

PRELIMINARY REPORT ON
 WAYSIDE MINE PROPERTY
 Lillooet, B.C. 92J-15

by A.R. Lamble
 for Dawson Range Mines Ltd.
 27 Nov /74

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T.W.B.	
E.C.J.	

Sir

We would appreciate any help or
 comments regarding this property.

Thank

Paul Polnichuk

DAWSON RANGE MINES LTD.
 BOX 466
 LILLOOET, B.C.

RECEIVED

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PER BC - General

PRELIMINARY GEOLOGICAL REPORT

WAYSIDE MINE PROPERTY
50°53'N 122°49'W 92 J 15 W
Lillooet M.D., B.C.

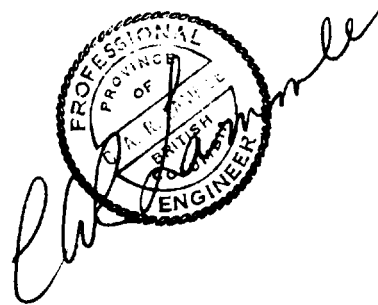
for

Dawson Range Mines Ltd. (NPL)
Vancouver, B.C.

by

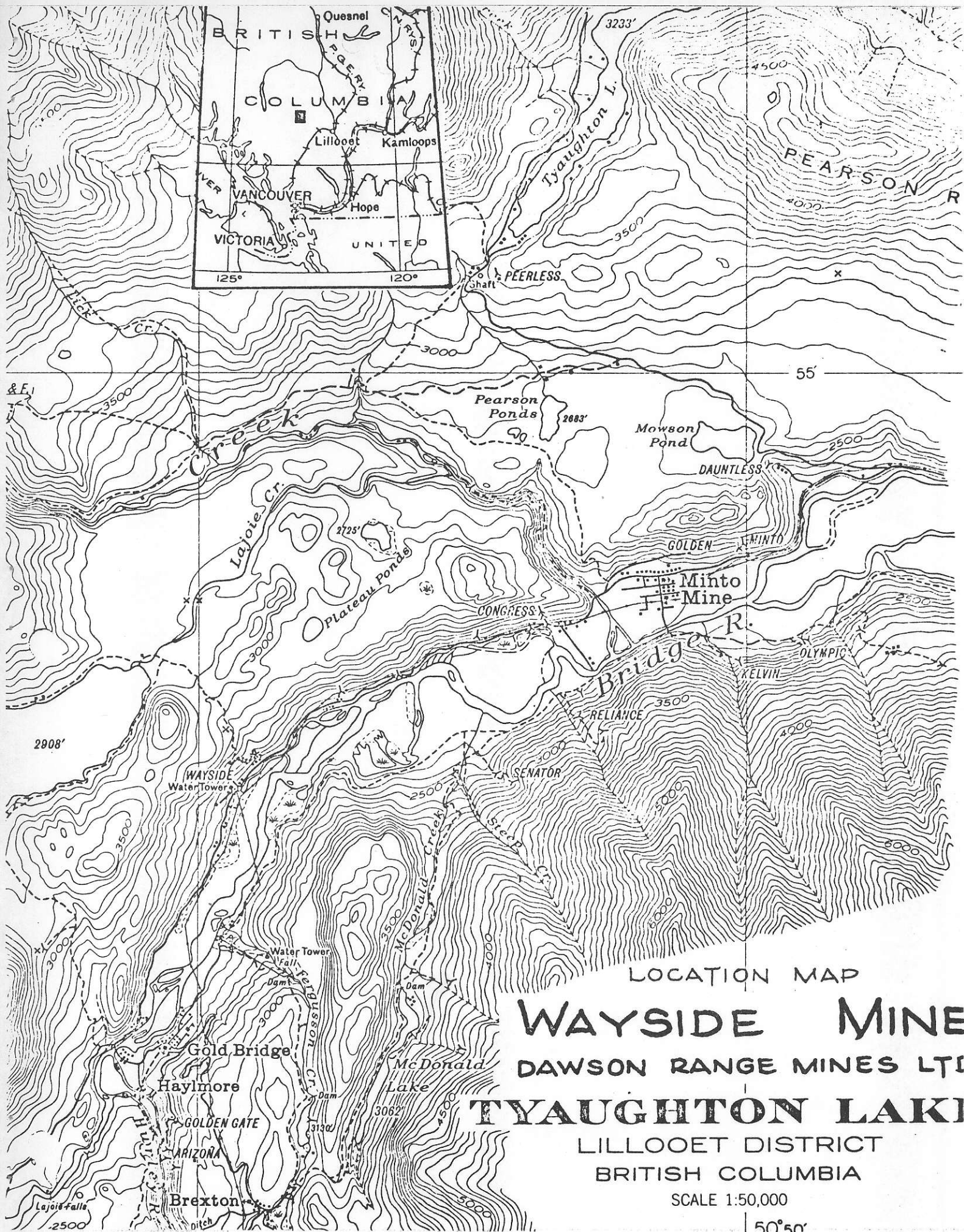
Charles A. R. Lammle, P. Eng.
Highland Geological Services Ltd.

27 November 1974



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HIGHLAND GEOLOGICAL SERVICES
Charles A. R. Lammle, P. Eng.

27 NOVEMBER 1974

PRELIMINARY GEOLOGICAL REPORT

WAYSIDE MINE PROPERTY

Dawson Range Mines Ltd. (NPL)

INTRODUCTION During late September 1974 Highland Geological Services Ltd. was commissioned by Dawson Range Mines Ltd.(NPL) to commence preliminary surface geological mapping preparatory to compiling a detailed surface-underground geological picture on this fissure-vein gold property. Several days of late September and some of late November were devoted to mapping, and a small amount of check sampling. Additionally, several days were spent in researching the literature and available engineering reports. Surface mapping is not yet completed, and no underground mapping has yet been done. So far, the 1973 - 1974 exploration work --- bulldozing, hand-trenching, x-ray drilling, soil geochemistry and preliminary ground magnetics --- has been studied.

The purpose of this report is to review and appraise this recent work, and to offer advice about future work. Recommendations, along with estimated costs, are presented.

