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X-CALIBRE RESOURCES LTD. ¹¹⁻⁸⁴

Report on the
Geology and Geochemistry
of the
X-Cal Mineral Claim
Lat. $50^{\circ}47'$ N Long. $122^{\circ}53'$ W
NTS 92J-15-W
Lillooet Mining Division



1983

Report on the
Geology and Geochemistry
of the
X-Cal Mineral Claim
Lat. $50^{\circ}47'$ N Long. $122^{\circ}53'$ W
NTS 92J-15-W
Lillooet Mining Division
for
X-Calibre Resources Ltd.,
Gold Bridge, B. C.
by
Richard J. Mazur, P. Geol.
Mazur Resource Consultants
Kingston, Ontario
Nov. 3, 1983

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,875

MAZUR RESOURCE CONSULTANTS

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1.0 Summary and Conclusions

The X-Cal mineral claim has potential for vein gold mineralization as an extension of the Stibnite (Lost Gold) Sb-Au showing which lies immediately to the east of the property. Vein mineralization in a structure within Hurley Formation tuffaceous sediment trends at 115°AZ onto the X-Cal claim where an arsenic-antimony anomaly from a rock geochemical sampling programme has been detected. This geochemical anomaly may represent potential mineralization along the structure hosting mineralization at the Stibnite showing.

The property appears to be divided by a major northwest trending fault which cuts off the geochemical anomaly. The northeast block, which contains the anomaly, is complexly folded with axial plane structures developed, providing good structural preparation for vein deposits. Albitite alteration of chert and argillite is restricted to the northeast block, indicating hydrothermal activity. A body of Bendor granodiorite has been reported east of Gwyneth Lake, which may act as a source of hydrothermal solutions in the area.

The establishment of a grid in the vicinity of the arsenic-antimony anomaly is recommended for the purposes of detailed geological mapping, prospecting and rock, soil and/or biogeochemical sampling.

2.0 Introduction

A programme of geological mapping and rock geochemical sampling was undertaken on the X-Cal Mineral Claim from June 21 - June 23, 1983 for X-Calibre Resources Ltd., Gold Bridge, B. C.

A ground control survey by chain and compass for a total of 11.2 line km was completed on north-south lines at 200 metre intervals with stations flagged at 100 metre intervals. No cutting of the bush was carried out for this survey.

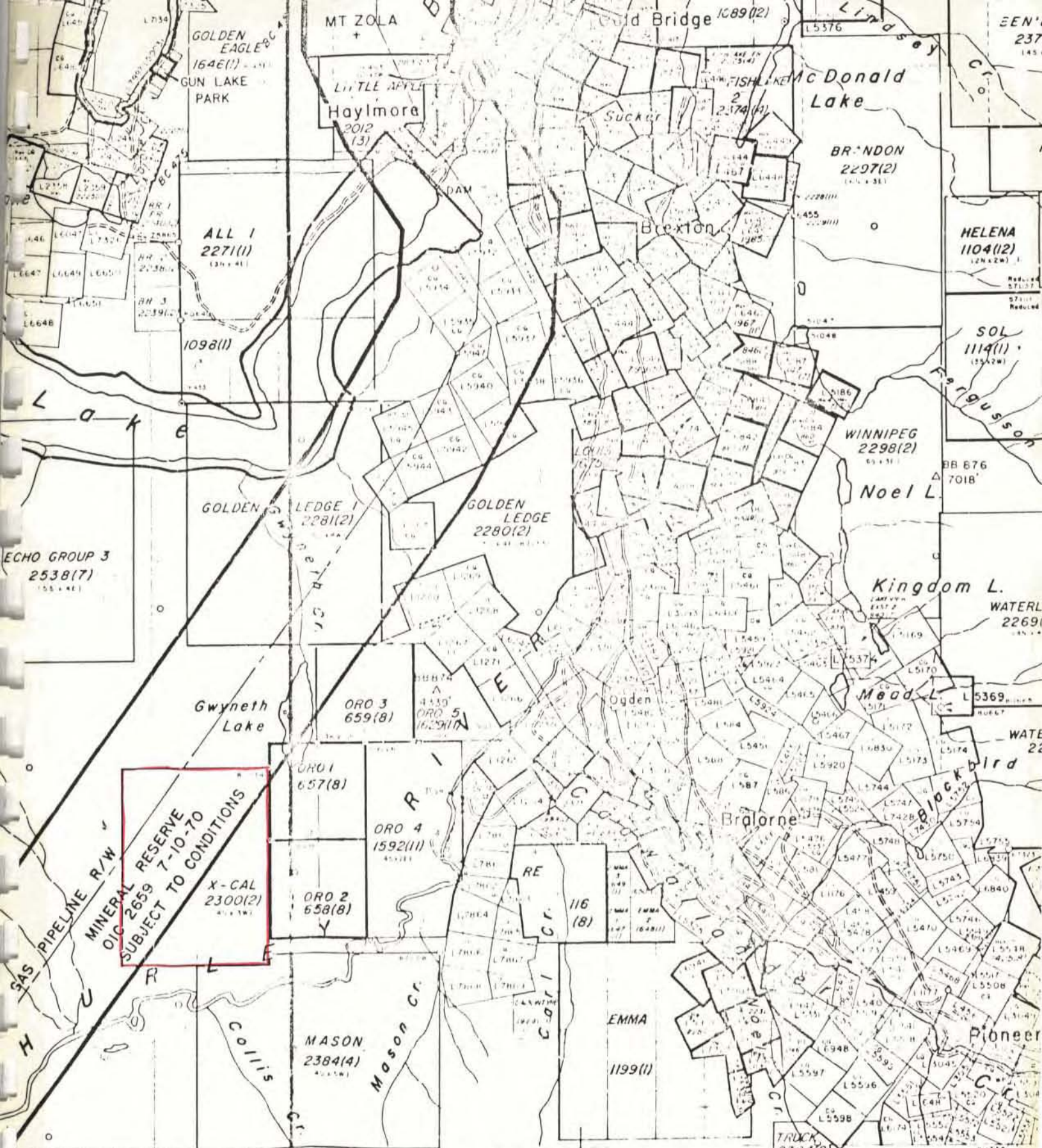
Geological mapping at a scale of 1:2500 was completed over a 3 sq. km area.

Rock geochemical samples were collected from outcrops during the course of geological mapping. A total of sixteen samples were shipped for neutron activation analysis of gold, arsenic, antimony and tungsten.

3.0 Location and Access

The X-Cal group of mineral claims are located in the Bridge River Mining Camp at latitude $50^{\circ}47'N$ and longitude $122^{\circ}53'W$ in NTS map area 92J-15-W (Figure 1). The centre of the property lies approximately 1.5 km southwest of Gwyneth Lake and 1.5 km north of the Hurley River.

It is accessible by the Main Hurley Road, just outside of Gold Bridge, B. C., to the southwest for eight kilometres to the northern extremity of the claims.



TO SOUTH SEE MAP 92J/10W
MINERAL TITLES REFERENCE MAP 92J/15W
DEPARTMENT OF MINES AND PETROLEUM RESOURCES VICTORIA, B.C.
This map is intended as a guide to the location of mineral claims that have not been surveyed. Where the

CG
M.T.
Ver.

4.0 Current Claim Status

The following mineral claim is held in good standing by X-Calibre Resources Ltd., Gold Bridge, B. C. (Table I).

