Geochemical Sampling and Reconnaissance Geology of the PIL 1-13 Claims Toodoggone Area, British Columbia

Omineca Mining Division
NTS 94E/7W

Latitude 57°19'N Longitude 126°55'W

for
Electrum Resource Corporation

by
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Table of Contents

List of Figures

Summary and Conclusions

The PIL property is underlain by volcanic rocks of the Toodoggone Formation that are intruded by an elongate, northwesterly trending, multiphase granodiorite to monzonite pluton. A number of conspicuous gossans are situated at the northwestern end of this intrusive. A 1993 program of reconnaissance silt sampling, prospecting and rock sampling was carried out to follow up several gold, copper and zinc heavy mineral anomalies located in stream sediments in 1992 as well as to investigate the known showings and gossans with respect to their possible relationship to porphyry copper-gold mineralization.

Seventy-four sieved samples were collected on and in the vicinity of the property. Anomalous values in gold, copper, zinc, lead, molybdenum and barium are concentrated in the vicinity of a number of gossans in the northwestern portion of the property. Higher gold values are also concentrated in the lower portions of the main creek draining the central portions of the property. Analyses of heavy mineral separates from the samples show a similar distribution of anomalous values except that zinc values are elevated along a northwest trend crossing the property. This trend corresponds either to the intrusive monzonite or the structure bounding it on its east side.

The gossans in the northwestern part of the property are developed on sericite-pyrite altered rocks near an intrusive-volcanic contact (Area One). Local concentrations of jarosite and argillic alteration are also present and a thick, layered ferricrete deposit is developed in at least one creek bottom in the area. Anomalous Cu, Au, Zn, Pb, Mo and Ba values occurring in stream sediments in the vicinity suggest potential for porphyry style copper-gold mineralization. Extensive sericite-pyrite alteration is interpreted as possibly representing peripheral phyllic alteration associated with such a system, which would lie in the valley bottom in this area.

A second and smaller gossan zone (Area Two) occurs near the mouth of the main creek draining the central portion of the property where Toodoggone volcanics are cut by a number of monzonite dykes. Various zones of sericitic alteration with disseminated pyrite are present and the rocks are generally highly fractured and/or shattered over an exposed length of about 400 metres. Within this area are several zones of quartz-magnetite fracture fillings, some of which contain traces of malachite. Representative samples taken in this area returned values of up to 608 ppb Au and 582 ppm Cu. The style of alteration, veining and the presence of anomalous copper and gold values suggests potential for porphyry style mineralization. Similar mineralization is reported on the Brenda property adjoining the PIL claims in the southeast where elevated copper values, shown to be present at depth by drilling, have been leached out to background levels at surface.

Recommendations

A two phase exploration program is proposed for the PIL claims, the second phase being dependent on results of the first.

Phase One

a) carry out additional geological and sampling/prospecting traverses in Area One and analyze all samples for Au together with a 30 element ICP suite.

b) complete a series of 2 km E-W reconnaissance IP lines spaced at 500m in Area One in an attempt to locate and delineate a potential porphyry-related sulphide system

c) complete a series of 1 km E-W reconnaissance IP lines spaced at 300 metres centred on the gossanous outcrops in Area Two to determine whether or not a sulphide system exists at depth and its extent

Phase Two

a) Drill 2-3 200 metre diamond drill holes to test any favourable anomalies in Area One.

b) Drill 2-3 200 metre diamond drill holes to test any favourable anomalies in Area Two.

Introduction

The PIL claims were staked to cover a number of known mineral occurrences and gossans in the Toodoggone area about 10 kilometres to the east of the Baker Mine. Electrum Resources Corporation retained the writer and S. Zastavnikovich to respectively carry out programs of reconnaissance geological work and geochemical silt sampling on the property. This field work was completed in the period July 20-25, 1993. J. Barakso of Electrum spent two days on the property within this period in the capacity of consulting geochemist.

Location and Access

The claims are situated approximately 280 km due north of Smithers, B.C., centred at Latitude 57°19'N and Longitude 126°55'W on NTS sheet 94E/7W (Fig. 1). The Cheni Mine Road is located 7 km to the southwest where it passes the old Black Lake airstrip. A good dirt road leads northeast along Jock Creek and passes through the southern end of the claim group. Access by helicopter is possible from Smithers or from temporary bases commonly situated in the Toodoggone area. The Sturdee River airstrip is located 13 kilometres to the southwest.

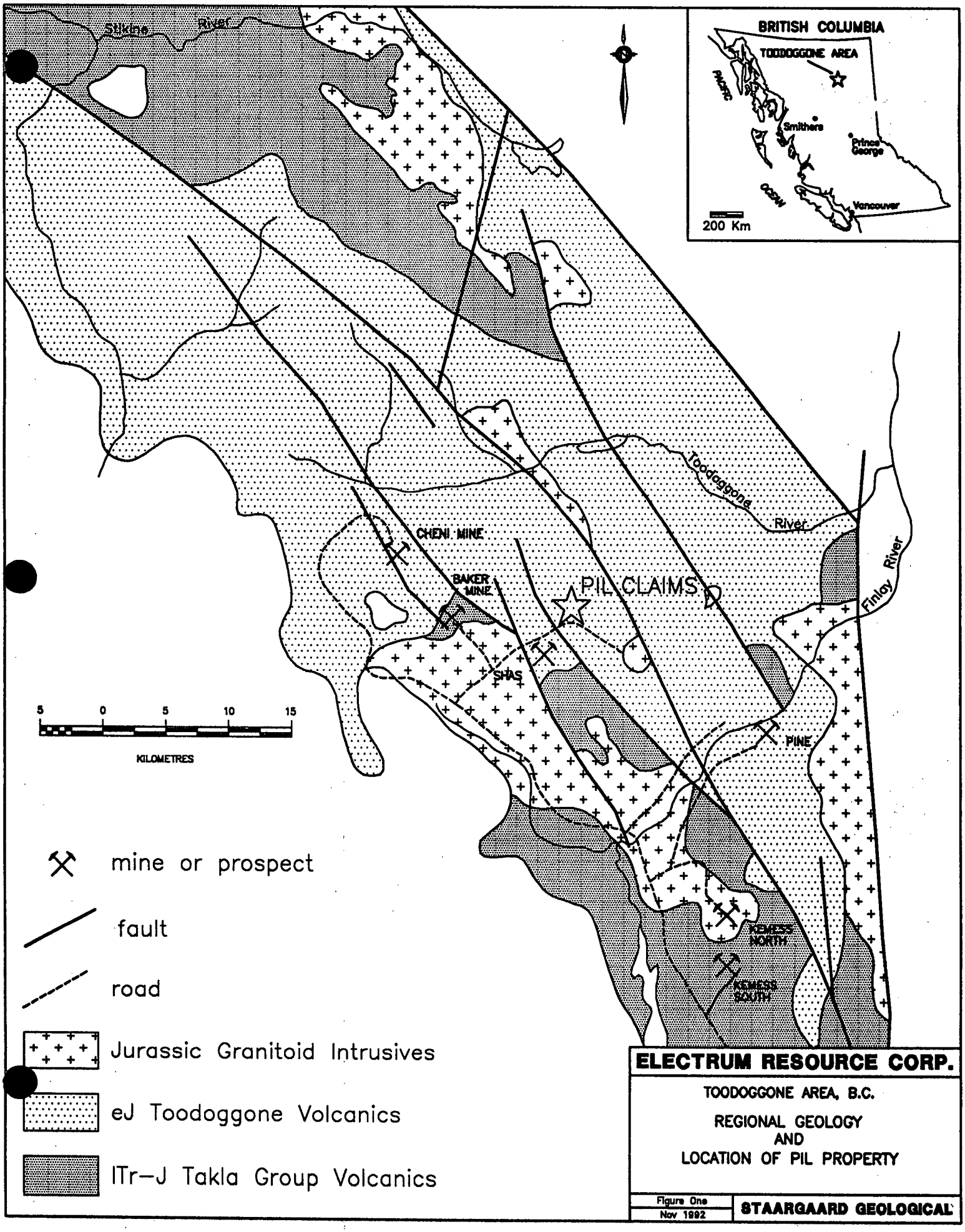
Topography on the property is steep, with elevations ranging from 1,300 to 2,000 metres ASL. Grasses and buckbrush are typical of valley bottoms with patchy conifer forest on slopes. Elevations above 1,500 to 1,700 metres are typified by alpine grasses and dwarf conifers.

Tenure

The claims comprising the PIL property are wholly owned by Electrum Resources Corporation and their particulars are listed in Table One:

Table One

Name	Units	New Tenure No.	Expiry
PIL 1	8	308127	March 14, 1993
PIL 2	20	308128	March 14, 1993
PIL 3	20	308129	March 14, 1993
PIL 4	20	316950	March 29, 1994
PIL 5	15	316951	March 29, 1994
PIL 6	12	316952	March 29, 1994
PIL 7	20	316953	March 29, 1994
PIL 8	20	316954	March 29, 1994
PIL 9	16	316955	March 29, 1994
PIL 10	18	316956	March 29, 1994
PIL 11	20	316957	March 29, 1994
PIL 12	20	319649	July 21, 1994
PIL 13	20	319650	July 21, 1994
	229		



