

# Open File Envelope

## No. 3527

**EL 470**

**STURT VALE**

**PROGRESS AND FINAL REPORTS TO LICENCE  
EXPIRY/SURRENDER FOR THE PERIOD  
25/4/1979 TO 24/4/1980**

Submitted by  
Mines Administration Pty Ltd  
1980

© 4/6/1980

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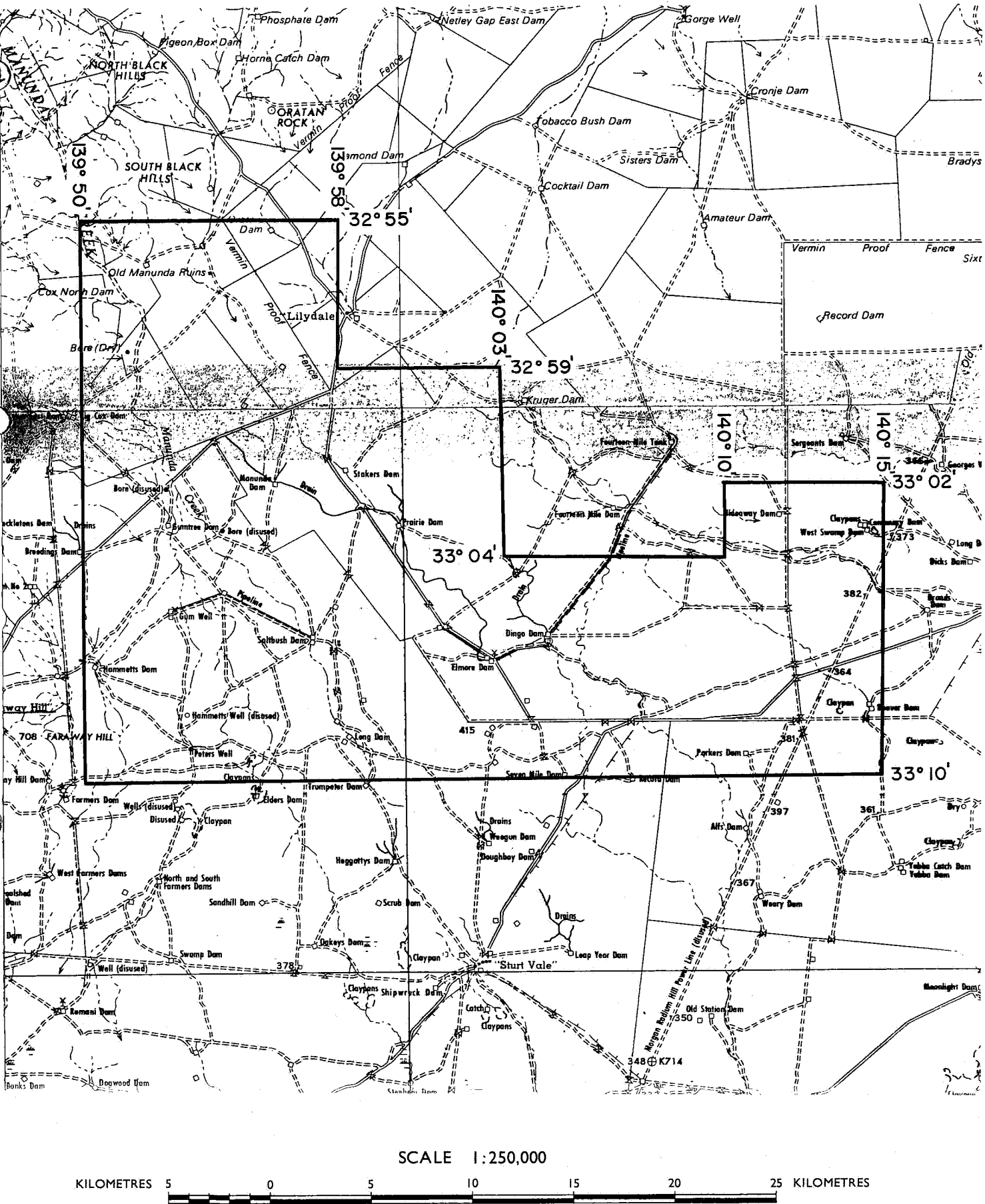
**Enquiries:** Customer Services Branch  
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7th Floor  
101 Grenfell Street, Adelaide 5000

Telephone: (08) 8463 3000  
Facsimile: (08) 8204 1880



**Government of South Australia**  
**Primary Industries and Resources SA**

SCHEDULE A



APPLICANT: MINES ADMINISTRATION PTY. LTD. & TETON EXPLORATION DRILLING CO. PTY. LTD.

DM: 676/78

AREA: 739 square kilometres

1:250000 PLANS: OLARY  
CHOWILLA

LOCALITY: "STURT VALE" STATION AREA - Approx. 100km S.W. of Olary.

DATE GRANTED: 25.4.79

DATE EXPIRED: 24.4.80

EL No:

3527  
470

CONTENTS ENVELOPE. 3527.TRANSPARENT CYLINDER, 3527/1.

TENEMENT. E.L. 470.

TENEMENT HOLDER. MINES ADMINISTRATION PTY. LTD. & TETON EXPLORATION  
DRILLING CO. PTY. LTD.

REPORT.

BURNS S. 1979.

E.L. 470. (Sturt Vale) S.A. Quarterly report.  
(Period; ended 24-7-79.)  
No plans.

(pgs. 3-5)

REPORT.

BURNS S. 1979.

E.L. 470. (Sturt Vale) S.A. Quarterly report.  
(Period; ended 24-10-79.)  
No plans.

(pgs. 6-8)

REPORT.

BURNS S. 1980.

E.L. 470. (Sturt Vale ) S.A. Quarterly report.  
(Period; ended 24-1-80.)  
No plans.

(pgs. 9-10)

REPORT.

BURNS S.D. 1980.

E.L. 470. (Sturt Vale) S.A. Summary report.

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PLANS.

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F.1. Drill hole location map.

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F.2. Drill hole Cross sections. 1-3.

(3527-2)

REPORT:

BURNES S. 1980.

E.L. 470. (Sturt Vale ) S.A. Quarterly report  
(Period; ended 24-4-80.)  
No plans.

(pgs. 4--43)

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MINES ADMINISTRATION PTY. LIMITED

QUARTERLY REPORT

EL 470 (STURT VALE) SOUTH AUSTRALIA

QUARTER ENDED 24-7-79

Exploration Licence 470 covering an area of approximately 739 km<sup>2</sup> was granted to Mines Administration Pty. Limited and Teton Drilling Co. Pty. Ltd on the 25th April 1979 for a period of one (1) year.

During the quarter ended 24th July 1979, a 17 hole, 1168 metres open hole drilling programme was completed. The programme was originally contracted for 2000 metres but due to numerous drilling problems and the lack of encouragement from the holes drilled the programme was abandoned 832 metres short of the contracted 2000 m. The drilling was undertaken by W.L. Sides and Son Pty. Ltd of Clayton, Victoria, using a Mayhew 1000 rotary drilling rig. Cutting samples were collected and described at 1.5m intervals from the surface to total depth. All holes were logged for gamma-ray, resistivity and spontaneous potential by Geoscience Associates (Australia) Pty. Ltd of Kilkenny, South Australia.

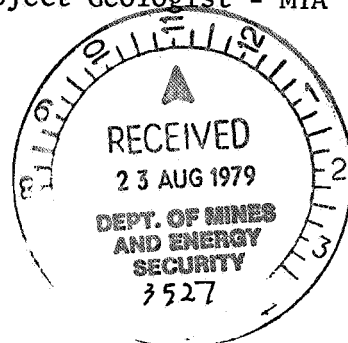
The aim of the programme was to further delineate the nature of the Tertiary sand development and its associated mineralization.

The anomalous radioactivity intersected in the area was very low grade and in each case occurred either in a lignite or carbonaceous clay. No anomalous radioactivity occurred in the sand units. A full report on the drilling programme is currently being compiled.

Exploration expenditure during the quarter totalled \$20,306 - a detailed statement is attached.



Steve Burns  
Project Geologist - MTA





Brisbane.

20th August, 1979.

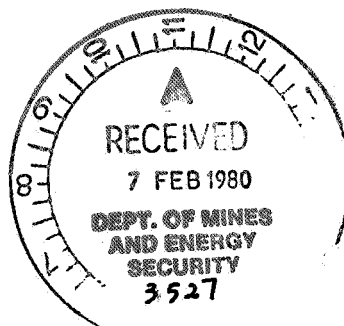
MINES ADMINISTRATION PTY LIMITEDSTATEMENT OF EXPENDITURESTURT VALE S.A.QUARTER ENDED 24TH JULY, 1979.REF : AC/MDE

	<u>\$</u>
Salaries and Wages	5,025
Travel and Accommodation	706
Vehicle Hire	839
Communications	139
Freight	9
Drafting, Air Photography, Printing, etc.	123
Drilling Contractor	9,956
Geophysics Contractor - Logging	3,436
Drilling Consumables	73
	<u>          </u>
	\$20,306
	<u>          </u>

  
.....G. B. Monk,  
Accountant.

STURT VALE EL 470

<u>DATE</u>	<u>HOLE NO.</u>	<u>TOTAL DEPTH</u>	<u>TYPE OF SAMPLE</u>	<u>LAT.</u>	<u>LONG.</u>
3-7-1979	SV1 Abandoned	48.0m	Cuttings	33°08-1/4'	140°04-1/4'
"	SV3	96.0m	"	33°04-1/3'	140°00-1/3'
4-7-1979	SV4	84.0m	"	33°01-3/4'	139°58'
5-7-1979	SV5	84.0m	"	32°59-1/2'	139°57-2/3'
"	SV6	72.0m	"	33°01-1/2'	139°50-5/6'
"	SV7	72.0m	"	32°55-2/3'	139°56-3/4'
6-7-1979	SV8	78.0m	"	32°58-1/4'	139°55-1/2'
"	SV9	21.0m	"	32°58-1/4'	139°52-1/2'
7-7-1979	SV10	72.0m	"	33°00-2/3'	139°59-1/2'
"	SV12	72.0m	"	33°02'	139°56'
8-7-1979	SV11	78.0m	"	32°59-1/4'	140°01-1/3'
"	SV13	90.0m	"	33°03'	139°59-3/4'
9-7-1979	SV14	90.0m	"	33°04-1/3'	140°06'
"	SV1A	84.0m	"	33°08-1/4'	140°04-1/4'
12-7-1979	SV2 Abandoned.	30.0m	"	33°08-1/3'	140°07-1/2'
"	SV15	84.0m	"	33°06-1/4'	140°06-1/2'
"	SV16 Abandoned	12.0m	"	33°06-1/2'	140°05'
13-7-1979	SV17	84.0m	"	33°02-2/3'	139°58-1/2'



# MINES ADMINISTRATION PTY. LIMITED

(Incorporated in Victoria)

AMP PLACE,  
10 EAGLE STREET,  
BRISBANE, 4000.

Postal Address:

BOX 880 G.P.O.  
BRISBANE, 4001

Telephone : 221 2366  
Telegrams : MINAD, Brisbane  
Telex : AA42395

19th December 1979.

Mr. B.P. Webb,  
Director-General,  
Department of Mines and Energy,  
P.O. Box 151,  
EASTWOOD. S.A. 5063

Dear Sir,

RE: QUARTERLY REPORT - EL 470 (STURT VALE)

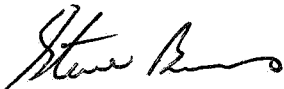
Please find enclosed the Quarterly Report for Exploration Licences No. 470 for the quarter ended 24th October 1979. The delay in sending this report was caused by my absence in the field on another project at the time this report was to be submitted.

I apologise for any inconvenience this delay may have caused you or your staff.

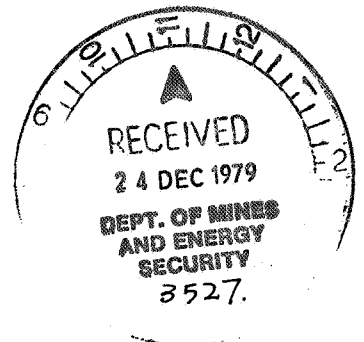
Expenditure during the quarter totalled \$456.

Please contact me if any additional information is required.

Yours faithfully,  
MINES ADMINISTRATION PTY. LIMITED



Steve Burns.  
Project Geologist - MTA



MINES ADMINISTRATION PTY LIMITEDQUARTERLY REPORTEL 470 (STURT VALE) SOUTH AUSTRALIAQUARTER ENDED 24-10-79

Exploration Licence 470 covering an area of approximately 739 km<sup>2</sup> was granted to Mines Administration Pty. Limited and Teton Drilling Co. Pty. Ltd on the 25th April 1979 for a period of one (1) year. The tenement is situated approximately 100 km south west of Olary, South Australia.

During the quarter ended 24th October 1979 compilation of a full report on the July drilling programme continued. However, no further exploration activities were carried out on the licenced area during the quarter. //

Expenditure during the quarter totalled \$456 a detailed statement is attached.



Steve Burns  
Project Geologist - MTA

Brisbane.

19th December, 1979.

