·0 - 130·65 mainly beige to grey coarse arenite/grit/intraclast breccia with minor wispy dark laminae; and minor intervals and fragments of dark grey–tan grey wispy or ripple laminated dololutite–dolosiltstone. dark stylolites commonly aligned along core.
				130.65 – 141·55 interbedded thin–thick bedded, beige–grey, poorly sorted fine to coarse arenite/grit and dark grey laminated dolosiltstone (rippled + wispy). occasional intervals of slump breccias esp 136·35 – 137. minor thin beds of pink or orange dololutite or tuff @ 138·8 for 2cm; 140·45 – 140· for 1–5 mm; 140·73 – 140·8 arenites and grits commonly display soft sediment ball + pillow-like structures,

MIM EXPLORATION PTY. LTD.
GEOLOGICAL LOG

GEOLOGICAL LOG

PROSPECT: | HOLE No.

from	to	length	recovery m	DESCRIPTION
				rotative in siltstones, irregular or load cast bases.
				from 137.15 – 141.55 common network of fine stylolites subparallel to core
				and microfractures (esp 137.15 – 139) with slickensides with offsets up to 5 cm.
				traces of fine pyrite and galena coat fractures and bedding partings from
				126.0 to 137.15 and appear to more commonly associated with dark laminated
				siltstone units., limonite coatings occur from 138.8 to 141.55
141.55	152.4			Mainly thick bedded – massive grey poorly sorted fine to gritty arenite
				or intraclastic breccia as previously described, only minor intervals of dark
				grey laminated dolosiltstone at 142.25, 143.15 for 2mm, 144.61 for 1cm,
				144.74 for 1cm, 47.45 for 4cm and 148.3 for 20 cm.
				rare to minor carbon wisps through grits (indicative of slumpings?).
				minor fractures with traces of limonite
				minor dark stylolites normal to core
152.4	159.3			predominantly dark grey, laminated dolosiltstone and thinbedded fine dolarenite
				with lesser medium bedded poorly sorted fine – coarse arenite – grit (10–15 cm)
				often fragmented or brecciated especially 153.9 – 154, 156.2 – 156.3 and 159 – 159.3
				arenites tend to display irregular bases disrupting surrounding siltstones
				minor normal fractures with offsets to 4cm, normal to bedding and
				common healed stylolites
				traces of ite occur as small blebs – or adjacent bedding partings and
				fractures faces esp 154.4 – 155.4, 157.25 for 3cm is a arenite with pyrite lense.

MIM EXPLORATION PTY. LTD.
GEOLOGICAL LOG

GEOLOGICAL LOG

PROSPECT: | HOLE No.

from	to	length	recovery m	DESCRIPTION
159·3	189·6			Change to less well bedded or laminated sequence with increase in wispy or streaky carbon or mud possibly indicative of slumping. predominantly grey to dark grey (wispy or streaky) thinbedded or laminated dolo-siltstone with only minor beige-pale grey very fine dolarenite and thin pink-beige dololutite (this is similar to clasts found in overlying grit/breccia) from 160 – 160·35 and 161·15 – 161·9 several beds of siliceous grey and cream to orange mottled dololutite occur as laminae or beds to 5cm; microfractures with offsets of several mm's and traces of py ± limonite. a) 161·9 large 3cm x 4cm rounded clast of dark dolosiltstone displacing 10cm grit bed.
				thin calcite ± py veins occur from 160·35 – 160·6 and 160·72 – 160·78 ≤ tr sphalerite
				162·5 – 163. hairline fracture aligned parallel to core with offset of 3mm and several small pyrite blebs
				167·4 – 169·5 rare pyrite blebs
				169·7 thin bed of 2mm containing scattered fine sphalerite grains.
170·5	189·6			increasing frequency of fine calcite veins ≤ traces of pyrite (hairline – 2mm) more intense particularly after 178·7.
				171·55 for 1cm grey green dololutite with fine shear thrusts and small blebs of pyrite
				171·7, 173·3 thin laminae of pyrite.
				178·7 – 189·6 Fault Zone, moderate to strong fracturing, tectonic brecciation and abundant calcite ± pyrite veins particularly from 182 m

