MICROFILMED
FICHE No.013290-

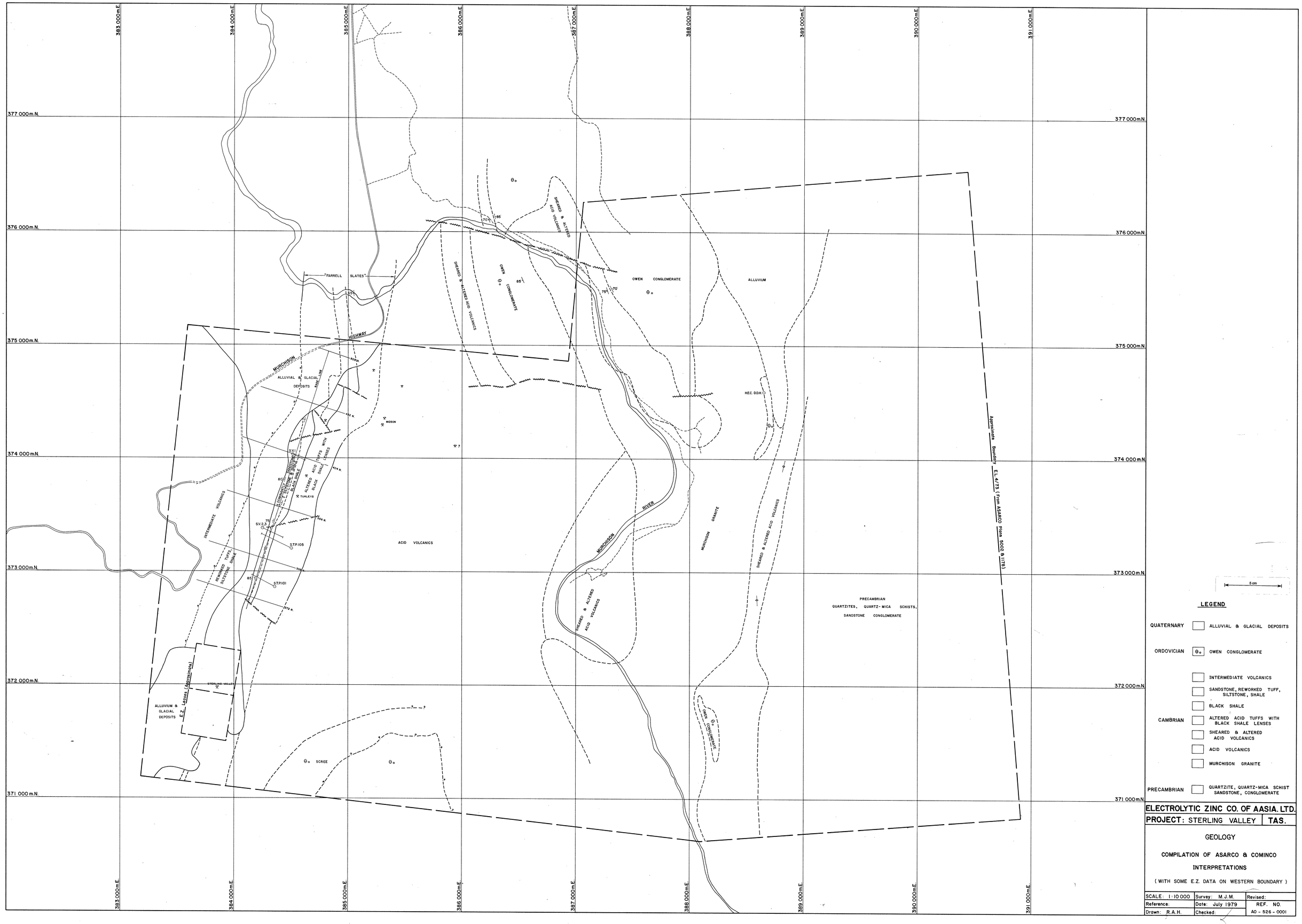
OPEN FILE

94-3613

List of transparencies of plans from portion of EL4/73 relinquished by EZ Co of Australasia covering the Sterling River area.

Sterling Valley	Geology, Asarco & Cominco Interp	1:10 000
" "	Previous & Proposed Work (1979)	1:10 000
" "	Work Completed (x7)	1:50 000
" "	Longitudinal Section, Sterling Valley Mine	1:1 250
" "	Fact Geology, Sheet 8a	1:5 000
" "	Fact Geology, Sheet 8d	1:5 000
" "	Soil Geochem, Pb, Zn, Sheet 8a	1:5 000
" "	Soil Geochem, Cu, Fe, Sheet 8a	1:5 000
" "	Geochem, Pb, Zn, Sheet 8d	1:5 000
" "	Geochem, Cu. Fe, Sheet 8d	1:5 000
" "	Section DDH, STP 217	1:1 000
" "	Section DDH, STP 218	1:1 000
" "	Bedrock Geology	1:50 000
" "	Ground Magnetics, Sheet 8a (x2)	1:5 000
" "	Section DDH, STP 232A1	1:1 000
" "	Section DDH, STP 221	1:1 000
" "	Section DDH, STP 220	1:1 000
" "	Section DDH, STP 231	1:1 000
" "	Grid Lines, Sheet 8a	1:5 000
" "	Proposed Exploration (x2)	1:50 000
" "	Soil Geochem, Pb, Zn, Sheet 8a	1:5 000
" "	Soil Geochem, Sn, Sheet 8a	1:5 000
" "	Soil Geochem, As, Sheet 8a	1:5 000
" "	Section DDH, STP 234	1:1 000
" "	Costean Line 3260	1:250
" "	Arsenic Potential, Henty Fault Zone (x2)	1:10 000
" "	Sterling River Ore Zones (x3)	1:1 000
" "	Resistivity & EM Anomalies	1:5 000
" "	Soil Geochem, Cu	1:5 000
" "	Soil Geochem, As	1:5 000
" "	IP Resistivity Anomalies	1:5 000
" "	Mapping Traverses	1:2 500
" "	Fact Geology, Sheet 7c	1:5 000
" "	Soil Geochem, Pb	1:5 000
" "	Outcrop Geology	1:5 000

Sterling Valley	Interp Geology (x3)	1:5 000
" "	Regional Geology	1:50 000
" "	Development of MRV, Rosebery - Victoria Peak	1:70 000
" "	Deformation of MRV, Rosebery - Victoria Peak	1:50 000
" "	Anomalies	1:5 000
" "	Section DDH, STP 284	1:500
" "	Section DDH, STP 283	1:500
" "	Drill Hole Intersection Summary	1:5 000



ELECTROLYTIC ZINC CO. OF AASIA. LTD.

PROJECT: STERLING VALLEY | **TAS.**

GEOLOGY

COMPILATION OF ASARCO & COMINCO INTERPRETATIONS

(WITH SOME E.Z. DATA ON WESTERN BOUNDARY)

SCALE: 1:10 000	Survey: M.J.M.	Revised:
Reference:	Date: July 1979	REF. NO.
Drawn: R.A.H.	Checked:	AO - 526 - 0001

TCR 94-3613
EL 4/73
E.Z. CO. GEOPEKO
STERLING RIVER



SCOURCES OF DATA

BARKER, R.G. (1974) E.L. 4/73 Sterling Valley, Tasmania. Progress Report To June 1974. Asarco Company Report.

SIMPSON, D.C. (1976) Progress Report On E.L. 4/73 For Six Months Ending March 6th. 1976. Cominco Company Report.

SIMPSON, D.C. (1977a) Drill Hole Completion Report D.D.H S.V.I. E.L. 4/73 Sterling Valley, Tasmania. Abminco Company Report.

SIMPSON, D.C. (1977b) Report On Diamond Drilling Programme, E.L. 4/73 Sterling Valley Tasmania. Abminco Company Report

LEGEND

- ASARCO STREAM SEDIMENT SAMPLE (APPROX.)
- (Pb.) POSSIBLY ANOMALOUS RESULT
- Zn., Pb. ANOMALOUS RESULT

NOTE:- Stream Sediment Sampling Over Farrell Slates And Western Volcanics Not Shown.

EXTENT OF SOIL GEOCHEMICAL COVERAGE (P.M.I. & ABMINCO)

E.M. CONDUCTORS (FROM ABMINCO COMPILATION)

I.P., INDICATING ANOMALY LOCATION (E.Z. 1961)

I.P., " " " (ABMINCO 1976)

EXTENT OF GROUND MAGNETIC COVERAGE (ABMINCO) WITH ANOMALIES INDICATED

GRID TO BE REHABILITATED / EXTENDED. DIPOLE - DIPOLE I.P., GROUND MAGNETICS, AND SOIL GEOCHEMISTRY

AREA TO BE COVERED WITH MORE DETAILED SYSTEMATIC STREAM SEDIMENT SAMPLING, AND GEOLOGICAL MAPPING

ELECTROLYTIC ZINC CO. OF AASIA. LTD.

PROJECT: STERLING VALLEY | **TAS.**

OVERLAY SHOWING

SUMMARY OF PREVIOUS AND PROPOSED WORK

5 cm

SCALE: 1:10 000	Survey: M.J.M.	Revised:
Reference:	Date: July 1979	REF. NO.
Drawn: R.A.H.	Checked:	AO - 526 - 0002

TCR 94-3613
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EL 4/73
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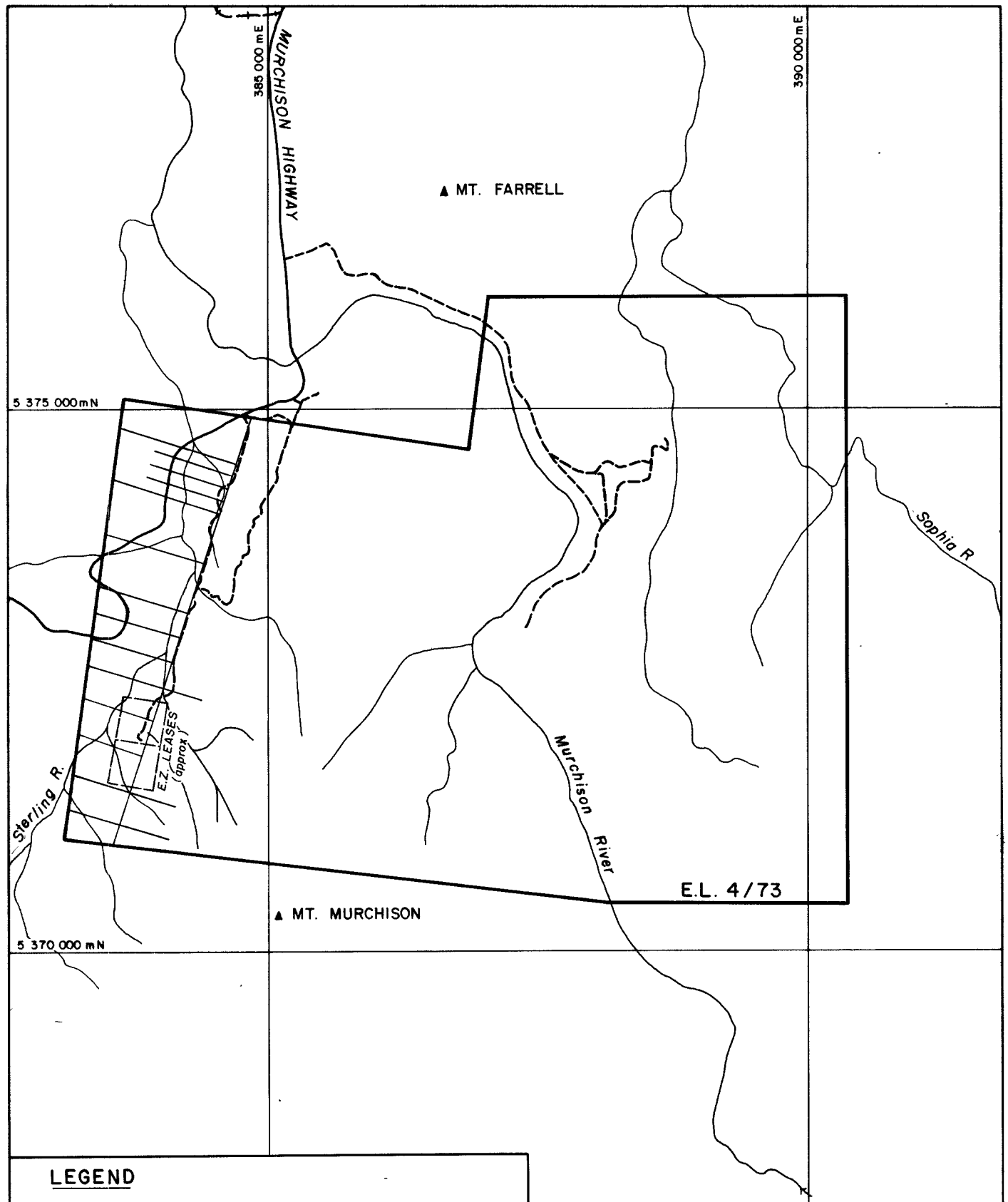
STERLING RIVER

5



LEGEND

- Line Cut, Pegged, Soil Sampled and Mapped
- Stream Sediment Sampling Completed
- Line I.P. Dipole - dipole
- Line I.P. Gradient Array
- Access Mapping Completed
- Road
- Vehicle Track
- Walking Track
- Railway
- Abandoned Tramway
- Transmission Line
- Grid Line.

ELECTROLYTIC ZINC CO. OF A'ASIA. LTD.

PROJECT: STERLING VALLEY | TAS.

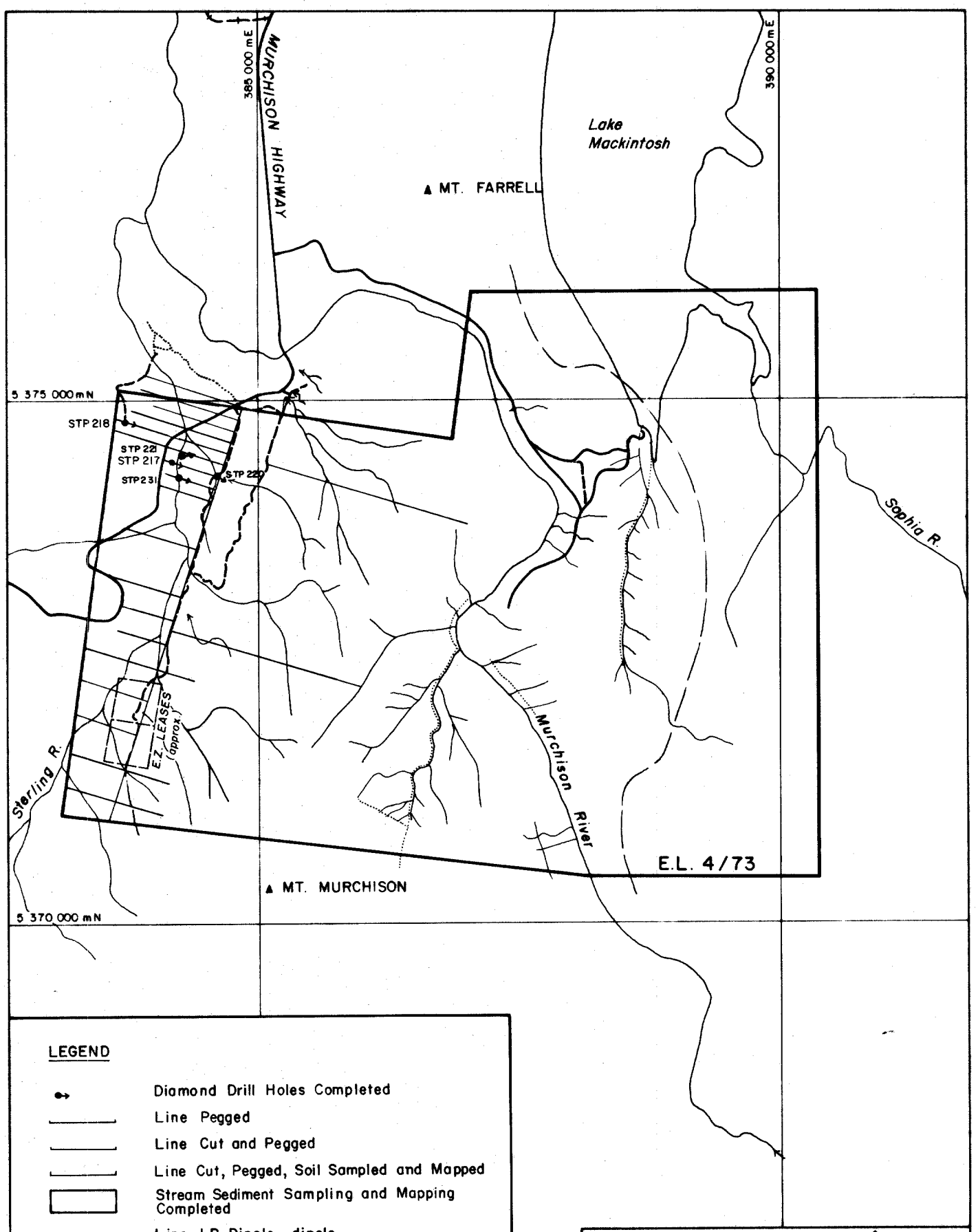
WORK COMPLETED

25.7.1979 - 13.11.1979

SCALE 1:50,000	Survey: J.M.	Revised:
Reference:	Date: 28.11.79	REF NO.
Drawn. R.P.T.	Checked.	A4-526-0007

5 cm

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER



LEGEND

- Diamond Drill Holes Completed
- Line Pegged
- Line Cut and Pegged
- Line Cut, Pegged, Soil Sampled and Mapped
- Stream Sediment Sampling and Mapping Completed
- Line I.P. Dipole - dipole
- Line Ground Magnetics
- Access Mapping Completed
- Road
- Vehicle Track Bulldozed
- Walking Track Cut
- Railway
- Abandoned Tramway
- Transmission Line
- Grid Line.

5 cm

ELECTROLYTIC ZINC CO. OF A'ASIA. LTD.

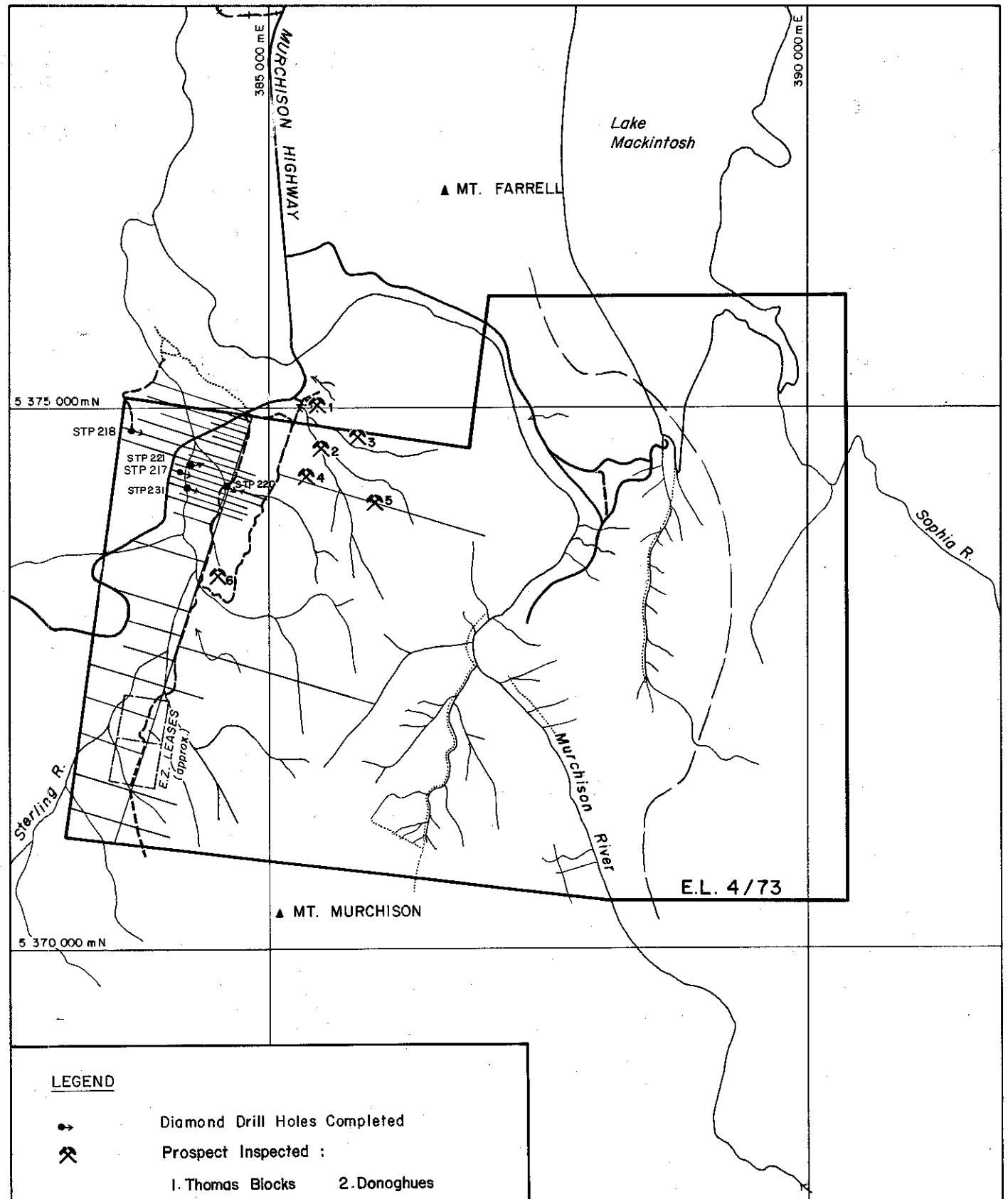
PROJECT: STERLING VALLEY | TAS

WORK COMPLETED DURING

10·12·'80 - 26·5·'81

SCALE 1:50,000	Survey A.J.M.	Revised
Reference	Date 4.8.80	REF NO
Drawn R.P.T.	Checked	A4-526-0017

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER



LEGEND

- Diamond Drill Holes Completed
- Prospect Inspected :
  - 1. Thomas Blocks
  - 2. Donoghues
  - 3. Tullah Pb, Ag
  - 4. Midson Mine
  - 5. Mace' Mine
  - 6. Turleys
- Line I.P. Dipole - dipole
- Line Ground Magnetics
- Access Mapping Completed
- Road
- Vehicle Track Bulldozed
- Walking Track Cut
- Railway
- Abandoned Tramway
- Transmission Line
- Grid Line.

5 cm

ELECTROLYTIC ZINC CO. OF A'ASIA. LTD.

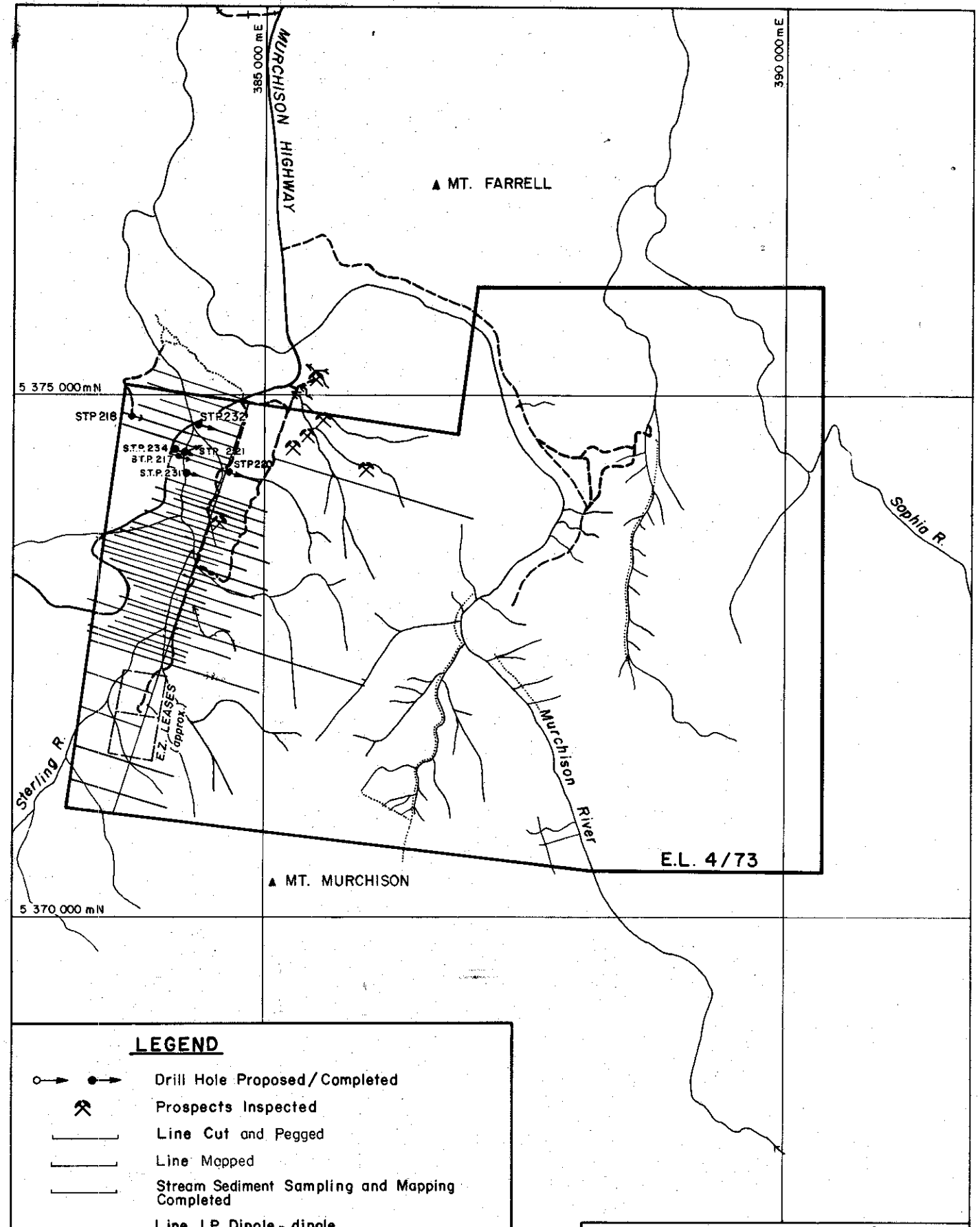
PROJECT: STERLING VALLEY | TAS.

WORK COMPLETED DURING

30·6·'80 - 30·6·81

SCALE 1:50,000	Survey. A.J.M.	Revised Mar. '82
Reference:	Date: 4.8.80	REF NO.
Drawn: R.P.T.	Checked:	A4-526-0031

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER



LEGEND

- Drill Hole Proposed / Completed
- Prospects Inspected
- Line Cut and Pegged
- Line Mapped
- Stream Sediment Sampling and Mapping Completed
- Line I.P. Dipole - dipole
- Line Ground Magnetics
- Access Mapping Completed
- Road
- Vehicle Track Bulldozed
- Walking Track Cut
- Railway
- Abandoned Tramway
- Transmission Line
- Grid Line.

5 cm

ELECTROLYTIC ZINC CO. OF A'ASIA. LTD.

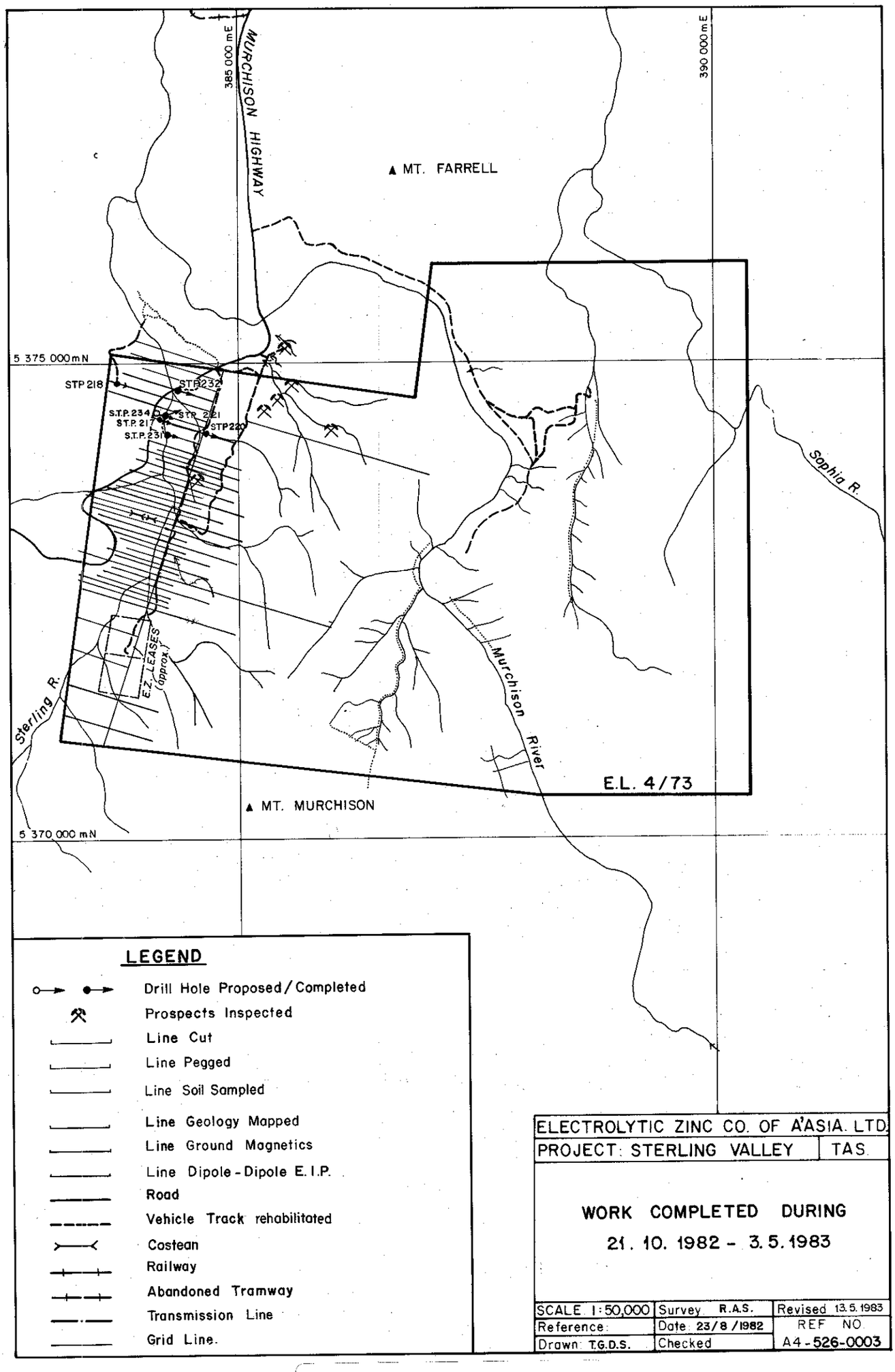
PROJECT: STERLING VALLEY | TAS.

WORK COMPLETED DURING

1. 7. 81. - 15. 12. 81

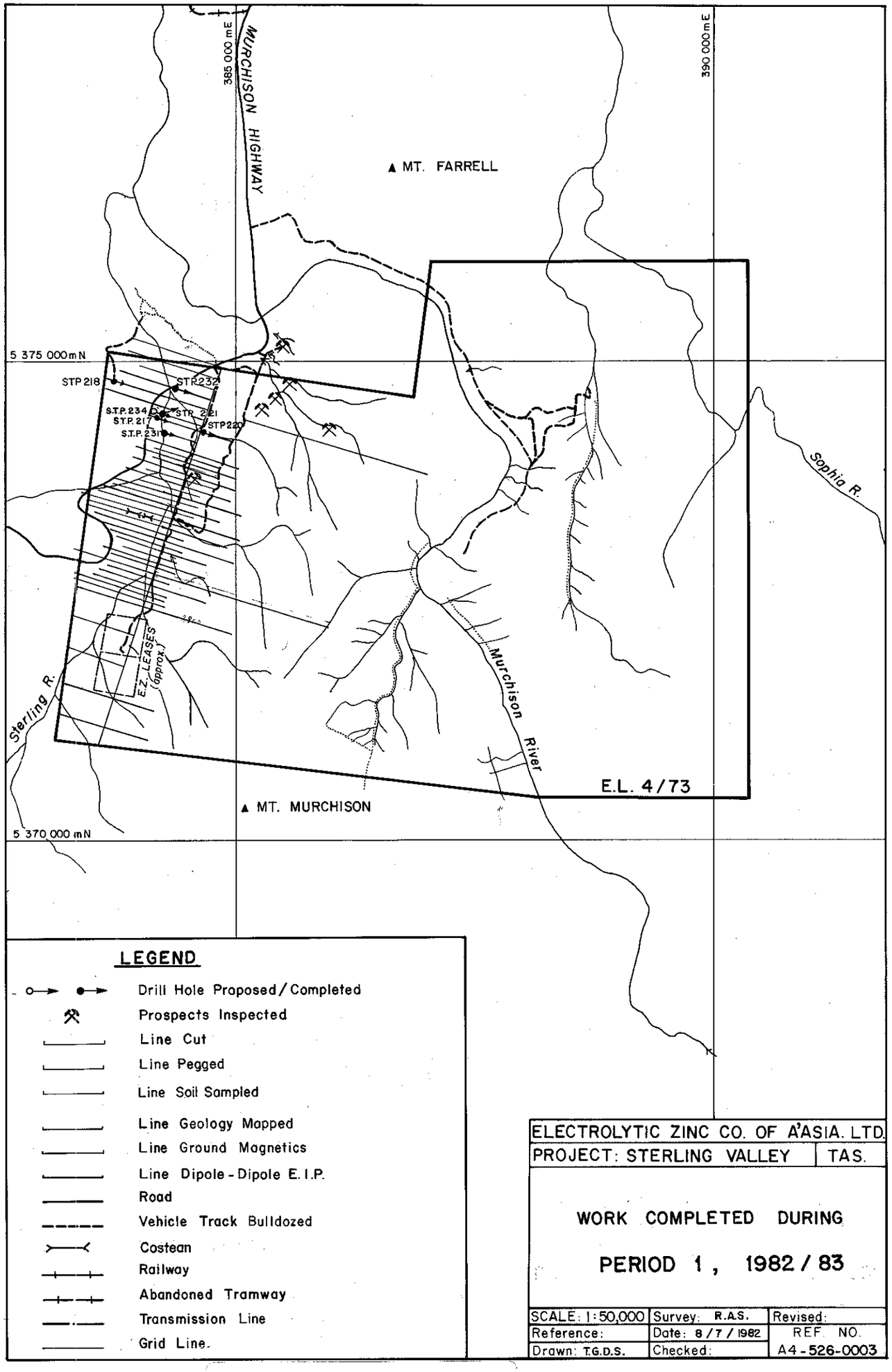
SCALE: 1:50,000	Survey: J.M.& A.M.	Revised 1/9/1981.
Reference:	Date: 19/11/1981	REF NO.
Drawn: T.G.D.S.	Checked:	A4 - 526-0003

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER



A4 ORIGINAL

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER



LEGEND

- 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 Bulldozed
- Costean
- Railway
- Abandoned Tramway
- Transmission Line
- Grid Line.

ELECTROLYTIC ZINC CO. OF A'ASIA. LTD.

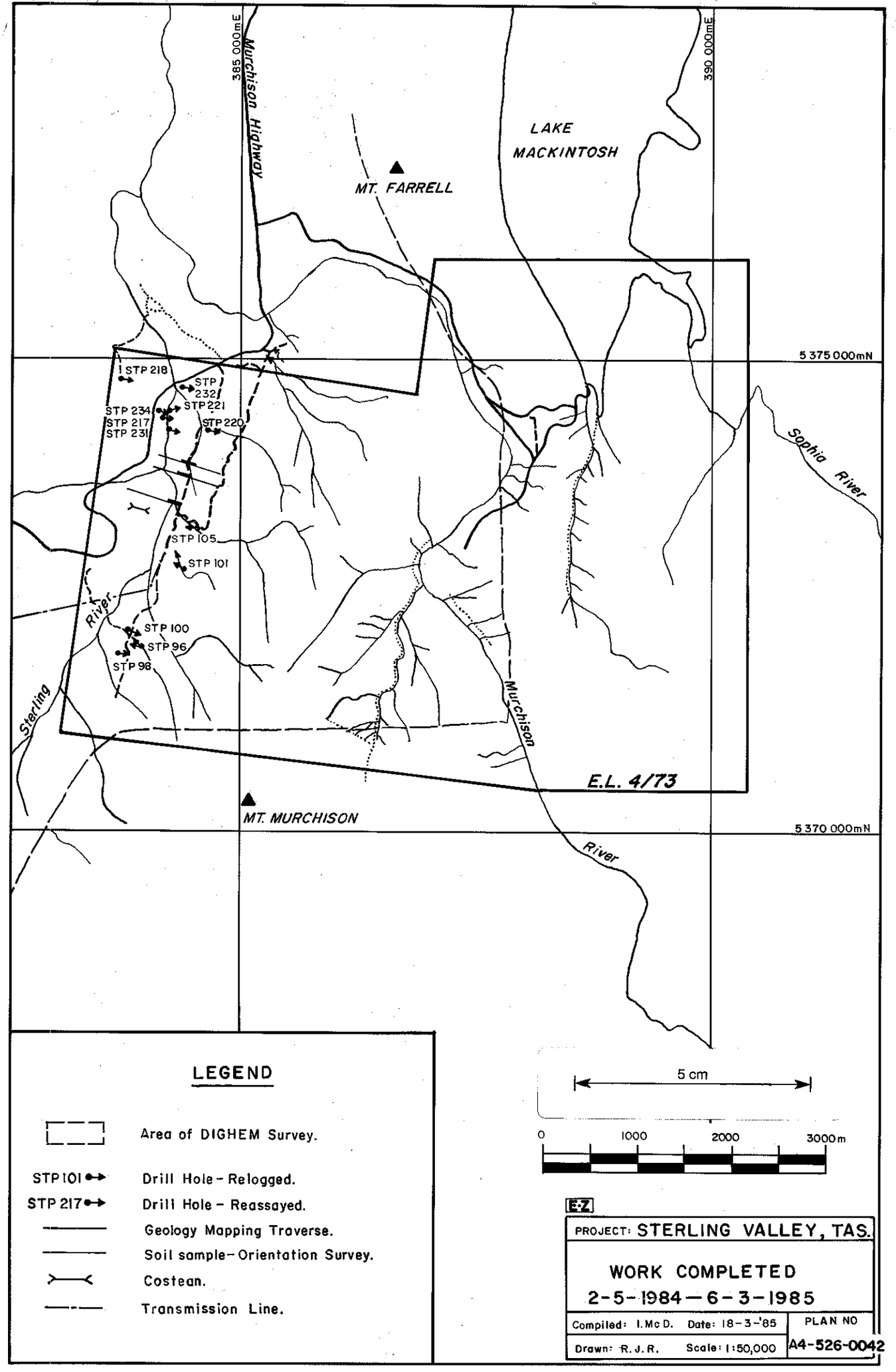
PROJECT: STERLING VALLEY | TAS.

