

4763 NWT Ltd.

**2003 MINERAL EXPLORATION PROGRAM  
ON THE  
SHAMROCK PROPERTY**

**Scott Casselman, B. Sc., P. Geo**

**Location: 62° 22' N, 138° 37' W  
NTS: 115L/04  
Mining District: Whitehorse, YT  
Date: January 2004**

**YUKON ENERGY, MINES  
& RESOURCES LIBRARY  
P.O. Box 2703  
Whitehorse, Yukon Y1A 2C6**

## SUMMARY

The Shamrock property is located in the Dawson Range Mountains, 200 km north-northwest of Whitehorse, Yukon. The property was previously explored as a porphyry copper/molybdenum target with 6 short drill holes being completed in 1976. The drilling returned anomalous, but sub-economic values for copper, molybdenum and silver. In 1985, the property was re-evaluated for its gold potential. A soil-sampling program conducted that year returned significantly anomalous values of up to 1270 ppb gold, but these results were not followed up and the property was later allowed to lapse.

4763 NWT Ltd staked the 12 Shamrock claims in January of 2003 and conducted a nine-day field exploration program consisting gridding, soil sampling and total magnetic field surveying in August of that year.

The 2003 exploration program on the Shamrock Property was successful in confirming copper/molybdenum/gold soil geochemical anomalies in the area. Three anomalous trends were identified in the survey: a large copper/molybdenum zone in the northwestern part of the property, a linear gold anomaly along the northern part of the property, and an arsenic/antimony/bismuth association north and south of the linear gold anomaly on the eastern part of the property.

The magnetic survey results tie in well with the soil geochemical results. There is a large magnetic high coincident with the copper/molybdenum anomaly and a linear magnetic high coincident with the linear gold anomaly. The magnetic survey results also indicate there may be some structural control to the magnetic bodies.

The property is underlain by metamorphosed sediments, which have been intruded by a number of intrusions. Quartz diorite, quartz porphyry and breccia units are intensely altered by clay, sericite and silica and in some places have intense quartz stockwork veining. Chalcopyrite and molybdenite have been observed as disseminations, fracture filling and in quartz stockwork.

The metal association, alteration, rock types and magnetic response are all typical of a porphyry-copper system. There appears to have been some structural preparation of the rocks in the area as evidenced by the linear breaks in the magnetic survey results. The strong linear magnetic high and observed skarn mineralization indicates the possibility of high-grade skarn association with a porphyry system.

Work done on the property to date has not completely defined the extent of the mineralizing system. Recommendations for future work on the property are to determine the extent of the system, to refine specific target areas within the system and to determine the source of the high metal values in soils.

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## INTRODUCTION

The Shamrock Property was staked in January 2003 to cover the Maloney/Pot mineral occurrence. The occurrence consists of anomalous gold, copper and molybdenum-in-soils in a porphyry-type setting in altered quartz diorite.

The exploration program consisted of gridding, soil sampling and magnetic surveying. Fieldwork was conducted between August 5 and 13 by a four-person crew consisting of Scott Casselman (Project Geologist), Kel Sax (Geological Engineer), Casey Adshead (geological/geophysical technician) and Susanne Aichelle (field assistant) of Aurora Geosciences Ltd.

This report documents the 2003 exploration program on the property.

## LOCATION AND ACCESS

The Shamrock property is located in the Dawson Range Mountains, 200 km north-northwest of Whitehorse, or 87 km west of Carmacks, Yukon. The property is centred at latitude 62° 0' 32" N and longitude 137° 54' 16" W on NTS map sheet 115I/04 (Figure 1). The property is accessible by helicopter from Carmacks or Whitehorse. For the 2003 program, the crew and equipment were mobilized by truck to the abandoned mine site at Mt Nansen, 40 km east of the property. From there, the crew and equipment were mobilized to the property by helicopter, using Trans North Helicopters based out of Carmacks.

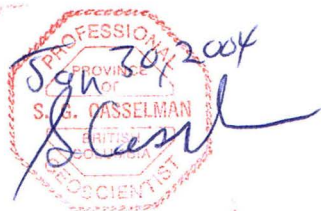
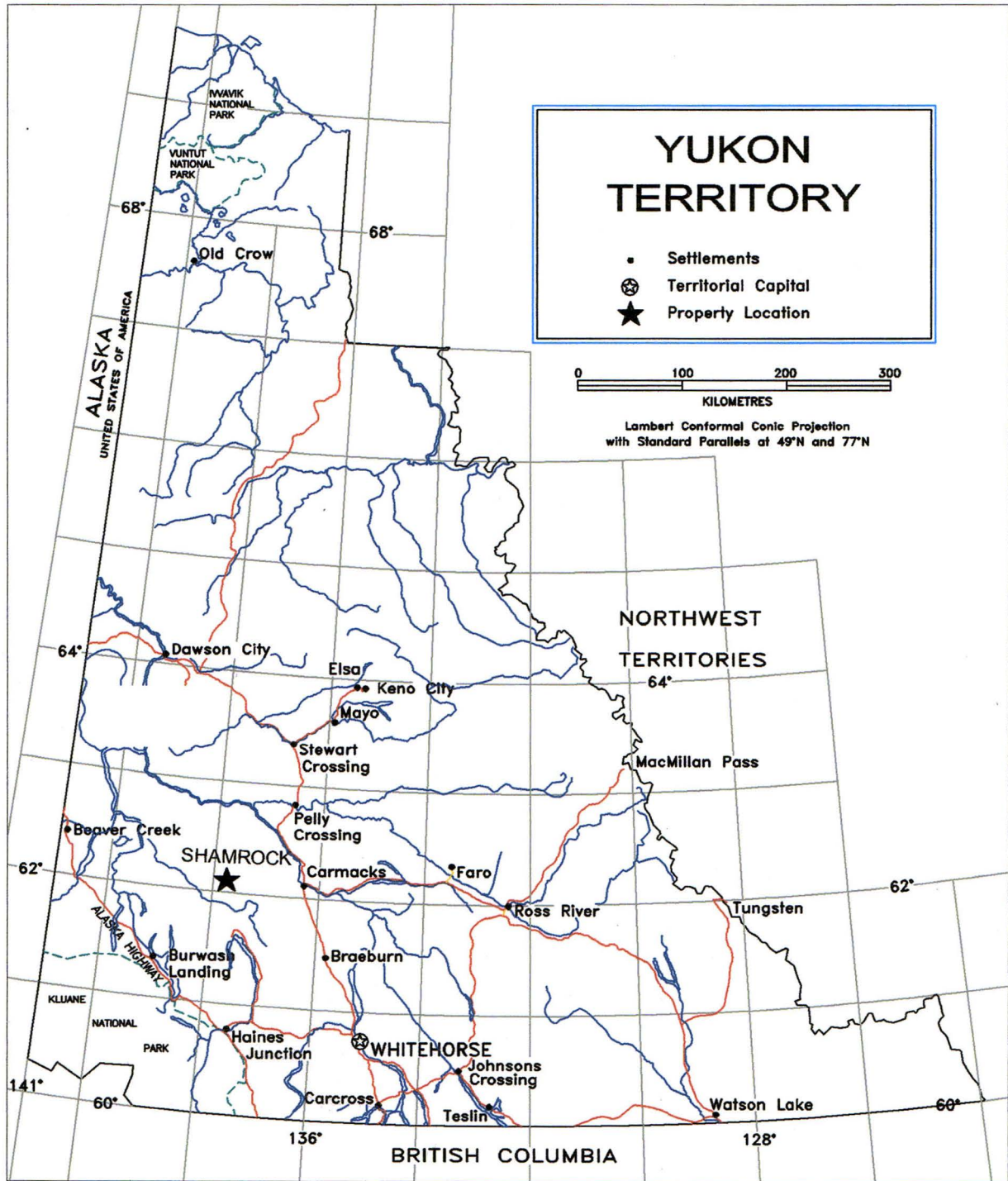
## CLAIM STATUS

The Shamrock Property consists of 12 Quartz Claims staked in accordance with the Yukon Quartz Mining Act in the Whitehorse Mining District (Figure 2). The claims are contiguous and consist of the Shamrock 1 to 12 with grant numbers YC19871-YC19882. The sole registered owner of the claims is 4763 NWT Ltd. of Whitehorse, Yukon. With the submission of this report for assessment purposes, the expiry date of the claims will be January 28, 2009.

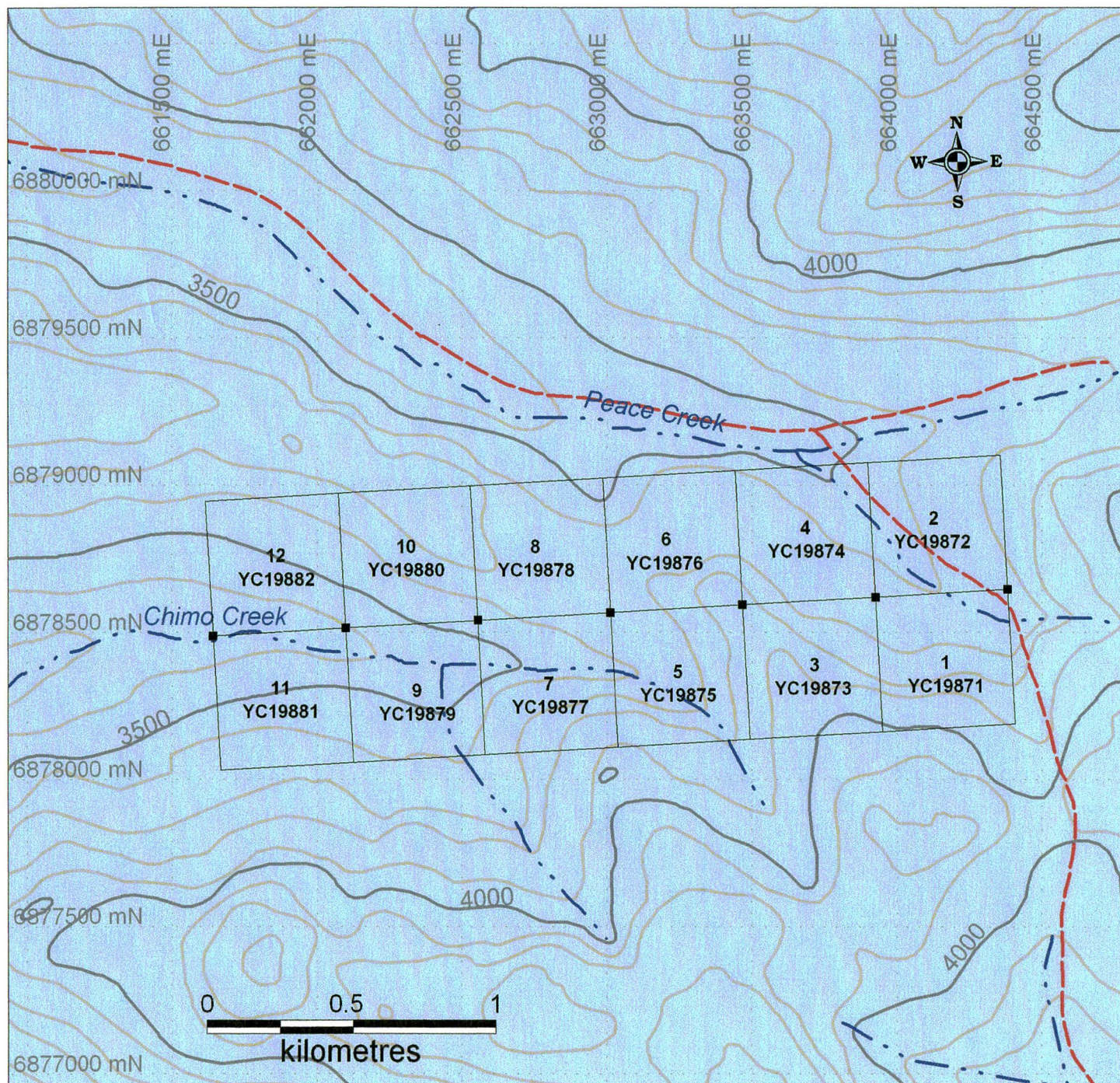
## PHYSIOGRAPHY and CLIMATE

The property covers the ridge between two small, west-flowing tributaries of Maloney Creek. The tributary valleys are at approximately 1000 m elevation and the ridge rises to 1280 m elevation. North-facing slopes and valley bottoms are underlain by permafrost and are vegetated with deep moss, buck brush and scattered, stunted black spruce. South-facing slopes are relatively dry, are not underlain by permafrost soils and are generally more forested with alder, birch, poplar and larger spruce trees.

The area is covered by a layer of recent, white volcanic ash that varies in depth from 0 to 20 cm. Soil profiles range from C-horizon only on the ridge tops, to well developed A, B and C-horizons



4763 NWT Ltd.	SHAMROCK PROPERTY	
PROPERTY LOCATION	MINING DISTRICT: WHITEHORSE	
	NTS: 115 I/04	SCALE 1: 6 000 000
Aurora Geosciences Ltd.	DRAWN BY: HDS	
	DATE: January 2004	FIGURE: 1



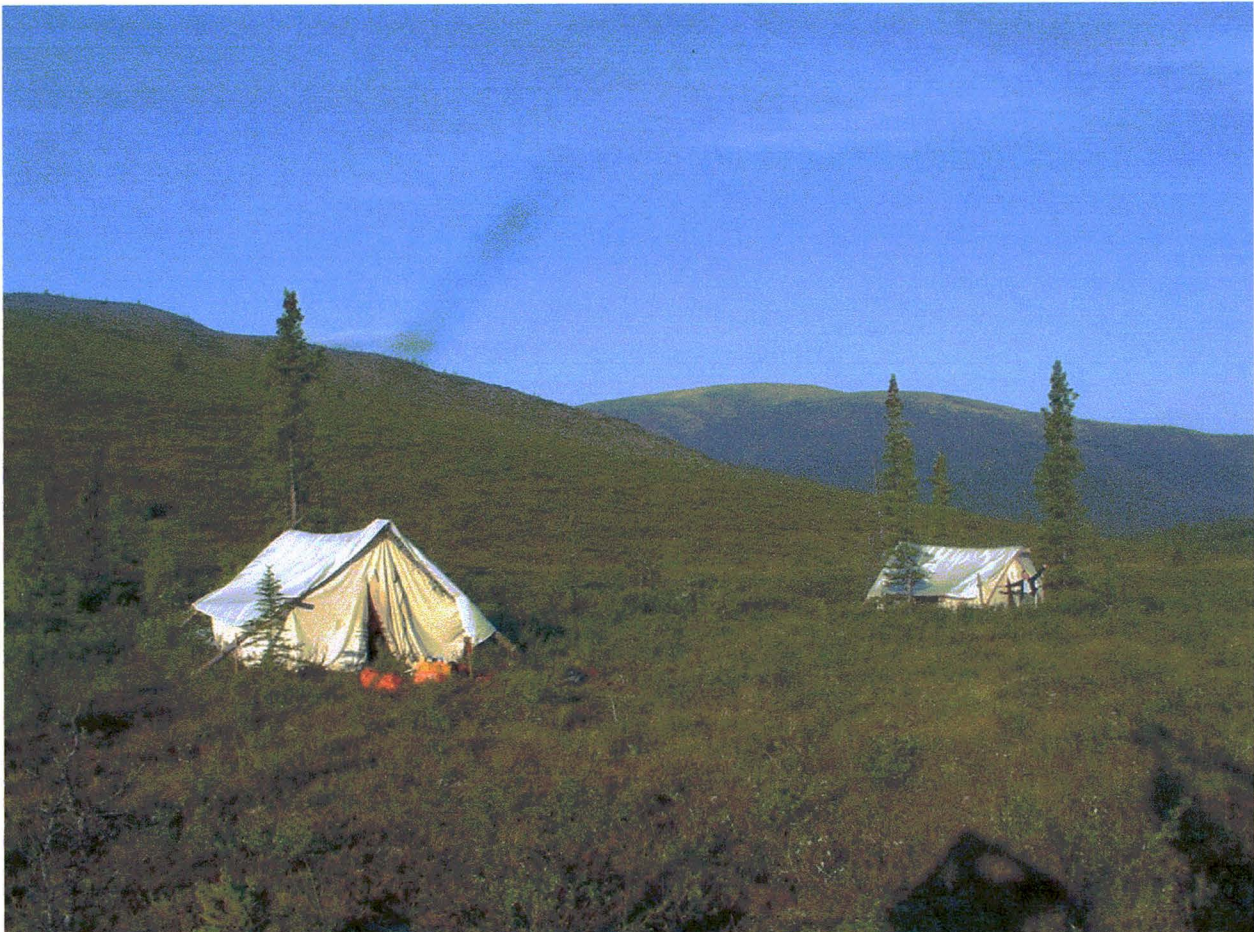
**4763 NWT Ltd**  
**SHAMROCK PROPERTY**

CLAIM LOCATION MAP

Whitehorse Mining District  
 Mt Nansen Area, Yukon

Figure 2 NTS 1151/04

NAD 83 UTM



**2003 camp near site of DDH-76-1**

on the south facing slopes, to a thick layer (often in excess of 1 m) of frozen organics over a soliflucted mixture of A and B horizon on north facing slopes and in valley bottoms.

The climate of the region is typified by cold, dry winters with temperatures to  $-50^{\circ}$  C and warm to hot, generally dry, summers with temperatures up to  $30^{\circ}$  C. The onset of freezing conditions and snowfall generally begins in early to mid September. The snow pack generally melts in early to mid May. A typical summer field season is from late May to early September.

## **PROPERTY HISTORY**

The Shamrock Property area was first staked in 1969 by Amax Potash Ltd. to explore anomalous regional stream sediment copper and molybdenum values. In 1969 and 1970, Amax conducted exploration programs consisting of gridding, rock, soil, stream silt and water sampling, hand pitting, magnetometer surveying and 75 m of "Packsack" drilling in 4 holes. Amax analyzed the soil samples for copper and molybdenum, and the stream silt samples for molybdenum, only.

Their work identified a large copper and molybdenum soil anomaly measuring approximately 1000m x 1200m with a linear magnetic anomaly along the northern edge of the soil anomaly.

These anomalies overlie a quartz diorite plug hosting a porphyry-type alteration system. The drill program had limited success with most holes not being completed. However, no further work was done on the property until 1976.

In 1976, a joint venture involving Brascan Resources Ltd and Scurry Rainbow optioned the property from Amax and conducted a small program consisting of 740 m of diamond drilling in 6 holes. The drilling tested the anomalous copper- and molybdenum-in-soil and intersected consistent copper and gold mineralization of 50 to 1960 ppm Cu and 20 to 240 ppb Au over widths up to 100 m. The joint venture conducted no further work and the claims were allowed to lapse in 1981.

In 1985, the property was re-staked as the ALO claims by the Chevron Resources Ltd and Archer, Cathro & Associates (1981) Ltd, jointly operating as the Freegold Venture. In August of that year they conducted a program of prospecting and soil sampling on a wide-spaced grid (50 m sample intervals). The Joint Venture analyzed all the soil samples for gold by fire assay and selected samples (approximately 1/3 of the samples) for 30 elements by ICP.

The Joint venture identified a large gold-in-soil anomaly measuring 2400m x 800m with values up to 1270 ppb Au. The soil anomaly was roughly coincident with the linear magnetic anomaly identified in the 1970 survey. One rock sample of altered Nisling Group returned 1330 ppb gold.

In 1990, the ALO claims were sold to Big Creek Resources Ltd. However, no follow-up work was performed and the claims were later allowed to lapse.

In January 2003, 4763 NWT Ltd staked the Shamrock claims.



**Overgrown site of DDH-76-6**



## REGIONAL GEOLOGY

The Shamrock Property is located in the Dawson Range in Yukon-Tanana Terrane. The belt extends from Whitehorse northwest to the Yukon / Alaska border. The belt is comprised of a wide range of rock types and ages from older, basal metamorphosed sedimentary, volcanic and intrusive rocks to overlying, more recent, unmetamorphosed volcanic rocks (Figure 3). A wide range of igneous rock types intrudes the area. The regional geology is taken from the Yukon Digital Geology Map (Gordey, 1999).

The metamorphic rocks in the area are: Late Proterozoic to Paleozoic Nisling Group (**PPN**); Devonian to Mississippian Pelly Gneiss Suite (**DMgPW**); and the Devonian to Mississippian Nasina Group (**DMN**).

The Nisling Group consists of dark gray to brown, biotite-muscovite-quartz-feldspar schist, quartzite and micaceous quartzite. The Pelly Gneiss Suite consist of foliated medium grained, homogeneous biotite granite gneiss to biotite or hornblende granodiorite gneiss; massive to strongly foliated dioritic to granodioritic gneiss; and includes interfoliated amphibolite, quartz-mica schist and phyllite. The Nasina Group consists of quartzite, micaceous quartzite, quartz muscovite (+/-chlorite, +/- feldspar augen) schist, and minor meta-conglomerate.

The metamorphic rocks are unconformably overlain by a series of volcanic rocks that include: mid-Cretaceous Mount Nansen Group (**mKN**); Upper Cretaceous Windy-Table Group (**uKW**); Upper Cretaceous Carmacks Group (**uKC**); and Lower Eocene Skukum volcanics (**IES**).

The Mount Nansen Group consists of massive aphyric or feldspar-phyric andesite to dacite flows, breccia and tuff; massive, heterolithic, quartz- and feldspar-phyric, felsic lapilli tuff; flow-banded quartz-phyric rhyolite and quartz-feldspar porphyry plugs, dykes, sills and breccia. Windy-Table Group consists of resistant, columnar jointed, quartz-phyric dacite flows, ash and lapilli tuff, with basal sedimentary and epiclastic rocks, and includes quartz-feldspar porphyry dykes. The Carmacks Group consists of acid vitric crystal tuff, lapilli tuff and welded tuff including feeder plugs; felsic volcanic flow rocks and quartz feldspar porphyries; green and purple massive tuff-breccia with feldspar phyric fragments. The felsic volcanic rocks of the Carmacks Group are similar to those of the Mt. Nansen Group. The Skukum volcanics are heterogeneous intermediate to felsic, hornblende-feldspar porphyritic tuff, flow breccia; volcanoclastic mudstone, sandstone and conglomerate; aphanitic to feldspar porphyritic dacite flows and dykes; flow-banded rhyolite and felsic dykes and sills.

Intrusive rocks in the area are: mid-Cretaceous Whitehorse Suite (**mKgW**); Late Cretaceous to Tertiary Prospector Mountain Suite (**LKfP**); Carboniferous to Permian Anvil Suite (**CPA**); and Early Tertiary Nisling Range Suite (**ETqN**).

The Whitehorse Suite consists of biotite-hornblende granodiorite, hornblende quartz diorite and hornblende diorite; leucocratic, biotite hornblende granodiorite locally with sparse gray and pink potassium feldspar phenocrysts. The Prospector Mountain Suite is quartz-feldspar porphyry. The Anvil Suite consists of dunite, peridotite, gabbro, pyroxenite, harzburgite and minor diorite; hornblendite and diabase; serpentinite, orange weathering quartz carbonate rock with minor

green chromian muscovite, talc-carbonate schist and carbonatized ultramafic rocks. The Nisling Range Suite consists of leucocratic, biotite granite; miarolitic alaskite; sacchroidal textured, mafic-poor biotite granite; biotite-hornblende granite to leucocratic granodiorite with sparse, white, alkali feldspar phenocrysts; biotite quartz monzonite.

All rocks are overlain by Quaternary (Q) unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluvial silt, sand, and gravel, and local volcanic ash. The Quaternary sediments predominate in valley bottoms.

This belt of rocks host numerous mineral occurrences along the length of the belt including the Casino porphyry Cu-Au-Mo deposit and the gold mineralization at Mount Freegold, Revenue Creek and Mt Nansen.

## PROPERTY GEOLOGY

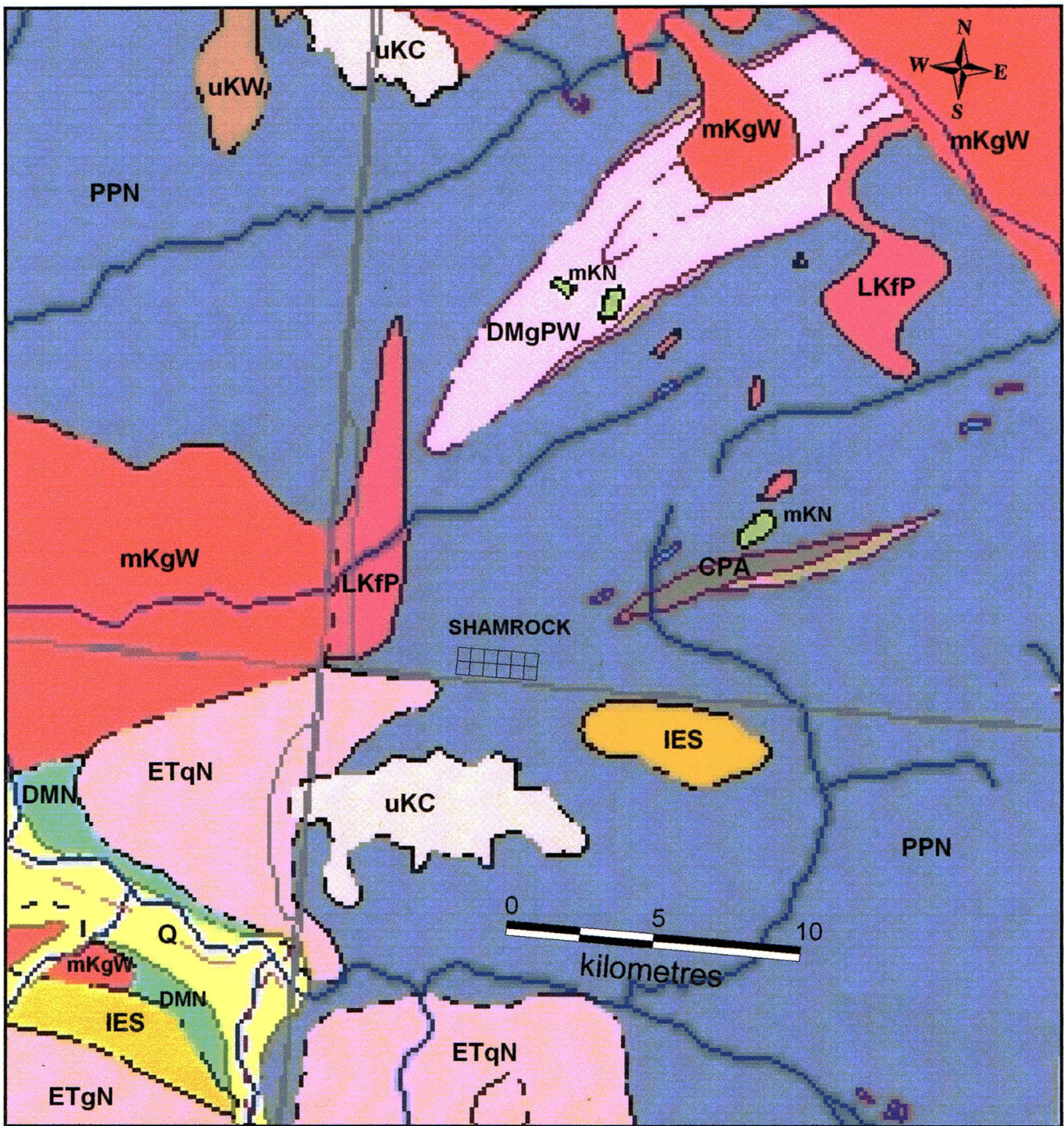
Figure 4 in the pocket illustrates the property geology and is modified after Lodder (1970) and Eaton (1985). The rock unit numbers have been retained from previous work, and are grouped into three categories: metamorphic rocks; volcanic rocks; and intrusive rocks. Outcrop exposure on the property is sparse (perhaps 5%) and the Amax geological mapping program relied on rock fragment mapping from soil pits dug on the 1970 soil grid, as well as the occasional outcrop.

The geology consists of Late Proterozoic to Paleozoic Nisling Group metamorphic rocks, which are overlain by Cretaceous intermediate to acid flows and intruded by a variety of related plutonic, and sub volcanic feeder dykes and plugs which probably belong to the mid-Cretaceous Whitehorse Suite and Early Tertiary Nisling Range Suite.

**Nisling Group (Unit 1)** is comprised of crystalline rocks of sedimentary and intrusive origins, which include schists and gneisses, cherts, limestone and skarnified sediments. This unit is the predominant rock type and occurs throughout the property. This package was reported by Eaton (1985) to be of the Pelly Gneiss Suite, however, current regional geological interpretation shows it to belong to the Nisling Group. Property scale mapping shows it to be of sedimentary origin indicating the Nisling Group to be more appropriate.

**Volcanic rocks (Units 4 and 9)** are confined to the western half of the property and are probably remnants of more extensive flows, which have been eroded. **Unit 4** consists of fine-grained dark green andesite, which is either a flow or a sub volcanic ring dyke surrounding the quartz diorite intrusion. **Unit 9** is comprised of orange weathering fine-grained rhyolite.

The intrusive Rocks (Units 2, 3, 5, 6, 7, 8, 10 and 11) includes a 600 by 1500 m quartz diorite plug in the center of the property (**Unit 5**), several small biotite-hornblende porphyry dykes or plugs directly south of the large plug (**Unit 3**), and a poorly defined diorite to quartz diorite body in the extreme southwest corner of the property (**Unit 2**). These intrusions were probably feeders to the younger, largely eroded Mount Nansen Group volcanics and are distinguished from later intrusions by an abundance of biotite and/or hornblende, which characteristically comprise 20 to 30% of the rock.

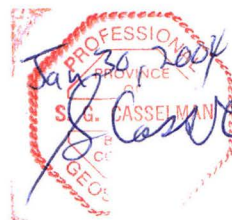


**LAYER ROCKS**

- Q Quaternary Sediments
- IES Lower Eocene Skokum volcanics
- uKC Upper Cretaceous Carmacks Group
- uKW Upper Cretaceous Windy-Table Group
- mKN mid-Cretaceous Mount Nansen Group
- DMN Devonian to Mississippian Nasina Group
- DMgPW Devonian to Mississippian Pelly Gneiss Suite
- PPN Late Proterozoic to Paleozoic Nisling Group

**INTRUSIVE ROCKS**

- ETqN Early Tertiary Nisling Range Suite
- CPA Carboniferous to Permian Anvil Suite
- LKfP Late Cretaceous to Tertiary Prospector Mountain Suite
- mKgW mid-Cretaceous Whitehorse Suite



**4763 NWT Ltd**

**SHAMROCK PROPERTY**

**REGIONAL GEOLOGY MAP**

Whitehorse Mining District

Figure 3

Numerous felsic intrusive dykes and plugs are located in the eastern part of the property. These are quartz porphyry (Unit 6), quartz porphyry breccia (Unit 7), quartz-eye porphyry (Unit 8) and coarse-grained quartz-feldspar porphyry (Unit 11). The largest body of felsic intrusive is an irregularly shaped 600 by 300 m quartz porphyry breccia zone located immediately east of the large quartz diorite plug (Unit 5). Unit 10 consists of widely scattered basic to acidic aphanitic dykes, which could not be assigned to any other unit.

A variety of alteration types have been recognized on the property by the previous operators and affect four rock types: quartz diorite (Unit 5), quartz porphyry (Unit 6), quartz porphyry breccia (Unit 7), and Nisling Group (Unit 1).

Silicification is locally intense and pervasive within all three intrusive units, particularly along contacts. Quartz veining is developed in the southern half of the quartz diorite, where veins ranging from 2 mm to several cm form a stockwork of 200 to 400 veins per square meter. Narrow, secondary potassium feldspar alteration envelopes surround some of these veins. Hairline quartz veinlets are scattered throughout the quartz porphyry breccia, but are absent in the quartz porphyry. Silica flooding is common along foliation planes in the Nisling Group adjacent to the intrusives, but nowhere reaches a density exceeding ten veinlets per linear meter.

Intense kaolinitization and/or sericitization of feldspar occur throughout the quartz porphyry and quartz porphyry breccia and locally within the southern portion of the quartz diorite. Bleaching due to sericitization of mafics and feldspars is common in Nisling Group rocks within a 100 m halo surrounding the quartz porphyry breccia.

The dominant structural feature on the property is a series of north to northwest trending topographic linears, which are probably fault zones. Many of the felsic intrusions parallel this trend. Due to the lack of exposure the nature and extent of these structures could not be determined.

Porphyry-style mineralization has been observed on the property closely associated with alteration in the quartz diorite (Unit 5), quartz porphyry (Unit 6), quartz porphyry breccia (Unit 7) and adjacent Nisling Group (Unit 1). Amax described a stockwork zone along the southern edge of the quartz diorite. Minerals present include pyrite, chalcopyrite, molybdenite, arsenopyrite, jarosite, azurite, malachite and hematite. Six diamond drill holes tested this target and returned numerous intersections of consistently anomalous, but sub-economic copper, silver and gold. Copper values ranged from 1000 to 2000 ppm, silver from 1.0 to 3.0 ppm and gold from 100 to 250 ppb, with copper and gold showing a fairly high correlation. None of the drill holes intersected suspected fault zones.

The drill core was intensely oxidized within the top 60 m of surface and sulphide minerals are rare. Pyrite (up to 10%) and fluorite (up to 0.1%) are found throughout the unoxidized portion of the quartz diorite plug, while traces of scheelite and tourmaline occur within it and adjacent to the copper mineralization. Magnetite is most abundant north of the copper zone, while pyrite is more prevalent to the south.

The quartz porphyry and quartz porphyry breccia units both exhibit abundant pitting and limonite after pyrite. Traces of molybdenum occur as disseminations and in hairline fractures within the quartz porphyry breccia.

Mineralization in the Nisling Group consists of pyrite with minor chalcopyrite and/or molybdenite in quartz veins cutting schists adjacent to the quartz diorite. Traces of disseminated chalcopyrite and pyrite are also observed in skarnified Nisling Group near the contact with the quartz porphyry.

## **2003 EXPLORATION PROGRAM**

The 2003 exploration program on the Shamrock Property consisted of gridding, soil sampling, and a magnetic survey. The field program was conducted from August 5 to 13. The grid was established by cutting a 2.5 km long baseline, oriented east west, and marking it with flagging at 25 m intervals. Lines were run at 100 m intervals perpendicular to the baseline by compass and hipchain. Stations were marked on the lines with flagging at 25 m intervals. A total of 27.25 km of grid lines were established and surveyed for magnetic response. The ends of the lines were surveyed by GPS with approximate 8-metre accuracy.

Soil samples were collected at 50 m spacing on the grid. In selected portions of the grid, generally in areas of anomalous magnetic response, soil samples were collected at 25 m intervals. In the creek valleys, and on north facing slopes significant permafrost and organic mud was encountered. In these areas the top 0.2 to 0.5 m of moss was stripped to allow the ground to thaw for 3 to 5 days prior to collecting the sample. In most instances the ground thawed sufficiently to allow for collection of the samples. Sample sites on the south-facing slope were generally free of ground frost and samples were easily collected with a mattock.

At each sample site 0.5 kilograms of soil was collected and placed in a kraft, wet-strength paper bag, which was labeled with the grid location. The samples were then air dried at camp prior to shipping to Acme Analytical Labs in Vancouver for analysis. At the lab, the samples were oven dried and sieved in a -80 mesh sieve. A 30 gm sample of the -80 mesh material was then analyzed for gold and 36 elements by aqua-regia digestion and Inductively Coupled Plasma Mass Spectrometry (ICP-MS). A total of 538 soil samples were collected. Soil sample locations are plotted on Figure 5; Analytical Certificates are included in Appendix II.

Two rock samples were collected during the program. The rock samples were also sent to Acme Analytical Labs and were processed by crushing to -10 mesh, then pulverizing 250 gm to -150 mesh. A 30 gm sample of the -150 mesh material was then analyzed for gold and 36 elements by ICP-MS.

For the magnetic survey two GEM Instruments Overhauser magnetometers were used. One unit was set-up as a base station magnetometer in a magnetically "quite" area near the camp location at the southwestern corner of the grid and cycled at 10-second intervals. The second unit was used as the rover unit. Magnetic readings were taken on the lines at 12.5 m intervals by pacing between flagged station sites.

