

# **GEOLOGICAL and GEOCHEMICAL REPORT on the SPICE PROJECT**

Spice 1-14, 19-36: YB93156-165, 615-636  
Spy 1-14, 19-22, 24, JF Bear: YC31414-31, 33, 32

**NTS: 105G/13, 105J/04**

**Latitude 61°59'N      Longitude 131°55'W**

## **Watson Lake Mining District, Yukon**

Work performed between August 26 and October 7, 2006

For:

**Klondike Star Mineral Corporation  
P.O. Box 20116  
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## 1.0 Executive Summary

The 1080 hectare Spice Project, NTS map sheets 105G/13 and 105J/04, is located in the Watson Lake Mining District, approximately 25 km east of Ross River, which is 360 km by road from Whitehorse, Yukon Territory at a latitude of 61°59'N and a longitude of 131°55'W. The property comprises the Spice 1-14, 19-36, Spy 1-14, 19-22, 24 and JF Bear claims, owned by Mr. Ivan Elash and Tanana Exploration Incorporated under option to Klondike Star Mineral Corporation, all of Whitehorse, Yukon Territory.

Extensive Quaternary glacial deposits cover the project area with less than 1-2% outcrop. The property appears to be underlain by either a Permian-Carboniferous or mid Cretaceous succession of variably graphitic and silicified conglomerate and phyllite at the leading edge of Yukon Tanana Terrane with ancestral North America. A northerly trending listwanite zone and a northeasterly trending fault zone transect the central claims and quartz feldspar porphyry dykes are evident. Tertiary basalt flows lie 5 km to the east.

Gold mineralization on the Spice property appears to be related to silica alteration as pervasive silicification of the clastic sedimentary stratigraphy, quartz veining, sheeted veinlets and re-silicified breccias. Fine disseminated pyrite, possible arsenopyrite or arsenium and stibnite occur within the silicified zone.

The Spice Project covers the Spice Minfile anomaly discovered by the Yukon Geological Survey during a regional till geochemistry survey in 2000. The sample returned 28.9 ppb Au, 485 ppm As, 151 Sb ppm, 21 ppm Hg, 1 ppm Tl and 1.4 ppm Ag, the highest values in the survey area and suggestive of epithermal or sediment hosted style gold mineralization. Follow up sampling outlined anomalous gold values over 300m in till, with maximum values of 13.9 g/t Au, 7.0 g/t Ag, 951 ppm As, 117 Sb ppm and 24 ppm Hg, and 1.05 g/t Au from quartz in the till pit.

Exploration on the Spice Project, undertaken from 2001 to 2004, has involved till, soil, silt and rock geochemistry, hand/blast pitting and trenching, ground magnetic, induced polarization/resistivity and VLF-EM geophysical surveys. The 2006 program consisted of soil geochemical sampling, a property evaluation, the delineation of drill targets and petrography. Old workings were located and surveyed in by GPS.

Previous exploration outlined a 600m by 200-300m wide gold in till anomaly (Spice Anomaly), repeated the 13.9 g/t Au till anomaly with 4.46 g/t Au from the site and obtained 1.21 g/t Au and 0.98 g/t Au from the till pit. The 2004 induced polarization survey identified a shallow, gently north dipping, chargeability-high, resistivity-high zone, approximately 100 metres wide with a strike length of 300 metres, within which the best gold assays occur between 270N and 350N on line 500E.

The 2006 soil geochemistry survey over the Spice property extended the known zone of anomalous gold in till anomalies 75m to 125m further north and 100m to the northwest, still open to the northwest and partly open to the north. Additional moderate spot gold in

soil anomalies (with proximal antimony and arsenic at L500E/125N) and molybdenum-silver ±thallium anomalies occur 300-400m south of the main zone. Only one 225m line, southeast of Spice Lake, has been undertaken in the eastern half of the property, with no significant anomalies.

Anomalous gold and pathfinder elements in soil and till samples outside of the main zone, to the north, northwest and south of the grid area require follow up by additional soil sampling, with basal till sampling in thinner till covered areas. Previously identified till anomalies remain untested including two reconnaissance gold in till anomalies identified in 2004 peripheral to the listwanite zone south of the grid area. A 28.5 ppb Au in till anomaly north of the grid area from the government sampling in 2002 also remains untested.

An 800-1,000m initial drill program is proposed on the Spice Project to shed some light on the hosting stratigraphy and hopefully determine the nature and style of the mineralization. The best drill targets are in the area of high gold in till and the shallow, gently north dipping, chargeability-high, resistivity-high zone between 270N and 350N on line 500E.

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## **2.0 INTRODUCTION AND TERMS OF REFERENCE**

### **2.1 Qualified Person and Participating Personnel**

Ms. Jean M. Pautler, P.Geo. was commissioned by Klondike Star Mineral Corporation, Whitehorse, Yukon to evaluate and report on the 2006 exploration program on the Spice property near Ross River, undertaken between August 26 and October 7, 2006. The program consisted of grid soil geochemical sampling, property evaluation the delineation of drill targets and petrography.

The report summarizes previous programs and the geology of the region and documents the procedure and results of the 2006 exploration program on the Spice property and makes recommendations for the next phase of exploration work. The soil geochemical survey was undertaken by Mr. Heiko Mueller and Mr. Mike Linley with supervisory visits by Mr. Bill Mann, M.Sc. of Klondike Star Mineral Corporation. The author visited the property on August 27, 2006, accompanied by Mr. Bill Mann of Klondike Star Mineral Corporation, Whitehorse, Yukon Territory to evaluate the property and to delineate drill targets. Dr. Tim Liverton completed petrographic work, which is summarized in Appendix II.

### **2.2 Terms, Definitions and Units**

All costs contained in this report are denominated in Canadian dollars. Distances are reported in metres (m) and km (kilometers). GPS refers to global positioning system. Minfile showing refers to documented mineral occurrences on file with the Yukon Geological Survey. DDH refers to diamond drill hole. VLF-EM refers to very low frequency electromagnetic and IP induced polarization types of geophysical surveys.

The term ppm refers to parts per million, which is equivalent to grams per metric tonne (g/t) and ppb refers to parts per billion. The symbol % refers to weight percent unless otherwise stated.

Elemental abbreviations used in this report include: gold (Au), silver (Ag), arsenic (As), antimony (Sb), mercury (Hg), thallium (Tl), nickel (Ni), molybdenum (Mo) and manganese (Mn). Minerals found on the Spice Project include pyrite (iron sulphide), possible arsenopyrite (iron, arsenic sulphide), possible arsenium (pyrite with arsenical rims), stibnite (antimony sulphide) and tourmaline (a complex boron bearing silicate).

### **2.3 Source Documents**

Sources of information are detailed below and include the available public domain information and private company data.

- Research of the Minfile data available for the area at [www.geology@gov.yk.ca](mailto:www.geology@gov.yk.ca) .
- Research of mineral titles at <http://gysde.gov.yk.ca> and [www.mapsukon.gov.yk.ca](http://mapsukon.gov.yk.ca) .

- Review of company reports and annual assessment reports filed with the government at <http://emr.gov.yk.ca/library/>.
- Review of geological maps and reports completed by the Yukon Geological Survey or its predecessors and the Geological Survey of Canada.
- Published scientific papers on the geology and mineral deposits of the region and on mineral deposit types.
- The author has recent previous independent experience and knowledge of the regional area having worked on regional programs in the area for Teck Exploration Limited in 1997 to 1998.
- Work on the property by the author on August 27, 2006 and a review of the 2006 soil geochemistry program.

## **2.4 Limitations, Restrictions and Assumptions**

The author has assumed that the previous documented work on the property is valid and has not encountered any information to discredit such work.

## **2.5 Scope**

This report describes the geology, previous exploration history and mineral potential of the Spice Project. Research included a review of the historical work that related to the immediate and surrounding area of the property. Regional geological data and current exploration information have been reviewed to determine the geological setting of the mineralization and to obtain an indication of the level of industry activity in the area. The property was examined and evaluated by the author on August 27, 2006. Based on the literature review, property examination and a review of the 2006 soil geochemistry program recommendations are made for the next phase of exploration work.

## **3.0 RELIANCE ON OTHER EXPERTS**

The author has relied in part upon work and reports completed by others in previous years in the preparation of this report. Checks to confirm the results of such prior work and reports has not been done. The author has no reason to doubt the correctness of such work and reports. Unless otherwise stated the author has not independently confirmed the accuracy of the data.

Further, while title documents and option agreements were reviewed for this study, it does not constitute nor is it intended to represent a legal, or any other, opinion as to the validity of the title.

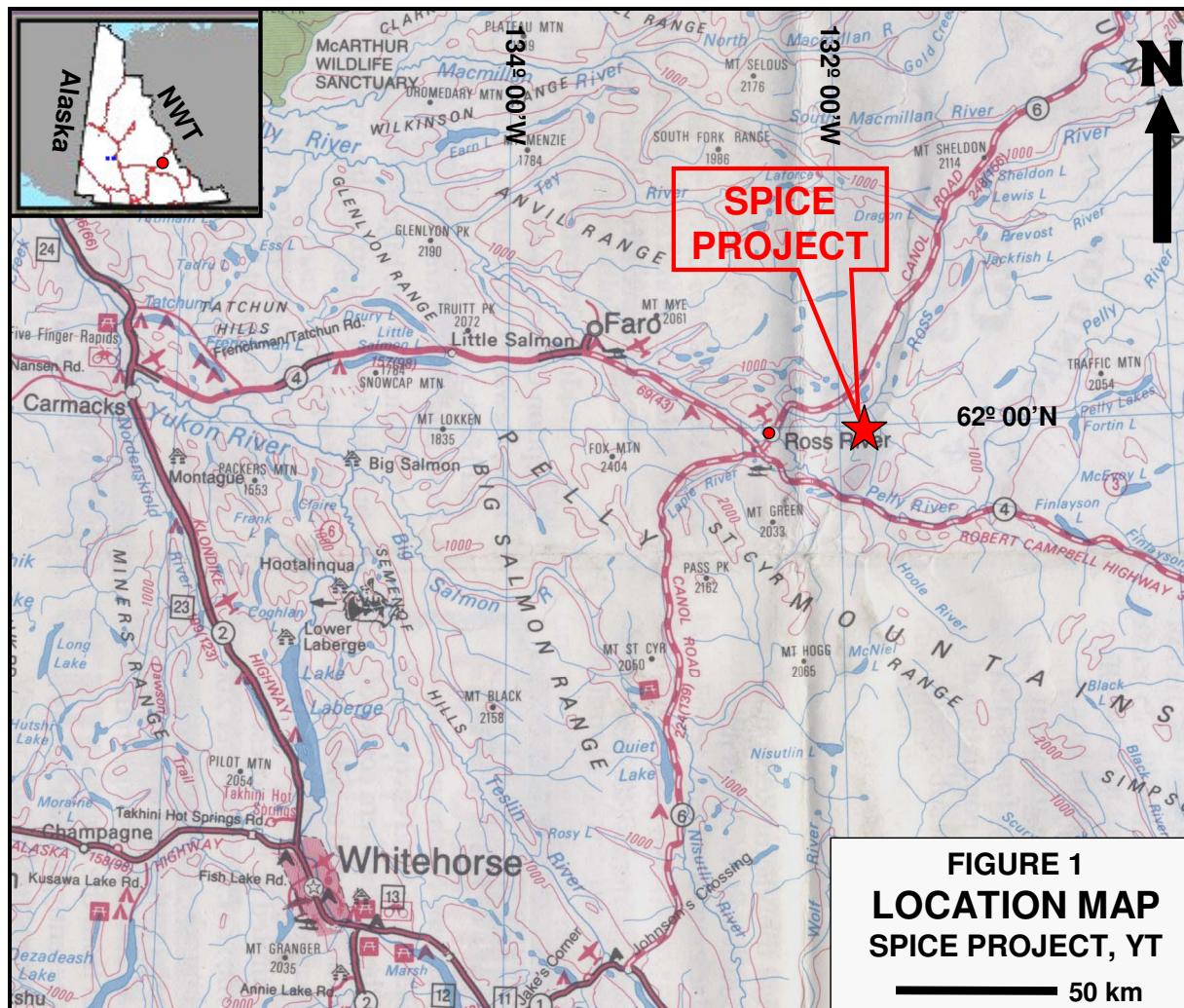
## 4.0 PROPERTY DESCRIPTION AND LOCATION (Figure 1)

### 4.1 Location and Access

The Spice Project, NTS map sheets 105G/13 and 105J/04 is located approximately 25 km east of Ross River, which is 360 km by road from Whitehorse, Yukon Territory (Figure 1). The project area is centered at a latitude of 61°59'N and a longitude of 131°55'W. The property is 7 km south of the North Canol road although no road or trail to the property exists at this time. Access is by helicopter, either directly from Ross River or from a staging pad on the North Canol Road near Marjorie Lake. The property is also accessible by float equipped aircraft, but there is no local availability.

A large helicopter clearing is located proximal to the old camp clearing at UTM coordinates 6876773m N, 346749m E, Nad 83, Zone 9.

Ross River is the closest town, with a population of approximately 350. Facilities include two retail outlets (grocery and hardware supplies), health centre, ambulance service, RCMP, service stations, postal and banking services and a restaurant. The town is on the power grid with diesel backup. Complete services are available in Whitehorse.



## 4.2 Physiography and Climate

The project lies within the Yukon plateau in east-central Yukon, northeast of the Tintina Trench between the Ross and Pelly Rivers, in an area characterized by low relief, numerous lakes and poor drainage (*Figures 2 and 3*). Elevations on the property range from 760m along the shore of Spice Lake to 850m at the top of the highest knoll. Drainages flow northerly into the Ross River. The area is primarily covered with thin, widespread glacial deposits of sand and silt, with scarce outcrop. Glacial ice direction is northwest. Vegetation consists of alders, willows and poplar with an occasional stand of stunted black spruce. The property area was burned approximately 20 years ago. Water is available from the many small lakes and creeks.

The Ross River area has a northern interior climate with winter temperatures averaging -25° Celsius while summer temperatures average 12° Celsius. The average annual rainfall is 16 cm and average annual snowfall 100 cm. The exploration season extends from June to September.

