GEOCHEMICAL AND GEOLOGICAL

ASSESSMENT REPORT

on the

ATAN PROPERTY

ATAN 1 - 8 MINERAL CLAIMS

McDAME AREA

LIARD MINING DIVISION, B.C.

NTS:	104P/03E
LATITUDE:	59° 12'04" N
LONGITUDE:	129° 11'54" W
OWNER:	W.R. Gilmour
OPERATOR:	Discovery Consultants
AUTHOR:	T.H. Carpenter, P.Geo.
DATE:	November 23, 1994

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SUMMARY

The Atan is a possible "manto" or Mississippi Valley Type deposit comprising barite, lead, zinc, copper and silver mineralization in a limestone-dolomite horizon.

The occurrence is located on the west end of Atan Lake, 33 kilometres east-southeast of Cassiar and 100 kilometres northeast of Dease Lake.

Exploration work has been carried out on the property since 1967. Mineralization has been detected over a strike length of 1.5 kilometres and includes assays of 24 g/tonne Ag, 3.07% zinc over 3.4 metres and 6.8% Pb over 2.7 metres. Twelve metres of barite has been exposed in trenching.

In 1994 a program of soil and rock sampling was carried out on the property.

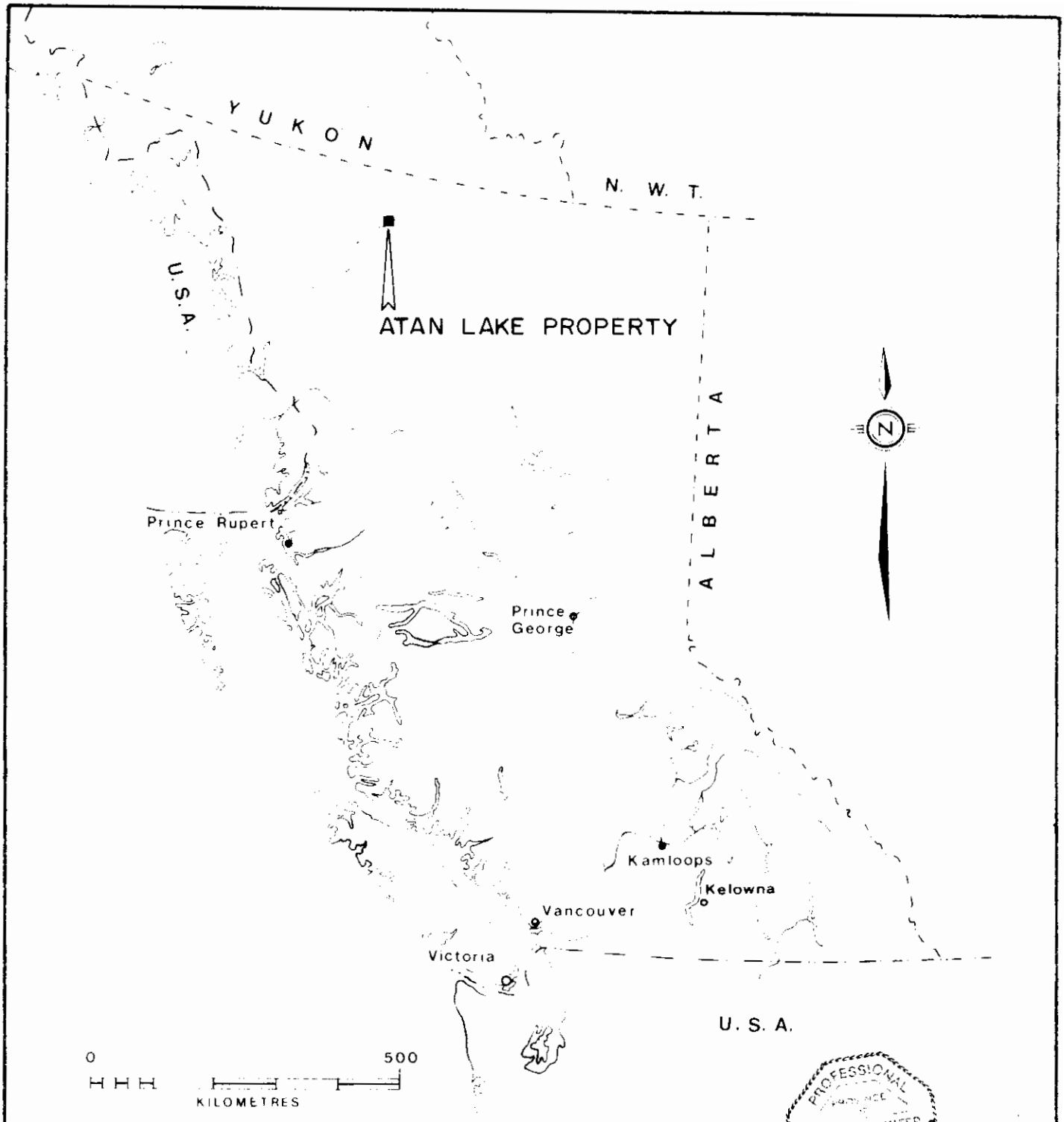
LOCATION AND ACCESS

The Atan property is centred at latitude 59°12"04'N and longitude 129°11"54' W, 33 km ESE of Cassiar and 2 km NE of McDame Post (Figure 1).

Access to the property can be gained by road 16 kilometres south off the Cassiar-Watson Lake highway.

TOPOGRAPHY

The topography of the property is gentle, with elevations ranging from about 730 metres at Atan Lake to 823 metres at the southeast corner of the claim block.



J. H. CARPENTER
PROFESSIONAL GEOSCIENTIST

DISCOVERY Consultants	PREDATOR SYNDICATE
ATAN LAKE PROPERTY	LOCATION MAP

DATE JUNE 6/94	PROJECT 615	SCALE: As Shown	NTS 104P/3E	M.D.: LIARD	FIGURE: 1

DWG-615-001

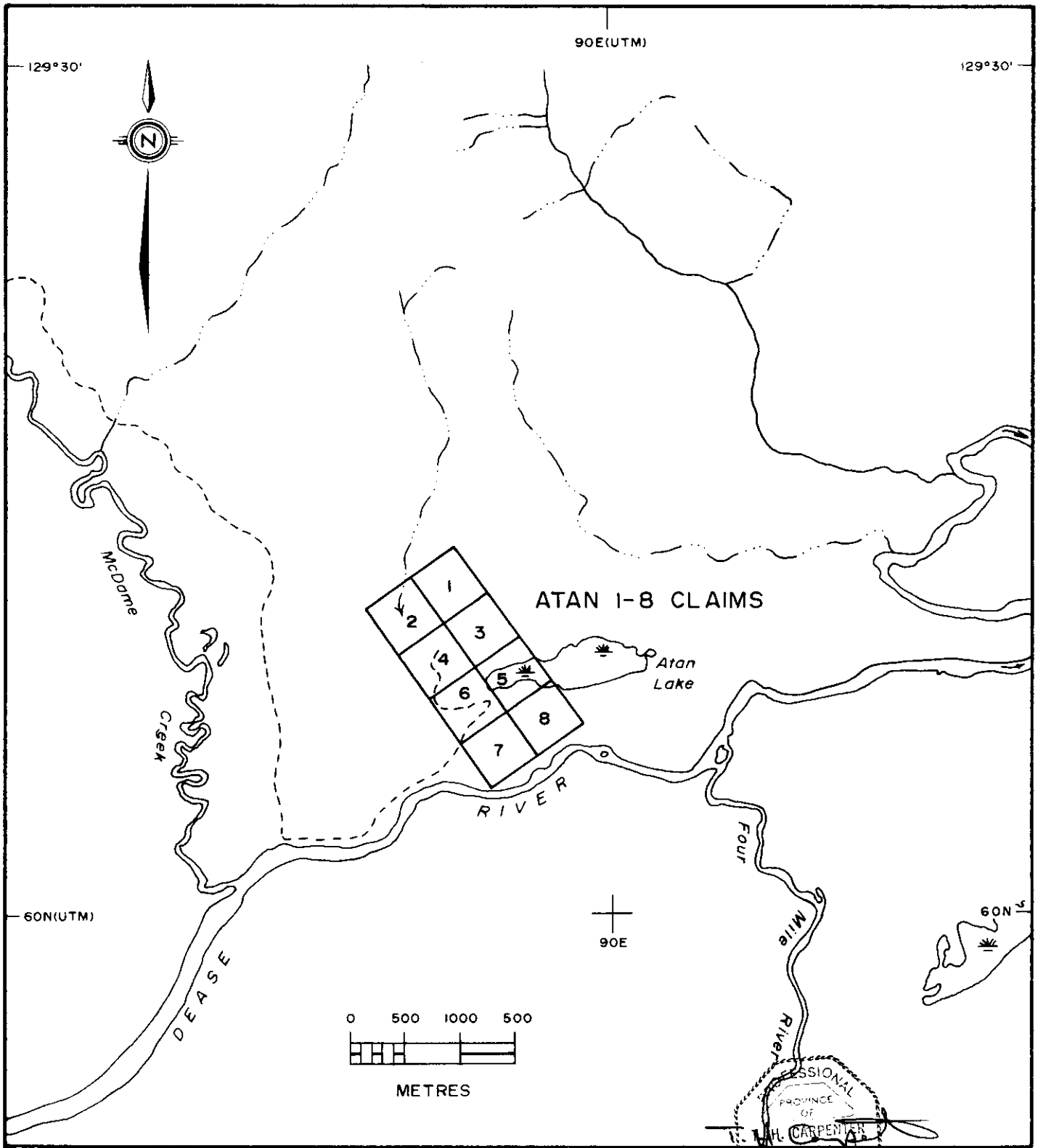
PROPERTY

The Atan property (Figure 2) comprises eight two-post claims, designated Atan 1-8, located by John Beggs on April 3 and April 5, 1994 and recorded in Vernon, B.C. on April 15, 1994.

