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ASSESSMENT REPORT ON WATER AND SILT GEOCHEMISTRY, AND GEOLOGY IN THE GETTY CLAIMS AREA. HIGHLAND VALLEY, B.C. PART TWO

OCTOBER 31, 1992.

Prepared for: Robak Industries
and John Lepinski.
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Analysis Preformed By:

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Vancouver, B.C.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,725

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STATEMENT OF COSTS

Wages: Stephen C. Gower, Geologist. Aug 19,20, 21 and 22, 1992.
Three @ one half days at $250.00/day.....$875.00

Elaine M. Thompson, Technician. Aug 19,20, 21 and 22, 1992
Three and one half days at $125.00/day.....$437.50

Support Costs, 4 days at $53.75/person/day.....$430.00

4 Wheel Drive Truck, 4 days at $70/day.....$280.00

8 Wheel Drive ATV Rental, 4 days at $47.50/day.....$190.00

Gasoline.....$40.32

Sample Bottles.....$23.70

Egress.....$250.00

Analysis, water and silt.....$1344.00

Report.....$800.00

Total.....$4670.52

Amount claimed for Assessment, $4670.52.

1.0 Summary

This report discusses part two in a series of geochemical studies being carried out on the Getty claim group to document the water and silt geochemistry in the area for reclamation and remediation purposes. This report deals with sampling carried out in late August, 1992. The second series of samples have been analyzed in the same manner as the first with the addition of nitrate, nitrite and ammonia.

1.1 Conclusions

There is a fairly good correlation between the June and August samples. Insufficient samples have been analyzed to establish background values for the drainages. Some of the drainages were dry at the time of the August sampling, resulting in only one set of values being obtained during the 1992 program.

1.2 Recommendations

Further water samples must be collected from the designated sites after the major flush from the spring runoff is completed. It is anticipated that the majority of the runoff should be over by May.

2.0 Introduction

2.1 Terms of Reference

Gower Thompson and Associates Ltd. was employed by Robak Industries and John Lepinski to prepare an analysis of the water and silt from drainages on the Getty claims Area. The purpose of these surveys was to gather baseline data on mineral content, pH, sulphate, total dissolved solids, nitrate, nitrite and ammonia nitrogen in streams draining the mineral deposits.

These samples were collected and analyzed to gather data for environmental purposes and to explore for new areas of mineralization hidden under drift cover. The geochemical data was incorporated with geological mapping carried out in conjunction with the water and silt sampling.

No further work is anticipated until the spring of 1993.

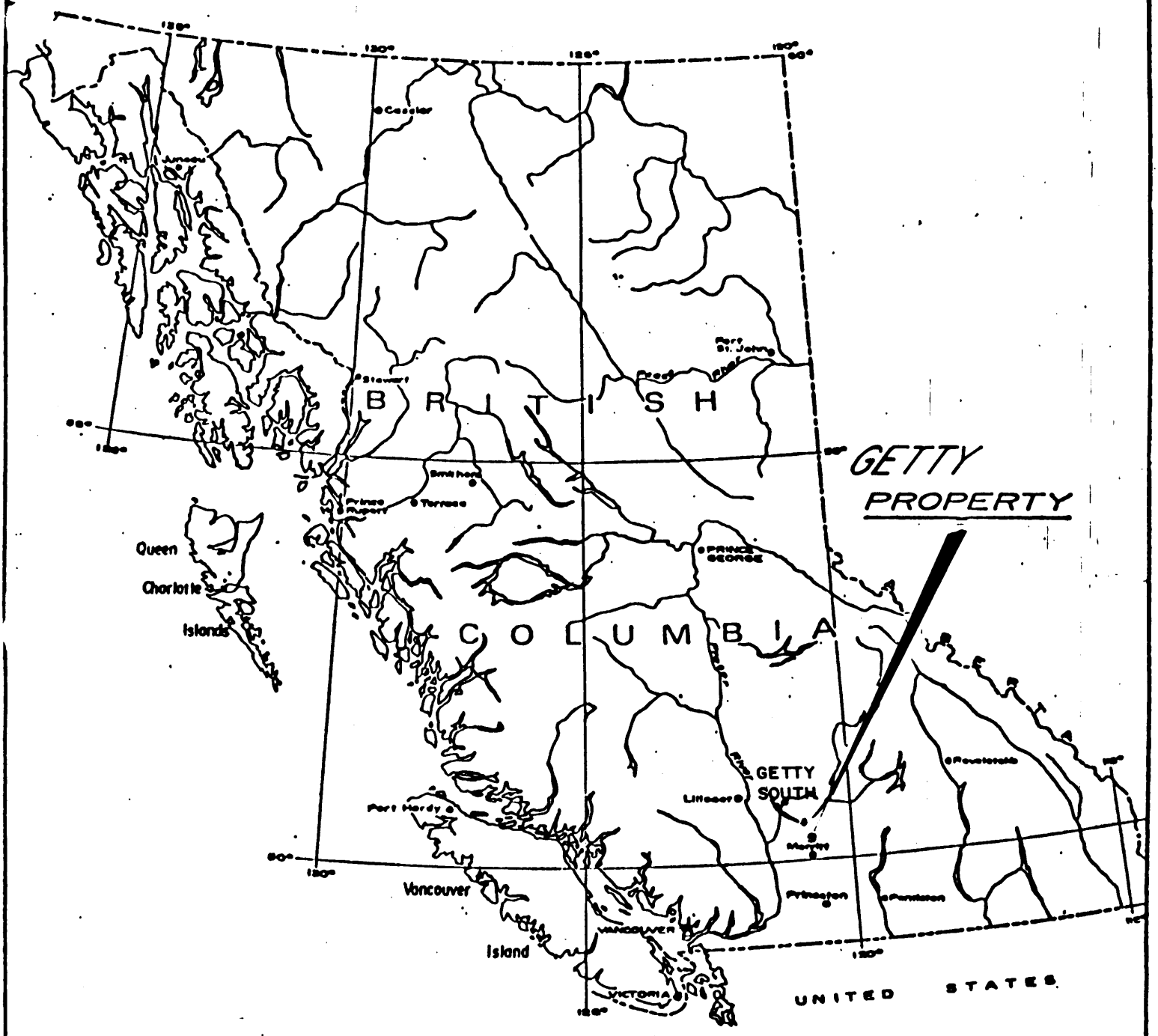
2.2 Location and Access

The Getty claims are located in the Highland Valley of B.C. at approximately Lat. 50 degrees 35 minutes; Longitude 121 degrees 00 minutes in the Kamloops Mining Division. The claims are centered about 6 kilometres north of the Bethlehem Mine and include the deposits previously known as the Krain (Getty North), Trojan - South Seas (Getty South) and Transvaal (Getty West) deposits. Access to the claims is via the Bose Lake road which branches off the paved road leading to the old Bethlehem Mill.

