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R HARE AND ASSOCIATES

OPEN FILE

REPORT No. 3

REVIEW OF MT. LINDSAY PROSPECT AT COMPLETION OF SECOND DIAMOND DRILLING PROGRAMME

Zeehan, Tasmania

MICROFILMED

by

J. L. Morton and J. K. Couper

29th July, 1964

Accompanying Report

Geological and Topographical Map	No. A60	Scale 1" = 40'
Geological and Topographical Map	No. A61	Scale 1" = 40'
Geological and Topographical Map	No. A116	Scale 1" = 40'
Cross Section	No. A83	Scale 1" = 40'
Cross Section	No. A85	Scale 1" = 40'
Geological Plan	No. A63	Scale 1" = 100'
Longitudinal Projection	No. A65	Scale 1" = 100'

Copy No. 9

SUMMARY

An additional 100,000 tons grading .79% Sn. have been disclosed by diamond drilling at Mt. Lindsay. Total indicated ore now stands at 170,792 tons grading 0.827% Sn., and inferred ore is estimated to be 191,400 tons making a gross total indicated and inferred to date of 362,000 tons, disclosing a potential of 1400 tons per vertical foot.

Transport and accommodation facilities have been greatly improved.

Further drilling is recommended in the Main Zone which can be expected to increase in ore reserves and potential.

RECOMMENDATIONS

Initially the Main Zone should be tested with shallow holes between 2400E and 2900E to investigate the development of ore in that area. At the same time deep drilling can be carried out under No. 1 Zone to intersect ore at approximately 3800E; Elevation 1500.

Results of this work would then be used to guide further deep drilling within the Main Zone.

INTRODUCTION

A program of diamond drilling and sampling as set out in the 1963-4 schedule dated 25th October 1963 was carried out to completion on 25th April, 1964. The first stages of the work were carried out by J. L. Morton, I. Worth and A. McGain of R. Hare & Associates, and the latter stages by J. L. Morton and J. K. Couper of Aberfoyle Tin Development Partnership.

Previous work at Mt. Lindsay is quoted in past reports dated 20th March, 1962 and 23rd April, 1963.

ACCESS

By Helicopter from Zeehan airport to Mt. Lindsay heliport. Using a Bell Ranger helicopter, 600 lbs. payload can be flown in and 500 to 600 lbs. out in about 30 minutes per round trip.

Southern Access Route:

By road to Mines Department Huts at Pieman River	- 11 miles.
By jeep track to Pieman River	- 1 mile.
Cross Pieman River on Flying Fox.	
By pack track to Mt. Lindsay via Stanley Reward	- 14 miles.
Direct to Mt. Lindsay	- 13 miles.
Total walking	- 13 miles.

Time required by this route is 5 hours in and 4 hours out.

Northern Access Route:

By road from Waratah to about 6 miles along the Corinna road. From this point 21 miles by foot south via Yellow Band Creek, Harman River to Mt. Lindsay. Time required 1½ days.

WORK PERFORMED ON ACCESS

Southern Access Route - Zeehan to Pieman River

The track from Zeehan to the Pieman huts (6 miles) proved to be adequate save for three bridges which needed repair and which was subsequently carried out by the Zeehan Commission. The section of the track from the huts to the Pieman River (1½ miles) was cleared and corded in places by A.T.D.P. personnel to allow a vehicle to get down to the old camp-site near the flying fox on the south bank of the river. Subsequently the Zeehan Commission graded a track along the same route from the huts to the river, reconstructed a small bridge close to the river and made the track trafficable in most weather, although drains are still required after heavy rain because of long sections of the track traversing clayey ground. The track was not gravelled at the time of construction; gravelling of the worst sections of the track, clearing of drainage ditches and further cording of a swampy portion close to the huts has been carried out by A.T.D.P. personnel.

Pieman River

The Pieman River is crossed by means of the Mines Department Flying Fox. A two man camp was established on the north bank of the Pieman River to accommodate the horse attendent. A stable was constructed of galvanized iron and bush timber close to this camp and the bank of the Stanley River, and a small store shed was built for fodder, saddles and supplies.

Pieman River to Stanley River - (10 miles)

No work was required on this section of the track, for the most part it is over rocky ground.

Stanley River Flats.