Claim Name	Record No.	Owner of Record	Anniversary Date*
Atan 1	324672	W.R. Gilmour	April 3, 2000
Atan 2	324673	W.R. Gilmour	April 3, 2000
Atan 3	324674	W.R. Gilmour	April 3, 2000
Atan 4	324675	W.R. Gilmour	April 3, 2000
Atan 5	324676	W.R. Gilmour	April 3, 2000
Atan 6	324677	W.R. Gilmour	April 3, 2000
Atan 7	324678	W.R. Gilmour	April 5, 2000
Atan 8	324679	W.R. Gilmour	April 5, 2000

The claims are owned by W.R. Gilmour in trust for the Predator Syndicate.

* Pending acceptance of this report.



DISCOVERY Consultants	PREDATOR SYNDICATE
ATAN LAKE PROPERTY	CLAIM LOCATION MAP

DATE JUNE 6/94	PROJECT 615	SCALE 1:50000	NTS 104P/3E	MD: LIARD	FIGURE 2

DWG-615-002

HISTORY

Mineralization on the Atan property was discovered in 1949. At that time an access road was built and a number of trenches excavated. No further work on the Atan property was reported until 1967 when Dresser Industries carried out ground EM and magnetometer surveys on the "Bill" claims.

In 1970 Dresser also completed a soil sampling program on the claims.

In 1968 Tournigan Mineral Exploration conducted Induced Potential, magnetometer and soil sampling surveys on the "Adair" and "Atan" claims, to the south of the Bill claims. This work was followed in 1973 by linecutting, gravity and topographical surveys.

Esso Resources carried out a diamond drilling program on the Atan claims in 1976.

Tournigan Mineral Exploration completed diamond drilling and geological programs on the "Ski" claims in 1977. These claims were located to the southwest of the "Bill" claims.

The Atan property staked in 1994, covers the mineralized areas of the Ski, Atan and Adair claims.

GENERAL GEOLOGY

The Atan property is underlain by Lower Cambrian Atan Group limestone, argillaceous limestone and dolomite which strike east-southeast and dip steeply to the south.

Two zones of mineralization have been defined: the North Zone, located 500 m NW of the west end of Atan Lake, and Barite Hill, which lies 800 m SE of the west end of Atan Lake.

The best described is the North Zone where dolostone has been variably replaced by chert. The chert bodies are in general stratiform but locally cut across stratification.

Mineralization consists of disseminated to globular sphalerite that occurs mainly, but not exclusively, in beds replaced by chert, and massive barite that occurs as fracture fillings and as replacement bodies.

Galena, in minor amounts, occurs with sphalerite in places and as occasional grains although chip sampling in 1949 assayed 6.8% Pb over 2.7 metres and 10.6% Pb over 1.5 metres. Chalcopyrite and tetrahedrite occur along the margins of some barite bodies. Pyrite is a common constituent of the host rocks.

WORK COMPLETED

The work carried out on the property in 1994 comprised soil sampling and rock sampling. The individual surveys are discussed below.

Soil Sampling

a) Program Parameters

One hundred and thirty-five soil samples were collected on the Atan 1-8 claims. Samples were taken at 50 metre intervals along the claim boundaries.

The samples were collected by shovel from the "B" horizon, placed in 9 cm x 25 cm kraft sample bags and sent to Bondar-Clegg Laboratories in North Vancouver, B.C. At Bondar-Clegg analyses were carried out for 27 element ICP. Sample locations are shown on Figures 3-9. Analytical results are contained in Appendix 1.

b) Program Results

Zinc and barium appear to be the most anomalous elements in soil samples. Anomalous values are most prevalent in the area of previous workings but are also found on the northwestern claim boundary, indicating a possible continuation of the mineralization in this direction (Figures 6 & 9). The anomalous barium and zinc values are mirrored by copper and lead in soil (Figures 4 & 7). Note that the barium analysis is only a partial extraction.

Arsenic and antimony values (epithermal indicators), are found in part at previous workings on L15N and L05N (Figures 5 & 8). Arsenic however is much more widespread than antimony as is

evidenced by a string of anomalous arsenic values along L20N.

Rock Sampling

a) Program Parameters

Twenty-three rock samples were collected from trenches and roadcuts in and adjacent to mineralized outcrops on the Atan 1-8 claims. The rocks were collected to confirm previous results as well as to determine by ICP analyses the extent of associated mineralization. The sample locations were tied in to claim lines and available geological reports.

The rocks were shipped to Bondar-Clegg and Company Limited in North Vancouver where they were tested by 27 element ICP analysis.

Rock sample descriptions are contained in Appendix 2. Analytical results are listed in Appendix 3.

b) Program Results

Copper appears to be the most anomalous element in the rock samples. Five samples contained >1000 ppm. The maximum value obtained was 15140 ppm in AR-94 023.

This sample also contained the highest zinc value obtained in rocks (1138 ppm), 365 ppm Pb and >50 ppm Ag.

The highest Pb value obtained was >10,000 ppm in AR-94 022.

Six of the 23 samples collected contained anomalous As (to 2997 ppm) and Sb (to >2000 ppm). These anomalous samples are located on the Atan 2 and 5 claims, appear to be located on a NW trending linear and may represent a previously unrecognized epithermal mineralizing system.

CONCLUSIONS

Barite, copper, lead, zinc and silver mineralization in outcrop is located on the Atan 1 to 8 claims at locations 1500 metres apart.

Previous work has defined 6.8% Pb over 2.7 metres in chip samples, 3.07% Zn over 3.4 metres in drill core and 12 metres of barite exposed in a trench exposure.

Rock sampling in 1994 contained 1.5% Cu, >1% Pb, >50 ppm Ag and 0.1% Zn. All anomalous soil and rock values, largely due to the placement of sample lines, correspond to areas of previous trenching and sampling.

Anomalous Sb and As values in rocks and soils appear to indicate the presence of a previously unknown epithermal system on the property.

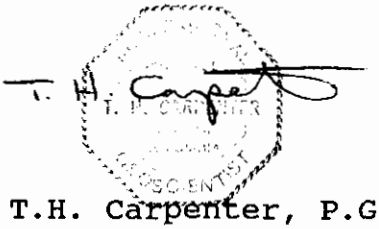
RECOMMENDATIONS

Additional soil sampling is recommended to delineate mineralization away from previously defined areas. All samples should be tested for gold content as an aid in delineating a possible epithermal system.

A ground EM survey should also be carried out to define structural trends.

A mapping program should be undertaken to map areas of silicification (chert alteration) previously shown to be spatially related to base-metal mineralization.

Respectfully submitted,



T.H. Carpenter, P.Geo

Vernon, B.C.

November 23, 1994

REFERENCES

British Columbia Ministry of Energy, Mines and Petroleum Resources Annual Report.
1949 - pg. A71 - A72
1967 - pg. 26
1968 - pg. 35

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1969 - pg. 43
1970 - pg. 37
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1976 - pg. E196
1977 - pg. E244

B.C. MEMPR Assessment Reports #1220, 2592, 4581, 5945, 6438.

STATEMENT OF COSTS

1.	Professional Services		
	K.L. Daughtry, P.Eng.		
	Supervision		
	0.5 days @ $450/day	$ 225.00	
	W.R. Gilmour, P.Geo.		
	Data compilation		
	0.25 days @ $400/day	100.00	
	E.D. Harrington, geologist		
	Rock sampling, mapping, travel (Aug 1-6)		
	5 days @ $308/day	1540.00	
	Data compilation		
	0.5 days @ $280/day	140.00	
	T.H. Carpenter, P.Geo.		
	Report writing		
	2 days @ $380/day	760.00	$ 2765.00
2.	Field Personnel (Aug 1-6)		
	Rick Anctil		
	Soil sampling & travel		
	5 days @ $240/day	1200.00	
	Murray Beenen		
	Soil sampling & travel		
	5 days @ $197/day	985.00	2185.00
3.	Transportation		
	4x4 Truck		669.62
4.	Lodging & Meals		533.27
5.	Geochemical Analysis		
	a) Soil samples		
	135 ICP (27 element) @ 4.50	607.50	
	135 prep @ $1.60	216.00	
	b) Rock samples		
	23 ICP @ $4.50	103.50	
	23 prep @ $4.25	97.75	1024.75
6.	Drafting		250.00
7.	Data compilation, secretarial		300.00
8.	Field supplies & equipment rental		331.93
9.	Printing, data processing, telephone, shipping		200.00
			$ 8259.57
10.	G.S.T.		578.17
		Total	$ 8837.74

STATEMENT OF QUALIFICATIONS

I, THOMAS H. CARPENTER of 3902 14th Street, Vernon, B.C., V1T 3V2, DO HEREBY CERTIFY that:

1. I am a consulting geologist in mineral exploration associated with Discovery Consultants, Vernon, B.C.

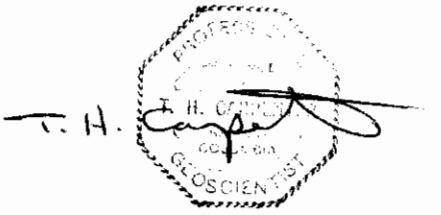
2. I have been practising my profession for 23 years.

3. I am a graduate of the Memorial University of Newfoundland with a Bachelor of Science degree in geology.

4. I am a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia.

5. This report is based upon knowledge of the Atan property gained from supervision.

6. I hold no interest either directly or indirectly in the Atan property.



T.H. Carpenter, P.Geo.

