2429

SUPPLEMENTAL GEOCHEMICAL REPORT ON THE SALLUS AND SALLUS CREEK CLAIMS LILLOOET MINING DIVISION B.C.

for

Canadian Johns-Manville Company, Limited
Exploration Department
P.O. Box 1500
Asbestos, P.Q.

Covering: Sallus Claims Nos. 1 - 24
" 60 - 91
" 119 - 124

Sallus Creek Claims Nos. 25 - 38
" 41 - 52
" 101 - 118

Located : 1) 50°N-121°W, ~~SE~~ NW ~~Corner~~ (~~NW-Quarter~~)
2) N.T.S. Map 921/~~12E~~ 13W
3) 10 Miles NE of Lillooet
Lillooet Mining Division, B.C.

May 29, 1970

H.K. Conn, P.Eng.

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INTRODUCTION:

General:

This report is supplemental to the initial geochemical report written for Canadian Johns-Manville Company, Limited on the Sallus Creek claims by F.D. Forgeron of Bondar-Clegg & Company, Limited, dated February 3, 1970. Samples previously analyzed and located within indicated areas anomalous in Cu and Mo were analyzed for lead, zinc, silver, arsenic, gold, mercury and antimony, as recommended by Dr. Forgeron. The purpose of this supplemental work was to determine metal association as an aid to interpreting the genesis of the mineralization.

The original sampling was conducted by the staff of Bondar-Clegg & Company, Limited and Canadian Johns-Manville Company, Limited, between June 30 and August 30, 1969.

In the interests of convenience and continuity with the initial report and, since there has been no change in substance in much of the data, the sections in the initial report entitled "Location and Access, Physiography, Geology and Geochemistry" are reproduced herewith as part of this report.

Geological observations noted in this report were made by the staff of Canadian Johns-Manville Company, Limited during the summer of 1969 and the spring of 1970 under the supervision of John Kerr, P.Eng. The writer also made reference to appropriate Governmental publications including the Geological Survey of Canada (Memoir 252) and the British Columbia Department of Mines, Energy and Resources (Bulletin 44).

The interpretation and conclusions are the responsibility of the writer, who spent two days on the property.

Location and Access:

The Sallus and Sallus Creek claims are located 9 miles north-

Location and Access: (Cont'd)

east of Lillooet, B.C. (N.T.S. Map 92I/13W/12E) between Gibbs Creek on the south and Sallus Creek on the north. Access from Lillooet is via a secondary road on the east side of the Fraser River to a logging road about 1.3 miles north of Gibbs Creek and thence eastward to C.J-M claim Sallus #72.

Physiography;

Relief within the claim group is in excess of 4,500 feet with elevations rising from 1,400 feet along the Fraser River (west boundary) to over 6,500 feet on the eastern boundary. Much of the area is fairly heavily wooded with fir and pine, except where broken by large talus slopes.

Drainage is mainly to the west and streams are fast-flowing. Good soil profiles are found in wooded and grassy areas.

Geology:

Canadian Johns-Manville personnel have mapped the claim group at a scale of 1" = 1,000' and detailed mapping at 1" = 50 feet has been done over the No. 1 showing within the soil grid. The western three-quarters of the survey area is underlain by Cache Creek Group rocks, primarily siliceous schist with some quartzite, conglomerate and banded marble, cut in places by later diabase and diorite dyke intrusions. A two thousand to three thousand foot wide outcropping of banded marble with siliceous schist and quartz veins has been mapped in the northeast quarter of the claim group.

Contacting the Cache Creek rocks near the eastern boundary of the claim group is a Jurassic intrusion of granite, granodiorite and quartz monzonite known as the Mount Martley stock.

Mineralization in the No. 1 showing area consists of malachite,

Geology: (Cont'd)

bornite, chalcopyrite and molybdenite in one to eight-inch wide east-west trending quartz veins within the quartz monzonite intrusive. Mineralization in the form of pyrite, pyrrhotite and malachite has been found in the Cache Creek rocks, particularly near the diorite dykes. Assay values from samples taken in the No. 1 showing area range up to 1.10% Cu and 0.32% Mo.

GEOCHEMISTRY:

Field Methods:

Soil and talus fines samples were collected by shovel on the 500-foot contours from 2,500 to 6,000 feet inclusive. A judgment distinction was made in the field between B-Horizon soils and talus fines so that they could be treated separately when analyzing the results statistically. Other data recorded at the sample sites included direction and degree of drainage slope, horizon and depth, color, texture, and brief remarks on rock types and mineralization.

A 2000 x 5000 foot soil grid over No. 1 showing was sampled by Mr. W. Burry of Canadian Johns-Manville Company, Limited at 100 x 200 foot spacings.

Sample sites were located in the field by altimeter and pacing and are therefore subject to minor errors which may result in slightly displaced anomalous patterns on the metal content maps.

Analytical:

The samples were dried on receipt at 40° to 50°C in infra-red ovens and sieved to -80 mesh in Tyler type 8" stainless steel sieves, at the Vancouver laboratories of Bondar-Clegg & Company, Limited.

A total of 616 samples was analyzed for lead, zinc, silver, 625 for arsenic, 145 for gold, 111 for antimony, and 97 for mercury.

Analytical: (Cont'd)

Analytical methods used are as described below. The major metals were determined by atomic absorption spectrophotometry*.

Antimony -		(detection limit - 1 ppm)
Arsenic	- HCL O_4 HNO_3	(" " 1 ppm)
Gold	- Fire assay plus hot aqua regia	(" " - 10 ppb)
Mercury	- HNO_3 - HCL	(" " - 10 ppb)
Silver	- Hot HNO_3 - HCL	(" " - 0.2 ppm)
Lead	- "	(" " - 2 ppm)
Zinc	- "	(" " - 1 ppm)

Classification and Presentation of Data:

Observed values for the elements differed appreciably between soil samples and talus fines samples. Forgeron explains that this difference is caused by differential partitioning between phases. B-horizontal samples are subjected to organic leaching from the A-horizon, giving a decrease in the equilibrium metal contents with respect to the talus fines. The categories have been classified separately, on the regional claim maps and quantitative limits are shown for each anomalous category. These limits are listed in tables on the attached maps for each element.

The standard deviations approach or are less than the arithmetic mean for As, Pb, Hg, Ag, and Zn (except regional talus fines) and indicate a reasonably smooth distribution of categories with workable limits for the elements between each category.

A summary table for the regional claim block map sheets (1" = 1,000') follows:

*Antimony and arsenic were determined by colorimetry.

Classification and Presentation of Data: (Cont'd)

		$\bar{x}$	s	$\bar{x} + 3s$
Antimony	- soil	Essentially background		
	- talus fines	"		
Arsenic	- soil	22	27	104
	- talus fines	33	35	139
Gold	- soil	Insufficient samples for		
	- talus fines	statistical analysis		
Lead	- soil	18	5	37
	- talus fines	22	9	53
Mercury	- soil	155	108	480
	- talus fines	287	283	1137
Silver	- soil	1.4	0.6	3.3
	- talus fines	2.0	0.9	4.9
Zinc	- soil	252	163	745
	- talus fines	322	495	1811

A summary table for the detailed map sheets (1" = 50') of Grid No. 1 (Showing No. 1) follows (all numbers are ppm):

Arsenic	- soil	9	7	30
Gold	- soil	8	12	48
Lead	- soil	16	9	45
Silver	- soil	1.2	0.5	3.1
Zinc	- soil	196	148	642

All values shown are soils over the Cache Creek sediments only.

Interpretation of Geochemical Results:

(1) Soil Survey - Grid No. 1:

A detailed soil survey was taken over Grid No. 1 and coincides with the area of exposed and indicated copper-molybdenum mineralization termed No. 1 Showing. Location of the grid baseline is marked on all regional map sheets.

The geochemical anomalies are outlined by categories on map sheets for each individual element.

(I) Soil Survey - Grid No. 1: (Cont'd)

The most significant copper-molybdenum anomalies (delineated by the 14 ppm contour for Mo and the 135 ppm contour for Cu) are located:

(a) between lines 10S and 2N, straddling the baseline and contact

(b) between 16N and 28N immediately west of the contact

The (a) anomaly overlies a siliceous schist sequence within the Cache Creek sediments. The schist contains considerable limonite stain on fractures.

The (b) anomaly overlies a marble unit (Marble Canyon Fm) of the Cache Creek Group.

Zinc:

The only significant zinc anomaly is contained between Lines 22N and 28N and is adjacent to the monzonite contact. Three strongly anomalous stations are present, and overlie marble beds of the Cache Creek sediments. This anomaly coincides with other anomalous zones in arsenic, silver, copper and molybdenum. It is strongly suggestive of a contact metamorphic or skarn type deposit, in marble, formed by late hydrothermal mineral-rich solutions from the Mount Martley stock. A feeble zinc anomaly ($\bar{x}$ to $\bar{x} + s$) extends outward from the main anomaly, except to the east. It probably represents a disseminated zinc background in the marble unit.

