

LOG NO: 09-20	RD.
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GEOLOGICAL AND GEOCHEMICAL REPORT

QFP MINERAL CLAIM

CARIBOO MINING DIVISION

**SUB-RECORDER
RECEIVED
SEP 10 1990**
M.R. # _____ \$ _____
VANCOUVER, B.C.

NTS: 93B/13W

Latitude: 52° 58' north

Longitude: 123° 51' west

Owner: John Nebocat

Operator: John Nebocat

August 23, 1990

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

20,277

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INTRODUCTION

The QFP claim is located in the Fraser Plateau of central British Columbia.

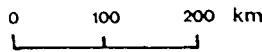
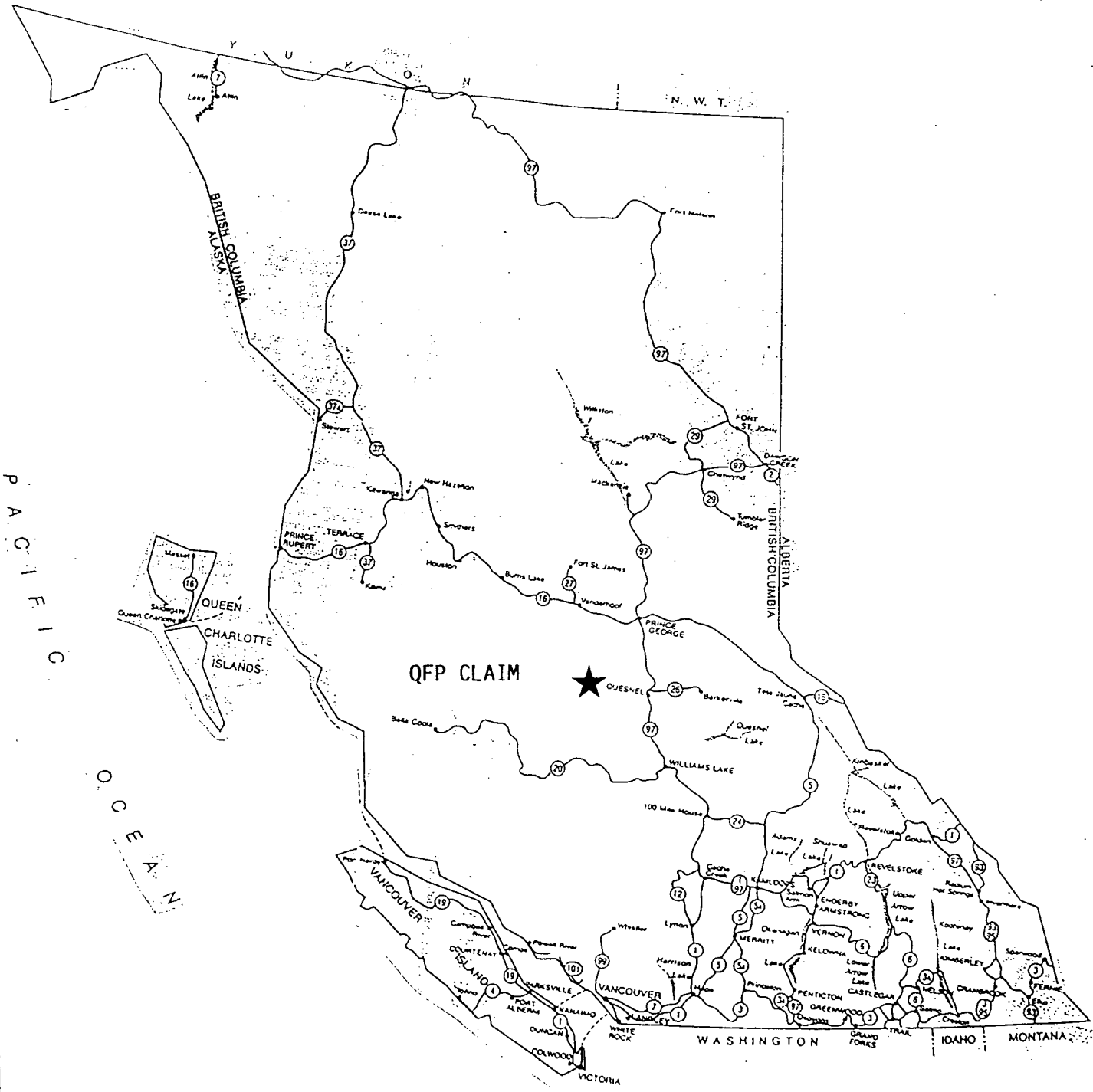
Access to the property is via the Nazko road to Marmot Lake, then to the Baezaeko River via the Michelle Creek and Coglistiko River logging roads, about 120 km west of Quesnel, B.C.