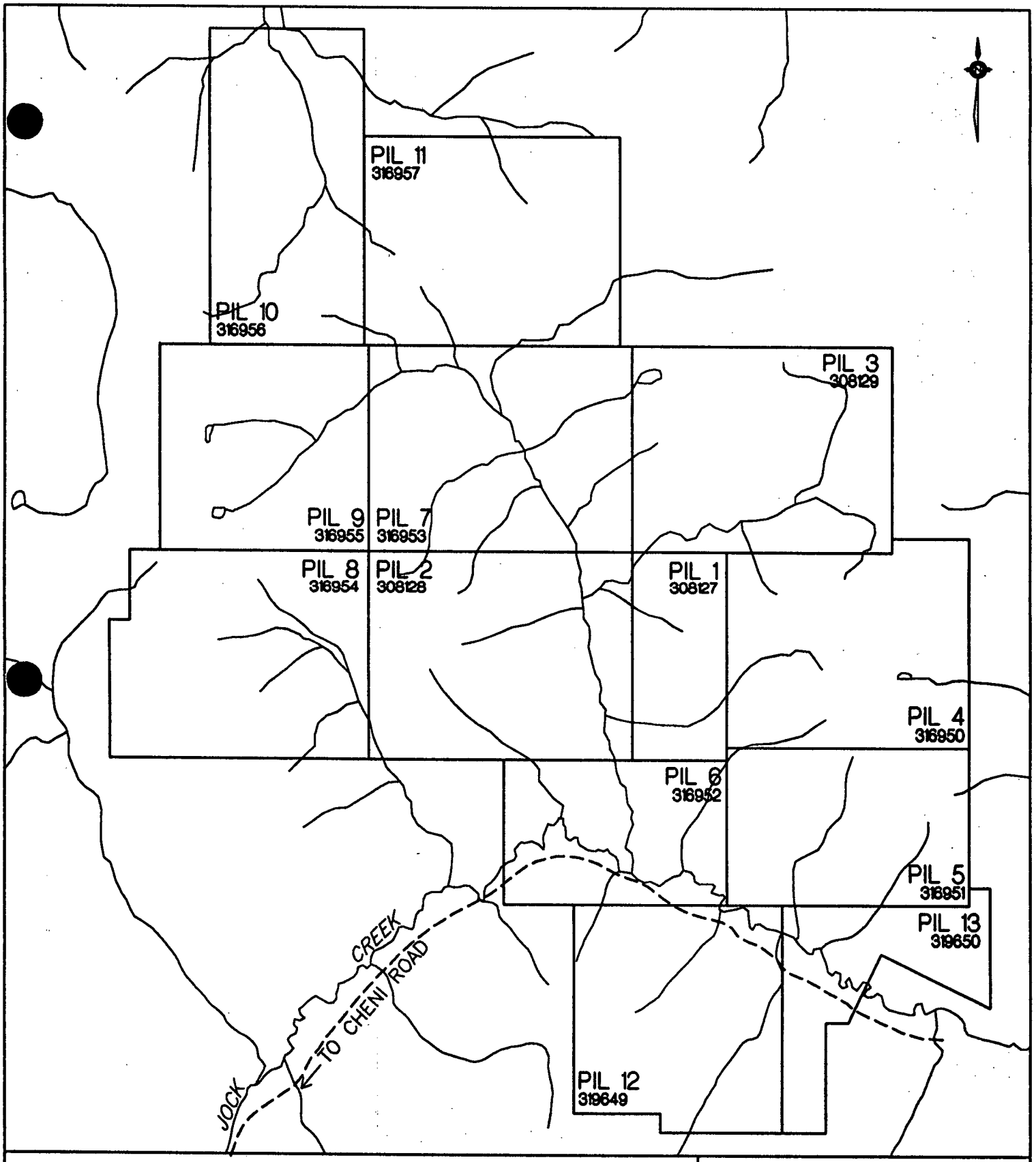
ELECTRUM RESOURCE CORP.

TOODOGGONE AREA, B.C.

REGIONAL GEOLOGY
AND
LOCATION OF PIL PROPERTY

Figure One
Nov 1992

STAARGAARD GEOLOGICAL



ELECTRUM RESOURCE CORPORATION

PIL PROPERTY

Toodoggone Area, B.C.
Omineca Mining Division

Claim Locations

Date: OCT 93
Figure Two

STAARGAARD GEOLOGICAL

History of Work

1980-81	Serem Ltd.	stream silt and contour soil sampling, rock sampling and preliminary geological mapping
1986	Toodoggone Gold	airborne magnetics
1987	Toodoggone Gold	reconnaissance soil and rock sampling
1987	Beachview Resources	reconnaissance soil and rock sampling
1992	Electrum Resource Corp.	heavy mineral sampling

Regional Geology

The Toodoggone area is situated in the Intermontane Belt, near its eastern margin (Fig. 1). The oldest rocks in the region are limestones and rhyolitic tuffs of the Permian Asitka Group. These are overlain by mafic to intermediate flows and related fragmental and sedimentary rocks of the Upper Triassic Takla Group. Overlying these in turn are volcanics of the Lower Jurassic Toodoggone Formation, a complexly intercalated pile of largely subaerial, high potassium, calc-alkaline latite and dacite flows, fragmental rocks and related sediments exceeding 2,200 metres in thickness.

Two main periods of eruptive activity are evident and the formation is subdivided into six members on the basis of lithology, mineral assemblage, texture and field relationships. A series of comagmatic plutons were emplaced during the lower volcanic cycle and were partly unroofed and eroded during a brief period of uplift before commencement of the upper cycle.

Extensive and repeated faulting led to the development of an asymmetric collapse feature and served to localize epithermal, vein-type gold-silver mineralization. The most well-known of these occurrences is the Lawyers deposit, where Cheni Gold Mines Ltd. until recently was mining from a reserve of 1.75 million tonnes grading 6.8 gt Au and 242.7 gt Ag. A number of porphyry copper gold deposits and prospects, including the Kemess and Pine properties, are apparently related to some of the comagmatic plutons situated in the southern portions of the Toodoggone area. Reserves at the Kemess deposit are approximately 200 million tonnes grading 0.22% Cu and 0.018 opt Au.

Property Geology and Rock Sampling

The property is underlain by volcanic rocks of the Toodoggone Formation that are intruded by an elongate, northwesterly trending, multiphase granodiorite to monzonite pluton (Fig. 2). Portions of this intrusive exposed along the Sturdee airstrip-Brenda road consist of magnetite-bearing gabbro. East of the intrusive, volcanics include high K latite flows, flow breccias and tuff of the Metsantan Member as well as undivided volcanics of the Hazelton Group. To the west, the volcanics include the Metsantan Member, high-K dacitic ash flow tuffs of the Saunders Member and minor lithic crystal tuffs and pyroclastic breccias of the Attycelly Member. In many parts of the property, these units have been broken up into numerous small blocks by faulting.

The northwestern end of the claim group is marked by abundant gossans which appear to straddle intrusive contacts with volcanics. Most of these are limonitic, with local concentrations of jarosite and argillic alteration. Disseminated pyrite was observed in places. On the PIL 10 claim, several samples

(SP17-21) were collected from a ferricrete layer exposed in a creek bottom. The ferricrete is at least 8-10 metres thick and is layered, with a Mn-rich zone overlying an Fe-rich zone. Both consist of stream gravels and colluvial material cemented by very abundant Fe and/or Mn oxides and hydroxides and are probably derived from a large gossan on the slope immediately north of the stream. Samples SP-20 and SP-21 are porphyritic monzonite with chloritized hornblende and minor limonite and/or disseminated pyrite collected from outcrops in the creek bottom in this area. Their low gold, copper and zinc contents do not explain the anomalous stream sediment values in this area.

In the central portion of the PIL 7 claim, a limited amount of float consisted of fine to medium grained monzonite with abundant millimetre scale quartz-limonite jarosite and quartz-magnetite fracture-fillings. Some of these exhibited narrow K-feldspar alteration envelopes and several float boulders contained traces of malachite on fractures heavily coated with Mn hydroxides. Samples SP22-25 were collected in this area. Table Two lists selected analytical values:

Table Two

Sample No.	ppm Cu	ppb Au
SP-22	375	366
SP-23	289	86
SP-24	136	67
SP-25	3335	11

A second zone of sericite-pyrite alteration is exposed in a series of bluffs and cliffs on the PIL 6 claim where the main stream draining the property empties into Jock Creek. Although regional mapping suggests the entire area here is underlain by intrusive, abundant outcrops of Toodoggone volcanics cut by numerous monzonitic dykes were observed by the writer. Various zones of sericitic alteration with disseminated pyrite are present and the rocks are generally highly fractured and/or shattered over an exposed length of about 400 metres. Within this area are several zones of quartz-magnetite fracture fillings. Table Three lists selected analytical values in this area.

Table Three

Sample No.	ppm Cu	ppb Au
SP-29	148	216
SP-30	448	248
SP-31	344	135
SP-32	582	237
SP-33	270	46
SP-34	174	480
SP-35	35	440
SP-36	10	9
SP-37	8	10
SP-38	59	608

Samples SP29-32 were collected from a 50 metre wide zone encompassing a number of steep and narrow (~1m) sericitized pyritic shears cutting porphyritic andesitic volcanics. The surrounding volcanics are characterized by variable but sometimes abundant quartz-magnetite veinlets and strong fracturing. Fracture surfaces are commonly coated with abundant Mn stain which generally exhibits a

spotted character, suggesting the presence of copper. Traces of malachite were observed on a few fractures. Samples SP-33 and 34 were collected about 50 metres to the south from chloritized and/or sericitized andesite containing no magnetite-filled fractures.

Samples SP35-51 were collected from a series of outcrops to the south exhibiting sericitic alteration, variable limonite and fracturing. Gold values are elevated, generally in the range of 40-300 ppb, while copper values are at background levels.

Samples SP12-15 were collected from an epithermal vein type occurrence on the PIL 1 claim first described by Serem (AR 10326). Several trenches were opened here and sampled by Serem although bedrock was currently visible in only one of these. Toodoggone Formation andesites are cut by several generations of quartz veins, vein stockworks and silicification. An early stage of black, fine-grained and sub-chalcedonic quartz is cut by a drusy, white quartz vein stockwork which is locally weakly amethystine. In places, the central portion of the black quartz veins is occupied by colourless drusy quartz. Late calcite is present as open space fillings and as matrix to quartz vein breccias. Finely disseminated pyrite is present in some of the veins and as coatings on some fractures. The andesite is pervasively propylitized and is locally silicified. Samples SP-12 to SP-15 returned values of up to 74.2 ppm Ag and 850 ppb Au along with slightly elevated As. A similar range of values was returned for three samples (PJ-19 to PJ-21) taken from float at the base of a west-facing gossanous talus slope about 500 metres southeast of the aforementioned trenches. The samples consisted of epithermal style quartz vein material and quartz-veined andesite.

