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REPORT ON THE X-CAL, TRUCK,

PAYMASTER, BUTTE-X-CAL, AND MAC CLAIMS

BRALORNE AREA BRITISH COLUMBIA

LILLOOET MINING DIVISION

Latitude 50° 39' North Longitude 122° 35' West

Projects	7349 Anderson Lake 7350 Butte-X-Cal 7351 Truck/Paymaster
Option	X-CAL RESOURCES LIMITED
Operator	HUDSON BAY EXPLORATION AND DEVELOPMENT COMPANY LIMITED

13 January 1986

Michael Lancaster

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Plates 1, 2, 4, 5, 12, 13, 15, 17, 22, 23, 25, 27, 31 are included within the body of this report

Plates 3, 6, 7, 8, 9, 10, 11, 14, 16, 18, 19, 20, 21, 24, 26, 28, 29, 30, 32 are in separate expanding folder

T A B L E S

A P P E N D I C E S

SUMMARY AND CONCLUSIONS

Anderson Lake, Truck/Paymaster and Butte-X-Cal Projects inlude 554 units optioned from X-Cal Resources Limited. These projects are situated in the Bralorne Gold camp in southwestern British Columbia. This entire area has been prospected and geologically mapped by a 2-4 man Hudson Bay crew between 2 May 1985 and 14 September 1985. During this time, a total of 4038 samples were collected including 190 heavy mineral samples, 284 silt samples, 637 rock samples and 2927 soil samples.

Mapping has proven the existence of the Cadwallader Fault Structure extending along McGillivray Creek, South Fork of McGillivray Creek, and D'Arcy Creek. This structure contains the same rock units and exhibits the same degree of complexity as at Bralorne-Pioneer Mines. In addition, numerous white quartz pebbles, 3 heavy mineral samples with visible gold and several anomalous heavy mineral, silt and soil samples all focus interest onto this major structure.

Both Truck/Paymaster and Butte-X-Cal Project areas are situated much closer to Bralorne than the Anderson Lake Project area. However, the important Cadwallader Structure with associated vein potential is north of these claims.

In conclusion, no areas of gold mineralization were discovered and it is recommended that the option be dropped.

Michael Lancaster

INTRODUCTION

During the 1985 field season, Hudson Bay Exploration and Development Company Limited conducted an exploration program consisting of geologic mapping, silt, soil, rock, and heavy mineral sampling, and limited EM-16 geophysical surveying on 3 properties optioned from X-Cal Resources Limited. All three properties are situated within the Bralorne gold camp in southwestern British Columbia.

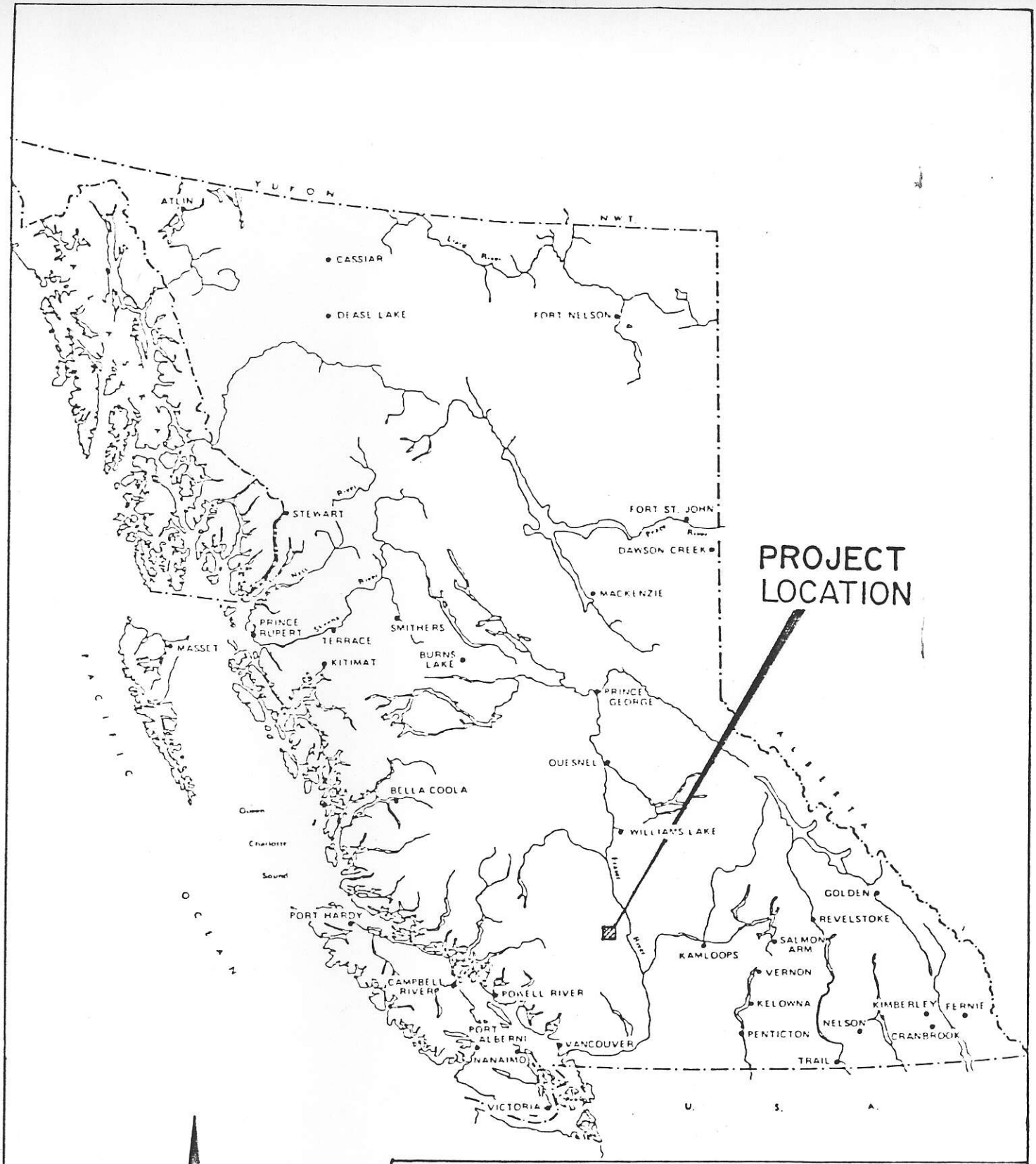
This report outlines the results of a program carried out between May 2 - July 28 1985, August 11 - September 14 1985, and October 8 - October 9 1985 by a 2-4 man crew.

LOCATION AND ACCESS

Located 150-165 kilometers northerly from Vancouver, these 3 properties are all part of the Bralorne gold camp in southwestern British Columbia (Plate 1). Access to the claims is generally by helicopter although there is limited road access to lower areas.

The large Anderson Lake claim block is located between 22 and 33 kilometers southeast of Bralorne and 2 to 14 kilometers north of the village of D'Arcy on Anderson Lake. Elevations range from 275-2450 meters in an area of steep, extremely rugged terrain. Access to the more remote northern portion of the claim group is by helicopter from Pemberton, 30 kilometers southwest of the property. The eastern portion of the claim group is crossed by a B.C. Hydro access road with an extremely rough 4x4 road extending up McGillivray Creek to McGillivray forks near the center of the claim block. These two roads provide access to about 60% of this claim block but are of limited use because of very steep terrain with roads confined to valley bottoms.

The Truck/Paymaster Project is located 5 kilometers southeast of Bralorne and the Butte X-Cal Project is located 12 kilometers southeast of Bralorne (Plate 2). Both of these properties are south of Cadwallader Creek at elevations ranging from 1200 to 2300 meters in an area of extremely steep, precipitous terrain. Access to these two claim blocks is by helicopter from Pemberton 45 kilometers to the south, or from Lillooet 56 kilometers to the east. At present, a rough road extends along the north side of Cadwallader Creek only to the eastern edge of the Butte-X-Cal claim. A bridge across Cadwallader Creek is required to access the lower areas of this claim. The Bralorne ski hill road ends 0.5 kilometer north of the Truck claim, providing access to parts of this claim. Although very close to the claims, both of these roads are of limited use unless extended



HUDSON BAY EXPLORATION & DEVELOPMENT COMPANY LIMITED

VANCOUVER OFFICE

ANDERSON LAKE, BUTTE X-CAL & TRUCK - PAYMASTER PROJECTS

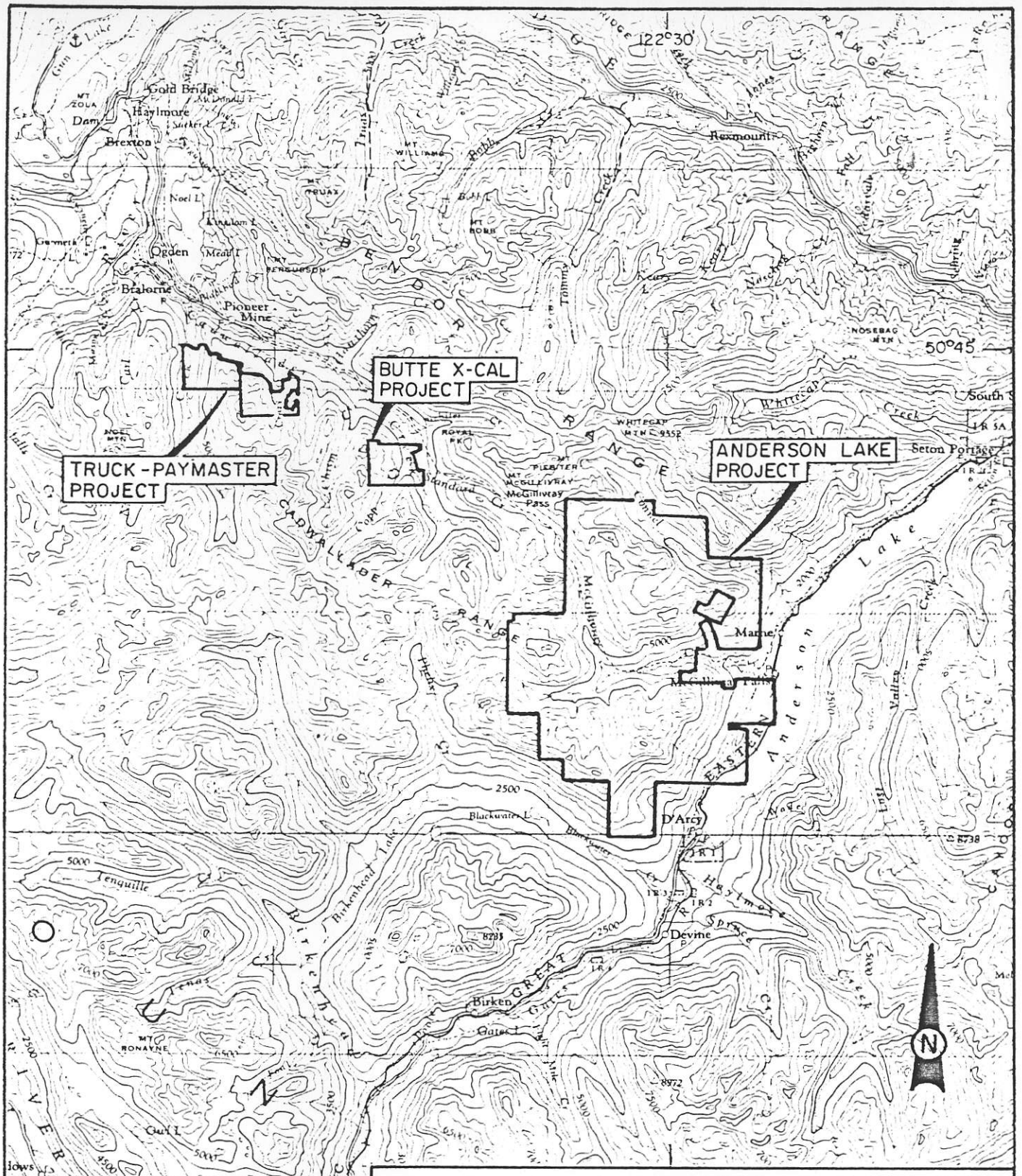
LOCATION MAP

N.T.S. 92J - 9, 10

LILLOOET M.D., B.C.

DRAWN BY: M. LANCASTER	DATE:	APPROVED BY
BRITISH COLUMBIA	SCALE 1:7,500,000 (0, 100, 200, 300 KM)	PLATE NO. 1

CHONG



HUDSON BAY EXPLORATION & DEVELOPMENT COMPANY LIMITED

VANCOUVER OFFICE

ANDERSON LAKE, BUTTE X-CAL, TRUCK-PAYMASTER PROJECTS

ACCESS MAP

N.T.S. 92J-9,10

LILLOOET M.D., B.C.

DRAWN BY: M. LANCASTER	DATE: OCT. 1985	APPROVED BY:
	SCALE 1:250,000 (0 5 10 KM.)	PLATE No. 2

CHONG

to a higher elevation to provide easier access to central and higher sections of the claim blocks.

All three properties have an excellent location with regards to infrastructure. A B.C. Hydro high voltage transmission line and B.C. Rail mainline both cross the eastern portion of the Anderson Lake claim block providing readily available power and rail transportation. The village of D'Arcy, 3 kilometers southeast of the Anderson Lake claim block and the town of Pemberton 30 kilometers distance on an all weather highway both provide excellent townsite facilities. Truck/Paymaster and Butte-X-Cal claims are within 5 and 12 kilometers respectively of available power at Bralorne. The village of Goldbridge, 8 kilometers north of Bralorne, could provide a townsite if the need arises.

CLIMATE

These three properties share essentially the same climatic conditions. Winters are moderately cold with snow accumulation depending on elevation. Mountain tops average 3-5 meters of snow lasting until late June while valley bottoms and the area along Anderson Lake average 1-2 meters of snow lasting until mid to late May. Summers are hot and dry near Anderson Lake and normally moderately hot with some precipitation along ridges. Summer 1985 was an exception with essentially no rain for 3 months.

CLAIMS

Hudson Bay Exploration and Development Company Limited optioned all claims from X-Cal Resources Limited, 503-470 Granville Street, Vancouver, B.C., V6C 1V5 (Plate 3). X-Cal has acquired by staking all claims except Mac 1 and Mac 2. Both of these claims are optioned by X-Cal from Mr. Bill McConechy, Computer Worker, Box 2803, Hinton Alberta.

This large number of claims is split into three separate option agreements between Hudson Bay and X-Cal.

1. Anderson Lake Option: This agreement includes all 27 X-Cal claims and the two Mac claims for a total of 494 units. The next option payment of $25,000 is due on 24 April 1986.

2. Truck and Paymaster Option: This agreement includes the Truck and Paymaster claims for a total of 40 units. The next option payment of $10,000 in due on 24 April 1986.

3. Butte-X-Cal Option: This agreement includes the Butte-X-Cal claim totalling 20 units. The next option payment of $10,000 is due on 24 April 1986.

T A B L E 1

CLAIM DATA

CLAIM NAME	RECORD NO.	NUMBER OF UNITS	DATE RECORDED	EXPIRY DATE (as of Nov'85)
X-Cal 1	2329	20	28 Mar 83	28 Mar 87
X-Cal 2	2330	20	28 Mar 83	28 Mar 87
X-Cal 3B	2331	20	28 Mar 83	28 Mar 87
X-Cal 4	2332	10	28 Mar 83	28 Mar 88
X-Cal 5	2333	20	28 Mar 83	28 Mar 87
X-Cal 6	2334	20	28 Mar 83	28 Mar 87
X-Cal 7	2335	20	28 Mar 83	28 Mar 87
X-Cal 8	2336	20	28 Mar 83	28 Mar 87
X-Cal 9	2337	20	28 Mar 83	28 Mar 87
X-Cal 10	2338	12	28 Mar 83	28 Mar 87
X-Cal 11	2339	20	28 Mar 83	28 Mar 88
X-Cal 12	2340	20	28 Mar 83	28 Mar 87
X-Cal 13	2341	20	05 Apr 83	05 Apr 87
X-Cal 14	2342	20	28 Mar 83	28 Mar 87
X-Cal 15	2343	20	28 Mar 83	28 Mar 87
X-Cal 16	2344	20	05 Apr 83	05 Apr 87
X-Cal 17	2345	20	05 Apr 83	05 Apr 87
X-Cal 18	2346	20	05 Apr 83	05 Apr 87
X-Cal 19	2347	20	05 Apr 83	05 Apr 87
X-Cal 20	2666	12	02 Dec 83	02 Dec 86
X-Cal 21	2661	20	02 Dec 83	02 Dec 86
X-Cal 22	2665	18	02 Dec 83	02 Dec 86
X-Cal 23	2667	9	02 Dec 83	02 Dec 86
X-Cal 24	2664	9	02 Dec 83	02 Dec 86
X-Cal 25	2717	20	14 Feb 84	14 Feb 87
X-Cal 26	2718	16	14 Feb 84	14 Feb 87
X-Cal 27	2719	8	14 Feb 84	14 Feb 88
Butte-X-Cal	2301	20	14 Feb 83	14 Feb 86
Truck	2304	20	14 Feb 83	14 Feb 87
Paymaster	2305	20	14 Feb 83	14 Feb 87
Mac 1 *	1827	10	13 Aug 81	13 Aug 86
Mac 2 *	1828	10	13 Aug 81	13 Aug 86

*Hudson Bay dropped the option on these claims 25 July, 1985.

