

PROJECT 285  
K-55-3

PLACER EXPLORATION LIMITED

RELINQUISHMENT REPORT  
EXPLORATION LICENCE EL 15/88  
HAMPSHIRE, TASMANIA

89-2997

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PLACER EXPLORATION REPORT: TAS 3/89

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## PLANS

(in pockets)

DRG. NO.

SK55.3-3218	EL 88/87 - EL 15/88 Mt Housetop/Hampshire Geological Interpretation	Scale - 1:25000
SK55.3-3275	EL 15/88 Mt Housetop/Hampshire Sample Locations-Blythe River	Scale - 1:10000

KEYWORDS

TASMANIA

EL 88/87

EL 15/88

MINERALISATION

MT HOUSETOP

HAMPSHIRE

DRAINAGE GEOCHEMISTRY

HOUSETOP GRANITE

INGLIS

EXPLORATION

GOLD

SILVER

COPPER

TIN

TUNGSTEN

SK 55-03

GEOCHEMISTRY

8015

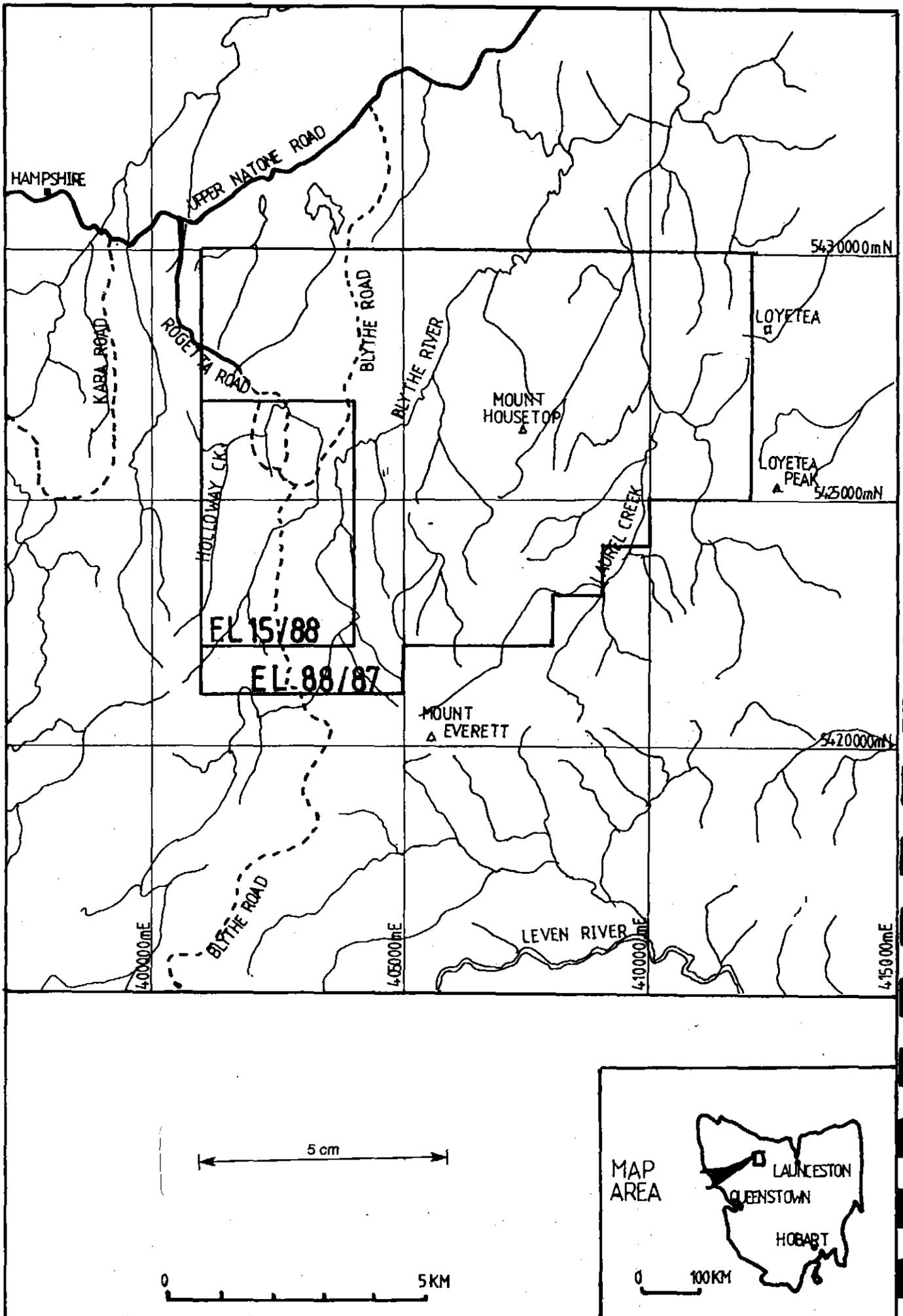


FIG.1 LOCATION MAP, EL88/87 AND EL15/88 MOUNT HOUSETOP/HAMPSHIRE, TASMANIA

## 1. INTRODUCTION

EL 15/88 (Hampshire) was obtained by Placer Exploration Limited as a result of the purchase of CSR Limited's Mineral Group. The Licence resulted from a Tender Application for Tenement Application ETA 30 in February 1988. This Tender was to explore a part of (22km<sup>2</sup>) of EL 17/68 (formally held by Tasmania Mines) for Renison style tin deposits and Ketzra River style gold mineralisation. EL 15/88 was granted to CSR Limited on the 1st August 1988 over an area of 13km<sup>2</sup> and then transferred to Placer Exploration Limited in October 1988.

The Licence is located 30km south of Burnie, a major industrial town and port on the north-west coast of Tasmania (Figure 1). It covers the Holloway Creek drainage basin eastward to the Blythe River.

The area, along with the adjacent Placer held EL88/87, was considered to have potential for Renison style carbonate replacement and/or skarn tin mineralisation and Ketzra style replacement or skarn gold mineralisation in the Ordovician Gordon Limestone. This Limestone (and the rest of the Cambro - Ordovician sedimentary and volcanoclastic sequence) has been intruded by the Devonian Husetop Granite, which is believed to be responsible for the nearby Kara tungsten mineralisation.

Minor gold anomalies are known to the east and south-east of the area. In the Moina/Cethana area, 25km south-east, significant gold prospects occur, probably associated with the Moina Granite (similar to the Husetop Granite and probably related). → Dalcoath Granite

Since the discovery of the mineralisation at Moina and Kara the area has been explored briefly. Recent activity by the Forestry Industry has allowed easy access.

This report summarises the investigations completed by CSR Limited and Placer Exploration in the initial 12 month term of EL 15/88.

## 2. SUMMARY

Exploration of EL 15/88 commenced in August 1988. Initially a brief review of previous exploration showed that apart from a regional drainage geochemical survey (searching mainly for tungsten) little previous work had been completed in the area.

Preliminary bulk cyanide leach and conventional - 80 mesh stream sediment drainage sampling showed anomalous gold values in Holloway Creek, Intermediate Creek and the Blythe River drainages. Follow-up sampling showed the Blythe River anomaly was derived from a small creek draining an area of magnetite skarn. This skarn shows very low gold values in rock chip assays. The Intermediate Creek anomalies appear to be from two sources; one was the gravels at the base of the Tertiary basalt, the other from an area of sulphide/skarn mineralisation and silicification with very low gold values. Gold values in Holloway Creek are very "spotty" and variable and may reflect small local remnant skarn pods.

Rock chip sampling of magnetite skarns and a silicified zone with some sulphide/skarn mineralisation showed only very low gold values.

All significant anomalies have been explained. No further work is required.

### 3. LOCATION AND GENERAL

The EL 15/88 area is centered 30km north-east of Waratah and 30km south of the north-western Tasmanian port of Burnie. The 11km (E-W) by 9km (N-S) area is adjacent to , and east of, the Tasmanian Mines Kara tungsten deposit (Figure 1).

Excellent access to the area is provided by sealed roads along the northern (Upper Natone Road) boundary of the Licence. Forestry activity within the Licence has provided good gravel road driving access to within 2km of most parts of the Licence. Current forestry work is expected to provide even easier access to some parts of the area.

The north-eastern parts of the Licence are underlain by the Devonian Housetop Granite. Although originally supporting a thick eucalypt and/or rainforest cover, most of this granite area now only supports scrubby regrowth after dominantly being clear-fell logged. The western and south-western area of the Licence is underlain by Ordovician limestones and siliceous sediments. These sediments mainly support low, easily traversed buttongrass scrub with minor scrubby regrowth. The south-eastern Licence boundary is underlain by Tertiary basalt.

EL 15/88 is drained dominantly by tributaries of the Blythe River. The Blythe River flows through the Licence from the south to the north-east. Small tributaries (Osborne and Tittie Gee Creeks) of the Emu River drain the north-west corner of the Licence. The main drainage systems are deeply incised resulting in a steep, hilly topography ranging in elevation from 300 to 690m above sea level.

#### 4. PREVIOUS EXPLORATION

Small iron rich lens have been known in the Hampshire area since the 1890s when prospectors first started exploring the ground between Emu Bay and the West Coast (Mt Bischoff).

In the 1956-63 period, Rio Tinto explored north-west Tasmania (SPL 302 and EL 4/59), completing airborne EM and magnetic surveys on most of the prospective zones. Minor work around the Hampshire iron deposits gave generally discouraging results and the Exploration Permits were allowed to expire.

In 1963 the Tasmanian Department of Mines commenced a brief examination of the magnetite lenses south-east of Hampshire for local (Ulverstone) iron ore miners. This included some ground magnetic traverses and some shallow drilling along with geological mapping. This work showed the magnetite lenses tended to be near vertical bodies within siliceous and calcareous sediments near the contact of the Devonian Granite. Some were suggested to be remnants of roof pendants.