## 4.3 Land Tenure (Figure 2)

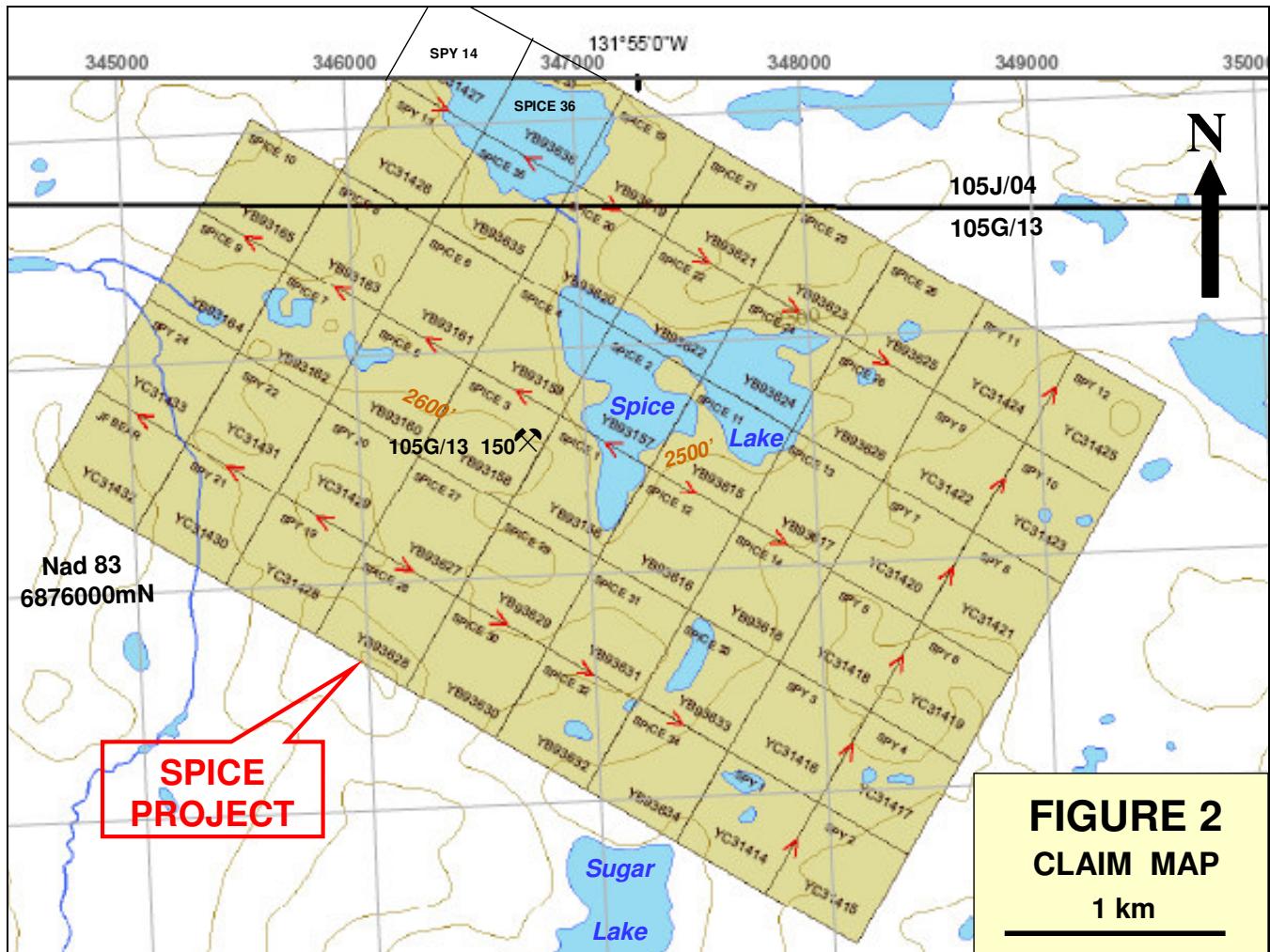
The Spice Project consists of 52 Quartz Claims, the Spice 1-14, 19-36, the Spy 1-14, 1-22 and 24 and JF Bear. The claims cover an area of approximately 1080 hectares in the Watson Lake Mining District. The claims were staked in accordance with the Yukon Quartz Mining Act on claim sheets 105G/13 and 105J/04, available for viewing in the Watson Lake Mining Recorder's Office. Legal surveys of the property boundaries have not been conducted.

The Spice claims are registered 33.33% to Ivan Elash and 66.67% to Tanana Exploration Inc. of Whitehorse, Yukon Territory. The claims were optioned by Klondike Gold Corporation in late 2003-early 2004. In 2005-2006 Klondike Star Mineral Corporation, the operator in 2006, sub-optioned the Spice property from Klondike Gold Corporation and staked the Spy and JF Bear claims, which are registered in the name of Klondike Star Mineral Corporation, Whitehorse, Yukon Territory.

Pertinent claim data is summarized in Table 1 and a detailed statement of claims with expiry dates, renewal years and renewal date is shown in Appendix I. Claims are plotted on Figure 2 with the Minfile occurrence on the property denoted by the symbol ☒.

**TABLE 1: Claim data summary**

Claim Name	Grant No.	No.	Expiry Date	New Expiry Date
Spice 1-10	YB93156-165	10	March 7, 2016	March 7, 2020
Spice 11-14, 19-36	YB93615-636	22	February 2, 2013	February 2, 2017
Spy 1-14, 19-22, 24	YC31414-31, 33	19	May 1, 2007	May 1, 2012
JF Bear	YC31432	1	May 1, 2007	May 1, 2012
<b>TOTAL</b>		<b>52</b>		



The land in which the mineral claims are situated is Crown Land and falls under the jurisdiction of the Yukon Government. First Nations have not settled their land claims in the area, but Ross River Dena Council First Nation Category B settlement land (RRDC R-31A), which includes the Weasel Lake area, approaches within 1 km to the southeast (see Figure 3).

A mineral claim holder is required to perform assessment work and is required to document this work to maintain the title as outlined in the regulations of the Yukon Quartz Mining Act. The amount of work required is equivalent to \$100.00 of assessment work per quartz claim unit per year. Alternatively, the claim holder may pay the equivalent amount per unit per year to the Yukon Government as "Cash in Lieu" to maintain title to the claims.

Preliminary exploration activities do not require permitting, but significant drilling, trenching, blasting, cut lines, and excavating may require a Mining Land Use Permit that must be approved under the Yukon Environmental Socioeconomic Assessment Act (YESSA).

## 5.0 HISTORY

A summary of the work completed by various operators, as documented in Yukon Minfile (*Deklerk and Traynor, 2005*), various government publications of the Yukon Geological Survey or its predecessor (*Yukon Exploration and Geology*) and the Geological Survey of Canada and company publications (primarily available as assessment reports filed with the government) is tabulated below:

- 2000      A multi-element till anomaly in Hg, Sb, Ag, As, Au and Tl, suggestive of potential epithermal gold mineralization, was outlined in the property area by a till geochemical and surficial geological mapping program in Weasel Lake map area (105G/13) by the Yukon Geological Survey (*Bond, 2001*).
- 2001      Staking by I. Elash and Tanana Exploration Inc. followed by a program of reconnaissance soil sampling, prospecting, hand trenching and rock sampling by Tanana outlined a northwest trending, open ended Au, As, Sb and Hg soil anomaly (*Traynor, 2002*). Supplementary till sampling by the Yukon Geological Survey - Geological Survey of Canada yielded values of 13,891 ppb Au, 952 ppm As, 117 ppm Sb, 24 ppm Hg, and 7.0 ppm Ag from a sample 300m southwest of the 2000 discovery site that appeared to be close to source and 1.05 g/t Au from a rock sample from the till pit (*Bond and Plouffe, 2001*).
- 2002      Program of geological mapping, prospecting, till and soil sampling, and hand trenching by ATAC Resources Ltd under option, outlined a 600m by 200-300m wide till anomaly (Spice Anomaly or main zone), confirmed previous results with 4.46 g/t Au from the 13.9 g/t Au site and obtained 1.21 g/t Au and 0.98 g/t Au from hand pits and trenches (*Wengzynowski, 2002*).
- 2004      Magnetic (*Casselman, 2004*), induced polarization/resistivity and VLF-EM surveys were conducted by Aurora Geosciences Limited for Klondike Gold Corporation identifying a shallow, gently north dipping, chargeability-high, resistivity-high zone, approximately 100m wide with a strike length of 300m (*Hildes, 2004*). Seven rock and 57 till samples were collected returning 38.5 ppb Au and 27.9 ppb Au from till, 2 km and 1km south of the main zone (*Carrell, 2004*).

## 6.0 GEOLOGICAL SETTING

### 6.1 Regional Geology      (Figures 3 and 4)

The regional geology of the area has been summarized and modified from Gordey and Makepeace (2003) and Murphy et. al. (2001 and 2002).

The Spice Property is situated near the northeastern boundary of Yukon Tanana Terrane with Ancestral North America in the northwestern portion of the displaced part

of Yukon Tanana Terrane (referred to as the YTT Banana – *see Figure 3 inset*). The “Banana” is displaced from the main part of Yukon Tanana Terrane along the Tintina Fault and is separated from the ancient continental margin of North America by the Inconnu Thrust, a northerly directed low angle post-Late Triassic thrust fault. Slide Mountain Terrane mapped in the 105F and 105K map sheets may represent the Campbell Range succession, part of Yukon Tanana Terrane.

The regional area around the Spice Project is primarily covered by Quaternary (**Q**) basal till deposits, which have obscured the underlying bedrock and impeded geological mapping. Yukon Tanana Terrane in the 105G map area generally consists of Devon-Mississippian quartzite and micaceous schist in contact with Carboniferous and Permian basalt, diorite, gabbro, greenstone, clastic rocks, chert, marble and minor serpentinite.

The North American miogeocline rocks to the north consist of folded to locally weakly foliated Siluro-Devonian platformal siltstone, carbonate and quartzite, Devon-Mississippian Earn Group clastic rocks and chert, Carboniferous to Permian chert and Triassic clastic rocks and limestone.

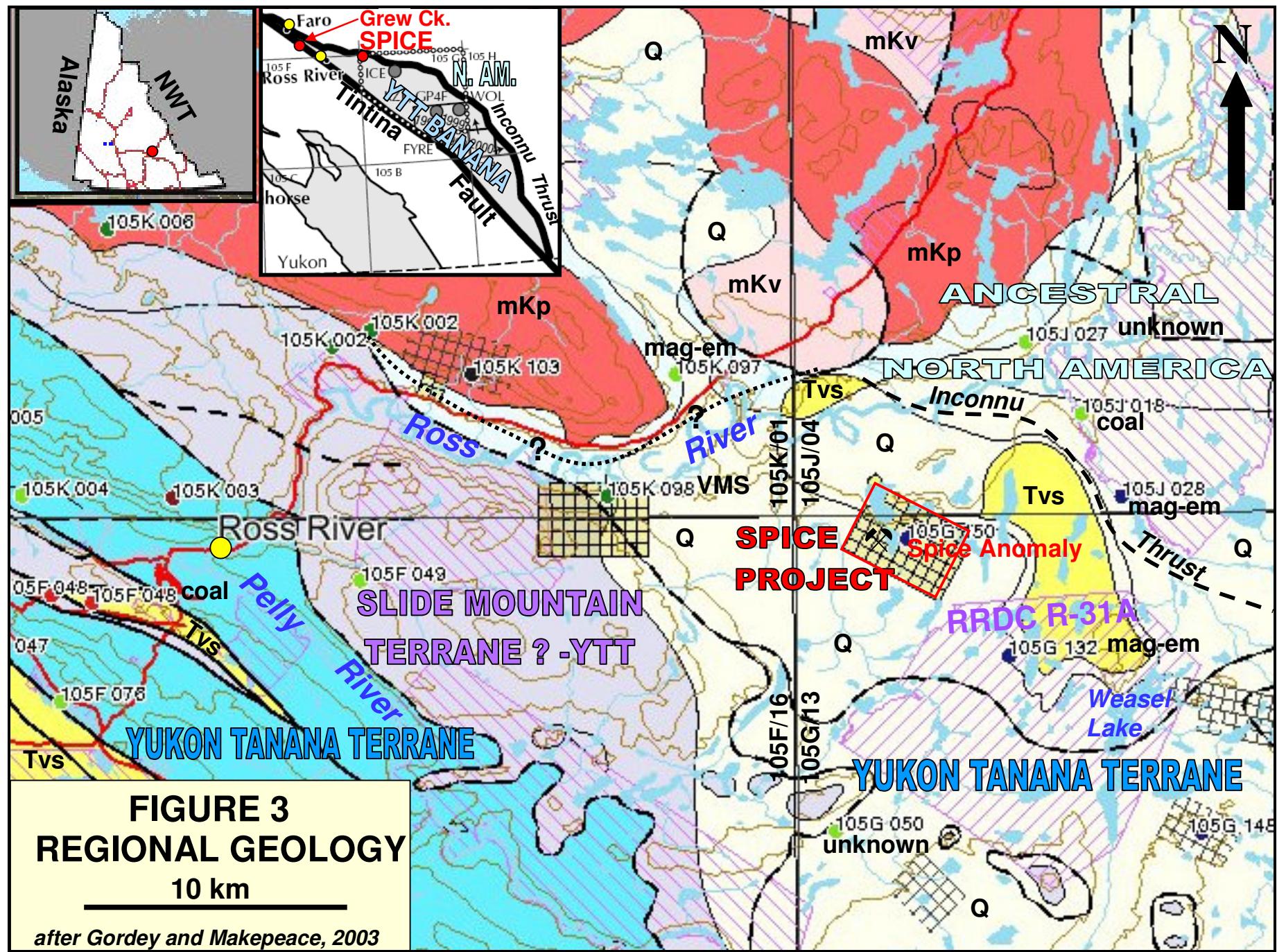
Post accretionary mid Cretaceous volcanic rocks (**mKv**) and mid Cretaceous to Lower Tertiary volcanic and sedimentary rocks (**Tvs**) unconformably overlie Yukon Tanana Terrane. The latter unit includes Eocene mafic basalt flows, necks and dykes (**Eb**), 5 km east of the Spice property, mid Cretaceous conglomerate, mudstone, minor sandstone and coal strata with dinosaur footprints near Ross River (previously thought to be Eocene) and Paleocene to Eocene rhyolite, basalt and sedimentary rocks along the Tintina Fault, which host the Grew Creek epithermal deposit, 60 km west of the Spice.

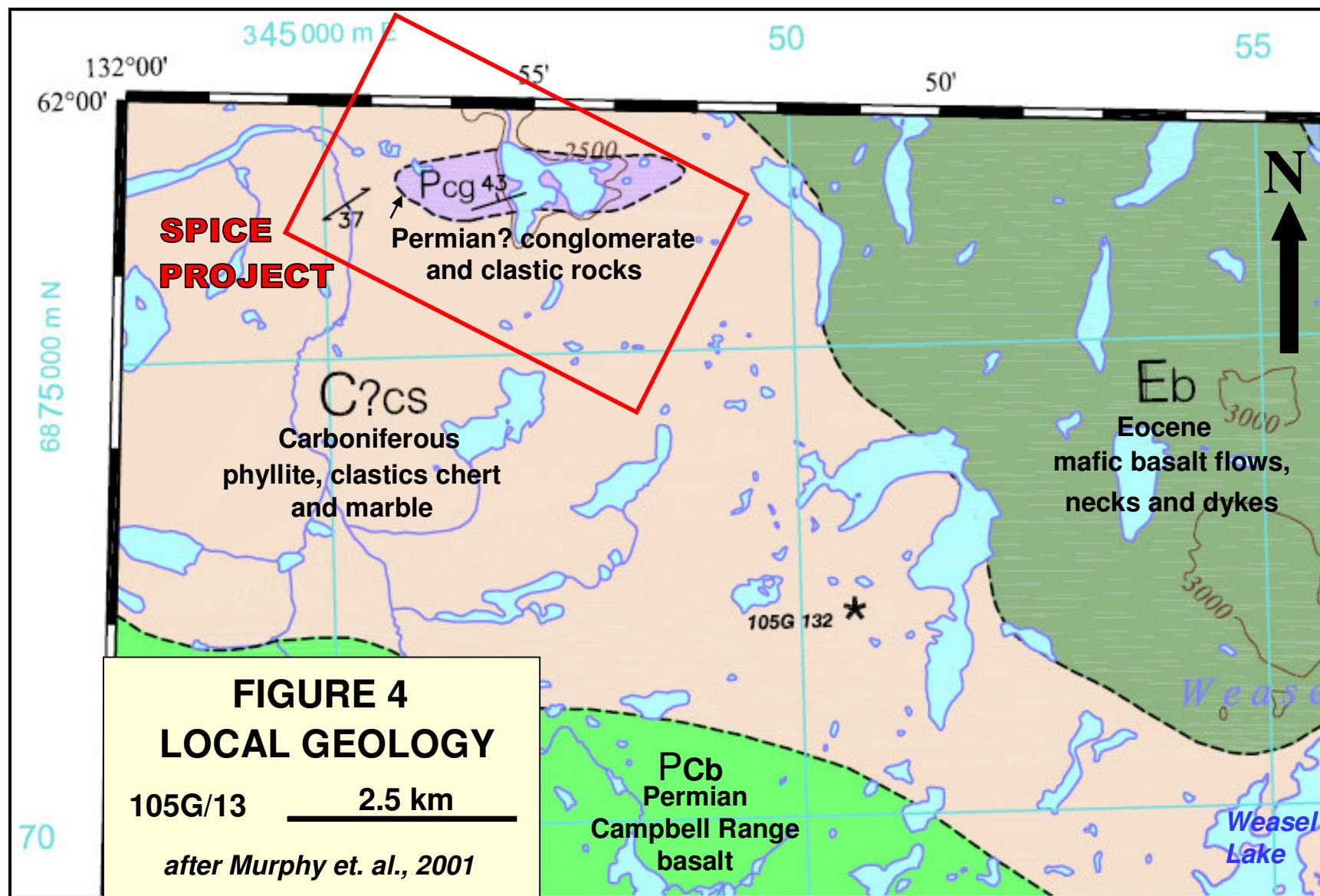
Post accretionary intrusive rocks include weakly to unfoliated Cretaceous peraluminous granitic plutons (**mKp**).