The track turns up the valley of the Stanley River to the Reward workings; a by-pass was constructed across an area suitable for dropping supplies by air. Some 500 yards of this by-pass route had to be cut out in heavy scrub, also 200 yards required cording.

The main track through the Stanley Reward was not used for the most part. However, after heavy rains the Stanley River cannot be forded. To ensure smooth running under those conditions the old bridge which had collapsed was removed and another bridge constructed in its place which is adequate for horses. However, it will be necessary to place two additional stringers to make it safe for regular traffic.

Stanley River - Mt. Lindsay - (4 miles)

This section of the track is well formed but required extensive clearing and cording. The clearing was carried out initially and cording was placed in bad sections, as parts of the track deteriorated through use, further sections were repaired and corded. However, due to exceptionally bad weather and the priority of other works, the maintenance could not keep apace with the deterioration of the track. It is probable that the track will deteriorate further during this winter.

Northern Access Route.

The track is 21 miles long. The first 10 miles to the Yellow Band Creek is an old track originally formed by the Mines Department. Work started from the Corinna road about 12 miles from Waratah in August and September. Clearing work was carried out on the section between the Yellow Band Creek, and the Harman River between late November and 2nd December, and between 26th January and 4th February, a total of 44 man/days.

Work between the Harman River and Mt. Lindsay, a distance of 8 miles, around the eastern flank of the Parson's Hood, began on 4th February and the work was completed on 22nd February, a total of 79 man/days.

The horses advanced with the party, and arrived at Mt. Lindsay on 22nd February.

The track is opened sufficiently for walking, horses can negotiate the route, but it is far from safe; the track is unsuitable for packing or vehicular transport.

Heliport

Two heliports, one on the spur to the north-east of the camp was constructed by Rio Tinto, a second heliport to serve operations on Mt. Lindsay was prepared by A.T.D.P. The heliport area was cleared for a length of 600 feet, and a width of 300 feet. The landing pad is 30 feet by 30 feet.

Air Drop Area

Situated on the edge of the button grass plains near the Stanley River, three miles south-east of Mt. Lindsay. The area was burnt out and marked by flags.

Helicopter Uplifts

1. 30th October, 1963.
   Drilling equipment, cement, fuel and provisions.

2. 17th November, 1963.
   Further drilling equipment and provisions.

3. 14th February, 1964.
   Fuel, oil, cement and provisions.

Airdrops

Nine air drops, seven performed at the air drop area, and two at the Harman River on the northern access track. A total of 6000 lbs. of provisions was dropped over the period from 24th August 1963, to 26th February, 1964.

For the second period, the horses ran a bi-weekly service between Mt. Lindsay and the north bank of the Pieman River; additional trips were made when necessary.

WORK PERFORMED ON ACCOMMODATION

Accommodation at Mt. Lindsay is adequate for a total of thirteen men, twelve beds are provided in the main building, and one in the office hut.

The main building, of bush timber and corrugated iron covers 1500 square feet. Six tents, each containing two bunks, are erected inside. A large mess measures 19 ft. x 12 ft., is fitted out with work benches, tables, stools, a large supply store and meat safe; cooking is done over an open fire. Natural light is provided by a full length window along the one side of the building; weather protection is achieved by the use of heavy clear plastic sheet. Heating in the main building is provided by wood stoves in the passage-ways, a large fire-place in the mess, and kerosene heaters in the tents. Adequate space has been provided in the passage-ways to store equipment, fuel and dry firewood.

Amenities

A shower providing both hot and cold water was erected midway between the two buildings. Hot water capacity is 44 gallons. A canvas roof covers the cubicle. Water is supplied by gravity from a plastic pipeline in Tulloch Creek. The water is discharged at a point near the mess door, where it is convenient for use for cooking, washing etc. A branch line connects the shower. Emergency water is supplied from two 44 gallon drums which collect rain water from the mess roof.

Other Buildings

Core and Tool shed contains racks, bench, and core splitting block. The structure is protected by an iron roof.

The stable provides accommodation for two horses. It has canvas roof and sides and a wooden floor, feed bins and other necessary features.

SURVEYING *

A total of 13,000 feet of closed transit surveying, with an order of accuracy of 1 in 4000, and 650 feet of underground surveying was carried out.