Table I Claim Status

<u>Claim</u>	<u>No. of units</u>	<u>Record No.</u>	<u>Anniversary Date</u>
X-Cal	12	2300	February 14, 1984

5.0 Exploration History

In 1959, the property consisted of 56 claims owned by Hurley River Mines Ltd. Bulldozer stripping, hand trenching and 200 feet of packsack drilling were completed in that year. Rayrock Mines Ltd. optioned the group in 1960 completing six holes for a total of 1800 feet of diamond drilling.

In 1964 some trenching and soil sampling was done. The ground was restaked in 1970 by Thunder Creek Mines Ltd., completing further trenching.

The main showing of interest is the Lost Gold or Stibnite showing where veins of massive stibnite from 2 to 15 cm have been uncovered by trenching. This showing is still held by claim approximately 100 metres east of the X-Cal property.

6.0 Physiography

The northern half of the property is in a logging area of gentle relief with no outcrops. The cover consists of Pleistocene glacial

till and recent alluvium. The northeast corner of the X-Cal Claim is quite swampy.

The southern half of the property is characterized by a steep side hill ranging in elevation from 3200 feet ASL at the Hurley River to 4000 feet ASL just south of the baseline. Cliff forming outcrops are numerous on this part of the claim.

7.0 General Geology of the Bridge River Area

The geology and mineral deposit descriptions of the Bridge River Area are reported by McCann (1922), Cairnes (1937), Roddick and Hutchison (1973), Woodsworth (1977) and various government and assessment publications. Figure 2 shows the general geology of the Bridge River Area.

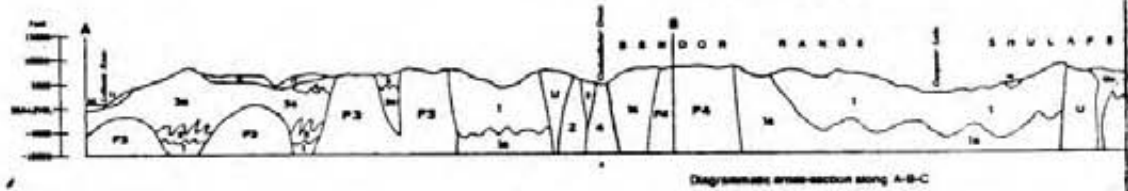
The northeastern margin of the Coast Crystalline Belt trends northwesterly throughout the area. The northeastern flank of this belt of plutonic rock is represented by granodiorite to quartz diorite of the Late Cretaceous Bendor Batholith which intrudes the southwestern flank of a paralleling antiform. The antiform has a maximum width of 45 km and plunges gently northwest.

With the exception of some exposures of schist and gneiss, this antiformal structure consists of a package of complexly deformed Triassic volcanics and clastics, metamorphosed to a lower greenschist facies.

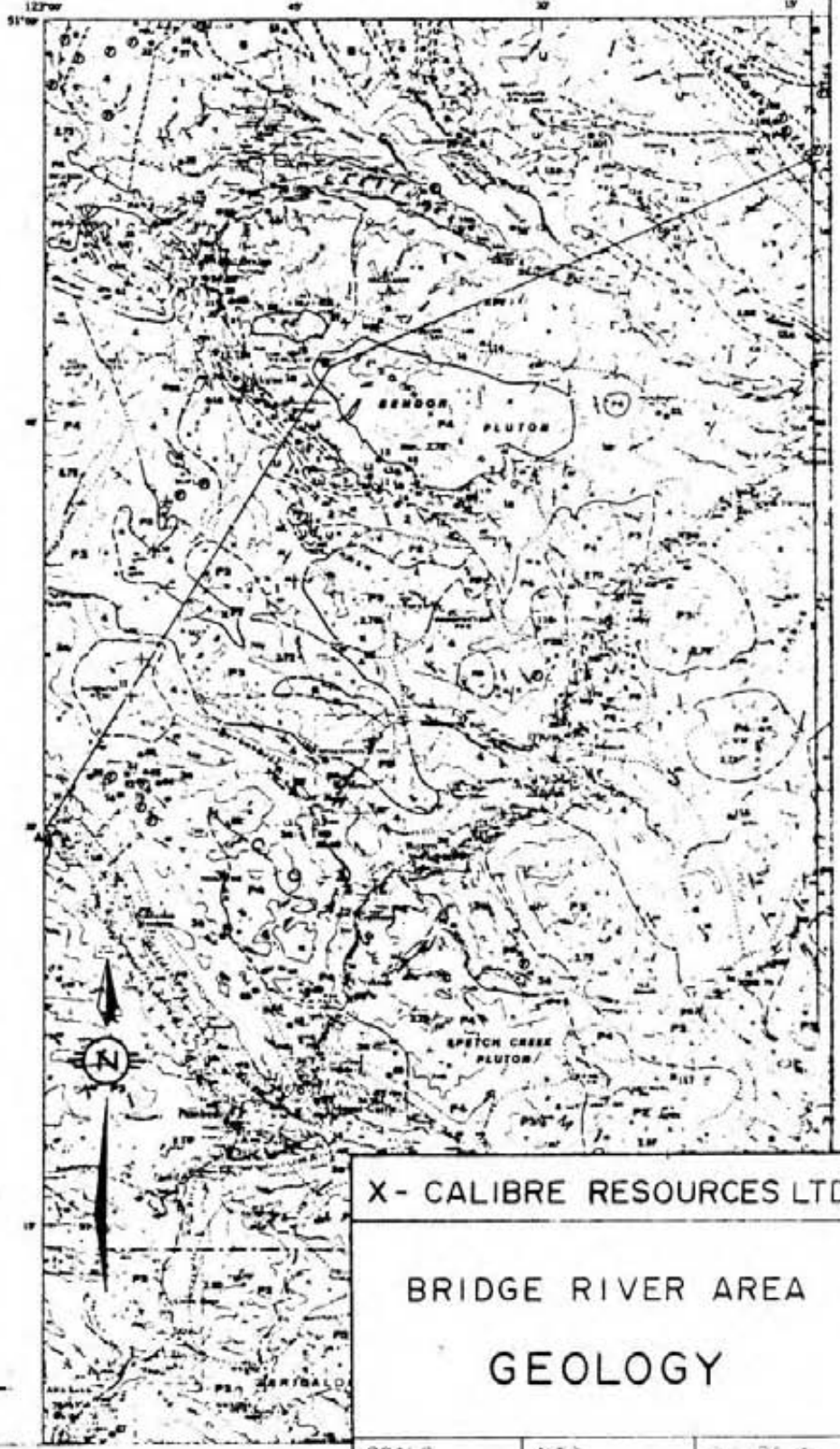
The most widespread formation which is exposed in the core of

the antiform is the Middle Triassic Bridge River or Fergusson Group of chert, argillite and greenstone. Conformably overlying these rocks is the Upper Triassic Cadwallader Group consisting of the basal Noel Formation clastics, the middle Pioneer Formation volcanics and the upper Hurley Formation calcareous sedimentary rocks.