Figures 1 and 2, faceplates, illustrate the property and its location. Figure 3, attached, and Plates 1, 2 and 3, pocket, illustrate Wayside Mine and work accomplished to date. Additional data may be found in literature cited in References, and in the annual reports of the B.C. Minister of Mines.

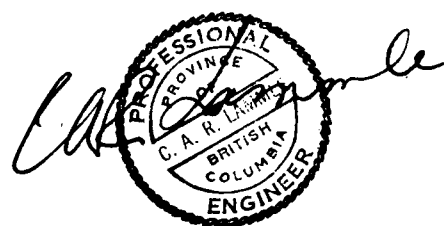
SUMMARY The Wayside Mine Property of Dawson Range Mines Ltd. (NPL) consists of two 21 year mineral leases covering nearly 1100 acres. It is located at the west end of Carpenter Lake, a B.C. Hydro water reservoir, at Gold Bridge, B.C. This is about 7 miles north of Bralorne, or alternatively, 110 miles north of Vancouver.

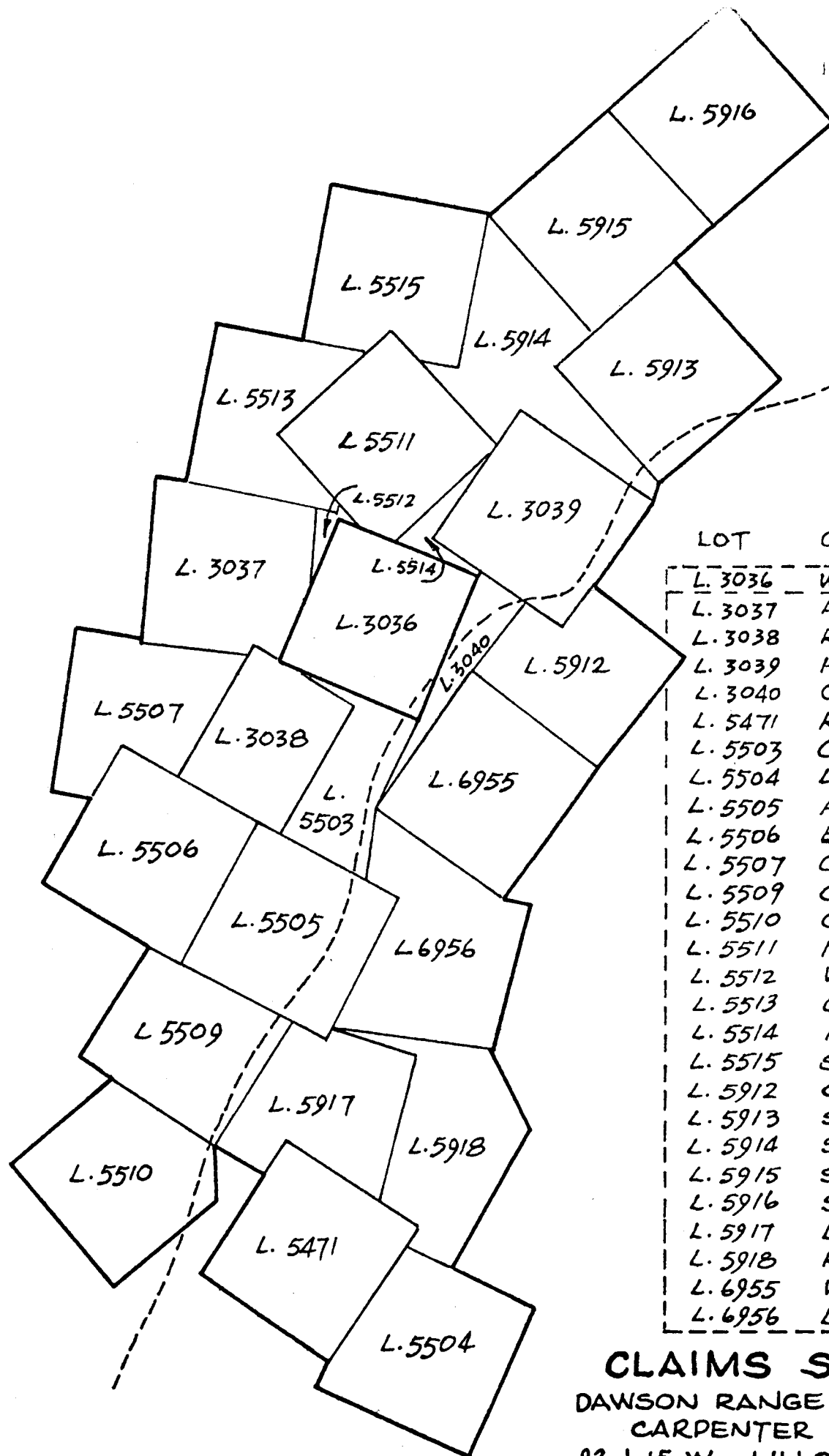
The only available production data for Wayside Mine indicates that 43,094 tons were processed by amalgamation and cyanidation processes, and that this produced 5,341 oz. gold, and 842 oz. silver. Percentage recovery is not known. The production has come from quartz-albite fissure-veins in sheeted augite diorite of Bralorne Intrusives. Surface, and shaft-connected underground levels develop these veins over a lateral extent of 1200 ft. and a vertical range of 1060 ft. All reports indicate improving grades and mining widths with increasing depths (down-pitch to the southeast) in the mine. Exploration possibilities are open in this direction.

Preliminary geological, sampling, geochemical, magnetic, bulldozing, and drilling work indicate several intriguing exploration possibilities elsewhere on the property. In particular, sampling at a new discovery ---a gossan exposed for 50' yielding a 45' sample with 0.26 oz./t. gold --- opens up a large area of intriguing potential.

The preliminary work completed to date is described along with its implications. Conclusions relating to exploration potential are drawn. A two-phased program of exploration work is recommended, and consists of a first phase basic ground program costing \$43,000.00 and a second phase follow-up program costing \$92,000.00

Additional work would be contingent upon obtaining good results from the first two phases.





