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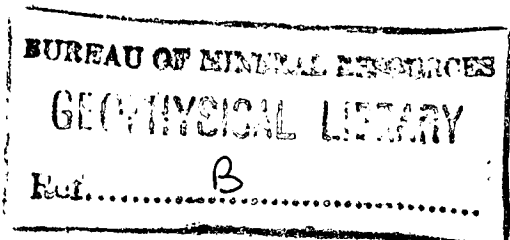
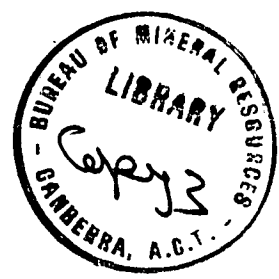
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COMMONWEALTH OF AUSTRALIA

DEPARTMENT OF NATIONAL DEVELOPMENT  
BUREAU OF MINERAL RESOURCES  
GEOLOGY AND GEOPHYSICS

RECORDS:

1964/18



GEOLOGY AND DRILLING RESULTS  
PRITCHARD'S LODGE - MOUNT BUNDEY AREA. N.T.

by

Peter G. Dunn

The information contained in this report has been obtained by the Department of National Development, as part of the policy of the Commonwealth Government, to assist in the exploration and development of mineral resources. It may not be published in any form or used in a company prospectus without the permission in writing of the Director, Bureau of Mineral Resources, Geology and Geophysics.

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## GEOLOGY AND DRILLING RESULTS

### PRITCHARD'S LODGE - MT. BUNDEY AREA, N.T.

#### ABSTRACT

Pritchard's Lode is about 56 miles south-east of Darwin. It is accessible by vehicle only during the dry season either from the 47-mile peg on the Stuart Highway or from Adelaide River township. It is covered by Mineral Leases 285B, held by Nevsum Mining Company.

Pritchard's Lode consists of one main and several subsidiary martite lodes within the Mt. Goyder Syenite. The main lode forms a prominent outcrop on a low rounded syenite hill, which is completely covered with martite rubble. The main lode is about 2200 feet long and is up to 100 feet wide. The martite shows a strong jointing and some boxworks with rare pyrite crystals. The lode as a whole is strongly magnetic. The presence of hornfels bands within the martite body suggests that the lode is the replacement of a roof pendant.

Sixteen diamond drill holes totalling 2042 feet were put down in the dry season of 1962 by the Mines Branch, Northern Territory Administration, to test the extent and configuration of the lode, and the nature of the lode material at depth. The total proved, probable, and possible ore reserves are calculated to be 1,504,000 tons. These figures refer to solid lode material and rubble ore. This material has an average iron content of about 64% and an average sulphur content of about 0.07%. Phosphorus averages about 0.052% and copper 0.044%. The logs of all drill holes and all assays of core are appended.

#### INTRODUCTION

Pritchard's Lode, 56 miles south-east of Darwin, can be reached by following 51 miles of bush track, either from the 47-mile peg on the Stuart Highway past Marrakai Homestead or from Adelaide River township. Neither track is passable during the wet season.

The Lode was first discovered in 1956 by a field party of the Bureau of Mineral Resources which was engaged in regional mapping in the area (Dow and Pritchard, 1958).

In 1958, the Bureau of Mineral Resources put down a diamond drill hole to test for the presence of sulphides at depth. The hole, however had not intersected the lode after 500 feet of drilling, and no further work was done.

In 1962, K.H. Dudson took two mineral leases, 285B and 286B over the area, and these were later transferred to the Nevsum Mining Company. Between July and December, 1962, the Mines Branch, Northern Territory Administration, did 2042 feet of diamond drilling on the lode under agreement with Nevsum Mining Company.

In July and August, 1962, the immediate area of the lode was surveyed by plane table and alidade. During July, officers of the Bureau of Mineral Resources made a geophysical survey of the same area and prepared a separate

geophysical report (Ashley, 1962). The coordinates shown on Plate I coincide with the geophysical grid.

All the drill holes were logged, and all lode material was quartered and sent to Australian Mineral Development Laboratories to be assayed for total iron, sulphur, copper and phosphorus. Portions of the lode material from drill holes 2 and 3a were sent to Tennant Creek to be assayed for gold and silver. All these assay results are appended. Surface samples, taken across the lode approximately in line with all the drill holes, were sent to Japan for analysis.

### GENERAL GEOLOGY

Britchard's Lode is a prominent massive martite outcrop that forms the crest of a low rounded hill. This hill consists predominantly of syenite - the Mt. Goyder Syenite - although there are no outcrops of this on the hill. Several smaller lenses of martite crop out around the main lode.

The main lode is approximately 2200 feet long, including a gap of about 50 feet at the north end where there is no outcrop. It is irregularly shaped, varying in width from a few feet at both ends to more than 100 feet at a point about 300 feet from the south-west end. It is approximately 40 feet wide for most of its length. One of the subsidiary lenses, approximately 15 feet wide, runs parallel to the main lode for about 400 feet on the south-east. The two lodes are approximately 25 feet apart; drilling has shown that they are separated in depth by fine-grained syenite, although on the surface this area is entirely covered by martite rubble.

The main lode between drill holes 4 and 9 may not be continuous, but may actually consist of two en echelon lenses. This area is covered with large blocks of martite that seem to be in place, but costeaning between these two drill holes should be done to determine whether the lode is continuous or whether two separate lenses exist.

The small outcrop of solid lode material between drill holes 9 and 11 appears from drill hole data to be part of the main lode. The area between this outcrop and the outcrop of the main lode is also covered with large martite boulders, and should be costeaned to determine whether the two outcrops are part of the same mass.

Three subsidiary lenses crop out in the vicinity of plane table station 9 (200S/500W). These do not form prominent outcrops, and the southern ends of the two easternmost bodies do not crop out at all, but have been exposed only in pits. Pits dug between these lenses have exposed only martite rubble overlying syenite.

Four small outcrops of martite, only one of them prominent, occur between plane table stations 10 (360N/660E) and 12 (530N/330E). Pits dug between the two largest of these have not exposed any martite in place.

A single small outcrop of martite south-east of the main lode at 350S/660W at first appears to be an extension of the narrow parallel lode, but diamond drill holes 4a and 4b show that they are not connected.

### 3.

The outcropping material in the main lode and in all the subsidiary lodes is apparently identical. It consists of massive martite (hematite after magnetite), and on the whole is strongly magnetic. Large octahedra, pseudo-morphs after magnetite, fill some joints and cavities. Some boxworks are present; the cavities are normally partially filled with limonite, rare iron sulphate (?) minerals, and even rare sulphides both pyrite and chalcopyrite. Limonite also coats most joints, and seams, and some thin quartz veinlets occur along the lode.

A very pronounced system of joints occurs in most parts of the lode. These joints are normally horizontal, although at both ends of the lode they dip at 20° to the north-east. These joints are usually several feet apart, but are quite closely spaced in a few places.

Besides martite, the only other rock type that is found at the surface is the Mt. Goyder Syenite, part of the Mt. Goyder Syenite-Mt. Bundey Granite igneous complex (Hasan, 1958). The syenite crops out only on the flats surrounding the lode. It is coarse-grained and strongly foliated, the foliation being marked by the alignment of large tabular orthoclase crystals. The syenite has been intruded by aplite dykes up to 12 inches wide which are commonly parallel to the foliation.

Diamond drill hole 1 was drilled by the Bureau of Mineral Resources in 1958 to test for the presence of sulphides at depth on the chance that the martite lode was a gossan. It passed approximately 300 feet beneath the top of the outcrop, and encountered only coarse-grained syenite.

The Mines Branch, Northern Territory Administration, drilled the remaining drill holes during the dry season of 1962, to test the extent and configuration of the lode and the nature of the lode material at depth in order to determine whether the lode is a possible economic source of iron ore. Sixteen holes were drilled for a total of 2042 feet. Drill holes 8 and 9 had to be abandoned before completion so that the rigs could be moved out of the area before the track became impassable.

For the most part, the drill holes encountered only martite/magnetite or syenite. At a vertical depth of approximately 80 feet from the top of the outcrop, up to 10% of sulphides occur with the magnetite, and a thin veinlet of malachite appears in the core from DDH 2. The core from drill holes 2 and 3a was therefore assayed for gold, silver and copper. No gold or silver was found, and the highest copper content was 0.50%, so that subsequent assays were done only to determine the presence of copper as a possible deleterious impurity.

The syenite in the drill holes is similar to the outcrops surrounding the ridge except for the material encountered in drill holes 2, 3a, and 4a (between the main lode and the narrow parallel lode), which is considerably finer-grained.

A small amount of chlorite-rich material, identified by W. Morgan (Bureau of Mineral Resources, Canberra, personal communication) as hornfels, is interbanded within the magnetite. In drill holes 10 and 11 this banding is very marked near the bottom of the hole, where, in addition to the hornfels, calcite and fine-grained syenite bands are present.

Near the contact between the fine-grained syenite and the lodes, several inches of an apple-green micaceous mineral occur in several drill holes. This was identified by x-ray analysis in Canberra as a barium-bearing muscovite (W. Morgan, personal communication).

The drilling shows that the main lode is widest at the south-west end and that its lower limits are rather irregular. Near both extremities, in drill holes 10 and 11, there is abundant banding, which is thought to represent the interfingering of the lode material and the country rock.

The extent of the subsidiary lodes is not as well known since none has been intersected by more than one drill hole and some have not been drilled at all.

At first, Pritchard's Lode was thought to be the result of magmatic segregation during crystallization of the syenite. The presence of hornfels bands in the lode, however, suggests that the lode is the replacement of a roof pendant, or pendants. This replacement apparently took place before final crystallization of the syenite. Some of the hornfels bands that were intersected in diamond drill hole No. 11 have been veined by scapolite; pyrite and magnetite were introduced at the same time; and these have all been veined by later feldspar (W. Morgan, personal communication).

Outside the area of the accompanying map, several syenite porphyry dykes intrude the main syenite mass. One of these about a mile south-west of the Pritchard's Lode strikes roughly parallel to the lode and contains rare pyrite, so that the metasomatism responsible for the sulphide contents of the lodes may be related to this period of dyke intrusion.

#### GEOPHYSICAL SURVEY

J. Ashley (Bureau of Mineral Resources, Darwin), made a preliminary magnetometer survey over the area of Pritchard's Lode to determine whether deposits of this kind would produce an anomaly that could be detected by an aeromagnetic survey (Ashley, 1962). The surface survey showed anomalies of the order of 10,000 gammas, certainly large enough to be determined by an aeromagnetic survey.

In the course of this survey, Ashley determined three anomalies that do not conform exactly with the lode outcrop pattern. Drill holes 6, 7a, 7b and 13 were drilled to test these anomalies. None of these intersected any significant amount of martite or magnetite. The general shape of the magnetic anomalies, however, corresponds to the outcrop pattern of the lode.