In the Cadwallader Creek Valley, northwest to Eldorado Creek and southeast to Anderson Lake is a belt of plutonic rocks collectively mapped as the Bralorne Intrusions. These intrusives occur along a belt of folded and faulted Cadwallader Group rocks and serpentine of the President Intrusives, forming the Cadwallader Structural Complex. The Bralorne Intrusives are extraordinarily complex and variable in composition from gabbro, augite diorite, hornblende diorite, "greenstone diorite", quartz diorite and soda granite to albitite. The phases of soda granite are of particular economic significance as they are related to the gold deposits of the Bralorne-Pioneer Mining District. Here gold mineralization averaging 0.52 ounces/ton in ribboned quartz veins have produced some four million ounces of gold throughout its production since 1932.



- LEGEND**
- QUATERNARY
PLEISTOCENE AND RECENT**
- 14 Unconsolidated alluvial and glacial deposits
- TERTIARY
Eocene (?)**
- 13 Sand and siltstone lens
 - 12 Sandstone and shaly limestone, silt and clay
 - 11a. Lowermost Pteropora Substrata equivalent of 137
 - 11b. Micaceous granodiorite and syenite
- LOWER TERTIARY**
- 11 Achaetan River and Laramide basalt and other dikes
 - 10 Sand, siltstone, sandstone, siltstone and conglomerate
- CRETACEOUS**
- UPPER CRETACEOUS**
- 14a. REVEY PLUTON (S-A W. N. P.), granodiorite
- EDMUNDE GROUP**
- 9 Arkose, greywacke, shale and other conglomerate
- LOWER CRETACEOUS**
- TAYLOR CREEK GROUP**
- 8 Chert-pelite conglomerate, black laminated clay shale, green silt, calcareous limestone, sandstone and basalt
- JACOB MOUNTAIN GROUP**
- 7 Unconformable, T₁, interbedded micaceous argillite and greywacke, siltstone conglomerate and sand, T₂, greywacke, pelitic conglomerate, argillite and gray sandstone, T₃, argillite, conglomerate and greywacke, T₄, massive greenish greywacke, argillite, gray sandstone and pelitic conglomerate
- JURASSIC AND CRETACEOUS**
- UPPER JURASSIC AND LOWER CRETACEOUS**
- RELAY MOUNTAIN GROUP**
- 6 Argillite, greywacke and pelitic conglomerate
- JURASSIC**
- LOWER JURASSIC**
- 5 Argillite and shaly siltstone sandstone, limestone and pelitic conglomerate
- TRIASSIC**
- UPPER TRIASSIC**
- 4a. Gneissic rocks
 - 4. STURLEY FORMATION: Thin-bedded heavy argillite, psyllite, limestone, silt, conglomerate, agglomerate, sandstone, and siltstone shales
 - 3. FOXEY FORMATION: Greenish derived from sandstone lens and psyllite rocks, ls, sandstone, brown, silt and shales, greenstone, some rippled brown ls and shales, silt, argillite, limestone and conglomerate
 - 2. HOEL FORMATION: Thin-bedded argillite shales, conglomerate and greenstone
- MIDDLE TRIASSIC AND (?) OLIGOCENE**
- REDGE RIVER GROUP (PERMOCARBON GROUP)**
- 1 Chert, argillite, psyllite and greenstone, siltstone, siltstone, ls, metamorphosed rock of soap-stone (?) sandy limestone shales
- METAMORPHIC AND PLUTONIC ROCKS**
(Mostly of unknown age)
- 8 Metamorphosed rocks, mainly micaceous gneiss, mica-limestone shales, and siltstone shales bearing garnet, chlorite and possibly sillimanite
 - A Crystalline gneiss, migmatite, amphibolite, siltstone sandstone and basalt siltstone
 - 18 Gneiss
 - 18a Quartzite
 - 14a Granodiorite to micaceous granodiorite and syenite
 - 13 Quartzite
 - 12a Quartzite, ls, limestone, limestone: Argillite shales, gneiss, siltstone and greenstone and quartzite shales
 - 11a Quartzite
 - U Greenstone rocks: amphibolite, peridotite, diorite



X-CALIBRE RESOURCES LTD

BRIDGE RIVER AREA

GEOLOGY

8.0 Property Geology

8.1 Introduction

Conglomerates, tuffaceous sediments, cherts, argillites and interbedded chert and argillite (metamorphosed to greenschist facies) of the Upper Triassic Hurley Formation are exposed on the property. (Map I). Exposures are restricted to a steep side hill in the southern half of the property.

8.2 Lithology

8.2.1 Conglomerates (Unit 1)

One exposure of volcanogenic massive bedded conglomerate with angular fragments was observed on L 0+00W STN 1+00N. It weathers a rust brown colour and is greyish green on the fresh surface. Matrix and fragments form 50% each of the total rock. The matrix is fine grained and grey-green to black in colour. The fragments are subangular to angular with a maximum size of 1 cm. They consist of quartz, buff coloured feldspar and light brown lithic fragments.

8.2.2 Tuffaceous Sediments (Unit 2)

A brown weathering, fine to medium grained, medium bedded sediment of tuffaceous origin is greenish grey in colour. Quartz and lithic fragments less than 1 mm in size were observed. The unit is sporadically calcareous. On the southwestern side of the major northwest trending fault on the property, these sediments are more highly metamorphosed to a chloritic rock, apparent by its soft nature. The sediments weather brown to black and are black with a sparkle due to quartz and calcite on fresh surfaces.

8.2.3 Argillite (Unit 3)

Argillite is generally interbedded with chert or tuffaceous sediments but is apparent as a thick bed near L 4+00W STN 7+00S. They are medium bedded, fine grained grey to black sediments which weather dark brown to reddish brown.

8.2.4 Chert (Unit 4)

Chert weathers brown to orange red and is buff to grey on fresh surfaces. It is aphanitic in grain size, thin bedded, very hard and fractures conchoidally. At L 1+00W STN 4+00S, an outcrop of chert has been altered to albitite giving a white to buff colour with a black microvein network.

8.2.5 Interbedded Chert and Argillite (Unit 5)

Thin bedded chert beds from 1 to 4 cm in thickness, interbedded with medium bedded argillite, form this unit.

8.3 Structure

The property is divided into two major blocks by a north-west trending fault observed at L 6+00W STN 3+50S. It is oriented at $145^{\circ}\text{AZ}/65^{\circ}\text{SW}$ and may be a high angle reverse fault with the south-west side up; northeast side down.

The northeast side consists of a package of tuffaceous sediment, chert and interbedded chert-argillite overlain by tuffaceous sediment striking 160°AZ and dipping from 45° to 90° to the east.

Drag folds and chevron folds were observed in the interbedded chert and argillite at L 2+50W BLO+00 and L 3+00W STN 2+50S.

The major trend (F1) is 205°AZ plunging 35° to 50° to the southwest. A secondary trend (F2) is 290°AZ plunging 10°WNW .

The southwest block consists of a package of more highly metamorphosed (Chlorite zone in greenschist facies) tuffaceous sediments, argillite and chert with a relatively uniform orientation at $155^{\circ}\text{AZ}/60^{\circ}\text{SW}$.

At L 4+00W STN 7+50S, a dike composed of a massive, hard, sugary textured, rose pink mineral with chlorite blebs and microveins intrudes the tuffaceous sediment-argillite rocks. The dike material is tentatively assigned as rhodonite, although it may be an "albitite" dike as reported in the literature on the Bralorne area. The footwall is altered to albitite (buff and light green) for up to 10 metres away and the hanging wall is silicified, black argillite with disseminated pyrite for up to 20 metres above the dike.

