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GEOLOGICAL EVALUATION OF SCOTIA TIN LEAD N.E. TASMANIA

by

DR. J. C. STANDARD,
Consulting Geologist,
July, 1971.

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GEOLOGICAL EVALUATION OF SCOTIA TIN LEAD N.E. TASMANIA.

INTRODUCTION:

Between 1935 and 1944 the Mines Department undertook an extensive sample drilling programme to test the northern extensions of the Scotia - Lochaber Leads. Several hundred sample holes were drilled for a total of over 78,000 feet of drilling. These holes were normally spaced one chain apart and the lines were spaced from 200 to 500 feet apart with closer line spacings of 60 to 100 feet in the areas of richer values.

In their ore reserves calculations the Mines Department chose only the areas of most intensive drilling where the lead was the widest. Six areas were chosen for calculating tonnage reserves and a total of 4,383,203 cu. yards of 0.335 lbs Sn/cu. yd (7.66 oz. SnO_2 , 70% Sn) was blocked out.

The boundaries of these six areas appears to have been arbitrary because a strong well defined channel runs continuously through the entire length of drilling where the six blocks are located. There is no noticable change in tin values in the holes drilled on the channel which connects blocks 3, 4,5 and 6.

All known maps of the Scotia Lead have been redrafted and brought up to date with new drilling information added and all Mines Department Cross Sections have been redrafted.

CURRENT EXPLORATION PROGRAMME:

The purpose of the B.M.I. Mining Pty. Limited exploration to date has been two-fold. First was to drill a series of four lines of sample drill holes across known channels within the zone of intensive Mines Department drilling in order to check the accuracy of the Mines Department results .

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The results of this current drilling indicates that the Mines Department results are reliable and can be used to calculate ore reserves.

The second was, to auger drill widely spaced lines in order to trace the channel north of the area of intensive drilling by the Mines Department and to give information in areas not previously drilled. A series of 82 auger holes were completed up to the end of June 1971. (Fig 1 and Fig. 4).

Both auger and sample drilling is continuing.

LENGTH OF CHANNEL.

As a result of the drilling to date it has been possible to map a well defined channel system for over 30,000 ft. (Fig. 1). The junction of the channel coming from the Scotia and Lochaber Mines is located 10,230 feet north of the Scotia Mine.

It appears as though the major river system passed through the Lochaber Mine rather than the Scotia Mine but since less drilling has been done on this branch of the channel and since the channel has generally been referred to as the Scotia Lead in the past it is recommended that the policy of calling this channel system the Scotia Lead be continued.

Following are a series of channel lengths that apply to this drainage system.

SCOTIA LEAD:

Total length of Scotia Lead	23,265 ft.
Scotia Mine to S. end of Mines Dept. drilling	990 ft.
S. end of drilling to Junct. of Lochaber lead.	9,240 ft.
Junction of Lochaber Lead to North end of Mines Department Drilling.	7,095 ft.

.../3

LOCHABER LEAD:

Total length of Lochaber Lead	5,775 ft.
South end of Lochaber Mine to South end of Mines Department drilling	2,640 ft.
South end of Mines Department drilling to Junction with Scotia Lead	3,135 ft.

TRIBUTARIES:

Length of tributaries drilled by Mines Dept. with known tin values	1,818 ft.
Length of Scotia and Lochaber leads to North end of close spaced Mines Department drilling	17,325 ft.
Length of lead north of close spaced Mines Department drilling.	5,940 ft.
Total length of Scotia and Lochaber leads	29,030 ft.
Total length of Scotia, Lochaber and tin bearing tributaries	30,840 ft.

ADDITIONAL DRILLING RECOMMENDATIONS:

It is recommended that a series of 25 auger drill lines be drilled in order to more precisely determine the location and width of part of the channel system and that additional sample drill holes be put down in these channels to determine tin values. (Fig. 1).

It is not necessary that all of these lines be completed before additional work is started on the Scotia Lead but some of the lines are necessary, such as lines 7 through 13, on the Lochaber channel, before the exact location, size and grade of wash can be determined.

At the Lochaber Mine the old workings stopped on a false bottom and the base of the channel has never been worked. Drilling depths from the floor of the old workings will be only about 30 ft.

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The lines of holes 1 through 19 will give us additional information about the main channel system and lines 20 through 25 will give information on tributary channels.

It is recommended that the lines be drilled in the following order:-

Lochaber Channel 13 - 12 - 11 - 10 - 9 - 8 - 7.
Scotia Channel 6 - 5 - 4 - 2 - 1 - 3 - 14 - 15 - 16 - 17.
Tributaries 24 - 23 - 25 - 22 - 21 - 20.
Extension of Scotia Channel to the north west 18 - 19.

PRELIMINARY RESERVE ESTIMATES:

The figures given in this report are based upon information available to date and are subject to modification or change based upon the results of the recommended drilling programme. They should be used as a guide and are of a "geological order of magnitude". (Fig.3).

