5731

EXPLORAM MINERALS LTD.

1004 - 510 West Hastings Street,

Vancouver, B.C.

# GEOCHEMICAL SURVEY ON THE HS MINERAL CLAIMS

CARIBOO MINING DIVISION

N.T.S. 93 A-6

E.D. Cruz, P.Eng.

October, 1975

TABLE OF CONTENTS

EXPLORAM MINERALS LTD.

GEOCHEMICAL SURVEY ON THE HS MINERAL CLAIMS

INTRODUCTION

On September 26-29, the undersigned and Mr. Daniel M. Basco, undertook a follow-up geochemical survey on the HS-2, 4, 5, 6, 7, 8, 9, 10, 11, and 29 mineral claims on behalf of Exploram Minerals Ltd.

The purpose of the survey was to verify the western continuity of the copper geochemical anomalies delimited in our previous survey of the adjoining claims (HS-5 and 6).

LOCATION AND ACCESS:

The claim group is situated near Mica Lake, about 6 miles southeast of Horsefly, B.C., Cariboo Mining Division, at the following geographic position: Latitude 52°15.4' N and Longitude 121°22' W.

Horsefly is joined to Highway 97 at 150 Mile House by 35 miles of mainly gravel surfaced road.

Access to the claims is by a 4-wheel drive road that turns off to the south from the Starlike Lake road near the Starlike Lake resort. Alternative access is through a company-built 4 x 4 access road that turns off to the east from Starlike Lake road and leads to Mica Lake. The claims are traversed by a well cut base line.

PROPERTY:

The surveyed area covers a portion of the 49 contiguous HS claims owned by Exploram Minerals Ltd. Following are details as covered in grouping notices for claim groups HS-C and HS-D:

| Expiry Date | Claim Name | Record No. | Date Recorded |
|---|---|---|---|
| HS-C Group | | | |
| July 6, 1977 | HS 1 | 68940 | July 6, 1973 |
| " | HS 2 | 68941 | " |
| " | HS 4 | 68943 | " |
| " | HS 9-14 incl. | 68948-68953 | " |
| " | HS 18 | 68957 | " |
| " | HS 20 | 68959 | " |
| " | HS 21 | 68960 | " |
| " | HS 23 | 68962 | " |

Continued on next page

| Expiry Date | Claim Name | Record No. | Date Recorded |
|---|---|---|---|
| July 6, 1977 | HS 25 | 68964 | July 6, 1973 |
| " | HS 27 | 68966 | " |
| July 20, 1977 | HS 29 | 69141 | July 20, 1973 |
| August 10, 1977 | HS 33 | 69409 | August 10, 1973 |
| " | HS 34 | 69410 | " |
| " | HS 45 | 69421 | " |
| October 26, 1976 | HS 50-52 incl. | 70907-70909 | October 26, 1973 |
| HS-D Group | | | |
| July 6, 1979 | HS 3 | 68942 | July 6, 1973 |
| " | HS 5 | 68944 | " |
| " | HS 6 | 68945 | " |
| " | HS 7 | 68946 | " |
| " | HS 8 | 68947 | " |
| July 6, 1978 | HS 15 | 68954 | " |
| July 6, 1977 | HS 16 | 68955 | " |
| July 6, 1978 | HS 17 | 68956 | " |
| " | HS 19 | 68958 | " |
| August 10, 1977 | HS 35-38 incl. | 69411-69414 | August 10, 1973 |
| October 26, 1976 | HS 53 | 70910 | October 26, 1973 |
| October 26, 1978 | HS 54-57 incl. | 70911-70914 | " |
| October 3, 1978 | HS 47 Fraction | 70134 | October 3, 1973 |

TOPOGRAPHY:

The surveyed claims lie in an area of moderately flat topography with maximum elevation of 3000 feet above sea level. The area is characteristically swampy to the north and west. The main drainage is served by a creek that discharges to the south arm of Starlike Lake.

GENERAL GEOLOGY:

The area is largely covered with glacial deposit and recent alluvium representing about 97-98% of the area.

A mineralized quartz monzonite dyke striking almost E-W and which appear to intrude a coarse-grained recrystallized tuff was seen outcropping to the east of the surveyed area. Abundant angular floats of the mineralized dyke material was traced intermittently to the west for a distance of about 4500 feet from the outcrop.

