DKoa

545001

D of M	A.O.	C.G.	E.O.	D.S.M.E.
Received Answered 1 - AUG 1983				Registrar
DEPT. OF MINES REF. No. 6742/83				R & IL

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED

West Coast Mines

EXPLORATION LICENCE NO. 4/73 - STERLING VALLEY

Progress Report on Exploration Activity

21st November, 1982 to 3rd May, 1983

OPEN FILE

Geology Dept.

Report No. 167 MD

I.R. McDonald,

May, 1983.

83-2006

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF PLANS

1. INTRODUCTION

This report covers continuing exploration on E.L. 4/73 by the Electrolytic Zinc Company of Australasia Limited acting as Manager for a Joint Venture consisting of EZ, Aberfoyle Exploration Pty. Ltd and Getty Oil Development Co. Ltd., between 21st November, 1982 and 3rd May, 1983.

2. PREVIOUS EXPLORATION

Previous exploration on E.L. 4/73 is detailed in EZ report no's 133 (1980), 143 (1981), 146 (1981), 150 (1982), 154 (1982) and 161 (1982).

3. EXPLORATION UNDERTAKEN 21ST NOVEMBER, 1983 TO 3RD MAY, 1983

3.1. Work Completed (see plan A4-526-0003)

Access:

Rehabilitation work was carried out on the access tracks and site areas of diamond drill holes completed by the Joint Venture over the past three years. The ground contours were restored and soil and disturbed vegetation were spread over the track areas to prevent their use by vehicles and to promote regrowth.

The Mines Department requested that the costean on line 3,260N be left open for further studies. Rehabilitation of this track was therefore not undertaken.

Geology:

A review of the exploration data and residual potential of the Farrell Slates - Henty Fault contact zone was undertaken. The review includes that part of the zone in adjacent E.L. 1/62 as well as E.L. 4/73.

3.2. Results Received

Geology:

The results of the geology review are contained in Appendix 1 - E.Z. Report No. 162.

Geochemistry:

Analytical results were received for the channel samples from the costean on line 3,260N. The samples were collected in the previous reporting period (EZ Report No. 161). Gold results were also received from the thirty seven soil samples, submitted last period, from the grid lines around the costean.

Assay results for the 2m channel sampling of the costean are contained in Appendix 2.

The single notable Au analysis was 0.74 ppm (4574E-4576E) near the eastern end of the costean coincident with a quartz-schorl-sulphide vein previously described (48071). Nearly all the other 2m-length assays returned less than 0.1 ppm Au. Three significant Sn assays were recorded:

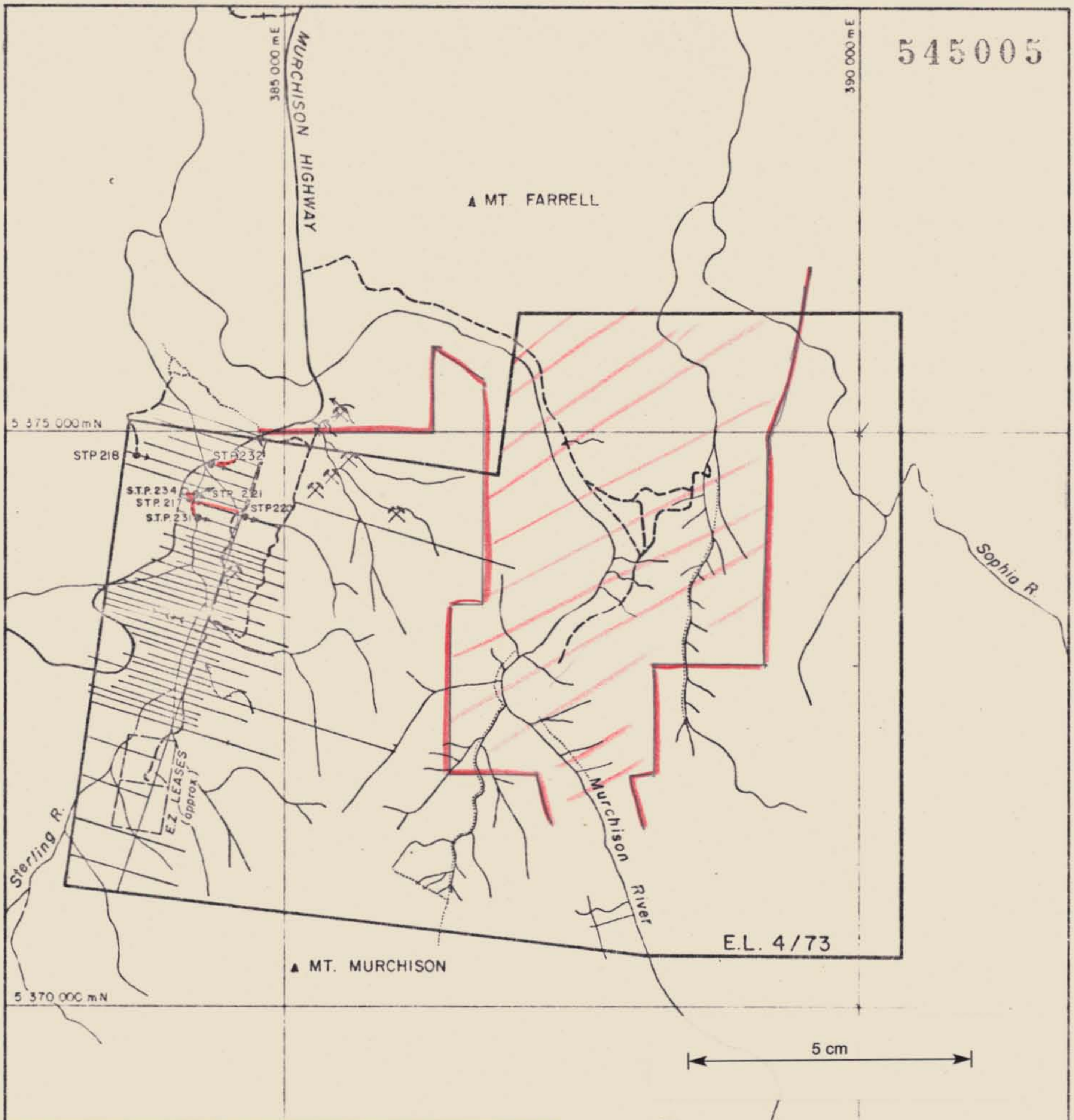
4596E - 4598E	1,400 ppm Sn
4606E - 4608E	1,300 ppm Sn
4616E - 4618E	1,800 ppm Sn.