SAMPLING

Channel Sampling *

Seven surface trenches and four crosscuts prepared or cleaned out in the area west of the camp in the main ore zone. These trenches were sampled by carefully cutting out channels from the exposures, crushing the cuttings to - 1/4 inch, and quartering before despatch for assay.

	Length of Sampling
Surface trenches.	582.3 ft.
Underground workings.	215 ft.
Total channel sampling.	797.3 ft.

Core Sampling *

DDH No.	Length of Sampling
5	169 ft.
8	151 "
9	148 "
11	199 "
13	23 "
19	17 "
20	126 "
21	61 "
22	136 "
29	56 "
Total	1,066 ft.

MAPPING *

Geological mapping of surface trenches and underground workings in the main ore zone.

Surface trenches.		695 ft.
Underground.		630 ft.
	Total	1,325 ft.

DIAMOND DRILLING

Main Ore Zone

Hole No.	Length	
5	306	
8	276	
9	299	
11	314	
13	277	
	1,472	Ax Drilling

No. 1 Geophysical Anomaly

19	219	
20	302	
21	211	
22	231	
29	265	
	1,228	Ex Drilling
Grand Total	2,700 feet.	

PERSONNEL

The number of man/days employed for the period from August, 1963 to April, 1964 was 1513 man/days.

Personnel engaged on the leases and licence area:-

		Man/days
R.H.A. & A.T.D.P.	Staff	216
	Labour	561
Associated Diamond Drillers		584
	Total	1,361

* Please refer 1" - 100 ft. Scale Drawing No. A 63 and 1" = 40 ft. Scale Drawings Nos. A60, A61

Personnel engaged in transport, tracks, and supplies:

A.T.D.P.		142
Miscellaneous		10
	Sub total	152
	Grand total	1,513

ECONOMIC GEOLOGY

No. 1 Zone was mapped in detail, sampled and drilled during 1962 and 1963 programmes. Please refer Report dated 23rd April, 1963.

During the programme under review, a total of ten diamond drill holes were completed.

Five holes numbered 19, 20, 21, 22 and 29 were planned to test No. 1 geophysical anomaly, located between 4300E and 4800E. Please refer 1" = 100 ft. scale geological plan, Drawing No. A 63. The holes outlined a weak zone of alteration, with carbonates, silica and sulphides. No tin values were intersected.

Five holes numbered 5, 8, 9, 11 and 13 were planned to test No. 2 zone. Two holes intersected good values, one hole intersected fair values, and one hole intersected a suspected fault zone assaying nil. All holes drilled during the period are summarised as follows:-

D.D.H. No. 5 Section 1750 E

Collar location: 2018N, 1753E, E12023
Dip: 45^{o} bearing - north.
Final Depth: 306 ft.

Ore Intersections

From	To	True Width	Assay % Sn.
253.4 ft.	294 ft.	54.0 ft.	0.061

D.D.H. No. 8 Section 1900 E

Collar location: 2076.15N, 1898.08E, E12046.74
Dip: 45^{o} bearing - north
Final Depth: 276 ft.

Ore Intersections

From	To	True Width	Assay % Sn.
176.8	198	19.0 ft.	0.187
213.4	219	4.5 ft.	0.134
227.1	229.4	2.0 ft.	0.47

D.D.H. No. 9 Section 2050 E

Collar location:	2071.25N, 2050.85E, E12078.28
Dip:	45° bearing - north
Final Depth:	299 ft.

Ore Intersections

From	To	True Width	Assay % Sn.
162.5	198	26.0 ft.	1.721
252.5	271	14.0 ft.	0.289

D.D.H. No. 11 Section 2150 E

Collar location:	2356.0N, 2146.0E, E12028.0
Dip:	45° bearing - south
Final Depth:	314 feet.

Ore Intersections

From	To	True Width	Assay % Sn.
152 ft.	155 ft.	2.1 ft.	0.67
170 ft.	171 ft.	0.7 ft.	0.13
180 ft.	186 ft.	3.5 ft.	0.30
194.5 ft.	240 Ft.	27.0 ft.	0.435

D.D.H. No. 13 Section 2350 E

Collar location:	2115.97N, 2351.21E, E12003.2
Dip:	45° bearing - north.
Final Depth:	277 feet.