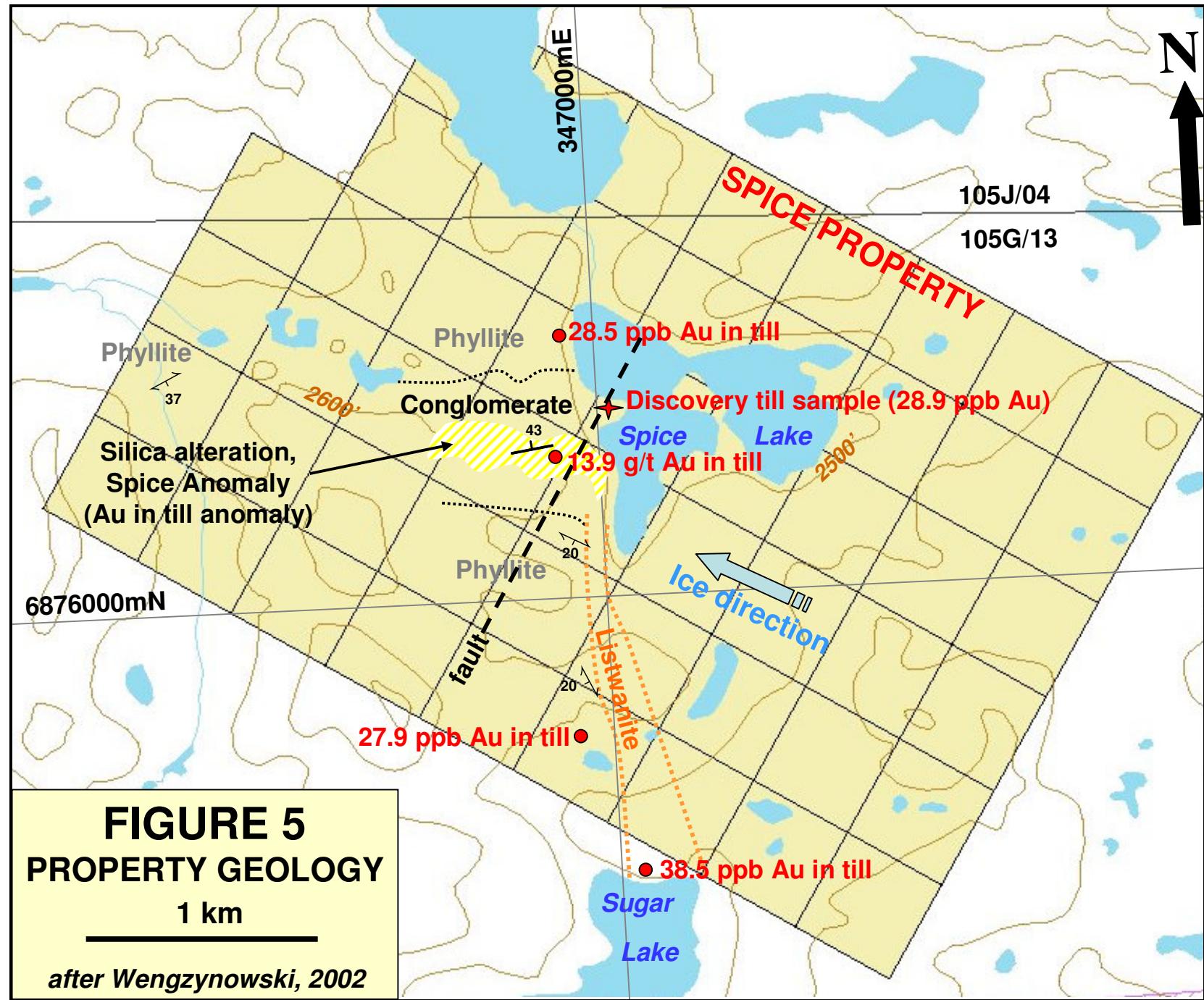
## 6.2 Local Geology (Figure 4)

On the Spice property geological mapping in conjunction with the till geochemistry follow up by the Yukon Geological Survey and Geological Survey of Canada uncovered exposure of possible Permian conglomerate (**Pcg**), trending 072°/43°N, surrounded by Carboniferous dark grey phyllite (**C?cs**) with a foliation of 055°/37°S (*Bond and Plouffe, 2001*). The conglomerate has been tentatively correlated with lithologically similar Permian polymictic conglomerate occurring at a similar structural position near the leading edge of Yukon Tanana Terrane in the Frances Lake and Watson Lake map sheets (*Murphy et. al., 2002*).

A similar conglomerate also occurs 3 km west of Ross River at the past producing coal mine (Minfile 105F 048) at Whiskers Lake (*Figure 3*). The conglomerate occurs at the top of a coarsening upwards sequence of mudstone, minor sandstone and coal strata with dinosaur footprints, with the conglomerate in the hanging wall of the coal seams (*Long et. al., 2001*). A coal occurrence (Minfile 105J 018) occurs approximately 8 km northeast of the Spice property (*Figure 3*) and possible coal fragments were observed within the conglomerate unit at the Spice property in Pit 125 (*Mann and Pautler, personal observation 2006*).







Two additional Minfile occurrences in the Spice area cover airborne electromagnetic anomalies (*Figure 3*). Bojo (Minfile 105J 028), 7 km east of the Spice, covers an area of projected Anvil-type stratigraphy with limestone and black calcareous shale of Paleozoic age to the north and schist, calc-silicate and black to grey phyllite with metabasite interbeds to the south. The ground surveys outlined two coincident magnetic - electromagnetic targets.

The Neck anomaly (Minfile 105G 132) lies 5 km southeast of the Spice property. The northeast portion of the Neck claims are underlain by Tertiary mafic volcanic rocks, the central portion, possible listwanite of the Campbell Range Succession, and in the south, float of Devonian to Mississippian micaceous metasedimentary rocks. Numerous faults juxtapose the various units against each other.

### 6.3 Property Geology (Figure 5)

There is less than 1-2% outcrop on the Spice property hence geological mapping is primarily based on trench and pit exposures and rock chips from till and soil holes.

The best exposed unit on the property is a polymictic framework supported conglomerate occurring within the central portion of the Spice Anomaly area. The unit trends east-northeasterly and dips moderately north. Clasts include variably silicified phyllite, chert, occasional quartz, and rare coal or charcoal. This unit is surrounded, possibly underlain, by dark grey fissile phyllite, commonly graphitic, that exhibits a well developed foliation trending northwest and dipping gently southwest, except in the western property area where it trends northeast and dips southeast. As discussed under "Local Geology", it is unclear whether this stratigraphy represents a Permian-Carboniferous or mid Cretaceous succession.

The conglomerate unit, and possible minor phyllite, is silicified within a zone that appears to correspond to a gold in till anomaly, referred to as the Spice Anomaly or main zone.

A northerly trending rusty orange weathering tan to cream coloured listwanite zone was identified generally south of Spice Lake. Mariposite and quartz veinlets are common (*Wengzynowski, 2002*). Samples from the zone are not anomalous.

Rhyolite was identified in trenches at 630E/360N and as fragments within the basal till through the central portion of the Spice Anomaly area by ATAC in 2002 (*Wengzynowski, 2002*). Examination of the trenches and various pits in 2006 failed to locate the rhyolite, which may in fact represent silicified conglomerate and fine clastic rocks. Minor occurrences of quartz feldspar porphyry noted in the till sampling may indicate local dykes cutting the stratigraphy.

A northeasterly trending, low angle fault zone is represented by a 5-10m wide recessive linear and was exposed in the above trenches at 630E/360N, which is L0W/100S on the old grid (*Wengzynowski, 2002*). The existence of the fault is supported by the 2004 magnetic data (*Figure 6*).

## 7.0 DEPOSIT MODEL

The gold-silver-arsenic-antimony-thallium-mercury signature of the Spice Anomaly suggests either an epithermal or sediment hosted gold model. Petrographic work identified anhedral quartz, which is interpreted to have been formed as chalcedony, open space filling textures and possible breccia. It was interpreted to be from a hot spring type deposit formed at a shallow depth (*Liverton, Appendix II*). This suggests that the Spice Anomaly is representative of hot spring gold-silver type mineralization which forms in the uppermost parts of epithermal systems.

### 7.1 Epithermal Hot Spring Gold-Silver

The Spice Project exhibits key features of hot spring gold-silver type epithermal systems, including environment, mineralogy, alteration, weathering, morphology, trace element signature and lack of base metals. Sheeted veins were noted at one of the rare outcrop locations on the Spice. There is also a possibility of a mid Cretaceous to Tertiary volcano-sedimentary succession on the property that would have similarities to the Grew Creek epithermal deposit, 60 km to the west.

Examples for the hot spring gold-silver model include McLaughlin in California, Round Mountain in Nevada, and Cinola in British Columbia. Commodities are gold, silver and mercury. The following characteristics of the hot spring gold-silver deposit model are primarily summarized from Panteleyev (1996).

Hot spring gold-silver deposits form in areas of continental margin rifting and district scale fracture systems with associated bimodal or low volume mafic to intermediate volcanism. They are commonly in regions of strike slip faulting with transform faults and trans-tensional basin margins, and in regions of extensional tectonism with related caldera development and resurgence, flow-dome complexes and high-level subvolcanic intrusive activity.

Mineralization consists of pyrite, marcasite, gold, electrum with lesser stibnite, sulphosalts minerals and realgar (with cinnabar in the uppermost portion) contained in a gangue of quartz, chalcedony and lesser opal, calcite, dolomite and barite, and occurs as strong silicification with quartz, chalcedony and opal in crustified, banded veins, sheeted veins and stockworks. Silica in some deposits contains abundant hydrocarbons that impart a characteristic brownish colour to the quartz. Host rocks include intermediate or bimodal volcanic rocks, hydrothermal breccias and siliceous sinters. Clastic and epiclastic sedimentary rocks also host deposits in intra-volcanic basins and structural depressions and serpentized ultramafic and mafic rocks in major fault zones in areas of post faulting volcanic activity.

Alteration generally consists of multiple episodes of silicification to form veins and stockworks, typically with adjacent pervasive silicified host rocks and argillic and, less commonly, advanced argillic assemblages with quartz-kaolinite and rarely alunite in the surrounding country rocks. Propylitic alteration, with chlorite, iron oxides, zeolites and minor adularia, dominates at depth and/or peripherally. Selenite, alunite and other sulphate minerals and native sulphur can be abundant locally near surface. Limonite,

and lesser jarosite, hematite and goethite, is locally prominent near surface in strongly oxidized deposits.

The deposits form in shallow portions of geothermal systems. The hotsprings deposit silica near the paleo groundwater table and as subaerial, ponded precipitates. Deeper fluids are channeled by permeable stratigraphic units, hydrothermal breccia bodies and faulted/fractured rocks. The deposits commonly occur in subaerial volcanic centres including flow-dome or caldera complexes and related radial and ring fracture systems.

Ore zones typically occur as near-surface, lensoid hotspring deposits and planar lithologic replacement zones with individual zones up to hundreds of metres in two dimensions and tens of metres in the third. Underlying these are cone or wedge-like hydrothermal feeder systems with quartz stockworks and veins centred on regional scale fault and fracture zones, or their splays. Locally phreatic and phreatomagmatic explosion pits formed at the paleosurface.

Ages of mineralization are primarily Quaternary to Tertiary but hotspring sinters as old as Late Devonian have been described.

Elemental associations are gold, antimony, arsenic, mercury and thallium near surface (observed in Spice till geochemistry), increasing silver (in Spice till geochemistry) and barium (not adequately analyzed) at depth, and locally nickel (observed in and proximal to listwanite zone at Spice), boron (tourmaline noted at Spice), lithium and tungsten (not adequately analyzed). The Ag/Au ratio varies from 1:1 at surface to 30:1 at a depth of a few hundred metres. Mineralized rocks can be strongly leached at surface. Base metal content is relatively low and selenium, tellurium, fluorine, molybdenum, tin and manganese are notably absent. Resistivity and VLF-EM geophysical surveys may be useful in outlining faults.

Economic bulk mineable deposits contain >10 million tonnes of 1 to 2 g/t Au, or greater. High-grade veins and stockworks within the larger mineralized zones can be exploited by underground methods. The McLaughlin deposit contained initial reserves of 17.5 million tonnes with 5.2 g/t Au and about 16 g/t Ag, including a sheeted vein zone with 2.45 million tonnes with 9.15 g/t Au. Reserves for Cinola are about 31 million tonnes with 2.19 g/t Au; the deposit has a feeder zone at depth that contains material containing in excess of 100 g/t Au. Associated deposit types include high and low sulphidation epithermal gold-silver, hotspring mercury, solfatara sulphur and placer gold.

## 7.2 Sediment Hosted Gold

Examples of sediment hosted gold deposits include Carlin, Getchell, Cortez, Gold Acres, Jerrett Canyon, Post and Gold Quarry in Nevada, Mercur in Utah, Guizhou in China, and possibly Golden Bear, British Columbia and Brewery Creek, Yukon. Deposits are mainly Tertiary, but can be any age. The following characteristics of the sediment hosted gold deposit model are primarily summarized from Schroeter and Poulsen (1996).

Sediment hosted gold deposits occur as irregularly shaped, but generally tabular, stratabound bodies localized at contacts between contrasting lithologies (may be separated by thrust fault). Some ore zones (often higher grade) are discordant and consist of breccias developed in steep fault zones. Gold occurs evenly distributed throughout host rocks as micron-sized grains accompanied by disseminated sulphides (mainly pyrite). They occur in passive continental margins with subsequent deformation and intrusive activity, and possibly in island arc terranes.

