

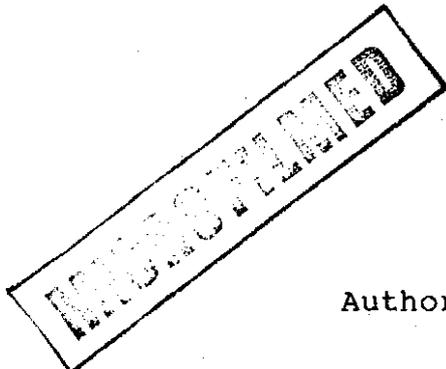
CRA EXPLORATION PTY LTD

RAPID RIVER EL 1/79, NORTH WEST TASMANIA

PROGRESS REPORT ON EXPLORATION

FEBRUARY 1986 - FEBRUARY 1987

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1. SUMMARY

Only limited field work was carried out within the Licence area over the last twelve months pending the development of a new in-house geochemical sampling method for gold and platinum.

The area is extremely inaccessible and the vegetation is so thick that helicopter support is impossible. Cyanide leach sampling is therefore impractical (due to the sample size) and a new technique is necessary to allow the creeks to be traversed on foot.

2. INTRODUCTION

Rapid River EL 1/79 extends south from the Arthur River to approximately 15 kilometres north of Savage River (Plan TASH 2926). The Licence was originally granted to Geopeko with CRAE as a Joint Venture partner. In June 1983 Geopeko withdrew from the JV leaving CRAE sole title. CRAE have flown the area with airborne magnetic and radiometric surveys and has followed up all the significant anomalies on either side of the Arthur Lineament.

In April 1985 the original EL was reduced from 365 square kilometres to less than 125 square kilometres in accordance with Mines Department regulations. Exploration was then concentrated on the magnesite potential south of Lyons River in the main body of the Licence, and south of the Arthur River in the northwest.

The carbonate horizons also contain significant traces of gold and ?platinoid elements and our efforts during the year have concentrated on how it will be possible to effectively sample the area.

3. CONCLUSIONS

A review of gold anomalies in the north of the EL strongly suggests that the gold is associated with horizons of carbonate rock; both dolomite and magnesite. Sampling of magnesite and dolomite horizons in the adjacent Arthur River Licence (EL 43/70) also indicates that the carbonate horizons contain high background levels of gold and platinoid elements.

Cyanide leach sampling is impractical due to large sample size and the very poor accessibility to the area but it is vital that a geochemical sampling method be developed to allow thorough evaluation of the area.

4. RECOMMENDATIONS

1. The EL should be renewed for a further 12 months.
2. Detailed stream traversing and sampling of the Licence area should be carried out using CRAE's new clay sampling technique as well as -80 mesh geochemical sampling.
3. Follow-up sampling of anomalous areas and construct road or helicopter access to allow detailed evaluation and possible drilling of the best anomaly.

5. GEOLOGY

The geology of the EL and of its principal feature, the Arthur Lineament is given in Clementson (1985)(Plan TASH 2500).

To the north and west of the EL are two known magnesite occurrences; the Cann Creek and the Lyons-Arthur River deposits. Both fall within the Arthur Lineament and are thought to strike southwest on to the EL and are considered as important exploration targets.

The Cann Creek horizon is probably represented by a magnesite outcrop on the banks of the Arthur River in the north of the EL but has not been delineated more thoroughly.

The Lyons-Arthur River deposits lie within a recognisable "corridor" of discrete visual and geophysical character which strikes southwest from the known deposits through the central portion of the EL. (Clementson 1986) (Plan TASH 2928).

6. MAGNESITE POTENTIAL

CRAE has mapped and drilled a mixed dolomite-magnesite horizon at Cann Creek 4km northwest of the Arthur River in the northern section of the Licence. Magnesite/dolomite rock outcrop in the Arthur River and the zone is thought to extend into EL 1/79.

Clementson (1986) developed 9 auger holes 3-26m in depth on the south bank of the Arthur River but was unable to penetrate through to bedrock. During 1986 we also attempted to get through the alluvial gravels with a backhoe but this again proved unsuccessful.