In 1968 W.S. Singline obtained EL17/68 in order to explore and evaluate the known iron, tin, copper and barite mineralisation of the area between Two Hummock and Highclere. Initial work by Singline and his company, Tasminex (1969-1985) concentrated on the Hampshire (Kara) iron, tin and tungsten deposits, the Hummocks barite deposits and the Laurel Creek copper mineralisation (chalcopyrite in chlorite quartz veins in decomposed siliceous rocks dipping at 50° to the south-east). Most of the work was on the Kara deposits (Whitehead, 1987).

Between 1971 and 1974 the area was joint ventured to ANZECO (the exploration arm of Union Carbide Corporation which (as operator) further detail evaluated the Kara skarns and completed regional mapping, geochemical sampling and air magnetics/radiometrics surveys. In the regional surveys a total of 593 panned concentrate and rock chip were analysed for W. Of these, 157 samples were also analysed for Sn, Cu, Pb, Zn and Au. Eight panned concentrate samples showed anomalous Au values. No further regional work or follow-up was completed on these anomalous areas, some of which are now included in the EL 15/88 area. All ANZECO's work after 1972 was concentrated on the evaluation of the tungsten skarns until the joint venture lapsed in 1974 (Brandt, 1974).

010

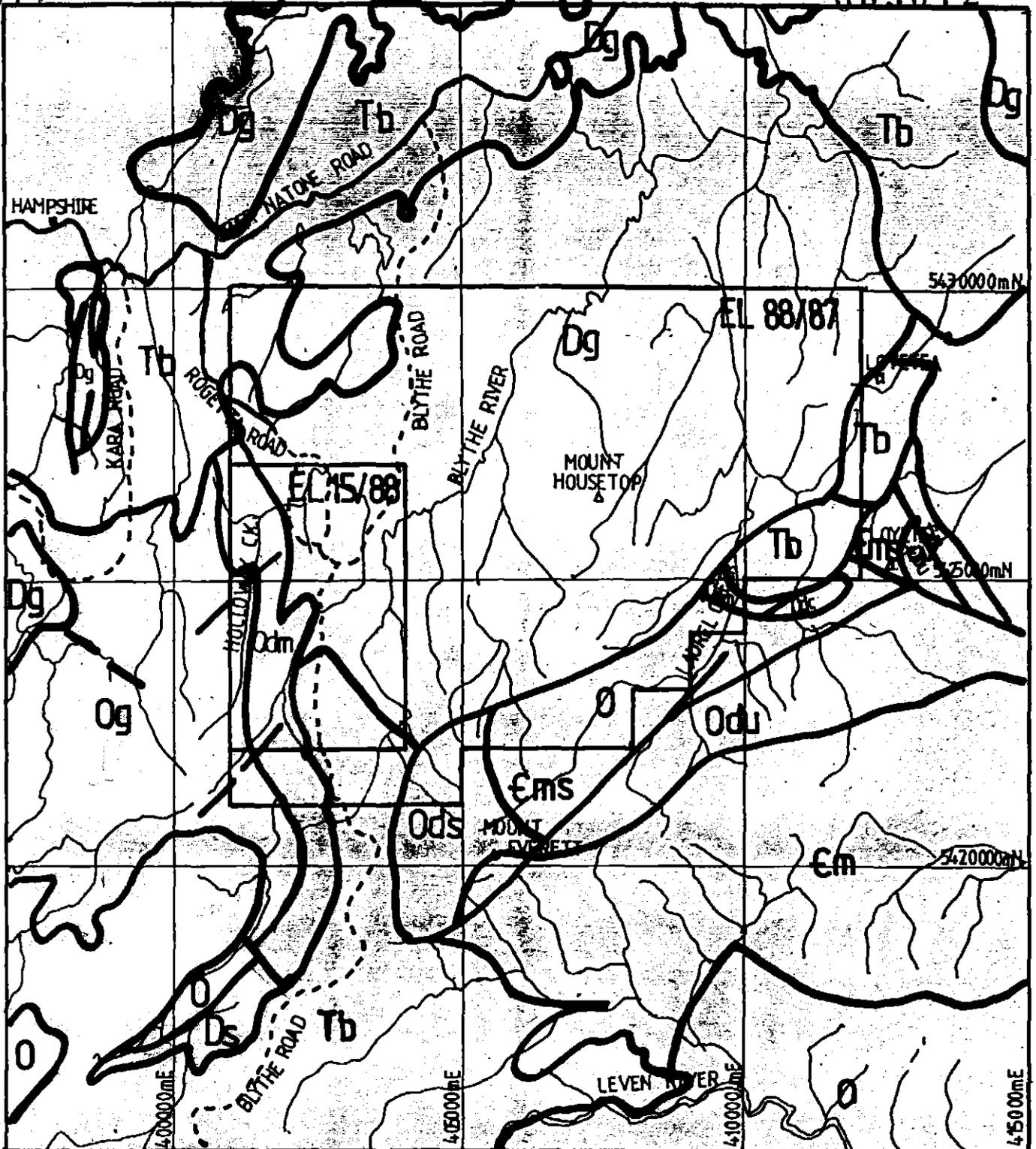
Page .5.

During the 1975-1976 period, work within EL 17/68 by Tasminex was confined to the known skarn mineralisation.

Between 1977 and 1985 McIntyre Mines (in joint venture with Tasminex) evaluated the Kara No. 1 and Kara North tungsten skarns. Only minor regional exploration was completed.

Tasminex and later Tasmania Mines, operated the EL 17/68 area from 1985 until its partial relinquishment in late 1987. No significant regional work was completed in the area now covered by EL 15/88.

CSR's regional evaluation suggested potential for tin and/or gold mineralisation in the area. EL 15/88 was obtained by tender when Tasmanian Mines relinquished part of EL 17/68.



TERTIARY	Tb	Basalt
DEVONIAN	Ds	Bell Shale Equivalent
	Dbu	Undifferentiated
	Dg	Granite
ORDOVICIAN	Og	Gordon Limestone
	Ogm	Moina Sandstone Equivalent
	Odc	Siliceous Conglomerate
	O	Sandstone & Conglomerate
	Odu	Undifferentiated
CAMBRIAN	Ems	Sediments (felsic to intermediate Volcanics)
	Em	Mixed felsic to intermediate Volcanics & Sediments

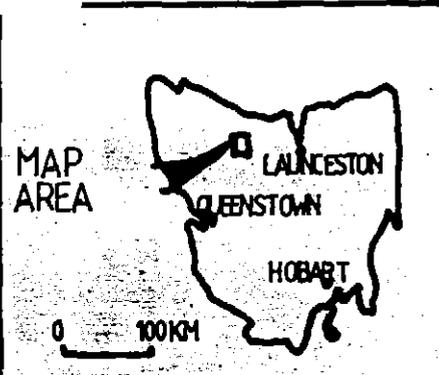
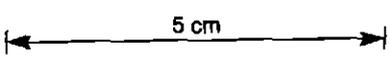


FIG2 GEOLOGY SUMMARY EL 88/87 & EL 15/88  
MOUNT HOUSTOP/HAMPSHIRE

## 5. GEOLOGY

The oldest rocks in the Mt Husetop area (Figure 2) are the correlates of the Mt Read Volcanics outcropping to the south-east of the Licence in EL 88/87. These are a mixed sequence of dominantly extrusive felsic to intermediate volcanic and sedimentary rocks with fossils suggesting a late Middle Cambrian age. East of Laurel Creek the Cambrian rocks are mainly volcanics (tuffs, epiclastics and lavas) with inter-bedded sediments (laminated mudstones, greywackes and conglomerates). West of Laurel Creek the sediments (lithic wackes to quartz sandstones) are more abundant than the volcanics. Lithic sediments contain fragments of chloritised fine volcanics, felsic volcanics and metamorphics.

Overlying the Cambrian volcano-sedimentary sequence, with apparent conformity, is the dominantly quartz sandstone sequence of the Ordovician Denison Subgroup correlates. These rocks occur to the south-east of the Licence area. In the south, at Mt Everett, the basal Ordovician rocks are well-sorted, coarse non-marine sandstones with some pebbles and conglomerates. In the east, at Loyatea Peak, rocks in a similar stratigraphic position are more coarse and are similar to Owen Conglomerate.

Overlying the coarse sandstone to conglomeratic rocks is a sequence of quartz sandstone and shale with minor coarse horizons which are exposed to the south of Peak Hill (Laurel Creek Area) and in the south and west of the Licence.

Overlying the Moina Sandstone correlates (but with generally poor outcrop) is a limestone sequence, correlated with Gordon Limestone. This fine grained, grey silty limestone occurs mainly along the western side of the Licence in lower, swampy areas. Small patches occur in Redwater Creek and to the east of the Licence.

The above Cambro-Ordovician sequence has been intruded by the Late Devonian-Early Carboniferous Husetop Granite (dated at 353-370 Ma). This is an equigranular to sparsely porphyritic, medium- to coarse-grained biotite granite, the emplacement of which was controlled by pre-existing faults and/or joints.

Granite underlies the central and north-eastern portions of the Licence with Ordovician sediments occurring along the western and southern areas.

During the intrusion of the granite, heated fluids metasomatised some areas of limestones to magnetite bearing skarn. Some of these carry economic concentrations of tungsten with tin, copper and/or molybdenum, such as at the Kara Mine (4 km to the west of the Licence).

During the Tertiary period, much of north-west Tasmania was inundated by dominantly alkali olivine basalts. Remnants of these, along with intra-basalt layers of sediments and some greybillies, occur in the north-western and south-eastern parts of the Licence. Some tin and/or gold may be associated with the Tertiary sediments.

Minor recent glacial, fluvioglacial and fluvial sediments overlie the older rocks. These generally occur as valley floor alluvial-type deposits with some containing anomalous tin and possible gold concentrations.