Ore minerals include micron-sized native gold, pyrite with arsenian rims, arsenopyrite, stibnite, realgar, orpiment, cinnabar, fluorite, barite, and rare thallium minerals in a gangue of fine grained quartz, barite, clay minerals, carbonaceous matter and lesser late-stage calcite veins. Host rocks are most commonly thin bedded silty or argillaceous carbonaceous limestone or dolomite, commonly with carbonaceous shale. Non-carbonate siliciclastic and rare metavolcanic rocks and felsic plutons and dykes can be local hosts.

Alteration, strongly controlled by local stratigraphic and structural features, consists of a central core of strong silicification with silica veins and jasperoid close to mineralization and peripheral argillic alteration. Decalcification of carbonate rocks is common and carbonaceous material is present in some deposits.

Ore controls include deep structural controls that may be related to accreted terrane boundaries (Spice is situated at the margin of Yukon Tanana Terrane), presence of small felsic plutons or dykes that may have caused geothermal activity (the quartz feldspar porphyry dykes at Spice), and selective replacement of carbonaceous carbonate rocks adjacent to and along high-angle faults, regional thrust faults or bedding. (Carbonaceous units occur at Spice that appear to be replaced along bedding planes, and a possible thrust fault was mapped. Although carbonate rocks have not been identified, marble has been identified within the regional unit (C?cs), outcrop is scarce away from the main alteration zone and carbonate is present in the environment as evidenced by the listwanite, which may outline a deep seated fault system.)

Elemental associations are gold, arsenic, mercury, tungsten, and/or molybdenum and arsenic, mercury, antimony, thallium and/or iron (all of which occur on the Spice property, except for tungsten which was not adequately analyzed for). The Ag/Au ratio is generally 1:10. Geophysics is useful in outlining resistivity lows associated with some deposits and aeromagnetic surveys may highlight spatially associated intrusions.

Typical grade and tonnage figures range from 1 to 150 million tonnes of 1 to 35 g/t Au. The median of 43 significant deposits is 20 million tonnes of 1.2 g/t Au for supergene and 6 million tonnes of 4.5 g/t Au for hypogene.

## 8.0 MINERALIZATION (Figures 3 to 6)

The Spice Project covers the Spice Minfile anomaly as documented by the Yukon Geological Survey as Minfile Number 105G 150 (*Deklerk and Traynor, 2005*). The occurrence was discovered by the Yukon Geological Survey during a regional till

geochemistry survey in 2000. The sample returned 28.9 ppb Au, 484.5 ppm As, 151.37 Sb ppm, 21 ppm Hg, 1 ppm Tl and 1.37 ppm Ag, the highest values in the survey area. The trace element signature is suggestive of epithermal or sediment hosted gold style mineralization.

Gold mineralization on the Spice property appears to be related to silica alteration as pervasive silicification of the clastic sedimentary stratigraphy, quartz veining and re-silicified breccias. The sedimentary strata is generally graphitic and coal fragments were noted. Sheeted veinlets were observed in 2006 at an exposure of silicified conglomerate at UTM co-ordinates 6876653mN, 346810mE in Nad 83, Zone 9 projection.

Anhedral quartz, interpreted to have formed as chalcedony, open space filling textures and possible breccia were identified in thin section, as well as iron and possible manganese hydroxides and minor tourmaline (*Liverton, Appendix II*). Multi-episodic silicification is evident with cross cutting quartz veins and silicified possible breccia clasts in a quartz matrix. Multi-episodic silicification is important in concentrating gold.

Weak to moderate fine disseminated pyrite, possible arsenopyrite (but may be arsenium, which is pyrite with arsenical rims) and stibnite occur within silicified conglomerate (*Traynor, 2002*) and possible phyllite. The presence of stibnite is supported by ICP geochemical results of up to 780 ppm Sb and rock samples are commonly moderately enriched in arsenic (100-600 ppm) suggestive of arsenium.

## 9.0 PREVIOUS EXPLORATION

Exploration on the Spice Project, undertaken from 2001 to 2004, has involved, till, soil, silt and rock geochemistry, hand/blast pitting and trenching, ground magnetic, induced polarization/resistivity and VLF-electromagnetic geophysical surveys.

### 9.1 Geochemistry

A 175 sample regional till geochemistry survey by the Yukon Geological Survey over NTS map sheet 105G/13 in 2000 outlined a high gold with a coincident high epithermal trace element signature anomaly from a peninsula in the Spice property area (Sample JB00-155). The sample returned 28.9 ppb Au, 484.5 ppm As, 151.37 Sb ppm, 21 ppm Hg, 1 ppm Tl and 1.37 ppm Ag, the highest values in the survey area in 2000 (*Bond, 2000*).

Supplementary till sampling by the Yukon Geological Survey and Geological Survey of Canada in 2001 involved the collection of nine samples across the suspected local ice flow direction at a 100m spacing. The survey outlined anomalous gold values over 300m, with maximum values of 13,891 ppb Au, 952 ppm As, 117 ppm Sb, 24 ppm Hg, and 7.0 ppm Ag (Sample JB01-001-02) at 480E/390N, 300m southwest of the 2000 discovery site. The multi-element till sample results are summarized below.

**TABLE 2: Summary of government till results**

Grid Co-ordinates	Sample No.	Au ppb	Ag ppb	As ppm	Sb ppm	Hg ppb
peninsula	JB00-155	28.9	1374	484.5	151.37	21020
L150W/500N	JB01-001-09	11.6	583	37.4	8.5	1169
L150W/400N	JB01-001-08	28.5	708	157.3	17.81	5892
L150W/300N	JB01-001-07	13.3	245	56	20.2	3534
L150W/200N	JB01-001-06	9.1	226	186	53.56	12407
L150W/100N	JB01-001-05	41	187	561.8	123.89	25957
L150W/000N	JB01-001-01	28.9	584	77.3	22.16	2941
L150W/100S	JB01-001-02	13890	6995	951.6	117.43	23832
L150W/200S	JB01-001-03	72	700	226.3	44.09	7127
L150W/300S	JB01-001-04	12.4	1158	77.8	15.43	2093

The thin till cover, abundance of angular bedrock fragments in till at this site and reproducibility of the results suggested that the source of the anomaly was likely proximal, possibly within 50m of the sample site (*Bond and Plouffe, 2001*). A value of 1.05 g/t Au, with no anomalous pathfinder elements, was obtained from a rock sample consisting of angular pebbles of grey quartz with breccia fragments and hair-like black veinlets, collected from the till pit (Sample JB01-001-02R).

In 2001 Tanana Exploration Inc. collected 24 rock samples and 53 reconnaissance grid soil (20 not analyzed) and silt samples outlining a 300m long by 100-150m wide northwest trending, open ended gold, arsenic, antimony and mercury soil anomaly (*Traynor, 2002*). Most of the rock samples were collected from pits, so will be discussed under “Trenching”.

ATAC Resources Limited completed a till sampling program in 2002 with 131 samples from 107 sample sites, utilizing a gasoline powered auger drill. The survey outlined an open ended 600m by 200m gold in till anomaly (*Figure 8*) with the highest value of 4.46 g/t Au from a sample site that twinned Bond’s sample number JB01-001-02, which returned 13.9 g/t Au. The dominant rock fragment type from this site was described as highly fractured grey-white rhyolite (but may be largely silica) with graphitic hairline fractures. Duplicate till samples showed good reproducibility. Reconnaissance rock and soil samples were collected outside the grid area but did not return anomalous gold values.

It should be noted that the samples collected by ATAC did not follow standard preparation procedures. The samples were crushed to -2 mm, then a 250 gram split was pulverized to better than 85% minus 75 microns. The pulverization would normally dilute the results but if highly anomalous rock chips are present, it would enhance the values. Therefore the procedure is useful in locating the source of mineralization but not the patterns or extent.

In 2004 Tanana collected 57 till samples and 7 rock samples for Klondike Gold Corp. Significant till results south of the grid area include 38.5 ppb Au with high thallium (1.28 ppm Tl) and nickel (3463 ppm Ni) from the north edge of a small lake (Sugar Lake) along the southern projection of the listwanite zone and 27.9 ppb Au from a pond west

of the listwanite zone (*Figure 5*). This compares to 28.9 ppb Au from the discovery till sample. The former sample is of particular interest since it may represent another silicified horizon or a fault extension of the main zone. A till sample 75m south of the southernmost gold in till anomalies obtained by ATAC in 2002, from near L500E/125N, returned high antimony (172 ppm Sb) with anomalous silver (1.2 ppm Ag). For comparison Pit 0, the site of Bond's 13.9 g/t Au in till anomaly, returned 54.8 ppb Au with 45 ppm Sb and 2.21 TI showing lower order overall values from the 2004 program. Pit 170, which previously returned 30 ppm Au from ATAC's 2002 till survey in which samples were pulverized, ran 259 ppb Au, 1.8 ppm Ag, 239 ppm Sb, 1.24 ppm TI and 30 ppm Hg in the 2004 sampling. This confirms the dilution factor caused by pulverization.

## 9.2 Geophysics (Figures 6 and 7)

In early 2004 a 132 line km magnetic survey, utilizing a GPS guidance system, was completed by Aurora Geosciences Limited for Klondike Gold Corporation (*Casselman, 2004 - Figure 6*). Later in 2004 Aurora completed a 7.2 line km induced polarization/resistivity survey (*Figure 7*) and 2.6 line km of VLF-EM over an 8.5 line km grid that was cut for Klondike Gold Corporation to investigate the source of elevated gold, arsenic, antimony, mercury and silver geochemical values on the property (*Hildes, 2004*).

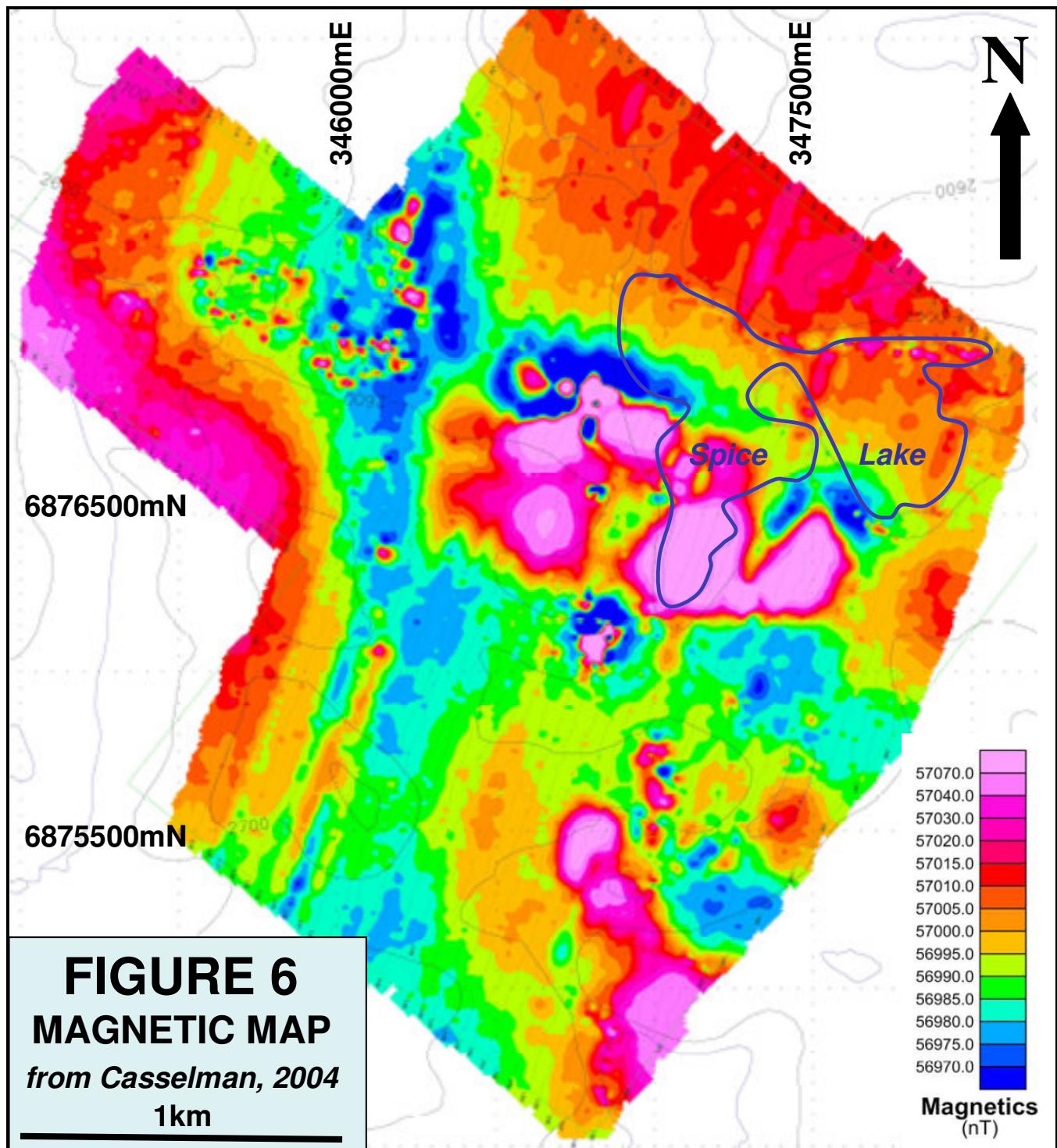
The induced polarization survey utilized a dipole-dipole array with 25m dipole spacing, reading from the 1<sup>st</sup> to the 6<sup>th</sup> separation. The data were interpreted by employing automated computer inversion to generate 2D models of the chargeability and resistivity distribution along each line. These results were in turn contoured to generate three dimensional models of chargeability and resistivity. The VLF-EM data was collected on lines perpendicular to the IP lines (*Hildes, 2004*).