The largest dolomite-magnesite horizon extends into EL 1/79 along Lyons River from CRAE's major magnesite deposit in EL 43/70. Major dolomite outcrops occur on the western bank of Lyons River within EL 43/70 but detailed traversing 5km upstream into EL 1/79 during 1986 failed to locate any outcrops of carbonate material. This is hardly surprising due to the thick soil cover developed over carbonate rocks and the dense vegetation.

7. GOLD-PLATINUM POTENTIAL

Routine check analyses of drillcore and rock chip samples of magnesite from both the Cann Creek and Lyons River area indicated gold values from zero to 0.4 gms/Tonne gold, from 0 to 0.015 ppm Platinum and 0 to 0.020 ppm Palladium.

Work by Clementson (1986) also suggested that the gold at Foleys Hill was related to a carbonate zone within the phyllites and not to any Tertiary alluvial features as originally thought.

? dolomitic
The gold and platinoid content is low but significant and it is considered that a major enrichment could occur in specific horizons or on facies changes between magnesite to dolomitic dolomite to limestone, or between any of the above carbonate rock types and oxide, iron or sulphide facies equivalents at the Keith River ironstones.

The gold is all very fine grained and has not been observed in thin section so that conventional -80 mesh or pan concentrate sampling may not detect the gold. Cyanide leach anomalies have been located in the south of Comstock Creek (Clementson, 1986) but the area is so inaccessible that this method of prospecting is impractical.

CRAE has however developed a new in-house method of geochemical sampling suspended silts and clays for gold and some platinum group metals. During 1986 this method was tried in arid terrains in Broken Hill and South Australia and in higher rainfall areas in Victoria. The method is able to detect to 0.5 ppbillion and results so far have shown good reproducibility. Only a relatively small sample is required and the technique would appear ideal for use in extremely rugged terrains.

The technique was still in an experimental stage in 1986 and because of this and the failure of mapping and backhoe sampling to locate the magnesite horizons early in 1986, field work was suspended for the rest of the year.

8. REFERENCES

Clementson, I M 1985 "Rapid River EL 1/79, North West Tasmania. Progress Report on Exploration, February 1984 to February 1985. CRAE Unpub. report 13136.

Clementson, I M 1986 "Rapid River EL 1/79, North West Tasmania. Progress Report on Exploration, February 1985 to February 1986. CRAE Unpub. report 13754.

TCR 96-2533

Large, R R & 1980 "Progress Report EL 1/79, 1980 Poltock, R Season". Geopeko Unpub. report.

