

JCS Copy

COMOX RESOURCES LTD.

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92I/2E

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SUNNYBOY 92I/2E

Memo: Re: Property Submission to W.R. Bacon
from Larry Ovington, Kamloops Phone 372-5794

*Carmi Mo
Vester*

To: DLC, JWM, JCS, WRB

Recommendation: Follow up on data re possible option.

Larry Ovington called Bacon's home at Saltspring yesterday regarding a gold property. Agnes phoned Bill in Vancouver and Bill phoned JCS about supper time.

Bacon met Larry Ovington last fall and accompanied him to look at property in the east Barriere Lake area. Ovington has properties in the Rea Gold and other areas. Bill was favourably impressed.

JCS phoned Ovington March 19 p.m. Ovington had mailed data to Bacon and to a couple of other contacts on March 19. He told me he had acquired the property from an estate. He described the property as "between Merritt and Kamloops" but later mentioned the "Sunnyboy". It is a narrow vein structure with some free gold and some spectacular assays. The property can be reached by road. He referred me to Jay Murphy P. Eng. who was familiar with the property.

A deal would involve a cash payment, shares at intervals, advance royalty payments and a cash royalty buyout. Ovington is not an amateur.

On March 20 a.m. JCS phoned Jay Murphy who had previously mapped the property some five (?) years ago for a previous prospector owner.

This prospector has died and the property was obtained from his estate. Murphy had not completed a formal report but has the data in manuscript form. He had previously worked in the Yellowknife area and feels that this vein merits exploration. The vein structure being presented is not one of those explored by Guichon Mines. It strikes about N60W parallel to, or in contact with, a micro diorite dyke which is 2 to 3 metres wide. The vein is exposed at two locations about 1000 feet apart. The east exposure is relatively good on a 5 metre high rock bluff where free gold is present. The west exposure assayed 0.83 ounces per ton. The vein is 20 to 50 cm wide and steep dipping. Some drilling has been done in past years. Ed Holt had looked at it two years ago for Consolidated Paymaster controlled by Goldsil.

Called Ed Holt. He tells me Murphy had written a rather positive report which Ed could not fully go along with. The strike length that could be followed would be about 400 feet. Widths are narrow. Veins at greater distance are probably separate veins. Some free gold was seen but assay values were rather spotty. Ed could not see significant tonnage and felt drilling was too expensive for the probable reserves involved. His report can be made available should we need it.

The vein is exposed in a road cut and in three or four trenches uphill. In the higher areas rock exposure is good and no vein structure is evident. Downhill in overburden areas you might hope for stronger vein development but that is very speculative.

Holt had seen at least some drill hole information and located several drill sites. He felt that the better intersections were from a very closely spaced group of holes. No assay values were mentioned although Ed said there were some significant results.

I confirmed again with Holt that the vein in question is not one of those explored by Guichon Mines adits. Location and access are excellent.

Data from the following references is provided.

BC Minister of Mines Reports

1945 p90; 1946 p122; 1949 p120; 1962 p57.

GSC Memoir 249 p131.

NICOLA LAKE.*

Copper.

(50° 120° S.W.) James D. Ferguson, Manager, Merritt, B.C. This company was formed late in 1945 to acquire and work the Frinsbury group of mineral claims, 2 miles south-west of Quilchena and 12 miles east of Merritt. Work was done on the Ensign claim where a shaft and an adit-level were developed. A level was driven in a north-westerly direction for 40 feet from the bottom of the shaft which is 11 feet by 6 feet and 65 feet deep.

An adit-level, 400 feet south-east of the shaft, was extended westerly into the hill-side and on November 21st was in 60 feet. A diamond-drilling programme began about the end of November.

A small portable compressor provides power for running a drifter. A compressor-room and a storeroom were erected during November. Five men were employed. No camp-site has been provided yet and the workmen are transported daily to and from their homes at Merritt.

Gold.

Company office, 124 Pacific Building, Vancouver. Lewed Jesson, President; James D. Ferguson, Mine Manager. This company is developing the Frinsbury group of mineral claims, 2 miles south-west of Quilchena and 12 miles east of Merritt. The main development during the year consisted of driving the 2100 level on the Last Chance claim. This adit-level was advanced 1,000 feet in a north-westerly direction. Some development was also done on the Camperdown, Ensign, and Quilchena Mineral Claims. Total development consisted of 1,230 feet of drifting, 25 feet of sinking, 600 feet of diamond-drilling, and some surface stripping. A bunk-house, cook-house, and change-house were built for the accommodation of twenty men, as well as two dwelling-houses for the staff. A compressor-room, blacksmith-shop, and storeroom were also built near the 2100 level portal. A small portable compressor provides air for a drifter, and a small fan for underground ventilation. At the end of the year six men were employed.

Guichon Mine

G.S.C. MEM^o 249 p 131

Guichon Mine, Limited, holds seven Crown-granted claims and seventeen claims held by location near the mouth of Quilchena Creek. This property was inactive at the time geological work was done in the district by the writer, and the mineral deposits were not seen, so the property is not shown on the accompanying map. Recently, however, a considerable amount of development work has been done, and the writer has seen some of the mineral showings but was unable to make an examination of the property.

The mine workings are situated less than a mile south of the Merritt-Kamloops highway, and southwest of the mouth of Quilchena Creek.

