

A REVIEW OF EXPLORATION

IN THE BLACK P.A. AREA

BY

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Geological Department
Report No. 136

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02_4771

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LIST OF PLANS.

AI-501-0205	specifications and Summary of Results	J.D.H.	B.P. 222
AI-501-0206	" " " " "	"	BP 223
AI-501-0207	" " " " "	"	BP 224
AI-502-0208	" " " " "	"	BP 225

1. INTRODUCTION

(Refer to Figure 1 Locality Names, and the Surface Plan, Figure 2.)

The Black P.A. Prospect is approximately located in an area between 5,373,500mN and 5,374,000mN and 377,500E and 378,000E (see A4-525-0063).

An adit established in 1914 by the Tasmanian Copper Co. Ltd., located minor Pb-Zn sulphides with rare traces of Sn near the start of the adit.

There is no record of further exploration until a drilling program of 4 holes, BP's 20, 21, 22 and 23, was carried out under the old adit between 1943 and 1944 by E.Z.. BP 20 intersected significant Sn values. A further 2 holes BP 92 and BP 93 were drilled by E.Z. in 1975.

A re-assessment of drilling in the area indicated that a further program of 4 holes was required to fully test possible strike extensions of Sn mineralisation located in BP 20. This program was commenced in December, 1980 and completed in March, 1981 by Longyear Australia Pty. Ltd..

2. WORK DONE BEFORE DECEMBER, 1980

(Refer to Relogs of BP's 20, 21, 22, 23 & BP's 92, 93 in E.Z. DDH Log files.)

The log of BP 20 recorded an intersection of 34.5ft averaging 1.28% Sn in a zone of quartz, siderite, tourmaline, chlorite and pyrite in an altered pyroclastic approximately 150ft beneath the northern end of the old adit.

The Sn intersection was re-assayed in January, 1980, by a pressed-powder XRF technique to give an average of 2.75% Sn between 400 and 420 feet.

Poor core recoveries and poor core storage made estimation of depth unreliable.

Six small samples from the Sn mineralised zone were subsequently petrologically described by H.W. Fander, M.Sc. of Central Mineralogical Service (see attached descriptions). Cassiterite was detected in significant amounts in all sections, occurring as small grains or aggregates (size range 2μ to 3mm, averaging around $10-30\mu$) intergrown with quartz and/or pyrite.

Holes BP 21 and 22 were drilled about 150ft south of BP 20.

Both holes appear to have intersected the equivalent zone to BP 20, but no significant Sn values are recorded (maximum of 0.17% in BP 21). However, core recoveries were often very poor and sampling and assaying were carried out only over restricted intervals.

Drill hole BP 23 was aimed approximately 250ft north of and 150ft deeper than BP 20. This hole encountered difficulties (6% core recovery) and was abandoned before reaching its target depth.

Eleven years later hole BP 92 was aimed approximately 100ft north and 250ft below BP 20, but this hole was also abandoned short of target. A substitute hole, BP 93 was then drilled from a site on the footwall side of the adit. This last hole may have drilled just far enough to test the same zone as BP 20, but this cannot be determined with any confidence since rock types cannot be correlated between the holes using the information in the logs. No Sn was detected in the limited section of the hole that was assayed, but the common problem in these holes of poor core recovery again occurred over the final 60ft of the hole (e.g. only 6" of core recovered from one interval of 9ft).

Relogging and re-assaying of the old holes was complicated by extreme core loss in most of the holes and considerable disturbance of core through poor storage. For this reason a meaningful discussion of geology and geochemistry will be done in conjunction with the 1980-81 drilling results.

3. WORK DONE AFTER DECEMBER, 1980

- 3.1. Diamond Drilling (Refer to DDH Logs of BP's 222, 223, 224 and 225, also "Summary of Specifications & Results of Exploration Drill Hole No. BP 222 Ref No A1-501-205
 BP 223 " " A1-501-206
 BP 224 " " A1-501-207
 BP 225 " " A1-501-208)

A re-assessment of the 1944 and 1955 drilling programs through relogging, resampling and subsequent interpretation resulted in a revised program of 4 diamond drill holes designed to test for:-

1. The extension of the Sn mineralisation down dip from BP 20 (Hole No. BP 222).
2. The continuation of the Sn mineralisation along strike to north from BP 20 (Hole No's BP 223 and 224).
3. A mineralised vein plunging to the north from BP 20 (Hole No. BP 225).

Core recovery and rate of progress was poor as encountered on the earlier holes and much of the program was drilled in NQ rather than the scheduled BQ. BP 225 was drilled in HQ where core loss was reduced to an acceptable level.

3.2. Geology (Refer to Figure 3, to E.Z. Exploration File 51/14, to E.Z. Geology Sheet 7A - Ref No AO-504-0044.)

As much of the Black P.A. prospect is covered by glacial lacustrine clays and poorly sorted tills (up to 30m in thickness) much of the geology is based on the diamond drilling. Some outcrop occurs along the Stitt River near the Black P.A. adit west of the railway Bridge. This outcrop was not remapped or chip sampled. Other outcrop is restricted to the road and railway cuttings to the east. To the north outcrop is obscured by the Rosebery township.

