MT. BISCHOFF JOINT VENTURE

DIAMOND DRILL LOG

Hole Number	:	MBD 51
Location	:	1877.70N 1000.03E
Elevation	:	631.30
Dip	:	Vertical
Azimuth	:	-
Total Depth	:	110.0 m
Surveys	:	Eastman every 40 m
Commenced	:	12.1.81 Completed: 20.1.81
Logged by	:	A. Jannink
Drilling Contractor	:	Longyear Australia Pty. Ltd.

DEPTH (length from collar)	INTERVAL	DEPTH from - to · ROCK UNIT (CAPITAL LETTERS, UNDERLINED) Depth · Description and notes, veins over 50mm, INDENTED ABOUT 10mm	POINTER & CODE	GRAPHIC LOG	POINTER & CODE	MINERALISATION Excluding veins over 50mm. Visual estimate of % mineralisation in brackets.	ASSAYS AVAILABLE	BULKED ASSAYS Sn

NOTES: 1. FOR ABBREVIATIONS SEE "FIELD GEOLOGIST'S MANUAL", D.A. BERKMAN & W.R. RYALL(ED.), MONOGRAPH NO. 9 AUSTRALAS. INST. MIN. METALL. - 1976
2. ATTITUDE OF BEDDING, VEIN, ETC. IS ANGLE BETWEEN PLANAR STRUCTURE AND LONG AXIS OF CORE 3. LENGTH IS GIVEN AS METRES OR MILLIMETRES.

0-0.5	Tricone - No core			
0.5 - 13.0 (12.5)	DOLOMITE Recrystallised in part Pale to medium grey, cream carbonate Mottled and brecciated Very broken, sheared, porous, and leached-faulted Clayey fault pug 11.4 →		2/F	Trace py in occasional stringers and specs
13.0 - 26.1 (13.1)	DOLOMITE SULPHIDE LODE Dark green ? fluorite rich carbonate/quartz with lesser talc/serpentinite and sulphides Generally irregularly banded		8/5/4/6	20-30% py trace sp irregularly banded, occasionally massive 20% py and po minor sp mostly irregularly banded
26.1 - 40.1 (14.0)	DOLOMITE Pale grey, fairly massive, slightly brecciated. Aggregate of 0.69m of DSL in 9 patches mostly composed of quartz/carbonate, minor pyrite, sphalerite 27.0-28.7 : Cavity - old workings		2	Trace po, py, sp as small specs Also 1-10% py in DSL patches
40.1-41.7	DOLOMITE SULPHIDE LODE mainly fluorite/carbonate		8/5	20% py, lesser sp, weak trace cp
41.7 - 48.8 (7.1)	DOLOMITE Pale grey, fairly massive, slightly brecciated. Aggregate of 0.73m of DSL in 3 patches mainly talc rich		2	<1% py > po, sp as small specs Also 5-30% py in DSL patches
48.8 - 54.1 (5.3)	RECRYSTALLISED DOLOMITE LESSER DOLOMITE White to pale grey, frequently brecciated Aggregate of 0.91m of DSL in 4 patches		3	1-2% py > sp > po disseminated Also 10-70% py > sp in DSL patches
54.1-56.0	DOLOMITE SULPHIDE LODE quartz/carbonate/talc		8/6/5	20% py ≫ po minor sp in blebs
56.0 - 59.9 (3.9)	SILTSTONE Poorly bedded partly disrupted 56.0-56.2 Transition zone with 40% serpentinite		10	Contact 60° 1-2% po and py Contact 40° disseminated 5% po and py in blebs
59.9-61.6	RECRYSTALLISED DOLOMITE massive, brecciated		3	Contact 70° 1% py ≫ po
61.6-62.5	SILTSTONE/QUARTZITE Transition zone type		10/11	5% py ≫ po in stringers
62.5 - 77.8 (15.3)	QUARTZ PORPHYRY 62.5-68.4: Milky white matrix with 10% quartz and 5% feldspar phenocrysts 68.4-74.1: Glassy white matrix, quartz and feldspar as above 74.1-76.6: Milky and glassy white matrix 76.6-77.8: Only milky white matrix		1	Contact ~80° 10-15% py > po coarsely disseminated 15% py rare po coarsely disseminated Trace cassiterite 10% py minor marcasite, disseminated
77.8 - 88.2 (10.4)	SILTSTONE AND QUARTZITE Bedding 60° → Medium grey, poorly bedded, much disrupted 82.0-82.6: massive Quartzite Bedding 50° → Gradual change to		10/11	Contact irregular approx 55° 2% py and po, finely disseminated, in veins and stringers
88.2 - 97.6 (9.4)	SILTSTONE AND SILTY SHALE Lesser Quartzite Medium to dark greenish grey, poorly bedded, much disrupted 96.9-97.6: Transition zone, slightly serpentinous Bedding 55° →		10/9	Trace py > po in stringers and disseminated 1% po > py disseminated and in stringers 10% py > po disseminated
97.6-99.7	DOLOMITE SULPHIDE LODE Pyrrhotite, carbonate, pyrite		4/8/5	60% po > py with 0.5% cp
99.7 - 104.2 (4.5)	DOLOMITIC SILTSTONE Mostly transition zone type but with dolomitic content Bedding 40° →		10/2	5-10% py and po in stringers, disseminated and in DSL patches
104.2-106.2	DOLOMITE Slightly impure with some siltstone		2	2% py and po in fractures, veins
106.2 - 110.0 (3.8)	SILTSTONE Minor Quartzite Moderately bedded, much disrupted Bedding 45° →		10	1-2% po and py in blebs and disseminated
	END OF HOLE 110.0m			