Four rather isolated stations between 2N and 20S fall in the probable* anomalous category. These stations are associated with a larger feeble zinc anomaly which lies west of the (a) Cu-Mo zone. This zinc zone may represent an extension of the marble beds within the siliceous schists.

* $\bar{x} + s$ to $\bar{x} + 2s$

Zinc: (Cont'd)

It should be noted that the above feeble zinc anomaly as outlined coincides to a considerable degree with a weak copper and molybdenum anomaly zone as represented by the +6 ppm contour for Mo and the +75 ppm contour for Cu.

Zinc values over- the monzonite are perceptibly lower than those over the sediments except for probable transported values on L 16N.

Lead:*

The lead map sheet depicts lead anomalies of various categories closely associated with the zinc anomalies. A single strongly anomalous station on Line 20N appears associated with lesser anomalous stations on Lines 18 and 16N, to the southward. It is flanked by feeble anomalous stations within the sediments. A zone between Lines 0 and 10S outlines possibly anomalous lead with several stations of slightly higher category.

A number of small, coincident silver and lead anomalies occur between Lines 18 and 20N; on Line 12N; on Line 2S; on Line 4S; Line 6S; Line 8S; and Line 20S. This association infers a genetic relationship between these two elements.

The lead anomalies, though of weak absolute value, may be indicative of local mineralized occurrences due to the low geochemical mobility of lead.

The generalized spacial relationship of the lead-zinc anomalies in the western side of the Cu-Mo (a) and (b) anomalies is strongly suggestive of temperature zoning outward from the monzonite contact.

*absolute values are very low and suggest negligible galena content in the mineralization

Silver:

Four individual stations record definitely* to strongly** anomalous results. These are located on Lines 8S, 2N, 18N, and 22N. All are associated with lower grade anomalies which have general coincidence with the low lead-zinc anomalies.

Talus fines stations have been excluded from the calculations since there are too few locations to give statistically meaningful results. Knowledge of the geology and mineralization indicated that some of these talus fines stations are directly indicative of mineralization. For example, Station No. 34 on Line 2N, has a value of 2.4 ppm. This station is in the immediate vicinity of mineralized quartz veins which gave moderate assay values in copper, molybdenum and silver, and low values in gold. It is therefore shown as a significant anomaly. Similarly, the last two talus fines stations at the west end of Line 4S, reading 3.0 ppm and 2.2 ppm, have undoubted significance as indicators of similar silver mineralization.

Arsenic:

The strongest arsenic anomaly is located between Lines 22 and 24N immediately west of the contact. It coincides with strongly anomalous zinc, silver and anomalous copper and molybdenum. Irregular lower anomalous zones extend southward and coincide with local Pb-Ag anomalies. Two isolated strongly anomalous stations are recorded on Line 6S and on Line 20S. The latter coincides with weak Au values suggestive of arsenopyrite; the former has a Pb-Ag association.

Since the Cache Creek rocks here contain considerable pyrite which has weathered to give a limonitic environment, it seems probable that arsenic has had low mobility, limited by co-precipitation with limonite and possibly with the formation of scorodite ($FeAsO_4$).

* $\bar{x} + 2s$ to $\bar{x} + 3s$ ** greater than $\bar{x} + 3s$

Gold:

There was insufficient sample material remaining for the analysis of gold at all individual stations. A number of stations was composited and the results in ppb are shown on the Au map sheet. Direct inspection of the results compared to other element anomalies reveals limited correlation. Silver values coincide at one station on Line 15S. Gold-arsenic anomalies coincide at one station on Line 20S. The strongest anomaly is located on Line 4S (140 ppb). It is associated with the main copper-molybdenum anomaly (a) and is adjacent to mineralized quartz veins containing copper-molybdenum-silver and minor gold. A second anomaly extends eastward and southward from L 12N to L 4N and crosses the monzonite contact.

(2) Regional Maps of the Claim Group:

A total of six major anomaly areas are outlined on the regional maps for each of these metals. The anomaly areas are listed A to F inclusive. These areas were selected to cover the significant copper and molybdenum anomalies to determine significant elemental associations with Cu and Mo and, hence, the geologic type and genesis of the mineralized occurrences.

Anomaly Area A:

This anomaly area, outlined on each of the individual metal map sheets, is broadly anomalous in copper and molybdenum (see initial report).

The bedrock is composed of black and white banded marble in contact with intrusive monzonite on the east side of the area. The approximate intrusive contact is shown on the map sheets. The marble is of Cache Creek (Permian?) age and contains a central bed of quartzite about 300 feet wide. The strike of the beds is north-northeast.

Anomaly Area A: (Cont'd)

The quartzite is located between sample station 961 in the south and 954 in the north. Near the latter station a quartz vein containing pyrite gave low assay values (0.01% or less) in Cu, Mo, and Zn. A second quartz vein on strike 700 feet to the southwest is located in the immediate vicinity of station 1016. Limonitic gossan material was noted in the vicinity of station 940.

The number of anomalous stations by categories for the various metals within Area A are shown in the following table:

Metals	(x+s to x+2s) Probably Anomalous	(x+2s to x+3s) Definitely Anomalous	($\bar{x}$+3s) Strongly Anomalous
As	2	-	-
Pb	6	2	1
Hg	1	-	1
Ag	6	-	1
Zn	4	1	7

Discussion:

Zinc (and molybdenum) are the most strongly anomalous and widely distributed metals in this area. Pb, Ag and Hg have minor occurrences. Mineralization appears to favor the marble band(s) at the expense of the quartzite.

Two parallel zones are probably to strongly anomalous in the above five metals, including to a lesser extent molybdenum and, locally, copper.

These zones appear to extend southward into Anomaly Area B across a main west-flowing tributary of the north branch of Sallus Creek.

The element distribution and the geologic location is strongly suggestive of skarn type or contact metamorphic mineralization related to the monzonite contact.

Anomaly Area B:

Area B is also underlain by black and white banded marble, with one band of siliceous schist or quartzite located about 400 feet west of Station 596. This band contains local brown-yellow limonite alteration.

Further yellow and white limonitic(?) alteration occurs in the banded marble in the vicinity of Station 598. A quartz vein, parallel with the schistosity (strike NNW) is located a few hundred feet east of Station 1332. A small intrusive diorite dyke containing pyrite adjoins Station 1357 and has an apparent northeast strike. A similar pair of dykes located at Station 1323 and with a north-south strike contains sparse bornite.

Metals	Probably Anomalous	Definitely Anomalous	Strongly Anomalous
As	4	-	1
Pb	3	-	2
Hg - N.A.			
Ag	1	3	1
Zn	-	-	-

Discussion:

Arsenic shows a broad zone of low and one strongly anomalous value in the eastern side of Anomaly Area B nearest the contact. Two narrow bands are interpreted in the northwestern section of Area B.

Lead and silver show a similar distribution with the strongest values at the north end of Area B, probably associated with silver values at the south end of Area A. Their source is probably argentiferous galena. Zinc values are negligible to slightly (possibly) anomalous.

Continuity of the anomalies is tenuous since several of the contour lines were not assayed for these elements and none of the area was analysed for mercury.

Anomaly Area B:

Discussion: (Cont'd)

Definitely anomalous values in copper and molybdenum appear to correlate with the north-south band associated with the above metals.

Metal values display an apparent distribution concordant with the schistosity (bedding?) in the marbles near the monzonite contact, suggestive of skarn type mineralization. Zinc content is low compared to Area A and could be the result of vertical zoning.

Anomaly Area C:

The geology of this area is composed of inter-bedded banded marble, quartzite, conglomerate and siliceous schist. These are intruded by a small diorite plug in the west central section of Area C with its eastern contact about 400 feet west of the mouth of the tributary flowing south into the north branch of Sallus Creek.

The general structural trend appears to be north-south. A quartz vein strikes southeast from immediately south of Station 892. The concentration of arsenic, lead and silver, molybdenum-copper in this vicinity suggests a genetic connection with the small intrusive plug.

Metals	Probably Anomalous	Definitely Anomalous	Strongly Anomalous
As	1	1	2
Pb	2	2	2
Hg	1	-	-
Ag	2	-	-
Zn	1	-	-

Discussion:

The central section of this anomaly at Stations 801 and 802 and the eastern section at Stations 727, 723, are definitely anomalous in copper and molybdenum.

