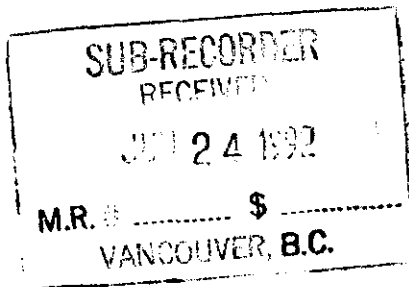


LOG NO:	JUL 07 1992	RD.
ACTION:		
FILE NO:		

GEOLOGICAL AND GEOCHEMICAL REPORT

QFP MINERAL CLAIM

CARIBOO MINING DIVISION



NTS: 93B/13W

Latitude: 52 deg. 58' north

Longitude: 123 deg. 51' west

Owner: John Nebocat

Operator: John Nebocat

June 19, 1992

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**22,400**

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## INTRODUCTION

The QFP claims are located in the Fraser Plateau, central British Columbia.

Access to the property is via the Nazko road to Marmot Lake, from there to the Baezaeko River via the Michelle Creek and Coglistiko River logging roads, a distance of about 120 km west from Quesnel.

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

The QFP claim was staked on August 17, 1989 and the QFP 2 claim was staked on November 2, 1990.

A 1200 metre long picket line, with stations every 25 metres, was established along the roadcut parallel to the logging road. The line extends 1000 m north of the baseline and 200 m to the south; it was used as a control line for prospecting and mapping the dispersion of glacial overburden.

Seventeen soil samples were collected along the baseline between 10,000N X 8800E and 10,000N X 9200E.

The field work was performed between May 9, 1992 and May 14, 1992.

