

ASSESSMENT REPORT

**SOIL AND STREAM SEDIMENT GEOCHEMICAL SURVEY  
NORTH AND SOUTH EXTENSION - PAN GRID AREA  
JASPER PROPERTY, VICTORIA M.D.**

NTS: 092C 088

LAT: 48°52' LONG: 124°36'

Report for Owner

**INSPIRATION MINING CORP.**

Report by:

**Arne Birkeland, P. Eng.**

**ARNEX RESOURCES LTD.**

Date:

**January 14, 2003**

**GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT**

27,088

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## **JASPER PROPERTY, VICTORIA MINING DIVISION**

### **1. SUMMARY**

A soil and stream sediment geochemical survey was conducted to the north and south of the Pan Grid area on the Jasper Property. The program was conducted during October, 2002 by Arnex Resources Ltd. for Inspiration Mining Corp. Sixty-six soil and nine stream sediment (moss mat) samples were taken.

The Jasper Property lies within close proximity to tidewater on west central Vancouver Island. An extensive logging road network provides cheap access to the area.

A +four km long northward striking extensive intense alteration zone is present within rocks mapped by the BCGS as lower Jurassic Bonanza group volcanics that underlie the property. Poly-metallic massive sulphide showings and soil/stream sediment anomalies are present within the alteration zone. Junior and Major Mining Companies have conducted a number of exploration programs on the Jasper, Tam and Pan Showing Areas since 1970. All prospects were consolidated under one ownership in 1994 and acquired by Inspiration Mining in 1995.

In 1998, an exploration program consisted of rock chip sampling of showings and mineralized float and grid soil geochemistry was completed at the South Pan Soil Grid. The grid detected numerous poly-metallic soil geochemical anomalies that indicate base metal mineralization is present within the intense alteration zone that partly underlies the soil grid. Poly-metallic geochemical anomalies trended northward beyond the grid.

In 2000, a soil geochemistry program extended the 1998 grid northward. As was similar to results from the 1998 South Pan Soil Grid, numerous poly-metallic soil geochemical anomalies were detected by the Pan Central and Pan North Grids, many of which were from orange coloured gossanous soils associated with the alteration zone.

In 2001, a similar geochemical program extended the Pan Grid to the north and south. Polymetallic base metal soil anomalies are present. Total length of the now established anomalous zone within the soil grid area is 1.6 km in strike length the anomalies are open up-slope and along strike.

The objective of the reported 2002 geochemical survey was to take reconnaissance soil and stream sediment samples to the north and south of the Pan grids to determine the extent of the anomalies. Poly metallic soil and stream sediment anomalies are present up to 700 metres north and up to 1.4 kilometres south of the established Pan Soil Grid.

Additional grid soil geochemistry is recommended at the Pan Grid area as part of a phased program. Bedrock and surficial geology mapping should be completed to interpret the source for the geochemical anomalies. Appropriate grid geophysics should be conducted on high priority target areas. Prospecting and hand and/or mechanized trenching should be carried out to identify drill targets. Diamond drill targets should be prioritized and drilled on a phased program basis.

## **2. INTRODUCTION**

### **2.1. General**

Arnex Resources Ltd. conducted a ten person-day field exploration program for Inspiration Mining Corp. on the Jas 1-3 and Jasmin 1-2 Mineral Claims. The fieldwork was conducted during the period October 20 to 24, 2001 by a two-person crew (APPENDIX D, Year 2002 Field Days).

Sixty soil samples and nine moss mat samples were taken. Samples were dried and submitted to ALS Chemex Labs in North Vancouver for processing and analysis (APPENDIX B, Analytical Procedures and Certificates). Sampling was conducted approximately 900 line kilometers to the north of the North Pan Grid. Approximately 1.4 line kilometres of sampling was conducted to the south of the South Pan Grid.

A total expenditure of \$17,030.24 was incurred as per APPENDIX A, Statement of Expenditures. A Statement of Work, Event Number 3186188, was filed at the Vancouver Sub-Recorders office dated October 29, 2002 and is included in APPENDIX A. The work was not conducted under an Annual Work Approval Number as no surface disturbance was caused.

### **2.2. Property Tenure**

The Jasper Claim group consists of the Jas 1 to 3 and Jasmin 1 and 2 Mineral claims that total 82 units (Table 1, Mineral Tenure by Owner, and Figure 2, Claim Location Map). The common expiry date of the claims is 2003-10-30. The property is 100% owned by Inspiration Mining Corp., Client Number 138196.

### **2.3. Location and Access**

The Jasper Property is located in BCGS Map Sheet 092C 088 (NTS 92C/15, Figures 1 and 2). The Jasper property lies along Four Mile Creek and extends over the height of land to the tributaries of Jasper Creek. Logging road access is via Port Alberni or Cowichan Lake. J Branch road accesses the northern portion of the property and Caycuse

**Table 1 – Mineral Tenure by Owner**

5

[Ministry Home](#)
[Government of British Columbia](#)

**Mineral Titles Tenure Search Results**
**Ministry of Sustainable Resource Management**

[Home](#)
[News](#)
[Search](#)
[Reports & Publications](#)
[Contacts](#)

DATA last updated on January 14, 2003

|                  |                 |                     |                    |                      |
|------------------|-----------------|---------------------|--------------------|----------------------|
| <b>5 Matches</b> | <b>Criteria</b> | <b>Owner Number</b> | <b>Tenure Type</b> | <b>Tenure Status</b> |
|                  |                 | 138196              | Mineral            | Good Standing        |

| Tenure Number | Claim Name | Owner Number | Map Number | Work Recorded To | Status                   | Mining Division |
|---------------|------------|--------------|------------|------------------|--------------------------|-----------------|
| 328705        | JAS 1      | 138196 100%  | 092C088    | 2003.10.30       | Good Standing 2003.10.30 | 24 VICTORIA     |
| 331922        | JAS 2      | 138196 100%  | 092C088    | 2003.10.30       | Good Standing 2003.10.30 | 24 VICTORIA     |
| 342740        | JAS 3      | 138196 100%  | 092C088    | 2003.10.30       | Good Standing 2003.10.30 | 24 VICTORIA     |
| 342741        | JASMIN-1   | 138196 100%  | 092C087    | 2003.10.30       | Good Standing 2003.10.30 | 24 VICTORIA     |
| 342742        | JASMIN 2   | 138196 100%  | 092C088    | 2003.10.30       | Good Standing 2003.10.30 | 24 VICTORIA     |

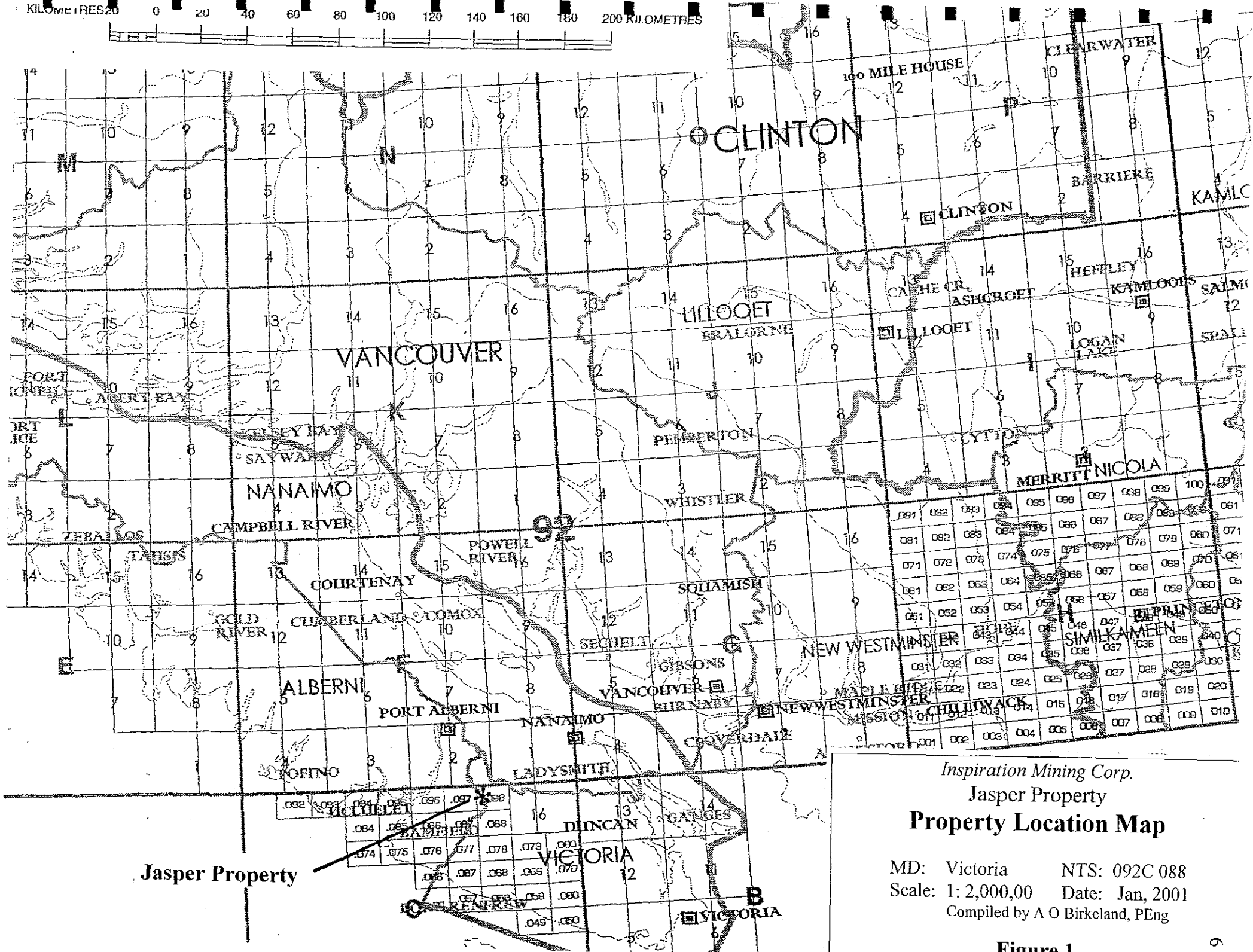
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KILOMETRES 0 20 40 60 80 100 120 140 160 180 200 KILOMETRES



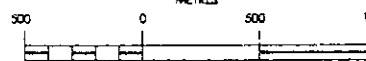
Jasper Property

Inspiration Mining Corp.  
 Jasper Property  
**Property Location Map**

MD: Victoria      NTS: 092C 088  
 Scale: 1: 2,000,00      Date: Jan, 2001  
 Compiled by A O Birkeland, PEng

Figure 1

ORIGINAL PRODUCED AT 1:20 000



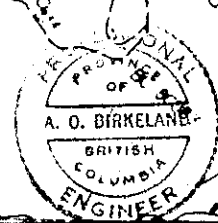
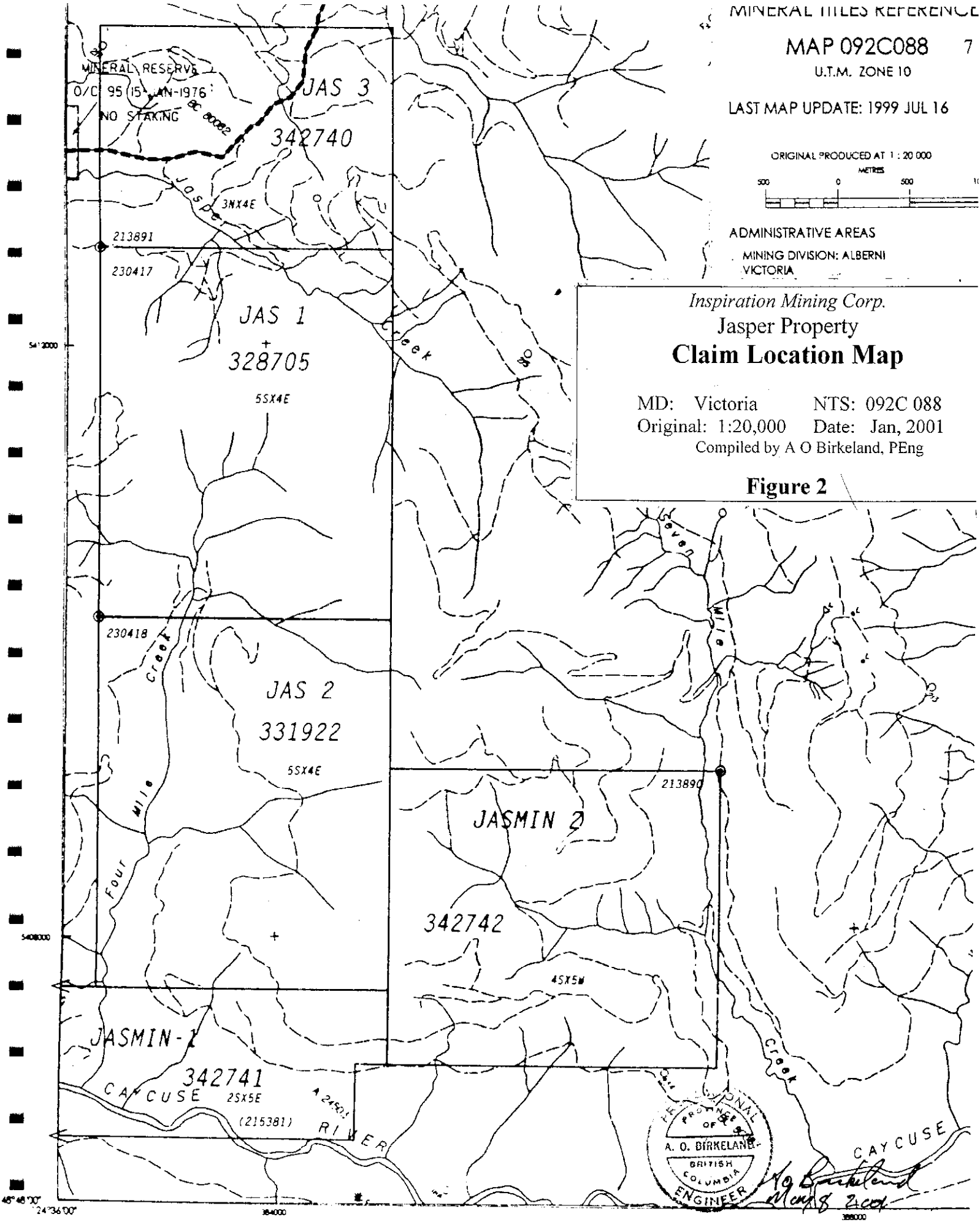
ADMINISTRATIVE AREAS

MINING DIVISION: ALBERNI  
VICTORIA

*Inspiration Mining Corp.*  
Jasper Property  
**Claim Location Map**

MD: Victoria      NTS: 092C 088  
Original: 1:20,000      Date: Jan, 2001  
Compiled by A O Birkeland, PEng

**Figure 2**



*A. O. Birkeland*  
2001



Main the southern portion. Access roads are plotted on Figure 5, Minfile – Lakes, Rivers and Roads.

Steep incised drainages with rugged relief to approximately 300 meters (m) characterize the physiography of the area. Much of the region has been logged in recent years and young second growth forest is present over most of the claims. Climatic conditions are temperate.

### 3. HISTORY

The Jasper Property consists of three former Minfile occurrences known from north to south as the Jasper 1 (092C 080), Tam 16 (092C 081) and Pan-Easy (092C 088) prospects.

The Tam and Easy properties were previously staked by Hudson Bay Mining and Smelting who conducted geological mapping, soil and rock chip geochemistry and an IP geophysical survey in 1970 and 1971. Also in 1971, Marshall Creek Copper conducted an extensive soil sampling program on the Pan, Easy and Tam properties. It is reported that Noranda conducted a regional magnetic survey during this era, but no information regarding the results were filed as a matter of public record.

The next period of exploration activity occurred in 1980 and 1981 when Malibar Mines conducted soil sampling on the Jasper Property. Also in 1980, Umex Corporation conducted a grid geochemical soil sampling program on the Easy prospect. Claims covering the Jasper prospect were eventually forfeited.

In 1984, a prospecting program was carried out by Ron Bilquest on the Jasper prospect and the J-Branch Main Zone massive sulphide showing was found in recently constructed roadcuts. The claims were restaked and optioned to Falconbridge Limited who conducted geological mapping, soil and rock geochemistry and a VLF-EM program. It is reported that Falconbridge did additional work during 1985 including packsack diamond drilling, but no Assessment Report was filed. Asamara Inc. then conducted a brief geology, soil sampling and VLF-EM program in 1987. The Jasper claims eventually lapsed following a negative recommendation by Asamara's consultant and a general lack of exploration interest in BC at the time.

The Jasper claims were relocated by Arne O. Birkeland in the summer and fall of 1994, who also staked claims covering the Tam, Easy and Pan prospects when existing claims were allowed to forfeit. This was the first time all the prospects were consolidated under one ownership. A detailed geologic mapping and sapling program was carried out in August, 1994 on the J Branch Main Showing.

The Property was optioned in 1995 to Consolidated Taywin Resources Ltd., (now Inspiration Mining Corp.) who acquired the Property outright by way of a Bill of Sale, Event Number 3086088 dated May 9, 1996. A geological, geochemical and geophysical

program was carried out between December, 1995 and June 1996 by Arnex Resources Ltd, as operator for Inspiration Mining Inc in the vicinity of the Jasper Main Showing area. Diamond drill targets were identified and additional work was recommended.

A rock and grid soil geochemical program was carried out in the vicinity of the Pan Road Showing by Arnex Resources Ltd for Inspiration Mining Corp during December, 1998. A poly-metallic soil anomaly was discovered trending northerly off the soil grid. Four outcrop showings were sampled that returned values ranging from 2%-4.9% Cu, 4.5%-17% Pb, 18%-32% Zn with up to 76.8 ppm Ag and 315 ppb Au over widths between 0.36 metre to 2.1 metre.

In 2000, and again in 2001, grid soil sampling extended the 1998 grid to the north and south. Numerous poly-metallic soil geochemical anomalies were identified. Orange coloured gossanous soils associated with the alteration zone are present in the anomalous areas. Anomalous values were established over a 1.6 kilometre strike length within the grid area by extensive soil anomalies greater than the 99<sup>th</sup> percentile that are open up-slope to the east.