MINES ADMINISTRATION PTY LIMITEDSTATEMENT OF EXPENDITURESTURT VALE S.A.QUARTER YEAR ENDED OCTOBER, 1979REF : AC/MDE

	<u>\$</u>
Salaries and Wages	52
Travel and Accommodation	17
Vehicle Hire	326
Communications	14
Drafting, Air Photography, Printing, etc.	<u>47</u>
	\$456
	<u><u>      </u></u>

*G. B. Monk*  
.....  
G. B. Monk,  
Accountant.

MINES ADMINISTRATION PTY. LIMITEDQUARTERLY REPORTEL 470 (STURT VALE) SOUTH AUSTRALIAQUARTER ENDED 24-1-80

Exploration Licence 470 covering an area of approximately 739 km<sup>2</sup> was granted to Mines Administration Pty. Limited and Teton Drilling Co. Pty. Ltd on the 25th April 1979 for a period of one (1) year. The tenement is situated approximately 100 km south west of Olary.

During the quarter ended 24th January 1980 a report summarizing all field activities carried out on the tenement to date was completed. A copy of this report has been included. No further field work was conducted on EL 470 during the quarter.

Expenditure during the quarter totalled \$80 - a detailed statement is attached.



Steve Burns.  
Project Geologist - MTA

Brisbane.

31st January, 1980.

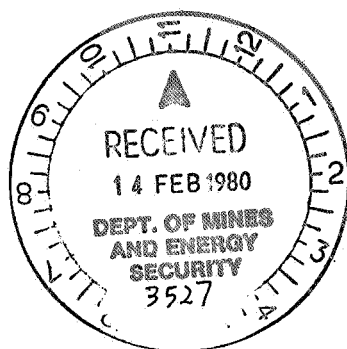
MINES ADMINISTRATION PTY LIMITEDSTATEMENT OF EXPENDITURESTURT VALE S.A.QUARTER ENDED 24TH JANUARY, 1980REF : AC/MDE

Salaries and Wages

\$\$80  
==  
.....G. B. Monk,  
Accountant

SUMMARY REPORTEL 470 STURT VALE

by

S.D. BURNS

February, 1980

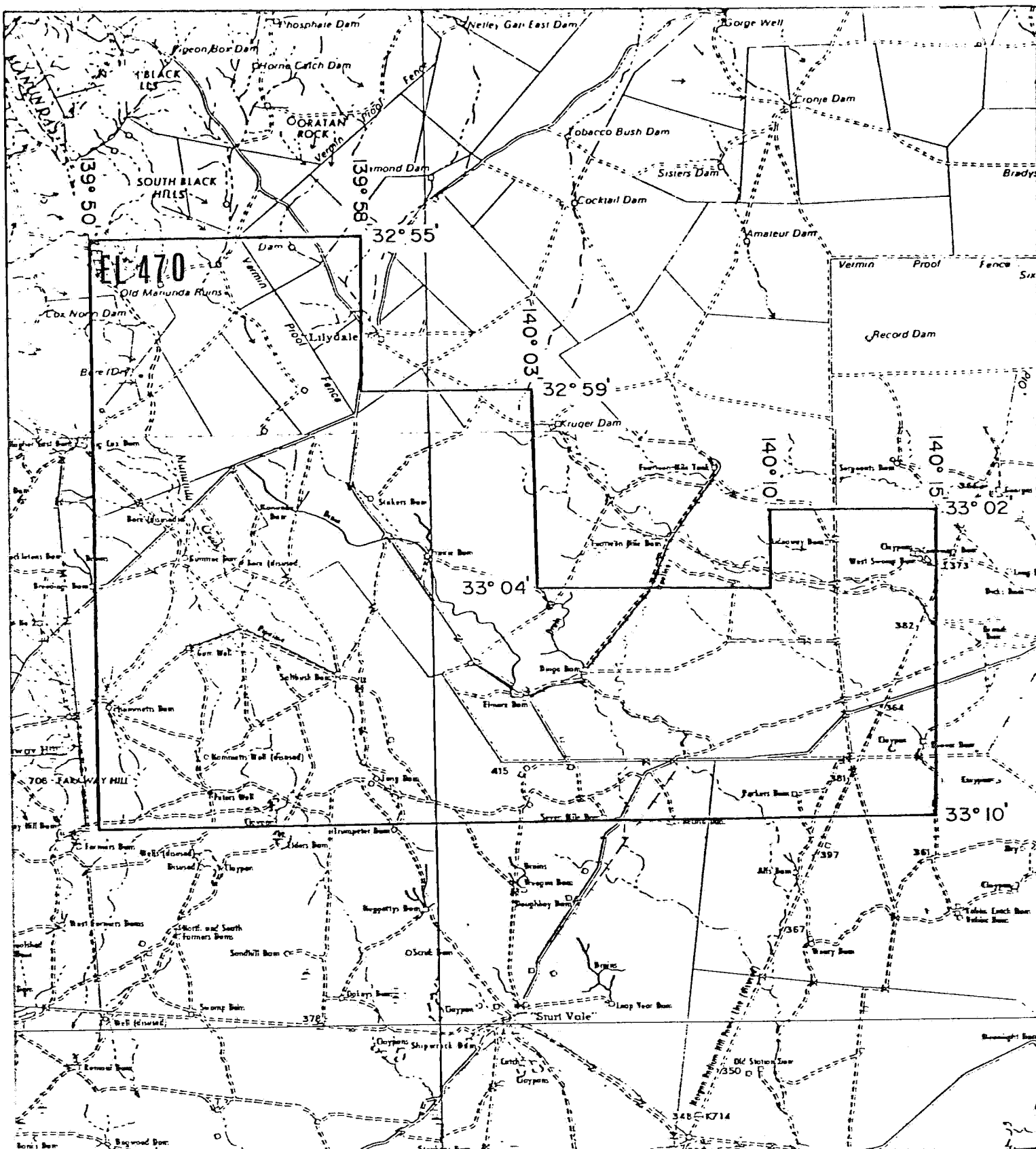


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	Location Map.	(in text)
Fig. 1.	Drill Hole Location Map.	(enclosed)
Fig. 2.	Drill Hole Cross Sections	(enclosed)



SCALE 1:250,000

KILOMETRES 5 0 5 10 15 20 25 KILOMETRES

APPLICANT: MINES ADMINISTRATION PTY. LTD. & TETON EXPLORATION DRILLING CO. PTY. LTD.

DM: 676/78

AREA: 739 square kilometres

1:250000 PLANS: OLARY  
CHOWILLA

LOCALITY: "STURT VALE" STATION AREA - Approx. 100km S.W. of Olary. F3.

Location Map

## 1. INTRODUCTION

Exploration Licence 470 covering an area of approximately 739 km<sup>2</sup> was granted to Mines Administration Pty. Limited and Teton Exploration Drilling Co. Pty. Ltd on the 25th April 1979 for a period of one year. The tenement is situated approximately 100 kilometres south west of Olary (see location map).

Exploration in the area was carried out by Minad-Teton Australia (MTA), a joint venture between the above two companies. Exploration work during the tenement year consisted of a limited drilling and wireline logging programme.

The main aim of the drilling programme was to investigate in detail anomalous radioactivity encountered during previous drilling programmes in 1971. The drilling was aimed at providing a broad evaluation of the uranium potential of the Sturt Vale area while at the same time, investigating the area downdip from the anomalous area in the hope of finding uranium accumulation in sands at the same stratigraphic level.

## 2. PREVIOUS EXPLORATION.

Initial exploration in the area was carried out by MTA in 1971. A total of 22 open holes comprising 2035.17 metres and 3 core holes totalling 196.9 metres with a total cored interval of 21.34 metres (see Table 1B) were drilled. In conjunction with the drilling programme an airborne scintillometer survey was conducted over the whole of the present EL 470. Approximately 1000 line miles were flown using a Cessna 182. No anomalous radioactivity was detected by the survey although several clay pans recorded peak readings of 1.5 to 2 times background. MTA found that the most prospective Tertiary units had been subjected to oxidising conditions which extended downwards from the ground surface. This significantly reduced the potential for economic uranium concentrations being found in those units. Also, low grade mineralization which was encountered occurred in an unfavorable lignite host in a restricted Tertiary depression. The Sturt Vale area was relinquished by MTA in 1972.

## 3. DRILLING PROGRAMME

From the 3rd to 13th July 1979, a 17 hole 1168 metre open hole drilling programme was completed (see Table 1A). The programme was originally contracted for 2000 metres but due to drilling problems and the lack of encouragement from the holes drilled the programme was abandoned 832 metres short of the contract meterage. The drilling was undertaken by W.L. Sides and Son Pty. Ltd of Clayton,

TABLE 1A  
1979 MTA DRILL HOLES

015

DRILL HOLE No.	TOTAL DEPTH (metres)	PROBED DEPTH (metres)	GEOLOGICAL UNITS				
			QUATERNARY - UPPER TERTIARY	LOXTON SAND	KNIGHT GROUP		PRECAMBRIAN
					UPPER SAND and LIGNITE INTERVAL	LOWER MARINE CLAY INTERVAL	
SV1Abn	48.0	-	0 - 19.0	19.0 - 48.0+	-	-	-
SV1A	85.2	84.8	0 - 19.0	19.0 - 48.0	48.0 - 80.4	80.4 - 85.2+	-
SV2Abn	30.0	-	0 - 30.0	30.0+	-	-	-
SV3	97.7	97.4	0 - 32.0	32.0 - 55.4	55.4 - 81.4	81.4 - 97.7+	-
SV4	85.4	85.0	0 - 48.2	48.2 - 58.0	58.0 - 73.9	73.9 - 85.4+	-
SV5	85.4	85.0	0 - 48.6	48.6 - 61.4	61.4 - 64.0	64.0 - 85.0+	-
SV6	73.0	72.6	0 - 46.0	46.0 - 54.0	54.0 - 57.0	-	57.0 - 73.0+
SV7	73.2	72.8	0 - 35.5	35.5 - 39.4	-	-	39.4 - 73.2+
SV8	79.4	79.0	0 - 54.6	54.6 - 61.0	61.0 - 64.8	64.8 - 70.6	70.6 - 79.4+
SV9	19.8	19.8	0 - 19.5	-	-	-	19.5 - 19.8+
SV10	71.7	71.4	0 - 53.0	53.0 - 59.1	59.1 - 70.0	70.0 - 71.7+	-
SV11	77.8	77.4	0 - 47.4	47.4 - 54.2	54.2 - 68.2	68.2 - 77.8+	-
SV12	73.0	72.6	0 - 44.0	44.0 - 50.2	50.2 - 61.3	61.3 - 73.0+	-
SV13	90.4	90.0	0 - 45.6	45.6 - 56.0	56.0 - 78.0	78.0 - 90.4+	-
SV14	91.4	91.0	0 - 20.4	20.4 - 48.8	48.8 - 70.4	70.4 - 91.4+	-
SV15	85.0	84.6	0 - 16.1	16.1 - 46.0	46.0 - 58.0	58.0 - 85.0+	-
SV16	12.0	-	0 - 12.0+	-	-	-	-
SV17	85.0	84.6	0 - 51.0	51.0 - 58.0	58.0 - 76.0	76.0 - 85.0+	-

TABLE 1B  
1970-71 MTA DRILL HOLES

016

DRILL HOLE No.	TOTAL DEPTH (metres)	PROBED DEPTH (metres)	GEOLOGICAL UNITS				
			QUATERNARY - UPPER TERTIARY	LOXTON SAND	KNIGHT GROUP		PRECAMBRIAN
					UPPER SAND and LIGNITE INTERVAL	LOWER MARINE CLAY INTERVAL	
BF3	88.4	86.9	0 - 50.3	50.3 - 64.3	64.3 - 73.4	73.4 - 88.4+	-
P 2	86.9	81.7	0 - 17.7	17.7 - 48.8	48.8 - 82.2	82.2 - 86.9+	-
P 3	79.3	78.3	0 - 31.7	31.7 - 50.3	50.3 - 67.0	67.0 - 79.3+	-
P 4	152.5	151.8	0 - 47.8	47.8 - 59.4	59.4 - 64.0	64.0 - 71.3	71.3 - 152.4+
P 5	71.6	70.4	0 - 51.8	51.8 - 60.9	60.9 - 71.6+	-	-
P 6	87.8	87.5	0 - 49.1	49.1 - 62.0	62.0 - 73.1	73.1 - 87.8+	-
P 7	86.3	85.0	0 - 51.8	51.8 - 61.0	61.0 - 72.2	72.2 - 86.3+	-
P 8	88.4	87.5	0 - 52.7	52.7 - 61.3	61.3 - 72.5	72.5 - 88.4+	-
P 9	83.8	83.2	0 - 50.0	50.0 - 60.1	60.1 - 73.8	73.8 - 83.8+	-
P 10	86.9	85.9	0 - 61.3	61.3 - 64.3	64.3 - 75.9	75.9 - 86.9+	-
P 11	83.8	83.2	0 - 57.3	57.3 - 60.1	60.1 - 72.2	72.2 - 83.8+	-
P 12	83.8	83.5	0 - 49.4	49.4 - 60.7	60.7 - 74.7	74.7 - 83.8+	-
P 13	79.3	78.6	0 - 53.6	53.6 - 60.4	60.4 - 74.1	74.1 - 79.3+	-
P 14	79.3	78.6	0 - 51.8	51.8 - 58.2	58.2 - 74.4	74.4 - 79.3+	-
P 15	83.8	83.2	0 - 51.8	51.8 - 63.1	63.1 - 75.3	75.3 - 83.8+	-
P 16	88.4	87.8	0 - 53.6	53.6 - 63.1	63.1 - 77.7	77.7 - 88.4+	-
P 17	83.8	83.5	0 - 52.7	52.7 - 57.0	57.0 - 74.1	74.1 - 83.8+	-
P 18	97.5	96.9	0 - 45.1	45.1 - 60.7	60.7 - 80.7	80.7 - 86.8	86.8 - 97.5+
P 19	152.4	151.8	0 - 24.1	24.1 - 50.3	50.3 - 71.6	71.6 - 125.0	125.0 - 152.4+
P 20	111.3	110.9	0 - 32.6	32.6 - 53.3	53.3 - 73.1	73.1 - 100.6	100.6 - 111.3+
P 21	97.5	96.9	0 - 45.1	45.1 - 53.0	53.0 - 65.5	65.5 - 89.0+	-
P 22	102.1	101.8	0 - 40.5	40.5 - 59.7	59.7 - 70.1	70.1 - 102.1+	-
P 11C	64.3	64.3	0 - 55.8	55.8 - 60.6	60.6 - 64.3+	-	-
P 12C	65.5	65.5	0 - 49.4	49.4 - 61.6	61.6 - 65.5+	-	-
P 16C	68.6	67.1	0 - 54.2	54.2 - 63.4	63.4 - 67.1+	-	-

Victoria, using a Mayhew 1000 rotary drilling rig. Cutting samples were collected and described at 1.5m intervals from the surface to total depth. All holes were logged for gamma-ray, resistivity and spontaneous potential by Geoscience Associates (Australia) Pty. Ltd of Regency Park, South Australia.

