

5939

GEOLOGICAL REPORT

#5939

ON

MINERAL CLAIMS SAN 1 To 4

NORTH BARRIERE LAKE AREA, KAHLOOBS MINING DIVISION

NTS 82N/5E

FOR

CATHERINE SANESH

OWNER AND OPERATOR

by

Jay D. Murphy, P. Eng.

Geological Engineer

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. 5939 MAP \_\_\_\_\_

TABLE OF CONTENTS

PAGE NO.

INTRODUCTION	1
SUMMARY AND CONCLUSIONS	2
RECOMMENDATIONS	2
GEOLOGY AND STRUCTURE	3
VEINING AND MINERALIZATION	4
ECONOMIC CONSIDERATIONS	4
STATEMENT OF COSTS	5

LIST OF ILLUSTRATIONS

#1 PLATE NO. 1	SECTION VIEW	1
#2 PLATE NO. 2	SURFACE PLAN	3
#3 PLATE NO. 3	GEOLOGY AND SAMPLING	5

ADDENDA

APPENDIX NO. 1	ASSAY REPORTS	BACK COVER
----------------	---------------	------------

## INTRODUCTION

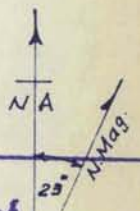
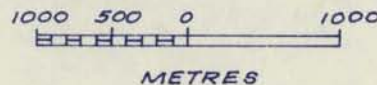
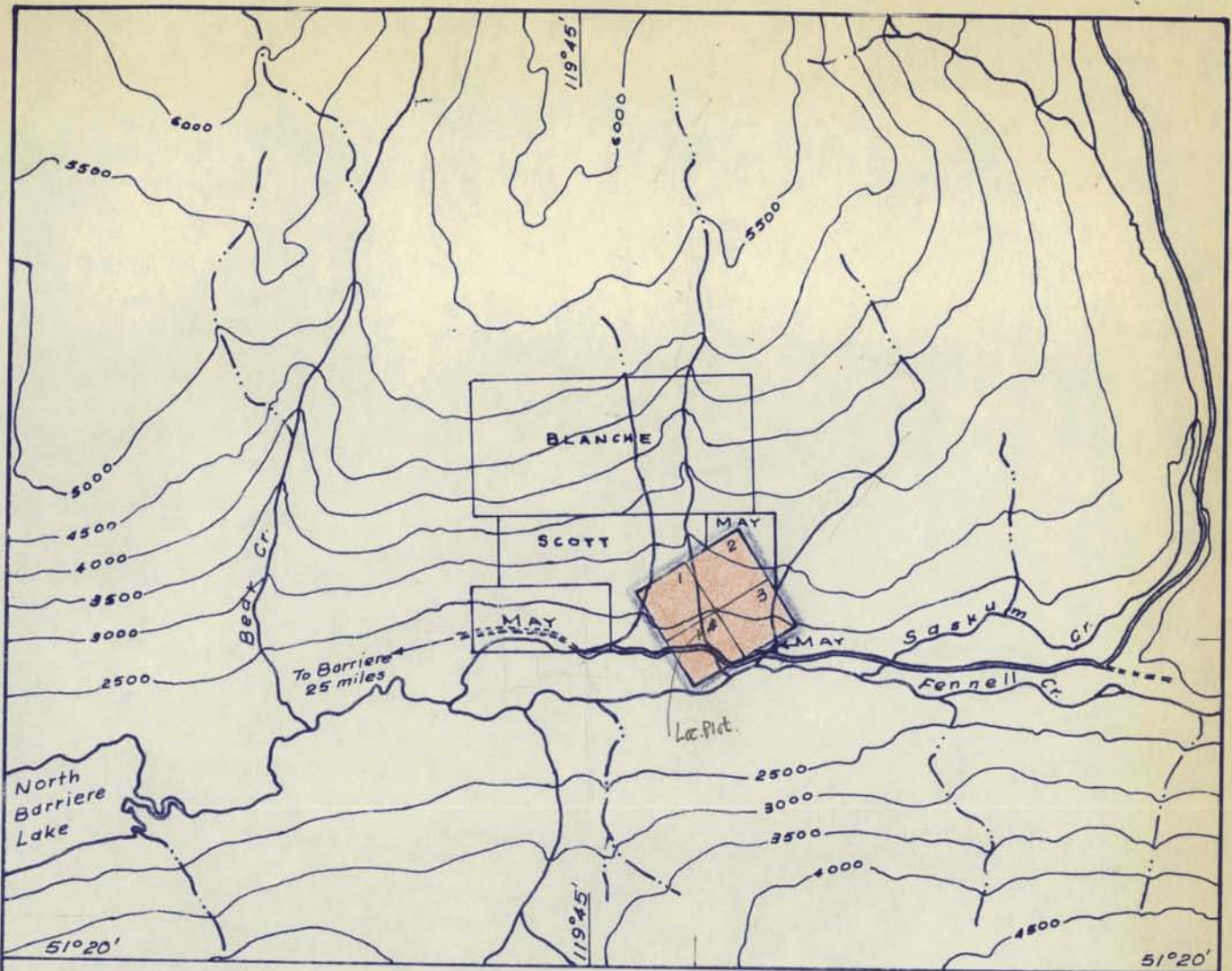
The San group of four mineral claims is located approximately 26 miles by gravel road east of the town of Barriere. The claims lie just north of the road about midway between Bear Creek and Sackum Creek as illustrated in Plate No. 1. The road is in active use by logging trucks and is maintained in good condition year round.

