

LOG NO: Feb 07/91 RD.

ACTION:

FILE NO:

**LINK CLAIM**

**Aiken Lake Area, British Columbia**

**NTS: 94C/5**

**GEOLOGY AND GEOCHEMISTRY**

**Claim: Link**  
**Omineca Mining division**  
**56° 25'N, 125° 57'W**

**Owner/ Rio Algom Exploration Inc**  
**Operator: 1650, 609 Granville Street**  
**Vancouver B C**  
**V7Y 1G5**

**GEOLOGICAL BRANCH**  
**ASSESSMENT REPORT**

**20,909**

## **SUMMARY**

The 20 unit (500 ha) Link Claim was staked by Rio Algom Exploration Inc to acquire an area of Takla volcanic rocks highlighted by anomalous copper-in-silt during a regional reconnaissance programme carried out by Rio in the mid 1960's. It was hoped that the anomalous copper-in-silt was derived from porphyry copper-gold mineralization.

Contour soil sampling in 1990 showed a broad area of anomalous copper and gold in the western claim area. Anomalous values, which are up to 480ppb Au and 956ppm Cu, occur over a still open 500m by 500m area. Rocks within the soil anomaly are sheared, pyritized and intensely chloritized andesite and diorite. In the southeastern claim area, contouring soil sampling over chloritized and pyritic andesite highlighted a 1,000m by 500m area of anomalous copper-in-soil.

Limited work on the property has demonstrated the presence of widespread anomalous values in copper and gold in soils overlying pyritic and strongly chloritized rocks. In 1991, closely spaced contour soil sampling, prospecting and rock sampling is recommended to define the source of the copper- and gold-in-soil anomalies. If successful, this programme will define targets for later trenching and drilling programmes.

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## **1 INTRODUCTION**

The Link claim was staked by Rio Algom Exploration Inc in early 1990 to acquire an area defined as anomalous for copper during a regional reconnaissance programme in the mid 1960's. On July 23 1990, a three person crew carried out prospecting and contour soil sampling of the central area of the claim. The purpose of this work was to determine if the anomalous copper-in-silt was derived from porphyry-type copper and gold mineralization. This report discusses the results of the July 23 programme and makes recommendations.

### **1.1 Location, Access and Physiography**

The claim lies 100km northwest of Germansen Landing, British Columbia in the Omineca Mining Division on NTS mapsheet 94C/5. Geographic coordinates of the centre of the property are 56<sup>0</sup> 25'N latitude and 124<sup>0</sup> 24'W longitude (Map 1).

Access to the claim is restricted to helicopter from either Mackenzie or Smithers. The closest road is the Cheni Mine road which passes within 12km of the claim boundary.

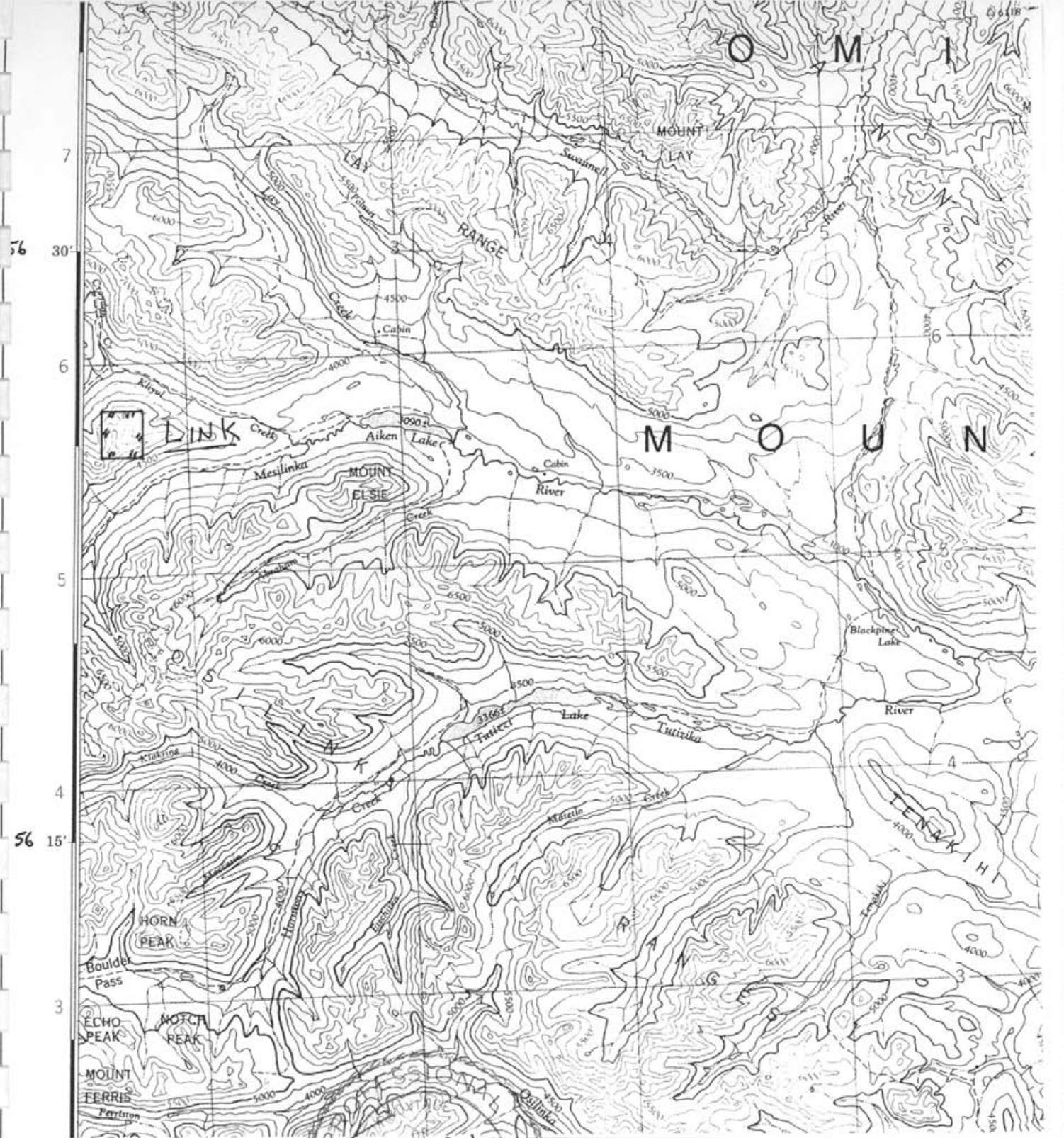
The topography of the claim is very rugged with razor back ridges, precipitous upper slope and moderate to steep talus covered lower slopes. Treeline is at approximately 1700m asl, below which vegetation passes from scrub spruce through stunted fir to fir, spruce and pine in the valley bottom.

