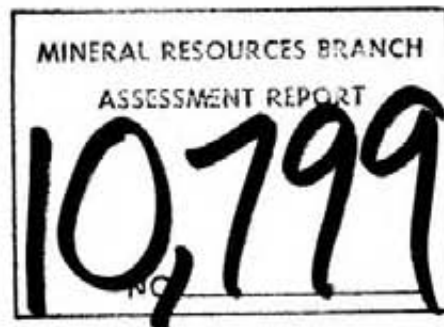


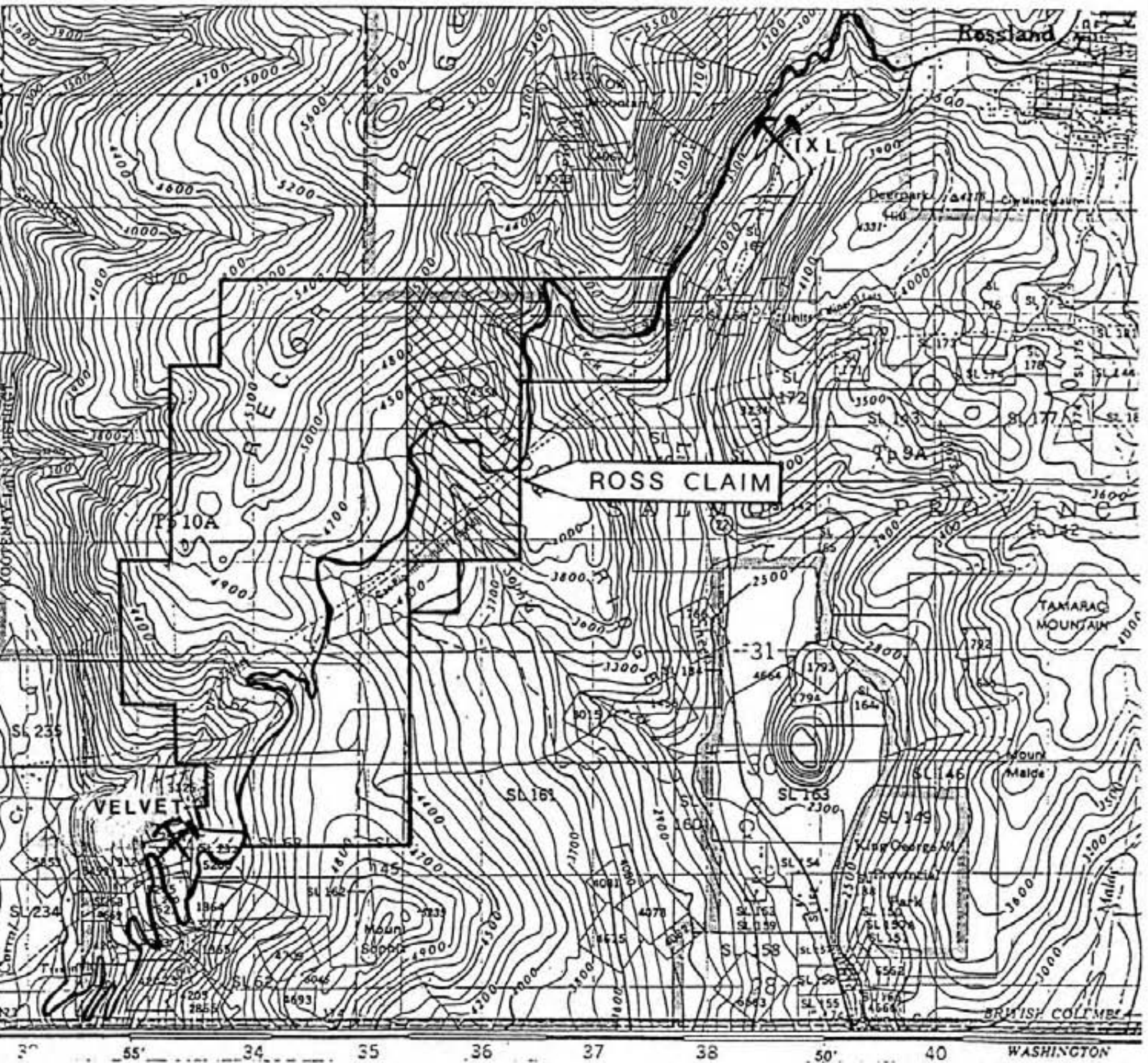
REPORT ON  
TRENCHING AND SOIL GEOCHEMISTRY  
ON  
THE ROSS MINERAL CLAIM  
OF  
L.G. MORRISON  
SOUTHWEST OF ROSSLAND, B.C.  
TRAIL CREEK MINING DIVISION  
NTS 82 F/4W  
49°03' N, 117°54' W



L.G. Morrison

November, 1982

LOCATION MAP  
MORRISON-WHITE PROPERTY  
ROSSLAND, B.C.



FROM ROSSLAND-TRAIL  
1:50,000 SHEET  
82 F/4

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ABSTRACT

In the summer of 1982, trenching of a geochemical anomaly on the ROSS claim southwest of Rossland, British Columbia exposed copper, gold and silver mineralization in three shear zones varying from a few centimeters to one meter wide. One sheared band in serpentinite assayed 30.6 grams gold/tonne across a width of 20 centimeters. Three samples from sheared fine grained diorite in contact with ultrabasic rocks averaged 319.0 grams silver/tonne, trace gold and 2.35% copper across a width of 90 centimeters.

To follow up the trenching results, 200 "B" horizon soil samples were collected along traverse lines perpendicular to the strike of the shear zones. A copper, lead, zinc and silver anomaly more than 800 meters long and up to 250 meters wide was defined.

Detailed soil sampling, geological mapping and backhoe trenching are proposed to further evaluate the showing and to explore the geochemical anomaly, with the objective of establishing targets for diamond drilling.

The estimated cost of the recommended program is \$26,000.

### LOCATION AND MEANS OF ACCESS

The ROSS claim is six kilometers southwest of the city of Rossland, British Columbia. It is bounded on the east by the LAND claims and by open ground, on the south by ROSS #2 and open ground, on the west by the CAL claim and on the north by open ground.

The old Cascade Highway crosses the claim about one kilometer from the south boundary, and a powerline access road crosses the southeast corner.

### PHYSICAL FEATURES

Elevations on the claim vary from 1,130 meters above sea level at the southeast corner to 1,620 meters at the northwest corner. Local slopes rarely exceed 20 degrees, and scarps are rare. The principal drainage on the claim is into the deep, southeast-trending valley of Sophia Creek.

The claim is mostly mantled by thin glacial till and a little scree. Rare outcrops are mainly restricted to road cuts and minor escarpments.

There are some mature stands of cedar and larch along Sophia Creek and in ravines on the south half of the claim. The north half has been mostly logged over within the last thirty years.

A powerline, a gas transmission line and a telephone line all cross the south end of the claim.

### PROPERTY AND OWNERSHIP

The ROSS claim, record number 245, comprises ten units. It was recorded April 4, 1978 by Lee Morrison.

By virtue of unregistered agreements, the following carried interests are held in the ROSS and adjoining claims:

United Canso Oil & Gas Ltd. 3700 Scotia Centre Calgary, Alberta	5.0 %
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Alan M. White 888 Queensland Drive S.E. Calgary, Alberta	3.24%
--	-------

The remaining interest is owned by

Lee Morrison  
1608 - 49 Avenue S.W.  
Calgary, Alberta

Surface rights to the ROSS claim are owned by

Beaumont Timber Company Ltd.  
P.O. Box 222  
Penticton, B.C.

#### MINING HISTORY OF THE AREA

During the period 1894 to 1928, the Rossland gold-copper-silver mines were among the richest and most productive in North America. The principal producers within the corporate limits of Rossland are reportedly worked out.

The Velvet mine, 3.5 kilometers southwest of the ROSS claim, operated intermittently from 1901 to 1942 and from 1954 to 1962. It was briefly re-opened in 1981 but is now idle. Metal production from about 82,600 tonnes of ore was about 615 kg of gold, 628 kg of silver and 1,080 tonnes of copper.

The IXL mine and adjoining claims, 3.5 kilometers northeast of the ROSS claim, have been worked intermittently since 1892. Production records are sketchy, but at least 5,530 tonnes have been shipped to yield 818 kg of gold and 290 kg of silver.

From 1966 to 1972, the Red Mountain molybdenum mine produced about 900,000 tonnes of ore to recover about 2,500 tonnes of  $\text{MoS}_2$  from open pits 1.5 kilometers northwest of Rosslund.

#### SUMMARY OF WORK ON THE PROPERTY

The area between the Velvet and IXL mines has been more or less continuously staked for many years. At about the turn of the century, a lot of pitting and trenching was done, and shallow shafts were sunk on what are now the ROSS and ROSS #2 claims.

During the second World War, several small chromite showings were trenched near the Cascade Highway, west of the ROSS claim. No further serious exploratory work was done in the area until 1978 when A. White and L. Morrison staked, and began to systematically evaluate, 58 units and two-post claims, including the ten-unit ROSS claim.