Discussion: (Cont'd)

The central and southern section of Area C appears to show a concentration of arsenic, lead and, to a minor degree, zinc and silver. Lead, mercury and silver show a slight concentration in the eastern part of Area C in the vicinity of the eastern copper-moly anomaly.

Anomaly Area D:

A small, irregular sill-like intrusive of basic diorite outcrops in the bed of the south fork of Sallus Creek, about 1,600 feet southeast of the forks. It intrudes siliceous schist and conglomerate (?) beds of the Cache Creek Group.

Metals	Probably Anomalous	Definitely Anomalous	Strongly Anomalous
As	3	-	-
Pb	-	3	1
Hg - N.A.			
Ag	4	3	1
Zn	2	2	-

Discussion:

Area D falls within a broad copper-molybdenum anomaly. Concentrations of copper-molybdenum with associated lead-zinc-silver occur in the west central section of Area D on the slopes above the south branch of Sallus Creek. Arsenic coincides with the central section of this anomaly and occurs also in an isolated location at Station 1261 to the southeast. A smaller composite anomaly is situated near the southeast end of Area D at Stations 774 and 773. This local zone is anomalous in copper-molybdenum-lead-zinc-silver. A quartz vein with an apparent northeast strike occurs a few hundred feet south of this local anomaly. Carbonate veins with pyrite occur in the bed of the south branch of Sallus Creek down slope eastward from the anomaly center. The anomaly is centered down slope from red and yellow limonitic alteration in unidentified sediments.

Discussion: (Cont'd)

The first-mentioned anomaly in the west central section of Area D is within a strong gossan. Directly northward across the south fork of Sallus Creek is another large gossan cliff with disseminated pyrite and sparse malachite. The mineralized zone possibly bears a direct genetic connection with the basic diorite body in the same manner as postulated for the western section of Area C.

Fifteen hundred feet west of Area D on the 2500 foot contour, Station 1187 is anomalous in copper, lead, zinc and silver. Two small limonitic areas occur directly up slope on the 3000 foot contour near Stations 1156 and 1157. Station 1172 on the 4000-foot contour south of the west end of Area D is anomalous in copper, zinc and silver. It lies directly up slope from a quartz vein with associated limonite, located on the 3000-foot contour. The latter two small anomalies appear to be directly associated with north-striking mineralized quartz veins.

Anomaly Area E:

Area E shows a definite east-west trend almost at right angles to the generalized north-south structural trend of the sediments and the intrusive contact of the Mount Martley stock. The rocks are sheared and contorted; it appears that the anomaly is within a major east-west fault along the north slope of Gibbs Creek. This fault may offset the western contact of the Mount Martley stock from north-south to south-east. The eastern extension of this anomaly may connect with the main anomaly in the vicinity of 0+00 on Grid No. 1 at the No. 1 Showing. The mineralized quartz veins in this latter location, in the west margin of the stock, also have an east-west trend. The western extension of this presumed major shear zone may continue westward across the Fraser River where the felsite, Member B of the Fountain Valley assemblage, is terminated by a fault to the north (Bulletin 44).

Anomaly Area E: (Cont'd)

It should be noted that the western extension of Anomaly Area E may be overlain by younger volcanics of the Spences Bridge Group, lower division.

Metals	Probably Anomalous	Definitely Anomalous	Strongly Anomalous
As	5	-	-
Pb	1	1	-
Hg	6	3	2
Ag	5	-	3
Zn	-	1	-

Area E is associated with a broad-copper-molybdenum anomaly. Mercury and silver have the strongest expression in association with copper and molybdenum, with lesser amounts of arsenic and lead, and negligible zinc and gold.

A limonitic environment with red, brown, and noticeable yellow alteration occurs in sections of Anomaly Area E. The most notable alteration extends for 500 feet on the 3000-foot contour where it crosses the anomaly;and locally on the 4000-foot contour. It appears to be associated with arsenic values.

The geologic picture suggests that metal values in Area E are associated with mineralization in a major fault structure extending westward from the Mount Martley stock.

Anomaly Area F:

Metals	Probably Anomalous	Definitely Anomalous	Strongly Anomalous
As	-	1	-
Pb	3	-	-
Hg - N.A.			
Ag	2	1	-
Zn - Negligible			

Discussion:

This anomaly area encompasses a broad copper-

Anomaly Area F:

Discussion: (Cont'd)

molybdenum anomaly. It is entirely underlain by siliceous schist containing a number of northeast striking quartz veins in the vicinity of Station 1091. Limonitic environment is prominent in the vicinity of the vein on the 2500 foot contour and yellow alteration occurs near the middle of the anomaly in outcrops on the 3000 and 3800 foot contours. Assays of the latter gave very low values in copper and molybdenum.

The western extension of this anomaly is apparently overlain also by younger volcanics of the lower division of the Spences Bridge group.

Shearing in one outcrop within this anomaly is approximately east-west with a moderate north dip. The eastern extension of this anomaly may be connected with a low molybdenum anomaly on the 4500-foot contour which adjoins a similar copper-molybdenum anomaly with the north end of the No. 1 grid near where it intersects the south fork of Sallus Creek. The south end of Area B anomaly appears to terminate to the south of the line extending eastward from Area F anomaly. This termination of Area B anomaly coincides with a western offset in the contact of the Mount Martley stock. It is reasonable to postulate another major east-west fault parallel to the one on Gibbs Creek through Anomaly Area F. No direct evidence for such a fault has been noted to date.

CONCLUSIONS AND RECOMMENDATIONS:

Supplemental analyses for lead, zinc, silver, gold, arsenic. mercury and antimony within the major copper-molybdenum anomaly areas have given some direct relationships between these (except antimony) metals and copper, molybdenum.

CONCLUSIONS & RECOMMENDATIONS: (Cont'd)

The geological environment strongly suggests polymetallic skarn type mineralization in marble adjacent to the contact of the Mount Martley stock in Areas A and B and No. 1 Grid. Similar mineralization is associated with satellite plugs and sills in Areas C and D. Isolated small anomalies west and south of Anomaly Area D are probably connected with quartz fissure veins.

Anomalies E and F and the anomalous sections of Grid No. 1 may be connected with major fault structures containing mineralization genetically related to the Mount Martley stock.

The very large gossan areas with associated extensive pyrite mineralization near the forks of Sallus Creek (Anomaly Area D) and the coincidence of composite geochemical anomalies with gossan areas and limonitic environments elsewhere suggests leaching with precipitation and entrapment of specific metal ions in this environment. Less mobile elements, such as molybdenum and lead, may be most suitable for localizing the source of mineralization within these gossans.

Induced potential surveys are in progress on Grid No. 1 and its extension, Grid No. 2, which covers most of Area B. Results of this work should define sulphide concentrations, if present, in the marble rocks of the Cache Creek group in the north part of Grid No. 1 and Grid No. 2, and in the siliceous schists in the south part of Grid No. 1.

Detailed soil sampling on Grid No. 2 over Area B will fill the present gaps in the geochemical evaluation and may, in conjunction with the geophysical survey, pin-point targets for trenching and drilling.

Magnetic surveys are also in progress over the grids in a search for anomalies caused by magnetite, anticipated in the postulated skarn environment.

STATEMENT OF QUALIFICATIONS

I, Herbert Keith Conn, of the town of Asbestos, Quebec, do hereby declare that:

(1) I am a mining geological engineer employed as Exploration Manager for Canadian Johns-Manville Company, Limited, P.O. Box 1500, Asbestos, Quebec.

(2) I have practised in the geological profession for 21 years and specialized in economic geology and exploration procedures for the past 20 years.

(3) I am a graduate of the University of Toronto, Toronto, Ontario with a degree of B.A.Sc. (Mining Geology), 1948.

(4) I am a member of the following professional associations:

(a) Corporation of Engineers of Quebec

(b) Non-resident member of the Association of Professional Engineers of the Province of British Columbia

(c) Fellow of the Geological Association of Canada

(d) Fellow of the Society of Economic Geologists

(e) Member of the Canadian Institute of Mining and Metallurgy

(f) Member of the American Institute of Mining Engineers

(5) This report is based on published and unpublished information.