## **4. GEOLOGY**

### **4.1. Regional Geology**

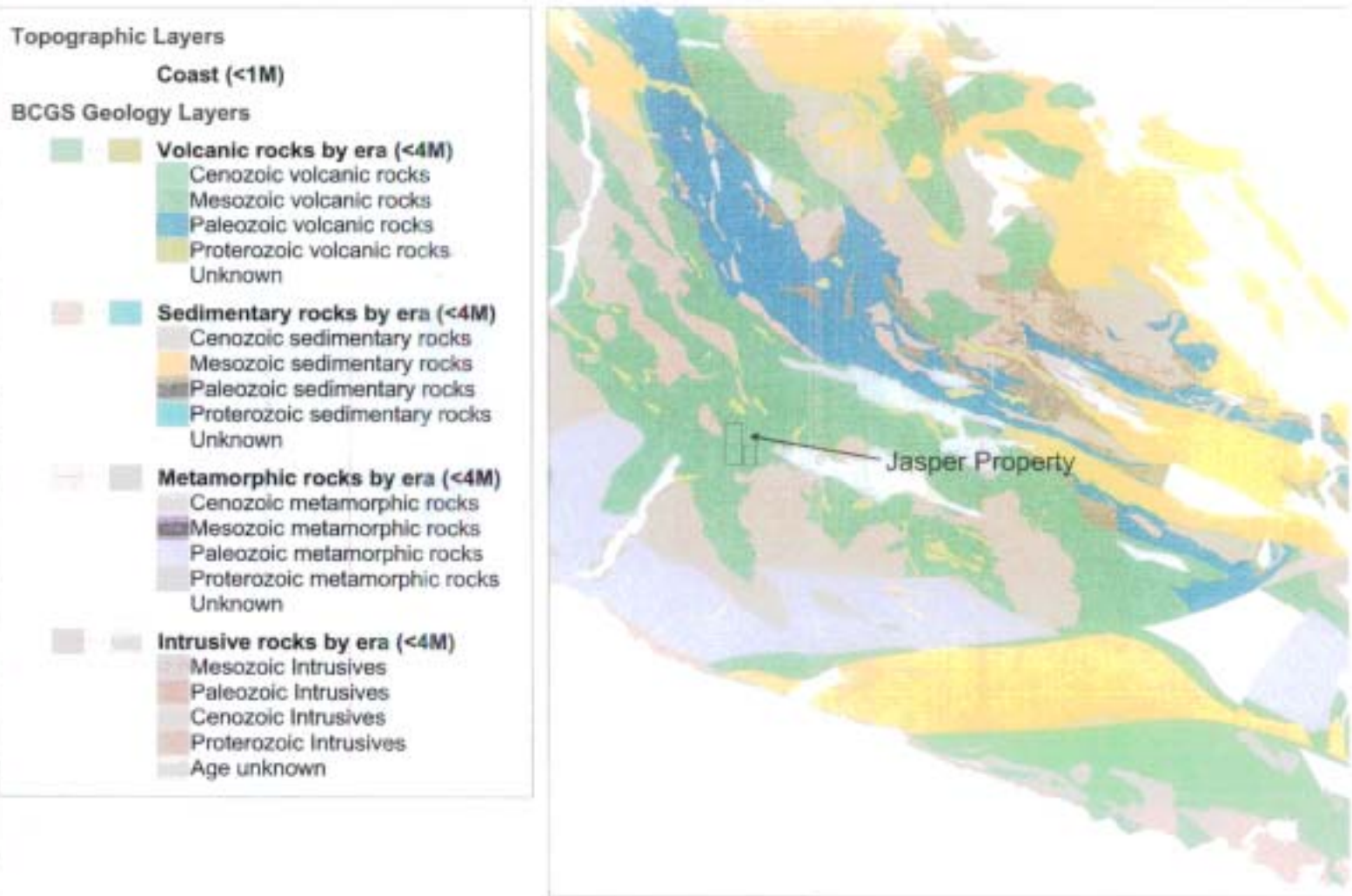
Vancouver Island lies within the Canadian Cordillera within terrain classified as Wrangellia. Central and western Vancouver Island is predominantly underlain by Paleozoic and Mesozoic strata intruded by Jurassic and Tertiary Intrusions (Figure 3, BCGS Geology Map – Southwester Vancouver Island).

The Jasper property is hosted in a belt of rocks mapped as lower Jurassic Bonanza group which trends southeasterly from Nitinat Lake through Gordon River, south of Cowichan Lake.

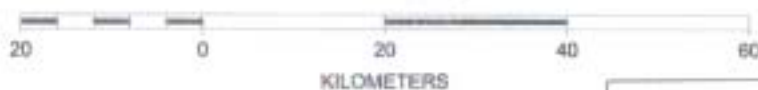
The Bonanza Group in this vicinity consists of a variety of maroon to grey-green, feldspar phyric basalt and andesite flows, dacite and felsic lapilli tuff containing various minor gabbro, andesite and dacite dykes. There is a lack of lithologic continuity and distinct marker beds are absent. In the basal part of the sequence, sedimentary rocks are found interbedded with lapilli and crystal tuffs and a sub-aqueous environment is indicated.

Several granodiorite Island Intrusion stocks occur in the area. The coeval stocks are regular to elongated in shape with steep sides. The major lithology is granodiorite to quartz-diorite and most of the stocks are rich in mafic inclusions, particularly in marginal zones where magmatic intrusive breccias are developed. Stocks are rounded in outcrop shape.

# BCGS Geology Map - Southwestern Vancouver Island



SCALE 1 : 800,000



N



*Inspiration Mining Corp.*  
Jasper Property

**BCGS Geology Map**

Numerous RGS anomalies and Minfile occurrences (Figure 5, Minfile, Lakes, Rivers and Roads) are present in the general Nitinat - Cowichan area and both porphyry and VMS style mineralization has been reported by BCGS geologists. Porphyry style Cu-Mo occurrences are commonly associated with high level sub-volcanic dykes and sills. The Debbie - Lizzard - Thistle VMS belt occurs in the northern portion of the region hosted in rocks mapped as Sicker Group. Massey and Friday note VMS stratigraphic mineral potential where reported "sulfidic argillites are found interbedded with tuffs" in the basal part of the Bonanza sequence in the Alberni - Cowichan area.

The potential for finding undiscovered metallic mineral deposits for the tract underlying the Jasper Property is classified as being Highest by the BCGS Mineral Potential Program ranking system.

#### **4.2. Local Geology**

The Jasper property is underlain by mafic to felsic volcanic rocks that have been previously mapped as Bonanza group (Figure 4, Local Geology, Jasper Area). The central part of the property is underlain by a north-south trending sequence of intermediate flows and flow breccias that are flanked to the east by mafic flows. A wedge shaped body of felsic flows overlies the mafic rocks to the east. Felsite dykes intrude the intermediate and mafic volcanics and are likely feeders to the younger felsic flows. Often the intermediate and mafic flows and flow breccias are massive and bedding orientation is impossible to determine. Local foliation is oriented north-south.

Other than dykes and sills feeding the volcanic pile, and possible Tertiary "Catface" dykes and sills, no major intrusive bodies are known to occur on the Property.

#### **4.3. Structure and Alteration**

A late major fault suture cuts Vancouver Island from the mouth of the Carmanah River on the West Coast to Qualicum Beach on the East Coast. The Pan and Tam occurrences along Four Mile Creek and the J Branch Main Showing on Jasper Ridge occur along this major fault structure. A north trending gossanous alteration zone with a strike length greater than 4 kilometers underlies the Jasper Property along the fault from the Caycuse Creek drainage in the south to the Nitinat Valley in the north. The alteration zone is characterized by moderate to intense argillization and silicification accompanied by ubiquitous pyrite flooding. The alteration zone is generally concordant with the foliation and stratigraphy throughout its strike length. Based on the huge volume of intensely altered rock present, a very major period of hydrothermal activity has taken place along the strike length of the system. The Jasper and Pan Grid areas are partially underlain by the intense alteration zone. On the Pan Grid area and along the logging road to the north, gossanous ferrocrete (and till) commonly overlie the alteration zone and have the effect of "masking" residual soil anomalies.

# Local Geology - Minfile - Jasper Area

12

## Mineral Inventory Layers

- ✕ ✕ MINFILE status
  - ✕ Developed Prospect
  - ✕ Past Producer
  - ✕ Producer
  - ✕ Prospect
  - ✕ Showing
  - All Others

## Mineral Titles Layers

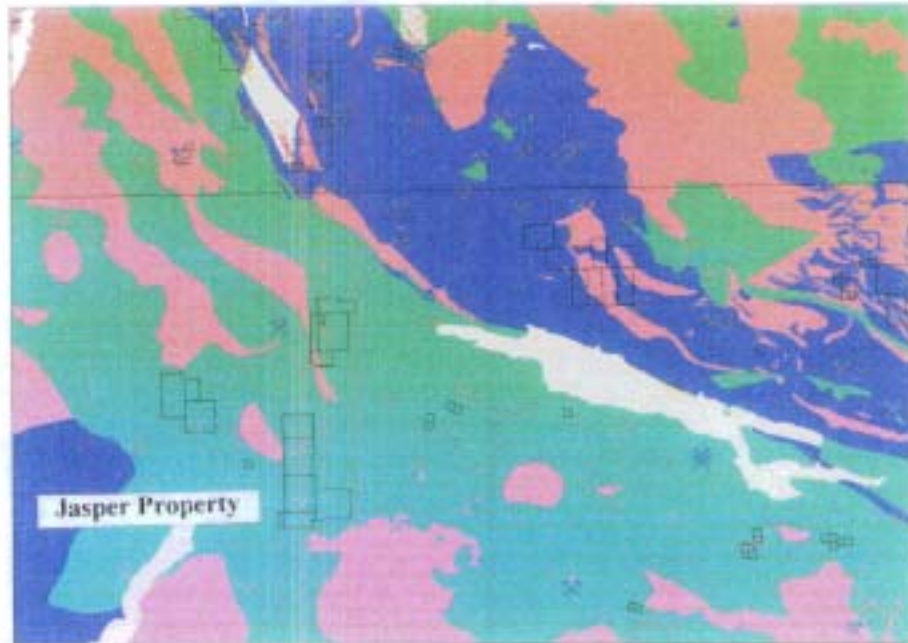
- □ Mineral titles outline (<1M)
- All Others

## Topographic Layers

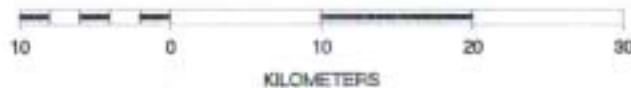
- Grid 1:250K maps

## Geology Layers

- Intrusive rocks - GSB 1:250K (<4M)



SCALE 1 : 500,000



*Inspiration Mining Corp.*  
Jasper Property

## Local Geology – Jasper Area

MD: Victoria      NTS: 092  
Date: Feb, 2002  
Compiled by A O Birkeland, PEng

**Figure 4**

# Minfile - Lakes, Rivers and Roads

## Mineral Inventory Layers

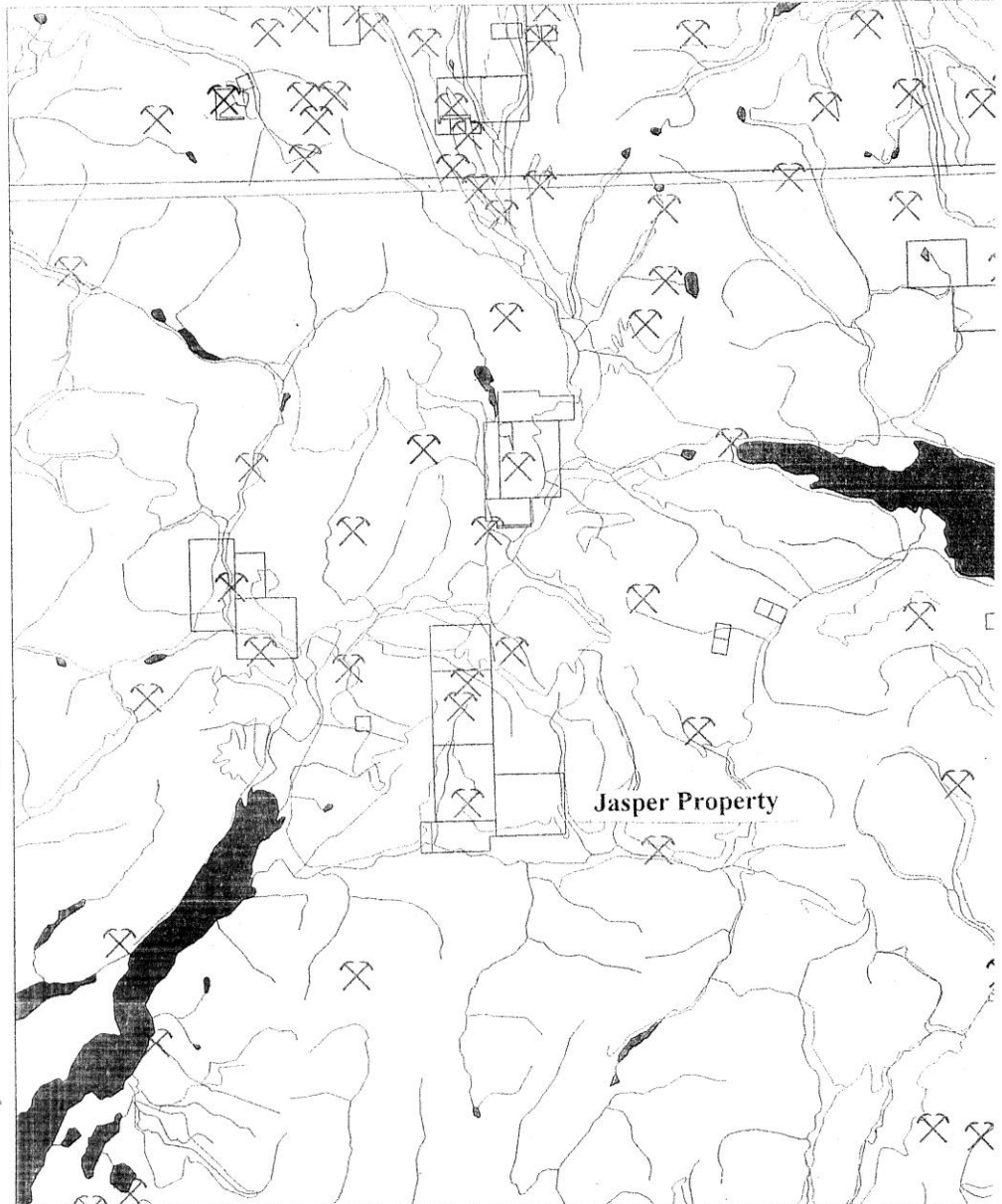
- ⊗ ⊗ MINFILE status
- ⊗ Developed Prospect
- ⊗ Past Producer
- ⊗ Producer
- ⊗ Prospect
- ⊗ Showing
- All Others

## Mineral Titles Layers

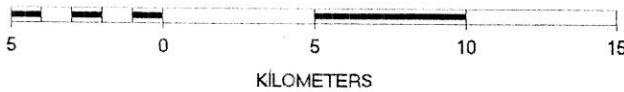
- □ Mineral titles outline (<1M)
- All Others

## Topographic Layers

- Grid 1:250K maps
- Roads 1:250K (<2M)
- Lakes 1:250K (<2M)
- Rivers 1:250K (<2M)
- Border 1:250K (<2M)
- BC Border 1:250K (<1M)



SCALE 1 : 250,000



Inspiration Mining Corp.  
Jasper Property

## Minfile Lakes, Rivers, Roads

Date: Feb, 2002  
Compiled by A O Birkeland, PEng



Steeply dipping, cross cutting, north trending fractures, shears and fault gouge zones are prevalent within the alteration zone and form the recessive valley containing Four Mile Creek. Coincident narrow fault and fracture zones often emanate as a conjugate set at right angles to the main north trending fault system and control second order drainages that are the side creeks of the main Four Mile Creek drainage system.

Offsets of all structures are not known as units have not been mapped across structures. Local brittle faulting commonly causes minor offsets to massive sulphide lenses in outcrop.

#### **4.4. Mineralization**

Six high-grade Cu, Zn +/- Pb sulphide showing areas have been sampled by the Arnex-Inspiration programs carried out to date.

The two showings of principle interest are the Jasper J-Branch Main Showing and Pan Road Showing.

##### **4.4.1. Mineralization – Description – J-Branch Main Showing**

At the J-Branch Showing, semi-massive to massive pyrite, chalcopyrite, sphalerite and minor galena outcrops in logging road-cuts on Jasper Ridge. Two massive sulphide bands of true width between 0.4 and 1.3 metres separated by 5 metres of chloritic mafic volcanics outcrop over a strike length of 44 metres.

Twelve channel samples were taken during the 1994 program from the massive sulphide lenses that returned a weighted average grade of 2.1% Cu, 3.2% Zn and 304 ppb Au over an average true width of 0.8 metres.

The mineralization consists of 70% to 90% pyrite, 5% to 20% sphalerite, 1% to 5% chalcopyrite and minor amounts of galena. The sulphides are medium to coarse grained and commonly display crude banding imparted by compositional and textural variations. In places, large crudely banded massive sulphide fragments and volcanic wallrock fragments are contained within a finer grained massive sulphide matrix.

The mineralization is hosted in feldspar phyric mafic flows. The massive sulphide bands are generally concordant to jointing, and to the contact between intermediate and mafic volcanic units.

Although the massive sulphide bands are commonly offset by north and northeast trending fractures and small displacement faults, there is good continuity to the mineralization over its exposed 44 metre strike length. The southeastern strike extension of the mineralization is covered by till which contains blocks of semi-massive to massive

sulphides. The northwest strike extension is covered by colluvium and trends down the slope towards Zinc Creek.

#### **4.4.2. Mineralization – Description – Pan Road Showing Area**

Two showings outcrop in Caycuse Main road-cuts at the Pan Road Showing.

At the northern showing, massive stringer style mineralization is present in a crosscutting sheared alteration zone. The up-slope trend of the zone is covered by ferrocrete and gossanous till that returned highly anomalous soil geochemical results and the down-slope trend is covered by the roadbed.

A composite weighted interval across the stringer zone returned the following values of 4.6% Cu, 17.4% Zn and 152 ppb Au over a true width of 2.0 metres.

Of geological significance is a massive sulphide layer emanating from the stringer zone that is exposed in the road-cut over a strike length of approximately 30 metres. The massive sulphide band consists of coarse “black-jack” sphalerite containing lesser amounts of galena. The sulphide layer is hosted in, and is concordant to, argillically altered intermediate flows and tuffs. The sulphide band is faulted off to the south by a second crosscutting stringer zone containing anomalous base metal values. A channel sample across the sphalerite layer assayed 16.2% Zn and 2.7% Pb over 0.25 metres.

At the southern Pan Road Showing, a massive sulphide lense outcrops in the logging road-cut and roadbed. Massive sphalerite and galena occur in highly argillically altered and pyritized mafic (?) flows. The up-slope eastern extension of the lense is faulted off. The massive sulphides outcrop in the roadbed and then are covered by road-fill on the western down-slope trend of the zone.

The massive sulphides occur as massive sphalerite and galena containing up to 5% chalcopryrite. The sulphides are capped by a thin 0.25 metre thick calcite (barite?-chert) exhalite horizon. A 2.0 metre massive sulphide boulder on the west side of the road also has a calcite (barite?) exhalite cap preserved intact. A representative channel sample across the sulphide lense assayed as follows 22.3% Zn, 17.2% Pb and 2.1% Cu over 1.9 metres.

Semi-massive sulphide boulders containing up to 1.5% Cu are present at location 1350N, 975E.

Two narrow massive pyrite - chalcopryrite lenses occur at the 465 m elevation level on the spur road 100 m east of the Pan Road Showing and probably represent the strike extension of the Pan zone.



## **5. GEOCHEMISTRY – NORTH PAN AND SOUTH PAN EXTENSIONS**

### **5.1. Introduction**

The objective of the 2002 geochemical survey was to attempt to determine the north – south extent of the anomalies in the Pan Grid area to determine how much future grid geochemistry will need to be conducted to “close-off” the anomalies.

Reconnaissance style soil and stream sediment (moss mat) samples were taken using Caycuse Main logging road as access. Orthophoto mosaic and Orthophoto topographic maps were used as survey control and results plotted on 1:2,000 and 1:5,000 scale maps. Figure 6, Index Map shows the locations of three geochemical maps on which the analytical results for Zn, Cu, Pb, Au and Ag are plotted as Figures 7, 8 and 9.