### **1.2 Property**

The Link property consists of a single 20 unit claim having a date of record of March 1 1990 and record number 11496.

### **1.3 History**

Rio Algom's first interest in the area of the Link claim was in 1965 when, as part of their exploration of the adjacent Croyden property, reconnaissance silt sampling and prospecting of the Link area was carried out. This 1960's work highlighted the central area of the Link as strongly anomalous for copper. However, prospecting of the anomalous area did not find significant copper mineralization and the area was dropped.



126° 00'



**Rio Algom Exploration Inc**

**Link Claim**

**Location Map**

NTS: 94C/5		Omineca MD, B C
Date:	Drawn by:	Drawing:
January 1991	JAM/fmv	Map 1

In the 1980's, crews employed by Fox Geological evaluated the area of the Link claim. This work was confined to the ridge tops and focussed on sampling quartz veins. The low gold values in the samples discouraged further work.

Encouraged by the high levels of copper in sediment from streams draining the area, the cursory nature of previous work and a geological setting favourable for porphyry-type copper-gold mineralization, Rio Algom staked the Link claim in late February 1990.

## **2 GEOLOGY**

### **2.1 Regional Geology**

The property occurs within the Quesnel Trough, a subdivision of the Intermontane tectonic belt. The Quesnel Trough is bounded on the west by Paleozoic rocks of the Pinchi Belt and, on the east, by mid to upper Paleozoic rocks of the Slide Mountain Group.

The Quesnel Trough was the site of extensive island arc volcanic and sedimentary deposition from late Triassic to early Jurassic time. These volcanic and sedimentary rocks, referred to as the Takla Group consist of a basal unit of argillite and greywacke which appear transitional into tuffs, breccias and augite porphyry flows.

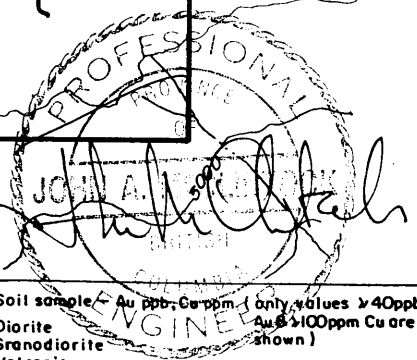
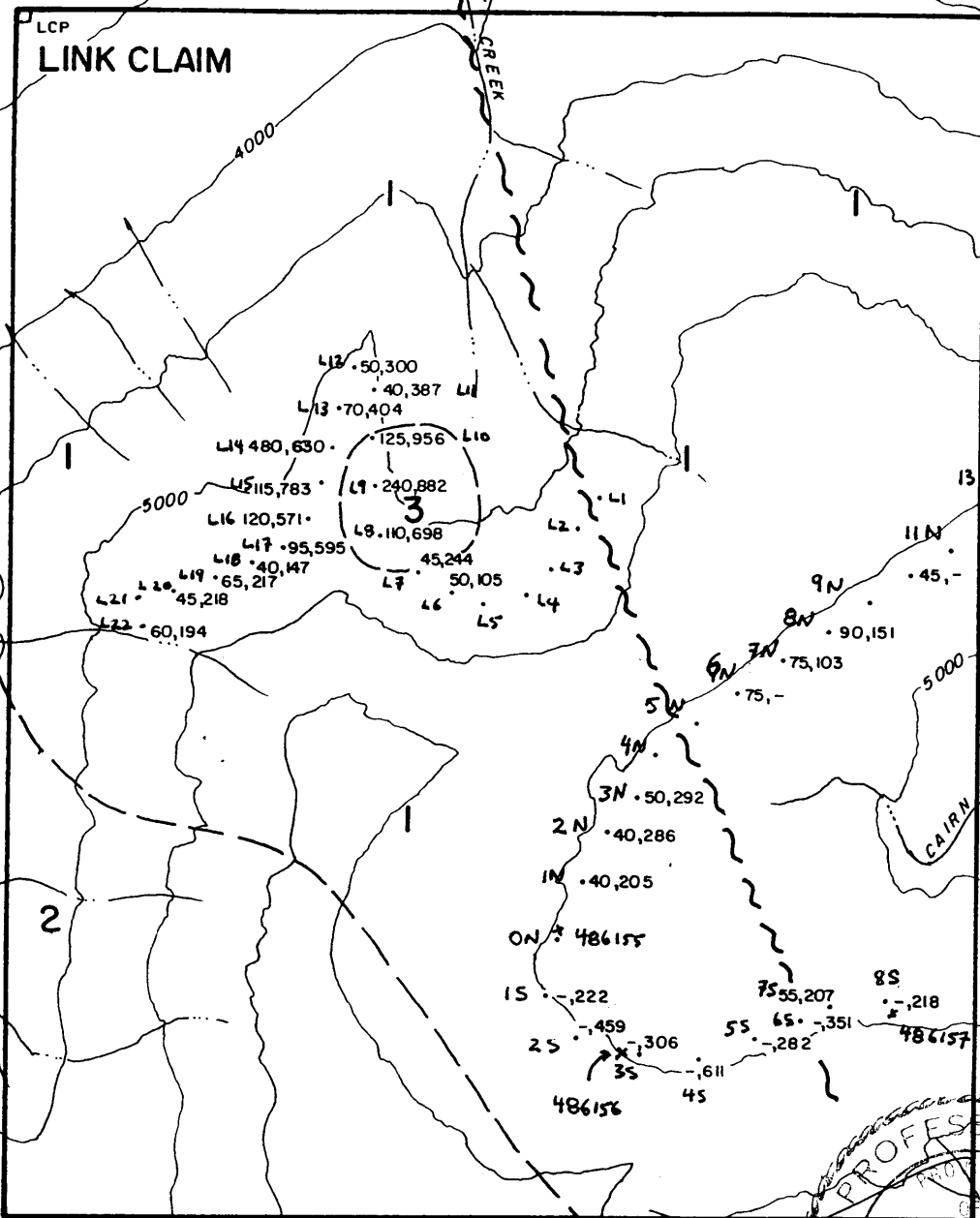
Block faulting and tilting are the dominant structural styles in the belt. Faults trend in a northwest and northeast direction. Folding is restricted to the eastern margin of the belt near its structural boundary with the Omineca Crystalline Belt.

