

86-586-15177

# Shangri-La Minerals Limited

10/87

**GEOPHYSICAL, GEOCHEMICAL AND GEOLOGICAL SURVEYS**

**ON THE**

**LOST HORSE PROJECT**

**FOR**

Operator: MONTELLO RESOURCES LTD.  
Owner(s): L. Reichert, U. George-  
NTS 92H/8E

**OSOYOOS MINING DIVISION**

WEST LONGITUDE: 120°~~05'~~ 07'  
NORTH LATITUDE: 49°~~15'30"~~ 16.3'

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SHANGRI-LA MINERALS LTD.  
**GEOLOGICAL BRANCH**  
ASSESSMENT REPORT  
28 JUNE 1986

15,177

~~DISPENSER  
OCT 1 1986  
VANCOUVER, B.C.~~

**FILMED**

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(\*) Accompanies copies of reports held by Montello Resources Ltd. and Shangri-La Minerals Ltd. only.

## SUMMARY

A combined geological, geophysical, and geochemical reconnaissance of the Lost Horse Project claims held by Montello Resources Ltd. was conducted by Shangri-La Minerals Ltd. from April 5 to 25, 1986 and from June 7 to 14, 1986. The claims are situate in the Osoyoos Mining Division at the headwaters of Larcen Creek.

Several gold occurrences have been located which display signs of economic potential. These include the contact areas of granodiorite and metasediments (skarn, chert). Additional bodies of skarn have been located, and are associated with sulphide mineralization.

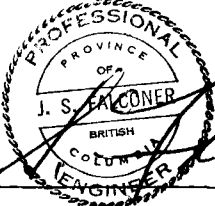
The geology of the property is characterized by interbedded volcanics and sediments (siltstone, chert, limestone) which have undergone contact metamorphism and metasomatism resulting from the intrusion of a body of granodiorite. The property is situated some 10 kilometres south of the Mascot-Nickel Plate orebody and the former French (Oregon) Mine, both of which display skarn-hosted gold mineralization.

Geophysical studies have revealed the presence of numerous electromagnetic conductors that may be attributed to structural features such as faults and contacts, or possibly mineralized areas. Magnetic surveys have aided geological mapping by defining lithological boundaries and suggesting the possible presence of anomalous concentrations of magnetic minerals.

Soil geochemistry results are rather inconclusive, although higher values of copper and arsenic are noted near bodies of skarn.

It is recommended that an aggressive second phase of exploration be undertaken to assess the geometry and grade characteristics of target areas and to test them by diamond drilling.

Respectfully submitted at Vancouver, B.C.

  
*James S. Falconer*  
James S. Falconer, P.Eng.

28 June 1986.

**PART A****Introduction**

From April 5 to 25, 1986, and June 7 to June 14, 1986, a program consisting of permanent grid establishment, geological mapping, geochemical and geophysical surveys was conducted over the Lost Horse Project claims held by Montello Resources Ltd.

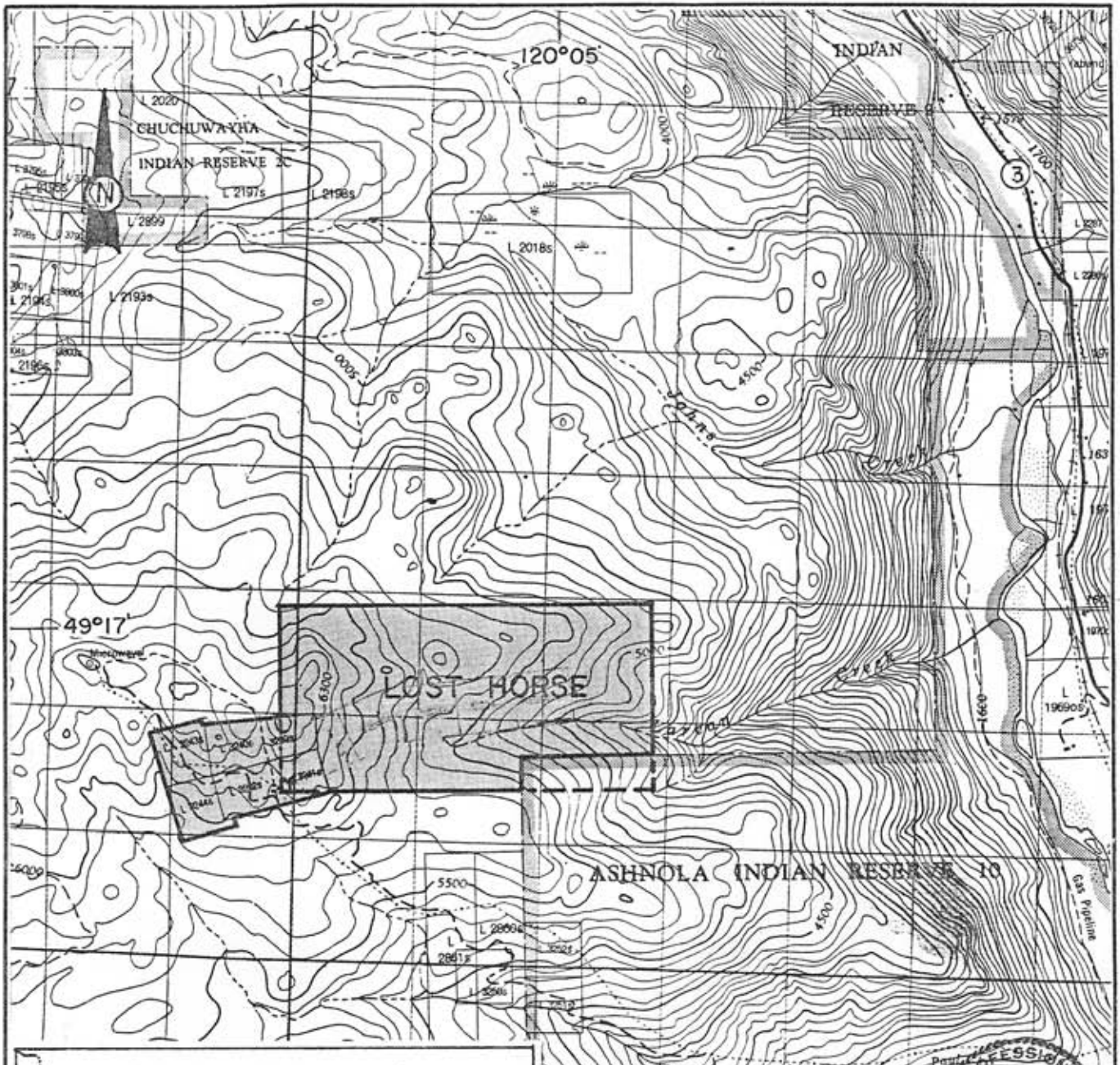
The purpose of this exploration program was to examine an area of favourable geology located to the south of the Mascot-Nickel Plate mine holdings and to outline and delineate zones of economic mineral potential. The Lost Horse claims have known sporadic exploration since at least the turn of the century.

**Property Status**

The Lost Horse Project consists of six Reverted Crown Granted mineral claims and one modified grid system claim. Particulars are as follows:

| <b>NAME</b>   | <b>RECORD NO.</b> | <b>LOT NO.</b> | <b>ANNIVERSARY</b> | <b>AREA</b> |
|---------------|-------------------|----------------|--------------------|-------------|
| Lost Horse 86 | 2392              | -              | 24 March/87        | 18 units    |
| Lost Horse 1  | 1523              | 3239S          | 21 April/87        | 15.14 H     |
| Lost Horse 2  | 1524              | 3240S          | 21 April/87        | 18.68 H     |
| Lost Horse 3  | 1525              | 3241S          | 21 April/87        | 17.61 H     |
| Lost Horse 4  | 1526              | 3242S          | 21 April/87        | 17.61 H     |
| Lost Horse A  | 1527              | 3243S          | 21 April/87        | 19.26 H     |
| Lost Horse B  | 1528              | 3244S          | 21 April/87        | 18.25 H     |

The Lost Horse 86 claim overlaps the Lost Horse 1 and 3 claims to the west, as well as the Ashnola Indian Reserve No. 10A in the southeast. This report shall be submitted to receive assessment work credit for at least five years.



05' 13 14 15  
 To accompany report by J. Falconer, P. Eng.



|                                       |                 |
|---------------------------------------|-----------------|
| <b>LOST HORSE PROJECT</b>             |                 |
| FOR: MONTELLO RESOURCES LTD.          |                 |
| BY: SHANGRI-LA MINERALS LIMITED       |                 |
| <b>LOCATION MAP</b>                   |                 |
| OSOYOOS, M.D., B.C.<br>SCALE 1:50,000 |                 |
|                                       |                 |
| N.T.S. 92H-8                          | DATE: JUNE 1986 |
| DRAWN BY: N.H.                        | FIGURE NO. 1    |

The claims are shown on British Columbia Ministry of Energy, Mines and Petroleum Resources Mineral Claim Map M92H/8E.

### **Location, Access, Topography**

The Lost Horse claims are situated in the Osoyoos Mining Division, approximately 8 km south of Hedley, B.C. and 25 km northeast of Keremeos, B.C. Access is best via asphalt and gravel road west from Keremeos and along a B.C. Telephone microwave station service road, a distance of approximately 27 km.

The property is located at the headwaters of Larcen Creek, which flows easterly into the Similkameen River. The topography is fairly gentle, with elevations ranging between 1980 m and 1460 m above sea level. Stands of deciduous trees and evergreens surround a grassy open side hill.

### **History**

The Hedley area has been prospected since the 1880's. Many gold finds were made, but it was in the 1940's that the area became famous for its mainly skarn-hosted orebodies. The Nickel Plate Mine produced over 1,760,000 ounces of gold. Four other properties in the near vicinity produced between 5,000 and 250,000 ounces of gold each.

Today the area is being actively explored by various companies. Most notable is Mascot Gold Mines Ltd., who have been developing an anticipated open pit gold mine on Nickel Plate Mountain since 1980 and which is expected to resume production in 1987 as an 1800 ton per day operation.

The area to the south of the Similkameen River has also been heavily prospected and many showings have been located. Banbury Gold Mines and Noranda Exploration of Canada Ltd. are presently exploring a system of quartz-filled shear zones in sedimentary rocks which have been intruded by an irregular body of diorite.

The Lost Horse Reverted Crown Grants have been prospected as far back as the turn of the century. Altered siltstone containing arsenopyrite, pyrite and pyrrhotite carrying some gold values has been trenched. The northeast corner of the Lost Horse claim is in the vicinity of the old Speculator Group of claims where mineralization of pyrite, pyrrhotite, and arsenopyrite with associated gold is present in a sheared and altered zone within a dacitic sill which has intruded argillite and limestone. Development here has consisted of stripping and trenching. A geological and geophysical survey in 1970 indicated that the mineralization on the Speculator Group continued down dip (southwest). The area to the south of the Lost Horse claims (the Gold Finch claims) was also trenched at this time.



## **PART B SURVEY SPECIFICATIONS**

### **Grid**

A total of 3 km of baseline and tieline and 101.5 km of crossline were surveyed. The Lost Horse legal corner post was used as a bench mark.

To facilitate future orientation on the property, the stations and baselines were marked with Tyvex plastic tags. All lines were established and slope-corrected using a compass, clinometer, and hip chain.

One baseline and one tieline were oriented at Azimuth 360°. Crosslines were run perpendicular to the baseline and stations established every 25 m. A detail grid of 12.5 m station intervals was established in the northeastern portion of the property.

### **Magnetometer Survey Method**

The general survey was conducted using an EDA Instrument Ltd. Omni Plus PPM-350 Proton Precession Magnetometer and Base Station Magnetometer, and a Scintrex MP-2 Proton Precession Magnetometer. The detail survey was conducted using a Geonics Unimag Proton Precession Magnetometer. These instruments measure the magnitude of the total magnetic field of the Earth. Corrections for diurnal variation were made using the base station magnetometer and values were calculated relative to the base station locality. Diurnal variations ranged between 18 and 37 gammas during the survey.

Readings were taken at 25 m intervals on the general grid and at 12.5 m intervals on the detail grid. A total of 99.5 line-km at 25 m station intervals and 5.175 line-km at 12.5 m station intervals were surveyed. The survey results are presented on Figures 2a, 2b and 2c.

### **VLF-EM Method**

The survey was conducted using two Sabre Electronics, Model 27, V.L.F. Electromagnetometers. Each instrument was used on separate blocks of the grid. This type of instrument acts as a receiver only. It utilizes the primary electromagnetic fields generated by the United States Navy V.L.F. marine communication stations. These stations operate at frequencies between 15 and 25 KHz and have a vertical antenna current resulting in a horizontal primary field. Thus, this V.L.F.-E.M. measures the dip angle of the secondary field induced in a conductor.

For maximum coupling, a transmitter station located in the same direction as the geological strike and/or the strike of possible conductors is selected since the direction of the horizontal electromagnetic field is perpendicular to the direction of the transmitting station. In this case, the transmitters at Seattle, Wash. and Hawaii were used.

Readings were taken at 25 m intervals on the general grid and 12.5 m intervals on the detail grid. The data was filtered as described by D.C. Fraser, Geophysics Vol. 34, No. 6. The advantage of this method is that it removes the D.C. and attenuates long spatial wavelengths to increase resolution of local anomalies. It also phase shifts the dip angle by 90° so that the cross-over and inflections are transformed into peaks that yield contourable quantities.

The VLF-EM survey results are presented on Figures 3a, 3b, and 3c. A total of 99.5 line-km over the general grid and 3.325 line-km over the detail grid was surveyed.

### **Geochemistry and Soil and Vegetation Survey Method**

A total of 1100 soil and 84 rock chip samples were collected. Soil samples were taken from the "B" horizon (15-30 cm depth) using a cast iron mattock. Samples of no less than 200 grams were placed in Kraft paper gusset bags and sun dried before

selection and shipment to the laboratory. A total of 248 soil samples were analyzed by Acme Analytical Laboratories Ltd. using an induction coupled plasma spectrophotometer and atomic absorption (for gold). Samples not analyzed are being warehoused by Shangri-La Minerals Ltd.

The soil and vegetation survey was conducted by traversing the property along the grid lines and by digging numerous pits to examine soil profiles with the objective of determining the relative merit of the geochemical results.

## **PART C GEOLOGY**

### **Regional Geology**

The Hedley district is underlain by a series of Triassic and slightly older sedimentary and volcanic rocks of the Nicola Group which have been intruded by igneous rocks of Jurassic and/or younger ages. North of the Similkameen River, these intrusive rocks consist of large bodies of granite and granodiorite and of smaller stocks of diorite and gabbro with innumerable sill and dyke apophyses. South of the river, intrusions are limited to one large body of granodiorite, and a limited number of smaller intrusions of diorite and gabbro.

Several authors have been able to distinguish various formations within the sediments lying to the north of the Similkameen River. South of the river, distinguishing features diminish, and much of the sediments may be difficult to subdivide.

### **Property Geology**

#### **Lithologies**

The area of the claims is underlain by rocks of the Triassic Nicola Group of metasediments and volcanics and cut by Jurassic sills and a Late Jurassic or Early Cretaceous granitic intrusion. The rocks were not subdivided into the various formations of the Nicola Group; however, seven mappable units were distinguished.

These mappable units include two intrusive and five interlayered volcanic and metasedimentary rock types. Petrographic thin sections were examined to verify lithologic classification which was, in many cases, extremely difficult from hand specimens owing to grain size and metamorphic/metasomatic alteration (Appendix C).

## **Volcanics and Metasediments**

### **Metasiltstone, Greywacke Hornfels**

This dark gray aphanitic unit is relatively uniform in grain size and generally homogeneous. Where mapped as a separate unit, it occurs in thick massive sections. It can also be found on a much smaller scale, interlayered with metavolcaniclastic rocks. It is distinguished from the volcanoclastics by the absence of plagioclase phenocrysts and obvious clasts. Locally, the unit contains cherty layers.

Very fine-grained disseminated sulphides occur in numerous outcrops. A thin section examination revealed vague layering throughout this immature siltstone.

### **Metavolcaniclastic**

This massive greenish grey volcanoclastic is the most abundant rock type encountered on the Lost Horse claims. Distinguishing features include plagioclase phenocrysts and rounded to angular clasts of variable size and lithologies. The phenocrysts are characteristically bleached white on weathered surfaces with unaltered crystal faces apparent on fresh surfaces. Locally, where glaciation has scoured surfaces across strike, well-developed layering is visible. In these areas, interlayering with cherts and metasiltstones on a centimetre scale has been observed. Thin section work indicates that this unit varies from an extremely immature clastic rock to an andesite with rare lithic clasts.

### **Limestone**

A few limestone outcrops have been mapped primarily east of the granodiorite intrusive and near its contact with surrounding host rocks. It occurs in narrow (1-3 metre) bands, usually interlayered with limey metasiltsstones. In several areas carbonate veins bearing skarn mineralization have been observed.

### **Skarn (Identified in Thin Section)**

Several exposures of this skarn unit exist on the property. Thin, pale, greenish-blue crystalline unit is layered conformably, and averages 2-4 metres in thickness.

Characteristic abundant iron oxide on weathered surfaces are a result of the high percentage (3-8%) of sulphide, especially pyrrhotite which is associated with the unit in the northeast corner of the claims. This unit hosts massive arsenopyrite and pyrrhotite bands. A thin section examination reveals the presence of a host of calc-silicate minerals, primarily diopside with epidote, idocrase, wollastonite and tremolite. Just east of the granodioritic intrusive contact, a 49 cm wide pale-grey skarn band was found to contain 10% pale brown euhedral grossularite, 20% green idocrase, with 10-15% white amphibole (tremolite) and wollastonite.

### **Chert**

Chert units can be roughly divided into three main types: conglomeratic, banded, and white-weathering variably coloured massive. The conglomeratic variety occurs primarily in the western portion of the claims. It features variably coloured

chert fragments and clasts in a cherty matrix.

In the central portion of the claims, cherty metasedimentary units are commonly interlayered with the volcanoclastic and metasiltstone units. These could be described as highly siliceous siltstone with conchoidal fracture (cherty metasiltstone). In the eastern part of the claims, particularly in the vicinity of the granodiorite intrusion, large white weathered bluffs of chert occur. These are generally massive, although local banding is apparent. Chert varies between brown, pale pink, lavender, green and grey in colour.

A unique feature of these cherts is the local presence of randomly oriented euhedral to subhedral black amphibole porphyroblasts. A metasomatic origin for the porphyroblasts seems probable. Up to 7% disseminated sulphides occur in some outcrops. Chalcopyrite rimmed pyrrhotite blebs up to 14 mm in diameter and pyrrhotite stringers up to 4 cm wide have also been observed. Many rusty stained chert outcrops with disseminated sulphides have been uncovered in previously stripped areas in the eastern part of the claims.

## **Intrusive Rocks**

### **Granodiorite**

One large and a few smaller outcrops have been mapped in the eastern half of the property. The outline of the granodiorite bodies closely corresponds to the margin of a magnetic high.

Light grey in colour, the medium-grained, crystalline,

massive granodiorite contains a trace of magnetite.

Alteration is relatively minor; however, rusty staining is more evident at the boundaries of the large intrusive than at its interior.

### **Diorite**

A single, relatively small intrusion of diorite occurs in the northeastern portion of the claims. This easterly-trending body crosscuts volcanoclastic and chert units. The diorite is commonly altered, and shows an overall reddish-brown colour on broken surfaces due to the pervasive weathering of mafic minerals. Rare unaltered diorite is pale greenish-grey.

### **Structure**

Bedding on the Lost Horse property is uniformly oriented throughout the claim group, seemingly unaffected by the intrusion of the northeast-trending granodiorite mass or various other dacitic and dioritic intrusive bodies. Strikes predominantly trend northerly, and vary  $10^\circ$  to both the east and west.

Dips over most of the property are vertical or steep to the east, again with minor shifts to the east and west. In the south central portion of the claim group, however, dips are shallow to the east. Air photo interpretation reveals an easterly-trending lineation, in the vicinity of and parallel to Line 800N from baseline to 1500E, which suggests the presence of a fault that could account for the changing dips. Magnetometer and VLF-EM survey data also suggests an easterly-trending fault along Line 800N. This investigation also revealed 3 northerly to northwesterly-trending linear features in the eastern third of the property which may be attributed to the presence of faults. There is, however, little field



evidence of faulting.

A few minor occurrences of mylonite are present in the eastern part of the claim group, proximal to the intrusive contact. Coarsely crystalline quartz-filled lensoids are conformable to layering in limestone and limey metasiltstone near the intrusive contact.

A few small scale folds were seen in hand specimen; however, no evidence of large scale folding was recognized on the property.

### **Alteration & Mineralization**

Alteration within the Lost Horse project area is spatially associated with the granodiorite and diorite intrusions in the northeastern portion of the project area. The country rocks near the intrusions have been recrystallized, metasomatized, and silicified.

Skarn consisting of calcite, grossularite and diopside was formed within the limestone near the granodiorite contact. In addition, several bands of calc-silicate skarn occur throughout the volcanoclastic/volcanic sequence. These conformable skarn bands result from metasomatism of limestone and argillaceous carbonates. Limonitic iron oxides staining the weathered outcrop surface of all country rocks near intrusive contacts reflect the increased abundance of disseminated and locally massive sulphides. The skarn units contain the highest proportion of sulphide minerals of all rock units. Finely disseminated sulphides (predominantly pyrrhotite) occur locally throughout the Lost Horse project area. Massive arsenopyrite was only recognized near the granodiorite contact within the northeastern portion of the project area. Massive pyrrhotite also exists near this contact. Minor pyrite and chalcopyrite are most abundant near the intrusive contacts.

Calcite crystals line vugs and fill veins within limestone, and small

quartz veins and crystals to 10 mm diameter exist near intrusive contacts. Chert near intrusions has been recrystallized and locally contains amphibole porphyroblasts. Breccia and somewhat mylonitic rocks locally exist adjacent to the intrusive contacts; these brecciated rocks are cemented by quartz. Epidote and chlorite are more abundant within the Crown Grants in the southwestern portion of the project area than within the northeastern portion of the area near the granodiorite and diorite intrusions.

Numerous trenches and pits have been excavated within the Lost Horse project area. These older workings are usually associated with limonitic iron oxide staining on weathered outcrop surfaces.

Six trenches have been previously excavated in the northeastern corner of the project area at 1250N, 3000E near the southeastern margin of the granodiorite contact. Seven rock samples from these trenches contain between 5 and 5,900 parts per billion (ppb) gold. (Figure 4, Appendix D). Skarn with pyrrhotite, arsenopyrite, pyrite and/or chalcopyrite contains 975, 3,380 and 5,900 ppb gold in two of the trenches (Samples MH224, MH240 and MH239, respectively). Sample MH239, containing 5,900 ppb gold, also contains the highest proportion of arsenopyrite and chalcopyrite.

Sample MH233, of skarn within limestone near the granodiorite intrusive, contains 795 ppb gold. Less than 1% sulphides were seen in a thin section of this rock.

Samples MH24 (2,390 ppb gold, 6.5 ppm silver) and MH 26 (4,820 ppb gold, 22.1 ppm silver) were collected north of the granodiorite intrusive. These two rocks are pinkish-purple chert; MH 24 contains 2% disseminated sulphides and MH 26 contains pyrrhotite blebs up to 1 cm diameter.

Sample MH 205, from an old trench in the western portion of the Lost Horse property, contains 535 ppb gold. Thin section examination of this

sample revealed that it is a fine-grained skarn containing 15 to 20% pyrrhotite.

### **Discussion**

The Triassic Nicola Group rocks on the Lost Horse property are a composite of many varied, often thinly interbedded sedimentary units. The extreme immaturity of these sediments, coupled with the nature of included lithic clasts, attest to an active subaqueous depositional environment, i.e., accumulation of siltstone and greywacke sediments from erosion of nearly volcanic protoliths. The presence of andesitic volcanics and limestones indicate a near-shore environment rather than deep ocean, with deposition possibly proximal to and resulting from off shore faulting.

It was not possible, within the field area, to determine conclusively whether bedding tops are facing east or west. Westward increase in size and occurrence of included lithic fragments does suggest, however, that the depositional source (fault?) is to the west.

Subsequent to lithification and diagenesis of the Nicola Group sediments, Jurassic plutonic activity resulted in uplift and tilting of the sediments and thermal metamorphism of the country rocks surrounding the granodiorite pluton. Metamorphic grade ranges from low greenschist facies in the west to pyroxene hornfels facies (temperature  $>600^{\circ}\text{C}$ ) adjacent to the granodiorite in the eastern portion of the property.

In addition to thermal metamorphism, sodium-rich fluids, released from the cooling pluton, metasomatically altered the country rocks. These fluids appear to have travelled primarily along bedding planes. Metasomatism has resulted in skarn formation, irregularly distributed lenses of porphyroblastic siltstones and greywackes, and completely altered scapolite-bearing rocks.

The spatial relationship of metasomatism and sulphide enrichment indicates that these processes were contemporaneous. Thin section analysis supports this hypothesis.

Gold on the Lost Horse property is hosted in cherts and skarns which are primarily situated in the vicinity of the granodiorite and contain variable amounts of sulphide minerals.

An area of chert and skarn east of the granodiorite near the eastern property boundary contains up to 5,900 ppb gold. A metasomatized chert band 500 m wide in the east-central portion of the property adjacent to the northwestern granodiorite contact contains significant gold (>1,000 ppb). Rock from a trench excavation in skarn on the Crown Grants contains an isolated high gold value.

### **Soil and Vegetation Survey**

The Lost Horse group occupies an area of fairly diverse ecosystem units showing signs of alpine as well as dry valley vegetation and soils. This report outlines the present ecosystem units on the Lost Horse grid, the processes involved in their formation, and their associated vegetation, soils and parent materials.

#### **Soils**

The majority of the soils in this area were formed from glacial deposits (see Figure 5a). The area was originally covered by glaciers leaving morainal till and glacio-fluvial material as they receded. This material is deep over most of the grid. The overall movement of the glaciers seems to have been from the southwest to northeast as many of the hills on the west part of the grid are plucked on northeast slopes and scraped on the opposite side.

After the glaciers receded, alluvial deposits originating from the

till accumulated in creek valleys and swamps. Weathering on the steepest slopes has created some recent colluvium (fallen rock) deposits. These soil parent materials have had some effect on the soils that have developed and much to do with the minerals contained in them.

Podzolization is the most important soil formation process on these claims and is caused by the amount of water that moves through them. Podzols tend to eluviate iron and aluminum sesquioxides combined with organic matter from its upper mineral horizon to deposits in the soil in lower horizons. The white leached (iron and aluminum poor) horizon, usually no thicker than 5 cm, caps a red B horizon where iron, aluminum and humified organic matter accumulate.

