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VANCOUVER, B.C.

**REPORT of 2002 EXPLORATION  
on the  
MEGATON-TNT MINERAL CLAIMS**

**Cariboo Mining Division  
Central British Columbia**

**NTS 93A-3W/6W**

**Permit No. MX - 10 - 185  
Work Approval No. 2002 - 1000949 - 0001**

**Owned and Operated by  
Herb Wahl  
&  
Jack Brown-John**

**GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT**

Prepared by:  
H. J. Wahl, P.Eng. B.C.  
December 2002

**27,157**

## LIST OF FIGURES

- FIG.1      Megaton-TNT Claims, GENERAL LOCATION,  
Scale 1:100,000
- FIG.2      MEGATON PROJECT vs. B.C. COPPER BELT DEPOSITS
- FIG.3      MEGATON PROJECT vs. REGIONAL AEROMAGNETICS,  
Scale 1" = 1 mile
- FIG.4      MEGATON PROJECT. Trenching Results, Scale 1:250
- FIG.4A     MEGATON – TNT PROJECT, Schematic Section Line 2W
- FIG.5      MEGATON PROJECT +TNT 1-12, Geocomposite Scale, 1:10,000  
Revised December 2002

## **Photos**

4 ea, General Landscape and Trench Detail

## **Attachments**

- 1)      Actlabs EZL Assay Report 25015 (baseline samples)
- 2)      Actlabs EZL Assay Report 25571 (additional lines)
- 3)      Interpretation of Enzyme Leach Data for the Megaton Project, Cariboo M.D., B.C., Rio Horsefly Mining Ltd., 13 August 2002. Gregory T. Hill.
- 4)      Interpretation of an Expanded Enzyme Leach Survey at the Megaton Project, Cariboo M.D. B.C. Rio Horsefly Mining Ltd. 5 December, 2002, Gregory T. Hill.

## SUMMARY

The 78-unit (1950 ha/ 4,875 acres) Megaton-TNT property covers a brand new (1996) Cu Au Zn Mo Ag porphyry-type prospect located 12.5 air miles south east of Horsefly, B.C. in the central interior.

The area is all zoned for industrial logging activity with excellent infrastructure characteristics for mineral development, including water, timber, power, road and rail access, plus proximity to population centers.

The main or landing showing occurs in highly fractured, altered, and oxidized granodiorite of the Triassic Takomkane batholith, and is sited on the north rim, in advance of, and marginal to remnant Tertiary cover. The area is heavily forested, extensively mantled by glacial drift, and previously was poorly accessible. New logging activity is providing entry to this underexplored area.

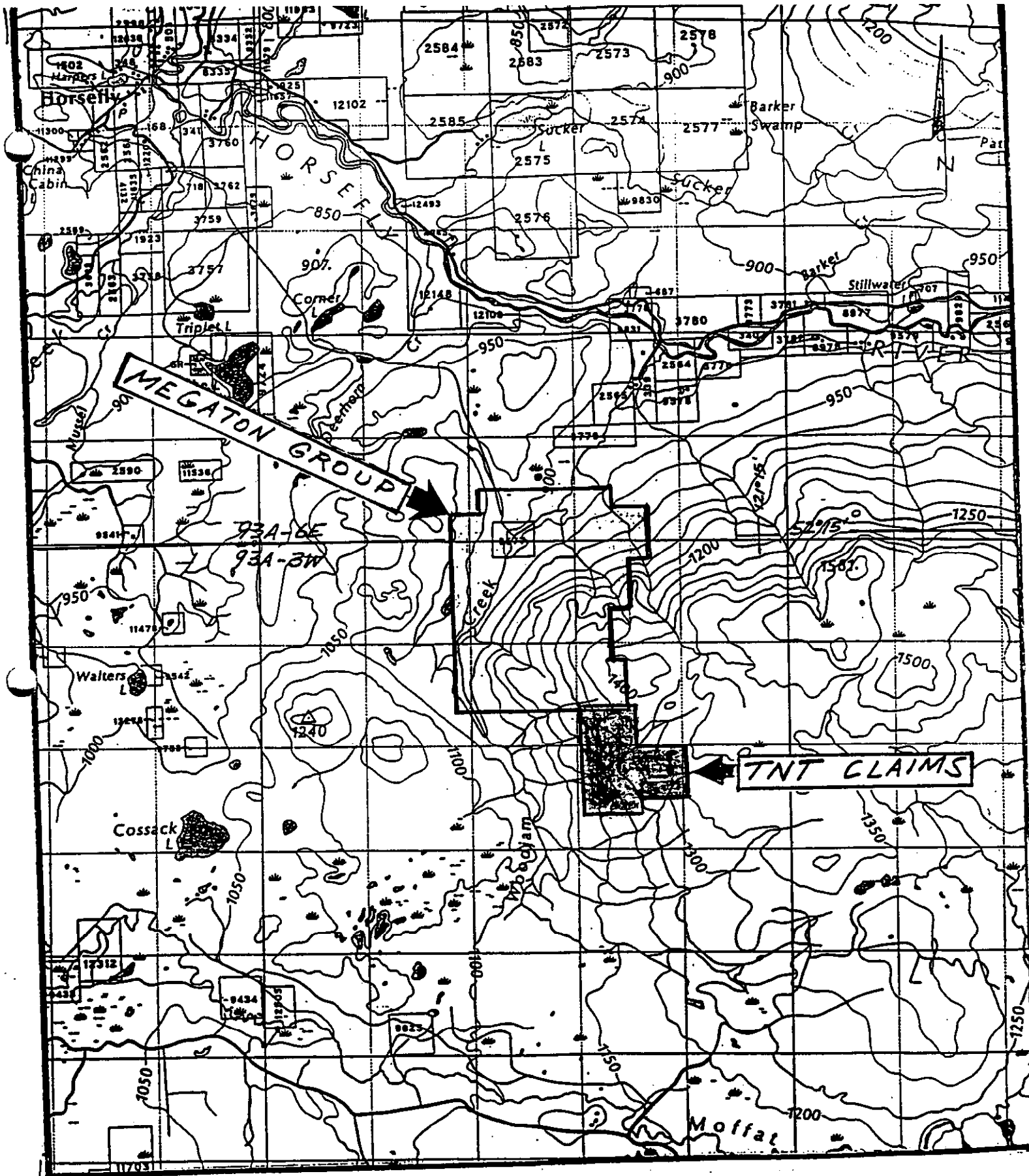
The objective of the August 2002 field program was to re-open the landing showing, which is a "blind," drift covered, brand new Cu-Au discovery. Trenching with a TD20-E dozer as opposed to previous back hoe trenching resulted in a whole new perspective. The showing is now revealed to consist of a series of Cu Zn Ag Au quartz veins with intense argillic alteration envelopes, with a flat to gently west dipping attitude.

These veins, at 1-3 m intervals, number 3 to 4 within a 12 m vertical interval. The TD20-E was ineffective in exposing the lower most vein (1 meter thick, 0.98% Cu, 1.73% Zn, 14.2 g/t Ag, and 4.67 g/t Au -1997 backhoe trench) due to wet ground conditions. Best values for the current program from new veins were 5.24% Cu, 0.49 g/t Au (chips 10 cm x 4 m) Trench #1 and 0.16% Cu, 2.15 g/t Au (chips 15 cm x 2 m) Trench #2. Panel samples from intervening altered, intensely fractured granodiorite returned values from 0.2 - 0.5% Cu. No fresh sulphides are visible.

In addition, a 116 sample Enzyme Leach (EZL) soil survey has expanded the landing showing and identified three additional target areas of substantial size, one with IP chargeability linkage. Costs of the current program are \$27,418.35.

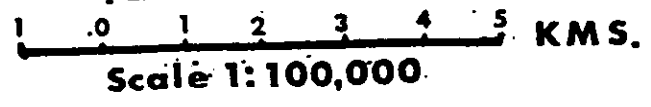
## INTRODUCTION

This report describes trenching and preliminary enzyme leach soil survey (EZL) performed on the subject property. The last reported work was performed in January 1997. The purpose of trenching was to re-open the original discovery



**MEGATON-TNT CLAIMS GENERAL LOCATION**

**CARIBOO MD**



which is a "blind" Cu Zn Au Porphyry occurrence, being covered by several meters of glacial drift.

This report is focused on new information and the reader is referred to the reference section for redundant details.

Work was performed by the owners on the following dates: 29 July, 01-03 Aug., 06 Aug., 28-31 Aug., 05-06 September, for a total field time of 11 days.

## PROPERTY

The property consists of seventy-eight 2-post mineral claim units as follows:

<u>Claims</u>	<u>Record No.</u>	<u>Date Staked</u>	<u>Good To Date</u>
Megaton-1	349174	05 August 1996	2003 Dec.30
2	349175	05 August 1996	2003 Dec.30
3	349176	05 August 1996	2003 Dec.30
4	349177	05 August 1996	2003 Dec.30
5	349178	05 August 1996	2003 Dec.30
6	349179	05 August 1996	2003 Dec.30
7	350174	30 August 1996	2003 Dec.30
8	350175	30 August 1996	2003 Dec.30
9	350176	30 August 1996	2003 Dec.30
10	350177	30 August 1996	2003 Dec.30
11	350178	30 August 1996	2003 Dec.30
12	350179	30 August 1996	2003 Dec.30
13	350180	30 August 1996	2003 Dec.30
14	350181	30 August 1996	2003 Dec.30
15	350182	31 August 1996	2003 Dec.30
16	350183	31 August 1996	2003 Dec.30
17	350184	31 August 1996	2003 Dec.30
18	350185	31 August 1996	2003 Dec.30
19	350186	01 September 1996	2003 Dec.30
20	350187	01 September 1996	2003 Dec.30
21	350188	01 September 1996	2003 Dec.30
22	350189	01 September 1996	2003 Dec.30
23	352232	13 October 1996	2003 Dec.30
24	352233	13 October 1996	2003 Dec.30
25	352328	27 October 1996	2003 Dec.30
26	352329	27 October 1996	2003 Dec.30
27	352330	27 October 1996	2003 Dec.30
28	352331	27 October 1996	2003 Dec.30
29	352332	27 October 1996	2003 Dec.30
30	352333	27 October 1996	2003 Dec.30

31	352334	27 October 1996	2003 Dec.30
32	352335	27 October 1996	2003 Dec.30
33	352336	27 October 1996	2003 Dec.30
34	352337	27 October 1996	2003 Dec.30
35	352338	28 October 1996	2003 Dec.30
36	352339	28 October 1996	2003 Dec.30
37	352340	28 October 1996	2003 Dec.30
38	352341	28 October 1996	2003 Dec.30
39	352342	28 October 1996	2003 Dec.30
40	352343	28 October 1996	2003 Dec.30
41	352344	29 October 1996	2003 Dec.30
42	352345	29 October 1996	2003 Dec.30
43	352346	29 October 1996	2003 Dec.30
44	352347	29 October 1996	2003 Dec.30
45	352348	29 October 1996	2003 Dec.30
46	352349	29 October 1996	2003 Dec.30
47	352350	25 October 1996	2003 Dec.30
48	352351	25 October 1996	2003 Dec.30
49	352352	25 October 1996	2003 Dec.30
50	352353	25 October 1996	2003 Dec.30
51	352354	29 October 1996	2003 Dec.30
52	352355	29 October 1996	2003 Dec.30
53	352356	29 October 1996	2003 Dec.30
54	352357	29 October 1996	2003 Dec.30
55	352358	25 October 1996	2003 Dec.30
56	352359	25 October 1996	2003 Dec.30
57	352360	25 October 1996	2003 Dec.30
58	352361	25 October 1996	2003 Dec.30
59	354335	12 March 1997	2003 Dec.30
60	354336	12 March 1997	2003 Dec.30
65	354337	12 March 1997	2003 Dec.30
66	354338	12 March 1997	2003 Dec.30
67	354339	12 March 1997	2003 Dec.30
68	354340	12 March 1997	2003 Dec.30
70	356304	14 May 1997	2003 Dec.30
72	356305	14 May 1997	2003 Dec.30

<u>Claims</u>	<u>Record No.</u>	<u>Date Staked</u>	<u>Good To Date</u>
TNT - 1	388242	11 July 2001	2007 Dec.30
TNT - 2	388243	11 July 2001	2007 "
TNT - 3	388244	11 July 2001	2007 "
TNT - 4	388245	11 July 2001	2007 "
TNT - 5	388246	11 July 2001	2007 "
TNT - 6	388247	11 July 2001	2007 "
TNT - 7	388248	11 July 2001	2007 "
TNT - 8	388249	11 July 2001	2007 Dec.30

TNT - 9	388250	12 July 2001	2007	"
TNT - 10	388251	12 July 2001	2007	"
TNT - 11	388252	12 July 2001	2007	"
TNT - 12	388253	12 July 2001	2007	"

**Total 78 units, 1950 hectares or 4,875 acres.**

**LOCATION: (Fig. 1,2,6)**

The property is located some 12.5 km southeast of Horsefly, B.C. and lies along the convex bend to Woodjam Creek, which drains northerly into the Horsefly River. Access from Horsefly is south via the Lowden Road to the 108 Road, then south for 10.2 kilometers to the Walters Lake/ Deerhorn Road, then 11 km east to the Woodjam Bridge, then approximately 2.4 km further to the Lignum cut block. The first tote road to the east leads to the main showing, a distance of 900 meters.

The southern or TNT claim section is accessed via the Weldwood 2500 road system.

Specific locational details are:

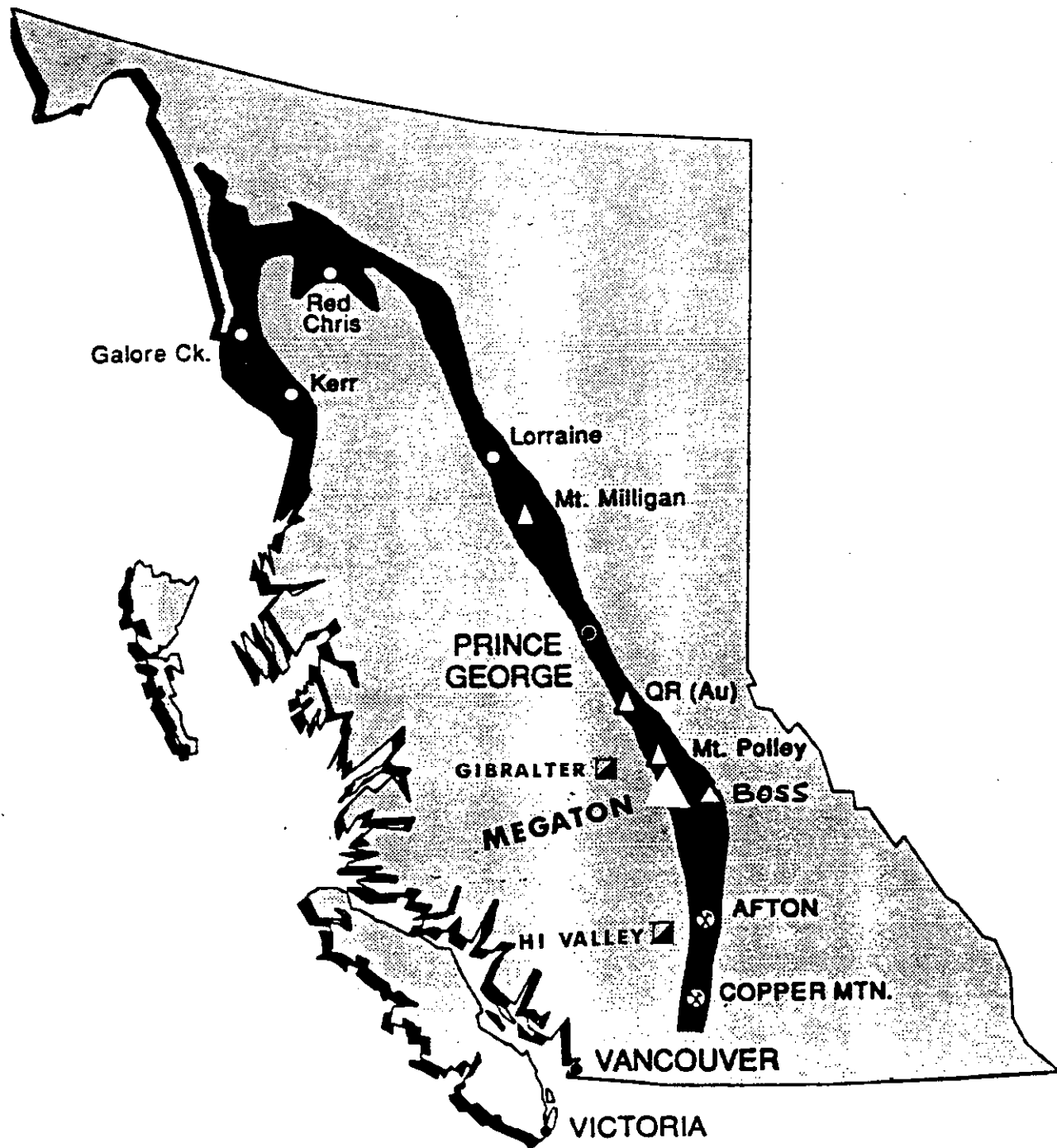
NTS 93A - 3W/6W  
 Cariboo Mining Division  
 Latitude: 52° 14'30"  
 Longitude: 121° 16'00"

**TERRAIN/TOPOGRAPHY**

The Megaton property is located within the Quesnel Highland division of the central B.C. Fraser Plateau. Elevations in the property area range from 3,600 feet ASL along Deerhorn Road to 4,600 feet ASL on the Moffat-Woodjam plateau. Drainage is both westerly and northerly into Woodjam Creek which empties into the Horsefly River about 5 km north of the claims.

Slopes are moderate to locally steep, with relatively flat terrain above 4,500 feet elevation. Forest cover is typically Cariboo spruce, pine-fir-aspen with occasional good stands of white birch at lower elevations. Wet zones support some fairly extensive patches of devil's club, stink bush, and bear celery.

Outcrop is extremely rare; glacial soils cover is wide spread, consisting of gravelly outwash, stony till, and silty clay. Overall, the average depth of overburden is estimated at 3-5 m plus. Local drainages are not deeply incised.



