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Report on the
 1988 Diamond Drilling Program
 on the

NOV Claim Group

Cariboo Mining Division
 Likely Area, B.C.

FILMED

NOV 1 (1355) NOV 2 (1356)
 NOV 3 (1357) SUN Fr. (5106)
 Latitude: 52° 38'N
 Longitude: 121° 29'W
 NTS Number: 93 A/11 & /12

Owner and Operator:

MALCOLM RESOURCES LTD.
 1550 - 609 Granville Street
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By:

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Dated:

3 June 1988

GEOLOGICAL BRANCH
 ASSESSMENT REPORT

17.942

SUMMARY

Malcolm Resources Ltd. holds, by way of an option agreement, the NOV mineral claim group, situated 7 km northeast of Likely, in B.C.'s central Cariboo. The four contiguous claims comprising 57 metric units are located on the lower 2 km of Spanish Creek near its junction with the Cariboo River. In addition to extensive historic and active placer gold mining in the immediate vicinity of the NOV group, limited development of several auriferous quartz vein exposures has been recorded.

Mineral exploration activity in the Likely region was spurred to record levels in the early 1980's by a coincident release of the B.C. government's Regional Geochemistry Survey results, and discovery of gold at Dome Minerals (Placer Dome's) QR deposit 20 km west of the NOV group. Intensive exploration activity has subsequently resulted in gold discoveries at the Frasergold and CPW prospects, 70 and 5 km southeast of the NOV property respectively.

The NOV claims are underlain predominantly by rocks of an unnamed black phyllite unit which forms the basal sequence of the Quesnel terrane - a belt of volcanic rocks formed by intensive activity in an island arc environment during the upper Triassic. Characteristically, the dark-grey graphitic phyllite is complexly deformed, and, particularly near the top of the sequence, contains numerous tuffaceous sedimentary horizons.

Trenching conducted on the NOV property has exposed several major northwesterly trending phyllite-hosted quartz vein structures. Pyrite, galena and gold mineralization is commonly associated with the altered calc-silicate selvage contained within these veins. An assay of 0.818 oz Au/ton obtained by the author helps to corroborate earlier reports of grades as high as 1.84 oz/ton from veins exposed in Spanish Creek.

A diamond drilling program was conducted in April 1988 in the vicinity of these "Spanish Canyon" showings. Three NQ diamond drill holes, totalling 1134' in length, were sited to investigate extensions of the mineralized structures westward and northwestward along strike.

Drilling encountered a typical sequence of the Black Phyllites which comprises dark phyllitized pelites irregularly interspersed with medium to light grey tuffaceous horizons. Characteristically, the tuff horizons are weakly to moderately altered and locally contain pyrite-galena bearing quartz veins up to 15 cm in thickness. There appears to be close relation between zonation of alteration, particularly in the tuff, and the occurrence of quartz-K-feldspar veins.

Structures considered to be correlative to those mapped at surface were encountered within each of the three diamond drillholes. However, split core samples collected from these zones did not contain the gold values that had been anticipated on the basis of previous surface sampling. Of 57 samples, the highest gold value attained was 0.014 oz/ton over a 1' quartz vein in diamond drillhole 88-2. Most of the other samples, including those considered to be collected from an extension of the Spanish Creek Zone, returned assays at or near the lower detection limit of 0.002 oz/ton Au. Likewise, silver values were on the order of a few parts per million (much less than 0.01 oz/ton Ag).

Based on data obtained during the course of the current diamond drilling program, follow-up exploration in the Spanish Canyon area of the NOV claim group cannot be recommended. While the possibility of identifying a Frasergold-type phyllite hosted precious metal deposit elsewhere on the property may remain, such a pursuit would require very careful rationalization.

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1.0 INTRODUCTION

1.1 Terms of Reference

This report on the NOV Claim Group was prepared by Nevin Sadlier-Brown Goodbrand Ltd., Consulting Geologists and Engineers (NSBG), at the request of the management of Malcolm Resources Ltd. It is based primarily on information obtained during the course of an exploration program conducted by NSBG, a review of literature reporting previous work on the property, and upon research of available publications on the region.

The report is intended to provide a description of the NOV Claim Group and to summarize recent exploration undertaken by Malcolm Resources during April, 1988.

1.2 Location and Access

The NOV Claim Group is situated 7 km northeast of Likely, in central B.C. (Figure 1). The claims comprise an area of approximately 1400 ha covering the lower 2 km of Spanish Creek near its junction with Cariboo River (Figure 2). The claims are located at latitude 52° 38'N and longitude 121° 29'W (NTS Mapsheets 93A/11 and /12) within the Cariboo Mining Division.

Likely is situated approximately 95 km by paved highway northeast of Williams Lake, the nearest major supply centre. From Likely, an all-weather road leading to Keithly Creek traverses the NOV 3 claim approximately 1 km after the bridge crossing the Cariboo River. Access to the remainder of the claim group is readily afforded by way of an extensive network of well maintained forestry roads. A number of roads suitable only for four-wheel drive vehicles, and bulldozer access trails have been constructed during the course of exploration on the claims.

1.3 Property Description

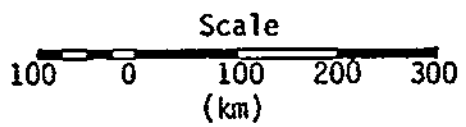
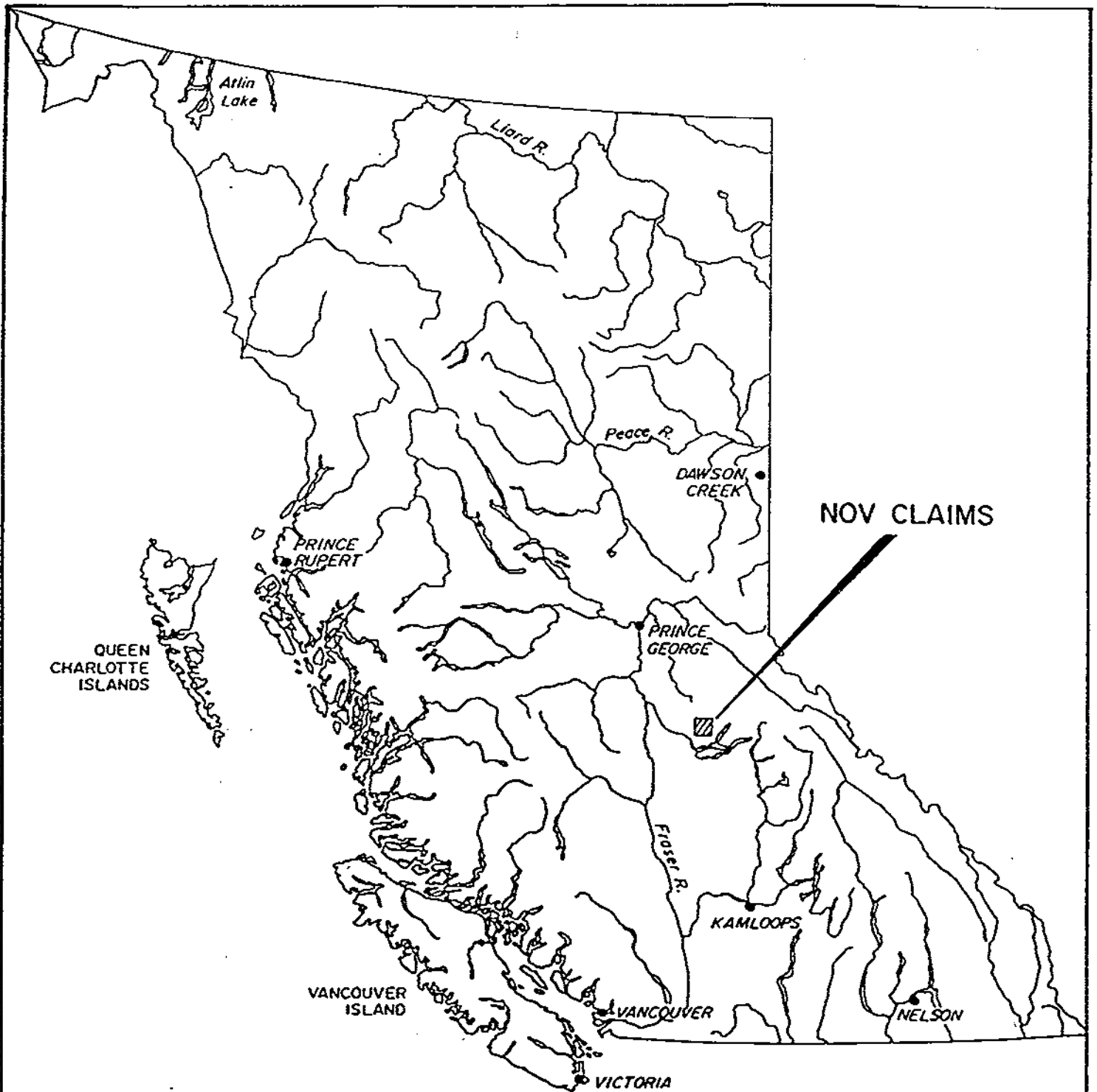
By way of an Option Agreement dated 7 July 1987, Malcolm Resources Ltd. has obtained the exclusive right to acquire an undivided 100% interest in the NOV Claim Group. The property consists of 4 contiguous metric mineral claims staked under the modified grid system, as follows:

Claim Name	Units	Record No.	Expiry Date	Owner of Record
NOV 1	20	1355(11)	29 November 1991	Malcolm Resources Ltd.
NOV 2	20	1356(11)	"	"
NOV 3	16	1357(11)	"	"
SUN Fraction	<u>1</u>	5106(8)	25 August 1992	"

TOTAL 57 units

During the course of the property examination, the author inspected the NOV 3 legal corner post. Claim lines flagged and blazed some seven years earlier remain clearly visible, corroborating earlier observations made by MacLeod, (1982). In the writer's opinion, the claims were staked in a manner consistent with the B.C. Mineral Act regulations.

The SUN Fraction was staked three years subsequent to the location of the NOV claims when Apex Energy Corp., owners of the claims at the time, identified a 35 m gap between the NOV 1 and NOV 2 claims. The properties have been grouped under the name "NOV". Much of the NOV mineral claims area has also been staked under the Placer Mining Act.



MALCOLM RESOURCES LTD.

NOV CLAIMS
LOCATION MAP

SPANISH CREEK, LIKELY AREA

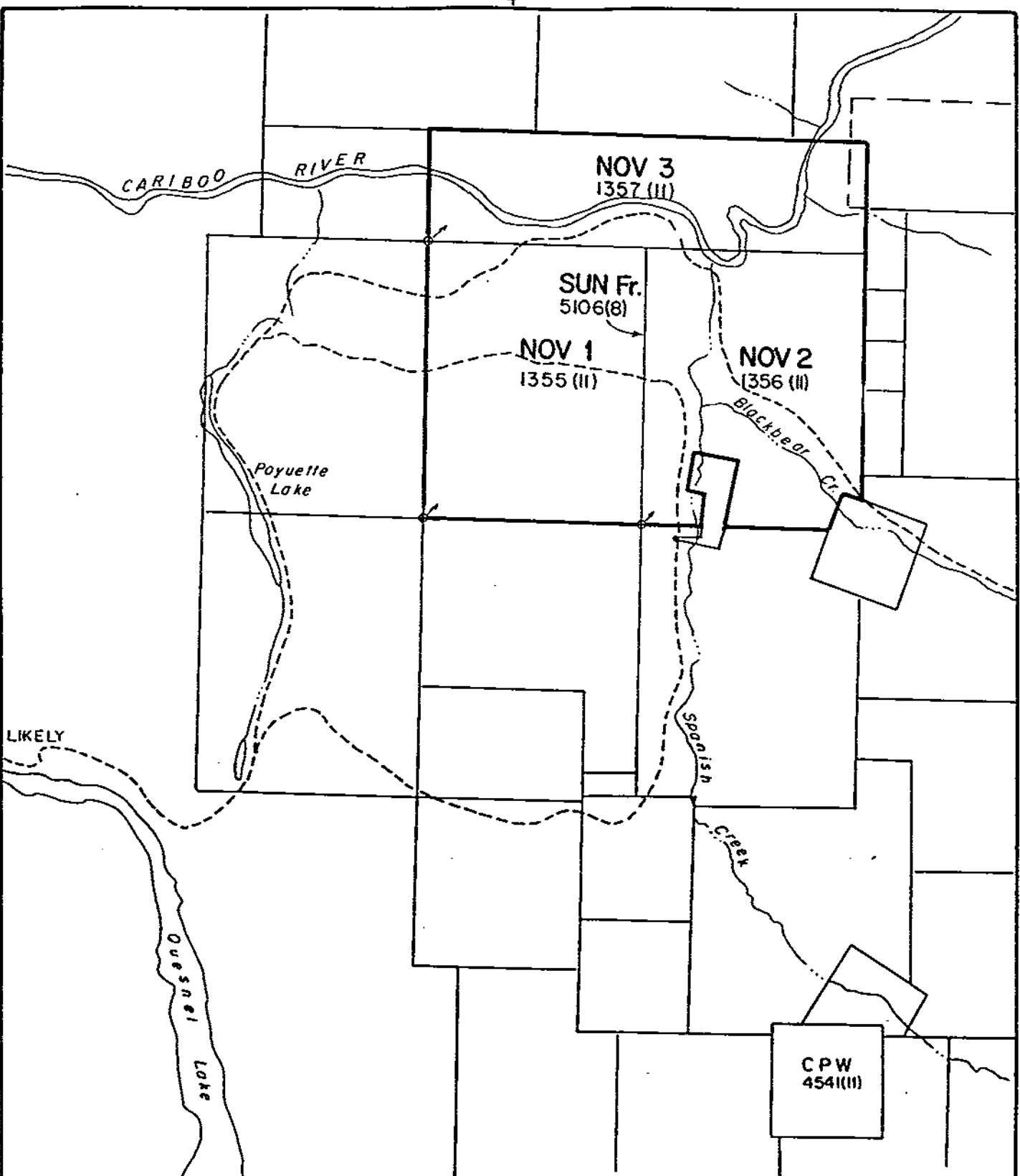
N.T.S. 93A / 11,12

CARIBOO M.D., B.C.

DATE : May 1988

FIGURE No. 1

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Mineral Claims in the vicinity of the
NOV Group at July 9, 1987.

SCALE 1:50,000



MALCOLM RESOURCES LTD.	
NOV CLAIMS CLAIM MAP	
SPANISH CREEK, LIKELY AREA	
N.T.S. 93A/1, 2	CARIBOO M.D., B.C.
DATE: May 1988	FIGURE NO. 2
NEVIN SADLER-BROWN GOODBRAND LTD.	

1.4 Physiographic Features

The NOV claim group is situated on the western flanks of the Quesnel Highland in B.C.'s central Cariboo. The region is characterized by numerous large lakes, such as Horsefly, Quesnel, and Cariboo, occupying elongate valley structures formed within the mountainous Highland terrain. The Cariboo and Quesnel Rivers generally follow the Quesnel trough, draining northwestward towards the Fraser River.

Elevations on the NOV claims range from 715 m (2450') in the valley on the northwest corner of the Group to 1160 m (3800') on a height of land central to the NOV 2 claim. The Cariboo River divides the northern portion of the property, cutting through tens of meters of fluvial and glaciofluvial gravels that form its steep left bank. Atop the ancient river terraces, topographic relief on the claims is generally subdued, with slopes seldom exceeding 5°. However, Spanish Creek and its major tributary, Blackbear Creek, have deeply incised the eastern portion of the property, forming steep canyon walls in both bedrock and Quaternary sediments.

Its location with respect to the Quesnel Highland has produced a moderated interior climate in the Likely area. Summers tend to be warm and reasonably dry, although heavy rainfall can be expected occasionally. Winters are cold and, particularly at higher elevations, a snowpack of 1 to 2 m should be anticipated.

Where forested, vegetation on the property consists primarily of mature fir and spruce with moderate to thick undergrowth. Deciduous forest, and perennial shrubs and flowers typify ground cover in the logged or placer mined areas which comprise approximately half of the surface of the claims. Overburden several meters deep in some locations mantles much of the property. With the exception of outcrop in Spanish and Blackbear Creek canyons, bedrock exposure on the NOV claims is sparse.

A thriving mining and mineral exploration infrastructure in the Cariboo region has been re-established as a result of record levels of activity in the area. The NOV claims are well serviced by industrial roads, and the local availability of labour, heavy equipment and transportation is excellent.

1.5 History

The Cariboo district has been pivotal in the development of British Columbia's mining industry since the discovery of placer gold along Quesnel River and its tributaries nearly 130 years ago. Placer mining activity in the region is highlighted by the Bullion Mine, situated 4 km west of Likely. Hydraulic mining of the buried valley fill occurred principally between 1894 and 1905 (producing about 60,000 oz of gold) and sporadically since that time (Clague, 1987). Remnants of an old dam and flume system attest to the hydraulic sluicing operations once conducted on Spanish Creek, and extensive historic and active placer workings are present in the vicinity of the NOV claims.

Despite a rich placer gold mining history, no significant lode gold production has been recorded from the Likely area. Early exploration for lode gold deposits on the NOV group is documented in various B.C. Ministry of Mines' reports. Bowman (1887) describes a vein on Spanish Creek from 5' to 7' in width containing galena in streaks about 1" wide, near the outlet of Blackbear Creek. No results appear to have been published of subsequent work on the Spanish Creek veins although two short (3 to 5 m) adits were developed in the area, and remain accessible to present. Bowman also describes numerous large quartz-vein occurrences along Cariboo River, including the "Stephenson Ledge". In reference to work on the Sunshine Group in the 1933 B.C. Ministry of Mines Annual Report, the quartz vein is described

as exposed over approximately 12 feet in width striking northwesterly, with good, but ambiguous gold grades recorded.

Current Activity

Bedrock exploration in the Quesnel Lake area intensified in the late 1960's when much of the region was staked during the "porphyry copper boom". The Cariboo Bell deposit at Boot Jack Lake, 15 km southwest of Likely, was the focus of much of this activity. Exploration dwindled until, in 1980, Dome Explorations began drilling on their QR Claim Group situated on the Quesnel River, 16 km northwest of Likely. Activity further intensified in 1981 following release of results of the B.C. Geology Branch's 1980 Regional Geochemical Survey. Most of the claims that currently surround the NOV property were staked at that time.

