85-702-13858

GEOLOGICAL BRANCH ASSESSMENT REPORT

13,858

Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S): GEOLOGICAL — TOTAL COST: $ 3919.12 × 1.00 = $ 3,919.12 Corrected Total: 3,920.12

AUTHOR(S): F.B. Whiting — SIGNATURE(S): F.B. Whiting

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED: July 8, 1985 — YEAR OF WORK: 1985

PROPERTY NAME(S): SULLIVAN TWO M.C.

COMMODITIES PRESENT: Lead (zinc, silver ?)

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN: No #.

MINING DIVISION: Nelson — NTS: 82 F 2 E

LATITUDE: 49° 03' N — LONGITUDE: 116° 37 ' W

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property. (Examples: TAG 14, FIRE 2 (12 units), PHOENIX (Lot 1706), Mineral Lease M 123, Mining or Certified Mining Lease ML 12 (claims involved))

Sullivan Two M.C. Rec. # 3784 (7)

OWNER(S)

(1) Francis B. Whiting (50 %)

(2) ORION RESOURCES LTD (50%)

MAILING ADDRESS

P.O. Box 1239
Aldergrove, B.C. V0X-1A0

200 - 675 West Hastings St.
Vancouver, B.C. V6B-4Z1

OPERATOR(S) (that is, Company paying for the work)

(1) Orion Resources Ltd.

(2)

MAILING ADDRESS

200 - 675 West Hastings St
Vancouver, B.C. V6B-4Z1

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):

Abundant float carrying galena was found in 1929 in burn in valley of Urmston Cr, near headwaters; source not located. Host formation is Aldridge Fm, micaceous quartzites and muscovite-biotite phyllite. Beds strike NNW, dip east at 20°.

REFERENCES TO PREVIOUS WORK: Prospecting reported in B.C. M.M. Ann.Rept 1929 page C 360.

(over)

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Illustrations:

INTRODUCTION

Location, Access

The SULLIVAN TWO mineral claim is situated on the east slopes of Mount Rykert, 11 km southwest of Creston, B.C., on NTS Sheet 82-F-2E, at Lat. 49° 03' N, Long. 116° 37" West, in the Nelson M.D. Elevations on the claim range from 900 m on the east side to 1680 m at the southwest corner. The ground surface slopes down to the east at 15° - 20°. Overburden is very continuous over almost all of the claim except where logging roads have created exposures.

Access to the claim is by a blacktop road along the west side of French Slough and then by the Dodge Creek logging road that runs west across the southern slopes of Mt. Rykert, from which a branch 4 km long reaches a saddle between Mt. Rykert and a prominent ridge running SE from that mountain-top. This road is passable by car in summer.

Figure 1 is a general Location Map. Figure 2 is the claim map, part of sheet 82-F-2E.