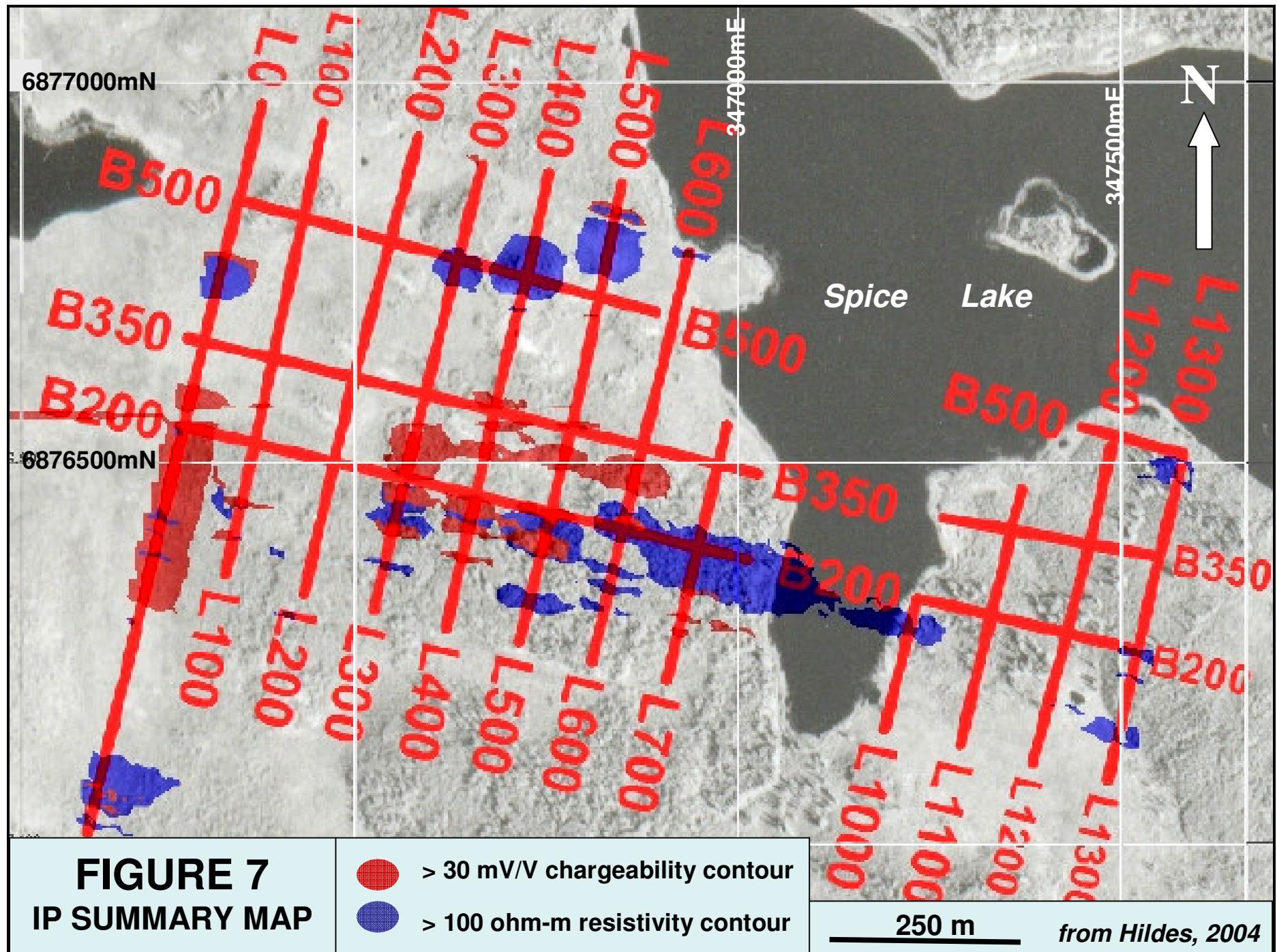
The induced polarization survey identified a shallow, gently-north dipping, chargeability-high, resistivity-high zone, approximately 100 metres wide with a strike length of 300 metres from L300 E to L600 E. Within this zone, the anomaly between 270N and 350N on line 500E is coincident with the best gold assays. The geophysical response is consistent with a silicified zone, thought to be the source of the gold (*Hildes, 2004*).

## 9.3 Trenching (Figure 8)

Several pits were excavated and sampled by Tanana Exploration Inc. in 2001 with over 50% of the samples returning anomalous arsenic, antimony and mercury with maximum values of 646 ppm As, 783 ppm Sb and 14.33 ppm Hg (*Traynor, 2002*).

Eleven hand pits and two trenches were excavated by ATAC Resources Limited in 2002, in a line up ice from the strongest gold anomaly and several were excavated to the south. The best results from hand pits and trenches were 1.21 g/t Au and 0.98 g/t Au from Pit 0, the location of Bond's sample number JB01-001-02, which returned 13.9 g/t Au in till. The southern pits uncovered a northeast trending fault but no significant gold anomalies.





## 10.0 2006 EXPLORATION PROGRAM

The 2006 program on the Spice Project consisted of soil geochemical sampling, a property evaluation, the delineation of drill targets and petrography on one specimen. Old workings were located and surveyed in by GPS. Control was provided by property scale topographic maps, compass and GPS. A total of 31 man-days were spent on the Spice property between August 26 and October 7, 2006.

Results of the property examination and evaluation are discussed under the “Geology” and “Mineralization” sections of this report. The petrographic work was conducted by Dr. Tim Liverton and is outlined in Appendix II and discussed under “Deposit Models” and “Mineralization”.

### 10.1 Geochemistry

#### 10.1.1 Geochemical Procedure

A total of 148 soil samples were collected in 2006 along the 2004 IP grid outside of the central area previously sampled by ATAC Resources Limited in 2002. The soil samples were generally collected at 25m intervals on lines spaced 100m apart. The samples were collected from the B horizon using a shovel and sent to Acme Analytical Laboratories Ltd, Vancouver, British Columbia in waterproof brown kraft bags. The samples were analyzed for Al, Sb, As, Ba, Bi, B, Cd, Ca, Cr, Co, Cu, Ga, Au, Fe, La, Pb, Mg, Mn, Hg, Mo, Na, Ni, P, Ag, K, Sc, Sr, S, Ti, Th, Ti, Sn, W, U, V and Zn using Acme’s Group 1DX analysis, a 36 element ICP package which involves a nitric-aqua regia digestion.

Lab procedures and results are outlined in Appendix III and gold results are plotted on Figure 8 with the previous results. It should be noted that the ATAC samples were basal till samples and were pulverized, so cannot be directly compared to the current results. Samples were collected from two previous ATAC till sample locations for comparison.

Quality control procedures were implemented at the laboratory, involving the regular insertion of blanks and standards and repeat analyses.

#### 10.1.2 Geochemical Results (Figure 8)

The results from the 2006 comparison samples are summarized below in Table 3 with the corresponding 2002 results.

**TABLE 3: Comparison sample results**

Grid Co-ordinates	Sample No.	Year	Type	Au ppb	Ag ppm	As ppm	Sb ppm	Hg ppm	Tl ppm
L6E/450N	391293	2006	soil	82.3	0.9	386.7	155.5	10.5	2.3
≈L6E/450N	M010620	2002	till	50.0	0.2	176	38	7	<10
≈L6E/450N	M010619	2002	till	30.0	<0.2	112	30	5	<10
L6E/425N	391292	2006	soil	219.6	1.1	490.9	197.7	35.2	4.8
≈L6E/425N	M010621	2002	till	30.0	0.2	122	42	15	<10

All samples showed first and second order anomalous gold, arsenic and antimony results but the soils returned higher gold, silver, arsenic and antimony values, which would be expected since the 2002 till samples were pulverized, diluting results unless anomalous rock chips were present. Mercury showed mixed results and the high detection limit for thallium in 2002 was not sufficient in delineating anomalous values. It should be noted, however that in areas of thicker till cover the till samples could return higher values despite pulverization. Basal till samples analyzed by conventional methods would be more effective in delineating geochemical patterns and extent of anomalies.

On L400E, three anomalous gold values are contained within a 125m wide arsenic  $\pm$  antimony  $\pm$ thallium  $\pm$ mercury anomaly from 475N to 600N, extending the previous main anomalous zone 100m to the north. Only one sample was collected further north which contained anomalous arsenic, antimony, thallium and mercury. The adjacent line (L500E) exhibits four gold in soil anomalies from station 475N to 575N with  $\pm$ anomalous arsenic, antimony, and thallium, again extending the previous main anomalous zone 100m to the north. On L600E, two additional gold in soil anomalies within a three station zone from 475N to 525N with two stations containing highly anomalous arsenic, antimony, and thallium, extend the gold anomalous zone 75m to the north. There are no samples further to the north and the northernmost sample contained the highest gold (52.4 ppm) with anomalous 1.2 ppm Ag, 286 ppm As, 114 ppm Sb, 37 ppm Hg and 1 ppm Tl.

Additional soil sampling was not completed to the north on lines 100 to 300E, but anomalous gold values were obtained on L0E from 575N to 650N with moderately anomalous arsenic and  $\pm$ antimony and one silver anomaly of 1.4 ppm. Only one non-anomalous sample was collected further north. It is inconclusive if this trend represents glacial dispersion, since it lies down ice from the main zone, or if it represents a continuation of the zone an additional 100m to the northwest, along strike of the stratigraphy, which trends westerly, a similar direction. Another moderate gold in soil anomaly occurs 150m to the south at L0E/400-425N, which is coincident with a high chargeability anomaly at a 100m depth.

Two isolated moderately anomalous gold in soil values occur along L0E at 175N and 225S, with no accompanying trace element signature. There is insufficient sampling in this area to fully evaluate the significance of the elevated values and they should not be discounted. Additional sampling is warranted.

A moderately anomalous gold in soil value accompanied by high arsenic (102.5 ppm As) and moderate silver (0.8 ppm Ag) was obtained at L500E/125N near a reconnaissance antimony-silver till anomaly obtained in 2004, 75m south of the main zone. A silver-molybdenum  $\pm$ thallium anomaly occurs 200m to the southeast on L700E/0N-150N, with two high silver values, one accompanied by high thallium (0.9 ppm Tl) and high molybdenum (35 ppm Mo) and three high molybdenum values. Another silver-molybdenum high occurs at L0E/050N with 1.2 ppm Ag and 29.6 ppm Mo, between the two isolated gold anomalies on this line. Anomalous molybdenum values continue 200m to the southeast, open in both directions along strike. Additional molybdenum anomalies occur to the south on L0E, particularly a three station anomaly

at the southern end of the line which corresponds to a chargeability anomaly coincident with a conductive zone.

There appears to be a weak correlation between anomalous molybdenum and anomalous silver. Molybdenum is notably absent in hot-spring epithermal systems, but may indicate deeper levels within the epithermal environment.

## 10.2 Proposed Drilling

Four diamond drill holes were initially recommended, sighted in and partially cut out during the 2006 property examination. The holes utilize 675m of the 800-1,000m proposed drill program in four holes from four different sites. The holes targeted the chargeability-high, resistivity-high zone on line 500E, coincident with the best gold in till assays and areas of favourable mineralization and alteration. Preparation of the drill sites was completed between September 26 and October 7, 2006. The specifications of the drill holes are as follows.

**Table 4: Proposed diamond drill hole specifications**

DDH	UTM Nad 83,	Zone 9	Az.	Dip	Depth	Grid	Target
No.	Northing	Easting	(°)	(°)	(m)	Co-ord.	
SP06-A	6876549	346885	195	-45	175	6E/360N	Highly silicified seds in trench
SP06-B	6876630	346802	195	-45	175	5E/419N	Shaft with highest Au in till
SP06-C	6876543	346784	195	-45	150	5E/328N	chargeability-high, resistivity-high
SP06-D	6876467	346769	195	-45	150	5E/250N	chargeability-high, resistivity-high
SP06-E	proposed		195	-45	200	L3E/463N	Second highest Au in till

A fence of diamond drill holes along L500E was proposed to obtain an understanding of the underlying stratigraphy across the central gold in till anomalous zone and testing the only significant anomalous gold in rock location. Proposed DDH SP06-B targets the highest gold in till anomaly of 13.9 g/t Au at the 3.5m shaft or Pit 0 location at 480E/390N (UTM co-ordinates 6876611mN, 346781mE in Nad 83, Zone 9 projection). Rock samples of angular fragments from the shaft have yielded similar values of 1.05 g/t Au, 1.21 g/t Au and 0.98 g/t Au. The shaft also lies within the chargeability-high, resistivity-high zone along L500E.

Proposed DDH SP06-C lies 90m grid south (195°) of SP06-B to cover the extension of the gold in till anomaly to the south still within the chargeability-high, resistivity-high zone along L500E, targeting down dip of near where the zone comes to surface at L500E/270N. Proposed DDH SP06-D lies 75m grid south (195°) of SP06-C to cover the southernmost extent of the gold in till anomaly and provide a significant cross-section of the main zone.

Proposed DDH SP06-A was proposed to target the footwall of significant high silica alteration exposed in Trench 02-1, high gold in till values within the main zone and the southeastern extension of the chargeability-high, resistivity-high anomaly.

Additional targets include the possible depth extent of any significant mineralization or alteration zones encountered in SP06-B and DDH SP06-A and/or strike extensions to

the northwest. A tentative target to the northwest is at L300E/450-475N to target the second highest gold in till result of 490 ppb Au, within the main zone.

### 10.3 GPS Data

Critical previous sample locations and workings were located and recorded using a Garmin 12XL GPS, in Nad 83, Zone 9 projection and are tabulated below in Table 5.

**Table 5: Significant GPS locations**

Name	Easting	Northing	Description
SPOTC1	346810	6876653	Silicified conglomerate outcrop, sheeted looking quartz
SPPIT1	347019	6876449	Pit 300
SPPIT2	347005	6876468	Pit 275
SPPIT3	346878	6876540	Highly silicified conglomerate with coal? clasts at Pit 125
SPTR1	346920	6876543	Trench with highly silicified phyllite
SPTR2	346915	6876532	Trench with no outcrop, silicified float
SPSHFT	346781	6876611	3.5m shaft at site of 13.9 g/t Au till sample
SPPUMP	346932	6876684	Proposed pump site for drill
SP-LZ	346749	6876773	Helipad below old camp

### 11.0 ADJACENT PROPERTIES

There are no properties adjacent to the Spice property.

### 12.0 INTERPRETATION AND CONCLUSIONS

The 2006 soil geochemistry survey over the Spice property extended the known zone of anomalous gold in till anomalies 75m to 125m further north and 100m to the northwest, still open to the northwest and partly open to the north. Additional moderate spot gold in soil anomalies (with proximal antimony and arsenic at L500E/125N) and molybdenum-silver  $\pm$ thallium anomalies occur 300-400m south of the main zone. Only one 225m line, southeast of Spice Lake, has been undertaken in the eastern half of the property, with no significant anomalies. Additional sampling is warranted here.

Previously identified anomalies remain untested including two reconnaissance gold in till anomalies identified in 2004 peripheral to the listwanite zone south of the grid area. A 28.5 ppb Au in till anomaly from the government sampling in 2002 north of the grid area also remains untested. Additional sampling is warranted in both areas and up ice.

The best drill targets are in the area of high gold in till and the shallow, gently north dipping, chargeability-high, resistivity-high zone from L300E to L600E between 270N and 350N.

### 13.0 RECOMMENDATIONS

If drilling is successful in outlining favourable stratigraphy, alteration and anomalous gold and/or pathfinder anomalies, besides direct follow up of drill results, anomalous gold and pathfinder elements in soil and till samples outside of the main zone should be followed up with additional soil sampling, with basal till sampling in more prospective (thinner till covered) areas.

Prospective areas for soil/till geochemistry include to the north and northwest of the grid area and to the south and should include gold in till anomalous zones identified in 2004 peripheral to the listwanite zone south of the grid area. No sampling has been undertaken in the eastern half of the property except for one 225m line, with no significant anomalies, southeast of Spice Lake. Several lines of soil sampling are recommended in the eastern property area, particularly the southeastern property area, to trace gold in till anomalies up ice.

An 800-1,000m initial drill program is proposed on the Spice Project within the main zone to shed some light on the hosting stratigraphy and to hopefully determine the nature and style of the mineralization. The best drill targets are in the area of high gold in till and the shallow, gently north dipping, chargeability-high, resistivity-high zone from L300E to L600E between 270N and 350N. Drilling should utilize NTW or HQ wireline equipment and a 5 foot coring system to facilitate high core recovery, due to the till cover and possible similarities to the Grew Creek property, which had significant recovery problems.