## SOIL GEOCHEMICAL SURVEY RESULTS

The soil geochemical survey results for gold, copper, arsenic, silver, antimony and molybdenum are plotted on figures 6, 7, 9, 10, 11 and 12, respectively. The soil geochemical survey delineated some interesting anomalous trends. The plots show three separate mineralized trends: a copper/molybdenum-rich area in the western part of the property; a linear, highly anomalous gold trend across the northern part of the property; and a concentration of arsenic and antimony north of the linear gold trend and on the south eastern part of the property.

The copper/molybdenum anomaly in the western part of the property (Figures 7 and 12) has weak to moderate gold values associated with it. The anomalous area is large and bulbous and appears to be sourced from intrusive rocks. The total magnetic field survey in this area returned a large magnetic high coincident with the copper/molybdenum high (Figure 8). This metal association and host rocks are typical of a porphyry copper setting. The 1976 drill program tested this area, however it appears that the majority of the drill holes did not target the heart of the soil geochemical highs.

The linear anomalous gold trend (Figure 6) along the northern part of the property is slightly spotty, but distinct with gold values as high as 482 ppb. It trends roughly east west, is 1.6 km long and is open to the west and east. It has a broad, moderate strength copper anomaly associated with it. There is a sharp drop in gold values north of this anomaly, while to the south it is not so abrupt and small, scattered gold anomalies are observed. This anomaly is coincident with a strong linear magnetic anomaly (Figure 8). The linear gold anomaly extends off of the copper/molybdenum anomaly and may be associated with it.

The third anomalous trend is arsenic/antimony-rich areas on either side of the linear gold anomaly. These occur in the northeast part of the property and in the southeast. There is a distinct arsenic/antimony low along the linear gold anomaly. A review of the bismuth values indicates it correlates well with the arsenic/antimony, although a plot is not included. This pattern may indicate a metal zonation of a large porphyry-type system, although the sharp break along the linear gold anomaly is quite abrupt and not typical. A possible explanation for this break is that the gold mineralizing event was later and destroyed or re-mobilized the arsenic/antimony and bismuth through this zone.

A fourth soil geochemical target, which was not sampled in this program, but is of interest is a two station gold anomaly 800 m south of the 2003 soil grid. The gold values are 177 and 532 ppb and are spaced 200 m apart. This area was identified in 1985 (Eaton, 1985) and has moderate to strong silver, arsenic, lead, zinc and copper values.

## MAGNETIC SURVEY RESULTS

The total magnetic field survey results are plotted on Figure 8. The magnetic field survey detected strong highs apparently associated with magnetite. Two features are evident: a large bulbous magnetic high in the northwestern part of the property; and an east-west trending, linear magnetic high along the northern part of the property.

The large magnetic high in the west is coincident with the copper/molybdenum soil geochemical anomaly. The magnetic anomaly is slightly disrupted and has a couple of weak northwesterly trending breaks within it. These may represent structural breaks and could represent a stacking or disruption of the linear anomaly in this area. The 1976 drill program did not target this anomaly.

The east-west trending linear magnetic anomaly is coincident with the linear gold soil anomaly. It is quite strong and distinct and has a sharp drop along its northern margin. The southern margin of the anomaly tapers off more gently. This may indicate a south-dipping magnetic feature. The sharp bounds to the magnetic anomaly may also indicate a structural or stratigraphic control to the magnetic feature. The deep magnetic low north of the linear high is coincident with the northern arsenic/antimony soil geochemical anomaly.

## CONCLUSIONS

The 2003 exploration program on the Shamrock Property was successful in confirming copper/molybdenum/gold soil geochemical anomalies in the area. The increased sample density helped to define these anomalies better. Three anomalous trends were identified in the survey: a large, bulbous copper/molybdenum zone in the northwestern part of the property; a linear gold anomaly along the northern part of the property; and an arsenic/antimony/bismuth association north and south of the linear gold anomaly on the eastern part of the property.

The magnetic survey results tie in well with the soil geochemical results. They show a good correlation with the copper/molybdenum zone in the northwest and a good correlation with the linear gold anomaly. There appears to be some structural control to the magnetic body due to the sharp break on the northern side of the anomaly.

The metal association, rock types and magnetic response are all typical of a porphyry-copper system. There appears to have been some structural preparation of the rocks in the area as evidenced by the linear breaks in the magnetic survey results. The strong linear magnetic high and observed skarn mineralization indicates the possibility of high-grade skarn association with a porphyry system. The system is large and its full dimensions have not yet been delineated. The 1976 drill program did not test the heart of the soil geochemical nor magnetic anomalies and there remain good targets for drill testing in the immediate property area.

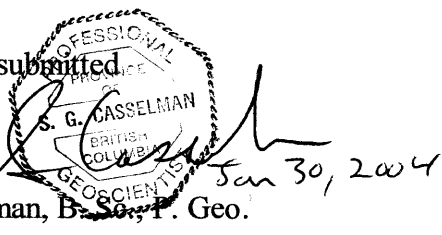
## RECOMMENDATIONS

The Shamrock property exhibits features of large porphyry-type system. Work done on the property to date has not completely defined the extent of the mineralizing system. Recommendations for future work on the property are to determine the extent of the system, to refine specific target areas within the system and to determine the source of the high metal values in soils. To this end, the following program is recommended:

- 1) An airborne geophysical survey encompassing a block approximately 15x15 km square centered on the claims
- 2) Extend the property position in all directions to protect the extent of the gold-in-soil anomaly and any anomalies that may arise out of the airborne geophysical survey.
- 3) Extend the soil geochemical and magnetometer surveys to the northwest and east to close off existing anomalies.
- 4) Soil sampling and a magnetometer survey on the gold-in-soil anomaly identified in 1985, located 800 m south of the property.
- 5) An Induced Polarization Survey to help delineate the concentration of disseminated sulphide mineralization associated with the intrusive bodies and how it relates to the magnetic high and gold-in-soil anomalies.
- 6) Trenching on magnetic/soil and possible IP anomalies to determine their cause.

Respectfully submitted

Scott Casselman, B.Sc., P. Geo.





## REFERENCES

- Brascan Resources, 1976. Drilling Report. Assessment Report # 91328.
- De Paoli, G. M., 1970. Report on Magnetometer Survey, POT Claim Group. Assessment Report # 60210.
- DIAND, 2000. Yukon Minfile, Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada.
- Eaton, W. D., 1985. Geological and Geochemical Report on the Maloney Property (ALO 1-50 claims). Assessment Report # 91810.
- Gordey, S. P. and Makepeace, A. J., 1999. Yukon Digital Geology. Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open File 1999-1 (D).
- Lodder, W., 1970. 1970 Geological and Geochemical Report, Maloney Creek Copper Prospect, POT #1-48. Assessment Report # 60209.

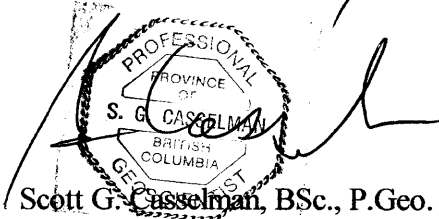
## Appendix I

### Statement of Qualifications

I, Scott Casselman, residing at 33 Firth Road, Whitehorse, Yukon Territory, Y1A 4R5, certify that:

- 1) I graduated from Carleton University in Ottawa, Ontario with a Bachelor of Science Degree in Geology in 1985.
- 2) I am a geologist employed by Aurora Geosciences Ltd. of Whitehorse, Yukon Territory.
- 3) I am a member of the Association of Professional Engineers and Geoscientists of British Columbia, Registration No. 20032.
- 4) I conducted the fieldwork described in this report on the Shamrock Property between August 5 and 13, 2003.

Dated this 30<sup>th</sup> day of January, 2004, at Whitehorse, Yukon Territory.



Scott G. Casselman, BSc., P.Geo.

**Appendix II**

**Geochemical Analytical Certificates**

GEOCHEMICAL ANALYSIS CERTIFICATE



Aurora Geosciences Ltd. PROJECT Shamrock File # A303820  
108 Gold Road, Whitehorse YT Y1A 2W3 Submitted by: Scott Casselman

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	gm	
SI	.01	.55	.85	1.2	25	.2	<.1	2	.04	.2	<.1	.6	<.1	2.0	.01	.40	<.02	<2	.10	<.001	<.5	<.5	<.01	2.2	<.001	<1	.01	.413	<.01	<.1	<.1	<.02	.01	35	<.1	<.02	<.1	30
SR03-01	.06	3.36	.94	26.4	25	914.7	58.6	808	3.55	5.1	.1	3.1	.1	2.6	.10	.14	.13	17	.06	.002	<.5	683.2	8.22	27.4	.004	17	.39	.007	.01	<.1	2.4	.03	.01	30	<.1	.03	.8	30
SR03-02	.79	21.75	4.04	13.2	112	8.9	3.0	77	.71	3.7	.4	11.8	4.8	2.8	.03	.53	.12	3	.05	.010	11.0	8.9	.06	52.5	<.001	1	.21	.015	.09	<.1	.5	.06	.03	33	.1	<.02	.5	30
STANDARD DS5	12.69	140.79	25.28	133.5	282	24.5	12.2	759	2.89	19.1	6.1	43.7	2.6	48.1	5.44	3.47	6.40	59	.72	.093	12.0	188.5	.65	135.8	.098	17	2.01	.034	.13	4.7	3.4	1.06	.01	184	4.9	.81	6.5	30

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.  
UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.  
- SAMPLE TYPE: ROCK R150 60C

DATE RECEIVED: AUG 25 2003 DATE REPORT MAILED: *Sept 11/03* SIGNED BY: *C.L.* TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

GEOCHEMICAL ANALYSIS CERTIFICATE

Aurora Geosciences Ltd. PROJECT Shamrock File # A303819 Page 1  
108 Gold Road, Whitehorse YT Y1A 2W3 Submitted by: Scott Casselman



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	gm
G-1	1.27	2.41	1.98	49.3	10	4.9	4.7	556	1.95	.1	1.9	.3	4.7	80.7	.01	.02	.12	42	.52	.084	7.7	44.8	.59	255.8	.138	1	1.04	.071	.49	.4	2.3	.32	<.01	<.5	<.1	<.02	5.2	30
L100E 106+50N	5.16	53.16	11.76	61.1	1248	13.0	7.7	353	3.35	7.5	.4	6.3	2.4	16.7	.24	.55	.24	91	.13	.038	10.7	30.1	.31	142.7	.058	<1	1.72	.006	.04	<.1	2.3	.12	<.01	12	.1	.04	9.9	30
L100E 106+00N	12.06	274.94	11.19	77.6	923	22.4	14.2	294	4.62	8.2	.5	15.9	6.4	23.6	.24	.55	.26	92	.23	.041	15.8	47.9	.80	294.0	.033	<1	2.70	.008	.05	.1	3.9	.14	<.01	17	.4	.04	12.2	30
L100E 105+75N	19.56	432.29	8.01	36.8	267	23.7	10.3	219	4.54	18.3	.8	17.1	9.4	17.0	.21	.46	.20	71	.15	.033	20.3	39.9	.62	312.8	.015	<1	1.94	.010	.06	<.1	3.2	.12	<.01	6	.5	.06	9.6	30
L100E 105+50N	5.68	118.87	6.53	38.4	209	16.5	7.4	193	2.86	7.3	.4	2.7	4.7	17.0	.17	.34	.14	59	.17	.019	12.5	30.9	.52	228.8	.027	<1	1.59	.009	.06	.1	2.6	.08	<.01	6	.2	.02	7.2	30
L100E 105+00N	2.49	90.54	7.30	47.7	267	20.2	8.5	226	2.81	9.6	.4	2.8	3.4	17.5	.16	.30	.16	61	.22	.022	10.9	32.0	.57	272.3	.058	1	1.88	.007	.08	.2	3.5	.07	<.01	15	.1	.02	6.5	30
L100E 104+50N	2.37	802.94	9.40	47.5	672	25.9	10.6	279	3.00	7.9	2.0	19.8	7.4	34.7	.08	.37	.17	56	.65	.047	234.9	40.5	.66	935.1	.035	<1	2.42	.011	.09	.1	13.2	.09	<.01	82	.9	.03	6.4	30
L100E 104+00N	3.70	197.14	7.11	43.0	85	18.3	8.6	315	2.68	9.5	.6	10.5	5.3	25.7	.09	.38	.13	55	.36	.032	19.6	29.7	.63	464.3	.051	1	1.64	.010	.06	.1	4.4	.07	<.01	12	.2	.02	5.9	30
L100E 103+50N	3.01	119.31	7.76	49.4	256	16.0	10.5	732	2.69	7.1	.6	2.6	2.6	28.5	.11	.33	.17	65	.35	.030	15.6	29.3	.47	395.1	.054	<1	1.59	.010	.08	.1	3.2	.07	<.01	15	.2	.02	7.0	30
L100E 103+00N	1.09	57.56	6.46	42.3	104	17.5	7.9	238	2.28	8.0	.4	2.4	3.8	18.8	.09	.27	.13	52	.24	.024	11.4	27.4	.49	271.0	.067	1	1.52	.009	.06	.2	3.1	.07	<.01	11	.1	<.02	5.0	30
L100E 102+50N	1.59	69.73	6.20	36.6	61	12.7	8.0	185	1.91	4.4	.5	2.8	4.2	29.8	.14	.31	.07	49	.63	.038	11.0	26.2	.73	454.5	.050	1	1.33	.011	.08	<.1	3.7	.07	.01	9	.2	<.02	5.7	30
L100E 102+00N	9.00	139.67	6.27	29.4	84	12.1	7.6	139	2.80	13.2	.6	21.0	7.1	18.5	.07	.48	.05	45	.40	.056	16.4	24.4	.68	321.6	.026	<1	1.31	.008	.10	.1	3.8	.07	<.01	8	.2	.02	5.1	30
L100E 101+50N	3.74	87.31	6.95	35.5	126	15.8	6.9	147	2.85	14.8	.9	10.5	3.8	32.7	.08	.50	.08	41	.75	.084	16.0	25.9	.59	665.4	.018	1	1.45	.015	.07	.1	3.8	.09	.01	29	.3	.02	5.3	30
L100E 101+00N	2.52	81.83	7.09	43.6	131	16.6	10.2	351	2.66	8.8	.9	6.1	4.5	37.7	.08	.44	.09	55	.92	.081	18.3	35.3	.70	524.7	.039	1	1.63	.012	.07	.1	5.0	.08	.03	28	.3	<.02	6.2	30
L100E 100+50N	1.80	54.24	5.27	39.4	66	13.0	7.3	226	2.17	6.7	.6	4.1	3.1	31.9	.07	.33	.08	48	.68	.069	12.5	27.5	.51	354.1	.054	1	1.37	.018	.05	.1	3.6	.06	.02	17	.2	<.02	5.2	30
L101E 106+50N	3.40	211.29	8.99	57.5	299	26.9	10.9	262	3.84	11.4	.5	8.0	4.9	15.5	.14	.43	.16	74	.17	.047	13.5	40.6	.59	177.9	.069	<1	2.62	.007	.06	.2	3.7	.10	<.01	24	.3	.03	7.9	30
L101E 106+00N	7.03	131.22	6.21	40.6	280	18.9	7.1	221	3.47	7.9	.5	9.5	6.3	16.2	.20	.27	.14	74	.15	.022	21.1	38.8	.61	254.2	.024	<1	1.83	.006	.08	<.1	3.2	.10	<.01	6	.1	.03	8.8	30
L101E 105+50N	3.51	59.32	6.77	42.6	130	14.4	7.2	239	2.92	11.7	.4	2.8	3.4	16.6	.18	.42	.14	67	.17	.024	11.8	24.1	.40	408.9	.040	1	1.28	.009	.09	<.1	2.5	.08	<.01	8	.1	.03	7.2	30
RE L101E 105+50N	3.28	57.14	6.46	40.1	129	13.4	7.1	238	2.88	11.9	.4	4.5	3.4	16.0	.19	.47	.14	65	.16	.022	11.5	23.7	.39	396.3	.038	<1	1.26	.008	.09	<.1	2.5	.08	.01	6	.1	.02	6.5	30
L101E 105+00N	3.45	101.71	6.53	40.2	246	14.6	7.5	296	3.07	12.1	.4	7.5	4.8	15.8	.18	.47	.13	58	.15	.018	15.0	27.3	.50	450.8	.033	<1	1.43	.010	.08	<.1	2.9	.09	<.01	<.5	.1	.02	6.7	30
L101E 104+50N	2.41	79.52	9.84	54.6	259	19.0	14.6	596	3.04	11.7	.6	6.4	3.9	26.0	.12	.35	.18	71	.37	.023	16.8	33.0	.52	650.7	.054	1	2.03	.011	.07	.1	4.5	.12	<.01	16	.2	.02	8.0	30
L101E 104+00N	1.91	59.60	6.90	41.6	285	16.7	8.2	255	2.67	11.8	.4	6.2	3.5	18.6	.06	.30	.12	60	.32	.019	11.9	27.9	.54	398.0	.047	<1	1.78	.008	.06	.1	3.6	.09	<.01	12	.1	.02	7.1	30
L101E 103+50N	1.11	37.35	7.88	53.7	293	19.4	9.9	372	2.86	9.2	.5	2.0	3.2	24.7	.09	.27	.16	70	.38	.036	11.9	34.7	.63	400.6	.084	1	1.91	.011	.06	.1	3.5	.10	<.01	12	.1	.03	7.2	30
L101E 103+00N	1.65	76.82	6.19	46.1	44	19.6	8.8	253	2.74	9.4	.5	3.5	4.0	21.8	.09	.36	.11	60	.35	.037	15.7	31.8	.61	480.7	.057	1	1.74	.010	.07	.1	4.1	.07	.01	9	.2	.02	6.0	30
L101E 102+50N	2.49	100.42	6.60	38.4	204	17.7	9.1	208	2.47	9.2	2.1	5.7	3.1	41.4	.13	.44	.12	50	.91	.056	20.2	29.8	.53	550.0	.047	2	1.48	.013	.07	.1	5.0	.08	.02	41	.5	.02	5.2	30
L101E 102+00N	5.39	99.73	5.26	33.0	230	10.6	6.6	184	2.31	8.8	.8	11.3	4.1	35.6	.10	.44	.08	47	.77	.087	19.4	20.5	.48	476.7	.033	1	1.27	.011	.09	.2	4.5	.09	.04	41	.3	.02	4.8	30
L101E 101+50N	4.87	239.68	6.65	32.1	203	11.4	9.9	194	2.80	8.6	1.4	22.0	4.4	41.3	.09	.41	.10	48	.91	.078	21.4	23.0	.64	591.9	.033	1	1.45	.010	.07	.1	4.0	.08	.05	40	.6	.02	5.5	30
L101E 101+00N	4.19	252.05	7.54	41.9	173	11.3	10.5	265	2.57	4.4	1.4	29.1	7.3	24.8	.15	.28	.11	53	.63	.079	20.5	23.7	.74	492.7	.039	1	1.57	.010	.11	.1	4.9	.11	.03	32	.4	.02	6.2	30
L102E 106+50N	20.66	524.69	9.30	54.0	649	24.9	11.4	351	2.67	7.5	1.6	23.7	7.1	35.0	.20	.43	.14	43	.53	.076	35.3	32.6	.59	650.0	.036	1	1.58	.010	.09	.2	5.7	.10	.03	42	.5	.03	5.9	30
L102E 106+00N	5.00	467.65	7.30	48.6	619	21.6	11.3	430	2.63	8.1	.7	22.1	2.9	26.4	.19	.33	.14	48	.55	.058	23.7	35.4	.58	543.4	.033	1	1.80	.011	.09	.1	4.8	.11	.01	26	.3	.02	7.6	30
L102E 105+50N	6.12	365.83	10.60	50.4	325	30.6	13.1	266	4.57	17.9	.5	18.4	6.7	21.4	.14	.44	.22	79	.27	.024	14.5	56.9	.80	380.8	.025	<1	2.80	.009	.06	.1	4.8	.12	<.01	17	.3	.06	10.4	30
L102E 105+00N	2.41	49.46	6.26	44.9	212	16.5	7.																															



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	gm
G-1	1.21	2.41	1.78	37.6	9	4.4	3.5	450	1.71	.2	1.6	.5	4.2	77.0	.01	.02	.11	34	.48	.091	6.6	11.6	.45	185.0	.104	<1	.79	.062	.37	1.1	1.9	.24	<.01	<.1	<.02	4.1	30	
L102E 103+00N	10.02	155.54	6.43	33.1	216	12.0	9.4	306	2.31	5.8	1.7	7.1	3.8	37.1	.21	.86	.08	37	.88	.063	18.2	19.8	.45	736.0	.023	1	1.17	.010	.10	<.1	4.0	.11	.01	30	.4	<.02	4.5	30
L102E 102+50N	3.02	51.79	6.44	36.1	123	11.3	6.9	195	2.09	4.8	.4	2.4	3.3	15.8	.08	.23	.11	46	.30	.017	12.1	21.7	.49	350.5	.057	1	1.21	.007	.08	.1	2.6	.09	<.01	8	.1	<.02	5.2	30
L102E 102+00N	3.84	157.41	7.86	40.1	350	15.8	10.2	318	2.61	7.1	.9	9.6	4.9	24.2	.11	.37	.13	51	.47	.036	21.5	27.1	.56	701.5	.042	1	1.60	.010	.09	.1	4.4	.11	<.01	14	.2	.02	5.3	30
L102E 101+50N	4.19	153.22	6.40	38.0	190	10.8	9.2	232	2.19	4.9	.8	18.1	5.6	24.7	.09	.31	.10	46	.55	.086	23.0	25.3	.67	459.1	.068	1	1.39	.012	.10	.1	4.1	.11	.02	18	.2	<.02	5.5	30
L102E 101+00N	3.03	205.60	7.31	48.1	162	16.5	8.3	232	2.29	5.0	1.2	19.6	4.9	30.7	.10	.32	.13	53	.50	.069	20.6	30.1	.64	467.2	.083	1	1.60	.013	.07	.1	5.4	.09	<.01	28	.3	.03	5.7	30
L102E 100+50N	2.65	264.11	6.88	45.4	225	16.8	7.4	191	2.19	4.3	1.8	20.0	5.0	30.9	.10	.31	.12	52	.50	.065	19.6	29.0	.69	477.3	.085	1	1.50	.014	.07	.2	5.1	.10	<.01	29	.4	<.02	5.5	30
L102E 100+00N	8.10	276.28	11.40	49.4	340	20.9	14.6	365	3.13	7.2	1.6	20.9	3.4	46.9	.15	.41	.19	69	.56	.091	18.6	37.3	.67	797.1	.078	1	2.32	.013	.09	.2	6.3	.13	.04	59	.9	.04	7.8	30
L103E 106+50N	4.14	112.51	4.76	42.3	150	13.9	6.6	175	2.24	6.5	.5	14.5	3.2	36.8	.08	.32	.09	46	.70	.073	12.0	24.4	.45	252.3	.058	1	1.08	.021	.07	.1	3.3	.07	.03	25	.3	.02	4.8	30
L103E 106+00N	5.94	381.52	8.04	43.3	514	20.0	10.8	646	2.67	13.5	4.1	26.1	4.1	63.9	.44	.73	.12	46	1.54	.075	27.7	30.4	.55	548.3	.042	2	1.54	.016	.06	.1	6.2	.08	.10	60	1.4	.02	5.7	30
L103E 105+50N	5.04	122.04	7.18	47.8	262	19.4	9.6	375	2.73	16.3	.7	18.7	5.2	28.1	.17	.47	.11	53	.46	.044	15.3	30.7	.55	520.2	.043	<1	1.64	.014	.07	<.1	5.3	.11	.01	27	.2	.04	5.9	30
L103E 105+00N	4.50	33.96	9.54	35.2	312	10.6	6.0	181	2.33	6.3	.4	3.3	2.1	20.5	.21	.32	.21	64	.21	.025	9.7	24.1	.32	224.2	.059	<1	1.47	.007	.05	<.1	2.3	.09	<.01	11	.1	.03	7.6	30
L103E 104+50N	7.62	92.68	5.90	33.9	138	8.9	8.2	171	2.77	6.2	.4	4.8	4.2	19.3	.11	.28	.10	53	.19	.035	14.0	20.1	.54	329.2	.015	<1	1.59	.006	.08	<.1	3.0	.10	.01	7	.2	<.02	6.7	30
L103E 104+00N	4.48	58.78	6.10	41.0	110	14.7	9.1	192	2.62	6.3	.5	3.5	4.4	20.1	.08	.33	.10	56	.27	.034	16.6	27.1	.66	485.5	.058	1	1.68	.008	.09	<.1	4.1	.11	.02	<.5	.1	.03	5.9	30
L103E 103+50N	3.24	77.44	5.88	39.0	228	14.2	8.0	224	2.56	6.9	.8	5.3	5.1	17.2	.05	.33	.10	55	.29	.023	21.5	27.1	.65	694.9	.057	<1	1.76	.008	.09	.1	5.5	.11	<.01	22	.1	<.02	6.0	30
L103E 103+00N	8.67	152.98	5.32	36.5	98	10.7	7.0	156	2.54	6.8	.9	14.0	5.8	21.6	.05	.55	.06	40	.54	.075	24.1	21.1	.64	481.3	.024	<1	1.43	.007	.11	<.1	5.2	.13	<.01	18	.3	.02	4.6	30
L103E 102+50N	2.57	259.57	7.89	46.3	141	14.5	9.4	302	2.59	6.3	1.0	18.5	6.7	26.0	.11	.29	.10	62	.45	.059	28.2	27.4	.77	517.6	.095	<1	1.46	.011	.07	.1	5.1	.08	.02	13	.2	.02	5.7	30
RE L103E 105+00N	4.41	33.62	9.42	33.8	306	10.2	5.7	182	2.31	6.7	.4	1.6	2.2	20.2	.20	.26	.21	66	.21	.026	10.1	23.5	.32	233.8	.062	1	1.46	.007	.05	<.1	2.5	.09	.01	13	1	.02	7.4	30
L103E 102+00N	1.95	420.89	6.21	33.5	455	12.3	7.9	260	1.86	3.8	1.3	34.4	2.7	32.1	.09	.27	.10	44	.55	.074	21.1	21.0	.46	686.9	.056	<1	1.32	.024	.05	.1	3.9	.08	.04	40	.4	.03	4.9	30
L103E 101+50N	11.85	786.44	9.66	40.2	1075	18.1	12.2	319	2.48	5.1	2.4	61.9	4.8	46.9	.09	.41	.14	50	.69	.090	42.7	27.2	.53	1217.1	.042	1	2.00	.014	.10	.1	7.1	.14	.04	75	.6	.03	6.1	30
L103E 101+00N	8.04	158.39	6.44	37.1	123	11.4	6.7	178	2.00	5.2	.6	10.5	3.4	20.7	.10	.33	.11	49	.29	.052	13.8	20.8	.46	278.6	.057	<1	1.23	.008	.07	.2	2.7	.08	<.01	9	.2	.02	4.6	30
L103E 100+50N	12.62	377.89	7.84	32.5	307	13.5	9.0	135	2.19	4.0	1.9	26.4	4.7	34.2	.10	.43	.12	46	.38	.052	19.9	22.1	.46	449.9	.066	1	1.43	.014	.08	.2	4.3	.10	.02	16	.7	.02	4.7	30
L103E 100+00N	8.07	195.72	5.46	31.6	196	11.5	6.2	114	1.74	3.1	1.1	18.3	3.5	27.6	.05	.32	.10	41	.30	.046	13.0	20.8	.42	241.6	.077	<1	1.27	.019	.07	.2	2.8	.08	.02	10	.6	.02	4.6	30
L104E 106+50N	5.37	65.62	7.14	50.7	102	11.9	5.5	127	2.14	10.9	.8	8.1	2.9	21.9	.08	.49	.12	50	.34	.070	14.8	25.9	.50	270.7	.025	<1	1.53	.008	.06	.2	3.3	.10	.04	37	.3	.02	6.3	30
L104E 106+00N	8.86	47.76	5.73	47.8	72	11.7	7.0	179	2.52	13.6	.5	8.4	5.6	26.2	.07	.56	.08	50	.49	.089	15.0	22.5	.58	161.1	.060	1	1.17	.017	.08	.2	3.6	.09	<.01	15	.2	<.02	4.5	30
L104E 105+50N	16.68	97.32	7.60	48.3	120	11.3	5.7	119	2.67	7.9	.9	7.8	5.2	22.5	.09	.48	.13	57	.44	.086	19.9	24.2	.58	264.1	.057	1	1.45	.011	.07	.2	4.2	.11	.04	30	.3	<.02	5.5	30
L104E 105+00N	5.50	157.32	8.51	46.6	81	17.1	9.7	359	2.43	8.7	.9	11.7	5.7	23.1	.07	.34	.11	51	.29	.037	21.6	28.7	.55	596.4	.059	<1	1.56	.010	.06	.1	4.5	.09	.03	8	.2	<.02	5.0	30
L104E 104+50N	6.55	170.82	12.51	64.6	304	27.5	15.0	402	4.78	14.0	.8	19.5	4.8	21.7	.28	.47	.19	97	.19	.064	10.9	52.1	.88	253.5	.100	1	3.09	.011	.10	.2	5.7	.12	.03	18	.4	.04	9.1	30
L104E 104+00N	5.25	137.42	8.38	50.4	213	15.1	10.2	246	3.19	7.3	.6	6.9	4.1	20.5	.18	.32	.12	75	.20	.038	13.7	28.7	.57	303.7	.031	<1	2.15	.007	.07	<.1	3.7	.16	.01	7	.2	.02	8.1	30
L104E 103+50N	3.96	167.12	8.16	41.5	63	11.8	9.8	243	2.92	6.7	.5	12.2	4.1	22.8	.12	.37	.09	65	.23	.030	14.1	24.0	.68	221.0	.048	<1	1.61	.007	.09	<.1	4.1	.11	<.01	6	.2	<.02	6.5	30
L104E 103+00N	1.61	78.05	7.41	51.4	111	16.7	8.8	221	2.66	6.4	.5	3.7	3.6	23.2	.17	.20	.14	66	.27	.023	11.1	29.4	.64	309.8	.093	<1	1.94	.008	.08	.1	3.8	.10	.01	9	.1	.02	7.2	30
L104E 102+50N	5.01	525.19	23.09	62.1	940	33.0	27.9	1328	4.91	12.1	1.6	24.9	7.1	38.8	.22	.35	.27	115	.44	.101	19.2	58.7	.82	995.0	.051	<1	4.62	.010	.13	.1	7.0	.28	.02	45	.3	.04	11.7	30
L104E 102+00N	2.89	260.11	6.72	43.3	174	16.4	9.4	224	2.31	5.3	.7	11.8	4.0	20.1	.11	.21	.11	60	.28	.039	12.2	27.1	.66	199.2	.098	<1	1.76	.010	.07	.2	3.6	.09	.01	10	.2	<.02	6.2	30
L104E 101+50N	7.84	197.70	13.17	57.9	853	18.2	15.7	448	3.60	10.2	.8	7.6	3.3	22.9	.16	.32	.24	93	.21	.061	11.1	32.7	.51	287.2	.064	<1	2.25	.009	.06	<.1	3.7	.14	<.01	12	.2	.02	9.9	30
L104E 101+00N	6.33	150.91	6.72	44.8	211	17.5	9.1	214	2.52	7.5	.6	7.0	3.3	27.3	.09	.35	.14	62	.28	.028	11.1	27.1	.58	233.2	.063	<1	1.81	.009	.07	.1	3.2	.10	.02	8	.2	.02	6.4	30
STANDARD DSS	12.41	147.60	23.72	140.6	284	25.0	12.6	787	3.00	18.1	5.8	42.5	2.5	48.3	5.60	3.64	5.98	59	.72	.100	11.6	192.2	.67	134.8	.092	17	2.09	.032	.13	4.9	3.6	.97	.02	178	5.0	.86	6.9	30