The reassay of 37 samples previously found to be anomalous in Sn and As values resulted in only 4 Au assays over 0.1 ppm Au (see Appendix 2). All others but 3 were below the limit of detection. The two best of the four 'high' Au assays were from line 3260N in the area later costeaned.

3500N	4680E	0.17 ppm Au
3260N	4580E	0.27 ppm Au
3260N	4640E	0.25 ppm Au
3320N	4640E	0.20 ppm Au.

The results indicate that mineralisation similar to that encountered in the costean may exist to the north on lines 3320N and 3500N, but that the area of the costean on line 3260N is the highest assaying zone.

545005



approx
area of EL in HEC "Reserve"
DMcLD.

LEGEND

o→ •→	Drill Hole Proposed/Completed
⚒	Prospects Inspected
	Line Cut
	Line Pegged
	Line Soil Sampled
	Line Geology Mapped
	Line Ground Magnetics
	Line Dipole-Dipole E.I.P.
	Road
	Vehicle Track rehabilitated
	Costean
	Railway
	Abandoned Tramway
	Transmission Line
	Grid Line.

ELECTROLYTIC ZINC CO OF A'ASIA LTD

PROJECT STERLING VALLEY | TAS

WORK COMPLETED DURING

21. 10. 1982 - 3. 5. 1983

SCALE 1:50,000	Survey R.A.S.	Revised 13.5.1983
Reference	Date 23/8/1982	REF NO
Drawn TG.D.S.	Checked	A4-526-0003

545006

APPENDIX 1.

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED

West Coast Mines

AN ASSESSMENT OF Sn EXPLORATION IN THE MURCHISON RIVER – STERLING VALLEY AREA

EZ Geology Dept.
Report No. 162

I.R. McDonald,
March, 1983

545007

LIST OF CONTENTS

LIST OF PLATES

LIST OF TABLES

54500S

INTRODUCTION

This report assesses the results of exploration for Sn in the Murchison River (M. R.)-Sterling Valley (S.V.) area. In particular the report is concerned with the diamond drilling programmes which have been carried out over the past seven years. The area is held under two titles, the northern part lies in E.L. 1/62 and the southern part lies in E.L. 4/73 (See Fig. 1). All the raw data used in this assessment has been previously presented in several progress reports on the two Exploration Licences. Viz:

Cominco Expl. Pty. Ltd.	Progress Report on E.L. 4/73 for Six Months Ending 6.3.'76.
E.Z. Co. - Report No. 133	E.L. 4/73 - Progress Report on Activity July, 1979 - June, 1980.
" Report No. 143	E.L. 4/73 - Progress Report on Activity July, 1980 - June, 1981.
" Report No. 146	E.L. 4/73 - Six Monthly Review as at 15th December, 1981.
" Report No. 134	E.L. 1/62 - Progress Report on Activity 30th June, 1979 - 30th June, 1980.
" Report No. 142	E.L. 1/62 - Progress Report on Activity July, 1980 - June, 1981.
" Report No. 144	E.L. 1/62 - Six-Monthly Project Review as at 15th December, 1981.

