

SUMMARY REPORT

1975 PROGRAMME

823129

KENA CLAIMS

TOAD MOUNTAIN AREA

NELSON MINING DIVISION, B.C.

N.T.S. 82 F/6

BY

DARREL JOHNSON

Vancouver, B.C.

August 27, 1975

SUMMARY

During June, July and August, 1975, programmes of geochemistry, geological mapping and rock sampling were conducted on the thirty-two claim Kena property south of Nelson, B.C. The majority of the work was on the copper mineralization on Kena 16 - 26 claims, where prospecting and soil sampling work have outlined a zone of copper mineralization about 6,000 feet long and up to 800 feet wide. Only a small amount of work was done in the vicinity of the gold occurrence drilled in 1974.

CONCLUSIONS AND RECOMMENDATIONS

The geochemical survey outlined a series of copper anomalies extending from line 32 E to 96 E, varying in width from single samples up to 800 feet, with values in excess of 2000 p.p.m. Cu. The main zone, extending from line 64 E to 96 E has been tested by rock sampling, and proven to represent bedrock copper values in the .15 - .4% range.

Copper values in the .15 to .4% range are certainly far higher than are common in the Rossland Group volcanic rocks, and cannot be dismissed as simply "high background". It is quite possible that these values are merely the "surface expression" of a richer, deeper deposit somewhere

in the immediate vicinity.

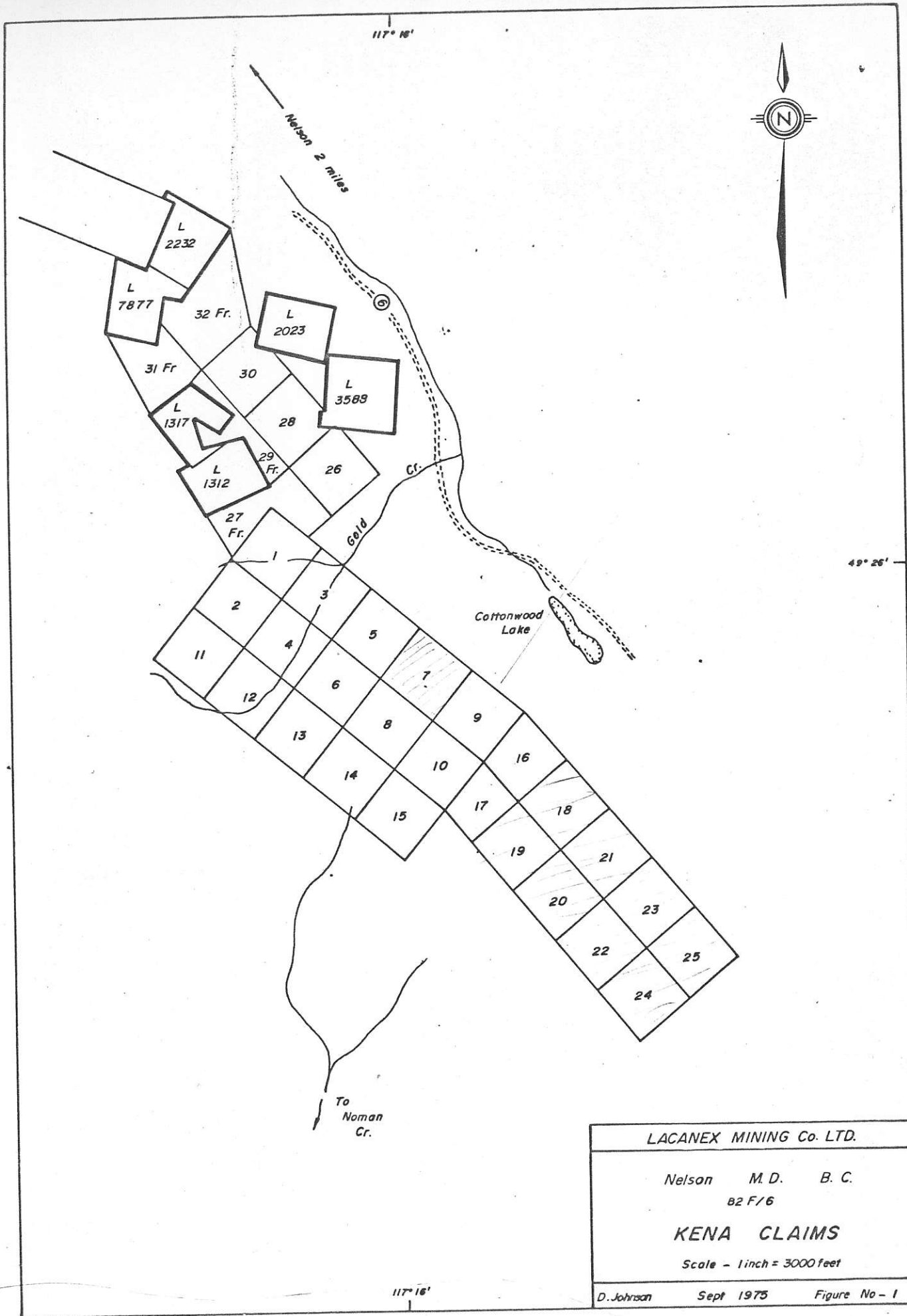
I believe that results of our work to date justify further testing of the main geochem anomaly. I recommend diamond drilling at least two holes, not less than 500 feet deep, at the following sites:

No. 1 78.50 E, 13.50 S, Bearing 220°, Dip -45°

No. 2 68 E, 12 S, Bearing 220°, Dip -45°

Testing of the other anomalous zones should follow if results are encouraging.

On the basis of the 1974 work, and the limited 1975 work, further investigation of the gold zone on Kena 5 and 7 claims cannot be recommended.



INTRODUCTION

Claims

The original 15 Kena claims were recorded November 5, 1973 in the name of Otakar Janout. A Bill of Sale to Ducanex Resources Limited has been completed but not recorded. Assessment work has been applied and rentals paid until November 5, 1975.

Kena 16-26 inclusive, 28 and 30 full-sized claims and Kena 27, 29, 31 and 32 fractional claims were staked during October, 1974 and recorded November 5, 1974 by Murray Morrison, as agent for Mr. Janout.

Location and Access

The claims lie in a northwest trending belt along the easterly flank of Toad Mountain, from two to four miles south of Nelson, B.C. Terrain is generally rugged, with elevations ranging from 3,500 to 5,500 feet.

Access to the claims from Nelson is south via Highway No. 6, and then westerly by a network of old logging and mining access roads. These roads are generally in rough condition and require a 4-wheel drive vehicle. A more direct access road up Gold Creek was damaged beyond repair by flooding in June, 1974.

History

Numerous gold, silver and copper showings in the Toad Mountain area have been worked since 1886. The most notable of these is the Silver King Mine, about two miles west of the Kena claims, which from 1889 to 1948 produced about 15 million pounds of copper, 4.5 million ounces of silver and 280 ounces of gold. Most of the other gold-silver showings in the vicinity were only minor erratic producers. None has been worked to any extent since the 1950's.

The gold occurrence on Kena 5 and 7 claims, known then as the Cottonwood Mine, is mentioned briefly in G.S.C. Annual Report, 1888-89, Volume IV, by G.M. Dawson. A search of G.S.C. and B.C. Department of Mines publications found no further reference to the claims.

REGIONAL GEOLOGY

A fairly accurate representation of regional geology is given in G.S.C. Paper 52-13, Bonnington Map Area by R. Mulligan, 1952. Rossland Group (Lower Jurassic) volcanic rocks have been metamorphosed and intruded by the Nelson Batholith (Lower Cretaceous). Within the Rossland rocks, strongly silicified and pyritized zones are common, but the various intrusives in the area are generally fresh and barren looking.

PROPERTY GEOLOGY

Geology of the claim group was mapped at a scale of 1 inch to 400 feet (1 cm. to 48 metres), with outcrops, sample sites, etc. being tied into the grid established during the geochemical survey. Outcrop is abundant over much of the property except in a few areas of more extensive overburden. Even there, however, overburden is generally quite shallow, and several small creeks expose enough bedrock to allow mapping with confidence.

Rossland Group Volcanics

The Rossland Group rocks are generally andesitic in composition. Texture varies widely, from dense, massive, unaltered types through porphyritic varieties to foliated, nearly schistose examples. Silicification, as both replacement and quartz veins, is widespread, and is not restricted to any particular zone or rock type. Pyrite content also varies widely, from nearly zero up to about 10%. Minor amounts of epidote and hematite were observed in the more porphyritic specimens.