The soils on the Lost Horse grid (see Figure 5b) go from the most eluviated podzols (orthic ferro humic podzols [O.F.H.P.]) through the less eluviated brunisols (eluviated dystic brunisols [E.D.B.]) to an orthic dystic brunisol (O.D.B.) which shows no signs of eluviation. The degree to which the soil is eluviated depends on the effective precipitation. Soils on steep slopes have more runoff and less water passes through the soil horizon. Soils on hotter south slopes have even less water permeating through them. At the toe of a long north facing slope, ground runoff adds to precipitation to make the effective precipitation high. The podzols on the Lost Horse grid are therefore concentrated on flat plateaus covered in pine. These are weak podzols as rainfall on this grid is minimal. Smaller areas of stronger podzols occur at the toe of north slopes under a spruce canopy.

The second important group of soils in this area are the gleysols. In depressions and areas where water saturates the soil for long periods, the movement of minerals through the soil horizons is significantly reduced. Iron is chemically reduced and in small pockets throughout the soil hydrated oxides of iron are deposited. The humic gleysols have a thick (50 cm<sup>+</sup>) dark Ah mineral horizon which is high in organic matter just

below the surface. One of the gleysols on the property shows some eluviation (Fero Humic Gleysol [F.H.G.]).

The other soils on the property occur in small patches. Under aspen, some wetter humic soils (Orthic Sombric Brunisol [O.S.B.]) are occasionally found.

### **Vegetation**

The vegetation on the Lost Horse grid (see Figure 5c) is determined by three major factors: the time since fire has passed through, the availability of water, and the length of the frost-free season.

If fire had never hit this area, most of it would be covered by spruce-subalpine fir mixed forests. Except for the driest and wettest areas, these species will eventually shade out the pine forests that have grown after fire.

The present spruce stands occupy sites where the availability of water is highest. North aspects and the borders of creeks and swamps support these forests. Both the swamps and steep south facing slopes have very low water availability. On the south facing slopes it evaporates, and in the swamps there is either too little oxygen for roots or too high a concentration of ions in the water. In between the extremes of forest types lies treed rangeland, a transition zone between forest and grassland.

On the higher wet areas, snow stays too long for many species to survive. Distinctly alpine species grow there.

## Forest Ecosystem Units

### a) Willow Swamps

Dominant Vegetation: Willow (*Salix* spp.), Sedge (*Cares* spp.), Prickly currant (*Ribes lacustre*), Bog birch (*Betula glandulosa*), Trapper's tea (*xedum glandulosum*), Sitka valerian (*Valeriana sitchensis*), Queen's cup (*Clintonia uniflora*), mosses (*Sphagnum* + other spp.).

Humus - well mull

Soils - deep (1m+) O.HG on alluvium

Description - Brushy swamplands and drainages important for wildlife and cattle.

### b) Alpine Meadow

Dominant Vegetation: Common Juniper (*Juniperus Communis*), Sedge (*Carex* spp.), Bear berry (*Archtos-taphylas uva-ursi*), wild onion (*Allium* spp.), sticky cinquefoil (*Potentilla glandulosa*), Indian paint-brush (*Castilleja* spp.), Pussy toes (*Antennaria* spp.).

Humus - very thin mull

Soils - thin (20 cm) O.DB or O.R on colluvium or bedrock.

Description - These are south facing meadows on thin scraped hill faces. They are very fragile to disturbance and erosion.

(*Calamagrostis rubescens*), sticky cinquefoil (*Potentilla glandulosa*), Pussy toes (*Antennaria* spp.), Bluegrass (*Poa* spp.), Western meadow rue (*Thalictrum occidentale*), Balsamorhiza (*Balsamorhiza sagittata*), Pussy toes (*Antennaria* spp.), Timothy (*Pheleum* spp.).

Humus - thin (<5 cm) mull

Soils - Deep (50 cm<sup>+</sup>) O.DB on very deep till (minimum of 2 m in most places 4 m observed on road cut)

Description - These are open rangelands extensively used by cattle. They often have south and east aspects. The tops of slopes often have exposed bedrock which disappears below a thick layer of glacial till.

#### f) **Mixed Spruce Pine Forest**

Dominant Vegetation: Lodepole pine (*Pinus contorta*), Engelmann Spruce (*Picea engelmannii*), Grouseberry (*Vaccinium scaparium*), Trapper's tea (*Ledum glandulosum*), Lousewart (*Pedicularis bracteosa*), Waxberry (*Symphoricarpos alba*), Clubmoss (*Lyccpodium* spp.), moss (*Pleurozium scheeberii*).

Humus - thick mor

Soils - ( 40 cm) E.DB on till and colluvium.

Description - transition type between pine and spruce forests.

#### g) **Pine Forest**



c) **Wet Alpine Meadow**

Dominant Vegetation: Anenome (**Anenome multifida**), Mares tails (**Equisetium pratense**), Grasses (many spp.), Sedges (**Carex** spp.), mosses (many spp.).

Humus - mull

Soils - thick (50 cm) F.HG or O.HG on alluvium.

Description: Wet, cool alpine meadows that must retain the snow for long periods . These types are very susceptible to disturbance.

d) **Pine Range**

Dominant Vegetation: Lodgepole pine (**Pinus contorta**), Pine Grass (**Calamagrostis rabescens**), Heart-leaved arnica (**Arnica cordifolia**), Sedge (**Carex** spp.), Grouseberry (**Vaccinium soopareium**), Lupin (**Lupinus** spp.), Bearberry (**Archtostaphytos uva-ursi**).

Humus - thin mor

Soils - E. DB ( 30 cm) on till and occsinally colluvium. The till can be quite deep.

Description - Dry open rangeland on lower south slopes, and transitions to open range.

e) **Open Range**

Dominant Vegetation: Sedge (**Carex** spp.), Pine grass

Dominant Vegetation: Lodgepole pine (*Pinus contorta*), Grouseberry (*Vaccinium scoparium*), one-sided wintergreen (*Pyrola secunda*), Black twin berry (*Lonicera involucrata*), Trapper's tea (*Ledum glandulosum*), moss (*Juniperinum communis*).

Humus - thin mor

Soils - weak O.FHP 30 cm deep usually on glacial till. E.DB on slopes.

Description - closed canopy pine forest with little to no understory. Typical post-burn regeneration.

#### h) **Spruce Forest**

Dominant Vegetation: Englemann spruce (*Picea engelmannii*), Subalpine fir (*Abies lasiocarpa*), white Rhododendron (*Rhododendron albiflorum*), Grouseberry (*Vaccinium scoparium*), clubmoss (*hycopodium* spp.).

Humus - mor

Soil - E.DB (50 cm) on till on colluvium. On lower slopes a strong O.FHP develops.

Description - Cool spruce forests dominate north slopes of the grid. The water regime is well supplied.

#### i) **Young Mixed Forest**

Dominant Vegetation: Englemann Spruce (*Picea enge-*

**Imanii**), Lodgepole pine (**Pinus contorta**), Subalpine fir (**Abies lasiocarpa**), Douglas-Fir (**Pseudotsuga menziesii**), black twinberry (**Lonicera involucrata**), Lousewart (**Pedicularis bracteosa**), Grouseberry (**Vaccinium scoparium**).

Humus - mor

Soils - O.FHP on glacial till

Description - This is a very small type of mixed regeneration on a shallow north slope.

j) **Aspen Spruce Range**

Dominant Vegetation: Trembling aspen (**Populus tremuloides**), Engelmann spruce (**Picea engelmannii**), Western meadow rue (**Thalictrum occidentale**), Lupin (**Lupinus** spp.), Pine grass (**Calamagrostis rubescens**), Willow (**Salix** sp.), sticky currant (**Ribes viscosissimum**), Cow parsnip (**Heracleum lanatum**).

Humus - mull

Soils - O.SB or O.DB on deep glacial till

Description - small pockets of aspen occur along the lower side of the open rangeland and in wetter draws.

### **Discussion of Geochemical Results**

The results of geochemical analyses of 248 soils from the Lost Horse project area show that the soils contain up to 55 ppb gold and 1.4 ppm silver.

1,100 soil samples were collected and several pits were dug to examine the origin, composition and development of the soils.

The major features observed were as follows:

- a) The soils are generally thin, poorly developed and of glacial till origin. The soils are thick in the southeastern corner of the property.
- b) Gold values are generally low throughout the property, but two high values exist near the granodiorite contact in the northeastern portion of the area; local high gold values exist in bedrock in this area.
- c) The high gold values are generally coincident with high silver values within the northeastern portion of the area.
- d) Both copper and arsenic values within soils are high over a large area north of the granodiorite intrusion in the northeastern portion of the area. Both copper and arsenic are associated with gold in the ore deposits at Hedley.

## Discussion of Geophysical Results

### Magnetometer Survey

The total magnetic field recorded over the property varies a total of about 1000 gammas in general, except for occasional high gradient areas with field strength variations on the order of 1000's gammas.

One such high gradient area is in the north central (L 1100N to L 1200N, around 1350E) part of the modified grid system claim area (Figures 2a, b), and corresponds to an area with a complex lithologic assemblage including diorite and sulphide mineralization.

The east half of the property is dominated by a strong northeast-southwest trending magnetic high over thinly covered granodiorite which moderates somewhat in the swamp (probably due to the increased depth of overburden). A moderate high southeast of that trends in the same direction over limestone probably reflects a thin section of roof pendant, since the field strength remains relatively high. A strong high in the southeast corner of the property is over granodiorite. Moderately strong field strengths to the north of the main high trend roughly north-south, and correspond to occurrences of sulphide minerals. The northern boundary of the granodiorite is clearly indicated by the magnetic field strength data. There appears to be an east-west displacement of about 100-200 on it, with an associated magnetic low. A detailed magnetometer survey done over part of the granodiorite contact is discussed below.

The lower magnetic field strength values are in the western half of the surveyed area, and appear to correspond to the

volcaniclastic rocks in general. Strong north-south trending highs within the Crown Grant area seem to correlate well with occurrences of sulphide minerals. Also, a moderate high in the west central half of the modified grid system claim area correlates with occurrences of metasiltstone and sulphide minerals.

### **VLF-Electromagnetic Survey (Seattle)**

Several northeast-southwest trending conductors at least 600-800 m long are apparent from the VLF data (Figures 3a,b). A particularly strong one coincides with the northern boundary of the granodiorite pluton in the east, where there are sulphide showings. A detail survey was run over this conductor, and is discussed below. There is a 300 m long conductor where the northern boundary of the granodiorite pluton is displaced. This displacement is mentioned in the discussion of the magnetometer survey above.

The conductors in the west are more northerly trending, and correlate well with the magnetic highs and areas of sulphide mineralization.

The conductors in the central area do not correlate with any features apparent from the geological investigation of the area. They presumably represent features at depth.

### **Details of Grid Survey**

To further investigate the strong conductor along the northern boundary of the granodiorite, a detail survey was run in this area.

### **Magnetometer**

As above, the magnetic field strength data clearly delineates the boundary of the granodiorite (Figure 2c). There is an isolated high gradient area in the extreme south of the detail area, around 2025E, where the field strength varies by more than 2800 gammas over 25 m. There is also an isolated magnetic high about 100 m east of the contact, with values about 400 gammas above local background levels.

### **VLF-EM (Hawaii)**

The VLF dip angle and field strength were measured using the Hawaii transmitter station, which is almost directly southwest of the property.

The results of the detail survey more accurately locates the strong VLF conductor on the granodiorite boundary (Figure 3c). Also, the VLF field strength is anomalously high over the conductor (Figure 3d), varying from a background level of about 60% to over 100%.

**PART D****Conclusions and Recommendations**

A review of the data compiled on the Lost Horse project suggests a number of targets worth investigating.

1) Western contact of granodiorite and metasediments

- Features:**
- a) Strong VLF-EM conductor of at least 600 m strike length.
  - b) Sulphide and associated gold mineralization in cherts.
  - c) Anomalous arsenic values from soils geo-chemistry.

2) Eastern contact of granodiorite and metasediments

- Features:**
- a) Strong VLF-EM conductor.
  - b) Massive arsenopyrite and associated gold mineralization present in skarn.

3) Northeast corner of Reverted Crown Grant L 3240

- Features:**
- a) A series of magnetometer highs and lows, suggesting possible sulphide mineralization and/or alteration.
  - b) Presence of skarn and associated gold mineralization.



4) L 1150N, 1300E

- Features:**
- a) A series of magnetometer highs and lows, suggesting possible sulphide mineralization and/or alteration.
  - b) Weak VLF-EM conductor.
  - c) Presence of skarn and sulphide mineralization.

In order to evaluate the above targets, an aggressive second phase of exploration is recommended. The program should include detailed geological mapping and sampling of all bodies of skarn on the property and a number of soil samples previously collected (currently in storage) should be analyzed. Additional geophysical work consisting of induced polarization and resistivity survey should be conducted over the target areas to better define the extent and nature of these anomalous zones. Contingent upon favourable results of this survey these areas should be trenched (where shallow overburden permits) and a number of short drill holes should be drilled to test for underlying mineralization.


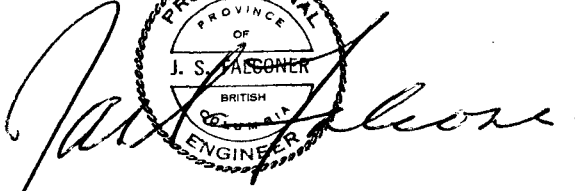
#### Estimated Cost of Proposed Program

|   |           |
|---|-----------|
| Diamond Drill Tests, allow  | \$ 55,000 |
| Geochemical Analyses on selected previously collected soil samples - say 400 samples @ \$12.50/sample | 5,000     |
| Geological Survey and support, allow  | 10,000    |
| Induced Polarization and Resistivity Survey, allow  | 15,000    |
| Trenching, Bulldozing, allow  | 10,000    |
| Assays, allow   | 10,000    |
| Engineering, Supervision, and Report  | 7,500     |
| Contingencies, say  | 7,500     |

|        |            |
|--------|------------|
| Total: | \$ 120,000 |
|        | =====      |

Contingent upon favourable results during the second phase of work, a sum of up to \$ 250,000 could be allocated to determine geometry and grade characteristics of the best target areas.

Respectfully submitted at Vancouver, B.C.



James S. Falconer, P.Eng.  
28 June 1986.

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**APPENDIX A**

**COST BREAKDOWN OF PHASE I PROGRAM**

## APPENDIX A

### COST BREAKDOWN OF PHASE I PROGRAM

#### Grid Establishment:

|               |                     |             |
|---------------|---------------------|-------------|
| a) Baselines  | 3 km @ \$350/km     | \$ 1,050.00 |
| b) Crosslines | 101.5 km @ \$ 50/km | 5,075.00    |

Geological Mapping and Sampling  
(Scale 1:5,000) 7,000.00

VLF-Electromagnetic Survey 101.5 km @ \$125/km 12,687.50

Magnetometer Survey 101.5 km @ \$125/km 12,687.50

Soil Sampling 1100 samples @ \$8/sample 8,800.00

Soil and Vegetation Studies 2,500.00

#### Laboratory Analysis

|                             |          |
|-----------------------------|----------|
| a) 248 soils @ \$10.75 each | 2,666.00 |
| b) 84 rocks @ \$14.75 each  | 1,239.00 |

Microscope/thin section studies 1,000.00

Report preparation and drafting 2,500.00

Computer generated colour maps 3,000.00

Orthophoto Base Map (Scale 1:5,000) 3,500.00

Engineering and Interpretation 2,500.00

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Total cost: \$ 66,205.00  
=====

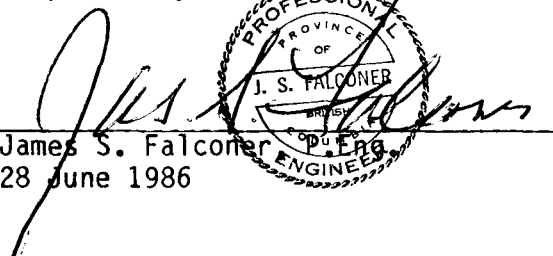
**APPENDIX B**  
**CERTIFICATES**

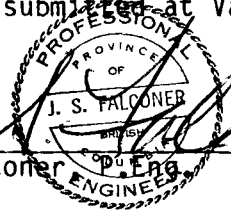
## CERTIFICATE

I, James Selkirk Falconer, of Vancouver, British Columbia, do hereby certify:

- 1) I am a Consulting Professional Engineer to Shangri-La Minerals Ltd., 200-675 West Hastings Street, Vancouver, British Columbia, V6B 4Z1.
- 2) I am a Registered Professional Engineer in the Province of British Columbia, Alberta and Ontario.
- 3) I graduated with a degree of Engineer of Mines from the Colorado School of Mines in 1969.
- 4) I have practised my profession for seventeen years.
- 5) This report is based on a personal property examination conducted on May 28th, 1986 and on an evaluation of privately and publicly held data pertaining to the said proeprty, as well as field data collected by a Shangri-La Minerals Ltd. crew.
- 6) I hold no direct or indirect interest in the property described herein, or in any securities of Montello Resources Ltd., or in any associated companies, nor do I expect to receive any.
- 7) This report may be utilized by Montello Resources Ltd. for inclusion in a Prospectus or Statement of Material Facts.

Respectfully submitted at Vancouver, B.C.

  
James S. Falconer  
28 June 1986



## CERTIFICATE

I, David J. Pawliuk of the Municipality of Delta in the Province of British Columbia, do hereby certify:

- 1) I am a Consulting Geologist with the firm of Shangri-La Minerals Limited at 200-675 West Hastings Street, Vancouver, B.C., V6B 4Z1.
- 2) I graduated in 1975 from the University of Alberta, Edmonton, Alberta, and hold a Bachelor of Science with Specialization in Geology.
- 3) I am a registered member, in good standing, of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
- 4) Since graduation I have been involved in numerous mineral exploration programs throughout Canada.
- 5) This report is based upon fieldwork carried out by this author and a Shangri-La Minerals crew between May 15 and June 12, 1986.
- 6) I hold no direct nor indirect interest in the property, or in any securities of Montello Resources Ltd., nor in any associated companies, nor do I expect to receive any.
- 6) This report may be utilized by Montello Resources Ltd. for inclusion in a Prospectus or Statement of Material Facts.

Respectfully submitted at Vancouver, B.C.



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David J. Pawliuk, B.Sc., P.Geol.  
28 June 1986

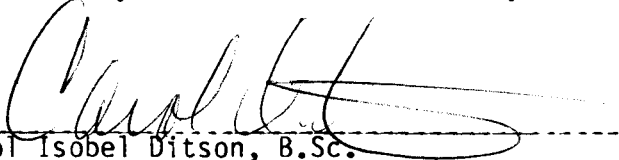


## CERTIFICATE

I, Carol Ditson, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

- 1) I am a Consulting Geologist with the firm of Shangri-La Minerals Limited at 200-675 West Hastings Street, Vancouver, B.C., V6B 4Z1.
- 2) I graduated in 1985 from the University of British Columbia with a B.Sc. in Geology.
- 3) I have been involved in mineral exploration since 1979.
- 4) This report is based upon fieldwork carried out by this author and a Shangri-La Minerals crew between April 5 and June 14, 1986.
- 5) I hold no direct interest or indirect interest in the property or in any securities of Montello Resources Ltd., or in any associated companies, nor do I expect to receive any.
- 6) This report may be utilized by Montello Resources Ltd. for inclusion in a Prospectus or Statement of Material Facts.

Respectfully submitted at Vancouver, B.C.

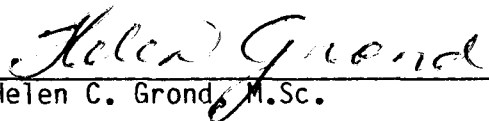
  
\_\_\_\_\_  
Carol Isobel Ditson, B.Sc.  
28 June 1986

### CERTIFICATE

I, Helen C. Grond, do hereby certify:

- 1) I am a Consulting Geologist with the firm of Shangri-La Minerals Limited at 200-675 West Hastings Street, Vancouver, B.C., -V6B 4Z1.
- 2) I graduated in 1980 from the University of British Columbia with an Honours B.Sc. in Geology, and in 1982 with a M.Sc. in Geology.
- 3) I have been involved in mineral exploration since 1977.
- 4) This report is based upon fieldwork carried out by this author and a Shangri-La Minerals crew between April 5 and June 14, 1986.
- 5) I hold no direct interest or indirect interest in the property or in any securities of Montello Resources Ltd., or in any associated companies, nor do I expect to receive any.
- 6) This report may be utilized by Montello Resources Ltd. for inclusion in a Prospectus or Statement of Material Facts.

Respectfully submitted at Vancouver, B.C.

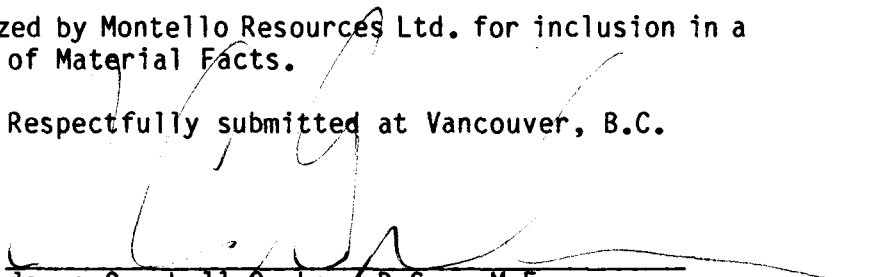
  
Helen C. Grond, M.Sc.

## CERTIFICATE

I, James Campbell Graham of the City of Burnaby in the Province of British Columbia, do hereby certify:

- 1) I am a Consulting Geophysical Engineer with the firm of Shangri-La Minerals Limited at 200-675 West Hastings Street, Vancouver, B.C., V6B 4Z1.
- 2) I graduated in 1985 from the Colorado School of Mines, Golden, Colorado, with a M.Eng. in Geophysical Engineering and in 1982 with a B.Sc. in Geophysical Engineering.
- 3) I have been involved in numerous mineral exploration programs since 1975.
- 4) This report is based upon fieldwork carried out by this author and a Shangri-La Minerals crew in April and June 1986.
- 5) I hold no direct interest or indirect interest in the property or in any securities of Montello Resources Ltd., or in any associated companies, nor do I expect to receive any.
- 6) This report may be utilized by Montello Resources Ltd. for inclusion in a Prospectus or Statement of Material Facts.

Respectfully submitted at Vancouver, B.C.



---

James Campbell Graham, B.Sc., M.Eng.  
27 June 1986

## CERTIFICATE

I, Robert Thomson, of the City of Rossland in the Province of British Columbia do hereby certify:

That I am a Consulting Forester with the firm of Shangri-La Minerals Ltd., 200-675 West Hastings Street, Vancouver, British Columbia, V6B 4Z1.

I further certify:

1. That I am a graduate of the University of British Columbia (1985) and hold a Bachelor of Science in Forestry Biology (Faculty of Forestry) degree.
2. That since 1980, I have been involved in numerous mineral exploration programs throughout Canada.
3. That this report is based on personal visits of the Lost Horse Group mineral claims in June, 1986.
4. That I have no direct or indirect interest in the property described herein, or in Montello Resources Ltd., nor do I expect to receive any.
5. That this report may be utilized by Montello Resources Ltd. in a Prospectus or Statement of Material Facts.

Respectfully submitted  
at Vancouver, B.C.



Robert Thomson, B.Sc., Forestry Biology

June 19, 1986

**APPENDIX C**

**SAMPLE DESCRIPTIONS  
THIN SECTION DESCRIPTIONS**

## SAMPLE DESCRIPTIONS

**MH-1, L150N 75W Grab**

Mafic aphanitic, volcanoclastic, 1-2% fine sulphide grains, probably pyrrhotite. Sub-outcrop 10 x 5 m.

**MH-2, L150N 60W Chip across 1 m**

Mafic aphanitic, volcanoclastic, 1-2% fine sulphide grains, probably pyrrhotite. Chip taken across 1 m in small pit.

**MH-3, L500N 500W Grab**

Medium to light gray volcanoclastic with abundant plagioclase phenocrysts. Crystalline epidote and garnetiferous blebs scattered throughout.

**MH-4, L100N 475W Chip across 2 m**

Chip sample from small pit. Rusty stained altered rock. Leached pyroclastic, light coloured matrix with dark phenocrysts and clasts.

**MH-5, L20N 325W Grab**

Conglomeratic chert, multicompositional, some clasts with minor pyrrhotite veinlets.

**MH-6, L30N 460W Grab**

Conglomeratic chert with garnetiferous vugs. Multicompositional clasts in chert.

**MH-7, L100S 325W Grab**

Skarn, rusty stained fractures. 2-3% sulphides disseminated throughout.

**MH-8, L100S 225W Grab**

Sample from small pit; may not be outcrop. Skarn with 5% sulphides, mainly pyrite.

**MH-9, L10N 530E Grab**

Medium-grey metasilstone, 1-2% disseminated sulphides, mainly pyrrhotite.

**MH-10, L85N 725E Grab**

Volcanoclastic/metasilstone. Rusty staining on fractures; 1-2% disseminated sulphides, particularly on fracture surfaces.

**MH-11, L1100N 550E Grab**

Medium grey chert with rusty stained fractures. Minor disseminated sulphides.

**MH-12, L1125N 1100E Grab**

Very rusty stained cherty metasiltstone.

**MH-13, L1050N 1150E Grab**

Skarn. Rusty stained rock. 2-3% disseminated sulphides.

**MH-14, L1060N 1650E Grab**

Skarn with well developed hornblende phenocrysts. Rusty staining on fractures. Trace of disseminated sulphides.

**MH-15, L740N 2900E Grab**

Siliceous conglomeratic limestone with 3-4% disseminated sulphides. White on weathered surface.

**MH-16, L1045N 1850E Grab**

Conglomeratic siliceous limestone. Some grey and purplish clasts. Trace sulphides.

**MH-17, L585N 675E Grab**

Cherty mudstone with dark grey/purple clasts. Chloritic veinlets and amphibole crystals in vugs.

**MH-18, L700BN, 2500E Grab**

Cherty limestone with pyrrhotite stringers and blebs (3%), rusty staining, secondary garnet (?).

**MH-19, L575N, 2675E Grab**

Limey metasiltstone with trace of sulphides.

**MH-20, L575N, 2900E Grab**

Rusty stained, altered granodiorite.

**MH-21, L850N, 1900E Grab**

From stripped area. Conglomeratic chert with abundant calcite veining. 5% sulphides in stringers and blebs.