GEOLOGICAL SETTING

A major north-north-east striking fault, the Henty Fault Zone, traverses the area, separating the cleaved mudstones and tuffaceous wackes of the Farrell Slates unit in the east, from andesitic and trachytic volcanics of the Mt. Black Volcanics unit in the west. Most of the Sn mineralisation known from the area is associated with the Henty Fault Zone. Almost all of this zone lies beneath a cover of glacial till. As a result all the geology and mineralisation data has come from diamond drilling.

EXPLORATION PHILOSOPHY

The exploration model pursued in this area was loosely based on Renison or Queen Hill styles of Sn mineralisation, with the Sn being associated with massive pyrrhotite bodies in either chemical (carbonate replacement) or structural (e.g. fault breccia) traps. The glacial till cover has prevented the use of geology or geochemistry resulting in all drill holes being either targetted on geophysics or drilled to follow-up a previous intersection. Massive pyrrhotite bodies should be chargeable, magnetic conductors, and readily detected by conventional electric, magnetic or electromagnetic techniques. The Farrell Slates, however, are sufficiently more conductive and chargeable than the volcanics to produce strong I.P. and E.M. gradients along the entire contact. This gradient can effectively mask any conductive or chargeable bodies lying in the fault zone. A 66,000 volt H.E.C. transmission line running down the centre of the area also prevents effective use of E.M. methods. Experience in other areas of glacial cover, notably the Boco Grid, have cast severe doubts on the penetration of glacial cover by I.P. All these factors have resulted in magnetics being the sole anomaly-generating tool used in the area.

MINERALISATION

Figure 1 shows the location of all the relevant drill holes across the M.R.-S.V. area. All the significant assay intersections are tabulated in Table 1. The intersections have been grouped into nine zones or mineralised horizons labelled A to I from north to south. These zones are shown in Figure 1 in plan form projected to the 100m R.L. Information is sufficiently dense to allow a geological interpretation, only in the area of drill holes STP 217, 221, 231 and 234. In this area zones D, E and F are defined (see Fig. 2). The zones are recognised by their spatial relationship to the fault contact between the Farrell Slates and the Mt. Black Volcanics. In some cases zone D, E and F intersections are recognised by As and Cu mineralisation and not Sn mineralisation. Zone A is also a non-Sn bearing zone. Holes MRP 226; 227 intersected only weak Pb-Zn mineralisation on the fault contact. They are included in the compilation to put an effective northern limit to the mineralisation area. The remaining zones B, C, G, H and I are defined on Sn mineralisation using a 0.1% Sn cut-off.

Zone B is seen in three holes, MRP 233, 212 and 219. The zone lies in the fault contact plane and extends into the Farrell Slates. It contains the thickest Sn-bearing intersection drilled to date; MRP 212 with a true width of 6.4m at 0.27% Sn. It is possible that this intersection represents an amalgamation of zones B and C. Zone C is identified in MRP 233, 219 and STP 232 A1, and lies about 7m east of Zone B in the Farrell Slates. The unexpected 55m of glacial overburden encountered in STP 232 A1 meant that the contact zone was not effectively drilled in that hole. It is possible therefore that zone B may extend southwards to the area of STP 232 A1.

Zone D lies in the volcanics about 20m west of the contact zone. It is identified as two Sn-bearing and one Sn-poor intersections (Fig. 2). Zone E, also in the volcanics, lies about 70m west of the contact. This is the pyrrhotite rich zone which is the source of the major magnetic anomaly which initiated this group of drill holes. Two intersections in STP 217 have both been assigned to this zone due to their proximity. STP 221 and 231 also have Sn bearing intersections in Zone E. STP 234 contains a Sn-poor As-Cu-Zn intersection assigned to zone E. Very high As values are typical of zone E. Zone F is identified in 3 holes, STP 234, 217 and 231, lying in the volcanics about 100m west of the fault contact. It is Sn-bearing only in STP 217. Because STP 232 A1 failed to test any volcanic stratigraphy zones D, E and F may extend northwards into the area of STP 232 A1. The potential for southern extension beyond STP 231 is untested.

Zone G is identified in STP 220 and SV 1 (a hole drilled by Cominco). The mineralisation lies within the Farrell Slates about 300m east of the volcanics contact. The two intersections may be unrelated but are grouped because of their proximity. STP 220 is most notable for containing the highest Pb, Zn and Cu assays reported in ~~Table 4~~. In this respect the intersection looks to have more affinities with the vein style base metal mineralisation which is known from several localities along the Farrell Slates.

Zone H is a similar situation to zone G, lying further south in the Farrell Slates. It occurs about 400m east of the contact and is seen in SV 3 (another Cominco hole) and STP 105 (an old EZ hole). At the time of drilling SV 1, Cominco resampled the old EZ holes STP 101 and 105 and analysed for Sn. The results were reported as spot samples from a point hole depth. The Sn-bearing samples have been given a nominal 0.3m estimated true width for the purposes of this compilation.