### **5.2. Procedure**

Conventional B-horizon soil samples were taken (where possible) from road-cuts from undisturbed soil above the logging road. A-horizon soils or talus fines were substituted if B-horizon soils were not present.

Sample spacing on Map PN-1 to the north of the Pan Grid area was generally taken on a 50 metre basis, as abundant B-horizon soil was accessible in the upper logging road-cuts. South of the Pan Grid area, steep rock-cuts limit access to sample sites. Soil samples were taken on a 50 metre spacing where possible, but were taken on a much broader basis in many areas as plotted on Maps PS-1 and PS-2.

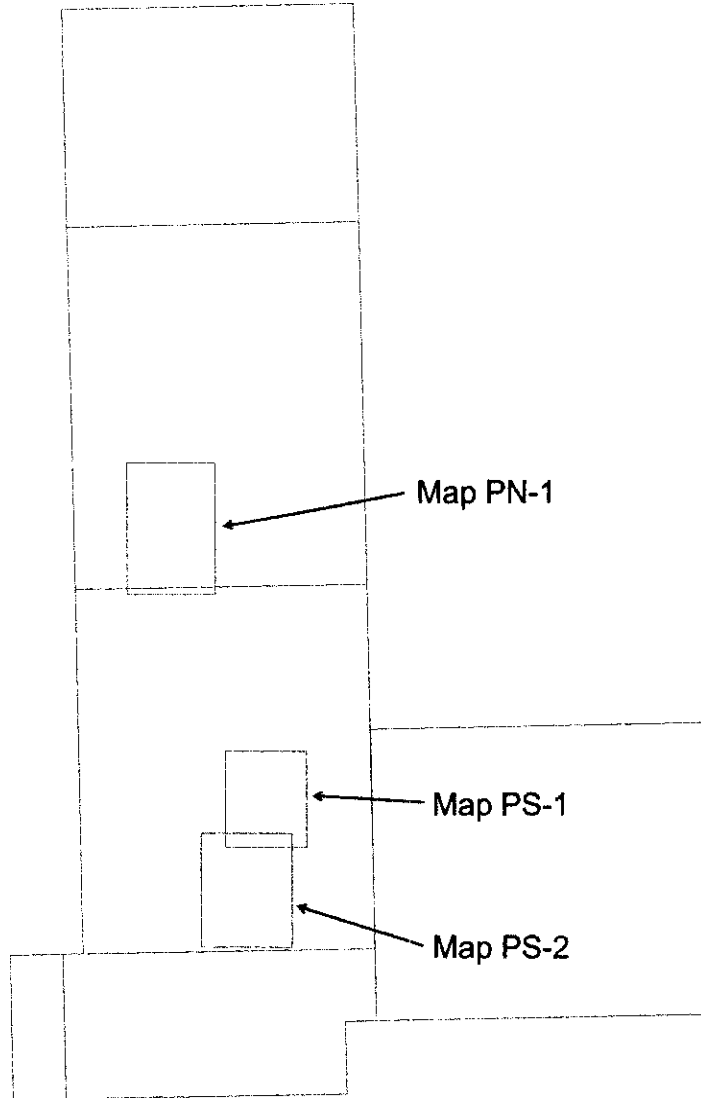
Stream sediment samples were taken from all suitable drainages within the three map areas. Stream sediments were derived from moss mat samples where available.

Sample descriptions and observations were recorded and are reported in APPENDIX C, Geochemical Data Sheets.

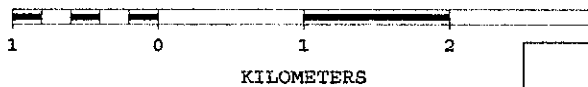
All soil and stream sediment (moss mat) samples were taken by qualified field personnel employed by Arnex, project Operator. No samples were taken, or were available, to any employee, officer, director, or associate of Inspiration Mining Corporation, the Property Owner. Samples were transported from the field and stored at Arnex’s locked warehouse until truck delivery to ALS Chemex Labs in North Vancouver, BC. ALS Chemex Labs is ISO 9002 certified by KPMG in Canada.

Stream sediment and soil samples were dried and screened to –80 mesh and split samplers were analyzed by ICP-34 and 30 gram Au 983 FA-AA finish. All sample pulps

# Index Map - Jasper Property



SCALE 1 : 50,000



*Inspiration Mining Corp.*  
Jasper Property

## **Index Map – Jasper Property**

Date: January 14, 2003  
Compiled by A O Birkeland, PEng

**Figure 6**

are stored at ALS Chemex and will be stored on a long term basis at Arnex's office and storage facility.

No consistent check assaying procedure was employed as the Property is at an early stage of exploration.

In the author's opinion, sampling, sample preparation, security and analytical procedures employed by Arnex and ALS Chemex Labs during the above referenced program was adequately carried out.

Analytical Procedures and Analytical Certificates are appended as APPENDIX B and values for selected elements are contained in Table 2, Soil Sample (and Stream Sediment) Analytical Results and Table 3, Stream Sediment Sample Analytical Results. Soil Grid values are plotted in Figures 7, 8 and 9 and values >99<sup>th</sup> Percentile are highlighted.

### **5.3. Threshold Values – RGS 24 Survey**

Table 4 is a Statistical Summary of Sediment Samples taken as part of the BC MEMPR RGS 24 Survey conducted in 1988. Extensive soil and sediment sampling from western Vancouver Island has demonstrated continuity between hydromorphically transported sediment and soil sample mediums. Thus Threshold Values for soil sampling at the Pan Grids can be established as defined by the regional sediment values listed in Table 4.

**Table 4**

#### **Anomalous Threshold Values for lower Jurassic Bonanza Group**

**From : Statistical Summary of Sediment Samples – 599 Samples  
BC MEMPR RGS 24 – GSC OF 2128**

| <b>Element</b> | <b>90th percentile</b> |     | <b>95th percentile</b> |     | <b>99th percentile</b> |     |
|----------------|------------------------|-----|------------------------|-----|------------------------|-----|
| Gold           | 0.070                  | ppm | 0.200                  | ppm | 0.680                  | ppm |
| Copper         | 74                     | ppm | 111                    | ppm | 129                    | ppm |
| Lead           | 9                      | ppm | 11                     | ppm | 41                     | ppm |
| Silver         | 0.1                    | ppm | 0.2                    | ppm | 0.3                    | ppm |
| Zinc           | 124                    | ppm | 170                    | ppm | 215                    | ppm |

Table 2

Soil Sample (and Stream Sediment) Analytical Results - Pan Area - Year 2002  
Selected Elements

VA02005025 - Finalized  
CLIENT : "AN - Arnex Resources"  
# of SAMPLES : 69  
DATE RECEIVED : 2002-10-25  
PROJECT : "Jas"

| CODE               | Au-AA23 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 |
|--------------------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| SAMPLE DESCRIPTION | Au ppm  | Ag ppm   | As ppm   | Ba ppm   | Cd ppm   | Co ppm   | Cr ppm   | Cu ppm   | Fe %     | Hg ppm   | Mg %     | Mn ppm   | Mo ppm   | Ni ppm   | Pb ppm   | S %      | Sb ppm   | Ti %     | V ppm    | W ppm    | Zn ppm   |          |
| 739449             | 0.013   | 0.4      | 19       | 50       | <0.5     | 9        | 8        | 55       | 7.08     | 1        | 1.12     | 538      | 5        | 4        | 20       | 0.80     | <2       | 0.19     | 51       | <10      | 54       |          |
| 739451             | 0.061   | <0.2     | 11       | 30       | 0.5      | 14       | 15       | 109      | 6.21     | <1       | 0.80     | 540      | 1        | 6        | 319      | 0.07     | <2       | 0.15     | 113      | <10      | 234      |          |
| 739452             | <0.005  | <0.2     | 6        | 30       | <0.5     | 6        | 15       | 22       | 6.63     | <1       | 0.47     | 325      | <1       | 4        | 13       | 0.05     | <2       | 0.15     | 201      | <10      | 49       |          |
| 739453             | 0.005   | 0.3      | 8        | 50       | <0.5     | 11       | 10       | 94       | 6.27     | 1        | 0.50     | 357      | 2        | 6        | 18       | 0.07     | <2       | 0.12     | 140      | <10      | 218      |          |
| 739454             | 0.009   | 0.7      | 9        | 40       | <0.5     | 8        | 10       | 76       | 7.52     | <1       | 0.73     | 520      | 1        | 4        | 15       | 0.06     | <2       | 0.12     | 159      | <10      | 93       |          |
| 739455             | <0.005  | <0.2     | 5        | 50       | <0.5     | 38       | 9        | 103      | 6.12     | <1       | 0.34     | 640      | 2        | 5        | 19       | 0.06     | <2       | 0.08     | 164      | <10      | 181      |          |
| 739456             | <0.005  | 0.4      | 9        | 100      | <0.5     | 15       | 9        | 62       | 6.09     | 1        | 0.41     | 991      | 2        | 6        | 81       | 0.05     | <2       | 0.05     | 130      | <10      | 150      |          |
| 739457             | 0.008   | 0.3      | 11       | 50       | 0.6      | 22       | 11       | 125      | 6.63     | 1        | 0.87     | 1075     | 1        | 9        | 101      | 0.04     | <2       | 0.11     | 142      | <10      | 191      |          |
| 739458             | 0.008   | <0.2     | 10       | 70       | <0.5     | 35       | 9        | 103      | 6.00     | <1       | 0.98     | 1715     | 1        | 8        | 20       | 0.03     | <2       | 0.17     | 122      | <10      | 130      |          |
| 739459             | 0.011   | 0.5      | 11       | 40       | <0.5     | 14       | 25       | 89       | 6.42     | <1       | 0.74     | 630      | 2        | 9        | 14       | 0.08     | <2       | 0.24     | 166      | <10      | 123      |          |
| 739460             | 0.012   | 0.5      | 11       | 50       | <0.5     | 9        | 14       | 83       | 6.14     | 1        | 0.54     | 432      | 2        | 5        | 7        | 0.06     | <2       | 0.13     | 133      | <10      | 104      |          |
| 739461             | 0.014   | 1.7      | 16       | 40       | <0.5     | 57       | 15       | 211      | 5.89     | 1        | 0.31     | 940      | 5        | 6        | 12       | 0.16     | <2       | 0.14     | 118      | <10      | 195      |          |
| 739462             | 0.015   | 1.1      | 16       | 40       | <0.5     | 7        | 12       | 74       | 5.90     | <1       | 0.38     | 370      | 4        | 4        | 11       | 0.06     | <2       | 0.15     | 132      | <10      | 96       |          |
| 739463             | 0.017   | 0.4      | 18       | 30       | <0.5     | 8        | 11       | 115      | 6.24     | <1       | 0.39     | 408      | 3        | 4        | 18       | 0.09     | <2       | 0.14     | 112      | <10      | 87       |          |
| 739464             | 0.058   | 0.3      | 30       | 140      | 0.7      | 61       | 4        | 182      | 9.90     | <1       | 1.03     | 1370     | 3        | 14       | 14       | 0.10     | <2       | 0.35     | 90       | <10      | 208      |          |
| 739465             | 0.054   | 0.2      | 44       | 50       | 1.0      | 62       | 7        | 131      | 11.55    | 1        | 0.51     | 1500     | 7        | 5        | 27       | 0.27     | <2       | 0.24     | 91       | 10       | 105      |          |
| 739466             | 0.011   | <0.2     | 24       | 40       | <0.5     | 7        | 10       | 99       | 7.07     | <1       | 0.34     | 324      | 9        | 3        | 13       | 0.10     | <2       | 0.11     | 171      | <10      | 92       |          |
| 739467             | 0.014   | 0.5      | 15       | 20       | <0.5     | 7        | 8        | 111      | 5.07     | <1       | 0.51     | 326      | 4        | 6        | 9        | 0.12     | <2       | 0.17     | 100      | <10      | 93       |          |
| 739468             | 0.012   | 0.8      | 21       | 20       | <0.5     | 6        | 9        | 141      | 8.66     | <1       | 0.22     | 241      | 2        | 3        | 13       | 0.06     | <2       | 0.21     | 237      | <10      | 48       |          |
| 739470             | 0.031   | 1.1      | 25       | 30       | 1.3      | 44       | 15       | 848      | 10.20    | 2        | 2.11     | 1935     | 3        | 12       | 12       | 0.10     | <2       | 0.28     | 148      | <10      | 298      |          |
| 739471             | 0.007   | 0.4      | 8        | 30       | <0.5     | 7        | 10       | 71       | 7.41     | <1       | 0.44     | 342      | 1        | 3        | 9        | 0.04     | <2       | 0.05     | 176      | <10      | 82       |          |
| 739472             | 0.014   | 0.5      | 9        | 50       | 0.7      | 14       | 12       | 211      | 8.26     | 1        | 1.27     | 867      | 2        | 8        | 22       | 0.18     | <2       | 0.18     | 226      | <10      | 247      |          |
| 739473             | 0.006   | 0.3      | 9        | 120      | <0.5     | 14       | 8        | 140      | 6.20     | 1        | 1.04     | 955      | 1        | 7        | 31       | 0.07     | <2       | 0.18     | 144      | <10      | 125      |          |

Table 2

Soil Sample (and Stream Sediment) Analytical Results - Pan Area - Year 2002  
Selected Elements

VA02005025 - Finalized  
CLIENT : "AN - Arnex Resources"  
# of SAMPLES : 69  
DATE RECEIVED : 2002-10-25  
PROJECT : "Jas"