**MH-101, 400N, 10W Chip**

50% siltstone, dark grey, aphanitic; 50% magnetic volcanoclastic with trace arsenopyrite (?) and pyrrhotite, medium grey color, phaneritic

**MH-102, 400N, 160W Chip**

Slightly magnetic metasilstone, medium to dark grey colored, iron-stained on weathered surface, trace to 3% sulphides, mainly pyrrhotite.

**MH-103, 400N, 500W Chip**

Medium to dark grey volcanoclastic with epidote and chlorite, lithic clasts, brown weathered surface.

**MH-104, 315N, 650W Chip**

Light greenish metavolcanoclastic with epidote, chlorite and garnet. Trace sulphides (pyrrhotite and arsenopyrite[?])

**MH-105, 300N, 615W Grab**

Medium grey phaneritic volcanoclastic with trace pyrrhotite and arsenopyrite.

**MH-106, 260N, 655E Grab**

Dark grey, chloritic metasilstone with light grey chert and (trace) sulphides in seam and pod of skarn.

**MH-107, 350N, 15E Grab**

Vesicular, amygdaloidal basalt. Medium grey, brown weathered surface.

**MH-108, 1020N, 1320E Chip**

30% blue to brown chert with 2% sulphides, finely disseminated.  
70% medium blue grey phaneritic skarn with 5-7% sulphides (pyrrhotite as blebs and disseminations, arsenopyrite as disseminations).

**MH-109, 900N, 2015E Chip**

Interbedded light grey chert, medium to dark grey siltstone and light grey limestone with trace to 2% sulphides.

**MH-110, 900N, 1960E Chip**

Medium to dark grey volcanoclastic breccia with cherty, angular lithic fragments and 2% disseminated sulphides.

**MH-111, 480N, 1760E Grab**

Medium grey granodiorite, no sulphides.



**MH-22, L1885N, 1925E Grab**

Skarn with 5-6% disseminated sulfides.

**MH-23, L1000N, 1950E Grab**

Conglomeratic, cherty limestone with dark, angular clastic fragments and 2% disseminated sulphides.

**MH-24, L975N, 1925E Grab**

Pinkish, purple chert, rusty stained, 2% sulphides disseminated throughout.

**MH-25, L1025N, 1825E Grab**

Metasediment outcrop with large vugs (veins?) 5-10 cm of coarse crystalline white calcite.

**MH-26, L975N, 1800E Grab**

Pinkish-purple chert with large (1 cm diameter) blebs of pyrrhotite.

**MH-27, L1000N, 1600E Chip**

From stripped area, rhyodacite with 2-3% disseminated sulphides.

**MH-28, L1270N, 1575E Grab**

Diorite with reddish-purple pervasive alteration.

**MH-29, L1250N, 2000E Grab**

Grey chert with amphibole phenocrysts in discontinuous blebs in an aphanitic matrix.

**MH-30, L1200N, 2040E Grab**

White chert with phenocrysts with a pyrrhotite stringer 4 cm long and 3 mm wide.

**MH-31, L1280N, 2075E Grab**

Chert with rusty staining and trace to 1% disseminated sulphides.

**MH-32, Gold Finch Claims Chip**

2 m chip sample from rusty stained pit. Pit is located in the central portion of the Gold Finch Claims. Skarn with up to 15% arsenopyrite and pyrrhotite.

**MH-201, 700N, 75W Grab**

Dark brown, fine-grained, weakly brecciated volcanoclastic veined by quartz, epidote (?) and trace pyrite. Veining over 4 m x 1 m area; veins randomly oriented, short, up to 1 cm wide.

**MH-202, 705N, 210W Grab Sample**

Grey-green silty chert with fracture surfaces coated with brown-red iron oxides.

**MH-203 647N, 123W Grab Sample**

Dark grey, fine-grained silty volcanoclastic with red-brown iron oxides on fracture surfaces. Rock locally contains up to 5% pyrrhotite as masses to few mm diameter and as veinlets up to 1 mm wide, 30 mm long. Sample from 0.5 m<sup>2</sup> area.

**MH-204 600N, 280W Grab Sample**

Dark grey fine-grained crystalline volcanoclastic with 1-2% very fine disseminated pyrrhotite throughout area 0.5 m x 0.5 m. Red-brown iron oxides on fracture surfaces.

**MH-205 590N, 452W Chip Sample**

Chip across 1.5 m pale greyish green skarn containing 15-20% very fine disseminated pyrrhotite. Sample from old trench 2.5 m x 3.5 m x 1.5 m deep where brown to yellow-brown to black iron oxides coat weathered rock surface. Local carbonate (?) on fracture surface. Identified as chert in field.

**MH-206 620N, 725W Grab Sample**

Dark grey to pale brown to green silty chert with 5-10% epidote (?) as splotches averaging few mm diameter. No sulphides or iron oxides.

**MH-207 1123N, 2E Grab Sample**

Grey to brownish-grey, fine-grained, silty volcanoclastic with approximately 0.3-0.5% fine, disseminated pyrrhotite.

**MH-208 1495N, 345E Grab Sample**

Dark grey medium-grained volcanoclastic with mudstone lenses. Trace to 0.2% disseminated pyrrhotite. Trace pyrite as irregular mass 1.5 mm diameter.

**MH-209 1520N, 515E Grab sample**

Pale greyish-green chert with trace pyrrhotite. Iron oxides on fracture surfaces. Sample from 0.5 by 0.5 m area.

**MH-210 1450N, 1737E Grab Sample**

Brownish grey silty chert, and siltstone, in band 1.5 to 4 m wide, 20 m long which has iron oxides on weathered surface. Rock locally contains 1 to 5% pyrite as disseminated specks, wispy fracture filling and as irregular masses. Band open both ends.

**MH-211 1445N, 1760E Grab Sample**

Pale grey chert, off-white quartzite with dark brown to black iron oxides coating weathered surface. Rock contains 1% (locally 5%) disseminated pyrite over 5 m x 5 m area; open all sides.

**MH212 1455N, 1950E Grab Sample**

Greyish brown aphanitic skarn with black hornblende phenocrysts, up to 2 cm long. Trace to locally 2% pyrite, trace pyrrhotite as irregular masses filling discontinuous fractures and disseminated. Outcrop 5 m x 5 m. Rock as for sample MH-215.

**MH-213 1455N, 1973E Grab Sample**

Grey chert containing 2-4% disseminated pyrite with ankerite (?) on fracture surfaces. About 70% of outcrop surface coated by dark brown limonitic iron oxides.

**MH-214 1455N, 2512E Grab Sample**

Dark brown to yellow brown weathering, limy grey siltstone with approximately 0.5% pyrite.

**MH-215 1495N, 1940E Grab Sample**

Greyish brown aphanitic skarn with black amphibole phenocrysts. Up to 3% pyrite; rock same as for MH-212.

**MH-216 1500N, 1715E Grab Sample**

Dark grey skarn with black hornblende phenocrysts and red-brown iron oxides on weathered surface. No sulphides seen.

**MH-217 1345N, 130E Grab Sample**

Greyish-green silty chert with iron oxides on weathered surface. Very fine disseminated pyrite trace to 0.5%.

**MH-218 1350N, 232E Grab Sample**

Pale grey, very fine-grained quartzite with 0.5 to 1% disseminated pyrite. Mineralized band 0.5 m wide, open both ends.

**MH-219 1355N, 280E Grab Sample**

Pale greenish grey chert which locally contains up to 5% pyrrhotite, 0.5% chalcopyrite as rounded blebs and masses up to 14 mm diameter. Chalcopyrite as wispy rims on pyrrhotite masses; sulphide blebs rimmed by thin halo of dark green calc-silicate(?) minerals. Occurrence approximately 1 m wide, 2 m long, open on 2 sides.

**MH-220 1350N, 1825E Grab Sample**

Pale greenish-grey quartzitic, fine-grained massive volcanoclastic contains approximately 1% pyrrhotite both disseminated and as wispy masses. Black to dark red-brown iron oxides, coat weathered outcrop surface. Pyrite veinlet 1 mm wide, 2 cm long in sampled rock. Locally up to 3% pyrrhotite in sample.

**MH-221 1350N, 1935E Grab Sample**

Pale grey, fine to medium-grained quartzitic volcanoclastic contains up to 5% pyrrhotite, trace pyrite as veinlets, finely disseminated and as irregular masses. Local black iron oxides on weathered outcrop surface over 10 m x 30 m area.

**MH-222 1350N, 2475E Chip Sample**

Grey siltstone with black hornblende phenocrysts to few mm long (possible porphyry dyke). Rock contains 2-3% very finely disseminated pyrrhotite, local trace pyrite across 131 cm (sample width 131 cm). Mineralized band 5 m long, open both ends.

**MH-223 1365N, 2500E Grab Sample**

Rock as for MH-222 with approximately 1.5% disseminated pyrrhotite and 1.5% disseminated pyrite; pyrite veinlets present. Band about 2 m wide, 7 m long, open both ends.

**MH-224 1355N, 3000E Chip Sample**

Light grey fine-grained skarn in contact with dark grey, soft silty limestone in old trench where dark yellow - brown iron oxides coat trench walls. Sample across 1 m at skarn/limestone contact where pyrrhotite locally to 30% and green-black amphibole (?) locally to 5% of rock volume.

**MH-225 1200N, 1375E Grab Sample**

Grey, cherty siltstone contains trace to 0.5% pyrrhotite; open on all sides. Red-brown iron oxides on weathered outcrop surface.

**MH-226 1200N, 1680E Grab Sample**

Pale brownish grey fine-grained skarn with up to 1% very finely

disseminated pyrrhotite. Orange-red iron oxides on weathered surface of outcrop. Open all sides.

**MH-227 1200N, 1795E Grab Sample**

Pale greenish grey fine-grained cherty quartzite contains about 1% disseminated pyrrhotite, traces pyrite within band approximately 10 cm wide, 1 m long; open both ends.

**MH-228 1200N, 2055E Grab Sample**

Pale greenish grey chert band 1.5 m wide, 3 m long, open both ends, contains approximately 1% very fine disseminated pyrrhotite and pyrite. Outcrop has dark rusty brown weathered surface.

**MH-229 1200N, 2270E Grab Sample**

Pale grey, coarse, conglomeratic felsic volcanoclastic. Grey siltstone and pink chert clasts within quartzitic, fine-grained matrix. Rock well cemented by quartz. Clasts up to 28 mm diameter, subrounded to angular, some well rounded. 1 to 2% disseminated pyrrhotite. Occurrence 1 m x 2 m, open all sides.

**MH-230 1202N, 3000E Chip Sample**

Chip across pale green-grey chert band 0.5 m wide in old trench. Chert contains 0.5 to 1.0% very the disseminated pyrrhotite and trace to 0.5% very fine disseminated pyrite.

**MH-231 1202N, 3000E Chip Sample**

Chip across 1 m of grey, porphyritic skarn which contains locally up to 1% disseminated pyrrhotite. Skarn is located immediately west of chert sampled as MH 230.

**MH-232 1188N, 3000E Chip Sample**

Discontinuous chip sample across 12 m of grey, porphyritic skarn which locally contains up to 1% disseminated pyrrhotite. Orange-brown iron oxides on weathered surface. Rock as for MH-231.

**MH-233 1180N, 2800E Chip Sample**

Pale brown grossularite (5%), diopside (5%) and calcite (90%) comprise vein 49 cm wide intruding grey, silty limestone. No sulphides seen. Sample collected across 49 cm.

**MH-234 1405N, 855E Grab Sample**

Dark grey silty volcanoclastic contains locally up to 1 disseminated pyrrhotite within band approximately 2 m wide.

**MH-235 1115N, 1417E Grab Sample**

Pale grey, cherty siltstone that weathers dark brown on outcrop surface over 25 m x 10 m area contains 1 to 2% disseminated pyrrhotite throughout and trace to 1% pyrite disseminated and as wispy veinlets.

**MH-236 1115N, 1370E Grab Sample**

Grey, silty volcanoclastic, likely an extension of occurrence sampled MH235. Rock contains 2 to 4% combined disseminated pyrrhotite and pyrite.

**MH-237 1123N, 1225E Grab Sample**

Light grey, felsic, fine-grained volcanoclastic which contains locally up to 2% combined disseminated pyrrhotite and pyrite. Dark brown to yellow weathered outcrop surface. Occurrence 2 m x 2 m, open all sides.

**MH-238 1150N, 1015E Grab Sample**

Greyish-green to pink chert with locally up to 2% disseminated pyrite and pyrrhotite. Dark brown iron oxides on weathered surface of outcrop. Open on all sides.

**MH-239 1253N, 3040E Chip Sample**

Discontinuous chip sample across 3 m of pale grey silicic skarn exposed in old trench. Up to 3% combined disseminated arsenopyrite, pyrrhotite and pyrite.

**MH-240 1253N, 3040E Chip Sample**

Discontinuous chip sample collected across 7 m of grey massive skarn as for MH-239. Gradation between about 0.5% disseminated sulphides (arsenopyrite, pyrrhotite, pyrite and chalcopyrite) to massive arsenopyrite over 15 cm width.

**MH-241 1303N, 2924E Grab Sample**

Silicified limestone breccia with no visible sulphides exposed in small trench. Very little rusty stain on weathered surface.

**REPORT ON**  
**PETROGRAPHY OF ROCK SAMPLES**  
**FROM**  
**THE LOST HORSE PROPERTY**  
**FOR**  
**SHANGRI-LA MINERALS LTD.**

**27 JUNE 1986**

**BY**

**J.S. GETSINGER, Ph.D.**

**MPH CONSULTING LTD.**

## SUMMARY OF PETROGRAPHY

Eleven rock samples from the Montello-Hedley Lost Horse property were studied in thin section. Seven samples are contact metamorphosed, and six of these show evidence of skarn mineralization. Two samples are altered, but unmineralized lithic volcanoclastic greenstone. One sample is from a dioritic intrusive with minor pyrite, and one is from a relatively fresh, unmineralized hornblende-plagioclase porphyritic andesite.

Rocks that started out as lithic volcanic sandstone are relatively unmineralized. Of the seven contact metamorphosed samples, one is a mafic greywacke hornfels with less than 2% opaques (sample 1450N-740E). Secondary actinolitic hornblende indicates hornblende-hornfels facies metamorphism. Two other lithic volcanoclastic rocks are metamorphosed to greenschist facies or hydrothermally altered to propylitic assemblages. Alteration minerals in sample 610-575W are epidote and chlorite, whereas in sample 600N-535W they are epidote and actinolite; neither sample contains more than 1% opaques. In contrast, contact metamorphosed calc-silicate rocks are all associated with significant sulphide mineralization on the order of 5 to 15% disseminated pyrrhotite, pyrite, and/or arsenopyrite. Metamorphic assemblages such as garnet-calcite-idocrase-tremolite-wollastonite and garnet-calcite-quartz-wollastonite-diopside-epidote-tremolite indicate relatively high T (600°C) and low P (<300 MPa). At least two of the rock (samples 1100N-1125E and 1100N - 1860E) show unusual abundance of sodium scapolite (marialite), indicating possible influx of sodium (+ chloride?) metasomatic solutions. The primary mineralogy of these two rocks is nearly obliterated; sample 1100N - 1125E may have been a siliceous dolomite, whereas sample 1100N-1860E was apparently a cherty lithic sandstone or siltstone. Textures of crosscutting mineralized bands (as in sample 1350N-2990E) also support an interpretation of infiltration of metasomatic fluids either contemporaneous with or postdating contact metamorphic heating.

Skarn formation involving influx of metasomatic fluids may affect various rock types and cause replacement of original minerals to an extent that makes rock identification difficult, as the original chemistry is altered.

In conclusion, sulphide mineralization appears to be associated with contact metamorphic skarn assemblages and possible influx of metasomatic fluids.



**PETROGRAPHIC REPORT**

By J.S. Getsinger, PhD

J. S. Getsinger**For:** Shangri-La Minerals Ltd.**Date:** 86-06-25**Project:** V99-Shang-MH**Collector:** H. Grond/C. Ditson/D. Pawliuk**Sample:** MH-1375E-1350N**Date Collected:** 86-06**Location:** Montello-Hedley (Lost Horse Property)**Rock Type:** Dioritic intrusive.**Hand Specimen:** Intrusive- diorite to monzonite? Somewhat porphyritic, fine to medium-grained intrusive with felsic portions stained rusty orange. No reaction in HCl; non-magnetic. Grain size <0.5 mm to 3 mm).

60-65% Felsic: Feldspar, including plagioclase, euhedral to anhedral.

35-40% Mafic: Pyroxene and amphibole, dark green to black, altered to green biotite or chlorite.

**Thin section (Polished - No):**  
**% Approx.****Minerals**

- 
- 50 Plagioclase: Euhedral, zoned: Carlsbad, albite twins; altered particularly in core, zoned from labradorite to calcic oligoclase (An<sub>50</sub> to An<sub>25</sub>).
- 10 Quartz: interstitial, fine-grained, recrystallized mosaic, possibly secondary.
- 25-30 Altered pyroxene, now mostly hornblende: blocky pyroxene shapes exhibit amphibole cleavage and other properties: Z' to C=14°; X=pale greenish brown, Y=olive green, Z= olive brown, Z>Y>X; (-) 2V>80. Hornblende is altered to biotite and chlorite.
- 10-15 Biotite: red-brown, altered to chlorite.
- ≤ 5% Opaques - pyrite, late, on fractures, irregularly disseminated.

**Rock textures/structures:** Intrusive porphyritic; interstitial quartz is last mineral to crystallize; pyroxene pseudomorphed by hornblende; hornblende altered to biotite, to chlorite. Grain boundaries are rust-stained.**Alteration/Mineralization:** Typical late magmatic recrystallization of pyroxene to hornblende followed by alteration to biotite, to chlorite. Quartz may be late alteration. Pyrite mineralization is weak, late, associated with biotite.**Conditions of Formation:** Intrusive; altered to more hydrous minerals; quartz recrystallization.

**PETROGRAPHIC REPORT**By **J.S. Getsinger, PhD***J. S. Getsinger***For:** Shangri-La Minerals Ltd.**Date:** 86-06-25**Project:** V99-Shang-MH**Collector:** H. Grond/C. Ditson/D. Pawliuk**Sample:** MH-1100N-1860E**Date Collected:** 86-06**Location:** Montello-Hedley (Lost Horse Property)**Rock Type:** Sodium contact - metasomatized lithic sandstone

**Hand Specimen:** Altered rhyolitic volcanoclastic(?). White to light grey, fine-grained rock, breaks angularly, with rusty fractures. Pyrite and silvery metallic, hard mineral (non-magnetic) are sparsely disseminated (<5%). Quartz grains (1-5 mm) (10-15%) resemble phenocrysts but may be clasts, subrounded to angular. Lithic clasts of pink to grey chert or cherty volcanoclastic are up to 1.5 cm. No reaction in HCl.

**Thin section (Polished - No):****% Approx.****Minerals**

- |       |  |
|-------|--|
| 25-30 | Clinopyroxene (?) probably diopside) ( $\pm$ ) clinozoisite, fine grained, med-high relief, relict grains, early alteration or metamorphic mineral, post-chert, pre-scapolite.   |
| 10-15 | Quartz: clasts, uniaxial (+)   |
| 5-10  | Chert: rounded fragments of fine-grained quartz aggregate  |
| 15-20 | Plagioclase: crystal clasts, mostly altered  |
| 2-3   | (?): Relief higher than scapolite, lower than clinozoisite; (+) 2V= 20 to 40, in reaction rim between pyrite/pyrrhotite and scapolite, has wavy extinction. Low birefringence. Resembles feldspar, but 2V is odd. Prehnite(?). |
| 10-15 | Scapolite (Marialite) - low birefringence, low relief, uniaxial (-), metamorphic mineral, large grained, surrounds relict grains of cpx.   |
| 5     | (Halite[?], Sodalite[?], Analcime [?]) -(all Na minerals) - Isotropic, very low relief, associated with sodium scapolite.  |
| 5-10  | Opakes - pyrite $\pm$ other sulphides, in skeletal aggregates up to 1.5 mm, but sparsely distributed.  |
| 1     | Iron oxide? Translucent, brownish, high relief, similar to rutile.   |

**Rock textures/structures:** Replacement of matrix by sodium scapolite in large, poikilitic grains. Reaction rim around sulphides may be feldspar.

**Protolith:** Quartzofeldspathic lithic sandstone (quartz, feldspar crystal clasts, chert fragments).

**Alteration/Mineralization:** Soda-rich alteration minerals.

**Conditions of Formation:** (1) Deposition of sandstone (possibly calcareous?) with grains of eroded chert; (2) Contact metamorphism, formation of diopside; (3) Hydrothermal alteration: sulphide mineralization; (4) Late contact metasomatism/hydrothermal alteration involving sodium chloride/sulfate rich fluids.

**PETROGRAPHIC REPORT**

By J.S. Getsinger, PhD

J. S. Getsinger**For:** Shangri-La Minerals Ltd.**Date:** 86-06-25**Project:** V99-Shang-MH**Collector:** H. Grond/C. Ditson/D. Pawliuk**Sample:** MH-205**Date Collected:** 86-06**Location:** Montello-Hedley (Lost Horse Property)**Rock Type:** Mineralized calc-silicate (skarn)

**Hand Specimen:** Rusty-weathering, fine-grained matrix, coarser fragments (?) of pale greyish-green, giving mottled look to rock. Probably altered volcaniclastic. Pyrrhotite, magnetic, disseminated (15-20%). Green minerals may be chlorite, epidote, possibly amphibole  $\pm$  diopside. Rust-colored iron oxide stains, 5%.

**Thin section (Polished - No):**  
**% Approx.**

**Minerals**

- 
- <5 Wollastonite(?), (-) 2V = 30-40, low birefringence, cleavage.
  - 40 Diopsidic clinopyroxene and/or tremolitic amphibole (?)
  - 5-10 Quartz
  - 20 Clinozoisite: high relief; anomalous bluish-grey birefringence.
  - 5 Iron oxides, including isotropic, red translucent hematite, and orangy-brown stains.
  - 15-20 Pyrrhotite: opaque (magnetic, bronze-coloured sulphide in hand specimen).
  - 5-10 Feldspar(?) - (+) 2V=20 to 40° or more low birefringence; low relief, surrounds pyrrhotite in reaction halo, associated with clinozoisite. Looks like quartz or feldspar. Undulatory extinction indicates strain. Variable 2V may be caused by strain. Prehnite(?).
  - 1 Carbonate: high relief, birefringence.
  - 1 Garnet(?) Isotropic to dark grey birefringence, relief higher than quartz.

**Rock textures/structures:** Coarser fragments in finer matrix, layered. Reaction rims around pyrrhotite of grey, low relief mineral.

**Protolith:** Siliceous, argillaceous carbonate

**Alteration/Mineralization:** Pyrrhotite mineralization, disseminated and along layers.

**Conditions of Formation:** Contact metamorphism of argillaceous carbonate.

**PETROGRAPHIC REPORT**

By J.S. Getsinger, PhD

J. S. Getsinger

For: Shangri-La Minerals Ltd.

Date: 86-06-25

Project: V99-Shang-MH

Collector: H. Grond/C. Ditson/D. Pawliuk

Sample: MH-1350N-223E

Date Collected: 86-06

Location: Montello-Hedley (Lost Horse Property)

Rock Type: Hornblende-feldspar porphyritic andesite with xenolith.

Hand Specimen: Andesitic greenstone

Phenocrysts: 25 Hornblende (1-5 mm), black, acicular  
35 Plagioclase (0.5 to 2 mm), white, tabular  
35 Groundmass: fine-grained grey and green,  
crystalline  
5 Xenolith - microdiorite (?), 1 cm

Thin section (Polished - No):

% Approx.

Minerals

- 
- |     |   |
|-----|---|
| 25  | Hornblende: Euhedral phenocrysts. X=yellow, Y=olive green, Z=bluish green, Z-Y>X. (-) 2V>85. Zoned paler to darker green. Altered to red-brown biotite. |
| 35  | Plagioclase: Euhedral phenocrysts.  |
| 3-5 | Biotite - red-brown, after hornblende   |
| 3-5 | Chlorite - green, after hornblende and biotite.   |
| 30  | Groundmass - mostly fine-grained feldspar.  |
| 5   | Xenolith: microdiorite (?), weakly magnetic (?).  |

**Rock textures/structures:** Porphyritic texture, fine-grained groundmass - volcanic to hypabyssal.

**Alteration/Mineralization:** Minor alteration such as hornblende to biotite to chlorite. No visible mineralization.

**Conditions of Formation:** Volcanic flow or dyke or hypabyssal intrusive.

**PETROGRAPHIC REPORT**

By J.S. Getsinger, PhD

*J.S. Getsinger***For:** Shangri-La Minerals Ltd.**Date:** 86-06-25**Project:** V99-Shang-MH**Collector:** H. Grond/C. Ditson/D. Pawliuk**Sample:** MH-229**Date Collected:** 86-06**Location:** Montello-Hedley (Lost Horse Property)**Rock Type:** Contact metamorphosed siliceous carbonate conglomerate with intermediate volcanic clasts.**Hand Specimen:** Grey, pink, white and black granule to pebble conglomerate. Clasts are subangular to subrounded (0.1 to 1.5 cm). Crystalline calcite matrix reacts strongly to HCl. Clasts are black, fine-grained siltstone and/or chert, pink chert (?), minor volcaniclastics (?). Disseminated pyrite in matrix and clasts (5-10%). Non-magnetic.**Thin section (Polished - No):****% Approx.****Minerals**


---

30% Clasts: Mainly fine-grained volcanic with >70% trachytic plagioclase laths.

70% Matrix rock

- 5 Garnet: high relief, isotropic
- 10 Calcite: some large, rounded grains
- 10 Quartz: uniaxial (+)
- 10 Wollastonite: Low birefringence, inclined extinction, twinned, (-) 2V=20.

10-15 Epidote: med-high birefringence and relief.

5 Clinopyroxene(?): med-high birefringence.

5 Tremolite: acicular, sheaf-like

5-10 Opaque: anhedral grains, apparently secondary

&lt; 2 Feldspar(?)

**Rock textures/structures:** Clasts up to 1.5 cm, rounded; static recrystallization textures; equilibrium textures of calcite + quartz + wollastonite.**Protolith:** Intermediate volcanic fragments in siliceous limestone conglomerate.**Alteration/Mineralization:** Contact metamorphic recrystallization; disseminated pyrite mineralization.**Conditions of Formation:** Volcanic conglomerate with siliceous limy matrix; contact metamorphosed at T>600°C and P probably <300 MPa (3kb) as indicated by equilibrium assemblage calcite + quartz + wollastonite.

**PETROGRAPHIC REPORT**By J.S. Getsinger, PhD J. S. Getsinger

For: Shangri-La Minerals Ltd.