#### 4. GEOLOGY.

In this region the Murray Basin is marked by outcropping Palaeozoic and Precambrian rocks to the north west (Olary Block). Within EL 470 the Cainozoic sediments wedge out to the west against the underlying Precambrian metamorphics and metasediments.

##### (i) Precambrian.

Precambrian rocks, consisting of slates, quartzites and aplitic material, unconformably underlie the Cainozoic section in this area and were intersected in several holes during this programme and the previous drilling programmes in the area.

##### (ii) Tertiary.

The Lower Eocene sediments intersected during the drilling programmes have been equated to the Knight Group and consist predominantly of black to medium greenish grey, carbonaceous, pyritic clay with minor silt interbeds. Lignite development at the top of the formation has occurred in parts of the area. Sandy horizons are also present, the best developed being near the top of the formation. Shell fragments have been recorded sporadically throughout the "Knight Group", but are particularly numerous towards the base. This reflects a diminishing marine influence in this part of the Murray Basin during the Eocene. These sediments were deposited largely under varying paralic - lacustrine - fluviatile conditions.

An Upper Tertiary sequence of clays, silty clays and sands disconformably overlies the Lower Eocene Knight Group (see Fig. 2). The main sand unit, at the base of this sequence has been equated with the Loxton Sands of Pliocene age. This sand unit has been described as light red to yellowish in colour, fine to medium grained, moderately well sorted, slightly pebbly in parts,

subangular to subrounded and sublabile to quartzose. Although extensive in areal distribution, lithologic variations suggest that deposition of this unit occurred under varying fluvial to lacustrine conditions.

Palynological examination of drill hole cores from the 1971 drilling programme has conclusively verified the presence of a disconformity at the base of the Loxton Sands. Recorded downhole geophysical characteristics above and below the unconformity in open holes has been used to extend its recognition (see Fig. 2)

(iii) Quaternary.

Aeolian and alluvial deposits blanket the Sturt Vale area to an average depth of 25 metres (Fig. 2) and reach a maximum thickness of 40 metres. These sediments are composed of reddish brown and yellow clays and sands with some interbedded gravels. They were derived principally from the Precambrian rocks to the north-west and west.

5. STRUCTURE.

Correlations based on geophysical and lithologic logs as well as from previous palynological determinations allow certain comments to be made regarding the structure of the area.

- (i) The western margin of the Murray Basin near EL 470 appears to be fault controlled.
- (ii) The Pliocene - Eocene contact is a disconformity which dips gently to the south-east.
- (iii) Depositional and/or structural dips in the Pliocene and Eocene units are small - generally less than the fall of the topographic surface.

6. RADIOACTIVITY.

The anomalous radioactivity intersected in the area was of low amplitude and in each case occurred either in a lignite or carbonaceous clay. Generally it is

present in two distinct stratigraphic levels - the tops of the upper and middle units of the Knight Group. While this radioactivity is very consistent, there is no suggestion of increasing intensity in a recognizable direction. In addition, there is no evidence of associated lithologic alteration which might be indicative of hydrogeochemical cell mechanics.

The most intense radioactivity was encountered in drill hole P5 during the 1971 drilling programme. Here it was clearly associated with a lignite at the top of the Knight Group. Three core holes (P-11C, P-12C and P-16C) also drilled in 1971 near P5 confirmed in assay results that the uranium mineralization was confined to the lignite. Average grade of mineralization was 1/2 lb/ton  $U_3O_8$  over a average thickness of 2 metres at a depth 60 metres. The maximum assay of almost 2 lb/ton was recorded in core hole P-12C over a 0.3 metre interval. Thorium assays of the cored interval were very low.

There was no detectable uranium mineralization in the enclosed sands; despite this it appears that the lignite acted as a scavenger, concentrating small amounts of uranium transported in solution by groundwater migrating through the sands. Prospecting of the downdip extension during this recent programme was thwarted by the configuration of the Tertiary in the area. However, no anomalous radioactivity was encountered in the sands of the few holes that were drilled downdip.

#### 7. CONCLUSIONS AND RECOMMENDATIONS.

Over almost all of EL 470 the most prospective units, the Loxton Sands and the upper unit of the Knight Group have been subjected to oxidizing conditions which extend downwards from the ground surface. This seriously restricts the potential of these units for economic uranium concentrations. Also drill holes in the south and east of the uraniferous lignitic area indicated that this area was a shallow restricted basin during the Tertiary.

This reconstruction significantly reduces the prospects of this area since the main hope of economic grade was in sands downdip from the uraniferous lignite.

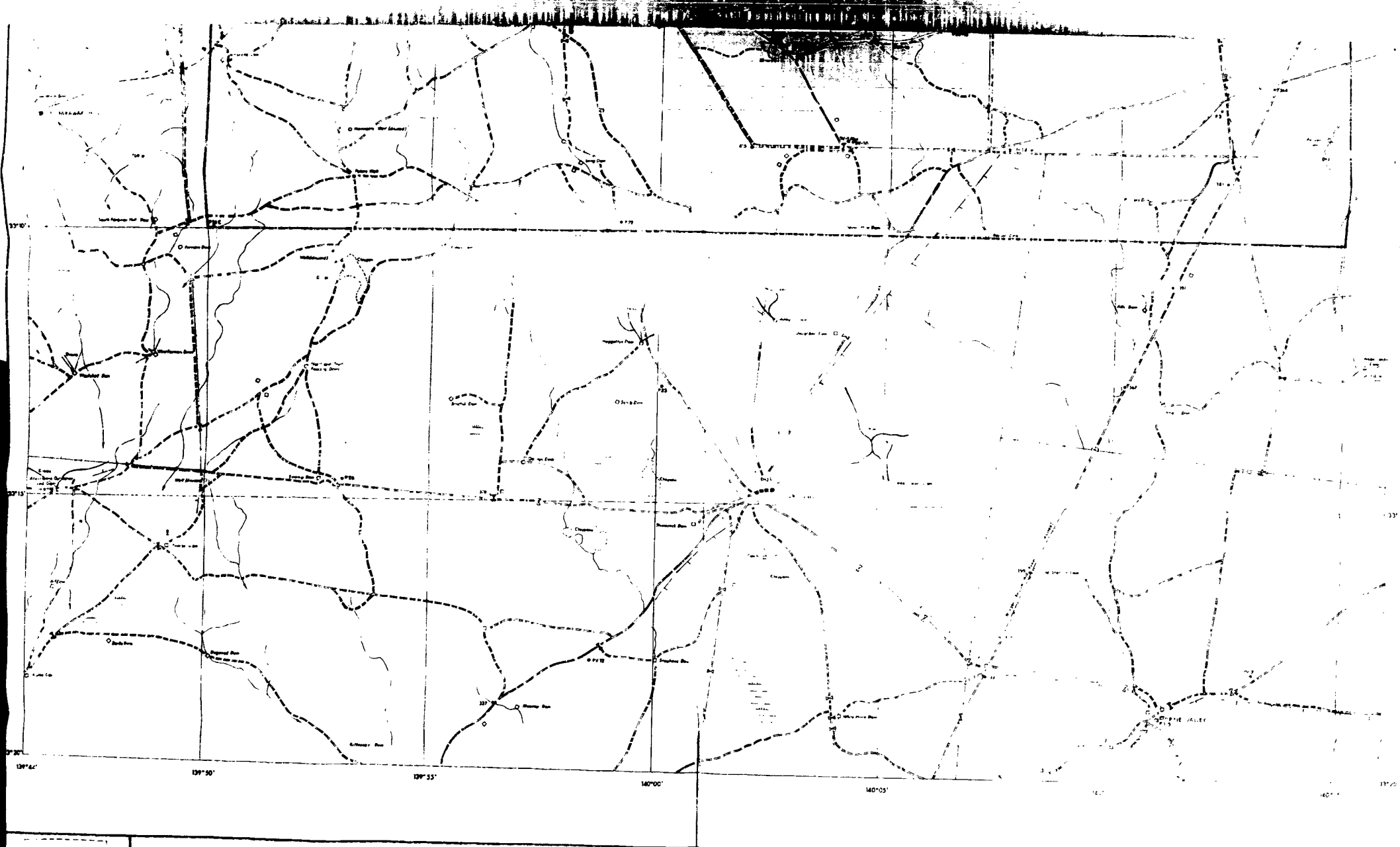
Therefore it appears very unlikely that further exploration in the area will provide new data which can support a different or more encouraging interpretation with respect to the presence of economic mineralization. Therefore it is recommended that EL 470 (Sturt Vale) be allowed to lapse at the end of its tenure.

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8. BIBLIOGRAPHY

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J. Proc. R. Soc. N.S.W. 90:174-180



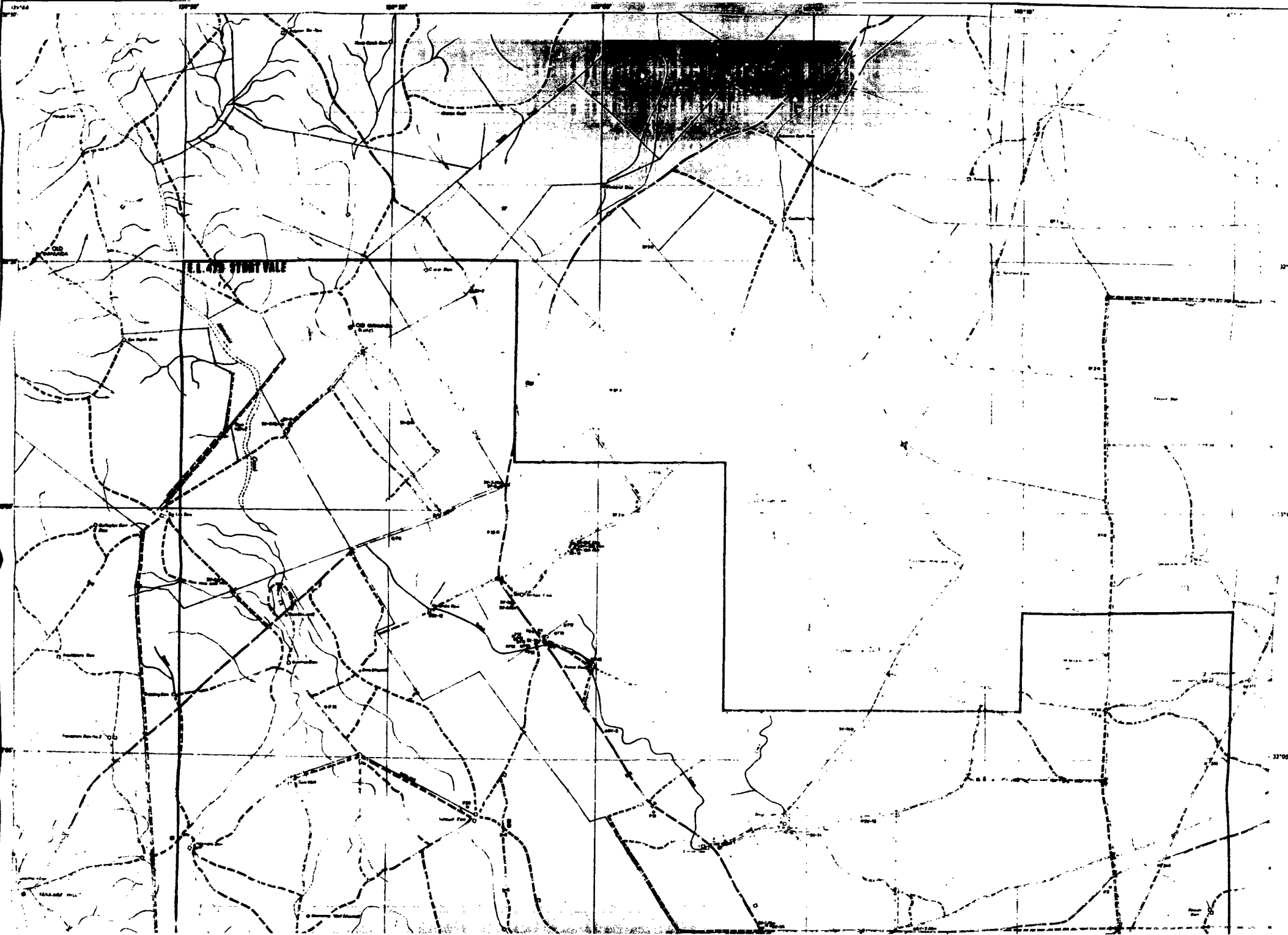
- E.L. Boundary
- Power road area of
- 100 ft wide or less
- Road
- Drainage system
- Stream
- Telegraph Line