Drilling disclosed a sequence of tightly folded laminated siltstones, variable in colour and grain size, interbedded with a single unit of coarser grained feldspathic crystal tuff and volcanic wacke. This unit is overlain by a fine grained siltstone sequence indistinguishable from the basal siltstone unit. Abutting against the Western Sequence of folded sediments apparently unconformably are pyroclastics consisting of highly altered, sericitised, chloritised, sheared and cleaved rhyolitic ashflow tuffs. The contact between the sediments and pyroclastics is invariably highly sheared suggestive of a major fault zone. The extreme core loss and broken core are also indicative of relatively intensive shearing. Lithic fragments of dark grey siltstone within the pyroclastics tend to suggest an easterly facing for the Black P.A. sequence. Within the cleaved and sericitised tuffs are patches of recrystallised manganiferous carbonates (refer Figure 3). In BP 225 the contact between the manganiferous carbonate and its enclosing tuffs appears to be interdigitated and in part fracture controlled (refer to C.M.S. report 81/3/28 in Appendix I). The manganiferous carbonate in BP 225 is in contact with

minor impure limestone which is also indicative of fracture-control, although there appears to be some evidence for sedimentary derivation. Both carbonate facies contain sparsely disseminated sulphide mineralisation with a pyrite-chalcopyrite-tetrahedrite-galena assemblage with very minor sphalerite. Further eastwards the pyroclastics tend to be less altered and more massive with decreased sericitisation as indicated in BP 93.

The regional setting of the Black P.A. Prospect is yet to be resolved but it may represent a sheared westerly limb of a syncline immediately to the west of the major anticline of which the Rosebery Mine forms the eastern limb. This model would then equate the pyroclastic sequence at the Black P.A. with the Rosebery Mine Footwall Rocks. The sediments at the Black P.A. are older than the Rosebery Footwall Rocks and thus appear to be unrelated to the Rosebery Mine Black Shales.

3.3. Geochemistry (Refer to DDH Logs, Figures 4 and 5.)

Soil geochemistry was considered ineffectual as a means of target location as the Black P.A. Prospect is covered by extensive glacial lacustrine clays and poorly sorted tills. For this reason only geochemistry from the drilling is considered.

No detailed statistical analysis results was conducted as variable sample intervals and poor core recoveries, particularly on the 1944 holes, made calculations relatively unreliable and extremely unwieldy. For this reason a subjective view only is presented.

The Pb values were plotted on a long projection for the recent drilling (see Figure 4) only on the basis of the

following arbitrary classes; <200 ppm, 200-500 ppm, 500-1000 ppm and >1000 ppm. The resulting intervals were then contoured, using the data from the 1944 and 1955 programs as a guide only (owing to excessive variability with respect to sample intervals and unreliability of depth information). Pb was chosen to represent the base metal trends within the Black P.A. Prospect. Sn values were plotted for values greater than 200 ppm for the entire drilling program and then contoured where possible (see Figure 5).

A comparison of the geochemistry with the geology, (see DDH specification sheets) suggests that the sediments in the Black P.A. area appear to be geochemically low with respect to base metals and Sn. Minor peaks within the sediments, apart from one peak in BP 225, appear to be associated with visible sulphide mineralisation. The pyroclastics on the other hand appear to contain sporadic sulphide and Sn mineralisation. The original Sn intersection in BP 20 was found in a quartz/carbonate vein associated with tourmaline, pyrite and chlorite, as fine grained cassiterite and as such was not observed in any of the subsequent holes. A comparison of the carbonate rich horizons wholly enclosed within the pyroclastics (see Figure 3) and the Sn mineralisation (see Figure 5) reveals a close correlation i.e. that the Sn geochemistry is intimately related to the carbonate horizons within the pyroclastics except for the anomalous Sn found in BP 21 (which was confirmed by 1980 resampling at 420 ppm rather than 0.16%) which is associated with a silicified lithic tuff. H.W. Fander M.Sc. of C.M.S. (refer C.M.S. report 81/3/28) records sphalerite-pyrite-galena-chalcopyrite assemblages within the carbonated pyroclastics which would account for the Pb anomalism seen in Figure 4 as the Pb contours with two exceptions appear to be approximately enveloping the anomalism observed in the Sn distribution. One of the Pb anomalies

appears to be associated with visible arsenopyrite in BP 225 contained within a volcanic wacke. The other, observed in BP 224 between 113.75m and 121.95m, consists of sporadic massive galena, disseminated pyrite and chert, and appears to be associated with sericitised sheared and faulted tuffs with no traces of carbonate. However, as only 7% of the core was recovered reliable interpretations are extremely difficult.

3.4. Geophysics

Magnetic susceptibility was conducted over the diamond drill core with nil response as the highest reading obtained was 0.2×10^{-3} cgs units.

Surface geophysics was considered impracticable for testing strike extensions over the Black P.A. Prospect as close proximity to housing, railway and powerlines would make interpretation difficult. Combined with the cultural effects, glacial cover up to 30m thick would tend to obscure weak responses.

4. CONCLUSIONS

The carbonates within the pyroclastics are fracture controlled although there is some evidence, for a sedimentary origin. These fractures within the carbonates may have acted as feeder zones resulting in partial mineralisation of the carbonate horizons with the quartz-carbonate-tourmaline-pyrite vein in BP 20 representing a late stage metasomatic emplacement or replacement in a gap left as a result of faulting and/or weathering of carbonate by underground waters. The Sn mineralisation appears to be closed to the north and south as;

- 1) no carbonates are encountered in BP 224 or BP 21
- 2) the Pb halo decreases away from the Sn mineralisation, and
- 3) no significant Sn values are encountered in BP 224 or BP 21.

The minor Sn anomaly (420 ppm) in BP 21, not associated with the carbonates, is probably a result of feeder action along fractures within the sheared lithic tuffs.

The Black P.A. pyroclastics, presumably equivalent to the Rosebery Mine Footwall Rocks, are younger than the sediments at Black P.A. and by inference, older than the black shales of the Rosebery Mine. As it is unlikely that massive sulphides of the Rosebery generation occur at a lower stratigraphic horizon i.e. 2 generations of sulphide formation are considered unlikely, the massive galena found in BP 224 is probably representative of a late stage vein deposit of insignificant proportions.

In summary the recent drilling program indicates that the anomalous Sn mineralisation does not appear to extend far beyond BP 20. The galena mineralisation intersected in BP 224 is probably indicative of a vein deposit although no field evidence is available to prove this.