The terrain is typified by rolling, forested hills and plateaux which are extensively covered in glacial overburden. Annual rainfall is slight to moderate, and drainages are commonly intermittent and swampy. Lodgepole pine is the dominant conifer with Douglas fir occurring on drier slopes and spruce growing along creeks and swamps. Underbrush is scant and consists primarily of alder and various species of willow in wetter areas.

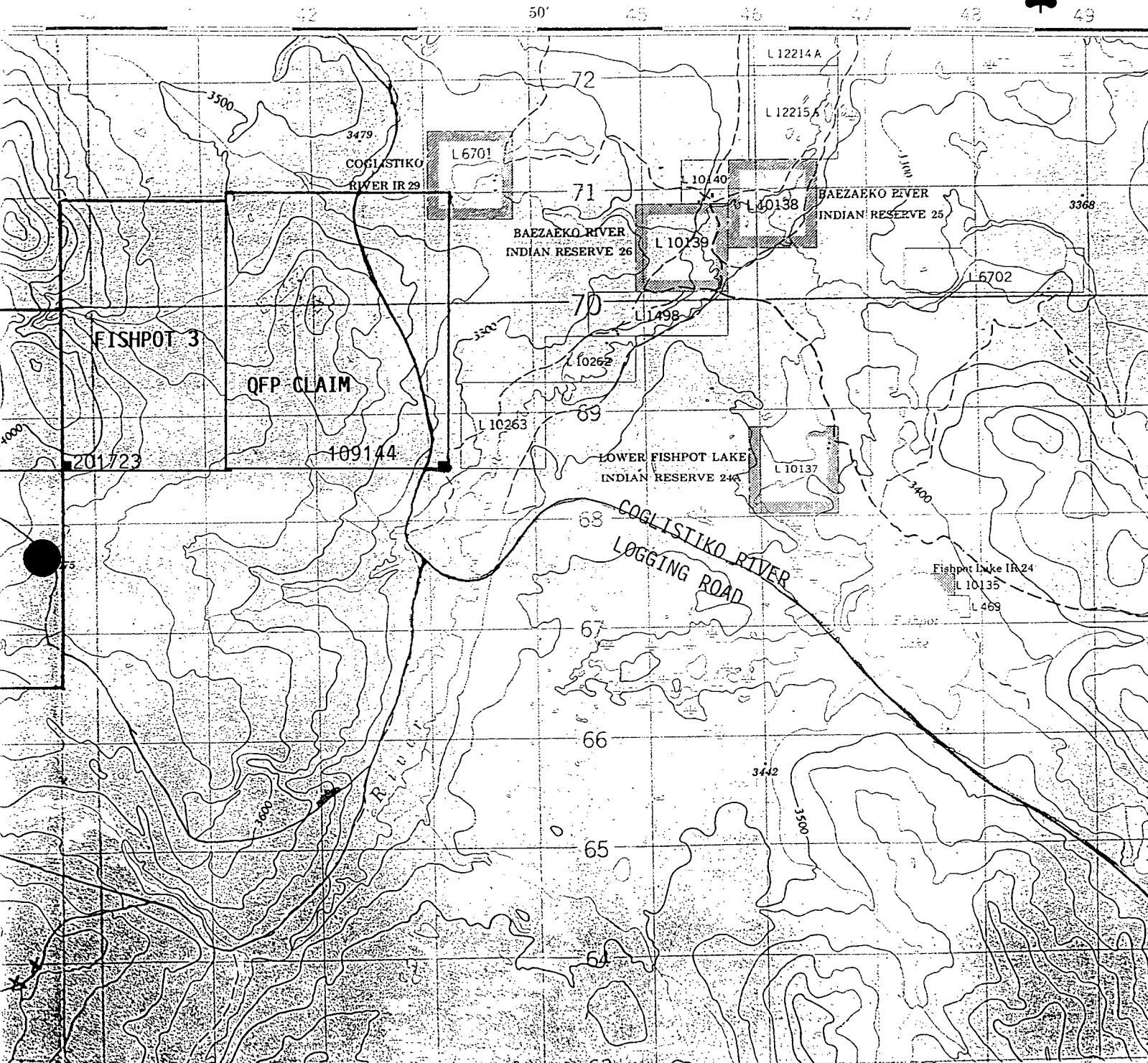
The QFP claim was staked by the author on August 17, 1989; all work on the claims was also done by the author.