These reserves may be divided into blocks as follows:-

Block No.	Overburden Cu. yds.	Wash Cu. yds.
1	2,959,628	263,801
2	4,195,815	133,614
3	4,148,451	199,995
4.	4,722,096	427,983
5	7,416,136	423,031
1 to 5	23,542,126	1,448,424
1 - 2 - 3 - 4	16,125,990	1,025,393

The reliability of these reserves are based primarily upon the amount of drilling to date but also to some extent on geological factors.

The reliability of these blocks are:-

Block 1	very good
Block 2	fair
Block 3	good
Block 4	very good
Block 5	poor

The term wash as used in this report refers to the tin bearing material which is found on top of the bedrock and is not a lithological term.

The thickness of wash varies from one part of the channel to another but will average 10 - 15 feet. The depth to bedrock varies from 90 to 150 ft. with 118 ft. being the average. The overburden figures include a 30° slope on both sides of the open cut.

As mentioned before the Lochaber Lead is probably located in the major river channel system with the Scotia Lead being a tributary from the south. Because of insufficient drilling data the 5,575 ft. of the Lochaber Lead has not been included in the reserve figures. The Lochaber Lead could increase the total reserves by about 20%.

At least three and probably four additional tributaries are known to be entering the main channel system. Two of these are known to be tin bearing and with further drilling these channels may also add to the reserves.

It should be noted that Block 5, in which the least amount of drilling has been done and which has the lowest reliability of any of the blocks, has about $7\frac{1}{2}$ million cubic yards of overburden and 423,000 cubic yards of wash. The ratio of overburden to wash is much greater than in Block 4 which has about $4\frac{3}{4}$ million cubic yards of overburden and 428,000 cubic yards of wash.

Since a very large amount of drilling would be necessary to bring the reliability of Block 5 up to that of the other four blocks it might be worth while to consider the possibility of conducting a mining operation on blocks 1 through 4 and the Lochaber Lead. This would eliminate much of the ground that has mining depths of over 130 ft.

J. C. Standard

Dr. J. C. Standard.
July, 1971.

1067

N3W3 10 | N3W2 | N3W1 | N3 | N3E1

N2W2 | N2W1 8 | N2 | N2E1

N1W2 | N1W1 | N1 | N1E1

W1 | E1 5 | E2

00 6

S1W1 | S1 | S1E1 4 | S1E2

S2W1 | S2 | S2E1 3 | S2E2 2

S3 | S3E1 1 | S3E2

3A | 4A

Stinking Creek

Mount Cameron Water Race

Scotia Race Branch

Newhaven Creek

BMI Test Line 1

BMI Test Line 2

BMI Test Line 3

BMI Test Line 4

LOCHABER MINE

DOONE WORKINGS

MURRAY & RICHARDS

NEWHAVEN WORKINGS

SCOTIA WORKINGS

DAM

MT CAMERON WATER RACE RESERVE

N3 W3	N3 W2	N3 W1		
		N2 W1	N2	
		N1 W1	N1	
			00	E1
		S1	S1 E1	S1 E2
		S2	S2 E1	S2 E2
			S3 E1	

Index to one chain maps.

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LEGEND

- Over 8 oz Sn O2 per cu. yd.
- 4oz to 8oz " " " " "
- 2oz to 4oz " " " " "
- Under 2 oz " " " " "
- Trace
- Barren
- No date available.
- B.M.I. drilling. A = Auger ; P = Percussion
- U417 Utah drilling (1966)
- Recommended Drill Lines

0 5 10 15 20 Chains

0 500 1000 1500 Feet.

B.M.I. MINING PTY. LTD.

SCOTIA LEAD 1067
BEDROCK CONTOUR MAP

JUNE 1971

5 cm

Fig. 1

1068

N3W3 10 | N3W2 9 | N3W1 | N3 | N3E1

N2W2 | N2W1 8 | N2 | N2E1

N1W2 | N1W1 | N1 | N1E1

W1 | E1 5 | E2

00 6

S1W1 | S1 | S1E1 4 | S1E2

S2W1 | S2 | S2E1 3 | S2E2 2

S3W1 | S3 | S3E1 1 | S3E2

3A | 4A

Mount Cameron Water Race

Stanley Creek

Scotia Race Branch

Newhaven Creek

LOCHABER MINE

DOONE WORKINGS

MURRAY & RICHARDS

NEWHAVEN WORKINGS

SCOTIA WORKINGS

BELLS SHAFT

RYAN DAM

OLD BORE

MT CAMERON WATER RACE RESERVE

N3 W3	N3 W2	N3 W1			
		N2 W1	N2		
		N1 W1	N1		
			00	E1	
			S1	S1 E1	S1 E2
			S2	S2 E1	S2 E2
				S3 E1	

Index to one chain maps.

857013 71-783

LEGEND

- Over 8 oz Sn Oz per cu. yd.
- 4oz to 8oz " " " " "
- 2oz to 4oz " " " " "
- Under 2 oz " " " " "
- Trace
- Barren
- No data available
- ◎A } B.M.I. drilling A = Auger
- ◎P } P = Percussion
- OU417 Utah drilling (1966)

5 cm

B.M.I. MINING PTY. LTD.