2.3 Sample Parameters

A total of 17 sample sites surrounding the claim area were prepared for the program. These sites were selected for relative ease of access while maximizing the area of influence for the drainage area. The sample sites were marked by blazing a nearby tree and affixing an aluminum tag on which the date of sampling could be marked. Samples were taken by Elaine M. Thompson of Gower Thompson and Associates Ltd. Field notes, sample locations and silt sampling were the responsibility of the author. Sample bottles used were supplied by Min-En Labs and Cantest Ltd. of Vancouver, B.C. All water samples were analyzed in accordance with standard laboratory procedures.

An all terrain vehicle was required to facilitate access to some of the sample locations. Other sites are easily accessible by 4 wheel drive truck.



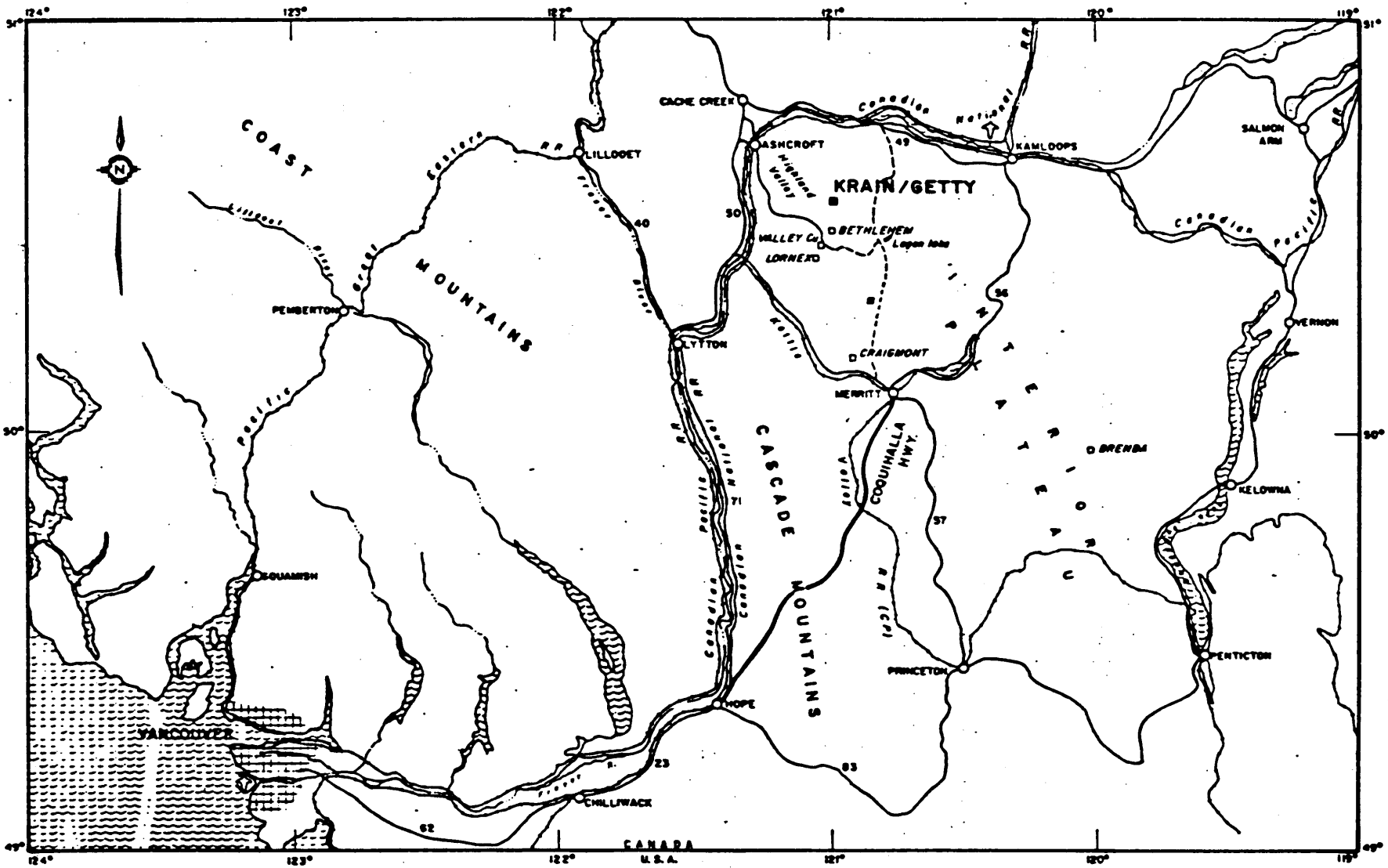
KRAIN/GETTY PROPERTY

LOCATION MAP

HIGHLAND VALLEY, B.C.

SCALE
1" = 136 Miles

FIG. 1



LOCATION MAP

FIG. 2

3.0 Claim Status

This report covers work declared on the following mineral claims

NAME	UNITS	NEW EXPIRY DATE*	TENURE NUMBER
Getty 30	1	January 7, 1994	218225
Getty 31	1	January 6, 1994	218226
Getty 32	1	January 6, 1994	218227
Getty 33	1	January 6, 1994	218228
Getty 34	1	January 6, 1994	218229
Getty 35	1	January 6, 1994	218230
Getty 36	1	January 6, 1994	218231
Getty 37	1	January 7, 1994	218232
Getty 38	1	January 7, 1994	218233
Getty 39	1	May 13, 1994	218430
Getty 40	1	May 13, 1994	218431
Getty 41	1	May 13, 1994	218432
Getty 42	1	May 13, 1994	218433
Getty 43	1	May 13, 1994	218434
Getty 44	1	May 13, 1994	218435
Getty 45	1	May 15, 1994	218436
Getty 46	1	May 15, 1994	218437
Getty 47	1	May 15, 1994	218438
Getty 57	1	May 19, 1994	218448
Getty 58	1	May 19, 1994	218449
Getty 59	1	May 19, 1994	218450
Getty 60	1	May 19, 1994	218451
Getty 77 Fr.	1	June 8, 1994	218505

A statement of costs has been filed with this report.

* Pending approval of this report

The majority of the posts have been examined in the field and were found to be as described on the affidavits. A legal survey has been carried out in September to accurately locate the true position of the crown grants and the most important mineral claims in the group. The legality of the claims is the responsibility of the owners.

These claims form part of the Getty #3 Group recorded in Kamloops on June 5, 1992.

4.0 General Geology Of The Guichon Batholith

The batholith has been divided into phases based on textural and compositional parameters. Dr. K.E. Northcote established the formal names in 1969. The phases trend from older to younger from the outer margins inwards towards the core of the batholith.