Work during the period 1978 to 1981 was mostly done on the MAR and CAL claims which are the west half of the property. Geochemical and geophysical surveys were followed by 516 meters of diamond drilling in six holes. Work on the ROSS claim was limited to geological mapping, stream sediment geochemistry and the collection of random soil samples for orientation purposes. One orientation sample was strongly anomalous in copper, lead and zinc. Subsequent detailed soil geochemistry around the sample point defined a strong anomaly 150 meters long, referred to in this report as "Anomaly XI".

Testing Anomaly XI, by 75 meters of backhoe trenching to bedrock, in June 1982 resulted in the first discovery of significant mineralization on the property.

Two hundred soil samples were collected in August,

1982, on a chain and compass grid, to search for extensions or repetitions of Anomaly XI in an 85 hectare area. A four metal anomaly was traced for more than 800 meters southwest from Anomaly XI into the ROSS #2 claim.

#### GEOLOGICAL ENVIRONMENT

The ROSS claim is underlain by more or less equal proportions of Jurassic Rosslund formation and serpentized ultrabasic rocks which intrude it. There are two small stocks of Coryell(?) diorite and quartz diorite intruding both of the major units.

In the southeast corner of the claim, the Rosslund formation is mostly finely porphyritic andesite and related pyroclastic rocks. Some facies, which contain plagioclase phenocrysts to 2 mm wide and more than 10% biotite, are probably shallow-seated intrusive rocks, but their relation to clearly extrusive material and to Coryell diorite are unknown.

In the northwest sector of the claim, the dominant Rosslund member is fine grained feldspar porphyry containing from 30% to 40% subhedral to euhedral plagioclase phenocrysts.

In the northeast sector of the claim, the principal Rosslund member is dark grey to black basalt.

Ultrabasic rocks outcrop in the southwest sector of the claim and along the Cascade Highway northeast of Sophia Creek. A narrow tongue of Rosslund formation and grey, fine grained diorite lies between the two major ultrabasic masses (cf. Figures 2 to 5).

The dominant set of joints and shear planes on the claim strikes NNE to NNW and dips steeply to the west. The



linear valley of Sophia Creek, trending S 30°E, is probably a reflection of both structure and lithology, but the extreme scarcity of outcrops precludes any definite conclusion.

#### MINERAL SHOWINGS

Lenticular quartz veins in sheared zones are common in the area, and there are old shafts on two of them. About 900 meters west of legal post 2E/2N of the ROSS claim, a lens 30 cm wide, striking N 30°W and dipping 70°NE was followed to a depth of more than 20 meters. White quartz on the dump contains a little finely disseminated chalcopyrite and sphalerite, but two representative samples assayed only trace gold and silver.

A shaft on the ROSS #2 claim, 800 meters southeast of the initial post of the ROSS claim, was sunk to an estimated depth of 30 meters on a shear zone at N 40°W/70°SW. One 20 cm sample of vuggy, pyritiferous quartz encrusted with oxides of manganese and iron assayed 22.6 grams Au/tonne. Other samples of similar material averaged 0.6 grams Au and 17.0 grams Ag/tonne.

At Anomaly XI, 1,200 meters northeast along the powerline from the ROSS initial post, trenching exposed three north-striking, west-dipping mineralized sheared bands near an irregular contact between ultrabasic rocks and a complex assemblage of grey, fine grained diorite and Rossland (?) andesite (cf. Figure 1).

The diorite and andesite at Anomaly XI are light bluish, brownish and greenish grey, fine to very fine grained material with an average grain size of 0.5 mm. They are slightly to moderately silicified, chloritized and epidotized. Colourless quartz blebs, finely disseminated pyrrhotite and pyrite and fracture coatings of manganese oxides and limonite are common.

The mineralized sheared bands vary from less than five centimeters to more than one meter wide. They contain abundant malachite, traces of sphalerite and galena and nodular pods of chalcopyrite.

One sample across a 20 cm sheared band in serpentinite assayed 30.6 grams Au/tonne and 7.2 grams Ag/tonne. A 30 cm sample of black serpentinitized peridotite containing a 3 cm band of malachite -crusted talc schist assayed 0.8 grams Au/tonne, 35.7 grams Ag/tonne and 0.45% Cu. Three samples from sheared diorite at the ultrabasic contact averaged 319.0 grams Ag/tonne, trace Au and 2.35% Cu across a width of about 90 centimeters.

#### THEORY OF EXPLORATION

Mineralization on the IXL and adjacent properties, and at the Velvet mine, occurs in or near the contacts of small ultrabasic masses enclosed by Coryell intrusive rocks and/or Rossland formation. The major Rossland mines (Le Roi, War Eagle and Black Bear) are all within two kilometers of a major ultrabasic intrusion.

The trace gold contents of ultrabasic rocks are commonly from two to three times those of felsic igneous rocks, and the common spatial relationship of gold deposits to ultrabasic rocks, although not clearly understood, is well known. Some prominent examples are the gold districts of Kalgoorlie, Australia, Val d'Or, Quebec, Timmins, Ontario and the Coquihala serpentinite belt near Hope, British Columbia.

It is hypothesized that gold in the Rossland district may have been mobilized from ultrabasic rocks. On this basis, the fringes of ultrabasic intrusions on the Morrison-White property are regarded as favourable for gold deposits.

All ores in the Rosslund district contain chalcopryrite. The Velvet mine ores also contain minor galena and sphalerite. It is therefore proposed that soil geochemical surveys for copper, lead and zinc constitutes a viable technique to search for base and precious metal deposits in the area.

Application of the technique to the west side of the Morrison-White property (CAL and MAR claims) has not yet been successful. However, the discovery of a copper-gold-silver showing on the ROSS claim has proven the usefulness of the approach by responding to mineralization overlain by almost two meters of glacial till.

### SOIL GEOCHEMISTRY

#### Field Procedure

A chain and compass grid was established with end points of the traverse lines corrected by reference to roads, powerlines and other features readily identifiable on maps and aerial photographs. Flagged lines were spaced approximately 100 meters apart perpendicular to the strike of the Anomaly XI shear zones. Line lengths were chosen to cover the ultrabasic contacts on both sides of Sophia Creek and the intervening tongue of Rosslund and Coryell rocks.

Samples were collected from the "B" soil horizon at 50 meter intervals along the flagged lines. Soil profiles in the surveyed area are well developed, and a readily identifiable "B" horizon is usually present. Sample depths ranged from 5 to 20 centimeters, depending upon the maturity of the soil profile.

Background metal contents of soils over ultrabasic rocks in the area are much lower than over Rosslund and

Coryell material. Therefore, to establish geological contacts, all outcrops and angular floats were noted while collecting samples.

#### Analytical Procedure

Samples were air-dried in kraft envelopes and sieved to recover the minus 80 mesh fraction. The prepared samples were analysed in Calgary by Loring Laboratories Ltd.

Samples of 0.5 gram were digested for 3½ hours in aqua regia. The dissolved samples were adjusted to standard volumes by the addition of demineralized water and allowed to settle. Atomic absorption analyses were performed with an AA-1200 Varian Techtron spectrometer.

All samples were analysed for copper, lead, zinc and (because of the unusually high silver values in the Anomaly XI mineralization) for silver. Ninety samples were also analysed for nickel to assist in defining the limits of the ultrabasic subcrop.

Blind duplicates of 16 samples ( 8% of the total) were analysed for control. Checks were very good, with variances rarely exceeding 10% for Cu ( $\pm 2$  ppm), 20% for Pb, 5% for Zn and 30% for silver.

#### Treatment of Data

In order to determine threshold values, samples were first grouped as three populations based on the nature of subcrop. These populations were then combined with those established over the same rock types in the area in 1978-80. This provided a large data base with 642 samples from the ultrabasic environment, 215 over Rosslund formation and 410 over Coryell intrusions. (This procedure was not possible for silver, for which 1978-80 samples were not analysed.)

Cumulative frequency distributions were plotted for Cu, Pb, Zn and Ag in each of the three geological environments. The mean (M at the 50 percentile), second order anomalous threshold (M+ one standard deviation = the 84 percentile) and first order anomalous threshold (M + two standard deviations = the 97.5 percentile) were recorded for each metal as follows:

SUBCROP	Cu(ppm)			Pb(ppm)			Zn(ppm)			Ag(ppm)		
	M	M+1s	M+2s	M	M+1s	M+2s	M	M+1s	M+2s	M	M+1s	M+2s
Ultrabasic	14	20	28	19	30	45	82	109	145	1.0	1.2	1.5
Rossland	21	31	45	26	38	55	110	165	250	1.0	1.3	1.6
Coryell	14	22	36	22	33	50	90	132	192	*	*	*

\* insufficient data

Metal values for Cu, Pb, Zn and Ag were plotted on grid plans at a scale of 1:5,000 (Figures 2,3,4 and 5).

#### Anomalies

A moderate to strong four-metal anomaly extends more than 800 meters S 30°W from Sophia Creek into the northwest corner of ROSS #2, between approximate co-ordinates 20S, 6E and 27S 2E. The anomalous area is from 100 to 250 meters wide.

