

830672

**GEOLOGICAL REPORT
ON THE
MAMMOTH COPPER-GOLD PROPERTY**

**Bonnington Range
Nelson Mining Division
British Columbia**

**Latitude: 49°22' North
Longitude: 117°17' West
NTS: 82F/6W**

Prepared for:

BLUEBIRD MINERALS LTD.

By:

**N.C. CARTER, Ph.D. P.Eng.
November 6, 1998**

N.C. CARTER, Ph.D. P.Eng.
Consulting Geologist

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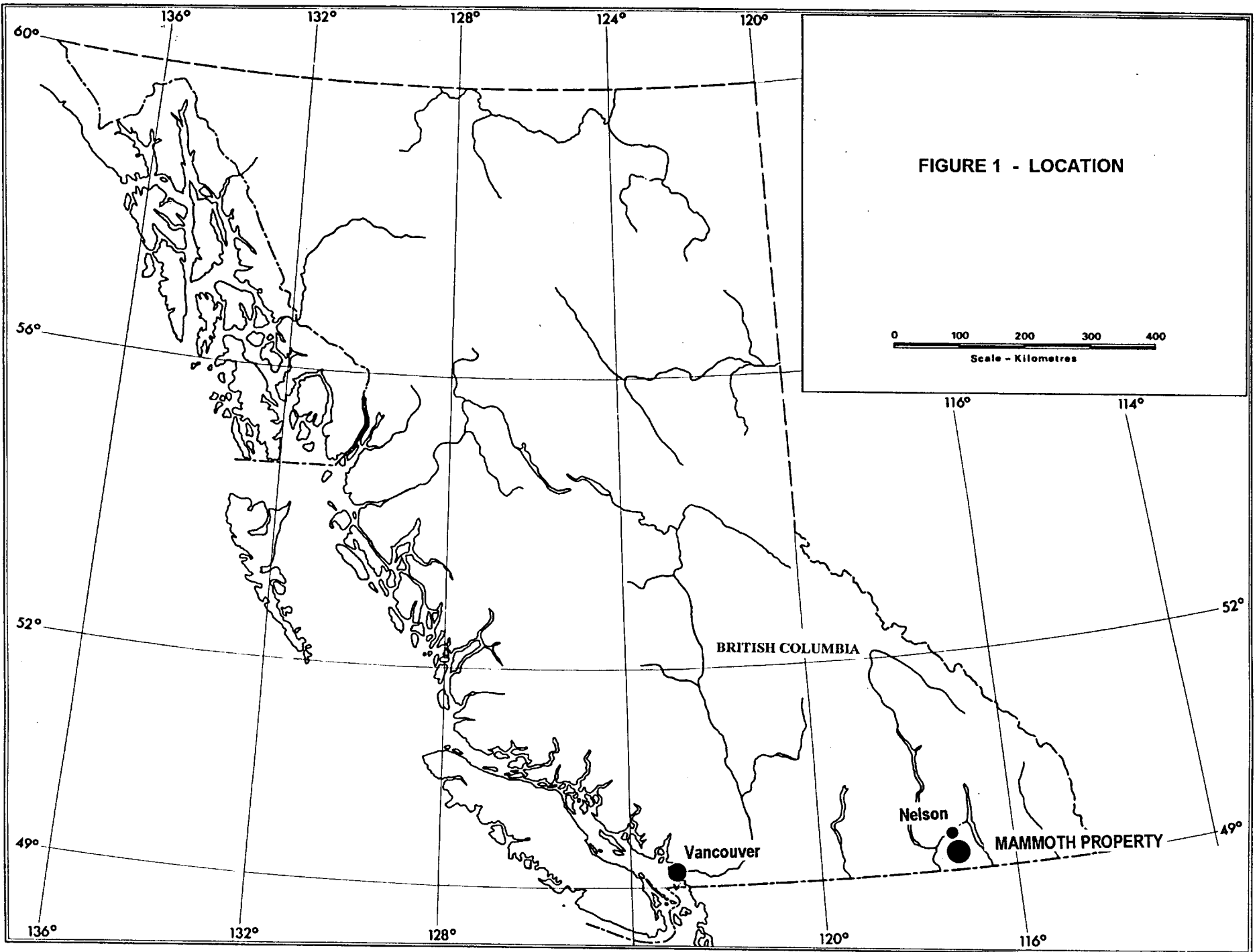
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SUMMARY

The Mammoth copper-gold property, situated south of Nelson in southeastern British Columbia, consists of 36 mineral claims comprising 70 mineral claim units.

Previous exploratory work on the property has partially defined appreciable copper, gold and molybdenum grades within a northerly-trending zone of skarn alteration developed in Lower Jurassic volcanic rocks marginal to granitic intrusions. A 1998 diamond drilling program indicated that this zone of alteration/mineralization is open to depth and along strike.

Further exploratory work is recommended to include additional diamond drilling in a two-phase program. The results of first phase work, recommended to include 1500 metres of drilling at an estimated cost of \$198,375.00, would predicate a second phase drilling program.



INTRODUCTION

General Statement

Bluebird Minerals Ltd. holds an option to purchase a 100% interest in the Mammoth copper-gold property which is situated south of Nelson in southeastern British Columbia.

This report, prepared at the request of Bluebird Minerals Ltd., is based on published and unpublished information pertaining to the property's geological setting and results of historic work on the property and on records provided by the Company which detail results of exploratory work carried out over the past several years.

The writer personally examined parts of the Mammoth property September 28, 1998. Drill cores recovered from a recently completed program were also inspected and on-site discussions were held with principals of the Company.

The writer accepts responsibility for the conclusions and recommendations contained herein.

Location and Access

The Mammoth property is situated 15 km due south of Nelson in southeastern British Columbia (Figure 1). The geographic centre of the property is at latitude 49° 22' North and longitude 117° 17' West in NTS map-area 82F/6W.

Mineral claims comprising the property are located a few kilometres west of the Salmo River on the divide between Barrett Creek on the south and Hall Creek to the north (Figure 2). Excellent access area is afforded by highway 6, linking Nelson with Ymir and Salmo (Figure 2), to a point 20 km south of Nelson where a logging road extends up Barrett Creek to the central property area (Figures 3 and 4). This road, which is about 7 km long, is steep in places and requires the use of a 4-wheel drive vehicle. A similar road up Hall Creek provides access to the northern property area.

The nearby communities of Nelson, Castlegar and Trail are capable of providing most supplies and services. Castlegar airport is serviced by daily scheduled flights from both Vancouver and Calgary.

Mineral Property

The Mammoth property is comprised of 36 mineral claims which cover an area of approximately 1600 hectares. The claim holdings include two 4-post mineral claims of 18 mineral claim units each, twenty-six 2-post mineral claims and eight reverted Crown granted mineral claims for a total of 70 mineral claim units recorded in the Nelson Mining Division of British Columbia. Details are as follows:

<u>Mineral Claim</u>	<u>Record Number</u>	<u>Units</u>	<u>Expiry Date</u>
Lot 14692*	232601	1	July 7, 2005
Lot 14693*	232602	1	July 7, 2005
Lot 14695*	232603	1	July 7, 2003
Lot 14880*	232604	1	July 7, 2003
Lot 15034*	232605	1	July 7, 2003
Lot 15035*	232606	1	July 7, 2003
Lot 15036*	232607	1	July 7, 2003
Lot 14694*	232630	1	March 13, 2004

* Reverted Crown granted mineral claim

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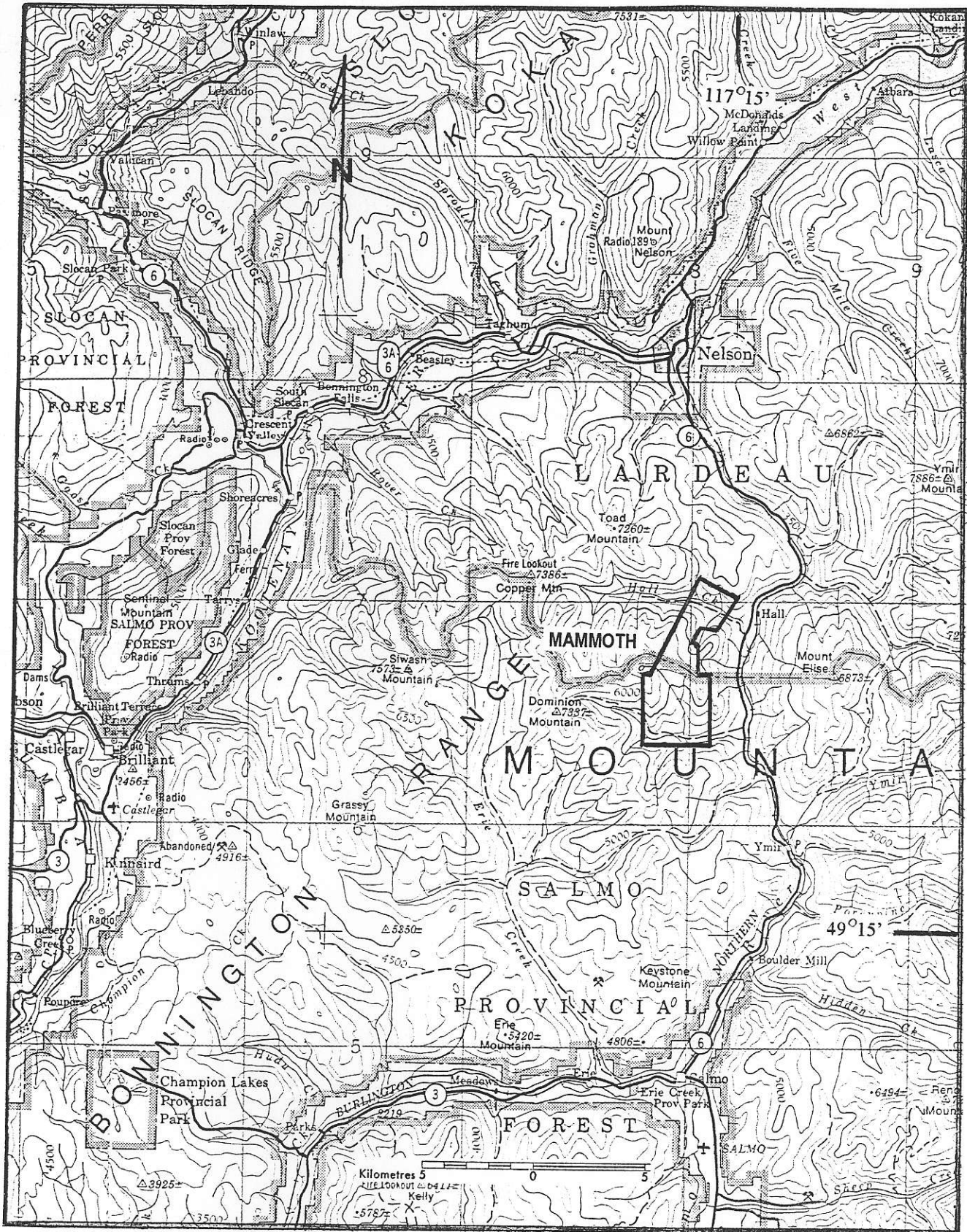


