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71-832.

VISIT

REGISTERED OFFICE :
8th FLOOR,
A.M.P.BUILDING,
ELIZABETH STREET,
HOBART.

JEDS PTY. LTD.

797001

GEOPHYSICAL AND EXPLORATION CONSULTANTS

PLEASE ADDRESS ALL CORRESPONDENCE TO :
11 TAROONA CRESCENT,
TAROONA,
TASMANIA 7006.
TELEPHONE 27 8682

MICROFILMED

REPORT ON EXPLORATION IN THE LONG POINT AREA

EXPLORATION LICENCES 1/70 AND 19/71

TASMANIA

REFERENCE 1/70/1

FOR: Inland Mining N.L.
72 Kings Park Road
WEST PERTH 6005

INTRODUCTION

Exploration Licence 1/70, in the vicinity of Long Point on the east coast of Tasmania, consists of a one mile wide strip of coast approximately 15 miles long. Beaches with low sand dunes, generally about 200 yards wide, form the southern margin of the area. Previous preliminary exploration has consisted of auger samples of the beach sands, several of which indicated a heavy mineral content of greater than 2% and one determination indicated 6.6% of heavy mineral. Magnetic separations carried out on the higher grade samples showed that the best sample had a non-magnetic fraction (zircon, rutile and ferromagnesian minerals) greater than 0.46%.

At the request of Inland Exploration N.L. an exploration program consisting of percussion drilling and reconnaissance geology was proposed to the Mines Department as a basis for renewal of the Exploration Licence. The field program was commenced on 17 January 1971 and the renewal of the Exploration Licence was approved on 1 February 1971.

The area immediately south of E.L. 1/70 was also considered to be of interest and an area of one square mile was pegged by B. F. Cameron. The application for an Exploration Licence was granted and currently the area is under option to Inland Mining N.L. A copy of the option agreement is attached. The area has been designated E.L. 19/71 and the exploration was carried out concurrently with the program for E.L. 1/70.

DRILLING

Inland Exploration N.L. were advised to let a contract to W.L. Sides and Sons Pty Ltd and this company provided a truck-mounted percussion drill rig on site on 17 January 1971. Drilling operations and sampling were supervised by A.V. Brown, B.Sc., geologist of Jeds Pty Ltd. The locations of the 47 holes are shown on the attached five drill hole location plans. Due to unseasonal rain a bulldozer was required to provide access for the drill, and even with this assistance a number of sites had to be abandoned. Drilling commenced on 17 January 1971 and was terminated on 17 February 1971 after a total footage of 805 feet was achieved. Holes were sampled at three foot intervals and were drilled to about one foot below sand base. All samples were split, one half being retained and the other half bulked on a hole basis for assay. Table 1 is a log of the holes. All bulk samples were assayed by the laboratories of the Department of Mines, Launceston and Table 2 lists the results.

The samples were tabled to determine the percentage of heavy minerals and those samples containing a heavy mineral concentrate above 1% were separated into three magnetic fractions and a non-magnetic residual. The non-magnetic fraction which contained rutile was assayed for TiO_2 and the percentage of the total sample is given in the Rutile column of Table 2. Similarly the first two magnetic fractions were assayed for TiO_2 and the results listed as Ilmenite.

RESULTS

The average rutile content of the 21 samples assayed is 0.08% and the maximum is 0.5% with only three values being greater than 0.08%. The average ilmenite assay is 0.2% with a maximum of 1.55% and zircon averages 1.65%, with a maximum of 10.94%. The maximum for each of the minerals occurred in hole 7. The present drilling limits the area of occurrence of the highest grades. The maximum volume of sand having a grade as indicated by hole 7, is about 70,000 cubic yards.

The heavy mineral concentrations in the sands of this permit area are patchy, and the best areas are only of marginal grade. These areas appear to be too localised to be economically exploited although as mentioned previously part of the drilling program was abandoned due to poor access, hence some areas have not been tested. These areas could be tested by a drilling program but in view of the present results the possibility of locating a large volume of sand with a heavy mineral concentration of economic grade must be considered low.

RECONNAISSANCE GEOLOGY

The geology of the area is presented on two maps, a geological fact map and an interpreted geological map. The geology of the northern part of the area has been discussed by McNeil (1965) and further reconnaissance field geology was carried out by A.V. Brown.

The oldest rocks are Silurian sandstones and quartzites of the Mathinna beds and they underlie the southern part of the area.

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The Mathinna beds have been intruded by Devonian granite and this now occupies the northern half of the lease area and forms the eastern boundary of the Mathinna beds. Extensive metamorphism and metasomatism is evident within the contact zone. The Mathinna beds contain an inlier of Permian sandstone and conglomerate and have a faulted contact with feldspathic Triassic sandstones. The western section of the southern part of the lease is covered by dolerite talus from the adjacent coastal range where Jurassic dolerite crops out.

The granitic rocks have been mapped by McNeil (1965) and his descriptions are summarised below. The present reconnaissance has only confirmed the outcrop and samples were collected for analysis.