REGIONAL GEOLOGY

The Bridge River gold camp is within the Pemberton map sheet 92J by Roddick and Hutchison (1973) and Woodsworth (1977). The geology and mineral deposit descriptions of the Bridge River area are reported by McCann (1922). Cairnes (1937, 1943), Joubin (1948), and have been summarized by Pearson (1975) and Woodsworth et al (1977).

Regionally, the area of interest lies at the border between the western Coast Range Plutonic Complex and the eastern Intermontane Belt. Late Cretaceous to Early Tertiary Bendor Intrusives composed of granodiorite and quartz diorite have cut Triassic and Cretaceous strata of a large complex, northwest plunging antiform. The Triassic-Jurassic Bridge River (Ferguson) Group, an oceanic assemblage of argillites, cherts, basalts, pelites, and ultramafics form the core of this antiform. Conformably overlying these rocks is Upper Triassic Cadwallader Group consisting of basal Noel Formation argillites and tuffs, middle Pioneer Formation consisting of volcanics and intrusive equivalents and upper Hurley Formation consisting of sediments and volcanics.

As host to Bralorne veins, Bralorne Intrusives, part of the Pioneer Formation, are of particular interest. These intrusives occur along a belt of extremely complex folded and faulted Bridge River Group, Cadwallader Group and ultramafic rocks. Bralorne Intrusives are extraordinarily complex and variable in composition, ranging thru augite diorite, gabbro, amphibolite and greenstone. Of particular importance within Bralorne Intrusives are soda granites and albitite dykes, both of which have a close association with gold bearing quartz veins.

EXPLORATION HISTORY

Bralorne Area

Gold was discovered in the Bridge River, Cadwallader Creek area in 1896. This district subsequently became the most productive in Western Canada. Including both Bralorne and Pioneer Mines, this camp produced approximately 7.95 million tons averaging 0.522 oz/ton gold and 0.12 oz/ton silver for an Au/Ag ratio of 4:1. Ore bodies consisting of ribboned quartz veins were mined from surface to a depth of 1875 meters with no observable change in mineralogy or gold values. Veins averaged one meter in width with most ore shoots under 250 meters in length. Sulphide content within ore shoots ranged from 1 to 3 percent by volume.

Anderson Lake Project Area

Included within this 494 unit project area are two old gold prospects, Gold Hill and Diorite. Both of these prospects were explored by hand pitting and limited underground workings in 1932-33. Results of Hudson Bay's sampling of these prospects are discussed under the section entitled Property Geology.

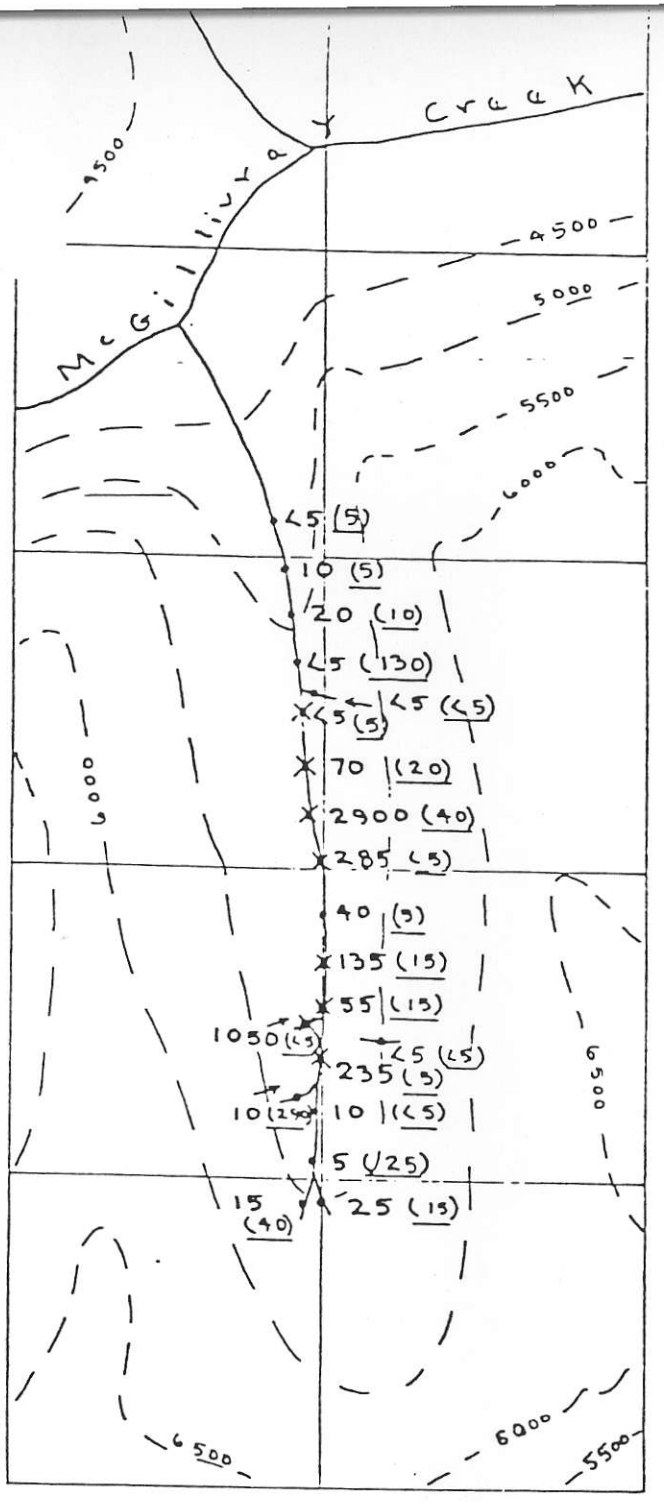
Surrounded by, but not included in, Hudson Bay's claim group is the Anderson Lake Mine which was discovered in 1878. Between 1900-1904, 674 oz of gold were recovered from 8,890 tons of quartz (0.07 oz/ton) and in 1910, 300 tons were milled yielding 7 oz gold (0.02 oz/ton). During 1929 and 1932-34, work continued on 3 levels but no production was recorded. From 1947 thru 1953, 3 additional levels were explored and diamond drilling was carried out. From 1960 to 1962 a 100 ton/day concentrator was built and about 927 tons were reported to have been processed yielding 7 oz of gold (0.007 oz/ton). This

property has been idle ever since.

The vein strikes north and dips 65-70° westerly. It is conformable with enclosing black slates and varies greatly in width, ranging from 0.3-4.8 meters. This vein is mineralized with pyrite, contains visible gold and is ribboned. Early recorded recoveries of 0.07 oz/ton may be low as the stamp mill is reported to have only recovered 50% of the gold. Reportedly some very high assays have been obtained from these veins, however, with coarse visible gold, very erratic results should be expected.

Recent sctivity on the Anderson Lake claim block has been confined to silt and heavy mineral sampling by X-Cal Resources, Placer, Noranda and Silver Standard Mines. During 1979 a prospector funded by Silver Standard Mines worked along D'Arcy Creek and the South Fork of McGillivray Creek. Panned concentrates and silt sampling produced anomalies in both creeks, however, no bedrock source for this gold was ever found. Gold values range from 5-2900 ppb in heavies and 5 - 290 ppb in silts on the South Fork of McGillivray Creek (Plate 4). D'Arcy Creek gold values are in the 5 - 725 range for heavies and 5 - 75 ppb for silts (Plate 5).

X-Cal Resources collected 58 heavy mineral samples in late 1983 covering all main drainages in the Anderson Lake claim block. These samples were analyzed for Au, Ag, As, Sb, W and Zn. Samples were obtained by panning stream gravels down to approximately 8 ounces and then combining these panned concentrates to form a single 5 to 7 pound sample. Gravel for panning was obtained from several sites within a short length of stream bed. Essentially, samples sent to the lab were entirely a panned concentrate representing a very large initial sample. In this writers opinion, this method of sampling could produce values much higher than normally expected in heavy mineral sampling. X-Cal heavy mineral values cannot be compared with Hudson



McGILLIVRAY PROJECT
S FORK McGILLIVRAY CREEK
GOLD VALUES IN PPB

Pan concentrates (ppb) 10

Silt samples (ppb) (5)

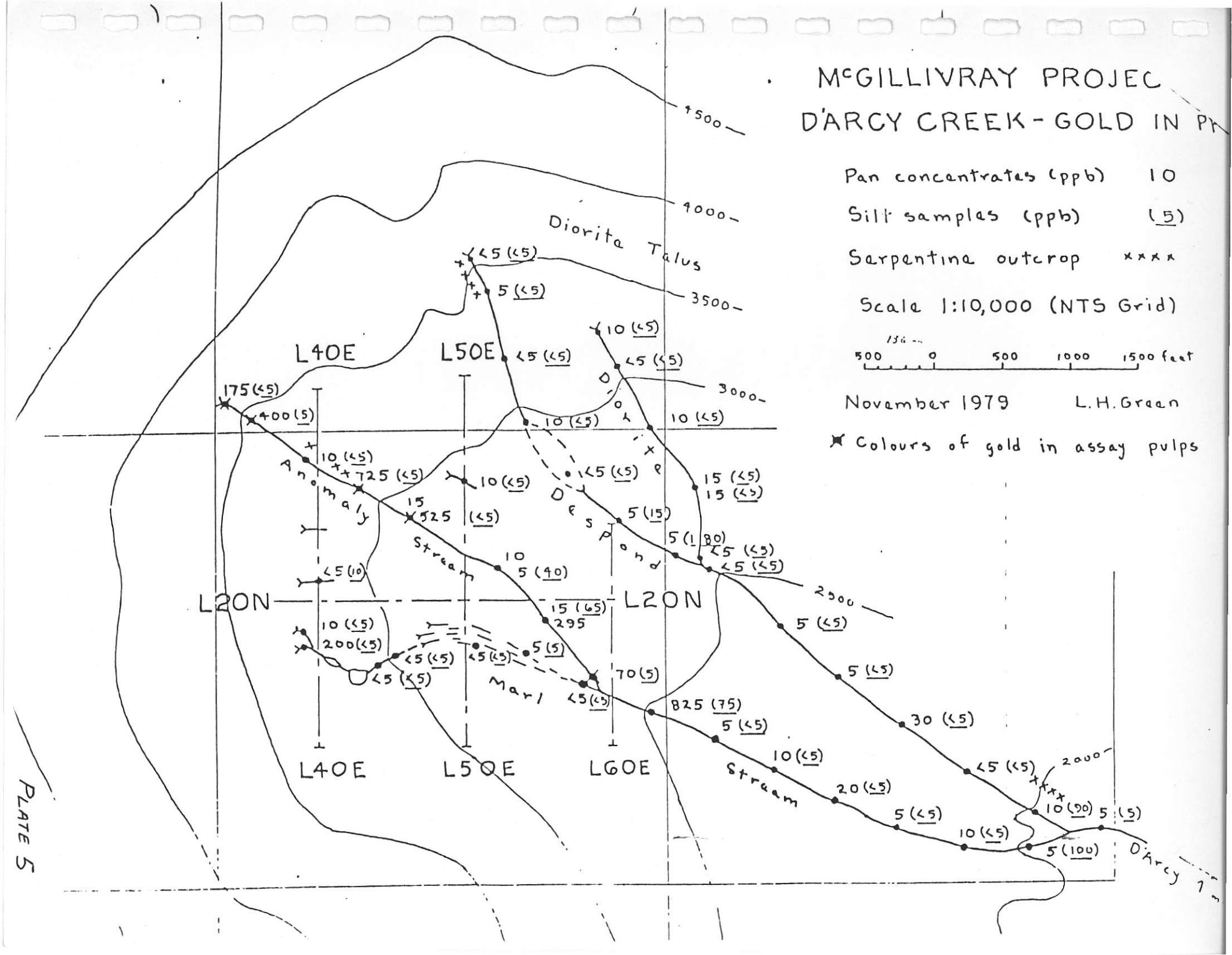
Scale 1:25,000 (NTS Grid)

0 500 2000 feet

November 1979 L. H. Green

× Colours of gold panned from assay pulps

PLATE 4


McGILLIVRAY PROJEC
D'ARCY CREEK - GOLD IN PR
Pan concentrates (ppb) 10
Silt samples (ppb) (5)
Serpentine outcrop ××××
Scale 1:10,000 (NTS Grid)
500 0 500 1000 1500 feet
November 1979 L.H. Green
Colours of gold in assay pulps
1500
4000
3500
3000
2500
2000
Diorite Talus
L40E
L50E
L60E
L20N
Anomaly
Stream
Marl
Pond
Stream
D'Arcy
<5 (<5)
5 (<5)
10 (<5)
175 (<5)
400 (5)
725 (<5)
525 (<5)
10 (40)
15 (65)
295
<5 (10)
200 (<5)
5 (5)
70 (5)
825 (75)
30 (<5)
20 (<5)
10 (20)
5 (100)
5 (15)
5 (180)
15 (<5)
PLATE 5

Bay values as the initial sample sizes are totally different.

As a result of X-Cal sampling, Noranda and Placer both examined this ground, focusing on areas in which X-Cal had the best results.

Noranda concluded that two areas deserved further exploration. The first area covers the flanks of Star Mtn. where ribbon chert is found in talus. Hudson Bay located and sampled this material with negative results. The second area recommended for follow up was along the South Fork of McGillivray Creek where gold values are now thought to be related to quartz veining. Values in heavy mineral samples ranged from 20 - 1400 ppb Soils and rock samples contained only very scattered gold values in excess of 100 ppb. This area was extensively sampled and prospected by Hudson Bay and is further discussed under Geochemical Results.

Placer also examined Star Mtn. and South Fork areas concluding that more detailed work would be required along the South Fork where anomolous heavy mineral samples were obtained. Gold values from Placer's sampling ranged from 400 - 2700 ppb.

Truck/Paymaster Project Area

Within Hudson Bay's Truck and Paymaster claims, no old workings of any significance are known. Only one very old 1 meter square pit on a quartz stringer was located on the Truck claim.

The Paymaster occurrence is on two crown granted claims surrounded by Hudson Bay's Paymaster claim. This showing is exposed by old pits and cuts made in 1930-1932. Reportedly, this showing consists of an albitite dyke cutting, Bralorne Intrusive, Pioneer volcanics and serpentite. Reportedly pyrrhotite is disseminated throughout the dyke, which also includes irregularly distributed

quartz stringers with associated pyrite. No values were reported.

Butte-X-Cal Project Area

Within this claim group Butte IXL workings consisted of an adit and shaft, both of which are now inaccessible. These workings were made in 1933, the last time any amount of activity took place. Reportedly, two quartz veins, one in sediments and one in volcanics were exposed in these workings. Pyrrhotite, chalcopyrite, sphalerite and minor pyrite, galena and arsenopyrite were found within the veins. Select grab samples of dump vein material contained 65 ppb Au (Hudson Bay) and 120 ppb gold (X-Cal).

North of Aggie Creek, 3 old adits were located between 5200-6100 feet elevation. These workings were all driven on aplite dykes with minor associated quartz veining by Red Hawk Gold Mines around 1933. Hudson Bay sampling of dump material failed to reveal any anomolous values.

PROPERTY GEOLOGY

Rock Descriptions

In general, geologic descriptions of rock units are the same for all three areas. This writer followed G.S.C. mapping as closely as possible in designating rock units. In many areas, separating Hurley and Noel rocks is difficult to impossible and in many places, Bridge River Group can also be confused with Hurley and Noel. This writer has for the most part accepted that G.S.C. mapping is correct as to which group or formation is present within a given area. One exception is G.S.C. Unit 15a, Eocene dacitic volcanics and porphyries which have been included with Triassic Bridge River Group for this report.

Triassic and Jurassic Bridge River (Ferguson) Group

These are the oldest stratified rocks in this region and are exposed along a wide axial zone of a broad, complex antiformal structure.

This group consists mainly of a thick sequence of thin bedded argillite, cherty argillite and phyllite intercalated with altered basaltic flows and very minor limestone. The thickness of this assemblege is not known because of complex folding and faulting and lack of marker horizons.

On Hudson Bay claim groups, dark argillite is dominant. These argillaceous sediments as a general rule are not limy. Some individual areas are calcareous but these are widely spaced and of limited extent. Cherty argillite is present but not nearly as common as argillite. Chert commonly forms lensoid and nodular layers up to

8 cm in thickness separated by argillaceous material. Large sections of ribbon chert normally common in Bridge River Group are not found on Hudson Bay ground. Areas of chert are denoted with an "S" on accompanying geological maps (Plates 6-10). Three relatively large plus 10 meter thick chert horizons are mapped on the Anderson Lake claim block. One of these is west of Anderson Lake, one is east of the South Fork of McGillivray Creek and one is northwest of Star Mtn. in the extreme northwest corner of this claim block. All these areas contain a massive, grey to greyish white, veined, and finely brecciated chert. This minute veining is probably due to fracturing subsequent to consolidation with fractures being healed with recrystallized quartz obtained from the cherts themselves. Much smaller 1 meter wide siliceous shear zones are mapped on the flanks of Star Mtn. These zones appear to be similar to larger chert horizons in the same area. According to the G.S.C., this chert is a chemical precipitate from solutions that emanate in part from associated volcanic rocks and in part from submarine siliceous springs.

