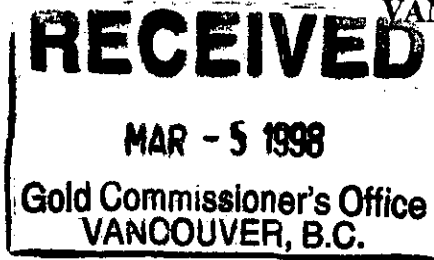


**DIAMOND DRILLING AND GEOPHYSICAL  
REPORT  
ON THE BISMARCK PROPERTY**

SLOCAN MINING DIVISION, B.C.  
NTS: 082F/14E  
LATITUDE 49<sup>0</sup>55'N LONGITUDE 117<sup>0</sup>04'E

for

CREAM MINERALS LTD.  
1610 - 777 DUNSMUIR ST.  
VANCOUVER, B.C.  
V7Y 1K5



by

PERRY B. GRUNENBERG, P.Geo.  
Consulting Geologist

February, 1998

GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

25,334

2/2

## SUMMARY

The Bismark silver-lead-zinc property is located near the town of Kaslo in southern British Columbia. The property has complex shear-breccia-replacement mineralization in a large roof pendant of Slocan Group metasediments within the Nelson Batholith. Past production (1896 - 1970) along a strike length of nine kilometres has been in excess of 210,000 tons of silver ore grading between 100 and 5000 g/t silver plus significant lead and zinc values.

This report presents the results of diamond drilling and geophysical surveys conducted from November 15 to December 15, 1997, on the Cork, Province, and Dublin claims held by Cream Minerals Ltd. Historically, mineralization on the claims exhibit high grade silver, lead and zinc values. This mineralization was confirmed by sampling programs undertaken previously by Cream Minerals (see assessment report dated January 6, 1998).

VLF-EM 16 surveying on the claims mapped a moderately strong conductor which passes through mineralization uncovered in trenching. The conductor has been mapped for 1.2 kilometres strike length. Further exploration of this conductor is required to completely determine it source.

A total of 325.5 metres (1068 feet) of diamond drilling in 5 holes was completed on the claims. Drill hole 97CP-01 intersected graphitic argillite, partly explaining the VLF-EM conductor at this location. Drill holes 97CP-02 to 05 defined the existence of a 7 to 8 metre wide zone of sphalerite-galena with minor pyrite and chalcopyrite mineralization. Samples returned up to 680.3 grams per tonne silver, 12.97% lead, and 23.18% zinc from selected 1 metre samples.

A program of further geological, geochemical, and geophysical surveys, followed by a combination of reverse circulation and diamond drilling, is recommended.

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## **1) INTRODUCTION**

The Bismark Property is a silver-lead-zinc prospect located 12 kilometres west of Kaslo in southern British Columbia. The property was acquired by Cream Minerals Ltd. from vendors Jack and Eric Denny in late 1996.

The Bismark Property lies within a roof pendant of Slocan Series sedimentary and metasedimentary rocks within the Nelson Batholith. A series of small past producing mines lie along a series of subparallel shear-breccia-replacement zones. Most notable of these historic showings is the Cork-Province Mine, while smaller workings on the property include the Dublin, Bismark, Gold Cure, Gibson, Hartford, Connection, Silver Bear, Index and Metropolitan. All of these showings include one or more small adits and numerous surface cuts which were worked sporadically from 1896 to 1970.

This report covers VLF-EM geophysical surveys and diamond drilling conducted on the Cork, Province, and Dublin claims in November and December, 1997. The purpose of this project was to determine the extent of mineralization encountered in previous trenching on the property, primarily in the Cork-Province mine area, following an extensive surface exploration program completed during the summer and fall of 1997 (refer to assessment report by L. Dandy, January 1998). This work was supervised by the author.

## **2) LOCATION AND ACCESS**

The Bismark Property is located along Keen Creek, 12 kilometres west of Kaslo in the Slocan Mining Division of southern British Columbia (Figure 1). The claims cover an area of approximately 20 square kilometres and are centred at latitude 49°55'N and longitude 117°04'E, all within NTS mapsheet 82F/14.

Access to the property is via Highway 31A for 7 kilometres west from Kaslo, then 4.5 kilometres southwest along Keen Creek Road to the property boundary. The property lies along and to the southeast of the Keen Creek Road for approximately 11.5 kilometres. New logging roads and numerous old mining roads and trails, some of which are heavily overgrown, bisect the property.

### **CORK/PROVINCE**

The Cork/Province mine lies adjacent to the Keen Creek Road at kilometre 8. The millsite, waste dump and tailings are located on the northwest side of the road, while the main adit (No.3) is on the southeast side of the road. The Cork No.2 adit is about 150 metres southeast of the main road along a network of old mining roads, and the Province No.1 adit is adjacent to Ben Hur Creek, approximately 150 metres upstream of the Ben Hur logging road.

CREAM MINERALS LTD.

BISMARK PROPERTY

# LOCATION MAP

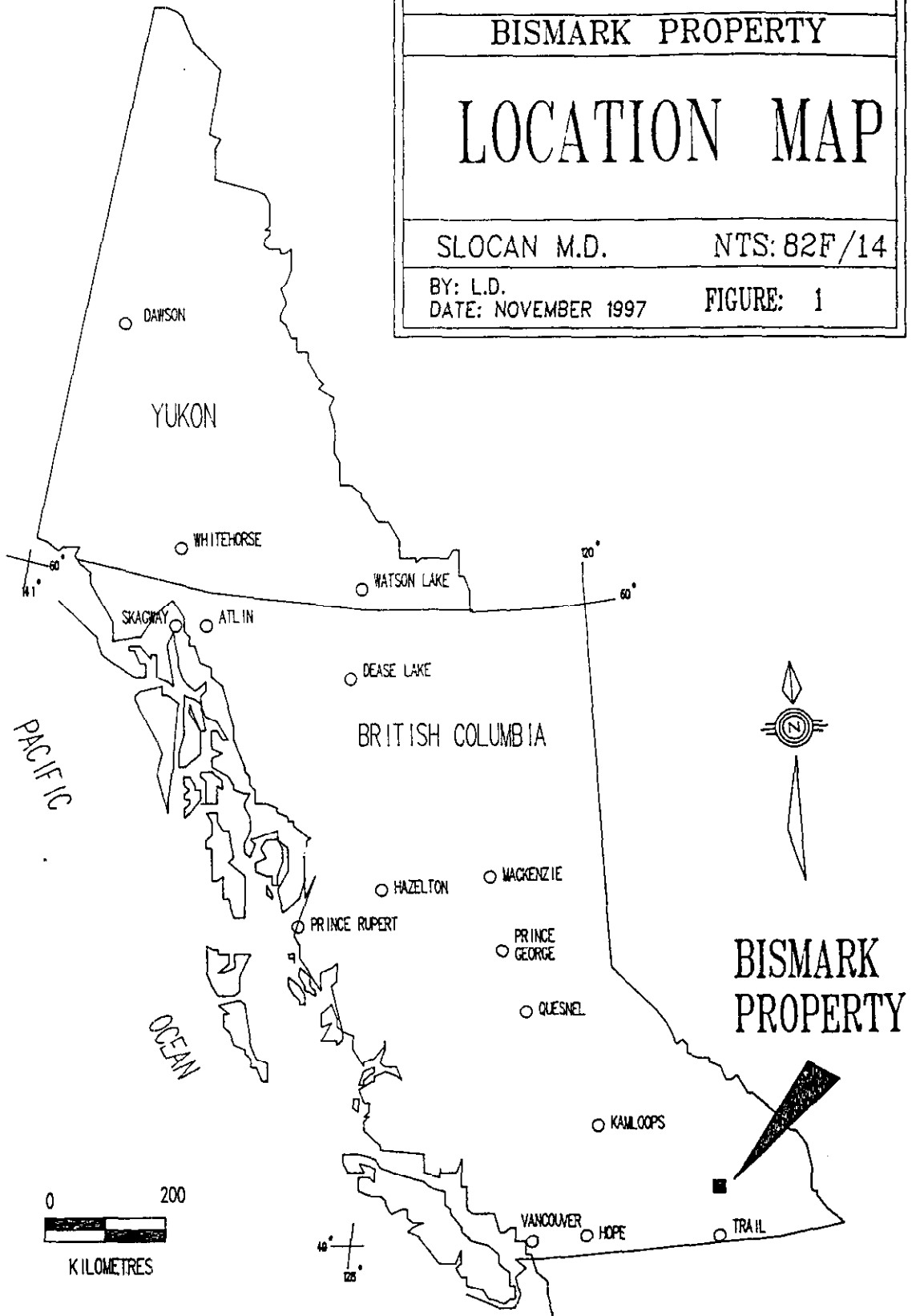
SLOCAN M.D.

NTS: 82F/14

BY: L.D.

DATE: NOVEMBER 1997

FIGURE: 1



### 3) PHYSIOGRAPHY

The Bismark Property is located in an area of rugged mountainous terrain. Topography on the property is steep with elevations ranging from 1050 metres along the Keen Creek valley to 2200 metres on the Gold Cure ridge.

The Keen Creek valley runs along the northwest boundary of the property, with numerous tributaries crossing the property and emptying into Keen Creek. The major tributaries, from northeast to southwest are Ben Hur, Briggs, Klawala, Kyawats and Desmond Creeks.

Much of the claim area is covered with second growth forest consisting of hemlock, cedar, fir and occasional pine. Thick growths of alder and devil's club are found along many of the creeks.

### 4) HISTORY

The Bismark property consists of a number of small mines which were originally discovered and worked near the turn of the century for high grade silver ores during the heyday of the Slocan Mining Camp. Intermittent exploration, development and production took place at various locations on the property since that time, notably in the 1920s and 1950s.

### CORK/PROVINCE

The Cork Group was consolidated in 1900 and by 1904 considerable development work, including the No.3 (or main haulage) crosscut had been completed. The adjoining Province Group was being operated independently at this time and a promising ore-body had been developed on the eastern extension of the Cork lode. From 1906 to 1913, the two mines continued to be worked independently, but by agreement, the Province mine used the lower main access and mill of the Cork mine. The Cork and Province were consolidated in 1914, and development work renewed the following year. The development work up to 1920 did not produce satisfactory results, and the mine shut down. Operations were renewed in 1922, with a shaft sunk to explore lower levels where it was proved that the ore-bodies maintained their grade. From 1922 until 1935, production was mainly from the lower No.4 level. During the period 1950 to 1953, an internal shaft was deepened from No.6 to No.8 level and the continuation on dip of one section of the vein was explored. Most of the millfeed was mined from above No.6 level; the oreshoot below No.6 level was not stoped. From 1964 to 1966 the mine was worked mainly on No.7 and No.8 levels where ore which had been blocked out earlier was extracted.

Production commenced in 1903 and shipments were made up to 1909 inclusive, during which 16,000 tons of ore were mined at an average grade of 110 to 140 g/t silver and 5% lead. The next period of production extended from 1913 to 1919 during which time over 24,000 tons were shipped averaging about 85 g/t silver and 4% lead. In 1918 and 1919 the shipments also contained 52,000 kilograms of zinc. Production resumed in 1923, and

up to the end of 1926, included nearly 18,000 tons carrying between 110 to 140 g/t silver, over 5% lead and 2.5% zinc. During 1929, the Cork-Province mill treated nearly 6,000 tons containing net recovered metals as follows: gold 255 grams (0.04 g/t); silver over 567,000 grams (94.5 g/t); lead nearly 188,000 kilograms (3.5%); and zinc over 235,000 kilograms (4.3%). Total reported production of the Cork Mine is listed at 210,996 tons of .009 g/t gold, 70.3 g/t silver, 3.05% lead and 4.72% zinc.