Two major episodes of granitic intrusion are recognized along a northwest trending belt slightly oblique to Quesnel Trough. The intrusive events cluster around 200 and 100 million year ages.

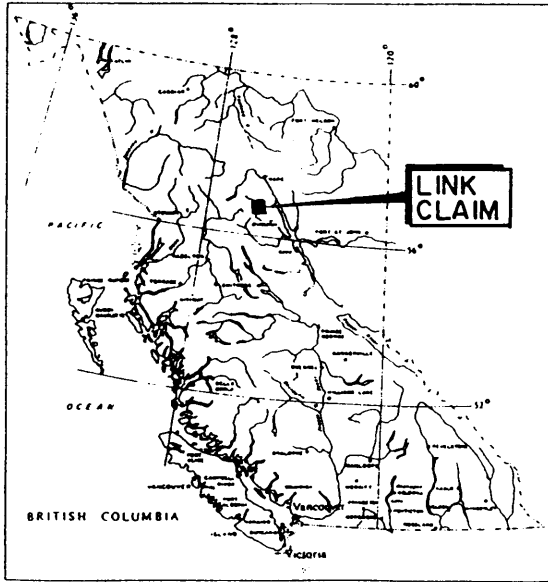
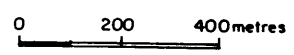
Gold and copper-gold deposits have an affinity for 200 million year old alkalic plutons and Triassic-Jurassic volcanic rocks. Molybdenum deposits, on the other hand, are associated with the 100 million year intrusive event.

### **2.2 Property Geology**

The Link property straddles the contact between Takla Group rocks and granodiorite of the Jurassic age Hogem Batholith. On the claim, the Takla rocks are predominantly green coloured tuffs, breccias and flows of andesite composition with a thin sequence of argillite and limestone present in the northeastern claim area. Based on bedding attitudes in the sedimentary rocks, the Takla Group strike north-westerly with shallow to steep northeasterly dips (Map 2).



\*75,103 Soil sample - Au ppb, Cu ppm (only values >40ppb Au & >100ppm Cu are shown)  
 3 Diorite  
 2 Granodiorite  
 1 Volcanic



**Rio Algom Exploration Inc.**

**LINK CLAIM**

**COMPILATION MAP**

N.T.S. 94C/5 OMINECA M.D., B.C.

DATE	DRAWN BY	DWG.
DEC. 1990	JM / Chong	1



In the southwest corner of the claim, the Takla rocks are in contact with medium-grained granodiorite of the Hogem Batholith. The contact trends northwesterly paralleling the strike direction of the Takla rocks.

A second intrusive body occurs in the central claim area. Here, fine to coarse grained diorite porphyry occurs in a complex dyke swarm. These dykes appear confined to a 300m by 300m area, but may extend to the northwest beneath the talus cover.

Alteration of the property consists of widespread chloritization and epidote veining of the Takla Group rocks. Pyrite in amounts from 1% to 5% and occasional magnetite occurs as disseminations and as dry fracture fillings.

Within this broad alteration envelope are narrower, 100m or less wide, northwesterly trending zones of intense phyllic alteration. These phyllically altered zones, which have an average of 5% disseminated pyrite, are localized in shear zones.

The diorite porphyry, like the Takla Group, is also propylitically altered but contains less pyrite, while the Hogem granodiorite is relatively unaltered.

### **3 GEOCHEMISTRY**

As a preliminary evaluation of the claim for porphyry-type copper-gold mineralization, contour soil sampling was carried out within the drainage catchment area of the copper-anomalous streams. It was hoped that this contour sampling would isolate source areas of the anomalous copper-in-silt and assist in determining if gold was present on the claim.

#### **3.1 Sampling Method, Preparation and Analysis**

A three person crew spent one day collecting soil (talus fines) and rock samples from various locations on the property. Forty-five soil samples were collected at approximately 100m intervals along traverses paralleling the 5200 ft or 5500 ft asl contour. At each site, soil or talus fines were placed in a gusseted Kraft paper envelope. The samples were shipped to Chemex Labs in Vancouver where the soil was sieved to -80 mesh. A 0.5 gram sub-sample of the -80 mesh material was analyzed for molybdenum, copper, lead, zinc, silver, nickel, cobalt, antimony, bismuth, vanadium, calcium, phosphorous, lanthium, chromium, magnesium, barium, titanium, beryllium, aluminum, sodium, potassium, uranium and tungsten by inductively coupled argon plasma methods (ICP). Gold was analyzed by atomic absorption (AA) after acid digestion of a 10 gram sub-sample of the -80 mesh fraction. Gold results are reported in parts per billion (ppb) and have a detection limit of 5ppb.

Rock samples consisted of 1 to 2kg of 4cm or smaller diameter rock chips collected over a 1m<sup>2</sup> area of outcrop. Rock chips were placed in plastic sample bags and shipped to Chemex Labs' North Vancouver laboratory. At the laboratory, the rock samples were air dried at less than 60°C then crushed in two stages to approximately -10 mesh and split using a riffle splitter to a 300 gram sub-sample. This sub-sample was then pulverized to approximately -150 mesh using a ring mill. Analysis of the -150 mesh material was then by similar analytical techniques as the soil samples.

#### **3.2 Results**

Plotting of the soil results highlighted two areas of the claim as anomalous for copper (>100ppm). The most prominent area is the Goat

Creek Cirque area (Map 1). Here, a 500m by 500m area is defined both by anomalous copper and anomalous gold ( $\geq 40$ ppb). Within the anomalous area, copper values up to 956ppm and gold values to 480ppb were found in the vicinity of the diorite porphyry intrusives and strongly chloritized and pyritized volcanic rocks. Analysis of a sample of the altered and pyritic rock gave 413ppm copper and 60ppb gold.