LOT	CLAIM	LEASE
L. 3036	WAYSIDE	M 57
L. 3037	ARGON	M 48
L. 3038	RADIUM	↓
L. 3039	HELIUM	
L. 3040	QUEEN CITY FR.	
L. 5471	RODEO	
L. 5503	COMMODORE FR.	
L. 5504	LODGE	
L. 5505	ALPHA	
L. 5506	BETA	
L. 5507	GAMMA	
L. 5509	CABINET	
L. 5510	COUNSEL	
L. 5511	NEWPORT	
L. 5512	WAYSIDE B. FR.	
L. 5513	CAMP DENISON	
L. 5514	PORT FR.	
L. 5515	SUN	
L. 5912	CITY No 1	
L. 5913	SPRING A	
L. 5914	SPRING FR.	
L. 5915	SPRING B	
L. 5916	SPRING C	
L. 5917	LODGE B	
L. 5918	RODEO FR.	
L. 6955	WAYSIDE No 2	
L. 6956	LODGE No 2 FR.	

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CARPENTER LAKE
92J 15 W LILLOOET MD BC

CLAIMS The claims consist of 27 reverted, surveyed, crown-granted mineral claims now held by two separate 21 year mineral leases.

These are:

M-57 (one claim - L. 3036) (see Fig. 2)

issued 10 November 1970
acreage 51.65

M-48 (26 claims - see Fig. 2)

issued 30 January 1970
acreage 1046.41

*Current regulations require rental payments of \$2.00 per acre to maintain these leases. There is now no annual work requirements.

M-57 is subject to a proviso excluding surface and timber rights.

Both M-57 and M-48 are subject to Order in Council 2070 (10 Sept. 1959) and to its amendment Order in Council 1864 (9 Aug. 1960). These orders in council require:

- (a) the respect of all free miners regarding land surface below elevation 2140' along Carpenter Lake, and require that the subsurface activities of a free miner, below that level, are carried out at his own risk and that they do not interfere with the reservoir.
- (b) permission being granted by the Chief Inspector of Mines to allow work within 1500 feet of dams, conduits, water-tunnels, spillways or power plants and within 500 feet of transmission lines.
- (c) that, prior to making application for placer or mineral claims or leases, the free miner must sign a document releasing the Province of B.C. from any possible legal claim or court action resulting from conflict with the water reservoir.

LOCATION AND ACCESS (Location Map)

The Property is located along the west side of Carpenter Lake, at its west end 7 air-miles north of Bralorne, B.C. This is 110 airmiles north of Vancouver. Elevations range between 2136' (full basin elevation of Carpenter Lake) to 3500'.

The property spans Lillooet-Bralorne highway at a point about 65 miles west from Lillooet. This point is about 2 miles north of the small community of Gold Bridge where some few supplies and fewer services may be obtained.

A three-phase hydroelectric transmission line crosses the claims; water and timber for mining purposes is locally available. The B.C. Railroad station of Shalath is accessible from the property by about 40 road-miles.

HISTORY Recorded production from Wayside Mine, according to B.C. Minister of Mines records, is 43,094 tons during 1915 - 1937. Recovery from amalgamation and cyanide processes was gold - 5,341 oz., silver - 842 oz. The amount lost is not known.

Exploration and development work started at the turn of the century but progressed sporadically. Two periods of major work were 1906-1937 and 1946-1953. Wayside Consolidated Gold Mines Inc. was formed in 1928. Twenty years later, L.A.P. Mining Co. Ltd. (L.A. Prosser) took over the property and continued exploration and minor production until 1953. At this time legal and money problems shut the mine down. Dawson Range Mines Ltd. (NPL) became interested in the property in 1971, and commissioned investigations by J.P. Elwell, P. Eng., and S.F. Kelly, P. Eng. Elwell entered the mine down to "8 Level" (when it was de-watered) and sampled portions of the vein there; and Kelly made thorough research into the literature. More comprehensive historical data is available in Mr. Kelly's report (10 Feb. 1972).

GENERAL GEOLOGY Bralorne - Gold Bridge area is complex geologically. The sedimentary, igneous and metamorphic rocks span a wide interval of geological time, and differ greatly. Geological structures are strong, deep-seated, and poorly understood; mineralization is metallogenically diverse.

The latest government geological mapping (G.S.C. Paper 73 - 17, 1973) indicates that the oldest rocks in the area are those of the Fergusson Group which are Middle Triassic or Older (?); these are exposed along a broad, complex antiformal structure plunging to the northwest. Main rock types are deformed chert, argillite, greenstone and minor limestone.

Conformably overlying is the Cadwallader Group. This is an Upper Triassic, northwest trending, folded assemblage and consists of two sedimentary sequences separated by a thick volcanic formation. The older sedimentary sequence - Noel Formation - consists of well-bedded argillite with minor lenses of chert and thin beds of greenstone. The intermediate volcanic rocks - Pioneer Formation - consist of greenstone derived from extrusive and pyroclastic andesites. Some rhyolitic flows and breccias are present. The younger sedimentary sequence - Hurley Formation - is made of argillite, limestone and tuff, with only minor chert. The argillaceous rocks are similar to those in Noel Formation.

Igneous intrusions cutting these formations have been sorted into three separate intrusive episodes - Upper Triassic, Upper Cretaceous, and Tertiary. These progressively become more acidic in composition. The oldest intrusive rocks are thought to be deep-seated serpentine, peridotite and dunite. The next oldest is gabbro, and then the economically important Bralorne Intrusions. These intrusions consist of northwesterly elongate differentiated stocks of gabbro, augite diorite, quartz diorite and albite (soda) granite.

Upper Cretaceous intrusives are mostly composed of granodiorite, and the Tertiary ones of miarolitic granodiorite and syenodiorite.

Strong structures, both folds and faults, trend northwest parallel with the east edge of Coast Intrusions and with Yalakom and Tyaughton Fault Zones.

Mineralization in the area is genetically and mineralogically complex. Metallogenetic zoning appears related to the separate intrusive episodes. Complex gold-base metal fissure veins seem to be related to Upper Triassic

intrusives, antimony deposits to Upper Cretaceous intrusives and mercury-antimony deposits to Tertiary intrusions. Much of the mineralization is controlled, at least partly, by faults.