1:50,000  
 1:50,000  
 1:50,000  
 1:50,000

Scale 1:50,000

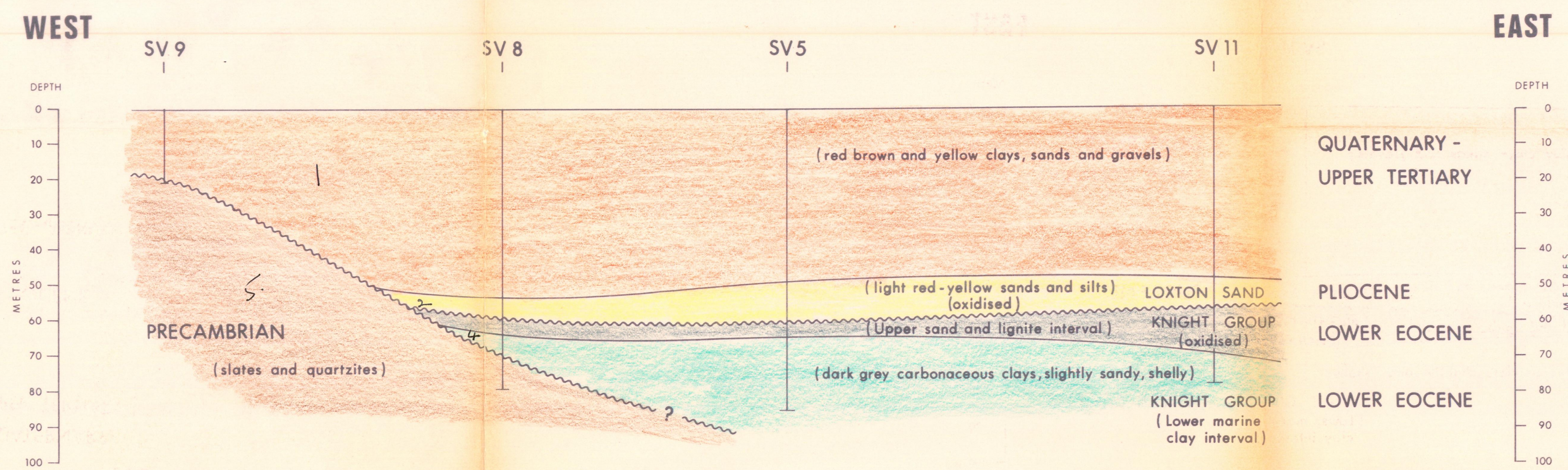
NEW SHEET 470		MINERAL TETON - AUSTRALIA E.L. 470 STURT VALE PROJECT SOUTH AUSTRALIA DRILLHOLE LOCATION MAP Edition: 1.0 Date: 1979
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ENCLOSURE 1

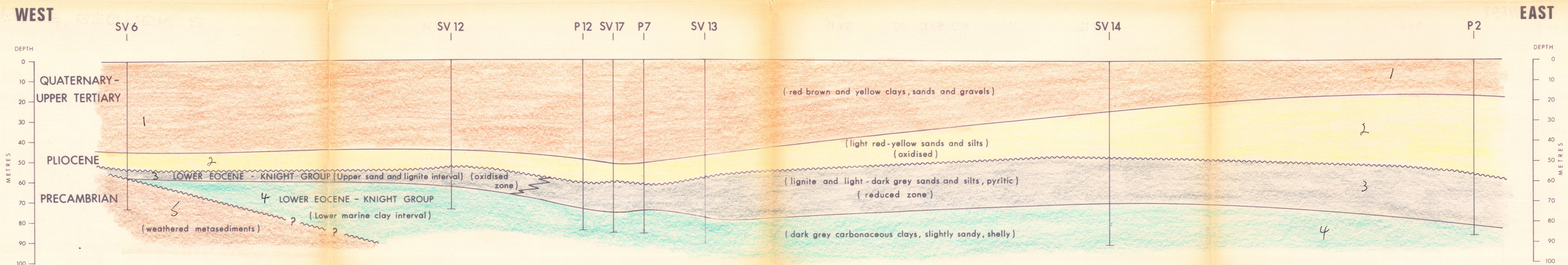




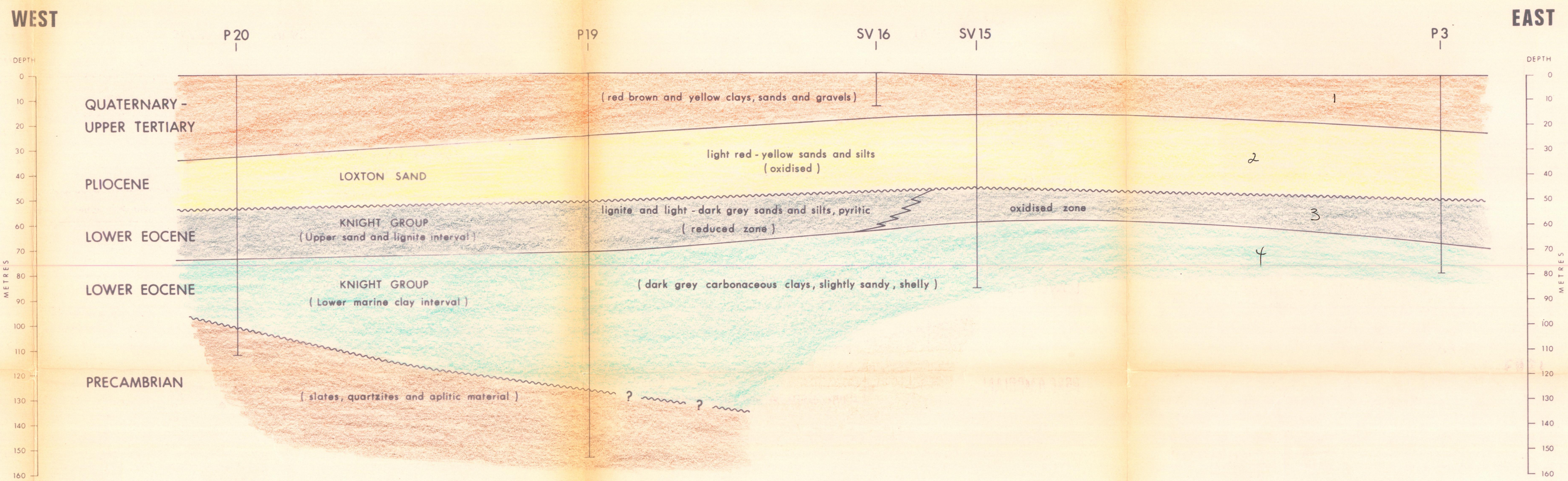
CROSS SECTION 1



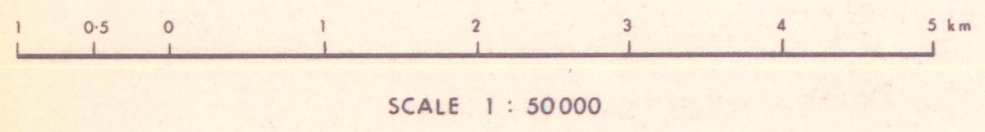
CROSS SECTION 2



CROSS SECTION 3



1	Undifferentiated	QUATERNARY - UPPER TERTIARY	—	Disconformity
2	Loxton Sand	PLIOCENE	~~~~~	Unconformity
3	Knight Group - Upper Unit	LOWER EOCENE	P12	Drill Hole - 1971
4	Knight Group - Lower Unit	LOWER EOCENE	SV 15	Drill Hole - 1979
5	Undifferentiated	PRECAMBRIAN		



REVISIONS	
Date	By

MINAD · TETON · AUSTRALIA

STURT VALE PROJECT

SOUTH AUSTRALIA

**CROSS SECTIONS 1 - 3**

Vertical Scale 1 : 1000

Author : S. D. Burns      Date : February 1980

Dwg No.: 21119    File No.: W 25    **ENV. 3527-2.**    FIGURE 2



APPENDIX I.

Drill Hole Electric and Lithology Log Composites.

GEOPHYSICAL LOG	DEPTH	STRIP LOG	Ox.
<p>Not logged</p>	0		
	10		
	20		
	30		
	40		
	50		
	60		
	70		
	80		
	90		
	100		
	110		
	120		
130			

PROJECT STURT VALE HOLE NO. SV 1 Abn  
 To 36 m  
☒ AIR ☒ WATER LOGGED BY S.D. BURNS DATE 3-7-1979  
 HOLE SIZE 12cm T.D. 48.0m P.D. —  
 ELEVATION — LOCATION —  
 MAP STURT VALE PROJECT SCALE 1:50,000

LITHOLOGY LOG	
0 - 3.0	SOIL, LT BROWN (5YR 5/6), COMP. OF S&S - M. GR. G.T. GRAINS AND RLT. CAL. CEMENT. M.S. COMP. OXIDIZED (HEM STAIN)
3.0 - 6.0	S.LT. DK YELL ORANGE (10YR 6/6), COMPLETELY LIM STAINED
6.0 - 10.0	SILTSTONE, DK YELL. ORANGE (10YR 6/6) COMPLETELY OXIDIZED
10.0 - 12.0	CLAYSTONE, MOTTLED DK YELL ORANGE (10YR 6/6), MID LT. GRAY (9YR MOD. RED (5R 4/6), STRONGLY OXIDIZED (MAINLY L. MENITIL).
12.0 - 19.0	CLAYSTONE, MOTTLED MOD. YELLOWISH BROWN (10R 4/6) AND LT - MID LT GRAY (N7 - N6), STRONGLY OXIDIZED > 50% (HEM STAIN)
19.0 - 21.0	SAND, GRAYISH ORANGE 10YR 7/4, VF - F, SUB A - SUBR, OTTOS, WELL SORTED, VERY STRONGLY OXIDIZED (YELL LIM. PHOSPH. ILM STAIN)
21.0 - 24.0	SAND, LT. BROWN (5YR 6/4), CLAYTY P.D., SAND IS VF - F, COMP. Q/A, STRONGLY OXIDIZED (MAINLY LIME PINK ILM STAIN), MINOR YELL. LIM. STAIN
24.0 - 27.0	SAND, GRAYISH ORANGE PINK (5YR 7/2), AS FOR 21.0 - 24.0
27.0 - 31.0	SAND, PALK YELL BROWN (10YR 5/4), FG, W.R., OTTOS, VERY WELL SORTED, STRONGLY FE STAINING (YELL. LIME AT TAN HEM STAIN)
31.0 - 34.0	SAND, DK YELL ORANGE (10YR 6/6), V.F.G, HEMAT. SUBR - P, QTY. 1, WELL SORTED, VERY STRONGLY LIM STAINED > 80%
34.0 - 48.0	SAND, PALK RLT. PURPLE (5R 6/2) & LT. OLIVE GRAY (6Y 6/1) COMP. Q/A, VF - F, WEL. SORTED, MODERATE FE STAINING
ABANDONED DUE TO LOST CIRCULATION	



GEOPHYSICAL LOG		DEPTH	STRIP LOG	Ox.
Logged	Not	10		OXIDATION SURFACE
		20		
		30	T.D.	
		40		
		50		
		60		
		70		
		80		
		90		
		100		
		110		
		120		
		130		

PROJECT STURT VALE HOLE NO. SV 2 Abn.

☐ AIR ☒ WATER LOGGED BY S. D. BURNS DATE 12-7-1979

HOLE SIZE 12 cm T.D. 30.0 m P.D. —

ELEVATION \_\_\_\_\_ LOCATION \_\_\_\_\_

MAP STURT VALE PROJECT SCALE 1:50 000

## LITHOLOGY LOG

0-3.0 SILT, LT. BROWN (SYRS/6), GRAVELLY, ABOT CALC.  
CONCRETIONS, COMPLETELY OXIDISED.

3.0-12.0 SILT, LT. BROWN (5Y4S/6) COMPLETELY Fe STAINED

12.0 - 15.0 SAND, LT. BROWN, GRAVELLY AT BASE, SUBR-R. MAIN

M-C, MOD-POOR SORTING, COMPOSED OF ABOV QTR & IRONSTONE, VERY STRONGLY Fe STAINED.

15.0 - 30.0 CLAY, MOTTLED DK YELL. ORANGE, LT GRY, LT. BAN & MOD  
RED BROWN, ABDT FC STAINING > 70%.

HOLE ABANDONED AT 30.0 m BECAUSE  
OF LOST CIRCULATION.