FIGURE 2 - LOCATION - MAMMOTH PROPERTY

<u>Mineral Claim</u>	<u>Record Number</u>	<u>Units</u>	<u>Expiry Date</u>
Copper 1	341590	1	October 30,2005
Copper 2	341591	1	October 30,2005
Copper 3	341592	1	October 30,2005
Copper 4	341593	1	October 30,2005
Mammoth #5	350530	18	September 13,2003
Mammoth #6	350531	18	September 13,2003
Mammoth #19	350532	1	September 12,2002
Mammoth #20	350533	1	September 12,2002
Mammoth #21	350534	1	September 12,2002
Mammoth #22	350535	1	September 12,2002
Mammoth #23	350536	1	September 12,2002
Mammoth #24	350537	1	September 12,2002
Mammoth #25	350538	1	September 12,2002
Mammoth #26	350539	1	September 12,2002
Mammoth #7	350540	1	September 12,2002
Mammoth #8	350541	1	September 12,2002
Mammoth #9	350542	1	September 12,2002
Mammoth #10	350543	1	September 12,2002
Mammoth #11	350544	1	September 12,2002
Mammoth #12	350545	1	September 12,2002
Mammoth #13	350546	1	September 12,2002
Mammoth #14	350547	1	September 12,2002
Mammoth #15	350548	1	September 12,2002
Mammoth #16	350549	1	September 12,2002
Mammoth #17	350550	1	September 12,2002
Mammoth #18	350551	1	September 12,2002
Mammoth #27	350552	1	September 12,2001
Mammoth #28	350553	1	September 12,2000

Annual assessment work, in the amount of \$200 per mineral claim unit (or payment of equivalent cash-in-lieu), is required to extend the individual mineral claim expiry dates beyond those indicated in the foregoing table.

Bluebird Minerals Ltd. holds an exclusive option to purchase an undivided 100% interest in an underlying option agreement with respect to the 36 mineral claims comprising the Mammoth property held by Rossmin Explorations Ltd., a private Calgary-based company. Terms of the agreement include annual cash payments totaling \$125,000 between 1998 and 2002, and the issuance of shares to Rossmin by Bluebird to Rossmin. A 2% net smelter return (capped at \$1.2 million) is payable to the original optionors upon commercial production and a further 0.5% net smelter royalty on production is payable to Rossmin Explorations Ltd.

Physical Setting

The Mammoth property is situated in fairly rugged topography typical of the Bonnington Range of the Selkirk Mountains of southeastern B.C. Steep slopes prevail marginal to the Hall and Barrett Creek drainages and tree cover, principally pine and alder, extends to the highest parts of the property.

The highest point in the immediate area is the summit of Commonwealth Mountain, 2.5 km west of the property (Figure 4), which is 2200 metres above sea level. Elevations within the claims area range from 820 metres (2,700 ft. along Barrett Creek in the southern property area to 1875 metres (6,150 ft.) on the east-trending ridge marking the divide between Hall and Barrett Creeks along the west property boundary.

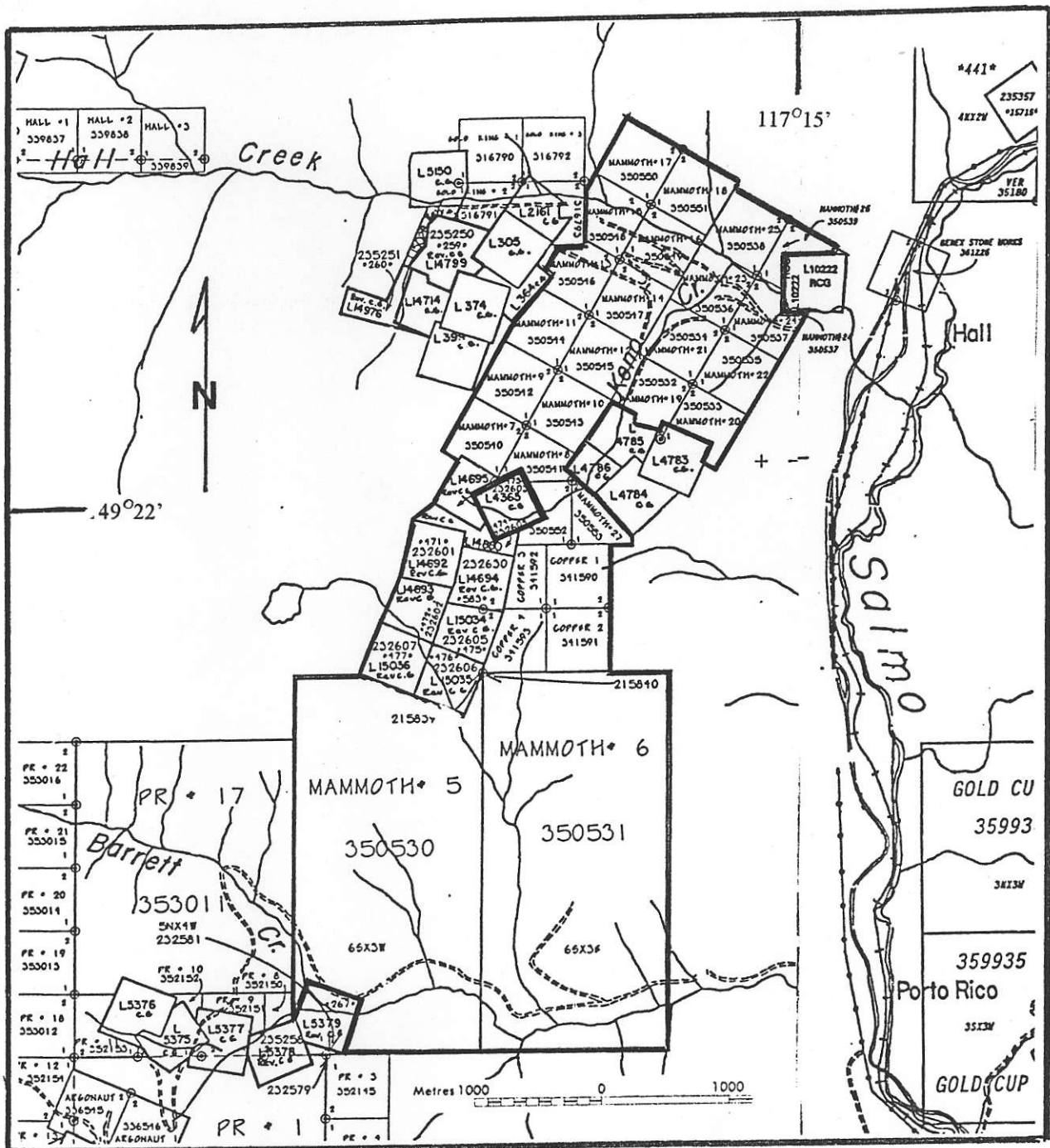


FIGURE 3 - MAMMOTH PROPERTY - MINERAL CLAIMS

Previous Work

The first record of work on the Mammoth property is contained in the British Columbia Minister of Mines Annual Report for 1917 which reported the existence of a shallow (12 metres) shaft and several open cuts on the property. Ensuing work over the next several years included the driving of a 28 metres adit north of the shaft and additional open cuts. This early work was apparently directed to copper-gold mineralization.

There is no further reported work until 1967-1968 when the principal focus of attention was molybdenum-copper mineralization in the vicinity of the original shaft. Welland Mining Ltd.(N.P.L.) reportedly completed bulldozer trenching and 1000 metres of diamond drilling in 15 or so shallow holes. This work is poorly documented. Further work by Welland Mining consisted of magnetometer and Crone electromagnetic geophysical surveys in 1972 (Walcott,1972) and geological mapping and rock and soil geochemistry by Pechiney Development Ltd. later that same year (Nicolet,1972).

All claims covering the property lapsed and new claims were acquired by Nelson-based prospector Eric Denny and partners in 1978. Subsequent work by Greenwich Resources Ltd. between 1981 and 1984 included soil, silt and rock geochemistry, a magnetometer survey and geological mapping (Hand,1982; Senden and Evans,1984). Copper-gold mineralization in quartz veins in the northern property area was investigated by Euro Petroleum Corp in 1989 (Carriere,1989).

Golden Mammoth Resources Ltd. established a 48 km grid in the central property area (Figure 4), centred on the original workings, and completed soil sampling, magnetometer and Induced Polarization surveys in 1991 and 1992 (Hawkins and Naciuk,1992).