GLADSTONE DISTRICT

SCOTIA LEAD

SURFACE CONTOUR MAP

Scales:

CHAINS 0 1 2 3 4 5 10 15 20

FEET 0 100 200 300 400 500 1000 1500

JUNE 1971

1068

Fig 2

1069

N3W3 | N3W2 | N3W1 | N3 | N3E1

N2W2 | N2W1 | N2 | N2E1

N1W2 | N1W1 | N1 | N1E1

W1 | E1

S1W1 | S1 | S1E1 | S1E2

S2W1 | S2 | S2E1 | S2E2

S3 | S3E1 | S3E2

00

BLOCK 5
7,416,136
423,031

BLOCK 4
4,722,096
427,983

BLOCK 3
4,248,451
199,995

BLOCK 3
4,248,451
199,995

BLOCK 2
4,195,815
133,614

BLOCK 1
2,959,628
263,801

Stinking Creek

Mount Cameron Water Race

Mount Cameron Water Race

Scotia Race Branch

Newhaven Creek

DOONE WORKINGS

MURRAY & RICHARDS

NEWHAVEN WORKINGS

SCOTIA WORKINGS

DAM

BELLS SHAFT

LOCHABER MINE

MT CAMERON WATER RACE RESERVE

LEGEND

EDGES OF WASH — WASH — TOP OF OVER-BURDEN BATTER SLOPES

4,248,451 VOLUME OF OVERBURDEN CU. YDS

199,995 VOLUME OF WASH CU. YDS

LIMITS OF BLOCKS

SURFACE CONTOUR

N3 W3	N3 W2	N3 W1		
		N2 W1	N2	
		N1 W1	N1	
			00	E1
			S1	S1 E1	S1 E2
			S2	S2 E1	S2 E2
				S3 E1

Index to one chain maps.

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LEGEND

- Over 8 oz Sn O2 per cu. yd.
- 4oz to 8oz " " " " "
- 2oz to 4oz " " " " "
- Under 2oz " " " " "
- Trace
- Barren
- No data available. 857014
- B.M.I. drilling. A = Auger ; P = Percussion
- Utah drilling (1966)
- Recommended Drill Lines

0 5 10 15 20 Chains

0 500 1000 1500 Feet.

5 cm

B.M.I. MINING PTY. LTD.

PRELIMINARY EVALUATION MAP

SCOTIA LEAD 1069

June, 1971

Fig 3

1070

N3 W3 | N3 W2 | N3 W1 | N3 | N3E1

N2 W2 | N2 W1 | N2 | N2 E1

N1 W2 | N1 W1 | N1 | N1E1

W1 | 00 | E1 | E2

S1 W1 | S1 | S1 E1 | S1E2

S2 W1 | S2 | S2 1E | S2 E2

S3 | S3E1 | S3E2

ROAD TO DORSET DREDGE

N3 W3	N3 W2	N3 W1			
		N2 W1	N2		
		N1 W1	N1		
			00	E1	
			S1	S1 E1	S1 E2
			S2	S2 E1	S2 E2
				S3 E1	

Index to one chain maps

LEGEND

- Over 8 oz Sn O2 per cu. yd.
- 4 oz to 8 oz " " " " "
- 2 oz to 4 oz " " " " "
- Under 2 oz " " " " "
- Trace.
- Barren.
- No data available.
- P13 / 214.9 / 124' / 3-37 — Bore No. / Surface Level / Depth to Bedrock / Value in oz/c-yd.
- A Auger drilling.
- P Percussion drilling.

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A = Auger drilling for bedrock contact only

P = Percussion drilling.

5 cm

0 5 10 15 20 Chains.

0 500 1000 1500 Feet.

B.M.I. MINING PTY. LTD.

