

ANNUAL REPORT

ON EXPLORATION WORK CARRIED OUT ON

E.L. 105 BYNOE BAY

NORTHERN TERRITORY

APPENDIX ONE - Assay Results and Location Plans

APPENDIX TWO - Airborne Maps and Report

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INTRODUCTION

E.L. 105 covering a total area of 102 square miles in the Bynoe Bay area was granted to Mr. P.E. Cogar on 7/5/72 for a period of twelve months. This area was covered by Authority to Prospect 2751 prior to conversion to its present E.L. status.

Field work in this area is hampered by its excessive wet nature, heavy scrub, soakages and poor access. In addition, the Cretaceous cover generally up to 50' thick covers most of the Lower Proterozoic and Archaean rock types.

Expenditure commitment for this year was \$5,000.00.

Application for renewal of this E.L. was lodged 3/5/73.

WORK DONE

The work carried out on this licence has consisted primarily of an airborne gamma ray spectrometer and total magnetic intensity survey. The contract for the airborne survey was let to Aero Service (Australia) Pty. Ltd. Data interpretation was done by Layton and Associates Pty. Ltd. Based on the results, a number of field trips were made by the company's consultants to the more accessible anomalous areas along the northern boundary of the E.L. Although anomalies designated in the report as A3 and A4 have not been checked out to date, the large total count anomalies that have been evaluated are caused by anomalous thorium content.

GEOLOGY

A number of geological traverses were made along the more accessible northern boundary of the E.L. which covers from the nearby Raft Point to Pioneer Beach. The remainder of the E.L. is extremely difficult to evaluate as the shoreline of Bynoe Bay is lined by mangrove swamps.

Near Raft Point an Archaean sequence of gneiss and schist intruded by the Litchfield Intrusive Complex is overlain by relatively flat lying, up to 50' thick, Cretaceous quartz sandstone. Along the flanks of the Litchfield Intrusive outcrops, the Cretaceous consists of near residual angular to sub-angular quartz pebble conglomerate.

A total count anomaly designated A5 just north of Keswick Point along the northern boundary was investigated (see airborne geophysical survey interpretation plan). A number of shallow costeans were bulldozed over the area in addition to those sunk by Thiess Brothers and Australus Mining. These costeans exposed a weathered quartz - feldspar porphyry with pegmatitic phases. In one costean (see plan) a total count of 1500 to 2500 cps was registered over a narrow 2" - 3" band to 2' in depth within a laterized zone (see sample F7677). No secondary or primary

mineralization has been found within the anomalous area.

In addition, a number of auger holes were drilled to a depth of 9' with samples taken at 3' and 9'.

The radioactivity probably originates either from one of the thorium - cesium silicates or from the phosphate mineral monazite.

At Pioneer Beach, badly weathered granodiorite (?) crops out, and is regarded to be part of the Litchfield Intrusive Complex.

GEOPHYSICS

An airborne gamma ray spectrometer and total magnetic survey was flown and compiled by Aero Service (Australia) Pty. Ltd. during late November. Layton Geophysical Consultants Pty. Ltd. interpreted the data and their report plus plans are attached for your information. Twelve total count anomalies have been delineated and designated by prefix A. Anomalies A3 and A4 have little or no associated thorium response. Follow-up work is warranted in particular to the latter.

Ground scintillometer survey was conducted over anomaly designated as A5. Background was established as being 50 cps. This survey outlined a 500 metre wide N-S trending anomaly of greater than 100 cps. This zone appears to outline a weathered near surface quartz - feldspar granite with pegmatitic phases. (See sketch plan).

GEOCHEMISTRY

Seven grab samples were taken from existing and recent costeans sunk by Kewanee Australia Pty. Ltd., from the more anomalous total count zones. (See sketch plan for location).

Sample No.	Th.	U_3O_8
F 7676	184	30
7677	3770	120
7678	199	4
7679	783	26
7680	281	10
7681	148	4
7682	193	-

Also attached are results from 21 angle holes to a depth of 9' and sampled at 3' and 9'.