The Mammoth property was acquired by way of an option agreement by Rossmine Explorations Ltd. in 1996 and subsequent work included detailed geological mapping of the 1992 grid area and follow-up soil geochemical sampling of previously identified anomalous areas in the central and southern grid areas.(Wells and Wehrle,1997).

GEOLOGICAL SETTING

Regional Geological Setting

The Nelson area, in the southern Omineca Belt, is underlain by rocks of Quesnellia terrane which include late Paleozoic and early Mesozoic volcanic, sedimentary and plutonic rocks. The Mesozoic rocks of this area are the Lower to Middle Jurassic Rossland Group volcanics and sediments which are contained in an 80 km long by 15 to 25 km wide, northeast-trending, arcuate belt extending from Rossland to Nelson.

The Rossland Group includes basal, locally highly deformed, clastic sedimentary units (Archibald and Ymir Formations) which are overlain by alkaline mafic flows and pyroclastic rocks. of the Elise Formation (Figure 5- Hoy and Andrew,1989). The overlying Hall Formation consists of clastic sedimentary rocks. Rossland Group sequences are tightly folded about northerly-trending axes with the intensity of deformation increasing to the east.

Southwest and southeast of Nelson, Rossland Group rocks are intruded by slightly younger, widespread

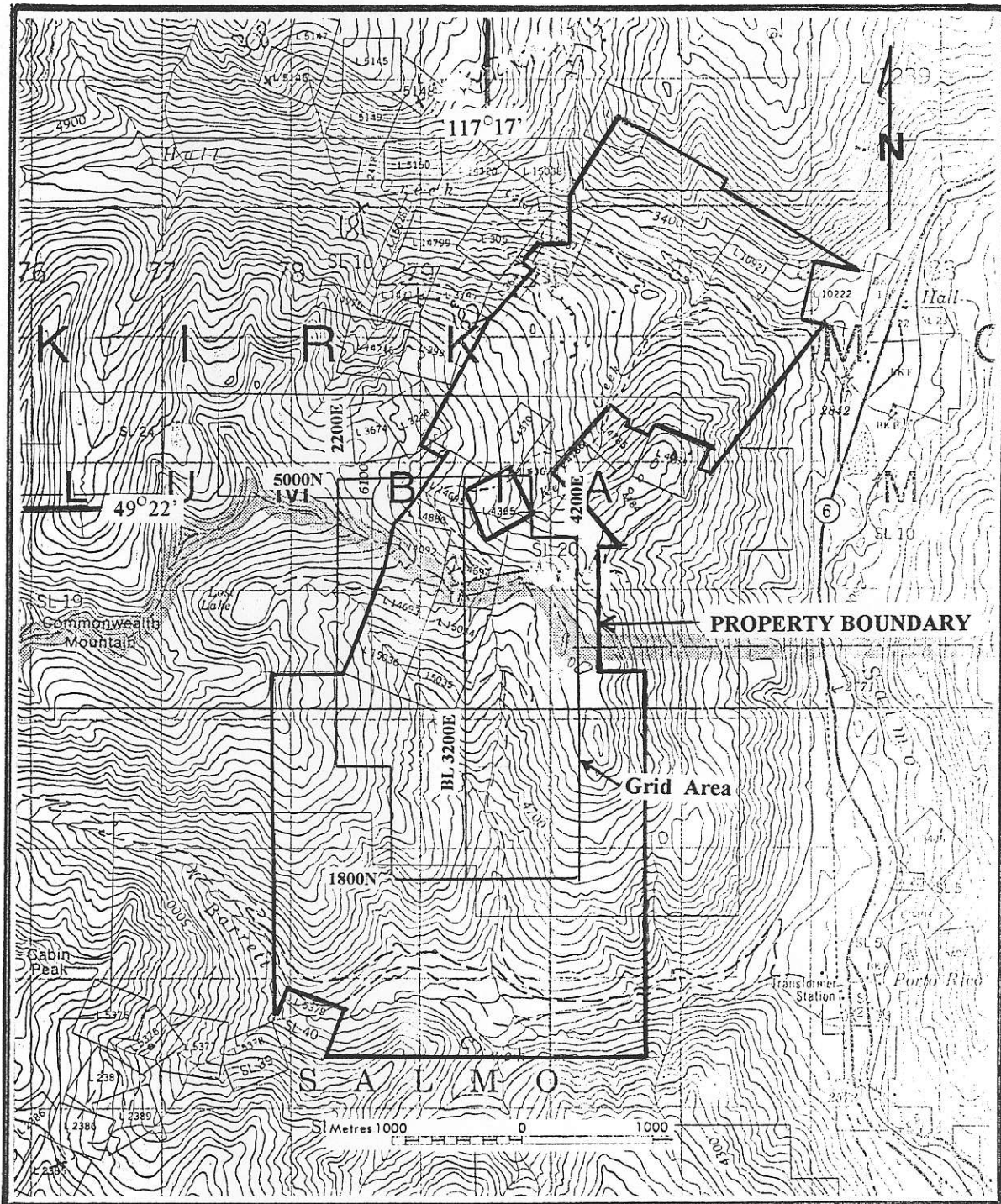
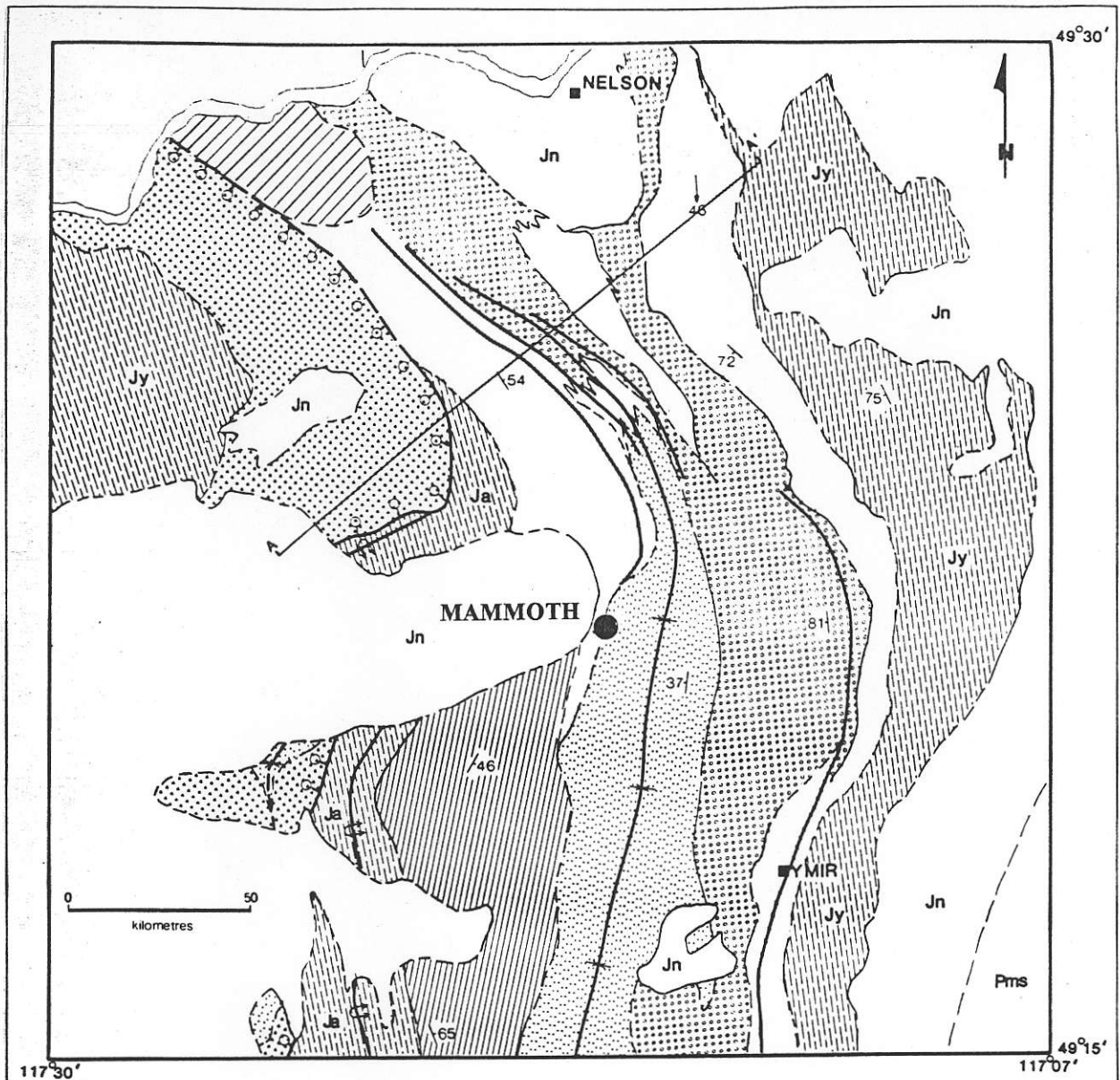


FIGURE 4 - MAMMOTH PROPERTY - PHYSICAL SETTING and GRID AREA



LEGEND

MIDDLE JURASSIC

Jn NELSON intrusions

LOWER OR MIDDLE JURASSIC (?)

diorite (?)

LOWER JURASSIC

ROSSLAND GROUP

SILVER KING intrusions

HALL FORMATION

ELISE FORMATION
upper Elise

intermediate to mafic lapilli,
crystal and fine tuff

intermediate lapilli and
crystal tuff

lower Elise

mafic flow breccia, flows

mafic pyroclastic breccia,
crystal tuff

Ja ARCHIBALD FORMATION

Jy YMIR GROUP

PALEOZOIC

Pms metasedimentary rocks

Hoy and Andrew (1989)

FIGURE 5 - MAMMOTH PROPERTY - REGIONAL GEOLOGICAL SETTING

Nelson granitic rocks (Figure 5). Intrusions of dioritic affinity may be coeval with Elise Formation volcanic rocks. Younger (Tertiary) plutonic rocks include Coryell alkalic intrusions.