Outcrops in the anomalous area are rare, but the subcrop is interpreted as mostly ultrabasic material which is in contact with Rossland volcanics on the east and with a lenticular diorite stock on the south. The area is mantled by from one to five meters of glacial till, with some intermingled bedrock fragments on the steeper slopes.

The Anomaly XI showing is near the northeast end of the anomaly, at a lower elevation than most of the anomalous area.

There are small, moderate three-element anomalies near the ultrabasic contact from 2E to 2+50E on line 12S, and on line 17S from 6E to 6+50E.

On line 23S from 8+50E to 9+50E there is a moderate copper anomaly in an area underlain by Rossland andesite containing quartz lenses and a little pyrite.

#### CONCLUSIONS

1. The discovery of copper, gold and silver mineralization under glacial till proves that soil geochemistry is a useful exploration tool in the Rossland district.
2. The mineralization at Anomaly XI, although high in metal content, does not constitute a drill target, and requires further surface study to define and possibly extend the showing.
3. The coincidence of a mineral showing, and an extensive four-metal geochemical anomaly, with a contact zone between Rossland volcanics and an ultrabasic intrusion lends support to the theory that such zones are attractive exploration targets in the district.
4. The large geochemical anomaly southwest of the showing is an exploration target which merits detailed evaluation.

#### RECOMMENDATIONS

1. Establish a baseline one kilometer long, bearing S 30°W from 19S, 6E, with crosslines every 50 meters extending 160 meters from each side of the baseline.
2. Sample the "B" soil horizon at 20 meter intervals along the crosslines, and analyse the minus 80 fraction for Cu, Pb, Zn and Ag.

3. Define the ultrabasic contact by geological mapping and, if necessary, by collecting a few bedrock samples either by manual test pitting or with a hand-held drill.
4. On the basis of geochemistry, geology and geomorphology, select sites for backhoe trenching to bedrock.
5. Do additional backhoe trenching to search for extensions of the mineral showing on strike to the north.

COST ESTIMATES

1. Grid layout: 1 km of baseline cut and chained and 6.7 km of flagged, lightly brushed, chained crosslines		\$ 2,000.
2. Geochemistry and geology:		
Collection, preparation & analysis of 360 soil samples	\$ 2,800.	
Geological mapping, sampling and assaying	2,500.	
Presentation and interpretation	<u>1,500.</u>	6,800.
3. Trenching:		
Backhoe (40 hrs @ \$50.)	2,000.	
Tractor (16 hrs @ \$75.)	1,200.	
Equipment mobilization & demobilization	450.	
Manual labour (10 man days @ \$65.)	650.	
Stumpage, disturbance charges and surface restoration	<u>1,000.</u>	5,300.
4. Travel expenses and travel time:		
2 trips by 2 men, from Calgary & return		2,000.
5. 4 X 4 vehicle rental (3 weeks)		<u>1,500.</u>
sub-total		17,600.

--carried forward \$17,600.

6. Accomodation and food:	
50 man days @ \$60.	3,000.
7. Geological consulting & administration	<u>2,500.</u>
	23,100.
8. Contingency	<u>2,900.</u>
Budget	\$26,000.

An additional sum of \$30,000. should be available in reserve for initial diamond drilling in the event that the recommended program is successful.

Respectfully submitted,

*L. G. Morrison*  
Lee G. Morrison, P.Eng.

November 29, 1982



EXPIRY DATE: Feb. 28, 1983



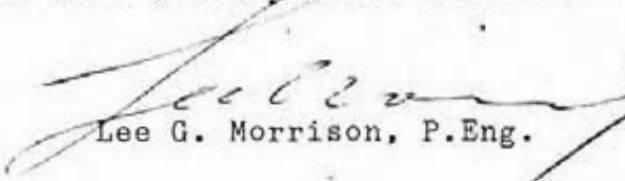
APPENDIX

CERTIFICATE OF QUALIFICATIONS

I, Lee G. Morrison, of the City of Calgary in  
the Province of Alberta

HEREBY CERTIFY:

1. THAT, I am a registered Professional Engineer in the Province of Alberta, with a Non-Resident License to practice in British Columbia;
2. THAT, I am a graduate of the University of Saskatchewan with Bachelor's degrees in Arts (1956) and Geological Engineering (1957);
3. THAT, I am a Consulting Mining Geologist residing at 1608 - 49th Avenue S.W., Calgary;
4. THAT, I have practiced my profession continuously since graduation;
5. THAT, the field work which is the basis for this report was performed either by me or under my direct supervision in the field;
6. THAT, I am the owner of record of the ROSS claim, and the beneficial owner of a 91.76 percent interest.

  
Lee G. Morrison, P.Eng.



Expiry Date, Feb. 28, 1962

STATEMENT OF COSTS

Field Personnel

L.G. Morrison, Geologist  
Supervision of trenching; sampling June 22-24, 1982  
Geochemical survey and geological control  
August 24-29, August 31, September 1  
Total 11 days @ \$400. \$4,400.00

K. Lotecki, Labourer  
Cleaning out trenches; ground restoration  
June 22-24 3 days @ \$60. 180.00

K. Morrison, Soil Sampler & Chainman  
August 24-29, August 31, September 1  
8 days @ \$60. 480.00 \$5,060.00

Equipment Rentals

Backhoe, 14½ hrs @ \$46.00 \$ 667.00  
Loader, 4½ hrs @ \$54.00 243.00  
Mobilization & demobilization 276.00 1,186.00

Field Expenses and Supplies

Motel (19 man days) \$ 296.80  
Groceries 154.56  
Flagging and soil envelopes 36.00  
4 X 4 pickup, 220 km @ \$0.40 88.00 575.36

Services

Sample preparations  
K. Morrison 2½ days @ \$60. \$ 150.00

Geochemical analyses of soils  
90 for Cu, Pb, Zn, Ni, Ag @ \$4.90 441.00  
127 for Cu, Pb, Zn, Ag @ \$4.15 527.05

Assays & rock geochemistry  
11 rock geochems (Cu, Pb, Zn, Ag) @ \$6.65 73.15  
8 Au + Ag assays @ \$12.00 96.00  
5 Cu, Pb, Zn assays @ \$22.75 113.75 1,400.95

Data Presentation, Interpretation & Report

L.G. Morrison, Geologist  
Oct. 28-29; Nov. 12, 16-19, 23, 25-28  
7 days professional @ \$400. \$2,800.00  
4 days draughting @ \$160. 640.00

Typing and map reproduction 100.55 3,540.55

TOTAL \$11,762.86

BIBLIOGRAPHY

- Fyles, J.T. (1970) "Geological Map of the Rossland Area" British Columbia Department of Lands, Forests and Water Resources, Surveys and Mapping Branch, Preliminary Map No. 4, Project M229
- Little, H.W.(1960) "Nelson Map Area, West Half, British Columbia", Geological Survey of Canada, Memoir 308
- Morrison, L.(1979) "Report on Geological, Geochemical & Geophysical Studies, MAR 1-4, LAND 1-6, SKIN 1-4, ROSS & CAL Claims, Trail Creek Mining Division" Assessment Report File No. 79-50-7162
- (1980) "Report on Soil Geochemistry of ROSS #2 Mineral Claim, Trail Creek Mining Division" , Assessment Report
- (1980) "Diamond Drilling Report, CAL, MAR-1 & SKIN-3 Claims of L.G. Morrison and A.M. White, Trail Creek Mining Division", Assessment Report

To: CALALCA MINING CONSULTANTS LTD.,  
 1608 - 49th Avenue S.W.,  
 Calgary, Alberta T2T 2T7



File No. 23680  
 Date July 12, 1982  
 Samples Rock

ATTN: Lee Morrison

Certificate of  
**ASSAY** of  
**LORING LABORATORIES LTD.**

SAMPLE No.	OZ./TON GOLD	OZ./TON SILVER	% Cu	% Pb	PPM Pb	PPM Zn	% Zn
<u>"Rock Samples"</u>							
22861	Trace	2.58	2.02	.19	1000+*	1000+*	.54
22862	Trace	7.68	-	1.75	-	-	-
22863	Trace	.14	-	-	-	-	-
22864	Trace	7.34	1.96	-	-	-	-
22865	Trace	12.56	2.72	-	-	-	-
22866	.024	1.04	.45	-	260	490	-
22867	.892	.21	.02	-	43	480	-

(\*) = Assayed

**I** **Hereby Certify** THAT THE ABOVE RESULTS ARE THOSE  
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . .

Rejects Retained one month.  
 Pulps Retained one month  
 unless specific arrangements  
 made in advance.

*Sol J. [Signature]*  
 Assayer

To: GALALCA MINING CONSULTANTS LTD.,  
 1608 - 49th Avenue S.W.,  
 Calgary, Alberta T2T 2T7



File No. 23677  
 Date July 12, 1982  
 Samples Rock

ATTN: Lee Morrison

Certificate of  
**ASSAY** of  
**LORING LABORATORIES LTD.**

Page # 2

SAMPLE No.	PPM Cu	PPM Pb	PPM Zn	PPM Ag
<u>"Rock Samples"</u>				
A 2	51	47	1000+*	1.0
A 3	129	112	1000+*	0.9
A 4	103	62	810	1.2
A 8	14	18	415	1.8
B 5	22	21	100	1.0
C 2	10	41	310	0.8
C 4	9	60	186	0.7
C 5	18	98	290	1.0
C 15	56	190	400	0.9
D 1	19	29	57	1.0
D 2	28	19	240	1.0

**I Hereby Certify** THAT THE ABOVE RESULTS ARE THOSE  
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . . .

Rejects Retained one month.  
 Pulps Retained one month  
 unless specific arrangements  
 made in advance.