Detailed geology is shown on PLAN NO. SK55.3-3218.

## 6. CURRENT EXPLORATION

### 6.1 Techniques

EL 88/87 and EL 15/88 were acquired to cover the southern, eastern and western margins of the Housetop Granite containing volcanoclastic, carbonaceous and calcareous rocks suitable for hosting Renison style tin deposits of Ketzia style gold deposits. A review of previous exploration data showed that although the area has been held under Exploration Licence for some time there was a significant area of the contact that was basically unexplored. Also minor drainage geochemistry showed several isolated gold anomalies which had never been further investigated.

Initial broadly spaced drainage sampling was undertaken. This sampling involved the taking of two samples from the major easily accessible drainages within the area. These samples were:-

- a 5kg sample of -6mm active stream sediment for bulk cyanide leaching of extractable gold with additional silver and copper analyses;
- a 1kg conventional stream sediment sample for analysis of the -80 mesh fraction for Cu, Pb, Zn, Bi, As, Sb, Sn and Ag (for reference).

Anomalous sample sites were resampled for both sample types.

Confirmed anomalous drainages were then detail sampled. The sampling involved taking the 5kg bulk leach sample and the 1kg stream sediment sample from sites at all stream intersections and at intervals between 500 and 1000m along the main drainage within the anomalous drainage area. During this detailed sampling programme previous geological mapping was checked.

An area of obvious alteration with minor sulphide mineralisation and some possible skarn metasomatism was located during the follow-up of the initial anomalous samples. This was mapped and rock chip sampled.

015

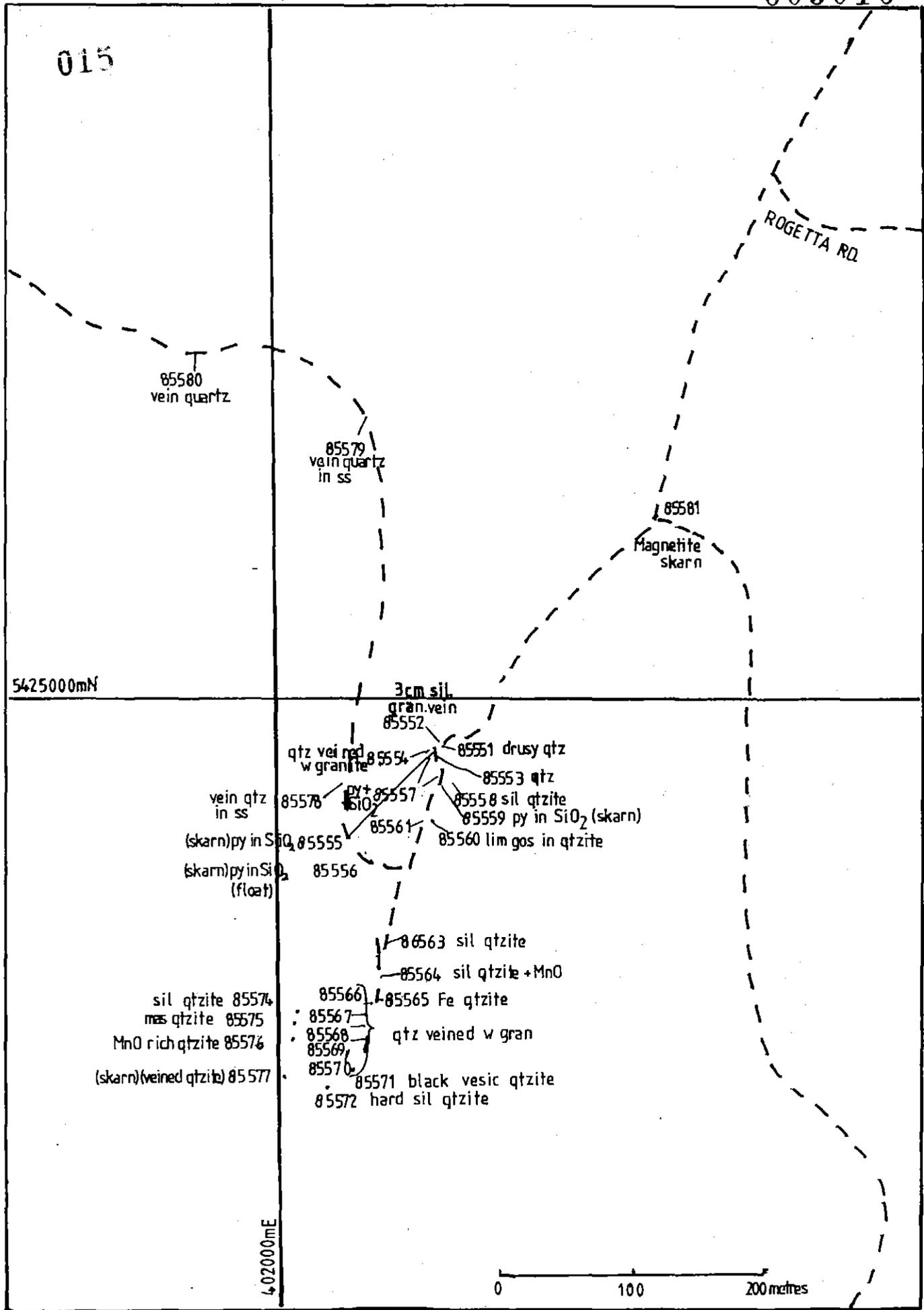


FIG. 3 ROCK CHIP SAMPLE LOCATIONS WHITE HILL, EL 15/88, HAMPSHIRE

## 6.2 Results

The review of previous exploration data showed that two tributaries of Laurel Creek contained unconfirmed anomalous gold values in panned concentrates. No drainages in the EL 15/88 area were analysed for gold.

The initial CSR/Placer drainage sampling programme showed the Holloway Creek/Blythe River area of EL 15/88 to be anomalous in gold (up to 1.8ppb Au in the bulk samples).

(Appendices I, II/PLAN No. SK55.3-3275):

Further sampling in this area confirmed the anomalies, (Appendices I, II) while a brief traverse around the adjacent tracks showed an area of weak sulphide mineralisation and metasomatic alteration near White Hill. Rock chip sampling (Figure 3. Appendix III) showed the sulphides to carry weak Pb (525ppm), Zn (215ppm), Ag (4ppm) and As (270ppm) but only weak Au and no significant Sn. Magnetite skarns contained weak Zn (890)ppm and significant Sn (330ppm) but little Au.

Detailed drainage sampling of the Holloway Creek/Blythe River anomalous drainages was undertaken.

This sampling located several areas of magnetite skarn float. These skarns carried low Au values.

Analyses of the bulk leach samples from the detailed sampling (Appendix IV) gave strange results. Confirmed anomalies showed no gold. In fact only two samples showed any detectable gold (up to 1.385ppb). These two were from adjacent small tributaries of the Blythe River (although the Blythe River samples showed no gold).

However, the conventional stream sediment samples (Appendix V) showed over half the samples to carry detectable gold (greater than 2ppb). Cyanide leach analyses of the remnants of the stream sediment samples (Appendix VI) also suggested that there was detectable gold in a significant portion of the samples.

Comparisons of the various geochemical results for the detailed sampling programmes has suggested several areas are anomalous in Au. These areas are:

Page .10.

- The White Hill area in the Tributaries of Intermediate Creek.
- The contact area of the Tertiary Basalt with the Ordovician sediments in the southern headwaters of Intermediate Creek.
- An area of skarn float to the west of the Blythe River and north of Jaffrays Road.
- The Holloway Creek drainage showed "spotty" anomalous values which may reflect small local remnant skarn pods.

No area of significant Sn anomalies was located. Some of the skarns carried anomalous Sn values.

The Holloway Creek/Blythe River anomalous area was re-sampled. This was an attempt to determine the cause of the discrepancies between analyses of samples sent to one laboratory from the same sample programme. This re-sampling confirmed the anomalous areas defined above, but also confirmed the original anomalous samples (Appendix VII). Problems were still encountered with some assays.

## 7. CONCLUSIONS

Results of the above work showed three drainages to have anomalous Au values. Follow-up showed the anomalous Au originated in four district areas.

The Blythe River anomaly could be traced up stream to two small streams draining an area of magnetic skarn (west of the Blythe River). Rock chip samples of this skarn showed very weak Au values (0.008ppm).

The headwaters of Intermediate Creek showed a strong Au anomaly below the edge of the Tertiary Basalt but no anomalies further upstream. This suggests the source of the anomalous Au was the gravels beneath the basalt.

A tributary of the Intermediate Creek showing anomalous Au drained an area of sulphide/skarn mineralisation and silicification. Rock chip samples from this mineralisation showed weak gold values (0.012ppm).

The gold anomaly in Holloway Creek was very weak and "spotty". The main anomalies were from the area underlain by the Husetop Granite. This suggests the Au may have been derived from small remnant pods of weakly mineralised skarns, as have been noted elsewhere.

The significant anomalous Au values have been traced to their probable sources. These are small mineralised skarns or Tertiary Basalt, all of which have little volume. No further work is required.

8. REFERENCES

BAILLIE, P.W., (in press). Report on St Valentines Mapping in St Valentines Explanatory Reports - Geological Atlas 1 Mile and 1:50000 series. Tas. Dept. Mines Expl. Rpt.

BRANDT, R.T., 1974. Report on the results of exploration on EL 17/68, Period October 1971 - May 1974. Unpub. Rpt. of ANZECCO.

WHITEHEAD, C.H., 1987. EL 17/68, Kara Region, Hampshire Relinquishment Report Part of EL 17/68. Unpub. Rpt. of Tasmania Mines Ltd.