Geochemistry

Seventy-four samples of panned sediments were collected from a number of streams draining the property as well as the surrounding area. Appendix D describes the pan-screen set used to collect the samples. Both the panned material and a derivative heavy mineral concentrate obtained through heavy liquid separation were analyzed at Min-En Laboratories in North Vancouver for a suite of 30 elements using ICP analysis. Gold was determined by AAS following a fire assay sample preparation. Sample locations and numbers are shown on Figure Three.

Figure 4 illustrates analytical values for Cu, Au and Zn in standard analyses of the panned concentrates. It is immediately obvious that elevated values for Cu and Zn, and to a lesser degree Au, are concentrated around the northwestern end of the PIL property, in an area marked by abundant gossans. Inspection of tabulated results revealed that Pb, Mo and Ba values are also somewhat elevated in this area. Many of the higher gold values are concentrated in the lower portion of the main creek draining the central portions of the property.

Figure 5 shows analytical values for the heavy mineral separates. Elevated gold values are concentrated in the northwestern part of the property along with Mo, Pb and Ba, which show improved contrast over the standard analytical values. Gold values are also elevated in the lower portion of the creek draining the central part of the property. Anomalous Zn values appear to be associated with a northwest trending structure running the length of the property and which generally forms the eastern boundary of the large intrusive occupying the central portion of the claims.

References

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Statement of Qualifications

I, C.F. Staargaard, of 1470 Doran Road, North Vancouver, B.C., hereby certify that:

a) I am a consulting geologist with offices at 912-510 West Hastings St., Vancouver, B.C.

b) I have the following degrees:

1977	B.Sc.	Geology	The Pennsylvania State University
1981	M.Sc.	Geochemistry	Queen's University, Kingston, Ontario

c) I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia and am licensed as a Professional Geologist in the Northwest Territories, Canada.

d) I have been continuously employed in mineral exploration in Canada, the USA and South and Central America since 1979 and seasonally since 1975.

e) I have no interest, either directly or indirectly, in the subject properties or the client company.

f) This report is based on available information together with my personal observations on the property.

Dated this 31ST day of January, 1994, in Vancouver, B.C.

C.F. Staargaard, P.Geo., P.Geol.

Appendix A

Statement of Costs

Maps, Publications and Airphotos		97.05
Expediting		168.23
Field Equipment, Rentals	radio, misc. supplies	512.66
Phone		45.60
Room and Board	motel, groceries, meals	2,648.79
Truck fuel, mileage	3350 km @ $0.34/km	1,154.71
Travel	aircraft, motels, meals etc	2,073.00
Analytical Costs	74 heavy mineral samples @ $70.10 each	5,187.40
	74 standard silt analyses @ $32.65 each	2,416.10
	80 rock samples @ $19.50	1,560.00
Field Work	14 man-days @ $400/day	5,600.00
Travel Time	10 man-days @ $400/day	4,000.00
Helicopter	10.2 hours @ $800/hr	8,731.20
Report Writing	3.5 man-days @ $400/day plus expenses	1,610.83
Drafting		676.65
	Total	$36,482.22

Appendix B

Analytical Results

COMP: JOHN BARAKSO
PROJ: PIL
ATTN: JOHN BARAKSO

MIN-EN LABS — ICP REPORT

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

FILE NO: 3V-0405-SJ1+2
DATE: 93/08/12
* SESIMENT * (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	HG PPB	AU-FIRE PPB
SZ001	.1	1.26	11	45	210	1.1	6	.42	.1	10	36	4.32	.08	3	.72	953	3	.01	1	1400	79	17	48	118	382	82.4	195	14	1	3	1	180	472
SZ002	.1	1.62	8	37	139	1.1	10	.75	.1	9	34	5.56	.08	7	.82	901	1	.01	1	1680	37	20	51	135	889	166.3	262	15	1	4	1	185	21
SZ003	.1	1.77	17	54	77	1.5	10	.57	.1	8	148	4.66	.09	8	.79	1000	8	.01	1	1260	69	25	47	124	709	107.6	282	18	1	4	1	160	320
SZ004	.1	1.74	11	54	249	1.7	12	.64	.1	13	164	5.76	.11	5	.77	1023	3	.01	1	1520	67	23	58	141	1024	155.2	830	15	1	3	1	165	165
SZ005	.1	2.30	10	53	44	1.0	34	1.55	.1	21	40	8.05	.08	18	1.08	850	1	.02	1	1210	26	25	46	140	4685	282.9	80	18	1	8	8	195	6
SZ006	.1	1.35	8	68	384	1.1	17	.57	.1	14	22	6.60	.18	10	.72	792	1	.01	1	940	24	12	29	136	2027	206.7	73	11	1	5	1	205	2
SZ007	.1	1.87	11	60	122	1.2	15	.81	.1	12	238	4.36	.09	1	.85	1509	18	.01	1	1090	89	27	120	114	1275	90.5	501	21	1	3	1	210	72
SZ008	.1	1.79	1	75	77	1.3	33	.78	.1	21	35	10.45	.11	16	1.13	1088	1	.01	1	820	26	13	27	194	4445	416.8	102	16	1	9	12	155	1670
SZ009	.1	1.88	10	62	142	1.2	26	.79	.1	18	36	7.86	.11	17	1.14	1001	1	.02	1	910	32	20	36	166	3445	294.4	102	19	1	7	13	180	416
SZ010	.1	1.58	16	55	94	1.0	18	.64	.1	14	27	6.25	.12	14	1.04	821	1	.02	1	930	33	18	23	152	2394	213.6	105	17	1	6	6	145	5
SZ011	.1	2.31	26	31	133	3.0	19	.62	.1	15	51	5.42	.11	23	.97	1734	1	.01	1	890	42	33	32	125	2053	176.3	728	24	1	5	7	160	3
SZ012	.1	1.82	15	44	170	1.5	21	.67	.1	15	51	6.46	.14	14	1.02	1189	1	.02	1	970	37	21	34	148	2404	215.3	208	18	1	6	8	200	6
SZ013	.1	1.79	1	76	212	1.8	33	.73	.1	26	40	13.98	.18	10	.91	1281	1	.01	1	1170	14	5	19	256	4371	477.3	134	11	1	9	1	205	33
SZ014	.1	3.47	31	56	325	2.6	18	.56	.1	39	121	6.45	.13	16	.98	1901	4	.01	22	980	60	54	39	160	1673	164.2	2127	23	1	5	43	135	4
SZ015	.1	1.72	6	61	138	1.7	27	.67	.1	21	45	9.67	.09	15	.98	1609	1	.01	1	980	32	13	24	191	3464	352.4	431	17	1	7	10	125	3
SZ016	.1	1.99	14	31	295	2.0	9	.24	.1	22	129	5.26	.13	8	.52	2003	10	.02	1	1140	82	29	33	136	405	89.3	535	18	1	3	1	200	1
SZ017	.1	2.22	9	44	460	1.6	9	.18	.1	14	132	5.45	.20	8	.52	1169	11	.02	1	1240	88	31	41	141	433	86.1	352	12	1	3	1	205	138
SZ018	.1	2.00	15	49	490	1.5	10	.19	.1	17	152	5.59	.27	8	.58	1540	10	.03	1	1470	83	29	37	153	444	60.0	292	17	1	3	1	230	32
SZ019	.1	3.16	21	51	601	1.9	11	.18	.1	17	101	5.86	.24	8	.51	1749	10	.02	1	1670	192	52	76	156	404	63.2	659	17	1	3	1	180	322
SZ020	.1	3.94	29	53	695	1.9	11	.18	.1	17	106	5.72	.25	7	.49	1523	15	.02	1	1610	232	65	87	154	419	60.9	630	15	1	4	1	190	93
SZ021	.1	3.05	23	66	529	3.5	12	.38	.1	48	212	4.59	.12	14	.64	6419	22	.01	8	1190	79	50	45	119	531	64.8	1049	43	1	3	5	155	18
SZ022	.1	2.30	22	63	255	2.1	7	.35	.1	16	122	4.19	.10	13	.75	1449	8	.01	1	1080	66	35	33	110	355	62.5	610	18	1	2	1	175	7
SZ023	.1	2.52	16	49	375	3.5	15	.34	.1	69	309	6.43	.10	8	.60	6195	18	.01	1	1260	76	37	38	153	635	90.9	1078	41	1	3	1	200	49
SZ024	.1	2.89	24	34	565	3.0	11	.40	.1	54	106	6.90	.11	14	.67	6079	12	.01	1	1390	92	45	36	172	392	85.2	1200	42	1	3	1	185	6
SZ025	.1	2.27	9	164	144	.9	24	1.41	.1	19	34	6.76	.13	12	.82	1399	1	.02	1	990	35	26	84	124	2830	238.6	188	17	1	6	2	205	14
SZ026	.1	1.32	14	167	120	.7	17	.62	.1	13	29	5.21	.16	7	.65	973	1	.01	1	890	39	15	29	114	1767	139.9	108	15	1	4	1	195	86
SZ027	.1	1.45	28	157	178	1.4	13	.52	.1	12	21	5.58	.13	24	.69	1006	1	.01	1	1390	26	18	35	127	1132	165.0	110	14	1	4	1	200	6
SZ028	.1	1.65	28	158	92	.9	17	.78	.1	13	15	5.46	.14	21	.81	1052	1	.01	1	1550	26	22	32	119	1829	175.5	60	16	1	5	1	155	1
SZ029	.1	1.23	15	189	253	1.0	14	.59	.1	13	12	6.60	.12	14	.54	747	1	.01	1	1340	16	11	21	138	1370	221.6	73	9	1	5	1	195	19
SZ030	.1	.86	14	159	162	.8	10	.42	.1	10	14	4.70	.10	9	.50	694	1	.01	1	1080	25	10	19	114	663	128.6	72	11	1	3	1	145	9
SZ031	.1	.92	12	153	232	.8	8	.31	.1	7	20	3.52	.16	9	.41	514	1	.05	1	760	24	12	25	84	331	54.7	54	9	1	2	1	220	16
SZ032	.1	1.51	23	153	180	1.2	11	.52	.1	11	32	4.12	.09	15	.81	1090	2	.01	1	1080	51	21	27	103	721	112.7	111	18	1	3	1	215	9
SZ033	.1	1.84	4	190	142	1.1	18	.81	.1	16	41	6.80	.13	13	.89	967	1	.01	1	1240	27	23	26	144	1883	187.7	87	14	1	5	1	265	91
SZ034	.1	1.44	16	165	88	.7	14	.54	.1	10	25	3.88	.04	13	.86	1025	1	.01	1	750	89	19	30	93	1549	105.6	196	18	1	3	1	160	51
SZ035	.1	1.63	15	156	41	1.0	16	.74	.1	12	29	5.24	.05	14	1.08	1048	1	.01	1	740	32	20	37	129	1595	152.0	92	21	1	4	1	180	3
SZ036	.1	2.45	16	181	52	1.0	25	1.33	.1	15	31	6.63	.08	16	.88	744	1	.02	1	1080	34	30	56	116	3226	245.5	94	16	1	7	13	255	1
SZ037	.1	2.42	15	196	50	1.0	24	1.34	.1	15	31	6.16	.07	17	.91	845	1	.02	1	990	37	30	57	116	2978	225.2	108	15	1	7	12	150	6
SZ038	.1	2.11	11	146	157	1.0	20	1.12	.1	12	21	6.39	.13	9	.65	1185	1	.02	1	900	27	26	77	147	2187	217.5	164	14	1	5	1	170	8
SZ039	.1	1.78	14	160	90	.9	16	.96	.1	11	25	4.65	.07	14	.84	734	1	.02	1	880	32	22	51	103	1678	159.3	86	16	1	5	4	185	4
SZ040	1.6	.71	42	1	55	.2	11	.39	.1	4	55	1.23	.05	2	.27	507	4	.01	1	340	32	20	35	94	257	28.4	345	28	1	2	4	165	4
SZ041	.1	2.45	19	150	166	1.5	12	.74	.1	15	76	3.40	.12	11	.80	1259	9	.01	4	990	94	36	88	72	1183	84.6	495	17	1	3	6	225	6
SZ042	.1	1.83	13	154	85	.9	17	1.16	.1	10	42	4.23	.04	4	1.02	954	1	.01	1	1630	49	26	131	104	1601	127.7	198	20	1	4	1	135	3
SZ043	.1	2.19	18	150	96	.6	18	1.49	.1	10	22	3.83	.05	7	1.12	937	1	.01	1	1480	48	32	126	83	1985	124.4	152	20	1	5	2	200	2
SZ044	.1	2.62	28	165	134	1.2	19	1.38	.1	17	79	4.14	.10	9	1.36	2288	4	.01	1	1670	253	39	143	87	1966	107.2	818	31	1	3	1	225	21
SZ045	.1	1.77	20	178	144	.8	10	.71	.1	9	30	2.77	.05	7	.88	964	3	.01	1	1080	91	28	95	69	1039	73.6	261	18	1	3	4	195	8
SZ046	.1	1.92	21	166	154	1.6	9	.57	.1	14	39	2.99	.06	10	.77	1217	3	.02	1	1570	63	30	76	71	871	71.2	506	18	3	2	3	145	6
SZ047	1.7	1.08	50	1	71	.5	15	.42	.1	9	186	1.71	.05	5	.29	622	4	.02	1	610	26	28	42	113	365	38.7	178	29	1	3	6	240	88
SZ048	.1	1.87	8	180	130	1.1	12	.63	.1	12	118	7.11	.07	6	.65	977	4	.01	1	1600	62	23	66	171	867	173.7	204	11	1	4	1	185	73