The claims occupy a moderately steep south facing hillside between elevations of 2500 and 3000 ft. Forest cover consists of open pine and cedar woods with individual trees up to 24 inches in diameter. Underbrush is minimal except for the main valley adjacent to Fennell Creek where devil's club, willows, etc., make walking difficult.

One small stream runs through the centre of the property in a generally southern direction, paralleled by two similar streams near the eastern and western claim limits respectively. Stream gradients are steep with frequent small waterfalls of 15 to 20 feet. These streams form part of a system of tributaries flowing north and south into Fennell Creek, which in turn drains westward into North Barriere Lake.

The central stream in the claims area is controlled in part by geologic structure, following the main vein and parallel breaks and forming a series of short linear gorges often separated by vertical drops. Rock exposure is poor, being confined mainly to stream beds and closely adjacent areas. Overburden is estimated at 10 to 15 ft. in depth and consists of clean, gravel sized granitic material equivalent to the underlying bedrock.

The showing has apparently been known for a considerable time as evidenced by the hand driven adit followed in the creek bank and driven to cut the vein at depth. Despite the long history of the area, very little data is available on which to base an economic evaluation. The purpose of this investigation was to make an assessment of the property through a programme of surface mapping and sampling. Claims were located by taking in to the road and topographic features as they appear on the 1:50000 scale claim map. Control was established by pace and compass and therefore is subject to the errors inherent in pacing over steep slopes. The general claims area was mapped on a scale of one inch equals 400 ft. locating prominent cultural and topographic features such as roads and streams (Plate No. 2). The showing area was mapped geologically on a scale of one inch equals 40 ft. A ticket line was run due north south from the No. 1 claim posts to serve as primary control for locating trenches, geological features, etc. Results are illustrated on Plate No. 3.



TO ACCOMPANY *Geological* REPORT BY JAY D. MURPHY P. Eng  
 ON THE *SAN* GROUP OF MINERAL CLAIMS DATED *Aug. 1976*  
 LOCATION: *B2H/5E*  
 MINING DIVISION: *Kamloops*

Signed: *Jay D. Murphy*  
 JAY D. MURPHY P. Eng.

Date: *Aug. 12/76*

Department of  
 Mines and Petroleum Resources  
**ASSESSMENT REPORT**

NO. *5939* MAP # *1*



PLATE No. 1

*SAN GROUP*  
**LOCATION MAP**

J.D. Murphy | 1:50000 | Aug. 1976

All field work was carried out between July 28th and August 1st, 1976.

#### SUMMARY AND CONCLUSIONS

Current work has delineated a strong quartz vein structure striking north - northeast with a moderate dip to the northwest. This vein has a proven strike length of 325 feet and an average width of approximately 2.5 feet. The grade as determined from the weighted average of five chip samples is 1.24 oz. per ton silver and .001 oz. / ton gold over a width of 2.5 feet.

A subsidiary vein system strikes east north east, dips north at low to moderate angles and intersects the main vein at an angle of 35 to 40 degrees. Two samples from this vein system returned only insignificant values in gold and silver.

Results from current sampling make it apparent that the near surface portion of the vein system contains no precious metal values even approaching economic grade. It follows that any potential the property may have must lie at depth. Future exploration should therefore be channeled in this direction. The strength and regularity of the vein and general amenability to mining, together with the fact that economic minerals are present, warrant a modest expenditure to investigate the structure at depth.