**Ox.**

☐ AIR ☒ WATER LOGGED BY S.D. BURNS DATE 3-7-1979

ELEVATION \_\_\_\_\_ LOCATION \_\_\_\_\_

MAP STURT VANE PROJECT SCALE 1:50,000

0 - 4.5m SOIL, GRAVELLY, LT BROWN (5YR 5/6). SLIGHTLY SAND.  
OTZOSE

4.5 - 9.0 m GRAVEL & SILTCL. MOD. BROWN (CYR 4/4) GRAVEL IS  
COMPOSED MAINLY OF WELL ROUNDED QZ, IRONSTONE, META ROC  
FRAGS & ANGULAR CHERT FRAGS - SILTCL. TO GYPSUM & CONCRETION.

9.0 - 16.0 m SILTY CLAY, MOTTLED MOD. RED BROWN (10R4/6) & LT GRAY  
(NT), ADDB HEM STAIN 50-60%, GRAVELLY a/c "5X0.5"

16.0 - 20.4 m CLAY, MOTTLED DK YELL ORANGE (10YR 6/6), & LT GRAY (N7)

20.4 - 32.0 CLAY, MOTTLED MOD RED. BROWN (10R 4/6), LT GRAY (N7) &

TR YELL LIMONITE STAIN HEM STAIN / 00%.

32.0 - 37.2 SAND, CLAYE a/a, SAND IS AT GRV (N7), VF-F, OTZATE  
SAND, STAINST DEPRIDED (SAND STAIN) 30%. WELL

37.2 - 55.4 SAND, SLIGHTLY CLAYEY w/ "FLOUGH" SAND AS FOR 32-37.2

55.4 - 59.7 SAND, VERY CLAYEY, SAND F-GRAINED COMP a/c. CLAY  
IS LT DRK GR YELL & BROWN STRONGLY OXIDISED.

59.7 - 65.2 CLAY, DK GRY - BLACK (N3-N1) CARBONACEOUS SLIGHTLY  
SANDY & MINOR YELL & RED LIT & HEM STAIN 10-20%

65.2 - 81'4 CLAY, SANDY, DK GRY-BLACK (N3-N1), TR LIGITE AT TOP  
SAND IS V. STRONGLY OXIDIZED, QZOS, AODT UNIDENTIFIED  
SHELL FOSSILS (GASTROPODS & BIVALVES).

81'4 - 92.6 CLAY, DK GRY-BLACK a/a, SILTY. GREENISH GRY (SGY 6/1)  
CARBONACEOUS ARDT UNIDENTIFIED SHELL FRAGS

92.6 - 97.7 CLAY, DK GRY a/c, VERY SHALY, CARB?, SMTY a/a.

TD

DOLE # SV-3SV3

## LOGGING DATA

[illegible]

## GEOPHYSICAL LOG

DEPTH

STRIP  
LOG

OK

PROJECT STURT VALE HOLE NO. SV 4☐ AIR☒ WATERLOGGED BY S.D. BURNS DATE 4-7-1979HOLE SIZE 12 cm T.D. 85.4 m P.D. 85.0 m

ELEVATION \_\_\_\_\_ LOCATION \_\_\_\_\_

MAP STURT VALE PROJECT SCALE 1:50,000

## LITHOLOGY LOG

- 0 - 3.0 SOIL, SLIGHTLY GRAVELLY, LT. BROWN (5YR 6/6)
- 3 - 11.6 GRAVEL AND SILTCLAY, MOD. BROWN (5YR 4/4). GRAVEL IS COMP. OF QTZ. ILLUSTRATED MEDIA EACH FRAG. & CHERTY FRAG. (GRANITE). LARGEST OF WHICH WERE ROUNDED PEBBLES UP TO 15cm IN DIA. CHERT IS MAINLY ANG. FRAGS. TR. GYSSUM.
- 11.6 - 17.6 SILTY CLAY, MOTTLED MOD. RED. BROWN (10R 4/6) & LT. GRAY (N7) ADDT. HEM STAIN > 70%.
- 17.6 - 31.6 CLAY, SLIGHTLY SILTY, MOTTLED MOD. RED ORANGE (10R 6/6), LT. GRAY & MOD. YELL (5Y 7/6) ADDT. LIM & HEM STAIN > 80%.
- 31.6 - 42.0 CLAY, MOTTLED MOD. RED (5R 4/6) - VERY DK. RED (5R 2/6) & MOD. LT. GRAY (N6), TR. YELL. LIM. STAIN, ADDT. RED HEM STAIN > 40%.
- 42.0 - 48.2 CLAY, SILTY, MOTTLED MED. GRAY (N5), MOD. - VERY DK. RED & MOD. YELL. STRONGER HEM STAIN AT TOP, DECOMING STRONGLY LIM. STAINED AT BASE.
- 48.2 - 58.0 SAND, CLAYEY SILTY S/G, TR. MED. GRAY MUDSTONE, SAND IS LT. GRAY & DK. YELL. ORANGE. VF, SUB A - SUB B. Q. CLOSE. STRONGLY OXIDISED (LIMONITIC STAINING > 40%), WELL SORTED. TR. RED-BROWN CLAYSTONE.
- 58.0 - 66.6 CLAYSTONE, SANDY S/G VARICOLOURED (GRAY, YELL, PURPLE, RED, BROWN) STRONGLY OXIDISED (LIM & HEM STAIN), HARD BAND @ 62 - 66.6m.
- 66.6 - 85.4 CLAYSTONE & MUDSTONE, DK. GRAY (N8), ADDT. VARICOLOURED CLAYSTONE S/G "SLOUGH"? CARBONACEOUS? ADDT. UNIDENTIFIED SHELL FOSSILS PARTICULARLY AT TOP, ALSO A VF SAND AS FOR 48.2-58m OCCURS AT 69 - 73m.

T.D.



HOLE #

SV4

LOGGING DATA

Project Name		Hole Name		Date	
SV4		SV4		4-7-79	
Location		Geologist		Logger	
STURT VALE PROJECT		S.D. BURNS		S.D. BURNS	
Core Description		Core Number		Core Length	
11.6 - 17.6		1		6.0m	
17.6 - 31.6		2		14.0m	
31.6 - 42.0		3		10.4m	
42.0 - 48.2		4		6.2m	
48.2 - 58.0		5		9.8m	
58.0 - 66.6		6		8.6m	
66.6 - 85.4		7		18.8m	
Total		7		73.0m	
Remarks		Remarks		Remarks	
See log for details		See log for details		See log for details	

**LITHOLOGY LOG**

0 - 7.5	SOIL, SLIGHTLY GRAVELLY, SILTY & SANDY, LT. BROWN (5 YR 5/6), QTLSE, IRONSTONE PEBBLES. COMPLETELY OXIDISED
7.5 - 12.0	CLAY, SILTY, LT BROWN (5 YR 5/6) & MOD. RED BROWN (10R 4/6) COMPLETELY OXIDISED (HEM. STAIN).
12.0 - 28.2	CLAY, DK YELL ORANGE (10YR 6/6) & LT. BROWN (5 YR 5/6) VERY STRONGLY OXIDISED (KIM & HEM STAIN > 90%)
28.2 - 43.2	CLAY, MOTTLED MOD. RED. BROWN (10R 4/6), VERY DK RED (5R 2/6) & LT. GRAY (NT) STRONGLY OXIDISED > 50%
43.2 - 48.6	SILTY CLAY, MOTTLED LT GRAY (NT), MOD YELL (5Y 7/6), MOD. RED BROWN (10R 4/6) & VERY DK. RED (5R 2/6), STRONGLY OXIDISED > 50%
48.6 - 64.0	CLAYEY SAND, CLAY & S, SAND IS DUSKY YELL (5Y 6/6) GRADES FROM SIAT SIZE AT TOP TO F-M GRAINED AT BASE (MAINLY V.F), QTLSE, TR. BLACK ACCESSORY MOD - GOOD SORTING, VERY STRONG KIM. STAINED > 90%
64.0 - 85.4	CLAY, SLIGHTLY SILTY & SANDY & S, CLAY IS DK GRAY (NT) BLACK (NT), CARBONACEOUS, ABDT UNIDENTIFIED SHEAL SHEAL FOSSILS ESP. AT BASE.

**LOG**

LOGGING DATA

SV-5

<p><b>Project</b></p> <p><b>Location</b></p> <p><b>Geological Survey of Canada</b></p>	<p><b>Well Name</b> SV-5</p> <p><b>Well Depth</b></p> <p><b>Well Type</b></p>	<p><b>Well Owner</b> Geo. H. H. H.</p> <p><b>Well Status</b></p> <p><b>Well Date</b></p>
<p><b>Well Log</b></p> <p><b>Well Description</b></p> <p><b>Well Notes</b></p>	<p><b>Well Log</b></p> <p><b>Well Description</b></p> <p><b>Well Notes</b></p>	<p><b>Well Log</b></p> <p><b>Well Description</b></p> <p><b>Well Notes</b></p>

PROJECT STURT VALE HOLE NO. SV 6  
To 33m  
☒ AIR ☒ WATER LOGGED BY S.D. BURNS DATE 5-7-79  
HOLE SIZE 12 cm T.D. 73.0 m P.D. 72.6 m  
ELEVATION \_\_\_\_\_ LOCATION \_\_\_\_\_  
MAP STURT VALE PROJECT SCALE 1:50,000

0 - 6.0 S&L, SANDY, SILT, MINOR GRAVEL, COMPOSED OF QZ, IRONSTONE & CALC. LENTICLES, TR. GYPSUM, POORLY SORTED, MOD. BROWN (5YR 4/4), COMPLETELY OXIDIZED.

6.0 - 16.7 SILT, LT. BROWN (5YR 5/6), COMPLETELY OXIDIZED (HEM. STAIN)

16.7 - 19.6 SAND, MOD. YELL. BROWN (5YR 5/4), VF - GRAVEL SIZE (MAINLY VF-M, POORLY SORTED, COMPOSED OF QZ, IRONSTONE, SUBR-R, TR. BLACK ACCESSORY, STRONGLY OXIDIZED (MAINLY LIM. STAINING)

19.6 - 28.0 SILT, MOD. ORANGE PINK (5YR 8/4), COMPLETELY Fe STAINED (MAINLY HEM.)


28.0 - 32.0 SILT, LT. BROWN (5YR 5/6), COMPLETELY Fe STAINED (HEM.)

32.0 - 46.0 CLAY, MOTTLED LT. GRAY (N7), MOD. RED BROWN (10R 4/6), & VERY DK. RED (5R 2/6), STRONGLY OXIDIZED > 20%.

46.0 - 54.0 CLAY, MOTTLED DK. YELL. ORANGE (10YR 6/6), LT. GRAY (N7) & MOD. RED (5R 4/6), ABOV. LIM. & HEM. STAIN > 50%.

54.0 - 57.0 SAND, YELL. GRAY (5Y 8/1), F-M, QTLSE, TR. BLACK ACCESSORY, SUBA - SUBR, NO PYRITE EVIDENT, SLIGHTLY CLAYEY & /a. "SLOUGH", KAU?, STRONGEST LIMONITIC.

57.0 - 73.0 CLAY, MOTTLED MOD. YELL (5Y 7/6), DK. YELL. ORANGE (10YR 6/6), LT. GRAY (N7) & MINOR MOD. RED (5R 4/6), VERY STRONGLY OXIDIZED, MAINLY LIM. STAIN > 80%. (PROBABLY WEATHERED BASEMENT)

 GOVERNMENT PRINTING OFFICE: 1963 O - 345-084 Made in the U.S.A.		HOLE LOGGING DATA		# <b>SY-6</b>
DATE <b>10-27-72</b>				
Company	<b>Sidgwick</b>	Well Number	<b>5-56</b>	
Location	<b>Somerset</b>	Section	<b>20-40</b>	
State	<b>Mass</b>	County	<b>Worcester</b>	
City	<b>Worcester</b>	Section	<b>20-40</b>	
Well	<b>10-10</b>	Section	<b>20-40</b>	
Drill	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b>	
Notes	<b>10-10</b>	Section	<b>20-40</b>	
Remarks	<b>10-10</b>	Section	<b>20-40</b>	
Log	<b>10-10</b>	Section	<b>20-40</b> </	

## GEOPHYSICAL LOG

DEPTH

STRIP  
LOG

Or.