Intersections:

From	To	True Width	Assay % Sn.
160 ft.	190 ft.	21.5 ft.	Trace

D.D.H. No. 19 Section Secondary Grid 4600E

Collar location:	1007.74N, 4308.97E, E11757.08
Dip:	45° bearing - N 20° E.
Final Depth:	219 feet.

Intersection:

From	To	True Width	Assay % Sn.
162 ft.	185 ft.	9 ft.	Trace

D.D.H. No. 20 Section S.G. 4700E

Collar location:	966.41N, 4398.83E, E11766.52
Dip:	45° bearing - 20° E.
Final Depth:	302 feet.

Intersection

From	To	True Width	Assay % Sn
175 ft.	199 ft.	17.0 ft.	Trace

D.D.H. No. 21 Section S.G. 4900E

Collar location:	932.40N, 4488.16E, E11762.68
Dip:	45° bearing - north 20° East.
Final Depth:	211 feet.

Intersection of Mineralised and altered Zone

From	To	True Width	Assay % Sn
138 ft.	173 ft.	25 ft.	Trace

D.D.H. No. 22 Section S.G. 4900 E

Collar location:	903.29N, 4597.94E, E11742.88
Dip:	45° bearing - north 20° East.
Final Depth:	231 feet.

Intersection of Mineralised and altered Zone

From	To	True Width	Assay % Sn
148 ft.	178 ft.	19.0 ft.	0.00015

D.D.H. No. 29 Section S.G. 5200 E

Collar location:	741N, 4841E, E11677.81
Dip:	45° bearing - north 20° East.
Final Depth:	265 feet.

Intersection of Mineralised and altered Zone

From	To	True Width	Assay % Sn.
200 ft.	255 ft.	39.0 ft.	Nil.

In addition to drilling data, six trenches were dug or cleaned out to expose the No. 2 Ore Zone and area between No. 2 and No. 1 ore zones. Please refer to 1" = 100 ft. scale geological Plan No. A 63. These trenches were sampled by carefully cutting out channels from the exposures, crushing the cuttings, and quartering before despatch for assay. The results are regarded as being suitable to compare with intersections obtained by diamond drilling.

D.D. intersections and channel samples have been plotted on 1" = 100 ft. scale plan longitudinal section, refer plan Nos. A 63, A 65, used to calculate ore reserves and which have been summarised as follows:-

ORE RESERVES

Block	Height ft.	Length ft.	Width ft.	Volume cu.ft.	Tons 10.5cft. /ton	Grade % Sn.	T X G
Zone I							
Indicated Ore *							
1	31.3	60	75.9	142,692	13,590	0.58	7882.2
2	55.5	46	68.0	173,400	16,514	0.81	13376.3
3	64	45	42.0	120,960	11,520	0.77	8870.4
4	86	64	18.0	98,640	9,394	0.75	7045.5
5	60	86	28.0	144,480	13,760	1.75	24080.0
6	50	60	25.0	75,000	7,140	0.24	1713.6
Totals:					71,927		62,968.0
Average:			36.0			0.875	

Zone I **Inferred Ore** *

Block	Height ft.	Length ft.	Width ft.	Volume cu.ft.	Tons 10.5c ft./ton	Grade %sn.	T X G
7	120	340	36	1,472,800	140,000	0.875	122,500.0

* Results of first drilling programme. See report April 23, 1963.

An important extension of No. 2 Zone may occur between 2300E and 2500E, as indicated from channel sampling. However, the negative intersection (possible fault zone) of D.D. Hole No. 13 prevents the inclusion of this area in ore reserves at present.