The second area of anomalous copper occurs in Cairn Creek Cirque where all samples along a 1,000m length of the traverse contained greater than 200ppm copper. Accompanying the anomalous copper are elevated gold and molybdenum values. The rocks in the area of this anomaly are propylitically altered and contain up to 5% pyrite as disseminations and fracture fillings. Three rock samples collected along the traverse contained from 5 to 55ppb Au and 92 to 165ppm Cu.

#### **4 CONCLUSIONS AND RECOMMENDATIONS**

The Link claim is underlain by sheared, pyritized and strongly chloritized andesite and diorite. Contour soil sampling has highlighted two broad areas of these altered rocks as anomalous for copper or copper and gold. The presence of a favourable geological setting, rock alteration and anomalous copper and gold confirm the property's potential for porphyry copper-gold mineralization.

The positive results of the 1990 programme fully justify on going exploration of the Link claim. To this end, it is recommended that closely spaced contour soil sampling, detailed geological mapping and rock sampling be carried out in 1991. If successful, the 1991 programme will define targets for a later programme of trenching and drilling.

**5 REFERENCES**

- Garnett, J A (1978): Geology and Mineral Occurrences of the Southern Hogem Batholith. BCDM Bulletin 70.
- Newell, J M (1964): Geology and Geochemistry Report on the Croyden Option, Omineca Mining Division, B C. Private Report prepared for Rio Tinto Canadian Exploration Ltd.

## 6 STATEMENT OF QUALIFICATIONS

I, John A McClintock do certify that:

- 1 I am a geologist residing at 4044 Mars Place, Port Coquitlam, British Columbia.
- 2 I am a graduate of the University of British Columbia with the degree of B Sc (Honors) in Geology
- 3 I am a registered member of the Association of Professional Engineers of the Province of British Columbia, registration 12078
- 4 I have practised my profession as an exploration geologist continuously for more than 17 years.
- 5 I supervised the exploration work described in this report on behalf of Rio Algom Exploration Inc.



John A McClintock  
January 1991

**APPENDIX I**  
**COST STATEMENT**

## APPENDIX I - COST STATEMENT

### 'Labour:

J A McClintock, P Eng - 1 day @ \$300/day	\$300.00
W Donaldson, Geologist - 1 day @ \$200/day	200.00
V Park, Geologist - 1 day @ \$175/day	175.00

### Analysis:

Chemex Labs	45 soil samples @ \$12/sample	540.00
	11 rock samples @ \$15/sample	165.00

### Helicopter:

Canadian Helicopters - 4 hours @ \$650/hr	2,600.00
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Report Preparation \$ 300.00

**Total** \$4,280.00



**APPENDIX II**  
**ANALYTICAL RESULTS**



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 Total Pages: 1  
 Invoice Date: 2-AUG-90  
 Invoice No.: I-9019606  
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Project: TAK/LINK  
 Comments: ATTN: JOHN McCLINTOCK

## CERTIFICATE OF ANALYSIS A9019606

SAMPLE DESCRIPTION	PREP CODE		Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
			FA+AA																		
10029	205	294	10	0.4	1.93	10	100	< 0.5	< 2	0.96	< 0.5	25	67	640	5.77	< 10	< 1	0.09	10	0.34	110
10030 TAK	205	294	5	< 0.2	0.77	5	90	< 0.5	< 2	0.09	< 0.5	5	26	50	2.89	< 10	< 1	0.37	10	0.19	50
10031 TAK	205	294	15	< 0.2	1.36	10	20	< 0.5	< 2	1.37	< 0.5	10	54	360	3.34	< 10	< 1	0.26	< 10	0.94	395
10032 TAK	205	294	105	5.6	1.05	5	20	< 0.5	< 2	1.48	< 0.5	10	37	9820	2.58	< 10	< 1	0.11	< 10	0.61	365
10033 TAK	205	294	125	17.6	1.48	85	80	< 0.5	< 20	4.53	10.5	29	202	>10000	5.22	< 10	< 1	0.45	< 10	2.24	1130
10034 TAK	205	294	< 5	< 0.2	2.02	15	110	< 0.5	< 2	1.72	< 0.5	27	177	361	4.11	< 10	< 1	1.14	< 10	2.22	655
10035 Link	205	294	60	< 0.2	2.16	10	20	< 0.5	< 2	0.61	< 0.5	44	53	413	9.33	< 10	< 1	0.05	< 10	1.36	645
486028 Link	205	294	25	< 0.2	1.96	< 5	40	< 0.5	< 2	0.53	< 0.5	10	25	23	2.91	< 10	< 1	0.04	< 10	1.39	885
486029	205	294	70	< 0.2	2.03	< 5	40	< 0.5	< 2	0.43	< 0.5	8	41	32	4.56	< 10	< 1	0.08	< 10	1.67	665
486030	205	294	20	< 0.2	1.94	< 5	60	< 0.5	< 2	0.37	< 0.5	8	67	57	5.28	< 10	< 1	0.06	< 10	1.15	495
486031	205	294	25	< 0.2	2.35	20	50	< 0.5	< 2	0.65	< 0.5	9	139	26	3.59	< 10	< 1	0.11	< 10	2.29	905
486032	205	294	20	< 0.2	1.80	10	60	< 0.5	< 2	0.32	< 0.5	16	59	5	4.14	< 10	< 1	0.07	< 10	1.55	520
486033	205	294	10	< 0.2	2.03	< 5	150	< 0.5	< 2	0.71	< 0.5	10	97	47	3.49	< 10	< 1	0.43	< 10	1.62	785
486034	205	294	15	< 0.2	2.42	10	90	< 0.5	< 2	0.71	< 0.5	17	98	19	7.05	< 10	< 1	0.27	< 10	2.08	1050
486035	205	294	5	< 0.2	0.62	< 5	20	< 0.5	< 2	0.58	< 0.5	7	157	20	2.60	< 10	< 1	0.09	< 10	0.25	145
486151	205	294	820	31.2	1.43	5	10	< 0.5	< 20	0.88	< 0.5	22	18	>10000	7.62	< 10	3	0.11	10	1.17	560
486152	205	294	25	< 0.2	2.64	< 5	130	< 0.5	< 2	5.01	< 0.5	23	30	534	4.56	< 10	< 1	0.37	< 10	2.15	1005
486153	205	294	35	< 0.2	1.59	5	40	< 0.5	< 2	2.07	< 0.5	21	19	38	2.81	< 10	< 1	0.21	< 10	0.77	715
486154	205	294	60	9.8	0.90	10	60	< 0.5	< 2	3.18	8.0	20	212	8920	3.88	< 10	< 1	0.22	< 10	0.99	605
486155 LINK	205	294	55	< 0.2	0.88	< 5	30	< 0.5	< 2	0.20	< 0.5	15	62	92	3.75	< 10	< 1	0.09	< 10	0.62	255
486156	205	294	5	< 0.2	0.86	< 5	20	< 0.5	< 2	0.80	< 0.5	12	61	131	2.85	< 10	< 1	0.07	< 10	0.37	195
486157	205	294	15	< 0.2	1.86	5	20	< 0.5	< 2	0.85	< 0.5	18	78	165	4.96	< 10	< 1	0.06	< 10	1.26	580