LOCAL GEOLOGY (see Plates 1, 2 & 3) Wayside property contains cherts, argillites, greenstones and tuffs of Fergusson Group and differentiated augite diorites of Bralorne Intrusives. The sedimentary and volcanic rocks are faulted, deformed and moderately metamorphosed near the diorite, and the diorite has been faulted. Faults in the diorite (and conceivably in the older rocks) have been filled by quartz-albite-carbonate veins which in places carry economic quantities of gold along with base metals.

Local rock types so far studied - those shown on Plate 1 - are described in more detail below:

ROCK TYPES

Oxidized porphyritic rock - gossanous, white to tan coloured porphyritic rock, strongly bleached and hydrothermally altered to a sericite and clay. Feldspar phenocrysts remnants still identifiable, no mafic minerals left. The rock appears to have once contained abundant sulphides, almost all of which have been oxidized and leached out except for some pyrite. This rock type is exposed along the highway at 9.2E, 7.9N (co-ordinates in thousands of feet) and also as bulldozer exposed float at 8.9E, 9.1N.

Basalt - dark, fine grained volcanic rock or greenstone, of general andesitic composition. These rocks appear to have very limited distribution in the area mapped, lying just west of Commodore vein.

Ribbon chert - light coloured, thin-bedded, intensely deformed and crumpled chert. Partly recrystallized by silicification and albitization. Individual ribbons separated by thin, foliated, argillite parting planes.

Limy graywacke - dark gray, fine grained, limy, mudstone or graywacke, very limited distribution in the area mapped.

Argillite - (lies 800' east of eastern limit of mapping) thin bedded, strongly faulted and deformed black, cleaved argillite, rusty oxidation and minor cube pyrite.

Hybrid diorite - black fine grained, marginal intrusive rock, sheared and grading to serpentinite, found locally near margins of Bralorne Intrusives.

Augite diorite - gray, spotted, medium to coarse grained augite, hornblende diorite; locally cut by stockworks of closely spaced random fractures which are filled by quartz, calcite, ankerite, zoisite and epidote. Where it is fresh and undifferentiated, the diorite grades to gabbro.

Soda granite - light gray to white, fine to medium grained, granitic textured albite-quartz rock containing small amounts of ragged hornblende and some mica.

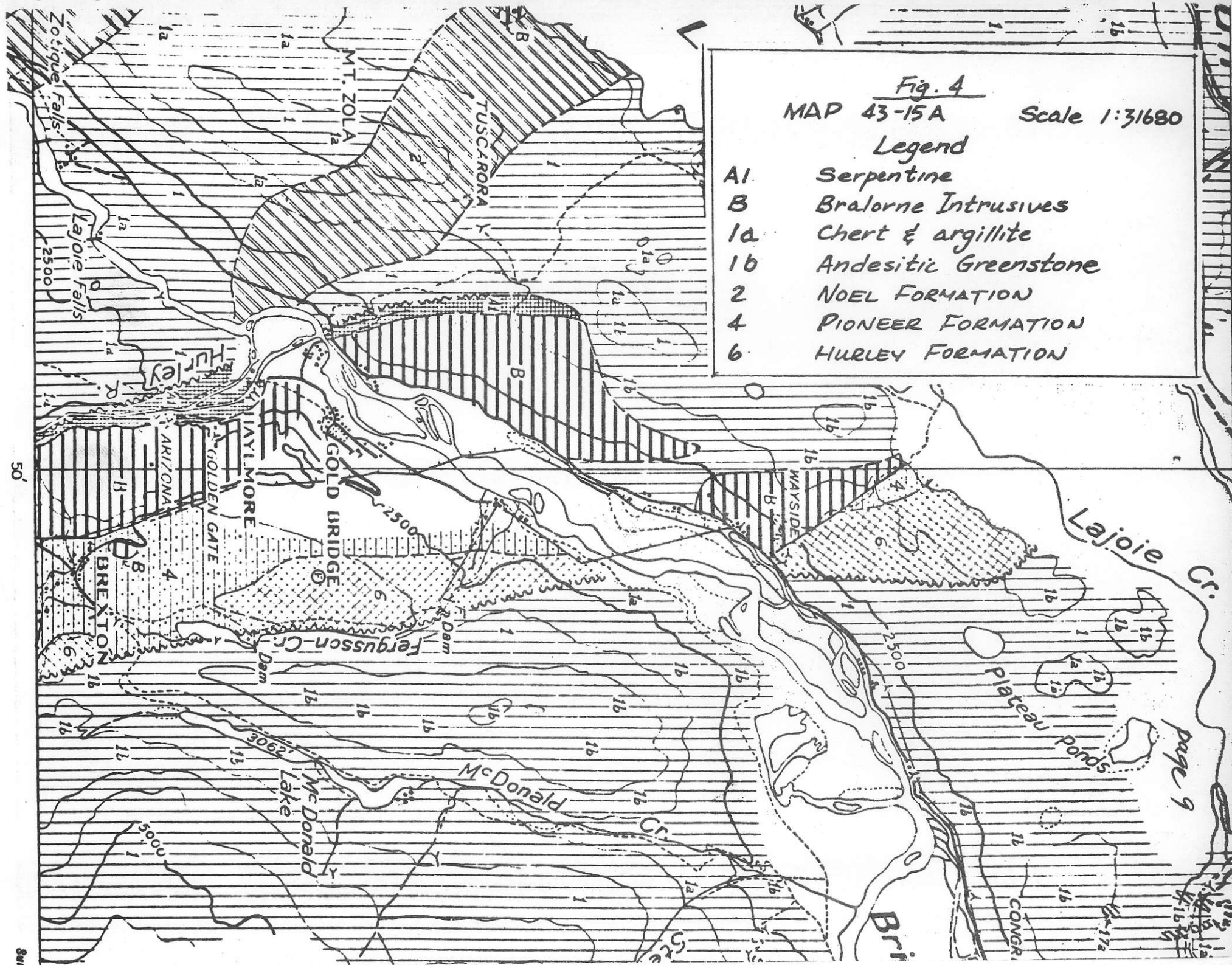
Albite rock - aphanitic to fine grained white quartz-feldspar occurring as dykes or replacements, commonly along fault zones.

