

URANERZ AUSTRALIA PTY. LTD.

FINAL REPORT
ON
EXPLORATION LICENCE NO. 1569

ALICE SPRINGS AREA
NORTHERN TERRITORY

Covering the Period
25 July 1980 to 24 July 1981

PERTH

AUGUST, 1981

SUMMARY:

EL 1569 is the most westerly tenement in an area worked by the UAL/CEC joint venture.

Exploration activities for the fourth year of tenure involved regional studies of the Western Missionary Syncline and included a mini-SOSIE seismic reflection profile within the tenement area.

Renewal for a fifth year of tenure would have involved a reduction in area to one square minute and the loss of part of the target area. The tenement was therefore relinquished and application made for a larger area.

TABLE OF CONTENTS:

	Page
SUMMARY	i
TABLE OF CONTENTS	ii
LIST OF MAPS	iii
LIST OF FIGURES	iii
1. INTRODUCTION	1
2. LOCATION	1
3. GEOLOGY	1
4. INVESTIGATION AND RESULTS	1
4.1 Seismic Survey	2
4.2 Regional Studies	2
5. TENEMENT RELINQUISHMENT	2
6. FINAL STATEMENT OF EXPENDITURE	3
7. OTHER DETAILS	4
7.1 Personnel	4
7.2 Instruments	4
7.3 Vehicles	4
7.4 Contractors	4

LIST OF MAPS:

MAP	1	:	230E578	:	Hugh River 5 Vacuum and RAB drilling
MAP	2	:		:	Profile 74,000W Seismic Record

LIST OF FIGURES:

FIGURE	1	:	230D61	:	Tenement Situation
--------	---	---	--------	---	--------------------

1. INTRODUCTION:

EL 1569 is the most westerly of a group of exploration licences held by Uranerz Australia Pty. Ltd. (UAL) in the Alice Springs area and was granted on 25 July, 1977. The original area held was 12.09 square miles (31.29 km²), but had been reduced to 2.42 square miles (6.26 km²) for the fourth year of tenure.

On 18 November, 1977, UAL signed a 50:50 joint venture agreement with Carpentaria Exploration Company (CEC) which was approved by the Mines Branch on 30 November, 1977.

UAL is the operator and has a regional office in Alice Springs. This is the fourth annual report on exploration operations carried out by the joint venture partners over EL 1569.

2. LOCATION:

EL 1569 is situated approximately 70 km southwest of Alice Springs on the HERMANNSBURG 1:250,000 Sheet SF 53-13 and is centered on latitude 23°56'S, longitude 133°11'E.