Quartz-ankerite veins are most common in the tuffaceous sediments and argillite with north-south orientations.

8.4 Mineralization

The Stibnite (Lost Gold) showing occurs 100 metres to the east of the X-Cal property. It consists of a vein up to 15 cm thick consisting of massive stibnite with quartz-ankerite envelopes. The orientation of this vein, which is hosted in Unit 2-tuffaceous sediment, is $115^{\circ}\text{AZ}/50^{\circ}\text{NE}$. This trend crosscuts the bedding and F1 fold axis and is therefore later than this folding event. It parallels the F2 folding event and therefore may be related to it.

No similar mineralization was found to occur on the X-Cal property, although possible western extension of the Stibnite showing is in an area of overburden cover. There is some potential that gold may be associated with this antimony-bearing structure.

An intrusive of Bendor granodiorite is reported east of Gwyneth Lake which may be a source of mineralizing fluids in the claim area.

9.0 Property Geochemistry

9.1 Introduction

A total of sixteen rock chip samples were collected from most outcrops visited during the course of geological mapping. Approximately one kilogram of sample material was collected at each outcrop or over an outcrop area at equal intervals over the rock mass, crossing the stratigraphy where recognizable.

9.2 Methods of Geochemical Analysis

The rock geochemical samples were shipped to Neutron Activation Services Ltd., Hamilton, Ontario for analyses of Au, As, Sb, and W by neutron activation analysis. All samples were ground to -200 mesh.

Appendix I describes the advantages of the neutron activation analytical technique.

However, the samples were reportedly contaminated in the laboratory during the first analysis of the gold and the subsequent

gold analysis is herein reported.

A check on gold analysis was completed by Kamloops Research and Assay Laboratories Ltd., Kamloops, B. C., by the fire assay-atomic absorption technique.

9.3 Results

Map II illustrates the results at their locations, at a scale of 1:2500. Appendix II tabulates the analytical results received from the laboratories.

Appendix III contains histograms of rock geochemical results for Au - atomic absorption (AA), Au - neutron activation analysis (NAA), As, Sb, and W. Anomalous values are determined by examination of the distribution of results in the histogram. All the elements form log normal distributions except tungsten which displays two populations. The threshold value of anomalous geochemistry is chosen where the results skew to the right. (Table II).

Table II Geochemical Anomalies

<u>Element</u>	<u>Background Value</u>	<u>Threshold Value</u>	
	<u>Mean</u>	<u>Cumulative % of Population</u>	<u>Geochemical Value</u>
Au - AA	4.9 ppb	87.5%	7 ppb
Au - NAA	1.1 ppb	94.0%	3 ppb
As	12.4 ppm	69.0%	12 ppm
Sb	1.0 ppm	68.0%	1.1 ppm
W	1.7 ppm	Not Anomalous	

Correlation Coefficient: Au - AA and Au - NAA = -0.074

9.4 Interpretation

A circular arsenic-antimony halo of anomalies surrounds the Lost Gold showing, at the east central boundary of the X-Cal Claim. Two gold anomalies of 10 ppb and 20 ppb occur within this geochemical halo. The Lost Gold showing trends at 115°AZ, approximately through the centre of this arsenic-antimony halo. A three hundred metre potential strike length of a mineralized fracture within this geochemical anomaly occurs on the X-Cal Property.

The correlation between the two analytical techniques for gold is poor. Anomalous gold within the arsenic-antimony halo is encouraging, but should be verified by further sampling.

10.0 Recommendations

A one month programme of geological mapping, prospecting, trenching, rock and soil or biogeochemical sampling on an established grid is recommended on the X-Cal mineral claim. (Table III). Pending encouraging results from this programme, extensions of the grid or diamond drilling could be recommended.

Table III Estimated Exploration Costs

Objectives:

- 1) To establish a grid from L0+00 to L6+00W, STNS. 2+00N - 6+00S at 50 metre intervals with stations every 50 metres for a total of 10.4 line kilometres.
- 2) Collect 224 soil or biogeochemical samples and analyze for

Au, As, Sb, Pb and Zn.

3) Map and prospect along the major northwest trending fault on the property. Map and prospect the grid area in detail. Collect rock geochemical samples.

4) Trench geochemical anomalies and mineral occurrences discovered by prospecting.

<u>Labour</u> - Geologist 30 days X \$200/day	\$ 6,000
- Line cutters 15 days X 2 men X \$100/day	3,000
- Geochemical sampler 15 days X \$100/day	1,500
- Prospector 30 days X \$150/day	4,500
<u>Food</u> - 105 man days X \$15/man day	1,575
<u>Accomodation</u> - 105 man days X \$20/man day	2,100
<u>Geological & Field Supplies</u>	2,000
<u>Transportation</u> - 4X4 1 month X \$1,800/month	1,800
<u>Geochemical Analyses</u> - 40 rock geochem/assay X \$25/sample	1,000
- 224 soil/biochem X \$25/sample	5,600
<u>Report Preparation</u>	1,500
<u>Administrative Expense</u>	1,500
	Subtotal 32,075
	Plus 15% Contingency 4,810
	Total \$36,885

References

- Cairnes, C. E., Geology and Mineral Deposits of Bridge River Mining Camp, British Columbia, G.S.C. Memoir 213, (1937)
- McCann, W. S., Geology and Mineral Deposits of the Bridge River Map Area, B. C., G.S.C. Memoir 130, (1922)
- Roddick, J. A. & Hutchison, W. W., Pemberton (East Half) Map Area, B. C., G.S.C. Paper 73-17, (1973)
- Woodsworth, G. J., Geology, Pemberton (92J) Map Area, G.S.C.O.F. 482, (1977)

Appendix I
Methods
of
Geochemical
Analysis

Instrumental Neutron Activation Analysis

This INAA technique is applicable to any biogeochemical type material such as plants, pine needles, the humic forest cover or in fact any biological material. Samples of approximately 20-50 grams of material are collected, screened (-30 mesh), dried and macerated. Eight grams of this material is briquetted in a press at 30,00 PSI to form a 40 mm briquette about 6 mm thick (figure 1). Briquettes are then batch irradiated under thermal or epithermal neutron fluxes depending on the elements besides gold that are to be determined. The samples are allowed to decay from four days to one week where, they are counted singly using a combination of hyperpure germanium detector linked to a multichannel analyzer-computer system (figure 2). Detection limits may vary with the type of material being analyzed but will usually be in the 0.1 to 1 ng/g range. Briquettes are quite simply made and have been prepared in the field by one exploration company.

The advantages of the technique are many, including being multi-element where many common gold pathfinder elements (As, Sb, W and Cr) may be analyzed simultaneously. The technique avoids dry or wet ashing of the sample and therefore possible ashing losses or contamination of the sample. The method is very cost effective and rapid, and finally the sensitivity for gold is still unrivalled by any of the previously mentioned analytical techniques.