#### ORE RESERVES

The data now available from mapping and diamond drilling give the following ore reserves:-

Proved Ore	361,000 tons
Probable Ore	508,000 tons
Proved + Probable Ore	869,000 tons
Possible Ore	635,000 tons
Proved + Probable + Possible Ore	1,504,000 tons

Surface samples were taken across the lode in line with diamond drill holes 3, 4, 5, 8, 9, 10, 11 and 12, and were assayed by the Nissho Mining Company of Tokyo (see

appendix for details). The arithmetic mean of these assays is 65.9 percent iron, 2.1 percent silica, 0.073 percent phosphorus, 0.072 percent sulphur and 0.037 percent copper, and this is expected to be a fairly close approximation to the average grade of the surface material over the lode as a whole.

All the core that appeared to be ore was sent to Australian Mineral Development Laboratories, Adelaide, for assay, but only material which had an iron content of at least 62 percent and a sulphur content of less than 0.25 percent was included in the calculations of ore reserves. Most of the samples had a much lower sulphur content than this, and the weighted averages for all the drill hole intersections classed as ore is 64.2 percent iron, 0.07 percent sulphur, 0.052 percent phosphorus and 0.044 percent copper. On the cross sections (Plates 2-7) heavy lines have been used to indicate those parts of the drill hole intersections which have been classed as ore for the purpose of these calculations. A factor of eight cubic feet to the ton was used in these calculations.

#### Proved Ore

Main lode		
DDH 4 - DDH 3		
Horizontal dimensions 250' x 45'		
Mineable to 80'		112,000tons
DDH 3 - DDH 5		
Horizontal dimensions 250' x 35'		
Mineable to 80'		87,000tons
DDH 5 - DDH 8		
Horizontal dimensions 290' x 35'		
Mineable to 80'		101,000tons
DDH 8 - DDH 10		
Horizontal dimensions 200' x 35'		
Mineable to 70'		<u>61,000tons</u>
Total proved ore		361,000tons

#### Probable Ore

Main lode		
DDH 10 - North End of Lode		
Horizontal dimensions 400' x 35'		122,000tons
Assumed mineable depth 70'		
DDH 4 - DDH 9		
Horizontal dimensions 300' x 40'		
Assumed mineable depth 80'		120,000tons
DDH 9 - DDH 11		
Horizontal dimensions 260' x 55'		
Assumed mineable depth 80'		143,000tons
DDH 11 - South End of Lode		
Horizontal dimensions 210' x 30'		
Assumed mineable depth 80'		63,000tons
Parallel Lode		
Horizontal dimensions 400' x 15'		
Assumed mineable depth 80'		<u>60,000tons</u>
Total Probable Ore		<u>508,000tons</u>

Possible Ore

## Main Lode

Owing to the relatively wide spacing of drill holes, the dimensions of the main lode are not very accurately known in the section south of diamond drill hole 4. If the average width of this section could be shown to be 5 feet more than assumed above, and the average mineable depth could be increased by 10 feet, the resulting additional ore would amount to

100,000tons

## Minor Lodes in Saddle

Three bodies, - 300', 500' and 300' long, - each averaging 25' in width.

Assumed mineable depth 60'

208,000tons

## Outcrops near Anomaly A

Three bodies, - 200' x 40' 100' x 40' and 60' x 30'

Assumed mineable depth 40'

69,000tons

## Boulder and Scree Ore

This has not been measured. It may occur in a zone 100 feet wide surrounding the whole of the main lode (4,000' x 100', excluding the saddle area) and the minor lodes (1,000' x 100', excluding the saddle area), and on the flanks of the saddle between the two (south flank 300' x 100', north flank 150' x 100' + 200' x 300'). It may have an average thickness of nine feet in the saddle area and six feet in the remainder of the area. Assuming  $1\frac{1}{2}$  tons of recoverable ore to the cubic yard, the possible reserves amount to

221,000tons

There is also an area of about 1,000' x 220' extending from the north end of the minor lodes to the vicinity of diamond drill holes 6 and 7, where recoverable scree ore with an average thickness of three feet may occur, amounting to

37,000tons

Total Possible Ore

635,000tonsFURTHER WORK

The most important further work to be done in the immediate area of Pritchard's Lode is to determine the extent and depth of recoverable rubble ore. The figure of 250,000 tons is a conservative one but, at the present time, only a few pits scattered at random over the area give any idea of the amount of rubble that may be available. Systematic costeaning over the area could well prove a significant amount of easily recoverable ore.

Further work should also be done to prove the continuity of the main lode both between drill holes 4 and 9 and between the main lode and the north-eastern extension. Further drilling should also be done to determine the mine-



able depths of the subsidiary lodes.

The preliminary geophysical survey over the area suggests that no further ore bodies will be found in the immediate area of Pritchard's Lode by the use of a ground magnetometer. An aeromagnetic survey over the entire igneous mass, however, might indicate similar magnetite lodes that are not exposed.

#### REFERENCES

Ashley, John 1962. A test magnetic survey in the Mt. Bunday area, N.T.: Bureau of Mineral Resources, unpublished report. ? Record

Dow, D.B. and Pritchard, P.W., 1958. The geology of Woolwonga, Mt. Bunday, and Marrakai East areas, N.T.: Bur.Min.Resour.Aust.Rec. 1958/122.

Hasan, S., 1958, Petrography and petrology of the Mt. Bunday Granite and Mt. Goyder Syenite, N.T.: Bur.Min.Resour.Aust.Rec. 1958/36.

APPENDIX ILOGS OF DIAMOND DRILL HOLES

DIAMOND DRILL HOLE NO. 2:- MT. BUNDEY

COLLAR OF HOLE 520s/28W (Geophysical grid)

BEARING : 325° (magnetic)

DEPRESSION : 45°

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
0' - 10'	Cuttings only	Martite rubble
10' - 20'	" "	Red syenite sand with some martite.
20' - 33'	" "	As above but richer in martite.
33' - 41'	" "	Pale red to yellow clay - probably decomposed syenite.
41' - 45'10"	5"	Pale white clay - followed by martite - vuggy with boxworks - slightly magnetic.
45'10" - 51'2"	2'5"	Vuggy martite - slightly magnetic.
51' 2" - 55'3"	6"	As above.
55' 3" - 56'4"	9"	As above.
56' 4" - 61'4"	6"	As above.
61' 4" - 66'3"	4"	Fine-grained pink syenite.
66' 3" - 76'5"	4"	Fine pink clay - probably decomposed syenite - some martite fragments - probably dropped from up the hole.
76' 5" - 81'0"	Cuttings only	Decomposed syenite with abundant martite.
81' 0" - 86'5"	5"	Chlorite (?) with magnetite veinlets
86' 5" - 91'2"	3'4"	7" Chlorite (?) 2'9" martite with up to 10% pyrite - small patches of chlorite.
91' 2" - 93'5"	2'0"	Martite with up to 30% pyrite - small amount of chalcopyrite - small patches of chlorite.
93' 5" - 96'0"	2'3"	Martite with less than 5% pyrite - a few thin (1/16") veinlets of malachite within the martite - martite strongly magnetic and vuggy.
96' 0" - 100'2"	3'7"	Martite - strongly magnetic - pyrite and chalcopyrite less than 3% - 4" band of white clay (?) within martite.

Hole abandoned at 100'6" due to caving higher up the hole.

NOTE: Chlorite (?) found from 81'0" to 87'0" is similar to material from D.D.H. 3b that has been identified as a barium muscovite.

DIAMOND DRILL HOLE 3A - MT. BUNDEY

COLLAR OF HOLE - 360S/15W (Geophysical grid)

BEARING -145° (magnetic)

DEPRESSION - 45°

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
0' - 8'	Cuttings only	Light red clay - some martite fragments.
8' - 16'	" "	Pale brown syenite - some large martite fragments.
16' - 26'	" "	Pale brown syenite.
26' - 36'	" "	As above.
36' - 46'	" "	As above.
46' - 51' 8"	2"	Martite - no sulphides
51' 8" - 53' 0"	1'4"	Vuggy martite with some boxwork and some iron sulphate staining.
53' 0" - 56' 6"	3'2"	As above.
56' 6" - 62' 4"	3'8"	As above.
Hole caved - redrilled from 47 feet.		
47' 0" - 51' 0"	3"	Vuggy martite with boxworks.
51' 0" - 53' 0"	10"	As above - some iron sulphate staining.
53' 0" - 54' 0"	6"	As above.
54' 0" - 56' 1"	1'2"	As above.
56' 1" - 58' 0"	1'8"	As above - slightly magnetic.
58' 0" - 58' 7"	3"	As above.
58' 7" - 63' 4"	4'4"	As above - rare thin quartz veinlets.
63' 4" - 63'10"	5"	As above - no quartz.
63'10" - 67' 0"	2'7"	As above - non magnetic.
67' 0" - 69' 0"	2'0"	As above - rare quartz veinlets.
69' 0" - 73' 4"	1'8"	As above - no quartz - boxworks very common.
73' 4" - 75' 4"	1'7"	As above.
75' 4" - 77' 2"	1'8"	As above - Pyrite appears from 76'0" - less than 2%.
77' 2" - 79' 0"	1'9"	Martite lode with about 2% pyrite.
79' 0" - 80' 6"	1'6"	As above.
80' 6" - 82' 5"	1'9"	Martite with rare pyrite - boxworks very common.
82' 5" - 85' 0"	2'1"	Martite with rare pyrite and rare boxworks.
85' 0" - 85'10"	8"	As above.
85'10" - 90' 4"	12"	Martite - strongly magnetic - rare pyrite.
90' 4" - 97' 2"	1'1"	5" solid martite. 8" martite with up to 5% disseminated pyrite - all strongly magnetic.

