

EXPLORATION LICENCE 4845
ANNUAL REPORT FOR SECOND YEAR OF LICENCE
28 February¹⁹⁸⁷ / to 27 February 1988

by

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for

Harlock Pty Ltd

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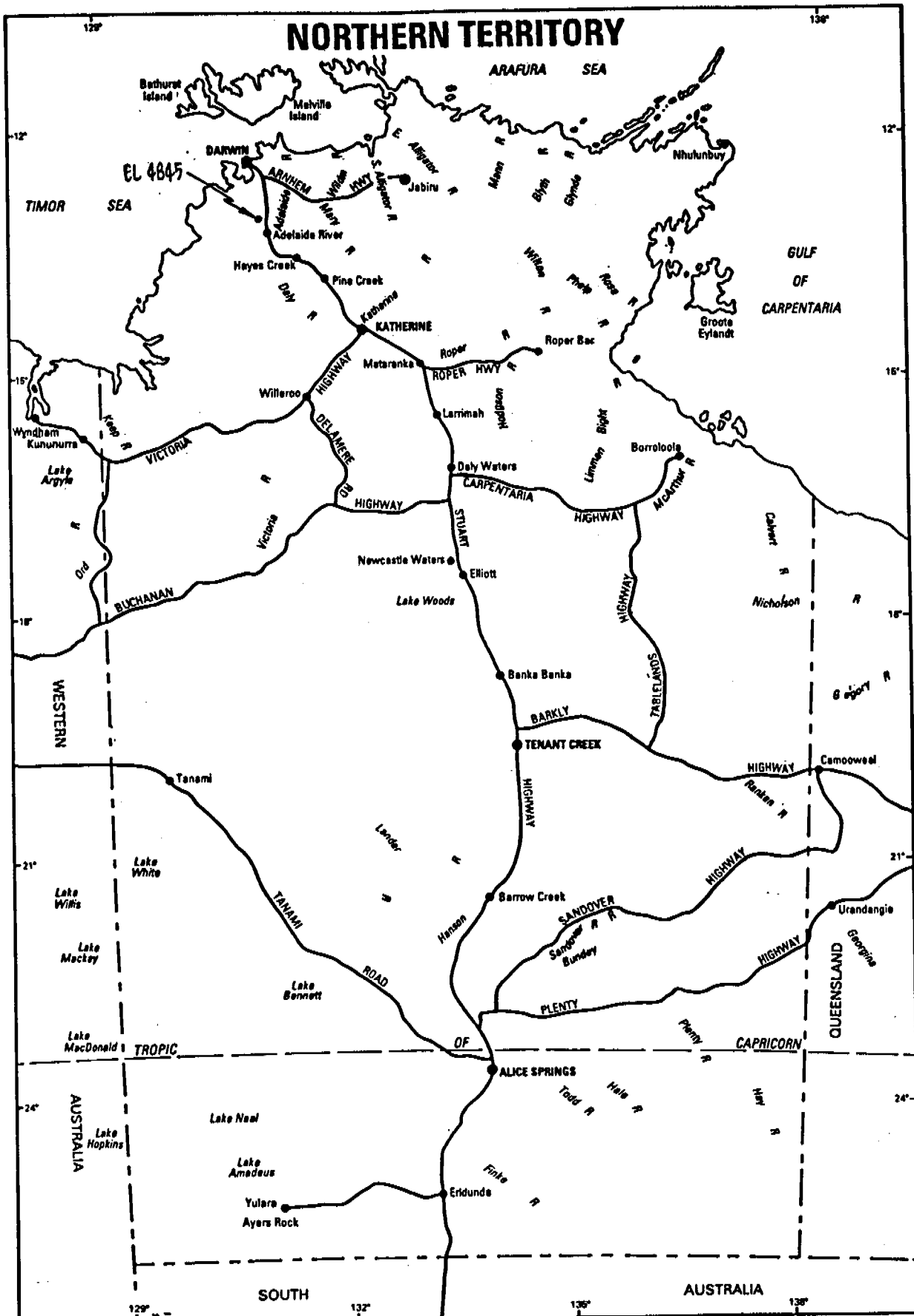
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EXPLORATION LICENCE LOCATION MAP
EL 4845