**MEGATON PROJECT  
VS  
B.C. COPPER BELT DEPOSITS**



## **HISTORY: (Refer References)**

## **REGIONAL GEOLOGY: (Ref. 8)**

The Megaton property is located on the northern, partially exposed margin of the Jurassic/Cretaceous-age Takomkane batholith. A veneer of Tertiary-age Kamloops Group Volcanics and coarse sediments overlies the older basement intrusive rocks in this area. Personal observations throughout the northern Takomkane area indicate the basal Tertiary to consist of coarse sandstones and conglomerates. Clasts of Takomkane intrusive within the basal sandstone were observed in one area. These softer sediments are preserved from erosion by a capping of plateau basalts which are frequently magnetite-bearing. Within the clear cut containing the main showing are present large boulders of coarse, black cherty breccia.

The northern rim of the batholith seems to host a greater variation of intrusive phases, characterized by a more active magnetic signature. The granodiorite host rock in the Woodjam area carries from 1-5% interstitial magnetite.

Overall, the geology of the region is imperfectly known due to extensive overburden.

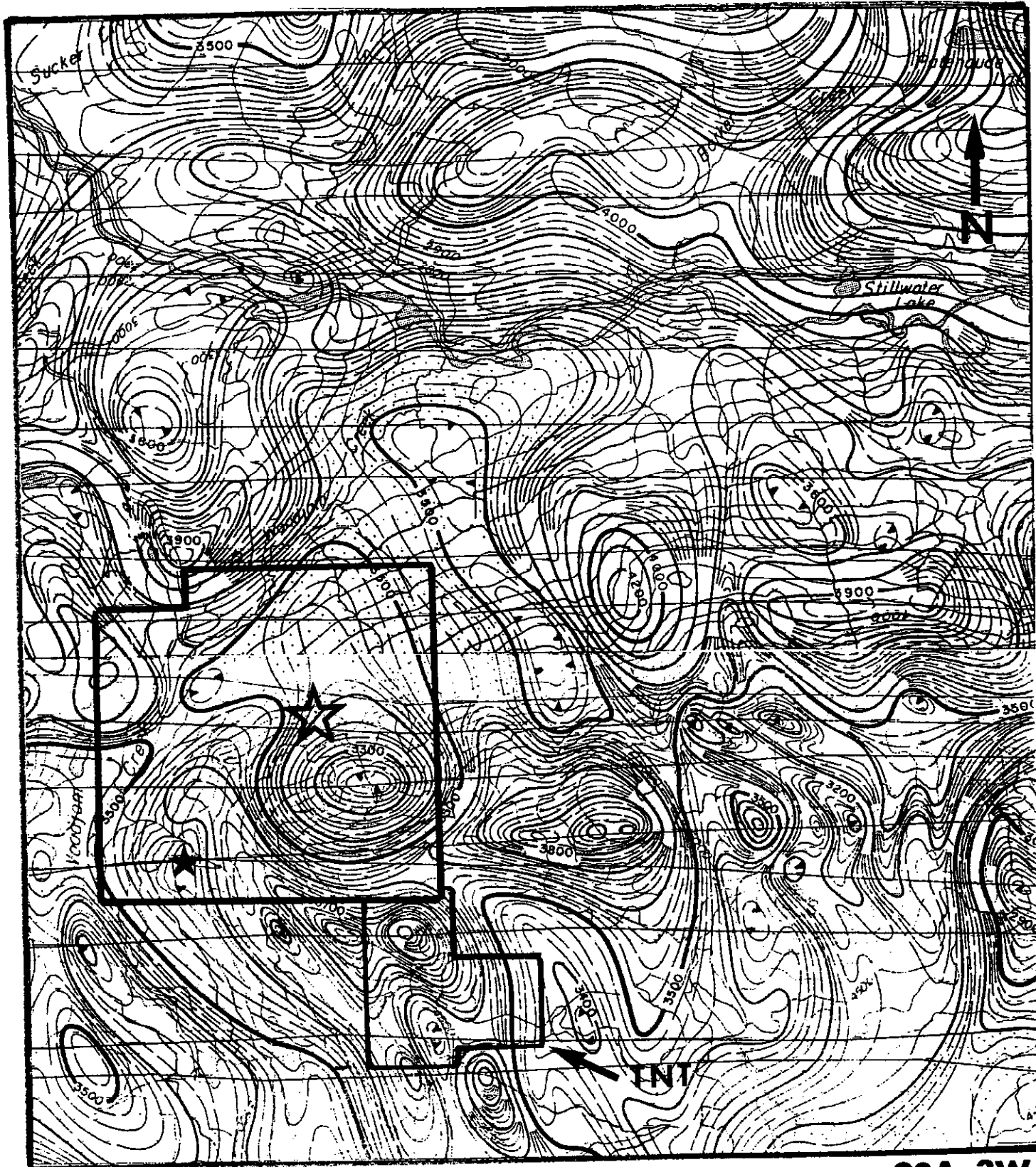
## **PROPERTY GEOLOGY (FIG.5)**

The Megaton claims are likely underlain entirely by a medium to coarse grained, magnetite-bearing, hornblende granodiorite. This unit is capped by Tertiary cover having a basal sedimentary layer overlain by plateau basalts.

Woodjam Creek appears to be a western fault boundary for the granodiorite unit as determined by photo-linear study. A 1994 cut block 3.5 km west of the main showing contains outcrops of leucocratic quartz monzonite having unusual orbicules of epidote. Other linears indicate a probably northwest and northeast orientation for faulting.

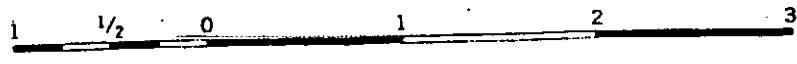
The Tertiary capping appears to be intermittent in extent as granodiorite is present both north and south of Tertiary cover shown on FIG 5. This may not be true further east, as thick bluffs of Tertiary rocks form a prominent rim just south of the Horsefly River.

The Tertiary cap is considered a key element in the mineralizing scenario for the Megaton Project. Extensive saprolitic weathering has been identified at



93A 3W

Scale: One Inch to One Mile =  $\frac{1}{63,360}$   
Miles



**REGIONAL AEROMAGNETICS**

**MEGATON PROJECT**

FIG. 3

the main showing indicating extensive pre-Tertiary weathering. Combined with porphyry-type mineralizing conditions, there is a good chance for supergene enrichment preserved by Tertiary capping which has been eroded to partly eroded, bringing potential zones in range of open-pit mining.

#### **DEPOSIT TYPE:**

All work to date points strongly to the potential for porphyry-style Mo Cu Au Zn Ag style mineralization hosted within a highly fractured phase of Takomkane north rim granodiorite. The presence of saprolitic weathering in excess of 7 m depth, the absence of fresh sulphides, the marginal location to Eocene cap rock, plus the existence of an intense pre-Tertiary weathering event (Ref. 8, p.37), are all factors suggestive of potential supergene enrichment.

#### **MINERALIZATION (FIG. 4, 6, and Photos)**

##### **Megaton-Main Zone (landing)**

This is a blind, i.e. totally drift covered zone, that can only be accessed by trenching. Soil conditions are unstable and several springs are present in this area. Thus the need to dig a broader trench (25x75m) was proposed for the 2002 program.

##### **Trenching (FIG.4,6,)**

On 01 August 2002, the landing zone area was re-opened using a TD-20E dozer. All previous trenching had been done with a backhoe, which has greater depth penetration, but provides poor lateral exposure. The TD-20E exposed two brand new quartz vein systems each enveloped by intense argillic alteration in the Trench No. 1 location, which is about 50 m west of the log landing (Trench No. 2 area).

Figure 4, the photos, and Acme Assay report A202774, R2 and 4R relate the assay results and sampling details. The best copper result was 5.24% (02MT-1) from chips over a 10 cm x 4 m area, with accompanying gold value of 0.49 g/t. The well mineralized quartz veins vary from flat to a 20° westerly dip over an exposure length of some 10 m. The trench floor about 3 m below surface consisted of rubbly highly fractured granodiorite with malachite staining (02MT-5, 0.26% Cu) and a 20 cm thick sericite mud layer that assayed 0.046% Cu (02MT-7).

Bulldozer stripping was unsuccessful in exposing the 1m thick QV, originally located in January 1997, due to wet ground conditions. An upper vein 02MT-6 was exposed that returned 0.15% Cu and 2.15 g/t. The 1 m QV lies



MEGATON: VIEW SOUTHEASTERLY. TD 20E DOZER  
PARKED IN FOREGROUND BY URSA MAJOR ROAD



MEGATON: WEST WALL TRENCH No. 2, LANDING ZONE  
SHOWING FLAT DIPPING, MALACHITE-STAINED  
QV ZONE. SAMPLE NO. 02MT-6

MEGATON, MX-10-185  
01-03 AUG. 2002



MEGATON: TRENCH NO. 1, SOUTH WALL  
SHOWING SAPROLITIC GOSSAN ZONE AND FLAT-DIPPING  
MALACHITE-STAINED QU ZONE ENVELOPED BY INTENSE  
SERICITE-KAOLIN ALTERATION. SHOVEL POINT AT  
OVERBURDEN CONTACT



MEGATON: TRENCH NO. 1 CLOSE-UP OF VEIN ZONE  
~ 2 METERS RIGHT OF SHOVEL POINT IN UPPER PHOTO.  
SAMPLES 02MT-1 & 2

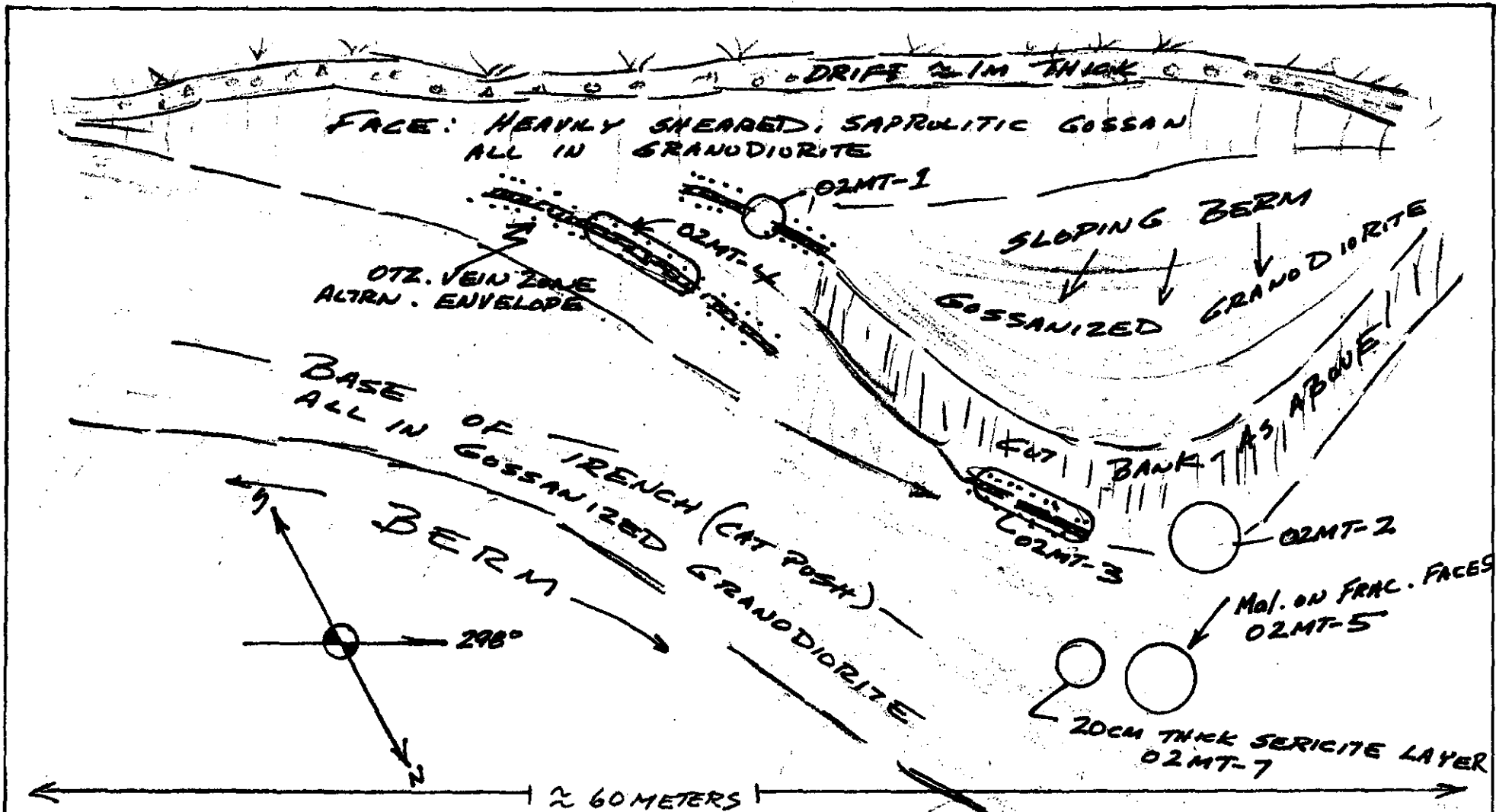


FIG. 4

MEGATON-TNT PROJECT  
 CARIBOO M.D. NTS 93A-3W  
 FIELD SKETCH AND SAMPLE  
 LOCATIONS 01 AUG 2002  
 TD-20E TRENCHING

OCT. 2002 | H.J. WAHL, P. ENG. B.C.

0 5 10 15  
 SCALE 1:250

TRENCH No. 1

GEOCHEMICAL ANALYSIS CERTIFICATE

Wahl, Herb PROJECT MEGATON File # A202774

R.R. 10, 1416 Ocean Beach, Gibson BC V0N 1V3 Submitted by: Herb Wahl



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Tl	Hg	Au*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppb	
SI	1	1	5	1	<.3	1	<1	6	.02	<2	<8	<2	<2	3	<.5	<3	<3	<1	.15	<.001	<1	3	.01	3	<.01	<3	<.01	.45	.01	<2	<5	<1	8.2
02MT-1	19	49629	149	203	23.6	5	10	1681	3.98	295	<8	<2	3	61	<.5	<3	3	70	4.44	.026	11	13	1.27	85	<.01	6	.59	.02	.13	3	<5	1	488.5
02MT-2	11	2107	58	149	2.0	5	14	1195	2.83	21	<8	<2	5	29	<.5	<3	3	42	.32	.036	11	17	.22	148	.01	6	.61	.04	.16	7	<5	<1	38.1
02MT-3	13	3457	110	149	7.3	3	8	2181	2.00	28	<8	<2	2	84	4.0	3	7	34	4.88	.028	8	9	2.08	90	<.01	6	.53	.01	.15	9	<5	<1	398.6
02MT-4	5	4817	17	84	1.4	4	7	1042	2.04	35	<8	<2	4	42	<.5	<3	<3	29	2.17	.044	8	13	.82	67	<.01	8	.71	.01	.24	7	<5	<1	45.6
02MT-5	5	2628	5	42	2.0	7	4	252	1.55	77	<8	<2	5	15	<.5	<3	<3	46	.27	.035	8	22	.35	65	.05	4	.57	.07	.14	6	<5	1	35.1
02MT-6	6	1459	17	5708	11.5	5	15	3070	4.40	6	<8	2	2	9	6.4	<3	8	35	.15	.023	6	18	.21	73	.01	5	.60	.01	.18	10	<5	1	2008.7
STANDARD DS3	10	132	33	164	.5	37	13	765	3.32	32	8	<2	4	28	5.8	5	5	79	.57	.088	18	188	.59	141	.09	5	1.74	.04	.16	6	<5	1	22.4

GROUP 10 - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.  
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.  
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB  
- SAMPLE TYPE: ROCK R150 60C AU\* IGNITION BY ACID LEACHED, ANALYZE BY ICP-MS. (10 gm)

DATE RECEIVED: AUG 6 2002 DATE REPORT MAILED: *Aug 16/02* SIGNED BY: *C. Long* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

*Assay recommend for Cu > 1%  
Au > 1000ppb*

TRENCH No. 1

- 02MT-1 MAL-AZRT STAINED QU EXPOSED IN TRENCH SIDE WALL, TAPERING. CHIPS OVER 10CM X 4M ZONE
- 02MT-2 PANEL SAMPLE 1X2M, SHEARED, SAPROLITIC GOSSAN
- 02MT-3 CHIPS 20CM X 3M. BROKEN QU IN SHEARED, OXIDIZED GRANODIORITE. MAL.
- 02MT-4 CHIPS ALONG TRENCH WALL, MAL. ZONE, 25CM X 3.7M
- 02MT-5 GRABS, TRENCH FLOOR, MAL FRACTURE COATINGS @ 2CM SPACING, GRANODIORITE

TRENCH No. 2

- 02MT-6 CHIPS ALONG 15CM X 2M QU ENVELOPED BY GREEN SERICITE & KAOLIN ALTRJ.

ACME ANALYTICAL LABORATORIES LTD.  
(ISO 9002 Accredited Co.)

852 E. HASTINGS ST. VANCOUVER BC V6A 1R6

PHONE (604) 253-3158 FAX (604) 253-1716



ASSAY CERTIFICATE



Wahl, Herb PROJECT MEGATON File # A202774R

R.R. 10, 1416 Ocean Beach, Gibson BC V0N 1V3 Submitted by: Herb Wahl

SAMPLE#

CU  
%

02MT-1  
STANDARD R-1

5.238  
.833

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.  
- SAMPLE TYPE: ROCK PULP

DATE RECEIVED: AUG 20 2002

DATE REPORT MAILED:

*Aug 30/02*

SIGNED BY:

*C. Leong*

D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS





ASSAY CERTIFICATE



Wahl, Herb PROJECT MEGATON File # A202774R2

R.R. 10, 1416 Ocean Beach, Gibson BC V0N 1V3 Submitted by: Herb Wahl

SAMPLE#	Au** gm/mt
02MT-6	2.15
STANDARD AU-1	3.21

GROUP 6 - PRECIOUS METALS BY FIRE ASSAY FROM 1 A.T. SAMPLE, ANALYSIS BY ICP-ES.  
- SAMPLE TYPE: ROCK PULP

DATE RECEIVED: AUG 20 2002 DATE REPORT MAILED: *Aug 29/02* SIGNED BY: *C.L.* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

some 3 m below the upper zone and returned 0.98% Cu, 1.73% Zn, 14.2 g/t Ag and 4.67 g/t Au.