Metavolcanics

Over much of the property, the Rossland Group rocks have been altered to chloritic schists. The degree of schistosity ranges from a slight foliation to complete destruction

of the original andesitic texture, with the entire range often being observed in one small outcrop. A definite contact between the Rosslund rocks and the metavolcanic schists does not exist.

Although much less common than the chlorite schist, a few outcrops of sericite schist were observed.

Silicification and pyritization of the schists varies widely and apparently randomly, with some specimens nearly completely silicified, and pyrite content up to 10%.

"Silver King" Porphyry

Along the southwestern margin of the property, the volcanic rocks are in contact with the Silver King quartz diorite porphyry, which is possibly an early phase of the Nelson batholith. The intrusive is generally non-foliated, unaltered, and non-pyritic except for a few locations near the contact where some pyrite and very minor amounts of chalcopyrite were seen. An 80 foot wide dyke, which was definitely identified as the Silver King porphyry, occurs in Gold Creek, about 400 feet below the uppermost road crossing.

Various Dykes

Various dykes, ranging in composition from aplite to granodiorite were observed on the property. With the exception of a fine-grained granodiorite found at about

2E, 1 + 10N, which contained some chalcopyrite, the dykes were generally non-mineralized and non-foliated. Their relationship to mineralization is uncertain.

Structure

The Rossland volcanic and metavolcanic schists have a consistent trend throughout the area; strike 310° to 320° , dip 45° to 85° to the southwest. Various minor shear zones and small quartz veins (2") conform to this trend. This trend is also expressed topographically in the form of several distinct gulleys which are probably the surface expression of faults.

The 310° strike is also evident on a regional scale. Most of the prospects and showings in the Nelson area lie within the N. 30° W. trending belt, extending from the Sheep Creek camp northwesterly to the Beasley area.

G.S.C. aeromagnetic map 8480G shows a definite northwesterly trending linear feature extending from just north of Mount Elise to Giveout Creek, just north of the Silver King Mine. This lineation is approximately coincident with the 8 S baseline on the Kena property.

MINERALIZATION

Pyrite is common in all the volcanic and meta-volcanic rocks, in amounts estimated at up to 10%. Pyrite is disseminated throughout the rock, in association with

silica introduced along foliation planes, and to a lesser extent, along fractures. The amount of pyrite does appear to increase with the degree of silicification.

Copper occurs as chalcopyrite and possibly minor amounts of bornite in association with pyrite in heavily pyritized, silicified zones in the volcanic and metavolcanic rocks. Copper content is not related to the amount of total sulphide mineralization. Two apparently identical specimens of silicified andesite were, when assayed, found to contain vastly different copper values: e.g. Sample No. 752 - .05% Cu, Sample No. 291 - .30% Cu. Visual examination alone cannot be considered a reliable guide to copper content.

Gold, in very minor amounts, .005 oz./ton or less, does occur in most of the heavily silicified pyritized areas. Exact mode of occurrence of the gold is unknown.

GEOCHEMISTRY

A baseline, bearing 130° - 310° was established extending from 96 E to 40 W. Grid lines spaced 800 feet apart, and four additional intermediate lines at 44 E, 52 E, 60 E and 68 E were run with a compass and marked with blazes and flagging. Soil samples, totalling 517, were collected at each station using a mattock. Wherever possible samples were taken from the "B" horizon, which in this area is quite

reddish-brown and occurs at from 4 to 10 inches below surface. At sixteen stations samples were missed because of excessively deep, wet organic soil (especially line 72 E), or very rocky soil close to bedrock.

After collection in kraft paper envelopes, samples were shipped to Acme Analytical Laboratories Ltd. in Burnaby, B.C. for analysis for copper and gold content. Samples were dried and a -80 mesh specimen sifted out. For gold analysis, a 10 gram portion was ignited at 600° C. for one hour, then digested with 25% hydrochloric acid and 80% nitric acid, diluted to 100 ml., and treated with 5 ml. M.I.B.K. For copper analysis, a 1/2 gram portion was digested with hot aqua regia, then diluted to 10 ml. Analysis for both metals was by atomic absorption using a Perkin-Elmer model no. 305 instrument with background correction.