More recently, programs were conducted on the Cork-Province claims by Arctex Engineering Ltd. in 1979 and 1992. In 1979, a program of surface prospecting, soil sampling and geological mapping was conducted on the property. In 1992, the main mine haulage access (No.3 crosscut adit) was reopened and geologically mapped and rock sampled.

There is presently neither machinery nor buildings on the property. The main haulage adit had been backfilled, but could be reopened with a back-hoe.

### **5) PREVIOUS WORK COMPLETED BY CREAM MINERALS**

From July to October, 1997, Cream Minerals Ltd. completed a program of rock and soil sampling and geologic mapping, followed by excavator trenching, throughout the Bismark property. The purpose of this work was to explore the continuity of mineralized shear-replacement structures, and to sample for grades and widths of mineralization. A total of 14 trenches were excavated on the claims. The program also included the collection of 49 rock grab, 186 rock chip (including those collected from trenches), 130 soil, 22 silt and 8 heavy mineral concentrate samples.

Two of the trenches were excavated in the Cork mine area. Trench T97-7 was placed over a crown pillar of the old Cork mine workings. This trench intersected four metres of semi-massive pyrite, sphalerite and galena mineralization hosted within interbedded siliceous argillite and andalusite schist. Rock chip sampling returned values averaging 30.7 g/t silver, 1.27% lead, and 1.08% zinc over the 4 metre section. Trench T97-8 was located 200 metres southwest of T97-7, and approximately 100 metres southwest of the main Cork mine access drift. This trench intersected semi-massive sulphide mineralization over 9 metres. Mineralization in the trench was variable, from blue clay gouge with galena, to iron oxide with galena and sphalerite, to hard resistive massive galena and sphalerite, to banded galena and sphalerite in limestone. Rock chip sampling returned values averaging 136.7 g/t silver, 3.45% lead, and 6.47% zinc over the 9 metres of trenched exposure. The true width of mineralization was estimated at 6.5 metres. These values are generally higher than those previously reported in the nearby Cork-Province mine, and indicate that an important new mineralized body exists west of the old mine.

### **6) CLAIM INFORMATION**

The Bismark Property is located within the Slocan Mining Division and consists of 7 modified grid, 13 crown grants, 8 reverted crown grants and 35 2-post claims to total 155 units (Figure 2). Claim information is listed in Table I.



TABLE I

## CLAIM INFORMATION

Claim Name	Status	Units	Record No.	Anniversary Date
Bismark	Crown Grant	1	L11273	
Bismark 1	Modified Grid	20	255714	February 26
Bismark 2	Modified Grid	6	256203	March 25
Bismark FR	Two Post	1	266993	September 28
Black Bear	Two Post	1	349555	August 17
Broughton	Reverted C.G	1	255499	February 3
Broughton 1	Two Post	1	256397	September 21
Broughton 2	Two Post	1	256398	September 21
Broughton 3	Two Post	1	256399	September 21
Broughton 4	Two Post	1	256400	September 21
Butte	Crown Grant	1	L12410	
Charlie 1	Modified Grid	9	360498	November 9
Charlie 2	Modified Grid	20	360501	November 11
Charlie 3	Modified Grid	20	360502	November 11
Charlie 4	Two Post	1	360499	November 12
Charlie 5	Two Post	1	360885	December 3
Charlie 6	Two Post	1	360886	December 3
Charlie 7	Two Post	1	360887	December 3
Charlie 8	Two Post	1	360888	December 3
Charlie 9	Two Post	1	360889	December 2
Charlie 10	Two Post	1	360890	December 2
Charlie 11	Two Post	1	360891	December 2
Charlie 12	Two Post	1	360892	December 2
Connection	Modified Grid	8	256188	February 11
Connection Fr	Two Post	1	256189	February 11
Cork	Two Post	1	350252	November 9
Cork 1	Two Post	1	350252	September 2
Cork 2	Two Post	1	350251	September 2
Cork 3	Two Post	1	360505	November 12
Cork 4	Two Post	1	360506	November 12
Cork 5	Two Post	1	360507	November 12
Cork 6	Two Post	1	360508	November 12
Cork 7	Two Post	1	360509	November 12
Cork 8	Two Post	1	360510	November 12
Crown Point	Reverted C.G.	1	255460	January 18
Dublin	Two Post	1	255805	November 10
Francis	Crown Grant	1	L14365	
Full Rig	Reverted C.G.	1	255456	December 6
Gold Cure	Reverted C.G.	1	255454	December 6
Gold Cure Fr	Reverted C.G.	1	255455	December 6
Hartford	Reverted C.G.	1	255584	March 2
Highland Laddie	Crown Grant	1	L11275	

Ida	Crown Grant	1	L14368	
Index 1	Two Post	1	356677	June 16
Index 2	Two Post	1	356678	June 16
Index 3	Two Post	1	360500	November 9
Jennie	Crown Grant	1	L14366	
Last Chance	Two Post	1	349554	August 17
Liberty	Crown Grant	1	L4900	
Manhattan	Two Post	1	318936	July 12
Mastodon	Two Post	1	349553	August 17
Mountain Goat	Crown Grant	1	L11274	
Oxide	Crown Grant	1	L14367	
Province	Two Post	1	328205	July 18
Province 1	Modified Grid	16	351863	October 18
Silver Bear	Reverted C.G.	1	255498	February 3
Silver Bear 1	Two Post	1	255995	October 17
Silver Bear 2	Two Post	1	255996	October 17
Sixteen to One	Crown Grant	1	L4901	
Spokane	Crown Grant	1	L14369	
Stars and Stripes	Crown Grant	1	L4899	
Susquehanna	Reverted C.G.	1	255585	March 2
Wintrop	Crown Grant	1	L12409	

## 7) REGIONAL GEOLOGY

The Bismark Property is underlain by Triassic Slovan Group sedimentary and metasedimentary rocks. These rocks have been folded into a steeply dipping synclinal wedge bounded on the north and south by Jurassic Nelson Batholith intrusive rocks. Faulting, shearing and metasomatism may have accompanied intrusive activities forming vein, breccia and replacement deposits of silver-lead-zinc (Figure 3).

The Slovan Group consists primarily of argillites, limestones, quartzites and minor schists. Sedimentary strata generally strike 035° to 050° and dip steeply to the northwest or southeast, with common local variations. Argillites are fine-grained, thinly bedded, well indurated and have a slaty cleavage. Carbonate content in the argillites increases at or near the contact with limestone units. Iron oxide staining is common in some areas and minor limestone concretions and inclusions are prevalent. Limestone units are fine-grained, grey on weathered surfaces, white on fresh surfaces and may host iron oxide stained pods of argillite. Quartzites are normally grey, fine-grained, well indurated rocks that are rarely found in areas of sulphide mineralization. Schistose phyllites are found throughout the Bismark property and may be of significance in locating new mineral deposits. The schistose phyllite is considered a metasomatized or metamorphosed argillite and may contain minor amounts of andalusite schist.

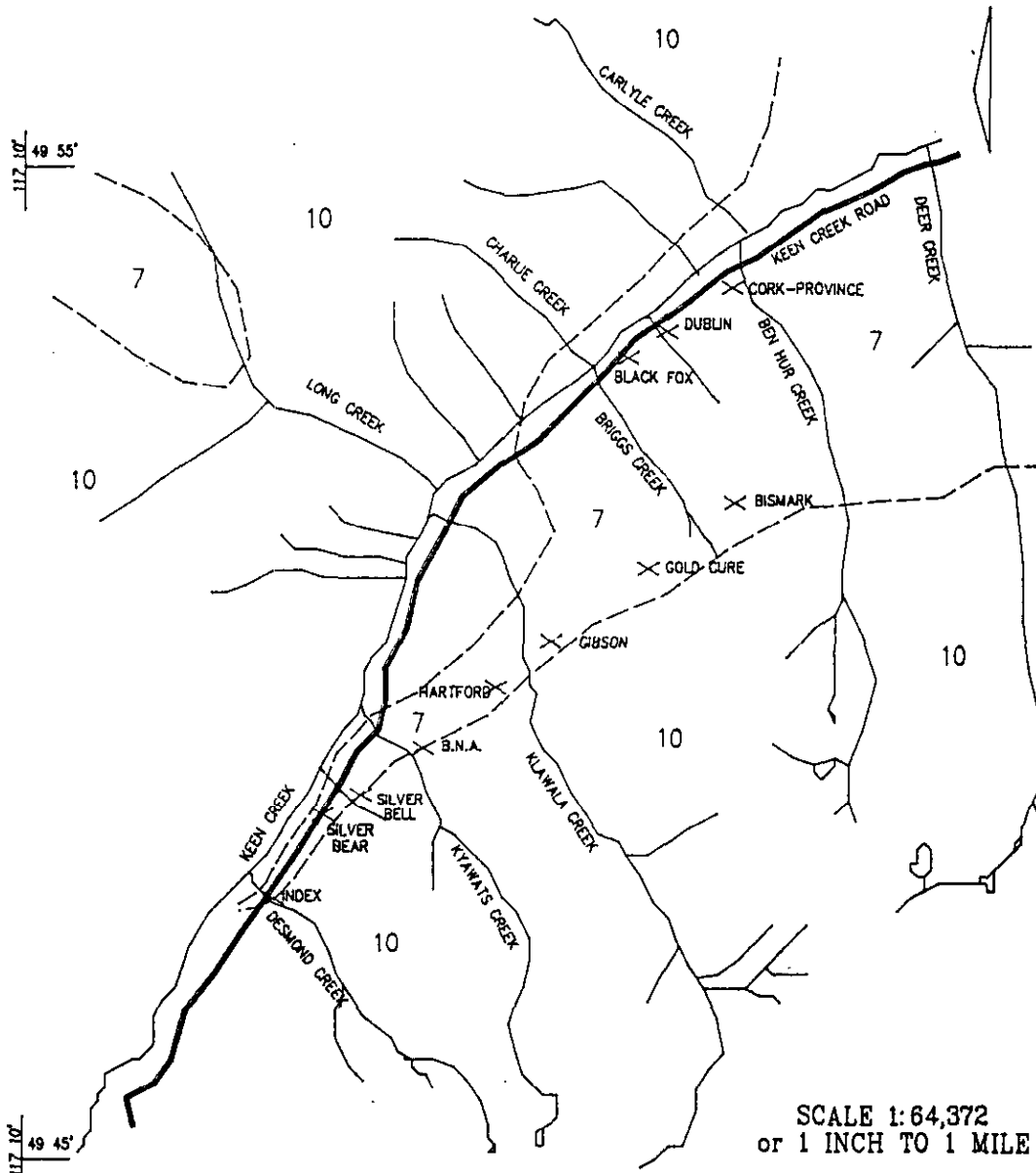
The Nelson Batholith is comprised of late Jurassic granitic intrusives which flank Slovan Group rocks to the northwest and southeast. Dykes of aplitic and granitic composition intrude and intersect the Slovan Group on the Bismark Property. Field relationships are unclear; but, it is assumed that these intrusive units are "late stage" events that have little or no bearing on the emplacement of silver-bearing sulphide mineralization.