As every method has its drawbacks, this technique is no exception. Some materials may have large quantities of certain elements which can cause an effective increase in the detection limits. An example of this is the bromine content of some pine needles. In general though this has not proved to be a problem for 99.9% of the samples submitted for analysis don't have any interfering elements. In performing humic biogeochemical surveys the amount

Appendix II
Geochemical
Results

**KAMLOOPS
RESEARCH & ASSAY
LABORATORY LTD.**

B.C. CERTIFIED ASSAYERS

912 LAVAL CRESCENT — KAMLOOPS, B.C.
V2C 5P5
PHONE: (604) 372-2784 — TELEX: 048-8320

GEOCHEMICAL LAB REPORT

X-Calibre Resources Ltd.
General Delivery
Gold Bridge, B.C.
V0K 1P0

DATE October 3, 1983

ANALYST _____

FILE NO. G-919

FILE NO. _____

KRAL NO.	IDENTIFICATION	ppb Au							
1	5019	L5							
2	5020	L5							
3	5021	10							
4	5022	L5							
5	5023	L5							
6	5024	5							
7	5025	L5							
8	5026	20	2000						
9	5027	5							
10	5028	5							
11	5029	5							
12	5030	5							
13	5031	5							
14	5032	L5							
15	5033	L5							
16	5034	5							
17	5035	10							
18	5036	10							
19	5037	5							
20	5038	15							
21	5039	25							
22	5040	5							
23	5041	380							
24	5042	10							
25	5043	6390							
26	5044	35							
27	5045	5							
28	5046	10							
	L means "Less than"								
								Au Method: -80 Mesh	
								Fire Assay	
								Atomic Absorption	

SAMPLE	CO PPM	NI PPM	CU PPM	ZN PPM	AS PPM
5001	--	--	--	130	140
5002	--	--	--	110	5
5003	--	1200	12.0	31.0	68
5004	--	--	--	56.0	2
5005	--	--	--	64.0	2
5006	--	--	--	71.0	3
5007	--	--	--	37.0	7
5008	--	--	--	54.0	3
5010	--	--	--	78.0	67
5011	--	--	--	56.0	<1
5012	--	--	--	79.0	3
5013	--	--	--	38.0	2
5014	--	--	--	50.0	2
5015	--	--	--	66.0	1
5016	--	--	--	240	18
5017	--	--	--	78.0	13
5018	--	--	--	53.0	5
5019	--	--	--	--	19
5020	--	--	--	--	3
5021	--	--	--	--	55
5022	--	--	--	--	10
5023	--	--	--	--	10
5024	--	--	--	--	1
5025	--	--	--	--	43
5026	--	--	--	--	8
5027	--	--	--	--	8
5028	--	--	--	--	2
5029	--	--	--	--	1
5030	--	--	--	--	1
5031	--	--	--	--	1
5032	--	--	--	--	1
5033	--	--	--	--	14
5034	--	--	--	--	8
5035	9	--	45.0	--	0
5036	15	--	37.0	--	0
5037	14	--	62.0	--	10
5038	31	--	120	--	24
5039	22	--	72.0	--	100
5040	13	--	36.0	--	7
5041	19	--	44.0	--	1300
5042	7	--	39.0	--	51
5043	6	--	180	--	3200
5044	15	--	37.0	--	20
5045	14	--	39.0	--	20
5046	27	--	50.0	--	140
5047	16	--	47.0	--	17
5048	34	--	73.0	--	63
5049	24	--	41.0	--	2
5050	21	--	48.0	--	2
5051	13	--	48.0	--	22
5052	13	--	140	--	5
5053	16	--	53.0	--	2

RM

SAMPLE	AG PPM	SB PPM	W PPM	AU PPB	PO PPM
5001	0.5	5.9	3	62	20
5002	<0.5	0.5	1	<1	10
5003	<0.5	3.2	3	<1	22
5004	0.5	0.2	1	<1	12
5005	0.5	0.5	<1	<1	14
5006	0.5	0.3	1	<1	16
5007	<0.5	0.2	1	<1	10
5008	<0.5	0.5	1	<1	8
5010	<0.5	5.4	3	<1	4
5011	0.5	<0.2	2	<1	12
5012	<0.5	1.4	<1	<1	12
5013	<0.5	0.8	3	<1	6
5014	<0.5	<0.2	1	<1	8
5015	0.5	0.4	1	3	16
5016	0.5	1.4	3	<1	16
5017	<0.5	0.9	3	2	12
5018	<0.5	0.7	<1	3	8
5019	--	1.2	<1	<1	--
5020	--	1.0	2	<1	--
5021	--	4.4	<1	<1	--
5022	--	0.9	1	<1	--
5023	--	1.0	2	<1	--
5024	--	0.4	3	<1	--
5025	--	2.1	<1	<1	--
5026	--	0.5	3	<1	--
5027	--	2.4	1	<1	--
5028	--	0.4	4	<1	--
5029	--	0.2	1	<1	--
5030	--	0.2	1	7	--
5031	--	0.3	2	<1	--
5032	--	<0.2	3	2	--
5033	--	1.4	<1	2	--
5034	--	0.5	3	<1	--
5035	<0.5	0.3	2	1	--
5036	<0.5	0.2	<1	7	--
5037	<0.5	0.2	2	12	--
5038	0.5	3.2	2	12	--
5039	0.5	13.0	<1	12	--
5040	1.0	2.7	8	4	--
5041	4.0	25.0	<1	390	--
5042	3.5	1.3	5	11	--
5043	54.0	200	9	6400	--
5044	1.0	2.1	2	23	--
5045	0.5	0.7	<1	5	--
5046	1.5	0.2	3	21	--
5047	<0.5	1.0	1	6	--
5048	0.5	3.1	4	13	--
5049	0.5	0.4	<1	5	--
5050	<0.5	0.3	1	7	--
5051	<0.5	2.1	1	43	--
5052	<0.5	1.7	2	17	--
5053	<0.5	1.1	<1	20	--

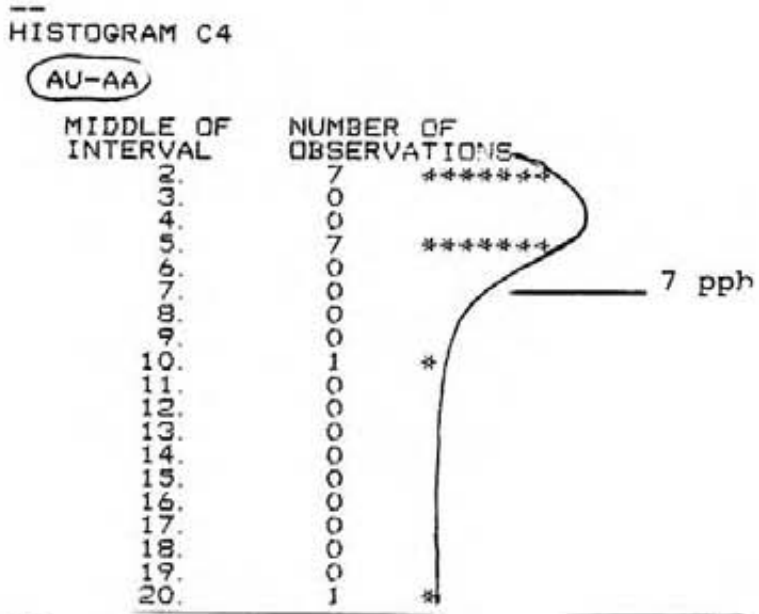
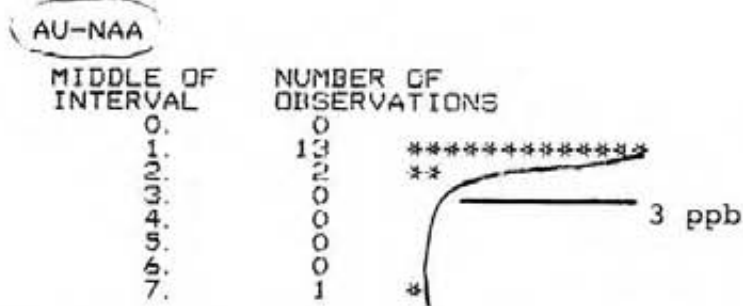
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Appendix III