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
97' 2" - 99' 5"	9"	Martite with 5% disseminated pyrite - rare chalcopyrite - some chlorite (?).
99' 5" -108' 8"	9'3"	Martite strongly magnetic - up to 10% pyrite with rare chalcopyrite - pyrite in veinlets - some chlorite.
108' 8" -115' 9"	6'3"	As above with chalcopyrite up to 5%.
115' 9" -117' 6"	1'8"	As above - less chalcopyrite.
117' 6" -123' 6"	9"	Martite strongly magnetic - rare sulphides.
123' 6" -128'10"	4'0"	Granular magnetite - disseminated pyrite up to 5% - some chalcopyrite - possibly some Arsenopyrite - one 9" band of pale blue-green clay or gouge.
128'10" -136' 4"	7'2"	Abundant magnetite crystals - pyrite and chalcopyrite both up to 5%. At 135'6" change to hard chlorite rock - up to 2% pyrite in veinlets.
136' 4" -137'11"	9"	4" - chlorite rock (?)
137'11" -147' 6"	2'0"	Fine-grained syenite - thoroughly chloritized - some coarse-grained syenite.
147' 6" -150'10"	2'9"	1" coarse-grained chloritized syenite 2'8" granular magnetite - pyrite and chalcopyrite up to 10% - some chlorite.
150'10" -152' 9"	1'7"	As above - chlorite abundant for bottom 6".
152' 9" -155' 9"	3'0"	Coarse-grained chloritized syenite.
155' 9" -156' 3"	6"	As above.
156' 3" END OF HOLE		

DIAMOND DRILL HOLE 3B: MT. BUNDEY

COLLAR OF HOLE - 360S/15W (Geophysical grid)

BEARING - 145° (Magnetic)

DEPRESSION - 70°

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
0' - 10'	Cuttings only	Red sand
10' - 20'	" "	Sand - some martite pebbles
20' - 30'	" "	Decomposed syenite - clay-rich
30' - 40'	" "	Decomposed syenite - clay-rich
40' - 50'	" "	Decomposed syenite - biotite-rich
50' - 55'	" "	Decomposed syenite - with altered feldspars.
55' - 60'	Cuttings with pieces of core	Deeply weathered syenite.
60' - 70'	Cuttings with pieces of core	Deeply weathered syenite.
70' - 80'	Cuttings with pieces of core	Deeply weathered syenite - some bands rich in biotite.
80' - 84'	Cuttings with pieces of core	Weathered syenite - biotite-rich
84' - 89'	Cuttings with pieces of core	Weathered syenite.
89' - 90'	1'	Weathered syenite - chlorite-rich.
90' - 94'	2'6"	Weathered syenite - abundant apple-green barium muscovite.
94' - 100'	6'0"	Weathered syenite to 97' - fresh syenite below.
100' - 106'6"	6'6"	Fresh coarse-grained syenite to 103'. From 103' - 105'2" fine-grained banded black chlorite rock (?) - possibly a sediment - up to 1% pyrite. Below 105'2" - magnetite lode - up to 3% pyrite.
106'6" - 115'11"	9'2"	Magnetite lode - up to 5% pyrite - some bands containing silicate minerals. 1" band of chert.
115'11" - 124'10"	8'9"	115'11" - 118'11" - chlorite - magnetite rock - very soft - 2% pyrite. 118'11" - 124'10" - magnetite lode - up to 10% pyrite.
124'10" - 132' 0"	6'8"	Magnetite lode - up to 10% brown chlorite filling interstices between magnetite crystals - up to 10% pyrite.

12.

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
132' 0" - 135' 5"	2' 2"	Magnetite lode with abundant chlorite partings - rare pyrite.
135' 5" - 139' 7"	3' 2"	As above.
139' 7" - 142' 1"	11"	Magnetite with barium muscovite bands up to 3" - Pyrite up to 3% in magnetite, 1% in chlorite.
142' 1" - 144' 6"	1' 4"	As above.
144' 6" - 145' 3"	9"	5" barium muscovite. 4" barium muscovite with magnetite crystals - rare pyrite - some quartz veinlets.
145' 3" - 148' 6"	8"	4" barium muscovite. 3" magnetite with abundant chlorite. 1" granular quartz.
148' 6" - 151' 5"	3"	1" massive pyrite 2" magnetite lode with 2% pyrite.
151' 5" - 154' 11"	1' 9"	1" massive pyrite 1' 8" magnetite lode with 2% pyrite.
154' 11" - 156' 2"	10"	Magnetite lode - 2% pyrite.
156' 2" - 157' 11"	1' 3"	1" massive pyrite 1' 2" magnetite lode - 2% pyrite.
157' 11" - 162' 0"	3' 9"	Magnetite lode - up to 5% pyrite - possibly some chalcopyrite.
162' 0" - 165' 0"	2' 3"	As above.
165' 0" - 167' 1"	2' 1"	1' 5" as above. 8" coarse-grained chloritized syenite.
167' 1" - 171' 1"	4' 0"	Coarse-grained chloritized syenite.

END OF HOLE

DIAMOND DRILL HOLE 4A : MT. BUNDEY

COLLAR OF HOLE - 385S/260W (Geophysical grid)  
 BEARING - 130° (Magnetic)  
 DEPRESSION - 45°

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
0' - 10'	-	Martite ? boulders
10' - 52'	No core	Cuttings indicate decomposed syenite with increasing amounts of hematite in depth.
52' - 57'	4"	Coarsely crystalline martite.
57' - 58'	12"	Crystalline martite with abundant ? boxworks.
58' - 58' 6"	3"	As above.
58' 6" - 59'	6"	As above.
59' - 59' 6"	6"	As above.
59' 6" - 60'	4"	Martite with limonite coatings on joint planes.
60' - 60' 1"	1"	Martite
60' 1" - 64' 4"	3'2"	Martite with boxworks. Some pug seams on major joint planes.
64' 4" - 65' 7"	1'3"	Martite with ? boxworks.
65' 7" - 68'	2'4"	Martite with ? boxworks. Some limonite coating on joint planes.
68' - 71' 9"	4'2"	Coarsely crystalline martite with abundant vuggy cavities.
71' 9" - 72' 8"	6"	As above.
72' 8" - 76' 6"	2'9"	As above.
	3"	Chert, partly replaced by iron oxides.
76' 6" - 79' 2"	1'9"	Vuggy martite with occasional pockets of clay, up to $\frac{1}{4}$ ".
79' 2" - 79' 3"	1"	As above.
79' 3" - 81' 7"	6"	As above.
81' 7" - 83' 6"	12"	Coarsely crystalline martite with vuggy cavities. Clay and limonite seams on joint planes.
83' 6" - 83' 9"	3"	As above.
83' 9" - 86' 9"	12"	As above.
86' 9" - 87'	3"	As above.
87' - 89' 4"	1'6"	Martite, dominantly fine-grained, with abundant vuggy cavities.
89' 4" - 90'	6"	Martite, coarsely crystalline with abundant vuggy cavities.
90' - 91' 2"	1'3"	Crystalline martite, moderately abundant boxworks. Traces of ? kaolin.

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
91' 2" - 93' 6"	1'3"	As above. Very sheared and in part altered to limonite.
93' 6" - 95' 10"	2'8" in part.	As above. Very abundant box-works in part.
95'10" - 99' 3"	1'3"	As above.
99'3" -101'	12"	As above.
101' -107' 9"	9"	As above. In places, martite has coarsely granular texture.
107'9" -110' 7"	1'3"	Crystalline martite, becoming more limonitic and puggy in depth.
	12"	Pug and limonite.
	9"	Martite with pug zones.
110'7" -115' 2"	2'3"	Granules of martite in kaolinitic and chloritic matrix. Kaolinized feldspar crystals and ? fragments of decomposed shale occur as inclusions.
115'2" -119'	3"	Altered fine-grained syenite with abundant veinlets of ? chlorite. Some specks of martite and of sulphides.
119' -123'	2'3"	Syenite, coarse-grained, otherwise similar to above.
123' -123' 7"	6"	Syenite, rather fresher than above.
123'7" -126' 8"	2'0"	Fresh coarse syenite - rare pyrite.
126'8" -128' 0"	1'4"	As above.
128'0" -133' 6"	4'10"	As above.
133'6" -141' 0"	4'8"	As above.
END OF HOLE		Martite throughout the lode shows patches of moderately to strongly magnetic material, alternating irregularly with non-magnetic material.



DIAMOND DRILL HOLE 4B - PRITCHARD'S LODGEMT. BUNDEY

COLLAR OF HOLE - 385S/260W (Geophysical grid)

BEARING - 130°

DEPRESSION - 70°

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
0' - 2'	Cuttings only	Red-brown soil.
2' - 5'	" "	Soil with fragments of martite.
5' - 11'	" "	Soil with short pieces of martite core.
11' - 20'	" "	Syenite sand.
20' - 25'	" "	As above.
25' - 29'	" "	Syenite sand with some fragments of syenite - $\frac{1}{2}$ ".
29' - 31'	" "	Large (1") syenite fragments - few martite fragments probably from top of hole.
31' - 32'	" "	Syenite sand.
32' - 44'	" "	Feldspar and magnetite sands.
44' - 46'	" "	Syenite sand - rare magnetite grains.
46' - 51'	" "	Syenite sand - up to 5% magnetite grains.
51' - 56'	" "	Syenite sand - up to 10% magnetite grains.
56' - 57'	" "	Deeply weathered syenite fragments.
57' - 61'	" "	Syenite sand.
61' - 66'	" "	As above.
66' - 68'	" "	As above.
68' - 71'	" "	As above.
71' - 79'	1'11"	Biotite-rich sand with 1'1" of core showing deeply weathered biotite-rich syenite.
79' - 81'	Cuttings only	Biotite-rich sand.
81' - 88'	1"	Biotite-rich sand plus fragments of deeply weathered syenite - 1" of core is weathered syenite with green platy mineral.
88' - 91'	Cuttings only	Biotite-rich sand.
91' - 96'	5"	Weathered syenite with green platy mineral.
96' - 98'	9"	As above.
98' - 106'	Cuttings only	Biotite-rich sand.
106' - 116'	2'10"	Biotite-rich sand followed by fresh coarse-grained syenite.

16.

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
116' - 126'	8'3"	As above.
126' - 135'	7'9"	As above.

END OF HOLE

NOTE: Green platy mineral is apparently the same as green mineral in drill hole 3b, which has been identified as a barium muscovite.

DIAMOND DRILL HOLE 5A - PRITCHARD'S LODEMT. BUNDEY

COLLAR OF HOLE - 375S/238E (Geophysical grid)

BEARING - 165° (Magnetic)

DEPRESSION - 45°

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
0' - 15'	Cuttings only	Pale brown sandy clay - probably weathered syenite.
15' - 20'	5"	Deeply weathered syenite.
20' - 30'	Cuttings only	Decomposed syenite.
30' - 40'	" "	Yellow clay - decomposed syenite.
40' - 71'	" "	Red ferruginous gritty clay.
71' - 76'6"	9"	Martite with abundant boxworks - not magnetic.
76' 6" - 77' 8"	5"	As above.
77' 8" - 78' 2"	1"	" "
78' 2" - 79' 6"	12"	" "
79' 6" - 80' 2"	3"	" "
80' 2" - 80'11"	3"	" "
80'11" - 84' 3"	3'4"	" "
84' 3" - 84'10"	7"	" "
84'10" - 85' 3"	5"	" "
85' 3" - 86' 4"	11"	" "
86' 4" - 86'11"	7"	" "
86'11" - 87' 4"	5"	" "
87' 4" - 88' 2"	5"	" "
88' 2" - 88' 8"	6"	" "
88' 8" - 89' 4"	4"	" "
89' 4" - 89' 7"	3"	" "
89' 7" - 91' 7"	2'0"	" "
91' 7" - 94' 4"	2'9"	Martite - approx. 1% pyrite from 93' - rare boxworks.
94' 4" - 96' 8"	1'9"	As above - some magnetite bands.
96' 8" - 99'10"	2'1"	As above.
99'10" - 102' 0"	10"	" "
102' 0" - 104'10"	2'10"	As above - no pyrite after 104'. Boxworks very common after 104'.
104'10" - 105' 6"	8"	Martite - boxworks common.
105' 6" - 107' 8"	9"	As above - boxworks common, partially filled by limonite.
107' 8" - 114' 0"	3'8"	As above.
114' 0" - 115'10"	1'4"	" "

HOLE ABANDONED - BIT LOST AT BOTTOM.