Grey-green to chocolate-brown weathering massive greenstone is resistant to weathering, thereby forming more extensive outcrops than the recessive weathering sediments. This greenstone is andesitic to basaltic in composition and appears to have been flows or breccias. Locally, this rock is amygdaloidal and in a few places exhibits pillow structure. Often, these rocks contain blebs and whisps of medium grained white calcite.

Bridge River Group includes a very minor amount of interbedded grey to white, medium grained, crystalline limestone occuring in lens like masses. This limestone is of negligible volume compared to the Bridge River Group on a whole. (See appendix B for a listing of geochemical signatures for various rock types)

Triassic and Jurassic Ultramafic Rocks

Red-brown to orange weathering harzburgite and tan weathering dunite form large ultramafic masses along Cadwallader Creek. These rocks are steatized in part. Serpentinization of these large masses is moderate to strong throughout the rock as a whole and is intense towards contacts with surrounding country rock. All ultramafic contacts are moderately to intensely sheared, often forming "fish-scale" serpentine. In this writers opinion, numerous small dyke like bodies of strongly sheared, 100% serpentine are indicative of large scale faulting and are the basis for many of the faults shown on geology maps. Similarily, the large ultramafic bodies have been emplaced by faulting in this writers opinion.

Of particular interest are listwanites occuring within sheared contact zones of ultramafic bodies. These zones are composed of quartz, carbonate, and talc altered ultramafic rock. They are conspicuous because of their light color on weathered surfaces and their pale whitish-cream color on fresh surfaces. On accompanying geologic maps, this rock is distinguished by a cross-hatch pattern. These rocks are an important host to gold mineralization in many parts of the world. On Hudson Bay claims, listwanite is present but is too restricted in volume to be of economic interest. Values of 28 ppb Au and 1.2 ppm Ag are low but still indicative that in general, these rocks have elevated Au-Ag values as compared to regular background levels for other rock types.

Upper Triassic Noel Formation

Noel Formation is the basal member of the Cadwallader Group. On Hudson Bay claims, Noel rocks crop out south of Cadwallader Creek mainly on Butte-X-Cal and Paymaster claims (Plate 2 & 10) as thin banded argillaceous-tuffaceous rocks. Dark grey to black argillite forms thin wavy layers separated by lighter grey slightly coarser

grained beds. These coarse grained beds are tuffs according to the G.S.C. This writer suggests the possibility that these rocks are greywackes rather than tuffs.

Upper Triassic Pioneer Formation

This Formation, the middle member of the Cadwallader Group is essentially composed of andesitic to basaltic volcanics and pyroclastics but also includes intrusive phases, namely Bralorne Intrusives. These rocks are resistant to weathering and form some of the most precipitous areas in this entire region. Volcanics are typically light to dark green in color, massive and fine grained. However, textural gradations to massive, finely crystalline, greenstones are common and in many places much difficulty is experienced in separating such rocks from later fine grained dioritic intrusives. Ellipsoidal structures are rare. Pyroclastics are intimately associated with volcanic flows. Composition, texture and structure of Pioneer greenstone varies greatly from place to place. Pioneer volcanics tend to contain minor pyrite and/or pyrrhotite as very fine grained, disseminated specs and crystals.

Bralorne Intrusives host Bralorne-Pioneer Mines quartz veins and are therefore the most important rock type in this camp. Bralorne Intrusives include, soda granite, gabbro, pyroxenite, augite diorite, hornblende diorite, greenstone diorite, quartz diorite, aplite and amphibolite. Dioritic rocks are most common and are dark greenish in color with an irregular texture, characteristically converted to an angular agmatite by a network of light colored veins and veinlets. These vary from aplite to mixtures of epidote, zoisite, carbonate and quartz. Diorite within a small outcrop ranges from very fine grained where it is indistinguishable from Pioneer greenstone to coarse grained. Gabbroic areas of Bralorne Intrusive are conspicuous because of surficial iron stain from weathering magnetite and pyrite.

Relationships between Pioneer greenstone and Bralorne Intrusives are controversial. Both of these rocks grade into one another and separation in the field can be most difficult. According to the G.S.C. (Cairnes), two diorites are present, one formed either from the greenstone or as a more slowly cooled phase of it and a later intrusive diorite. Soda granite associated with gold bearing quartz veins is related to the later intrusive diorite. In this writers opinion, most of the diorite on Hudson Bay claims is the earlier greenstone diorite.

While Bralorne Intrusive and Pioneer greenstone can have gradational contacts, elsewhere contacts between these rocks and enclosing sediments are usually a fault zone.

Upper Triassic Hurley Formation

Hurley Formation is the upper member of the Cadwallader Group and in most places is indistinguishable from Noel rocks. This formation is mainly composed of thin banded argillaceous and tuffaceous rocks. This writer suggests that some of these tuffaceous rocks are actually greywackes. Green andesitic flows comprise part of this formation. Hurley sediments are supposedly distinctly limy, but this is not found to be the case as only one section north of Scutt Creek (Plate 7) is found to be calcareous. Here, interbedded tuff and limy argillite with chert nodules and grey whisps of calcite crop out for 100 meters along the ridge.

Tertiary and Upper Cretaceous Intrusives

Forming part of the Coast Range Plutonic Complex, these intrusives are composed of granodiorite and quartz diorite. These are massive, fresh appearing, cliff forming rocks with a widely spaced joint pattern. A zone of hornfels up to 100 meters in width surrounds

the plutons. This is shown on Plates 6 & 7 by diagonal lines. These plutons are the source of many dykes found within the claims.

Eocene Granite

The only occurrence of this granite is a small plug exposed on the shore of Anderson Lake (Plate 7). This rock is fine grained, salmon pink in color, unaltered, vuggy, and weak to moderately jointed. Granite forms very steep, precipitous cliffs along the lake shore. Several granite dykes related to this plug are found in the surrounding Bridge River Group.

Anderson Lake Project Area (Plates 6 & 7)

This summers mapping has confirmed the existence of the Cadwallader Fault Structure along the east side of the North Fork of McGillivary Creek, along the ridge east of the South Fork of McGillvary Creek and into D'Arcy Creek at the south end of Anderson Lake. The very complex, faulted geologic picture presented by the G.S.C. around the Bralorne deposit continues south along the Cadwallader Structure. If the G.S.C. had the same degree of detailed mapping available south of Bralorne as it does in the vicinity of Bralorne, this writer is of the opinion the same degree of complexity of geology would be shown to extend from Bralorne to Anderson Lake. This major fault zone is an ideal area to prospect for quartz veins similar to those at Bralorne as the geologic setting is very similar to that at the Bralorne mine. Minor quartz float found in many of the small streams is evidence that quartz veining does exist along this structure.

Underground workings on the Diorite showing (Plate 31) confirm the existence of quartz veining along the Cadwallader Structure. A 120 meter adit exposes a faulted, white, ribboned, quartz vein

contained within Bralorne Intrusive. Detailed rock sampling of vein and wallrock failed to produce anomalous results with gold values all 1 or 2 ppb.

The Gold Hill showing also confirms the presence of quartz veining. A large quartz vein crops out on the easterly ridge above McGillivary Creek forks. Here the vein is reported to have been traced for 150 meters in 1932. This vein occupies a shear in a grey, siliceous, argillite. Vein width is between 6-8 meters with one assay of 0.12 oz/ton Au reported in 1932. Hudson Bay sampling had a result of 1 ppb Au in this vein and 110 ppb Au in the siliceous wallrock. Reportedly, an adit 33 meters in length with 2 crosscuts of 6 and 36 meters in length was driven on the vein with only the longer crosscut exposing vein material. A lower level and some pitting is also reported, however, no firm evidence for any of this work has been found in 1985. Ground sluicing is still in evidence with a large trench used for this purpose indicated on Plate 25.

A second group of Gold Hill workings on the ridge west of McGillivray forks has been located and sampled. Several pits and a short 22.7 meter adit expose narrow stockwork type quartz veining in a light grey, fine grained, aplitic intrusive. All samples of quartz and wallrock contain negligible gold. One sample of selected vein material contain 10.2 ppm Ag and 275 ppm Pb. This showing is both too small and too low grade to be of interest.

Bralorne Intrusive, host to gold veins at Bralorne is much more extensive on the Anderson Lake claim block than originally thought based on G.S.C. mapping. These rocks contain many quartz veins, pods, and stringers, all of which when sampled have negative results.

Calcareous and siliceous rocks within sedimentary and volcanic rock packages are specific targets for evaluation. While a few small

zones of limy rocks are encountered, the vast majority of this claim block does not contain calcareous rock. Siliceous zones within volcanics and sediments are even less common. Three areas of chert, one in the northwest corner of the claim block, one along the east side of the South Fork of McGillivray Creek and one at the Ponderosa road turnoff have been mapped and sampled with negative results.

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A brief examination of Levon ground northeast of Bralorne was made in early September. Surface indications of mineralization consist of conspicuous, rusty, iron stained shears with hydrothermal bleaching of hanging wall rocks and minor quartz veining. These shears are best expressed in road cuts as the recessive nature of the enclosing volcanic/sedimentary package leads to overburden masking the shears. On the Anderson Lake block, one such shear was noted in a railroad cut along Anderson Lake, however, this shear is only 1 - 2 cm in width. This shear has values of 3 ppm Ag, 282 ppm As, 14 ppm Sb, 30 ppb Au and 340 ppb Hg, indicative of weak hydrothermal activity such as found on Levon's ground. This is the only shear of this type found on the Anderson Lake claim block.

Several zones of listwanite have been mapped along faults on this claim block. These areas are all too restricted in extent to be of economic interest. These listwanites contain some anomolous As and Hg values, however, precious metal values are all at background levels.

Truck/Paymaster Project Areas (Plates 8 & 9)

Approximately one third of this project area is underlain by moderately serpentinized ultramafic rocks. These rocks have been emplaced by large scale faulting as evidenced by the intensely sheared and serpentinized contact zones. Much of the remainder of the Paymaster claim is underlain by Pioneer greenstone and Bralorne Intrusive. All of these rocks are resistant to weathering, therefore these areas contain considerable outcrop that has been intensely prospected in the past with negative results. A small package of recessive weathering Noel sediments form a wedge between the ultramafics and Pioneer rocks.

The remainder of the Truck claim is underlain by Bridge River Group. These rocks form extremely steep, precipitous cliffs along Noel Creek. Silica forms a much greater portion of the sedimentary/volcanic package here as compared to similar rocks on the Anderson Lake claim block.

Butte-X-Cal Project Area (Plate 10)

This claim contains two fault bounded ultramafic bodies. The southwestern body has more listwanite along its contacts than the northeastern ultramafic. Values of 28 ppb Au and 1.6 ppm Ag although slightly anomalous, are of negligible interest because of a restricted size potential.

This claim contains very extensive outcrop in a region underlain by ultramafic and Pioneer Formation rocks. Extremely intense prospecting in the past has resulted in test pits or underground workings being found on all visible quartz veining. Most veining is associated with aplite dykes with results of Hudson Bay sampling of both quartz veins and surrounding wallrock being negative. Noel sediments where present on the claim group are barren of any mineralization.

GEOCHEMICAL SURVEY RESULTS

Sample Collection Procedures

The evaluation of Anderson Lake, Truck/Paymaster and Butte-X-Cal Project areas was essentially conducted by a geochemical sampling program. Between 2 May - 28 July, 11 Aug - 14 Sept and 8 Oct - 9 Oct 1985, a 2-4 man crew collected 4038 samples. These included 284 silt samples, 190 heavy mineral samples, 637 rock samples and 2927 soil samples. All samples were analyzed by Acme Analytical Laboratories Ltd, 852 E. Hastings Street, Vancouver, B.C., V6A 1R6. All sample results are listed in Appendix A.

Sample collection and laboratory procedures remained relatively constant throughout the entire program. All sample sites are identified in the field with fluorescent orange or pink flagging. Silt samples composed of silt and unsorted gravel were collected by hand from active sections of stream bed. A standard 4" x 7" wet strength waterproof kraft sample bag was filled with material, air dried and shipped to the lab.

Soils were collected on a 50-100 meter spacing for reconnaissance sampling and on flagged grid lines for detailed work. On the Butte-X-Cal and Truck/Paymaster programs, soil lines were run as flagged contour lines by altimeter with samples 50 meters apart on lines 400 feet apart. On the Anderson project, grids were established in both D'Arcy Creek and in the South Fork of McGillivray Creek. Samples were collected at a 25 meter spacing along lines 200 meters apart. Lines were run by compass and hip chain without slope corrections. Samples were collected with grub-hoes and consist mainly of grey-brown residual soil taken at 5-35 cm depth. If possible, samples were obtained in the B horixon just below the A horizon.

Because of steep slopes, many samples had to be obtained from the C horizon as B horizon soil had not developed. Talus slopes presented a problem, here samples consist of small rock chips if the talus is coarse or rock flour if the talus is fine. Soil samples were placed in similar kraft envelopes as silts, air dried and shipped to the lab.

Bridge River ash, a white pumice with an age of 2,440±140 years covers part of the project area. This ash tends to be less extensive on steep slopes as compared to the base of slopes or relatively flat ground. When ash was encountered, soil samples were taken from beneath this ash layer.

Heavy mineral samples were collected from active stream channels utilizing a D handle shovel. Samples were obtained from one spot in the stream bed with a hole being dug to at least 35 cm in depth. A 5-17 kg sample was screened to obtain a minimum of 1 kg of -20 mesh material with oversize material discarded. Hudson Bay had a set of screens prepared using ordinary gold pans. The bottom 2 cm of a pan was removed and a 20 mesh screen bolted in place. When in use, two pans were held tightly together and water was then passed through the material on the screen. Care was taken to ensure that all -20 mesh material in the sample was collected. Again, when transferring samples from pans to plastic bags for weighing or shipping, great care was taken to ensure all the sample was saved. Small handfuls of water were gently splashed into the gold pan to remove the last traces of heavy minerals adhering to the bottom of the pan. Samples were weighed in plastic bags using portable hand held fish scales. After screening, -20 mesh material, was panned to a 500 gm sample and then shipped to Acme for further processing.

A second panned sample was collected at each heavy mineral site this past summer. This sample is wet panned to a heavy mineral concentrate in the field and very carefully transferred to a plastic

sandwich bag. Later, at camp, this sample is examined microscopically for the presence of gold, sulphides, and quartz. So far, three samples with visible gold are identified on the Anderson Lake claim block. These samples (J 118H, J207H, and L256H) each contain one tiny nugget of native gold approximately the size of a magnetite crystal (0.25mm). These samples are all on small creeks or tributaries draining a 4 km section of Cadwallader Fault Structure on both sides of McGillivray forks. Two of these samples indicate a gold source along the South Fork of McGillivray Creek. This writer is of the opinion that although time consuming, microscopic examination of heavy mineral concentrate is a beneficial exercise. To date, results of this summers work reinforce the Cadwallader Structure as the prime gold target on Hudson Bay ground.

Rock samples were collected and placed in standard 7" x 13" plastic bags. Rock chips were usually smaller than 5 cm and were collected over several square meters of outcrop to get a more representative geochemical signature for the outcrop as a whole.

Laboratory Procedure

Laboratory analytical procedures are identical for various types of samples once a sample has been prepared for analysis. Preparation of silt and soil samples includes drying at 60°C and screening to -80 mesh. Rock samples are pulverized to -100 mesh. Heavy mineral samples are sieved to -20 mesh and wet panned to approximately 300 grams. The sample is then dried and separated using tetrabromeothane having a density of 2.96. The sample is again dried, magnetic fraction removed, hand pulvarized and weighed.

For ICP and AA silver analysis, a 0.5 gram sample is digested with 3 ml 3-1-2 $HCl-HNO_3-H_2O$ at 95°C for 1 hour and then diluted to 10 ml with water. For Hg analysis, a 0.5 gm sample is digested with aqua

regia and diluted with 20% HCl. Hg in solution is determined by cold vapour AA using a F&J scientific Hg assembly. An aliquot of extract is added to a stannous chlorite/hydrochloric acid solution. The reduced Hg is swept out of solution and passed into a Hg cell where it is measured by AA. For Au analysis, a 10-30 gm sample is subjected to fire assay preconcentration techniques to produce silver beads. These silver beads are dissolved and Au is determined in solution by graphite furnace AA. For heavy mineral samples, the entire heavy mineral concentrate was analyzed whenever possible. Table 3 identifies samples on which gold determinations were carried out on only part of the heavy mineral concentrate.

Statistical Procedures

All geochemical data has been partitioned from cumulative frequency curves on probability paper with Appendix C containing the plots and Table 2 summarizing results. Data is partitioned using Sinclair's method with resulting populations mathematically recombined as a check on partitioning accuracy. This recombined curve must plot within the 95% confidence level using Lepeltier's nomogram before being acceptable. All silt, soil and heavy mineral anomalous values are derived from data sets with two populations, a smaller anomalous population and a larger background population. Background, threshold, 2nd order and 1st order anomalous values are determined using 2½% (95% confidence level) and 1% positions on the partitioned population (Appendix C). Normally, background values comprise 97.5%-100% of the background population. In cases with badly overlapping, populations, 2nd order anomalous values may include the upper 2½% of the background population. This occurs for Ba, As and Au heavy mineral values, Ag and Ba silt values and Anderson Lake Au soil values.