| CODE               | Au-AA23 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 |
|--------------------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| SAMPLE DESCRIPTION | Au ppm  | Ag ppm   | As ppm   | Ba ppm   | Cd ppm   | Co ppm   | Cr ppm   | Cu ppm   | Fe %     | Hg ppm   | Mg %     | Mn ppm   | Mo ppm   | Ni ppm   | Pb ppm   | S %      | Sb ppm   | Ti %     | V ppm    | W ppm    | Zn ppm   |
| 739402             | <0.005  | 0.7      | 5        | 350      | <0.5     | 12       | 7        | 48       | 2.92     | <1       | 0.67     | 1335     | 1        | 8        | 14       | 0.06     | <2       | 0.02     | 44       | <10      | 63       |
| 739403             | 0.007   | <0.2     | 16       | 90       | <0.5     | 13       | 10       | 41       | 4.35     | <1       | 0.89     | 861      | 1        | 8        | 11       | 0.02     | <2       | 0.06     | 85       | <10      | 75       |
| 739404             | 0.012   | 0.3      | 20       | 140      | <0.5     | 10       | 8        | 26       | 3.41     | <1       | 0.90     | 751      | 1        | 6        | 10       | 0.01     | <2       | 0.09     | 71       | <10      | 64       |
| 739405             | 0.008   | 0.2      | 23       | 30       | <0.5     | 12       | 9        | 31       | 3.61     | <1       | 0.97     | 751      | 1        | 6        | 10       | 0.01     | <2       | 0.11     | 78       | <10      | 63       |
| 739406             | 0.014   | 0.2      | 22       | 90       | <0.5     | 12       | 9        | 31       | 3.65     | <1       | 0.97     | 718      | 1        | 7        | 11       | 0.01     | <2       | 0.11     | 78       | <10      | 70       |
| 739407             | 0.112   | 0.5      | 10       | 50       | <0.5     | 3        | 7        | 9        | 3.17     | <1       | 0.19     | 150      | 1        | 3        | 9        | 0.03     | <2       | 0.05     | 77       | <10      | 19       |
| 739408             | 0.010   | <0.2     | 20       | 60       | <0.5     | 9        | 9        | 16       | 4.80     | <1       | 0.81     | 421      | 1        | 6        | 11       | 0.03     | <2       | 0.09     | 90       | <10      | 60       |
| 739409             | 0.026   | 0.2      | 12       | 40       | <0.5     | 11       | 13       | 31       | 4.60     | <1       | 0.94     | 511      | <1       | 8        | 12       | 0.03     | <2       | 0.11     | 106      | <10      | 78       |
| 739410             | 0.007   | 0.5      | 15       | 50       | <0.5     | 10       | 12       | 21       | 5.11     | <1       | 0.58     | 494      | <1       | 6        | 13       | 0.05     | <2       | 0.06     | 101      | <10      | 68       |
| 739411             | 0.081   | <0.2     | 18       | 70       | <0.5     | 9        | 8        | 17       | 4.64     | <1       | 0.85     | 496      | 1        | 5        | 10       | 0.03     | 2        | 0.05     | 82       | <10      | 59       |
| 739412             | 0.046   | 0.3      | 12       | 40       | <0.5     | 8        | 17       | 33       | 7.32     | 1        | 0.51     | 270      | <1       | 5        | 13       | 0.06     | <2       | 0.09     | 136      | <10      | 47       |
| 739413             | 0.011   | 0.4      | 7        | 40       | <0.5     | 6        | 9        | 12       | 3.99     | <1       | 0.58     | 422      | <1       | 4        | 6        | 0.02     | <2       | 0.06     | 89       | <10      | 37       |
| 739415             | <0.005  | <0.2     | 9        | 80       | <0.5     | 17       | 25       | 58       | 5.71     | 1        | 0.97     | 592      | <1       | 14       | 8        | 0.05     | <2       | 0.11     | 146      | <10      | 68       |
| 739417             | <0.005  | 0.3      | 12       | 130      | 0.5      | 22       | 26       | 55       | 6.39     | 1        | 1.50     | 962      | <1       | 17       | 10       | 0.28     | <2       | 0.13     | 160      | <10      | 102      |
| 739418             | <0.005  | 0.6      | 6        | 60       | <0.5     | 8        | 17       | 43       | 6.31     | <1       | 0.42     | 325      | <1       | 8        | 8        | 0.06     | <2       | 0.06     | 152      | <10      | 53       |
| 739419             | 0.005   | <0.2     | 7        | 220      | <0.5     | 22       | 16       | 84       | 4.89     | <1       | 1.23     | 1440     | <1       | 12       | 8        | 0.01     | 2        | 0.13     | 109      | <10      | 74       |
| 739420             | <0.005  | <0.2     | 16       | 140      | <0.5     | 35       | 11       | 284      | 6.26     | <1       | 0.84     | 1635     | 1        | 7        | 10       | 0.02     | <2       | 0.15     | 123      | <10      | 66       |
| 739421             | <0.005  | 0.5      | 9        | 60       | <0.5     | 28       | 15       | 250      | 5.69     | 1        | 0.67     | 1990     | <1       | 9        | 6        | 0.05     | <2       | 0.09     | 132      | <10      | 103      |
| 739422             | 0.018   | 1.3      | 17       | 140      | <0.5     | 31       | 36       | 253      | 6.68     | 7        | 1.18     | 2050     | <1       | 23       | 27       | 0.89     | <2       | 0.25     | 61       | <10      | 343      |
| 739423             | 0.018   | 1.2      | 9        | 90       | 1.9      | 32       | 4        | 771      | 10.40    | 7        | 1.42     | 2230     | 2        | 8        | 18       | 1.28     | <2       | 0.05     | 78       | <10      | 653      |
| 739424             | <0.005  | 0.6      | 4        | 30       | <0.5     | 10       | 10       | 172      | 6.78     | 1        | 0.67     | 500      | <1       | 6        | 6        | 0.05     | <2       | 0.19     | 164      | <10      | 134      |
| 739425             | <0.005  | 0.5      | 13       | 100      | 0.6      | 36       | 13       | 240      | 6.43     | 1        | 2.21     | 1975     | <1       | 17       | 16       | 0.02     | <2       | 0.26     | 165      | <10      | 270      |
| 739426             | <0.005  | 0.3      | 8        | 50       | <0.5     | 18       | 17       | 93       | 6.44     | 1        | 0.98     | 875      | <1       | 12       | 16       | 0.05     | <2       | 0.15     | 144      | <10      | 128      |
| 739427             | 0.010   | <0.2     | 17       | 90       | 0.6      | 21       | 13       | 209      | 12.10    | 1        | 1.03     | 1285     | 3        | 7        | 14       | 0.55     | 3        | 0.05     | 125      | 10       | 343      |
| 739428             | 0.005   | <0.2     | 7        | 90       | 0.5      | 60       | 9        | 107      | 9.50     | 1        | 0.86     | 2170     | 4        | 13       | 9        | 0.55     | <2       | 0.07     | 102      | <10      | 235      |
| 739429             | <0.005  | 0.3      | 4        | 60       | <0.5     | 10       | 12       | 40       | 5.81     | 1        | 0.49     | 442      | <1       | 7        | 7        | 0.04     | <2       | 0.05     | 150      | <10      | 73       |
| 739430             | 0.006   | 0.3      | 11       | 80       | 1.0      | 7        | 19       | 124      | 14.75    | 1        | 1.06     | 481      | 3        | 6        | 10       | 0.78     | <2       | 0.26     | 182      | 10       | 71       |
| 739431             | 0.007   | 3.2      | 15       | 110      | 2.5      | 7        | 10       | 605      | 14.90    | 1        | 1.33     | 662      | 3        | 5        | 10       | 1.04     | <2       | 0.25     | 169      | 10       | 161      |
| 739432             | 0.014   | 0.4      | 28       | 180      | 2.5      | 100      | 8        | 847      | 10.70    | <1       | 1.21     | 2960     | 1        | 14       | 16       | 0.19     | <2       | 0.14     | 147      | <10      | 231      |
| 739433             | <0.005  | <0.2     | 7        | 420      | 1.1      | 28       | 6        | 179      | 4.88     | <1       | 0.47     | 772      | 2        | 7        | 6        | 0.08     | <2       | 0.02     | 68       | <10      | 321      |
| 739434             | 0.013   | 0.2      | 21       | 90       | <0.5     | 26       | 8        | 139      | 8.40     | <1       | 2.35     | 1495     | 3        | 14       | 9        | 0.96     | <2       | 0.18     | 135      | <10      | 185      |
| 739435             | 0.048   | 0.5      | 55       | 90       | 1.0      | 77       | 7        | 568      | 9.13     | <1       | 1.78     | 2720     | 8        | 15       | 15       | 0.05     | <2       | 0.10     | 113      | <10      | 325      |
| 739436             | 0.010   | <0.2     | 19       | 480      | 1.5      | 51       | 8        | 527      | 6.89     | 1        | 1.42     | 2100     | 2        | 14       | 10       | 0.19     | 2        | 0.06     | 106      | <10      | 514      |
| 739437             | 0.023   | 0.2      | 31       | 80       | 0.8      | 42       | 10       | 383      | 11.60    | 1        | 1.22     | 1560     | 8        | 8        | 11       | 0.28     | <2       | 0.11     | 87       | 10       | 148      |
| 739438             | <0.005  | 0.4      | 3        | 40       | <0.5     | 7        | 7        | 36       | 4.13     | <1       | 0.39     | 340      | <1       | 4        | 6        | 0.02     | <2       | 0.11     | 121      | <10      | 37       |
| 739439             | 0.030   | 0.2      | 22       | 150      | <0.5     | 68       | 5        | 489      | 9.46     | 1        | 1.22     | 1995     | 1        | 8        | 21       | 0.57     | <2       | 0.06     | 98       | <10      | 78       |
| 739440             | <0.005  | 0.4      | 5        | 90       | <0.5     | 12       | 8        | 111      | 4.06     | <1       | 0.45     | 841      | 2        | 5        | 7        | 0.05     | <2       | 0.09     | 99       | <10      | 46       |
| 739441             | 0.017   | <0.2     | 12       | 90       | <0.5     | 54       | 11       | 165      | 7.58     | <1       | 1.44     | 1395     | 2        | 12       | 7        | 0.15     | <2       | 0.21     | 127      | <10      | 80       |
| 739442             | <0.005  | <0.2     | 9        | 50       | <0.5     | 29       | 30       | 70       | 6.72     | <1       | 1.63     | 1460     | 1        | 10       | 14       | 0.12     | <2       | 0.22     | 124      | <10      | 82       |
| 739443             | <0.005  | 0.3      | 6        | 110      | 0.9      | 28       | 10       | 108      | 5.44     | 1        | 0.56     | 2430     | 2        | 9        | 20       | 0.08     | <2       | 0.12     | 106      | <10      | 268      |
| 739444             | 0.005   | 0.3      | 12       | 80       | <0.5     | 53       | 15       | 126      | 6.48     | <1       | 0.57     | 2130     | 3        | 8        | 66       | 0.08     | <2       | 0.14     | 135      | <10      | 239      |
| 739445             | 0.005   | 0.3      | 9        | 60       | <0.5     | 13       | 15       | 59       | 6.04     | <1       | 0.64     | 857      | 1        | 7        | 14       | 0.07     | <2       | 0.08     | 122      | <10      | 102      |
| 739446             | <0.005  | <0.2     | 6        | 130      | <0.5     | 16       | 10       | 63       | 6.16     | 1        | 0.42     | 923      | 3        | 5        | 23       | 0.06     | <2       | 0.07     | 123      | <10      | 158      |
| 739447             | 0.010   | 0.4      | 11       | 90       | 0.9      | 11       | 16       | 119      | 6.79     | <1       | 0.38     | 457      | 4        | 4        | 53       | 0.07     | <2       | 0.11     | 125      | <10      | 194      |
| 739448             | 0.005   | 0.3      | 11       | 80       | 0.7      | 15       | 14       | 85       | 6.51     | <1       | 0.63     | 730      | 2        | 6        | 20       | 0.09     | <2       | 0.08     | 134      | <10      | 205      |

Table 3

Stream Sediment Sample Analytical Results - Pan Area - Year 2002  
Selected Elements

VA02005026 - Finalized  
CLIENT : "AN - Arnex Resources"  
# of SAMPLES : 6  
DATE RECEIVED : 2002-10-25  
PROJECT : "Jas"

| CODE               | Au-AA23 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 |
|--------------------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| SAMPLE DESCRIPTION | Au ppm  | Ag ppm   | As ppm   | Ba ppm   | Cd ppm   | Cu ppm   | Cr ppm   | Cu ppm   | Fe %     | Hg ppm   | Mg %     | Mn ppm   | Mo ppm   | Ni ppm   | Pb ppm   | S %      | Sb ppm   | Ti %     | W ppm    | Zn ppm   |
| 739400             | <0.005  | 0.3      | 8        | 440      | 0.5      | 21       | 12       | 51       | 4.26     | <1       | 0.68     | 1435     | <1       | 12       | 27       | 0.04     | 3        | 0.03     | <10      | 54       |
| 739414             | 0.702   | 0.4      | 12       | 230      | <0.5     | 18       | 14       | 53       | 4.71     | <1       | 1.10     | 1200     | <1       | 11       | 20       | 0.08     | <2       | 0.06     | <10      | 80       |
| 739416             | 0.007   | <0.2     | 15       | 160      | <0.5     | 19       | 19       | 56       | 5.49     | <1       | 1.01     | 1615     | <1       | 13       | 13       | 0.05     | <2       | 0.07     | <10      | 85       |
| 739450             | <0.005  | 0.8      | 8        | 60       | <0.5     | 16       | 20       | 60       | 5.57     | <1       | 1.55     | 858      | <1       | 9        | 8        | 0.29     | <2       | 0.11     | <10      | 104      |
| 739469             | 0.019   | 0.3      | 34       | 180      | 3.0      | 59       | 7        | 369      | 6.14     | 1        | 0.72     | 3560     | 3        | 12       | 25       | 0.57     | <2       | 0.10     | <10      | 574      |
| 739474             | 0.007   | <0.2     | 10       | 150      | 2.6      | 43       | 11       | 164      | 5.09     | <1       | 1.13     | 2500     | 1        | 11       | 16       | 0.21     | <2       | 0.08     | <10      | 403      |

The 99<sup>th</sup> percentile has been used previously to determine anomalous Threshold values for Cu, Zn, Pb, Au and Ag. Normally the 90<sup>th</sup> or 95<sup>th</sup> percentile would be used to establish thresholds. However, soil values are so high at the Pan Grid area that the 99<sup>th</sup> percentile is being used.

#### **5.4. Soil Geochemistry Results – North Pan Extension**

Values for road-cut sampling at the north extension of the Pan Area are plotted on Figure 7, Soil and Stream Sediment Geochemistry – Map PN-1.

Seven Cu, six Zn, two Pb, and eleven Ag values greater than the 99<sup>th</sup> percentile were detected from the soil sampling. Samples taken directly north of the Pan North Grid were moderately anomalous and values ranged between 108 to 126 ppm Cu with Zn ranging from 205 to 268 ppm. Sample 739451 taken from rusty orange brown overlying gossanous clay altered volcanics was anomalous in Cu-Zn-AG and highly anomalous in Pb (319 ppm) indicating the anomaly is proximal to source. Soil samples approximately 200 to 550 m north of the Pan North Grid become more anomalous going to the north with the highest value coming from brown-orange altered talus fines at sample 739470 which returned 848 ppm Cu and 298 ppm Zn. The most northerly samples are still strongly anomalous in Cu and Zn indicating the anomaly is still open to the north.

Four soil sample values were greater than the 95<sup>th</sup> percentile for Au and ranged between 0.031 to 0.061 ppm Au.

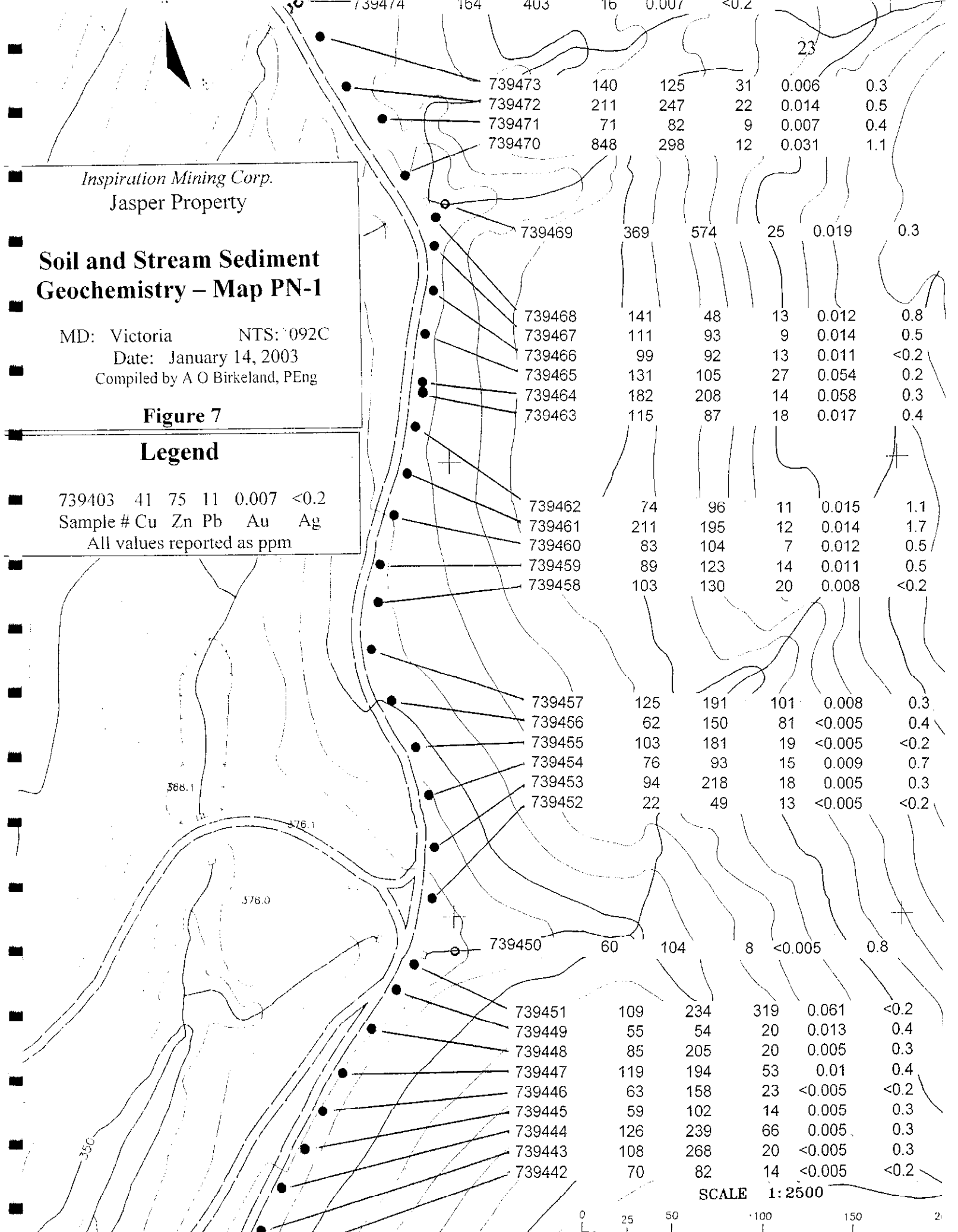
Stream sediments from the northern area are also strongly anomalous. Sample 739469 returned 369 ppm Cu and 574 ppm Zn and the northernmost sample taken was stream sediment sample number 739474 which returned 164 ppm Cu and 403 ppm Zn again indicating that the polymetallic base metal geochemical anomalies are open to the north.

The stream sediment and road-cut soil sampling survey indicates that the polymetallic soil geochemical anomaly extends a distance of approximately 700 metres to the north of the Pan North Grid.

#### **5.5. Soil Geochemistry Results – South Pan Extension**

Soil samples were taken from road-cuts of Caycuse Main logging road going south from the Pan South Grid. Samples were taken where sites were accessible on approximately a 50 to 100 metre spacing. Selected values are plotted on Figure 8, Soil and Stream Sediment Geochemistry – Map PS-1 at a scale of 1:2,500.

Base metal values are not anomalous from soil samples taken for the first approximately 650 metres to the south from the Pan South Grid. Over the next 225 metres, four soil and talus fine samples were strongly anomalous and ranged between 250 – 771 ppm Cu, 103 – 853 ppm Zn and up to 1.2 ppm Ag. Soils and fines were variably altered and



Inspiration Mining Corp.  
Jasper Property

### Soil and Stream Sediment Geochemistry – Map PN-1

MD: Victoria      NTS: '092C  
Date: January 14, 2003  
Compiled by A O Birkeland, PEng

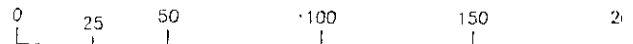
**Figure 7**

#### Legend

739403    41    75    11    0.007    <0.2  
Sample #   Cu   Zn   Pb   Au   Ag  
All values reported as ppm

| Sample # | Cu  | Zn  | Pb  | Au     | Ag   |
|----------|-----|-----|-----|--------|------|
| 739474   | 164 | 403 | 16  | 0.007  | <0.2 |
| 739473   | 140 | 125 | 31  | 0.006  | 0.3  |
| 739472   | 211 | 247 | 22  | 0.014  | 0.5  |
| 739471   | 71  | 82  | 9   | 0.007  | 0.4  |
| 739470   | 848 | 298 | 12  | 0.031  | 1.1  |
| 739469   | 369 | 574 | 25  | 0.019  | 0.3  |
| 739468   | 141 | 48  | 13  | 0.012  | 0.8  |
| 739467   | 111 | 93  | 9   | 0.014  | 0.5  |
| 739466   | 99  | 92  | 13  | 0.011  | <0.2 |
| 739465   | 131 | 105 | 27  | 0.054  | 0.2  |
| 739464   | 182 | 208 | 14  | 0.058  | 0.3  |
| 739463   | 115 | 87  | 18  | 0.017  | 0.4  |
| 739462   | 74  | 96  | 11  | 0.015  | 1.1  |
| 739461   | 211 | 195 | 12  | 0.014  | 1.7  |
| 739460   | 83  | 104 | 7   | 0.012  | 0.5  |
| 739459   | 89  | 123 | 14  | 0.011  | 0.5  |
| 739458   | 103 | 130 | 20  | 0.008  | <0.2 |
| 739457   | 125 | 191 | 101 | 0.008  | 0.3  |
| 739456   | 62  | 150 | 81  | <0.005 | 0.4  |
| 739455   | 103 | 181 | 19  | <0.005 | <0.2 |
| 739454   | 76  | 93  | 15  | 0.009  | 0.7  |
| 739453   | 94  | 218 | 18  | 0.005  | 0.3  |
| 739452   | 22  | 49  | 13  | <0.005 | <0.2 |
| 739450   | 60  | 104 | 8   | <0.005 | 0.8  |
| 739451   | 109 | 234 | 319 | 0.061  | <0.2 |
| 739449   | 55  | 54  | 20  | 0.013  | 0.4  |
| 739448   | 85  | 205 | 20  | 0.005  | 0.3  |
| 739447   | 119 | 194 | 53  | 0.01   | 0.4  |
| 739446   | 63  | 158 | 23  | <0.005 | <0.2 |
| 739445   | 59  | 102 | 14  | 0.005  | 0.3  |
| 739444   | 126 | 239 | 66  | 0.005  | 0.3  |
| 739443   | 108 | 268 | 20  | <0.005 | 0.3  |
| 739442   | 70  | 82  | 14  | <0.005 | <0.2 |