1.6 Previous Work on the NOV Claims

"Modern" exploration work on the NOV property began in 1980 with a prospecting program conducted by R.E. Mickle, and in 1981, with airborne magnetometer and VLF-EM survey of the claim group (Shell Drake, 1981). Diamond drillhole DDH 82-1, a vertical AQ hole was collared in phyllites on the edge of Spanish Creek canyon and was drilled towards the "Upper Adit", though no significant results were reported.

A comprehensive exploration program began in 1983 when the property was optioned to Apex Energy Ltd. Over the course of two years, Apex conducted a geochemical survey, and ground magnetometer, VLF-EM, and IP geophysical surveys which blanketed the southwestern portion of the claim block. In 1985, Apex relinquished their option on the NOV claims. Prospecting and backhoe trenching since 1985 has focussed primarily on the Spanish Canyon showings and has successfully identified potentially significant gold-bearing quartz vein and shear structures.

In 1987, Malcolm Resources Ltd. re-interpreted geochemical data derived from the earlier work, and identified a strong, northwesterly trending zone of soils anomalous in gold. To evaluate the hypothesis that the zone was an extension to the auriferous quartz vein system identified in Spanish Canyon, soil sampling and a VLF-EM survey were conducted on a 14 km grid installed on the northeast portions of the NOV 1 and 2 claims. Concurrently, trenching, mapping and sampling were conducted in the vicinity of gold showings in the Spanish Canyon area (Croft, 1988).

1.7 1988 Program Description

Fieldwork on the NOV claims during April 1988 consisted of diamond drilling and supplementary geological mapping and sampling. The work focussed on the "Spanish Canyon" area situated on the west bank of Spanish Creek near its confluence with Blackbear Creek on the NOV 2 Claim (Figure 5). Three NQ (50 mm core diameter) holes were drilled to investigate westward extensions of gold mineralization encountered by previous work in the area. Angled holes 88-1, -2 and -3 attained (measured) depths of 400' (121.9 m), 350' (106.7 m) and 384' (117 m) respectively, for a total drilling depth of 1134' (345.6 m).

2.0 GEOLOGY

2.1 Regional Geology

The NOV Claim Group is situated within the eastern fringes of the Quesnel terrane, described by Panteleyev (1987) as;

an allochthonous belt of predominantly Upper Triassic-Lower Jurassic basic to intermediate volcanic rocks that lies along the eastern margin of the Intermontane Belt. Quesnel terrane can be followed as a disrupted but nearly continuous narrow belt, from the southern to northern provincial boundaries.

A basal sequence of unnamed black phyllites underlies the Quesnel belt volcanic rocks, forming a linear band adjacent to the boundary of the Intermontane Belt and the Omineca Belt farther to the east (Campbell, 1978). Extensive distribution of basic to intermediate volcanic rocks throughout the Cordillera is generally attributed to intensive volcanic activity within an island arc environment during the upper Triassic.

In the Quesnel Lake map-area, the north-northwesterly trending Quesnel belt (once commonly referred to as the Quesnel trough) is approximately 60 km in width. The Eureka thrust separates the Quesnel terrane from the Precambrian to Paleozoic rocks of the Omineca belt to the east; the Pinchi Fault system forms the western boundary with Paleozoic rocks of the Cache Creek terrane.

Significant economic copper-gold and gold mineralization has been identified within rocks of Quesnel terrane in the Cariboo region. Altered volcanic rocks proximal to small intrusive stocks or

intrusive-extrusive breccia zones (QR deposit), and distinctive phyllitic horizons within the basal sequence containing both disseminated gold and auriferous quartz vein systems (Frasergold deposit) have proven to be attractive exploration targets within the area. Some of the placer gold deposits in the region may have been released during a lengthy period of Tertiary weathering and denudation of Quesnel terrane rocks.

2.2 Property Geology

Most of the NOV Claim Group is underlain by the sequence of unnamed "Black Phyllites" (described by Bloodgood, 1987 and Bloodgood, 1988) which comprise the basal unit of the Quesnel belt (Figure 3). The knotted graphitic phyllite which predominates much of the sequence exposed on the property includes numerous bands of quartz sandstone or possibly tuff horizons ranging in width from 40 cm to 3 m in thickness. Particularly in the vicinity of the Spanish Canyon showings, the phyllite is sooty, characterized by a strong graphitic foliation, and commonly contains 1 to 3 mm porphyroblasts of completely weathered iron oxides. Pyrite cubes up to 2 cm in width have been observed within some sections of the sequence.

Complex deformation of the phyllite package is evidenced by extensive small-scale (1 to 3 mm) crenulations, a warping of bedding, and discordant bedding relations across numerous small fault zones. A southeasterly trend characterizes the strike of graphitic foliation planes although the dip is extremely variable.

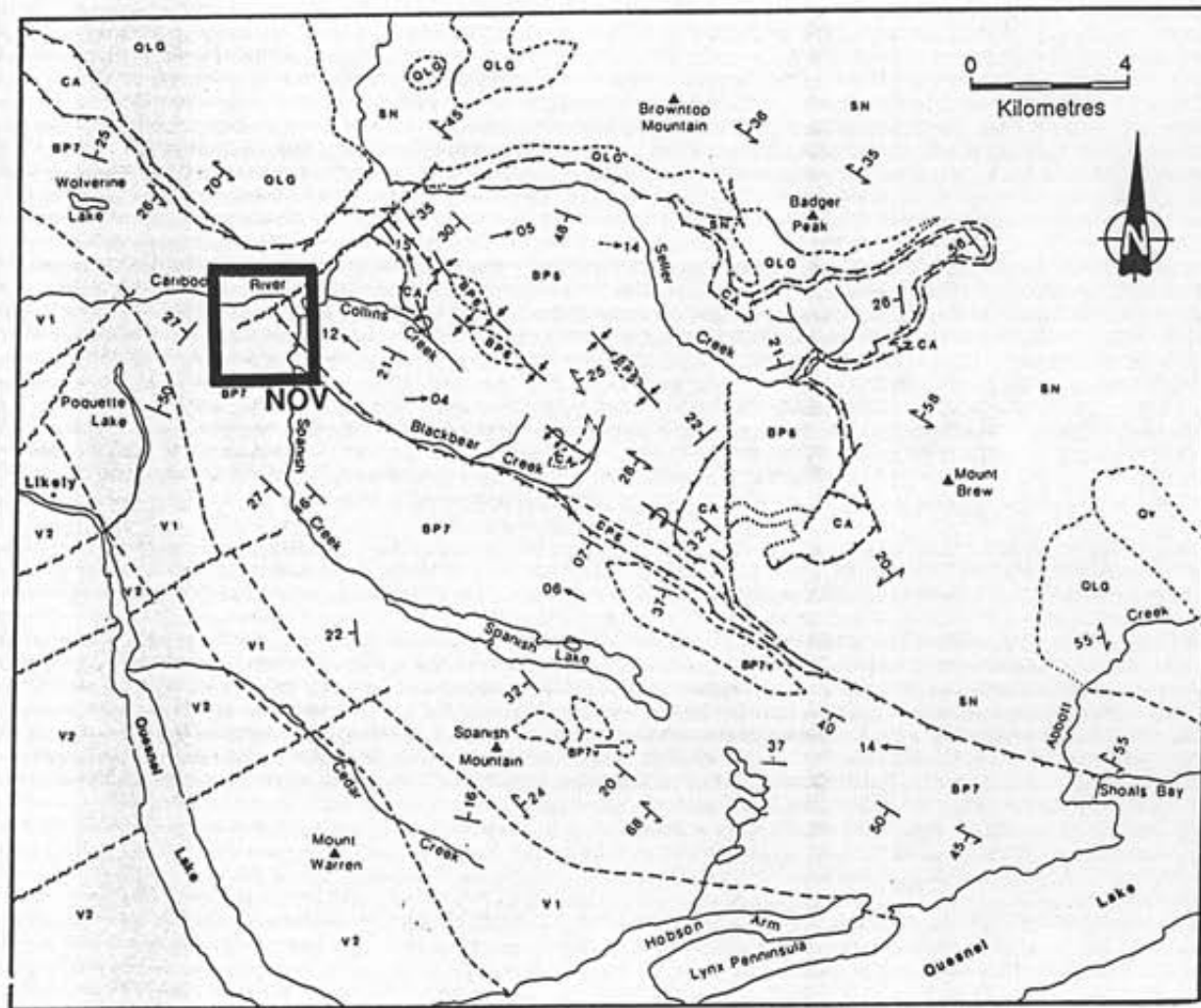
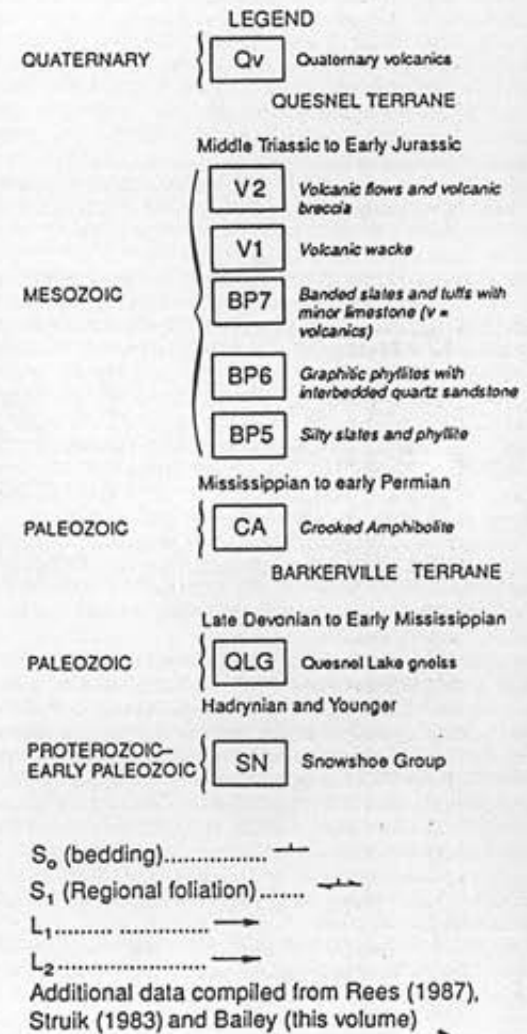


Fig. 3 Generalized geologic map of the Spanish Lake area.



from Bloodgood, 1988

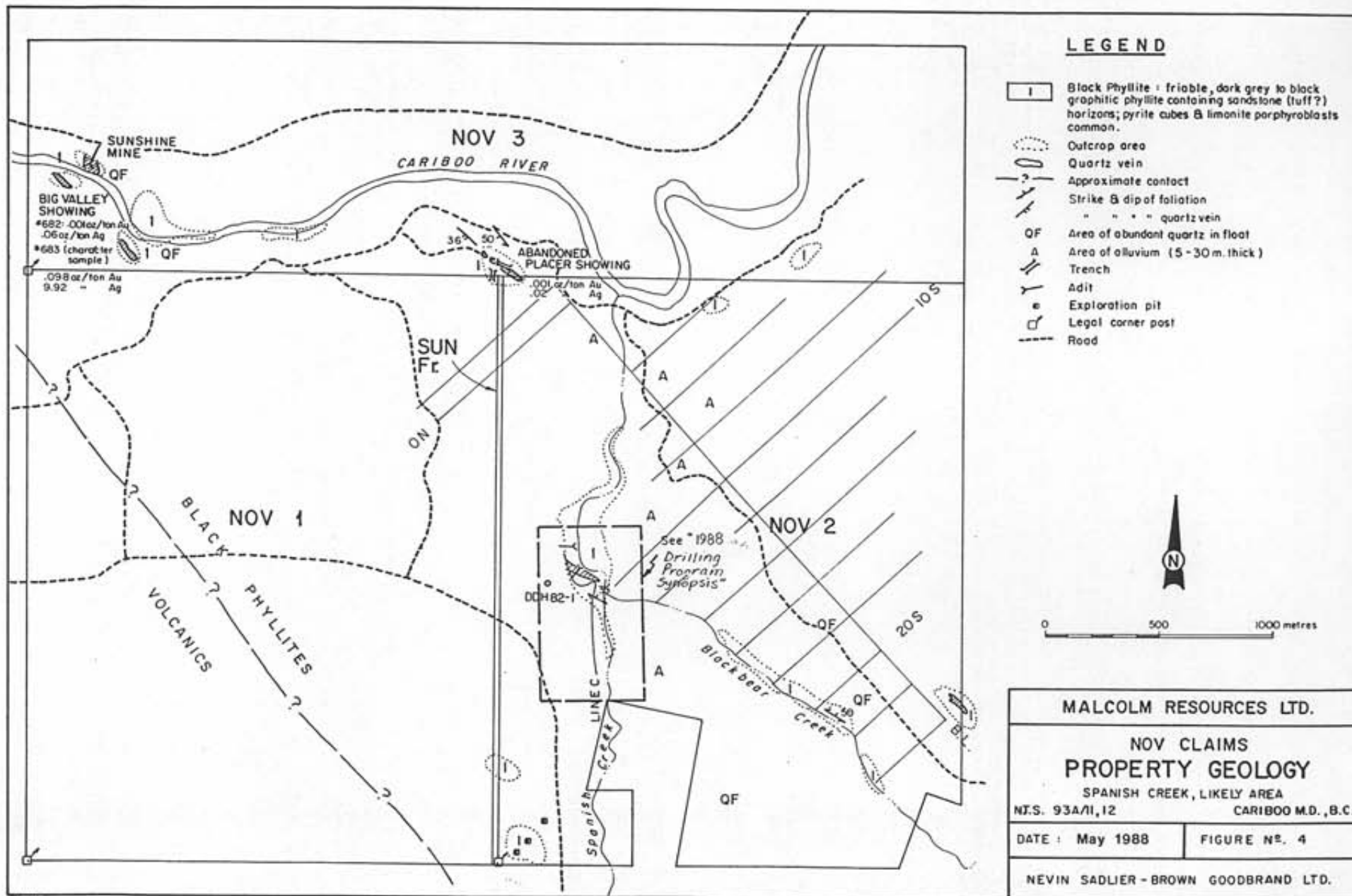
The southwestern portion of the claim group is mapped as being underlain by volcanic rocks of the Quesnel terrane (Bloodgood, 1988), though none are observed in outcrop. The northwesterly trending contact between the phyllites and overlying volcanics bisects the NOV 1 claim.

Economic Geology

Within the Black Phyllite underlying the NOV claims are numerous sizable quartz vein structures. Best exposed by trenches in the "Spanish Canyon Zone", the veins trend approximately east-southeastward and dip moderately to steeply northward. Typical widths are 10 to 50 cm, although locally, widths to several meters have been observed. To date, mapping has been insufficient to firmly establish the continuity of the structures along strike.

Quartz veins mineralized by pyrite+galena commonly contain associated values in gold and silver. Sulfides commonly occur within a calc-silicate selvage. Particularly in the vicinity of the Upper Adit on the Spanish Canyon Zone, sericitic to talcose alteration to 2 m in width envelopes the quartz veins, and localized intense shearing is common. Steeply dipping shear- and vein-structures which intersect the more shallow dipping major quartz veins appear to play an important role in localizing sulfide deposition.

Elsewhere on the claim group, major graphitic phyllite-hosted quartz vein exposures have been mapped near the southeastern corner of NOV 2, the southwestern corner of NOV 3, and within old placer workings on the south bank of Cariboo River (Figure 4).



3.0 DIAMOND DRILLING PROGRAM

3.1 Program Description

On 14 April 1988, a diamond drill was mobilized to a site approximately 425 m southwest from the confluence of Blackbear and Spanish Creeks. Drilling was performed by H. Allen Diamond Drilling Ltd. utilizing Longyear 38 equipped for NQ wireline operation. The rig was skidded by bulldozer down a steep access road which branches off the main logging road traversing the NOV 2 claim. Two holes, 88-1 and 88-2, were drilled from one set-up at this location before moving approximately 300 m northwest for the third hole, 88-3 (Figure 5). The program was completed and the site vacated by 27 April 1988.

The NQ core (50 mm diameter) was logged by the author and is described in detail in Appendix C, with graphic logs plotted in cross-section on Figures 7 through 9. The core was delivered to the residence of Mr. Bob Mickle of Likely, B.C. for storage. Portions of the core were split and submitted to Chemex Labs Ltd. of North Vancouver for analysis. The samples were fire assayed for gold (with A.A. finish) and a 32-element ICP analysis conducted to obtain further geochemical information. Gold assays and the ICP determination for silver are presented in profile on the cross-sections with the remainder of the results presented in their entirety in Appendix D.

3.2 General Lithologic Description

Each of the holes encountered a sequence of dark grey to black phyllitized sediments, characterized by a distinctive penetrative foliation sub-parallel to finely laminated (0.2 to 2.0 mm) bands of black microcrystalline pelites. Typically, the phyllite is

interlaminated with thin (0.2 to 0.5 mm) layers of light- to medium grey, very fine-grained felsic tuff, although localized sections of massive pelites were identified.

Within the section are numerous horizons of a medium grey, medium- to fine-grained tuff, varying in width between 1 and 3 m. Characteristically, the tuff is pervasively weakly propylitized, which alters pyroxene(?) porphyroblasts to a pale yellow-green, resulting in a speckled appearance to this section. Locally, except for its colour, the "tuff" is indistinguishable from the phyllites. This feature suggests a preferential alteration of a slightly more felsic component of the pelite sequence, rather than a completely differing lithology. Elsewhere, a markedly different texture and structure make the tuff component clearly distinctive.

Spectacular euhedral pyrite crystals up to 25 mm in width are disseminated throughout both the tuff and pelite components of the sequence. Pyrite casts are commonly deformed and have been infilled by quartz. Larger pyrite cubes are generally severely fractured and healed by silica flooding. The widespread occurrence of cubic pyrite within the section is suggestive of a syngenetic origin, predating both regional deformation and subsequent precious metal mineralization.

Narrow milky-white quartz veins are ubiquitous within both the phyllite and "tuff" units. Locally however, particularly within more competent, and altered horizons, the quartz veins are bordered by a white K-feldspar selvage with associated sulphides. While pyrite is the most common sulphide constituent, traces of galena and sphalerite were noted.

3.3 Diamond Drillhole 88-1

The objective of drillhole 88-1 was to investigate the postulated westward extension of a galena-rich quartz vein structure which was assayed at 0.818 oz/ton gold (Croft, 1987; also see Table 1). The hole was collared approximately 80 m east, and 45 m above the "Sidecut", and angled at -52° on an azimuth of 091° (Figure 6). The hole was completed to 400' (121.9 m). All casing was removed.