Date: 86-06-25

Project: V99-Shang-MH

Collector: H. Grond/C. Ditson/D. Pawliuk

Sample: MH-600N-535W

Date Collected: 86-06

Location: Montello-Hedley (Lost Horse Property)

Rock Type: Lithic greywacke greenstone or altered volcanic sandstone.

**Hand Specimen:** Andesitic volcanoclastic with clasts of pink, white and grey chert and/or volcanic rocks (up to 2 cm) in a green, epidote-altered matrix with angular clastic grains (mainly 1-2 mm) of lithic fragments, feldspar and quartz.

**Thin section (Polished - No):****% Approx.****Minerals****65 Clastic Components**

35 Fragments: Mainly cherty siltstone, with fine-grained quartz, and secondary opaques and calcite. Minor fine-grained volcanic/volcanoclastics(?).

5-10 Quartz

20 Feldspar Mostly turbid, altered.

**35 Matrix: (Alteration Minerals)**

15-20 Epidote

5-10 Actinolitic hornblende: X=yellow, Y=green, Z=blue-green, Z=Y&gt;X.

5 Calcite

Minor Chlorite

Minor Clinopyroxene(?) mostly altered to epidote  $\pm$  actinolitic hornblende

&lt;1 Opaques - fine-grained material associated with altered clinopyroxene?

**Rock textures/structures:** Angular clasts in metamorphically recrystallized greenstone matrix. Clastic rather than volcanic texture. Epidote and actinolite may fill some open spaces.

**Protolith:** Lithic greywacke.

**Alteration/Mineralization:** Epidote-actinolite in matrix areas; calcite alteration.

**Conditions of Formation:** (1) Deposition of immature lithic sandstone from near-source erosion of volcanic rocks.  
(2) Epidote-actinolite metamorphism (greenschist facies), and/or hydrothermal alteration.

**PETROGRAPHIC REPORT**

By J.S. Getsinger, PhD

*J. S. Getsinger*

For: Shangri-La Minerals Ltd.

Date: 86-06-25

Project: V99-Shang-MH

Collector: H. Grond/C. Ditson/D. Pawliuk

Sample: MH-1450-740E

Date Collected: 86-06

Location: Montello-Hedley (Lost Horse Property)

Rock Type: Metavolcanic sandstone/greywacke hornfels.

**Hand Specimen:** Looks like basalt or greywacke hornfels: dark grey to black, hard, fine-grained, homogeneous, crystalline rock. Cut face shows rectangular white grains (<0.5 mm) which may be euhedral plagioclase (>30%). No reaction in HCl, non-magnetic.

**Thin section (Polished - No):**  
**% Approx.**

**Minerals**

- 
- (White) 40-50 Plagioclase ( $\pm$  alkali feldspar?): Carlsbad and albite twins; euhedral to angular clasts, locally altered to clay(?) minerals and/or saussuritized.
- (Green) 20 Clinopyroxene (augite): Biref: = 0.037; extinction 37°; colourless; blocky; (+) med.-high 2V; contains opaque dust especially around rims. Subhedral to rounded.
- 5-10 Amphibole (hornblende): Z' to C = 20°; X=pale yellowsh; Y= green, Z= olive, Z=Y>X; elongate; biref = 0.25; primary to interstitial.
- (Brown) 25-30 Brown matrix: Consists of some material with high relief and orange-brown absorption which could include some biotite or iron oxide minerals; greenish material which may be chlorite  $\pm$  amphibole and turbid feldspathic material consisting of clay - altered feldspar and possible fine-grained lithic volcanic fragments.
- <2 Opaque grains.

**Rock textures/structures:** Evenly fine-grained with vague layering (?). Feldspar and pyroxene grains are clastic rather than igneous; amphibole may be secondary; brown matrix is recrystallized fine-grained material. Lithic fragments and angular grains suggest sedimentary rather than primary volcanic origin.

**Protolith:** Mafic volcanic sandstone or greywacke.

**Alteration/Mineralization:** No visible mineralization. Phyllosilicate alteration is consistent with diagenesis to low greenschist or contact metamorphism.

**Conditions of Formation:** Basaltic protolith was eroded and deposited as immature sandstone (greywacke). Low grade metamorphism and/or possible contact metamorphism caused hornfels-like recrystallization.

**PETROGRAPHIC REPORT**By J.S. Getsinger, PhD *J. S. Getsinger***For:** Shangri-La Minerals Ltd.**Date:** 86-06-27**Project:** V99-Shang-MH**Collector:** H. Grond/C. Ditson/D. Pawliuk**Sample:** MH-1350N-2990E**Date Collected:** 86-06**Location:** Montello-Hedley (Lost Horse Property)**Rock Type:** Mineralized skarn.

**Hand Specimen:** Fine-grained, grey calcite crystalline limestone/marble with some silicate minerals. Reacts strongly in HCl except in mineralized zone. Band 2 cm wide is mineralized with disseminated silvery grey to bronzy, weakly to non-magnetic sulphide(s) (pyrrhotite  $\pm$  arsenopyrite?). Mineralized band weathers recessively compared to calcite.

**Thin section (Polished - No):** (Section is too thin)**% Approx.****Minerals**


---

|   |   |
|---|---|
| 20+   | Calcite - Uniaxial (+), fizzes in HCl, carbonate properties.  |
| 5   | Garnet - Isotropic, high relief, poikilitic, mainly in mineralized band.  |
| (5-10% of band)   | Opagues - disseminated grains in mineralized band.  |
| 1   | Sphene - high relief, high birefringence, (+) 2V = 0 to 10°, pink pleochroic, small grain.  |
| 70  | Skarn minerals, may include the following:  |
| To distinguish<br>would need a<br>section of stan-<br>dard thickness. | ( Scapolite (mainly marialite (Na), minor meionite [?][Ca]):<br>( Uniaxial (-), low relief, low birefringence<br>( Alkali or Na-feldspar: low relief, low birefringence,<br>( twinning, inclined extinction.<br>( Tremolite (?) )variable but generally low birefringence,<br>( Wollasonite(?) )medium relief, inclined extinction,<br>( Clinopyroxene(?) )variable 2V, tabular grains<br>( Clinozoisite(?) )<br>( Prehnite (?) ): vein mineral, low to med. birefringence,<br>(+) 2V = 20 or variable. |

**Rock textures/structures:** Skarn minerals replace and crosscut earlier assemblage; metamorphic recrystallization is in low-pressure, static environment- random crystal growth.

**Protolith:** Impure siliceous calcite limestone.**Alteration/Mineralization:** Sulphide mineralization and metamorphic recrystallization imply influx of metasomatic fluids.**Conditions of Formation:** Impure siliceous carbonate has been contact metamorphosed and subjected to hydrothermal alteration, at relatively high T (600°C) and low P.



**PETROGRAPHIC REPORT**

By J.S. Getsinger, PhD

*J. S. Getsinger*

For: Shangri-La Minerals Ltd.

Date: 86-06-25

Project: V99-Shang-MH

Collector: H. Grond/C. Ditson/D. Pawliuk

Sample: MH-1100N-1125E

Date Collected: 86-06

Location: Montello-Hedley (Lost Horse Property)

Rock Type: Sodium contact - metasomatized greywacke (?) or impure dolomite.

**Hand Specimen:** Volcaniclastic greenstone (?) with finely disseminated pyrrhotite. Evenly medium-grained crystalline; weathers dark brown rusty, breaks in angular blocks. Altered feldspar (<0.5 mm, 20 to 50%). Finely disseminated pyrrhotite (magnetic, bronzymetallic  $\pm$  pyrite (non-magnetic); some peacock colors locally. Pyrite is fracture-controlled, whereas pyrrhotite is disseminated. Sulphides (10%). Light green mineral ( $\pm$  altered feldspar) (50%), possibly diopside or clinozoisite.

**Thin section (Polished - No):****% Approx.****Minerals**

- |       |   |
|-------|---|
| 40-50 | Clinopyroxene (diopside?) - med-high relief; colorless to pale tan; $Z'$ to $C=37^\circ$ ; (+) $2V<50$ . Patchy poikilitic, altered. Biref. only to first order orange. (slide may be thin). ( $CaMgSi_2O_6$ )  |
| 30-40 | Scapolite (marialite) - low birefringence, Uniaxial (-), cleavage parallel to length of grain, length-fast, parallel extinction; low positive relief (approx. 1.54) nearly same as balsam, much less than cpx. Optical properties consistent with sodic rather than calcic end member. ( $Na_8[(Cl_2, SO_4, CO_3)/(AlSi_3O_8)_6]$ ) |
| 3-5   | Sericite - alteration of clinopyroxene and/or former feldspar.  |
| 2-3   | Clinozoisite - anomalous blue birefringent, around opaques.   |
| 10    | Opaques - pyrrhotite $\pm$ pyrite, skeletal, fine-grained.  |

**Rock textures/structures:** Feldspar is gone. Rock is totally altered and recrystallized to diopsidic clinopyroxene and sodic scapolite, intergrown. Diopside is apparently earlier than scapolite, and is somewhat altered to sericite-like masses.

**Protolith:** Feldspar-rich greywacke or siliceous, argillaceous dolomite.

**Alteration/Mineralization:** Scapolite could be from altered feldspar; could indicate metasomatism of Na, Cl, S, or it could indicate primary evaporitic component. Mineralization: disseminated and fracture-controlled sulphides.

**Conditions of Formation:** Contact metamorphism at high T (probably 500-700°C) and low P. Sodic composition of scapolite suggests sodium chloride or sulfate metasomatism into calcareous, feldspathic protolith. Contemporaneous sulphide mineralization supports a metasomatic/hydrothermal interpretation.

**PETROGRAPHIC REPORT**

By **J.S. Getsinger, PhD**

*J.S. Getsinger*

**For:** Shangri-La Minerals Ltd.

**Date:** 86-06-25

**Project:** V99-Shang-MH

**Collector:** H. Grond/C. Ditson/D. Pawliuk

**Sample:** MH-610N-575W

**Date Collected:** 86-06

**Location:** Montello-Hedley (Lost Horse Property)

**Rock Type:** Volcaniclastic greenstone (similar to MH-600N-535W).

**Hand Specimen:** Volcaniclastic greenstone (?). Green, rounded clasts of volcanic (?) material with feldspar phenocrysts and medium-grained, sandstone-like matrix mainly felsic (sea-green coloured) with all altered to epidote (10-15%) and chlorite  $\pm$  amphibole (?) (10-20%). No reaction in HCl.

**Thin section (Polished - No):**

**% Approx.**

**Minerals**

- 
- 30 Lithic fragments:  
**Volcanic:**  
40 Feldspar phenocrysts, turbid, brown-altered; originally zoned, euhedral.  
- Clinopyroxene(?), altered, mostly in groundmass.  
20 Epidote: yellow pleochroic, in recrystallized round aggregates, minor chlorite(?).  
40 Groundmass, fine-grained
- 70 Matrix  
Lithic fragments, fine-grained, siltstone  $\pm$  chert.

**Clastic grains:** Feldspar- plagioclase, altered to turbid, brown, semi-opaque material, possibly saussuritized. Clinopyroxene - diopside(?).

**Alteration minerals:** Epidote - pistacite  
Chlorite

Minor Sphene

<1 Opaques - brown to black, possibly iron oxide minerals.

**Rock textures/structures:** Rounded lithic fragments have obscure boundaries due to metamorphic recrystallization.

**Protolith:** Volcaniclastic sandstone.

**Alteration/Mineralization:** No visible mineralization. Alteration is mostly metamorphic; hydrated and recrystallized calc-silicates.

- Conditions of Formation:**(1) Deposition of volcanic material in near-source sedimentary environment.  
(2) Epidote-greenschist facies metamorphism and/or propylitic hydrothermal alteration.

**PETROGRAPHIC REPORT**By **J.S. Getsinger, PhD***J. S. Getsinger***For:** Shangri-La Minerals Ltd.**Date:** 86-06-25**Project:** V99-Shang-MH**Collector:** H. Grond/C. Ditson/D. Pawliuk**Sample:** MH-233**Date Collected:** 86-06**Location:** Montello-Hedley (Lost Horse Property)**Rock Type:** Garnet-Idocrase - Calcite - Wollastonite ( $\pm$  Tremolite) skarn**Hand Specimen:** Garnet-Idocrase-Tremolite skarn

10% pale brownish garnet (2-10 mm), probably Ca-garnet.

20% Idocrase: brownish-green crystal (up to 8 mm) with longitudinal striations

10-20% Tremolite  $\pm$  Wollastonite: white, acicular, radiating, with cleavages50% calcite  $\pm$  quartz: white, fizzes in HCl but does not scratch easily

One corner of hand sample shows darker crystalline calc-silicate with disseminated silvery mineral, probably arsenopyrite (compare MH-1350N-2990E).

**Thin section (Polished - No):****% Approx.****Minerals**

- 
- |       |  |
|-------|--|
| 10    | Garnet: zoned isotropic to slightly anisotropic, idiomorphic garnet porphyroblasts.  |
| 50-60 | Calcite: Uniaxial (-), color rings, variable relief, high birefringence; coarse-grained in some layers, very fine aggregate mostly, with possibly some fine-grained quartz (?) and/or diopside(?). |
| <1    | Opagues: concentrated at one end in layer of even-grained, crystalline calcite marble.   |
| 20    | Idocrase: Anomalous grey-green low birefringence, zoned, same relief as garnet, uniaxial negative to slightly biaxial, squarish outlines.  |
| 10-15 | ) Tremolite: fine-grained, acicular, low birefringence. Difficult to distinguish from wollastonite.<br>) Wollastonite: (-) 2V <40, birefringence 0.015, looks like clino-pyroxene.                 |

**Rock textures/structures:** Layers with concentrations of epidote/tremolite-wollastonite/garnet-calcite. Banding could reflect compositional layering or metamorphic differentiation. Layers appear to be somewhat deformed.**Protolith:** Siliceous limestone, with argillaceous component.**Alteration/Mineralization:** Minor sulphide mineralization in some layers. No alteration other than contact metamorphic effects.**Conditions of Formation:** (1) Deposition in mixed chemical/clastic sedimentary environment of siliceous argillaceous limestone.  
(2) Contact metamorphism in aureole of hot, relatively shallow pluton (T>600°C, P = 100 to 300 MPa or about 3-5 km depth).

**APPENDIX D**  
**ANALYTICAL RESULTS.**

## SHANGRI-LA PROJECT - MONTELLO-HEIDLEY FILE # B6-1111

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| SAMPLE#      | Mo<br>PPH | Cu<br>PPH | Pb<br>PPH | Zn<br>PPH | Ag<br>PPH | Ni<br>PPH | Co<br>PPH | Mn<br>PPH | Fe<br>% | As<br>PPH | U<br>PPH | Au<br>PPH | Th<br>PPH | Sr<br>PPH | Cd<br>PPH | Sb<br>PPH | Bi<br>PPH | V<br>PPH | Ca<br>% | P<br>% | La<br>PPH | Cr<br>PPH | Mg<br>% | Ba<br>PPH | Ti<br>% | B<br>PPH | Al<br>% | Na<br>% | K<br>% | M<br>PPH | Au8<br>PPB |
|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|---------|--------|-----------|-----------|---------|-----------|---------|----------|---------|---------|--------|----------|------------|
| MH206        | 1         | 7         | 15        | 88        | .1        | 4         | 3         | 527       | 1.58    | 16        | 5        | ND        | 3         | 151       | 1         | 2         | 2         | 48       | 1.92    | .07    | 9         | 4         | .38     | 32        | .13     | 7        | 1.47    | .34     | .21    | 2        | 2          |
| MH207        | 1         | 80        | 46        | 102       | .1        | 10        | 16        | 708       | 3.98    | 7         | 5        | ND        | 1         | 93        | 1         | 2         | 2         | 142      | 1.43    | .11    | 7         | 15        | 1.38    | 161       | .29     | 6        | 2.44    | .24     | .90    | 1        | 1          |
| MH208        | 1         | 135       | 18        | 128       | .1        | 17        | 17        | 646       | 3.22    | 5         | 5        | ND        | 2         | 50        | 1         | 2         | 2         | 104      | 2.99    | .10    | 5         | 25        | 1.13    | 331       | .20     | 5        | 2.20    | .33     | .40    | 1        | 2          |
| MH209        | 1         | 88        | 10        | 41        | .1        | 25        | 15        | 268       | 2.15    | 13        | 5        | ND        | 1         | 125       | 1         | 2         | 3         | 67       | 2.14    | .08    | 3         | 25        | .65     | 85        | .15     | 5        | 3.11    | .65     | .39    | 2        | 2          |
| MH210        | 1         | 111       | 14        | 51        | .4        | 19        | 20        | 359       | 3.56    | 9         | 5        | ND        | 1         | 173       | 1         | 4         | 3         | 71       | 2.38    | .10    | 6         | 25        | .88     | 49        | .18     | 6        | 3.16    | .59     | .16    | 1        | 4          |
| MH211        | 2         | 187       | 354       | 59        | 3.5       | 10        | 16        | 144       | 2.21    | 652       | 5        | ND        | 1         | 89        | 2         | 5         | 2         | 24       | .98     | .09    | 4         | 7         | .21     | 22        | .11     | 5        | 1.04    | .39     | .07    | 1        | 490        |
| MH212        | 3         | 195       | 8         | 42        | .3        | 9         | 23        | 263       | 3.11    | 9         | 5        | ND        | 1         | 78        | 1         | 2         | 4         | 87       | .92     | .08    | 6         | 8         | 1.16    | 37        | .21     | 2        | 1.55    | .23     | .31    | 1        | 4          |
| MH213        | 2         | 258       | 3         | 9         | .4        | 42        | 24        | 71        | 3.95    | 11        | 5        | ND        | 1         | 248       | 1         | 2         | 2         | 16       | 1.35    | .05    | 6         | 11        | .17     | 28        | .10     | 4        | 1.65    | .46     | .04    | 1        | 9          |
| MH214        | 2         | 48        | 8         | 76        | .3        | 18        | 14        | 347       | 3.36    | 28        | 5        | ND        | 2         | 505       | 1         | 2         | 2         | 81       | 3.99    | .10    | 7         | 10        | .88     | 40        | .20     | 8        | 2.31    | .43     | .50    | 1        | 1          |
| MH215        | 1         | 418       | 437       | 71        | 5.1       | 15        | 34        | 184       | 4.27    | 498       | 5        | ND        | 1         | 421       | 3         | 4         | 2         | 71       | 1.94    | .07    | 5         | 21        | 1.16    | 27        | .16     | 6        | 2.95    | .55     | .46    | 1        | 265        |
| MH216        | 1         | 56        | 15        | 32        | .4        | 9         | 14        | 338       | 2.80    | 20        | 5        | ND        | 1         | 145       | 1         | 3         | 2         | 66       | 2.45    | .06    | 5         | 8         | 1.05    | 64        | .11     | 5        | 3.09    | .57     | .07    | 1        | 1          |
| MH217        | 2         | 146       | 23        | 20        | .1        | 17        | 17        | 207       | 1.88    | 4         | 5        | ND        | 1         | 57        | 1         | 2         | 2         | 46       | 1.06    | .16    | 8         | 11        | .27     | 31        | .15     | 2        | .76     | .18     | .10    | 1        | 1          |
| MH218        | 4         | 68        | 21        | 61        | .3        | 14        | 10        | 172       | 1.10    | 3         | 5        | ND        | 1         | 59        | 1         | 2         | 2         | 22       | 1.05    | .12    | 5         | 5         | .12     | 34        | .17     | 2        | .82     | .26     | .06    | 1        | 1          |
| MH219        | 1         | 406       | 3         | 17        | .7        | 18        | 21        | 210       | 1.55    | 6         | 5        | ND        | 1         | 240       | 1         | 2         | 2         | 31       | 3.25    | .16    | 7         | 6         | .13     | 23        | .16     | 5        | 3.14    | .68     | .04    | 1        | 3          |
| MH220        | 1         | 65        | 38        | 20        | .6        | 7         | 12        | 167       | 2.46    | 180       | 5        | ND        | 1         | 91        | 1         | 5         | 2         | 35       | 1.44    | .05    | 4         | 5         | .28     | 44        | .11     | 3        | 2.06    | .42     | .06    | 1        | 25         |
| MH221        | 1         | 35        | 8         | 26        | .2        | 5         | 14        | 214       | 2.94    | 5         | 5        | ND        | 1         | 106       | 1         | 2         | 3         | 35       | 1.69    | .06    | 4         | 3         | .30     | 84        | .12     | 6        | 2.44    | .51     | .11    | 1        | 6          |
| MH222        | 1         | 65        | 10        | 27        | .7        | 9         | 21        | 194       | 4.30    | 28        | 5        | ND        | 1         | 390       | 1         | 2         | 2         | 62       | 1.42    | .08    | 3         | 10        | .77     | 18        | .16     | 6        | 2.32    | .51     | .30    | 1        | 32         |
| MH223        | 1         | 63        | 20        | 22        | .5        | 15        | 19        | 113       | 3.90    | 21        | 5        | ND        | 1         | 448       | 1         | 2         | 2         | 21       | 1.99    | .09    | 4         | 3         | .17     | 30        | .09     | 4        | 2.75    | .70     | .04    | 1        | 32         |
| MH224        | 2         | 140       | 1962      | 48        | 11.2      | 15        | 29        | 268       | 7.74    | 5134      | 7        | ND        | 3         | 230       | 3         | 10        | 2         | 30       | 4.43    | .11    | 7         | 8         | .32     | 29        | .05     | 6        | 1.81    | .14     | .05    | 1        | 975        |
| MH225        | 3         | 131       | 26        | 16        | .2        | 15        | 18        | 200       | 2.93    | 311       | 5        | ND        | 1         | 111       | 1         | 2         | 2         | 41       | 1.12    | .08    | 5         | 10        | .35     | 48        | .12     | 2        | 1.57    | .38     | .17    | 1        | 16         |
| MH226        | 2         | 44        | 22        | 55        | .1        | 4         | 13        | 453       | 3.38    | 26        | 5        | ND        | 3         | 41        | 1         | 3         | 2         | 88       | .86     | .08    | 11        | 13        | .95     | 92        | .26     | 2        | 1.89    | .21     | .23    | 1        | 6          |
| MH227        | 1         | 180       | 22        | 32        | .6        | 7         | 18        | 119       | 2.28    | 86        | 5        | ND        | 1         | 77        | 1         | 6         | 3         | 20       | 1.23    | .06    | 4         | 3         | .17     | 54        | .10     | 3        | 1.54    | .32     | .07    | 1        | 150        |
| MH228        | 68        | 408       | 4         | 7         | .4        | 52        | 15        | 40        | 1.38    | 24        | 5        | ND        | 2         | 28        | 1         | 9         | 2         | 45       | .48     | .08    | 12        | 8         | .06     | 21        | .12     | 2        | .14     | .06     | .01    | 1        | 10         |
| MH229        | 3         | 48        | 3         | 27        | .3        | 17        | 12        | 276       | 2.03    | 33        | 10       | ND        | 3         | 1095      | 1         | 6         | 3         | 24       | 9.52    | .19    | 6         | 15        | .10     | 62        | .09     | 19       | 1.86    | .55     | .08    | 1        | 29         |
| MH230        | 6         | 58        | 8         | 60        | .1        | 26        | 7         | 194       | 1.14    | 161       | 6        | ND        | 2         | 372       | 1         | 6         | 2         | 15       | 3.43    | .11    | 14        | 12        | .07     | 31        | .09     | 56       | 1.39    | .19     | .04    | 1        | 18         |
| MH231        | 2         | 116       | 12        | 21        | .1        | 4         | 11        | 174       | 3.80    | 120       | 5        | ND        | 1         | 129       | 1         | 4         | 2         | 83       | .71     | .08    | 5         | 8         | .57     | 190       | .22     | 2        | 1.09    | .20     | .27    | 1        | 5          |
| MH232        | 2         | 168       | 5         | 30        | .1        | 6         | 18        | 305       | 3.73    | 95        | 5        | ND        | 1         | 212       | 1         | 3         | 2         | 72       | 1.56    | .09    | 6         | 8         | .70     | 48        | .19     | 3        | 2.00    | .36     | .22    | 2        | 6          |
| MH233        | 2         | 17        | 29        | 73        | .8        | 4         | 1         | 253       | .79     | 3281      | 8        | ND        | 6         | 2520      | 1         | 4         | 6         | 3        | 21.78   | .04    | 9         | 4         | .08     | 61        | .02     | 27       | .78     | .08     | .01    | 1        | 795        |
| MH234        | 1         | 93        | 6         | 46        | .1        | 10        | 14        | 508       | 2.97    | 9         | 5        | ND        | 1         | 102       | 1         | 2         | 2         | 87       | 1.88    | .08    | 5         | 16        | .73     | 132       | .21     | 4        | 2.05    | .37     | .24    | 1        | 2          |
| MH235        | 1         | 142       | 8         | 14        | .2        | 12        | 23        | 181       | 3.63    | 36        | 5        | ND        | 1         | 99        | 1         | 3         | 2         | 49       | 1.06    | .08    | 4         | 8         | .32     | 15        | .11     | 2        | 1.12    | .18     | .05    | 1        | 4          |
| MH236        | 1         | 121       | 6         | 11        | .2        | 10        | 19        | 194       | 3.60    | 7         | 5        | ND        | 1         | 44        | 1         | 2         | 2         | 47       | .97     | .09    | 4         | 10        | .32     | 15        | .14     | 2        | 1.20    | .23     | .07    | 1        | 3          |
| MH237        | 2         | 143       | 5         | 45        | .3        | 21        | 23        | 272       | 3.64    | 43        | 5        | ND        | 1         | 42        | 1         | 2         | 2         | 75       | 1.10    | .11    | 6         | 37        | .81     | 25        | .18     | 3        | 1.43    | .21     | .20    | 2        | 2          |
| MH238        | 2         | 141       | 8         | 19        | .1        | 19        | 21        | 154       | 3.21    | 5         | 5        | ND        | 1         | 112       | 1         | 2         | 4         | 64       | 2.00    | .15    | 5         | 11        | .36     | 26        | .14     | 5        | 1.98    | .20     | .18    | 1        | 230        |
| MH239        | 2         | 63        | 17        | 24        | .9        | 9         | 14        | 208       | 3.60    | 833       | 5        | 3         | 2         | 217       | 1         | 14        | 2         | 47       | 3.10    | .09    | 6         | 7         | .53     | 96        | .13     | 4        | 1.69    | .17     | .07    | 1        | 5900       |
| MH240        | 2         | 124       | 1781      | 37        | 18.6      | 8         | 20        | 148       | 5.53    | 19063     | 5        | 4         | 1         | 171       | 1         | 38        | 2         | 52       | 1.33    | .08    | 2         | 8         | .59     | 57        | .07     | 2        | 1.35    | .20     | .11    | 1        | 3380       |
| MH241        | 3         | 46        | 16        | 33        | .7        | 29        | 5         | 239       | 1.24    | 83        | 9        | ND        | 5         | 1115      | 1         | 2         | 4         | 14       | 13.21   | .09    | 9         | 9         | .03     | 277       | .08     | 5        | 1.76    | .03     | .05    | 1        | 10         |
| STD C/AU-0.3 | 21        | 58        | 38        | 132       | 7.0       | 68        | 30        | 1191      | 3.95    | 42        | 16       | 8         | 32        | 48        | 17        | 17        | 20        | 62       | .48     | .11    | 36        | 59        | .88     | 174       | .08     | 35       | 1.71    | .08     | .11    | 14       | 510        |