An outcrop of dark coloured, highly indurated basaltic lava flow was seen to the west of station 80 E, 105 N.

The dominant float in the area consists of basalts and minor coarse grained and rounded quartz monzonite devoid of mineralization.

GEOCHEMICAL SURVEY

Survey Grid:

The grid was previously established by an I.P. survey crew who conducted a follow-up induced polarization in the summer of 1973. This grid consisted of a base line (100 N) ran along a bearing of S 65 E and cross lines perpendicular to the base line established every 400 feet. Stations every 200 feet are marked along the cross lines.

Soil Profile and Sampling Procedure:

With the exception of swampy grounds where humous cover is up to 2 feet or more thick, the soil profile consists of 1-6" of buff coloured soil (A horizon), 1-8" of brown sandy to clayey soil (B horizon) underlain by buff coloured till containing fragments, pebbles and boulders of different rocks mainly of volcanic composition.

Soil samples are obtained from the B horizon when present, otherwise from the C horizon.

Sampling method consists of digging a hole by mattock every 200-foot station. The hole was made deep enough to reach the B or C horizon. Using a hand trowel, about 200 grams of soil are collected and put in soil sample bags provided by the geochemical laboratory.

A total of 121 soil samples were collected and assayed for copper and gold content.

Analyses:

Samples are sent to Min-En Laboratories Ltd. at 705 West 15th Avenue, North Vancouver, and analysed for copper and gold.

The samples are dried overnight at 95° C and sieved through 80-mesh screen. For copper, a 1-gram sample is digested for 6 hours by nitric and perchloric acid mixture. The copper content is determined by atomic absorption.

For gold, a 5-10 gram sample is digested with nitric and perchloric acid mixture and later by aqua regia. Aliquot portion of the resulting solution is taken and the gold extracted with methyl iso-budyl ketone. The gold content is determined by atomic absorption.

Details of the laboratory procedure by Min-En Laboratories Ltd. are attached as Appendix 2 and 3.

INTERPRETATION

The enclosed geochemical map, drawn to a scale of 400 feet to one inch, shows the result of analyses of the samples for copper and gold.

The copper content of the soil ranges from 8 ppm to 110 ppm. Background was estimated at 30 ppm Cu. Values above 30 ppm are considered anomalous.

A discontinuous copper anomaly depicted by the 30+ ppm contour line was delimited. This linear anomaly could be caused by mineralized boulder train traced over a distance of about 4500 feet from a mineralized quartz monzonite outcrop to the east of the surveyed area. The anomaly is relatively weak and small in dimension to be considered a significant target for a potential low grade copper possibility.

Gold content of the soil ranges from less than .01 to .02 ppm. No significant trend was indicated.

Respectfully submitted,

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
ERNESTO D. CRUZ

Vancouver, B.C.
October 27, 1975.

Ernesto D. Cruz, P.Eng.,
Exploration Geologist.

# STATEMENT OF QUALIFICATIONS - E.D. CRUZ

I, Ernesto D. Cruz, of 8596 Terrace Drive, Delta, B.C., HEREBY CERTIFY THAT:

(1) I am a graduate Mining Engineer at Mapua Institute of Technology, Philippines (B.A.Sc. 1960) and University of Washington, Seattle, Washington (M.A.Sc. 1971).

(2) I am a member of the Association of Professional Engineers of B.C. (Mining Section).

(3) I have worked in mineral exploration for about eleven years (1960-1967, Philippines; 1967-present, British Columbia).

(4) I conducted the geochemical soil sampling on the HS Minerals Claims on behalf of Exploram Minerals Ltd., during the period September 27th to September 29th, 1975.

(5) I have no interest directly or indirectly in the HS Mineral Claims or the securities of Exploram Minerals Ltd., nor do I expect to acquire or receive any.

ERNESTO D. CRUZ, P.ENG.


Ernesto D. Cruz, P.Eng.

DATED at Vancouver, British Columbia,
this 27th day of October, 1975.