APPENDIX I

DRAINAGE GEOCHEMISTRY

BULK LEACH ANALYSES

021

605022

SAMPLE PREFIX			REPORT NUMBER			REPORT DATE	CLIENT ORDER No.		PAGE	
			162.5 13 3288			25.08.87	45074		1 OF	
	SAMPLE No.	TOT. wt	%CN	Au(1)	Au(2)	Au(3)	Ag	Cu		
1										
2	✓ A 272595	6.9	.169	x	x	x	2.8	50.		
3	✓ A 272597	5.6	.173	1.20	10.1	1.80	2.3	23.		
4	✓ A 272599	4.5	.185	x	x	x	2.8	62.		

## ANALYTICAL DATA

SAMPLE PREFIX			REPORT NUMBER			REPORT DATE	CLIENT ORDER No.		PAGE	
			999.28.08.05300			13/04/88	44670		1 OF 2	
TUBE No.	SAMPLE No.	Cu	Ag	Au	Drywt					
1	<del>                    </del>									
2	A321353	46	23.3	0.28	4.8	✓				
3	A321356	189	23.2	0.33	4.4	✓				
4	A321358	300	20.3	0.21	4.8	✓				
5	<del>                    </del>									
6	A321362	91	32.7	<0.05	2.8	✓				
7	A321364	117	24.0	0.12	4.7	✓				
8	A321366	181	10.5	0.09	5.2	✓				
9	A321368	111	8.1	0.34	3.8	✓				
10	A321370	218	13.5	0.10	4.7	✓				

022

605023

## ANALYTICAL DATA

SAMPLE PREFIX		REPORT NUMBER				REPORT DATE	CLIENT ORDER No.		PAGE	
		999.52.08.05705				14/10/88	1154		1 OF 1	
TUBE No.	SAMPLE No.	Cu	Ag	Au	Au(1)	Au(2)	Drywt			
1	85501	244	6.4	0.34	0.23	1.3	3.8	✓		
2	85503	20	2.6	0.17	0.12	1.2	6.8	✓		
3	85505	31	2.0	0.18	0.12	1.3	7.0	✓		
4	85507	19	2.4	0.09	0.06	0.6	6.4	✓		
5	85509	28	0.8	0.65	0.43	1.8	2.7	✓		
6	85511	306	5.1	1.36	0.91	4.6	3.4	✓		
7	85513	99	4.0	0.18	0.12	1.2	7.0	✓		
8	85515	70	1.4	0.18	0.12	1.5	8.0	✓		
9	85517	113	4.9	0.18	0.12	1.4	7.7	✓		

APPENDIX II

DRAINAGE GEOCHEMISTRY

STREAM SEDIMENT ANALYSES

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ANALYTICAL REPORT

JOB COM872481

SAMPLE	CU	Pb	Zn	Bi	Ni
✓-A 272596 -80#	5	10	26	12	18
✓-A 272598 -80#	10	8	24	6	36
✓-A 272600 -80#	4	4	6	4	4



UNITS ppm ppm ppm ppm ppm

025

OM LABS SERVICES PTY. LTD.

- 8 -



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## ANALYTICAL REPORT

JOB COM872481

SAMPLE	Ba	Sb	As	Sn	W
√A 272596 -20+80#	25	6	4	14	<10
√A 272598 -20+80#	50	6	8	<4	<10
√A 272600 -20+80#	65	8	7	16	20

UNITS            ppm            ppm            ppm            ppm            ppm

SCHEME        XRF1        XRF1        XRF1        XRF1        XRF1

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028

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## ANALYTICAL REPORT

JOB COM872481

	SAMPLE	Ag	Au
✓A	272596 -80# & -20+80#	<1	
✓A	272598 -80# & -20+80#	<1	25
✓A	272600 -80# & -20+80#	<1	

UNITS ppm

SCHEME AAS3

*Done*

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605028



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027

Job: 8AD1280  
O/N: 20210,20211

ANALYTICAL REPORT

SAMPLE	Ag	Cu	Pb	Ni	Bi	Au
✓ A 321354 -80#	<1	9	14	14	<4	15
✓ A 321354 -20+80#	<1	3	10	12	<4	<5
✓ A 321359 -80#	<1	10	20	42	<4	<5
✓ A 321359 -20+80#	<1	5	12	14	<4	<5
✓ A 321363 -80#	<1	9	38	22	<4	<5
✓ A 321363 -20+80#	<1	5	18	20	<4	<5
✓ A 321365 -80#	<1	9	22	20	<4	10
✓ A 321365 -20+80#	<1	6	16	20	<4	15
✓ A 321367 -80#	<1	11	20	66	<4	15
✓ A 321367 -20+80#	<1	9	10	48	<4	<5
✓ A 321369 -80#	<1	4	16	14	<4	<5
✓ A 321369 -20+80#	<1	7	20	14	<4	<5
✓ A 321357 -80#	<1	6	10	6	<4	<5
✓ A 321357 -20+80#	<1	2	14	<4	<4	<5
UNITS	ppm	ppm	ppm	ppm	ppm	ppb
SCHEME	AAS3	AAS1	AAS1	AAS1	AAS1	AAS5C

*(DONE)*



# CLASSIC COMLABS LTD

Analytical Laboratories (INC. IN WA.)



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Job: 8AD1280

O/N: 20210,20211

028

## ANALYTICAL REPORT

SAMPLE	Sn	W	As	Sb	Ba
✓ A 321354 -80#	34	10	<2	4	50
✓ A 321354 -20+80#	14	20	<2	6	30
✓ A 321359 -80#	12	30	<2	<4	45
✓ A 321359 -20+80#	<4	<10	<2	<4	40
✓ A 321363 -80#	I.S.	I.S.	I.S.	I.S.	I.S.
✓ A 321363 -20+80#	<4	<10	<2	4	130
✓ A 321365 -80#	10	<10	<2	<4	60
✓ A 321365 -20+80#	8	<10	<2	4	55
✓ A 321367 -80#	10	30	<2	6	65
✓ A 321367 -20+80#	6	<10	2	<4	40
✓ A 321369 -80#	<4	20	<2	4	45
✓ A 321369 -20+80#	4	<10	<2	8	45
✓ A 321357 -80#	I.S.	I.S.	I.S.	I.S.	I.S.
✓ A 321357 -20+80#	24	10	<2	10	40

UNITS	ppm	ppm	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1	XRF1	XRF1

APPENDIX III

ROCK CHIP GEOCHEMISTRY

# ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

030

999.52.08.05701

04/10/88

1155

4 OF 4

PAGE	SAMPLE No.	Ba	W	Au	Au				
1	85576	<10	25	-	0.001				
2	85577	70	<20	-	0.001				
3	85578	<10	<20	-	0.003				
4	85579	<10	<20	-	0.001				
5	85580	15	<20	-	<0.001				
6	85581	<10	45	-	0.001				
7	85582	410	55	0.16	-				
8	85583	<10	<20	-	0.008				
9	85584	30	<20	-	0.008				
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031

## ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

SAMPLE PREFIX		REPORT NUMBER			REPORT DATE	CLIENT ORDER No.		PAGE	
		999.52.08.05701			04/10/88	1155		3	OF 4
SAMPLE No.	Ba	W	Al	Al					
85551	15	<20	-	0.011					
85552	30	<20	-	0.006					
85553	<10	25	-	0.007					
85554	160	<20	-	0.004					
85555	15	<20	-	0.011					
85556	<10	<20	-	0.002					
85557	15	30	-	0.004					
85558	<10	<20	-	0.002					
85559	25	<20	-	0.001					
85560	110	<20	-	0.002					
85561	<10	<20	-	0.001					
85562	<10	<20	-	<0.001					
85563	<10	65	-	0.001					
85564	<10	30	-	0.001					
85565	50	<20	-	0.002					
85566	490	<20	-	0.002					
85567	75	<20	-	0.004					
85568	80	160	-	0.002					
85569	150	<20	-	<0.001					
85570	100	<20	-	<0.001					
85571	<10	30	-	0.003					
85572	<10	<20	-	0.001					
85573	360	<20	-	0.012					
85574	<10	250	-	0.001					
85575	10	50	-	0.001					

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

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033

## ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

		999.52.08.05701				04/10/88		1155		1 OF	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Bi	Ni	As	Sn	Bi	
1	85551	<5	<5	50	<0.5	<10	15	15	25		
2	85552	<5	5	40	<0.5	<10	15	16	5		
3	85553	<5	<5	25	<0.5	<10	15	14	20		
4	85554	10	<5	20	<0.5	<10	30	9	15		
5	85555	10	30	90	<0.5	<10	15	110	8		
6	85556	20	85	75	<0.5	<10	15	31	30		
7	85557	25	525	215	4.0	20	20	270	30		
8	85558	5	<5	45	<0.5	<10	20	9	30		
9	85559	<5	<5	100	<0.5	<10	25	9	30		
10	85560	<5	<5	130	<0.5	<10	20	7	20		
11	85561	<5	<5	90	<0.5	<10	15	5	40		
12	85562	<5	<5	50	<0.5	<10	5	7	540		
13	85563	<5	<5	10	<0.5	<10	10	1	60		
14	85564	<5	<5	10	<0.5	<10	10	3	25		
15	85565	<5	<5	20	<0.5	<10	15	1	15		
16	85566	15	<5	30	<0.5	<10	40	9	6		
17	85567	15	<5	35	<0.5	<10	35	20	15		
18	85568	15	<5	20	<0.5	20	45	17	30		
19	85569	25	<5	20	<0.5	<10	70	14	9		
20	85570	20	<5	20	<0.5	<10	50	13	15		
21	85571	<5	<5	10	<0.5	<10	25	2	30		
22	85572	<5	<5	40	<0.5	<10	20	1	7		
23	85573	5	<5	75	<0.5	<10	30	71	4		
24	85574	<5	<5	10	<0.5	<10	10	1	40		
25	85575	<5	<5	10	<0.5	<10	10	<1	6		