5 cm

832017

FOR LEGEND SEE DRAWING NO.

017

METALS EXPLORATION LIMITED

SUMMARY DRILL LOG Scale

Prospect or project: MT BISCHOFF TIN

HOLE No. MBD 51

LOG SHEET 1 OF 1

832018 018

SAMPLE NO. SPLIT CORE	SAMPLE NO GROUND CORE	FROM m	TO m	INTER-VAL m	Sn SPLIT	Sn GROUND	Cu	Pb	Zn	Ag	W	Au	Check Sn	Bulked Assays
98437		0.5	1.5	1.0	1400									
38		1.5	2.5	"	75									
39		2.5	3.5	"	14									
440		3.5	4.5	"	4									
41		4.5	5.5	"	<4									
42		5.5	6.5	"	12									
43		6.5	7.5	"	1800									
44		7.5	8.5	"	90									
45		8.5	9.5	"	46									
46		9.5	10.5	"	10									
47		10.5	11.5	"	260									
48		11.5	13.0	1.5	80									
49		13.0	14.0	1.0	3650									
450		14.0	15.0	"	1500									
51		15.0	16.0	"	4000									
52		16.0	17.0	"	4550									
53		17.0	18.0	"	4250									
54		18.0	19.0	"	1.17%	To be	confirmed.							
55		19.0	20.0	"	8700									
56		20.0	21.0	"	5100									
57		21.0	22.0	"	6100									
58		22.0	23.0		1.58%	To be	confirmed							
59		23.0	24.0	"	4700									
460		24.0	25.0	"	6400									
61		25.0	26.1	1.1	6200									
62		26.1	26.5	0.4	85									
63		26.5	27.0	0.5	1350									
64		28.7	29.1	0.4	30									
65		29.1	30.1	1.0	28									

Notes:— Sn by XRF Bi method.

METALS EXPLORATION LTD - MT BISCHOFF TIN PROSPECT

ASSAY SUMMARY SHEET HOLE NO. MBD 51

SAMPLE TYPE : DRILL CORE FROM 0.5 TO 30.1

832019 019

SAMPLE NO.	SAMPLE NO	FROM	TO	INTER-VAL	Sn	Sn	Cu	Pb	Zn	Ag	W	Au	Check Sn	Bulked Assays
SPLIT CORE	GROUND CORE	m	m	m	SPLIT	GROUND								
98466		30.1	31.1	1.0	130									
67		31.1	32.1	"	50									
68		32.1	33.1	"	10									
69		33.1	34.1	"	<4									
470		34.1	35.1	"	22									
71		35.1	36.1	"	360									
72		36.1	37.1	"	210									
73		37.1	38.1	"	30									
74		38.1	39.1	"	4									
75		39.1	40.1	"	8									
76		40.1	41.1	"	360									
77		41.1	42.1	"	2600									
78		42.1	43.1	"	65									
79		43.1	44.1	"	16									
480		44.1	45.1	"	380									
81		45.1	46.1	"	360									
82		46.1	47.1	"	560									
83		47.1	48.1	"	1100									
84		48.1	49.1	"	1600									
85		49.1	50.1	"	290									
86		50.1	51.1	"	300									
87		51.1	52.1	"	370									
88		52.1	53.1	"	2400									
89		53.1	54.1	"	820									
490		54.1	55.1	"	2350									
91		55.1	56.1	"	1500									
92		56.1	57.1	"	75									
93		57.1	58.1	"	80									
94		58.1	59.6	1.5	70									
48495		59.6	60.6	1.0	900									