Figure 4, a portion of G.S.C. map 43-15A shows the distribution of these rocks in the vicinity of Wayside Property. Bralorne Intrusions are shown as two separate, northerly elongate bodies separated by a septum of Fergusson Group. Pioneer & Hurley Formations, partly with contacts along strong northerly faults, lie to the east of the Bralorne Intrusion.

STRUCTURE The ribbon chert and argillite outcrops observed are cut into intricate, crumpled bedrock masses by numerous strong faults. Consequently, surface attitudes of these rocks cannot be projected far, laterally or to depth. Hence, the general structure of these rocks on the property and the depth to which they extend, remains unknown.

Augite diorite outcrops are generally massive except near fissure zones, where these rocks are irregularly sheeted due to coalescing and diverging fractures. In places these fractures are sufficiently close, and numerous, to make a shear zone.

The contact between Bralorne Intrusives and Fergusson Group is not clearly exposed. This contact appears to be close to the exposed portion of Commodore fissure-vein, and so the contact itself may be a fault. There is a general absence of chilling in the diorites in this area, and there is a similar absence of strong contact metamorphic effects in the greenstone, chert and graywacke. X-ray diamond drill cores and drifting in this region



indicate that the diorites here are relatively strongly differentiated to soda granite and albite rocks. However, the small surface exposure at Commodore vein does not give much idea about this differentiation.

WAYSIDE MINE (Plates 1, 2 & 3) Wayside Mine consists of seven adits and three sub-surface levels connected to the other workings by an inclined shaft. Several other nearby adits, workings, roads and ruined buildings are present. The outline of the workings was scaled down from old mine plans which stated that complete workings on "9" LEVEL were not shown.

The main workings follow a sulphides - and native gold - bearing vein, attitude N20W/56E, (apparently) in the central portion of a small body of augite diorites of Bralorne Intrusions. This body tapers to the north but is about 2300' across at "5" Level Portal. It extends 4000' north where it is covered by Lajoie Creek bottomlands, and it extends an unknown distance to the south under Carpenter Lake (or at low reservoir level, under Bridge River floodplains).

On the surface this Wayside body of augite diorite is separated from the main northerly-elongate Bralorne-Pioneer body by a thin septum(?) of Fergusson Group. The Bralorne-Pioneer body extends southerly 7 miles from Haylmore to Pioneer Mine and has a width of about $\frac{1}{2}$ mile at Bralorne. Where it is widest, it shows strong magmatic differentiation into white, leucocratic albite(soda) granite. It has long been accepted that the economic fissure-quartz veins are genetically related to the late quartz and albite rich magmatic differentiates. By virtue of the crystal settling process of magmatic differentiation, areas of late differentiated rocks should be centrally located within their plutons, should have appreciable depth if well developed, and should show both gradational and partial, irregular intrusive contacts. This is the case at Bralorne where the veins are very persistent laterally and with depth.

Magmatic differentiation in vicinity of the main workings at Wayside Mine is not strong, but it is present. It can be expected to increase in intensity and in volume at depth along the axis of the Wayside Body of diorite.

I believe that the "albite dykes" and soda granite reported in the literature at Three Tea Vein, taken in conjunction with the mineralized vein-bearing albite (soda) granite cored in X-ray drill holes at Commodore vein, is significant and important. For instance, if one interprets the "septum" of Fergusson Group (separating Wayside diorite from the Bralorne-Pioneer body) as a thin down faulted wedge --- like a small graben --- it would then follow that the general area of this septum is the central portion of a 1.0 mile wide portion of the main mass of Bralorne Intrusions. On this basis, the diorite underlying Fergusson "septum" is highly intriguing from an exploration view-point.

My sample at 9.2E, 7.9N --- the New Discovery in the "septum" --- assaying 0.26 oz./ton gold over 45' does not detract from this intrigue. (This sample will be discussed further, later in this report.) Nor does the the ground magnetic traverse (Fig.3 also to be discussed later) detract from this intrigue, for the results indicate very little magnetic susceptibility contrast, and very little difference in magnetic "signature" in two remarkably different rock types --- marine cherts and a mafic rich, gabbroic diorite. To me, this magnetic profile indicates that Fergusson "septum" is shallow, perhaps only 2 or 3 hundred feet, ---perhaps less.

Both the "sub-septum" intrigue, and the 45' sample assaying 0.26 oz./ton in gold are very encouraging.

Additional exploration potential exists along the presently known Wayside Mine fissure-vein. Probably the best potential is southeasterly down the pitch of the known mineralization, below "7", "8" and "9" LEVELS. Increasing dioritic differentiation to soda granite, and proportionately greater volume of mineralized quart, can be expected in this direction.

Virtually all engineering reports describing the mine mention gold values increasing in the mine with depth.

Good exploration potential exists at depth along Three Tea vein. A long drill hole drilled westerly from the south end of "9" LEVEL cored 5 ft. of quartz about 713' from the collar, and by projection (Section A-A') the likely relationship of this intersection to Three Tea vein is shown. Commodore Vein, along which there is also good exploration potential is also shown on this section. At depth, it could coalesce with Three Tea vein, at which line of intersection a very intriguing exploration target would exist; or its dip could become steeper, and at this possible flexure in the vein's plane a good exploration target would exist.

There is little information about the fissure-vein (EAST-DRIFT VEIN) followed by the east drift of "5" LEVEL. This vein needs investigating.

In a 1932 report, a quartz lense on "1" LEVEL, 60' long and 15 inches wide, was said to grade \$25.00/ton (Au then @ one-ninth the present price of 180.00 - 190.00 per ounce); and a similar quartz lense on "4" LEVEL 60' long and 24 inches wide was said to grade \$14.00/ton. Quite likely these areas have now been stoped. However, the data illustrates vein character.

A 1953 report indicates that "4" LEVEL was extended 200 feet. Good mineralization was reportedly encountered at 150' and, at the face (200') the 5' vein was estimated to mill \$15-\$20/ton in free gold (the then gold price being less than one-fifth of that today). This area, and projections up- and down-pitch from it, warrant investigation.