SCALE 1:2500





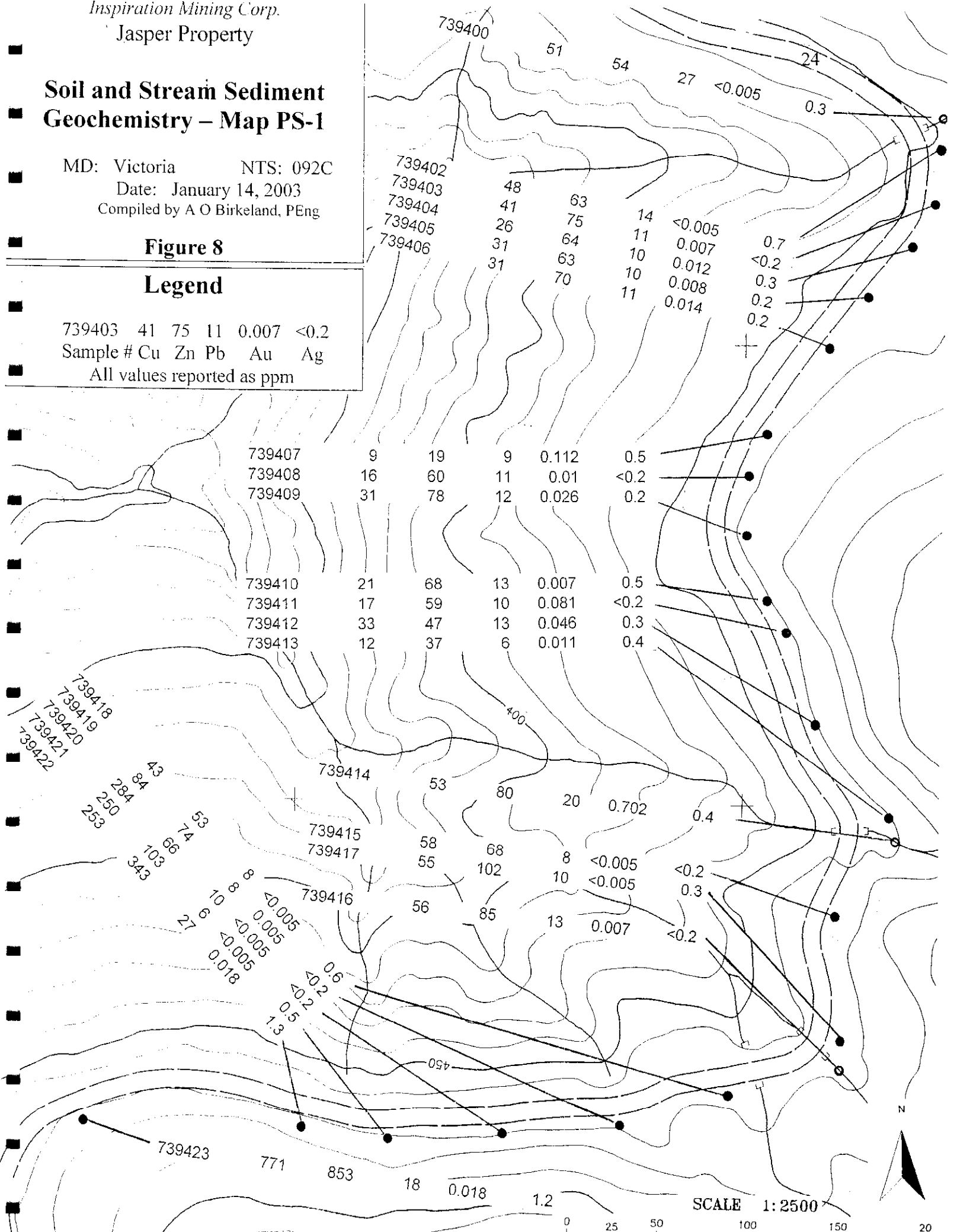
**Soil and Stream Sediment  
 Geochemistry – Map PS-1**

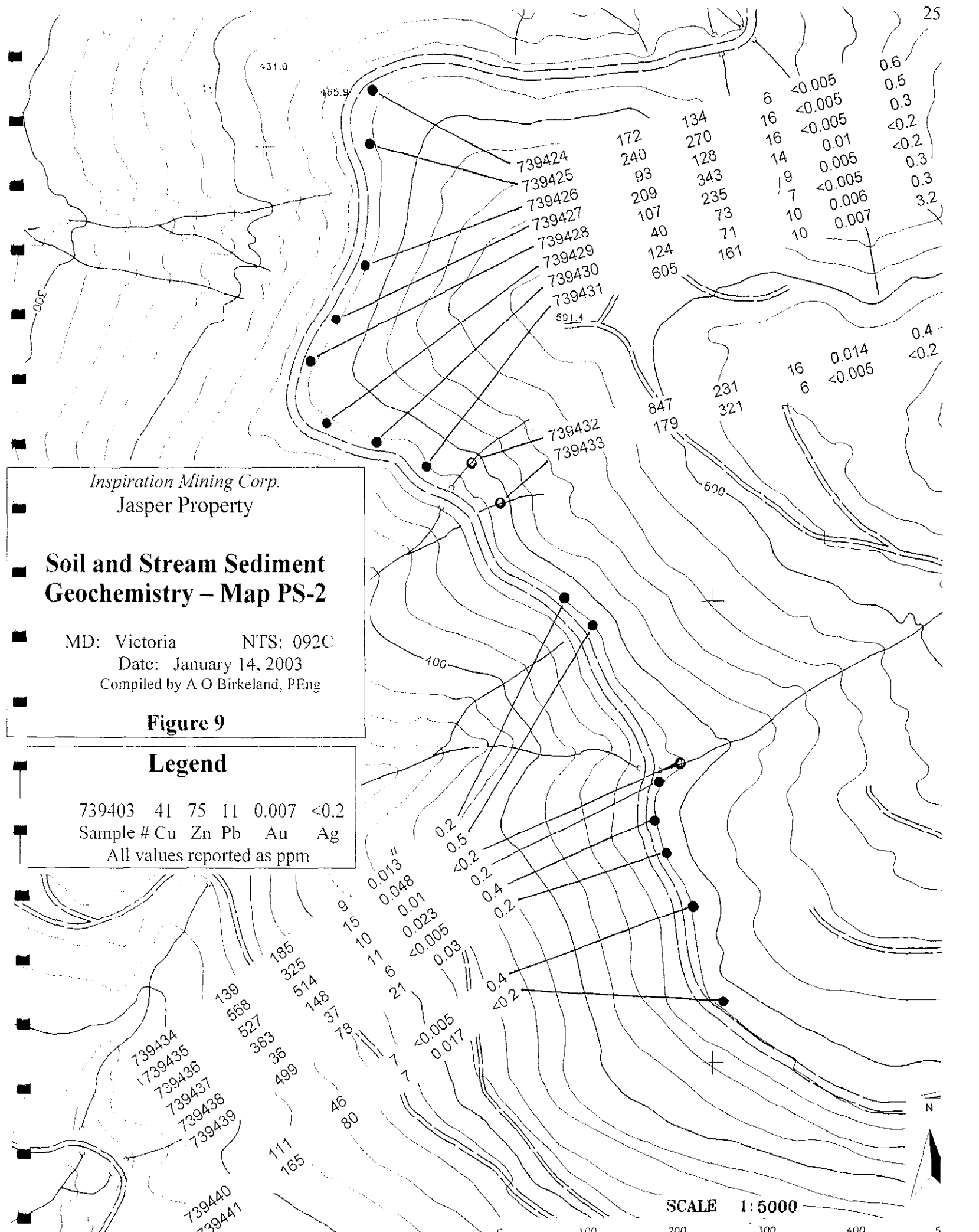
MD: Victoria      NTS: 092C  
 Date: January 14, 2003  
 Compiled by A O Birkeland, PEng

**Figure 8**

**Legend**

|                            |    |    |    |       |      |
|----------------------------|----|----|----|-------|------|
| 739403                     | 41 | 75 | 11 | 0.007 | <0.2 |
| Sample #                   | Cu | Zn | Pb | Au    | Ag   |
| All values reported as ppm |    |    |    |       |      |





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### Soil and Stream Sediment Geochemistry – Map PS-2

MD: Victoria      NTS: 092C  
Date: January 14, 2003  
Compiled by A O Birkeland, PEng

**Figure 9**

#### Legend

|                            |    |    |    |       |      |
|----------------------------|----|----|----|-------|------|
| 739403                     | 41 | 75 | 11 | 0.007 | <0.2 |
| Sample #                   | Cu | Zn | Pb | Au    | Ag   |
| All values reported as ppm |    |    |    |       |      |

SCALE 1:5000



gossanous in this area. Stream sediment sample number 739414 returned anomalous values for Au and Ag of 0.702 ppm Au and 0.4 ppm Ag.

Sampling continued for a distance of approximately one kilometre to the south on variable spacing of 50 to 150 metres where B-horizon or talus fines were present. Results are plotted on Figure 9, Soil and Stream Sediment Geochemistry – Map PS-2 at a scale of 1:5,000. Numerous samples returned anomalous values for base metals. Eight samples were greater than the 99<sup>th</sup> percentile and three samples ranged between 499 to 605 ppm Cu. Four samples exceed the 99<sup>th</sup> percentile for Zn with the highest value being 343 ppm Zn. The highest multi-element values were from sample 739435 which returned values greater than the 99<sup>th</sup> percentile of 568 ppm Cu, 325 ppm Zn and 0.5 ppm Ag. The sample also returned values greater than the 95<sup>th</sup> percentile of 15 ppm Pb and 0.048 ppm Au. The sample was from talus fines from colluvium overlying a 3 to 5 metre thick gossanous ferrocrete layer.

Towards the south end of the sample line, sample 739439 contained 499 ppm Cu from dark brown soil from an area with no outcrop. The next two samples to the south still contain 111 and 165 ppm Cu and are moderately anomalous, however, Zn and other element values return to background. Road-cut outcrop in this area generally consists of fresh unaltered andisitic volcanics and soils are not altered or gossanous. It is interrelated that this marks the southern extent of poly-metallic anomalies to the south of the Pan South Grid area.

Three stream sediment samples were taken from the Map PS-2 area. All three contained anomalous Cu ranging between 179 to 847 ppm Cu and 231 to 514 ppm Zn.

## 6. CONCLUSIONS

Coincident extensive poly-metallic soil geochemical anomalies are present in B-horizon soils, talus fines and stream sediments to the north and to the south of the Pan Soil Grid area.

Polymetallic base metal geochemical anomalies are present associated with an intense gossan alteration zone over a 1.6 km strike length. Anomalous soil values are present on the Lines furthest to the north and south on the grid. Some of the best anomalies are at the up-hill eastern ends of Lines and the anomalies are open up-slope.

The 2002 geochemical survey established the following:

- Cu-Zn stream sediment and soil geochemical anomalies are present trending north off the North Pan Grid for a distance of up to 700 metres and are open to the north. In this area, the soils are variably gossanous and pyritic, argillic altered float and outcrop is present. Gossanous soils are present in road-cuts and creek banks to the north of the last sample taken. It is concluded that the geochemical anomaly and associated

mineralization may continue along the alteration trend towards the Jasper Main Showing to the North.

- At the south of the Pan South Grid, anomalous values are present in soils and talus fines for a distance of up to approximately 1.4 kilometers to the south. Stream sediments were particularly anomalous for Cu and Zn. Due to the unaltered nature of soils and outcrop and lower base metal values from the geochemical survey, the poly-metallic anomaly is interrelated to be cut off to the south.
- Poly-metallic base metal, and to a lesser degree precious metal, stream sediment and soil (talus fine) anomalies are established to exist in the Pan Soil Grid area over a strike length of approximately 3.1 kilometres and is considered to be open to the north.

## **7. RECOMMENDATIONS**

A phased \$500,000 exploration program has been recommended in a Technical Report by Arnex for Inspiration dated May 8, 2001. Phase 1 will be the continuation of surface work at the Pan (and possibly Jas) grid area, and Phase 2 will include diamond drilling.

Phase 1 work should include the following:

1. Extend the existing cross lines on the Pan soil grids upslope to the east to close off anomalies,
2. Extend the soil grids to the north and south to cover the +3 kilometre strike length of the anomalous alteration zone,
3. Hand dig pits and conduct soil geochemical profiles at the most significant soil anomalies to determine proximity to source,
4. Do surficial geology mapping along roadcuts and use the results to interpret where the mineralized source areas are for the significant soil anomalies,
5. Prospect, map and sample in detail all areas adjacent to the most important showings and soil anomalies.

Upon completion of the Phase 1 field program, exploration targets should be prioritized utilizing GIS analysis and specific recommendations for a Phase 2 Work Program and Budget should be made. Phase 2 work should include completing geophysical surveys over selected areas of the Pan and extended J-Branch Main Showing grids. Phase 2 work may also include mechanized trenching and will include diamond drilling of the highest priority targets. A Notice of Work should be filed at least 60 days prior to the planned commencement of Phase 2 fieldwork.

## 8. CERTIFICATE OF QUALIFICATION AND CONSENT

I, Arne O. Birkeland, do hereby certify that:

1. I am a Geological Engineer in the employ of Arnex Resources Ltd. with offices at 2069 Westview Drive, North Vancouver, British Columbia.
2. I am a 1972 graduate of the Colorado School of Mines with a Bachelor of Science Degree in Geological Engineering.
3. I have been a registered Professional Engineer with the Association of Professional Engineers Association of British Columbia since 1975, Registration Number 9870.
4. My primary employment since 1966 has been in the field of mineral exploration and development, namely as a Geological Engineer.
5. My experience has encompassed a wide range of geological environments including extensive experience in classification of deposit types as well as considerable familiarization with geochemical and geophysical survey techniques and diamond drilling procedures.
6. I have conducted and supervised the field exploration work as reported on the subject property. I have authored this report that is based on observations and sample results obtained during the Year 2001 exploration program. The report is NI 43-101 compliant where applicable.
7. The author holds no interest in the Jasper Property that is the subject of this report. The author does not own any equity shares or have any options in Inspiration Mining Corp. ("Inspiration") and is acting as an independent Qualified Person as geological consultant for Inspiration.
8. I consent for Inspiration to use this technical report to file as an assessment report and also for use as required by regulatory authorities.

Dated at North Vancouver, British Columbia,

This 14<sup>th</sup> day of January, 2003

A. O. Birkeland  
Arne O. Birkeland, P. Eng.

President, Arnex Resources Ltd.



## 9. BIBLIOGRAPHY, SELECTED REFERENCES

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**APPENDIX A**

***Statement of Expenditures***

**Statement of Work**

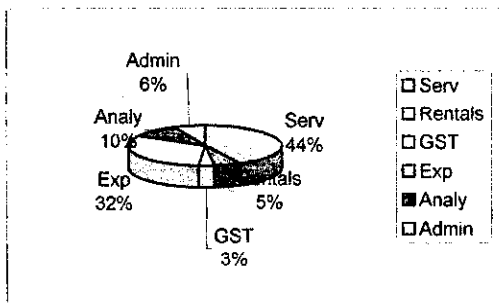
**Appendix A - Statement of Expenditures  
2002 Soil and Stream Sediment Geochemical Survey  
Jasper Claim Group, Victoria Mining Division**

Prepared for: Inspiration Mining Corp.

Prepared by: Arnex Resources Ltd.

For the Period: Oct 1, 2002 to Jan 31, 2003

| Description               | Cost                     | /unit    | number | units | Amount |                    |
|---------------------------|--------------------------|----------|--------|-------|--------|--------------------|
| Services                  | P. Eng.                  | \$550.00 | /day   | 10.00 | day    | \$5,500.00         |
|                           | Soil Sampler             | \$350.00 | /day   | 5.00  | day    | \$1,750.00         |
|                           | Subtotal Services        |          |        |       |        | \$7,250.00         |
| Rentals                   | Ford F250 4x4            | \$80.25  | /day   | 5.00  | day    | \$401.25           |
|                           | Camper                   | \$32.10  | /day   | 5.00  | day    | \$160.50           |
|                           | Chain Saws (1)           | \$20.00  | /day   | 5.00  | day    | \$100.00           |
|                           | Motorola Radios (2)      | \$5.00   | /day   | 10.00 | day    | \$50.00            |
|                           | Field Equipment          | \$20.00  | /day   | 10.00 | day    | \$200.00           |
|                           | Subtotal Rentals         |          |        |       |        | \$911.75           |
| GST - Services, Rentals   |                          |          |        |       |        | \$571.32           |
| Expenses                  | Board                    | \$50.00  | /day   | 10.00 | day    | \$500.00           |
|                           | Room                     | \$60.00  | /day   | 10.00 | day    | \$600.00           |
|                           | Ferry                    |          |        | 2.00  | trip   | \$115.75           |
|                           | Field supplies           | \$25.00  | /day   | 10.00 | day    | \$250.00           |
|                           | Analytical, soil samples | \$24.00  | /smpl  | 74.00 | smpl   | \$1,776.00         |
|                           | Data Plotting            | \$65.00  | /hr    | 8.00  | hr     | \$520.00           |
|                           | Report                   |          |        |       |        | \$3,000.00         |
|                           | Subtotal Expenses        |          |        |       |        | \$7,214.93         |
| Admin Fee (Expenses @15%) |                          |          |        |       |        | \$1,082.24         |
| <b>TOTAL</b>              |                          |          |        |       |        | <b>\$17,030.24</b> |



|              |                 |
|--------------|-----------------|
| Serv         | \$7,250         |
| Rentals      | \$912           |
| GST          | \$571           |
| Exp          | \$5,439         |
| Analy        | \$1,776         |
| Admin        | \$1,082         |
| <b>Total</b> | <b>\$17,030</b> |



**APPENDIX B**

**Analytical Procedures and Certificates**

**ALS Chemex Labs**



# ALS Chemex

**EXCELLENCE IN ANALYTICAL CHEMISTRY**

ALS Canada Ltd.

212 Brooksbank Avenue

North Vancouver BC V7J 2C1 Canada

Phone: 604 984 0221 Fax: 604 984 0218

To: ARNEX RESOURCES  
2069 WESTVIEW DR.  
NORTH VANCOUVER BC V7M 3B1

Page #: 1  
Date : 4-Nov-2002  
Account: AN

## CERTIFICATE VA02005025

Project : Jas

P.O. No:

This report is for 69 SOIL samples submitted to our lab in North Vancouver, BC, Canada on 25-Oct-2002.

The following have access to data associated with this certificate:

ARNE BIRKCLAND

## SAMPLE PREPARATION

| ALS CODE | DESCRIPTION                    |
|----------|--------------------------------|
| WEI-21   | Received Sample Weight         |
| LOG-22   | Sample login - Rcd w/o BarCode |
| SCR-41   | Screen to -180um and save both |
| SCR-41+  | Screen to -180um (+) fraction  |

## ANALYTICAL PROCEDURES

| ALS CODE | DESCRIPTION                   | INSTRUMENT |
|----------|-------------------------------|------------|
| Au-AA23  | Au 30g FA-AA finish           | AAS        |
| ME-ICP41 | 34 element aqua regia ICP-AES | ICP-AES    |

To: ARNEX RESOURCES  
ATTN: ARNE BIRKELAND  
2069 WESTVIEW DR.  
NORTH VANCOUVER BC V7M 3B1

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:



# ALS Chemex

**EXCELLENCE IN ANALYTICAL CHEMISTRY**

ALS Canada Ltd.