## DISCUSSION

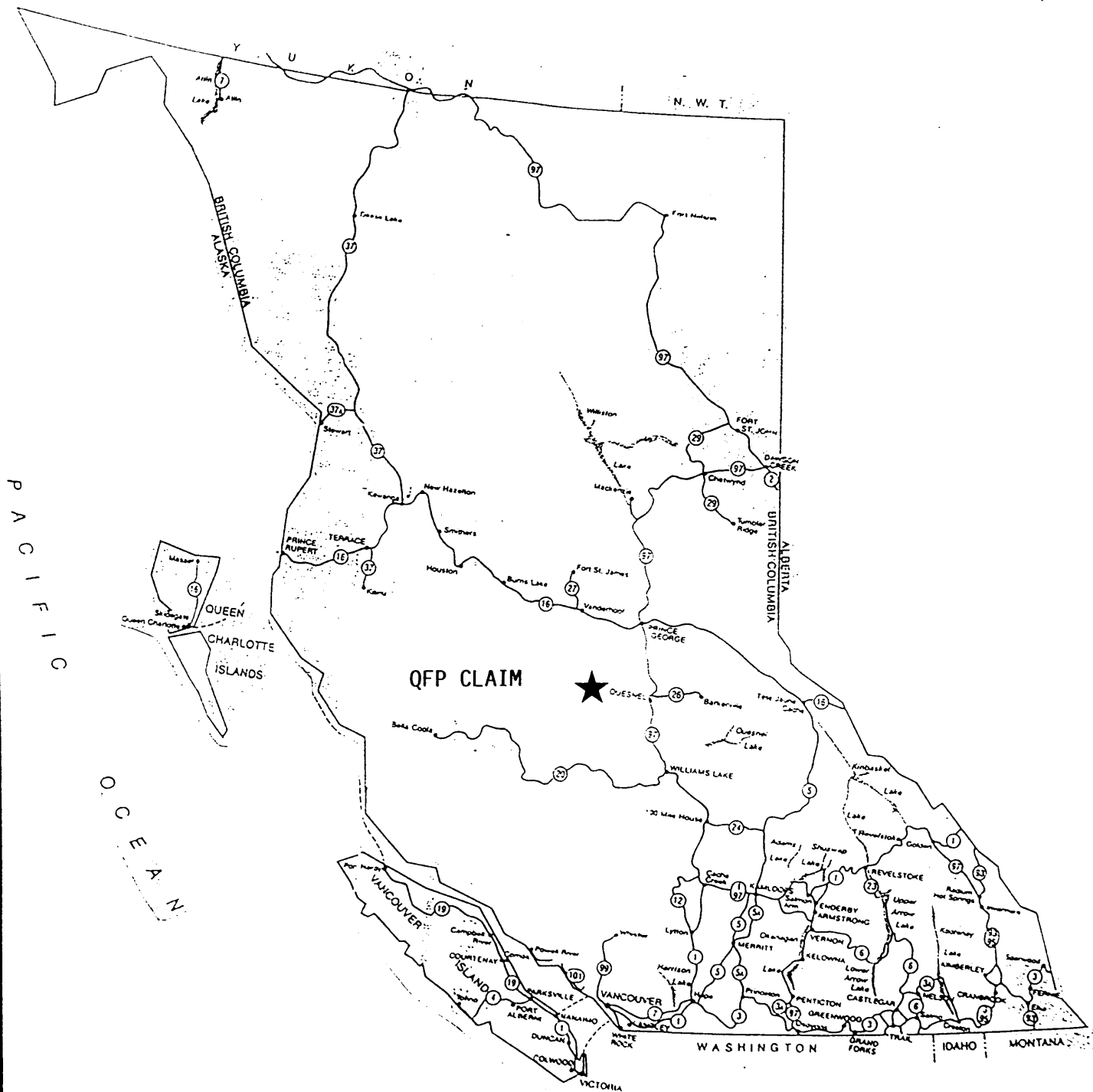
### Property Geology

An assemblage of marine/fluviial sediments, probably belonging to the L. Jurassic *Hazelton Group*, underlies the peripheral parts of the property. These sediments are calcareous, friable and generally recessive weathering. The center of the property is underlain by a quartz eye rhyolite porphyry stock of probable Eocene age.

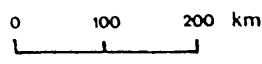