## SHANGRI-LA PROJECT - MONTELLO-HEDLEY FILE # 86-1131

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| SAMPLE#     | Mo  | Cu  | Pb  | Zn  | Ag  | Ni  | Co  | Mn   | Fe   | As   | U   | Au  | Th  | Sr  | Cd  | Sb  | Bz  | V   | Ca   | P   | La  | Cr | Mg   | Ba  | Ti  | B  | Al   | Na  | K   | N   | Aut |
|-------------|-----|-----|-----|-----|-----|-----|-----|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|----|------|-----|-----|----|------|-----|-----|-----|-----|
|             | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM  | %    | PPM  | PPM | PPM | PPM | PPM | PPM | PPM | PPM | %   | %    | PPM | PPM | %  | PPM  | %   | PPM | %  | %    | %   | PPM | PPB |     |
| MHB616      | 1   | 109 | 26  | 57  | .2  | 27  | 21  | 588  | 4.67 | 85   | 5   | ND  | 1   | 124 | 1   | 2   | 2   | 126 | 2.23 | .10 | 4   | 34 | 1.55 | 165 | .25 | 7  | 2.74 | .48 | .55 | 1   | 13  |
| MHB6101     | 1   | 36  | 10  | 97  | .2  | 9   | 10  | 665  | 3.61 | 23   | 5   | ND  | 1   | 120 | 1   | 2   | 2   | 94  | 1.54 | .10 | 7   | 15 | .92  | 145 | .23 | 5  | 2.32 | .46 | .54 | 1   | 8   |
| MHB6102     | 1   | 167 | 7   | 37  | .2  | 21  | 26  | 272  | 2.91 | 3289 | 5   | ND  | 1   | 169 | 1   | 5   | 8   | 81  | 2.24 | .09 | 3   | 16 | .64  | 184 | .12 | 5  | 3.01 | .77 | .32 | 1   | 52  |
| MHB6103     | 1   | 39  | 15  | 75  | .1  | 8   | 6   | 447  | 3.06 | 44   | 5   | ND  | 1   | 187 | 1   | 2   | 2   | 86  | 1.59 | .08 | 6   | 13 | .37  | 58  | .18 | 8  | 1.78 | .41 | .16 | 1   | 8   |
| MHB6104     | 1   | 5   | 3   | 33  | .1  | 4   | 1   | 714  | 1.19 | 21   | 5   | ND  | 1   | 123 | 1   | 2   | 2   | 38  | 1.88 | .05 | 3   | 5  | .19  | 21  | .11 | 11 | 1.09 | .21 | .04 | 1   | 4   |
| MHB6105     | 1   | 12  | 18  | 36  | .1  | 3   | 6   | 382  | 3.00 | 67   | 5   | ND  | 1   | 111 | 1   | 2   | 2   | 67  | .82  | .05 | 5   | 4  | .33  | 25  | .14 | 11 | 1.18 | .20 | .08 | 2   | 9   |
| MHB6106     | 1   | 62  | 6   | 30  | .1  | 12  | 8   | 211  | 1.34 | 32   | 5   | ND  | 1   | 233 | 1   | 2   | 2   | 43  | 2.55 | .10 | 7   | 12 | .33  | 46  | .19 | 4  | 2.84 | .61 | .15 | 1   | 7   |
| MHB6107     | 1   | 71  | 34  | 73  | .7  | 10  | 14  | 871  | 3.61 | 9    | 8   | ND  | 3   | 110 | 1   | 2   | 6   | 118 | 5.96 | .12 | 7   | 13 | 1.15 | 295 | .24 | 7  | 1.93 | .30 | .66 | 1   | 4   |
| MHB6108     | 1   | 114 | 7   | 72  | .5  | 12  | 14  | 350  | 3.50 | 13   | 5   | ND  | 1   | 90  | 1   | 2   | 2   | 62  | 1.79 | .08 | 4   | 15 | .55  | 31  | .20 | 5  | 2.30 | .40 | .16 | 1   | 3   |
| MHB6109     | 9   | 48  | 14  | 54  | 1.7 | 38  | 5   | 115  | .67  | 70   | 13  | ND  | 5   | 432 | 1   | 7   | 2   | 146 | 8.99 | .15 | 17  | 33 | .14  | 49  | .09 | 25 | 1.71 | .51 | .10 | 1   | 19  |
| MHB6110     | 6   | 51  | 18  | 82  | .6  | 30  | 9   | 125  | 1.45 | 9    | 5   | ND  | 2   | 80  | 1   | 2   | 2   | 18  | 3.63 | .09 | 7   | 9  | .09  | 49  | .12 | 10 | 1.69 | .28 | .06 | 1   | 3   |
| MHB6111     | 1   | 11  | 9   | 50  | .1  | 3   | 7   | 469  | 3.23 | 2    | 5   | ND  | 4   | 38  | 1   | 2   | 3   | 60  | .61  | .08 | 10  | 7  | .77  | 545 | .27 | 3  | 1.38 | .19 | .53 | 1   | 2   |
| STD C/FA AU | 20  | 60  | 39  | 128 | 7.2 | 65  | 29  | 1156 | 3.93 | 41   | 18  | 7   | 31  | 46  | 17  | 15  | 22  | 60  | .48  | .10 | 36  | 55 | .88  | 169 | .08 | 38 | 1.73 | .08 | .10 | 13  | 50  |

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SM.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: ROCK CHIPS AU ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: JUNE 23 1986 DATE REPORT MAILED:

ASSAYER.....DEAN TOYE. CERTIFIED B.C. ASSAYER.

SHANGRI-LA PROJECT - MONTELLO-HEDLEY FILE # 86-1131

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Table with columns: SAMPLE#, Mo PPM, Cu PPM, Pb PPM, Zn PPM, Ag PPM, Ni PPM, Co PPM, Mn PPM, Fe PPM, As PPM, U PPM, Au PPM, Th PPM, Sr PPM, Cd PPM, Sb PPM, Bi PPM, V PPM, Ca PPM, P PPM, La PPM, Cr PPM, Mg PPM, Ba PPM, Ti PPM, B PPM, Al PPM, Na PPM, K PPM, W PPM, Au8 PPM. Rows include samples NM2 through NM205 and STD C/AU-0.5.

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZN.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: SOILS -80 MESH AU ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: JUNE 12 1986 DATE REPORT MAILED: June 16/86 ASSAYER: D. Toye, DEAN TOYE. CERTIFIED B.C. ASSAYER.

SHANGRI-LA MINERALS PROJECT - LL FILE # 86-0968

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Table with columns for 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, Au\* and rows for various sample IDs like LL 1400N 1500E to LL 1300N 1650E and a STD C/AU 0.5.



## SHANGRI-LA MINERALS PROJECT - LL FILE # B6-0968

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| SAMPLE#        | Mo<br>PPM | Cu<br>PPM | Pb<br>PPM | Zn<br>PPM | Ag<br>PPM | Ni<br>PPM | Co<br>PPM | Mn<br>PPM | Fe<br>% | As<br>PPM | U<br>PPM | Au<br>PPM | Th<br>PPM | Sr<br>PPM | Cd<br>PPM | Sb<br>PPM | Bi<br>PPM | V<br>PPM | Ca<br>% | P<br>% | La<br>PPM | Cr<br>PPM | Mg<br>% | Ba<br>PPM | Ti<br>% | B<br>PPM | Al<br>% | Na<br>% | K<br>% | W<br>PPM | Au#<br>PPB |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|---------|--------|-----------|-----------|---------|-----------|---------|----------|---------|---------|--------|----------|------------|
| LL 1300N 1750E | 1         | 30        | 11        | 65        | .1        | 11        | 8         | 531       | 2.57    | 9         | 5        | ND        | 1         | 22        | 1         | 2         | 3         | 47       | .26     | .12    | 10        | 11        | .25     | 95        | .12     | 2        | 2.65    | .02     | .04    | 1        | 2          |
| LL 1300N 1800E | 1         | 14        | 10        | 58        | .1        | 8         | 5         | 990       | 1.69    | 5         | 5        | ND        | 1         | 25        | 1         | 2         | 2         | 36       | .24     | .07    | 8         | 8         | .19     | 157       | .09     | 3        | 1.80    | .02     | .04    | 1        | 1          |
| LL 1300N 1850E | 1         | 16        | 7         | 71        | .2        | 11        | 6         | 1154      | 1.61    | 7         | 5        | ND        | 1         | 23        | 1         | 2         | 2         | 31       | .22     | .14    | 7         | 8         | .11     | 87        | .10     | 2        | 1.85    | .02     | .03    | 1        | 4          |
| LL 1300N 1900E | 1         | 18        | 12        | 61        | .1        | 12        | 7         | 664       | 2.20    | 5         | 5        | ND        | 1         | 33        | 1         | 2         | 2         | 47       | .26     | .08    | 9         | 13        | .22     | 139       | .13     | 2        | 2.45    | .03     | .05    | 1        | 2          |
| LL 1300N 1950E | 1         | 12        | 12        | 81        | .3        | 6         | 6         | 2063      | 1.11    | 2         | 5        | ND        | 1         | 48        | 1         | 2         | 3         | 22       | .36     | .06    | 5         | 7         | .14     | 261       | .07     | 2        | 1.03    | .02     | .05    | 1        | 1          |
| LL 1300N 2000E | 2         | 100       | 11        | 178       | .5        | 22        | 15        | 2334      | 2.67    | 9         | 5        | ND        | 1         | 43        | 1         | 2         | 2         | 43       | .45     | .14    | 11        | 15        | .35     | 205       | .09     | 5        | 2.34    | .02     | .06    | 1        | 1          |
| LL 1300N 2050E | 4         | 115       | 22        | 257       | .5        | 22        | 10        | 2043      | 1.14    | 21        | 5        | ND        | 1         | 109       | 3         | 2         | 3         | 32       | 2.55    | .18    | 11        | 15        | .38     | 338       | .05     | 8        | 1.35    | .03     | .14    | 1        | 3          |
| LL 1300N 2100E | 3         | 43        | 7         | 137       | .2        | 12        | 11        | 2343      | 1.67    | 14        | 5        | ND        | 1         | 127       | 1         | 2         | 2         | 28       | 1.43    | .13    | 7         | 9         | .21     | 428       | .06     | 3        | 1.60    | .02     | .05    | 1        | 1          |
| LL 1300N 2150E | 1         | 14        | 9         | 163       | .3        | 12        | 7         | 1480      | 1.92    | 4         | 5        | ND        | 1         | 51        | 1         | 2         | 2         | 34       | .48     | .17    | 8         | 13        | .24     | 214       | .05     | 2        | 1.71    | .02     | .08    | 1        | 4          |
| LL 1300N 2250E | 1         | 40        | 13        | 95        | .2        | 13        | 6         | 789       | 1.57    | 2         | 5        | ND        | 1         | 109       | 2         | 2         | 2         | 28       | .76     | .13    | 9         | 11        | .25     | 218       | .05     | 2        | 1.68    | .02     | .11    | 1        | 1          |
| LL 1300N 2300E | 1         | 35        | 14        | 70        | .3        | 14        | 7         | 550       | 2.15    | 13        | 5        | ND        | 1         | 141       | 1         | 2         | 2         | 44       | .77     | .16    | 11        | 13        | .36     | 233       | .05     | 2        | 1.98    | .02     | .17    | 1        | 1          |
| LL 1300N 2350E | 1         | 33        | 11        | 94        | .3        | 13        | 6         | 683       | 1.53    | 4         | 5        | ND        | 1         | 102       | 1         | 2         | 2         | 26       | .67     | .18    | 11        | 9         | .23     | 189       | .04     | 6        | 1.90    | .02     | .11    | 1        | 1          |
| LL 1300N 2400E | 1         | 30        | 16        | 109       | .3        | 17        | 8         | 924       | 2.44    | 33        | 5        | ND        | 1         | 136       | 1         | 2         | 2         | 42       | 1.05    | .17    | 16        | 15        | .37     | 290       | .10     | 5        | 2.76    | .04     | .21    | 1        | 1          |
| LL 1300N 2450E | 1         | 26        | 17        | 135       | .3        | 28        | 8         | 592       | 2.39    | 10        | 5        | ND        | 1         | 246       | 1         | 2         | 2         | 35       | .81     | .12    | 10        | 15        | .33     | 222       | .07     | 4        | 2.45    | .05     | .07    | 1        | 1          |
| LL 1300N 2500E | 1         | 18        | 11        | 111       | .2        | 14        | 6         | 810       | 2.17    | 4         | 5        | ND        | 1         | 124       | 1         | 2         | 2         | 36       | .50     | .08    | 9         | 12        | .32     | 271       | .13     | 4        | 1.98    | .04     | .18    | 1        | 1          |
| LL 1300N 2550E | 1         | 23        | 12        | 114       | .2        | 16        | 9         | 885       | 2.60    | 10        | 5        | ND        | 1         | 71        | 1         | 2         | 4         | 53       | .39     | .13    | 13        | 20        | .38     | 266       | .09     | 2        | 3.13    | .02     | .15    | 1        | 2          |
| LL 1300N 2600E | 1         | 41        | 17        | 75        | .4        | 31        | 11        | 479       | 2.93    | 17        | 5        | ND        | 2         | 351       | 1         | 2         | 3         | 56       | 1.09    | .05    | 21        | 24        | .52     | 270       | .13     | 3        | 2.72    | .09     | .18    | 1        | 1          |
| LL 1300N 2650E | 1         | 43        | 19        | 91        | .3        | 35        | 12        | 478       | 3.28    | 13        | 5        | ND        | 3         | 152       | 1         | 2         | 2         | 71       | .52     | .15    | 17        | 25        | .57     | 249       | .16     | 2        | 3.02    | .03     | .11    | 1        | 1          |
| LL 1300N 2700E | 1         | 14        | 8         | 82        | .2        | 12        | 6         | 543       | 1.72    | 3         | 5        | ND        | 1         | 54        | 1         | 2         | 2         | 35       | .31     | .10    | 7         | 12        | .22     | 150       | .10     | 5        | 1.70    | .03     | .08    | 1        | 1          |
| LL 1300N 2750E | 1         | 11        | 8         | 95        | .2        | 13        | 7         | 456       | 2.29    | 6         | 5        | ND        | 1         | 53        | 1         | 2         | 3         | 49       | .39     | .09    | 7         | 13        | .31     | 158       | .14     | 3        | 1.82    | .02     | .07    | 1        | 5          |
| LL 1300N 2800E | 1         | 21        | 12        | 85        | .3        | 15        | 6         | 280       | 2.06    | 5         | 5        | ND        | 1         | 81        | 1         | 2         | 2         | 39       | .50     | .09    | 9         | 13        | .32     | 199       | .13     | 3        | 2.17    | .03     | .07    | 1        | 1          |
| LL 1300N 2850E | 1         | 20        | 9         | 95        | .2        | 21        | 7         | 687       | 2.03    | 2         | 5        | ND        | 1         | 149       | 1         | 2         | 2         | 29       | .58     | .05    | 11        | 10        | .26     | 218       | .11     | 6        | 2.35    | .04     | .10    | 1        | 1          |
| LL 1300N 2900E | 1         | 36        | 13        | 79        | .3        | 22        | 8         | 515       | 2.23    | 13        | 5        | ND        | 2         | 380       | 1         | 2         | 2         | 45       | 3.88    | .06    | 9         | 16        | .45     | 202       | .10     | 5        | 1.87    | .06     | .10    | 1        | 1          |
| LL 1300N 2950E | 1         | 26        | 12        | 73        | .2        | 28        | 9         | 372       | 2.57    | 30        | 5        | ND        | 1         | 106       | 1         | 2         | 2         | 49       | .53     | .09    | 13        | 20        | .38     | 158       | .11     | 4        | 2.78    | .04     | .06    | 1        | 1          |
| LL 1300N 3000E | 1         | 31        | 11        | 152       | .5        | 50        | 12        | 489       | 3.21    | 9         | 5        | ND        | 1         | 129       | 1         | 3         | 2         | 35       | .82     | .06    | 15        | 17        | .38     | 268       | .09     | 5        | 2.37    | .03     | .07    | 1        | 1          |
| LL 1200N 1500E | 1         | 14        | 7         | 49        | .1        | 7         | 5         | 406       | 1.67    | 10        | 5        | ND        | 1         | 25        | 1         | 2         | 2         | 35       | .25     | .16    | 4         | 8         | .13     | 114       | .11     | 2        | 1.42    | .03     | .04    | 1        | 1          |
| LL 1200N 1550E | 1         | 19        | 7         | 74        | .1        | 11        | 8         | 447       | 2.17    | 11        | 5        | ND        | 1         | 28        | 1         | 2         | 2         | 45       | .25     | .07    | 5         | 13        | .23     | 120       | .13     | 4        | 2.62    | .03     | .04    | 1        | 1          |
| LL 1200N 1600E | 1         | 11        | 5         | 95        | .2        | 13        | 6         | 323       | 2.00    | 7         | 5        | ND        | 1         | 19        | 1         | 2         | 2         | 40       | .19     | .15    | 5         | 11        | .15     | 73        | .12     | 3        | 2.21    | .02     | .04    | 1        | 2          |
| LL 1200N 1650E | 1         | 14        | 5         | 66        | .2        | 7         | 6         | 518       | 1.84    | 3         | 5        | ND        | 1         | 24        | 1         | 2         | 2         | 42       | .28     | .07    | 4         | 10        | .17     | 104       | .10     | 3        | 1.38    | .02     | .04    | 1        | 2          |
| LL 1200N 1700E | 1         | 24        | 6         | 79        | .2        | 18        | 9         | 394       | 2.20    | 12        | 5        | ND        | 1         | 21        | 1         | 2         | 2         | 42       | .20     | .10    | 5         | 11        | .19     | 83        | .12     | 3        | 2.32    | .02     | .03    | 1        | 1          |
| LL 1200N 1750E | 1         | 22        | 5         | 46        | .1        | 10        | 7         | 299       | 1.99    | 8         | 5        | ND        | 1         | 21        | 1         | 2         | 3         | 39       | .18     | .08    | 7         | 11        | .22     | 114       | .13     | 3        | 2.84    | .03     | .03    | 1        | 1          |
| LL 1200N 1800E | 1         | 112       | 6         | 100       | .3        | 17        | 16        | 1154      | 2.50    | 67        | 5        | ND        | 1         | 35        | 1         | 3         | 2         | 42       | .38     | .10    | 7         | 11        | .25     | 156       | .10     | 5        | 2.42    | .02     | .05    | 1        | 1          |
| LL 1200N 1850E | 1         | 80        | 7         | 82        | .3        | 16        | 10        | 1122      | 2.10    | 50        | 5        | ND        | 1         | 36        | 1         | 2         | 2         | 35       | .38     | .19    | 6         | 10        | .21     | 161       | .08     | 4        | 2.35    | .02     | .05    | 2        | 1          |
| LL 1200N 1900E | 1         | 30        | 9         | 78        | .2        | 12        | 9         | 799       | 2.08    | 11        | 5        | ND        | 1         | 48        | 1         | 2         | 2         | 42       | .49     | .07    | 6         | 11        | .28     | 229       | .11     | 4        | 2.20    | .03     | .07    | 1        | 1          |
| LL 1200N 1950E | 1         | 46        | 5         | 112       | .3        | 17        | 9         | 1108      | 2.29    | 11        | 5        | ND        | 1         | 37        | 1         | 2         | 2         | 48       | .29     | .07    | 6         | 12        | .37     | 276       | .13     | 3        | 2.31    | .02     | .05    | 1        | 1          |
| LL 1200N 2000E | 1         | 27        | 13        | 90        | .2        | 13        | 7         | 809       | 1.90    | 6         | 5        | ND        | 1         | 58        | 1         | 2         | 2         | 35       | .39     | .09    | 9         | 11        | .24     | 211       | .11     | 5        | 2.60    | .03     | .09    | 1        | 1          |
| STD C/AU 0.5   | 21        | 59        | 42        | 137       | 7.0       | 71        | 30        | 1199      | 3.98    | 43        | 19       | 7         | 34        | 48        | 18        | 16        | 19        | 61       | .48     | .11    | 37        | 60        | .88     | 183       | .08     | 39       | 1.73    | .06     | .11    | 14       | 500        |

