

**REPORT ON THE 2004  
GEOCHEMICAL AND GEOLOGICAL WORK  
ON THE  
LJS PROPERTY**

Claim Name: \_\_\_\_\_ Grant No's.  
LJS 39-78      YC21952-YC21989

**DAWSON MINING DISTRICT, YUKON TERRITORY  
NTS: 1150/06**

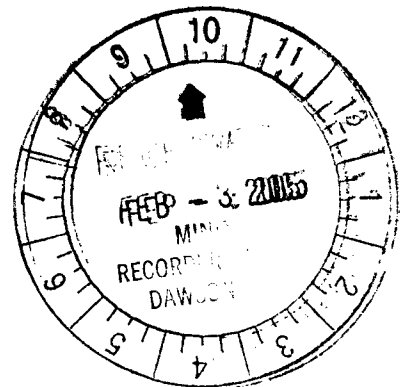
7039000 N  
578000 E  
(NAD 83)

094511

Work conducted:  
June 19 – June 20, 2004

Owner and Operator:  
**Copper Ridge Explorations Inc**  
500 – 625 Howe Street  
Vancouver, British Columbia  
V6C 3T6

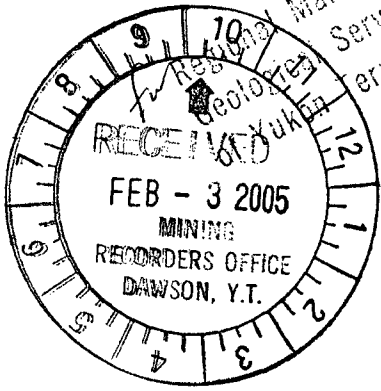
Prepared by:  
J. Greg Dawson, P.Geol.



January 31, 2005

This report has been examined by  
the Geological Evaluation Unit  
under Section 53 (4) Yukon Quartz  
Miner Act and is allowed as  
representation work in the amount  
of \$ 8000

*M. B. ...*  
Regional Manager, Exploration and  
Services for Commissioners  
territory.



Costs associated with this report have been  
approved in the amount of \$ 8,000  
for assessment credit under Certificate of  
Work No. 200532

*Jac ...*  
Mining Recorder  
Dawson City Mining District

## SUMMARY

The LJS property in west-central Yukon covers an area of approximately 790 hectares and is comprised of 78 Yukon two-post Quartz claims that are held by Copper Ridge Explorations Inc. Only the LJS 39 to LJS 78 claims constitute the subject of this report the purpose of which is to fulfill assessment requirements. These claims are one of several noncontiguous claim blocks that together make up a larger land package, the Shamrock project. The Shamrock project is subject to the terms of an option agreement between Yukon prospector Shawn Ryan and Copper Ridge Explorations Inc.

The Lucky Joe mineral occurrence, located approximately 10 km to the north, hosts copper-gold mineralization spatially associated with amphibolite unit high. The LJS property became a focus of exploration activity in 2002 when prospector Shawn Ryan, following up on a recently released low level airborne geophysical survey, recognized the potential other copper-gold occurrences on strike with the Lucky Joe occurrence. The LJS property was staked to cover an amphibolite unit and an associated aeromagnetic high.

Paleozoic metamorphic rocks of the Yukon Tanana Terrane underlie the LJS property. An amphibolite unit exposed on a northerly trending ridge is surrounded by gray orthogneiss. A small granitoid plug or dyke intrudes the amphibolite.

Work in 200 on the LJS property in 2004 consisted of prospecting and reconnaissance soil sampling totaling 69 samples. Results indicate that there are scattered, non-coincident; gold, copper, molybdenum, lead and arsenic anomalies adjacent to the amphibolite unit and its positive aeromagnetic signature. Prospecting on the claims discovered a sample of skarn style mineralized float grading returned 9894 ppm Zn and 2007 Pb. Further prospecting to determine the source of the float is recommended.

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## **1.0 INTRODUCTION**

This assessment report documents the geochemical, geological and prospecting work carried out on the LJS property. The purpose of this report is to fulfill claim assessment requirements. A total of 78 contiguous two post Yukon Quartz claims, named LJS 1 to 78, comprise the property. Forty of the claims (LJS 39-78) make up the subject of this report. The target deposit style at the Shamrock Project is bulk tonnage copper – gold mineralization hosted by metamorphic rocks of the Yukon Tanana Terrane.

In 2004, Copper Ridge carried out a soil sampling, geological mapping and prospecting survey in the vicinity of a geochemical anomaly and a “sulfidic kill zone” identified by Kennecott in 2003 (Hulstein, 2003)

The information contained in the report is based on research and fieldwork conducted in 2004 by Copper Ridge personnel and contractors and on referenced sources.

### **1.1 Location and Access**

The LJS property is located approximately 65 kilometers south of Dawson City in west central Yukon Territory, within the Dawson Mining District (Figure 1). The property covers a ridge located east of the Yukon River, south of Rosebute Creek, north of Henderson Creek and west of North Henderson Creek. The property is located on map sheet NTS 1150/6.

Access to the claims is by helicopter which can be chartered year round in Dawson City. The 2004 helicopter supported work was carried out from a road accessible camp on Quartz Creek, approximately 35 kilometers northeast of the property.

Daily plane and bus service connects Dawson City to Whitehorse, where there is daily jet airplane service to Vancouver, British Columbia. Dawson City also has scheduled flights to Fairbanks, Alaska where jet service is available to the ‘lower 48’.

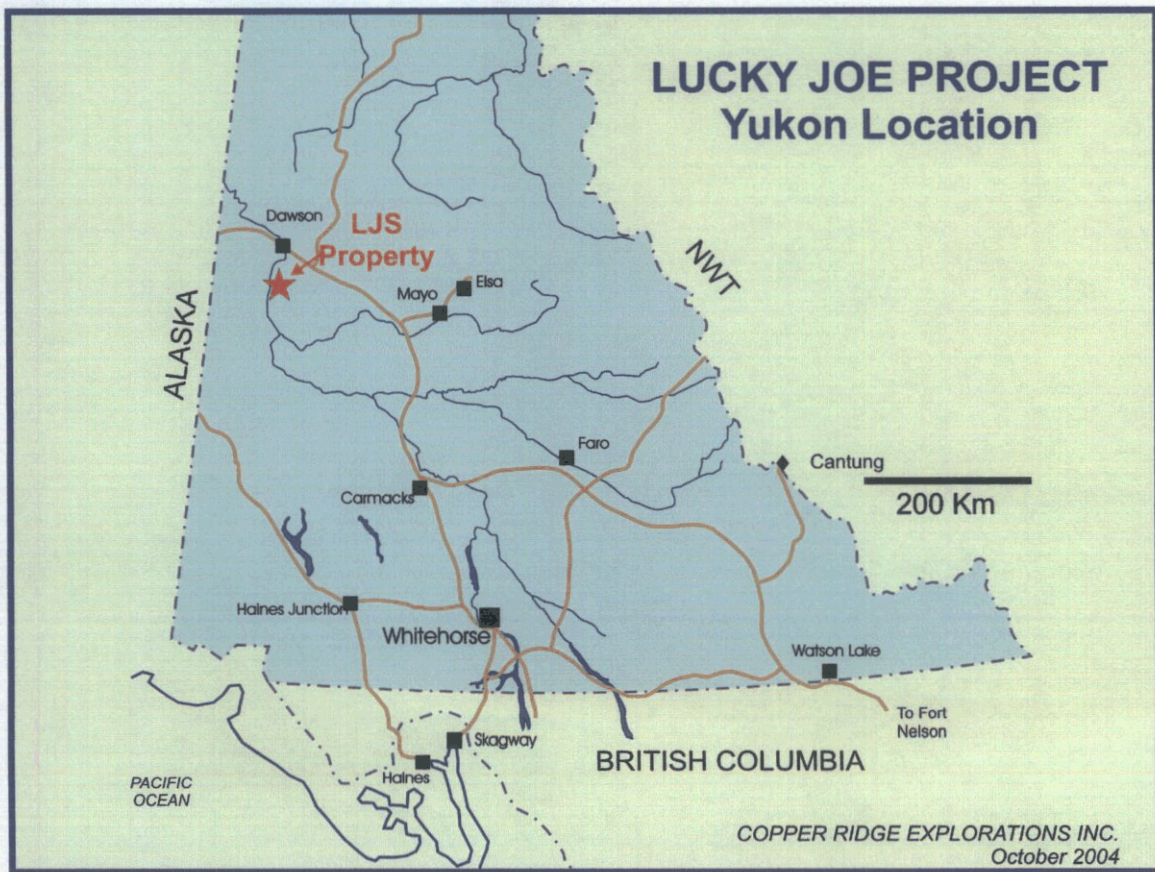


Figure 1: LJS Property Location

## **1.2 Topography, Vegetation and Climate**

Topography in the region is typical of an incised peneplain with steep hillsides and rounded crests. The area was beyond the limits of the last two continental glacial events and evidence of glaciation in the region is a result of localized alpine glaciers. Alluvium in the valleys is locally derived. Hill slopes are covered with a veneer of colluvium, also locally derived. Elevation ranges from 670 m in a valley on the east side to 1130 m atop the north trending ridge on the LJS 1-38 claims. Patches and large areas of permafrost can be found throughout the property, especially on north and west facing slopes.

Rock outcrop is restricted to ridges, small cliffs and creek bottoms. Outcrop exposure represents approximately 5 percent of the property. Soils consist of talus fines and colluvium. Colluvium veneer, the most common cover on the property, averages 1-2 m thick while colluvium blanket material averages >3 m thick. Colluvium conforms to bedrock topography and is composed of diamicton, rubble, and organic-rich silt and sand derived from bedrock sources by a variety of slope processes.

Vegetation in the valley bottoms consists of alder, dwarf birch, balsam fir, white and black spruce. Ground cover in areas of thin tree cover consists of alpine plants, 'buckbrush' (alder), dwarf willow and moss. Most of the vegetation was burnt in a recent forest fire. The property is mostly below tree line at approximately 1200 m, although the ridge tops in the area are covered with brush. Vegetation is generally more abundant on east and south facing slopes.