Lamprophyre dykes of mafic to ultramafic composition containing hornblende, biotite and pyroxene may be associated with the Nelson Batholith intrusives. On exposure, this unit weathers into loose, coarse granular products.

Structurally, the Slovan Group roof pendant which has been folded into a doubly plunging syncline. Old mine workings appear to be near or on the axial plane indicating a major structural control on sulphide localization. Old literature often cites the presence of a "crushed zone" within argillite units where silver-bearing mineralization is present and may reflect on faulting and shearing events.

117 10' 48 55'

117 10' 49 45'



SCALE 1:64,372  
or 1 INCH TO 1 MILE

LEGEND

7 SLOCAN SERIES - slate, argillite, limestone  
quartzite and tuffaceous sediments

10 NELSON BATHOLITH - porphyritic granite

— GEOLGIC CONTACT

X SHOWING

CREAM MINERALS LTD.

BISMARK PROPERTY

SLOCAN MINING DIVISION NTS:82F/14

REGIONAL GEOLOGY MAP  
(after Cairnes, 1934)

BY: LD.  
DATE: NOVEMBER 1997

FIGURE: 3

## 8) PROPERTY GEOLOGY

Geology and mineralization of the deposits summarized below has, in part, been compiled from Cairnes (1934, 1935), Report of the Zinc Commission (1906) and various government assessment and unpublished company reports listed in the references at the end of this report.

### CORK/PROVINCE

The workings of the Cork-Province mine lie entirely within Slocan Group sediments. The contact with the Nelson batholith lies 300 metres to the north of the mine on the opposite side of Keen Creek. This contact plunges south and probably underlies the Cork-Province group at no great depth and the sediments in the vicinity of the mine are considerably metamorphosed. The strata tend to dip away from the batholithic contact, thereby assuming a position almost at right angles to the general north-westerly trend. Their strike here varies from  $055^{\circ}$  to  $090^{\circ}$ , dipping south from  $50^{\circ}$  to  $90^{\circ}$ , averaging  $75^{\circ}$ . The sediments include a large proportion of argillites, mostly characterized by a lesser or greater proportion of andalusite and commonly referred to as andalusite schists. Interbedded with these are some quartzitic beds and a number of crystalline limestone and other beds notably limy in composition. At the intersection of these limestones and limy strata by the main lode, the principal ore bodies have been developed.

The ore-bodies of the Cork-Province mine have been formed along a well-defined lode, designated as the "main vein", striking about  $050^{\circ}$  and dipping southeast at an average angle of  $65^{\circ}$ . This lode is a fault-fissure zone cutting obliquely across sedimentary beds of the Slocan series. The ore-bodies in each case have their most pronounced development where this lode intersects beds of crystalline limestone or other notably limy strata. The lode follows the course of a fault and, consequently, the limestone beds are displaced, the hangingwall section of the lode being offset, relatively to the footwall, about 25 metres to the west. The apparent displacement varies somewhat from one limestone bed to another, due to complications set up by numerous other faults of minor throw which angle across or run parallel with the main lode.

The shape of the ore-bodies and extent of ore deposition have been influenced by cross-fracturing running mostly in an east direction. These cross-fractures run either from wall to wall of the main lode or connect this lode with nearby faults. They have both directed and facilitated the upward course of ore-bearing solutions apparently originating from the neighbouring batholithic intrusives. Where these solutions have come in contact with limestone or other limy strata they have effected an important replacement of these rocks for distances in places as great as 30 metres or more from the wall of the main lode, the distance being largely determined by the extent of cross-fracturing involving the limy beds.

Ore at the Cork-Province mine consists of an intimate mixture of sphalerite and galena with minor proportions of pyrite and chalcopyrite in a gangue composed largely of ankerite and siderite, but including varying amounts of quartz and calcite associated with altered wall rock.

Geological mapping of road cuts in the Cork-Province area show that outcrops tend to be argillaceous andalusite or mica schists and occasional limestone. Bedding/foliation strikes generally east-west, and dips vertically or steeply to the south. Feldspar porphyritic intrusives outcrop along the Dublin road, and meta-intrusive in the form of biotite gneiss (with abundant pyrite and pyrrhotite) occur where the mineralizing structure crosses the main Ben Hur logging road.

#### DUBLIN

Geologically, the Dublin mineralization appears to be similar to that found in the Cork-Province area. Shear-veins of siderite with varying amounts of galena and sphalerite can be seen in surface cuts and underground workings. These veins, which are 0.5 to 1.0 metre in width, strike  $060^{\circ}$  and dip steeply to the south.

The Cork, Province, Dublin (and adjacent Black Fox) workings lie along a series of shear zones in the Keen Creek valley. These shears have been explored for a strike of about 1.5 kilometres, and are open in both directions and at depth.

## 9) VLF-EM GEOPHYSICAL SURVEY

A total of 3.12 kilometres of VLF-EM survey were completed on the property. The survey was conducted using a Geonics Ltd. VLF-EM 16. Transmitting station was NLK (24.8 KHz) in Seattle, Washington, which is at a bearing of  $255^{\circ}$  from the grid. Readings were taken facing  $165^{\circ}$ .

Preliminary VLF-EM surveying over trench site T97-8, located on line 19E, at 50+00N, gave a Fraser filtered value of 26%, which is the high for the line. From this, it was assumed that the sulphides exposed in the trench could be traced using the VLF-EM 16. A grid of 100 metre spaced lines and 20 metre spaced stations was established using a base line oriented at  $050^{\circ}$ .

### VLF-EM SURVEY RESULTS

Field data is shown as profiles on Figure 4a. In-phase values were Fraser filtered, and are shown plotted on Figure 4b.

Results of the survey show a moderately strong conductive body which strikes approximately  $062^{\circ}$ , trending through trench site T97-8 and across the grid from line 14E to line 26E. Follow-up diamond drilling on line 14E, into the conductive trend (at 52+20N), cored into graphitic argillites. This explains the conductivity at this location. Highly variable readings taken along line 20E are due to surface materials (metal water pipes, track rails, etc.) relating to the old Cork-Province minesite. Further exploration of the conductive trend is required in order to conclude which areas of conductivity are due to a geologic bed (argillite) or graphite bearing fault structure, and which areas are due to sulphide deposition as in trench T97-8.

Offsets in the conductive trend suggests cross-faulting with right lateral displacements of 10 to 75 metres. An interpreted offset immediately west of line 19E could influence the continuation of mineralization encountered in trench T97-8, offsetting the trend 50 to 75 metres to the north. A detailed grid was established between lines 19E and 18E, using 25 metre line spacings, in order to clarify the interpreted fault offset. This style of fault offset is documented as common in the Cork-Province mine. Resolving the post depositional faulting in the Cork-Province mine area is important in the exploration of further ore.

## **10) DIAMOND DRILLING**

A total of 325.5 metres (1068 feet) of diamond drilling in 5 holes was completed on the claims. Two different areas were targeted for drilling. Drill hole 97CP-1 was designed to test a VLF-EM conductor on line 14E, centered roughly at 52+30N. The other 4 drill holes were designed to test for the continuation of sulphide mineralization uncovered in trench T97-8, located on line 19E. Core samples were taken from mineralized intervals.

A diamond rock saw was utilized to cut the core for sampling purposes. Samples were placed in poly bags labelled with the corresponding sample number and were shipped to Acme Labs Ltd. in Vancouver for analyses. In the laboratory, samples were crushed to minus 200 mesh and fire assayed for gold and silver, and geochemically analyzed for 30 additional elements by the ICP method. Where ICP results warranted, samples were re-assayed for lead, zinc or copper. Several samples returned significantly higher silver and lead values when re-assayed, as these elements often cause interference with each other in the standard multi-element ICP process. Further check analyses of higher grade sections were performed by Chemex Labs Ltd. in Vancouver.

### **DIAMOND DRILLING RESULTS**

Diamond drill logs and assay certificates can be found in the Appendix. Drill hole locations are shown on the grid map with VLF-EM survey results on Figure 4b. A summary of significant results is given in Table II.

Diamond drill hole 97CP-01, drilled to test a VLF-EM conductor, intersected Slocan meta-sediments consisting of limey argillites and mica hornfels to 132.5 metres. From 132.5 to 140.8, and 146.2 to 149.5 metres, the hole intersected graphitic argillaceous schist. The graphite content in this section of core likely explains the conductive aspect indicated in the VLF-EM response. Slickensided surfaces and breccia textures in the core through this section indicate a possible faulting relationship between the conductor and this section of geology. Low percentages of pyrite and minor pyrrhotite were detected in the core. The hole bottomed in andalusite bearing mica schist.

Several check samples were taken from quartz pods or veinlets, and from the graphitic sections encountered in hole 97CP-01. Elevated values of Ag, Pb and Zn returned from the graphitic schists (a high of 1175 ppm Pb and 3357 ppm Zn, 134.6-136.0m), suggest the likelihood of this interpreted shear as hosting mineralizing solutions. A high of 3.5 gm/t silver was returned from 139.9 to 140.8 metres.

Diamond drill hole 97CP-02, drilled to the immediate west of trench site T97-8, intersected andalusite-muscovite-biotite schist throughout the length of the hole. No samples were submitted for analysis from this hole. An interpreted cross fault is thought to have offset the trench T97-8 mineralization some distance to the north from the proposed target area.