1. The outermost border phase of the batholith which commonly contains inclusions of country rock is referred to as the Hybrid phase. This phase varies in composition from amphibolite to monzonite.

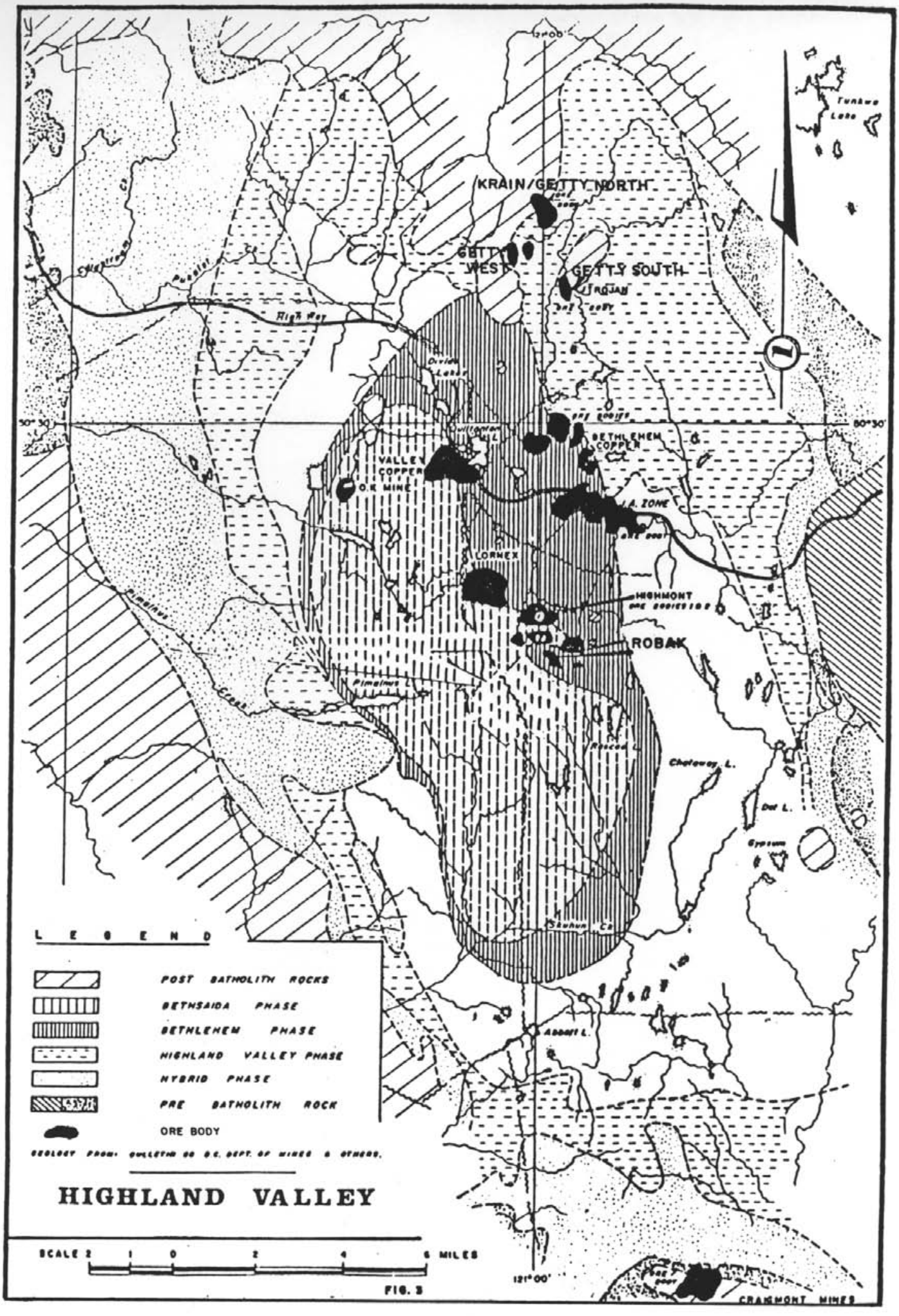
2. The next phase inwards is the Highland Valley phase which consists of the Chataway and Guichon varieties. The Chataway variety consists of about 12 percent mafics with hornblende predominating over biotite. The Guichon variety consists of quartz diorite to granodiorite which contains about 15% mafics evenly distributed between biotite and hornblende.

3. The Bethlehem phase in the next inwards in the batholith. This phase consists of granodiorite which contains approximately 8 % mafics. The characteristic criteria of the Bethlehem phase is the presence of grains of fine to medium mafic crystals enclosed by coarse grained hornblende crystals.

4. The next phase consists of the Bethsaida phase which varies from granodiorite to quartz monzonite. It generally is in gradational contact with the Bethlehem phase. It contains about 6% mafic minerals. Biotite is the predominant mafic mineral in the northern part of the Batholith; in the southern part of the batholith biotite and hornblende are present in equal quantities.

5. The Skeena variety consists of the border phase of the contact between the Bethlehem and Bethsaida phases. The composition is generally granodiorite. The mafic textures are similar to the Bethlehem phase, however the grain size is larger, the mafic content lower and the quartz is coarser grained.

6. The youngest phase consists of a swarm of porphyry dykes which extends northward from the Bethlehem deposits and encloses the Getty North, South and West deposits. (previously known as the Krain, Trojan and Transvaal deposits). A strong zone of hydrothermal alteration accompanies the dyke swarm. Feldspar minerals are altered to sericite, carbonate and clay. The mafic minerals are altered to chlorite, carbonate and epidote.


KRAIN/GETTY NORTH
GETTY WEST
GETTY SOUTH
TROJAN
VALLEY COPPER
O.K. MINE
BETHLEHEM COPPER
A. ZONE
LORNEX
HIGHMONT
ROBAK
Highway
Pimainus L.
Pimainus Creek
Roscoe L.
Chataway L.
Owl L.
Gypsum
Skuhun Cr.
Abbott L.
Tunkwa Lake
50°30'
121°00'
LEGEND
POST BATHOLITH ROCKS
BETHSAIDA PHASE
BETHLEHEM PHASE
HIGHLAND VALLEY PHASE
HYBRID PHASE
PRE BATHOLITH ROCK
ORE BODY
GEOLOGY FROM BULLETIN 60 B.C. DEPT. OF MINES & OTHERS.
HIGHLAND VALLEY
SCALE 2 1 0 2 4 6 MILES
FIG. 3
CRAIGMONT MINES

5.0 Mineral Deposits

Three major mineral deposits have been discovered in the Getty claims area. A brief description is as follows:

5.1 Getty North (previously known as Krain)

The Getty North deposit is a porphyry copper system which has a drill indicated length of at least 500 metres, a width of at least 350 metres and is mineralized to a depth of at least 450 metres. Additional drilling is required to delineate the outer boundaries of the deposit.