Low precipitation and a wide temperature range characterize climate. Winters are cold and temperatures of  $-30^{\circ}\text{C}$  to  $-45^{\circ}\text{C}$  are common. Summers are moderately cool with daily highs of  $10^{\circ}\text{C}$  to  $25^{\circ}\text{C}$ . Thunder showers are a common occurrence. Smoke from forest fires can be thick during the summer. The seasonal window for prospecting is from June to mid-late September.

### **1.3 History**

There is no record of claims having been staked previously on what is now the LJS property. It is likely the area was explored as part of regional exploration programs in the 1970's when the Lucky Joe property 10 km to the north was discovered and explored.

In 2001 Yukon prospector Shawn Ryan, guided by a recent low level airborne aeromagnetic survey, conducted jointly by the Geological Survey of Canada and the Yukon Geology Program, staked the LJS 1-38 claims over ground possibly covered extensions of the showings discovered and drilled on the Lucky Joe property 10 km to the north.

In 2001 Copper Ridge Explorations Inc. optioned the LJS 1-38 claims staked by Shawn Ryan. In January 2003 Kennecott Canada Exploration Inc. optioned the LJS 1-38 as part of a larger land package, the Lucky Joe Project, from Copper Ridge Explorations Inc. The contiguous LJS 39-78 claims were staked in August 2003 by Kennecott to cover a gossanous area.

In the summer of 2003 Kennecott conducted a program of reconnaissance soil sampling on the LJS claim group. This work identified a number of non-coincident scattered gold, copper, molybdenum, lead and arsenic anomalies associated with a magnetically distinct amphibolite unit. Kennecott subsequently terminated it's option on the LJS claim in late 2003.

### **1.4 2004 Copper Ridge Work Program**

The 2004 work was designed to further investigate some of the spot anomalies defined by Kennecott in 2003. A total of 4 man days were spent prospecting by geologists Rick Zuran and Reza Tafti, during which time 4 rock samples were collected. Samplers Grant Carlson and Scott Flemming spent 4 man days collecting 69 soil samples. The prospecting and sampling work was conducted on the 19<sup>th</sup> and 20<sup>th</sup> of June, 2004.

Data for all the samples were noted in field note books. Hand-held GPS receivers (Garmin E-Trex and GPS MAP 76) were used to plot locations of samples and outcrops (approximate +/- 5m accuracy). The datum used was NAD 83, zone 7. Samples were shipped to Acme Analytical Laboratories for analysis in Vancouver, B.C The sample location, description and analytical results were entered into an Excel database and displayed in MAPINFO, a GIS program.

## 1.5 Claim Status

The LJS 39-78 claims cover an area of approximately 830 hectares and consists of 40 unsurveyed, contiguous, two-post Yukon 'Quartz' claims registered in the name of Copper Ridge Explorations Inc. The claims were staked according to the Yukon Quartz Mining Act and are located in the Dawson Mining District. They are shown on claim sheets 1150-6 available for viewing at the Dawson Mining Recorders Office. The claims are subject to the terms of an option agreement between Yukon prospector Shawn Ryan and Copper Ridge Explorations.

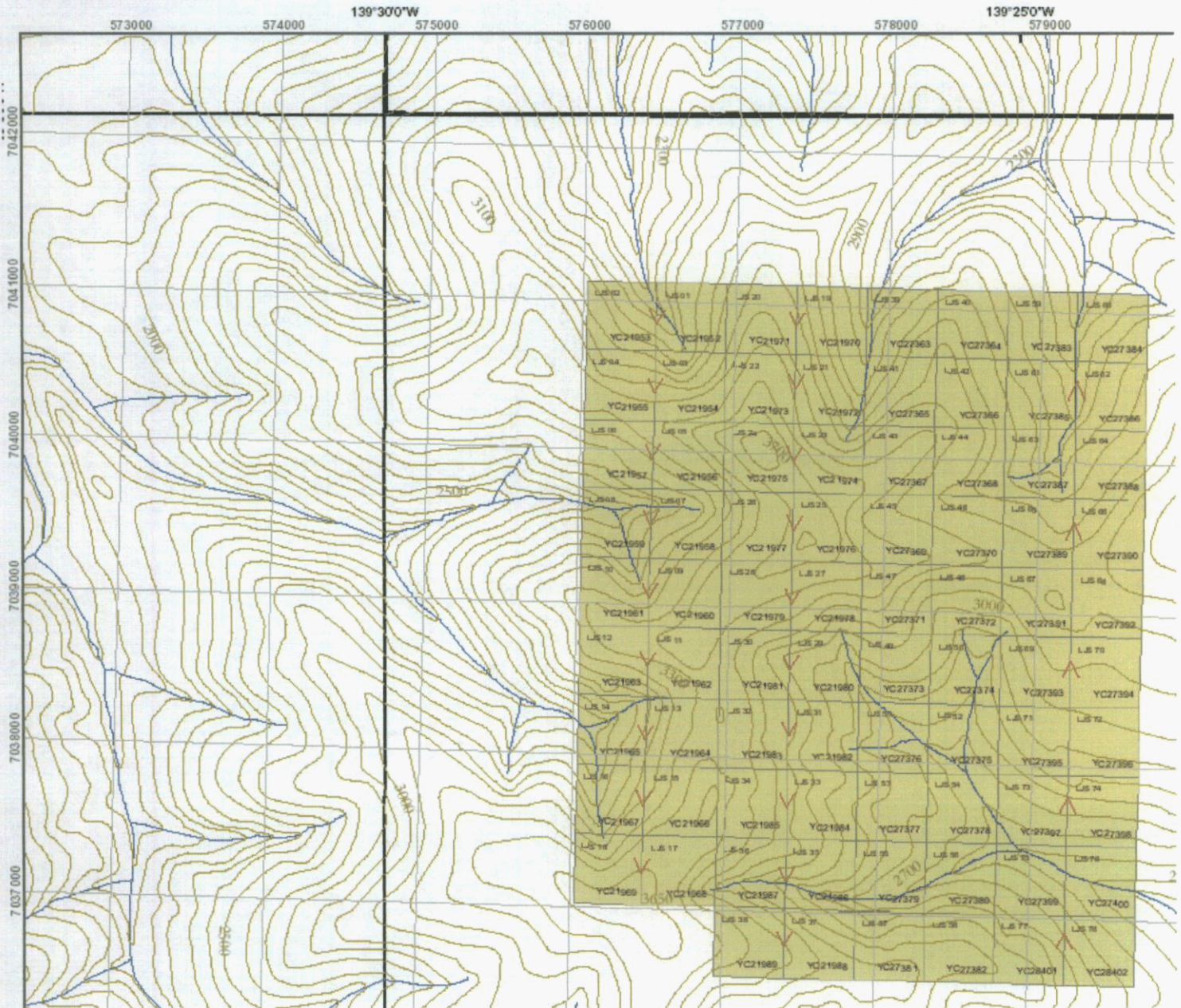
**Table 1. List of Claims**

<b>Claim Name</b>	<b>Grant Number</b>	<b>Expiry Date*</b>
LJS 39-78	YC27363-YC27402	August 19, 2006

\*Subject to this report being accepted as fulfilling assessment requirements.

An additional 38 claims LJS 1-38, staked along the west side of the LJS 38-78 claim block, are not included in this report.

1150/06



Scale: 1:40,000

Figure 2: Claim Location Map



## **2.0 REGIONAL GEOLOGY**

The first geological investigation in the area of the Lucky Joe Property was by H.S. Bostock starting in 1935 (Bostock, 1942). More recently, most of the property was mapped at 1:100,000 scale as part of a Geological Survey of Canada NATMAP project (Ryan et al, 2004)

Regionally the property lies between the Tintina and Denali Faults within the Ominica Belt (Wheeler and McFeely, 1991). They are found to the northeast and southwest of the property respectively, trend northwest and are major crustal-scale transcurrent dextral faults of Tertiary (?) age.

The area is underlain by the lithotectonic (pre-accretion) Yukon-Tanana Terrane (YTT) assemblage: a medium to high grade, polydeformed package of metasedimentary and meta-igneous rocks. The YTT is mainly Palaeozoic in age and was juxtaposed by regional scale thrust faults in early Mesozoic time, a period of terrane accretion that affected much of the northern Cordillera.

More locally, the YTT consists of two main assemblages of supracrustal rocks, the Devonian-Mississippian Pelly Gneiss and lower YTT terrane rocks composed of Devonian and older quartz-rich rocks, amphibolite, mica schists and minor marble.

Jurassic and Cretaceous granitoid bodies, predominantly quartz monzonite, intrude the YTT and Mortenson (1996) noted that field relationships indicate that some were intruded prior to both Early (?) Jurassic regional thrust imbrication and Early Cretaceous normal faulting.