Assayer

To: LEE MORRISON,  
 1608 - 49th Avenue S.W.,  
 Calgary, Alta. T2T 2T7



File No. 24065  
 Date October 20, 1982  
 Samples Pulps

Certificate of  
 ASSAY of  
 LORING LABORATORIES LTD.

Page #1

SAMPLE No.	ppm Cu	ppm Pb	ppm Zn	ppm Ni	ppm Ag
<u>"Pulp Samples"</u>					
16S-2+50E	13	21	95	84	1.0
3	16	19	76	215	1.1
3+50	26	23	84	720	1.4
4	16	32	102	590	1.1
4+60	18	37	74	235	1.5
5	16	26	150	240	1.5
5+50	11	25	92	220	1.1
6	12	23	106	365	1.2
6+50	7	20	89	680	.9
7	15	28	127	220	1.2
17S-3 E	14	23	97	525	1.5
3+50	16	20	63	185	1.4
4	19	27	128	335	1.3
4+50	19	24	68	215	1.1
5	15	26	94	190	1.1
5+50	18	31	132	560	1.4
6	31	28	89	940	1.7
6+50	12	19	88	248	1.2
7	19	22	86	355	1.3
18S-3 E	14	17	63	245	1.1
3+50	16	23	60	315	1.2
4	25	22	82	460	1.3
4+50	18	23	87	340	1.1
5	21	21	90	290	1.2
5+50	15	29	119	98	.9
6	13	20	89	178	1.0
6+50	18	25	88	495	1.1
7	17	26	116	470	1.3
7+50	35	41	124	215	1.5

**I** **Hereby Certify** THAT THE ABOVE RESULTS ARE THOSE  
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . . .

Rejects Retained one month.  
 Pulps Retained one month  
 unless specific arrangements  
 made in advance.

  
 Assayer

To: LEE MORRISON,  
 1608 - 49th Avenue S.W.,  
 Calgary, Alta. T2T 2T7



File No. 24065  
 Date October 20, 1982  
 Samples Pulps

Certificate of  
 ASSAY of  
**LORING LABORATORIES LTD.**

Page # 2

SAMPLE No.	ppm Cu	ppm Pb	ppm Zn	ppm Ni	ppm Ag
19S-4 E	16	20	57	140	1.0
4+50	18	24	77	265	1.4
5	18	23	64	230	1.2
5+50	19	25	89	290	1.5
6	28	32	77	480	1.4
6+50	17	24	118	265	1.1
7	16	25	84	95	1.1
7+50	34	32	125	128	1.3
8	26	31	129	137	1.3
8+50	33	26	118	175	1.4
9	21	28	115	137	1.0
10	17	23	210	103	1.1
20S-3 E	16	21	70	730	1.4
3+50	18	27	72	300	1.1
4	20	24	70	308	1.2
4+50	32	26	91	580	1.6
5	25	23	82	390	1.1
5+50	24	27	93	360	1.3
6	28	33	123	340	1.0
6+50	23	35	136	360	1.4
7	19	25	118	205	1.1
7+50	27	27	115	158	.9
8	28	24	123	149	1.2
8+50	26	25	128	142	1.3
9	21	30	139	183	1.2
9+50	28	21	148	111	1.0
10	18	19	177	139	1.0
21S-2 E	15	22	65	725	1.0
2+30	14	20	66	640	1.1
3	21	32	69	610	1.0
3+50	14	28	116	520	1.2

**I Hereby Certify** THAT THE ABOVE RESULTS ARE THOSE  
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . . .

Rejects Retained one month.  
 Pulps Retained one month  
 unless specific arrangements  
 made in advance.

*Bob D. Swan*  
 Assayer



To: LEE MORRISON,  
 1608 - 49th Avenue S.W.,  
 Calgary, Alta. T2T 2T7



File No. 24065  
 Date October 20, 1982  
 Samples Pulps

Certificate of  
**ASSAY** of  
**LORING LABORATORIES LTD.**

Page # 3

SAMPLE No.	ppm Cu	ppm Pb	ppm Zn	ppm Ni	ppm Ag
21S-4 E	18	28	115	215	1.0
4+50	16	29	162	205	1.2
5	24	27	113	265	1.4
5+50	31	42	350	510	1.6
6	38	176	385	295	1.5
6+70	39	29	105	340	1.1
7	21	23	98	138	1.0
7+50	31	27	172	220	1.1
8	33	27	182	119	1.3
22S-2 E	12	26	62	650	1.0
2+50	14	28	95	290	1.0
3	24	24	79	348	.9
3+50	15	23	109	285	1.1
4	17	30	88	338	1.0
4+50	25	37	80	350	1.2
5	34	41	162	358	1.2
5+50	27	53	114	335	1.4
6	21	55	148	295	1.2
6+50	18	46	195	255	1.2
7	30	55	161	315	1.4
7+50	36	30	167	295	1.5
8	20	24	198	120	1.2
C-5 E	31	44	355	495	1.8
12	14	21	94	83	1.4
13	11	28	91	350	1.1
15	21	32	120	138	1.0
19	18	26	119	210	1.1
21	17	26	70	220	1.0
23	15	19	55	247	1.1
24	13	20	87	161	1.0

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 Pulps Retained one month  
 unless specific arrangements  
 made in advance.

*Bob Moran*  
 Assayer

To: LEE MORRISON,  
 1608 - 49th Avenue S.W.,  
 Calgary, Alta. T2T 2T7



File No. 24132  
 Date November 10, 1982  
 Samples Soil

Certificate of  
 ASSAY of  
**LORING LABORATORIES LTD.**

Page # 1

SAMPLE No.	ppm Cu	ppm Pb	ppm Zn	ppm Ag
<b>"Soil Samples"</b>				
9S-7+50 E	19	29	80	1.2
10S-2 E	15	18	71	.8
2+50	26	20	59	1.3
3	31	22	84	1.5
3+50	15	19	57	1.0
4	18	15	63	1.1
4+50	15	16	56	1.0
5	19	18	100	1.3
5+50	17	19	78	1.2
6	18	18	57	1.2
6+50	16	24	117	1.1
7	15	25	90	1.2
7+50	16	25	110	1.3
8	19	24	60	1.2
8+50	16	18	59	1.1
9	15	15	78	1.0
11S-1 E	13	19	63	1.0
1+50	12	18	73	.9
2	16	26	101	1.1
2+50	18	20	81	1.0
3	13	32	71	1.0
3+50	20	23	92	1.2
4	15	16	64	1.0
4+50	21	21	152	1.0
5	17	20	55	1.1
5+50	14	17	92	1.0
12S-1' E	18	23	76	.8
1+50	17	24	125	.9
2	28	35	144	1.2
2+50	26	22	149	1.2

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 Pulp Retained one month  
 unless specific arrangements  
 made in advance.

*A. J. [Signature]*  
 Assayer

To: LEE MORRISON,  
 1608 - 49th Avenue S.W.,  
 Calgary, Alta. T2T 2T7



File No. 24132  
 Date November 10, 1982  
 Samples Soil

Certificate of  
 ASSAY of  
 LORING LABORATORIES LTD.

Page # 2

SAMPLE No.	ppm	ppm	ppm	ppm
	Cu	Pb	Zn	Ag
12S-3 E	18	19	86	1.3
3+50	17	17	57	.8
4	17	18	63	.9
4+50	20	18	65	.8
5	20	22	68	1.0
13S-2 E	14	19	113	.6
2+50	21	18	94	1.0
2+95	19	20	87	.7
3+50	15	16	80	.7
13S-4 E	18	20	82	1.2
4+50	16	22	143	1.1
5	14	17	87	.9
14S-3 E	14	19	78	1.1
3+50	23	23	99	1.2
4	15	19	64	1.0
4+50	20	17	88	.9
5	16	20	83	1.3
5+50	19	20	165	.8
15S-2+50 E	15	22	131	1.0
3	14	20	138	.7
3+50	11	23	149	.9
4	17	18	74	1.1
4+50	15	15	78	.8
5	16	19	71	1.1
5+50	19	21	60	1.2
18S-8 E	21	27	115	1.2
8+50	21	22	108	.9
9	27	28	118	.9
22S-8+50 E	17	19	135	.7
9	20	20	168	.6
9+50	24	25	180	.9

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 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . . .

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 Pulp Retained one month  
 unless specific arrangements  
 made in advance.