212 Brooksbank Avenue  
North Vancouver BC V7J 2C1 Canada  
Phone: 604 984 0221 Fax: 604 984 0218

To: ARNEX RESOURCES  
2069 WESTVIEW DR.  
NORTH VANCOUVER BC V7M 3B1

Page #: 2 - A  
Total # of pages : 3 (A - C)  
Date : 4-Nov-2002  
Account: AN

Project : Jas

## CERTIFICATE OF ANALYSIS VA02005025

| Sample Description | Method Analyte Units LOR | WEI-21      | Au-AA23 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 |
|--------------------|--------------------------|-------------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                    |                          | Recvd Wt kg | Au ppm  | Ag ppm   | Al %     | As ppm   | B ppm    | Ba ppm   | Be ppm   | Bi ppm   | Ca %     | Cd ppm   | Co ppm   | Cr ppm   | Cu ppm   | Fe %     |
|                    |                          | 0.02        | 0.005   | 0.2      | 0.01     | 2        | 10       | 10       | 0.5      | 2        | 0.01     | 0.5      | 1        | 1        | 1        | 0.01     |
| 739401             |                          | 0.44        | NSS     | NSS      | NSS      | NSS      | NSS      | NSS      | NSS      | NSS      | NSS      | NSS      | NSS      | NSS      | NSS      | NSS      |
| 739402             |                          | 0.36        | <0.005  | 0.7      | 1.59     | 5        | <10      | 360      | <0.5     | <2       | 0.96     | <0.5     | 12       | 7        | 48       | 2.92     |
| 739403             |                          | 0.58        | 0.007   | <0.2     | 3.10     | 16       | <10      | 90       | 0.7      | <2       | 0.17     | <0.5     | 13       | 10       | 41       | 4.35     |
| 739404             |                          | 0.68        | 0.012   | 0.3      | 1.81     | 20       | <10      | 140      | 0.6      | <2       | 0.23     | <0.5     | 10       | 8        | 26       | 3.41     |
| 739405             |                          | 0.66        | 0.008   | 0.2      | 2.10     | 23       | <10      | 30       | <0.5     | 2        | 0.24     | <0.5     | 12       | 9        | 31       | 3.61     |
| 739406             |                          | 0.68        | 0.014   | 0.2      | 1.94     | 22       | <10      | 90       | 0.5      | <2       | 0.26     | <0.5     | 12       | 9        | 31       | 3.65     |
| 739407             |                          | 0.44        | 0.112   | 0.5      | 1.43     | 10       | <10      | 50       | <0.5     | <2       | 0.06     | <0.5     | 3        | 7        | 9        | 3.17     |
| 739408             |                          | 0.46        | 0.010   | <0.2     | 3.01     | 20       | <10      | 60       | 0.6      | <2       | 0.07     | <0.5     | 9        | 9        | 16       | 4.60     |
| 739409             |                          | 0.54        | 0.026   | 0.2      | 4.17     | 12       | <10      | 40       | 0.5      | <2       | 0.07     | <0.5     | 11       | 13       | 31       | 4.60     |
| 739410             |                          | 0.50        | 0.007   | 0.5      | 5.37     | 15       | <10      | 50       | 0.8      | 2        | 0.04     | <0.5     | 10       | 12       | 21       | 5.11     |
| 739411             |                          | 0.48        | 0.081   | <0.2     | 3.50     | 18       | <10      | 70       | 0.6      | 2        | 0.03     | <0.5     | 9        | 8        | 17       | 4.64     |
| 739412             |                          | 0.44        | 0.046   | 0.3      | 6.09     | 12       | <10      | 40       | 0.6      | <2       | 0.04     | <0.5     | 8        | 17       | 33       | 7.32     |
| 739413             |                          | 0.52        | 0.011   | 0.4      | 2.23     | 7        | <10      | 40       | <0.5     | <2       | 0.07     | <0.5     | 6        | 9        | 12       | 3.99     |
| 739415             |                          | 0.36        | <0.005  | <0.2     | 5.60     | 9        | <10      | 80       | 0.5      | <2       | 0.07     | <0.5     | 17       | 25       | 58       | 5.71     |
| 739417             |                          | 1.40        | <0.005  | 0.3      | 2.43     | 12       | <10      | 130      | 0.5      | <2       | 0.72     | 0.5      | 22       | 26       | 55       | 6.39     |
| 739418             |                          | 0.56        | <0.005  | 0.6      | 5.32     | 6        | <10      | 60       | <0.5     | 2        | 0.07     | <0.5     | 8        | 17       | 43       | 6.31     |
| 739419             |                          | 0.96        | 0.005   | <0.2     | 2.87     | 7        | <10      | 220      | 0.7      | <2       | 0.38     | <0.5     | 22       | 16       | 84       | 4.89     |
| 739420             |                          | 0.66        | <0.005  | <0.2     | 2.81     | 16       | <10      | 140      | 0.8      | 2        | 0.25     | <0.5     | 35       | 11       | 284      | 6.26     |
| 739421             |                          | 0.60        | <0.005  | 0.5      | 5.33     | 9        | <10      | 60       | 0.6      | <2       | 0.13     | <0.5     | 28       | 15       | 250      | 5.69     |
| 739422             |                          | 0.64        | 0.018   | 1.3      | 1.96     | 17       | <10      | 140      | 0.5      | 3        | 0.05     | <0.5     | 31       | 36       | 253      | 6.68     |
| 739423             |                          | 0.60        | 0.018   | 1.2      | 2.75     | 9        | <10      | 90       | <0.5     | 3        | 0.03     | 1.9      | 32       | 4        | 771      | 10.40    |
| 739424             |                          | 0.52        | <0.005  | 0.6      | 4.43     | 4        | <10      | 30       | 0.5      | <2       | 0.14     | <0.5     | 10       | 10       | 172      | 6.78     |
| 739425             |                          | 0.58        | <0.005  | 0.5      | 5.04     | 13       | <10      | 100      | 0.7      | 4        | 0.86     | 0.6      | 36       | 13       | 240      | 6.43     |
| 739426             |                          | 0.52        | <0.005  | 0.3      | 6.43     | 8        | <10      | 50       | 0.6      | <2       | 0.12     | <0.5     | 18       | 17       | 93       | 6.44     |
| 739427             |                          | 0.60        | 0.010   | <0.2     | 3.75     | 17       | <10      | 90       | <0.5     | 3        | 0.05     | 0.6      | 21       | 13       | 209      | 12.10    |
| 739428             |                          | 0.78        | 0.005   | <0.2     | 3.75     | 7        | <10      | 90       | <0.5     | 5        | 1.06     | 0.5      | 60       | 9        | 107      | 9.50     |
| 739429             |                          | 0.56        | <0.005  | 0.3      | 3.23     | 4        | <10      | 60       | <0.5     | <2       | 0.17     | <0.5     | 10       | 12       | 40       | 5.81     |
| 739430             |                          | 0.60        | 0.006   | 0.3      | 3.26     | 11       | <10      | 80       | <0.5     | 5        | 0.40     | 1.0      | 7        | 19       | 124      | 14.75    |
| 739431             |                          | 0.68        | 0.007   | 3.2      | 3.54     | 15       | <10      | 110      | <0.5     | 8        | 0.74     | 2.5      | 7        | 10       | 605      | 14.90    |
| 739432             |                          | 0.76        | 0.014   | 0.4      | 4.91     | 28       | <10      | 180      | 1.2      | 3        | 1.02     | 2.5      | 100      | 8        | 847      | 10.70    |
| 739433             |                          | 1.28        | <0.005  | <0.2     | 2.94     | 7        | <10      | 420      | 0.8      | 2        | 0.60     | 1.1      | 28       | 6        | 179      | 4.88     |
| 739434             |                          | 0.72        | 0.013   | 0.2      | 2.81     | 21       | <10      | 90       | <0.5     | 3        | 0.31     | <0.5     | 26       | 8        | 139      | 8.40     |
| 739435             |                          | 0.88        | 0.048   | 0.5      | 3.60     | 55       | <10      | 90       | 0.8      | <2       | 0.16     | 1.0      | 77       | 7        | 568      | 9.13     |
| 739436             |                          | 0.74        | 0.010   | <0.2     | 3.19     | 19       | <10      | 480      | 1.0      | <2       | 0.57     | 1.5      | 51       | 8        | 527      | 6.89     |
| 739437             |                          | 0.98        | 0.023   | 0.2      | 3.27     | 31       | <10      | 80       | 0.8      | 6        | 0.47     | 0.8      | 42       | 10       | 383      | 11.60    |
| 739438             |                          | 0.52        | <0.005  | 0.4      | 1.70     | 3        | <10      | 40       | <0.5     | <2       | 0.19     | <0.5     | 7        | 7        | 36       | 4.13     |
| 739439             |                          | 0.36        | 0.030   | 0.2      | 2.44     | 22       | <10      | 150      | <0.5     | 2        | 0.04     | <0.5     | 68       | 5        | 499      | 9.46     |
| 739440             |                          | 0.66        | <0.005  | 0.4      | 1.70     | 5        | <10      | 90       | <0.5     | <2       | 0.19     | <0.5     | 12       | 8        | 111      | 4.06     |
| 739441             |                          | 0.66        | 0.017   | <0.2     | 3.46     | 12       | <10      | 90       | 0.7      | <2       | 0.20     | <0.5     | 54       | 11       | 165      | 7.58     |
| 739442             |                          | 0.40        | <0.005  | <0.2     | 5.18     | 9        | <10      | 50       | <0.5     | 2        | 1.50     | <0.5     | 29       | 30       | 70       | 6.72     |



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10: ARNEX RESOURCES

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Date : 4-Nov-2002

Account: AN

Project : Jas

## CERTIFICATE OF ANALYSIS

VA02005025

| Sample Description | Method Analyte Units LOR | WEI-21 Recvd Wt kg 0.02 | Au-AA23 Au ppm 0.005 | ME-ICP41 Ag ppm 0.2 | ME-ICP41 Al % 0.01 | ME-ICP41 As ppm 2 | ME-ICP41 B ppm 10 | ME-ICP41 Ba ppm 10 | ME-ICP41 Be ppm 0.5 | ME-ICP41 Bi ppm 2 | ME-ICP41 Ca % 0.01 | ME-ICP41 Cd ppm 0.5 | ME-ICP41 Co ppm 1 | ME-ICP41 Cr ppm 1 | ME-ICP41 Cu ppm 1 | ME-ICP41 Fe % 0.01 |
|--------------------|--------------------------|-------------------------|----------------------|---------------------|--------------------|-------------------|-------------------|--------------------|---------------------|-------------------|--------------------|---------------------|-------------------|-------------------|-------------------|--------------------|
| 739443             |                          | 0.46                    | <0.005               | 0.3                 | 6.02               | 6                 | <10               | 110                | 1.0                 | <2                | 0.80               | 0.9                 | 28                | 10                | 108               | 5.44               |
| 739444             |                          | 0.44                    | 0.005                | 0.3                 | 5.41               | 12                | <10               | 80                 | 0.9                 | 2                 | 0.09               | <0.5                | 53                | 15                | 126               | 6.48               |
| 739445             |                          | 0.48                    | 0.005                | 0.3                 | 4.67               | 9                 | <10               | 60                 | <0.5                | <2                | 0.08               | <0.5                | 13                | 15                | 59                | 6.04               |
| 739446             |                          | 0.44                    | <0.005               | <0.2                | 3.66               | 6                 | <10               | 130                | 0.6                 | <2                | 0.16               | <0.5                | 16                | 10                | 63                | 6.16               |
| 739447             |                          | 0.42                    | 0.010                | 0.4                 | 5.30               | 11                | <10               | 90                 | 0.7                 | <2                | 0.12               | 0.9                 | 11                | 16                | 119               | 6.79               |
| 739448             |                          | 0.54                    | 0.005                | 0.3                 | 5.20               | 11                | <10               | 80                 | 0.6                 | 3                 | 0.07               | 0.7                 | 15                | 14                | 85                | 6.51               |
| 739449             |                          | 0.58                    | 0.013                | 0.4                 | 2.07               | 19                | <10               | 50                 | <0.5                | <2                | 0.06               | <0.5                | 9                 | 8                 | 55                | 7.08               |
| 739451             |                          | 0.58                    | 0.061                | <0.2                | 5.54               | 11                | <10               | 30                 | 0.6                 | <2                | 0.05               | 0.5                 | 14                | 15                | 109               | 6.21               |
| 739452             |                          | 0.38                    | <0.005               | <0.2                | 3.61               | 6                 | <10               | 30                 | <0.5                | 3                 | 0.06               | <0.5                | 6                 | 15                | 22                | 6.63               |
| 739453             |                          | 0.46                    | 0.005                | 0.3                 | 5.03               | 8                 | <10               | 50                 | 0.7                 | <2                | 0.07               | <0.5                | 11                | 10                | 94                | 6.27               |
| 739454             |                          | 0.48                    | 0.009                | 0.7                 | 3.91               | 9                 | <10               | 40                 | <0.5                | 4                 | 0.12               | <0.5                | 8                 | 10                | 76                | 7.52               |
| 739455             |                          | 0.48                    | <0.005               | <0.2                | 3.97               | 5                 | <10               | 50                 | 0.6                 | <2                | 0.09               | <0.5                | 38                | 9                 | 103               | 6.12               |
| 739456             |                          | 0.42                    | <0.005               | 0.4                 | 3.69               | 9                 | <10               | 100                | <0.5                | <2                | 0.18               | <0.5                | 15                | 9                 | 62                | 6.09               |
| 739457             |                          | 0.46                    | 0.008                | 0.3                 | 4.09               | 11                | <10               | 50                 | 0.5                 | <2                | 0.18               | 0.6                 | 22                | 11                | 125               | 6.63               |
| 739458             |                          | 0.54                    | 0.008                | <0.2                | 3.99               | 10                | <10               | 70                 | 0.6                 | <2                | 0.53               | <0.5                | 35                | 9                 | 103               | 6.00               |
| 739459             |                          | 0.60                    | 0.011                | 0.5                 | 5.91               | 11                | <10               | 40                 | 0.6                 | 2                 | 0.15               | <0.5                | 14                | 25                | 89                | 6.42               |
| 739460             |                          | 0.48                    | 0.012                | 0.5                 | 5.99               | 11                | <10               | 50                 | 0.5                 | <2                | 0.06               | <0.5                | 9                 | 14                | 83                | 6.14               |
| 739461             |                          | 0.44                    | 0.014                | 1.7                 | 8.18               | 16                | <10               | 40                 | 0.8                 | <2                | 0.06               | <0.5                | 57                | 15                | 211               | 5.89               |
| 739462             |                          | 0.54                    | 0.015                | 1.1                 | 5.56               | 16                | <10               | 40                 | 0.5                 | <2                | 0.09               | <0.5                | 7                 | 12                | 74                | 5.90               |
| 739463             |                          | 0.66                    | 0.017                | 0.4                 | 6.15               | 18                | <10               | 30                 | 0.5                 | <2                | 0.07               | <0.5                | 8                 | 11                | 115               | 6.24               |
| 739464             |                          | 0.58                    | 0.058                | 0.3                 | 3.31               | 30                | <10               | 140                | 0.8                 | 4                 | 0.17               | 0.7                 | 61                | 4                 | 182               | 9.90               |
| 739465             |                          | 0.76                    | 0.054                | 0.2                 | 5.55               | 44                | <10               | 50                 | 0.7                 | <2                | 0.64               | 1.0                 | 62                | 7                 | 131               | 11.55              |
| 739466             |                          | 0.54                    | 0.011                | <0.2                | 4.90               | 24                | <10               | 40                 | 0.5                 | 2                 | 0.07               | <0.5                | 7                 | 10                | 99                | 7.07               |
| 739467             |                          | 0.58                    | 0.014                | 0.5                 | 7.52               | 15                | <10               | 20                 | 0.6                 | 2                 | 0.07               | <0.5                | 7                 | 8                 | 111               | 5.07               |
| 739468             |                          | 0.66                    | 0.012                | 0.8                 | 6.18               | 21                | <10               | 20                 | 0.5                 | <2                | 0.07               | <0.5                | 6                 | 9                 | 141               | 8.68               |
| 739470             |                          | 0.64                    | 0.031                | 1.1                 | 4.82               | 25                | <10               | 30                 | 0.7                 | 6                 | 0.67               | 1.3                 | 44                | 15                | 848               | 10.20              |
| 739471             |                          | 0.68                    | 0.007                | 0.4                 | 4.47               | 8                 | <10               | 30                 | <0.5                | <2                | 0.06               | <0.5                | 7                 | 10                | 71                | 7.41               |
| 739472             |                          |                         | 0.014                | 0.5                 | 4.70               | 8                 | <10               | 50                 | 0.5                 | 2                 | 0.09               | 0.7                 | 14                | 12                | 211               | 8.26               |
| 739473             |                          |                         | 0.006                | 0.3                 | 2.44               | 9                 | <10               | 120                | <0.5                | <2                | 0.18               | <0.5                | 14                | 8                 | 140               | 6.20               |