### **3.0 PROPERTY GEOLOGY**

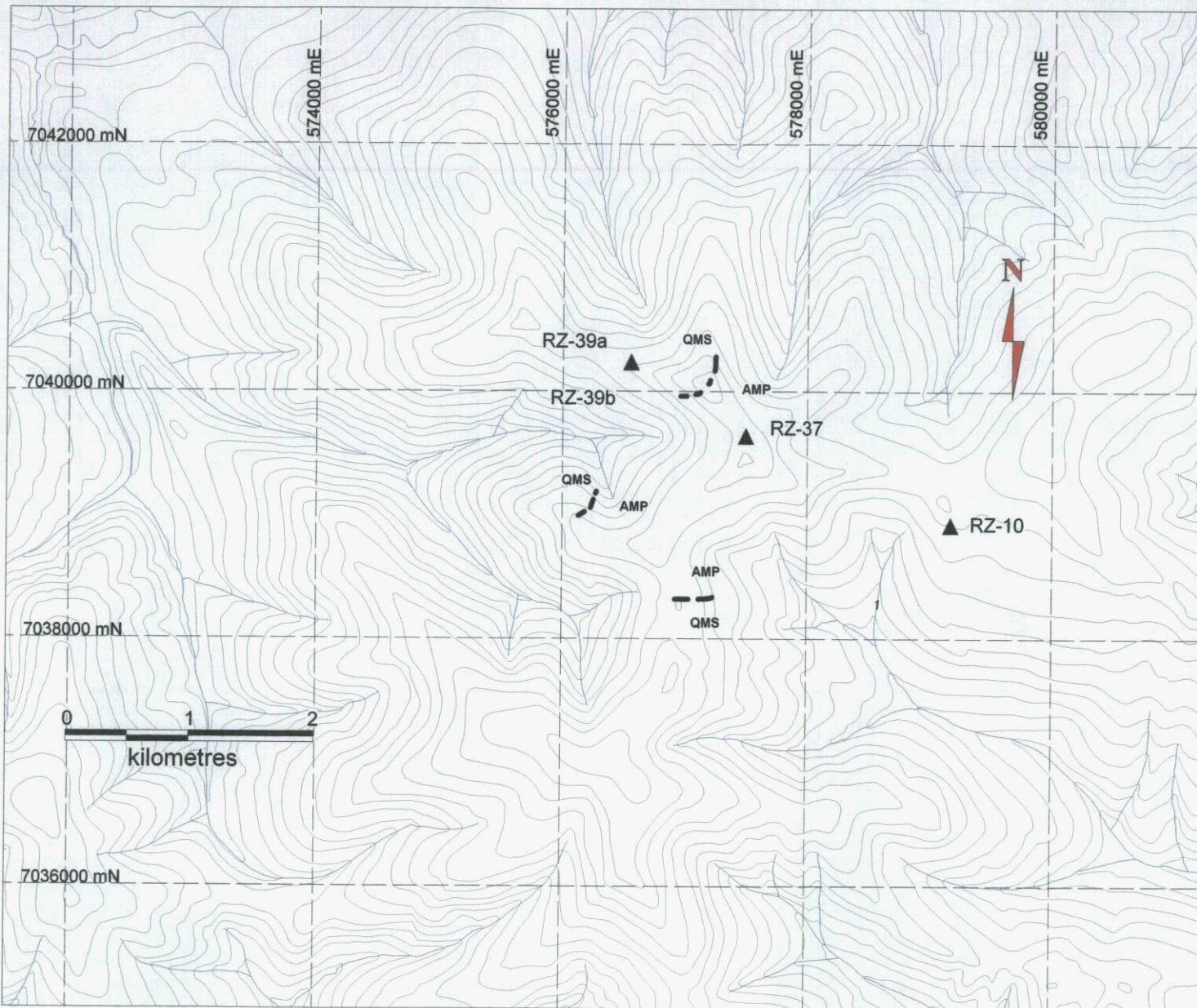
The north-south ridge on the LJS property is underlain by foliated mid(?) - Late Palaeozoic amphibolite surrounded grey orthogneiss. The amphibolite is described by Gordy and Ryan (2002) as an amphibolite schist and gneiss consisting of metabasite that is probably derived from mafic to intermediate volcanic or volcanoclastic rock. Kennecott's work in 2003 showed that the amphibolite has a strong positive magnetic signature. The amphibolite is locally associated with psammite or interlayered with orthogneiss. The grey orthogneiss, of intermediate to mafic composition, is generally grey, banded to layered, commonly veined and is believed to be derived from intermediate granitoid (tonalite to diorite) sheets that are commonly interlayered with amphibolite schist and gneiss (Gordy and Ryan, 2002).

A small plug or dyke of Jurassic or Cretaceous granite (Gordy and Ryan, 2002) intrudes the amphibolite unit in the central area of the ridge immediately east of the 2004 sampling.

Approximate contacts noted during prospecting and soil sampling traverses are shown on Figures 3 and 4. Outcrop exposure on the property is very poor.

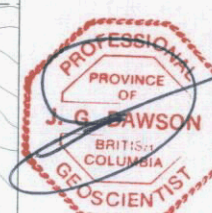
#### **3.1 Alteration and Mineralization**

At least two types of mineralization are apparent on the claim block. A small piece of angular float with Zn-Pb-Fe (Cu) skarn mineralization was found coincident with the Kennecott copper in soil anomaly at the "Kill Zone". Rock sample RZ-10 of this material returned 9894 ppm Zn and 2007 Pb. Also, a pale orange weathering quartz sericite schist horizon was identified that may indicate an extensive alteration within the gneiss-schist package (perhaps indicating that the unit represents an altered meta-felsic volcanic). Rock sample locations and summary geochemical data are shown on Figure 3. Full rock sample analytical data is included in Appendix I (Descriptions are given in Appendix II).



**AMP = Amphibolite**

**QMS = Quartz Mica Schist**



**Copper Ridge Explorations**

Sample	Type	Width_m_	Outcrop_Size_m	Mo_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Co_ppm	Au_ppb
RZ-10	float	0.25x0.1x0.1	3x5-sc	0.8	25.3	2,007.4	9,894	11.5	0.7
RZ-37	chip	0.25	7x25	0.1	14.5	0.4	7	7.8	4.4
RZ-39a	chip		30x30	0.3	4.8	0.7	28	5.9	<.5

Date: 25/10/2004  
 Author: JG Dawson  
 Office:  
 Figure: 3  
 Scale: 1:50000 Projection: UTM Zone 7 (NAD 83)

**LJS Project**

## **4.0 GEOCHEMISTRY**

Geochemical sample analysis was conducted by Acme Analytical Laboratories of Vancouver, B.C. All soil samples were sieved to – 80 mesh and then a 30 gram sub sample was analyzed by the ICP-MS technique. Full analytical results are shown in Appendix I. This technique returns trace element values for 36 elements.

Sample locations for the 2003 and 2004 samples are shown on Figure 4. Sample numbers for the 2004 program are shown on Figure 5

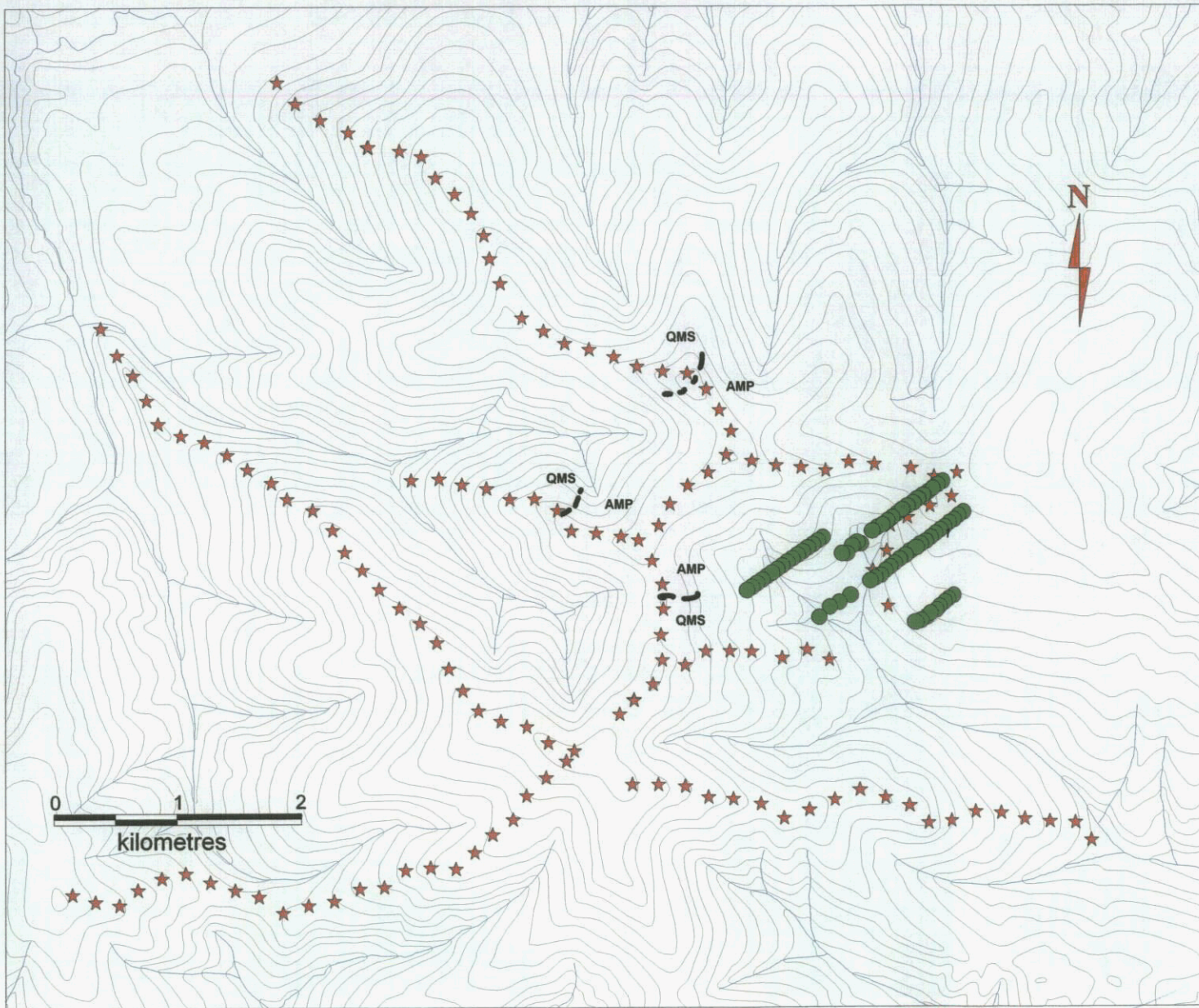
### **4.1 Soil Geochemistry**

A total of 69 soil samples were collected in 2004 on the LJS 39 to 78 claim block. Geochemical results for gold are presented on Figure 6, for copper on Figure 7, molybdenum on Figure 8, lead on Figure, 9 zinc on Figure 10 and cobalt on Figure 11.

Soil samples were collected on three lines in the area of a weakly defined vegetation “kill zone”. Some of the higher spot values from the 2003 work were also located in this area. Sample spacing was nominally 50 m, but this varied somewhat depending on local conditions of soil development. Samples were taken with a Edelman Dutch auger. Material sampled was usually the “B” or “C” horizon.

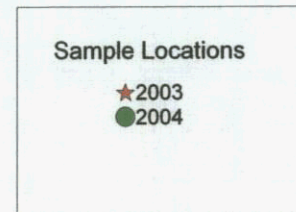
Threshold values for the proportional plots shown on figures 5 through 11 were determined by histograms calculated using both the 2003 and 2004 data.