A typical "Black Phyllite" lithology was encountered throughout 88-1 although minor shearing was more prevalent in this section than in the other drillholes. Alteration is weak to absent over most of the length of the drillhole with the exception of a moderately silicified zone of quartz stockwork in mixed Black Phyllite and tuff between 257' and 272'. This zone probably represents an intersection of the structure identified at surface in the "Sidecut".

Quartz veins within the stockwork section were noted to contain traces of galena, a mineral considered to be a closely associated with gold. However, samples collected from the zone yielded assays at less than detectable levels for gold and silver, and only trace levels of lead. Precious metal values were similarly low in other sample intervals, with only one assay exceeding the detectable limit for gold (0.008 oz/ton over a 1' quartz vein at 188').

Comments

While Diamond Drillhole 88-1 appears to have intersected the quartz vein feature exposed in the "Sidecut", economic gold values encountered at surface do not appear to persist along the structure. Based on the results of the drilling program, gold mineralization is inconsistent, or at best, tightly confined within the quartz vein system.

TABLE 1 1987 ANALYTICAL RESULTS - SPANISH CANYON AREA

Sample No.	Description	Au (oz/ton)	Ag (oz/ton)	Pb (%)
673	Quartz vein and siliceous phyllite wall rock; pyrite pervasive. 1 lb grab	<0.001	<0.01	<0.1
674	Quartz vein & siliceous wall rock grab sample from adit.	<0.001	<0.01	<0.1
677	Quartz vein in vicinity of tuff(?) horizon; grab	0.044*	0.64*	0.33
678	Quartz vein; Fe-oxides, minor galena in altered structure. 2' channel	0.061*	0.66*	0.33
679	Rusty-chocolate brown gouge from vicinity of shear zone. 3 lb grab	0.001*	0.08*	<0.1
680	Rusty red limonitic gouge from vicinity of 678. 2 lb grab	0.093*	0.68*	0.31
687	8" quartz vein; pyrite pervasive. Talc altered phyllite wall rock; grab	0.098	0.70	0.48
688	Silicic talcose-altered phyllite - locally limonitic 1 lb grab.	0.001	0.08	<0.1
689	Trace galena in milky quartz vein splay from phyllite host. 2 lb grab	0.015	0.18	0.16
691	Convergent quartz veins containing pyrite, galena, limonite. 2 lb grab	0.818	4.43*	2.8
692	1'x1' chip sample at 691. Abundant galena, hematitic fracture coatings	0.097	0.92*	0.71
697	Gouge from strongly deformed quartz vein and wall rock - abund. limonite.	0.006	-	-
699	4.5' gouge-extremely deformed within brown talcose altered phyllite.	0.001	-	-

* Translated from ICP analysis results. Assay is required for mor accuracy.

3.4 Diamond Drillhole 88-2

Drillhole 88-2 was sited to investigate both a westward extension of the "Sidecut" auriferous quartz vein system, and possible sub-parallel features deeper within the Black Phyllite sequence. From a collar approximately 4 m north of 88-1, the hole was angled at -55° on an azimuth of 202° in order to penetrate the postulated structures normally (Figure 7). The hole was completed to a measured depth of 350' (106.7 m), and all casing was removed.

88-2 was collared in the rusty-weathering light grey tuff unit exposed at surface by site preparation activities. In the immediate vicinity, several limonitic quartz veins ranging in width from 5 to 15 cm were mapped (see "Drillsite Trench", Figure 8). In addition to the ubiquitous pyrite, the quartz veins typically contained minor amounts of galena within a 2 to 5 cm K-feldspar selvage. The veins are invariably hosted by a strongly weathered, weakly talcose altered tuff. (It is possible that alteration of the tuff is closely associated with the circulation of hydrothermal fluids and attendant deposition of the quartz veins.)

Within the top 54' of 88-2, two moderately to strongly silicified zones, and numerous quartz- K-feldspar veins are encountered within the medium-grey tuff unit. Pyrite, and locally, minor galena mineralization are associated with the K-feldspar selvage. These structures correlate closely with those identified at surface, and indicate structural continuity with depth. Assays of samples collected from the silicified zones all reported sub-economic precious metal grades. The highest value was obtained from the interval at 7' to 12', returning a value of 0.014 oz/ton gold.

Sampled section Sample No.: gold assay, silver (oz./ton)
 (- denotes "less than detectable limit")

1022: 0.047, 0.44 (0.23% Pb)

40
 BLACK PHYLLITE BP

Finely laminated phyllitized dark grey to black pelitic sediments. Localized moderate to severe deformation. Commonly interlaminated with 0.5 to 30 mm bands of light to medium grey tuff. Euhedral syngenetic(?) pyrite crystals 0.5 to 20 mm disseminated throughout.

10 to 15 cm QZ vein; strongly limonitic with minor GA

QUARTZ VEIN

Milky white quartz vein typically containing K-feldspar selvage with associated pyrite. Other sulphides (in trace amounts as noted) including galena (GA) and sphalerite (SP) present locally.

QZ, tr. GA

1021: 0.001, 0.01

88-2

irregular 5 to 10 cm QZ+GA; strong limonite

5 to 15 cm QZ vein; no sulphides observed

1020: 0.001, 0.02

1019: 0.009, 0.07

88-1

BP

1018: 0.002, 0.02

34

BP

42

TUFF

Medium- to very fine-grained tuff characterized by pervasive weak propylitic alteration of anhedral pyroxene "porphyroblasts", resulting in distinctive speckled appearance.

80

1017: 0.001, 0.01

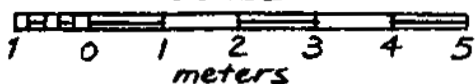
1016: 0.001, 0.01

10-15cm QZ, tr. GA, strong limonite

Survey Reference Pt. "A"



SCALE



MALCOLM RESOURCES LTD.

NOV CLAIMS
 Detail 'A'
 DRILL SITE TRENCH

Spanish Creek, Likely area, B.C.

N.T.S. 93 A/11

CARIBOO M.D., B.C.

Date: MAY 1988

Figure 8

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Massive Black Phyllites continue to a depth of 103', where a 5' thick tuff horizon is host to a pyrite-galena bearing quartz vein. (Again, time sequence events related to alteration, quartz vein deposition and sulphide precipitation is unclear.) Low assays were also obtained from a sample split from this interval.

The remainder of the section comprises typical Black Phyllites with some interspersed tuffaceous horizons. Five samples split from an interval of weakly silicified tuff and phyllite between 265' and 285' returned assays below the detectable limit.

3.5 Diamond Drillhole 88-3

Drillhole 88-3 is situated on the eastern edge of a clearcut area approximately 250 m west of an old adit on Spanish Creek, or 300 m northwest of drillholes 88-1 and -2. The hole was targeted to investigate a possible westward extension of a mineralized zone described in 1887 Government geological reports, and subsequently relocated by recent prospecting, trenching and sampling. The drillhole was angled at -65° on an azimuth of 198° and completed to a measured depth of 384' (117.0 m), and was oriented normal to the auriferous quartz vein structures mapped in Spanish Canyon (Figure 9).

A typical Black Phyllite sequence extending to 230' was encountered beneath 35' of overburden. Alteration within this interval is slight to absent with the exception of three 3' sections bordering narrow quartz veins at 80', 126', and 174'. Zonation of silicification in these intervals appears to be strongly influenced by the quartz vein, and to a lesser extent, by a subtle lithological change towards tuff in the immediate vicinity. Samples collected from these sections returned precious metal assay values at, or below the lower detection limit.

Below 230', the tuffaceous component of the sequence becomes increasingly predominant. Associated weak to moderate silicification is evident, particularly in the vicinity of quartz veins, where disseminated pyrite content increases markedly. Pyrite and galena are also present within a K-feldspar selvage commonly identified within the quartz veins.

Intense alteration within the tuff is noted between 270' and 290'. Disseminated pyrite and minor galena accompany silicification which renders the core to a light brown to buff colour. Also present within the section are numerous quartz veins, varying in width from 0.5 to 15 cm. A typical sulphide assemblage comprising pyrite with minor galena and sphalerite is associated with K-feldspar selvage in quartz veins, and was also noted to occur as a "stockwork" between quartz breccia fragments at 277'.

Despite the presence of strongly altered host rocks, and strong sulfide mineralization within the section, samples split from this interval yielded gold values no higher than 0.004 oz/ton Au. It may be significant that during a run between 283' and 290', core recovery was on the order of 25%, however low gold values are encountered both immediately above and below this zone. Much of the intensely altered section is characterized by extremely rubbly core, and the low recovery at 285' probably resulted from washing out of material across a fault zone at the core of the altered interval.

The alteration subsides towards 312' where the Black Phyllite persists to a depth of 335.5'. Here, the phyllite is in an abrupt contact with an intensely altered 1.5' wide marble band and, below that, a 1' greywacke horizon. Although quartz veins occur within this narrow section, little sulphide mineralization was observed. Samples from this section reported low precious metal values.

A section characterized by an alternating sequence of Black Phyllites and variably altered tuff predominates to the bottom of the hole at 384'.

Comments

Drillhole 88-3 intersected a major structural feature at 270' to 295'. The fault zone and associated alteration is probably a westward extension of the mineralized zone mapped 250 m east at a similar elevation in Spanish Canyon. However, unlike surface samples collected from the Spanish Canyon showings, analysis of material split from the 88-3 core yielded no significant gold assays. On the basis of these findings, gold mineralization appears to be either absent altogether or extremely erratically distributed along the structure.

4.0 CONCLUSION

4.1 Conclusion

A program of diamond drilling, conducted in April 1988, was designed to test a postulated westward extension of gold mineralization identified in the lower reaches of Spanish Creek. The three NQ diamond drillholes encountered quartz veins and faults, and associated alteration within host Black Phyllites which are considered to be correlative to those mapped at surface within "Spanish Canyon". However, within core samples selected from these structures, gold mineralization is very weak or absent entirely.

The disparity between surface and drill core analyses is suggestive of an erratic distribution of gold mineralization, or of a pronounced nugget effect. Because analyses of large (5 kg) samples collected at surface in the "Drillsite Trench" also failed to detect gold mineralization, the former hypothesis appears to hold more credibility. Arguably, diamond drilling may not provide a sample large enough to mitigate the nugget effect. However, with results as consistently low as those obtained in 88-1, -2 and -3, it may be stated with reasonable surety that gold mineralization within the Black Phyllites in the vicinity of Spanish Canyon is, at best, extremely erratic.

4.2 Recommendations

On the basis of the results of the 1988 diamond drilling program no further exploration expenditures in the Spanish Canyon area of the NOV claims are recommended. While the potential for economic discoveries may exist elsewhere on the property, such a pursuit would require careful rationalization.

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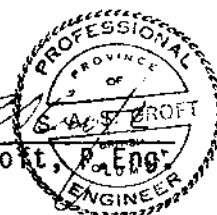
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APPENDIX A

CERTIFICATE AND STATEMENT OF QUALIFICATIONS

I, Stuart A.S. Croft, hereby certify that:

1. I reside at #307 - 1918 York Ave., Vancouver, B.C. V6J 1E3
2. I am a consulting geologist with the firm of Nevin Sadlier-Brown Goodbrand Ltd., 401-134 Abbott Street, Vancouver, B.C. V6B 2K4.
3. I hold a B.A.Sc. in Geological Engineering from the University of British Columbia and have been practicing my profession since 1981.
4. I am a registered member of the Association of Professional Engineers of British Columbia (Geological).
5. This report is based upon knowledge of the NOV claim group obtained during personal examinations of the property in June and August, 1987, and upon information obtained during the course of an exploration program on the NOV claim group. I personally supervised and participated in the diamond drilling program conducted in April, 1988 by Nevin Sadlier-Brown Goodbrand Ltd., the findings of which are subject of this report.


Stuart A.S. Croft, P. Eng.


3 June 1988

APPENDIX B

ITEMIZED STATEMENT OF COSTS

The following is an itemized summary of exploration costs applicable as assessment work for the NOV Claims in 1988.

A. FEES PAID

S. Croft, Geological Engineer		
1 Jan to 7 Apr 88:	30 h @ \$50	\$1,500.00
8 to 27 Apr 88:	19 d @ \$345	6,555.00
D. Detels, expediter		
7 Apr 88:	1 d @ \$265.00	265.00
T.L. Sadlier-Brown, Senior Geologist		
5 to 30 Apr 88:	20 h @ \$75	1,500.00
	1 d @ \$475	475.00
		\$10,295.00

B. FOOD AND ACCOMMODATION

Meals (20 md @ approx. \$19.50/d)	\$ 388.76	
Accommodation		
Hotel	153.53	
Trailer Rental	440.00	
		982.29

C. TRANSPORTATION

Truck rentals: 7 to 28 Apr 88		
1 4WD pickup; 3 wk @ \$280/wk		
plus 2830 km @ \$0.15/km	\$1,264.50	
1 4WD pickup; 1d @ \$50/d		
plus 1277 km @ \$0.15	241.55	
Gasoline	458.43	
		1,964.48

D. INSTRUMENT RENTAL

Core Splitter		135.00
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E. DIAMOND DRILLING EXPENSES

Diamond drilling			
1134' @ \$20.00/ft	\$22,680.00		
(note: price includes fuel, room & board, misc. supplies)			
Mobe/Demobe	3,500.00		
Water supply			
10 shifts @ \$300/d	3,000.00		
Bulldozer: 23 h @ \$60/hr	1,380.00		
			30,560.00

F. ANALYSES

52 Core Samples analysed for			
Au plus 32-element ICP @ \$22.55	\$1,172.60		
9 rock samples assayed for Au			
plus ICP @ \$33.85	304.65		
Sample Shipment charges	13.70		
			1,490.95

G. MISCELLANEOUS FIELD EXPENSES AND SUPPLIES

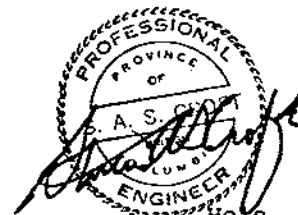
Expendible equipment and supplies	\$ 278.20		
Site reclamation	320.87		
			599.07

H. REPORTING

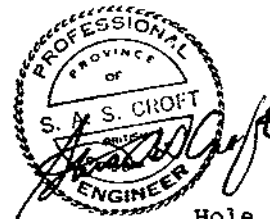
Geologist (92.0 h @ \$50.00)	\$4,600.00		
Typing and admin.	600.00		
copying and reproduction	283.37		
drafting	1,790.75		
Telephone - communication	217.59		
			<u>7,491.71</u>
	TOTAL		\$53,518.50

APPENDIX C

DIAMOND DRILL LOGS



From	To	Lithology	Alteration	Precipitates
0'	15'	CASED through organic material, clay		
15'	34.5'	Graphitic PHYLLITE. Thinly laminated, shiny dark grey phyllite. Laminae at 75° to core axis. Subrounded porphyroblasts of limonite	Pervasive weak, finely disseminated pyrite throughout in addition to cubic pyrite cry-	Prominant 10 cm quartz vein at 21.5 - limonite stained though no other sulphides observed.
		(after syngenetic pyrite?) to 4 mm diameter common throughout. Quartz lamellae 0.1 to 0.5 mm common; often broaden at porphyroblasts. Quartz lamellae more common, limonite less towards sharp lower contact (at 50° to core axis)	stals to 10 mm. Suspect later pyritization overprinting syngenetic pyrite associated with metamorphosis of fine grained pelites.	
34.5'	39.5'	light to medium grey TUFF. 1 to 3 mm subrounded porphyroblasts elongate along metamorphic fabric at approx. 40° to core axis. Pyroxene variably altered/replaced by limonite; partly by K-feldspar in higher portion. Grades down-	1 to 5 mm cubes of pyrite disseminated sparsely throughout.	2 mm thick quartz veinlet at contact.
		ward into weakly foliated phyllite.		
39.5'	48'	BLACK PHYLLITE - uneven lamination	Fine "needles" of pyrite 0.05 by 0.50 mm disseminated erratically throughout. Cubic	
			pyrite to 18 mm with quartz rimming common.	
48'	74'	Mixed TUFF and thinly banded BLACK PHYLLITE. Foliation regular at approx. 70 to 75° to core axis. Sharp lower contact at 45° to core axis.	"Porphyroblasts" weakly kaolinized; v. fine pyrite disseminated as needles throughout phyllitic section. Cubic pyrite common.	8 cm thick QUARTZ vein at 71.5 with broken, irregular K-spar, minor pyrite in 1 cm selvage.