Vernon, B.C.
November 23, 1994

APPENDIX 1

Soil Sampling Survey

Analytical Procedures and Results

ANALYTICAL PROCEDURES

Geochemical Analysis

by Bondar-Clegg :

ELEMENT		LOWER DETECTION LIMIT	EXTRACTION	METHOD
Au	Gold	5.0 ppb	fire-assay	atomic absorption
Ag	Silver	0.2 ppm	HNO3-HCl hot extr	ind. coupled plasma
Al*	Aluminum	0.02 %	HNO3-HCl hot extr	ind. coupled plasma
As	Arsenic	5.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Ba*	Barium	5.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Bi	Bismuth	5.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Ca*	Calcium	0.05 %	HNO3-HCl hot extr	ind. coupled plasma
Cd	Cadmium	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Co*	Cobalt	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Cr*	Chromium	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Cu	Copper	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Fe*	Iron	0.01 %	HNO3-HCl hot extr	ind. coupled plasma
Hg■	Mercury	0.010 ppm	HNO3-HCl leach	cold vapour atomic absorption
K*	Potassium	0.05 %	HNO3-HCl hot extr	ind. coupled plasma
La*	Lanthanum	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Mg*	Magnesium	0.05 %	HNO3-HCl hot extr	ind. coupled plasma
Mn*	Manganese	0.01 %	HNO3-HCl hot extr	ind. coupled plasma
Mo*	Molybdenum	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Na*	Sodium	0.05 %	HNO3-HCl hot extr	ind. coupled plasma
Ni*	Nickel	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Pb	Lead	2.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Sb*	Antimony	5.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Sn*	Tin	20.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Sr*	Strontium	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Te*	Tellurium	10.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
V*	Vanadium	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
W*	Tungsten	10.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Y	Yttrium	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Zn	Zinc	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma

- Please note: certain mineral forms of those elements above marked with an asterisk will not be soluble in the HNO3/HCl extraction. The ICP data will be low biased.

- Please note: Hg will only be analysed upon request.

Date of Report: 94.10.11 Project 615 Atan

Soil Sampling Results
1994

Reference: v94-01079.0

Sample ID	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Cd ppm	Mo ppm	As ppm	Sb ppm	Bi ppm	Ni ppm	Co ppm	Cr ppm	Fe %	Mn ppm
BL 2000N	<0.2	17	18	52	<1.0	<1	43	<5	<5	30	10	53	2.38	526
BL 1950N	<0.2	19	18	52	<1.0	<1	41	<5	<5	30	10	50	2.28	562
BL 1900N	<0.2	13	16	68	<1.0	<1	<5	<5	<5	34	7	65	2.14	248
BL 1850N	<0.2	23	15	109	<1.0	<1	<5	<5	<5	47	14	77	3.29	1282
BL 1800N	<0.2	11	13	96	<1.0	<1	<5	<5	<5	24	11	54	2.29	859
BL 1750N	<0.2	10	19	58	<1.0	<1	7	<5	<5	25	9	55	2.30	348
BL 1700N	<0.2	12	11	144	<1.0	<1	<5	<5	<5	35	12	73	3.22	554
BL 1650N	<0.2	24	19	58	<1.0	<1	26	<5	<5	29	8	48	2.12	315
BL 1600N	<0.2	15	18	41	<1.0	<1	7	<5	<5	27	7	50	1.99	297
BL 1550N	<0.2	13	16	84	<1.0	<1	<5	<5	<5	37	10	72	2.68	287
BL 1500N	<0.2	17	18	264	<1.0	<1	<5	<5	<5	34	8	59	2.89	938
BL 1450N	<0.2	9	42	447	<1.0	<1	<5	<5	<5	26	9	65	2.76	642
BL 1400N	<0.2	7	14	282	<1.0	<1	<5	<5	<5	35	10	66	2.88	951
BL 1350N	<0.2	9	15	84	<1.0	<1	<5	<5	<5	33	10	71	3.22	430
BL 1300N	<0.2	14	9	50	<1.0	<1	<5	<5	<5	39	9	71	2.63	332
BL 1250N	<0.2	22	12	58	<1.0	<1	<5	<5	<5	60	11	103	3.51	317
BL 1200N	<0.2	42	27	106	<1.0	<1	14	<5	<5	53	14	88	3.56	663
BL 1150N	<0.2	35	24	105	<1.0	<1	<5	<5	<5	58	15	92	3.61	668
BL 1100N	<0.2	11	15	141	<1.0	<1	<5	<5	<5	36	12	78	3.51	693
BL 1050N	<0.2	45	14	156	<1.0	<1	<5	<5	<5	46	16	80	3.52	1326
BL 1000N	<0.2	22	12	93	<1.0	<1	<5	<5	<5	81	13	87	3.66	380
BL 0950N	<0.2	16	15	170	<1.0	<1	<5	<5	<5	56	15	91	3.42	1189
BL 0900N	<0.2	21	12	81	<1.0	<1	<5	<5	<5	41	14	77	2.65	651
BL 0775N	<0.2	10	13	119	<1.0	<1	<5	<5	<5	37	11	79	3.43	827
BL 0750N	<0.2	12	15	108	<1.0	<1	<5	<5	<5	45	15	74	3.29	774
BL 0700N	<0.2	16	13	60	<1.0	<1	<5	<5	<5	15	9	26	2.11	204
BL 0650N	<0.2	23	18	75	<1.0	<1	<5	<5	<5	24	11	28	2.42	368
BL 0600N	<0.2	12	5	19	<1.0	1	<5	<5	<5	8	3	7	0.31	360
BL 0550N	<0.2	5	6	38	<1.0	<1	<5	<5	<5	6	1	10	0.41	61
BL 0500N	<0.2	24	6	31	<1.0	<1	<5	<5	<5	14	2	18	0.87	138
BL 0450N	<0.2	16	15	99	<1.0	<1	<5	<5	<5	54	13	85	3.67	517
BL 0400N	<0.2	15	16	164	<1.0	<1	<5	<5	<5	59	15	90	3.95	597
BL 0350N	<0.2	22	17	135	<1.0	<1	<5	<5	<5	57	13	96	4.05	494
BL 0300N	<0.2	16	14	120	<1.0	<1	<5	<5	<5	75	16	96	4.38	684
BL 0250N	<0.2	15	32	190	<1.0	<1	<5	<5	<5	54	15	86	3.55	593
BL 0200N	<0.2	27	19	157	<1.0	<1	<5	<5	<5	61	14	87	3.57	558
BL 0150N	<0.2	23	19	178	<1.0	<1	<5	<5	<5	59	14	90	3.47	505
BL 0100N	<0.2	18	11	117	<1.0	<1	<5	<5	<5	54	11	80	2.91	421
BL 0050N	<0.2	14	16	226	<1.0	<1	<5	<5	<5	35	16	68	2.84	1730
BL 0000N	<0.2	37	15	136	<1.0	<1	<5	<5	<5	70	12	81	3.04	427

Project 615

Soil Sampling Results (part 2)

Sample ID	Ba ppm	V ppm	Sr ppm	Y ppm	La ppm	Te ppm	Sn ppm	W ppm	Al %	Mg %	Ca %	Na %	K %
BL 2000N	202	44	22	7	19	<10	<20	<20	1.11	0.55	0.84	0.02	0.11
BL 1950N	186	38	23	7	17	<10	<20	<20	1.09	0.58	0.82	0.02	0.13
BL 1900N	167	56	17	4	14	<10	<20	<20	1.62	0.69	0.51	0.01	0.09
BL 1850N	268	78	17	4	10	<10	<20	<20	2.21	0.62	0.46	0.02	0.10
BL 1800N	229	54	17	3	17	<10	<20	<20	1.57	0.49	0.43	0.02	0.15
BL 1750N	208	53	18	4	22	<10	<20	<20	1.58	0.50	0.47	0.01	0.09
BL 1700N	180	79	16	3	9	<10	<20	<20	1.99	0.45	0.34	0.02	0.07
BL 1650N	198	38	28	8	18	<10	<20	<20	1.20	0.55	0.80	0.02	0.14
BL 1600N	195	42	26	8	25	<10	<20	<20	1.19	0.58	0.60	0.03	0.10
BL 1550N	312	71	18	4	9	<10	<20	<20	1.86	0.68	0.42	0.02	0.06
BL 1500N	386	53	12	7	11	<10	<20	<20	1.64	0.85	1.13	0.02	0.04
BL 1450N	654	76	12	3	7	<10	<20	<20	1.52	0.38	0.35	0.02	0.05
BL 1400N	623	69	16	3	8	<10	<20	<20	1.64	0.46	0.40	0.02	0.08
BL 1350N	239	85	15	2	8	<10	<20	<20	1.72	0.43	0.32	0.02	0.08
BL 1300N	162	72	16	3	9	<10	<20	<20	1.75	0.55	0.34	0.02	0.08
BL 1250N	189	108	18	4	14	<10	<20	<20	2.17	0.79	0.41	0.02	0.10
BL 1200N	336	69	22	11	25	<10	<20	<20	2.39	0.96	0.44	0.02	0.27
BL 1150N	333	78	22	7	18	<10	<20	<20	2.56	0.88	0.42	0.02	0.22
BL 1100N	194	94	15	2	8	<10	<20	<20	2.03	0.53	0.31	0.02	0.09
BL 1050N	264	97	20	4	8	<10	<20	<20	2.28	0.70	0.46	0.02	0.19
BL 1000N	221	94	20	4	10	<10	<20	<20	2.73	0.67	0.39	0.03	0.11
BL 0950N	329	99	19	3	8	<10	<20	<20	2.44	0.70	0.41	0.02	0.11
BL 0900N	251	72	25	3	8	<10	<20	<20	2.00	0.70	0.63	0.03	0.17
BL 0775N	261	85	14	3	8	<10	<20	<20	1.76	0.45	0.29	0.02	0.07
BL 0750N	229	94	19	3	8	<10	<20	<20	2.14	0.56	0.44	0.02	0.10
BL 0700N	215	17	24	2	4	<10	<20	<20	0.58	0.07	0.52	0.01	0.09
BL 0650N	193	12	118	6	4	<10	<20	<20	0.53	0.34	5.63	0.01	0.07
BL 0600N	312	7	120	1	3	<10	<20	<20	0.22	0.26	4.39	0.01	0.02
BL 0550N	120	9	75	<1	3	<10	<20	<20	0.20	0.23	2.70	0.02	0.01
BL 0500N	272	16	95	3	7	<10	<20	<20	0.60	0.22	2.73	0.02	0.04
BL 0450N	232	97	19	3	8	<10	<20	<20	2.26	0.57	0.39	0.02	0.09
BL 0400N	185	99	22	3	8	<10	<20	<20	2.26	0.64	0.42	0.03	0.08
BL 0350N	217	109	19	3	9	<10	<20	<20	2.39	0.70	0.37	0.02	0.09
BL 0300N	196	97	19	3	7	<10	<20	<20	3.17	0.67	0.37	0.04	0.06
BL 0250N	221	98	18	3	8	<10	<20	<20	2.39	0.66	0.39	0.02	0.11
BL 0200N	210	99	21	3	9	<10	<20	<20	2.55	0.72	0.41	0.02	0.08
BL 0150N	466	92	22	4	9	<10	<20	<20	2.28	0.75	0.52	0.02	0.09
BL 0100N	204	80	19	4	8	<10	<20	<20	1.59	0.62	0.49	0.02	0.09
BL 0050N	310	78	21	3	9	<10	<20	<20	1.81	0.57	0.48	0.02	0.12
BL 0000N	239	87	21	4	9	<10	<20	<20	2.24	0.81	0.48	0.02	0.11