H.K. Conn

May 1970

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
H. M. K. CONN

Expiry Date: Jan. 28, 1971

COSTS OF SUPPLEMENTAL

GEOCHEMICAL ANALYSES AND INTERPRETATION

SALLUS CREEK AREA

1. Analytical Costs:

616 samples	analyzed for	lead		
616	"	zinc		
616	"	silver		
514	"	arsenic		
145	"	gold	$ 1,950.40	
97	"	mercury	232.80	
111	"	antimony		
111	"	arsenic	244.20	
Total				$ 2,427.40

2. Report 300.00
   Drafting and compilation** 604.88

   Total 904.88

3. Office Supplies: 50.00

   Total 50.00

TOTAL $ 3,382.28

**A. Therrien (between May 8 and May 29, 1970)

C.J-M Project 406

H.K. Conn, P. Eng.
Canadian Johns-Manville Company, Limited
Asbestos, Quebec

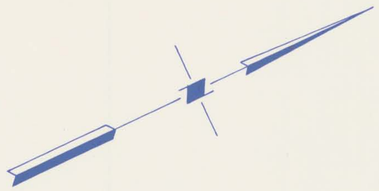
L - 20 S	L - 15 S	L - 10 S	L - 8 S	L - 6 S	L - 4 S	L - 2 S	L - 0	L - 2 N	L - 4 N	L - 6 N	L - 8 N	L - 10 N	L - 12 N	L - 14 N	L - 16 N	L - 18 N	L - 20 N	L - 22 N	L - 24 N	L - 26 N	L - 28 N	L - 30 N
475 oS	454 oS	429 oS	419 oS	388 oS	367 oT	346 oS	11 oS	32 oS	53 oS	74 oS	95 oS	116 oS	137 oS	158 oS	179 oS	210 oS	242 oS	252 oS	284 oS	294 oS	315 oS	335 oS
474 oS	453 oS	428 oS	418 oS	387 oS	366 oT	345 oS	10 oS	31 oS	52 oS	73 oS	94 oS	115 oS	136 oS	157 oS	178 oS	209 oS	241 oS	251 oS	283 oS	293 oS	314 oS	334 oS
473 oS	452 oS	427 oS	417 oS	386 oS	365 oS	344 oS	9 oS	30 oS	51 oS	72 oS	93 oS	114 oS	135 oS	156 oS	177 oS	208 oS	240 oS	250 oS	282 oS	292 oS	313 oS	333 oS
472 oS	451 oS	426 oS	416 oS	385 oS	364 oS	343 oS	8 oS	29 oS	50 oS	71 oS	92 oS	113 oS	134 oS	155 oS	176 oS	207 oS	239 oS	249 oS	281 oS	291 oS	312 oS	332 oS
471 oS	450 oS	425 oS	415 oS	384 oS	363 oS	342 oS	7 oS	28 oS	49 oS	70 oS	91 oS	112 oS	133 oS	154 oS	175 oS	206 oS	238 oS	248 oS	280 oL	290 oS	311 oL	331 oL
470 oS	449 oS	424 oS	414 oS	383 oS	362 oS	341 oS	6 oS	27 oS	48 oS	69 oS	190 oS	111 oS	132 oS	153 oS	174 oS	205 oS	237 oS	247 oS	279 oS	289 oS	310 oS	
469 oS	448 oS	423 oS	413 oS	382 oS	361 oS	340 oS	5 oS	26 oS	47 oS	68 oS	89 oS	110 oS	131 oS	152 oS	173 oS	204 oS	236 oT	246 oS	278 oS	288 oS	309 oS	330 oS
468 oS	447 oS	422 × N.S.	412 oS	381 oS	360 oS	339 oT	4 oS	25 oS	46 oS	67 oS	88 oS	109 oS	130 oS	151 oS	172 oS	203 oS	235 oT	245 oT	277 oS	287 oS	308 oS	329 oS
467 oS	446 oS	421 oS	411 oS	380 oS	359 oT	338 oT	3 oS	24 oS	45 oS	66 oS	87 oS	108 oS	129 oS	150 oS	171 oS	202 oT	234 oT	244 oT	276 oS	286 oS	307 oS	328 oS
466 oS	445 oS	420 oS	410 oS	379 oS	358 oT	337 oT	2 oS	23 oS	44 oS	65 oS	86 oS	107 oS	128 oS	149 oT	170 oS	201 oS	233 oT	243 oS	275 oS	285 oT	306 oS	327 oS
455 oS	BASE	LINE	399 oS	378 oT	357 oT	336 oT	1 oS	22 oS	43 oS	64 oS	85 oS	106 oS	127 oS	148 oS	169 oS	190 oS	211 oS	222 oS	253 oS	264 oS	295 oS	316 oS
456 oS	435 oT		400 oS	389 oT	368 oS	347 oS	12 oT	33 oT	54 oS	75 oT	96 oS	117 oS	138 oS	159 oS	180 oS	191 oS	212 oS	223 oS	254 oS	265 oS	296 oS	317 oS
457 oS	436 oS		401 oT	390 oS	369 oT	348 oS	13 oT	34 oT	55 oS	76 oS	97 oS	118 oS	139 oS	160 oS	181 oS	192 oS	213 oS	224 oS	255 oS	266 oS	297 oS	318 oS
458 oS	437 oS		402 oT	391 oS	370 oT	349 oT	14 oT	35 oS	56 oS	77 oS	98 oS	119 oS	140 oS	161 oS	182 oS	193 oS	214 oS	225 oS	256 oS	267 oS	298 oS	319 oS
459 oS	438 oS		403 oT	392 oT	371 oS	350 oS	15 oS	36 oS	57 oS	78 oS	99 oS	120 oS	141 oS	162 oS	183 oS	194 oS	215 oS	226 oS	257 oS	268 oS	299 oS	320 oL
460 oS	439 oS		404 oS	393 oT	372 oT	351 oT	16 oS	37 oS	58 oS	79 oS	100 oS	121 oS	142 oS	163 oS	184 oS	195 oS	216 oS	227 oS	258 oS	269 oS	300 oL	321 oS
461 oS	440 oS	430 oT	405 oS	394 oS	373 oT	352 oS	17 oS	38 oS	59 oS	80 oS	101 oT	122 oS	143 oS	164 oS	185 oS	196 oS	217 oS	228 oS	259 oL	270 oS	301 oS	322 oS
462 oS	441 oS	431 × N.S.	406 oS	395 oS	374 oS	353 oT	18 oS	39 oS	60 oS	81 oS	102 oS	123 oS	144 oS	165 oS	186 oS	197 oS	218 oS	229 oS	260 oS	271 oS	302 oT	323 oT
463 oS	442 oS	432 oS	407 oS	396 oS	375 oS	354 oT	19 oS	40 oS	61 oS	82 oS	103 oS	124 oS	145 oS	166 oS	187 oS	198 oS	219 oS	230 oS	261 oS	272 oS	303 oT	324 oS
464 oS	443 oS	433 oS	408 oS	397 oS	376 oT	355 oT	20 oS	41 oS	62 oS	83 oS	104 oS	125 oS	146 oS	167 oS	188 oT	199 oS	220 oS	231 oS	262 oS	273 oS	304 oS	325 oS
465 oS	444 oS	434 oS	409 oS	398 oT	377 oT	356 oT	21 oS	42 oT	63 oS	84 oS	105 oS	126 oS	147 oS	168 oS	189 oS	200 oS	221 oS	232 oS	263 oS	274 oS	305 oS	326 oS

LEGEND

Data Presentation:

SAMPLE LOCATION

Talus	oT
Soil	oS
Stream Sediments	oL
NO SAMPLE	N.S.×



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CANADIAN JOHNS-MANVILLE CO., LTD.