It should be kept in mind that if high grade ore shoots do occur in the vein at depth these sections may be quite restricted in size. To outline such ore shoots by drilling may therefore require a fairly close drill pattern.

#### RECOMMENDATIONS

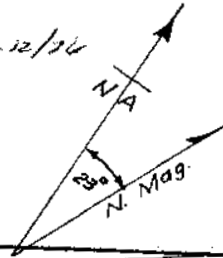
A diamond drilling programme is recommended consisting of three short holes, each about 200 feet deep, at a spacing of 50 feet. The first hole would be located as illustrated in Plate No. 3. Contingent on obtaining a vein intersection in this hole the second hole would be stepped out 50 feet to the southwest. If the first hole fails to locate the vein then the next two holes would be stepped out to the northeast where the vein is known to occur.

The objective of this programme, in addition to determining grade at depth, is to extend the known strike length of the vein. Furthermore, holes are located to investigate the main vein in an area where this structure may intersect a branch vein, a logical place to expect an improvement of grade. All holes would be drilled to cut the main vein structure approximately 80 feet vertically below the adit elevation. Prior to drilling, it is recommended that a transit and stadia survey be conducted to accurately tie in the adit, surface trenches etc. particularly as regards elevation. This would permit holes to be spotted in such

TO ACCOMPANY *Geological* REPORT BY JAY D. MURPHY P. Eng  
ON THE SAN GROUP OF MINERAL CLAIMS DATED *Aug. 12/76*  
LOCATION: *82M/5E*  
MINING DIVISION: *Kamloops*

Signed: *J. D. Murphy*  
JAY D. MURPHY P. Eng.