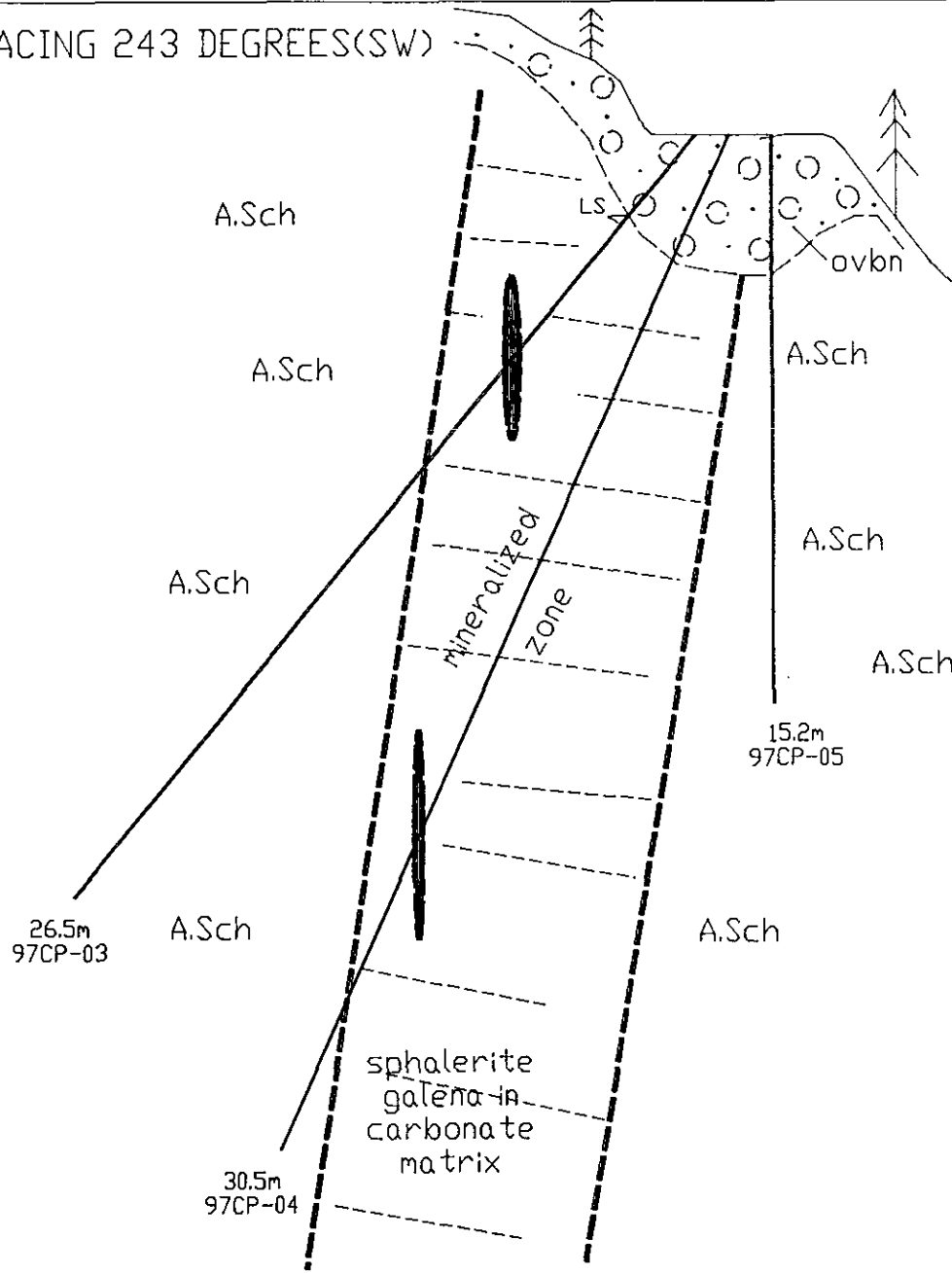




TABLE II

DRILL HOLE	METREAGE	Ag g/t	Pb %	Zn %
97CP-03	4.0-5.0	13.8	0.62	1.37
	5.0-5.7	365.9	12.3	8.36
	5.7-7.5	31.2	1.32	2.74
	7.5-8.2	0.9	0.01	0.05
	8.2-9.0	1.8	0.06	0.07
	9.0-10.1	80.9	2.09	4.61
	10.2-11.1	319.9	5.94	23.18
	11.1-11.6	27.3	0.84	1.74
97CP-04	3.9-5.0	293.0	6.95	12.4
	5.0-6.0	353.1	12.16	6.93
	6.0-7.0	488.2	12.97	13.26
	7.0-8.0	220.0	6.85	8.22
	8.0-9.3	203.8	5.97	14.23
	9.3-10.6	35.4	0.57	1.03
	10.6-12.0	90.9	1.78	4.67
	12.0-13.0	52.3	1.13	3.62
	13.0-14.0	620.1	21.16	8.23
	14.0-14.6	90.9	0.64	3.84
	14.6-15.6	680.3	21.25	8.34
	15.6-16.6	127.7	2.85	12.26
	16.6-17.7	287.0	7.98	21.69
	17.7-18.8	210.7	7.45	7.76
	18.8-20.0	199.0	4.65	15.64
	20.0-21.0	63.0	2.27	3.32
	21.0-22.0	60.1	1.21	3.43
22.0-23.1	60.4	0.89	3.66	
23.1-23.8	83.4	2.52	3.69	
23.8-25.0	20.6	0.74	2.48	

Drill holes 97CP-03, 04, and 05 were collared adjacent to the location of trench T97-8. These holes were fan drilled in order to establish the orientation of the mineralized zone uncovered by the trench. Hole 97CP-03, drilled at  $-50^{\circ}$ , intersected andalusite schist and limestone from 3.7 to 4.2 metres. Strong sphalerite-galena with minor pyrite and chalcopyrite in an ankerite-siderite host was encountered from 4.2 to 11.6 metres. The hole bottomed in andalusite schist. Hole 97CP-04, drilled at  $-70^{\circ}$ , intersected strong sphalerite-galena with lesser pyrite and chalcopyrite from 3.9 to 26.1 metres. Hole 97CP-05, drilled at  $-90^{\circ}$ , intersected andalusite schist for the length of the hole. This hole is

SECTION FACING 243 DEGREES (SW)



 = micaceous argillite  
 A.Sch = andalusite mica schist  
 = overburden  
 LS = limestone  
 SCALE = 1:200

CREAM MINERALS LTD.	
<b>BISMARCK PROPERTY</b>	
SLOCAN MINING DIVISION	NTS: 82F/14
DDH CROSS SECTION 97CP-03, -04, -05	
BY: P.G. FEB '98	FIGURE #5

considered to have been drilled into the footwall of the mineralized zone encountered in T97-8, 97CP-03 and -04. A cross section through holes 97CP-03, -04, and -05 is shown in Figure 5. A summary of significant results of analysis from this zone of mineralization are shown in Table II.

The mineralization encountered in holes 97CP-03, -04, and -05 are considered to have been emplaced by replacement of limestone. The small section of limestone cored in hole 97CP-03 indicates the presence of a limestone bed at this location prior to emplacement of sulphides. The zone has an indicated width of 7 to 8 metres. The graphite bearing shear encountered in hole 97CP-01 may have been the conduit for solutions into the limestone. This conductive shear has been traced for some distance, trending through the location of the mineralized zone of holes -03, -04 and -05 (see VLF-EM survey in this report).

## 11) CONCLUSIONS AND DISCUSSION

The Bismark property lies along a belt of Slocan series sedimentary and metasedimentary rocks, which form a roof pendant in the surrounding Nelson Batholith. Emplacement of the intrusive rocks caused uplift, folding, fracturing and shearing of the Slocan series rocks. Shears and fractures in the sediments act as conduits for mineralizing solutions. In places, the mineralizing solutions have formed replacement deposits in limestone and limey argillites. In other areas, the solutions have deposited as sheared vein deposits. Galena, sphalerite, and lead and zinc carbonates, containing high-grade silver, are present along several subparallel, linear zones which trend northeasterly across the property.

Comparisons to the Bismark property mineralization can be made to other mining camps in the Kootenay Arc. The Whitewater mine at Retallic, roughly 10 kilometres from the Cork-Province, and the Bluebell mine on the east side of Kootenay lake at Riandel, are two of the larger deposits mined in the area. The Whitewater deposit (minfile #083KSW033) consists of an upper zone characterized by veins, and a lower zone characterized by structurally controlled replacements of Slocan Group limestone, and lamprophyre. Ore consists of massive replacement of limestone by sphalerite and siderite, and as masses and lenses in the main structure. Upper productive zones were up to 20 metres thick in sheared and brecciated host rocks. In total, approximately 470,000 tonnes of rock were mined, with recoveries averaging 230 grams per tonne Ag, 3 % Pb, and 5 % zinc.

The Bluebell deposit comprised three main ore zones, the Kootenay Chief, Bluebell, and Comfort (Mineral Inventory #82F-42, 43, and 44), spaced approximately 500 metres apart. These zones are localized along steep dipping cross fractures. Ore consists of sphalerite, galena, and lesser arsenopyrite and chalcopyrite in a siliceous carbonate gangue. Ore shoots ranged in size from irregular pods of a few thousand tons to continuous masses of up to 1 million tons. An average shoot was mushroom shaped arising from a keel of mineralized fractures. The deposits formed as a combination of fracture controlled replacement bodies and infills in dilatant zones in marbles of the Badshot and Mohican formations. The mine produced over 5.7 million short tons of ore containing an average 5.2% lead, 6.3% zinc, and 1.7 ounces of silver per ton.

In summary, over 9 kilometres of shear-breccia-replacement systems, hosting silver-lead-zinc mineralization, have been located on the Bismark property. These systems are open to depth and in at least one lateral direction. Numerous old high-grade workings lie along these trends, mainly in areas with good outcrop exposure.

Future exploration programs need to concentrate on tracing the depth, extent and grade continuity along the shear-breccia-replacement systems at and between historically proven areas.

Detailed geological, geophysical (VLF-Em) and soil surveys are recommended along the trace of mineralization in order to determine areas with the most promising structures and grades. These target areas should then be opened by excavator trenching, in areas where this has been proven to be an effective tool, or by a combination of diamond and reverse

circulation rotary drilling. A misse la mass (down hole I.P.) geophysical survey may be useful in directly tracing sulphides intersected in holes 97CP-03 and -04.

Respectfully submitted,

Perry B. Grunenberg, P. Geo.



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**COST STATEMENT**

Salaries & Wages: 2 pers. 54 mdays @ \$287.39	\$15,519.00
Benefits @ 20%	3013.80
Food and Accommodation: 4 pers., 65 mdays @ \$54.78	3560.70
Supplies & Sundry	3312.43
Shipments	1289.93
4wd Trucks: 54 days @ \$46.83	2528.82
Fuel	948.87
Power Saw	192.60
Westgate Diamond Drilling Ltd.: 318.6m (1045.5') @ \$108.81/m	34,673.54
Critchlow Contracting: EX100, JD450	4,815.00
Assays & Analyses: Acme Labs.	
41 Core for 30 elem ICP @ 10.31	422.91
10 Pulp for Ag, Au @ \$14.79	147.87
31 Pulp for Pb, Zn @ \$18.78	582.13
4 Pulp for Se @ \$7.47	29.87
Assays & Analyses: Chemex Labs	
41 Core for Au & 30 elem ICP @ \$25.47	1,044.11
5 Pulp for Ag, Pb, Zn @ \$28.36	141.78
5 Pulp for Ag, Pb, Zn, Cd @ \$39.06	195.28
2 Pulp for Zn, Cd @ \$19.26	38.52
1 Pulp for Se @ \$17.12	17.12
P.E. Walcott Assocs. Ltd. VLF-Em Equipment: 5 days @ \$35	175.00
Report Preparation	1,000.00
<b>TOTAL COSTS</b>	<b>\$73,649.28</b>

**APPENDIX**

**CERTIFICATES OF ANALYSES**

**DIAMOND DRILL LOGS**





## ASSAY CERTIFICATE



Cream Minerals Inc. File # 9730249

Box 10435, 1610 - 777 Dun, Vancouver BC V7Y 1K5 Submitted by: Jack Denny

SAMPLE#	PB %	Zn %	Ag** gm/t	Au** gm/t
97CP3 4.0-5.0	.26	1.37	13.8	<.01
97CP3 5.0-5.7	12.30	8.36	365.9	.12
97CP3 5.7-7.5	1.32	2.74	31.2	.01
97CP3 7.5-8.2	.01	.05	.9	<.01
97CP3 8.2-9.0	.06	.07	1.8	<.01
97CP3 9.0-10.1	2.09	4.61	80.9	.08
97CP3 10.2-11.1	5.94	23.18	319.9	.17
97CP3 11.1-11.6	.84	1.72	25.6	<.01
RE 97CP3 11.1-11.6	.84	1.73	25.4	<.01
RRE 97CP3 11.1-11.6	.81	1.74	27.3	<.01
97CP4 3.9-5.0	6.95	12.40	293.0	.58
97CP4 5.0-6.0	12.16	6.93	353.1	.25
97CP4 6.0-7.0	12.97	13.26	488.2	.57
97CP4 7.0-8.0	6.85	8.22	220.0	.22
97CP4 8.0-9.3	5.97	14.23	203.8	.80
97CP4 9.3-10.6	.57	1.03	35.4	.14
97CP4 10.6-12.0	1.78	4.67	90.9	.06
97CP4 12.0-13.0	1.13	3.62	52.3	.02
97CP4 13.0-14.0	21.16	8.23	620.1	.12
97CP4 14.0-14.6	.64	3.84	90.9	.07
97CP4 14.6-15.6	21.25	8.34	680.3	.27
97CP4 15.6-16.6	2.85	12.26	127.7	.24
97CP4 16.6-17.7	7.95	20.43	269.5	.08
RE 97CP4 16.6-17.7	7.98	20.55	270.0	.09
RRE 97CP4 16.6-17.7	7.76	21.69	287.0	.10
97CP4 17.7-18.8	7.45	7.76	210.7	.06
97CP4 18.8-20.0	4.65	15.64	199.0	.08
97CP4 20.0-21.0	2.27	3.32	63.0	.03
97CP4 21.0-22.0	1.21	3.43	60.1	.04
97CP4 22.0-23.1	.89	3.66	60.4	.33
97CP4 23.1-23.8	2.52	3.69	83.4	.08
97CP4 23.8-25.0	.74	2.48	20.6	.04
97CP4 25.0-26.1	.14	.13	3.6	.02
97CP4 26.1-27.5	.06	.09	1.7	<.01
97CP4 27.5-28.8	.02	.04	1.7	<.01
STANDARD R-1/AU-1	1.30	2.36	101.3	3.41