Zone 2 **Indicated Ore**

Block	Height ft.	Length ft.	Width ft.	Volume cu.ft.	Tons 10.5c ft./ton	Grade %Sn	T X G
8	48	82	10	34,440	3,280	0.445	1,460
9	45	100	30	135,000	12,857	0.500	6,429
10	92	120	26	287,040	27,337	1.721	47,046
11	80	145	27	313,200	29,828	0.435	12,975
Totals:					73,302		67,910
Average:			24			0.926	
Inferred Ore							
12	150	150	24	54,000	51,400	0.926	47,596.4

Zone 2 A Indicated Ore

Block	Height Ft.	Length ft.	Width ft.	Volume cu.ft.	Tons 10.5c ft./ton	Grade % Sn	T X G
8A	48	82	10	39,360	3,748	0.523	1,960
9A	75	115	5	43,125	4,107	0.830	3,409
10A	120	100	14	168,000	16,000	0.289	4,624
11A	125	65	3.5	28,438	2,708	0.300	812
Totals:					26,563		10,805
			8.1			0.407	
Total Indicated Ore Zones 1, 2 and 2A					170,792		141,683
						0.827	
Total Inferred Ore Zones 1, 2 and 2A					191,400		170.096.4
						0.888	
Grand Total:					362,192		311,779.4
						0.855	

STRUCTURAL GEOLOGY

The 1964 programme of surveying, mapping and diamond drilling has extended the knowledge of structural geology over a much wider area and two major types of structures have been investigated.

1. Ore control fold and shear structures.
2. Fault structures.

1. Ore Control Fold and Shear Structures

This type of structure was mapped in detail and described in the Geological Report dated 20th March, 1962 and is again briefly described here as a lens of material resulting from forces causing a flexure in metasediments with a certain amount of shearing action and lens shaped build up of material. This material, by virtue of interstices between sheared particles, gives access to ore making solutions and, through physical and/or chemical characteristics, deposition of ore.

A variation of this type of structure became apparent from results of drilling between 4300E and 4900E. This structure is a well defined flexure in metasediments although not well developed at the horizon drilled. In this case the "link" is a constriction with shearing and lensing taking place in adjacent beds on strike. Please refer geological plan No. A 116. The two types of structure are illustrated graphically in figures 1a and 1b.

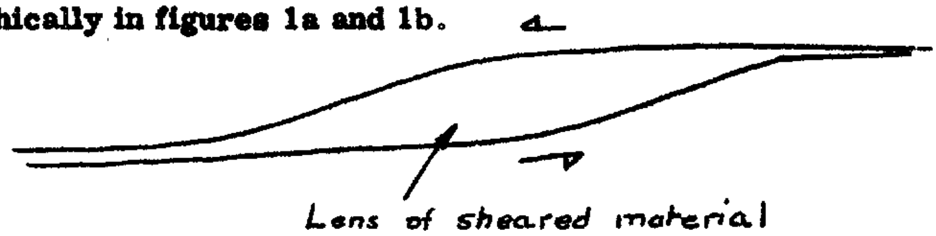

Figure 1A

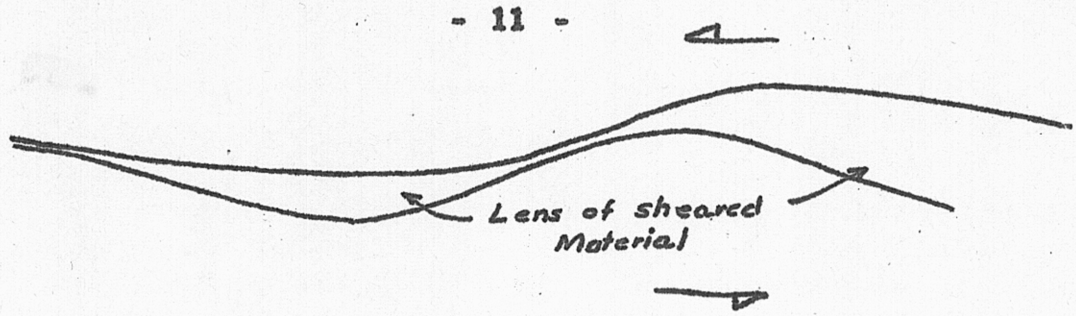

Figure 1B
Link Constriction

For the sake of the record it should be added that a third type is thought to occur in conjunction with the first at about 31000E co-ordinate. This is a drag fold and is illustrated in Figure 2.