The property seems to straddle a zone of major block faulting with a basement *Stikine Terrane (Hazelton Group)* horst to the west and younger Tertiary volcanics down-dropped to the east.

### Overburden Mapping

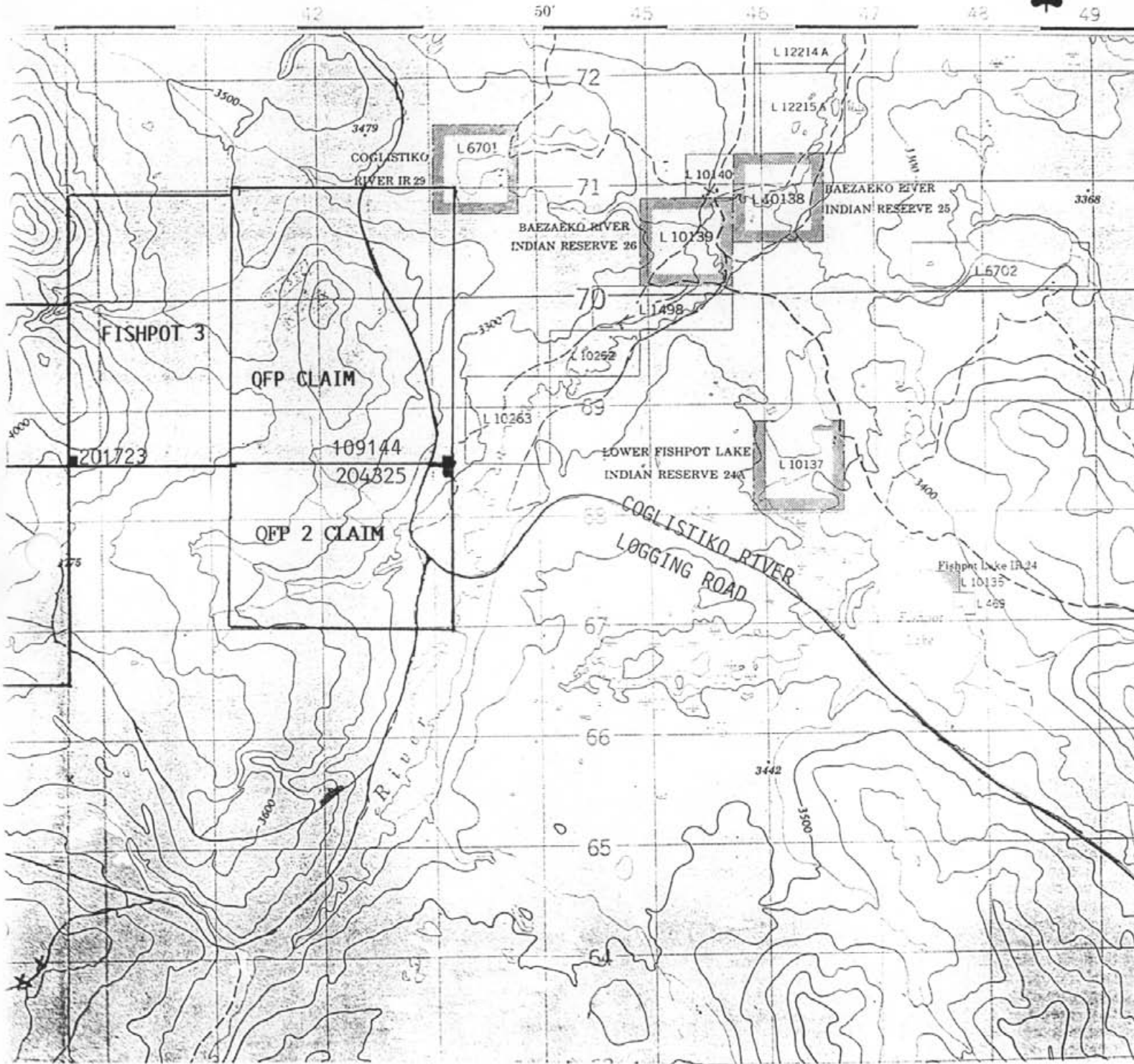
Rock samples collected from altered sediments along the roadcut in 1990 and 1991 yielded some anomalous values in gold, arsenic and antimony, but an understanding of their dispersion in the glacial overburden was not known.