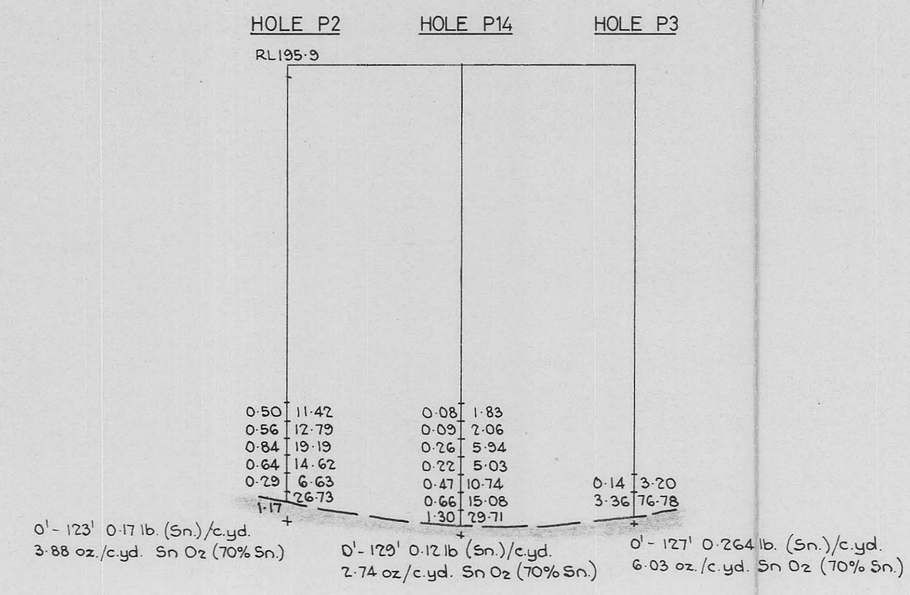
SCOTIA LEAD

1070

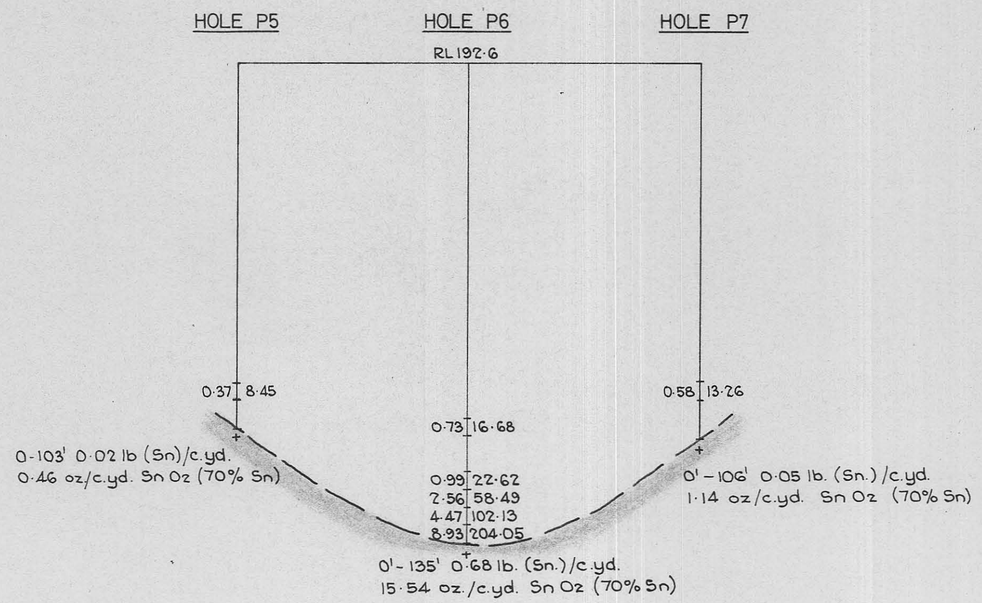
B.M.I. MINING 1970 - 71 DRILLING DRILL HOLE LOCATIONS