The Nelson district is known for its number and variety of mineral deposit types. Vein deposits have been the source of 16750 kg of gold and 190000 kg of silver to date with most of this production from the polymetallic veins of the Ymir camp. These and gold-silver-copper veins are the most widespread mineral deposit type in the district. Other styles of mineralization include porphyry molybdenum copper deposits within and marginal to Nelson granitic rocks and a number of copper (gold-molybdenum-tungsten) skarns hosted by Elise Formation volcanics and Hall Formation sediments also proximal to intrusive rocks. Mammoth is an example of this type.

So-called conformable gold mineralization (Hoy and Andrew, 1989) refers to those prospects where gold-bearing structures are conformable with foliation or bedding in Elise Formation volcanic rocks.

Property Geology and Mineralization

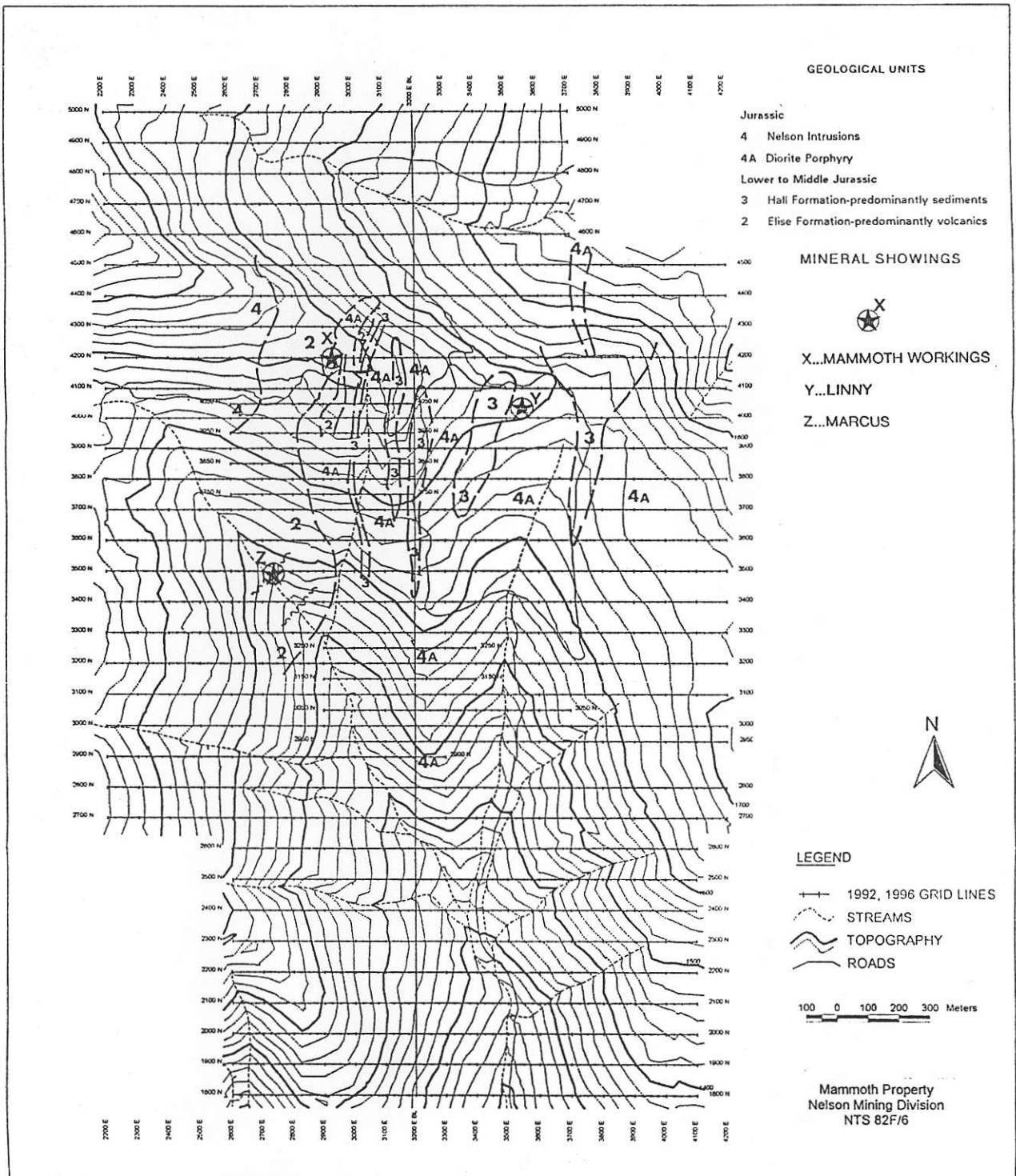
As shown on Figure 5, the Mammoth property is on the west limb of a regional synclinal structure (Hall Syncline - Hoy and Andrew, 1989) and marginal to the east lobe of the Bonnington pluton, part of the Nelson intrusions. Northerly-striking, steeply east-dipping Elise Formation volcanic flows and fragmental rocks occupy a 200 to 500 metres wide belt between the aforementioned granitic rocks and overlying Hall Formation sedimentary rocks to the east (Figure 6). The Elise - Hall contact area features a number of northerly-trending monzonite to diorite porphyries; some of these may be comagmatic or coeval with Elise Formation volcanics ("Mammoth intrusions") but larger masses of diorite porphyry a short distance east which contain northerly oriented screens of hornfelsed Hall Formation sediments are obviously part of a younger igneous event.

The principal known mineralized zones on the Mammoth property are hosted by the 200 metres wide belt of Elise Formation volcanics between the Bonnington pluton on the west and a north-northeast striking, 200 to 300 metres wide diorite porphyry on the east (Figure 7). The steeply east-dipping contact between the volcanic rocks and the diorite porphyry appears to be the major control for skarn alteration and associated mineralization. The historic underground workings and more recent trenching are distributed along a 350 metres length of this contact.

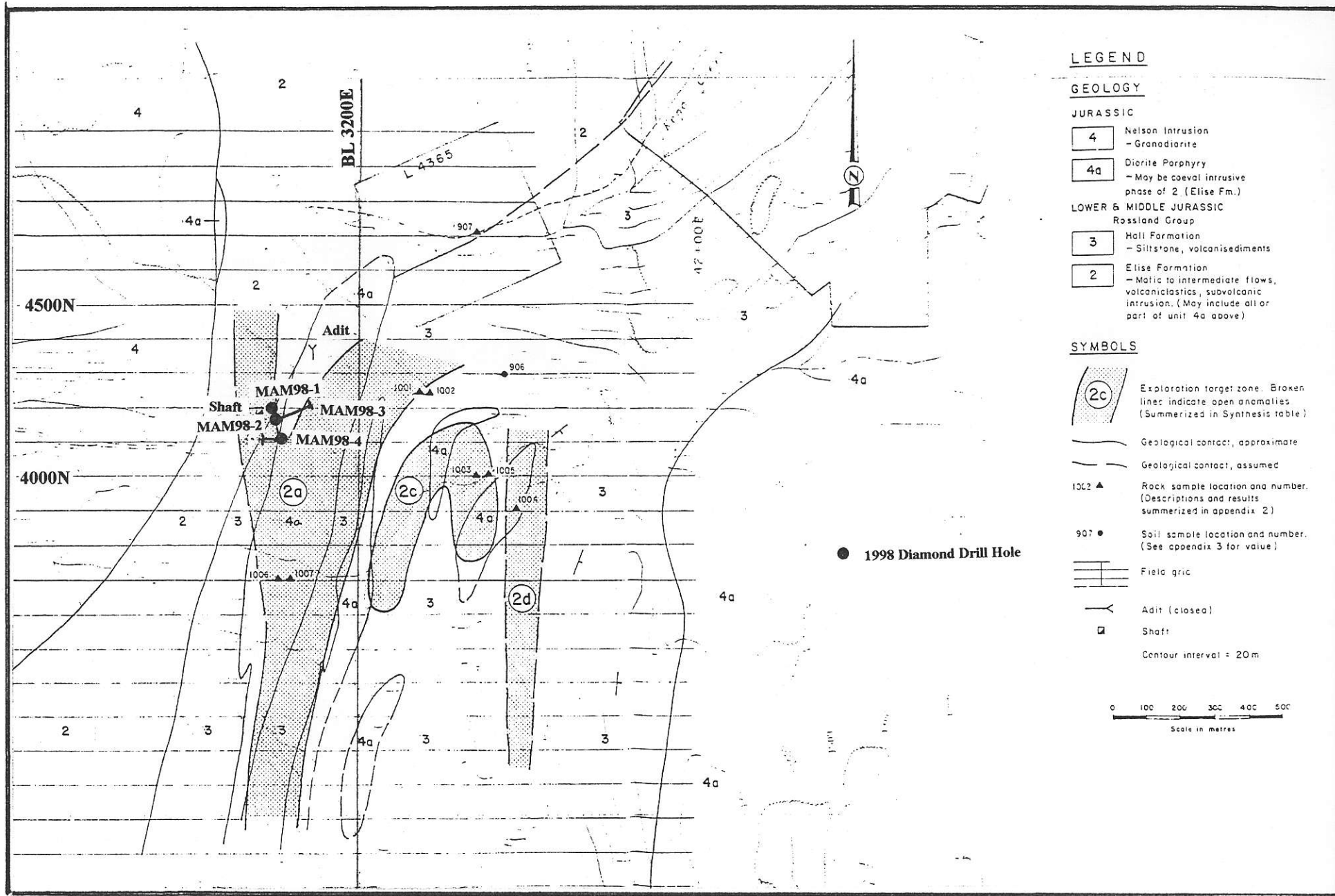
Mineralization in the vicinity of the shallow shaft (Figure 7) consists of pyrite, chalcopyrite, and molybdenite in fractures in garnet-epidote-magnetite skarn and hornfels (Wells and Wehrle, 1997). Nine holes drilled over a 200 metres length of the diorite porphyry - volcanic contact in 1968 reportedly (Hawkins and Naciuk, 1992) intersected 0.18 to 0.627% copper over core lengths of between 3.5 and 22 metres; molybdenum (molybdenite?) values were spotty with the best ranging from 0.185 to 0.88%. None of this core, which is apparently lost, was assayed for gold. Sampling of several existing trenches within an interval of 100 metres south of the shaft (Hawkins and Naciuk, 1992) returned copper of between 0.76 and 1.52%; gold values were directly proportional to copper grades, ranging from 0.60 to 2.34 grams/tonne.