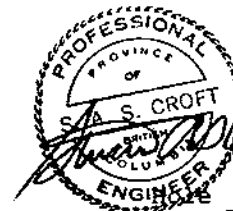
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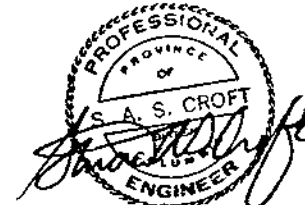
Hole 88-1

Sheet two of five

From	To	Lithology	Alteration	Precipitates
74'	124.5'	Graphitic BLACK PHYLLITE - irregular, broken dark grey phyllite locally contorted. Hairline fractured sections 30 to 100 cm in width commonly healed with quartz veinlets. Pyroxene porphyroblasts 3 to 6 mm are common in less	Strongly pyritic zones comprising cubes 4 to 15 mm occur in distinct zones 5 to 10 cm wide (ex. 108, 111, 133).	"Pyrite" cubes appear to be a solid solution of vitreous quartz and pyrite.
		disturbed sections. Pyrite clasts/cubes of irregular dimension to 2 cm, particularly in more heavily healed/fractured sections. Possibly a tectonic breccia(?) as distorted fragments with thin, slightly coarser grained quartz	"Porphyroblasts" comprise 1mm splotchy, irregular (weakly chloritic?) alteration haloes and commonly contain pyrite crystals <0.1 mm at centre.	Narrow (2 to 5 cm) broken milky QUARTZ vein at 122.
		lamellae to 3 cm occur throughout. Structure within fragments strongly deformed. Penetrative cleavage somewhat weaker in section exhibiting brecciated appearance.		
124.5'	125.5'	TUFF horizon - pale green to light grey very fine grained tuff. Individual lamellae distinct, strongly deformed.	Strongly disseminated pyrite to 0.2 mm within tuff band, particularly along microfractures parallel to tuff bands.	Minor 1 to 3 mm quartz veinlets within tuff.
125.5'	195'	BLACK PHYLLITE - dark grey to black siltstone and mudstone breccia. Strong graphitic cleavage plane throughout; attitude 60 to 75° to core axis. 1 to 5 mm quartz veinlets at 140 to 145 show strong deformation, crenulations.	Splotchy, measles-like weak chloritic alteration pervasive. Prominent pyrite cubes to 15 mm rimmed by quartz sparsely	
			disseminated throughout; accompanied by "needles" of pyrite in darkest (ie. finest grained) sections exhibiting minimal brecciation (ex. 139)	



From	To	Lithology	Alteration	Precipitates
125.5'	195'	BLACK PHYLLITE (cont.) 146 to 150.5: SHEAR ZONE; v. fine grained black clayey zone contains sugary remnants of quartz and pyrite veinlets to 2 mm thick. Some pyrite cubes noted particularly near walls.	Alteration within fault minimal to nil.	
		166 to 180: Phyllite becomes more regular; distinctive penetrative cleavage at 35° to core axis. Rare pyrite cubes remain cubic but show quartz rimming thicker in plane parallel to cleavage (ie. quartz infilling of cavities resulting from voids produced by straining ductile sediments around the less ductile pyrite cube). Distinctive pyroxene(?) mineralogy to porphyroblasts to 3 mm in this section.	Pyrite occurs as needles randomly disseminated throughout section.	
		181 to 182.5: weak SHEAR ZONE 188 to 189: Milky QUARTZ vein - undulating hanging wall contact at 45° to core axis. Minor K-feldspar in footwall selvage.		Minor limonite staining with trace galena near selvage along microfractures.
197'	257'	190 to 195: weak SHEAR ZONE in phyllite Varied BLACK PHYLLITE typified by light grey, medium to fine grained tuff clasts within dark grey to black phyllite matrix. Distinctive		
		cleavage throughout at approx. 45° to core axis Sparse, extremely contorted, 1 to 2 mm quartz bands. 233 to 234: minor SHEAR ZONE.		



Hole 88-1

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D I A M O N D D R I L L L O G S H E E T

Sheet four of five

From	To	Lithology	Alteration	Precipitates
257'	260'	Relatively regular PHYLITE becomes light grey in vicinity of quartz veins. Porphyroblasts distinctive in phyllites bordering quartz vein remain through altered zone except obliterated within 5 cm of vein. Cubic pyrite to 12 mm	Bleaching, silicification of phyllite gradational over 40 cm to quartz vein. Fine pyrite disseminated to 2% throughout. Weak talcose alter-	258.5: 1.5 cm thick QUARTZ vein with 4 mm K-feldspar selvage, minor pyrite, trace galena(?) cuts core at 45° to core axis.
		throughout. Limonite oxidization of porphyroblasts common.	ation in vicinity of veins.	
260'	261'	Milky white QUARTZ VEIN with K-feldspar selvage Sharp footwall contact with black phyllite at	Some sericite on fractured faces in vein.	Minor limonite, trace pyrite, galena in selvage.
		40° to core axis.		
261'	264'	Uniform BLACK PHYLITE foliated 35° to core axis. Weakly disseminated pyrite in fine grains, some cubes. Becomes very broken.		
264'	272'	Sheared quartz STOCKWORK ZONE within PHYLITES. Ductile phyllites strongly sheared at low angle to core axis with some oxidization. Competent interbedded tuff randomly broken and healed by quartz stockwork with largely barren veins to	Weak to moderate spotty propylitic alteration in coarser grained tuff horizons.	
		6 mm.		
272'	314'	Mixed BLACK PHYLITE (70%) and medium to fine grained TUFF. Contacts indistinct, gradational Some minor brecciation associated with tuff as	Weak to moderate propylitic alteration within tuff. Distinct alteration front noted	Quartz veins with minor K-spar included, generally barren. Veins show little relation to
		angular fragments to 5 cm common. Some crude bedding (compositional banding) apparent at approx. 75 to 85° to core axis with foliation at 25 to 35° to axis. Pyrite cubes to 7 mm common with casts deformed, elongate to folia-	at 289 in vicinity of small quartz band. Alteration not conformable to foliation and appears to occur within phyllite.	alteration patterns. 297: 25 cm barren QUARTZ VEIN.



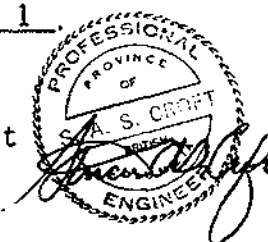
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Sheet five of five

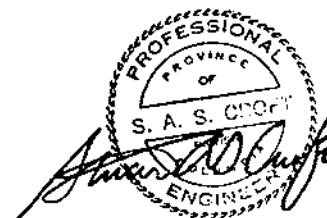
From	To	Lithology	Alteration	Precipitates
272'	314'	Mixed BLACK PHYLLITE and TUFF (cont.) iation. Porphyroblasts to 2 mm prominent in tuff.		
314'	326'	Moderately altered TUFF - Medium grey-pale green altered tuff is relatively competent. Note that except for colour, rock is largely indist- inguishable from bordering black phyllites. (Some sections exhibit slightly larger grain size.) Pyrite in cubes to 5 mm disseminated throughout though less than 1%. Upper and low- er contacts are indistinct, gradational.	Pervasive weak to moderate propylitic alteration of tuff component.	15 cm barren QUARTZ vein at 324 K-feldspar forms 5 mm selvage.
326'	340'	Banded BLACK PHYLLITE comprising alternating 0.5 to 2 mm bands of pelite and fine to v. fine grained tuf. Regular bands at 80° to core axis show weak foliation; become disrupted 332 to 340.		Sparse, barren quartz veins 5 mm throughout. 333: 10 mm QUARTZ vein heavily pyritized; some minor K-spar.
340'	346'	Altered light grey-pale green TUFF and PHYLLITE Very similar to 314 to 326. Sharp lower con- tact with 3 mm quartz vein and phyllite at 45° to core axis.		343.5: 5 cm barren QUARTZ vein at approx. 30° to core axis. Pyrite veinlets to 0.5 mm noted at 340.
346'	400'	BLACK PHYLLITE ranging in texture from banded (360 to 365) to massive (380 to 390). Minor shearing at 397 to 399. Pyrite in cubes to 8 mm sparsely disseminated throughout. [400' - END OF HOLE]	Alteration nil to very weak.	Quartz veins rare.

ASSAY REPORT SHEET

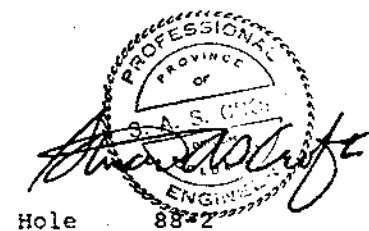
"-" denotes less than detectable limit



DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE	Au oz/ton	Ag ppm	Pb ppm	
FROM	TO										
		100%	Reg. dk. grey to blk. phyllite; some dissem. PY cubes to 15 mm	1001	44	47	4'	-	-	6	
		100%	QZ vein w/k-spar selvage 10cm+silified tuff	1007	71	73	2'	.002	-	50	
		100%	Phyll BRXX w/numer. PYcubes to 18mm; some thin 1mm	QZ 1003	131	134	3'	-	-	10	
		>80%	Shear zn in phyll; some QZ+PY stringers in clay	1004	147	150	3'	-	-	22	
		>70%	QZ vein-k-spar + minor PY, GA	1005	188	189	1'	.008	-	26	
		100%	Type samp.-blk. phyll. w/30cm weak silicification	1006	220	224	4'	-	-	4	
		100%	Altered phyllite in HW of QZ vein	1007	257	260	3'	-	-	12	
		>70%	Quartz Vein	1008	260	261	1'	-	-	4	
		100%	QZ "stockwork" in wkly propylitized/silic.blk.phyll	1009	264	272	8'	-	-	4	
		"	Tuff/argillite modl propylitized	1010	314	317	3'	-	-	2	
		"	PY veinlets occ.within BP/minor propylitic altn.	1011	339	340	1'	-	-	6	
		"	Altered tuff (upper section)	1012	340	343	3'	-	-	12	
		"	" " (mid. section) incl. 15 cm QZ vein	1013	343	344.5	1.5'	-	-	.6	
		"	" " FW zone of altered section	1014	344.5	346	1.5'	-	-	10	
	Refer		QZ vn. w/GA + limonite within rusty-red gouge	1015		30 cm channel	30 cm	.004	60.0	>10,000	
	To		Rusty alter. tuff forming HW of QZ vein	1016		surface channel	1.1 m	.001	0.01 oz/ton	20	
	Figure		20cm QZ vn. + grey clayey phyllite FW	1017		" "	1.2 m	.001	0.01 oz/ton	206	
	8		Altered tuff above phyllite, s. of QZ vn; clayey	1018		" "	1.5 m	-	0.02 oz/ton	114	
			" " + narrow quartz vein	1019		" "	1.0 m	.009	0.07 oz/ton	340	
			Extension of 1019; altered tuff	1020		" "	1.0 m	.001	0.02 oz/ton	60	
			Extension of 1020; rusty, altered tuff + QZ vein	1021		" "	1.5 m	.001	0.01 oz/ton	48	
			QZ vein w/extensive lim., GA to 1%	1022		" "	45X30cm	.047	0.44 oz/ton	2310	

Hole 88-2Sheet one of five

From	To	Lithology	Alteration	Precipitates
0	7	RUBBLE & CAVE Quartz pebbles with extensive pyrite casts; K-feldspar common. Limonite staining throughout. Minor galena in selvage (ie. K-spar) with black (Pb?) oxides and red-brown (Fe) oxides.		
7	11	TUFF Moderately propylitized fine to v. fine grained grey tuff. Indistinct foliation. Lower contact with Black Phyllites is gradational.	Epidote "porphyroblasts" to 1.5 mm in a measles pattern. Grains commonly oxidized to limonitic orange.	
11	30	BLACK PHYLLITE Weakly bedded, dark grey-black phyllite. Graphitic foliation planes parallel 0.5 to 2.0 mm bedding at 45° to core axis. Some sections (<30 cm width) dominantly tuffaceous or argillic interbedded. Some pyrite in this section eroded out leaving siliceous boxwork. Rare barren quartz veins to 5 cm thickness (one at 21' at 85° to core axis).	Alteration nil.	
30	31	Moderately propylitized TUFF horizon containing limonitic quartz vein 5 cm thick. Pale green - light grey v. fine grained tuff with gradational upper and lower contacts.	Moderately propylitic; minor talcose-sericite alteration along fractures.	Minor galena in association with pyrite at K-feldspar selvage. Possible Pb-oxides as section is heavily oxidized.
31	42	BLACK PHYLLITE Alternating pelitic and v. fine grained dark grey tuff laminae 0.5 to 7 mm thickness at 45° to core axis are sub-parallel to penetrative graphitic foliation. Weak alignment of splotchy 3 mm alteration grains along		Pyrite cubes 3 to 20 mm disseminated sparsely throughout, though locally to 15% within competent tuff.

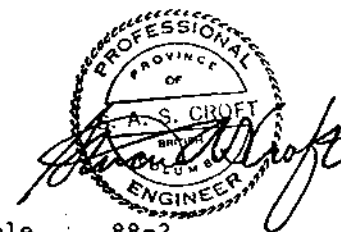


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Sheet two of five

From	To	Lithology	Alteration	Precipitates
31'	42'	(cont) foliation.		
42'	54.5'	Altered TUFF zone. Pale green to light grey, v. fine grained tuff layered at 50° to core axis. Laminae 1 to 2 mm in width are separated by	Moderate to strong pervasive propylitic alteration. Fine grain pyrite disseminated	Quartz veins 3 to 5 cm thick containing 20 to 40% K-spar selvage spaced 25 cm apart on
		splotchy, irregular "porphyroblasts" of pale, dull yellow green augite(?). Hanging wall and footwall grade over 10 cm into strongly altered, silicified quartz veins with high K-feldspar component. Minor localized pelitic component	throughout as well as sparse coarse pyrite cubes 2 to 8 mm Augite "porphyroblasts" commonly weakly altered to	average. Commonly strongly mineralized with pyrite (to 10%) and minor galena.
		(49 to 51). 25 cm SHEAR ZONE at 44'. Lower contact at approx. 45° to core axis; upper contact indistinct to gradational.	epidote(?).	
54.5'	102.5'	BLACK PHYLLITE Fine to microcrystalline dark grey to black pelitic laminae 0.5 to 1.0 mm with some sections including interlayered v. fine grained dark grey tuff to 5 mm thick. Strong penetrative graphitic foliation sub-parallel to	"Porphyroblasts" of splotchy dark pyroxenes(?) to 3 mm disseminated throughout; more predominantly in pelitic horizons.	Cubic (syngenetic?) pyrite 1 to 7 mm sparsely disseminated throughout. Local sections to 30 cm width will contain pyrite to 15%. Cubes commonly
		layering. Parting along planes in undisturbed interlayered sections results in broken section. V. fine laths of dull yellow pyrite(?) disseminated throughout pelitic sections. Minor localized shearing 20 to 30 cm in width (at 62		clustered in vicinity of tuff clasts in strongly deformed (crenulated) sections (ex. 68-71). Rare narrow (1 to 10 mm) quartz veins.
		and 89. Abrupt lower contact with 2 mm quartz vein and underlying altered tuff.		



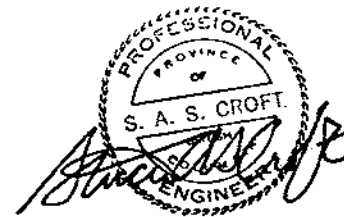
From	To	Lithology	Alteration	Precipitates
102.5'	107'	Altered TUFF - light grey to pale green very fine grained tuff below sharp contact at 75° to core axis (same strike as bedding "planes" in overlying phyllite). Pale yellow-green "porphyroblasts" (augite?) to 3 mm become more numerous though smaller (1 mm) with depth. At 65° to core axis, irregular quartz vein contact is sub-parallel to "bedding"	Porphyroblasts weakly to moderately propylitized. Very weak disseminated pyrite in association with hairline fractures and translucent silica infilling. Moderate to strong silicification in immediate vicinity of quartz vein. Tuff tends toward pale brown, particularly in silicified section in 105 to 106.	Euhedral pyrite cubes 2 to 10 mm interspersed throughout. These invariably broken (tectonically?) and healed with translucent quartz. 10 cm QUARTZ VEIN at 104.5 to 105 contains pyrite with interspersed minor galena in K-feldspar selvage to 2 cm thickness.
107'	109'	SHEARED ZONE below tuff grades to brecciated(?) phyllite.		
109'	211'	Irregular distorted BLACK PHYLLITE. Dark grey to black thinly laminated pelitic sediments 1 to 20 mm thickness interspersed with 0.2 to 2 mm light to med. grey silicic tuff laminae. Locally laminae become crenulated by complex deformation. Well developed, locally weakly graphitic foliation sub-parallel to bedding planes oriented 35° to 45° throughout section. Porphyroblasts occur as blebs to 1 mm in tuffaceous sections predominantly, and to a slight		Euhedral pyrite 2 to 25 mm cubes disseminated sparsely throughout. Local sections however (127-135) more heavily pyritized (to 5%) and appear associated with increased graphitic foliation, shearing. Rare weakly pyritic quartz veins to 10 mm throughout.



From	To	Lithology	Alteration	Precipitates
109'	211'	(cont) degree, in silicic pelites as well. Pyrite usually clustered nearer tuff layers.		Quartz + K-feldspar veins containing pyrite with minor galena with interspersed with pyrite, or as separate grains noted at 129 (3 cm with shear zone) and
				150 (5 cm in distorted phyllite).
211'	214.5'	Predominantly TUFFACEOUS horizon weakly to moderately altered. Upper contact sharp though ragged at 65° to core axis formed by 8 cm quartz vein with minor K-feldspar, pyrite. Lower contact gradational to black phyllite	Talc-sericite alteration noted on fracture/foliation planes. Pervasive weak to moderate propylitic alteration.	Euhedral pyrite cubes 2 to 12mm throughout to less than 1%.
		over 30 cm.		
214.5'	265'	BLACK PHYLLITE - interlaminated pelite and very fine grained medium grey tuff very similar to section above 211. Fractured graphitic zone		Pyrite very sparsely disseminated throughout section in euhedral cubes 5 to 10 mm.
		occurs at 224 to 238 becoming more uniform with depth. Lamellae at 40° to core axis with well defined penetrative (locally weakly graphitic) foliation sub-parallel.		QUARTZ veinlets 1 to 2 mm at 80° to core axis spaced 5' apart occur towards 265.
265'	272.5'	Predominantly TUFFACEOUS horizon weakly altered. Upper contact with pelites gradational over 40 cm. Foliation weakly developed. Lower contact with quartz veinlet sharp at 62° to core axis.	Weak to moderate pervasive propylitic alteration. Quartz veins exhibit minor K-spar alteration within vein. Porph'blasts alt'd to pale green	Weak disseminated euhedral pyrite cubes 1 to 8 mm throughout.

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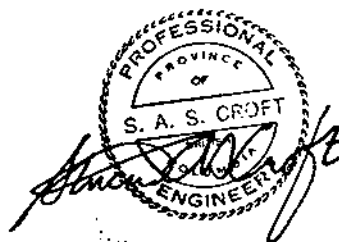
D I A M O N D D R I L L L O G S H E E T



Hole 88-2

Sheet five of five

From	To	Lithology	Alteration	Precipitates
272.5'	281'	weakly altered BLACK PHYLLITE and TUFF	Minor propylitization of tuff component of sequence.	
281'	350'	BLACK PHYLLITE - finely laminated black pelites and very fine grained medium grey tuff. Laminæ 0.2 mm to 5 cm though generally 1 mm. Deformation is minimal; bands formed at 40° to core axis.		Rare disseminated cubic pyrite 0.5 to 5 mm.
		350' - END OF HOLE		



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DIAMOND DRILL LOG SHEET

Hole 88-3

Sheet one of seven

From	To	Lithology	Alteration	Precipitates
0'	34'	CASED through overburden		
34'	38'	Phyllite rubble		
38'	78'	BLACK PHYLLITE Predominantly well foliated black pelitic sediments with moderate- to well-defined penetrative foliation at 45° to core axis. Locally, pelites are broken, interlaminated with v. fine grained tuff 2 to 20mm thick	Alteration slight to nil.	Very sparsely disseminated euhedral pyrite 3 to 12 mm throughout; rare 0.5 mm pyrite veinlets. Quartz with minor K-feldspar occurs in veins 1 to
				3 mm thick at 75° to core axis; contains pyrite in subhedral masses to 3%. Also, quartz+K-feldspar occurs in 2 to 5 mm stringers conform-
				able to strongly distorted laminae. Some quartz filled hairline fractures; gash vein fillings at approx. 45° to core axis.
78'	81'	ALTERED TUFF Very fine grain pale green, light grey tuff with pelitic sediments inter-layered. Locally broken, severely distorted. 1 cm thick quartz vein (locus of alteration) oriented at 42° to core axis.	Moderate pervassive silicification with stron silic. occurring over 20 cm in vicinity of quartz vein. Alteration appears strongly control-	Pyrite in euhedral cubes 1 to 5 mm disseminated weakly throughout (to 1% locally).
			led by lithology as within section, changes are abrupt; also zonation around quartz veins.	