Silt, soil and heavy mineral samples are coded based on values in table 2 as to background, threshold, 2nd order and 1st order anomalies on Plates 21-30. Rock samples are sorted as to rock type in

TABLE 2

GEOCHEMICAL RESULTS

SILTS

	Back-ground	%*	Threshold	%*	2nd Order Anomaly	%*	1st Order Anomaly	%*	Mean +2 SD
Au ppb	0 - 12	92	13 - 16	1.8	17 - 22	0.2	> 22	6	36
Hg ppb	0 - 114	96	115 - 125	0.5	126 - 215	1.9	>215	1.6	148
Pb ppm	0 - 9	70	10	6	11 - 17	20.6	> 17	3.4	16
Ag ppm	0 - 0.4	92	0.5	3.5	0.6	2.3	>0.6	2.2	0.5
As ppm	0 - 285	98.7	286 - 290	0.1	291 - 410	0.2	>410	1	195
Sb ppm	0 - 6	99	7 - 8	0.4	9	0.1	> 9	0.5	4
Bi ppm	0 - 3	90	4	5	5	2	> 5	3	4
Ba ppm	0 - 105	70	106 - 145	12	146 - 172	8	>172	10	207

HEAVY MINERALS

Au ppb	0 - 129	85.5	130 - 219	3.3	220 - 420	2.5	> 420	8.7	1480
Hg ppb	0 - 960	92	961 - 1120	0.8	1121 - 1280	0.7	>1280	6.5	1436
Pb ppm	0 - 6	96	7	0.5	8 - 18	1.5	> 18	2	150
Ag ppm	0 - 1.2	94.5	1.3 - 1.7	1.8	1.8 - 1.9	0.2	> 1.9	3.5	1.8
As ppm	0 - 61	63	62 - 107	12	108 - 140	7	> 140	18	235
Sb ppm	0 - 3	93.5	4	1.5	5	1	> 5	4	5
Bi ppm	0 - 6	92.5	7	0.5	8	1	> 8	6	29
Ba ppm	0 - 67	84	68 - 84	4	85 - 105	7	> 105	5	108

SOILS

Anderson Lake

Au ppb	0 - 13	90.8	14 - 25	4.2	26 - 41	2	> 41	3	46
Ag ppn	0 - 0.7	98	0.8 - 0.9	1.0	1.0	0.4	> 1.0	0.6	0.6

Truck/Paymaster

Au ppb	0 - 10	93.5	11	0	12 - 14	1.7	> 14	4.8	46
Ag ppm	0 - 0.4	98	0.5	0.8	0.6	0.4	> 0.6	0.8	0.4

Butte-X-Cal

Au ppb	0 - 26	95.5	27 - 40	1.7	41 - 44	0.3	> 44	2.5	59
Ag ppm	0 - 0.5	97.8	0.6	0.8	0.7 - 0.8	0.7	> 0.8	0.7	0.5

* % of total population

appendix B. Rock geochemical values on Plates 21-30 are coded only for Au and Ag based on the anomalous levels for these elements in soils for each project area. Hg, As and Sb values are not coded on these plates.

Heavy mineral sample results are subjected to a second method of examination to identify anomalous results. The gold content for each sample is compared to the weight of heavy mineral concentrate and also to the weight of the original 20 mesh sample (Table 3). These results are sorted in descending order in Tables 4 and 5. Table 4 lists the relationship between gold content and weight of heavy mineral concentrate with samples exceeding background based on probability plots shown by an asterisk. It should be noted the 14.5% of the heavy mineral gold population exceeds background based on probability plots. In Table 4, most of the higher valued samples are already identified as anomalous based on probability plot gold statistics. Only at threshold levels do the two methods differ with additional samples being identified for consideration.

Table 5 lists a relationship between gold content and weight of original 20 mesh sample. In this case, there is a 100% overlap of anomalous samples based on the two methods. All samples exceeding background level based on probability plot data also contain the higher ppb/gm values, therefore no additional samples are identified for consideration. In this writers opinion, probability plot analysis of data has identified all valid anomalous results for heavy mineral sampling.

Bralorne Area

Rock samples have been obtained from underground at Bralorne. These character samples are useful in determining a profile of geochemical responses for various rock types close to the vein system.

T A B L E 3

HEAVY MINERAL SAMPLE DATA

Sample No	Initial Weight (kg)	20 Mesh Weight (kg)	Heavy Mineral %	H.M. Weight (gms)	Gold Value (ppb)	Gold/ H.M. Weight (ppb/gm)	Gold/ 20 Mesh Weight (ppb/gm)
L 36H	9.0	1.5	1.39	19.01	3*	0.16	0.002
L 37H	7.5	0.5	2.44	11.73	6*	0.51	0.012
L 38H	8.25	1.5	2.13	22.98	4*	0.17	0.003
L 41H	7.5	2.25	1.70	17.55	460*	26.21	0.204
L 42H	8.0	1.75	4.85	63.99	21*	0.33	0.012
L 43H	9.0	1.5	2.03	22.11	1*	0.04	0.001
L 44H	7.25	2.5	1.28	16.25	160*	9.85	0.064
L 45H	6.0	1.0	2.05	19.85	3*	0.15	0.003
L 46H	9.5	1.5	0.75	10.22	130	12.72	0.087
L 50H	9.5	1.75	2.20	25.98	7*	0.27	0.004
L 51H	8.0	2.5	1.56	18.55	7*	0.38	0.003
L 52H	10.0	1.5	3.02	28.95	3*	0.10	0.002
L 55H	7.0	1.0	2.46	28.98	1*	0.03	0.001
L 56H	8.0	1.5	2.41	29.15	5*	0.17	0.003
L 57H	11.5	2.5	0.60	8.55	4	0.47	0.002
L 86H	7.5	1.25	1.55	18.90	3	0.16	0.002
L 91H	8.5	1.5	2.22	19.10	2	0.10	0.001
L 99H	15.5	1.0	2.00	17.60	3	0.17	0.003
L105H	10.5	0.5	5.22	33.40	2	0.06	0.004
L106H	9.25	1.2	2.98	36.10	1	0.03	0.001
L107H	11.5	1.6	6.24	64.90	12	0.18	0.007
L129H	16.5	1.0	12.40	129.00	10	0.08	0.01
L136H	6.5	1.75	6.68	79.50	2	0.02	0.001
L254H	10.5	0.8	0.95	8.80	4	0.45	0.005
L256H	8.5	0.9	0.43	4.20	60	14.29	0.067
L259H	12.0	1.2	0.09	1.20	1	0.83	0.001
L263H	13.0	1.0	0.69	7.50	50	6.66	0.05
L268H	9.0	1.1	0.71	9.60	40	4.17	0.036
L275H	4.2	1.5	0.52	6.10	32	5.25	0.021
L276H	12.0	1.5	1.14	12.80	42	3.28	0.028
L279H	10.0	1.1	0.96	11.90	6	0.50	0.005
L304H	15.0	1.2	1.28	16.80	2*	0.12	0.002
L305H	15.5	1.0	1.66	19.50	4*	0.20	0.004
L306H	4.0	1.5	1.50	16.90	2*	0.12	0.001
L307H	7.25	1.4	0.99	10.10	2	0.20	0.001
L308H	7.0	1.5	2.52	30.60	3*	0.10	0.002

* 10 gm sample for Au

Sample No	Initial Weight (kg)	20 Mesh Weight (kg)	Heavy Mineral %	H.M. Weight (gms)	Gold Value (ppb)	Gold/ H.M. Weight (ppb/gm)	Gold/ 20 Mesh Weight (ppb/gm)
L311H	2.5	1.0	1.49	16.60	1*	0.06	0.001
L312H	5.0	1.5	3.13	34.20	1*	0.03	0.001
L469H	8.5	1.0			99		0.099
L470H	4.5	1.5			< 29		0.019
L471H	4.0	1.25			20		0.016
L472H	8.5	1.0			< 25		0.025
L473H	8.0	1.0			30		0.03
L474H	9.5	1.25			4860		3.88
L475H	8.75	0.9			2790		3.10
L476H	6.75	1.0			45		0.045
L477H	5.75	1.0			170		0.17
L478H	8.5	0.9			250		0.28
L480H	11.5	1.1			52		0.047
L496H	8.25	1.6	0.18	1.60	27	16.87	0.017
L509H	11.25	1.2	0.72	7.50	80	10.67	0.067
L511H	10.50	1.1	0.85	9.30	1176	126.45	1.069
L514H	7.50	1.2	1.21	13.60	6	0.44	0.005
L516H	10.50	3.5	1.40	9.40	138	14.68	0.039
L519H	5.5	1.75	0.68	6.90	115	16.67	0.066
L529H	7.0	1.5	0.37	5.30	36	6.79	0.024
L531H	7.5	1.1	0.15	1.70	27	15.88	0.024
L567H	7.0	3.2	0.23	2.00	21	10.50	0.006
L570H	10.25	1.6	0.92	8.60	8	0.93	0.005
L573H	7.0	1.7	1.00	7.70	17143	2226.36	10.084
L575H	9.25	3.0	1.27	8.10	6	0.74	0.002
L577H	10.25	2.0	0.34	2.60	1	0.38	0.001
L579H	6.5	2.0	0.41	3.00	13	4.34	0.006
J 14H	8.0	0.7	7.12	55.50	250	4.50	0.357
J 24H	8.75	0.5	2.87	20.40	10	0.49	0.02
J 50H	8.75	1.0	0.02	0.20	700	3500.0	0.700
J 52H	10.0	0.75	1.19	9.90	190	19.19	0.253
J 54H	7.75	0.75	0.44	3.60	3	0.83	0.004
J 58H	9.0	0.5	2.53	10.10	28	2.77	0.056
J 60H	10.0	1.0	5.10	54.10	6	0.11	0.006
J 62H	10.0	1.5	6.33	77.80	480	6.16	0.32
J 64H	9.0	1.25	7.91	102.00	520	5.10	0.416
J 72H	9.0	1.5	9.08	94.40	2	0.02	0.001
J 73H	2.0	0.6	0.02	0.15	1	6.67	0.002
J 94H	8.5	0.6	11.74	113.90	3	0.03	0.005
J 95H	7.5		4.82	44.80	1	0.02	
J 97H	7.0	1.5	3.46	41.50	7	0.17	0.005
J100H	6.5	0.6	3.27	35.00	390	11.14	0.65
J101H	7.25	1.5	2.66	29.80	6	0.20	0.004
J105H	10.0	0.5	11.68	84.10	5	0.06	0.01
J107H	8.5	1.2	9.78	130.10	1	0.01	0.001

* 10 gm sample for Au

Sample No	Initial Weight (kg)	20 Mesh Weight (kg)	Heavy Mineral %	H.M. Weight (gms)	Gold Value (ppb)	Gold/ H.M. Weight (ppb/gm)	Gold/ 20 Mesh Weight (ppb/gm)
J108H	8.5	2.0	8.53	89.60	2	0.02	0.001
J111H	9.0	1.0	0.55	6.60	1	0.15	0.001
J112H	7.0	0.75	1.23	11.30	1	0.09	0.001
J114H	4.75	1.5	3.76	37.60	100	2.64	0.067
J115H	4.50	1.5	1.43	14.90	5000	335.57	3.33
J118H	10.75	1.4	4.27	39.30	25	0.64	0.018
J119H	10.0	1.75	5.28	58.10	2400	41.31	1.37
J120H	3.0	1.8	0.96	10.90	10	0.92	0.005
J126H	8.25	1.0	1.36	13.70	110	8.03	0.110
J130H	8.25	1.0	2.77	26.90	4	0.15	0.004
J148H	2.0	1.1	2.08	27.90	1	0.04	0.001
J149H	2.0	1.1	0.65	7.70	4	0.52	0.004
J151H	7.0	0.8	1.41	13.20	1	0.07	0.001
J152H	13.0	0.5	0.30	2.20	40	18.18	0.08
J155H	4.5	1.0	2.95	35.20	1	0.03	0.001
J157H	7.75	1.0	1.27	14.30	2739	191.54	2.739
J158H	6.25	0.7	0.86	7.30	4	0.55	0.006
J159H	5.25	1.0	0.60	7.10	4	0.56	0.004
J162H	10.25	1.5	0.11	1.40	440	314.28	0.293
J163H	4.25	0.9	0.52	5.70	5	0.88	0.005
J165H	3.25	1.0	0.43	4.70	76	16.17	0.076
J171H	5.75	1.4	2.44	25.40	13	0.51	0.009
J172H	7.50	1.0	0.70	8.20	32	3.90	0.032
J173H	4.75	1.0	0.61	7.50	10	1.33	0.010
J174H	4.0	1.3	1.44	14.70	6	0.41	0.005
J175H	4.75	1.0	0.15	1.80	60	33.33	0.06
J176H	5.75	1.5	3.66	32.60	2	0.06	0.001
J178H	10.5	0.7	0.52	4.50	20	4.44	0.028
J181H	7.75	1.0	1.13	12.60	1	0.08	0.001
J182H	7.75	1.0	0.57	6.70	6	0.89	0.006
J183H	9.75	1.3	2.46	32.50	1	0.03	0.001
J185H	6.0	0.5	3.01	17.20	1	0.06	0.002
J189H	6.0	1.2	0.52	6.90	8	1.16	0.006
J193H	7.25	0.6	0.69	5.40	16	2.96	0.027
J194H	16.75	1.0	0.51	5.80	32	5.52	0.032
J198H	5.75	1.0	0.34	4.20	60	14.28	0.060
J207H	11.75	1.0	0.56	7.00	14	2.0	0.014
J208H	9.75	0.8	1.38	13.20	31*	2.34	0.039
J210H	14.25	1.4	0.89	10.60	6	0.57	0.004
J212H	10.75	1.1	1.74	22.20	16*	0.72	0.014
J524H	8.4	2.0	1.47	15.10	3	0.20	0.001
J526H	5.0	1.5	1.44	11.40	8	0.70	0.005
J529H	7.5	2.0	2.16	26.10	2	0.08	0.001
J531H	6.0	1.5	3.47	40.60	15	0.37	0.01
J533H	6.0	1.25	0.47	5.50	34043	6190.0	27.23
J535H	6.0	1.0	1.25	11.90	5	0.42	0.005

* 10 gm sample for Au

Sample No	Initial Weight (kg)	20 Mesh Weight (kg)	Heavy Mineral %	H.M. Weight (gms)	Gold Value (ppb)	Gold/ H.M. Weight (ppb/gm)	Gold/ 20 Mesh Weight (ppb/gm)
J537H	7.5	1.0	1.25	11.90	5	0.25	0.005
J540H	6.0	1.1	1.81	20.10	17	0.85	0.015
J1048H	5.0		0.59	6.10	20	3.28	
J1050H	6.5		0.18	2.10	1	0.48	
K483H	10.5	1.1	0.26	3.40	30	8.82	0.027
K484H	15.0	1.4	0.13	1.30	8	6.15	0.006
K643H	8.0	0.9	1.52	17.10	14	0.83	0.015
K644H	8.0	1.1	7.98	93.40	6	0.06	0.005
P459H	11.0	1.0	2.10	20.40	3*	0.15	0.003
P460H	8.5	0.9	0.29	3.20	20	6.25	0.022
P677H	10.0	0.7	4.34	37.40	8	0.21	0.011
P1181H	9.5	1.0	3.51	35.10	2	0.06	0.002
P1183H	8.5	1.25	2.02	25.50	5	0.20	0.004
P1189H	9.5	0.8	2.38	18.60	282	15.16	0.352
P1193H		1.3	1.84	23.80	3	0.13	0.002
P1204H	9.0	0.9	1.56	13.30	7	0.53	0.008
P1206H	8.5	1.2	.41	4.80	1	0.21	0.001
P1209H	9.5	1.0	.97	9.30	1	0.11	0.001
P1211H	7.5	1.0	.31	3.20	1	0.31	0.001
P1213H	7.5	1.1	.65	7.00	1	0.14	0.001
P1215H	8.0	0.8	.31	2.60	1	0.38	0.001
P1217H	9.5	0.8	.32	2.40	1	0.42	0.001

* 10 gm sample for Au

T A B L E 4

HEAVY MINERAL SAMPLES

SORT BASED ON GOLD (PPB)/HEAVY MINERAL CONCENTRATE (GM)

PPB/GM	SAMPLE NUMBER
6190	J 533H*
3500	J 50H*
2226	L 573H*
314	J 162H*
191	J 157H*
126	L 511H*
41	J 119H*
33	J 175H
26	L 41H*
19	J 52H*
18	J 152H
16	L 519H
16	L 496H
16	J 165H
15	L 531H
15	P1189H*
14	L 516H*
14	J 198H
14	L 256H
12	L 46H*
11	J 100H*
10	L 573H
10	L 509H
10	L 567H
9	L 44H*
8	J 126H
6	J 73H
6	J 62H
6	L 263H

* Samples exceeding background based on p.p.b.