The Piccaninny Creek Adamellite is a medium even-grained rock consisting of quartz, approximately equal proportions of potash and plagioclase feldspar with some biotite and a little hornblende. There are variations to granodiorite within the adamellite and these crop out on both Long Point and Piccaninny Point. The granodiorite consists of quartz and plagioclase with 13% biotite and 9% hornblende. The ferromagnesian content increases to about 30% at the contact with the adamellite. Sphene, zircon, apatite and magnetite occur as accessory minerals but there is little or no alteration and muscovite is entirely absent.

The St. Marys Porphyry is a porphyritic rock with a fine grained groundmass. It consists of quartz with plagioclase and potash feldspar together with minor biotite and hypersthene. Magnetite, apatite, zircon and topaz occur as accessory minerals.

The Adamellite intrudes the St. Marys Porphyry and in the area where the contact crosses the western margin of the Exploration Licence is a small area of granodiorite. It is even grained and consists mainly of plagioclase with quartz, together with biotite, hornblende and a little orthoclase. Apatite is an accessory mineral.

No mineralisation or greisenisation has been previously reported nor was any found on the present survey. Granite samples were collected and will be bulked and analysed for 29 elements (Crohn, 1970) to ensure no mineralisation has been overlooked.

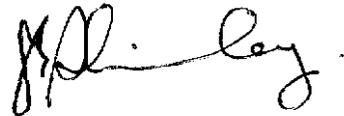
CONCLUSIONS

The areas of sand are restricted to a narrow coastal strip rarely more than 200 yards wide. The drilling and outcrop indicate that the sand is shallow and has been deposited on the country rock at or near sea level. Inland, the drilling shows that the sand lenses out rapidly. This indicates that the dunes are recent and have not migrated very far inland with the consequent formation of extensive stabilised dunes. Sand sampling and assaying to date indicate that heavy mineral concentrations are extremely variable and the highest concentrations, which appear to be extremely localised, are low grade and would require large volumes to be economically exploited. If no mineralisation is indicated by geochemical analyses, the granite must be regarded as unprospective.

REFERENCES

- Crohn, P.W. Geochemical Prospecting Programs of the B.M.R. Proc. Aust. Inst. Min. Metall. No.236, 21-23.
- McNeil, R.D. The Geology of the Mt. Elephant-Piccaninny Point Area, Tasmania. Pap. Roy. Soc. Tasm. 99, 27-49.

for Jeds Pty. Ltd.



J. E. Shirley
B.Sc., A.A.I.M.M., S.E.G.

AN AGREEMENT made the day of One thousand
 nine hundred and Seventy-one BETWEEN BRUCE FREDERICK CAMERON
 of 19 Carr Street, North Hobart in Tasmania (hereinafter
 called "the Owner") of the one part and INLAND MINING N.L.
 (hereinafter called "Inland Mining") a company registered
 under the provisions of the Companies Act and having its
 registered office situate at *1st floor 37 Pitt St. SYDNEY.*
 of the other part WHEREAS the Owner is the proprietor of
 Exploration Licence No. 19/71 (hereinafter called "the said
 E.L.") held by him under the provisions of the Mining Act
 1929 of the State of Tasmania on the terms and conditions
 therein contained AND WHEREAS the Owner has at the request of
 Inland Mining agreed to grant to it the right or option in
 respect of the said E.L. hereinafter contained.

NOW IT IS HEREBY AGREED AND DECLARED as follows -

1. IN consideration of the sum of One dollar (\$1.00) now paid
 by Inland Mining to the Owner (the receipt whereof the Owner
 hereby acknowledges) the Owner hereby grants to Inland Mining
 the right or option of purchasing all that the Owner's right
 title estate share and interest of and in the said E.L. for
 the sum of *one dollar (\$1).*

2. THE option shall extend until such time as Inland Mining
 shall give to the Owner notice of abandonment thereof.
 Inland Mining shall have the right to exercise the said
 option at any time until so abandoned as aforesaid by notice
 in writing to the Owner addressed to 19 Carr Street, North
 Hobart aforesaid and upon receipt of such notice the Owner

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shall execute a transfer in favour of Inland Mining or its nominee within fourteen days thereafter and exchange such transfer and the original said E.L. and any extension thereof with Inland Mining or its duly authorised agent upon receipt of the purchase money hereinbefore provided.

3. THE Owner hereby warrants -

- (a) that he is the beneficial owner free from encumbrances and is entitled to transfer the said E.L. and
- (b) that there is no subsisting default under the said E.L. by the Owner.

4. THE exercise of the option herein contained is conditional upon the obtaining by the parties hereto of any consent or consents (if any) which are required by law to be obtained as a condition precedent to the registration of transfer of Exploration Licences and both parties agree to do all things necessary to obtain any such consents.

5. INLAND Mining hereby agrees that during the period of this Option Agreement to enter onto the lands contained in the said E.L. for the purposes of exploration work and to comply with all obligations imposed on the Owner under the said E.L. and other requirements of the Mining Act 1929 or Regulations thereunder or other provisions relating to mining in the State of Tasmania in any way affecting the said E.L. during its continuance or any extension thereof AND shall indemnify the Owner accordingly.