The current trenching now indicates that 4 individual, flat to shallow dipping quartz veins are present in the landing area, over a vertical range of 12-14 meters spaced at 1-3 meter intervals. All the veins transect shattered weak to strongly argillic granodiorite carrying fracture controlled copper mineralization. The whole area is strongly oxidized to the point of saprolite, and no fresh sulphides are visible.

### **South Road Zone** (FIG. 6)

This is a minor zone of mineralization located 5300 m southwest of the landing zone. Hand stripping was done here to re-locate a narrow zone of malachite that originally returned 0.40% Cu. Details of the current work are given on Acme A204230.

Fresh chalcopyrite was observed here in disseminated form and serves to amplify the association of mineral with structure and alteration.

### **GEOCHEMISTRY:**

Conventional soil geochemistry is not considered effective in the Woodjam area for reasons noted under discussion of results per Asamera report 14249.

### **TNT Claims** - Preliminary Terrasol geochemical soils survey (FIG. 4 & 5)

During July 2001, preliminary high tech terrasol soils survey was completed at 50 meter intervals along lines A, B, & C. This work was initiated to test a field of scattered gold in soils results (conventional) detected by Circle Resources in 1984 (Ref.7). A summary of this sub-project by consultant Gregory T. Hill of Enzyme Laboratories Inc. is as follows (Ref. 3):

"An east-northeast trending series of oxidation anomalies has been identified in the southern portion of the sampled area. These anomalies are probably connected and could be considered as a single oxidation anomaly which is best developed in the southwest along Line A and least developed in the northeast on Line B. To the north of the oxidation anomaly, an apparent northeast-striking fault is also indicated by peaks in many elements on Lines A and B and changes in background along Line A. Although gold was not detected in this soil survey, significant gold detections have been made previously by conventional methods."

GEOCHEMICAL ANALYSIS CERTIFICATE

Wahl, Herb PROJECT MEGATON File # A204230

R.R. 10, 1476 Ocean Beach, Gibsons BC V0N 1V5 Submitted by: Herb Wahl

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Tl	Hg	Au*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppb	
SI	<1	3	3	4	.3	2	<1	27	.06	5	<8	<2	<2	4	<.5	<3	3	1	.16	<.001	1	6	.01	6	<.01	<3	.02	.76	.02	<2	<5	<1	2.5
02MT-SR1	2	1687	4	154	.7	4	9	5262	6.64	3	8	<2	4	61	<.5	<3	4	49	.10	.038	4	21	1.17	1012	<.01	14	2.60	.02	.15	3	<5	1	3.5
02MT-SR2	3	97	<3	30	<.3	5	6	1236	1.94	3	<8	<2	3	17	<.5	<3	<3	44	.14	.062	5	9	.53	621	<.01	5	.60	.04	.09	2	<5	<1	.4
02MT-7	3	466	6	58	<.3	8	19	591	1.28	4	<8	<2	5	12	<.5	<3	<3	19	.19	.027	8	22	.20	162	<.01	5	.43	.01	.20	2	<5	<1	.7
QV-TR-2	5	797	12	3289	3.1	3	9	2164	2.55	<2	<8	<2	2	6	1.6	<3	6	17	.08	.013	5	13	.17	57	<.01	10	.32	<.01	.10	4	<5	<1	519.5
STANDARD DS4	7	124	31	153	<.3	34	12	805	3.28	21	<8	<2	3	31	4.8	5	6	73	.55	.091	17	163	.60	139	.09	<3	1.72	.05	.17	5	<5	<1	26.9

GROUP 10 - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.  
 UPPER LIMITS - AG, AU, HG, U = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.  
 ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB  
 - SAMPLE TYPE: ROCK R150 60C AU\* IGNITED, ACID LEACHED, ANALYZED BY ICP-MS. (10 gm)

DATE RECEIVED: OCT 3 2002 DATE REPORT MAILED: *Oct 15/02* SIGNED BY: *C.L.* TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

02MT-SR1 (AUG. 03 HAND TRENCH ON OLD SOUTH ROAD SHOWING)

1M WIDE SHEAR, CARBONIZED, MANGANESE + HEMATITE STAINING OF GRANODIORITE. INCLUDES QTZ STRNGRS, GREEN SERICITE + K-SPAR ALTRN. ~ 0.1% CV.

02MT-SR-2 OXIDIZED K-SPAR RICH GRANODIORITE ADJACENT TO EAST OF ABOVE.

02MT-7 GRAB 20CM THICK SERICITE LAYER (CLAYEY MUSH) FLOOR OF TRENCH #1 (01 AUG 02 TRENCHING)

QV-TR-2 GRABS, FLAT-LYING QV ZONE WEST BANK TRENCH No.2. ALL OXIDIZED. NO FRESH SULPHIDES.

Potential sub surface vein-type gold target is indicated with strike length in excess of 1,500 meters.

Following up on the above, an initial 27 sample enzyme leach test was made along the baseline from 00 west to the Deerhorn Road (1300 m). A distinct EZL target was located between 0 → 800 W with estimated center between 400 - 600 W.

Subsequently, additional lines were cut (L2N, L9.1W, L2W, and L650W) and a further 82 samples were collected. All sampling was performed at 50 meter intervals, except those collected along the Ursa Major Road at 100 m intervals. Industry standard collection procedures were utilized.

The expanded sampling resulted in the identification of four target areas (A → D) showing good linkage to known mineralized areas (B) and previously detected IP chargeability responses (D). The area of strongest response (A) lies some 500 m west of the landing zone, and measures some 400 x 600 meters in area. The center of the oxidation cell is predicated to occur at L2N - 650W. Full details of the EZL survey can be found in the two reports by consultant G. Hill (Appendix).

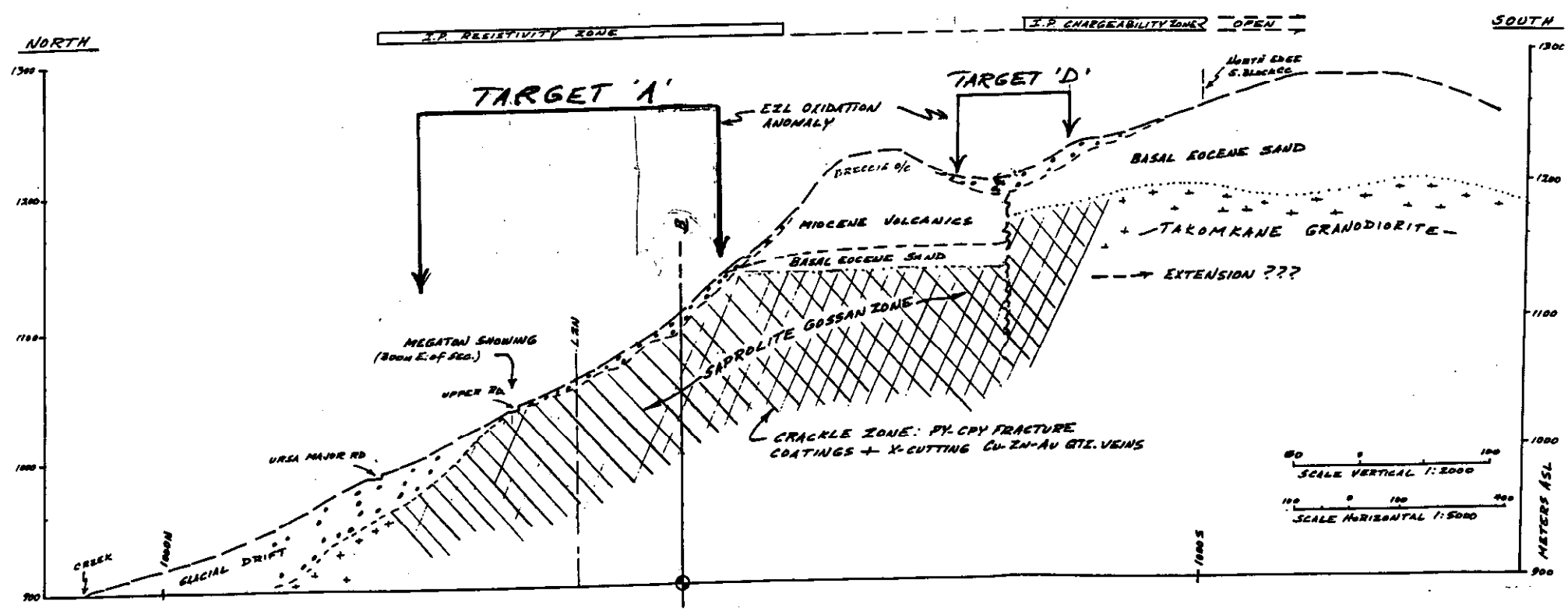
Figure 4A shows the relationship of the EZL results to previous I.P. Survey data and estimated geological relationships.

#### **CONCLUSION:**

The 2002 bulldozer trenching has opened a whole new perspective on the original Megaton showing. It is now clear that a series of 3-4 high grade Cu Zn Au veins varying from 10 cm to 1 m cross-cut the basic high intensity fracture stockworks identified by past back hoe trench programs.

Strong argillic alteration is present throughout the entire system and the EZL survey has expanded areas of known mineralization and developed new targets, some with linkage to past IP survey.

The previous (1996) 180 meter E-W back hoe trench (depth of glacial cover increasing at west end) has exposed leached and gossanized bedrock with localized areas of higher grade mineralization. Only secondary oxide minerals are present (malachite, azurite, smithsonite) along with native Cu and Au, reflective of intense weathering and oxidation. The pre-Eocene period is known to have produced saprolitic basement which is now covered by basal Eocene sandstone in the Megaton area. There could thus be preservation of supergene enrichment effects.



MEGATON-TNT PROJECT  
SCHEMATIC SECTION LINE 2W  
VIEW EAST  
NTS 93A-3W CARIBOO M.D. B.C.  
DEC. 2002      H.V. WAHL, P. ENG. B.C.

Fig. 4A

At the south end of the property the TNT claims cover a 2,000 x 1,500 m area of previously detected anomalous gold values to 2,800 ppb. (conventional soil geochemical survey). A Terrasol oxidation anomaly was detected within this field in 2001 which may be indicative of NE striking vein/shear zone gold mineralization in the subsurface. This target has sufficient size to warrant more detailed work.

**RECOMMENDATIONS:**

1. Construct new access trail to EZL target A and commence back hoe trenching in particular at location L2N – 650W.
2. Expand EZL survey, with priority in the Target D area, and also the low resistivity feature along the north section of line 9E.



Prepared by  
H. J. Wahl, P.Eng. B.C

**STATEMENT OF COSTS:**

H.J. Wahl, P.Eng.B.C., field work 11 days @ \$600/day	6,600.00
H.J. Wahl, P.Eng.B.C. reporting 10 days @ \$400/day	4,000.00
Jack Brown-John, Prospector, field assistant 11 days @ \$300/day	<u>3,300.00</u>
<b>Sub Total:</b>	<b><u>\$13,900.00</u></b>

Field vehicle, 2001 Cummins Dodge Quad Cab Diesel 4x4 @ \$140/day, 11 days	1,540.00
TD20E @ \$156.25/hr. plus in/out lowbed (8 hrs.) incl.GST Hytex Timber Ltd., Williams Lake	2,315.82

01-Travel expenses and accommodation	634.79
04-Prints, copying, drafting, office	198.51
06-Postage, freight, communication	95.11
07-Field equipment and supplies	857.78
09-Permits, fees and licences	496.62
11-Assays	<u>7,379.72</u>

**Sub Total: \$13,518.35**

**Total: \$27,418.35**



Prepared by  
H.J. Wahl, P.Eng. B.C  
December 2002

## REFERENCES

- (1) Wahl, H.J., P.Eng. B.C., *Report of Preliminary Exploration Including Trenching on the Megaton Claim Group*. 58 ea 2-post units, Nov.-Dec. 1996 plus *Supplementary Report: Re-Trenching*, Feb. 1997.
- (2) Wahl, H.J. P.Eng. B.C., *Master Report: Preliminary Exploration Including Trenching on the Megaton Claim Group*, 66 ea 2-post units, March-June 1997 plus supplementary report: *Expanded Trenching and Line Cutting*, July 1997.
- (3) Wahl, H.J., P.Eng., B.C. *TNT Claims, Report of Initial Terrasol Geochemical Survey*. Sept. 2001.
- (4) Wahl, H.J. P.Eng. B.C., *Evaluation Report Megaton – TNT Mineral Claims for Rio Horsefly Mining Ltd.*, 15 March 2002
- (5) Hill, Gregory T., Ph.D. *Interpretation of Terrasol Data for the Herb Wahl TNT Project*. Enzyme Laboratories, 17 August 2001.
- (6) Assessment Report No. 12, 479, Placer Dome, 1984.
- (7) Assessment Report No. 14, 249, Asamera Inc. 1984.
- (8) Assessment Report No. 17, 480, Circle Resources Ltd., 1988.
- (9) Panteleyev, A., P.Eng., et al. *Bull 97*, August 1996, Geology and Mineral Deposits of the Quesnel River-Horsefly Map area, Central Quesnel Trough, B.C. B.C. Geological Survey Branch
- (10) Megaton Claims, *Induced Polarization/ Resistivity Surveys* by Scott Geophysics Ltd., 17 June 1997. Private Report.



Quality Analysis...



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HERB WAHL  
RR-10 1416 OCEAN BEACH ESPLANADE  
GIBSONS, B.C  
V0N 1V3

CERTIFICATE OF ANALYSIS  
-----

27 PULP(S) were submitted for analysis.

The following analytical packages were requested. Please see our current fee schedule for elements and detection limits.

REV REPORT 25015 RPT.XLS CODE 7 - ENZYME LEACH ICP/MS(ENZYME.REV1)

NOTE: THE ATTACHED REVISED REPORT SUPERSEDES THE PREVIOUS REPORT SENT. BI DATA CORRECTED.

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

CERTIFIED BY :

A handwritten signature in black ink, appearing to be "E. Hoffman".

DR E. HOFFMAN/GENERAL MANAGER

MEGATON BASE LINE  
Bi CORRECTED

ACTIVATION LABORATORIES LTD.

1336 Sandhill Drive, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or +1.888.228.5227 FAX +1.905.648.9613

E-MAIL [ancaster@actlabs.com](mailto:ancaster@actlabs.com) ACTLABS GROUP WEBSITE <http://www.actlabs.com>

Enzyme Leach Job #: 25192 Report#: 25015 Revised 2.0 Customer: Acme Geologist: C. Leong Customer's Job #: A201997  
 Trace element values are in parts per billion. Negative values equal NOT DETECTED at that lower limit. Elements arranged by suite and by atomic mass.  
 Values = 999999 are greater than the working range of the instrument. S.Q. = That element is determined SEMIQUANTITATIVELY.

Enhanced Package:

Sample ID:	Oxidation Suite:													Base Metals:				Base Metal - Chalcophile Association Indicators:											
	S.Q.	Cl	Br	I	V	As	Se	Mo	Sb	Te	W	Re	Au	S.Q.	Hg	Th	U	Co	Ni	Cu	Zn	Pb	Ga	Ge	Ag	Cd	In	Sn	Tl
MT BL 1300W	12900	34	20	164.0	5.9	1	12.3	0.97	-0.5	0.3	0.014	-0.005	0.5	1.35	0.81	24.0	26.0	12.1	-5	2.5	-0.3	0.13	-0.1	-0.1	0.02	-0.2	0.121	32.4	
MT BL 1250W	16600	36	31	62.8	3.3	3	14.2	0.49	-0.5	0.4	0.024	-0.005	0.7	1.95	0.86	32.5	58.0	14.1	-5	1.4	2.5	0.10	-0.1	0.5	0.07	-0.2	0.153	23.0	
MT BL 1200W	8770	30	25	104.0	3.3	1	40.9	0.24	-0.5	0.9	-0.005	-0.005	0.4	1.38	0.80	17.8	28.1	13.1	22	1.1	0.7	0.18	-0.1	0.8	0.02	-0.2	0.109	23.1	
MT BL 1150W	19100	60	30	113.0	5.9	2	76.3	0.44	-0.5	1.8	-0.005	-0.005	0.2	1.20	0.63	34.5	47.9	11.3	33	1.1	0.4	0.46	0.2	1.6	0.02	-0.2	0.169	21.5	
MT BL 1100W	11800	38	21	56.3	5.3	2	8.6	0.27	-0.5	0.3	-0.005	-0.005	0.7	1.32	0.63	16.3	27.7	7.6	-5	0.7	-0.3	0.28	0.1	0.6	-0.01	-0.2	0.046	10.9	
MT BL 1050W	9350	22	12	112.0	3.8	1	58.5	0.26	-0.5	0.8	0.009	-0.005	0.6	0.87	0.69	27.8	25.8	5.8	-5	0.6	-0.3	0.11	-0.1	0.4	0.04	-0.2	0.118	11.6	
MT BL 1000W	14300	55	35	164.0	9.0	4	56.3	0.41	-0.5	0.7	-0.005	-0.005	0.3	1.87	1.79	43.5	40.8	14.6	-5	0.9	2.0	0.14	-0.1	0.7	0.02	-0.2	0.107	9.2	
MT BL 950W	26100	30	7	71.0	3.7	1	67.7	0.35	-0.5	1.6	0.026	-0.005	0.4	0.92	0.57	37.8	36.7	11.5	254	4.9	-0.3	0.12	-0.1	1.5	0.07	-0.2	0.058	10.6	
MT BL 900W	8270	42	16	130.0	7.0	1	24.3	0.40	-0.5	1.3	-0.005	-0.005	0.2	1.62	2.28	25.3	39.5	28.1	-5	0.8	1.2	0.30	0.3	0.4	-0.01	-0.2	0.076	7.9	
MT BL 850W	6330	40	27	87.0	4.0	2	11.2	0.27	-0.5	0.4	0.015	-0.005	0.6	1.40	0.95	31.6	49.1	13.9	-5	1.7	1.3	0.12	0.2	0.5	0.03	-0.2	0.119	5.4	
MT BL 800W	28800	173	78	238.0	28.5	8	62.2	1.04	-0.5	1.6	0.024	0.473	0.9	2.05	1.67	60.6	104.0	49.7	48	2.1	1.9	0.18	0.3	3.1	0.02	0.2	0.215	12.8	
MT BL 750W	12000	59	35	83.5	9.4	1	24.1	0.39	-0.5	0.3	0.021	-0.005	0.1	1.39	0.84	27.7	44.1	21.4	17	1.3	2.5	0.15	-0.1	1.2	-0.01	-0.2	0.139	6.5	
MT BL 700W	12300	129	61	208.0	11.0	3	32.2	0.87	-0.5	1.1	0.020	-0.005	0.1	1.32	1.49	22.4	58.9	55.7	-5	0.7	1.3	0.19	0.2	0.9	-0.01	-0.2	0.125	5.4	
MT BL 650W	17700	147	66	309.0	14.2	8	73.9	1.70	-0.5	2.8	0.019	-0.005	0.4	5.32	10.70	14.6	334.0	251.0	-5	1.5	2.8	1.16	-0.1	2.0	-0.01	-0.2	0.202	5.6	
MT BL 600W	20100	46	37	158.0	6.3	4	41.1	0.97	-0.5	0.7	0.026	-0.005	0.3	3.07	2.96	26.2	69.7	56.2	-5	2.3	1.6	0.30	0.2	1.2	0.04	-0.2	0.237	4.8	
MT BL 550W	12200	45	15	123.0	8.2	4	22.4	0.62	-0.5	1.0	0.010	-0.005	0.4	3.08	4.89	14.2	41.8	21.0	6	1.2	1.2	0.25	-0.1	0.9	0.03	-0.2	0.291	3.3	
MT BL 500W	8330	48	19	76.9	10.9	4	14.6	0.39	-0.5	0.3	0.011	-0.005	-0.1	5.66	2.60	18.6	45.2	21.0	22	1.8	0.9	0.11	-0.1	1.1	0.01	-0.2	0.208	3.3	
MT BL 450W	10500	53	17	152.0	13.1	5	16.0	1.54	-0.5	0.9	0.015	-0.005	0.3	4.14	2.57	49.7	101.0	33.3	34	1.2	0.6	0.28	-0.1	4.8	-0.01	-0.2	0.511	2.7	
MT BL 400W	5150	46	13	240.0	13.4	3	13.7	1.89	-0.5	0.6	0.028	-0.005	0.4	2.07	2.41	24.2	63.6	35.7	-5	1.2	0.3	0.27	-0.1	0.9	-0.01	-0.2	0.253	2.4	
MT BL 350W	14000	46	19	78.6	5.7	3	27.7	0.18	-0.5	0.3	0.015	-0.005	0.2	7.41	1.59	44.0	51.6	15.5	56	2.1	1.2	0.25	-0.1	0.7	0.03	-0.2	0.273	2.9	
MT BL 300W	-1000	46	33	184.0	12.3	4	13.9	0.88	-0.5	0.3	0.012	-0.005	0.3	3.83	1.61	21.8	35.9	12.1	-5	0.6	-0.3	0.20	-0.1	1.0	0.02	-0.2	0.129	2.6	
MT BL 250W	4800	46	27	156.0	5.7	5	16.3	0.34	-0.5	0.7	0.006	-0.005	-0.1	2.28	1.57	45.2	49.2	18.2	63	0.7	3.0	0.24	0.2	1.3	-0.01	-0.2	0.111	2.2	
MT BL 200W	6030	70	59	93.4	6.1	8	12.7	0.45	-0.5	0.2	-0.005	-0.005	0.1	1.71	1.00	46.6	92.6	8.6	119	1.2	1.9	0.13	-0.1	2.0	0.02	0.2	0.478	2.0	
MT BL 150W	3550	54	62	69.2	6.4	3	8.0	0.36	-0.5	0.3	-0.005	-0.005	-0.1	4.15	1.25	43.5	46.2	7.2	39	1.1	0.6	0.14	-0.1	0.8	0.04	-0.2	0.372	1.8	
MT BL 100W	6000	51	44	125.0	9.8	4	10.9	0.62	-0.5	0.4	0.033	-0.005	-0.1	4.74	2.87	49.7	62.7	20.3	39	1.0	1.1	0.32	-0.1	2.0	0.04	-0.2	0.273	2.1	
MT BL 50W	6250	110	68	203.0	16.6	6	21.5	1.87	-0.5	0.8	0.041	-0.005	0.2	13.50	5.03	36.1	164.0	40.3	46	3.2	1.4	0.57	-0.1	1.7	0.06	-0.2	0.342	3.2	
MT 00	12000	43	27	91.9	9.0	1	31.6	0.60	-0.5	0.6	0.009	-0.005	-0.1	2.60	1.06	34.0	44.4	6.7	122	1.2	2.7	0.46	-0.1	2.5	-0.01	-0.2	0.279	1.5	

Reason for Revision: All Bi data corrected.

Certified By:



D. D'Anna, Dipl. T.  
 ICPMS Technical Manager, Activation Laboratories Ltd.

Date Received: 12-Jul-02

Date Reported: 26-Sept-02

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 Unless otherwise instructed, samples will be disposed of 90 days from the date of this report.

Enzyme Leach Job #: 25192 Report#  
 Trace element values are in parts per b  
 Values = 999999 are greater than the v  
 Enhanced Package:

Sample ID:	High-Field Strength Elements:							
	S.Q. Ti	S.Q. Cr	Y	Zr	Nb	Hf	Ta	
MT BL 1300W	912	-3	2.21	56.8	3.0	1.27	0.27	
MT BL 1250W	1600	-3	2.65	33.6	3.1	0.77	0.20	
MT BL 1200W	1070	-3	1.25	49.0	3.1	1.03	0.32	
MT BL 1150W	1370	-3	1.32	46.7	3.3	1.04	0.31	
MT BL 1100W	851	-3	0.48	17.1	1.9	0.41	0.21	
MT BL 1050W	1090	-3	1.17	19.6	2.6	0.61	0.33	
MT BL 1000W	1440	-3	7.61	60.4	3.4	1.13	0.28	
MT BL 950W	935	-3	1.32	14.0	2.3	0.35	0.42	
MT BL 900W	705	-3	11.3	33.2	1.9	0.84	0.27	
MT BL 850W	856	-3	4.35	29.1	1.7	0.81	0.31	
MT BL 800W	1160	21	15.5	46.0	2.5	0.94	0.41	
MT BL 750W	708	-3	7.17	23.6	1.5	0.69	0.32	
MT BL 700W	727	-3	18.2	31.2	1.5	0.85	0.27	
MT BL 650W	570	-3	146	99.4	2.1	2.60	0.29	
MT BL 600W	1020	-3	12.4	38.9	2.5	1.28	0.40	
MT BL 550W	416	-3	18.9	54.6	1.9	1.39	0.32	
MT BL 500W	923	-3	7.19	78.7	2.4	2.22	0.30	
MT BL 450W	545	-3	11.7	136.0	3.2	2.29	0.38	
MT BL 400W	393	-3	18.9	92.6	2.6	1.71	0.39	
MT BL 350W	912	-3	4.91	102.0	4.4	2.89	0.34	
MT BL 300W	964	-3	3.01	94.2	4.3	2.21	0.37	
MT BL 250W	1350	-3	10.1	51.2	3.4	1.31	0.33	
MT BL 200W	491	-3	3.82	33.8	1.8	0.79	0.27	
MT BL 150W	932	-3	3.09	70.5	3.7	2.00	0.29	
MT BL 100W	872	-3	21.1	90.3	3.8	2.07	0.35	
MT BL 50W	1450	-3	36.1	246.0	7.1	7.18	0.45	
MT 00	1270	-3	3.02	46.2	2.9	1.49	0.42	

Rare Earth Elements:													
La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
3.94	14.80	1.11	4.52	0.89	0.33	0.63	0.15	0.68	0.12	0.39	0.04	0.40	0.07
3.97	10.90	1.23	5.00	1.02	0.44	0.83	0.15	0.63	0.11	0.44	0.06	0.30	0.04
2.72	7.18	0.74	2.97	0.43	0.60	0.40	0.08	0.32	0.06	0.21	0.02	0.23	0.05
2.95	9.65	0.66	2.71	0.55	0.74	0.43	0.07	0.34	0.05	0.18	0.02	0.12	0.02
1.07	3.26	0.29	1.39	0.22	0.33	0.22	0.03	0.14	0.03	0.10	-0.01	0.06	0.03
1.49	4.59	0.36	1.91	0.33	0.29	0.31	0.05	0.26	0.04	0.13	-0.01	0.10	0.02
8.09	20.8	2.65	11.2	2.07	0.77	1.39	0.28	1.29	0.24	0.89	0.10	0.67	0.13
1.83	3.89	0.51	2.35	0.46	0.28	0.27	0.04	0.32	0.05	0.14	-0.01	0.13	0.03
13.8	13.8	3.82	17.2	3.51	0.91	2.63	0.47	2.38	0.38	1.28	0.15	1.26	0.21
4.82	11.6	1.32	5.44	1.08	0.52	0.89	0.14	0.73	0.17	0.64	0.05	0.40	0.06
13.8	31.3	4.47	19.0	3.10	0.97	2.82	0.50	2.22	0.54	2.10	0.21	1.65	0.11
10.9	23.8	2.96	13.1	2.97	0.69	1.93	0.41	1.84	0.30	0.79	0.10	0.88	0.10
18.7	27.9	5.21	23.3	4.83	1.06	3.51	0.62	3.01	0.61	1.78	0.22	1.59	0.21
101	54.4	33.7	167	36.5	7.10	22.9	4.61	25.5	5.05	14.3	2.06	13.1	2.03
12.1	12.7	3.69	16.0	3.26	0.98	2.58	0.43	2.04	0.41	1.67	0.22	1.30	0.23
15.2	13.6	5.08	25.0	5.37	1.31	3.34	0.78	4.10	0.89	2.47	0.38	3.01	0.53
7.55	15.3	2.70	11.8	2.26	0.73	1.85	0.29	1.40	0.29	0.86	0.13	1.08	0.13
10.4	31.1	3.54	14.9	3.06	0.75	2.56	0.46	2.13	0.46	1.60	0.19	1.81	0.28
8.74	18.1	3.45	16.4	3.13	0.77	2.41	0.59	3.24	0.62	2.25	0.37	2.42	0.40
4.74	17.4	1.84	7.27	1.35	0.42	1.04	0.22	0.94	0.16	0.63	0.08	0.65	0.07
3.87	9.26	1.05	4.97	0.89	0.31	0.82	0.14	0.73	0.16	0.39	0.07	0.51	0.04
8.33	13.7	2.69	13	2.91	1.02	1.97	0.37	1.93	0.36	1.05	0.16	1.23	0.17
3.85	11.3	1.18	4.84	0.98	0.94	0.77	0.12	0.71	0.16	0.47	0.08	0.47	0.07
5.90	12.2	1.05	4.44	0.90	0.66	0.78	0.13	0.70	0.13	0.41	0.06	0.37	0.06
15.2	20.4	5.31	23.1	5.24	1.37	3.46	0.81	3.95	0.84	2.62	0.37	2.35	0.35
22.9	35.9	9.22	40.9	8.16	1.91	6.51	1.37	6.47	1.34	4.01	0.83	4.47	0.63
4.01	7.67	1.12	4.59	1.07	0.57	0.63	0.11	0.76	0.16	0.44	0.05	0.51	0.06

Enzyme Leach Job #: 25192 Report#  
 Trace element values are in parts per b  
 Values = 999999 are greater than the w  
 Enhanced Package:

Sample ID:	Lithophile Elements:								P.G.E.s:			
	S.Q. Li	Be	S.Q. Sc	Mn	Rb	Sr	Cs	Ba	Ru	Pd	Os	Pt
MT BL 1300W	15.2	0.4	-10	1730.0	50.1	1370.0	0.13	491.0	-0.5	-0.5	-0.5	-0.5
MT BL 1250W	31.3	1.6	-10	520.0	62.9	291.0	0.42	719.0	1.9	-0.5	-0.5	-0.5
MT BL 1200W	11.1	0.3	-10	2850.0	132.0	1690.0	0.28	1910.0	-0.5	-0.5	-0.5	-0.5
MT BL 1150W	5.6	0.9	-10	5260.0	100.0	2930.0	0.17	2040.0	-0.5	-0.5	-0.5	-0.5
MT BL 1100W	12.5	0.7	-10	552.0	30.6	857.0	0.26	991.0	1.4	-0.5	-0.5	-0.5
MT BL 1050W	10.0	0.5	-10	4960.0	13.5	1240.0	0.10	615.0	-0.5	-0.5	-0.5	-0.5
MT BL 1000W	19.6	1.3	-10	2050.0	26.8	1590.0	0.19	866.0	-0.5	-0.5	-0.5	-0.5
MT BL 950W	9.8	0.3	-10	7510.0	10.9	1350.0	0.20	717.0	-0.5	-0.5	-0.5	-0.5
MT BL 900W	17.2	0.6	-10	2070.0	10.1	970.0	0.12	436.0	0.7	-0.5	-0.5	-0.5
MT BL 850W	14.5	0.6	-10	4930.0	37.8	1460.0	0.57	1130.0	-0.5	-0.5	-0.5	-0.5
MT BL 800W	7.0	0.6	-10	9750.0	47.4	2960.0	0.27	1110.0	-0.5	-0.5	-0.5	-0.5
MT BL 750W	3.1	0.7	-10	3890.0	64.2	1770.0	0.19	822.0	-0.5	-0.5	-0.5	-0.5
MT BL 700W	2.1	0.4	-10	3090.0	75.8	1300.0	0.12	618.0	-0.5	-0.5	-0.5	-0.5
MT BL 650W	23.2	2.7	-10	2110.0	51.4	1980.0	0.17	674.0	0.7	-0.5	-0.5	-0.5
MT BL 600W	42.9	1.4	-10	2790.0	34.3	1190.0	0.26	730.0	-0.5	-0.5	-0.5	-0.5
MT BL 550W	37.4	1.7	-10	1870.0	50.2	998.0	0.35	552.0	1.2	-0.5	-0.5	-0.5
MT BL 500W	23.6	1.3	-10	732.0	46.2	849.0	0.42	721.0	-0.5	-0.5	-0.5	-0.5
MT BL 450W	21.7	2.3	-10	4230.0	59.0	847.0	0.34	447.0	0.5	-0.5	-0.5	-0.5
MT BL 400W	19.2	1.0	-10	899.0	54.8	651.0	0.29	219.0	-0.5	-0.5	-0.5	-0.5
MT BL 350W	59.8	2.1	-10	1130.0	72.8	792.0	0.67	401.0	0.9	-0.5	-0.5	-0.5
MT BL 300W	5.3	0.9	-10	667.0	24.0	857.0	0.25	390.0	-0.5	-0.5	-0.5	-0.5
MT BL 250W	25.7	1.1	-10	2850.0	48.7	1080.0	0.17	1070.0	-0.5	-0.5	-0.5	-0.5
MT BL 200W	6.6	1.3	-10	12100.0	42.1	1260.0	0.44	2480.0	0.8	-0.5	-0.5	-0.5
MT BL 150W	23.2	1.2	-10	1550.0	94.5	1020.0	0.67	1230.0	1.2	-0.5	-0.5	-0.5
MT BL 100W	39.3	2.3	-10	3100.0	49.2	865.0	0.42	640.0	1.9	-0.5	-0.5	-0.5
MT BL 50W	24.1	2.0	-10	1350.0	40.7	1350.0	0.29	1010.0	-0.5	1.1	-0.5	-0.5
MT 00	10.0	0.6	-10	4020.0	59.8	1280.0	0.39	1350.0	-0.5	-0.5	-0.5	-0.5

Quality Analysis...



Innovative Technologies

Invoice No.: 25571  
Work Order: 25754  
Invoice Date: 22-OCT-02  
Date Submitted: 20-SEP-02  
Your Reference: A203713  
Account Number: 477

ACME ANALYTICAL LABORATORIES LTD  
852 EAST HASTINGS  
VANCOUVER, B.C.  
V6A 1R6  
ATT: CLARENCE LEONG

CERTIFICATE OF ANALYSIS  
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82 PULP(S) were submitted for analysis.

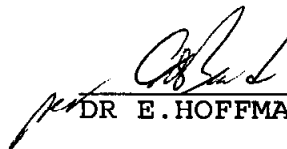
The following analytical packages were requested. Please see our current fee schedule for elements and detection limits.

REV REPORT 25571 RPT.XLS CODE 7 ENHANCED - ENZYME LEACH ICP/MS (ENZYME.REV1)

NOTE: THE ATTACHED REVISED REPORT SUPERSEDES THE PREVIOUS REPORT SENT.  
SAMPLE ID'S HAVE BEEN CORRECTED. ENHANCED PACKAGE REPORTED.

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CERTIFIED BY :

  
DR E. HOFFMAN / GENERAL MANAGER

ACTIVATION LABORATORIES LTD.

1336 Sandhill Drive, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or +1.888.228.5227 FAX +1.905.648.9613

E-MAIL ancaster@actlabs.com ACTLABS GROUP WEBSITE <http://www.actlabs.com>



Enzyme Leach Job #: 25754 Report # 25571 Revised

Customer: ACME ANALYTICAL

Geologist: C. LEONG

Customer's Job #: A203713

Trace element values are in parts per billion. Negative values equal NOT DETECTED at that lower limit. Elements arranged by suite and by atomic mass. Values = 999999 are greater than the working range of the instrument. S.Q. = That element is determined SEMIQUANTITATIVELY.

