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REFERS.	
Resubmit to	Date

EXPLORATION LICENCE 43/85

BEULAH

TASMANIA

PROGRESS REPORT FOR THE YEAR

ENDED APRIL 29, 1987

OPEN FILE

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ISSUED BY:

J. R. SISE *[Signature]*
REGIONAL MANAGER.
APRIL, 1987

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INTRODUCTION

Exploration Licence 43/85 of 80 square kilometres was acquired by Aberfoyle Resources Limited through successful tender and granted on May 29, 1986. Exploration title over this area was sought after regional geological interpretation and literature studies had revealed a general similarity between elements of the stratigraphic sequence in the Beulah district and those on Aberfoyle's Mackintosh and Hatfield properties, which enclose the Hellyer and Que River massive base metal sulphide orebodies.

The local stratigraphic sequence with Beulah Formation overlain by Gog Greywacke, and followed by Minnow Keratophyre is regarded as a possible correlate with the Que-Hellyer Volcanics. In particular, the basic to intermediate lavas and volcanoclastics of the Cambrian Beulah Formation, which are locally vesicular, chlorite-carbonate-epidote altered and geochemically anomalous are interpreted from work on similar lithologies around Hellyer to be a potentially mineralised package.

The occurrence of base metal sulphide-bearing barite at Lower Beulah, just outside the licence area, is also seen as an encouraging indicator of a baritic massive sulphide environment.

LOCATION AND ACCESS

The Exploration Licence is situated immediately south of the town of Sheffield, which is 25 kilometres south of the coastal city of Devonport

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in northern Tasmania (Plate BEUL.6). Access to the area from the north and between the main settlements within the licence boundaries is by sealed road. Otherwise, the licence is well serviced by a network of formed gravel roads, farm and forestry tracks.

CLIMATE, VEGETATION, PHYSIOGRAPHY

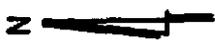
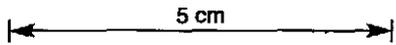
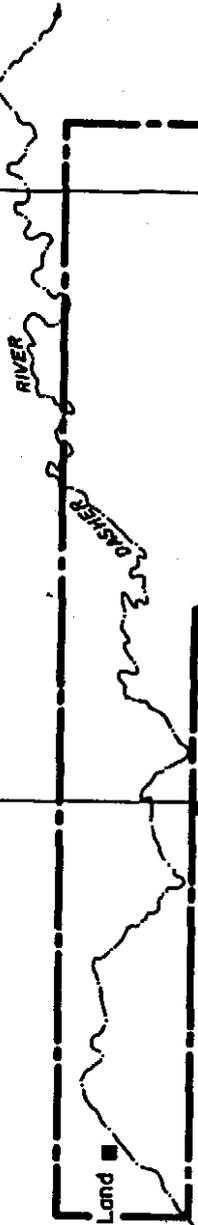
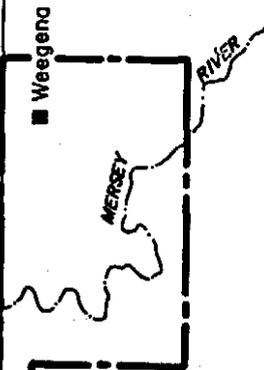
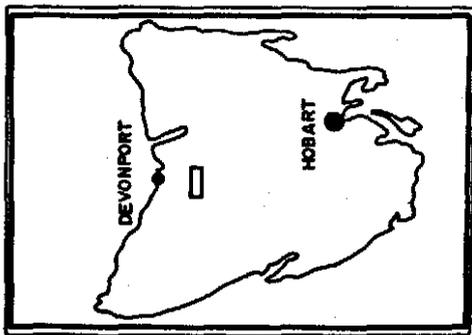
The Beulah district enjoys a temperate climate with summer temperatures during November through to March reaching a mean of 22°C in February, from a low close to zero during winter.

Average annual rainfall registered at Sheffield is 1209mm. Falls are generally higher in the elevated regions to the south and south-west of the district. Wettest months are July and August.

The vegetation is governed by aspect, drainage, rainfall and the nature of the underlying rock types. Thick eucalypt rain forest with myrtle and sassafras species is restricted to areas of high rainfall, and rare in the licence area. Most of the land underlain by Tertiary basalt and Cambrian basic lavas was originally cleared for crop and dairy farming by the early settlers. Around Beulah, most areas of Cambrian rocks proved less fertile than the rich Tertiary basalt and have now degenerated through lack of farming into light bush with a thick cover of bracken fern and blackberry. Elsewhere stunted eucalypt forest with light undergrowth is common. Plantations of pine have been established in Forestry Commission areas near Beulah and on the Gog Range.

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54 10 000 N

450 000 E

440 000 E

Aberfoyle Resources Limited
EXPLORATION DIVISION

NORTHERN TASMANIA

E.L.43/85 BEULAH
LOCALITY MAP

Compiled : JRS

Drawn : JRS

Traced : RJE

Checked :

Plate No. : BEUL. 6

REVISIONS			
Init.	Date	Init.	Date

Location Code : K55/3

Scale : As shown

Date : April, 1987

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The physiography of the region is dominated by the east-west trending Gog Range, which forms part of a prominent range extending westwards to join with Mt. Roland (1233m), the highest point in the district. This prominent mountain feature is 3 kilometres south of the southern licence boundary.

The land falls away to the north from the range and is dissected by the Dasher River, the main tributary of the Mersey River. The Dasher and its main tributary the Minnow River, which drains the area of Cambrian rocks around Beulah, occupy broad alluvial plains developed from a meandering river pattern.

PREVIOUS EXPLORATION

The Exploration Licence area lacks any old mines or mineral occurrences and consequently has no documented early prospecting history.

The first systematic base metal exploration was conducted by Asarco Australia Pty. Ltd. between 1973 and 1976 on Exploration Licence 7/73. Their ground exploration concentrated on a detailed regional stream sediment geochemical programme with a density of two samples per square kilometre (Baker, 1975). No anomalies were located within the current Beulah licence area, consequently no follow-up work was implemented by Asarco, and the property was relinquished.