CERTIFICATION: B. Coughlin



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<b>CERTIFICATE OF ANALYSIS</b>	<b>A9019606</b>
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SAMPLE DESCRIPTION	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	Cu %
10029	205 294	153	0.20	80	920	8	< 5	10	39	0.27	< 10	< 10	182	< 10	44	-----
10030	205 294	3	0.07	2	900	< 2	< 5	2	196	0.06	< 10	< 10	29	< 10	8	-----
10031	205 294	1	0.06	8	1760	< 2	5	6	94	0.28	< 10	< 10	128	< 10	46	-----
10032	205 294	43	0.04	4	1830	4	< 5	6	144	0.20	< 10	< 10	75	< 10	74	0.94
10033	205 294	3	0.06	60	2200	52	20	15	82	0.10	< 10	< 10	160	< 10	354	1.33
10034	205 294	< 1	0.10	61	2460	< 2	< 5	6	52	0.17	< 10	< 10	133	< 10	88	-----
10035	205 294	2	< 0.01	21	630	< 2	< 5	1	24	0.11	< 10	< 10	42	< 10	64	-----
486028	205 294	1	0.03	2	690	6	< 5	1	23	0.14	< 10	< 10	45	< 10	140	-----
486029	205 294	1	0.03	5	660	< 2	< 5	1	15	0.08	< 10	< 10	36	< 10	66	-----
486030	205 294	3	0.02	5	340	< 2	< 5	2	30	0.12	< 10	< 10	46	< 10	60	-----
486031	205 294	2	0.01	29	540	< 2	< 5	4	22	0.31	< 10	< 10	67	< 10	184	-----
486032	205 294	2	0.04	3	260	< 2	< 5	2	165	0.14	< 10	< 10	49	< 10	118	-----
486033	205 294	< 1	0.05	11	510	< 2	< 5	3	32	0.20	< 10	< 10	71	< 10	116	-----
486034	205 294	1	0.07	4	1040	< 2	5	2	50	0.16	< 10	< 10	43	< 10	102	-----
486035	205 294	35	0.03	15	330	12	< 5	3	40	0.18	< 10	< 10	53	< 10	16	-----
486151	205 294	7	0.05	7	2000	< 2	< 5	5	81	0.22	< 10	< 10	138	< 10	164	-----
486152	205 294	< 1	0.03	10	1390	< 2	< 5	9	99	0.04	< 10	< 10	101	< 10	72	-----
486153	205 294	< 1	0.04	7	1360	< 2	< 5	6	77	0.14	< 10	< 10	108	< 10	76	-----
486154	205 294	5	0.02	36	2260	< 2	5	13	58	0.14	< 10	< 10	138	< 10	296	-----
486155	205 294	3	0.02	7	370	< 2	5	< 1	15	0.04	< 10	< 10	22	< 10	32	-----
486156	205 294	2	0.04	11	970	2	< 5	2	51	0.18	< 10	< 10	43	< 10	24	-----
486157	205 294	4	0.04	11	590	6	< 5	4	20	0.24	< 10	< 10	76	< 10	92	-----

CERTIFICATION: B. Coughlin



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## CERTIFICATE OF ANALYSIS A9019607