Several narrow quartz veins carrying copper minerals and in places yielding high assays in gold and silver occur intersecting the rocks of the Nicola group. The surveying of the different showings had not been done at the time of the writer's visit and, consequently, it is difficult to relate the individual exposures. In the earlier work done on the property several veins had been followed by short adits and open-cuts. Guichon Mine, Limited, has since driven a long crosscut adit and has done a considerable amount of drilling.

An old adit at an elevation of 3,380 feet (barometric) is 63 feet long and very crooked, the vein showing only in places. The vein is 12 to 15 inches wide, strikes northwest, and dips steeply northeast. It is composed of quartz mineralized with bornite and malachite. Sampling has indicated a content ranging up to \$90 a ton in gold, silver, and copper.

A second adit has been driven on the vein about 30 feet above the first and is 25 feet long. In this distance the vein maintains a width of 8 to 12 inches.

Beyond these adits the vein has been traced on the surface by open-cuts for about 300 feet and is about a foot wide. At the farthest showing from the adit, however, no regular vein appears, the cut showing a lode consisting of fractured country rock with irregular stringers of quartz and thin streaks of hematite. Very high assays in gold are reported from this showing.

Some 200 feet southeast, but offset from the projected position of this vein, is a vein known as No. 6, which may be the same vein displaced by faulting. An adit 200 feet long has been driven on this, but because of water near the portal could not be examined.

Northeast of these showings and some 300 feet lower, a crosscut adit has been driven 1,400 feet towards them, but is still short of its objective. Drilling from the face is reported to have disclosed veins ahead of the drift.

Approximately 1,400 feet northwest of this adit another has been driven 55 feet on a vein known as No. 1. This strikes northwest and dips 45 to 60 degrees southwest. It is about 30 inches wide, and is well mineralized with bornite. Near the portal of the adit the vein is crossed by a second vein, 4 to 12 inches wide. Silver assays ranging up to 60 ounces a ton are reported from this showing.

Similar veins are stated to occur at other points on the property.

Sunny Boy (71), Lakeshore Deep (72), and Nicola Lake Groups (70)

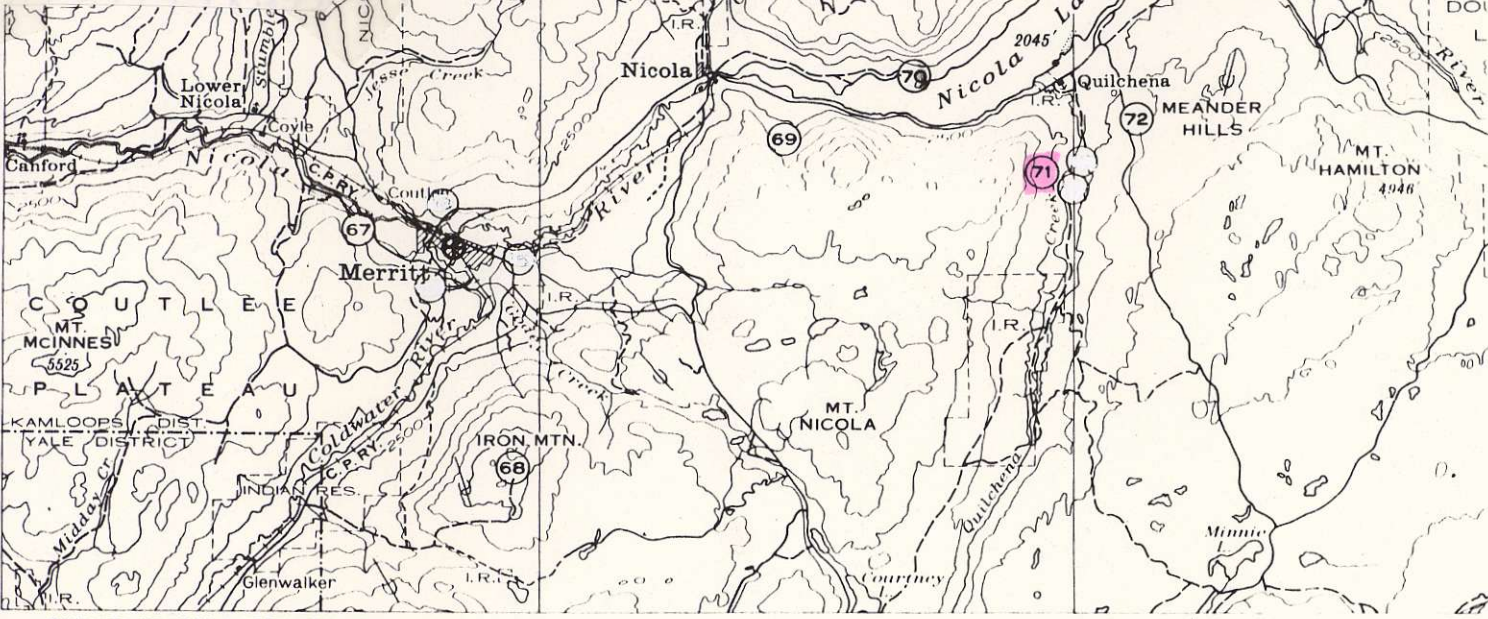
The showings on these groups were not seen by the writer, several of them having been prospected after the geological work in that part of the area was done.