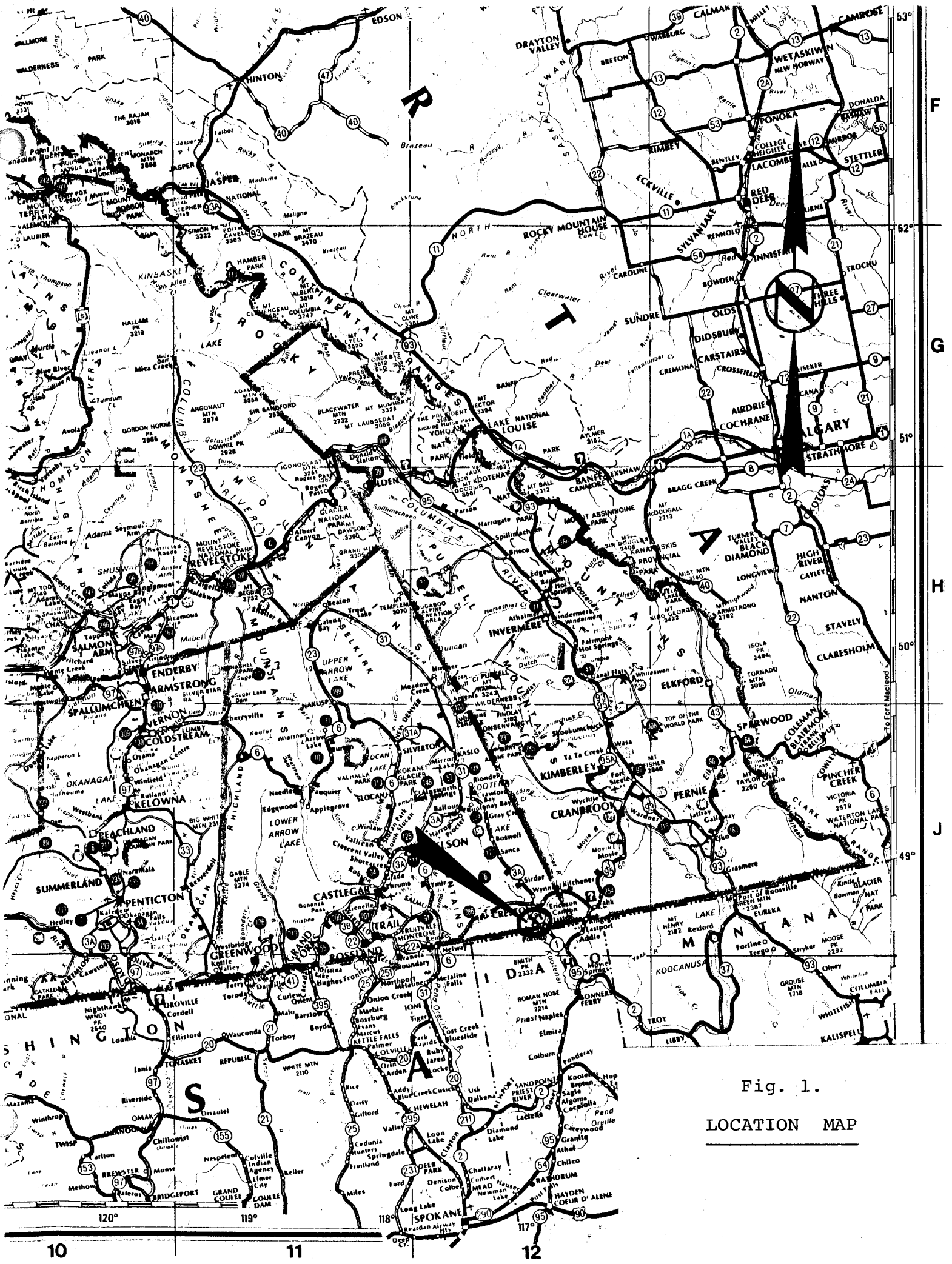
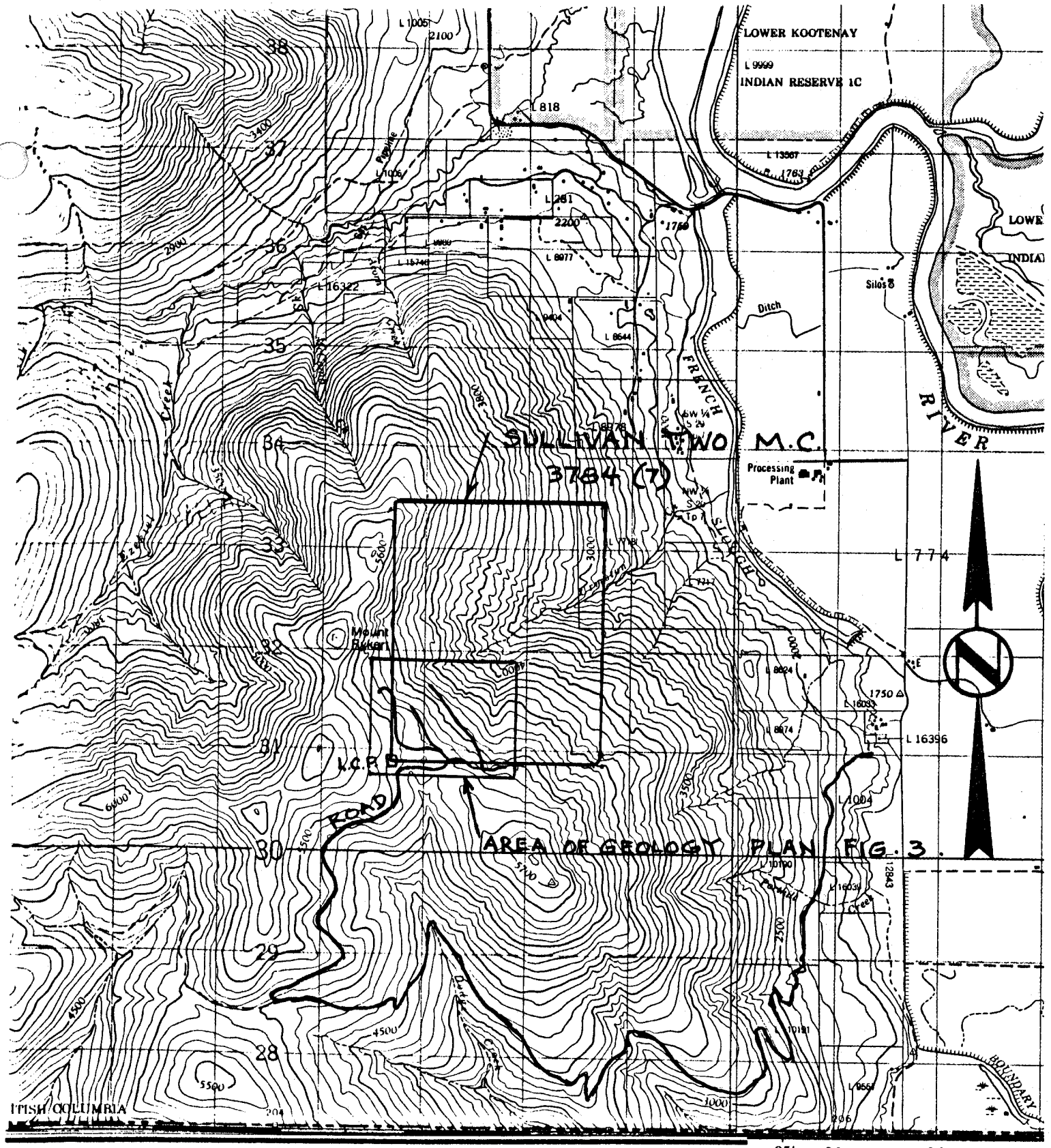