FIG. 1

1. INTRODUCTION

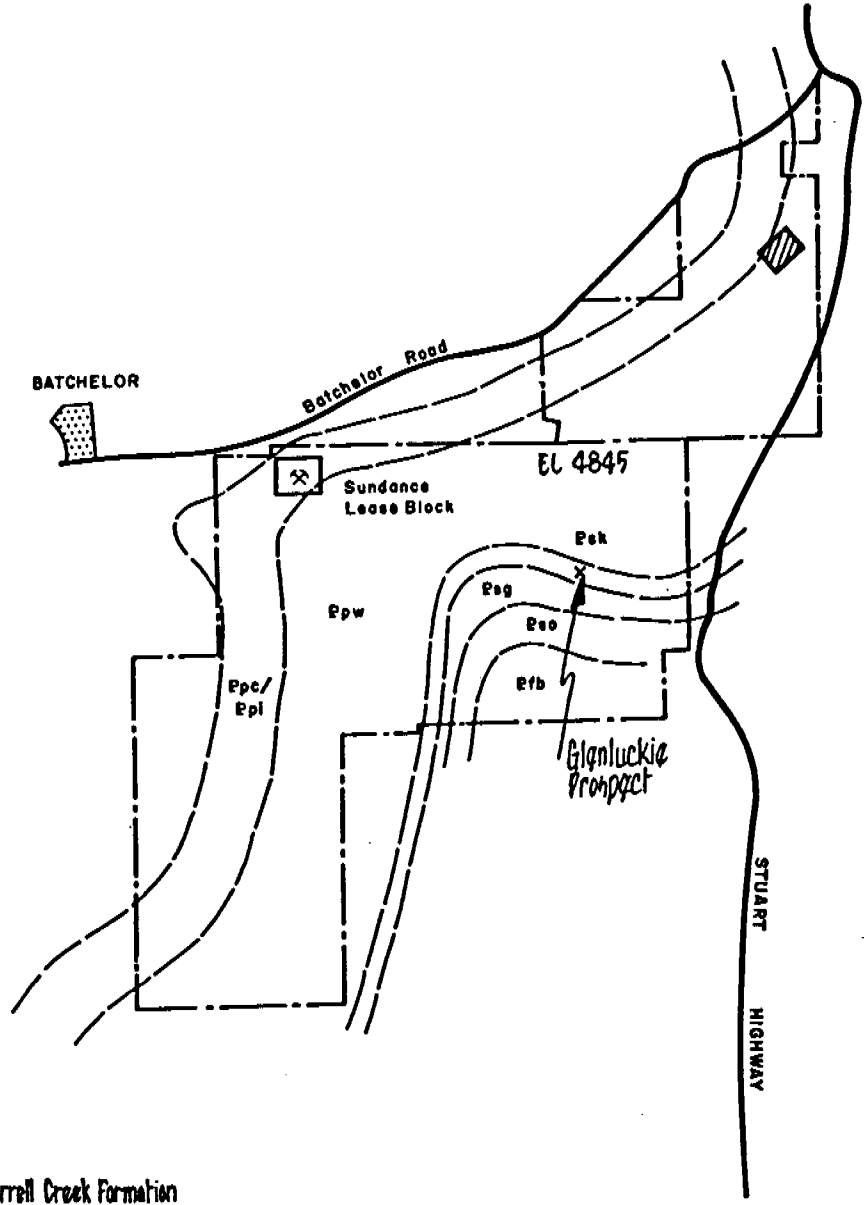
Exploration Licence 4845, which incorporates the Sundance Gold Mine and Glenluckie Prospect, is located 100km south of Darwin and 2km east of Batchelor (Figure 1). It is accessible via a number of gravel tracks off the sealed Batchelor road which borders the EL to the north; and the Stuart Highway, which is close to the EL's eastern boundary.