INDEX TO MINERAL LOCALITIES
(Indicating principal contained metals or minerals)

METALLIC

- 52 Clarke claims, Gnawed Mtn. Copper
- 53 Ford group Copper
- 54 Dupont, Windsor, and Lost (Bertha and Molly) claims Copper
- 55 Aberdeen mine Copper
- 56 Gold Gossan group Gold, Silver
- 57 Last Chance group, Swakum Mtn. Copper, Tungsten
- 58 Alameda group
- 59 Corona group Formerly Sheffield Gold and Silver Ltd. Gold, Silver
- 60 Thelma group and Silver Mines Ltd.
- 61 "A" group Gold, Silver
- 62 Consolidated Nicola Goldfields Ltd. Gold, Silver
- 63 Don group (Scottie) Gold, Silver
- 64 Jean group (Mary Reynolds) Gold, Silver
- 65 Eric claim Copper
- 66 Peacock (Hunter) group Copper, Gold
- 67 Copper Belle and Anaconda groups Copper
- 68 Comstock of B.C. Ltd. Silver, Lead
- 69 Iron King and Iron Queen Iron
- 70 Nicola Lake group Copper, Gold
- 71 Sunny Boy group Copper
- 72 Lakeshore Deep group Copper



50°00' 121°00' PUBLISHED, 1947. REPRINTED, 1961. 45' 30'

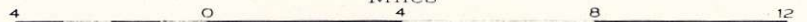
MAP 887A

MINERAL LOCALITIES

NICOLA

KAMLOOPS AND YALE DISTRICTS
BRITISH COLUMBIA

Scale, 253:40 or 1 Inch to 4 Miles
Miles



Approximate magnetic declination, 24°W to 27° East.

COPIES OF THIS MAP MAY BE OBTAINED FROM THE DIRECTOR, GEOLOGICAL SURVEY OF CANADA, OTTAWA



CENOZOIC

- 13 Valley basalt; mainly vesicular basalt
- MIOCENE OR EARLIER
KAMLOOPS GROUP
- 11 12 Rhyolite, andesite, and basalt; associated tuffs, breccias and agglomerates. May include some younger basalts
- 12 TRANQUILLE BEDS: conglomerate, sandstone, shale, tuff; thin coal seams
- 10 COLDWATER BEDS: conglomerate, sandstone, shale, and coal; 10a. similar to 10, but may include younger beds

MESOZOIC OR CENOZOIC

- 9 COPPER CREEK INTRUSIONS: granite, granodiorite, granite porphyry
- 8 Andesite, basalt; picrite, agglomerate, breccia, and tuff; minor conglomerate and sandstone
- 7 Conglomerate, sandstone, and shale

CRETACEOUS

- LOWER CRETACEOUS
KINGSDALE GROUP
- 6 Rhyolite, andesite, and basalt; associated tuffs, breccias, and agglomerates; arkose, conglomerate

- SPENCE BRIDGE GROUP
- 5 Hard, reddish lava

JURASSIC AND(?) LATER

- 4 COAST INTRUSIONS: granite, granodiorite, gabbro; 4a, iron Musk batholith; syenite, monzonite, diorite, gabbro; 4b, pyroxenite and peridotite. Probably not all of the same age, and may be in part post-Lower Cretaceous

TRIASSIC

- UPPER TRIASSIC
NICOLA GROUP
- 3 Greenstone, andesite, basalt; agglomerate, breccia, tuff; minor argillite, limestone, and conglomerate