TABLE 5

HEAVY MINERAL SAMPLES

SORT BASED ON GOLD (PPB)/20 MESH (GM)

PPB/GM	SAMPLE NUMBER
27	J 533H*
12	L 425H*
10	L 573H*
3.8	L 474H*
3.3	J 115H*
3.1	L 475H*
2.7	J 157H*
1.3	J 119H*
1.1	L 511H*
0.7	J 50H*
0.65	J 100H*
0.64	J 118H*
0.41	J 64H*
0.40	L 422H*
0.35	P1189H*
0.35	J 14H*
0.35	L 390H*
0.35	L 62H*
0.29	J 162H*
0.25	J 52H*
0.20	L 41H*
0.110	J 126H
0.107	L 427H
0.099	L 469H

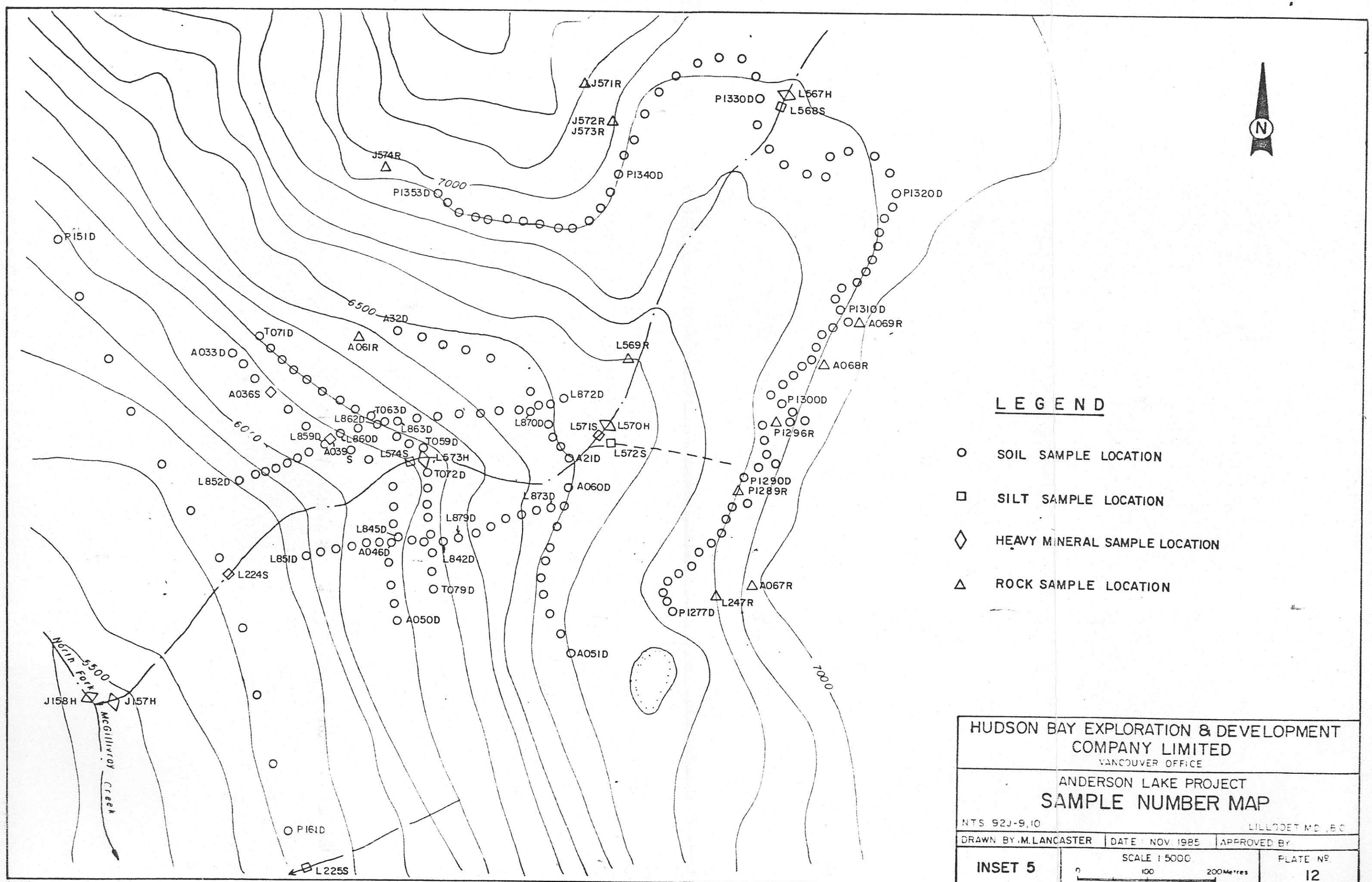
* Samples exceeding background

	Mo	Cu	Pb	Zn	Ag	As	Th	Sb	Bi	Ba	W	Au(ppb)	Hg(ppb)
Serpentine	5	28	2	44	.1	16	1	2	2	21	1	9	40
Bralorne Intrusive	2	30	4	24	.1	27	1	2	2	10	1	5	200
Albite dyke	1	9	8	47	.2	2	1	2	2	45	1	7	40
Empire fault gouge	2	3	6	49	.1	118	1	2	2	45	1	24	30
Albitized wallrock, 55 vein	1	4	9	47	.3	134	1	2	2	31	1	47	60
Wallrock 51 vein	1	35	6	67	.2	160	2	2	2	16	1	59	70
51 vein	1	30	13	33	4.7	2734	1	5	2	7	4	16900	100

Unfortunately these values do not produce a large geochemical halo around a mineralized quartz vein. Instead Au and As yeild only weakly anomalous results in wallrock within 3 meters of the vein. Vein 51 at the point sampled is anomalous in Ag, As, W and Au when compared to surrounding wallrock.

Anderson Lake Project Area (Plates 11-17, 21-27)

Data for this large area is presented in two parts, Plate 21, north of McGillivray Creek will be discussed first. Only 8 silt samples are anomalous for gold with 3 of these samples downstream from known gold vein mineralization at the old Anderson Lake Gold Mine property. These samples are anomalous in Au with values of 90, 90 and 65 ppb. It is encouraging that Hudson Bay's sampling and statistical techniques keyed in on these samples that detected known gold mineralization. However, it is discouraging that trace elements are not anomalous, as without back up trace elements it is almost impossible to separate a mini gold placer from a valid anomaly. Heavy mineral samples have only weak threshold Au values of 130 and 160 ppb with no anomalous trace elements below the mine. To keep these gold values in proper perspective, it should be remembered that this mine has a grade of only 0.02 - 0.07 oz/ton Au and a vein width of 0.3 -



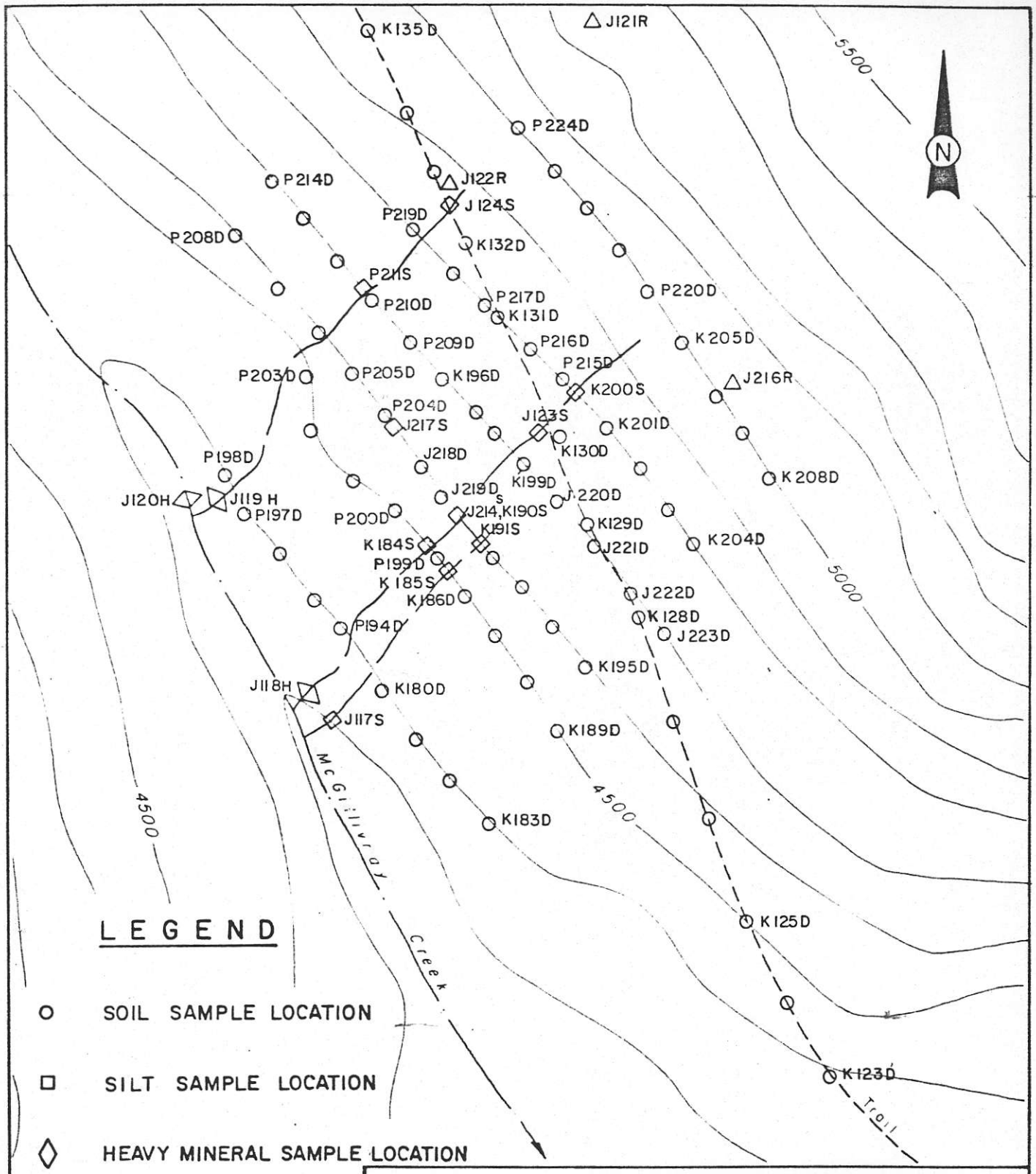
CHONG

HUDSON BAY EXPLORATION & DEVELOPMENT COMPANY LIMITED
VANCOUVER OFFICE

ANDERSON LAKE PROJECT
SAMPLE NUMBER MAP

NTS 92J-9,10 LILLOOET M.D., B.C.

DRAWN BY: M. LANCASTER	DATE: NOV. 1985	APPROVED BY:
INSET 5	SCALE 1:5000 (0, 100, 200 Metres)	PLATE No. 12



LEGEND

- ○ SOIL SAMPLE LOCATION
- □ SILT SAMPLE LOCATION
- ◇ HEAVY MINERAL SAMPLE LOCATION
- △ ROCK SAMPLE LOCATION

HUDSON BAY EXPLORATION & DEVELOPMENT COMPANY LIMITED
VANCOUVER OFFICE

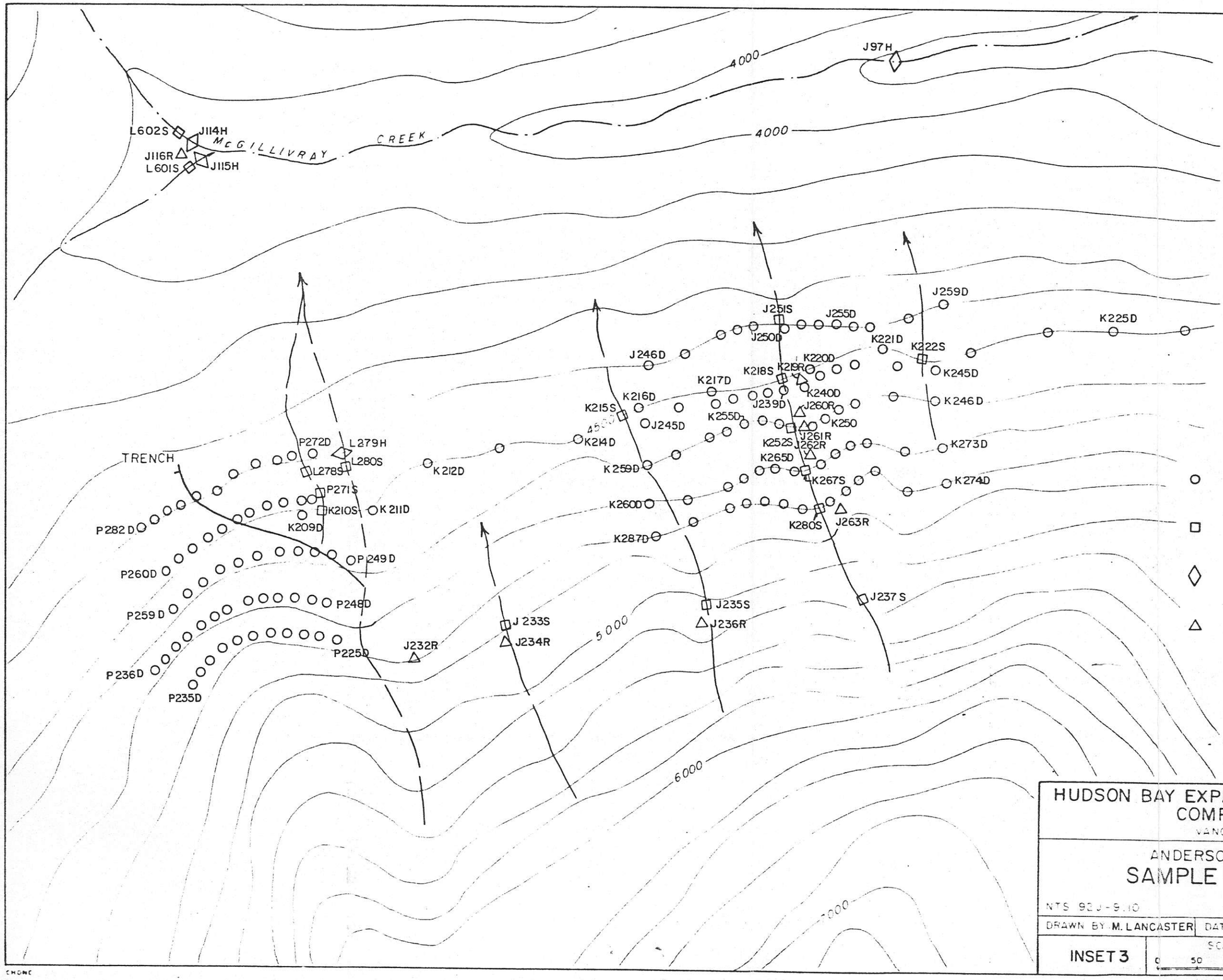
ANDERSON LAKE PROJECT

SAMPLE NUMBER MAP

NTS 92J - 9,10 LILLOOET M.D., B.C.