COMP: JOHN BARAKSO
PROJ: PIL
ATTN: JOHN BARAKSO

MIN-EN LABS — ICP REPORT

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

FILE NO: 3V-0405-SJ3+4
DATE: 93/08/12
• SEDIMENT * (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	HG PPB	AU-FIRE PPB
SZ049	.1	1.86	10	128	39	1.1	11	1.06	.1	9	13	5.61	.07	8	.83	678	1	.01	1	1860	26	24	73	137	1110	181.7	52	15	1	5	1	210	3
SZ050	.1	1.36	1	175	73	1.4	14	.74	.1	14	12	9.02	.08	12	.68	758	1	.01	1	1940	14	8	35	182	1597	327.1	67	9	1	6	1	145	109
SZ051	.1	1.84	6	184	110	.8	26	.90	.1	16	27	7.41	.11	13	.84	917	1	.02	1	980	28	19	50	150	3128	267.1	110	14	1	6	4	150	6
SZ052	.1	2.27	22	196	107	1.2	16	.80	.1	16	54	5.74	.13	15	1.14	1878	4	.02	1	1230	200	32	60	148	1532	160.1	346	23	1	4	1	210	16
SZ053	.1	2.13	14	131	110	1.6	20	.66	.1	21	74	6.46	.09	10	1.03	1793	5	.02	1	1170	83	27	57	151	1878	153.8	496	23	1	4	1	185	8
SZ054	.1	1.36	48	177	149	.9	10	.73	.1	10	14	4.22	.11	15	.58	643	2	.02	1	1310	25	18	34	100	1045	117.9	63	12	1	3	1	235	2
SZ055	.1	1.66	43	143	217	.7	9	.96	.1	7	10	3.81	.12	15	.52	630	2	.02	1	1320	28	25	52	96	782	126.2	53	12	1	3	1	175	2
SZ056	.1	1.63	38	172	177	1.0	15	.79	.1	11	22	5.20	.13	27	.82	811	1	.02	1	1180	32	24	33	119	1640	180.7	70	16	1	5	1	125	1
SZ057	.1	1.18	22	159	174	1.3	11	.52	.1	10	17	5.38	.13	19	.65	749	1	.02	1	1460	39	17	40	135	776	164.5	98	16	1	4	1	225	21
SZ058	.1	1.62	20	119	426	.8	8	.79	.1	7	35	3.24	.10	16	.56	1272	2	.01	6	1120	50	27	48	90	468	76.8	160	20	1	3	15	240	44
SZ059	.1	1.34	3	163	321	1.1	16	.63	.1	13	60	7.13	.11	8	.69	963	1	.02	1	1180	95	14	47	167	1577	222.6	420	15	1	4	9	185	570
SZ060	.1	1.71	14	172	238	1.9	14	.61	.1	18	28	6.47	.19	23	.64	1744	2	.02	1	1180	38	23	40	156	1297	165.3	217	19	1	4	3	200	48
SZ061	.1	1.54	1	190	453	1.3	32	.80	.1	22	31	12.82	.13	10	.74	1209	1	.02	1	1170	13	3	37	233	4053	469.6	138	10	1	9	8	135	810
SZ062	.1	1.63	11	181	452	1.2	16	.68	.1	14	106	6.62	.15	9	.87	1376	3	.02	1	1240	47	20	56	162	1568	189.2	437	20	1	4	2	200	860
SZ063	.1	1.87	25	163	609	1.4	13	.71	.1	9	192	3.81	.20	7	.90	1418	8	.01	1	1500	93	31	74	117	846	74.2	822	23	1	1	3	175	141
SZ064	.1	1.29	19	152	153	.7	12	.57	.1	7	39	3.02	.10	6	.68	748	6	.02	1	990	48	21	48	95	1000	70.5	225	18	1	3	5	155	35
SZ065	.1	1.34	22	169	143	.7	11	.58	.1	7	38	3.09	.11	6	.70	776	5	.02	1	1030	48	22	49	97	1068	72.2	222	18	1	3	5	135	1405
SZ066	.1	1.42	6	165	394	1.3	20	.69	.1	15	62	8.02	.13	7	.76	1249	1	.02	1	1200	72	16	51	183	1991	252.5	419	17	1	5	4	205	829
SZ067	.1	1.29	1	193	368	1.4	19	.67	.1	16	58	9.58	.10	6	.68	1153	1	.01	1	1340	40	8	43	200	1902	311.1	325	12	1	6	10	165	23
SZ068	.1	1.93	8	174	327	1.5	12	.31	.1	9	113	6.50	.11	1	.70	806	18	.03	1	1090	107	25	66	151	864	116.0	175	11	1	6	52	135	95
SZ069	.1	2.39	33	149	215	1.5	25	.64	.1	23	313	6.37	.12	8	1.29	1493	7	.03	16	1330	279	38	98	165	1911	141.8	1757	27	1	6	123	210	94
SZ070	.1	1.28	13	175	246	1.4	15	.62	.1	12	60	6.24	.09	7	.72	982	1	.02	1	1260	70	16	43	161	1260	189.0	396	18	1	4	12	155	9
SZ071	.1	2.09	19	158	53	1.2	27	1.10	.1	16	35	6.93	.07	14	.92	881	1	.02	1	990	32	28	50	153	3168	254.3	98	21	1	7	11	175	5
SZ072	.1	2.03	31	190	99	1.6	16	.75	.1	15	52	5.76	.11	15	1.14	1731	10	.02	1	1210	204	30	49	161	1434	161.2	365	27	1	5	2	150	17
SZ073	.1	1.98	8	28	148	.7	11	1.21	.1	8	16	4.31	.10	7	.65	1003	1	.01	1	880	33	28	76	88	1198	136.8	113	15	1	4	1	255	1
047	.1	2.35	20	38	173	1.3	14	.76	.1	18	458	3.90	.09	5	.61	1351	6	.02	1	1440	49	37	83	95	896	91.4	387	17	1	2	2	190	141

