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SOIL GEOCHEMISTRY REPORT  
ON THE  
DOME NORTH AND FORKS CLAIM GROUPS  
(DOME MOUNTAIN GOLD PROJECT)

for  
Canadian United Minerals Inc.  
Owner/Operator

NTS 93L/10E, 15E  
Omineca Mining Division

Latitude 54°45'N

Longitude 126°37'W

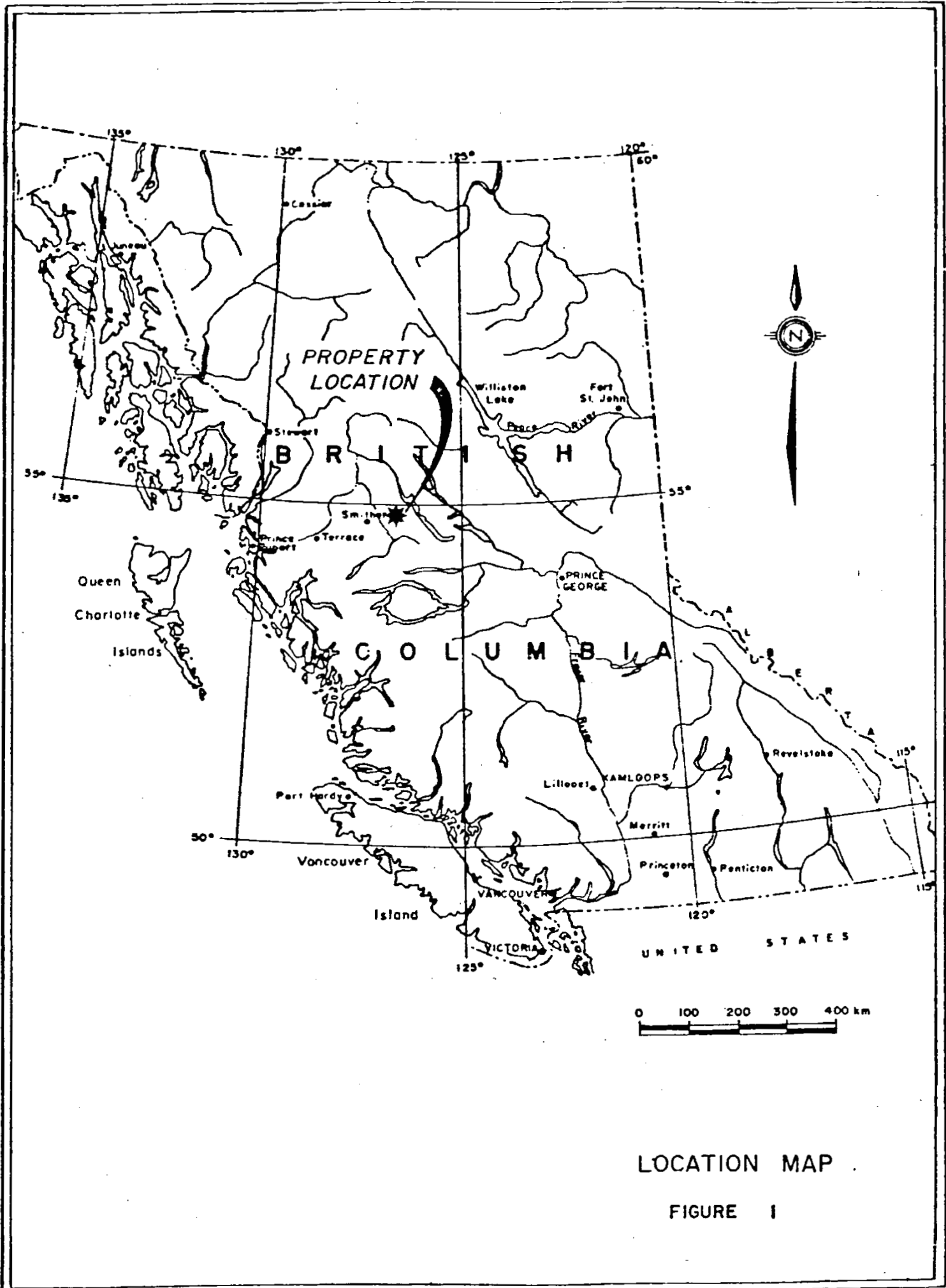
January 9, 1987

Robert Holland, B.Sc., F.G.A.C.  
Holland Geoservices Ltd.

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GEOLOGICAL BRANCH  
ASSESSMENT REPORT

FILMED



LOCATION MAP

FIGURE 1

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## SUMMARY

The Dome Mountain Gold property (Dome North and Forks claim groups) is comprised of claims and reverted crown granted claims totalling 193 units. These are located on Dome Mountain near Smithers, B.C., and cover important gold-silver mineralization currently being developed by Canadian United Minerals Inc. and partners. Drill indicated ore reserves from the Boulder Creek zone, on the eastern flank of Dome Mountain, are estimated at 240,000 tonnes grading 16.6 g/T gold and approximately 78 g/T silver. Significant gold-silver mineralization has also been reported from at least twelve other showings located within the property.

In 1986, a reconnaissance soil geochemistry program was conducted on behalf of Canadian United Minerals Inc. and others, over much of Dome Mountain and adjoining upland areas. A total of 2187 samples were collected from the Dome North and Forks groups as part of this program. Results show numerous anomalous and strongly anomalous values for copper, lead, zinc, silver, and arsenic. Many of the samples were anomalous for more than one element, and coincidental relationships were noted particularly between copper-silver and, to a lesser degree, between lead-zinc and zinc-silver. The strongest concentrations of anomalies occur in the western portions of the property. Values to 1367 ppm zinc, 1840 ppm copper, 397 ppm lead, 4.3 ppm silver, and 449 ppm arsenic were obtained.

Numerous geochemical targets have been outlined in the area of the property, but more detailed work is needed to fully assess their importance. Work recommendations include prioritized infill and follow up soil sampling and prospec-

ting of these target zones, followed by trenching and eventually diamond drilling.

#### LOCATION AND ACCESS

The Dome North-Forks claim groups are located on Dome Mountain in north central British Columbia, 35 kilometers east of the town of Smithers and 700 kilometers north northwest of Vancouver. The property is centered at 54°45'N latitude and 126°37'W longitude. The Dome Mountain terrain is for the most part moderately to gently sloping, culminating in a broad dome-shaped summit area. Elevations on the property range from 1005 to 1753 meters (3300 to 5750 feet). Most of the claims area is well timbered primarily with balsam fir and lesser spruce. In the higher regions, the vegetation is largely subalpine to alpine with treeline occurring at roughly 1525 meters (5000 feet) elevation.