DIAMOND DRILL HOLE 5B - PRITCHARD'S LODEMT. BUNDEY

COLLAR OF HOLE - 375S/238E (Geophysical grid)

BEARING - 165° (Magnetic)

DEPRESSION - 50°

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
0' - 90'	Not cored	
90' - 95'	3"	Green (barium) mica - some small quartz grains.
95' - 98'	1'0"	Deeply weathered banded hornfels - Banding/core = 10° - some green (barium) mica.
98' - 98' 9"	3"	As above - no green mica.
98' 9" - 102'	2'1"	Banded hornfels (?) - weathered chert and clay.
102' - 103' 2"	1'1"	Martite - boxworks - 1% pyrite - slightly magnetic.
103' 2" - 104' 9"	1'6"	Martite - boxworks filled with limonite.
104' 9" - 105' 9"	1'0"	As above.
105' 9" - 108' 6"	2'7"	" "
108' 6" - 115' 10"	6'0"	Weathered chlorite (?) rock.
115' 10" - 124'	2'4"	As above.
124' - 127'	3'0"	" "
127' - 129'	2'0"	1'0" as above - relict banding, banding/core = 30° 1'0" martite - abundant quartz - slightly magnetic
129' - 132'	3"	Clay - small amount of martite at bottom of hole.

END OF HOLE

DIAMOND DRILL HOLE 6 - PRITCHARD'S LODGE AND  
MT. BUNDEY

COLLAR OF HOLE - 458N/396E (Geophysical grid)

BEARING - 117° (Magnetic)

DEPRESSION - 60°

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
0' - 42'	Cuttings only	Mostly decomposed syenite - some martite pebbles.
42' - 51' 9"	" "	Apple-green clay mineral similar to mineral in DDH 3b identified as a barium muscovite.
51' - 54' 0"	9"	Martite crystals in matrix of limonite, slightly magnetic.
54' 0" - 55' 4"	1'4"	Martite with some box-works. Some vugs filled with opaline silica.
55' 4" - 61' 7"	1'3"	Decomposed syenite - no core. All core is martite - slightly magnetic - some limonite.
61' 7" - 67' 0"	7"	Decomposed syenite - no core. Core is martite - up to 5% pyrite.
67' 0" - 70' 7"	3'7"	Magnetite lode - up to 10% pyrite - Quartz abundant in some sections.
70' 7" - 74' 2"	3'0"	As above.
74' 2" - 78' 4"	1'4"	" "
78' 4" - 81' 5"	4"	" "
81' 5" - 82' 8"	1'2"	Quartz rich hornfels - up to 2% pyrite, banding/core angle 30°, some chlorite.
82' 8" - 88' 1"	3'2"	As above.
88' 1" - 90' 10"	1'1"	" "
90' 10" - 95' 4"	2'0"	" "
95' 4" - 98' 6"	2'9"	" "
98' 6" - 105' 1"	1'9"	" "
105' 1" - 107' 7"	2'6"	" "
107' 7" - 110' 0"	1'6"	" "

END OF HOLE

DIAMOND DRILL HOLE 7A - PRITCHARD'S LODEMT. BUNDEY

COLLAR OF HOLE - 600N/800E (Geophysical grid)

BEARING - 117°

DEPRESSION - 60°

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
0' - 10'	1'0"	Martite.
10' - 55'	Cuttings only	Decomposed syenite
55' - 84'	10'0"	Syenite.

RODS STRUCK - HOLE ABANDONED.

DIAMOND DRILL HOLE 7B - COLLAR OF HOLE AND BEARING

same as above. DEPRESSION - 50°.

0' - 14'	-	-
14' - 58'	Cuttings only	Weathered syenite
58' - 64'	5'0"	Fresh coarse syenite - some bands of chlorite.
64' - 77' 9"	3'6"	Fresh syenite - vug filled with calcite crystals.
77' 9" - 87' 9"	8'6"	As above.
87' 9" - 93'10"	6'1"	9" fresh syenite as above. 3'4" magnetite with 2% pyrite - some orthoclase crystals 2'0" fresh syenite as above.
93'10" - 103'	8'6"	Fresh syenite as above.
103' - 110'	7'0"	" " " "
110' - 120'	10'0"	2'2" fresh syenite as above. 7'0" chlorite-and feldspar-rich hornfels with 2% pyrite. 10" chlorite - magnetite with 5% pyrite.
120' - 125'	5'0"	Chlorite-feldspar hornfels, 2% pyrite.
125' - 131'6"	6'6"	As above - banding/core = 45°.
131'6" - 140'	8'4"	As above - orthoclase porphyroblasts (?).
140' - 146'9"	6'9"	5'2" syenite. 1'7" chlorite hornfels - 1% pyrite - banding/core = 30°.
146'9" - 155'	8'3"	2'8" chlorite hornfels 5'7" orthoclase-chlorite hornfels.
155' - 165'	9'6"	As above - banding/core = 45°.

END OF HOLE.

DIAMOND DRILL HOLE NO. 8 MT. BUNDEY

COLLAR OF HOLE - 288S/465E (Geophysical grid)

BEARING - 111° (Magnetic)

DEPRESSION - 45°

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
0' - 17'	6"	Ferruginous soil
17' - 33' 9"	3"	Fine light brown powdery material - probably sericite.
33' 9" - 34' 3"	4"	Decomposed lode material - limonite.
34' 3" - 43' 8"	3"	Light brown powdery material - probably sericite.
43' 8" - 45' 6"	1' 10"	Martite - slightly magnetic - boxwork with limonite.
45' 6" - 45' 9"	No recovery	
45' 9" - 52' 3"	4' 0"	Martite with boxworks.
52' 3" - 62' 0"	No recovery - thought to be limonitic horn- fels or slate	
62' 0" - 72' 0"	4' 3"	Martite - boxworks with limonite.
72' 0" - 73' 4"	1' 2"	" " "
73' 4" - 78' 8"	1' 0"	" " "
78' 8" - 86' 10"	2' 6"	Weathered martite.
86' 10" - 88' 9"	1' 0"	Martite with limonite in cavities.
88' 9" - 92' 4"	3' 6"	" " " "
92' 4" - 93' 9"	1' 5"	Solid martite - sulphides beginning at 92' 6".
93' 9" - 94' 6"	No recovery	
94' 6" - 97' 6"	3' 0"	Martite - up to 5% pyrite.
97' 6" - 98' 0"	6"	Micaceous hornfels (?)
98' 0" - 99' 0"	No recovery	
99' 0" - 99' 6"	6"	Martite

BOTTOM OF HOLE - ABANDONED DUE TO RAINY SEASON

DIAMOND DRILL HOLE NO. 9, MT. BUNDEY

COLLAR OF HOLE - 280S/409W (Geophysical grid)

BEARING - 132° (Magnetic)

DEPRESSION - 45°

<u>FOOTAGE</u>			<u>RECOVERY</u>	<u>DESCRIPTION</u>
0'	-	6'	No recovery	
6'	-	8'	1'6"	Vuggy martite - slightly magnetic.
8' 0"	-	9'	6"	As above.
9'	-	10'	1'0"	Vuggy martite - boxworks common.
10'	-	13'	1'0"	" " "
13'	-	17'	9"	" " "
17'	-	18' 6"	No recovery	
18' 6"	-	24' 4"	1'3"	Vuggy martite - boxworks common.
24' 4"	-	30' 0"	No recovery	
30' 0"	-	45' 0"	0'9"	Martite fragments - possibly from near 44'.
45' 0"	-	58' 0"	No recovery	
58' 0"	-	69' 0"	2'0"	Solid martite lode - no vugs
69' 0"	-	75' 0"	5'0"	" " " - feebly magnetic.
75' 0"	-	78' 0"	1'0"	Martite lode.

HOLE ABANDONED - RODS STUCK IN HOLE.



DIAMOND DRILL HOLE NO. 10, MT. BUNDEY

COLLAR OF HOLE - 182S/685E (Geophysical grid)

BEARING - 145° (Magnetic)

DEPRESSION - 45°

<u>FOOTAGE</u>		<u>RECOVERY</u>	<u>DESCRIPTION</u>
0'	- 7'	4"	Rubble - core is martite boulder.
7'	- 15'	Cuttings only	Weathered syenite.
15'	- 26'	" "	" "
26'	- 35' 6"	No recovery	
35' 6"	- 45' 0"	3'2"	Badly weathered syenite - mostly clay.
45' 0"	- 50' 0"	2'3"	As above.
50' 0"	- 52' 6"	20"	Deeply weathered martite.
52' 6"	- 60' 3"	3"	" " "
60' 3"	- 65' 8"	2'2"	" " " with clay seams.
65' 8"	- 70' 0"	2'5"	Martite - small crystals - some limonite and clay.
70' 0"	- 75' 0"	3'0"	Martite - vuggy - crystalline - some limonite and clay.
75' 0"	- 81' 3"	3'10"	Martite - strongly magnetic - 2% pyrite - some vugs and boxworks.
81' 3"	- 83' 4"	1'11"	7" martite - strongly magnetic 2'4" chloritic hornfels - rare pyrite.
83' 4"	- 84' 4"	10"	6" chloritic hornfels - rare pyrite - 4" martite.
84' 4"	- 86' 6"	1'2"	Magnetite - rare pyrite - 1" band of white clay.
86' 6"	- 87' 3"	9"	Magnetite - 2 to 3% pyrite.
87' 3"	- 91' 6"	4'3"	2'2" magnetite - 2 to 3% pyrite 2'1" magnetite with bands of hornfels.
91' 6"	- 97' 1"	5'7"	Magnetite with bands of hornfels.
97' 1"	- 98' 1"	1'0"	4" solid pyrite - 8" magnetite with 2% pyrite.
98' 1"	- 105' 0"	6'11"	4'0" magnetite - 8" magnetite with 2% pyrite - 2'11" white hornfels with magnetite bands.
105' 0"	- 108' 0"	3'0"	Hornfels with magnetite bands with orthoclase crystals and 1% pyrite.
108' 0"	- 115' 5"	7'5"	Hornfels - magnetite bands parallel to banding - banding/core angle 15 degrees - rare calcite crystals.

24.