AS WITNESS the hands of the parties hereto the day and year

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hereinbefore written.

SIGNED by the said BRUCE F

CAMERON in the presence of -

} x *Bruce F. Cameron*
J. P. [unclear]

SIGNED for and on behalf of

INLAND MINING N.L. in the

presence of -

}
)

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TABLE 1

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BORE LOG

Hole No.	Position	Depth	Details
1	Cnr. paddock swamp dunes (Long Pt. area)	0-5 5-7+	Sandy loam Stiff clay
2	Cnr. fence and rds between swamps - (Long Pt. area)	0-2 2-5+	Sand Stiff clay
3	Back (W side) of dunes, S end of lease, nr. shack	0-7 7-9 9-11+	Sand Sandy clay Stiff clay
4	On road in front of old Mine house	0-10 10-12+	Sand Quartzite & dolerite pebbles in clay matrix
5	Between S swamp and dunes 50yds E of fence	0-5 5-7+	Sand Gravel in clay matrix
6	Ditto 5, 100 yds E of fence	0-10 10-11 11-14 14-27+	Sand Gravel Bands of clay and sand Khaki green clay with dolerite & quartzite gravels, sand and heavy minerals
7	W end of line No.1, Long Pt.	0-4 4-9 9-11+	Sand Clay Stratified, weathered sandstone
8	Line No.1	0-15 15-20 20-24 24-25+	Sand Pebbles (well rounded) Khaki green slush & grit Dry clay, similar to hole 7 before sandstone
9	E end of Line No.1 on top of headland	0-3 3-10 10-27 27+	Sand Sandy clay Decomposed granitic rock Granitic rock
10	Line No.1	0-2 2-8 8-15 15+	Sand Sandy clay Decomposed granitic rock Decomposed granitic rock & quartzite

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Hole No.	Position	Depth	Details
11	Line No.1	0-2 2-17+	Sand Yellowish grey sandy clay
12	Line No.1	0-2 2-15+	Sand Clay (with sandy patches)
13	Line No.1	0-3 3-15+	Sand Clay (with sandy patches)
14	Line No.1	0-3 $\frac{1}{2}$ 3 $\frac{1}{2}$ -10 10-25+	Sand Clay Sand, clay, gravel
15	Line No.1	0-12 12-15 15+	Sand Clay and pebbles Gravel basement
16	Line No.1	0-5 5-7+	Sand Gravel basement
17	Line No.1	0-10 10-18 18-20+	Sand Sand and gravel Grey-green clay
18	Line No.1	0-10 10-14 14-22 22+	Sand Sand and gravel Sandy clay and gravel Consolidated gravel
19	Line No.1	0-5 5-10 10-12+	Sand Sand and gravel Sandy clay similar to H8 at 20-24 ft.
20	On road through two swamps	0-2+ ?	Slush - after 3 attempts hole abandoned due to boulders - presumably road base.
21	Line No.2, W end Long Point	0-8 8-15 15-18 18-20+	Sand Loam Yellowish sandy clay and gravel Decomposed sandstone
22	Line No.2	0-7 7-15 15-20+	Sand Yellowish clay and loam Sandstone - weathered

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Hole No.	Position	Depth	Details
23	Line No.2	0-1 1-8 8-15+	Sand Black sandy loam and clay Yellowish clay - similar to H21 and H22 before sandstone.
24	Line No.2	0-5 5-10 10-15+	Sand Loam and clay Yellowish clay (similar H23)
25	Line No.2	0-5 5-10 10-12+	Sand Sand and clay Sandstone (weathered)
26	Line No.2	0-2 2-4 4-11 11-16+	Sand Black sand (?) Grey clay Yellow clay - sandstone
27	Line No.2	0-3 3-8+	Sand Yellow clay
28	Line No.2, E end	0-5 5-9 9-16+	Sand Loam Decomposed granite
29	Line No.3, E end Long Point	0-10 10-15 15-22 22-25 25+	Sand Grey sand Green sandy clay Weathered sandstone Sandstone
30	Line No.3	0-5 5-30 32+	Sand Khaki green sand Sandstone
31	Line No.3	0-5 5-10 10-25 25-33 33+	Sand Black sand Green sandy clay Grey sandy clay Sandstone
32	Line No.3	0-10 10-15 15-20+	Sand Black sand Weathered sandstone
33	Line No.3	0-5 5-12 12-20+	Loam Black sand Grey stiff clay

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Hole No.	Position	Depth	Details
34	Line No.3, W end	0-8 8-15+	Loam Grey clay
35	Line No.4, W end Piccaninny Point	0-1 1-14 14+	Loam Black sand Consolidated pebbles
36	Line No.4	0-15 15-17	Sand Consolidated pebbles
37	Line No.4	0-10 10-30 30-32+	Sand Grey sand Consolidated pebbles
38	Line No.4	0-5 5-20 20-22+	Sand Grey sand Consolidated pebbles
39	Line No.4	0-5 5-17 17-18+	Sand Dark sand Consolidated pebbles
40	Line No.4, E end	0-11 11-12+	Sand Granite
41		0-14 14-15+	Sand Consolidated pebbles
42		0-15 15-20+	Sand Shell grit and sand
43		0-10 10-23 23-25 25+	Sand Sand and shell grit Sand, shell grit and pebbles Consolidated shell grit and pebbles
44		0-15 15-22 22-25+	Sand Grey sand Shell grit and clay
45		0-2 2-15 15-21 21-23+	Sandy loam Sandy clay Mud and pebbles Consolidated pebbles