Amex Australia (Operations) Pty. Ltd. were granted Exploration Licence 49/82 covering 243 square kilometres in the Wilmot-Beulah area on August

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29, 1983. All of Aberfoyle's current licence falls within the boundaries of this now defunct licence. On completion of the exploration work summarised below, Amax relinquished the ground in 1986 (Stewart, 1985), having determined that no significant mineralisation associated with the Cambrian volcanics is likely to outcrop or sub-outcrop on the licence, and that further exploration for deep mineralisation was economically unattractive. No surface geophysics or drilling was undertaken by Amax.

Stream Sediment Geochemistry

Amax studied the Asarco stream sediment data and concluded that a more detailed survey was not warranted. Instead, the original data was reinterpreted to located second order anomalies. The metal values chosen for this category were Cu-36 ppm, Pb-38 ppm, Zn-92 ppm. A further 82 stream sediment samples were collected by Amax (Vivian, 1984), only 9 of which were on Aberfoyle's current licence (Plate BEUL.3). This work defined 5 anomalies which Amax considered to be worthy of further examination. One of these, "Anomaly 1" is on Aberfoyle's ground.

Rock Geochemistry

"Anomaly 1", located near Beulah at grid reference 495115, is defined by 4 anomalous drainages. Ground inspection by Amax revealed unaltered andesitic lavas of the Beulah Formation with rare weak quartz veining.

The best grab sample returned : Pb-2145 ppm, Zn-430 ppm, Cu-120 ppm (Vivian, 1984). No further work was undertaken, but Amax made the observation that the anomalous geochemistry might reflect leakage from a deeply buried massive sulphide body.

Airborne Geophysics

During January 1984 a combined electromagnetic-magnetic survey totalling 360 line kilometres was flown by DIGHEM Limited on behalf of Amax (Vivian, 1984). Part of this survey covered Aberfoyle's licence. The survey detected 82 EM anomalies with a conductor grade of 2 or better. There were no obvious massive sulphide conductors. Follow-up of most of these anomalies failed to generate any encouragement.

GENERAL GEOLOGY

The regional geology (Plate BEUL.5) of the area covered by Exploration Licence 43/85 is described in detail in a report by the Geological Survey of the Tasmanian Department of Mines (Jennings, 1979) and summarised by Amax (Vivian, 1984). Jennings describes the Cambrian stratigraphy as comprising a complex pile of greywacke sediment, volcanic material and chert about 4000m thick which was deposited in an actively developing basin trending in a north-westerly direction through the Sheffield area. The sedimentary pattern clearly indicates tectonic and volcanic activity within and around the basin during deposition.

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Regional mapping was undertaken by Aberfoyle at various times during 1986 and early 1987. The following observations of specific Cambrian rocks were recorded by company geologist J. D. Blackwell.

Regional Setting

The map area lies within the Lower Palaeozoic Fossey-Dial Trough, as an inverted Y-shaped belt bounded by late Precambrian rocks. Precambrian units include shallow marine to terrestrial quartz arenites, wackes and mudstones preserved in three structural blocks : the Cradle Mountain Block to the south, the Forth Block to the east and the Rocky Cape (Burnie) Block to the west. The eastern and western margins of the belt are frequently in steep structural contact with older Precambrian and younger upper Palaeozoic rocks. Within the Fossey-Dial Trough itself, the general structural trend is north to north-west and the overall structure suggest an assymetric synclinorium with older units along the north-west and south-eastern margins, open and verging westerly.

Beulah Formation

The Beulah Formation is restricted to the south-eastern portion of the Fossey Mountain Trough, and outcrop exposure is rare. It is probably equivalent to the Motton Formation. Where observed, the Beulah Formation is brown-weathering dark to medium green coloured medium grained porphyritic (feldspar and augite) andesite. Outcrops in the Roland area indicate massive flows and flow breccia. In the Beulah area, massive flow breccias occur in the north passing to lapilli tuff and ash tuff to the south.

Gog Formation

The Gog Formation includes here the Gog Greywacke and the Radford Creek Group below the Applebee Volcanics (Burns, 1964). Over much of the map area the Gog is a white to buff-weathering green to brown coloured wacke and mudstone sequence. Bedding is thin to medium, units are finely laminated, locally planar cross laminated and possess distinctively sandy bases and mud tops. Near the contact with the overlying volcanic rocks of the Minnow Formation the bedded wacke units are thicker (up to one metre) and comprise pebbly wacke, matrix supported conglomerate and wacke, together with parallel bedded, medium to thick laminated mudstones with cherty layers.

The Sprent Member of the Gog Formation is a locally developed unit of chert and basalt cobble conglomerate and wacke which separates Gog greywackes from underlying Motton or Beulah volcanic rocks.

Distribution suggests deposition of wedge shaped masses, perhaps as debris flows or contourite-type turbidites from nearby fault or volcanic landform scarps.

The Bott Conglomerate (Jennings, 1979) is regarded (JDB) as a unit of the Ordovician Roland Conglomerate and therefore not part of the Cambrian stratigraphy. This is based on its similar aspect to other areas of Roland geology and its unclear relation to adjacent Gog greywacke (usually a fault contact).

Minnow Formation

The Minnow Formation includes here the Applebee Volcanics and Upper Radford Creek Group (Burns, 1964), Minnow Keratophyre, Bull Creek Formation and Lorinna Greywacke (Jennings, 1979), as well as un-named volcanic and sedimentary rocks in the Eastern Belt of Collins (1981). The term Minnow Formation is preferred here as a general term for the uppermost Cambrian geology in the area.

Rock types include rhyolite flows, breccias, ash-flow tuffs, coarse arenaceous quartz-rich wackes, thin conglomerate units and ubiquitous quartz-feldspar porphyry dykes and sills. Minnow rocks are characteristically red and red-brown weathered. Fresh surfaces are pink to rarely dark green and brown. Quartz phenocrysts, quartz clasts and quartz are a ubiquitous feature distinctive of Minnow rocks.