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	gm
G-1	1.38	2.80	1.87	41.4	11	3.8	3.8	479	1.76	.2	1.7	<2	4.3	79.1	.02	.02	.11	37	.52	.084	6.8	21.6	.48	190.0	.115	1	.88	.071	.40	1.0	1.9	.26	.01	<5	<.1	<.02	4.4	30
L104E 100+50N	8.46	231.83	6.92	28.2	289	10.2	7.8	125	2.00	5.6	1.4	12.3	2.9	22.0	.09	.64	.14	45	.18	.033	12.6	17.5	.29	509.2	.037	1	1.12	.009	.06	.1	2.5	.10	.03	10	.4	.02	4.8	30
L104E 100+00N	11.42	262.93	5.59	27.8	237	11.2	6.6	105	1.92	4.4	1.2	21.5	2.4	26.7	.08	1.17	.12	38	.22	.040	11.6	17.1	.33	312.1	.033	1	1.08	.014	.09	.2	2.1	.08	.09	17	.5	.03	3.7	30
L105E 106+50N	7.82	75.92	10.17	59.5	156	16.1	10.7	227	2.47	5.6	1.8	9.2	3.7	26.8	.15	.36	.14	58	.41	.077	15.6	30.7	.63	284.5	.047	1	1.58	.011	.05	.2	4.4	.10	.04	46	.3	.02	5.6	30
L105E 106+00N	8.05	104.09	8.63	56.5	167	13.8	9.7	234	2.55	7.1	1.8	12.8	4.6	21.0	.13	.42	.13	53	.37	.074	18.0	25.8	.60	220.5	.046	1	1.42	.009	.06	.2	4.9	.09	.03	48	.3	.02	4.9	30
L105E 105+50N	5.58	155.76	9.92	37.7	199	11.1	9.9	409	1.80	4.4	1.1	10.3	1.2	21.2	.12	.33	.14	41	.30	.058	11.6	18.8	.41	247.2	.038	1	1.18	.018	.06	.2	2.6	.11	.06	32	.3	.02	5.2	30
L105E 105+00N	6.90	235.63	15.45	63.1	314	20.8	13.3	379	3.77	9.3	1.2	23.4	4.0	17.1	.22	.44	.20	87	.21	.045	14.3	37.7	.69	314.6	.057	1	2.62	.008	.06	.3	4.5	.17	<.01	64	.3	.03	8.2	30
L105E 104+75N	7.49	99.45	13.72	50.6	189	12.8	13.1	465	2.47	5.9	.7	9.6	3.0	18.4	.19	.38	.17	72	.26	.057	13.2	24.6	.47	160.0	.066	1	1.45	.010	.07	.2	2.9	.12	<.01	12	.2	.03	7.1	30
L105E 104+00N	2.63	418.70	13.37	46.7	170	21.6	14.2	234	4.33	11.4	.7	24.1	5.0	12.8	.18	.40	.17	88	.15	.040	11.4	35.5	.90	228.0	.059	<1	2.82	.007	.07	.2	5.8	.12	.03	21	.4	.03	8.9	30
L105E 103+50N	1.89	75.52	8.85	53.1	376	22.3	16.2	323	3.28	8.3	.7	2.4	3.7	20.0	.09	.35	.18	84	.21	.038	8.9	45.3	.78	235.0	.122	1	2.54	.010	.09	.1	4.8	.13	<.01	20	.2	.02	7.9	30
L105E 103+00N	2.28	70.06	10.93	63.2	276	18.0	10.0	279	3.65	10.4	.6	2.9	3.6	17.7	.14	.43	.20	96	.19	.043	9.2	38.0	.62	158.7	.112	1	2.30	.007	.05	.1	3.7	.10	.01	19	.2	.03	9.8	30
L105E 102+50N	2.59	169.32	8.74	46.9	178	14.4	8.6	202	3.39	10.3	.6	10.2	3.5	22.0	.12	.31	.18	91	.25	.041	9.8	31.9	.71	146.8	.109	1	2.06	.008	.05	.2	4.4	.11	<.01	9	.2	.04	9.5	30
L105E 102+00N	3.40	98.81	8.53	52.0	618	20.6	11.9	308	3.09	10.0	.5	5.9	3.5	22.4	.16	.38	.18	73	.20	.044	8.8	37.3	.56	244.7	.069	1	2.17	.008	.05	.1	3.5	.12	.01	19	.2	.03	7.1	30
L105E 101+50N	5.16	107.53	9.53	43.1	840	16.1	20.0	401	2.67	7.7	.4	5.2	3.1	20.3	.12	.29	.18	69	.21	.024	11.7	27.6	.42	387.8	.048	1	1.69	.009	.05	<.1	2.9	.13	<.01	15	.2	.03	7.2	30
L105E 101+00N	17.06	202.25	10.38	32.2	478	11.5	15.0	197	2.23	4.5	.5	20.7	4.3	18.2	.14	.33	.14	41	.18	.029	22.1	15.3	.30	425.0	.009	1	1.28	.008	.11	<.1	2.1	.12	<.01	10	.3	.03	4.4	30
L105E 100+50N	6.11	278.41	7.28	35.6	256	15.2	8.9	226	1.96	4.9	1.0	10.4	5.3	20.3	.06	.29	.12	48	.30	.030	18.0	25.5	.45	438.2	.048	<1	1.26	.011	.06	.1	3.8	.10	<.01	6	.2	.02	4.1	30
L105E 100+00N	11.85	294.38	8.39	26.4	311	13.2	11.7	273	2.13	5.3	2.8	20.3	2.5	38.4	.11	.39	.15	39	.41	.053	15.2	19.8	.32	767.6	.037	1	1.22	.016	.11	.1	3.0	.10	.12	17	.5	.03	4.5	30
RE L105E 100+50N	6.20	273.64	7.22	35.6	265	14.8	8.4	224	1.94	4.9	1.0	12.7	5.1	19.9	.08	.29	.11	48	.29	.030	17.7	25.9	.45	440.7	.049	1	1.23	.011	.05	<.1	3.7	.10	<.01	8	.2	.02	4.1	30
L106E 106+50N	6.05	93.20	6.24	56.5	102	13.6	11.2	540	2.41	6.0	.9	8.0	3.8	25.6	.17	.26	.12	56	.43	.085	15.5	28.2	.66	212.3	.085	1	1.37	.012	.07	.2	4.0	.07	.02	13	.2	.02	5.5	30
L106E 106+25N	7.85	128.20	7.09	60.4	211	15.0	12.3	496	2.64	6.9	1.3	17.0	3.9	33.8	.17	.43	.12	58	.56	.092	17.7	31.7	.95	327.7	.077	1	1.69	.017	.08	.2	5.2	.10	.04	32	.2	.02	6.4	30
L106E 106+00N	7.16	168.27	6.27	51.5	211	14.1	10.4	313	2.38	6.7	1.4	18.5	4.8	28.4	.15	.40	.11	52	.51	.077	19.8	27.9	.69	364.7	.071	1	1.40	.012	.08	.2	5.4	.10	.03	27	.3	<.02	5.3	30
L106E 105+75N	7.85	115.66	7.84	45.7	174	13.6	14.2	576	2.35	6.5	1.0	13.7	2.7	25.3	.10	.27	.12	56	.41	.066	13.9	23.1	.50	238.7	.061	1	1.30	.015	.05	.2	3.3	.08	.03	27	.3	.02	5.1	30
L106E 105+50N	4.18	109.40	6.20	44.5	185	12.9	9.5	321	2.01	4.9	.7	13.4	2.4	20.5	.13	.26	.11	49	.32	.061	11.3	22.9	.48	152.4	.063	1	1.22	.016	.06	.2	2.9	.09	.02	23	.2	<.02	5.2	30
L106E 105+25N-A	7.23	167.00	7.23	60.7	108	14.9	11.7	426	2.62	7.8	.8	27.0	3.7	19.1	.16	.33	.12	55	.31	.051	14.0	24.8	.65	153.2	.066	<1	1.32	.011	.08	.2	3.7	.10	<.01	16	.2	.02	5.2	30
L106E 105+25N-B	8.35	191.86	8.78	64.3	193	16.5	13.3	447	2.90	9.4	1.0	19.3	4.2	22.1	.19	.36	.14	59	.35	.061	16.4	28.7	.73	220.6	.068	1	1.57	.013	.09	.2	4.6	.12	.04	25	.2	.02	6.0	30
L106E 105+00N	11.62	110.85	10.98	54.8	80	11.4	14.8	622	2.91	6.8	.7	20.4	5.0	17.1	.07	.35	.15	77	.35	.078	15.2	27.4	.72	115.8	.102	1	1.26	.009	.09	.2	4.3	.10	.02	12	.2	.03	6.6	15
L106E 104+75N	9.91	162.08	9.28	42.8	423	14.2	12.5	688	2.32	10.8	2.1	17.5	2.3	36.9	.22	.31	.14	50	.64	.070	15.4	23.8	.42	559.6	.038	1	1.37	.012	.06	.1	4.4	.10	.07	66	.5	.02	4.7	30
L106E 104+50N	6.98	184.37	8.50	53.7	311	18.5	13.9	495	3.09	15.6	1.0	76.2	5.8	18.8	.16	.49	.14	55	.24	.038	15.6	27.9	.57	291.6	.057	1	1.75	.011	.08	.2	5.1	.15	<.01	46	.3	.02	5.5	30
L106E 104+25N	2.24	131.02	12.24	31.6	448	9.5	6.7	243	2.15	5.7	.8	7.4	1.5	23.6	.19	.33	.24	68	.23	.038	14.9	23.1	.37	277.0	.074	1	1.44	.009	.06	<.1	3.2	.12	.02	20	.2	.03	8.1	30
L106E 104+00N	2.22	172.40	5.81	43.0	99	13.4	9.2	313	2.36	4.8	.7	15.0	3.9	21.4	.11	.23	.09	62	.37	.074	13.4	26.7	.64	155.4	.117	1	1.28	.013	.07	.2	3.8	.07	.01	16	.1	<.02	5.6	30
L106E 103+75N	2.38	82.53	11.01	51.3	208	17.9	9.4	249	4.30	13.6	.5	8.0	3.6	21.9	.23	.57	.20	105	.21	.053	9.3	40.7	.67	138.4	.141	1	2.26	.008	.06	.2	4.1	.11	.02	21	.3	.04	10.0	30
L106E 103+50N	1.89	168.39	9.77	48.1	147	26.6	13.4	242	3.36	10.8	.5	12.6	5.1	15.6	.21	.33	.16	80	.20	.024	10.1	39.3	.90	171.4	.151	1	2.56	.008	.08	.1	4.7	.11	.02	23	.2	<.02	7.7	30
L106E 103+25N	3.21	324.76	13.72	49.4	372	17.0	11.9	210	4.37	10.1	.6	12.5	5.7	15.1	.20	.43	.17	111	.21	.031	11.0	35.3	1.11	172.0	.162	<1	2.63	.007	.05	.2	5.5	.10	<.01	20	.3	.03	10.7	30
L106E 103+00N	2.20	50.21	9.77	58.6	316	17.3	9.3	258	3.94	12.0	.4	3.1	2.6	20.6	.18	.37	.20	100	.18	.039	10.1	36.0	.49	198.9	.096	1	2.14	.008	.05	.1	3.1	.11	<.01	9	.1	.03	9.2	30
L106E 102+75N	8.33	215.35	8.87	34.2	160	9.9	7.8	142	3.47	12.1	.7	10.1	4.9	21.0	.14	.25	.12	81	.19	.026	17.3	22.0	.77	194.3	.017	<1	2.35	.006	.06	.1	4.0	.13	.01	9	.2	.03	9.1	30
STANDARD DS5	13.04	151.49	24.12	139.9	287	26.5	12.8	797	3.01	18.3	5.9	44.2	2.6	49.8	5.70	3.76	6.20	62	.76	.096	12.0	195.0	.68	136.3	.101	16	2.14	.033	.13	4.9	3.6	1.02	.02	175	5.1	.88	6.9	30



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	gm
G-1	1.37	2.93	1.81	39.2	12	3.7	3.5	442	1.63	.2	1.8	<2	4.6	80.1	.01	<0.2	.12	34	.50	.089	7.3	11.1	.44	180.0	.105	1	.80	.069	.39	1.2	1.9	.23	<.01	<.5	<.1	<.02	4.0	30
L106E 102+50N	5.31	65.83	8.04	43.2	286	14.1	8.7	253	3.28	11.4	.5	6.2	3.4	15.1	.16	.47	.20	80	.13	.038	11.4	30.5	.51	191.2	.061	1	1.97	.007	.06	.1	3.1	.13	.01	19	.1	.04	8.1	30
L106E 102+25N	11.51	269.64	8.80	43.7	90	18.9	10.8	229	4.24	8.3	.8	12.8	5.8	20.8	.16	.44	.09	132	.26	.069	12.4	56.7	1.73	151.0	.196	1	3.18	.008	.10	.4	7.0	.16	.01	10	.2	<.02	11.7	30
L106E 102+00N	5.06	42.45	10.44	57.2	675	20.6	11.0	267	3.82	11.3	.5	3.3	3.4	20.4	.13	.45	.22	95	.18	.027	9.3	45.1	.64	196.7	.113	1	2.42	.008	.06	.1	3.7	.11	<.01	16	.1	.03	9.2	30
L106E 101+75N	11.69	157.35	9.10	48.4	582	16.5	7.5	171	2.51	7.4	.5	14.3	7.7	19.6	.12	.35	.16	62	.20	.019	21.1	30.3	.47	226.1	.011	<1	1.96	.009	.07	<.1	3.9	.17	<.01	12	.1	.04	6.8	30
L106E 101+50N	20.90	197.30	6.31	26.0	494	12.0	6.3	171	1.91	4.9	.6	29.9	7.7	21.9	.07	.29	.13	49	.20	.018	19.9	14.9	.24	350.0	.005	<1	1.53	.010	.07	<.1	2.5	.16	<.01	<.5	.2	.04	5.4	30
L106E 101+25N	5.97	159.96	8.79	51.6	564	21.3	11.7	221	2.65	7.2	.6	6.7	5.2	18.3	.16	.35	.15	64	.17	.018	18.2	35.3	.58	325.8	.040	1	2.07	.010	.09	<.1	3.6	.14	<.01	11	.1	.04	6.7	30
L106E 101+00N	12.75	159.96	6.90	38.4	719	19.4	10.9	146	2.24	4.8	.5	45.2	4.7	20.9	.14	.32	.12	60	.19	.019	16.4	33.0	.65	211.8	.039	<1	1.91	.009	.10	.1	3.8	.15	.02	7	.2	.02	6.7	30
L106E 100+75N	5.33	140.55	7.37	44.1	397	21.4	11.9	196	2.32	6.2	.5	6.5	5.0	26.0	.13	.30	.13	58	.23	.020	10.4	32.7	.55	150.1	.069	<1	2.16	.011	.06	.2	3.4	.11	.01	12	.2	.02	6.5	30
L106E 100+50N	7.64	63.46	8.76	44.4	698	18.6	10.5	152	2.53	5.6	.5	6.5	3.7	20.9	.14	.35	.15	65	.22	.027	11.8	32.1	.55	137.2	.055	<1	2.10	.009	.08	.1	3.1	.11	<.01	10	.2	.03	8.0	30
L106E 100+25N	6.53	71.92	9.69	57.9	516	21.6	11.8	241	3.46	10.8	.5	4.4	3.8	22.3	.13	.42	.20	81	.21	.043	9.3	39.7	.63	182.3	.079	1	2.35	.010	.09	.2	3.3	.11	.01	15	.2	.03	8.5	30
L106E 100+00N	6.90	238.67	6.01	41.0	166	13.6	12.1	243	1.86	4.5	.8	5.7	3.6	24.5	.14	.32	.12	43	.22	.035	12.3	22.8	.41	248.7	.034	<1	1.30	.010	.05	.1	2.3	.10	.03	<.5	.2	<.02	4.3	30
L106E 99+50N	3.76	148.42	6.18	29.6	147	13.0	9.6	204	1.87	4.3	.7	17.5	3.3	26.8	.07	.26	.10	42	.23	.036	11.7	21.3	.37	209.9	.057	1	1.34	.023	.07	.1	2.6	.09	.02	13	.3	.03	4.8	30
L106E 99+00N	2.47	67.12	7.13	31.0	227	11.5	6.0	129	1.98	5.8	.7	22.7	3.5	27.4	.07	.31	.16	46	.18	.030	12.9	20.9	.35	222.7	.058	<1	1.32	.013	.07	<.1	2.4	.12	.03	11	.2	.05	5.9	30
L106E 98+50N	1.32	101.17	8.66	40.6	361	22.9	11.0	345	2.86	11.7	2.7	15.8	3.8	36.5	.22	.47	.22	55	.39	.046	24.7	34.1	.48	153.8	.055	1	1.72	.011	.12	.1	4.6	.16	.03	25	.4	.05	6.1	30
L106E 97+00N	.46	15.80	9.44	61.7	159	17.4	9.5	287	2.28	9.6	.6	2.4	3.5	22.3	.09	.40	.28	42	.30	.054	14.3	30.2	.56	137.6	.096	<1	1.65	.011	.11	.2	3.3	.15	<.01	14	.1	.02	5.6	30
L107E 106+50N	4.99	92.58	7.90	50.0	103	12.8	5.3	127	2.02	7.1	1.3	17.5	4.6	24.1	.14	.49	.13	51	.37	.064	15.3	27.1	.57	227.0	.059	1	1.54	.012	.08	.2	4.5	.12	.02	62	.3	.02	5.6	30
L107E 106+00N	7.57	140.47	7.53	60.2	164	15.7	11.8	544	2.87	6.9	1.1	15.5	4.4	32.3	.14	.34	.13	66	.50	.076	14.1	30.4	.86	282.0	.103	1	1.63	.013	.08	.1	4.8	.10	.03	23	.2	.02	6.7	30
L107E 105+50N	5.45	173.43	8.75	55.6	175	16.0	8.7	253	2.78	6.7	1.7	13.3	6.6	33.0	.16	.32	.13	74	.58	.082	20.4	32.7	.98	402.3	.113	<1	1.75	.013	.08	.2	6.3	.10	.03	45	.3	.02	7.6	30
L107E 105+00N	2.01	151.94	6.85	43.6	261	12.2	8.4	289	1.97	3.8	1.1	16.4	3.4	27.6	.20	.25	.10	52	.45	.069	17.3	22.6	.61	305.5	.085	1	1.38	.021	.08	.1	4.3	.08	.02	21	.1	<.02	5.3	30
L107E 104+50N	2.14	149.95	12.25	56.2	356	18.5	10.2	367	2.70	6.4	1.5	18.6	4.1	30.7	.30	.35	.19	77	.34	.062	26.5	34.0	.87	423.8	.090	1	2.23	.011	.09	.2	5.6	.12	.02	35	.2	.02	8.5	30
RE L107E 103+50N	2.35	134.96	6.60	45.3	82	15.2	8.1	232	2.12	4.4	.7	24.7	4.9	26.1	.10	.26	.09	64	.40	.064	14.9	26.4	.77	154.5	.137	1	1.42	.014	.07	.2	4.7	.08	.01	5	.2	.02	5.5	30
L107E 104+00N	2.78	93.09	10.98	47.5	159	14.6	8.5	286	2.56	7.3	.7	13.0	3.1	24.7	.21	.38	.18	78	.26	.056	14.3	26.5	.64	202.3	.117	1	1.76	.011	.07	.2	3.7	.10	.02	17	.2	.03	8.7	30
L107E 103+50N	2.18	130.16	6.33	43.5	68	14.4	8.0	224	2.12	4.3	.8	12.2	5.2	25.5	.12	.25	.08	64	.40	.063	15.5	26.6	.77	156.3	.137	<1	1.41	.013	.07	.2	4.7	.08	.01	5	.2	<.02	5.3	30
L107E 103+00N	5.22	209.98	6.00	48.0	190	16.0	9.0	229	2.37	4.7	.9	18.4	4.4	33.1	.10	.27	.11	63	.49	.084	16.5	31.7	.82	273.8	.128	1	1.57	.015	.08	.2	5.0	.11	<.01	15	.2	.02	6.4	30
L107E 102+50N	13.01	287.20	6.66	42.2	164	16.5	8.2	268	2.25	5.6	1.0	12.4	4.4	23.3	.10	.29	.13	53	.31	.044	18.7	28.9	.58	433.9	.056	<1	1.60	.010	.06	.2	4.7	.11	.01	13	.2	.03	5.0	30
L107E 102+00N	10.59	314.31	10.28	48.8	388	20.8	9.6	229	2.94	7.8	.7	36.1	4.1	23.5	.17	.53	.16	61	.20	.041	13.0	33.8	.52	203.9	.050	1	2.32	.008	.08	.2	4.3	.14	<.01	41	.3	.03	6.7	30
L107E 101+50N	2.44	102.23	7.05	47.0	199	18.4	8.9	272	2.56	8.3	.8	8.3	3.9	29.1	.08	.36	.15	61	.26	.046	14.2	33.5	.55	174.9	.086	1	2.01	.012	.06	.2	4.1	.11	<.01	18	.3	.03	5.9	30
L107E 101+00N	6.16	237.02	9.85	46.5	612	13.3	17.4	408	3.41	7.0	.7	17.5	4.2	25.5	.20	.37	.18	76	.25	.084	8.0	33.3	.61	165.5	.033	<1	2.14	.005	.07	.1	2.8	.09	<.01	13	.4	.02	9.4	30
L107E 100+50N	1.89	52.33	6.18	39.0	179	15.1	11.5	217	2.53	5.0	.5	1.7	2.4	31.1	.09	.25	.12	57	.26	.038	9.1	28.0	.57	134.0	.069	<1	1.59	.009	.06	<.1	2.7	.08	<.01	<.5	.1	.03	5.9	30
L107E 100+00N	3.91	169.04	6.38	70.6	105	32.3	27.7	233	4.40	7.3	1.0	2.0	4.6	102.0	.11	.36	.12	71	.43	.096	16.9	35.7	1.10	218.1	.103	<1	3.56	.023	.08	<.1	4.1	.11	.04	12	.4	.04	10.0	30
L107E 99+50N	2.32	73.52	9.08	20.9	231	11.1	4.5	71	2.25	5.1	1.4	10.8	4.6	37.9	.06	.26	.19	41	.19	.037	22.6	24.7	.30	240.0	.037	<1	1.73	.010	.09	<.1	2.9	.13	.03	22	.5	.03	7.0	30
L107E 99+00N	1.99	132.82	8.73	26.6	255	13.8	10.9	209	3.67	8.5	1.2	26.6	8.2	42.2	.07	.51	.22	57	.14	.057	22.9	27.6	.42	201.5	.047	<1	1.72	.030	.13	<.1	2.9	.14	.17	5	.7	.10	6.9	30
L107E 98+50N	.77	59.46	5.47	39.1	123	18.2	8.1	228	2.41	7.9	1.0	6.6	5.0	25.5	.07	.40	.14	46	.22	.024	14.9	32.7	.51	132.6	.080	<1	1.46	.011	.09	.1	3.0	.13	.02	6	.3	.03	5.0	30
L107E 97+00N	.48	16.42	11.75	54.8	192	15.7	9.0	579	2.33	13.4	.7	2.4	4.0	19.7	.08	.48	.27	48	.28	.049	15.0	29.0	.50	118.7	.096	<1	1.54	.010	.09	.1	3.3	.14	<.01	17	.2	.02	5.5	30
STANDARD DSS	13.08	145.67	23.93	138.9	298	24.8	11.9	760	2.91	18.8	5.9	42.9	2.6	48.5	5.84	3.89	6.15	59	.72	.098	12.2	189.0	.66	136.0	.093	16	2.05	.034	.13	5.0	3.5	1.04	.03	181	4.9	.88	6.9	30





ACME ANALYTICAL

Aurora Geosciences Ltd. PROJECT Shamrock FILE # A303819



ACME ANALYTICAL

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	gm
G-1	1.43	2.57	2.03	40.8	10	3.5	3.7	467	1.79	.2	2.0	<.2	4.8	79.6	.01	.02	.12	37	.54	.087	8.1	11.4	.45	207.7	.110	1	.87	.068	.39	1.3	1.9	.26	<.01	<.5	.1	<.02	4.3	30
L108E 106+25N	2.97	102.53	8.27	49.2	86	13.3	6.6	151	2.44	5.2	.8	11.0	5.1	21.3	.12	.30	.13	64	.45	.072	15.1	29.2	.78	197.1	.108	1	1.55	.012	.07	.2	4.3	.10	<.01	30	.2	.02	6.5	30
L108E 106+00N	3.26	81.19	8.00	46.6	62	11.3	5.5	135	2.11	4.4	.9	14.6	4.9	23.1	.08	.29	.12	60	.49	.086	15.6	29.3	.82	203.2	.101	1	1.53	.012	.06	.2	4.6	.09	.02	24	.2	.03	6.6	30
L108E 105+50N	5.28	144.35	7.77	56.3	225	13.8	8.3	248	2.24	4.3	1.3	23.4	5.1	29.1	.12	.31	.12	63	.51	.082	18.4	31.8	.90	227.2	.113	1	1.70	.013	.08	.2	5.3	.09	.03	55	.3	.03	7.0	30
L108E 105+00N	7.73	168.66	7.94	50.9	103	13.8	9.4	269	2.18	4.7	1.2	21.5	5.1	28.1	.16	.34	.10	60	.49	.079	18.6	25.4	.70	213.5	.114	1	1.35	.014	.08	.2	4.6	.08	<.01	13	.2	.03	5.3	30
L108E 104+50N	7.09	207.40	6.59	48.6	165	14.8	8.1	209	2.16	4.1	1.1	23.1	5.2	28.7	.14	.37	.10	59	.50	.082	18.4	26.9	.75	206.2	.127	1	1.42	.020	.07	.2	4.9	.09	<.01	12	.2	.02	5.2	30
L108E 104+00N	7.45	116.63	6.77	53.3	162	16.3	8.0	233	2.33	5.2	.9	9.3	3.4	25.9	.13	.25	.13	63	.41	.058	14.8	30.3	.69	304.6	.108	1	1.73	.011	.07	.2	4.3	.10	<.01	14	.2	.02	6.3	30
L108E 103+50N	16.43	256.91	7.11	53.9	178	15.7	9.4	273	2.45	4.7	1.0	16.3	4.2	30.6	.15	.32	.12	58	.46	.060	14.8	32.0	.70	369.2	.088	1	1.65	.013	.08	.2	5.0	.11	<.01	14	.2	.02	5.9	30
L108E 103+00N	56.76	1485.30	12.23	46.7	865	23.7	12.9	266	3.15	7.2	6.9	45.8	9.7	51.6	.35	.61	.16	47	.93	.065	62.6	32.0	.48	1119.0	.014	2	2.35	.010	.15	.1	16.5	.18	.02	100	.9	.04	5.5	30
L108E 102+50N	13.97	418.41	6.20	44.7	314	17.6	8.3	238	2.15	3.9	1.1	20.9	6.0	29.4	.08	.33	.12	49	.43	.066	22.6	31.7	.61	382.9	.086	1	1.62	.014	.09	.2	5.3	.11	<.01	26	.3	.03	4.9	30
L108E 102+00N	12.33	187.85	8.72	35.3	557	14.0	6.8	155	2.08	5.7	.6	15.4	3.1	19.7	.12	.29	.15	58	.24	.031	13.2	29.1	.45	99.0	.055	<1	1.70	.007	.05	.2	2.8	.12	<.01	21	.2	.02	8.2	30
L108E 101+50N	12.92	292.13	8.16	41.4	178	18.6	13.2	283	2.74	6.8	1.4	35.8	3.6	38.3	.14	.35	.13	51	.30	.071	21.9	27.8	.46	125.6	.073	<1	1.61	.011	.07	.2	3.1	.08	.02	11	.7	.04	5.7	30
RE L108E 101+50N	12.67	297.67	7.98	42.1	176	18.4	13.3	281	2.78	6.6	1.4	36.5	3.6	39.0	.15	.33	.13	52	.31	.069	22.3	29.1	.47	122.6	.073	<1	1.65	.011	.07	.1	3.2	.09	.02	10	.7	.03	5.6	30
L108E 101+00N	3.17	76.33	6.89	47.9	117	20.3	10.1	250	2.77	8.3	1.2	17.6	4.1	25.6	.07	.34	.15	62	.27	.047	14.3	35.5	.57	134.2	.097	1	2.08	.012	.06	.2	3.8	.10	<.01	16	.6	.02	5.9	30
L108E 100+50N	4.78	79.91	6.35	43.0	59	17.8	9.1	256	2.80	5.2	1.1	15.1	4.2	41.1	.06	.35	.10	64	.32	.035	21.2	34.9	.60	153.1	.106	<1	1.59	.024	.07	.1	3.9	.06	.06	13	.5	.03	4.8	30
L108E 100+00N	1.73	58.60	7.48	38.5	89	17.4	9.6	187	2.96	8.7	.8	6.4	5.0	32.4	.07	.44	.17	50	.17	.041	16.0	28.2	.43	578.3	.036	<1	1.75	.019	.11	.1	2.6	.13	.12	7	.5	.05	5.5	30
L108E 99+50N	1.02	45.04	8.17	31.4	526	11.2	5.6	171	2.37	7.5	.9	9.9	3.6	21.7	.08	.43	.21	56	.20	.025	15.4	25.4	.31	176.1	.064	<1	1.33	.012	.06	<.1	3.2	.13	<.01	17	.2	.06	6.2	30
L108E 99+00N	.78	85.55	7.76	36.3	462	14.6	8.4	260	2.20	15.5	.8	17.4	5.3	16.1	.10	.78	.25	40	.17	.030	23.8	21.2	.33	115.6	.039	<1	1.24	.011	.07	.1	2.4	.12	<.01	13	.2	.08	5.1	30
L108E 98+50N	.56	29.43	6.33	48.5	204	24.1	9.0	291	2.18	12.9	1.8	9.8	4.0	20.8	.07	.48	.17	49	.30	.048	13.7	34.2	.52	106.8	.074	<1	1.47	.009	.07	.1	3.2	.10	<.01	11	.2	.04	5.1	30
L108E 97+50N	.27	12.83	9.07	63.0	59	16.9	8.1	184	2.11	13.2	.5	2.0	5.1	18.0	.13	.46	.17	42	.32	.060	15.6	28.5	.52	94.1	.109	<1	1.44	.012	.10	.2	3.2	.13	<.01	15	.1	.03	5.0	30
L108E 97+00N	.31	14.86	13.36	73.5	53	21.4	10.5	256	2.53	12.5	.8	4.5	7.0	18.3	.11	.64	.24	48	.29	.046	20.4	38.0	.65	127.9	.132	1	1.96	.011	.15	.2	3.9	.21	<.01	23	.1	.02	7.0	30
L109E 105+50N	14.63	612.25	5.29	45.3	484	17.7	8.6	180	2.10	4.5	1.6	15.1	5.5	24.6	.25	.33	.11	44	.44	.067	21.9	27.8	.57	221.2	.075	<1	1.39	.011	.09	.2	5.0	.10	<.01	24	.4	.03	4.7	30
L109E 105+00N	19.84	276.53	7.58	46.8	91	19.0	21.2	390	2.46	7.1	.7	25.1	5.3	20.8	.14	.32	.14	51	.35	.061	17.0	27.6	.56	184.7	.074	1	1.49	.010	.09	.2	3.8	.10	<.01	8	.2	.03	5.7	30
L109E 104+50N	12.51	339.89	4.97	50.7	229	15.9	8.6	204	2.01	4.6	1.1	21.0	3.8	29.0	.11	.25	.11	47	.47	.068	17.7	27.4	.60	350.1	.073	1	1.54	.012	.10	.1	4.6	.10	<.01	21	.2	.02	5.5	30
L109E 104+00N	18.71	664.29	6.06	41.6	278	15.9	9.9	214	2.02	4.1	1.8	26.4	3.6	34.5	.09	.30	.12	48	.65	.076	24.8	29.6	.57	524.0	.059	1	1.62	.012	.09	.2	5.4	.12	.01	41	.4	.02	5.3	30
L109E 103+50N	10.66	307.71	4.48	38.3	143	13.9	9.6	208	1.83	4.0	.8	19.9	4.7	23.8	.08	.25	.09	43	.42	.074	18.9	24.8	.47	189.8	.076	1	1.14	.013	.08	.3	3.5	.08	<.01	11	.2	<.02	3.7	30
L109E 103+00N	10.12	418.92	7.04	43.5	183	18.7	8.3	146	1.88	3.6	.9	22.3	4.4	32.8	.08	.25	.12	44	.49	.062	18.0	33.0	.62	180.1	.080	1	1.75	.013	.07	.2	4.1	.11	<.01	31	.4	.03	6.3	30
L109E 102+50N	65.04	756.36	7.26	33.9	261	19.5	11.7	162	2.37	6.9	1.3	86.9	9.4	26.4	.13	.49	.09	42	.30	.063	30.3	27.4	.46	108.2	.067	1	1.20	.011	.09	.2	3.2	.08	.01	8	1.0	.04	4.6	30
L109E 102+00N	14.20	497.44	7.48	38.9	374	19.3	11.1	145	2.18	4.2	1.0	18.3	1.3	33.5	.16	.31	.14	46	.29	.058	21.2	27.3	.44	227.1	.040	1	1.88	.013	.07	.1	2.6	.13	.01	22	.4	.03	6.1	30
L109E 101+50N	16.17	163.27	10.13	32.4	330	15.0	7.4	103	2.77	6.8	1.5	38.5	3.1	39.0	.09	.70	.16	36	.20	.083	22.1	24.7	.44	177.0	.022	<1	2.25	.014	.07	.1	2.4	.13	.05	34	1.7	.04	5.5	30
L109E 101+00N	2.87	41.76	7.75	25.1	55	9.9	5.0	145	2.18	7.0	.7	5.8	1.0	23.9	.12	.40	.19	48	.16	.045	14.9	21.9	.23	165.6	.043	1	1.22	.014	.08	<.1	1.6	.11	.07	13	.5	.06	6.0	30
L109E 100+50N	1.57	29.62	6.65	24.1	55	9.6	5.1	101	2.96	12.0	.6	4.0	6.0	16.5	.05	.61	.19	41	.14	.026	19.7	21.7	.27	106.7	.031	1	1.24	.008	.09	.1	1.8	.15	.06	11	.8	.10	5.3	30
L109E 100+00N	1.50	67.89	10.03	33.9	353	18.8	14.0	187	3.94	13.1	1.0	18.5	11.3	24.6	.07	.72	.27	41	.10	.034	27.3	26.3	.33	176.4	.026	1	1.81	.013	.15	.1	2.2	.21	.11	11	.6	.14	5.3	30
L109E 99+50N	1.43	41.35	9.33	56.6	350	17.5	15.1	611	3.23	13.8	.5	5.1	4.0	18.8	.18	.55	.31	72	.17	.042	14.1	33.8	.47	169.1	.070	<1	1.85	.009	.10	.1	2.8	.13	<.01	11	.2	.09	7.8	30
STANDARD DSS	12.19	141.92	22.88	138.4	265	24.3	12.0	740	2.85	18.3	5.8	42.3	2.7	46.6	5.43	3.92	6.02	58	.75	.093	12.4	188.5	.64	137.3	.094	17	2.00	.033	.13	4.9	3.6	.99	.03	173	4.8	.88	6.5	30