Mineralization consists of chalcopyrite, bornite, molybdenite and pyrite which occur as specks, disseminations and fracture fillings within Guichon Quartz Diorite and an associated younger porphyritic intrusion. In plan view the copper zone is cylindrical with the axis of the cylinder dipping slightly to the southeast. A series of gold and silver bearing quartz stringers appears to follow the long axis of the sulphide system.

A significant feature of the deposit is a zone of oxidation containing secondary copper minerals which has formed at and near surface over the northern portion of the porphyry. This oxide cap forms a relatively homogeneous zone up to 120 metres thick which has been preserved from erosion by Early Tertiary Basalts. These basalts onlap onto the oxide zone in the vicinity of Krain Lake and form the northern boundary of the proposed open pit.

5.2 Getty South (Previously known as Trojan - South Seas)

The Getty south copper deposit is hosted in a breccia pipe and its associated shatter zone. The breccia zone is somewhat elongated along a north south axis with a length of approximately 500 meters, a width of approximately 300 meters and is mineralized to a depth of at least 200 meters. The main body of the breccia has a moderate dip to the west, which the copper mineralization appears to be following. The east margin of the breccia is commonly fault bounded.

Breccia fragments consist of Guichon Granite, quartz diorite, porphyritic quartz diorite and dacite porphyry. The size of the breccia clasts varies from several millimetres to meters. The higher grade copper zones always coincide with a fine clast size. The clasts are cemented in a matrix of brown mica, quartz, tourmaline, calcite, chlorite, specular hematite and copper minerals.

Copper mineralization consists of secondary copper minerals at and near surface, underlain by primary chalcopyrite and some bornite. Chalcocite is present at surface and through the interface between primary and secondary mineralization.

The highest copper grades and the strongest alteration occur in the margins of the breccia zone where the clasts are smallest. The deposit also contains elongated crush zones which have undergone subsequent alteration and remobilization of mineralization. The centre of the breccia as exposed in the underground workings consists of a fairly coarse , massive unit which is only weakly altered and mineralized.

5.3 Getty West (Previously known as Transvaal)

The Getty West is the least understood of the porphyry copper deposits within the claim area. On the Getty West property Guichon Quartz Diorite is cut by a series of younger porphyry dykes probably related to the Bethlehem phase which outcrops to the west. Crush zones variably mineralized with copper are superimposed along the porphyry dykes. This copper mineralization associated with quartz, chlorite and tourmaline forms high grade lenses that have been explored superficially by underground workings and shallow trenches. Spectacular showings of azurite, malachite and chalcocite are present at surface. The depth of the oxidation is at least 35 metres based on observations from the adit. The property appears to be underlain by a high level porphyry copper environment which has been protected from erosion by a thin capping of Tertiary volcanics. Previous operators on the property have suggested the Getty West deposit is similar in potential to the Bethlehem deposit located to the south which produced over 1,000,000 tons of ore.

6.0 Water geochemistry

The samples were placed in coolers after collection and transported in a secure environment to Min-En Laboratories in Vancouver for analysis. The samples were analyzed for pH, suspended solids, dissolved sulphate, and a 31 element ICP package. The second series of samples collected in August are being run for all of the above plus nitrate, nitrite and ammonia. The results of the first analysis are included as Tables 6.1 to 6.17 as follows.

Water Analysis

Table 6.1

Station A - 92 - 01

Parameter	June 6/92	Aug. 19/92
pH	7.21	6.90
Dissolved Sulphate	5 mg/L	>1
Suspended Solids	9 mg/L	3.3
Copper	0.002 ppm	0.002
Molybdenum	0.004 ppm	0.002
Lead	0.002 ppm	0.022
Zinc	0.001 ppm	0.001
Manganese	0.005 ppm	0.005
Iron	0.39 ppm	0.18
Silver	0.003	0.001
Nitrate	-----	<0.05 mg/L
Nitrite	-----	<0.002 mg/L
Ammonia Nitrogen	-----	<0.01 mg/L
Silt Values		
Copper	56 ppm	-----
Molybdenum	1 ppm	-----
Lead	61 ppm	-----
Zinc	157 ppm	-----
Silver	5.9 ppm *	-----

Table 6.2

Station B - 92 - 01

Parameter	June 6/92	Aug. 19/92
pH	7.25	7.20
Dissolved Sulphate	6 mg/L	1 mg/L
Suspended Solids	< 1 mg/L	2.7 mg/L
Copper	0.002 ppm	0.002 ppm
Molybdenum	0.002 ppm	0.004 ppm
Lead	0.004 ppm	0.006 ppm
Zinc	0.001 ppm	0.019 ppm
Manganese	0.005 ppm	0.015 ppm
Iron	0.52 ppm	0.27 ppm
Silver	0.004 ppm	0.001 ppm
Nitrate	-----	<0.05 mg/L
Nitrite	-----	0.002 mg/L
Ammonia Nitrogen	-----	<0.01 mg/L
<u>Silt Values</u>		
Copper	62 ppm	-----
Molybdenum	1 ppm	-----
Lead	40 ppm	-----
Zinc	103 ppm	-----
Silver	0.7 ppm	-----

Table 6.3

Station C - 92 - 01

Parameter	June 6, 1992	Aug 19, 1992
pH	7.20	Dry, no sample
Dissolved Sulphate	6 mg/L	-----
Suspended Solids	8 mg/L	-----
Copper	0.002 ppm	-----
Molybdenum	0.002 ppm	-----
Lead	0.012 ppm	-----
Zinc	0.001 ppm	-----
Manganese	0.225 ppm	-----
Iron	0.39 ppm	-----
Silver	0.001 ppm	-----
Nitrate	-----	-----
Nitrite	-----	-----
Ammonia nitrogen	-----	-----
<u>Silt Values</u>		
Copper	123 ppm	-----
Molybdenum	2 ppm	-----
Lead	32 ppm	-----
Zinc	75 ppm	-----
Silver	0.2 ppm	-----

Table 6.4

Station D - 92 - 01

Parameter	June 6, 1992	Aug 19, 1992
pH	7.51	7.35
Dissolved Sulphate	4 mg/L	2 ppm
Suspended Solids	1 mg/L	2.8 mg/L
Copper	0.004 ppm	0.002 ppm
Molybdenum	0.004 ppm	0.008 ppm
Lead	0.004 ppm	0.012 ppm
Zinc	0.001 ppm	0.010 ppm
Manganese	0.005 ppm	0.015 ppm
Iron	0.13 ppm	0.18 ppm
Silver	0.001 ppm	0.001 ppm
Nitrate	-----	<0.05 mg/L
Nitrite	-----	<0.002 mg/L
Ammonia Nitrogen	-----	<0.01 mg/L
<u>Silt Values</u>		
Copper	174 ppm	-----
Molybdenum	1 ppm	-----
Lead	10 ppm	-----
Zinc	81 ppm	-----
Silver	0.1 ppm	-----