The base of the formation is defined by the first appearance of rhyolitic volcanic rocks or locally rhyolite cobble conglomerate. Several field divisible rhyolite associations are apparent. Most common is brick red to pink quartz and feldspar-phyric flow banded, trachytic rhyolite flows, ash flow tuffs and waterlain tuff. Lithophysal and perlitic textures are common, units are usually massive and rectangular-jointed. Pink and green-brown dykes and sills, characterised by 0.5 to 1.5cm phenocrysts of zoned feldspar and bipyramidal smoky to clear quartz in an aphanitic matrix are common. This association predominates in the Gog Range south of Beulah, in the Loongana-Loyetea and Black Bluff-Lake Lea areas.

A second association comprises sericite quartz-feldspar schists, frequently pink yellow to light pink coloured derived from thick rhyolite flows breccias and crystal lithic tuffs. These rocks are frequently pyritic, as disseminated euhedra up to 5% hosted in quartz-pyrite stockwork veins rarely with sphalerite and galena. This latter association is found in the Gowrie Park to Cethana, Staverton and Nietta areas. Again, quartz feldspar porphyry dykes and sills, identical to those previously described are common, though somewhat schistose (less than adjacent volcanic rock), narrower and altered.

The occurrence of the reddish coloured dyke and sill porphyrys is regarded as a unifying feature, despite the apparent differences between the two field associations. It is an important observation that quartz-feldspar porphyry masses have not been observed cutting underlying geology, suggesting that they are an integral feature of the volcanic history.

The upper part of the Minnow is frequently sediment dominated, comprising waterlain tuff, rare ash flow units and quartz arenite and wacke units. True epiclastic units are very gritty with abundant smoky quartz grains, coarse feldspar detritus and rhyolite, chert and mudstone clasts.

The Minnow Formation is at least 600m thick in the south and 200m in the north. To the north, in the Dial Trough, rhyolite units (Applebee) comprise a thin flow and tuff interval overlain by mudstone. There

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appears to be a progressive shift southwards to thickening, increasing pyroclastic and flow components, dyke intrusion and coarsening of epiclastic units.

Discussion

The Cambrian section in the Fossey-Dial Trough is regarded as a deep marine turbidite sequence with an areally restricted mafic to intermediate tholeiitic volcanic package with a related chert basin facies. The turbidite rocks (Cateena and Gog Formations) display a general trend to fine-grained, laminar facies predominating northward, and coarser, pebbly thick bedded units to the southwest. Both units have a general upward coarsening trend. The Cateena is a likely equivalent to the Gog, merely representing a distal slice thrust southward from the present site of Bass Strait.

The Motton, Beulah and Barrington Formations represent an inter-related platformal tholeiitic spilite-basinal chert association occurring within the axial portion of the currently preserved trough. The volcanic members are abnormally thick for a relatively small areal distribution, and are probably rift-related; originally forming topographically high edifices in the Cambrian basin (thus shedding detritus into adjacent turbidite terrain).

The Minnow Formation rhyolitic units are not easy to generalize. They appear to be equivalent to Tyndall Group rocks which occur along the

11.

eastern edge of the Dundas Trough. They are typically quartz-phyric, and alkaline. True volcanic units are typically pyroclastic, rarely welded ash flow tuffs, bedded and highly altered. Minnow rocks thin northward, thicken to the south and west. Relationships to underlying Gog wackes or overlying Ordovician Roland/Owen Conglomerate and Moina Sandstone units are obscure, but it would seem that the Minnow is more part of the younger Ordovician package than the older Cambrian sequences. This is based on the relative conformity with overlying siliciclastic units, the blanket-like transgression of Minnow in the south over the top of many Cambrian units. It is possible, therefore, that much of the Minnow is a shallow marine to subaerial alkaline tholeiite sequence related more to post-orogenic and post-accretion extension.

Areas thought to offer potential for hosting Que-Hellyer style precious metal-rich, zinc-lead-copper massive sulphide deposits in the district are those containing the Beulah (Motton) Formations. In a recent revision of the stratigraphy of the Mount Read Volcanics, Corbett (1986) also identifies the andesitic sequences of the Beulah Formation as possible correlates with the Que-Hellyer sequence, both being of probable Dundas Group age.

TENURE AND LAND TITLE

Exploration Licence 43/85 covers 80 square kilometres (skm) in the Land District of Devon in the vicinity of Beulah (Plate BEUL.6). The licence document states that this area includes approximately 2 skm of Crown

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Land, 9 skm of State Forest, 0.2 skm of Administrative Reserve and 0.1 skm of Lake Barrington State Recreation Area. The balance, approximately 68.7 skm, is private property.

Aberfoyle's experience with private property elsewhere in the State has revealed that the question of ownership of minerals on private land is complex and occasionally in dispute. With this problem in mind, title searches of areas considered most prospective (those underlain by Beulah Formation) were conducted. Current landowners were noted and the original grant deeds inspected for reference to mineral rights. Of the 102 land parcels searched, 72 were found to have private rights to all minerals other than gold and silver. The Crown owns the mineral rights for 12 land parcels, including State Forest, and the rights below 50 feet from surface for a further 10 land parcels. Two areas are currently owned by the Crown but the mineral rights are still attached to the land and could become private if the land were sold. The remaining 6 parcels searched are reserves.

Realisation after the granting of the Exploration Licence that ownership of mineral rights other than gold and silver, in the areas considered to be most prospective, is vested with the landowners was a major set-back to planned exploration and prompted discussions with the Department of Mines. It became apparent that the State Government has made no firm plans to resume privately owned mineral rights and were it to do so there would be a significant moratorium during which private exploration, or deals with exploration companies, would be permitted.

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Aberfoyle therefore determined that the best approach would be to seek to acquire mineral rights if the land was considered sufficiently prospective. The initial programme should involve geological assessment of Crown Land and other public access to confirm the prospectivity of particular areas. If this work proved encouraging, then options with specific mineral owners would be considered. The overall impact of this approach was to curtail surface work on private land.