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Hole No.	Position	Depth	Details
46		0-14	Sand
		14-15	Sand and pebbles
		15+	Consolidated pebbles
47		0-5	Loam
		5-7	Sandy clay
		7-13	Pebbles and gravel
		13+	Consolidated pebbles

Total depth 815 feet.

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TABLE 2

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SAND SAMPLE ASSAYS

Borehole No.	Reg. No.	% T.C.	M/A1	M/A2	M/A3	% Mag. Total
1	710176	1.33	0.08	0.15	0.31	0.54
2	177	0.36				
3		Tr				
4	332	1.52	0.17	0.54	0.06	0.77
5	333	1.40	0.14	0.51	0.02	0.67
6	710178	2.95	0.07	0.97	1.11	2.15
7	334	25.7	1.65	12.33	0.28	14.26
8	179	6.47	0.33	2.68	1.28	4.29
9	335	0.43				
10	336	0.64				
11	337	0.32				
12	338	0.30				
13	339	0.51				
14	250	2.52	0.08	0.32	0.81	1.21
15	340	2.54	0.12	1.32	0.19	1.63
16	341	3.95	0.21	2.14	0.20	2.55
17	251	4.95	0.36	2.21	0.50	3.07
18	252	4.18	0.18	1.04	1.12	2.34
19	253	15.45	0.42	3.63	5.36	9.41
20	no sample					
21	258	3.36	1.06	0.07	0.58	1.71
22	259	1.16	0.09	0.40	0.28	0.77
23	260	0.81				
24	261	2.26	0.29	0.96	0.26	1.51
25	254	2.30	0.52	0.09	0.66	1.27
26	255	0.63				
27	256	1.68	0.08	0.44	0.35	0.87
28	262	1.17	0.08	0.25	0.29	0.62
29	257	1.13	0.08	0.46	0.15	0.69
30	263	0.64				
31	264	0.40				
32	265	0.69				
33	266	1.03	0.10	0.38	0.15	0.63
34	267	0.93				
35	268	0.18				
36	710342	0.38				
37						
38	710270	0.31				
39	271	1.13	0.03	0.42	0.40	0.85
40	272	0.92				
41	273	0.51				
42	343	0.20				
43	344	0.35				
44	345	0.32				
45	346	Tr				
46	347	Tr				
1,2,3	710331	Tr				

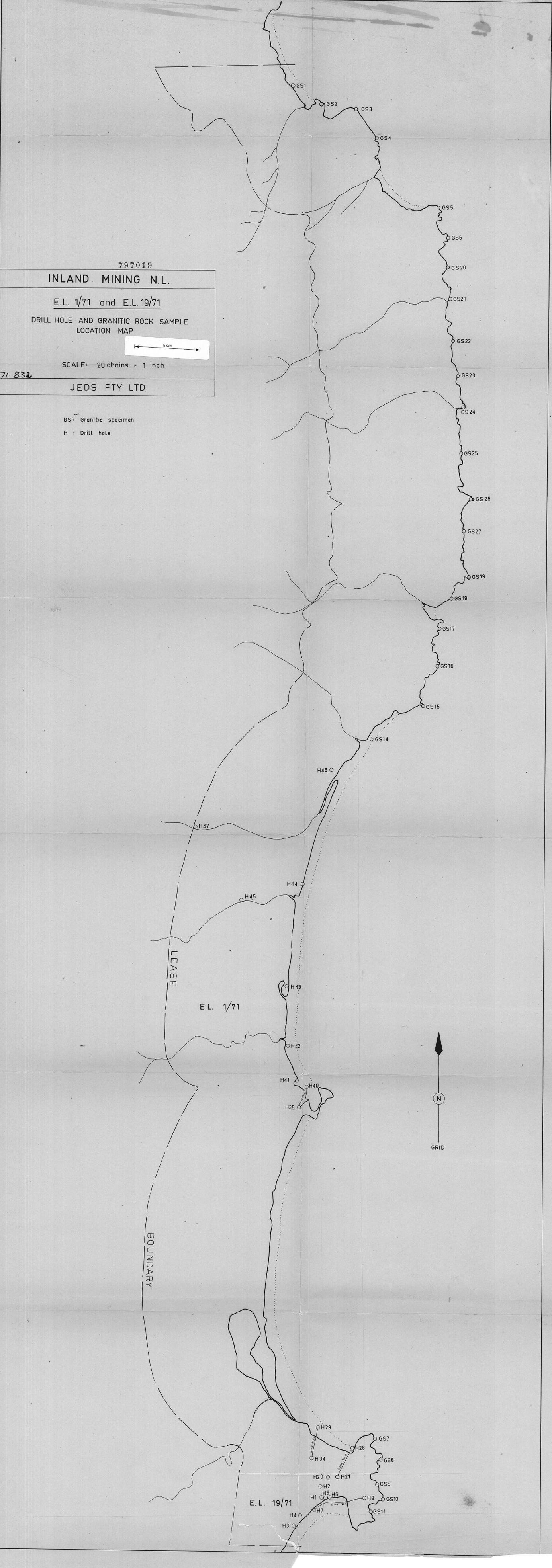
M/A1 - ilmenite; M/A2 - garnet + some ilmenite; M/A3 - spinel, epidote (and monazite ?).