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## 14.0 CERTIFICATE, DATE AND SIGNATURE

- 1) I, Jean Marie Pautler of 103-108 Elliott Street, Whitehorse, Yukon Territory am self-employed as a consultant geologist, authored and am responsible for this report.
- 2) I am a graduate of Laurentian University, Sudbury, Ontario with an Honours B.Sc. degree in geology (May, 1980) with more than 25 years mineral exploration experience in the North American Cordillera.
- 3) I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC Reg. No. 19804).
- 4) I examined, evaluated and delineated drill targets on the Spice property on August 27, 2006 and reviewed and evaluated the soil geochemical program completed between September 26 and October 7, 2006.
- 5) I have no direct or indirect interest in the Spice property, which is the subject of this report.

Dated at Whitehorse, Yukon Territory this 30<sup>th</sup> day of April, 2007,  
"Signed and Sealed"

---

Jean Pautler, P.Geo.  
JP Exploration Services Inc.  
#103-108 Elliott St.  
Whitehorse, Yukon Y1A 6C4

## APPENDIX I: Statement of Claims

Grant No.	Claim Name	No.	Claim Owner	Record Date	Old Expiry	NTS	Yrs.	New Expiry
YB93156	SPICE	1	I. Elash-33.33%, Tanana-66.67%.	3/7/2001	3/7/2016	105G13	4	3/7/2020
YB93157	SPICE	2	I. Elash-33.33%, Tanana-66.67%.	3/7/2001	3/7/2016	105G13	4	3/7/2020
YB93158	SPICE	3	I. Elash-33.33%, Tanana-66.67%.	3/7/2001	3/7/2016	105G13	4	3/8/2020
YB93159	SPICE	4	I. Elash-33.33%, Tanana-66.67%.	3/7/2001	3/7/2016	105G13	4	3/9/2020
YB93160	SPICE	5	I. Elash-33.33%, Tanana-66.67%.	3/7/2001	3/7/2016	105G13	4	3/10/2020
YB93161	SPICE	6	I. Elash-33.33%, Tanana-66.67%.	3/7/2001	3/7/2016	105G13	4	3/11/2020
YB93162	SPICE	7	I. Elash-33.33%, Tanana-66.67%.	3/7/2001	3/7/2016	105G13	4	3/12/2020
YB93163	SPICE	8	I. Elash-33.33%, Tanana-66.67%.	3/7/2001	3/7/2016	105G13	4	3/13/2020
YB93164	SPICE	9	I. Elash-33.33%, Tanana-66.67%.	3/7/2001	3/7/2016	105G13	4	3/14/2020
YB93165	SPICE	10	I. Elash-33.33%, Tanana-66.67%.	3/7/2001	3/7/2016	105G13	4	3/15/2020
YB93615	SPICE	11	I. Elash-33.33%, Tanana-66.67%.	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93616	SPICE	12	I. Elash-33.33%, Tanana-66.67%.	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93617	SPICE	13	I. Elash-33.33%, Tanana-66.67%.	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93618	SPICE	14	I. Elash-33.33%, Tanana-66.67%.	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93619	SPICE	19	I. Elash-33.33%, Tanana-66.67%.	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93620	SPICE	20	I. Elash-33.33%, Tanana-66.67%.	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93621	SPICE	21	I. Elash-33.33%, Tanana-66.67%.	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93622	SPICE	22	I. Elash-33.33%, Tanana-66.67%.	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93623	SPICE	23	I. Elash-33.33%, Tanana-66.67%.	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93624	SPICE	24	I. Elash-33.33%, Tanana-66.67%.	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93625	SPICE	25	I. Elash-33.33%, Tanana-66.67%.	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93626	SPICE	26	I. Elash-33.33%, Tanana-66.67%.	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93627	SPICE	27	I. Elash-33.33%, Tanana-66.67%.	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93628	SPICE	28	I. Elash-33.33%, Tanana-66.67%	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93629	SPICE	29	I. Elash-33.33%, Tanana-66.67%	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93630	SPICE	30	I. Elash-33.33%, Tanana-66.67%	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93631	SPICE	31	I. Elash-33.33%, Tanana-66.67%	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93632	SPICE	32	I. Elash-33.33%, Tanana-66.67%	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93633	SPICE	33	I. Elash-33.33%, Tanana-66.67%	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93634	SPICE	34	I. Elash-33.33%, Tanana-66.67%	2/22/2002	2/22/2013	105G13	4	2/22/2017
YB93635	SPICE	35	I. Elash-33.33%, Tanana-66.67%	2/22/2002	2/22/2013	105J04	4	2/22/2017
YB93636	SPICE	36	I. Elash-33.33%, Tanana-66.67%	2/22/2002	2/22/2013	105J04	4	2/22/2017

I. Elash - Ivan Elash: Tanana - Tanana Exploration Inc.: Klondike Star M.C. - Klondike Star Mineral Corp.

Grant No.	Claim Name	No.	Claim Owner	Record Date	Old Expiry	NTS	Yrs.	New Expiry
YC31414	SPY	1	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
YC31415	SPY	2	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
YC31416	SPY	3	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
YC31417	SPY	4	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
YC31418	SPY	5	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
YC31419	SPY	6	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
YC31420	SPY	7	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
YC31421	SPY	8	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
YC31422	SPY	9	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
YC31423	SPY	10	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
YC31424	SPY	11	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
YC31425	SPY	12	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
YC31426	SPY	13	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105J04	5	5/1/2012
YC31427	SPY	14	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105J04	5	5/1/2012
YC31428	SPY	19	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
YC31429	SPY	20	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
YC31430	SPY	21	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
YC31431	SPY	22	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
YC31432	JF BEAR		Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
YC31433	SPY	24	Klondike Star M.C. - 100%	5/1/2006	5/1/2007	105G13	5	5/1/2012
<b>TOTAL</b>		<b>52</b>					<b>228</b>	

I. Elash - Ivan Elash: Tanana - Tanana Exploration Inc.: Klondike Star M.C. - Klondike Star Mineral Corp.

## APPENDIX II: Petrography

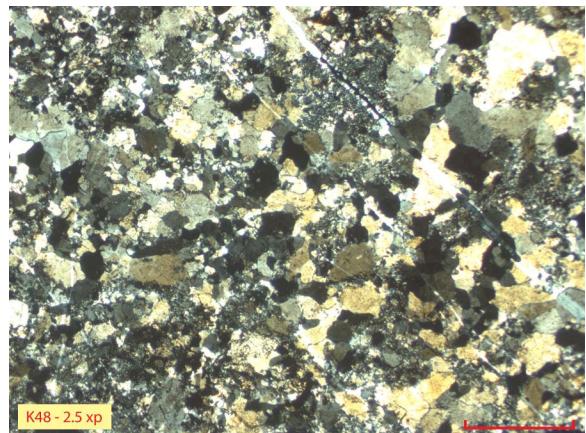
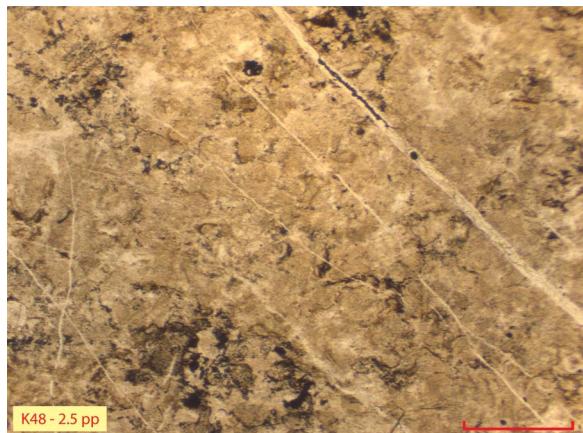
### SPICE CLAIMS: PETROGRAPHIC NOTES

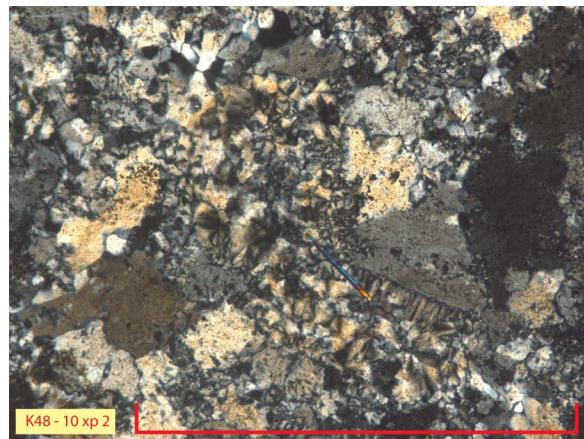
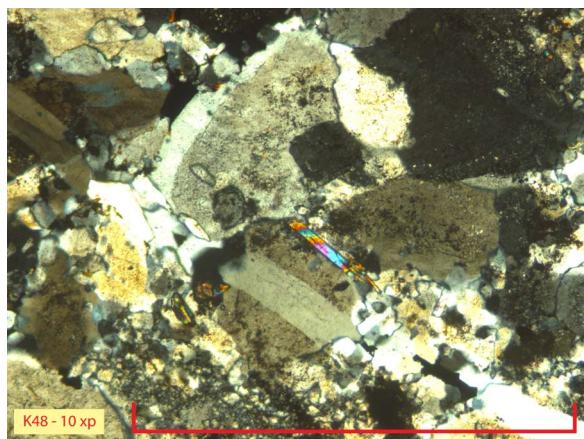
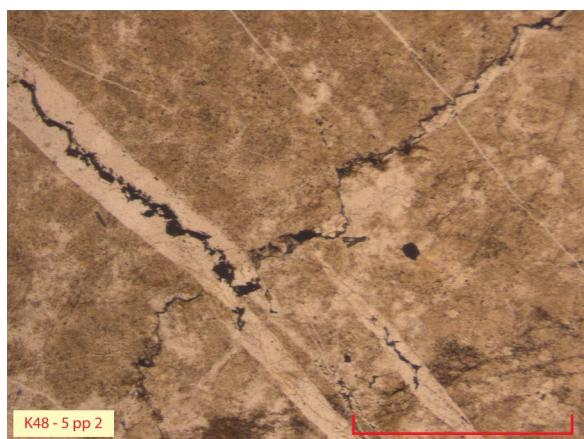
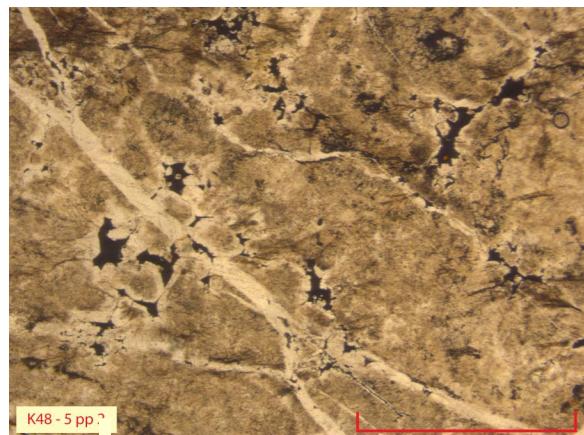
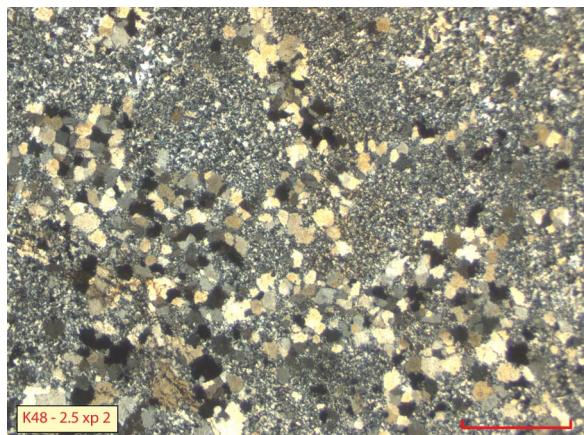
T. Liverton, February 26, 2007

#### SPICE CLAIMS: SPECIMEN K 48

A hand specimen collected from the Spice claim block during the 2006 season by Bill Mann was used to prepare a thin section to examine mineralogy and textures. The rock consists of quartz, Fe- and perhaps Mn- hydroxides and a few crystals of tourmaline. Much of the material is anhedral quartz, which is interpreted to have been formed as chalcedony. It is cut by many quartz veins, some with evidence of open-space fillings as in: images K48 – 2.5 pp and K48 – 2.5 xp (plane polarized light and crossed polarizers, with a 1mm scale bar shown). Some stylolitic Fe-filled fractures are displaced by quartz veins (K48 – 5 pp 2 again with a 1mm scale bar), but some vughs are clearly visible. In part of the section (K48 – 2.5 xp 2) finer grained anhedral quartz fields are within polygonal chains of coarser quartz, possibly a brecciated zone. The occasional tourmaline crystals are seen in the cross-cutting quartz (K48 – 10 xp) and also in what seems to be a silicified clast (K48 – 10 pp 2 and K48 – 10 xp 2: same field).

The rock is interpreted to be a hot-spring (hydrothermal) deposit, formed at a shallow depth below the palaeosurface. Such deposits formed near-surface above a granitic intrusion with a quartz stockwork, in a volcanic system (Rotorua, New Zealand) and as an exhalite above an extensional fault (e.g., Rhynie, Scotland) and may contain appreciable gold.





T. Liverton

26<sup>th</sup> February 2007

**APPENDIX III**  
**Geochemical Procedure and Results**

# **Acme Analytical Laboratories Ltd.**

## **GEOCHEMICAL PROCEDURES**

### **SAMPLE PREPARATION**

#### **SOIL, SEDIMENT AND VEGETATION SAMPLES**

**SS80** Dry at 60°C, sieve (up to) 100 g to -80 mesh

#### **ROCK AND DRILL CORE**

**R150** Crush 1 kg to 70% passing 10 mesh, split 250 g and pulverize to 95% passing 150 mesh

### **GROUP 1DX: ICP & ICP-MS ANALYSIS – AQUA REGIA**

Sample splits of 15g are leached in hot (95°C) Aqua Regia. A larger split size (30g) is used for more representative Au analysis. Refractory and graphitic samples can limit Au solubility. Solubility of some elements\* will be limited by mineral species present. A total of 36 elements are assayed in the ICP-MS analysis as follows: Al, Sb, As, Ba, Bi, B, Cd, Ca, Cr, Co, Cu, Ga, Au, Fe, La, Pb, Mg, Mn, Hg, Mo, Na, Ni, P, Ag, K, Sc, Sr, S, Ti, Th, Ti, Sn, W, U, V and Zn.

\* Al, B, Ba, Ca, Cr, Fe, Ga, Hg† K, La, Mg, Mn, Na, Sr, Th, Ti, Tl‡ U, V, W,

Appropriate standards and repeat samples (Quality Control components) accompany the samples on the data sheet.

Acme file # A608217 Page 1 Received: OCT 25 2006 \* 135 samples in this disk file.

Analysis: GROUP 1DX - 15.0 GM SAMPLE LEACHED WITH 90 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 300 ML, ANALYSED BY ICP-MS.