A total of 15 soil and 13 rock samples were collected. A 1.0 km base line was cut with a powersaw, and 0.8 km of cross-lines were located using an axe. Stations were chained and corrected for slope every 25 m and were located with pickets. A foot trail, just over 1 km long, was located to provide access from the logging road to the summit of a hill near the centre of the claim. Roughly 10 hectares of the claim were prospected and geologically mapped. All the work documented within this report was performed on the QFP claim.

A quartz and pyrite-bearing rhyolite porphyry intrudes and alters sedimentary rocks over a substantial area. Limited sampling has shown the presence of anomalous gold and gold indicator elements on the claim, and there is a potential for a low grade, bulk tonnage precious metal deposit to underlie it.



QFP CLAIM
INDEX MAP
 Cariboo Mining Division
 93B/13W Aug. 23, 1990 Figure 1



QFP CLAIM LOCATION

CARIBOO MINING DIVISION



scale - 1:50,000

93B/13W Aug. 23, 1990 Figure 2

DISCUSSION

Regional Geology

The QFP claim is situated in the Intermontane Belt and is underlain by Stikinia Terrane volcanics and sediments belonging to the middle Jurassic Hazelton Group. Post-accretion tectonics created several lacustrine basins in late Cretaceous time which were inundated by continental volcanism from the mid to late Tertiary.

Property Geology

Probably less than 1% of the property contains exposed outcrops, the balance is underlain by a mantle of glacial till.

The predominant lithology is a quartz eye rhyolite porphyry intrusive which outcrops near the center of the claim where it forms a prominent knoll. The rhyolite is a creamy white to green-grey and tan colour. Fine hematite and limonite ghosts after pyrite, usually 1 mm to 2 mm across, are sprinkled throughout the matrix and comprise about ½% of it by volume. White quartz veins, usually 1 cm to several cms thick, cut the porphyry throughout. Pyrolusite occurs as fracture coatings and locally with the quartz veins.

A roof pendant of chert pebble conglomerate sits atop the porphyry, forming the summit of the knoll at the centre of the claim. Chalcedonic quartz, calcite and limonite is found within it locally. Crystalline, subhedral quartz rims breccia fragments, and minor banded, varicoloured quartz is found with it. Traces of mariposite (or fuchsite) occur in these altered sediments.

Argillite, slate, siltstone and tuffaceous sediments form outcrops and subcrops near the logging road. These sediments are relatively unaltered. A few buff coloured feldspar porphyry dykes also subcrop in this location.

About halfway between the knoll and the logging road exist numerous

subcrops of quartz feldspar porphyry (rhyolite porphyry), shale hornfels, and bleached and silicified sediments in the roots of overturned trees. Grid lines have to be established here to get an accurate location of these occurrences.

Large cobbles and boulders of altered sediments (brecciated, bleached and veined with quartz and limonite) are found along the roadcut over a 300m - 400m distance. Similar material is found in some of the road ballast, but most of it appears to originate in the till along the road.

Geochemistry

In October, 1989, 10 rock samples were collected from altered float found in overburden along the road (samples QFP 1-10). Three rock samples were taken from along the road and from the grid in May, 1990 (samples 00793 - 00795).

Fifteen soil samples were collected along the baseline to explore for the source of the altered float found along the road. Soil samples were collected at 25 m intervals along the baseline. Sample sites were excavated to an average depth of 25 cm. Soil was collected using a stainless steel trowel and placing the soil into gusseted, kraft paper envelopes.

The samples were analyzed for 30 elements using ICP instrumentation and for gold using atomic absorption and/or fire assay preconcentration. The samples were analyzed by IPL International Plasma Laboratories Inc., Vancouver, B.C.; the results and laboratory procedures are documented in appendices I and II, respectively.

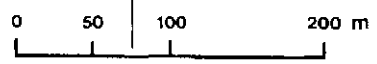
Interpretation

Bleached, brecciated and limonitic sediments, locally veined with quartz, are found along the roadcut roughly 200 m north and south of the base-