Results from the sampling program show a number scattered moderate to strong statistical anomalies in cobalt, molybdenum and gold. None of these values are coincident with each other or elevated values of other metallic elements and no discreet area of anomalous mineralization was defined.

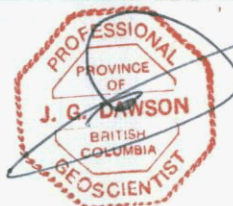


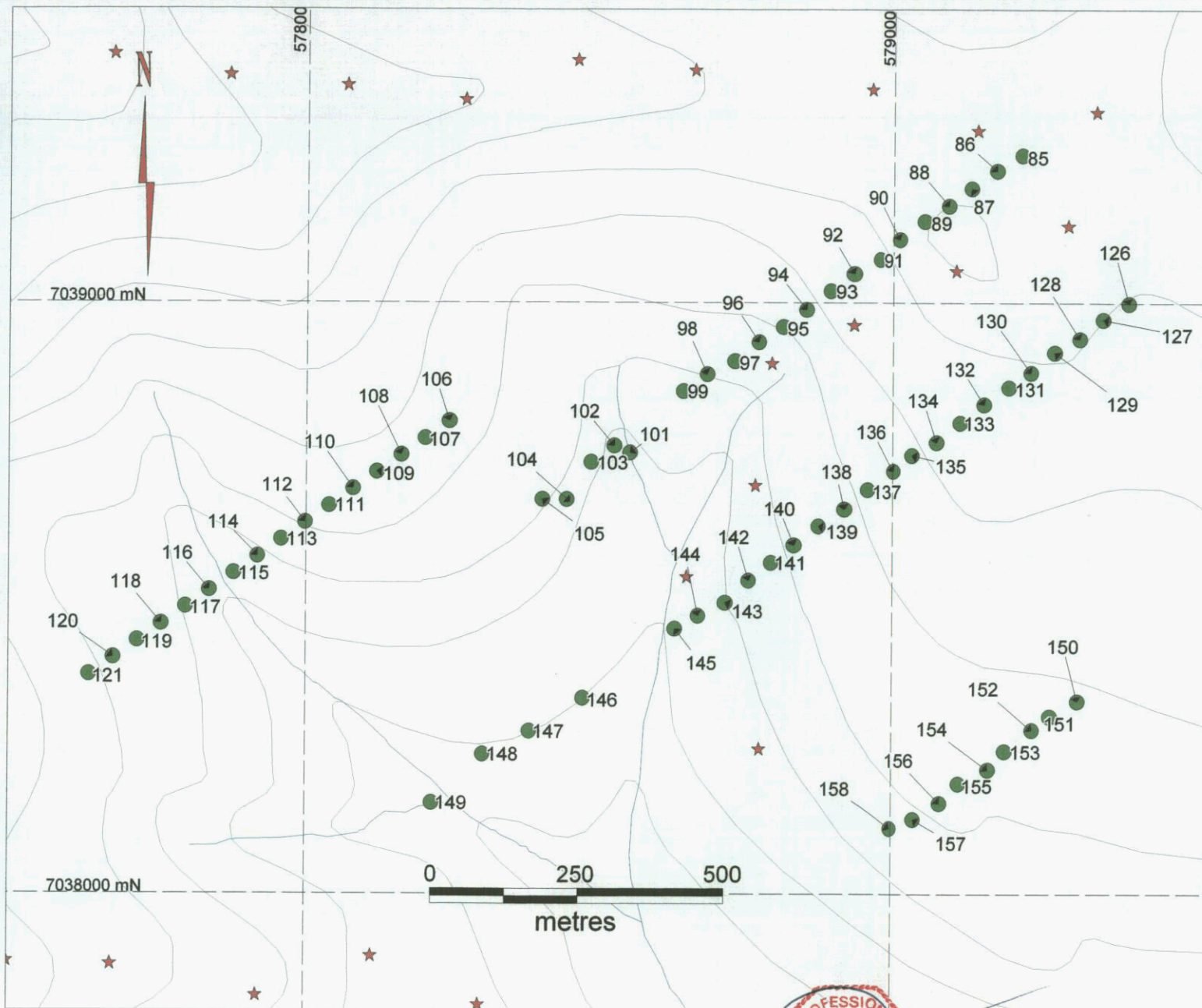
**AMP = Amphibolite**

**QMS = Quartz Mica Schist**



<b>Copper Ridge Explorations</b>	
Date: 25/10/2004	<b>2003 and 2004 Soil Sample Locations</b>
Author: JG Dawson	
Office:	
Figure: 4	
Scale: 1:50000	Projector: UTM Zone 7 (NAD 83)
<b>LJS Project</b>	





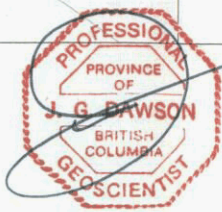
**Sample Locations**

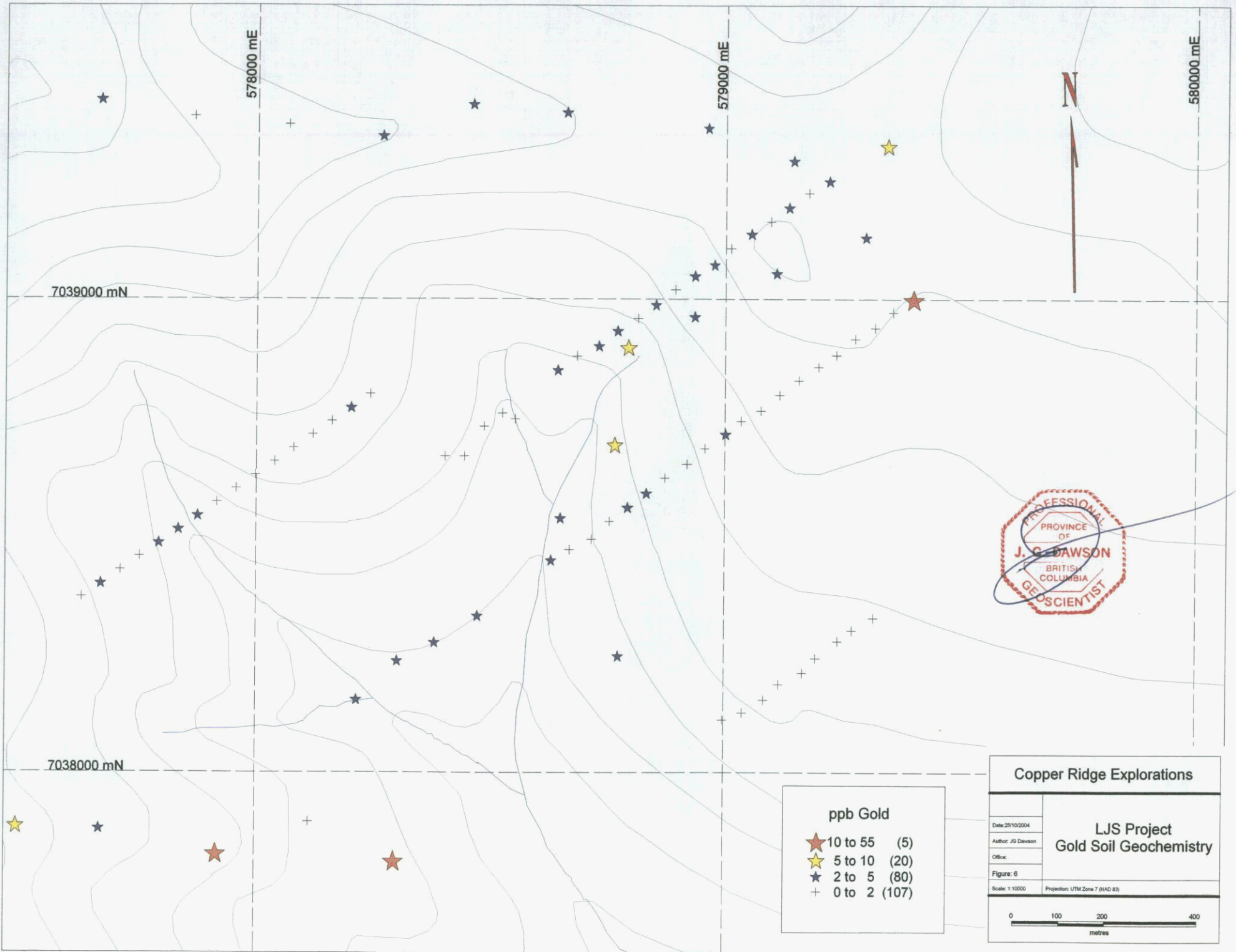
- ★ 2003
- 2004

**Copper Ridge Explorations**

Date: 25/10/2004	<b>2004 Soil Sample Numbers</b>
Author: JG Dawson	
Office:	
Figure: 5	
Scale: 1:10000	Projection: UTM Zone 7 (NAD 83)