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
115' 5" - 121' 0"	5' 3"	5" magnetite - 5% pyrite 4'10" hornfels - bands of magnetite - banding/core angle 45 degrees - chlorite veins - calcite crystals in magnetite.
121' 0" - 123' 0"	2' 0"	Hornfels with orthoclase porphyroblasts.
123' 0" - 125' 0"	2' 0"	Hornfels with orthoclase porphyroblasts.

END OF HOLE.

DIAMOND DRILL HOLE 11 - PRITCHARD'S LODGE &  
MT. BUNDEY

COLLAR OF HOLE - 166S/722W (Geophysical grid)

BEARING - 150° (Magnetic)

DEPRESSION - 45°

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
0' - 6'	Cuttings only)	Martite fragments and ferruginous sand
6' - 7'	" "	
7' - 15'	3' 6"	Martite with abundant boxworks
15' - 22'	4"	Martite with magnetite grains
22' - 25' 6"	Cuttings only	Weathered syenite
25' 6" - 29' 9"	8"	Martite - abundant boxworks - some limonite.
29' 9" - 37' 4"	11"	Core is martite as above - most of the run done very rapidly - no water return - probably decomposed syenite.
37' 4" - 45' 0"	9"	Martite as above.
45' 0" - 53' 0"	5"	Martite with boxworks.
53' 0" - 56' 0"	4"	As above.
56' 0" - 60' 0"	1' 0"	" "
60' 0" - 60' 8"	6"	" "
60' 8" - 62' 4"	1' 8"	" " - slightly magnetic - rare secondary (?) quartz.
62' 4" - 67' 6"	3' 8"	Martite - slightly magnetic - limonite common.
67' 6" - 72' 6"	6'	As above.
72' 6" - 86' 6"	-	Probably decomposed syenite.
86' 6" - 94' 6"	10"	3" limonitic clay 7" martite with boxworks, slightly magnetic.
94' 6" - 96' 0"	1' 6"	Martite as above.
96' 0" - 98' 9"	2' 6"	As above.
98' 9" - 101' 6"	2' 8"	" "
101' 6" - 111' 6"	1' 10"	" "
111' 6" - 115' 3"	2"	Weathered syenite - some martite pebbles.
115' 3" - 118' 1"	1' 4"	Martite - clay along joint planes.
118' 1" - 120' 3"	1' 4"	2" martite as above - followed by cuttings of weathered syenite - 1' 2" martite as above.
120' 3" - 125' 8"	3' 7"	Martite - abundant boxworks. Slightly magnetic - clay on joint planes.

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
125' 8" - 128' 3"	1' 3"	As above.
128' 3" - 129' 3"	7"	" " with thin bands of weathered syenite.
129' 3" - 131' 0"	1' 8"	1' 4" martite.
131' 0" - 132' 4"	1' 2"	12" martite. 2" siliceous hornfels.
132' 4" - 133' 1"	4"	As above.
133' 1" - 137' 0"	1' 5"	" " up to 1% pyrite.
137' 0" - 138' 7"	11"	" " " " " "
138' 7" - 143' 6"	9"	5" as above. 4" magnetite - up to 2% pyrite boxworks still common.
143' 6" - 148' 10"	5' 3"	5' 0" magnetite - up to 10% pyrite boxworks still common. 3" hornfels.
148' 10" - 151' 6"	2' 10"	Hornfels - chlorite bands - rare pyrite.
151' 6" - 155' 7"	4' 6"	Banded hornfels - banding/core angle 45° up to 2% pyrite - 2" band of magnetite with 5% pyrite followed by 2" band of chlorite.
155' 7" - 158' 6"	2' 11"	5" hornfels 7" magnetite with 2% pyrite. 16" hornfels 5" magnetite with 2% pyrite. 2" hornfels.
158' 6" - 164' 6"	6' 0"	15" hornfels - up to 2% pyrite 2' 4" magnetite - 2% pyrite - large calcite crystals common. 2' 5" hornfels - banding/core angle 45° - bands of magnetite roughly parallel to banding make up approx. 50% by volume - magnetite contains about 5% pyrite.
164' 6" - 172' 6"	7' 2"	Banded hornfels - banding/core angle 15° partial irregular replacement by magnetite and pyrite.
172' 6" - 181' 0"	6' 6"	Banded hornfels - banding/core angle 30° - 2% pyrite - rare magnetite.
181' 0" - 188' 4"	7' 9 "	As above.
188' 4" - 188' 8'	4"	As above.
188' 8" - 194' 8"	6' 0"	As above; small piece of mar- tite probably fell from higher up the hole.
194' 8" - 199' 6"	4' 9"	Hornfels - up to 2% pyrite - some feldspar porphyroblasts (?) up to 6 mm. across.
199' 6" - 201' 0"	1' 3"	As above.

DIAMOND DRILL HOLE NO. 12 MT. BUNDEY

COLLAR OF HOLE - 175S/386W (Geophysical grid)

BEARING - 263° (Magnetic)

DEPRESSION - 45°

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
0' - 17' 0"	Cuttings only	Ferruginous clay.
17' 0"- 21' 0"	5"	Martite - strongly magnetic - open boxworks - probably a boulder.
21' 0"- 31' 0"	Cuttings only	Weathered syenite
31' 0"- 41' 0"	" "	" "
41' 0"- 51' 0"	6"	" "
51' 0"- 61' 0"	Cuttings only	" "
61' 0"- 71' 0"	4"	Martite
71' 0"- 81' 0"	2"	Martite - followed by cuttings of plastic white clay.
81' 0"- 82' 0"	6"	Martite - slightly magnetic.
82' 0"- 82' 5"	3"	As above - some fine quartz veins.
82' 5"- 83' 7"	1'2"	Martite - abundant boxworks - some filled with limonite.
83' 7"- 88' 6"	2'9"	Martite as above - vugs filled with limonite and clay.
88' 6"- 90' 6"	1'5"	As above.
90' 6"- 95' 6"	2'10"	" "
95' 6"- 110' 6"	No recovery	
110' 6"- 120' 6"	2"	Martite - abundant limonite and clay.
120' 6"- 126' 0"	5"	Martite - slightly magnetic.
126' 0"- 127' 0"	3"	As above.
127' 0"- 127' 6"	6"	" "
127' 6"- 128' 0"	2"	" "

HOLE ABANDONED - CAVING GROUND

DIAMOND DRILL HOLE NO. 13 MT. BUNDEY

COLLAR OF HOLE - 255/795W (Geophysical grid)  
 BEARING - 138 degrees (Magnetic)  
 DEPRESSION - 45°

<u>FOOTAGE</u>	<u>RECOVERY</u>	<u>DESCRIPTION</u>
0' - 3' 6"	Cuttings only	Martite rubble
3' 6" - 6' 6"	" "	" "
6' 6" - 11' 0"	" "	Clay.
11' 0" - 21' 0"	" "	Clay with martite pebbles.
21' 0" - 76' 0"	" "	Weathered syenite with martite pebbles.
76' 0" - 77' 0"	1' 0"	Martite with rare quartz crystals.
77' 0" - 101' 0"	Cuttings only	Clay.

END OF HOLE.

APPENDIX IIMT. BUNDEY : ASSAY RESULTS DIAMOND DRILL HOLES  
2 AND 3A FOR COPPER, GOLD AND SILVERD.D.H. 2

45' - 55'	0.1% Cu
55' - 61'	.35
81' - 87'	.3
87' - 88'	.15
88' - 93'	.25
93' - 96'	.15
96' - 100'	.05

D.D.H. 3A

51' - 61'	0.10% Cu
61' - 71'	.10
71' - 81'	.15
81' - 86'	.15
86' - 91'	.15
91' - 96'	.50
96' - 101'	.30
101' - 106'	.15
106' - 111'	.10
111' - 116'	.40
116' - 121'	.50
121' - 126'	.20
126' - 131'	.25
131' - 136'	.05
148' - 156'	.07

No gold or silver found in any sample.

Government Battery,  
TENNANT CREEK.

APPENDIX III.MT. BUNDEY : ASSAY RESULTS D.D.H. 2, 3A, 3B,4A, 5A, 6, 8, 9, 10, 11, 12,FOR TOTAL IRON, SULPHUR, PHOSPHORUS AND COPPER

<u>D.D.H. 2</u>			<u>Total Iron %</u>	<u>Sulphur %</u>	<u>Phosphorus %</u>	<u>Copper%</u>
45'	-	61'	66.3	0.03	0.041	0.050
88'	-	96'	62.0	3.50	0.009	0.175
96'	-	100'	64.9	0.20	0.023	0.021
<u>D.D.H. 3A</u>						
51'	-	61'	65.0	0.18	0.089	0.038
61'	-	71'	63.8	0.11	0.039	0.047
71'	-	81'	63.0	1.74	0.019	0.055
81'	-	91'	63.7	0.24	0.021	0.040
91'	-	101'	63.6	1.93	0.026	0.144
101'	-	111'	62.1	4.43	0.009	0.130
111'	-	121'	64.3	2.79	0.021	0.080
121'	-	131'	64.4	1.90	0.021	0.060
<u>D.D.H. 3B</u>						
105'	-	112'	62.6	3.01	0.040	0.075
112'	-	116'	63.9	2.56	0.024	0.045
119'	-	122'	63.1	2.01	0.024	0.010
124'	-	131'	64.5	3.55	0.045	0.048
136'	-	140'	63.0	0.43	0.048	0.016
155'	-	160'	62.8	1.24	0.050	0.033
160'	-	164'	62.6	1.60	0.148	0.042
164'	-	166'	63.1	0.54	0.090	0.018
<u>D.D.H. 4A</u>						
56'	-	67'	66.7	0.060	0.016	0.021
67'	-	77'	66.1	0.051	0.012	0.025
77'	-	87'	66.5	0.032	0.021	0.019
87'	-	97'	66.2	0.047	0.020	0.015
97'	-	107'	66.4	0.036	0.025	0.013
107'	-	111'	55.8	0.138	0.057	0.025
111'	-	115'	63.0	0.033	0.027	0.025
<u>D.D.H. 5A</u>						
75' 4" -		80' 2"	62.5	0.12	0.074	0.042
80' 11" -		88' 11"	62.6	0.12	0.057	0.016
88' 11" -		95' 0"	62.4	0.59	0.029	0.178
95' 0" -		104' 0"	60.5	1.06	0.041	0.192
104' 0" -		115' 10"	64.0	0.11	0.033	0.018
<u>D.D.H. 6</u>						
51' 9" -		54' 0"	52.0	0.035	0.120	0.080
54' 0" -		55' 4"	55.7	0.035	0.071	0.036
60' 4" -		61' 7"	56.4	0.045	0.055	0.021
61' 7" -		70' 7"	57.3	5.73	0.137	0.005
70' 7" -		81' 5"	61.4	1.82	0.042	0.004