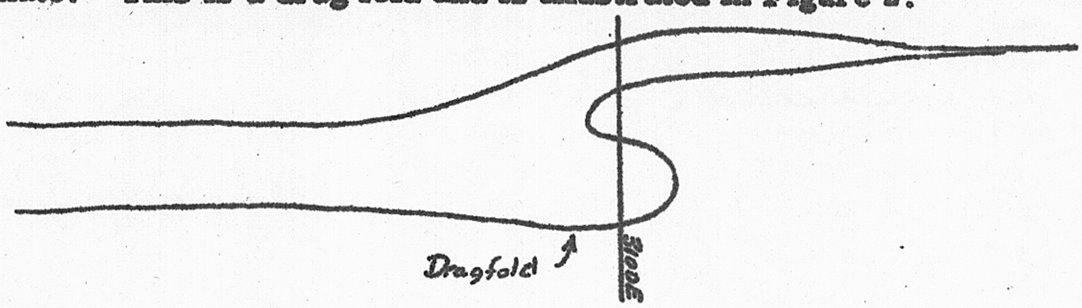

Figure 2.

The significance of these structures can only be envisaged by considering the area on a regional basis. Since this report is being confined to the immediate area of the known ore zone, and also because regional geology has not been undertaken on a field work basis, the following statements will have to suffice for the present.

a) The three structures described above appear to conform to the general regional structure.

b) The main significance of these types of structures are that if they occur over a long strike length they are liable to also occur to extensive depth, but as a series of dis-continuous lenses.

c) The amplitude of the structures and degree of shearing (controlling size and grade of orebody) in this type usually ranged from small and slight to large and intense from all top end and bottom margins to the centre of the structure. In other words, at the top a structure would be no more than a kink in the bedding, which would increase in magnitude with depth and also develop shearing and a build up of material, later to die out in the same manner.

   It is important that the lenses (structures) be located and outlined, and a large proportion of drilling will encounter negative results in the early stages.

2. Fault Structure

Two large faults were observed in the 1962 programme. These were mapped in detail during 1964 and an additional two are postulated from mapping and diamond drilling.

Major faults occur on ore outcrop between 1830E and 1880E and between 2040E and 2120E, please refer 1" = 100' scale longitudinal Projection Drawing No. A 65. The latter fault has been observed at two points in an underground opening and the attitude can be regarded as reliable. The former fault has not been observed for dip and the attitude is based on being similar to that observed between 2090E and 2120E and also in another underground opening at 1700E, please refer 1" = 40' scale geological plan No. A 61.

The location of these faults were known before diamond drill holes were laid out and therefore holes were planned to intersect the zone in areas not influenced by the faults. However, a fourth fault was suspected at approximately 2350E and taken into consideration when planning hole No. 13. Unfortunately hole 13 intersected no ore and no further data has become available to determine the precise location and attitude of this fault. Core recovery in D.D.H. No. 13 was poor.

The area most affected by faulting lies between 1700E and 2400E. Please refer to 1" = 100' scale plan No. A 63.

The main significant features of fault structures are:-

1. Some faults are of large enough dimensions to separate the ore zone and give rise to blank sections such as shown on 1" = 100' scale longitudinal section, Drawing No. A 65.

2. Some of the faults may not be a simple continuous rupture, but instead a series of discontinuous echelon ruptures. Until the full nature and attitude of these are known a certain amount of negative drilling can be expected where holes encounter faulted ore zone.

   Superimposing these structures one on another gives rise to complicated structural environment, therefore the continued attention to structural geology at Mt. Lindsay must be given prominent regard for the purpose of planning drill holes both for intersecting ore and avoiding fault zones and blank zones, that is, structural geology will be used to indicate where these zones occur.

DISCUSSION

From the analysis of personnel engaged on work versus personnel engaged on transport, tracks and supplies, it is evident that, from normal conditions, a disproportionate amount of time was spent on the latter. For personnel working in the field this would not seem unusual but for the sake of the reader it is once more brought to notice that the Mt. Lindsay operation is, with regard to access, abnormal in the extreme. Descriptions of the types and amounts of work performed on access give an impression of the difficulties and hardships under which field personnel operate. Add to this the wet conditions and some idea may be had of the problems of retaining working crews.

It should also be pointed out that horse transport has now been established and used satisfactorily, many bridges repaired and roads and tracks improved and stables etc. erected which will not have to be done again. However, this does not mean that access track work is yet completed, in fact a good deal of work is yet to be done on improvements.