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	gm
G-1	1.41	2.75	2.43	43.3	14	4.9	4.2	541	2.04	.1	2.0	.2	4.8	82.3	.01	.03	.14	40	.58	.083	9.3	12.5	.55	225.6	.135	1	1.06	.103	.51	2.2	2.4	.31	<.01	<.5	<.1	<.02	5.0	30
L109E 99+00N	.98	28.76	7.29	44.6	331	13.5	8.1	304	2.53	9.0	.4	5.3	3.8	14.5	.16	.40	.25	57	.14	.040	12.2	25.1	.40	117.5	.062	1	1.30	.008	.06	.1	2.3	.10	<.01	10	.1	.06	5.9	30
L109E 98+50N	1.10	66.64	10.85	44.6	731	18.5	9.2	200	3.21	31.2	.6	16.6	6.9	24.6	.18	.84	.89	52	.17	.030	21.3	27.8	.42	114.3	.029	<1	1.65	.009	.10	.1	2.7	.15	.03	15	.2	.28	5.9	30
L109E 98+25N	.85	53.09	7.59	43.6	182	20.4	11.6	336	2.64	24.1	.7	17.5	5.2	17.8	.16	.73	.44	47	.15	.020	16.6	29.5	.48	112.2	.049	1	1.52	.008	.09	.1	2.9	.13	.01	9	.2	.13	5.1	30
L109E 97+00N	.75	10.01	7.89	47.8	164	11.7	10.5	476	2.08	33.2	.4	15.2	2.0	14.3	.11	.37	.22	53	.16	.049	11.5	21.8	.32	80.6	.076	1	1.05	.013	.07	.2	2.0	.09	.01	21	.1	.03	5.2	30
L110E 106+00N	107.52	666.61	9.78	23.6	498	16.0	4.6	63	3.58	15.0	4.8	90.1	9.6	33.8	.01	.84	.15	37	.29	.088	30.9	22.5	.43	203.4	.021	<1	1.62	.007	.14	.1	4.7	.16	.03	32	1.0	.04	4.5	30
L110E 105+50N	40.59	163.94	6.83	22.4	300	10.8	3.5	64	1.39	3.2	1.8	189.5	4.6	27.7	<.01	.31	.12	26	.25	.064	22.6	16.5	.33	227.5	.036	1	1.26	.007	.11	.1	2.8	.12	.03	28	.5	.03	4.2	30
L110E 104+50N	2.86	472.18	5.64	45.5	177	13.7	5.6	116	1.18	1.4	.9	19.4	2.9	25.1	.17	.23	.11	28	.38	.062	17.2	23.0	.46	207.2	.065	1	1.40	.010	.08	.1	3.7	.10	.02	29	.2	.03	5.1	30
L110E 104+00N	16.77	476.29	6.44	45.5	178	17.6	10.6	212	2.30	5.5	1.6	21.1	6.3	26.3	.16	.27	.12	46	.38	.067	22.5	30.2	.59	153.7	.083	1	1.44	.010	.07	.2	4.0	.09	.01	22	.5	.03	5.1	30
L110E 103+50N	12.37	283.15	7.23	45.6	276	16.2	8.3	131	2.15	4.4	1.1	23.4	6.1	25.3	.12	.26	.14	42	.28	.063	21.2	29.2	.56	141.0	.080	1	1.60	.012	.07	.2	3.9	.12	<.01	32	.5	.03	5.6	30
L110E 102+50N	4.06	38.10	7.39	35.7	99	10.7	4.7	103	2.04	5.1	.9	8.5	2.9	27.8	.09	.48	.16	37	.19	.058	18.4	22.0	.39	190.3	.053	<1	1.35	.011	.06	.2	2.3	.10	.05	22	.9	.03	4.9	30
L110E 102+00N	3.70	43.72	7.06	40.1	92	11.7	5.2	109	2.05	5.0	1.0	12.6	2.2	27.5	.09	.49	.16	37	.19	.066	17.6	23.5	.39	180.4	.055	1	1.33	.012	.07	.2	2.3	.10	.04	27	1.0	.03	4.9	30
L110E 101+75N	2.45	66.79	7.86	32.7	136	10.2	4.3	92	1.93	5.0	1.7	14.0	1.2	25.1	.11	.46	.17	33	.16	.068	16.5	25.0	.32	167.8	.039	1	1.48	.009	.06	.1	2.3	.13	.03	48	1.3	.04	5.4	30
L110E 101+00N	1.89	36.36	8.93	46.6	127	18.8	7.9	210	3.59	10.4	.6	4.6	4.7	29.4	.10	.42	.21	65	.21	.030	14.1	34.4	.52	331.8	.053	1	2.13	.017	.11	.1	3.1	.14	.08	11	.4	.05	7.7	30
L110E 100+50N	1.75	83.66	12.15	35.0	48	20.7	9.5	159	5.00	12.4	.9	8.7	11.3	36.5	.08	.64	.21	52	.14	.048	19.5	31.4	.44	217.5	.044	1	2.32	.013	.20	.2	2.8	.21	.17	7	.7	.09	6.8	30
RE L110E 100+00N	1.30	27.27	5.51	33.3	40	14.3	7.0	167	2.54	6.6	.7	10.0	5.8	29.6	.06	.50	.14	41	.18	.027	18.1	24.6	.38	149.7	.064	1	1.18	.011	.10	.1	2.8	.10	.10	11	.9	.05	3.8	30
L110E 100+00N	1.22	26.70	5.48	32.3	38	13.9	6.8	163	2.42	6.7	.6	9.6	5.5	28.2	.06	.51	.14	38	.17	.026	17.6	23.4	.36	144.3	.063	1	1.13	.011	.10	.1	2.8	.09	.09	9	.8	.06	3.7	30
L110E 99+50N	1.21	32.11	7.58	32.6	221	9.1	4.5	173	2.34	10.9	.4	14.1	2.7	16.0	.06	.32	.23	60	.14	.018	10.0	22.8	.31	94.0	.066	1	1.26	.006	.04	<.1	2.1	.11	<.01	10	.1	.06	7.3	30
L110E 99+00N	1.58	108.51	12.62	56.8	283	23.9	16.1	670	4.20	10.5	1.1	11.4	5.8	24.3	.19	.47	.37	76	.20	.072	17.6	48.0	.70	179.5	.088	1	2.50	.011	.12	.1	3.9	.22	.01	18	.2	.12	10.8	30
L110E 98+50N	.95	25.38	8.03	51.8	285	23.1	12.3	365	2.94	10.5	.6	12.3	4.1	18.9	.12	.38	.27	62	.20	.037	11.2	40.7	.56	160.5	.095	1	1.96	.009	.09	.1	3.2	.13	<.01	15	.2	.06	6.9	30
L110E 98+00N	.33	17.60	17.95	95.6	188	14.8	4.9	125	1.65	15.1	1.0	6.2	2.6	19.4	.31	.44	.29	41	.25	.062	18.2	23.7	.35	136.7	.050	1	1.30	.009	.07	.2	2.8	.13	.01	29	.3	.05	4.6	30
L110E 97+00N	.41	11.49	23.17	57.0	174	11.7	5.1	173	1.57	8.2	.6	1.8	2.0	16.8	.27	.36	.61	32	.21	.052	14.8	26.5	.39	88.8	.081	1	1.29	.008	.07	.2	2.6	.13	.01	18	.1	.02	6.5	30
L111E 106+50N	.82	14.99	4.94	48.2	76	13.6	6.9	165	1.78	6.1	.7	10.7	3.0	19.9	.08	.32	.16	30	.31	.060	12.8	16.6	.34	104.9	.052	1	.99	.010	.05	.2	2.1	.08	.01	11	.3	.03	3.6	30
L111E 105+50N	9.21	367.92	6.61	42.4	136	18.9	10.4	267	2.44	5.4	.6	15.5	3.0	24.6	.12	.23	.14	45	.30	.051	14.7	28.8	.45	148.9	.068	1	1.43	.010	.06	.2	3.3	.07	<.01	9	.5	.03	5.2	30
L111E 105+00N	15.75	672.88	8.72	50.3	69	32.1	17.5	289	3.22	8.1	.5	15.0	4.0	23.6	.22	.26	.17	56	.35	.056	13.1	34.5	.61	227.2	.039	1	2.10	.008	.07	.2	3.7	.11	<.01	9	.3	.04	7.2	30
L111E 104+50N	13.54	429.63	7.33	45.8	138	22.2	15.5	230	4.29	41.2	.6	38.4	5.5	21.9	.18	.66	.24	42	.21	.038	20.6	26.0	.39	210.5	.031	1	1.54	.008	.09	.2	3.2	.09	.04	10	1.3	.11	4.9	30
L111E 104+00N	28.51	251.25	7.27	33.7	265	16.0	6.1	156	2.23	6.9	.7	35.8	4.1	18.1	.06	.35	.13	46	.19	.031	17.9	24.0	.42	234.1	.042	1	1.35	.009	.08	.1	2.9	.11	.03	14	.2	.03	5.3	30
L111E 103+50N	30.83	470.15	7.41	40.8	181	21.8	8.5	211	2.49	11.4	1.6	57.9	8.1	31.2	.09	.86	.14	42	.37	.077	22.3	27.3	.51	242.6	.052	1	1.25	.009	.11	.2	5.0	.11	.03	9	.5	.04	4.3	30
L111E 102+50N	5.91	98.04	6.85	37.4	251	12.5	5.2	114	2.16	4.8	2.1	38.3	3.2	31.3	.12	.29	.15	36	.19	.069	16.7	25.9	.41	152.4	.049	1	1.50	.012	.08	.1	3.0	.11	.05	35	1.1	.03	5.0	30
L111E 102+00N	2.18	57.56	5.62	29.9	137	10.3	4.8	98	1.78	3.7	1.6	12.4	1.0	29.8	.13	.30	.12	31	.19	.068	13.6	15.7	.28	164.3	.037	<1	1.19	.015	.07	.1	2.0	.08	.06	30	1.0	.03	3.8	30
L111E 101+50N	3.42	99.86	7.95	33.6	215	12.5	5.3	116	2.83	7.4	3.2	19.8	3.7	43.6	.17	.54	.19	37	.17	.088	18.0	25.0	.36	278.5	.035	1	1.56	.019	.09	.5	3.5	.12	.07	50	2.1	.04	4.8	30
L111E 101+00N	2.33	65.60	9.98	32.2	94	14.3	8.3	158	3.57	13.2	.8	11.3	8.5	34.5	.07	.64	.27	38	.12	.050	18.7	22.9	.32	241.3	.024	<1	1.52	.027	.16	.1	2.1	.17	.24	9	1.2	.08	4.9	30
L111E 100+50N	.91	48.10	8.11	33.3	107	15.5	7.6	145	2.84	10.9	1.2	32.1	6.1	23.4	.08	.41	.29	36	.15	.052	19.3	23.5	.40	151.2	.046	1	1.34	.015	.11	.1	2.6	.17	.11	15	.7	.09	4.5	30
L111E 100+00N	1.20	48.28	9.06	25.9	42	14.4	7.5	115	3.19	10.2	.9	11.5	8.9	18.6	.04	.62	.26	32	.08	.033	26.5	19.6	.27	130.6	.021	1	1.31	.008	.11	<.1	2.3	.16	.07	7	.8	.08	4.5	30
STANDARD DS5	13.19	145.06	23.54	139.0	278	25.3	12.5	783	3.02	18.7	6.0	42.5	2.6	49.3	5.64	3.95	6.04	60	.73	.094	12.2	192.1	.68	134.4	.098	17	2.10	.034	.14	5.1	3.6	1.01	.03	182	4.9	.88	7.0	30

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	gm
G-1	1.53	2.66	1.89	40.0	11	3.9	3.6	444	1.61	.3	1.7	.4	4.5	76.4	.01	.02	.10	33	.47	.085	7.0	11.5	.44	193.9	.101	<1	.78	.064	.40	1.2	1.9	.26	.01	<5	<1	<.02	4.3	30
L111E 99+50N	1.56	32.95	11.54	22.5	183	10.1	4.2	83	3.05	9.9	.5	6.1	3.9	18.2	.08	.37	.34	61	.12	.030	11.7	25.6	.24	134.8	.043	<1	1.71	.007	.05	<1	2.1	.14	.02	17	.3	.10	8.3	30
L111E 99+00N	1.54	17.21	9.72	44.1	99	13.7	7.1	236	2.73	9.9	.4	2.8	2.6	15.4	.10	.32	.23	70	.13	.030	8.8	28.6	.44	115.8	.089	<1	1.48	.006	.06	.1	2.4	.10	.01	5	.1	.05	8.0	30
L111E 98+50N	1.09	27.87	8.78	35.3	239	13.8	6.1	180	2.63	8.8	.6	4.2	5.0	18.5	.09	.51	.24	52	.12	.030	14.4	23.4	.37	121.3	.060	<1	1.13	.007	.08	<1	1.9	.13	.04	<5	.2	.06	5.3	30
L111E 98+00N	.96	41.32	8.24	42.9	207	16.1	7.8	218	2.80	12.0	.6	13.2	4.6	18.5	.13	.46	.50	52	.15	.043	12.3	30.6	.44	149.8	.060	<1	1.54	.007	.10	<1	2.6	.13	.02	7	.2	.21	6.2	30
L111E 97+50N	.89	19.63	17.56	81.6	308	14.4	10.4	635	2.59	67.8	.9	3.8	2.9	17.2	1.09	.59	.28	42	.22	.067	17.5	22.6	.31	125.9	.043	<1	1.19	.008	.06	.2	2.7	.11	.01	27	.4	.06	4.4	30
L111E 97+00N	.26	10.33	6.84	50.4	81	11.4	5.2	132	1.69	3.2	.5	1.8	2.8	15.5	.15	.26	.14	38	.24	.057	11.3	21.1	.38	75.6	.079	<1	1.10	.012	.07	.2	2.4	.10	.02	25	.3	<.02	4.6	30
L112E 106+00N	.49	17.63	5.69	50.4	77	11.7	5.6	105	1.56	5.3	.6	3.0	2.6	16.8	.12	.24	.18	29	.25	.070	11.8	20.5	.34	118.8	.046	<1	1.06	.009	.04	.1	2.1	.08	.02	23	.4	.02	3.7	30
L112E 105+50N	7.08	166.67	7.38	34.5	248	14.3	5.8	96	2.57	5.6	1.1	29.7	7.0	28.2	.08	.43	.17	37	.22	.069	23.4	26.6	.42	248.6	.042	<1	1.30	.009	.07	.2	3.5	.12	.03	35	1.5	.05	4.6	30
L112E 105+00N	23.45	466.35	9.11	43.4	482	21.7	14.8	318	2.78	7.1	1.3	57.1	3.6	29.2	.24	.48	.22	44	.27	.066	21.2	29.3	.41	511.1	.031	1	1.37	.009	.08	.2	3.8	.13	.06	20	1.1	.05	5.0	30
L112E 104+50N	23.87	310.00	11.03	28.4	93	15.7	15.6	219	3.49	10.8	.5	17.6	3.8	14.2	.16	.44	.29	47	.17	.042	16.3	14.2	.25	284.8	.020	<1	.84	.004	.04	.1	2.2	.07	.02	<5	2.2	.08	5.6	30
L112E 104+00N	9.74	210.79	4.67	31.0	198	11.7	6.5	158	3.22	7.5	.5	23.2	4.2	21.4	.06	.32	.14	39	.14	.034	16.1	26.7	.48	198.6	.059	1	1.31	.013	.17	.1	3.0	.15	.17	5	1.2	.05	5.3	30
L112E 103+50N	22.03	185.96	12.90	31.9	377	15.4	6.3	123	3.60	11.8	.6	7.9	6.0	17.5	.05	.41	.19	75	.15	.035	17.2	25.6	.32	98.2	.036	<1	1.65	.006	.06	<1	2.6	.16	.01	8	.2	.05	9.2	30
L112E 103+00N	13.87	29.90	8.75	42.6	902	12.8	5.7	234	3.18	9.8	.4	7.5	2.6	12.3	.11	.41	.20	82	.09	.041	8.6	28.0	.33	103.9	.074	<1	1.76	.006	.05	<1	2.2	.12	<.01	22	.2	.04	9.0	30
RE L112E 102+50N	7.59	48.28	6.49	46.3	827	22.6	9.0	229	2.80	9.8	.8	17.1	4.3	15.7	.09	.33	.16	57	.14	.032	10.0	35.1	.52	167.1	.070	<1	2.20	.008	.06	.1	3.3	.10	<.01	30	.3	.03	5.8	30
L112E 102+50N	8.09	48.69	6.57	47.2	821	22.7	9.0	236	2.82	9.6	.7	19.3	4.1	16.2	.10	.31	.15	57	.15	.032	9.9	35.0	.53	166.1	.074	1	2.23	.008	.06	.1	3.3	.10	<.01	30	.3	.02	5.9	30
L112E 102+00N	5.88	52.37	7.00	26.5	99	9.9	2.6	82	1.50	5.1	1.5	13.6	3.2	28.1	.06	.38	.16	31	.14	.040	20.2	27.1	.38	235.1	.051	<1	1.39	.007	.06	.1	2.3	.12	.06	35	1.3	.03	5.3	30
L112E 101+50N	4.30	50.67	6.93	30.3	122	10.0	3.4	88	2.05	7.7	1.6	10.4	2.5	29.0	.07	.43	.18	36	.17	.076	18.3	25.7	.39	269.2	.046	<1	1.41	.009	.07	.1	2.6	.11	.06	36	1.5	.04	5.3	30
L112E 101+00N	5.99	74.69	9.10	31.6	122	10.9	5.2	113	3.23	11.7	1.8	17.4	6.9	44.4	.05	1.16	.24	40	.15	.071	22.0	25.3	.38	343.7	.040	<1	1.52	.058	.12	.1	2.8	.12	.31	15	1.8	.09	5.2	30
L112E 100+50N	2.88	45.51	6.46	34.6	116	10.4	4.5	112	2.79	14.9	1.3	9.7	1.8	24.4	.08	1.24	.26	40	.16	.089	14.0	23.1	.32	322.2	.025	1	1.33	.012	.10	.2	2.2	.12	.12	19	1.8	.08	4.8	30
L112E 100+00N	1.13	59.67	8.45	22.9	87	10.8	6.8	123	3.06	14.5	.7	14.1	9.9	39.6	.05	.89	.26	30	.10	.043	29.9	22.3	.31	272.1	.028	<1	.92	.027	.18	.1	1.9	.16	.34	6	1.3	.15	4.0	30
L112E 99+50N	1.30	23.49	9.32	46.4	31	15.2	7.7	215	3.85	16.0	.4	2.8	3.6	26.9	.08	.56	.25	74	.18	.034	11.7	32.7	.46	236.0	.068	1	1.77	.007	.08	.2	2.9	.11	.04	8	.3	.07	7.9	30
L112E 99+00N	.69	115.37	9.92	27.6	130	19.5	9.9	140	3.38	11.4	1.9	27.1	13.9	49.4	.07	.89	.32	28	.13	.053	38.0	19.8	.35	212.2	.039	<1	1.06	.028	.15	<1	3.1	.17	.22	6	.9	.12	3.8	30
L112E 98+50N	1.26	28.37	7.64	36.3	93	12.3	5.8	191	2.47	17.1	.6	12.1	3.6	22.5	.07	.62	.40	47	.14	.030	15.2	25.0	.37	284.0	.050	1	1.21	.015	.09	<1	2.5	.11	.11	8	.5	.13	5.0	30
L112E 98+00N	1.13	17.75	7.79	31.6	285	10.1	5.3	140	2.04	9.3	.4	4.2	2.7	16.3	.09	.48	.31	50	.12	.028	9.9	17.4	.26	169.4	.054	<1	1.12	.008	.06	<1	1.9	.09	.01	10	.2	.07	6.0	30
L112E 97+75N	1.00	24.56	7.58	54.3	234	15.5	9.5	304	2.59	14.1	.4	4.2	3.5	19.2	.11	.46	.32	56	.14	.028	11.8	29.3	.46	179.8	.056	1	1.72	.007	.06	<1	2.6	.13	<.01	9	.2	.11	6.4	30
L112E 97+50N	.69	53.05	5.80	41.0	291	19.2	7.2	186	2.36	18.5	1.0	18.5	4.8	16.9	.11	.48	1.55	45	.19	.037	16.7	27.4	.53	106.3	.057	1	1.45	.009	.08	.1	3.4	.13	.01	13	.2	.92	5.4	30
L113E 105+50N	4.19	64.24	6.12	36.1	160	12.0	4.6	109	2.70	5.3	.9	23.2	4.1	25.4	.07	.27	.38	42	.21	.061	17.2	29.2	.43	127.4	.060	1	1.41	.012	.07	.1	3.0	.12	.04	18	1.2	.05	5.6	30
L113E 105+00N	4.93	69.80	5.60	36.7	151	13.1	4.6	123	2.50	4.9	.9	29.9	4.8	33.0	.06	.26	.47	42	.23	.068	17.8	29.6	.47	141.7	.071	1	1.46	.022	.10	.1	3.5	.13	.09	22	1.1	.04	5.8	30
L113E 104+50N	13.68	139.43	7.90	36.7	189	16.1	5.6	127	3.07	5.9	1.6	52.2	4.7	42.6	.07	.32	.18	47	.23	.067	21.5	36.1	.50	238.5	.053	1	1.93	.026	.13	<1	5.0	.16	.11	28	1.4	.05	7.0	30
L113E 104+00N	9.30	113.07	6.44	34.0	195	15.2	6.0	156	2.61	5.2	.7	34.3	6.4	39.4	.07	.25	.12	43	.23	.055	20.3	29.0	.48	158.7	.075	<1	1.43	.031	.12	.1	3.0	.11	.16	12	.8	.02	5.1	30
L113E 103+50N	23.02	88.87	5.68	34.6	219	13.2	6.1	206	2.53	7.3	1.0	19.8	4.9	22.1	.07	.37	.14	48	.19	.049	14.2	25.4	.44	230.4	.056	1	1.41	.008	.09	<1	3.0	.11	.02	13	.4	.04	5.3	30
L113E 103+00N	13.11	64.71	5.05	35.6	101	14.1	5.5	194	2.24	7.1	.7	11.6	5.2	20.8	.05	.29	.12	44	.18	.036	12.7	25.8	.46	167.1	.060	1	1.41	.008	.10	.1	2.6	.11	.05	8	.3	.03	5.1	30
L113E 102+50N	35.17	81.09	7.07	38.5	165	13.9	6.0	235	2.94	9.4	.9	17.3	5.7	24.1	.06	.39	.17	56	.13	.037	13.9	29.5	.46	190.6	.056	<1	1.73	.010	.10	<1	2.8	.14	.06	6	.4	.03	7.2	30
L113E 102+00N	13.22	69.02	8.52	35.3	120	11.0	5.5	207	2.81	9.4	1.0	17.1	4.0	43.6	.09	.29	.21	44	.19	.055	16.6	24.9	.35	277.1	.022	1	1.80	.009	.10	.1	2.6	.14	.09	13	.7	.04	6.2	30
STANDARD DSS	13.14	143.92	23.93	141.5	294	25.5	12.7	782	2.96	19.3	6.1	42.0	2.6	48.1	5.69	3.96	6.03	59	.73	.096	11.9	192.3	.67	138.3	.093	18	2.05	.032	.13	4.8	3.6	1.02	.03					



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	gm
G-1	1.57	2.68	1.96	40.3	10	4.0	3.6	459	1.75	.5	1.8	<.2	4.1	82.8	.01	.02	.12	37	.53	.087	7.7	11.3	.46	193.2	.119	1	.85	.069	.40	1.2	1.9	.23	.02	<.5	<.1	<.02	4.1	30
L113E 101+50N	22.02	98.88	8.37	34.3	154	10.9	4.6	100	2.89	7.1	1.5	22.9	4.8	30.4	.10	.55	.20	39	.18	.065	25.4	25.2	.38	276.8	.039	1	1.43	.010	.10	.2	2.9	.14	.04	21	1.2	.05	4.7	30
L113E 101+00N	3.85	39.12	7.55	31.8	108	8.9	3.6	91	2.00	9.7	1.1	15.3	3.7	24.8	.10	.68	.26	37	.18	.072	21.1	21.9	.30	285.8	.042	1	1.18	.007	.07	.2	2.6	.14	.03	32	1.3	.07	4.6	30
L113E 100+50N	2.32	35.44	8.56	27.3	130	9.9	4.3	82	2.55	12.4	.7	17.8	4.9	28.7	.06	.74	.32	32	.13	.067	27.7	17.9	.28	349.2	.025	1	1.11	.010	.09	.2	2.0	.14	.07	27	1.4	.10	4.3	30
L113E 100+00N	1.46	17.97	6.97	46.5	88	11.6	6.5	173	2.56	20.1	.7	12.7	3.2	25.9	.09	1.04	.26	43	.24	.082	14.3	23.1	.39	291.5	.049	1	1.25	.017	.08	.2	2.3	.09	.07	7	.7	.09	4.2	30
L113E 99+50N	2.83	45.89	11.47	31.5	121	8.1	5.9	175	4.94	32.0	.8	5.6	4.9	44.3	.07	1.73	.65	58	.07	.096	14.9	16.2	.19	159.5	.020	<1	1.16	.106	.28	.2	1.6	.16	.74	9	1.6	.25	5.7	30
L113E 99+00N	1.42	14.34	6.34	37.1	51	10.3	4.7	128	2.61	22.0	.4	42.9	2.3	18.3	.11	1.82	.24	66	.16	.039	10.5	22.4	.32	412.0	.049	1	1.39	.008	.07	.2	2.3	.08	.01	9	.3	.09	6.4	30
L113E 98+50N	.88	20.74	5.84	43.1	51	14.5	7.7	238	2.33	17.3	.5	13.7	3.1	23.3	.07	1.44	.26	47	.23	.051	11.2	27.2	.44	326.9	.067	1	1.25	.014	.07	.1	2.8	.06	.04	10	.4	.12	4.0	30
L113E 98+00N	1.14	17.26	7.30	34.7	109	9.4	5.7	190	2.05	25.4	.5	19.5	1.8	20.7	.07	1.28	.40	42	.15	.037	13.4	16.7	.28	198.3	.039	1	.80	.018	.10	.2	1.7	.08	.13	5	.6	.17	3.7	30
L113E 97+50N	1.67	24.19	12.68	49.4	204	13.9	12.3	523	3.02	45.0	.6	19.3	4.3	25.1	.13	1.02	.70	57	.17	.076	13.4	27.8	.38	258.1	.044	1	1.49	.012	.15	.2	2.8	.13	.12	13	.6	.22	6.2	30
L113E 97+00N	2.91	25.56	40.04	114.7	666	19.6	9.0	554	5.08	71.3	1.3	7.5	1.4	30.0	.48	1.06	.60	75	.28	.101	16.1	33.9	.41	164.3	.024	<1	1.79	.015	.07	.1	2.9	.22	.07	76	.6	.06	6.1	30
L114E 106+50N	.51	41.95	19.94	82.9	214	51.2	13.4	521	2.31	70.7	.9	11.7	3.0	31.3	.41	2.36	.15	53	.55	.073	15.7	55.1	.67	180.1	.086	1	1.48	.019	.08	.2	4.9	.13	.01	44	.3	.03	4.8	30
L114E 106+00N	.61	43.49	29.26	100.0	187	53.2	13.4	453	2.50	83.7	.7	8.2	3.2	32.0	.49	2.88	.14	61	.53	.069	15.9	61.3	.74	184.4	.100	1	1.58	.019	.08	.2	5.4	.16	<.01	31	.3	.03	5.4	30
RE L114E 106+00N	.66	45.03	29.56	101.2	202	53.6	13.7	470	2.57	84.6	.7	10.6	3.3	32.9	.52	3.00	.15	62	.54	.073	16.2	62.9	.76	188.4	.098	1	1.62	.020	.08	.2	5.6	.16	.01	34	.3	.04	5.3	30
L114E 105+00N	5.13	86.49	6.61	42.8	164	15.0	5.6	127	2.35	6.7	.9	31.7	3.6	29.5	.09	.34	.22	40	.28	.063	18.4	28.1	.46	197.6	.051	<1	1.41	.009	.08	.2	2.9	.11	.03	15	.7	.04	5.4	30
L114E 104+50N	10.66	133.54	6.58	43.6	188	16.4	6.5	138	2.43	6.1	1.8	39.4	4.4	25.4	.11	.32	.16	43	.29	.066	19.0	31.6	.53	193.3	.065	<1	1.55	.010	.08	.1	4.3	.11	.02	25	.5	.04	5.8	30
L114E 104+00N	10.63	85.03	6.61	40.6	143	14.5	6.2	166	2.40	8.1	.9	22.7	3.8	24.5	.08	.28	.16	48	.23	.055	14.0	28.1	.44	190.4	.066	1	1.61	.013	.08	.1	3.0	.10	.05	13	.4	.03	5.6	30
L114E 103+50N	43.53	240.92	7.12	33.3	251	19.0	5.2	115	3.29	4.8	2.6	43.7	7.3	34.0	.06	.44	.14	45	.22	.076	19.5	34.0	.53	192.5	.069	1	1.49	.015	.14	<.1	3.5	.13	.08	13	.8	.04	5.8	30
L114E 103+00N	38.40	153.24	4.86	30.0	124	13.3	4.3	117	2.49	4.0	1.7	32.4	6.1	23.8	.04	.36	.11	40	.21	.073	17.0	27.2	.40	108.1	.066	<1	1.11	.012	.10	.1	2.7	.10	.04	6	.5	.04	4.3	30
L114E 102+50N	23.76	99.32	6.36	36.7	284	13.6	4.3	130	2.44	6.6	1.6	41.5	5.3	33.0	.05	.47	.17	41	.21	.063	18.3	29.3	.47	287.6	.048	1	1.51	.009	.11	.1	3.2	.12	.04	23	.7	.04	5.0	30
L114E 102+00N	12.34	56.02	5.27	37.3	154	12.7	5.3	156	2.24	6.8	1.1	24.3	3.6	28.2	.05	.74	.15	39	.24	.063	15.2	24.3	.41	254.1	.052	1	1.28	.009	.08	.1	2.8	.10	.02	12	.5	.04	4.2	30
L114E 101+50N	7.62	48.95	8.38	34.5	100	11.3	4.5	151	2.65	10.3	1.3	20.0	2.4	38.8	.07	.36	.30	51	.15	.044	14.9	28.9	.34	205.8	.034	1	1.71	.008	.08	<.1	2.6	.14	.03	19	.9	.05	7.1	30
L114E 101+00N	4.97	62.84	5.54	29.6	102	7.9	5.2	186	1.74	4.9	1.6	17.8	1.9	44.5	.10	.27	.17	34	.17	.049	17.3	21.8	.31	169.8	.051	<1	1.17	.016	.07	.2	2.2	.09	.09	13	.6	.02	4.6	30
L114E 100+50N	6.14	60.83	7.84	41.3	94	16.1	7.4	141	2.67	11.6	1.4	17.9	2.6	26.7	.09	.60	.24	47	.25	.062	19.7	27.6	.37	241.2	.037	1	1.67	.008	.07	.1	4.0	.13	.01	25	1.0	.05	5.6	30
L114E 100+00N	8.94	31.52	7.02	46.2	133	12.5	5.2	131	2.97	11.1	.9	31.5	4.5	31.9	.10	.66	.25	43	.19	.085	14.9	28.4	.42	275.0	.043	2	1.57	.010	.10	.1	3.3	.13	.05	46	2.3	.06	5.4	30
L114E 99+50N	1.86	25.35	7.76	44.5	63	16.0	7.5	209	2.74	14.8	1.0	13.2	3.0	26.5	.11	.64	.29	51	.26	.068	18.4	29.0	.45	389.0	.063	1	1.35	.009	.08	.2	4.4	.10	.04	17	1.0	.06	4.6	30
L114E 99+00N	2.94	22.60	11.29	34.7	116	11.3	6.2	171	2.80	32.3	.5	22.9	7.6	26.7	.07	1.43	.68	35	.16	.064	20.9	16.0	.25	224.7	.036	1	.74	.033	.22	.3	1.9	.17	.42	7	2.4	.25	3.4	30
L114E 98+50N	1.86	33.77	14.40	40.0	122	12.4	7.7	182	4.45	32.8	.6	3.7	6.4	64.7	.08	.68	.67	46	.17	.063	18.0	22.7	.32	271.4	.006	<1	1.84	.056	.25	.1	1.9	.20	.48	<.5	.7	.20	5.5	30
L114E 98+00N	.89	12.62	6.86	39.4	48	11.6	6.0	176	2.02	25.3	.5	8.7	2.0	15.6	.07	.83	.29	42	.22	.077	11.0	19.6	.33	199.4	.041	2	1.11	.011	.09	.2	2.1	.09	.06	8	.4	.12	4.6	30
L114E 97+50N	1.48	50.30	9.67	38.9	181	13.3	7.6	250	2.73	28.8	1.2	18.4	.3	25.9	.14	.63	.61	47	.16	.064	13.7	27.8	.33	219.8	.013	1	1.63	.010	.12	.1	1.2	.16	.05	18	.7	.18	6.1	30
L114E 97+00N	.96	64.76	10.64	70.6	221	26.7	17.5	598	3.41	19.1	.9	15.7	7.0	17.0	.18	.78	1.03	57	.14	.048	21.5	45.7	.75	121.3	.061	<1	2.10	.007	.15	.1	3.7	.22	<.01	11	.1	.42	7.6	30
L115E 106+00N	.57	31.67	14.92	77.8	98	64.6	14.3	460	2.34	40.0	.5	2.5	2.9	27.5	.26	1.86	.14	55	.47	.064	14.3	68.1	.86	169.9	.100	1	1.48	.015	.08	.2	4.9	.15	<.01	21	.3	.04	5.3	30
L115E 105+00N	2.25	60.27	9.22	74.5	148	18.0	11.5	156	2.74	22.7	1.4	9.5	2.1	25.9	.38	.52	.37	61	.29	.075	17.0	33.3	.44	272.3	.043	1	1.69	.014	.07	.1	3.5	.15	.07	46	.5	.06	5.1	30
L115E 104+50N	7.20	56.37	5.64	30.1	135	11.2	3.0	84	1.66	5.5	.8	16.3	1.1	21.6	.05	.20	.14	31	.19	.053	15.2	22.1	.37	200.1	.040	1	1.22	.009	.07	.1	1.9	.11	.02	22	.4	.03	4.9	30
L115E 104+25N	8.92	106.13	6.90	38.9	200	14.1	4.1	108	2.25	7.6	1.6	22.7	4.1	23.6	.11	.35	.18	38	.22	.075	19.0	26.5	.44	286.9	.050	<1	1.48	.009	.10	.2	3.1	.13	.04	24	.7	.04	5.0	30
STANDARD DSS	13.22	144.68	23.09	137.9	281	24.7	12.0	756	2.90	18.8	5.7	43.9	2.0	46.3	5.33	3.76	5.93	58	.72	.093	11.3	189.7	.65	134.7	.092	17	2.03	.032	.13	5.0	3.3	1.01	.03	170	4.9	.88	6.5	30

Sample type: SOIL S580 60C. Samples beginning 'RE



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	gm
G-1	1.41	2.59	1.98	43.4	10	4.0	4.0	516	1.83	.3	1.8	<.2	4.7	86.1	.01	.02	.12	39	.54	.090	7.7	28.9	.52	222.2	.120	1	.93	.072	.43	.8	2.1	.27	.01	<.5	<.1	<.02	4.4	30
L115E 104+00N	7.94	75.74	6.59	38.3	148	12.6	4.0	112	2.17	6.8	1.1	21.1	5.0	23.5	.12	.38	.18	38	.22	.064	18.2	25.6	.43	236.3	.060	1	1.39	.009	.09	.2	2.7	.14	.01	21	.6	.04	4.8	30
L115E 103+75N	6.71	85.88	6.06	39.4	151	13.9	4.2	113	2.15	6.6	1.3	12.5	4.8	24.5	.13	.40	.18	38	.23	.064	17.7	25.9	.45	242.6	.057	1	1.39	.009	.09	.2	3.0	.12	.02	24	.7	.03	4.6	30
L115E 103+50N	6.50	56.72	5.85	34.6	176	11.5	3.8	102	2.24	6.3	1.0	13.8	3.3	22.0	.12	.32	.19	39	.21	.063	14.9	24.2	.41	204.6	.055	1	1.36	.008	.07	.1	2.5	.12	.02	26	.6	.04	4.5	30
L115E 103+25N	6.12	77.84	6.73	39.3	225	13.1	4.1	109	2.43	8.5	1.5	17.8	3.9	23.3	.13	.39	.21	41	.20	.072	16.2	27.3	.42	251.2	.044	1	1.45	.008	.08	.2	3.2	.13	.03	30	.8	.04	4.9	30
L115E 103+00N	8.22	145.58	9.41	45.7	346	18.2	5.5	111	3.57	10.1	2.7	39.7	3.8	35.0	.12	.40	.30	51	.20	.087	19.4	39.2	.49	452.6	.037	1	2.32	.008	.11	.1	5.2	.22	.03	53	1.0	.05	7.1	30
L115E 102+75N	9.65	88.19	7.10	45.0	180	15.7	6.1	151	2.57	7.1	1.2	26.8	3.8	28.7	.11	.41	.20	45	.24	.062	16.2	28.9	.49	258.6	.059	1	1.67	.010	.11	.2	3.2	.16	.03	20	.5	.05	5.7	30
L115E 102+50N	6.75	104.52	6.06	34.8	170	13.6	5.7	149	2.38	6.2	2.0	27.8	3.0	31.1	.07	.37	.19	35	.21	.068	15.8	25.3	.37	320.7	.032	1	1.64	.015	.09	.2	3.6	.14	.06	27	.6	.04	5.1	30
L115E 102+25N	5.68	69.43	5.54	41.9	82	14.2	6.8	209	2.48	8.2	.8	27.8	5.6	26.9	.09	.40	.16	42	.23	.060	14.9	25.0	.43	185.4	.064	<1	1.35	.012	.10	.1	2.5	.11	.08	5	.5	.04	4.1	30
L115E 102+00N	12.68	153.38	6.02	30.9	119	12.2	6.9	203	3.00	6.7	1.5	482.4	7.4	31.2	.08	.60	.17	38	.16	.068	16.6	23.6	.34	169.3	.057	1	1.20	.020	.12	.1	2.2	.10	.17	8	.9	.07	4.1	30
L115E 101+75N	5.79	58.38	4.52	35.7	98	11.3	5.0	128	1.94	4.9	.7	9.1	5.1	21.5	.08	.29	.13	35	.20	.053	15.0	22.1	.40	186.5	.060	1	1.09	.012	.08	.2	2.4	.09	.04	8	.4	.02	3.6	30
L115E 101+50N	3.89	55.68	5.18	32.1	108	11.1	4.6	110	2.27	7.5	.9	10.4	6.2	27.3	.07	.40	.18	38	.20	.051	18.7	23.6	.37	234.7	.050	<1	1.24	.008	.07	.1	3.1	.11	.03	17	.7	.04	4.1	30
L115E 101+25N	3.67	66.20	5.77	33.9	91	11.1	5.0	116	2.48	7.9	.9	16.3	6.7	28.5	.07	.43	.19	36	.21	.059	19.1	23.3	.37	272.6	.056	1	1.17	.011	.09	.1	2.7	.12	.06	9	.9	.04	4.3	30
L115E 101+00N	1.33	35.43	5.33	32.6	89	10.6	4.4	112	2.15	7.4	.9	10.2	1.5	18.5	.14	.34	.22	39	.18	.060	14.2	24.1	.35	131.4	.048	1	1.39	.009	.05	.2	2.6	.12	.03	24	.9	.03	5.0	30
L115E 100+75N	2.58	37.55	4.69	29.8	83	8.9	3.4	105	1.79	4.4	.7	9.6	7.1	24.5	.05	.35	.15	30	.21	.057	16.0	20.4	.35	216.2	.063	<1	.97	.010	.07	.2	2.2	.11	.06	8	.8	.03	3.4	30
L115E 100+50N	4.34	50.64	5.38	30.1	91	10.2	4.0	100	2.27	7.2	.8	16.4	5.1	32.4	.06	.40	.20	35	.21	.059	17.2	23.1	.35	223.5	.044	1	1.22	.011	.08	.1	2.5	.11	.04	13	.7	.05	4.1	30
L115E 100+25N	1.45	27.58	5.60	42.7	72	13.8	5.9	138	2.57	8.8	.8	5.6	5.1	20.2	.07	.44	.21	43	.24	.067	15.2	24.7	.42	198.5	.063	1	1.30	.009	.06	.2	3.6	.11	<.01	14	.8	.04	4.5	30
L115E 100+00N	2.14	26.82	5.72	45.1	79	12.8	5.2	160	2.50	9.2	.6	8.9	6.6	28.3	.12	.58	.26	44	.26	.079	14.0	23.3	.39	211.6	.076	1	1.08	.014	.14	.2	2.5	.15	.14	12	1.2	.05	3.9	30
L115E 99+50N	2.96	12.07	6.59	40.1	94	13.3	7.1	199	2.74	11.1	.5	12.4	6.8	50.6	.11	.68	.41	41	.21	.079	14.0	23.2	.38	295.8	.071	1	1.34	.014	.17	.3	2.4	.13	.25	14	1.7	.07	4.1	30
L115E 99+00N	8.15	26.87	10.29	48.3	165	17.9	9.2	205	4.45	29.1	.6	60.9	10.5	91.1	.17	1.47	.52	60	.09	.067	14.9	32.6	.40	273.9	.046	1	2.07	.016	.20	.2	3.2	.16	.32	18	1.6	.17	6.0	30
L115E 98+75N	1.66	20.92	12.33	43.5	71	13.0	6.8	176	3.27	18.5	.5	6.1	4.0	21.1	.10	.54	.37	61	.10	.037	10.5	26.2	.34	175.1	.035	1	1.46	.008	.09	.2	2.2	.10	.09	9	.4	.05	6.0	30
L115E 98+50N	7.44	30.15	33.16	27.6	381	9.7	9.6	196	6.60	64.5	.9	12.5	11.7	64.3	.06	2.87	2.57	31	.08	.092	20.5	14.2	.10	69.2	.003	1	.72	.021	.80	.3	1.2	.54	1.63	17	4.2	.71	3.7	30
L115E 98+25N	1.74	14.57	9.99	36.0	76	11.1	6.0	248	2.81	25.9	.4	3.5	5.2	20.0	.09	1.27	.45	53	.16	.048	11.7	23.8	.36	235.4	.033	1	1.07	.009	.19	.1	2.3	.16	.27	<.5	.8	.14	5.1	30
L115E 98+00N	1.12	23.22	8.35	36.3	80	13.0	6.6	218	2.57	27.6	.6	6.6	1.4	21.9	.11	.84	.40	49	.17	.059	13.6	22.6	.32	257.5	.022	1	1.38	.018	.11	.2	2.4	.12	.11	13	.5	.16	5.7	30
RE L115E 97+75N	1.24	29.73	10.34	51.7	97	15.8	8.2	225	2.97	21.3	.6	10.1	3.9	22.3	.09	.97	.49	50	.13	.046	14.7	25.9	.40	191.4	.027	1	1.51	.015	.13	.2	2.5	.16	.13	8	.5	.18	6.1	30
L115E 97+50N	1.20	27.79	9.61	48.5	91	15.1	7.7	237	3.03	20.1	.6	9.5	3.8	22.8	.11	.96	.44	52	.14	.043	15.2	26.8	.42	186.0	.033	1	1.57	.015	.13	.2	2.5	.15	.13	7	.5	.16	5.7	30
L115E 97+25N	.52	59.28	11.11	46.8	222	20.2	9.7	218	2.66	17.3	1.0	23.4	9.1	18.1	.11	1.17	.48	34	.19	.054	33.1	25.8	.43	119.7	.042	1	1.25	.008	.10	.1	2.8	.15	.02	8	.4	.16	4.4	30
L115E 97+00N	1.25	52.88	11.91	45.9	276	20.8	8.4	175	2.95	18.5	1.0	14.7	5.7	36.6	.15	.87	.80	51	.14	.038	27.5	27.9	.36	139.1	.049	1	1.43	.014	.12	.1	2.5	.18	.06	11	.3	.26	6.4	30
L116E 106+50N	.83	26.95	8.61	56.6	245	23.7	9.6	251	2.99	13.1	.6	6.6	5.1	18.8	.14	.46	.28	60	.17	.029	12.9	36.5	.57	118.8	.078	1	2.08	.008	.09	.2	3.5	.13	<.01	17	.2	.06	6.4	30
L116E 106+00N	.34	33.71	5.05	37.3	164	189.4	17.9	418	1.94	27.0	.7	2.8	1.8	22.5	.13	1.16	.10	37	.34	.051	13.0	61.0	.78	176.2	.048	2	1.29	.031	.06	.1	4.7	.10	<.01	45	.4	.03	3.8	30
L116E 105+50N	.44	31.37	9.26	51.9	177	90.6	12.5	441	2.30	31.5	.7	3.1	2.8	30.7	.16	1.35	.16	51	.49	.055	13.1	63.2	.86	181.2	.072	1	1.46	.015	.05	.2	4.9	.10	.01	32	.2	.04	4.7	30
L116E 105+00N	.45	23.42	6.74	49.6	109	50.6	7.9	284	1.69	14.5	.5	1.3	1.3	40.8	.15	.94	.11	39	.65	.073	8.5	38.0	.52	152.7	.048	2	1.15	.021	.05	.2	2.8	.08	.04	30	.3	.04	4.0	30
L116E 104+50N	.27	14.92	6.54	56.6	96	11.4	5.7	160	1.22	3.0	.7	13.2	3.5	18.7	.21	.31	.20	27	.31	.068	17.1	20.4	.34	116.5	.053	<1	1.05	.010	.05	.3	2.1	.09	.01	16	.2	.04	3.7	30
L116E 104+25N	2.95	81.65	8.59	48.1	296	18.3	23.8	502	2.77	11.0	.9	46.1	3.8	23.3	.17	.50	.79	44	.26	.057	19.2	28.4	.44	193.2	.044	1	1.62	.008	.07	.2	3.0	.14	.01	16	.4	.19	6.0	30
L116E 104+00N	4.50	97.27	8.07	42.0	204	14.7	5.6	119	2.61	9.1	1.0	61.5	4.0	18.6	.10	.45	.47	41	.23	.067	19.1	27.6	.44	190.2	.050	1	1.49	.008	.07	.2	3.0	.12	.01	31	.6	.09	5.6	30
STANDARD DSS	12.52	145.54	23.11	139.1	278	24.7	12.4	764	2.91	18.5	5.8	43.0	2.6	48.8	5.80	3.88	6.03	59	.72	.094	12.1	188.8	.66	136.4	.094	16	2.01	.033	.13	4.9	3.4	1.00	.03	165	4.9	.84	6.5	30