STUDIES IN PROGRESS

Geology

Some observations and interpretation of the regional geological setting of the Sheffield district have already been described in a preceding section. This regional work identified areas of Beulah Formation as offering the best potential for locating environments prospective for volcanic massive base metal sulphide mineralisation.

Stream sediment geochemistry by previous explorers has already identified an area of anomalous values within the Beulah Formation, located on farm land south of Beulah. Some anomalous rock samples were collected from this area (Anomaly 1) by Amax, but no further evaluation work was undertaken. Although the locality is on private land with mineral rights, a field visit was arranged with the land owners so that samples could be collected for petrological and geochemical analysis from this key occurrence.

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Eighteen rock samples were collected (Plate BEUL.7) and analysed for Cu, Pb, Zn, Ag, Ni, Mn (Appendix 1). The highest values from a single sample (333318) were Cu-80 ppm, Pb-725 ppm, Zn-280 ppm. These results are less than those recorded from this locality by Amax (Vivian, 1984).

None of the samples collected show any significant alteration. Where fresh, the Beulah Formation rocks are predominantly porphyritic andesites. Brown weathering is accompanied by variable manganese alteration. Rare quartz veining with adjacent vivid green epidote alteration, but devoid of sulphides, was observed at locality 333328.

Elsewhere in the district samples were collected, including some from the Beulah barite occurrence (Appendix 1), for analysis and planned lead isotope characterisation to determine whether the district signatures are typical of Cambrian (massive sulphide-style) or Devonian (granite derived vein-style) mineralisation.

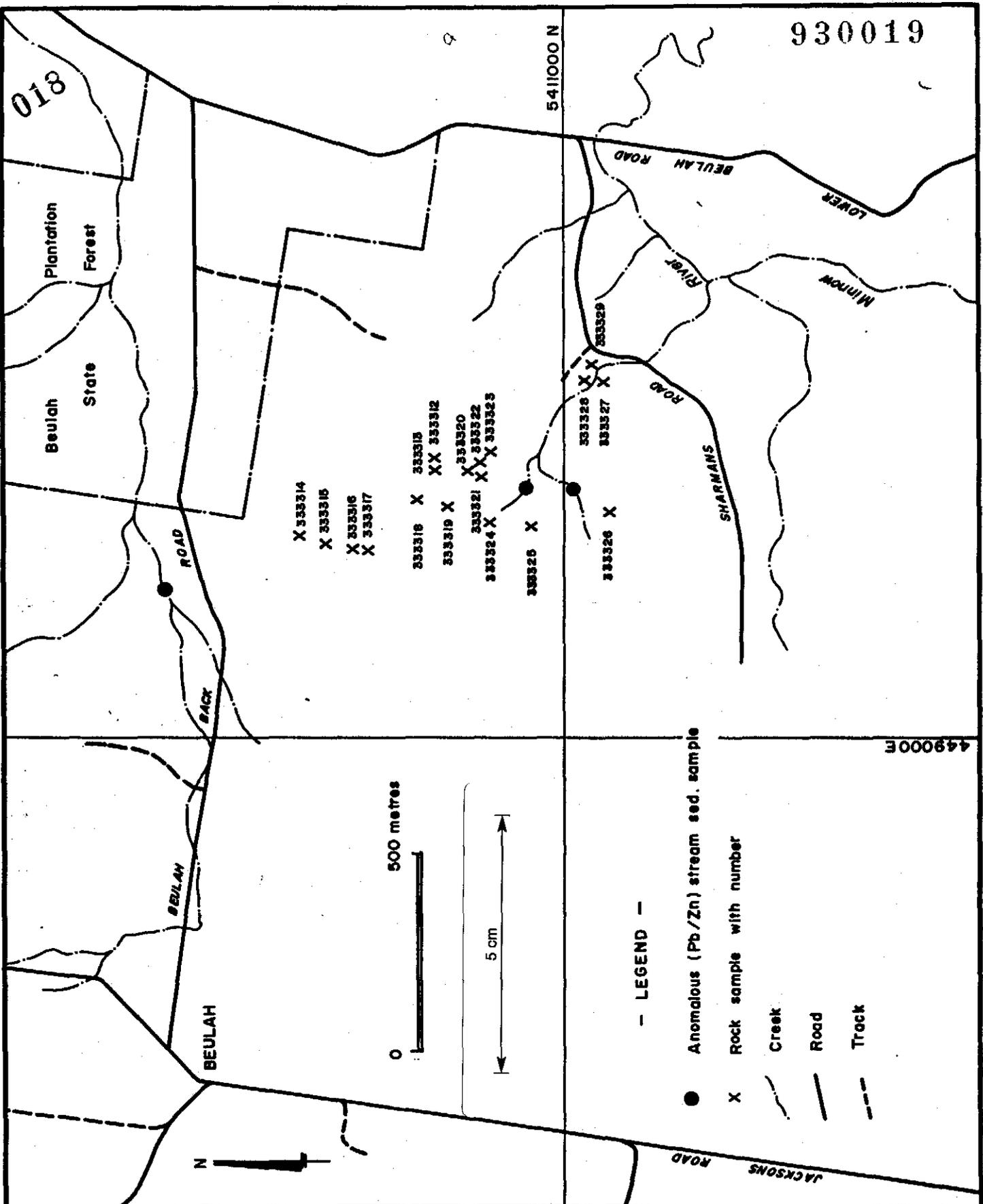
Geochemistry

The regional stream sediment sampling survey conducted by Asarco ^{Barker} (Baker, 1975) at a density of two samples per square kilometre was sufficiently detailed to identify regions of anomalous base metals. No further stream sampling is considered to be immediately necessary. Plate BEUL.3 is a preliminary plan showing all previous sample sites only. A data base is now established using Aberfoyle's facilities into which the Asarco Cu, Pb, Zn values were entered and merged with the major rock type classifications. Statistical manipulation is currently being undertaken to define both regional and specific anomalous areas.