The Licence area, which covers the host stratigraphy of the nearby Rum Jungle uranium-base metal deposits, has previously been explored in some detail by CRA, BMR, Uranerz, Occidental and Pancontinental. However this exploration did not concentrate on gold, which, after the discovery of significant mineralisation at Sundance, is now the major target.

This report describes the second year's exploration programme which has included survey grid mapping, stream sediment sampling, rock chip sampling and costeaning.

Figure 2 details the geological setting of the exploration licence.

13°00'



- Efb Burrell Creek Formation
greywacke, mudstone
- Eso Mount Bonnis Formation
mudstone, chert, greywacke
- Esg Gerowie Tuff
volcanic chert, mudstone
- Esk Koolpin Formation
carbonaceous mudstone, iron formation
- Epw Wildmen hillstone
mudstone
- Epi/Epe White Formation, Cosmoyle Dolomite
dolomite, magnesite, dolomite, mudstone

GEOLOGICAL SETTING

SUNDANCE AREA

1 km

FIG 2

2. SUMMARY

The second year's programme has included:-

- (i) Stream sediment sampling in locations close to the quartz-ironstone outcrops on the Glenluckie Prospect.
- (ii) More detailed quartz-ironstone outcrop rock chip sampling over the Glenluckie Prospect.
- (iii) Costean sampling from ten east-west trenches in the northwest corner of the exploration licence. The costeans were dug west of the tenement MLN 543 where the Sundance Mine is located.

Sampling was carried out to further delineate the Sundance-type karst-related gold mineralisation mined at Sundance and stratiform gold mineralisation similar to that of Golden Dyke and Cosmopolitan Howley Mines.

3. CONCLUSIONS

- (i) The stream sediment sampling programme revealed some isolated anomalous values in the Glenluckie Prospect area (Appendix A). The isolated results seem to point to a specific geologic outcrop as the source material. A logical geologic or mineralisation theory is difficult to outline.

The geologic unit responsible for the anomalous values is the Koolpin Formation.

- (ii) The rock chip sampling programme also revealed a few isolated anomalous values (Appendix B).
- (iii) Only one significant result arose from the costean sampling programme (Appendix C).

4. RECOMMENDATIONS

- (i) Rock chip sampling will continue on the ferruginous outcrops within the Koolpin Formation. Costeans will be dug in anomalous zones located this year.
- (ii) The ironstone-quartz-hematite breccia outcrops sampled this year will be costeamed in anomalous areas.
- (iii) Drilling will follow-up costean work if anomalous zones are located.

5. TENURE

Exploration Licence 4845 was granted on 28 February 1986. The licence covers an area of 12 blocks, or 32 square kilometres.

The licence for the 1988 programme year has been reduced by half to six blocks.

The licence holders, Mr P Purich and Mr N Byrne, have joint ventured the licence to Harlock Pty Ltd, the trustees for the Mount Bonnie Gold Unit Trust.

6. EXPENDITURE

The proposed expenditure for the first year of the licence was \$50,000.00

Actual expenditure is listed below:-

Stream Sed, Rock Chip, Costean Sampling, Reconnaissance mapping	75 days @ \$200/day	\$ 15,000.00
Surveying	5 days @ \$200/day	1,000.00
Sample Analyses	108 samples @ \$20/sample	2,160.00
Purchase of air photos and literature map research		240.00
Hire and haulage of machinery for costeaning		3,500.00
Reporting		150.00

		\$ 22,050.00
Administration and offices services 15%		3,307.50

	TOTAL	\$ 25,357.50

The proposed expenditure of \$50,000.00 for Year 2 was not met due to two factors:-

- (a) No drilling was carried out, and
- (b) The proposed radiometric survey was not carried out.

7. WORK COMPLETED

7.1 Stream Sediment Sampling

Sixty stream sediment samples were taken over the main stream channels on the Glenluckie Prospect area.