5. SUGGESTIONS FOR FOLLOW-UP WORK

The recent drilling program suggests that there was a possibility for strike extension to the north of the galena mineralisation intersected in BP 224. Before this target is tested by diamond drilling the following is suggested to test the validity of the age of the Black P.A. pyroclastic sequence.

1. Remapping of the Stitt River, road and railway cuttings in conjunction with chip sampling of the pyroclastics to test for anomalous Sn mineralisation.

2. Correlation of the above with the surface mapping around the Rosebery Mine, and
3. Structural interpretation of 1 and 2 to construct a regional setting for the Black P.A. and likely environs for mineralisation.

If the Black P.A. pyroclastic sequence appears favourable then perhaps the mineralisation in BP 224 should be followed up by drilling.

R.J. WEEDEN

RJW/amd

8th July, 1981

6. REFERENCES

E.Z. Exploration File 51/14 containing:

- 1) The original documentation of the drilling program
- 2) Field sheets of mapping in the area, and
- 3) The 1980 proposal for the drilling programme.

E.Z. Diamond Drill Logs including:

- 1) The original logs for BP's 20, 21, 22, 23, 92 and 93, and
- 2) Relogs of holes in (1) and logs for BP's 222, 223, 224 and 225.

APPENDIX I

C.M.S. PETROLOGICAL REPORT

8113/28

Central Mineralogical Services



CMS

39 Beulah Road
Norwood, S.A. 5067
Telephone 42 5659

MGR		MINE	CH
ACCTS		SUPPL.	WORK
	21 APR 1981		INDUST
MET	ENG	GEOL	

Mr. R.J. Weeden
Geologist - Exploration
Electrolytic Zinc Co. of
Australasia Ltd.
West Coast Mines
P.O. Box 21
ROSEBERY / TAS. 7470

15th April, 1981

REPORT CMS 81/3/23

YOUR REFERENCE: Memo dated 13.3.1981
DATE RECEIVED: 17th March, 1981
SAMPLE NOS.: BP 225 - 43162, 43163
43313 - Natone
SUBMITTED BY: R.J. Weeden
WORK REQUESTED: Petrology

H.W. Fander, M.Sc.

REPORT CMS 81/3/28Notes:

Specimens 43162 and 43163 reflect a phase of manganiferous carbonation, in part fracture-controlled and with associated base metal sulphides. The metasomatic phase is relatively coarse-grained, but stressed and predates the single cleavage evident in thin-sections. It is thus of pre-tectonic character, although this would require confirmation from field evidence.

Significantly, 43163, in part, is representative of a recrystallized impure manganiferous calcite limestone. This suggests the Mn-carbonate facies may be a synsedimentary or diagenetic phase and there are probable analogies here with the manganiferous carbonate and carbonate-barite facies at Rosebery.

In contrast, 43313 is representative of a quartz-veined lithic sandstone. The specimen examined appears entirely devoid of sulphides, but may warrant further examination on the basis of assay data.

D. Cowan, B. Sc.

REPORT CMS 81/3/28

Petrological DescriptionsBP 225-43162

(T.S., P.S. 36368)

This is a carbonate-sericite-quartz phyllite representing an altered and greenschist-metamorphosed acid tuff.

The primary fragmental fabric is poorly preserved, but is consistent with a lithic-crystal tuff. Conceivably, shards were present, but there is no microtextural evidence in support. The rock was poorly sorted (gritty, psammitic) and crudely bedded. Lithic clasts are extensively altered and drawn out into sericitic lenses. These include distinctly rhyolitic types and a few pelitic clasts (quartzose silty shale) representing xenoliths or disrupted interbeds.

Carbonate is more or less pervasive as disseminations, lenses and sub- to millimetric-scale semi-massive bands. In detail, the lenses represent sheared veins and are slightly discordant to faint relict bedding traces essentially paralleled by the slaty cleavage. Carbonate is stressed, forms pressure shadows for example adjacent to quartz grains, and although not distinctly schistose is clearly pre-tectonic. It is a medium R.I. phase and thus not particularly diagnostic on basis of optical characteristics. General features are consistent with a manganese ferrodolomite.

The rock is weakly mineralised with fine-grained disseminations, clots and discontinuous films of pale sphalerite (to 1 mm diameter), fine (mean 30 μ) sub- to euhedral pyrite (with incipient sericite-carbonate pressure shadows) and crude lenses of galena. Galena is locally conspicuous as micro-inclusions in carbonate. Sphalerite is clouded with ultrafine (typically < 10 μ) exsolution blebs of chalcopyrite.

BP 225-43163

(T.S., P.S. 36369)

This specimen comprises a carbonated/sericitised and sheared tuff in contact with a silty to fine sandy tuffaceous impure limestone.

The tuff is closely analogous to 43162 and requires no special comment except to note relatively marked carbonation with resultant obliteration of textural detail.

In contrast, the impure limestone is represented by a sericitic fine-grained microschistose marble (or sericitic calcite schist).

This rock is banded on a submillimetric scale in terms of the distribution of sericite microfoliae and associated silt- to fine sand-sized relict clastic grains of quartz, accessory sericitised/flattened feldspar grains and indeterminate lithic clasts (sericitised, calcitised).

The contact is locally concordant (to bedding and parallel slaty cleavage), but is elsewhere discordant and is clearly fracture-controlled, although this is masked by recrystallization effects.

Manganiferous carbonate pervasive in the tuff is stressed, weakly schistose and distinctly coarser-grained than the impure calcite (weakly manganiferous, whitish in hand specimen) in the marble. The manganiferous phase occurs in sparse veinlets penetrating the limestone and, although pre-tectonic, is clearly epigenetic to both sedimentary facies.

