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FINAL REPORT

ON EXPLORATION OVER

EXPLORATION LICENCE NO. 1421

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ALICE SPRINGS AREA

NORTHERN TERRITORY

COVERING THE PERIOD

16 MARCH 1978 TO 15 MARCH 1979

PERTH

MAY 1979

CR79/76

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SUMMARY

This report covers the second and final year of tenure for EL 1421 which is located 50 km south of Alice Springs and covers part of the Orange Creek Syncline. Notice of Uranerz' intention not to renew this EL was submitted on 13 February 1979.

The first year of exploration, which has already been reported on, consisted of airborne spectrometry, gridding, vacuum drilling, downhole logging, sampling and radon monitoring, using the Track-Etch technique. The second year's work consisted mainly of an assessment of the results of the previous Track-Etch and geochemical analysis, and a limited infill shallow percussion programme.

Although the Undandita sandstone was intersected, no radiometric anomalies or geochemical values of any significance were located. Consequently, the decision was made to drop the area.

A statement of expenditure covering this year's programme is included in this report.

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230-4449 Vacuum and Percussion Drilling

Map 2 : ~~Orange Creek Syncline~~ ✓
230-4540 ~~Vacuum and Percussion Drilling~~
~~U₃O₈ Assays~~

Map 3 : Orange Creek Syncline,
230-2129 Track-Etch Radon Contour Map ✓

Map 4 : Orange Creek Syncline ✓
230-470 Geology



Location Map

LIST OF TABLES

Table 1 : Vacuum Drilling
Orange Creek Syncline

1. INTRODUCTION

EL 1421 was granted to Uranerz Australia Pty.Ltd., (UAL) on 16 March 1977. The area held was 51.26 square miles (132.71 km²). This is the second and final report on all operations carried out by UAL complying with section 38 0 (3) of the Northern Territory Mining Ordinance and the licence was allowed to lapse.

The tenement is one of numerous contiguous exploration licences being worked on a 50:50 joint venture with Carpentaria Exploration Company Pty.Ltd. UAL is the operator.

Work was carried out from a base in Alice Springs.

2. LOCATION

The tenement is situated about 50 km south of Alice Springs on the RODINGA 1:250,000 Sheet between latitudes 24°10' - 24°22'S and longitudes 133°40' - 133°50'E.

3. GEOLOGY

EL 1421 covers an area of the Orange Creek Syncline which is a large scale structural feature in the northeastern part of the Amadeus Basin. The basin sediments range in age from Precambrian to Palaeozoic and Tertiary. The Devonian sequence is principally composed of clastic rocks. These are mainly coarse to medium-grained sandstone with occasional pebbly conglomeratic beds, siltstone and mudstone lenses. These form the Pertnjara Group of which the Undandita Member and Brewer Conglomerate are formations.

The Undandita Member sandstone is a host rock for all the known uranium mineralization. It was deposited in a fluvial, braided channel environment. Exposure throughout the areas are lacking, but the sequence is estimated to attain a maximum thickness of 1,000 m.

4. INVESTIGATIONS AND RESULTS

4.1 Geological Mapping

One hundred and thirty two square kilometers were geologically mapped using photo interpretation, identification of downhole chip samples and 20 line km foot traversing. This work commenced in March 1978 and was completed in August of that year. The geological map resulting from this work is presented as Map 4 (230-470)

4.2 Gridding

Eight point five line km infill gridding was carried out along line 57000E. Stations were established at 20 m intervals commencing at the northern boundary of the EL.

4.3 Vacuum Drilling

Eleven shallow follow-up vacuum holes totalling 124.5 m were drilled to intersect the Undandita Member sandstone. The holes were spaced at 20 m intervals and the average depth was 11.5 m. Location of this and previous drilling is shown on Map 1.

4.4 Downhole Logging

All vacuum holes were logged with a McPhar downhole logger. No significant anomalies were located, the highest being 2 x bg in hole VL 54 (Table 1).

4.5 Sampling

From the bottom of each hole and from anomalous zones located with the downhole logger, samples were taken for geochemical analysis. Values range from 2.4 in hole VL 50 to 8.1 ppm U_3O_8 in hole VL 44 (Table 1).

Assaying is carried out by SGS Australia Pty.Ltd, of Perth.

4.6 Track-Etch

While no Track-Etch cups were placed on this EL during the final year, results from the previous year's emplacements have been plotted up and are presented on Map 3. The best anomaly was located in Hole VL 17 with a reading of greater than four times the standard deviation above background.

5.

EXPLORATION LICENCE No. 1421

STATEMENT OF EXPENDITURE

Salaries and Wages	6,820.57
Drilling Contractor	2,460.00
Field operating costs including consumables, rents, vehicle operating and repairs, air fares, etc.	8,447.41
Depreciation of vehicles and geophysical instruments, consultants fees, management and distribution of Head Office costs	2,304.64
	<u>\$20,032.62</u>

Covering the period from 16th March 1978 to 15th March 1979.