Zone I consists of the one spot assay in STP 101. It lies on its own remote from other assay data. It occurs in the Farrell Slates about 30m east of the contact with the volcanics; a situation similar to zone C in the northen end of the belt.

DISCUSSION

The exploration philosophy pursued in the M.R.-S.V. area has been partially successful. Magnetic anomalies have been drilled and found to be due to pyrrhotite bodies with associated Sn mineralisation. STP 217 and 221 are the successful examples. Notable failures for this approach were MRP 226 and 227 which encountered magnetite in an andesite lava as the source of the best magnetic anomaly on the M-R grid. STP 232 A1 encountered weak Sn mineralisation in the contact zone, but saw no mineralisation under the zone of magnetic anomaly, lying further east in the Farrell Slates, on which the hole was targetted. MRP 212, which remains the thickest Sn-bearing intersection in the belt was drilled to test an I.P. anomaly lying in the volcanics. The Sn mineralisation lying on the fault contact was an almost fortuitous bonus. Of the two holes which were drilled to follow this up, MRP 219 had no magnetic response at all. The iron sulphide in these later two holes was almost all pyrite. Pyrrhotite was present as a minor phase only in MRP 219. The problems associated with I.P. and E.M. targetting have already been discussed above.

The diamond drilling results suggest that magnetics also has severe limitations as a targetting tool because the two basic assumptions of magnetic anomaly = pyrrhotite, and pyrrhotite = Sn mineralisation have been seen to be not necessarily valid. These assumptions stem directly from the Renison Model. The Sn mineralisation encountered in the M.R. - S.V. area is clearly not of a Renison style. Stratiform carbonate replacement mineralisation has not been seen. All the significant Sn occurs within the Henty Fault Zone and associated fracture system. The Renison Model assumptions are probably valid for exploration within the Farrell Slates if the unit contained any carbonate horizons. Although exposure of the Farrell Slates is very poor due to the glacial cover, all the evidence to date suggests that carbonate horizons are not present in the unit, and are unlikely to be present. The Farrell Slates appear to be a volcaniclastic turbidite association; an environment not conducive to the formation of carbonates. - not necessarily!

The possibility of major significant Sn mineralisation in the area appears to rest within the zone of the Henty Fault. Present knowledge suggests that any such mineralisation will be associated with arsenopyrite, pyrite, ±pyrrhotite with minor chalcopyrite, sphalerite and galena. There is no way of searching for the target geochemically over most of the area, and geophysics has severe limitations on its effectiveness. Any future exploration in the area appears to be limited to pattern drilling of the favourable zone.

What is the likelihood of a viable Sn orebody existing in the area which would merit the adoption of pattern drilling to find it? The mineralisation encountered to date clearly does not constitute a viable orebody. The average grade of Sn-bearing intersections in zones B-F inclusive is 0.33% Sn. The highest individual Sn assay encountered is from MRP 233:- 150.1m-150.6m; 0.5m at 0.8% Sn. The weighted average true thickness of the intersections in zones B to F is 1.6m. The Cleveland orebody is taken as an example for comparison. It has been a profitable operation but in more recent times has been having financial problems and therefore probably represents the lower size limits of a viable new orebody. The Cleveland average grade is 0.8% Sn; 0.3% Cu (1978 ore reserve figures) and thickness of lodes ranges up to 10m. In 1965 the pre-production indicated and inferred ore reserves at Cleveland were 2.8 million tonnes at 1.02% Sn; 0.43% Cu (Ransom and Hunt). A Cleveland mine 5 level plan is shown on Fig. 1 for comparison. As can be seen, several lenses are present on the one level, increasing the tonnes per vertical metre factor of the mine. This situation has some analogue in the area of zones D, E and F but grades and thickness fall far short of the Cleveland situation.

Figure 1 also shows all the Sn-bearing intersections projected on longitudinal section to try and better show the area of effective testing and potential for further testing. Also shown is the area required to produce 100,000 tonnes at a true thickness of 1.6m. This is a square with a side of 150m, if the density is assumed to be 2.77. This falls within the density range of most slates, shales and intermediate volcanics. Below Om R.L. there is practically no testing, but increasing depth requires an increasingly attractive target. The Cleveland orebody outcrops. Above Om R.L. there remains an untested block north of MRP 233. Assuming a half-way extension to MRP 226, this area would contain about 300,000 tonnes at 1.6m true width. Similarly the area south of STP 231 is open and could contain a similar or greater, perhaps 500,000 tonnes, potential. The area between STP 234 and MRP 219 is only poorly tested by STP 232 A1, and might contain about 250,000 tonnes of untested potential above the Om R.L. Perhaps therefore a potential in the order of one million tonnes exists above Om R.L. where grades could conceivably be better than those seen at present. This potential is spread over about 2.2km of strike length. Obviously not only the grade but also the thickness would have to increase significantly to produce a viable orebody. On the positive side, however, a comparison with the Cleveland A-B lenses longitudinal projection shows that the strike lengths of the untested areas are of the right order.