Other styles of mineralization known on the property include quartz vein stockworks in the vicinity of the adit (Figure 7) and quartz veins with arsenopyrite at the Linny zone 600 metres southeast of the Mammoth showings (Figure 6). Here, 1 to 5 cm wide quartz veins hosted by diorite porphyry contain gold values of up to .64 g/t. The Marcus zone, 500 metres southwest of the Mammoth (Figure 6), includes northeast-trending, steeply-dipping, silicified shear zones in Elise Formation volcanic rocks; Sampling of 10 - 40 cm wide silicified cores of the shears has returned gold values of less than 1 g/t (Wells and Wehrle, 1997).

Three of four narrow vein deposits, Benr, Fern and Canadian Belle which are situated immediately adjacent to the northern part of the Mammoth property, have yielded limited production totaling 11000 tonnes grading 17 to 35 g/t gold. These veins are hosted by Elise and Hall rocks marginal to granitic intrusions. Similar gold grades have been obtained from 5800 tonnes produced from the Porto Rico and Spotted Horse quartz veins which are situated in a similar geological setting south of the Mammoth property.



**FIGURE 6 - MAMMOTH PROPERTY - GEOLOGY - CENTRAL GRID AREA
(After Wells and Wehrle, 1997)**



**FIGURE 7 - MAMMOTH PROPERTY - GEOPHYSICAL - GEOCHEMICAL
COMPILATION (After Hawkins and
Naciuk, 1992) and
LOCATION OF 1998 DRILL HOLES**

Geochemical and Geophysical Signatures

As previously noted, a number of geophysical and geochemical surveys have been conducted over parts of the Mammoth property over the past 30 years. Only the results of surveys conducted since 1991 are presented here.

Threshold values for various elements, based on results of 1991 and 1992 soil geochemistry (Hawkins and Naciuk, 1992) are as follows:

Copper	118 ppm
Gold	23 ppb
Silver	2.8 ppm
Arsenic	71 ppm
Lead	46 ppm
Zinc	374 ppm
Molybdenum	7 ppm

1996 soil geochemistry (Wells and Wehrle, 1997) consisted of follow-up sampling of previously identified areas of anomalous copper and gold in soils in the central and southern grid areas (Figure 6). The 1992 grid was extended to the south; sampling indicated spot gold highs east of the baseline. Fill-in sampling along 50 metres spaced lines in the central grid area indicated a broad zone with weakly anomalous copper values. Fill-in sampling was also carried out over an area extending 300 metres south of the Mammoth showings; results essentially confirmed earlier ones.

Three principal target areas were identified by integration of 1992 geochemical and geophysical work (Hawking and Naciuk, 1992). The principal target area (2a on Figure 7) includes anomalous copper and gold values in soils within a broad zone centered on the contact between Elise volcanic and diorite porphyry and extending 1 km south of the Mammoth workings. This zone also features magnetic lows and moderate resistivities and high chargeabilities as defined by Induced Polarization surveys. Target 2c, which includes the Linny gold zone, includes local gold and arsenic anomalies in soils, plus coincident copper and zinc values. Chargeability highs are coincident with magnetic highs and are probably reflecting contact zones between diorite porphyries and Hall Formation sediments in this area. Target 2d, in a similar geological setting, consists of a linear zone of high chargeabilities and magnetic highs. Both of these targets are considered by Hawkins and Naciuk (1992) to have geophysical signatures characteristics of porphyry style mineralization.

1998 DRILLING PROGRAM

Nature and Scope

A four hole, 350.5 metres program of diamond drilling was completed on the Mammoth property by Bluebird Minerals Ltd. between mid and late September. The four holes, which recovered NQ-size core, were drilled within a 100 metres area within and immediately south of the main Mammoth workings. Hole locations are shown on Figure 7 and details are as follows:

<u>Hole No.</u>	<u>Total Depth(metres)</u>	<u>Hole Dip</u>	<u>Azimuth</u>	<u>Grid North</u>	<u>Grid East</u>
MAM98-1	58.83	-90	-	4197	2923
MAM98-2	43.59	-90	-	4175	2926
MAM98-3	171.6	-50	070	4179	2928
MAM98-4	76.5	-50	270	4104	2952

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Drill cores were logged in detail by B. Augsten, B.Sc. Samples selected for analyses were generally at 0.3 to 1 metre consecutive intervals within better mineralized sections and at 1 -2 metres intervals in lesser mineralized sections. The majority of most holes drilled were sampled. Sample numbers were marked on the core boxes and the cores were split with one half submitted for analyses and one half retained in sample boxes which are securely stored in Nelson:

Samples were submitted to Eco-Tech Laboratories Ltd. in Kamloops for determination of 28 major and trace elements by ICP methods; gold contents were determined by geochemical methods. Samples with values above 10000 ppm copper and 1000 pph gold were routinely assayed. Complete analytical results are contained in Appendix I; significant results are as follows:

<u>Hole Number</u>	<u>Interval(metres)</u>	<u>Length(metres)</u>	<u>Gold(g/t)</u>	<u>Copper (%)</u>	<u>Molybdenum(%)</u>
MAM98-1	0 - 14.35 (Sample Nos. 24151 - 241161)	14.35	0.30	0.20	0.063
including:	0 - 5.00	5.00	0.02	0.05	0.131
MAM98-2	0 - 13.28 (Sample Nos. 24179 - 24186)	13.28	0.55	0.69	0.084
MAM98-3	0 - 14.95 (Sample Nos. 24199 - 24408)	14.95	0.44	0.47	0.019
including:	5.77 - 9.05	3.28	1.08	1.46	0.082
MAM98-4		No Significant Results			

Better mineralized sections in three of the holes drilled were associated with locally intense K-feldspar, garnet and epidote alteration. This calc-silicate assemblage, typical of skarn alteration, is accompanied by disseminated and fracture-filling pyrrhotite, chalcopyrite and molybdenite. Higher grade copper (and gold) values in hole MAM98-3 are associated up to 10% streaky chalcopyrite. Intensity of skarn alteration and attendant sulphide mineralization decreases with hole depth. Hole MAM98-4, which features little skarn alteration, is thought to have been drilled under the mineralized zone.

Other lithologies encountered in the drill program include feldspar porphyry flows which exhibit modest biotite hornfels alteration, and feldspar porphyry dykes of diorite composition. These dykes, which were intersected in the two inclined holes drilled, are relatively fresh in appearance and apparently post-date the skarn alteration and sulphide mineralization in the upper part of hole MAM98-3.

CONCLUSIONS AND RECOMMENDATIONS

The drilling program on the Mammoth property in 1998 encountered significant copper, gold and molybdenite mineralization within a steeply east-dipping, northerly trending zone. This zone, which parallels the contact between Elise Formation volcanic units and diorite porphyry intrusions, is open to depth. Previous geochemical and geophysical surveys also suggest continuity of the zone along strike in both directions.

The style of mineralization encountered appears to be similar to that at the Second Relief gold-enriched skarn deposit which is also marginal to the Bonnington pluton 8 km southwest of the Mammoth (Hoy and Andrew, 1989). Here, eight sub-parallel zones of quartz and garnet-epidote skarn contain pyrrhotite, chalcopyrite, and sphalerite plus native gold. The main zone is developed along the hangingwall of a diorite porphyry dyke. Production between 1900 and 1959 totaled 207000 tonnes grading 15.1 g/t gold plus silver and copper values.

The Mammoth property is one of merit and additional exploratory work is warranted. It is recommended that a two-phase program of additional drilling be undertaken to test the zone identified to date along strike and to depth. The first phase, estimated to cost \$198,375.00 and recommended to include 1500 metres of diamond drilling, should be preceded by detailed geological mapping when weather conditions permit. This work should be directed to determining the location and nature of the contacts between the prospective Elise Formation volcanic units and diorite feldspar porphyry dykes, some of which apparently post-date skarn alteration and sulphide mineralization.

The additional diamond drilling proposed for second phase work at an estimated cost of \$235,750.00, would be contingent on the results obtained from first phase work.