**LJS Project**





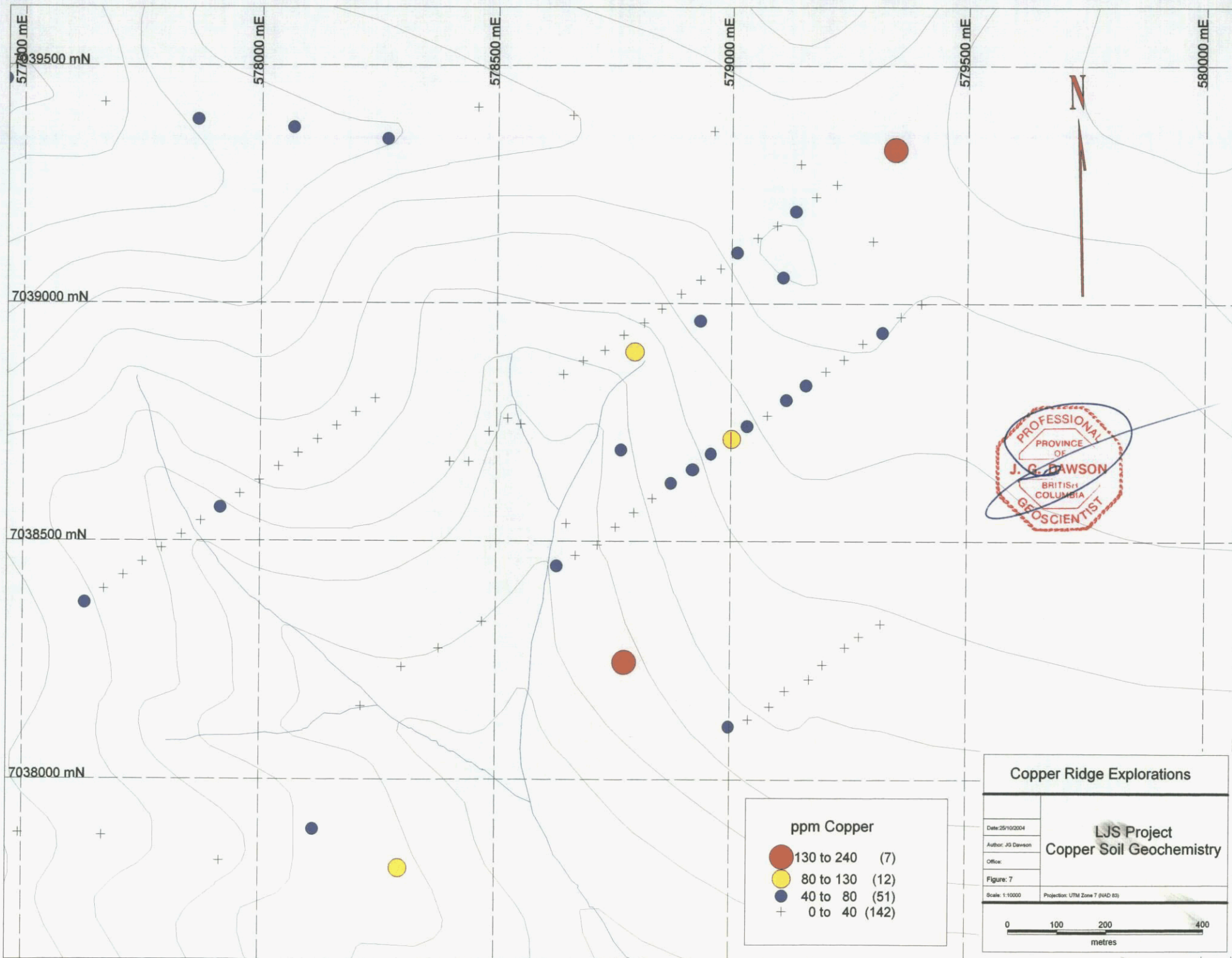
**ppb Gold**

- ★ 10 to 55 (5)
- ★ 5 to 10 (20)
- ★ 2 to 5 (80)
- + 0 to 2 (107)

**Copper Ridge Explorations**

<b>LJS Project Gold Soil Geochemistry</b>	
Date: 25/10/2004	
Author: J.C. Dawson	
Office:	
Figure: 6	
Scale: 1:10000	Projection: UTM Zone 7 (NAD 83)

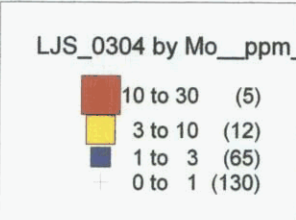
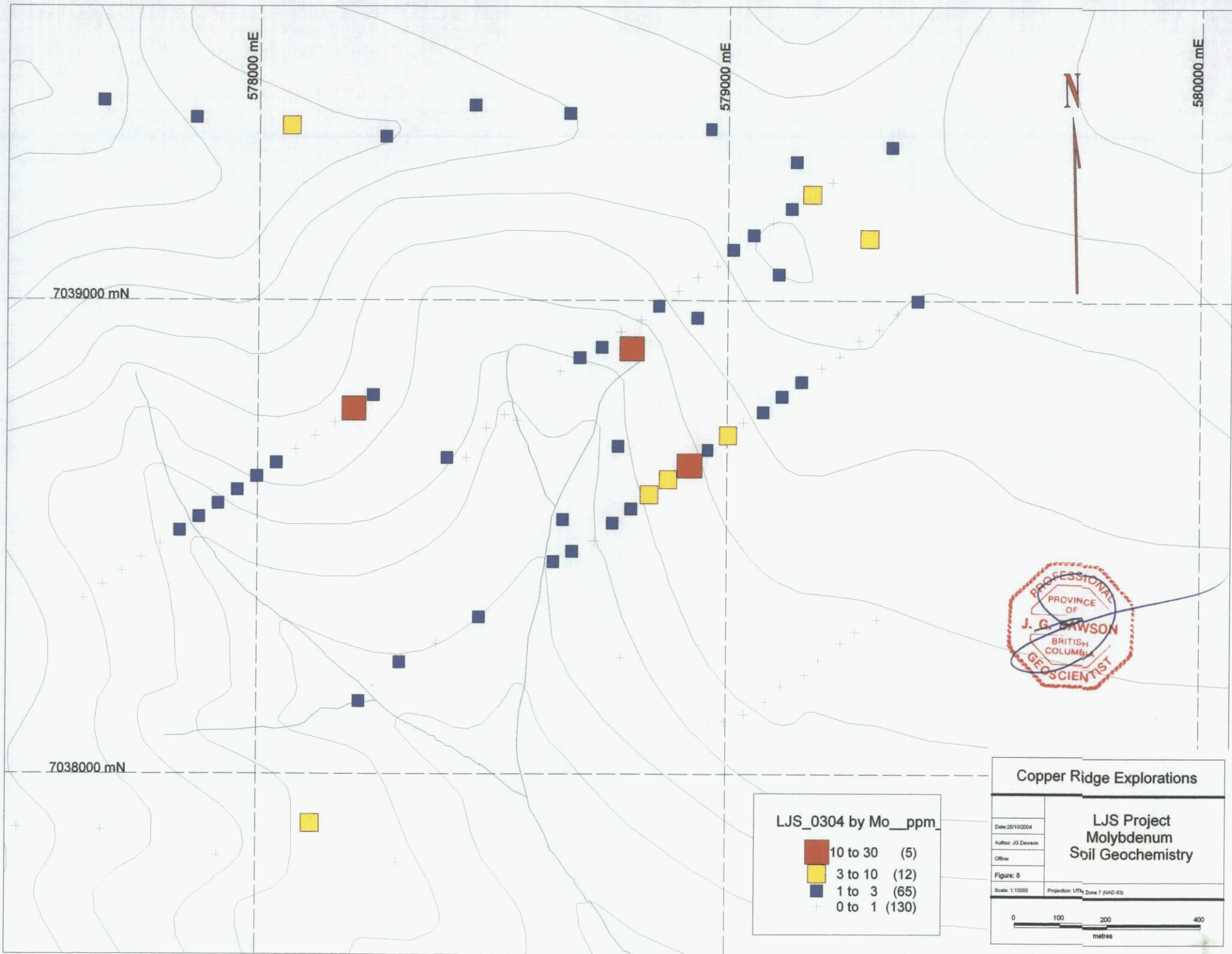
0 100 200 400 metres



**Copper Ridge Explorations**

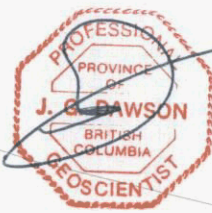
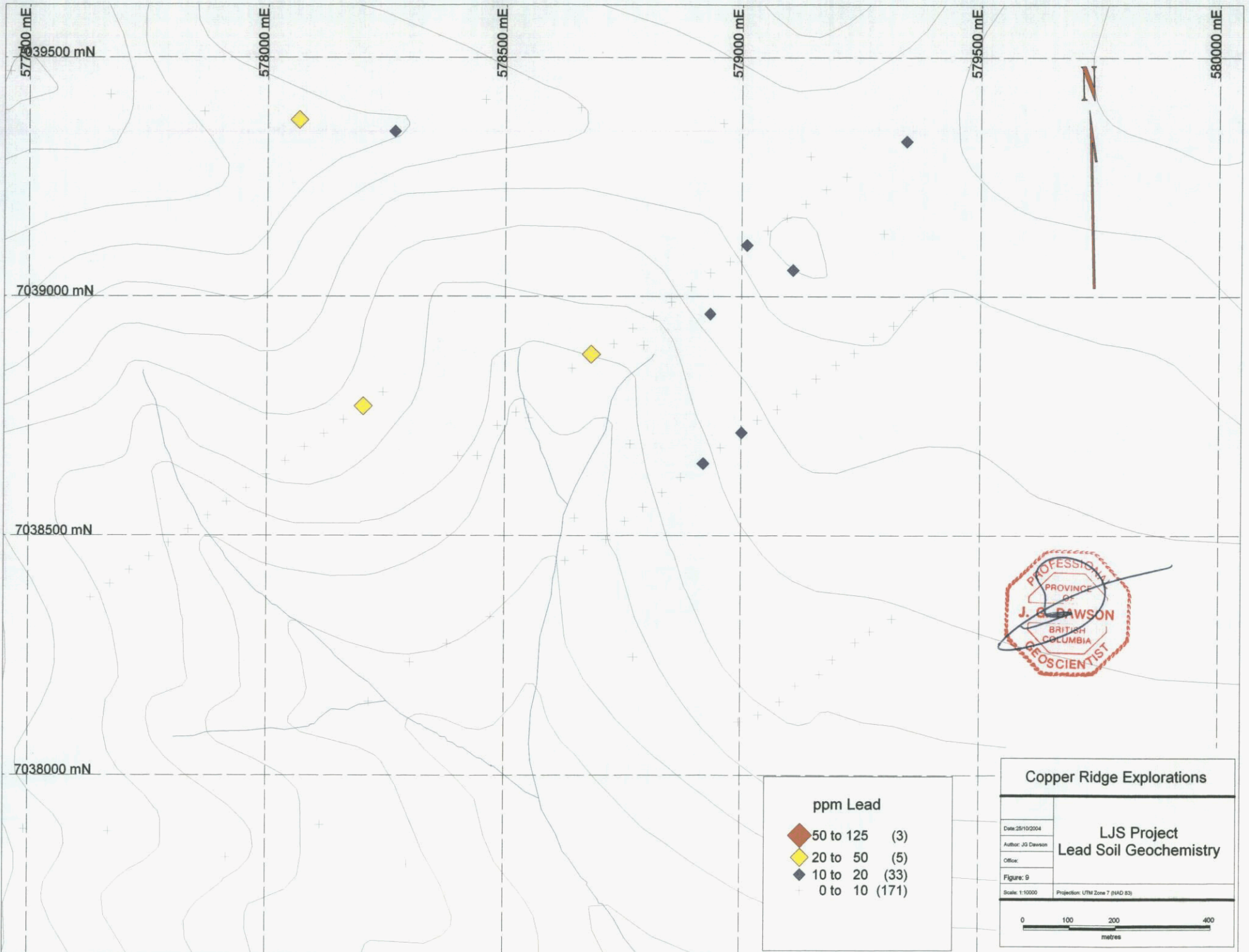
Date: 25/10/2004	<p style="font-size: 1.2em;"><b>LJS Project</b></p> <p style="font-size: 1.2em;"><b>Copper Soil Geochemistry</b></p>
Author: JG Dawson	
Office:	
Figure: 7	
Scale: 1:10000	Projection: UTM Zone 7 (NAD 83)