Notes :— Sn by XRF Bi Method

METALS EXPLORATION LTD - MT BISCHOFF TIN PROSPECT

ASSAY SUMMARY SHEET HOLE NO. MBD 51

SAMPLE TYPE : DRILL CORE FROM 30.1 TO 50.6

SAMPLE NO.	SAMPLE NO	FROM	TO	INTER-VAL	Sn	Sn	Cu	Pb	Zn	Ag	W	Au	Check Sn	Bulked Assays
SPLIT CORE	GROUND CORE	m	m	m	SPLIT	GROUND								
98496		60.6	61.6	1.0	620									
97		61.6	62.5	0.9	620									
98		62.5	63.5	1.0	900									
99		63.5	64.5	"	500									
98700		64.5	65.5	"	120									
01		65.5	66.5	"	3450									
2		66.5	67.5	"	2700									
3		67.5	68.5	"	2550									
4		68.5	69.5	"	2050									
5		69.5	70.5	"	3800									
6		70.5	71.5	"	1850									
7		71.5	72.5	"	7600									
8		72.5	73.5	"	2850									
9		73.5	74.5	"	1150									
710		74.5	75.5	"	4300									
11		75.5	76.5	"	2000									
12		76.5	77.8	1.3	3850									
13		77.8	78.8	1.0	360									
98733		96.7	97.7	1.0	170									
34		97.7	98.7	"	130									
35		98.7	99.5	0.8	44									
36		99.5	100.5	1.0	230									
37		100.5	101.5	"	560									
38		101.5	102.5	"	230									
39		102.5	103.5	"	660									
740		10 .5	104.5	"	440									
41		104.	105.5	"	55									
42		105.5	106.8	1.3	430									

Notes :— Sn by XRF Bi method.

METALS EXPLORATION LTD - MT BISCHOFF TIN PROSPECT

ASSAY SUMMARY SHEET HOLE NO. MBD 51

SAMPLE TYPE : DRILL CORE FROM 60.6 TO 106.8

832021 021

SAMPLE NO.	SAMPLE NO	FROM	TO	INTER-VAL	Sn	Sn	Cu	Pb	Zn	Ag	W	Au	Check Sn	Bulked Assays
SPLIT CORE	GROUND CORE	m	m	m	SPLIT	GROUND								
98743		106·8	107·8	1·0	110									

Notes :— Sn by XRF Bi Method.

METALS EXPLORATION LTD - MT BISCHOFF TIN PROSPECT

ASSAY SUMMARY SHEET HOLE NO. MBD 51

SAMPLE TYPE : DRILL CORE FROM 106·8 TO 107·8.

832022 022

REPORT No.

PAGE 1

METALS EXPLORATION LTD.
& SUBSIDIARY COMPANIES

MINERAL EXPLORATION
DIAMOND DRILL LOG

Prospect, area, project or mine. MT. BISCHOFF

HOLE No. MBD 51

COLLAR LOCATION

	Grid name	Rectangular space co-ordinates PLANAR CO-ORDINATES		ELEVATION
(1)	MBJV	1877.7c N	1000.03 E	631.3c
(2)		N	E	
(3) Aust. Map Grid PRECISE / APPROX.		mE	mN	mA.H.D.

1:250 000 Sheet No. BURNIE SK 55-3

1:100 000 Sheet No. HELLYER 8015

State TASMANIA

Mineral Tenement E.L. 13/79

Holder METALS EXPLORATION LTD

Cadastral location and details

CROWN LAND/ PRIVATE

W.C. Bearing from collar

_____ magnetic

_____ grid (1)

_____ grid (2)

_____ grid (3)

_____ true

Inclination at collar Vertical

Total length 110.0c.m

Commenced: 12 / 1 / 81

Completed: 24 / 1 / 81

Drilling contractor LONGYEAR AUST PTY LTD

Rig type LONGYEAR H.C.150

Core size and non-coring (NC)

Tricone	0	TO	0.5
HQ	0.5	TO	59.6
NQ	59.6	TO	110.0
		TO	
		TO	
		TO	

Details of down hole location-survey methods.

EASTMAN

Single Shot Photo

Purpose of drilling and anticipated lengths to targets.

To obtain core for metallurgical purposes in the D3L horizon 20-40m, and to test White Face Porphyry Dyke between 70-90m.

Results of down hole location-survey.

LENGTH FROM COLLAR	W.C. BEARING type magnetic	DIP
40.0	146°	87°
81.0	206°	87°
109.6	186°	83°

Comments on drilling. HQ rod string was stuck at 33.0m. The hole was reamed in HW to 33.0m over the HQ rod string. Problems were encountered at 9.0m, and a cavity (old workings) was struck 27.0-28.7m

Legend for graphic log column (see drill log for Hole No. _____)

'DERWENT' PENCIL NO | FIELD ROCK NAME, ETC.

Symbols and abbreviations for drilling notes column.

LOGGED BY A. JANNINK FROM 0 TO 110.0 DATE 24.1.81

LOGGED BY _____ FROM _____ TO _____ DATE _____

LOGGED BY _____ FROM _____ TO _____ DATE _____

Company managing exploration programme. METALS EXPLORATION LTD

HOLE No. MBD 51

Log sheet 1 of 2

Preliminary Design for Form Aug. 76