SV7

PROJECT STURT VARE HOLE NO. SV7

To 25.5m



AIR



WATER

LOGGED BY S D BURNS DATE 5-7-79HOLE SIZE 12 cm T.D. 73.2m P.D. 72.8m

ELEVATION \_\_\_\_\_ LOCATION \_\_\_\_\_

MAP STURT VARE PROJECT SCALE 1:50,000

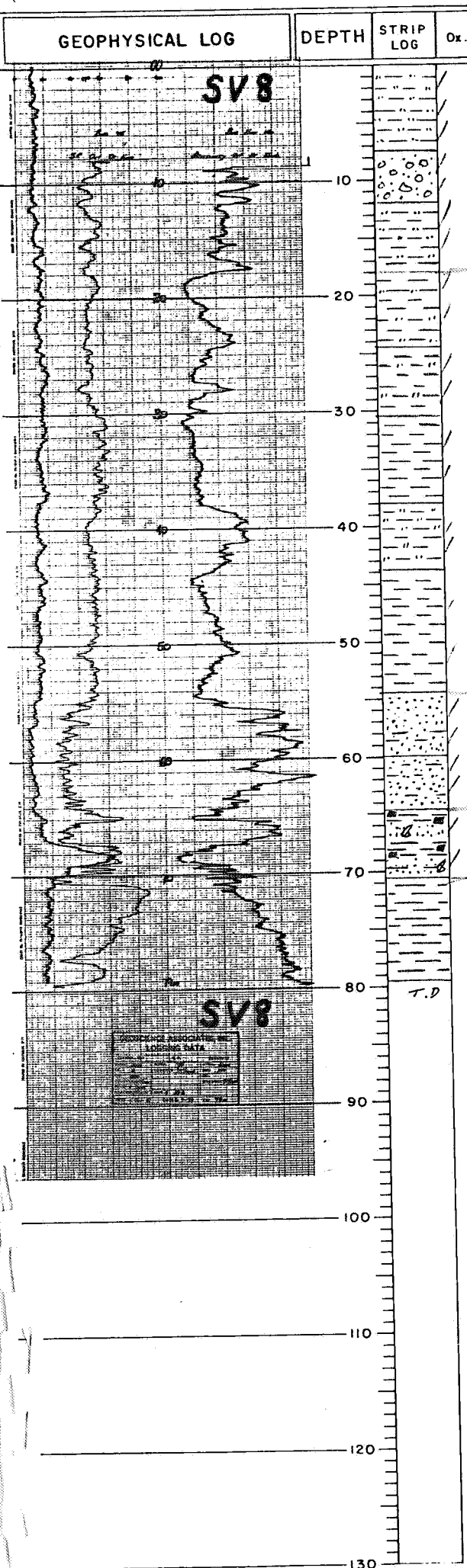
## LITHOLOGY LOG

- 0 - 4.5 SOIL, CLAYEY & SILTY, LT BROWN (5 YR 6/4), TR XTALINE GYPSUM, COMPLETELY OXIDISED (HEM STAIN)
- 4.5 - 9.0 SILT, GRAYISH ORANGE (10 YR 7/4), COMPLETELY OXIDISED (MAINLY LIM. STAINING)
- 9.0 - 12.9 SILT, GRAYISH ORANGE & LT BROWN (5 YR 5/6), COMPLETELY Fe STAIN
- 12.9 - 17.2 SILT, DK YELL ORANGE (10 YR 6/6), COMPLETELY LIM STAINED
- 17.2 - 21.4 CLAY, MOTTLED MOD RED (5R 4/6), MOD RED BROWN (10 R 4/6), MINOR DK YELL. ORANGE (10 YR 6/6) & LT GRAY (N7) STRONGLY OXIDISED (LIM & HEM > 80%).
- 21.4 - 35.5 CLAY, MOTTLED LT GRAY (N7), MOD RED (5R 4/6), MOD RED BROWN (10 R 4/6), STRONGLY OXIDISED > 40% (HEM STAIN).
- 35.5 - 39.4 SAND, SILTY & VERT CLAYEY G/L, SAND IS LT GRAY, OTTUSE, SUBA - SUBR, TR. BLACK ACCESSORY, VF GRAINED, WELL SORTED, MOD Fe STAINING (LIM).
- 39.4 - 64.2 CLAY, LT. DAVISH GRAY & DK YELL. ORANGE, KACHINITIC? CLAY BECOMES TOTALLY LIMONITE STAINED TOWARDS BASE, A LATERITE ZONE COMPOSED OF ABDT RED-BROWN IRONSTONE (HEMATITE) GRAINS (GRAVELLY) OCCURS @ 50.2 - 52.6m. (PROBABLY WEATHERED BASEMENT)
- 64.2 - 73.2 SILT, BLACK, METALLIC SHEEN, HEMATITIC, IRONSTONE (BASEMENT)

T.D.

HOLE # **SV-7**  
LOGGING DATA

Depth (m)	Interval (m)	Remarks	Remarks
0.0	0.0 - 4.5	SOIL, CLAYEY & SILTY, LT BROWN (5 YR 6/4), TR XTALINE GYPSUM, COMPLETELY OXIDISED (HEM STAIN)	
4.5	4.5 - 9.0	SILT, GRAYISH ORANGE (10 YR 7/4), COMPLETELY OXIDISED (MAINLY LIM. STAINING)	
9.0	9.0 - 12.9	SILT, GRAYISH ORANGE & LT BROWN (5 YR 5/6), COMPLETELY Fe STAIN	
12.9	12.9 - 17.2	SILT, DK YELL ORANGE (10 YR 6/6), COMPLETELY LIM STAINED	
17.2	17.2 - 21.4	CLAY, MOTTLED MOD RED (5R 4/6), MOD RED BROWN (10 R 4/6), MINOR DK YELL. ORANGE (10 YR 6/6) & LT GRAY (N7) STRONGLY OXIDISED (LIM & HEM > 80%).	
21.4	21.4 - 35.5	CLAY, MOTTLED LT GRAY (N7), MOD RED (5R 4/6), MOD RED BROWN (10 R 4/6), STRONGLY OXIDISED > 40% (HEM STAIN).	
35.5	35.5 - 39.4	SAND, SILTY & VERT CLAYEY G/L, SAND IS LT GRAY, OTTUSE, SUBA - SUBR, TR. BLACK ACCESSORY, VF GRAINED, WELL SORTED, MOD Fe STAINING (LIM).	
39.4	39.4 - 64.2	CLAY, LT. DAVISH GRAY & DK YELL. ORANGE, KACHINITIC? CLAY BECOMES TOTALLY LIMONITE STAINED TOWARDS BASE, A LATERITE ZONE COMPOSED OF ABDT RED-BROWN IRONSTONE (HEMATITE) GRAINS (GRAVELLY) OCCURS @ 50.2 - 52.6m. (PROBABLY WEATHERED BASEMENT)	
64.2	64.2 - 73.2	SILT, BLACK, METALLIC SHEEN, HEMATITIC, IRONSTONE (BASEMENT)	



PROJECT STURT VALE HOLE NO. SV8

To 12m

☒ AIR ☒ WATER LOGGED BY S.D. BURNS DATE 6-7-79

HOLE SIZE 12 cm T.D. 79.4m R.D. 79.0m

ELEVATION \_\_\_\_\_ LOCATION \_\_\_\_\_

MAP STURT VALE PROJECT SCALE 1:50,000

## LITHOLOGY LOG

0-7.5 SOIL, LT. BROWN (5YR 5/6), SILTY, COMPLETELY OXIDISED (HEM).

7.5-12.0 GRAVEL, MOD BROWN (5YR 4/4) - LT BROWN (5YR 5/6), COMPOSED OF ABDT QZ, IRONSTONE & DOLOMITIC FRAGMENTS, MAINLY SUBR, POORLY SORTED, COMPLETELY OXIDISED.

12.0-18.0 SILT, CLAYEY, MOTTLED DK YELL ORANGE (10YR 6/6), LT GRAY (N7), & MINOR MOD RED BROWN (5YR 4/6), STRONGLY Fe STAINED (MAINLY LIMONITIC) > 50%.

18.0-24.4 SILTY CLAY, MOD RED BROWN (10YR 4/6) & GRISH YELL (5Y 6/4), MINOR LT. GRAY (N7) ABDT LIM & HEM STAINED > 90%.

24.4-30.4 CLAY, SILTY, MOD RED (5YR 4/6), LT. GRAY (N7) & MINOR DK YELL. ORANGE (10YR 6/6), STRONGLY OXIDISED (MAINLY HEM.) > 80%.

30.4-38.0 CLAY, MOD. RED (5YR 4/6) & MED. GRAY (N5), MINOR DK YELL ORANGE STRONGLY OXIDISED - MAINLY HEM STAIN > 70%.

38.0-43.9 CLAY, VERY SILTY, LT. GRAY, MOD. RED & VERY DK RED (5YR 2/6) ABDT VERY DK RED HEMATITE GRAINS (SOME PLUME SIZE), MINOR MOD YELL LIM STAIN.

43.9-54.6 CLAY, LT GRAY WITH MOD YELL & RED LIM & HEM STAIN > 20%.

54.6-60.0 SAND, DUSKY YELL (5Y 6/4), MAINLY F-M GRAINED WITH SOME VC GRAINS AT BASE, QZOSE, SUBR-R, TR. BLACK ACCESS CLAYEY a/a. COMPLETELY LIM STAINED. NO PYRITE OBVIOUS.

60.0-64.8 SAND, CLAYEY & SILTY a/a, DK YELL ORANGE (10YR 6/6), SAND IS VF, QZLOSE, ABDT SUBR-A IRONSTONE GRAINS (VL- PLUME SIZE) LATERAL, QZ IS COMPLETELY LIM. STAINED. TR. BLACK ACCESS.

64.8-70.6 CLAY, SANDY, CLAY IS DK GRAY (N3), CARBONACEOUS, SAND GRADES FROM SILT SIZE TO VC, QZLOSE, SUBA-SUBR, ABDT UNIDENTIFIED SHELL FOSSILS, STRONGLY OXIDISED (LIM STAINED) (MARINE CLAY & SAND SEQUENCE).

70.6-79.4 SLATE, BLACK (N1), FISSILE, (BASEMENT).

**SV8**

LOGGING DATA

Project	STURT VALE	Hole No.	SV8
Date	6-7-79	Location	
Logged By	S.D. BURNS	Scale	1:50,000
Hole Size	12 cm	T.D.	79.4m
Elevation		R.D.	79.0m
Map	STURT VALE PROJECT	Scale	1:50,000

PROJECT STURT VALE HOLE NO. SV 9

☒ AIR ☐ WATER LOGGED BY S.D. BURNS DATE 6-7-79

HOLE SIZE 12 cm T.D. 19.8 m P.D. 19.8 m

ELEVATION \_\_\_\_\_ LOCATION \_\_\_\_\_

MAP STURT VALE PROJECT SCALE 1:50,000

## LITHOLOGY LOG

0 - 6.0	SILT, LT. BROWN (5 YR 5/6), COMPLETELY OXIDISED (HEM. STAIN)
6.0 - 12.0	GRAVEL, MOD. BROWN (5 YR 4/4) - LT. BROWN (5 YR 5/6) COMPOSED OF ROCKY SORTED, SUBR-SUBR, QZ, IRONSTONE, DOMONITIC & METAMORPHIC PEBBLES, COMPLETELY OXIDISED.
12.0 - 15.0	SILT, GRAVELLY 1/2 "SLOUGH", LT. BROWN, SAME AS SILT AT 0-6.0m.
15.0 - 18.0	GRAVEL, MED BROWN - LT. BROWN 2/2.
18.0 - 19.5	SILT 2/2.
19.5 - 19.8	PROBABLE BASEMENT - XTALLINED - DRILL BIT COULD PENETRATE NO FURTHER INTO THIS FORMATION

PROJECT STURT VAKE HOLE NO. SV-10  
To 12 cm  
☒ AIR ☒ WATER LOGGED BY SD BURNS DATE 7-7-79  
HOLE SIZE 12 cm T.D. 71.7m P.D. 71.4m  
ELEVATION \_\_\_\_\_ LOCATION \_\_\_\_\_  
MAP STURT VAKE PROJECT SCALE 1:50,000

0 - 4.5	SOIL, SILTY, LT. BROWN (5YR 5/6), ABDT CALC CONCRETIONS - PEBBLE SIZE. COMPLETELY OXIDISED. (HEM. STAIN)
4.5 - 6.0	GRAVEL, LT. BROWN (5YR 5/6) COMPOSED OF QZ, ILLUSTOPE, OLIGOMITIC & METAMORPHIC PEBBLES. POORLY SORTED, SUB-R, COMPLETELY OXIDISED.
6.0 - 12.0	SILT, GRAVELLY w/c, GRAYISH ORANGE (10YR 7/4), COMPLETELY OXIDISED
12.0 - 21.6	CLAY, SILTY, MED RED BROWN (10R 4/6), SLIGHTLY GRAVELLY AT TOP, "LEUGH" COMPLETELY FC STAINED (MAINLY HEMATITE)
21.6 - 34.4	CLAY, SLIGHTLY SILTY, LT. BROWN (5YR 5/6) & DK YELL ORANGE (10YR 6/6), COMPLETELY LIM & HEM. STAINED.
34.4 - 41.0	CLAY, DUSKY YELL (5Y 6/4), LT. GRAY (N7) & MINOR MED RED (5YR 6/6), STRONGLY OXIDISED (MAINLY LIM. STAIN) > 60%
41.0 - 53.0	CLAY, MOTTLED LT - MED DK GRAY (N7-N4), DUSKY RED (5YR 3/4) & MINOR DK YELL ORANGE (10YR 6/4) LIM & HEM STAIN ~ 20%

SAND, CLATEY IN PARTS FROM GEOPHYSICAL LOG.  
LOG CHARACTERISTIC INDICATES THAT THIS LOWER  
SECTION IS QUITE PYRAITIC.

[illegible]



**Ox.**

SV-11

To 33.5m

☒ AIR☒

WATER

LOGGED BY S. D. BURNS

DATE 8-7-79

HOLE SIZE 12 cm T.D. 77.8 m P.D. 77.4 m

ELEVATION \_\_\_\_\_ LOCATION \_\_\_\_\_

MAP STURT VALE PROJECT SCALE 1:50,000

0-3.0 Silt, LT BROWN (5YR 5/6), ADULT CARL CONCRETIONS,  
COMPLETELY FO STAINED.

3.0-6.0 GRAVEL, LT BROWN (5YR 5/6) & GRAYISH ORANGE (10YR 7/6) COMPOSED  
OF DOLOMITIC, QZ, IRONSTONE & METAMORPHIC PEGBLBS, POORLY SORTED  
SUBR-R, COMPLETELY OXIDIZED.

