

4136

GEOCHEMICAL AND GEOPHYSICAL REPORT

ON

THE 82M/5 BC GROUP OF

CRAIGMONT MINES LIMITED

AT

BARRIERE, B. C.

51° 119° SW

BY

N. B. VOLLO, P. ENG.

FEBRUARY 22nd, 1973



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 4136 MP

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Maps in Pocket.

#1 Geochemical Plan, Cu - Zn, 1"=1000'
#2 " " Mo - Pb, " " "
#3 EM-16 Survey, 1"=1000'
#4 Magnetic Survey, 1"=1000'

SUMMARY

Geochemical, electromagnetic and magnetic surveys were completed over approximately 80 miles of grid. No indications of copper mineralization typical of the district were found but a zone of lead - zinc anomalies and VLF-EM conductors require additional exploration.

GENERAL

The group is located on Birk Creek, about fifteen miles NNE of Barriere, and is accessible by good logging roads. It lies between 4000 and 7000 feet above sea level and is covered with heavy timber, presently being logged, to an elevation of about 5500 feet. Areas above 6000 feet are open alpine meadows and tundra. Snowfall and rainfall are moderately high.

CLAIMS

The group consists of 182 claims as follows:

BC 1-172, record numbers 107450(O) to 107621(O)
BC 173-182, " " 111681D to 111690D

All are in the Kamloops Mining Division.

HISTORY AND PREVIOUS WORK

Parts of the group have been intermittently staked and prospected since the early 1900's but to the writers knowledge no systematic exploration has been done. Large low grade copper showings are known in similar settings at Harper Creek and East Barriere Lake and several lead - silver showings are known along the south boundary of the group.

GENERAL GEOLOGY

The property covers the contact between the Cretaceous Baldy Batholith and sedimentary and volcanic rocks of the Fennell Formation (Campbell, 1963, Campbell and Tipper, 1971, G.S.C.). The Fennell Formation trends NNW into the batholith and from east to west across the property consists successively of arenites, rhyolite, argillite and phyllite, limestone and finally andesite with interlayered chert. All units become strongly hornfelsed within about 1000 feet of the batholith. A small intrusion of pyroxenite

and gabbro is located on the west slope of Green Mountain. Outcrop is quite sparse except for the area within the batholith.

FIELD WORK

Six men were employed during the period June 25th to October 12th, 1973, for a total of 279 man days. Approximately 80 miles of grid were blazed and chained, 2000 soil samples collected and 55 miles of VLF-EM and magnetic surveys completed.

GEOCHEMICAL SURVEY

Samples were taken at 200' intervals along north-south lines 1000' apart and east-west lines 3000' apart, and silt samples collected from streams crossed by the lines. Soil augers were used, the samples placed in Kraft paper envelopes and sent to Placer Research Laboratories in Vancouver. Analysis were made for total Cu, Zn, Pb and Mo using hot aqua regia extraction and the Atomic Absorption method.

A podzol type soil profile is fairly well developed in the timbered areas and samples were taken from the "B" horizon. In alpine areas soil development is poor and samples were taken below the humus layer.

Soil copper content is low, with few analysis above 50 ppm and no distinctly anomalous zones. Zinc background is about 50 ppm with a zone of weak anomalies ranging to several hundred ppm. Lead background is about 20 ppm with a few small anomalies to several hundred ppm, often within larger zinc anomalies. Molybdenum background is less than 5 ppm except near the batholith where it rises to about 15 ppm, and no anomalous zones found.

All zinc analysis are shown plotted on the accompanying maps (in pocket) but only anomalous copper, lead and molybdenum are shown.

MAGNETIC SURVEY

Readings were taken at 100' intervals along lines 1000' apart using a Sharpe MF-1 fluxgate magnetometer. A base station was established at 100+00E, 0+00, where the instrument was arbitrarily set at 500 gammas. Substations were established progressively along the base line and tie lines, traverses were looped and correction made for diurnal variation.

Magnetics are rather flat and no consistent trend can be determined, though a few local highs or dipole

effects can be traced from line to line.