88-3

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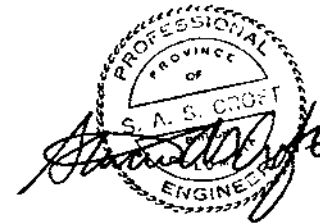
DIAMOND DRILL LOG SHEET

Sheet two of seven

From	To	Lithology	Alteration	Precipitates
81'	230'	BLACK PHYLLITES Dark grey to black, finely laminated pelite with interlaminated tuff bands 0.5 to 3 mm thick. Laminae tend to be crenulated though from distinct fabric at 45° to core axis. Some localized warping noted. Weak to moderately well developed foliation tends to sub-parallel laminae.	Moderately silicified zones interspersed irregularly similar to 78 to 81 (at 125-127 173-175). Section 174 to 180 exhibits moderate to weak silicification within phyllites (high silicic component?) accompanied by increased pyrite content and crystal size (to 3%,	Pyrite sparsely disseminated throughout as euhedral cubes 0.5 to 10 mm. Pyrite content increases markedly within altered zones attaining 5% locally.
		185 to 230: Laminae become less distorted, thicker and contain high tuff component. Weakly graphitic foliation sub-parallel to laminae at 45° to core axis. Pyrite is sparse. Porphyroblasts distinctly absent throughout.	15 mm cubes) and irregular quartz stringers with K-spar.	Quartz veins interspersed throughout with weak K-feldspar selvage. Dominant orientation; 75 to 85° to core axis for veins 2 to 15 mm.
230'	235'	Altered pale green TUFF - Very fine grained laminated tuff in thin (0.1 to 20 mm) bands. Distinctive by 0.5 to 2 mm pale yellow-green rounded porphyroblasts (augite?). Commonly have associated v. small (0.1 mm) grains of pyrite. Brittle fracturing in random hairline network common though not pervasive. Upper contact with phyllites indistinct (ground during drilling); lower contact with phyllite gradational over 30 cm.	Pervasive weak to moderate silicification with associated pyritization.	Medium to coarse grained euhedral pyrite (0.5 to 3 mm) disseminated strongly throughout, averaging 2 to 4%. 4 cm thick QUARTZ vein at 233 oriented approx. 75 to 80° to core axis bordered by strong silicification. Pyrite and galena present with K-spar in 5 mm selvage Pyrite also strongly disseminated in dark wispy bands bordering vein (sub-parallel to laminae). Speculate that bands also contain v. fine dissem. galena, sphalerite and pyrite.



From	To	Lithology	Alteration	Precipitates
235'	245'	BLACK PHYLLITE Massive fine to med.-fine grained pelite and argillite. Laminae are very planar, undisturbed at 52° to core axis and are 0.2 to 20 mm thick. Clean, well developed foliation parallel to laminae are weakly graphitic	Alteration weak to nil.	Sparse euhedral pyrite cubes 0.5 to 20 mm throughout. Pyrite laminae are common within less disturbed sections. "Clast" of pyrrhotite with pyrite intermingled noted at 237. (approx. 3 cm x 1 cm) exposed in conformable "alteration" pattern.
		Section becomes somewhat more disturbed, containing quartz and tuff stringers 242 towards 245.		
245'	254'	Mixed BLACK PHYLLITE and TUFF. Section becomes gradually more tuffaceous with depth with distinctive pale green-yellow "porphyroblasts" becoming more prominent.	Section becomes progressively more silicic, from weak to moderate, with depth. Strongly disseminated fine grained pyrite (+galena?) towards	Pyrite in euhedral cubes 2 to 10 mm sparse at 245, increasing to 4 to 5% by 254. QUARTZ vein at 248.5 (3 cm, K-feldspar throughout, oriented 60° to core
			253.	axis, contains pyrite and a few crystals of galena, sphalerite) and at 253 (5 cm, ragged contact at 30° to 50° to core axis similar mineral-sulphide assem-
254'	270'	Gradational contact over 30 cm to BLACK PHYLLITE characterized by black anhedral porphyro-	Minimal alteration.	blage but with 10 to 15 cm in tuff surrounding vein). Minor gash veins (2 cm long, 1 mm wide) filled with quartz.
		blasts (pyroxene?) to 3 mm throughout imparting foliation at 70 to 85° to core axis. Some laminated tuff horizons to 2 mm at 50° to core axis with some sub-parallel foliation. Section becomes very rubbly near 270.		Euhedral pyrite cubes to 15 mm disseminated sparsely throughout.



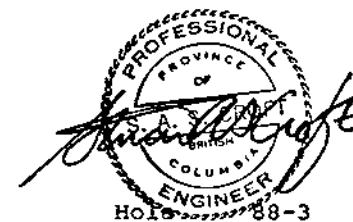
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D I A M O N D D R I L L L O G S H E E T

Hole 88-3

Sheet four of seven

From	To	Lithology	Alteration	Precipitates
270'	278'	Speckled light to med. grey green altered TUFF Fine to v. fine grained laminated tuff. Strong metamorphic fabric sub-parallel to laminations at 80° to core axis. Becomes very rubbly between 275 and 278 with strong alteration and	Moderately to strongly disseminated pyrite +/- galena (in addition to euhedral cubes), locally to 5%. Tends to form along folia. Silici-	Fracture faces tend to be slickensided, coated with talc(?). QUARTZ veins (where intact) contain some K-feldspar with
		disseminated sulphides, some quartz veins. Structure largely obliterated by alteration.	fication moderate pervasive. Alteration 275 to 278 becomes intense. Moderate kaolinization of tuff with pervasive chlorite masses interspersed	strongly disseminated pyrite and galena. One vein at 277 noted to have galena "stockwork" between brecciated quartz fragments.
278'	291'	[NOTE: recovery 277 to 283, approx. 85% 283 to 290, approx. 45%] Strongly altered alternating TUFF and BLACK PHY-	throughout. Strong buff coloured silic-	Quartz veins 25 mm thick orien-
		LLITE. Very rubbly - poor recovery. Some quartz rubble with strong disseminated pyrite +/- galena in tuff. Best attitude available at 291 where 15 cm quartz vein oriented at 85° to core axis on the same strike as laminae in the	ification associated with white, largely barren quartz vein at 281. Elsewhere, moderate to strong pervasive propylitic alteration, part-	ted 60° to core axis at 281. Disseminated sulphides zoned around quartz vein.
		hanging wall (60° to core axis) phyllite. In the footwall, vein at 75° to core axis; foliation in underlying phyllites 50° to core axis; foliation strike is 30° counterclockwise from strike of vein.	icularly in tuff rubble.	Quartz vein at 291 contains galena, trace pyrite in K-feldspar selvage to 1 cm.
291'	306'	Mixed BLACK PHYLLITE and light to medium grey altered TUFF. Locally, tuff appears as fragments (breccia?) within pelitic matrix. 0.5 to 2 mm laminae, weakly disturbed, oriented 45° to core axis with distinct foliation sub-parallel.	Tuff sections exhibit weak propylitic alteration where "porphyroblasts" altered dull pale yellow-green.	Minor euhedral pyrite disseminated throughout.



From	To	Lithology	Alteration	Precipitates
306'	311.5'	Altered TUFF - Distinctive light or medium grey very fine grained tuff with speckles of weakly altered porphyroblasts. Lower contact gradational to underlying phyllites, conformable to foliation at 45° to core axis.	Pervasive moderate propylitic alteration characteristic with localized 30 to 60 cm zones of strong propylitic and moderate silicification;	20 cm milky white QUARTZ vein forms hangingwall of zone at 306. Contact at 75° to core axis is same strike as foliation in phyllites overlying (at
			notably in vicinity of quartz veins.	55° to core axis). QUARTZ veins 2 to 5 mm at 308 contain minor pyrite, sphalerite, trace lens.
311.5'	335.5'	BLACK PHYLLITE - Nearly massive pelitic to finely laminated phyllites. Weakly graphitic foliation (sub-parallel to bedding in laminated sections) at 50° to core axis. Lower 5' become massive pelite but dominated by irregular, strongly contorted quartz+K-feldspar stringers 1 to 3 mm thickness. Lower contact with silicic tuff 70° to core axis, very erratic.	Alteration weak to nil.	Euhedral pyrite cubes to 5 mm disseminated weakly throughout.
335.5'	337'	Intensely silicified phyllite contains a sugary pale grey MARBLE. 10 cm QUARTZ vein within marble (distinguished by its K-feldspar component) has hazy, altered contacts at 60° to core axis.	Intense pervasive silicification.	No distinguishable pyrite; trace galena in hanging wall, K-feldspar selvage.
337'	338'	Altered GREYWACKE - Medium to coarse grained, dull grey sandstone to greywacke. Footwall exhibits 5 mm vein with vuggy, open space quartz filling. 5 to 10 mm laminae at 50° to core axis. Contains some very fine tuff.	Moderate silicification indurates otherwise (apparently) friable greywacke.	Moderately disseminated pyrite; some in euhedral cubes to 2 mm. 2 cm QUARTZ vein at footwall contains minor sphalerite.



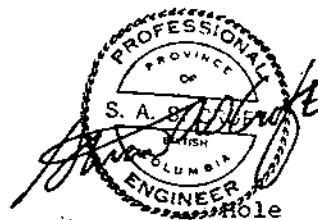
Hole 88-3

Sheet six of seven

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D I A M O N D D R I L L L O G S H E E T

From	To	Lithology	Alteration	Precipitates
338'	340'	Irregular 2 cm QUARTZ vein marks hanging wall with strongly altered TUFF. Pyrite locally to 30% (at footwall of vein). Grades into moderately altered phyllite/tuff over 30 cm at 339. Foliation largely absent in section.	Strong pervasive silicification accompanied by strong pyritization. Occurs as both euhedral cubes 1 to 2 mm and in fine grained masses associated with hairline quartz veins.	
340'	352'	Speckled medium to dark grey, moderately altered TUFF. Clear zonation of alteration pattern centered on 10 cm QUARTZ vein to 350. Tuff becomes lighter coloured closer to vein. Pale yellow-green "porphyroblasts" 1 to 2 mm (anhedral augite?) characterize section. Sparse, weak laminae oriented at 40° to core axis.	Weak to moderate pervasive propylitic alteration centered on quartz vein at 350 where alteration intensifies somewhat.	Euhedral pyrite 1 to 8 mm disseminated weakly throughout. Some band of higher (2 to 3%) content noted. 10 cm QUARTZ vein at 350 is milky white, contains minimal sulphide mineralization and
		Poorly developed foliation at 75 to 80° to core axis. Abrupt (faulted?) lower contact with phyllite at 72° to core axis. Note that apart from colour and apparent weak alteration, two lithologies are indistinguishable at this point		lacks K-feldspar. Pyrite mineralization in phyllite/tuff immediately bordering vein is moderate (5 to 10% for 2 cm). Irregular contacts are roughly
352'	357'	("tuff" could be an altered phyllite?). BLACK PHYLLITES - typical thinly laminated, pyritic pelitic sediments; weakly distorted.		perpendicular to core axis.
357'	360'	Weakly altered grey TUFF containing QUARTZ veins at 358 (3 cm thick) and 359.5 (four, 2 mm veins at 45° to core axis). Neither mineralized. Upper and lower contacts both abrupt. Upper "contact" is with same lithology - contact		



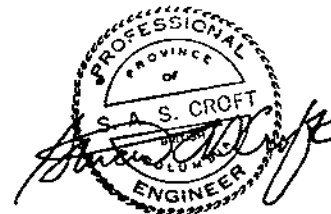
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DIAMOND DRILL LOG SHEET

Hole 88-3

Sheet seven of seven

From	To	Lithology	Alteration	Precipitates
357'	360'	(cont.) must represent an alteration front (at 75° to core axis). Lower contact is clearly faulted with different phyllitic lithology/horizon oriented at 80° to core axis.		
360'	384'	Typical BLACK PHYLLITES - laminae at approx. 45° to core axis with sub-parallel, well developed foliation.		Occasional, barren, milky quartz veins and stringers 2 to 10 mm thick.
		384' -- END OF HOLE		

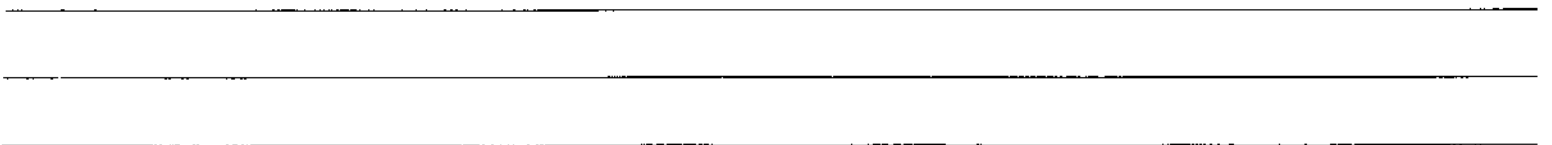
ASSAY REPORT SHEET

"-" denotes less than detectable limit

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE	Au oz/ton	Ag ppm	Pb ppm	Fe (%)
FROM	TO										
		100%	Box 3: 122-127 Phyllite; minor altn bands to 20cm	1038	122	127	5'	<0.002	<0.2	18	3.77
			Box 7: Test of phyllite	1039	165	170	5'	< .002	-	4	4.06
			Box 7: " " " w/some QZ stringers	1040	170	175	5'	.002	-	14	4.81
			Box 10: Phyllite in HW of 1042	1041	224	229	5'	< .002	-	< 2	4.00
			Box 10: Wkly. silicif. buff w/dissem. sulph (GA)	1042	229	235	6'	.002	-	18	3.98
			Box 11: FW of 1042	1043	235	238.5	3.5'	.002	-	2	3.93
			Box 11: HW of QZ vein w/mod. silic. tuff	1044	248	251.5	3.5'	< .002	-	16	4.16
			Box 11&12: QZ ven + app. 1' HW & FW alt. phyll/tuff	1045	251.5	254	2.5'	< .002	-	12	3.51
			Box 12: FW phyllites below QZ 1045 (appear blank)	1046	254	258	4'	< .002	-	6	4.05
			" 12: Moderately propylitized tuff-dissem. PY	1047	270	275	5'	.002	-	14	4.19
		75%	" 13: Strongly propylitized tuff-dissem. sulph.	1048	275	278	3'	0.002	-	14	3.90
		50%	" 13: " " " " "	1049	278	283	5'	.002	-	12	3.81
		30%	" 13: Intensely " " " "	1050	283	290	7'	<.002	-	32	3.63
		100%	" 13: Weakly to unaltered black phyllite+QZvnFW	1051	290	295	5'	.004	-	98	4.39
		100%	" 14: HW phyllite of QZ vein/altered zone	1052	302	306	4'	<.002	-	10	4.46
		100%	" 14: Altered tuff + QZ veins	1053	306	312	6'	.004	-	6	3.29
		100%	" 16: Intensely silic.tuff (+greywacke?aplite?)	1054	335.5	338	2.5'	.002	-	100	1.90
		100%	" 16: Moderately " "	1055	338	341	3'	.002	-	18	3.65
		100%	" 16: Weakly altered phyllite	1056	341	344	3'	.002	-	6	4.47
		100%	" 16: Weakly altered phyllite, tuff	1057	344	348	4'	<.002	-	4	4.38
		100%	" 16: Med. alt. tuff/phyllite; minor QZ vein	1058	348	352	4'	.002	-	16	4.04
		100%	" 17: Wk. altered tuff/phyllite; minor QZ vein	1059	356.5	360	4.5'	<.002	-	8	4.22

APPENDIX D

ANALYSIS CERTIFICATES





Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,
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PHONE (604) 984-0221

To: NEVIN SADLIER-BROWN GOODBRAND LTD.,

401 - 134 ABBOTT ST.
VANCOUVER, B.C.
V6B 2K4

A8814528

Comments: ATTN: STUART CROFT

CERTIFICATE A8814528

NEVIN SADLIER-BROWN GOODBRAND LTD.

PROJECT :

P.O.# : NONE

Samples submitted to our lab in Vancouver, BC.