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
LK 00N	201 238	30 < 0.2	3.42	20	150 < 0.5	2	0.22 < 0.5	7	42	196	5.82 < 10	< 1	0.16 < 10	1.14	1135					
LK 01N	201 238	40 < 0.2	3.50	15	160 < 0.5	< 2	0.24 < 0.5	6	44	205	5.90 < 10	< 1	0.17 < 10	1.18	1135					
LK 02N	201 238	40 < 0.2	3.53	25	250 < 0.5	< 2	0.27 < 0.5	3	32	286	5.73 < 10	< 1	0.24 < 10	1.19	620					
LK 03N	201 238	50 < 0.2	3.46	< 5	210 < 0.5	< 2	0.27 < 0.5	9	33	292	8.37 < 10	< 1	0.24 < 10	1.43	810					
LK 04N	201 238	25 < 0.2	2.83	5	90 < 0.5	< 2	0.25 < 0.5	10	33	72	4.28 < 10	< 1	0.06 < 10	1.01	1030					
LK 05N	201 238	15 < 0.2	3.23	< 5	70 < 0.5	< 2	0.30 < 0.5	9	46	91	5.21 < 10	< 1	0.05 < 10	1.31	710					
LK 06N	201 238	75 < 0.2	2.79	20	120 < 0.5	< 2	0.21 < 0.5	8	40	73	3.79 < 10	< 1	0.07 < 10	1.04	875					
LK 07N	201 238	75 < 0.2	2.81	25	80 < 0.5	< 2	0.20 < 0.5	16	53	103	4.78 < 10	< 1	0.04 < 10	1.22	1415					
LK 08N	201 238	90 < 0.2	4.17	80	110 < 0.5	6	0.52 < 0.5	28	66	151	5.46 < 10	< 1	0.11 < 10	1.46	2420					
LK 10N	201 238	45 < 0.2	2.74	10	80 < 0.5	< 2	0.22 < 0.5	10	38	47	3.57 < 10	< 1	0.03 < 10	1.05	825					
LK 11N	201 238	< 5 < 0.2	3.23	10	50 < 0.5	< 2	0.72 < 0.5	8	61	52	4.05 < 10	< 1	0.03 < 10	1.39	805					
LK 12N	201 238	< 5 < 0.2	2.35	20	140 < 0.5	< 2	0.53 < 0.5	9	37	23	3.21 < 10	< 1	0.05 < 10	0.80	2330					
LK 13N	201 238	< 5 < 0.2	3.22	15	130 < 0.5	< 2	0.41 < 0.5	13	64	55	3.75 < 10	< 1	0.05 < 10	1.40	1715					
LK 14N	201 238	< 5 < 0.2	3.94	15	100 < 0.5	< 2	0.35 < 0.5	24	155	99	5.17 < 10	< 1	0.15 < 10	2.35	1610					
LK 15N	201 238	< 5 < 0.2	5.23	20	30 < 0.5	< 2	0.83 < 0.5	27	153	177	4.96 < 10	1	0.04 < 10	2.19	675					
LK 01S	201 238	15 < 0.2	4.01	20	140 < 0.5	< 2	0.81 < 0.5	22	55	222	4.05 < 10	< 1	0.28 < 10	1.61	775					
LK 02S	201 238	30 < 0.2	3.33	15	160 < 0.5	< 2	0.60 < 0.5	27	65	459	5.05 < 10	< 1	0.28 < 10	1.32	1020					
LK 03S	201 238	25 < 0.2	3.88	20	320 < 0.5	< 2	0.87 < 0.5	14	60	306	4.74 < 10	< 1	0.51 < 10	1.67	810					
LK 04S	201 238	25 < 0.2	2.32	5	90 < 0.5	< 2	0.56 < 0.5	24	27	611	7.63 < 10	< 1	0.27 < 10	0.95	1155					
LK 05S	201 238	5 < 0.2	3.26	15	340 < 0.5	< 2	0.63 < 0.5	31	32	282	4.01 < 10	< 1	0.70 < 10	1.58	1115					
LK 06S	201 238	35 < 0.2	4.21	20	240 < 0.5	< 2	1.15 < 0.5	48	34	351	5.27 < 10	< 1	0.38 < 10	1.50	1745					
LK 07S	201 238	55 < 0.2	3.59	< 5	340 < 0.5	< 2	0.66 < 1.5	28	34	207	4.52 < 10	< 1	0.63 < 10	1.41	1355					
LK 08S	201 238	25 < 0.2	2.03	25	160 < 0.5	< 2	0.13 < 0.5	< 1	70	218	11.00 < 10	< 1	0.66 < 10	1.48	700					
T-1	201 238	290	5.2	2.70	35	190 < 0.5	< 2	0.19 < 0.5	10	17	1005	8.70 < 10	< 1	0.57 < 10	30	1.63	690			
T-2	201 238	40 < 0.2	2.09	20	100	0.5	< 2	0.47 < 1.0	30	21	205	7.79 < 10	< 1	0.33 < 10	10	1.16	3090			
67N 32.5E	201 238	5 < 0.2	1.99	15	220 < 0.5	< 2	0.27 < 2.0	7	49	206	4.88 < 10	< 1	0.18 < 10	0.87	280					
67N 39E	201 238	25	0.2	2.16	90	120 < 0.5	< 2	0.21 < 6.0	4	38	35	4.21 < 10	< 1	0.06 < 10	10	0.49	335			
B 65N 29.5E	201 238	15	0.4	2.81	< 5	220 < 0.5	8	0.41 < 0.5	9	23	525	6.13 < 10	1	0.40 < 10	20	1.05	275			
B 67N 33.5E	201 238	15	1.2	3.24	60	100 < 0.5	4	0.21 < 1.5	21	47	479	5.06 < 10	< 1	0.05 < 10	30	0.71	440			
B 67N 34E	201 238	< 5	0.4	3.18	20	150 < 0.5	4	0.19 < 1.5	23	52	330	3.75 < 10	1	0.09 < 10	20	0.69	575			
T 65N 29.5E	201 238	< 5	0.4	2.61	25	140 < 0.5	2	0.38 < 0.5	20	20	923	9.06 < 10	< 1	0.09 < 10	10	0.43	295			
T 67N 33.5E	201 238	5	2.0	2.95	70	60 < 0.5	4	0.19 < 0.5	17	43	507	4.92 < 10	< 1	0.05 < 10	40	0.57	305			
T 67N 34E	201 238	< 5	0.8	2.55	15	100 < 0.5	2	0.16 < 2.0	14	43	179	4.10 < 10	< 1	0.06 < 10	10	0.48	290			
486049	201 238	95 < 0.2	2.22	30	120 < 0.5	2	0.21 < 0.5	11	23	244	9.98 < 10	< 1	0.10 < 10	0.94	720					
486050	201 238	35 < 0.2	2.94	< 5	100	0.5	6	0.46 < 0.5	31	57	152	4.56 < 10	< 1	0.10 < 10	10	1.27	1005			
L-01	201 238	20 < 0.2	3.48	10	130 < 0.5	6	0.66 < 0.5	26	98	96	4.62 < 10	< 1	0.07 < 10	1.98	1935					
L-02	201 238	10 < 0.2	2.76	5	70 < 0.5	6	1.16 < 0.5	20	52	73	3.85 < 10	< 1	0.08 < 10	1.49	1405					
L-03	201 238	45 < 0.2	3.76	15	90 < 0.5	< 2	0.81 < 0.5	21	91	140	5.14 < 10	< 1	0.05 < 10	2.30	1170					
L-04	201 238	125 < 0.2	3.99	20	90 < 0.5	2	0.49 < 0.5	37	109	244	6.17 < 10	< 1	0.07 < 10	2.55	2060					
L-05	201 238	295 < 0.2	2.44	10	120 < 0.5	< 2	0.28 < 0.5	27	36	288	6.41 < 10	< 1	0.25 < 10	1.32	1455					