Date of Report: 94.10.11 Project 615 Atan

Soil Sampling Results
1994

Reference: v94-01079.0

Sample ID	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Cd ppm	Mo ppm	As ppm	Sb ppm	Bi ppm	Ni ppm	Co ppm	Cr ppm	Fe %	Mn ppm
L 0 500E	<0.2	12	11	64	<1.0	<1	<5	<5	<5	51	9	77	2.83	346
L 0 450E	<0.2	11	9	41	<1.0	<1	<5	<5	<5	38	7	62	2.18	338
L 0 400E	<0.2	16	20	98	<1.0	<1	<5	<5	<5	75	14	94	3.73	695
L 0 350E	<0.2	23	15	145	<1.0	<1	<5	<5	<5	71	15	89	3.56	645
L 0 300E	<0.2	13	12	95	<1.0	<1	<5	<5	<5	45	12	80	3.16	845
L 0 250E	<0.2	24	15	112	<1.0	<1	<5	<5	<5	81	15	97	3.68	419
L 0 200E	<0.2	13	14	78	<1.0	<1	<5	<5	<5	66	14	84	3.54	388
L 0 150E	<0.2	14	24	89	<1.0	<1	<5	<5	<5	55	13	81	3.32	744
L 0 100E	<0.2	130	167	1079	<1.0	<1	<5	<5	<5	28	7	53	4.05	2257
L 0 050E	<0.2	581	60	62	<1.0	<1	<5	<5	<5	52	9	88	4.17	833
L 0 050W	<0.2	60	17	153	<1.0	<1	<5	<5	<5	99	20	106	3.63	1383
L 0 100W	<0.2	37	18	236	<1.0	<1	<5	<5	<5	61	19	82	3.68	2444
L 0 150W	<0.2	29	15	199	<1.0	<1	<5	<5	<5	65	18	91	3.50	775
L 0 200W	<0.2	24	16	146	<1.0	<1	<5	<5	<5	63	17	98	3.40	1138
L 0 250W	<0.2	62	14	105	<1.0	<1	<5	<5	<5	93	14	119	3.70	780
L 0 300W	<0.2	32	15	85	<1.0	<1	<5	<5	<5	62	11	93	2.98	552
L 0 350W	<0.2	45	14	92	<1.0	<1	<5	<5	<5	66	14	96	3.04	741
L 0 400W	<0.2	20	11	56	<1.0	<1	<5	<5	<5	69	11	96	2.89	393
L 5 350E	<0.2	17	17	185	<1.0	<1	<5	<5	<5	47	14	87	3.78	1007
L 5 300E	<0.2	14	20	142	<1.0	<1	<5	<5	<5	32	12	73	3.44	1524
L 5 250E	<0.2	78	50	278	<1.0	<1	<5	<5	<5	38	9	93	5.88	1944
L 5 200E	<0.2	351	31	643	<1.0	<1	108	62	<5	36	12	86	4.25	619
L 5 150E	<0.2	26	17	95	<1.0	<1	<5	<5	<5	50	11	85	3.45	383
L 5 100E	<0.2	4	<2	7	<1.0	<1	<5	<5	<5	1	<1	2	0.08	8
L 5 050E	<0.2	5	4	32	<1.0	<1	<5	<5	<5	4	1	5	0.15	731
L 5 050W	<0.2	18	16	153	<1.0	<1	<5	<5	<5	42	16	75	3.33	1356
L 5 100W	<0.2	14	14	133	<1.0	<1	<5	<5	<5	41	13	78	3.41	695
L 5 150W	<0.2	13	15	187	<1.0	<1	<5	<5	<5	39	15	83	3.80	722
L 5 200W	<0.2	15	12	144	<1.0	<1	<5	<5	<5	64	13	81	3.52	608
L 5 250W	<0.2	13	12	121	<1.0	<1	<5	<5	<5	46	14	79	3.55	573
L 5 300W	<0.2	12	14	105	<1.0	<1	<5	<5	<5	29	11	70	3.17	512
L 5 350W	<0.2	11	12	82	<1.0	<1	<5	<5	<5	30	12	75	3.33	528
L 5 400W	<0.2	13	14	102	<1.0	<1	<5	<5	<5	36	12	78	3.32	444
L 5 450W	<0.2	16	13	76	<1.0	<1	<5	<5	<5	47	11	78	3.31	523
L 5 500W	<0.2	8	14	103	<1.0	<1	<5	<5	<5	33	10	73	3.15	494
L10 500E	<0.2	12	12	112	<1.0	<1	<5	<5	<5	40	11	73	3.15	992
L10 450E	<0.2	15	12	49	<1.0	<1	<5	<5	<5	54	9	82	3.10	265

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Soil Sampling Results (part 2)

Sample ID	Ba ppm	V ppm	Sr ppm	Y ppm	La ppm	Te ppm	Sn ppm	W ppm	Al %	Mg %	Ca %	Na %	K %
L 0 500E	158	77	17	4	6	<10	<20	<20	1.73	0.64	0.49	0.02	0.09
L 0 450E	193	65	17	4	9	<10	<20	<20	1.45	0.42	0.45	0.02	0.09
L 0 400E	238	89	19	3	8	<10	<20	<20	2.36	0.60	0.42	0.02	0.09
L 0 350E	220	83	20	4	8	<10	<20	<20	2.42	0.63	0.38	0.03	0.08
L 0 300E	215	90	17	3	7	<10	<20	<20	1.75	0.57	0.44	0.02	0.06
L 0 250E	220	95	16	3	7	<10	<20	<20	2.57	0.72	0.36	0.02	0.09
L 0 200E	180	91	18	3	6	<10	<20	<20	2.28	0.59	0.37	0.03	0.07
L 0 150E	366	92	16	3	7	<10	<20	<20	2.06	0.56	0.40	0.02	0.08
L 0 100E	1534	32	18	9	10	<10	<20	<20	1.29	0.88	2.29	0.02	0.05
L 0 050E	1403	71	18	16	21	<10	<20	<20	1.96	0.59	0.62	0.02	0.10
L 0 050W	557	96	26	8	13	<10	<20	<20	2.64	0.95	0.56	0.03	0.24
L 0 100W	562	83	32	4	9	<10	<20	<20	2.38	0.75	0.80	0.03	0.13
L 0 150W	279	91	20	4	9	<10	<20	<20	2.87	0.82	0.45	0.03	0.11
L 0 200W	363	85	31	4	13	<10	<20	<20	2.91	0.92	0.62	0.02	0.17
L 0 250W	295	93	38	10	17	<10	<20	<20	2.96	1.27	0.60	0.03	0.21
L 0 300W	233	79	29	5	12	<10	<20	<20	2.24	1.00	0.56	0.02	0.14
L 0 350W	306	74	36	9	16	<10	<20	<20	2.08	1.06	0.65	0.04	0.12
L 0 400W	201	78	26	8	17	<10	<20	<20	1.20	1.15	0.68	0.04	0.08
L 5 350E	492	97	18	3	9	<10	<20	<20	2.36	0.62	0.43	0.02	0.12
L 5 300E	652	90	15	3	8	<10	<20	<20	1.77	0.40	0.37	0.02	0.10
L 5 250E	751	60	15	33	20	<10	<20	<20	2.11	0.88	1.10	0.03	0.06
L 5 200E	>2000	96	39	3	9	<10	<20	<20	3.09	0.61	0.39	0.02	0.06
L 5 150E	776	94	16	3	9	<10	<20	<20	3.13	0.76	0.39	0.03	0.08
L 5 100E	154	2	24	<1	2	<10	<20	<20	0.03	0.16	1.65	<0.01	<0.01
L 5 050E	143	5	74	<1	3	<10	<20	<20	0.15	0.22	3.07	0.02	0.03
L 5 050W	297	84	24	3	9	<10	<20	<20	2.22	0.54	0.45	0.02	0.12
L 5 100W	265	88	23	2	9	<10	<20	<20	1.94	0.51	0.44	0.02	0.10
L 5 150W	254	97	19	3	10	<10	<20	<20	2.11	0.45	0.35	0.02	0.10
L 5 200W	208	86	15	3	9	<10	<20	<20	2.47	0.51	0.28	0.02	0.10
L 5 250W	217	94	17	2	9	<10	<20	<20	2.26	0.49	0.37	0.02	0.10
L 5 300W	242	89	17	2	9	<10	<20	<20	2.03	0.48	0.32	0.02	0.07
L 5 350W	262	92	15	2	8	<10	<20	<20	2.04	0.41	0.31	0.02	0.05
L 5 400W	213	88	23	3	8	<10	<20	<20	2.15	0.44	0.43	0.02	0.07
L 5 450W	253	85	20	3	8	<10	<20	<20	2.43	0.52	0.37	0.02	0.07
L 5 500W	220	77	19	2	8	<10	<20	<20	1.81	0.35	0.39	0.02	0.08
L10 500E	220	69	15	3	10	<10	<20	<20	2.01	0.43	0.40	0.02	0.06
L10 450E	219	83	20	3	10	<10	<20	<20	2.18	0.56	0.44	0.02	0.06