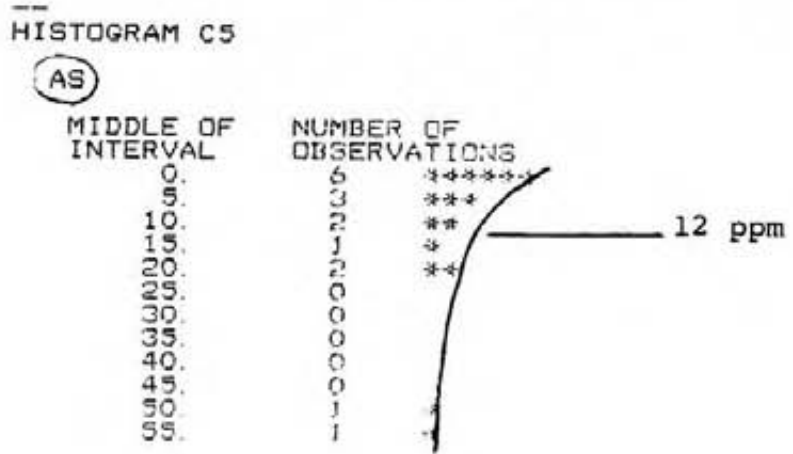
Histograms

Au (AA), Au (NAA), As, Sb, W

FILE: XCAL DATA A



CORRELATION COEFFICIENT BETWEEN DATA IN C3 AND C4
CORRELATION OF AU-NAA AND AU-AA = -0.074



FILE: XCAL DATA A

VM/SP CONVERSATIONAL MONITOR

NAME C3 'AU-NAA'

NAME C4 'AU-AA'

NAME C5 'AS'

DESCRIBE C1-C5

SB	N = 16	MEAN =	1.0697	ST. DEV. =	1.11
W	N = 16	MEAN =	1.7500	ST. DEV. =	1.15
AU-NAA	N = 16	MEAN =	1.0937	ST. DEV. =	1.66
AU-AA	N = 16	MEAN =	4.9375	ST. DEV. =	4.57
AS	N = 16	MEAN =	12.438	ST. DEV. =	16.8

HISTOGRAM C11

C11

EMPTY COLUMN/

HISTOGRAM C1

(SB)

MIDDLE OF INTERVAL	NUMBER OF OBSERVATIONS
0.0	3
0.5	5
1.0	4
1.5	1
2.0	1
2.5	1
3.0	0
3.5	0
4.0	0
4.5	1

1.1 ppm

HISTOGRAM C2

(W)

MIDDLE OF INTERVAL	NUMBER OF OBSERVATIONS
0.5	4
1.0	4
1.5	0
2.0	3
2.5	0
3.0	4
3.5	0
4.0	1

Not Anomalous

Appendix IV

Itemized

Cost

Statement

Itemized Cost Statement
of
X-Cal Claim at Gwyneth Lake

Geologist	4 days field 4 days office @ \$200/day	\$ 1,600
Labor	2 men x 4 days @ \$120/day	960
Project Manager	8 days @ \$150/day	1,200
Truck rental	5 days @ \$40/day	200
Accommodation	2 men x 4 days @ \$40/day	320
Drafting & Reproduction		400
Freight, Office overhead, Typing, Secretarial		350
Analysis	16 samples @ \$20/sample	<u>320</u>
		\$ 5,350