1 GM SAMPLE DIGESTED IN 50 ML AQUA - REGIA, DILUTE TO 100 ML, ANALYSIS BY ICP.  
 - SAMPLE TYPE: CORE AG\*\* & AU\*\* BY FIRE ASSAY FROM 1 A.T. SAMPLE.  
 Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: DEC 17 1997

DATE REPORT MAILED: Dec 24/97

SIGNED BY: C. Leong

D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data FA E



## GEOCHEMICAL ANALYSIS CERTIFICATE



Cream Minerals Inc. File # 9730249

Box 10435, 1610 - 777 Dun, Vancouver BC V7Y 1K5 Submitted by: Jack Denny

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
97CP3 4.0-5.0	2	57	2506	11762	13.0	4	<1	49574	15.48	9	<8	<2	2	954	109.0	<3	<3	6	15.86	.036	8	15	1.26	12	<.01	<3	.06	.03	.05	<2
97CP3 5.0-5.7	2	745	29515	72314	330.4	7	<1	59840	22.47	89	15	<2	<2	45	748.9	198	<3	6	1.75	.030	3	39	1.73	4	<.01	<3	.04	.03	.04	<2
97CP3 5.7-7.5	4	105	14661	23280	34.9	12	1	17568	4.76	53	<8	<2	<2	1142	216.7	20	4	20	20.26	.105	10	23	1.12	16	<.01	<3	.16	.03	.11	<2
97CP3 7.5-8.2	1	28	174	448	.8	27	14	686	1.53	32	<8	<2	13	136	4.2	5	6	7	1.66	.054	32	9	.35	88	<.01	<3	.57	.02	.32	<2
97CP3 8.2-9.0	2	2	657	563	1.9	6	3	2459	.84	11	<8	<2	<2	2179	5.7	4	<3	3	32.18	.031	10	2	.26	30	<.01	<3	.11	.02	.12	2
97CP3 9.0-10.1	6	150	24231	41718	86.7	22	5	28873	8.55	61	<8	<2	<2	546	392.4	35	3	19	14.40	.060	12	38	1.01	22	<.01	<3	.29	.03	.27	<2
97CP3 10.2-11.1	8	265	28050	99999	316.3	5	5	16452	6.89	77	<8	<2	<2	181	1997.0	119	3	14	6.60	.050	9	110	1.00	13	<.01	<3	.12	.02	.09	<2
97CP3 11.1-11.6	10	54	8610	15210	26.6	32	14	8374	4.24	84	<8	<2	5	78	152.3	13	<3	6	1.36	.039	18	9	.47	45	<.01	<3	.46	.02	.40	<2
RE 97CP3 11.1-11.6	10	53	8470	14829	25.8	30	13	8212	4.15	77	8	<2	7	76	149.8	11	<3	6	1.34	.037	16	9	.46	44	<.01	<3	.42	.02	.39	<2
RRE 97CP3 11.1-11.6	7	53	8098	15186	28.3	31	14	8511	4.25	85	<8	<2	6	78	151.6	11	<3	6	1.36	.038	18	11	.47	41	<.01	<3	.48	.02	.44	<2
97CP4 3.9-5.0	3	883	28155	99999	279.5	7	1	32088	17.58	552	<8	<2	<2	31	1241.1	95	<3	4	1.29	.035	1	2	1.11	3	<.01	<3	.05	.02	.05	<2
97CP4 5.0-6.0	1	474	28032	60754	318.7	4	<1	44043	21.46	263	<8	<2	<2	18	688.0	209	3	4	.65	.038	1	32	1.42	4	<.01	<3	.06	.02	.07	<2
97CP4 6.0-7.0	3	1214	28463	99999	355.8	5	1	35947	20.27	528	<8	<2	<2	11	1397.5	218	<3	4	.44	.031	2	<1	1.23	3	<.01	<3	.04	.03	.02	2
97CP4 7.0-8.0	15	389	27809	77238	242.7	17	3	31143	16.73	423	<8	<2	4	71	941.2	114	<3	17	2.21	.138	3	13	1.28	25	<.01	<3	.24	.02	.20	<2
97CP4 8.0-9.3	3	1477	29240	99999	219.0	10	4	36547	24.60	2042	<8	<2	<2	32	1619.0	101	<3	7	1.65	.027	1	<1	1.41	4	<.01	<3	.04	.02	.04	<2
97CP4 9.3-10.6	1	65	5607	9126	38.8	17	1	61755	29.90	1589	<8	<2	4	43	92.5	4	<3	16	1.66	.033	4	15	2.30	8	<.01	<3	.09	.01	.08	<2
97CP4 10.6-12.0	1	352	19284	41948	92.7	6	<1	60919	26.64	50	13	<2	2	46	466.6	24	<3	13	1.86	.028	2	38	2.10	4	<.01	<3	.07	.03	.06	<2
97CP4 12.0-13.0	<1	154	11336	30630	52.7	4	<1	70145	25.70	19	<8	<2	2	52	314.3	7	<3	8	2.56	.029	3	25	2.04	5	<.01	<3	.06	.02	.07	<2
97CP4 13.0-14.0	1	1156	27607	73103	418.6	10	<1	41976	16.38	1299	10	<2	<2	38	791.4	508	<3	6	1.66	.025	1	19	1.23	3	<.01	<3	.05	.01	.06	<2
97CP4 14.0-14.6	2	307	6944	33987	102.8	8	1	30949	13.95	2099	<8	<2	2	556	363.9	16	<3	9	13.70	.017	9	29	2.52	3	<.01	<3	.04	.03	.02	4
97CP4 14.6-15.6	4	1451	26710	79413	286.1	7	1	25199	13.89	323	<8	<2	<2	29	879.9	659	4	5	1.16	.039	2	41	.91	5	<.01	<3	.05	.02	.06	<2
97CP4 15.6-16.6	2	1264	28644	99999	135.8	11	2	32936	21.85	730	<8	<2	<2	49	1319.1	39	<3	9	1.55	.042	2	17	1.30	8	<.01	<3	.09	.02	.08	<2
97CP4 16.6-17.7	3	1256	28305	99999	291.8	4	3	29488	18.09	229	<8	<2	<2	37	2283.5	160	3	8	1.33	.037	3	5	1.23	4	<.01	<3	.05	.02	.04	<2
RE 97CP4 16.6-17.7	3	1231	28113	99999	289.9	7	3	28858	17.71	230	<8	<2	<2	36	2233.7	152	9	9	1.31	.035	3	8	1.21	5	<.01	<3	.05	.02	.04	<2
RRE 97CP4 16.6-17.7	4	1234	27997	99999	265.1	7	3	28102	17.25	214	<8	<2	<2	35	2266.1	133	7	9	1.27	.033	2	<1	1.18	4	<.01	<3	.05	.02	.04	<2
97CP4 17.7-18.8	2	561	28461	66050	208.9	8	1	51929	25.73	110	<8	<2	<2	28	896.3	180	<3	8	1.24	.031	3	2	1.93	3	<.01	<3	.04	.02	.03	<2
97CP4 18.8-20.0	3	1044	28681	99999	208.2	7	2	40106	19.52	177	<8	<2	<2	124	1610.4	95	<3	20	4.64	.047	5	<1	1.83	6	<.01	<3	.07	.02	.07	<2
97CP4 20.0-21.0	10	582	24321	28078	66.6	49	10	13265	4.61	116	<8	<2	6	118	304.2	31	<3	36	5.07	.090	8	18	.82	30	<.01	<3	.42	.02	.37	<2
97CP4 21.0-22.0	2	325	13060	28696	60.5	13	<1	63385	22.24	37	<8	<2	3	29	299.8	18	<3	34	1.32	.071	3	19	1.66	10	<.01	<3	.14	.02	.12	<2
97CP4 22.0-23.1	<1	587	8785	30718	58.6	11	1	71307	33.76	999	<8	<2	3	10	326.7	6	<3	7	.65	.018	1	16	1.90	3	<.01	<3	.03	.02	.02	<2
97CP4 23.1-23.8	<1	544	28572	32742	84.1	7	<1	74778	29.29	234	<8	<2	<2	33	339.2	51	<3	7	1.27	.027	2	30	2.17	4	<.01	<3	.05	.02	.02	6
97CP4 23.8-25.0	2	82	7475	21493	20.0	9	3	42935	17.09	82	14	<2	4	299	216.1	8	<3	13	7.99	.044	7	23	2.22	21	<.01	<3	.20	.03	.17	<2
97CP4 25.0-26.1	1	10	1411	1166	2.4	5	<1	50603	18.33	252	<8	<2	3	249	11.1	<3	4	6	7.25	.038	6	5	2.15	10	<.01	<3	.10	.02	.08	<2
97CP4 26.1-27.5	<1	23	580	785	1.4	26	12	19392	6.95	80	<8	<2	10	61	7.3	4	3	5	1.17	.039	21	5	.74	55	<.01	<3	.46	.03	.40	<2
97CP4 27.5-28.8	<1	35	192	381	1.5	25	11	23162	9.34	495	<8	<2	6	61	4.4	4	<3	6	1.19	.038	16	6	.91	38	<.01	<3	.41	.02	.31	<2
STANDARD C3	26	65	39	167	5.7	35	11	799	3.29	57	18	<2	18	30	24.8	23	25	82	.57	.097	19	169	.64	151	.11	23	1.90	.04	.18	24
STANDARD G-1	3	5	9	56	<.3	11	5	660	2.28	2	<8	<2	5	82	<.2	6	<3	48	.69	.089	10	118	.75	283	.18	3	1.16	.08	.54	<2

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL

- SAMPLE TYPE: CORE Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: DEC 17 1997 DATE REPORT MAILED: Dec 24/97 SIGNED BY: D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