Copper

Copper values range from less than 20 p.p.m. to more than 2,000 p.p.m. A histogram of copper content versus number of samples was plotted, and from this, background was estimated to be less than 250 p.p.m. Cu. Fig. 3, which has been contoured at intervals of 250, 500 and 1,000 p.p.m. shows copper values at each sample site. Several linear anomalies, roughly coincident with the 130° regional trend

are obvious. The largest of these is a zone with values in excess of 500 p.p.m. extending from 64 E to 96 E. An odd feature of this anomaly is the "hollow" centre, a zone of less than 250 p.p.m. Cu, surrounded on all sides by higher values. The existence of this low "core" tends to suggest that the anomaly is an accurate reflection of bedrock copper content, rather than simply the downhill dispersion of a small copper source.

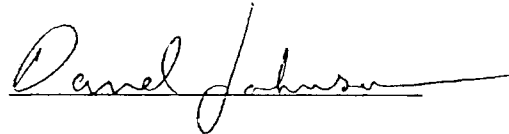
Gold

Gold values in the soil samples vary widely, from not detectable to 680 p.p.b. and are much more erratic than the copper values. As can be seen from Fig. 4, high gold values occur as single samples, widely scattered, rather than forming a definite anomalous zone, and as such do not outline any areas worthy of further investigation. No attempt was made at contouring the gold geochem map.

ROCK SAMPLING

A total of 38 rock samples were collected and assayed from various sites on the property. Most of these (27) were chip samples taken in 10 foot sections along the entire 270 foot length of an old adit, (circa 1910) with portal 78 + 46 E, 13 + 64 S, tied into our property grid, and direction 220°. This adit was apparently driven to intersect at depth a mineralized 2 foot wide quartz vein which outcrops at about

78 + 50 E, 15 S. Samples from the adit (No.'s 277 - 300, 304 - 306) averaged .16% Cu over 270 feet and No. 292, 15 + 20 to 15 + 30 S gave a value of .40 Cu over 10 feet. A grab sample of quartz from the vein (No. 307) assayed 1.1% Cu and .076 oz./ton Au. Of the other samples taken, only No. 303, .37% Cu and No. 309, .16% Cu gave any values of interest.

A handwritten signature in cursive script, reading "Darrel Johnson", written over a horizontal line.

Darrel Johnson

Vancouver, B.C.
August 27, 1975

APPENDIX I

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis
6455 Laurel St., Burnaby 2, B.C.

Tel: 299-5242 Aug 8 1975

TO LacaneX Mining
312-409 Granville St.,
Vancouver, B. C.

File No. 4273

Type of Samples Rocks

Disposition 1 year

ANALYSES CERTIFICATE

No.	Sample	Cu %	Silver oz/ton	Gold oz/ton				No.
1	277	.20	.02	.006	1370-80 ↑ ADIT			1
2	278	.20	.015	.005				2
3	279	.15	.01	.003				3
4	280	.21	.01	.006				4
5	281	.21	.01	.003				5
6	282	.15	.01	.002				6
7	283	.04	.01	.001				7
8	284	.09	.01	.003				8
9	285	.07	.01	.003				9
10	286	.13	.01	.001				10
11	287	.12	.01	.001			11	
12	288	.06	.01	.001			12	
13	289	.07	.01	.001			13	
14	290	.15	.01	.003			14	
15	291	.30	.01	.005			15	
16	292	.40	.01	.009			16	
17	293	.27	.01	.003			17	
18	294	.25	.01	.002			18	
19	295	.18	.01	.002			19	
20	296	.30	.02	.005	1560-70			20

All reports are the confidential property of clients.

DATE SAMPLES RECEIVED Aug 3, 1975

DATE REPORTS MAILED Aug 8, 1975

ANALYST Dean Toy

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED B.C. ASSAYER

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis
6455 Laurel St., Burnaby 2, B.C.