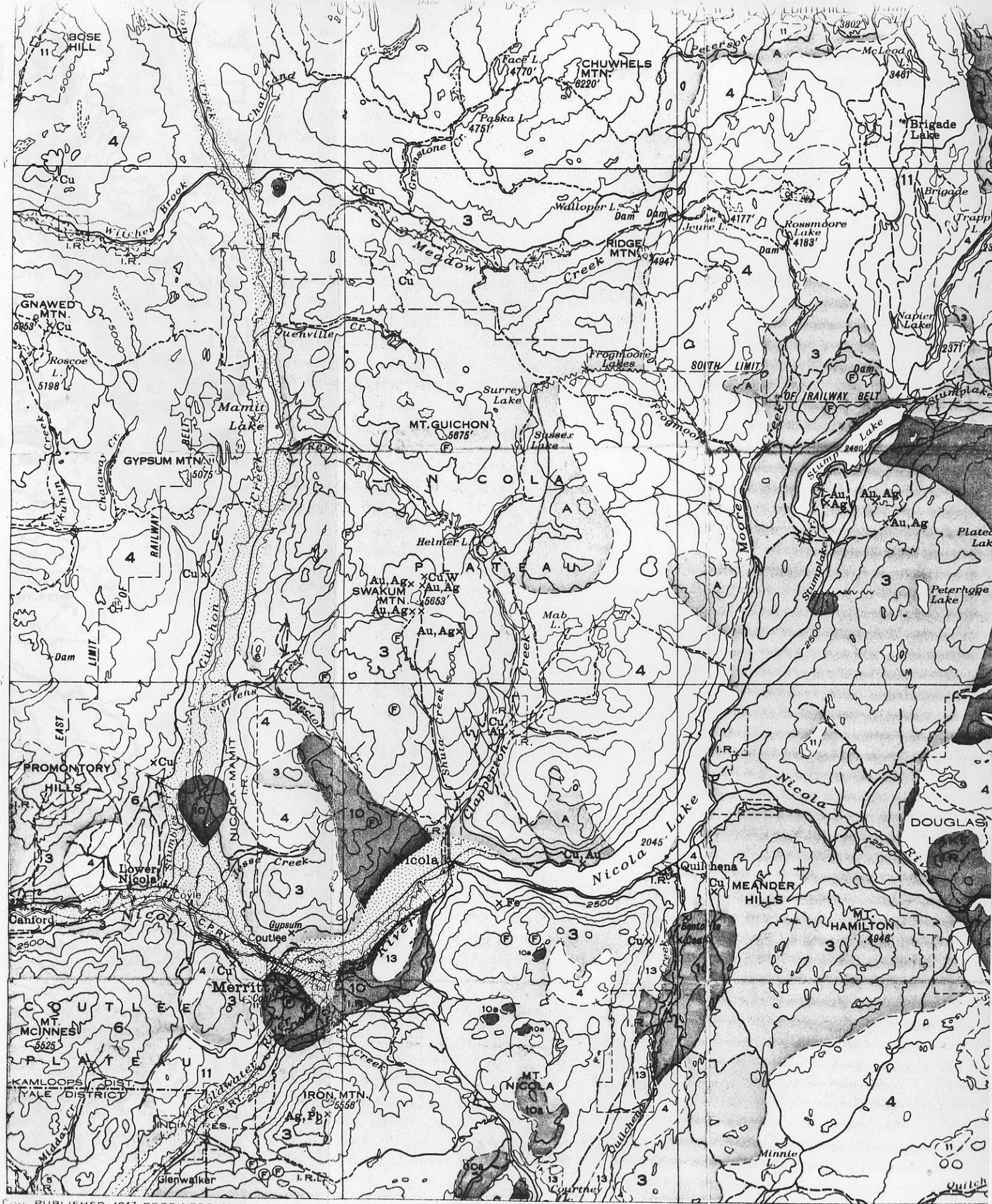
CARBONIFEROUS AND PERMIAN

- CACHE CREEK GROUP(?)
- 2 Greenstone, generally slightly sheared. May include some Triassic rocks: (3)
- 1 1A Argillite, quartzite, hornstone, limestone, sheared conglomerate, breccia, greenstone, and serpentine; 1A, limestone

- A Chlorite schist, quartz-mica schist, amphibolite, and granitic intrusions, commonly gneissic and largely of Paleozoic age

- Heavily drift-covered area
- Fault
- Synclinal axis
- Fossil locality
- Mineral occurrence

SYMBOLS FOR METALS
Silver Ag
Gold Au
Copper Cu



PUBLISHED, 1947. REPRINTED, 1961
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Joins Map 888A, "Princeton."

MAP 886A
NICOLA

1949 Guichon.—The Guichon consists of the seven Crown-granted claims Frindsbury, Camperdown, Ingersol, Last Post, Ensign, Quilchena, and Tete Rouge, together with fourteen located claims. The workings, a mile south of Nicola Lake and on the west side of the Quilchena Creek valley, are reached by a short road branching from the Merritt-Kamloops Highway at the Guichon ranch.

Figure 10 is a plane-table map of the area in which most of the development work has been done. The open, rolling grassy slopes are broken here and there by jagged rock bluffs which become more numerous and continuous at higher elevations to the west of the area mapped. Development work consists of seven short adit drifts at elevations ranging from 2,453 feet to 2,571 feet, having an aggregate length of 670 feet; several caved open-cuts; and an adit crosscut 1,390 feet long at elevation 2,186 feet. From the face of this crosscut 1,000 feet of diamond drilling was done in four holes, oriented as shown in Figure 10. The other adits are all old workings, but the crosscut was driven in 1946 and 1947. The property was not worked in 1949.

The rocks include amygdaloidal augite-basalt, both massive and porphyritic varieties; several beds of basalt breccia; and one small outcrop of limestone. These are conformable members of the Triassic Nicola group. The volcanic rocks are dark red to black, commonly flecked with olive green. The red coloration is caused by iron oxide abundantly dusted through the groundmass, and the green by epidote in the amygdules and in the groundmass. Within the area mapped, the strata appear to strike a few degrees west of north and to dip steeply westward. The only intrusive rock noted is a dyke of feldspar porphyry in the southwest corner of the area mapped. The dyke is about 10 feet wide, strikes northwest, and is vertical.

The position of an important vertical fault striking northerly across the property is marked by a narrow valley approximately parallel to the main valley of Quilchena Creek. The fault can be traced by alined bluffs for at least a mile south of the area mapped. The only exposure of this fault is near the face of the long crosscut, where a 50-foot zone of soft chocolate-coloured clay is sliced by numerous slickensided fault surfaces on which the mullion structure is approximately horizontal. Although the displacement on the fault is not known with certainty, it is believed to be essentially horizontal and may be large. The veins and the feldspar porphyry dyke exposed west of this fault have not been found on the east side, and one vein outcropping east of the fault cannot be correlated with any of those to the west. Numerous other faults sub-parallel to the major fault may be seen in the long crosscut. The steep bluffs east of the major fault are marked by a set of well-developed joints striking northwesterly. In places the joints are only a few inches apart, giving the rock a sheeted appearance. The joints contain films and small veins of epidote, chlorite, carbonates, and quartz.

Seven of the nine veins examined are shown diagrammatically on Figure 10. The veins all strike northwesterly and for the most part dip at high angles to the southwest. They are believed to represent tension cracks, resulting from movement along the major fault. Some details concerning the individual veins and assay results of channel samples are given below. The veins have been numbered arbitrarily for ease in referring to the map.