The results confirm the airborne survey related to thorium bearing minerals.

At Pioneer Beach, a number of grab samples were taken over anomalous total count areas as outlined by scintillometer survey. Results are attached.

Assay results to date confirm airborne survey data that with the possible exception of anomalous areas designated A3 and A4, radio activity is largely related to thorium bearing rock types, probably later pegmatites within the Litchfield Intrusive Complex.

EXPENDITURE

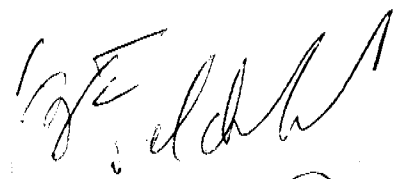
The expenditure on the area which includes time spent by Consultants on this licence, data and airborne interpretation, and related office overheads amounts to \$6,000.00.

CONCLUSION

The results of the airborne survey are encouraging with respect to the number of anomalies that have been outlined in particular A3 and A4. However, it is quite possible that the large total count anomalies are largely caused by Thorium bearing minerals.

Signed on behalf of
Kewanee Australia Pty. Ltd.

BY:


J.B. Felderhof
Consulting Geologist.

Bynoe Bay.

... Laboratories ...

Th

3861

LAUSON PARAGON (M41) LIMITED - FORMALINER PARAFLO

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2				
3	7683F	26644	Hole 1	3' 0037
4				
5	7684F	26645	Hole 1	9' 0083
6				
7	7685F	26646	Hole 2	3' 0020
8				
9	7686F	26647	Hole 2	9' 0006
10				
11	7687F	26648	Hole 3	3' 0033
12				
13	7688F	26649	Hole 3	9' 0101
14				
15	7689F	26650	Hole 4	3' 0019
16				
17	7690F	26651	Hole 4	9' 0009
18				
19	7691F	26652	Hole 5	3' 0037
20				
21	7692F	26653	Hole 5	9' 0031
22				
23	7693F	26654	Hole 6	3' 0025
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25	7694F	26655	Hole 6	9' 0044
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27	7695F	26656	Hole 7	3' 0086
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29	7696F	26657	Hole 7	9' 0046
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31	7697F	26658	Hole 8	3' 0042
32				
33	7698F	26659	Hole 8	9' 0106
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35	7699F	26660	Hole 9	3' 0094
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37	7700F	26661	Hole 9	9' 0083
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39	7701F	26662	Hole 10	3' 0048
40				
41	7702F	26663	Hole 10	9' 0052
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43	7703F	26664	Hole 11	3' 0026
44				
45	7704F	26665	Hole 11	9' 0024
46				
47	7705F	26666	Hole 12	3' 0038
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49	7706F	26667	Hole 12	9' 0128
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51	7707F	26668	Hole 13	3' 0073
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53	7708F	26669	Hole 13	9' 0067
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55	7709F	26670	Hole 14	3' 0127
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Bynoe Bay.

U.S.N. Laboratories Pkg. Lin

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LAUSON PRACON INC LIMITED - FORMLINER PARAFLO

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duplicate

BYNOE

BAY

AUGER. SAMPLES

			Th	
7901F	LINE 1 W	NO. 22	DEPTH 3'	0087
7902F	1 W	22	9'	0138
7903F	1 W	23	3'	0124
7904F	1 W	23	9'	0088
7905F	1 W	24	3'	0092
7906F	1 W	24	9'	0058
7907F	1 W	25	3'	0029
7908F	1 W	25	9'	0040

U3 08

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BYMORE BAY
AUGER. SAMPLES
U₃O₈.