Date of Report: 94.10.11 Project 615 Atan

Soil Sampling Results
1994

Reference: v94-01079.0

Sample ID	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Cd ppm	Mo ppm	As ppm	Sb ppm	Bi ppm	Ni ppm	Co ppm	Cr ppm	Fe %	Mn ppm
L10 400E	<0.2	11	43	142	<1.0	<1	<5	<5	<5	41	10	71	3.91	1478
L10 350E	<0.2	8	12	73	<1.0	<1	<5	<5	<5	28	8	71	3.03	510
L10 300E	<0.2	13	17	209	<1.0	<1	<5	<5	<5	47	15	84	3.71	881
L10 250E	<0.2	15	12	129	<1.0	<1	<5	<5	<5	55	12	83	3.66	823
L10 200E	<0.2	11	12	115	<1.0	<1	<5	<5	<5	53	13	76	3.29	1048
L10 150E	<0.2	29	16	238	<1.0	<1	<5	<5	<5	81	15	99	4.00	428
L10 100E	<0.2	23	16	150	<1.0	<1	<5	<5	<5	77	14	102	3.99	409
L10 050E	<0.2	21	12	153	<1.0	<1	<5	<5	<5	79	15	101	3.81	551
L10 050W	<0.2	17	14	144	<1.0	<1	<5	<5	<5	55	15	85	3.35	993
L10 100W	<0.2	20	13	140	<1.0	<1	<5	<5	<5	55	14	80	3.46	1125
L10 150W	<0.2	21	14	192	<1.0	<1	<5	<5	<5	67	14	86	3.67	609
L10 200W	<0.2	25	15	155	<1.0	<1	<5	<5	<5	72	16	91	3.36	1245
L10 250W	<0.2	14	14	169	<1.0	<1	<5	<5	<5	53	14	87	3.32	1372
L10 300W	<0.2	26	16	108	<1.0	1	<5	<5	<5	47	12	88	2.83	578
L10 350W	<0.2	12	15	147	<1.0	<1	<5	<5	<5	37	15	84	3.17	1494
L10 400W	<0.2	11	14	181	<1.0	<1	<5	<5	<5	41	15	87	3.29	1182
L10 450W	<0.2	12	13	176	<1.0	<1	<5	<5	<5	48	16	80	3.16	1343
L10 500W	<0.2	16	18	115	<1.0	<1	<5	<5	<5	40	12	88	3.50	656
L15 500E	<0.2	14	17	37	<1.0	<1	6	<5	<5	30	8	51	1.90	303
L15 450E	<0.2	16	19	41	<1.0	<1	19	<5	<5	32	8	51	1.91	278
L15 400E	<0.2	23	21	64	<1.0	<1	9	<5	<5	37	10	61	2.33	417
L15 350E	<0.2	20	23	73	<1.0	<1	15	<5	<5	35	11	61	2.42	471
L15 300E	<0.2	16	16	52	<1.0	<1	8	<5	<5	30	8	49	1.94	358
L15 250E	<0.2	16	10	37	<1.0	<1	20	<5	<5	31	7	44	1.79	273
L15 200E	<0.2	22	21	83	<1.0	<1	13	<5	<5	33	10	56	2.21	394
L15 150E	<0.2	18	23	40	<1.0	<1	<5	<5	<5	29	7	46	1.75	264
L15 100E	<0.2	154	946	380	<1.0	<1	43	28	<5	28	8	67	3.64	1228
L15 050E	<0.2	22	92	157	<1.0	<1	<5	<5	<5	40	10	83	3.28	547
L15 050W	<0.2	15	19	254	<1.0	<1	<5	<5	<5	41	12	77	2.69	610
L15 100W	<0.2	466	2719	6378	6.3	3	151	70	<5	53	16	67	2.48	328
L15 150W	<0.2	18	31	146	<1.0	<1	<5	<5	<5	61	12	79	2.92	706
L15 200W	<0.2	6	8	50	<1.0	<1	<5	<5	<5	38	7	53	2.17	297
L15 250W	<0.2	10	15	158	<1.0	<1	<5	<5	<5	33	15	52	3.36	1460
L15 300W	<0.2	13	14	191	<1.0	<1	<5	<5	<5	48	15	59	3.51	747
L15 350W	<0.2	24	16	191	<1.0	<1	<5	<5	<5	34	16	54	3.53	1225
L15 400W	<0.2	13	14	174	<1.0	<1	<5	<5	<5	56	16	61	3.65	900
L15 450W	<0.2	28	19	135	<1.0	<1	<5	<5	<5	90	17	67	4.11	676
L15 500W	<0.2	25	10	99	<1.0	<1	<5	<5	<5	71	14	68	3.58	639

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Soil Sampling Results (part 2)

Sample ID	Ba ppm	V ppm	Sr ppm	Y ppm	La ppm	Te ppm	Sn ppm	W ppm	Al %	Mg %	Ca %	Na %	K %
L10 400E	257	59	34	15	18	<10	<20	<20	1.99	0.37	1.13	0.02	0.06
L10 350E	277	80	21	3	9	<10	<20	<20	1.56	0.41	0.44	0.01	0.08
L10 300E	247	97	17	3	8	<10	<20	<20	2.05	0.50	0.37	0.02	0.08
L10 250E	242	88	20	3	9	<10	<20	<20	2.04	0.53	0.39	0.02	0.09
L10 200E	288	76	18	3	9	<10	<20	<20	2.12	0.50	0.39	0.02	0.11
L10 150E	211	110	21	4	8	<10	<20	<20	2.99	0.75	0.46	0.03	0.10
L10 100E	284	103	17	4	9	<10	<20	<20	3.05	0.66	0.34	0.03	0.08
L10 050E	263	102	20	4	11	<10	<20	<20	2.69	0.71	0.46	0.03	0.12
L10 050W	298	100	23	3	8	<10	<20	<20	2.37	0.75	0.56	0.02	0.15
L10 100W	320	88	19	3	8	<10	<20	<20	2.28	0.61	0.46	0.02	0.10
L10 150W	207	89	16	4	9	<10	<20	<20	2.54	0.68	0.36	0.02	0.10
L10 200W	357	90	23	4	9	<10	<20	<20	2.53	0.78	0.54	0.03	0.15
L10 250W	351	87	20	3	9	<10	<20	<20	2.40	0.64	0.44	0.02	0.12
L10 300W	238	81	25	5	13	<10	<20	<20	2.43	0.75	0.43	0.02	0.13
L10 350W	332	82	24	3	10	<10	<20	<20	2.10	0.51	0.46	0.02	0.10
L10 400W	246	91	21	3	11	<10	<20	<20	1.98	0.54	0.46	0.02	0.10
L10 450W	315	91	24	3	10	<10	<20	<20	2.02	0.55	0.47	0.02	0.11
L10 500W	267	112	24	2	8	<10	<20	<20	2.13	0.55	0.54	0.02	0.11
L15 500E	146	40	21	8	21	<10	<20	<20	0.96	0.53	0.56	0.02	0.09
L15 450E	149	40	20	8	21	<10	<20	<20	1.03	0.55	0.52	0.02	0.12
L15 400E	204	50	23	9	23	<10	<20	<20	1.38	0.68	0.54	0.02	0.14
L15 350E	199	49	19	7	21	<10	<20	<20	1.35	0.63	0.48	0.02	0.17
L15 300E	170	41	18	8	20	<10	<20	<20	1.01	0.54	0.53	0.02	0.12
L15 250E	137	37	16	9	19	<10	<20	<20	0.85	0.49	0.45	0.02	0.09
L15 200E	301	45	21	8	22	<10	<20	<20	1.41	0.55	0.54	0.02	0.15
L15 150E	186	38	21	8	22	<10	<20	<20	0.94	0.50	0.53	0.02	0.09
L15 100E	1838	53	27	12	14	<10	<20	<20	1.31	0.60	1.00	0.02	0.03
L15 050E	650	74	17	7	15	<10	<20	<20	1.88	0.51	0.50	0.03	0.07
L15 050W	373	77	19	4	10	<10	<20	<20	1.59	0.58	0.49	0.02	0.08
L15 100W	392	53	20	9	14	10	<20	<20	1.24	0.74	0.58	0.03	0.09
L15 150W	344	77	21	4	11	<10	<20	<20	2.01	0.53	0.45	0.02	0.10
L15 200W	194	66	18	4	10	<10	<20	<20	1.44	0.42	0.48	0.02	0.08
L15 250W	242	79	17	2	9	<10	<20	<20	1.51	0.43	0.36	0.02	0.11
L15 300W	230	89	16	3	9	<10	<20	<20	2.01	0.58	0.37	0.02	0.09
L15 350W	245	88	17	2	9	<10	<20	<20	1.69	0.42	0.37	0.02	0.08
L15 400W	248	94	16	3	10	<10	<20	<20	2.21	0.60	0.35	0.02	0.08
L15 450W	198	94	17	4	11	11	<20	<20	2.53	0.67	0.38	0.03	0.10
L15 500W	267	88	15	4	10	<10	<20	<20	2.73	0.76	0.35	0.02	0.09