DRAWN BY M. LANCASTER	DATE NOV 1985	APPROVED BY
INSET 4	SCALE 1 5000 (0 50 100 250 metres)	PLATE Nº 13

CHONG

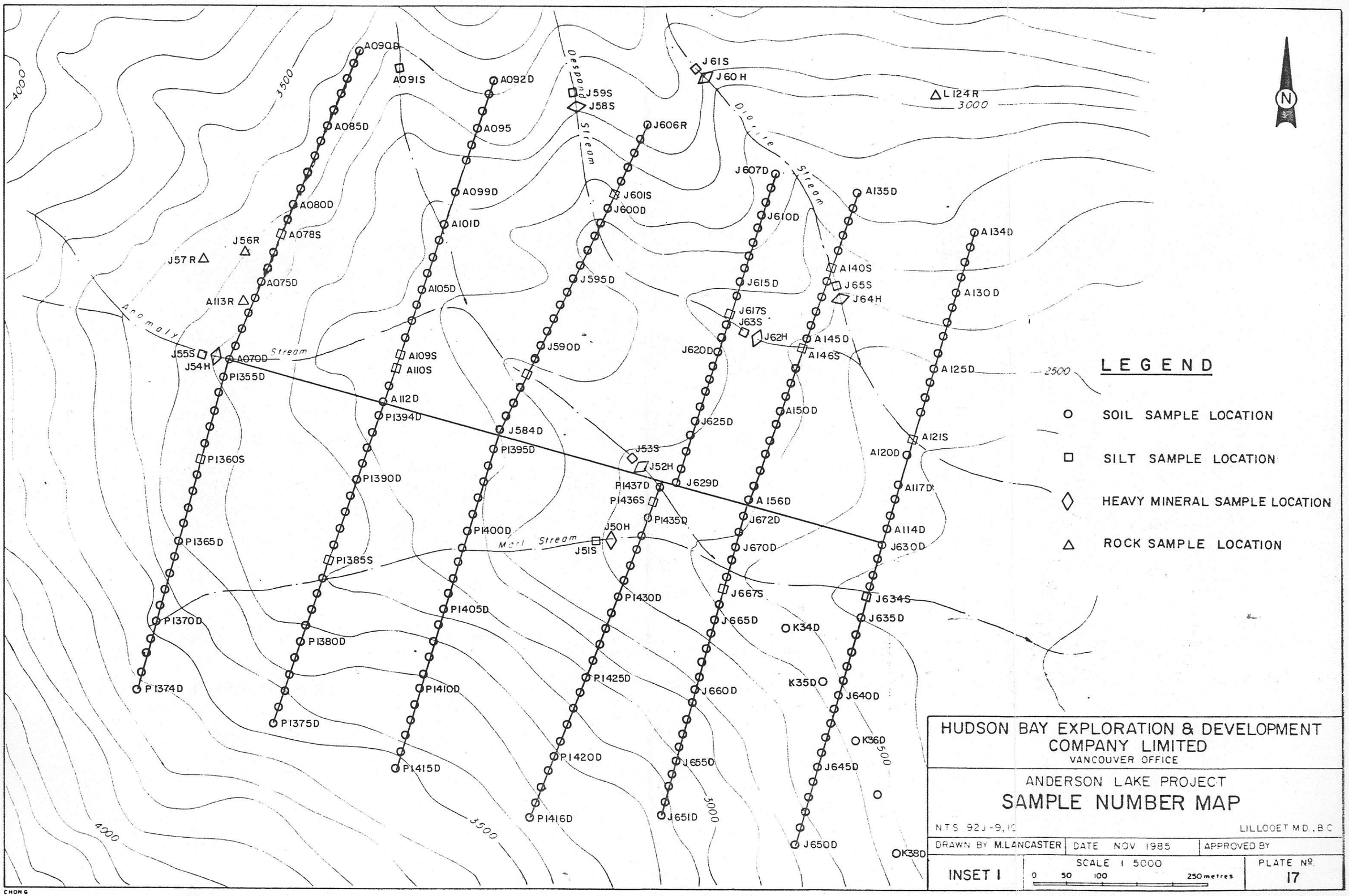


HUDSON BAY EXPLORATION & DEVELOPMENT COMPANY LIMITED
VANCOUVER OFFICE

ANDERSON LAKE PROJECT
SAMPLE NUMBER MAP

NTS 92J-9,10 — LILLOOET M.D., B.C.

DRAWN BY M. LANCASTER	DATE NOV 1985	APPROVED BY
INSET 3	SCALE 1:5000 (0 50 100 250 metres)	PLATE Nº 15



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VANCOUVER OFFICE

ANDERSON LAKE PROJECT

SAMPLE NUMBER MAP

NTS 92J-9,10 — LILLOOET M.D., B.C.

DRAWN BY M.LANCASTER	DATE NOV 1985	APPROVED BY
INSET I	SCALE 1 5000 (0 50 100 250 metres)	PLATE Nº 17

CHONG

4.8 meters. This type of target which in this writers opinion is both too small and too low grade for Hudson Bay, is detected by Hudson Bay sampling. A larger, higher grade target should produce a much more positive geochemical response and yield a more substantial anomaly. A series of rock samples L48R - L49R and L154R - L163R near the old Anderson Lake Mine are all composed of Bridge River argillaceous sediments which contain gold values of 85, 42, 29, 24, 22 and 19 ppb. Conceivably, these gold values in sediments could be partially responsible for anomalous gold values below the Anderson Lake Mine and for the 95 ppb Au in sample L595S on McGillivray Creek.

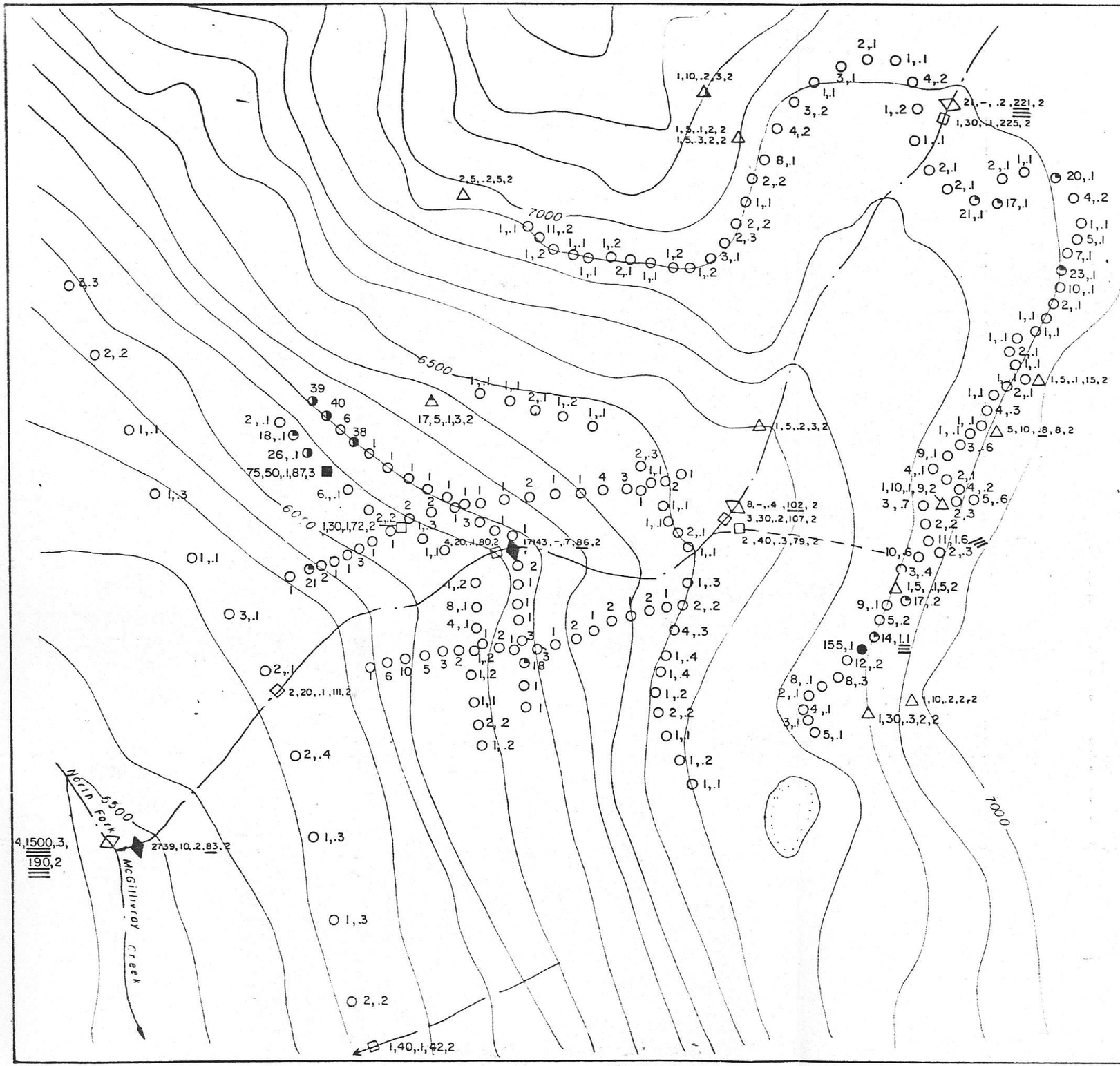
Hushem Creek contains one anomalous silt with a value of 24 ppb Au and one threshold heavy mineral sample with a value of 160 ppb Au. These values although anomalous are very low. A line of soil samples above these values contains two rock samples with 60 and 75 ppb Au in argillaceous Bridge River sediments. In this writers opinion, these sediments are the probable source of silt and soil gold anomalies in this drainage.

Connel Creek contains the highest gold value found on Hudson Bay ground. Samples J533H and J534S contain 34,043 ppb and 42 ppb Au respectively. This anomaly is downstream from Dupont's Ben claim on which assessment reports indicate a narrow listwanite zone with associated gold values (930 ppb in soils, 2000 ppb in silts). The creek sampled is extremely steep with a 4-8 meter wide stream bed gouged to bedrock in most places. This creek contains a very minor amount of gravel within the stream bed. A 700-800 meter wide alluvial fan has been deposited where this stream enters Connel Creek. Hudson Bay sampling is on this huge alluvial fan, therefore in this writers opinion this anomaly is a mini placer on an alluvial fan below a section of stream which is too turbulent to allow gold to settle out. It should be noted that threshold arsenic values continue into Dupont's Ben claim.

At the head of Connel Creek in the extreme northwestern part of the claim group are located several anomalous silt and heavy mineral samples. Gold, silver and arsenic values are anomalous with silt sample values of 32 and 46 ppb Au and heavy mineral values of 1176 ppb Au statistically being 1st order anomalies even though actual gold values are low. This area has been prospected in detail with no confirmed source of gold mineralization being identified though several possible sources do exist. These include extensive faulting with associated ultramafic rocks which might contain a buried listwanite. This area has more chert than is found elsewhere on the property although sampling of these chert horizons has produced negative results. A slightly elevated gold content in Bridge River argillaceous sediments such as at Hushem Creek and Anderson Lake Mine might also explain these anomalous results.

Inset 5, Plates 12 and 22 contain the second highest heavy mineral gold value encountered in the program. Sample L573H with 17,143 ppb and J157H with 2739 ppb Au have been followed up in detail. Accompanying threshold arsenic values at lower elevation lead to a 1st order arsenic anomaly near creek headwaters. A possible source of this arsenic is afaulted ultramafic contact zone possibly containing listwanite. This could also be responsible for the elevated gold values. An area of 2nd order anomalous gold values in soils is found in the vicinity of a postulated faulted Bralorne Intrusive-Bridge River Group contact . Here white quartz pebbles are more numerous in the anomalous stream than is normal for this region. In this writers opinion, the probable source for this gold is a quartz vein in Bralorne Intrusives.

South of Inset 5, sample J162H contains 440 ppb Au and 14 ppb Sb. This sample represents a contact zone between hornfelsed Hurley Formation and granodiorite. This ground is not staked at present.



LEGEND

- ○ SOIL SAMPLE LOCATION
- □ SILT SAMPLE LOCATION
- ◇ HEAVY MINERAL SAMPLE LOCATION
- △ ROCK SAMPLE LOCATION

FOR GEOCHEMICAL RESULTS LEGEND SEE THE MAIN MAPS (ANDERSON LAKE SHEETS)

HUDSON BAY EXPLORATION & DEVELOPMENT COMPANY LIMITED
VANCOUVER OFFICE

ANDERSON LAKE PROJECT
GEOCHEMICAL RESULTS

NTS 92J-9 E | LILLOOET M.D., B.C.

DRAWN BY M.LANCASTER | DATE NOV 1985 | APPROVED BY

INSET 5 | SCALE 1:5000 (0 100 200 Metres) | PLATE NO. 22

CHONG

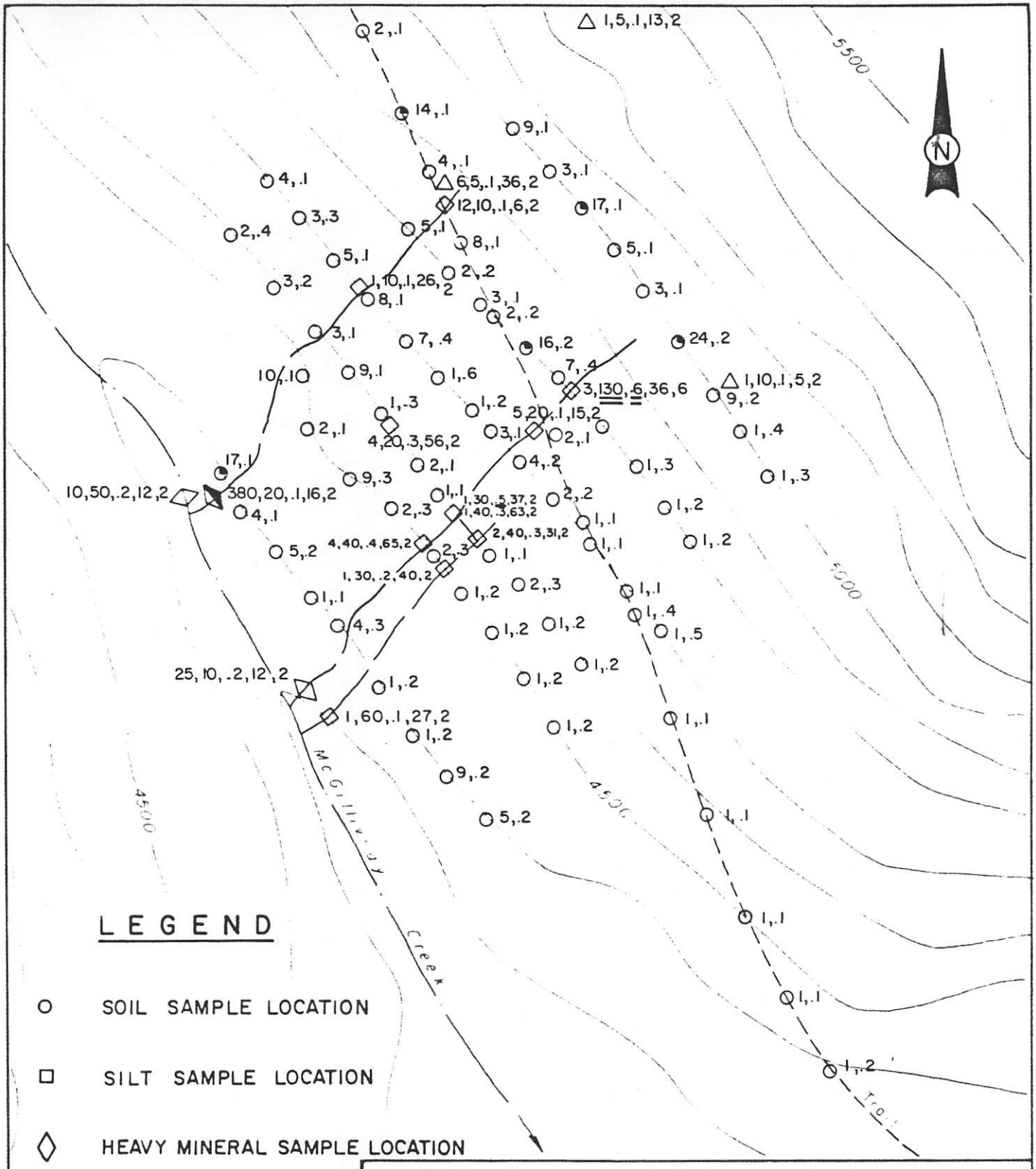
Sample J118H contains one tiny pinprick size nugget of gold and sample J119H contains a 2nd order gold value of 380 ppb. Inset 4, plates 13 and 23 cover these drainages. Soils and silts failed to identify the source of this gold, however, a source associated with the Cadwallader Fault Structure is probable.

South of Inset 4, a single soil value of 115 ppb Au has been resampled in detail. The initial soil value could not be repeated and four samples 2 meters on either side of the original sample all returned 1 or 2 ppb Au. This writer holds the opinion that this soil sample is an erratic value and that samples of this type are normal and should be expected.

Rock sample A020R with 200 ppb Au and 217 ppm As is anomalous. This sample represents a siliceous, hornfels contact zone between Bender granodiorite and Bralorne Intrusive. This zone is both too small and too low grade to be of interest.

Plates 14 and 24 present geochemical results for ground south of McGillivray Creek. Rock sample L167R, a Bridge River Group siliceous argillite contains 80 ppb Au similar to rocks along Hushem Creek to the north. Sample L144R, a rhyolitic volcanic member of the Hurley Formation south of D'Arcy Creek contains 78 ppb Au. These two values although anomalous are much too low to be of interest but still could account for some of the anomalous silts and soils within the claim group. Silt sample L135S (35 ppb Au) represents an area of Bralorne Intrusive. Without trace element backup, this sample is too low to warrant further interest.

Inset 1, Plates 17 and 27 covers 3 anomalous heavy mineral samples with Au values of 4800, 700, and 520 ppb and one anomalous silt value with 65 ppb Au and 0.5 ppm Ag. As a result of this sampling, a soil sample grid covering the main area of interest has



HUDSON BAY EXPLORATION & DEVELOPMENT COMPANY LIMITED
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ANDERSON LAKE PROJECT

GEOCHEMICAL RESULTS

NTS 92J-8,16 LILLOOET M.D. B.C.

DRAWN BY M.LANCASTER	DATE NOV 1985	APPROVED BY
INSET 4	SCALE 1:5000 0 250 metres	PLATE Nº 23

been completed. Anomalous soils clustered on the northwestern line appear to coincide with a faulted area containing ultramafic, listwanite, and Bralorne Intrusive.