No. 1 Anomaly zone drilling was curtailed to try to increase footage on the Main Zone, and more drilling is necessary before No. 1 Anomaly is fully explored. This should be further to the east and deeper. Drilling in the Main Zone area, more concisely in zones 2 and 2A disclosed two parallel bodies with indicated combined tonnages 99,865 tons grading .79% Sn. (as compared to last years results of 71,927 tons grading .875% Sn.) The Major of these two zones contains an indicated 73,302 tons grading 0.926% Sn. Inferred ore has been calculated as shown on tables on page 9 and on longitudinal section. Please refer to drawing No. A 65.

Drilling has now disclosed a potential of 1400 tons per vertical foot to an average depth of 250'. Furthermore, indications are that there is plenty of room yet unexplored within the main zone to increase this figure considerably.

CONCLUSIONS

The programme must be judged to be satisfactory. A great amount of field establishment work was completed, indicated ore reserves have been doubled and a structural picture of the orebodies is being developed. Although structure is complex it is easily understood and with painstaking geology will be used to advantage during forthcoming programmes. Development of ore potential both in grade and tons per vertical foot is satisfactory.

Melbourne
29.7.64

J. L. Morton.

James K Couper.
J. K. Couper.

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OPEN FILE REPORT Q43/28

MT. LINDSAY TIN PROSPECT

List of Plans

Drawing	No.	A 60	Geological and topographical map
"	"	A 61	" " " "
"	"	A 63	" " " "
"	"	A 65	Longitudinal projection looking north
"	"	A 83	Section 2050' E looking west
"	"	A 85	" 2150' E looking west
"	"	A116	Geological and topographical map

5 cm

SCALE OF FEET

40 0 40 80 120 160

LEGEND

5	Banded limonitic gossan
7	Siliceous gossan
4	Earthy limonitic gossan
6	Haematitic gossan
1	More than 50 % sulphides. Mostly pyrite and pyrrhotite. Some marcasite and chalcopyrite. May also contain magnetite and hornblende.
3	Fresh hornfels
2	Slates – may contain decomposed hornfels

ABERFOYLE TIN DEVELOPMENT PARTNERSHIP

MT LINDSAY TIN PROSPECT

GEOLOGICAL AND TOPOGRAPHICAL MAP

LEGEND

Outline of surface opening

Outline of underground opening

Geological contact position accurate

Geological contact position approximate

Geological contact position inferred

53° Strike and dip

Fault

0·55%Sn / 30 Average assays

60

ASSAY LEGEND

Nil

·01 to ·09%Sn

·10 to ·19%Sn

·20 to ·49%Sn

More than 50%Sn

64-377

Prepared by: J.L.MORTON of R.HARE AND ASSOCIATES

262017

Drafting by: GEODRAFTING SERVICES

Drawn by: C.J.H. Date: 29·7·1963

DRAWING Nº A.60

3459

64-377

SCALE OF FEET

40 0 40 80 120 160

5 cm

64-377

LEGEND

5	Banded limonitic gossan
7	Siliceous gossan
4	Earthy limonitic gossan
6	Haematitic gossan
1	More than 50% sulphides. Mostly pyrite and pyrrhotite. Some marcasite and chalcopyrite. May also contain magnetite and hornblende
3	Fresh hornfels
2	Slates may contain decomposed hornfels

ABERFOYLE TIN DEVELOPMENT PARTNERSHIP

MT LINDSAY TIN PROSPECT

GEOLOGICAL AND TOPOGRAPHICAL MAP

LEGEND

Outline of surface opening

Outline of underground opening

Geological contact position accurate

Geological contact position approximate

Geological contact position inferred

Strike and dip

Fault

0·55%Sn / 30 Average assays

ASSAY LEGEND

Nil

·01 to ·09% Sn

·10 to ·19% Sn

·20 to ·49% Sn

More than ·50% Sn

Prepared by : J.L. MORTON of R. HARE AND ASSOCIATES

Drafting by : GEODRAFTING SERVICES

Drawn by : C.J.H. Date :

DRAWING Nº A. 61

262018

3460

SCALE OF FEET

40 30 20 10 0 40 80 120 160

5 cm

LEGEND

- 5 Banded limonitic gossan
- 7 Siliceous gossan
- 4 Earthy limonitic gossan
- 6 Haematitic gossan
- 1 More than 50% sulphides Mostly pyrite and pyrrhotite. Some marcasite and chalcopyrite May also contain magnetite and hornblende
- 3 Fresh hornfels
- 2 Slates – may contain decomposed hornfels