WORK COMPLETED DURING

PERIOD 1, 1982/83

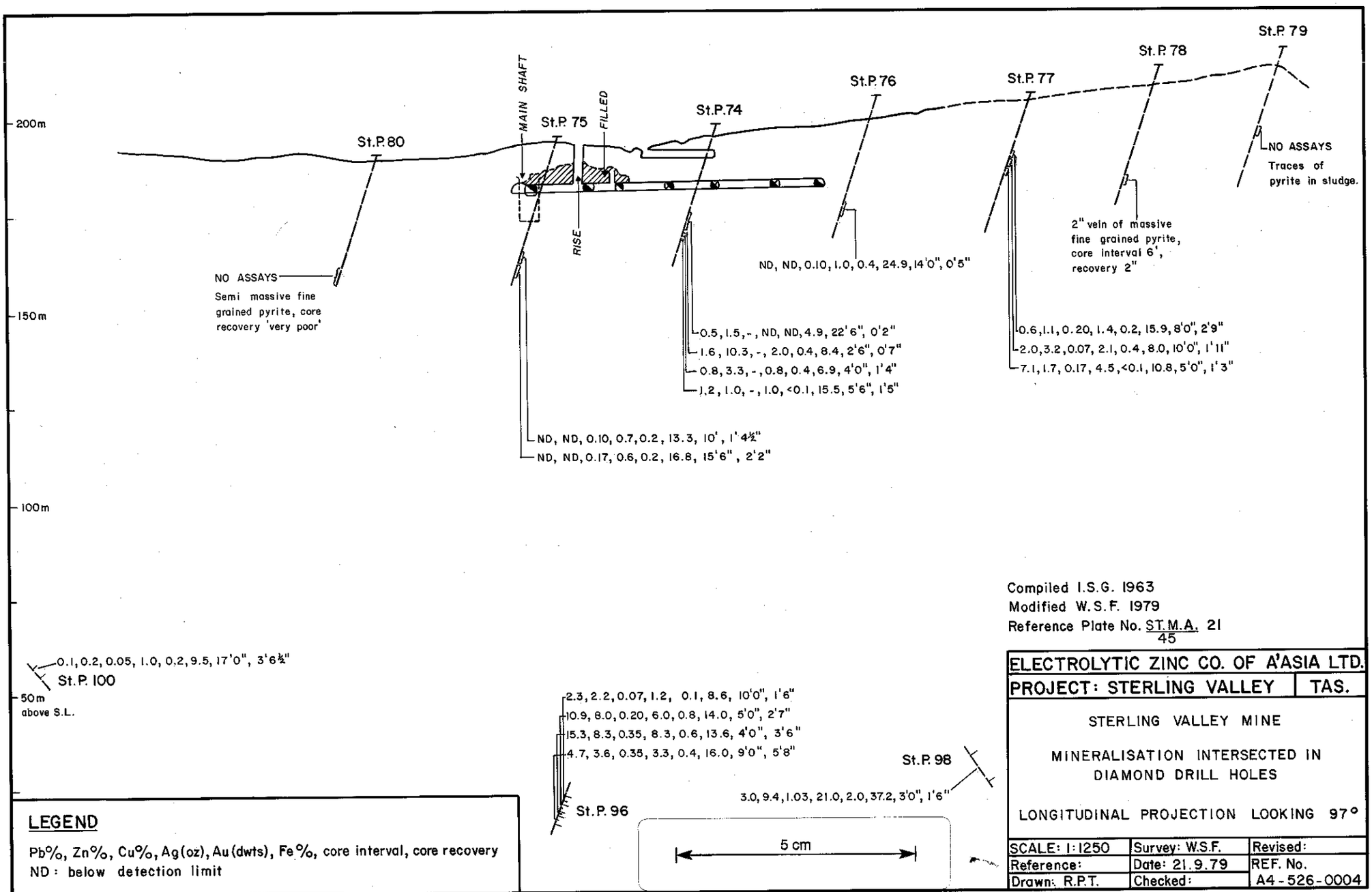
SCALE: 1:50,000	Survey: R.A.S.	Revised:
Reference:	Date: 8/7/1982	REF. NO.
Drawn: T.G.D.S.	Checked:	A4-526-0003

5 cm



TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER



Compiled I.S.G. 1963
Modified W.S.F. 1979
Reference Plate No. ST.M.A. 21/45

LEGEND

Pb%, Zn%, Cu%, Ag(oz), Au(dwts), Fe%, core interval, core recovery
ND: below detection limit

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.

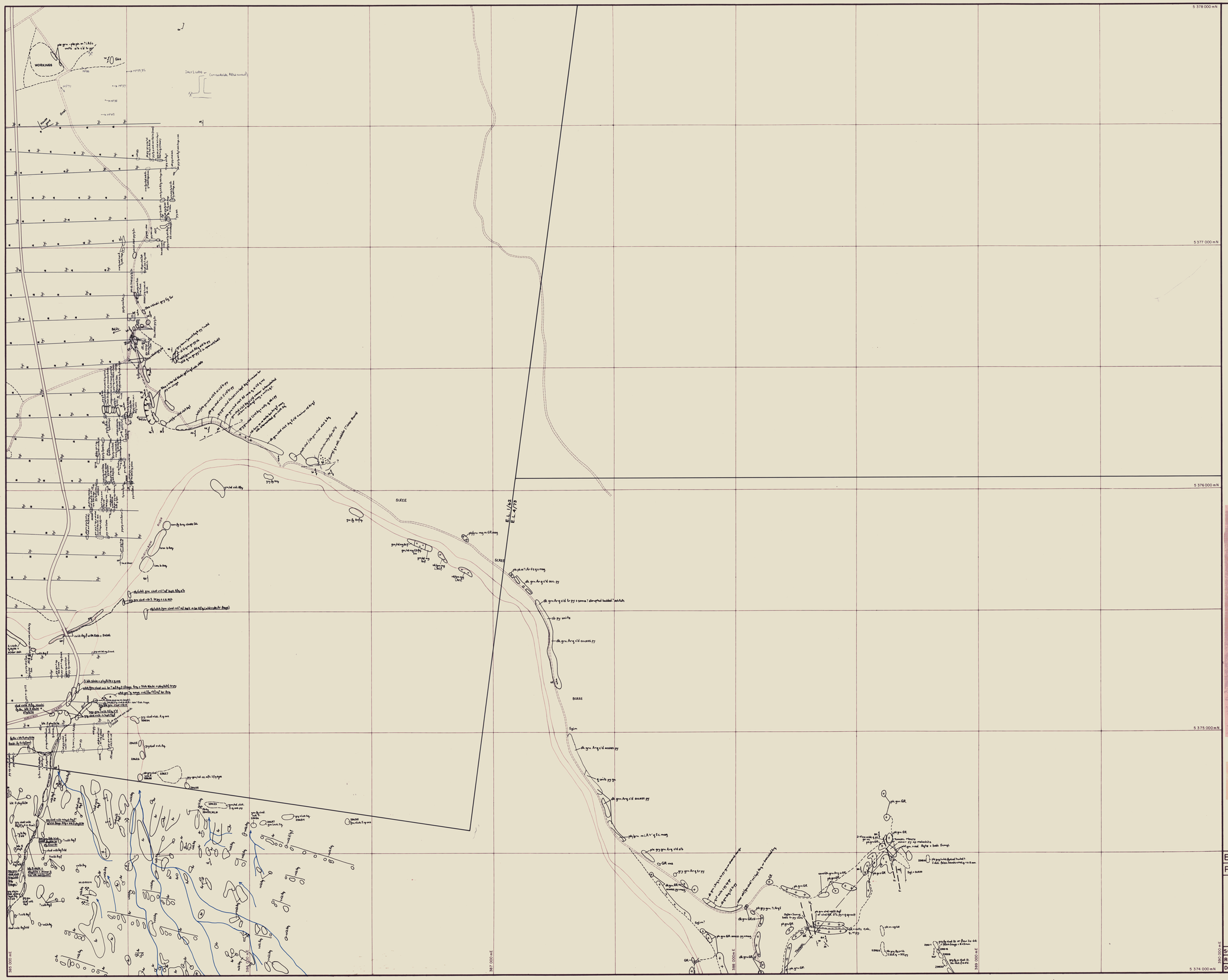
PROJECT: STERLING VALLEY | TAS.

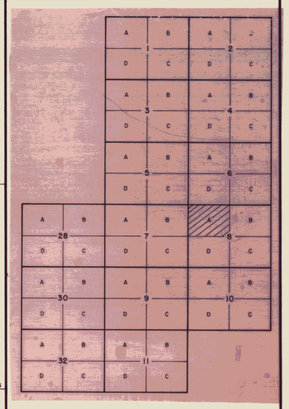
STERLING VALLEY MINE

MINERALISATION INTERSECTED IN DIAMOND DRILL HOLES

LONGITUDINAL PROJECTION LOOKING 97°

SCALE: 1:1250	Survey: W.S.F.	Revised:
Reference:	Date: 21.9.79	REF. No.
Drawn: R.P.T.	Checked:	A4-526-0004





NOTE 1: (Sterling Valley J.V. E.L. 4/73) Underlined rock descriptions = W.S.F. opinion from tramping around out bush (also A.J.M. later)

NOTE 2: Source of further information, Asarco (Aust.) Pty. Ltd., E.L. 4/73 Sterling Valley Progress Report to June 1974 by R.G. Barker

N.B. Scale difference in drainage pattern on this sheet compared with "master" (W.S.F.)

ELECTROLYTIC ZINC CO. OF A ASIA. LTD.

PROJECT: STERLING VALLEY EL. 4/73 | TAS.

GEOLOGY

5 cm

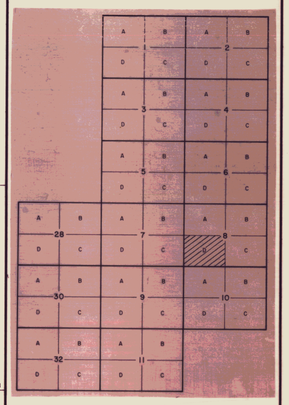
SCALE: 1 : 5000	Survey: W.S.F.	Revised: 26.5.80
Reference:	Date: 2/10/79	REF. NO.
Drawn: R.P.T.	Checked:	A0 - 526 - 0005

E.Z. PLAN CABINET TRIM LINE

A0 TRIM LINE

TCR 94-3613
EL 4/73
E.Z. CO. GEOPEKO
STERLING RIVER





NOTE 1: (Sterling Valley J.V. E.L. 4/73) Underlined rock descriptions = W.S.F. opinion from tramping around out bush (also A.J.M. later)

NOTE 2: Source of further information, Asarco (Aust.) Pty. Ltd., E.L. 4/73 Sterling Valley Progress Report to June 1974 by R.G. Barker

N.B. Some difference in drainage pattern on this sheet compared with "master" (W.S.F.)

ELECTROLYTIC ZINC CO. OF A.ASIA. LTD.

PROJECT: STERLING VALLEY EL.4/73 | TAS.

GEOLOGY

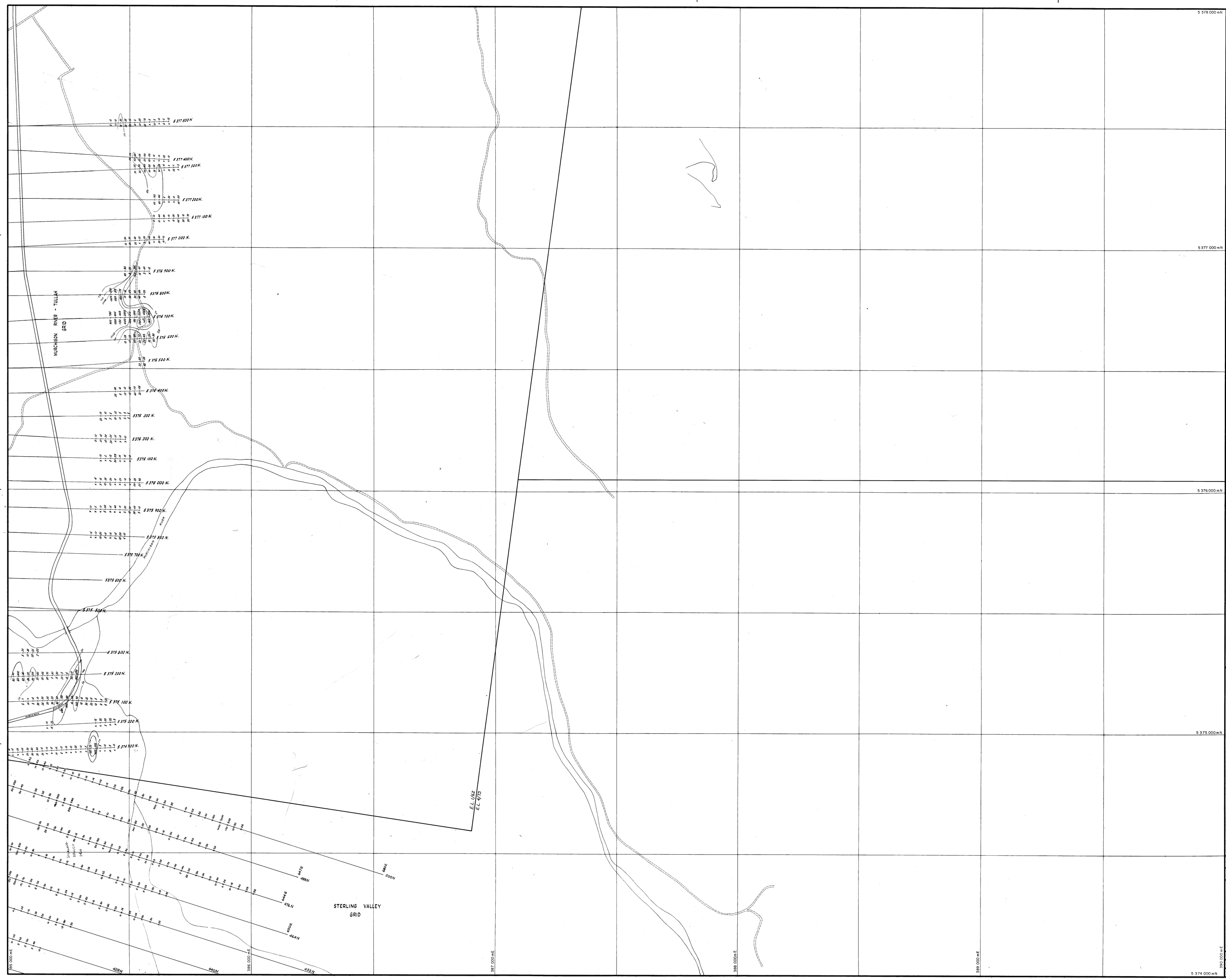
5 cm

SCALE: 1:5000	Survey: W.S.F.	Revised: 22.8.80
Reference:	Date: 2/10/79	REF. NO.
Drawn: R.P.T.	Checked:	AO-526-0006

E.Z. PLAN CABINET TRIM LINE

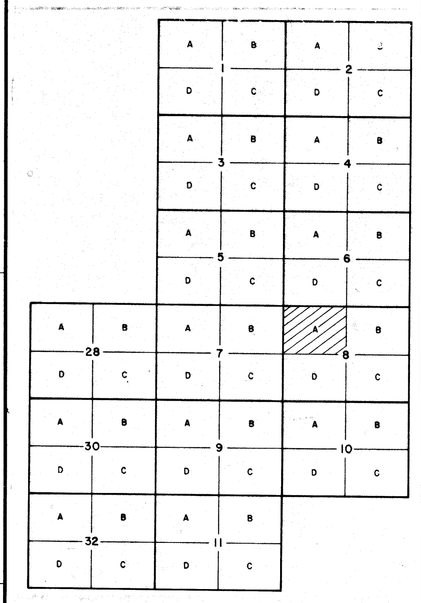
AO TRIM LINE

TCR 94-3613
EL 4/73
E.Z. CO. GEOPEKO
STERLING RIVER



NOTES:
Refer to sheet 78 Pb/Zn geochemistry.

LEGEND
P.M.I. 1968.
Cominco 1976.
E.Z. 1979.



ELECTROLYTIC ZINC CO. OF A ASIA. LTD.

PROJECT: Sterling Valley J.V. | E.L.4/73

SOIL GEOCHEMISTRY- Pb/Zn

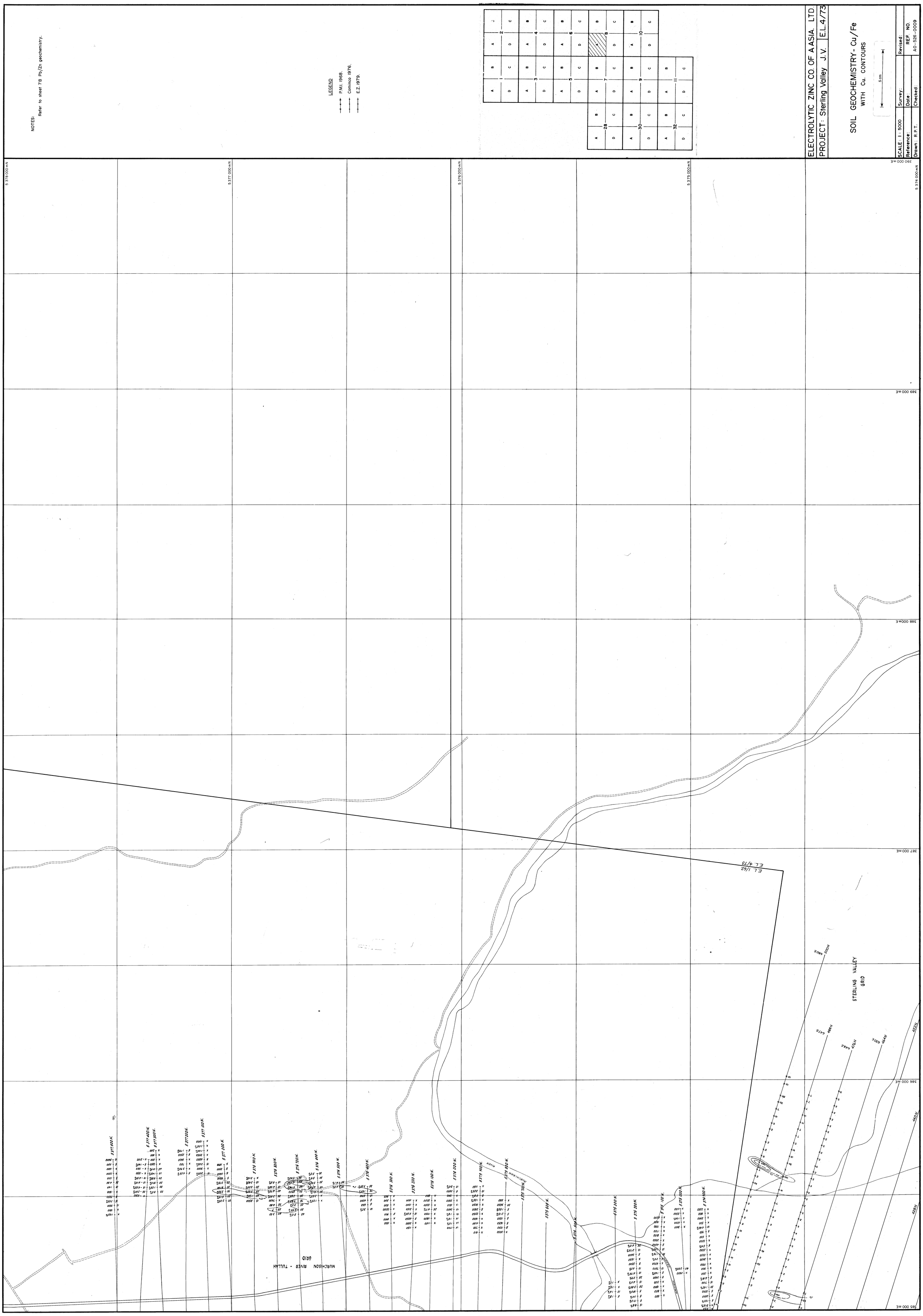
5 cm

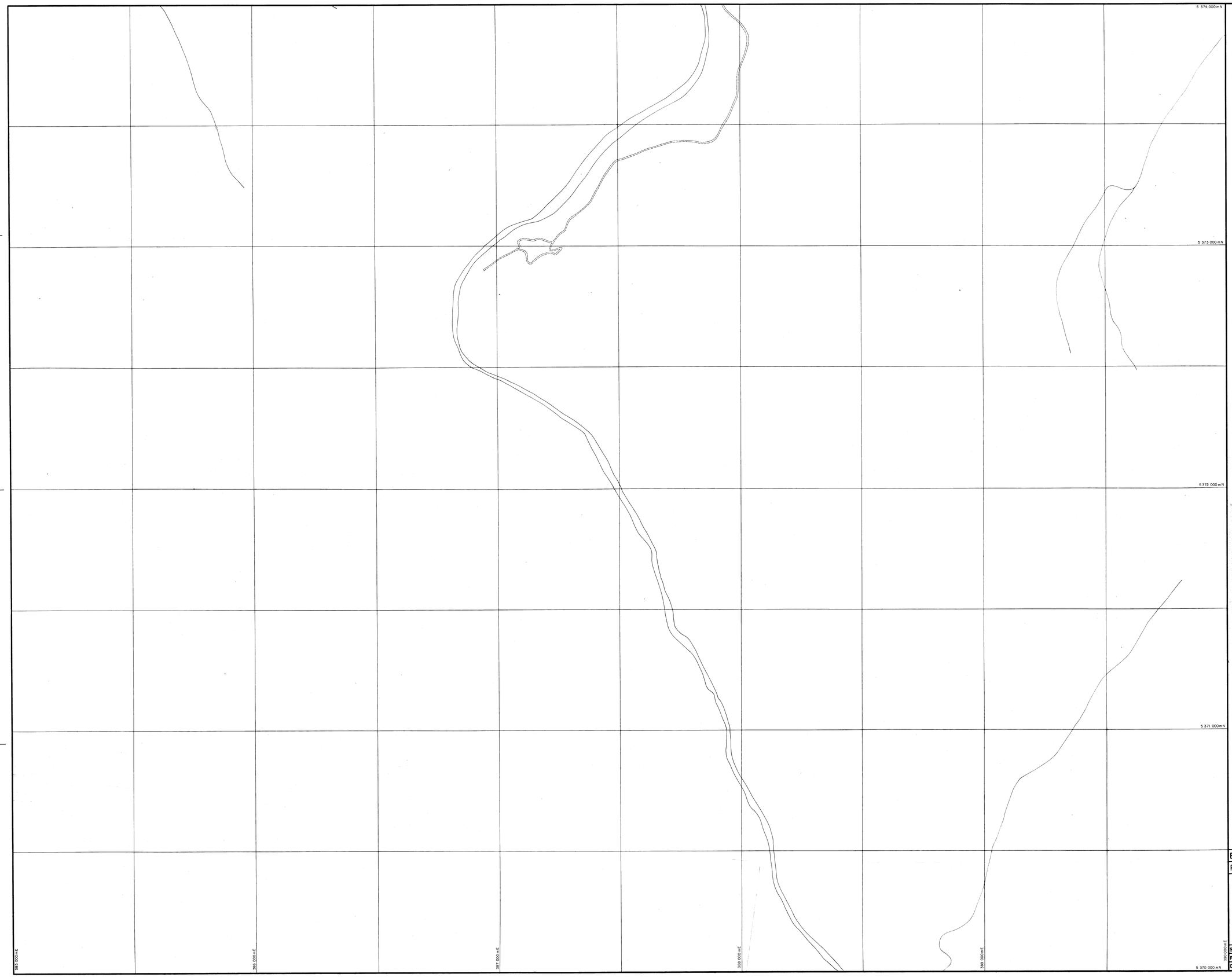
SCALE: 1 : 5000	Survey:	Revised:
Reference:	Date:	REF. NO.
Drawn: R.P.T.	Checked:	AO-526-0008

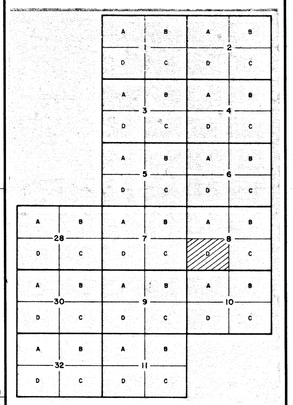
E Z PLAN CABINET TRIM LINE

TCR 94-3613
E.L. 4/73
E.Z. CO. GEOPEKO
STERLING RIVER

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER







ELECTROLYTIC ZINC CO. OF A ASIA. LTD.

PROJECT: STERLING VALLEY | TAS.

GEOCHEMISTRY - Pb/Zn

5 cm

SCALE: 1:5000	Survey: I.M.	Revised:
Reference:	Date: 29.11.79	REF. NO.
Drawn.: R.P.T.	Checked:	AO - 526 - 0010

E.Z. PLAN CABINET TRIM LINE

TCR 94-3613
EL 4/73
E.Z. CO. GEOPEKO
STERLING RIVER

5 374 000 m N

5 373 000 m N

5 372 000 m N

5 371 000 m N

5 370 000 m N

385 000 m E

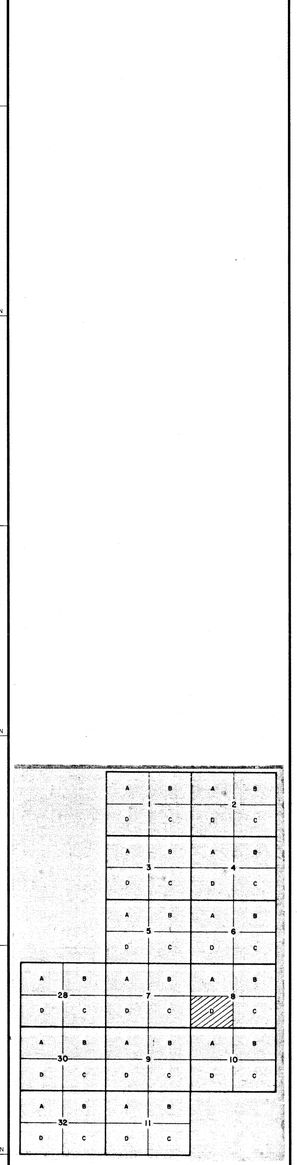
386 000 m E

387 000 m E

388 000 m E

389 000 m E

390 000 m E



ELECTROLYTIC ZINC CO. OF A'ASIA. LTD.

PROJECT: STERLING VALLEY | TAS.

GEOCHEMISTRY - Cu/Fe

5 cm

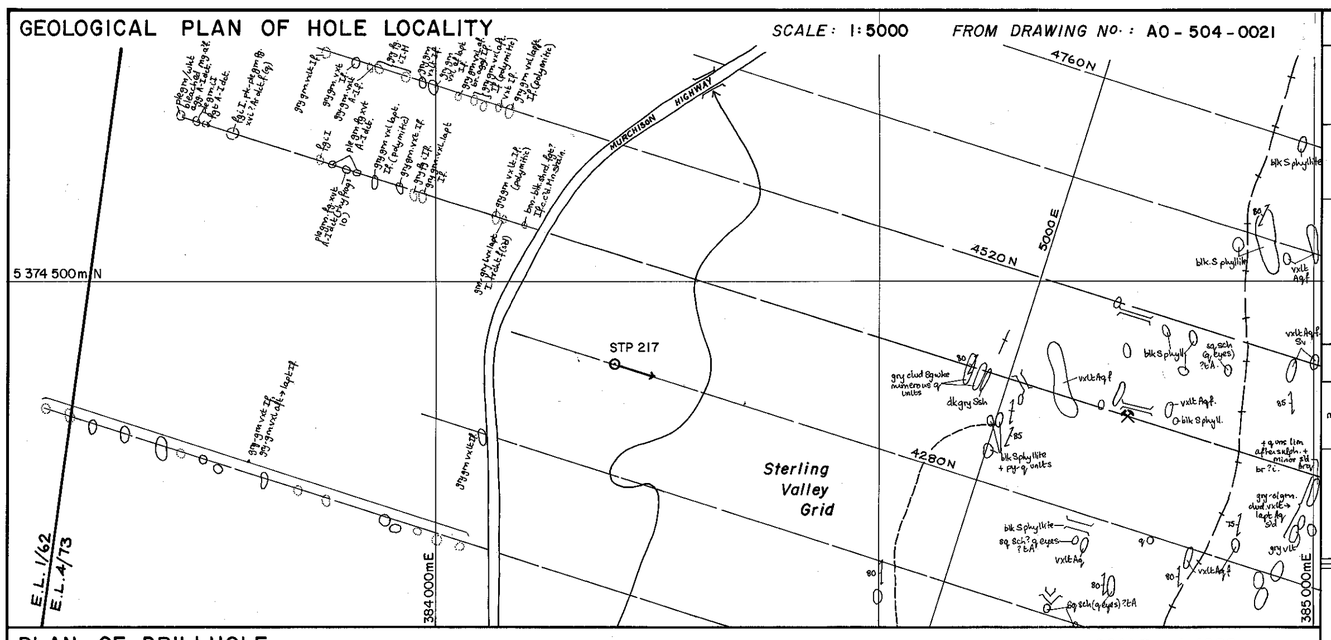
SCALE: 1:5000	Survey: I.M.	Revised:
Reference:	Date: 29.11.79	REF. NO.
Drawn: R.P.T.	Checked:	AO-526-0011

TCR 80-513
EL 4/73
E.Z. COL. GEOPEKO
STERLING RIVER

E-Z PLAN CABINET TRIM LINE

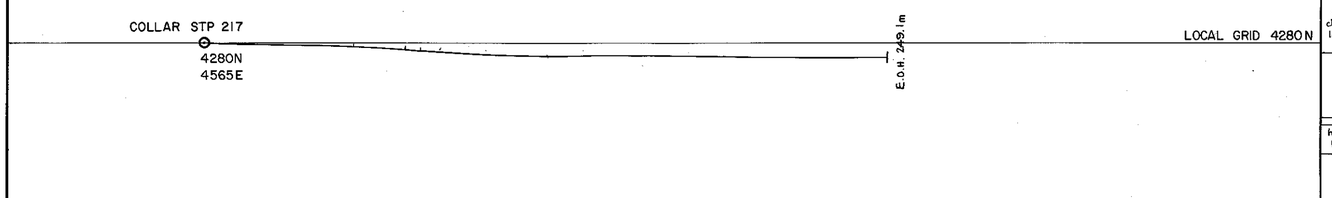
GEOLOGICAL PLAN OF HOLE LOCALITY

SCALE: 1:5000 FROM DRAWING NO.: A0-504-0021



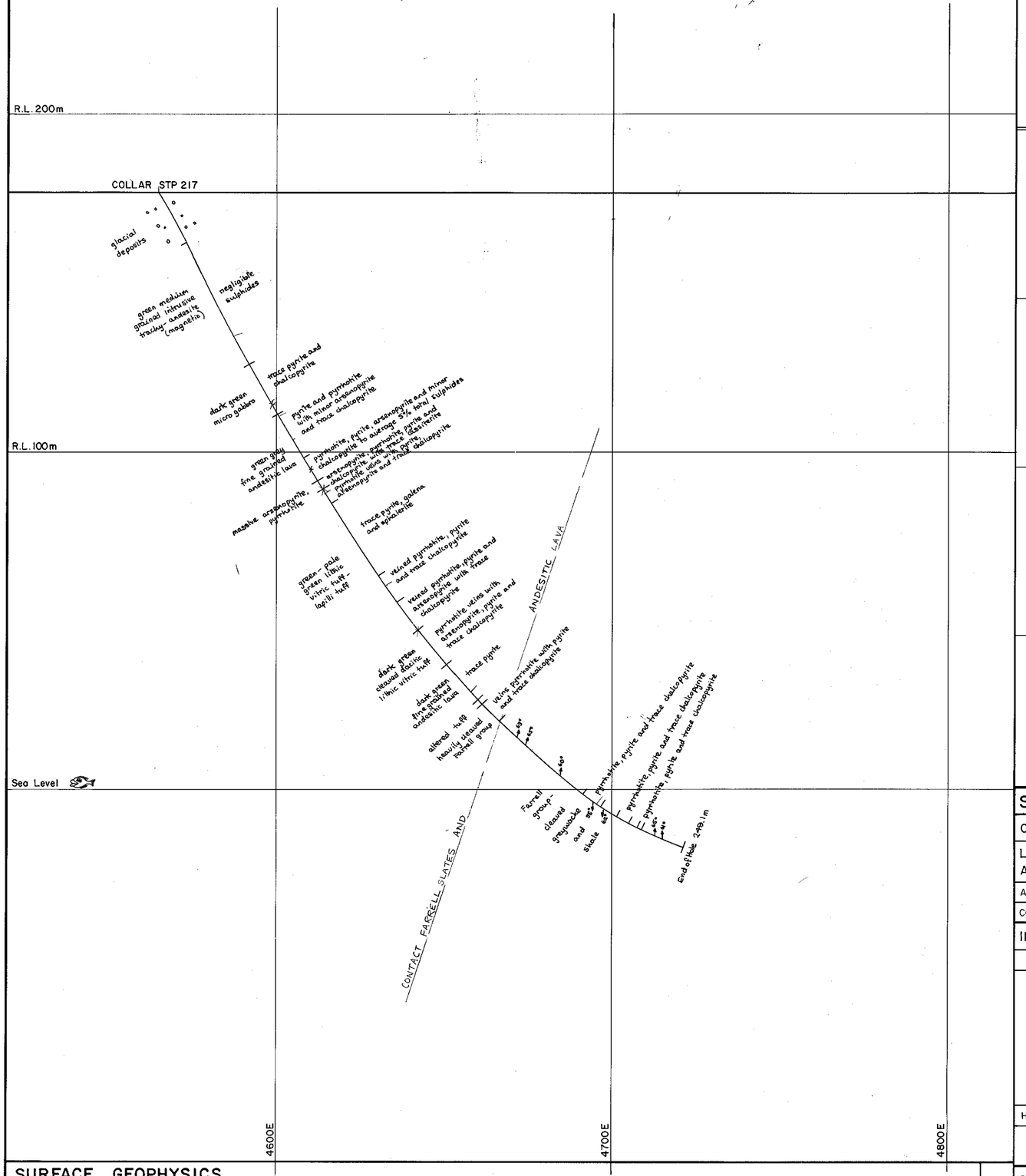
PLAN OF DRILLHOLE

SCALE: 1:1000

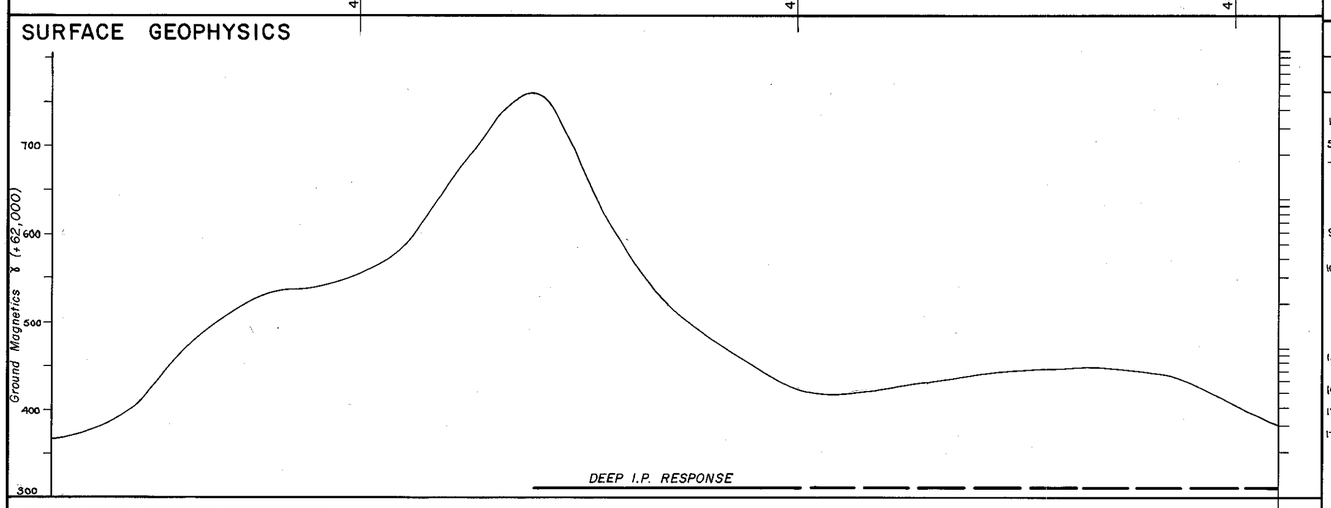


DRILLHOLE CROSS SECTION LINE 4280N, STERLING VALLEY GRID

SCALE: 1:1000



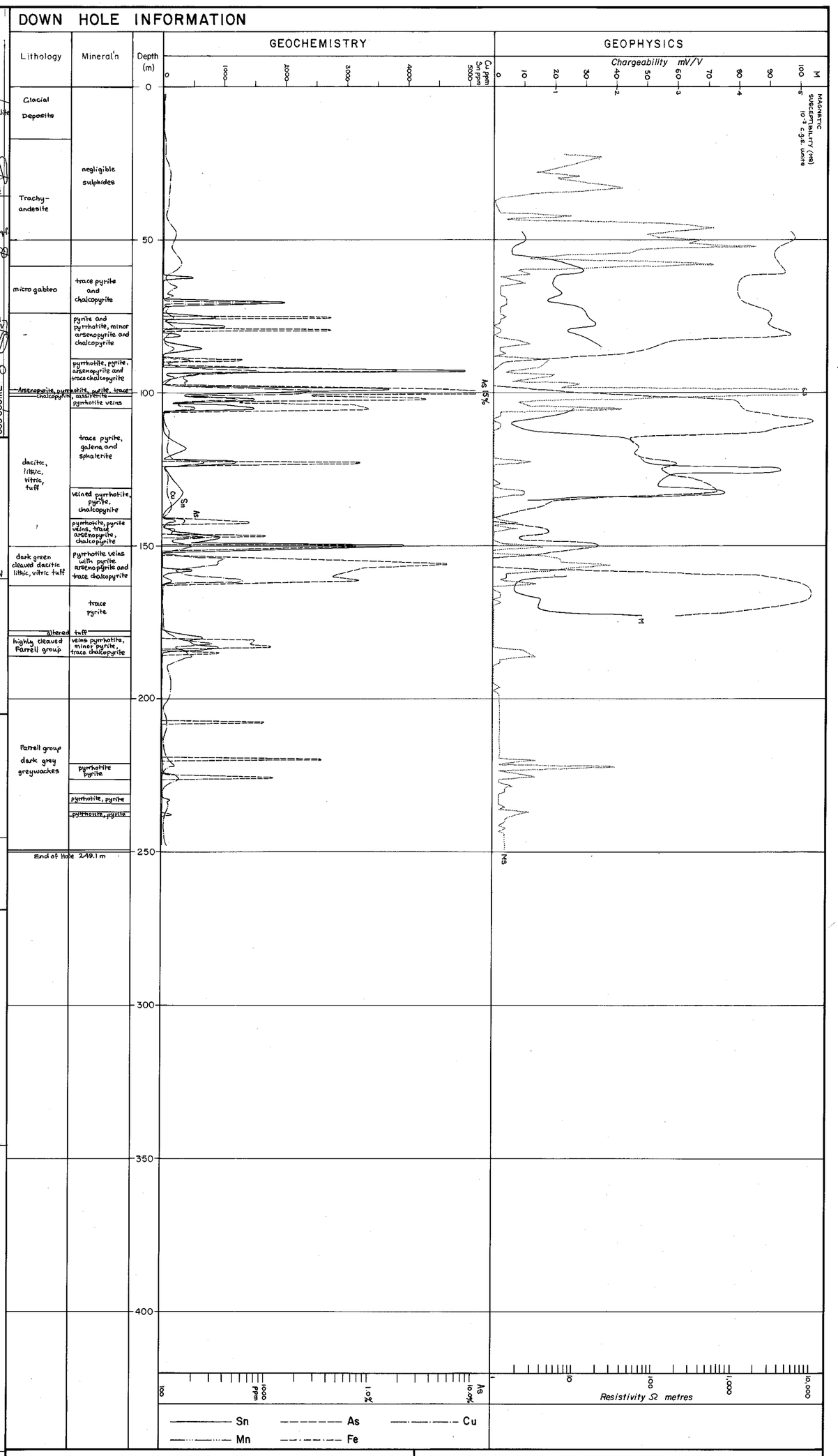
SURFACE GEOPHYSICS



SURFACE GEOCHEMISTRY

NO GEOCHEMICAL DATA DUE TO GLACIAL COVER

DOWN HOLE INFORMATION



SUMMARY OF COMPLETED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID	4280 N	4565 E	176 m
A.M.G.	5 374 393 mN	384 190 mE	176 m