PACIFIC OCEAN



**QFP CLAIM**  
**INDEX MAP**  
Cariboo Mining Division  
93B/13W July 19, 1992 Figure 1



**QFP CLAIM LOCATION**

**CARIBOO MINING DIVISION**



scale - 1:50,000

93B/13W July 19, 1992 Figure 2

A traverse along the road in 1991, from the north end of the claims towards the baseline, showed that the rhyolite porphyry, chert pebble conglomerate and feldspar porphyry dykes found in outcrop to the south and southwest occurred in concentrated zones within the till. It was hoped that a map of the distribution of the lithologies in the till might help in projecting a source area for the altered and mineralized sediments found near the baseline.

A sketch showing the distribution of the till and accompanying notes is presented as Figure 3.

The altered sediments (limonite, hematite and goethite veins after sulphides and argillic altered matrix) are most abundant between 50 m south and 400 m north of the baseline. The till is mostly pebbly outwash from 150 m north to 650 m north, making smear directions next to impossible to determine. Altered shale is more common than altered sandstone and conglomerate up to 325 m north; chert pebble conglomerate and quartz feldspar porphyry increase in abundance thereafter.

Unaltered sediments, mostly shale, predominate after about 575 m north and continue up to 825 m north. Rusty brown feldspar porphyry dyke material is admixed with the shale between 590 m north and 765 m north.

Boulders and cobbles of the quartz feldspar porphyry stock increase in abundance from about 840 m north and are very common from 900 m north to the end of the line.

Between 100 m and 125 m south is a small gravel pit beside the road and contains numerous fissile shale boulders and a few pieces of the orange weathering feldspar porphyry. The pit is no more than 2 m below the surface and some of the shale in the bottom may be outcrop. Similar unaltered shale and porphyry outcrops along a small outwash channel about 200 m south from this site.