0      100      200      400  
metres



**Copper Ridge Explorations**

Date: 25/10/2004	<b>LJS Project Molybdenum Soil Geochemistry</b>
Author: JG Dawson	
Office:	
Figure: 8	
Scale: 1:10000	Projection: UTM Zone 7 (NAD 83)



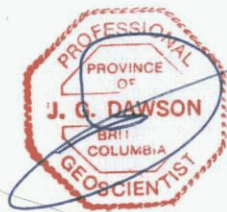
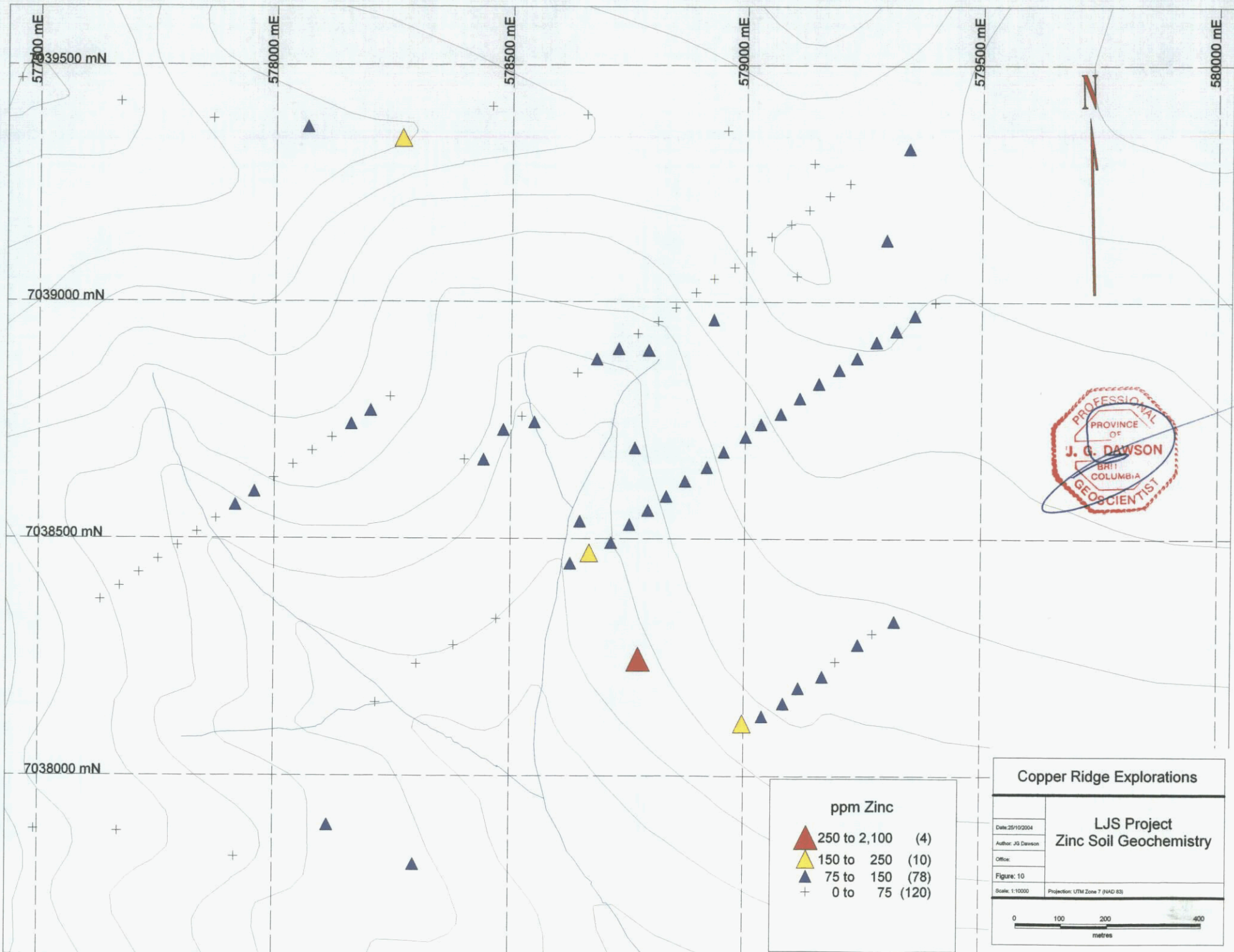
ppm Lead

◆	50 to 125	(3)
◆	20 to 50	(5)
◆	10 to 20	(33)
+	0 to 10	(171)

**Copper Ridge Explorations**

Date: 25/10/2004	<b>LJS Project Lead Soil Geochemistry</b>
Author: JG Dawson	
Office:	
Figure: 9	
Scale: 1:10000	Projection: UTM Zone 7 (NAD 83)

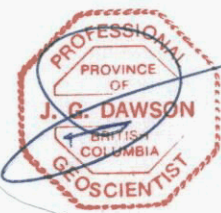
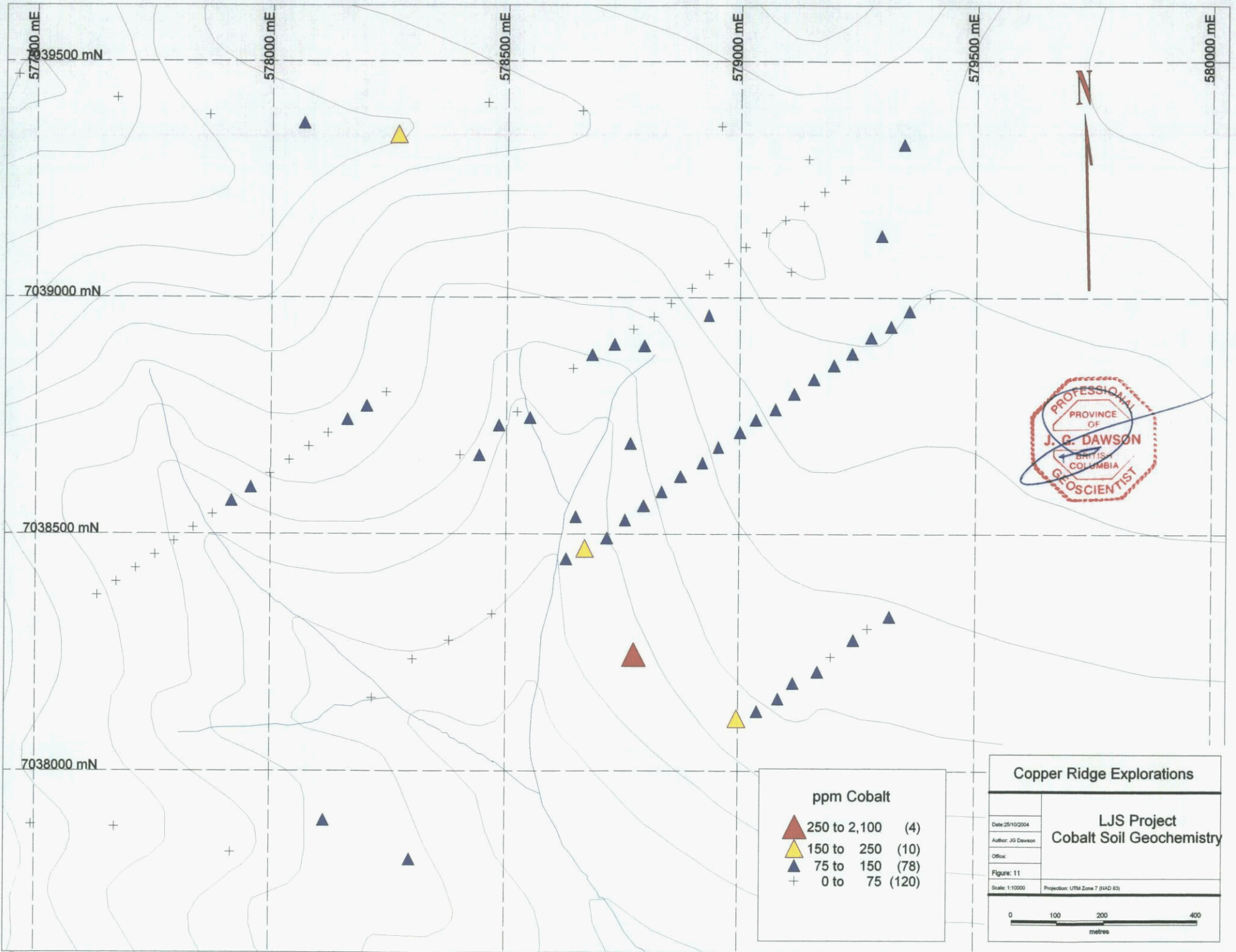
0 100 200 400 metres



**Copper Ridge Explorations**

<b>LJS Project Zinc Soil Geochemistry</b>	
Date: 25/10/2004	
Author: JG Dawson	
Office:	
Figure: 10	
Scale: 1:10000	Projection: UTM Zone 7 (NAD 83)

0 100 200 400  
metres



**ppm Cobalt**

▲	250 to 2,100	(4)
▲	150 to 250	(10)
▲	75 to 150	(78)
+	0 to 75	(120)

**Copper Ridge Explorations**

Date: 25/10/2004	<b>LJS Project Cobalt Soil Geochemistry</b>
Author: JG Dawson	
Office:	
Figure: 11	
Scale: 1:10000	Projection: UTM Zone 7 (NAD 83)

0 100 200 400 metres

## **5.0 CONCLUSION AND RECOMMENDATIONS**

The LJS property covers an aeromagnetic high, reflecting an amphibolite unit exposed on a north trending ridge in the central portion of the property. Surrounding lithologies consist of gray orthogneiss. Three soil sample lines were completed in a vegetation "kill zone" area where prospecting had found a sample of skarn mineralized float.