6.0-16.5 CLAYEY SILT, MOTTLED MOD RED BROWN (10R 4/6), GRY ORANGE (10YR 7/6),  
DRYEN ORANGE (10YR 4/6), LT BROWN (5YR 5/6), VERY DK RED (5R 2/6) & MINOR  
LT. OLIVISH GR (5B 7/1), STRONG LIM & HEM STAIN > 80%.

16.5-24.0 SILT, CLAYEY, LT. BRN (5YR 5/6), COMPLETELY FO STAINED)

24.0-25.5 SILT, GRISH YELL 5Y 8/4 & OLIVISH WHITE (5B 9/1). LIM STAIN > 60%.

25.5-28.5 SILT. AS FOR SILT AT 16.5-24.0 m.

28.5-31.5 SILT, MOTTLED LT GR (N7), LT BROWN (5YR 5/6), MINOR MOD YELL  
(5Y 7/6), LIM & HEM STAIN ~ 20%.

31.5-34.2 CLAY, DUSKY YELL (5Y 6/4), LT GRY (N7) & MINOR LT. BRN (5YR 5/6),  
LIM & HEM STAIN > 50%.

34.2-37.7 CLAY MOTTLED VERY LT GRY - LT. MED GRY (N8-N6), MOD YELL  
(5Y 7/6), & MOD RED. BROWN (10R 4/6), LIM & HEM STAIN > 40%, KAR.

37.7-47.4 CLAY, DK. GRY & MOD RED BROWN (10R 4/6), CARBONACEOUS?,  
HEM. STAIN > 30%.

47.4-54.2 SILT, VARICOLOURED, STRONGLY LIM & HEM STAINED > 60%.

54.2-60.0 SAND, SLIGHTLY CLAYEY & /a, YELL GRY (5Y 7/2), VF-F,  
QZOSE, TR GLACE ACCESSORY, WELL SORTED, SUBR-R, YELL LIMONITIC  
FACIES (WEATHERED PIRITE?), TR. KACHINITE, STRONG LIMONITE STAINING

60-77.7 LOST CIRCULATION - NO SAMPLES.

FROM GEOPHYSICAL LOG IT APPEARS THAT  
57.4 - 62.0 m IS A CLAY, SLIGHTLY SILTY  
62.0 - 68.2 m IS A SAND, WHILE  
68.2 - 77.7 m IS A SANDY CLAY

GEOSCIENCE ASSOCIATES, INC.  
LOGGING DATA

[illegible]

PROJECT STURT VARE HOLE NO. SV-12

To 12.0m

☒ AIR

☒ WATER

LOGGED BY S.D. BURNS

DATE 7-7-79

HOLE SIZE 12 cm T.D. 73.0 m P.D. 72.6 m

ELEVATION \_\_\_\_\_ LOCATION \_\_\_\_\_

MAP STURT VARE PROJECT SCALE 1:50,000

LITHOLOGY LOG

0-7.5 SIAT, GRAVELLY, LT BROWN (5YR 5/6), ADBT CALC. CONCRETE (DELOMITE), COMPLETELY FC STAINED, QTZ. PEGBLES.

7.5-10.5 SIAT, DUSKY YELL (5Y 6/4) & DK YELL ORANGE (10YR 6/6), MINOR LT GRAY (N7), FC STAINING > 90%.

10.5-17.6 SIAT, CLAYEY, LT. BROWN (5YR 5/6) & MOD RED BROWN (10R 4/6) MINOR LT GRAY (N7) & MOD YELL (5Y 7/6), VERT STAINING & FC STAIN > 90%.

17.6-21.0 CLAY, LT. GRAY (N7) & LT BROWN (5YR 5/6), MOD. RED BROWN (10R 4/6) & DUSKY YELL (5Y 6/6). LIM & HEM STAIN > 40%.

21.0-26.1 SILTY CLAY, LT. BROWN (5YR 5/6) & GRAYISH ORANGE (10YR 7/4) COMPLETELY LIM & HEM STAINED.

26.1-37.9 CLAY, MOTTLED MED GRAY (N5), DUSKY RED (5R 3/4) & VERY DK. RED (5R 2/1), HEM. STAIN > 30%.

37.9-44.0 CLAY, MOTTLED LT. GRAY (N7), MOD RED (5R 4/6), VERY DK. RED (5R 2/1) & MINOR MOD YELL (5Y 7/6), LIM & HEM STAIN > 40%.

44.0-46.6 SAND, YELL. GRAY (5Y 8/1), VF, QTLSE, KAOL? TR. BLACK ACC

46.6-50.2 ~~CLAY~~ CLAY, MOTTLED VERT LT GRAY (N8), DUSKY YELL (5Y 6/4) & MINOR MED - DK GRAY (N5 - N3), TR. KAOL?, TR. CARB?, STRONGLY LIM. STAINED > 70%.

50.2-52.3 LIGNITIC CLAY, BLACK, CARBONACEOUS, CLAYEY C/A.

52.3-61.3 SAND, GRAYISH YELL. (5Y 8/4), VF-F, WELL SORTED QTLSE TR. MICA, TR. BLACK ACC TR. PYRITE, ADBT LIMONITE & ADBT LIGNITIC CHIPS, CARBONACEOUS, TR. KAOL. STRONGLY LIM STAINED SUBR.

61.3-73.0 CLAY, SANDY C/A, BLACK, CARBONACEOUS, ADBT UNIDENTIFIED SHELL & FORAM FOSSILS.

**PROJECT** STURT VALE **HOLE NO.** SV-13

To 9.0m  
☒ AIR    ☒ WATER    LOGGED BY S.D.BURNS    DATE 8-7-79

HOLE SIZE 12 cm    T.D. 90.4 m    P.D. 90.0 m


ELEVATION \_\_\_\_\_ LOCATION \_\_\_\_\_

MAP STURT VALE PROJECT    SCALE 1:50,000

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### LITHOLOGY LOG

0 - 4.5	SILT, GRAVELLY, LT. BROWN (5YR 5/6), ABDT CALC CONCRETION & QTZ PEBBLES. COMPLETELY Fe STAINED.
4.5 - 11.6	SAND, GRAVELLY & SILTY, LT BROWN (5YR 5/6), COMPLETELY QTZ, IRONSTONE, HEMATITE (METALLIC), BLACK ACCESSORY. POORLY SORTED, SUB-R-R, COMPLETELY Fe STAINED.
11.6 - 20.0	SILT, LT BROWN (5YR 5/6) & DUSKY YELL (5Y 6/4), CHARACTERISTIC Fe
20.0 - 27.9	SILTY CLAY, MOTTLED MED. RED BROWN (10R 4/6), LT. BRN (5YR 5/6), LT. GRAY (N7) & DK YELL. ORANGE (10YR 6/6), Fe staining > 70%.
27.9 - 39.6	CLAY, SILTY, MOTTLED MED LT GRAY (N6), MOD. RED (5R 4/6) - MED. RED BROWN (10R 4/6), MINOR DK. YELL. ORANGE (10YR 6/6), LIM & HEM STAIN > 50%.
39.6 - 45.6	CLAY, MOTTLED MED GRAY (N5) - OLIVE GRAY (5Y 4/1) & DUSKY RE (5R 3/4), OXIDATION > 40%.
45.6 - 54.0	SAND, LT. BROWN (5YR 5/6), VF QTZOSE, TR. IRONSTONE & BLACK ACCESSORY, NO PYRITE E. COMPLETELY Fe STAINED, SUB. CLAYEY G/L
54.0 - 66.0	LOST CIRCULATION - NO SAMPLES RECOVERED
66.0 - 78.0	SAND, MED GRAY (N5), VF-F, QTZOSE, MINOR LIGNITE, SUB-R-R, MINOR PYRITE ABDT FORAMS & UNIDENTIFIED SHELL FOSSILS, TR. BLACK ACCESSORY, WELL SORTED. ABDT YELL LIM STAINING, CLAYEY, CLAY IS VARIOUS THOUGH MAINLY MED-DK GRAY, CARB?, TR. KAGUINITE MARINE - TERTIARY
78.0 - 90.0?	CLAY ON E-LOGS, BUT APPEARS IN SAMPLES AS A SANDY CLAY AS FOR 66.0 - 78.0m



SV-13

LOGGING DATA	
<b>Stratigraphic Column</b> Lithology: Depth: Core: Sample: Test: Analysis: Description: Remarks: Date: By:	<b>Well Data</b> Well No.: Section: Hole No.: Depth: Core: Sample: Test: Analysis: Description: Remarks: Date: By:

## GEOPHYSICAL LOG

DEPTH

STRIP  
LOG

OK

PROJECT STURT VALE HOLE NO. SV-14LOGGED BY S.D. BURNS DATE 9-7-79HOLE SIZE 12 cm T.D. 91.4m P.D. 91.0m

ELEVATION \_\_\_\_\_ LOCATION \_\_\_\_\_

MAP STURT VALE PROJECT SCALE 1:50000

## LITHOLOGY LOG

- 0 - 4.5 Silt, LT BROWN (SYR 5/6), GRAVELLY, COMPOSED OF CALC. CONCRETIONS, QTZ, IRONSTONE FIBRES, COMPLETELY OXIDISED.
- 4.5 - 6.2 GRAVEL, LT BROWN (SYR 5/6) & BLACK (N1), ABDT QTZ & IRONSTONE SUB-R, COMPLETELY Fe STAINED.
- 6.2 - 8.5 Silt a/g.
- 8.5 - 13.2 GRAVEL a/g, PEBBLES UP TO 2 INCHES IN DIAMETER.
- 13.2 - 15.0 SILTY CLAY, SLIGHTLY GRAVELLY a/g "SLOUGH", MOTTLED MOD RED BROWN (10R 4/6), LT. BROWN (SYR 5/6), LT. GRAY (N7) & MINOR DK YELL ORANGE (10YR 6/6) LAMINITE & HEMITHE STAINING > 50%.
- 15.0 - 17.5 SAND, GRAVELLY, LT. BROWN (SYR 5/6), COMP. a/g.
- 17.5 - 20.0 CLAY, SILTY, MOTTLED MOD. RED BRN - LT. BROWN, LT. BLUISH GRAY (5B 7/1) & DK. YELL. ORANGE (10YR 6/6), Fe STAIN > 50%.
- 20.0 - 25.0 SAND, LT - MOD BROWN (SYR 5/6 - SYR 4/2), CLAYEY & SILTY a/g COMPOSED OF QTZ, IRONSTONE, TR. BLACK ACCESS. QTZ. LIGNITE?, MOD. SORTING, SUBA - R, STRONG LIME HEM STAIN > 60%.
- 25.0 - 26.8 CLAY, SANDY a/g, MOTTLED LT. GRAY (N7), MOD. RED BROWN (10R 4/6) & MOD. YELL (5Y 7/6) LIM & HEM STAIN > 50%.
- 26.8 - 40.6 SAND, GRAYISH ORANGE PINK (5YR 7/2) GRADING TO PLE. PINK RED (10R 6/2) AT BASE, VF AT TOP GRADING TO M-C AT BASE. QTZOSE, ABDT BLACK ACCESSORY, TR. KAOL. SUBA - R (MAINLY SUBR), MOD - GOOD SORTING, STRONG LIME & HEM STAINING. MINOR VARI-COLOURED CLAY AT BASE, NO PYRITE EVIDENT.
- 40.6 - 48.8 SAND, GRAYISH ORANGE (10YR 7/4), VF-F COMPLETELY WELL SORTED, VERY STRONGLY LEMONITE STAINED > 70%.
- 48.8 - 52.0 CLAY, SANDY a/g, CLAY IS MOTTLED MED GRAY (N5), MOD YELL (5Y 7/6), MOD RED (5R 4/6) & VERY LT GRAY (N8), KAOL?, CARB? MOD. LIM & HEM STAIN > 50%. SLIGHTLY GRAVELLY - PROBABLY SLOUGH FROM NEAR SURFACE GRAVELS.
- 52.0 - 64.2 SAND, GRAYISH ORANGE (10YR 7/4), AS FOR 40.6 - 48.8m.
- 64.2 - 70.4 SAND, MED. GRAY (N5), QTZOSE, VF-F, TR. MICA, ABDT LIGNITE CHIPS, NO PYRITE OBVIOUS, TR. LEMONITICALLY STAINED IRONING CARBONACEOUS, OXIDATION < 5%, WELL SORTED, SUBA-SUBR (UNOXIDISED).
- 70.4 - 91.4 CLAY, DK GRAY - BLACK (N3-N1), CARBONACEOUS, ABDT UNIDENTIFIED FORAMS & THEIR FOSSILS, SANDY AT 76.3m AND 84.2m, SAND IS QTZOSE, VF-F, WELL SORTED, SUBA-SUBR NO PYRITE EVIDENT.

SV-14

T.D.