MIM EXPLORATION PTY. LTD.
GEOLOGICAL LOG

GEOLOGICAL LOG

PROSPECT | HOLE No

from	to	length	recovery m	DESCRIPTION
				178.7 – 183.0 abundant fine hairline calcite veins minor fine pyrite veining and laminae (spacing ~ 20-50cm), abundant microfractures with small offsets, brecciation particularly 178.8-179 and 180.5 for 5cm
				183.0 – 186.5 strong fracturing and hydraulic brecciation due to abundant calcite and pyrite veining aligned parallel and normal to bedding
				186.5 – 189.7 intense stockwork and massive pyrite veining aligned parallel and running length of core, hydraulic brecciation producing angular fragments, (veining approx 10cm in width.)
189.7	200.0			dark grey to black, vaguely laminated or bedded, carbonaceous pyritic siltstone with rare disseminated sand or grit; pyrite mainly occurs as very fine disseminations or rarely as laminae or bands or pods. pyrite laminae occur at 190.18, 191.93, 194.7 for 2mm, 193.3 for 1cm, 196.25 for 2cm (brecciated), 195.95 for 1cm, 199.05 broken band for 2cm, several calcite ± pyrite veins occur at 192.3, 192.55 1mm, 193.6 2mm, and 195.85.
				199 – 199.8 abundant calcite veins - hydraulic breccia
200.0	212.6			grey to dark grey laminated or thinly bedded dolomitic siltstone and minor thin beds of pale grey partly silicified dololutite strong microfracturing and offsets up to 15mm disrupting bedding particularly from 202 – 204.2

MIM EXPLORATION PTY. LTD.
GEOLOGICAL LOG

GEOLOGICAL LOG

PROSPECT: | HOLE No.:

from	to	length	recovery m	DESCRIPTION
				pyrite bands occur at 300.31 for 1cm, 300.58 for 2cm, 202.75 for 6m; and minor discontinuous pyrite veins between 202.8 and 203.1 m;
				@ 205.5 8cm x 2cm pyrite pod
				206.7 – 212.6 strong fracturing with slickensides, traces of pyrite coating fracture surfaces.
212.6	217.8			gradational bleached yellow-grey, pale grey dolosiltstone, vague definition of bedding by grey streaks which may be remnant dolosiltstone as above.
				network of stylolites and fine calcite veining,
				several blebs of pyrite occur at 213m 1cm x 1cm, 213.25, 213.8 and commonly thereafter to 215.6 m.
217.8	228.0			pink fine dolarenite and minor dolosiltstone (crystalline), bedding indistinct.
				common microfaulting and calcite veining, particularly 219 – 220.3 vuggy, with traces of pyrite and green clay lining vugs and fractures.
				vague impression of fine needles of gypsum pseudomorphs at 227.2m.

MIM EXPLORATION PTY. LTD.
GEOLOGICAL LOG

GEOLOGICAL LOG

PROSPECT: HOLE No.

from	to	length	recovery m	Depth(m)	CBA°	Comments
				49.2	82	
				53	80	
				56.2	80	
				58.8	78	
				62.7	78	
				68.1	82	
				74.4	80	
				76	82	
				77	85	
				79.5	83	
				81.5	81	
				82	58	Slumping and shearing
				83	63	
				85.65	70	
				87.2	67	
				90.3	74	
				93	78	
				94.7	82	
				97.4	78	Slumping + microfaulting
				100.0	72	
				104.7	75	
				109	75	
				112.7	77	
				115	77	

STRUCTURE

Depth(m)	CBA°	Comments
120.0	77	
124.6	77	
127.7	77	strong slumping and breccias
132.3	79	
134.2	81	
137	73	
141.3	80	
148.4	70	
152.8	80	
153.7	69	
155	60	
156	63	
157.7	70	
158.7	66	
159.5	66	
160	75	
161	78	
162	77	
165	82	
167.1	79	
170	77	
174	75	
178	78	
178-		Strong faulting.

MIM EXPLORATION PTY. LTD.
GEOLOGICAL LOG

GEOLOGICAL LOG - STRUCTURE

PROSPECT. | HOLE No. GP04

from	to	length	recovery m	Depth(m)	CBA's	Comments	DESCRIPTION
				1901	80°		
				194	78		
				1972	78		
				2008	78	faulting from 200-206.3	
				205	79		
				205-212		fault to 212 m.	
				213	86		
				214	76		
				216.5	83		
				218-221.2		faulted.	
				223	65.	indistinct.	

MIM EXPLORATION PTY. LTD.
GEOLOGICAL LOG

PROSPECT:

GEOLOGICAL LOG — ORIENTATION. MEASUREMENTS

HOLE No. GP04

from	to	length	recovery m	Bedding Depth	Bedding Azimuth	Bedding Dip	Fractures Azimuth	Fractures Dip	Fractures Comment
	· Good confidence.			100m	260°	43°	167	44°	normal movement
	· Good confidence			111 m	277	43			
	· Suspect			165	252	30°			
	· nominal.			187	nominal 270°	46°	290	60°	major vein.

Carpentaria Exploration Company Pty. Ltd.