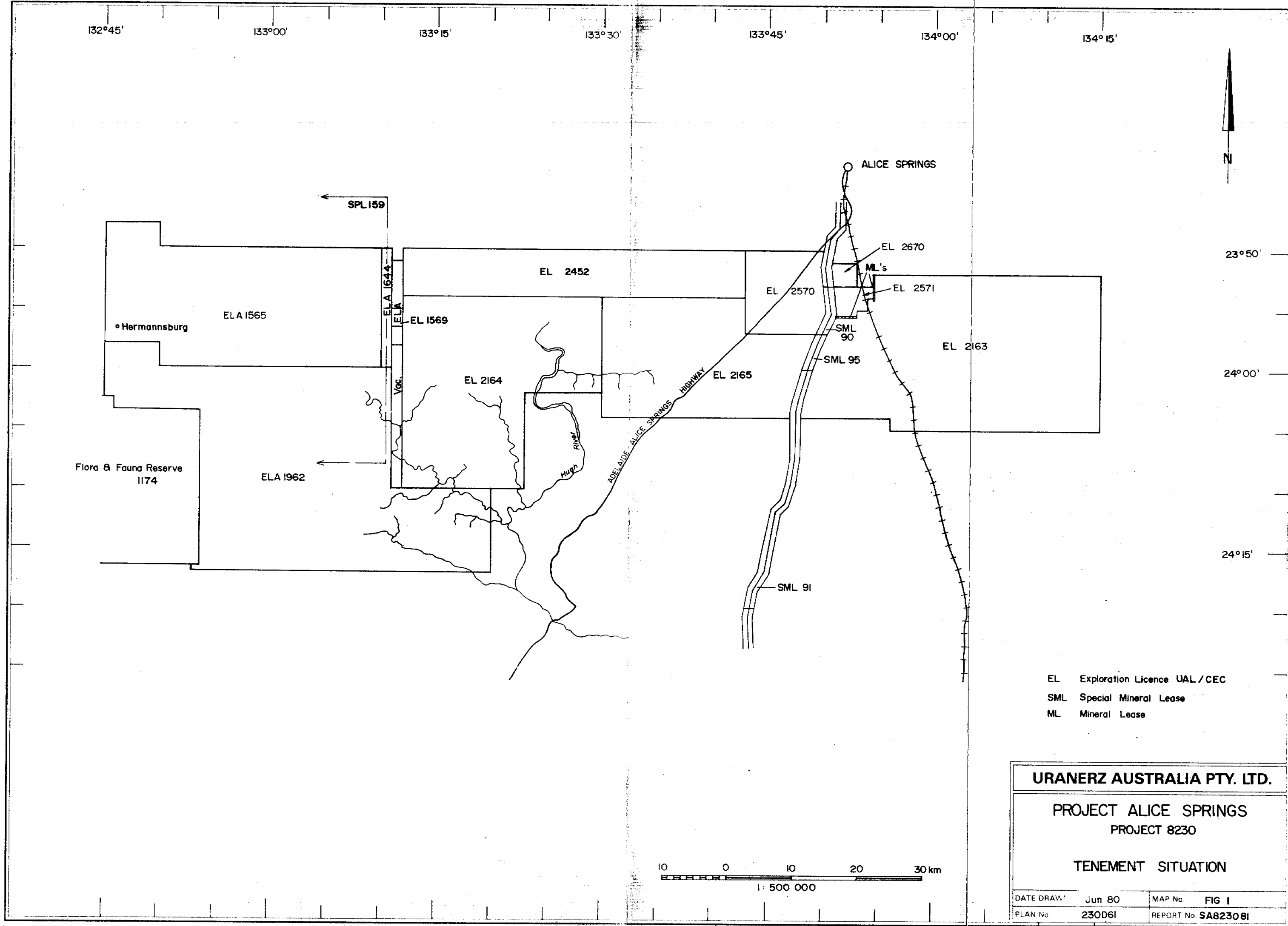
3. GEOLOGY:

EL 1569 covers part of the Devonian sequence of sandstones that form the Undandita Member of the Pertnjara Group within the Missionary Syncline which is located along the northern margin of the Amadeus Basin.

The Undandita Member sandstone was deposited in a fluvial, braided channel environment and contains a regionally reduced tongue of sandstone over a distance of 70 km in the generally oxidized Undandita Member sandstone. The redox boundary is observed as a colour change from the red-coloured oxidized sandstone to the grey colour of the reduced sandstone.

4. INVESTIGATION AND RESULTS:

Regional sedimentological studies of the Brewer/Undandita units are being carried out over the Western Missionary Syncline, in order to better define the mineralization controls and ultimately the prospectivity of the



URANERZ AUSTRALIA PTY. LTD.			
PROJECT ALICE SPRINGS			
PROJECT 8230			
TENEMENT SITUATION			
DATE DRAWN	Jun 80	MAP No.	FIG 1
PLAN No.	230D61	REPORT No.	SA8230 81

sediments, at surface and at depth throughout the syncline. The study is composed of three main elements.

- i) a High Resolution Seismic test survey undertaken to examine lithological shallow basin configuration and redox trends to a depth of 1 km.
- ii) A basin study involving mapping, trenching, current direction studies and re-examination of all available drillhole data.
- iii) A regional hydrogeochemical study using all available drillholes in an attempt to further define regional distribution of uranium and associated elements in relation to present groundwater.

4.1 Seismic Survey:

A Mini-SOSIE high resolution seismic survey was carried out by Velocity Data Pty. Ltd. of Kenmore, Queensland. This method is similar to conventional reflection except that frequencies up to 300 Hz are recorded. Such frequencies permit reflectors a few metres apart to be resolved. It was hoped that the redox boundary would show as a reflector and that irregularities of the Angela-type would be detectable by this method. Profile 74,000W falls within EL 1569 and preliminary interpretation of the processed data indicates that the best reflectors are at the level of the redox boundary. (Maps 1 & 2). Further tests are planned for this method on adjoining tenements.

4.2 Regional Studies:

Results from the basic and hydrogeological studies, which apply mainly to the other tenements in the project area, are still being assessed; preliminary results, however, confirm the potential of the area west of longitude 133°20' and further drilling is planned within this area.