Samples were taken through an 80 mesh size fraction and assayed for gold.

The results are in parts-per-billion (ppb) and reveal three assay result fractions:

< 10ppb Au, 10-20ppb Au and > 20ppb Au

7.2 Rock Chip Sampling

Thirty two rock chip samples were taken over the Glenluckie Prospect area. All were assayed for gold and reveal patchy results in parts-per-million (ppm).

The results reveal three assay fractions;

< 0.5ppm Au, 0.5-2ppm Au and > 2ppm Au

Figure 3 details the stream sediment and rock chip sample locations.

7.3 Costean Sampling

Ten costeams were dug in an east-west orientation west of the Sundance Mine pit (Figure 4). The costeams range in length from 80 m to 450 m (totalling 2595 m) and samples were taken from the dumped material removed from the costean.

A total of 16 samples were taken with only one significant result at 1.714ppm Au (SD-2). Figure 5 details the costeams dug and the geology encountered.

APPENDIX A

ASSAY RESULTS FOR STREAM SEDIMENT SAMPLES

Assay Results for Stream Sediment Samples

Sample No.	Au (ppb)
21602	BDL
21603	BDL
21604	BDL
21605	BDL
21024	24
21025	10
26	13
27	36
28	10
29	13
30	29
31	13
32	12
33	12
34	-
35	13
36	12
37	12
38	11
39	< 8
40	8
41	< 8
42	9
43	24
44	11
45	13
46	13
47	11
48	29
49	13
50	12
51	9
52	17
53	13
54	13
55	13

Sample No.	Au (ppb)
21656	13
57	19
58	12
59	8
60	12
61	9
62	13
63	12
64	14
65	15
66	56
67	23
68	9
69	< 8
70	< 8
71	13

Sample No.	Au (ppm)
21005	0.56
6	1.20
7	0.57
8	0.35
9	0.43
10	0.46
11	0.43
12	0.86

TOTAL NO. OF SAMPLES = 60

APPENDIX B

ASSAY RESULTS FOR ROCK CHIP SAMPLES

Assay Results for Rock Chip Samples

Sample No.	Au (ppm)
21406	0.12
7	-
8	0.03
9	0.09
10	-
11	0.14
12	0.12
13	0.10
14	0.70
15	0.03
16	-
17	-
18	0.14
19	-
20	0.10
21	0.08
22	0.07
23	0.07
24	0.07
25	0.06
26	3.32
27	0.11
28	-
29	0.12
30	0.09
31	-
32	0.06
33	0.09
34	0.09
21489	< 0.01
90	BDL
91	BDL
92	BDL

Sample No. Au (ppm)