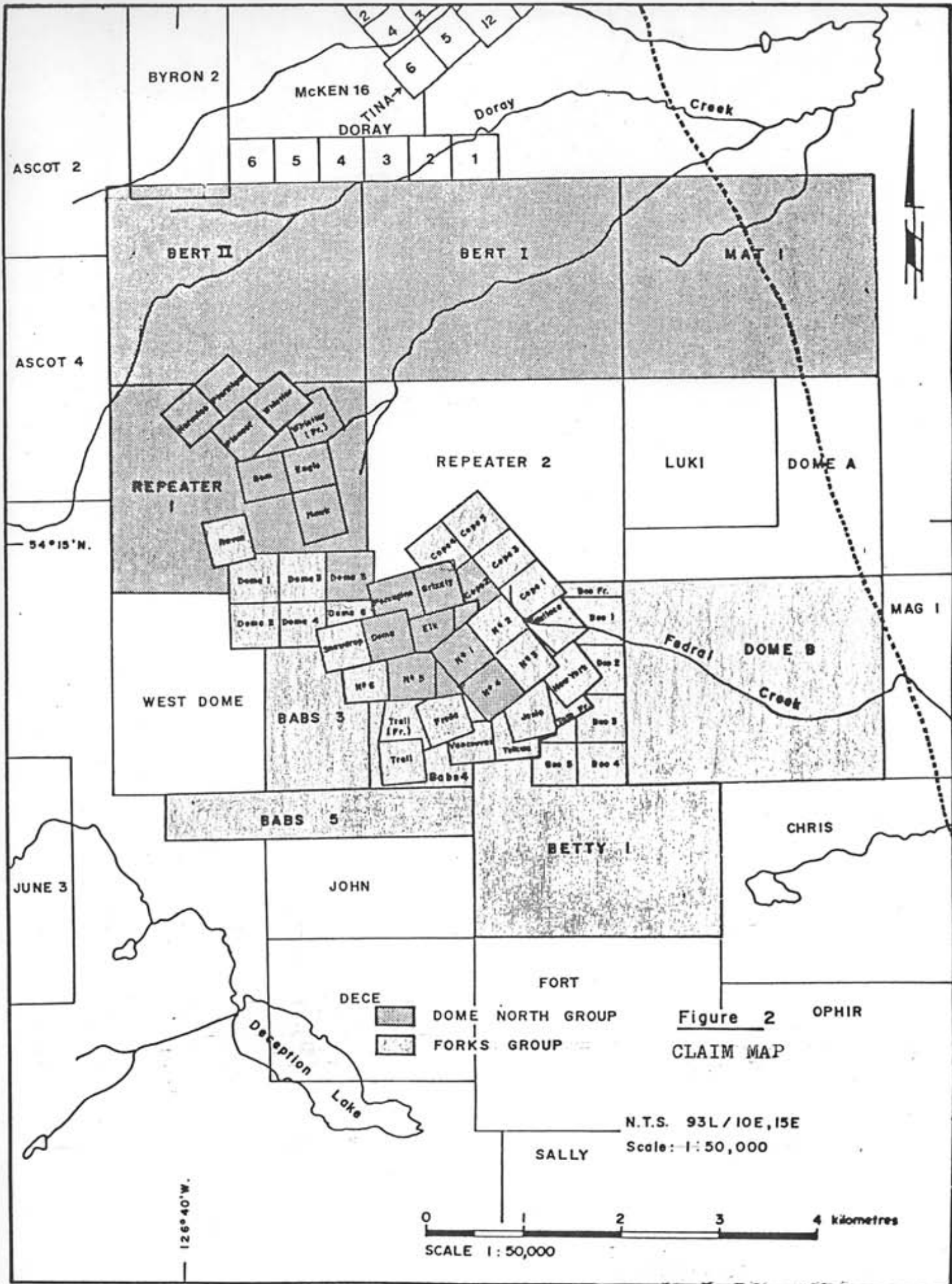
Access to the property is via the Babine and Chapman Lake Forest Roads, approximately 60 kilometers from Smithers. The Chapman Lake Forest Road, a major logging access route, traverses the eastern edge of the claims. From here, a recently upgraded dirt road extends up the eastern flank of the mountain to the area of the Boulder Creek zone. Several old branch roads or trails lead off this road and access other regions of the property. Most of these are passable only to all terrain type vehicles. One such route, the old Dome Babine Road, runs over the summit of Dome Mountain and connects with a four wheel drive road which extends up the western slope. Access to this region is via the rough but passable Guess Lake Road. More remote regions of the property can be reach by helicopter from several bases in the Smithers area.

The town of Smithers is an important government and supply center for the outlying Bulkley Valley region. The area is serviced by major highway and railway facilities as well as an airport with daily scheduled flights to Vancouver, Prince George, and Terrace.

CLAIM STATUS

The Dome North-Forks groups are comprised of the following contiguous mineral claims located in the Omineca Mining Division. (See Figure 2)

<u>Dome North</u>			
<u>Claim Name</u>	<u>Record #</u>	<u>Units</u>	<u>Record Date</u>
Bert 1-2	4831-2	40	82/10/12
Bertha Fr.	1553	10G	78/11/08
Cope 2	4501	1	81/10/02
Dome	1538	10G	78/11/08
Dome 5	1627	1	79/03/01
Eagle	1534	10G	78/11/08
Eagle Fr.	1535	10G	78/11/08
Elk	1552	10G	78/11/08
Gem	1550	10G	78/11/08
Grizzly	1530	10G	78/11/08
Hawk	1558	10G	78/11/08
Hercules	1536	10G	78/11/08
Mat 1	3839	20	81/07/16
No. 1	1559	10G	78/11/08
No. 4	1561	10G	78/11/08
No. 5	1544	10G	78/11/08
Pioneer	1549	10G	78/11/08
Porcupine	1551	10G	78/11/08
Ptarmigan	1529	10G	78/11/08
Repeater 1	3408	20	80/11/04



Triangle Fr.	1537	1CG	78/11/08
Whistler	1542	1CG	78/11/08
Whistler Fr.	1543	1CG	78/11/08

Forks

<u>Claim Name</u>	<u>Record #</u>	<u>Units</u>	<u>Record Dates</u>
Babs 3-4	1983-5	22	79/08/28
Betty 1	6041	20	84/02/15
Boo 1-5	3951-5	5	81/07/23
Boo Fr.	3950	1	81/07/23
Cope 1	4500	1	81/10/02
Cope 3-5	4502-4	3	81/10/02
Dome 1-4	1623-6	4	79/03/01
Dome 6	1628	1	79/03/01
Dome B	3566	20	81/02/12
Freda	1546	1CG	78/11/08
Josie	1531	1CG	78/11/08
New York	1554	1CG	78/11/08
No. 2	1557	1CG	78/11/08
No. 3	1540	1CG	78/11/08
No. 6	1541	1CG	78/11/08
Raven	1532	1CG	78/11/08
Snowdrop	1556	1CG	78/11/08
Telkwa	1533	1CG	78/11/08
Tom Fr.	1548	1CG	78/11/08
Trail	1555	1CG	78/11/08
Trail Fr.	1547	1CG	78/11/08
Vancouver	1539	1CG	78/11/08
Victoria Fr.	1545	1CG	78/11/08
Wallace	1560	1CG	78/11/08
Wallace Fr.	1562	1CG	78/11/08



## INTRODUCTION

Mineral exploration in the Dome Mountain area dates back to 1898, and significant gold mineralization was first reported in 1915. In 1921, many of the claims were optioned to a syndicate headed by T.E. Jefferson who conducted extensive sampling and surface work. By 1923, the claims had been bought and crown granted by the Dome Mountain Gold Mining Co., a subsidiary of the Federal Mining and Smelting Co. Extensive surface and underground work was carried out on a number of veins including the Forks, Cabin, Jane (Snowdrop), and Ptarmigan. At least 381 meters (1250 feet) of crosscutting and drifting, and 42 meters (137 feet) of shaft were reported on the above four veins during this period. Work was halted in 1924 but the property was held for many years after.

Renewed prospecting during the 1930's resulted in the discovery of the Free Gold showings further to the east. These claims were optioned to Babine Gold Mines Ltd. which did extensive trenching and stripping and at least 233 meters (765 feet) of crosscutting and drifting underground between 1933 and 1935. Eleven veins were intersected, three of which showed promising widths. Good gold grades were reported and in 1940, a shipment of 2235 tonnes of ore was made from the Free Gold property.

Subsequent to 1940, little new development work was done until 1967-69, when Dome Babine Mines Ltd. carried out a program on the Free Gold which included magnetometer, VLF-EM-16, and soil geochemistry surveys as well as trenching, diamond drilling and 287 meters of further underground development. Further geological, I.P., magnetic

and soil surveys were also done by Amoco Petroleum in 1972, Armsrong in 1973, and P. Plicka in 1975. In November, 1978, a draw was held for the 34 crown granted claims on Dome Mountain. These were awarded to agents for Silver Standard Mines Ltd., MacIntyre Mines Ltd. and several local individuals.

Reako Explorations Ltd. and Panther Mines Ltd. subsequently obtained options on most of the Dome Mountain claims and in 1981-82 conducted further work, primarily on the Free Gold showings. This work included seven diamond drill holes and a limited scale mining operation which reportedly recovered a total of 7931 grams (255 oz) of gold and 14,617 grams (470 oz) of silver using a small portable mill.

In 1984, Noranda Exploration Co. Ltd. optioned most of the Dome Mountain claims, exclusive of the Free Gold property. During 1984-85, Noranda carried out a program of soil geochemistry, geological mapping, trenching and some diamond drilling. As part of this program, a detailed soil grid was established to cover many of the known showings. Anomalous samples were tested by more detailed follow up sampling and many of the higher priority targets were backhoe trenched. Several new showings, including the Boulder Creek zone, were discovered in this manner. Canadian United Minerals Inc. acquired Noranda's option in 1985 and, with partner Teeshin Resources Ltd., had carried out extensive drilling of the Boulder Creek zone. Drill indicated reserves for this zone are currently estimated at 240,000 tonnes grading 16.6 grams per tonne (0.485 oz/ton) gold and roughly 78 grams per tonne (2.28 oz/ton) silver.