Borehole No.	% NM	NM % TiO ₂	M % TiO ₂	Zircon	Rutile	Ilmenite
1	0.79	4.7	31.2	0.75	0.04	0.07
2						
3						
4	0.74	8.4	18.1	0.68	0.06	0.13
5	0.73	7.8	20.6	0.67	0.06	0.13
6	0.80	6.1	10.4	0.75	0.05	0.11
7	11.44	4.0	11.2	10.94	0.5	1.55
8	2.18	3.6	8.0	2.10	0.08	0.24
9						
10						
11						
12						
13						
14	1.31	3.0	22.6	1.27	0.04	0.09
15	0.91	10.9	13.7	0.90	0.10	0.20
16	1.40	5.7	9.6	1.32	0.08	0.23
17	1.88	4.1	9.4	1.80	0.08	0.24
18	1.84	4.1	19.0	1.76	0.08	0.23
19	6.04	3.4	13.2	5.84	0.20	0.53
20						
21	1.65	2.9	5.4	1.60	0.05	0.06
22	0.30	7.9	14.8	0.36	0.03	0.07
23						
24	0.75	7.8	13.8	0.69	0.06	0.17
25	1.03	4.1	16.0	0.99	0.04	0.10
26						
27	0.81	5.6	14.4	0.76	0.05	0.08
28	0.55	6.8	25.6	0.51	0.04	0.09
29	0.44	7.9	11.4	0.41	0.03	0.06
30						
31						
32						
33	0.40	5.8	14.4	0.38	0.02	0.07
34						
35						
36						
37						
38						
39	0.28	5.6	10.2	0.26	0.02	0.05
40						
41						
42						
43						
44						
45						
46						

NM - rutile, zircon; $\frac{M}{\% \text{TiO}_2}$ - the sum of M/A1 and M/A2.

LIST OF MAPS

1. DRILLHOLE & SAMPLE LOCATION MAP
2. GEOLOGICAL FACT MAP
3. GEOLOGICAL INTERPRETIVE MAP
4. DRILLHOLE LOCATIONS LINE 1
5. DRILLHOLE LOCATIONS LINE 2
6. DRILLHOLE LOCATIONS LINE 3
7. DRILLHOLE LOCATIONS LINE 4



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INLAND MINING N.L.
 E.L. 1/71 and E.L. 19/71
 DRILL HOLE AND GRANITIC ROCK SAMPLE
 LOCATION MAP
 5 cm
 SCALE: 20 chains = 1 inch
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GS : Granitic specimen
 H : Drill hole

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 GRID

E.L. 19/71

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E.L. 1/71

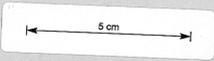
BOUNDARY

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E.L. 1/71 and E.L. 19/71

GEOLOGICAL FACT MAP

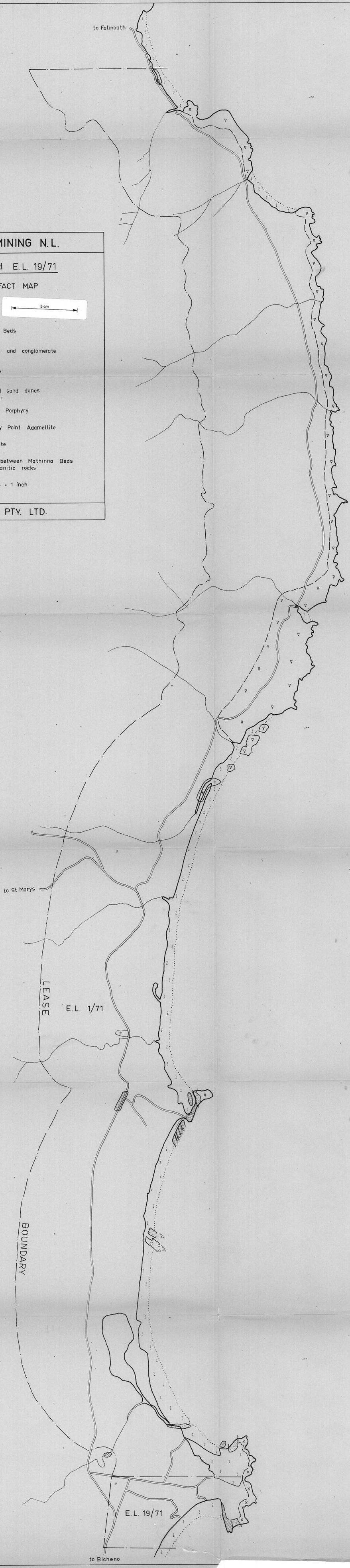


- SILURIAN  Mathinna Beds
- PERMIAN  Sandstone and conglomerate
- TRIASSIC  Sandstone
- QUAT. - RECENT  Sand and sand dunes
- DEVONIAN  St Marys Porphyry
-  Piccaninny Point Adamellite
-  Granodiorite
-  Contact between Mathinna Beds and granitic rocks