Enhanced Package:

Oxidation Suite:

Sample ID:	S.Q.	Cl	Br	I	V	As	Se	Mo	Sb	Te	W	Re	Au	S.Q.	Hg	Th	U
L9.1W 50N	12000	27	43	97.1	6.3	1	13.7	0.55	-0.5	0.8	-0.005	-0.005	-0.005	-0.1	1.89	3.62	
L9.1W 50S	5770	45	27	268	9.4	-1	10.0	0.60	-0.5	0.5	-0.005	-0.005	-0.005	-0.1	2.45	1.75	
L9.1W 100S	-1000	25	7	99.9	4.4	-1	11.3	0.27	-0.5	0.7	-0.005	-0.005	-0.005	-0.1	1.81	1.08	
L9.1W 150S	18400	142	62	436	7.6	2	43.4	0.37	-0.5	1.4	-0.005	-0.005	-0.005	-0.1	2.78	1.55	
L9.1W 200S	7690	50	73	159	4.1	-1	33.2	0.42	-0.5	2.6	-0.005	-0.005	-0.005	-0.1	1.46	0.98	
L9.1W 250S	7990	70	50	161	3.5	-1	29.2	0.18	-0.5	1.2	-0.005	-0.005	-0.005	-0.1	1.39	1.35	
L9.1W 300S	7280	52	48	249	3.8	-1	7.2	0.28	-0.5	0.7	-0.005	-0.005	-0.005	-0.1	4.79	2.30	
L9.1W 350S	16500	63	34	353	5.3	-1	43.2	0.20	-0.5	0.9	0.014	-0.005	-0.005	-0.1	2.41	2.22	
L9.1W 400S	5970	69	39	286	3.6	-1	28.3	0.49	-0.5	1.2	-0.005	-0.005	-0.005	-0.1	2.38	2.64	
L9.1W 450S	8360	89	18	638	4.2	2	19.5	0.50	-0.5	2.1	-0.005	-0.005	-0.005	-0.1	0.80	1.11	
L9.1W 500S	2020	17	47	89.0	6.1	3	1.7	0.50	-0.5	0.4	-0.005	-0.005	-0.005	-0.1	3.03	2.20	
L9.1W 550S	-1000	21	5	86.6	7.0	1	12.1	0.15	-0.5	0.4	0.006	-0.005	-0.005	-0.1	3.45	2.13	
L9.1W 600S	1310	27	-1	93.8	11.2	3	2.1	0.41	-0.5	0.3	-0.005	-0.005	-0.005	-0.1	3.33	1.92	
L9.1W 650S	7410	32	3	152	11.5	3	48.8	0.78	-0.5	0.7	-0.005	-0.005	-0.005	-0.1	2.53	1.24	
L9.1W 700S	-1000	15	12	842	18.8	1	54.4	0.98	-0.5	1.3	0.009	-0.005	-0.005	-0.1	4.79	2.83	
L2N 1000W	3630	34	13	238	13.0	3	56.5	0.70	-0.5	0.7	-0.005	-0.005	-0.005	-0.1	1.73	3.85	
L2N 950W	6170	18	5	114	6.0	-1	13.5	0.46	-0.5	0.6	0.009	-0.005	-0.005	-0.1	2.50	2.90	
L2N 900W	16200	26	11	99.7	6.3	-1	25.9	0.35	-0.5	1.1	0.059	-0.005	-0.005	-0.1	1.95	1.34	
L2N 850W	6600	163	115	660	23.7	8	19.3	2.19	-0.5	2.0	0.052	-0.005	-0.005	-0.1	3.24	8.94	
L2N 800W	4010	32	17	233	11.3	-1	5.6	1.00	-0.5	0.4	0.006	-0.005	-0.005	-0.1	1.91	3.52	
L2N 750W	5160	50	37	123	7.2	-1	3.0	0.24	-0.5	0.2	-0.005	-0.005	-0.005	-0.1	2.22	1.26	
L2N 700W	13000	41	65	92.8	8.5	2	10.0	0.39	-0.5	0.8	-0.005	-0.005	-0.005	-0.1	0.93	0.77	
L2N 650W	3330	19	556	86.0	7.4	-1	13.9	0.04	-0.5	0.7	0.009	-0.005	-0.005	-0.1	1.12	0.66	
L2N 600W	3320	20	5	78.9	5.9	-1	28.6	0.18	-0.5	0.7	-0.005	-0.005	-0.005	-0.1	1.04	0.63	
L2N 550W	13700	72	29	157	11.1	-1	14.8	0.48	-0.5	0.7	-0.005	-0.005	-0.005	-0.1	2.90	1.23	
L2N 500W	7490	33	42	330	11.9	-1	22.5	1.10	-0.5	0.7	-0.005	-0.005	-0.005	-0.1	2.52	3.58	
L2N 450W	9260	40	10	111	3.4	-1	8.2	0.31	-0.5	0.6	0.016	-0.005	-0.005	-0.1	1.54	0.81	
L2N 400W	2010	20	2	113	8.0	3	5.0	0.62	-0.5	0.5	-0.005	-0.005	-0.005	-0.1	4.02	1.82	
L2N 350W	3880	57	2	259	11.5	2	3.7	0.87	-0.5	0.5	-0.005	-0.005	-0.005	-0.1	3.69	6.50	
L650W 450N	5310	40	-1	242	5.7	1	6.8	0.10	-0.5	0.5	-0.005	-0.005	-0.005	-0.1	1.67	1.13	
L650W 400N	15200	39	7	465	5.8	-1	6.2	0.27	-0.5	0.7	0.024	-0.005	-0.005	-0.1	1.66	1.56	
L650W 350N	13000	32	118	293	12.9	-1	39.6	0.41	-0.5	1.7	-0.005	-0.005	-0.005	-0.1	2.78	1.14	
L650W 300N	14800	48	113	102	9.5	2	13.5	0.40	-0.5	0.3	-0.005	-0.005	-0.005	-0.1	2.48	1.48	
L650W 250N	11600	19	9	82.2	4.9	1	19.7	0.22	-0.5	0.9	-0.005	-0.005	-0.005	-0.1	0.44	0.37	

Base Metals:

Co	Ni	Cu	Zn	Pb
24.6	58.0	30.5	-5	-0.1
32.6	59.0	17.0	-5	0.2
25.4	24.1	1.2	-5	-0.1
21.1	53.2	34.2	-5	-0.1
22.9	34.3	7.6	-5	0.5
43.8	35.0	10.0	-5	-0.1
68.2	51.6	19.5	-5	-0.1
47.0	36.4	14.9	-5	-0.1
36.0	118	15.8	-5	-0.1
25.7	21.2	29.7	-5	-0.1
27.4	37.7	1.5	-5	-0.1
25.0	22.4	11.2	-5	0.6
14.7	28.5	8.8	-5	-0.1
59.4	64.6	6.1	15	0.9
31.0	55.4	5.0	-5	-0.1
25.6	43.5	50.8	-5	-0.1
20.8	38.4	25.1	-5	-0.1
40.7	33.9	20.4	747	1.5
19.3	191	166	-5	-0.1
16.5	46.4	49.4	-5	-0.1
13.6	22.7	10.8	-5	-0.1
37.3	42.1	18.3	-5	0.6
26.3	24.5	7.2	-5	-0.1
32.0	20.8	2.5	-5	-0.1
23.7	37.4	13.5	-5	0.5
55.1	91.5	20.4	-5	0.4
68.6	63.0	7.4	-5	-0.1
34.0	41.7	13.6	-5	0.1
40.2	117	21.1	-5	-0.1
44.9	31.2	13.2	-5	-0.1
49.3	37.5	11.0	-5	-0.1
27.8	27.7	13.4	-5	-0.1
13.4	49.1	11.7	-5	-0.1
82.5	20.0	5.7	8	0.2

Reason for Revision: Client letter indicated Regular Enzyme Package, should have been the Enhanced Package.

Certified By:



Date Received: 20-Sept-02

D. D'Anna, Dipl. T.  
ICPMS Technical Manager, Activation Laboratories Ltd.

Date Reported: 24-Oct-02

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Enzyme Leach Job #: 25754 Report # 25  
 Trace element values are in parts per billion  
 Values = 999999 are greater than the work

**Enhanced Package:**

Sample ID:	<b>Base Metal - Chalcophile Association Indicators:</b>								<b>High-Field Strength Elements:</b>							<b>Rare Earth Elements:</b>							
	Ga	Ge	Ag	Cd	In	Sn	Tl	Bi	S.Q.	Ti	S.Q.	Cr	Y	Zr	Nb	Hf	Ta	La	Ce	Pr	Nd	Sm	Eu
L9.1W 50N	1.1	0.13	-0.1	0.6	-0.01	-0.2	0.251	-0.5	684	11	9.65	42.9	1.7	1.43	0.03		12.3	16.6	3.59	14.5	2.89	0.89	2.38
L9.1W 50S	1.2	0.25	-0.1	0.5	-0.01	1.8	0.167	-0.5	1140	13	9.60	65.9	3.0	1.88	0.11		7.74	18.3	2.93	13.0	2.50	0.71	2.19
L9.1W 100S	0.3	0.11	-0.1	0.8	-0.01	-0.2	0.137	-0.5	1110	4	2.16	55.5	4.2	1.69	0.10		3.16	11.9	0.93	3.50	0.66	0.43	0.55
L9.1W 150S	1.3	0.38	-0.1	0.5	0.01	-0.2	0.229	-0.5	1620	27	14.4	142.0	5.7	3.04	0.08		26.1	58.2	6.86	27.4	4.85	1.61	4.00
L9.1W 200S	0.9	0.16	-0.1	0.6	-0.01	-0.2	0.167	-0.5	1550	24	5.03	72.8	4.9	1.66	0.12		7.84	21.2	2.32	9.51	1.63	0.66	1.48
L9.1W 250S	1.4	0.08	-0.1	0.3	-0.01	-0.2	0.187	-0.5	1790	11	3.64	92.9	5.1	2.42	0.07		7.07	23.0	1.89	7.51	1.30	0.61	1.21
L9.1W 300S	1.4	0.29	-0.1	0.5	0.01	-0.2	0.134	-0.5	2050	28	11.0	267.0	8.5	5.83	0.09		21.3	82.8	6.71	26.3	4.81	1.53	3.91
L9.1W 350S	1.1	0.32	-0.1	0.6	-0.01	-0.2	0.159	-0.5	1440	46	24.1	208.0	6.4	4.08	0.06		35.0	80.0	11.20	44.1	7.33	2.05	5.97
L9.1W 400S	0.7	0.26	-0.1	0.4	-0.01	-0.2	0.141	-0.5	750	39	17.1	122.0	5.1	2.35	0.04		24.3	67.6	7.78	30.9	5.53	1.70	4.40
L9.1W 450S	0.7	0.44	-0.1	0.3	-0.01	-0.2	0.145	-0.5	780	24	14.3	49.2	3.9	0.99	0.06		21.9	42.0	6.06	27.7	5.13	1.48	3.80
L9.1W 500S	0.4	0.08	-0.1	1.0	-0.01	-0.2	0.619	-0.5	714	12	8.55	55.0	3.8	1.95	0.17		7.46	18.7	3.02	12.7	2.74	0.74	2.09
L9.1W 550S	0.9	-0.05	-0.1	0.2	-0.01	-0.2	0.120	-0.5	684	18	4.58	47.2	2.8	1.64	0.07		5.59	13.2	1.72	7.70	1.43	0.55	1.18
L9.1W 600S	-0.3	0.09	-0.1	0.5	-0.01	-0.2	0.222	-0.5	742	10	8.53	58.5	3.3	1.91	0.09		12.2	24.4	3.36	13.5	2.73	0.82	2.10
L9.1W 650S	1.3	0.38	-0.1	0.9	-0.01	-0.2	0.523	-0.5	870	16	7.19	42.5	2.8	1.36	0.08		8.35	22.5	2.39	10.9	2.17	0.89	1.88
L9.1W 700S	0.7	0.40	-0.1	0.8	-0.01	-0.2	0.514	-0.5	791	15	15.0	66.8	3.8	2.24	0.15		12.3	27.3	4.39	17.9	3.55	0.80	3.03
L2N 1000W	0.5	0.24	-0.1	1.1	-0.01	-0.2	0.140	-0.5	774	11	19.1	51.3	2.4	1.56	0.10		20.4	31.8	6.91	29.1	6.47	1.56	4.87
L2N 950W	0.6	0.23	-0.1	2.3	-0.01	-0.2	0.162	-0.5	972	15	11.9	45.9	2.3	1.49	0.09		11.5	17.8	3.65	17.9	3.55	0.91	2.74
L2N 900W	1.2	0.10	-0.1	1.2	-0.01	-0.2	0.085	-0.5	1460	23	2.21	34.5	3.2	1.15	0.11		2.50	6.74	0.79	3.21	0.64	0.31	0.49
L2N 850W	1.2	0.99	-0.1	1.2	-0.01	-0.2	0.252	-0.5	640	33	135	103.0	3.6	2.53	0.17		76.5	30.7	27.0	129	28.9	6.96	25.7
L2N 800W	-0.3	0.29	-0.1	0.7	-0.01	-0.2	0.104	-0.5	479	4	26.4	42.6	2.3	1.45	0.10		18.0	13.8	6.20	31.0	6.73	1.56	5.81
L2N 750W	0.6	0.09	-0.1	0.6	-0.01	-0.2	0.169	-0.5	1460	14	4.11	42.3	3.8	1.43	0.13		5.32	8.97	1.66	6.57	1.46	0.58	1.03
L2N 700W	1.5	-0.05	-0.1	1.4	0.02	-0.2	0.099	-0.5	1680	27	2.25	18.0	1.9	0.57	0.09		2.89	6.21	0.87	3.43	0.72	0.34	0.50
L2N 650W	1.0	0.09	-0.1	1.0	-0.01	-0.2	0.059	-0.5	1400	17	1.37	18.2	2.1	0.63	0.07		2.17	5.43	0.52	2.25	0.50	0.27	0.44
L2N 600W	0.4	0.06	-0.1	0.6	-0.01	-0.2	0.159	-0.5	1310	12	0.98	31.4	2.0	1.13	0.07		1.64	4.16	0.45	1.87	0.62	0.37	0.29
L2N 550W	1.0	0.18	-0.1	0.6	-0.01	-0.2	0.248	-0.5	1250	24	2.95	61.2	3.2	2.40	0.11		5.81	13.4	1.40	5.69	1.12	0.47	1.04
L2N 500W	0.7	0.54	-0.1	0.8	0.02	-0.2	0.357	-0.5	1930	16	35.0	84.6	4.1	2.22	0.09		26.7	36.4	10.0	42.7	8.83	2.32	7.66
L2N 450W	1.3	0.12	-0.1	1.4	-0.01	-0.2	0.350	-0.5	2720	6	4.03	59.0	2.4	1.71	0.07		5.52	15.8	1.65	7.69	1.30	0.85	1.30
L2N 400W	-0.3	0.21	-0.1	1.0	0.02	-0.2	0.560	-0.5	1360	11	5.55	114.0	3.6	3.10	0.08		5.22	19.0	1.88	7.80	1.51	0.65	1.32
L2N 350W	1.1	0.22	-0.1	1.1	-0.01	-0.2	0.398	-0.5	1080	20	30.6	92.1	4.0	2.87	0.11		16.6	20.7	6.38	30.9	6.88	1.81	5.85
L650W 450N	0.4	0.10	-0.1	0.5	-0.01	-0.2	0.158	-0.5	1360	15	8.89	94.5	4.1	2.60	0.09		10.9	27.1	3.89	16.3	2.95	1.10	2.42
L650W 400N	0.6	0.32	-0.1	0.4	-0.01	-0.2	0.251	-0.5	2180	18	8.21	151.0	4.3	3.57	0.07		12.9	43.2	4.47	18.0	3.70	1.53	2.59
L650W 350N	0.5	0.28	-0.1	0.4	-0.01	-0.2	0.145	-0.5	1430	25	4.59	72.8	3.7	2.50	0.10		4.31	10.3	1.41	6.08	1.32	0.42	1.17
L650W 300N	0.8	0.12	-0.1	0.3	0.01	-0.2	0.173	-0.5	1510	25	5.76	49.7	3.0	1.39	0.09		5.81	12.5	1.62	7.45	1.77	0.65	1.30
L650W 250N	1.2	0.08	-0.1	0.5	-0.01	-0.2	0.057	-0.5	1450	20	0.52	13.3	2.3	0.42	0.16		0.72	2.56	0.17	0.76	0.15	0.20	0.15





# **Interpretation of Enzyme Leach<sup>SM</sup> Data for the Megaton Project, Cariboo Mining Division, B.C., Canada, Rio Horsefly Mining Ltd.**

by: Gregory T. Hill, Enzyme Laboratories, Inc., an Actlabs Group company

15 August 2002

## **Summary**

Samples from a single traverse on the Megaton property were analyzed by Enhanced Enzyme Leach<sup>SM</sup>. A distinctive oxidation anomaly indicated by oxidation suite elements, base metals, lithophile elements, and high field strength elements is present between 0W and 800W. The anomaly is zoned and features nested halo sets and other diagnostic features including Ti depletions within the central low. These and other features define the position of the most prospective part of the oxidation anomaly and also suggest that a robust electrochemical cell is in operation beneath this sample traverse. The oxidation suite elements, HFSE, and lithophile elements suggest that the center of the anomaly lies between 400W and 600W.

## **Design of Soil Survey, Sample Collection, and Analysis**

A single traverse was designed and sampled by Herb Wahl, P. Eng. to test for the presence of oxidation anomalies associated with buried mineralized zones. The author has not visited this property but has visited the region and is familiar with the type of glacial cover materials and organic materials present at the surface. Twenty-seven soil samples were collected at 50 m spacings along an east-west traverse, MT BL-00 through MT BL 1300W. Samples were collected from upper B-horizon soils developed in glacial drift.

Samples were air dried and prepared by sieving to -60 mesh at Acme Analytical Laboratories in Vancouver, B.C. and analyzed by Enhanced Enzyme Leach<sup>SM</sup> at Activation Laboratories, Ltd, Ancaster, Ontario. Results were reported on August 8, 2002 as report #25015 (Enzyme Leach job #25192).

## **Data Treatment and Plotting**

Profiles of each element were built using Geosoft Oasis Montaj v.5.0 software (Appendix I). Not detected values were converted to one half the detection limits for those elements. Linear concentration scales were used for each element. An interactive process was used to evaluate the distributions of each element. Elements were grouped based on observed inter-element relationships such that important geochemical patterns, such as zoning, are more readily recognizable.

## **Interpretation**

A robust oxidation anomaly is centered in the eastern half of the sample line, centered near 450W. The central low associated with this anomaly extends from about 250W to 600W. Most elements form peaks at 50W, 650W, and 800W suggesting that these locations overlie fault or fracture zones and that these structural conduits are preferentially utilized for vertical transport of volatile species in the influence of an electrochemical cell.