CERTIFICATION: B. Coughlin



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## CERTIFICATE OF ANALYSIS

### A9019607

SAMPLE DESCRIPTION	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
LK 00N	201 238	20	0.01	14	1390	< 2	< 5	2	68	0.14	< 10	< 10	67	< 10	96
LK 01N	201 238	18	0.01	11	1380	< 2	< 5	2	71	0.15	< 10	< 10	69	< 10	98
LK 02N	201 238	6	0.01	10	1320	< 2	< 5	2	101	0.17	< 10	< 10	65	< 10	102
LK 03N	201 238	9	0.01	14	1740	< 2	< 5	3	112	0.26	< 10	< 10	79	< 10	102
LK 04N	201 238	2	< 0.01	9	820	< 2	< 5	2	60	0.14	< 10	< 10	62	< 10	78
LK 05N	201 238	3	< 0.01	11	780	8	< 5	3	48	0.13	< 10	< 10	63	< 10	82
LK 06N	201 238	2	< 0.01	14	1100	< 2	< 5	1	71	0.08	< 10	< 10	61	< 10	96
LK 07N	201 238	2	< 0.01	21	910	16	< 5	2	68	0.10	< 10	< 10	68	< 10	178
LK 08N	201 238	2	0.01	31	1400	38	< 5	3	189	0.08	< 10	< 10	69	< 10	534
LK 10N	201 238	1	0.01	10	590	2	< 5	1	71	0.07	< 10	< 10	50	< 10	104
LK 11N	201 238	< 1	0.01	16	1310	8	< 5	2	64	0.05	< 10	< 10	67	< 10	104
LK 12N	201 238	3	0.01	10	1060	< 2	< 5	< 1	82	0.02	< 10	< 10	51	< 10	100
LK 13N	201 238	2	0.01	19	1000	< 2	< 5	3	97	0.07	< 10	< 10	51	< 10	108
LK 14N	201 238	2	< 0.01	35	750	< 2	< 5	4	53	0.18	< 10	< 10	119	< 10	96
LK 15N	201 238	1	0.01	62	590	10	5	5	72	0.27	< 10	< 10	103	< 10	78
LK 01S	201 238	3	0.02	24	790	4	< 5	4	320	0.11	< 10	< 10	75	< 10	76
LK 02S	201 238	20	0.01	38	1040	< 2	< 5	3	133	0.16	< 10	< 10	85	< 10	102
LK 03S	201 238	6	0.02	24	960	< 2	< 5	2	280	0.18	< 10	< 10	88	< 10	96
LK 04S	201 238	48	0.01	12	1000	2	< 5	2	56	0.18	< 10	< 10	57	< 10	130
LK 05S	201 238	21	0.02	15	710	< 2	< 5	2	169	0.15	< 10	< 10	75	< 10	116
LK 06S	201 238	5	0.02	34	830	6	5	3	279	0.14	< 10	< 10	72	< 10	180
LK 07S	201 238	4	0.02	15	510	< 2	< 5	2	173	0.14	< 10	< 10	63	< 10	714
LK 08S	201 238	11	0.04	11	960	< 2	5	5	32	0.33	< 10	< 10	104	< 10	106
T-1	201 238	37	0.04	8	1800	8	< 5	11	90	0.02	< 10	< 10	131	< 10	102
T-2	201 238	10	< 0.01	15	1470	66	< 5	16	61	0.09	< 10	< 10	133	< 10	208
67N 32.5E	201 238	132	0.04	26	720	< 2	< 5	4	76	0.23	< 10	< 10	128	< 10	500
67N 39E	201 238	10	< 0.01	29	1300	18	< 5	4	18	0.08	< 10	< 10	84	< 10	844
B 65N 29.5E	201 238	108	0.08	47	390	< 2	< 5	17	92	0.13	< 10	< 10	284	< 10	60
B 67N 33.5E	201 238	26	0.01	47	840	10	5	10	21	0.09	< 10	< 10	83	< 10	792
B 67N 34E	201 238	27	0.01	49	430	10	5	12	23	0.11	< 10	< 10	81	< 10	634
T 65N 29.5E	201 238	270	< 0.01	58	390	< 2	10	10	49	0.01	< 10	< 10	240	< 10	82
T 67N 33.5E	201 238	27	0.01	35	930	6	5	10	16	0.08	< 10	< 10	85	< 10	558
T 67N 34E	201 238	38	0.01	43	640	6	5	4	19	0.10	< 10	< 10	83	< 10	678
486049	201 238	10	0.03	11	2270	< 2	5	4	81	0.18	< 10	< 10	63	< 10	82
486050	201 238	1	0.01	34	790	< 2	< 5	3	104	0.12	< 10	< 10	69	< 10	132
L-01	201 238	< 1	< 0.01	35	860	< 2	5	5	131	0.05	< 10	< 10	76	< 10	168
L-02	201 238	< 1	0.01	20	880	< 2	5	3	162	0.03	< 10	< 10	51	< 10	156
L-03	201 238	< 1	0.01	36	700	16	5	6	142	0.10	< 10	< 10	83	< 10	254
L-04	201 238	< 1	0.01	50	440	6	< 5	5	82	0.14	< 10	< 10	102	< 10	260
L-05	201 238	15	0.01	13	1260	2	< 5	2	103	0.18	< 10	< 10	50	< 10	124

CERTIFICATION: B. Coughlin



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VANCOUVER, BC  
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Comments : ATTN: JOHN McCLINTOCK