During the summer of 1986, a reconnaissance grid soil geochemistry program was undertaken to cover areas of the

property peripheral to the Noranda grid. This program is the subject of this report.

## GEOLOGY

Much of the following geological description is summarized from MacIntyre (1985). The Dome Mountain area is underlain predominantly by subaerial to submarine volcanic, volcanoclastic and sedimentary rocks of the Hazelton Group. The Hazelton Group is an island-arc assemblage that was deposited in the northwest trending Hazelton Trough during Early to Middle Jurassic time. Three major formations have been recognized in the Smithers area. The oldest, thickest and most extensive is the Telkwa Formation which is comprised of subaerial and submarine pyroclastic and flow rocks with lesser intercalated sedimentary rocks. Within the Dome Mountain area, the Telkwa Formation forms part of the Babine Shelf facies which separates the subaerial Howson facies to the west from the submarine Kotsine facies to the east. The Nilkitkwa Formation conformably to disconformably overlies the Telkwa Formation. East of Dome Mountain, it is comprised of marine sedimentary rocks with intercalated rhyolite to basalt flows. To the west, it consists of mainly red pyroclastic rocks. The Smithers Formation disconformably overlies the Nilkitkwa Formation and is comprised of fossiliferous sandstone, siltstone and lesser intercalated felsic tuff.

Several small elongated plugs or dykes of fine to medium grained diorite or diabase intrude the Hazelton Group rocks in the area. These mafic rich intrusions are probably Jurassic in age, and therefore members of the Topley Intrusions. Outcrops of altered quartz porphyry and

porphyritic quartz monzonite, with related quartz veining, have also been reported.

### MINERALIZATION

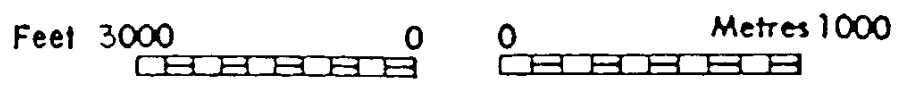
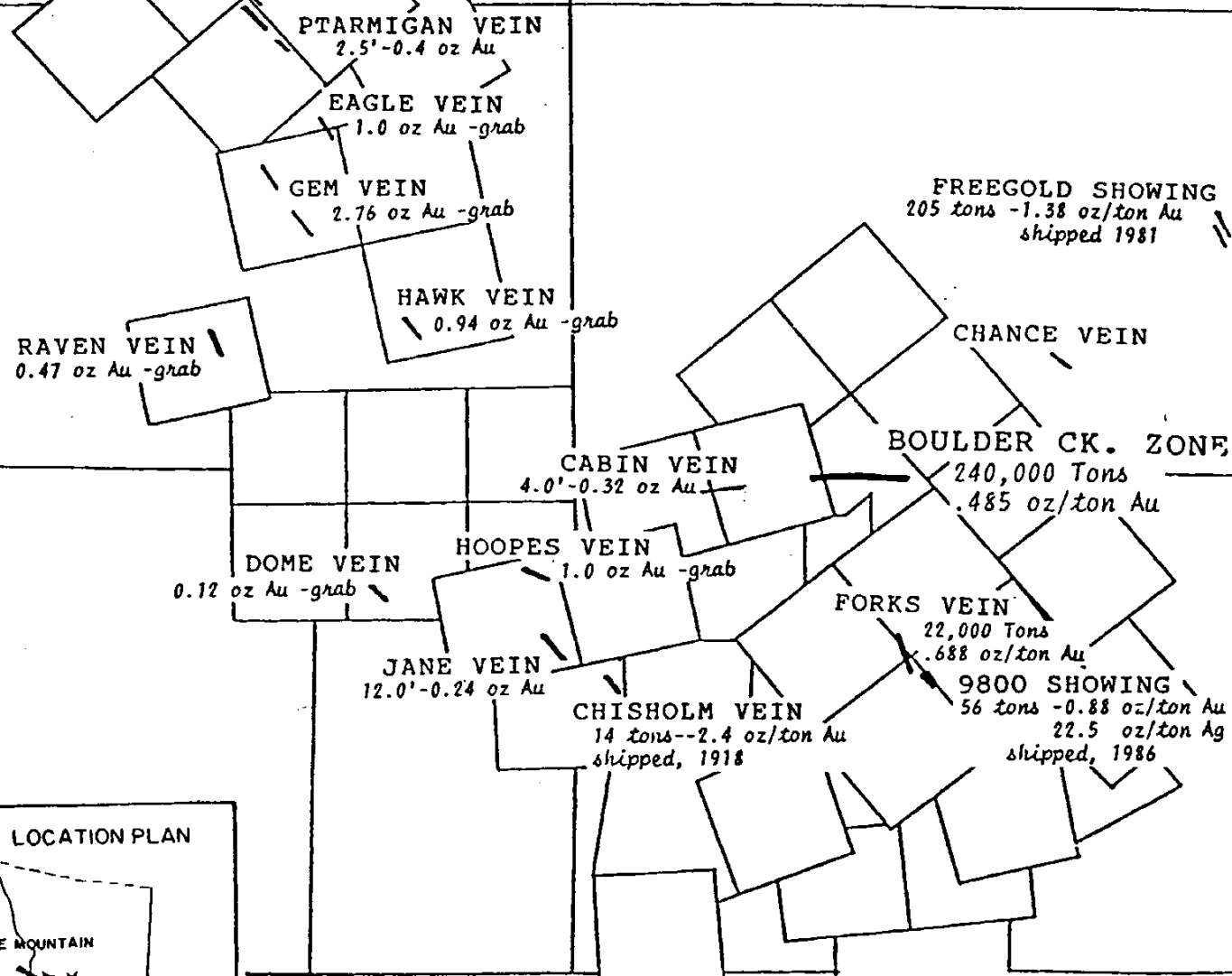
At least 15 major veins and mineralized structures have been investigated in the Dome Mountain area in the past. These are summarized in Figure 3. Most trend northwest, dipping steeply northeast or southwest; however, several, including the Boulder Creek and Cabin zones, trend more easterly. Most of these structures are hosted in foliated and altered tuff, both paralleling and crosscutting the foliation. Wall rock alteration consists largely of sericite-quartz-carbonate replacement and varies vein to vein from minor to intense.

Sulfide mineralization occurs mainly as pyrite with lesser amounts of sphalerite-chalcopyrite-tetrahedrite-galena-arsenopyrite in order of decreasing abundance. Gold occurs, associated with sulfide mineral boundaries, as electrum containing 18 to 23% silver. Silver also occurs as 2 to 4% in tetrahedrite. Silver to gold ratio is roughly 5 to 1.

### SOIL GEOCHEMISTRY

Previous work in the Dome Mountain and nearby regions has shown soil geochemistry to be an effective exploration tool. The Boulder Creek zone, for example, does not outcrop at surface and was found primarily from soil responses with follow up trenching and drilling. Gold geochemistry, however, has proven expensive and unreliable in tracing mineralization. It has been determined by previous work that there is a much better correlation between zinc geochemistry

# DOME MOUNTAIN GOLD AREA



TOTAL ERICKSON RESOURCES LTD.  
CANADIAN-UNITED MINERALS INC.  
REAKO EXPLORATIONS LTD.  
PANTHER MINES LTD.

## DOME MOUNTAIN GOLD PROJECT

### VEIN OCCURRENCES

Date : OCTOBER, 1986

Figure 3

and gold mineralization, and that therefore zinc is probably the better pathfinder element. Copper, silver, lead and arsenic are also used as potential sulfide indicators due to their presence in the mineralized structures.

A program of reconnaissance soil geochemistry was undertaken in 1986 by Canadian United Minerals Inc. and associated companies, to cover a large portion of the Dome Mountain-Mount McKendrick highland area. This project covered a region of approximately 90 square kilometers with nearly 9000 samples being collected. Work was carried out on a contract basis by Holland Geoservices Ltd., under the direction of the author. A field crew of three to five persons was used, and field work was carried out during the period June 15 to September 15, 1986.

The program involved expanding and extending the 1984-85 Noranda grid already established and cut on Dome Mountain. Noranda Baseline 100+00E was used as control for the 1986 work and was extended at 320° azimuth for 8200 meters. Parallel secondary baselines were also established, at 2000 to 2500 meter spacings where required for further control. Within the Dome Mountain Gold Project area, secondary baselines were utilized at 125+00E (130+00N to 146+00N), 120+00E (80+00N to 128+00N), and 75+00E (75+00N to 140+00N). Crosslines were established at 250 meter spacings along the baselines and run at azimuths of 50° and 230° between adjacent baselines. Sample sites and stations were established at 50 meter intervals along crosslines and appropriate portions of the baselines. All 1986 lines were run with compass and hip chain metering and both the lines and the stations were marked using colored flagging tape.