# REPORT OF EXPENDITURES

## HS-C CLAIM GROUP

| | | | |
|---|---|---|---|
| 1. Salaries and Wages: | | | |
| E. Cruz (PEDCO) | 2 days @ $64.00/day | $128.00 | |
| D. Basco | 2 days @ $50.00/day | 100.00 | |
| 2. Food and Lodging | 2 days @ $25.00/day | 50.00 | |
| 3. Transportation: | | | |
| Truck rental: | 2 days @ $20.00/day | 40.00 | |
| Gas | | 36.00 | |
| 4. Soil analyses (CO, RO) | 87 samples @ $4.85/sample | 422.00 | |
| 5. Report preparation (includes drafting & typing) | | 200.00 | |
| Total | | | $976.00 |

## HS-D CLAIM GROUP

| | | | |
|---|---|---|---|
| 1. Salaries and Wages: | | | |
| E. Cruz | 1 day @ $64.00/day | $ 64.00 | |
| D. Basco | 1 day @ $50.00/day | 50.00 | |
| 2. Food and Lodging | 1 day @ $25.00/day | 25.00 | |
| 3. Transportation: | | | |
| Truck rental: | 1 day @ $20.00/day | 20.00 | |
| Gas | | 18.00 | |
| 4. Soil analyses | 33 samples @ $4.85/sample | 160.05 | |
| 5. Report preparation (includes drafting & typing) | | 100.00 | |
| Total | | | $437.05 |

# GEOCHEMICAL ANALYSIS BY MIN-EN LABORATORIES LTD.

Samples are processed by Min-En Laboratories Ltd. at 705 W. 15th St., North Vancouver Laboratory employing the following procedures:

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by jaw crusher and pulverized by ceramic plated pulverizer.

1.0 gram of the samples are digested for 6 hours with $HNO_3$ and $HClO_4$ mixture.

After cooling samples are diluted to standard volume. The solutions are analysed by Atomic Absorption Spectrophotometers.

Copper, lead, zinc, silver, cadmium, cobalt, nickel and manganese are analysed using the $CH_2H_2$-Air flame combination but the molybdenum determination is carried out by $C_2H_2$-$N_2O$ gas mixture directly or indirectly (depending on the sensitivity and detection limit required) on these sample solutions.

For Arsenic analysis a suitable aliquote is taken from the above 1 gram sample solution and the test is carried out by Gutzit method using Ag $CS_2$ N $(C_2H_5)_2$ as a reagent. The detection limit obtained is 1. ppm.

Fluorine analysis is carried out on a 200 miligram sample. After fusion and suitable dilutions the fluoride ion concentration in rocks or soils samples are measured quantitatively by using fluorine specific ion electrode. Detection limit of this test is 10 ppm F.

Copy of procedure as provided by Min-En Laboratories Ltd.

# GOLD GEOCHEMICAL ANALYSIS BY MIN-EN LABORATORIES LTD.

Geochemical samples for Gold processed by Min-En Laboratories Ltd. at 705 W. 15th St., North Vancouver Laboratory employing the following procedures:

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed and pulverized by ceramic plated pulverizer.

A suitable sample weight 5.0 or 10.0 grams are pretreated with $HNO_3$ and $HClO_4$ mixture.