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
391251	2.6	53.8	15.8	95	0.5	82.3	14.3	593	2.95	29.2	1.2	6.3	4.4	24	0.2	8.1	0.2	41	0.32	0.056	17	40	0.35	504	0.004	2	0.84	0.012	0.09	0.2	0.68	4.1	0.2	0.07	3	1.6
391252	1.8	49.4	21	98	0.7	52.3	19.2	1726	3.11	21.1	1.6	1.5	9.7	23	0.4	4.8	0.3	37	0.22	0.039	28	28	0.2	458	0.001	2	1.45	0.012	0.31	0.1	0.46	3.6	0.2	<.05	5	0.7
391254	3.2	54.2	22.8	71	0.5	26.3	4.4	129	4.04	362.9	1.7	62.9	8	46	0.1	95.7	0.3	30	0.04	0.119	16	24	0.09	472	0.002	1	0.69	0.012	0.15	0.1	14.51	2.6	1.3	0.21	2	2.2
391255	2.4	68.5	17.8	247	0.4	104.7	28.2	1394	3.1	151.1	3.1	12.9	6.6	38	2.1	24.8	0.2	43	0.16	0.124	33	46	0.35	540	0.011	2	1.2	0.008	0.1	0.2	6.36	4.5	0.4	0.07	3	1.3
391256	2.9	78.9	21.6	174	0.2	72.8	84.6	1220	3.67	158.9	4.1	19.8	6.6	54	0.3	115.4	0.2	43	0.09	0.084	16	39	0.21	480	0.002	1	1.56	0.017	0.12	0.1	11.55	5.5	0.9	0.21	3	2
391257	2	25.7	11.4	86	0.2	22.4	7.8	227	2.28	191.2	0.5	4.1	2.6	21	0.3	94.8	0.2	33	0.05	0.053	11	18	0.11	223	0.002	<1	0.85	0.009	0.06	0.2	25.2	1.5	0.6	<.05	3	0.5
391258	2	28.8	10.2	62	0.8	16.8	3.7	89	2.19	116.9	0.5	28.3	2.8	20	0.1	45.7	0.1	30	0.03	0.043	12	18	0.1	207	0.003	1	0.69	0.007	0.06	0.1	10.38	1.4	0.4	<.05	2	1
391259	2.3	38.2	11.6	118	0.2	47.3	11.8	302	2.78	82.2	0.9	18.2	3.9	17	0.3	22.9	0.2	53	0.11	0.037	17	39	0.4	353	0.009	2	1.26	0.005	0.07	0.1	7.93	2.8	0.6	<.05	3	1
391260	2.3	22	12.4	86	0.2	27.5	10.6	233	2.55	207.2	0.5	7.1	2.3	16	0.4	108.6	0.2	37	0.06	0.043	12	22	0.13	200	0.005	1	0.62	0.005	0.08	0.2	79.5	1.5	0.6	<.05	2	1.2
391264	1.5	23.1	9.9	86	0.1	29.2	8.5	507	2.02	64.7	0.4	0.8	2.6	15	0.4	17.8	0.1	28	0.11	0.031	10	18	0.16	237	0.006	1	0.6	0.013	0.07	0.1	3.7	1.5	0.5	<.05	2	0.8
391265	0.5	16.3	6.2	55	0.1	9.8	6.3	679	1.92	24.8	0.3	<.5	1.7	14	0.6	1	0.1	19	0.15	0.034	8	7	0.17	321	0.01	1	0.51	0.015	0.11	0.1	0.13	0.9	0.1	<.05	2	<.5
391266	1.2	25.7	13.5	54	<.1	26.4	7.7	459	1.75	10.7	0.6	1.4	1.5	17	0.2	1.9	0.1	33	0.18	0.036	17	29	0.37	620	0.006	1	0.95	0.007	0.09	0.1	0.46	1.2	0.1	<.05	3	0.6
391267	2.6	29.5	24.7	103	0.4	22.2	3.3	81	3.87	166.5	0.6	3.9	2.8	27	0.3	50.5	0.2	31	0.08	0.132	10	13	0.05	240	0.005	1	0.42	0.005	0.07	0.1	3.71	1.4	0.6	<.05	2	1.6
391268	1.6	23.5	9.4	86	0.1	24.9	6.4	370	2.87	74.8	0.4	2.8	1.7	18	0.5	23.6	0.1	30	0.12	0.083	8	18	0.12	251	0.003	1	0.55	0.011	0.08	0.1	3.98	1.5	0.3	<.05	2	0.8
391269	2.6	57.7	20.6	182	0.4	66.6	14.2	681	2.82	25.2	2	2.3	6.3	65	1.8	5.5	0.3	68	1.57	0.117	17	38	0.93	629	0.011	6	1.26	0.012	0.24	0.1	1.21	3.7	0.3	0.11	5	2.7
391270	2.1	41.7	17.2	171	0.3	110.1	30.2	795	2.46	31.7	2	3.1	5.2	68	2.5	9	0.2	42	2.02	0.113	17	31	1	509	0.016	4	0.83	0.009	0.13	0.3	1.62	2.6	0.3	0.11	3	3.1
391271	1.7	94	13.4	225	0.2	110.5	25.6	530	3.29	37.3	4.9	3.1	6.3	35	1.1	10	0.2	31	0.45	0.097	16	35	0.4	366	0.021	4	2.43	0.009	0.09	0.2	1.81	11.5	0.4	0.16	2	1.2
391272	3	58.6	14.9	139	0.2	32.2	5.9	117	6.66	58.3	1.2	3.1	7.1	12	0.2	23.9	0.2	40	0.03	0.101	10	47	0.2	303	0.042	1	0.46	0.005	0.08	0.4	8.47	2	0.4	0.18	3	1.5
391273	3	59.7	16.2	349	0.4	153.5	23.7	201	2.61	156.7	2.3	13.9	4.1	45	0.7	41.8	0.2	35	0.24	0.127	20	32	0.35	401	0.007	3	2.05	0.012	0.11	0.2	6.41	3.7	0.6	0.11	3	2.2
391274	2.5	44.4	12.4	212	0.3	105.6	29.9	737	2.15	48.3	1.8	10.6	3	32	1.4	13.5	0.2	34	0.44	0.126	21	29	0.4	495	0.017	2	1.2	0.014	0.11	0.2	1.59	2.8	0.4	<.05	2	2.1
391275	2.1	33.7	13.3	109	0.4	65.8	9	280	1.94	65.2	1.3	16.7	3.2	31	1	21.4	0.2	34	0.35	0.097	14	33	0.35	445	0.013	2	0.72	0.034	0.11	0.1	1.76	2.5	0.7	<.05	2	1.9
391276	3.8	50.4	17.6	204	0.3	116.7	16.9	504	3.27	183.3	1.3	8.8	6.1	42	1.9	28.9	0.2	40	0.31	0.126	20	48	0.51	492	0.014	2	0.79	0.014	0.12	0.1	2.81	2.9	0.6	0.09	3	1.9
391277	2.3	38	23.6	52	0.4	18.5	2.7	87	3.28	292.5	0.9	32.2	2.9	36	0.2	71.5	0.2	27	0.03	0.087	13	19	0.07	340	0.003	1	0.77	0.013	0.13	0.1	6.42	1.5	1.4	0.16	3	1.5
391281	1.4	21.8	9.8	71	<.1	43.6	8.3	374	2.1	10.4	0.8	1.4	2.3	17	0.3	1.5	0.1	43	0.23	0.052	11	27	0.38	232	0.009	1	0.9	0.03	0.07	0.1	0.11	2.6	0.1	0.12	3	1.3
391282	2.7	30.7	15	116	0.2	59.8	11.4	341	2.89	16.8	2.4	3.4	5.5	31	0.4	2.4	0.2	60	0.32	0.068	21	39	0.62	587	0.019	3	1.16	0.014	0.14	0.2	1.77	4.2	0.2	<.05	4	1.9
391283	1.7	29	12.7	89	0.3	50.1	10.9	435	2.64	12.9	1.1	2.2	4.2	52	0.6	2	0.2	51	1.21	0.101	20	34	0.94	638	0.021	3	0.9	0.022	0.11	0.3	3.16	3.6	0.1	<.05	3	0.8
391284	1.9	33.7	17.9	105	0.2	60.6	14.2	560	3.32	14.3	1.1	2	3	37	0.4	2.4	0.2	52	0.53	0.041	15	33	0.64	529	0.013	2	1.12	0.032	0.08	0.1	0.1	4	0.2	0.06	4	1.3
391285	1.9	27.1	14.1	107	0.2	52.4	11.7	629	2.36	12.6	1.1	3.2	3.7	24	0.4	1.8	0.2	52	0.39	0.048	15	32	0.54	314	0.016	3	1.19	0.021	0.17	0.2	0.16	3.2	0.2	<.05	4	0.9
391286	1.7	25.2	10	95	0.1	71.5	11.9	390	2.6	10.5	0.6	0.5	2.2	23	0.2	2.7	0.1	43	0.26	0.071	12	40	0.36	335	0.011	1	0.87	0.027	0.09	0.1	0.07	3.1	0.1	<.05	3	0.8
391287	1.2	25.7	9.3	80	0.1	76	15.5	437	3.41	9.2	0.8	1.7	4	48	0.1	1.3	0.1	47	0.86	0.074	21	36	1.12	426	0.028	2	1.63	0.101	0.11	0.2	0.11	3.4	0.1	<.05	5	0.7
391288	2.8	53	18.8	137	0.3	111.8	18.6	856	4.46	18.1	1	4.3	3	30	0.6	3.3	0.2	59	0.36	0.058	17	50	0.45	601	0.01	1	1.04	0.019	0.08	0.1	0.18	5.6	0.2	<.05	3	1.3
391289	1.8	21.7	12.1	102	0.4	57.2	13.4	482	2.98	13.3	1.1	2.9	2.7	35	0.5	2.1	0.1	50	0.78	0.11	16	39	0.53	422	0.011	4	0.89	0.02	0.11	0.1	0.12	4.4	0.1	<.05	3	1
391290	2.6	49.2	18.8	150	0.5	92.6	17.4	774	3.																											

Acme file # A608217 Page 1 Received: OCT 25 2006 \* 135 samples in this disk file.

Analysis: GROUP 1DX - 15.0 GM SAMPLE LEACHED WITH 90 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 300 ML, ANALYSED BY ICP-MS.

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	
	SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	%
391316	0.6	12.3	4.8	26	<1	9.9	2.9	56	0.63	5.7	1.3	2.3	1.5	27	0.4	2.7	0.1	11	0.53	0.069	8	8	0.17	191	0.014	2	0.29	0.038	0.06	0.2	0.81	0.7	0.1	0.06	1	1.1	
391317	1.8	35.8	15.8	84	0.5	39.1	9.5	541	2.35	61	1.8	19.2	4.5	37	0.8	18.4	0.2	33	0.43	0.06	17	25	0.37	649	0.007	3	0.85	0.01	0.15	3	4.81	3.2	0.4	0.06	3	1.9	
391318	1	90.3	23.6	130	1.4	104	17.6	556	2.91	98.7	6.3	20.1	5	122	8.1	43	0.3	38	1.78	0.134	22	27	0.61	1214	0.01	4	1.31	0.02	0.16	0.1	3.29	3.8	0.4	0.23	4	10.4	
391319	2.4	23.8	15.6	89	0.3	41.2	8.7	219	2.41	53.9	1.5	17.3	5.2	43	0.4	35.8	0.2	35	0.99	0.072	16	29	0.42	259	0.012	2	0.85	0.015	0.11	0.4	5.83	2.8	0.3	0.69	3	5.1	
391320	2.1	33	43.9	143	0.2	43.1	12.8	711	84.2	1.279	6.5	19	0.4	50.5	0.2	25	0.13	0.025	20	23	0.27	252	0.003	1	0.81	0.009	0.12	0.1	6.45	1.8	0.4	<.05	3	12			
391321	2.2	20.7	17.8	116	0.3	31.3	8.5	788	2.24	73.2	1	7	4.9	23	0.4	26.7	0.2	25	0.21	0.048	17	21	0.21	412	0.003	1	0.79	0.006	0.13	0.1	9.52	2	0.3	<.05	2	7.8	
391322	9.6	27.3	19.6	206	0.1	46	9.5	281	2.46	15.9	1.4	1.4	4.2	21	0.9	4.9	0.2	89	0.25	0.052	17	36	0.32	292	0.006	1	0.94	0.009	0.1	0.1	0.25	2.7	0.4	<.05	3	4.2	
391323	16.1	39.6	44.6	281	0.1	68.8	10.5	413	2.35	22.1	1.3	3.6	4.9	28	0.7	6.1	0.2	95	0.24	0.055	17	36	0.27	421	0.003	1	0.86	0.014	0.09	0.1	0.67	2.7	0.4	<.05	3	5.9	
391324	6	16	19.9	301	0.1	71.8	12.8	535	2.6	15.9	0.9	<.5	5.2	22	1.3	3.5	0.2	79	0.22	0.074	20	54	0.47	399	0.003	1	1.19	0.008	0.12	0.1	0.13	2.4	0.3	<.05	3	1.8	
391325	4.3	20.3	14.2	194	0.2	78.7	16.2	603	2.46	9.5	1.3	<.5	3.3	19	1.5	2.5	0.2	79	0.3	0.039	15	56	0.35	358	0.009	1	1.08	0.011	0.09	0.1	0.11	3	0.2	<.05	4	1.3	
391326	4.7	10.2	19.5	97	<1	22.1	8.1	310	2.2	13.4	2	1.1	9.8	17	0.2	3.3	0.2	26	0.22	0.038	37	19	0.35	245	0.002	1	0.99	0.006	0.17	0.1	0.1	1.7	0.2	<.05	3	2.2	
391327	1.8	23.7	23.2	88	0.1	32.7	12	649	2.75	18.2	2.4	2.4	14.5	21	0.1	5	0.2	19	0.33	0.038	51	15	0.39	271	0.001	1	1.11	0.006	0.17	<1	0.21	2.6	0.2	<.05	3	3	
391328	2.2	9.7	12.4	65	<1	25.8	7.7	341	2.31	15.4	1.8	1.2	5.6	13	0.1	4.4	0.2	38	0.2	0.024	22	31	0.36	287	0.028	1	0.81	0.006	0.1	0.3	0.05	1.7	0.1	<.05	3	1.8	
391329	2.1	33.9	21.3	103	0.2	74.5	15.8	933	2.99	29.3	0.9	2.4	7.6	16	0.7	7.6	0.2	30	0.2	0.027	25	38	0.25	326	0.002	1	0.9	0.007	0.14	0.1	0.42	2.8	0.1	<.05	2	4.1	
391330	1.9	19.2	12.3	71	0.3	37.4	8.2	464	2.18	24.7	0.7	2.3	5.1	18	0.3	4.9	0.2	24	0.27	0.032	22	28	0.22	189	0.004	1	0.59	0.008	0.12	0.1	0.23	1.7	0.1	<.05	3	1	
391331	2	24.6	15	84	0.3	75.7	14.6	1019	2.83	33.2	0.5	0.8	3.5	16	0.9	7	0.2	32	0.28	0.04	18	60	0.3	289	0.004	1	0.72	0.01	0.11	0.1	0.13	2.1	0.1	<.05	2	0.9	
391332	2.9	69.2	21.6	110	0.6	237.8	20	777	3.71	49.6	2	6.5	4.8	25	0.6	10.9	0.3	37	0.38	0.056	19	72	0.36	395	0.002	1	0.74	0.007	0.1	0.1	0.7	4.6	0.2	0.08	2	2.3	
391333	2.6	19.4	9.4	46	<1	29.3	9.2	544	2.19	26.5	1.2	1.7	2.5	14	0.2	5.6	0.1	25	0.21	0.041	12	26	0.17	190	0.008	1	0.47	0.013	0.06	0.3	0.19	1.5	0.1	<.05	2	1.4	
391334	2.3	46.8	13.1	107	0.3	64.2	10.7	500	2.47	35.7	2.1	7.6	4.8	94	1.1	11.6	0.2	23	4.08	0.104	14	21	0.84	373	0.007	1	0.41	0.008	0.08	0.2	1.06	2.4	0.2	0.16	1	1.6	
391335	2.7	39.2	16.2	45	0.1	26.2	7.6	192	2.85	47.8	2	8.1	6	18	0.1	20	0.2	19	0.16	0.031	20	16	0.13	236	0.001	<1	0.48	0.005	0.1	0.1	3.54	1.8	0.2	0.06	1	3.5	
391336	2.5	29.8	14.1	63	<1	20.8	5	84	2.38	28.9	1.3	2.6	5.1	14	0.3	9.6	0.2	23	0.14	0.033	21	11	0.15	226	0.003	1	0.48	0.008	0.09	0.1	1.04	1.4	0.1	0.06	2	3.2	
391337	11.9	31.3	16.3	337	0.4	306.9	32.9	653	3.39	12.6	2	3.2	3.8	43	3.3	5.1	0.2	141	0.72	0.049	14	120	1.15	459	0.008	2	1.49	0.014	0.08	0.1	0.52	4.4	0.4	0.2	5	4.3	
391338	2.3	14.4	36.9	98	<1	20.1	8	181	2.01	18.7	0.8	2.7	11.8	21	0.3	23.8	0.2	16	0.26	0.026	31	9	0.23	303	0.001	1	0.69	0.019	0.15	<1	0.34	0.9	0.2	0.14	1	1	
391339	2.1	12.7	13.6	167	0.2	44.7	8.2	357	1.74	7.4	5	1.2	4.9	21	0.8	2	0.1	35	0.33	0.065	18	41	0.42	351	0.018	2	0.76	0.011	0.11	0.2	0.1	2.2	0.1	<.05	3	2	
391340	2.4	11.1	20.8	93	<1	30.7	9.9	380	2.6	25	1.1	1.9	7.9	11	0.3	11.7	0.2	32	0.13	0.022	33	26	0.31	200	0.005	1	0.97	0.007	0.16	0.1	0.08	1.6	0.2	<.05	3	1	
391341	2.4	39.9	27.4	90	0.1	80.5	16.7	555	3.32	34.4	1.6	4.0	14.0	12	0.2	19.1	0.2	26	0.16	0.025	45	29	0.32	202	0.001	1	0.9	0.004	0.18	0.1	0.36	3.0	0.2	<.05	3	1.3	
391342	2	18.6	20.7	171	0.3	46.1	10.4	568	2.81	25	5.1	1.9	6.3	25	0.4	7.3	0.2	26	0.35	0.051	23	30	0.28	243	0.003	1	0.67	0.012	0.11	0.1	0.23	1.8	0.1	<.05	2	1.3	
391343	3.1	32.2	20.2	90	0.3	97.9	16.6	801	3.43	38.1	1.2	3.6	5.6	18	0.5	6.4	0.2	44	0.2	0.033	20	57	0.3	332	0.003	<1	0.96	0.007	0.11	0.1	0.46	3.7	0.2	<.05	3	2	
391344	3.1	40.6	18.5	89	0.2	100.7	19.8	773	3.63	53.8	1.3	3.5	6	19	0.5	7.9	0.2	42	0.23	0.037	21	60	0.24	335	0.002	<1	0.9	0.005	0.12	0.1	0.45	3.8	0.1	<.05	3	1.6	
391345	3.9	47.6	18.3	118	0.2	164.9	21.9	775	3.79	51.4	1.5	5.7	5.8	20	0.3	10.2	0.2	43	0.2	0.042	20	129	0.5	405	0.002	<1	0.85	0.005	0.09	0.2	0.7	4.6	0.2	<.05	2	2.4	
391346	1.7	15.8	9	58	0.1	33.7	7.5	462	1.84	16.1	1.1	1	3.8	15	0.2	2.9	0.1	31	0.24	0.032	17	71	0.3	399	0.003	1	0.92	0.013	0.08	0.1	0.91	3.9	0.1	<.05	3	2.1	
391347	2.6	41.5	11.8	112	0.6	126.8	26.1	912	2.89	46.3	1.7	4.7	1.9	26	0.6	12.9	0.2	25	0.4	0.075	12	95	0.39	341	0.003	1	0.7	0.011	0.08	0.1	0.66	2.4	0.1	<.05	2	2.8	
391348	3.4	86	17.8	209	0.9	165.8	57	4301	3.76	29.3	9.6	7.3</																									