Table 6.5

Station E - 92 - 01

Parameter	June 6, 1992	Aug 19, 1992
pH	7.49	7.45
Dissolved Sulphate	4 Mg/L	2 ppm
Suspended Solids	< 1 Mg/L	1.7 mg/L
Copper	0.008 ppm	0.002 ppm
Molybdenum	0.002 ppm	0.004 ppm
Lead	0.002 ppm	0.002 ppm
Zinc	0.002 ppm	0.012 ppm
Manganese	0.010 ppm	0.015 ppm
Iron	0.08 ppm	0.16 ppm
Silver	0.001 ppm	0.001 ppm
Nitrate	-----	<0.05 mg/L
Nitrite	-----	0.002 mg/L
Ammonia Nitrogen	-----	0.023 mg/L
<u>Silt Values</u>		
Copper	149 ppm	-----
Molybdenum	1 ppm	-----
Lead	17 ppm	-----
Zinc	80 ppm	-----
Silver	0.1 ppm	-----

Table 6.6

Station F - 92 - 01

Parameter	June 7, 1992	Aug 20, 1992
pH	7.33	7.35
Dissolved Sulphate	4 mg/L	2 ppm
Suspended Solids	2 mg/L	1.6 mg/L
Copper	0.064 ppm *	0.002 ppm
Molybdenum	0.006 ppm	0.010 ppm
Lead	0.002 ppm	0.012 ppm
Zinc	0.007 ppm	0.039 ppm
Manganese	0.10 ppm	0.005 ppm
Iron	0.32 ppm	0.09 ppm
Silver	0.001 ppm	0.001 ppm
Nitrate	-----	0.085 mg/L
Nitrite	-----	< 0.002 mg/L
Ammonia Nitrogen	-----	0.010 mg/L
<u>Silt Values</u>		
Copper	1329 ppm *	-----
Molybdenum	2 ppm	-----
Lead	10 ppm	-----
Zinc	82 ppm	-----
Silver	0.5 ppm	-----

* Highly anomalous

Table 6.7

Station G - 92 - 01

Parameter	June 7, 1992	Aug 29, 1992
pH	6.90	6.70
Dissolved Sulphate	3 mg/L	>1 ppm
Suspended Solids	8 mg/L	1.1 mg/L
Copper	0.002 ppm	0.002 ppm
Molybdenum	0.004 ppm	0.004 ppm
Lead	0.004 ppm	0.014 ppm
Zinc	0.001 ppm	0.006 ppm
Manganese	0.005 ppm	0.005 ppm
Iron	0.18 ppm	0.13 ppm
Silver	0.001 ppm	0.001 ppm
Nitrate	-----	<0.05 mg/L
Nitrite	-----	<0.002 mg/L
Ammonia Nitrogen	-----	<0.01 mg/L

Silt Values

Copper	No sample taken
Molybdenum	No sample taken
Lead	No sample taken
Zinc	No sample taken
Silver	No sample taken

Table 6.8

Station H - 92 - 01

Parameter	June 7, 1992	Aug 20, 1992
pH	7.35	7.10
Dissolved Sulphate	8 mg/L	5 ppm
Suspended Solids	31 mg/L	4.4 mg/L
Copper	0.002 ppm	0.002 ppm
Molybdenum	0.004 ppm	0.002 ppm
Lead	0.002 ppm	0.010 ppm
Zinc	0.002 ppm	0.006 ppm
Manganese	0.040 ppm	0.030 ppm
Iron	3.59 ppm	0.49 ppm
Silver	0.001 ppm	0.001 ppm
Nitrate	-----	<0.05 mg/L
Nitrite	-----	0.007 mg/L
Ammonia Nitrogen	-----	0.040 mg/L
<u>Silt Values</u>		
Copper	63 ppm	-----
Molybdenum	1 ppm	-----
Lead	8 ppm	-----
Zinc	65 ppm	-----
Silver	0.7 ppm	-----

Table 6.9

Station I - 92 - 01

Parameter	June 8, 1992	Aug 20, 1992
pH	8.45	Dry, no sample
Dissolved Sulphate	10 Mg/L	-----
Suspended Solids	11 Mg/L	-----
Copper	0.002 ppm	-----
Molybdenum	0.002 ppm	-----
Lead	0.002 ppm	-----
Zinc	0.021 ppm	-----
Manganese	0.020 ppm	-----
Iron	1.16 ppm	-----
Silver	0.002 ppm	-----
Nitrate	-----	-----
Nitrite	-----	-----
Ammonia Nitrogen	-----	-----

Silt Values

Copper	No sample taken
Molybdenum	No sample taken
Lead	No sample taken
Zinc	No sample taken
Silver	No sample taken

Table 6.10
Station J - 92 - 01

Parameter	June 8, 1992	Aug 20, 1992
pH	6.99	Dry, No sample
Dissolved Sulphate	3 Mg/L	-----
Suspended Solids	<1 Mg/L	-----
Copper	0.002 ppm	-----
Molybdenum	0.004 ppm	-----
Lead	0.002 ppm	-----
Zinc	0.005 ppm	-----
Manganese	0.005 ppm	-----
Iron	0.73 ppm	-----
Silver	0.002 ppm	-----
Nitrate	-----	-----
Nitrite	-----	-----
Ammonia Nitrogen	-----	-----

Silt Values

Copper	No sample taken
Molybdenum	No sample taken
Lead	No sample taken
Zinc	No sample taken
Silver	No sample taken

Table 6.11
Station K - 92 - 01

Parameter	June 8, 1992	Aug 20, 1992
pH	7.00	6.90
Dissolved Sulphate	2 mg/L	1 ppm
Suspended Solids	<1 mg/L	3.2 ppm
Copper	0.010 ppm	0.002 ppm
Molybdenum	0.006 ppm	0.002 ppm
Lead	0.020 ppm	0.014 ppm
Zinc	0.026 ppm	0.006 ppm
Manganese	0.025 ppm	0.005 ppm
Iron	5.47 ppm	0.16 ppm
Silver	0.004 ppm	0.001 ppm
Nitrate	-----	0.059 mg/L
Nitrite	-----	<0.002 mg/L
Ammonia Nitrogen	-----	<0.01 mg/L

Silt Values

Copper	No sample taken
Molybdenum	No sample taken
Lead	No sample taken
Zinc	No sample taken
Silver	No sample taken