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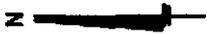
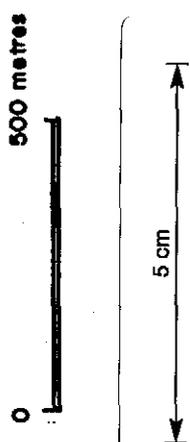
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X 333314
X 333315
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333318 X 333315
XX 333312
333319 X
333320
333321 X
333322 X
333324 X
333325 X

333326 X
333327 X
333328 X
333329 X



- LEGEND —
- Anomalous (Pb/Zn) stream sed. sample
 - X Rock sample with number
 - Creek
 - Road
 - - - Track

449000E

Aberfoyle Resources Limited
EXPLORATION DIVISION

NORTHERN TASMANIA

E.L. 43/85 BEULAH
ROCK CHIP SAMPLE LOCATIONS

REVISIONS			
Init.	Date	Init.	Date

Compiled :	JRS
Drawn :	JRS
Traced :	RJE
Checked :	
Plate No. :	BEUL. 7

Location Code : K55/3

Scale : As shown

Date : April, 1987

Geophysics

During January 1984 a combined electromagnetic-magnetic survey totalling 360 line kilometres was flown by DIGHEM Limited for Amax (Vivian, 1984). Attempts to secure the located data tapes for this survey so that the information could be image processed on Aberfoyle's computer facilities were unsuccessful. DIGHEM Limited in Canada has discarded the tapes and the location of the Amax copy is unknown.

The data tapes for the aeromagnetic survey of the Devonport area (9460 lkm), completed for the Department of Mines as part of the Mount Read Project, were recently obtained. It is planned to image process data from the Beulah region of this survey as an aid to geological and structural mapping. The 1:42,000 aerial photographs were also acquired for air photo lineament studies.

DISCUSSION

The extent and implications of the private ownership of mineral rights, which became apparent after the granting of the exploration licence, and the associated research and debate, have affected the rate of progress during the first year of tenure and essentially restricted work to regional assessment. The proposed programme, as outlined in the tender document, included a significant geological component to permit Aberfoyle to map and interpret this portion of the Mt. Read Volcanics. This phase is in progress, and has included sample collection for planned lead isotope characterisation of mineralisation and trace

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element geochemistry. The gridding, trenching and ground geophysics component has not been undertaken. Attempts to acquire DIGHEM data previously collected over the licence area, and which would assist in regional assessment, were unsuccessful.

The best means of assessing the prospectivity of the area without initially optioning mineral rights, and with the least land disturbance, are being examined to determine the next phase of exploration.

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APPENDIX 1

ROCK GEOCHEMICAL RESULTS

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ANALABS

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

Phone (09) 458 7999

52 Murray Road, Welshpool, W.A. 6106

Telex AA92560

TLX: AA 59224

ANALYTICAL REPORT No. 23.3.08.03895

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

Aberfolye Resources Exp. Division
P.O. Box 952
Burnie
Tasmania 7320

ORDER No. 1404 PROJECT

DATE RECEIVED 30/09/86 RESULTS REQUIRED ASAP

No. OF PAGES OF RESULTS: 1
DATE REPORTED: 07/10/86
No. OF COPIES: 1
TOTAL No. OF SAMPLES: 9

PRE-TREATMENT

ANALYSIS

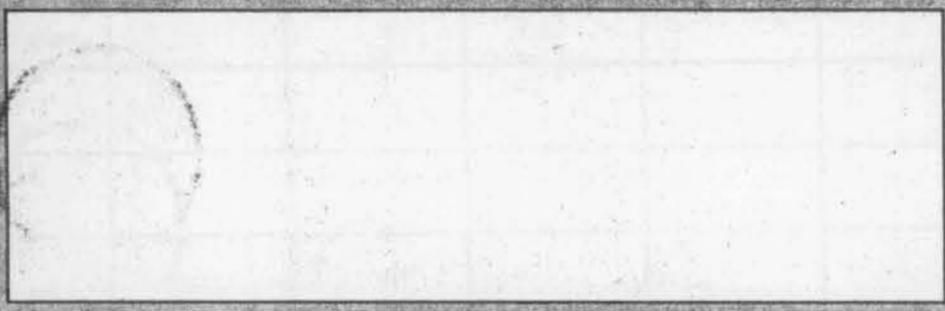
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	DRY	CRUSH	SPLIT	PUL- VERISE	SIEVE	OTHER SEE REMARKS	NONE	REFER TO ANALYSIS SECTION	PREPARATION	METHOD
253901/09	RD	Prep: 006,009,016							Cu, Pb, Zn, Ag/101	
253901/09	RD	Prep: 006,009,016							Cu, Pb, Zn, Ag/104	

REMARKS

RESULTS TO

Aberfolye Resources Exp. Division
P.O. Box 952
Burnie
Tasmania 7320

RESULTS TO



STATE OF SAMPLES	ANALYSIS — PREPARATION				ANALYSIS — METHOD		
whole core	WC	perchloric acid	A1	cold acid	CA	atomic absorption	AAS
split core	SC	hydrochloric acid	A2	specific sulphide	SS	x-ray fluorescence	XRF
cutting	CU	nitric acid	A3	other mixed acids	Ma	spectrophotometry	SPEC
rock	Ro	aqua regia	A4	alkaline attack	AA	colorimetry	COL
soil	SO	nitric-perchloric	A5	volatilization	VO	chromatography	CHR
slip	PU	HF mixture	A6	ignition	IG	titration	TTN
water	WA	HF under pressure	A7	pressed powder (XRF)	PP	other chemical means	CHEM
issue	TI	fusion	A8	glass fusion (XRF)	GF	miscellaneous	MISC
stream sediment	SS					fluorescence	FLUOR
heavy mineral	HM					inductively coupled plasma	ICP

AUTHORISED OFFICER

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930026

BEULAH ROKK SEDIMENTARY

<u>Sample No.</u>	<u>Map Sheet</u>	<u>Co-ords</u>	<u>Type</u>
253901	909 1:25,000	506 086	Beulah banta
253902	" "	507 086	"
253903	" "	507 086	"
253904	Sheffield "	424 103	Stonebridge
253905	Wilmot "	383 143	Beulah Volcanic
253906	" "	396 139	"
253907	" "	399 143	"
253908	" "	398 143	"
253909	" "	395 138	"

FRS
8.10.86

026

ANALABS

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52 Murray Road, Welshpool, W.A. 6106

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ANALYTICAL REPORT No.