No. 1 Vein: This vein is exposed intermittently on surface by several old open-cuts for a horizontal distance of about 200 feet. An adit a few feet below the outcrop follows the vein for 55 feet. The vein fracture is filled chiefly with crushed basalt containing sericitized stringers of quartz, feldspar, and calcite. The width, including veins, stringers, and intervening crushed rock, ranges from 3 to 41 inches. Data on samples across the width of No. 1 vein taken in the adit are as follows:—

Location (Distance from Portal).	Description.	Width.	Gold.	Silver.	Copper.
		Inches.	Oz. per Ton.	Oz. per Ton.	Per Cent.
Portal, back.....	Quartz stringers and crushed rock.....	22	0.04	0.4	0.25
5 feet, ".....	Quartz stringers and crushed rock.....	20	0.04	0.5	0.58
10 " ".....	Quartz stringers and crushed rock.....	20	0.05	0.5	0.47
15 " ".....	Quartz-calcite breccia.....	28	Nil	Nil	Trace
20 " ".....	Quartz-calcite breccia with some pink orthoclase.....	22	0.03	0.2	0.22
25 " ".....	Quartz-calcite breccia with some pink orthoclase.....	22	0.01	1.6	0.9
30 " ".....	Quartz-calcite breccia with some grains of bornite.....	36	0.07	0.5	1.1
35 " ".....	Quartz-calcite breccia with some grains of bornite.....	41	Trace	0.3	1.4
40 " ".....	Crushed quartz-calcite breccia.....	32	Trace	0.2	0.22
45 " ".....	Crushed quartz-calcite breccia.....	32	Nil	0.5	0.72
50 " ".....	Crushed quartz-calcite breccia.....	10	Trace	0.3	0.59
55 " face.....	Quartz stringers and crushed rock.....	12	Nil	Nil	Trace

No. 2 Vein: Several old open-cuts expose No. 2 vein at intervals for a horizontal distance of 160 feet. This vein is a breccia zone ranging in width from 3 to 24 inches; it contains quartz and calcite sparsely mineralized with bornite and chalcopyrite. A sample taken in an open-cut across 16 inches assayed: Gold, 0.24 oz. per ton; silver, 0.8 oz. per ton; copper, trace.

Four short adits have been driven in the bluffs a short distance below the outcrops at elevations of 2,454, 2,453, 2,497, and 2,527 feet. These workings explore several irregular, branching, northwesterly trending fault zones, some of which contain short, narrow veins or stringer lodes of sparsely mineralized quartz and calcite. None of the exposures underground can be correlated with certainty with the outcrops a few tens of feet above. In the adit at elevation 2,497 feet two channel samples 5 feet apart were taken across a quartz lens 15 feet long and about 12 inches wide. The first assayed: Gold, 0.54 oz. per ton; silver, 2.0 oz. per ton; copper, 0.3 per cent. The second assayed: Gold, 1.14 oz. per ton; silver, 3.6 oz. per ton; copper, 0.98 per cent. In the face of the adit at elevation 2,453 feet a channel sample taken across an 8-inch quartz vein assayed: Gold, trace; silver, 0.3 oz. per ton; copper, 1.2 per cent.