LOGGING DATA

HOLE # **SV-14**

DATE **9-7-79**

LOGGED BY **S.D. BURNS**

LOCATION **STURT VALE PROJECT**

SCALE **1:50000**

HOLE SIZE **12 cm**

T.D. **91.4m**

P.D. **91.0m**

ELEVATION \_\_\_\_\_

LOCATION \_\_\_\_\_

MAP **STURT VALE PROJECT**

SCALE **1:50000**

LOGGED BY **S.D. BURNS**

DATE **9-7-79**

LOCATION **STURT VALE PROJECT**

SCALE **1:50000**

HOLE SIZE **12 cm**

T.D. **91.4m**

P.D. **91.0m**

ELEVATION \_\_\_\_\_

LOCATION \_\_\_\_\_

MAP **STURT VALE PROJECT**

SCALE **1:50000**

## 037

PROJECT STURT VALE HOLE NO. SV 15

☐ AIR ☒ WATER LOGGED BY S.D. BURNS DATE 12-7-1977

HOLE SIZE 12 cm T.D. 85.0 m P.D. 84.6 m

ELEVATION \_\_\_\_\_ LOCATION \_\_\_\_\_

MAP STURT VALE PROJECT SCALE 1:50,000

0-1.5 SILT, MOD. YELL BROWN (10YR 5/4), ABDT CARC. NIDULES,  
MINOR F-C SAND, SUBR-R, COMPOSED OF QTZ & IRONSTONE,  
VFAT STRENGTH OXIDISED > 90%.

1.5-6.0 SILT, MOD. RED BROWN (10R 4/6), SLIGHTLY SANDY a/g

6.0-9.3 SILTY CLAY, MOD YELL. BROWN (10YR 5/4) & MINOR LT. GRY (N7)  
& MOD RED BROWN (10R 4/6) Fe STAINING > 80%.

9.3-16.1 SILT, MOD. RED BROWN, AS FOR 1.5-6.0 m.

16.1-39.5 SAND, LT. BRN (5YR 5/6), MINOR DK YELL ORANGE (10YR 6/4)  
& VERY LT. GRY - LT. GRY (N5-N7), CLAYEY, KAOLINITIC??,  
SAND GRADES FROM VFAT TOP TO MED @ BASE, QTZOSE, TR. BLACK  
ACCESSORY SUBA-A, WELL SORTED, NO PYRITE EVIDENT, Fe STAIN. > 90%.

39.5-46.0 SAND, GRAYISH ORANGE (10YR 7/4), MOD YELL (5Y 7/6) & LT. BRN,  
TR. WHITE KAOLINITE, ABDT LIM. & HEM STAIN > 90%, VF-M,  
WITH MINOR COARSE GRAINS & ABDT SILICETE FRAGS, QTZ,  
HEMATITE, TR. SMOKEY QTZ, NO PYRITE EVIDENT, SUBA-R.

46.0-53.1 CLAY, SILTY, DK GRY - BLACK, CARBONACEOUS.

53.1-58.0 SAND, CLAYEY a/g, SAND IS MOTTLED GRAYISH ORANGE (10YR 7/4),  
MOD YELL (5Y 7/6) & MINOR MOD RED BROWN (10R 4/6), VFG,  
SUBR-R, TR. BLACK ACCESSORY, TR. RED MINERAL, TR. PYRITE,  
QTZOSE, STRONG LIM & HEM STAINED > 80%, TR. KAOLINITE,  
CLAY IS BLACK, CARBONACEOUS.

58.0-84.6 CLAY, SILTY & SANDY, CLAY IS DK GRY - BLACK, CARBONACEOUS  
MINOR LIM & HEM STAIN < 5% PYRITE, MASSIVE DULL-SHINY 1-3",  
TR. KAOLINITE.  
LT. OLIVE GRY SHALEY HARD BAND OCCURS @ 70.0m, SLIGHTLY  
SANDY a/g ALSO.-SHEALY  
VERY SANDY @ 71.3-73.2m, MED GRY - GRAYISH ORANGE,  
VFG, COMP a/g, ABDT SHELL FOSSILS. QTZOSE

MARINE TERTIARY

MARINE TERTIARY

[illegible]

GEOPHYSICAL LOG		DEPTH	STRIP LOG	Ox.
				SURFACE OXID. T.D.
		10		
		20		
		30		
		40		
		50		
		60		
		70		
		80		
		90		
		100		
		110		
		120		
		130		

PROJECT STURT VALE HOLE NO. SV 16 Abn.

☐ AIR ☒ WATER LOGGED BY S.D. BURNS DATE 12-7-1979

HOLE SIZE 12 cm T.D. 12.0 m P.D. —

ELEVATION \_\_\_\_\_ LOCATION \_\_\_\_\_

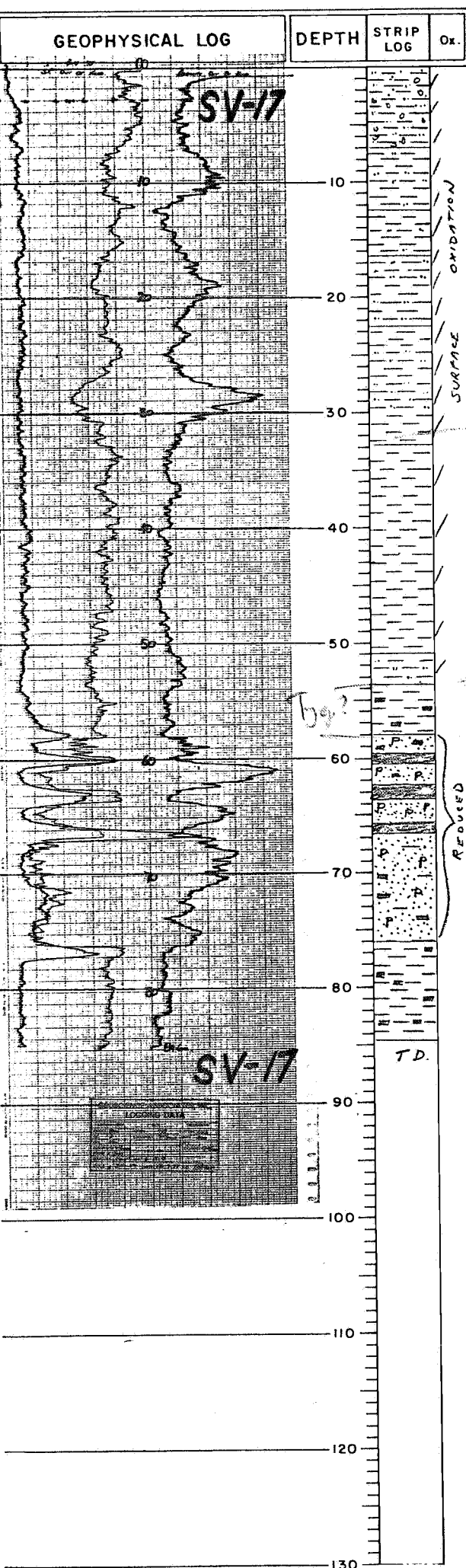
MAP STURT VALE PROJECT SCALE 1:50,000

## LITHOLOGY LOG

0 - 4.5 SILT, LT. BROWN (5YR 5/6), GRAVELLY, ABDT CALC.  
CONCRETIONS & QTZ PEBBLES, COMPLETELY Fe STAINED

4.5 - 12.0 CLAY, MOTTLED DK YELL ORANGE (10YR 6/8) + MOD. YELL (5Y 7/6)  
LT. BROWN (5YR 5/6) & LT GRAY (NT), SILTY, STRONGLY  
OXIDISED > 70%





**PROJECT** STURT VALE **HOLE NO.** SV 17

☐ AIR ☒ WATER **LOGGED BY** S.D. BURNS **DATE** 13-7-1979

**HOLE SIZE** 12 cm **T.D.** 85.0m **P.D.** 84.6m

**ELEVATION**                      **LOCATION**                     

**MAP** STURT VALE PROJECT **SCALE** 1:50,000

**LITHOLOGY LOG**

**0 - 7.0** SILT, SANDY & GRAVELLY, LT. BROWN (5YR 5/6).

**7.0 - 12.3** SILTY CLAY, GRAYISH ORANGE (10YR 7/4) - LT BROWN (5YR 5/6)  
COMPLETELY OXIDISED.

**12.3 - 16.2** CLAY, SILTY, LT BROWN, TR. LT. GRAY (N7), Fe STAIN > 95%.

**16.2 - 22.6** SILT, CLAYEY, MOTTLED DK YELL ORANGE (10YR 6/6), MOD YELL.  
& LT. GRAY, LIMONITIC STAIN > 60%.

**22.6 - 32.9** CLAY, SILTY IN PARTS, MOTTLED MOD REDDISH BROWN (10R 4/6)  
LT. BROWN, LT GRAY & DK YELL ORANGE + MINOR MOD YELL  
VERY STRONG Fe STAINED.

**32.9 - 51.0** CLAY, MOTTLED LT. - MED GRAY, MOD RED BROWN - DUSKY RED  
HEM STAIN > 40%.

**51.0 - 53.7** SILTY CLAY, MOTTLED VERY LT GRAY - LT GRAY, MOD YELL.  
& DK. YELL ORANGE, MOD LIM. STAIN 10-20%, KAOL?

**53.7 - 58.0** CLAY, LIGNITIC, DK GRAY - BLACK, CARBONACEOUS  
PYRITIC, MATRIX TYPE, DULL.

**58.0 - 76.0** SAND, MED - DK GRAY, ABBT LIGNITE; SAND IS VP - M  
PYRITIC, MATRIX TYPE, QTL08, TR. BLACK ACCES, WELL SORTED  
SUBA - SUBR, TR. LIMONITICALLY STAINED KASHINITE, OXID%  
(FRESH-REDUCED) LIGNITIC IN PARTS ESP. @  
59.6 - 60.4m, 62.4 - 63.7m & 65.8 - 66.7m

**76.0 - 84.6** CLAY, DK GRAY - BLACK, CARBONACEOUS.

**LOGGING DATA**

**SV-17**

**DATE** 13-7-1979

**LOGGERS** S.D. BURNS

**PROJECT** STURT VALE

**HOLE NO.** SV 17

**LOCATION**                     

**MAP** STURT VALE PROJECT

**SCALE** 1:50,000

**HOLE SIZE** 12 cm

**T.D.** 85.0m

**P.D.** 84.6m

**ELEVATION**                     

**LOGGING DATA**

**SV-17**

**DATE** 13-7-1979

**LOGGERS** S.D. BURNS

**PROJECT** STURT VALE

**HOLE NO.** SV 17

**LOCATION**                     

**MAP** STURT VALE PROJECT

**SCALE** 1:50,000

**HOLE SIZE** 12 cm

**T.D.** 85.0m

**P.D.** 84.6m

**ELEVATION**

# MINES ADMINISTRATION PTY. LIMITED

(Incorporated in Victoria)

AMP PLACE,  
10 EAGLE STREET,  
BRISBANE, 4000.

Postal Address:

BOX 880 G.P.O.  
BRISBANE, 4001

7th May 1980.

Telephone : 221 2366  
Telegrams : MINAD, Brisbane  
Telex : AA42395

Mr. B.P. Webb,  
Director-General,  
Department of Mines and Energy,  
P.O. Box 151,  
EASTWOOD. S.A. 5063

Dear Sir,

RE: QUARTERLY REPORT - EL 470 (STURT VALE)

Please find enclosed the Quarterly Report for Exploration Licence No. 470 for the quarter ended 24th April 1980. A summary report on all activities carried out on the tenement was sent with the previous quarterly. As this summary report covered all work carried out on the EL during its year of tenure, it is suggested that this report be regarded as a final report on EL 470. Transparencies of plans relevant to this report have been sent to you previously. Expenditure during the quarter totalled \$2,475 - while expenditure from inception to surrender totalled \$23,317 - detailed statements are attached.

If additional information is required please don't hesitate to contact me.

Yours faithfully,  
MINES ADMINISTRATION PTY. LIMITED.



Steve Burns.  
Project Geologist - MTA





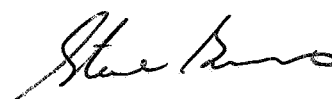
MINES ADMINISTRATION PTY. LIMITED  
TETON EXPLORATION DRILLING CO. PTY. LTD

QUARTERLY REPORT  
EL 470 (STURT VALE) SOUTH AUSTRALIA  
QUARTER ENDED 24-4-80

Exploration Licence 470 covering an area of approximately 739 km<sup>2</sup> was granted to Mines Administration Pty. Limited and Teton Drilling Co. Pty. Ltd on the 25th April 1979 for a period of one (1) year. The tenement is situated approximately 100km south west of Olary.

No further field work was conducted on EL 470 during the quarter ended 24th April 1980. It is recommended that EL 470 (Sturt Vale) be allowed to lapse at the end of its tenure.

Expenditure during the quarter totalled \$2,475 - a detailed statement is attached.



Steve Burns.  
Project Geologist - MTA

BRISBANE

8TH MAY, 1980

MINES ADMINISTRATION PTY LIMITEDSTATEMENT OF EXPENDITURESTURT VALE S.A.QUARTER YEAR ENDED 3.4.80REF : AC/MDE\$

Salaries and Wages

2,397

Drafting, Air Photography,  
Printing, etc.78\$2,475G. B. Monk.  
.....G. B. Monk,  
Accountant.

BRISBANE

8TH MAY, 1980

MINES ADMINISTRATION PTY LIMITEDSTATEMENT OF EXPENDITURESTURT VALE S.A.INCEPTION TO SURRENDERREF : AC/MDE

	<u>\$</u>
Salaries and Wages	7,554
Travel and Accommodation	723
Vehicle Hire	1,165
Communications	153
Freight	9
Drafting, Air Photography, Printing, etc.	248
Laboratory	9,956
Drilling Contractor	3,436
Drilling Consumables	73
	<u>\$23,317</u>

*G. B. Monk*  
.....

G. B. Monk,  
Accountant.