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

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605034

APPENDIX IV

FOLLOW-UP DRAINAGE GEOCHEMISTRY

BULK LEACH ANALYSES

035

## ANALYTICAL DATA

SAMPLE PREFIX		REPORT NUMBER				REPORT DATE	CLIENT ORDER No.		PAGE	
		999.52.08.05894				12/12/88	1157		2 OF 4	
TUBE No.	SAMPLE No.	Totwt	Au (1)	Au (2)	Au (3)	Ag	Cu			
7 ✓	321707	5.9	<0.01	<0.1	<0.001	1.189	125			
8 ✓	321709	4.9	<0.01	<0.1	<0.001	43.861	32			
9 ✓	321711	4.5	<0.01	<0.1	<0.001	50.952	12			
10 ✓	321713	4.0	<0.01	<0.1	<0.001	35.500	70			
11 ✓	321715	3.7	0.92	5.1	1.385	34.231	88			
12 ✓	321717	4.1	<0.01	<0.1	<0.001	28.615	102			
13 ✓	321719	4.1	0.41	2.5	0.621	30.000	171			
14 ✓	321721	4.3	<0.01	<0.1	<0.001	22.174	61			
15 ✓	321723	2.5	<0.01	<0.1	<0.001	52.615	18			
16 ✓	321725	4.7	<0.01	<0.1	<0.001	30.234	9			
17 ✓	321727	3.8	<0.01	<0.1	<0.001	25.946	12			
18 ✓	321729	5.1	<0.01	<0.1	<0.001	22.258	51			
19 ✓	321731	3.9	<0.01	<0.1	<0.001	81.364	27			
20 ✓	321733	3.7	<0.01	<0.1	<0.001	40.000	40			
21 ✓	321735	4.5	<0.01	<0.1	<0.001	45.788	10			
22 ✓	321737	5.1	<0.01	<0.1	<0.001	27.891	11			
23 ✓	321739	4.5	<0.01	<0.1	<0.001	2.744	16			
24 ✓	321742	4.0	<0.01	<0.1	<0.001	1.579	10			
25 ✓	321744	4.1	<0.01	<0.1	<0.001	33.333	93			

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

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605036

038

## ANALYTICAL DATA

SAMPLE PREFIX		REPORT NUMBER				REPORT DATE	CLIENT ORDER No.		PAGE	
		999.52.08.05894				12/12/88	1157		3 OF 4	
TUBE No.	SAMPLE No.	Totwt	Au (1)	Au (2)	Au (3)	Ag	Cu			
1 ✓	321746	4.3	<0.01	<0.1	<0.001	17.647	60			
2 ✓	321748	3.9	<0.01	<0.1	<0.001	8.929	68			
3 ✓	321750	4.5	<0.01	<0.1	<0.001	4.337	61			
4 ✓	321752	2.2	<0.01	<0.1	<0.001	8.036	43			
5 ✓	321754	4.4	<0.01	<0.1	<0.001	3.048	74			
6 ✓	321756	3.8	<0.01	<0.1	<0.001	5.844	55			
7 ✓	321758	3.8	<0.01	<0.1	<0.001	3.750	38			
8 ✓	321760	4.2	<0.01	<0.1	<0.001	11.566	54			
9 ✓	321762	3.8	<0.01	<0.1	<0.001	10.357	54			
10 ✓	321764	1.8	<0.01	<0.1	<0.001	15.205	58			
11 ✓	321766	4.5	<0.01	<0.1	<0.001	10.179	161			
12 ✓	321768	4.3	<0.01	<0.1	<0.001	20.649	58			
13 ✓	321770	5.2	<0.01	<0.1	<0.001	8.239	23			
14 ✓	321772	3.0	<0.01	<0.1	<0.001	12.973	65			
15 ✓	321774	4.3	<0.01	<0.1	<0.001	9.615	42			
16 ✓	321776	2.9	<0.01	<0.1	<0.001	9.375	61			
17 ✓	321778	3.4	<0.01	<0.1	<0.001	21.290	53			
18 ✓	321780	3.0	<0.01	<0.1	<0.001	10.370	37			
19 ✓	321782	4.1	<0.01	<0.1	<0.001	10.526	89			
20 ✓	321784	3.7	<0.01	<0.1	<0.001	7.917	33			
21 ✓	321786	4.4	<0.01	<0.1	<0.001	10.125	56			
22 ✓	321788	4.3	<0.01	<0.1	<0.001	3.375	23			
23 ✓	321790	3.9	<0.01	<0.1	<0.001	0.923	32			
24 ✓	321792	3.9	<0.01	<0.1	<0.001	3.976	22			
25 ✓	321794	3.6	<0.01	<0.1	<0.001	3.649	65			

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

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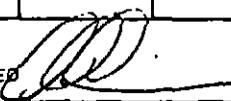
037

## ANALYTICAL DATA

SAMPLE PREFIX		REPORT NUMBER	REPORT DATE	CLIENT ORDER No.		PAGE	
		999.52.08.05894	12/12/88	1157		4 OF 4	
TUBE No.	SAMPLE No.	Totwt	Au(1)	Au(2)	Au(3)	Ag	Cu
1	✓ 521796	4.8	<0.01	<0.1	<0.001	2.442	28
2	✓ 521798	1.2	<0.01	<0.1	<0.001	6.818	293
3	✓ 521800	4.1	<0.01	<0.1	<0.001	0.674	17
4	✓ 162001	2.1	<0.01	<0.1	<0.001	1.731	335
5	✓ 162003	2.3	<0.01	<0.1	<0.001	1.929	90
6	✓ 162005	5.1	<0.01	<0.1	<0.001	4.648	25
7	✓ 162007	2.3	<0.01	<0.1	<0.001	3.068	491
8	✓ 162009	3.1	<0.01	<0.1	<0.001	1.500	60
9	✓ 162011	4.6	<0.01	<0.1	<0.001	27.434	122
10							
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22							
23	DETECTION	0.1	0.01	0.1	0.001	0.001	1
24	UNITS	-	PPM	PPM	PPM	PPM	PPM
25	METHOD	328	328	328	328	328	328

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

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APPENDIX V

FOLLOW-UP DRAINAGE GEOCHEMISTRY

STREAM SEDIMENT ANALYSES



# CLASSIC COMLABS LTD

Analytical Laboratories (INC. IN WA.)

089



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Job: 8AD3904  
O/N: 1453

## ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Bi	As	Sb	Sn
✓85502	16	6	10	<10	5	6	22
✓85504	11	6	11	<10	7	8	34
✓85506	14	8	12	<10	<2	8	<4
✓85508	11	10	10	<10	6	<4	16
✓85510	7	10	19	<10	2	6	6
✓85512	11	42	76	<10	<2	10	46
✓85514	9	6	6	<10	2	8	24
✓85516	14	8	15	10	44	6	135
✓85518	8	8	56	<10	9	4	6
✓85529	8	4	<2	<10	2	4	4
✓321708	11	<4	36	<10	5	<4	4
✓321710	16	<4	42	<10	7	<4	10
UNITS SCHEME	ppm AAS1	ppm AAS1	ppm AAS1	ppm AAS1	ppm XRF1	ppm XRF1	ppm XRF1



040

Job: 8AD3904

O/N: 1453

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Bi	As	Sb	Sn
✓321712	9	<4	9	<10	3	6	10
✓321714	15	6	32	10	8	8	10
✓321716	12	20	96	<10	8	16	50
✓321718	14	6	48	<10	3	<4	10
✓321720	24	26	92	<10	4	8	32
✓321722	8	8	30	<10	11	<4	4
✓321724	15	8	20	<10	4	6	10
✓321726	8	<4	12	<10	3	10	18
✓321728	7	<4	15	<10	5	8	10
✓321730	9	14	24	<10	14	10	60
✓321732	5	<4	8	<10	<2	<4	12
✓321734	7	<4	8	<10	3	4	18
✓321736	6	4	12	<10	4	6	8
✓321738	8	<4	16	<10	3	8	14
✓321740	11	14	22	<10	9	10	10
✓321741	12	8	18	<10	<2	8	8
✓321743	9	4	15	<10	4	4	12
✓321745	17	10	19	<10	7	6	12
✓321747	11	8	18	<10	<2	8	6
✓321748	740	4300	3500	45	340	115	1660
✓321749	24	14	20	<10	5	4	8
✓321751	14	22	26	<10	6	<4	10
✓321753	14	<4	15	<10	4	4	8
✓321755	9	30	34	<10	3	6	<4
✓321757	11	8	22	<10	5	8	10

UNITS	ppm						
SCHEME	AAS1	AAS1	AAS1	AAS1	XRF1	XRF1	XRF1



041

Job: 8AD3904

O/N: 1453

### ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Bi	As	Sb	Sn
✓321759	10	8	20	<10	6	6	22
✓321761	14	10	17	<10	5	6	30
✓321763	16	6	17	<10	8	4	22
✓321765	11	8	16	<10	7	8	30
✓321767	12	18	24	<10	<2	8	22
✓321769	11	8	20	<10	5	<4	16
✓321771	15	12	22	<10	<2	4	20
✓321773	10	10	17	<10	7	12	24
✓321775	18	38	92	<10	10	6	20
✓321777	11	36	96	<10	10	8	10
✓321779	22	48	88	<10	10	6	14
✓321780	730	4350	3550	50	360	115	1680
✓321781	16	40	68	<10	9	<4	8
✓321783	11	26	38	<10	7	6	14
✓321785	7	8	8	<10	6	4	8
✓321787	22	44	96	<10	9	8	<4
✓321789	10	8	16	<10	4	4	6
✓321791	11	20	32	<10	6	8	8
✓321793	19	30	44	<10	4	6	10
✓321795	10	14	17	<10	4	10	4
✓321797	10	26	38	<10	5	6	4
✓321799	19	34	56	10	5	<4	4
✓321801	<2	6	18	<10	6	6	4
✓162002	17	8	52	<10	7	6	<4
✓162004	10	14	9	<10	7	6	4