SCALE: 20 chains = 1 inch

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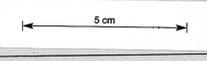
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E.L. 1/71 and E.L. 19/71

GEOLOGICAL INTERPRETIVE MAP

- SILURIAN  Mathinna Beds
- PERMIAN  Sandstone and conglomerate
- TRIASSIC  Sandstone
- RECENT ?  Dolerite talus
- DEVONIAN  St. Marys Porphyry
-  Piccaninny Point Adamellite
-  Granodiorite
-  Contact between Mathinna Beds and granitic rocks

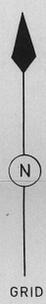
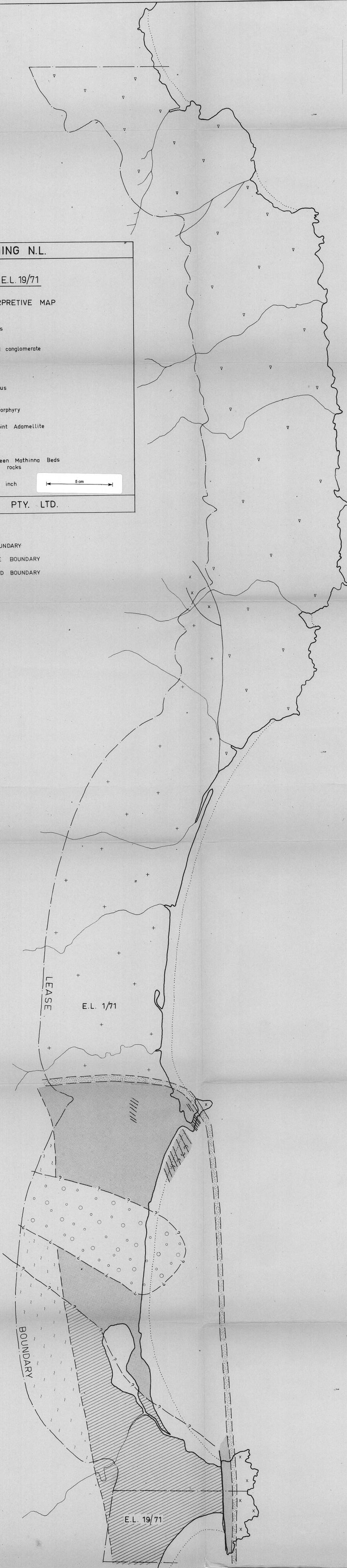
SCALE: 20 chains = 1 inch