The peculiar, apparent discontinuity or stoped areas between "5" and "8" LEVELS is disconcerting. It is difficult to envision sudden termination of mineralization below "5" LEVEL, particularly when one knows that stoping was carried out for some 500' vertically above "5" LEVEL. It seems that lateral work from "7" LEVEL drift was not carried out. This opens the

possibility that this drift followed a late unmineralized shear, and that a mineralized shear could exist at no great distance in either the hanging-wall or the foot-wall. This possibility deserves investigation.

Additional assay (and mineralogical) data from the mine may be found in S.F. Kelly's report, 10 February 1972, and in A.M. Richmond's report (B.C. Dept. of Mines Bull. No 1, 1934). For the most part, the latter report draws attention to the fact that a thin seam of black breccia, along either the footwall or hangingwall of quartz lenses carries erratically high gold values. It indicates that the main shear zone, for a length of 215' and an average width of 3.3 feet graded 0.095 oz./ton gold. Also, it indicates that the main shear zone on "5" level, for 520' over a width of 16½' grades 0.017 oz./ton gold --- about \$3.14 per ton at \$185.00 gold. This might conceivably make ore if sufficient sweetener can be found.

RECENT EXPLORATION WORK

SAMPLING

J.P. Elwell, P. Eng., reports (2 November 1971) the following sampling results, most of which are shown on Plate 1, "8" LEVEL:

Sample no.	Width	Au oz./t.	Description
7729	3'	0.83	back, 160' south of shaft
7730	6.4'	0.47	back, 135' south of shaft
7731	3'	0.21	floor, top of winze to "9" LEVEL
7732	3'	0.19	back, 12' north of shaft
7734	4'	0.03	wall, raise to "7" LEVEL
7735	-	0.03	HW drift, qtz., 136' north of shaft
7736	-	0.02	HW drift, qtz., 136' north of shaft

and recommended completion of de-watering to "9" LEVEL to accurately map, and to sample this level at 10' intervals.

P. Polischuk, president of Dawson Range Mines Ltd, took eleven samples at this time from the mine. S.F. Kelly, P. Eng., (10 February 1972) described these as follows:

Sample	Width	Au oz./t.	Description
-	Grab	3.23	shaft, S-side "9" LEVEL
-	3.5'	0.20	shaft, 100' down from "5" LEVEL
160'	4.0'	0.73	shaft, 180' " "
180'	5.0'	0.50	shaft, 180' " "
13652	4.0'	0.49	shaft, 200' " "
13654	4.0'	0.12	"7" LEVEL South face
13655	3.0'	0.01	"7" LEVEL 60' N. from face
13656	Grab	0.02	--- wallrock
13657	Grab	0.09	"7" LEVEL, 20' S. of shaft.
13658	5.0'	0.05	shaft, 40' below "7" LEVEL
-	Grab	2.87	"5" LEVEL muck from ore pocket
			last muck from "9" LEVEL (?)

Plate 1 shows some assays reported in B.C. Minister of Mines reports for "1" and for "2M" LEVELS.

Plate 1 also shows the following assays taken at Commodore Vein and at New Discovery:

Sample No.	Width	Au oz./t.	Ag oz./t.
89076	24"	0.08	0.08
89077	4"	2.12	1.66
89078	45ft.	0.26	0.10

Sample 89077, a small sample, was taken by the President of Dawson Range Mines along a 6' exposure of a 4" thick quartz-albite fissure-vein, in which small amounts of free gold and other sulphides could be discerned. I took the other two samples, both of which weighed about 15lbs. Sample 89076 was taken about 10' northwest of 89077 where two diverging veins are separated by one foot of wallrock; the sample included this wallrock. Sample 89078 consisted of about 20 - 2" sized pieces of leached gossan dug from equally spaced intervals over 45' of the roadside bedrock exposure. The pieces were hammered and wedged free from bedrock with a geological pick. About 3 inches of undisturbed snow covered the exposure at the time of sampling.

SOIL GEOCHEMISTRY

During 1973 Dawson Range Mines took 110 soil samples at 100' intervals along a line extending 5600' SSW from 9.6E, 9.3N; and 5400' NNE

from this point. Excluding several single-station samples with high gold content, 4 separate soil-gold anomalous zones were discovered. These are at:

- (A) 800-1100E Main Fissure-Vein Area
- (B) 1100-1600W New Discovery Area
- (C) 3600-4300W *4100W (5 ppm.)
- (D) 4500-4600E

Areas A and B indicate the reliability of the samples and analyses. Area C is particularly intriguing because one soil sample in that interval, at 4100W, contained more than 5 ppm. gold. As one ppm. is equivalent to 0.0292 Troy oz./t., this particular soil sample contained more than 0.146 oz./t. in gold. This area is immediately west of the west contact of Fergusson "septum" as depicted on Fig. 3. This adds appreciably to the exploration intrigue of the area of the "septum" and its underlying differentiated (?) Bralorne Intrusion, as previously interpreted.

SURFACE MAGNETICS (Figure 3)

A line of McPhar M700 vertical-field ground magnetics was taken along the road for experimental purposes. It extended 4600' NNE of the New Discovery Area and a comparable 4600' to the SSW. Magnetic susceptibility contrast between gabbroic diorite and sedimentary marine chert is unusually small --- at the most, about 200 gammas. Maximum magnetic relief is about 500 gammas, remarkably low considering the rock types. And surprisingly, the magnetic signature (or character of magnetic irregularity) over both types of rocks is very similar. I believe this to be good evidence for suspecting the Fergusson Group "septum" of chert is, geologically, very shallow --- a few hundred feet at the most.

The main Wayside fissure vein shows up as a sharp magnetic low, but readings 100' away on either side do not reflect the low. New Discovery Area and its soil-gold anomaly show up as a broad magnetic low. The strongest soil-gold anomaly, 5 ppm. at 4100W, also shows up as a relatively broad magnetic low.

It appears that very detailed magnetic work, readings at not more than 25' intervals over suspected vein zones, would be a useful exploration technique.