*Bob Deane*  
 Assayer

To: LEE MORRISON,  
 1608 - 49th Avenue S.W.,  
 Calgary, Alta. T2T 2T7



File No. 24132  
 Date November 10, 1982  
 Samples Soil

Certificate of  
**ASSAY** of  
**LORING LABORATORIES LTD.**

Page # 3

SAMPLE No.	ppm Cu	ppm Pb	ppm Zn	ppm Ag
22S-10 E	23	21	200	1.1
23S-3 E	17	28	124	.9
3+50	16	36	191	1.0
4	39	84	555	1.6
4+60	28	61	225	1.4
5	12	24	150	.6
5+50	16	27	124	.8
6	10	26	107	.5
6+50	23	25	380	1.1
7	17	23	143	.7
7+50	10	17	82	.6
8	19	21	129	.9
8+50	38	23	145	1.0
9	49	23	126	1.0
9+50	59	23	113	1.3
10	30	22	220	1.0
10+50	41	21	182	1.5
24S-2+20 E	13	34	133	.7
2+50	18	40	118	1.1
3	13	25	176	1.0
3+50	15	24	198	.6
4	71	41	177	1.3
4+50	18	28	182	1.1
5	14	25	186	.9
5+50	17	24	113	.8
6	24	32	124	1.0
6+50	20	39	118	.7
7	21	24	114	.8
7+50	23	25	142	.9
8	20	23	115	1.0
8+50	21	24	92	.9

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 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . . .

Rejects Retained one month.

Pulps Retained one month  
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 made in advance.

*Sod. Dixon*  
 Assayer

To: LEE MORRISON,  
 1608 - 49th Avenue S.W.,  
 Calgary, Alta. T2T 2T7



File No. 24132  
 Date November 10, 1982  
 Samples Soil

Certificate of  
**ASSAY** of  
**LORING LABORATORIES LTD.**

Page # 4

SAMPLE No.	ppm		ppm	
	Cu	Pb	Zn	Ag
24S-9 E	27	20	215	1.0
4E-8 S	48	33	127	1.2
8+50	35	22	91	1.1
9	22	25	100	1.0
9+50	22	25	54	1.0
5E-8 S	16	23	73	.9
8+50	25	22	89	1.3
9	32	21	65	1.2
9+50	20	22	67	.8
6E-8 S	21	23	121	.6
8+50	18	24	107	.7
9	22	32	149	.8
9+50	21	27	90	1.0
10+50	12	22	58	.9
7E-7+80 S	28	27	79	.8
8+50	18	26	74	.7
9	16	37	122	1.0
9+50	18	26	85	.9
10+50	12	19	76	.7
8E-8 S	15	21	60	.6
8+50	29	36	69	1.0
9+10	20	23	81	.7
9+50	20	19	90	.6
9E-8 S	12	23	92	.6
8+50	23	27	73	.8
9	16	16	59	.9
9+50	14	13	52	.8
C -1	31	34	72	1.0
9	21	19	69	1.0
20	22	20	70	.9
22	18	15	68	.7

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*[Signature]*  
 Assayer

To: LEE MORRISON,  
1608 - 49th Avenue S.W.,  
Calgary, Alta. T2T 2T7



File No. 24132  
Date November 10, 1982  
Samples Coil

Certificate of  
ASSAY of  
LORING LABORATORIES LTD.

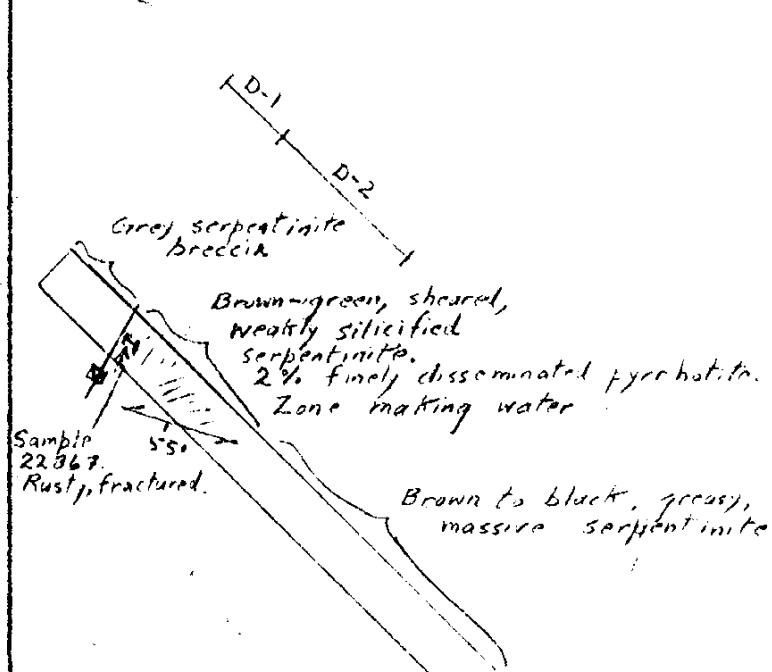
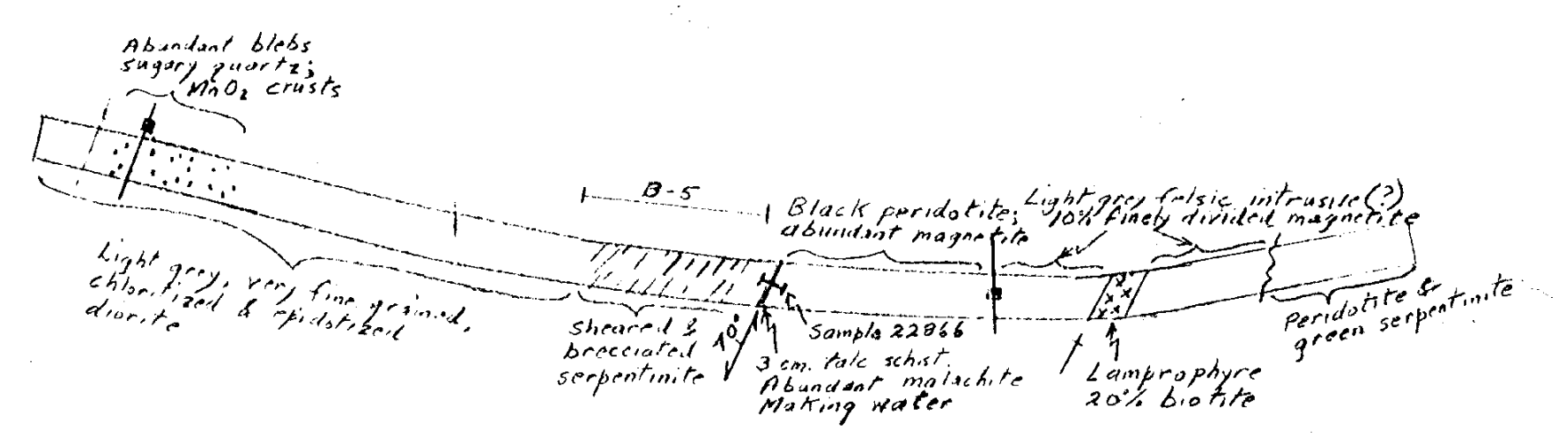
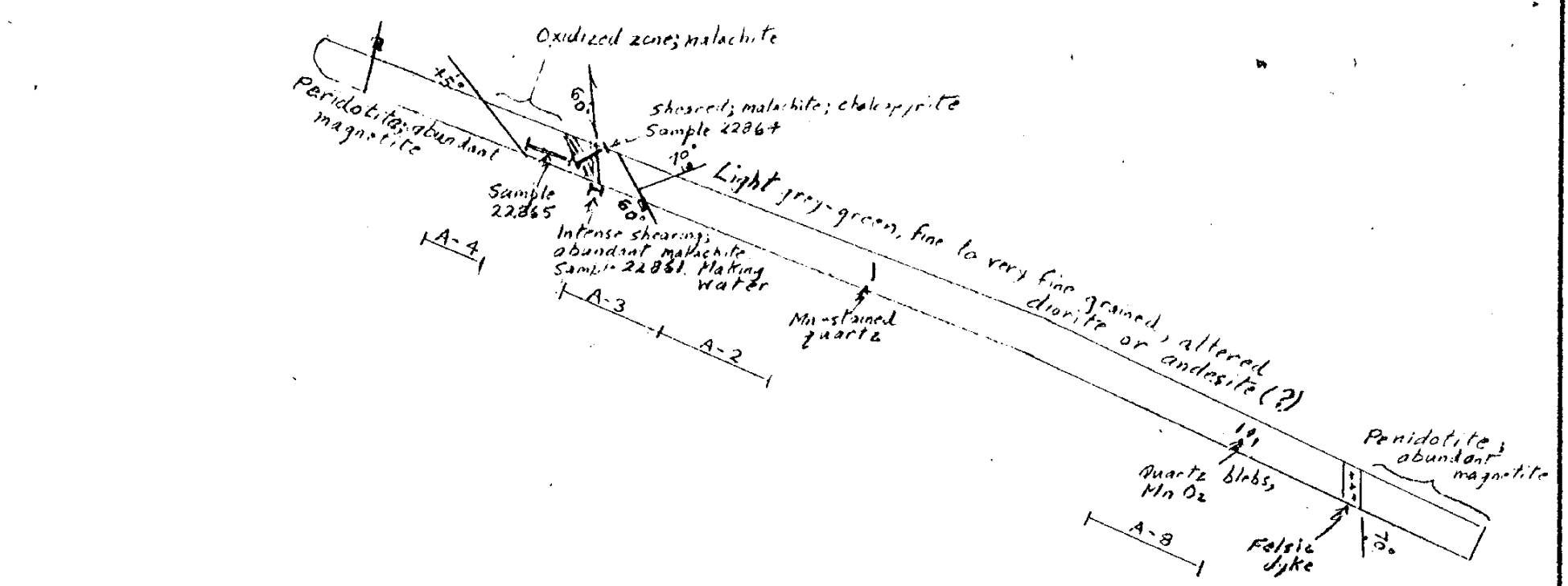
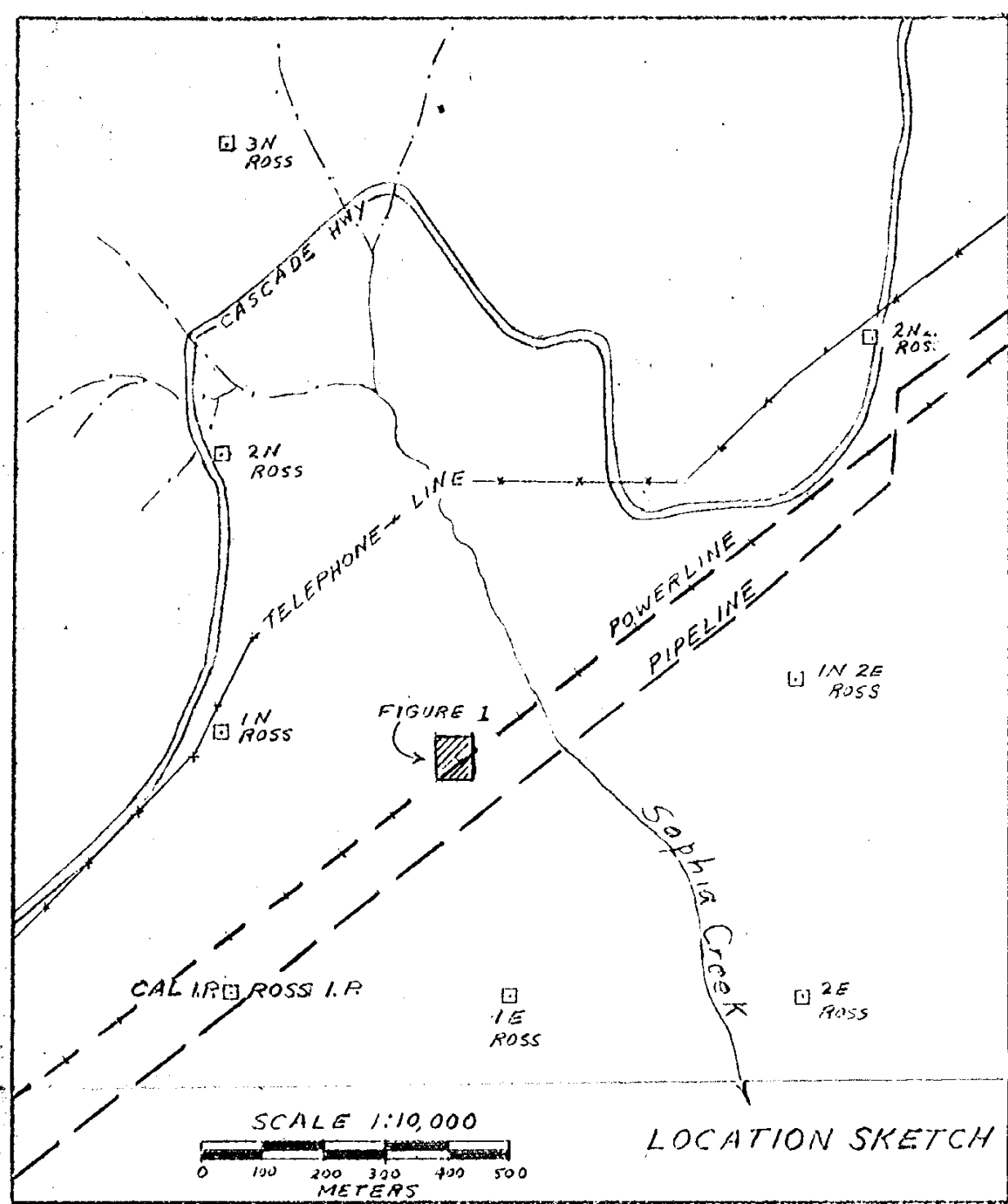
Page # 5