SAMPLE LEDGER

SAMPLER'S INITIALS: TP/TN DATE: 6/11/94

SAMPLE No.	SAMPLE TYPE	LOCATION/DETAILS GPD 4 GORGE EL 5650	STORE REF
QP12221	½ CORE	125 - 126	
222	"	126 - 127	
223	"	127 - 128	
224	"	128 - 129	
225	"	129 - 130	
226	"	130 - 131	
227	"	131 - 132	
228	"	132 - 133	
229	"	133 - 134	
230	"	134 - 135	
231	"	135 - 136	
232	"	136 - 137	
233	"	137 - 138	
234	½ CORE	~~138 - 139~~ 180 - 181	
235	"	~~139 - 140~~ 181 - 182	
236	"	~~140 - 141~~ 182 - 183	
237	"	~~141 - 142~~ 183 - 184	
238	"	~~142~~ 184 - 185	
239	"	185 - 186	
240	"	186 - 187	

SAMPLE TYPE CODE:
DD = diamond drillcore
PD = percussion/rotary cuttings
RAB = rotary airblast cuttings
= other drilling samples (specify)

S = soil sample
SS = stream sediment sample
R = rock chip sample
P = petrological sample
= other (specify)

WHITE - REGIONAL
YELLOW - BRISBAN
PINK - RETAIN

NOTE: PLEASE DESCRIBE SAMPLE LOCATION FULLY & CONCISELY

Carpentaria Exploration Company Pty. Ltd.

SAMPLE LEDGER

SAMPLER'S INITIALS: TN DATE: 6/11/94

SAMPLE No.	SAMPLE TYPE	LOCATION/DETAILS GPDH GORGE EL5650	STORE REF.
QP11221	1/2 CORE	187 - 188	
242	"	188 - 189	
243	"	189 - 190	
244	1/4 CORE	190 - 191	
245		191 - 192	
246		192 - 193	
247		193 - 194	
248		194 - 195	
249		195 - 196	
250		196 - 197	
251		197 - 198	
252		198 - 199	
253		199 - 200	
254		200 - 201	
255		201 - 202	
256		202 - 203	
257		203 - 204	
258		204 - 205	
259		205 - 206	
0			

SAMPLE TYPE CODE.
DD = diamond drillcore
PD = percussion/rotary cuttings
RAB = rotary airblast cuttings
= other drilling samples (specify)

S = soil sample
SS = stream sediment sample
R = rock chip sample
P = petrological sample
= other (specify)

WHITE - REGIONAL BASE
YELLOW - BRISBANE
PINK - RETAIN

NOTE: PLEASE DESCRIBE SAMPLE LOCATION FULLY & CONCISELY

amdel

Job: 4DN1607
O/N: QP112221

ANALYTICAL REPORT

Final

SAMPLE	Cu	Pb	Zn	Fe	Mn
QP112221	10	120	15	1.40	730
QP112222	5	47	11	1.06	740
QP112223	4	85	9	1.03	650
QP112224	4	25	7	0.93	820
QP112225	5	15	6	1.18	1000
QP112226	4	26	8	1.09	910
QP112227	5	120	11	0.92	830
QP112228	5	120	17	0.95	990
QP112229	5	78	7	1.26	1020
QP112230	6	300	7	1.25	870
QP112231	5	400	9	0.95	920
QP112232	5	115	7	1.07	1050
QP112233	20	33	6	1.21	1280
QP112234	16	24	40	1.96	480
QP112235	22	22	10	2.12	460
QP112236	22	31	12	2.68	230
QP112237	22	41	10	3.87	580
QP112238	22	48	9	5.47	470
QP112239	22	70	22	7.69	340
QP112240	23	69	20	6.28	380
QP112241	22	90	14	11.4	380
QP112242	22	63	10	4.80	340
QP112243	22	75	12	8.32	540
QP112244	22	31	11	2.43	350
QP112245	22	33	10	3.19	330
QP112246	22	36	12	3.53	270
QP112247	22	49	10	3.15	200
QP112248	22	41	12	3.08	350
QP112249	22	43	9	2.97	420
QP112250	22	44	40	2.72	300
QP112251	22	33	37	2.35	340
QP112252	22	29	40	1.84	340
QP112253	22	53	10	2.31	570
QP112254	22	22	69	2.79	380
QP112255	21	76	20	1.72	590
QP112256	20	100	8	3.18	580
QP112257	19	46	10	2.34	630
QP112258	18	25	26	1.63	620
QP112259	22	36	200	1.79	460
UNITS	ppm	ppm	ppm	%	ppm
DET.LIM	2	4	2	0.01	4
SCHEME	AA1	AA1	AA1	AA1	AA1

Appendix 6
Diamond Gravel sample Results.

Sample	Type	Result	Diamond		Chromite	Other
			Macro	Micro		
3069-002	G	neg	-	-	-	-
3069-003	G	neg	-	-	-	-
3069-004	G	neg	-	-	-	-
3069-007	G	neg	-	-	-	-
6069-008	G	neg	-	-	-	-

OTE: G = Gravel sample