TCR 81-1584

9. LOCATION

Burnie 1:250 000 Sheet SK55-3

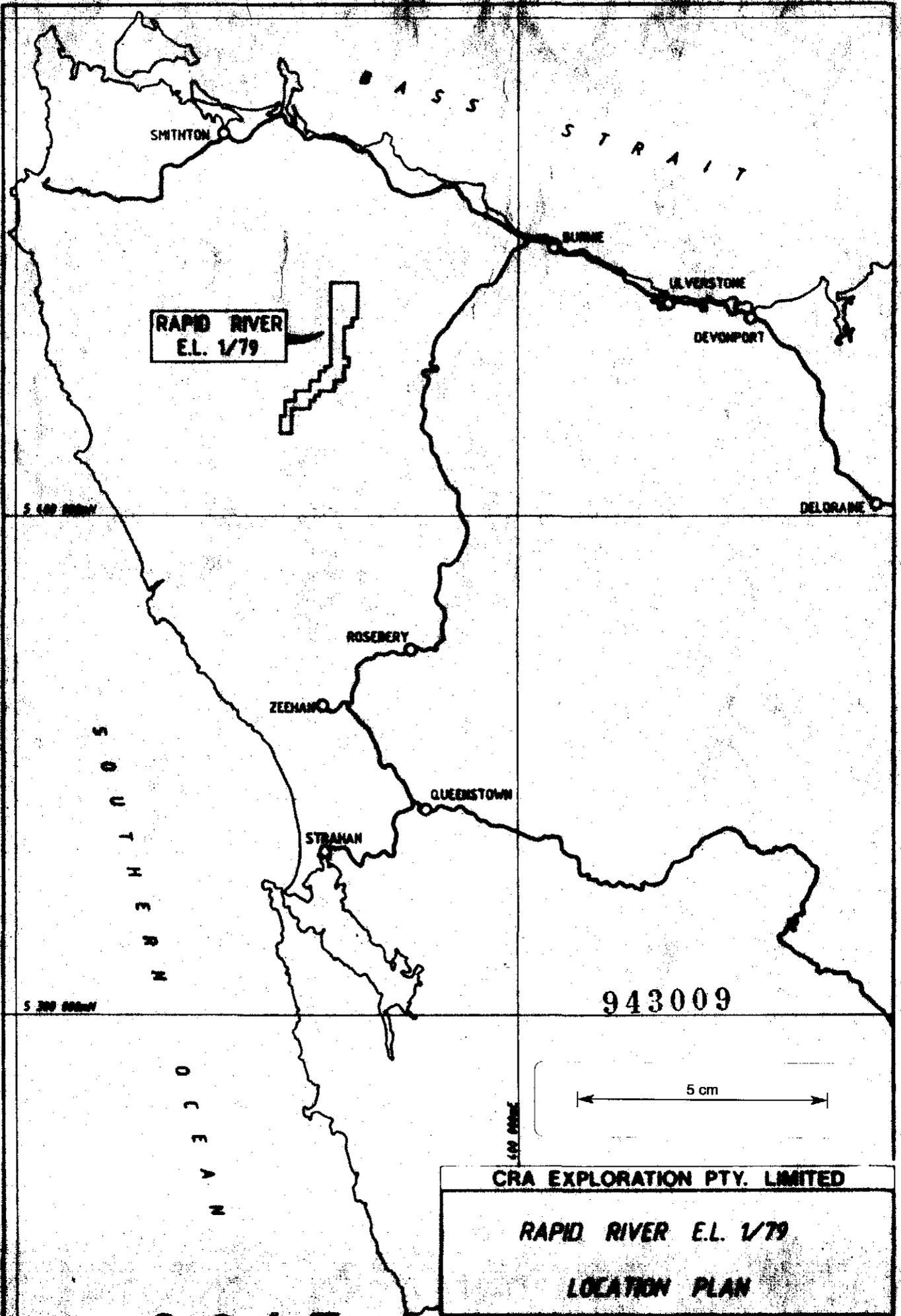
10. KEYWORDS

Geology - Arthur Lineament, magnesite, phyllites, dolomite.
Geochemistry - stream sediment, gold, platinum

11. LIST OF PLANS

<u>Plan No</u>		<u>Scale</u>
TASh 2926	Rapid River EL 1/79 Location Plan	1:1 000 000
TASh 2928	Rapid River EL 1/79 Magnesite Occurrences and Possible Strike Extensions	1:50 000