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	gm
G-1	1.50	2.68	1.85	41.4	10	3.9	3.8	468	1.72	.1	1.7	<.2	4.5	80.5	.01	.02	.12	37	.53	.084	8.0	20.3	.46	184.2	.115	1	.78	.074	.39	1.1	2.1	.24	<.01	<5	.1	<.02	4.4	30
L116E 104+00N	9.06	117.06	8.11	39.7	177	16.0	6.5	113	2.62	7.5	1.0	22.5	5.8	20.6	.07	.70	.23	42	.28	.064	20.6	25.5	.44	199.2	.049	1	1.48	.009	.07	.1	3.2	.13	<.01	33	.7	.05	5.1	30
L116E 103+75N	4.55	109.31	6.44	45.8	198	15.8	7.8	153	2.33	7.1	1.2	19.4	6.1	22.5	.08	.42	.28	41	.31	.067	22.3	26.4	.45	233.3	.068	1	1.37	.012	.07	.2	3.4	.10	<.01	18	.6	.07	4.8	30
L116E 103+50N	7.33	130.70	7.30	38.4	281	16.0	8.2	159	2.43	7.0	.8	40.0	3.6	23.2	.10	.45	.30	39	.26	.065	20.0	22.7	.38	203.2	.045	1	1.32	.013	.08	.2	2.4	.10	.01	16	.6	.08	4.9	30
L116E 103+25N	14.21	190.32	8.34	44.2	143	18.2	10.2	207	2.56	7.7	1.0	32.7	5.8	22.5	.12	.46	.19	40	.25	.069	17.1	25.5	.46	200.7	.058	<1	1.27	.009	.09	.1	2.6	.09	.04	10	.8	.03	4.3	30
L116E 103+00N	10.77	169.56	6.83	37.5	208	15.2	8.5	188	2.16	7.0	1.0	21.4	2.7	18.3	.10	.35	.16	36	.20	.055	13.7	21.3	.36	203.9	.036	1	1.19	.010	.07	.1	2.3	.09	<.01	14	.6	.03	4.4	30
L116E 102+75N	9.19	184.27	6.95	43.6	277	17.2	9.1	174	2.43	8.3	1.1	27.4	4.0	20.4	.10	.45	.17	39	.21	.062	16.9	25.6	.45	199.2	.046	<1	1.53	.008	.08	.2	2.9	.12	<.01	21	.6	.03	4.8	30
L116E 102+50N	9.08	150.65	6.23	37.8	302	15.1	7.6	129	2.12	6.7	.8	20.5	3.1	22.0	.08	.43	.14	35	.21	.056	14.8	22.7	.39	177.8	.044	1	1.31	.008	.09	.2	2.4	.10	.01	25	.5	.03	4.3	30
L116E 102+25N	5.98	117.75	5.70	42.1	156	14.9	7.1	171	2.07	6.7	.9	23.4	4.4	18.8	.08	.37	.12	36	.24	.068	14.3	21.7	.39	169.9	.055	<1	1.18	.008	.08	.2	2.6	.08	.01	17	.4	.04	3.7	30
L116E 102+00N	9.28	206.62	6.21	37.2	279	16.7	7.2	141	2.18	7.0	1.8	34.8	5.9	26.3	.11	.46	.14	34	.26	.062	18.2	24.0	.41	287.9	.056	1	1.18	.009	.10	.1	3.5	.10	.04	13	.6	.03	3.8	30
L116E 101+75N	6.80	121.17	6.64	39.5	193	14.8	6.4	130	2.10	6.2	1.0	18.8	5.2	24.1	.10	.39	.15	35	.25	.068	16.4	23.5	.41	236.6	.056	1	1.34	.009	.10	.1	2.8	.11	.02	23	.6	.05	4.1	30
L116E 101+50N	7.49	142.33	7.03	31.2	263	12.6	4.8	99	2.18	6.3	1.1	27.4	2.2	24.0	.08	.35	.15	33	.19	.061	13.8	21.2	.32	248.7	.030	1	1.32	.009	.08	.1	2.4	.11	.01	26	.6	.04	4.3	30
RE L116E 101+50N	7.37	144.51	7.34	30.5	266	12.4	5.2	100	2.19	7.3	1.2	25.8	2.6	23.9	.08	.37	.18	33	.19	.066	15.6	21.1	.32	285.0	.028	1	1.31	.009	.09	.1	2.5	.11	.04	31	.7	.03	4.4	30
L116E 101+25N	13.69	225.12	6.58	30.0	197	15.4	7.2	130	2.45	6.4	1.5	28.6	6.7	30.0	.08	.50	.14	32	.22	.058	17.0	22.6	.38	269.9	.055	1	1.05	.015	.13	.1	2.6	.10	.10	8	.8	.04	3.4	30
L116E 101+00N	13.52	159.61	8.12	35.6	136	14.7	9.5	221	2.75	8.1	1.2	38.6	5.9	29.7	.11	.49	.17	42	.17	.051	17.4	24.5	.37	241.8	.039	1	1.44	.014	.11	.1	2.7	.11	.11	24	.8	.04	4.6	30
L116E 100+75N	10.25	71.60	6.67	39.5	88	13.4	7.2	229	2.32	7.6	.9	10.4	5.1	26.7	.12	.40	.16	42	.23	.061	17.6	24.7	.40	194.1	.064	1	1.16	.014	.10	.2	2.7	.10	.07	10	.7	.03	4.0	30
L116E 100+50N	20.72	126.73	7.77	31.6	129	14.1	7.0	143	2.89	6.2	1.1	20.7	8.5	36.3	.05	.58	.17	36	.19	.065	23.2	25.3	.41	195.4	.058	1	1.06	.031	.15	.1	2.4	.12	.20	10	1.1	.05	4.2	30
L116E 100+25N	3.12	40.63	8.26	35.2	89	13.3	6.5	184	2.39	10.3	.9	8.5	4.3	29.7	.05	.45	.22	43	.24	.044	17.4	24.1	.35	268.1	.040	1	1.31	.010	.09	.1	3.1	.11	.04	12	.7	.04	5.0	30
L116E 100+00N	1.08	17.90	7.20	38.9	79	12.9	5.1	111	1.92	7.9	.6	5.4	2.0	17.5	.09	.36	.19	41	.22	.064	15.2	22.4	.36	110.7	.058	1	1.30	.008	.05	.2	3.0	.11	.01	32	.6	.03	5.3	30
L116E 99+50N	1.08	17.38	8.13	37.3	59	11.4	6.3	162	2.33	12.4	.9	6.8	8.5	29.5	.17	.51	.17	39	.32	.082	15.3	19.6	.31	120.0	.071	1	.77	.013	.08	.2	3.1	.08	<.01	8	.6	.06	3.2	30
L116E 99+00N	.95	14.50	5.55	32.7	109	10.0	4.3	109	1.68	8.5	.8	10.2	5.0	20.7	.10	.73	.26	32	.25	.064	16.9	16.5	.29	240.4	.064	1	.78	.009	.08	.2	3.1	.09	.06	12	.6	.05	3.6	30
L116E 98+50N	.81	28.17	8.00	37.6	61	14.8	8.3	204	3.07	24.7	.9	9.9	7.9	40.7	.08	.62	.41	41	.19	.067	19.1	25.0	.34	160.7	.036	1	1.42	.008	.12	.2	3.0	.12	.11	8	1.2	.16	4.2	30
L116E 98+00N	.51	34.86	6.24	36.4	81	12.4	5.6	152	2.25	15.2	.6	93.5	6.6	43.1	.12	.60	.28	36	.19	.050	19.0	21.9	.35	128.3	.057	<1	1.11	.008	.13	.1	2.4	.12	.13	8	.6	.11	3.3	30
L116E 97+50N	.47	57.01	9.06	37.8	208	17.0	7.6	146	2.79	22.8	1.3	78.8	11.5	33.3	.07	1.17	.45	37	.19	.039	36.9	28.4	.46	146.5	.072	1	1.21	.008	.16	.1	3.5	.20	.04	12	.6	.18	4.2	30
L116E 97+00N	.98	56.63	10.63	47.3	319	20.8	7.9	209	2.75	12.3	1.1	8.0	4.0	21.1	.22	.70	.37	54	.20	.047	25.7	33.4	.44	137.0	.054	<1	1.98	.017	.12	.1	4.3	.15	<.01	30	.3	.09	6.8	30
L117E 106+50N	.57	29.48	8.92	51.2	130	110.5	14.9	373	2.38	21.9	.6	3.8	3.2	30.6	.12	.90	.14	56	.50	.059	14.2	72.5	.93	173.9	.097	2	1.55	.015	.10	.2	5.6	.13	.02	28	.2	.04	4.9	30
L117E 106+00N	.32	23.29	6.81	39.5	83	89.4	12.1	281	1.96	14.6	.7	1.3	3.2	26.8	.08	.61	.12	45	.46	.057	15.9	70.8	.87	126.2	.079	1	1.38	.015	.05	.1	4.3	.08	<.01	23	.2	<.02	4.1	30
L117E 105+50N	.32	36.32	7.93	52.0	103	104.4	13.5	385	2.32	18.4	.7	2.1	3.6	37.3	.23	1.49	.13	51	.60	.064	15.5	68.8	.82	147.0	.080	1	1.51	.021	.06	.1	5.8	.10	.01	35	.3	.02	4.4	30
L117E 105+00N	.43	22.74	5.74	67.0	80	14.8	7.3	142	1.56	6.7	1.1	4.8	4.0	24.2	.31	.36	.17	32	.39	.062	15.9	23.5	.39	142.6	.062	1	1.24	.012	.06	.1	3.2	.09	.01	19	.4	.03	3.7	30
L117E 104+25N	2.63	65.03	7.09	41.3	229	15.1	7.7	150	2.14	5.9	.8	17.3	5.4	22.8	.07	.36	.37	38	.32	.063	20.5	25.3	.40	147.9	.055	1	1.35	.009	.08	.2	3.3	.12	<.01	20	.6	.06	4.6	30
L117E 104+00N	1.88	87.75	7.85	49.4	334	17.7	8.2	191	2.21	6.4	.9	13.6	5.0	23.6	.11	.33	.53	42	.33	.064	21.1	28.1	.44	182.2	.057	1	1.54	.011	.08	.2	4.0	.14	<.01	27	.5	.06	5.2	30
L117E 103+75N	2.03	58.66	6.42	47.1	136	15.7	9.2	224	2.23	8.4	.6	52.4	4.0	22.6	.09	.40	.76	44	.29	.060	16.1	25.0	.41	120.0	.071	<1	1.34	.011	.08	.2	3.0	.11	<.01	16	.4	.09	4.7	30
L117E 103+50N	3.08	91.33	7.13	39.3	214	16.5	9.0	175	2.28	6.7	.9	31.0	4.3	25.2	.11	.35	.40	40	.28	.066	22.0	26.7	.41	171.9	.057	1	1.39	.011	.09	.2	3.3	.11	.02	16	.6	.09	4.9	30
L117E 103+25N	3.58	84.31	7.63	43.2	194	15.7	7.5	178	2.41	6.1	.7	18.8	5.0	26.9	.08	.31	.32	44	.31	.063	18.6	27.1	.47	156.4	.075	1	1.62	.009	.09	.1	3.2	.11	.01	18	.6	.07	5.4	30
L117E 103+00N	3.35	100.97	7.24	43.5	158	16.1	6.6	141	2.35	5.5	.8	18.3	4.7	26.0	.10	.30	.17	42	.31	.069	18.1	27.9	.48	148.7	.072	1	1.68	.010	.09	.1	3.4	.12	<.01	18	.6	.04	5.3	30
STANDARD DS5	12.71	145.47	23.99	139.3	288	24.8	12.4	777	2.93	18.6	6.1	41.0	2.6	48.1	5.46	3.73	6.14	61	.73	.097	12.5	189.9	.67	138.1	.095	16	2.05	.034	.13	4.9	3.5	.94	.02	173	5.0	.86	6.5	30

Sample type: SOIL SS&O 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	gm
G-1	1.70	4.16	2.13	41.7	15	4.2	3.7	462	1.77	.5	1.8	.7	4.7	84.7	.03	.04	.16	36	.54	.087	8.8	13.2	.46	190.2	.118	2	.91	.077	.39	1.6	2.2	.28	<.01	<.5	.1	.02	4.7	30
L117E 102+75N	4.44	112.00	7.99	44.0	191	17.3	6.5	142	2.42	6.8	1.0	34.7	4.2	29.3	.12	.35	.20	45	.30	.065	19.7	29.3	.48	160.0	.075	1	1.76	.010	.09	2	3.3	.15	<.01	23	.6	.04	6.4	30
L117E 102+50N	4.32	119.53	6.91	42.0	173	16.4	6.4	138	2.45	7.0	1.1	24.8	3.8	32.9	.11	.33	.21	42	.33	.066	18.6	28.3	.46	170.5	.061	1	1.76	.010	.08	2	3.6	.12	<.01	33	.7	.03	5.7	30
L117E 102+25N	2.67	79.02	6.09	43.4	171	16.0	6.7	147	2.02	6.6	.7	20.9	4.0	34.2	.09	.27	.18	39	.31	.061	15.4	25.3	.43	170.6	.070	1	1.55	.012	.07	2	3.0	.10	<.01	21	.4	.03	5.1	30
L117E 102+00N	3.88	129.75	5.76	42.3	87	15.9	7.6	178	2.37	6.1	.8	17.8	4.7	71.0	.11	.34	.17	42	.34	.070	15.2	26.6	.46	162.2	.077	<1	1.56	.013	.08	2	3.0	.09	.01	10	.9	.04	4.7	30
L117E 101+75N	7.44	200.66	12.34	51.2	184	19.5	10.1	245	2.71	5.8	1.1	41.3	3.5	176.0	.19	.27	.25	46	.37	.064	16.7	28.2	.43	486.3	.073	1	2.06	.015	.07	2	3.0	.09	.03	13	1.1	.06	6.6	30
L117E 101+50N	3.92	97.86	9.34	42.4	470	16.2	7.6	213	2.66	7.9	.8	16.0	3.1	85.6	.10	.35	.20	52	.29	.045	14.6	28.1	.34	78.8	.076	1	2.29	.011	.05	2	3.5	.10	<.01	28	.6	.04	7.6	30
L117E 101+00N	13.95	186.66	8.17	32.7	145	17.1	7.9	155	2.86	8.6	.9	28.7	6.8	25.0	.10	.66	.20	39	.17	.053	17.7	24.0	.40	192.2	.056	1	1.24	.018	.18	2	2.4	.17	.19	8	1.0	.05	5.1	30
L117E 100+75N	3.45	90.91	4.35	37.9	91	14.9	6.0	162	1.96	5.7	.8	11.5	5.1	23.0	.12	.35	.12	38	.33	.075	15.9	23.9	.42	174.4	.084	1	1.12	.012	.09	2	2.6	.09	.02	<.5	.4	.02	3.9	30
L117E 100+50N	4.66	79.03	7.90	36.2	130	14.9	6.4	133	3.05	12.7	.9	16.4	7.5	33.7	.08	.69	.27	40	.23	.060	22.8	26.9	.40	303.7	.042	1	1.67	.010	.12	2	2.9	.16	.07	18	1.0	.05	5.2	30
L117E 100+25N	3.25	53.76	6.32	30.9	89	11.8	6.0	125	2.44	9.7	.7	7.7	7.0	34.1	.07	.54	.24	32	.22	.057	22.0	20.3	.30	285.6	.043	<1	1.05	.015	.15	2	2.3	.13	.19	13	.9	.04	3.7	30
L117E 100+00N	21.20	342.97	13.70	33.1	248	30.8	16.7	105	5.46	11.8	1.7	34.0	17.4	77.8	.11	1.58	.32	27	.20	.084	36.2	23.2	.37	214.1	.035	1	1.00	.055	.40	3	3.0	.26	.67	<.5	2.9	.10	4.4	30
L117E 99+50N	21.38	253.79	14.04	20.3	416	22.8	14.2	93	6.49	21.9	2.2	26.9	20.2	89.7	.05	1.53	.43	16	.10	.101	41.1	14.3	.24	76.6	.003	<1	.82	.058	.82	2	1.9	.44	1.49	<.5	4.6	.12	3.2	30
L117E 99+00N	1.81	38.79	9.37	34.4	151	10.8	5.6	121	2.81	9.1	.8	19.7	13.3	69.9	.10	2.54	.39	28	.27	.078	25.1	17.1	.26	282.5	.048	1	.70	.026	.25	2	2.5	.19	.39	<.5	1.3	.11	3.1	30
L117E 98+50N	.68	25.58	8.50	34.1	134	10.7	5.0	118	2.45	16.8	.8	12.3	9.5	19.6	.09	.96	.38	30	.20	.068	27.3	18.6	.29	210.7	.049	1	.91	.008	.12	2	2.2	.15	.11	11	.9	.11	3.5	30
L117E 98+00N	.83	24.45	24.40	27.1	536	9.7	5.2	103	2.64	35.6	.8	34.7	16.4	34.5	.08	1.78	1.62	23	.17	.067	39.5	15.5	.22	268.2	.040	1	.56	.011	.30	2	2.5	.23	.47	8	2.0	.31	2.9	30
L117E 97+50N	.39	120.63	12.35	43.7	147	37.2	21.2	276	3.71	25.1	2.8	16.3	19.8	56.5	.11	1.42	.61	13	.12	.067	64.6	9.6	.14	119.1	.007	1	.64	.006	.19	2	3.4	.17	.20	5	1.0	.21	1.8	30
L117E 97+00N	.46	68.55	8.23	46.4	209	21.4	9.2	209	3.07	17.1	1.3	24.4	10.7	28.5	.11	.72	.83	42	.20	.042	34.7	36.3	.62	98.7	.108	1	1.57	.010	.20	1	3.7	.23	.04	13	.5	.36	6.0	30
L118E 106+50N	.54	20.01	6.52	44.4	43	59.8	9.8	282	2.21	17.1	.5	4.4	3.1	24.2	.05	.55	.13	52	.35	.036	12.2	44.1	.67	146.5	.087	1	1.50	.012	.05	2	3.6	.08	.03	10	.1	.03	5.1	30
L118E 106+00N	.83	40.60	6.35	50.6	314	64.5	11.1	440	2.55	19.0	.9	2.4	1.1	46.2	.20	.92	.15	53	.65	.086	12.1	43.3	.48	214.2	.060	1	2.04	.023	.08	1	4.5	.09	.04	58	.4	.02	6.3	30
L118E 105+50N	.48	25.38	4.19	34.4	101	22.6	7.1	247	1.49	9.0	.5	.8	1.0	33.8	.11	.50	.10	30	.48	.047	7.8	24.5	.34	142.5	.055	1	1.31	.030	.06	<.1	2.5	.08	.02	32	.3	.02	4.3	30
L118E 105+00N	.58	29.13	2.28	20.5	80	19.6	5.5	336	1.19	4.2	.5	.9	.3	70.6	.20	.92	.07	28	1.06	.080	12.2	16.6	.20	187.8	.034	1	.98	.028	.03	<.1	1.4	.06	.12	50	.6	<.02	3.1	30
L118E 104+50N	.14	18.79	4.99	49.4	-60	13.8	4.5	112	1.22	3.2	.7	3.2	2.2	29.5	.23	.32	.14	27	.50	.068	13.9	22.4	.34	119.8	.051	1	1.10	.014	.04	1	2.7	.08	.05	19	.3	<.02	3.7	30
L118E 104+00N	7.37	74.69	13.55	70.3	230	19.7	22.2	827	8.49	85.2	3.3	9.9	6.7	28.8	.50	.98	.61	95	.32	.107	30.8	40.0	.43	217.8	.047	<1	2.10	.011	.06	2	5.1	.18	.06	53	1.2	.12	5.7	30
L118E 103+75N	2.40	66.39	11.93	58.3	186	25.4	14.0	509	2.86	49.5	1.1	11.8	8.9	29.0	.14	1.15	2.83	31	.27	.075	28.2	23.1	.36	100.4	.027	<1	1.24	.008	.10	2	2.6	.11	.05	10	.4	.13	3.9	30
RE L118E 103+75N	2.57	65.32	12.13	59.9	186	25.1	13.6	511	2.87	45.9	1.1	17.3	8.7	29.4	.12	1.03	2.90	31	.26	.076	28.6	23.1	.36	100.8	.030	1	1.27	.009	.09	2	2.6	.11	.06	17	.4	.14	4.2	30
L118E 103+50N	1.90	83.19	8.19	48.5	146	18.5	8.7	160	2.54	7.2	1.2	35.2	3.4	39.0	.14	.34	.22	48	.32	.074	17.8	31.0	.49	149.1	.070	1	1.74	.010	.07	2	3.6	.10	.01	21	.6	.05	6.3	30
L118E 103+25N	1.76	72.72	8.92	50.7	118	17.2	7.5	142	2.62	8.2	1.2	22.9	4.7	36.4	.13	.34	.31	47	.30	.079	20.8	31.1	.49	144.4	.082	<1	1.69	.011	.08	2	3.7	.12	.05	23	.7	.06	6.0	30
L118E 103+00N	1.91	63.64	8.26	43.6	110	15.9	6.8	141	2.59	7.0	1.0	12.9	3.7	39.0	.11	.32	.40	44	.28	.073	18.2	30.6	.47	125.4	.075	1	1.57	.012	.08	2	3.0	.13	.04	15	.8	.11	5.8	30
L118E 102+75N	2.37	82.25	9.70	48.0	126	17.8	7.4	153	2.62	7.2	1.2	15.4	3.6	46.0	.12	.30	.34	46	.30	.069	17.2	31.7	.50	135.8	.080	1	1.84	.012	.07	1	3.3	.13	.02	22	.8	.11	6.8	30
L118E 102+50N	1.78	66.16	7.02	43.3	92	15.1	6.6	149	2.13	4.5	.8	18.4	3.2	52.0	.09	.22	.21	40	.32	.061	14.3	26.7	.44	105.9	.078	<1	1.60	.016	.06	2	2.7	.10	.02	18	.6	.04	5.6	30
L118E 102+25N	1.77	73.38	7.04	40.3	89	15.2	6.6	153	2.03	5.5	.9	12.8	3.5	39.0	.07	.24	.17	39	.33	.066	17.3	26.3	.44	139.5	.072	1	1.63	.011	.05	2	3.1	.09	.01	22	.5	.04	5.2	30
L118E 102+00N	2.84	50.27	7.75	43.7	127	14.1	6.1	139	2.18	8.0	.6	10.2	3.0	28.9	.08	.29	.21	44	.30	.062	14.8	25.1	.43	141.2	.064	<1	1.50	.010	.06	2	2.5	.10	.02	21	.5	.03	5.8	30
L118E 101+75N	3.39	101.63	5.92	35.2	192	14.4	6.0	115	2.16	5.1	1.1	22.7	3.6	25.2	.10	.32	.17	36	.26	.061	17.9	24.2	.39	165.6	.060	1	1.37	.016	.07	1	3.2	.11	<.01	22	.6	.04	5.2	30
L118E 101+50N	3.71	89.07	6.36	40.1	141	15.0	7.5	150	2.18	6.5	1.0	19.6	4.1	24.9	.07	.33	.17	36	.28	.065	18.3	24.0	.41	190.7	.059	1	1.36	.012	.08	2	2.7	.12	.03	20	.5	.03	4.8	30
STANDARD D55	12.37	145.44	23.25	137.8	277	25.2	12.5	758	2.92	19.5	6.1	43.4	2.7	49.5	5.98	3.80	6.28	59	.72	.096	12.8	189.9	.66	135.1	.097	17	2.07	.034	.14	5.0	3.7	.99	.02	179	4.9	.87	6.9	30

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	gm
G-1	1.54	2.74	2.24	39.1	12	3.8	3.6	495	1.84	.4	2.2	.4	4.8	88.5	.01	.02	.15	37	.59	.104	9.0	13.1	.49	211.3	.110	1	.91	.071	.40	1.5	2.2	.25	.01	<5	<.1	<.02	4.5	30
L118E 101+25N	6.88	125.00	7.70	38.9	219	15.5	9.5	252	2.81	8.0	.9	22.2	3.8	39.6	.13	.47	.21	42	.27	.063	15.3	24.8	.42	244.8	.048	2	1.70	.015	.13	.2	2.3	.15	.10	18	.8	.05	5.7	30
L118E 101+00N	7.00	132.36	7.75	37.5	177	15.3	8.2	185	2.94	8.3	.8	33.5	5.1	45.8	.09	.43	.21	39	.29	.070	16.5	26.7	.51	249.9	.063	1	1.66	.015	.14	.2	2.7	.20	.10	17	1.1	.04	5.8	30
L118E 100+75N	3.71	62.07	6.58	36.6	144	13.1	6.6	174	2.28	8.3	.7	17.0	3.1	23.5	.08	.39	.20	40	.24	.055	13.5	24.4	.40	210.3	.055	1	1.52	.009	.08	.2	2.4	.11	.01	18	.6	.03	5.3	30
L118E 100+50N	6.47	87.85	6.63	38.5	137	15.0	7.3	160	2.59	8.3	.9	25.1	5.1	23.8	.09	.50	.21	39	.25	.072	17.0	24.9	.44	215.8	.066	1	1.44	.012	.11	.2	2.7	.13	.07	17	.8	.05	4.5	30
L118E 100+25N	5.09	60.13	6.04	42.8	107	13.8	7.9	206	2.62	9.2	.7	13.7	4.8	22.2	.10	.58	.19	39	.25	.069	17.0	23.8	.41	214.1	.063	2	1.33	.011	.12	.2	2.5	.12	.05	8	.7	.06	4.4	30
L118E 100+00N	4.14	41.59	7.55	31.2	71	9.8	5.3	134	2.35	12.9	.6	12.7	2.7	22.6	.08	.64	.28	40	.17	.054	19.0	18.7	.27	225.7	.043	<1	1.05	.012	.10	.2	1.9	.13	.06	11	.8	.08	5.1	30
L118E 99+50N	1.30	24.20	9.02	40.4	97	10.4	4.0	104	1.90	9.6	.7	13.1	3.6	24.0	.09	.53	.43	35	.24	.065	18.3	26.2	.36	206.4	.055	1	1.40	.009	.08	.1	2.5	.16	<.01	34	1.0	.06	5.7	30
L118E 99+00N	.76	35.66	9.59	41.7	211	14.6	6.0	126	2.64	15.1	1.2	11.9	9.4	21.9	.14	.88	.38	38	.23	.065	31.8	26.6	.43	185.7	.057	1	1.42	.010	.09	.2	2.9	.18	<.01	19	.9	.10	5.3	30
L118E 98+50N	.92	40.08	11.00	37.6	217	15.1	6.1	107	3.21	20.9	1.1	17.7	7.3	20.4	.10	1.07	.51	38	.19	.071	31.5	26.2	.38	188.5	.029	1	1.42	.009	.10	.2	2.8	.20	.03	22	.9	.15	5.5	30
L118E 98+00N	.54	53.11	7.69	46.2	101	18.6	8.4	208	2.62	12.7	1.6	13.1	11.6	32.3	.18	.86	.33	38	.34	.076	32.3	27.6	.47	296.9	.088	1	1.21	.014	.16	.2	4.0	.20	.04	10	.6	.10	4.3	30
L118E 97+50N	.90	41.41	10.75	46.3	178	18.7	8.1	152	3.15	13.0	1.5	37.3	10.7	24.6	.16	1.02	.35	37	.21	.062	37.3	28.0	.52	156.3	.066	1	1.58	.009	.15	.2	3.2	.21	.04	17	.6	.12	5.2	30
L118E 97+00N	.61	63.15	12.72	33.1	125	21.5	10.3	154	3.86	11.2	1.5	13.2	15.0	44.1	.08	.95	.29	29	.18	.054	40.8	26.8	.53	193.1	.061	<1	1.56	.015	.30	<.1	2.7	.29	.12	10	.8	.13	5.0	30
L118E 96+50N	.94	49.33	10.62	64.3	173	21.5	8.3	297	2.72	15.0	.9	24.3	3.2	19.2	.25	.64	.40	54	.26	.062	17.9	37.2	.57	135.2	.072	1	1.90	.010	.12	.2	3.4	.18	<.01	16	.3	.08	6.9	30
L118E 96+00N	.48	46.45	6.75	56.4	94	18.7	8.0	277	2.14	9.2	.9	7.9	5.1	20.9	.17	.45	.24	44	.32	.063	21.1	32.9	.57	130.3	.096	1	1.47	.012	.10	.2	3.5	.13	<.01	12	.2	.05	4.8	30
L118E 95+50N	.64	70.43	7.14	65.7	116	25.8	8.5	292	2.81	12.8	1.2	34.1	8.3	28.6	.19	1.03	.40	55	.45	.079	30.3	42.1	.76	99.4	.120	1	1.57	.014	.21	.2	4.1	.21	<.01	11	.3	.11	5.5	30
RE L118E 95+50N	.66	70.77	7.65	67.8	113	26.0	8.3	287	2.81	13.0	1.1	15.4	8.2	28.1	.19	1.06	.39	55	.45	.080	30.4	41.7	.76	96.2	.120	1	1.55	.015	.21	.2	3.9	.22	<.01	7	.3	.10	5.7	30
L118E 95+00N	.72	29.07	10.26	53.5	109	21.7	9.1	209	2.70	20.6	.9	8.7	6.5	16.3	.15	1.10	.49	45	.22	.044	25.5	33.0	.61	82.1	.068	1	1.72	.008	.09	.2	2.9	.15	<.01	16	.3	.10	6.1	30
L118E 94+50N	1.35	32.86	9.14	81.8	262	32.9	10.7	497	2.74	24.7	1.1	15.5	5.7	19.3	.46	1.03	.37	50	.24	.040	21.4	34.9	.54	152.6	.068	1	1.40	.009	.08	.1	3.8	.13	<.01	13	.4	.05	4.7	30
L118E 94+00N	5.26	68.23	23.51	167.1	1584	30.9	7.7	218	3.12	81.5	1.8	26.3	4.6	58.3	1.25	2.48	4.63	56	.19	.070	18.7	30.8	.35	194.5	.049	<1	1.04	.008	.14	.2	3.1	.22	.16	20	2.0	1.19	3.7	30
L118E 93+50N	1.92	39.20	13.51	107.9	557	22.3	6.0	185	2.43	44.6	1.1	12.4	4.6	22.7	.83	1.26	.98	53	.27	.076	18.2	32.6	.48	131.2	.073	1	1.32	.009	.09	.2	2.9	.13	.04	11	.9	.22	4.1	30
L119E 106+50N	.56	23.68	6.34	41.4	73	24.6	8.8	337	2.21	13.4	.9	1.0	3.7	28.3	.07	.52	.13	50	.47	.047	17.7	33.2	.56	144.3	.095	1	1.48	.016	.07	.3	4.0	.08	.01	22	.2	.03	4.6	30
L119E 105+00N	.52	35.41	7.75	53.4	86	34.1	11.7	260	2.54	20.5	1.0	2.1	4.8	34.4	.21	1.30	.17	60	.58	.067	19.0	40.3	.56	172.2	.101	1	1.60	.024	.08	.3	5.5	.10	.02	25	.4	.03	5.1	30
L119E 103+00N	1.79	66.78	7.18	38.2	159	15.6	6.7	138	2.29	6.1	1.0	62.4	4.7	33.4	.10	.38	.65	38	.31	.065	21.7	27.8	.45	138.5	.064	1	1.65	.013	.08	.1	3.0	.13	.04	18	.5	.20	5.5	30
L119E 102+50N	1.68	56.55	6.84	34.7	129	13.1	4.8	108	2.28	4.6	1.2	26.0	4.5	31.3	.08	.34	.21	39	.26	.058	18.2	28.5	.44	143.0	.075	1	1.68	.014	.08	.1	3.2	.13	<.01	23	.7	.05	5.7	30
L119E 102+00N	2.86	98.60	9.23	36.3	222	14.8	7.8	205	2.68	6.7	1.2	22.1	3.1	44.4	.11	.36	.33	40	.27	.064	21.7	28.5	.40	230.5	.040	1	1.81	.013	.10	.1	3.0	.13	.07	26	1.1	.04	6.0	30
L119E 101+50N	2.12	98.85	8.17	34.4	156	13.2	7.2	149	2.38	7.6	1.3	29.4	.9	33.6	.16	.31	.34	51	.24	.063	17.9	25.0	.29	171.7	.043	1	1.54	.012	.06	.1	2.1	.11	.04	18	.7	.07	6.6	30
L119E 101+00N	3.87	89.69	12.08	45.0	88	17.9	13.1	329	3.63	10.5	1.0	26.7	6.2	51.7	.14	.50	.49	59	.24	.064	20.7	33.1	.45	181.9	.086	1	2.02	.017	.12	.2	3.3	.14	.07	12	.9	.12	8.0	30
L119E 100+50N	.35	14.48	8.28	50.4	85	13.2	5.3	129	1.69	5.7	.7	5.8	3.8	18.6	.12	.41	.24	37	.27	.047	16.8	27.6	.44	105.9	.079	1	1.47	.009	.07	.2	2.9	.13	<.01	28	.3	.04	5.1	30
L119E 100+00N	.82	21.42	9.75	58.3	129	15.6	6.6	159	2.24	9.2	.8	10.6	3.9	19.1	.12	.48	.31	43	.27	.063	18.7	31.1	.50	113.4	.075	1	1.62	.009	.09	.3	2.9	.16	<.01	35	.5	.06	6.1	30
L119E 99+50N	.78	16.09	8.72	57.1	144	15.2	8.0	154	2.73	14.4	.8	6.9	4.3	18.8	.11	.51	.29	48	.27	.066	17.7	30.0	.48	104.2	.077	1	1.50	.009	.08	.3	3.0	.13	.01	26	.5	.04	5.5	30
L119E 99+00N	.50	18.37	8.56	62.0	88	16.4	7.9	156	2.27	9.2	.9	5.9	4.3	19.4	.15	.43	.31	42	.29	.065	19.0	30.5	.52	110.8	.080	1	1.49	.010	.09	.2	3.0	.14	.02	21	.3	.04	5.3	30
L119E 98+50N	.54	23.55	9.82	62.7	135	18.4	7.6	175	2.50	9.8	1.0	8.4	6.3	19.5	.14	.53	.34	49	.30	.069	20.0	34.6	.59	111.6	.096	1	1.73	.010	.11	.2	3.3	.17	<.01	28	.4	.08	6.2	30
L119E 98+00N	.71	40.70	10.76	56.9	299	20.0	8.1	170	2.81	10.2	1.5	16.2	8.3	22.1	.17	.58	.45	44	.24	.059	30.6	37.6	.57	121.0	.070	1	1.79	.009	.13	.2	3.5	.21	<.01	34	.6	.12	6.4	30
L119E 97+50N	.69	33.21	9.59	52.7	183	19.5	8.6	160	2.83	11.6	1.1	9.3	7.8	24.3	.14	.65	.52	44	.25	.058	31.4	34.7	.58	123.3	.084	<1	1.68	.009	.13	.1	3.2	.19	.01	20	.5	.14	5.9	30
STANDARD D55	13.25	141.14	24.00	137.3	292	24.8	12.6	783	2.97	18.7	5.7	43.6	2.8	50.3	5.66	3.92	6.35	62	.76	.095	12.9	188.2	.69	138.0	.101	16	2.10	.037	.14	4.9	3.7	1.03	.03	167	4.9	.90	7.1	30

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.





SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	gm
G-1	1.63	2.92	1.84	41.0	10	3.9	3.5	470	1.75	.3	1.8	<2	4.3	84.9	.01	.02	.11	36	.54	.088	7.5	13.2	.46	177.5	.112	1	.85	.073	.37	1.5	1.9	.26	.01	<5	<.1	<.02	4.7	30
L119E 97+00N	.73	31.13	9.49	60.5	55	18.7	6.7	156	2.47	9.1	1.0	15.5	6.2	17.3	.13	.54	.34	42	.24	.065	20.7	30.7	.54	98.2	.087	1	1.56	.009	.12	.2	2.9	.19	.01	9	.3	.08	6.3	30
L119E 96+50N	.76	33.70	11.14	55.7	173	17.3	6.7	140	2.15	7.6	1.3	8.2	2.6	17.5	.19	.37	.40	37	.23	.074	19.0	31.5	.49	109.4	.066	1	1.58	.009	.10	.2	2.8	.18	.02	31	.5	.06	6.1	30
L119E 96+00N	.54	16.27	5.57	53.5	64	14.1	5.7	166	1.67	8.6	.5	2.9	3.9	16.5	.14	.41	.18	37	.29	.071	13.6	23.3	.40	72.4	.078	1	1.05	.011	.09	.2	2.3	.11	<.01	6	.3	.04	4.1	30
L119E 95+50N	1.17	43.14	11.04	78.6	199	27.9	11.3	328	2.99	23.5	1.0	16.8	6.3	17.8	.25	.87	.46	53	.22	.055	21.7	36.1	.60	107.1	.089	<1	1.77	.009	.16	.2	3.2	.20	.02	13	.5	.11	6.6	30
L119E 95+00N	1.00	30.45	10.85	83.9	89	26.9	11.7	402	2.65	27.6	.9	4.1	6.4	17.7	.33	1.06	.45	45	.22	.052	22.0	30.2	.58	95.9	.083	<1	1.40	.008	.15	.2	3.0	.16	.04	14	.5	.09	4.9	30
L119E 94+50N	1.32	45.37	11.85	108.9	183	36.5	13.0	504	3.29	33.3	1.9	7.2	7.9	25.5	.38	1.37	.52	54	.22	.050	33.4	39.9	.67	128.3	.084	1	1.76	.008	.17	.1	4.3	.20	.02	11	.6	.08	6.5	30
L119E 94+00N	1.25	30.24	11.80	90.7	93	21.1	6.8	290	2.09	32.6	.9	5.0	3.8	16.5	.32	.89	.38	43	.22	.056	15.8	23.5	.36	113.5	.051	<1	1.19	.007	.07	.2	2.7	.11	.04	8	.6	.06	3.9	30
L119E 93+50N	1.38	28.76	14.56	100.7	371	23.0	6.5	211	2.46	49.3	1.0	9.0	6.2	21.6	.45	1.42	.88	39	.24	.090	23.4	23.9	.38	100.7	.049	1	1.17	.007	.08	.2	2.2	.13	.08	20	.9	.16	4.0	30
L120E 106+00N	.77	30.24	7.29	40.3	103	25.0	10.1	706	2.05	21.6	.7	1.8	1.9	42.8	.14	1.01	.12	43	.74	.063	13.8	27.5	.40	157.7	.056	1	1.20	.017	.04	.2	3.0	.08	.04	29	.4	.03	4.5	30
L120E 105+50N	.42	28.87	10.88	47.1	96	25.9	7.9	253	2.10	19.2	.7	2.3	2.6	42.4	.13	1.08	.16	49	.71	.068	12.9	34.6	.51	155.4	.067	1	1.52	.017	.05	.2	4.1	.09	.05	34	.3	.02	5.1	30
L120E 105+00N	.48	31.00	10.52	51.2	93	24.2	8.7	366	1.99	15.9	.6	1.6	2.2	45.9	.15	1.01	.14	43	.82	.066	11.4	32.4	.44	138.1	.062	1	1.40	.017	.05	.2	3.6	.08	.05	42	.4	.03	5.1	30
L120E 101+00N	.55	22.88	5.59	54.1	46	15.4	6.8	174	2.01	8.6	.5	21.4	4.5	16.6	.12	.39	.17	40	.29	.076	16.3	24.1	.42	84.7	.079	1	1.12	.010	.08	.4	2.3	.11	.02	7	.2	.05	4.5	30
L120E 100+50N	.52	18.54	5.11	47.3	50	14.0	6.7	177	1.93	7.5	.6	11.8	3.8	14.5	.13	.37	.19	36	.23	.063	17.3	24.6	.43	80.3	.079	<1	1.25	.007	.10	.2	2.2	.12	.03	9	.3	.04	4.7	30
L120E 100+00N	.51	18.45	5.14	48.6	42	13.8	6.3	189	1.93	7.9	.6	6.0	3.9	15.1	.12	.32	.16	37	.25	.066	17.0	24.1	.41	83.1	.081	<1	1.13	.008	.11	.2	2.3	.12	.02	9	.3	.05	4.5	30
L120E 99+50N	.57	19.28	7.26	60.9	79	16.3	8.0	172	2.07	8.3	.7	58.3	4.3	16.9	.14	.34	.21	40	.27	.067	16.2	27.7	.48	98.9	.086	<1	1.35	.009	.10	.2	2.6	.14	.01	16	.4	.03	5.4	30
L120E 99+00N	.61	19.22	8.41	62.3	102	16.8	6.7	137	2.17	10.1	.7	12.2	2.4	16.8	.15	.43	.26	41	.23	.059	13.7	28.3	.47	98.5	.073	1	1.43	.008	.08	.2	2.4	.14	<.01	29	.4	.05	5.6	30
L120E 98+50N	.51	18.80	6.68	57.3	76	15.7	7.0	154	2.00	9.8	.7	2.8	4.0	18.1	.12	.42	.19	41	.28	.065	14.4	25.1	.45	94.1	.081	1	1.24	.010	.07	.2	2.5	.11	<.01	14	.3	.04	4.5	30
L120E 98+00N	.57	19.24	7.32	64.6	99	18.1	6.9	151	2.11	10.2	.7	4.4	5.4	18.1	.13	.53	.26	41	.27	.059	16.7	28.6	.51	99.9	.088	1	1.40	.009	.10	.2	2.9	.13	.01	15	.3	.05	5.2	30
RE L120E 95+50N	.78	27.84	7.99	68.7	185	19.3	7.2	196	2.22	14.0	.9	9.1	5.2	20.6	.31	.63	.41	41	.24	.064	20.6	28.7	.52	112.3	.082	1	1.34	.009	.11	.2	2.8	.15	.03	10	.4	.10	5.1	30
L120E 97+50N	.76	24.97	7.50	60.5	124	19.8	7.2	179	2.33	11.8	.7	5.4	4.9	20.8	.15	.55	.31	42	.26	.062	18.8	31.9	.52	116.0	.080	1	1.39	.008	.11	.2	2.7	.14	.02	16	.3	.08	5.4	30
L120E 97+00N	.65	29.12	6.81	46.3	118	19.3	7.1	177	2.34	10.5	.9	9.5	4.5	16.5	.11	.60	.36	38	.17	.058	20.0	36.5	.43	91.5	.065	<1	1.30	.011	.14	.1	2.4	.16	.04	14	.4	.09	4.9	30
L120E 96+50N	.74	33.63	8.60	63.7	135	23.7	8.0	160	2.55	12.5	1.3	36.1	8.8	20.8	.17	.84	.45	41	.22	.063	29.5	42.3	.56	167.2	.079	<1	1.35	.008	.15	.1	3.2	.17	<.01	10	.5	.19	4.9	30
L120E 96+00N	1.11	32.39	10.40	66.3	180	19.6	8.1	302	2.61	20.9	.9	8.9	3.5	18.4	.28	.83	.53	47	.20	.069	18.0	28.2	.47	90.5	.066	1	1.39	.007	.11	.1	2.3	.14	.05	15	.5	.13	5.4	30
L120E 95+50N	.74	28.61	7.30	67.0	180	19.2	7.2	193	2.19	14.1	.9	10.9	4.8	20.4	.32	.62	.39	41	.24	.062	20.3	28.9	.52	112.1	.079	1	1.31	.008	.11	.1	2.8	.14	.01	12	.3	.10	4.8	30
L120E 95+00N	1.24	32.96	8.50	85.2	180	22.8	10.4	416	2.56	20.9	.9	9.0	3.5	21.9	.46	.98	.37	49	.19	.047	15.5	32.0	.55	111.6	.077	1	1.44	.009	.13	.2	2.6	.14	.02	14	.5	.09	5.4	30
L120E 94+50N	1.69	43.37	9.67	96.0	269	26.6	8.7	327	2.53	27.1	1.4	10.0	2.8	21.2	.56	1.32	.69	51	.20	.073	16.9	34.9	.53	124.6	.058	<1	1.58	.006	.12	.2	2.8	.14	.02	20	.7	.13	5.3	30
L120E 94+00N	1.99	44.72	9.25	89.1	242	26.6	6.1	178	2.27	34.6	1.5	5.3	2.4	23.0	.50	1.67	.43	49	.22	.078	18.0	30.2	.42	96.4	.051	<1	1.28	.006	.09	.2	2.6	.15	.01	20	.9	.07	4.5	30
L120E 93+50N	2.45	37.27	9.32	104.6	238	30.2	9.1	227	2.28	25.0	1.0	3.4	5.2	26.6	.45	1.92	.43	48	.24	.085	20.6	26.7	.42	97.5	.054	1	1.09	.008	.08	.2	2.4	.15	<.01	7	.8	.06	4.0	30
L121E 106+50N	.58	25.82	6.84	46.7	81	26.6	10.6	439	2.14	14.5	.7	2.0	2.3	31.7	.11	.61	.12	49	.55	.045	12.7	33.9	.54	155.1	.076	1	1.53	.013	.07	.2	3.8	.08	<.01	22	.2	.03	5.1	30
L121E 106+00N	.77	30.07	6.71	46.9	77	29.4	13.8	655	2.25	14.0	.9	3.0	3.4	26.8	.12	.72	.13	53	.46	.049	17.0	39.2	.58	150.7	.097	1	1.56	.013	.06	.2	4.6	.09	<.01	21	.3	<.02	5.3	30
L121E 104+00N	1.23	32.28	10.90	47.1	209	21.1	10.6	368	2.38	17.7	1.1	7.8	3.9	43.4	.13	1.10	.21	37	.88	.058	27.1	22.8	.31	124.0	.037	1	1.23	.017	.07	.2	4.2	.11	.02	37	.5	.03	3.7	30
L121E 103+50N	.94	31.57	10.84	46.4	140	22.4	12.0	269	2.60	18.0	1.1	5.2	5.4	31.3	.15	.99	.22	41	.59	.049	25.7	24.0	.36	134.4	.045	1	1.36	.012	.07	.2	4.3	.11	.02	31	.4	.03	4.2	30
L121E 102+50N	1.25	57.40	6.34	38.3	204	15.3	6.1	137	2.64	9.9	.7	22.3	3.5	21.6	.07	.51	.40	42	.26	.052	14.9	26.9	.37	134.5	.061	<1	1.46	.008	.08	.2	2.9	.12	.01	31	.4	.10	5.1	30
L121E 102+00N	1.02	50.50	6.27	40.1	123	16.3	6.8	149	2.49	7.9	.8	38.8	4.5	22.3	.11	.43	1.27	42	.30	.059	17.9	28.5	.44	136.8	.074	1	1.36	.010	.07	.4	3.1	.11	.01	23	.5	.11	4.8	30
STANDARD DS5	13.10	143.63	23.73	140.0	285	24.2	11.8	757	2.90	18.2	5.7	43.8	2.6	47.6	5.47	3.57	6.03	58	.73	.095	11.8	184.0	.66	134.4	.094	17	2.04	.034	.13	4.9	3.4	1.01	.03	171	5.0	.83	6.9	30

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	gm
G-1	1.40	2.43	1.84	43.5	11	4.1	4.2	550	1.89	.3	1.6	<.2	4.1	79.6	.01	.02	.11	41	.49	.080	6.9	10.2	.56	248.3	.137	2	.90	.071	.48	1.4	2.1	.31	<.01	<.5	<.1	<.02	4.7	30
L121E 101+50N	.83	30.25	7.10	43.8	98	13.7	5.5	117	1.90	7.4	.8	12.2	4.4	22.7	.17	.43	.32	38	.32	.064	16.7	24.7	.41	139.0	.065	1	1.28	.010	.05	.3	2.8	.12	<.01	28	.4	.08	4.5	30
L121E 100+50N	.68	18.51	6.40	56.9	115	16.3	8.5	208	2.21	9.6	.7	3.6	4.0	19.3	.15	.47	.28	41	.25	.060	17.5	30.4	.49	103.9	.085	1	1.42	.008	.11	.2	2.8	.14	<.01	15	.2	.06	5.0	30
L121E 100+00N	.92	23.34	6.44	58.6	83	16.8	7.3	199	2.35	13.6	.7	4.0	4.9	18.2	.11	.59	.31	43	.22	.061	20.9	28.9	.47	96.8	.088	1	1.36	.007	.12	.2	2.5	.15	<.01	10	.2	.08	5.1	30
L121E 99+50N	.88	25.81	5.87	59.6	93	17.7	7.5	176	2.35	14.5	.7	9.6	5.6	16.4	.14	.57	.29	38	.22	.066	20.1	27.4	.47	90.0	.086	1	1.37	.007	.12	.2	2.4	.15	<.01	8	.3	.06	4.7	30
L121E 99+00N	.84	21.12	7.82	60.5	111	16.6	6.4	132	2.20	12.8	.7	7.4	2.7	17.6	.14	.51	.30	43	.24	.076	16.6	28.0	.44	103.5	.064	1	1.38	.010	.08	.2	2.7	.12	.02	22	.4	.07	5.3	30
L121E 98+50N	1.25	22.16	9.80	62.7	147	17.8	7.4	141	2.76	18.0	.8	6.9	4.7	18.0	.13	.59	.38	48	.23	.068	18.8	31.4	.48	111.2	.073	1	1.54	.008	.08	.2	3.0	.17	<.01	22	.5	.07	5.9	30
L121E 98+00N	.63	20.30	8.19	59.8	179	17.5	6.0	141	2.15	9.5	.9	6.7	5.3	17.0	.15	.64	.41	40	.21	.058	20.2	30.3	.47	99.0	.077	1	1.35	.009	.09	.2	2.8	.15	<.01	27	.5	.11	5.0	30
L121E 97+50N	.98	28.54	7.98	60.6	216	18.7	6.8	164	2.63	15.1	.8	10.1	4.9	18.5	.16	.71	.48	45	.22	.063	22.6	31.0	.53	97.1	.076	1	1.51	.008	.11	.2	2.8	.16	<.01	22	.4	.14	5.7	30
L121E 97+00N	1.07	29.71	9.58	62.8	264	27.7	7.1	167	2.76	19.8	.8	9.5	4.5	25.0	.20	.89	.75	47	.24	.068	22.6	54.3	.60	128.8	.065	1	1.66	.008	.10	.2	2.9	.16	.02	27	.4	.22	6.3	30
L121E 96+50N	1.31	30.60	8.56	66.9	190	17.5	6.5	197	2.38	20.3	.8	8.4	2.1	23.5	.22	.73	.64	50	.21	.067	18.8	28.4	.45	115.1	.060	1	1.34	.009	.09	.2	2.4	.13	.02	15	.4	.16	6.0	30
L121E 96+00N	1.68	32.42	14.96	88.5	445	21.2	7.1	212	3.03	34.3	1.2	11.0	6.3	22.4	.31	1.12	1.11	54	.23	.071	27.7	34.8	.61	112.1	.067	1	1.79	.007	.11	.1	3.1	.19	.01	23	.7	.21	6.3	30
L121E 95+50N	1.59	33.36	14.26	98.2	471	23.5	8.6	223	2.89	24.4	.9	13.2	6.5	23.4	.31	.99	.85	50	.22	.064	23.8	35.8	.65	113.0	.077	1	1.76	.008	.11	.1	3.0	.19	.02	26	.7	.16	6.2	30
L121E 95+00N	2.04	46.81	14.52	103.6	588	27.7	9.6	242	3.29	34.6	1.6	8.6	6.7	22.0	.41	1.42	.98	51	.19	.062	26.8	38.4	.69	120.5	.060	1	1.91	.007	.11	.1	3.6	.19	.01	23	.9	.17	6.4	30
L121E 94+50N	1.84	43.64	11.78	94.3	354	23.0	9.3	333	2.87	37.9	1.0	11.5	5.1	22.1	.47	1.15	1.17	51	.20	.058	20.3	31.4	.53	101.6	.069	1	1.54	.008	.09	.2	2.8	.15	.02	17	.7	.19	5.3	30
L121E 94+00N	2.43	40.49	13.60	121.5	493	25.2	7.0	168	2.30	47.9	1.2	9.3	4.6	20.5	.44	1.35	.89	50	.27	.093	18.0	28.3	.46	109.2	.065	1	1.37	.008	.08	.2	3.0	.14	<.01	22	1.0	.14	4.4	30
L121E 93+50N	3.11	50.41	24.78	142.4	885	25.3	7.4	205	3.27	110.3	1.6	19.7	4.4	22.1	.48	1.64	1.16	58	.21	.085	18.2	32.2	.47	122.2	.049	1	1.63	.007	.09	.2	3.2	.19	.01	39	1.7	.19	5.1	30
L122E 106+50N	.68	37.87	7.13	47.9	126	25.9	9.9	380	2.35	16.5	.8	3.6	1.9	31.8	.11	.40	.16	52	.49	.055	15.8	33.6	.52	203.1	.065	1	1.79	.012	.08	.2	4.4	.09	.02	30	.3	.03	5.7	30
L122E 106+00N	.50	32.51	6.89	43.9	147	23.7	7.4	293	1.90	12.4	.6	2.1	1.4	30.9	.10	.54	.14	41	.49	.059	11.5	28.9	.44	181.9	.057	1	1.47	.018	.05	.2	3.6	.08	.03	38	.3	.03	5.0	30
L122E 105+50N	.33	37.00	8.23	48.0	173	23.0	6.7	202	1.83	10.1	.8	2.5	1.2	33.3	.14	.59	.16	43	.52	.068	11.9	32.0	.46	206.9	.058	1	1.64	.015	.05	.2	3.8	.10	.04	47	.3	.03	5.7	30
L122E 104+50N	.82	52.51	8.53	50.0	306	23.2	10.9	477	2.56	22.5	1.4	4.0	1.8	43.6	.15	1.15	.24	46	1.02	.088	18.5	26.5	.48	140.8	.042	1	1.31	.017	.05	.2	5.0	.08	.04	39	.5	.02	4.2	30
L122E 104+00N	.79	22.68	8.74	43.4	99	19.2	9.0	317	2.38	16.0	.7	3.3	4.5	23.6	.07	.43	.26	45	.36	.051	17.5	25.5	.39	151.5	.037	1	1.45	.009	.04	.2	3.1	.13	<.01	11	.2	.03	4.9	30
L122E 103+50N	.89	20.37	7.82	53.8	58	20.1	10.0	318	2.56	12.1	.5	2.1	3.3	24.9	.10	.35	.24	58	.37	.045	11.3	28.9	.50	143.9	.072	1	1.63	.010	.05	.2	3.1	.10	<.01	9	.1	.04	6.2	30
L122E 103+00N	1.17	181.61	9.88	43.8	1039	25.2	15.4	868	3.17	23.5	2.0	83.7	3.4	47.2	.31	.82	.71	46	.85	.077	30.2	29.6	.39	337.6	.027	1	1.63	.013	.07	.9	5.2	.12	.04	62	.7	.16	5.3	30
RE L122E 102+50N	1.95	88.68	6.41	40.3	114	15.9	7.9	186	3.18	11.7	.7	70.9	5.8	27.1	.08	.85	.51	40	.26	.054	18.3	27.0	.41	131.3	.072	1	1.18	.011	.10	.2	2.9	.15	.06	9	.7	.14	5.2	30
L122E 102+50N	2.00	89.80	6.43	40.4	119	16.2	8.3	184	3.17	12.1	.7	44.0	6.0	27.2	.07	.91	.52	41	.25	.053	18.9	26.7	.41	132.0	.076	<.1	1.18	.011	.10	.3	2.9	.16	.07	9	.7	.14	5.2	30
L122E 102+00N	.86	46.04	5.47	35.2	157	15.6	6.6	153	2.19	6.4	.7	126.9	3.7	22.5	.05	.43	.81	37	.27	.048	15.3	25.5	.42	132.4	.065	1	1.28	.012	.07	.3	2.8	.11	.01	23	.4	.10	4.7	30
L122E 101+50N	.92	28.68	6.43	37.6	150	12.6	4.6	100	1.76	6.8	.6	16.4	1.2	25.1	.10	.31	.38	30	.33	.058	12.3	24.8	.38	134.7	.045	1	1.22	.010	.04	.2	2.2	.10	.04	36	.4	.05	5.4	30
L122E 101+00N	1.45	50.94	8.11	44.3	97	21.5	9.0	154	2.61	10.3	1.1	13.1	6.3	26.2	.08	.59	.35	48	.36	.054	20.3	33.9	.55	202.6	.079	1	1.56	.011	.06	.2	4.5	.12	.01	23	.8	.09	5.5	30
L122E 100+50N	1.33	37.29	6.90	42.9	106	16.2	6.7	114	2.06	7.8	.9	4.8	3.9	21.8	.10	.44	.24	40	.30	.058	16.2	26.4	.42	156.2	.061	1	1.36	.013	.06	.2	3.2	.11	.02	26	.5	.04	4.8	30
L122E 99+50N	.81	25.23	8.67	69.4	183	18.0	7.5	157	2.10	13.1	.9	5.5	4.6	16.4	.19	.54	.37	44	.24	.067	16.8	30.5	.49	104.3	.079	1	1.56	.008	.07	.2	3.1	.13	<.01	26	.4	.08	5.4	30
L122E 99+00N	1.16	32.81	8.61	65.5	142	17.9	7.3	198	2.36	19.6	.9	6.2	2.9	18.9	.16	.54	.41	46	.22	.065	16.6	29.9	.42	108.8	.069	1	1.55	.008	.08	.1	2.8	.13	.01	18	.4	.10	5.9	30
L122E 98+50N	1.05	34.07	7.87	77.0	100	18.9	8.4	217	2.67	24.2	.9	27.0	6.8	17.4	.17	.69	.47	45	.24	.078	20.6	32.1	.50	101.9	.100	<.1	1.51	.008	.13	.1	3.1	.16	.01	12	.5	.14	5.5	30
L122E 98+00N	1.04	55.72	10.32	63.3	230	20.3	7.9	137	2.85	31.0	2.4	18.0	4.7	14.1	.26	.67	.61	50	.18	.086	26.9	32.0	.47	134.8	.047	1	1.74	.007	.09	.1	4.1	.16	.01	47	.8	.20	5.9	30
L122E 97+50N	1.26	63.44	11.22	42.5	192	17.3	6.4	130	4.42	15.3	1.2	21.7	13.4	44.9	.14	.59	.71	39	.18	.084	33.7	30.9	.46	151.5	.059	1	1.49	.042	.14	.1	2.8	.19	.28	21	1.3	.30	6.3	30
STANDARD DS5	13.13	143.70	23.94	139.6	293	25.5	12.6	787	3.04	20.1	6.2	44.1	2.7	49.8	5.94	3.76	6.46	61	.74	.100	12.4	191.8	.68	136.7	.099	20	2.10	.034	.14	5.3	3.6	1.05	.03	181	4.9	.92	6.9	30

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	% ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	% ppm	% ppm	% ppm	% ppm	%	%	%	ppm	ppm	ppm	% ppb	ppm	ppm	ppm	ppm	gm
G-1	1.46	2.93	2.01	40.8	9	4.0	3.7	462	1.79	.2	2.0	<.2	4.7	86.7	.01	.02	.13	38	.55	.068	8.5	11.5	.46	182.8	.118	1	.88	.069	.40	1.4	1.8	.25	<.01	<.5	<.1	<.02	4.3	30
L122E 97+00N	1.35	41.58	11.43	63.6	132	18.1	33.6	939	2.98	22.8	1.3	11.4	3.6	27.4	.30	.75	.62	53	.21	.056	23.7	28.5	.41	146.8	.059	1	1.57	.012	.10	.2	2.3	.16	.03	20	.4	.21	6.2	30
L122E 96+50N	.78	33.90	7.99	53.4	109	17.6	6.7	154	2.58	19.3	1.0	9.1	5.6	25.6	.19	.61	.72	39	.22	.049	24.3	28.4	.46	99.1	.076	1	1.38	.013	.11	.2	2.3	.14	.06	13	.4	.29	5.4	30
L122E 96+00N	.93	24.50	8.43	71.0	197	19.2	7.3	165	2.22	15.8	.8	7.6	5.5	17.8	.26	.68	.62	41	.26	.051	19.9	29.7	.51	83.3	.082	1	1.46	.009	.09	.2	2.5	.15	<.01	21	.3	.15	5.3	30
L122E 95+50N	1.84	42.77	13.64	94.5	272	26.7	13.9	451	2.87	35.3	1.3	8.4	4.8	23.2	.49	1.10	.81	56	.23	.055	26.9	34.2	.55	113.3	.066	1	1.76	.009	.12	.1	2.9	.19	.02	22	.4	.17	7.1	30
L122E 95+00N	2.11	49.89	12.63	90.1	349	28.5	9.9	234	2.93	29.6	1.6	12.6	4.0	25.1	.38	1.12	.91	54	.20	.063	25.9	38.1	.50	105.4	.050	1	1.84	.009	.13	.1	2.7	.20	.03	31	.5	.24	7.3	30
L122E 94+50N	1.63	36.56	11.34	94.4	160	25.6	10.6	265	2.70	28.6	1.1	7.4	8.5	26.8	.29	1.19	.76	40	.25	.054	32.1	28.6	.49	74.8	.071	<1	1.24	.010	.14	.2	2.2	.14	.05	8	.5	.25	4.7	30
L122E 94+00N	4.54	61.69	13.05	131.5	252	39.9	15.0	415	3.51	65.9	1.6	6.4	5.9	30.1	.70	2.53	.77	64	.18	.045	22.9	36.7	.47	107.7	.048	1	1.84	.007	.13	.1	2.8	.18	.07	33	1.0	.13	6.3	30
L122E 93+50N	4.63	56.54	12.52	121.9	232	36.9	11.8	332	3.35	71.7	1.4	7.0	4.3	32.0	.71	2.42	.60	64	.21	.042	16.6	34.7	.42	112.0	.046	1	1.80	.007	.11	.2	2.7	.16	.05	41	1.1	.10	5.8	30
L123E 106+50N	.54	28.83	6.67	46.5	76	21.7	8.6	197	2.10	11.5	.6	1.2	2.2	26.3	.07	.41	.14	50	.39	.040	11.0	29.1	.43	163.9	.076	1	1.61	.022	.06	.2	3.2	.09	.02	29	.2	.02	5.5	30
L123E 106+00N	.63	29.10	4.15	40.4	149	19.0	8.5	318	1.92	6.6	.6	1.5	1.0	28.0	.09	.35	.11	47	.39	.048	8.8	22.8	.30	132.4	.059	1	1.36	.024	.06	<.1	2.7	.07	.02	35	.2	.02	5.0	30
L123E 105+50N	.77	31.28	7.39	51.7	110	24.8	11.9	319	2.37	12.7	.9	2.5	2.8	27.0	.10	.56	.16	54	.41	.046	15.2	33.4	.49	189.3	.073	1	1.74	.014	.06	.2	4.0	.10	<.01	33	.3	.02	6.3	30
L123E 104+50N	.73	35.77	12.02	55.3	157	23.6	10.4	220	2.40	33.2	1.4	7.1	4.1	40.1	.20	1.14	.27	39	.75	.048	22.7	25.5	.37	128.3	.044	1	1.27	.020	.07	.2	4.2	.12	.03	42	.4	.04	4.5	30
L123E 104+00N	.59	23.49	6.98	38.5	56	18.2	7.7	184	2.06	13.4	.7	2.4	3.9	19.8	.07	.47	.22	39	.36	.043	18.1	22.9	.36	103.9	.046	1	1.29	.009	.07	.3	2.6	.11	.01	10	.2	.02	4.6	30
L123E 103+50N	.62	35.49	7.08	46.2	97	22.7	9.9	289	2.38	16.1	.9	23.4	6.5	26.5	.09	.86	.31	43	.42	.040	26.3	28.3	.43	130.0	.056	1	1.46	.011	.07	.2	3.5	.14	.01	12	.2	.03	4.7	30
L123E 103+00N	1.09	36.75	9.99	42.9	150	14.8	8.0	216	2.47	9.7	.5	14.4	3.6	21.0	.11	.84	.48	57	.24	.017	13.5	28.1	.37	96.5	.077	<1	1.46	.007	.06	.1	2.6	.13	.01	7	.2	.11	6.8	30
L123E 102+50N	1.38	81.32	6.37	43.9	271	19.3	9.0	224	3.02	8.0	.9	137.5	5.0	32.8	.07	.58	.69	47	.36	.041	19.1	36.3	.57	173.4	.094	<1	1.67	.011	.11	.4	3.4	.20	.03	23	.5	.20	6.9	30
L123E 102+00N	1.42	53.19	7.53	44.5	130	20.1	9.8	239	2.58	7.8	1.1	13.1	5.6	30.1	.06	.58	.48	46	.43	.045	20.9	35.5	.54	212.7	.073	1	1.67	.011	.08	.3	3.8	.16	.03	26	.5	.11	6.4	30
L123E 101+50N	2.15	42.80	9.04	46.8	177	19.2	8.0	177	2.91	11.3	.7	24.5	4.4	27.2	.09	.73	.52	44	.39	.043	16.7	32.7	.54	127.6	.057	1	1.50	.009	.06	.2	2.8	.13	.02	20	.5	.12	5.9	30
L123E 101+00N	10.76	101.30	10.44	37.2	360	23.3	11.1	291	3.64	10.7	1.6	32.9	7.9	34.0	.05	1.11	.43	39	.39	.049	26.2	34.3	.46	460.5	.043	1	1.56	.014	.12	.3	3.8	.23	.06	46	2.1	.16	6.3	30
L123E 100+50N	2.71	63.14	6.40	40.4	86	17.8	8.6	214	2.38	7.2	1.1	14.3	6.4	27.7	.07	.54	.29	40	.32	.037	22.1	28.9	.45	175.2	.072	1	1.30	.019	.09	.2	2.9	.14	.04	11	.5	.07	4.8	30
RE L123E 100+50N	2.66	61.23	6.16	39.3	80	17.7	8.5	217	2.42	6.9	1.0	10.1	6.0	28.5	.08	.53	.27	40	.33	.037	21.4	29.9	.47	167.6	.073	1	1.33	.017	.09	.2	2.9	.13	.04	14	.5	.07	4.7	30
L123E 100+00N	2.15	53.92	7.92	41.8	106	17.6	11.8	352	2.52	8.2	1.0	8.3	3.9	25.4	.10	.52	.37	43	.32	.042	18.2	30.1	.45	192.2	.060	1	1.65	.012	.08	.2	2.9	.14	.01	14	.4	.07	5.7	30
L123E 99+50N	1.41	28.73	6.47	53.1	164	14.4	7.8	145	1.49	19.6	1.4	12.0	5.1	20.0	.17	.42	.24	35	.26	.053	21.0	22.4	.35	152.0	.058	<1	1.21	.009	.06	.3	2.5	.10	<.01	27	.5	.03	4.0	30
L123E 99+00N	.84	20.03	5.87	56.9	102	15.4	7.3	207	2.11	13.3	.6	6.4	4.6	19.2	.13	.49	.35	41	.27	.052	19.6	25.4	.43	88.1	.077	<1	1.21	.010	.08	.2	2.1	.11	<.01	9	.3	.11	4.8	30
L123E 98+50N	.65	20.23	4.44	53.9	50	14.2	6.6	192	1.84	10.4	.6	2.3	5.0	19.4	.15	.42	.25	38	.30	.058	18.1	23.4	.37	76.7	.078	1	.89	.011	.09	.4	2.1	.09	<.01	19	.2	.07	3.8	30
L123E 98+00N	1.61	26.05	8.43	50.7	155	15.3	5.8	153	2.43	25.4	.7	15.1	3.9	19.0	.14	.59	.75	40	.20	.052	25.0	26.6	.38	111.4	.044	<1	1.34	.007	.09	.2	2.1	.17	.01	18	.5	.26	5.6	30
L123E 97+50N	1.02	29.09	6.56	51.9	95	15.1	6.4	140	2.37	17.4	.7	16.4	6.3	18.5	.15	.73	.77	36	.26	.057	23.6	24.5	.41	86.3	.063	1	1.19	.009	.09	.2	2.1	.13	.01	11	.3	.22	4.4	30
L123E 97+00N	1.56	23.28	6.06	42.2	97	12.6	5.4	139	1.84	16.6	.6	20.1	3.8	20.9	.11	.55	.54	37	.24	.051	23.3	20.4	.35	74.6	.055	1	1.00	.010	.09	.2	1.8	.12	.04	8	.3	.22	4.7	30
L123E 96+50N	1.31	24.91	8.95	65.2	183	17.8	6.6	182	2.44	23.0	.8	12.7	4.2	21.0	.20	.66	.57	45	.25	.053	23.8	30.1	.50	89.3	.069	1	1.48	.008	.10	.2	2.3	.18	<.01	25	.4	.17	6.0	30
L123E 96+00N	.92	31.82	10.69	86.2	208	23.4	8.3	180	2.38	28.5	1.3	6.7	6.0	20.8	.32	.82	.59	47	.24	.051	26.8	40.4	.60	108.3	.078	1	1.65	.010	.09	.1	3.3	.18	.02	34	.6	.09	6.8	30
L123E 95+50N	.65	27.78	5.79	54.3	234	13.7	7.1	155	2.46	12.7	.8	9.7	2.8	18.8	.17	.45	.45	67	.22	.064	16.2	21.6	.28	74.3	.079	<1	1.02	.019	.08	<.1	1.9	.11	.03	26	.3	.14	5.1	30
L123E 95+00N	1.09	49.65	12.12	79.2	181	26.4	12.9	379	3.19	27.5	1.2	11.2	7.8	26.7	.29	.93	.88	51	.22	.059	28.8	34.5	.50	98.7	.072	1	1.57	.013	.18	.1	2.5	.18	.09	13	.5	.32	6.2	30
L123E 94+50N	1.59	35.23	11.02	79.0	164	20.6	10.2	359	3.20	38.3	.9	22.6	5.6	19.1	.24	1.07	.69	64	.14	.037	20.7	31.6	.43	80.2	.070	1	1.58	.010	.12	.1	2.3	.17	.03	24	.4	.14	6.6	30
L123E 94+00N	1.96	33.70	12.14	86.3	113	23.1	10.0	443	3.10	42.8	.9	3.4	5.9	18.0	.34	1.31	.60	63	.15	.036	21.0	32.7	.50	66.0	.090	1	1.46	.007	.13	.2	2.5	.14	.03	15	.5	.09	6.8	30
STANDARD DSS	13.08	146.99	22.76	141.5	285	25.5	12.6	750	2.83	18.6	6.0	42.0	2.8	48.4	5.64	4.10	6.10	58	.72	.074	12.6	186.4	.64	134.1	.094	17	2.01	.036	.14	5.1	3.2	1.03	.02	173	4.7	.89	6.9	30