AZIMUTH: 109.5° A.M.G. DIP: -60° TOTAL DEPTH: 249.1m

COMMENCEMENT DATE: 8.4.1980 COMPLETION DATE: 2.5.1980

INTERNAL SURVEY INFORMATION

DEPTH	AZIMUTH	DIP	DEPTH	AZIMUTH	DIP
30m	—	-63°			
66 m	108°	-60°			
84 m	112°	-58.5°			
120 m	112°	-56°			
150 m	108°	-50°			
200 m	109°	-40°			
249 m	108°	-26°			

HOLE SIZE	FROM	TO	HOLE SIZE	FROM	TO
NQ	0	48.0m			
BQ	48.0	249.1 m			

DRILLED GEOLOGY (SUMMARISED)

DEPTH	LITHOLOGY	MINERALISATION AND SIGNIFICANT ASSAYS
0-17.2m	Glacial deposits	Negligible sulphides
17.2-58.9	Grey green medium grained intrusive andesite	Negligible sulphides
58.9-74.5	Dark green grey micro gabbro	Trace pyrite and chalcopyrite
74.5-98.5	Green grey fine grained andesitic lava	74.5-89.5 : pyrite and pyrrhotite with minor arsenopyrite and chalcopyrite average 1% total 89.5-98.5 : pyrrhotite, pyrite, arsenopyrite and minor chalcopyrite.
98.5-100.6	Massive stringers of pyrrhotite and arsenopyrite in silica alteration.	98.5-100.6 : arsenopyrite, pyrrhotite with trace chalcopyrite and cassiterite.
100.6-150.6	Dacitic lithic vitric tuff to lapilli tuff	100.6-105.4 : pyrrhotite veins with pyrite, arsenopyrite and trace chalcopyrite 105.4-131.1 : trace pyrite, sphalerite and galena 131.1-141.1 : veined pyrrhotite, pyrite and trace chalcopyrite 141.1-150.6 : veined pyrrhotite, pyrite, arseno-pyrite and trace chalcopyrite.
150.6-163.1	Dark green cleaved dacitic lithic vitric tuff	150.6-163.1 : pyrrhotite veins with pyrite and trace chalcopyrite.
163.1-178.2	Dark green fine grained andesitic lava	163.1-178.2 : trace pyrite
178.2-179.3	Altered tuff	178.2-179.3 : no visible mineralisation
179.3-249.1	Farrell group - cleaved greywackes and shales	213.5-226.1, 231.1-234.4, 236.8-257.2 } pyrrhotite and pyrite veins associated with quartz

LOGGED BY: A.M., J.M. DATE: 20.5.80

SAMPLE DATA

SAMPLED INTERVAL	SAMPLE NUMBERS	SAMPLE TYPE	ELEMENTS DETERMINED	LAB. METHOD
0-60m	33081-33092	CHIP	Pb,Zn, Cu, Ag, As, Sn	A.A.S.
60-106.45	37954-37982	SPLIT	Pb,Zn, Cu, Ag, As, Sn	A.A.S.
	33099,-100		Sn (70-71, 75-98, 91.65-106.45)	X.R.F.
	33066-33080			
106.45-121.0	37983-37985	CHIP	Pb, Zn, Cu, Ag, As, Sn,	A.A.S.
121.0-124.6	37910-37912	SPLIT	Pb, Zn, Cu, Ag, As, Sn (Sn 121.0-123.6)	AAS. (XRF.)
124.6-140.1	37986-37998	CHIP	Pb, Zn, Cu, Ag, As, Sn (Sn 124.6-135.0)	AA.S.(X.R.F.)
140.1-163.1	37914-37934	SPLIT	Pb, Zn, Cu, Ag, As, Sn (Sn 141.1-150.6 157.6-162.1)	AA.S.(X.R.F.)
163.1-179.3	37989-37992	CHIP	Pb, Zn, Cu, Ag, As, Sn	A.A.S.
179.3-187.3	37935-37942	SPLIT	Pb, Zn, Cu, Ag, As, Sn (Sn 179.3-184.5)	AA.S.(X.R.F.)
187.3-219.1	37993-37999	CHIP	Pb, Zn, Cu, Ag, As, Sn	A.A.S.
219.1-226.1	37943-37949	SPLIT	Pb, Zn, Cu, Ag, As, Sn	A.A.S.
226.1-231.1	36701	CHIP	Pb, Zn, Cu, Ag, As, Sn	A.A.S.
231.1-235.1	37950-37953	SPLIT	Pb, Zn, Cu, Ag, As, Sn	A.A.S.
235.1-249.1	36702-36704	CHIP	Pb, Zn, Cu, Ag, As, Sn	A.A.S.
51.1m	29797	THIN SECTION		
87.1	29798	" "		
100.45	29799	" "		
104.25	29800	" "		
141.9	36705	" "		
155.1	36706	" "		
163.1	36707	" "		
184.4	36708	" "		

NOTES:

SPECIFICATIONS OF PROPOSED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID	4280 N	4565 E	176 m
A.M.G.	5 374 405 mN	384 200 mE	176 m

AZIMUTH: 108° A.M.G. DIP: -60° DESIGNED DEPTH: 250 m

ESTIMATED COMMENCEMENT: 1.4.80

ANTICIPATED GEOLOGY

DEPTH	LITHOLOGY	NATURE OF TARGET AND ANTICIPATED DEPTH
0-25m	Unconsolidated fluvio-glacial deposits	
25-130m	Intermediate volcanics similar to those intersected in MRP 212.	Massive sulphides or graphite with pyrrhotite or magnetite at 100-150m
130-250m	Sediments of the 'Farrell Slates.'	

DESIGNED BY: M.J.M. DATE: February 1980

AIM OF HOLE:

To test coincident I.P. and Ground Magnetic anomalies.

NOTES:

5 cm

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.

PROJECT: STERLING VALLEY TAS.

SPECIFICATIONS AND SUMMARY OF RESULTS

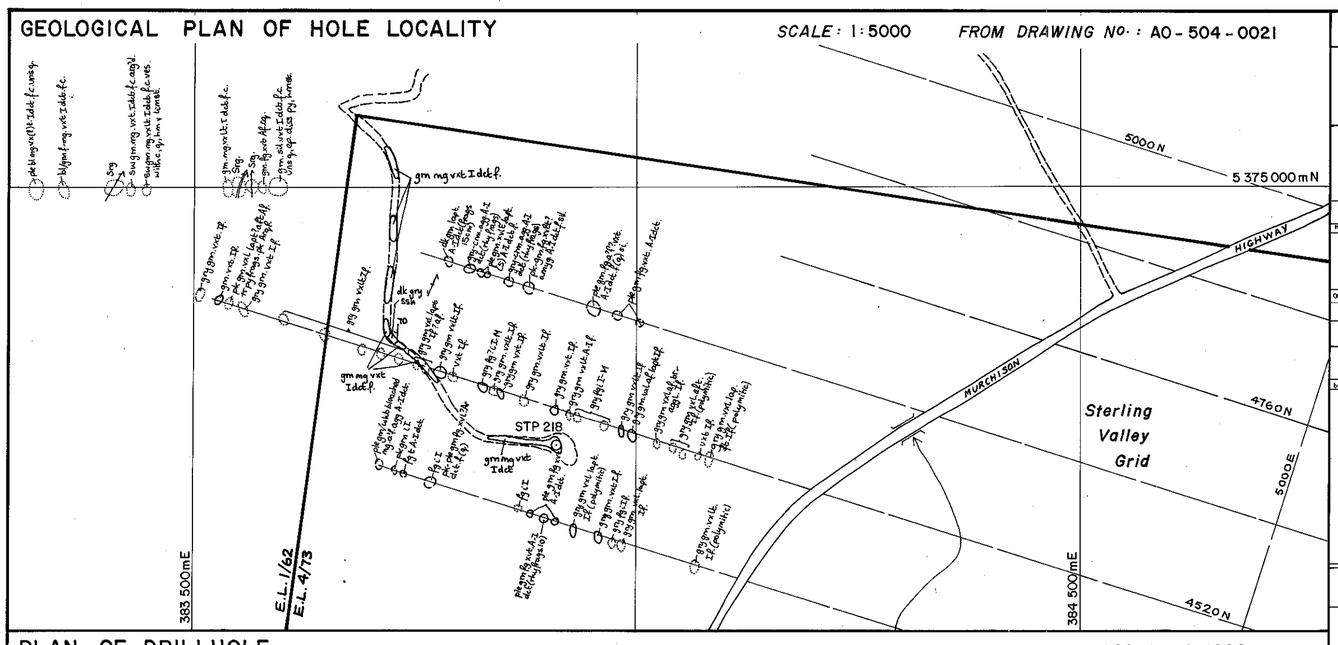
EXPLORATION DIAMOND DRILL HOLE No. STP 217

SCALE: As shown	Survey: M.J.M.	Revised: 13.6.80
Reference:	Date: 25.3.80	REF. No. A1-526-0012
Drawn: R.P.T.	Checked:	

TCR 94-3613
EL 4/73
E.Z. CO. GEOPEKO
STERLING RIVER

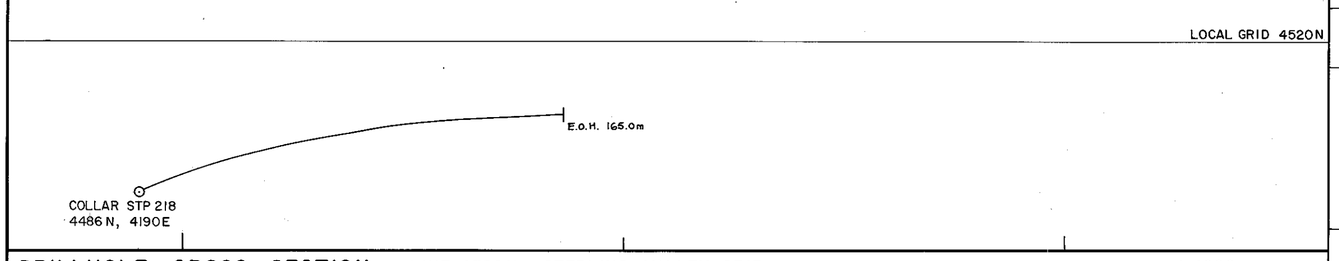
GEOLOGICAL PLAN OF HOLE LOCALITY

SCALE: 1:5000 FROM DRAWING NO.: A0-504-0021



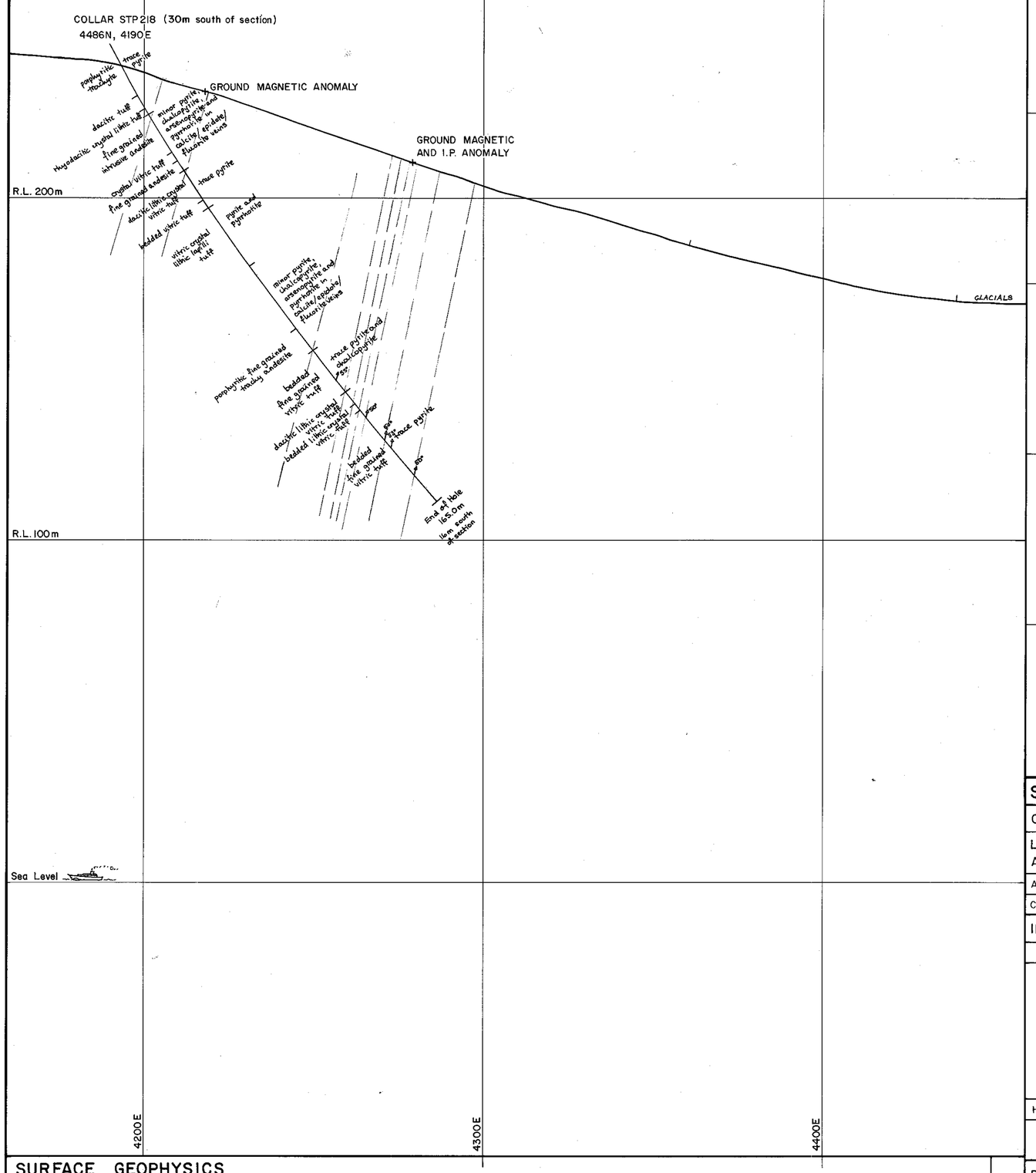
PLAN OF DRILLHOLE

SCALE: 1:1000

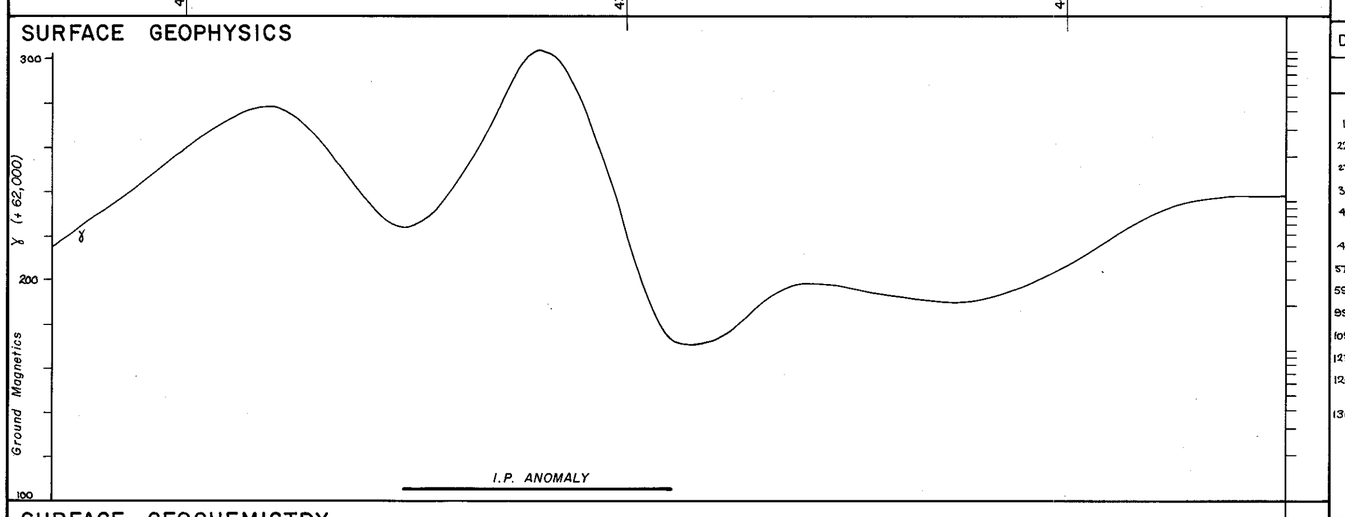


DRILLHOLE CROSS SECTION LINE 4520N, STERLING VALLEY GRID

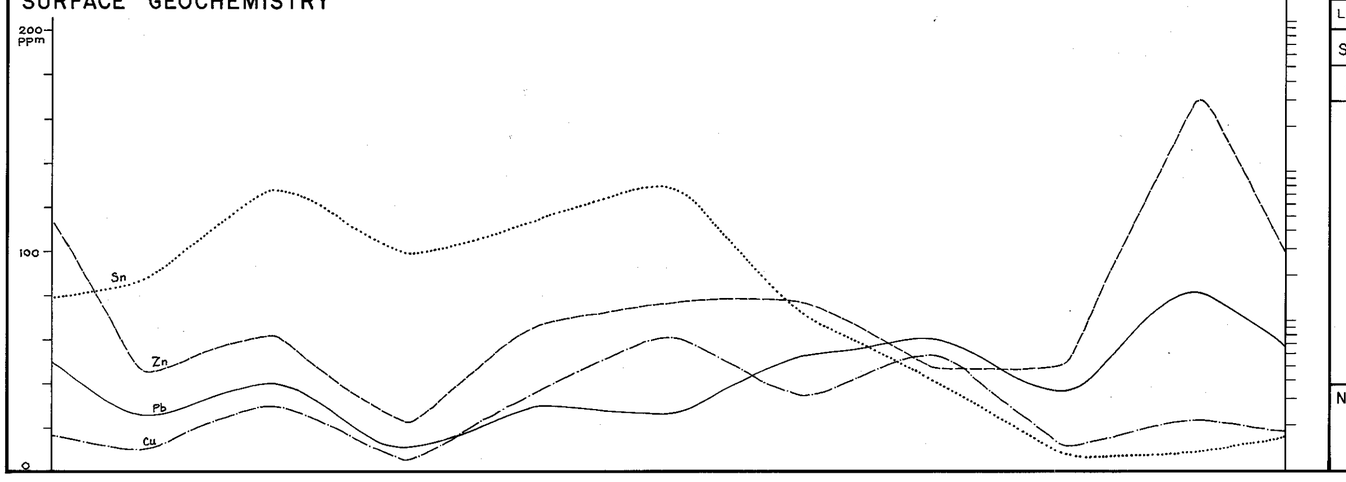
SCALE: 1:1000



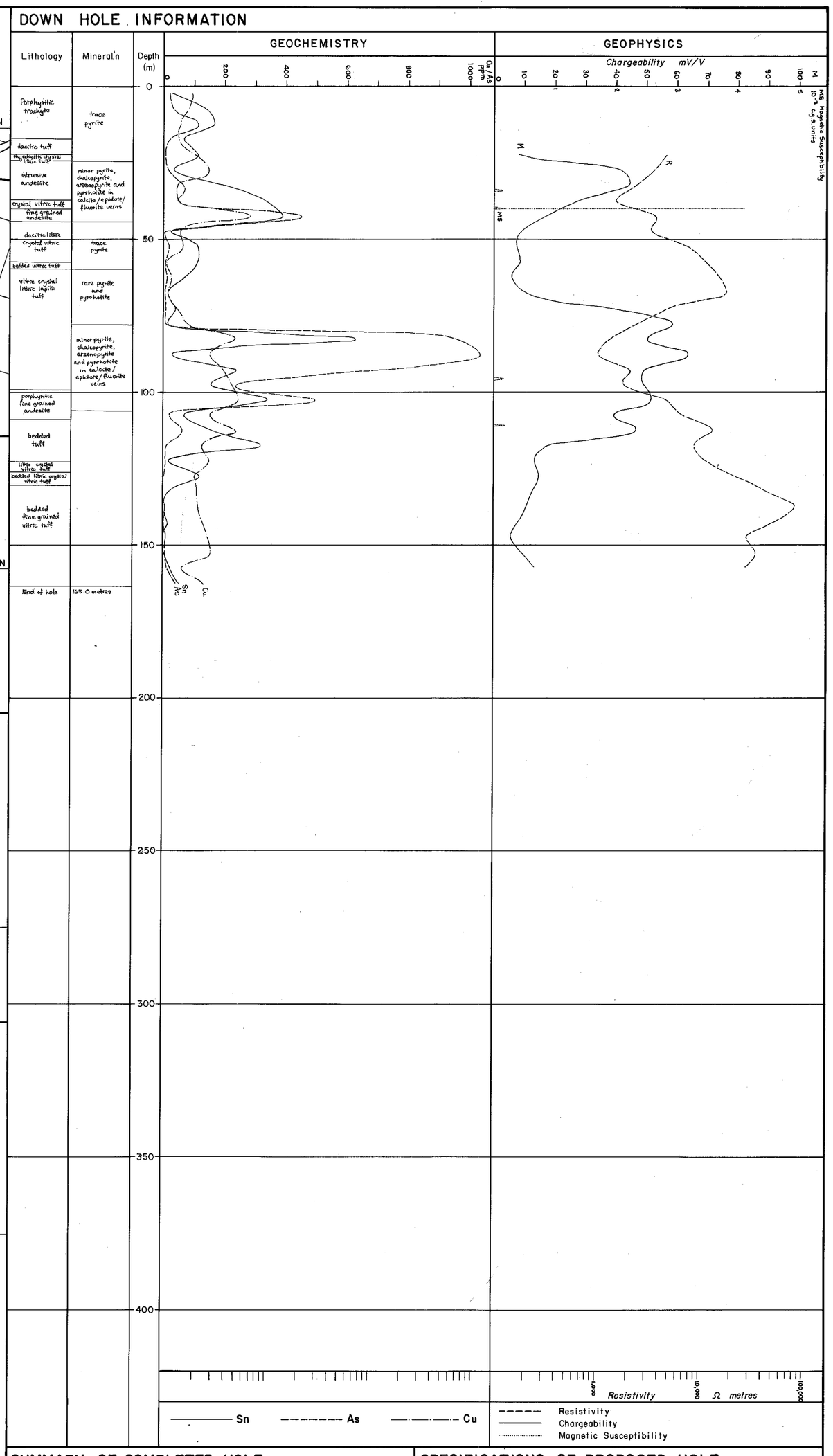
SURFACE GEOPHYSICS



SURFACE GEOCHEMISTRY



DOWN HOLE INFORMATION



SUMMARY OF COMPLETED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID (Sterling Valley)	4486 N	4190 E	243 m
A.M.G.	5 374 717 mN	383 904 mE	256 m

AZIMUTH: 102° A.M.G. DIP: -62° TOTAL DEPTH: 165.0m

COMMENCEMENT DATE: 19.5.80 COMPLETION DATE: 9.6.80

INTERNAL SURVEY INFORMATION

DEPTH	AZIMUTH	DIP	DEPTH	AZIMUTH	DIP
44m	092°	-56.5°			
74m	097.75°	-53.75°			
104m	100°	-52.5°			
134m	105°	-50.5°			
164m	105°	-49°			
	A.M.G.				

HOLE SIZE	FROM	TO	HOLE SIZE	FROM	TO
NQ	0	17.4m			
BQ	17.4m	165.0m			

DRILLED GEOLOGY (SUMMARISED)

DEPTH	LITHOLOGY	MINERALISATION AND SIGNIFICANT ASSAYS
0-17.4	Porphyritic trachyte.	Trace disseminated pyrite up to 1%
17.4-22.4	Dacitic pyroclastic	Ditto.
22.4-23.3	Rhyodacitic crystal lithic tuff	Trace pyrite on shears
23.3-37.1	Pale green intrusive andesite	Minor pyrite, chalcopyrite, arsenopyrite and pyrrhotite in calcite/epidote/fluorite veins.
37.1-40.0	Grey medium grained crystal vitric tuff	
40.0-44.1	Pale green grey fine grained andesite	
44.1-57.0	Pale grey dacitic lithic crystal vitric tuff.	Trace pyrite.
57.0-59.0	Pale grey bedded vitric tuff.	Trace pyrite associated with veins.
59.0-99.7	Pale green grey vitric crystal lithic lapilli tuff.	78.0-106.9 : trace pyrite, chalcopyrite, pyrrhotite, and arsenopyrite in epidote/calcite/fluorite veins 0.3-1m apart.
99.7-109.0	Porphyritic fine grained trachy andesite.	
109.0-123.0	Pale green grey graded dacitic tuff.	106.9-165.0 : trace pyrite and chalcopyrite in veins.
123.0-126.0	Pale green dacitic lithic crystal vitric tuff.	
126.0-130.1	Pale green grey bedded dacitic lithic crystal vitric tuff.	
130.1-165.0	Pale green grey bedded fine grained dacitic vitric tuff.	

LOGGED BY: A.M. DATE: JUNE 1980

SAMPLE DATA

SAMPLED INTERVAL	SAMPLE NUMBERS	SAMPLE TYPE	ELEMENTS DETERMINED	LAB. METHOD
13.5 m	29517	THIN SECTION		
20.0 m	29518	" "		
34.4 m	29519	" "		
84.6 m	29520	" "		
92.1 m	29523	" "		
119.1 m	29521	" "		
138.8 m	29522	" "		
0-165 m	38901-38933	CHIP	Pb, Zn, Cu, Ag, As Sn	A.A.S. X.R.F. (PRESSED POWDER)

NOTES: 1. 25-45 m average Sn 310 ppm. 80-85 m average Sn 610 ppm.
80-120 m average Sn 250 ppm.
2. Plan and section of hole plotted according to following collar data:
Azimuth: 087° A.M.G. Dip: -60° R.L. 245m
Survey data shown above for collar of hole in dispute.

SPECIFICATIONS OF PROPOSED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID	4520 N	4190E	240 m
A.M.G.	5 374 740 mN	383 915 mE	240 m

AZIMUTH: 108° A.M.G. DIP: -60° DESIGNED DEPTH: 200 m

ESTIMATED COMMENCEMENT: APRIL-MAY 1980

ANTICIPATED GEOLOGY

DEPTH	LITHOLOGY	NATURE OF TARGET AND ANTICIPATED DEPTH
0-200m	Intermediate pyroclastics similar to those intersected by MRP 212	Disseminated sulphides (possibly including pyrrhotite) at 100-150m hole depth.

DESIGNED BY: M.J.M. DATE: 25.2.80

AIM OF HOLE:

To test coincident I.P., Ground Magnetic and Sn geochemical anomalies.

NOTES:

5 cm

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.

PROJECT: STERLING VALLEY TAS.

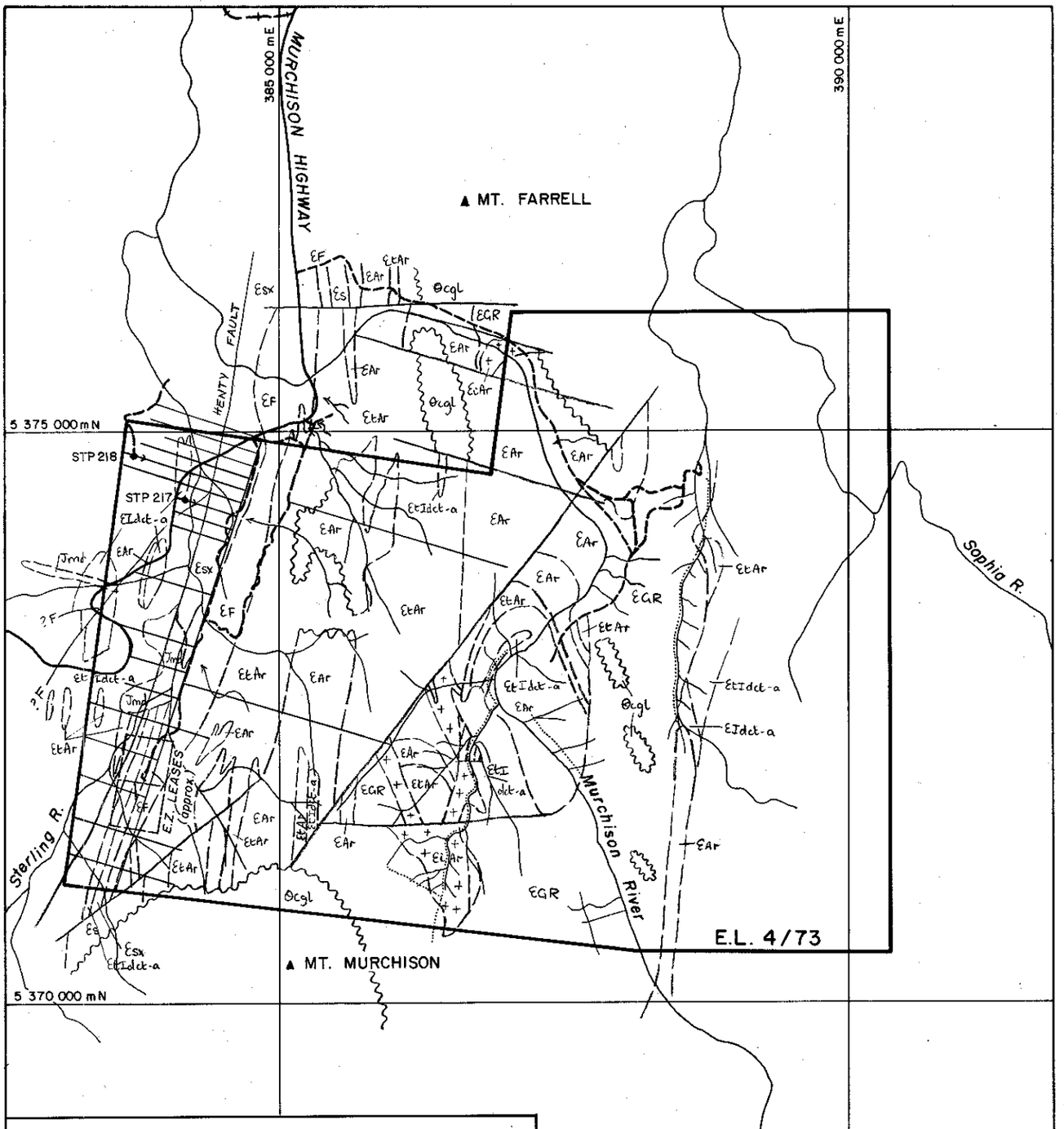
SPECIFICATIONS AND SUMMARY OF RESULTS

EXPLORATION DIAMOND DRILL HOLE No. STP 218

SCALE: As shown	Survey: M.J.M.	Revised: 30.6.80
Reference:	Date: 25.3.80	REF. No.
Drawn: R.P.T.	Checked:	AI-526-0013

TCR 94-3613
EL 4/73
E.Z. CO. GROPEKO
STERLING RIVER

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER

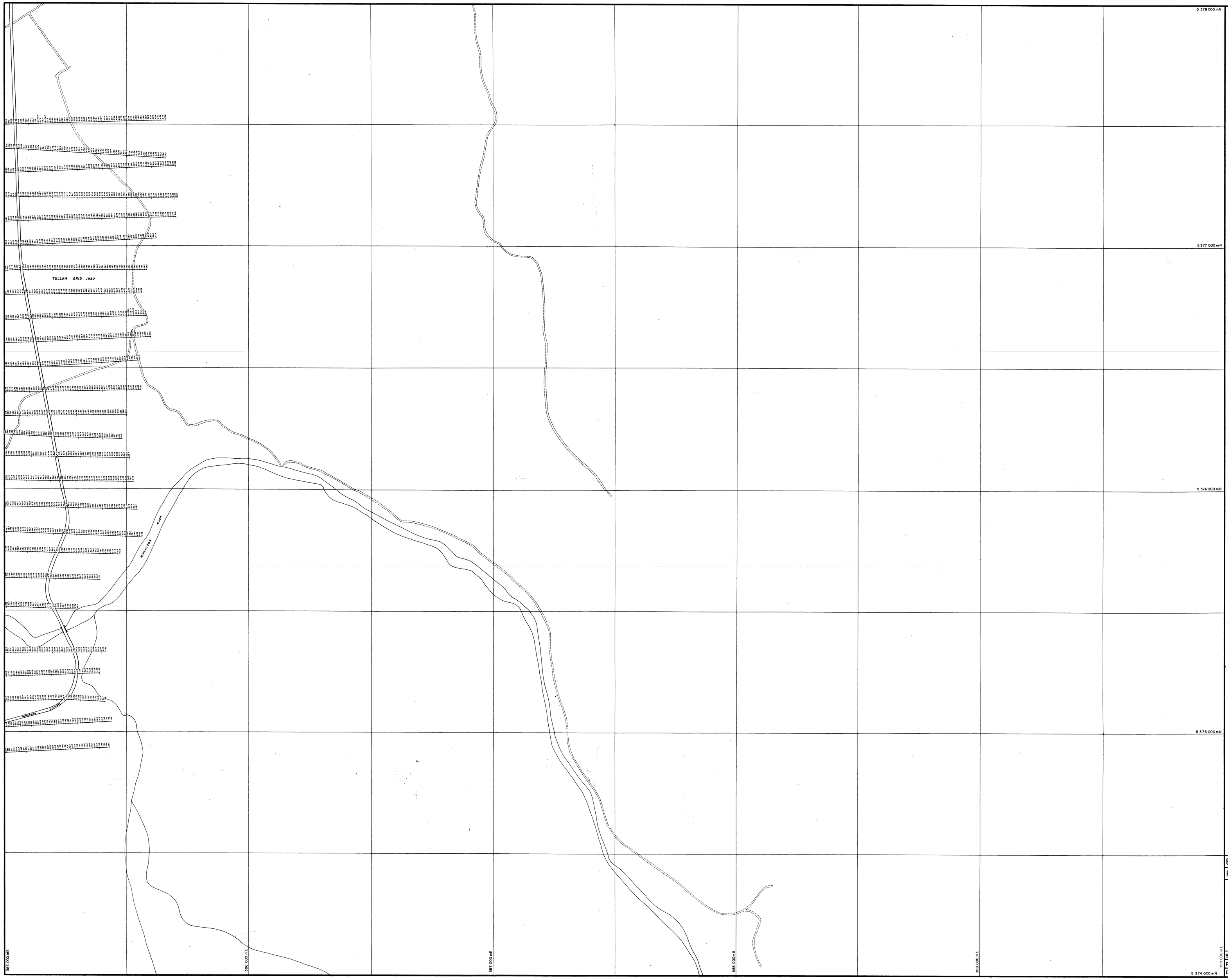


LEGEND

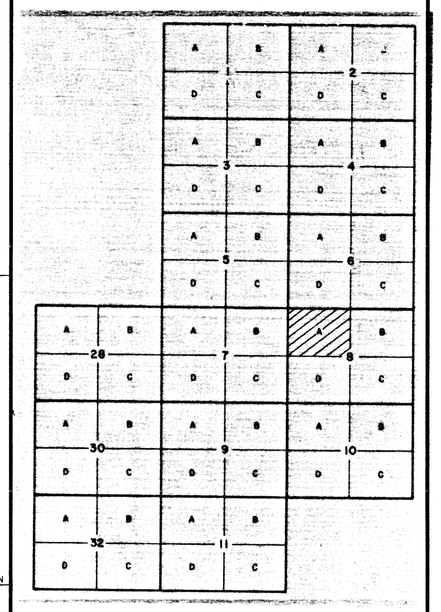
		UNCONFORMITY
ORDOVICIAN	Ocgl	Owen Conglomerate (Conglomerate and Sandstone)
CAMBRIAN	€J	Jukes Breccia
		UNCONFORMITY
	€F	Farrell Group (Pyroclastics, Tuffaceous Sediments, Black Slates)
	€Ar	Acid Lavas
	€tAr	Acid Pyroclastics
	€Idct-a	Intermediate Lavas
	€tIdct-a	Intermediate Pyroclastics
	€s / €s	Tuffaceous Sediments and Shales
	€sx	Undifferentiated Sediments
	€sch	Schists
JURASSIC	Jmd	Dolerite
CAMBRIAN	€GR	Murchison Granite } INTRUSIVES
	+ €iAr +	Minor Acid } INTRUSIVES

5 cm

ELECTROLYTIC ZINC CO. OF A'ASIA. LTD.		
PROJECT: STERLING VALLEY		TAS.
BEDROCK GEOLOGICAL PLAN		
SCALE: 1:50,000	Survey: I.R.M.	Revised:
Reference:	Date: 9.6.80	REF. NO.
Drawn: R.P.T.	Checked:	A4-526-0016



NB. 1. Murchison River grid / Tullah grid Scintrex 1980.