008



**RAPID RIVER
E.L. 1/79**

943009

5 cm

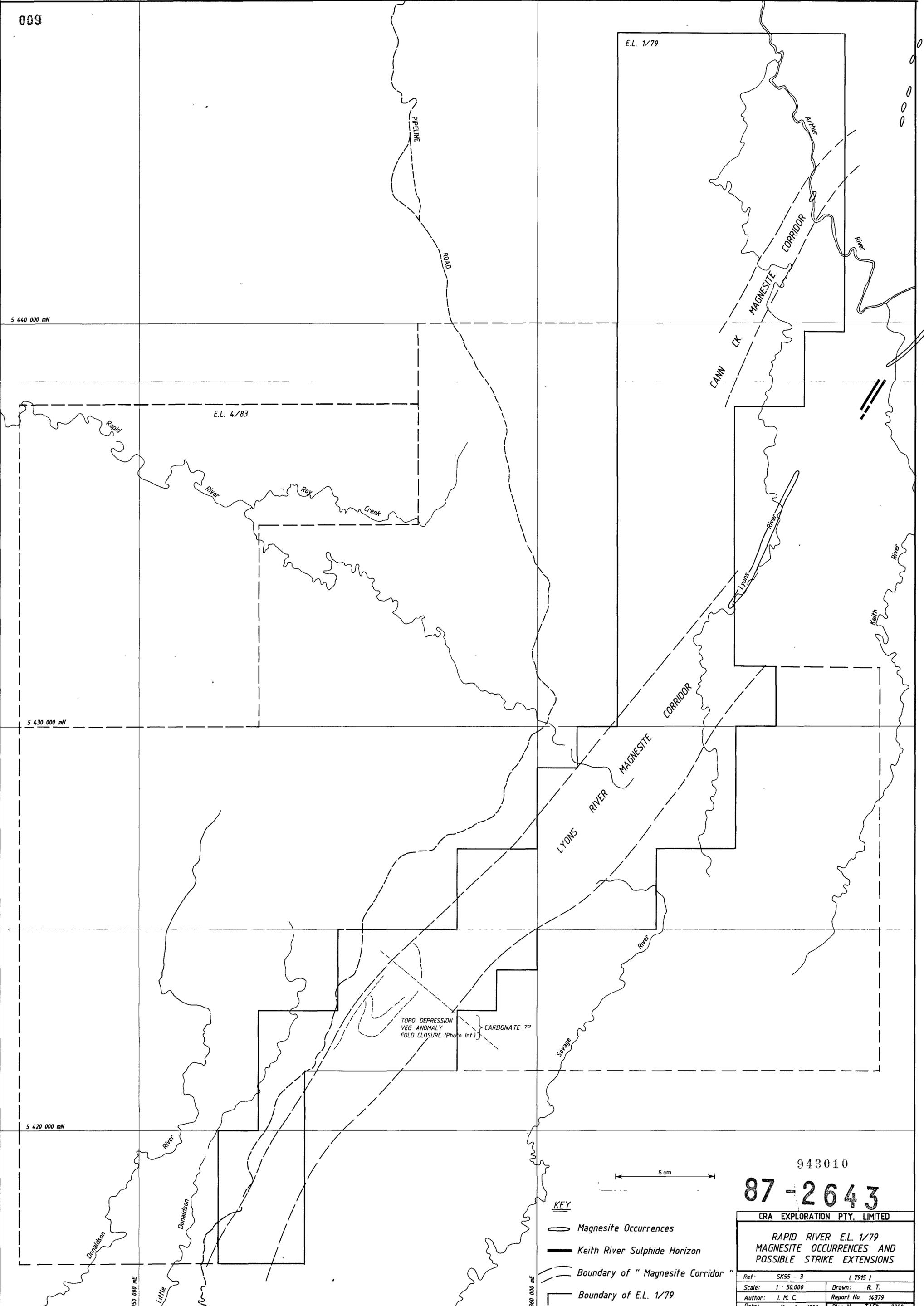
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RAPID RIVER E.L. 1/79

LOCATION PLAN

REF.	SECS - J	(798)
SCALE	1 : 100 000	DRAWN BY
AUTHOR	UNE	REPORT No. 10379
DATE	17 - 2 - 1985	PLAN No. TASH 2106

87 - 2643



5 440 000 mN

5 430 000 mN

5 420 000 mN

350 000 mE

360 000 mE

00000

E.L. 1/79

E.L. 4/83

5 cm

- KEY**
- Magnesian Occurrences
 - Keith River Sulphide Horizon
 - Boundary of "Magnesian Corridor"
 - Boundary of E.L. 1/79

943010

87-2643

CRA EXPLORATION PTY. LIMITED	
RAPID RIVER E.L. 1/79 MAGNESITE OCCURRENCES AND POSSIBLE STRIKE EXTENSIONS	
Ref: SK55 - 3	(7915)
Scale: 1 : 50,000	Drawn: R. T.
Author: I. M. C.	Report No. 14379
Date: 18 - 2 - 1986	Plan No. TASH 2928