COMP: BARAKSO CONSULTANTS
PROJ: PIL
ATTN: C. STAARGAARD

MIN-EN LABS — ICP REPORT

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

FILE NO: 3V-0551-RJ1+2
DATE: 93/09/02
• ROCK * (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
SP-01	.4	.98	16	1	28	.2	10	.56	.1	8	24	2.17	.05	9	.98	572	3	.04	1	730	24	4	47	99	979	55.5	41	19	1	7	71	7
SP-02	.2	1.03	10	1	110	.2	13	.75	.1	10	22	2.88	.10	7	.87	780	2	.04	1	680	21	2	40	90	1513	71.1	45	20	1	7	66	1
SP-03	.1	1.57	1	1	44	.2	13	.57	.1	7	53	3.01	.13	7	.84	1700	6	.04	1	770	58	5	54	76	1524	52.6	205	22	1	8	80	22
SP-04	.2	1.45	1	1	52	.2	15	.65	.1	7	10	3.07	.10	6	.89	789	4	.04	1	810	22	4	43	92	1987	76.0	63	19	1	7	64	1
SP-05	.3	1.43	4	1	252	.1	13	.65	.1	9	39	2.36	.10	6	.91	913	3	.03	1	690	25	6	53	87	1637	39.9	126	19	1	7	71	2
SP-06	.4	.64	5	1	94	.1	4	.04	.1	2	56	2.16	.25	2	.15	114	4	.05	1	520	220	1	20	50	59	13.0	45	8	1	5	90	21
SP-07	.1	.56	1	1	224	.1	11	.03	.1	5	98	6.62	.25	1	.05	18	8	.01	1	1280	259	1	80	76	19	14.4	24	6	1	2	11	3
SP-08	.1	.57	1	1	448	.1	6	.03	.1	4	49	4.28	.25	1	.09	33	10	.06	1	1100	157	1	54	65	34	12.4	18	5	1	3	39	31
SP-09	.1	1.14	12	1	490	.1	8	.03	.1	4	63	3.49	.25	4	.41	139	3	.05	1	630	24	1	45	81	444	27.8	37	12	1	4	40	33
SP-10	.1	.65	10	1	195	.1	6	.10	.1	5	62	2.71	.18	3	.25	206	2	.11	1	340	41	1	46	64	176	28.0	65	10	1	4	56	2
SP-11	.7	.61	10	1	1685	.1	7	.23	.1	5	16	1.14	.12	5	.26	239	2	.03	1	200	14	4	35	74	711	24.5	41	10	1	7	130	23
SP-12	4.0	1.14	16	1	426	.4	6	.09	.1	5	30	2.53	.26	10	.52	310	10	.01	1	890	26	5	18	74	29	60.1	76	15	1	6	64	45
SP-13	7.0	.82	26	1	673	.3	5	.17	.1	6	25	1.68	.18	8	.50	1033	4	.01	3	620	24	6	10	62	41	49.9	64	17	1	9	151	51
SP-14	74.2	.28	31	1	160	.1	5	2.38	6.3	3	106	.84	.07	3	.31	1157	5	.01	6	160	111	6	4	27	13	23.1	121	14	1	10	197	850
SP-15	17.3	.86	60	1	964	.1	4	.09	.1	3	18	2.20	.30	7	.43	215	3	.01	1	620	35	5	16	65	45	60.9	55	14	1	6	76	346
SP-16	.1	3.38	1	1	852	1.3	20	.40	7.3	116	1257	3.10	.19	30	.85	>10000	23	.02	30	890	135	20	47	78	385	46.0	699	54	1	8	78	14
SP-17	.1	.56	1	1	364	.1	7	.08	.1	7	43	5.64	.22	2	.17	122	8	.02	1	2210	9	1	13	88	385	22.2	27	8	1	4	36	25
SP-18	.1	2.01	1	1	602	.5	9	.34	.1	9	93	4.91	.25	9	.69	633	29	.02	1	1750	58	4	34	95	395	39.1	151	16	1	6	58	13
SP-19	.1	1.77	2	1	688	.1	16	.43	.1	195	199	3.62	.28	12	.80	>10000	14	.04	28	710	77	6	47	76	772	53.4	192	62	1	8	89	7
SP-20	.2	1.50	1	1	105	.1	15	.82	.1	13	31	3.38	.13	8	1.05	964	5	.04	1	930	21	4	95	94	1868	78.2	82	22	1	9	97	1
SP-21	.2	1.23	1	1	83	.1	14	.65	.1	8	28	3.36	.13	8	.73	872	3	.06	1	840	24	2	61	99	1728	76.8	55	19	1	7	66	22
SP-22	4.8	1.10	8	1	276	.4	10	.19	.1	4	375	2.99	.30	3	.39	587	46	.03	1	590	495	4	44	74	41	18.3	210	14	1	6	91	366
SP-23	.5	.93	5	160	80	.2	8	.22	.1	5	289	3.23	.18	4	.51	619	7	.05	1	530	20	2	18	80	292	35.4	111	15	1	5	62	86
SP-24	.1	1.40	3	1	52	.1	11	.30	.1	7	136	3.43	.17	6	.91	719	7	.05	1	580	39	5	23	91	634	58.9	101	21	1	8	92	67
SP-25	.1	1.31	8	1	1053	.3	25	.22	20.6	36	3335	2.19	.35	4	.87	6859	5	.03	17	730	55	10	15	67	41	37.2	1363	36	1	6	97	11
SP-26	.1	1.18	1	1	87	.1	7	.33	.1	6	58	2.37	.20	5	.80	717	4	.05	1	760	25	4	32	61	725	43.7	91	16	1	7	84	8
SP-27	.1	1.10	2	1	51	.2	8	.72	.1	9	40	2.34	.09	5	.66	1016	3	.04	1	630	123	3	60	71	931	59.3	210	15	1	6	80	1
SP-28	.1	1.10	3	1	503	.2	5	.17	.1	4	10	2.19	.34	5	.65	505	3	.03	1	830	62	4	21	81	35	34.4	57	14	1	5	46	55
SP-28A	.2	1.09	1	1	62	.1	8	.43	.1	5	12	2.07	.15	7	.77	257	7	.07	1	660	18	4	41	72	1023	47.3	27	13	1	6	58	7
SP-29	1.7	.84	17	1	335	.1	6	.08	.1	6	148	3.53	.18	6	.52	1704	10	.02	1	650	322	1	8	78	99	35.2	293	17	1	5	62	216
SP-30	.1	1.26	3	1	80	.4	10	.72	9.1	11	448	4.37	.17	11	1.01	3233	11	.03	1	790	100	2	8	106	160	70.1	807	27	1	5	59	248
SP-31	.1	.92	1	1	54	.2	9	.78	1.3	10	344	4.25	.13	9	.65	2439	6	.03	1	620	56	1	9	91	413	60.5	583	21	1	5	58	135
SP-32	.1	1.26	1	1	66	.1	13	1.00	3.0	12	582	5.37	.10	11	1.07	3056	19	.04	1	890	48	1	10	105	677	70.5	705	28	1	6	55	237
SP-33	.1	2.51	1	1	436	.9	11	.27	.1	8	270	4.19	.25	24	1.78	6334	6	.01	6	980	187	12	12	110	32	31.2	744	41	1	5	26	46
SP-34	.1	1.19	16	1	280	.2	8	.19	.1	6	174	3.54	.28	7	.57	3653	7	.01	1	1200	132	3	10	80	50	36.8	263	25	1	5	42	480
SP-35	.1	.94	12	1	662	.1	6	.05	.1	4	35	3.54	.23	4	.56	1628	11	.02	1	830	76	1	22	88	35	44.6	84	19	1	4	31	440
SP-36	.1	.95	1	1	598	.1	7	.16	.1	5	10	4.28	.26	4	.50	742	3	.04	1	1170	53	1	26	82	507	44.5	169	14	1	4	27	9
SP-37	.1	1.42	1	1	314	.1	14	.52	.1	7	8	3.87	.13	8	1.05	1318	3	.04	1	1180	37	2	30	88	1979	67.0	119	21	1	6	40	10
SP-38	.8	.91	6	1	632	.4	4	.88	.1	6	59	1.91	.37	5	.31	949	7	.01	1	700	86	5	46	60	17	15.7	237	12	1	5	76	608
SP-39	.1	.86	5	1	172	.2	7	1.20	.1	8	10	2.73	.35	5	.49	1032	5	.02	1	830	225	1	11	84	589	18.2	280	13	1	4	42	20
SP-40	.1	1.65	7	1	374	.3	11	.87	.1	10	88	3.82	.16	13	1.27	3045	4	.04	1	1150	131	6	53	105	751	67.0	441	30	1	6	57	87
SP-41	.1	1.01	24	1	802	.1	6	.43	.1	5	65	3.47	.22	7	.70	1947	187	.04	1	1240	180	3	102	95	49	44.5	148	22	1	5	41	301
SP-42	.1	1.40	13	1	207	.4	9	1.27	3.3	9	177	3.81	.16	11	1.08	2501	7	.03	1	1160	52	4	45	106	207	58.8	857	27	1	5	63	138
SP-43	.1	1.66	8	1	211	.1	15	.72	.1	7	51	4.08	.16	11	1.08	1974	7	.04	1	1710	64	3	45	98	1847	62.3	249	24	1	6	40	49
SP-44	.1	1.55	33	1	373	.4	7	.29	.1	5	12	3.52	.21	17	.88	1414	12	.03	1	1210	50	5	16	94	195	53.1	149	22	1	5	40	90
SP-45	.1	1.54	27	1	119	.4	6	.30	.1	4	17	3.50	.23	13	.59	775	28	.03	1	1090	122	5	17	94	114	37.0	101	17	1	5	33	80
SP-46	.1	1.75	66	1	579	.7	8	.48	.1	11	34	3.37	.15	30	1.06	1831	26	.03	1	850	66	7	30	105	489	77.1	227	24	1	6	55	37
SP-47	.1	1.14	23	1	249	.2	5	.23	.1	5	10	3.41	.30	7	.44	879	13	.03	1	1220	122	2	12	76	111	30.3	124	14	1	4	35	69