SSW

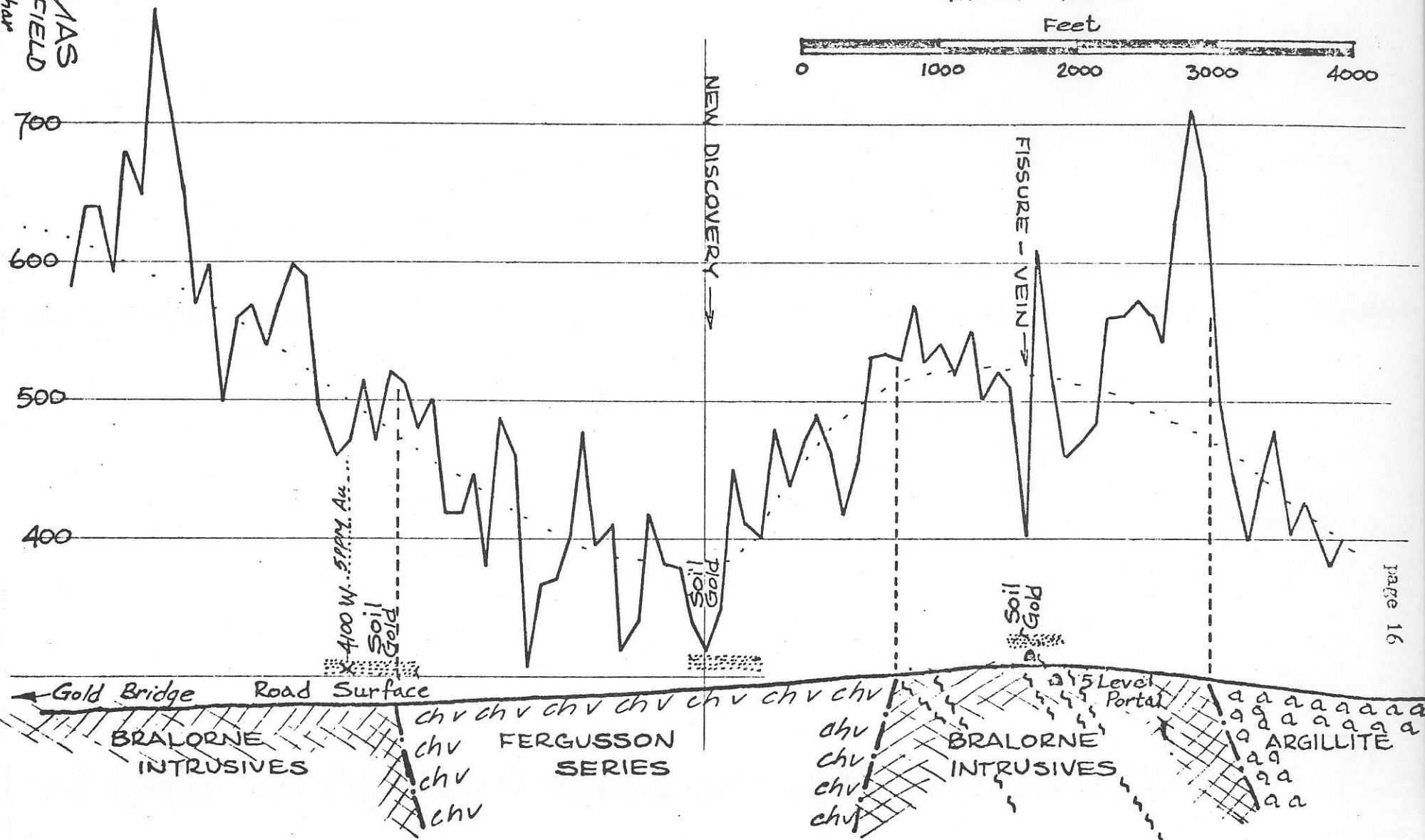
Fig. 3

NNE

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WAYSIDE MINE

MAGNETIC SIGNATURE AND GENERALIZED GEOLOGIC SECTION ALONG ROAD

GAMMAS
VERT. FIELD
McpHr



DIAMOND DRILLING

Four shallow X-ray diamond drill holes were drilled near 9.4E, 9.35N. I examined the core, but as the recovery was poor (normal for small X-ray machines) and as the footage blocks were mixed, and in many cases undecipherable, reliable footage data was not obtained. Some of the core had been previously split, some small amounts of sulphides were noted and a small amount of native gold with quartz-albite was observed in some of the core. Not much else can be said about it.

The presence of the albite (soda) granite in this area is considered significant and led to the earlier interpretation of high exploration intrigue under Fergusson "septum".

ADDITIONAL EXPLORATION POTENTIAL The property consists of some 1100 acres. Very little is known about 90% of this. Much is underlain by Bralorne Intrusives. Around Bridge River these rock types, at the least, deserve detailed prospecting and detailed geological mapping and should be soil sampled and surveyed magnetically. Without knowledge to the contrary, exploration potential of these rocks in this area should be regarded as favourable.

CONCLUSIONS AND RECOMMENDATIONS The following conclusions are drawn from the text of the report:

1. Intriguing exploration possibilities exist under Fergusson Group "septum". The New Discovery area and exposed gold mineralization there, justify detailed geological, geochemical, magnetic and bulldozing work to elucidate the area and to check some of the interpretations made in this report. One of the objectives of this work would be to spot, if thought necessary, a deep hole to test the "septum" idea.
2. Intriguing exploration possibilities exist along the main Wayside fissure vein to the southeast, down-pitch from known subsurface mineralization. A 600' diamond drill hole, to be drilled during low reservoir levels, is recommended to test this area. Hole specifications are collar 10.82E, 9.95N; Brg S70°W; dip -60°.