North and south of the main Noranda grid (north of

line 100+00N and south of line 90+00N) 500 meter spaced cut lines were previously established. These lines were extended to the northeast and southwest, and intermediate lines run between most of them. In the vicinity of baseline 100+00E between 130+00N and 146+00N, previous work had outlined a number of strong soil anomalies and at least one important mineral occurrence (the Ptarmigan vein). In this area, more detailed sampling was done. Eleven fill in lines, from 500 to 1200 meters long, were established at 100 meter spacings, with sampling at 25 meter intervals.

For the purpose of this survey, baseline 100+00E is taken as being straight and accurate and all other lines are corrected and adjusted on that basis. No control points have been established, so grid points and lines are accurate only relative to each other and to physical features represented on the enclosed plan maps. Other information such as claim posts, claim lines and previous soil grid lines were tied into the grid where noted. These points have been used to determine the approximate positions of pertinent claim boundaries and previous work. The position of the 1984-85 grid was taken from detailed Noranda maps and has been well tied in to current work.

A total of 2187 samples were collected from within the Dome North and Forks Groups, including 50 random, blind duplicate samples taken for laboratory control. In addition, 1410 samples were collected from the Doray (85 samples), John (210 samples), West Dome (238 samples), and Free Gold (877 samples) claim areas which immediately adjoin the Dome Mountain Gold Project area. Sampling was carried out with the aid of a prospector's mattock, as nealy as possible from the 'B' soil horizon. An effort was made to avoid organic rich, leached or disturbed material. If a good sample could

not be taken at a station, an attempt was made to collect one from nearby.

Samples were stored in labelled kraft soil bags and shipped to Acme Analytical Labs in Vancouver, B.C. for analysis. At the lab, the samples were oven dried overnight, then screened to -80 mesh. A 0.5 gram sample of screened material was digested with 3ml of aqua regia (3-1-2 HCl-HNO<sub>3</sub>-H<sub>2</sub>O) at 95° for 1 hour and then diluted to 10ml with distilled water. The solution was then analysed by standard ICP (inductively coupled argon plasma) techniques for copper, lead, zinc, silver and arsenic. All results are reported in parts per million (ppm).

#### Treatment of Data

During the course of the program, statistical evaluation and interpretation was undertaken on soil results from the Dome Mountain area. A total of 4019 data points were used including those for the Dome North, Forks, West Dome, Free Gold, John, Doray and Dece claim groups (see Figure 2). Soil values were subjected to computerized normal histogram plotting for each element using a program and equipment available through Acme Analytical Labs. Arithmetic mean and standard deviation calculations were also made; however, the resulting numbers were inconsistent with anticipated values and it appears there was a problem with this phase of data treatment. Detailed statistical evaluation was previously done by Noranda on some 2705 samples taken during their 1984 Dome Mountain soil program. Threshold numbers generated from their work were consistent with anticipated levels based on previous experience in the region and on visual examination of the histogram plots. It was therefore decided to use the Noranda calculations as a



basis for the 1986 anomalous population determinations.

Anomalous threshold levels were selected as approximately equal to the geometric mean plus two standard deviations (2S) for zinc and silver. Slightly higher values were used for copper and lead in order to eliminate a large number of marginally anomalous values. For arsenic, a much lower threshold level was chosen, as done by Noranda, due to the very low background values obtained, and due to the usefulness of arsenic as a gold pathfinder. It should be noted that an even lower threshold could have been used for arsenic, based on visual data evaluation, but the current level was selected to conform with the Noranda levels. Strongly anomalous threshold levels were arbitrarily selected as approximately twice the anomalous threshold, with rounding to produce convenient numbers. Histogram plots and a summarization of Noranda's statistical numbers are shown in Appendix 1. Threshold levels used in this report are summarized below:

<u>Element</u>	<u>Background</u>	<u>Anomalous</u>	<u>Strongly Anomalous</u>
Copper	0-60 ppm	61-100 ppm	+100 ppm
Silver	0-0.9 ppm	1.0 - 1.7 ppm	+1.7 ppm
Zinc	0-250 ppm	251-400 ppm	+400 ppm
Lead	0-25 ppm	26-50 ppm	+50 ppm
Arsenic	0-50 ppm	51-100 ppm	+100 ppm

Results for the Dome Mountain Gold Project area are plotted by element in Figures 4 to 8. Soil results for the adjoining Free Gold, Dece, McKen and Byron claim groups are covered under separate reports and have not been included. However, values from the adjoining Doray, John and West Dome claims are shown in the above figures for completeness and occasional reference is made to these results in the

following text. The wide line spacing and low sample density of the program were not conducive to standard sample contouring techniques. Anomalous values are therefore denoted by a small solid triangle, and strongly anomalous values by a larger solid triangle. In areas of overlap between Noranda grids and the current sampling, the locations of Noranda anomalies are also shown by a triangular symbol but with no indicated value.

### Discussion of Results

Anomalous results for the Dome North-Forks Groups are summarized below:

<u>Element</u>	<u># of Anomalous</u>	<u># of Str. Anomalous</u>	<u>Total</u>	<u>Highest Value</u>	<u>%*</u>
Copper	84	32	116	1840 ppm	5.30
Silver	76	17	93	4.3 ppm	4.25
Zinc	74	20	94	1367 ppm	4.30
Lead	41	17	58	397 ppm	2.65
Arsenic	41	22	63	449 ppm	2.88

\* percentage of total number of samples which were anomalous or strongly anomalous

#### a) Copper (Figure 4)

Anomalous values are relatively well dispersed throughout the property, but are strongest and more abundant in the western regions and weakest in the vicinity of the Dome B and Boo claims. Previous sampling by Noranda outlined several strong tight anomalous clusters, particularly in the Bert 2 claim vicinity. Strongly anomalous copper values were obtained in these areas in 1986, some of which extend and enlarge the previous zones. Aside from these few zones, strong clustering or grouping of anomalous results was

largely absent for copper in the 1986 samples.

b) Silver (Figure 5)

Silver has an anomalous distribution similar to that of copper and is commonly coincidental with that element. In fact, nearly 35% of the silver anomalies are also anomalous for copper, and many others show coincidental high background copper values. Unlike copper, however, silver does exhibit some clustering of values although this rarely exceeds 2 or 3 adjacent values.

c) Zinc (Figure 6)

Anomalous zinc values are mainly concentrated in the western portion of the property, particularly within the Repeater 1 and southern Bert 2 claims. Weaker concentrations are also found in the southern Babs 3, 4 and adjoining Babs 5 claims. Zinc shows a weak to moderate association with silver, but is only occasionally coincidental with copper. Clustering of values is common, particularly within the Repeater 1 claim. A strong zinc response, with some associated silver-copper, was obtained just south of the Ptarmigan vein, and may represent extensions of that zone. Some very highly anomalous values were also obtained just east of the Gem vein. Some of the strongest and most consistent anomalous zones, however, occur off the property on the adjoining West Dome claim.

d) Lead (Figure 7)

Lead exhibits a similar distribution of anomalies to zinc, and is commonly but not strongly coincidental with it. It is also occasionally associated with copper and silver,

however no consistent relationship was observed. Lead show very little dispersion of anomalous values, with nearly all the 1986 highs on the property being restricted to the Dome 2 and 4 claims, and to small areas within the Repeater 1 boundaries. On the Dome 2 and 4 claims, anomalous values are mainly concentrated in one large zone several hundred meters long, with values to 397 ppm. Within the Repeater 1 area, the strongest lead responses form two small clusters, one coincidental with zinc at the Ptarmigan vein and the other approximately 900 meters southeast and also associated with zinc highs. In addition to the above and not included in the anomalous data, is a vast concentration of lead anomalies, often strongly grouped, which lie off the claims in the northern half of the adjoining West Dome property.

e) Arsenic (Figure 8)

Anomalous arsenic values are also largely concentrated in distribution, this time being localized within the southern portions of the Babs 3, 4, and adjoining segments of the Babs 5 and West Dome claims. Strongly anomalous values are common in this region. To the north, a few high values were noted on the Repeater 1 and Bert 2 claims, but these are generally well scattered. Elsewhere, anomalous arsenic values are not common. Arsenic shows no strong correlation or spatial association with other elements, although it may occasionally be coincidental with lead or zinc responses. Some clustering of values is also apparent, the strongest of which occurs at the southwest corner of the Babs 3 claim (and adjoining Babs 5 and West Dome claims).