COST ESTIMATE**Phase I**

Diamond Drilling - 1500 metres @ \$75/metre (all-inclusive direct drilling costs)	\$112,500.00
Geological Mapping	\$10,000.00
Core logging, sampling	\$15,000.00
Analytical charges - 1000 sample @ \$20/sample	\$20,000.00
Supervision, reporting	\$15,000.00
Contingencies @ 15%	<u>\$25,875.00</u>
Total, Phase I	\$198,375.00

Phase II

Diamond Drilling - 2000 metres @ \$75/metre(all-inclusive direct drilling costs)	\$150,000.00
Core logging, sampling	\$20,000.00
Analytical charges - 1000 samples @ \$20/sample	\$20,000.00
Supervision, reporting	\$15,000.00
Contingencies @ 15%	<u>\$30,750.00</u>
Total, PhaseII	\$235,750.00

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CERTIFICATE

I, NICHOLAS C. CARTER, with residence and business address at 1410 Wende Road, Victoria, British Columbia, do hereby certify that:

1. I am a Consulting Geologist and have been registered with the Association of Professional Engineers and Geoscientists of British Columbia since 1966.
2. I am a graduate of the University of New Brunswick with B.Sc.(1960), Michigan Technological University with M.S.(1962) and the University of British Columbia with Ph.D.(1974).
3. I have practised my profession, both within government and the private sector, in eastern and western Canada and in parts of the United States and abroad for more than 35 years.
4. I am well qualified to report on the Mammoth copper-gold property having spent the majority of my career examining and reporting on British Columbia mineral deposits.
5. I have prepared qualifying reports for the following issuers over the past five years:

Alamos Minerals Ltd.
Ballatar Explorations Ltd.
BigSky Resources Corp.
Bishop Resources Inc.
Blackstone Resources Inc.
Bluebird Minerals Ltd.
CanQuest Resource Corporation
Continental Copper Corporation (formerly Int'l. Focus Resources Inc.)
Conquest Exploration Ltd.
Coromandel Resources Ltd. (formerly Auckland Exploratio Ltd.)
Foran Mining Corporation
Global Mineral & Chemical Ltd.
Golden Hemlock Explorations Ltd.
Harte Resources Corporation
Kalahari Resources Inc.
Kilo Gold Mines Ltd.
Medallion Resources Ltd. (formerly Hera Resources Inc.)
Palmer Industries Ltd.
SYMC Resources Ltd.
Sable Resources Ltd.
Skylark-Ranger Resources Inc.
South Duval Gold Corporation
Voisey Bay Resources Inc.
York Resources Ltd.

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6. I hold no interest, directly or indirectly, in the mineral claims comprising the Mammoth property or in the securities of Bluebird Minerals Ltd. nor do I expect to receive any such interest.
7. Previous work undertaken on behalf of Bluebird Minerals Ltd. has included the preparation of two qualifying reports.
8. In my professional opinion, the Mammoth copper-gold property is one of potential merit and further exploration work is warranted.
9. I undertook a personal examination of the subject property September 28, 1998.
10. The foregoing Geological Report on the Mammoth Copper-Gold Property, Nelson Mining Division, British Columbia, is based on public information pertaining to the geological setting of the property, and on available results of previous exploration work as provided by Bluebird Minerals Ltd.
11. Permission is hereby granted to Bluebird Minerals Ltd. to use this report, as presented, in support of any necessary filings to the Alberta Stock Exchange or any other regulatory agency as may be required.

Dated at Victoria, British Columbia, this 6th day of November, 1998:

N.C. Carter, Ph.D. P.Eng.

N.C. CARTER, Ph.D. P.Eng.
Consulting Geologist

APPENDIX I
Analytical Results

30-Sep-98

ECO-TECH LABORATORIES LTD.
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V2C 6T4

ICP CERTIFICATE OF ANALYSIS AK 98-571

BLUEBIRD MINERALS LTD.
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CALGARY, AB
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Phone: 604-573-5700
Fax : 604-573-4557

ATTENTION: TOM GORKOFF

No. of samples received: 38
Sample type: Core
PROJECT #: MAMMOTH
SHIPMENT #: None Given
Samples submitted by: Ken Murray

Values in ppm unless otherwise reported

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	24151	5	<0.2	0.78	<5	15	<5	2.50	<1	19	97	207	2.16	<10	0.09	589	1479	0.04	44	1190	4	<5	<20	34	0.07	<10	39	<10	<1	18
2	24152	70	1.8	0.56	<5	80	<5	1.04	2	612	70	3124	>10	<10	0.05	380	1944	0.02	1044	420	<2	<5	<20	23	0.04	30	17	350	<1	104
3	24153	30	0.2	0.63	<5	20	<5	2.53	<1	38	96	843	4.60	<10	0.08	706	974	0.02	65	1150	<2	<5	<20	36	0.07	<10	35	90	<1	32
4	24154	25	<0.2	0.59	5	10	<5	3.89	<1	34	83	293	2.23	<10	0.08	611	142	0.01	63	1130	<2	<5	<20	45	0.07	<10	31	90	<1	12
5	24155	25	<0.2	0.73	<5	5	<5	4.10	<1	25	180	157	1.96	<10	0.07	747	2855	0.01	54	1270	4	<5	<20	27	0.05	<10	35	10	<1	11
6	24156	10	<0.2	0.83	<5	5	<5	4.21	<1	16	92	154	1.87	<10	0.09	801	30	0.01	32	1070	<2	<5	<20	28	0.06	<10	40	<10	<1	24
7	24157	5	<0.2	0.65	5	10	<5	3.28	<1	17	93	56	1.59	<10	0.09	598	10	0.01	48	1110	<2	<5	<20	23	0.05	<10	32	10	<1	25
8	24158	165	0.4	0.64	<5	5	<5	3.85	<1	18	76	1199	1.69	<10	0.08	642	24	0.01	39	1130	<2	<5	<20	34	0.06	<10	34	10	<1	41
9	24159	65	0.2	0.65	<5	10	<5	3.71	<1	16	236	760	1.68	<10	0.07	643	499	0.01	34	1260	4	<5	<20	37	0.07	<10	34	<10	<1	58
10	24160*	190	<0.2	0.54	<5	10	<5	3.23	1	11	65	521	1.16	<10	0.10	445	389	0.02	25	1250	<2	<5	<20	38	0.06	<10	26	20	<1	53
11	24161	>1000	5.2	0.68	<5	20	<5	3.62	6	56	73	>10000	4.86	<10	0.05	769	452	<0.01	46	570	<2	<5	<20	22	0.05	<10	32	250	<1	350
12	24162	20	<0.2	1.35	10	10	<5	2.49	<1	24	82	499	1.52	<10	0.20	252	48	0.13	66	1260	6	<5	<20	173	0.08	<10	29	<10	1	48
13	24163	30	<0.2	1.21	10	10	<5	2.80	<1	18	109	316	1.51	<10	0.23	359	26	0.12	55	1370	8	<5	<20	161	0.09	<10	30	<10	2	39
14	24164	5	<0.2	0.53	5	<5	<5	2.90	<1	22	70	460	1.17	<10	0.12	224	1	0.04	62	1330	4	<5	<20	87	0.09	<10	22	10	1	67
15	24165	35	<0.2	0.96	10	5	<5	2.57	<1	19	85	721	1.32	<10	0.18	230	1	0.10	55	1390	10	<5	<20	131	0.08	<10	28	<10	2	42
16	24166	5	<0.2	1.80	5	40	<5	2.01	<1	30	122	166	2.60	<10	0.69	227	2	0.19	69	1270	8	<5	<20	123	0.12	<10	72	<10	2	26
17	24167	20	0.2	1.60	5	30	<5	3.00	1	50	109	380	3.11	<10	0.57	244	1	0.15	95	1420	16	<5	<20	125	0.12	<10	67	<10	<1	61
18	24168	5	1.2	1.00	<5	40	<5	2.43	2	39	64	414	3.02	<10	0.51	293	3	0.04	56	1440	40	<5	<20	46	0.11	<10	65	<10	2	81
19	24169	5	0.4	1.19	5	35	<5	3.13	<1	31	59	235	3.18	<10	0.51	351	3	0.08	33	1560	6	<5	<20	75	0.11	<10	77	<10	2	48
20	24170	5	<0.2	1.22	10	60	<5	2.60	<1	35	61	128	3.28	<10	0.68	372	3	0.07	41	1530	4	<5	<20	64	0.14	<10	100	<10	2	52

BLUEBIRD MINERALS LTD.

ICP CERTIFICATE OF ANALYSIS AK 98-571

ECO-TECH LABORATORIES LTD.

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
21	24171	5	<0.2	1.32	<5	55	<5	2.27	<1	24	45	114	3.11	<10	0.75	440	3	0.10	23	1510	6	<5	<20	69	0.13	<10	94	<10	3	46
22	24172	5	<0.2	1.30	<5	40	<5	2.64	<1	16	41	97	2.88	<10	0.63	395	<1	0.14	10	1480	6	<5	<20	120	0.12	<10	96	<10	3	34
23	24173	5	<0.2	1.13	<5	25	<5	2.07	<1	16	52	113	2.44	<10	0.47	397	<1	0.14	14	1550	6	<5	<20	84	0.12	<10	86	<10	3	34
24	24174	5	<0.2	1.62	<5	85	<5	2.40	<1	22	45	333	3.77	<10	0.91	497	<1	0.11	19	1560	6	<5	<20	81	0.15	<10	127	<10	3	79
25	24175	5	<0.2	1.09	5	35	<5	3.78	<1	18	73	93	2.04	<10	0.52	429	<1	0.08	36	1310	2	5	<20	96	0.10	<10	66	<10	1	30
26	24176	5	<0.2	1.29	15	15	<5	5.81	<1	18	78	107	2.49	<10	0.51	544	4	0.09	29	1270	2	<5	<20	116	0.09	<10	79	<10	2	32
27	24177	25	<0.2	1.61	75	20	<5	6.37	<1	34	67	95	3.46	<10	0.94	709	3	0.06	43	1210	2	5	<20	162	0.06	<10	113	<10	<1	32
28	24178	5	<0.2	0.85	10	10	<5	3.97	<1	23	55	90	1.73	<10	0.33	348	<1	0.04	35	1180	2	<5	<20	104	0.09	<10	53	<10	<1	24
29	24179	510	5.6	0.69	15	20	<5	1.93	4	37	72	5382	2.67	<10	0.21	664	256	0.02	47	1380	<2	<5	<20	45	0.07	<10	34	60	<1	258
30	24180	460	5.8	0.61	5	10	<5	2.46	5	39	63	6006	2.51	<10	0.19	567	2157	0.01	54	1120	6	<5	<20	39	0.06	<10	27	<10	<1	282
31	24181	445	8.6	0.65	40	15	<5	2.77	4	51	90	8711	3.02	<10	0.19	734	540	<0.01	60	940	<2	<5	<20	39	0.05	<10	26	420	<1	276
32	24182	>1000	9.4	0.59	30	15	<5	2.31	5	44	87	9021	3.03	<10	0.19	695	936	<0.01	62	910	2	<5	<20	32	0.05	<10	25	10	<1	278
33	24183	510	3.2	0.72	15	10	<5	3.61	3	20	68	3523	1.94	<10	0.17	694	372	<0.01	34	1020	2	<5	<20	30	0.05	<10	27	10	<1	134
34	24184	370	3.8	0.87	20	10	<5	4.55	3	28	95	4171	2.64	<10	0.22	788	151	0.02	55	1100	2	<5	<20	50	0.07	<10	35	10	<1	151
35	24185	195	2.0	0.87	<5	5	<5	5.57	2	14	97	2729	1.93	<10	0.25	734	3032	0.01	23	1210	2	<5	<20	68	0.07	<10	41	340	<1	109
36	24186	675	14.0	0.96	10	20	<5	4.23	6	43	89	>10000	4.10	<10	0.14	661	89	0.04	43	430	<2	<5	<20	73	0.05	<10	31	520	<1	349
37	24187	35	0.2	2.53	45	20	<5	6.74	<1	32	136	463	3.77	<10	1.28	811	17	0.16	71	1260	6	5	<20	269	0.06	<10	79	<10	<1	57
38	24188	120	0.6	1.36	10	20	<5	3.14	<1	23	93	699	1.86	<10	0.41	358	8	0.12	70	1350	6	<5	<20	177	0.09	<10	41	<10	1	53