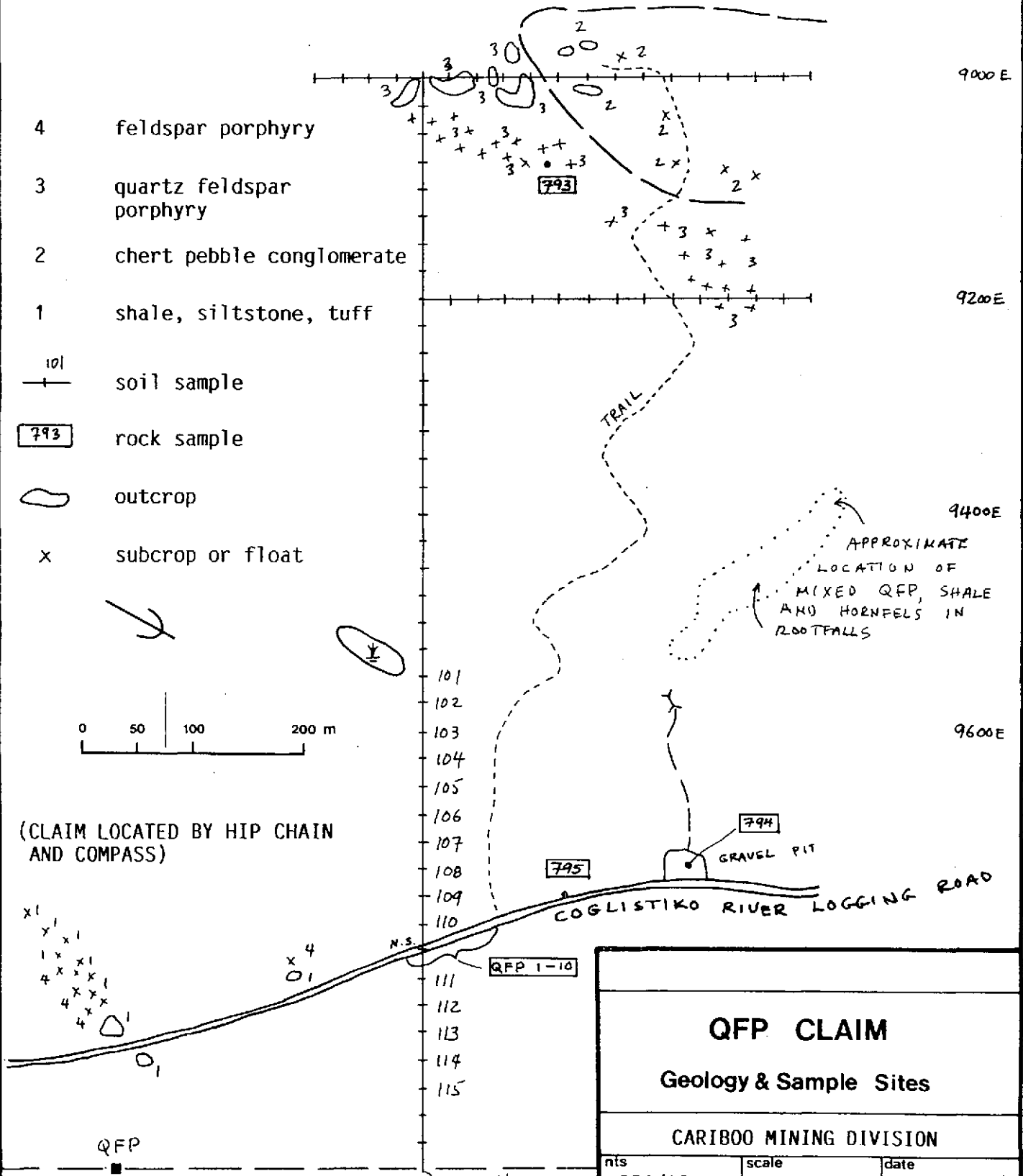


LOCATION, APPROXIMATE

- 4 feldspar porphyry
- 3 quartz feldspar porphyry
- 2 chert pebble conglomerate
- 1 shale, siltstone, tuff
- 101 soil sample
- 793 rock sample
- outcrop
- x subcrop or float



(CLAIM LOCATED BY HIP CHAIN AND COMPASS)



QFP
2N
I.D. POST

10,000 N
10,000 E

QFP CLAIM		
Geology & Sample Sites		
CARIBOO MINING DIVISION		
nts	scale	date
93B/13W	1:5000	Aug. 23/90
drawn by	survey by	figure
JN	JN	3

line, as observed so far. About one-half of the grab samples yielded slightly to moderately anomalous: gold (up to 145 ppb); arsenic (up to 453 ppm); barium (up to 1131 ppm); copper (up to 353 ppm); antimony (up to 65 ppm and zinc (up to 1108 ppm). This material is believed to originate under the till somewhere to the SW, possibly mid-way between the shale outcrops along the road and the quartz feldspar porphyry outcrops on the knoll.