Date of Report: 94.10.11 Project 615 Atan

Soil Sampling Results
1994

Reference: v94-01079.0

Sample ID	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Cd ppm	Mo ppm	As ppm	Sb ppm	Bi ppm	Ni ppm	Co ppm	Cr ppm	Fe %	Mn ppm
L20 500E	<0.2	9	12	53	<1.0	<1	19	<5	<5	22	9	35	2.04	367
L20 450E	<0.2	12	14	72	<1.0	<1	25	<5	<5	29	11	41	2.37	628
L20 400E	<0.2	8	14	49	<1.0	<1	20	<5	<5	26	8	40	2.09	441
L20 350E	<0.2	11	16	48	<1.0	<1	43	<5	<5	28	10	41	2.23	483
L20 300E	<0.2	9	16	107	<1.0	<1	9	<5	<5	25	11	38	2.29	655
L20 250E	<0.2	5	11	44	<1.0	<1	6	<5	<5	13	7	28	1.67	316
L20 200E	<0.2	15	10	47	<1.0	<1	41	<5	<5	26	8	26	1.69	454
L20 150E	<0.2	20	16	52	<1.0	<1	44	<5	<5	33	9	37	2.05	506
L20 100E	<0.2	18	14	58	<1.0	<1	51	<5	<5	34	11	38	2.27	584
L20 050E	<0.2	19	14	58	<1.0	<1	55	<5	<5	34	11	37	2.24	592
L20 050W	<0.2	7	10	30	<1.0	<1	41	<5	<5	21	7	25	1.51	290
L20 100W	<0.2	2	6	26	<1.0	<1	70	<5	<5	6	5	10	3.91	9042
L20 150W	<0.2	22	59	67	<1.0	<1	<5	<5	<5	39	10	52	2.38	471
L20 200W	<0.2	8	14	119	<1.0	<1	<5	<5	<5	25	15	51	2.91	935
L20 250W	<0.2	9	10	136	<1.0	<1	<5	<5	<5	46	12	56	3.05	634
L20 300W	<0.2	12	15	133	<1.0	<1	<5	<5	<5	49	12	56	2.94	713
L20 350W	<0.2	7	8	101	<1.0	<1	<5	<5	<5	39	11	56	2.86	573
L20 400W	<0.2	11	31	183	<1.0	<1	<5	<5	<5	41	9	54	3.15	518
L20 450W	<0.2	11	39	50	<1.0	<1	<5	<5	<5	34	8	49	2.10	278
L20 500W	<0.2	7	22	112	<1.0	<1	<5	<5	<5	23	9	46	2.38	506

Statistics:

n =	135													
Min :	<0.2	2	<2	7	<1.0	<1	<5	<5	<5	1	<1	2	0.08	8
Max :	<0.2	581	2719	6378	6.3	3	151	70	<5	99	20	119	5.88	9042
25% ile :	<0.2	12	12	62	<1.0	<1	<5	<5	<5	31	9	53	2.38	417
50% ile :	<0.2	16	15	108	<1.0	<1	<5	<5	<5	40	12	74	3.17	592
75% ile :	<0.2	22	18	153	<1.0	<1	<5	<5	<5	55	14	85	3.54	827
95% ile :	<0.2	60	43	264	<1.0	<1	43	<5	<5	77	16	97	4.00	1478

Project 615

Soil Sampling Results (part 2)

Sample ID	Ba ppm	V ppm	Sr ppm	Y ppm	La ppm	Te ppm	Sn ppm	W ppm	Al %	Mg %	Ca %	Na %	K %
L20 500E	122	45	12	5	18	<10	<20	<20	0.86	0.51	0.50	0.02	0.12
L20 450E	205	48	14	7	22	<10	<20	<20	1.03	0.57	0.63	0.02	0.14
L20 400E	129	47	14	5	17	<10	<20	<20	0.94	0.54	0.51	0.02	0.11
L20 350E	151	47	16	6	19	<10	<20	<20	1.05	0.60	0.51	0.02	0.13
L20 300E	220	45	11	5	16	<10	<20	<20	1.07	0.55	0.60	0.01	0.14
L20 250E	101	41	9	4	18	<10	<20	<20	0.69	0.31	0.35	0.01	0.10
L20 200E	142	26	22	5	10	<10	<20	<20	0.66	1.27	2.39	0.01	0.07
L20 150E	169	38	22	7	15	<10	<20	<20	0.95	0.89	1.23	0.02	0.11
L20 100E	155	39	19	9	17	<10	<20	<20	0.99	0.62	0.85	0.02	0.12
L20 050E	178	40	22	8	19	<10	<20	<20	0.99	0.85	1.23	0.02	0.12
L20 050W	123	30	15	5	13	<10	<20	<20	0.64	1.39	2.03	0.02	0.06
L20 100W	691	9	98	<1	2	<10	<20	<20	0.16	0.37	3.23	0.05	0.02
L20 150W	608	66	19	5	11	<10	<20	<20	1.32	0.69	0.46	0.02	0.14
L20 200W	375	83	15	3	9	<10	<20	<20	1.42	0.42	0.35	0.02	0.07
L20 250W	473	81	20	3	9	<10	<20	<20	1.75	0.62	0.51	0.02	0.10
L20 300W	463	75	17	4	9	<10	<20	<20	1.66	0.61	0.48	0.02	0.10
L20 350W	235	81	15	3	8	<10	<20	<20	1.59	0.64	0.45	0.02	0.07
L20 400W	159	71	13	9	12	<10	<20	<20	1.69	0.72	0.55	0.02	0.05
L20 450W	398	68	16	4	9	<10	<20	<20	1.33	0.64	0.47	0.02	0.05
L20 500W	572	79	15	3	9	<10	<20	<20	1.33	0.45	0.42	0.02	0.04
Statistics:													
n =	135												
Min :	>2000	2	9	<1	2	<10	<20	<20	0.03	0.07	0.28	<0.01	<0.01
Max :	1838	112	120	33	25	11	<20	<20	3.17	1.39	5.63	0.05	0.27
25% ile :	198	53	17	3	8	<10	<20	<20	1.33	0.50	0.39	0.02	0.07
50% ile :	239	79	19	4	9	<10	<20	<20	1.96	0.58	0.46	0.02	0.09
75% ile :	312	91	22	5	14	<10	<20	<20	2.28	0.70	0.56	0.02	0.11
95% ile :	652	99	38	9	21	<10	<20	<20	2.87	0.95	2.29	0.03	0.17

Date of Report: 94.10.11 Project 615 Atan

Soil Sampling Results
1994

Reference: v94-01079.0

Sample ID	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Cd ppm	Mo ppm	As ppm	Sb ppm	Bi ppm	Ni ppm	Co ppm	Cr ppm	Fe %	Mn ppm
Duplicates:														
BL 0450N	<0.2	17	14	101	<1.0	<1	<5	<5	<5	54	13	84	3.61	515
BL 1400N	<0.2	8	17	306	<1.0	<1	<5	<5	<5	39	11	73	3.00	1021
L 0 350E	<0.2	23	15	143	<1.0	<1	<5	<5	<5	70	15	88	3.51	632
L 5 300E	<0.2	13	25	144	<1.0	2	<5	<5	<5	35	13	76	3.58	1548
L10 450E	<0.2	13	6	48	<1.0	<1	<5	<5	<5	51	9	60	2.79	251
L15 300E	<0.2	13	10	49	<1.0	<1	10	<5	<5	28	7	35	1.82	335
L20 300E	<0.2	10	16	101	<1.0	2	12	<5	<5	26	12	44	2.29	643

Project 615

Soil Sampling Results (part 2)

Sample ID	Ba ppm	V ppm	Sr ppm	Y ppm	La ppm	Te ppm	Sn ppm	W ppm	Al %	Mg %	Ca %	Na %	K %
Duplicates:													
BL 0450N	234	97	20	3	9	<10	<20	<20	2.33	0.57	0.39	0.02	0.09
BL 1400N	646	73	18	3	9	<10	<20	<20	1.70	0.48	0.44	0.02	0.08
L 0 350E	222	82	21	4	9	<10	<20	<20	2.39	0.63	0.38	0.03	0.08
L 5 300E	619	90	16	3	9	<10	<20	<20	1.73	0.39	0.38	0.02	0.09
L10 450E	203	77	17	3	9	<10	<20	<20	1.97	0.55	0.40	0.02	0.06
L15 300E	152	37	15	7	18	<10	<20	<20	0.91	0.51	0.49	0.02	0.11
L20 300E	224	49	11	5	15	11	<20	<20	1.09	0.62	0.57	0.02	0.14

APPENDIX 2

Rock Sample Descriptions

APPENDIX 2

Rock Sample Descriptions

AR-94-001	Chip	White - buff quartzite, fine grained to sugary texture. Disseminated hematite blebs ≤ 1 mm.
AR-94-002	Float	GPS Loc 6. Dark grey to black chert. Fractured and healed with dolomite. Azurite stain. Very minor silvery disseminated material.
AR-94-003	Chip	GPS Loc 6. Chert. Dark grey. Well fractured and healed. Vuggy.
AR-94-004	Chip	Light grey dolomite with barite lense.
AR-94-005	Chip	Barite.
AR-94-006	Chip	Dolomite/Chert. Buff. Sugary euhedral quartz on bedding plane. Weak effervescence.
AR-94-007	Chip	Dark grey chert.
AR-94-008	Float	Dark grey chert breccia. Healed with quartz.
AR-94-009	Chip	Dark grey chert breccia healed with quartz and calcite. Trace disseminated pyrite. Malachite stain. Trends 095°/dip 45°S.
AR-94-010	Chip	Mineralized fracture (125°/75°S). Dark grey brecciated chert. Strong malachite stain. Vuggy euhedral quartz. GPS Loc 10 N 59° 11.678′ W 129° 11.247′
AR-94-011	Chip	Light grey limestone.
AR-94-012	Chip	Barite appears to be interbedded with limestone (305°/50°S). GPS Loc 10 N 59° 11.660′ W 129° 11.140′ (Note: Poor Satellite Geometry).