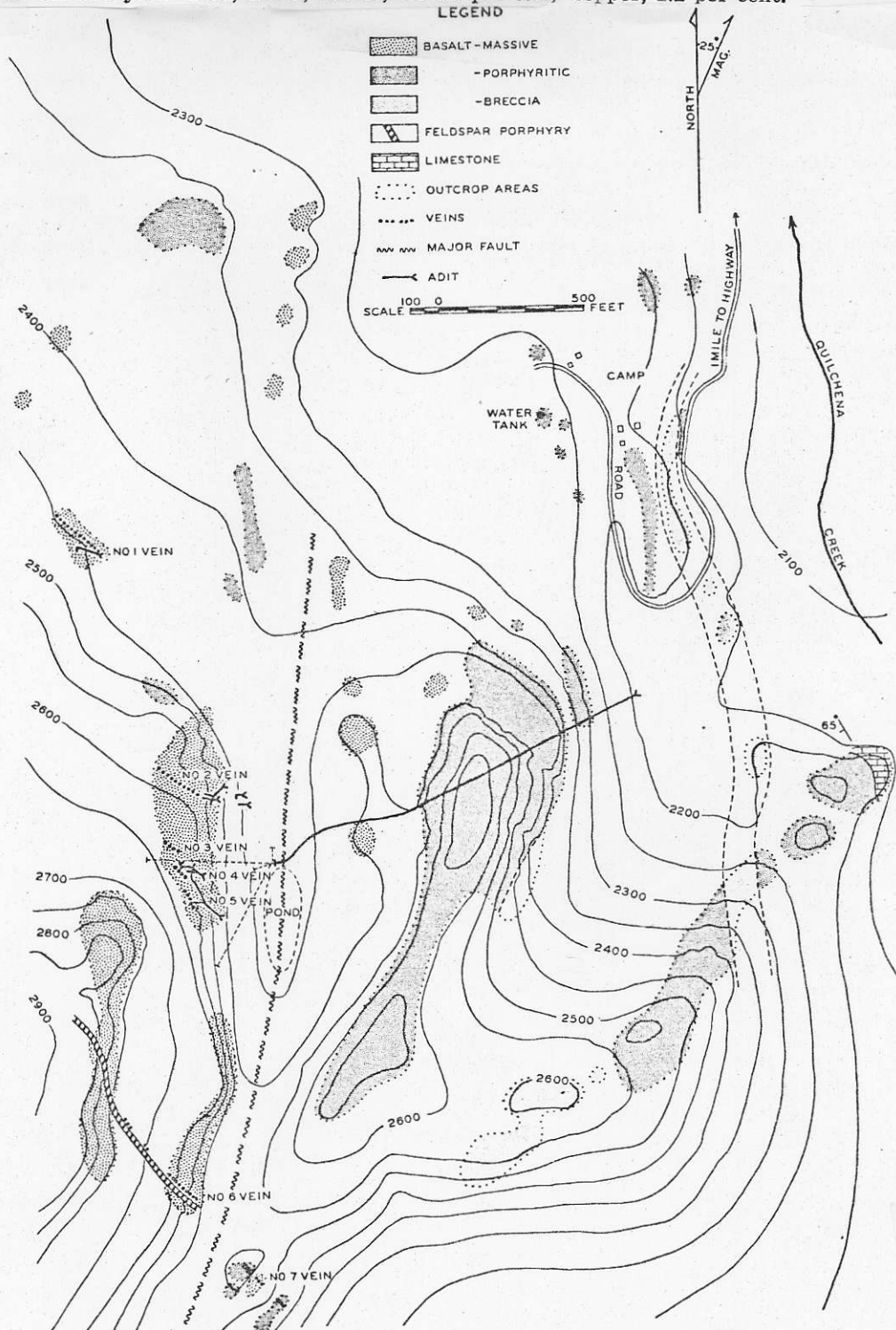


Fig. 10. Guichon group, Quilchena Creek area.

No. 3 Vein: This is an irregular, branching lode of quartz-calcite stringers partly exposed in one caved open-cut. It was not sampled.

No. 4 and No. 5 Veins: These veins outcrop about 30 feet apart at the top of a line of bluffs. There is a single open-cut on each vein. A sample was taken in the open-cut on No. 4 vein across 10 inches of glassy quartz containing shreds of chlorite and shiny flakes of specular hematite. This assayed: Gold, 0.42 oz. per ton; silver, 2.6 oz. per ton; copper, 0.15 per cent. A 10-inch sample taken across the quartz-calcite breccia of No. 5 vein contained no gold or silver.

Adits at elevations of 2,571 feet and 2,511 feet explore No. 4 and No. 5 veins at depths not more than 80 feet below the outcrops, but the structures underground cannot be correlated with those on the surface. The upper adit exposes several unmineralized, sub-parallel fault zones in brecciated and altered basalt. Four channel samples cut across the main breccia zone assayed: Gold, *nil* or trace; silver, trace to 0.3 oz. per ton. The lower adit has several crooked branches. From the portal it extends 160 feet in the direction north 30 degrees west, then turns northerly for 65 feet. A drift branches to the northwest 72 feet from the adit portal, and another drift 25 feet long, branches to the northwest 180 feet from the portal. The main drift follows an irregular, branching fault zone which, for 80 feet, contains a quartz-calcite stringer lode ranging in width from 2 to 16 inches. The branch drifts explore very narrow quartz-calcite lodes. The results of samples taken in this adit are summarized below.

Location.	Width.	Gold.	Silver.	Copper.
	Inches.	Oz. per Ton.	Oz. per Ton.	Per Cent.
Branch drift—72 feet from adit portal, back.....	2	Trace	Trace	Trace
Branch drift—180 feet from adit portal—				
4 feet from collar, back.....	4	<i>Nil</i>	<i>Nil</i>	Trace
10 feet from collar, back.....	4	0.36	1.8	Trace
25 feet from collar, face.....	4	Trace	<i>Nil</i>	<i>Nil</i>
Main drift—				
75 feet from adit portal, face.....	4	0.03	0.7
85 feet from adit portal, face.....	2	<i>Nil</i>	Trace	Trace
95 feet from adit portal, face.....	2	0.01	0.4
110 feet from adit portal, face.....	6	0.16	1.2	Trace
115 feet from adit portal, face.....	5	0.22	1.9	Trace
122 feet from adit portal, face.....	6	Trace	0.3	Trace
127 feet from adit portal, face.....	4	0.02	0.2	Trace
133 feet from adit portal, face.....	3	<i>Nil</i>	<i>Nil</i>	Trace
140 feet from adit portal, face.....	16	0.11	0.9	Trace
145 feet from adit portal, face.....	16	Trace	0.1	Trace
155 feet from adit portal, face.....	4	0.91	4.7	Trace

No. 6 Vein: This unmineralized vein and stringer lode outcrop on the face of a steep bluff and at two other points on a bench to the northwest, the length indicated being about 350 feet. The vein is parallel to and within a few feet of the feldspar porphyry dyke. Two samples, each about 2 inches wide, taken at the top and base of the bluff, assayed either *nil* or trace in gold, silver, and copper.