Sparsely disseminated sulphide mineralisation is essentially similar to both facies. The assemblage is pyrite, chalcopyrite, tetrahedrite and galena. Pyrite is sub- to euhedral and fine-grained (mean 50 μ) with incipient pressure shadows and a vaguely banded distribution. Chalcopyrite forms rare coarse, dimensionally orientated blebs (to 0.75 x 1.75 mm), with subordinate tetrahedrite in composite, but is typically < 250 μ diameter. Relatively fine composite blebs of galena and tetrahedrite are thinly disseminated throughout and are similarly dimensionally orientated.

43313

(T.S. 36370)

This rock can be classified as a stressed and quartz-veined lithic sandstone (or subgreywacke).

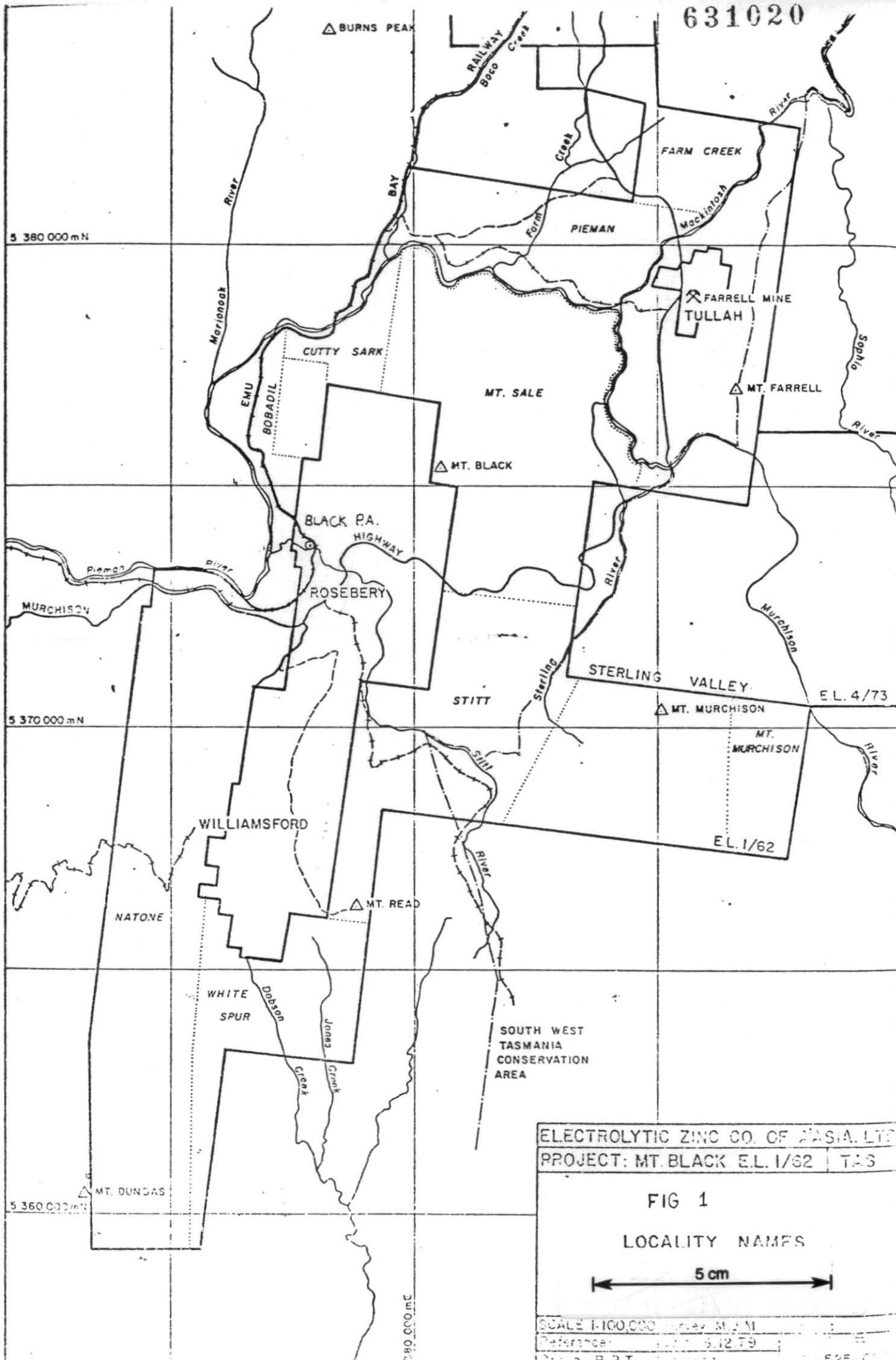
The framework (approx. 65 %) consists largely of weakly recrystallized, angular to subrounded quartz (60-65 %) with subordinate sericite/variably carbonaceous pelite clasts (shale, minor silty shale). Accessories include muscovite and rare chloritised biotite flakes (1-3 %), rare sericitic silicified felsite clasts, sericitised indeterminate feldspar grains and a minor heavy mineral assemblage of opaques, leucoxenic semi-opaques, minor zircon, tourmaline and rare apatite.

Bedding is defined largely by a weak dimensional orientation of elongate clasts, particularly mica flakes which exhibit a weakly banded distribution. The sediment is poorly to moderately sorted in the (silty) fine to medium sand range. Major framework components are mildly reworked psammopelitic. The rock is only very incipiently volcanoclastic. Micas may reflect a minor granitic source component, but the assemblage is poorly diagnostic.

The matrix/cement comprises random sericite and micro-crystalline quartz with accessory overgrowth quartz, and is unmineralised. Quartz veins of sub- to millimetric proportions are common throughout, with a variable attitude to bedding. Stress effects are semi-ubiquitous in these features, which reflect a brittle style of deformation in the well-lithified, but essentially unmetamorphosed psammite. Texturally late veins are slightly vuggy. There is no detectable vein sulphide assemblage.

Dr. Cowan, B. Sc.