June, 1971

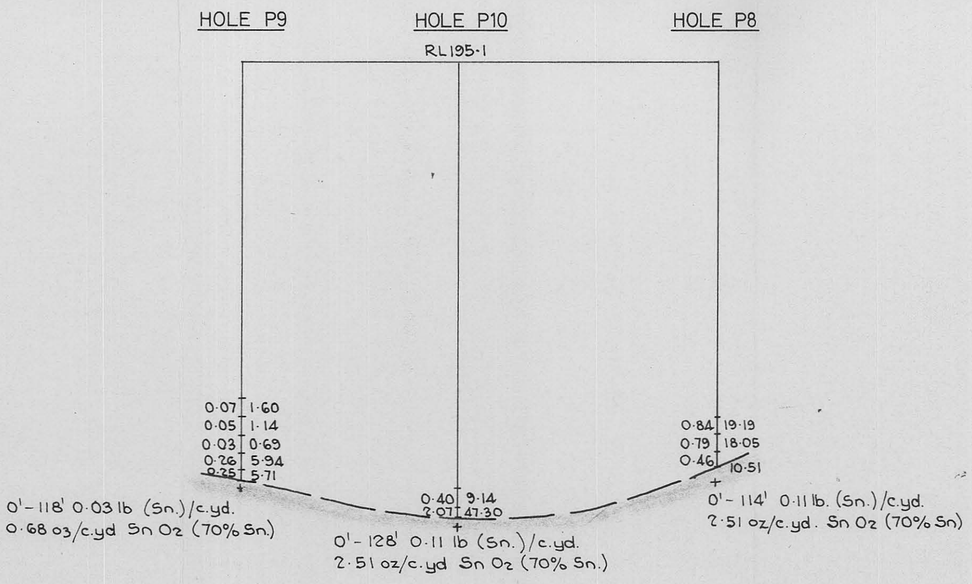
Fig 4



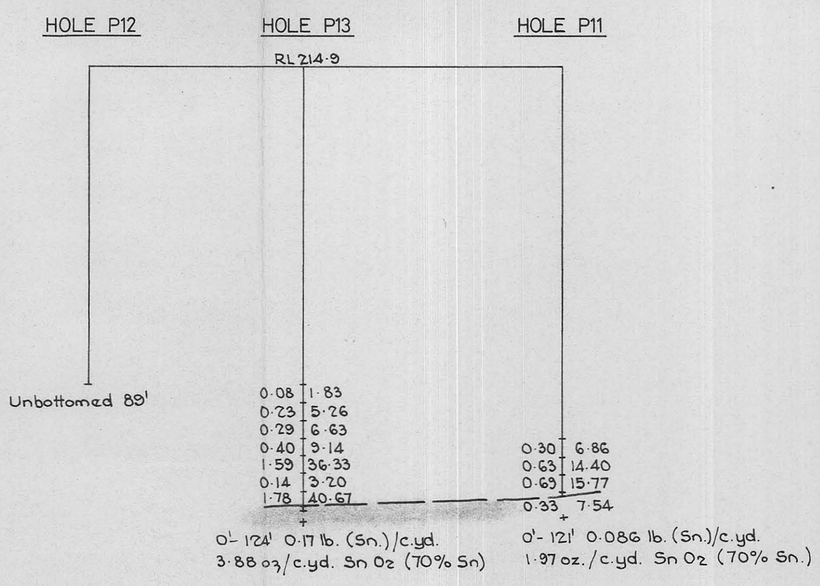
LINE 1



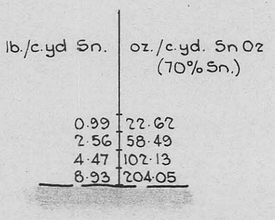
LINE 2



LINE 3



LINE 4



71-783

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B.M.I. MINING PTY. LTD.

CHECK DRILLING PROGRAMME

SCOTIA

1071

CROSS SECTIONS SHOWING INDIVIDUAL PORTIONS AND TOTAL TIN VALUES.

Scale : 30 feet to an inch - natural

5 cm

Fig 5

Greyscale

1072

SEE N4 W3

N 10800

10500

10000

9500

9000

8500

8000

7500

N7200

SEE N3 W4

SHEET N3 W3

SEE N3 W2

SEE N2 W3

SHEET N3 W3

W 8400

8000

7500

7000

6500

6000

W 5600

150

140

140

150

160

160

9E
140·70
93·6
2·2

8E
141·70
92·0
1·9

6E
144·91
97·0
1·6

5E
148·46
98·75

3E
149·86

2E
149·10
97·5
1·5

4E
147·72
97·5
2·4

7E
148·61
92·0
0·89

146B
148·95
88·0
Tr.

145B
148·87
85·25
Tr.

147B
148·22
Not Bottomed

E1
148·14
136·0
Nil.

16E
152·23
16·0
Nil.

18E
156·69
38·0
Nil.

19E
152·83
30·0
Nil.

4F
162·34
146·0
Tr.

6F
162·42
134·0
Tr.

13F
160·76
152·0
Tr.

8F
160·40
86·0
Tr.

LEGEND

- Over 8 oz Sn Oz per cu. yd.
- 4 oz to 8 oz " " " " "
- 2 oz to 4 oz " " " " "
- Under 2 oz " " " " "
- Trace
- Barren
- No data available.

2L — Hole No.
196·17 — Surface Level
115·5 — Depth to Bedrock
12·41 — Value in oz./c.yd.

N3 W3	N3 W2	N3 W1			
		N2 W1	N2		
		N1 W1	N1		
			00	E1	
			S1	S1 E1	S1 E2
			S2	S2 E1	S2 E2
				S3 E1	

5 cm

0 1 2 3 4 Chains

0 100 200 300 Feet

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SCOTIA LEAD

1072

Fig 6

1073

SEE N4 W2

SHEET N3 W2

LEGEND

- B.M.I. Mining Pty. Ltd. drilling. A = Auger P = Percussion
- Over 8 oz Sn O2 per cu. yd.
- 4 oz to 8 oz " " " " "
- 2 oz to 4 oz " " " " "
- Under 2 oz " " " " "
- Trace
- Barren
- No data available

N3 W3	N3 W2	N3 W1			
		N2 W1	N2		
		N1 W1	N1		
			O0	E1	
			S1	S1 E1	S1 E2
			S2	S2 E1	S2 E2
				S3 E1	

O 2L Bore No.
196·17 Surface Level
115·5 Depth to bedrock
12·41 Value in oz./c.yd.