No. 7 Vein: This is the only vein known east of the major fault. It is a lode containing glassy quartz stringers sparsely mineralized with grey copper. The vein outcrops or is exposed by open-cuts intermittently for a horizontal distance of 200 feet. Both its attitude and width are variable. Two samples were taken in a pit near the southeast end of the showings. The sample from the northwest face of the pit, across the vein width of 3 inches, assayed: Gold, 0.13 oz. per ton; silver, 0.5 oz. per ton; copper, trace. The second sample, taken 10 feet farther southeasterly across a width of 12 inches, assayed: Gold, 0.38 oz. per ton; silver, 1.3 oz. per ton; copper, 0.94 per cent. An outcrop of amygdaloidal porphyritic basalt 100 feet southwesterly from this vein contains minute flakes and grains of native copper. Under the microscope the copper appears in amygdules and in minute irregular fracture zones accompanied by epidote and calcite.

No. 8 and No. 9 Veins: These veins, not shown in Figure 10, are, respectively, 100 feet and 225 feet north of the northwest corner of the area shown in the figure. Both strike north 55 degrees west and dip steeply southwestward. Both range in width from 4 to 12 inches. No. 8 vein has a total length of 90 feet between two zones of epidotized crushed basalt. No. 9 vein is exposed by outcrops and open-cuts for 95 feet, and its maximum length, as shown by outcrops on the projected strike, is less than 170 feet. No. 9 vein is made up of narrow lenses and stringer zones of glassy quartz and pink feldspar containing sparsely disseminated specular hematite, pyrite, and chalcopyrite. As this vein was reported to have high gold values, three special samples were taken. Each sample was a composite of five channels taken at 2-foot intervals. The first sample, taken near the northwestern end of the exposures, average width 8 inches, assayed: Gold, 0.02 oz. per ton; silver, 0.2 oz. per ton; copper, trace. The second sample, average width 5 inches, taken in the main open-cut 40 feet southeasterly from the first, assayed: Gold, 0.01 oz. per ton; silver, 0.2 oz. per ton; copper, 0.25 per cent. The third sample, 8 inches wide, taken 25 feet southeasterly, assayed: Gold, 0.48 oz. per ton; silver, 0.4 oz. per ton; copper, 0.43 per cent.

Gold-Silver**Quilchena
(Guichon Mines
Limited)†**

1962

(50° 120° S.W.) The property is controlled by Quilchena Mining and Development Co. Ltd., 201, 901 Jervis Street, Vancouver 5. It comprises seven Crown-granted mineral claims held by lease agreement with Guichon Mines Limited, a mineral lease covering twelve former Crown-granted claims, and fifty-five claims held by record, all on the west side of Quilchena Creek and south of Nicola Lake. A dirt road leads about 1 mile from the Nicola-Kamloops highway to the workings.

The showings have been known since 1895, and Crown grants of the claims containing the underground workings were obtained in 1925. A description of the geology, a map, and a record of sampling are in the Annual Report for 1949, pages 120 to 124. A brief description of the showings is contained in Geological Survey of Canada Memoir 249, 1948, page 131. Descriptions in the Annual Report are not repeated here.

The rocks are basaltic volcanic flows and breccias of the Upper Triassic Nicola Group. They are intruded by dykes of feldspar porphyry which strike about north 45 degrees west and dip steeply northeastward. Poorly exposed porphyry near a shear on the A1 No. 11 and No. 12 claims appears to dip flatly southwestward.

The mineralization consists of quartz veins and stringers in narrow shears. The quartz is erratically mineralized with bornite and chalcopyrite and with sparse hematite which veins the sulphides. The showings are described in detail in the Annual Report for 1949. Sketches of the adits (Fig. 3) accompany the present report. Adit No. 1 of Figure 3 is the same as "No. 1 vein" of the 1949 Report; adits 2, 3, and 4 include the "No. 2 vein" of the 1949 Report; and adits 5 and 6 are at "No. 4 vein" and "No. 5 vein" respectively.

A vein exposed in an adit on the Camperdown claim, the "No. 7 vein" of the 1949 Report, differs from the others in that the sulphide in the quartz is grey copper. This vein is separated from the others by a post-mineral fault.

Mineralization has been exposed at two sites not mentioned in the 1949 Report. At the boundary between the Spitfire No. 2 and the Sunnyboy No. 7 fraction, now part of Mineral Lease No. 13, at 4,500 feet south 65 degrees west of No. 5 and No. 6 adits, four narrow quartz veins are exposed—three in trenches and one in a trench and a shallow shaft. The veins are from 2 inches to 12 inches wide. One, exposed for a strike length of about 50 feet, is in a feldspar porphyry dyke near its hanging-wall contact. The other three veins are in basalt on the hangingwall side of the porphyry, the most distant being 240 feet northeast of the porphyry contact. Two are exposed for strike lengths of 30 feet, and one for 60 feet. The quartz carries sparse chalcopyrite and hematite. The second new site is on the A1 No. 11 and No. 12 claims, 2½ miles south 60 degrees west of No. 5 and No. 6 adits. It consists of a strong shear some 15 feet wide striking north 20 degrees west and dipping 60 to 70 degrees northeastward. It is sparsely mineralized with quartz and chalcopyrite. The shear was cut by three diamond-drill holes to a depth of about 150 feet below the outcrop. Sparse mineralization was found in the cores.

Most of the vein shears strike northwest and dip northeast at angles between 40 and 85 degrees; the Camperdown vein dips 85 degrees southwest. Two nearly east-west striking planes are evident; one dips 80 degrees north, the other 60 degrees south.