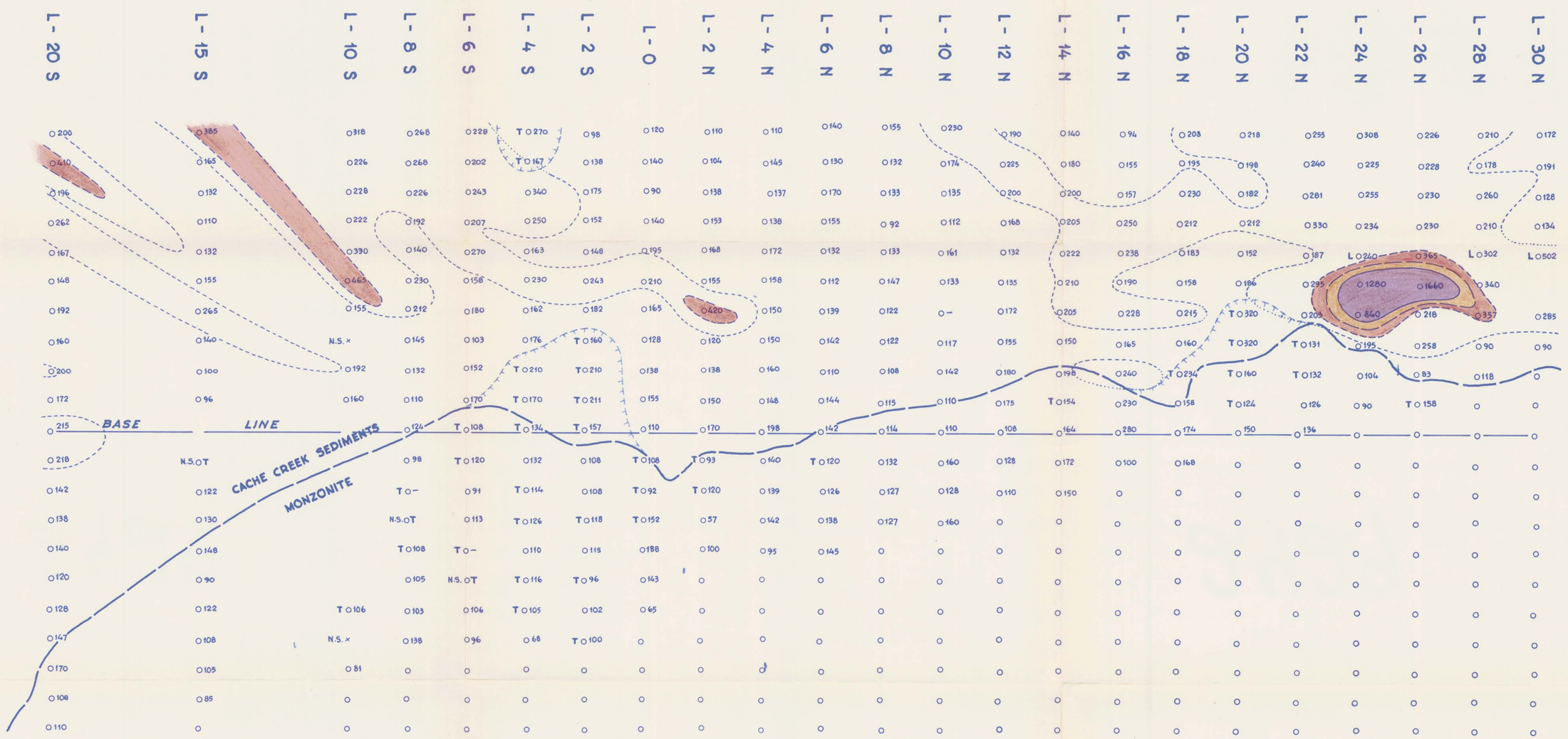
SOILS & TALUS — DETAIL GEOCHEMICAL SURVEY

SAMPLE LOCATION

SHOWING #1 - SALLUS CREEK AREA

LILLOOET MINING DIVISION - B.C. - CANADA

Project	Scale:	Survey & Geochemistry by:	
406	1" = 200'	BONDAR - CLEGG & COMPANY LTD. VANCOUVER, B.C.	MAP



LEGEND

Data Presentation:

SAMPLE LOCATION

Talus	oT
Soil	o
Stream Sediments	oL
NO SAMPLE	N.S.×
INSUFFICIENT SAMPLE	o–

SOIL SAMPLES OVER CACHE CREEK SEDIMENTS	$\bar{x}$ = 197 ppm. s = 149 ppm.

CONTOURS	GEOCHEMICAL VALUES FROM	TO	PPM
----------		$< \bar{x}$	0 - 197
————	$\bar{x}$	$\bar{x}+s$	198 - 346
————	$\bar{x}+s$	$\bar{x}+2s$	347 - 495
————	$\bar{x}+2s$	$\bar{x}+3s$	496 - 644
————	$> \bar{x}+3s$		645 +

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2429 MAP #2

2429

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — H. M. K. CONN
Expiry Date: Jan. 28, 1971

CANADIAN JOHNS-MANVILLE CO., LTD.

SOILS & TALUS — DETAIL GEOCHEMICAL SURVEY

Zn (ppm) DISTRIBUTION

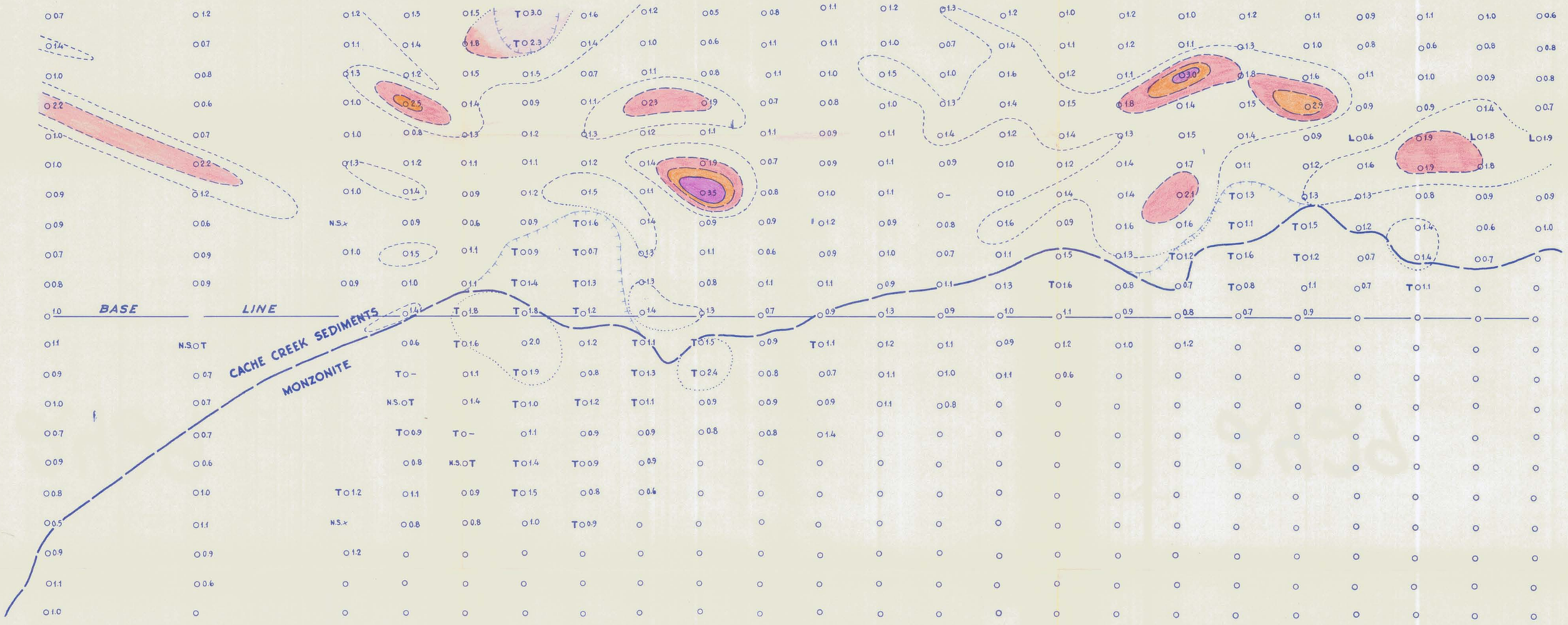
SHOWING #1 - SALLUS CREEK AREA

LILLOOET MINING DIVISION - B.C. - CANADA

Project	Scale:	Survey & Geochemistry by:	
406	1" = 200'	BONDAR - CLEGG & COMPANY LTD. VANCOUVER, B.C.	MAP

TRACED BY: A.THERRIEN, ASBESTOS, QUÉ. - MAY 15, 1970.

L-20 S | L-15 S | L-10 S | L-8 S | L-6 S | L-4 S | L-2 S | L-0 | L-2 N | L-4 N | L-6 N | L-8 N | L-10 N | L-12 N | L-14 N | L-16 N | L-18 N | L-20 N | L-22 N | L-24 N | L-26 N | L-28 N | L-30 N



LEGEND

Data Presentation:

SAMPLE LOCATION

Talus	oT
Soil	o
Stream Sediments	oL
NO SAMPLE	N.S.x
INSUFFICIENT SAMPLE	o–

SOIL SAMPLES OVER CACHE CREEK SEDIMENTS			$\bar{x}$ = 1.2 ppm. s = 0.5 ppm.
CONTOURS	GEOCHEMICAL VALUES FROM	TO	ppm
----------	$\bar{x}$	$< \bar{x}$	0 - 1.2
————	$\bar{x}+s$	$\bar{x}+s$	1.3 - 1.7
————	$\bar{x}+2s$	$\bar{x}+2s$	1.8 - 2.2
————	$> \bar{x}+3s$	$\bar{x}+3s$	2.3 - 2.7
			2.8+

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2429 MAP #3

2429

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — H. M. K. CONN
Expiry Date: Jan. 28, 1971

CANADIAN JOHNS-MANVILLE CO., LTD.