The mineralisation seen to date suggests that even if an area of increased grade and thickness can be found it is unlikely to have a large strike length. The way in which the Sn grade comes and goes along zones D, E and F is probably typical of mineralisation emplaced along fault planes and fractures. An added debit for the known mineralisation is its occurrence in strongly cleaved and broken brecciated rocks which would present severe ground problems in any mining situation. In this area therefore the target prize probably has to be even higher in grade to compensate for the high cost nature of any eventual mining situation.

REFERENCES:

RANSOM, D.M. and HUNT, F.L. — Cleveland Tin Mine. In Knight, C.L. ed. Economic Geol. of Aust. and P.N.G. Aust. I.M.M. Mon. 5 p 584-591.

545014

Table 1 Significant Drill-Hole Intersections

Hole Number	Drilled Intersection		Mineral^n Zone	Est. True Width	Assay					R.L.	A.M.G. Co-ordinates	
	Hole Depth	Length			Sn	As	Cu	Pb	Zn		North	East
MRP 227	135·3 - 137·8	2·5m	A	1·60 m	6 ppm	0·93%	35 ppm	0·20%	0·24%	63 m	5,376,392	384,840
MRP 226	183·3 - 184·2	0·9m	A	0·75m	X	2·00%	180 ppm	2·31%	0·34%	28 m.	5,376,288	384,812
MRP 233	148·5 - 150·6	2·1 m	B	1·90 m	0·33%	3·99%	705 ppm	440 ppm	115 ppm	41 m	5,375,428	384,579
MRP 212	187·5 - 194·4	6·9m	B	6·40m.	0·27%	N.A.	730 ppm	270 ppm	135 ppm	27 m	5,375,331	384,560
MRP 219	113·0 - 113·25	0·25m	B	0·23m	0·63%	6·00%	0·33%	0·44%	420 ppm	75 m	5,375,091	384,511
MRP 233	157·0 - 160·5	3·5 m	C	3·20m	0·21%	6·18%	0·31%	0·12%	0·18%	35m	5,375,428	384,586
MRP 219	122·65 - 123·65	1·0 m	C	0·91m	0·27%	0·47%	325 ppm	40 ppm	50 ppm	66m	5,375,090	384,517
STP 232A1	67·0 - 68·0	1·0m	C	0·85m	0·31%	31 ppm	325 ppm	15 ppm	80 ppm	119 m	5,374,712	384,430
STP 234	252·0 - 254·1	2·1 m	D	2·00m	0·36%	0·18%	545 ppm	15 ppm	110 ppm	-45 m	5,374,475	384,250
STP 221	102·0 - 107·0	5·0m	D	3·90m	200 ppm	0·33%	20 ppm	45 ppm	155 ppm	85 m	5,374,413	384,326
STP 217	149·6 - 151·6	2·0m	D	1·70m	0·31%	0·40%	385 ppm	15 ppm	125 ppm	48 m	5,374,365	384,260
STP 234	185·0 - 195·0	10·0m	E	8·20m	14 ppm	1·80%	0·19%	105 ppm	1·00%	6 m	5,374,479	384,207
STP 221	37·8 - 39·5	1·70m	E	1·20m	0·32%	6·95%	0·23%	25 ppm	75 ppm	142m	5,374,405	384,290
STP 217	92·35 - 93·35	1·0m	E	0·80m	0·50%	1·80%	0·16%	535 ppm	440 ppm.	95m	5,374,375	384,230
	98·65 - 100·70	2·05m	E	1·60m	0·26%	10·61%	0·23%	90 ppm	120 ppm	89m	5,374,373	384,235
STP 231	77·3 - 79·5	2·2 m	E	1·95m	0·30%	2·30%	980 ppm	35 ppm	135 ppm	110 m	5,374,255	384,255
STP 234	140·0 - 145·0	5·0m	F	3·80m	280 ppm	100 ppm	120 ppm	195 ppm	45 ppm	45m	5,374,483	384,183
STP 217	70·0 - 71·0	1·0m	F	0·80m	0·20%	620 ppm	0·16%	40 ppm	175 ppm	114m	5,374,380	384,220
STP 231	54·9 - 59·3	4·4 m	F	3·60m	240 ppm	4·77%	0·21%	80 ppm	345 ppm	127 m	5,374,257	384,245
STP 220	138·0 - 138·7	0·7m	G	0·60m	0·15%	0·20%	0·49%	3·25%	3·2%	73 m	5,374,225	384,685
SV 1	68·9 - 69·0	1·0 m	G	0·90m	0·20%	N.A.	0·10%	X	100 ppm	134m	5,374,029	384,567
SV 3	218·4 - 219·25	0·85m	H	0·80m	0·20%	N.A.	N.A.	N.A.	N.A.	23 m	5,373,338	384,370
STP 105	SPOT 983 ft.		H	0·30m	0·15%	N.A.	80 ppm	80 ppm	500 ppm	46m	5,373,238	384,298
STP 101	SPOT 690 ft		I	0·30m	0·40%	N.A.	0·10%	80 ppm	50 ppm	130m	5,372,827	383,835