## **Oxidation Suite Elements**

The oxidation suite elements form an oxidation anomaly that spans from 0 to 800W and contains a central low developed between about 150W to 600W. Iodine and Br form distinctive peaks marking both margins of the oxidation anomaly and both elements are consistently in low abundance from 350W to 550W suggesting that this is the center of the anomaly. The Br and I halos are indicated by pairs of peaks on either side of the central low which are interpreted as nested halos. Chlorine is also distributed into a nested halo pattern as indicated by a low-contrast inner halo with peaks at 350W and 600W and outer peaks at 800W and 0W. The easternmost Cl peak appears to be east 0W based on the Cl gradient at the east end of the sample traverse. However, the Cl halo sets are zoned relative to the Br and I sets. This is particularly evident in the center of the anomaly where the inner Cl halo occurs inboard of the innermost Br and I halo.

Other oxidation suite elements are zoned relative to Br and I as well. Of the oxidation suite elements, only Re appears to be distributed into a halo that is narrower than the inner Cl halo. The inner Re halo suggests that the core of the anomaly spans from 450W to 550W. The other oxidation suite elements are all enriched in zones outside of this core area.

## **Base Metals**

The oxidation suite elements form a context in which to interpret the base metal distributions. The distinctive Cu, Ni, Ge, Ga peak at 650W coincides with oxidation suite element peaks that define the oxidation anomaly, but these metals are largely absent from the corresponding oxidation suite peaks to the west. This suggests that base metals are more concentrated beneath the western portion of the central low. As with the oxidation suite elements, the base metals

spikes suggest structural control of the oxidation anomaly. The spike at 650W should be included within trenching or drilling targets but this area is interpreted to represent the western margin of a subsurface reduced body, and base metals mineralization may extend east of 650W within the oxidation suite central low. Nonetheless, the subsurface beneath the western portion of the oxidation anomaly may be more Cu enriched than the eastern portion. However, oxidation halos are characteristically discontinuous even in robust systems. Thus, additional sampling may suggest that Cu is significantly distributed into different portions of the anomaly as well.

The Zn, Pb, In peak at 950W is not coincident with oxidation suite element enrichments and may represent a weak Zn-Pb zone in bedrock. The Zn levels reached in this peak are only weakly anomalous compared to those observed in Enzyme Leach<sup>SM</sup> data from other soil surveys above covered Zn mineralized zones and Zn deposits under glacial cover. Lead and In occur in very low concentrations here. Because of the low base metals concentrations and lack of a discernible oxidation anomaly associated with the Zn spike at 950W, this area is not recommended for trenching or drill testing.

Thallium, Cd, In, Ga, and Sn are sequentially zoned within the oxidation anomaly. Thallium and Cd form single-point spikes in the center of the anomaly at 450W; Tl is also distributed into a low contrast halo marked by peaks at 350W and 550W; In forms a slightly larger halo; a Ga halo lies outboard of that; and Sn is distributed into a wider halo marked by peaks at 200W and 800W. Indium also appears to form a broad outer halo outboard of Sn. The zoning among these base metals suggests the presence of a robust electrochemical cell which is centered at 400W to 500W.

### **Rare Earth Elements**

The REE are enriched into single-sample highs at 50W and 650W suggesting the presence of structural conduits in these areas. Otherwise, the REE patterns are flat and do not emphasize target areas. The Ce/Ce\*, Eu/Eu\*, La/Yb, and Tb/Yb ratios all show some texture but none of these parameters characterize the anomaly. The Eu/Eu\* peak at 1150W and 200W are accompanied by other REE parameters. These responses may represent specific igneous units, such as Takomkane granodiorite in the subsurface but could also result from variation in surface materials.

### **High Field Strength Elements**

Yttrium and Cr highs occur at 650W and 800W respectively. Both coincide with oxidation suite and base metals highs that are suspected to represent subsurface faults. Zirconium, Hf, Ti, and Nb are all enriched into a single-sample peak at 50W further suggesting the presence of a structural zone there. The most definitive features in the HFSE data however, are the Ti depletions that occur at 400W and 550W at the margins of the central low. Depletions in this element are considered characteristic of a strong oxidation anomaly and indicative of a robust electrochemical cell. When present, they typically occur near or at the edges of a central low.

Titanium is also distributed into a broad halo or set of nested halos that surround these depletions. Hafnium forms a subtle halo around this zone as indicated by weak peaks on either side and 50-100 m outboard of the Ti depletions. Between the Hf peaks, this element forms a convex-up pattern that has also been recognized in some oxidation anomalies and is likely related to electrochemical processes.

### **Lithophile Elements**

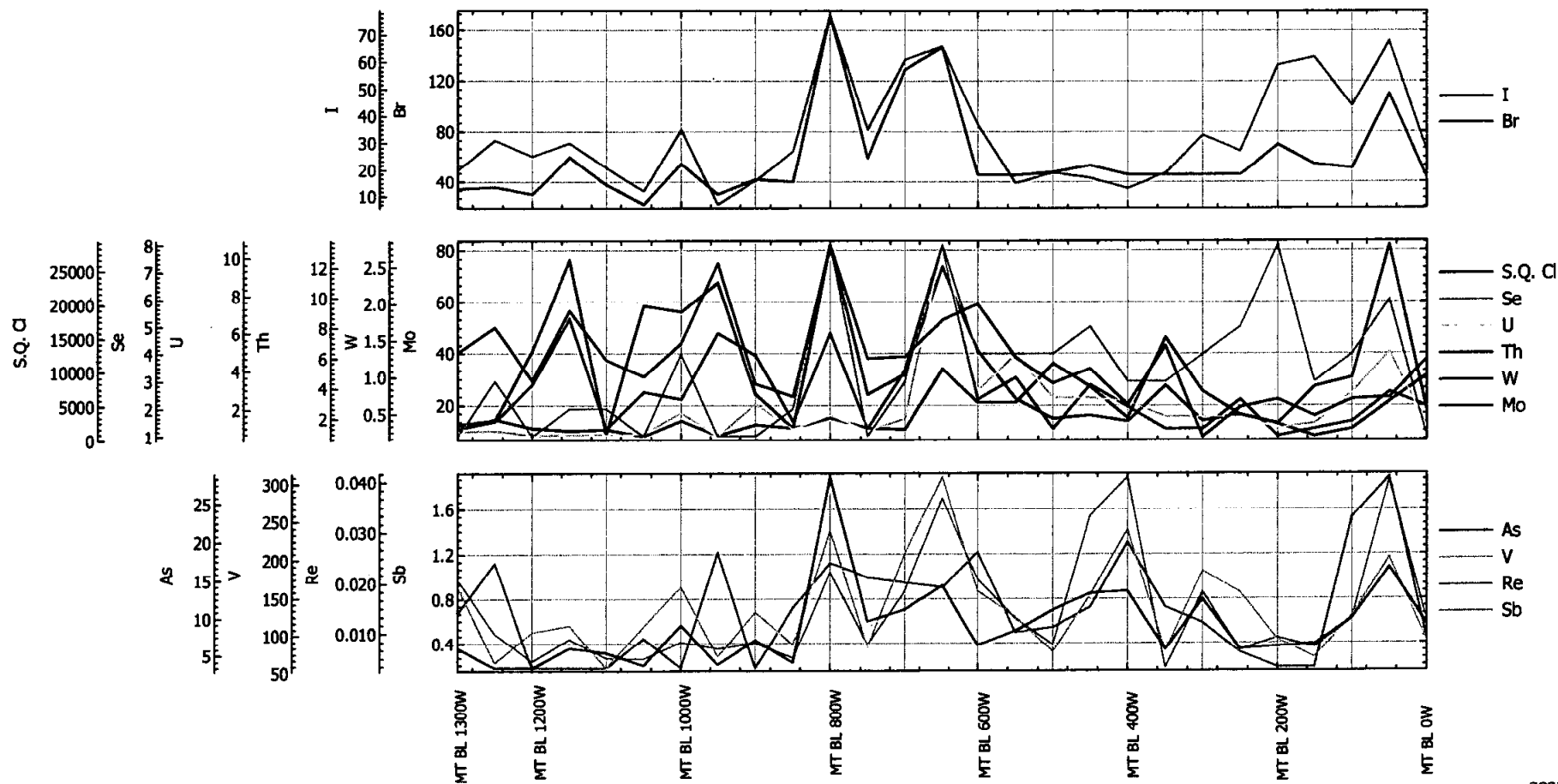
The lithophile elements are distributed into the oxidation anomaly and some form distinctive patterns that suggest alteration zones in the subsurface. Beryllium and Li are enriched at 350W to 650W where they are weakly distributed into halos. A Mn halo is also present as indicated by peaks at 200W and 800W.

### **Discussion and Conclusions**

A well-formed oxidation anomaly is present between 0W and 800W and is indicated by a large number of elements. This anomaly is significantly zoned and features nested halo sets developed among many elements. Titanium depletions are also present. Taken together, these features not only define the position of the most prospective part of the oxidation anomaly but also suggest that a robust electrochemical cell is in operation beneath this sample traverse. The oxidation suite elements, HFSE, and lithophile elements suggest that the center of the anomaly lies between 400W and 600W. The western margin of the anomaly is more enriched in Cu than is the eastern part suggesting that Cu may be more enriched within the western part of a reduced body in the subsurface. Copper reaches 251 ppb at 650W, a value suggestive of significant subsurface Cu enrichments.

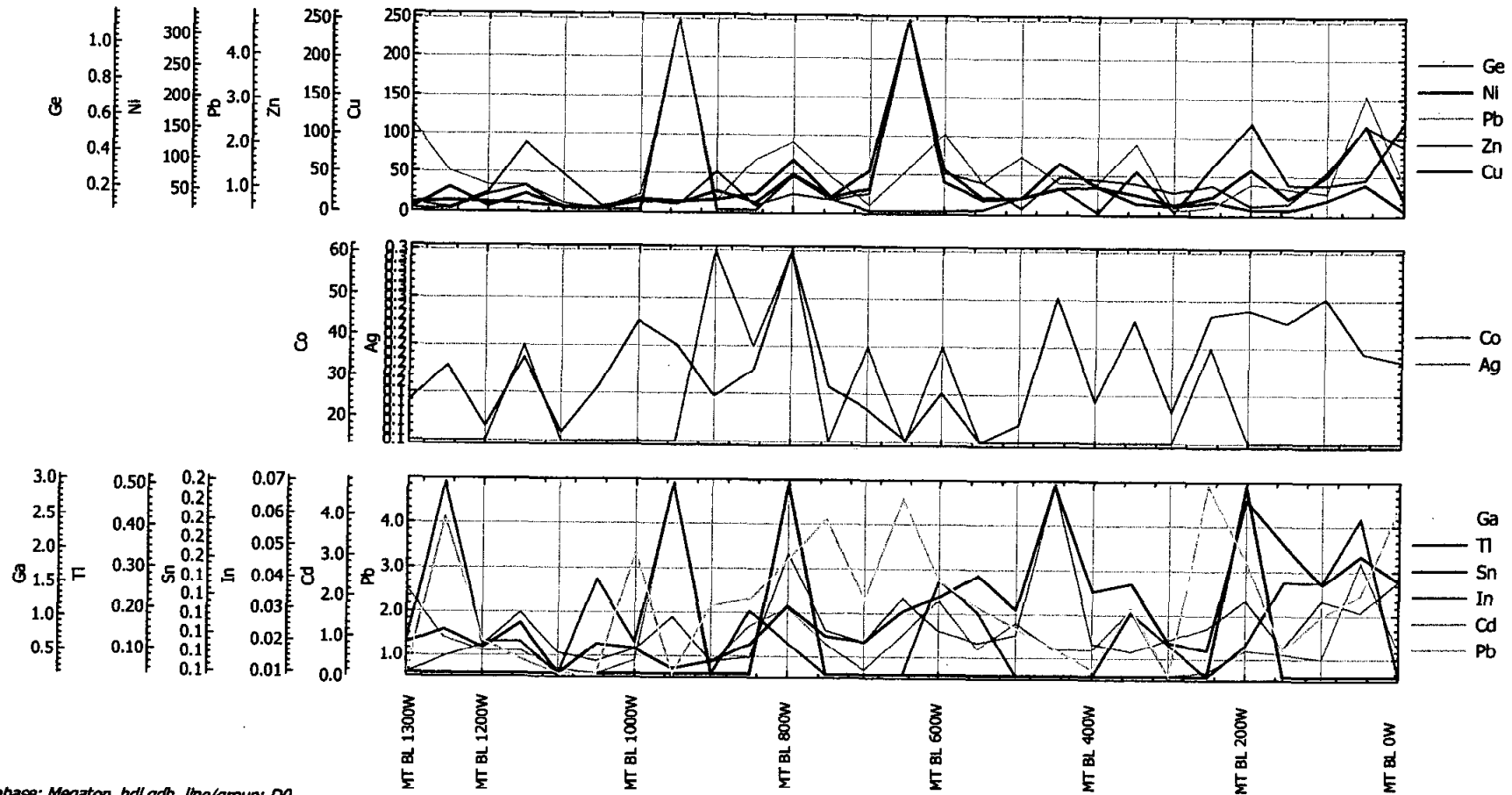
Trenching and/or drilling is recommended between 400W and 650W to test for the presence of subsurface mineralization. Any such tests of mineralization should include a bedrock intersection beneath 650W because of the Cu peak there. The core of the oxidizing system is interpreted to be between 450W and 550W, making this area a high-priority drill target. Additional soil sampling and Enhanced Enzyme Leach analysis is recommended to the north, south, and east of the current Megaton sample traverse. This should provide better definition of the anomaly and allow for more precise drill targeting.

# Rio Horsefly Mining Ltd. - Megaton Project - Enzyme Leach Data - Oxidation Suite





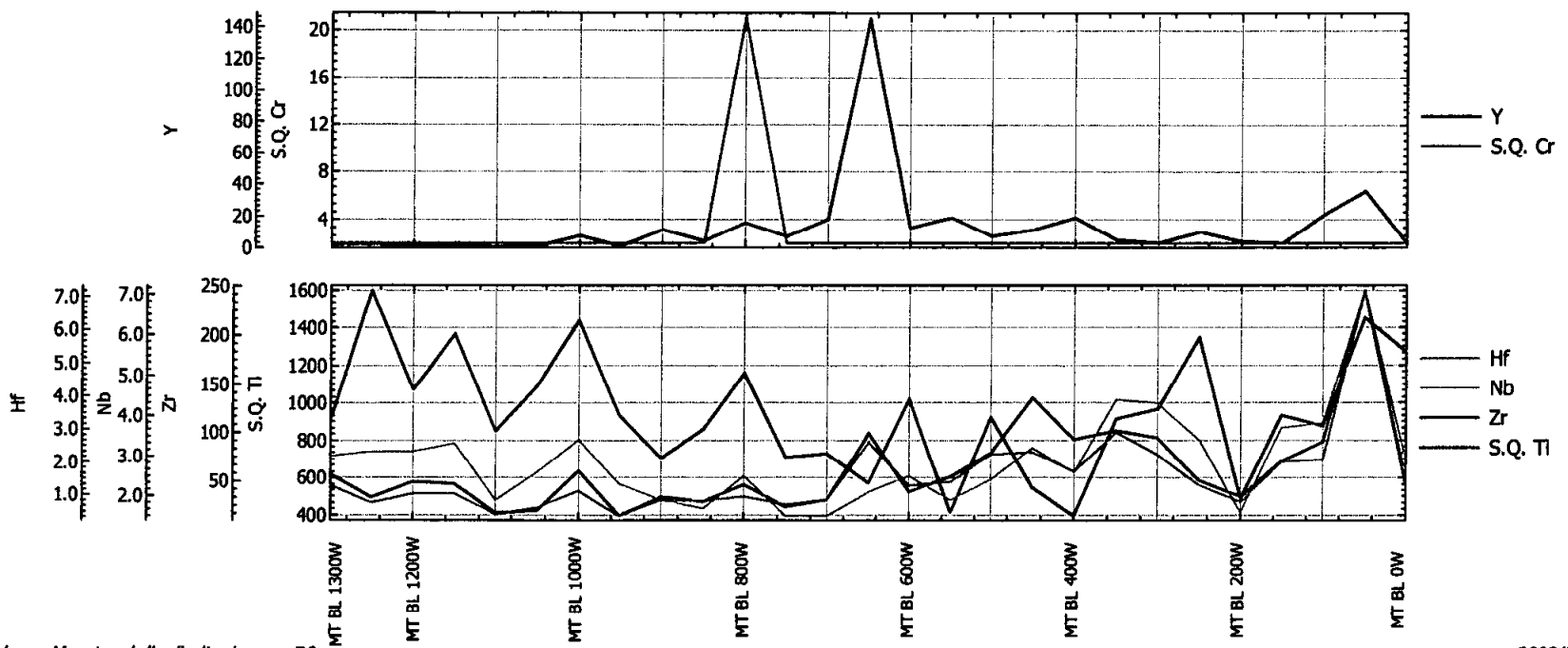
# Rio Horsefly Mining Ltd. - Megaton Project - Enzyme Leach Data - Base Metals