21493	BDL
94	< .01
95	< 0.01
96	BDL
97	< .01
98	< .01

TOTAL NO. OF SAMPLES = 32

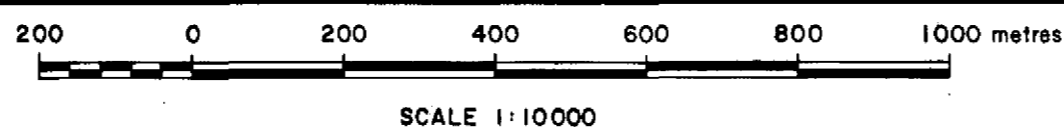
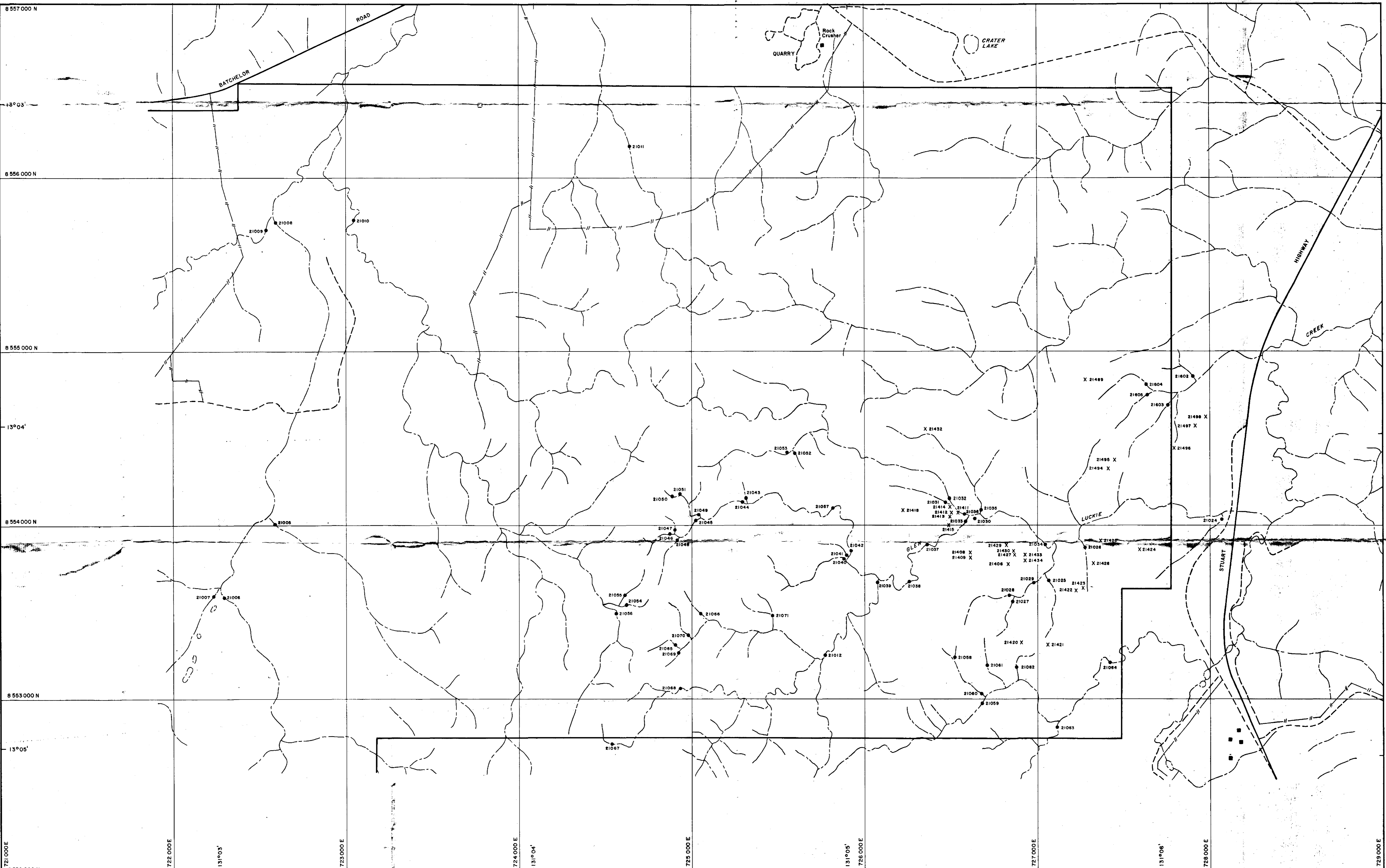
APPENDIX C

ASSAY RESULTS FOR COSTEAN SAMPLES

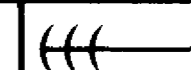
Assay Results for Costean Samples

Sample No.	Au (ppm)
SD - 1	0.012
2	1.714
3	0.005
4	< 0.005
5	0.006
6	0.012
7	< 0.005
8	< 0.005
9	< 0.005
10	0.007
11	< 0.005
12	< 0.005
13	< 0.005
14	< 0.005
15	< 0.005
16	< 0.005