5 cm

ELECTROLYTIC ZINC CO. OF A ASIA. LTD.

PROJECT: STERLING VALLEY J.V. | TAS.

TOTAL MAGNETIC FIELD

SCALE: 1 : 5000	Survey: Scintrex 1980	Revised:
Reference:	Date: October 1980	REF. NO.
Drawn: R.P.T./R.A.H.	Checked:	A0 526 - 0018

E Z PLAN CABINET TRIM LINE

TCR 94-3613
EL 4/73
E.Z. CO. GEOPEKO
STERLING RIVER

E.Z. PLAN CABINET TRIM LINE

A0 TRIM LINE

TCR 94-3613
ASP 4071
EZ. 94-0075
STERLING RIVER

ELECTROLYTIC ZINC CO OF AASIA LTD.	
PROJECT: STERLING VALLEY JV	TAS.

TOTAL MAGNETIC FIELD

5 cm

SCALE : 1: 5000	Survey: Scintrex 1980
Reference:	Date: October 1980
Drawn: R.P.T./R.A.H.	Checked:

Revised:

REF NO.
A0 526 - 0019

MGA : Mutitoon River grid / Tuloh grid Scintrex 1980.

NOTES:
1. Data also available at 1:5000 profiles & 1:10000 contours.
2. Add 62000 to obtain eastings in gemmas.

5 378 000 mN
5 377 000 mN
5 376 000 mN
5 375 000 mN
5 374 000 mN

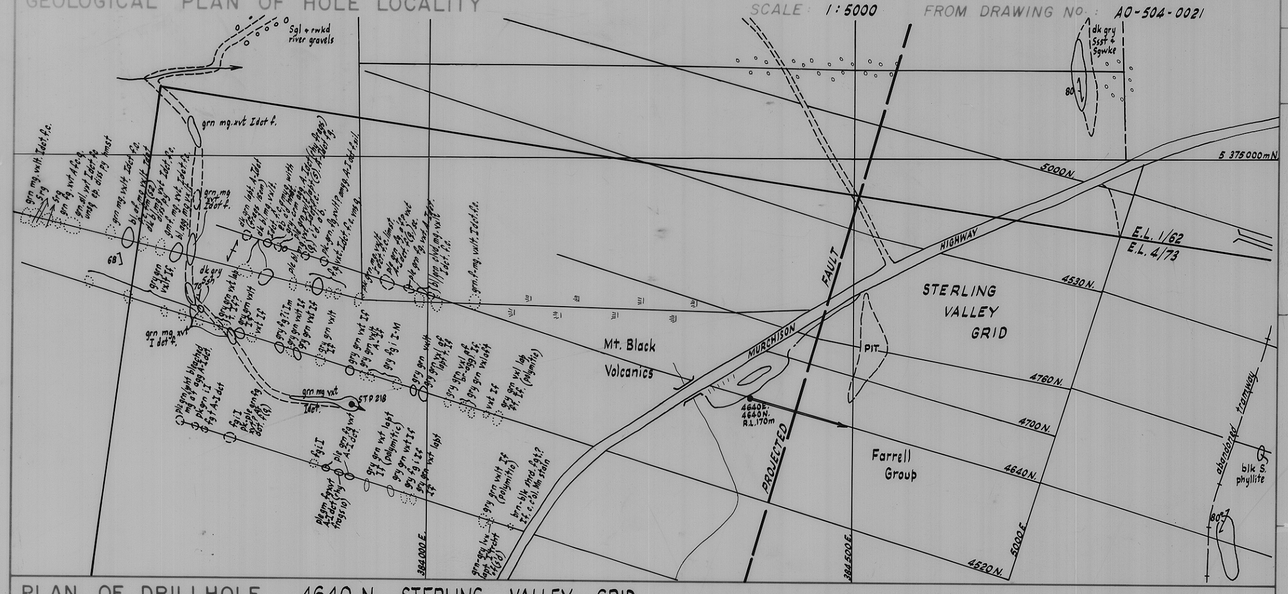
385 000 mE
386 000 mE
387 000 mE
388 000 mE
389 000 mE
390 000 mE

MURCHISON RIVER

TULLAH GRID 1980

GEOLOGICAL PLAN OF HOLE LOCALITY

SCALE: 1:5000 FROM DRAWING NO.: AO-504-0021



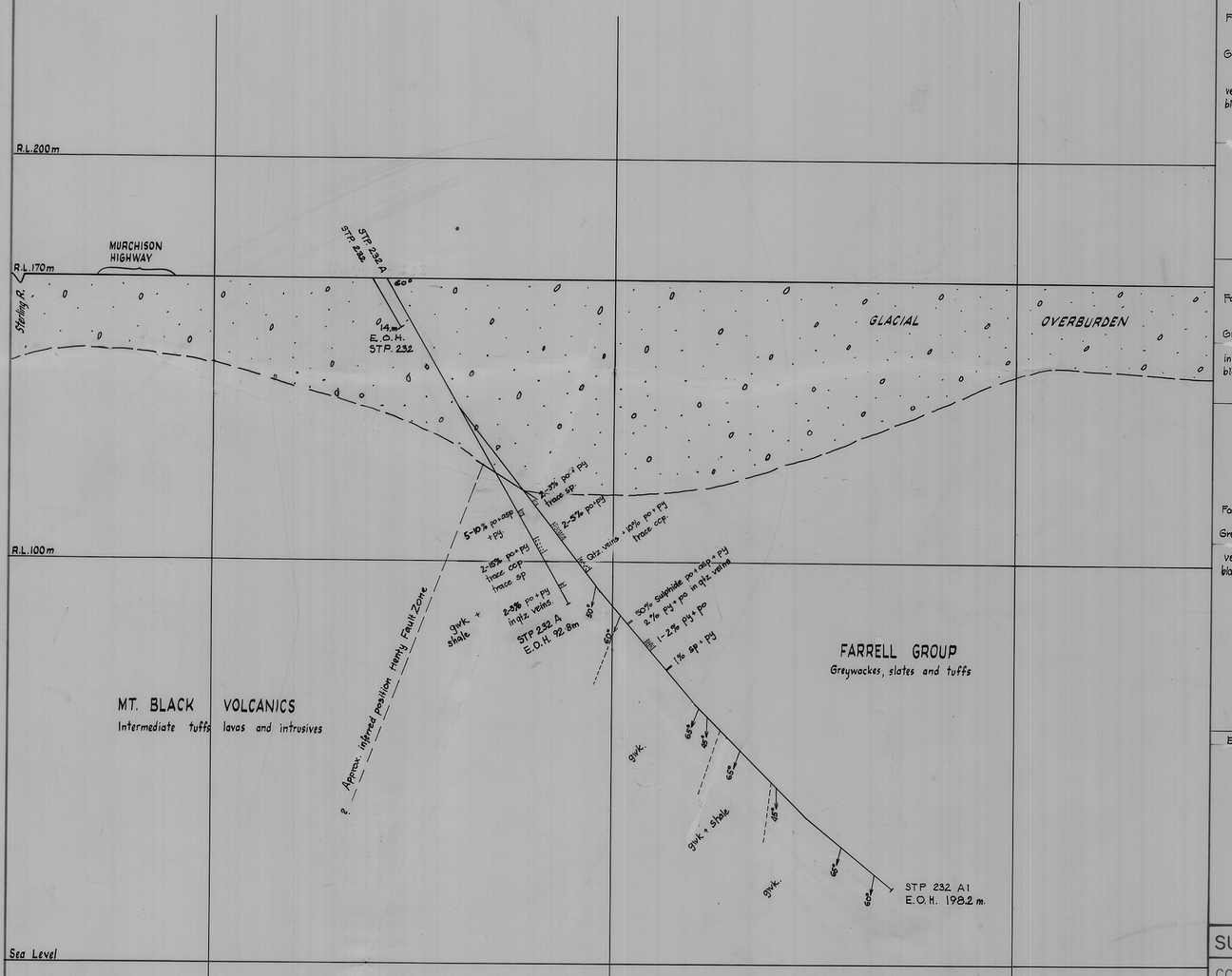
PLAN OF DRILLHOLE 4640 N. STERLING VALLEY GRID

SCALE: 1:1000



DRILLHOLE CROSS SECTION

SCALE: 1:1000



SURFACE GEOPHYSICS

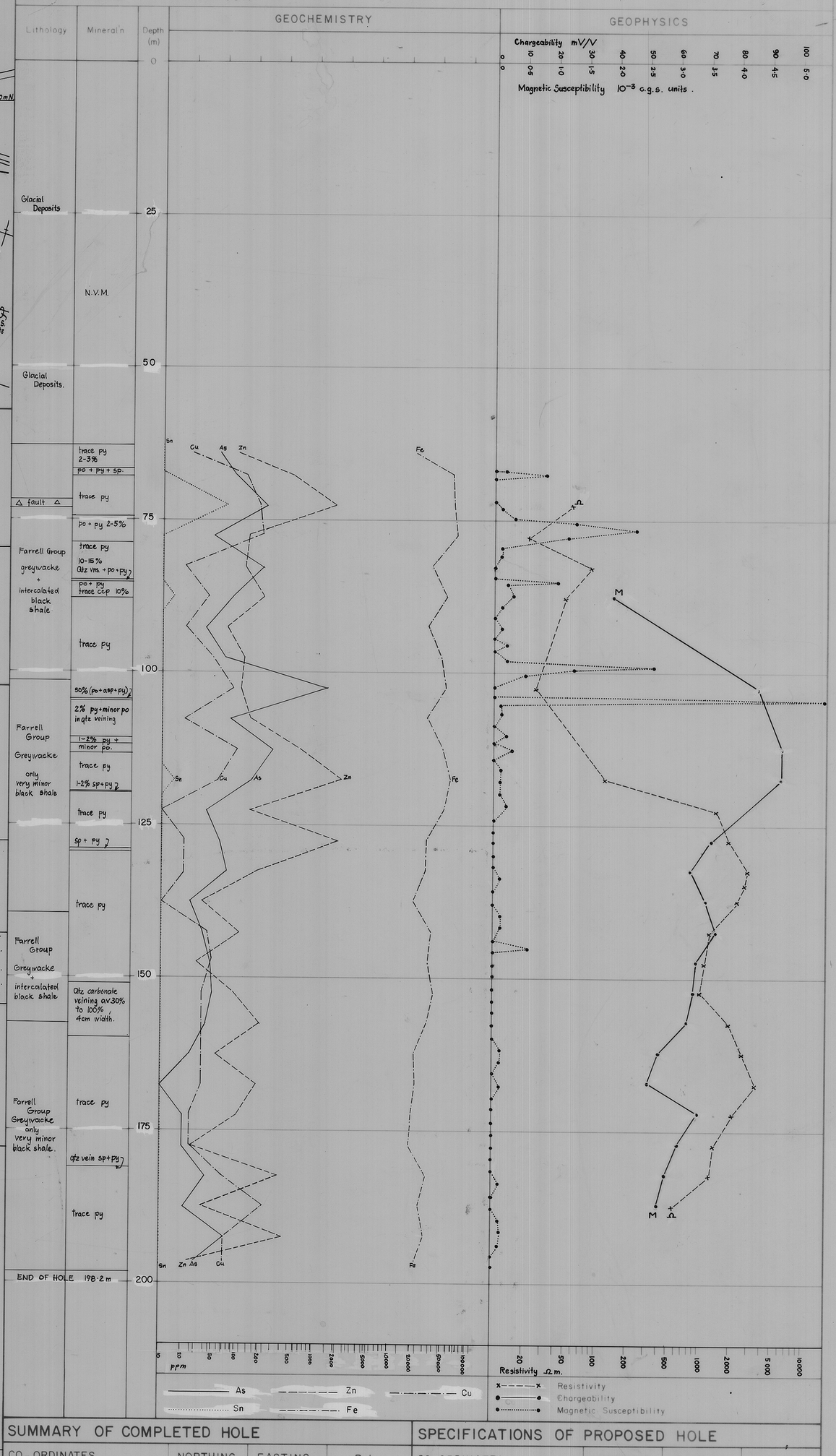


SURFACE GEOCHEMISTRY

Glacial Covered

No Soil Geochemistry

DOWN HOLE INFORMATION



SUMMARY OF COMPLETED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID	4640	4643	174
A.M.G.	5,374,728·5	384,395·8	174·0

AZIMUTH 108° AMG DIP -60° TOTAL DEPTH 198·2 m

COMMENCEMENT DATE 15.7.81 COMPLETION DATE 9. AUG. 1981

INTERNAL SURVEY INFORMATION

DEPTH	AZIMUTH	DIP	DEPTH	AZIMUTH	DIP
67 m	83°	-52°			
109 m	105°	-49.5°			
151 m	98°	-45°			
192 m	98°	-39°			

HOLE SIZE	FROM	TO	HOLE SIZE	FROM	TO
HQ	0	36·0	BQ	68·2	198·2
NQ	360	68·2			

DRILLED GEOLOGY (SUMMARISED)

DEPTH	LITHOLOGY	MINERALISATION AND SIGNIFICANT ASSAYS
0 - 63·0	Glacial Overburden	Negligible Sulphides
63·0 - 198·2	Farrell Group volcaniclastic greywacke and intercalated black shale as follows:	66·9 - 68·0 2-3% po+py, trace sp.
	63·0 - 101·6 Greywacke and shale	74·7 - 78·9 2-5% po+py in qtz carbonate veining
	101·6 - 139·5 Greywacke and very minor shale	85·2 - 88·0 Qtz veins with 10-15% po+py + trace ccb
	139·5 - 157·6 Greywacke and shale	104·6 - 104·9 50% Sulphide - Po(50%), asp(35%), py(15%), 4·5% As, 365 ppm Pb
	157·6 - 198·2 Greywacke and very minor shale.	104·9 - 110·9 2% py + minor po in qtz veining.
	NOTE:	112·0 - 113·25 1-2% py + minor po
	72·0 - 73·4 Fault breccia with intense black chlorite veining	115·65 - 115·9
	151·0 - 160·7 Qtz-carbonate veining 4cm width max, 100% of core max., av. 30%	119·5 - 119·9 1% sp (X 1-5mm stringer) + py
		129·1 - 129·45 0·5% Sp + py.
		144·15 - 144·4 minor py, po + trace sp
		181·1 20% sp + py in 20mm qtz. vein.
		190·5 - 190·7 sp + py in carbonate veining.
		191·8 - 192·0

LOGGED BY R. A. S. DATE 20.11.81

SAMPLE DATA

SAMPLED INTERVAL	SAMPLE NUMBERS	SAMPLE TYPE	ELEMENTS DETERMINED	LAB. METHOD
63·0 - 198·2	41624 - 41651	grind	Pb, Zn, Cu, Ag, Au, Fe, Mn, As, Sn	A.A.S.
67·0 - 68·0	48404	split	Pb, Zn, Cu, Ag, Fe, Mn, As, Sn.	
74·7 - 78·7	48405, 48407-48409	split	"	
98·9 - 100·9	48410, 48411	split	"	
104·6 - 104·9	48412	split	"	
112·0 - 113·2	48413	split	"	
107·3 STP 232 A	48428	split core	petrographic examination	

NOTES: Survey Azimuth information unreliable as readings taken inside the barrell

SPECIFICATIONS OF PROPOSED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID STERLING VALLEY	4640 N.	4640 E.	170m
A.M.G.			

AZIMUTH 108° MAG. DIP -60° DESIGNED DEPTH 200m

ESTIMATED COMMENCEMENT: NOVEMBER 1980

ANTICIPATED GEOLOGY

DEPTH	LITHOLOGY	NATURE OF TARGET AND ANTICIPATED DEPTH
0 - 27m	Glacial overburden.	
27 - 72m	Intermediate tuffs, lavas and minor intrusives of the Mt. Black Volcanics.	
72m	Fault Zone.	Pyrrhotite and cassiterite mineralisation associated with the fault zone at 72m.
72 - 200m	Slates, greywackes and tuffs of the Farrell Group.	Pyrrhotite and cassiterite mineralisation associated with a ground magnetic anomaly between 100 & 150m.

DESIGNED BY: A.M. & J.M. DATE 8/11/1980

AIM OF HOLE: To intersect mineralisation associated with the Henty ? Fault Zone and a ground magnetic anomaly.

NOTES: No soil geochemistry, I.P. or E.M. information is available for this line.

Casing 0·0m - 68·4m NQ.

5 cm

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.

PROJECT: STERLING VALLEY E.L.4/73 TAS.

SPECIFICATIONS AND SUMMARY OF RESULTS

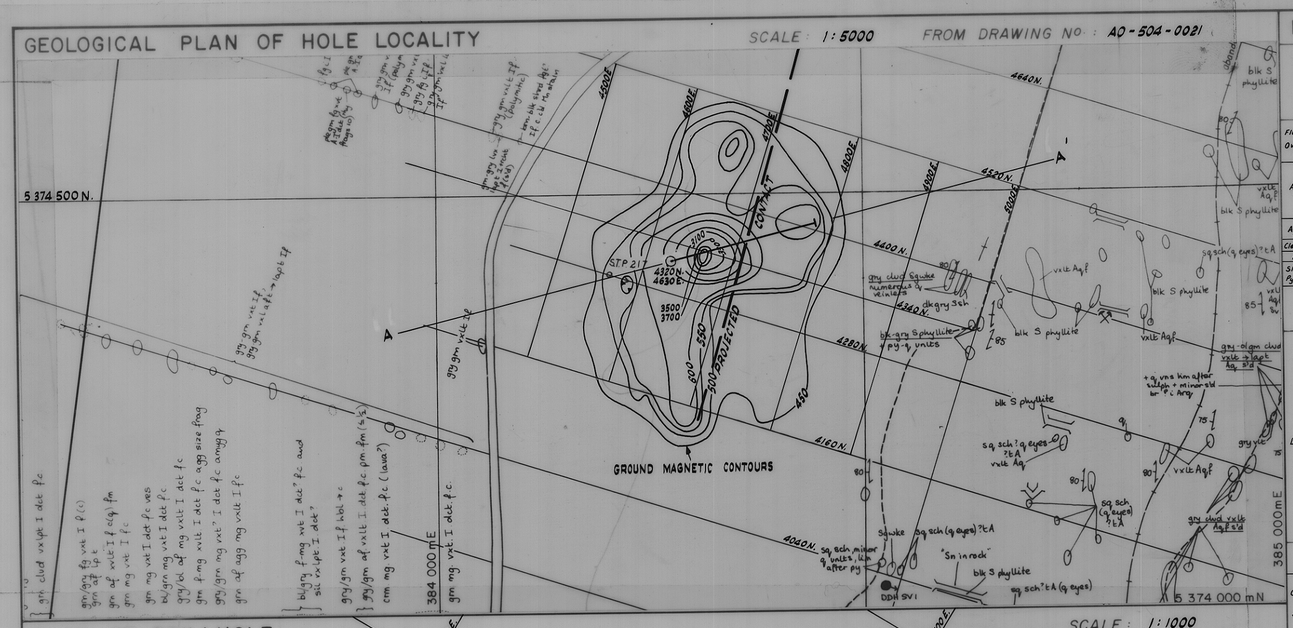
EXPLORATION DIAMOND DRILL HOLE No. STP 232 A1

SCALE: As shown	Survey: J.M.	Revised R. A. S. 20.11.81
Reference:	Date 18:11:1980	REF. No.
Drawn: R.G.W.	Checked:	A1 526-0020

TCR 94-3613
EL 4/73
E.Z. CO. GEOPEKO
STERLING RIVER

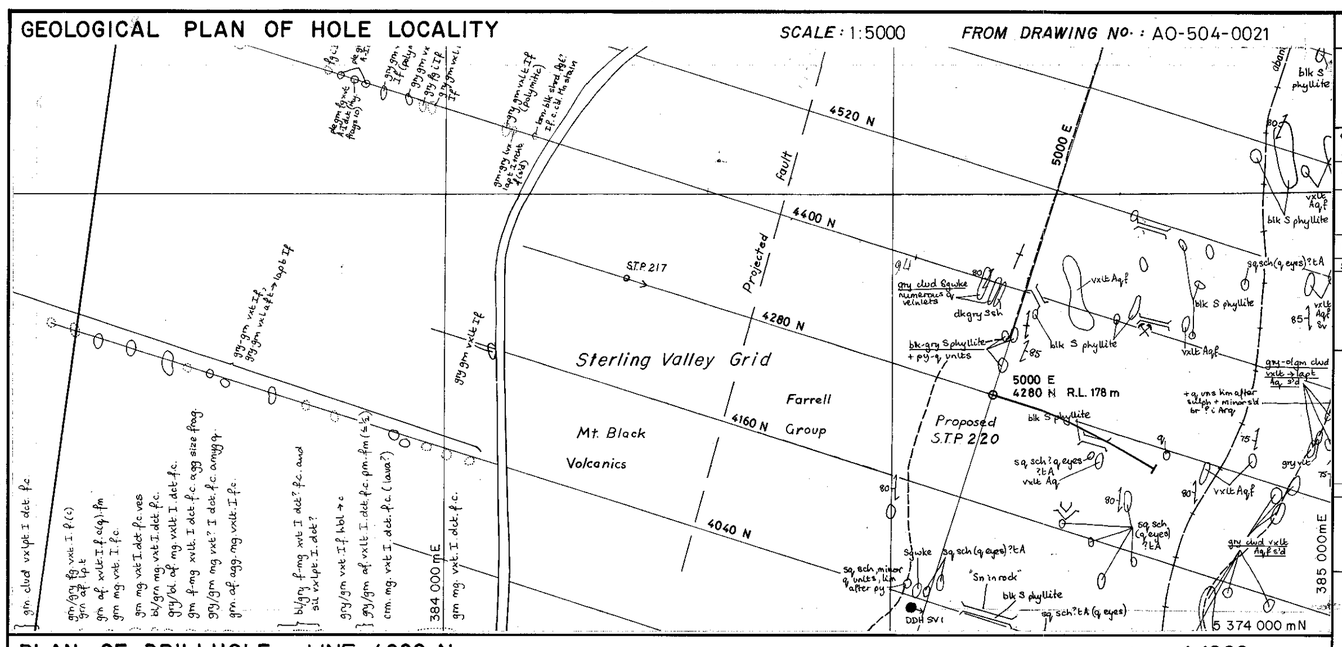
GEOLOGICAL PLAN OF HOLE LOCALITY

SCALE: 1:5000 FROM DRAWING NO: AO-504-0021


5 374 500 N.
4640N.
4520N.
4400N.
4280N.
4160N.
4040N.
4800E.
4900E.
5000E.
5100E.
384 000mE
385 000mE
5 374 000 mN
STP 221
4320N.
4630E.
3500
3700
3940 ppm
CONTACT
600
500
450
400 PROJECTED
GROUND MAGNETIC CONTOURS
A
A'
DDH SV1
Sn in rock
blk S phyllite
vx lit Agf
gry sch (q eyes) ?tA
gry cloud Sn ore
gry-blk S phyllite / pg-y veins
dk gry sch
sq sch (q eyes) ?tA
sq sch minor q veins, ick after pg
gry cloud vx lit Agf Sd
gry vx lit Agf Sd
gry cloud Sn ore numerous qv veinlets
qv vns km after sulph + minor Sd Sn ?c Asp
sq sch ?tA (q eyes)
sq sch (q eyes) ?tA
gry cloud vx lit Agf Sd
gry vx lit Agf Sd
gry vx lit Agf Sd
gry

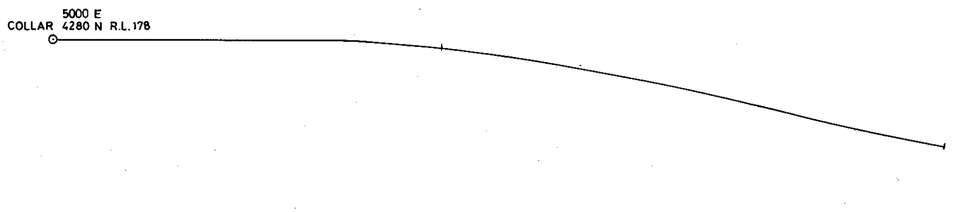
GEOLOGICAL PLAN OF HOLE LOCALITY

SCALE: 1:5000 FROM DRAWING NO.: AO-504-0021



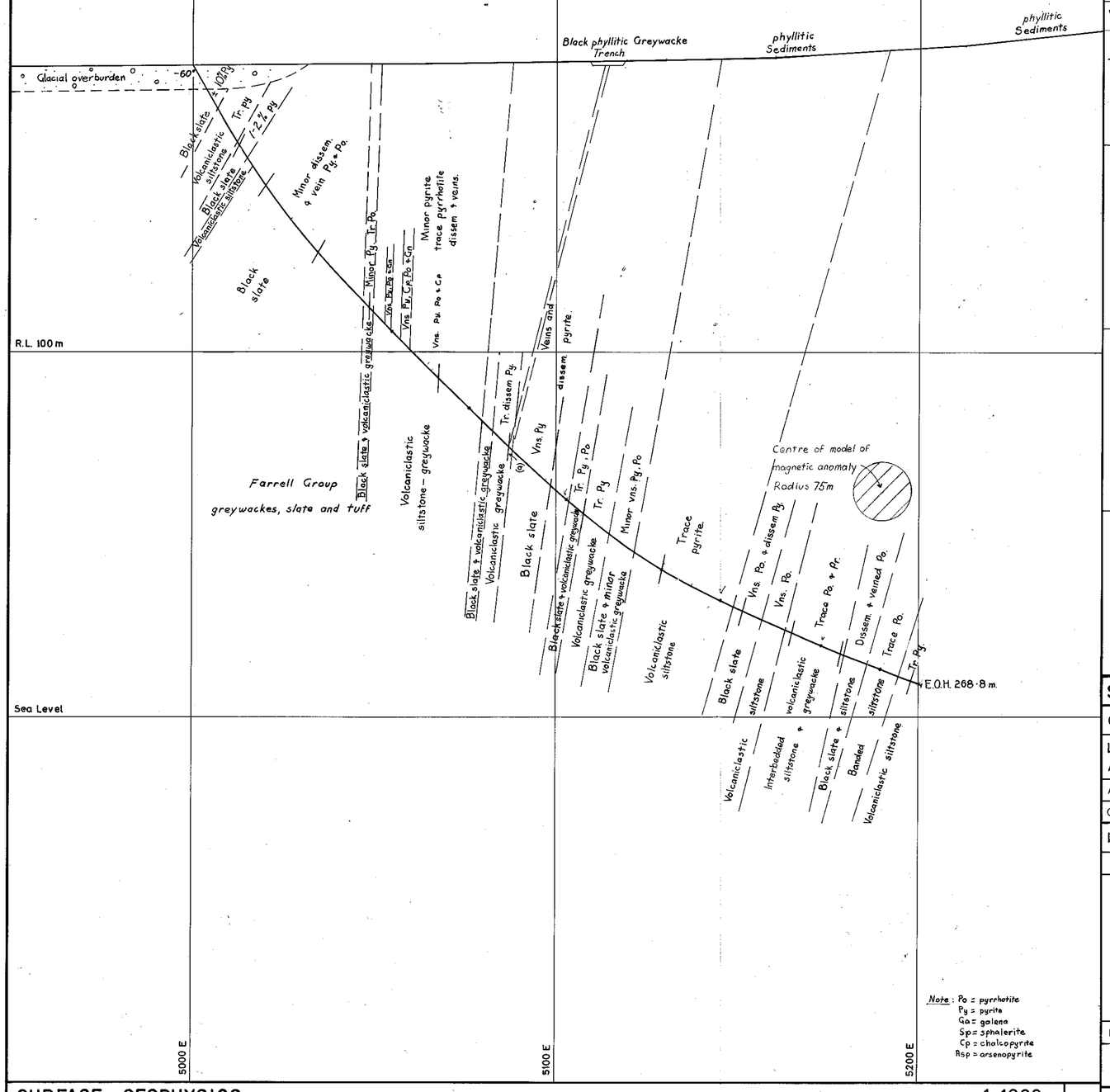
PLAN OF DRILLHOLE LINE 4280 N

SCALE: 1:1000



DRILLHOLE CROSS SECTION 4280 N STERLING VALLEY GRID

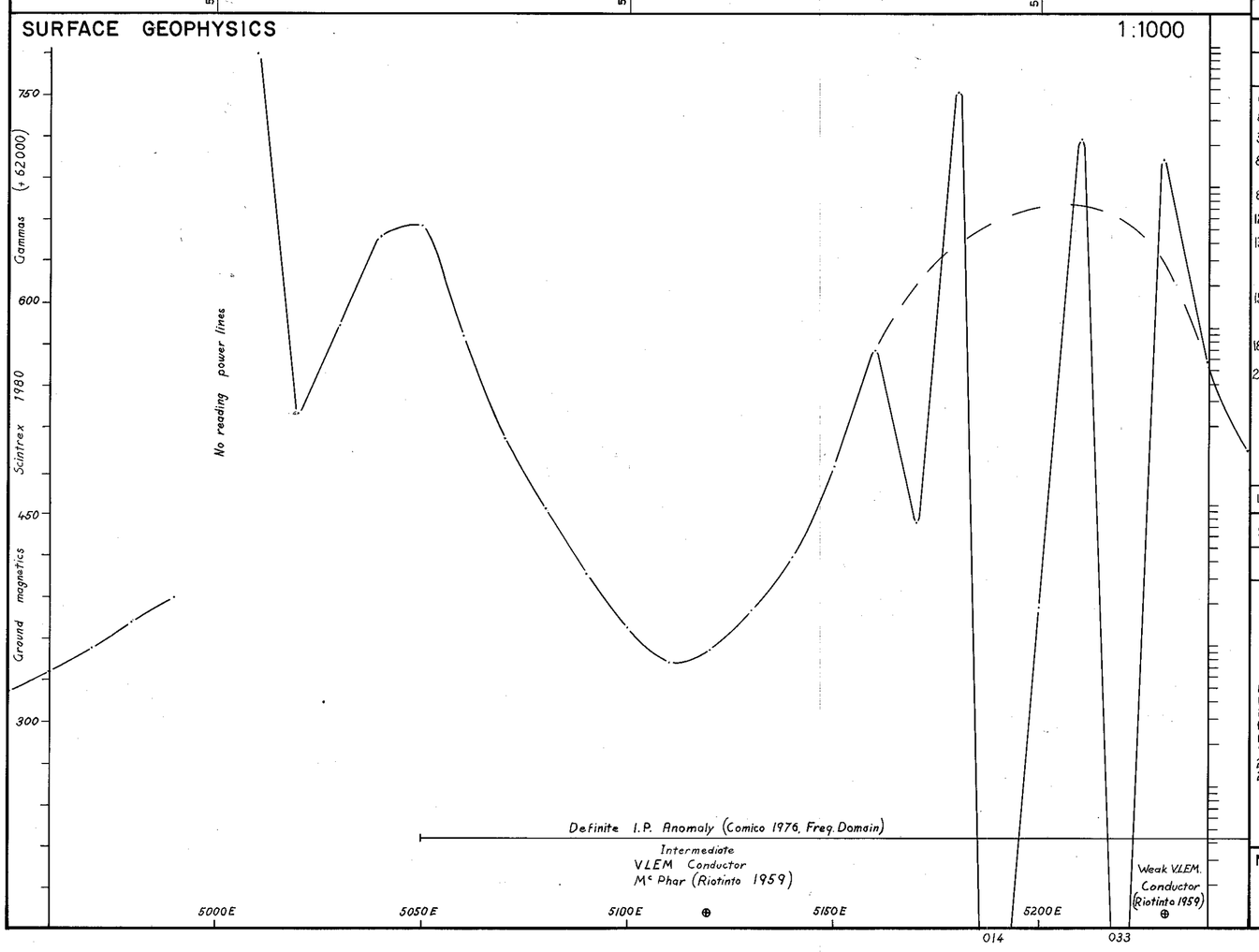
SCALE: 1:1000



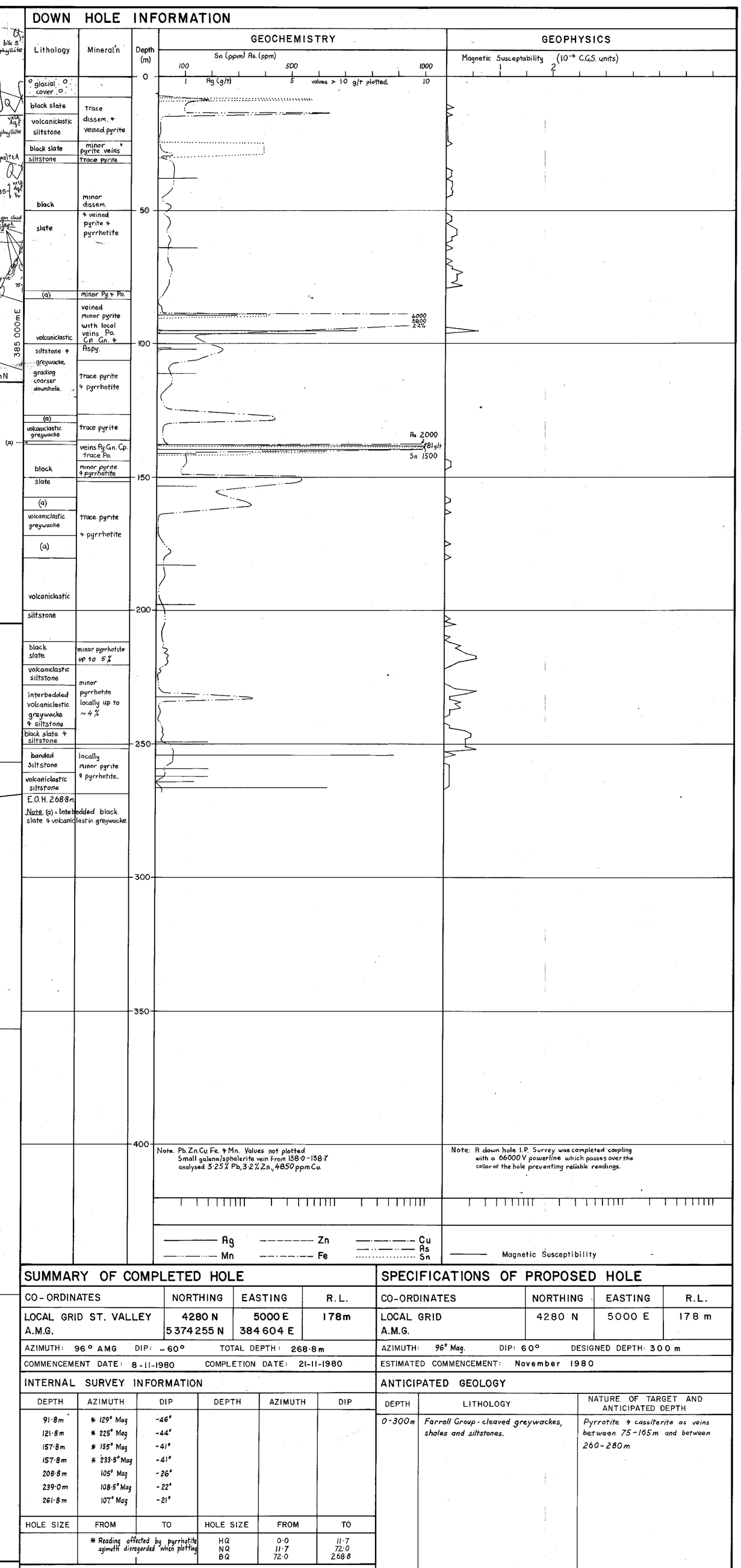
Note: Po = pyrrhotite
Py = pyrite
Ga = galena
Sp = sphalerite
Cp = chalcopyrite
Asp = arsenopyrite

SURFACE GEOPHYSICS

1:1000



DOWN HOLE INFORMATION



SUMMARY OF COMPLETED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID ST. VALLEY	4280 N	5000 E	178m
A.M.G.	5374255 N	384604 E	

AZIMUTH: 96° AMG DIP: -60° TOTAL DEPTH: 268·8m

COMMENCEMENT DATE: 8-11-1980 COMPLETION DATE: 21-11-1980

INTERNAL SURVEY INFORMATION

DEPTH	AZIMUTH	DIP	DEPTH	AZIMUTH	DIP
91·8m	* 129° Mag	-46°			
121·8m	* 225° Mag	-44°			
157·8m	* 135° Mag	-41°			
157·8m	* 233·5° Mag	-41°			
208·8m	105° Mag	-26°			
239·0m	108·5° Mag	-22°			
261·8m	107° Mag	-21°			

HOLE SIZE	FROM	TO	HOLE SIZE	FROM	TO
	* Reading affected by pyrrhotite azimuth disregarded when plotting		HQ	0·0	11·7
			NQ	11·7	72·0
			BQ	72·0	268·8

DRILLED GEOLOGY (SUMMARISED)

DEPTH	LITHOLOGY	MINERALISATION AND SIGNIFICANT ASSAYS
0-8·0	Glacial overburden	
8·0-32·6	Interbedded black & volcaniclastic siltstone	up to 10% vein pyrite & pyrrhotite
32·6-80·7	Black slate	up to 3% vein pyrite & pyrrhotite
80·7-83·1	Interbedded Black slate & volcaniclastic greywacke.	Tr. pyrite & pyrrhotite
83·1-126·4	Volcaniclastic siltstone/greywacke	Tr. pyrite
126·4-137·9	Interbedded greywackes & slate	Tr. pyrite
137·9-157·5	Black slate.	Thin veined & brecciated pyrite with minor galena & chalcopyrite. Up to 10% total sulphides.
157·8-180·3	Interbedded Black slate & volcaniclastic siltstone/greywacke.	Tr. pyrrhotite & pyrite
180·3-211·5	Volcaniclastic siltstone	Tr. pyrite
211·5-268·8	Interbedded volcaniclastic siltstone & black slate.	Up to 5% pyrrhotite in slates Tr pyrite & pyrrhotite elsewere.