SAMPLE No.	ppm Cu	ppm Pb	ppm Zn	ppm Ag
C-26	17	24	184	.7
31	17	19	72	1.1
37	14	15	65	.6
41	20	16	64	.8

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ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . .

Rejects Retained one month.  
Pulps Retained one month  
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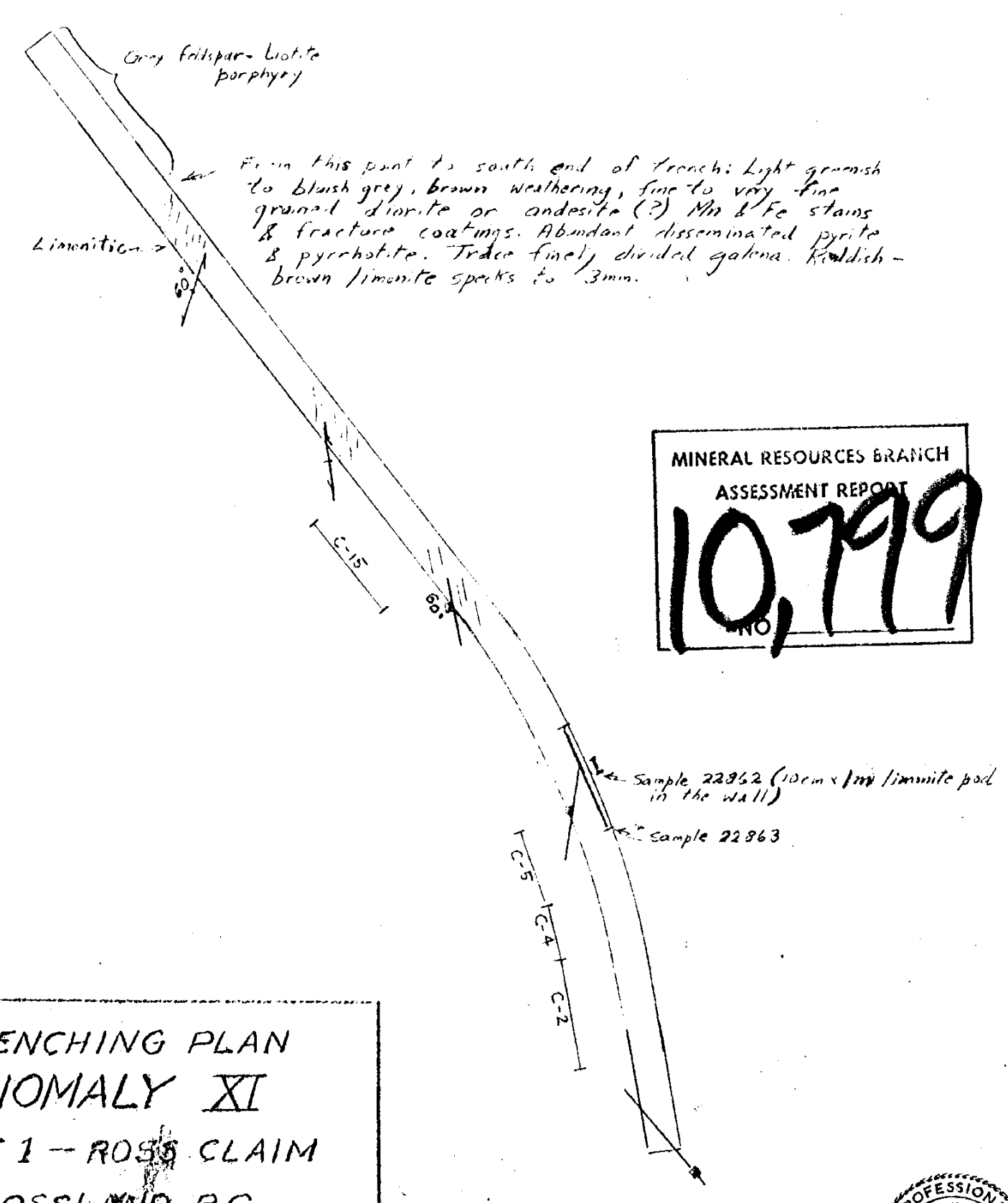
  
Assayer



SAMPLE	WIDTH (cm)	T.W. (cm)	% Cu	% Pb	% Zn	oz Au/ton	oz Ag/ton
22861	20	17	2.92	0.19	0.54	Tr	2.58
22862	Grab			1.75		Tr	7.68
22863	200					Tr	0.14
22864	50	43	1.96			Tr	7.34
22865	80	61	2.72			Tr	12.56
22866	30	28	0.45	0.03	0.05	0.02	1.04
22867	20	20	0.02	Tr	0.05	0.89	0.21