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Project : Jas

**CERTIFICATE OF ANALYSIS VA02005025**

| Sample Description | Method Analyte Units LOR | ME-ICP41  | ME-ICP41 | ME-ICP41 | ME-ICP41  | ME-ICP41  | ME-ICP41 | ME-ICP41 | ME-ICP41  | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 |
|--------------------|--------------------------|-----------|----------|----------|-----------|-----------|----------|----------|-----------|----------|----------|----------|----------|----------|----------|
|                    |                          | Ga ppm 10 | Hg ppm 1 | K % 0.01 | La ppm 10 | Mg % 0.01 | Mn ppm 5 | Mo ppm 1 | Na % 0.01 | Ni ppm 1 | P ppm 10 | Pb ppm 2 | S % 0.01 | Sb ppm 2 | Sc ppm 1 |
| 739401             |                          | NSS       | NSS      | NSS      | NSS       | NSS       | NSS      | NSS      | NSS       | NSS      | NSS      | NSS      | NSS      | NSS      | NSS      |
| 739402             |                          | 10        | <1       | 0.09     | 10        | 0.67      | 1335     | 1        | 0.01      | 8        | 920      | 14       | 0.06     | <2       | 38       |
| 739403             |                          | 10        | <1       | 0.07     | 10        | 0.89      | 861      | 1        | 0.01      | 8        | 1010     | 11       | 0.02     | <2       | 9        |
| 739404             |                          | 10        | <1       | 0.05     | 10        | 0.90      | 751      | 1        | 0.01      | 6        | 780      | 10       | 0.01     | <2       | 8        |
| 739405             |                          | 10        | <1       | 0.05     | 10        | 0.97      | 751      | 1        | 0.01      | 6        | 980      | 10       | 0.01     | <2       | 8        |
| 739406             |                          | 10        | <1       | 0.05     | 10        | 0.97      | 718      | 1        | 0.01      | 7        | 820      | 11       | 0.01     | <2       | 10       |
| 739407             |                          | 10        | <1       | 0.03     | <10       | 0.19      | 150      | 1        | 0.01      | 3        | 360      | 9        | 0.03     | <2       | 5        |
| 739408             |                          | 10        | <1       | 0.04     | 10        | 0.81      | 421      | 1        | 0.01      | 6        | 360      | 11       | 0.03     | <2       | 6        |
| 739409             |                          | 10        | <1       | 0.04     | <10       | 0.94      | 511      | <1       | 0.01      | 8        | 550      | 12       | 0.03     | <2       | 7        |
| 739410             |                          | 10        | <1       | 0.03     | 10        | 0.58      | 494      | <1       | 0.01      | 6        | 960      | 13       | 0.05     | <2       | 5        |
| 739411             |                          | 10        | <1       | 0.05     | 10        | 0.85      | 496      | 1        | 0.01      | 5        | 610      | 10       | 0.03     | 2        | 4        |
| 739412             |                          | 20        | 1        | 0.03     | <10       | 0.51      | 270      | <1       | 0.01      | 5        | 1100     | 13       | 0.06     | <2       | 4        |
| 739413             |                          | 10        | <1       | 0.04     | 10        | 0.58      | 422      | <1       | 0.01      | 4        | 460      | 6        | 0.02     | <2       | 4        |
| 739415             |                          | 10        | 1        | 0.04     | <10       | 0.97      | 592      | <1       | 0.01      | 14       | 970      | 8        | 0.05     | <2       | 6        |
| 739417             |                          | 20        | 1        | 0.06     | <10       | 1.50      | 962      | <1       | 0.02      | 17       | 1010     | 10       | 0.28     | <2       | 25       |
| 739418             |                          | 10        | <1       | 0.03     | <10       | 0.42      | 325      | <1       | 0.01      | 8        | 900      | 8        | 0.06     | <2       | 5        |
| 739419             |                          | 10        | <1       | 0.07     | 10        | 1.23      | 1440     | <1       | 0.01      | 12       | 900      | 8        | 0.01     | 2        | 21       |
| 739420             |                          | 20        | <1       | 0.09     | <10       | 0.84      | 1635     | 1        | 0.01      | 7        | 1280     | 10       | 0.02     | <2       | 33       |
| 739421             |                          | 20        | 1        | 0.04     | <10       | 0.67      | 1990     | <1       | 0.01      | 9        | 1590     | 6        | 0.05     | <2       | 18       |
| 739422             |                          | 10        | 7        | 0.21     | <10       | 1.18      | 2050     | <1       | 0.01      | 23       | 850      | 27       | 0.89     | <2       | 6        |
| 739423             |                          | 20        | 7        | 0.24     | <10       | 1.42      | 2230     | 2        | 0.01      | 8        | 2130     | 18       | 1.28     | <2       | 4        |
| 739424             |                          | 10        | 1        | 0.03     | <10       | 0.67      | 500      | <1       | 0.01      | 6        | 1610     | 6        | 0.05     | <2       | 18       |
| 739425             |                          | 20        | 1        | 0.07     | <10       | 2.21      | 1975     | <1       | 0.01      | 17       | 1500     | 16       | 0.02     | <2       | 64       |
| 739426             |                          | 20        | 1        | 0.03     | <10       | 0.98      | 875      | <1       | 0.01      | 12       | 2070     | 16       | 0.05     | <2       | 15       |
| 739427             |                          | 20        | 1        | 0.05     | <10       | 1.03      | 1285     | 3        | 0.01      | 7        | 2770     | 14       | 0.55     | 3        | 8        |
| 739428             |                          | 20        | 1        | 0.09     | <10       | 0.86      | 2170     | 4        | 0.02      | 13       | 1870     | 9        | 0.55     | <2       | 48       |
| 739429             |                          | 10        | 1        | 0.05     | <10       | 0.49      | 442      | <1       | 0.01      | 7        | 1160     | 7        | 0.04     | <2       | 15       |
| 739430             |                          | 20        | 1        | 0.03     | <10       | 1.06      | 481      | 3        | 0.01      | 6        | 2450     | 10       | 0.78     | <2       | 36       |
| 739431             |                          | 20        | 1        | 0.05     | <10       | 1.33      | 662      | 3        | 0.02      | 5        | 2140     | 10       | 1.04     | <2       | 67       |
| 739432             |                          | 20        | <1       | 0.06     | <10       | 1.21      | 2960     | 1        | 0.01      | 14       | 1410     | 16       | 0.19     | <2       | 71       |
| 739433             |                          | 10        | <1       | 0.10     | <10       | 0.47      | 772      | 2        | 0.02      | 7        | 860      | 6        | 0.08     | <2       | 20       |
| 739434             |                          | 20        | <1       | 0.17     | <10       | 2.36      | 1495     | 3        | 0.01      | 14       | 1350     | 9        | 0.96     | <2       | 27       |
| 739435             |                          | 20        | <1       | 0.10     | <10       | 1.78      | 2720     | 8        | 0.01      | 15       | 1310     | 15       | 0.05     | <2       | 19       |
| 739436             |                          | 20        | 1        | 0.08     | 10        | 1.42      | 2100     | 2        | 0.01      | 14       | 1070     | 10       | 0.19     | 2        | 30       |
| 739437             |                          | 20        | 1        | 0.07     | <10       | 1.22      | 1580     | 8        | 0.01      | 8        | 1950     | 11       | 0.28     | <2       | 25       |
| 739438             |                          | 10        | <1       | 0.03     | <10       | 0.39      | 340      | <1       | 0.01      | 4        | 760      | 6        | 0.02     | <2       | 18       |
| 739439             |                          | 20        | 1        | 0.21     | <10       | 1.22      | 1995     | 1        | 0.01      | 8        | 1370     | 21       | 0.57     | <2       | 5        |
| 739440             |                          | 10        | <1       | 0.08     | <10       | 0.45      | 841      | 2        | 0.01      | 5        | 850      | 7        | 0.05     | <2       | 11       |
| 739441             |                          | 20        | <1       | 0.06     | <10       | 1.44      | 1395     | 2        | 0.01      | 12       | 2060     | 7        | 0.15     | <2       | 23       |
| 739442             |                          | 20        | <1       | 0.04     | <10       | 1.63      | 1460     | 1        | 0.01      | 10       | 1140     | 14       | 0.12     | <2       | 73       |



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|--------------------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                    | Analyte | Ga       | Hg       | K        | La       | Mg       | Mn       | Mo       | Na       | Ni       | P        | Pb       | S        | Sb       | Sc       | Sr       |
| Units              |         | ppm      | ppm      | %        | ppm      | %        | ppm      | ppm      | %        | ppm      | ppm      | ppm      | %        | ppm      | ppm      | ppm      |
| LOR                |         | 10       | 1        | 0.01     | 10       | 0.01     | 5        | 1        | 0.01     | 1        | 10       | 2        | 0.01     | 2        | 1        | 1        |
| 739443             |         | 20       | 1        | 0.04     | 10       | 0.56     | 2430     | 2        | 0.01     | 9        | 1410     | 20       | 0.08     | <2       | 6        | 33       |
| 739444             |         | 20       | <1       | 0.03     | 10       | 0.57     | 2130     | 3        | 0.01     | 8        | 910      | 66       | 0.08     | <2       | 12       | 8        |
| 739445             |         | 10       | <1       | 0.04     | 10       | 0.64     | 857      | 1        | 0.01     | 7        | 980      | 14       | 0.07     | <2       | 7        | 7        |
| 739446             |         | 10       | 1        | 0.04     | <10      | 0.42     | 923      | 3        | 0.01     | 5        | 870      | 23       | 0.06     | <2       | 4        | 10       |
| 739447             |         | 10       | <1       | 0.03     | 10       | 0.38     | 457      | 4        | 0.01     | 4        | 990      | 53       | 0.07     | <2       | 9        | 8        |
| 739448             |         | 10       | <1       | 0.03     | <10      | 0.63     | 730      | 2        | 0.01     | 6        | 1000     | 20       | 0.09     | <2       | 8        | 6        |
| 739449             |         | 10       | 1        | 0.05     | <10      | 1.12     | 538      | 5        | 0.01     | 4        | 810      | 20       | 0.80     | <2       | 7        | 3        |
| 739451             |         | 10       | <1       | 0.03     | <10      | 0.80     | 540      | 1        | 0.01     | 6        | 660      | 319      | 0.07     | <2       | 11       | 5        |
| 739452             |         | 20       | <1       | 0.03     | <10      | 0.47     | 325      | <1       | 0.01     | 4        | 590      | 13       | 0.05     | <2       | 5        | 5        |
| 739453             |         | 10       | 1        | 0.02     | <10      | 0.50     | 357      | 2        | 0.01     | 6        | 770      | 18       | 0.07     | <2       | 7        | 10       |
| 739454             |         | 20       | <1       | 0.02     | <10      | 0.73     | 520      | 1        | 0.01     | 4        | 860      | 15       | 0.06     | <2       | 6        | 11       |
| 739455             |         | 10       | <1       | 0.02     | 10       | 0.34     | 640      | 2        | 0.01     | 5        | 650      | 19       | 0.06     | <2       | 5        | 8        |
| 739456             |         | 10       | 1        | 0.04     | <10      | 0.41     | 991      | 2        | 0.01     | 6        | 890      | 81       | 0.05     | <2       | 4        | 10       |
| 739457             |         | 20       | 1        | 0.05     | <10      | 0.87     | 1075     | 1        | 0.01     | 9        | 1180     | 101      | 0.04     | <2       | 7        | 11       |
| 739458             |         | 20       | <1       | 0.05     | <10      | 0.98     | 1715     | 1        | 0.01     | 8        | 960      | 20       | 0.03     | <2       | 8        | 22       |
| 739459             |         | 10       | <1       | 0.02     | <10      | 0.74     | 630      | 2        | 0.01     | 9        | 970      | 14       | 0.08     | <2       | 11       | 18       |
| 739460             |         | 10       | 1        | 0.02     | <10      | 0.54     | 432      | 2        | 0.01     | 5        | 1020     | 7        | 0.06     | <2       | 10       | 9        |
| 739461             |         | 10       | 1        | 0.03     | <10      | 0.31     | 940      | 5        | 0.01     | 6        | 1360     | 12       | 0.16     | <2       | 16       | 7        |
| 739462             |         | 10       | <1       | 0.02     | <10      | 0.38     | 370      | 4        | 0.01     | 4        | 980      | 11       | 0.06     | <2       | 10       | 10       |
| 739463             |         | 10       | <1       | 0.02     | <10      | 0.39     | 408      | 3        | 0.01     | 4        | 1040     | 18       | 0.09     | <2       | 9        | 9        |
| 739464             |         | 10       | <1       | 0.07     | <10      | 1.03     | 1370     | 3        | 0.01     | 14       | 1290     | 14       | 0.10     | <2       | 13       | 9        |
| 739465             |         | 10       | 1        | 0.07     | <10      | 0.51     | 1500     | 7        | 0.01     | 5        | 2300     | 27       | 0.27     | <2       | 11       | 26       |
| 739466             |         | 10       | <1       | 0.03     | <10      | 0.34     | 324      | 9        | 0.01     | 3        | 970      | 13       | 0.10     | <2       | 11       | 8        |
| 739467             |         | 10       | <1       | 0.02     | 10       | 0.51     | 326      | 4        | 0.01     | 6        | 1010     | 9        | 0.12     | <2       | 11       | 8        |
| 739468             |         | 10       | <1       | 0.02     | <10      | 0.22     | 241      | 2        | 0.01     | 3        | 860      | 13       | 0.06     | <2       | 12       | 6        |
| 739470             |         | 20       | 2        | 0.04     | <10      | 2.11     | 1935     | 3        | 0.01     | 12       | 1750     | 12       | 0.10     | <2       | 8        | 43       |
| 739471             |         | 20       | <1       | 0.02     | <10      | 0.44     | 342      | 1        | 0.01     | 3        | 640      | 9        | 0.04     | <2       | 6        | 6        |
| 739472             |         | 20       | 1        | 0.03     | <10      | 1.27     | 867      | 2        | 0.01     | 8        | 940      | 22       | 0.18     | <2       | 11       | 11       |
| 739473             |         | 10       | 1        | 0.05     | <10      | 1.04     | 955      | 1        | 0.01     | 7        | 840      | 31       | 0.07     | <2       | 4        | 16       |



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Project : Jas

CERTIFICATE OF ANALYSIS

VA02005025

| Sample Description | Method<br>Analyte<br>Units<br>LOR | ME-ICP41  | ME-ICP41  | ME-ICP41  | ME-ICP41 | ME-ICP41  | ME-ICP41 |
|--------------------|-----------------------------------|-----------|-----------|-----------|----------|-----------|----------|
|                    |                                   | Ti        | Ti        | U         | V        | W         | Zn       |
|                    |                                   | %<br>0.01 | ppm<br>10 | ppm<br>10 | ppm<br>1 | ppm<br>10 | ppm<br>2 |
| 739401             |                                   | NSS       | NSS       | NSS       | NSS      | NSS       | NSS      |
| 739402             |                                   | 0.02      | <10       | <10       | 44       | <10       | 63       |
| 739403             |                                   | 0.06      | <10       | <10       | 85       | <10       | 75       |
| 739404             |                                   | 0.09      | <10       | <10       | 71       | <10       | 64       |
| 739405             |                                   | 0.11      | <10       | <10       | 78       | <10       | 63       |
| 739406             |                                   | 0.11      | <10       | <10       | 78       | <10       | 70       |
| 739407             |                                   | 0.05      | <10       | <10       | 77       | <10       | 19       |
| 739408             |                                   | 0.09      | <10       | <10       | 90       | <10       | 60       |
| 739409             |                                   | 0.11      | <10       | <10       | 106      | <10       | 78       |
| 739410             |                                   | 0.06      | <10       | <10       | 101      | <10       | 68       |
| 739411             |                                   | 0.05      | <10       | <10       | 82       | <10       | 59       |
| 739412             |                                   | 0.09      | <10       | <10       | 136      | <10       | 47       |
| 739413             |                                   | 0.06      | <10       | <10       | 89       | <10       | 37       |
| 739415             |                                   | 0.11      | <10       | <10       | 146      | <10       | 68       |
| 739417             |                                   | 0.13      | <10       | <10       | 160      | <10       | 102      |
| 739418             |                                   | 0.06      | <10       | <10       | 152      | <10       | 53       |
| 739419             |                                   | 0.13      | <10       | <10       | 109      | <10       | 74       |
| 739420             |                                   | 0.15      | <10       | <10       | 123      | <10       | 66       |
| 739421             |                                   | 0.09      | <10       | <10       | 132      | <10       | 103      |
| 739422             |                                   | 0.25      | <10       | <10       | 61       | <10       | 343      |
| 739423             |                                   | 0.05      | <10       | <10       | 78       | <10       | 853      |
| 739424             |                                   | 0.19      | <10       | <10       | 164      | <10       | 134      |
| 739425             |                                   | 0.26      | <10       | <10       | 155      | <10       | 270      |
| 739426             |                                   | 0.15      | <10       | <10       | 144      | <10       | 128      |
| 739427             |                                   | 0.05      | <10       | <10       | 125      | 10        | 343      |
| 739428             |                                   | 0.07      | <10       | <10       | 102      | <10       | 235      |
| 739429             |                                   | 0.05      | <10       | <10       | 150      | <10       | 73       |
| 739430             |                                   | 0.26      | <10       | <10       | 182      | 10        | 71       |
| 739431             |                                   | 0.25      | <10       | <10       | 169      | 10        | 161      |
| 739432             |                                   | 0.14      | <10       | <10       | 147      | <10       | 231      |
| 739433             |                                   | 0.02      | <10       | <10       | 68       | <10       | 321      |
| 739434             |                                   | 0.18      | <10       | <10       | 135      | <10       | 185      |
| 739435             |                                   | 0.10      | <10       | <10       | 113      | <10       | 325      |
| 739436             |                                   | 0.06      | <10       | <10       | 106      | <10       | 514      |
| 739437             |                                   | 0.11      | <10       | <10       | 87       | 10        | 148      |
| 739438             |                                   | 0.11      | <10       | <10       | 121      | <10       | 37       |
| 739439             |                                   | 0.06      | <10       | <10       | 98       | <10       | 78       |
| 739440             |                                   | 0.09      | <10       | <10       | 99       | <10       | 46       |
| 739441             |                                   | 0.21      | <10       | <10       | 127      | <10       | 80       |
| 739442             |                                   | 0.22      | <10       | <10       | 124      | <10       | 82       |



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Project : Jas

## CERTIFICATE OF ANALYSIS VA02005025

| Sample Description | Method Analyte Units LOR | ME-ICP41  | ME-ICP41  | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 |
|--------------------|--------------------------|-----------|-----------|----------|----------|----------|----------|
|                    |                          | Ti % 0.01 | Ti ppm 10 | U ppm 10 | V ppm 1  | W ppm 10 | Zn ppm 2 |
| 739443             |                          | 0.12      | <10       | <10      | 106      | <10      | 268      |
| 739444             |                          | 0.14      | <10       | <10      | 135      | <10      | 239      |
| 739445             |                          | 0.08      | <10       | <10      | 122      | <10      | 102      |
| 739446             |                          | 0.07      | <10       | <10      | 123      | <10      | 158      |
| 739447             |                          | 0.11      | <10       | <10      | 125      | <10      | 194      |
| 739448             |                          | 0.08      | <10       | <10      | 134      | <10      | 205      |
| 739449             |                          | 0.19      | <10       | <10      | 51       | <10      | 54       |
| 739451             |                          | 0.15      | <10       | <10      | 113      | <10      | 234      |
| 739452             |                          | 0.15      | <10       | <10      | 201      | <10      | 49       |
| 739453             |                          | 0.12      | <10       | <10      | 140      | <10      | 218      |
| 739454             |                          | 0.12      | <10       | <10      | 159      | <10      | 93       |
| 739455             |                          | 0.08      | <10       | <10      | 164      | <10      | 181      |
| 739456             |                          | 0.05      | <10       | <10      | 130      | <10      | 150      |
| 739457             |                          | 0.11      | <10       | <10      | 142      | <10      | 191      |
| 739458             |                          | 0.17      | <10       | <10      | 122      | <10      | 130      |
| 739459             |                          | 0.24      | <10       | <10      | 166      | <10      | 123      |
| 739460             |                          | 0.13      | <10       | <10      | 133      | <10      | 104      |
| 739461             |                          | 0.14      | <10       | <10      | 118      | <10      | 195      |
| 739462             |                          | 0.15      | <10       | <10      | 132      | <10      | 96       |
| 739463             |                          | 0.14      | <10       | <10      | 112      | <10      | 87       |
| 739464             |                          | 0.35      | <10       | <10      | 90       | <10      | 208      |
| 739465             |                          | 0.24      | <10       | <10      | 91       | 10       | 105      |
| 739466             |                          | 0.11      | <10       | <10      | 171      | <10      | 92       |
| 739467             |                          | 0.17      | <10       | <10      | 100      | <10      | 93       |
| 739468             |                          | 0.21      | <10       | <10      | 237      | <10      | 48       |
| 739470             |                          | 0.28      | <10       | <10      | 148      | <10      | 298      |
| 739471             |                          | 0.05      | <10       | <10      | 176      | <10      | 82       |
| 739472             |                          | 0.18      | <10       | <10      | 226      | <10      | 247      |
| 739473             |                          | 0.18      | <10       | <10      | 144      | <10      | 125      |





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## CERTIFICATE VA02005026

Project : Jas

P.O. No:

This report is for 6 samples submitted to our lab in North Vancouver, BC, Canada on 25-Oct-2002.