A number of the more significant appearing soil anomalies from within the property are summarized below in random order.

- 1) L122+50N, 87+50E - single sample - 828 ppm Zn, 1322 ppm Cu, 1.8 ppm Ag, 32 ppm Pb - Repeater 1 claim
- 2) L115+00N, 88+50E - 200 m. long zone - up to 206 ppm Cu, 2.9 ppm Ag, 397 ppm Pb - Dome 2 and 4 claims
- 3) L127+50N, 96+00E - three adjacent samples - up to 958 ppm Zn, 172 ppm Cu, 1.1 ppm Ag - Gem claim
- 4) L127+50N, 98+00E - two adjacent samples - up to 525 ppm Zn - Eagle claim
- 5) L132+50N, 95+75E - single sample - 1367 ppm Zn - Pioneer claim
- 6) L120+00N, 124+00E - two adjacent samples - up to 319 ppm Cu, 4.3 ppm Ag - Bert 1 claim
- 7) L95+00N, 113+00E - two adjacent samples - up to 380 ppm Zn, 51 ppm Pb, 102 ppm As - Dome B claim
- 8) L130+00N, 97+50E - a cluster 100 m. long across 3 lines (200 m.), associated with the Ptarmigan vein - up to 536 ppm Zn, 184 ppm Cu, 1.1 ppm Ag, 120 ppm Pb, 51 ppm As - Ptarmigan and Pioneer claims

#### CONCLUSIONS AND RECOMMENDATIONS

The 1986 soil geochemistry program on Dome Mountain was of a reconnaissance nature designated to quickly evaluate a sizable area, which previously has been largely untested, and to outline smaller targets for more detailed follow up work. The results of this work have produced numerous anomalies, ranging from weak to strong, which are generally small in size and well spaced, but can range up to several hundred meters in length. The strongest concentrations, highest values and largest anomalies occur principally in the western portion of the property.

The small size and dispersed nature of the majority of anomalies appears typical of the region, even in the

vicinity of major mineral occurrences such as the Boulder Creek zone. This is likely a reflection of the typical small size and variable grades of many of the deposits, and also due to possible overburden effects such as clay and till screening. Using the large sample intervals and wide line spacings of a reconnaissance grid increases the risk of missing or partially missing significant mineral occurrences, as is evidenced by the lack of soil responses at many of the known showings. As a result, all anomalous sample sites should be considered and followed up, and areas of weak response should not be written off entirely. For this reason, no definite conclusions can be made concerning the soil anomalies outlined to date except that any of them could be indicative of mineralization

Follow up soil sampling is recommended on as many anomalous areas as possible to confirm, delineate and prioritize these zones for more detailed work. Fifteen sample, closed spaced, mini-grids, along with prospecting of outcrop and soil holes, around each anomalous site, have proven effective in the past. High priority target areas could then be tested with expanded soil geochemistry, backhoe trenching, and eventually diamond drilling.

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STATEMENT OF COSTS - DOME NORTH GROUP

The following costs were incurred on behalf of Canadian United Minerals Inc. for work conducted on the Dome North Group of mineral claims located on Dome Mountain near Smithers, B.C. Field work was carried out during the period June 15 to September 15, 1986.

Camp Costs - 64.5 man-days @ \$24.62/day	\$1588.30
Geochemical Analysis (Cu, Pb, Zn, Ag, As) 1438 samples @ \$4.75/sample	6830.50
Equipment and Supplies	715.42
Equipment Rental 18.5 days @ \$20/day	370.00
Helicopter - 4 hours @ \$527.20/hr July 9,15, Sept.1,6	2108.78
Office Costs	32.83
Radio Rental and Calls	59.69
Transportation (gas, freight, airfare)	410.17
Truck Rental - 18.5 days @ \$30/day	555.00
Wages	
R. Holland, geologist/supervisor 18.5 days @ \$200/day Apr.27,May9,June5,15,19,20,24,30 July3,4,8-14,18,24-26,29 Sept.9,11,13,15,22,23,26,Oct.3,8	3700.00
T. Wilkins, field assistant 16.5 days @ \$125/day June15,29,30,July5-15,Sept.2-7	2062.50
M. Allen, field assistant 10 days @ \$125/day July3-15	1250.00
B. Ryan, field assistant 14 days @ \$125/day June21-23,July 5-15,Sept.2-7,13	1750.00
S. George, field assistant 1 day @ \$125/day July26,Aug.1	125.00
L. Trotter, field assistant 5.5 days @ \$125/day Sept.2-7	687.50
Total Costs	<u>\$22245.60</u>



STATEMENT OF COSTS - FORKS GROUP

The following costs were incurred on behalf of Canadian United Minerals Inc. for work conducted on the Dome B, Dome 1-4, Dome 6, and Betty mineral claims located on Dome Mountain near Smithers, B.C. Field work was carried out during the period June 15 to August 1, 1986.

Camp Costs - 10.5 man-days @ \$24.62/day	\$258.51
Geochemical Analysis (Cu, Pb, Zn, Ag, As) 381 samples @ \$4.75/sample	1809.75
Drafting - 9.0 hours @ \$20/hr	180.00
Equipment and Supplies	159.14
Equipment Rental 4.5 days @ \$20/day	90.00
Office Costs	
clerical - 5.5 hours @ \$10/hr	55.00
printing, copying	71.15
Radio Rental and Calls	26.03
Transportation (gas, freight, airfare)	75.67
Truck Rental - 4.5 days @ \$30/day	135.00
Wages	
R. Holland, geologist-supervisor 10 days @ \$200/day June 11, 18, 21, 22, 26, 28, 30, Aug. 1 Oct. 6, Nov. 18, 19, Dec. 29, 30, Jan. 6, 7	2000.00
T. Wilkins, field assistant 3.5 days @ \$125/day June 21, 24, July 30, 31	875.00
M. Allen, field assistant 2 days @ \$125/day July 27-30	250.00
B. Ryan, field assistant 5 days @ \$125/day June 24-26, July 28-31	625.00
Total Costs	<u>\$6610.25</u>

QUALIFICATION

I, ROBERT HOLLAND, of 13451 - 112A Avenue, Surrey, British Columbia, hereby certify that the following are true and correct:

1. I graduated from the University of British Columbia in 1976 and hold a B.Sc. degree in geology.
2. I am currently employed as a consulting geologist with Holland Geoservices Ltd., of 13451 - 112A Avenue, Surrey, British Columbia
3. I have been employed in my profession by various mining exploration companies for the past eleven years.
4. I am a Fellow of the Geological Association of Canada.
5. The information contained in this report was obtained as a result of field work carried out by Holland Geoservices Ltd., under my direction and supervision.
6. Neither myself nor Holland Geoservices Ltd. have any interest, direct or indirect, in the property described, nor in the securities of Canadian United Minerals Inc. or its associated companies, nor do I expect to.



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Robert Holland, B.Sc., F.G.A.C.

APPENDIX 1

Histogram Plots

and

Noranda Geochemistry Statistics

1984

Noranda Geochemistry Statistics - 1984

Summary of Soil Geochemistry Results  
for the  
Main and Detailed Grids on Dome Mountain

Number of samples run - 2705

Copper -:	geometric mean	19.56 ppm
	standard deviation (S)	0.213 (log)
	mean + 2S	52.22 ppm
	high value	470 ppm
	anomalous contour	50 ppm (4.0%)
	str. anomalous contour	100 ppm (0.9%)

Silver -	geometric mean	0.29 ppm
	standard deviation (S)	0.254 (log)
	mean + 2S	0.94 ppm
	high value	9.0 ppm
	anomalous contour	1.4 ppm (2.5%)
	str. anomalous contour	2.8 ppm (0.7%)