Rock sample 793 was taken from talus scree on the east side of the knoll. Chalcedonic quartz and calcite veins cut grey-black chert pebble conglomerate and contain a minor amount of malachite--the sulphide mineral is not identified. This sample ran 3100 ppb Au (0.111 opt Au by check assay). Float of brecciated sediments veined with crystalline quartz was also found in this area.

Samples 794 and 795, taken of carbonate-rich and quartz-rich vein material, respectively, yielded not significant values.

A soil line run immediately up-ice from rock samples QFP 1-10 yielded no anomalous values in the elements cited above. The overburden is too thick here, or the source of the altered sediments is elsewhere on the property. The area containing numerous subcrops exposed in rootfalls is near bedrock and should be further explored.

CONCLUSIONS

1. Mapping and sampling has shown that precious metals occur in an altered sequence of sediments;
2. A rhyolite porphyry stock that intruded the sediments is believed to be the cause of the alteration and probably is the source of the mineralization;
3. The oxidized nature of much of the bleached sediments makes them a suitable target to explore for a bulk tonnage, heap leachable deposit.

RECOMMENDATIONS

1. Additional grid should be established to explore for the mineralized float found along the roadcut;
2. The area of altered rock found in rootfalls contains shallow overburden and should be sampled and prospected;
3. The area where the sample containing 3100 ppb Au was collected should be prospected and sampled.

John Nebout

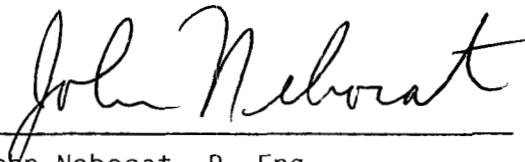
STATEMENT OF COSTS

<u>Labour</u>	John Nebocat: Oct. 14, 15, 1989; May 25-28; Aug. 23, 1990. 7 days @ \$200.00/day	\$1400.00
	Sherryl Nebocat: Oct. 14, 15, 1989; May 25-28, 1990. 6 days @ \$80.00/day	\$ 480.00
<u>Analyses</u>	13 rock samples for 30 element ICP analysis gold by FA-AA analysis and sample prep. @ \$13.00/sample \$169.00; 1 rock pulp assayed for Au \$ 13.50 15 soil samples for 30 element ICP analysis gold by AA analysis and sample prep. @ \$11.00/sample \$165.00	\$ 347.50
<u>Food</u>		\$ 63.99
<u>Supplies</u>		\$ 219.43
<u>TOTAL</u>		<u>\$2510.92</u>

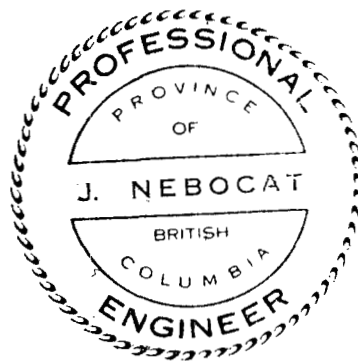
STATEMENT OF QUALIFICATIONS

I, John Nebocat, residing at 13 - 230 West 14th. Street, North Vancouver British Columbia, declare that:

1. I am a geologist and have been employed in mineral exploration and earth science studies with industry and government since 1973.
2. I obtained a technical diploma from the British Columbia Institute of Technology in 1974, subsequently I graduated with a B.Sc. in Geological Engineering (1984) from the Montana College of Mineral Science & Technology, Butte, Montana.
3. I am a registered Professional Engineer with the Association of Professional Engineers of British Columbia.
4. I carried out the work described within this report.



John Nebocat, P. Eng.



APPENDIX I

Rock and Soil Sample Results and Descriptions

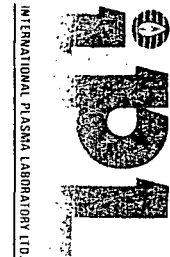
Sample Name	Type	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	La ppm
QFP 1	Rock	25	0.1	0.69	38	163	<2	0.04	4.8	14	46	55	>5.00	<1	0.17	3
QFP 2	Rock	145	0.6	1.16	311	1131	6	0.07	16.7	44	56	154	>5.00	4	0.15	<2
QFP 3	Rock	25	<0.1	0.52	36	156	<2	0.02	1.4	6	25	46	>5.00	<1	0.21	<2
QFP 4	Rock	60	0.5	0.20	68	282	<2	0.06	0.7	15	181	19	4.52	1	0.07	<2
QFP 5	Rock	15	0.1	0.94	328	263	3	0.11	20.9	12	31	244	>5.00	<1	0.18	4
QFP 6	Rock	20	0.1	0.31	53	73	<2	0.03	0.1	8	115	18	1.94	<1	0.11	<2
QFP 7	Rock	10	0.2	0.72	20	63	4	0.02	13.7	65	47	72	>5.00	<1	0.08	<2
QFP 8	Rock	105	0.3	0.29	162	1119	<2	0.07	2.4	17	130	34	>5.00	2	0.10	3
QFP 9	Rock	30	0.1	0.21	26	187	<2	0.02	<0.1	3	67	17	0.90	1	0.14	5
QFP 10	Rock	15	<0.1	0.41	453	130	<2	0.05	7.6	14	34	353	>5.00	<1	0.21	3