631020



ELECTROLYTIC ZINC CO. OF ASIA, LTD.
 PROJECT: MT. BLACK E.L. 1/62 TAS

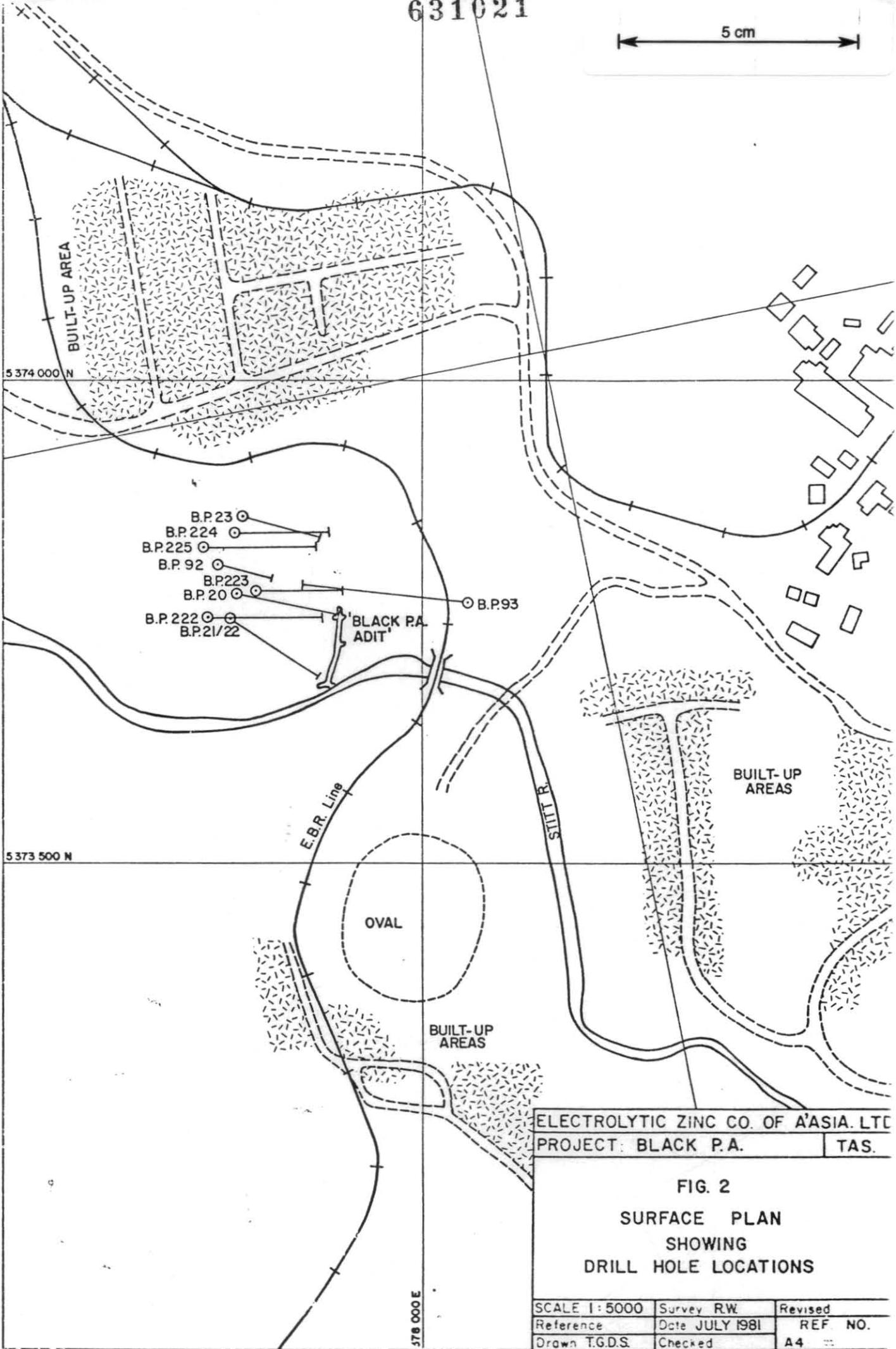
FIG 1
 LOCALITY NAMES

5 cm

SCALE 1:100,000 (Survey M.A.M.)
 Reference: TAS 512.79
 Date: R.P.T. 1962 1-525-01

631021

5 cm



ELECTROLYTIC ZINC CO. OF ASIA. LTD
 PROJECT: BLACK P.A. TAS.

FIG. 2
 SURFACE PLAN
 SHOWING
 DRILL HOLE LOCATIONS

SCALE 1:5000	Survey R.W.	Revised
Reference	Date JULY 1981	REF. NO.
Drawn T.G.D.S.	Checked	A4

631022

R.L. in r
(A.M.G.
Datum)