5. TENEMENT RELINQUISHMENT:

Statutory halving of the tenement on application for renewal for a fifth year of tenure would have resulted in splitting the target zone; the exploration licence was therefore relinquished and application made for a larger area.

6.

FINAL STATEMENT OF EXPENDITUREEXPLORATION LICENCE NO. 1569

25 July 1980 - 24 July 1981

Salaries and Wages	\$ 3,033
Drilling Contractor	Nil
Field operating costs including consumables, rents, vehicle operating and repairs, airfares, freight etc.....	10,245
Depreciation of vehicles and geophysical instruments, consultants fees, management and distribution of Head Office costs	1,726
	\$ 15,004
	=====

7. OTHER DETAILS:7.1 Personnel:

Chief Geologist.....J. Borshoff
Supervising Geologist.....K. Ferguson
Geologist.....P. Leaman
Geologist.....I. Faris
Field Supervisor.....J. Wilkie
Field Assistant.....T. Moody

7.2 Instruments:

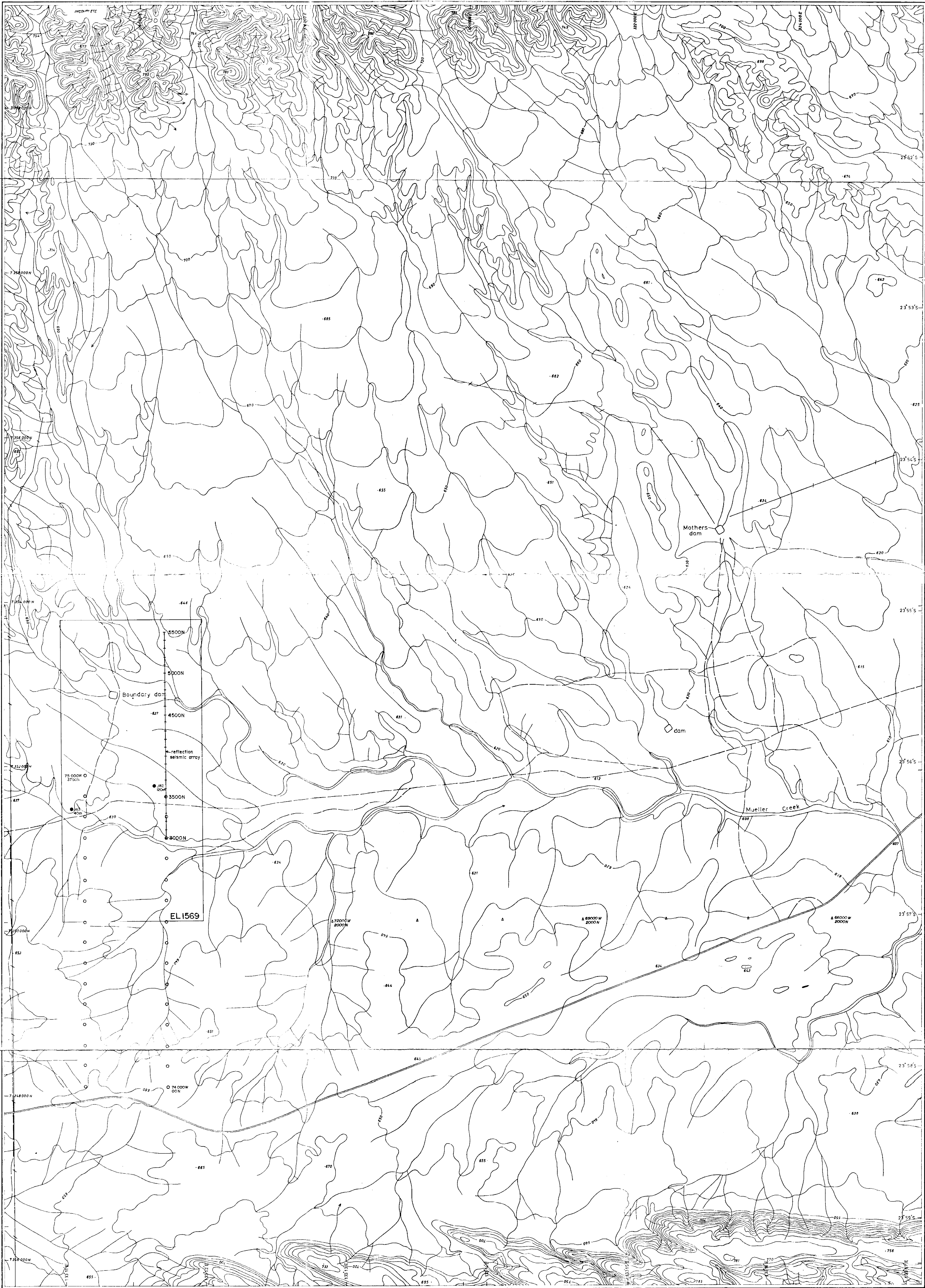
2 SRAT SPP.2 scintillometers
1 McPhar TV5 downhole logging unit
1 Sokkisha TM-20c theodolite