Date: *Aug. 12/76*



Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. *5939* MAP #2

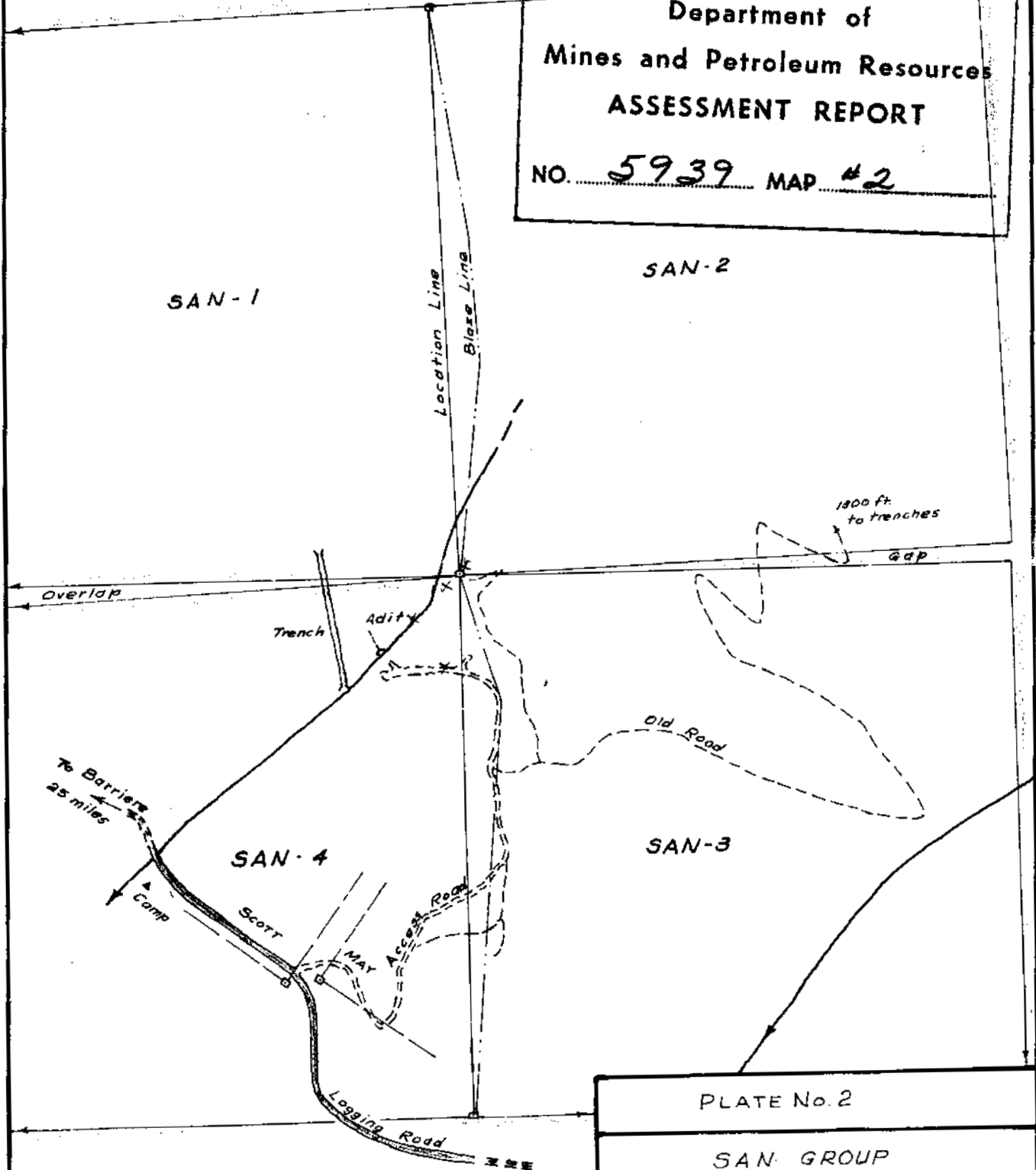


PLATE No. 2  
SAN GROUP  
SURFACE PLAN  
J.D. Murphy | 1 in. = 400 ft. | Aug. 1976

a way as to optimize drill results.

A cost estimate for the recommended programme is as follows:

Stadia Survey

2 days at \$200 per day = \$400.00 \$400.00

Diamond Drilling

600 ft. 40 size hole at \$8.00 = \$4800.00  
Mobilization & demobilization 200.00  
\$5000.00 \$5000.00

Engineering

Surveying, logging, sampling reporting  
600 feet at \$3.00 = \$1800.00 \$1800.00  
Assaying 200.00 200.00

Total Cost \$7400.00

GEOLOGY AND STRUCTURE

The property lies entirely within the Cretaceous Baldy Batholith which is intrusive into upper Paleozoic sediments. The intrusive is oval in outline, the long axis trending east-west, and has dimensions of roughly 10 x 30 miles.

The granite is strongly porphyritic, reddish in color and nearly devoid of mafic minerals except for minor biotite. Phenocrysts of orthoclase feldspar up to one inch occur in a medium grained granitic ground mass. Serpentine is common, particularly adjacent to vein structures.

Veining excluded, the only other rock type seen in the claims area was a narrow mafic dyke exposed intermittently over a strike length of 80 feet immediately east of Tranch No. 6. This dyke strikes nearly perpendicular to the main vein and dips steeply north. The rock has a fine grained sugary texture, is normally dark grey in color and contains a high percentage of mafic minerals. Some patches of light coloured aplitic material were also noted in the dyke close to the main vein structure. The intersection of these two structures is overburden covered so the age relationship was not determined. The dyke shows a right hand offset in the order of five feet.

The main vein structure has been subjected to appreciable subsequent movement, as evidenced by strong fault gouge along both footwall and hanging wall. There may also have been movement prior to emplacement or the vein may simply occupy a tensional feature such as a joint or fissure, that has served as a plane of weakness to localize both veining and post vein movement. Prominent jointing sub parallel to the main vein suggests that jointing may have provided the primary control for vein emplacement.

#### VEINING AND MINERALIZATION

The main vein structure is strong and well defined. The width varies from 24 to 42 inches and the vein can be traced from Trench No. 1 to the adit face, a strike length of approximately 325 ft. This structure strikes 20 to 30° east of north and normally dips northwest at 45 - 50°, flattening to 35° in the vicinity of Trench No. 1.

In addition to the main vein structure there appears to be a branch system as observed in Trenches 1, 5 and 6. In Trench No. 1 one branch of the system is seen to join the main vein. In Trenches 5 and 6 the vein exposures are thought to represent the same vein which, if projected along strike would intersect the main vein some 125 ft. southwest of the adit face. The branch vein system strikes N-47°E to N-30°E and dips northwest at 33 - 44°.

Pyrite was the only metallic mineral noted that occurs in any abundance. This mineral forms stringers and veins up to 3 inches wide within the vein and in some sections comprises 20 - 30% of the total vein material. Pyrite was also noted as well formed cubic crystals coating joint planes in granite adjacent to the quartz veins. In addition to pyrite, the veins also contain a dark fine grained mineral that was not positively identified, but probably represents galena or a mixture of galena and sphalerite. Very minor amounts of both these minerals were observed as identifiable crystals at scattered localities within the veins.