LOGGED BY: A.J.M. & J.M. DATE: NOV. 1980

SAMPLE DATA

SAMPLED INTERVAL	SAMPLE NUMBERS	SAMPLE TYPE	ELEMENTS DETERMINED	LAB. METHOD
8·0 - 8·7	38363	Sc	All samples analysed for: Pb. Zn. Cu. Ag. Fe. Mn. As. & Sn.	AAS
8·7 - 13·6	38364	chip		"
13·6 - 13·8	38365	Sc		"
13·8 - 88·1	38366-384	chip		"
88·1 - 90·2	38385-386	Sc		"
90·2 - 94·7	38387	chip		"
94·7 - 97·1	38388-391	Sc		"
97·1 - 106·5	38392	chip		"
106·5 - 108·5	38393-394	Sc		"
108·5 - 136·9	38395-400, 35448	chip		"
136·9 - 144·6	35449, 450, 452-456	Sc		"
144·6 - 157·5	35457-459	chip		"
148·8 - 150·8	35499-500	Split		"
157·5 - 211·5	35460-470	chip		"
211·5 - 222·3	35471-35483	Sc		"
222·3 - 268·8	35484-35498	chip		"

NOTES: Sc = Split core (analysed for Au by AAS)

SPECIFICATIONS OF PROPOSED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID A.M.G.	4280 N	5000 E	178 m

AZIMUTH: 96° Mag. DIP: 60° DESIGNED DEPTH: 300 m

ESTIMATED COMMENCEMENT: November 1980

ANTICIPATED GEOLOGY

DEPTH	LITHOLOGY	NATURE OF TARGET AND ANTICIPATED DEPTH
0-300m	Farrell Group - cleaved greywackes, shales and siltstones.	Pyrrotite & cassiterite as veins between 75-165m and between 260-280m

DESIGNED BY: A.J.M. & J.M. DATE: 5 / 11 / 1980

AIM OF HOLE: To test: a) ground magnetic anomaly
b) I.P. anomaly
c) V.L.E.M. conductors

NOTES:
Grab samples from a trench 15m south of line 4280 assayed up to 950 ppm Sn.
Line 4280 has not been soil sampled.

5 cm

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.

PROJECT: STERLING VALLEY EL 4/73 TAS.

SPECIFICATIONS AND SUMMARY OF RESULTS

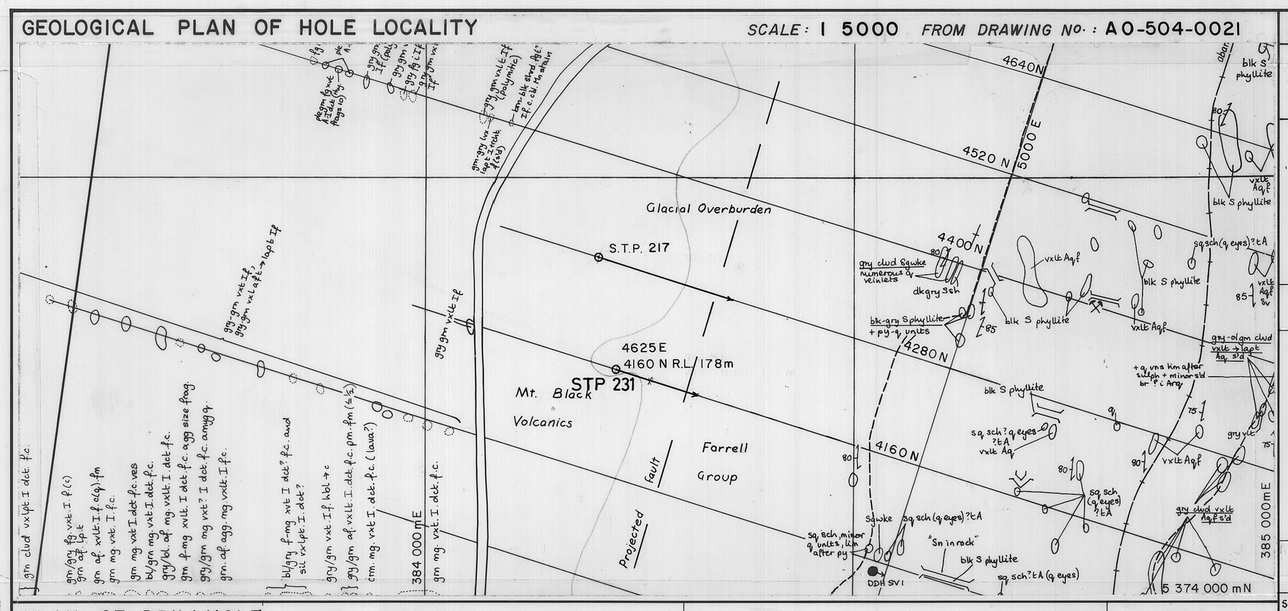
EXPLORATION DIAMOND DRILL HOLE No. S.T.P. 220

SCALE: As shown	Survey: J.H.A.M.	Revised:
Reference:	Date: Nov. 1980	REF. No.
Drawn: R.T.	Checked:	AI 526-0022

TCR 94-3613
EL 4/73
E.Z. CO. GEOPEKO
STERLING RIVER

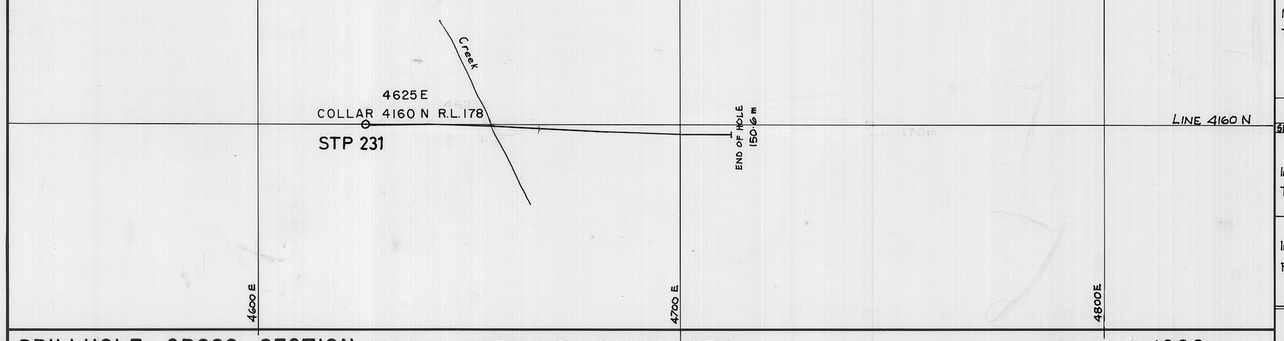
GEOLOGICAL PLAN OF HOLE LOCALITY

SCALE: 1 5000 FROM DRAWING NO.: A0-504-0021



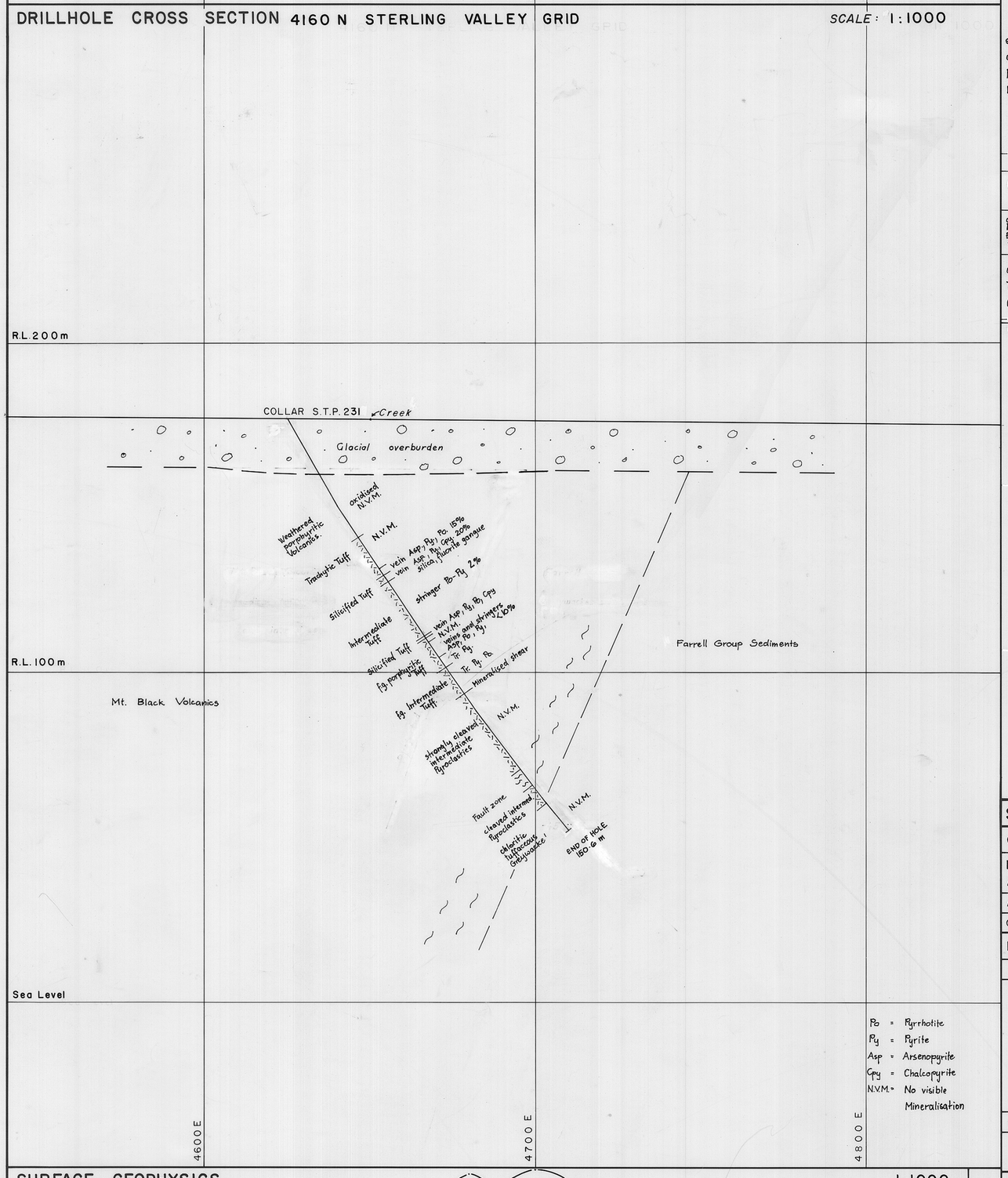
PLAN OF DRILLHOLE LINE 4160 N

SCALE: 1:1000



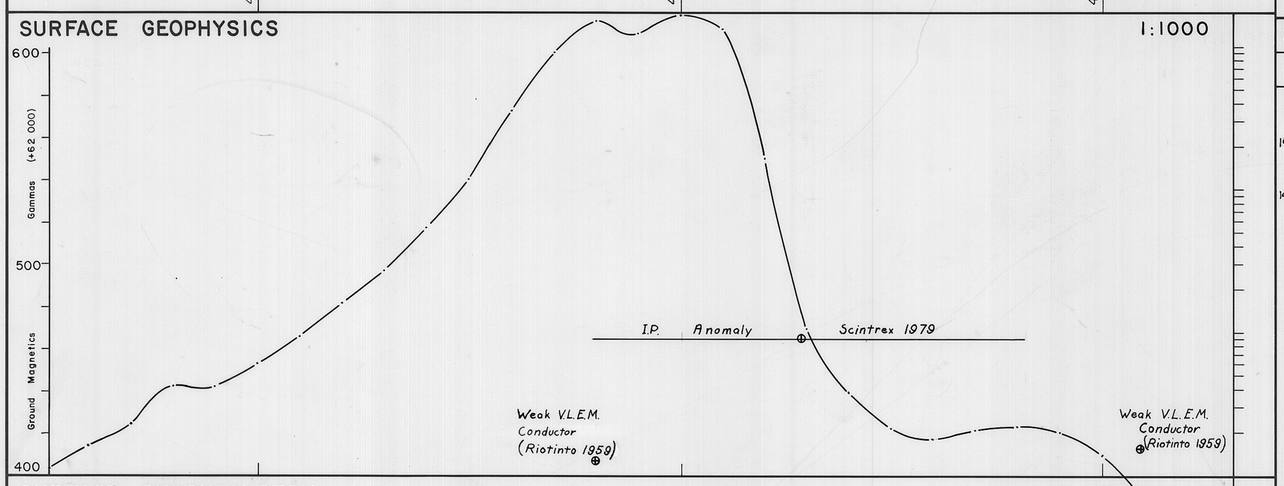
DRILLHOLE CROSS SECTION 4160 N STERLING VALLEY GRID

SCALE: 1:1000



SURFACE GEOPHYSICS

1:1000

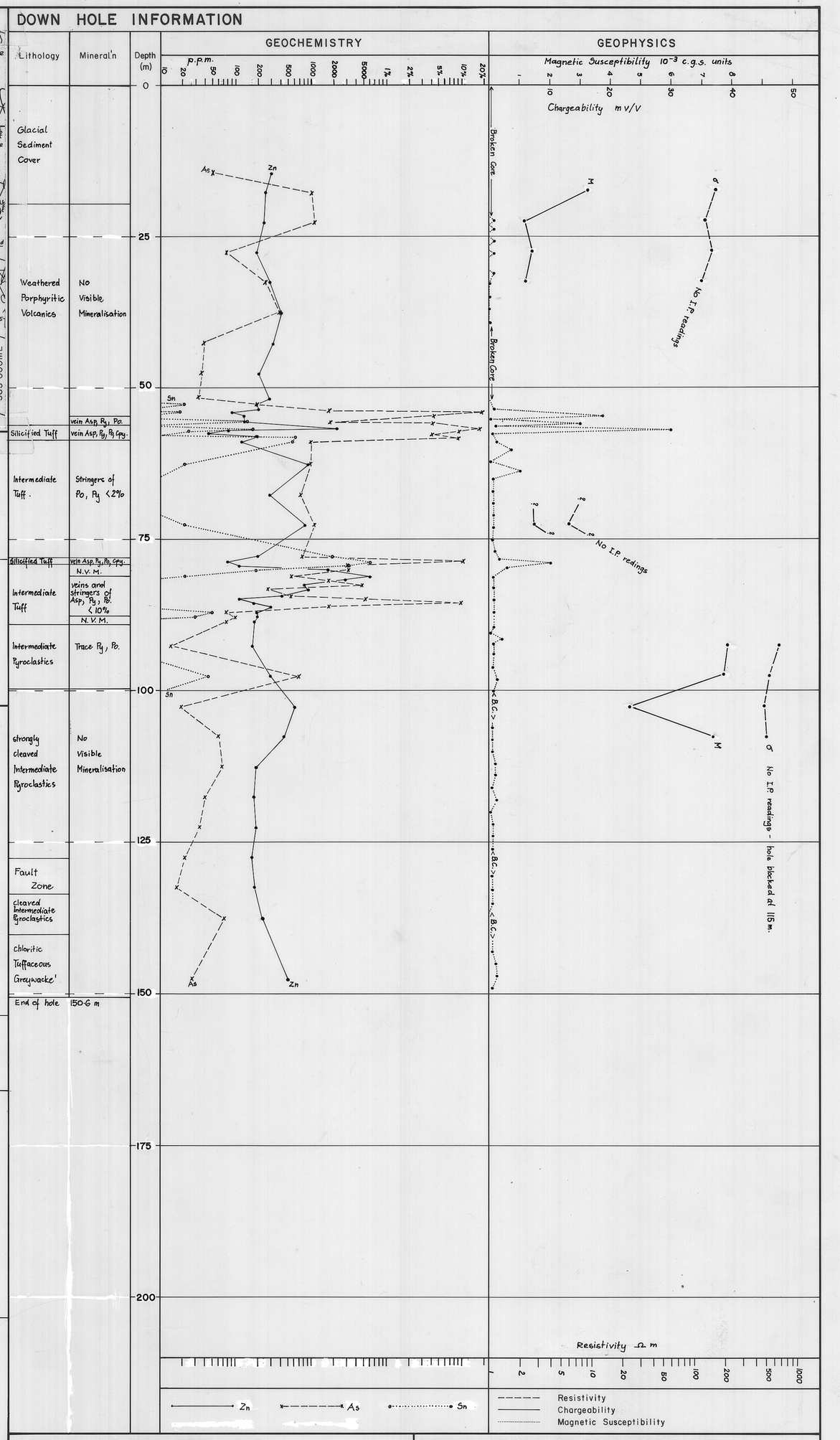


SURFACE GEOCHEMISTRY

GLACIAL COVERED

NO GEOCHEMISTRY

DOWN HOLE INFORMATION



SUMMARY OF COMPLETED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID	4160	4625	176·4
A.M.G.	5,374,266·8	384,216·3	176·4

AZIMUTH: 108° A.M.G. DIP: − 60° TOTAL DEPTH: 150·6

COMMENCEMENT DATE: 24. 5. 1981 COMPLETION DATE: 7. 6. 1981

INTERNAL SURVEY INFORMATION

DEPTH	AZIMUTH	DIP	DEPTH	AZIMUTH	DIP
60 m	110·0° A.M.G.	− 56°			
90 m	111·5°	− 55°			
120 m	110·0°	− 52°			
150 m	109·0°	− 50·5°			

HOLE SIZE	FROM	TO	HOLE SIZE	FROM	TO
HQ	0 m	19 m			
NQ	19·0	54·1			
BQ	54·1	150·6			

DRILLED GEOLOGY (SUMMARISED)

DEPTH	LITHOLOGY	MINERALISATION AND SIGNIFICANT ASSAYS
0 - 19·4	Glacial Overburden	
19·4 - 140·1	Fine to medium grained intermediate Pyroclastics	
140·1 - 150·6	Chloritic Greywacke's	

LOGGED BY: DATE:

SAMPLE DATA

SAMPLED INTERVAL	SAMPLE NUMBERS	SAMPLE TYPE	ELEMENTS DETERMINED	LAB. METHOD
13·3 - 150·6	39379 - 39400	chips and	Pb, Zn, Cu, Ag, Mn, -	A.A.S.
	41851 - 41857	grinds	- Fe, As, Sn.	
52·1 - 59·3	39264 - 39274	split core	Pb, Zn, Cu, Ag, Mn, -	A.A.S.
77·3 - 89·0	39275 - 39289	split core	- Fe, As, Sn, Au.	
55·0	39290		Thin section	
58·1	39291		Thin and polised section	
148·8	39292		Thin section	

NOTES:

SPECIFICATIONS OF PROPOSED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID	4160 N	4625 E	175 m
A.M.G.			

AZIMUTH: 108° DIP: 60° DESIGNED DEPTH: 170 m

ESTIMATED COMMENCEMENT: November 1980

ANTICIPATED GEOLOGY

DEPTH	LITHOLOGY	NATURE OF TARGET AND ANTICIPATED DEPTH
0-88 m	Intermediate lavas, tuffs and minor intrusives of the Mt. Black Volcanics.	88m Henty Fault zone. Possible Sn/Fe mineralization.
88 m	Fault zone	106-137m Pyrrhotite/cassiterite mineralization associated with co-incident ground magnetic and I.P. anomaly.
88-170m	Farrell group: greywackes, shales and siltstones.	

DESIGNED BY: A.J.M. & J.M. DATE: 6-11-1980

AIM OF HOLE: To test a ground magnetic anomaly, I.P. anomaly and Henty fault zone for Sn mineralization

NOTES:

Downhole geophysics:
I.P. readings plotted are for a = 5m electrode spacing

5 cm

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.

PROJECT: TAS.

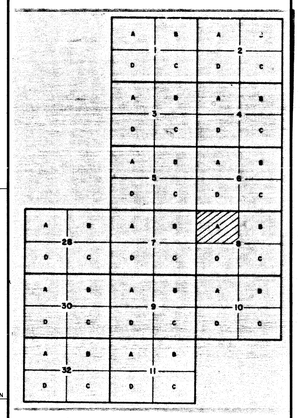
SPECIFICATIONS AND SUMMARY OF RESULTS

EXPLORATION DIAMOND DRILL HOLE No. S.T.P. 231

SCALE: As shown	Survey: J.H.A.M.	Revised:
Reference:	Date: Nov. 1980	REF. No.
Drawn: R.T.	Checked:	A1 526-0023

TCR 94-3613
EL. 4/73
E.Z. CO. GEOPEKO
STERLING RIVER





ELECTROLYTIC ZINC CO. OF A ASIA. LTD.

PROJECT: STERLING VALLEY | TAS.

CUT GRID LINES

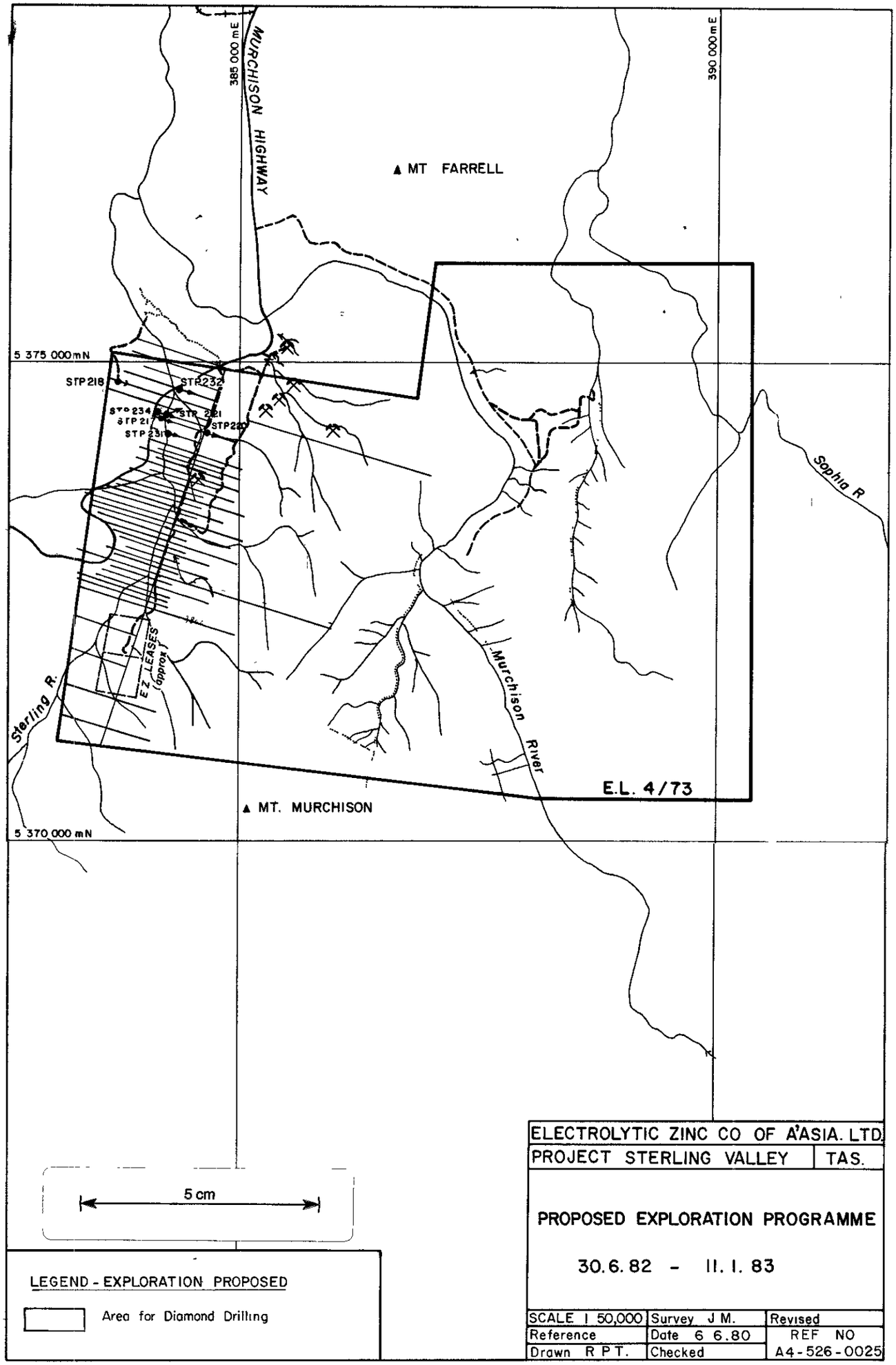
5 cm

SCALE: 1 : 5000	Survey: I. R. M.	Revised:
Reference:	Date: Nov. 1980	REF. NO.
Drawn: R.B.W.	Checked:	AO 526-0024

E.Z. PLAN CABINET TRIM LINE

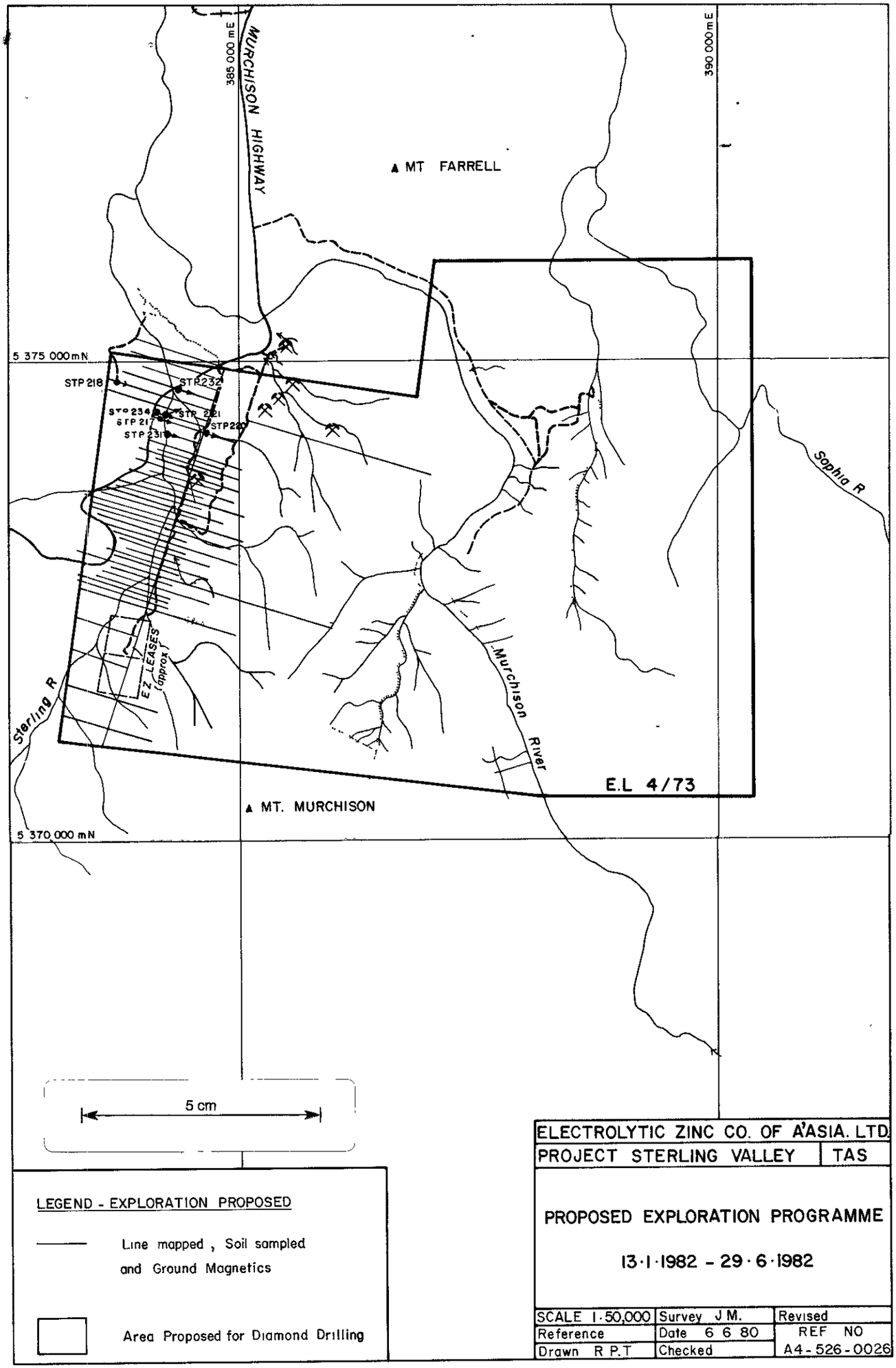
TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER

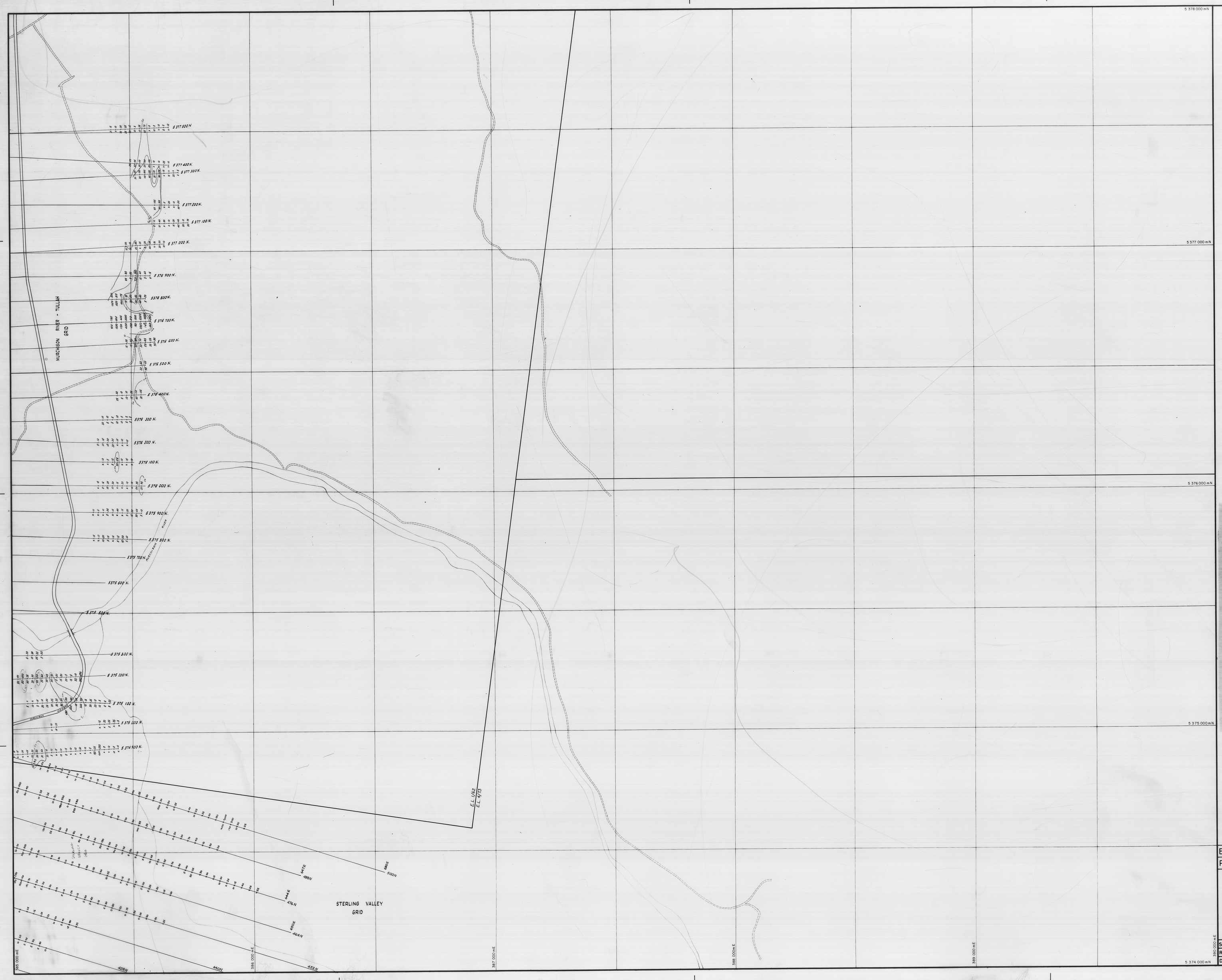
TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER



ELECTROLYTIC ZINC CO OF A'ASIA. LTD.		
PROJECT STERLING VALLEY		TAS.
PROPOSED EXPLORATION PROGRAMME		
30.6.82 - 11.1.83		
SCALE 1 50,000	Survey J M.	Revised
Reference	Date 6 6.80	REF NO
Drawn R P T.	Checked	A4-526-0025

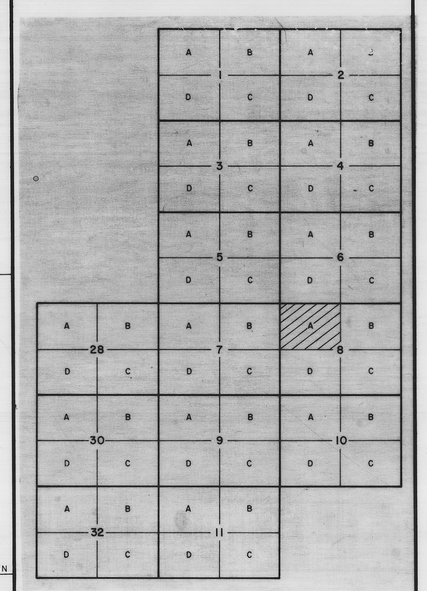
TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER





NOTES:
Refer to sheet 7B Pb/Zn geochemistry.

LEGEND
P.M.I. 1968.
Cominco 1976.
E.Z. 1979.



ELECTROLYTIC ZINC CO. OF A ASIA. LTD.

PROJECT: Sterling Valley J.V. | E.L.4/73

SOIL GEOCHEMISTRY- Pb/Zn

5 cm

SCALE: 1 : 5000	Survey:	Revised:
Reference:	Date:	REF. NO.
Drawn: R.P.T.	Checked:	A0-526-0027

E.Z. PLAN CABINET TRIM LINE

A0 TRIM LINE

TCR 94-3613
EL 4/73
E.Z. CO. GEOPEKO
STERLING RIVER

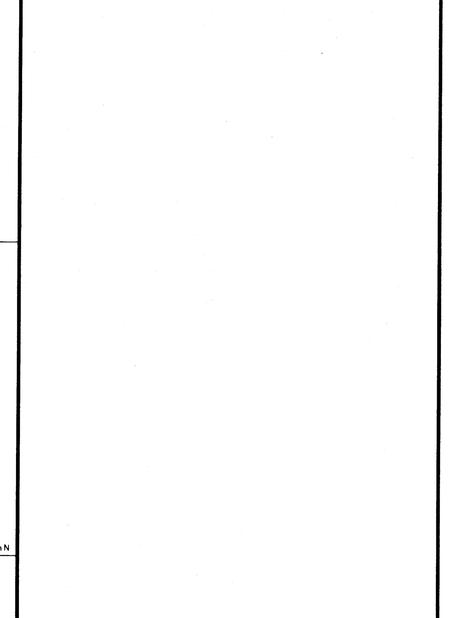
13

MARKESON RIVER - TULLAH GRID

5 377 400 N.
5 377 300 N.
5 377 200 N.
5 377 100 N.
5 377 000 N.
5 376 900 N.
5 376 800 N.
5 376 700 N.
5 376 600 N.
5 376 500 N.
5 376 400 N.
5 376 300 N.
5 376 200 N.
5 376 100 N.
5 376 000 N.
5 375 900 N.
5 375 800 N.
5 375 700 N.
5 375 600 N.
5 375 500 N.
5 375 400 N.
5 375 300 N.
5 375 200 N.
5 375 100 N.
5 375 000 N.
5 374 900 N.