QC DATA:

Resplit:

1	24151	5	<0.2	0.82	<5	10	<5	2.85	<1	21	98	217	2.25	<10	0.10	596	1451	0.05	45	1220	4	<5	<20	38	0.09	<10	42	10	<1	20
36	24186	650	12.0	1.02	10	15	<5	4.44	5	40	89	>10000	3.83	<10	0.15	670	94	0.04	42	460	<2	<5	<20	77	0.05	<10	32	1120	<1	317

Repeat:

1	24151	5	<0.2	0.82	<5	10	<5	2.63	<1	19	91	208	2.20	<10	0.09	618	1494	0.04	38	1210	4	<5	<20	33	0.08	<10	41	10	<1	18
10	24160*	15	<0.2	0.57	<5	<5	<5	3.31	<1	11	66	512	1.19	<10	0.10	454	380	0.02	24	1260	2	<5	<20	38	0.07	<10	28	10	<1	54
19	24169	5	0.2	1.24	10	40	<5	3.20	<1	31	60	239	3.21	<10	0.53	353	<1	0.09	32	1550	4	<5	<20	82	0.12	<10	80	<10	2	47
36	24186	950	14.0	0.97	5	15	<5	4.26	6	43	82	>10000	4.14	<10	0.14	631	85	0.04	40	450	<2	<5	<20	72	0.05	<10	31	460	<1	359

Standard:

GEO'98	140	1.2	1.84	60	170	<5	1.84	<1	20	62	82	4.15	<10	0.98	721	2	0.03	20	690	22	<5	<20	65	0.12	<10	79	<10	5	74
GEO'98	-	1.4	1.71	60	160	<5	1.82	<1	19	62	84	3.96	<10	0.98	681	<1	0.02	22	660	22	<5	<20	58	0.10	<10	75	<10	4	69

NOTE: * = Metallic gold suspected, screen assay recommended.

dl/571

XLS/98

Fax cc: 250-354-4067/ken murray

ECO-TECH LABORATORIES LTD.

Frank J. Pezzotti, A.Sc.T.

B.C. Certified Assayer

8-Oct-98

ECO-TECH LABORATORIES LTD.
10041 East Trans Canada Highway
KAMLOOPS, B.C.
V2C 6T4

ICP CERTIFICATE OF ANALYSIS AK 98-587

BLUEBIRD MINERALS LTD.
1401-500 4TH AVENUE S.W.
CALGARY, AB
T2P 2V6

Phone: 604-573-5700
Fax : 604-573-4557

ATTENTION: TOM GORKOFF

No. of samples received: 43
Sample type: Core
PROJECT #: MAMMOTH
SHIPMENT #: None Given
Samples submitted by: Ken Murray

Values in ppm unless otherwise reported

Et #.	Tag #	As(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y
1	24189	50	<0.2	1.06	5	<5	<5	5.11	<1	17	108	824	1.55	<10	0.12	525	237	0.03	33	1270	6	<5	<20	108	0.14	<10	51	10	<1
2	24190	75	<0.2	0.90	<5	10	<5	3.36	2	25	91	610	1.71	<10	0.14	335	4	0.04	51	1340	6	<5	<20	120	0.14	<10	38	10	<1
3	24191	40	<0.2	1.78	<5	105	<5	1.41	<1	47	172	245	4.18	<10	1.13	327	<1	0.11	88	1320	8	<5	<20	74	0.25	<10	130	<10	<1
4	24192	5	<0.2	1.72	<5	60	<5	2.26	<1	39	117	148	2.90	<10	0.67	239	<1	0.18	75	1270	10	<5	<20	131	0.20	<10	92	<10	1
5	24193	5	<0.2	1.15	<5	45	<5	2.70	1	46	53	152	4.01	<10	0.58	295	<1	0.67	54	1530	6	<5	<20	75	0.21	<10	108	<10	1
6	24194	5	<0.2	1.37	<5	40	<5	2.82	<1	47	49	243	4.35	<10	0.64	325	<1	0.11	44	1560	8	<5	<20	85	0.21	<10	112	<10	2
7	24195	5	<0.2	1.43	<5	50	<5	2.60	<1	43	55	165	3.99	<10	0.65	346	<1	0.09	52	1450	8	<5	<20	75	0.19	<10	123	<10	1
8	24196	10	<0.2	1.73	<5	60	<5	2.67	<1	34	49	130	3.26	<10	0.57	359	<1	0.17	39	1600	10	<5	<20	124	0.20	<10	119	<10	3
9	24197	5	<0.2	1.75	<5	90	<5	2.07	<1	38	43	129	3.60	<10	0.78	358	<1	0.14	47	1540	12	<5	<20	89	0.20	<10	127	<10	2
10	24198	5	<0.2	1.46	<5	80	<5	2.48	<1	33	45	123	3.54	<10	0.74	480	<1	0.14	34	1520	8	<5	<20	73	0.21	<10	145	<10	4
11	24199	120	0.4	1.42	25	50	<5	2.02	2	36	71	1451	3.16	<10	0.63	712	<1	0.07	67	1420	14	<5	<20	89	0.16	<10	76	<10	1
12	24200	210	1.6	1.31	20	60	<5	3.54	1	21	70	2015	2.50	<10	0.24	984	3	0.02	50	1200	8	<5	<20	68	0.12	<10	85	<10	1
13	24401	275	0.4	1.25	5	15	<5	3.74	2	12	90	1147	2.08	<10	0.19	1027	5	<0.01	23	1260	8	<5	<20	84	0.11	<10	59	<10	<1
14	24402	510	11.2	1.27	30	15	<5	6.44	7	52	91	>10000	4.24	<10	0.15	1024	21	<0.01	78	760	<2	<5	<20	49	0.08	<10	57	10	<1
15	24403	>1000	20.6	1.44	40	15	<5	7.15	6	69	66	>10000	5.40	<10	0.17	1313	60	<0.01	76	380	<2	<5	<20	48	0.07	<10	53	150	<1
16	24404	850	14.0	1.44	30	50	<5	6.81	7	50	117	>10000	5.52	<10	0.17	1967	2584	<0.01	96	580	6	<5	<20	56	0.06	<10	82	10	<1
17	24405	635	9.8	0.80	2495	80	<5	>10	<1	156	45	4570	7.35	<10	1.11	1998	53	<0.01	64	310	<2	400	<20	410	0.02	<10	46	60	<1
18	24406	235	2.4	1.74	25	20	<5	6.44	2	27	65	1845	3.53	<10	0.37	1455	58	0.09	30	1200	10	<5	<20	127	0.11	<10	74	<10	<1
19	24407	5	<0.2	1.39	65	35	<5	2.71	<1	13	70	112	3.03	<10	0.79	775	10	0.05	9	990	10	<5	<20	58	0.04	<10	53	<10	7
20	24408	685	5.0	1.63	175	45	<5	5.89	3	279	71	5633	>10	<10	0.20	1692	37	0.01	308	790	20	<5	<20	37	0.08	<10	68	740	<1