#### ECONOMIC CONSIDERATIONS

The property is well located regarding access, the main showings lying within 1500 ft. of a good all weather gravel road. Distance to the C.N.R. at Barriere is approximately 25 miles. An abundant water supply is available from Pennell Creek and its several tributaries, one of which runs through the claim group. No





# Kamloops Research & Assay Laboratory Ltd.

WEST TRANS CANADA HIGHWAY - BOX 946 - KAMLOOPS, B.C. V2C 5N4

B.C. LICENSED ASSAYERS  
GEOCHEMICAL ANALYSTS

## CERTIFICATE OF ASSAY

TO Mr. J. Murphy,  
1335 Todd Rd.,  
Kamloops, B. C.

Certificate No. K-989

Date August 11, 1976.

I hereby certify that the following are the results of assays made by us upon the herein described chip samples

Kral No.	Marked	GOLD	SILVER							
		Ounces Per Ton	Ounces Per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent
K-989	901	Tr	Tr							
	902	.005	.27							
	903	Tr	6.92							
	904	Tr	.45							
	905	.015	.25							
	906	Nil	Nil							
	907	Tr	.03							
Tr denotes "trace"										

APPENDIX NO. 1

**NOTE:**

Rejects retained three weeks  
Pulps retained three months  
unless otherwise arranged.

  
.....  
Registered Assayer, Province of British Columbia

habitations or other works of man exist within or adjacent to the claims so there should be no conflict in this regard. Proximity of the town of Barriere, an established trading centre, is another positive factor.

Exact distance to the closest power line is not known, but 20 miles is a fair approximation. It would probably be more practical to supply a mining operation with portable diesel generator units than to tie in with B.C. Hydro. The closest silver mill to the writer's knowledge is the Darkoe operation near Kamloops, a truck haul of about 200 miles one way.

From a mining point of view, the main vein structure appears amenable to conventional shrinkage stopeing method. Selvages on both the hanging wall and footwall of the vein would facilitate a clean break from enclosing waste rock. Providing mining widths can be restricted to vein width, which should be feasible, dilution would be minimal. The competent nature of the granitic wallrock would also assist mining operations.

STATEMENT OF COSTS

The following expenses were incurred on the San Group of mineral claims between July 27th and August 2nd, 1976. Work was performed by J.D. Murphy, P. Eng., Consulting Geological Engineer, 1335 Todd Road, Kamloops, B.C.

FIELDWORK

5 days surface mapping and sampling  
July 28 to August 1 at \$150.00/day 8750.00

LIVING EXPENSES

5 days one man at \$20/day 100.00

TRANSPORTATION

220 miles on pavement at 15cents/mile 33.00  
128 miles on gravel at 25 cents/mile 32.00

ASSAYING

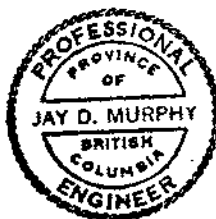
Seven rock samples at \$8.00 each 56.00  
Handling charges on above (15%) 8.40

*Jay D. Murphy*  
Jay D. Murphy, Inc.