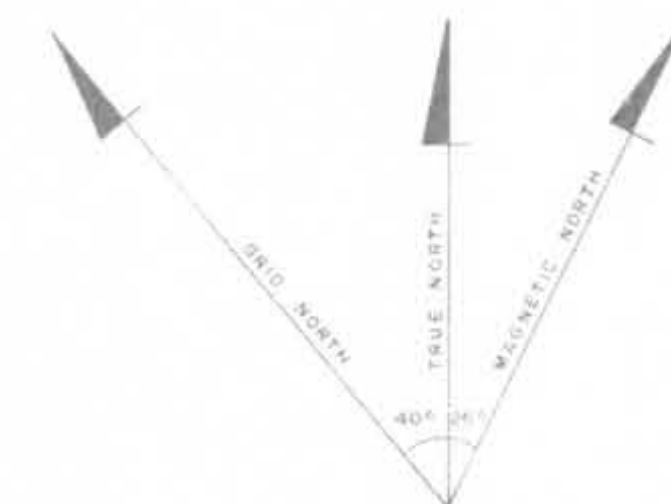
Zinc -	geometric mean	100.60 ppm
	standard deviation (s)	0.254 (log)
	mean + 2S	257.86 ppm
	high value	2500 ppm
	anomalous contour	250 ppm (3.3%)
	str. anomalous contour	400 ppm (0.6%)

Lead -	geometric mean	4.72 ppm
	standard deviation (S)	0.296 (log)
	mean + 2S	18.44 ppm
	high value	710 ppm

	anomalous contour	20 ppm (2.2%)
	str. anomalous contour	50 ppm (0.6%)
Arsenic -	geometric mean	10.57 ppm
	standard deviation	0.439 (log)
	mean + 2S	79.70 ppm
	high value	1400 ppm
	anomalous contour	50 ppm (3.5%)
	str. anomalous contour	100 ppm (1.1%)

Note The anomalous contour is approximately equal to the geometric mean plus two standard deviations for copper, lead, and zinc. A higher value was taken for silver to eliminate a large number of probably spurious anomalies. A relatively low anomalous contour was chosen for arsenic as arsenic values were felt to be a useful pathfinder.

GEOLOGICAL BRANCH  
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**LEGEND**

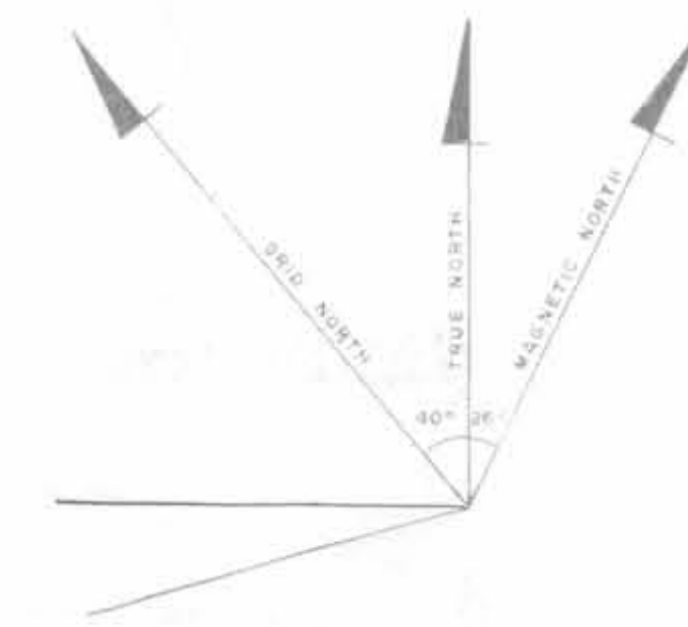
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- - - - - Approximate Individual 2 Post and Crown Granted Claim Outline
- Claim Line
- □ Claim Post Located/Approximate
- Creek
- ▲ Marshy
- Clearing
- Major Road
- Minor Road (four wheel drive or better)
- Skid Trail, Track or Old Road
- Grid Lines/Stations
- Grid Lines/Stations Pre 1986
- × Ore Workings (trench, adit or shaft)
- No Sample
- 60ppm Background
- 100ppm Anomalous
- △-100ppm Strongly Anomalous
- ▲ Anomalous
- ▲ Strongly Anomalous



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— DOME MOUNTAIN PROJECT —  
DOME NORTH AND FORK GROUPS  
OMNECA MINING DIVISION — BRITISH COLUMBIA

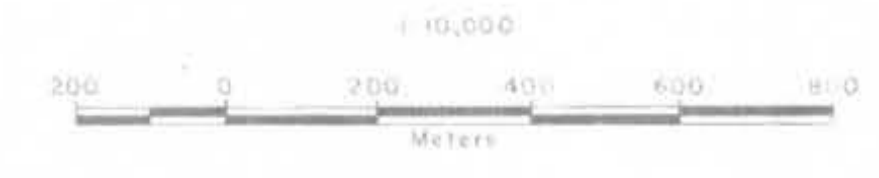
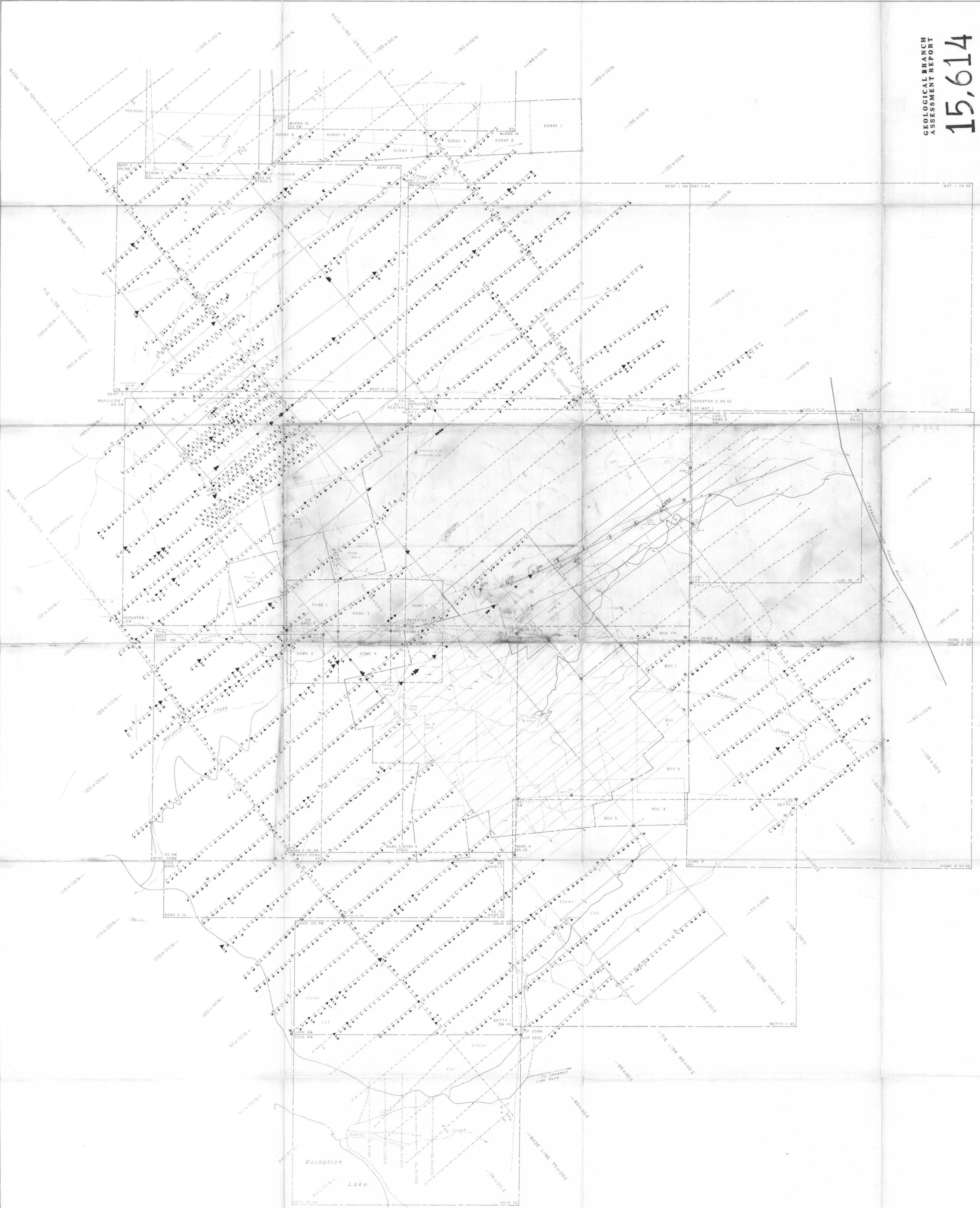
**SOIL GEOCHEMISTRY  
— COPPER —**