GEOCHEMICAL ANALYSIS CERTIFICATE



Cream Minerals Inc. File # 9730248

Box 10435, 1610 - 777 Dun, Vancouver BC V7Y 1K5 Submitted by: Jack Denny

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Ag**	Au**
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	gm/t	gm/t	
97CP1 64.6-65.1	1	24	179	279	2.6	15	4	969	2.24	2539	20	<2	5	60	2.8	9	<3	7	1.25	.023	10	19	.41	30	<.01	4	.26	.01	.18	8	2.7	.17
97CP1 69.8-72.1	6	21	254	189	1.7	19	5	3072	4.43	340	<8	<2	4	149	1.7	3	<3	11	2.52	.028	10	19	.74	40	<.01	5	.44	.02	.24	6	1.7	.05
97CP1 102.9-103.7	6	18	10	35	.6	6	3	241	1.02	4	10	<2	<2	48	.4	3	<3	25	.84	.036	4	23	.29	34	.06	3	.39	.03	.11	9	<.3	<.01
97CP1 132.4-134.6	2	53	46	248	1.2	40	16	1118	4.07	92	<8	<2	7	76	2.3	<3	<3	33	.96	.058	18	31	1.06	51	<.01	3	1.96	.02	.34	4	1.4	.02
97CP1 134.6-136.0	5	72	1175	3357	2.8	28	10	2976	3.78	101	9	<2	5	49	31.8	3	6	22	1.02	.030	9	16	.54	42	<.01	4	.82	.01	.31	4	2.7	.02
97CP1 136.0-137.5	8	141	879	3045	2.7	32	7	2640	2.59	83	<8	<2	5	162	30.6	4	6	41	3.05	.040	8	21	.40	45	<.01	4	.75	.02	.27	3	2.7	.02
97CP1 137.5-139.9	10	62	84	329	1.9	50	14	796	4.27	50	<8	<2	11	187	6.2	<3	<3	70	3.18	.065	14	39	1.11	63	.01	6	1.98	.03	.33	<2	1.8	.02
97CP1 139.9-140.8	2	79	719	852	2.9	79	12	2280	2.39	178	<8	<2	3	107	8.5	4	<3	19	1.77	.040	10	35	.79	35	<.01	<3	.75	.02	.26	2	3.1	.02
RE 97CP1 139.9-140.8	2	81	733	858	2.7	83	12	2318	2.42	186	<8	<2	2	108	8.8	<3	5	19	1.79	.040	10	36	.80	35	<.01	4	.77	.01	.26	2	2.6	.02
RRE 97CP1 139.9-140.8	2	87	874	884	3.4	91	14	2548	2.63	214	<8	<2	3	118	9.1	3	<3	20	1.97	.044	9	37	.85	36	<.01	3	.80	.02	.28	3	3.5	.02
97CP1 146.2-147.9	15	39	27	291	1.0	52	12	941	3.59	36	<8	<2	10	347	12.8	3	3	172	7.59	.073	18	45	1.27	62	.01	<3	1.81	.02	.29	<2	.9	<.01
97CP1 147.9-149.5	12	38	34	289	.8	48	10	1276	3.18	121	<8	<2	4	439	10.0	<3	3	169	11.08	.072	14	36	1.01	52	<.01	4	1.39	.02	.23	<2	.9	.02
STANDARD C3/R-1/AU-1	25	62	34	151	5.7	36	11	736	3.12	54	26	2	19	30	24.5	21	20	80	.56	.093	20	164	.63	148	.11	23	1.86	.05	.17	23	100.6	3.25

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.  
 - SAMPLE TYPE: CORE AG\*\* & AU\*\* BY FIRE ASSAY FROM 1 A.T. SAMPLE.  
 Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: DEC 17 1997 DATE REPORT MAILED: *Dec 24/97* SIGNED BY: *C.L.* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



## GEOCHEMICAL ICP ANALYSIS



Cream Minerals Inc. File # 9730249R

Box 10435, 1610 - 777 Dun, Vancouver BC V7Y 1K5

SAMPLE#	Se ppm
97CP4 12.0-13.0	.9
97CP4 13.0-14.0	2.4
97CP4 14.0-14.6	.1
97CP4 14.6-15.6	3.4
RE 97CP4 14.6-15.6	3.2
STANDARD C3	.6

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 deg.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
ANALYSIS BY HYDRIDE ICP. -

- SAMPLE TYPE: CORE PULP      Samples beginning 'RE' are Reruns and 'RRE' are Rejected Reruns.

DATE RECEIVED: JAN 15 1998      DATE REPORT MAILED: *Jan 20/98*      SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



















Hole No. 97 CP-1

Page 9 of 11

Section		ROCK DESCRIPTION	Interval		ALTERATION, MINERALIZATION	VEINLETS			Sample No.	From	To	Cu %	Au g/t	Ag g/t	Mo %
from m	to m		from m	to m		Thick mm	Angle to core	Minerals in decreasing abundance							
		- banding 47° t.c.a.			- minor p0/py blebs in										
		- ~ 30% brwn biotite			few bands;	1-2	vary	few wispy,							
		- fract // t.c.a. 112 - 112.8 m						warpy q-c							
		possible wk slickensided,						stringers	Geotech	From	To	Rec	Rqd	fracts	hardn's
		py - carb smears								122.5	123.4	0.8	10	6	3-4
		- gradual change to next,								123.4	126.5	3.1	6	6	3
		darker color increase,								126.5	127.1	0.7	4	5	3-4
		less brown biotite, @ 124.1								127.1	130.1	2.9	5	5	3
		50° t.c.a.								130.1	131.4	1.2	7	4	3
		- fract 122.6 - 123.4								131.2	132.4	1.2	9	4	3
		45, 60, 5° t.c.a.								132.4	134.6	1.7	17	13	2-3
										134.6	137.5	2.9	> 20	20	3
124.1	132.5	Argillaceous musc - bio - andalusite			- pervasive dk green in places					137.5	138.6	1.3	11	8	3
		+/- chlorite schist			(chlorite)	5-10	45	few warpy		138.6	139.9	1.5	10	11	3
		- dark green to black, no			- carbonate on some fract			banded q-c		139.6	141.7	1.7	2	7	3-4
		apparent graphite (v. blk			surfs	1-2	5°-45°	wispy horsetail		141.7	144.5	2.9	8	10	3
		in places)			- minor py blebs and individual			q-c stringers		144.5	145.8	1.4	4	5	3
		- few patches coarse biotite,			grains minor fract coatings					145.8	148.4	2.8	16	20	2-3
		- 1 mm skeletal andalusite			<< 1%					148.4	150.0	1.8	9	12	3
		nodules in musc rich patches	126.4	-	-chloritic +/- graphite?					150.0	151.5	1.5	10	8	3
		- banding poor @ 45 - 50° tca								151.5	152.7	1.3	7	7	3
		- @ 126.4 - 5 cm ground black								152.7	155.8	3.0	6	15	3
		core with calcite (decomp vein),								155.8	158.8	3.1	2	10	4
		possible shear								158.8	161.8	2.9	7	10	4
		130.2 - 130.7 - core broken,								161.8	164.9	2.8	2	6	4
		fract // tca									E.O.H.				





Hole No. 97 CP-2

Page 1 of 3

Location: 4965N; 1888E				Hole No: 97 CP-2
Azimuth: 314	Dips - collar	- 60 °	Contractor: West Gate (Potapoff)	Property: Bismark-Kasio
Elevation:	-	m	Logged by: Perry Grunenberg	Claim No. Cork
Length: 88.4 m (2.90 ft)	-	m	Date: Dec 3 - 6, 1997	Section No.: L 4883
Core size: NQ	-	m		Started: 2-Dec-97
Purpose: Sample Trench Tr08 ga, sp intcpt, check for parallel mineralization				Completed: 5-Dec-97

Section		ROCK DESCRIPTION	Interval		ALTERATION, MINERALIZATION	VEINLETS			Sample No.	From	To	Cu %	Au g/t	Ag g/t	Mo %
from m	to m		from m	to m		Thick mm	Angle to core	Minerals in decreasing abundance							
0	2.8	Soils, road fill													
		Overburden													
									Geotech	From	To	Rec	RQD	Fract	Hardn's
2.8	88.4	Andalusite-Musc-Biotite	2.8	10	Wk Feox on fract surfs.					3.0	5.2	1.1	20	8	4
		Schist								5.2	6.1	0.8	15	8	3
		- grey, competent, weak								6.1	7.3	1.1	16	14	4
		banded,			- softer, slight green areas					7.3	8.2	0.9	1	3	4
		35% andalusites, white, elongate			(chloritic?)					8.2	10.1	1.7	7	9	4
		to 10 mm, commonly 5 mm,								10.1	11.6	1.5	2	7	4
		parallel lineated @ 40 - 45 ° t.c.a.								11.6	13.4	1.7	3	8	4
		glassy centered,								13.6	14.9	1.3	10	12	3
		(white alt'd?)								14.9	16.2	1.3	13	12	3-4
		- finer grained qtz-mica								16.2	19.5	3.3	13	14	4
		matrix								19.5	21.0	1.4	5	5	3
---	---	3.2 - 3.7 Quartz vein								21.0	23.8	2.8	7	9	4
		or pod, broken, schist								23.8	25.8	1.7	3	8	4
		inclusions (~70% quartz,)								25.8	28.8	3.0	3	8	4
		pinkish color, wk. Feox								28.8	30.2	1.3	2	3	4
		- changing % andalusite from								30.2	32.3	2.1	12	11	3
		5 - 50% over 30 cm secn's								32.3	33.8	1.5	13	11	3



Hole No. 97 CP-2

Page 2 of 3

Section		ROCK DESCRIPTION	Interval		ALTERATION, MINERALIZATION	VEINLETS			Sample No.	From	To	Cu %	Au g/t	Ag g/t	Mo %
from m	to m		from m	to m		Thick mm	Angle to core	Minerals in decreasing abundance							
	-	3.7 - 7.2 - core rubbly, orange oxide stained (weathering)													
		- fract's common x-cut 45° t.c.a. leaving "wedges"													
	-	13.3 - 13.9 - core softer, less andalusite, feox, micaceous sch			serpentine	20	80	qtz +/- carb. pod, or vnl't.							
		- slickensided fract surfaces		---	serpentine chloritic slickensided					33.8	36.3	2.5	4	8	4
		45° tca, @ 16.2, 19.5, other fract's 5-10° tca (less common), slickened			fract surfs, esp. lower angled fract's 5-10° tca well developed grooves/slickened,					36.3	38.4	2.1	1	6	4
		@ 30.9, 33.4			minor warped slip plane					38.4	41.5	3.1	4	7	4
	-	41.4 - 41.8 sec'n of little or no andalus, biotite			- wk, spotty carbonate assoc. with slickened fract's					41.5	43.0	1.5	3	5	4
		increased, massive appearance	35.8	35.9	-----	5-10°	45°	webbed network		43.0	46.0	3.0	1	5	4
		@ 47.7 - rubble core, gouge? minor Feox				5-10°		q-c stringers over 10cm sec'n		46.0	47.9	1.9	3	5	3
		@ 49.0 soft core, assoc with carb-qtz brx in 5 cm secn								47.9	50.0	2.1	12	14	3-4
		@ 49.9 - slickened fract 40° t.c.a.			- continued carbonate +/- chl					50.0	50.9	0.9	9	9	3-4
	-	52 - 54.6 - core more densely fractured 5°, 10° and 45° t.c.a.			+/- serp on fract surfs, esp. if slicken sided					50.9	52.7	1.8	> 20	13	3-4
										52.7	54.3	1.6	18	11	4
										54.3	54.9	0.5	8	5	4
										54.9	56.4	1.3	4	7	4
										56.4	58.1	1.7	1	7	4
										58.1	60.0	1.9	3	6	4
										60.0	62.5	2.5	9	9	4
										62.5	65.2	2.7	7	9	4
										65.2	68.0	2.8	6	11	4