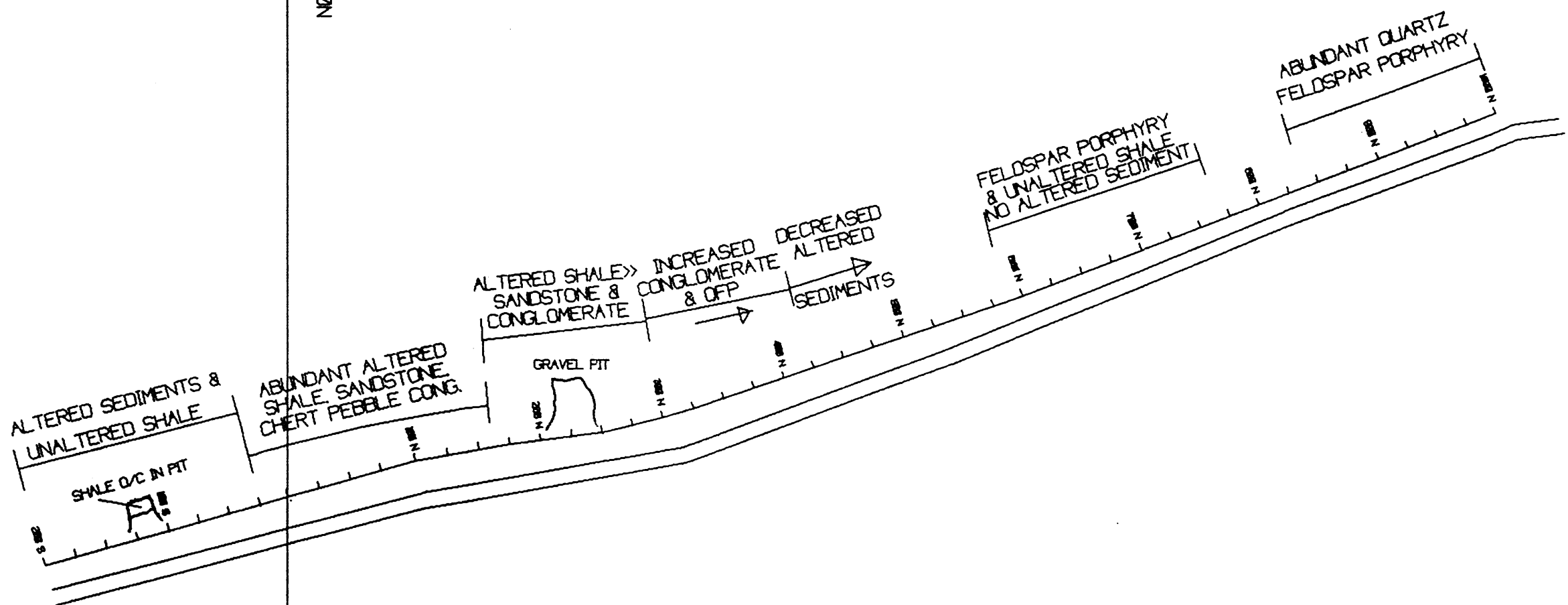
The mapping has not effectively targeted the source of the altered sediments except that the unaltered shale outcrops limit its extent to the south. The source is probably to the west and southwest of the float occurrences along the road, and judging by its relative concentration in the first few hundred metres north of the baseline, it is likely that the source area would be traversed by the baseline between 9600 E and 9800 E. Soil samples collected over this area in 1990 yielded no anomalous values in Au or its indicator elements.

#### Soil Sampling

Seventeen soil samples were collected on the baseline between stations 8800 E and 9200 E. The samples were taken at an average depth of 30 cm using a shovel and stainless steel trowel. They were analyzed for Au by fire assay and atomic absorption finish and for 30 elements by ICP multi-element analysis at IPL International Plasma Laboratories Ltd., Vancouver, B.C. The analytical results are tabulated in Appendix I, and the analytical procedures are described in Appendix II.



BASELINE: 120000N



PGS PACIFIC GEOLOGICAL SERVICES		
QFP CLAIMS GLACIAL TILL MAP		
CARIBOO MINING DIVISION		
scale	1:5000	date
drawn by	JN	Figure
no	938/13W	date
survey by	JN	Figure
		3

This section of the baseline crosses a projected contact between chert pebble conglomerate, sandstone and the underlying quartz feldspar porphyry. A description of the nature of the soil/overburden is given below.

8800 E - 8975 E	heavy boulder till
9000 E - 9075 E	mixed till and "C horizon"
9100 E - 9125 E	mixed sandy boulder till and QFP float
9150 E - 9200 E	sandy boulder till

No significant anomalies were found, but a few slightly elevated Au levels were obtained. Sample numbers 136 and 144 yielded 45 ppb and 57 ppb Au, respectively, and the rest of the samples ran between the detection limit (<5 ppb) and these values. It would appear that no significant Au concentrations exist either under here, where the till is relatively thin, or immediately up-ice to the south and southwest.