Tel: 299-5242

1975

TO
Lacanex Mining

File No. 4273

ANALYSES CERTIFICATE

Type of Samples Rocks

Disposition 1 year

2

No.	Sample	Cu %	Silver oz/ton	Gold oz/ton				No.
1	297	.15	.01	.001	1570-80			1
2	298	.29	.01	.002	↑ ADIT			2
3	299	.24	.01	.002	↓			3
4	300	.26	.01	.009	1600-1610			4
5	301	.01	.01	.001	24E-45DS			5
6	302	.01	.01	.001	26E-9S			6
7	303	.37	.01	.001	29E-2N			7
8	304	.09	.01	.006	1610-1620	↑		8
9	305	.24	.01	.002	ADIT	ADIT		9
10	306	.16	.01	.003	1630-1638	↓		10
11	307	<u>1.10</u>	.03	<u>.076</u>	78+50E	15 S	07Z VN GRAB	11
12	308	.01	.01	.001	88E-11S	07Z VN		12
13	309	.16	.01	.002	88E-11S	ANDESITE		13
14								14
15								15
16								16
17								17
18								18
19								19
20								20

All reports are the confidential property of clients.

DATE SAMPLES RECEIVED

DATE REPORTS MAILED August 8, 1975

ANALYST Dean Toy

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED B.C. ASSAYER

TO Lacanex Mining Co. Ltd.
312 - 409 Granville st.,
Vancouver, B. C.

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis
 6455 Laurel St., Burnaby 2, B.C.

Tel: 299-5242

File No. 4315

Type of Samples Rocks

Disposition 1 year

ANALYSES CERTIFICATE

No.	Sample	Cu %	Au oz/ton					No.
1	751	.01	.002	33+50 W	3+70 N			1
2	752	.05	.002	54 E	10+60 S			2
3	753	.01	<u>.024</u>	44+50 W	2 N	✓		3
4	754	Missing						4
5	755	Missing						5
6	756	.01	.005	} NOT 'KENA'				6
7	757	.02	.006					7
8	758	.01	.003					8
9	759	.02	.004					9
10	760	.01	.002					10
11	761	.01	.002					11
12	762	.01	.001					12
13	763	.01	.001					13
14	764	.01	.001					14
15	765	.01	.001				15	
16	766	.01	.001	19+50 W	3 N	OLD GOLD CR. ROAD		16
17	767	.01	.001	16+50 W	4+30 N			17
18	768	.05	<u>.012</u>	17+50 W	6+30 S	Pyritized volcanic at contact with silver KING DIKE		18
19	769	.03	.002	18+70 W	1+10 S			19
20								20

All reports are the confidential property of clients.

DATE SAMPLES RECEIVED Aug. 18, 1975

DATE REPORTS MAILED Aug. 19, 1975

ANALYST _____

DEAN TOYE, B.Sc.
 CHIEF CHEMIST
 CERTIFIED B.C. ASSAYER

TO Lacanex Mining Co. Ltd.
312-409 Granville St.,
Vancouver, B. C.

ACME ANALYTICAL LABORATORIES LTD.
 Assaying & Trace Analysis
 6455 Laurel St., Burnaby 2, B.C.

Tel: 299-5242

AUG 28 1975
 4339

File No. _____

Type of Samples Rocks

Disposition 1 year

ANALYSES CERTIFICATE

No.	Sample	Cu %	Au oz/ton				No.
1	770	.01	.003	17E 2N			1
2	771	.02	.056	15+50E 4+50N ✓			2
3	772	.02	.004	67E 18S			3
4	773	.01	.003	67E 18+30S			4
5	774	.01	.002	71E 14+70S			5
6	775	.02	.001	70E 2+30S			6
7	776	.01	.001	60E 4S			7
8							8
9							9
10							10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20

All reports are the confidential property of clients.

DATE SAMPLES RECEIVED Aug. 25, 1975
 DATE REPORTS MAILED Aug. 27, 1975

ANALYST Dean Toy

DEAN TOYE, B.Sc.
 CHIEF CHEMIST
 CERTIFIED B.C. ASSAYER

APPENDIX II

Cost of Recommended Drill Programme

1. Road and drill site construction, associated reclamation work.	\$2500
2. Drilling - 1000 ft. BQ @ \$15 per ft.	\$15000
- Mobilization, moves etc.	\$2000
3. Supervision and core logging	
- Wages- Geologist and assistant	\$2000
- Vehicle and living expenses	\$1000
4. Assays - 100 @ \$5	\$500
	<hr/>
	\$23000
Possible additional holes	<hr/>
	\$7000
	<hr/>
	\$30000