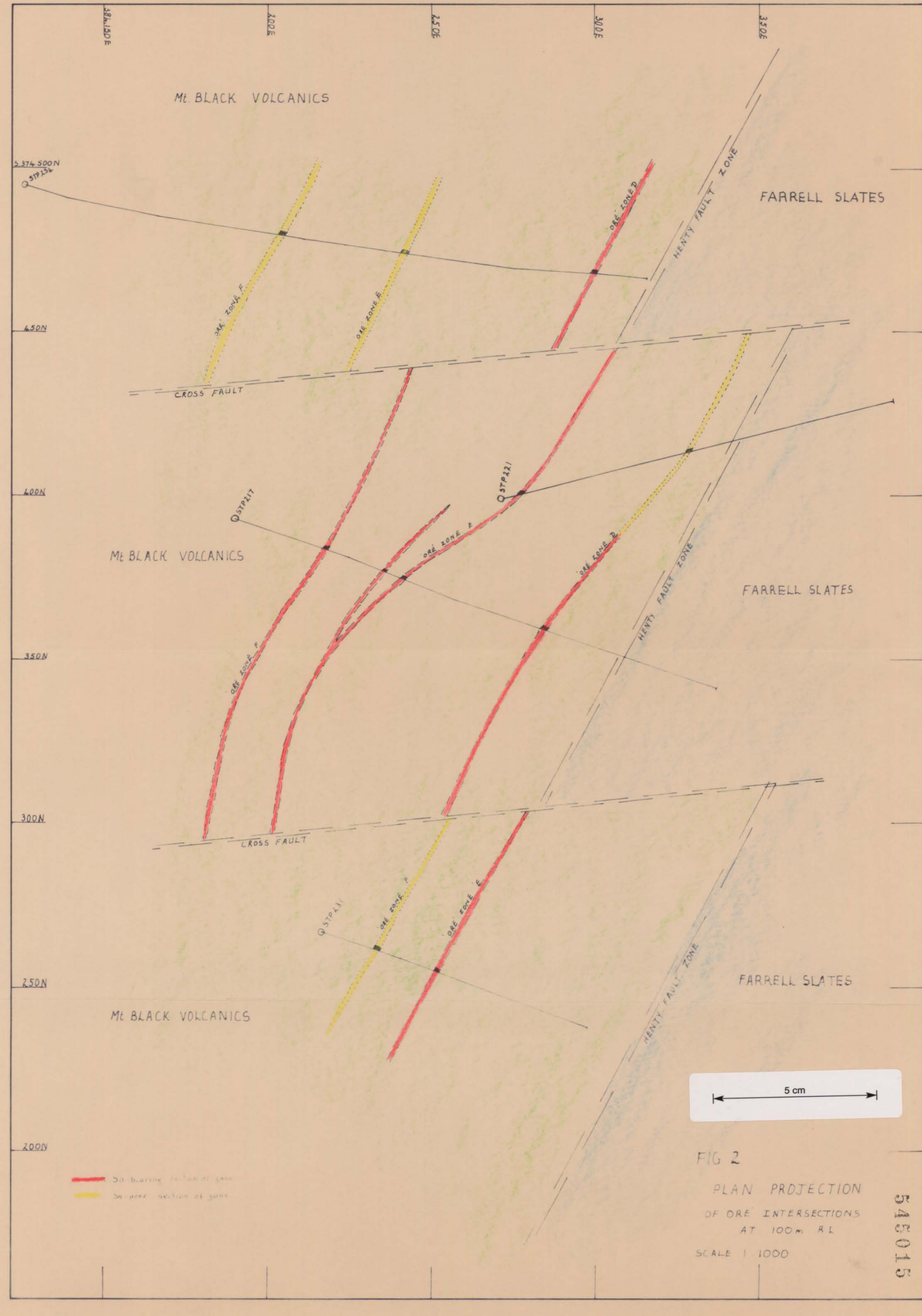