This report was printed on 28-APR-88.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
207	15	Assay: Crush, split, pulv -140
238	15	ICP: Aqua regia digestion

• NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
398	15	Au oz/T: 1/2 assay tou	FA-AAS	0.002	20.00
921	15	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
922	15	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
923	15	As ppm: 32 element, soil & rock	ICP-AES	5	10000
924	15	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
925	15	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
926	15	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
927	15	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
928	15	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
929	15	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
930	15	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
931	15	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
932	15	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
933	15	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
951	15	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
934	15	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
935	15	La ppm: 32 element, soil & rock	ICP-AES	10	10000
936	15	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
937	15	Mn ppm: 32 element, soil & rock	ICP-AES	1	10000
938	15	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
939	15	Na %: 32 element, soil & rock	ICP-AES	0.01	5.00
940	15	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
941	15	P ppm: 32 element, soil & rock	ICP-AES	10	10000
942	15	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
943	15	Sb ppm: 32 element, soil & rock	ICP-AES	5	10000
958	15	Sc ppm: 32 elements, soil & rock	ICP-AES	1	100000
944	15	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
945	15	Ti %: 32 element, soil & rock	ICP-AES	0.01	5.00
946	15	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
947	15	U ppm: 32 element, soil & rock	ICP-AES	10	10000
948	15	V ppm: 32 element, soil & rock	ICP-AES	1	10000
949	15	W ppm: 32 element, soil & rock	ICP-AES	5	10000
950	15	Zn ppm: 32 element, soil & rock	ICP-AES	1	10000



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Project:

Comments: ATTN: STUART CROFT

**Page No. 1-B

Tot. Pages: 1

Date: 27-APR-88

Invoice #: I-8814528

P.O. #: NONE

CERTIFICATE OF ANALYSIS A8814528

SAMPLE DESCRIPTION	PREP CODE		Mo	Na	Ni	P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
			ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
1001	207	238	< 1	0.08	28	350	6	< 5	3	61	< 0.01	< 10	< 10	10	< 5	168
1002	207	238	< 1	0.05	35	350	50	< 5	3	136	< 0.01	< 10	< 10	8	< 5	103
1003	207	238	4	0.03	36	400	10	< 5	3	192	< 0.01	< 10	< 10	6	< 5	102
1004	207	238	3	0.03	36	370	22	5	4	106	< 0.01	10	< 10	8	< 5	120
1005	207	238	< 1	0.02	18	90	26	< 5	2	732	< 0.01	10	< 10	7	< 5	58
1006	207	238	< 1	0.06	25	390	4	< 5	4	125	< 0.01	10	< 10	8	< 5	59
1007	207	238	< 1	0.10	28	360	12	< 5	5	176	< 0.01	10	< 10	24	< 5	45
1008	207	238	< 1	0.01	22	< 10	4	< 5	2	563	< 0.01	< 10	< 10	7	< 5	38
1009	207	238	< 1	0.03	26	340	4	< 5	3	189	< 0.01	10	< 10	6	< 5	52
1010	207	238	< 1	0.03	30	380	2	< 5	3	105	< 0.01	10	< 10	12	< 5	59
1011	207	238	< 1	0.04	33	380	6	< 5	3	61	< 0.01	< 10	< 10	17	< 5	88
1012	207	238	< 1	0.04	36	410	12	< 5	4	170	< 0.01	10	< 10	14	< 5	45
1013	207	238	< 1	0.05	31	350	6	< 5	4	204	< 0.01	10	< 10	14	< 5	20
1014	207	238	< 1	0.04	32	400	10	< 5	3	72	< 0.01	< 10	< 10	17	< 5	90
1015	207	238	6	0.04	20	240	>10000	10	2	37	< 0.01	< 10	< 10	7	< 5	559

ALL ASSAY DETERMINATIONS ARE PERFORMED OR SUPERVISED BY BC CERTIFIED ASSAYERS

CERTIFICATION:



Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers
 212 BROOKSBANK AVE., NORTH VANCOUVER,
 BRITISH COLUMBIA, CANADA V7J-2C1
 PHONE (604) 984-0221

To: NEVIN SADLIER-BROWN GOODBRAND LTD.,

401 - 134 ABBOTT ST.
 VANCOUVER, B.C.
 V6B 2K4

A8814770

Comments: ATTN: STUART CROFT

CERTIFICATE A8814770

NEVIN SADLIER-BROWN GOODBRAND LTD.,
 PROJECT : 318
 P.O.# : NONE

Samples submitted to our lab in Vancouver, BC.
 This report was printed on 4-MAY-88.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
207	7	Assay: Crush, split, pulv -140
238	7	ICP: Aqua regia digestion

• NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
998	7	Au oz/T: 1 assay ton	FA-AAS	0.002	20.00
385	7	Ag oz/T: Aqua regia digestion	AAS	0.01	20.0
312	7	Pb %: HClO4-HNO3 digestion	AAS	0.01	100.0
921	7	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
922	7	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
923	7	As ppm: 32 element, soil & rock	ICP-AES	5	10000
924	7	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
925	7	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
926	7	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
927	7	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
928	7	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
929	7	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
930	7	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
931	7	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
932	7	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
933	7	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
951	7	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
934	7	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
935	7	La ppm: 32 element, soil & rock	ICP-AES	10	10000
936	7	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
937	7	Mn ppm: 32 element, soil & rock	ICP-AES	1	10000
938	7	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
939	7	Na %: 32 element, soil & rock	ICP-AES	0.01	5.00
940	7	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
941	7	P ppm: 32 element, soil & rock	ICP-AES	10	10000
942	7	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
943	7	Sb ppm: 32 element, soil & rock	ICP-AES	5	10000
958	7	Se ppm: 32 elements, soil & rock	ICP-AES	1	100000
944	7	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
945	7	Ti %: 32 element, soil & rock	ICP-AES	0.01	5.00
946	7	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
947	7	U ppm: 32 element, soil & rock	ICP-AES	10	10000
948	7	V ppm: 32 element, soil & rock	ICP-AES	1	10000
949	7	W ppm: 32 element, soil & rock	ICP-AES	5	10000
950	7	Zn ppm: 32 element, soil & rock	ICP-AES	1	10000



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Project: 318

Comments: ATTN: STUART CROFT

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Date: 4-MAY-88

Invoice #: I-8814770

P.O. #: NONE

CERTIFICATE OF ANALYSIS A8814770

SAMPLE DESCRIPTION	PREP CODE		Au	Ag	Pb	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	
			oz/T	oz/T	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	
1016	207	238	0.001	0.01	< 0.01	0.39	< 0.2	10	60	0.5	< 2	0.30	1.5	8	12	112	3.68	< 10	< 1	0.15	20
1017	207	238	0.001	0.01	0.03	0.71	< 0.2	10	90	< 0.5	< 2	0.20	2.0	17	19	131	5.07	< 10	< 1	0.21	30
1018	207	238	< 0.001	0.02	0.01	0.77	< 0.2	5	70	< 0.5	< 2	0.19	1.5	11	17	98	4.76	< 10	< 1	0.17	20
1019	207	238	0.009	0.07	0.04	0.69	3.2	20	100	0.5	2	0.19	3.0	17	17	116	4.40	< 10	< 1	0.26	20
1020	207	238	0.001	0.02	< 0.01	0.62	< 0.2	15	90	< 0.5	< 2	0.21	1.0	20	11	94	4.59	< 10	< 1	0.24	30
1021	207	238	0.001	0.01	< 0.01	0.77	< 0.2	15	90	< 0.5	< 2	0.20	1.0	17	15	67	4.09	< 10	< 1	0.25	20
1022	207	238	0.047	0.44	0.23	0.39	14.6	20	60	< 0.5	16	0.12	1.0	9	23	60	3.17	< 10	< 1	0.09	10

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CERTIFICATION:

W. Glen Macdonald



Chemex Labs Ltd.

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TO: NEVIN SADLIER-BROWN GOODBRAND LTD.,

401 - 134 ABBOTT ST.
 VANCOUVER, B.C.
 V6B 2K4

A8814771

Comments: ATTN: STUART CROFT

CERTIFICATE A8814771

NEVIN SADLIER-BROWN GOODBRAND LTD.,
 PROJECT : 318
 P.O.# : NONE

Samples submitted to our lab in Vancouver, BC.
 This report was printed on 5-MAY-88.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
207	37	Assay: Crush, split, pulv -140
238	37	ICP: Aqua regia digestion

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
918	37	Au oz/T: 1/2 assay ton	FA-AAS	0.002	20.00
921	37	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
922	37	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
923	37	As ppm: 32 element, soil & rock	ICP-AES	5	10000
924	37	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
925	37	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
926	37	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
927	37	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
928	37	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
929	37	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
930	37	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
931	37	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
932	37	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
933	37	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
951	37	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
934	37	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
935	37	La ppm: 32 element, soil & rock	ICP-AES	10	10000
936	37	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
937	37	Mn ppm: 32 element, soil & rock	ICP-AES	1	10000
938	37	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
939	37	Na %: 32 element, soil & rock	ICP-AES	0.01	5.00
940	37	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
941	37	P ppm: 32 element, soil & rock	ICP-AES	10	10000
942	37	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
943	37	Sb ppm: 32 element, soil & rock	ICP-AES	5	10000
958	37	Sc ppm: 32 elements, soil & rock	ICP-AES	1	100000
944	37	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
945	37	Ti %: 32 element, soil & rock	ICP-AES	0.01	5.00
946	37	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
947	37	U ppm: 32 element, soil & rock	ICP-AES	10	10000
948	37	V ppm: 32 element, soil & rock	ICP-AES	1	10000
949	37	W ppm: 32 element, soil & rock	ICP-AES	5	10000
950	37	Zn ppm: 32 element, soil & rock	ICP-AES	1	10000



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Project: 316

Comments: ATTN: STUART CROFT

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Date: 4-MAY-88

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P.O. #: NONE

CERTIFICATE OF ANALYSIS A8814770

SAMPLE DESCRIPTION	PREP CODE		Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
			%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
1016	207	238	0.05	722	6	0.03	43	530	26	< 5	4	29	< 0.01	< 10	< 10	10	< 5	119
1017	207	238	0.15	1015	10	0.04	59	630	206	< 5	6	34	< 0.01	< 10	< 10	19	< 5	359
1018	207	238	0.09	899	7	0.04	49	590	114	< 5	6	38	< 0.01	< 10	< 10	15	< 5	221
1019	207	238	0.09	742	4	0.05	41	530	340	< 5	4	31	< 0.01	< 10	< 10	16	< 5	332
1020	207	238	0.06	739	1	0.05	42	600	60	< 5	5	33	< 0.01	< 10	< 10	11	< 5	86
1021	207	238	0.19	480	3	0.03	48	640	48	< 5	4	30	< 0.01	< 10	< 10	14	< 5	157
1022	207	238	0.11	788	4	0.03	29	320	2310	5	2	18	< 0.01	< 10	< 10	9	< 5	259

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CERTIFICATION:

N. Sadler-Brown



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To: NEVIN SADLIER-BROWN GOODBRAND LTD.,

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Project : 318
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Tot. Pages: 1
Date : 5-MAY-88
Invoice #: I-8814771
P.O. # : NONE

CERTIFICATE OF ANALYSIS A8814771

SAMPLE DESCRIPTION	PREP CODE	Au oz/T	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
1023	207 238	0.014	0.43	< 3.6	10	50	< 0.5	< 2	0.72	< 0.5	14	11	57	4.58	< 10	< 1	0.22	10	1.00	401
1024	207 238	0.006	0.49	< 0.2	15	60	< 0.5	< 2	0.61	< 0.5	11	13	50	3.66	< 10	< 1	0.23	10	0.92	368
1025	207 238	< 0.002	0.36	< 0.2	20	40	< 0.5	< 2	0.49	< 0.5	11	8	68	4.26	< 10	< 1	0.18	10	1.02	304
1026	207 238	< 0.002	0.49	< 0.2	20	60	< 0.5	< 2	0.75	< 0.5	12	17	46	4.05	< 10	< 1	0.23	10	0.93	376
1027	207 238	0.002	0.64	< 0.2	15	80	< 0.5	< 2	0.80	< 0.5	11	19	46	3.87	< 10	< 1	0.30	20	0.95	394
1028	207 238	0.002	0.81	< 0.2	25	100	< 0.5	< 2	1.17	1.5	12	16	76	4.12	< 10	< 1	0.37	10	1.05	376
1029	207 238	0.002	1.11	< 0.2	10	120	< 0.5	< 2	1.29	0.5	7	18	50	3.57	< 10	< 1	0.47	20	1.11	490
1030	207 238	0.002	0.93	< 0.2	20	110	0.5	< 2	2.96	8.0	14	35	45	4.29	< 10	< 1	0.40	< 10	1.14	556
1031	207 238	< 0.002	1.29	< 0.2	< 5	130	< 0.5	< 2	0.85	< 0.5	16	21	58	3.96	< 10	< 1	0.47	20	0.94	245
1032	207 238	< 0.002	1.47	< 0.2	< 5	130	< 0.5	< 2	0.98	< 0.5	13	21	66	3.70	< 10	< 1	0.42	20	0.95	319
1033	207 238	< 0.002	1.16	< 0.2	35	100	0.5	< 2	1.14	< 0.5	12	20	57	3.69	< 10	< 1	0.32	10	0.88	372
1034	207 238	< 0.002	2.14	< 0.2	5	110	< 0.5	< 2	0.49	< 0.5	15	37	25	4.36	< 10	< 1	0.39	20	1.02	298
1035	207 238	< 0.002	1.82	< 0.2	< 5	120	0.5	< 2	1.04	< 0.5	14	32	48	4.06	< 10	< 1	0.43	20	0.97	384
1036	207 238	< 0.002	1.74	< 0.2	< 5	60	< 0.5	< 2	0.75	< 0.5	14	31	22	3.99	< 10	< 1	0.23	10	1.05	379
1037	207 238	< 0.002	1.55	< 0.2	< 5	50	< 0.5	< 2	0.96	< 0.5	11	30	13	3.51	< 10	< 1	0.16	10	1.04	414
1038	207 238	< 0.002	1.15	< 0.2	< 5	40	< 0.5	< 2	2.16	< 0.5	14	20	55	3.77	< 10	< 1	0.17	< 10	1.08	521
1039	207 238	< 0.002	1.93	< 0.2	< 5	60	< 0.5	< 2	0.95	< 0.5	13	36	22	4.06	< 10	< 1	0.23	20	1.10	338
1040	207 238	0.002	1.01	< 0.2	< 5	60	0.5	< 2	3.63	< 0.5	13	30	88	4.81	< 10	< 1	0.26	< 10	1.41	968
1041	207 238	< 0.002	0.78	< 0.2	10	80	< 0.5	< 2	0.66	< 0.5	12	15	23	4.00	< 10	< 1	0.34	20	1.16	345
1042	207 238	0.002	0.90	< 0.2	15	110	< 0.5	< 2	1.38	0.5	14	20	80	3.98	< 10	< 1	0.43	10	0.99	445
1043	207 238	0.002	0.50	< 0.2	10	70	0.5	< 2	3.75	< 0.5	15	22	96	3.93	< 10	< 1	0.25	< 10	1.42	779
1044	207 238	< 0.002	0.56	< 0.2	15	70	1.0	< 2	0.93	0.5	15	14	50	4.16	< 10	< 1	0.29	10	1.04	294
1045	207 238	0.002	0.44	< 0.2	20	60	0.5	< 2	3.17	< 0.5	10	19	60	3.51	< 10	< 1	0.24	< 10	1.22	782
1046	207 238	< 0.002	0.62	< 0.2	15	80	1.0	< 2	1.51	< 0.5	13	16	52	4.05	< 10	< 1	0.33	10	1.30	609
1047	207 238	< 0.002	0.53	< 0.2	20	70	1.0	< 2	0.75	0.5	14	13	31	4.19	< 10	< 1	0.27	20	1.06	305
1048	207 238	0.002	0.45	< 0.2	10	50	0.5	< 2	1.88	1.0	12	16	78	3.90	< 10	< 1	0.21	10	1.03	475
1049	207 238	0.002	0.36	< 0.2	20	40	0.5	< 2	3.64	1.0	13	13	64	3.81	< 10	< 1	0.16	< 10	1.23	754
1050	207 238	< 0.002	0.40	< 0.2	15	50	1.0	< 2	2.18	0.5	7	13	40	3.63	< 10	< 1	0.21	10	0.99	494
1051	207 238	0.004	0.58	< 0.2	20	70	1.0	< 2	1.10	1.0	17	13	44	4.39	< 10	< 1	0.30	20	1.24	497
1052	207 238	< 0.002	0.71	< 0.2	25	90	1.0	< 2	1.74	< 0.5	16	18	59	4.46	< 10	< 1	0.37	10	1.19	522
1053	207 238	0.004	0.46	< 0.2	20	60	0.5	< 2	1.53	0.5	8	15	60	3.29	< 10	< 1	0.23	10	0.85	433
1054	207 238	0.002	0.09	< 0.2	25	10	< 0.5	< 2	12.25	2.5	5	12	11	1.90	< 10	< 1	0.03	< 10	0.78	1205
1055	207 238	0.002	0.45	< 0.2	35	50	1.0	< 2	5.32	< 0.5	16	14	83	3.65	< 10	< 1	0.22	< 10	1.36	1120
1056	207 238	0.002	0.70	< 0.2	15	90	1.0	< 2	0.71	< 0.5	16	14	20	4.47	< 10	< 1	0.36	20	1.25	451
1057	207 238	< 0.002	0.67	< 0.2	25	80	1.0	< 2	0.44	< 0.5	18	10	36	4.38	< 10	< 1	0.34	20	1.16	341
1058	207 238	0.002	0.75	< 0.2	25	90	1.0	< 2	0.69	< 0.5	18	13	44	4.04	< 10	< 1	0.37	20	1.06	310
1059	207 238	< 0.002	0.56	< 0.2	15	70	1.0	< 2	1.48	< 0.5	15	11	56	4.22	< 10	< 1	0.30	10	1.13	466

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CERTIFICATION :