SHANGRI-LA MINERALS PROJECT - LL FILE # 06-096B

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| 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   | Au# |
|----------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|------|-----|-----|-----|----|-------|-----|-----|----|-----|-----|-----|-----|------|-----|-----|-----|-----|
|                | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM  | I    | PPM | PPM | PPM | PPM | PPM  | PPM | PPM | PPM | I  | I     | PPM | PPM | I  | PPM | I   | PPM | I   | I    | I   | I   | PPM | PPB |
| LL 1200N 2050E | 3   | 281 | 32  | 190 | 1.0 | 32  | 22  | 1287 | 2.52 | 68  | 5   | ND  | 1   | 47   | 2   | 2   | 2   | 37 | .74   | .22 | 9   | 14 | .24 | 122 | .06 | 5   | 2.08 | .02 | .07 | 1   | 37  |
| LL 1200N 2100E | 4   | 63  | 8   | 114 | .3  | 13  | 7   | 1361 | 1.23 | 15  | 5   | ND  | 1   | 62   | 2   | 2   | 2   | 18 | .68   | .17 | 4   | 6  | .16 | 169 | .03 | 4   | 1.23 | .02 | .06 | 1   | 5   |
| LL 1200N 2150E | 1   | 38  | 11  | 232 | .2  | 48  | 7   | 740  | 1.97 | 11  | 5   | ND  | 1   | 74   | 1   | 2   | 2   | 24 | .76   | .19 | 5   | 13 | .30 | 158 | .06 | 6   | 2.02 | .03 | .06 | 1   | 1   |
| LL 1200N 2200E | 1   | 35  | 18  | 113 | .1  | 20  | 8   | 666  | 2.43 | 13  | 5   | ND  | 1   | 140  | 1   | 2   | 2   | 47 | .76   | .11 | 9   | 18 | .41 | 218 | .08 | 3   | 2.21 | .04 | .08 | 1   | 1   |
| LL 1200N 2250E | 1   | 58  | 12  | 119 | .6  | 24  | 8   | 552  | 2.11 | 11  | 9   | ND  | 2   | 383  | 1   | 3   | 2   | 25 | 4.18  | .18 | 8   | 8  | .25 | 103 | .05 | 8   | 1.50 | .07 | .12 | 1   | 5   |
| LL 1200N 2300E | 1   | 24  | 10  | 120 | .1  | 10  | 7   | 837  | 1.93 | 8   | 5   | ND  | 1   | 108  | 1   | 2   | 2   | 37 | .63   | .11 | 7   | 14 | .26 | 184 | .07 | 4   | 1.80 | .02 | .16 | 1   | 1   |
| LL 1200N 2350E | 1   | 32  | 11  | 86  | .1  | 12  | 7   | 596  | 2.05 | 9   | 5   | ND  | 1   | 117  | 1   | 2   | 2   | 41 | .67   | .14 | 8   | 16 | .31 | 200 | .07 | 4   | 1.97 | .02 | .19 | 1   | 1   |
| LL 1200N 2400E | 1   | 36  | 13  | 132 | .2  | 19  | 7   | 772  | 2.08 | 9   | 5   | ND  | 1   | 105  | 1   | 2   | 2   | 37 | .73   | .15 | 8   | 14 | .30 | 227 | .08 | 5   | 2.03 | .04 | .16 | 1   | 1   |
| LL 1200N 2450E | 1   | 24  | 12  | 119 | .3  | 15  | 6   | 601  | 1.89 | 5   | 5   | ND  | 1   | 108  | 1   | 2   | 2   | 31 | .64   | .14 | 8   | 14 | .28 | 183 | .07 | 5   | 1.92 | .03 | .16 | 1   | 1   |
| LL 1200N 2500E | 1   | 22  | 11  | 151 | .1  | 11  | 5   | 881  | 1.39 | 2   | 5   | ND  | 1   | 94   | 1   | 2   | 2   | 22 | .55   | .04 | 4   | 12 | .19 | 157 | .07 | 4   | 1.14 | .03 | .12 | 1   | 8   |
| LL 1200N 2550E | 1   | 19  | 7   | 119 | .1  | 13  | 5   | 667  | 1.83 | 6   | 5   | ND  | 1   | 81   | 1   | 2   | 2   | 30 | .45   | .17 | 5   | 12 | .27 | 283 | .12 | 5   | 1.91 | .03 | .14 | 1   | 1   |
| LL 1200N 2600E | 1   | 31  | 16  | 96  | .2  | 18  | 7   | 592  | 2.02 | 8   | 5   | ND  | 1   | 189  | 1   | 2   | 2   | 34 | .73   | .19 | 8   | 15 | .32 | 193 | .07 | 4   | 1.82 | .05 | .17 | 1   | 3   |
| LL 1200N 2650E | 1   | 41  | 17  | 109 | .3  | 13  | 9   | 748  | 2.26 | 8   | 5   | ND  | 1   | 230  | 1   | 2   | 2   | 39 | .89   | .10 | 10  | 17 | .35 | 208 | .09 | 6   | 1.89 | .05 | .26 | 1   | 1   |
| LL 1200N 2700E | 2   | 22  | 6   | 85  | .2  | 12  | 9   | 666  | 2.70 | 3   | 5   | ND  | 3   | 74   | 1   | 2   | 2   | 56 | .39   | .06 | 9   | 13 | .54 | 299 | .22 | 3   | 2.31 | .03 | .28 | 1   | 1   |
| LL 1200N 2750E | 2   | 27  | 11  | 121 | .3  | 28  | 7   | 624  | 2.33 | 4   | 5   | ND  | 1   | 265  | 1   | 2   | 2   | 28 | .47   | .11 | 8   | 11 | .21 | 178 | .09 | 3   | 2.61 | .04 | .10 | 1   | 1   |
| LL 1200N 2800E | 1   | 48  | 11  | 96  | .6  | 30  | 9   | 548  | 2.36 | 14  | 5   | ND  | 1   | 649  | 1   | 2   | 2   | 29 | 2.29  | .10 | 11  | 12 | .31 | 184 | .08 | 6   | 2.13 | .12 | .12 | 1   | 2   |
| LL 1200N 2850E | 1   | 19  | 7   | 54  | .3  | 10  | 2   | 222  | .88  | 2   | 9   | ND  | 4   | 1087 | 1   | 2   | 4   | 5  | 13.06 | .10 | 3   | 3  | .07 | 183 | .02 | 5   | .64  | .04 | .05 | 1   | 1   |
| LL 1200N 2900E | 1   | 33  | 14  | 100 | .4  | 25  | 9   | 573  | 2.50 | 10  | 5   | ND  | 1   | 257  | 1   | 2   | 2   | 40 | 1.28  | .11 | 9   | 17 | .37 | 166 | .07 | 6   | 1.92 | .05 | .15 | 1   | 1   |
| LL 1200N 2950E | 1   | 28  | 2   | 59  | .2  | 15  | 3   | 132  | .84  | 4   | 7   | ND  | 4   | 1592 | 1   | 2   | 5   | 4  | 19.35 | .08 | 3   | 2  | .05 | 43  | .01 | 8   | .48  | .04 | .03 | 1   | 3   |
| LL 1200N 3000E | 1   | 51  | 13  | 77  | .5  | 23  | 11  | 497  | 2.18 | 26  | 5   | ND  | 1   | 332  | 1   | 2   | 3   | 34 | 2.12  | .10 | 10  | 12 | .35 | 177 | .08 | 7   | 1.76 | .06 | .17 | 1   | 2   |
| LL 1000N 0E    | 1   | 13  | 15  | 42  | .2  | 6   | 3   | 220  | 1.51 | 7   | 5   | ND  | 1   | 42   | 1   | 2   | 2   | 33 | .34   | .11 | 2   | 8  | .11 | 69  | .09 | 2   | 1.45 | .02 | .04 | 1   | 1   |
| LL 1000N 50E   | 1   | 5   | 9   | 32  | .1  | 3   | 2   | 259  | .99  | 3   | 5   | ND  | 1   | 18   | 1   | 2   | 2   | 24 | .16   | .05 | 2   | 4  | .06 | 54  | .08 | 2   | .61  | .02 | .02 | 1   | 1   |
| LL 1000N 100E  | 1   | 4   | 9   | 14  | .2  | 2   | 1   | 35   | .48  | 2   | 5   | ND  | 1   | 14   | 1   | 2   | 2   | 13 | .17   | .03 | 2   | 3  | .04 | 16  | .07 | 2   | .54  | .02 | .02 | 1   | 1   |
| LL 1000N 150E  | 1   | 9   | 9   | 36  | .1  | 4   | 4   | 106  | 1.89 | 5   | 5   | ND  | 1   | 13   | 1   | 2   | 2   | 44 | .10   | .04 | 2   | 9  | .12 | 35  | .11 | 2   | 1.18 | .02 | .02 | 1   | 1   |
| LL 1000N 200E  | 1   | 7   | 12  | 59  | .1  | 4   | 3   | 772  | 1.40 | 2   | 5   | ND  | 1   | 19   | 1   | 2   | 2   | 33 | .15   | .07 | 2   | 6  | .06 | 110 | .10 | 2   | .96  | .02 | .02 | 1   | 1   |
| LL 1000N 250E  | 1   | 10  | 14  | 44  | .1  | 6   | 4   | 188  | 1.89 | 7   | 5   | ND  | 1   | 20   | 1   | 2   | 2   | 45 | .14   | .06 | 3   | 9  | .12 | 77  | .12 | 3   | 1.78 | .02 | .03 | 1   | 1   |
| LL 1000N 300E  | 2   | 21  | 16  | 79  | .1  | 9   | 6   | 274  | 2.27 | 19  | 5   | ND  | 1   | 31   | 1   | 2   | 2   | 47 | .26   | .12 | 4   | 12 | .22 | 69  | .09 | 2   | 2.14 | .02 | .04 | 1   | 1   |
| LL 1000N 350E  | 1   | 28  | 22  | 73  | .3  | 11  | 7   | 542  | 2.16 | 11  | 5   | ND  | 1   | 99   | 1   | 2   | 2   | 46 | .75   | .10 | 5   | 11 | .22 | 104 | .12 | 3   | 2.04 | .03 | .07 | 1   | 1   |
| LL 1000N 400E  | 1   | 66  | 9   | 88  | .3  | 13  | 14  | 1292 | 2.72 | 11  | 5   | ND  | 1   | 48   | 1   | 2   | 2   | 68 | .33   | .16 | 8   | 13 | .33 | 103 | .09 | 2   | 2.03 | .02 | .06 | 1   | 1   |
| LL 1000N 550E  | 1   | 18  | 6   | 53  | .1  | 7   | 7   | 676  | 2.01 | 9   | 5   | ND  | 1   | 26   | 1   | 2   | 2   | 47 | .23   | .06 | 5   | 11 | .21 | 91  | .09 | 3   | 1.42 | .02 | .04 | 1   | 1   |
| LL 1000N 700E  | 1   | 21  | 16  | 75  | .2  | 9   | 7   | 1766 | 1.87 | 3   | 5   | ND  | 1   | 27   | 1   | 2   | 2   | 35 | .20   | .11 | 3   | 8  | .11 | 93  | .09 | 2   | 1.61 | .02 | .03 | 1   | 1   |
| LL 1000N 750E  | 2   | 74  | 12  | 50  | .3  | 6   | 13  | 887  | 1.45 | 5   | 5   | ND  | 1   | 23   | 1   | 2   | 2   | 42 | .29   | .08 | 23  | 10 | .13 | 42  | .09 | 2   | 2.32 | .03 | .03 | 1   | 1   |
| LL 1000N 800E  | 1   | 9   | 15  | 60  | .1  | 6   | 5   | 576  | 1.62 | 2   | 5   | ND  | 1   | 17   | 1   | 2   | 2   | 36 | .14   | .09 | 4   | 8  | .10 | 87  | .11 | 2   | 1.78 | .02 | .03 | 1   | 1   |
| LL 1000N 850E  | 1   | 15  | 18  | 54  | .1  | 9   | 5   | 570  | 1.76 | 4   | 5   | ND  | 1   | 17   | 1   | 2   | 2   | 37 | .13   | .11 | 4   | 10 | .16 | 97  | .14 | 2   | 2.54 | .02 | .03 | 1   | 1   |
| LL 1000N 900E  | 1   | 8   | 6   | 80  | .1  | 6   | 5   | 581  | 1.78 | 2   | 5   | ND  | 1   | 14   | 1   | 2   | 2   | 41 | .15   | .10 | 3   | 8  | .11 | 41  | .11 | 2   | 1.30 | .02 | .03 | 1   | 7   |
| LL 1000N 950E  | 1   | 21  | 8   | 105 | .1  | 10  | 7   | 1633 | 2.18 | 7   | 5   | ND  | 1   | 17   | 1   | 2   | 2   | 48 | .18   | .11 | 5   | 11 | .18 | 100 | .12 | 2   | 1.87 | .02 | .03 | 1   | 1   |
| STD C/AU 0.5   | 22  | 63  | 41  | 139 | 7.0 | 75  | 30  | 1215 | 3.97 | 44  | 18  | 8   | 35  | 50   | 18  | 16  | 21  | 62 | .48   | .11 | 39  | 62 | .88 | 180 | .09 | .37 | 1.73 | .06 | .11 | 13  | 495 |

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| SAMPLE#        | Mo<br>PPM | Cu<br>PPM | Pb<br>PPM | Zn<br>PPM | Ag<br>PPM | Ni<br>PPM | Co<br>PPM | Mn<br>PPM | Fe<br>% | As<br>PPM | U<br>PPM | Au<br>PPM | Th<br>PPM | Sr<br>PPM | Cd<br>PPM | Sb<br>PPM | Bi<br>PPM | V<br>PPM | Ca<br>% | P<br>% | La<br>PPM | Cr<br>PPM | Hq<br>% | Ba<br>PPM | Ti<br>% | B<br>PPM | Al<br>% | Na<br>% | K<br>% | M<br>PPM | Au#<br>PPB |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|---------|--------|-----------|-----------|---------|-----------|---------|----------|---------|---------|--------|----------|------------|
| LL 1000N 1000E | 1         | 31        | 15        | 111       | .1        | 13        | 10        | 927       | 2.37    | 2         | 5        | ND        | 1         | 27        | 1         | 2         | 2         | 52       | .28     | .13    | 4         | 16        | .25     | 142       | .15     | 2        | 2.67    | .03     | .05    | 1        | 2          |
| LL 1000N 1100E | 1         | 69        | 9         | 135       | .1        | 31        | 33        | 973       | 5.32    | 4         | 5        | ND        | 1         | 24        | 1         | 2         | 2         | 70       | .29     | .10    | 2         | 22        | .46     | 115       | .16     | 2        | 2.48    | .04     | .06    | 1        | 2          |
| LL 1000N 1150E | 1         | 75        | 17        | 59        | .1        | 23        | 22        | 818       | 4.52    | 2         | 5        | ND        | 1         | 39        | 1         | 2         | 2         | 62       | .42     | .10    | 2         | 23        | .44     | 111       | .12     | 2        | 2.06    | .04     | .07    | 1        | 1          |
| LL 900N 1200E  | 1         | 41        | 15        | 82        | .2        | 14        | 11        | 1191      | 2.44    | 4         | 5        | ND        | 1         | 75        | 1         | 2         | 2         | 41       | .73     | .14    | 5         | 12        | .31     | 138       | .08     | 2        | 2.11    | .03     | .09    | 1        | 1          |
| LL 900N 1250E  | 1         | 45        | 17        | 84        | .2        | 15        | 10        | 843       | 2.58    | 3         | 5        | ND        | 1         | 79        | 1         | 2         | 2         | 47       | .78     | .15    | 5         | 15        | .36     | 175       | .07     | 2        | 2.17    | .04     | .09    | 1        | 1          |
| LL 900N 1300E  | 1         | 23        | 17        | 85        | .2        | 9         | 8         | 972       | 1.84    | 2         | 5        | ND        | 1         | 62        | 1         | 2         | 2         | 31       | .59     | .14    | 5         | 10        | .21     | 141       | .08     | 2        | 2.41    | .04     | .06    | 1        | 1          |
| LL 900N 1350E  | 1         | 36        | 16        | 107       | .2        | 11        | 11        | 817       | 2.26    | 12        | 5        | ND        | 1         | 51        | 1         | 2         | 4         | 39       | .51     | .17    | 7         | 10        | .27     | 130       | .08     | 2        | 2.89    | .04     | .07    | 1        | 1          |
| LL 900N 1400E  | 1         | 26        | 4         | 98        | .1        | 13        | 8         | 960       | 1.95    | 4         | 5        | ND        | 1         | 81        | 1         | 2         | 2         | 37       | .80     | .18    | 5         | 11        | .29     | 146       | .06     | 6        | 2.05    | .05     | .10    | 1        | 1          |
| LL 900N 1450E  | 1         | 20        | 5         | 101       | .3        | 10        | 6         | 976       | 1.66    | 7         | 5        | ND        | 1         | 70        | 1         | 2         | 2         | 28       | .85     | .21    | 6         | 10        | .20     | 162       | .05     | 6        | 2.20    | .04     | .08    | 1        | 1          |
| LL 900N 1500E  | 1         | 31        | 8         | 74        | .1        | 14        | 8         | 614       | 2.38    | 11        | 5        | ND        | 1         | 90        | 1         | 2         | 2         | 52       | .75     | .14    | 7         | 15        | .36     | 200       | .12     | 2        | 3.06    | .06     | .11    | 1        | 1          |
| LL 900N 1550E  | 1         | 27        | 8         | 123       | .2        | 12        | 7         | 895       | 1.91    | 6         | 5        | ND        | 1         | 79        | 1         | 2         | 2         | 36       | .76     | .21    | 5         | 12        | .28     | 149       | .06     | 5        | 2.07    | .05     | .06    | 1        | 1          |
| LL 900N 1600E  | 1         | 42        | 8         | 203       | .3        | 11        | 7         | 1200      | 1.48    | 2         | 5        | ND        | 1         | 56        | 2         | 2         | 2         | 28       | .72     | .12    | 4         | 10        | .20     | 181       | .05     | 3        | 1.34    | .04     | .07    | 1        | 3          |
| LL 900N 1650E  | 1         | 50        | 6         | 179       | .3        | 15        | 14        | 1694      | 2.66    | 23        | 5        | ND        | 1         | 91        | 1         | 2         | 3         | 45       | .88     | .22    | 5         | 12        | .31     | 240       | .07     | 5        | 2.36    | .03     | .07    | 1        | 1          |
| LL 900N 1700E  | 1         | 41        | 14        | 100       | .2        | 17        | 13        | 1110      | 2.74    | 22        | 5        | ND        | 1         | 63        | 1         | 2         | 2         | 46       | .64     | .18    | 6         | 13        | .32     | 188       | .08     | 2        | 2.80    | .04     | .08    | 1        | 1          |
| LL 900N 1750E  | 1         | 36        | 8         | 129       | .2        | 13        | 12        | 1645      | 2.57    | 9         | 5        | ND        | 1         | 62        | 1         | 2         | 2         | 48       | .60     | .14    | 5         | 13        | .32     | 233       | .09     | 4        | 2.20    | .04     | .07    | 1        | 1          |
| LL 900N 1800E  | 1         | 32        | 10        | 117       | .3        | 16        | 8         | 786       | 2.04    | 8         | 5        | ND        | 1         | 73        | 1         | 2         | 2         | 39       | .74     | .12    | 4         | 12        | .29     | 184       | .09     | 5        | 2.18    | .04     | .12    | 1        | 1          |
| LL 900N 1850E  | 1         | 35        | 12        | 125       | .3        | 11        | 9         | 1123      | 2.41    | 8         | 5        | ND        | 1         | 76        | 1         | 2         | 2         | 48       | .66     | .10    | 5         | 15        | .33     | 225       | .12     | 3        | 2.20    | .04     | .18    | 1        | 1          |
| LL 900N 1900E  | 1         | 37        | 8         | 124       | .5        | 15        | 9         | 977       | 2.07    | 12        | 5        | ND        | 1         | 59        | 1         | 2         | 2         | 38       | .80     | .17    | 5         | 10        | .28     | 184       | .10     | 2        | 2.27    | .05     | .12    | 1        | 1          |
| LL 900N 1950E  | 2         | 38        | 16        | 216       | .2        | 14        | 8         | 993       | 1.74    | 8         | 5        | ND        | 1         | 61        | 2         | 3         | 2         | 31       | .71     | .19    | 5         | 11        | .23     | 201       | .06     | 3        | 2.10    | .04     | .08    | 1        | 1          |
| LL 900N 2000E  | 2         | 43        | 7         | 317       | .2        | 20        | 8         | 1336      | 1.77    | 17        | 5        | ND        | 1         | 42        | 4         | 2         | 2         | 30       | .62     | .17    | 3         | 10        | .22     | 164       | .06     | 3        | 1.77    | .03     | .07    | 1        | 1          |
| LL 900N 2050E  | 2         | 40        | 9         | 222       | .3        | 22        | 7         | 622       | 1.73    | 19        | 5        | ND        | 1         | 62        | 2         | 2         | 4         | 27       | 1.17    | .26    | 5         | 11        | .24     | 144       | .06     | 3        | 1.94    | .04     | .11    | 1        | 1          |
| LL 900N 2100E  | 1         | 45        | 8         | 138       | .3        | 19        | 9         | 850       | 1.89    | 24        | 5        | ND        | 1         | 84        | 1         | 2         | 4         | 36       | 1.10    | .16    | 5         | 12        | .29     | 191       | .08     | 3        | 2.00    | .04     | .14    | 1        | 2          |
| LL 900N 2150E  | 1         | 40        | 4         | 119       | .4        | 19        | 7         | 868       | 1.76    | 14        | 5        | ND        | 1         | 86        | 1         | 2         | 2         | 31       | .92     | .19    | 4         | 11        | .25     | 208       | .06     | 4        | 1.91    | .04     | .10    | 1        | 1          |
| LL 900N 2200E  | 1         | 24        | 3         | 162       | .2        | 9         | 7         | 884       | 1.80    | 10        | 5        | ND        | 1         | 67        | 1         | 3         | 2         | 33       | .80     | .39    | 4         | 11        | .21     | 284       | .08     | 4        | 1.87    | .04     | .10    | 1        | 1          |
| LL 900N 2250E  | 1         | 39        | 10        | 71        | .3        | 15        | 8         | 557       | 2.12    | 6         | 5        | ND        | 1         | 114       | 1         | 2         | 2         | 45       | .86     | .11    | 6         | 15        | .33     | 196       | .11     | 3        | 2.14    | .07     | .18    | 1        | 1          |
| LL 900N 2300E  | 1         | 47        | 4         | 263       | .2        | 18        | 7         | 521       | 1.98    | 28        | 5        | ND        | 1         | 111       | 1         | 2         | 2         | 32       | 1.06    | .13    | 6         | 14        | .25     | 209       | .11     | 3        | 2.42    | .05     | .13    | 1        | 1          |
| LL 900N 2350E  | 1         | 24        | 8         | 124       | .3        | 12        | 6         | 918       | 1.98    | 6         | 5        | ND        | 1         | 115       | 1         | 2         | 2         | 35       | .78     | .17    | 7         | 13        | .28     | 215       | .09     | 6        | 2.42    | .04     | .14    | 1        | 1          |
| LL 900N 2400E  | 1         | 16        | 6         | 176       | .2        | 18        | 6         | 903       | 1.91    | 3         | 5        | ND        | 1         | 71        | 1         | 2         | 2         | 33       | .45     | .17    | 6         | 14        | .26     | 182       | .10     | 2        | 2.34    | .04     | .10    | 1        | 1          |
| LL 900N 2450E  | 1         | 13        | 2         | 174       | .3        | 10        | 4         | 848       | 1.42    | 3         | 5        | ND        | 1         | 49        | 1         | 2         | 2         | 26       | .41     | .24    | 4         | 9         | .19     | 179       | .07     | 3        | 1.37    | .04     | .12    | 1        | 1          |
| LL 900N 2500E  | 1         | 16        | 9         | 118       | .3        | 13        | 6         | 604       | 1.78    | 7         | 5        | ND        | 1         | 97        | 1         | 2         | 2         | 37       | .57     | .17    | 6         | 14        | .25     | 180       | .11     | 2        | 1.61    | .05     | .13    | 1        | 2          |
| LL 900N 2550E  | 1         | 19        | 12        | 156       | .2        | 15        | 6         | 886       | 1.77    | 5         | 5        | ND        | 1         | 99        | 1         | 2         | 2         | 31       | .73     | .12    | 6         | 15        | .27     | 194       | .08     | 6        | 1.75    | .05     | .13    | 1        | 1          |
| LL 900N 2600E  | 1         | 34        | 5         | 234       | .3        | 14        | 7         | 1603      | 1.43    | 6         | 5        | ND        | 1         | 172       | 1         | 2         | 2         | 24       | 1.36    | .19    | 5         | 11        | .21     | 307       | .08     | 11       | 1.33    | .05     | .20    | 1        | 1          |
| LL 900N 2650E  | 1         | 13        | 10        | 106       | .2        | 13        | 6         | 568       | 1.74    | 9         | 5        | ND        | 1         | 87        | 1         | 2         | 2         | 30       | .65     | .17    | 5         | 13        | .21     | 151       | .11     | 3        | 1.90    | .05     | .09    | 1        | 1          |
| LL 900N 2700E  | 1         | 14        | 7         | 92        | .1        | 17        | 5         | 587       | 1.89    | 5         | 5        | ND        | 1         | 146       | 1         | 2         | 2         | 31       | .51     | .08    | 6         | 15        | .21     | 164       | .13     | 2        | 1.98    | .06     | .14    | 1        | 1          |
| LL 900N 2750E  | 1         | 26        | 6         | 145       | .2        | 16        | 7         | 1267      | 1.96    | 5         | 5        | ND        | 1         | 162       | 1         | 2         | 2         | 32       | .61     | .06    | 6         | 13        | .27     | 266       | .12     | 2        | 1.78    | .06     | .14    | 1        | 1          |
| LL 900N 2800E  | 1         | 14        | 13        | 69        | .1        | 15        | 6         | 660       | 1.73    | 6         | 5        | ND        | 1         | 150       | 1         | 2         | 2         | 32       | .82     | .02    | 5         | 15        | .24     | 146       | .12     | 3        | 1.65    | .07     | .11    | 1        | 1          |
| STD C/AU 0.5   | 21        | 59        | 43        | 137       | 7.1       | 74        | 31        | 1201      | 3.99    | 39        | 20       | 8         | 33        | 48        | 19        | 16        | 18        | 61       | .48     | .11    | 38        | 61        | .88     | 183       | .09     | 37       | 1.73    | .06     | .12    | 13       | 495        |