ROCK GEOCHEMISTRY

	ppm			
	Cu	Pb	Zn	Ag
A-2	51	47	1100	1.0
A-3	129	112	1800	0.9
A-4	103	62	910	1.2
A-5	40	18	415	1.8
B-5	22	21	100	1.0
C-2	10	41	310	0.9
C-4	9	60	186	0.7
C-5	19	99	230	1.0
C-15	56	190	400	0.9
D-1	19	29	57	1.0
D-2	28	19	240	1.0



MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10,799**  
MRO

TRENCHING PLAN  
ANOMALY XI  
UNIT 1 - ROSS CLAIM  
ROSSLAND, B.C.  
L. Morrison July, 1982

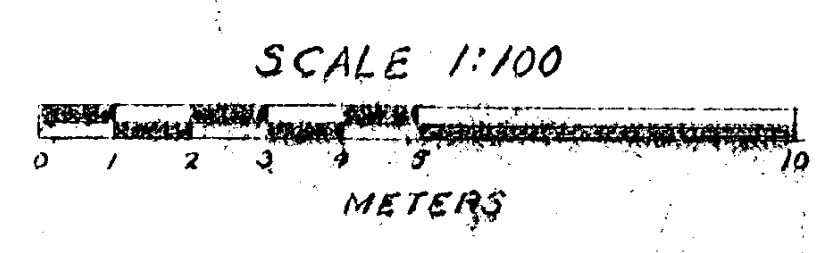
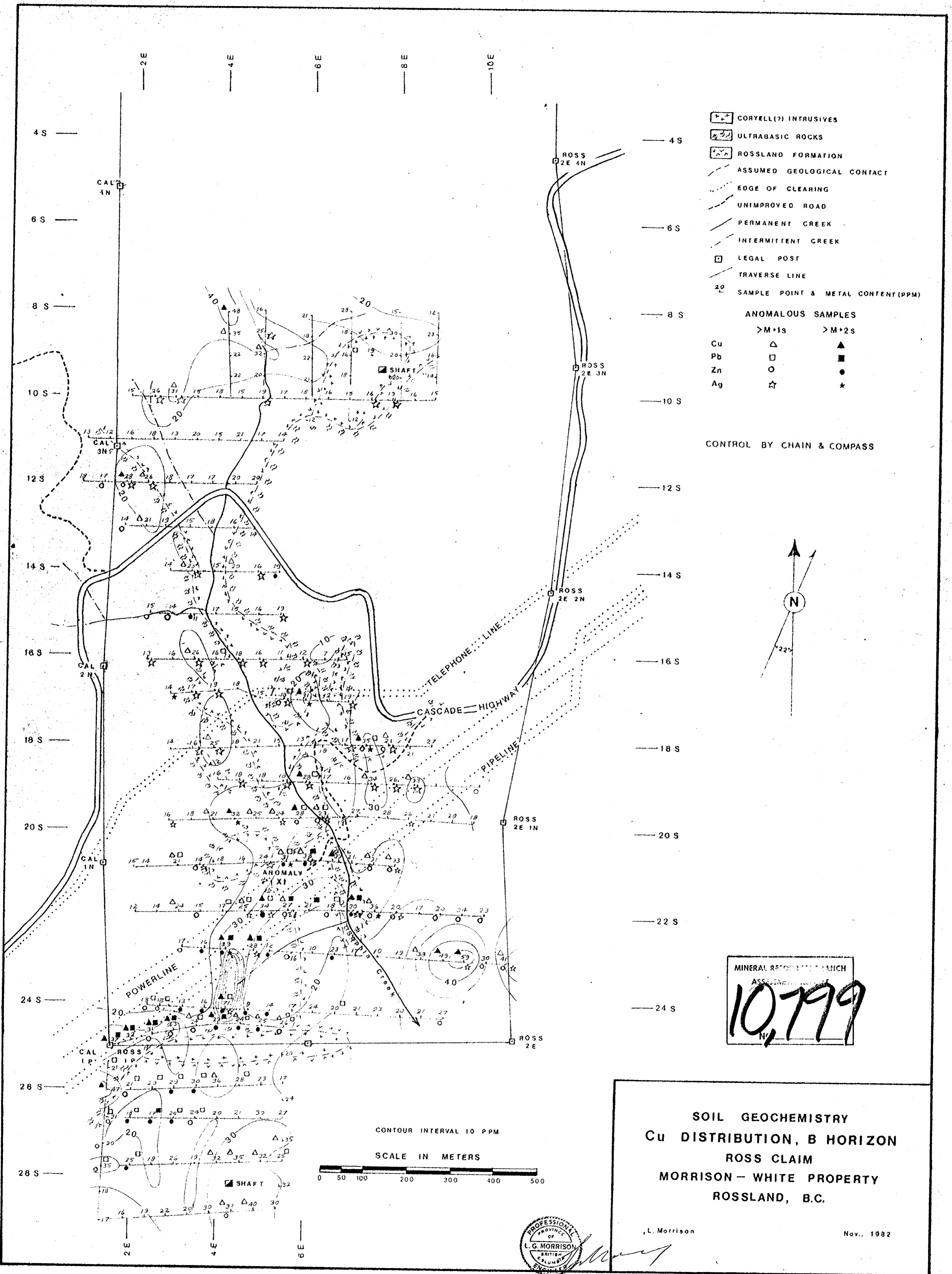
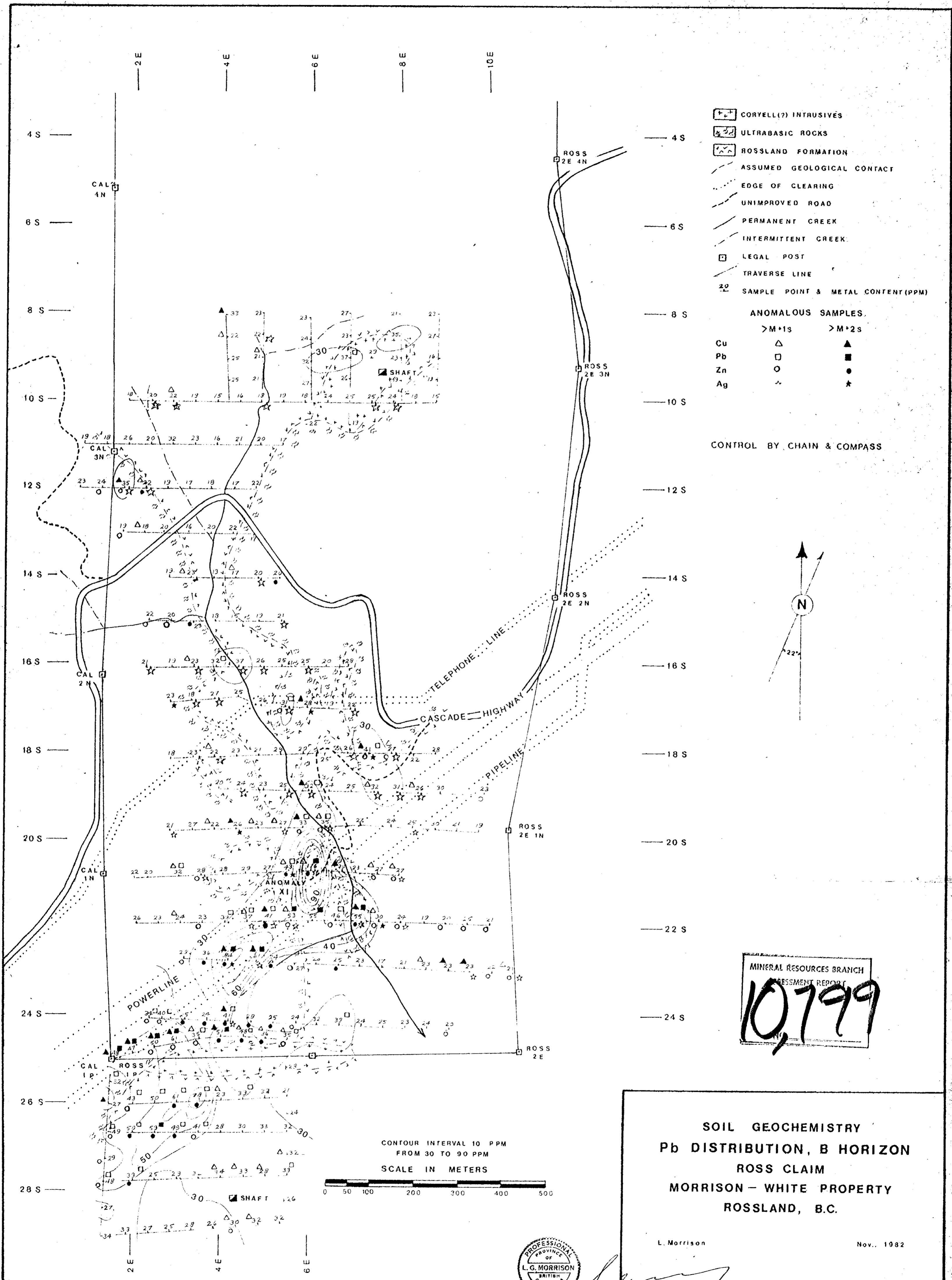