SOILS & TALUS — DETAIL GEOCHEMICAL SURVEY

Ag (ppm) DISTRIBUTION

SHOWING #1 - SALLUS CREEK AREA

LILLOOET MINING DIVISION - B.C. - CANADA

Project	Scale:	Survey & Geochemistry by:	
406	1" = 200'	BONDAR - CLEGG & COMPANY LTD. VANCOUVER, B.C.	MAP

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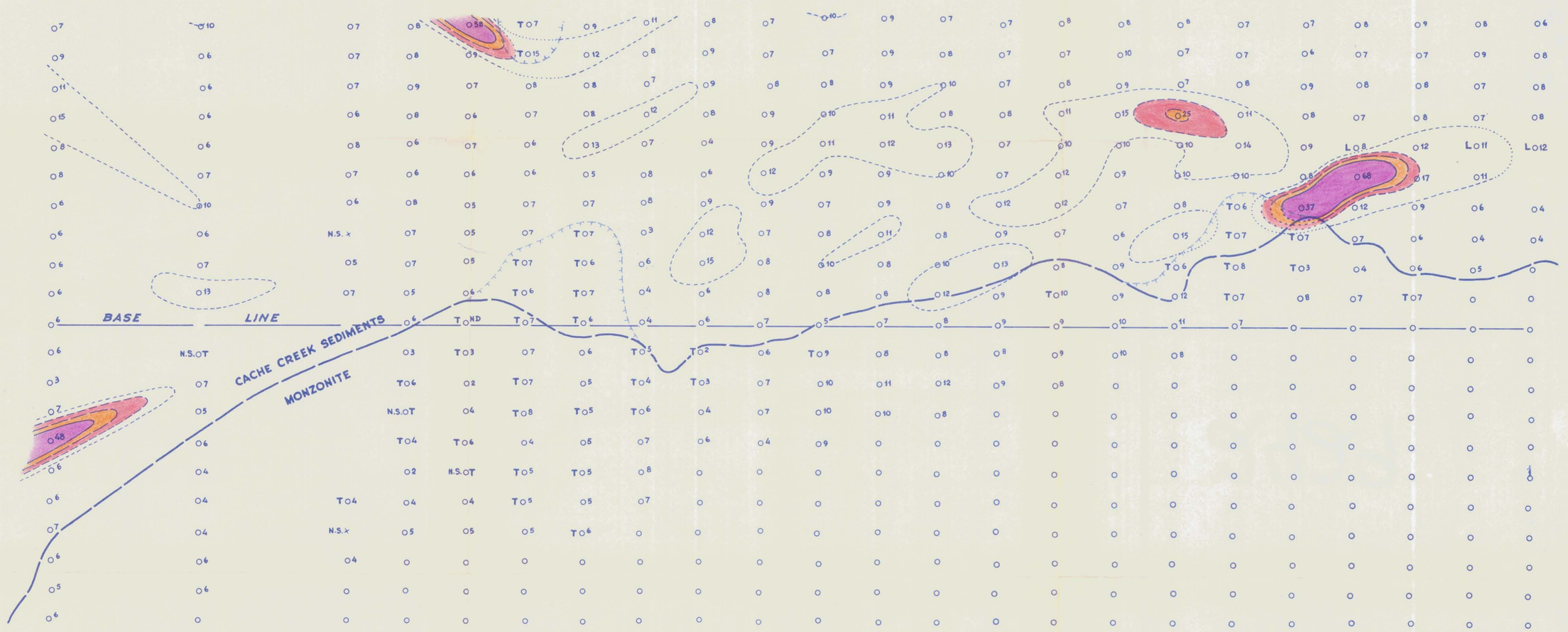
L-20 S | L-15 S | L-10 S | L-8 S | L-6 S | L-4 S | L-2 S | L-0 | L-2 N | L-4 N | L-6 N | L-8 N | L-10 N | L-12 N | L-14 N | L-16 N | L-18 N | L-20 N | L-22 N | L-24 N | L-26 N | L-28 N | L-30 N



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LEGEND

Data Presentation:

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2429 MAP #4

SAMPLE LOCATION

Talus	oT
Soil	o
Stream Sediments	oL
NO SAMPLE	N.S.×
NOT DETECTED	o N.D.

SOIL SAMPLES OVER CACHE CREEK SEDIMENTS			$\bar{x}$ = 9 ppm. s = 7 ppm.
CONTOURS	GEOCHEMICAL VALUES FROM	TO	PPM
-------	$\bar{x}$	$< \bar{x}$	0 - 9
———	$\bar{x}+s$	$\bar{x}+s$	10 - 16
———	$\bar{x}+2s$	$\bar{x}+2s$	17 - 23
———	$>\bar{x}+3s$	$\bar{x}+3s$	24 - 30
			31 +

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SOILS & TALUS — DETAIL GEOCHEMICAL SURVEY

As (ppm) DISTRIBUTION

SHOWING #1 - SALLUS CREEK AREA

LILLOOET MINING DIVISION - B.C. - CANADA

Project	Scale:	Survey & Geochemistry by:	
406	1" = 200'	BONDAR - CLEGG & COMPANY LTD. VANCOUVER, B.C.	MAP

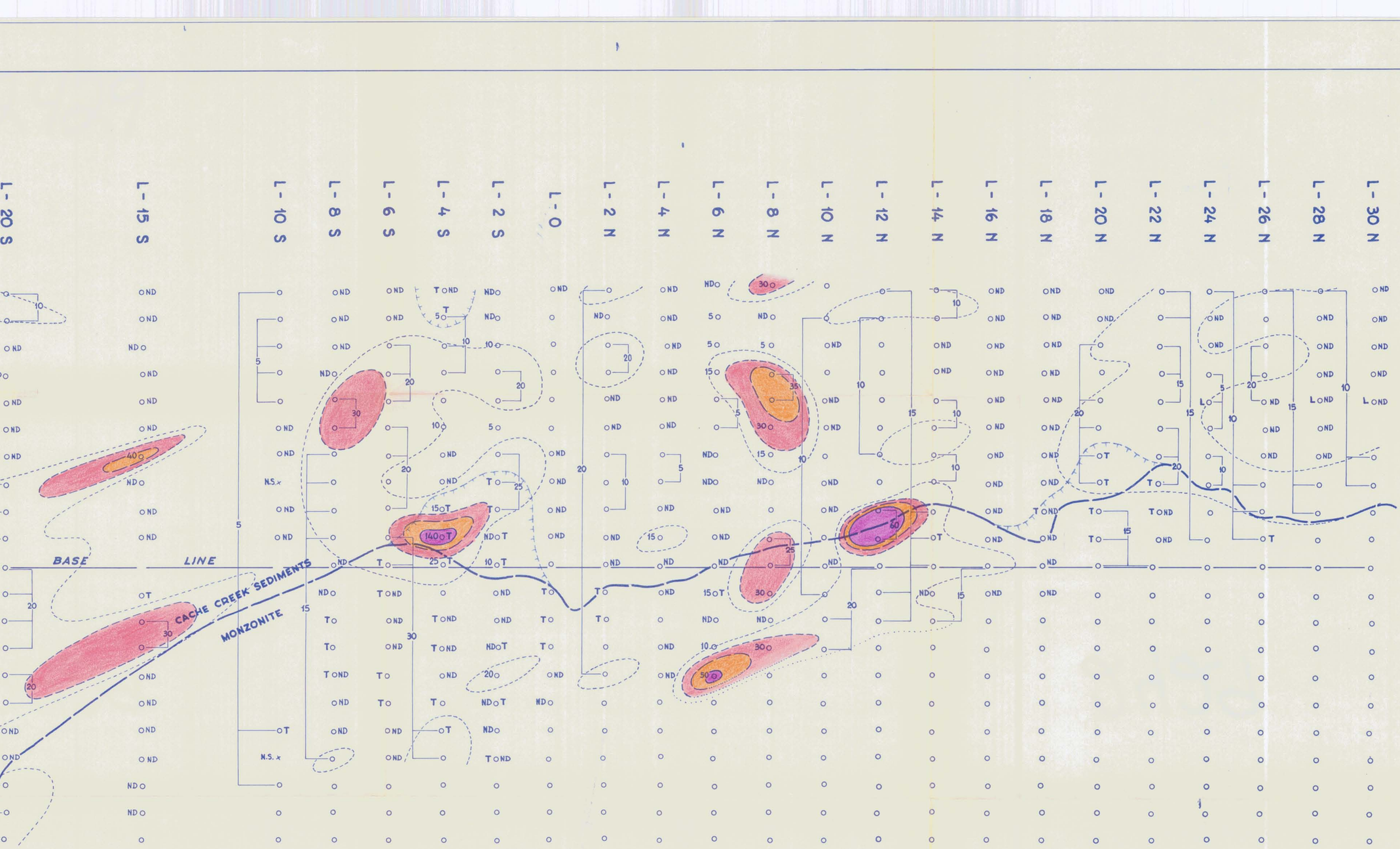
4

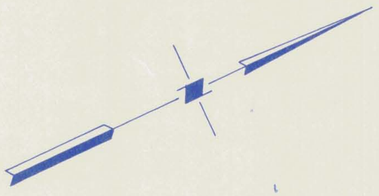
L-20 S | L-15 S | L-10 S | L-8 S | L-6 S | L-4 S | L-2 S | L-0 | L-2 N | L-4 N | L-6 N | L-8 N | L-10 N | L-12 N | L-14 N | L-16 N | L-18 N | L-20 N | L-22 N | L-24 N | L-26 N | L-28 N | L-30 N