ROCK SAMPLE DESCRIPTIONS

- QFP 1 Bleached & brecciated siltstone, veined with limonite
- QFP 2 Partially bleached & brecciated shale, veined with limonite
- QFP 3 Bleached & brecciated shale, minor limonite and hematite veining
- QFP 4 Brecciated chert pebble conglomerate, some limonite, jarosite and quartz veining
- QFP 5 Brecciated and intensely limonitic siltstone
- QFP 6 Silicified siltstone, minor limonite
- QFP 7 Intensely bleached shale/tuff; veined with quartz and limonite
- QFP 8 Brecciated chert pebble conglomerate, veined with pitch limonite, hematite and quartz
- QFP 9 Brecciated and slightly kaolinized and silicified chert pebble conglomerate
- QFP 10 Intensely limonitic and hematitic siltstone, some brecciation and quartz veining

Minimum Detection	5	0.1	0.01	5	2	2	0.01	0.1	1	1	1	0.01	1	0.01	2
Maximum Detection	10000	100.0	5.00	10000	10000	10000	10.00	10000.0	10000	10000	20000	5.00	10000	10.00	10000
Method	FA/AAS	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

-- = Not Analysed unr = Not Requested ins = Insufficient Sample



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Report: 9000041 R Nebocat, John

Project: QFP

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Section 2 of 2

Sample Name	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	V ppm	W ppm	Zn ppm	Zr ppm
QFP 1	0.05	126	9	<0.01	142	0.10	19	20	4	4	19	<0.01	24	<5	429	3
QFP 2	0.09	50	11	<0.01	1037	0.18	22	65	3	7	46	<0.01	31	<5	644	4
QFP 3	0.04	136	4	<0.01	35	0.02	15	16	2	2	<10	<0.01	18	<5	91	2
QFP 4	0.05	175	2	<0.01	150	0.02	31	16	1	54	<10	<0.01	<5	<5	61	1
QFP 5	0.07	121	44	<0.01	327	0.48	18	23	5	80	39	<0.01	68	<5	332	4
QFP 6	0.03	165	10	<0.01	33	0.03	27	7	<1	35	<10	<0.01	<5	<5	38	<1
QFP 7	0.03	288	4	<0.01	627	0.18	20	7	6	1	33	<0.01	38	<5	1108	3
QFP 8	0.07	211	5	<0.01	273	0.03	18	43	2	34	12	<0.01	8	<5	115	2
QFP 9	0.03	104	1	<0.01	12	0.01	12	<5	<1	20	<10	<0.01	6	<5	11	2
QFP 10	0.03	202	46	<0.01	146	0.20	19	10	3	40	28	<0.01	98	<5	214	3

Minimum Detection	0.01	1	1	0.01	1	0.01	2	5	1	1	10	0.01	5	5	1	1
Maximum Detection	10.00	10000	1000	5.00	10000	5.00	20000	1000	10000	10000	1000	1.00	10000	1000	20000	10000
Method	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