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| SAMPLE#       | Mo<br>PPM | Cu<br>PPM | Pb<br>PPM | Zn<br>PPM | Ag<br>PPM | Ni<br>PPM | Co<br>PPM | Mn<br>PPM | Fe<br>% | As<br>PPM | U<br>PPM | Au<br>PPM | Th<br>PPM | Sr<br>PPM | Cd<br>PPM | Sb<br>PPM | Bi<br>PPM | V<br>PPM | Ca<br>% | P<br>% | La<br>PPM | Cr<br>PPM | Mg<br>% | Ba<br>PPM | Ti<br>% | B<br>PPM | Al<br>% | Na<br>% | K<br>% | M<br>PPM | Au#<br>PPM |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|---------|--------|-----------|-----------|---------|-----------|---------|----------|---------|---------|--------|----------|------------|
| LL 900N 2850E | 1         | 11        | 2         | 105       | .1        | 14        | 4         | 603       | 1.47    | 5         | 5        | ND        | 1         | 77        | 1         | 2         | 2         | 24       | .47     | .15    | 5         | 10        | .16     | 131       | .09     | 4        | 1.40    | .04     | .09    | 1        | 2          |
| LL 900N 2900E | 1         | 20        | 12        | 121       | .2        | 14        | 6         | 773       | 1.53    | 6         | 5        | ND        | 1         | 119       | 1         | 2         | 2         | 24       | .75     | .17    | 4         | 12        | .20     | 183       | .08     | 7        | 1.44    | .04     | .15    | 1        | 1          |
| LL 900N 2950E | 1         | 13        | 7         | 158       | .1        | 15        | 7         | 1491      | 1.77    | 6         | 5        | ND        | 1         | 92        | 1         | 2         | 2         | 32       | .54     | .12    | 5         | 13        | .21     | 172       | .10     | 3        | 1.67    | .05     | .07    | 1        | 1          |
| LL 900N 3000E | 3         | 24        | 2         | 109       | .1        | 11        | 4         | 1865      | .88     | 5         | 5        | ND        | 1         | 62        | 1         | 2         | 2         | 12       | .76     | .05    | 3         | 5         | .10     | 137       | .04     | 3        | .64     | .02     | .05    | 1        | 1          |
| LL 900N 0E    | 1         | 11        | 16        | 40        | .1        | 9         | 3         | 184       | 1.99    | 6         | 5        | ND        | 1         | 24        | 1         | 2         | 2         | 47       | .27     | .02    | 3         | 8         | .20     | 54        | .12     | 3        | 1.29    | .03     | .03    | 2        | 1          |
| LL 800N 50E   | 1         | 22        | 18        | 51        | .1        | 9         | 7         | 349       | 1.68    | 8         | 5        | ND        | 1         | 40        | 1         | 2         | 2         | 36       | .29     | .05    | 8         | 8         | .20     | 93        | .10     | 2        | 1.53    | .03     | .04    | 1        | 1          |
| LL 800N 100E  | 1         | 11        | 4         | 49        | .2        | 11        | 3         | 243       | 1.80    | 3         | 5        | ND        | 1         | 24        | 1         | 2         | 2         | 36       | .18     | .08    | 4         | 7         | .11     | 54        | .14     | 2        | 2.50    | .02     | .03    | 1        | 1          |
| LL 800N 150E  | 1         | 37        | 10        | 41        | 1.2       | 4         | 3         | 286       | .96     | 5         | 5        | ND        | 1         | 72        | 1         | 3         | 2         | 27       | 1.64    | .21    | 19        | 7         | .13     | 56        | .03     | 3        | 1.82    | .03     | .02    | 1        | 1          |
| LL 800N 200E  | 1         | 16        | 9         | 55        | .1        | 6         | 4         | 196       | 2.15    | 9         | 5        | ND        | 1         | 22        | 1         | 2         | 2         | 60       | .22     | .02    | 3         | 10        | .20     | 70        | .13     | 3        | 1.06    | .02     | .03    | 1        | 8          |
| LL 800N 250E  | 1         | 21        | 10        | 100       | .2        | 10        | 7         | 662       | 2.88    | 10        | 5        | ND        | 1         | 29        | 1         | 2         | 2         | 62       | .21     | .07    | 4         | 13        | .30     | 85        | .15     | 6        | 2.07    | .03     | .04    | 1        | 1          |
| LL 800N 300E  | 1         | 25        | 15        | 91        | .1        | 6         | 6         | 496       | 2.27    | 4         | 5        | ND        | 1         | 20        | 1         | 2         | 2         | 46       | .22     | .14    | 5         | 10        | .21     | 69        | .16     | 2        | 2.81    | .03     | .03    | 1        | 1          |
| LL 800N 350E  | 1         | 24        | 19        | 75        | .1        | 9         | 10        | 1005      | 2.17    | 14        | 5        | ND        | 1         | 33        | 1         | 2         | 2         | 48       | .30     | .10    | 8         | 12        | .25     | 76        | .12     | 3        | 2.55    | .03     | .02    | 1        | 1          |
| LL 800N 400E  | 1         | 40        | 9         | 83        | .6        | 8         | 6         | 636       | 1.62    | 12        | 5        | ND        | 1         | 60        | 1         | 2         | 2         | 39       | 1.34    | .08    | 9         | 9         | .23     | 63        | .08     | 3        | 2.12    | .04     | .03    | 1        | 1          |
| LL 800N 450E  | 1         | 46        | 7         | 81        | .4        | 6         | 6         | 1033      | 1.17    | 5         | 5        | ND        | 1         | 99        | 1         | 2         | 2         | 25       | 2.92    | .11    | 13        | 7         | .19     | 72        | .06     | 8        | 1.48    | .03     | .04    | 1        | 1          |
| LL 800N 500E  | 1         | 22        | 15        | 64        | .1        | 8         | 6         | 582       | 1.90    | 9         | 5        | ND        | 1         | 29        | 1         | 2         | 2         | 43       | .43     | .11    | 5         | 10        | .15     | 62        | .14     | 3        | 2.10    | .03     | .04    | 1        | 1          |
| LL 800N 550E  | 1         | 7         | 11        | 55        | .2        | 5         | 4         | 130       | 1.70    | 5         | 5        | ND        | 1         | 16        | 1         | 2         | 2         | 38       | .14     | .05    | 3         | 7         | .09     | 46        | .12     | 2        | 1.39    | .02     | .02    | 1        | 1          |
| LL 800N 650E  | 3         | 43        | 13        | 56        | .7        | 9         | 6         | 1653      | 1.25    | 11        | 5        | ND        | 1         | 69        | 1         | 2         | 2         | 36       | 1.25    | .10    | 14        | 8         | .15     | 75        | .04     | 6        | 1.41    | .03     | .04    | 1        | 1          |
| LL 800N 700E  | 1         | 9         | 12        | 46        | .1        | 5         | 4         | 114       | 1.56    | 3         | 5        | ND        | 1         | 20        | 1         | 2         | 2         | 35       | .15     | .05    | 2         | 7         | .11     | 58        | .12     | 4        | 1.07    | .03     | .03    | 1        | 1          |
| LL 800N 750E  | 1         | 21        | 13        | 52        | .1        | 9         | 6         | 464       | 2.12    | 6         | 5        | ND        | 1         | 25        | 1         | 2         | 2         | 49       | .20     | .05    | 4         | 13        | .19     | 182       | .14     | 5        | 1.62    | .03     | .04    | 1        | 1          |
| LL 800N 800E  | 1         | 7         | 17        | 31        | .1        | 5         | 4         | 76        | 1.80    | 5         | 5        | ND        | 1         | 22        | 1         | 2         | 2         | 35       | .17     | .09    | 2         | 8         | .06     | 35        | .14     | 3        | 2.56    | .03     | .02    | 1        | 1          |
| LL 800N 850E  | 1         | 19        | 5         | 96        | .1        | 13        | 7         | 721       | 2.25    | 13        | 5        | ND        | 1         | 34        | 1         | 2         | 2         | 46       | .28     | .12    | 5         | 12        | .26     | 117       | .14     | 3        | 2.69    | .04     | .05    | 1        | 1          |
| LL 800N 900E  | 1         | 11        | 13        | 87        | .2        | 9         | 7         | 1057      | 1.83    | 6         | 5        | ND        | 1         | 16        | 1         | 2         | 2         | 33       | .14     | .24    | 4         | 11        | .15     | 129       | .11     | 3        | 2.29    | .03     | .03    | 1        | 1          |
| LL 800N 950E  | 1         | 14        | 13        | 58        | .1        | 8         | 7         | 413       | 1.91    | 9         | 5        | ND        | 2         | 20        | 1         | 2         | 2         | 38       | .17     | .10    | 5         | 10        | .15     | 77        | .15     | 3        | 2.86    | .03     | .03    | 1        | 7          |
| LL 800N 1000E | 1         | 12        | 17        | 113       | .1        | 12        | 7         | 763       | 2.04    | 13        | 5        | ND        | 2         | 27        | 1         | 2         | 2         | 40       | .23     | .18    | 5         | 11        | .19     | 106       | .13     | 3        | 2.48    | .03     | .06    | 1        | 1          |
| LL 800N 1050E | 1         | 8         | 5         | 34        | .1        | 7         | 5         | 319       | 1.40    | 2         | 5        | ND        | 1         | 30        | 1         | 2         | 2         | 30       | .28     | .03    | 3         | 9         | .19     | 115       | .09     | 2        | 1.25    | .04     | .04    | 2        | 1          |
| LL 800N 1100E | 1         | 16        | 10        | 77        | .1        | 8         | 6         | 1643      | 1.61    | 2         | 5        | ND        | 1         | 21        | 1         | 2         | 2         | 29       | .15     | .10    | 5         | 9         | .17     | 139       | .09     | 2        | 1.73    | .03     | .04    | 1        | 1          |
| LL 800N 1150E | 2         | 25        | 7         | 125       | .1        | 12        | 9         | 877       | 2.26    | 8         | 5        | ND        | 1         | 34        | 1         | 2         | 2         | 43       | .25     | .11    | 5         | 13        | .29     | 167       | .10     | 3        | 1.83    | .03     | .05    | 1        | 1          |
| LL 800N 1200E | 2         | 18        | 13        | 162       | .1        | 10        | 7         | 2492      | 1.55    | 5         | 5        | ND        | 1         | 59        | 1         | 2         | 2         | 28       | .70     | .18    | 4         | 8         | .19     | 214       | .06     | 3        | 1.18    | .03     | .07    | 1        | 1          |
| LL 800N 1250E | 1         | 39        | 10        | 86        | .3        | 9         | 7         | 1070      | 1.55    | 3         | 5        | ND        | 1         | 84        | 1         | 2         | 2         | 29       | .75     | .12    | 6         | 9         | .22     | 165       | .04     | 4        | 1.20    | .03     | .07    | 1        | 1          |
| LL 800N 1300E | 1         | 32        | 7         | 139       | .1        | 6         | 6         | 1993      | 1.36    | 3         | 5        | ND        | 1         | 71        | 1         | 2         | 2         | 22       | .55     | .13    | 5         | 7         | .17     | 272       | .03     | 2        | 1.32    | .03     | .06    | 1        | 1          |
| LL 800N 1350E | 1         | 42        | 12        | 80        | .1        | 13        | 10        | 1193      | 2.30    | 17        | 5        | ND        | 1         | 56        | 1         | 2         | 2         | 44       | .46     | .15    | 8         | 12        | .29     | 146       | .09     | 2        | 2.46    | .03     | .06    | 1        | 1          |
| LL 800N 1400E | 1         | 23        | 10        | 69        | .2        | 13        | 6         | 571       | 1.74    | 5         | 5        | ND        | 1         | 66        | 1         | 2         | 2         | 31       | .87     | .16    | 6         | 9         | .24     | 132       | .06     | 7        | 2.24    | .04     | .09    | 1        | 1          |
| LL 800N 1450E | 1         | 40        | 10        | 168       | .2        | 10        | 7         | 1353      | 1.44    | 6         | 5        | ND        | 1         | 86        | 1         | 2         | 2         | 26       | .91     | .18    | 4         | 8         | .23     | 203       | .03     | 5        | 1.44    | .03     | .07    | 1        | 1          |
| LL 800N 1500E | 2         | 29        | 8         | 120       | .1        | 7         | 5         | 1113      | 1.18    | 4         | 5        | ND        | 1         | 59        | 1         | 2         | 2         | 19       | .59     | .12    | 3         | 7         | .17     | 201       | .03     | 4        | 1.26    | .02     | .08    | 1        | 1          |
| LL 800N 1550E | 1         | 23        | 8         | 74        | .1        | 15        | 7         | 632       | 1.86    | 10        | 5        | ND        | 1         | 73        | 1         | 2         | 2         | 37       | .72     | .14    | 5         | 11        | .29     | 166       | .08     | 5        | 2.05    | .04     | .11    | 1        | 1          |
| LL 800N 1600E | 1         | 37        | 11        | 99        | .3        | 9         | 5         | 893       | 1.39    | 4         | 5        | ND        | 1         | 69        | 1         | 2         | 2         | 26       | .66     | .12    | 5         | 8         | .18     | 149       | .05     | 2        | 1.45    | .03     | .05    | 1        | 1          |
| STD C/AU 0.5  | 21        | 59        | 40        | 133       | 7.0       | 68        | 28        | 1188      | 3.96    | 43        | 18       | 7         | 34        | 48        | 17        | 15        | 21        | 59       | .48     | .11    | 36        | 60        | .88     | 184       | .09     | 40       | 1.73    | .06     | .11    | 15       | 490        |

| SAMPLE#       | Mo<br>PPH | Cu<br>PPH | Pb<br>PPH | Zn<br>PPH | Ag<br>PPH | Ni<br>PPH | Co<br>PPH | Mn<br>PPH | Fe<br>% | As<br>PPH | U<br>PPH | Au<br>PPH | Th<br>PPH | Sr<br>PPH | Cd<br>PPH | Sb<br>PPH | Bi<br>PPH | V<br>PPH | Ca<br>% | P<br>% | La<br>PPH | Cr<br>PPH | Mg<br>% | Ba<br>PPH | Ti<br>% | B<br>PPH | Al<br>% | Na<br>% | K<br>% | W<br>PPH | Au#<br>PPB |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|---------|--------|-----------|-----------|---------|-----------|---------|----------|---------|---------|--------|----------|------------|
| LL 800N 1650E | 1         | 37        | 11        | 134       | .3        | 13        | 9         | 865       | 1.87    | 9         | 5        | ND        | 1         | 43        | 1         | 2         | 2         | 30       | .57     | .16    | 9         | 10        | .21     | 128       | .08     | 4        | 2.59    | .04     | .06    | 1        | 2          |
| LL 800N 1700E | 1         | 29        | 9         | 100       | .1        | 11        | 9         | 917       | 2.22    | 9         | 5        | ND        | 1         | 41        | 1         | 2         | 2         | 45       | .37     | .13    | 7         | 12        | .25     | 143       | .09     | 2        | 2.53    | .03     | .06    | 1        | 1          |
| LL 800N 1750E | 1         | 60        | 2         | 70        | .2        | 8         | 8         | 964       | 1.67    | 4         | 5        | ND        | 1         | 43        | 1         | 2         | 2         | 31       | .41     | .09    | 11        | 9         | .18     | 139       | .09     | 2        | 2.08    | .03     | .05    | 1        | 1          |
| LL 800N 1800E | 1         | 31        | 6         | 84        | .2        | 16        | 8         | 910       | 1.81    | 8         | 5        | ND        | 1         | 56        | 1         | 2         | 2         | 31       | .54     | .13    | 6         | 11        | .22     | 175       | .06     | 3        | 1.80    | .03     | .09    | 1        | 1          |
| LL 800N 1850E | 1         | 40        | 8         | 98        | .3        | 19        | 10        | 547       | 2.75    | 32        | 5        | ND        | 1         | 66        | 1         | 3         | 2         | 51       | .56     | .14    | 9         | 20        | .37     | 163       | .10     | 3        | 2.19    | .03     | .25    | 1        | 1          |
| LL 800N 1900E | 1         | 34        | 4         | 130       | .4        | 14        | 8         | 1009      | 1.63    | 15        | 5        | ND        | 1         | 74        | 1         | 3         | 2         | 30       | .93     | .21    | 6         | 9         | .26     | 192       | .06     | 4        | 1.84    | .04     | .11    | 1        | 1          |
| LL 800N 1950E | 1         | 30        | 2         | 133       | .3        | 13        | 6         | 859       | 1.70    | 11        | 5        | ND        | 1         | 74        | 2         | 2         | 5         | 30       | .64     | .19    | 7         | 10        | .21     | 207       | .07     | 2        | 1.81    | .03     | .12    | 1        | 1          |
| LL 800N 2000E | 1         | 68        | 12        | 108       | .2        | 20        | 13        | 669       | 2.70    | 22        | 5        | ND        | 1         | 70        | 1         | 2         | 2         | 55       | .74     | .17    | 8         | 17        | .44     | 145       | .10     | 4        | 2.15    | .05     | .21    | 1        | 2          |
| LL 800N 2050E | 1         | 45        | 9         | 75        | .3        | 14        | 10        | 476       | 2.30    | 14        | 5        | ND        | 1         | 65        | 1         | 2         | 2         | 48       | .76     | .12    | 7         | 13        | .36     | 119       | .11     | 5        | 1.83    | .06     | .26    | 1        | 1          |
| LL 800N 2100E | 1         | 28        | 3         | 85        | .2        | 12        | 8         | 381       | 2.38    | 8         | 5        | ND        | 1         | 55        | 1         | 2         | 2         | 44       | .69     | .10    | 6         | 15        | .34     | 144       | .11     | 6        | 2.03    | .05     | .23    | 1        | 1          |
| LL 800N 2150E | 1         | 38        | 4         | 115       | .3        | 18        | 8         | 1132      | 1.80    | 12        | 5        | ND        | 1         | 78        | 2         | 2         | 2         | 34       | .86     | .21    | 6         | 11        | .26     | 196       | .06     | 4        | 1.92    | .04     | .10    | 1        | 3          |
| LL 800N 2200E | 1         | 42        | 4         | 168       | .3        | 20        | 7         | 1083      | 1.61    | 12        | 5        | ND        | 1         | 84        | 1         | 2         | 2         | 29       | .92     | .26    | 5         | 10        | .27     | 221       | .06     | 5        | 1.79    | .04     | .14    | 1        | 1          |
| LL 800N 2250E | 2         | 39        | 5         | 237       | .3        | 11        | 5         | 1399      | 1.09    | 3         | 5        | ND        | 1         | 84        | 2         | 3         | 2         | 18       | .98     | .16    | 3         | 8         | .18     | 250       | .04     | 6        | 1.09    | .03     | .10    | 1        | 1          |
| LL 800N 2300E | 1         | 31        | 5         | 83        | .4        | 14        | 8         | 402       | 2.37    | 11        | 5        | ND        | 1         | 93        | 1         | 3         | 4         | 52       | .72     | .07    | 8         | 23        | .40     | 185       | .15     | 2        | 2.15    | .06     | .26    | 1        | 1          |
| LL 800N 2350E | 1         | 30        | 6         | 87        | .4        | 18        | 6         | 649       | 1.67    | 9         | 5        | ND        | 1         | 101       | 1         | 2         | 2         | 28       | 1.05    | .22    | 6         | 11        | .25     | 168       | .05     | 7        | 1.88    | .04     | .14    | 1        | 55         |
| LL 800N 2400E | 1         | 40        | 6         | 92        | .3        | 12        | 6         | 702       | 1.81    | 6         | 5        | ND        | 1         | 153       | 1         | 2         | 2         | 35       | 1.24    | .14    | 7         | 11        | .28     | 243       | .08     | 5        | 1.78    | .05     | .19    | 1        | 2          |
| LL 800N 2450E | 1         | 38        | 6         | 159       | .1        | 10        | 5         | 940       | 1.43    | 2         | 5        | ND        | 1         | 70        | 1         | 3         | 2         | 25       | .52     | .17    | 4         | 9         | .19     | 220       | .06     | 2        | 1.24    | .04     | .13    | 1        | 1          |
| LL 800N 2500E | 1         | 36        | 6         | 81        | .3        | 15        | 9         | 559       | 2.30    | 8         | 5        | ND        | 1         | 173       | 1         | 2         | 2         | 44       | .90     | .10    | 9         | 19        | .42     | 243       | .11     | 3        | 2.58    | .06     | .22    | 1        | 1          |
| LL 800N 2550E | 1         | 22        | 10        | 80        | .2        | 15        | 7         | 446       | 2.06    | 5         | 5        | ND        | 1         | 109       | 1         | 3         | 2         | 39       | .66     | .07    | 8         | 15        | .33     | 287       | .14     | 4        | 2.65    | .06     | .26    | 1        | 1          |
| LL 800N 2600E | 2         | 14        | 5         | 134       | .3        | 11        | 5         | 718       | 1.62    | 5         | 5        | ND        | 1         | 61        | 1         | 3         | 3         | 30       | .48     | .26    | 5         | 12        | .22     | 175       | .08     | 2        | 1.58    | .04     | .26    | 1        | 1          |
| LL 800N 2650E | 1         | 21        | 7         | 140       | .2        | 18        | 7         | 1186      | 1.72    | 4         | 5        | ND        | 1         | 103       | 1         | 2         | 2         | 30       | .50     | .18    | 5         | 14        | .20     | 250       | .08     | 2        | 1.63    | .05     | .12    | 1        | 1          |
| LL 800N 2700E | 1         | 10        | 6         | 104       | .1        | 12        | 4         | 425       | 1.54    | 2         | 5        | ND        | 1         | 93        | 1         | 3         | 2         | 29       | .51     | .10    | 4         | 12        | .17     | 168       | .10     | 3        | 1.30    | .05     | .11    | 1        | 1          |
| LL 800N 2750E | 1         | 16        | 6         | 122       | .2        | 22        | 6         | 365       | 1.63    | 6         | 5        | ND        | 1         | 104       | 1         | 2         | 2         | 29       | .51     | .17    | 5         | 13        | .22     | 190       | .10     | 4        | 1.69    | .05     | .13    | 1        | 1          |
| LL 800N 2800E | 1         | 13        | 5         | 73        | .2        | 10        | 5         | 485       | 1.66    | 3         | 5        | ND        | 1         | 134       | 1         | 2         | 2         | 32       | .85     | .04    | 3         | 13        | .22     | 132       | .11     | 2        | 1.27    | .06     | .10    | 1        | 1          |
| LL 800N 2850E | 1         | 25        | 7         | 178       | .1        | 16        | 5         | 1129      | 1.53    | 2         | 5        | ND        | 1         | 151       | 1         | 2         | 2         | 24       | .85     | .10    | 4         | 12        | .22     | 239       | .09     | 7        | 1.42    | .05     | .18    | 1        | 1          |
| LL 800N 2900E | 1         | 15        | 2         | 161       | .1        | 17        | 5         | 387       | 1.55    | 5         | 5        | ND        | 1         | 97        | 1         | 2         | 2         | 28       | .48     | .17    | 4         | 11        | .20     | 204       | .09     | 6        | 1.51    | .05     | .16    | 1        | 1          |
| LL 800N 2950E | 1         | 19        | 8         | 114       | .3        | 22        | 7         | 593       | 2.01    | 9         | 5        | ND        | 1         | 113       | 1         | 2         | 2         | 33       | .61     | .13    | 7         | 15        | .28     | 199       | .12     | 5        | 2.09    | .05     | .14    | 1        | 1          |
| LL 800N 3000E | 1         | 17        | 5         | 128       | .3        | 20        | 6         | 323       | 1.80    | 9         | 5        | ND        | 1         | 105       | 1         | 3         | 2         | 30       | .68     | .24    | 8         | 13        | .27     | 123       | .11     | 4        | 2.17    | .04     | .15    | 1        | 1          |
| LL 400N 1050N | 3         | 35        | 17        | 90        | 1.0       | 23        | 12        | 4303      | 3.48    | 13        | 20       | ND        | 1         | 223       | 1         | 2         | 2         | 68       | 1.79    | .14    | 48        | 54        | .38     | 489       | .10     | 2        | 5.53    | .05     | .09    | 1        | 1          |
| LL 400N 1000N | 1         | 11        | 9         | 74        | .1        | 9         | 6         | 647       | 2.46    | 3         | 5        | ND        | 1         | 31        | 1         | 2         | 2         | 48       | .27     | .07    | 4         | 13        | .27     | 89        | .13     | 3        | 2.17    | .03     | .05    | 1        | 9          |
| LL 400N 950N  | 1         | 11        | 5         | 59        | .1        | 10        | 6         | 327       | 2.63    | 9         | 5        | ND        | 2         | 28        | 1         | 2         | 2         | 52       | .24     | .05    | 5         | 13        | .32     | 91        | .15     | 3        | 2.98    | .03     | .05    | 1        | 5          |
| LL 400N 850N  | 1         | 4         | 6         | 55        | .1        | 4         | 3         | 574       | 1.63    | 2         | 5        | ND        | 1         | 32        | 1         | 4         | 2         | 33       | .28     | .08    | 4         | 8         | .13     | 82        | .10     | 2        | 1.51    | .03     | .04    | 1        | 1          |
| LL 400N 800N  | 1         | 10        | 8         | 96        | .2        | 7         | 4         | 598       | 1.90    | 2         | 5        | ND        | 1         | 26        | 1         | 3         | 3         | 35       | .23     | .19    | 4         | 9         | .16     | 118       | .14     | 2        | 1.82    | .03     | .05    | 1        | 1          |
| LL 400N 750N  | 1         | 6         | 2         | 56        | .1        | 5         | 5         | 745       | 1.80    | 3         | 5        | ND        | 1         | 23        | 1         | 3         | 2         | 37       | .19     | .06    | 3         | 9         | .12     | 94        | .14     | 2        | 2.01    | .03     | .04    | 1        | 2          |
| LL 400N 700N  | 1         | 4         | 5         | 73        | .1        | 5         | 4         | 1316      | 1.67    | 2         | 5        | ND        | 1         | 22        | 1         | 2         | 2         | 38       | .20     | .06    | 3         | 7         | .15     | 94        | .12     | 2        | .95     | .03     | .04    | 1        | 1          |
| LL 400N 650N  | 1         | 8         | 4         | 63        | .1        | 8         | 4         | 718       | 1.98    | 2         | 5        | ND        | 2         | 20        | 1         | 2         | 2         | 38       | .18     | .10    | 4         | 10        | .15     | 98        | .14     | 2        | 2.69    | .03     | .04    | 1        | 1          |
| STD C/AU 0.5  | 22        | 59        | 41        | 135       | 7.1       | 74        | 29        | 1179      | 3.96    | 42        | 19       | 8         | 34        | 49        | 19        | 15        | 19        | 60       | .48     | .11    | 36        | 61        | .88     | 183       | .09     | 40       | 1.73    | .06     | .11    | 12       | 500        |