<u>D.D.H. 8</u>		<u>Total Iron %</u>	<u>Sulphur %</u>	<u>Phosphorus %</u>	<u>Copper%</u>
43' 8"	- 45' 6"	62.8	0.15	0.054	0.092
45' 9"	- 52' 3"	63.7	0.15	0.014	0.041
62' 0"	- 72' 0"	65.4	0.07	0.066	0.052
72' 0"	- 73' 4"	63.8	0.07	0.053	0.076
73' 4"	- 78' 8"	60.7	0.15	0.165	0.161
78' 8"	- 86' 10"	62.5	0.06	0.117	0.092
86' 10"	- 88' 9"	63.1	0.03	0.052	0.060
88' 9"	- 92' 4"	65.7	0.055	0.057	0.040
92' 4"	- 93' 4"	61.8	2.90	0.048	0.785
94' 6"	- 97' 6"	60.0	2.45	0.029	0.40
<u>D.D.H. 9</u>					
6'	- 8'	65.9	0.06	0.026	0.018
8'	- 18'	65.9	0.06	0.059	0.030
18'	- 45'	65.4	0.028	0.059	0.028
58'	- 69'	64.1	0.14	0.089	0.036
69'	- 75'	62.3	0.23	0.066	0.040
75'	- 78'	64.3	0.08	0.034	0.030
<u>D.D.H. 10</u>					
50'	- 69'	63.4	0.04	0.096	0.054
69'	- 76'	63.7	0.037	0.039	0.052
76'	- 82'	62.1	2.51	0.018	0.166
84'	- 90'	62.1	1.83	0.040	0.076
<u>D.D.H. 11</u>					
7'	- 22'	65.7	0.05	0.085	0.037
25'	- 53'	66.3	0.013	0.037	0.028
56'	- 67' 6"	63.2	0.043	0.062	0.056
87'	- 96'	65.7	0.024	0.042	0.045
96'	- 101' 6"	65.9	0.06	0.016	0.031
101' 6"	- 111' 6"	65.6	0.020	0.021	0.033
115' 3"	- 125' 8"	64.5	0.037	0.041	0.062
125' 8"	- 130' 0"	65.6	0.045	0.021	0.054
131' 0"	- 132' 4"	66.6	0.025	0.019	0.035
143' 6"	- 148' 0"	59.5	3.00	0.021	0.078
<u>D.D.H. 12</u>					
81'	- 89'	62.6	0.030	0.065	0.044
89'	- 95' 6"	62.3	0.020	0.074	0.055
110'	- 128'	63.0	0.020	0.072	0.099

Australian Mineral Development  
Laboratories, Adelaide.

APPENDIX IV

MOUNT BUNDEY : ASSAY RESULTS  
SURFACE SAMPLES NEAR D.D.H. 3,4,5,8,9,10,  
11, and 12 FOR TOTAL IRON, SILICA,  
PHOSPHORUS, SULPHUR AND COPPER

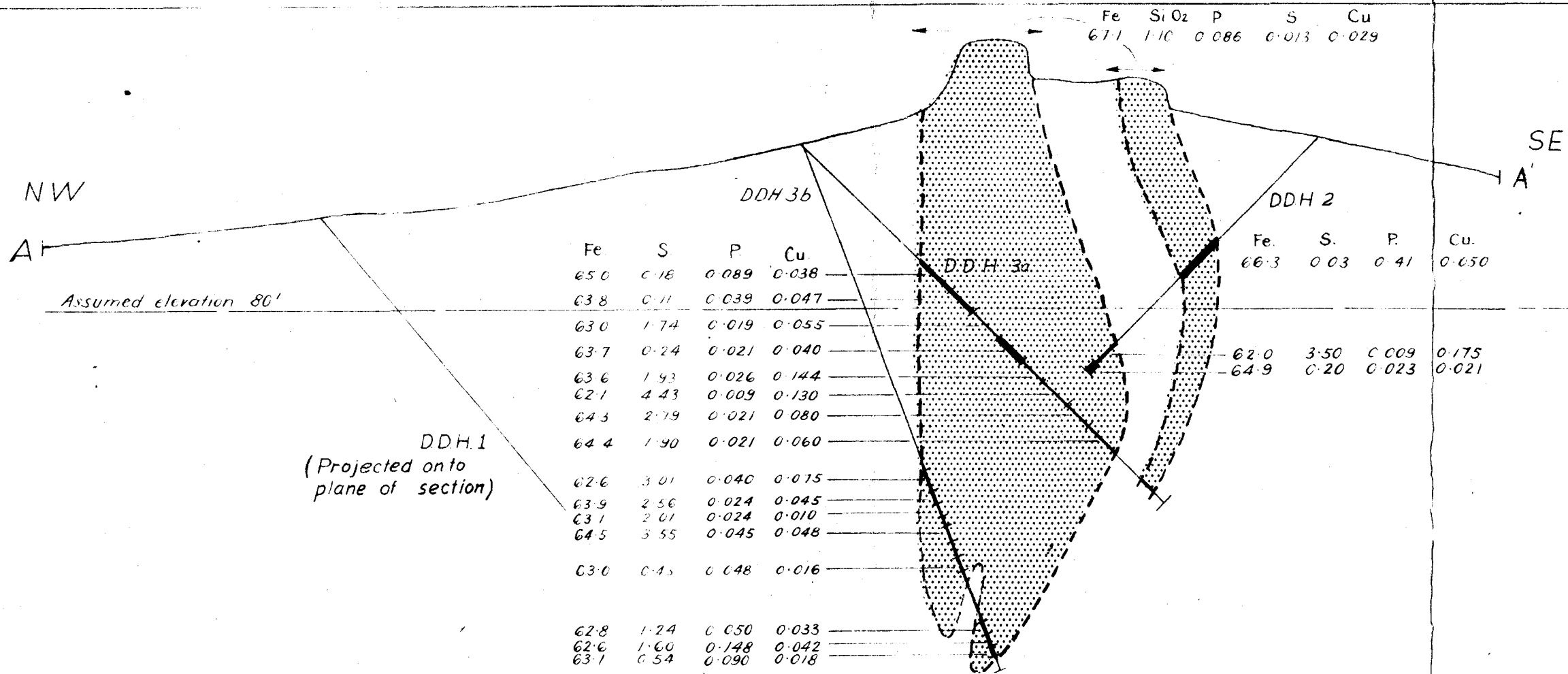
D.D.H.	3	Total Iron Fe %	Silica SiO <sub>2</sub> %	Phosphorus P %	Sulphur S %	Copper Cu %
D.D.H.	3	67.1	1.10	0.086	0.013	0.029
	4	65.7	2.12	0.085	0.057	0.036
	5	65.6	2.00	0.074	0.065	0.031
	8	66.6	1.73	0.068	0.108	0.044
	9	65.6	3.19	0.016	0.072	0.023
	10	65.1	2.34	0.156	0.055	0.047
	11	66.2	1.59	0.038	0.094	0.053
	12	65.5	2.87	0.060	0.116	0.036

Nissho Mining Company,  
Tokyo.









Note: DDH 1 did not intersect the lode, and was not surveyed

# REFERENCE

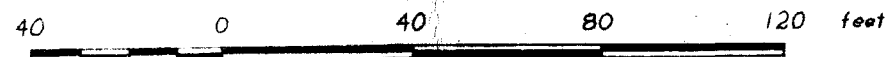


Martite Lode

Diamond drill holes -  
heavier lines indicate sections  
regarded as ore grade

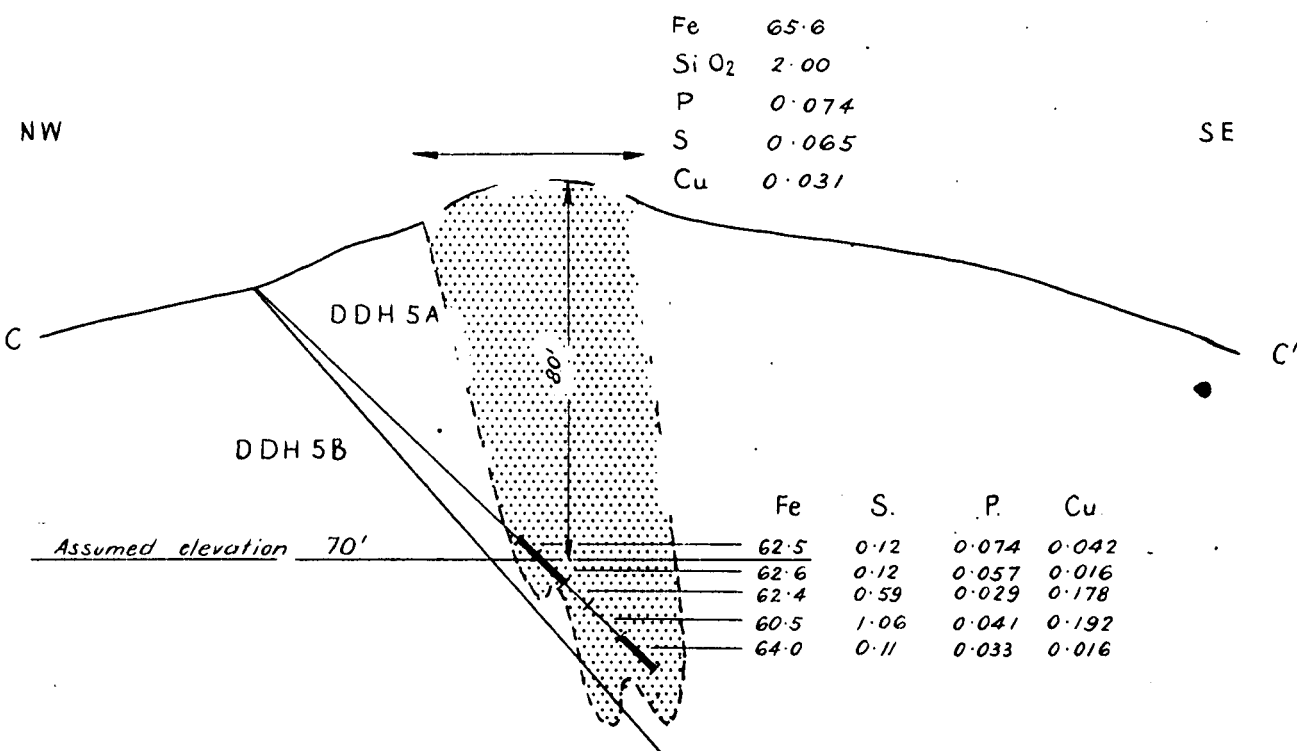
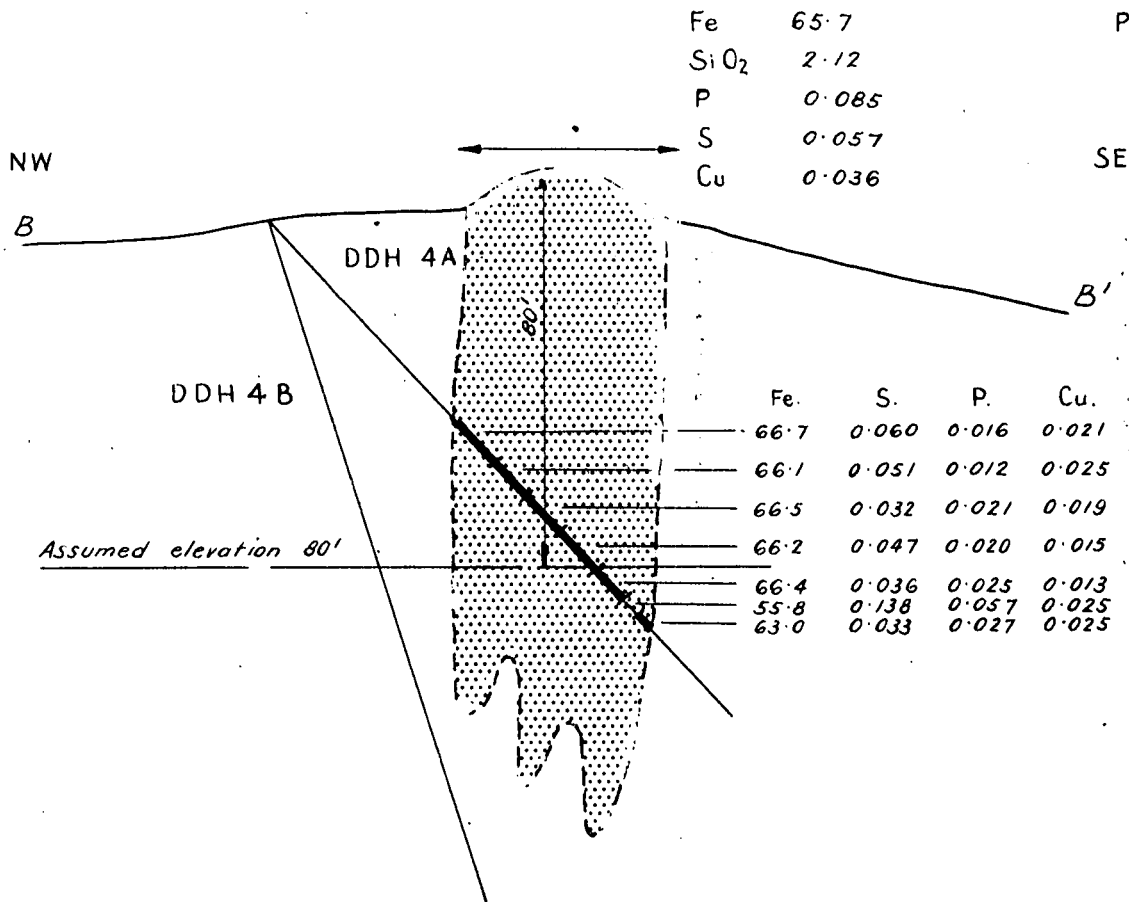
## PRITCHARD'S LODE MT. BUNDEY NT VERTICAL SECTION AA'