UNITS	ppm						
SCHEME	AAS1	AAS1	AAS1	AAS1	XRF1	XRF1	XRF1



042

Job: 8AD3904

O/N: 1453

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Bi	As	Sb	Sn
✓162006	11	10	12	<10	4	<4	<4
✓162008	15	10	24	<10	7	8	6
✓162010	10	8	28	<10	3	<4	4
✓162012	9	12	22	<10	2	6	8
UNITS SCHEME	ppm AAS1	ppm AAS1	ppm AAS1	ppm AAS1	ppm XRF1	ppm XRF1	ppm XRF1



043

Job: 8AD3904  
O/N: 1453

ANALYTICAL REPORT

SAMPLE	Ag
✓ 85502	<0.1
✓ 85504	<0.1
✓ 85506	0.1
✓ 85508	<0.1
✓ 85510	<0.1
✓ 85512	<0.1
✓ 85514	<0.1
✓ 85516	<0.1
✓ 85518	<0.1
✓ 85529	<0.1
✓ 321708	0.5
✓ 321710	<0.1
UNITS	ppm
SCHEME	AAS2A



044

Job: 8AD3904

O/N: 1453

ANALYTICAL REPORT

SAMPLE	Ag
✓ 321712	<0.1
/ 321714	<0.1
/ 321716	0.1
/ 321718	0.7
/ 321720	0.3
✓ 321722	<0.1
/ 321724	0.2
/ 321726	0.2
✓ 321728	0.1
/ 321730	0.3
✓ 321732	<0.1
✓ 321734	<0.1
/ 321736	<0.1
/ 321738	<0.1
/ 321740	<0.1
/ 321741	<0.1
/ 321743	0.4
/ 321745	0.3
/ 321747	0.4
/ 321748	730
/ 321749	0.2
/ 321751	0.8
/ 321753	0.3
✓ 321755	0.2
✓ 321757	0.2

UNITS ppm  
SCHEME AAS2A  
UPPER SCHEME AAS2C



Job: 8AD3904  
O/N: 1453

045

ANALYTICAL REPORT

SAMPLE	Ag
✓ 321759	-0.6
✓ 321761	0.5
✓ 321763	0.4
✓ 321765	0.2
✓ 321767	0.2
✓ 321769	0.5
✓ 321771	0.4
✓ 321773	0.1
✓ 321775	0.7
✓ 321777	0.4
✓ 321779	0.4
✓ 321780	720
✓ 321781	1.0
✓ 321783	1.3
✓ 321785	0.3
✓ 321787	0.7
✓ 321789	0.5
✓ 321791	0.8
✓ 321793	0.6
✓ 321795	0.4
✓ 321797	0.4
✓ 321799	0.9
✓ 321801	<0.1
✓ 162002	<0.1
✓ 162004	0.8

UNITS	ppm
SCHEME	AAS2A
UPPER SCHEME	AAS2C



048

Job: 8AD3904  
O/N: 1453

**ANALYTICAL REPORT**

SAMPLE	Ag
/162006	0.7
/162008	<0.1
/162010	0.1
/162012	<0.1

UNITS            ppm  
SCHEME        AAS2A



047

Job: 8AD3969

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3
✓85502	10	6	16	--
✓85504	14	16	12	--
✓85506	<2	--	--	--
✓85508	<2	--	--	--
✓85510	<2	--	--	--
✓85512	<2	--	--	--
✓85514	2	--	--	--
✓85516	2	--	--	--
✓85518	4	--	--	--
✓85529	8	12	4	--
✓321708	2	--	--	--
✓321710	<2	--	--	--
UNITS	ppb	ppb	ppb	ppb
SCHEME	AAS9	AAS9	AAS9	AAS9



048

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3
✓ 321712	4	<2	10	--
✓ 321714	4	--	--	--
/ 321716	2	--	--	--
/ 321718	<2	--	--	--
/ 321720	<2	--	--	--
✓ 321722	<2	<2	<2	--
✓ 321724	2	--	--	--
/ 321726	<2	<2	<2	--
/ 321728	<2	--	--	--
✓ 321730	<2	--	--	--
/ 321732	<2	--	--	--
✓ 321734	2	6	<2	--
✓ 321736	<2	--	--	--
✓ 321738	<2	--	--	--
✓ 321740	<2	--	--	--
✓ 321741	<2	--	--	--
✓ 321743	<2	--	--	--
✓ 321745	<2	--	--	--
✓ 321747	<2	--	--	--
✓ 321748	1950	1900	1950	--
✓ 321749	8	--	--	--
✓ 321751	<2	--	--	--
✓ 321753	6	--	--	--
✓ 321755	<2	--	--	--
✓ 321757	14	12	18	--
UNITS	ppb	ppb	ppb	ppb
SCHEME	AAS9	AAS9	AAS9	AAS9



049

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3
✓ 321759	6	--	--	--
✓ 321761	6	--	--	--
✓ 321763	10	--	--	--
✓ 321765	2	--	--	--
✓ 321767	2	--	--	--
✓ 321769	<2	--	--	--
✓ 321771	<2	<2	<2	--
✓ 321773	<2	--	--	--
✓ 321775	12	--	--	--
✓ 321777	10	--	--	--
✓ 321778	<2	--	--	--
✓ 321780	2300	I.S.	--	--
✓ 321781	14	--	--	--
✓ 321783	20	10	30	--
✓ 321785	6	--	--	--
✓ 321787	8	--	--	--
✓ 321789	<2	<2	<2	--
✓ 321791	<2	--	--	--
✓ 321793	4	--	--	--
✓ 321795	L.N.R.	L.N.R.	L.N.R.	L.N.R.
✓ 321797	L.N.R.	L.N.R.	L.N.R.	L.N.R.
✓ 321799	L.N.R.	L.N.R.	L.N.R.	L.N.R.
✓ 321801	L.N.R.	L.N.R.	L.N.R.	L.N.R.
✓ 162002	2	--	--	--
✓ 162004	38	--	--	--
UNITS	ppb	ppb	ppb	ppb
SCHEME	AAS9	AAS9	AAS9	AAS9



Job: 8AD3969

050

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3
✓ 162006	18	--	--	--
✓ 162008	6	--	--	--
✓ 162010	2	--	--	--
✓ 162012	2	--	--	--
UNITS	ppb	ppb	ppb	ppb
SCHEME	AAS9	AAS9	AAS9	AAS9

051

APPENDIX VI

FOLLOW-UP DRAINAGE GEOCHEMISTRY

CYANIDE LEACH ANALYSES OF STREAM SEDIMENT SAMPLES

605052



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052



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Job: 9AD0019

O/N: 1162

## ANALYTICAL REPORT

SAMPLE	Au	Cu	Ag
✓ 85502	1.0	<100	20
✓ 85504	1.0	300	<20
✓ 85506	0.5	<100	<20
✓ 85508	<0.5	<100	20
✓ 85510	<0.5	<100	40
✓ 85512	<0.5	300	40
✓ 85514	<0.5	<100	20
✓ 85516	<0.5	<100	<20
✓ 85518	<0.5	<100	40
✓ 85529	<0.5	<100	40
✓ A 321708	<0.5	<100	<20
✓ A 321710	<0.5	<100	<20
UNITS	ppb	ppb	ppb
SCHEME	BLEG1	BLEG1	BLEG1



053

Job: 9AD0019  
O/N: 1162

ANALYTICAL REPORT

SAMPLE	Au	Cu	Ag
✓ A 321712	<0.5	<100	<20
✓ A 321714	<0.5	<100	40
✓ A 321716	<0.5	1400	40
✓ A 321718	<0.5	<100	<20
✓ A 321720	<0.5	1100	<20
✓ A 321722	<0.5	<100	20
✓ A 321724	I.S.	I.S.	I.S.
✓ A 321726	<0.5	<100	<20
✓ A 321728	0.5	<100	40
✓ A 321730	0.5	<100	20
✓ A 321732	<0.5	<100	<20
✓ A 321734	<0.5	<100	<20
✓ A 321736	<0.5	<100	<20
✓ A 321738	<0.5	<100	20
✓ A 321740	<0.5	900	<20
✓ A 321741	<0.5	200	<20
✓ A 321743	<0.5	700	40
✓ A 321745	<0.5	800	<20
✓ A 321747	<0.5	800	<20
✓ A 321748	I.S.	I.S.	I.S.
✓ A 321749	<0.5	800	<20
✓ A 321751	I.S.	I.S.	I.S.
✓ A 321753	<0.5	700	<20
✓ A 321755	<0.5	300	20
✓ A 321757	<0.5	100	<20
UNITS	ppb	ppb	ppb
SCHEME	BLEG1	BLEG1	BLEG1



054

Job: 9AD0019  
O/N: 1162

ANALYTICAL REPORT

SAMPLE	Au	Cu	Ag
✓ A 321759	<0.5	100	<20
✓ A 321761	<0.5	<100	20
✓ A 321763	<0.5	400	<20
✓ A 321765	<0.5	100	20
✓ A 321767	<0.5	600	20
✓ A 321769	<0.5	300	40
✓ A 321771	<0.5	200	20
✓ A 321773	<0.5	300	40
✓ A 321775	<0.5	200	40
✓ A 321777	<0.5	1200	<20
✓ A 321779	<0.5	1400	40
✓ A 321780	I.S.	I.S.	I.S.
✓ A 321781	1.0	900	60
✓ A 321783	1.0	1300	40
✓ A 321785	1.0	1200	20
✓ A 321787	0.5	<100	<20
✓ A 321789	0.5	900	60
✓ A 321791	I.S.	I.S.	I.S.
✓ A 321793	I.S.	I.S.	I.S.
✓ A 321795	0.5	100	<20
✓ A 321797	0.5	<100	<20
✓ A 321799	I.S.	I.S.	I.S.
✓ A 321801	<0.5	<100	20
✓ A 162002	<0.5	1100	<20
✓ A 162004	<0.5	2800	<20
UNITS	ppb	ppb	ppb
SCHEME	BLEG1	BLEG1	BLEG1



