

STOCKDALE PROSPECTING LIMITED

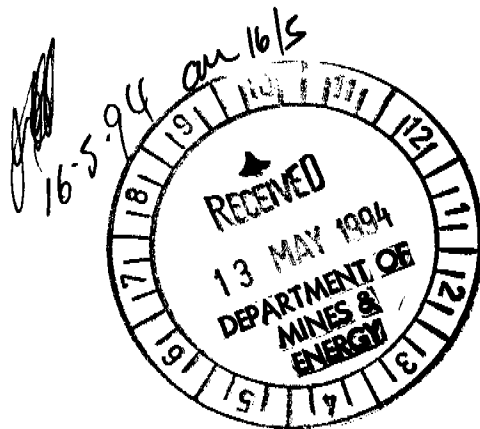
PARTIAL RELINQUISHMENT REPORT

FOR THE PERIOD ENDING 15/3/1994

JINDUCKIN AREA

EXPLORATION LICENCE 7629

A.K. BERRYMAN
PROJECT GEOLOGIST
APRIL, 1994



CR 94/320

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STOCKDALE
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Project Name: JINDUCKIN

Title: Exploration Licence 7629
Jinduckin Area
Partial Relinquishment Report for
the period ending 15/3/94

Author: A.K. Berryman Edited/Approved: B McClenaghan

Date: April, 1994 Place: Darwin

1:250,000 Sheet Name & No: Fergusson River SD 52-12

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River Basin

Abstract: A total of 77 heavy mineral samples were collected over the
relinquished portion of EL 7629. All samples were negative. An aerial
magnetic survey failed to highlight any 'pipelike' features. The area
therefore has little potential to host an economic kimberlitic body.

Copy to: NTDME, Tipperary Mining Ltd, Darwin, IC Ref: EL7629.PAR

Circulate: RVD, JJ, BMcC, IJG

SUMMARY

Exploration Licence: 7629

Date Granted: 16th March 1992

Area:	Original	Retained	Relinquished
	88 blocks (283 sq km)	36 blocks	52 blocks

Occupant: Stockdale Prospecting Limited

Operator: Stockdale Prospecting Limited

Commodities sought: Diamonds

Exploration: A total of 77 heavy mineral samples were collected over the relinquished portion of EL 7629. All samples were negative. An aerial magnetic survey failed to highlight any 'pipelike' features. The area therefore has little potential to host an economic kimberlitic body.

**STOCKDALE PROSPECTING LIMITED
EXPLORATION LICENCE 7629
JINDUCKIN AREA
PARTIAL RELINQUISHMENT REPORT
FOR THE PERIOD ENDING 15 MARCH, 1993**

1. **INTRODUCTION**

Exploration Licence 7629, when granted, covered an area of 283 sq km (88 blocks) in the Jinduckin area of the Northern Territory. The licence is located about 45km south of Tipperary Station and lies wholly within the Fergusson River (SD 52-12) 1:250,000 and Jinduckin (5169) 1:100,000 mapsheets.

The licence was originally taken out to both extend tenure cover to the east of the Tipperary Project (EL's 6647 - 52), and to cover pyrope garnets and a diamond reported by Ashton in the early 1980's.

Exploration within the relinquished portion of EL 7629 involved the collection of closely spaced heavy mineral stream samples and the flying of an aerial magnetic survey. This report details the work carried out over this relinquished area.

2. **TENURE**

Tenure details for EL 7629 are as follows:

EL 7629

Application Date:	23/10/91
Date Granted:	16/3/92
Deemed Anniversary date:	22/7/93
Original area:	88 blocks (283 sq km)
Retained area:	36 blocks (116 sq km)
Relinquished area:	52 blocks (167 sq km)

EL 7629, along with licences 7671 - 73 and 7796 form what is known as the Jinduckin Project, an extension of the Tipperary Project area. A common reporting date was approved by the NTDME on 16/3/93.

3. **ACCESS**

Access to EL 7629 is generally poor, but can be gained via the Oolloo loop road, which links Oolloo Crossing on the Daly river with Tipperary Station. All work however was carried out by helicopter.

4. **PHYSIOGRAPHY, VEGETATION AND CLIMATE**

The relinquished area is dominated by the Daly River Basin physiographic unit. This unit, in the project area, is characterised by Quaternary colluvium, alluvium and black soil, overlying limestone, dolomite and siltstone. The Daly River and its related flood plains dominate the tenement area. Sinkholes are common, and limestone outcrop can be found scattered over much of the area.

Vegetation is reasonably sparse away from major drainages, with large grassed plains not uncommon. Closer to the Daly River, tall dense woodland dominates.