ABERFOYLE TIN DEVELOPMENT PARTNERSHIP

MT LINDSAY TIN PROSPECT

GEOLOGICAL AND TOPOGRAPHICAL MAP

LEGEND

- Outline of surface opening
- Outline of underground opening
- Geological contact position accurate
- Geological contact position approximate
- 0.55% Sn / 30' Average assays
- Geological contact position inferred
- 53° Strike and dip
- Fault

Prepared by : J.L. MORTON
of R. HARE AND ASSOCIATES
Drafting by : GEODRAFTING SERVICES
Drawn by : C.J.H. Date :

DRAWING Nº A.116

202019 3465

ORIGINAL 10A

64-377

SCALE OF FEET

40 0 40 80 120 160

5 cm

LEGEND

5	Banded limonitic gossan
7	Siliceous gossan
4	Earthy limonitic gossan
6	Haematitic gossan
1	More than 50% sulphides. Mostly pyrite and pyrrhotite. Some marcasite and chalcopyrite. May also contain magnetite and hornblende
3	Fresh hornfels
2	Slates – may contain decomposed hornfels

ABERFOYLE TIN DEVELOPMENT PARTNERSHIP

M^T. LINDSAY TIN PROSPECT

SECTION 2050'E

LOOKING WEST

LEGEND

Geological contact position accurate

Geological contact position approximate

Geological contact position inferred

Fault

$\frac{0{\cdot}55\%Sn}{30}$ Average assays

64-377

262020

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Drafting by: GEODRAFTING SERVICES

Drawn by: C.J.H. Date: 21·10·63

DRAWING No. A 83

3463

64-377

5 cm

SCALE OF FEET

40 0 40 80 120 160

LEGEND

5	Banded limonitic gossan
7	Siliceous gossan
4	Earthy limonitic gossan
6	Haematitic gossan
1	More than 50% sulphides. Mostly pyrite and pyrrhotite. Some marcasite and chalcopyrite. May also contain magnetite and hornblende
3	Fresh hornfels
2	Slates – may contain decomposed hornfels

ABERFOYLE TIN DEVELOPMENT PARTNERSHIP
M^T. LINDSAY TIN PROSPECT
SECTION 2150'E
LOOKING WEST

LEGEND

Geological contact position accurate

Geological contact position approximate

Geological contact position inferred

Fault

$\frac{0.55\% Sn}{30}$ Average assays

64-377

262021

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Drafting by: GEODRAFTING SERVICES
Drawn by: C.J.H. Date: 21·10·63

DRAWING No. A 85

3464

5 cm

SCALE OF FEET

100 0 100 200 300 400

LEGEND

5	Banded limonitic gossan
7	Siliceous gossan
4	Earthy limonitic gossan
6	Haematitic gossan
1	More than 50% sulphides. Mostly pyrite and pyrrhotite. Some marcasite and chalcopyrite. May also contain magnetite and hornblende.
3	Fresh hornfels
2	Slates — may contain decomposed hornfels

Main Ore zone

ABERFOYLE TIN DEVELOPMENT PARTNERSHIP

M^T LINDSAY TIN PROSPECT

GEOLOGICAL AND TOPOGRAPHICAL MAP

LEGEND

Outline of surface opening

Outline of underground opening

Geological contact position accurate

Geological contact position approximate

Geological contact position inferred

Strike and dip

Fault

Average assays ® Rio Tinto sampling

64-377

262022

Prepared by : J.L. MORTON
of R. HARE AND ASSOCIATES
Drafting by : GEODRAFTING SERVICES
Drawn by : C.J.H. Date

DRAWING Nº A. 63

3461

re nw (24)

5 cm

SCALE OF FEET

100 0 100 200 300 400

64-377

ABERFOYLE TIN DEVELOPMENT PARTNERSHIP

M^T LINDSAY TIN PROSPECT

LONGITUDINAL PROJECTION

LOOKING NORTH

Prepared by : J.L. MORTON
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Drafting by : GEODRAFTING SERVICES
Drawn by : C.J.H. Date :

262023

DRAWING Nº A.65

3462