Table 6.12

Station L - 92 -01

Parameter	June 8, 1992	Aug 20, 1992
pH	6.64	6.55
Dissolved Sulphate	3 mg/L	<1 mg/L
Suspended Solids	3 mg/L	2.2 mg/L
Copper	0.020 ppm	0.004 ppm
Molybdenum	0.002 ppm	0.004 ppm
Lead	0.002 ppm	0.020 ppm
Zinc	0.023 ppm	0.034 ppm
Manganese	0.010 ppm	0.070 ppm
Iron	0.17 ppm	0.28 ppm
Silver	0.002 ppm	0.001 ppm
Nitrate	-----	0.069 mg/L
Nitrite	-----	0.002 mg/L
Ammonia Nitrogen	-----	<0.01 mg/L
<u>Silt Values</u>		
Copper	451 ppm	-----
Molybdenum	1 ppm	-----
Lead	7 ppm	-----
Zinc	55 ppm	-----
Silver	0.10 ppm	-----

Table 6.13

Station M - 92 - 01

Parameter	June 9, 1992	Aug 19, 1992
pH	7.15	Dry, no sample
Dissolved Sulphate	5 mg/L	-----
Suspended Solids	14 mg/L	-----
Copper	0.002 ppm	-----
Molybdenum	0.004 ppm	-----
Lead	0.002 ppm	-----
Zinc	0.024 ppm	-----
Manganese	0.005 ppm	-----
Iron	0.09 ppm	-----
Silver	0.002 ppm	-----
Nitrate	-----	-----
Nitrite	-----	-----
Ammonia Nitrogen	-----	-----
<u>Silt Values</u>		
Copper	103 ppm	-----
Molybdenum	2 ppm	-----
Lead	13 ppm	-----
Zinc	59 ppm	-----
Silver	0.1 ppm	-----

Table 6.14

Station N - 92 - 01

Parameter	June 9, 1992	Aug 19, 1992
pH	7.41	7.20
Dissolved Sulphate	3 mg/L	<1 mg/L
Suspended Solids	5 mg/L	1.1 mg/L
Copper	0.002 ppm	0.002 ppm
Molybdenum	0.002 ppm	0.012 ppm
Lead	0.014 ppm	0.030 ppm
Zinc	0.007 ppm	0.009 ppm
Manganese	0.040 ppm	0.405 ppm
Iron	0.10 ppm	0.30 ppm
Silver	0.001 ppm	0.001 ppm
Nitrate	-----	<0.05 mg/L
Nitrite	-----	<0.002 mg/L
Ammonia Nitrogen	-----	<0.01 mg/L
<u>Silt Values</u>		
Copper	338 ppm	-----
Molybdenum	49 ppm *	-----
Lead	128 ppm	-----
Zinc	60 ppm	-----
Silver	0.1 ppm	-----

Table 6.15

Station O - 92 - 01

Parameter	June 9, 1992	Aug 22, 1992
pH	7.58	7.60
Dissolved Sulphate	4 mg/L	<1 ppm
Suspended Solids	10 mg/L	2.2 ppm
Copper	0.028 ppm *	0.048 ppm *
Molybdenum	0.004 ppm	0.004 ppm
Lead	0.018 ppm	0.006 ppm
Zinc	0.021 ppm	0.006 ppm
Manganese	0.010 ppm	0.065 ppm
Iron	0.05 ppm	0.41 ppm
Silver	0.001 ppm	0.001 ppm
Nitrate	-----	0.060 mg/L
Nitrite	-----	<0.002 mg/L
Ammonia Nitrogen	-----	<0.01 mg/L

Silt Values

Copper	No sample taken
Molybdenum	No sample taken
Lead	No sample taken
Zinc	No sample taken
Silver	No sample taken

Table 6.16

Station P - 92 - 01 (Common Station with HVC*)

Parameter	June 9, 1992	Aug 22, 1992	Mean 1990*
pH	7.66	7.55	7.12
Dissolved Sulphate	5 Mg/L	<1 ppm	14
Suspended Solids	4 Mg/L	1.1 ppm	2
Copper	0.016 ppm	0.002 ppm	0.034 ppm
Molybdenum	0.006 ppm	0.006 ppm	0.012 ppm
Lead	0.002 ppm	0.002 ppm	-----
Zinc	0.001 ppm	0.005 ppm	-----
Manganese	0.005 ppm	0.005 ppm	-----
Iron	0.01 ppm	0.06 ppm	0.048 ppm
Silver	0.001 ppm	0.001 ppm	-----
Nitrate	-----	<0.05 mg/L	-----
Nitrite	-----	0.004 mg/L	-----
Ammonia Nitrogen	-----	<0.01 mg/L	-----

Silt Values

Copper	No sample taken
Molybdenum	No sample taken
Lead	No sample taken
Zinc	No sample taken
Silver	No sample taken

* Highland Valley Copper Corporation.

Table 6.17

Station Q - 92 - 01

Parameter	June 9, 1992	Aug 22, 1992
pH	7.51	7.40
Dissolved Sulphate	3 mg/L	<1 ppm
Suspended Solids	3 mg/L	2.2 mg/L
Copper	0.002 ppm	0.002 ppm
Molybdenum	0.002 ppm	0.004 ppm
Lead	0.016 ppm	0.014 ppm
Zinc	0.017 ppm	0.003 ppm
Manganese	0.175 ppm	0.255 ppm
Iron	0.39 ppm	0.42 ppm
Silver	0.001 ppm	0.001 ppm
Nitrate	-----	0.063 mg/L
Nitrite	-----	0.003 mg/L
Ammonia Nitrogen	-----	0.025 mg/L

Silt Values		Q-92-S02	Q-92-S03
Copper	118 ppm	332 ppm	156 ppm
Molybdenum	16 ppm	1 ppm	5 ppm
Lead	126 ppm	4 ppm	36 ppm
Zinc	21 ppm	24 ppm	9 ppm
Silver	0.10 ppm	0.10 ppm	0.10 ppm