Fig. 1.

LOCATION MAP



CRESTON

KOOTENAY LAND DISTRICT

BRITISH COLUMBIA

Scale 1:50 000 Échelle

Miles 1 0 1 2 3 Miles

Metres 1000 0 1000 2000 3000 4000 Mètres

Yards 1000 0 1000 2000 3000 4000 Verges

FIG. 2

CLAIM MAP.

Propert Definition, History & Economic Assessment.

The Sullivan Two M.C. is one claim of 20 units, 5N by 4 E, Record # 3784 (7), owned 50 % by F.B. Whiting of P.O. Box 1239, Aldergrove, B.C. V0X-1A0 and 50 % by Orion Resources Ltd., # 200 - 675 West Hastings St., Vancouver, B.C. V6B-4Z1. A statement of Exploration and Development was filed July 8, 1985 for a sum of $ 3,919.12 + $ 80.88 via PAC account, for a total of $ 4,000.00 , for 2 years' credit.

The B.C. Minister of Mines Annual Report for 1929, page C 360, reported that : " prospecting by A. Currie and associates, who staked four claims at the head of Long creek, following the discovery of a large quantity of float after a forest fire which burned over this area last fall. The float ia a milling-ore consisting of galena in a quartz gangue and the formation is probably Aldridge".

The Sullivan Mine of Cominco at Kimberly is in the Aldridge Formation, and is an ore-body of considerable size, containing galena and sphalerite. The occurrence of galena in the same formation raised the hope that another orebody might be found at the site mentioned. " Long Creek " is now known as Urmston Creek. The old burn mentioned above was located on air photographs and the claim was situated to cover the upper part of the burn and the slopes above it, which would be the obvious source of the float.

No subsequent work since 1929 is on record.

Any economic assessment at this point can only be related to the possibility of finding the source of the galena float, and the chance that a commercial orebody exists. Work done in 1985 was aimed at locating that source in an area of continuous overburden cover, using soil sampling.