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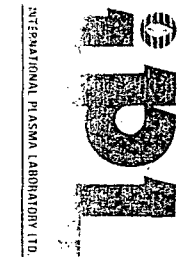
Sample Name	Type	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	La ppm
DCR #1	Soil	20	0.6	1.34	22	16	<2	9.24	1.6	5	9	1376	1.37	<3	0.33	7
101	Soil	5	0.5	1.83	21	105	<2	0.34	0.7	17	57	28	3.33	<3	0.09	6
102	Soil	<5	0.4	1.66	19	102	<2	0.20	0.4	19	63	30	3.40	<3	0.06	6
103	Soil	5	0.4	1.78	18	85	<2	0.46	0.8	19	73	29	3.45	<3	0.09	9
104	Soil	<5	0.3	2.17	27	100	<2	0.31	0.5	21	77	22	3.70	<3	0.09	6
105	Soil	<5	0.3	1.71	21	74	8	0.31	0.4	20	72	31	3.70	<3	0.08	7
106	Soil	15	0.3	1.95	27	100	2	0.34	0.4	22	88	40	4.01	<3	0.08	10
107	Soil	5	0.4	2.01	22	135	<2	0.26	0.6	20	69	27	3.39	<3	0.10	8
108	Soil	<5	0.4	2.03	22	109	3	0.27	0.5	18	64	29	3.30	<3	0.08	8
109	Soil	<5	0.3	1.70	17	123	<2	0.22	0.3	17	65	24	2.81	<3	0.08	7
110	Soil	<5	0.4	1.39	24	103	3	0.20	0.1	15	56	21	3.38	<3	0.05	5
111	Soil	<5	0.5	1.73	14	171	<2	0.25	0.4	16	47	14	2.85	<3	0.07	5
112	Soil	<5	0.5	1.45	13	287	4	0.23	0.6	16	47	15	2.88	<3	0.08	5
113	Soil	<5	0.6	1.38	16	158	<2	0.26	0.4	17	59	29	3.11	<3	0.09	6
114	Soil	<5	0.4	1.47	16	120	5	0.26	0.2	17	54	29	3.43	<3	0.06	6
115	Soil	<5	0.5	1.77	23	165	<2	0.30	0.4	20	60	29	3.77	<3	0.09	7
00793	Rock	3100	2.7	0.16	33	17	<2	0.13	0.4	3	156	12	0.90	<3	0.09	4
00794	Rock	10	0.7	0.32	16	86	<2	>10.00	1.1	16	57	26	3.68	<3	0.08	2

ROCK SAMPLE DESCRIPTIONS

00793 Brecciated, silicified and quartz-carbonate veined chert pebble conglomerate; trace malachite
 00794 Calcite-ankerite-quartz vein in an altered siltstone host rock

Minimum Detection	5	0.1	0.01	5	2	2	0.01	0.1	1	1	1	0.01	3	0.01	2
Maximum Detection	10000	100.0	5.00	10000	10000	10000	10.00	10000.0	10000	10000	20000	5.00	10000	10.00	10000
Method	FA/AAS	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

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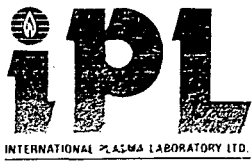
Sample Name	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	V ppm	W ppm	Zn ppm	Zr ppm
DCR #1	2.45	599	3	0.02	8	0.06	10	<5	2	509	<10	0.04	21	<5	303	10
101	0.74	283	2	<0.01	93	0.19	6	<5	4	26	<10	0.15	66	<5	245	5
102	0.73	361	3	<0.01	96	0.09	8	<5	4	19	<10	0.16	73	<5	118	5
103	0.91	549	2	0.01	88	0.04	7	<5	5	31	<10	0.18	80	<5	150	7
104	0.76	291	3	<0.01	119	0.20	8	<5	4	26	<10	0.15	76	<5	140	4
105	0.75	484	3	<0.01	97	0.09	7	<5	5	30	<10	0.21	81	<5	112	6
106	1.00	411	3	0.01	120	0.07	8	<5	6	33	<10	0.22	87	<5	123	11
107	0.74	299	2	0.01	96	0.07	8	<5	4	25	<10	0.21	73	<5	124	9
108	0.76	285	2	<0.01	100	0.12	8	<5	4	25	<10	0.17	66	<5	125	7
109	0.78	308	2	<0.01	96	0.07	8	<5	4	19	<10	0.16	58	<5	142	9
110	0.55	308	2	<0.01	70	0.06	6	<5	3	19	<10	0.20	74	<5	83	7
111	0.50	441	2	<0.01	63	0.11	7	<5	3	20	<10	0.19	63	<5	119	6
112	0.47	548	2	<0.01	55	0.08	8	<5	3	20	<10	0.19	67	<5	101	6
113	0.67	277	3	<0.01	80	0.05	8	<5	3	21	<10	0.18	73	<5	114	5
114	0.55	276	2	0.01	60	0.06	6	<5	4	23	<10	0.23	82	<5	85	9
115	0.72	342	2	<0.01	72	0.10	8	<5	4	22	<10	0.25	88	<5	110	10
00793	0.03	129	2	<0.01	24	0.01	3	<5	1	6	<10	<0.01	6	<5	33	1
00794	0.36	898	15	<0.01	98	0.04	8	<5	3	142	<10	<0.01	12	<5	56	1