N10800
10500
10000
9500
9000 SEE N3 W3
8500
8000
7500
N7200

11E 135·21 90·0 2·4
10E 136·13 89·0 3·26
9E 140·70 93·6 2·2
140
150
160
170
1F 161·85 151·5 3·7
1428 162·05 95·66 1·0
3F 161·56 100·25 2·9
5F 160·57 150·0 Tr.
7F 160·76 152·0 Tr.
9F 161·08 154·0 Tr.
10F 160·51 141·0 Tr.
11F 160·72 138·0 Tr.
12F 159·17 126·0 Tr.
14F 159·82 111·00 Tr.
15F 160·27 92·0 Tr.
16F 163·73 75·0 Tr.
17F 162·19 49·0 Nil.
A49A 170·2 39·0 ?
15D 174·76 33·0 Tr.
A49 172·5 42·0
18D 165·00 34·0 Tr.
17D 164·32 12·0 Tr.
16D 163·99 61·0 Tr.
1D 163·21 45·0 Tr.
A40 169·2 36' discont.
2D 163·78 101·0 Tr.
3D 166·93 101·0 Tr
4D 164·96 136·0 0·72
5D 164·18 147·0 0·70
6D 163·93 155·75 0·66
7D 163·19 158·25 5·78
8D 162·09 150·0 4·63
10D 162·37 132·0 3·0
9D 163·07 141·5 1·2
11D 163·23 132·00 Tr.
12D 163·23 120·0 Tr.
13D 163·36 109·0 Tr.
14D 161·79 91·0 Tr.
6F 162·42 134·0 Tr.
4F 162·94 146·0 Tr.
2F 160·82 149·0 4·9
139B 160·78 133·0 Tr.
137B 160·80 151·0 3·46
36C 161·58 54·5
A48 168·1 120·0
A39 161·8' 143·0
A37 140·4 92·0
A38 141·4 105·0
135B 132·69 72·0 Tr.
136B 132·33 70·66 Tr.
138B
144B

5 cm
0 1 2 3 4 Chains
0 100 200 300 Feet

B.M.I. MINING PTY. LTD.

SCOTIA LEAD

71-783

857018

Fig 7

SEE N2 W2

SHEET N3 W2

5500 5000 4500 4000 3500 3000 W2800

1073

1074

SEE N4 W1

SHEET N3 W1

LEGEND

- B.M.I. Mining Pty. Ltd. drilling. A = Auger, P = Percussion
- Over 8 oz Sn Oz per cu. yd.
- 4 oz to 8 oz " " " " "
- 2 oz to 4 oz " " " " "
- Under 2 oz " " " " "
- Trace
- Barren
- No data available.

ZL Bore No.
196·17 Surface Level
115·5 Depth to bedrock
12·41 Value in oz./c.yd.

N3 W3	N3 W2	N3 W1				
		N2 W1	N2			
		N1 W1	N1			
			00	E1		
			S1	S1 E1	S1 E2	
			S2	S2 E1	S2 E2	
				S3 E1		

N10800
10500
10000
9500
9000
8500
8000
7500
N7200

SEE N3 W2

SEE N3

180
180
170
170
160
150
140
140

A51 184·7 55·0
A50 184·8 70·0
A47 163·6 82·0
A34 145·9 27·0
A36A 148·5 22·0
A36 138·3 36·0
A46A 148·8
A46 143·1 18·0
A35 139·6 95·0

133B 132B 131B 130B 140B 28B

W2800
2500
2000
1500
1000
500
00

SEE N2 W1

SHEET N3 W1

857019

71-783

5 cm

0 1 2 3 4 Chains

0 100 200 300 Feet.

B.M.I. MINING PTY. LTD.

SCOTIA LEAD

Fig 8

1075

SEE N3 W1

SHEET N2 W1

7200N

7000

6500

6000

5500

5000

4500

4000

N3600

W2800

2500

2000

1500

1000

500

0

SEE N2 W2

SEE N2

SEE N1 W1

SHEET N2 W1

140

150

160

170

180

A41 140·7 114·0

A42 140·7 114·0

A43 154·5 68·0

A31 152·6 63·0

A32 148·8 108·0

A33 146·5 70·0

A29 170·3 74·0

A28 164·0 118·0

A27 154·9 72·0

A26 174·6 74·0

A25 179·1 74·0

A24 179·0 16·0

A23 174·5 98·0

A22 166·8 105·0

A18 143·4 76·0

A1 142·5 90·0

A2 146·5 96·5

122B 138·99 84·0 Tr.

120B 139·18 89·0 Tr.

118B 139·70 91·4 Tr.

124B 141·35 98·0 4·27

126B 143·22 95·25 Tr.

7G 142·12 92·25 Tr.

6G 142·27 93·0 Tr.

5G 139·86 105·5 Tr.

129B 139·80 102·6 1·7

127B 140·05 113·0 4·1

125B 140·15 113·6 9·0

119B 140·10 112·0 5·18

121B 139·30 110·0 9·03

123B 138·30 106·0 0·82

1G 138·85 109·5 3·13

2G 138·82 107·5

3G 139·12 107·3 1·8

4G 139·07 105·5 Tr.

11784

M

40 Ac.

LEGEND

- ◎A, ◎P — B.M.I. drilling; A = Auger; P = Percussion
- Over 8 oz Sn O2 per cu. yd.
- 4 oz to 8 oz " " " " "
- 2 oz to 4 oz " " " " "
- Under 2 oz " " " " "
- ◎ ⊙ Trace.
- ◎ O Barren.
- ◎ ◒ No data available.

N3 W3	N3 W2	N3 W1			
		N2 W1	N2		
		N1 W1	N1		
			00	E1	
			S1	S1 E1	S1 E2
			S2	S2 E1	S2 E2
				S3 E1	

O 2L — Bore No.
196·17 — Surface Level
115·5 — Depth to Bedrock
12·41 — Value in oz./c.yd.