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-  KNOWN BOUNDARY
-  INTERPRETIVE BOUNDARY
-  EXTRAPOLATED BOUNDARY

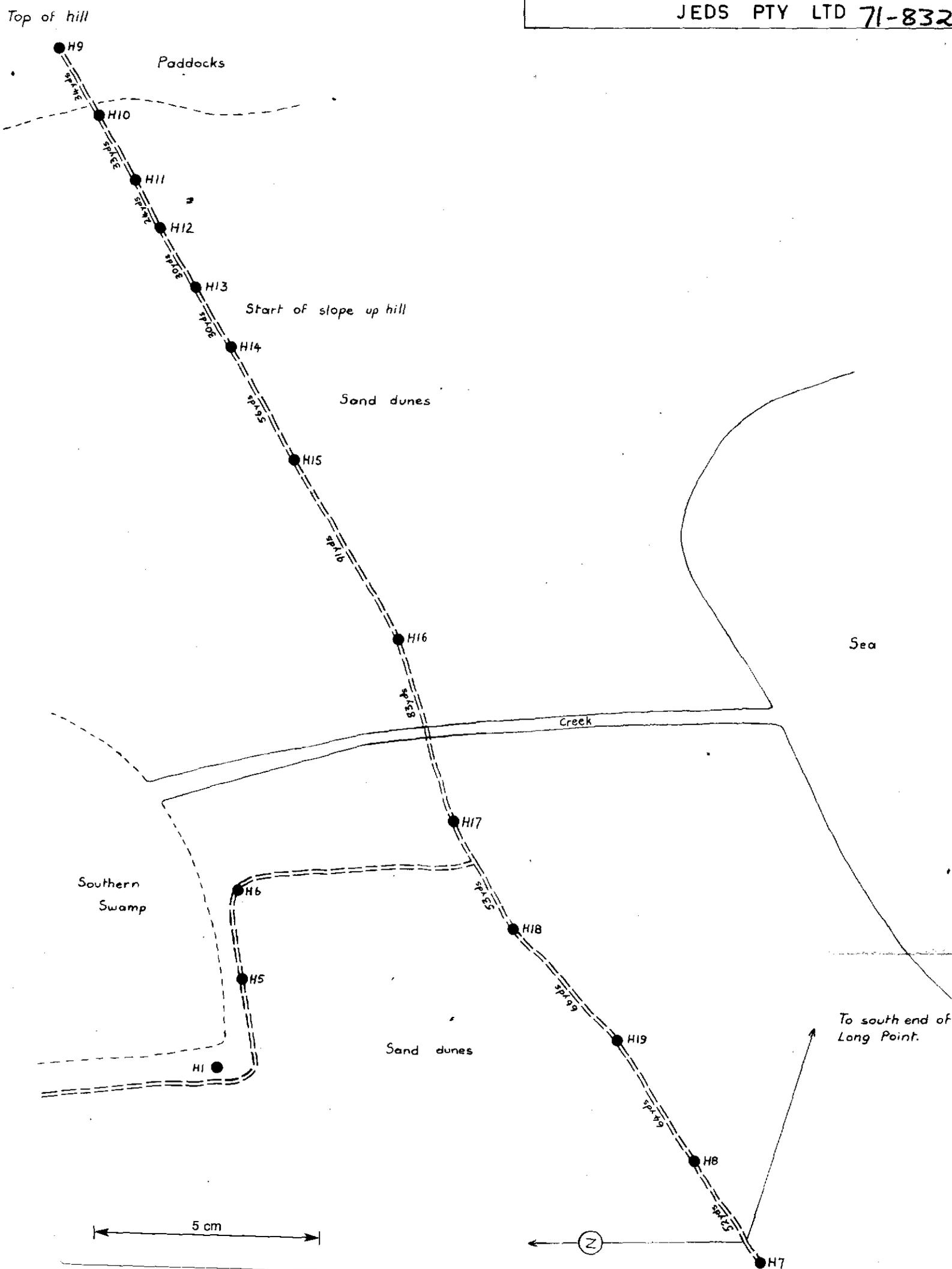


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INLAND MINING N.L.

DRILL HOLE LOCATIONS
LINE 1 - E.L. 1/70

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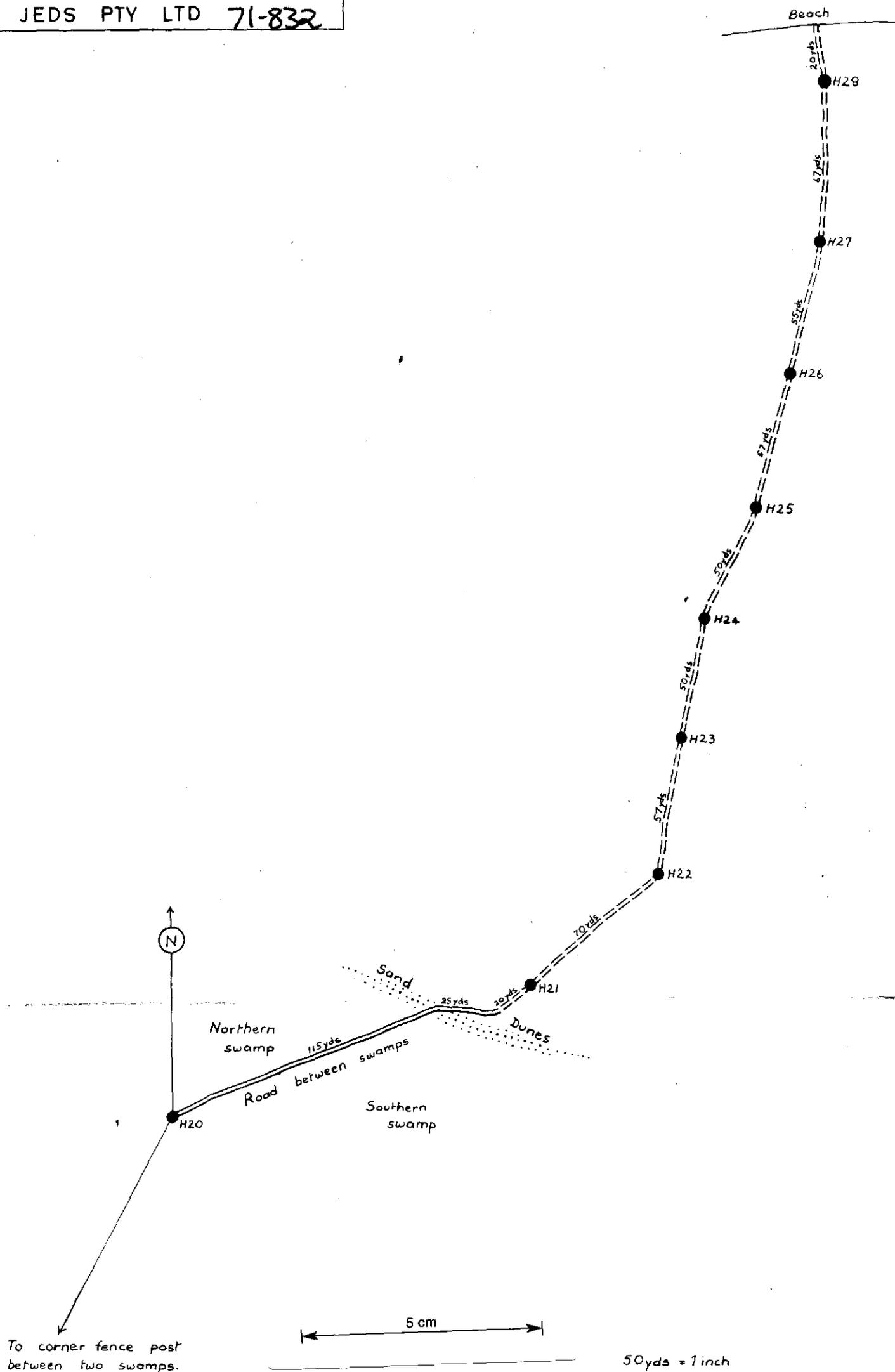