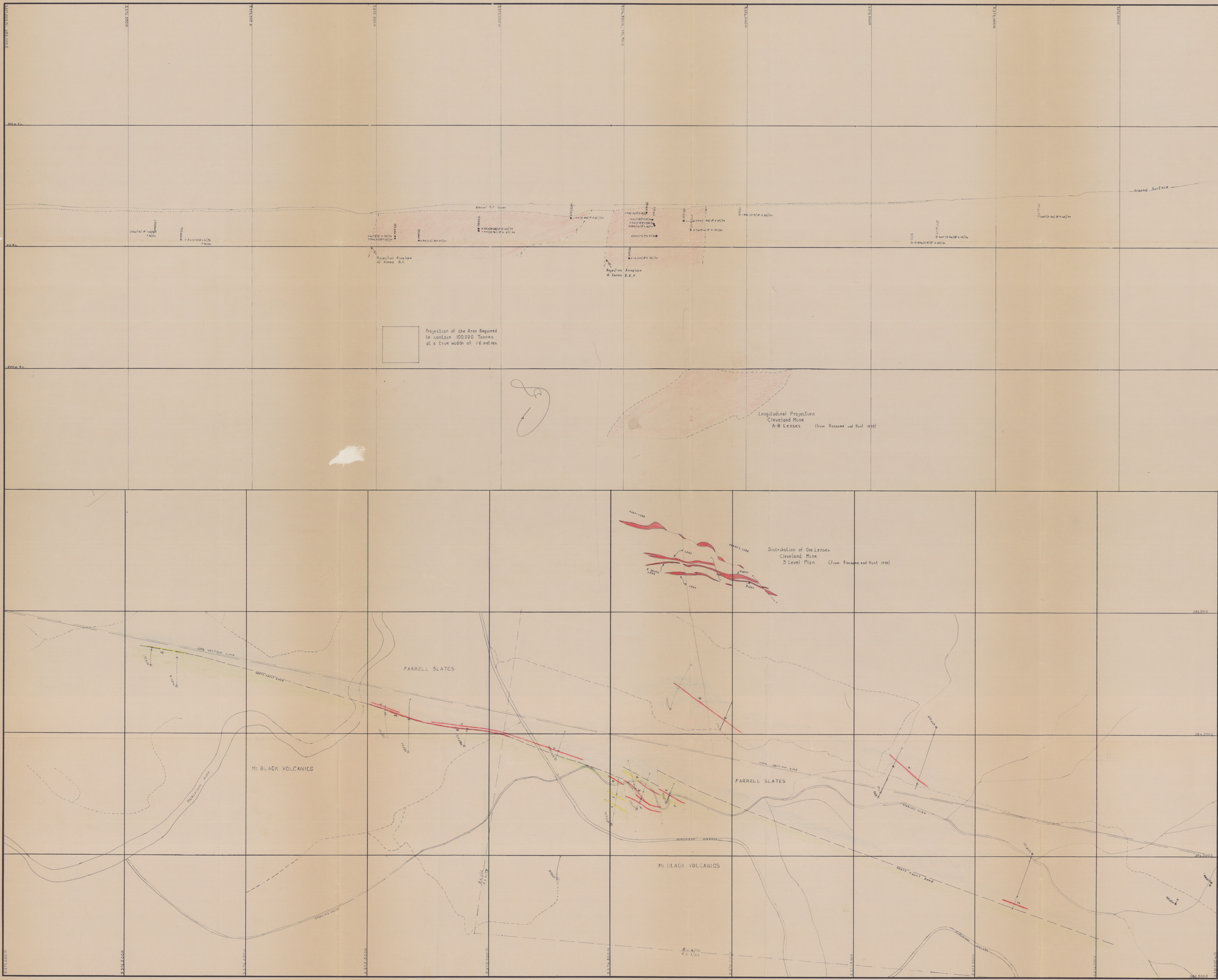