5 cm

0 1 2 3 4 Chains.

0 100 200 300 Feet.

71-783

B.M.I. MINING PTY. LTD.

SCOTIA LEAD

857020

1075 Fig 9

1076

SEE N3

SHEET N2

SEE N2 W1

SEE N2 E1

SEE N1

N7200
7000
6500
6000
5500
5000
4500
4000
N3600

0
500
1000
1500
2000
2500
E 2800

A3 147·8 77·0
A4 151·9 31·0
A5 161·4 19·0
A6 166·8 29·0
A7 177·3 52·0
A17 153·8 65·0
A8 179·8 45·0
A16 161·1 76·0
A30 151·5 16·0
A30A 149·0 22·0
A9 169·9 40·0
A15 154·0 45·0
A13 154·8 76·0
A11 164·2 15·0
A21 167·6 46·0
A20 165·1 40·0
A14 153·9 52·0
A10 160·0 58·0

LEGEND

- ◎A, ◎P — B.M.I. drilling; A = Auger, P = Percussion
- Over 8 oz Sn O2 per cu. yd.
- 4 oz to 8 oz " " " " "
- 2 oz to 4 oz " " " " "
- Under 2 oz " " " " "
- Trace
- Barren
- No data available.

O ZL
196·17 Surface level
115·5 Depth to bedrock
12·41 Value in oz./cyd.

N3 W3	N3 W2	N3 W1			
		N2 W1	N2		
		N1 W1	N1		
			00	E1	
			S1	S1 E1	S1 E2
			S2	S2 E1	S2 E2
				S3 E1	

857021

71-783

5 cm

0 1 2 3 4 Chains

0 100 200 300 Feet.

B.M.I. MINING PTY. LTD.

SCOTIA LEAD

SHEET N2

1076 Fig 10

1077

SEE N2 W1

SHEET N1 W1

N3600

3500

3000

2500

2000

1500

1000

500

00

W2800M

SEE N1 W2

SEE N2

SEE W1

SHEET N1 W1

78B 76B 74B 72B 70B

15J 14J 13J 12J

6M 5M 4M 3M 2M 1M

267B 1P 266B 269B

261B

2728 2708

141 51 41
195.11
96.0
Tr.

168B
193.90
98.0
Tr.

167B

T18 T17 T16
194.04
126.0
3.72

156B
191.65
100.0
Tr.

155B

T1
192.57
83.0
Tr.

170 180 190 200

LEGEND

- ◎A, ◎P } B.M.I. drilling A = Auger P = Percussion
- Over 8 oz Sn O2 per cu. yd.
- 4 oz to 8 oz " " " " "
- 2 oz to 4 oz " " " " "
- Under 2 oz " " " " "
- Trace.
- Barren.
- No data available.

2L Bore No
196·17 Surface Level
115·5 Depth to Bedrock
12·41 Value in oz/c.yd.

N3 W3	N3 W2	N3 W1			
		N2 W1	N2		
		N1 W1	N1		
			00	E1	
			S1	S1 E1	S1 E2
			S2	S2 E1	S2 E2
				S3 E1	

857022 71-783

5 cm

0 1 2 3 4 Chains

0 100 200 300 Feet.

B.M.I. MINING PTY. LTD.

SCOTIA LEAD

1077 Fig 11

1078

SEE N2

SHEET N1

N3600

3500

3000

2500

2000

1500

1000

500

00

SEE N1 W1

SEE N1 E1

SEE 0.0.

LEGEND

- ◎A } B.M.I. Drilling
- ◎P } A = Auger, P = Percussion
- Over 8 oz Sn O2 per cu. yd.
- 4 oz to 8 oz " " " " "
- 2 oz to 4 oz " " " " "
- Under 2 oz " " " " "
- Trace
- Barren
- No data available.

N3 W3	N3 W2	N3 W1			
		N2 W1	N2		
		N1 W1	N1		
			00	E1	
			S1	S1 E1	S1 E2
			S2	S2 E1	S2 E2
				S3 E1	

Bore No.
Surface level
Depth to bedrock
Value in oz/cu.yd.

71-783

5 cm

0 1 2 3 4 Chains.

0 100 200 300 Feet.

857023

B.M.I. MINING PTY. LTD.

SCOTIA LEAD

Fig 12

1078

1079

Point of Origin
North West Corner Peg of 9706 M

South East Corner Peg 9705 M
Assumed Datum 200.00 feet.

SEE N1

SHEET 0.0.

SEE W1

SEE E1

SEE S1

SHEET 0.0.

LEGEND

- B.M.I. drilling. A = Auger P = Percussion
- Over 8 oz — Sn Oz per cu. yd.
- 4 oz to 8 oz — " " " " "
- 2 oz to 4 oz — " " " " "
- Under 2 oz — " " " " "
- Trace
- Barren
- No data available.