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DRILL HOLE LOCATIONS
LINE 2 - E.L. 1/70

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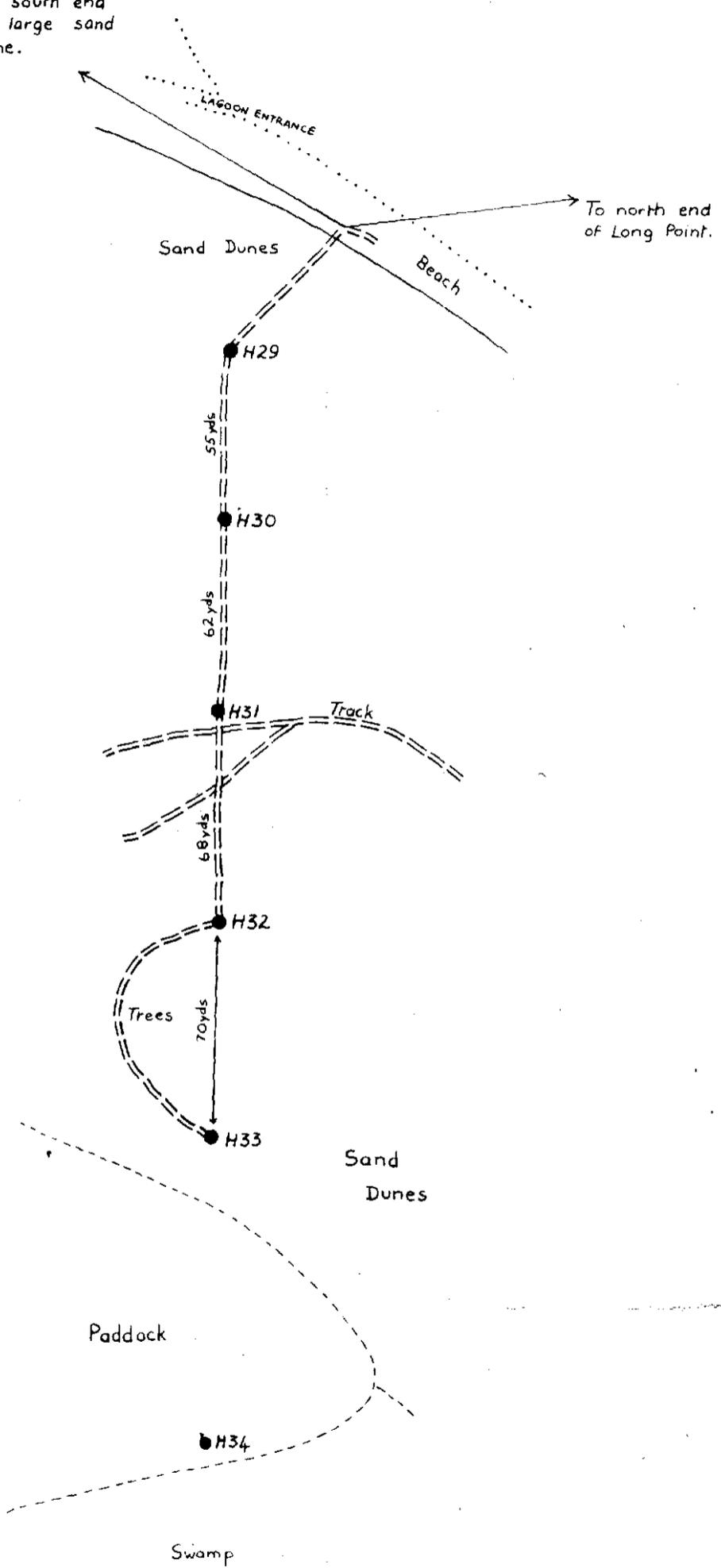
INLAND MINING N.L.

DRILL HOLE LOCATIONS

LINE 3 - E.L. 1/70

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To south end of large sand dune.



5 cm

Boundaries not to scale.

50yds = 1 inch

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INLAND MINING N.L.

DRILL HOLE LOCATIONS

LINE 4 - E.L. 1/70

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