9e →
↓

El #	Tag #	Au(ppb)	Ag	Al%	As	Ba	Bi	Ca%	Cd	Co	Cr	Cu	Fe%	La	Mg%	Mn	Mo	Na%	Ni	P	Pb	Sb	Sn	Sr	Ti%	U	V	W	Y	Zn
21	24409	10	<0.2	1.41	40	20	<5	4.77	<1	14	77	140	2.62	<10	0.49	835	12	0.05	21	1220	8	<5	<20	84	0.06	<10	55	10	4	35
22	24410	10	<0.2	1.37	<5	30	<5	1.41	<1	15	65	60	2.73	<10	0.67	551	<1	0.12	7	1020	10	<5	<20	48	0.14	<10	56	<10	2	21
23	24411	5	<0.2	0.93	<5	30	<5	1.56	<1	11	57	24	1.90	<10	0.50	365	<1	0.08	7	1050	8	<5	<20	55	0.12	<10	43	<10	4	13
24	24412	5	<0.2	1.43	<5	45	<5	2.59	<1	13	56	45	3.40	<10	0.83	707	<1	0.05	7	1010	8	<5	<20	93	0.08	<10	55	<10	6	21
25	24413	5	<0.2	1.13	<5	35	5	2.01	<1	13	73	33	3.12	<10	0.75	625	1	0.06	7	990	8	<5	<20	74	0.11	<10	58	<10	4	22
26	24414	15	<0.2	1.32	<5	30	5	1.91	<1	12	63	39	3.06	<10	0.77	572	<1	0.07	7	1000	8	<5	<20	60	0.12	<10	61	<10	3	21
27	24415	10	<0.2	1.67	5	45	<5	2.04	<1	13	72	30	3.27	<10	0.91	648	<1	0.11	7	1020	12	<5	<20	69	0.13	<10	66	<10	3	20
28	24416	5	<0.2	2.89	10	55	<5	2.59	<1	14	62	46	2.56	<10	0.80	350	<1	0.31	7	1010	22	<5	<20	166	0.13	<10	58	<10	3	18
29	24417	5	<0.2	1.62	5	50	<5	1.94	<1	14	59	31	2.01	<10	0.57	342	4	0.17	8	1040	14	5	<20	107	0.12	<10	45	<10	3	14
30	24418	5	<0.2	0.74	10	20	<5	>10	<1	44	47	119	4.01	<10	0.19	467	<1	0.07	87	1360	4	<5	<20	148	0.15	<10	53	<10	<1	16
31	24419	5	<0.2	1.93	70	60	<5	4.85	<1	43	43	333	5.27	<10	1.24	667	3	0.07	44	1520	10	<5	<20	149	0.15	<10	156	<10	4	35
32	24420	5	<0.2	2.53	40	105	<5	5.05	<1	37	41	123	5.59	<10	1.74	929	<1	0.07	43	1450	14	<5	<20	172	0.15	<10	206	<10	2	36
33	24421	5	<0.2	2.49	60	90	<5	4.99	<1	46	45	130	5.57	<10	1.74	885	<1	0.07	54	1470	12	<5	<20	162	0.13	<10	195	<10	5	35
34	24422	10	<0.2	1.18	<5	20	<5	2.50	<1	37	39	751	3.22	<10	0.31	211	<1	0.13	39	1590	8	<5	<20	146	0.13	<10	76	<10	2	22
35	24423	5	<0.2	1.49	<5	30	<5	7.43	<1	45	41	386	4.89	<10	0.41	394	<1	0.17	65	1590	8	<5	<20	188	0.18	<10	70	<10	<1	14
36	24424	5	<0.2	1.34	10	25	<5	>10	<1	52	75	282	4.79	<10	0.93	780	<1	0.03	103	1360	4	5	<20	160	0.13	<10	144	10	2	20
37	24425	5	<0.2	1.25	<5	35	<5	>10	<1	32	130	106	3.98	<10	1.14	855	<1	0.05	63	1420	4	10	<20	209	0.16	<10	115	<10	<1	18
38	24426	5	<0.2	1.31	<5	55	<5	0.88	<1	39	68	194	3.44	<10	0.56	448	<1	0.15	79	1360	8	<5	<20	209	0.16	<10	70	<10	<1	18
39	24427	5	<0.2	1.32	<5	30	<5	>10	<1	36	56	252	3.41	<10	0.23	517	<1	0.18	67	1110	6	<5	<20	265	0.12	<10	31	10	<1	7
40	24428	5	<0.2	1.40	5	30	<5	3.75	<1	33	80	300	2.37	<10	0.27	222	<1	0.14	68	1350	12	<5	<20	134	0.15	<10	42	10	<1	13
41	24429	5	<0.2	1.94	<5	35	<5	7.96	<1	29	103	105	2.49	<10	0.59	425	<1	0.23	63	1300	14	<5	<20	275	0.15	<10	80	10	1	20
42	24430	10	<0.2	1.42	5	25	<5	3.43	<1	45	72	146	3.03	<10	0.38	202	<1	0.12	71	1490	22	<5	<20	175	0.17	<10	56	<10	<1	33
43	24431	5	<0.2	1.62	20	35	<5	4.27	<1	70	56	277	4.79	<10	0.90	496	<1	0.11	109	1460	18	<5	<20	108	0.19	<10	131	10	<1	36

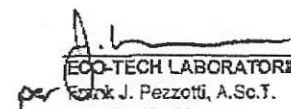
BLUEBIRD MINERALS LTD.

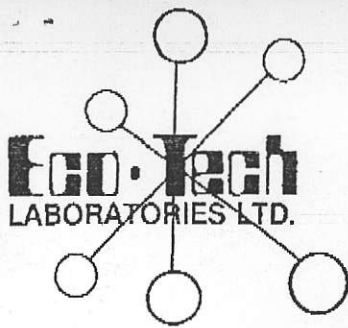
ICP CERTIFICATE OF ANALYSIS AK 98-587

ECO-TECH LABORATORIES LTD.

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sh	Sr	Ti %	U	V	W	Y	Zn	
QC DATA:																														
<i>Resplit:</i>																														
1	24189	40	0.2	1.04	5	<5	<5	5.27	<1	19	105	660	1.60	<10	0.12	534	257	0.03	36	1370	8	<5	<20	108	0.14	<10	51	20	<1	28
36	24424	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Repeat:</i>																														
1	24189	40	0.2	1.10	5	<5	<5	5.32	1	17	111	657	1.61	<10	0.13	540	255	0.03	35	1310	4	<5	<20	113	0.14	<10	53	<10	<1	24
10	24198	40	<0.2	1.52	<5	80	<5	2.58	<1	34	47	131	3.71	<10	0.77	492	<1	0.14	37	1610	8	<5	<20	76	0.22	<10	151	<10	3	44
19	24407	5	<0.2	1.38	80	35	<5	2.71	<1	12	70	107	3.02	<10	0.79	774	10	0.05	8	1010	12	<5	<20	59	0.04	<10	53	<10	7	28
36	24424	5	<0.2	1.43	15	30	<5	>10	<1	55	81	277	5.13	<10	0.98	843	<1	0.04	109	1490	8	<5	<20	175	0.14	<10	154	10	<1	21
<i>Standard:</i>																														
GEO'98		130	1.0	1.98	55	175	<5	1.90	<1	21	69	84	4.30	<10	0.99	713	<1	0.02	22	680	22	<5	<20	64	0.14	<10	88	<10	5	70
GEO'98		140	0.8	2.00	80	175	<5	1.94	<1	22	69	85	4.40	<10	1.02	734	<1	0.01	22	710	22	<5	<20	64	0.14	<10	88	<10	6	68

dt/587
XLS/98
Fax cc: 250-354-4067/ken murray

per 
ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer



ASSAYING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY
ENVIRONMENTAL TESTING

10041 E. Trans Canada Hwy., R.R. #2, Kamloops, B.C. V2C 6T4
Phone (250) 573-5700 Fax (250) 573-4557
email: ecotech@mail.wkpowerlink.com

CERTIFICATE OF ASSAY AK 98-571

BLUEBIRD MINERALS LTD.
1401-500 4TH AVENUE S.W.
CALGARY, AB
T2P 2V6

1-Oct-98

ATTENTION: TOM GORKOFF

No. of samples received: 38
Sample type: Core
PROJECT #: MAMMOTH
SHIPMENT #: None Given
Samples submitted by: Ken Murray

ET #.	Tag #	Au (g/t)	Au (oz/t)	Cu (%)
2	24152	-	-	0.36
11	24161	1.76	0.051	1.05
29	24179	-	-	0.55
30	24180	-	-	0.62
31	24181	-	-	0.89
32	24182	1.47	0.043	0.94
33	24183	-	-	0.36
34	24184	-	-	0.4
35	24185	-	-	0.28
36	24186	-	-	1.71

QC DATA:

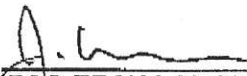
Repeat:

11 24161 1.78 0.052

Standard:

STD-M 1.54 0.045
MPIa 1.44

XLS/98
Fax cc: 250-354-4067/ken murray


per **ECO-TECH LABORATORIES LTD.**
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer



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Phone (250) 573-5700 Fax (250) 573-4557
email: ecotech@mail.wkpowerlink.com

CERTIFICATE OF ASSAY AK 98-587

BLUEBIRD MINERALS LTD.
1401-500 4TH AVENUE S.W.
CALGARY, AB
T2P 2V6

8-Oct-98

ATTENTION: TOM GORKOFF

No. of samples received: 43
Sample type: Core
PROJECT #: MAMMOTH
SHIPMENT #: None Given
Samples submitted by: Ken Murray

ET #.	Tag #	Au (g/t)	Au (oz/t)	Cu (%)
12	24200	-	-	0.23
14	24402	-	-	1.43
15	24403	2.00	0.058	1.86
16	24404	-	-	1.42
17	24405	-	-	0.48
20	24408	-	-	0.57

QC DATA:

Repeat:

15	24403	2.00	0.058	-
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Standard:

STD-M		1.55	0.048	-
MPIa		-	-	1.44

XLS/83
Fax cc: 250-354-4067/ken murray


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B.C. Certified Assayer

ET #.	Tag #	Au (ppb)
26	24414	15
27	24415	10
28	24416	5
29	24417	5
30	24418	5
31	24419	5
32	24420	5
33	24421	5
34	24422	10
35	24423	5
36	24424	5
37	24425	5
38	24426	5
39	24427	5
40	24428	5
41	24429	5
42	24430	10
43	24431	5

QC DATA:

Resplit:

1	24189	40
36	24424	10

Repeat:

1	24189	40
10	24198	40
19	24407	5
36	24424	5

Standard:

GEO'98	130
GEO'98	140

XLS/98

Fax cc: 250-354-4067/ken murray

per
ECO-TECH LABORATORIES LTD.
 Frank J. Pezzotti, A.Sc.T.
 B.C. Certified Assayer