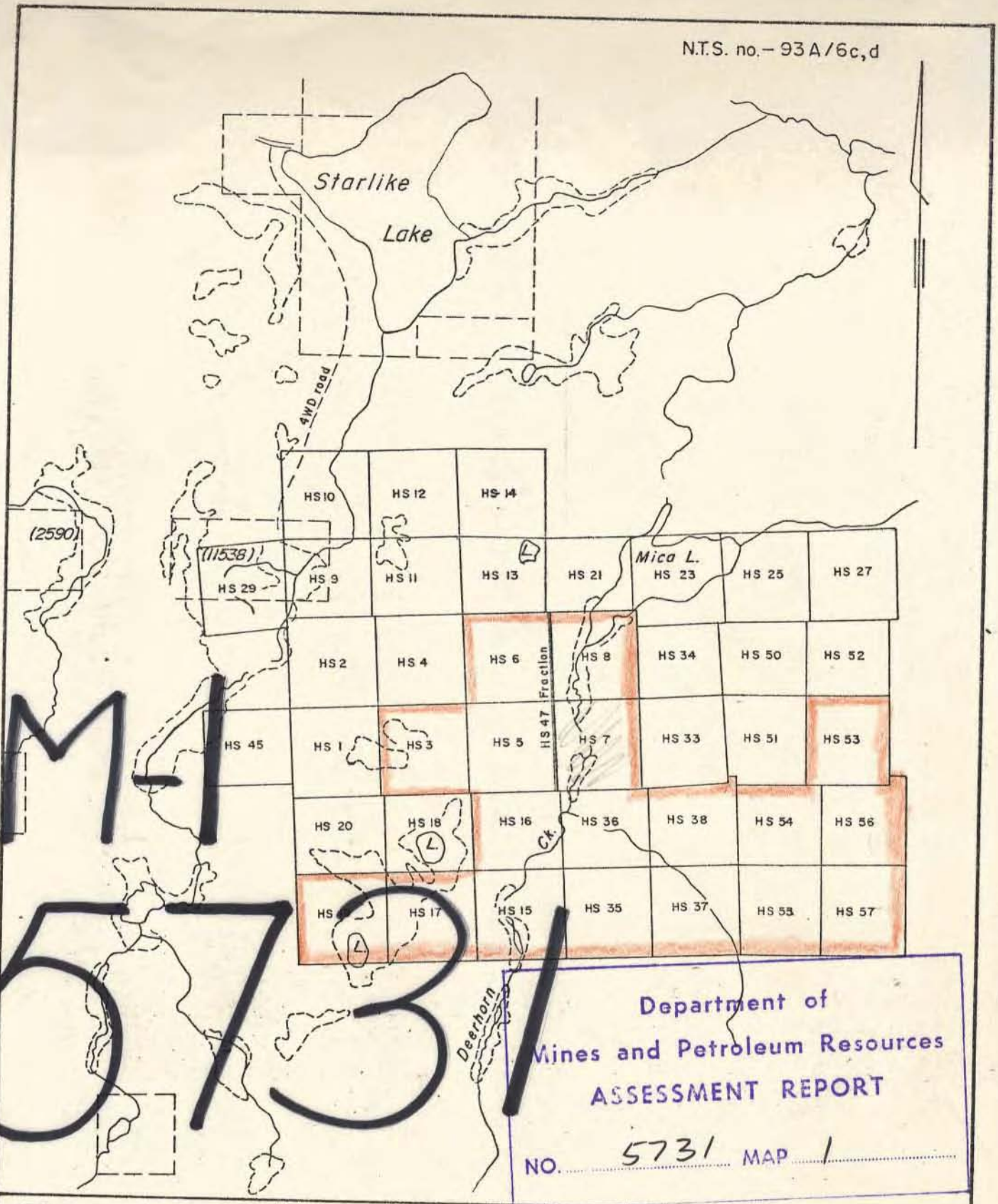
After pretreatments the samples are digested with Aqua Regia solution, and after digestion the samples are taken up with 25% HCl to suitable volume.