5 378 000 mN
5 377 000 mN
5 376 000 mN
5 375 000 mN
5 374 000 mN

385 000 mE
386 000 mE
387 000 mE
388 000 mE
389 000 mE
390 000 mE



ELECTROLYTIC ZINC CO. OF A'ASIA. LTD.

PROJECT: STERLING VALLEY | TAS.

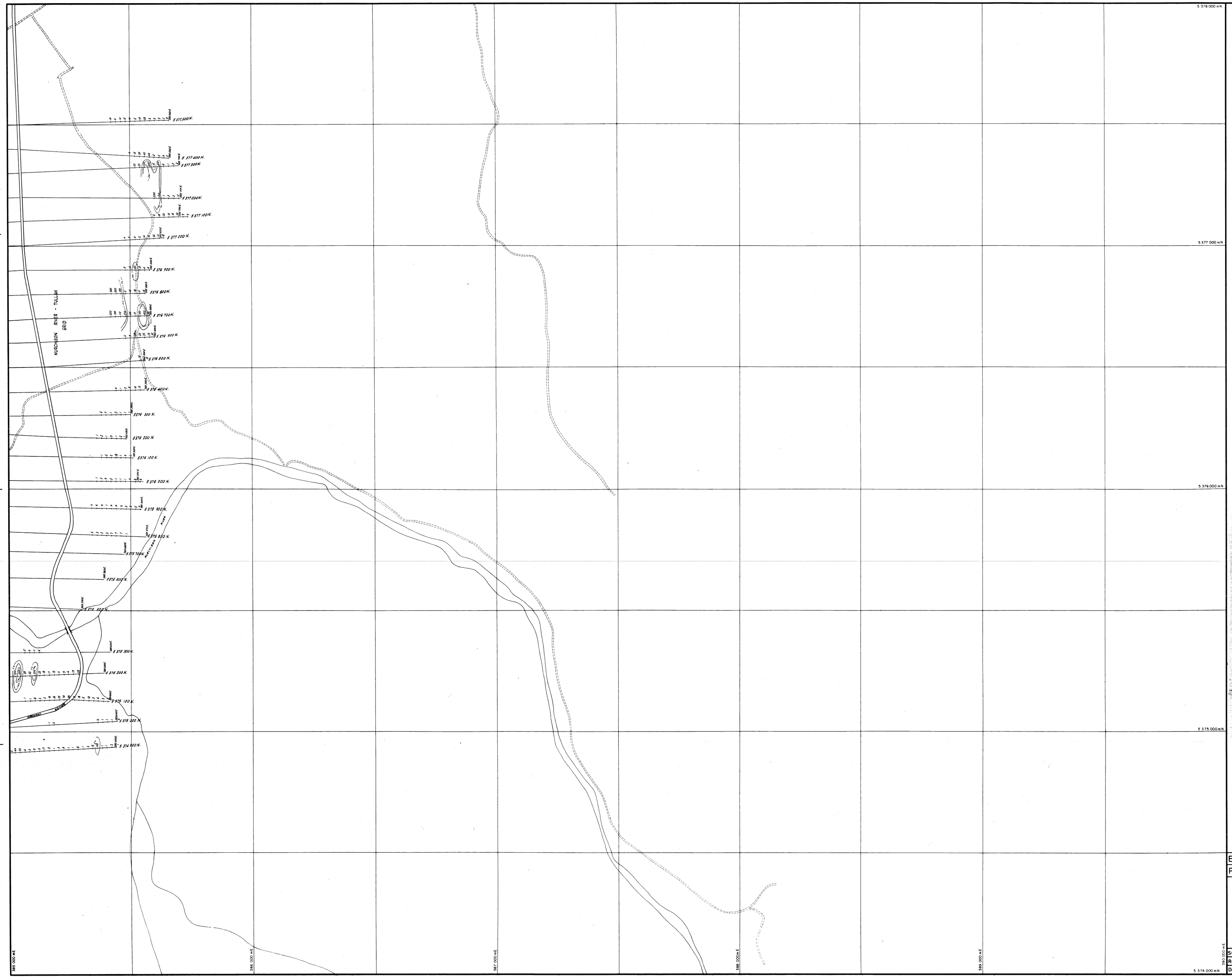
SOIL GEOCHEMISTRY - Sn

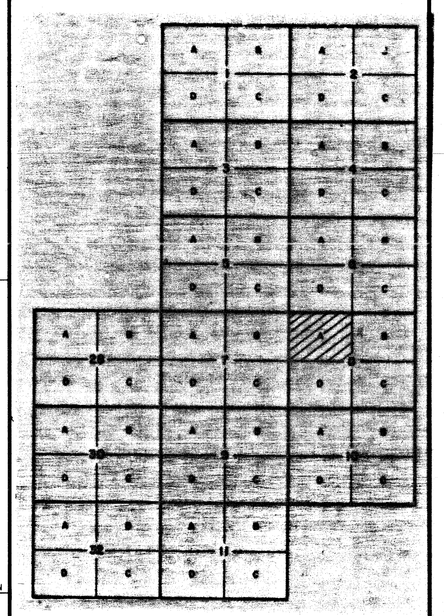
5cm

SCALE: 1 : 5000	Survey: I. R. M.	Revised:
Reference:	Date: Nov. 1980	REF. NO.
Drawn: R.B.W.	Checked:	AO 526 - 0028

TCR 94-3613
EL 4773
E.Z. CO. TASMANIA
STERLING RIVER

E.Z. PLAN CABINET TRIM LINE





ELECTROLYTIC ZINC CO. OF A ASIA. LTD.

PROJECT: STERLING VALLEY | TAS.

SOIL GEOCHEMISTRY - As

5 cm

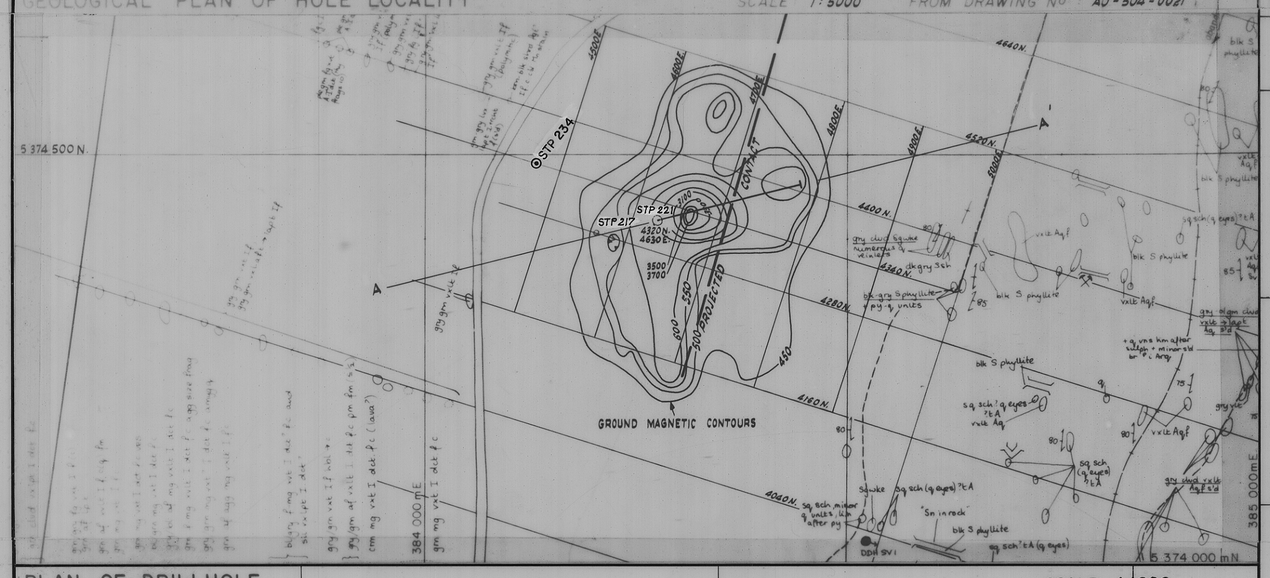
SCALE: 1 : 5000	Survey: I. R. M.	Revised:
Reference:	Date: Nov. 1980	REF. NO.
Drawn: R.B.W.	Checked:	AO 526-0029

E Z PLAN CABINET TRIM LINE

TCR 94-3613
E.Z. CO. GEOPEKO
STERLING RIVER

GEOLOGICAL PLAN OF HOLE LOCALITY

SCALE 1:5000 FROM DRAWING NO: AO-504-0021



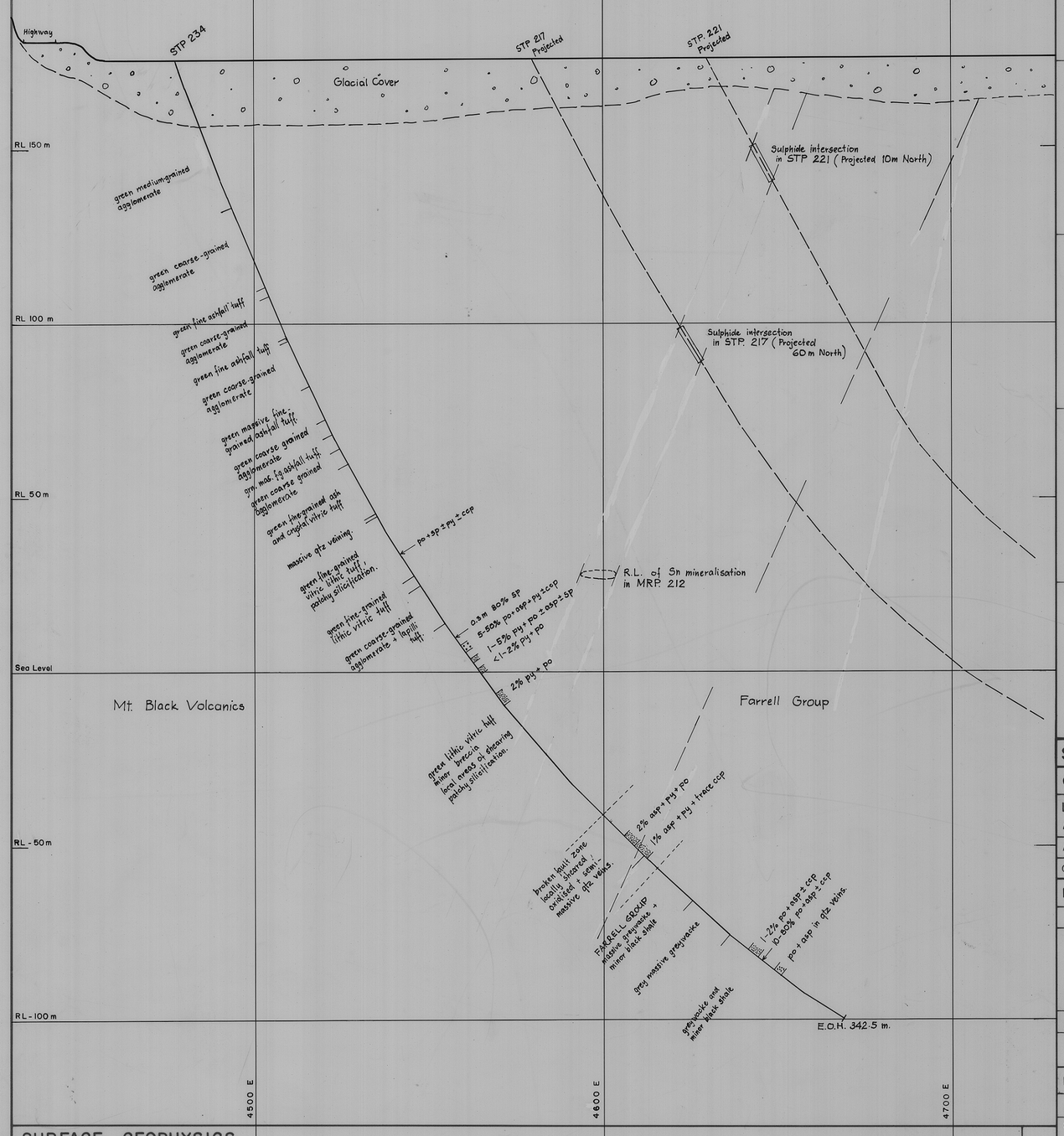
PLAN OF DRILLHOLE

SCALE: 1:1000



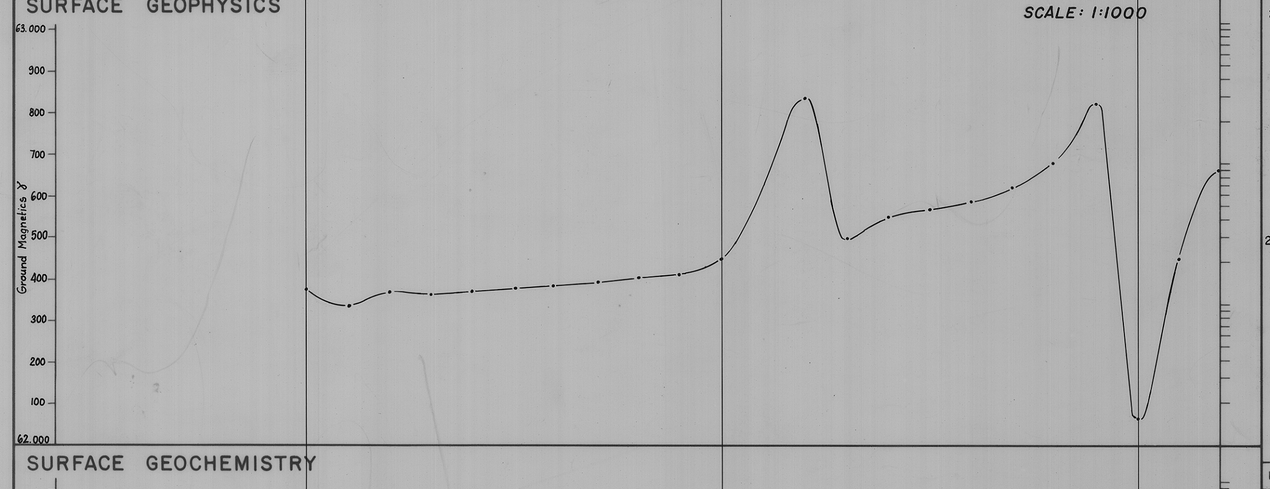
DRILLHOLE CROSS SECTION

SCALE: 1:1000



SURFACE GEOPHYSICS

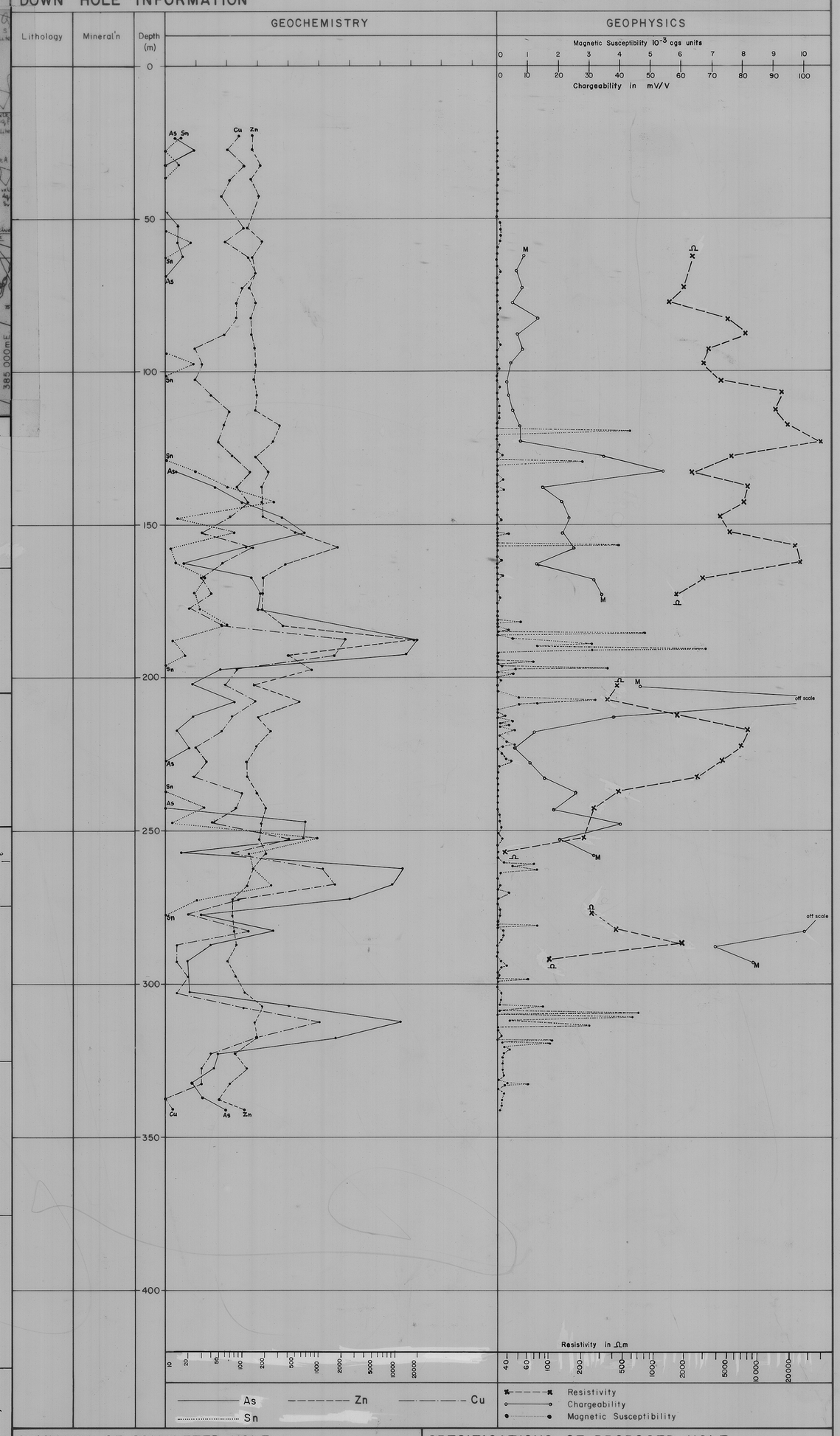
SCALE: 1:1000



SURFACE GEOCHEMISTRY

No Soil Geochemistry — Glacial Covered

DOWN HOLE INFORMATION



SUMMARY OF COMPLETED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID	4340 N	4477 E	176 m
A.M.G.	~~5 374 400 N~~ 5 374 495.1 N	384 413 E 384 126.3 E	173.2

AZIMUTH: 108° AMG DIP: -70° TOTAL DEPTH: 342.5

COMMENCEMENT DATE: 27 AUG. 1981 COMPLETION DATE: 15 SEPT. 1981

INTERNAL SURVEY INFORMATION

DEPTH	AZIMUTH	DIP	DEPTH	AZIMUTH	DIP
72 m	101° AMG	- 67°	222 m	98° AMG	- 49.5°
102	101.5°	- 65°	252	97°	- 45°
132	98°	- 61°	282	98°	- 43°
162	97°	- 58°	312	93.5°	- 38.5°
192	100°	- 54.5	342	96°	- 32°

HOLE SIZE	FROM	TO	HOLE SIZE	FROM	TO
TRICONE	0	20.0	BQ	63.0	342.5
NQ	20.0	63.0			

DRILLED GEOLOGY (SUMMARISED)

DEPTH	LITHOLOGY	DEPTH	MINERALISATION AND SIGNIFICANT ASSAYS
0 - 20	Glacial cover	155.5 - 155.65	po+sp+ minor py+ ccp
20.0 - 267.9	Mt. Black Volcanics Intermediate pyroclastics as follows:	185.2 - 185.5	80% massive sp vein and po stringers Assay 325% Zn
	20.0 - 126.65 Agglomerate with interbeds of fine-grained ashfall tuff:	185.75 - 185.9	2% po + sp
	70.25 - 73.1	187.1 - 187.2	30% stringer po + py
	85.9 - 87.0	188.3 - 189.3	5% stringer po+ py
	101.3 - 111.9	189.3 - 189.6	50% po + asp + minor ccp
	116.4 - 121.25	189.6 - 190.1	5% wisps po + ccp
	126.65 - 166.9 Crystal lithic and lithic tuff	190.1 - 191.4	50% av., 10-80% stringer po(70%)+ py +asp+ minor ccp, Assay: 189.0-191.5: 3.94% As, 0.56% Cu.
	166.9 - 180.2 Agglomerate and lapilli tuff	193.1 - 194.4	1-5% py + po + trace asp+ sp
	180.2 - 267.9 Lithic vitric tuff locally sheared patchy silicification	196.5 - 198.5	<1-2 % py + po
267.9 - 342.5	Farrell Group sediments grey massive volcanilithic greywacke and minor intercalated cleaved black shale.	205.3 - 209.0	2% py + minor po
		260.1 - 264.0	2% (asp+ py) + (po + py)
		264.0 - 268.5	Fault zone 1% max. py+asp+ trace ccp
		309.3 - 311.3	1-2% po + asp + trace py
		312.3 - 312.8	
		313.25 - 313.85	10-80% asp + po + trace ccp
		318.4 - 321.4	Several 1.5 - 5cm qc veins with asp + po

LOGGED BY: ROD SAINTY DATE: 10. 12. 81

SAMPLE DATA

SAMPLED INTERVAL	SAMPLE NUMBERS	SAMPLE TYPE	ELEMENTS DETERMINED	LAB. METHOD
20 - 900	41687 - 41700	grind	Pb Zn Cu Ag Au Fe Mn As Sn	AAS
90 - 342.5	45801 - 45851	grind	"	
185.20 - 185.5	48414	split	Pb Zn Cu Ag Fe Mn As Sn	
188.3 - 191.5	48415 - 48418	split	"	
252.0 - 254.1	48423, 48424	split	"	
260.0 - 264.0	48419 - 48422	split	"	
309.3 - 311.3	48425, 48426	split	"	
313.25 - 313.85	48427	split	"	
117.8	48429			
128.5	48431	petrographic examination		
130.4	48430			

NOTES:

SPECIFICATIONS OF PROPOSED HOLE

CO-ORDINATES	NORTHING	EASTING	R.L.
LOCAL GRID	4340 N	4477 E	176 m
A.M.G.			

AZIMUTH 108° AMG DIP: -70° DESIGNED DEPTH: 350 m

ESTIMATED COMMENCEMENT: 27. AUG. 1981

ANTICIPATED GEOLOGY

DEPTH	LITHOLOGY	DEPTH	NATURE OF TARGET AND ANTICIPATED DEPTH
0 - 15	Glacial Till	210-220	Massive and stringer sulphides Po, Py, Asp, Cpy with associated fluorie and cassiterite
15 - 305	Intermediate Volcanics, mainly pyroclastics showing variable silicification and chloritization.		
305	Contact Zone		
305-350	Graywacke and Siltstone		

DESIGNED BY: Ian McDonald DATE: 10. 8. 1981

AIM OF HOLE:

To follow up massive sulphide mineralization in STP 221 associated with a strong magnetic anomaly.

NOTES:

5 cm

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.

PROJECT: TAS.

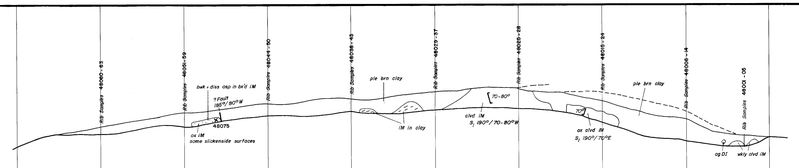
SPECIFICATIONS AND SUMMARY OF RESULTS

EXPLORATION DIAMOND DRILL HOLE No. STP 234

SCALE: As shown	Survey: I. McD.	Revised:
Reference:	Date: 12. 1. 1982	REF. No. A1-526-0030
Drawn: Niko	Checked:	

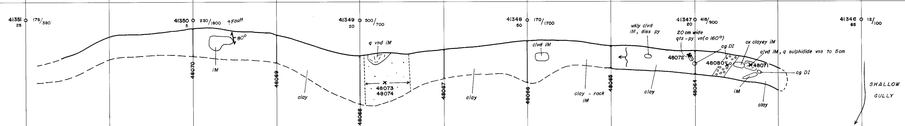
TCR 94-3613
EL 4/73
E.Z. CO. GEOPEKO
STERLING RIVER

COSTEAN GEOLOGY



SECTION OF COSTEAN

Looking South



PLAN OF COSTEAN

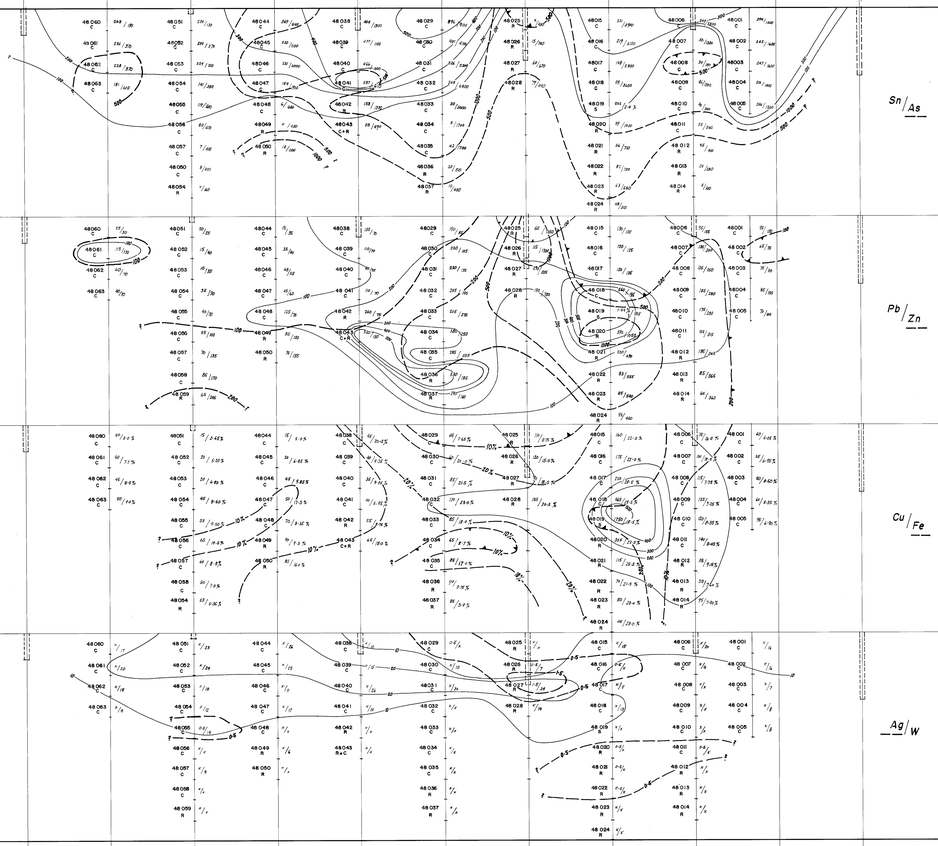
ROCK SAMPLES

Sample No.	Description	Assays								
		Pb (ppm)	Zn (ppm)	Cu (ppm)	Fe (%)	Mn (ppm)	Ag (ppm)	As (%)	Sn (ppm)XRF	W (ppm)XRF
48071	Massive silica/sulphide vein in mafics adjacent to diorite.	560	190	5300	7·15	300	18	16·0	1·12 %	x
48072	Quartz vein with stringer and dissem. py in mafics.	45	95	1800	0·87	270	4	0·355	541	x
48073	Sulphide veins in mafics.	110	65	2·51 %	26·5	85	25	10·5	6720	x
48074	Quartz vein with dissem. py + osp	5	55	280	5·05	730	x	0·1	86	x
48075	Mafics with dissem. py + ?osp.	60	25	180	6·75	145	1·5	6·0	1·25 %	x
48080	Unmineralized diorite.	45	90	45	4·35	655	0·5	450 ppm	26	x

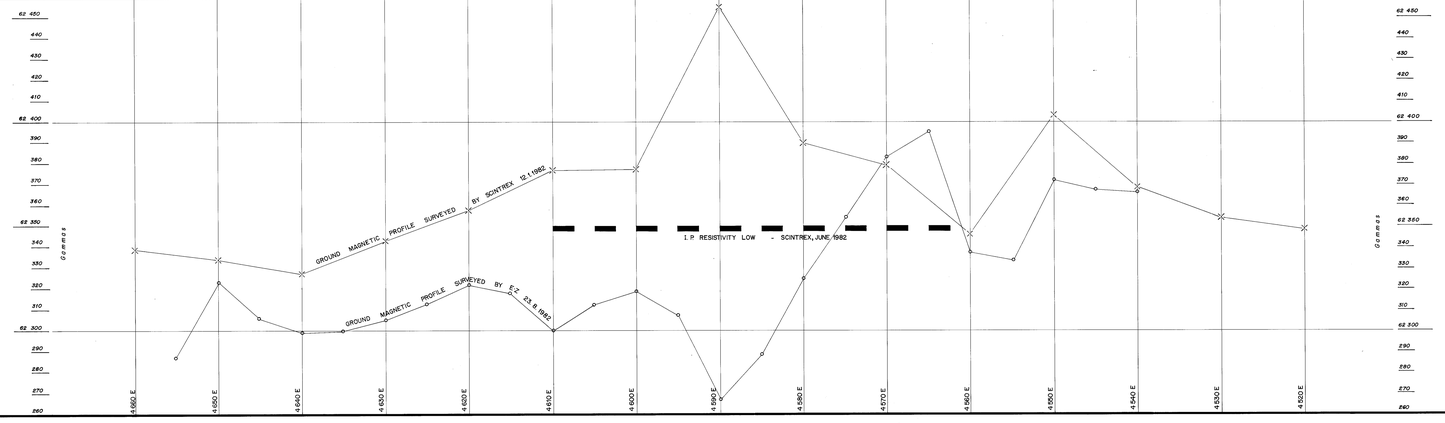
FLOOR SAMPLES

Sample No.		Assays								
		Pb (ppm)	Zn (ppm)	Cu (ppm)	Fe (%)	Mn (ppm)	Ag (ppm)	As (ppm)	Sn (ppm)XRF	W (ppm)XRF
48064		90	320	100	6·50	2200	1·0	420	18	x
48065		105	600	155	21·50	3700	1·0	3550	577	x
48066		35	925	90	12·50	2·85 %	x	660	x	x
48067		370	560	100	19·00	3750	0·5	580	104	6
48068		60	55	25	3·55	415	x	240	x	x
48069		115	175	200	9·55	3100	0·5	410	625	4
48070		35	365	30	20·00	2850	1·0	130	51	14

COSTEAN GEOCHEMISTRY



COSTEAN GEOPHYSICS



LEGEND

RIB SAMPLES — Auger hole shown; Sample No. R = Rock, C = Clay, S = Soil; 20 cm

ROCK SAMPLES — Sample No. ×

FLOOR SAMPLES — Sample No.

SOIL AUGER SAMPLES — Sample No. / Depth (cm) — Sn (ppm) AAS / As (ppm) AAS

GEOLOGY
IM – Mafic (basaltic intrusive)
DI – Diorite

5 cm

ELECTROLYTIC ZINC CO. OF A'ASIA LTD.

PROJECT: STERLING VALLEY | TAS.

LINE 3260 COSTEAN

GEOLOGY, GEOCHEMISTRY, GEOPHYSICS

SUMMARY PLAN

Scale : 1:250	Survey : R.A.S., I.M^cD.	Revised :	
Reference :	Date : Aug. 1982	Ref. No.	AO-526-0032
Drawn : Nik	Checked :		

TCR 94-3613
EL 4/1973
DOOKS
STERLING RIVER

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER

Trimline AO for reports

A0-526-0033

AREA OF ARSENIC POTENTIAL
HENTY FAULT ZONE

PROJECT: STERLING VALLEY

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

Compiled: I.McD. Date: 19-3-'84 Scale: 1:10,000
AMG: Latitude: Longitude:
Drawn: R.J.R. File No: PLAN NO: A0-526-0033

SCALE 0 200 400 600 800 1000m (5cm)

1:250000 SHEET

—LEGEND—

Zones of >1% As Mineralisation.

PLEISTOCENE — Glacial and Fluviglacial Scree Cover.

ORDOVICIAN — OWEN CONGLOMERATE — Quartz cobble, conglomerates and quartzites.

Unconformity

TYNDAL GROUP — Cleaved felsic tuffs and m-cg volcaniclastic sediments, unclear relationships; seen only in Fault-bounded slices.

MT. BLACK VOLCANICS — Intermediate lavas, ashflows and agglomerates. Seen only West of the Henty Fault Zone.

? — Basaltic intrusive or possible lava flow. Probable unit of the Mt. Black Volcanics but could be younger intrusive.

CAMBRIAN — FARRELL SLATES — Strongly cleaved black mudstones; tuffaceous wackes and interbedded felsic tuffs. Western contact is everywhere faulted except perhaps North of Tullah. Eastern contact is normal sedimentery contact on tuffs of the Eastern Volcanics.

EASTERN VOLCANICS — Quartz-phyric felsic lavas and ashflows. Tuffaceous units to the West grade into the Farrell Slates.

MURCHISON GRANITE — Includes some minor porphyritic felsic intrusives.

PRE-CAMBRIAN — TYENNAN NUCLEUS — Quartzites and minor pelites.

? — STERLING VALLEY GRANITES — Dyke like Granitic intrusives. Possible Cambrian Murchison granite equivalent or possible Devonian granite equivalent.

Geological Contact.

Fault.

Mine or Mineral Occurrence.

STP231 Diamond Drill Hole.

Costean.

E.L. or Lease Boundary.

Area Covered by H.E.C. Lakes.

H.E.C. Power Lines.

Highway.

Tracks.

Boundary of the S.W. Conservation Area and Scenic Reserves.

AREA OF ARSENIC POTENTIAL
HENTY FAULT ZONE

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT: STERLING VALLEY

Compiled: I.McD. Date: 16-5-86 Scale: 1:10,000
AMG: Latitude: Longitude:
Drawn: R.J.R. File No: PLAN NO: AO-526-0055

1:250000 SHEET

SCALE 0 200 400 600 800 1000 metres

5cm

-LEGEND-

- Zones of >1% As Mineralisation.
- PLEISTOCENE — Glacial and Fluviglacial Scree Cover.
- ORDOVICIAN — OWEN CONGLOMERATE — Quartz cobble, conglomerates, quartzites.
- CAMBRIAN — MT. BLACK VOLCANICS — Intermediate lavas, ashflows and agglomerates. Seen only West of the Henty Fault Zone.
  - Basaltic unit. Always strongly altered and sheared. Seen only adjacent to the Henty Fault. Probable unit within the Mt. Black Volcanics.
  - Intravolcanic Sediment and epiclastic horizons. Frequently sheared, brecciated and mineralised.
  - Dolerite ? dykes or ? sills.
- CAMBRIAN — FARRELL SLATES — Strongly cleaved black mudstones; tuffaceous wackes and interbedded felsic tuffs. Western contact is everywhere faulted except perhaps North of Tullah. Eastern contact is normal sedimentary contact on tuffs of the Eastern Volcanics.
- EASTERN VOLCANICS — Quartz-phyric felsic lavas and ashflows. Tuffaceous units to the West grade into the Farrell Slates.
- MURCHISON GRANITE — Includes some minor porphyritic felsic intrusives.
- PRE-CAMBRIAN — TYENNAN NUCLEUS — Quartzites and minor pelites.

- Geological Contact.
- Fault.
- Mine or Mineral Occurance.
- STP 231 — Diamond Drill Hole.
- Costean.
- E.L. or Lease Boundary.
- Area Covered by H.E.C. Lakes.
- H.E.C. Power Lines.
- Highway.
- Tracks.
- Boundary of the S.W. Conservation Area and Scenic Reserves.

E.L. 5/63
E.L. 1/62
E.L. 2/70
E.L. 2/78
E.L. 4/73
E.L. 42/83
S.W. CONSERVATION AREA
LAKE ROSEBERY
LAKE MACKINTOSH
LAKE HERBERT
LAKE MURCHISON
TULLAH
STERLING VALLEY
H.E.C. POWER LINE
HENTY FAULT ZONE
MURCHISON RIVER
STERLING RIVER
SCENIC RESERVE
HIGHWAY
Photo Lineament
S.W. CONSERVATION AREA BOUNDARY FOLLOWS STERLING RIVER
MURCHISON DAM
FARRELL BLOCKS
NEW NORTH MOUNT FARRELL
FARRELL MINING LEASES
NORTH MOUNT FARRELL
MT. FARRELL NORTH
MT. FARRELL SOUTH
DUTTON'S WORKINGS
CENTRAL
MURCHISON EXTENDED
SOUTH MURCHISON MINING CO.
MURCHISON MINE
SECTION 2830-2911
SOUTH MURCHISON
THOMAS
COLLINS
OSBORNE COPPER BLOCKS
GREEN & KINGS
THOMAS BLOCKS
FINDLAY & DONOGHUE
DONOGHUE'S
MIDSON'S
MACE'S
TURLEY'S
KITSON'S SECTION
KITSON'S WORKINGS
SECTION 2865M
WOOLVEN SECTION
SYMMONDS & RICE'S
SECTION 3340-95M
STERLING VALLEY LEASES
TP 135, MP 86, MP 87, TP 134, TP 133, MP 70, MP 88, MP 46, MP 71, MP 33, MP 35, MP 37, MP 38, MP 43, MP 89, MP 32, MP 28, MP 29, MP 30, MRP 227, MRP 226, MRP 233, MRP 212, MRP 219, STP 218, STP 232A, STP 234, STP 233, STP 284, STP 217, STP 231, STP 220, SV 1, STP 283, SV 3, SV 2, STP 105, STP 101, STP 100, STP 80, STP 75, STP 74, STP 96, STP 98, STP 76, STP 77, STP 78, STP 79

AO-526-0055

TCR 94-3613
EL 4/73
E.Z. CO, GROPEKO
STERLING RIVER

Trimble AO for reports

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER

20

Trimline A2 for reports

A2-526-0034

384,100mE | 384,200mE | 384,300mE | 384,400mE

5,374,600mN

5,374,500mN

5,374,400mN

5,374,300mN

5,374,200mN

5,374,100mN

STP 234
A North 2·3m at 3·94% As R.L. 4m
B North 1·9m at 4·35% As R.L. -49m
D North 0·6m at 9·00% As R.L. -84m
70°?
Zone A - North
Zone B - North
70°
HENTY FAULT ZONE
Zone D - North
CROSS FAULT
MT. BLACK VOLCANICS
STP 221
A Central 4·9m at 6·15% As R.L. 142m
B Central 0·8m at 1·3% As R.L. 75m
D Central 0·9m at 1·00% As R.L. 40m
Zone D - Central
STP 217
A Central 3·1m at 6·45% As R.L. 88m
A Central 0·8m at 1·80% As R.L. 95m
B Central 2·6m at 2·80% As R.L. 42m
Zone B - Central
Zone A - Central
78°
FARRELL SLATES
CROSS FAULT
STP 231
C South 3·7m at 5·91% As R.L. 128m
A South 0·4m at 9·80% As R.L. 110m
A South 0·25m at 9·00% As R.L. 104m
Zone C - South
Zone A - South
70°?
70°
HENTY FAULT ZONE
Projection Line of Longitudinal Section

1:250000 SHEET

5 cm

SCALE

0 10 20 30 40 50 60 70 80 90 100m

E·Z

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT: STERLING VALLEY J.V. - E.L. 4/73

STERLING RIVER ORE ZONES

Intersection Summary
and
Projection of Zones to 100m R.L.