The following have access to data associated with this certificate:

ARNE BIRKELAND

## SAMPLE PREPARATION

| ALS CODE | DESCRIPTION                    |
|----------|--------------------------------|
| WEI-21   | Received Sample Weight         |
| LOG-22   | Sample login - Rcd w/o BarCode |
| SCR-41   | Screen to -180um and save both |
| SCR-41+  | Screen to -180um (+) fraction  |

## ANALYTICAL PROCEDURES

| ALS CODE | DESCRIPTION                   | INSTRUMENT |
|----------|-------------------------------|------------|
| Au-AA23  | Au 30g FA-AA finish           | AAS        |
| ME-ICP41 | 34 element aqua regia ICP-AES | ICP-AES    |

To: ARNEX RESOURCES  
ATTN: ARNE BIRKELAND  
2069 WESTVIEW DR.  
NORTH VANCOUVER BC V7M 3B1

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:



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## CERTIFICATE OF ANALYSIS VA02005026

| Method<br>Analyte<br>Units<br>LOR | WEI-21<br>Recvd Wt<br>kg | Au-AA23<br>Au<br>ppm | ME-ICP41<br>Ag<br>ppm | ME-ICP41<br>Al<br>% | ME-ICP41<br>As<br>ppm | ME-ICP41<br>B<br>ppm | ME-ICP41<br>Ba<br>ppm | ME-ICP41<br>Be<br>ppm | ME-ICP41<br>Bi<br>ppm | ME-ICP41<br>Ca<br>% | ME-ICP41<br>Cd<br>ppm | ME-ICP41<br>Co<br>ppm | ME-ICP41<br>Cr<br>ppm | ME-ICP41<br>Cu<br>ppm | ME-ICP41<br>Fe<br>% |
|-----------------------------------|--------------------------|----------------------|-----------------------|---------------------|-----------------------|----------------------|-----------------------|-----------------------|-----------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------|
| <b>Sample Description</b>         | <b>0.02</b>              | <b>0.005</b>         | <b>0.2</b>            | <b>0.01</b>         | <b>2</b>              | <b>10</b>            | <b>10</b>             | <b>0.5</b>            | <b>2</b>              | <b>0.01</b>         | <b>0.5</b>            | <b>1</b>              | <b>1</b>              | <b>1</b>              | <b>0.01</b>         |
| 739400                            | 1.76                     | <0.005               | 0.3                   | 1.49                | 8                     | <10                  | 440                   | 0.7                   | <2                    | 0.56                | 0.5                   | 21                    | 12                    | 51                    | 4.26                |
| 739414                            | 1.24                     | 0.702                | 0.4                   | 2.23                | 12                    | <10                  | 230                   | 0.5                   | <2                    | 0.70                | <0.5                  | 18                    | 14                    | 53                    | 4.71                |
| 739416                            | 0.62                     | 0.007                | <0.2                  | 3.45                | 15                    | <10                  | 160                   | 0.6                   | 3                     | 0.26                | <0.5                  | 19                    | 19                    | 56                    | 5.49                |
| 739450                            | 1.50                     | <0.005               | 0.8                   | 1.93                | 8                     | <10                  | 60                    | <0.5                  | <2                    | 0.45                | <0.5                  | 16                    | 20                    | 60                    | 5.57                |
| 739469                            | 1.38                     | 0.019                | 0.3                   | 4.21                | 34                    | <10                  | 180                   | 1.5                   | 2                     | 0.42                | 3.0                   | 59                    | 7                     | 369                   | 6.14                |
| 739474                            | 1.22                     | 0.007                | <0.2                  | 2.88                | 10                    | <10                  | 150                   | 0.6                   | 4                     | 0.68                | 2.6                   | 43                    | 11                    | 164                   | 5.09                |



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**CERTIFICATE OF ANALYSIS**

**VA02005026**

| Sample Description | Method<br>Analyte<br>Units<br>LOR | ME-ICP41  | ME-ICP41 | ME-ICP41  | ME-ICP41  | ME-ICP41  | ME-ICP41 | ME-ICP41 | ME-ICP41  | ME-ICP41 | ME-ICP41  | ME-ICP41 | ME-ICP41  | ME-ICP41 | ME-ICP41 | ME-ICP41 |
|--------------------|-----------------------------------|-----------|----------|-----------|-----------|-----------|----------|----------|-----------|----------|-----------|----------|-----------|----------|----------|----------|
|                    |                                   | Ga        | Hg       | K         | La        | Mg        | Mn       | Mo       | Na        | Ni       | P         | Pb       | S         | Sb       | Sc       | Sr       |
|                    |                                   | ppm<br>10 | ppm<br>1 | %<br>0.01 | ppm<br>10 | %<br>0.01 | ppm<br>5 | ppm<br>1 | %<br>0.01 | ppm<br>1 | ppm<br>10 | ppm<br>2 | %<br>0.01 | ppm<br>2 | ppm<br>1 | ppm<br>1 |
| 739400             |                                   | 10        | <1       | 0.17      | 10        | 0.68      | 1435     | <1       | 0.02      | 12       | 950       | 27       | 0.04      | 3        | 7        | 19       |
| 739414             |                                   | 10        | <1       | 0.09      | 10        | 1.10      | 1200     | <1       | 0.02      | 11       | 1020      | 20       | 0.08      | <2       | 6        | 22       |
| 739416             |                                   | 20        | <1       | 0.07      | <10       | 1.01      | 1615     | <1       | 0.01      | 13       | 1040      | 13       | 0.05      | <2       | 5        | 12       |
| 739450             |                                   | 10        | <1       | 0.04      | <10       | 1.55      | 858      | <1       | 0.02      | 9        | 700       | 8        | 0.29      | <2       | 7        | 14       |
| 739469             |                                   | 20        | 1        | 0.08      | 10        | 0.72      | 3560     | 3        | 0.01      | 12       | 1200      | 25       | 0.57      | <2       | 5        | 18       |
| 739474             |                                   | 20        | <1       | 0.11      | <10       | 1.13      | 2500     | 1        | 0.01      | 11       | 960       | 16       | 0.21      | <2       | 4        | 26       |



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## CERTIFICATE OF ANALYSIS VA02005026

| Sample Description | Method Analyte Units LOR | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 | ME-ICP41 |
|--------------------|--------------------------|----------|----------|----------|----------|----------|----------|
|                    |                          | Ti %     | Ti ppm   | U ppm    | V ppm    | W ppm    | Zn ppm   |
|                    |                          | 0.01     | 10       | 10       | 1        | 10       | 2        |
| 739400             |                          | 0.03     | <10      | <10      | 59       | <10      | 54       |
| 739414             |                          | 0.06     | <10      | <10      | 93       | <10      | 80       |
| 739416             |                          | 0.07     | <10      | <10      | 113      | <10      | 85       |
| 739450             |                          | 0.11     | <10      | <10      | 156      | <10      | 104      |
| 739469             |                          | 0.10     | <10      | <10      | 57       | <10      | 574      |
| 739474             |                          | 0.08     | <10      | <10      | 91       | <10      | 403      |

## APPENDIX C

### SOIL SAMPLE GEOCHEMICAL DATA SHEET - Maps PN-1, PS-1, PS-2 Area - Year 2002

PROJECT: JAS

NTS: 092C/080

| Sample Number | Depth (cm) | Horizon        | Colour       | Particle Size       | % Organic | Slope Gradient | Observations Remarks                             |
|---------------|------------|----------------|--------------|---------------------|-----------|----------------|--|
| 739402        | 20         | A-B            | med br       | loam                | mod high  | mod flat       | Poor smpl, no profile                            |
| 739403        | 15         | B              | lt br gr     | loam clay           | low       | mod            | Minor JBv float                                  |
| 739404        | 5          | B              | lt br gr     | loam clay           | low       | mod            | Minor JBv float                                  |
| 739405        | 5          | B              | lt br gr     | sand clay gravel    | low       | mod            |  |
| 739406        | 5          | B              | gr           | sand clay gravel    | mod       | mod            | Minor small JBv fl, alt + unalt                  |
| 739407        | 10         | B              | lt br gr     | coarse loam clay    | low       | mod            | JBv, dacite, tr py                               |
| 739408        | 10-15      | B              | lt tan br    | fine loam sand      | mod       | mod flat       | JBv, dacite, tr py, unalt                        |
| 739409        | 10         | B              | lt tan br    | fine loam sand      | mod       | mod flat       | Lg ang unalt JBv and fl w/ sm alt rusty py fel   |
| 739410        | 20         | B              | tan or br    | fine loam sand      | very low  | mod steep      | JBv and, or goss soil                            |
| 739411        | 10         | B              | tan br m/or  | fine loam sand      | very low  | mod steep      | Same but less or                                 |
| 739412        | 3          | B              | or br        | fine soil           | low       | very steep     | Thick till bank, dev 3m colluvium, JBv mafic fl  |
| 739413        | 5          | B              | or br        | sand loam rubble    | low       | mod            | Thick till bank, dev 3m colluvium, JBv mafic fl  |
| 739415        | 15         | B              | br           | sand rubble         | mod       | steep          | +10 m th clay bank - fluvial - 2m th profile     |
| 739416        | 3-10       | B              | dk tan gr    | clay rubble loam    | low       | mod flat       | No A, poor profile, cut-bank ("cb")              |
| 739418        | 10-15      | B              | or br        | rubble loam clay    | low       | mod            | cb   |
| 739419        | 0-3        | talus fines    | dk gr br     | rubble sand gravel  | very low  | very steep     | Massive JBv andesite oc                          |
| 739420        | 5-10       | B              | br m/or      | rubble sand loam    | low       | very steep     | Massive JBv andesite oc, 1 m py <3% zone         |
| 739421        | 5          | B              | med or br    | loam rubble         | mod       | very steep     | Massive JBv andesite oc                          |
| 739422        | 0-3        | talus fines    | lt gr        | clay rubble loam    | very low  | very steep     | Massive JBv andesite oc, 1 m py arg altn zone    |
| 739423        | 10-15      | C-talus fines  | rusty red or | rubble decomp oc    | very low  | very steep     | cb, JBv mafics, 1-2 m py arg altn                |
| 739424        | 5-10       | B              | or br        | coarse sand soil    | low mod   | mod            | Mass JBv and - no altn                           |
| 739425        | 0-3        | C-talus fines  | tan br or    | coarse sand soil    | mod high  | very steep     | cd, and - dac, locan 20 cm altn on fractures     |
| 739426        | 0-3        | C-talus fines  | red rusty br | sand decomp oc      | mod       | very steep     | Intbed mafic fel flows tuffs, py stringer zones! |
| 739427        | 0-3        | A-C- tal fines | red rusty    | sand decomp oc      | mod high  | very steep     | Below x-falut stringer, rusty py <3%, arg altn   |
| 739428        | 0-3        | A-C- tal fines | rusty or br  | sand decomp oc      | mod low   | mod steep      | Numerous x-cut altn zones to 10 m                |
| 739429        | 10-15      | B-C            | tan          | sand silt           | mod       | steep          | Unalt JBv dacite, poor soil profile              |
| 739430        | 0-5        | B-C- tal fines | rusty br     | sand                | mod       | very steep     | Intense altn fract zone, py 10-15%, Rx 120165    |
| 739431        | 0-10       | talus fines    | rusty br     | sand decomp oc      | very low  | very steep     | cb, rusty py 5m thick dyke, py arg altn 10's m   |
| 738434        | 0-3        | talus fines    | rusty br     | sand decomp oc      | very low  | very steep     | Intense altn fract zone, py 50% over 5-10 cm     |
| 738435        | 0-10       | talus fines    | dk br        | sand decomp oc      | low       | very steep     | 3-5 m thick ferrocrete layer overlain by col     |
| 739437        | 0-5        | C-talus fines  | rusty br     | sand decomp oc      | low       | very steep     | Alt py x-structures, .3m fl py 50% tr cpy        |
| 739438        | 5-10       | B              | dk red br    | fine loam sand      | low       | steep          | Unalt JBv mass and                               |
| 739439        | 10-15      | B-A            | dl br        | fine soil           | low       | mod flat       | no oc or fl                                      |
| 739440        | 0-5        | B-C- tal fines | rusty br     | coarse sand pebbles | mod       | very steep     | cb, below rusty x-fract altn w/py                |
| 739441        | 0-3        | talus fines    | tan br       | rubble sand clay    | los       | steep          | Unalt JBv rhyodacite                             |

## APPENDIX C

### SOIL SAMPLE GEOCHEMICAL DATA SHEET - Maps PN-1, PS-1, PS-2 Area - Year 2002

PROJECT: JAS

NTS: 092C/080

| Sample Number | Depth (cm) | Horizon       | Colour       | Particle Size      | % Organic | Slope Gradient | Observations Remarks   |
|---------------|------------|---------------|--------------|--------------------|-----------|----------------|--|
| 739442        | 0-5        | B             | rusty br     | fine loam sand     | mod       | mod steep      | Rusty alt JBv float  |
| 739443        | 3-10       | B             | dk br        | sand rubble rx     | mod       | mod steep      | Fract rusty arg altn in JBv oc   |
| 739444        | 50         | B             | dk by m/rust | fine loam sand     | mod low   | mod steep      | Unalt JBv w/ local alt fract   |
| 739445        | 5-10       | b             | br or        | loam clay          | mod low   | mod steep      | Till - no oc   |
| 739446        | 10-15      | B             | rusty or br  | loam clay          | mod low   | mod steep      | Unalt JBv in C, minor goss in col soils                                  |
| 739447        | 15-20      | B             | rusty or br  | loam clay          | mod low   | mod steep      | Alt JBv oc, south end mass pervasive altn zone                           |
| 739448        | 50         | B             | rusty or br  | clay sand loam     | low       | steep          | Mass rusty clay alt JBv oc, dacite, rhyodacite                           |
| 739449        | 50         | C-talus fines | rusty tan    | decomp oc          | very low  | steep          | Mass rusty clay alt JBv oc, dacite, rhyodacite                           |
| 739451        | 50         | B             | rusty or br  | sand loam rubble   | low       | mod            | Mass rusty clay alt JBv, fract zones                                     |
| 739452        | 12         | B             | gr br        | sand loam clay     | mod high  | mod flat       | Thick till bank, no col, fluvial outwash                                 |
| 739453        | 5-15       | B             | rusty or br  | clay loam          | mod       | mod fl         | +10m thick calcarinite, local ferrocrete, 1m col                         |
| 739454        | 5-20       | B             | rusty or br  | sand loam          | mod high  | mod            | Till, 2m col   |
| 739455        | 5-20       | B             | or br        | sand loam          | mod       | mod            | Developed col over skree   |
| 739456        | 5-15       | B             | rusty or br  | rubble loam        | mod       | mod            | cb, Mass pervassive atn zone in JBv oc                                   |
| 739457        | 3-10       | B             | rusty or br  | rubble loam        | mod low   | mod fl         | JBv mafic skree, developed col   |
| 739458        | 0-10       | B             | br           | coarse rx loam     | low       | fl             | Sm ang unalt JBv fl  |
| 739459        | 20-30      | B             | rusty or br  | coarse rx loam     | mod       | fl             | Goss in soil   |
| 739460        | 10-30      | B             | rusty or br  | coarse rx loam     | low       | mod fl         | .5m developed col, 1m goss ferrocrete, mafic oc, Good x-section exposure |
| 739461        | 50         | B             | or br        | clay loam          | low       | mod            | Rusty goss 2m col over unalt mass JBv mafic                              |
| 739462        | 10-30      | B             | or br        | roots, chips, clay | very high | mod            | 1m calcarenite, 1m dev col   |
| 739463        | 5-10       | B             | or br        | coarse fine soil   | mod high  | mod            | Sample from above 2m ferrocrete layer                                    |
| 739464        | 250        | B-C           | or br        | rubble, clay       | mod       | mod            | Loc 739463, below ferrocrete layre, Type locality                        |
| 739465        | 250        | B-C           | or br        | rubble, clay       | mod       | mod            | Goss ferrocrete, no soil, smpl fines below ferro                         |
| 739466        |            | B             | or br        | roots, chips, clay | mod       | mod            | Dev col 2m   |
| 739467        | 30-Jan     | B             | tan br       | sand loam clay     | low       | mod            | No oc or fl  |
| 739468        | 10-20      | B             | or br        | med soil           | mod       | mmod           | Goss ferrocrete ("fc"), smpl above fc in 1m col                          |
| 739470        | 0-15       | talus fines   | br or        | sand rubble        | very low  | v st           | No access to soils   |
| 739471        | 10-20      | B             | br           | loam clay          | very low  | st             | Unalt JBv oc   |
| 739472        | 15-20      | B             | br or        | loam clay          | very low  | st             | Rusty arg altn zones in 1m fract   |
| 739473        | 0-5        | B-C           | med br       | rx sand clay       | very high | mod fl         | Unalt JBv in skree   |

APPENDIX C

GEOCHEMICAL DATA SHEET - Map PN-1, PS-1, PS-2 AREA - YEAR 2002

STREAM SEDIMENT GEOCHEMISTRY

PROJECT: JAS

NTS: 092C/080

| Sample Number | Volume (m)<br>Width      Depth | Drainage<br>Gradient | Type of<br>Sample | Colour | Texture        | % Organic       | Petrography<br>Bedrock/Float | Observations<br>Remarks |                                 |
|---------------|--------------------------------|----------------------|-------------------|--------|----------------|-----------------|------------------------------|-------------------------|---------------------------------|
| 739400        | 0.1                            | 0.1                  | Mod - Flat        | MM     | Br + Gr        | Silt + Clay     | Mod - High                   | JBv Float               | Poor smpl, steep drain          |
| 739414        | 0.3                            | 0.1                  | Mod - Flat        | MM     | Gr + Br        | Silt + Sand     | High                         | JBv Mafics from till    |                                 |
| 739416        | 3.0                            | 2.0                  | Mod - Flat        | MM     | Dk Tan - Dk Gr | Coarse Sand     | Mod                          | JBv                     | Reference Sample 4498           |
| 739432        | 1.0                            | Dry                  | Steep             | MM     | Gr + Br        | VFG Silt        | High                         | JBv                     | Falls - Resistant Andesite Dyke |
| 739433        | 2.0                            | Dry                  | Very Steep        | MM     | Gr + Br        | Silt + Rx Chips | High                         | JBv                     | Falls - Resistant Andesite Dyke |
| 739436        | 3.0                            | Dry                  | Very Steep        | MM     | Gr + Br        | Silt + Rx Chips | High                         | JBv                     | Py 10-20%, 1m fl bk, chl and    |
| 739450        | 2-10                           | 1-4                  | Mod - Flat        | MM     | Med Gr         | C Sand + Silt   | Mod                          | JBv                     | Alt, rusty goss JBv, Camp Ck    |
| 739469        | 0.5                            | 0.2                  | Mod - Flat        | MM     | Gr - Dk Gr     | C Sand + Silt   | Low                          | JBv                     | Alt goss oc at ck junction      |
| 739474        | .5-10                          | .2-2                 | Flat              | MM     | Med Dk Gr      | C Sand + Silt   | Low                          | JBv                     | Unalt mafic JBv and ck float    |

## Jasper Property - Field Crew - Year 2002 Field Days

| Date      | Name              | Title               | Description                             |
|-----------|-------------------|---------------------|---|
| 18-Oct-01 | Arne O. Birkeland | P. Eng., Geological | Base maps, equipment mobilization       |
| 19-Oct-01 | Arne O. Birkeland | P. Eng., Geological | Base maps, equipment mobilization       |
| 20-Oct-01 | Arne O. Birkeland | P. Eng., Geological | Travel, crew orientation, soil sampling |
| 21-Oct-01 | Arne O. Birkeland | P. Eng., Geological | Soil and Stream Sediment Sampling       |
| 22-Oct-01 | Arne O. Birkeland | P. Eng., Geological | Soil and Stream Sediment Sampling       |
| 23-Oct-01 | Arne O. Birkeland | P. Eng., Geological | Soil and Stream Sediment Sampling       |
| 24-Oct-01 | Arne O. Birkeland | P. Eng., Geological | Soil and Stream Sediment Sampling       |
| 26-Oct-01 | Arne O. Birkeland | P. Eng., Geological | Demob, sample dry and prep              |
| 28-Oct-01 | Arne O. Birkeland | P. Eng., Geological | Demob, sample dry and prep              |
| 29-Oct-01 | Arne O. Birkeland | P. Eng., Geological | GIS Data Input                          |
| 20-Oct-01 | Bruce Cook        | Soil Sampler        | Travel, crew orientation, soil sampling |
| 21-Oct-01 | Bruce Cook        | Soil Sampler        | Soil and Stream Sediment Sampling       |
| 22-Oct-01 | Bruce Cook        | Soil Sampler        | Soil and Stream Sediment Sampling       |
| 23-Oct-01 | Bruce Cook        | Soil Sampler        | Soil and Stream Sediment Sampling       |
| 24-Oct-01 | Bruce Cook        | Soil Sampler        | Soil and Stream Sediment Sampling       |