Appendix V
Certificate
of
Qualification


Appendix V

Certificate of Qualification

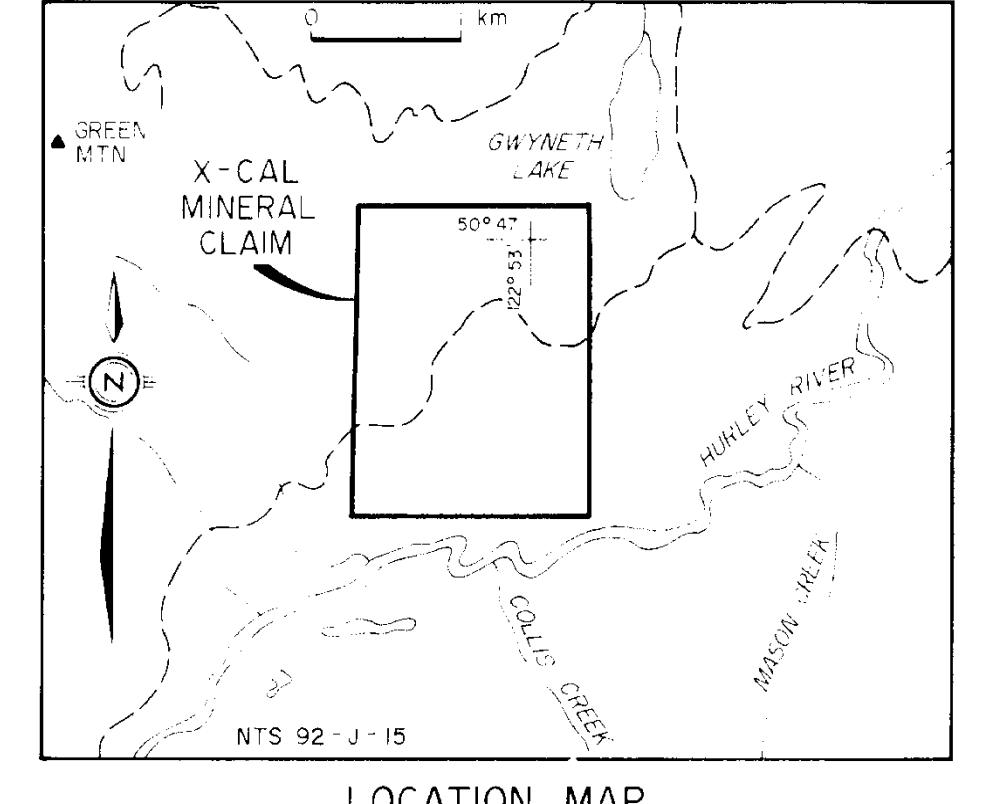
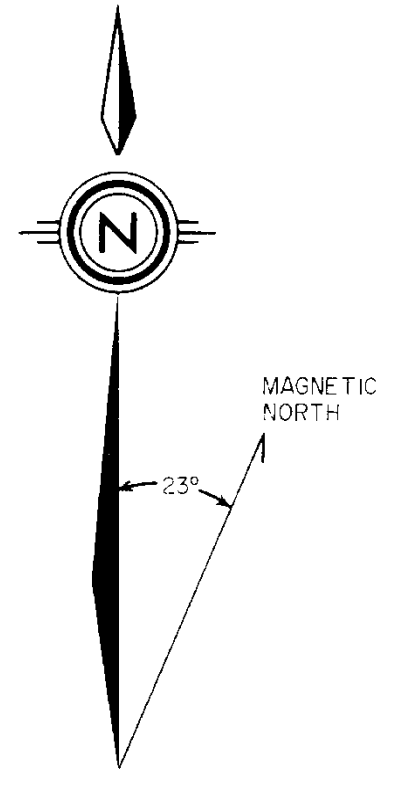
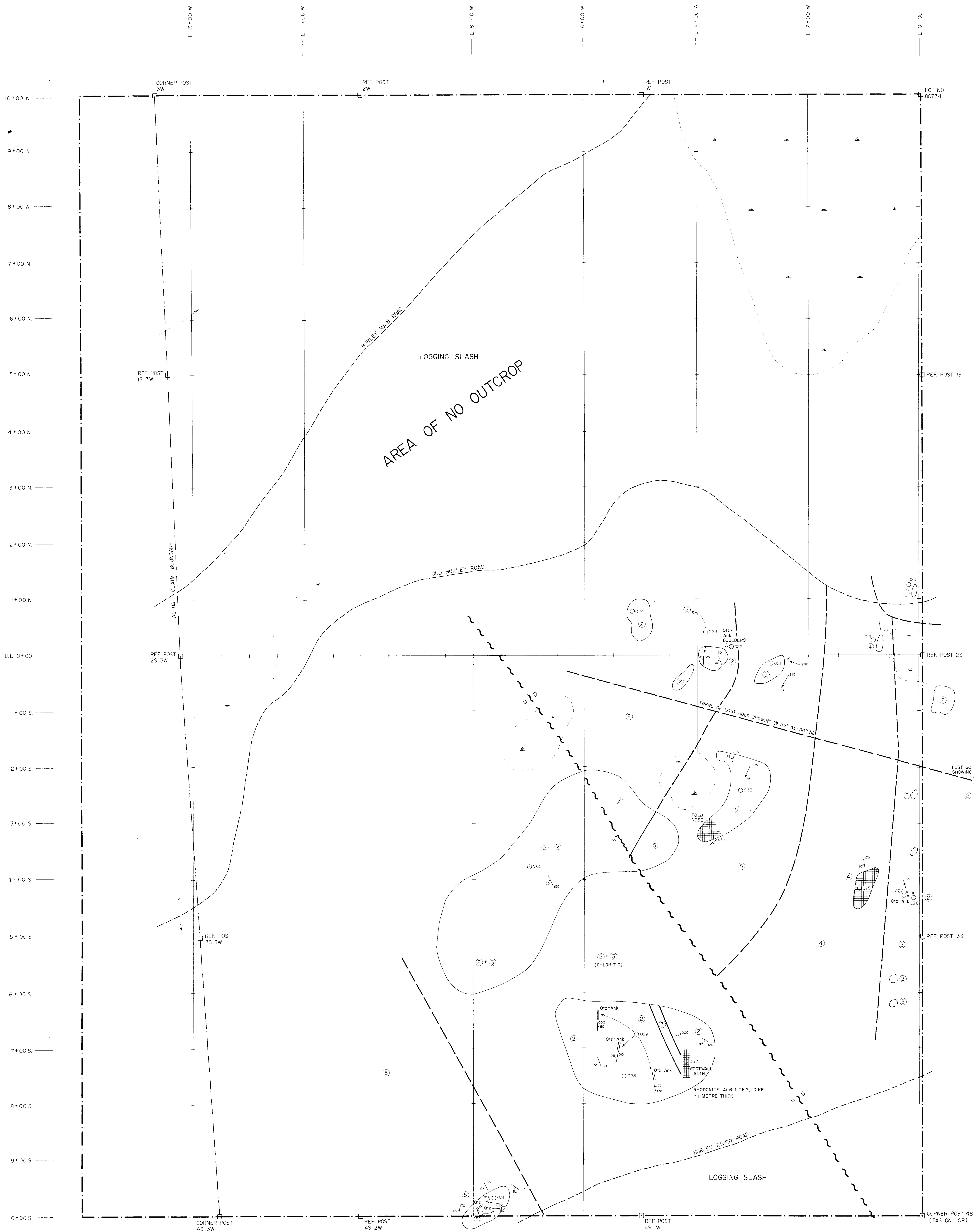
I, Richard J. Mazur, hereby certify that;

1. I am a registered professional geologist residing at 586 Portsmouth Avenue, Kingston, Ontario.
2. I am a graduate of the University of Toronto, having been granted an Honours Bachelor of Science Degree in Geology in 1975.
3. I have primarily been employed in the mineral exploration industry since 1975.
4. I have been a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta continuously since 1980 to the present as a Professional Geologist.
5. I have no interest in the X-Cal Claim Group or X-Calibre Resources Ltd., nor have I been promised any interest. The only remuneration I expect for work leading to this report is the amount of my professional fee for performing such work.
6. I agree to keep all information documented in this report confidential.
7. I hereby grant X-Calibre Resources Ltd. permission to use this report for its corporate purposes.

Dated this *3rd* day of November, 1983 at Kingston, Ontario.


Richard J. Mazur

P. Geol.



- LEGEND**
- UPPER TRIASSIC HURLEY FORMATION**
- ⑤ INTERBEDDED ARGILLITE AND CHERT
 - ④ CHERT
 - ③ ARGILLITE
 - ② TUFFACEOUS SEDIMENTS
 - ① CONGLOMERATE - ANGULAR FRAGMENTS
- MINERALS**
- Sb STIBNITE
 - Au GOLD
 - Qtz QUARTZ
 - Ank ANKERITE
- ALTERATION**
- ▨ ALBITE - BUFF TO PINK
 - ▨ MINOR SILICIFICATION
- CLAIM POST
- CLAIM BOUNDARY
- CHAIN AND COMPASS LINE AND STATION
- ROAD
- CREEK
- SWAMP
- X ○ ○ ○ OUTCROP, OUTCROP AREA, SUBCROP, BOULDERS
- 019 ROD. GEOCHEMICAL SAMPLE
- STRIKE AND DIP OF BEDDING (INCLINED, VERTICAL, HORIZONTAL)
- FOLD AXIS, FOLD LINEATION (TREND AND PLUNGE)
- LEIN
- FAULT [ASSUMED, OBSERVED (DIP)]
- CONTACT (KNOWN, ASSUMED)
- ⊙ MINERAL OCCURRENCE