FIG 2

PLAN PROJECTION OF ORE INTERSECTIONS AT 100m RL

SCALE 1:1000

545015



545016

5 cm

ELECTROLYTIC ZINC CO. OF A ASIA. LTD.

PROJECT:

FIG 1

83-2006

MURCHISON RIVER – STERLING VALLEY
DRILL HOLE INTERSECTION SUMMARY

Surface Location Plan and
Interpretation of Mineralisation Zones at 100 m R.L.

Longitudinal Section Projection
of Sn-bearing Intersections

SCALE: 1:5000	Survey:	Revised:
Reference:	Date: Mar 1983	REF. NO.
Drawn: I.R.McD.	Checked:	

1516

E.Z. PLAN CABINET TRIM LINE

APPENDIX 2

Geochemical Sample Data Sheets

i) 2m channel sampling of costean.

ii) Reassay of soil samples for Au.

545018

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

Sterling Valley
2m channel sampling

ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	27.1 08 1674	14.12.82	900401	1 OF 2

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Sn	Au		
1	47235	115	165	250	X	5.70%	18	0.01	4573 E	4574 E
2	47236	455	115	245	2.0	8.90%	117	0.74	4574 E	4576 E
3	47237	105	165	245	X	5.80%	14	0.01	4576 E	4578 E
4	47238	105	125	200	X	5.80%	15	0.01	4578 E	4580 E
5	47239	125	155	290	X	6.90%	14	0.01	4580 E	4582 E
6	47240	210	320	340	X	7.40%	15	0.01	4582 E	4584 E
7	47241	190	750	790	0.5	12.0%	52	0.05	4584 E	4586 E
8	47242	175	315	540	X	10.5%	52	0.07	4586 E	4588 E
9	47243	100	940	1350	0.5	13.5%	8	0.02	4588 E	4590 E
10	47244	155	450	815	X	13.0%	67	0.03	4590 E	4592 E
11	47245	215	350	1100	X	11.5%	X	0.04	4592 E	4594 E
12	47246	180	670	1300	0.5	10.0%	1	0.02	4594 E	4596 E
13	47247	930	1000	1000	7.5	12.5%	1400	0.09	4596 E	4598 E
14	47248	85	90	1350	0.5	10.0%	2	0.01	4598 E	4600 E
15	47249	180	130	1450	X	8.60%	X	0.01	4600 E	4602 E
16	47250	125	485	590	X	10.5%	15	0.28	4602 E	4604 E
17	47251	170	195	600	0.5	14.0%	190	0.03	4604 E	4606 E
18	47252	155	190	720	X	12.5%	1300	X	4606 E	4608 E
19	47253	100	470	535	X	9.90%	3	0.03	4608 E	4610 E
20	47254	105	210	440	X	8.90%	2	0.03	4610 E	4612 E
21	47255	190	220	655	X	14.5%	80	0.01	4612 E	4614 E
22	47256	130	180	405	X	13.5%	38	0.02	4614 E	4616 E
23	47257	1100	155	350	4.5	16.0%	1800	0.17	4616 E	4618 E
24	47258	170	85	250	0.5	12.0%	184	0.04	4618 E	4620 E
25	47259	325	150	350	X	14.5%	535	0.07	4620 E	4622 E

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

AUTHORISED OFFICER [signature]

545019

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	27.1 08 1674	14.12.82	900401	2 OF 2

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Sn	Au		
1	47260	130	145	375	X	14.5%	65	0.01	4622 E	4624 E
2	47261	170	105	300	X	11.5%	215	0.01	4624 E	4626 E
3	47262	100	145	325	X	11.5%	12	0.02	4626 E	4628 E
4	47263	70	70	95	X	5.25%	32	0.02	4628 E	4630 E
5	47264	60	65	100	X	6.00%	4	0.02	4630 E	4632 E
6	47265	65	45	140	X	10.5%	20	0.02	4632 E	4634 E
	47266	115	130	320	X	12.0%	185	0.01	4634 E	4636 E
8	47267	65	85	185	X	8.60%	68	0.01	4636 E	4638 E
9	47268	45	65	160	X	7.30%	19	0.01	4638 E	4640 E
10	47269	70	130	245	X	12.0%	22	X	4640 E	4642 E
11	47270	50	80	180	0.5	10.0%	20	X	4642 E	4644 E
12	47271	65	75	290	X	11.0%	62	X	4644 E	4646 E
13	47272	55	120	150	0.5	10.0%	63	X	4646 E	4648 E
14	47273	70	60	125	X	12.0%	190	0.01	4648 E	4650 E
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

AUTHORISED OFFICER

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
STERLING VALLEY SOIL SAMPLES	27.1 08 1676	6.12.82	900405	1 OF 2

TUBE No.	SAMPLE No.	Au		STERLING VALLEY GRID CO-ORDS N	E.					
1	42618	X		3380	4440					
2	42619	X		3380	4460					
3	42620	0.08		3380	4480					
4	42621	X		3380	4500					
5	42622	X		3380	4520					
6	42623	0.02		3380	4540					
7	42624	X		3380	4560					
8	42625	X		3380	4580					
9	42626	X		3380	4600					
10	42690	X		3500	4580					
11	42691	X		3500	4600					
12	42692	X		3500	4620					
13	42693	X		3500	4640					
14	42694	X		3500	4660					
15	42695	0.17		3500	4680					
16	42696	X		3500	4700					
17	41200	X		3200	4720					
18	41301	X		3200	4700					
19	41302	X		3200	4680					
20	41303	X		3200	4660					
21	41304	X		3200	4640					
22	41305	X		3200	4620					
23	41346	X		3260	4560					
24	41347	0.27		3260	4580					
25	41348	X		3260	4600					

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

AUTHORISED OFFICER [signature]

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
STERLING VALLEY SOIL SAMPLES	27.1 08 1676	6.12.82	900405	2 OF 2

TUBE No.	SAMPLE No.	Au		STERLING VALLEY GRID CO-ORDS N.	E.
1	41349	0.02		3620	4620
2	41350	0.25		3620	4640
3	41351	X		3620	4660
4	41352	X		3620	4630
5	41369	X		3320	4700
6	41370	X		3320	4680
7	41371	X		3320	4660
8	41372	X		3320	4640
9	41373	0.20		3320	4620
10	41374	X		3320	4600
11	41375	X		3320	4580
12	41376	X		3320	4560
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23	DETECTION	0.005			
24	DIGESTION				
25	METHOD	309			

Results in ppm unless otherwise specified
T = element present: but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

AUTHORISED OFFICER [signature]