Compiled: I. Mc D.	Date: 24-5-'84	Scale: 1:1000
AMG:	Latitude:	Longitude:
Drawn: R.J.R.	File No:	PLAN NO: A2-526-0034

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER

21

A2-526-0034 Mk.2

384,100mE | 384,200mE | 384,300mE | 384,400mE

5,374,600mN | 5,374,500mN | 5,374,400mN | 5,374,300mN | 5,374,200mN | 5,374,100mN

FARRELL SLATES

MT. BLACK VOLCANICS

STP 234
2·3m at 3·94% As R.L. 4m
1·9m at 4·35% As R.L. −49m
0·6m at 9·00% As R.L. −84m

STP 221
4·9m at 6·15% As R.L. 142m
0·5m at 1·3% As R.L. 75m
0·9m at 1·00% As R.L. 40m

STP 217
0·8m at 1·80% As R.L. 95m
3·1m at 6·45% As R.L. 88m
2·6m at 2·80% As R.L. 42m
1·0m @ 1·01g/t Au R.L. −9m

STP 231
3·7m at 5·91% As R.L. 128m
0·4m at 9·80% As R.L. 110m
0·25m at 9·00% As R.L. 104m

Projection Line of Longitudinal Section

1:250 000 SHEET

5 cm

SCALE
0 10 20 30 40 50 60 70 80 90 100m

EZ
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT: STERLING VALLEY J.V. - E.L. 4/73

STERLING RIVER ORE ZONES

Intersection Summary
and
Projection of Zones to 100m R.L.

Compiled: I. Mc D.	Date: 16-5-'86	Scale: 1:1000
AMG:	Latitude:	Longitude:
Drawn: R.J.R.	File No:	PLAN NO:

A2-526-0034MKR

A2-526-0035

GROUND SURFACE

BASE OF GLACIAL COVER

R.L.150m

R.L.100m

R.L.50m

R.L.00 (Sea Level)

R.L.-50m

R.L.-100m

R.L.-150m

ZONE A – Central

221 A
4·9m at 6·15% As

ZONE A – South

ZONE C – South

231 C
3·7m at 5·91% As

0·4m at 9·80% As

231 A
0·25m at 9·00% As

ZONE B – Central

0·8m at 1·80% As

217 A
3·1m at 6·45% As

ZONE D – Central

221 B
0·8m at 1·30% As

ZONE A – North

221 D
0·9m at 1·00% As

217 B
2·8m at 2·80% As

234 A
2·3m at 3·94% As

ZONE B – North

ZONE D – North

234 B
1·9m at 4·35% As

234 D
0·6m at 9·00% As

1: 250000 SHEET

SCALE
0 10 20 30 40 50 60 70 80 90 100m

5 cm

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT: **STERLING VALLEY J.V. – E.L. 4/73**

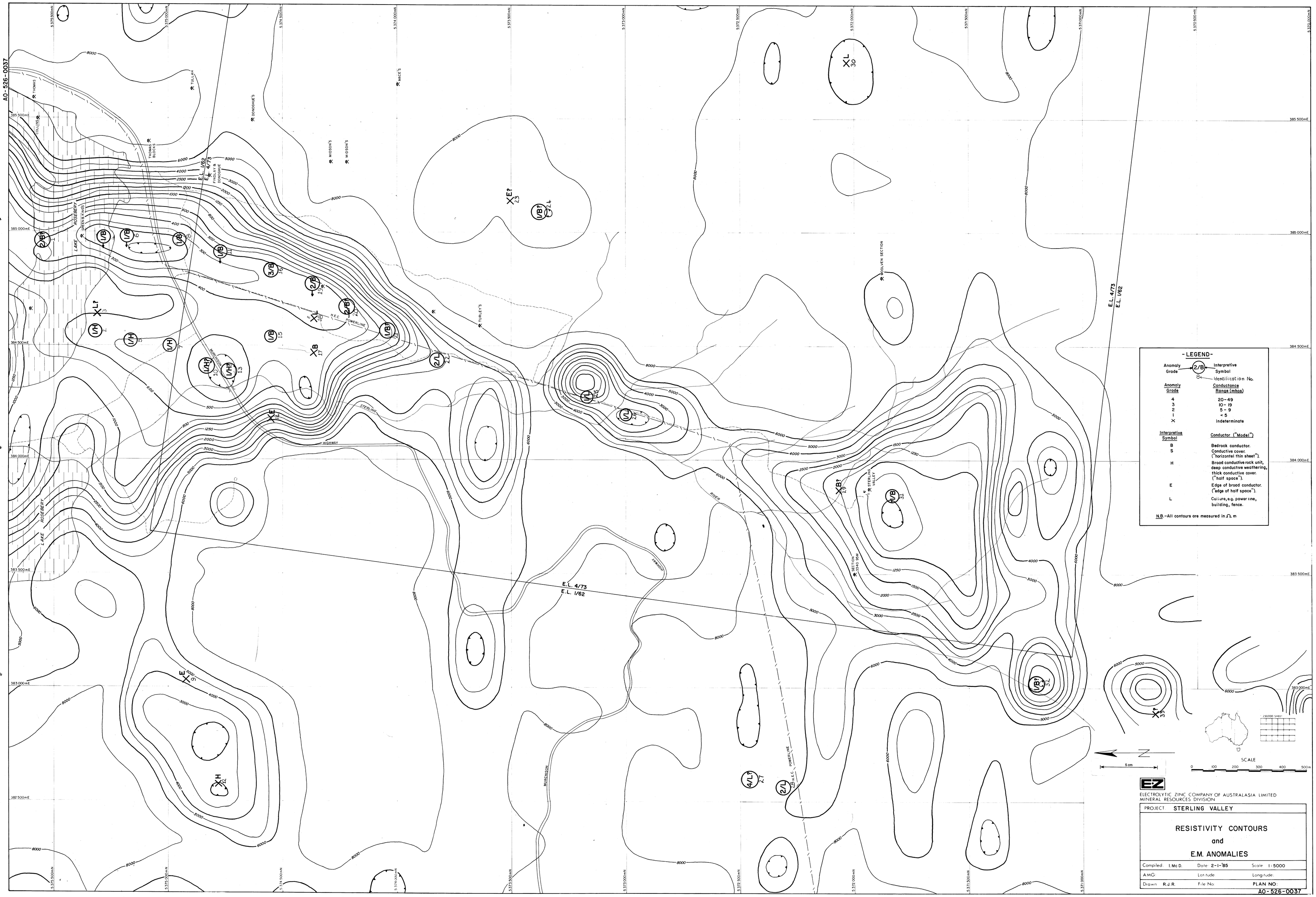
STERLING RIVER ORE ZONES

Longitudinal Projection

Compiled: **I.Mc D.**	Date: **24-5-'84**	Scale: **1:1000**
AMG:	Latitude:	Longitude:
Drawn: **R.J.R.**	File No:	**PLAN NO: A2-526-0035**

TCR 94-3613
EL 4/73
E.Z. CO. GEOPEKO
STERLING RIVER

Trimline A2 for reports



-LEGEND-

Anomaly Grade → 2/B ← Interpretive Symbol

8 ← Identification No.

Anomaly Grade	Conductance Range (mhos)
4	20-49
3	10-19
2	5-9
1	< 5
X	Indeterminate

Interpretive Symbol	Conductor ("Model")
B	Bedrock conductor.
S	Conductive cover. ("horizontal thin sheet").
H	Broad conductive rock unit, deep conductive weathering, thick conductive cover. ("half space").
E	Edge of broad conductor. ("edge of half space").
L	Culture, e.g. power line, building, fence.

N.B.-All contours are measured in Ω m

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

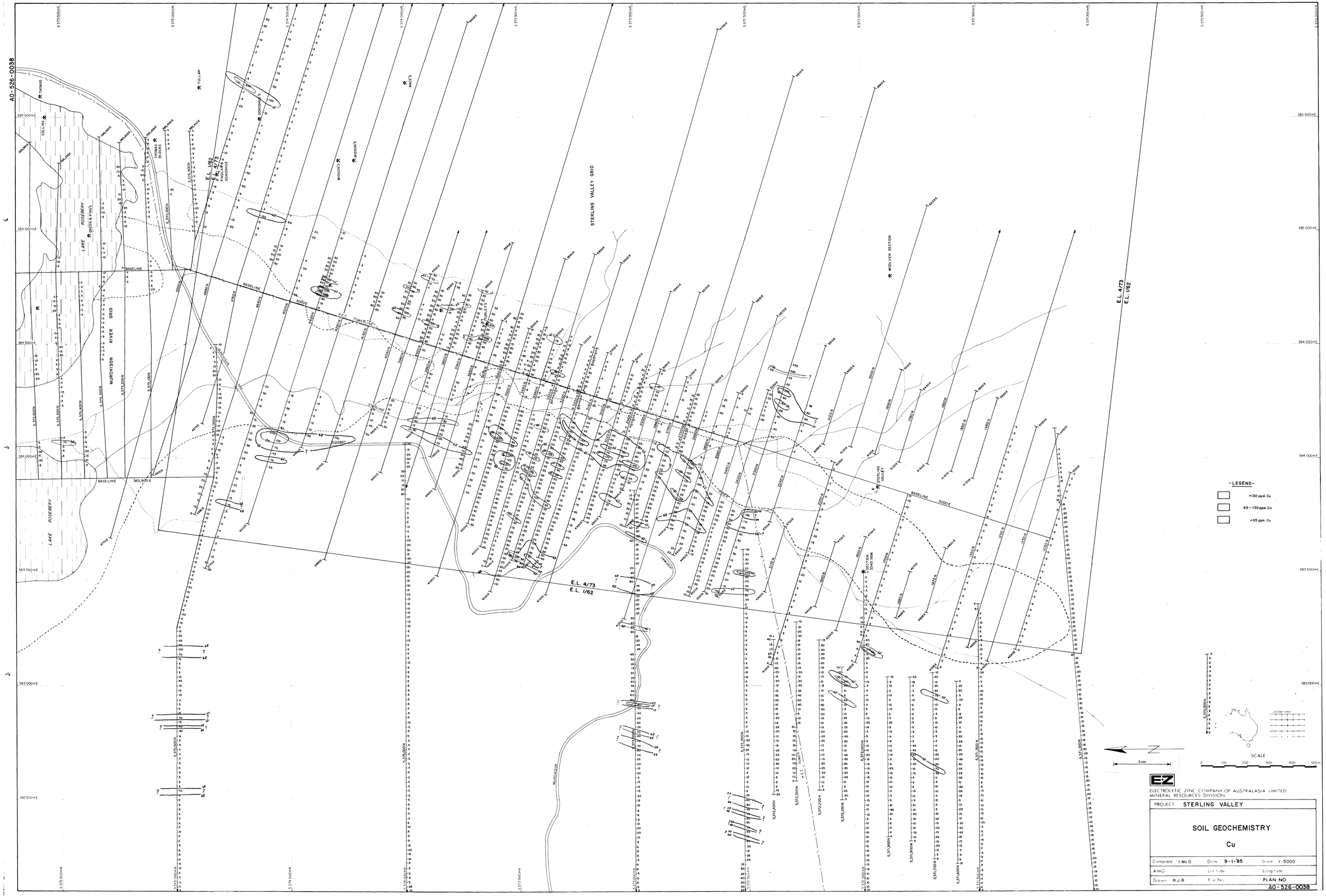
PROJECT: STERLING VALLEY

RESISTIVITY CONTOURS and E.M. ANOMALIES

Compiled: I.McD.	Date: 2-1-'85	Scale: 1:5000
AMG:	Latitude:	Longitude:
Drawn: R.J.R.	File No:	PLAN NO:

AO-526-0037

TCR 94-3613
EL 4/73
E.Z. CO. GEOPEKO
STERLING RIVER



TCR 94-3613
EL 4/73
E.Z. CO. GEOPEKO
STERLING RIVER

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT STERLING VALLEY		
SOIL GEOCHEMISTRY Cu		
Compiled I.McD.	Date 9-1-'85	Scale 1:5000
AMG	Latitude	Longitude
Drawn R.J.R.	File No.	PLAN NO.

A0-526-0038

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER

25

AO-526-0039

SOIL GEOCHEMISTRY

As

PROJECT STERLING VALLEY

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

Compiled	I McD	Date	9-1-85
AMG		Longitude	
Drawn	RJR	File No.	

Scale 1:5000

PLAN NO
AO-526-0039

-LEGEND-

- >1200 ppm As
- 600 - 1200 ppm As
- 300 - 600 ppm As
- 100 - 300 ppm As
- <100 ppm As

SCALE
0 100 200 300 400 500m

5 cm

LAKE ROSEBERY
MURCHISON RIVER GRID
BASELINE
MURCHISON
HIGHWAY
H.E.C. POWER LINE
STERLING VALLEY GRID
COLLINS
THOMAS
GREEN & KING'S
THOMAS BLOCKS
TULLAH
FINDLAY & DONOGHUE
DONOGHUE'S
MIDSON'S
MACE'S
TURLEY'S
SECTION 3340 95M
STERLING VALLEY
WOOLVEN SECTION
E.L. 1/62
E.L. 4/73

I. P. – RESISTIVITY

ANOMALY LOCATIONS

PROJECT STERLING VALLEY

Compiled I. Mc D. Date 13-3-85 Scale 1:5000

A.M.G. Latitude Longitude

Drawn R.J.R. File No. PLAN NO: A0-526-0040

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

EZ

SCALE 0 100 200 300 400 500m

1:250000 SHEET

5,370,500N

-LEGEND-

Depth estimate to top of anomalous body. 60m

Shallow or subcropping anomalous body.

Chargeability Anomalies.
Resistivity Anomalies.

Grid line

Weak anomaly

Moderate to strong anomaly

Contact between zones of higher (H) and lower (L) chargeability or resistivity.

I.P. line coverage

Grid line

Data was compiled from the following sources

1960	Mc Phar	300 ft.	dipole-dipole	frequency	domain	I.P. for E.Z. Co.
1961	"	200ft.	" – "	"	"	" " "
1976	Geoquest	50m	" – "	"	"	" " Abminco.
1979	Scintrex	60m	" – "	time	domain	" " E.Z. Co.
1982	"	60m	" – "	"	"	" " "

5 cm

N

383,500mE

383,000mE

384,000mE

384,500mE

385,000mE

385,500mE

5,370,000mN

5,370,500mN

5,371,000mN

5,371,500mN

5,372,000mN

5,372,500mN

5,373,000mN

5,373,500mN

5,374,000mN

5,374,500mN

5,375,000mN

5,375,500mN

E.L. 4/73
E.L. 1/62

BASELINE

5000E

383,900 E

STERLING VALLEY GRID

MURCHISON RIVER GRID

LAKE ROSEBERRY

WOOLVEN SECTION

STERLING VALLEY

3340 95M SECTION

TURLEY'S

MACE'S

MIDSON'S

DONOGHUE'S

TULLAH

FINDLAY & DONOGHUE

THOMAS BLOCKS

COLLINS

GREEN & KING'S

POWERLINE

H.E.C. POWER

HIGHWAY

MURCHISON

RIVER

AO-526-0040

TCR 94-3613
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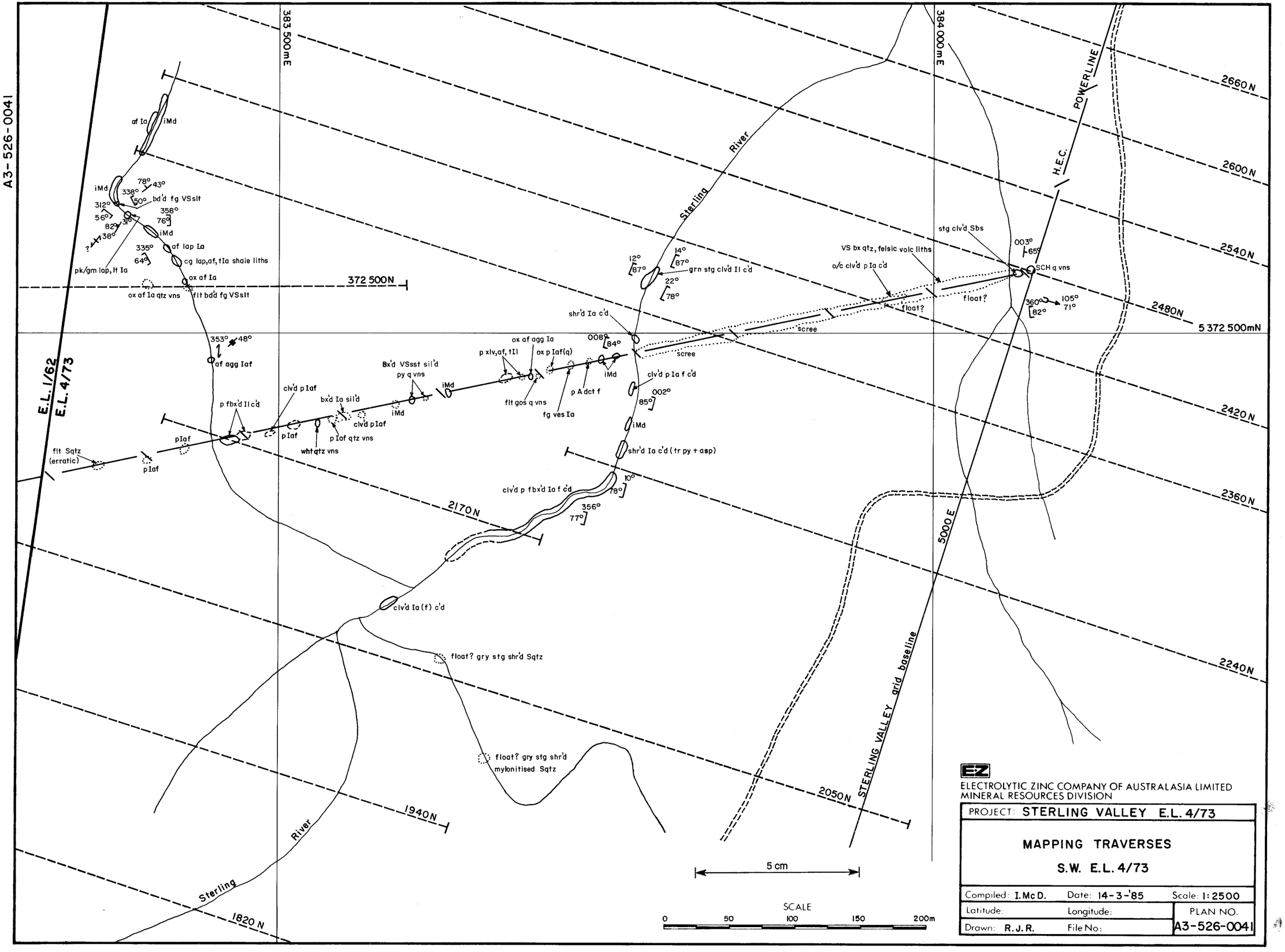
E.Z. CO, GEOPEKO
STERLING RIVER

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER



ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

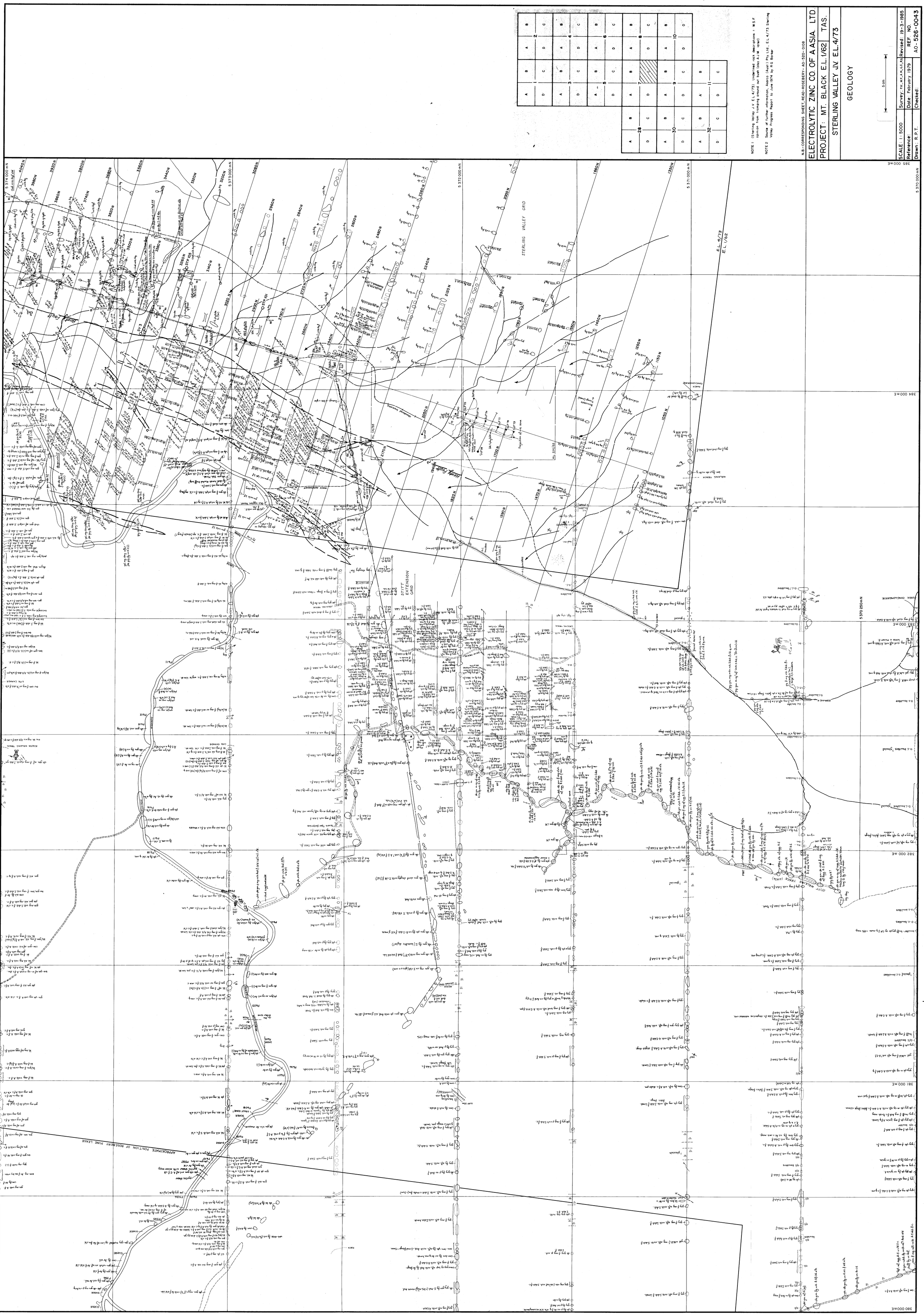
PROJECT: STERLING VALLEY E.L. 4/73		
MAPPING TRAVERSES S.W. E.L. 4/73		
Compiled: I.McD.	Date: 14-3-'85	Scale: 1:2500
Latitude:	Longitude:	PLAN NO.
Drawn: R.J.R.	File No:	A3-526-0041

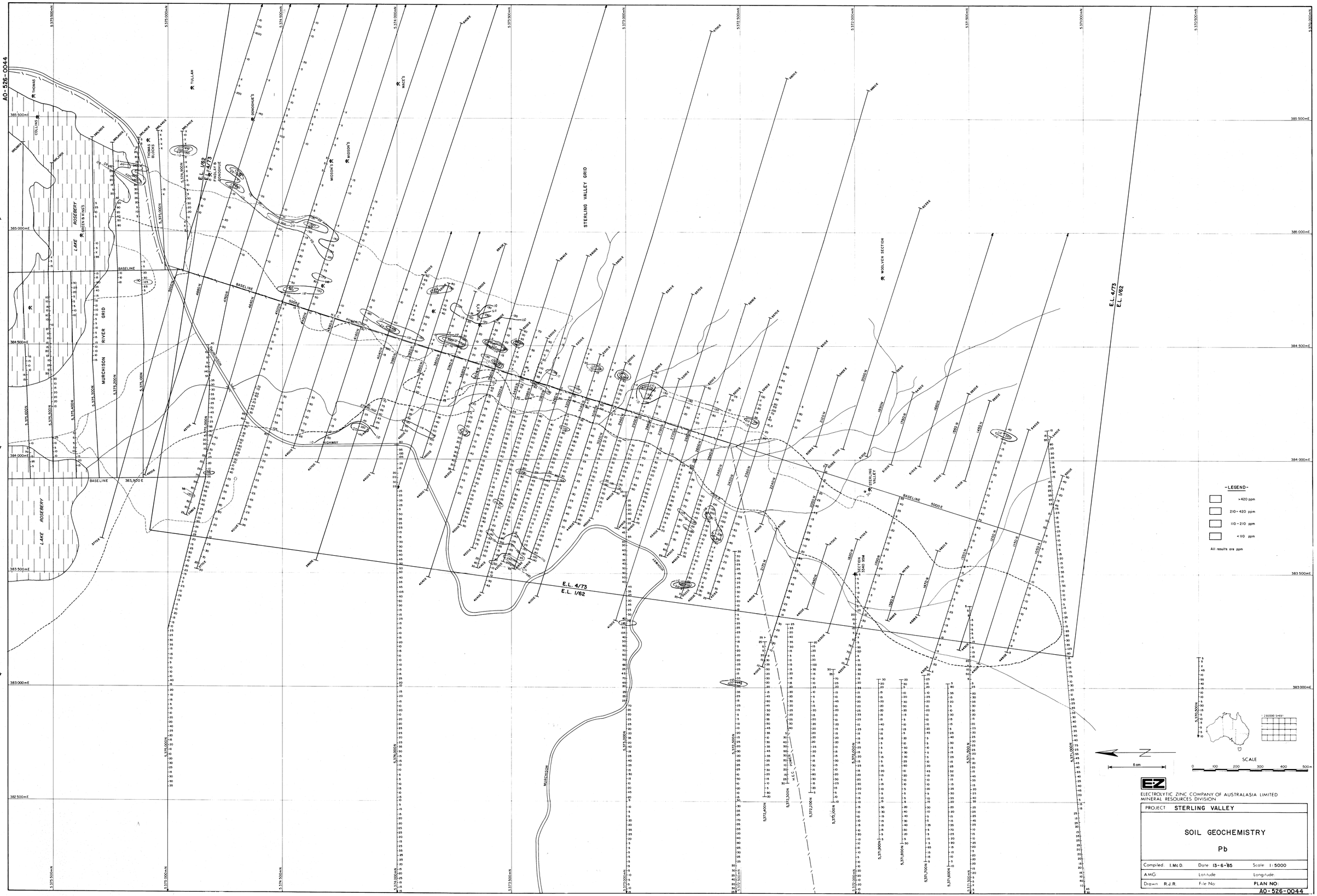
Trimline A3 for binding within text

Trimline A3 for report pockets

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER

28





ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT STERLING VALLEY		
SOIL GEOCHEMISTRY Pb		
Compiled: I.McD.	Date 13-6-'85	Scale 1:5000
AMG	Latitude	Longitude
Drawn R.J.R.	File No	PLAN NO:

A0-526-0044

TCR 94-3613
EL 4/73
E.Z. CO. GEOPEKO
STERLING RIVER

TCR 94-3613
EL 4/73
R.Z. OUTCROPPING
STERLING RIVER

A0-526-0045

E.L. 4/73
E.L. 1/82

STERLING VALLEY GRID

WOOLVEN SECTION

SECTION 3340 RSM

LAKE ROSEBERY

MURCHISON RIVER GRID

BASELINE

LEGEND

		Rhyolite	Dacite	Trachyte	Latite	Andesite	Basalt
VOLCANICS	Lavas	RHYL	DACL	TRAL	LATL	ANDL	BASL
	Pyroclastics: Agglomerates	AGRHY	AGDAC	AGTRA	AGLAT	AGAND	AGBAS
	Pyroclastics: Ashflows	AFRHY	AFDAC	AFTRA	AFLAT	AFAND	AFBAS
	Pyroclastics: Tuffs	VSrhy	VSdac	VStra	VSlat	VSand	VSbas

SEDIMENTS	Volcaniclastic Sediments	VS [VSNDST VSLTST etc.]
	Greywackes	GWK
	Sandstones	SNDST
	Siltstones	SLTST
	Shales	SH
	Black Shales	BSH
METAMORPHICS	Slates	SLT
	Phyllites	PHYL
	Schists	SCH
	Quartz Schists	QSCH [Mostly after Felsic Volcanics.]
IGNEOUS INTRUSIVES	Dolerites	IDOL
	Granites	GR

Outcrop Geology Compiled From:

Asarco mapping R.G. Barker 1974
E.Z. mapping in Reports Nos. 133 1980
146 1981
150 1982
154 1982
202 1985

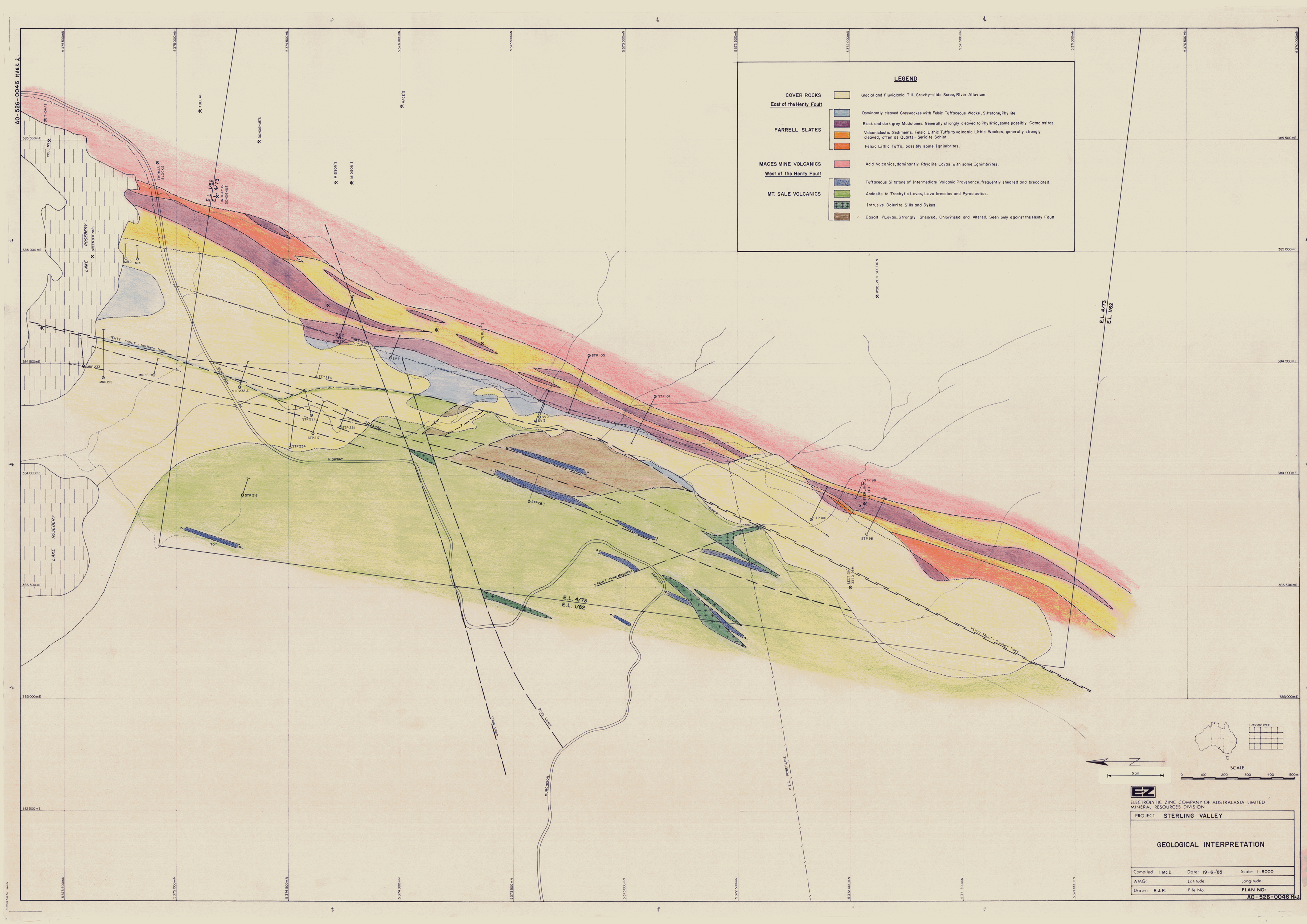
p ftlv LATL cd — Underlined descriptions are from thin section reports.

1:250000 SHEET

SCALE
5 cm
0 100 200 300 400 500m

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT: STERLING VALLEY			
OUTCROP GEOLOGY			
Compiled: I. Mc D.	Date: 17-6-85	Scale: 1:5000	
AMG:	Latitude:	Longitude:	
Drawn: R.J.R.	File No:	PLAN NO: A0-526-0045	



ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT: STERLING VALLEY

GEOLOGICAL INTERPRETATION

Compiled: I.McD.	Date: 19-6-'85	Scale: 1:5000
AMG:	Latitude:	Longitude:
Drawn: R.J.R.	File No:	PLAN NO:

A0-526-0046 Mk2

A0-526-0046 MARK 2.

TCR 94-3613
EL 4/73
E.Z. CO. GEOPEKO
STERLING RIVER

AO-526-0046

TCR 94-3613
E.L. 4/73
E.Z. CO. OF AUSTRALASIA
STERLING RIVER

LEGEND

COVER ROCKS — Glacial and Fluvioglacial Till, Gravity-slide Scree, River Alluvium.

East of the Henty Fault

FARRELL SLATES
- Dominantly cleaved Greywackes with Felsic Tuffaceous Wacke, Siltstone, Phyllite.
- Black and dark grey Mudstones. Generally strongly cleaved to Phyllitic, some possibly Cataclasites.
- Volcaniclastic Sediments. Felsic Lithic Tuffs to volcanic Lithic Wackes, generally strongly cleaved, often as Quartz - Sericite Schist.
- Felsic Lithic Tuffs, possibly some Ignimbrites.

MACES MINE VOLCANICS — Acid Volcanics, dominantly Rhyolite Lavas with some Ignimbrites.

West of the Henty Fault

MT. SALE VOLCANICS
- Tuffaceous Siltstone of Intermediate Volcanic Provenance, frequently sheared and brecciated.
- Andesite to Trachytic Lavas, Lava breccias and Pyroclastics.
- Intrusive Dolerite Sills and Dykes.

Granite Occurences. ? Bedrock Dykes or ? Glacial Erratics.

THOMAS
COLLINS
TOWNS BLOCKS
TILLAH
DONOHUE'S
MACE'S
HUDSON'S
E.L. 1/62
E.L. 4/73
FINDLAY & DONOHUE
ROSEBERY
GREEN'S KNOBS
LAKE ROSEBERY
MR2
MR1
HENTY FAULT — Northern Trace
MRP 233
MRP 212
MRP 219
STP 232 A1
TOP
STP 221
STP 231
STP 217
STP 234
HIGHWAY
STP 218
70°
Approximate Line of Henty Fault
WEST STRIKE POWERLINE
DSV1
TURLEY'S
STP 105
STP 101
DSV2
DSV3
STERLING
RIVER
STP 100
STP 96
STP 98
E.L. 4/73
E.L. 1/62
WOOLVEN SECTION
SECTION 3571 00M
FAULT - From Magnetics
HENTY FAULT - Southern Trace
SCHISTOSITY
Davis Lode
Phals Lode
MILKENSION
W.E.C. POWERLINE

1:250000 SHEET

N

5 cm

SCALE
0 100 200 300 400 500m

EZ

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT: STERLING VALLEY

GEOLOGICAL INTERPRETATION

Compiled: I.McD.	Date: 19-6-'85	Scale: 1:5000
AMG:	Latitude:	Longitude:
Drawn: R.J.R.	File No:	PLAN NO: AO-526-0046

Enclose AO for approval

AO-526-0046 MARK II

TCR 94-3613
A.J.M. 1/93
E.Z. CO. GROPEKO
STERLING RIVER

LEGEND

COVER ROCKS — Glacial and Fluviglacial Till, Gravity-slide Scree, River Alluvium.

East of the Henty Fault

FARRELL SLATES
- Dominantly cleaved Greywackes with Felsic Tuffaceous Wacke, Siltstone, Phyllite.
- Black and dark grey Mudstones. Generally strongly cleaved to Phyllitic, some possibly Cataclasites.
- Volcaniclastic Sediments. Felsic Lithic Tuffs to volcanic Lithic Wackes, generally strongly cleaved, often as Quartz-Sericite Schist.
- Felsic Lithic Tuffs, possibly some Ignimbrites.