Inset 2, Plates 16 and 26 cover the area that was thought to have the best potential for gold mineralization on the Anderson Lake claim block, namely the South Fork of McGillivray Creek. This is the creek on which X-Cal Resources, Placer, Noranda, and Silver Standard all obtained anomalous gold in silt and heavy mineral samples. Anomalous Hudson Bay silt samples contain Au values of 125, 80, 65, 52 and 31 ppb. Heavy mineral samples for this drainage have been collected twice and analyzed by FA + AA and by neutron activation. The first set of samples taken in late June did not contain any anomalous results. The second set of samples, collected in August at the same sites as the first set contain anomalous gold values using neutron activation of the entire heavy mineral concentrate. First order anomalous values are 4860 and 2790 ppb Au with one 2nd order anomalous value of 250 ppb Au. Unfortunately, neutron activation samples which are to be reanalyzed by FA + AA as check samples are still radioactive and have not been released by the lab. This valley floor is devoid of outcrop with only minor outcrop confined to near ridge tops. Rock samples with 95, 65, 24 and 19 ppb Au all represent small quartz sweats or quartz veinlets in Hurley argillaceous and tuffaceous (greywacke) sediments and in listwanite.

Soil sampling failed to produce any broad geochemical anomalies, instead, numerous single high values are widely scattered over the entire grid with the highest value 260 ppb Au. Several of the higher values have been resampled and fill in lines completed. In some cases, resampling yields background results, however, 5 areas stand out as valid soil anomalies. These are centered on soil samples Z024D and P787D west of the baseline and samples Z223D, K989D and K981D east of the baseline. At these five sites, additional soil

sampling has reinforced the original gold values with more sampling required to better define the anomalies. The South Fork of McGillivray Creek and its small side tributaries all contain white quartz pebbles. In this writers opinion, the probable source for both silt and soil gold anomalies is a quartz vein in either Hurley sediments or Bralorne Intrusive. The possibility also exists of a buried listwanite zone along faulted margins of ultramafic rocks on the ridge east of the creek.

Inset 3, Plates 15 and 25 cover an area with reported old workings (part of the Gold Hill showing discussed under Property Geology). Two signs of activity, an old trench and a possible caved adit were covered by soil sampling with negative results. Rock sample J260R with 110 ppb Au is the highest result from this area.

Heavy mineral sample J115H with 4700 ppb Au and 500 ppb Hg is situated at McGillivray forks on the northwestern corner of Inset 3. These values probably result from material derived from the South Fork of McGillivray Creek in Inset 2.

Truck/Paymaster Project Area (Plates 18-19, 28-29)

Data for this project is presented in two parts, with the eastern Paymaster claim Plates 19 and 29 discussed first. Silt and heavy mineral samples do not reflect any anomalous gold values. Very scattered anomalous mercury and lead values are possibly associated with major faulting. First order anomalous gold soil values within Hudson Bay ground are confined to a small area east of the lake on Crazy Creek. These soil values are scattered and cannot be repeated. A sample of highly sheared ultramafic along the lake shore has a gold content of 31 ppb which probably is the source of anomalous gold in the overlying soil

Plates 18 and 28 cover the Truck claim for this project area. This claim essentially does not contain any anomalous gold and silver values. Very highly scattered lead values are too low to be of encouragement for massive sulphides within the Bridge River Group.

Butte-X-Cal Project Area (Plates 20, 30)

Silt and heavy mineral samples do not contain any anomalous gold values. Silver values of 1.9, 1.6 and 1.2 ppm in a listwanite are detected by heavy mineral sample K483H which has a silver value of 2.1 ppm. This confirms that Hudson Bay's sampling program is successful in detecting small areas with elevated precious metals content. Soils anomalous in gold occur in the north central portion of the claim. These soils are composed of fine rock flour in an area of 100% outcrop and talus. Additional prospecting and rock sampling failed to confirm these anomalous values. South of Aggie Creek, rock sample L269R represents a narrow aplite dyke containing 260 ppb Au and 4.7 ppm Ag. This dyke or similar dykes are thought to be responsible for isolated gold values in soil.

GEOPHYSICAL SURVEY RESULTS

Approximately 10 kilometers of VLF EM-16 has been run utilizing the flagged grid for soil sampling on the South Fork of McGillivray Creek (Plate 32). A Geonics EM-16 was used with lines run west to east and with readings obtained at soil sample sites using a transmitter in Seattle Washington broadcasting at 18.6 khz.

The Cadwallader Fault Structure is present throughout this valley. This very complex zone composed of numerous fault traces is responsible for the majority of EM conductors in this writers opinion.

RECOMMENDATIONS

The main area of interest for any further exploration lies in the area of the Cadwallader Fault Structure. Quartz veins and minor gold finds indicate that this structure could be mineralized, however, the size of any mineralized zone is unknown and much further work would be necessary to find and prove such a zone. Elsewhere extra soil sampling could be carried out in D'Arcy Creek where the possibility of a larger soil anomaly does exist. However, the possibility of finding a major gold bearing zone remains small. It is recommended that the options on these three properties be terminated.

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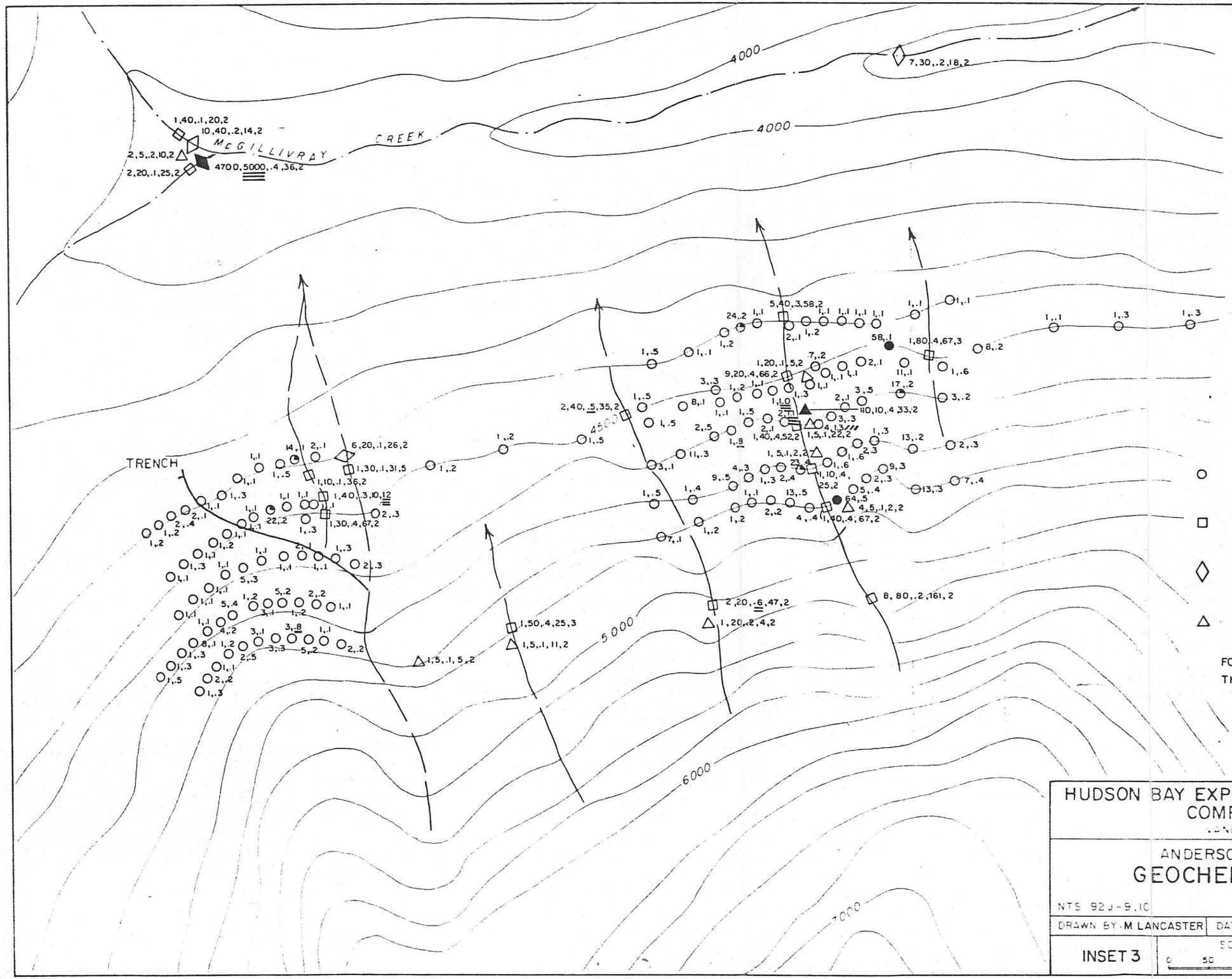


LEGEND

- ○ SOIL SAMPLE LOCATION
- □ SILT SAMPLE LOCATION
- ◇ HEAVY MINERAL SAMPLE LOCATION
- △ ROCK SAMPLE LOCATION

FOR GEOCHEMICAL RESULTS LEGEND SEE THE MAIN MAPS (ANDERSON LAKE SHEETS)

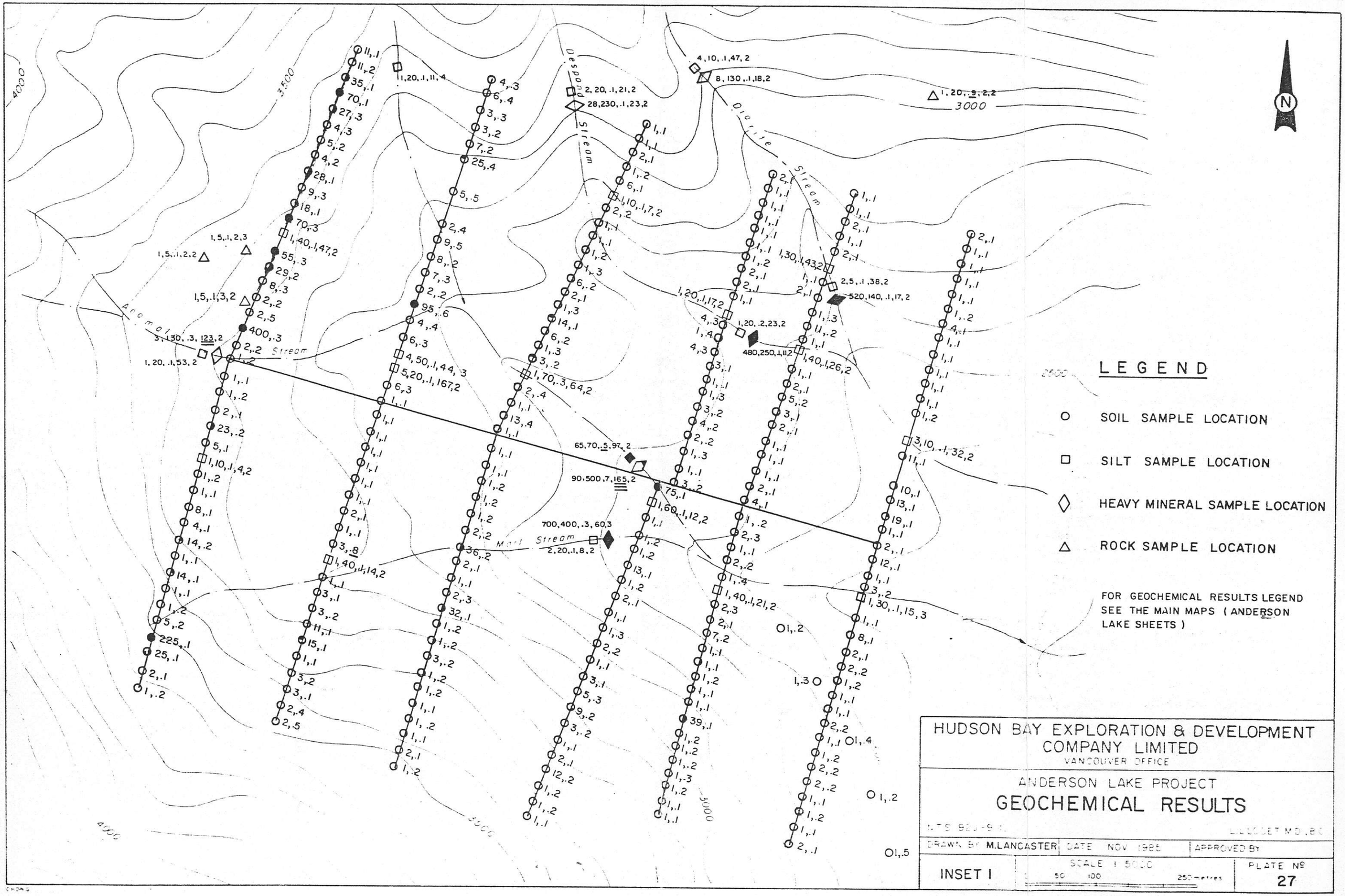
HUDSON BAY EXPLORATION & DEVELOPMENT COMPANY LIMITED
VANCOUVER OFFICE

ANDERSON LAKE PROJECT

GEOCHEMICAL RESULTS

NTS 92J-9,10 LILLOOET M.D., B.C.

DRAWN BY: M. LANCASTER	DATE: NOV 1985	APPROVED BY:
INSET 3	SCALE 1:5000 (0 50 100 250 metres)	PLATE No. 25



LEGEND

- ○ SOIL SAMPLE LOCATION
- □ SILT SAMPLE LOCATION
- ◇ HEAVY MINERAL SAMPLE LOCATION
- △ ROCK SAMPLE LOCATION

FOR GEOCHEMICAL RESULTS LEGEND SEE THE MAIN MAPS (ANDERSON LAKE SHEETS)

HUDSON BAY EXPLORATION & DEVELOPMENT COMPANY LIMITED
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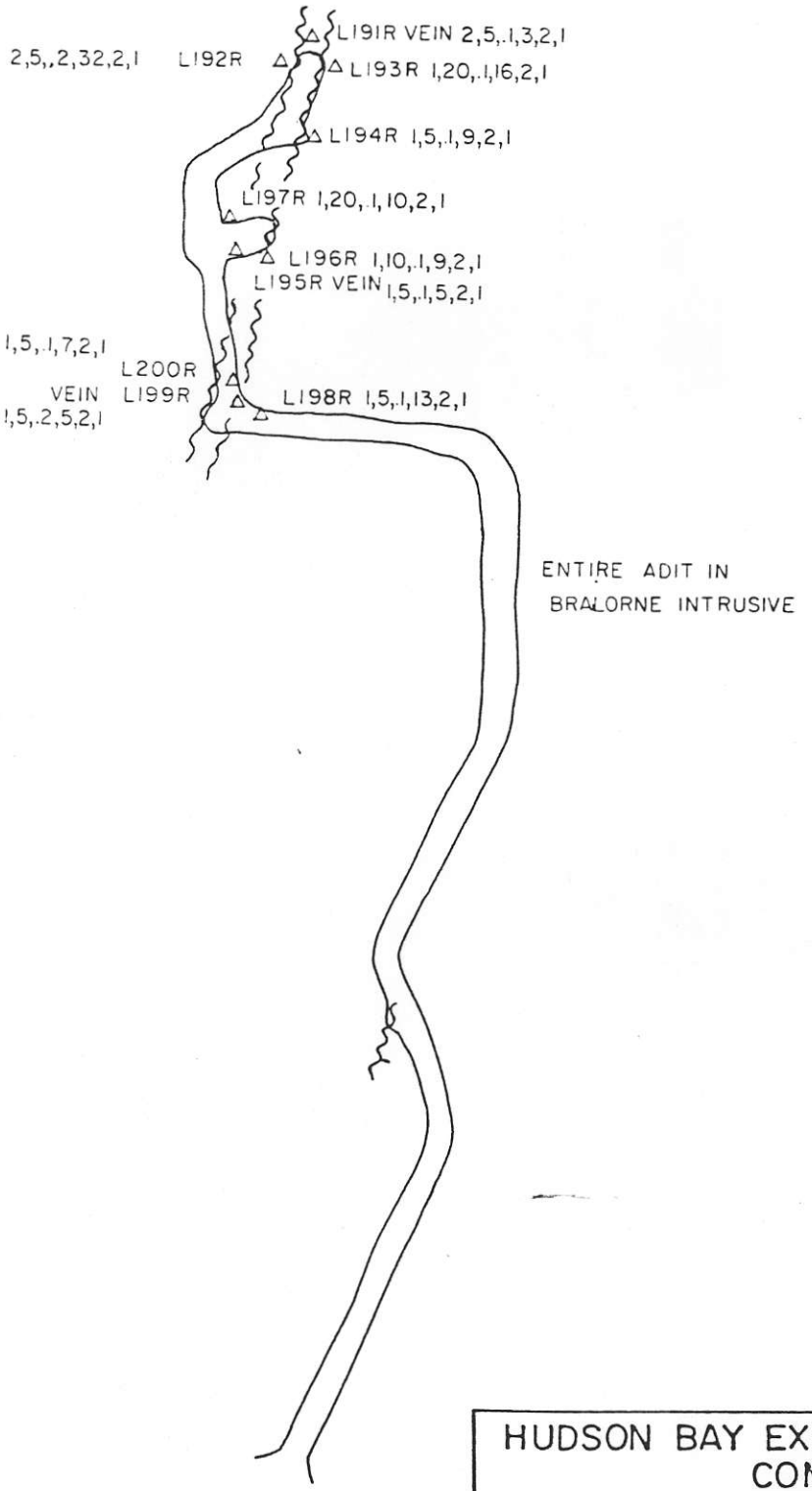
ANDERSON LAKE PROJECT

GEOCHEMICAL RESULTS

N.T.S. 92J-9 W | LILLOOET M.D., B.C.