GEOLOGICAL BRANCH  
ASSESSMENT REPORT  
**15,614**



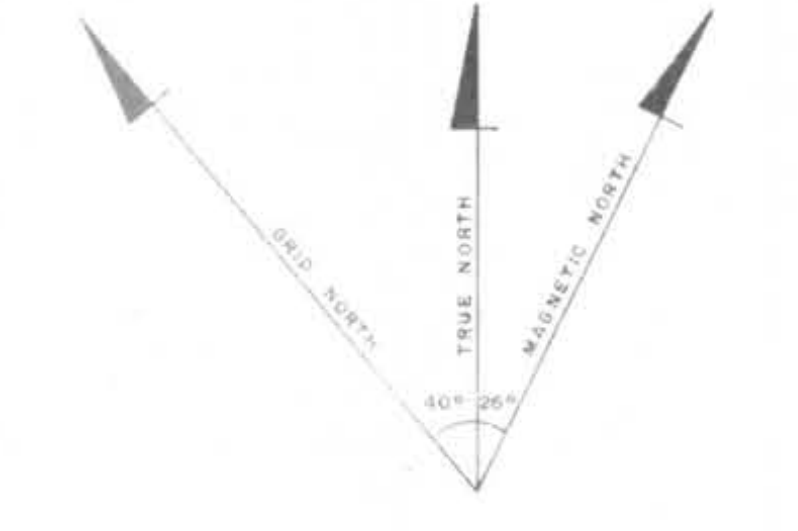
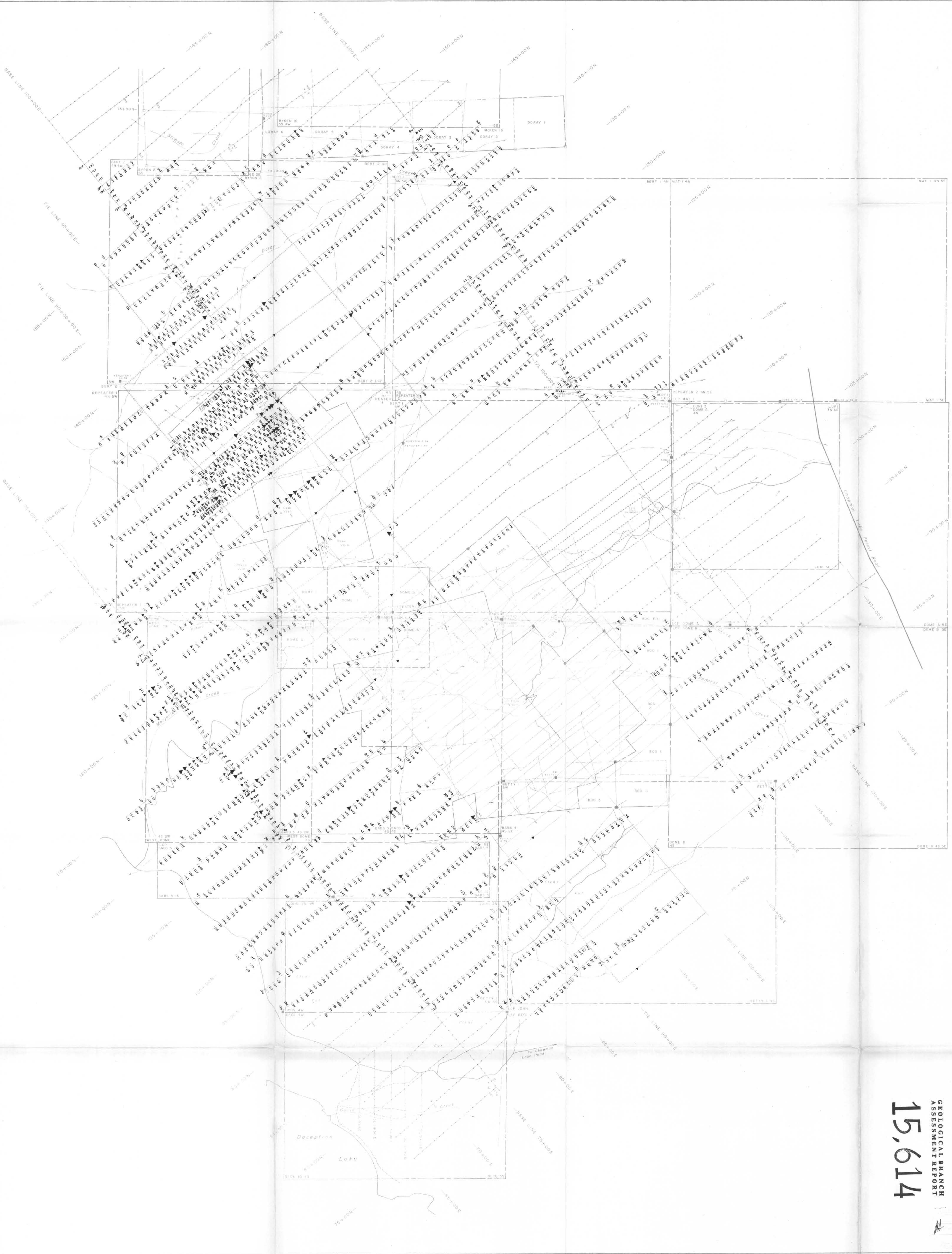
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- Claim Boundary Apparent/Overlapping
- - - - - Approximate Individual 2 Post and Crown Granted Claim Outline
- Claim Line
- □ Claim Post Located/Approximate
- ▲ Marshy
- Clearing
- Major Road
- Minor Road (four wheel drive or better)
- Skid Trail, Track or Old Road
- Grid Lines/Stations
- Grid Lines/Stations Pre 1986
- \* Old Workings (trench, soil or shaft)
- x No Sample
- 0-0.9ppm Background
- 1.0-1.7ppm Anomalous
- >1.8ppm Strongly Anomalous
- ▲ Anomalous
- ▲ Strongly Anomalous



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SOIL GEOCHEMISTRY  
— SILVER —



- LEGEND**
- Claim Boundary Apparent/Overlapping
  - Approximate Individual 2 Post and Crown Granted Claim Outline
  - Claim Line
  - Claim Post Located/Approximate
  - Creek
  - ✱ Marshy
  - Clearing
  - Major Road
  - Minor Road (four wheel drive or better)
  - Skid Trail, Track or Old Road
  - Grid Lines/Stations
  - Grid Lines/Stations Pre 1967
  - ✱ Old Workings (trench, pit or shaft)
  - ✱ No Sample
  - 0-250ppm Background
  - 251-400ppm Anomalous
  - >400ppm Strongly Anomalous
  - ▲ Anomalous
  - ▲ Strongly Anomalous