7.3 Vehicles:

2 Toyota F45 four-wheel-drive
1 Caravan
1 Water Trailer

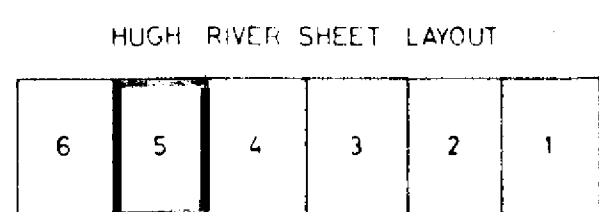
7.4 Contractors:

Velocity Data Pty. Ltd. - Kenmore, Queensland



— Fence
— Track
— Well or bore
— Main road
— Contour (interval 10 m)
— Creek
— Spot height
— Drill Hole (diamond) — RAB drillhole
— Grid Co-ordinates

200 0 500 1000m
1:20000



DRAWN FROM PHOTOGRAMMETRIC PLOT
FLOWN 1971

URANERZ AUSTRALIA PTY. LTD.

HUGH RIVER 5
PROJECT 8230
DRILLING RESULTS
EL1569

COMPILED: GO	DATE:	TENEMENT:	MAP No: 1
DRAWN: RH	DATE: JUL 78	PLAN No: 230E258	REPORT No: MINES
LAST REVISION:	12/10/79	SCALE: 1:20000	PROJECT No: 230
T.C. TO BONN:		REF: F53-13	

ALICE SPRINGS WEST. LINE 74000 W.

URANERZ AUST. PTY LTD.

TIME	U	RMS
0.001	3000	
0.075	3200	
0.115	3200	
0.200	3450	
0.330	4000	
0.415	4000	
0.500	4250	

666
333

TIME	U	RMS
0.001	3000	
0.075	3200	
0.115	3200	
0.200	3450	
0.330	4000	
0.415	4000	
0.500	4250	

744
372

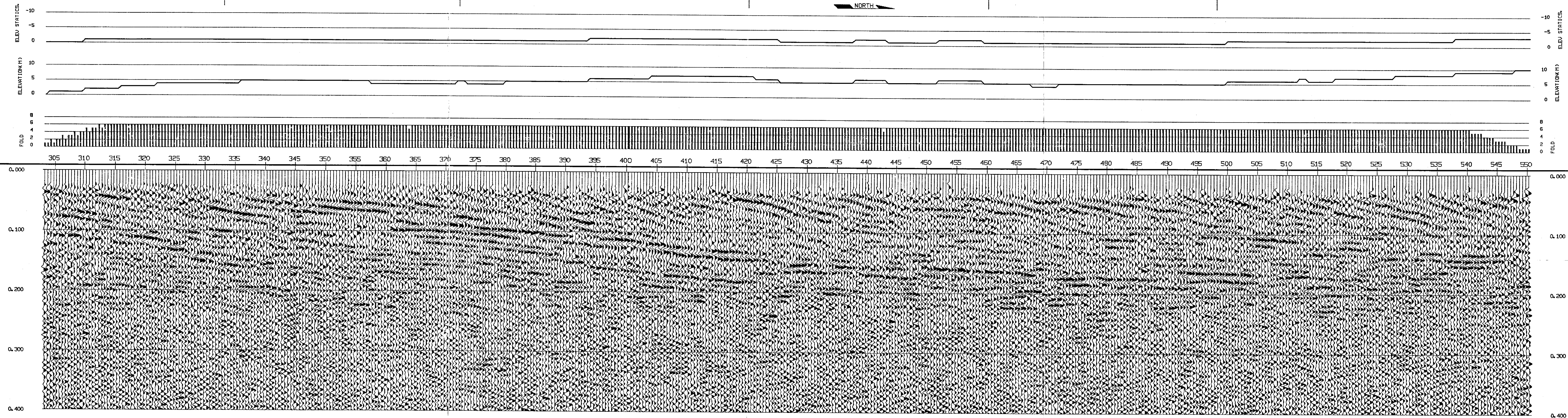
TIME	U	RMS
0.001	3000	
0.045	3100	
0.080	3200	
0.150	3550	
0.230	3900	
0.400	4000	
0.500	4250	