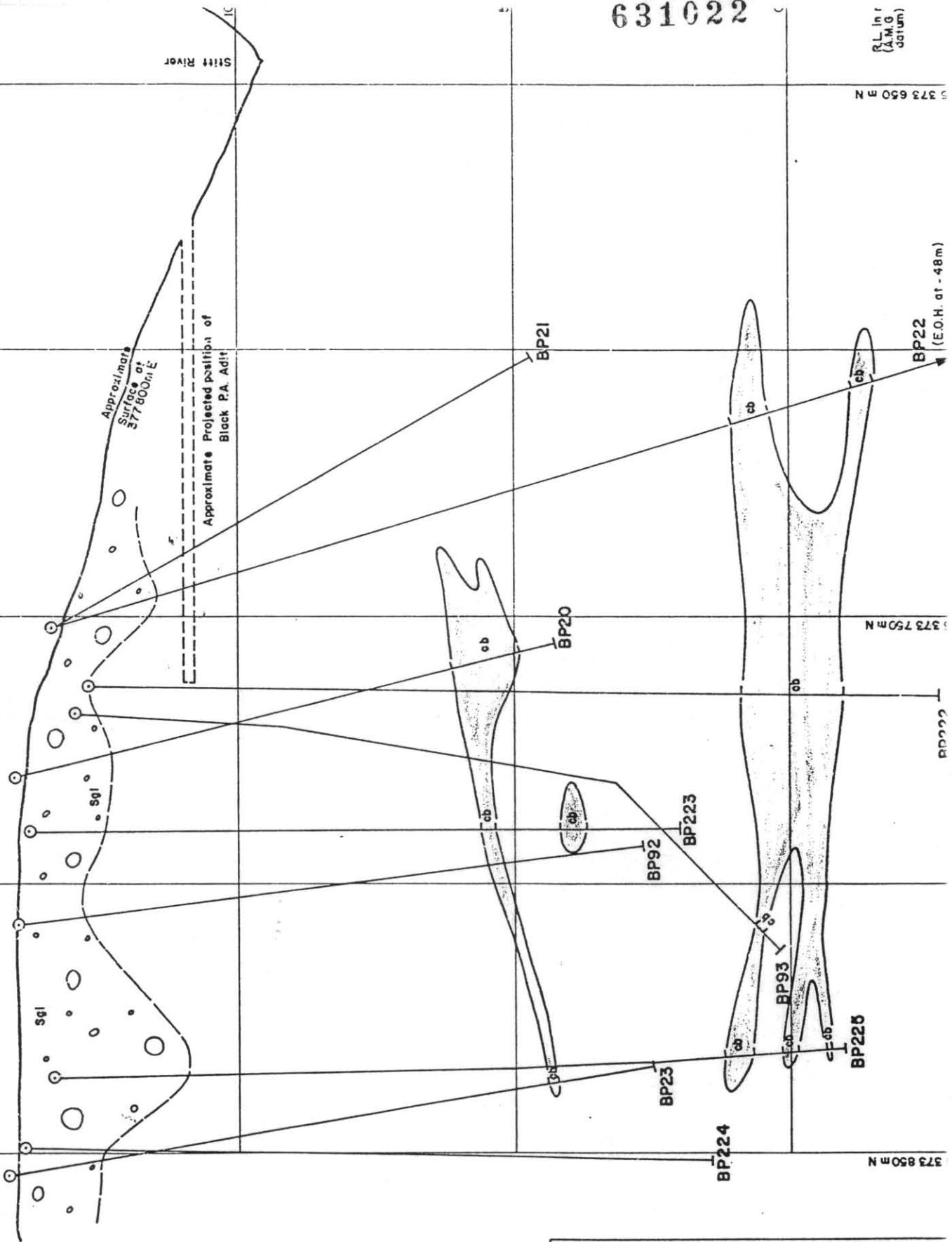
373 650 m N

373 750m N

373 850m N

BP22 (E.O.H. at -48m)

BP222



LEGEND

 Location of
cb-rich Horizons.

5 cm

ELECTROLYTIC ZINC CO. OF ASIA, LTD
PROJECT: BLACK P.A. | TAS.