6. OTHER DETAILS

6.1 Personnel

Exploration Manager-----Dr. D.O. Zimmerman
Chief Geologist-----Dr. P. Adamek
Project Geologist-----Mr. M. Tylich
Geologist-----Mr. J. Brigden
Geologist-----Mr. I. Faris
Geologist (CEC)-----Mr. A. Piper
Senior Field Assistant-----Mr. J. Wilkie
Technician-----Mr. V. Goodfellow
Field Assistant-----Mr. T. Cummins

6.2 Instruments

2 SRAT SPP-2 scintillometers No's 1105, 1501
1 McPhar TV-5 downhole logging unit No. 570-02
1 Radon Monitor Serial No. 005
1 GAM-1 spectrometer No. 506078
1 Mt. Sopris 2500 downhole logging unit
1 UV mineral light
2 pairs of Walkie-Talkie radios
3 plastic chains 100 m
3 plastic chains 50 m
1 Topofil
1 Theodolite No. 97082

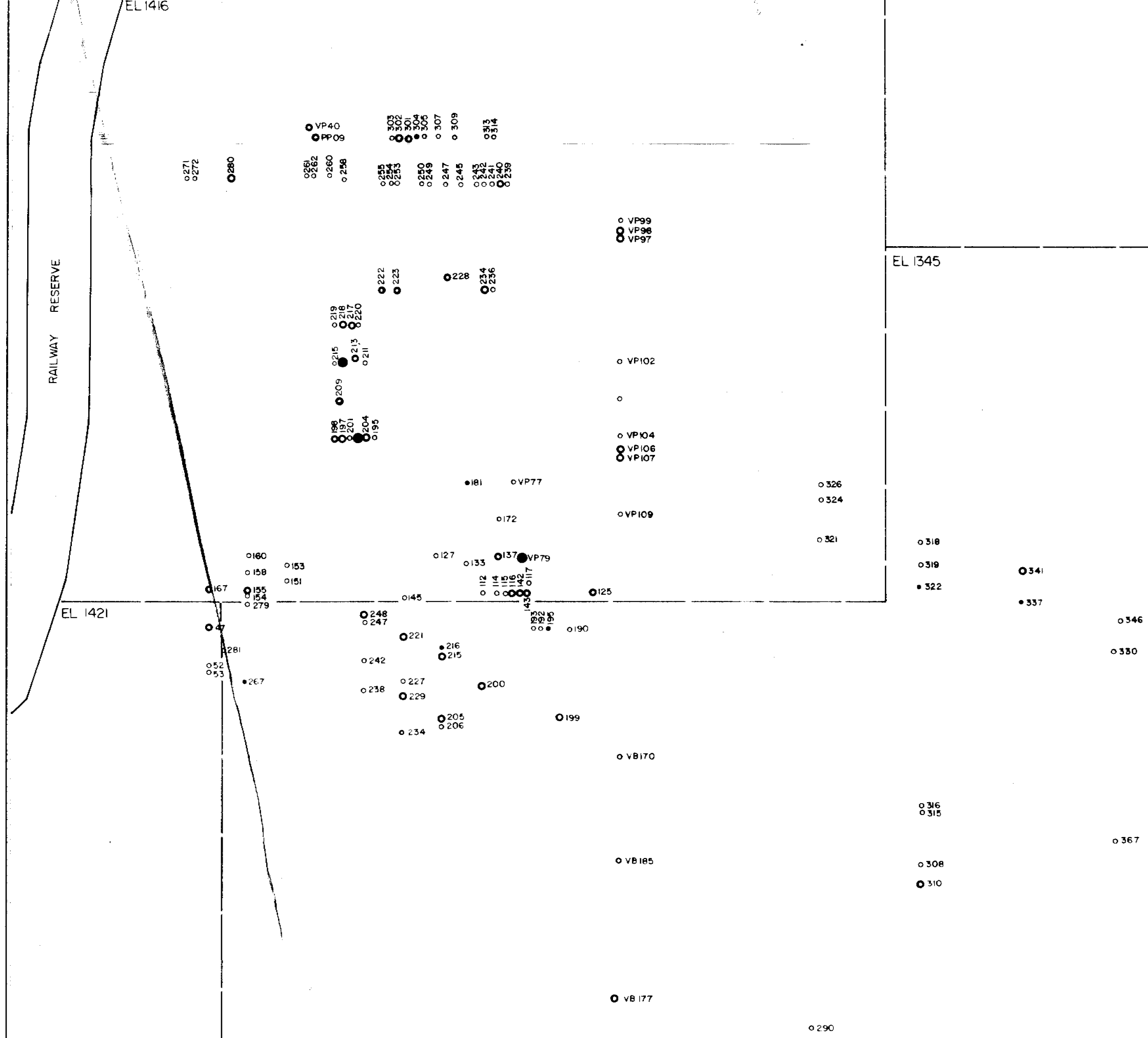
TABLE 1: VACUUM DRILLING ORANGE CREEK SYNCLINE

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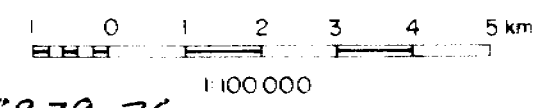
TABLE 1: VACUUM DRILLING ORANGE CREEK SYNCLINE

[illegible]





- BC 0 - 3.93 ppm U_3O_8
- Threshold 3.93 - 5.19 ppm U_3O_8
- 3rd order 5.19 - 7.70 ppm U_3O_8
- 2nd order 7.70 - 12.73 ppm U_3O_8
- 1st order > 12.73 ppm U_3O_8



CR79-76
 URANERZ AUSTRALIA PTY. LTD.
 ORANGE CREEK SYNCLINE
 VACUUM & PERCUSSION DRILLING
 U_3O_8 ASSAYS