BASE LINE

CACHE CREEK SEDIMENTS

MONZONITE





LEGEND

Data Presentation:

SAMPLE LOCATION	
Talus	oT
Soil	o
Stream Sediments	oL
NO SAMPLE	N.S.x
NOT DETECTED	o ND

GEOCHEMICAL VALUES CONTOURS	FROM	TO	SOIL SAMPLES $\bar{x}$=9 ppb s=12 ppb	TALUS SAMPLES $\bar{x}$=22 ppb s=36 ppb
		$< \bar{x}$	0 – 9	0 – 22
	$\bar{x}$	$\bar{x}+s$	10 – 21	23 – 58
	$\bar{x}+s$	$\bar{x}+2s$	22 – 33	59 – 94
	$\bar{x}+2s$	$\bar{x}+3s$	34 – 45	95 – 130
	$>\bar{x}+3s$		46 +	131 +

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SOILS & TALUS – DETAIL GEOCHEMICAL SURVEY

Au (ppb) DISTRIBUTION

SHOWING #1 – SALLUS CREEK AREA

LILLOOET MINING DIVISION – B.C. – CANADA

Project	Scale:	Survey & Geochemistry by:	
406	1" = 200'	BONDAR-CLEGG & COMPANY LTD. VANCOUVER, B.C.	MAP

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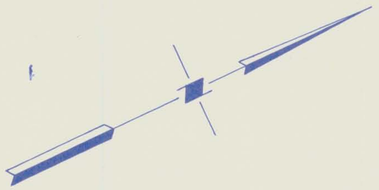
L-20 S | L-15 S | L-10 S | L-8 S | L-6 S | L-4 S | L-2 S | L-0 | L-2 N | L-4 N | L-6 N | L-8 N | L-10 N | L-12 N | L-14 N | L-16 N | L-18 N | L-20 N | L-22 N | L-24 N | L-26 N | L-28 N | L-30 N

BASE LINE

CACHE CREEK SEDIMENTS

MONZONITE



LEGEND

Data Presentation:

SAMPLE LOCATION

Talus	oT
Soil	o
Stream Sediments	oL
NO SAMPLE	N.S.x
INSUFFICIENT SAMPLE	o –

SOIL SAMPLES OVER CACHE CREEK SEDIMENTS			$\bar{x}$ = 17 ppm. s = 9 ppm.
CONTOURS	GEOCHEMICAL VALUES FROM	TO	PPM
--------		$< \bar{x}$	0 - 17
————	$\bar{x}$	$\bar{x}+s$	18 - 26
————	$\bar{x}+s$	$\bar{x}+2s$	27 - 35
————	$\bar{x}+2s$	$\bar{x}+3s$	36 - 44
————	$>\bar{x}+3s$		45+

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ASSESSMENT REPORT
NO. 2429 MAP #6

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SOILS & TALUS — DETAIL GEOCHEMICAL SURVEY

Pb (ppm) DISTRIBUTION

SHOWING #1 - SALLUS CREEK AREA

LILLOOET MINING DIVISION - B.C. - CANADA

Project 406	Scale: 1" = 200'	Survey & Geochemistry by: BONDAR - CLEGG & COMPANY LTD. VANCOUVER, B.C.	MAP

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6

TRACED - A.THERRIEN - ASBESTOS, QUÉ.
DATE: MAY 6, 1970.

Keatly Creek

Sallus Creek

FRASER RIVER

Gibbs Creek

Revised Bdry - May 1970.

Claim Boundary

#1 Grid Base Line

L-30N

L-10N

L-0+00

L-10S

L-20S

CACHE CREEK SEDIMENTS

MONZONITE

A

B

C

D

E

F

LEGEND

Data Presentation:

SAMPLE LOCATION
- Talus oT
- Soil oS
- Stream Sediments oL

STREAM

CACHE CREEK SEDIMENTS		
SOIL SAMPLES $\bar{x}$ = 252 ppm. S = 163 ppm.		TALUS SAMPLES $\bar{x}$ = 322 ppm. S = 495 ppm.
0 - 252	< $\bar{x}$	0 - 322
253 - 415	$\bar{x}$ to $\bar{x}$+s	323 - 817
416 - 578	$\bar{x}$+s to $\bar{x}$+2s	818 - 1312
579 - 741	$\bar{x}$+2s to $\bar{x}$+3s	1313 - 1807
742 +	> $\bar{x}$+3s	1808 +

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2429 MAP #8

From Lab. Reports 20-65, 29-232.

2429

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GEOCHEMICAL SURVEY - SOILS & TALUS FINES

Zn (ppm) DISTRIBUTION

SALLUS CREEK AREA

LILLOOET MINING DIVISION - B.C. - CANADA

Project	Scale:	Survey & Geochemistry by:	MAP
406	1"=1000'	BONDAR - CLEGG & COMPANY LTD. VANCOUVER, B.C.	

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DATE: MAY 6, 1970.

Keatly Creek

Sallus Creek

FRASER RIVER

Revised Bdry - May 1970.

A

B

C

D

E

F

CACHE CREEK SEDIMENTS

MONZONITE

#1 Grid Base Line

L-30N

L-10N

L-0+00

L-10S

L-20S

Claim Boundary

Revised Bdry - May 1970.

Gibbs Creek

LEGEND

Data Presentation:

SAMPLE LOCATION
- Talus oT
- Soil oS
- Stream Sediments oL

STREAM

CACHE CREEK SEDIMENTS		
SOIL SAMPLES $\bar{x}$ = 18 ppm. s = 5 ppm.		TALUS SAMPLES $\bar{x}$ = 22 ppm s = 9 ppm.
0 - 18	$< \bar{x}$	0 - 22
19 - 23	$\bar{x}$ to $\bar{x}+s$	23 - 31
24 - 28	$\bar{x}+s$ to $\bar{x}+2s$	32 - 40
29 - 33	$\bar{x}+2s$ to $\bar{x}+3s$	41 - 49
34+	$> \bar{x}+3s$	50+

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2429 MAP #9

From Lab. Reports 20-65, 29-232.

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GEOCHEMICAL SURVEY - SOILS & TALUS FINES

Pb (ppm) DISTRIBUTION

SALLUS CREEK AREA

LILLOOET MINING DIVISION - B.C. - CANADA

Project	Scale:	Survey & Geochemistry by:	
406	1"=1000'	BONDAR - CLEGG & COMPANY LTD. VANCOUVER, B.C.	MAP

9

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DATE: MAY 6, 1970.

Keatly Creek

Sallus Creek

FRASER RIVER

Revised Bdry - May 1970.

A

B

C

D

E

F

Claim Boundary

Revised Bdry - May 1970

Gibbs Creek

CACHE CREEK SEDIMENTS

#1 Grid Base Line

L-30N

L-10N

L-0+00

L-10S

L-20S

MONZONITE

LEGEND

Data Presentation:

SAMPLE LOCATION

Talus	oT
Soil	oS
Stream Sediments	oL

STREAM

CACHE CREEK SEDIMENTS		
SOIL SAMPLES $\bar{x}$ = 1.4 ppm. s=0.6 ppm.		TALUS SAMPLES $\bar{x}$ = 2.0 ppm. s=0.9 ppm.
0 - 1.4	< $\bar{x}$	0 - 2.0
1.5 - 2.0	$\bar{x}$ to $\bar{x}$+s	2.1 - 2.9
2.1 - 2.6	$\bar{x}$+s to $\bar{x}$+2s	3.0 - 3.8
2.7 - 3.2	$\bar{x}$+2s to $\bar{x}$+3s	3.9 - 4.7
3.3 +	> $\bar{x}$+3s	4.8+

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2429 MAP #10

From Lab. Reports 20-65, 29-232.

2429

PROFESSIONAL ENGINEER PROVINCE OF B.C. BRITISH COLUMBIA
Expiry Date: Jan. 28, 1971

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GEOCHEMICAL SURVEY - SOILS & TALUS FINES

Ag (ppm) DISTRIBUTION

SALLUS CREEK AREA

LILLOOET MINING DIVISION - B.C. - CANADA

Project	Scale:	Survey & Geochemistry by:	
406	1"=1000'	BONDAR - CLEGG & COMPANY LTD. VANCOUVER, B.C.	MAP

TRACED - A.THERRIEN - ASBESTOS, QUÉ.
DATE: MAY 6, 1970.