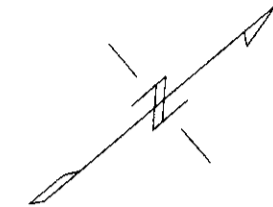
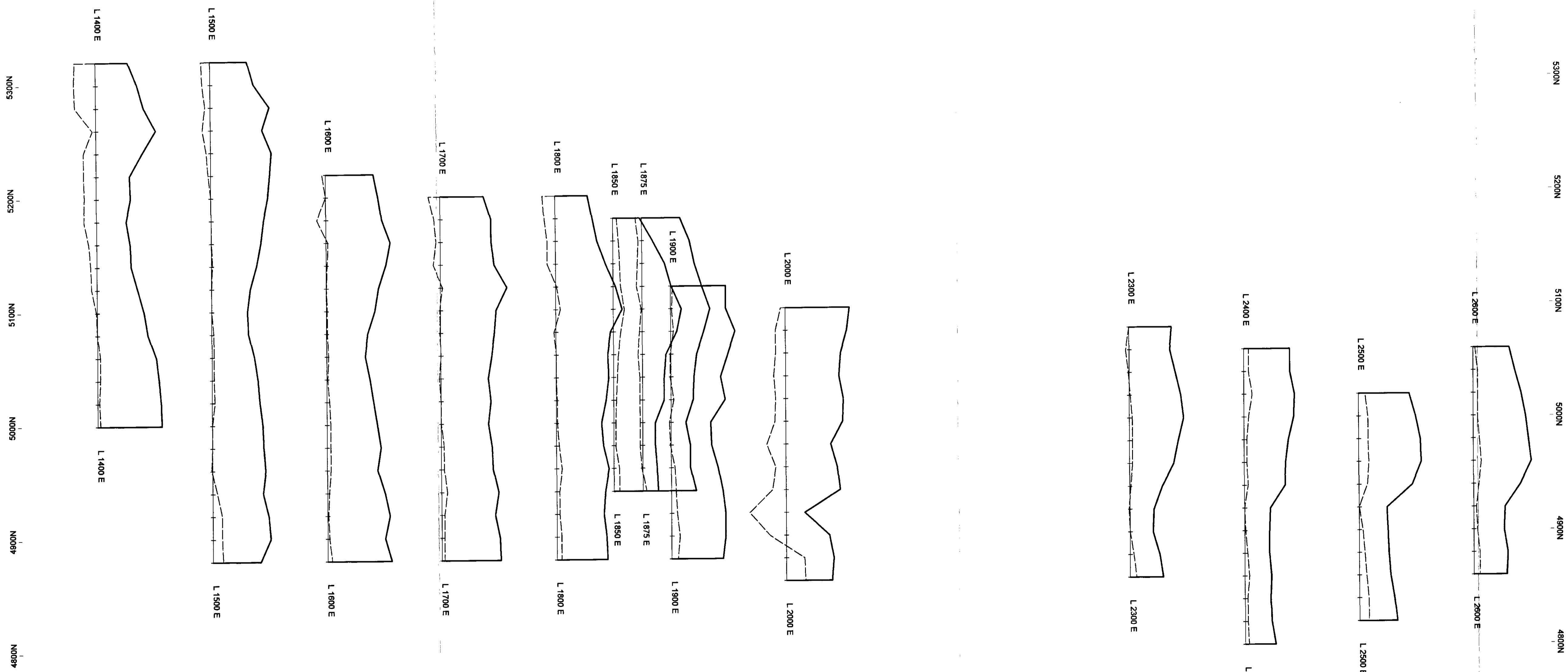






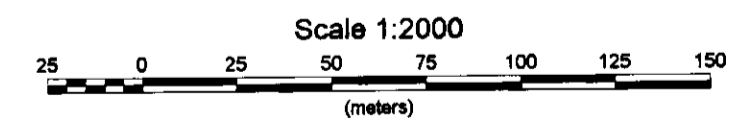




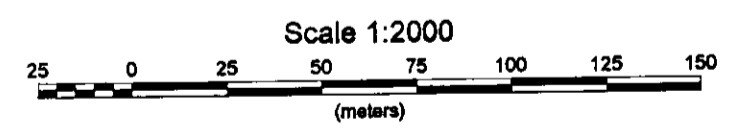
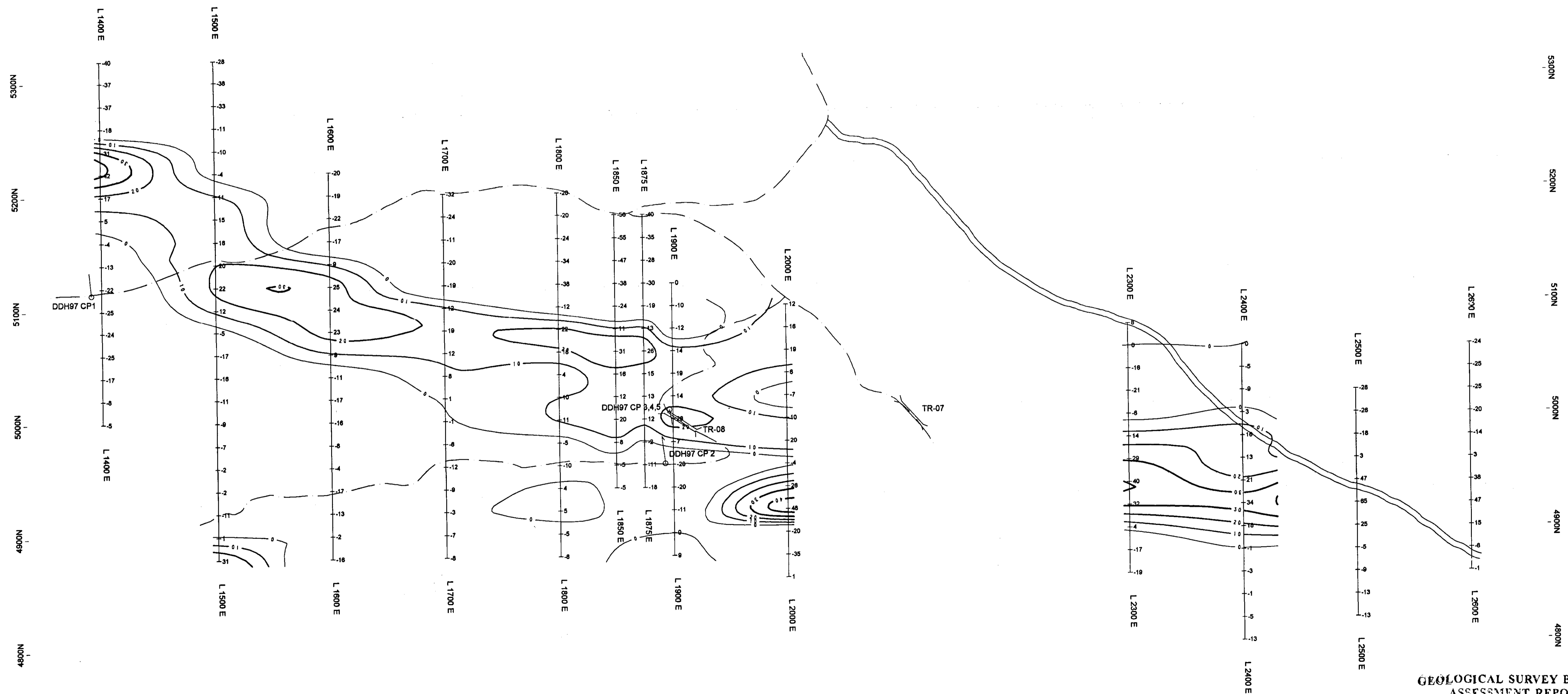


GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

25,334



CREAM MINERALS LTD.	
EM-16 ELECTROMAGNETIC SURVEY PROFILES OF INPHASE AND QUADRATURE IN PERCENT PROFILE SCALE 1 CM = 25 %	
CORK PROVINCE AREA	FIG 4A
KASLO SILVER PROPERTY	NTS 84F/14
SLOCAN MINING DIVISION	
Processed By: Peter E. Walcott & Assoc. Ltd.	



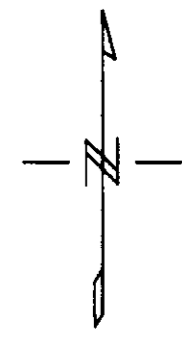
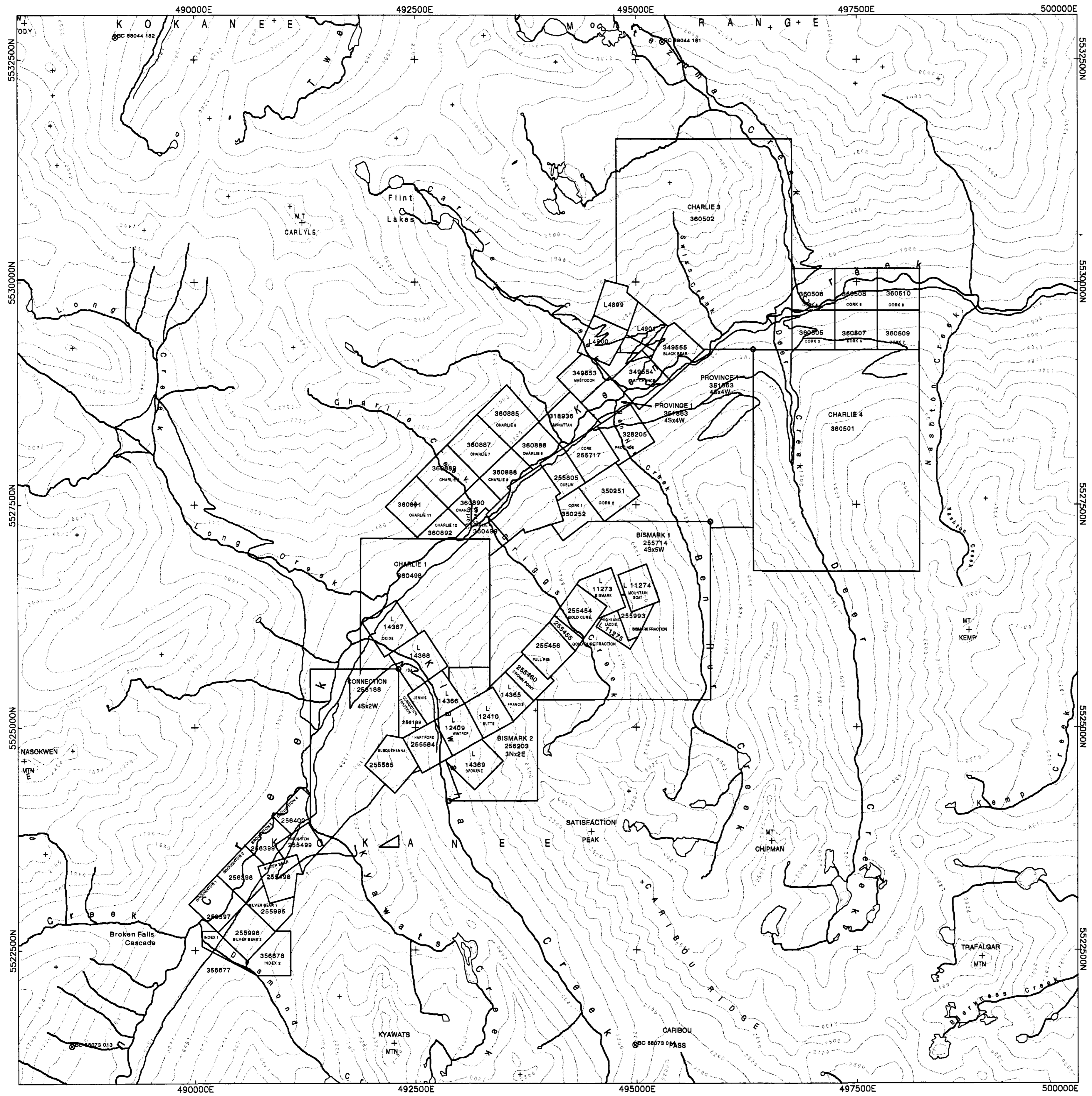
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CREAM MINERALS LTD.
EM-16 ELECTROMAGNETIC SURVEY CONTOURS OF FRASER FILTERED DATA
CORK PROVINCE AREA KASLO SILVER PROPERTY SLOCAN MINING DIVISION NTS 84F/14
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42