Sample type: SOIL SS80



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	gm	
L123E 93+50N	2.57	41.60	10.58	94.7	197	26.5	10.7	436	3.11	52.0	1.0	5.9	4.8	20.7	.85	1.52	.72	59	.14	.037	17.6	33.3	.50	124.7	.053	<1	1.66	.007	.10	.2	3.0	.15	.05	21	.6	.08	6.0	30
L124E 106+50N	.57	19.91	5.77	43.3	49	18.7	8.0	248	1.93	7.4	.6	2.1	2.5	25.1	.07	.33	.12	48	.41	.041	11.8	30.1	.52	122.4	.083	<1	1.44	.013	.05	.3	3.1	.07	<.01	14	.2	.02	4.7	30
L124E 106+00N	.97	24.94	6.07	43.3	93	21.1	10.2	643	2.33	9.1	.7	1.2	1.8	29.7	.08	.38	.15	53	.45	.057	10.8	32.6	.43	158.5	.060	<1	1.70	.014	.06	.2	3.5	.08	.01	21	.2	.03	5.3	30
L124E 104+50N	.73	36.46	13.31	72.7	147	24.4	13.1	428	3.06	20.4	1.2	12.1	8.4	35.7	.20	1.62	.55	48	.67	.078	30.0	35.8	.57	116.9	.071	<1	1.58	.016	.10	.4	5.4	.17	.01	21	.3	.06	5.7	30
L124E 104+00N	.52	39.88	6.13	37.1	215	17.2	8.4	234	1.99	9.5	1.1	4.5	3.2	37.4	.13	.79	.36	38	.80	.053	25.1	23.0	.33	102.4	.050	1	1.26	.026	.07	.3	3.9	.12	.02	37	.3	.04	4.1	30
L124E 103+50N	.75	42.83	6.05	45.6	131	20.4	10.1	310	2.58	7.7	.9	13.3	4.5	30.9	.06	.40	.43	50	.48	.046	16.5	34.2	.58	145.1	.084	<1	1.70	.012	.06	.2	3.8	.13	.02	24	.2	.13	5.9	30
L124E 103+00N	.75	105.35	6.79	35.5	158	17.8	8.6	172	3.29	8.3	1.0	27.2	7.0	36.8	.03	.67	.63	48	.40	.061	26.6	34.8	.56	181.7	.096	<1	1.61	.015	.12	.3	4.1	.18	.06	20	.7	.24	6.2	30
L124E 102+50N	1.56	78.58	7.56	40.3	146	20.5	10.2	251	3.20	9.4	.9	50.7	6.1	34.0	.07	.70	.72	48	.46	.040	20.8	38.0	.70	163.8	.105	<1	1.73	.012	.12	.3	3.6	.24	.04	21	.5	.23	6.6	30
L124E 102+00N	2.58	76.68	7.72	37.1	230	20.5	10.5	259	3.18	8.2	.9	48.7	6.0	33.4	.09	.88	.61	42	.44	.054	22.3	36.7	.59	227.2	.059	<1	1.62	.013	.10	.3	3.7	.24	.06	25	.8	.18	6.1	30
L124E 101+50N	1.75	66.28	8.51	40.5	171	21.1	10.2	341	2.78	11.3	.9	19.7	3.2	36.4	.06	.65	.46	48	.52	.065	20.7	35.5	.53	184.3	.042	<1	1.77	.012	.08	.2	3.6	.16	.04	26	.5	.13	6.3	30
L124E 101+00N	1.56	62.68	8.54	45.0	188	23.7	11.3	330	2.74	9.3	1.2	12.6	3.4	30.6	.10	.49	.32	54	.42	.055	18.5	38.0	.55	233.0	.056	1	2.13	.013	.08	.2	4.1	.20	.04	32	.4	.07	6.7	30
L124E 100+50N	8.27	104.54	9.49	30.0	200	18.4	6.9	159	3.82	8.6	1.5	56.8	10.8	42.7	.06	.98	.40	38	.33	.066	27.8	32.4	.48	283.0	.080	<1	1.34	.029	.28	.2	3.7	.33	.28	17	1.6	.16	5.4	30
L124E 100+00N	2.39	52.79	5.73	25.8	96	12.6	4.8	138	2.08	4.8	.8	8.8	4.5	23.9	.05	.41	.23	34	.26	.044	17.1	23.6	.39	141.3	.062	<1	1.18	.017	.11	.1	2.1	.16	.07	13	.5	.05	4.1	30
L124E 99+50N	.53	19.62	2.80	22.7	108	7.0	4.9	178	1.42	2.8	.4	4.4	1.1	15.9	.03	.22	.17	32	.23	.045	6.2	13.5	.19	80.0	.046	<1	.75	.033	.05	<.1	1.4	.07	.01	13	.3	.03	3.2	30
L124E 99+00N	2.24	68.13	7.56	40.8	135	19.1	7.7	141	2.72	8.4	1.1	15.9	5.7	28.9	.07	.70	.45	41	.41	.057	21.9	33.4	.55	173.3	.074	<1	1.60	.014	.11	.2	3.7	.18	.02	24	.5	.12	5.8	30
L124E 98+50N	.39	18.33	6.97	50.4	67	12.0	4.3	114	1.89	12.5	.8	6.3	3.7	17.2	.10	.34	.28	37	.26	.067	19.4	24.0	.38	93.6	.061	<1	1.33	.008	.06	.3	2.4	.13	.01	26	.3	.07	4.5	30
RE L124E 100+00N	2.48	53.52	5.80	27.4	108	13.0	5.2	141	2.11	4.9	.9	41.6	4.9	24.6	.04	.43	.23	33	.27	.045	18.6	23.9	.40	144.9	.062	<1	1.22	.019	.11	.1	2.2	.16	.06	12	.6	.05	4.3	30
L124E 98+00N	.64	19.78	7.74	46.7	85	13.8	4.9	120	2.14	9.9	.7	10.4	4.7	20.9	.09	.46	.39	38	.24	.049	21.4	28.3	.46	111.9	.064	<1	1.49	.009	.08	.1	2.6	.16	.03	25	.3	.11	5.4	30
L124E 97+50N	.62	19.32	7.47	44.9	88	14.0	5.4	122	2.11	12.5	.8	11.3	4.6	20.8	.10	.42	.41	38	.26	.070	22.4	26.5	.44	110.3	.067	<1	1.40	.009	.08	.2	2.5	.15	.03	17	.3	.12	5.1	30
L124E 97+00N	.37	20.49	8.60	51.8	102	14.9	5.4	124	1.70	8.3	1.0	20.7	4.3	21.4	.15	.38	.45	37	.26	.060	21.4	28.0	.43	124.7	.062	<1	1.50	.010	.06	.2	3.2	.15	.03	35	.3	.13	5.3	30
L124E 96+50N	.76	20.52	7.10	44.8	109	13.4	5.8	165	1.96	10.1	.7	6.4	2.9	26.8	.09	.37	.42	36	.23	.072	20.1	23.8	.38	86.8	.052	<1	1.16	.009	.08	.2	2.0	.13	.03	11	.3	.12	5.0	30
L124E 96+00N	.68	22.22	5.52	36.4	95	9.4	17.2	845	1.84	5.4	.7	2.8	.8	18.8	.22	.25	.24	53	.19	.058	10.7	17.6	.19	68.2	.064	<1	.78	.018	.05	<.1	1.5	.10	.03	21	.2	.08	4.6	30
L124E 95+50N	.88	30.76	7.33	66.1	75	23.6	10.2	305	2.50	14.8	.9	4.8	4.6	25.0	.18	.60	.44	51	.31	.080	21.2	37.1	.53	93.6	.094	<1	1.35	.011	.12	.2	3.1	.15	.03	11	.2	.14	5.4	30
L124E 95+00N	.66	30.41	7.12	45.0	117	18.1	9.8	230	2.18	13.2	1.0	30.6	4.1	33.1	.16	.43	.64	41	.29	.072	21.6	29.6	.37	91.3	.068	<1	1.16	.025	.10	.1	2.4	.11	.07	16	.3	.27	4.6	30
L124E 94+50N	.78	35.61	10.03	66.4	102	33.3	13.4	420	2.90	15.9	1.0	16.9	7.0	21.9	.20	.79	.42	53	.33	.081	24.1	60.9	.67	106.5	.104	<1	1.63	.012	.16	.2	3.5	.18	.01	13	.2	.12	5.8	30
L124E 94+00N	1.17	38.37	10.98	68.6	97	21.3	12.0	423	2.87	30.8	1.0	12.7	7.3	21.1	.24	1.01	.70	43	.17	.044	24.0	29.0	.50	76.7	.066	<1	1.40	.008	.15	.2	2.4	.17	.06	19	.3	.19	5.4	30
L124E 93+50N	2.40	43.61	17.50	98.2	600	25.8	31.1	1529	3.73	60.6	1.5	13.3	3.9	28.7	.73	1.61	1.36	59	.21	.090	21.3	35.9	.46	171.4	.040	1	1.86	.012	.13	.1	3.5	.25	.05	47	.6	.19	7.1	30
L125E 104+50N	.55	33.44	6.98	57.2	67	19.9	10.0	254	2.53	11.9	.7	5.5	6.1	30.9	.12	.66	.36	48	.56	.075	19.9	33.7	.56	110.9	.103	<1	1.47	.023	.11	.3	3.9	.15	<.01	14	.2	.06	5.6	30
L125E 104+00N	.49	31.02	6.57	49.9	64	19.8	9.2	240	2.34	9.1	.6	9.2	4.7	29.2	.07	.40	.31	46	.51	.060	15.8	29.9	.50	132.7	.081	<1	1.51	.013	.07	.3	3.1	.12	.01	8	.1	.05	5.1	30
L125E 103+50N	.76	49.58	7.79	52.6	86	23.0	11.8	302	2.99	10.8	.9	7.3	5.9	25.3	.09	.58	.38	55	.32	.053	19.4	38.2	.63	128.1	.099	<1	2.02	.011	.10	.2	4.1	.18	.01	10	.2	.10	6.6	30
L125E 103+00N	.87	86.77	9.51	55.0	113	29.0	15.3	355	3.97	12.5	1.0	11.9	7.6	38.7	.08	.59	.77	59	.34	.057	26.2	44.0	.72	210.8	.093	1	2.29	.026	.19	.2	4.3	.23	.18	9	.5	.26	7.2	30
L125E 102+00N	3.07	97.74	10.38	43.8	301	18.7	10.3	231	4.32	15.2	.9	89.4	5.2	37.6	.11	.95	1.47	48	.50	.045	20.0	36.0	.47	269.4	.080	<1	1.44	.023	.11	.4	4.0	.15	.14	21	1.0	.43	6.6	30
L125E 101+50N	1.50	70.00	7.49	44.4	112	20.9	10.8	335	2.89	10.4	1.0	15.7	4.4	37.2	.07	.69	.43	47	.52	.056	20.0	33.6	.55	176.7	.052	<1	1.72	.012	.07	.2	3.5	.14	.04	18	.4	.11	5.4	30
L125E 101+00N	1.38	53.14	6.38	51.3	114	20.8	10.4	354	2.61	10.2	1.0	7.5	4.1	28.6	.12	.40	.34	53	.41	.045	17.2	33.6	.57	182.0	.074	<1	1.72	.012	.07	.2	3.6	.13	.04	10	.2	.08	5.5	30
STANDARD DSS	12.81	146.07	23.25	138.0	283	25.4	12.6	767	2.95	19.4	5.9	40.0	2.9	49.7	5.64	3.99	6.15	61	.75	.095	13.0	191.0	.67	137.4	.098	16	2.10	.036	.14	4.7	3.7	1.04	.02	171	4.9	.90	6.9	30

Sample type: SDIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	gm
L125E 100+50N	1.62	53.40	7.81	42.2	134	17.5	9.4	313	2.53	7.7	.9	31.0	4.0	29.7	.08	.38	.35	52	.40	.032	17.1	33.4	.54	157.4	.084	1	1.73	.012	.08	.2	3.0	.16	.03	12	.3	.07	6.1	30
L125E 100+00N	2.37	66.59	8.23	36.5	264	19.9	12.6	390	3.52	9.5	1.3	16.6	5.5	33.7	.10	.66	.42	47	.48	.072	24.0	36.3	.56	217.4	.068	1	1.81	.012	.11	.1	3.7	.23	.05	36	.6	.11	6.1	30
L126E 106+50N	.46	29.82	5.80	37.9	99	18.7	7.7	392	1.69	11.7	.8	2.1	1.0	61.3	.16	.67	.10	38	1.06	.064	10.2	26.8	.38	135.5	.050	1	1.34	.033	.06	.1	2.7	.10	.09	30	.3	<.02	3.9	30
L126E 105+00N	.38	14.13	6.19	42.6	47	15.4	6.8	461	1.71	3.5	.8	1.4	3.7	30.8	.10	.38	.29	39	.53	.062	15.9	31.4	.48	130.6	.081	1	1.52	.018	.06	.2	3.1	.11	.03	14	.2	.02	5.2	30
L126E 103+50N	.74	49.80	9.36	47.8	183	21.9	13.6	665	2.45	8.6	1.1	20.0	4.5	35.5	.11	.55	1.16	46	.62	.072	24.7	32.8	.52	143.4	.080	1	1.64	.026	.08	.5	4.0	.15	.03	29	.3	.09	5.3	30
L126E 103+00N	.76	77.98	10.88	54.9	124	27.0	13.9	410	3.04	10.8	1.0	27.4	5.9	27.4	.20	.66	1.08	54	.40	.059	22.7	35.8	.59	137.9	.105	2	1.91	.015	.12	.4	3.9	.14	.03	18	.3	.15	6.1	30
L126E 102+50N	1.04	37.29	18.55	47.4	153	21.9	12.2	247	3.01	13.8	.8	10.8	5.2	22.5	.17	.75	.67	59	.28	.022	18.1	31.3	.51	99.2	.083	1	1.95	.009	.09	.2	3.5	.17	.01	10	.2	.13	6.6	30
L126E 102+00N	1.05	85.84	13.40	47.0	306	27.3	13.3	527	2.48	10.3	2.4	15.6	3.2	45.1	.17	.74	.43	48	.81	.074	23.2	39.0	.62	187.9	.065	1	1.88	.020	.06	.2	5.0	.13	.04	54	.5	.09	5.7	30
L126E 101+50N	1.92	79.06	7.77	42.1	297	22.0	11.8	370	2.91	12.5	1.1	20.8	3.3	39.6	.16	.63	.60	52	.77	.055	19.4	35.7	.54	231.2	.040	1	2.06	.013	.07	.2	3.4	.21	.06	25	.4	.12	6.5	30
L126E 101+00N	2.92	129.97	10.89	20.1	167	20.9	9.2	131	3.91	19.6	1.6	19.0	12.8	42.8	.05	.95	.31	25	.29	.057	36.1	23.0	.47	212.4	.047	<1	1.41	.021	.41	.1	2.7	.39	.39	11	1.0	.15	4.5	30
RE L126E 102+50N	1.03	35.73	18.24	46.5	151	20.9	11.6	241	2.97	13.4	.7	16.3	4.7	21.5	.17	.73	.65	58	.27	.022	16.5	30.6	.50	93.5	.079	2	1.89	.009	.08	.2	3.3	.17	.01	14	.2	.12	6.7	30
L126E 100+50N	1.35	62.88	6.57	40.0	143	19.2	10.1	383	3.02	10.9	.9	20.8	4.4	32.0	.05	.66	.59	47	.47	.056	20.3	33.1	.54	167.2	.070	1	1.64	.013	.08	.2	3.5	.15	.05	18	.5	.13	5.5	30
L126E 100+00N	1.45	59.68	6.77	43.5	120	20.2	9.5	317	3.05	11.1	1.0	70.9	4.4	35.9	.08	.59	.50	47	.52	.053	18.9	35.6	.58	189.8	.067	1	1.78	.012	.10	.3	3.7	.16	.08	14	.5	.10	5.9	30
STANDARD D55	12.47	143.34	23.14	138.5	279	24.9	12.4	770	2.98	18.4	5.8	43.0	2.9	52.4	5.57	3.81	6.04	62	.76	.096	13.6	189.1	.69	143.4	.108	16	2.14	.035	.14	4.6	3.8	1.01	.04	173	4.6	.87	7.0	30

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

**Appendix III****Rock Sample Descriptions**

Sample #	NAD 83 UTM		Type	Description
	East	North		
SR03-01	349395	6878613	Float	Float boulder in a soil sample pit on line 11600E/ 10550N. Angular boulder 15x10x10 cm. Slightly magnetic. Sheared with magnetite on foliation planes. Minor epidote clots, no sulphides.
SR03-02	349485	6878415	Float	Angular float boulder from soil pit. Silicified schist with 80% silica. Muscovite partings. Traces of tarnished pyrite and abundant Fe-oxide staining.

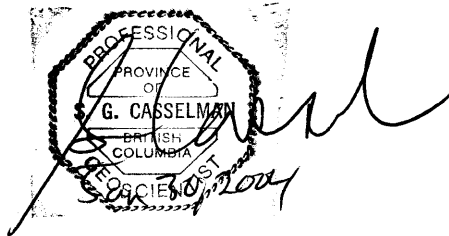
## Appendix IV

## Statement of Expenditures

## Wages

## Project preparation and Field Work

Scott Casselman	- 10 days @ \$460	4,600.00
Casey Adshead	- 10 days @ \$175	1,750.00
Suzanne Aichelle	- 10 days @ \$180	1,800.00
Contractors		
Kel Sax	- 9.5 days per invoice	2,287.13
Report Writing		
Scott Casselman	-8 days @ \$500	4,000.00
Helicopter Charter	- 5.5 hrs @ \$ 1,153	6,341.50
Sample Analysis	- 538 soils samples @ \$ 23.00	12,374.00
	- 2 rock samples @ \$ 26.75	53.50
Magnetometer rental	- 3 days @ \$100	300.00
Groceries		2,134.23
Fuel		129.82
Consumables	- flagging, sample bags, etc	251.52
Phone Charges		100.00
Camp equipment rental	- 10 days @ \$150	1,500.00
Vehicle Rental (incl. gas and mileage)	- 10 days @ \$140	1,400.00
Administrative Overhead		2,003.65

**Total****41,025.35**

## Appendix V

## SHAMROCK PROJECT

## CREW LOG

**Crew:** Scott Casselman, Project Geologist  
Kel Sax, geologist  
Casey Adshead, geological assistant  
Susanne Aichelle, field assistant

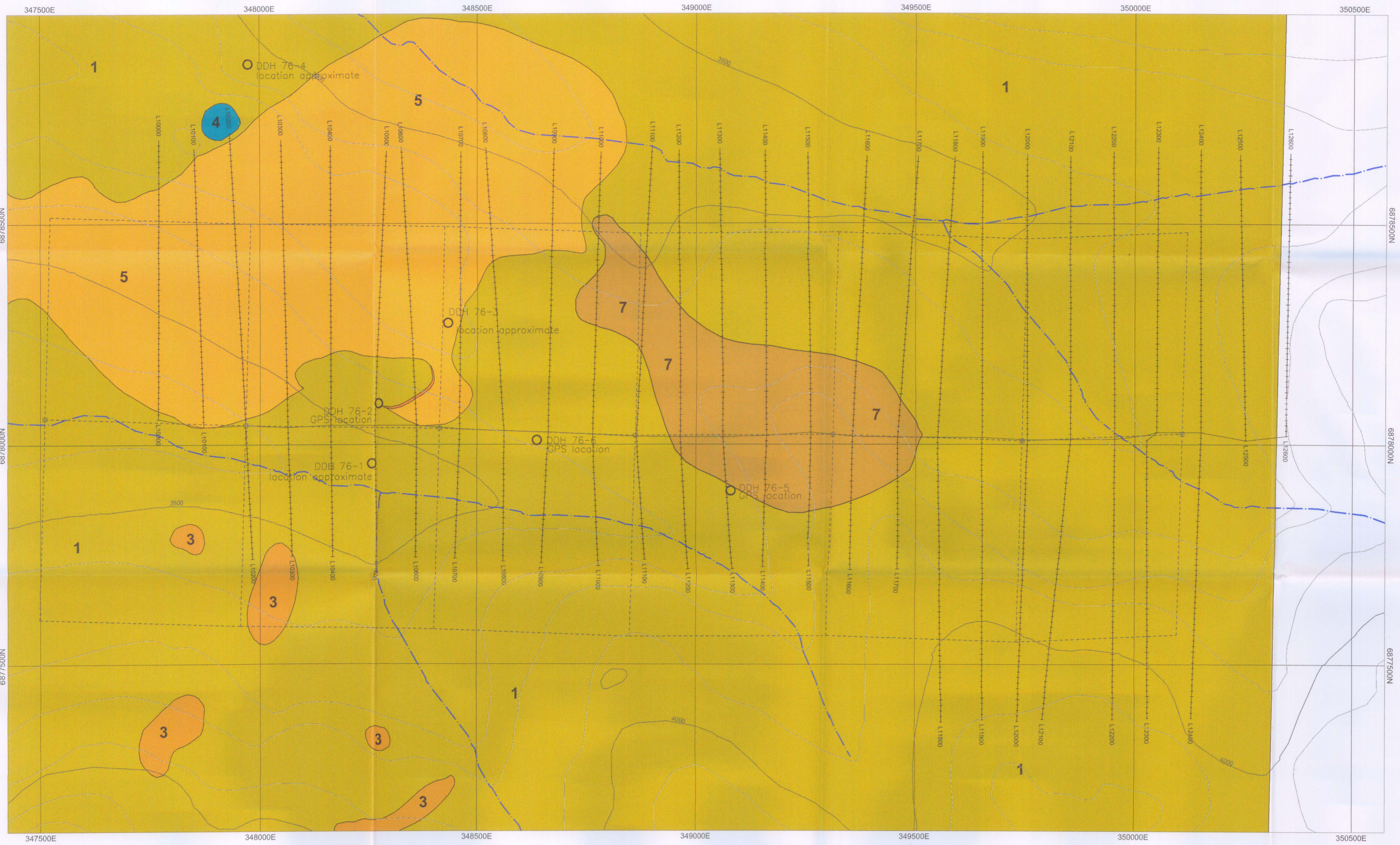
- August 4 Casey, Kel and Susanne organize and pack field gear and purchase groceries and supplies. Scott prepares field maps. Load truck for departure next day.
- August 5 Pick-up frozen foods at grocery store and drive to Carmacks to meet-up with Brian Parson (Trans North Heli pilot). Scott and Susanne and some gear load into helicopter to fly to property, Kel and Casey drive to Mt Nansen mine site area for staging remaining gear. All gear in camp by 3:30 pm. Set-up camp and arrange gear for work the next day.
- August 6 Rained through early morning, slightly cloudy in morning, minor drizzle, clears-up through day, hot in afternoon. Kel gives Casey and Susanne training on gridding and soil sampling on line 102 E. Kel grids and soil samples lines 100 E and 101 E, Casey lines 102 E and 103 E. Scott and Susanne cut and mark baseline from 100E to 109E.
- August 7 Clear and warm in morning, gets hot in afternoon and windy. Kel and Casey finish cutting baseline from 109E to 126E. Scott and Susanne grid and sample lines 104E to 107E.
- August 8 Slight shower in early AM, clears by 9:00 AM, warm and partially cloudy through day. All 4 crew grid and soil sample. Scott and Susanne on lines 108E to 111E, Kel and Casey on lines 125E and 126E (north side) and 122E to 124E (south side).
- August 9 Clear hot and dry through day. Kel, Casey and Susanne grid and soil sampling on lines 112E, 113E, 122 to 124E (north side) and 119-121E (south side). Scott runs magnetometer survey on line 100E to 113E and lines 125E and 126E.
- August 10 Clear, hot and dry all day. All four crew gridding and soil sampling on lines 114E to 121E (north side) and 114E to 118E (south side). Casey breaks his mattock in AM and starts gridding line 102E to 105 E on the south side.
- August 11 Clear, hot and dry through day. Kel and Susanne grid and soil south side of lines 107E to 113E. In afternoon, Kel goes to sample some of the permafrost sites. Casey samples lines 119E to 121E. Scott runs magnetometer survey on lines 114E to 124E (north and south sides).
- August 12 Slightly overcast and warm in morning, windy slight drizzle in late morning, clears in afternoon. Kel samples more perma-frosted sites. Casey and Susanne do 25 m infill samples on lines 105, 106, 115 and 116E. Scott runs magnetometer survey on south side of line



102E to 113E. In mid afternoon all return to camp to pack-up for demob next day.

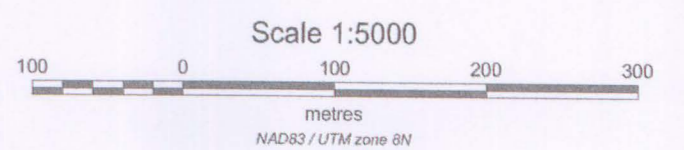
August 13 Clear and warm in AM, hot in afternoon. Helicopter arrives at 10:00 AM. Move camp to Severance property. Ship samples and unnecessary camp equipment to truck at Mt Nansen mine site.

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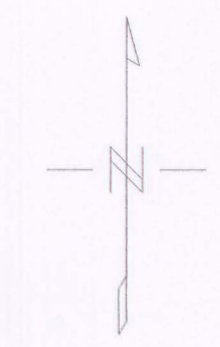
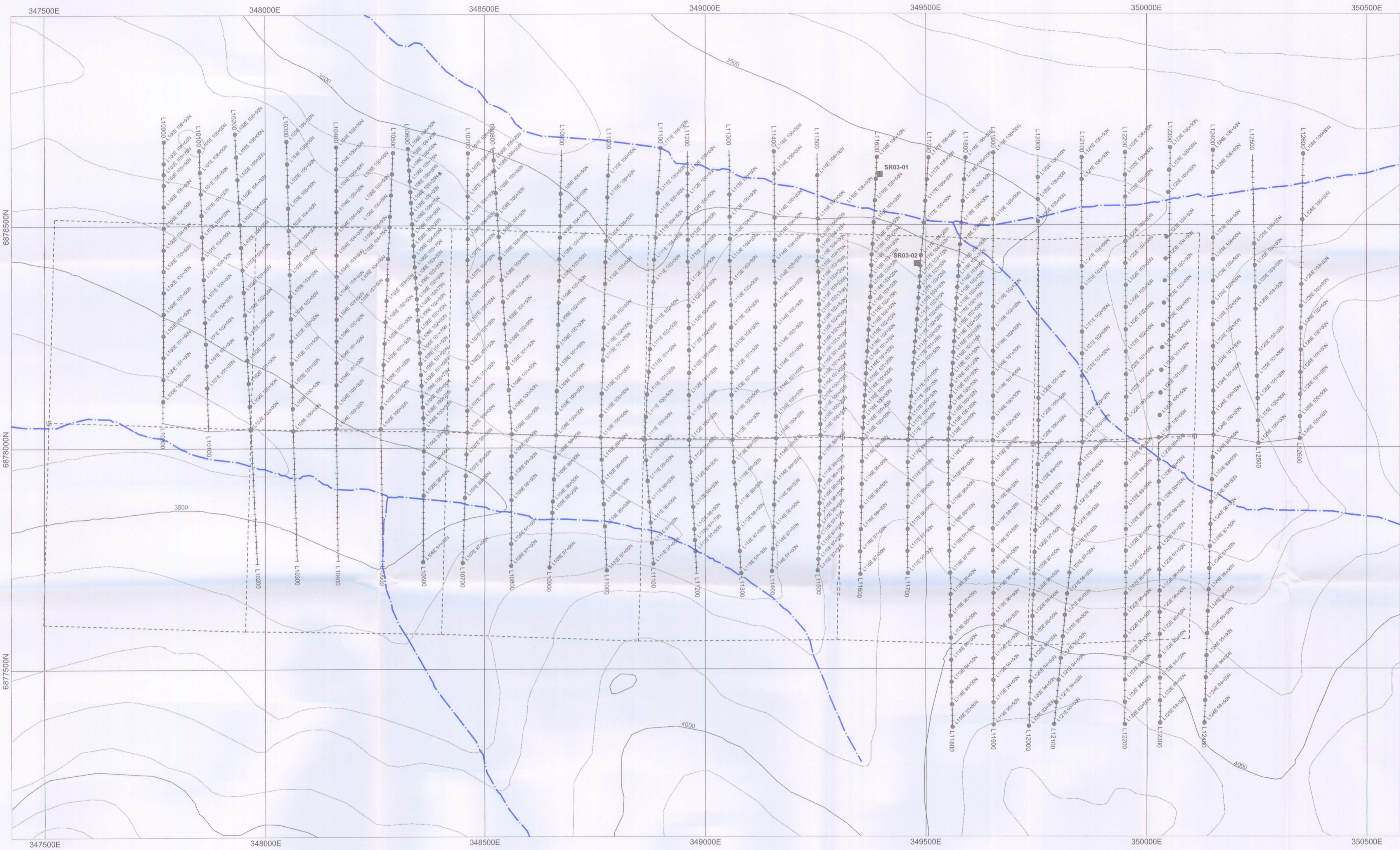
- 11 Coarse grained quartz feldspar porphyry
- 10 Undifferentiated aphanitic dykes
- 9 Rhyolite
- 8 Quartz feldspar porphyry
- 7 Quartz porphyry breccia
- 6 Quartz porphyry
- 5 Quartz diorite
- 4 Andesite
- 3 Biotite hornblende porphyry
- 2 Diorite with lesser quartz diorite
- 1 Nisling Group metamorphosed sediments

PROFESSIONAL ENGINEER  
 CASSELMAN  
 YUKON



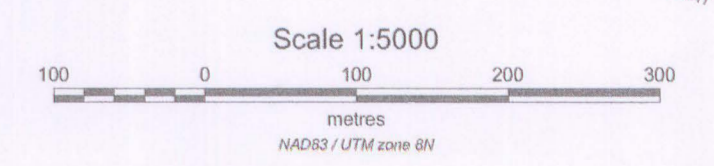
4763 NWT Ltd	
SHAMROCK PROPERTY PROPERTY GEOLOGY MAP	
Figure 4 Mt Nansen Area NTS 1151-04	Whitehorse Mining District Yukon January 23, 2004
AURORA GEOSCIENCES LTD	