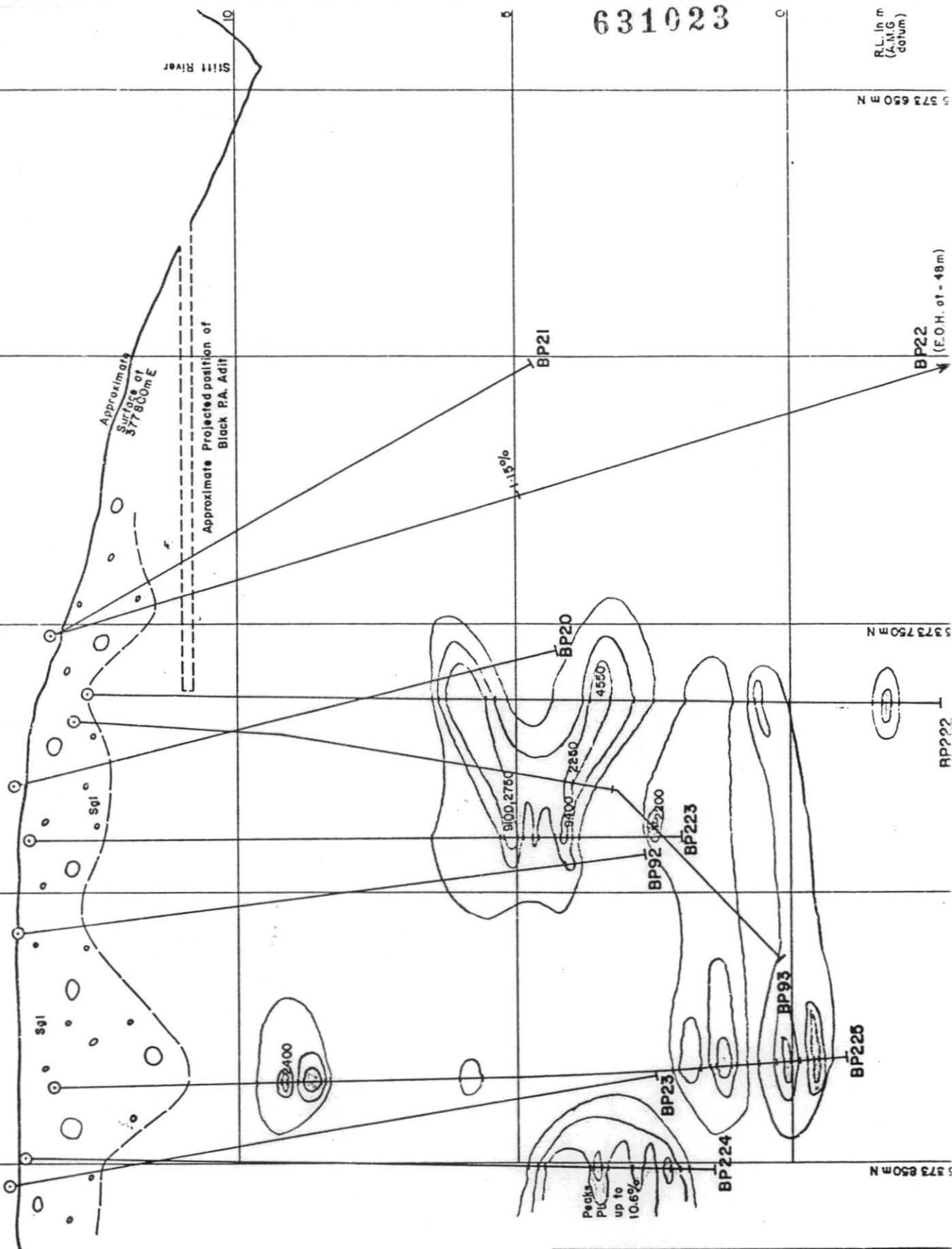
FIG. 3
LONGITUDINAL PROJECTION
(A.M.G.)
CARBONATE - RICH HORIZONS

SCALE 1:1000	Survey R.W.	Revised
Reference	Date JULY 1981	REF NO
Drawn T.G.D.S.	Checked	A4

5 373 650 m N

5 373 750 m N

5 373 850 m N



LEGEND

- <200 ppm
- 200 - 500 ppm
- 500 - 1000 ppm
- >1000 ppm

5 cm

ELECTROLYTIC ZINC CO. OF ASIA LTD
PROJECT: BLACK P.A. | TAS.

FIG. 4
LONGITUDINAL PROJECTION
(A.M.G.)
LEAD GEOCHEMISTRY

SCALE 1: 1000	Survey RW	Revised
Reference	Date JULY 1981	REF. NO.
Drawn T.G.D.S.	Checked	A4

631024

K.L. In' r
(A.M.G
6 Jum)

5 373 650 N

BP22
(E.O.H. of -48 m)

5 373 750m N

BP222

5 373 850m N

Stitt River

Approximate
Surface of
377800m²

Approximate Projected position of
Black P.A. Adit

BP21
2.15%
400

BP21

BP20
2.15%
400

BP20

BP92
450
1000
900

BP92

BP223

BP93
200
330

BP93

BP225

BP23

BP224

LEGEND

□ >200ppm

5 cm

ELECTROLYTIC ZINC CO. OF ASIA, LTD
PROJECT: BLACK P.A. | TAS.

FIG. 5
LONGITUDINAL PROJECTION
(A.M.G)
TIN GEOCHEMISTRY

SCALE 1:1000	Survey R.W.	Revised
Reference	Date JULY 1981	REF NO.
Drawn T.G.D.S.	Checked	A4

E.O.H.

179.0 - 179.6m vein with quartz, tourmaline & semi massive pyrite.

631025

Elevated base metals
99.1 - 121.8m: 694Pb, 1402 Zn,
27 Cu, 3 Ag, 2.6% Fe, 545 Mn
(In ppm except Fe)

DESIGNED BY: R.J.W. DATE: 12/9/80

AIM OF HOLE: To outline geology and follow up the Sn min. intersected in B.P.20

- NOTES:
1. Area covered with glacials except for outcrop in the Stitt River and dark grey siltstones exposed on the drill site.
 2. B.P.93 was drilled in August 1955 with 83% core recovery. Minor traces of Sn (max. 14 ppm)
 3. B.P.20 was drilled from December 1943 to February 1944 with 28% core recovery. 400-420' was reassayed using XRF to give 20' at 2.75% Sn.
 4. B.P.21 & 22 were drilled to test South of B.P.20. NIL Sn Assays were recorded.

LOGGED BY: R.J. Weeden DATE: 14/1/81 - 7/2/81.

SAMPLE DATA

SAMPLED INTERVAL(m)	SAMPLE NUMBERS	SAMPLE TYPE	ELEMENTS DETERMINED	LAB. METHOD
0 - 34.8	38633 - 46	Chip	Pb, Zn, Cu, Fe, Ag, Au, Mn, As, Sn	AAS (Sn XRF)
34.8 - 37.8	38647	Split	"	"
37.8 - 143.0	38648 - 77	Chip	"	"
143.0 - 149.0	38678 - 79	Split	"	"
149.0 - 165.3	38680 - 83	Chip	"	"
165.3 - 166.7	38684	Split	"	"
166.7 - 179.0	38685 - 88	Chip	"	"
179.0 - 179.6	38689	Split	"	"
179.6 - 189.0	38689 - 93	Chip	"	"

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.

PROJECT: BLACK P.A.

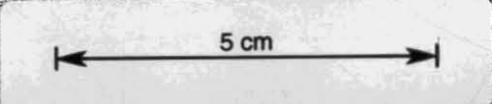
TAS.

SPECIFICATIONS AND SUMMARY OF RESULTS

EXPLORATION DIAMOND DRILL HOLE No. B.P. 222

original copy unavailable

NOTES:



SCALE: As shown

Survey: R.J.W.

Revised:

Reference:

Date: 16/2/81

REF. No.

Drawn: T.G.D.S.

Checked:

A1501-0205

631026

DESIGNED BY: R. J. W. DATE: 12/9/80

AIM OF HOLE: To follow up geology and mineralization north of BP.222.

NOTES: B.P. 92 was drilled in May & June of 1955 with 21% core recovery. The hole was abandoned short of target and was not surveyed. Nil Sn assays throughout. B.P. 93 was drilled in August 1955 with 83% core recovery. Traces of Sn (max. 14 ppm) at erratic intervals.