Total 9979.40

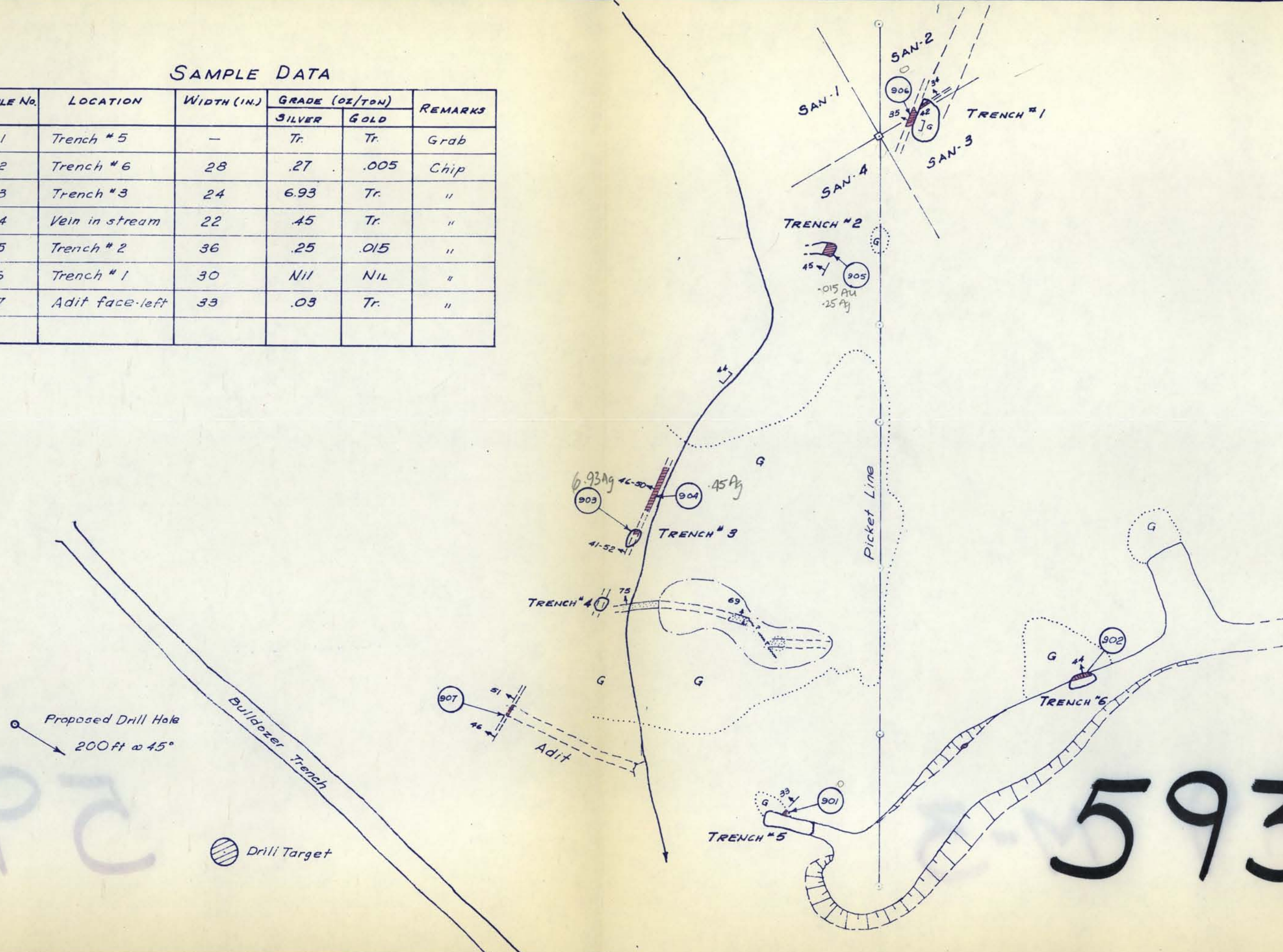
Geological Engineer  
1335 Todd Road,  
Kamloops, B.C.

August 12, 1976


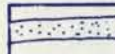
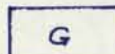


SAMPLE DATA






SAMPLE No.	LOCATION	WIDTH (IN.)	GRADE (oz/ton)		REMARKS
			SILVER	GOLD	
901	Trench # 5	-	Tr.	Tr.	Grab
902	Trench # 6	28	.27	.005	Chip
903	Trench # 3	24	6.93	Tr.	"
904	Vein in stream	22	.45	Tr.	"
905	Trench # 2	36	.25	.015	"
906	Trench # 1	30	NIL	NIL	"
907	Adit face-left	33	.03	Tr.	"



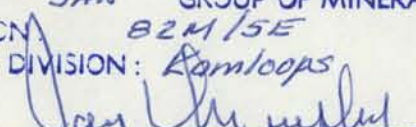
LEGEND

-  Quartz Vein
-  Mafic dyke
-  Porphyritic Granite

SYMBOLS

-  Outcrop boundary
-  Overburden limits
-  Jointing - strike & dip
-  Sample number & location
-  Claim post

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 5939 MAP # 3

TO ACCOMPANY Geological REPORT BY JAY D. MURPHY P. Eng  
ON THE SAN GROUP OF MINERAL CLAIMS DATED Aug. 12/76  
LOCATION B2M/5E  
MINING DIVISION: Kamloops  
Signed:   
JAY D. MURPHY P. Eng.  
Date: Aug. 12/76



5939 M-3



PLATE No. 3  
SAN GROUP  
GEOLOGY & SAMPLING  
J.D. Murphy 1 in. = 40 ft. Aug. 1976