7.0 Water Sample Notes

Sample	Width	Depth	Flow	Colour	FieldpH	Acid	Date
A-92-01	0.5m	0.1m	7sec/m	clear	5-6	4 drops	6/6/92
-02	0.5m	0.025m	20sec/m	clear	5-6	5 drops	19/8/92
B-92-01	0.5m	0.1m	10sec/m	clear	5-6	4 drops	6/6/92
-02	0.5m	0.025m	10sec/m	clear	6	5 drops	19/8/92
C-92-01	0.4m	0.1m	20sec/m	clear	6	4 drops	6/6/92
-02	Dry, no sample taken.						
D-92-01	1.0m	0.1m	3sec/m	clear	6	4 drops	6/6/92
-02	1.0m	0.025m	5sec/m	clear	5-6	5 drops	19/8/92
E-92-01	1.0m	0.1m	2sec/m	clear	5-6	4 drops	6/6/92
-02	1.0m	0.05m	2sec/m	clear	6	5 drops	19/8/92
F-92-01	0.5m	0.1m	23sec/m	clear	5-6	5 drops	7/6/92
-02	0.25m	0.05m	10sec/m	clear	5-6	5 drops	20/8/92
G-92-01	1.0m	0.1m	10sec/m	clear	5-6	5 drops	7/6/92
-02	1.0m	0.025m	15sec/m	clear	5-6	5 drops	20/8/92
H-92-01	0.4m	0.05m	4sec/m	clear	5-6	5 drops	7/6/92
-02	0.2m	0.025m	5sec/m	clear	6	5 drops	20/8/92
I-92-01	0.3m	0.01m	Trickle	clear	5-6	5 drops	8/6/92
-02	Dry, no sample.						
J-92-01	0.5m	0.05m	5sec/m	clear	5-6	5 drops	8/6/92
-02	Dry, no sample.						
K-92-01	0.6m	0.1m	5sec/m	clear	5-6	5 drops	8/6/92
-02	0.02m	0.002m	5sec/m	clear	5-6	5 drops	20/8/92
L-92-01	1.0m	0.02m	Trickle	clear	5	5 drops	8/6/92
-02	0.10m	2 cm	25sec/m	clear	5-6	5 drops	20/8/92
M-92-01	0.5m	0.05m	Trickle	clear	5-6	5 drops	9/6/92
-02	Dry, no sample.						
N-92-01	1.0m	0.05	Trickle	clear	6	5 drops	9/6/92
-02	0/10m	0.01m	Trickle	clear	6	5 drops	19/8/92
O-92-01	1.5m	0.2m	5sec/m	clear	5-6	5 drops	9/6/92
-02	0.5m	0.025m	3sec/m	clear	5-6	5 drops	22/8/92
P-92-01	1.5m	0.25m	3sec/m	clear	5-6	5 drops	9/6/92
-02	0.8m	0.01m	3sec/m	clear	6	5 drops	22/8/92
Q-92-01	0.5m	0.2m	2sec/m	clear	5-6	5 drops	9/8/92
-02	0.3m	0.1m	3sec/m	clear	6	5 drops	22/8/92

Flow is measured in how many seconds are required for the water at surface to traverse one meter. (Xsec/m)

Acid is how many drops of nitric acid were utilized to bring the water sample to a pH of from 1 to 2 to prevent the precipitation of metallic ions.

8.0 Silt Sample Notes

Sample No.	Silt	Sand	Gravel	Organic	Notes
A - 92 - S1	X			X	Edge of clearcut.
B - 92 - S1	X			X	U shaped gully.
C - 92 - S1	X			X	In clearcut, swampy.
D - 92 - S1	X	X		X	In clearcut, good flow
E - 92 - S1	X	X		X	As above.
F - 92 - S1	X	X		X	5.5 road marker.
G - 92 - S1	No Sample Taken.				
H - 92 - S1	X	X		X	Clearcut.
I - 92 - S1	No sample taken.				
J - 92 - S1	Silt taken prior.				
K - 92 - S1	No sample taken.				
L - 92 - S1	X			X	Vicinity of showings.
M - 92 - S1	X			X	
N - 92 - S1	X			X	High organic.
O - 92 - S1	Taken on main Trojan road, no silt taken.				
P - 92 - S1	HVC sample site, Trojan. No silt taken.				
Q - 92 - S1	X			X	High organic.
Q - 92 - S02	X				High organic. Follow up. 1 Km upstream from S1.
Q - 92 - S03	X				High organic. Follow up. 0.5 Km upstream from S1.

* Highland Valley Copper Corporation

9.0 Qualifications

I, Stephen C. Gower of 985 Gatensbury Street, Coquitlam, B.C. do hereby certify that:

1. I have been practising as a geologist for a period of approximately 22 years for mining exploration and consulting companies. During this time I have made extensive use of geochemistry as an exploration and environmental tool.

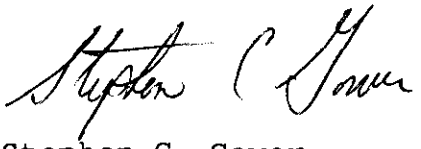
2. I obtained a B.Sc. in geology from the University of British Columbia in 1970, and have completed masters courses in property evaluation and exploration.

3. I am a fellow in the Geological Association of Canada.

4. This report is based on Field work carried out by Gower Thompson and Associates Ltd. during the period June 3 to June 11, and Aug 19 to Aug 23, 1992 and is part of an ongoing study of the geochemistry of streams draining the Getty deposits.

5. This report has been assisted by chemists of Min-En and Cantest Labs and by Dr. M. J. Beattie, P.Eng. of Beattie Consulting Ltd.

6. I am currently employed as a geologist by Gower Thompson and Associates Ltd.



Stephen C. Gower B.Sc; F.G.A.C.

October 31, 1992

10.0 References

Bacon Donaldson and Associates Ltd. Compilation of Reports regarding the Krain Getty Project. March 1990.

Eco-Tech Laboratories. Water Quality Analysis in the Highland Valley. Prepared for Highland Valley Copper for the 1990 year.

Gower Thompson and Associates Ltd. Assessment Report on Water and Silt Geochemistry and Geology in the Getty Claims Area. August 27, 1992.

Northcote, K.E.; Geology and Geochronology of the Guichon Batholith. 1969.

Analytical Results - Min En and Cantest Labs.

Appendix A.

COMP: GOWER THOMPSON & ASSOC. LTD.
PROJ: GETTW H2O SAMPLING
ATTN: S.C. GOWER

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 2V-0903-RJ1
DATE: 92/09/04
* SILT * (ACT:F31)

SAMPLE NUMBER	AG PPM	AL %	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA %	CD PPM	CO PPM	CU PPM	FE %	K %	LI PPM	MG %	MN PPM	MO PPM	NA %	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	TI PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU-FIRE PPB
A-92-025	.1	1.77	1	17	415	.2	9	1.00	.1	13	45	2.66	.09	7	.60	564	1	.06	32	890	3	1	76	1	1700	69.3	48	1	1	4	53	2
Q-92-S02	.1	1.11	1	19	432	.4	2	2.94	.1	4	332	1.22	.08	8	.38	792	1	.02	15	1580	4	1	96	2	303	28.1	24	1	1	2	15	3
Q-92-S03	.1	.18	1	18	1583	.1	4	2.87	.1	19	156	5.87	.09	1	.27	>10000	5	.01	28	2390	36	1	115	1	71	400.7	9	1	1	5	1	1

REPORTED TO: Gower Thompson and Associates Ltd.