Job: 9AD0019

O/N: 1162

055

ANALYTICAL REPORT

SAMPLE	Au	Cu	Ag
✓ A 162006	<0.5	1100	<20
✓ A 162008	<0.5	2900	40
✓ A 162010	<0.5	2600	40
✓ A 162012	<0.5	300	<20

UNITS	ppb	ppb	ppb
SCHEME	BLEG1	BLEG1	BLEG1

✓

056

APPENDIX VII

Check Follow-up Drainage Geochemistry  
Cyanide Leach and Stream Sediment Analyses

605057

057

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Job: 9AD0585  
O/N: 1456

## ANALYTICAL REPORT

SAMPLE	Ag	Cu	Au
✓700001	0.28	2.3	0.35
✓700003	0.14	2.0	0.10
✓700009	0.04	1.0	0.25
✓700013	<0.02	0.6	0.15
700173	<0.02	1.4	<0.05
700175	<0.02	0.7	<0.05
700177	0.02	<0.1	<0.05
700179	0.06	3.0	0.65
700181	0.04	2.1	1.60
700183	<0.02	<0.1	<0.05
700185	0.02	0.9	<0.05
700187	0.12	<0.1	0.05
700189	0.08	<0.1	<0.05
700191	<0.02	0.7	0.05
700193	<0.02	<0.1	<0.05
700195	0.04	<0.1	<0.05
700197	0.02	0.4	<0.05
700199	<0.02	<0.1	0.05
700201	<0.02	0.5	1.50
700203	0.06	1.1	<0.05
700205	0.02	0.9	0.05
700207	0.04	1.4	<0.05
700301	0.04	0.7	<0.05
UNITS	ppm	ppm	ppb
SCHEME	BLEG1	BLEG1	BLEG2



058

Job: 9AD0565  
O/N: 1456

ANALYTICAL REPORT

SAMPLE	Ag	Cu	Au
700303	<0.02	0.4	<0.05 ✓
700305	<0.02	1.7	<0.05 ✓
700307	<0.02	0.9	<0.05
700309	<0.02	<0.1	<0.05
700311	<0.02	1.0	<0.05
700313	<0.02	<0.1	<0.05
700315	0.06	0.4	<0.05
700319	0.06	<0.1	<0.05
700321	<0.02	0.5	<0.05
700323	<0.02	0.7	<0.05 ✓
700325	<0.02	0.6	0.55
700327	<0.02	0.7	<0.05 ✓
700329	<0.02	1.3	0.20
700331	0.02	0.6	<0.05 ✓
700333	0.02	0.2	<0.05 ✓
700335	<0.02	0.9	<0.05
700337	<0.02	<0.1	<0.05
700339	<0.02	<0.1	<0.05
700341	<0.02	0.5	0.05
700343	<0.02	<0.1	0.05
700345	<0.02	0.4	<0.05
700347	<0.02	0.9	<0.05 ✓
700349	<0.02	1.4	<0.05
321530	<0.02	<0.1	<0.05 ✓
321534	0.02	0.3	<0.05 ✓
UNITS	ppm	ppm	ppb
SCHEME	BLEG1	BLEG1	BLEG2

605059



Job: 9AD0565  
O/N: 1456

ANALYTICAL REPORT

059

SAMPLE	Ag	Cu	Au
321536	0.38	2.1	0.15



UNITS	ppm	ppm	ppb
SCHEME	BLEG1	BLEG1	BLEG2



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Job: 9AD0552  
O/N: 1457

ANALYTICAL REPORT

060

SAMPLE	Cu	Pb	Zn	Ag	Au
321531	510	22	38	0.8	26/
321533	280	50	145	1.3	150 ✓
321535	380	54	135	4.4	26 ✓
321537	10	24	46	0.3	<2 ✓
321539	3	22	50	0.4	<2 ✓
321541	4	18	38	0.1	<2 ✓
700001	6	14	44	1.3	8 X
700002	9	28	150	1.4	8 /
700004	24	34	135	0.3	55 ✓
700006	14	20	86	0.1	I.S. ✓
700008	11	24	100	0.9	I.S. ✓
700010	14	18	94	0.3	I.S. ✓
700012	4	18	70	0.3	I.S. ✓
700014	3	14	48	0.2	4 ✓
700016	4	16	58	0.3	<2 ✓
700174	9	10	84	0.2	4 ✓
700176	4	4	34	0.2	<2 ✓

UNITS  
SCHEME  
UPPER SCHEME

ppm AAS1    ppm AAS1    ppm AAS1    ppm AAS2A AAS2C    ppb AAS9



Job: 9AD0552

O/N: 1457

### ANALYTICAL REPORT

001

SAMPLE	Cu	Pb	Zn	Ag	Au
700178	2	<4	19	0.2	2 ✓
700180	14	20	165	0.1	<2 ✓
700182	8	22	210	0.4	18 ✓
700184	7	22	175	0.2	8 ✓
700186	7	8	54	0.1	<2 ✓
700188	3	4	16	0.5	<2 ✓
700190	9	20	125	0.4	I.S. ✓
700192	7	26	155	0.1	I.S. ✓
700194	6	14	130	0.1	I.S. ✓
700196	4	4	18	0.2	<2 ✓
700198	12	20	195	0.3	6 ✓
700200	17	20	220	0.2	8 ✓
700202	28	42	270	0.4	10 ✓
700204	9	44	175	0.2	4 ✓
700206	6	8	32	0.4	<2 ✓
700208	4	40	76	0.4	<2 ✓

██

██

██

██

700302	5	4	9	0.3	<2 ✓
700304	10	12	130	0.3	I.S. ✓
700306	7	24	120	0.3	I.S. ✓
700308	3	12	32	<0.1	4 ✓
700310	5	12	36	0.5	<2 ✓

UNITS	ppm	ppm	ppm	ppm	ppb
SCHEME	AAS1	AAS1	AAS1	AAS2A	AAS9

605062



Job: 9AD0552

O/N: 1457

### ANALYTICAL REPORT

062

SAMPLE	Cu	Pb	Zn	Ag	Au
700312	6	14	9	0.2	<2 ✓
700314	2	<4	2	0.3	<2 ✓
700316	4	12	15	0.5	<2 ✓
700318	<2	<4	5	0.2	<2 ✓
700320	4	14	20	0.3	2 ✓
700322	6	12	15	0.7	<2 ✓
700324	5	18	64	0.5	40 ✓
700326	9	48	190	0.5	I.S. ✓
700328	4	22	70	0.6	4 ✓
700330	9	10	50	0.3	<2 ✓
700332	<2	14	40	0.3	16 ✓
700334	<2	<4	13	0.4	8 ✓
700336	3	16	46	0.4	10 ✓
700338	<2	<4	7	0.5	2 ✓
700340	<2	<4	3	0.3	<2 ✓
700342	2	<4	13	0.2	<2 ✓
700344	5	4	17	<0.1	2 ✓
700346	18	20	175	0.3	I.S. ✓
700348	7	4	9	0.2	<2 ✓
700350	6	6	18	0.2	4

UNITS	ppm	ppm	ppm	ppm	ppb
SCHEME	AAS1	AAS1	AAS1	AAS2A	AAS9



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Job: 9AD0552  
O/N: 1457

## ANALYTICAL REPORT

063

SAMPLE	As	Bi	Sn	Sb
321531	18	6	54	8 ✓
321533	16	6	58	4 ✓
321535	12	4	54	10 ✓
321537	10	<4	32	8 ✓
321539	9	<4	22	6 ✓
321541	8	6	30	8 ✓
700001	82	6	4	6 ✗
700002	13	<4	6	8 ✓
700004	9	<4	8	6 ✓
700006	6	<4	8	<4 ✓
700008	7	4	4	6 ✓
700010	13	<4	16	10 ✓
700012	10	<4	10	<4 ✓
700014	8	4	18	12 ✓
700016	10	6	14	6 ✓
700174	7	<4	8	8 ✓
700176	6	<4	6	6 ✓
UNITS SCHEME	ppm XRF1	ppm XRF1	ppm XRF1	ppm XRF1