HORIZONTAL AND VERTICAL SCALE



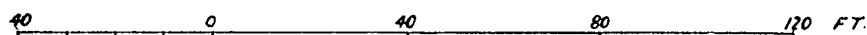
D52/A4/14

D52/4/D M 3



# PRITCHARD'S LODGE M.T. BUNDEY, N.T.

Scale



To accompany Record No 1964/18

D52/A4/15

NW

DDH 6

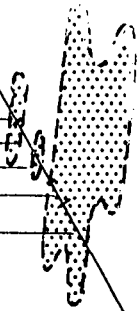
X'

SE

X

Assumed elevation 50'

Fe	S.	P.	Cu
52.0	0.035	0.120	0.080
55.7	0.035	0.071	0.036
56.4	0.045	0.055	0.021
57.3	5.73	0.137	0.005
61.4	1.82	0.042	0.004



NW

SE

DDH 7

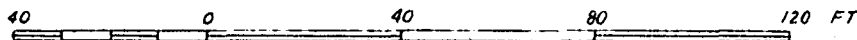
Y

Y'

Assumed elevation 50'

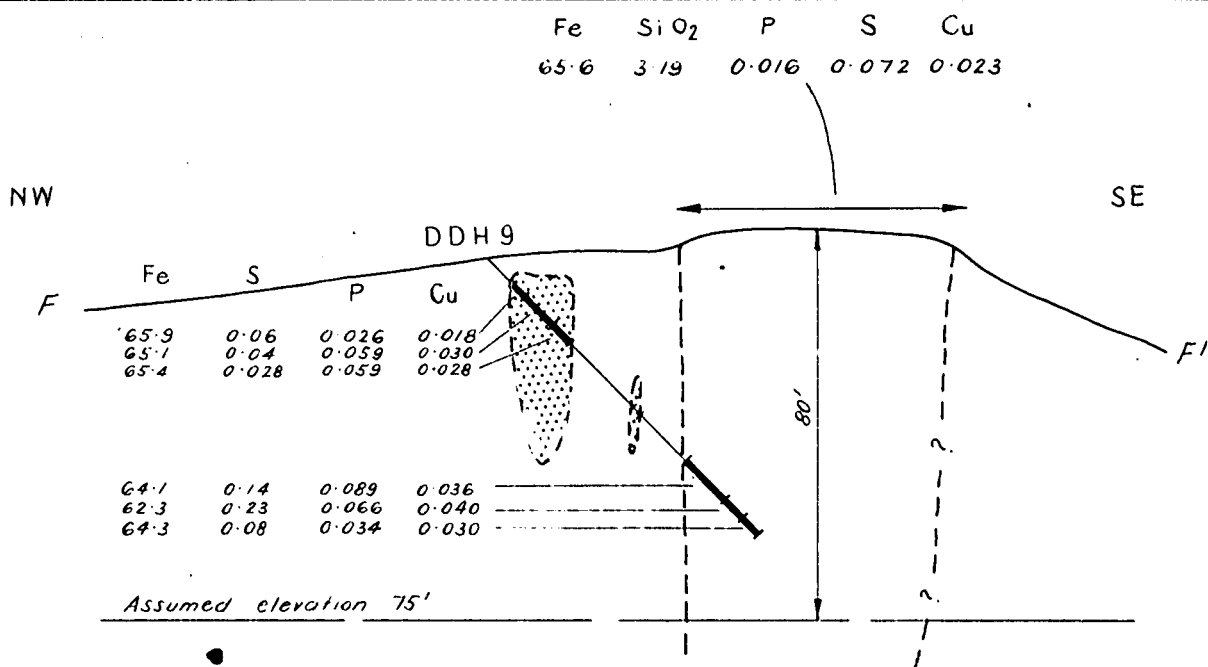
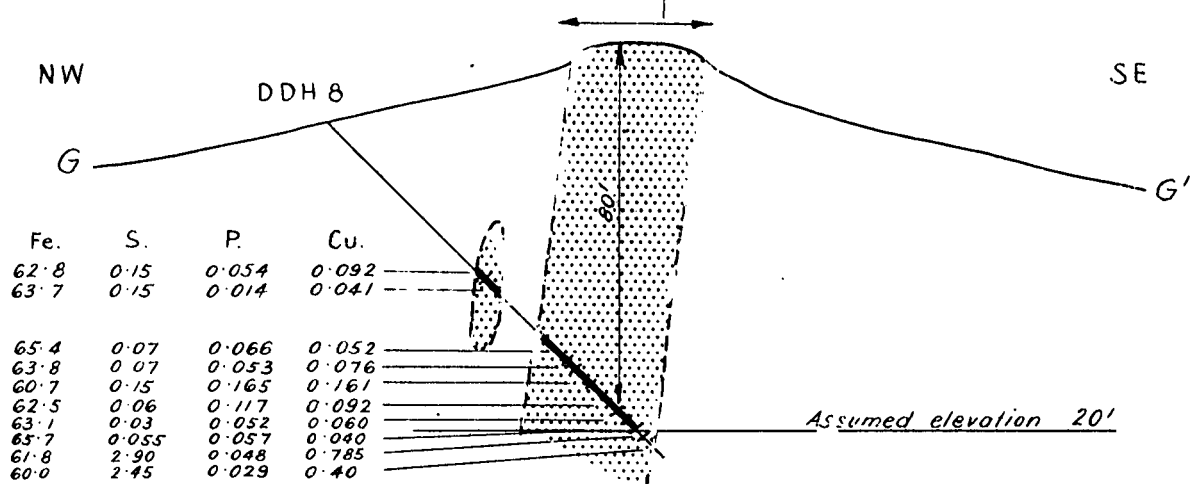
PRITCHARD'S LODGE  
MT: BUNDEY, N.T.