TOTAL NO. OF SAMPLES = 16

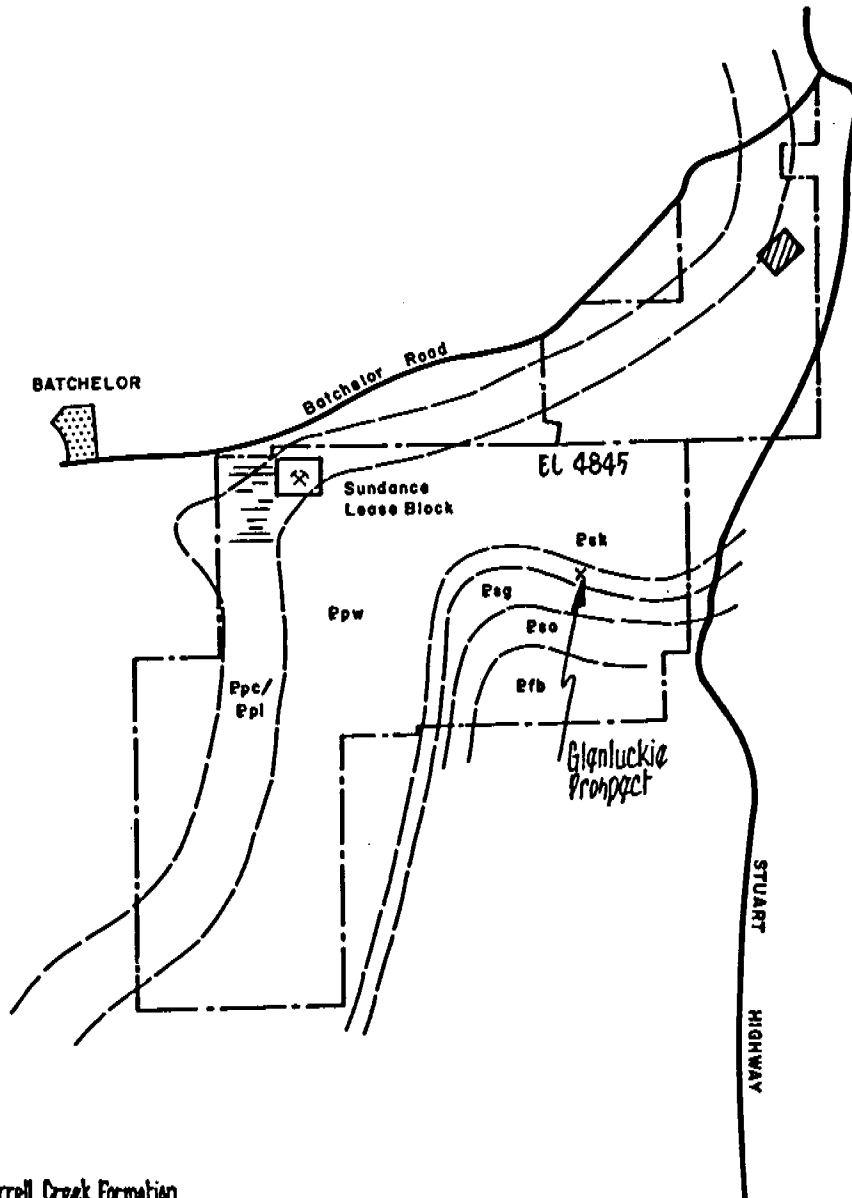


- 21040 Stream Sediment Sample Numbers
- 21418 Rock Chip Sample Numbers
- X
- Licence Boundary


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EL 4845
Stream Sediment and Rock
Chip Sample Location Map
 FIG. 3

13°00'



- Pfb Burrell Creek Formation
greywacke, mudstone
- Pso Mount Bonnis Formation
mudstone, chert, greywacke
- Psg Gerowie Tuff
volcanic chert, mudstone
- Psk Koolpin Formation
carbonaceous mudstone, iron formation
- Ppw Wildman hillstone
mudstone
- Epi/Epe White Formation, Cosmelig Dolomite
dolomite, magnesian, dolomite, mudstone

COSTEAN LOCATION MAP

SUNDANCE AREA

1 km

FIG. 4