DRAWN BY M.LANCASTER | DATE NOV 1985 | APPROVED BY

INSET I | SCALE 1:5000 (0 50 100 250 metres) | PLATE Nº 27



△ ROCK SAMPLE

Au.p.p.b., Hg.p.p.b., Ag.p.p.m., As.p.p.m., Sb.p.p.m., W.p.p.m.

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N.T.S. 92 J 10

LILLOOET M.D.

DRAWN BY: M. LANCASTER	DATE: NOV. 27 1985	APPROVED BY:
	SCALE 1:500 (0 — 10m)	PLATE Nº. 31

CHONG

T A B L E 3

HEAVY MINERAL SAMPLE D

Sample No	Initial Weight (kg)	20 Mesh Weight (kg)	Heavy Mineral %	H.M. Weight (gms)			
L 36H	9.0	1.5	1.39	19.01			
L 37H	7.5	0.5	2.44	11.73			
L 38H	8.25	1.5	2.13	22.98			
L 41H	7.5	2.25	1.70	17.55			
L 42H	8.0	1.75	4.85	63.99	21*	0.33	
L 43H	9.0	1.5	2.03	22.11	1*	0.04	
L 44H	7.25	2.5	1.28	16.25	160*	9.85	0.064
L 45H	6.0	1.0	2.05	19.85	3*	0.15	0.003
L 46H	9.5	1.5	0.75	10.22	130	12.72	0.087
L 50H	9.5	1.75	2.20	25.98	7*	0.27	0.004
L 51H	8.0	2.5	1.56	18.55	7*	0.38	0.003
L 52H	10.0	1.5	3.02	28.95	3*	0.10	0.002
L 55H	7.0	1.0	2.46	28.98	1*	0.03	0.001
L 56H	8.0	1.5	2.41	29.15	5*	0.17	0.003
L 57H	11.5	2.5	0.60	8.55	4	0.47	0.002
L 86H	7.5	1.25	1.55	18.90	3	0.16	0.002
L 91H	8.5	1.5	2.22	19.10	2	0.10	0.001
L 99H	15.5	1.0	2.00	17.60	3	0.17	0.003
L105H	10.5	0.5	5.22	33.40	2	0.06	0.004
L106H	9.25	1.2	2.98	36.10	1	0.03	0.001
L107H	11.5	1.6	6.24	64.90	12	0.18	0.007
L129H	16.5	1.0	12.40	129.00	10	0.08	0.01
L136H	6.5	1.75	6.68	79.50	2	0.02	0.001
L254H	10.5	0.8	0.95	8.80	4	0.45	0.005
L256H	8.5	0.9	0.43	4.20	60	14.29	0.067
L259H	12.0	1.2	0.09	1.20	1	0.83	0.001
L263H	13.0	1.0	0.69	7.50	50	6.66	0.05
L268H	9.0	1.1	0.71	9.60	40	4.17	0.036
L273H	4.2	1.5	0.52	6.10	32	5.25	0.021
L276H	12.0	1.5	1.14	12.80	42	3.28	0.028
L279H	10.0	1.1	0.96	11.90	6	0.50	0.005
L304H	15.0	1.2	1.28	16.80	2*	0.12	0.002
L305H	15.5	1.0	1.66	19.50	4*	0.20	0.004
L306H	4.0	1.5	1.50	16.90	2*	0.12	0.001
L307H	7.25	1.4	0.99	10.10	2	0.20	0.001
L308H	7.0	1.5	2.52	30.60	3*	0.10	0.002

* 10 gm sample for Au

THIS SPARE COPY OF TABLE 3 WAS AT END OF BOOK INSTEAD OF FOLLOWING PAGE 24

SPARE COPY OF TABLE 4.

T A B L E 3

HEAVY MINERAL SAMPLE DATA

Sample No	Initial Weight (kg)	20 Mesh Weight (kg)	Heavy Mineral %	H.M. Weight (gms)	Gold Value (ppb)	Gold/ H.M. Weight (ppb/gm)	Gold/ 20 Mesh Weight (ppb/gm)
L 36H	9.0	1.5	1.39	19.01	3*	0.16	0.002
L 37H	7.5	0.5	2.44	11.73	6*	0.51	0.012
L 38H	8.25	1.5	2.13	22.98	4*	0.17	0.003
L 41H	7.5	2.25	1.70	17.55	460*	26.21	0.204
L 42H	8.0	1.75	4.85	63.99	21*	0.33	0.012
L 43H	9.0	1.5	2.03	22.11	1*	0.04	0.001
L 44H	7.25	2.5	1.28	16.25	160*	9.85	0.064
L 45H	6.0	1.0	2.05	19.85	3*	0.15	0.003
L 46H	9.5	1.5	0.75	10.22	130	12.72	0.087
L 50H	9.5	1.75	2.20	25.98	7*	0.27	0.004
L 51H	8.0	2.5	1.56	18.55	7*	0.38	0.003
L 52H	10.0	1.5	3.02	28.95	3*	0.10	0.002
L 55H	7.0	1.0	2.46	28.98	1*	0.03	0.001
L 56H	8.0	1.5	2.41	29.15	5*	0.17	0.003
L 57H	11.5	2.5	0.60	8.55	4	0.47	0.002
L 86H	7.5	1.25	1.55	18.90	3	0.16	0.002
L 91H	8.5	1.5	2.22	19.10	2	0.10	0.001
L 99H	15.5	1.0	2.00	17.60	3	0.17	0.003
L105H	10.5	0.5	5.22	33.40	2	0.06	0.004
L106H	9.25	1.2	2.98	36.10	1	0.03	0.001
L107H	11.5	1.6	6.24	64.90	12	0.18	0.007
L129H	16.5	1.0	12.40	129.00	10	0.08	0.01
L136H	6.5	1.75	6.68	79.50	2	0.02	0.001
L254H	10.5	0.8	0.95	8.80	4	0.45	0.005
L256H	8.5	0.9	0.43	4.20	60	14.29	0.067
L259H	12.0	1.2	0.09	1.20	1	0.83	0.001
L263H	13.0	1.0	0.69	7.50	50	6.66	0.05
L268H	9.0	1.1	0.71	9.60	40	4.17	0.036
L273H	4.2	1.5	0.52	6.10	32	5.25	0.021
L276H	12.0	1.5	1.14	12.80	42	3.28	0.028
L279H	10.0	1.1	0.96	11.90	6	0.50	0.005
L304H	15.0	1.2	1.28	16.80	2*	0.12	0.002
L305H	15.5	1.0	1.66	19.50	4*	0.20	0.004
L306H	4.0	1.5	1.50	16.90	2*	0.12	0.001
L307H	7.25	1.4	0.99	10.10	2	0.20	0.001
L308H	7.0	1.5	2.52	30.60	3*	0.10	0.002

* 10 gm sample for Au

Sample No	Initial Weight (kg)	20 Mesh Weight (kg)	Heavy Mineral %	H.M. Weight (gms)	Gold Value (ppb)	Gold/ H.M. Weight (ppb/gm)	Gold/ 20 Mesh Weight (ppb/gm)
L311H	2.5	1.0	1.49	16.60	1*	0.06	0.001
L312H	5.0	1.5	3.13	34.20	1*	0.03	0.001
L469H	8.5	1.0			99		0.099
L470H	4.5	1.5			< 29		0.019
L471H	4.0	1.25			20		0.016
L472H	8.5	1.0			< 25		0.025
L473H	8.0	1.0			30		0.03
L474H	9.5	1.25			4860		3.88
L475H	8.75	0.9			2790		3.10
L476H	6.75	1.0			45		0.045
L477H	5.75	1.0			170		0.17
L478H	8.5	0.9			250		0.28
L480H	11.5	1.1			52		0.047
L496H	8.25	1.6	0.18	1.60	27	16.87	0.017
L509H	11.25	1.2	0.72	7.50	80	10.67	0.067
L511H	10.50	1.1	0.85	9.30	1176	126.45	1.069
L514H	7.50	1.2	1.21	13.60	6	0.44	0.005
L516H	10.50	3.5	1.40	9.40	138	14.68	0.039
L519H	5.5	1.75	0.68	6.90	115	16.67	0.066
L529H	7.0	1.5	0.37	5.30	36	6.79	0.024
L531H	7.5	1.1	0.15	1.70	27	15.88	0.024
L567H	7.0	3.2	0.23	2.00	21	10.50	0.006
L570H	10.25	1.6	0.92	8.60	8	0.93	0.005
L573H	7.0	1.7	1.00	7.70	17143	2226.36	10.084
L575H	9.25	3.0	1.27	8.10	6	0.74	0.002
L577H	10.25	2.0	0.34	2.60	1	0.38	0.001
L579H	6.5	2.0	0.41	3.00	13	4.34	0.006
J 14H	8.0	0.7	7.12	55.50	250	4.50	0.357
J 24H	8.75	0.5	2.87	20.40	10	0.49	0.02
J 50H	8.75	1.0	0.02	0.20	700	3500.0	0.700
J 52H	10.0	0.75	1.19	9.90	190	19.19	0.253
J 54H	7.75	0.75	0.44	3.60	3	0.83	0.004
J 58H	9.0	0.5	2.53	10.10	28	2.77	0.056
J 60H	10.0	1.0	5.10	54.10	6	0.11	0.006
J 62H	10.0	1.5	6.33	77.80	480	6.16	0.32
J 64H	9.0	1.25	7.91	102.00	520	5.10	0.416
J 72H	9.0	1.5	9.08	94.40	2	0.02	0.001
J 73H	2.0	0.6	0.02	0.15	1	6.67	0.002
J 94H	8.5	0.6	11.74	113.90	3	0.03	0.005
J 95H	7.5		4.82	44.80	1	0.02	
J 97H	7.0	1.5	3.46	41.50	7	0.17	0.005
J100H	6.5	0.6	3.27	35.00	390	11.14	0.65
J101H	7.25	1.5	2.66	29.80	6	0.20	0.004
J105H	10.0	0.5	11.68	84.10	5	0.06	0.01
J107H	8.5	1.2	9.78	130.10	1	0.01	0.001

* 10 gm sample for Au

Sample No	Initial Weight (kg)	20 Mesh Weight (kg)	Heavy Mineral %	H.M. Weight (gms)	Gold Value (ppb)	Gold/ H.M. Weight (ppb/gm)	Gold/ 20 Mesh Weight (ppb/gm)
J108H	8.5	2.0	8.53	89.60	2	0.02	0.001
J111H	9.0	1.0	0.55	6.60	1	0.15	0.001
J112H	7.0	0.75	1.23	11.30	1	0.09	0.001
J114H	4.75	1.5	3.76	37.60	100	2.64	0.067
J115H	4.50	1.5	1.43	14.90	5000	335.57	3.33
J118H	10.75	1.4	4.27	39.30	25	0.64	0.018
J119H	10.0	1.75	5.28	58.10	2400	41.31	1.37
J120H	3.0	1.8	0.96	10.90	10	0.92	0.005
J126H	8.25	1.0	1.36	13.70	110	8.03	0.110
J130H	8.25	1.0	2.77	26.90	4	0.15	0.004
J148H	2.0	1.1	2.08	27.90	1	0.04	0.001
J149H	2.0	1.1	0.65	7.70	4	0.52	0.004
J151H	7.0	0.8	1.41	13.20	1	0.07	0.001
J152H	13.0	0.5	0.30	2.20	40	18.18	0.08
J155H	4.5	1.0	2.95	35.20	1	0.03	0.001
J157H	7.75	1.0	1.27	14.30	2739	191.54	2.739
J158H	6.25	0.7	0.86	7.30	4	0.55	0.006
J159H	5.25	1.0	0.60	7.10	4	0.56	0.004
J162H	10.25	1.5	0.11	1.40	440	314.28	0.293
J163H	4.25	0.9	0.52	5.70	5	0.88	0.005
J165H	3.25	1.0	0.43	4.70	76	16.17	0.076
J171H	5.75	1.4	2.44	25.40	13	0.51	0.009
J172H	7.50	1.0	0.70	8.20	32	3.90	0.032
J173H	4.75	1.0	0.61	7.50	10	1.33	0.010
J174H	4.0	1.3	1.44	14.70	6	0.41	0.005
J175H	4.75	1.0	0.15	1.80	60	33.33	0.06
J176H	5.75	1.5	3.66	32.60	2	0.06	0.001
J178H	10.5	0.7	0.52	4.50	20	4.44	0.028
J181H	7.75	1.0	1.13	12.60	1	0.08	0.001
J182H	7.75	1.0	0.57	6.70	6	0.89	0.006
J183H	9.75	1.3	2.46	32.50	1	0.03	0.001
J185H	6.0	0.5	3.01	17.20	1	0.06	0.002
J189H	6.0	1.2	0.52	6.90	8	1.16	0.006
J193H	7.25	0.6	0.69	5.40	16	2.96	0.027
J194H	16.75	1.0	0.51	5.80	32	5.52	0.032
J198H	5.75	1.0	0.34	4.20	60	14.28	0.060
J207H	11.75	1.0	0.56	7.00	14	2.0	0.014
J208H	9.75	0.8	1.38	13.20	31*	2.34	0.039
J210H	14.25	1.4	0.89	10.60	6	0.57	0.004
J212H	10.75	1.1	1.74	22.20	16*	0.72	0.014
J524H	8.4	2.0	1.47	15.10	3	0.20	0.001
J526H	5.0	1.5	1.44	11.40	8	0.70	0.005
J529H	7.5	2.0	2.16	26.10	2	0.08	0.001
J531H	6.0	1.5	3.47	40.60	15	0.37	0.01
J533H	6.0	1.25	0.47	5.50	34043	6190.0	27.23
J535H	6.0	1.0	1.25	11.90	5	0.42	0.005

* 10 gm sample for Au

Sample No	Initial Weight (kg)	20 Mesh Weight (kg)	Heavy Mineral %	H.M. Weight (gms)	Gold Value (ppb)	Gold/ H.M. Weight (ppb/gm)	Gold/ 20 Mesh Weight (ppb/gm)
J537H	7.5	1.0	1.25	11.90	5	0.25	0.005
J540H	6.0	1.1	1.81	20.10	17	0.85	0.015
J1048H	5.0		0.59	6.10	20	3.28	
J1050H	6.5		0.18	2.10	1	0.48	
K483H	10.5	1.1	0.26	3.40	30	8.82	0.027
K484H	15.0	1.4	0.13	1.30	8	6.15	0.006
K643H	8.0	0.9	1.52	17.10	14	0.83	0.015
K644H	8.0	1.1	7.98	93.40	6	0.06	0.005
P459H	11.0	1.0	2.10	20.40	3*	0.15	0.003
P460H	8.5	0.9	0.29	3.20	20	6.25	0.022
P677H	10.0	0.7	4.34	37.40	8	0.21	0.011
P1181H	9.5	1.0	3.51	35.10	2	0.06	0.002
P1183H	8.5	1.25	2.02	25.50	5	0.20	0.004
P1189H	9.5	0.8	2.38	18.60	282	15.16	0.352
P1193H		1.3	1.84	23.80	3	0.13	0.002
P1204H	9.0	0.9	1.56	13.30	7	0.53	0.008
P1206H	8.5	1.2	.41	4.80	1	0.21	0.001
P1209H	9.5	1.0	.97	9.30	1	0.11	0.001
P1211H	7.5	1.0	.31	3.20	1	0.31	0.001
P1213H	7.5	1.1	.65	7.00	1	0.14	0.001
P1215H	8.0	0.8	.31	2.60	1	0.38	0.001
P1217H	9.5	0.8	.32	2.40	1	0.42	0.001

* 10 gm sample for Au

T A B L E 4

HEAVY MINERAL SAMPLES

SORT BASED ON GOLD (PPB)/HEAVY MINERAL CONCENTRATE (GM)

PPB/GM	SAMPLE NUMBER
6190	J 533H*
3500	J 50H*
2226	L 573H*
314	J 162H*
191	J 157H*
126	L 511H*
41	J 119H*
33	J 175H
26	L 41H*
19	J 52H*
18	J 152H
16	L 519H
16	L 496H
16	J 165H
15	L 531H
15	P1189H*
14	L 516H*
14	J 198H
14	L 256H
12	L 46H*
11	J 100H*
10	L 573H
10	L 509H
10	L 567H
9	L 44H*
8	J 126H
6	J 73H
6	J 62H
6	L 263H

* Samples exceeding background based on p.p.b.

TABLE 5

HEAVY MINERAL SAMPLES

SORT BASED ON GOLD (PPB)/20 MESH (GM)

PPB/GM	SAMPLE NUMBER
27	J 533H*
12	L 425H*
10	L 573H*
3.8	L 474H*
3.3	J 115H*
3.1	L 475H*
2.7	J 157H*
1.3	J 119H*
1.1	L 511H*
0.7	J 50H*
0.65	J 100H*
0.64	J 118H*
0.41	J 64H*
0.40	L 422H*
0.35	P1189H*
0.35	J 14H*
0.35	L 390H*
0.35	L 62H*
0.29	J 162H*
0.25	J 52H*
0.20	L 41H*
0.110	J 126H
0.107	L 427H
0.099	L 469H

* Samples exceeding background [illegible]