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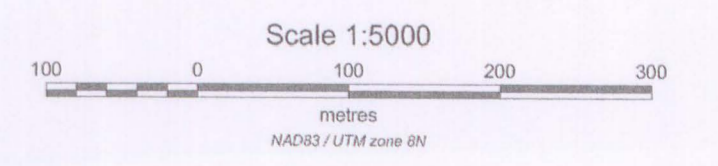
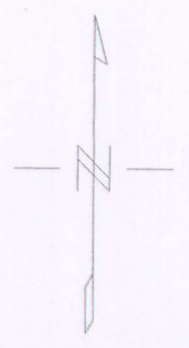
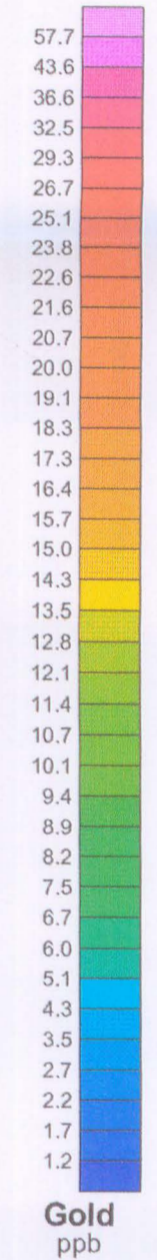
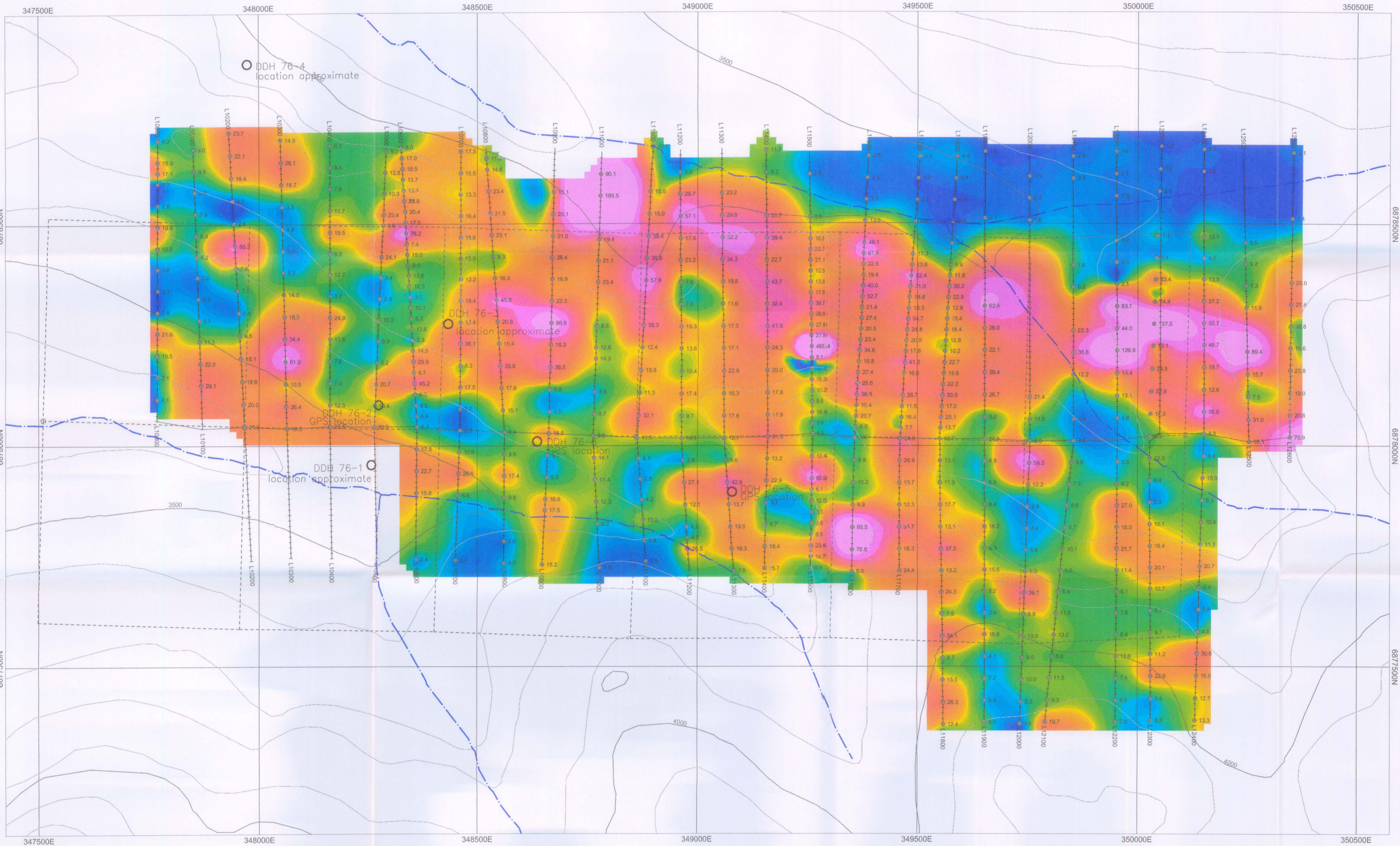
- SR03-02  Rock sample location
- Soil sample location

S. G. Casselman  
 Jan 30, 2004



<b>4763 NWT Ltd</b>	
<b>SHAMROCK PROPERTY</b>	
<b>ROCK AND SOIL SAMPLE LOCATION MAP</b>	
Figure 5 Mt Nansen Area NTS 1151-04	Whitehorse Mining District Yukon January 23, 2004
<b>AURORA GEOSCIENCES LTD</b>	

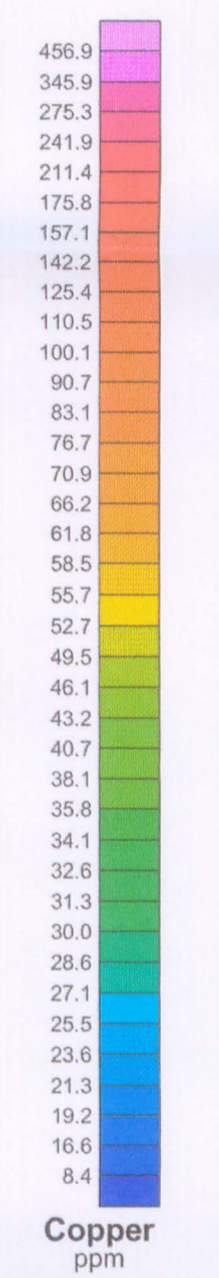
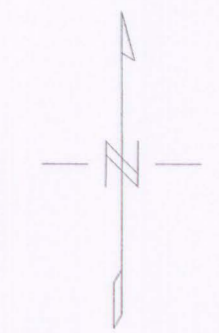
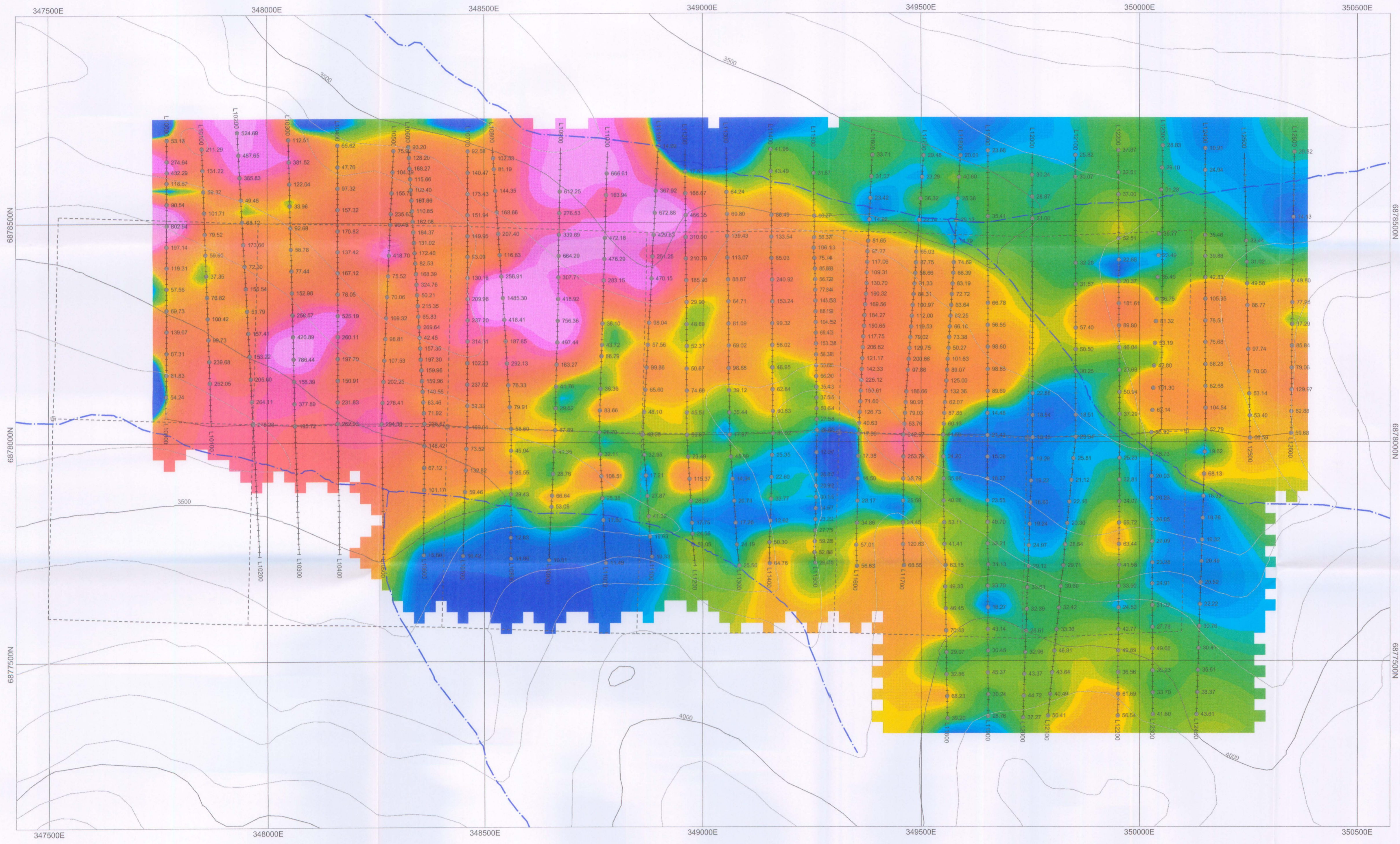
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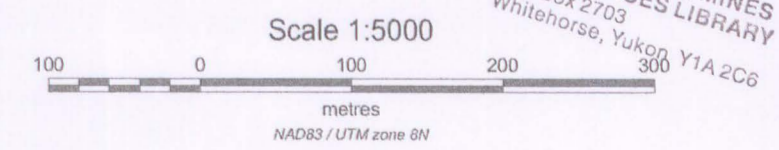
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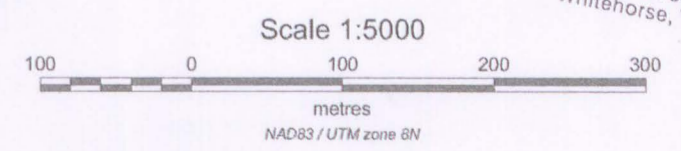
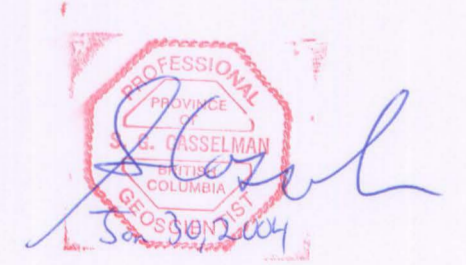
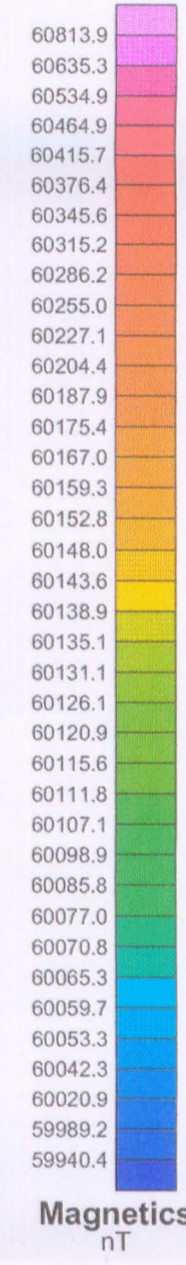
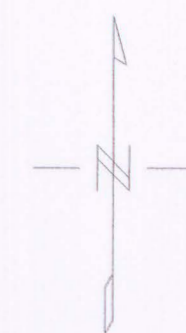
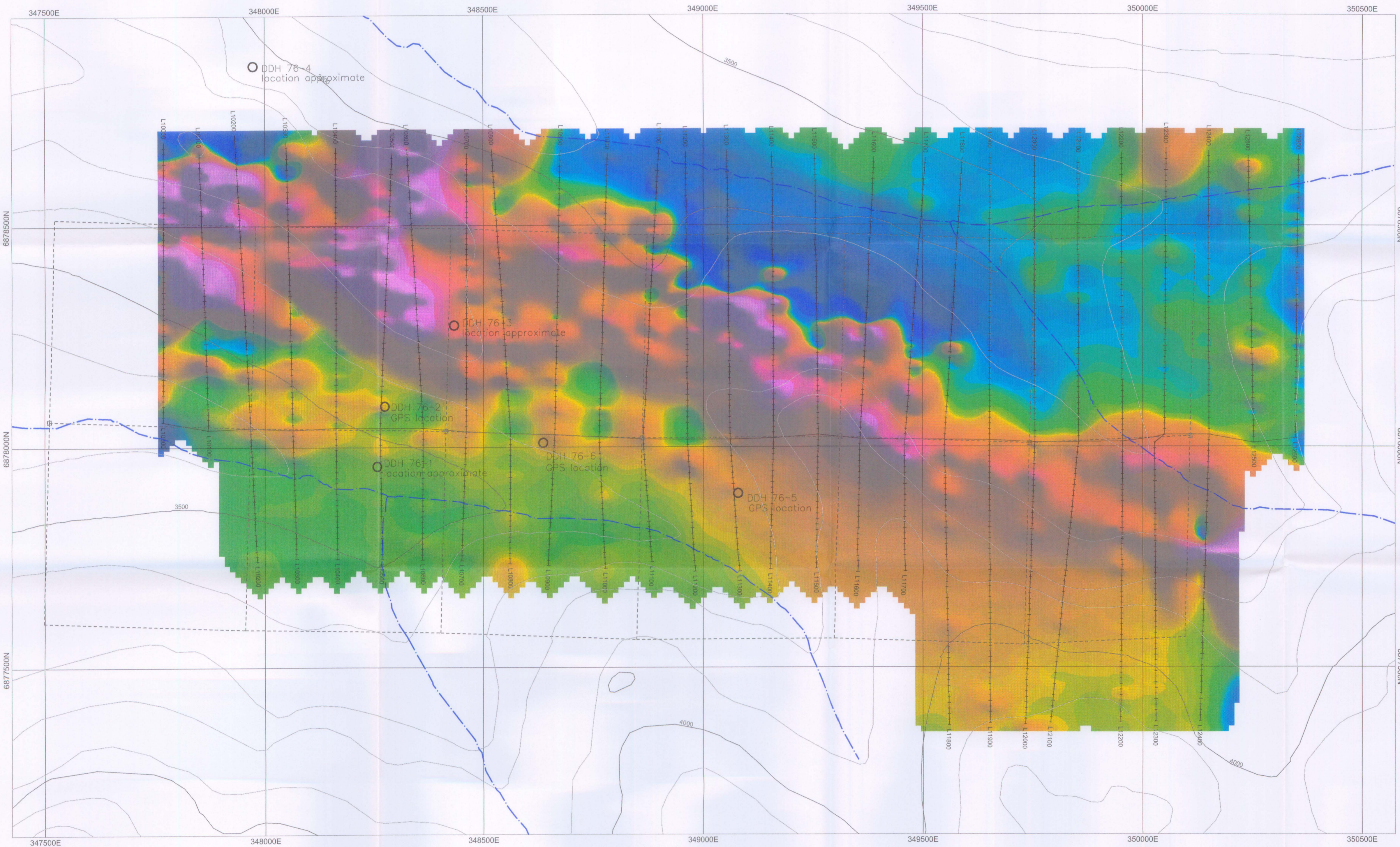
4763 NWT Ltd	
SHAMROCK PROPERTY SOIL GEOCHEMISTRY - GOLD (ppb)	
Figure 6 Mt Nansen Area NTS 1151-04	Whitehorse Mining District Yukon January 23, 2004
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Copper ppm

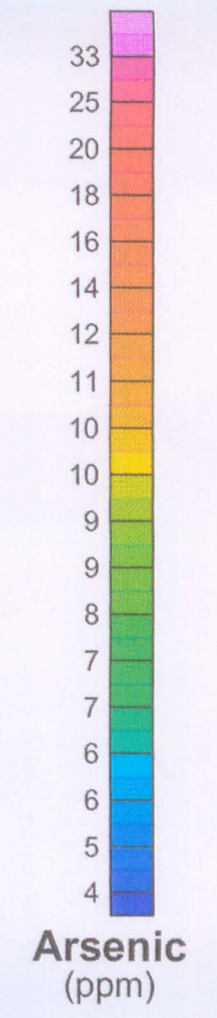
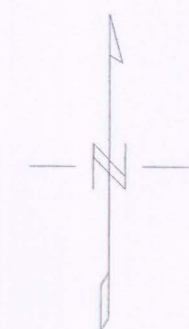
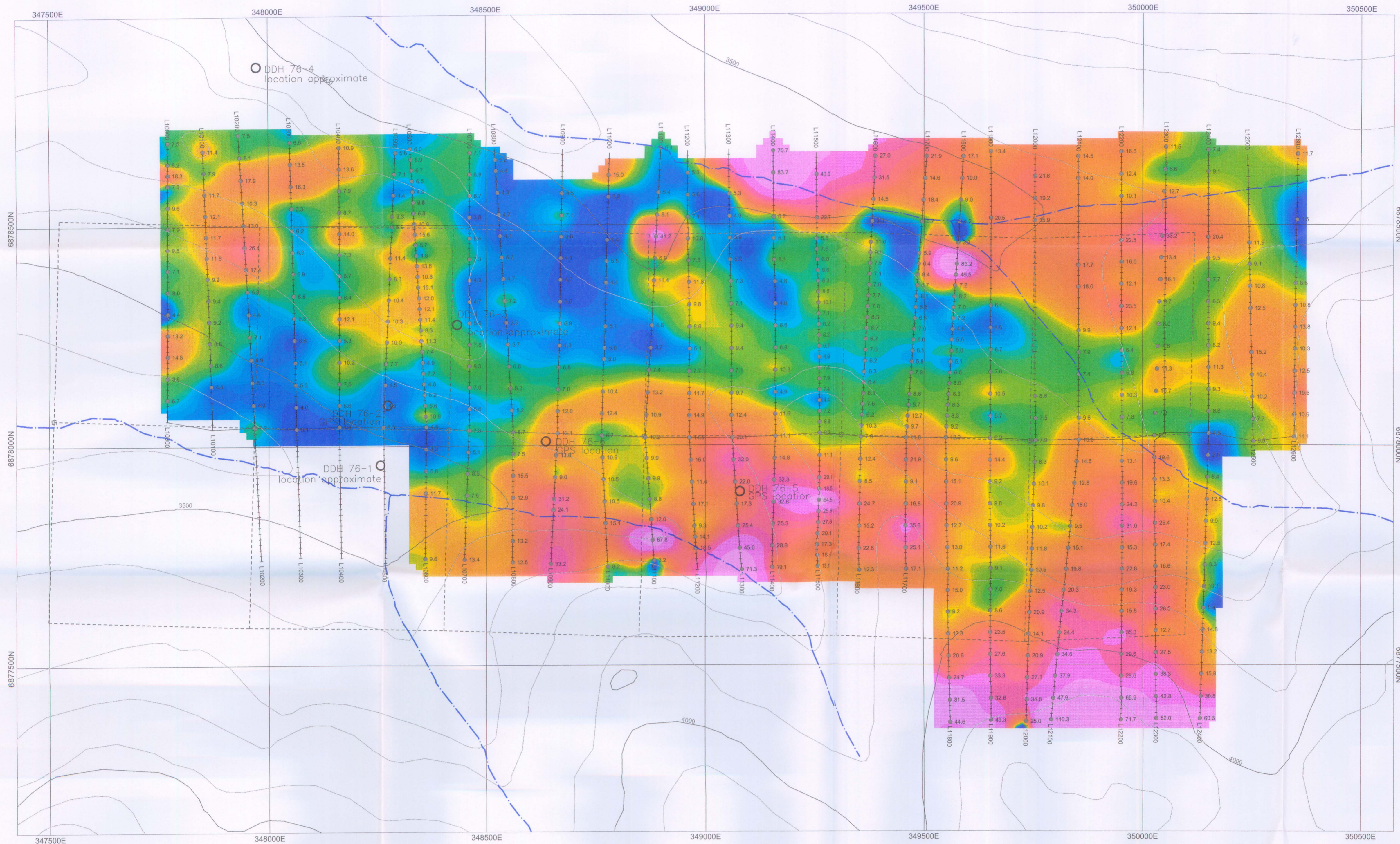


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<b>SHAMROCK PROPERTY SOIL GEOCHEMISTRY - COPPER (ppm)</b>	
Figure 7 Mt Nansen Area NTS 1151-04	Whitehorse Mining District Yukon January 23, 2004
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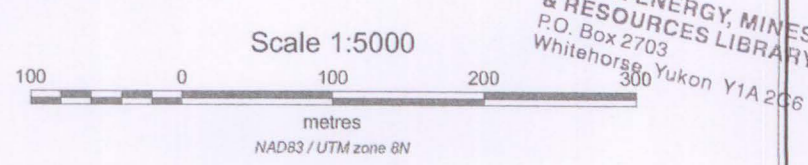


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**SHAMROCK PROPERTY**  
**SHADED RELIEF TOTAL MAGNETIC FIELD MAP**  
 Figure 8 Whitehorse Mining District  
 Mt Nansen Area Yukon  
 NTS 1151-04 January 23, 2004  
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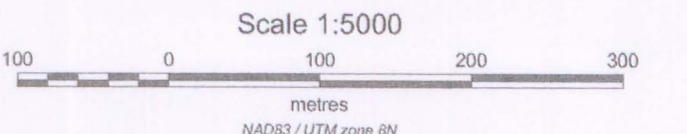
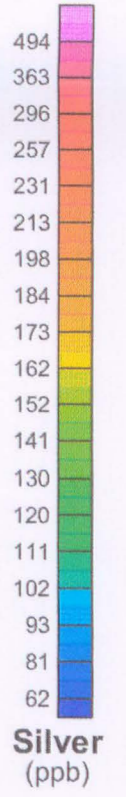
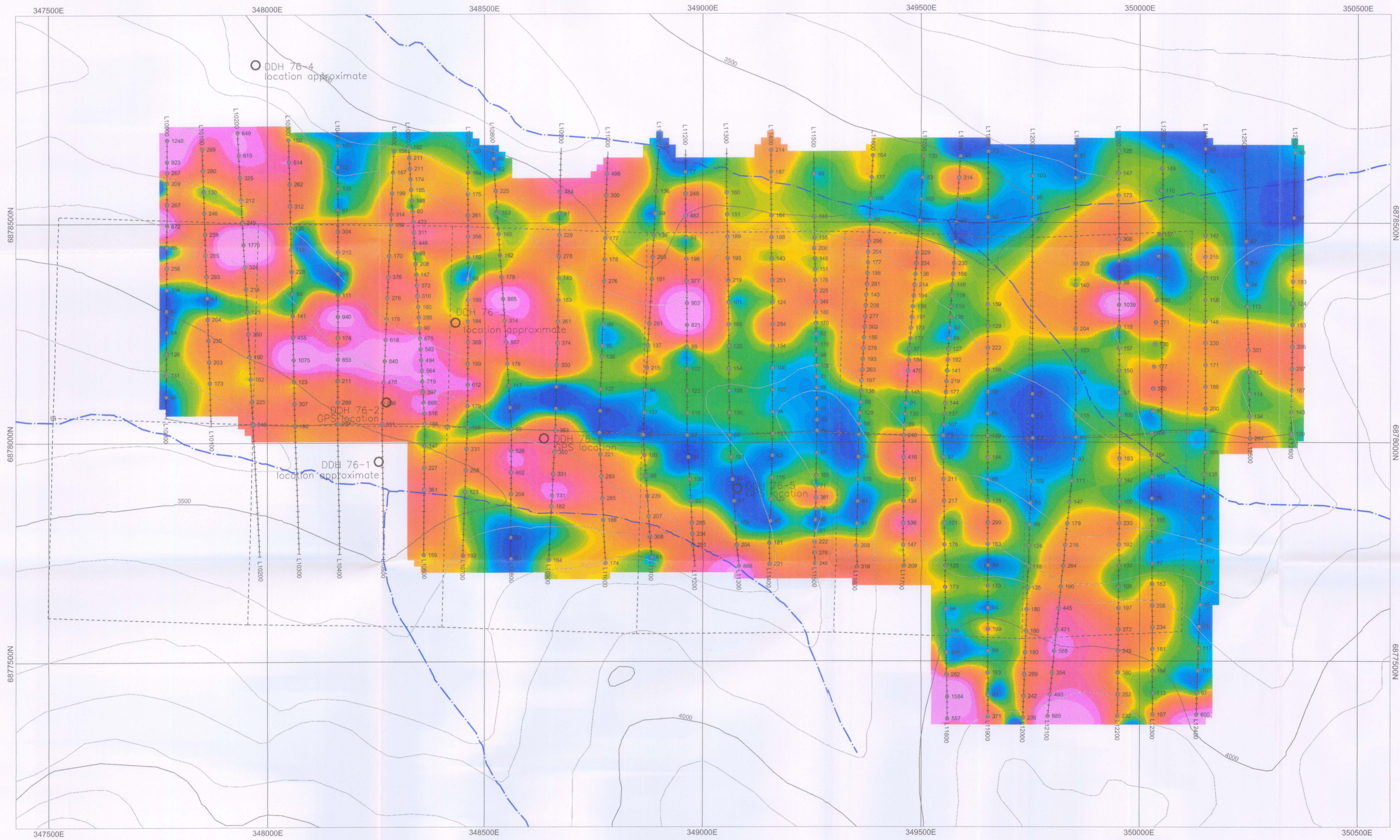


S. Cassella  
 Geoscientist  
 Jan 30, 2004



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**SHAMROCK PROPERTY**  
**SOIL GEOCHEMISTRY - ARSENIC (ppm)**  
 Figure 9 Whitehorse Mining District  
 Mt Nansen Area Yukon  
 NTS 1151-04 January 23, 2004  
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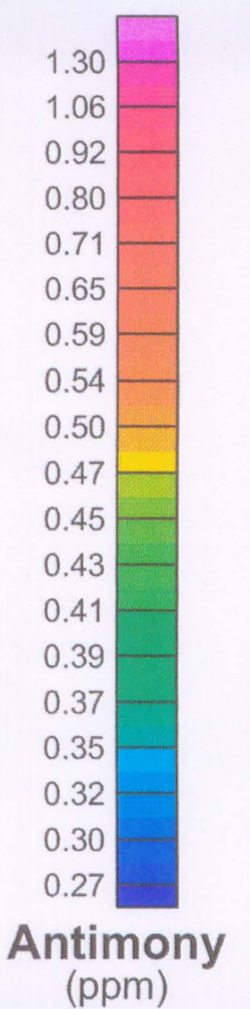
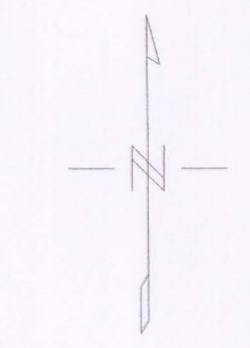
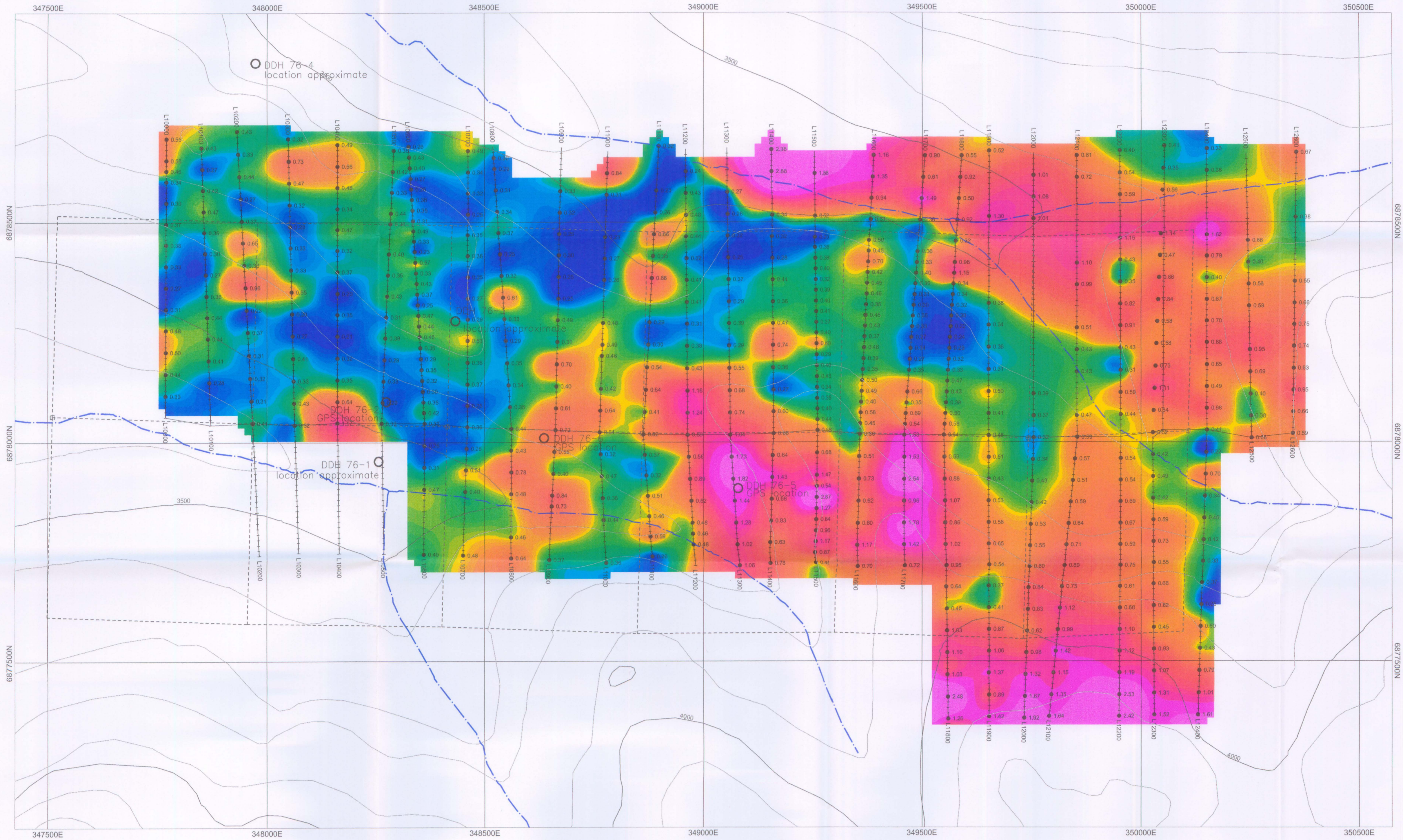
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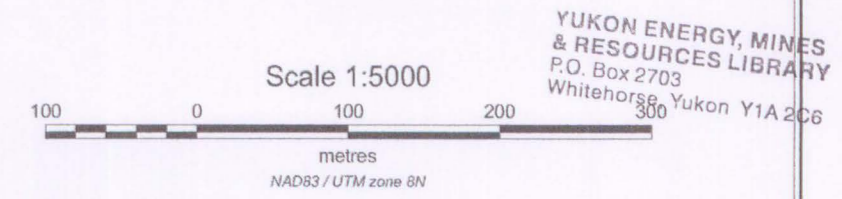
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SHAMROCK PROPERTY SOIL GEOCHEMISTRY - SILVER (ppb)	
Figure 10 MI Nansen Area NTS 115I-04	Whitehorse Mining District Yukon January 23, 2004
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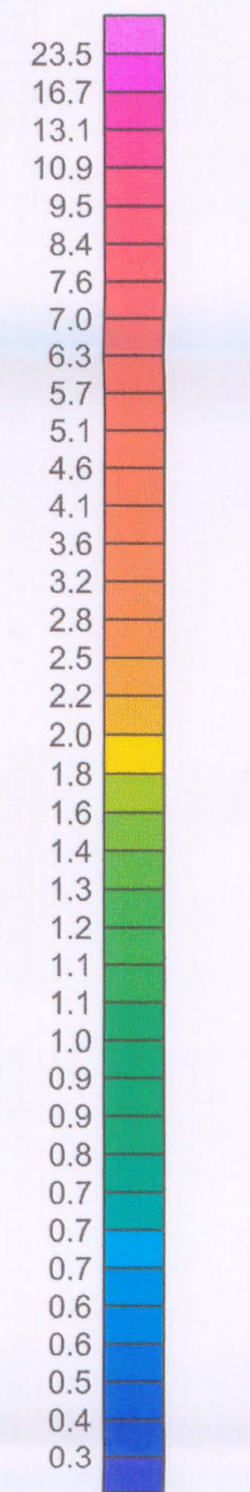
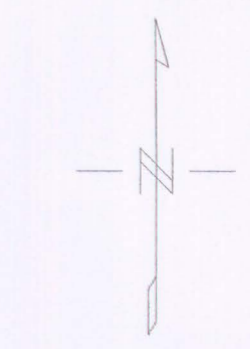
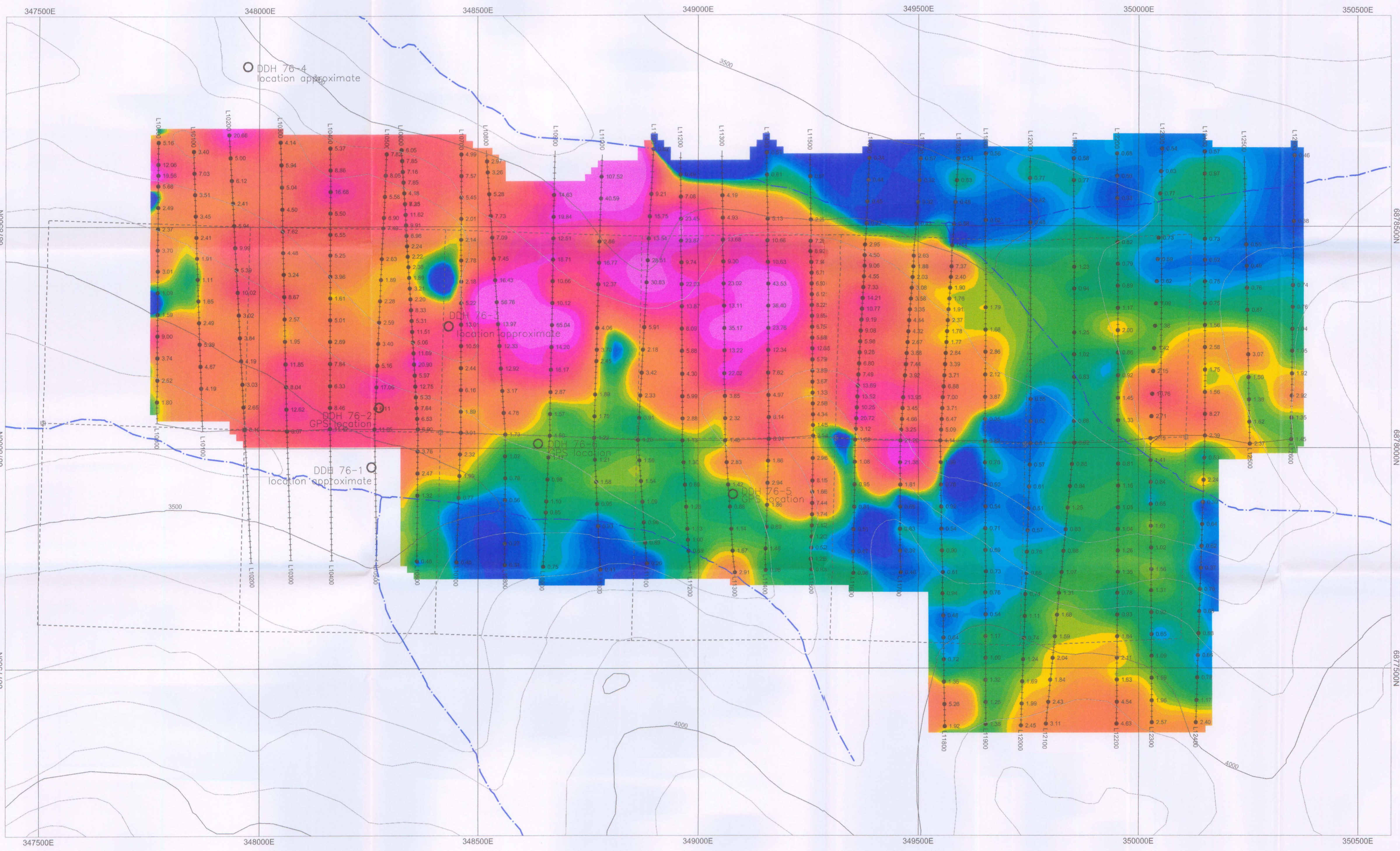


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GEOSCIENTIST  
S. CASSELMAN  
2004  
Jan 30 2004



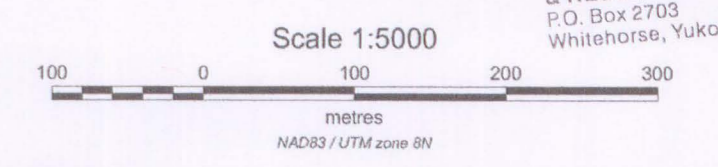
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SHAMROCK PROPERTY  
SOIL GEOCHEMISTRY - ANTIMONY (ppm)  
Figure 11 Whitehorse Mining District  
Mt Nansen Area Yukon  
NTS 1151-04 January 23, 2004  
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Molybdenum (ppm)

*[Handwritten Signature]*  
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SOIL GEOCHEMISTRY - MOLYBDENUM (ppm)	
Figure 12	Whitehorse Mining District
MT Nansen Area	Yukon
NTS 1151-04	January 23, 2004
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