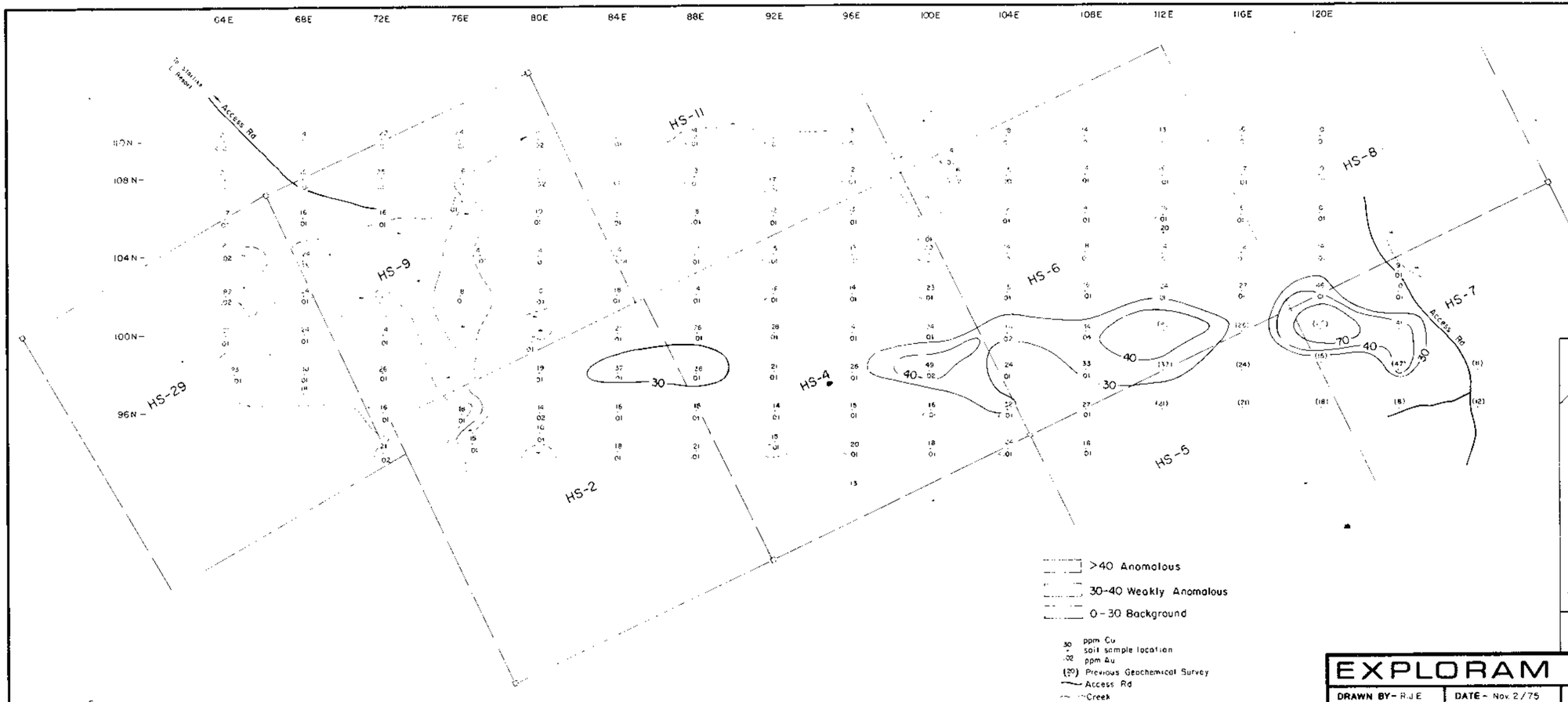
At this stage of the procedure, copper, silver, and zinc can be analysed from suitable aliquote by Atomic Absorption Spectrophotometric procedure.

Further oxidation and treatment of least 75% of the original sample solutions are made suitable for extraction of gold with Methyl Iso-Butyl Ketone.

With a set of suitable standard solution gold is analysed by Atomic Absorption instruments. The obtained detection limit is 0.01 ppm (10 ppb).

Copy of procedure as provided by Min-En Laboratories Ltd.


N.T.S. no.– 93A/6c,d
Starlike
Lake
4WD road
(2590)
(11538)
HS 10
HS 12
HS 14
HS 29
HS 9
HS 11
HS 13
HS 21
Mica L.
HS 23
HS 25
HS 27
HS 2
HS 4
HS 6
HS 47 Fraction
HS 8
HS 34
HS 50
HS 52
HS 45
HS 1
HS 3
HS 5
HS 7
HS 33
HS 51
HS 53
HS 20
HS 18
HS 16
Ck.
HS 36
HS 38
HS 54
HS 56
HS 17
HS 15
HS 35
HS 37
HS 55
HS 57
Deerhorn
M-1
5731
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5731 MAP 1
EXPLORAM MINERALS LTD.
(11538) Land Lot
Swamp or Meadow
HS–C Claim Group
HS –D Claim Group
HS Claims
Cariboo M.D.
Scale
0
6000
feet
Nov. 2/75
R.J.E.




# EXPLORAM MINERALS LTD.

| | |
|---|---|
| DRAWN BY- R.J.E | DATE- Nov. 2/75 |
| APPROVED BY- | N.T.S. NO.- 93A/6 |
| FILE NO.- | DRAWING NO.- |
| SCALE - 1"=400'=122 M (approx.) 1cm = 48meters | |

## Geochemical Map
## HS Claims
Cariboo M.D., B.C.