			DEPTH	Th
1	7710F	B. B. LINE 1 W	HOLE 14. 9'	0070
2				
3	7711F	" 1 W	" 15 3'	0150
4				
5	7712F	" 1 W	" 15 9'	0110
6				
7	7713F	" 1 W	" 16. 3'	0136
8				
9	7714F	" 1 W	" 16 9'	0204
10				
11	7715F	" 1 W	" 17 3'	0094
12				
13	7716F	" 1 W	" 17 9'	0652
14				
15	7717F	" 1 W	" 18. 3'	0222
16				
17	7718F	" 1 W	" 18 9'	0078
18				
19	7719F	" 1 W	" 19 3'	0158
20				
21	7720F	" 1 W	" 19 9'	0206
22				
23	7721F	" 1 W	" 20 3'	0219
24				
25	7722F	" 1 W	" 20 9'	0155
26				
27	7723F	" 1 W	" 21 3'	0110
28				
29	7724F	" 1 W	" 21 9'	0033
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BY NO. 1 BAY
ALGER. SAMPLES
U₃O₈.

Ass.

			DEPTH	Th
7710F	B. B. LINE 1 W	HOLE 14.	9'	0070
7711F	" 1 W	" 15	3'	0150
7712F	" 1 W	" 15	9'	0110
7713F	" 1 W	" 16.	3'	0136
7714F	" 1 W	" 16	9'	0204
7715F	" 1 W	" 17	3'	0094
7716F	" 1 W	" 17	9'	0652
7717F	" 1 W	" 18.	3'	0222
7718F	" 1 W	" 18	9'	0078
7719F	" 1 W	" 19	3'	0158
7720F	" 1 W	" 19	9'	0206
7721F	" 1 W	" 20	3'	0219
7722F	" 1 W	" 20	9'	0155
7723F	" 1 W	" 21	3'	0110
7724F	" 1 W	" 21	9'	0033

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Re.

M.C.S.A. Laboratories Pty. Limited

		Th	U ₃ O ₈	Assay
25938	Soil	0196	0016	
25939	-100 mesh	0166	0010	
25940	+100 mesh	0148	0019	
25941	Sand	0424	0046	
25943	+100 mesh	0420	0066	
25944	-100 mesh	1000	0200	
	more than			

36.60

Results in g

• Samples taken from Pioneer Beach, Byron Bay.

J. Woodin

6

BYNOE BAY

AUGER SAMPLES

				Th	U ₃ O ₈	As
1	7901F	LINE 1 W	NOLE 22	DEPTH 3'	0087	
2					0004	
3	7902F	1 W	22	9'	0138	
4					0005	
5	7903F	1 W	23	3'	0124	
6					0003	
7	7904F	1 W	23	9'	0088	
8					0014	
9	7905F	1 W	24	3'	0092	
10					0006	
11	7906F	1 W	24	9'	0058	
12					0004	
13	7907F	1 W	25	3'	0029	
14					0006	
15	7908F	1 W	25	9'	0040	
16					0008	

Res

Duplicated.

^{232}Th
 U_3O_8

Assa

25938	Soil	0196	0016
25939	-100 mesh	0166	0010
25940	+100 mesh	0148	0019
25941	Sand	0424	0046
25943	+100 mesh	0420	0066
25944	-100 mesh	1000	0200