3. Good exploration possibilities exist for mineralization along Three Tea fissure vein at depth. Two holes, each 400' long, one at -45° and the other at -60° are recommended to explore the area midway between the surface exposure and the drill hole intersection obtained from "9" LEVEL. Both holes are to be drilled from 9.88E, 9.61N, along a bearing of $S70^{\circ}$.
4. Good exploration possibilities exist along Commodore Vein, at its possible junction with Three Tea vein, at a possible flexure in the plane of Commodore vein. Drilling of these possible targets would depend upon data that would be obtained from (3) above.
5. Good mineralization is apparently exposed in "4" LEVEL. This mineralization should be explored both up- and down-pitch.
6. There is a good chance of finding mineralization either in the footwall or hangingwall of "7" LEVEL drift. Short diamond drill holes, 50' long should be drilled east, and west, from underground to check for this possibility, providing of course that detailed mapping does not obviate this.
7. There is little information of the East Drift vein of "5" LEVEL. It should be thoroughly investigated.
8. Large areas of the property underlain by favourable host rocks should be thoroughly prospected and geologically mapped. Selected areas, particularly the two known soil geochemical anomalies (station 4100W, and station 4600E) should be detailed by both geochemistry and magnetics. Geological work should include vertical-pair air photo study and interpretation. A good base map could be prepared by obtaining from Victoria photocopies of the legal survey notes of the claims.

The work should be phased to obtain the basic inexpensive ground work first. As much as possible of the underground workings should be mapped in detail with concomitant petrographic and mineralogic work. Such work could lead to new geological ideas and might lead to new ore. Portals for No.1, No.4, No. 4W and No. 5 ADITS will have to be cleared and some will have to be timbered. Some underground work to open caved drifts would have to be done, and in the event of favourable results from Conclusion 2, above, the underground workings would have to be dewatered to allow for exploration from "9" LEVEL.

The work envisioned can be broken down into two phases now and additional work would be contingent upon results obtained. The first two phases would parallel S.F.Kelly's recommendations (20 Oct. 1972) with some additions.

Estimated costs of the recommended work is set out below;

PHASE 1

A4	Prospecting, one man, 3 months	\$2,500.00
A3	Geological work, supervision, misc.	6,500.00
G	Petrographic, mineralogical work	1,000.00
B3	Sample analyses	5,000.00
B2	Geochemistry 20 line miles	2,500.00
B4	Magnetics 20 line miles	2,500.00
B1	Lines 25 miles	3,500.00
C	Bulldozing	2,000.00
A1	Transportation	2,000.00
D1	Clearing portals, drifts	2,500.00
D2	Timbering	1,000.00
A2	Camp, food, etc.	3,000.00
E	Engineering	5,000.00
F	Contingencies	4,000.00

Phase 1 estimated costs \$43,000.00


PHASE 2

H2	Diamond drilling, allowing for 2500'	\$55,000.00
H1	Bulldozing sites	2,000.00
H3	Logging, mapping, supervision	5,000.00
H4	Sample assaying	2,000.00
	Dewatering, misc.	7,000.00
	Miscellaneous labour	4,000.00
	Transportation	2,000.00
	Camp, food	2,000.00
	Engineering	5,000.00
	Contingencies	8,000.00

Phase 2 estimated costs \$92,000.00

*In the event that sufficient funds for completing PHASE 1, as outlined, are not available, I recommend that portions of this phase be completed in the order indicated by alphabetical letter and subscript. Also, as PHASE 1 work might delimit intriguing drill targets, parts of PHASE 2 drilling and related expenditures should be allowed to complement PHASE 1 recommendations.

Respectfully submitted,


Charles A. H. Lepple, P. Eng.

27 NOVEMBER 1974

HIGHLAND GEOLOGICAL SERVICES LTD.



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AREA CODE: 604

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO: Mr. R. Lammle
939 Adderley
North Vancouver, B. C.

ATTN:

CERTIFICATE NO. 23787

INVOICE NO. 13073

RECEIVED Nov. 20/74

ANALYSED Nov. 22/74

Wayside Mine
Dawson Range Mines Ltd (NPL)



REFERENCES

1. Cairnes, C.E., 1937, Geology and Mineral Deposits of Bridge River Mining Camp, B.C., G.S.C. Mem. 213.
2. Cairnes, C.E., 1943, Geology and Mineral Deposits of Tyaughton Lake Map-Area, B.C. G.S.C. Paper 43 - 15.
3. McCann, W.S., 1922, Geology and Mineral Deposits of Bridge River Map-Area, B.C. G.S.C. Mem. 130.
4. Richmond, A.M., 1934, Summary and Review of the Mineral Industry of B.C. B.C. Dept. of Mines Bull. No.1 Wayside Mine, p. 42.
5. Hedley, M.S., 1935, Geological Structure at Bralorne Mine, CIMM Bull., No. 282, Oct.
6. Dolmage, Victor, 1934, The Cariboo and Bridge River Goldfields, B.C. CIMM Trans. pp. 405 -435.
7. Elwell, J.P., 1971, Progress Report on the Wayside Mine Property of Dawson Range Mines Ltd. (NPL), Gold Bridge, B.C. 2 November 1971.
8. Kelly, S.F., 1972, Report to Dawson Range Mines Ltd (NPL) on the Wayside Mine Property near GOLD BRIDGE, B.C. 10 February 1972.
9. Kelly, S.F., 1973, Updating Reports to Dawson Range Mines on Wayside Mine Property, 24 July 1973.
10. Lammle, C.A.R., 1974, Progress Report, Wayside Mine Property, Gold Bridge, B.C. Dawson Range Mines Ltd (NPL) 30 September 1974.

CERTIFICATE

Re: Preliminary Geological Report

WAYSIDE MINE PROPERTY

50°53'N 122°49'W 92 J 15 W

Lillooet H.D., B.C.

for

Dawson Range Mines Ltd. (NPL)

Vancouver, B.C.

27 November 1974

I, Charles A. R. Lammle, hereby certify that:

1. I am a registered professional geological engineer residing at 939 Adderley Street, North Vancouver, B.C.
2. I am a graduate of the University of British Columbia, having been granted the B.A.Sc. degree in Geological Engineering in 1962.
3. I have practised my profession since 1962.
4. I have been a member of the Association of Professional Engineers of British Columbia continuously since March, 1965.
5. I have no interest, direct or indirect, in the above named mineral property, nor in the securities of the above named company. I have not been promised any such interest. The only remuneration I expect for work leading to this report is the amount of my normally rendered professional fee.
6. I hereby grant the above named company permission to use this report for its corporate purposes.

Charles A. R. Lammle, P. Eng.
North Vancouver, B.C.