Summary of Work Done

Work was done in the periods June 18, 1984 (1 day: prospecting) , June 24-26 1985 (3-person crew doing mapping, surveying, soil sampling) and July 4-5 1985 (drafting and report writing). A total area of one square kilometer was mapped at a scale of 1 : 5,000. Twenty-one soil samples were collected, which were analysed for lead, zinc, copper and silver by Acme Analytical Laboratories of Vancouver, B.C.

The staking of the claim had been completed on June 17, 1984 and the claim was recorded July 11, 1984. Therefore all the work was done , and recorded, within the first year. A Statement of Exploration and Development was filed July 8, 1985.

Detailed Technical Data and Interpretation

Figure 3 is the detailed geological map.

The formations exposed in cuts along logging roads are mainly thinly-bedded alternations of muscovite-biotite phyllite, micaceous sandstone/quartzite, dark gray-green argillite, and a more massive pale gray to whitish sandstone/quartzite. Minor exposures of a dark green hornblendite and of a green K-feldspar porphyry were noted.

The beds strike generally north-northeast to north-northwest and dip easterly at 20° (max.28° :one exposure).

The mixed pellitic sediments show signs of metamorphism in that the phyllite has abundant crinkly muscovite, containing scattered tiny red garnet crystals. The sandstone/quartzite, so named because it is not quite a good quartzite but is more consolidated that a simple sandstone is not obviously metamorphosed.

Glassy quartz float is common near the southwest corner of the claim. One rusty quartz vein was found in place, seen for a length of 30 metres. Bedded galena-sphalerite mineralization was searched for diligently in every rock cut and in all the overburden, but none was found.

Following the theory that the 1929 prospecting had covered the area of the old burn, where the galena float had been found, but had not succeeded in finding the source as it lay farther up the valley under deep overburden, a set of soil samples was collected along the lowest logging road, which is situated about 150 m west of the upper edge of the old burn.

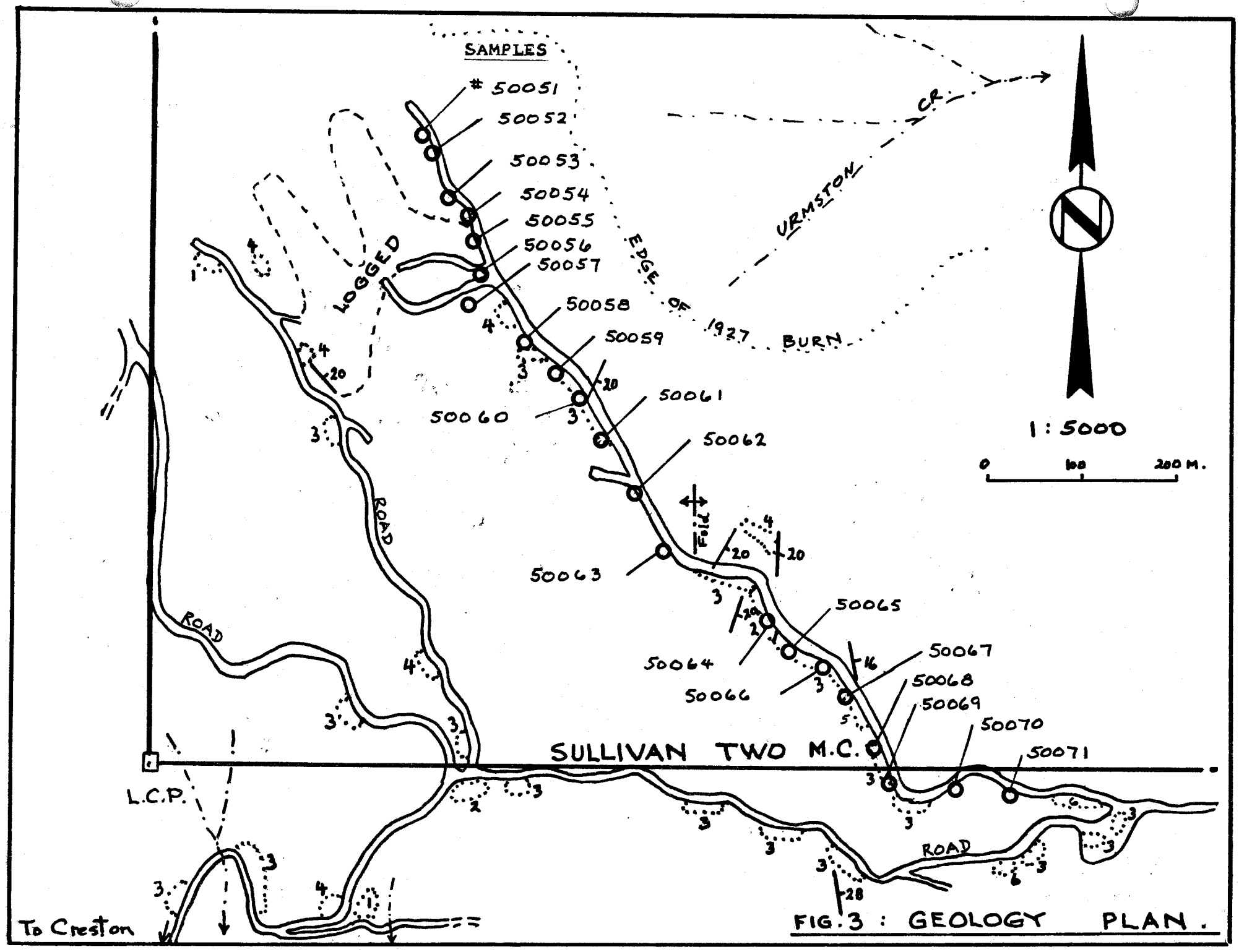
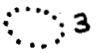