No elevated indicator or base metal elements were obtained either.

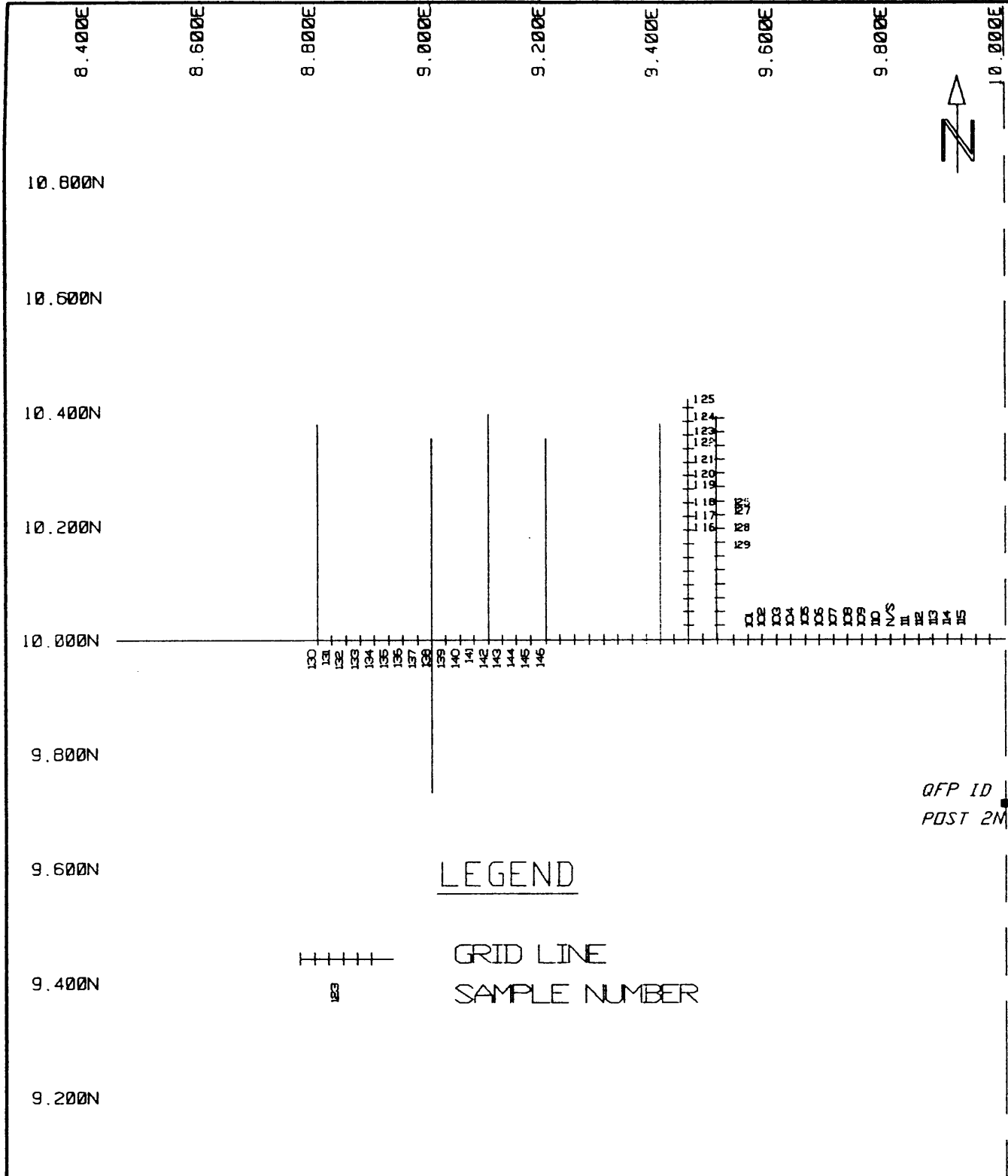
#### CONCLUSIONS

1. The soil samples collected on the baseline indicate that no source of economic mineralization underlies this portion of the property.
2. Mapping along the road indicates that the dispersion of the altered and mineralized sediments found in the glacial overburden have a source probably near the eastern end of the property between 9600E and 9800E. Heavy till masks this area and up to station 9150E.