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

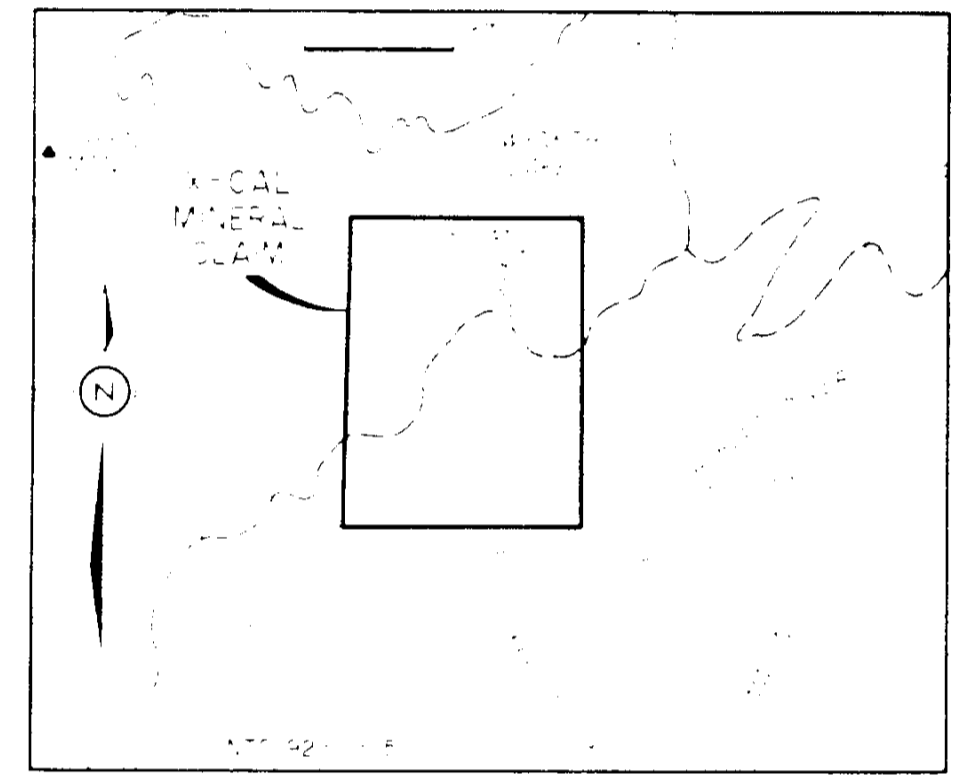
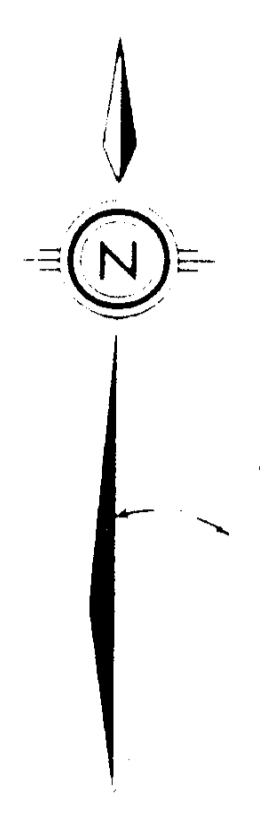
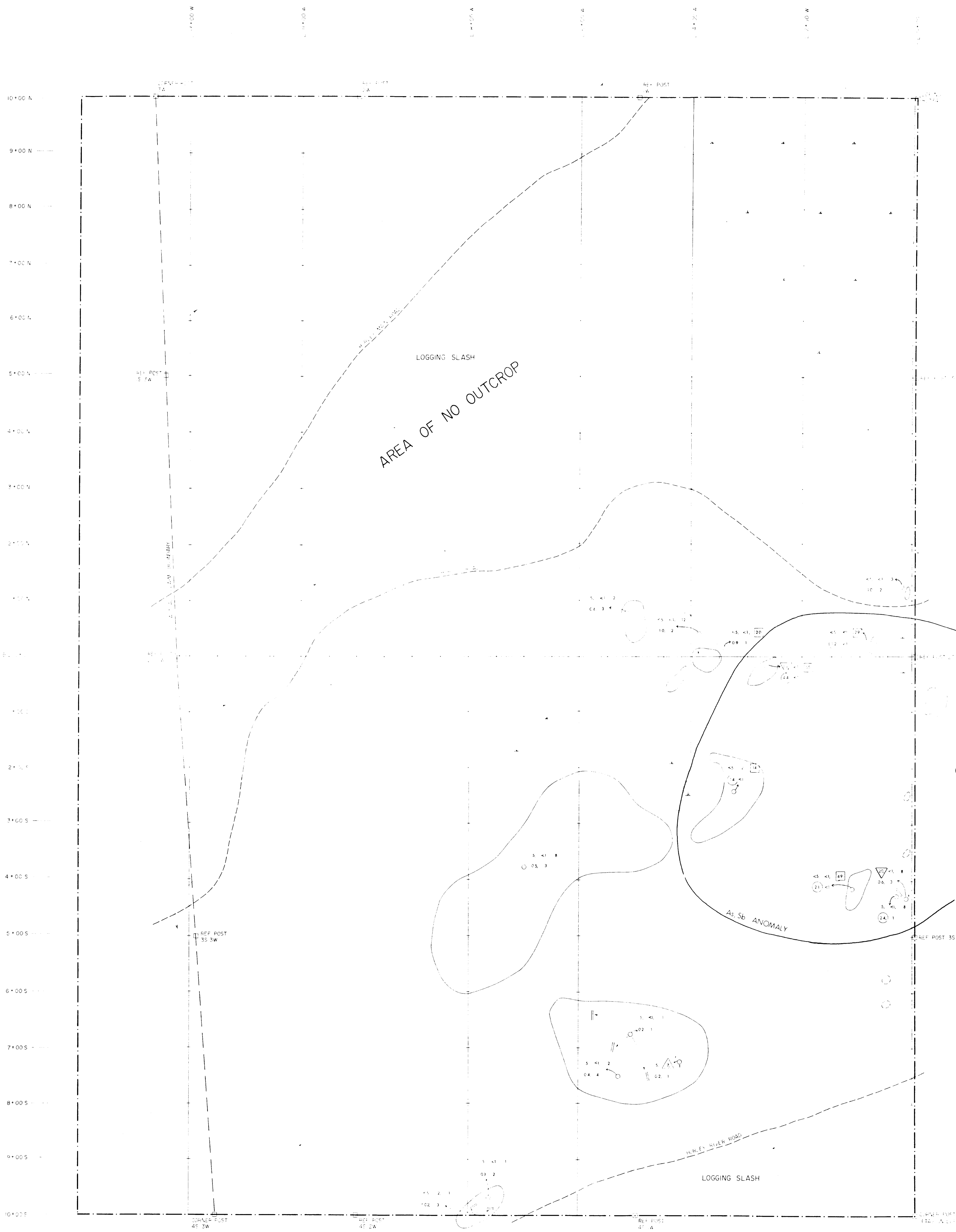
MAP I **11,875**

X-CALIBRE RESOURCES LTD.
X-CAL MINERAL CLAIMS

GEOLOGY

0 25 50 75 100 metres

N.T.S.: 92-J-15 GEOLOGY BY: R. J. MAZUR SCALE: 1:2500



LOCATION MAP

LEGEND

- TEAM POST
- CLAIM BOUNDARY
- CHAIN AND COMPASS LINE AND STATION
- ROAD
- RIVER
- TOWAMP
- X OUTCROP OUTCROP AREA SUBJECT TO CLAIMS
- MINERAL OCCURRENCE
- ROCK GEOCHEMISTRY SAMPLE LOCATION AND RESULTS Au - A (ppb), Au - NA A (ppb), As (ppm), Sb (ppm), W (ppm)
- /// VEIN

ANOMALIES

- ▽ GOLD(Au) > 1 ppb
- △ SILICEOUS (As) > 3 ppm
- ARSENIC > 12 ppm
- ANTIMONY > 11 ppm

GEOLOGICAL BRANCH
ASSESSMENT DEPARTMENT

1:875

MAP II

X-CALIBRE RESOURCES LTD.
X-CAL MINERAL CLAIMS
ROCK GEOCHEMISTRY
Au, As, Sb, W