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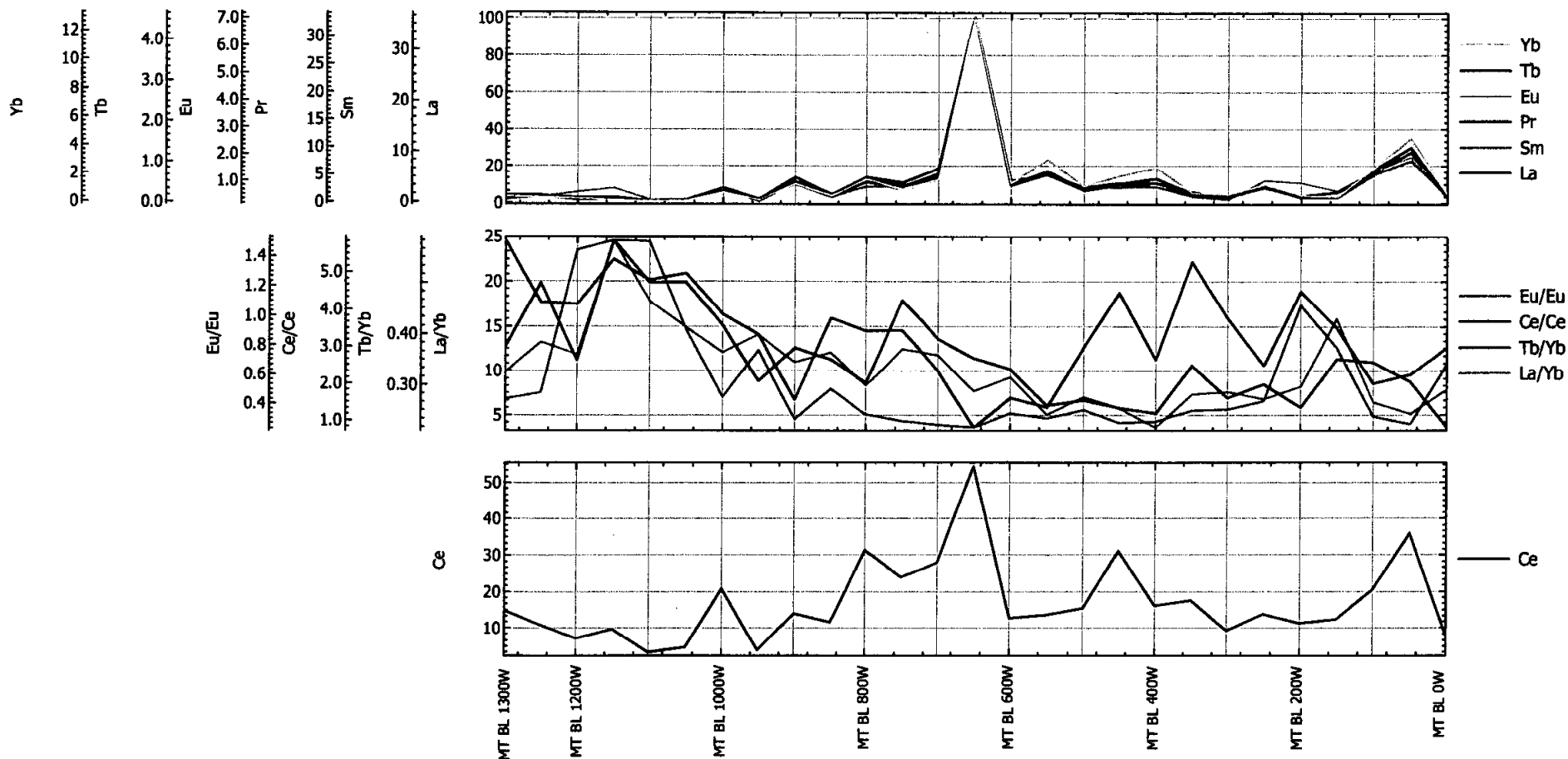
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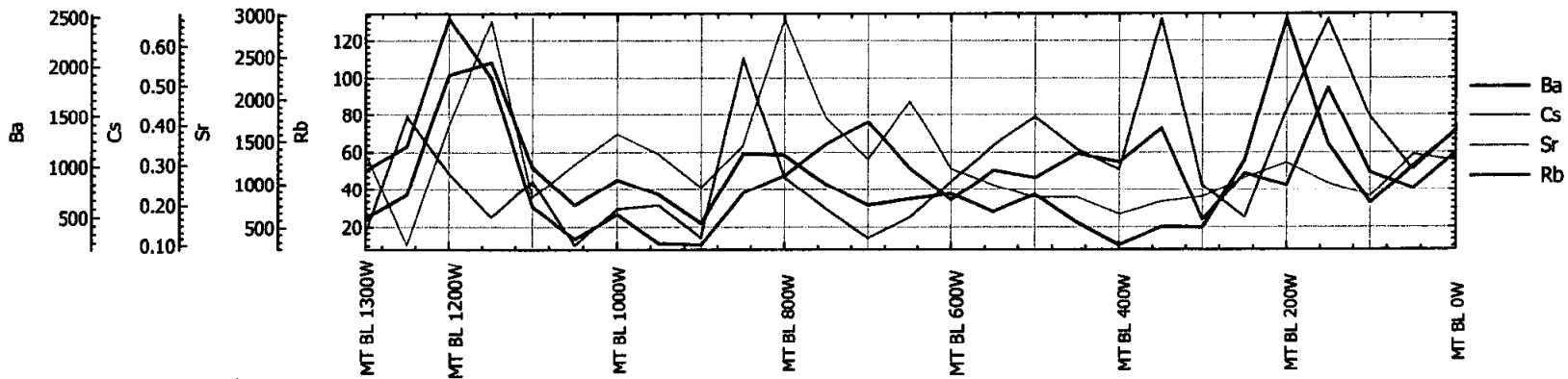
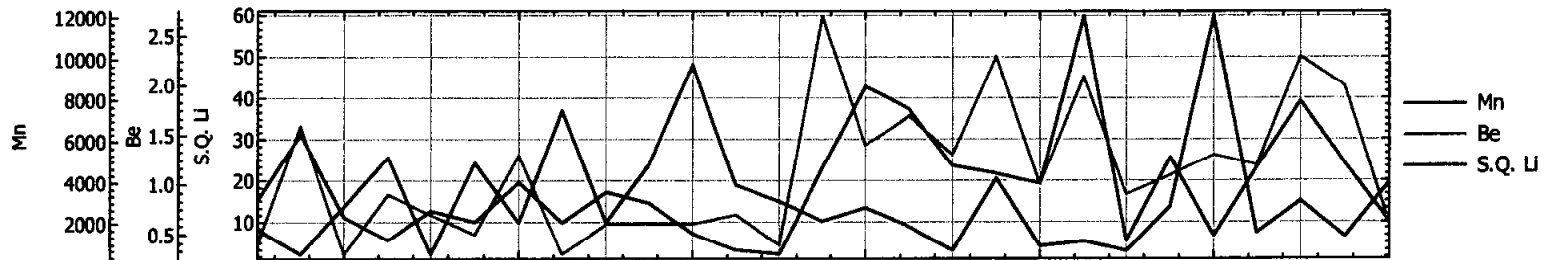
database: Megaton\_hdl.gdb line/group: D0

2002/08/13

# Rio Horsefly Mining Ltd. - Megaton Project - Enzyme Leach Data - REE



# Rio Horsefly Mining Ltd. - Megaton Project - Enzyme Leach Data - Lithophile Elements



database: Megaton\_hdl.gdb line/group: D0

2002/08/13

# **Interpretation of an Expanded Enzyme Leach<sup>SM</sup> Survey at the Megaton Project, Cariboo Mining Division, B.C., Canada, Rio Horsefly Mining Ltd.**

by: Gregory T. Hill, Enzyme Exploration Services, Inc., an Actlabs Group company

5 December 2002

## **Summary**

Four target areas have been identified at the Megaton property based on Enhanced Enzyme Leach<sup>SM</sup> responses observed in a 116 sample soil survey. The highest priority target, Target A, is defined by a well-developed oxidation anomaly featuring zoned responses in most elements. Distinctive depletions are present among several HFSE and other elements at the center of this anomaly. The southwestern margin of this anomaly features the highest Cu and Au responses and also appears to be fault controlled. Targets B, C, and D are recognized based on single-line responses. As such, they are poorly defined, but each of these zones should be explored further. Drilling is recommended in the Target A area whereas additional soil sampling should be used to further test Targets B, C, and D.

## **Design of Soil Survey, Sample Collection, and Analysis**

Eighty-nine soil samples were collected at 50 m spacings along four traverses and 100 m spacings along the Ursa Major road. These samples expand an Enzyme Leach<sup>SM</sup> survey that originally comprised a 27 sample traverse along the base line (Figure 1). The original data indicated the presence of a robust oxidation anomaly, as discussed in the 15 August 2002 report by this author. The soil survey was designed and sampled by Herb Wahl, P. Eng. to test for the presence of oxidation anomalies associated with buried mineralized zones. The author has not visited this property but has visited the region and is familiar with the generalized geology including the type of glacial cover materials and organic materials present at the surface. Samples were collected from upper *B*-horizon soils developed in glacial drift.

Samples were air dried and prepared by sieving to -60 mesh at Acme Analytical Laboratories in Vancouver, B.C., and analyzed by Enhanced Enzyme Leach<sup>SM</sup> at Activation Laboratories, Ltd, Ancaster, Ontario. Results from the initial sampling were reported on August 8, 2002 as report #25015 (Enzyme Leach job #25192). Data from the expanded survey were reported on 24 October, 2002 as report #25571revised (Enzyme Leach job #25754).

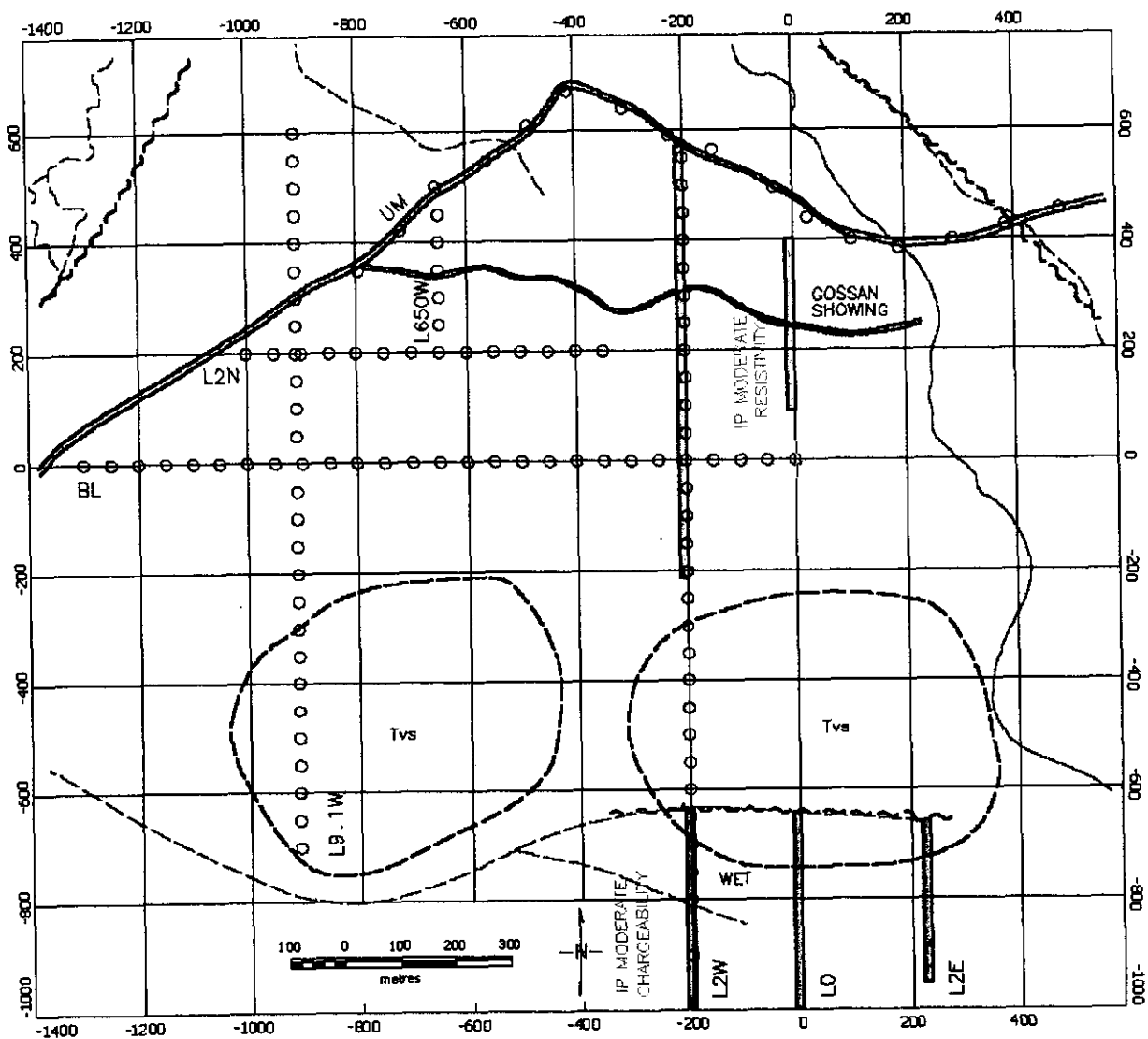


Figure 1. Sample locations overlaid on geologic base map.

### Geology and Mineralization

A saprolite gossan zone is developed beneath an Eocene sand unit which is overlain by Miocene felsic to intermediate volcanic units. These units are poorly exposed and, along with Takomkane granodiorite are buried beneath variable thicknesses of glacial cover. Northwest and east-west striking faults offset these lithologies and control some drainages. Primary mineralization occurs as quartz veins and swarms and crackle breccias with pyrite-chalcopyrite coating and crosscutting Cu-Zn-Au quartz veins.

### **Data Treatment and Plotting**

Color contour maps of each element were built using Geosoft Oasis Montaj v.5.1.4 software (Appendix I). Not detected values were converted to one half the detection limits for those elements. Data were kriged at 38.8 m in the X and Y directions. Linear concentration scales were used for each element. In a few cases, where outlier data occur, the upper portions of the data ranges were truncated in order to allow for recognition of the texture within the lower and middle portions of the data ranges. An interactive process was used to evaluate the distributions of each element and develop a geochemical model that accounts for the majority of the geochemical variation observed within this distribution of samples.

### **Interpretation**

The oxidation anomaly originally recognized along the initial sample traverse represents the southeastern portion of the highest priority exploration target, herein referred to as Target A (Figure 2). The exposed gossan zone which was largely excluded from the current soil survey and is therefore not defined as a target within this soil survey although it should obviously be given additional exploration focus. The Target A anomaly is indicated by zoned halo patterns developed among numerous elements and well-developed depletions among HFSE. Although indications of a reduced body are strong beneath this anomaly, the morphology of Target A is poorly constrained.

Three additional target areas have been recognized, Targets B, C, and D. These are each considered lower-priority targets as is discussed below. The intensities and morphologies of these anomalies are also poorly constrained as each occurs along single-line portions of the soil survey. Finally, several fault zones are suggested by the Enzyme Leach<sup>SM</sup> results. Where single-line indications of faults occur, the orientations are unknown. However, several lines give indications of a northwest-striking fault zone that forms the southwestern margin of Target A. The interpretation of this fault zone has been extended to the southeast based on geochemical as well as geological data. The northwest-trending geochemical zone separates two Tertiary volcanic (Tvs) exposures and is also parallel to a mapped shear at the northeastern corner of the survey.

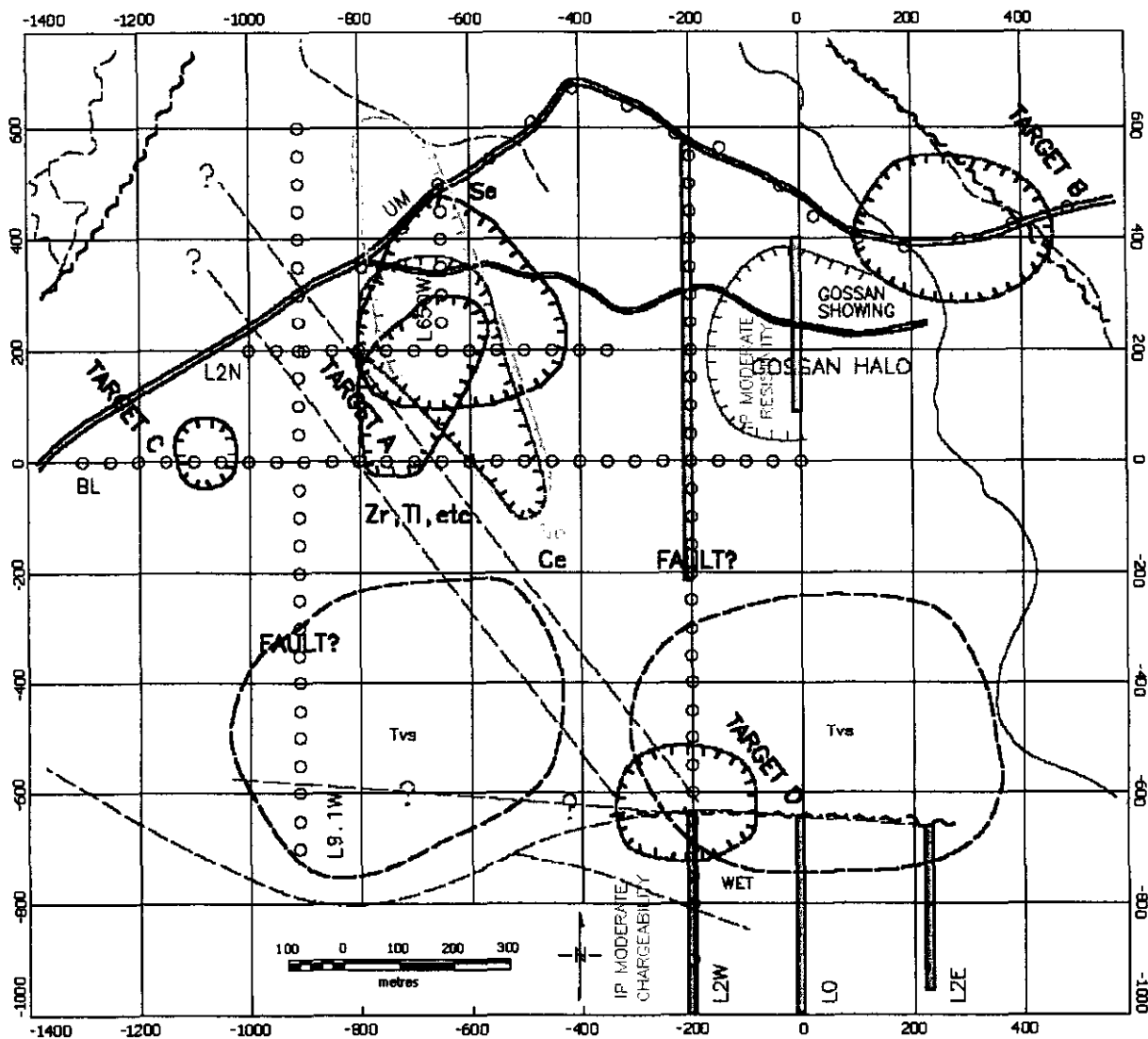


Figure 2. Anomaly summary map showing Targets A, B, C, and D overlaid on geologic base map.

### Base Metals

Copper, Ni, and Ge are most enriched along the northwest-trending interpreted fault zone that connects Targets A and D (Figure 3). Copper was detected at 166 ppb and 251 ppb along this zone strongly suggesting that the inferred fault cuts subsurface enrichments of this metal. These Cu enrichments occur at the southwestern margin of Target A indicating that the subsurface beneath the southwestern portion of Target A may be most prospective for Cu. Weaker Cu enrichments are also present on the southeastern and northern portions of the Target A anomaly and a Cu low is present at the center of the anomaly. In addition to Cu, Ni, and Ge, other metals including Pb, Ga, Tl, and Co are enriched along the southern portion of the northwest interpreted fault zone.