23.3.08.04259

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ORDER No. 2317 PROJECT

DATE RECEIVED 24/02/87 RESULTS REQUIRED ASAP

No. OF PAGES OF RESULTS 1 DATE REPORTED 27/02/87 No. OF COPIES 1 TOTAL No. OF SAMPLES 18

SAMPLE NUMBERS	PRE-TREATMENT							ANALYSIS		
	DRY	CRUSH	SPLIT	PUL-VERISE	SIEVE	OTHER SEE REMARKS	NONE	REFER TO ANALYSIS SECTION	PREPARATION	METHOD
333312/29	RC Prep: 00	012,0	3,017					Cu,Pb,Zn,Ag,Ni,Mn/101		

RESULTS TO R. de Bomford
 Aberfoyle Resources Exp. Division
 P.O. Box 952
 Burnie
 Tasmania 7320

RESULTS TO

REMARKS

STATE OF SAMPLES	ANALYSIS — PREPARATION	ANALYSIS — METHOD
hole core WC	perchloric acid A1	atomic absorption AAS
fill core SC	hydrochloric acid A2	x-ray fluorescence XRF
cutting CU	nitric acid A3	spectrophotometry SPEC
rock Ro	aqua regia A4	colorimetry COL
tail SO	nitric-perchloric A5	chromatography CHR
slip PU	HF mixture A6	titration TTN
water WA	HF under pressure A7	other chemical means CHEM
issue TI	fusion A8	miscellaneous MISC
stream sediment SS		fluorescence FLUOR
heavy mineral HM		inductively coupled plasma ICP

AUTHORISED OFFICER *[Signature]*

027

930028

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX REPORT NUMBER REPORT DATE CLIENT ORDER No. PAGE

23.3.08.04259 27/02/87 2317 1 OF 1

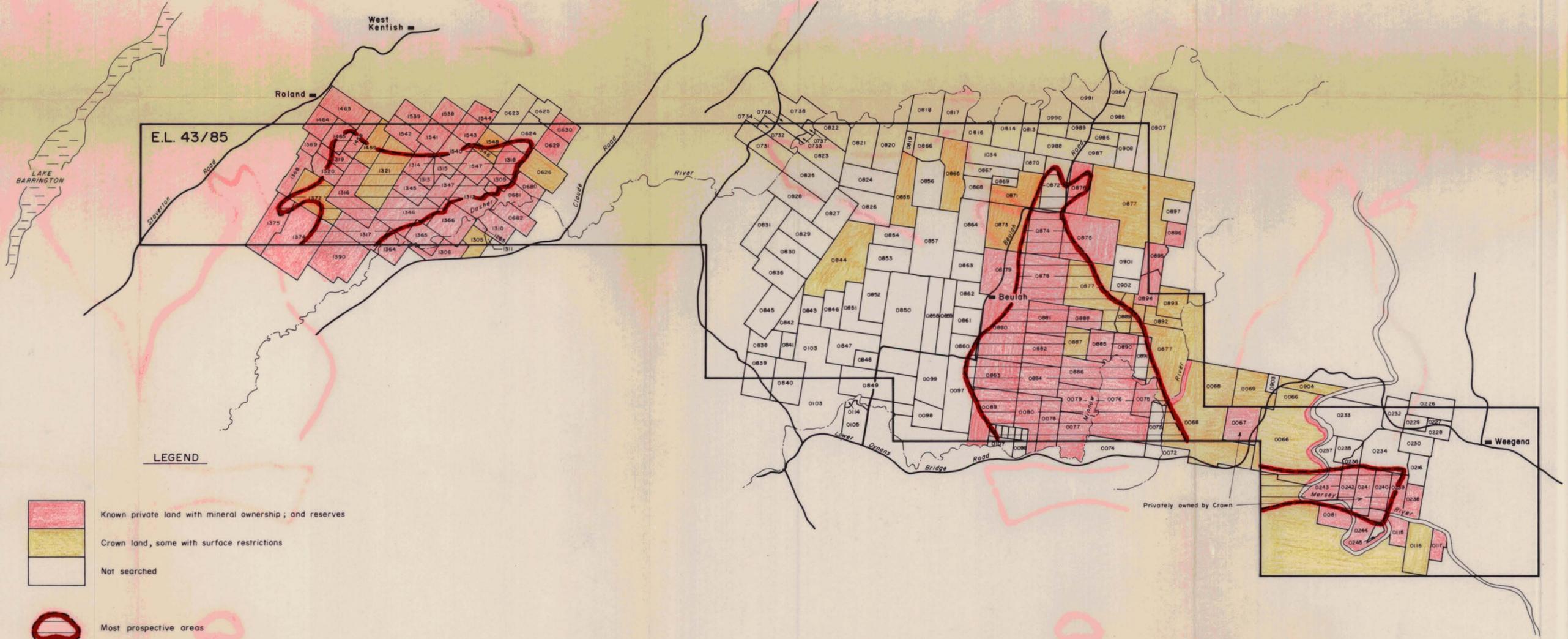
LINE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Ni	Mn			
1	333312	35	85	370	0.5	25	1100			
2	333313	40	75	185	0.5	20	790			
3	333314	20	<5	60	<0.5	25	980			
4	333315	70	5	100	<0.5	35	1500			
5	333316	25	5	65	0.5	35	830			
6	333317	5	5	135	0.5	30	450			
7	333318	80	725	280	0.5	15	290			
8	333319	40	60	510	0.5	30	2650			
9	333320	40	670	180	0.5	20	1750			
10	333321	90	140	245	1.0	25	2150			
11	333322	50	5	350	0.5	35	1350			
12	333323	40	45	200	0.5	20	1800			
13	333324	65	<5	155	1.0	30	3900			
14	333325	30	10	100	<0.5	40	520			
15	333326	35	30	160	1.0	20	1350			
16	333327	20	15	160	<0.5	30	1200			
17	333328	10	5	80	<0.5	20	1600			
18	333329	5	10	25	<0.5	20	1050			
19										
20										
21										
22										
23	DETECTION	5	5	5	0.5	5	5			
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM			
25	METHOD	101	101	101	101	101	101			