Figure 1







Survey Date: Feb. 28, 1983

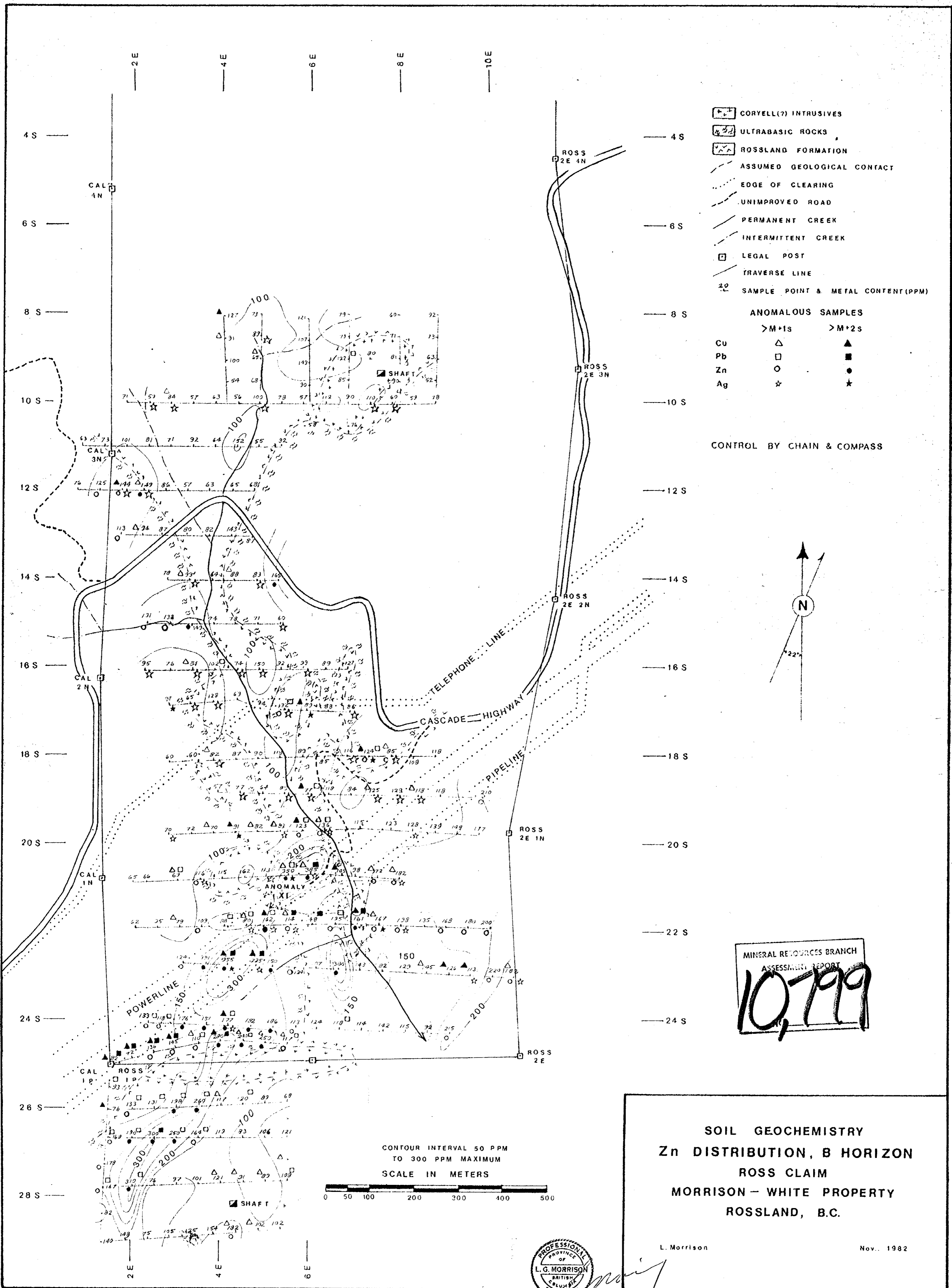
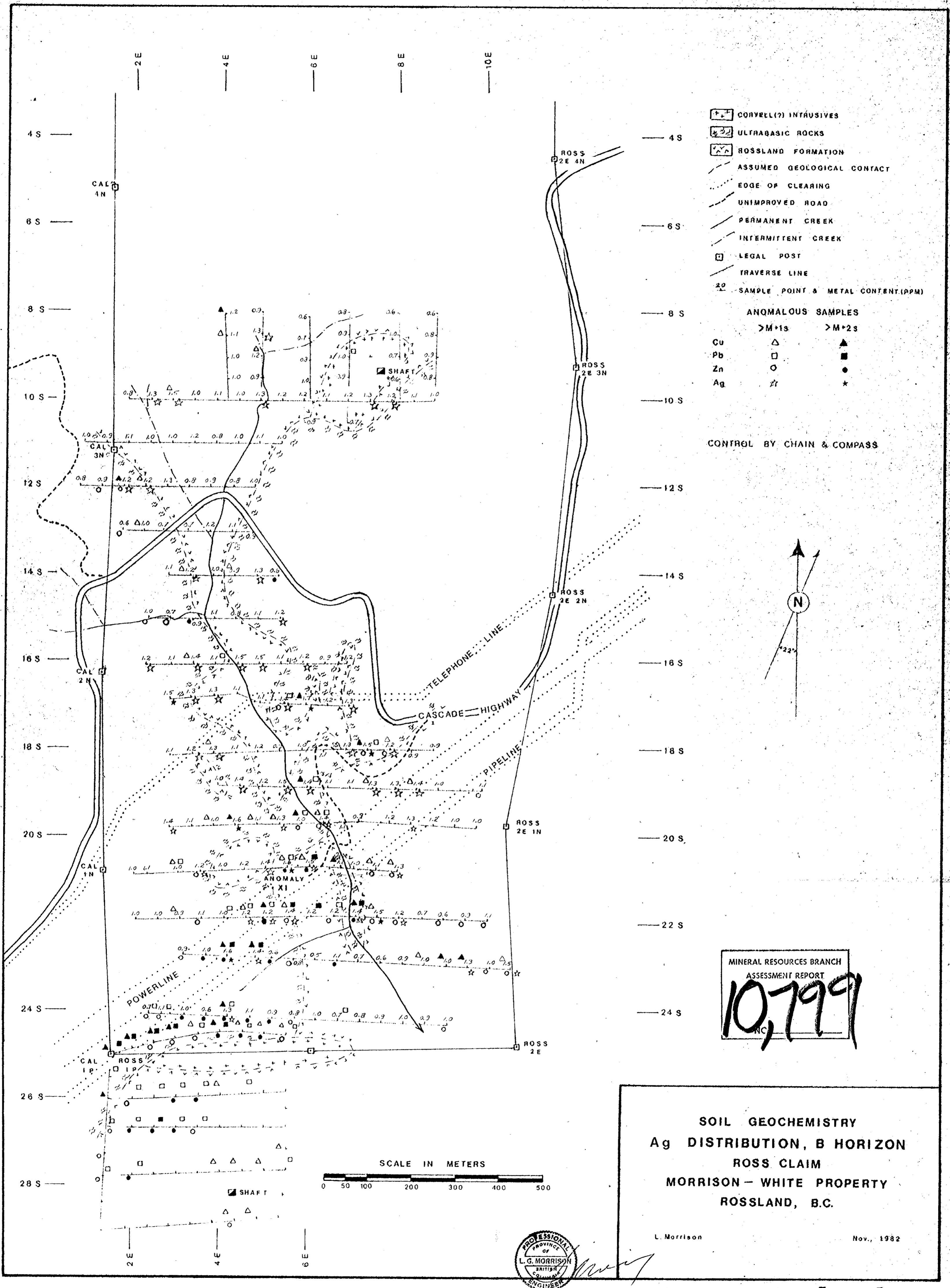


Figure 4



- CORVELLI(?) INTRUSIVES
  - ULTRABASIC ROCKS
  - ROSSLAND FORMATION
  - ASSUMED GEOLOGICAL CONTACT
  - EDGE OF CLEARING
  - UNIMPROVED ROAD
  - PERMANENT CREEK
  - INTERMITTENT CREEK
  - LEGAL POST
  - TRAVERSE LINE
  - SAMPLE POINT & METAL CONTENT (PPM)
- ANOMALOUS SAMPLES**
- |    |       |       |
|----|-------|-------|
|    | >M+1s | >M+2s |
| Cu |       |       |
| Pb |       |       |
| Zn |       |       |
| Ag |       |       |

CONTROL BY CHAIN & COMPASS

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10, 1999**  
NC

**SOIL GEOCHEMISTRY**  
**Ag DISTRIBUTION, B HORIZON**  
**ROSS CLAIM**  
**MORRISON - WHITE PROPERTY**  
**ROSSLAND, B.C.**

L. Morrison

Nov., 1982



expiry Date Feb. 28, 1983

Figure 5