36.60

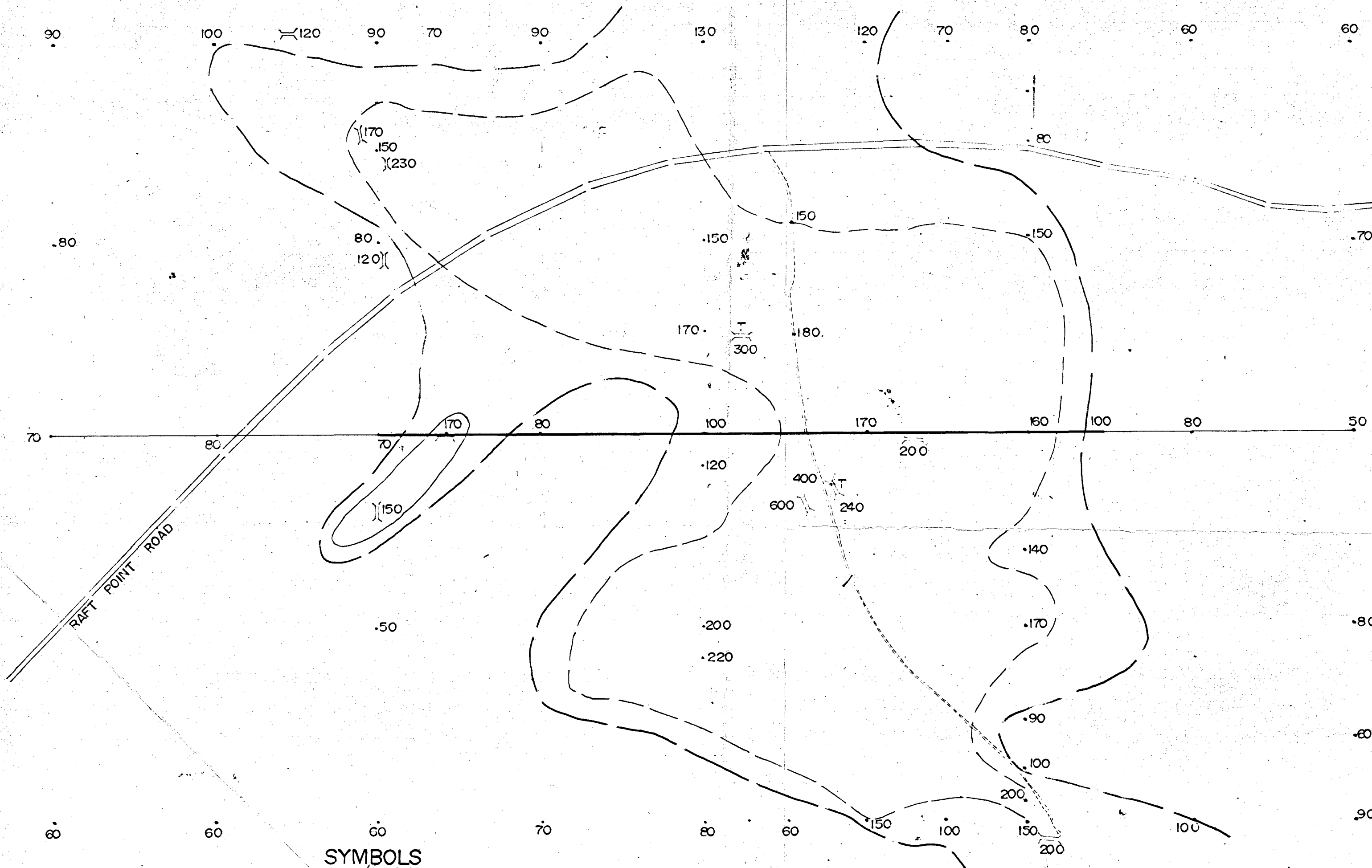
Results in

• Samples taken from Pioneer Beach, Bynoe Bay.

J. Woodie

Pioneer Beach.

6



SYMBOLS

-  COSTEAN.
-  150
-  100
-  RAFT POINT RD.
-  TRACK.
-  AUGER DRILLED.

KEWANEE AUSTRALIA PTY. LTD.

AREA ALONG NORTH BOUNDARY
OF BYNOE BAY E.L.
EL. NO. 105.

Scale: 1" = 100 m.