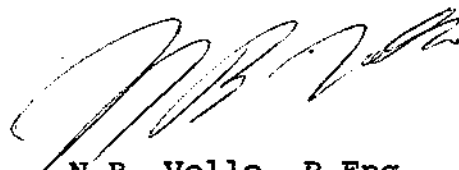
ELECTROMAGNETIC SURVEY

Readings were taken at 100' intervals along north - south lines using a Ronka EM-16 unit. Primary source was NAA, Cutler, Maine, whose field at this point is about N 10° W, nearly parallel to the lines. In phase readings were reduced to contourable data using the method devised by Fraser (Fraser, D.C., Geophysics, Vol. 34, pp. 1958-1967, 1969) and are shown plotted on the accompanying map (in pocket).

Numerous weak to moderate conductors are present, most trending west to northwest, at an angle to the strike of the formations. Large areas of low positive readings in the 180+00E area may be due to disseminated pyrite noted in outcrops.

CONCLUSIONS AND RECOMMENDATIONS

No large zones of copper mineralization of the Harper Creek or East Barriere Lake type appear to be present. Coincident lead and zinc soil anomalies should be prospected for possible lead-silver veins. The stronger VLF conductors, particularly those striking transverse to the formation or associated with soil anomalies should be prospected in detail.




N.B. Vollo, P.Eng.
Feb. 22nd, 1973

QUALIFICATIONS OF OPERATORS

MICHAEL FENNELL is 23 years of age and completed Grade XI at Barriere, B.C. He was employed from 1969 to 1972 by Royal Canadian Ventures Ltd., Kamloops, as a field man and geophysical operator. He has been employed by Craigmont Mines Limited for one year as a geophysical operator. He has been carefully instructed in the operation of the Ronka EM-16 unit by the undersigned, who knows his work to be carefully and reliably done.

LEO LORANGER is 43 years of age and completed Grade IX at Englehart, Ontario. He was employed as a geophysical operator from 1961 to 1966 by the Noranda Exploration Co., Matagami, Quebec; from 1966 to 1967 by Scurry Rainbow Oils Ltd., Calgary, Alberta; by Royal Canadian Ventures from 1968 to 1972. He has been employed by Craigmont Mines Limited for one year as a geophysical operator. He has been carefully instructed in the operation of the Sharpe MF-1 magnetometer by the undersigned, who knows his work to be carefully and reliably done.