840
420

TIME	U	RMS
0.001	3000	
0.040	3200	
0.080	3300	
0.175	3550	
0.350	4150	
0.400	4000	
0.500	4250	

920
460

TIME	U	RMS
0.001	3000	
0.050	3250	
0.085	3450	
0.175	3550	
0.400	4000	
0.500	4250	

556
498

LINE 74000 WEST.

URANERZ AUST PTY LTD.

RECORDED BY VELOCITY DATA PTY LTD.
PROCESSED BY SEISMOGRAPH SERVICE LTD.
PROSPECT ALICE SPRINGS WEST.
ANGELA.

FINAL TIME SECTION.
VELOCITY FILTER USED.

LOCATIONS FICTITIOUS:
3000N = 300 PROCESSING.
5500N = 550 PROCESSING.

DATUM : STN 3000N = 0N.
ELEV CORRECTION VELOCITY : 3350 METRES/SECOND.

PROCESSED THROUGH PHOENIXTM

RECORDING PARAMETERS

DATE SHOT : 29-30TH APRIL 1981.
SAMPLE RATE: 1 MILLISECOND.
RECORD LGH : 1500 MS.
SOURCE : MINISOSIE RANMERS.
STACK : 1000 RANM.
GEOPHONES : 16S 400.
FILTERS : 1LOCUT 60 HZ.
RECORD MODE: SIGN BIT SUMMING.

RECORDING GEOMETRY

PEG INTERVAL : 10 METRES.
MINIMUM OFFSET: 50 METRES.
MAXIMUM OFFSET: 280 METRES.
SPREAD LAYOUT : 20-40-230 METRES.
RAM SEGMENT : 120 RANMERS
MIGRATED OVER
A 20M SEGMENT.

SEQUENCE.

CONVERT.
RDCB & EDIT.
VELOCITY FILTER.
D.B.S.
SORT.
A.G.C. & N.M.O.
RESIDUAL STATICS.
AUTOSTATICS.
COFIL.
DECON & FILTER.
T.V. EQUALISATION.

PROCESSING PARAMETERS.

FROM MINISOSIE DIX TAPES TO
PHOENIXTM FORMAT. 1600 BPI.
REMOVAL OF D.C. BIAS
& RECORD & TRACE EDITING.
F.K. PLANE FILTER DESIGNED TO OPERATE
ON FIRST BREAKS.
SPIKING DECONVOLUTION LOOKS OPERATOR IN NOISE
OPERATOR DESIGN AUTOCORRELATION SORT OF 1.350.
SHOT AND LOCATION SORT INTO C.D.P. GROUPS &
APPLICATION OF ELEVATION STATICS.
50MS SLIDING WINDOW TRIM & APPLICATION OF MID
CORRECTIONS & INITIAL MUTE ZONES.
1 PASS 2 RECURSIONS SURFACE CONSISTANT
RESIDUAL STATICS. BNS MAX SHIFT, 200MS WINDOW.
3 TRACE PILD. 250 MS MAX SHIFT.
TIME VARIANT COHERENCY FILTER (MILD).
1MS LEFT 2 MS RIGHT DTP. 11TRACE PILD.
DECON AFTER STACK. 7MS PREDICTIVE GAP. 1% NOISE.
100 MS OPERATOR. FILTER 50-55-150-170 HZ.
3 WINDOW T.V. EQUALISATION.
(0-50X 60-220X 220-400) MS.

DISPLAY DETAILS.

VERTICAL SCALE : 40 CM/SEC.

POLARITY "SEG"

HORIZONTAL SCALE: FIVE TRACES /CM.

BLACK VAR +VE VALUES.

1:2500

SEISMOGRAPH SERVICE LTD.
ADELAIDE JULY 81.

MAP 2