Also, many oxidation suite and lithophile elements are most strongly enriched near the southern end of L2W where the northwest inferred fault trend intersects the east-west fault-controlled (?) northern margin of an IP chargeability anomaly. This area also coincides with a wet depression at surface which may correspond with a greater amount of organic materials in these soils. If so, increased carbon in the samples above this potentially faulted area would allow for greater adsorption of ascending volatiles as well as some aqueous phases leading to greater trace element concentrations in these samples. Thus, one must consider the effects of greater carbon contents of a sample when comparing absolute values of trace element responses. Although the responses of many trace elements are highest near the southern end of L2W, this does not necessarily indicate that these elements are more enriched (or more available from metastable alteration products) in the subsurface beneath these samples than they are elsewhere in the survey where presumably less organic material is present in the soils. Some metals, including Cu, Cd, Co, and Ga form halos in this area, indicated as Target D.

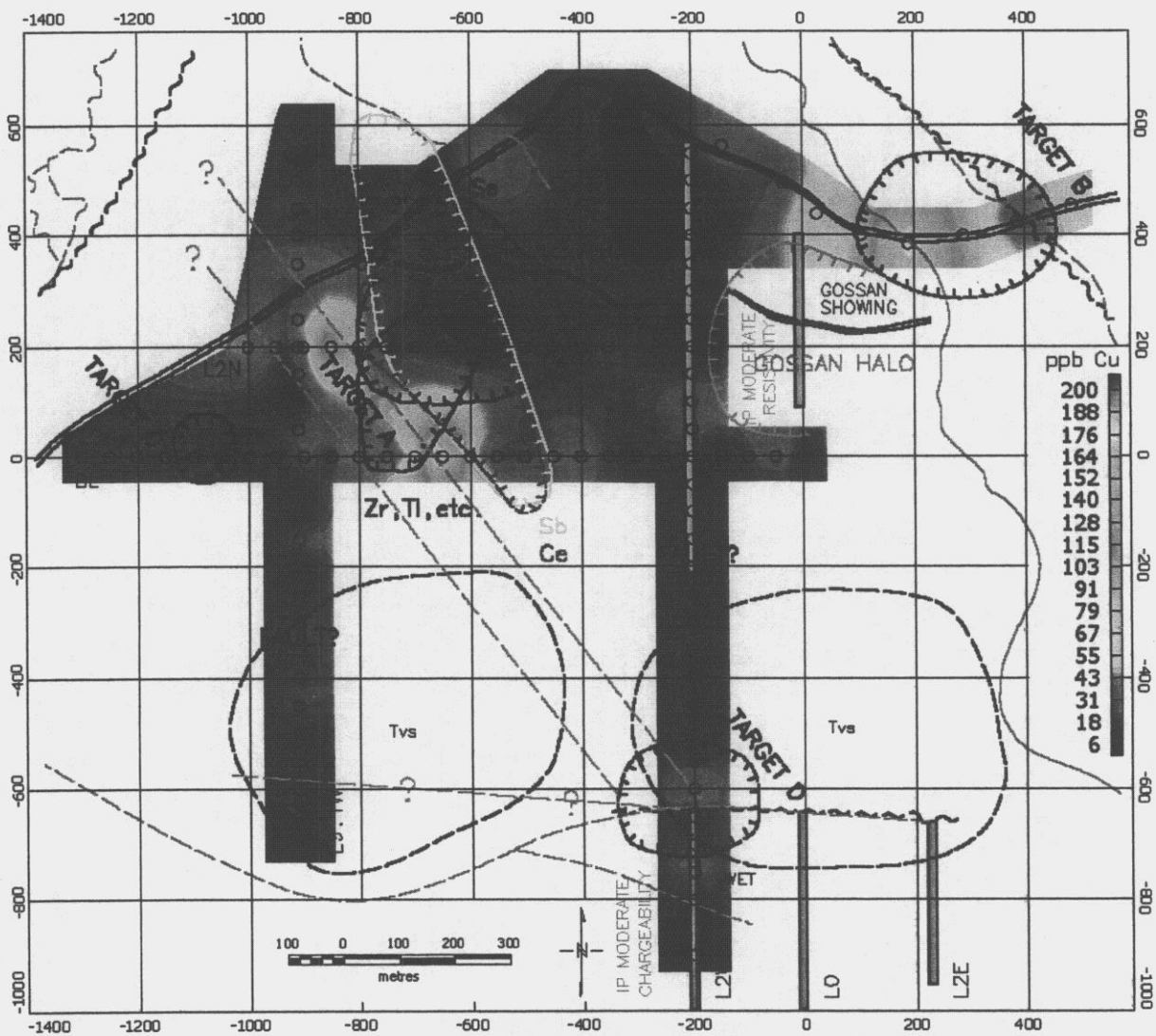


Figure 3. Copper distribution with anomaly summary and geologic base map.

Copper is also enriched in a 150 m wide zone at the eastern end of the Ursa Major road traverse (Target B). In addition, subtle Cu enrichments occur to the southwest of the gossan zone where they may be present within an oxidation anomaly around the gossan zone. The relationship between the gossan and the Target B geochemical response is unclear but the Target B zone could represent an extension or offset of the exposed gossan zone. The peak Cu responses within Target B are from samples near a northwest-trending creek where an old sluice box has been located. Bromine and U also form distinctive highs here. These responses, along with the northwest-trending drainage suggest that a fault underlies the western portion of Target B.

Copper is not enriched within the Target C area. However, Zn and Cd are weakly enriched in a 100 m wide apparent halo at Target C. Zinc also appears to be distributed into a halo around the gossan zone and may also be concentrated into a broad halo around Target A. The Cd distribution shows a more distinctive broad halo pattern in a relatively distal position at Target A. This metal also appears to be distributed into a halo around the gossan zone and possibly at Target B as well.

Thallium and Ge are distributed into subtle halos around Target A. The distributions of these elements feature central low depletions at the intersection between L650W and L2N. These depletions occur at the center of the anomaly as defined by the total data set. The strong depletions here are indicative of a robust electrochemical cell. Each of these elements is also enriched within Targets B and D.

Apparent background shifts occur in In, Pb, Ag, and Bi between the original data set and the follow-up data set. Except for Bi, these elements were detected very near the detection limits and their distributions contain very small shifts that may result from seasonal variation, sampling variation, or a variety of other factors such as differences in sample age or moisture, or instrumental error. Two Bi values were detected in the follow-up samples, both in the western part of the grid, whereas the original sample line yielded Bi values throughout the entire base line traverse ranging from 1.5 to 32.4 ppb. The Bi enrichments in the western margin of the grid suggest that a buried intrusion may be present in the west. However, many of the Bi values in the central and eastern portions of the base line likely represent instrumental effects due to very high Bi concentrations in the westernmost sample(s).

### **Oxidation Suite Elements**

Significant halogen zoning is present within the soil survey. Chlorine is distributed into halos at Targets A and B and is enriched in a high at Target D that is likely fault related. Distinctive Br and I responses are also present at Targets A and D and Br is also enriched in Target B. Bromine is distributed into a distal halo at Target A and a distinctive high at Target D. The Target A halo is indicated not only by the Br highs in the northern and southwestern parts of the anomaly, but by the distinctive central low at the intersection of L650W and L2N. Iodine forms a distinctive high at the center of the Target A anomaly and is also enriched within the halo in the northern part of the anomaly. Apical I highs have been recognized in other robust oxidation anomalies. All three halogens clearly indicate Target A, and to a lesser degree, Target D.

Gold was detected at 0.39 and 0.47 ppb in two samples at the western margin of the Target A anomaly (Figure 4) suggesting subsurface Au enrichments associated with Cu mineralization. A third, weak Au response was also found at the western edge of the Target B zone.

Except for Te and Hg, which were not detected throughout most of the survey, all of the other oxidation suite elements indicate the Target A, B, and D anomalies. Oxidation suite elements are distributed into halos around Targets A and B and highs at Target D. Zoning is clearly present at Targets A and B. For example, at Target A, As and Se are distributed into distal halos whereas most other oxidation suite elements form more proximal halos. Within the Target B anomaly, W, V, and Re form distal halos while Mo and Th are distributed into more proximal halos.

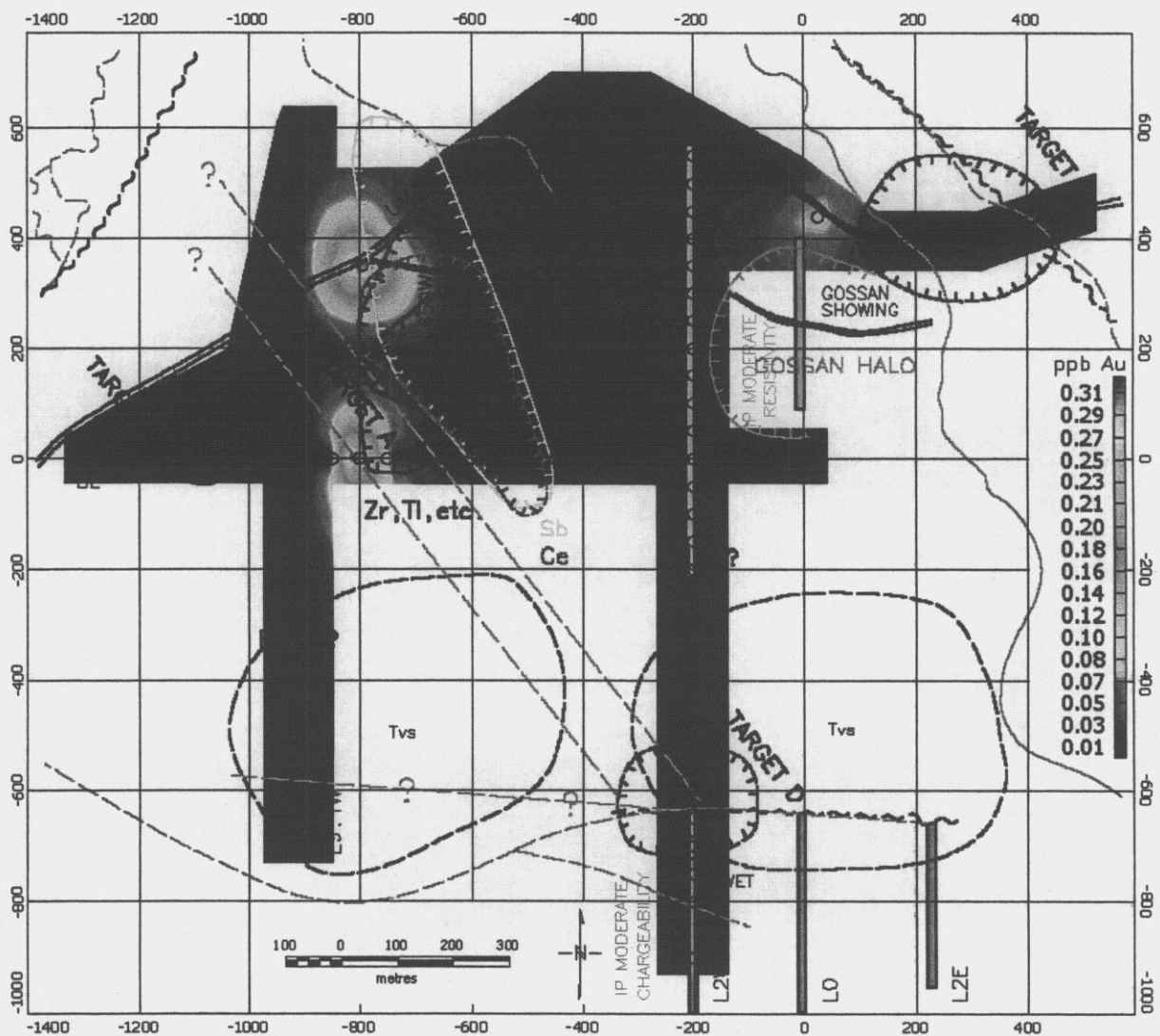


Figure 4. Gold distribution with anomaly summary and geologic base map.

The morphologies of oxidation suite element central lows show considerable variability within the Target A anomaly. Several examples of this are shown in the anomaly summary map. Zirconium, Tl and other elements form north-northeast trending central lows while Ce and Sb form northwest-trending central lows. Elements such as Se and As form broader central lows. All of these central lows overlap in the area where L650W and L2N intersect further indicating that this is the center of a robust electrochemical cell. The variation among central lows may reflect, at least in part, primary geochemical zoning in the subsurface.

### **Rare Earth Elements**

The REE are distributed into halos around Targets A, B, and C and are strongly enriched along the northwest-trending interpreted fault zone (Figure 5). Lanthanum depletions are present at Targets A and C whereas Ce and Eu depletions only occur at Target A. The well-formed REE halos at Target A along with Cu and Au responses in this area could indicate an intrusion associated with mineralization in the subsurface here.

### **High Field Strength Elements**

Zirconium, Hf, and Nb are each depleted at Targets A and B. The lows in these elements extend from the Target A area to the west where they encompass Target C as well. The Target B HFSE lows are also well developed among the above HFSE as well as Ti and Ta. As discussed above, the distinctive HFSE depletions suggest the presence of robust electrochemical cells, particularly at Target A.

### **Lithophile Elements**

The distributions of the lithophile elements are less indicative of oxidation anomalies than are the other element groups. Nonetheless, several members of this group, Li, Cs, Be, and Rb are distributed into halos at Target A. Lithium, Cs, and Be form progressively wider anomalies at Target B; Li forms an apical high, Cs forms a proximal halo, and Be forms a distal halo. Several lithophile elements are also enriched within or near the Target D area. Subtle lithophile element indications of oxidation anomalies are also found at Target C.

### **Recommendations**

All four anomalies defined herein should be explored further. For Targets B, C, and D, additional soil sampling is recommended prior to trenching or drill testing. Target A would also benefit from additional soil sampling although this anomaly is sufficiently well defined to drill test. Assuming that additional soil samples are not collected, drilling is recommended in the center of the anomaly at the intersection of L650W and L2N, and along the western portion of the anomaly to test the northwest-trending interpreted fault zone and the subsurface beneath the

western margin of Target A. Drilling should be designed to intersect the interpreted northwest-striking fault zone beneath the two Cu highs.

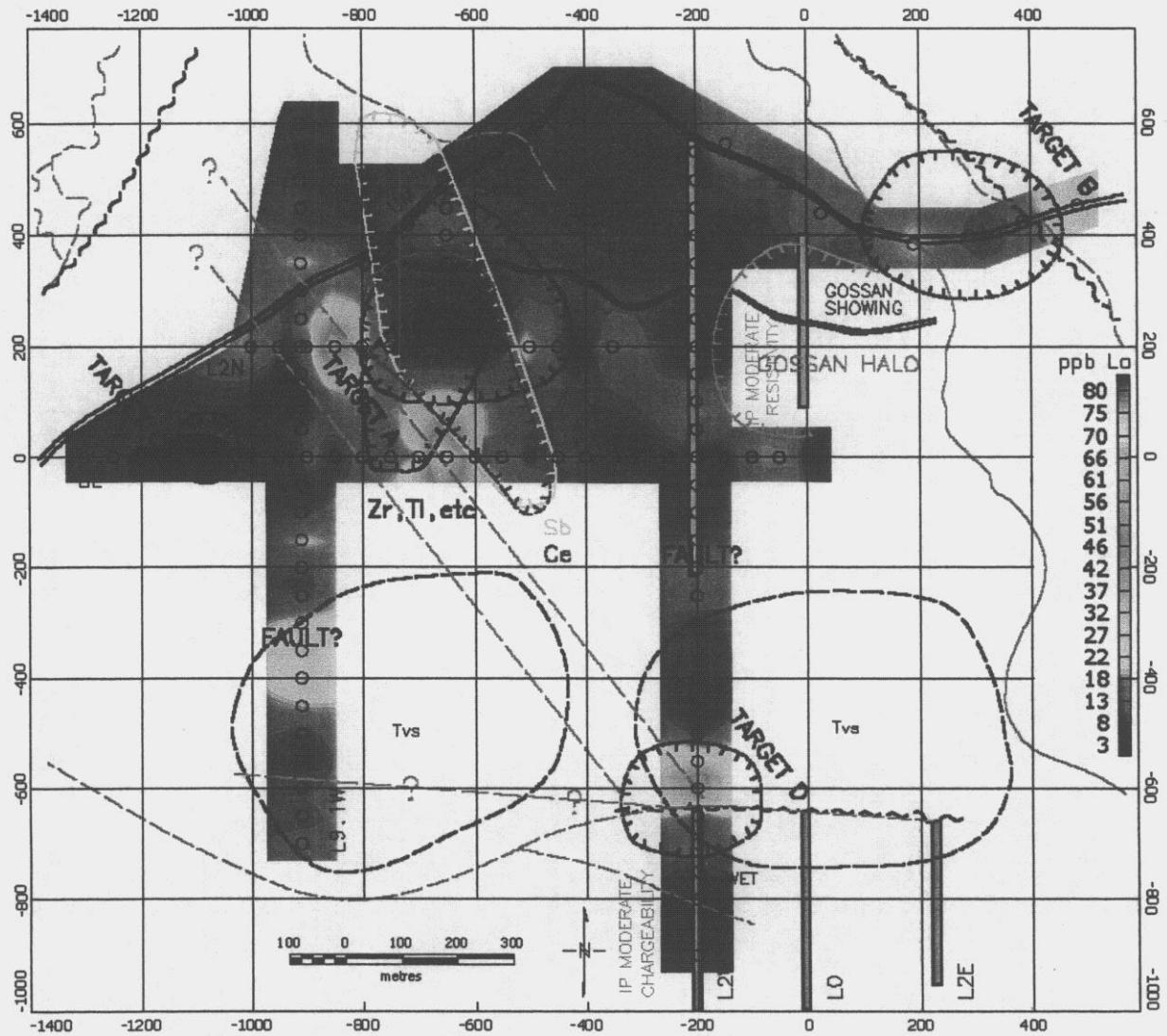


Figure 5. Lanthanum distribution with anomaly summary and geologic base map.