N3 W3	N3 W2	N3 W1			
		N2 W1	N2		
		N1 W1	N1		
			00	E1	
			S1	S1 E1	S1 E2
			S2	S2 E1	S2 E2
				S3 E1	

2L Bore No.
196.17 Surface Level
115.5 Depth to bedrock
12.41 Value in oz./c.yd.

71-783

0 1 2 3 4 Chains

0 100 200 300 Feet.

857024

B.M.I. MINING PTY. LTD.

SCOTIA LEAD

5 cm

1079

Fig 13

1080

SEE N1 E1

SHEET E1

SEE 00

SEE E2

SEE S1 E1

00
500
1000
1500
2000
2500
3000
3500
53600

0
3500
4000
4500
5000
5500

220

230

230'

220'

1048
225·11
115·41
1·8

102B
227·22
128·58
7·0

99B
229·18
128·0
4·42

97B
230·91
97·91
Tr

112B
224·65
116·58
Tr.

110B
225·96
122·0
8·37

108B
227·32
116·41
1·27

98B
230·70
106·75
0·9

100B
233·83
91·41
Tr.

101B
236·51
115·66
0·62

103B
238·73
142·58
31·0

105B

114B
227·80
109·0
2·21

116B
225·68
108·34
Tr.

AG7
224·5
46·0

AG8
221·0
72·0

197B
217·15
81·0
Tr.

196B
219·00
90·0
Tr.

AG9
226·2
110

198B
89·0
Tr.

AG10
234·5
74·0

AG12
224·9
87·0

LEGEND

- ◎A, ◎P — B.M.I. drilling. A = Auger, P = Percussion.
- Over 8 oz Sn O2 per cu. yd.
- 4 oz to 8 oz " " " " "
- 2 oz to 4 oz " " " " "
- Under 2 oz " " " " "
- Trace
- Barren
- No data available.
- O 2L — Bore No. 196·17 Surface Level, 115·5 Depth of bedrock, 12·41 Value in oz./c.yd.

N3 W3	N3 W2	N3 W1				
		N2 W1	N2			
		N1 W1	N1			
			00	E1		
			S1	S1 E1	S1 E2	
			S2	S2 E1	S2 E2	
				S3 E1		

5 cm

857025

71-783

0 1 2 3 4 Chains.

0 100 200 300 Feet.

B.M.I. MINING PTY. LTD.

SCOTIA LEAD

1080 Fig 14

1081

SEE 00.

SHEET S1.

SEE S1 W1

SEE S1 E1

SEE S2

53700
4200
4700
5200
5700
6200
6700
57200

0 500 1000 1500 2000 2500 E2800

0 2C 237·08 22·0 Nil.
0 3C 50·0 Nil
98 234·79 88·0 0·17
111B 235·11 129·0 6·26
113B 232·02 138·0 10·0
205B
222O
232O
242O
252O
0236B 0233B 0231B 0229B 0211B 0209B 247·89 71·0 Tr.
0235B 0223B 2218 251·66 138·5 4·4
A60 261·5 65'
A56 270·4 106'
A53 276·2 120'
AG6 273·1 56'
AG2 273·3 96'
0 U394
0 U393
0 U525
0 U528
0 U526
0 U524
0 U392

LEGEND

- ◎A } B.M.I. drilling
- @P } A = Auger, P = Percussion
- Over 8 oz Sn O2 per cu. yd.
- 4oz to 8 oz " " " " "
- 2oz to 4oz " " " " "
- Under 2oz " " " " "
- Trace
- Barren
- No data available.
- O 2L Bore No: 196·17 Surface level; 115·50 Depth to bedrock; 12·41 Value in oz/cyd
- O U525 Utah drilling (1966)

N3 W3	N3 W2	N3 W1			
		N2 W1	N2		
		N1 W1	N1		
			00	E1	
			S1	S1 E1	S1 E2
			S2	S2 E1	S2 E2
				S3 E1	

5 cm

0 1 2 3 4 Chains

0 100 200 300 Feet.

71-783

857026

B.M.I. MINING PTY. LTD.

SCOTIA LEAD

SHEET S1

1081

Fig 15

1082

SEE E1

SHEET S1 E1

SEE S10

SEE S1E2

SEE S2 E1

SHEET S1E1

Fig 16 1082

B.M.I. MINING PTY. LTD.

SCOTIA LEAD

71-783

857027

N3 W3 | N3 W2 | N3 W1 | N2 | 00 E1 | S1 E1 | S1 E2 | S2 E1 | S2 E2 | S3 E1

LEGEND

- ◎A } B.M.I. drilling A = Auger
- ◎P } P = Percussion
- Over 8 oz Sn Oz per cu. yd.
- 4 oz to 8 oz " " " " "
- 2 oz to 4 oz " " " " "
- Under 2 oz " " " " "
- Trace — O 2L 196·17 115·5 12·41 Bore No. Surface level Depth to bedrock
- Barren — ◎A55 294·7 Tr. Value in oz./c.yd.
- No data available.

5 cm

0 1 2 3 4 Chains

0 100 200 300 Feet.

E'2800 3100 3600 4100 4600 5100

N7200 6700 6200 5700 5200 4700 4200 3700