N.B. Vollo, P.Eng.
Feb. 22nd, 1973

AFFIDAVIT ON EXPENDITURES

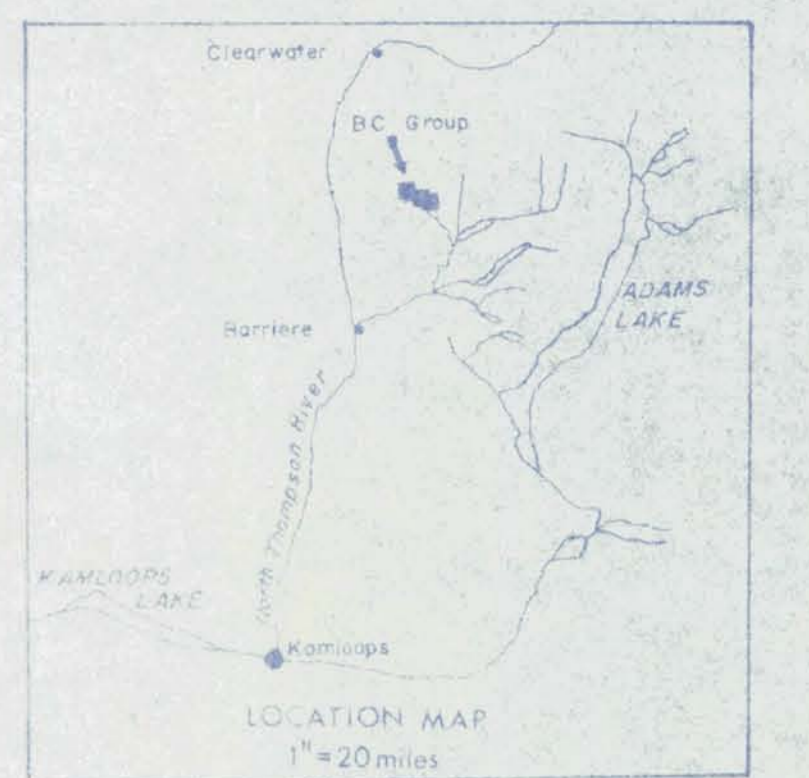
PERSONNEL

N.B. Vollo, P.Eng.	- Supervision, interpretation and report, 10 days @ \$85	\$ 850.00
L. Loranger	- Mag. and Geochem. fieldwork, June 25th - Oct. 12th, 78 days @ \$45	3510.00
M. Fennell	- EM and Geochem. fieldwork, June 25th - Oct. 12th, 78 days @ \$40 Draughting 32 days @ \$40	3120.00 1280.00
C. Outtrim	- Geochemical survey, chaining, June 25th - Aug. 20th, 50 days @ \$35	1750.00
D. Beckman	- Geochemical survey, chaining, July 7th - Sept. 1st 48 days @ \$25	1200.00
T. Fennell	- Geochemical survey, chaining, June 25th - Sept. 1st, 28 days @ \$25	700.00
		<u>\$12410.00</u>
Vehicle Expense - 9134 miles @ 14¢		1278.76
Prints, flagging, inst. repairs, etc.		467.47
Camp expense		1840.24
Geochemical Analysis, 2037 samples @ \$2.15		<u>4379.55</u>
TOTAL		\$20376.02

I, Nels B. Vollo, of the City of Kamloops, in the Province of British Columbia, make the above declaration, concientiously believing it to be true and knowing it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

Declared before me at the City of Kamloops in the Province of British Columbia this 28th day of February, 1973, A.D.

A commissioner for taking affidavits for British Columbia



LEGEND
 Analysis by Placer Research Laboratories
 Hot Aqua Regia Extraction
 Determined by A A
 Readings in ppm
 Stream samples - 23g
 Over 200 ppm Zn

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M-1

to accompany report by
 N.B. Vollo, P.Eng., dated
 Feb. 22nd, 1973

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
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CRAIGMONT MINES LIMITED
 KAMLOOPS, B.C.
 82M/5 BC GROUP
GEOCHEMICAL PLAN
 Cu | Zn

Drawn by M F Scale 1" = 1000' Date 18/11/72



LEGEND
 Analysis by Placer Research Laboratories
 Hot Aqua Regia Extraction
 Determined by A.A.
 Readings in ppm, Mo > 10, Pb > 100
 Stream sediments \odot
 Over 200 ppm Pb \bullet

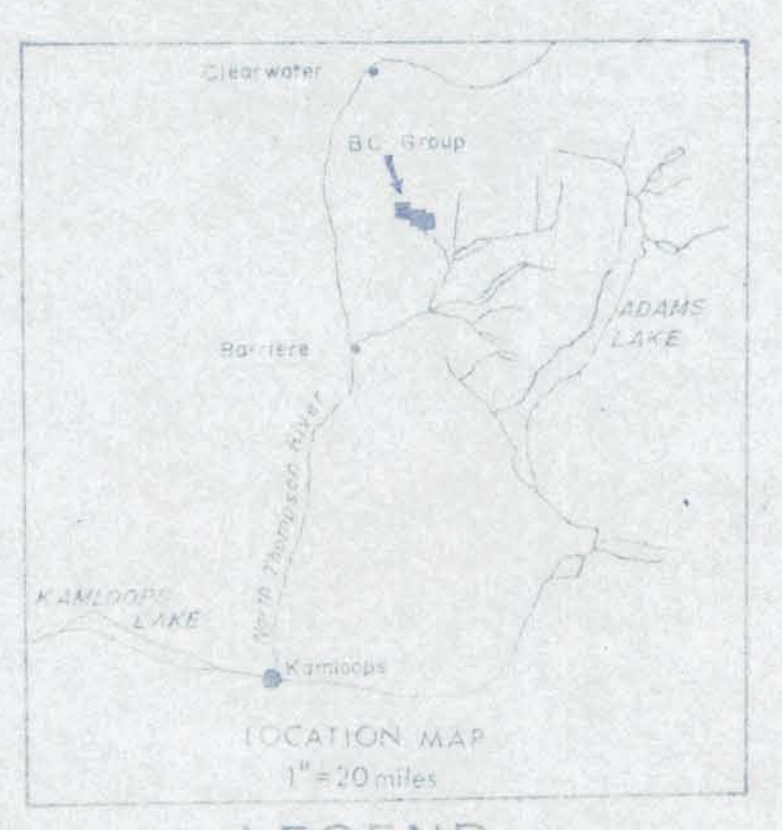
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CRAIGMONT MINES LIMITED
 KAMI GROUPS, B.C.
 82M/5 BC GROUP
GEOCHEMICAL PLAN