Keatly Creek

Sallus Creek

FRASER RIVER

A

B

C

D

E

F

Revised Bdry - May 1970.

Claim Boundary

Revised Bdry - May 1970.

Gibbs Creek

CACHE CREEK SEDIMENTS

MONZONITE

#1 Grid Base Line

L-30 N

L-10 N

L-0+00

L-10 S

L-20 S

LEGEND

Data Presentation:

SAMPLE LOCATION
- Talus oT
- Soil oS
- Stream Sediments oL

STREAM

CACHE CREEK SEDIMENTS		
SOIL SAMPLES $\bar{x}$ = 22 ppm. S = 27 ppm.		TALUS SAMPLES $\bar{x}$ = 33 ppm. S = 35 ppm.
0 - 22	$< \bar{x}$	0 - 33
23 - 49	$\bar{x}$ to $\bar{x}+s$	34 - 68
50 - 76	$\bar{x}+s$ to $\bar{x}+2s$	69 - 103
77 - 103	$\bar{x}+2s$ to $\bar{x}+3s$	104 - 138
104+	$> \bar{x}+3s$	139+

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2429 MAP #11

From Lab. Reports 20-38, 20-65.

2429

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GEOCHEMICAL SURVEY - SOILS & TALUS FINES

As (ppm) DISTRIBUTION

SALLUS CREEK AREA

LILLOOET MINING DIVISION - B.C. - CANADA

Project	Scale:	Survey & Geochemistry by:	MAP
406	1" = 1000'	BONDAR - CLEGG & COMPANY LTD. VANCOUVER, B.C.	

TRACED - A.THERRIEN - ASBESTOS, QUÉ.
DATE : MAY 6, 1970.

Keatly Creek

Sallus Creek

F R A S E R R I V E R

A

C

E

Revised Bdry - May 1970.

Claim Boundary

Revised Bdry - May 1970.

CACHE CREEK SEDIMENTS

MONZONITE

L-30N

#1 Grid Base Line

L-10N

L-0+00

L-10S

L-20S

Gibbs Creek

From Lab. Report 20-38.

LEGEND

Data Presentation:

SAMPLE LOCATION

Talus	oT
Soil	oS
Stream Sediments	oL

STREAM

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2429 MAP #12

2429

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Expiry Date: Jan. 28, 1971

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GEOCHEMICAL SURVEY - SOILS & TALUS FINES

Sb (ppm) DISTRIBUTION

SALLUS CREEK AREA

LILLOOET MINING DIVISION - B.C. - CANADA

Project	Scale:	Survey & Geochemistry by:	
406	1"=1000'	BONDAR - CLEGG & COMPANY LTD. VANCOUVER, B.C.	MAP

12

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DATE: MAY 6, 1970.

Keatly Creek

Sallus Creek

F R A S E R R I V E R

P.G.E. RAILWAY

Claim Boundary

Gibbs Creek

4500
4000
3500
3000
2500
2000
5000
5500
6000

LEGEND

Data Presentation:

SAMPLE LOCATION
- Talus ○T
- Soil ○S
- Stream Sediments ○L

STREAM
ROAD
CONTOUR —2000—

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2429 MAP #7

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
H. M. K. CONN
Expiry Date: Jan. 28, 1971

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GEOCHEMICAL SURVEY - SOILS & TALUS FINES

SAMPLE LOCATION

SALLUS CREEK AREA

LILLOOET MINING DIVISION - B.C. - CANADA

Project	Scale:	Survey & Geochemistry by:	
406	1"=1000'	BONDAR - CLEGG & COMPANY LTD. VANCOUVER, B.C.	MAP 1

TRACED - A.THERRIEN - ASBESTOS, QUÉ.
DATE: MAY 6, 1970.

Keatly Creek

Salius Creek

FRASER RIVER

Revised Bdry - May 1970.

L-30 N

#1 Grid Base Line

L-10 N

L-0+00

L-10 S

L-20 S

MONZONITE

CACHE CREEK SEDIMENTS

Claim Boundary

Revised Bdry - May 1970.

Gibbs Creek

E

LEGEND

Data Presentation:

SAMPLE LOCATION
- Talus oT
- Soil oS
- Stream Sediments oL

STREAM

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2429 MAP #13

From Lab. Report 20-65.

2429

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA H. M. K. CONN
Expiry Date: Jan. 28, 1971

CANADIAN JOHNS-MANVILLE CO. LTD.

GEOCHEMICAL SURVEY - SOILS & TALUS FINES

Au (ppb) DISTRIBUTION

SALLUS CREEK AREA

LILLOOET MINING DIVISION - B.C. - CANADA

Project	Scale:	Survey & Geochemistry by:	
406	1"=1000'	BONDAR - CLEGG & COMPANY LTD. VANCOUVER, B.C.	MAP

13

TRACED - A.THERRIEN - ASBESTOS, QUÉ.
DATE: MAY 6, 1970.

Keatly Creek

Sallus Creek

FRASER RIVER

Gibbs Creek

A

C

E

Revised Bdry - May 1970.

Claim Boundary

CACHE CREEK SEDIMENTS

MONZONITE

#1 Grid Base Line

L-30 N

L-10 N

L-0+00

L-10 S

L-20 S

LEGEND

Data Presentation:

SAMPLE LOCATION
- Talus oT
- Soil oS
- Stream Sediments oL

STREAM

CACHE CREEK SEDIMENTS		
SOIL SAMPLES $\bar{x}$=155 ppb. s=108 ppb.		TALUS SAMPLES $\bar{x}$=287 ppb. s=283 ppb.
0 - 155	< $\bar{x}$	0 - 287
156 - 263	$\bar{x}$ to $\bar{x}+s$	288 - 570
264 - 371	$\bar{x}+s$ to $\bar{x}+2s$	571 - 853
372 - 479	$\bar{x}+2s$ to $\bar{x}+3s$	854 - 1136
480+	> $\bar{x}+3s$	1137+

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2429 MAP #14

From Lab. Report 52-O.

2429

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA H. M. K. Co.
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GEOCHEMICAL SURVEY - SOILS & TALUS FINES

Hg (ppb) DISTRIBUTION

SALLUS CREEK AREA

LILLOOET MINING DIVISION - B.C. - CANADA

Project	Scale:	Survey & Geochemistry by:	
406	1"=1000'	BONDAR - CLEGG & COMPANY LTD. VANCOUVER, B.C.	MAP

14

MAGNETIC NORTH 23° 30'

2430

LEGEND

- Gr — GRANITE
- Qte — QUARTZITE
- Lst — LIMESTONE
- Tuff — TUFF
- Epd — EPIDOTE
- Gwk — GRAYWACKE
- Strike & Dip
- Road
- Chained Location Line
- Mineral Post
- Survey Station
- Outcrop
- Fault - assumed
- Probable Contact
- Mineral Occurrence

NORSE EXPLORATION LIMITED (N.P.L.)

BIRK CLAIMS

PEMBERTON AREA
LILLOOET MINING DISTRICT, B.C.

SCALE 0 200 400 800 FEET

J. FOSTER IRWIN ENGINEERING & MANAGEMENT SERVICES LTD.

EDMONTON, ALBERTA APRIL, 1970

GEOLOGY REPORT - FIG. 3 FIG. 4

NOR

39 38 36 34 32 30 28 26 24 44

40 37 35 33 31 29 27 25 23 43

18 20 22 10 8 6 4 2 42

17 19 21 9 7 5 3 1 41

16 15 14 13 12 11

47 46 45

KENAS

ADIT

TRENCH

CREEK

BASELINE

RIVER

LOGGING ROAD

BIRKENHEAD

FOWL CR.

BIRK I

MAGNETIC — N

LEGEND

- Qtz — QUARTZITE
- Gwk — GREYWACKE
- Por — FELDSPAR PORPHYRE
- Cu — MINERAL OCCURRENCE
- FAULT
- GEOCHEMICAL SURVEY TRAVERSE
- CLAIM BOUNDARY
- GEOCHEM ANOMALOUS AREA
- Tuff — TUFF & AGGLOMERATE
- Lst — LIMESTONE or MARBLE
- Gos — GOSSAN
- STRIKE & DIP
- POSSIBLE CONTACT
- OUTCROP
- CLAIM LINE
- PROPOSED I.P. SURVEY

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2430 MAP #1

2430

NORSE EXPLORATION LIMITED (N.P.L.)

NOR CLAIMS

PEMBERTON AREA
LILLOOET MINING DISTRICT, B.C.
Scale 0 200 400 800 Feet

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FIG. 6

FIG. 2 GEOLOGY REPORT