COMP: JOHN BARAKSO
PROJ: PIL
ATTN: John Barakso

MIN-EN LABS — ICP REPORT

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

FILE NO: 3V-0733-RJ1
DATE: 93/11/02
* rock * (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
PJ-01	.1	1.81	1	1	65	.2	13	.62	.1	9	25	3.56	.11	15	1.11	714	3	.07	1	1050	23	4	41	86	1898	76.2	80	18	1	6	41	1
PJ-02	.4	1.07	1	1	37	.1	10	.43	.1	6	24	2.43	.09	8	.75	603	5	.03	1	580	28	3	19	71	1607	55.3	50	16	1	6	72	25
PJ-03	.1	.98	1	1	62	.1	7	.95	.1	7	14	1.85	.09	4	.65	715	1	.05	1	630	15	3	70	51	1211	38.3	57	15	1	5	56	3
PJ-04	.1	.47	1	1	87	.2	1	.80	.1	2	3	.83	.21	1	.10	238	2	.03	1	210	5	1	4	36	87	8.3	15	3	1	3	55	2
PJ-05	.1	1.11	1	1	111	.1	12	.29	.1	6	8	3.37	.25	4	.57	287	2	.12	1	720	12	1	44	55	1811	48.8	37	11	1	5	34	5
PJ-06	.1	.89	1	1	40	.1	7	.31	.1	4	28	1.53	.19	5	.50	1140	3	.05	1	460	31	4	11	39	840	17.8	78	16	1	5	56	3
PJ-07	.1	1.07	6	1	107	.1	10	.46	.1	6	17	2.91	.16	5	.97	1378	5	.05	1	900	311	2	20	64	1216	40.1	92	19	1	4	30	8
PJ-08	.3	.81	2	1	170	.1	7	.12	.1	8	211	2.82	.16	3	.56	562	47	.03	1	490	24	3	10	70	433	22.6	101	15	1	4	40	50
PJ-09	.1	1.19	1	1	88	.1	10	.41	.1	7	28	2.99	.10	7	.95	560	3	.08	1	840	24	3	45	73	1385	42.3	59	19	1	5	36	6
PJ-10	.1	.45	1	1	197	.1	5	.02	.1	2	16	2.61	.31	1	.04	41	12	.01	1	590	17	1	7	48	244	22.9	6	4	1	3	46	10
PJ-11	.1	1.65	1	1	41	.1	12	.61	.1	5	71	2.71	.18	5	.73	882	4	.05	1	540	26	6	44	62	1790	51.0	113	17	1	7	66	9
PJ-12	.1	.94	11	1	275	.2	7	.06	.1	5	17	2.55	.17	4	.64	492	26	.08	1	400	47	3	23	79	281	36.8	63	17	1	5	53	15
PJ-13	.2	.67	5	1	196	.2	6	.22	.1	5	11	1.07	.15	5	.33	254	2	.05	1	480	18	4	5	74	593	12.9	44	10	1	5	76	2
PJ-14	.1	.99	101	1	232	.3	4	.20	.1	2	14	1.82	.48	2	.43	256	4	.04	1	240	29	7	15	71	45	21.6	25	14	1	3	26	16
PJ-15	.1	.38	9	1	27	.2	2	.04	.1	3	11	.67	.14	3	.16	374	2	.01	2	80	8	3	2	21	56	6.7	48	8	1	8	163	43
PJ-16	.1	1.01	13	1	96	.2	5	.07	.1	7	30	2.62	.29	3	.55	357	3	.06	1	460	17	3	13	70	29	27.8	43	15	1	3	27	11
PJ-19	17.5	.46	25	1	321	.1	3	.10	.1	3	86	1.22	.11	5	.27	656	3	.01	1	390	62	3	8	32	18	26.9	41	10	1	7	122	292
PJ-20	58.5	.23	25	1	120	.1	4	2.79	1.6	2	59	.67	.04	2	.32	1329	5	.01	4	70	56	5	3	28	7	19.0	72	15	1	9	160	734
PJ-21	11.4	.25	18	1	46	.1	2	.10	.1	2	25	.77	.08	2	.14	291	2	.01	1	200	14	2	1	15	24	20.5	17	6	1	10	196	103
PJ-22	8.4	.76	26	1	508	.2	3	.06	.1	3	15	1.73	.26	6	.35	249	6	.01	1	540	40	5	34	57	42	39.5	45	13	1	5	67	91
PJ-23	1.4	.62	19	1	97	.2	4	.04	.1	3	9	1.82	.20	6	.41	220	3	.02	1	300	14	3	9	54	84	23.4	24	13	1	7	120	16

COMP: BARAKSO CONSULTANTS
PROJ: PIL
ATTN: C. STAARGAARD

MIN-EN LABS — ICP REPORT

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

FILE NO: 3V-0551-RJ3
DATE: 93/09/02
* ROCK * (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
SP-48	.1	2.60	1	1	70	1.1	11	2.51	.1	22	70	5.13	.21	41	2.33	1135	5	.03	1	1190	36	6	23	94	787	148.0	79	29	1	8	35	23
SP-49	.1	1.44	11	1	508	.7	6	.47	.1	7	26	3.36	.26	15	.83	1252	11	.03	1	1130	66	2	19	83	149	43.3	229	17	1	4	24	43
SP-50	.1	1.49	1	1	764	.4	5	.38	.1	5	20	3.21	.30	14	.87	1192	7	.03	1	1170	49	3	28	86	289	48.8	126	20	1	5	45	80
SP-51	.1	1.68	1	1	642	.1	15	.59	.1	7	18	3.88	.23	13	.95	1342	4	.04	1	1140	70	1	38	83	2344	74.7	149	20	1	6	35	25
SP-52	.1	1.41	1	1	156	.1	16	.59	.1	7	9	3.91	.18	9	.78	992	4	.07	1	1330	32	1	53	81	2386	85.5	59	19	1	7	59	6
SP-53	.1	1.28	21	1	360	.3	13	.35	.1	4	4	2.97	.25	9	.99	1024	9	.08	1	1030	38	5	38	98	358	67.4	54	23	1	6	46	3
PJ-24	.1	1.44	5	1	895	.4	6	.10	.1	5	34	3.81	.35	6	.90	2155	15	.02	1	1170	150	3	21	93	42	36.9	145	24	1	5	40	107
PJ-25	.7	.92	1	1	1962	.1	3	.02	.1	1	3	.65	.14	1	.01	32	6	.10	1	230	148	7	189	26	19	6.9	5	4	1	5	90	6
PJ-26	.1	.88	1	1	294	.2	6	.03	.1	4	32	3.87	.30	2	.15	99	13	.02	1	440	131	1	17	67	180	36.0	22	6	1	5	73	39
PJ-27	.1	1.22	6	1	925	.3	9	.39	.1	7	90	2.54	.21	4	.72	1028	17	.04	1	400	45	4	35	74	617	42.3	126	17	1	8	121	14
PJ-28	.1	1.40	1	1	122	.1	12	.50	.1	10	112	3.56	.21	6	.95	1247	5	.04	1	700	36	2	33	89	1394	55.3	124	20	1	8	88	31
SZR101	3.1	.07	30	1	24	.1	5	>15.00	.1	2	5	.24	.04	1	.01	13	2	.01	1	80	26	8	944	1	14	5.4	5	12	1	2	18	3
SZR102	.1	.43	27	1	6223	.1	5	.90	5.8	4	16	.88	.16	4	.16	1557	3	.01	7	120	18	4	392	37	19	10.4	488	12	1	13	281	7
SZR103	3.8	2.91	1	1	305	.1	46	2.08	.1	38	3652	7.98	.08	20	2.64	1385	4	.04	1	1260	36	4	152	102	4043	207.0	128	30	1	10	43	20

Appendix C
Rock Sample Descriptions

rep = 1-2 kg of chips representative of outcrop
SP series collected by C.F. Staargaard

No.	Type	Lithology
SP-1	rep	medium to coarse-grained hb monzonite, trace primary diss. magnetite, epidote on mm sized fractures
SP-2	rep	hb monzonite porphyry, weakly magnetic, fine-grained K-spar/plagioclase groundmass
SP-3	rep	medium grained hb monzonite, fresh K-spar, weakly sericitic plagioclase, weakly magnetic, trace diss. py, limonitic fractures
SP-4	rep	hb monzonite porphyry, fine-grained K-spar/plagioclase groundmass, 1% py as dissem. and fracture fillings
SP-5	rep	medium grained syenite to monzonite, abundant chloritized hornblende, 3% pyrite as grains assoc. with hornblende and fracture fillings, limonitic fractures
SP-6	rep	strongly to intensely sericitized rock, highly oxidized with abundant limonitic fracture fillings (after pyrite)
SP-7	rep	strongly sericitized intrusive that has been brecciated and weakly silicified, limonitic matrix and/or fracture fillings
SP-8	rep	highly fractured, moderately sericitized intrusive, moderate pervasive silicification, abundant limonitic fractures
SP-9	rep	highly fractured, moderately sericitized intrusive, moderate pervasive silicification, abundant limonitic fractures
SP-10	rep	as SP-8 but moderate amounts of limonite with some jarosite on fractures, 2% disseminated pyrite, possible weak silicification
SP-11	rep	medium grained quartz monzonite, chloritized biotite and minor hornblende, abundant 1 cm quartz veins, quartz eyes could be secondary
SP-12	selected	strongly silicified andesite, vuggy quartz-goethite-limonite fracture fillings, taken from uppermost trench
SP-13	selected	dark, sub-chalcedonic veins cutting silicified andesite, sample includes minor second generation drusy quartz veins (weakly amethystine)
SP-14	rep	quartz vein breccia cutting andesite, brown carbonate (not in specimen) in matrix in places, trace very finely disseminated pyrite

No.	Type	Lithology
SP-15	3 metre chip	strongly silicified andesite, minor stockwork of 1.5 cm dark, sub-chalcedonic veins as in SP-13, 1% finely disseminated pyrite, limonite on fractures
SP-16	rep	manganese wad ie stream pebbles and colluvial material cemented by Mn hydroxides
SP-17	rep	ferricrete, as SP-16 except cemented with Fe hydroxides
SP-18	rep	ferricrete, as SP-17
SP-19	rep	manganese wad, as SP-16
SP-20	rep	porphyritic monzonite, chloritized hornblende, primary disseminated magnetite partly associated with hornblende, minor limonite on fractures
SP-21	rep	porphyritic monzonite with chloritized hornblende, 3% disseminated pyrite, minor limonitic fractures, type specimen has less K-spar than remainder
SP-22	rep	medium grained monzonite, weak pervasive sericitization in places, limonite and some jarosite on fractures
SP-23	rep	fine to medium grained monzonite(?), abundant x mm quartz-limonite fractures, possible narrow K-spar alteration envelopes on fractures
SP-24	rep	fine to medium grained monzonite, x mm quartz-magnetite veinlets, abundant jarositic fractures
SP-25	rep	fine to medium grained monzonite, highly fractured with Mn coatings, 1% malachite on fractures
SP-26	rep	medium grained monzonite, chloritized hornblende, x mm quartz-limonite(after pyrite) veinlets with trace disseminated pyrite, limonitic fractures, possible quartz monzonite but quartz eyes are probably secondary
SP-27	rep	porphyritic hornblende monzonite, chloritized hornblende, minor to weak stockwork of x mm drusy quartz veinlets, minor Mn and epidote on fractures
SP-28	rep	chips from subcrop, sericitized andesite with trace disseminated pyrite and limonite on fractures
SP-28a	rep	weakly sericitized latite porphyry, highly fractured with limonite, minor quartz-epidote fracture fillings
SP-29	selected	porphyritic andesite, possible weak pervasive sericitization and silicification, highly fractured with limonite, 3% disseminated and fracture-controlled pyrite, limonite and quartz fracture fillings
SP-30	selected	porphyritic andesite, strongly fractured with spotty (Cu-rich) Mn stain, quartz-magnetite fracture fillings