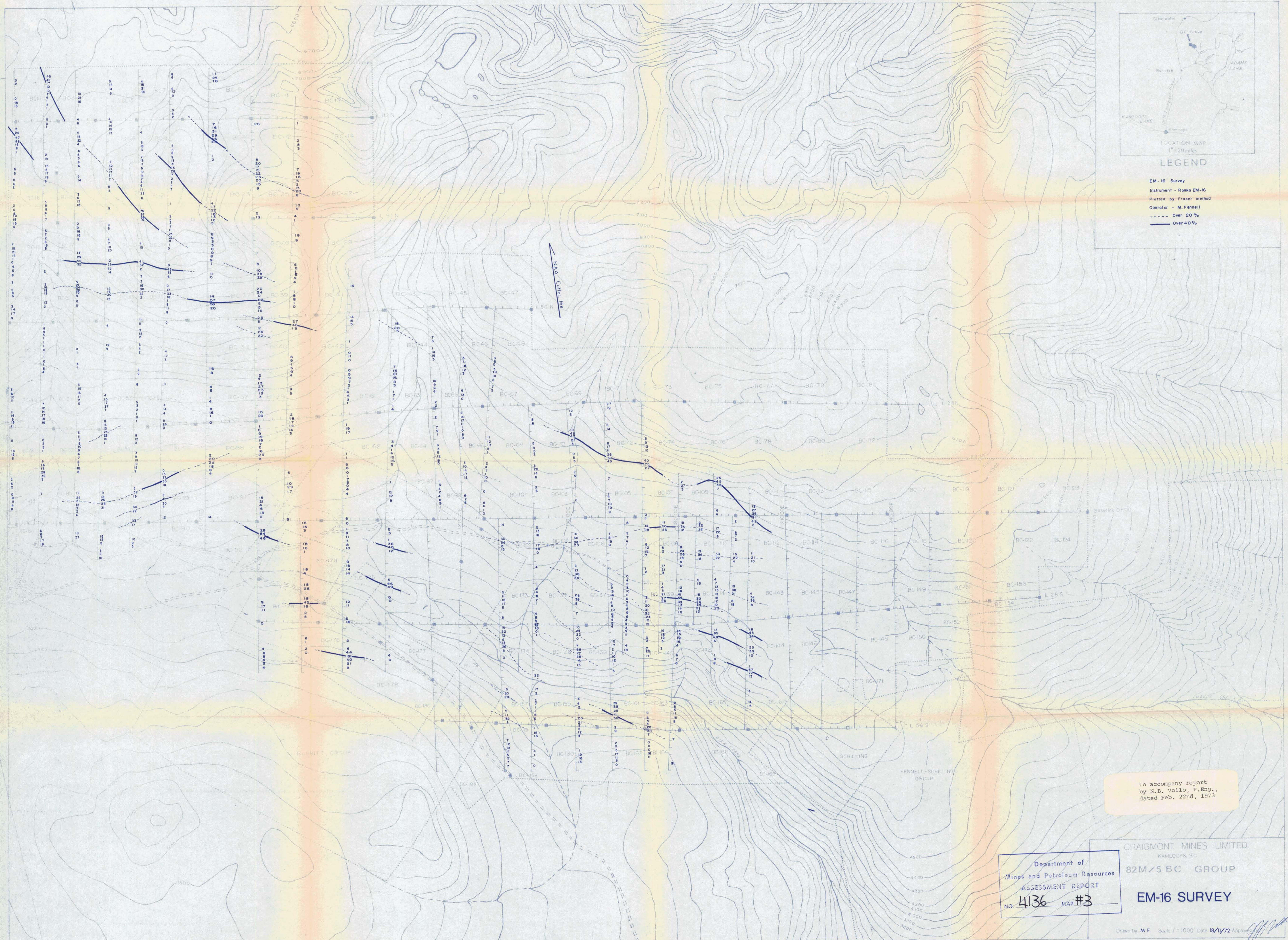
Mo/Pb

Drawn by MF Scale 1" = 1000' Date 15/11/72



LEGEND

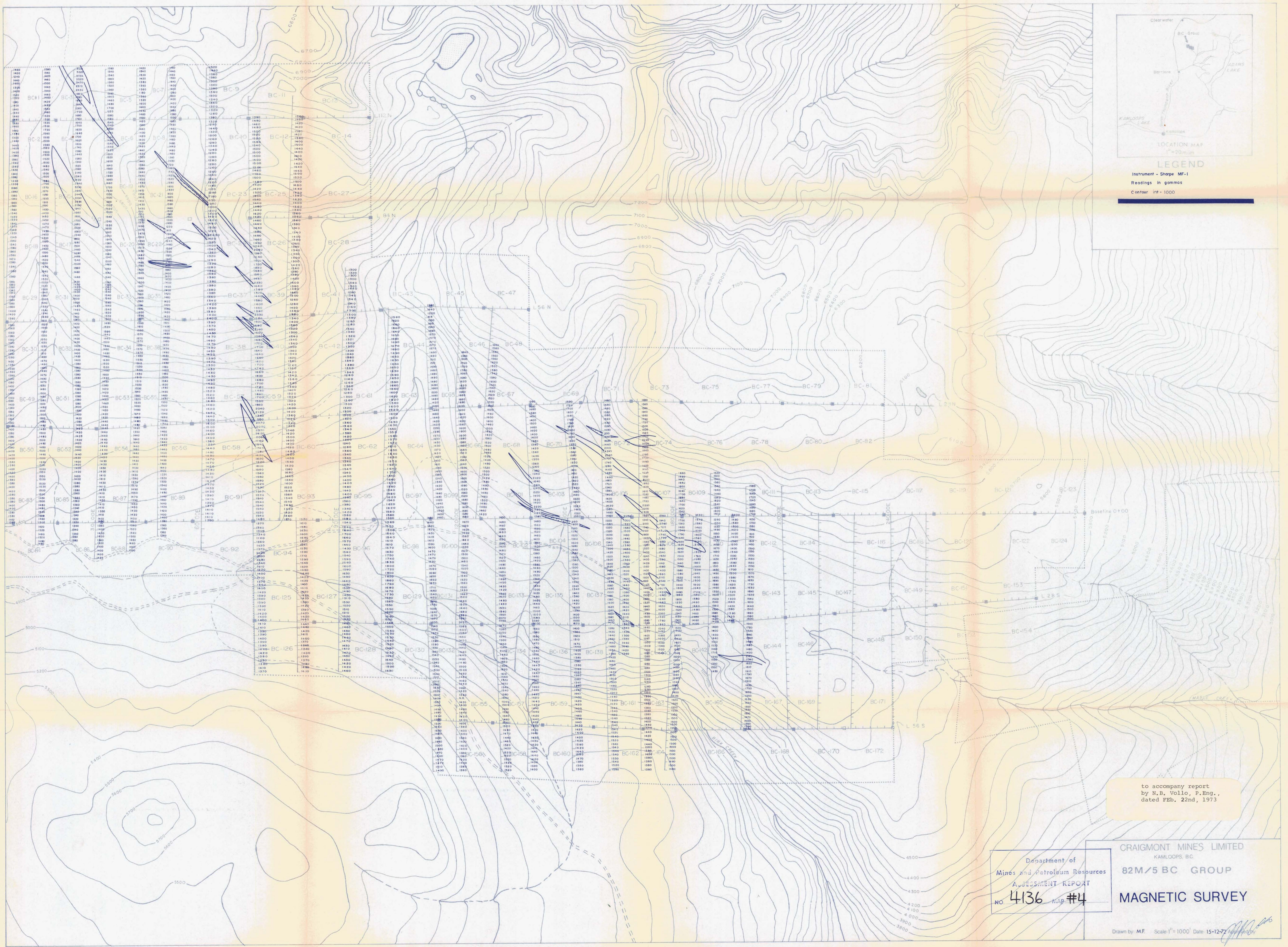
- EM-16 Survey
- Instrument - Ronko EM-16
- Plotted by Fraser method
- Operator - M. Fennell
- Over 20%
- Over 40%



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CRAIGMONT MINES LIMITED
KAMLOOPS, B.C.
82M/5 BC GROUP
EM-16 SURVEY



Clearwater
BC Group
Barron
KAMLOOPS LAKE
LOCATION MAP
1"=20 miles

LEGEND

Instrument - Sharpe MF-1
Readings in gammas
Contour int - 1000

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CRAIGMONT MINES LIMITED
KAMLOOPS, B.C.
82M/5 BC GROUP
MAGNETIC SURVEY