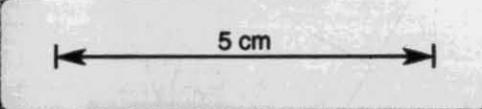
34-65-64-65	Interbedded volcanoclastic siltstone and shale - locally strong siderite veining		34-65-43-50 Trace diss. pyrite; 43-50-57-00 N.V.M.; 57-00-64-65 Trace pyrite
64-65-67-50	Sericitic fine grained tuff-chlorite veins		Trace pyrite
67-50-76-50	Interbedded B altered tuff siltstone & shale with strong siderite & quartz replacement		Trace pyrite & sphalerite as veins & disseminations.
76-50-103-60	Sericitic fg tuff with shale fragments		Trace disseminated pyrite
103-60-119-90	Laminated cleaved volcanogenic sediments locally highly sericitic	103-60-107-70 107-70-113-80 113-80-116-90	Trace pyrite. Minor pyrite & galena veins - 2% core vol. Trace pyrite;
119-90-129-50	Pale grey cleaved sericitic crystal tuff (with siderite veins 123-30 - 129-50)	116-90-123-30	Minor pyrite as elongate blebs - 2% core vols.
129-50-151-65	Cream fg weakly sericitic tuff	123-30-151-65	Trace pyrite as veins associated with siderite.

(See Geochemistry information for assays)

LOGGED BY: DATE:

SAMPLE DATA

SAMPLED INTERVAL(m)	SAMPLE NUMBERS	SAMPLE TYPE	ELEMENTS DETERMINED	LAB. METHOD
16-0-106-65	44401 - 23	Chlp	Pb, Zn, Cu, Fe, Ag, Au, Mn, As, Sn.	AAS (Sn XRF)
106-65 - 119-9	44424 - 39	Split	"	"
119-9 - 122-9	44440	Chlp	"	"
122-9 - 123-3	44441	Split	"	"
123-3 - 127-3	44442	Chlp	"	"
127-3 - 127-65	44443	Split	"	"
127-65 - 134-3	44444 - 5	Chlp	"	"
134-3 - 134-65	44446	Split	"	"
134-65 - 151-65	44447 - 51	Chlp	"	"

NOTES: 

ELECTROLYTIC ZINC CO. OF ASIA LTD

PROJECT: BLACK P.A. TAS.

SPECIFICATIONS AND SUMMARY OF RESULTS
EXPLORATION DIAMOND DRILL HOLE No. B.P. 223
Original copy unavailable

SCALE: As shown	Survey: R.J.W.	Revised:
Reference:	Date:	REF No.
Drawn: T.G.D.S.	Checked: Feb 1981	AI 501-02-06

158.4

138.9
154.6
E.O.H.

Asstrow agglomerate

vi pr

631027

DESIGNED BY:

DATE:

AIM OF HOLE: To test for Sn mineralisation along strike and up dip from B.P. 223

NOTES: B.P. 23 was drilled from July to September of 1944. Exceptionally poor core recovery (6%) makes this hole very unreliable. Nil Sn detected.

LOGGED BY: R.J. WEEDEN

DATE: 18/2/'81

SAMPLE DATA

SAMPLED INTERVAL	SAMPLE NUMBERS	SAMPLE TYPE	ELEMENTS DETERMINED	LAB. METHOD
0 - 113.75	44452-77	Chip	Pb, Zn, Cu, Fe, Ag, Au, Mn, As, Sn	AAS (Sn XRF)
113.75 - 119.65	44478-79	Split	"	"
119.65 - 121.65	NIL	NO CORE	"	"
121.65 - 121.95	44480	Split	"	"
121.95 - 154.65	44481-91	Chip	"	"

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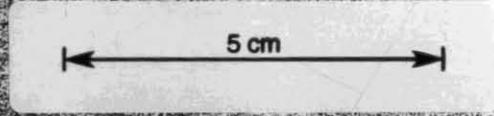
TAS.

SPECIFICATIONS AND SUMMARY OF RESULTS

EXPLORATION DIAMOND DRILL HOLE No. B.P.224

Original copy unavailable

NOTES:



SCALE: As shown

Survey: R.J.W.

Revised:

Reference:

Date: 10/2/'81

REF. No.

Drawn: T.G.D.S.

Checked:

AI 501-0207

181.75m

sphalerite.

Elevated Pb, Zn, Mn
141.20 - 156.25m with
sporadic highs to E.O.H.

631028

DESIGNED BY: R.J.W.

DATE: 12/9/80

AIM OF HOLE: To follow up geology and mineralization north
of B.P.223.NOTES: B.P.23 was drilled from July to September of 1944.
Exceptionally poor core recovery (6%) makes this hole
unreliable. Nil Sn detected in B.P.23.

LOGGED BY: R.J. WEEDEN

DATE: 4-9/3/81

SAMPLE DATA

SAMPLED INTERVAL	SAMPLE NUMBERS	SAMPLE TYPE	ELEMENTS DETERMINED	LAB. METHOD
0 - 67.55 m	44492 - 44500	Chip	Pb, Zn, Cu, Ag, Au, Fe, Mn, As, Sn.	AAS (Sn XRF)
67.55 - 125.7 m	43401 - 43416	Chip	"	"
125.7 - 129.35 m	43417 - 43418	Split	"	"
129.35 - 156.25 m	43419 - 43425	Chip	"	"
156.25 - 157.60 m	43426	Split	"	"
157.60 - 166.0 m	43427 - 43429	Chip	"	"
166.0 - 170.0 m	43430 - 43433	Split	"	"
170.0 - 181.75 m	43434 - 43438	Chip	"	"

ELECTROLYTIC ZINC CO. OF ASIA LTD.

PROJECT: BLACK P.A.

TAS.

SPECIFICATIONS AND SUMMARY
OF RESULTSEXPLORATION DIAMOND DRILL HOLE
No. B.P.225*Original copy unavailable*

NOTES:

5 cm

SCALE: As shown

Survey: R.J.W.

Revised:

Reference:

Date: 10/2/81.

REF. No.

Drawn: T.G.D.S.

Checked:

AI 501 - 0208