FIG. 3 : GEOLOGY PLAN.

LEGEND FOR FIGURE 3

Rock Unit.	Description
1	Argillite: massive, dark green to black.
2	Phyllite, dark gray, fissile.
3	Sandstone/quartzite: micaceous, fissile, pale to dark brown-gray,with variable amounts of biotite and muscovite, garnets, hornblende, graphite.
4	Massive pale gray sandstone/quartzite; has some micas but is not fissile.
5	Hornblendite; medium to fine-grained, some garnets.
6	Granodiorite; dark to medium green with large K-feldspar , in places foliated.

Roads



Outcrop Areas with Rock Unit Number

Strike & Dip

Sample Locations & Numbers

It was hoped that this sampling profile would detect traces of lead or zinc, or possible accompanying metals,in the B soil horizon at some point, which would guide the search for the buried bedrock source. The samples were taken at intervals of about 60 m, all at sites selected to be comparable in the type and thickness of the B layer, which in most sites was a fine graygreen clayey soil 30-40 cm thick, overlain by humus and roots, and underlain by broken bedrock.

The results were encouraging. Sample # 50071 was at the far south and upper end on the road and samples # 50070 - 50051 were located consecutively downward and to the north into the basin of the upper valley of Urmston Creek, so extending about halfway across the top of the old burn. Samples # 50056-50071 showed relatively consistent low values in lead, zinc and silver, generally in the ranges:
Pb: 2 - 18 ppm with one sample at 35 ppm
Zn: 37 - 88 ppm
Ag: 0.1 - 0.4 ppm with one sample at 1.9 ppm (the same that had the 35 ppm Pb and the 88 ppm Zn).

Samples $ 50055 -50053 , close to the northern, lower end of the sample profile, had slightly higher metal contents:
Pb: 38, 47 & 51 ppm
Zn: 81, 72 & 85 ppm
Ag: 0.3, 0.6 & 0.9 ppm

The last two samples are notably higher: # 50052 & 50051:
Pb: 47 & 108 ppm
Zn: 112 & 159 ppm
Ag: 1.1 & 0.9 ppm.

The copper assays showed no change, being consistently in the range of 13 - 50 ppm, with no pattern discernable.

Interpretation:

The strong and progressive increase in the 3 metals lead, zinc and silver towards the far north end of the line is considered to be significant, and to indicate that there actually is a buried source deposit above or beyond the northern-most sample site. Follow-up work is justified.