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

AUTHORISED OFFICER *a.j.e.*

028

542000mN 430000mE 435 440 445 450 455 460000mE

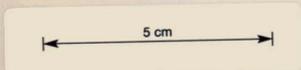
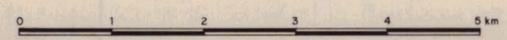


E.L. 43/85

LEGEND

-  Known private land with mineral ownership; and reserves
-  Crown land, some with surface restrictions
-  Not searched
-  Most prospective areas

5415
5410
5405



930029

87-2656

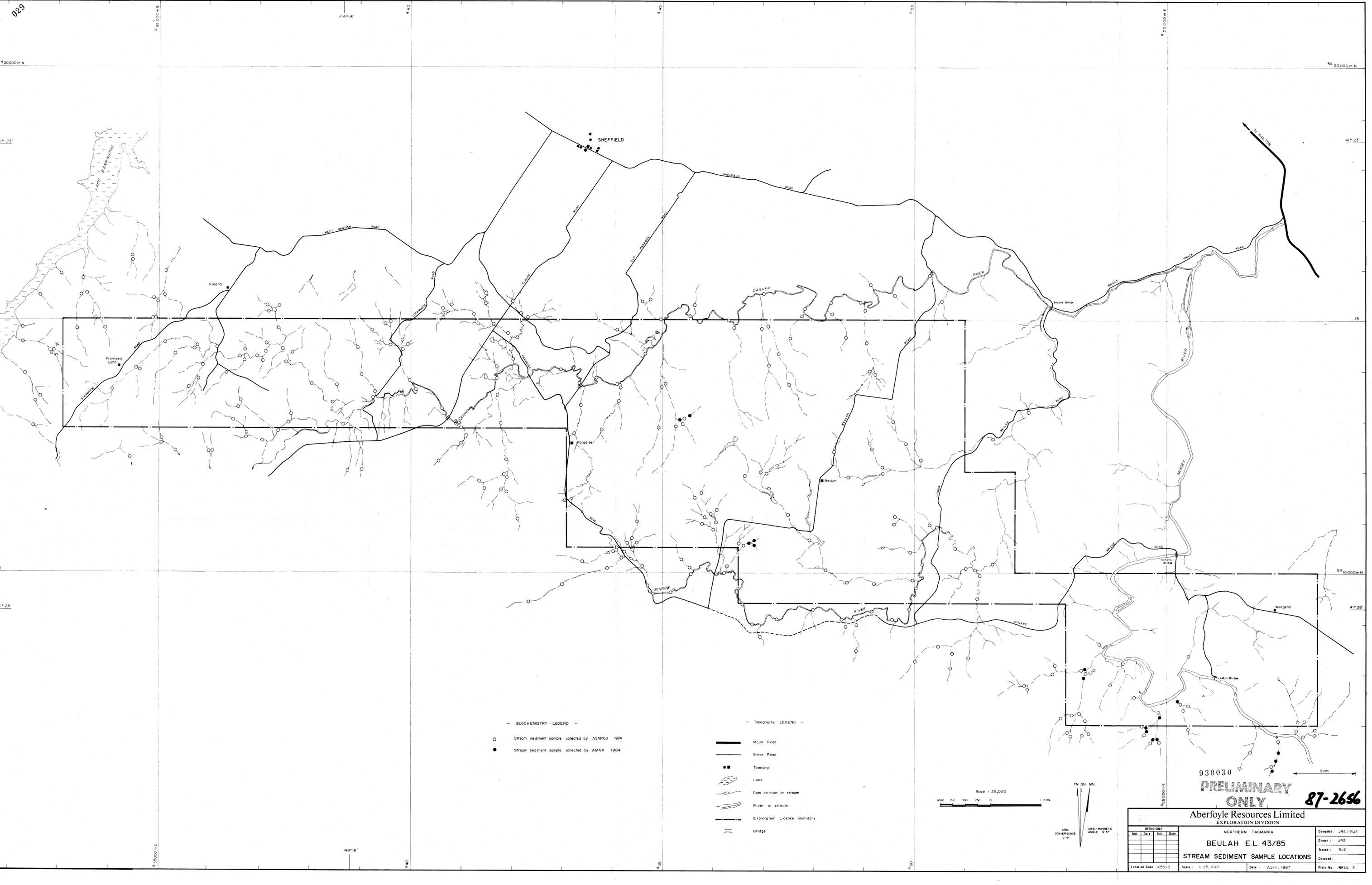
Aberfoyle Resources Limited
EXPLORATION DIVISION

NORTH WEST TASMANIA
BEULAH E.L. 43/85
LAND TITLES

REVISIONS			
Init.	Date	Init.	Date
GLC	9-86		

Location Code: Scale: 1:50,000 Date: July 1986

Compiled: KERD
 Drawn: KERD
 Traced: TN
 Checked:
 Plate No: BEUL I

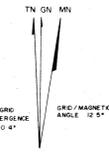


— GEOCHEMISTRY - LEGEND —

- Stream sediment sample collected by ASARCO 1974
- Stream sediment sample collected by AMAX 1984