CANTEST

REPORT DATE: October 2, 1992

CAN TEST FILE: 6334J
GROUP NUMBER: 2090102

TEST RESULTS:

CAN TEST ID	CLIENT SAMPLE IDENTIFICATION	Nitrate N	Nitrite N	Ammonia Nitrogen N
209010002	A-92-02	<	<	<
209010003	B-92-02	<	0.002	<
209010004	D-92-02	<	<	<
209010005	E-92-02	<	0.002	0.023
209010006	F-92-02	0.085	<	0.010
209010007	G-92-02	<	<	<
209010008	H-92-02	<	0.007	0.040
209010009	K-92-02	0.059	<	<
209010010	L-92-02	0.069	0.002	<
209010011	O-92-02	0.060	<	<
209010012	P-92-02	<	0.004	<
209010013	Q-92-02	0.063	0.003	0.025
209010014	N-92-02	<	<	<
DETECTION LIMIT		0.05	0.002	0.01
UNITS		mg/L	mg/L	mg/L

mg/L = milligrams per liter
< = Less than detection limit

COMP: GOWER THOMPSON & ASSOC. LTD.
PROJ: GETTW H2O SAMPLING
ATTN: S.C. GOWER

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 2V-0903-WJ1
DATE: 92/09/03
• WATER • (ACT:WATER)

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CR PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SE PPM	SI PPM	SN PPM	SR PPM	TI PPM	V PPM	ZN PPM
A-92-02	.001	.11	.06	.01	.010	.0004	.006	9.96	.001	.005	.005	.002	.18	1.98	.01	4.94	.005	.002	2.14	.010	.14	.022	.006	.025	20.13	.004	.054	.004	.009	.001
B-92-02	.001	.06	.03	.01	.015	.0003	.008	18.44	.001	.005	.005	.002	.27	2.76	.01	6.77	.015	.004	3.11	.010	.20	.006	.004	.040	22.38	.002	.070	.004	.010	.019
D-92-02	.001	.02	.03	.01	.030	.0003	.002	29.83	.001	.005	.005	.002	.18	2.33	.01	6.55	.015	.008	3.36	.005	.12	.012	.004	.035	16.43	.002	.074	.002	.006	.010
E-92-02	.001	.02	.03	.01	.025	.0002	.002	27.12	.001	.005	.005	.002	.16	2.05	.01	5.44	.015	.004	2.98	.010	.11	.002	.002	.035	15.31	.002	.068	.002	.005	.012
F-92-02	.001	.03	.03	.01	.045	.0003	.002	27.86	.001	.005	.005	.002	.09	.99	.01	3.58	.005	.010	2.64	.010	.02	.012	.002	.030	11.90	.002	.052	.002	.003	.039
G-92-02	.001	.10	.04	.01	.030	.0004	.008	13.73	.001	.005	.005	.002	.13	1.78	.01	4.43	.005	.004	2.51	.005	.06	.014	.002	.040	18.77	.002	.050	.004	.006	.006
H-92-02	.001	.43	.05	.01	.055	.0003	.012	10.19	.001	.005	.005	.002	.49	3.70	.01	3.25	.030	.002	2.46	.005	.11	.010	.006	.025	21.90	.002	.052	.010	.010	.006
K-92-02	.001	.14	.05	.01	.015	.0002	.002	9.68	.001	.005	.005	.002	.16	2.03	.01	3.43	.005	.002	2.60	.010	.10	.014	.002	.030	19.28	.002	.044	.004	.006	.006
L-92 02	.001	.10	.03	.01	.035	.0003	.002	17.01	.002	.005	.005	.004	.28	.94	.01	3.16	.070	.004	2.20	.005	.05	.020	.002	.020	6.91	.002	.056	.002	.002	.034
N-92-02	.001	.01	.05	.01	.090	.0003	.002	65.05	.004	.005	.010	.002	.30	2.23	.01	12.12	.405	.012	5.61	.010	.05	.030	.002	.085	15.72	.006	.118	.002	.006	.009
O-92-02	.001	.29	.03	.01	.055	.0001	.002	36.15	.001	.005	.005	.048	.41	1.45	.01	4.79	.065	.004	3.73	.005	.05	.006	.002	.040	13.84	.004	.054	.002	.004	.006
P-92-02	.001	.01	.01	.01	.040	.0001	.002	35.74	.001	.005	.005	.002	.06	1.45	.01	4.64	.005	.006	3.70	.005	.03	.002	.002	.045	13.58	.006	.054	.002	.002	.005
Q-92-02	.001	.01	.03	.01	.020	.0003	.002	49.51	.001	.005	.005	.002	.42	1.85	.01	7.74	.255	.004	4.65	.005	.07	.014	.002	.070	14.55	.014	.072	.002	.002	.003

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FAX (604) 980-9621

SMITHERS LAB.:
3176 TATLOW ROAD
SMITHERS, B.C. CANADA V0J 2N0
TELEPHONE (604) 847-3004
FAX (604) 847-3005

Assay Certificate

2V-0903-WA1

Company: **GOWER THOMPSON & ASSOC. LTD.**
Project: GETTW H2O SAMPLING
Attn: S.C. GOWER

Date: SEP-04-92
Copy 1. GOWER THOMPSON & ASSOC., VANCOUVER, B.

We hereby certify the following Assay of 13 WATER SAMPLES samples submitted AUG-28-92 by S. C. GOWER.

Sample Number	PH %	SO4 PPM	*SOLIDS mg/L
A-92-02	6.90	>1	3.3
B-92-02	7.20	1	2.7
D-92-02	7.35	2	2.8
E-92-02	7.45	2	1.7
F-92-02	7.35	2	1.6
G-92-02	6.70	>1	1.1
H-92-02	7.10	5	4.4
K-92-02	6.90	1	3.2
L-92-02	6.55	>1	2.2
J-92-02	7.20	>1	1.1
O-92-02	7.60	>1	2.2
P-92-02	7.55	>1	1.1
Q-92-02	7.40	>1	2.2

*TOTAL SUSPENDED SOLIDS.

Certified by _____

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ROAD - 2 WHEEL DRIVE

ROAD - 4 WHEEL DRIVE

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METRES
0 250 500

GEOLOGICAL BRANCH ASSESSMENT REPORT

22,725

ROBAK INDUSTRIES LTD.

NORTH HIGHLAND VALLEY KRAIN GETTY PROPERTY

GENERAL GEOLOGY, MINERAL ZONES, CLAIMS ROADS, TOPOGRAPHY, CREEKS & CLEARCUT

DRAWN BY: E. THOMPSON, S. GOWER
DATE: JUNE, 1990. Aug 27/92
FIG.: 4
SCALE: 1:12500

GOWER, THOMPSON & ASSOCIATES LIMITED

ALL CLAIM BOUNDARYS APPROX.

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