MACES MINE VOLCANICS — Acid Volcanics, dominantly Rhyolite Lavas with some Ignimbrites.

West of the Henty Fault

MT. SALE VOLCANICS
- Tuffaceous Siltstone of Intermediate Volcanic Provenance, frequently sheared and brecciated.
- Andesite to Trachytic Lavas, Lava breccias and Pyroclastics.
- Intrusive Dolerite Sills and Dykes.
- Basalt ?Lavas..Strongly Sheared, Chloritised and Altered. Seen only against the Henty Fault

THOMAS
COLLINS
TULLAH
DONOHUE'S
THOMAS BLOCKS
MACE'S
MOSON'S
FINDLAY & DONOHUE
E.L. 1/82
E.L. 4/73
ROSEBERRY
LAKE
GREEN KNOLL
MR2
MR1
HENTY FAULT - Northern Trace
MRP 233
MRP 212
MRP 219
STP 232 A1
STP 184
STP 221
STP 231
STP 217
STP 234
STP 218
HIGHWAY
TOP
STP 200
PORPHYRIES
SV1
TURLEY'S
STP 105
STP 101
SV 2
SV 3
STP 283
RIVER
STP 100
STP 96
STERLING VALLEY
STP 98
MOSQUITO SECTION
SECTION NORTH
HENTY FAULT - Southern Trace
FAULT - From MAGNETICS
LINEATION
E.L. 4/73
E.L. 1/82
Power Lines
Road Lines
MURCHISON
H.E.C. POWERLINE

5,375,500mN · 5,375,000mN · 5,374,500mN · 5,374,000mN · 5,373,500mN · 5,373,000mN · 5,372,500mN · 5,372,000mN · 5,371,500mN · 5,371,000mN · 5,370,500mN · 5,370,000mN

385,500mE · 385,000mE · 384,500mE · 384,000mE · 383,500mE · 383,000mE · 382,500mE

1:250000 SHEET

N

5 cm

SCALE
0 100 200 300 400 500m

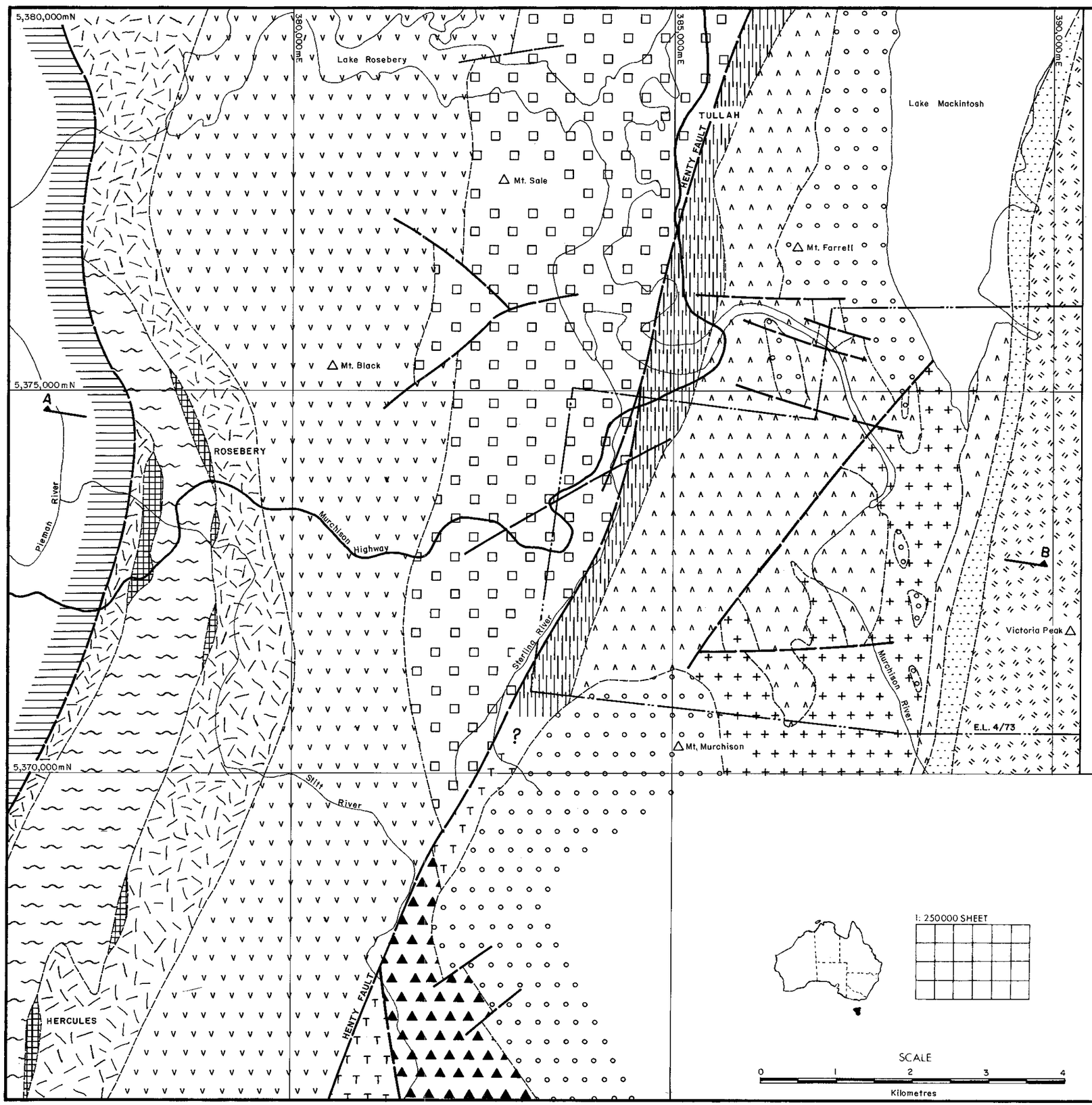
EZ
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT: STERLING VALLEY

GEOLOGICAL INTERPRETATION

Compiled: I.Mc D.	Date: 19-6-'85	Scale: 1:5000	
A.M.G.:	Latitude:	Longitude:	
Drawn: R.J.R. + J.M.D	File No:	PLAN NO: AO-526-0046 Mk II	

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER



LEGEND

CAMBRO–ORDOVICIAN

- Owen Conglomerate

CAMBRIAN

Dundas Trough Sediments

- Rosebery Group

Mt. Read Volcanics

- Tyndall Group
- Red Hills Volcanics
- Farrell Slates
- Maces Mine Volcanics
- Mt. Sale Volcanics
- Mt. Black Volcanics
- Primrose Pyroclastics
- Rosebery Host Rocks–Black Slate Equivalents
- Rosebery Footwall Pyroclastics
- Murchison Granite

EO–CAMBRIAN

- Sticht Range Quartzite ?≡ Success Creek Group

PROTEROZOIC

- Tyennan Black Schists

A–B Section Line for Plan A3-526-0049

5 cm

1: 250000 SHEET

SCALE
0 1 2 3 4
Kilometres

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT: E.L. 4/73 STERLING VALLEY TAS.

REGIONAL GEOLOGY
Vicinity of E.L. 4/73

Compiled: I. Mc D.	Date: 19-6-'85	Scale: 1:50,000
Latitude:	Longitude:	PLAN NO.
Drawn: R.J.R.	File No:	A3-526-0047

Trimline A3 for binding within text

Trimline A3 for report pockets

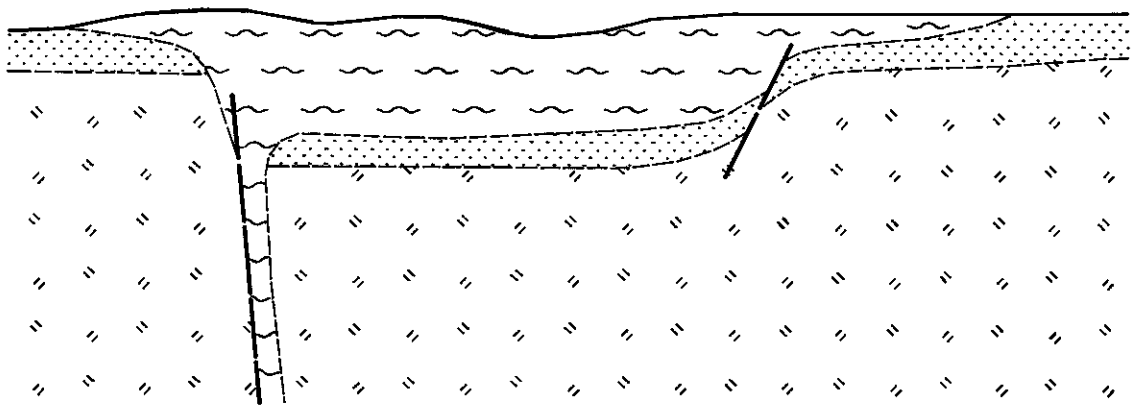
TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER

35

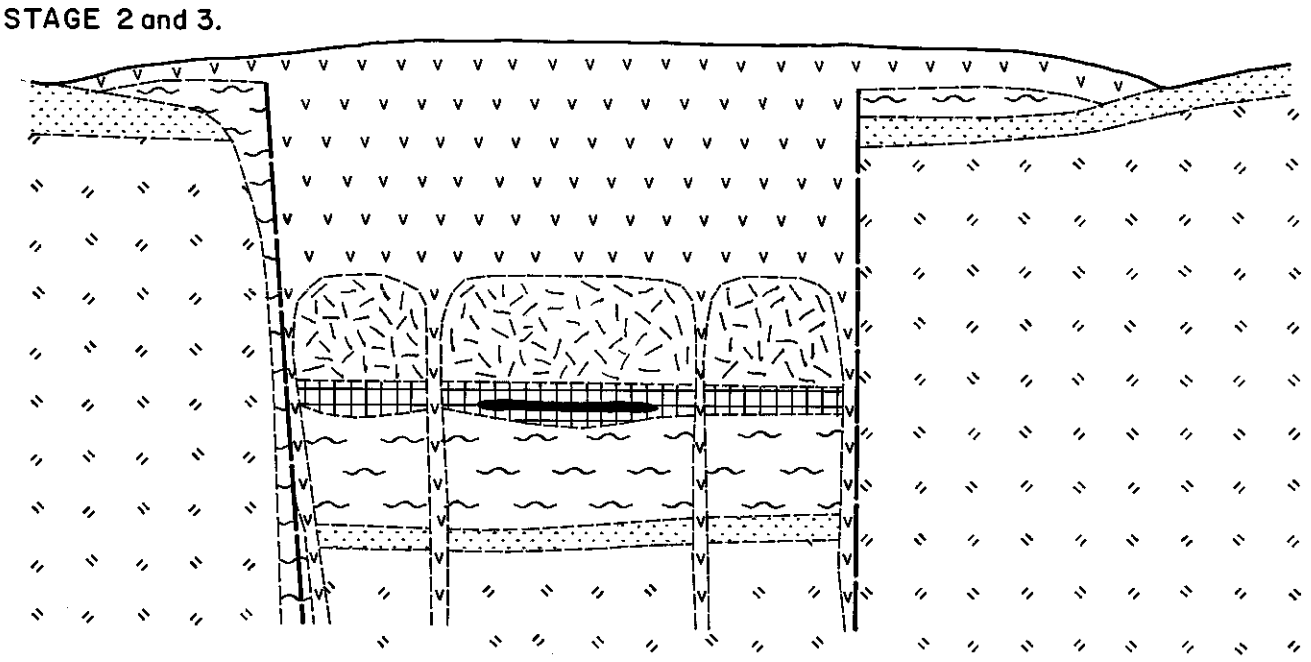
rimline A3 for binding within text

rimline A3 for report pockets

STAGE 1.



STAGE 2 and 3.



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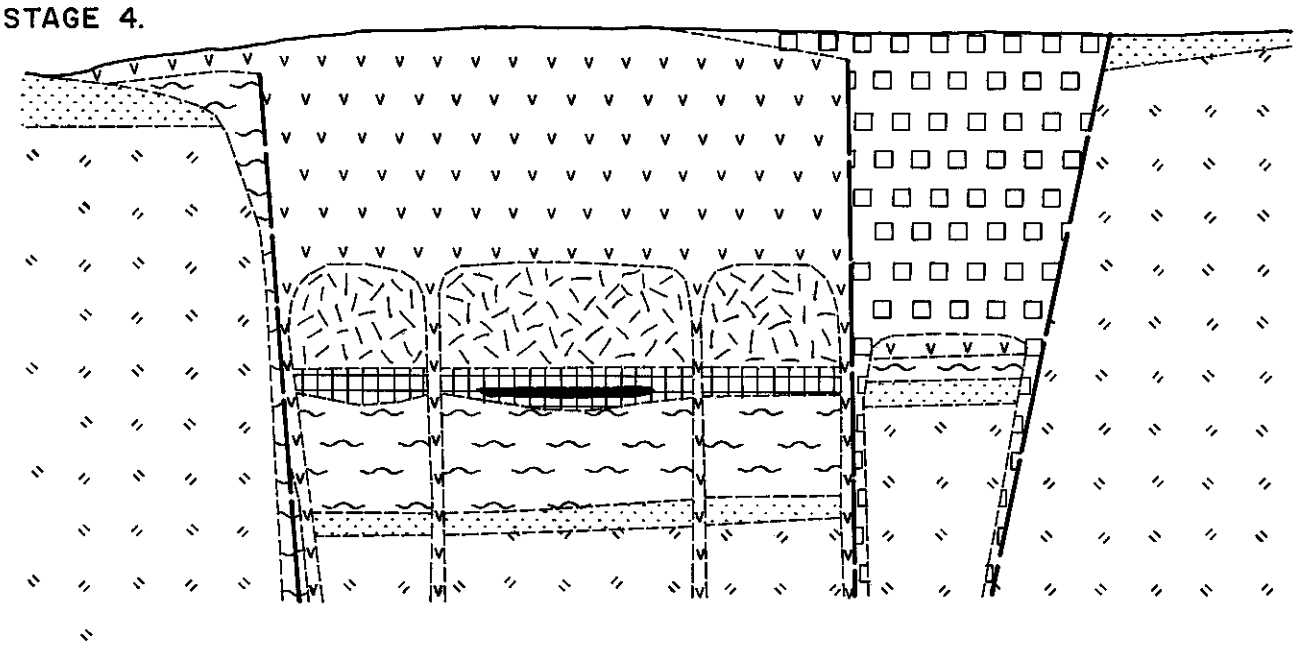
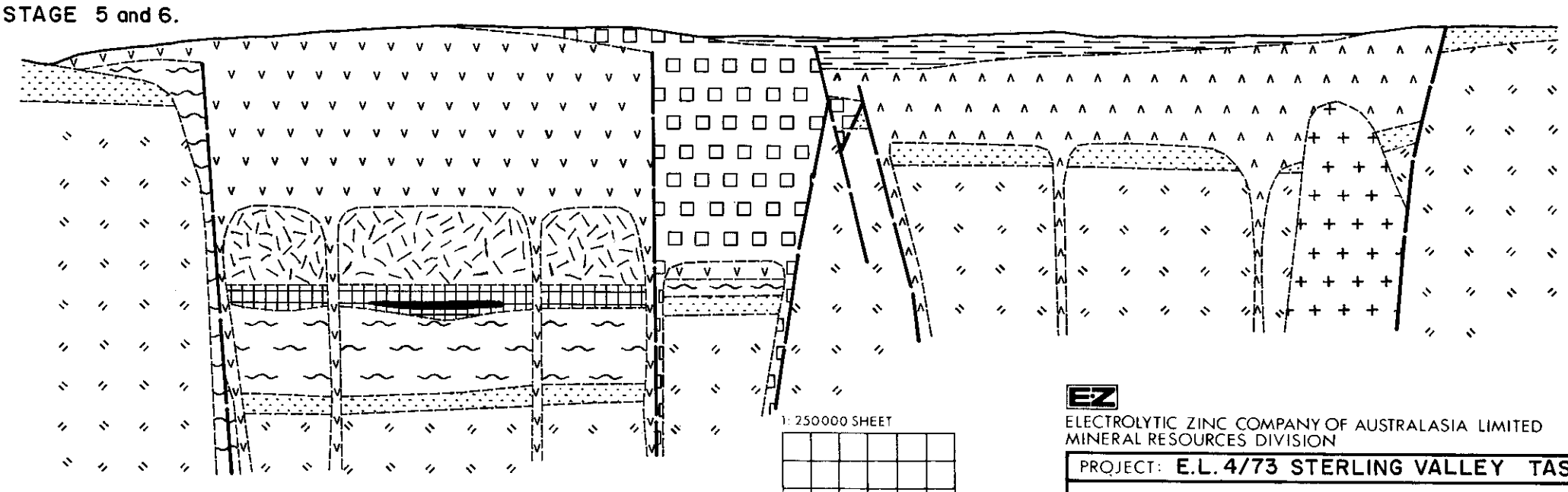


STAGE 5 and 6.



LEGEND

- Murchison Granite.
- Farrell Slates.
- Maces Mine Rhyolitic Volcanics.
- Mt. Sale Andesitic Volcanics.
- Mt. Black Rhyodacitic Volcanics.
- Primrose Pyroclastics.
- Rosebery Host Rocks and Black Slate.
- Rosebery Massive Sulphides.
- Footwall Felsic Ashflows.
- Success Creek Group.
- Tyennan Basement.

1: 250000 SHEET

5 cm

SCALE

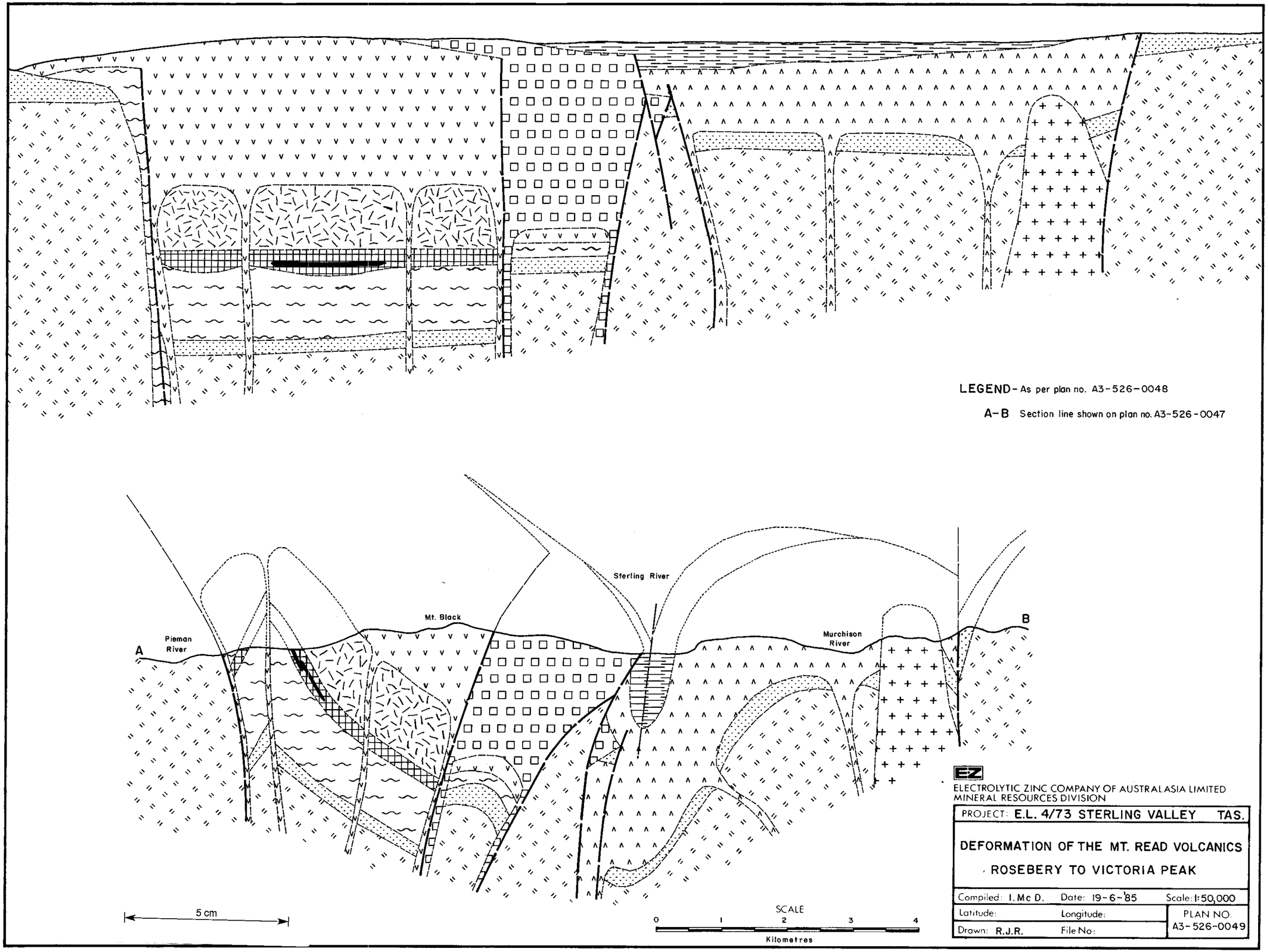
EZ
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT: E.L. 4/73 STERLING VALLEY TAS.

DEVELOPMENT OF THE MT. READ VOLCANICS
ROSEBERY TO VICTORIA PEAK

Compiled: I. Mc D.	Date: 19-6-'85	Scale: 1:70,000~
Latitude:	Longitude:	PLAN NO. A3-526-0048
Drawn: R. J. R.	File No:	

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER



LEGEND - As per plan no. A3-526-0048

A-B Section line shown on plan no. A3-526-0047

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

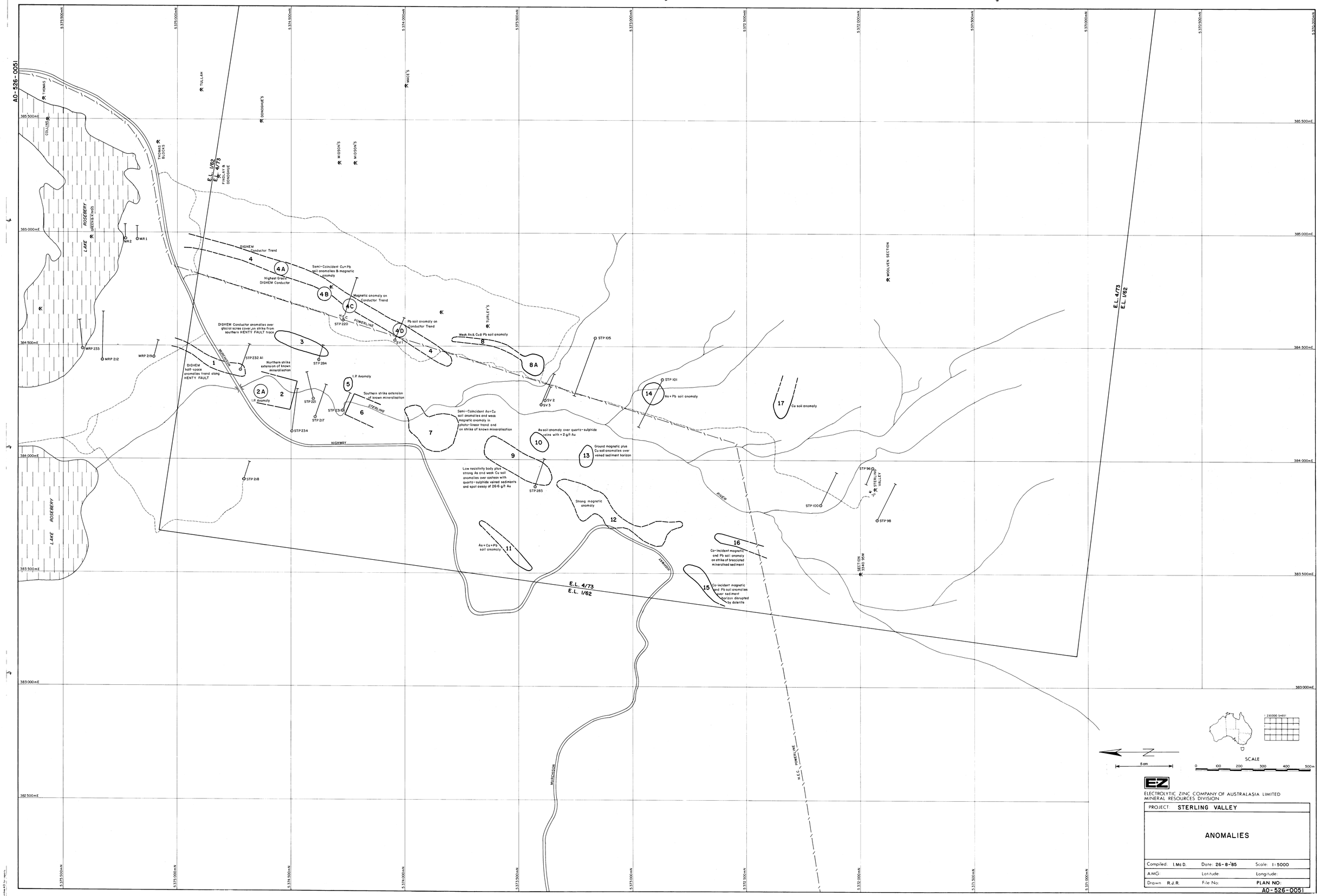
PROJECT: E.L. 4/73 STERLING VALLEY TAS.

DEFORMATION OF THE MT. READ VOLCANICS ROSEBERY TO VICTORIA PEAK

Compiled: I. Mc D.	Date: 19-6-'85	Scale: 1:50,000
Latitude:	Longitude:	PLAN NO. A3-526-0049
Drawn: R.J.R.	File No:	

Trimline A3 for binding within text

Trimline A3 for report pockets



ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT: STERLING VALLEY		
ANOMALIES		
Compiled: I.McD.	Date: 26-8-'85	Scale: 1:5000
AMG:	Latitude:	Longitude:
Drawn: R.J.R.	File No:	PLAN NO:

A0-526-0051

TCR 94-3613
EL 4/73
E.Z. CO. GEOPEKO
STERLING RIVER

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER

39

Trimline A2 for reports

A2-526-0052

PLAN

4340N – Grid Line

4800E

4850E

4900E

STP 284

SECTION

STP 284

Glacial Till cover

qtz-ser schist 55°
qtz-ser-chl phyllite 50°
qtz vein breccia
phyllitic Siltstone 15°
to f-mg wacke
qtz-(carb)veins
intercalations of
chloritic mudstone, siltstone

gd

cleaved and veined
black mudstone,
grey siltstone and
f-mg wacke

clvd mg wacke 50°
clvd siltstone 45°

clvd mg wacke

gd

gd.fl

interbedded
mg & m-cg
wackes and
siltstones

massive qtz-(carb)veins
lam siltstone 30°
Dolomitic wacke and breccia
Dolomitic siltstone 45°
qtz-carb veins
Dolomitic wacke 40°
black mudstone
interbedded 45°
mudstone/siltstone
and Dolomitic wacke 60°
qtz-lithic wacke 65°

gd

cr bd

= Py stringers 0·40m at 0·27 g/t Au

= Py+Po stringers
= Py+Sphvein 0·15m at 1·65 g/t Au, 64 g/t Ag, 1·65% As, 1·23% Zn

= Py+Po stringers
= qtz-cb veins

Fault/Fracture zone

= qtz-carb crackle veins

= Py+Po in rare stringers and veinlets 0·40m at 0·63 g/t Au

qtz crackle veins mainly 50°

= 1% Py in patchy stringers in qtz-carb veins
= massive qtz-carb veins

= qtz-cb veins

= stg qtz-carb veining

= cg carb veins
= qtz-carb veining
thin qtz-carb veins

116·7m

RL 100m

4850E

5 cm

1:250000 SHEET

SCALE

0 5 10 15 20 25 30 35 40 45 50
metres

5000E

* Aqua regia Au values only

* 2·0m at 0·22 g/t Au
* 1·0m at 2·08 g/t Au
* 2·7m at 0·61 g/t Au

STP 217
STP 221
STP 284
STP 220

Glacial Till cover

1·05m at 0·3 g/t Au
0·70m at 3·25% Pb, 3·2% Zn, 81 g/t Ag, 0·05 g/t Au.

RL 300m
RL 200m
RL 100m
RL 00m
RL -100m

Andesite Lavas and Agglomerates

Dolerite

6·8m at 1·18 g/t Au
(1·05m at 4·01 g/t Au)

1·0m at 0·95 g/t Au

Altered brecciated mineralised volcaniclastic Sediment horizons.

Multiple HENTY FAULT fracture slices from the main northern fault locus.

DIGHEM Cond. Body

Mudstones, Siltstones, Volcanic Wackes.

Tuffaceous Greywackes, Mudstones.

1·0m at 1·04 g/t Au

Strike Extension of the main locus of the HENTY FAULT to the south.

Black Shales and Siltstones

Volcanic Wacke and Mudstone

Black Shales

fg Volcaniclastic Sediments

Black Shales, Siltstone Felsic Tuffs

Rhyolite Lavas

All Lithologies are strongly cleaved.

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT: **STERLING VALLEY E.L. 4/73**

DDH STP 284

Compiled: I. McD.	Date: 28-8-'85	Scale: 1:500
AMG:	Latitude:	Longitude:
Drawn: R.J.R.	File No:	PLAN NO: A2-526-0052

TCR 94-3613
EL 4/73
E.Z. CO, GEOPEKO
STERLING RIVER

39

line A2 for reports

A2-526-0053

PLAN

4550E 4600E 4650E 4700E

STP 283

qtz-sul vns
GR
qtz-py vns
diss py
8·62 g/t Au
1·63 g/t Au
26·6 g/t Au
qtz vns in shr'd VSsit

Grid Line 3260N

SECTION

STP 283

qtz-sul vns
GR
diss py
qtz vns in shr'd VSsit
8·62 g/t Au
1·63 g/t Au
26·6 g/t Au

RL 200m

stg OX ferruginous clays poor core recovery

stg OX ?andesite lava

shr'd chl'd basaltic ?lava

sil'd bx'd chert

altered ves basalt

stg OX broken basaltic lava

shr'd altered basalt

quartz-sulphide breccia

shr'd altered basalt 60°

?Intermediate Ashflows 40°

?Intermediate fg Tuff

Andesitic Ashflows 50°

cg ox Epiclastic ?Debris flow deposit

stg ox ?Andesite Ashflow

stg ox ?Intermediate Tuff

vfg stgly chl'd ?basaltic lava sil'd qtz veined breccia

sheared altered amygdaloidal basaltic lavas

stressed altered amygdaloidal basaltic lavas

shr'd stgly chl'd basaltic lava breccia

altered amygdaloidal basaltic lava

massive fg chlorite rock

chloritised amygdaloidal basaltic lava

qtz vein breccia

chloritised amygdaloidal basaltic lava

chert band

amygdaloidal basaltic lava

massive fg altered basalt

qtz vein breccia

massive fg stgly chl'd basaltic lava

qtz-asp vns 0·15m at 0·33 g/t Au, 1·40% As

qtz-py-asp vns

qtz crackle veins 0·15m at 0·31 g/t Au, 3·35% As

— py+asp+po veinlets

25% asp, cpy, py 2·0m at 0·38 g/t Au, 28·7 g/t Ag, 6·22% As, 0·77% Cu

py+po+asp veinlets

— qtz-tm-py-sph-gn vein 50°

— qtz-py-(po-sph-gn) veins

— qtz-py-sph vein 50° 0·2m at 0·86 g/t Au, 11% As

— qtz-asp-py veinlets

— qtz-py-asp-cpy veinlets

py-(asp) stringers

— qtz crackle veins c epi+py

= qtz-tm vein

— qtz-py veins veinlets and patches of epi alteration

qtz-(epi) crackle veins

semi-massive po+asp+py 0·85m at 1·16 g/t Au, 29 g/t Ag, 4·15% As

= qtz veins, 5% diss py 0·55 m at 1·10 g/t Au

qtz-epi veins

150

55°

py+po patchy stringers

— py+po+sph stringers 0·45m at 2·0 g/t Au

0·50m at 0·95 g/t Au, 9·25% Zn

qtz veins po+py+cpy stringers

179·6m

RL 100m

4700E

5 cm

4600E

Scale = 1:5000

Proposed Drill Hole 'A'

Spot Sample Gold Values
26·6 g/t Au
1·63 g/t Au
8·62 g/t Au

Gr

bx'd VSsil qtz-sul veins.

brecciated, veined, mineralised sediment.

Gr + bx'd VS qtz-py-asp veins

Spot Sample Gold values
2·01 g/t Au
1·47 g/t Au
1·19 g/t Au

Scattered float of Andesitic volcanics.

Andesite Lavas and Agglomerates

Granite ?dyke

Low Resistivity Body

Strongly cleaved chloritised Andesites.

Subsidiary Henty Fault Fracture Slices

Main Locus Henty Fault.

S.V. 3 (proj)

Sq sch (VS)

Sgwk

Felsic Tuff

Sbs

VS Smd Tuff

strongly cleaved Mudstones, Wackes, Tuffaceous sediments.

Felsic ashflow pyroclastics.

Mudstones and Tuffaceous sediments.

fg altered Rhyolite ? lava

1om VS, Smd

cleaved Rhyolite lavas

STP 105

Rhyolite Lavas

RL 400m
RL 300m
RL 200m
RL 100m
RL 00m

5000E

4600E

4700E

1:250 000 SHEET

SCALE

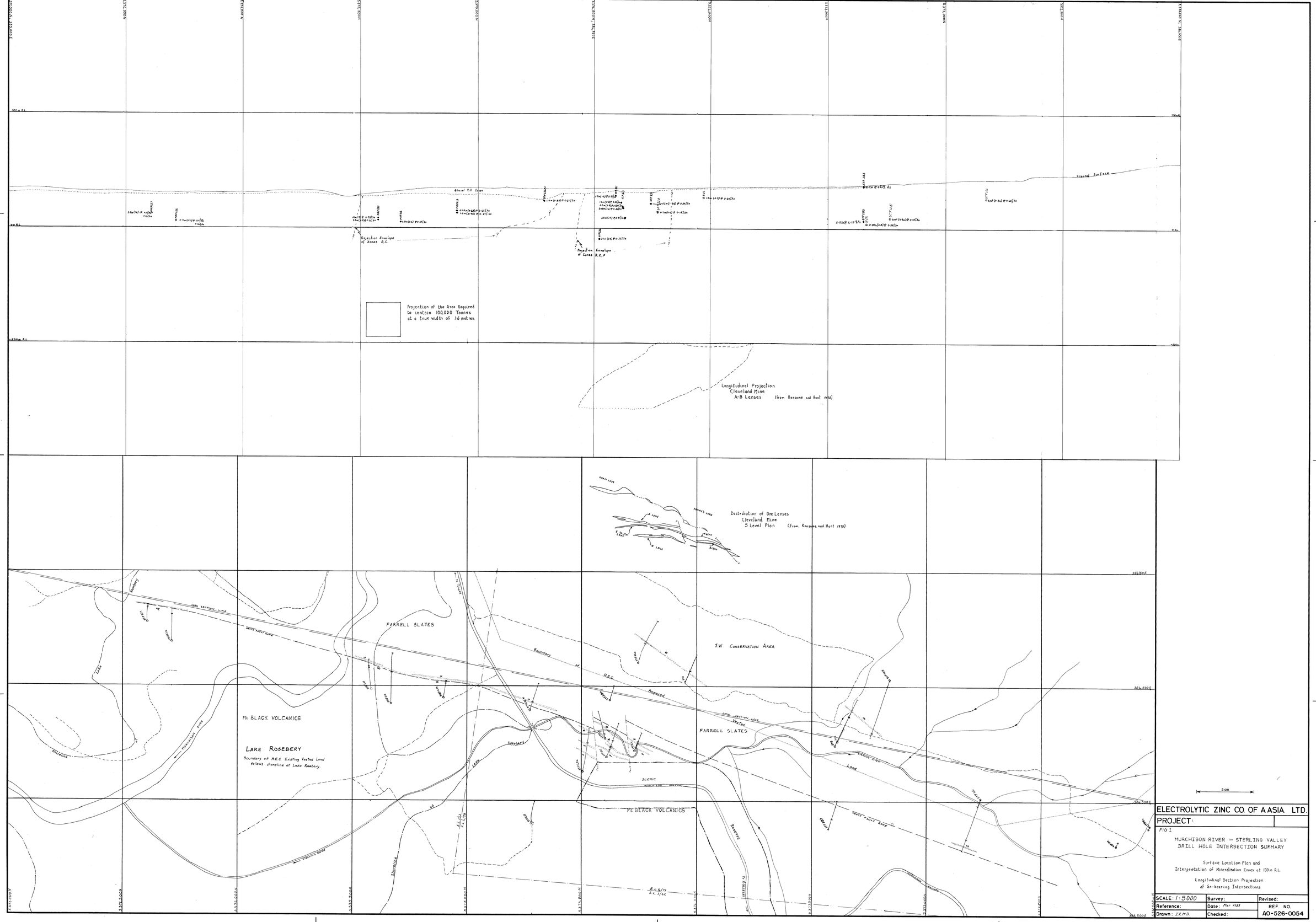
0 5 10 15 20 25 30 35 40 45 50
metres

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT: STERLING RIVER E.L. 4/73

D.D.H. STP 283

Compiled: I. Mc D.	Date: 30-8-'85	Scale: 1:500
AMG:	Latitude:	Longitude:
Drawn: R.J.R.	File No:	PLAN NO: A2-526-0053



ELECTROLYTIC ZINC CO. OF A ASIA. LTD.

PROJECT:

FIG 1

MURCHISON RIVER – STERLING VALLEY
DRILL HOLE INTERSECTION SUMMARY

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

Longitudinal Section Projection
of Sn-bearing Intersections

SCALE: 1:5000	Survey:	Revised:
Reference:	Date: Mar 1983	REF. NO.
Drawn: I.R.M.D.	Checked:	A0-526-0054

TCR 94-3613
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