The feldspar porphyry dyke on the A1 No. 11 and No. 12 claims appears to be offset by the mineralized northwest-striking shear (see Fig. 3), and a narrow dyke occurs within the shear. The dyke in the shear is fractured, although much less so than the older sheared rocks, and the dyke fractures are mineralized. The writer believes the feldspar porphyry dykes and the vein shears to be contemporaneous and that the shears are subsidiary structures in a fracture system of which the tension fractures are now occupied by the dykes. The dyke fractures appear to be much more strongly developed than the shears.

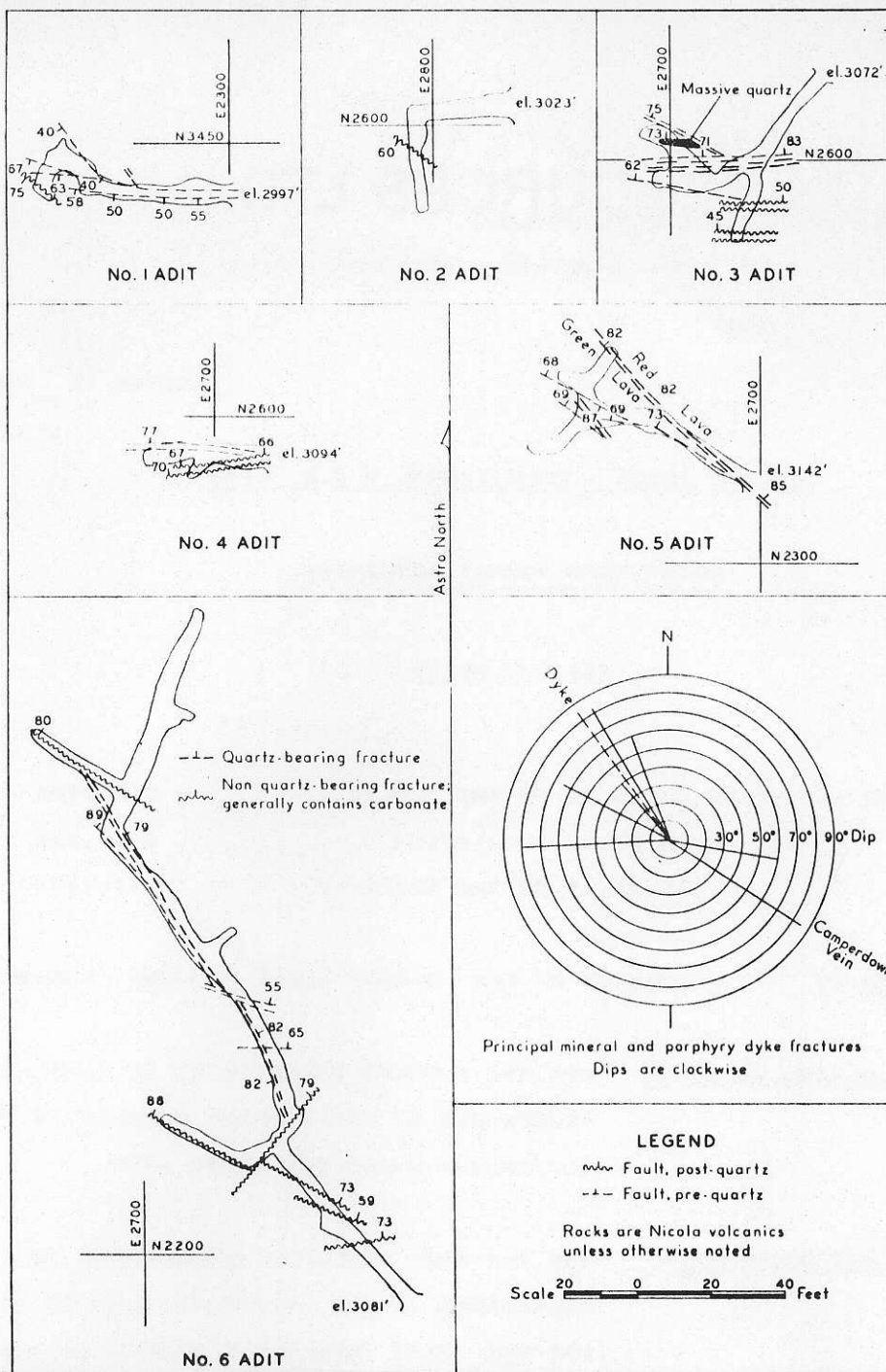


Figure 3. Guichon Mines Limited—plans of adits.

The vein shears in the adits are offset by post-mineral faults (see Fig. 3) which probably are related to a large fault zone exposed in the low-level adit driven some 1,400 feet westward from the valley of Quilchena Creek. The fault zone is well exposed in the adit and has the appearance of having been the locus of considerable movement. There is no evidence of any mineralization in it or in any of the smaller faults exposed east of it in the adit. This is the northerly striking vertical fault described on page 120 of the 1949 Report. The fault strikes northward toward the valley of Moore Creek, which flows southward into Nicola Lake. The writer has seen evidence of faulting along the valley of Moore Creek. Southward, along the strike of the fault, is the topographic depression of Quilchena Creek valley and the valley of Aileyne and Kentucky Lakes. The fault may well prove to be an important regional feature, and it is proposed that it be named the Quilchena fault. A number of narrow north-trending linear depressions occur west of the main fault zone. These probably represent parallel faults of the same age as the Quilchena fault.