No.	Type	Lithology
SP-31	rep	porphyritic andesite, strongly fractured with spotty (Cu-rich) Mn stain, abundant quartz-magnetite veinlets
SP-32	rep	as SP-31 but minor Mn and trace malachite on fractures
SP-33	rep	andesite, Mn stain on fractures along with minor limonite, pervasive epidote-chlorite alteration but no carbonate
SP-34	rep	andesite, strong pervasive sericitization, ~3% disseminated pyrite, limonite on fractures
SP-35	rep	andesite(?), weak pervasive sericitization, minor argillic alteration which could be result of acid leaching in weathering process, abundant limonitic fractures
SP-36	rep	andesite(?), moderate pervasive sericitization, 1% finely disseminated pyrite, limonite and jarosite on abundant fractures
SP-37	rep	andesite(?), moderate pervasive sericitization, chloritized hornblende, spotty epidote, 2% finely disseminated pyrite, abundant limonitic fractures
SP-38	rep	possible intrusive, intense carbonate alteration with lesser chlorite and epidote, numerous x mm quartz veinlets, 3% finely disseminated pyrite
SP-39	rep	andesite, strong pervasive sericitization, weak pervasive silicification, weak pervasive carbonatization, ~3% disseminated pyrite
SP-40	6 metre chip	andesite(?), highly fractured, numerous limonitic fractures with rare malachite, magnetic (possible magnetite in fractures), spotty Mn (Cu-rich?) on fractures
SP-41	rep	same outcrop as SP-40, highly oxidized and limonitic, highly fractured, several 40cm clay-rich seams probably after pyrite (not included in sample)
SP-42	5 metre chip	same as SP-40, occasional magnetite on fractures
SP-43	rep	andesite, highly fractured/shattered, limonitic, spotty moderate epidote, weakly magnetic
SP-44	rep	andesite, moderate sericitization, weak silicification, highly fractured/shattered, limonitic, 1% very finely disseminated pyrite
SP-45	1.5 metre chip	andesite, highly fractured and rusty near contact with porphyritic monzonite dyke, patchy silicification
SP-46	5 metre chip	porphyritic monzonite dyke, highly fractured/shattered, minor limonite and Mn stain on fractures, sulphate(?) fracture fillings
SP-47	rep	andesite(?), highly fractured, moderate pervasive sericitization, limonite and jarosite on fractures

No.	Type	Lithology
SP-48	rep	andesite, strong pervasive chloritization and carbonatization, abundant irregular carbonate fracture fillings
SP-49	rep	same as SP-47
SP-50	rep	same as SP-47
SP-51	rep	same as SP-47
SP-52	rep	fine grained granite(?) or leucomonzonite, strongly sericitized, strongly fractured with abundant limonite
SP-53	rep	fine grained granite(?) or leucomonzonite, weak pervasive sericitization, 3% disseminated pyrite, highly fractured with limonite

JP sample series collected by J.J. Barakso

JP-1	selected	plagioclase(red) phyric andesite; limonite on fractures
JP-2	selected	as JP-1; 1-2 mm drusy quartz veinlets; trace disseminated pyrite
JP-3	selected	medium to coarse grained hornblende monzonite; hornblende altered to chlorite and magnetite
JP-4	selected	fine-grained pink biotite monzonite; scattered limonite pseudomorphs after pyrite; chloritized biotite; minor hairline quartz veinlets
JP-5	selected	weakly sericitized intrusive(?); 0.5% dissem. pyrite; very abundant limonite on fractures; 1-2mm quartz veinlets
JP-6	selected	moderately sericitized intrusive(?); hairline quartz veinlets; abundant orange limonite on fractures
JP-7	selected	weakly to moderately sericitized porphyritic andesite; possible weak pervasive silicification or feldspathization; 1-2% finely dissem. pyrite; limonite on fractures
JP-8	selected	fine to medium grained intrusive(?); 5% dissem. pyrite; possible chlorite; abundant limonite; sample strongly weathered
JP-9	selected	moderately sericitized intrusive(?); 5% dissem. pyrite; abundant limonite on fractures
JP-10	selected	fine to medium grained feldspar porphyry; abundant limonite on fractures and in boxworks after pyrite (with jarosite); minor 1-2 mm quartz veinlets

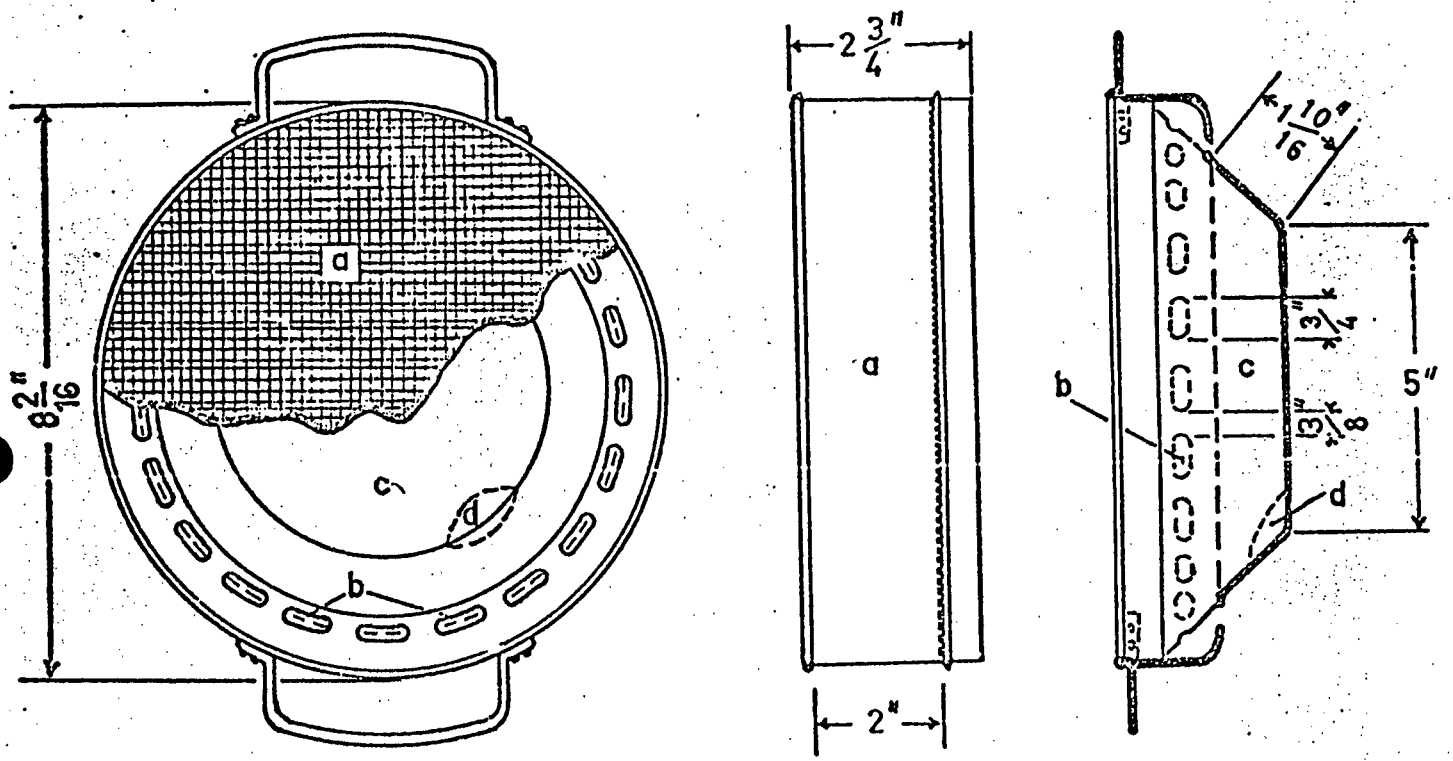
No.	Type	Lithology
JP-11	selected	strongly sericitized intrusive(?); hairline quartz veinlets with some open space texture; 1% dissem. pyrite; limonite on established fractures; minor jarosite on freshly broken surfaces
JP-12	selected	medium grained monzonite with chloritized hornblende; abundant mm sized quartz veinlets; trace dissem. pyrite often associated with mafics
JP-12	selected	weakly sericitized intrusive(?); 0.5% dissem. pyrite; limonite on fractures
JP-13	selected	intrusive(?); monzonite to granodiorite; brecciated; grey quartz matrix; hairline quartz veinlets; 1-2% dissem. pyrite; limonite on fractures
JP-14	selected	moderately sericitized porphyritic andesite; <1% finely disseminated pyrite; limonite on fractures
JP-15	selected	quartz vein with minor drusy openings; trace chlorite
JP-16	selected	medium grained quartz monzonite to granodiorite, biotite and hornblende altered to sericite and chlorite; 1-2% dissem. pyrite; limonite and minor jarosite on fractures
JP-19	selected	weakly porphyritic and generally finegrained, greenish gray andesite; common <3mm fine-grained and dark, cherty silica veinlets; later set of <1mm banded drusy quartz veinlets with minor open space texture (epithermal)
JP-20	selected	epithermal quartz vein breccia; weak limonitic stain in matrix; minor open space texture
JP-21	selected	epithermal quartz vein breccia; earlier white drusy quartz vein fragments and brownish argillized andesite fragments in dark cherty matrix
JP-22	selected	moderately to strongly sericitized intrusive(?); 1% dissem. pyrite, mainly as complete, fine-grained replacements of hornblende; minor limonite and jarosite on fractures; subtle pink colour in groundmass suggests K-spar?
JP-23	selected	moderately sericitized and silicified intrusive with argillically altered plagioclase; abundant multistage hairline quartz veinlets, some with limonite; cm scale bleached selvages around some veinlets
JP-24	selected	strongly sericitized and possibly argillized porphyritic andesite; 5% dissem. pyrite; heavy limonite staining with some Mn; sample is highly weathered
JP-25	selected	strongly sericitized and brecciated intrusive(?); abundant limonite and minor jarosite on fractures; weak pervasive silicification
JP-26	selected	leucocratic quartz feldspar porphyry; minor limonite stain, especially around boxworks after pyrite

No.	Type	Lithology
JP-27	selected	medium grained hornblende tonalite to granodiorite; hornblende altered to chlorite, pyrite; weak pervasive sericite; minor epidote; moderately fractured with minor pyrite and limonite
JP-28	selected	medium grained hornblende tonalite; minor epidote alteration on some plagioclase; 3-5% dissem. pyrite; weak chloritization of hornblende; limonite on fractures

Appendix D

Description of Pan-Screen Set Used to Collect Stream Sediment Samples

Heavy Media collector for Geochemical Analysis.