Project: 19

Drawn: Sally

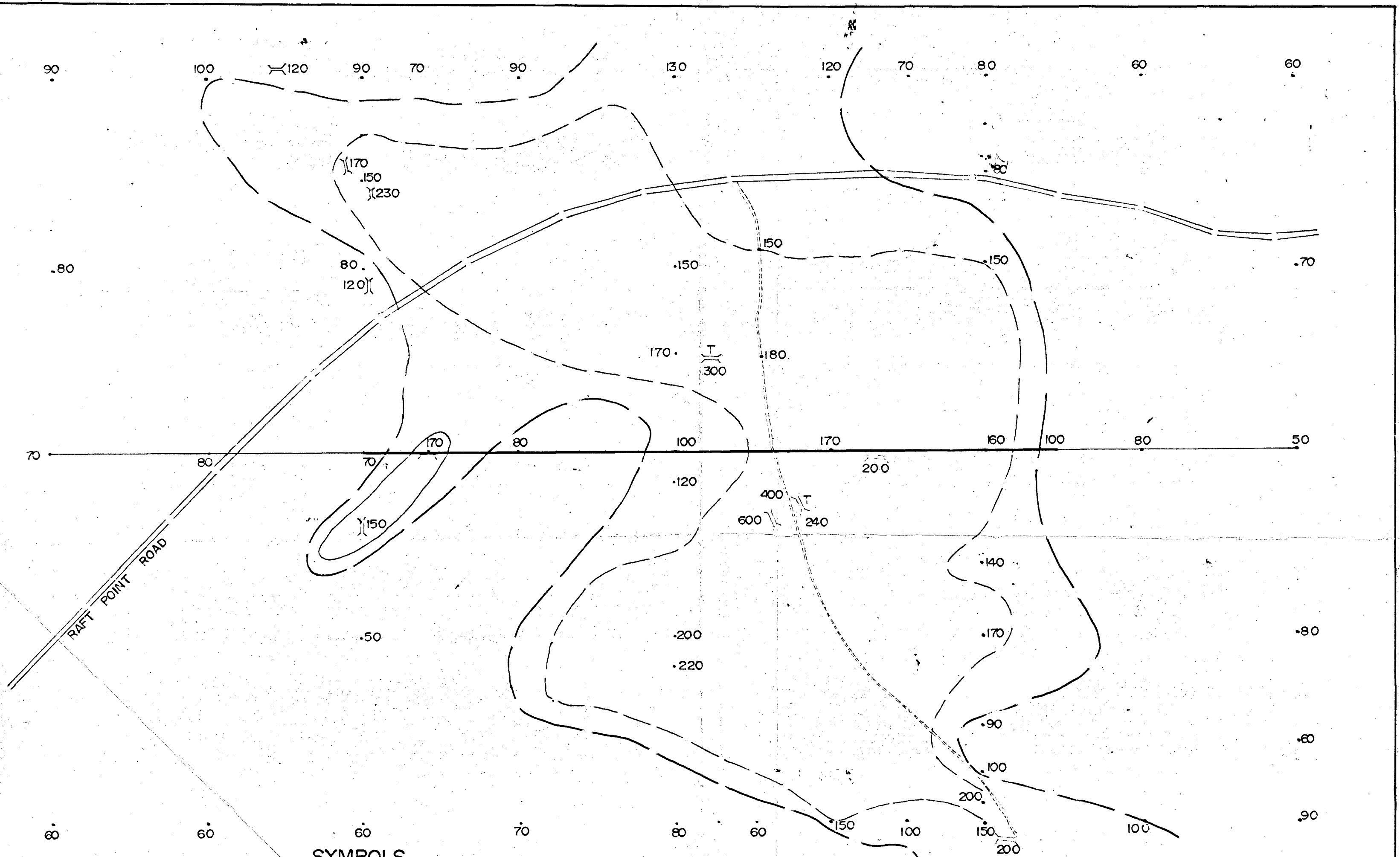
Prospect: Leases 1-7

Date: 26-7-73.

Drg. No. 19 — 3.

EL. 105.

LAYOUT BY: J. FELDERHOF.



SYMBOLS

- COSTEAN
- 150 C.P.S.
- 100 C.P.S.
- RAFT POINT RD.
- TRACK
- AUGER DRILLED

KEWANEE AUSTRALIA PTY. LTD.	
AREA ALONG NORTH BOUNDARY OF BYNOE BAY E.L.	
EL. NO. 105.	
Scale: 1" = 100 m.	Project: 19
Drawn: Sally	Prospect: Leases 1 → 7
Date: 26-7-73.	EL. 105.
Drg. No. 19 — 3.	

LAYOUT BY: J. FELDERHOF.



306031



FLOWN AND COMPILED BY  AERO SERVICE (AUST) PTY LTD

130 30E



AIRBORNE GEOPHYSICAL SURVEY
BYNCE BAY
EL100
NORTHERN TERRITORY
KEWANEE (AUSTRALIA) PTY LTD
FLIGHT PATH
50,000
SCALE : 25,000 -