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

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Project: 318

Comments: ATTN: STUART CROFT

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Date : 5-MAY-88

Invoice #: I-8814771

P.O. #: NONE

CERTIFICATE OF ANALYSIS A8814771

SAMPLE DESCRIPTION	PREP CODE		Mo	Na	Ni	P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
			ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
1023	207	238	< 1	0.03	36	490	52	5	2	67	< 0.01	< 10	< 10	2	5	131
1024	207	238	2	0.04	23	400	20	< 5	2	77	< 0.01	< 10	< 10	6	5	51
1025	207	238	1	0.03	29	390	20	< 5	3	80	< 0.01	< 10	< 10	5	5	87
1026	207	238	< 1	0.03	32	410	12	< 5	3	99	< 0.01	< 10	< 10	4	5	78
1027	207	238	< 1	0.03	27	430	14	< 5	3	96	< 0.01	< 10	< 10	6	10	81
1028	207	238	1	0.05	31	430	36	< 5	4	180	< 0.01	< 10	< 10	14	10	151
1029	207	238	< 1	0.08	25	490	18	< 5	5	138	< 0.01	< 10	< 10	13	10	79
1030	207	238	26	0.05	66	520	22	< 5	4	209	< 0.01	< 10	< 10	59	10	413
1031	207	238	< 1	0.06	35	460	2	< 5	4	90	< 0.01	< 10	< 10	12	5	83
1032	207	238	1	0.06	28	480	< 2	< 5	4	105	< 0.01	< 10	< 10	26	5	73
1033	207	238	< 1	0.04	29	410	6	< 5	3	118	< 0.01	< 10	< 10	14	5	69
1034	207	238	< 1	0.04	34	450	< 2	< 5	3	53	< 0.01	< 10	< 10	15	5	111
1035	207	238	< 1	0.04	29	470	4	< 5	3	99	< 0.01	< 10	< 10	17	5	101
1036	207	238	< 1	0.03	33	500	< 2	< 5	2	78	< 0.01	< 10	< 10	13	5	121
1037	207	238	< 1	0.03	26	460	2	< 5	2	77	< 0.01	< 10	< 10	11	5	103
1038	207	238	< 1	0.03	26	410	18	< 5	3	162	< 0.01	< 10	< 10	8	5	62
1039	207	238	< 1	0.03	31	410	4	< 5	3	81	< 0.01	< 10	< 10	14	10	111
1040	207	238	< 1	0.03	33	540	14	< 5	4	244	< 0.01	< 10	< 10	10	15	45
1041	207	238	< 1	0.07	27	640	< 2	< 5	4	93	< 0.01	< 10	< 10	7	5	103
1042	207	238	1	0.04	33	430	18	< 5	4	164	< 0.01	< 10	< 10	13	5	63
1043	207	238	17	0.03	67	700	2	5	3	228	< 0.01	< 10	< 10	39	5	22
1044	207	238	1	0.03	36	410	16	5	3	114	< 0.01	< 10	< 10	8	< 5	108
1045	207	238	3	0.02	39	430	12	5	4	355	< 0.01	< 10	< 10	14	< 5	23
1046	207	238	< 1	0.03	38	470	6	5	3	164	< 0.01	< 10	< 10	7	< 5	66
1047	207	238	3	0.03	35	520	14	< 5	3	100	< 0.01	< 10	< 10	9	< 5	139
1048	207	238	4	0.05	32	500	14	5	4	215	< 0.01	< 10	< 10	11	< 5	108
1049	207	238	1	0.05	27	550	12	5	6	340	< 0.01	< 10	< 10	10	< 5	107
1050	207	238	< 1	0.03	27	460	32	5	4	207	< 0.01	< 10	< 10	4	< 5	72
1051	207	238	< 1	0.03	31	460	98	< 5	3	117	< 0.01	< 10	< 10	5	< 5	131
1052	207	238	< 1	0.03	35	470	10	5	4	189	< 0.01	< 10	< 10	7	< 5	81
1053	207	238	4	0.03	28	340	6	< 5	3	161	< 0.01	< 10	< 10	6	< 5	70
1054	207	238	20	0.03	24	990	100	5	4	779	< 0.01	< 10	< 10	7	5	208
1055	207	238	2	0.04	46	1460	18	5	5	331	< 0.01	< 10	< 10	14	< 5	35
1056	207	238	< 1	0.03	34	500	6	< 5	3	85	< 0.01	< 10	< 10	6	< 5	103
1057	207	238	< 1	0.04	36	520	4	< 5	3	53	< 0.01	< 10	< 10	7	< 5	83
1058	207	238	< 1	0.04	31	490	16	< 5	3	81	< 0.01	< 10	< 10	8	< 5	81
1059	207	238	< 1	0.03	34	470	8	< 5	3	152	< 0.01	< 10	< 10	6	< 5	63

ALL ASSAY DETERMINATIONS ARE PERFORMED OR SUPERVISED BY B.C. CERTIFIED ASSAYERS

CERTIFICATION :



Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-1C1
PHONE (604) 984-0221

TO: NEVIN SADLIER-BROWN GOODBRAND LTD.,

401 - 134 ABBOTT ST.
VANCOUVER, B.C.
V6B 2K4

A8814932

Comments: ATTN: STUART CROFT

CERTIFICATE A8814932

NEVIN SADLIER-BROWN GOODBRAND LTD.,

PROJECT :

P. O. # : NONE

Samples submitted to our lab in Vancouver, BC.

This report was printed on 8-MAY-88.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
214	1	Received sample as pulp

• NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
998	1	Au oz/T: 1 assay ton	FA-AAS	0.002	20.00
385	1	Ag oz/T: Aqua regia digestion	AAS	0.01	20.0
312	1	Pb %: HClO ₄ -HNO ₃ digestion	AAS	0.01	100.0



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To: NEVIN SADLIER-BROWN GOODBRAND LTD.,

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VANCOUVER, B.C.
V6B 2K4

Project :

Comments: ATTN: STUART CROFT

**Page No. : 1
Tot. Pages: 1
Date : 8-MAY-88
Invoice #: I-8814932
P.O. # : NONE

CERTIFICATE OF ANALYSIS A8814932

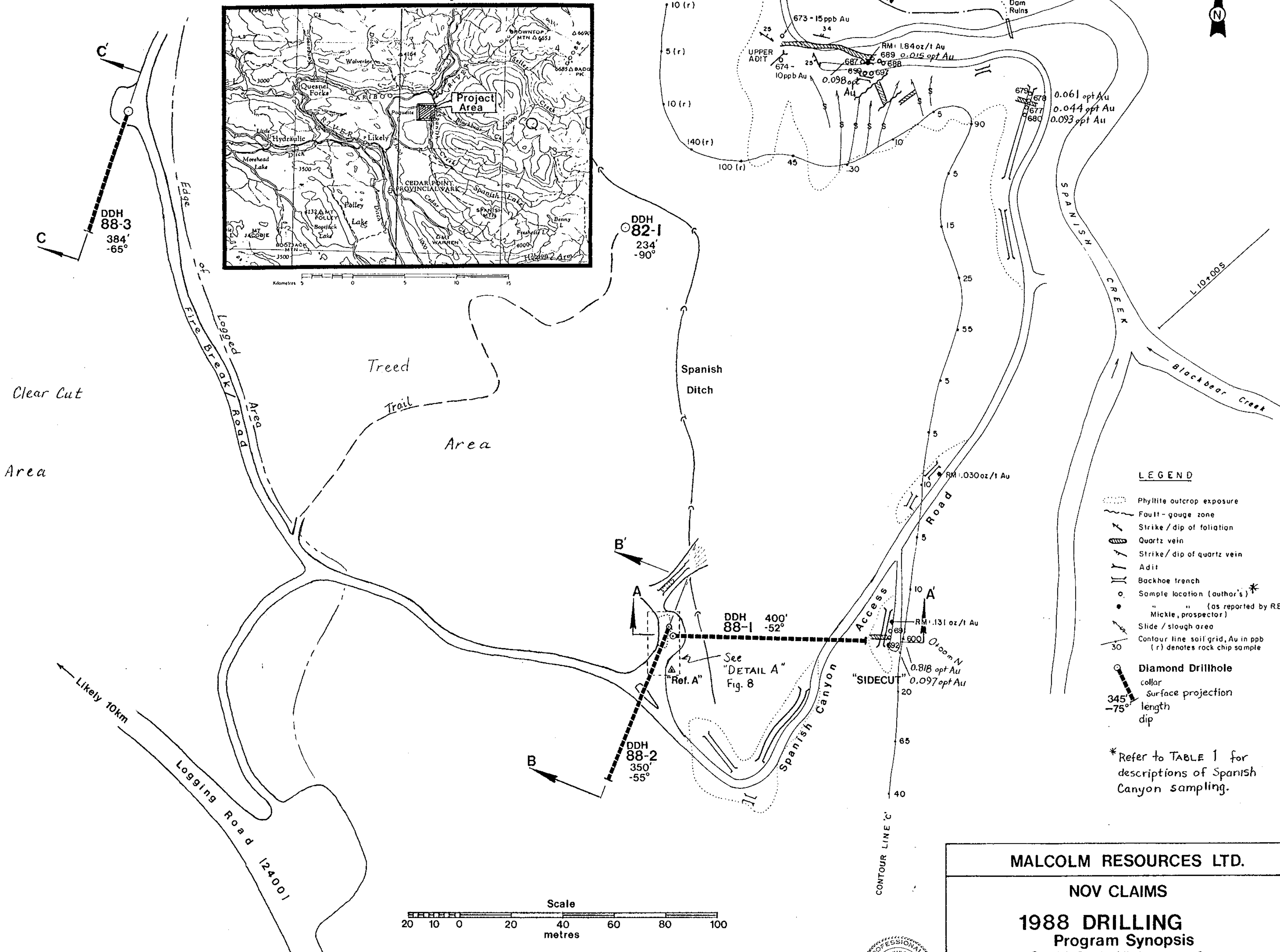
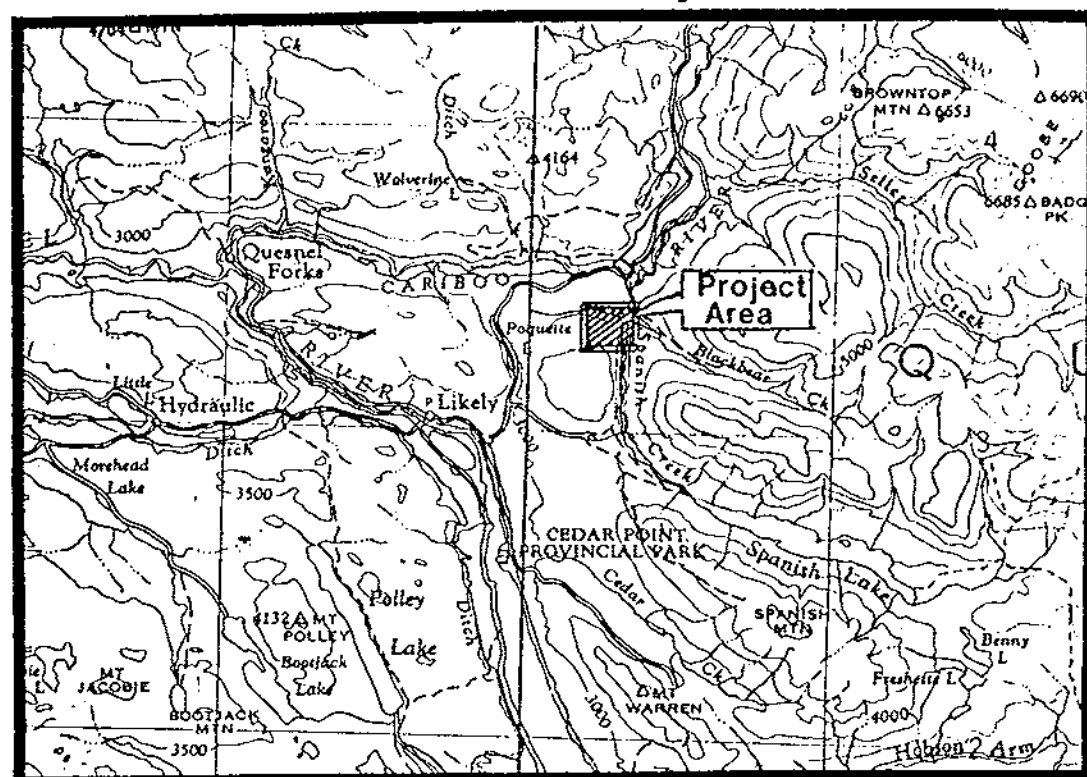
SAMPLE DESCRIPTION	PREP CODE	Au oz/T	Ag oz/T	Pb %															
1015	214 --	0.004	1.72	1.79															

ALL ASSAY DETERMINATIONS ARE PERFORMED OR SUPERVISED BY B.C. CERTIFIED ASSAYERS

CERTIFICATION :

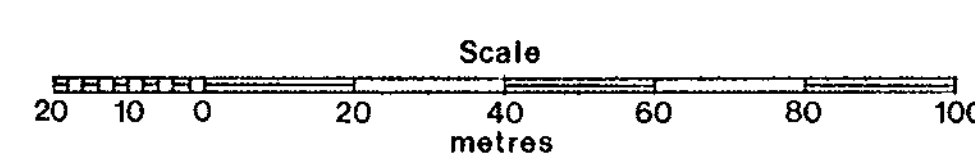
W. S. Merin

Location Key

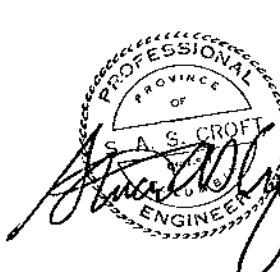


- LEGEND**
- Phyllite outcrop exposure
 - Fault-gouge zone
 - Strike/dip of foliation
 - Quartz vein
 - Strike/dip of quartz vein
 - Adit
 - Backhoe trench
 - Sample location (author's) *
 - " (as reported by RE)
 - Mickle, prospector)
 - Slide/slough area
 - Contour line soil grid, Au in ppb
 - (r) denotes rock chip sample
 - Diamond Drillhole**
 - surface projection length dip

* Refer to TABLE 1 for descriptions of Spanish Canyon sampling.



MALCOLM RESOURCES LTD.	
NOV CLAIMS	
1988 DRILLING	
Program Synopsis	
Spanish Creek, Likely area, B.C.	
N.T.S. 93 A/11	CARIBOO M.D., B.C.
Date: MAY 1988	Figure 5
NEVIN SADLER-BROWN GOODBRAND LTD.	

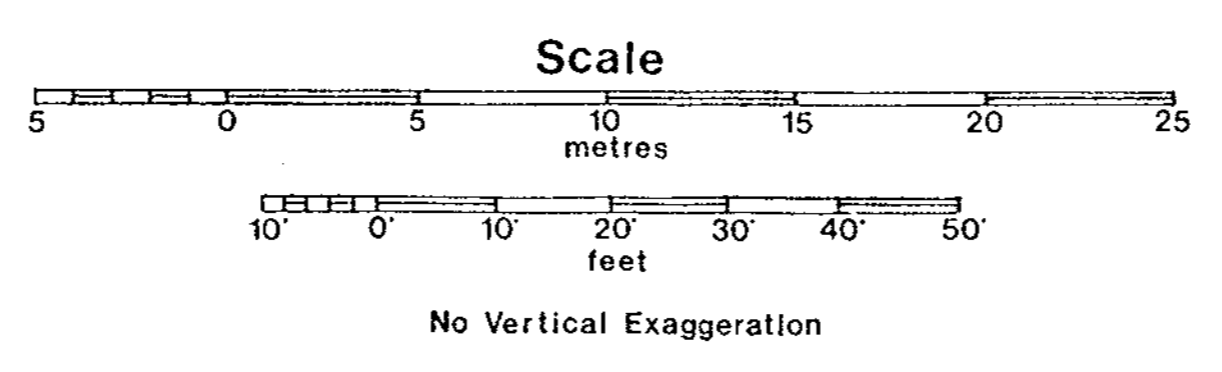
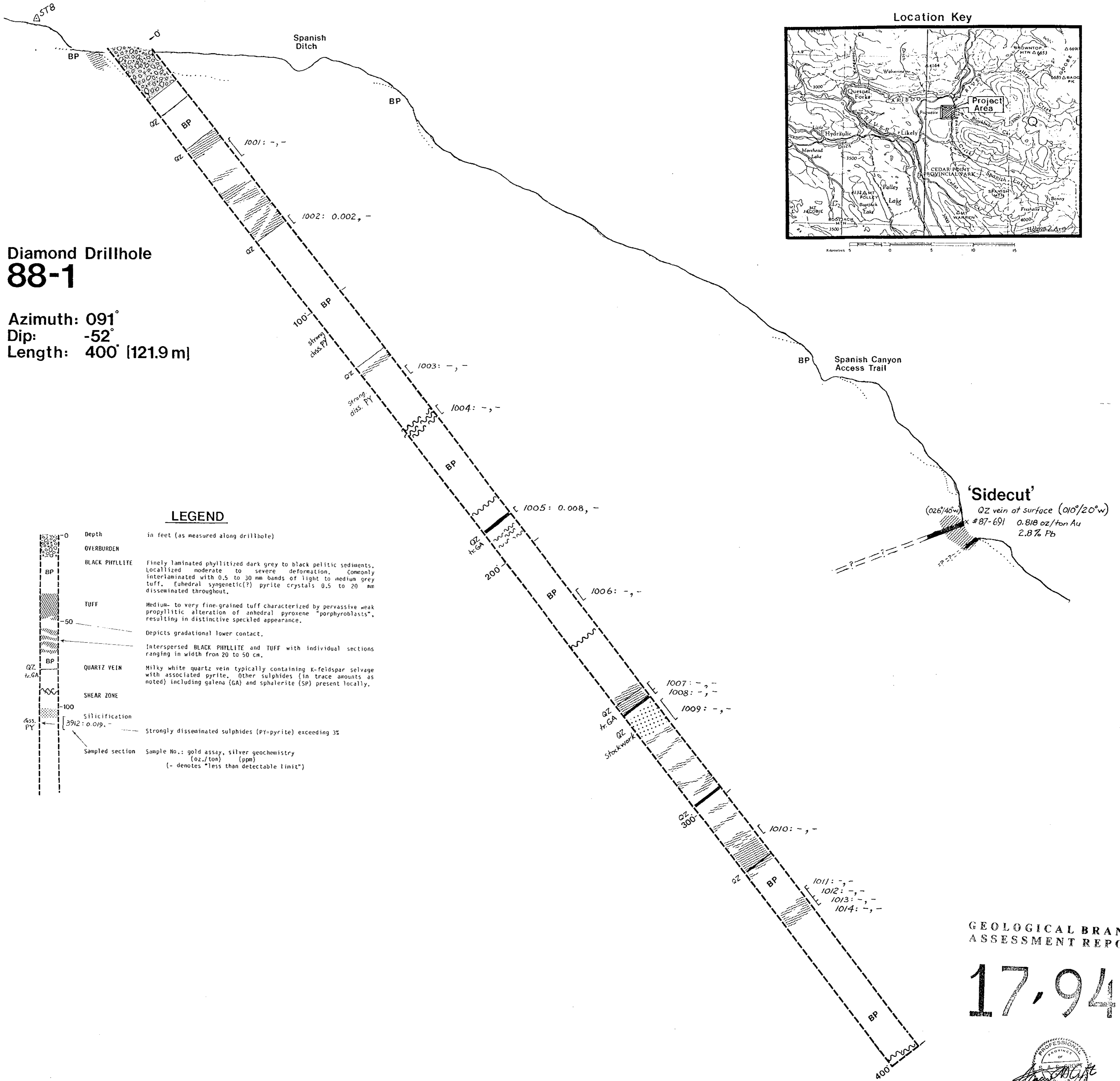


GEOLOGICAL BRANCH ASSESSMENT REPORT

17.942

Section A
looks north

A'



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

17,942

MALCOLM RESOURCES LTD.

NOV CLAIMS
Section A-A'
GRAPHIC LOG: D.D.H. 88-1
Spanish Creek, Likely area, B.C.
N.T.S. 93 A/11 CARIBOO M.D., B.C.

Date: MAY 1988 Figure 6

NEVIN SADLIER-BROWN GOODBRAND LTD.