The climate is monsoonal, with a hot wet season from November to March, and a hot dry season between May and September. Average rainfall in the area is somewhere between 1200 and 1400mm each year.

5. GEOLOGY

The tenement area is dominated by the sediments of the Daly Basin. Limestones outcrop extensively along drainages. Black soil covers much of the basin sediments away from drainages. The geology and geological history of the region is described below:

- * Basement is believed to be represented by igneous and high grade metamorphic rocks.
- * Lower Proterozoic shallow marine sandstone, siltstone and limestone sedimentation (Pine Creek Geosyncline). These sediments include dolomitic shales, greywacke and ripple marked sandstones. Explosive igneous activity occurred after sedimentation (Rhyolite, tuff and ashstone). Regional low grade greenschist metamorphism later affected some of these sediments.

UNCONFORMITY

- * Large scale Mid Proterozoic igneous (granite) intrusion. These are often coarse grained quartz rich rocks. Accessories include biotite, hornblende, muscovite, zircon, apatite and garnet.

UNCONFORMITY

- * Upper Proterozoic (Adelaidean & Carpentarian) Tolmer Group. Sediments experienced both faulting and later uplift and erosion.

UNCONFORMITY

- * Glacial activity during the Late Proterozoic deposited the tillite of the Uniya Formation. This unit has limited lateral extent on the Daly River 1:100,000 mapsheet and is up to 30m thick. It consists of glaciolacustrine arenite with dropstones.

UNCONFORMITY

- * Lower Cambrian Antrim Plateau Volcanics. This basalt unit is found at the Daly River Basin margin.

UNCONFORMITY

- * Lower Ordovician to Mid Cambrian limestones. These outcrop over most of the tenement area. These sediments represent a period of stable deposition. Most outcrop is covered by thick black soil plains.

UNCONFORMITY

- * Lower Cretaceous undifferentiated marine and freshwater sandstones, siltstones and conglomerates (Mullaman Beds). Scattered outcrop over the Cambrian limestones and the sediments of the Tolmer group.

- * Tertiary uplift and erosion, along with later alluvium and soil deposition in the Quaternary.

6. **EXPLORATION**

6.1 **Heavy Mineral Sampling**

A total of 77 samples were collected in the relinquished portion of EL 7629. These samples generally consisted of 100 litres of material, screened to -2.0mm in the field.

Sample numbers are:

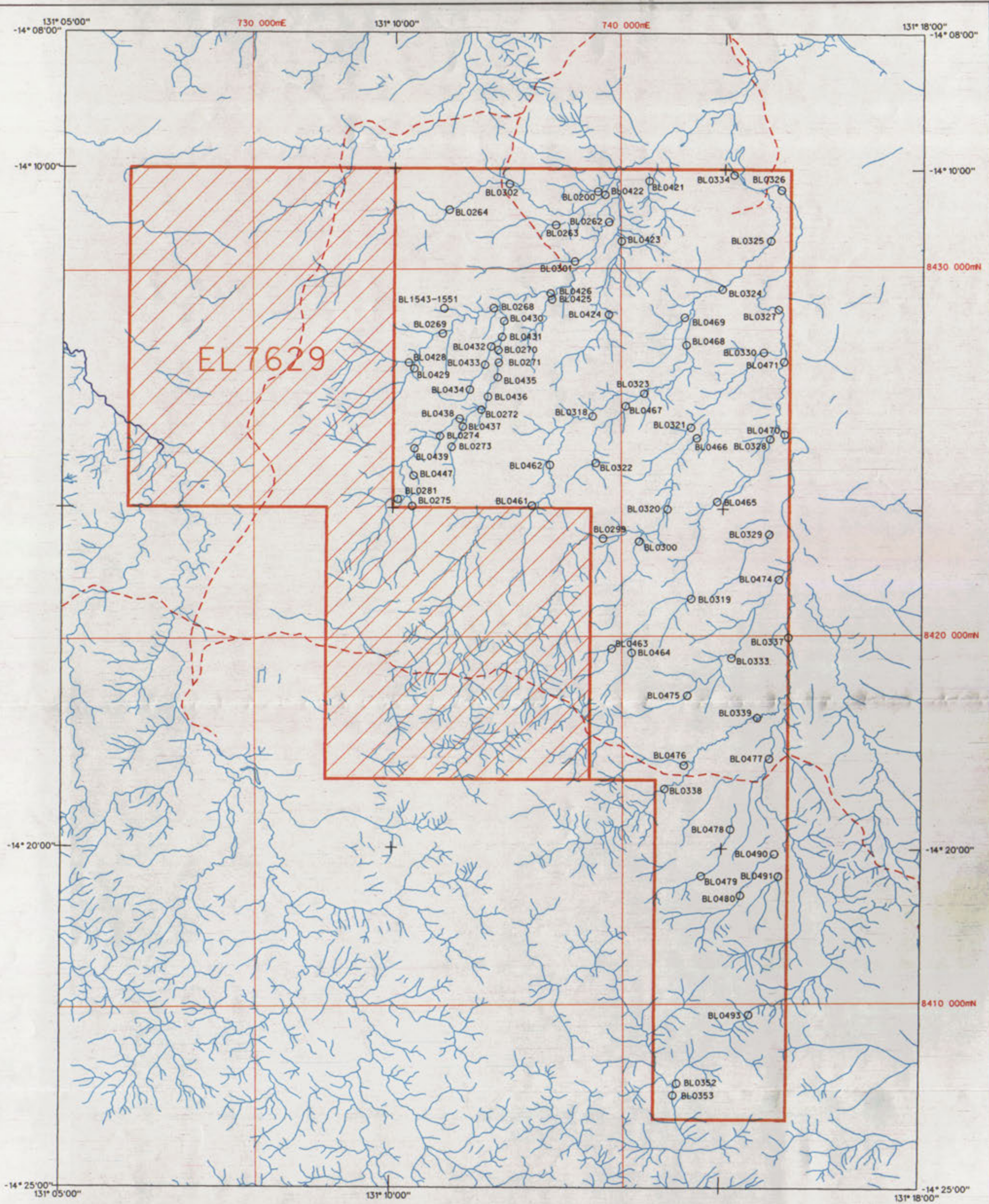
BL 0200	(1)
BL 0262 - 64	(3)
BL 0268 - 75	(8)
BL 0281	(1)
BL 0299 - 0301	(3)
BL 0302	(1)
BL 0318 - 30	(13)
BL 0333 - 34	(2)
BL 0337 - 39	(3)
BL 0352 - 53	(2)
BL 0421 - 26	(6)
BL 0428 - 39	(12)
BL 0447	(1)
BL 0461 - 71	(11)
BL 0474 - 80	(7)
BL 0490 - 91	(2)
BL 0493	(1)