AR-94-013	Chip	Light grey dolomite with barite stringers.
AR-94-014	Chip	Medium grey chert (?) replacement. Strongly effervescent locally. Appears brecciated.
AR-94-015	0.5W Chip	Dark grey chert breccia with strong malachite and azurite stain. Disseminated sulphide ≤ .5% (very minor). Calcite stringers.
AR-94-016	Chip	Irregular quartz vein in chert. Vuggy euhedral quartz. Locally hematized.
AR-94-017	Chip	Barite vein in dolomite/chert. Azurite staining. Irregular vein ≤ 10cm.
AR-94-018	Chip	Buff dolomite. M.gr. Weak effervescence along fractures. Irregular quartz blebs and some euhedral quartz.
AR-94-019	Chip	Light grey dolomite (chert?) with irregular quartz stringers. Medium brown calcite skins on fractures.
AR-94-020	Chip	Dark grey. Dolomite/Chert with irregular quartz veins ≤ 1cm.
AR-94-021	Chip	Azurite and trace malachite in dolomite at contact with barite.
AR-94-022	Chip	As above on east side of barite outcrop.
AR-94-023	Float	Sulphide (chalco?) in dolomite near a barite contact. Sulphides appear to be deposited at barite/rx contact. Azurite and malachite.

APPENDIX 3

Rock Samples

Analytical Procedures and Results

ANALYTICAL PROCEDURES

Geochemical Analysis

by Bondar-Clegg :

ELEMENT		LOWER DETECTION LIMIT	EXTRACTION	METHOD
Au	Gold	5.0 ppb	fire-assay	atomic absorption
Ag	Silver	0.2 ppm	HNO3-HCl hot extr	ind. coupled plasma
Al*	Aluminum	0.02 %	HNO3-HCl hot extr	ind. coupled plasma
As	Arsenic	5.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Ba*	Barium	5.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Bi	Bismuth	5.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Ca*	Calcium	0.05 %	HNO3-HCl hot extr	ind. coupled plasma
Cd	Cadmium	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Co*	Cobalt	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Cr*	Chromium	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Cu	Copper	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Fe*	Iron	0.01 %	HNO3-HCl hot extr	ind. coupled plasma
Hg■	Mercury	0.010 ppm	HNO3-HCl leach	cold vapour atomic absorption
K*	Potassium	0.05 %	HNO3-HCl hot extr	ind. coupled plasma
La*	Lanthanum	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Mg*	Magnesium	0.05 %	HNO3-HCl hot extr	ind. coupled plasma
Mn*	Manganese	0.01 %	HNO3-HCl hot extr	ind. coupled plasma
Mo*	Molybdenum	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Na*	Sodium	0.05 %	HNO3-HCl hot extr	ind. coupled plasma
Ni*	Nickel	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Pb	Lead	2.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Sb*	Antimony	5.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Sn*	Tin	20.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Sr*	Strontium	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Te*	Tellurium	10.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
V*	Vanadium	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
W*	Tungsten	10.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Y	Yttrium	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma
Zn	Zinc	1.0 ppm	HNO3-HCl hot extr	ind. coupled plasma

- Please note: certain mineral forms of those elements above marked with an asterisk will not be soluble in the HNO3/HCl extraction. The ICP data will be low biased.

- Please note: Hg will only be analysed upon request.

Date of Report: 94.10.11 Project 615 Atan

Rock Sampling Results
1994

Reference: v94-01079.0

Sample ID	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Cd ppm	Mo ppm	As ppm	Sb ppm	Bi ppm	Ni ppm	Co ppm	Cr ppm	Fe %	Mn ppm
AR-94 001	<0.2	3	<2	10	<1.0	12	<5	<5	<5	10	2	188	1.08	474
AR-94 002	<0.2	311	<2	93	<1.0	3	124	25	<5	10	<1	116	0.50	164
AR-94 003	<0.2	8	24	67	<1.0	5	14	<5	<5	7	1	73	0.55	173
AR-94 004	<0.2	63	6	69	<1.0	<1	29	<5	<5	5	3	8	0.76	318
AR-94 005	<0.2	10	<2	4	<1.0	<1	<5	<5	<5	<1	<1	3	0.03	15
AR-94 006	<0.2	11	5	16	<1.0	<1	<5	<5	<5	1	<1	14	1.38	650
AR-94 007	<0.2	21	7	8	<1.0	10	12	<5	<5	9	<1	151	0.71	254
AR-94 008	<0.2	6	4	8	<1.0	<1	<5	<5	<5	3	<1	17	1.16	547
AR-94 009	<0.2	875	4	65	<1.0	18	9	<5	<5	16	<1	277	0.29	65
AR-94 010	1.3	12326	94	36	<1.0	4	36	<5	27	26	2	151	1.02	89
AR-94 011	<0.2	118	6	23	<1.0	<1	<5	<5	<5	<1	<1	4	0.18	80
AR-94 012	<0.2	20	31	5	<1.0	<1	<5	<5	<5	<1	<1	3	0.02	8
AR-94 013	0.2	29	22	11	<1.0	<1	<5	<5	<5	3	<1	12	0.86	413
AR-94 014	<0.2	12	4	13	<1.0	<1	<5	<5	<5	2	<1	17	0.48	243
AR-94 015	27.8	12415	167	819	19.1	6	2997	>2000	32	<1	2	131	0.58	85
AR-94 016	0.3	108	7	25	<1.0	6	35	26	<5	11	1	156	0.71	131
AR-94 017	1.4	740	35	26	<1.0	4	151	74	<5	<1	<1	4	0.71	304
AR-94 018	0.4	25	6	7	<1.0	7	10	<5	<5	<1	<1	<1	1.47	653
AR-94 019	0.5	25	2	19	<1.0	7	18	<5	<5	<1	<1	4	0.91	378
AR-94 020	<0.2	22	7	15	<1.0	6	10	<5	<5	14	<1	237	0.29	35
AR-94 021	2.3	1809	30	91	<1.0	7	549	230	<5	<1	1	78	1.03	310
AR-94 022	13.0	3106	>10000	122	3.0	7	965	348	<5	2	1	3	1.01	442
AR-94 023	>50.0	15140	365	1138	13.1	7	1967	>2000	<5	<1	2	<1	1.38	488
Duplicates:														
AR-94 003	<0.2	7	24	68	<1.0	5	16	<5	<5	8	1	79	0.58	182
AR-94 023	>50.0	14496	390	1090	11.7	7	1865	>2000	<5	<1	2	<1	1.34	472

Project 615

Rock Sampling Results (part 3)

Sample ID	Ba ppm	V ppm	Sr ppm	Y ppm	La ppm	Te ppm	Sn ppm	W ppm	Al %	Mg %	Ca %	Na %	K %
AR-94 001	30	5	2	<1	<1	<10	<20	<20	0.07	0.02	0.03	<0.01	0.02
AR-94 002	1031	4	47	<1	2	<10	<20	<20	0.02	2.27	4.16	<0.01	<0.01
AR-94 003	99	7	35	<1	3	<10	<20	<20	0.04	2.71	6.81	0.01	0.02
AR-94 004	428	8	194	<1	3	<10	<20	<20	0.02	1.10	>10.00	0.02	<0.01
AR-94 005	478	2	1759	<1	<1	<10	<20	<20	<0.01	0.26	0.36	<0.01	<0.01
AR-94 006	887	7	132	<1	4	11	<20	<20	0.02	1.89	>10.00	0.01	<0.01
AR-94 007	1565	5	46	<1	3	<10	<20	<20	0.05	2.22	4.35	<0.01	0.02
AR-94 008	99	8	41	<1	4	<10	<20	<20	0.02	2.13	>10.00	0.01	<0.01
AR-94 009	1948	3	10	<1	<1	<10	<20	<20	0.02	0.26	0.45	0.01	<0.01
AR-94 010	208	3	<1	<1	<1	12	<20	<20	0.03	0.69	0.99	<0.01	<0.01
AR-94 011	1288	9	224	<1	4	<10	<20	<20	0.05	2.56	>10.00	<0.01	0.01
AR-94 012	>2000	2	218	<1	<1	<10	<20	<20	<0.01	0.25	0.93	0.01	<0.01
AR-94 013	886	8	185	<1	3	12	<20	<20	0.02	1.65	>10.00	0.01	<0.01
AR-94 014	532	7	15	<1	3	<10	<20	<20	0.02	2.57	8.86	0.01	<0.01
AR-94 015	63	<1	18	<1	2	14	<20	<20	0.02	1.93	3.06	<0.01	<0.01
AR-94 016	187	4	15	<1	<1	<10	<20	<20	0.04	1.40	3.08	<0.01	0.01
AR-94 017	359	<1	561	1	<1	<10	<20	<20	0.02	5.34	>10.00	0.01	<0.01
AR-94 018	378	<1	56	2	<1	<10	<20	<20	<0.01	6.60	>10.00	0.02	<0.01
AR-94 019	406	1	87	<1	<1	<10	<20	<20	0.04	7.07	>10.00	0.01	<0.01
AR-94 020	300	2	6	<1	<1	<10	<20	<20	0.05	0.15	0.32	<0.01	0.02
AR-94 021	615	<1	99	2	<1	<10	<20	<20	0.03	2.92	7.63	<0.01	0.01
AR-94 022	58	<1	193	2	<1	<10	<20	<20	0.02	5.97	>10.00	<0.01	<0.01
AR-94 023	44	<1	225	2	<1	<10	<20	60	<0.01	6.03	>10.00	<0.01	<0.01
Duplicates:													
AR-94 003	95	7	36	<1	3	10	<20	<20	0.05	2.83	7.03	0.01	0.02
AR-94 023	50	<1	223	2	<1	<10	<20	59	<0.01	5.85	>10.00	<0.01	<0.01