CONCLUSIONS

The bedrock formation, suggested in 1929 as being probably Aldridge Formation, has been confirmed as such by later regional mapping. The beds dip almost parallel to the slope of the hillside.

This preliminary soil sampling has given encouraging indications that a source of lead, zinc and silver lies in the center of the basin, above the old burn. It is recommended that the sample line be extended north to go fully across the northern half of the burn area. Samples should be taken at closer intervals, preferably no more than 20 m apart. Assays should be made for lead, zinc and silver. Once the strongest part of the anomalous area has been defined, trenching should be done to expose the suspected source.

Respectfully submitted,

F.B. Whiting , P.Eng.
July 5, 1985.

ITEMIZED COST STATEMENT

Item	Cost
1. Personnel:	
Dr. F.B. Whiting, P.Eng.: June 18,1984, June 24,25,26 1985, July 4,5 1985: 6 days @ $ 275/day..... $	1,650.00
2 travel days: June 23 & 27, 1985 @ $ 275. $	550.00
C.P. Whiting, Geologist: 4 days @ $ 100 June 24,25,26,1985 + 1 travel day June 27/85 ....$	400.00
Luis Gomez: field assistant: 4 days @ $ 60 June 24,25,26,1985 + 1 travel day June 27/85 ....$	240.00
2. Vehicles: June 18,1984 1 day @ $ 48.00 2 vehicles: June 24-27,1985 : Total $ 330.00 ....$	378.00
3. Meals: 14 person-days.....$	216.44
4. Motels: 14 person-days.....$	366.78
5. Supplies: Laths $ 4.00 for survey stakes + Flagging, sample bags: $ 3.00.....$	7.00
6. Office costs: Xeroxing, report binders.....$	15.30
7. Assaying .....$	96.60
TOTAL EXPENSES.....$	3,920.12

F.B. Whiting

AUTHOR'S QUALIFICATIONS

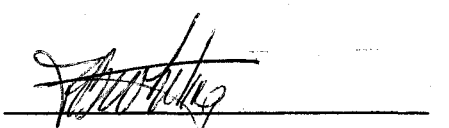
The undersigned, Francis B. Whiting, has the following qualifications:

a) Graduate of Univ. of B.C., 1946, in Geological Engineering.
Graduate of McGill University, 1948, as M.Sc., in Geology.
Graduate of Mass. Institute of Technology, as Ph.D. in Geology and Economics, 1951.

b) Geological work in B.C. in 1945 for International Mining Corp.
Geological work in 1946 for Placer Development Co.
Work at Hedley B.C. for Hedley Mascot Gold Mines, 1947 & 1948.
3 Years as Mine Geologist in Missouri for St. Joseph Lead Co.
6 years as Chief Geologist at Mina Aguilar, Argentina.
7 Years as Exploration Manager in Argentina for Cia. Minera Aguilar S.A. , 1960-68.
5 Years as Manager of Arrow Inter-America Corporation , Vancouver, B.C. 1968-73.
3 Years as Regional Manager for Western North America for Brascan Resources Ltd., based in Vancouver B.C. 1973-76.
8 Years as Consulting Geologist, Vancouver, B.C.

c) P.Eng., B.C. & Yukon.

Signed:



Dr. F.B. Whiting, P.Eng.

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PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: JUNE 27 1985

DATE REPORT MAILED: July 4/85

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.

- SAMPLE TYPE: SOILS

ASSAYER: T. Saundry DEAN TOYE OR TOM SAUNDRY. CERTIFIED B.C. ASSAYER

ORION RESOURCES FILE # 85-1133 PAGE 1

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM
50051	31	108	159	.9
50052	32	47	112	1.1
50053	20	51	85	.9
50054	22	47	72	.6
50055	25	38	81	.3
50056	22	18	58	.4
50057	24	9	57	.3
50058	24	9	55	.1
50059	23	15	78	.3
50060	16	11	55	.2
50061	15	6	57	.1
50062	21	35	88	1.9
50063	15	15	45	.1
50064	40	6	52	.1
50065	41	2	48	.1
50066	34	6	41	.1
50067	46	5	45	.1
50068	33	2	45	.1
50069	25	10	48	.1
50070	13	2	37	.1
50071	50	3	52	.1
STD C	60	37	132	7.1