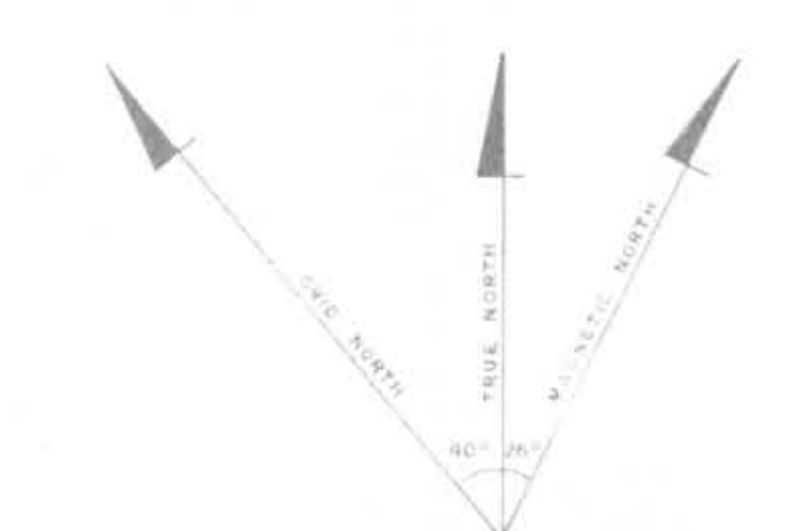
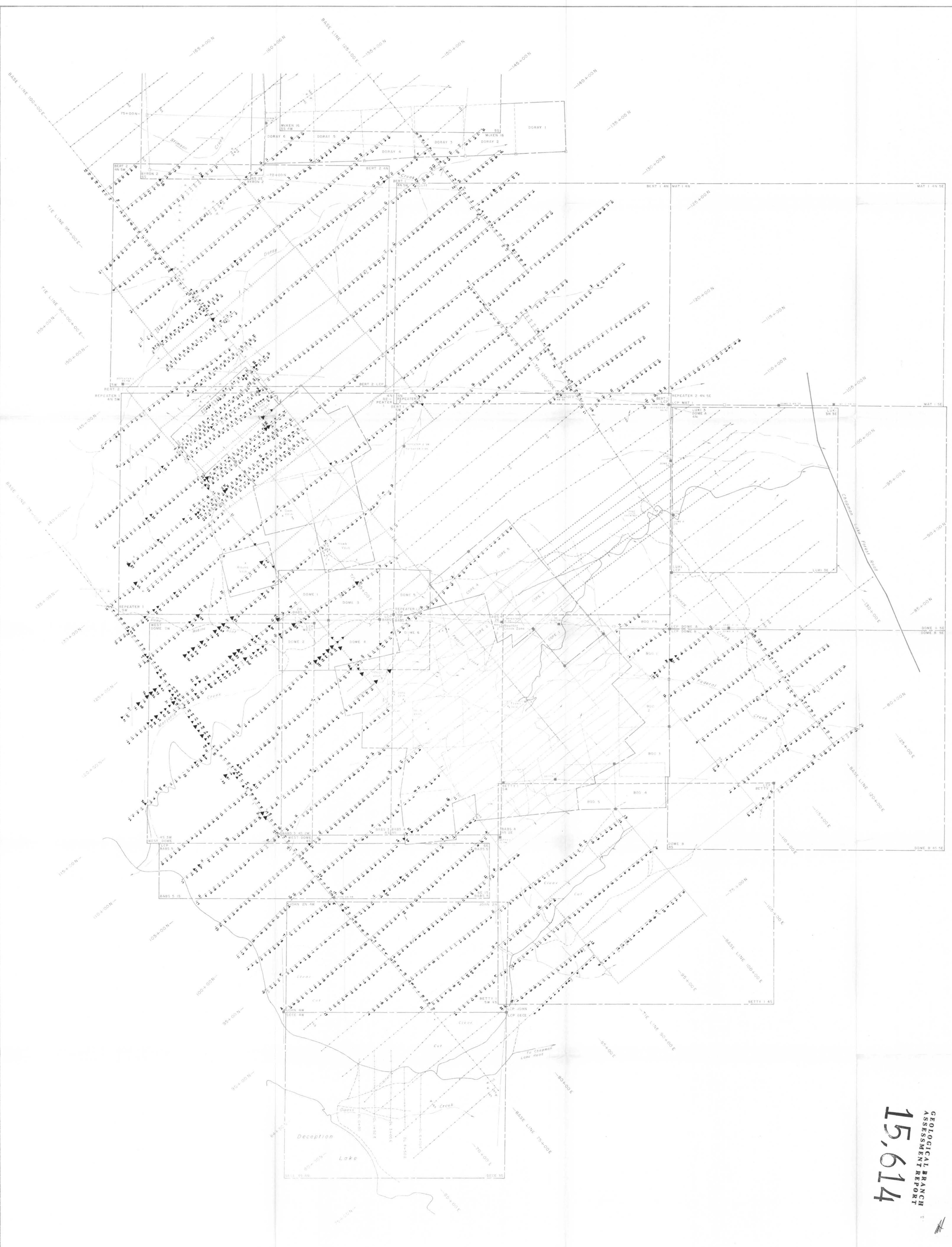


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**SOIL GEOCHEMISTRY**  
 — ZINC —

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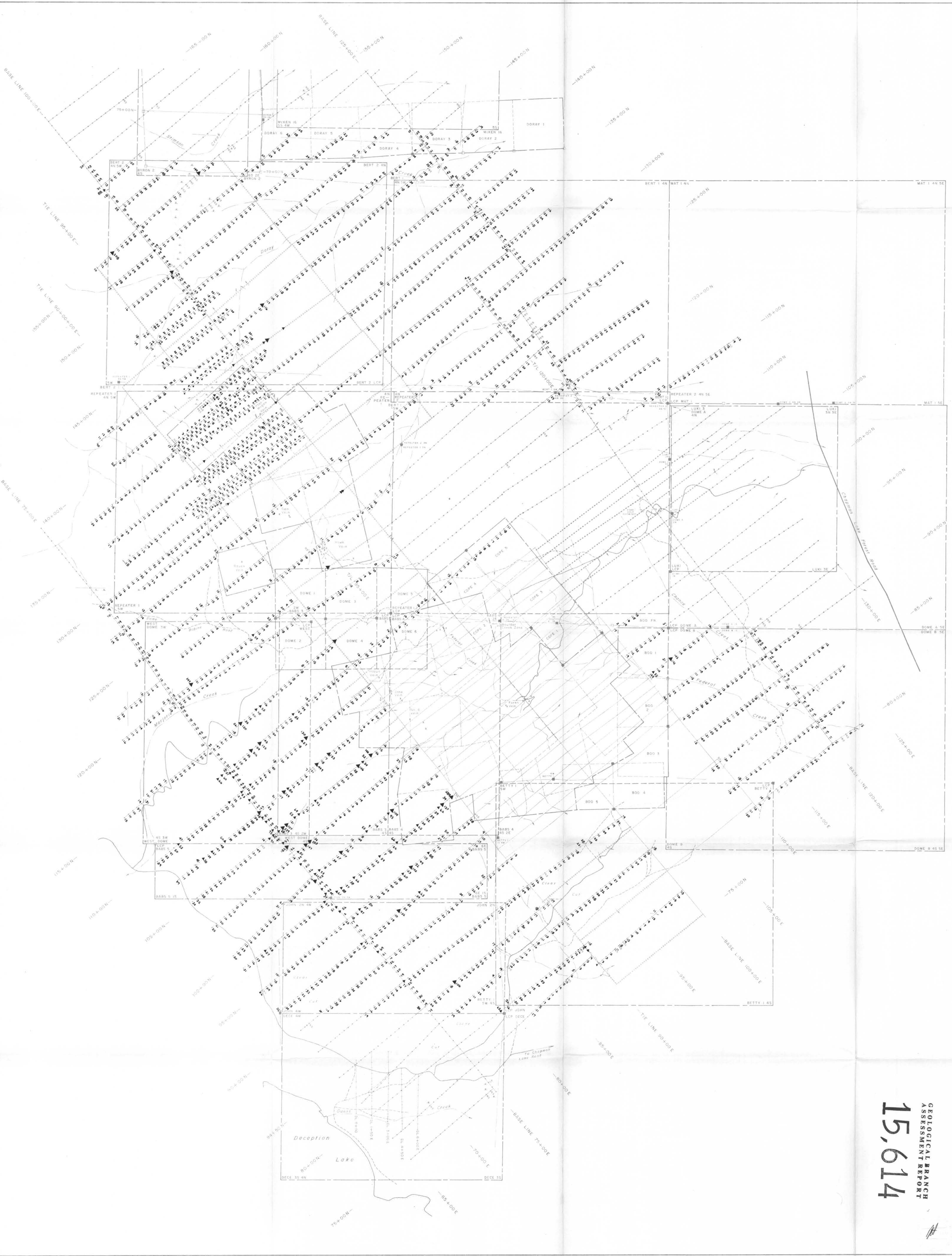
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  - □ Claim Post Located/Approximate
  - Creek
  - Marshy
  - Clearing
  - Major Road
  - Minor Road (four wheel drive or better)
  - Skid Trail, Track or Old Road
  - Grid Lines/Stations
  - Grid Lines/Stations Pre 1985
  - × Old Workings (trench, adit or shaft)
  - No Sample
  - 0-25 ppm Background
  - 26-50 ppm Anomalous
  - >50 ppm Strongly Anomalous
  - ▲ Anomalous
  - ▲ Strongly Anomalous

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**15,614**



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 DOME NORTH AND FORK GROUPS  
 (MINERALS DIVISION - BRITISH COLUMBIA)

**SOIL GEOCHEMISTRY**  
**— LEAD —**



**LEGEND**

- Claim Boundary, Assured/Overlapping
- - - - - Approximate Individual 2 Post and Crown Granted Claim Outline
- Claim Line
- □ Claim Post Located/Approximate
- Creek
- Marshy
- Clearing
- Major Road
- Minor Road (four wheel drive or better)
- Skid Trail, Track or Old Road
- Grid Lines/Stations
- Grid Lines/Stations Pre 1986
- Dis Workings (trench, pit or shaft)
- xx No Sample
- 0-50ppm Background
- 51-100ppm Anomalous
- >100ppm Strongly Anomalous
- ▲ Anomalous
- ▲ Strongly Anomalous

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 DOME NORTH AND FORK GROUPS  
 MINERAL DIVISION — BRITISH COLUMBIA

**SOIL GEOCHEMISTRY**  
 — ARSENIC —