Section B

looks northwest

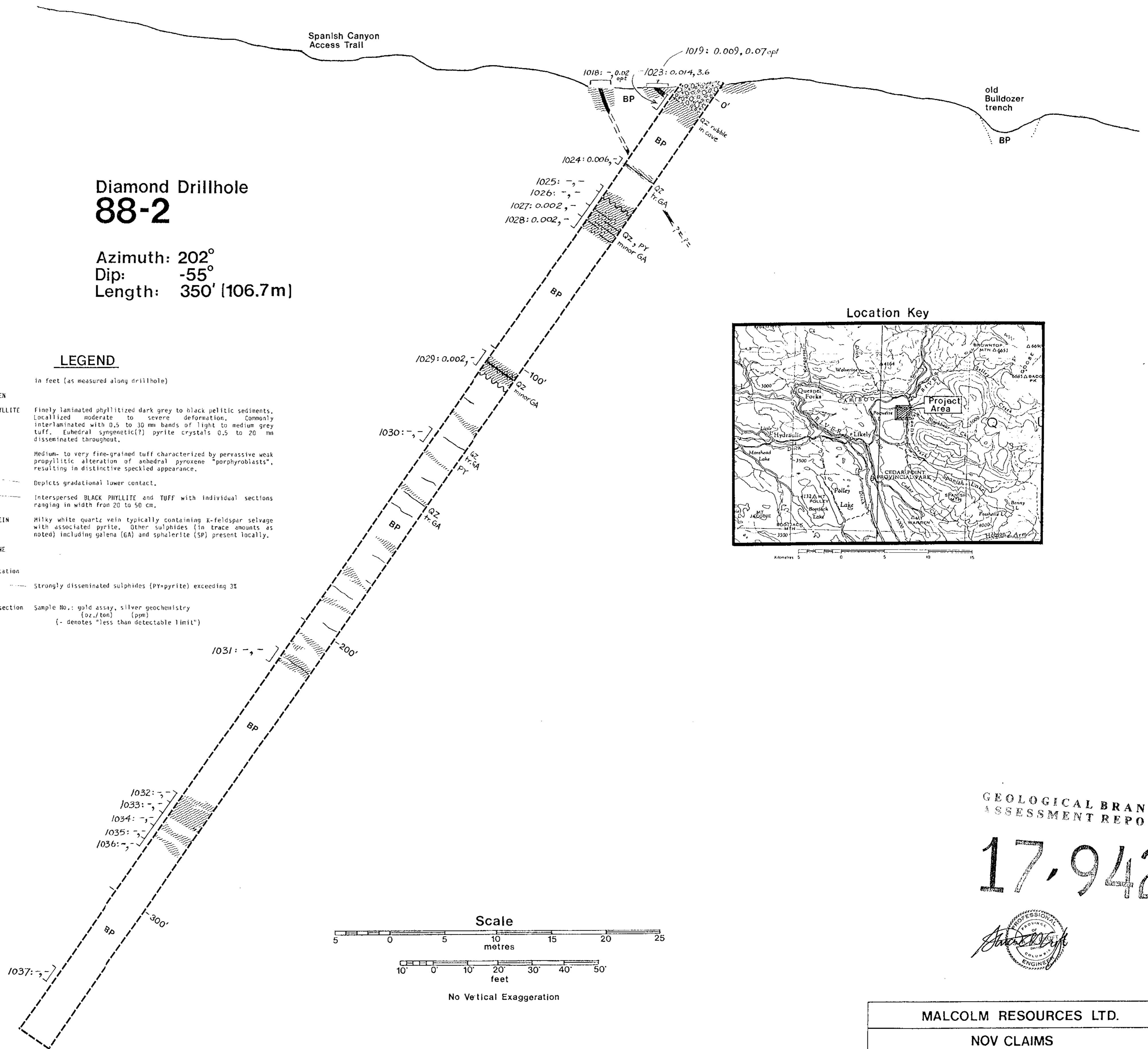
B'

Diamond Drillhole 88-2

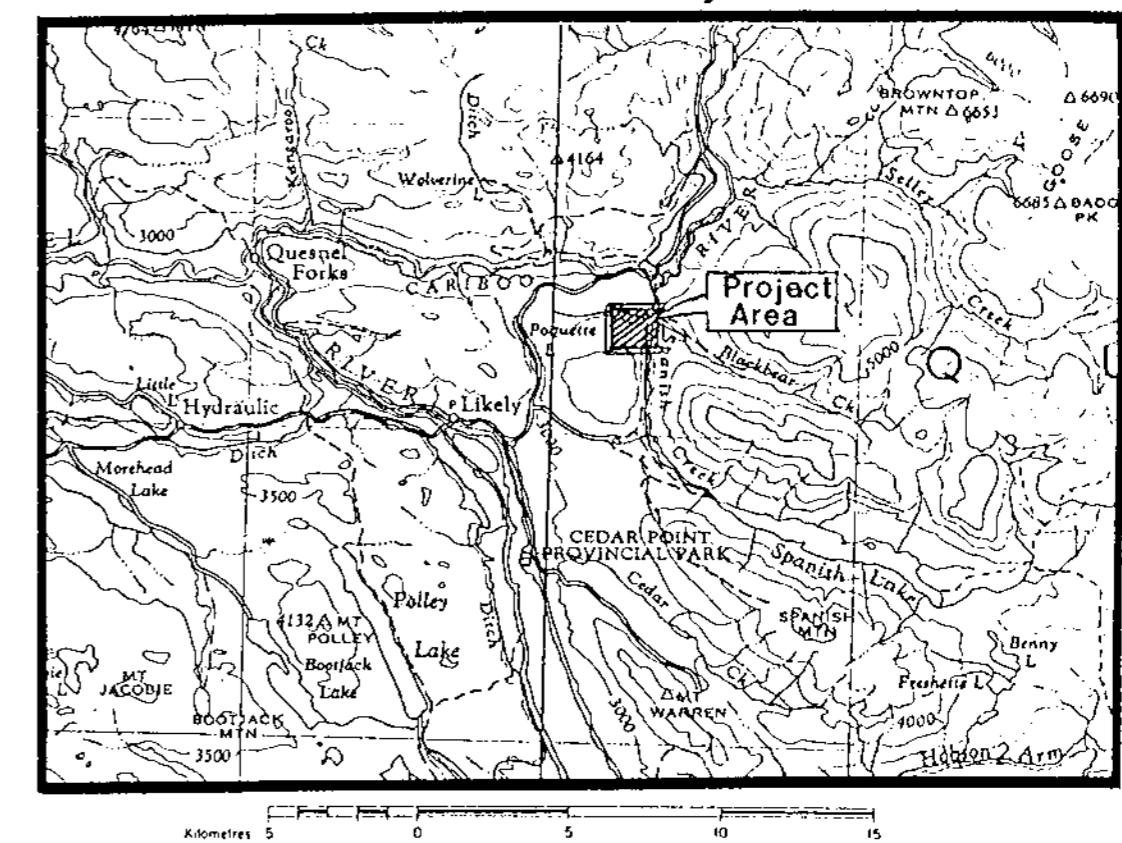
Azimuth: 202°
Dip: -55°
Length: 350' (106.7m)

LEGEND

- Depth in feet (as measured along drillhole)
- OVERBURDEN
- BP BLACK PHYLLITE: Finely laminated phyllitized dark grey to black pelitic sediments. Localized moderate to severe deformation. Commonly interlaminated with 0.5 to 30 mm bands of light to medium grey tuff. Euhedral syngenetic(?) pyrite crystals 0.5 to 20 mm disseminated throughout.
- TUFF: Medium- to very fine-grained tuff characterized by pervasive weak propylitic alteration of anhedral pyroxene "porphyroblasts", resulting in distinctive speckled appearance.
- Depicts gradational lower contact.
- Interspersed BLACK PHYLLITE and TUFF with individual sections ranging in width from 20 to 50 cm.
- BP QUARTZ VEIN: Milky white quartz vein typically containing K-feldspar selvage with associated pyrite. Other sulphides (in trace amounts as noted) including galena (GA) and sphalerite (SP) present locally.
- SHEAR ZONE
- 100 Silicification
- 3912: 0.019, - Strongly disseminated sulphides (PY-pyrite) exceeding 3%
- Sampled section: Sample No.: gold assay, silver geochemistry (oz./ton) (ppm) (- denotes "less than detectable limit")



Location Key



GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,942



MALCOLM RESOURCES LTD.	
NOV CLAIMS	
Section B - B'	
GRAPHIC LOG: D.D.H. 88-2	
Spanish Creek, Likely area, B.C.	
N.T.S. 93 A/11	CARIBOO M.D., B.C.
Date: MAY 1988	Figure 7
NEVIN SADLIER-BROWN GOODBRAND LTD.	

Section C
looks northwest

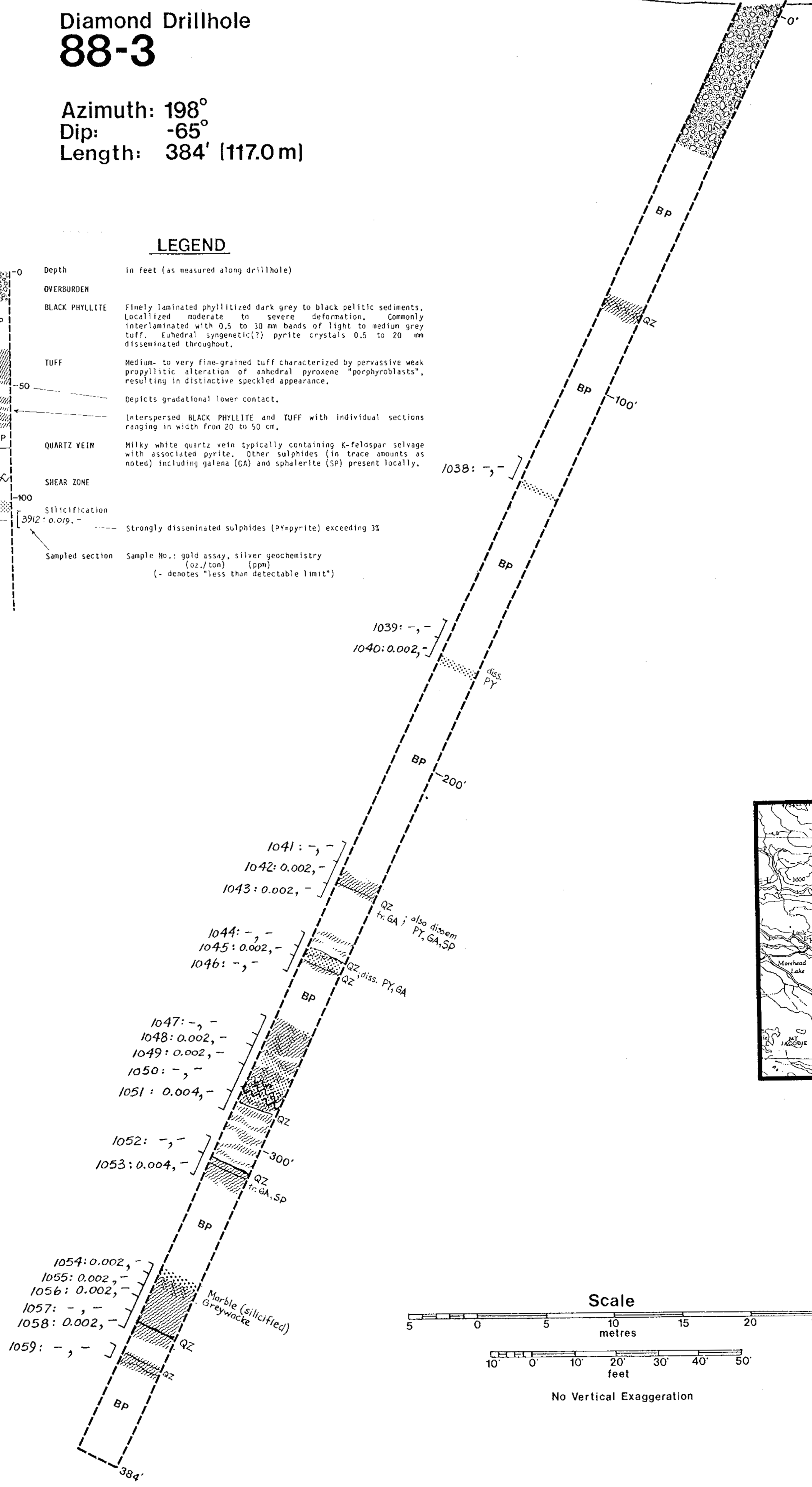
C'

Diamond Drillhole 88-3

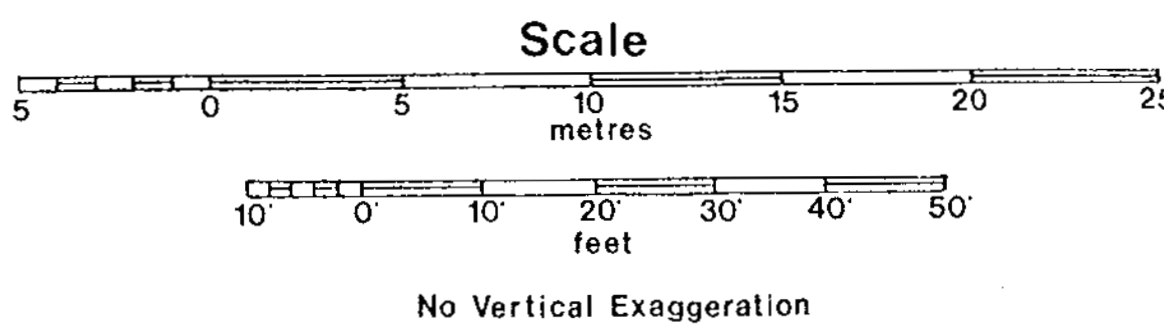
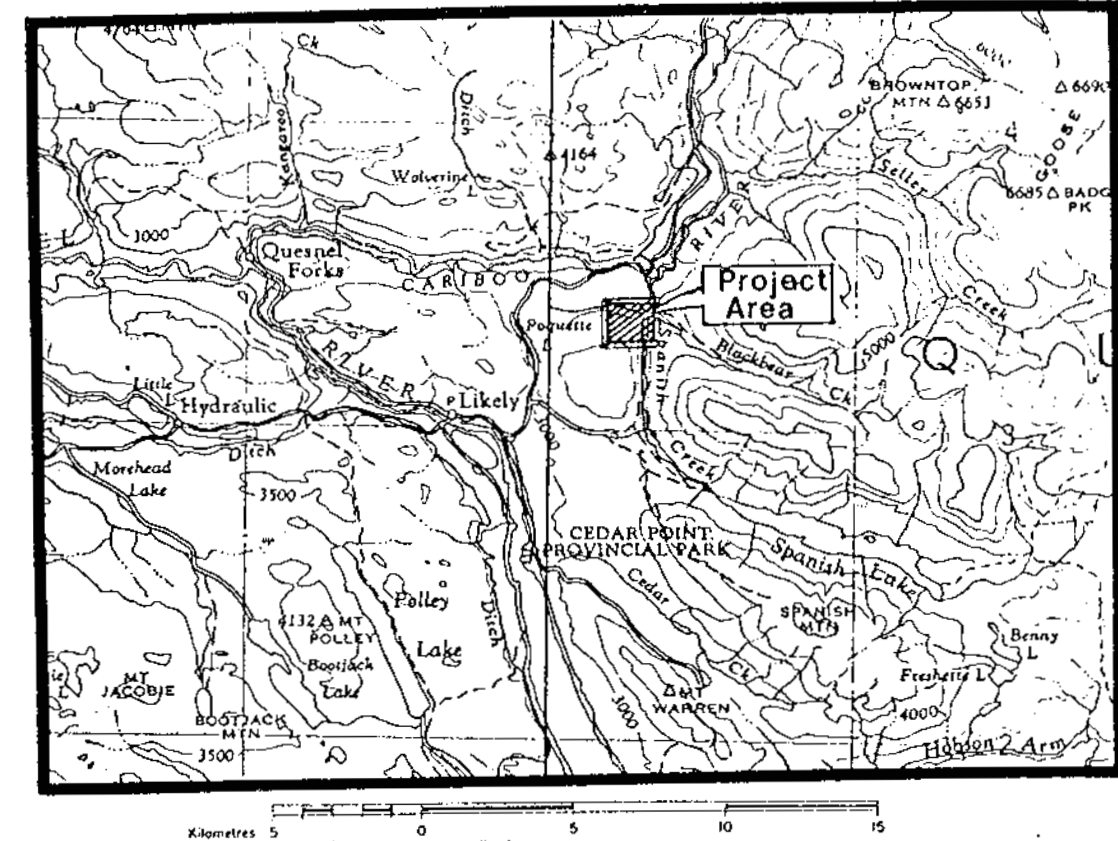
Azimuth: 198°
Dip: -65°
Length: 384' (117.0 m)

LEGEND

Symbol	Description	Notes
0	Depth	in feet (as measured along drillhole)
BP	OVERBURDEN	
BP	BLACK PHYLLITE	Finely laminated phyllitized dark grey to black pelitic sediments. Localized moderate to severe deformation. Commonly interlaminated with 0.5 to 30 mm bands of light to medium grey tuff. Euhedral syngenetic(?) pyrite crystals 0.5 to 20 mm disseminated throughout.
BP	TUFF	Medium to very fine-grained tuff characterized by pervasive weak propylitic alteration of anhedral pyroxene "porphyroblasts", resulting in distinctive speckled appearance.
-50		Depicts gradational lower contact.
BP		Interspersed BLACK PHYLLITE and TUFF with individual sections ranging in width from 20 to 50 cm.
QZ	QUARTZ VEIN	Milky white quartz vein typically containing K-feldspar selvage with associated pyrite. Other sulphides (in trace amounts as noted) including galena (GA) and sphalerite (SP) present locally.
BP	SHEAR ZONE	
-100		Silicification
dis. PY		Strongly disseminated sulphides (Py=pyrite) exceeding 3%
	Sampled section	Sample No.: gold assay, silver geochemistry (oz./ton) (ppm) (- denotes "less than detectable limit")



Location Key



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

17,942



MALCOLM RESOURCES LTD.	
NOV CLAIMS	
Section C-C' GRAPHIC LOG: D.D.H. 88-3	
Spanish Creek, Likely area, B.C.	
N.T.S. 93 A/11	CARIBOO M.D., B.C.
Date: MAY 1988	Figure 9
NEVIN SADLIER-BROWN GOODBRAND LTD.	