#### RECOMMENDATIONS

1. Since soil geochemistry seems to have limited success in targeting mineralization, as found in the altered sediments in the till, no further soil geochemistry is recommended at this time.
2. The mapping indicates a possible source area for the altered sediments south and southwest of the road and crossed by the baseline somewhere between 9600E and 9800E. An IP survey over the eastern half of the baseline, between 9000E and 10,000E, should determine their source.

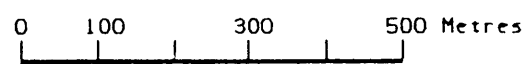




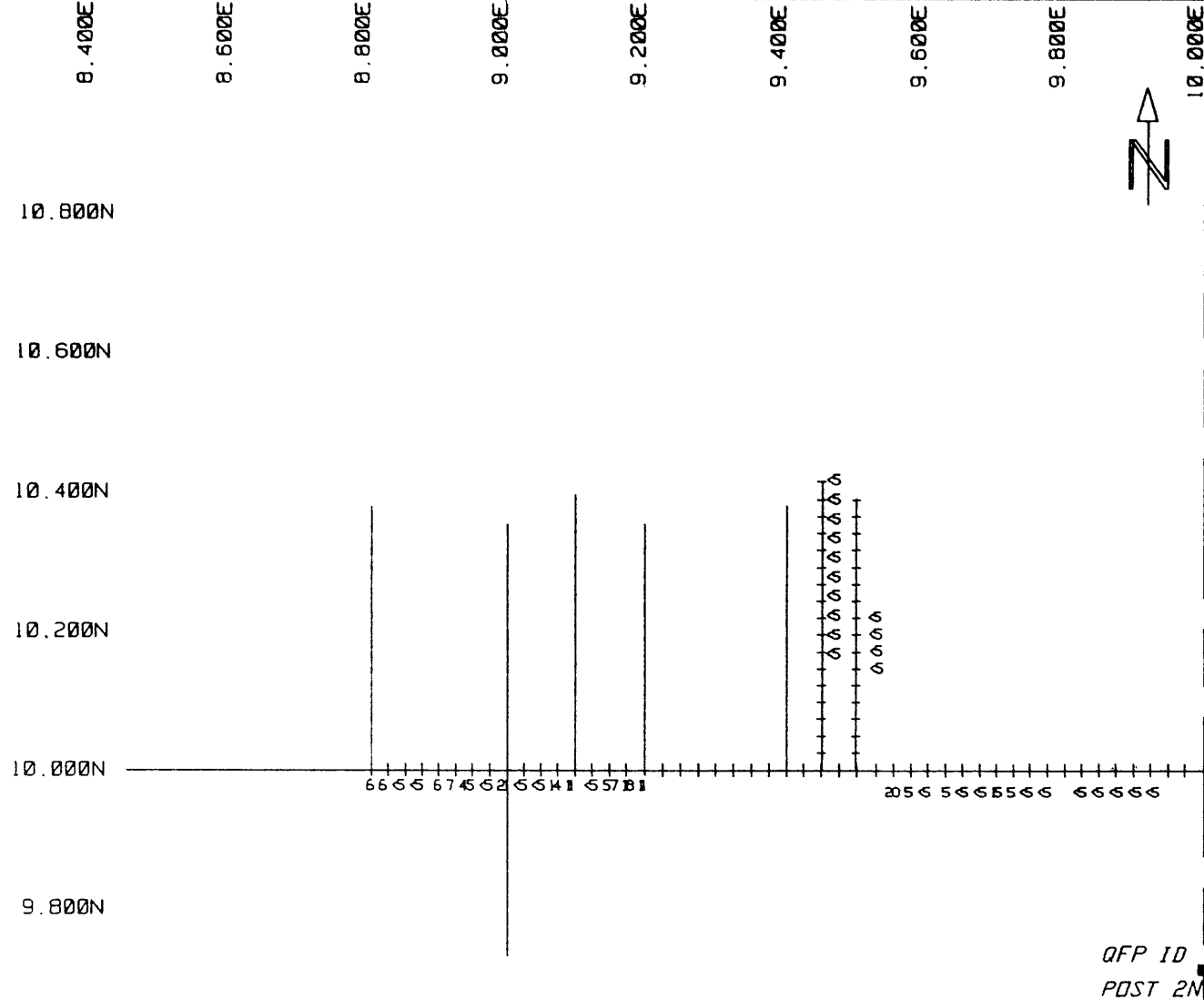
QFP 10  
POST 2M

LEGEND

 GRID LINE  
 SAMPLE NUMBER

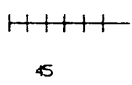


PGS PACIFIC GEOLOGICAL SERVICES		
QFP CLAIMS SOIL SAMPLE SITES		
CARIBOO MINING DIVISION		
SCALE 1:10,000	LOCATION 93 B/13V	DATE JUNE 19, 1992
DRAWN BY J. NEBOCAT	SURVEY BY J. NEBOCAT	FIGURE 4

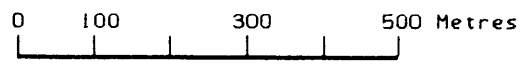


QFP 10  
POST 2M

LEGEND



GRID LINE  
SOIL SAMPLE: PPB AU



PGS PACIFIC GEOLOGICAL SERVICES		
QFP CLAIMS GOLD IN SOILS: PPB		
CARIBOO MINING DIVISION		
SCALE 1:10,000	LOCATION 93 B/13V	DATE JUNE 19, 1992
DRAWN BY J. NEBOCAT	SURVEY BY J. NEBOCAT	FIGURE 5

REFERENCES

Nebocat, 1990, Geological and Geochemical Report, QFP Mineral Claim,  
A.R.#20277

\_\_\_\_\_, 1991, Geological, Geochemical and Petrographic Report, QFP and  
QFP 2 Mineral Claims, A.R.#21594

Tipper, H.W., 1959, Geology, Quesnel, 93B: Geological Survey of  
Canada, Map 12-1959

STATEMENT OF COSTS

<i>Labour:</i>	John Nebocat - May 7, 9-14, 16; June 15, 16, 1992.	
	9 days @ \$225.00/day	\$2025.00
	Sherryl Nebocat - May 7, 9-14, 16, 1992.	
	7 days @ \$ 90.00/day	\$ 630.00
<i>Analyses:</i>	17 soil samples @ \$1.00 prep., \$7.00 Au analysis, \$5.50 ICP analyses/ sample, plus GST	\$ 245.57
<i>Fuel:</i>		\$ 190.32
<i>Groceries &amp; Meals:</i>		\$ 298.74
<i>Field Equipment &amp; Supplies</i>		\$ 306.86
<b>TOTAL:</b>		<b><u>\$3696.49</u></b>

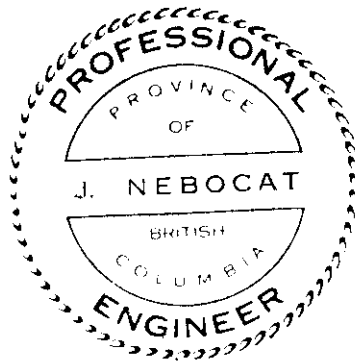
STATEMENT OF QUALIFICATIONS

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 diploma in Mining Technology from the British Columbia Institute of Technology in 1974. In 1984 I graduated from the Montana College of Mineral Science & Technology with a Bachelor's Degree in Geological Engineering (Honours).
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, B.Sc., P. Eng.