Results from the sampling program show a number scattered moderate to strong statistical anomalies in cobalt, molybdenum and gold. None of these values are coincident with each other or elevated values of other metallic elements and no discreet areas of anomalous mineralization were defined.

The source of the skarn mineralized float remains unknown. One or two days of further prospecting in the area are therefore warranted in order to try and find the source of the float.

## 6.0 STATEMENT OF COSTS

The LJS property (LJS 38-78 claims) are part were part of a larger exploration project, the Shamrock Project, carried out by Copper Ridge in 2004. Camp support and helicopter costs were therefore pro-rated by the number of soil samples collected on the LJS project.

**Table 2. Statement of Costs**

### Analysis

#### Soil Samples

LJS Grid	69	samples	@	\$14.00	per sample	\$	966.00
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#### Rock Samples

	4	samples	@	\$16.90	per sample	\$	67.60
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#### Total

						\$	<b>1,033.60</b>
--	--	--	--	--	--	----	-----------------

### Labour

Senior Geologist	0.25	days	@	\$450.00	per day	\$	112.50
------------------	------	------	---	----------	---------	----	--------

Project Geologist	2	days	@	\$430.00	per day	\$	860.00
-------------------	---	------	---	----------	---------	----	--------

Junior Geologist	2	days	@	\$280.00	per day	\$	560.00
------------------	---	------	---	----------	---------	----	--------

Assistant	2	days	@	\$220.00	per day	\$	700.00
-----------	---	------	---	----------	---------	----	--------

Cook and First Aid	2	days	@	\$350.00	per day	\$	650.00
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Samplers	2	days	@	\$325.00	per day	\$	650.00
----------	---	------	---	----------	---------	----	--------

#### Total

						\$	<b>3,532.50</b>
--	--	--	--	--	--	----	-----------------

#### Support, Fuel and Field Consumables

						\$	<b>897.00</b>
--	--	--	--	--	--	----	---------------

#### Helicopter Charter

						\$	<b>1,230.30</b>
--	--	--	--	--	--	----	-----------------

#### Truck Rental

						\$	<b>200.00</b>
--	--	--	--	--	--	----	---------------

#### Administration and Overhead

						\$	<b>690.00</b>
--	--	--	--	--	--	----	---------------

#### Total

						\$	<b>7,583.40</b>
--	--	--	--	--	--	----	-----------------

#### GST

						\$	<b>530.84</b>
--	--	--	--	--	--	----	---------------

#### Grand Total

						\$	<b>8,114.24</b>
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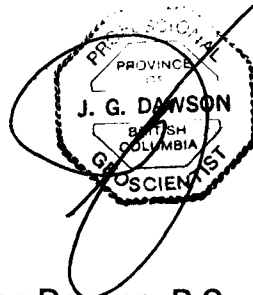
## 7.0 STATEMENT OF QUALIFICATIONS

I, J, Greg Dawson, with business address:

Copper Ridge Explorations Inc.  
500 – 600 Howe Street  
Vancouver, BC  
V6C 2TC

and residential address in Coquitlam, British Columbia, do hereby certify that:

1. I am a geologist employed as Vice President Exploration for Copper Ridge Explorations Inc.
2. I am a graduate of the University of British Columbia with a Bachelors of Science degree (B.Sc., 1987) and of Queens' University with a Masters of Science degree (M.Sc., 1991) and have been involved in geology and mineral exploration continuously since 1980.
4. I am registered as a professional geoscientist (No. 19882) with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
5. I am the author of this report on the LJS Property located in the Dawson Mining District, Yukon. The report is based on written and oral communications from contract personnel who worked on the property in June of 2004.



J. Greg Dawson, B.Sc., M.Sc, P.Geo.

October 31, 2004

## 8.0 REFERENCES

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**APPENDIX I**  
**Analytical Data**

Rock Sample Data

From ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

To Copper Ridge Exploration Inc. PROJECT SOUTH DAWSON

Acme file # A403264 Received: JUL 5 2004 • 25 samples in this disk file.

Analysis: GROUP 1DX - 30.0 GM

ELEMENT	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	Hg	Sc	Tl	S	Ga	Se
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	
ST	<.1	0.5	0.2	<.1	<.1	<.1	<.1	5	0.01	<.5	<.1	1.1	<.1	2	<.1	<.1	<.1	0.08	<.001	<.1	<1.0	<.01	2	<.001	1	0.01	0.4	<.01	<.1	0.01	0.1	<.1	<.05	<.1	<.5	
RZ 10	0.8	25.3	2007.4	9894	5	1.8	11.5	3884	1.62	<.5	1.3	0.7	4.1	6	28.7	0.1	14.3	7	2.17	0.042	12	7.7	0.05	92	0.035	<.1	0.53	0.002	<.01	0.3	0.17	0.9	<.1	<.05	2	2
RZ 37	0.1	14.5	0.4	7	<.1	1	7.8	86	1.78	<.5	1.1	4.4	13.3	4	<.1	<.1	<.1	5	0.15	0.035	12	3.8	0.24	27	0.046	<.1	0.39	0.047	0.07	<.1	<.01	4.1	<.1	<.05	3	<.5
RZ 39a	0.3	4.8	0.7	28	<.1	8.3	5.9	308	1.78	<.5	0.2	<.5	1.5	11	<.1	0.1	<.1	26	0.7	0.077	4	16.9	0.6	229	0.091	1	0.79	0.112	0.31	0.2	<.01	3.5	0.1	<.05	4	<.5
RZ 39b	0.1	2.9	0.5	10	<.1	0.5	1.6	141	1.71	<.5	0.2	<.5	2.4	9	<.1	0.1	<.1	5	0.28	0.028	8	10.4	0.12	24	0.071	<.1	0.37	0.059	0.08	0.3	<.01	2.6	<.1	<.05	3	<.5
STNDD55	12.9	140.4	26.2	138	0.3	23.9	11.8	741	2.98	17.9	6.2	41.4	2.8	45	5.7	3.9	6.1	59	0.73	0.091	11	188.2	0.65	136	0.096	17	1.98	0.033	0.14	5.4	0.16	3.4	1	<.05	6	4.9