LEGEND

x AR94-01	Rock sample location
25	Values shown in parts per million Copper
-	Indicates value less than detection limit for element

Symbols

45	Indicates attitude of outcrop
	Outcrop
	Geological boundary

Geology

5	Quartzite
4	Chert
3	Dolomite
2	Limestone
1	Shale / Limestone

ATAN 1
T.N. 324672

ATAN 2
T.N. 324673

ATAN 3
T.N. 324674

ATAN 4
T.N. 324675

ATAN 5
T.N. 324676

ATAN 6
T.N. 324677

ATAN 7
T.N. 324678

ATAN 8
T.N. 324679

Lake Atan

Dease River

Barite plugs

4890003E

6563000N

6562000N

2500

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,813

DRAWN: May 5/1994
Revised:
Oct. 31/1994

True North 0°12W
Topographic contour interval =100 feet

DWG-C:\ACAD\DISC\615\615.DWG

METRES
0 50 100 150 200 250 300 350

SCALE 1:5000

DISCOVERY Consultants

PREDATOR SYNDICATE

ATAN LAKE PROPERTY

GEOLOGY AND ROCK SAMPLING

COPPER VALUES

Date:	Scale: 1:5000
Project: 615	NTS: 104P/3E
M.D.: Liard	Figure: 3

LEGEND

- ○ — Soil sample location
- 25 — Values shown in parts per million Copper
- – — Indicates value less than detection limit for element

ATAN 1
T.N. 324672

ATAN 2
T.N. 324673

ATAN 3
T.N. 324674

ATAN 4
T.N. 324675

ATAN 5
T.N. 324676

ATAN 6
T.N. 324677

ATAN 7
T.N. 324678

ATAN 8
T.N. 324679

L20N
L15N
L10N
L05N
L00N
BL00
500W
500E
400W

6563000N
6562000N
4890000E
4900000E
4910000E

2500

Lake Atan

Dease River

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,813

True North 0°13'W
Topographic contour interval = 100 feet

METRES
0 50 100 150 200 250 300 350
SCALE 1:5000

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
C.H. CARPENTER

Drawn: May 5/1994
Revised:
Oct. 31/1994

DWG-C:\ACAD\DISC\615\615.DWG

DISCOVERY Consultants

PREDATOR SYNDICATE

ATAN LAKE PROPERTY
SOIL SAMPLING
COPPER VALUES

Date:	Scale: 1:5000
Project: 615	NTS: 104P/3E
M.D.: Liard	Figure: 4

LEGEND

- ○ Soil sample location
- 25 Values shown in parts per million Arsenic
- \- Indicates value less than detection limit for element

ATAN 1
T.N. 324672

ATAN 2
T.N. 324673

ATAN 3
T.N. 324674

ATAN 4
T.N. 324675

ATAN 5
T.N. 324676

ATAN 7
T.N. 324678

ATAN 6
T.N. 324677

ATAN 8
T.N. 324679

500E L20N L15N L10N L05N L00N BL00 500W 400W

6563000N 6562000N 488000E 489000E

Lake Atan

Dease River

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,813

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
A. C. CARPENTER

DRAWN: MS/CIS/1994
Revised:
Oct. 31/1994

True North 31.3°W
Topographic contour interval =100 feet

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METRES
0 50 100 150 200 250 300 350

SCALE 1:5000

DISCOVERY Consultants

PREDATOR SYNDICATE

ATAN LAKE PROPERTY
SOIL SAMPLING
ARSENIC VALUES

Date:	Scale: 1:5000
Project: 615	NTS: 104P/3E
M.D.: Liard	Figure: 5

LEGEND

- ○ Soil sample location
- 25 Values shown in parts per million Barium
- \- Indicates value less than detection limit for element

ATAN 1
T.N. 324672

ATAN 2
T.N. 324673

ATAN 3
T.N. 324674

ATAN 4
T.N. 324675

ATAN 5
T.N. 324676

ATAN 6
T.N 324677

ATAN 7
T.N. 324676

ATAN 8
T.N. 324679

L20N
L15N
L10N
L05N
BL00
500W
500E
L00N
400W

Lake Atan

Dease River

4580000E
4590000E
4600000E
4610000E

6563000N
6562000N
6561000N

2500

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,813

T.H.C.H. CARPENTER
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
GEOSCIENTIST

DRAWN:	CHECKED:
Revised:	
Oct. 31/1994	

True North 0°13'W
Topographic contour interval =100 feet

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METRES
0 50 100 150 200 250 300 350

SCALE 1:5000

DISCOVERY Consultants

PREDATOR SYNDICATE

ATAN LAKE PROPERTY
SOIL SAMPLING
BARIUM VALUES

Date:	Scale: 1:5000
Project: 615	NTS: 104P/3E
M.D.: Liard	Figure: 6

LEGEND

○ Soil sample location

25 Values shown in parts per million Lead

– Indicates value less than detection limit for element

ATAN 1
T.N. 324672

ATAN 2
T.N. 324673

ATAN 3
T.N. 324674

ATAN 4
T.N. 324675

ATAN 5
T.N. 324676

ATAN 6
T.N. 324677

ATAN 7
T.N. 324678

ATAN 8
T.N. 324679

L20N
L15N
L10N
L05N
BL00
500E
500W
400W
L00N

6563000N
6562000N
498000E
499000E

Lake Atan

Dease River

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,813

T.H.C.N. CARPENTER
PROVINCE OF BRITISH COLUMBIA
GEOLOGIST

DRAWN: M.D. 5218N
Revised:
Oct. 31/1994

True North 0°13'W
Topographic contour interval = 100 feet

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METRES
0 50 100 150 200 250 300 350

SCALE 1:5000

DISCOVERY Consultants

PREDATOR SYNDICATE

ATAN LAKE PROPERTY
SOIL SAMPLING
LEAD VALUES

Date:	Scale: 1:5000
Project: 615	NTS: 104P/3E
M.D.: Liard	Figure: 7

LEGEND

- ○ Soil sample location
- 25 Values shown in parts per million Antimony
- – Indicates value less than detection limit for element

ATAN 1
T.N. 324672

ATAN 2
T.N. 324673

ATAN 3
T.N. 324674

ATAN 4
T.N. 324675

ATAN 5
T.N. 324676

ATAN 6
T.N. 324677

ATAN 7
T.N. 324678

ATAN 8
T.N. 324679

500E L20N
B100
L15N
500W
L10N
L05N
L00N
500E
B100
400W
6563000N
6562000N
4980000E
3000000E
2500
28
70
62
Atan Lake
Dease River

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
T. H. CARPENTER
GEOSCIENTIST

DRAWN: May 5/1994
Revised:
Oct. 31/1994

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GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,813

True North 0°13'W
Topographic contour interval =100 feet

METRES
50 100 150 200 250 300 350
SCALE 1:5000

DISCOVERY Consultants

PREDATOR SYNDICATE

ATAN LAKE PROPERTY
SOIL SAMPLING
ANTIMONY VALUES

Date:	Scale: 1:5000
Project: 615	NTS: 104P/3E
M.D.: Liard	Figure: 8

LEGEND

- ○ Soil sample location
- 25 Values shown in parts per million Zinc
- \- Indicates value less than detection limit for element

ATAN 1
T.N. 324672

ATAN 2
T.N. 324673

ATAN 3
T.N. 324674

ATAN 4
T.N. 324675

ATAN 5
T.N. 324676

ATAN 6
T.N 324677

ATAN 7
T.N. 324678

ATAN 8
T.N. 324679

L20N
L15N
L10N
L05N
L00N
BL00
500W
500E
400W

4880000E
4890000E
4900000E
6563000N
6562000N
2500

Atan Lake
Dease River

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,813

True North 0°13'W
Topographic contour interval =100 feet

METRES
0 50 100 150 200 250 300 350
SCALE 1:5000

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
C. H. CARPENTER
GEOSCIENTIST

DRAWN: May 3/1994
Revised:
Oct. 31/1994

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DISCOVERY Consultants

PREDATOR SYNDICATE

ATAN LAKE PROPERTY
SOIL SAMPLING
ZINC VALUES

Date:	Scale: 1:5000
Project: 615	NTS: 104P/3E
M.D.: Liard	Figure: 9