M3



GEOLOGICAL SURVEY BRANCH  
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Scale 1:25000  
500 0 500 1000 1500  
(metres)

**CREAM MINERALS LTD.**

**CLAIM LOCATION MAP**  
BISMARK PROPERTY  
SLOCAN MINING DIVISION, B.C.



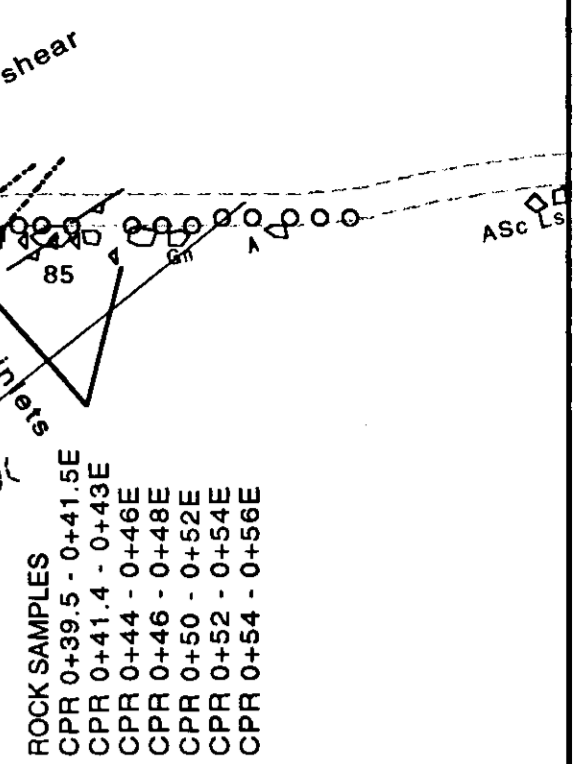
MANHATTAN CLAIM

PROVINCE CLAIM

CORK CLAIM

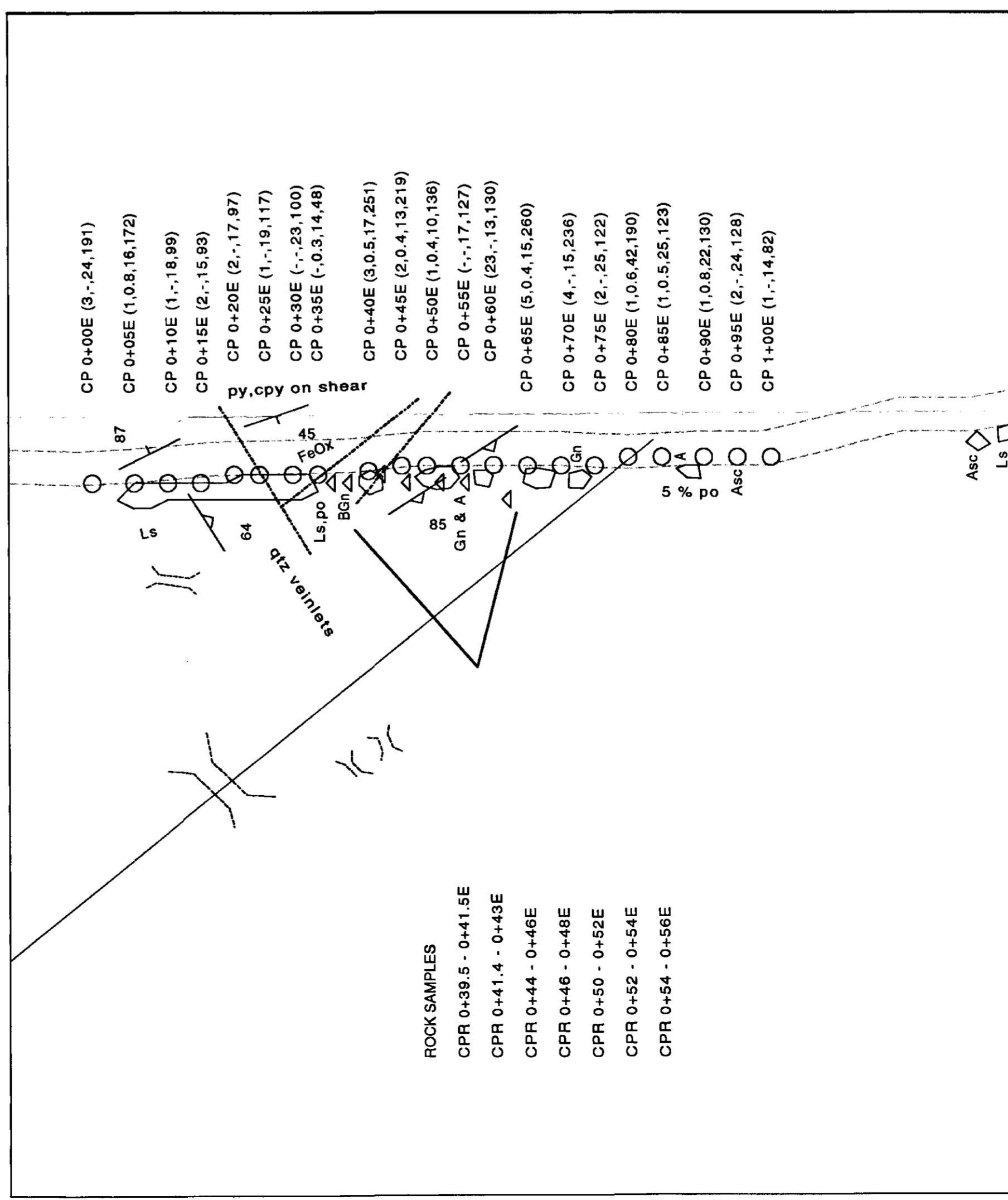
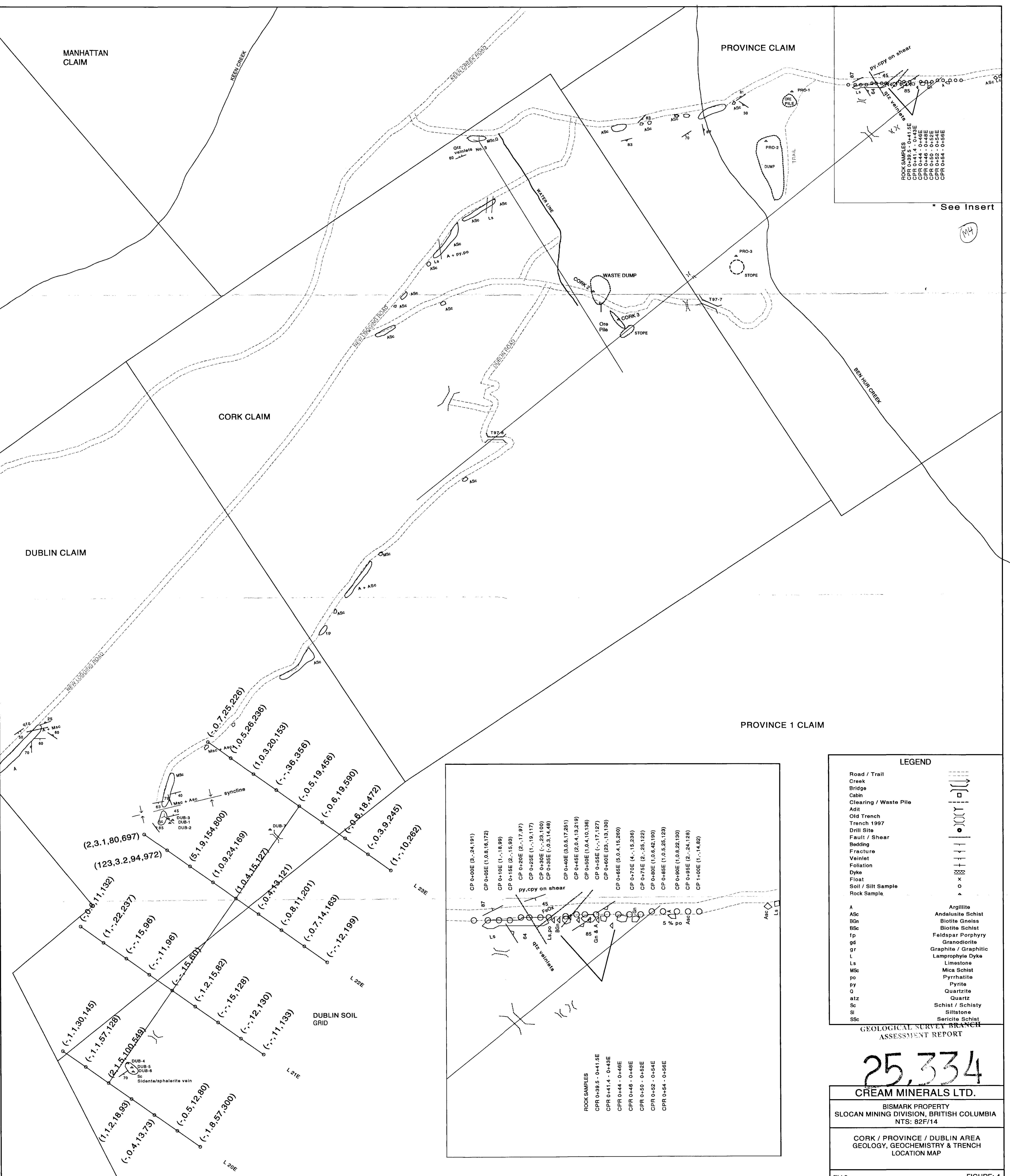
DUBLIN CLAIM

PROVINCE 1 CLAIM



\* See Insert

M4



**LEGEND**

Road / Trail	---
Creek	~
Bridge	— —
Cabin	□
Clearing / Waste Pile	▭
Adit	— — — —
Old Trench	— — — — — —
Trench 1997	— — — — — — — —
Drill Site	●
Fault / Shear	— — — — — — — —
Bedding	— — — — — — — —
Fracture	— — — — — — — —
Veinlet	— — — — — — — —
Foliation	— — — — — — — —
Dyke	— — — — — — — —
Float	x
Soil / Silt Sample	o
Rock Sample	▲

GEOLOGICAL SURVEY BRANCH  
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**CREAM MINERALS LTD.**

BISMARCK PROPERTY  
SLOCAN MINING DIVISION, BRITISH COLUMBIA  
NTS: 82F/14

CORK / PROVINCE / DUBLIN AREA  
GEOLOGY, GEOCHEMISTRY & TRENCH  
LOCATION MAP

BY: L.D.  
NOVEMBER 1997

FIGURE: 4