Scale



F Si O<sub>2</sub> P S Cu  
66.6 1.73 0.068 0.108 0.044

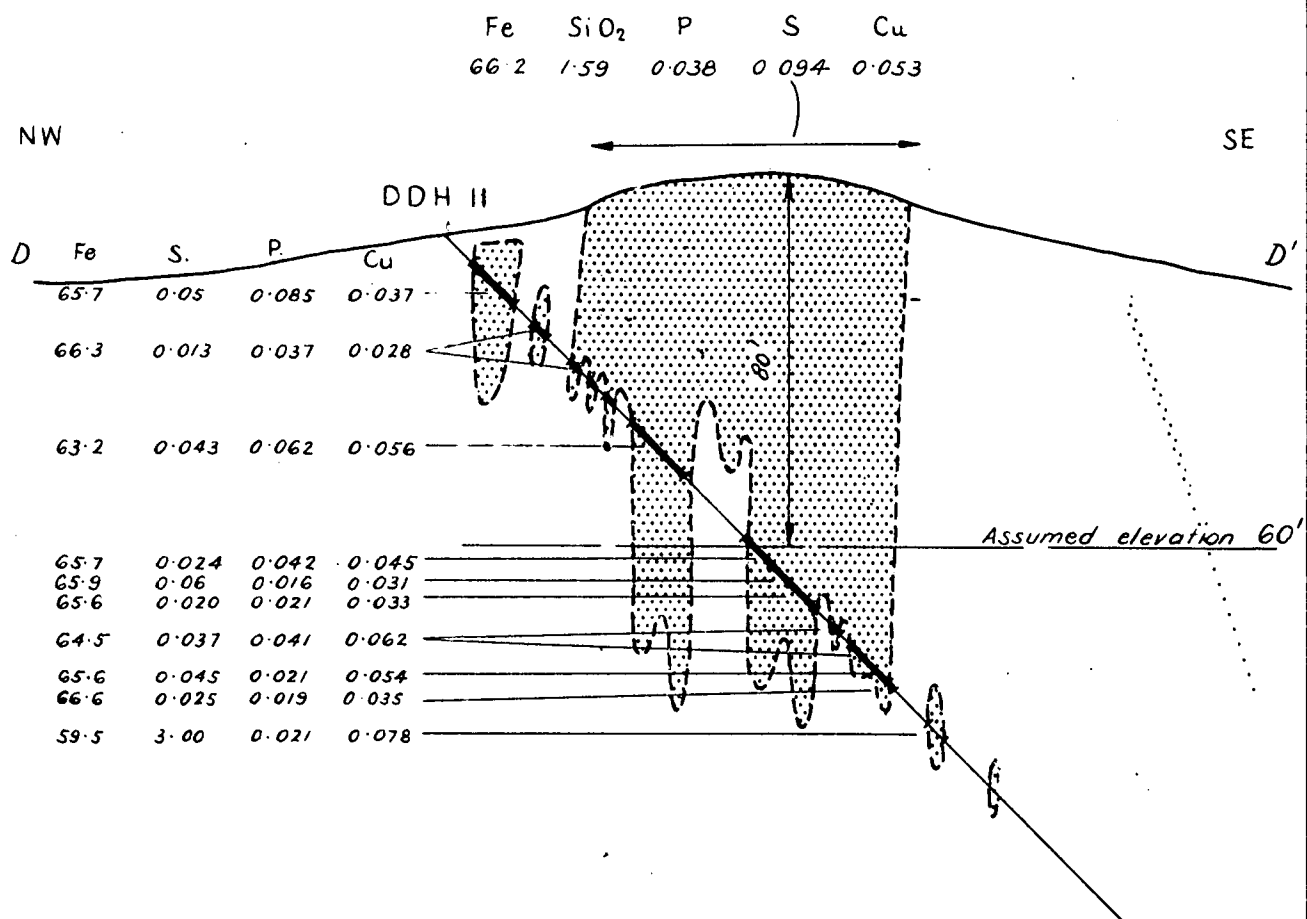
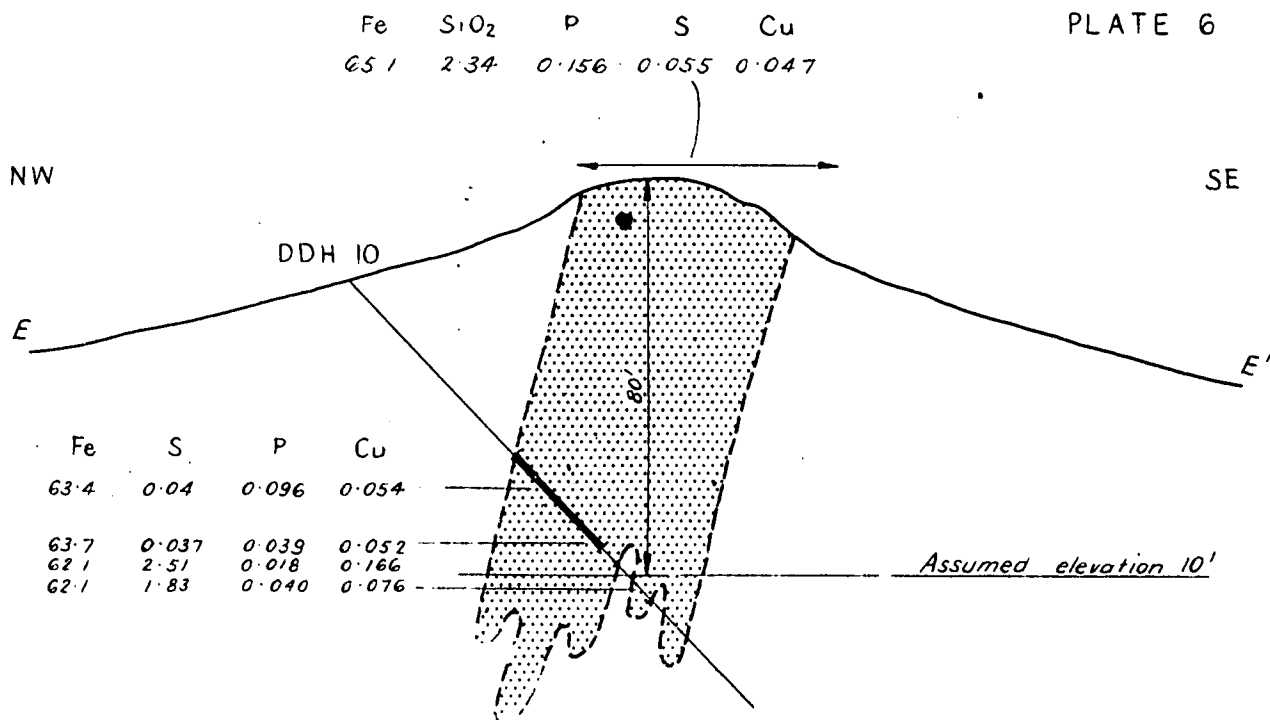
PLATE 5



# PRITCHARD'S LODE MT. BUNDEY, N.T.

Scale



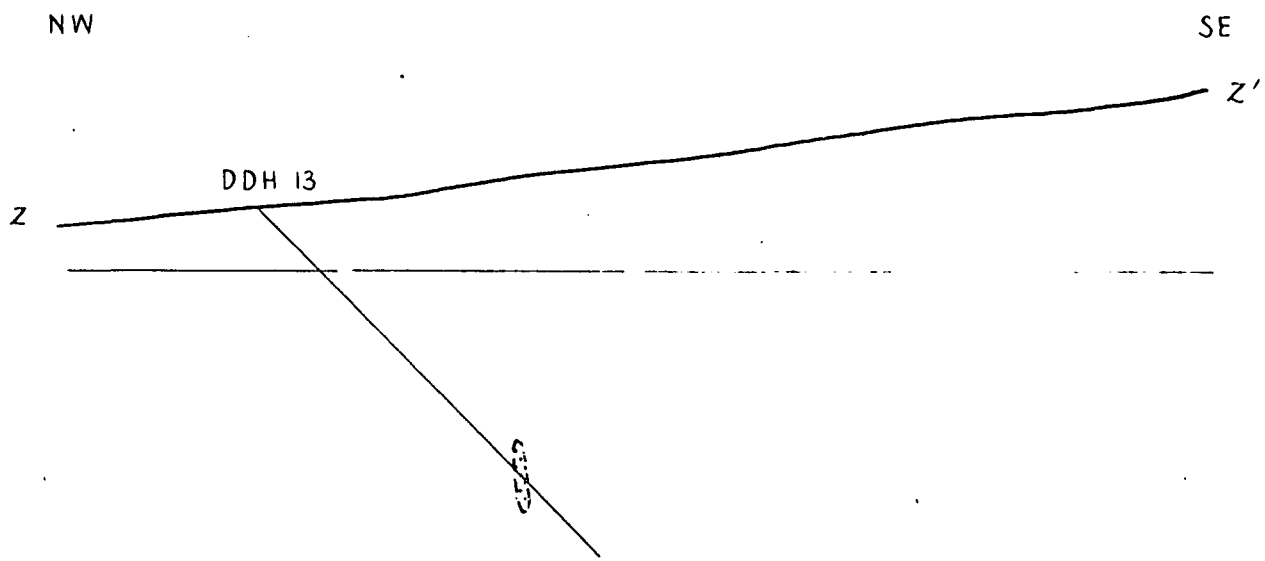
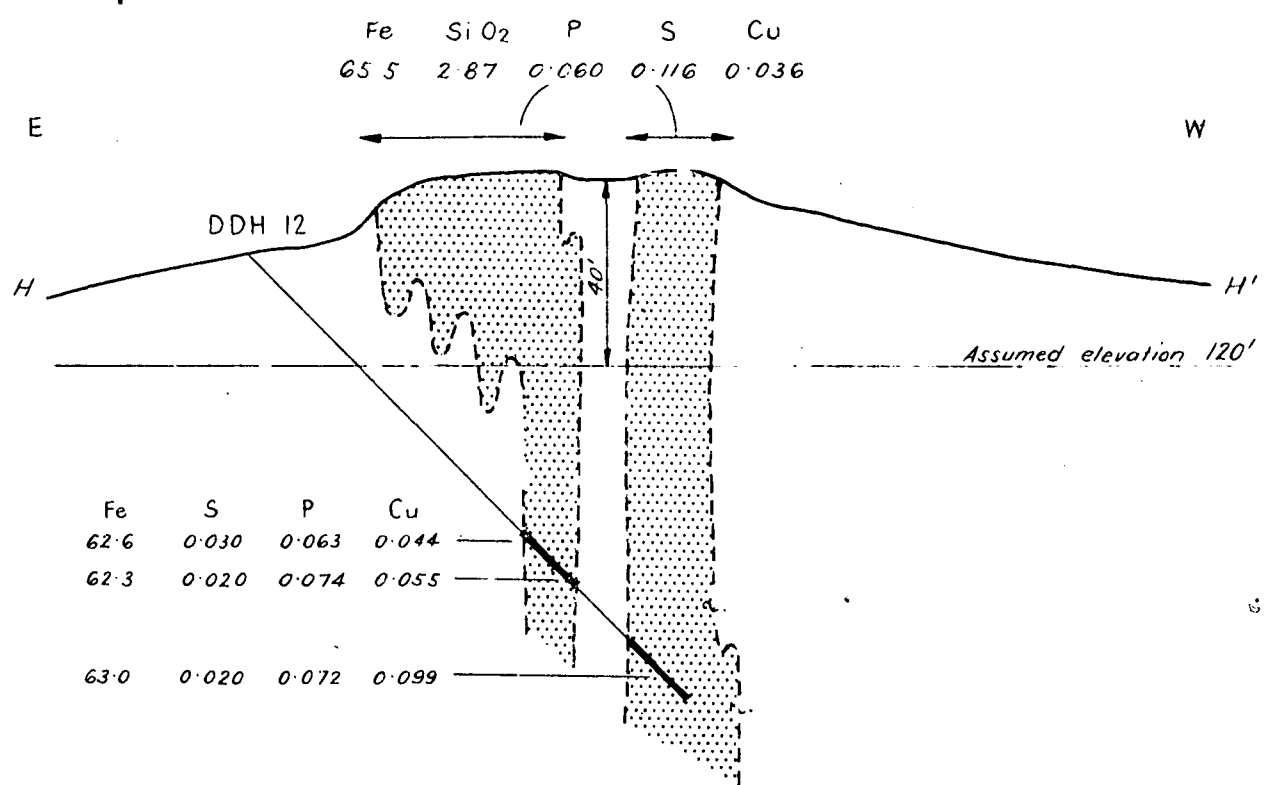


# PRITCHARD'S LODE MT. BUNDEY, N.T.

Scale

40 0 40 80 120 FT.





PRITCHARD'S LODGE  
MT. BUNDEY, N.T.