Total: 77

No diamonds or kimberlitic indicator minerals were found in these samples.

6.2 **Aerial Magnetic Survey**

An aerial magnetic survey was flown over most of the Jinduckin Project area, which included the relinquished portion of EL 7629. The area north of 14°19' was flown at 200m north/south, and the area south of this was flown at a line spacing of 400m. In each case the sensor height was 60m. After close inspection of the data, one anomaly was chosen for follow-up in the relinquished area, this being JD 17. The anomaly was found to be surface noise when followed up with ground magnetics. The ground magnetic plot can be seen in Appendix 1. A series of loam samples were collected over the anomaly (BL 1543 - 51). All 9 samples were negative.



D5208		
DALY RIVER	TIPP-ERARY	PINE CREEK
WINGATE MTNS	JIN-DUCKIN	FERG- USSON RIVER
BARWOLLA	D5212 FLORA	BOWMAN

MAP LOCATION

ANALYSED SAMPLES

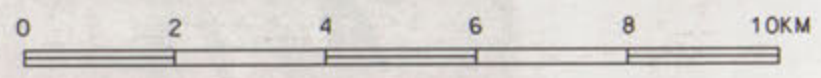
- STREAM SAMPLE ○
- LOAM SAMPLE ○
- ROCK SAMPLE ◈
- BARRAGE SAMPLE △
- BULK SAMPLE □
- DRILL SAMPLE □
- TRENCH SAMPLE ○
- UNCLASSIFIED ○



AREA RETAINED



AREA RELINQUISHED



Files: D:/REPORT94/NTMDR94/JINDR003.BAS, BND, CUL, DRN, SAM

STOCKDALE PROSPECTING LIMITED
A.C.N. 004 912 172

NORTHERN TERRITORY
D5212 - FERGUSSON RIVER 1:250,000
D5212B8 - JINDUCKIN 1:100,000

JINDUCKIN PROJECT
EL 7629
PART RELINQUISHMENT

CR94/320

Compiled	AKB
Drawn	HMR
Date	9/5/94
Scale	1:100,000
Revised	
SELJINDR003	

7. **EXPENDITURE**

Operational Staff Costs	10,180
General Operating Expenses	1,408
Transport & Travel	13,415
Tenement Costs	1,966
Sample Analysis	0
Central Treatment Plant	7,279
Lab Treatment	989
Lab Examination	2,945
Drilling	0
General Contractors	0
Geophysical Contracts	9,912
Remote Sensing	0
Geophysics	3,172
Drafting	750
Computer Services	230
Mineralogy	0
Administration	6,813
Capital Expenses	1,457
TOTAL	<u>\$60,516</u>