## CERTIFICATE OF ANALYSIS A9019607

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
L-06	201 238	50	< 0.2	2.11	< 5	130	< 0.5	< 2	0.21	< 0.5	1	89	105	9.59	< 10	< 1	0.34	< 10	1.64	735
L-07	201 238	45	< 0.2	2.93	25	170	< 0.5	< 2	0.39	< 0.5	5	31	244	7.65	< 10	< 1	0.41	< 10	1.64	995
L-08	201 238	110	< 0.2	4.23	10	100	< 0.5	< 2	0.91	< 0.5	81	30	698	8.63	< 10	< 1	0.25	< 10	1.54	1325
L-09	201 238	240	< 0.2	3.67	30	170	< 0.5	< 2	0.79	< 0.5	76	46	882	14.15	< 10	3	0.20	10	1.51	1490
L-10	201 238	125	< 0.2	4.93	< 5	100	< 0.5	< 2	1.65	< 0.5	80	25	956	9.68	< 10	< 1	0.19	< 10	1.24	1105
L-11	201 238	40	< 0.2	5.06	< 5	140	< 0.5	< 2	1.47	< 0.5	74	145	387	6.56	< 10	< 1	0.27	< 10	2.14	1770
L-12	201 238	50	< 0.2	4.44	15	180	< 0.5	< 2	0.79	< 0.5	34	72	300	8.70	< 10	< 1	0.29	10	1.54	1170
L-13	201 238	70	< 0.2	3.86	30	220	< 0.5	< 2	1.14	< 0.5	43	24	404	11.70	< 10	< 1	0.23	< 10	0.83	1305
L-14	201 238	480	< 0.2	4.04	20	130	< 0.5	< 2	0.76	< 0.5	75	193	630	11.55	< 10	< 1	0.15	10	2.04	1555
L-15	201 238	115	< 0.2	4.36	10	150	< 0.5	< 2	1.17	< 0.5	76	42	783	7.24	< 10	< 1	0.19	< 10	1.42	1635
L-16	201 238	120	< 0.2	3.01	< 5	90	< 0.5	< 2	0.32	< 0.5	22	32	571	8.61	< 10	< 1	0.14	< 10	1.44	755
L-17	201 238	95	< 0.2	3.91	< 5	90	< 0.5	< 2	0.77	< 0.5	27	13	595	9.04	< 10	< 1	0.20	10	1.23	840
L-18	201 238	40	< 0.2	2.65	10	160	< 0.5	< 2	0.40	< 0.5	< 1	49	147	7.26	< 10	< 1	0.42	< 10	1.45	670
L-19	201 238	65	< 0.2	3.02	5	180	< 0.5	< 2	0.37	< 0.5	1	28	217	6.97	< 10	< 1	0.41	< 10	1.32	635
L-20	201 238	45	< 0.2	3.57	15	210	< 0.5	< 2	0.25	< 0.5	3	43	218	6.17	< 10	< 1	0.69	< 10	1.50	620
L-21	201 238	35	< 0.2	3.88	20	210	< 0.5	< 2	0.25	< 0.5	< 1	17	282	5.89	< 10	< 1	0.48	< 10	1.18	495
L-22	201 238	60	< 0.2	4.10	< 5	400	< 0.5	< 2	0.66	0.5	22	21	194	5.09	< 10	< 1	0.33	10	1.00	990

Link

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CERTIFICATION: B. Coughlin



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## CERTIFICATE OF ANALYSIS

## A9019607

SAMPLE DESCRIPTION	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
L-06	201 238	4	0.08	28	1130	< 2	< 5	3	172	0.22	< 10	< 10	73	< 10	120
L-07	201 238	3	0.04	12	1310	< 2	< 5	2	69	0.21	< 10	< 10	66	< 10	106
L-08	201 238	9	0.01	21	1330	< 2	< 5	3	106	0.18	< 10	< 10	69	< 10	72
L-09	201 238	13	0.01	42	1370	14	10	5	96	0.18	< 10	< 10	101	< 10	88
L-10	201 238	5	< 0.01	20	970	< 2	5	3	112	0.11	< 10	< 10	64	< 10	74
L-11	201 238	4	0.01	73	780	2	5	4	182	0.19	< 10	< 10	86	< 10	108
L-12	201 238	9	0.07	43	1150	8	5	4	279	0.26	< 10	< 10	97	< 10	106
L-13	201 238	6	0.01	30	1800	< 2	5	3	65	0.15	< 10	< 10	63	< 10	90
L-14	201 238	8	< 0.01	81	1350	< 2	< 5	4	47	0.17	< 10	< 10	96	< 10	90
L-15	201 238	13	0.01	17	960	4	5	2	315	0.09	< 10	< 10	55	< 10	78
L-16	201 238	11	< 0.01	16	1070	< 2	5	2	40	0.17	< 10	< 10	74	< 10	62
L-17	201 238	13	0.01	9	2080	< 2	5	2	93	0.15	< 10	< 10	49	< 10	58
L-18	201 238	7	0.04	13	1010	12	5	3	98	0.21	< 10	< 10	68	< 10	94
L-19	201 238	15	0.04	9	1340	< 2	< 5	3	122	0.19	< 10	< 10	62	< 10	88
L-20	201 238	4	0.05	12	960	< 2	< 5	4	117	0.25	< 10	< 10	87	< 10	78
L-21	201 238	11	0.04	6	960	< 2	< 5	4	88	0.18	< 10	< 10	77	< 10	60
L-22	201 238	9	0.02	10	860	< 2	< 5	3	620	0.12	< 10	< 10	57	< 10	86

CERTIFICATION: \_\_\_\_\_

*B. Campbell*

**APPENDIX III**

**ROCK SAMPLE DESCRIPTIONS**



### APPENDIX III - ROCK SAMPLE DESCRIPTIONS

Sample No:	Type	Description
10335	Grab	Weakly schistose chloritized andesite with 10% disseminated pyrite.
486028	Grab	Bleached volcanic, gossanous weathered surface 3% disseminated pyrite.
486029	Grab	Bleached volcanic (tuff?) with 4% disseminated pyrite, epidote veins around pyrite.
486030	Grab	Bleached aphanitic volcanic with 3% pyrite and 2mm diameter chalcopyrite grain.
486031	Grab	Bleached volcanic with 3% disseminated blebs of pyrite.
486032	Grab	Plagioclase porphyry monzonite with 3% disseminated pyrite. Secondary kspar.
486033	Grab	Bleached volcanic (hornblende tuff?), 3% disseminated pyrite.
486034	Grab	Plagioclase porphyry monzonite, bleached, 3% pyrite.
486035	Grab	Bleached volcanics 2% disseminated pyrite, quartz veining.
486155	Grab	Light grey volcanic flow 2-3% disseminated and fracture controlled pyrite and rare chalcopyrite.
486156	Grab	Plagioclase porphyry, strongly sericitized with 15% pyrite in disseminated grains and fractures.
486157	Grab	Fine grained, medium grey andesite. 5% pyrite mostly in fractures,, lesser disseminated grains.