Minimum Detection	0.01	1	1	0.01	1	0.01	2	5	1	1	10	0.01	5	5	1	1
Maximum Detection	10.00	10000	1000	5.00	10000	5.00	20000	1000	10000	10000	1000	1.00	10000	1000	20000	10000
Method	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

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Project: QFP

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Sample Name	Type	Au oz/st
06793	Pulp	0.111

Minimum Detection 0.005
Maximum Detection 1000.000
Method FAGrav
-- = Not Analysed unr = Not Requested ins = Insufficient Sample

Report: 9000535 R Nebocat, John

Project: None Given

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Section 1 of 2

Sample Name	Type	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	La ppm
00795	Rock	<5	<0.1	0.08	13	143	<2	0.03	<0.1	2	230	7	0.69	<3	0.05	<2

ROCK SAMPLE DESCRIPTION

00795 Multi-stage quartz vein with limonitic ghosts. Sericitized and chloritized greywacke host?

Minimum Detection	5	0.1	0.01	5	2	2	0.01	0.1	1	1	1	0.01	3	0.01	2
Maximum Detection	10000	100.0	5.00	10000	10000	10000	10.00	10000.0	10000	10000	20000	5.00	10000	10.00	10000
Method	FA/AAS	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

-- = Not Analysed unr = Not Requested ins = Insufficient Sample



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Project: None Given

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Sample Name	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	V ppm	W ppm	Zn ppm	Zr ppm
00795	0.03	43	2	<0.01	11	0.01	4	6	<1	38	<10	<0.01	<5	<5	5	<1



Minimum Detection	0.01	1	1	0.01	1	0.01	2	5	1	1	10	0.01	5	5	1	1
Maximum Detection	10.00	10000	1000	5.00	10000	5.00	20000	1000	10000	10000	1000	1.00	10000	1000	20000	10000
Method	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

-- = Not Analysed unr = Not Requested ins = Insufficient Sample

APPENDIX II

Descriptions of Analytical Procedures

Method of Gold analysis by Fire Assay / AAS

- (a) 20.0 to 30.0 grams of sample is mixed with a combination of fluxes in a fusion pot. The sample is then fused at high temperature to form a lead "button".
- (b) The precious metals are extracted by cupellation. Any Silver is dissolved by nitric acid and decanted. The gold bead is then dissolved in boiling concentrated aqua regia solution heated by a hot water bath.
- (c) The gold in solution is determined with an Atomic Absorption Spectrometer. The gold value, in parts per billion, is calculated by comparison with a set of known gold standards.

QUALITY CONTROL

Every fusion of 24 pots contains 22 samples, one internal standard or blank, and a random reweigh of one of the samples. Samples with anomalous gold values greater than 500 ppb are automatically checked by Fire Assay/AA methods. Samples with gold values greater than 10000 ppb are automatically checked by Fire Assay/Gravimetric methods.

Method of ICP Multi-element Analyses

- (a) 0.50 grams of sample is digested with diluted aqua regia solution by heating in a hot water bath for 90 minutes, then cooled, bulked up to a fixed volume with demineralized water, and thoroughly mixed.
- (b) The specific elements are determined using an Inductively Coupled Argon Plasma spectrophotometer. All elements are corrected for inter-element interference. All data are subsequently stored onto computer diskette.
- * Aqua regia leaching is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

QUALITY CONTROL

The machine is calibrated using six known standards and a blank. Another blank, which was digested with the samples, and a standard are tested before any samples to confirm the calibration. A maximum of 20 samples are analysed, and then a standard, also digested with the samples, is run. A known standard with characteristics best matching the samples is chosen and tested. Another 20 samples are analysed, with the last one being a random reweigh of one of the samples. The standard used at the beginning is rerun. This procedure is repeated for all of the samples.

Method of Silver & Gold Analyses by Fire Assay

- (a) 1/4 to 1 assay tonne of the pulp sample is mixed with a combination of fluxes in a fusion pot and fused at a high temperature to form a lead "button".
- (b) The precious metals are extracted by cupellation and weighed as a dore bead. The silver is then dissolved with diluted nitric acid and decanted.
- (c) The resulting gold bead is annealed and weighed using a Sartorius micro-balance. The weight lost from the original bead is used to calculate the silver content. Both the silver and the gold are reported in Ounces per short tonne (OPT).

QUALITY CONTROL

- Every fusion of 24 pots contains 22 samples, one internal standard or blank, and a random reweigh of one of the samples.
- Anomalous gold values greater than 0.2 OPT and silver values greater than 1.0 OPT are automatically checked.
- Any indication of other precious metals is noted on the final report.