Legend:

a = 40 Mesh stainless sive

b = Draining slots

c Gold pan

d 1 oz. mark

Scale:

1" = 3"

Fig. 2

MIN-EN LABORATORIES LTD.
705 W. 15th St.
North Vancouver, B.C.
Phone: 980-5814

PHONE 980-5814

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
Corner 15th Street and Bewicke
705 WEST 15th STREET
NORTH VANCOUVER, B.C.
CANADA

PROCEDURE FOR HEAVY MINERAL SAMPLE COLLECTOR FOR Au. W. Sn

1.) Place a screen on top of pan and fill up the given screen with gravel from the stream bed to level the top of screen.

2.) Sieve underwater until the fine material gets into the pan.

3.) Than discard the material from the screen moving away the screen from the pan.

4.) Pan down the screened material to the amount marked on the bottom of the screen.

5.) Collect heavy panned geochem sample into a suitable vile and send with shipment notice to the laboratory for analysis.

P.S. Sieves are available from the laboratory of 10,20,40 mesh sizes.

MT. GRAVES

TOODOGGONE RIVER

PROPERTY BOUNDARY

cut line

q.v.,mt,mal

gabbro

bo,py

q.v.,py

cpy,ba

q.v.,ba

sph

bo,ba

THE PILLAR

JOCK CREEK

LEGEND

- Granodiorite, monzonite
- 4 — **HAZELTON GROUP** Undivided
- 3 — **TOODOGGONE FORMATION** Saunder Member, high potassium dacite ash flow tuff
- 2 — **ATTYCELLY MEMBER** Lithic crystal tuff, minor pyroclastic breccia
- 1 — **METSANTAN MEMBER** High potassium latite flows, flow breccia a) orthoclase megacrysts b) tuff

- Geological contact
- Fault
- Gossan
- ▲21 Rock sample location & No. (Prefix SP)
- ▼21 Rock sample location & No. (Prefix PJ)
- Showings
- Lake or pond
- Creek
- Road
- 1500 Contour at 100 metres interval

ba	Barite
bo	Bornite
cpy	Chalcopyrite
mal	Malachite
mt	Magnetite
py	Pyrite
q.v.	Quartz vein
sph	Sphalerite

GEOLOGICAL BRANCH ASSESSMENT REPORT

23,313

ELECTRUM RESOURCE CORPORATION

PIL PROPERTY
TOODOGGONE AREA

GEOLOGY and ROCK SAMPLE LOCATIONS

N.T.S. 94E-7 — OMINECA M.D., B.C.

0 500 1000 2000 METRES

SCALE 1:25,000	DATE: JAN. 1994
STAARGAARD GEOLOGICAL	FIGURE No. 3

CHONG

MT. GRAVES

TOODOGGONE RIVER

PROPERTY BOUNDARY

THE PILLAR

LOCK CREEK

Omineca Mine

40,33,134
121,4,2127
45,3,431
129,1,535
132,138,352
51,3,728
152,32,292
51,6,208
121,322,659
27,5,105
36,416,102
35,1670,102
238,72,501
106,93,630
212,18,1049
309,49,1078
122,7,610
106,6,1200
40,6,80
22,2,73
22,2,152
42,3,198
148,320,282
164,165,830
31,1,94
31,6,108
36,472,195
34,21,262
25,51,196
74,8,496
54,16,346
52,17,365
16,1,164
21,8,113
29,3,92
OV.FLOAT
79,21,818
25,4,86
27,6,110
35,5,98
76,6,495
55,4,345
106,860,437
31,810,138
192,141,822
30,8,261
12,109,67
13,3,52
39,35,225
OV.FLOAT
34,14,188
41,91,87
32,9,111
186,88,178
39,6,506
38,1405,222
28,48,217
29,86,108
20,16,54
14,9,72
12,19,73
62,829,419
21,6,110
118,73,204
60,9,396
60,570,420
35,44,160
17,21,98
15,1,60
313,94,1757
14,2,63
10,2,53
113,95,175
22,1,70
58,23,325

LEGEND

17,21,98 ppm Cu, ppb Au, ppm Zn

O Stream sediment sample location

Lake or pond

Creek

Road

1500 Contour at 100 metres interval

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,313

N

ELECTRUM RESOURCE CORPORATION

PIL PROPERTY
TOODOGGONE AREA

STREAM SEDIMENT SAMPLES
COPPER, GOLD and ZINC IN SILT

N.T.S. 94E-7

OMINECA M.D., B.C.

0 500 1000 2000 METRES

SCALE 1:25,000	DATE: JAN. 1994
STAARGAARD GEOLOGICAL	FIGURE Nº. 5

CHONG

MT GRAVES

TODOGGONE RIVER

33,95,129
91,356,902
38,55,289
117,9670,339
174,507,327
300,632,410
44,99,430
54,411,222
165,880,489
30,56,148
47,30,133
134,20,340
207,2175,637
25,168,145
130,1575,569
167,1695,523
439,148,1396
110,188,1098
39,50,132
32,81,169
99,92,187
1105,2,328
18,45,85
28,23,136
107,27,447
27,9,156
23,36,155
25,50,144
38,57,182
106,54,308
34,361,178
52,618,172
169,193,562
187,28,408
120,26,484
30,101,225
42,25,277
68,2780,307
64,179,410
38,13,130
Cu FLOAT
23,5,180
29,34,194
22,28,394
24,60,427
25,3,204
22,19,167
30,41,153
57,49,343
49,72,285
89,26,544
23,373,122
25,19,111
57,54,225
41,4,200
99,165,505
154,90,625
21,25,133
13,10,76
28,172,86
12,13,44
17,22,55
42,254,220
Q.V. FLOAT
50,31,337
62,69,103
34,268,84
THE PILLAR
20,29,221
302,12,190
68,4160,522
121,537,607
36,14,248
32,79,222
39,134,253
14,73,75
PROPERTY BOUNDARY
7,15,92
81,236,68
14,22,78
44,140,432
21,30,122
170,34,164
11,10,71
24,38,197
43,597,430
44,3740,402
21,60,154
15,24,86
11,40,52
13,4,53
77,48,527
JOCK CREEK
13,18,66
11,13,109
301,99,995
11,16,58
129,66,172
30 Diamond Mine

LEGEND

23,36,155	ppm Cu, ppb Au, ppm Zn
O	Stream sediment sample location
	Lake or pond
	Creek
	Road
1500	Contour at 100 metres interval

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,313

N

ELECTRUM RESOURCE CORPORATION

PIL PROPERTY
TOODOGGONE AREA

STREAM SEDIMENT SAMPLES
COPPER, GOLD and ZINC IN HEAVY MINERALS

N.T.S. 94E-7 OMINECA M.D., B.C.

0 500 1000 2000 METRES

SCALE 1:25,000	DATE: JAN. 1994
STAARGAARD GEOLOGICAL	FIGURE No. 6

CHONG

MT. GRAVES

TOODOGGONE RIVER

PROPERTY BOUNDARY

THE PILLAR

LOCK CREEK

SZ013 SZ014 SZ015 SZ016 SZ017 SZ018 SZ019 SZ020 SZ021 SZ011 SZ012 SZ010 SZ009 SZ007 SZ008 SZ023 SZ022 SZ024 SZ005 SZ006 SZ003 SZ004 PHM 4 PHM 5 SZ001 PHM 1 PHM 2 PHM 3 SZ002 PHM 6 PHM 7 SZ043 SZ042 SZ044 SZ041 SZ040 SZ036 SZ037 PHM 8 SZ038 (SZ073) SZ039 SZ051 PHM 9 SZ071 SZ034 SZ053 SZ052 (SZ072) SZ035 OV. FLOAT PHM 10 SZ062 SZ061 PHM 12 SZ063 PHM 11 SZ045 PHM 20 SZ050 PHM 19 SZ049 SZ064 OV. FLOAT SZ025 SZ033 SZ032 SZ065 PHM 13 PHM 14 SZ060 SZ026 SZ047 SZ046 PHM 18 SZ066 SZ027 SZ029 SZ031 SZ030 SZ048 PHM 17 SZ070 SZ059 SZ058 PHM 15 SZ057 SZ028 PHM 16 SZ069 SZ054 SZ055 SZ068 SZ056 SZ067

LEGEND

SZ 021	Sample number
○	Stream sediment sample location
	Lake or pond
	Creek
	Road
1500	Contour at 100 metres interval

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,313

N

ELECTRUM RESOURCE CORPORATION

PIL PROPERTY
TOODOGGONE AREA

STREAM SEDIMENT SAMPLES
SAMPLE NUMBER MAP

N.T.S. 94E-7

OMINECA M.D., B.C.

0 500 1000 2000 METRES

SCALE 1:25,000	DATE: JAN. 1994
STAARGAARD GEOLOGICAL	FIGURE Nº. 4

CHONG