APPENDIX I

Soil Sample Analyses



2036 Columbia Street  
 Vancouver, B.C.  
 Canada V5Y 3E1  
 Phone (604) 879-7878  
 Fax (604) 879-7898

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Project: QFP

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Section 1 of 2

Sample Name	Type	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	W ppm	Ba ppm
130	Soil	6	0.1	14	12	88	8	5	<3	1	<10	<2	0.5	15	36	<5	80
131	Soil	6	0.1	17	7	83	<5	<5	<3	1	<10	<2	0.5	16	40	<5	78
132	Soil	<5	0.1	22	6	79	6	<5	<3	2	<10	<2	0.3	17	40	<5	79
133	Soil	<5	<0.1	24	7	80	6	<5	<3	2	<10	<2	0.3	18	42	<5	89
134	Soil	6	0.1	19	9	96	7	<5	<3	1	<10	<2	0.4	16	42	<5	108
135	Soil	7	0.1	21	7	85	6	<5	<3	1	<10	<2	0.4	16	40	<5	107
136	Soil	45	0.1	21	6	109	12	<5	<3	1	<10	<2	0.4	17	46	<5	114
137	Soil	<5	0.1	32	5	98	15	8	4	1	<10	<2	0.6	21	54	<5	114
138	Soil	21	0.1	33	5	83	13	5	<3	1	<10	<2	0.5	21	60	<5	148
139	Soil	<5	0.1	13	8	131	7	<5	<3	2	<10	<2	0.4	15	47	<5	164
140	Soil	<5	<0.1	9	10	121	7	<5	<3	1	<10	<2	0.4	13	54	<5	170
141	Soil	14	0.1	18	7	100	14	6	4	2	<10	<2	0.6	15	69	<5	244
142	Soil	11	0.1	16	7	138	13	6	<3	2	<10	<2	0.7	16	62	<5	229
143	Soil	<5	0.1	25	4	106	19	6	<3	1	<10	<2	0.4	18	66	<5	193
144	Soil	57	0.1	14	8	103	9	<5	<3	1	<10	<2	0.2	14	40	<5	111
145	Soil	18	0.1	17	8	136	14	<5	<3	1	<10	<2	0.4	18	59	<5	142
146	Soil	11	0.1	21	4	106	15	<5	<3	2	<10	<2	0.3	17	56	<5	142

- 13 -

Minimum Detection	5	0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	5	2
Maximum Detection	10000	100.0	20000	20000	20000	10000	1000	10000	1000	1000	10000	10000.0	10000	10000	1000	10000
Method	FA/AAS	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

-- = Not Analysed ReC = ReCheck in progress ins = Insufficient Sample

Report: 9200267 R Pacific Geological Services

Project: QFP

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Section 2 of 2

Sample Name	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
130	45	82	339	6	23	9	3	0.26	1.33	0.32	3.17	0.48	0.07	0.03	0.05
131	46	80	361	6	24	11	4	0.23	1.45	0.34	3.34	0.50	0.08	0.04	0.07
132	51	94	332	6	26	13	4	0.28	1.26	0.36	3.53	0.55	0.06	0.04	0.05
133	51	93	321	7	26	13	5	0.28	1.41	0.36	3.52	0.57	0.05	0.04	0.04
134	45	81	319	7	29	10	4	0.27	1.57	0.39	3.20	0.58	0.05	0.04	0.06
135	49	90	315	6	28	10	4	0.27	1.49	0.39	3.37	0.54	0.04	0.04	0.05
136	54	95	406	7	29	13	5	0.29	1.59	0.40	3.53	0.58	0.06	0.04	0.05
137	63	114	423	9	30	14	6	0.31	1.52	0.42	4.21	0.72	0.06	0.04	0.05
138	62	95	524	12	43	19	7	0.24	1.90	0.49	4.32	0.82	0.07	0.04	0.09
139	48	77	471	6	26	6	3	0.20	1.59	0.34	3.19	0.46	0.08	0.03	0.10
140	51	66	378	4	23	4	3	0.16	1.22	0.30	2.69	0.47	0.08	0.02	0.08
141	68	83	291	4	24	6	3	0.20	1.54	0.31	3.43	0.67	0.05	0.03	0.06
142	56	77	405	6	29	5	4	0.19	2.00	0.36	3.48	0.57	0.06	0.03	0.14
143	56	94	302	6	30	9	4	0.26	2.27	0.36	4.01	0.66	0.06	0.03	0.11
144	44	71	324	6	24	9	3	0.23	1.71	0.31	2.90	0.46	0.04	0.03	0.06
145	53	84	473	6	29	7	3	0.24	2.17	0.34	3.57	0.52	0.07	0.03	0.11
146	52	88	332	4	24	9	3	0.25	1.83	0.28	3.57	0.55	0.04	0.03	0.06

- 14 -

Minimum Detection	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Maximum Detection	10000	10000	10000	10000	10000	10000	10000	1.00	5.00	10.00	5.00	10.00	10.00	5.00	5.00
Method	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

-- = Not Analysed ReC = ReCheck in progress ins = Insufficient Sample



APPENDIX II

Description 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.