605064



065

# ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

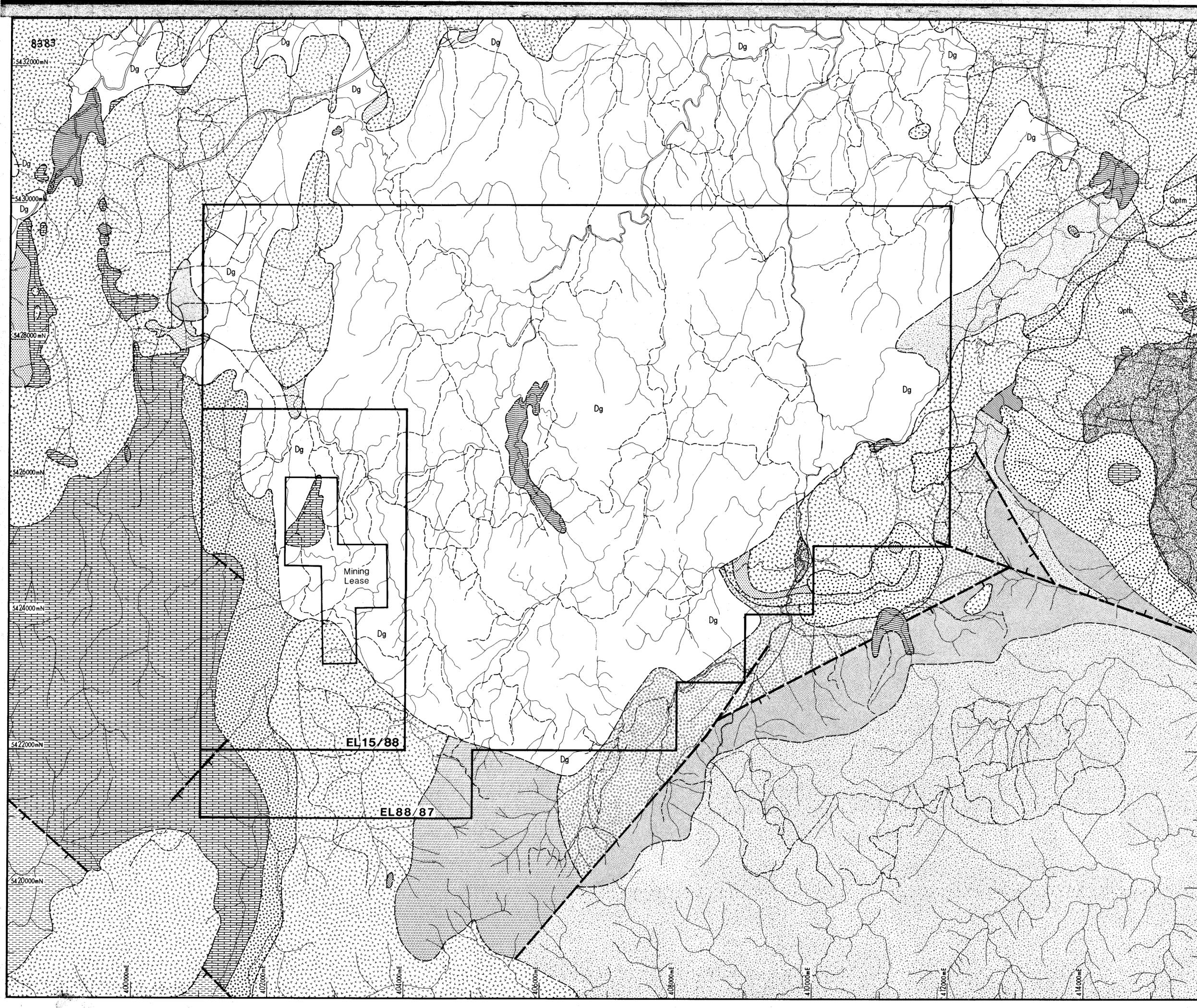
CLIENT ORDER No.

		999.52.08.06119				18/04/89	DN 1460	1	
TUBE No.	SAMPLE No.	Cd	Ag	Au	Dry Wt				
1 ✓	A321532	69	<0.1	0.16	3.9				
2 ✓	A321538	76	<0.1	<0.05	4.1	↓			
3 ✓	A321540	67	2.0	0.09	4.4	↓			
4 ✓	A700005	332	<0.1	0.09	5.5	↓			
5 ✓	A700007	208	0.7	<0.05	4.9	↓			
6 ✓	A700011	165	<0.1	0.10	4.3	↓			
7 ✓	A700015	135	<0.1	<0.05	3.1	↓			
23	DETECTION	1	0.1	0.05	0.1				
24	UNITS	PPB	PPB	PPB	Kg				
25	METHOD	328	328	328	328				

Results in ppm unless otherwise specified.  
 1. element present but concentration too low to measure  
 2. element concentration below detection limit  
 3. element not determined

AUTHORISED OFFICER

605066



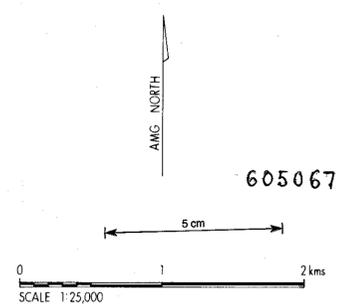
**TOPOGRAPHY**

- Major road (maintained for continuous public use)
- Road (maintained for continuous public use)
- Road / track (restricted use or access)
- Creek / stream

**GEOLOGY**

- QUATERNARY**
- Qha Younger alluvium, swamp and marsh deposits
  - Qpt Scree and talus
  - Qptb Basalt scree and talus
  - Qpts Siliclastic rock scree and talus
  - Qptm Basalt and siliclastic rock scree and talus
  - Qpa Older alluvium and terrace deposits
  - Qpw Older till
- TERTIARY**
- Tb Basalt
  - Ts Sand and gravel deposits
  - Tsf Ferruginous sand and gravel deposits
  - Tss Silicified quartzose sediments
- DEVONIAN**
- Db Fossiliferous sandstone and mudstone (Bell Shale)
  - Dg Housetop Granite
- ORDOVICIAN**
- Og Fossiliferous limestone (Gordon Limestone)
  - Odm Bioturbated sandstones & minor conglomerate (Moira Sandstone)
  - Odc Dominantly siliceous conglomerate
  - Ods Dominantly quartz sandstone & minor conglomerate
  - Odu Undifferentiated
- CAMBRIAN**
- €ms Dominantly sedimentary rocks (felsic to intermediate volcanic)
  - €m Mixed sequence of dominantly extrusive felsic to intermediate volcanic & sedimentary rocks

- Fault, inferred, downthrown side indicated
- Geological boundary, position approximate



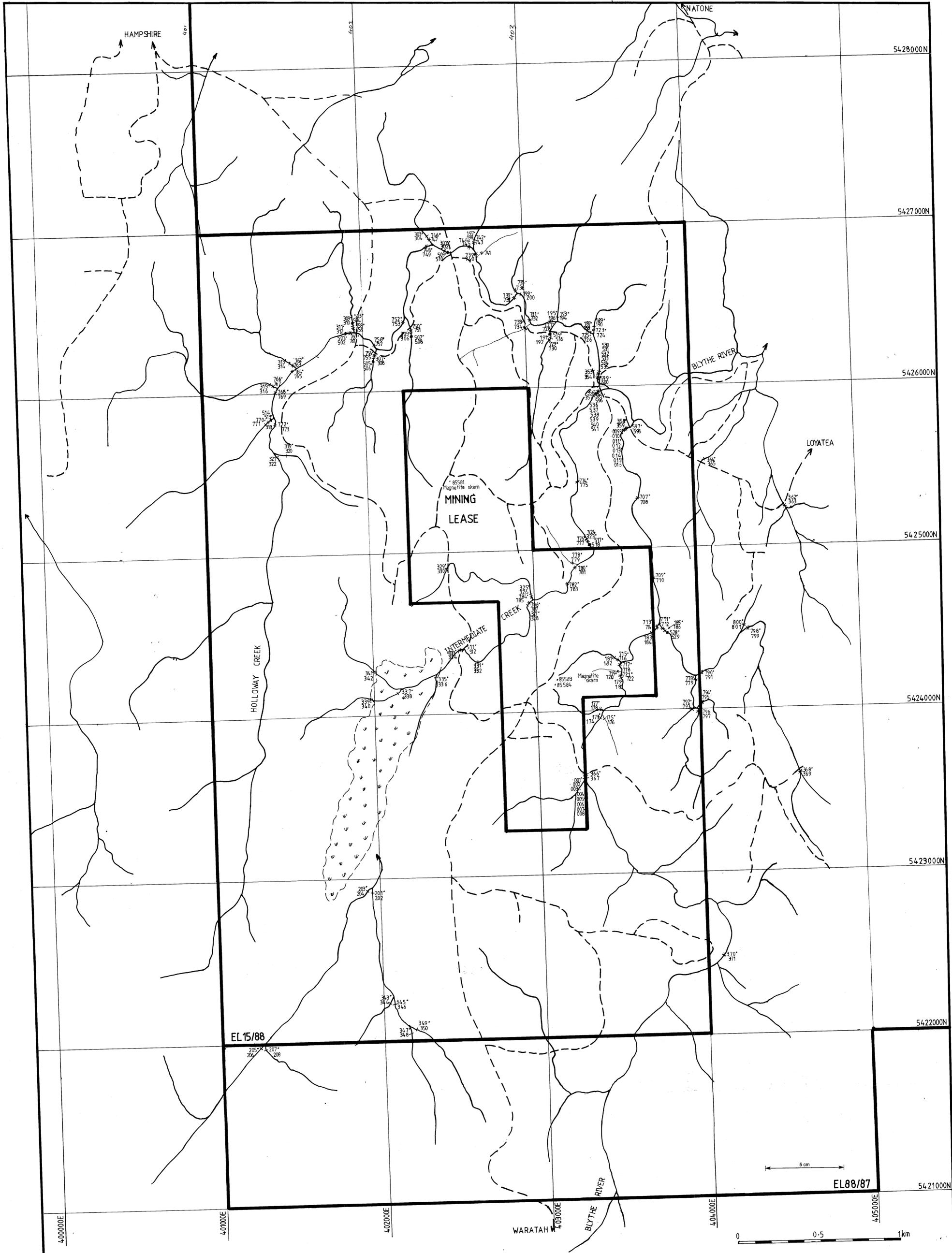
**89-2997**

**PLACER** MT HOUSETOP - HAMPSHIRE TASMANIA

EL88/87 - EL15/88

Geological Interpretation

Date: February, 1989	Geologist: P.Ellis
Revisions:	Drawn: K.Ryder
	Plan No. SK55.3 - 3218



ROADS & TRACKS  
 RIVERS  
 SWAMP  
 LICENCE BOUNDARY

SAMPLES  
 LOCATIONS  
 Pre-A 271...  
 A321...  
 700...  
 80...  
 TYPES  
 366\* Bulk Gold  
 367 Stream Sediment

5 cm

0 0.5 1km

89-2997

**PLACER** MT. HOUSE TOP - HAMPSHIRE  
 TASMANIA

SAMPLE LOCATIONS  
 BLYTHE RIVER

605068

Date: JUNE '89	Geologist: PDE
Revisions:	Drawn: PDE
Plan No. SK55.3 - 3275	