**Soil Sample Data**

Sample ID	Location (NAD 83) Easting	Location (NAD 83) Northing	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe ppm	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca ppm	P ppm	La ppm	Cr ppm	Mg ppm	Ba ppm	Ti ppm	B ppm	Al ppm	Na ppm	K ppm	W ppm	Hg ppm	Sc ppm	Ti ppm	S ppm	Ga ppm	Se ppm
85	579010	7039400	0.9	32.3	9.7	65	0.1	26	11.1	415	2.8	8.9	1.1	2.3	7.1	30	0.2	0.6	0.2	81	0.5	0.07	17	36.5	0.55	259	0.088	1	1.48	0.017	0.09	0.1	0.04	5.1	0.1	0	5	0
86	579059	7039371	4.9	31.2	8	50	0.1	19.3	8.1	620	1.95	6.2	3.3	1.3	20.7	18	0.2	0.4	0.2	38	0.26	0.045	25	23.5	0.3	263	0.058	1	1.08	0.009	0.08	0.1	0.03	4.1	0.1	0	4	0
87	579018	7039343	2	41.5	8.6	44	0.1	26.4	8.7	700	2.22	9	4.4	3.2	16.2	22	0.1	0.6	0.5	38	0.27	0.04	16	26.7	0.31	223	0.054	2	1.07	0.009	0.06	0.1	0.04	4.3	0.2	0	4	0
88	578978	7039314	0.9	17.3	8.2	39	0	14.8	7.2	322	1.88	6.1	2.7	1.3	21.7	16	0	0.4	0.2	41	0.18	0.02	24	23.8	0.32	159	0.061	1	1.31	0.007	0.08	0.1	0.02	3.8	0.2	0	5	0
89	578937	7039286	1.1	19.7	7.4	34	0	11.6	6.2	200	1.77	5.3	2	2.1	8	12	0.1	0.3	0.7	43	0.11	0.013	12	23.1	0.31	102	0.053	0	1.14	0.006	0.03	0.1	0.01	2.3	0.1	0	4	0
90	578996	7039257	1.3	51.7	10	81	0.1	43.2	14.4	455	3.3	6.6	4.7	1.5	22.3	17	0.1	0.4	0.4	84	0.18	0.027	63	66.5	0.89	179	0.129	1	2.28	0.007	0.14	0.1	0.03	6.4	0.2	0	8	0.5
91	578855	7039228	0.8	21.2	9	49	0.1	18.9	9.6	372	2.61	7.7	2.5	2.9	5.1	24	0.1	0.3	0.2	57	0.33	0.039	16	33.6	0.55	291	0.071	1	1.46	0.011	0.04	0.1	0.03	4.6	0.1	0	5	0.5
92	578814	7039200	0.7	28.7	8	52	0.1	20.5	9.7	374	2.8	8.2	2.1	3.6	8.7	24	0.1	0.5	0.2	56	0.29	0.026	22	33.6	0.54	275	0.078	0	1.49	0.011	0.06	0.2	0.04	6	0.1	0	5	0
93	578774	7039171	0.8	34.6	7.9	53	0.1	22.8	9.5	390	2.85	8.2	2.3	1.8	6	26	0.1	0.5	0.3	62	0.42	0.038	17	38.7	0.59	321	0.076	1	1.54	0.013	0.05	0.2	0.03	5	0.1	0	5	0
94	578733	7039143	1	32.8	8.9	54	0.1	23	13.8	567	2.87	8.8	2.1	3.6	6.1	27	0.1	0.5	0.6	59	0.4	0.041	17	34.8	0.57	303	0.074	1	1.45	0.013	0.06	0.1	0.03	4.8	0.1	0	5	0
95	578692	7039114	0.9	28.7	8.5	50	0.1	20.2	11.8	379	2.68	7.8	3.1	1.2	6.3	26	0.1	0.4	0.3	61	0.34	0.03	19	32.8	0.59	268	0.068	1	1.64	0.011	0.04	0.2	0.03	5.1	0.1	0	5	0
96	578651	7039085	0.9	24.5	9	58	0.1	17	10.6	370	2.96	6.4	1.1	2.2	8.2	21	0.1	0.5	0.3	65	0.27	0.021	14	31.8	0.72	200	0.099	1	1.59	0.009	0.08	0.1	0.01	3.4	0.1	0	6	0
97	578610	7039057	1	25.6	3.7	82	0	23	15.1	700	3.6	2.8	0.9	2	8.5	45	0.1	0.3	0.1	76	0.49	0.06	17	32.1	1.25	324	0.177	0	2.08	0.018	0.79	0.1	0.02	3.8	0.2	0	7	0
98	578570	7039028	1.2	28.8	24.2	104	0.1	7.5	17	1020	4.51	2.2	0.7	3.1	5.3	18	0	0.2	0.1	60	0.43	0.081	17	12.8	1.42	211	0.201	1	1.42	0.008	1.23	0.1	0.01	3.7	0.3	0	9	0
99	578529	7039000	0.8	20.5	8	56	0	11.9	10.4	410	2.76	5.7	0.7	3.1	5.3	18	0	0.2	0.1	60	0.29	0.042	21	24	0.65	159	0.105	1	1.42	0.008	0.15	0.2	0.02	3.7	0.1	0	5	0
101	578447	7038942	0.8	35.3	7.9	85	0.1	19.7	16.9	834	3.86	6.3	0.8	1.9	5.6	27	0.1	0.4	0.1	78	0.45	0.044	18	27.3	1.08	240	0.149	1	1.81	0.01	0.36	0.1	0.04	5.2	0.2	0	6	0
102	578406	7038914	0.9	19.5	5.8	63	0.1	14.2	13.7	513	3.03	4.5	0.8	1.3	6.2	26	0.1	0.3	0.1	68	0.42	0.051	15	24	0.81	211	0.114	1	1.66	0.011	0.29	0.1	0.03	3.4	0.1	0	6	0
103	578366	7038885	0.7	33.5	8.2	90	0	12.7	19.2	833	4.22	2.3	0.7	1.1	7.6	19	0.1	0.2	0.1	122	0.32	0.049	12	30.5	1.55	215	0.21	0	2.27	0.01	0.97	0.1	0.01	6.4	0.4	0	9	0
104	578325	7038857	0.8	34.5	4	90	0	15.6	19.9	748	4.18	2.7	0.6	0.7	5.5	55	0.1	0.2	0	89	0.71	0.088	19	24.8	1.54	292	0.18	1	2.41	0.018	0.72	0.1	0.02	3.6	0.3	0	8	0
105	578284	7038828	1.3	30.8	6.1	64	0.1	19.8	11	385	3.32	8.2	1.1	1.4	4.3	28	0.1	0.3	0.2	72	0.44	0.057	17	38.5	0.75	370	0.113	1	1.74	0.018	0.17	0.1	0.02	5.3	0.1	0	6	0.7
106	578243	7038799	1.2	26.3	7.6	52	0.2	19.9	11.1	463	2.93	8.1	0.8	1.8	3.3	27	0.3	0.4	0.1	72	0.38	0.077	14	30.5	0.6	289	0.071	1	1.59	0.014	0.06	0.1	0.02	4	0.1	0	5	0.8
107	578202	7038771	29.5	35.4	22.7	94	0.5	18.8	22.4	1639	2.95	1.6	1.4	3.3	1.9	42	0.4	0.3	0.3	58	0.11	0.12	17	21.9	0.26	287	0.04	1	0.99	0.013	0.19	0.2	0.04	2.5	0.1	0.25	5	4.9
108	578162	7038742	0.5	15.9	3.7	80	0	10.1	7.5	613	4.38	4.8	1	1.5	4.2	23	0.1	0.3	0.1	44	0.28	0.015	22	15.2	0.9	206	0.142	1	1.91	0.011	0.34	0.1	0.02	13.4	0.1	0	10	0.5
109	578121	7038714	0.7	13.5	5.8	40	0	17.3	7.9	221	2.27	6.2	0.4	1.6	2.6	15	0.1	0.4	0.1	56	0.17	0.016	10	27.9	0.52	199	0.065	1	1.55	0.007	0.04	0.1	0.01	3	0.1	0	5	0
110	578080	7038685	0.7	21.2	7	50	0	22.3	10.9	338	3.04	6.7	0.5	1.9	3.9	19	0.1	0.4	0.1	63	0.19	0.029	12	33.4	0.59	202	0.079	1	1.57	0.01	0.06	0.1	0.01	4.3	0.1	0	5	0
111	578039	7038656	1.1	15.4	2.9	61	0	8.4	12.6	571	5.02	4	0.4	0	2.4	16	0.1	0.2	0.1	72	0.35	0.086	10	11.5	1.3	214	0.128	1	2.21	0.013	0.35	0.1	0.01	12.8	0.1	0	12	0
112	577998	7038628	1	19.7	4.6	71	0	12.2	10.2	329	3.82	4.5	0.5	0.9	2.3	26	0.1	0.3	0.1	74	0.37	0.042	9	18.9	0.98	229	0.109	1	1.94	0.016	0.1	0.1	0.01	6.8	0.1	0	8	0.5
113	577958	7038599	2.2	33.7	8.8	89	0.1	16.4	10.5	390	3.59	6	1.6	1.7	4.2	36	0.2	0.3	0.1	76	0.45	0.069	18	27.9	0.87	350	0.127	2	1.76	0.027	0.21	0.1	0.03	6.5	0.1	0	7	0.9
114	577917	7038571	2.2	43.3	4.4	103	0.1	23.1	17.4	333	3.66	5.1	0.9	1.1	1.5	32	0.4	0.3	0.1	107	0.64	0.119	7	15	0.82	297	0.139	1	1.7	0.024	0.32	0.1	0.01	8.4	0.2	0	6	0.6
115	577876	7038542	1.5	30.2	7.3	62	0.1	22.5	9.4	418	2.51	8	1.1	2	2.8	43	0.3	0.5	0.1	56	0.84	0.068	14	25.9	0.57	312	0.077	2	1.23	0.022	0.07	0.2	0.03	4	0.1	0	4	1
116	577835	7038513	1.2	28	7.5	55	0.2	19.2	9.5	306	2.83	8.5	1.3	2.5	1.3	22	0.1	0.3	0.2	66	0.32	0.079	15	36.8	0.59	224	0.055	2	1.77	0.012	0.06	0.1	0.08	4.5	0.1	0	6	0.5
117	577794	7038485	0.6	31.1	5.5	39	0.1	20.1	10.1	211	2.24	4.9	0.8	2.3	1.5	30	0.1	0.2	0.1	50	0.38	0.052	11	31.7	0.59	307	0.052	1	1.51	0.013	0.04	0.1	0.03	3.5	0.1	0	4	0.5
118	577754	7038456	0.5	36	4.8	40	0.1	22.4	10.4	233	2.25	5.3	0.9	1.9	1.8	42	0.1	0.2	0.1	62	0.39	0.059	13	35.1	0.63	265	0.067	1	1.58	0.014	0.05	0.1	0.03	4.2	0.1	0	4	0.5
119	577713	7038428	0.5	19.8	5.3	47	0	18.1	11.6	543	2.83	5.8	0.9	1.3	2.8	31	0.1	0.2	0.1	69	0.53	0.064	13	34.2	0.72	288	0.08	1	1.72	0.021	0.08	0.1	0.02	5.4	0.1	0	5	0.5
120	577672	7038399	0.3	41.1	1.3	44	0	33.1	17.3	417	2.45	1.5	0.1	0	0.6	38	0.1	0.1	0	83	0.39	0.043	14	33.5	0.69	207	0.091	1	1.83	0.017	0.05	0.1	0.03	5.2	0.1	0	5	0
121	577631	7038370	0.3	38.3	0.7	40	0	33.1	17.3	417	2.45	1.5	0.1	0	0.6	38	0.1	0.1	0	83	0.39	0.043	14	33.5	0.69	207	0.091	1	1.83	0.017	0.05	0.1	0.03	5.2	0.1	0	5	0
122	579401	7038999	2.2	28.6	1.5	71	0.1	5.8	17.4	1087	4.75	0.5	0.8	53.3	9.6	19	0	0.1	0	122	0.46	0.084	15	10.5	1.54	253	0.212	1	2.53	0.009	1.47	0.1	0.01	5.8	0.3	0	9	0

## Appendix II Rock Sample Descriptions

Sample Number	Sample Type	Width (m) (size)	Outcrop Size (m)	Colour	Alteration	Minerals			Rock Type	Notes
						Mineral 1 + description	Mineral 4 + description	Mineral 5 + description		
RZ-10	float	0.25x0.1x0.1	3x5-sc	rd-bn-bk	ox	gar or-rd gemmy	cpy-tr	mal-tr	SKN	limy metased? Gar as drusy coatings - fig
RZ-37	chip	0.25	7x25	gy - 50% lichen		hbl - 40%			AMP	well lin AMP w a sampled ble qtz-fel band (0.25m) w wk lim stn and dis mag; devoid of hbl in this band
RZ-39a	chip		30x30	gy - lichen covered		hbl - 50-80%			AMP	hosting 2x20cm foliaform qtz vnits w tre on HW; wk gossan on E side of o/c
RZ-39b	chip		30x30	pale gy		qtz			GNE/GRN	leucocratic