Acme file # A608217 Page 1 Received: OCT 25 2006 \* 135 samples in this disk file.

Analysis: GROUP 1DX - 15.0 GM SAMPLE LEACHED WITH 90 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 300 ML, ANALYSED BY ICP-MS.

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se			
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
391432	7.1	41.6	14	157	0.5	1065.8	69.6	587	4.19	21.9	1.1	3.4	2.6	42	1.5	9.9	0.1	88	1.07	0.072	12	208	2.2	486	0.004	2	0.75	0.006	0.05	0.2	1.07	5.8	0.3	<.05	2	2.1			
391433	12.2	42.4	12.4	218	0.6	248.1	17.5	616	3.27	22.1	4.9	3.6	1.9	54	1.7	15.6	0.2	104	0.74	0.115	7	92	0.58	321	0.005	2	0.43	0.009	0.05	0.3	1.06	2.3	0.4	0.06	1	5.2			
391434	5.8	80.8	21.6	191	0.7	157.8	21.2	564	3.33	27.8	2.5	5.2	4.2	59	2	6.4	0.2	61	1.29	0.092	12	42	0.96	492	0.007	2	0.66	0.011	0.08	0.1	0.74	4.4	0.4	0.18	2	5.2			
391435	7.4	72.2	25.5	185	0.7	290.7	26	729	3.17	24.9	1.7	6.1	4	69	2.5	6.8	0.2	58	2.33	0.087	11	68	1.02	535	0.005	2	0.65	0.009	0.08	0.1	0.9	4.3	0.4	0.29	2	4.3			
391436	5.2	37.9	20.2	140	0.1	66.2	14.6	464	2.88	18.1	1.2	1.4	3.6	22	0.7	4.5	0.2	59	0.29	0.034	13	31	0.34	412	0.004	1	0.94	0.007	0.06	0.2	0.7	3.2	0.2	<.05	3	2.4			
391437	8	51.6	14	143	0.5	333.7	25.8	485	2.55	18.8	4.6	3	1.4	68	3.8	8.8	0.1	47	1.72	0.122	8	71	0.96	530	0.009	3	0.51	0.011	0.05	0.1	0.71	3.3	0.2	0.24	2	11			
391438	9.4	79.8	22	288	0.9	295.7	29.2	617	2.97	18.8	1.9	6.1	3	60	5.9	7.6	0.2	89	1.66	0.152	14	75	1.03	549	0.006	3	0.66	0.008	0.07	0.2	0.95	4.1	0.4	<.05	2	3.3			
391439	10.1	85.2	26.7	234	0.5	322.8	24.1	597	4	28.4	1.5	4.2	4.4	34	1.9	10.7	0.2	104	0.47	0.059	17	77	0.47	380	0.004	1	0.74	0.007	0.08	0.1	1.3	6.4	0.4	<.05	2	4.1			
391440	2	35.5	14.3	88	0.3	76	11.1	387	2.36	21.6	0.8	4.7	4.3	53	0.5	3.6	0.2	30	1.93	0.115	17	27	1.05	391	0.013	1	0.58	0.006	0.05	0.4	0.21	2.7	0.1	<.05	2	<.5			
391441	5.9	96.2	19.9	151	0.8	182.2	27.1	1150	5.43	102.5	2.8	12.4	5.8	42	0.6	13.3	0.3	52	0.35	0.063	14	49	0.26	515	0.002	1	0.78	0.012	0.11	0.1	0.95	7	0.3	0.24	2	4.9			
391442	1.7	89.4	5.4	36	0.4	205	40	1448	5.02	32.2	0.5	6.9	1.1	18	0.2	12.5	0.1	87	0.63	0.03	7	101	0.6	211	<.001	<1	0.73	0.004	0.04	0.1	0.98	20	0.2	<.05	2	1			
391443	8.9	71	43.3	256	0.5	174.7	19	681	3.27	48	2.2	5.5	6.7	47	3.1	32.9	0.2	55	1.11	0.114	18	42	0.69	400	0.002	1	0.48	0.007	0.08	0.1	1.19	3.8	0.3	0.14	1	3.5			
391445	6	53.6	18	150	0.5	454.8	32.8	466	3.06	20.9	1.4	5.2	2.9	95	3.5	7.9	0.2	54	3.69	0.091	9	100	2.12	494	0.004	2	0.59	0.016	0.07	0.2	1.06	3.8	0.4	0.13	2	2.4			
391446	5.9	43.9	18.5	124	0.3	304.6	31.3	731	3.48	25.5	1	2.4	4	21	0.8	6.9	0.2	68	0.22	0.033	15	106	0.4	479	0.005	<1	0.84	0.007	0.06	0.1	0.51	5.2	0.2	<.05	3	2.4			
391447	5.7	86	41.5	160	0.9	296.2	28.4	941	4.38	84.6	1.3	9.3	4.5	48	0.7	10.4	0.2	60	1.45	0.057	13	125	1.08	432	0.002	1	0.78	0.01	0.06	0.1	1.28	5.6	0.2	0.14	2	2.5			
391448	3.7	55.8	16	108	0.8	187.8	25.9	1033	3.68	52.1	1.7	6.9	3.2	31	0.6	12.4	0.2	59	0.44	0.048	13	88	0.67	663	0.004	1	0.87	0.008	0.07	0.1	0.68	7	0.2	0.07	3	1.6			
391449	3.2	34.8	21.1	132	0.2	53.5	15.9	621	3.58	25.9	1.4	3.2	4.8	19	0.7	4.2	0.2	46	0.29	0.046	17	32	0.33	270	0.009	1	0.78	0.006	0.07	0.4	0.16	4.8	0.1	<.05	2	1			
391450	3.5	39.9	21.3	119	0.2	73.1	12.5	612	3.01	51.4	1.6	3.4	5	14	0.5	12.4	0.2	35	0.09	0.035	22	29	0.21	261	0.002	1	0.74	0.006	0.07	0.1	1	2.3	0.1	<.05	2	1.5			

Acme file # A608217A Received: OCT 25 2006 \* 22 samples in this disk file.

Analysis: GROUP 1DX - 15.0 GM SAMPLE LEACHED WITH 90 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 300 ML, ANALYSED BY ICP-MS.

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
391401	3.6	65.8	24.7	132	0.5	83.8	17.3	550	3.61	45.7	2.2	13.9	9.1	57	1.1	13	0.3	35	2.34	0.098	25	25	0.63	341	0.002	2	0.56	0.006	0.11	0.1	0.86	3.1	0.2	0.15	2	2.4
391402	3.6	45.1	22.2	150	0.4	58.4	13.4	444	2.84	20.8	2.2	5.0	10.2	57	1.6	8.4	0.3	34	1.95	0.095	29	24	0.75	365	0.004	2	0.72	0.015	0.15	0.1	0.69	2.8	0.3	0.1	2	2.1
391403	8.9	56.9	16.2	269	0.5	110.6	14.3	389	2.96	22.8	1.9	5.1	6.1	45	1.4	7.8	0.2	68	1.49	0.099	22	45	0.66	423	0.003	1	0.74	0.008	0.06	0.2	0.97	4.8	0.3	<.05	2	2.8
391404	7.6	64.5	20.4	168	0.6	179.5	21.1	704	3.47	17.9	2.5	4.9	5.2	85	3	6.7	0.2	75	4.2	0.15	19	60	1.2	359	0.007	2	0.74	0.008	0.08	0.1	0.93	4.9	0.4	0.07	3	3.1
391405	2.6	41.7	8.2	113	0.3	102.7	14	423	2.61	7.8	0.9	2.6	3.4	33	0.5	1.8	0.1	48	0.51	0.079	15	58	0.84	353	0.02	1	1.03	0.018	0.06	0.1	0.17	5.1	0.1	<.05	3	1.7
391406	29.6	103.9	25.7	357	1.2	98.8	12.6	575	2.69	25.7	3.8	4.4	4.7	83	9.9	13.7	0.2	134	3.79	0.15	15	42	1.06	456	0.003	2	0.54	0.007	0.08	0.1	2.06	3.2	0.8	0.06	2	7.7
391407	8	52.9	24.8	179	0.7	90.5	12.2	764	2.5	20.8	1.7	5.5	4.3	62	1.6	7.5	0.2	67	2.93	0.1	17	33	1	662	0.003	1	0.73	0.007	0.06	0.1	0.95	3.7	0.3	<.05	2	2.4
391408	4.5	27.5	12.6	95	0.2	77.7	12.4	522	2.52	14.2	1	2.1	4.4	21	0.3	4.2	0.2	50	0.36	0.037	19	40	0.44	401	0.005	1	0.89	0.007	0.07	0.1	0.39	3.8	0.2	<.05	3	1.7
391409	6.7	54.2	21.7	143	0.6	188.1	16	530	3.02	18.6	2.1	4.1	6.6	85	1.9	7.3	0.2	47	3.5	0.1	19	47	0.84	374	0.003	2	0.69	0.011	0.1	0.1	0.88	2.9	0.4	0.29	2	3.2
391410	13.7	35.1	16.4	250	0.5	52.5	9.5	279	2.16	16.6	3.3	0.5	5.6	70	4	9.7	0.2	71	3.88	0.209	13	27	0.54	60	0.004	1	0.69	0.007	0.1	0.2	3.41</td					

## Appendix IV

### Statement of Expenditures

<b>Wages:</b>	Heiko Mueller Mike Linley Bill Mann Jean Pautler	12 days @ 464.90/day 12 days @ 318.70/day 5 days @ 500.00/day 2 days @ 600/day	5,578.80 3,824.40 2,500.00 <u>1,200.00</u>
		<b>Total: 31 man-days</b>	<b>\$ 13,103.20</b>
<b>Geochemistry:</b>	148 soils @ 18.25/ea. freight	Au, ICP	2,701.00 <u>150.00</u>
		<b>Total: (includes shipping)</b>	<b>2,851.00</b>
<b>Thin section preparation and Analysis:</b>			<b>100.00</b>
<b>Equipment Rental:</b>	Trucks Radios	15 days @ \$80/day 15 days @ \$5/day	1,200.00 75.00
		<b>Total:</b>	<b>1,275.00</b>
<b>Transportation:</b>		Ross River return	<b>517.92</b>
<b>Helicopter:</b>		Trans North Helicopters Ross River, YT	<b>3,256.68</b>
<b>Field Living Allowance</b>		(groceries, camp supplies)	<b>2,175.00</b>
<b>Field Supplies:</b>		(flagging tape, batteries, sample bags, markers)	<b>280.80</b>
<b>Report &amp; Drafting:</b>			<b><u>4,000.00</u></b>
<b>GRAND TOTAL:</b>			<b>\$27,559.60</b>
<b>Total applied for assessment:</b>			<b>\$22,800.00</b>



Klondike Star Mineral Corp.  
Spice Project  
Soil Geochemistry, Rock Samples  
2006 and ATAC Samples  
Au ppb  
Figure 8  
June 12, 2007