— Topography LEGEND —

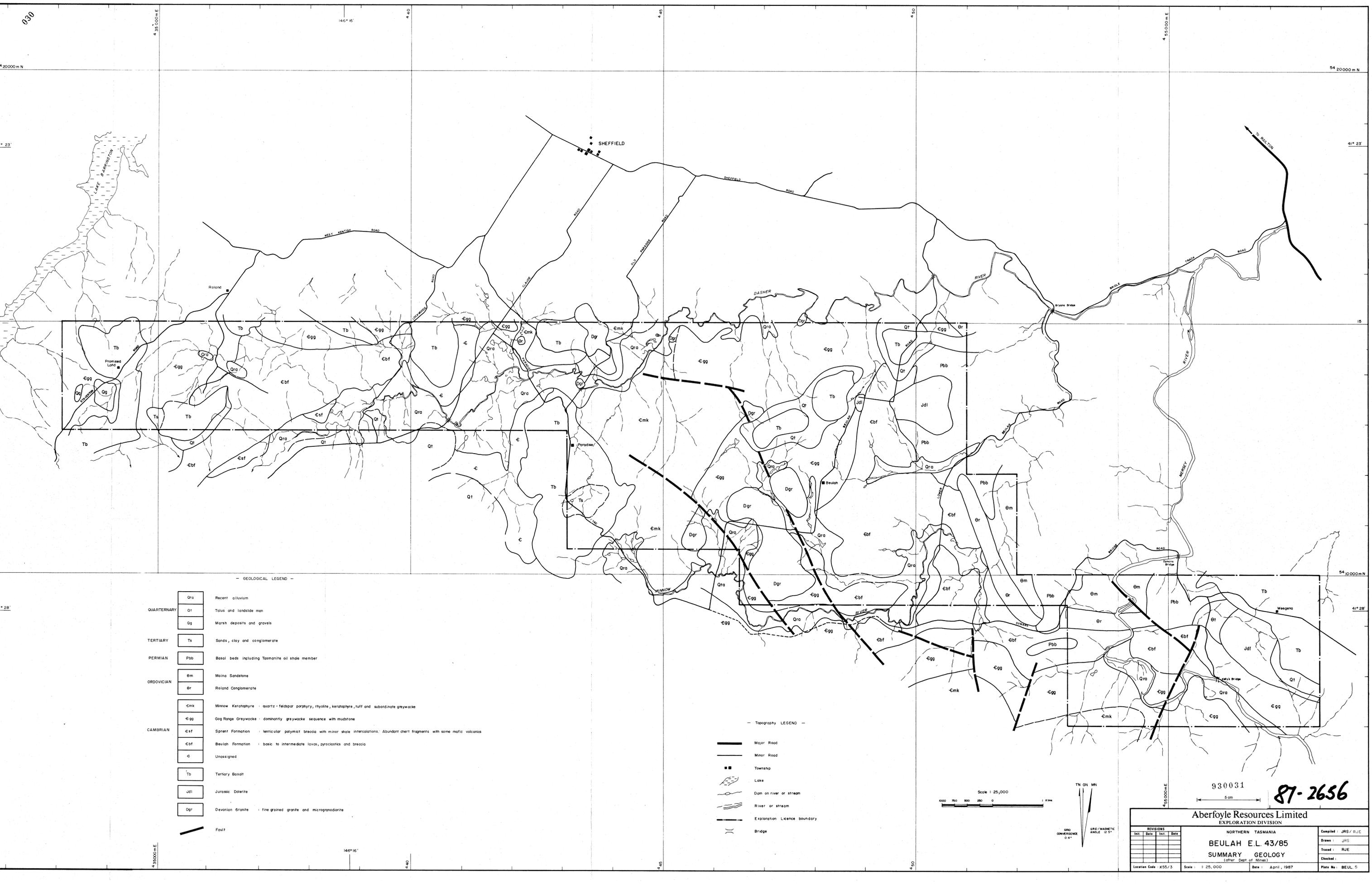
- Major Road
- Minor Road
- Township
- ☞ Lake
- Dam on river or stream
- River or stream
- Exploration Licence boundary
-) Bridge



930030
PRELIMINARY ONLY
 87-2686

Aberfoyle Resources Limited EXPLORATION DIVISION			Compiled: JRS/RJE Drawn: JRS Traced: RJE Checked:
NORTHERN TASMANIA BEULAH E.L. 43/85 STREAM SEDIMENT SAMPLE LOCATIONS			Date: April, 1987 Plate No: BEUL 3
REVISIONS Int. Date. Desc. Date.	Location Code: K55/3 Scale: 1:25,000		Date: April, 1987 Plate No: BEUL 3

030

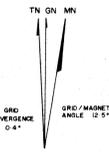
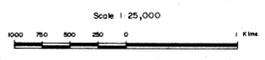


— GEOLOGICAL LEGEND —

- QUATERNARY
 - Qra Recent alluvium
 - Qt Talus and landslide man
 - Qg Marsh deposits and gravels
- TERTIARY
 - Ts Sands, clay and conglomerate
- PERMIAN
 - Pbb Basal beds including Tasmanite oil shale member
- OROVICIAN
 - Øm Meina Sandstone
 - Ør Roland Conglomerate
- CAMBRIAN
 - Ømk Minnow Keratophyre : quartz - feldspar porphyry, rhyolite, keratophyre, tuff and subordinate greywacke
 - Øgg Gog Range Greywacke : dominantly greywacke sequence with mudstone
 - Øsf Sprent Formation : lenticular polymict breccia with minor shale intercalations. Abundant chert fragments with some mafic volcanics
 - Øbf Beulah Formation : basic to intermediate lavas, pyroclastics and breccia
 - Ø Unassigned
 - Tb Tertiary Basalt
 - Jdl Jurassic Dolerite
 - Dgr Devonian Granite : fine grained granite and microgranodiorite

— TOPOGRAPHY LEGEND —

- Major Road
- Minor Road
- Township
- Lake
- Dam on river or stream
- River or stream
- Exploration Licence boundary
- Bridge



930031 **87-2656**

Aberfoyle Resources Limited
EXPLORATION DIVISION

NORTHERN TASMANIA
BEULAH E.L. 43/85
SUMMARY GEOLOGY
(after Dept of Mines)

REVISIONS				Compiled : JRS / RJE
Init.	Date	Init.	Date	Drawn : JRS
				Traced : RJE
				Checked :

Location Code : K55/3 Scale : 1:25,000 Date : April, 1987 Plate No : BEUL 5