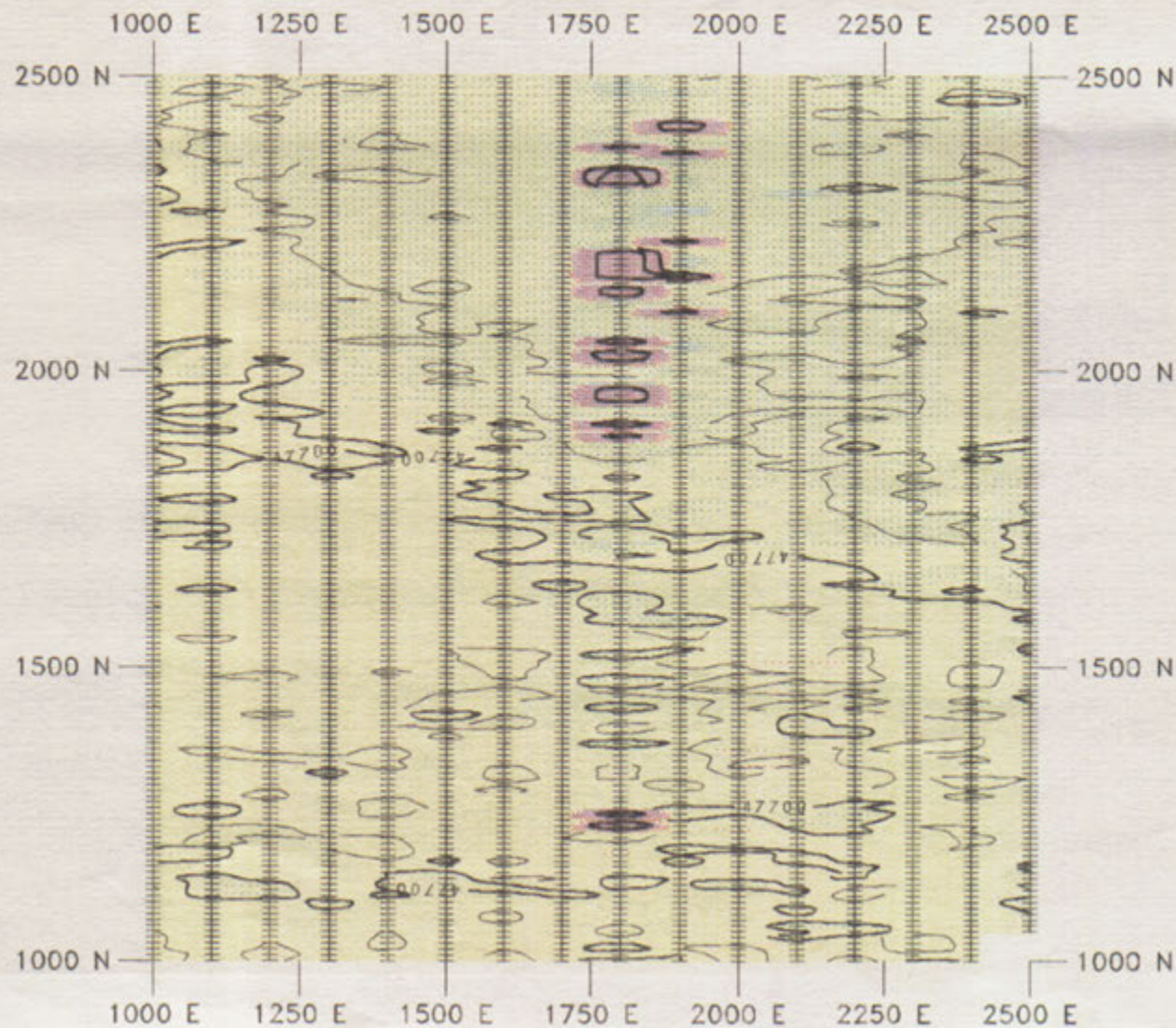
8. **SUMMARY**

A total of 77 heavy mineral samples were collected over the relinquished portion of EL 7629. All samples were negative. An aerial magnetic survey failed to highlight any 'pipelike' features. The area therefore has little potential to host an economic kimberlitic body.



A.K. BERRYMAN
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DARWIN, N.T.

APPENDIX 1
Contour Plot, JD 17



STOCKDALE PROSPECTING LTD

ANOMALY JD17
TIPPERARY AREA

TOTAL MAGNETIC INTENSITY
CONTOUR INTERVAL=10nT, CELL SIZE=10m
28-08-92, OPERATOR = AKB

SD 52-12 **SEL:**