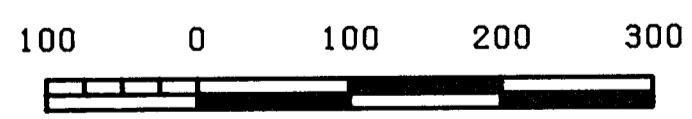
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| SAMPLE#       | Mo<br>PPH | Cu<br>PPH | Pb<br>PPH | Zn<br>PPH | Ag<br>PPH | Ni<br>PPH | Co<br>PPH | Mn<br>PPH | Fe<br>I | As<br>PPH | U<br>PPH | Au<br>PPH | Th<br>PPH | Sr<br>PPH | Cd<br>PPH | Sb<br>PPH | Bi<br>PPH | V<br>PPH | Ca<br>I | P<br>I | La<br>PPH | Cr<br>PPH | Mg<br>I | Ba<br>PPH | Ti<br>I | B<br>PPH | Al<br>I | Na<br>I | K<br>I | W<br>PPH | Au*<br>PPB |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|---------|--------|-----------|-----------|---------|-----------|---------|----------|---------|---------|--------|----------|------------|
| LL 400N 600W  | 1         | 6         | 12        | 142       | .2        | 4         | 5         | 1906      | 1.53    | 2         | 5        | ND        | 1         | 28        | 1         | 2         | 2         | 31       | .28     | .12    | 4         | 8         | .14     | 135       | .11     | 4        | 1.36    | .04     | .06    | 1        | 1          |
| LL 400N 500W  | 1         | 23        | 24        | 81        | .1        | 11        | 7         | 886       | 2.43    | 2         | 5        | ND        | 2         | 41        | 1         | 2         | 2         | 50       | .29     | .07    | 6         | 15        | .30     | 99        | .16     | 5        | 3.17    | .03     | .04    | 1        | 2          |
| LL 400N 450W  | 1         | 9         | 15        | 124       | .1        | 10        | 5         | 940       | 1.88    | 3         | 5        | ND        | 2         | 38        | 1         | 2         | 2         | 34       | .32     | .19    | 6         | 10        | .21     | 109       | .12     | 2        | 2.44    | .03     | .05    | 1        | 1          |
| LL 400N 400W  | 1         | 15        | 12        | 110       | .2        | 4         | 6         | 637       | 1.96    | 4         | 5        | ND        | 1         | 54        | 1         | 2         | 2         | 37       | .52     | .16    | 6         | 8         | .18     | 82        | .09     | 4        | 2.73    | .04     | .03    | 1        | 1          |
| LL 400N 350W  | 2         | 51        | 12        | 116       | .2        | 17        | 14        | 856       | 3.01    | 8         | 5        | ND        | 1         | 33        | 1         | 2         | 2         | 51       | .28     | .15    | 8         | 10        | .25     | 85        | .13     | 3        | 3.23    | .03     | .05    | 1        | 1          |
| LL 400N 300W  | 2         | 30        | 11        | 94        | .1        | 12        | 8         | 860       | 2.39    | 8         | 5        | ND        | 1         | 55        | 1         | 2         | 2         | 48       | .48     | .10    | 12        | 11        | .30     | 127       | .14     | 2        | 3.20    | .03     | .05    | 1        | 1          |
| LL 400N 250W  | 1         | 22        | 10        | 122       | .1        | 11        | 8         | 1183      | 2.64    | 4         | 5        | ND        | 1         | 48        | 1         | 2         | 2         | 59       | .42     | .10    | 8         | 12        | .40     | 142       | .15     | 3        | 2.38    | .03     | .07    | 1        | 2          |
| LL 400N 200W  | 1         | 13        | 10        | 82        | .1        | 11        | 8         | 718       | 2.12    | 8         | 5        | ND        | 1         | 58        | 1         | 2         | 2         | 45       | .48     | .06    | 7         | 11        | .28     | 105       | .12     | 3        | 1.97    | .04     | .06    | 1        | 1          |
| LL 400N 150W  | 1         | 28        | 8         | 77        | .3        | 10        | 7         | 583       | 2.35    | 3         | 5        | ND        | 1         | 51        | 1         | 2         | 2         | 50       | .44     | .08    | 9         | 12        | .32     | 113       | .12     | 3        | 2.45    | .04     | .05    | 1        | 4          |
| LL 400N 100W  | 2         | 34        | 12        | 79        | .3        | 6         | 5         | 1320      | 1.15    | 2         | 5        | ND        | 1         | 55        | 1         | 2         | 2         | 20       | .63     | .09    | 4         | 6         | .15     | 152       | .06     | 4        | 1.02    | .03     | .06    | 1        | 1          |
| LL 400N 50W   | 1         | 26        | 20        | 113       | .1        | 11        | 8         | 1726      | 2.55    | 4         | 5        | ND        | 1         | 46        | 1         | 2         | 2         | 55       | .44     | .10    | 8         | 12        | .33     | 258       | .13     | 4        | 2.33    | .04     | .07    | 1        | 1          |
| LL 300N 1050W | 2         | 7         | 3         | 45        | .1        | 5         | 3         | 557       | 1.56    | 2         | 5        | ND        | 1         | 23        | 1         | 2         | 2         | 29       | .19     | .19    | 4         | 8         | .07     | 73        | .12     | 2        | 2.01    | .03     | .03    | 1        | 1          |
| LL 300N 1000W | 1         | 23        | 6         | 86        | .2        | 10        | 8         | 724       | 2.53    | 6         | 5        | ND        | 1         | 44        | 1         | 2         | 2         | 54       | .47     | .10    | 6         | 12        | .40     | 116       | .13     | 2        | 2.54    | .03     | .07    | 1        | 1          |
| LL 300N 950W  | 1         | 9         | 10        | 83        | .1        | 8         | 6         | 1508      | 2.11    | 2         | 5        | ND        | 1         | 34        | 1         | 2         | 2         | 44       | .26     | .12    | 6         | 10        | .20     | 120       | .12     | 2        | 2.48    | .03     | .06    | 1        | 13         |
| LL 300N 900W  | 1         | 5         | 16        | 73        | .1        | 7         | 4         | 903       | 2.21    | 2         | 5        | ND        | 2         | 26        | 1         | 2         | 2         | 45       | .28     | .09    | 5         | 10        | .20     | 100       | .15     | 6        | 2.10    | .03     | .06    | 1        | 1          |
| LL 300N 850W  | 1         | 8         | 13        | 74        | .1        | 8         | 5         | 619       | 2.48    | 3         | 5        | ND        | 2         | 25        | 1         | 2         | 2         | 48       | .25     | .08    | 7         | 10        | .26     | 105       | .15     | 4        | 2.60    | .03     | .05    | 1        | 1          |
| LL 300N 800W  | 1         | 7         | 9         | 68        | .1        | 5         | 5         | 431       | 2.17    | 2         | 5        | ND        | 1         | 24        | 1         | 2         | 2         | 44       | .24     | .07    | 5         | 9         | .16     | 73        | .13     | 2        | 1.78    | .03     | .03    | 1        | 1          |
| LL 300N 750W  | 1         | 16        | 11        | 67        | .1        | 9         | 6         | 285       | 2.54    | 2         | 5        | ND        | 3         | 49        | 1         | 2         | 2         | 48       | .28     | .06    | 10        | 12        | .35     | 161       | .15     | 3        | 2.99    | .03     | .06    | 1        | 1          |
| LL 300N 700W  | 1         | 6         | 5         | 70        | .2        | 3         | 4         | 528       | 1.71    | 4         | 5        | ND        | 1         | 26        | 1         | 2         | 2         | 35       | .25     | .12    | 4         | 7         | .11     | 64        | .13     | 3        | 1.89    | .03     | .04    | 1        | 3          |
| LL 300N 650W  | 1         | 10        | 12        | 94        | .1        | 9         | 6         | 1020      | 2.11    | 2         | 5        | ND        | 1         | 31        | 1         | 2         | 2         | 39       | .31     | .11    | 6         | 9         | .20     | 107       | .14     | 6        | 2.93    | .03     | .05    | 1        | 1          |
| LL 300N 600W  | 1         | 6         | 13        | 77        | .2        | 5         | 4         | 909       | 2.19    | 2         | 5        | ND        | 1         | 23        | 1         | 2         | 2         | 44       | .23     | .10    | 6         | 9         | .18     | 82        | .13     | 3        | 1.84    | .03     | .05    | 1        | 1          |
| LL 300N 550W  | 2         | 12        | 7         | 107       | .2        | 5         | 4         | 1118      | 1.57    | 4         | 5        | ND        | 1         | 42        | 1         | 2         | 2         | 28       | .45     | .12    | 5         | 7         | .11     | 105       | .11     | 4        | 1.60    | .03     | .04    | 1        | 1          |
| LL 300N 500W  | 1         | 19        | 13        | 86        | .3        | 9         | 5         | 463       | 1.84    | 2         | 5        | ND        | 1         | 47        | 1         | 2         | 2         | 32       | .52     | .23    | 6         | 8         | .21     | 103       | .11     | 5        | 2.51    | .04     | .07    | 1        | 9          |
| LL 300N 450W  | 3         | 6         | 15        | 115       | .2        | 3         | 5         | 2543      | 1.62    | 2         | 5        | ND        | 1         | 20        | 1         | 2         | 2         | 31       | .19     | .24    | 4         | 8         | .08     | 127       | .10     | 4        | 1.32    | .03     | .02    | 1        | 3          |
| LL 300N 400W  | 1         | 13        | 13        | 120       | .3        | 9         | 6         | 344       | 2.06    | 2         | 5        | ND        | 1         | 27        | 1         | 2         | 2         | 38       | .30     | .15    | 6         | 10        | .18     | 90        | .14     | 2        | 2.77    | .03     | .04    | 1        | 1          |
| LL 300N 350W  | 1         | 28        | 12        | 138       | .3        | 12        | 8         | 846       | 2.49    | 9         | 5        | ND        | 1         | 60        | 1         | 2         | 3         | 45       | .70     | .14    | 9         | 12        | .27     | 105       | .12     | 6        | 3.27    | .04     | .05    | 1        | 1          |
| LL 300N 300W  | 2         | 40        | 14        | 125       | .4        | 12        | 8         | 835       | 2.16    | 7         | 5        | ND        | 1         | 97        | 1         | 2         | 3         | 42       | .73     | .18    | 9         | 11        | .34     | 125       | .05     | 5        | 2.51    | .03     | .07    | 1        | 1          |
| LL 300N 250W  | 1         | 40        | 18        | 146       | .4        | 10        | 7         | 902       | 2.14    | 6         | 5        | ND        | 1         | 76        | 2         | 2         | 6         | 42       | .52     | .20    | 8         | 12        | .32     | 133       | .04     | 4        | 2.10    | .03     | .07    | 1        | 1          |
| LL 300N 200W  | 1         | 13        | 11        | 111       | .2        | 8         | 7         | 657       | 2.01    | 3         | 5        | ND        | 1         | 36        | 1         | 2         | 4         | 41       | .27     | .18    | 5         | 10        | .19     | 101       | .11     | 3        | 1.94    | .03     | .06    | 1        | 1          |
| LL 300N 150W  | 1         | 28        | 8         | 54        | .2        | 10        | 6         | 308       | 1.91    | 337       | 5        | ND        | 1         | 43        | 1         | 2         | 2         | 41       | .73     | .10    | 8         | 9         | .20     | 56        | .14     | 6        | 3.07    | .05     | .04    | 1        | 1          |
| LL 300N 100W  | 1         | 14        | 9         | 63        | .2        | 14        | 8         | 1108      | 2.36    | 2         | 5        | ND        | 1         | 44        | 1         | 2         | 2         | 53       | .39     | .07    | 14        | 18        | .33     | 100       | .14     | 3        | 2.92    | .03     | .05    | 1        | 1          |
| LL 300N 50W   | 1         | 21        | 6         | 75        | .1        | 9         | 6         | 460       | 2.04    | 2         | 5        | ND        | 1         | 44        | 1         | 2         | 2         | 39       | .41     | .09    | 6         | 9         | .26     | 145       | .09     | 5        | 1.69    | .03     | .08    | 1        | 1          |
| STD C/AU 0.5  | 20        | 59        | 41        | 137       | 7.1       | 75        | 30        | 1198      | 3.97    | 42        | 19       | 8         | 34        | 48        | 18        | 15        | 18        | 61       | .48     | .11    | 37        | 60        | .88     | 181       | .08     | 38       | 1.73    | .06     | .11    | 14       | 500        |



CONTOURS AT 20' INTERVAL



SCALE 1:5000

To accompany report by J. Falconer, P. Eng.

LOST HORSE PROJECT  
 MAGNETOMETER SURVEY  
 OSOYOOS M.D. B.C.

FOR: MONTELLO RESOURCES LTD.  
 BY: SHANGRI-LA MINERALS LTD.

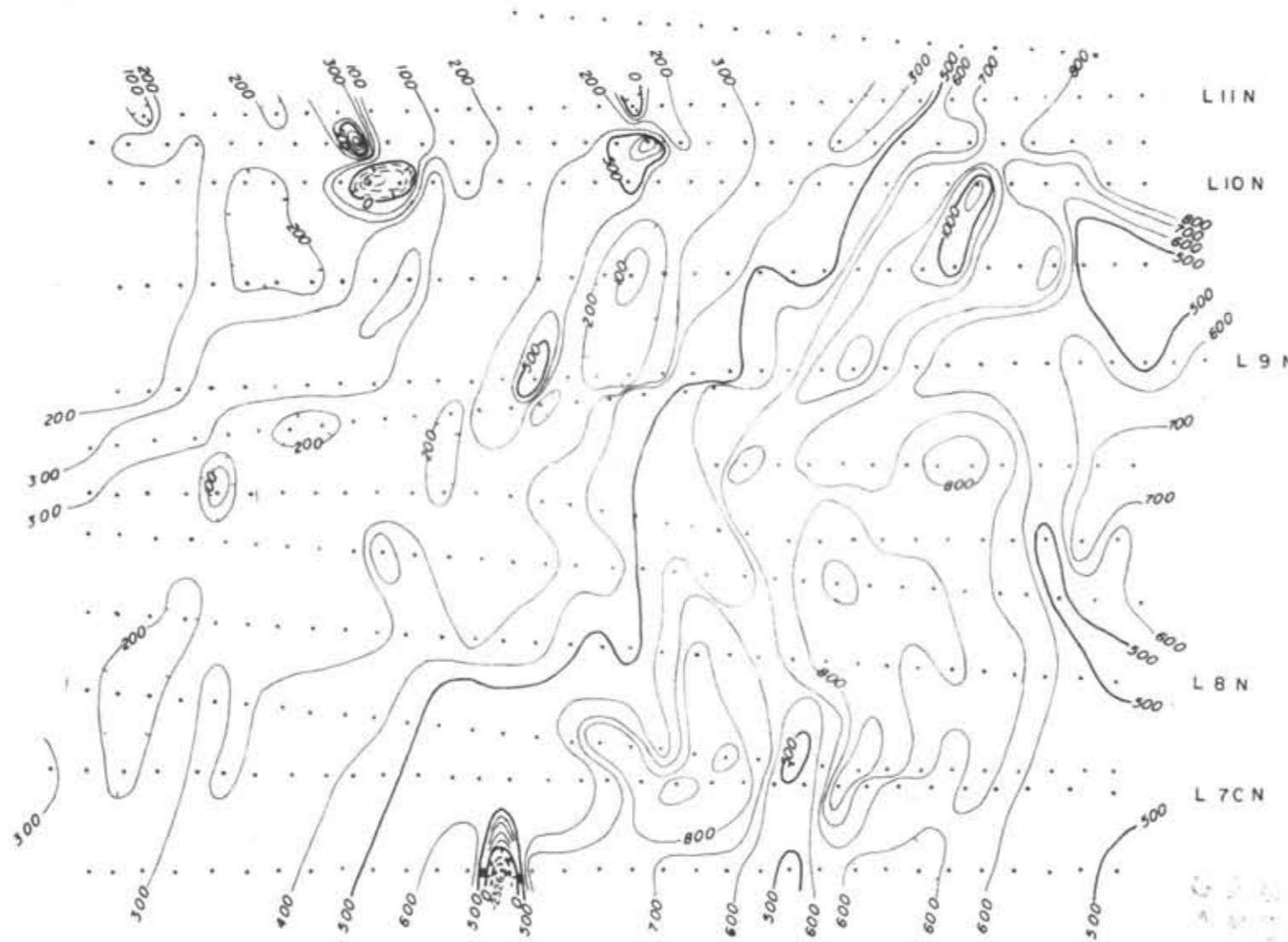
APRIL, 1986      NTS 92 H/8      FIGURE NO. 2b

PRESENTATION BY URDUHART DVORAK LIMITED

GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

15,177

CONTOUR INTERVAL : 100 GAMMAS  
 BASE VALUE : 56,500 "



SCALE 1:2500



*J. S. Falconer*  
 To accompany report by J. Falconer, P. Eng.



GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

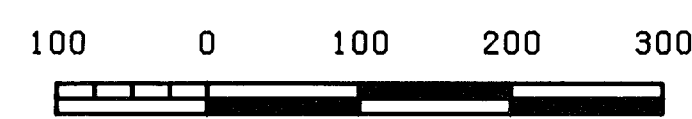
**15,177**

|                                 |                 |
|---------------------------------|-----------------|
| LOST HORSE PROJECT              |                 |
| FOR MONTELLO RESOURCES LTD.     |                 |
| BY: SHANGRI-LA MINERALS LIMITED |                 |
| DETAIL GRID                     |                 |
| MAGNETOMETER SURVEY             |                 |
| OSOYOOS M.D., B.C.              |                 |
| NTS: 92H-8                      | DATE: JUNE 1986 |
| DRAWN BY: M.R.                  | FIGURE NO. 2c   |





CONTOURS AT 1 UNIT DEGREE INTERVAL



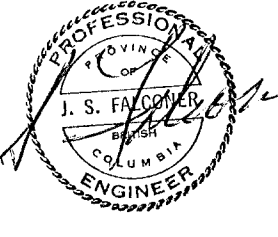
SCALE 1:5000

To accompany report by J. Falconer, P. Eng.

|  |            |               |
|--|------------|---------------|
| LOST HORSE PROJECT   |            |               |
| VLF-EM SURVEY<br>FRASER FILTERED<br>050Y00S M.D. B.C.        |            |               |
| FOR: MONTELLO RESOURCES LTD.<br>BY: SHANGRI-LA MINERALS LTD. |            |               |
| APRIL, 1986  | NTS 92 H/8 | FIGURE NO. 3b |
| PRESENTATION BY URQUHART DVORAK LIMITED                      |            |               |

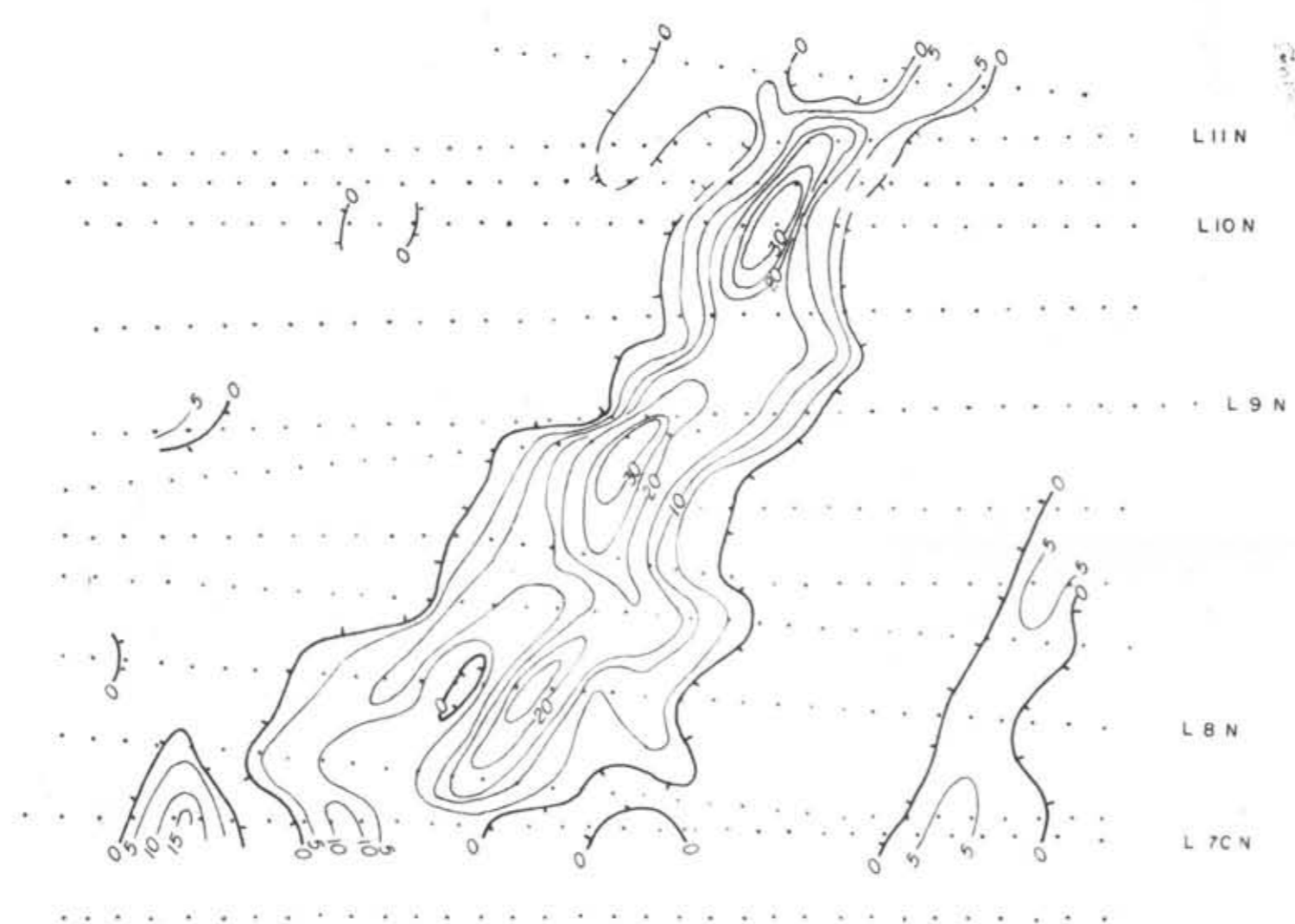
MINERAL BRANCH  
ASSESSMENT REPORT

15,177 *J. Falconer*



CONTOUR INTERVALS +5 UNIT DEGREES

TRANSMITTER = HAWAII



LIIN

LION

L9N

L8N

L7CN

1850 E

2250 E



SCALE 1:2500



*Jas. S. Falconer*  
 PROFESSIONAL ENGINEER  
 PROVINCE OF BRITISH COLUMBIA  
 S. FALCONER  
 COLLEGE

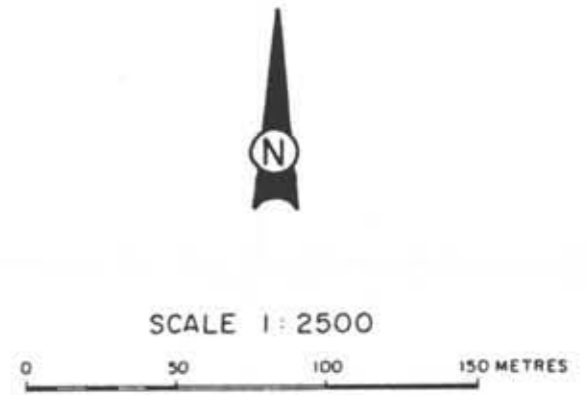
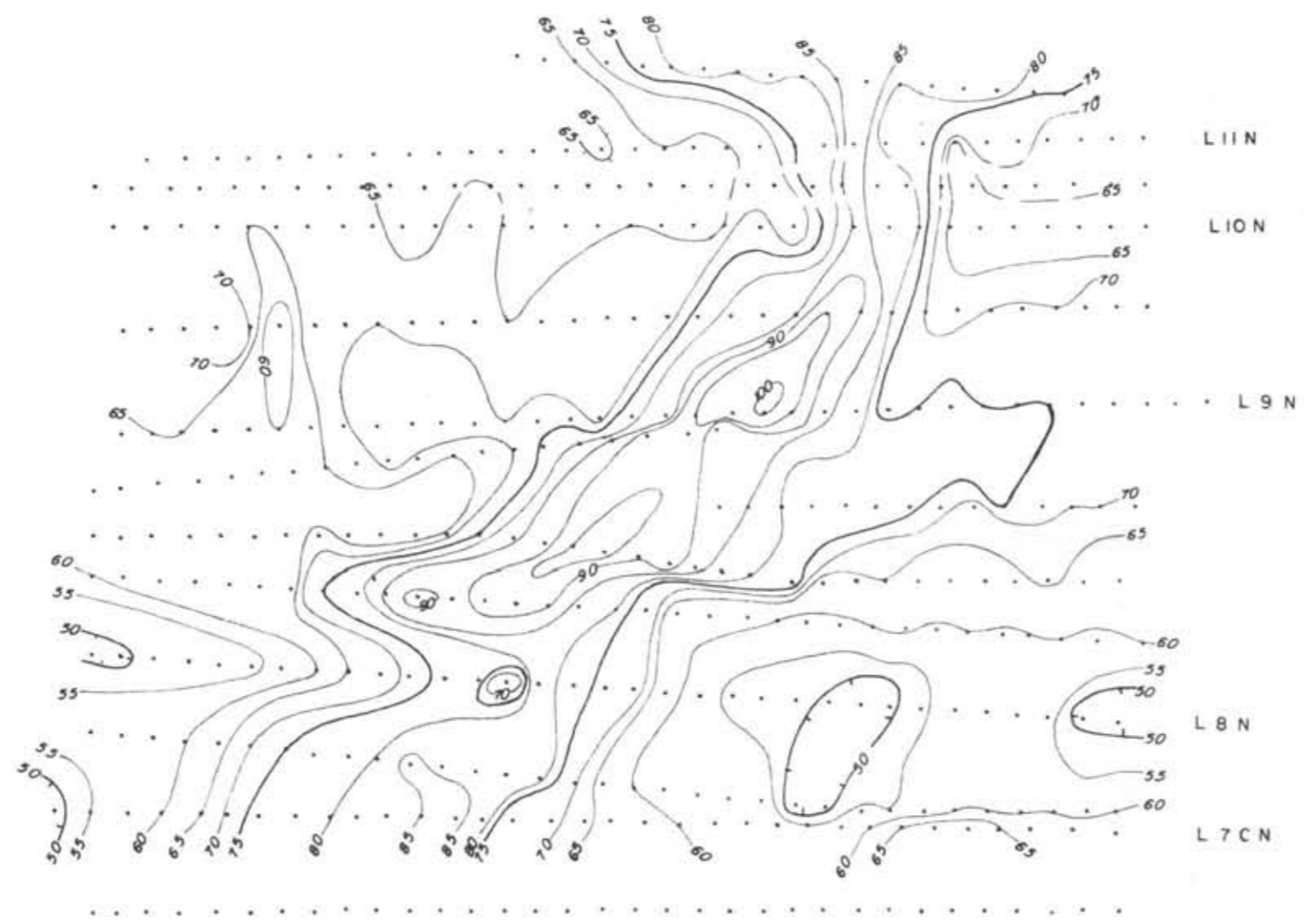
To accompany report by J. Falconer, P. Eng.

GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

|                                |                          |
|--------------------------------|--------------------------|
| HOST HORSE PROJECT             |                          |
| FOR MONTELLO RESOURCES LTD.    |                          |
| BY SHANGRI-LA MINERALS LIMITED |                          |
| DETAIL GRID                    |                          |
| VLF-EM Fraser Filtered         |                          |
| OSOYOOS M.D., B.C.             |                          |
| NTS: 92H-8                     | DATE: JUNE 1986          |
| DRAWN BY: M.R.                 | FIGURE N <sup>o</sup> 3c |

15,177

CONTOUR INTERVAL = 5 %  
 TRANSMITTER = HAWAII



*J. S. Falconer*  
 PROFESSIONAL ENGINEER  
 PROVINCE OF BRITISH COLUMBIA  
 J. S. FALCONER  
 BRITISH COLUMBIA  
 ENGINEER

To accompany report by J. Falconer, P. Eng.

1850 E

2250 E

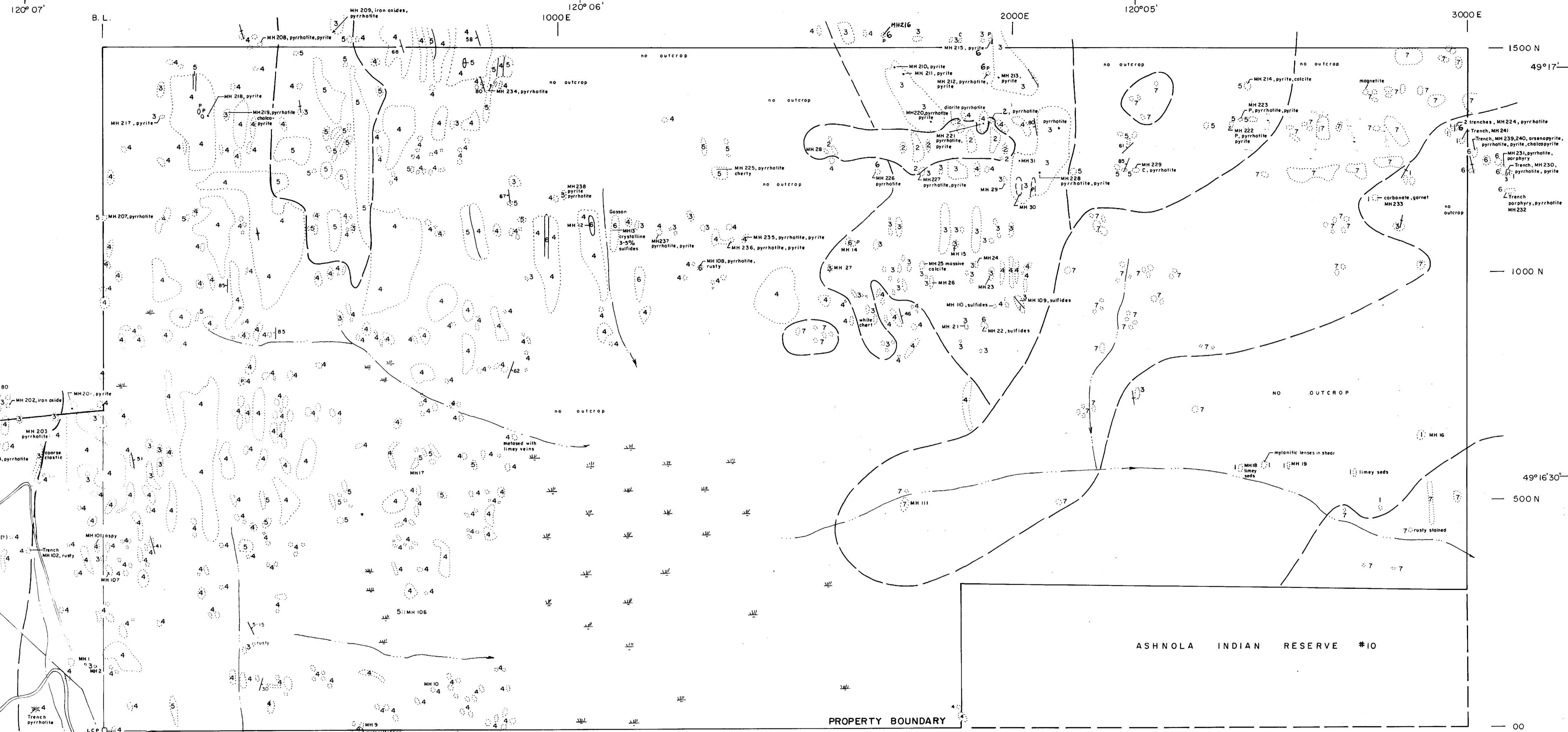
GEOLOGICAL  
 ASSESSMENT

15.177

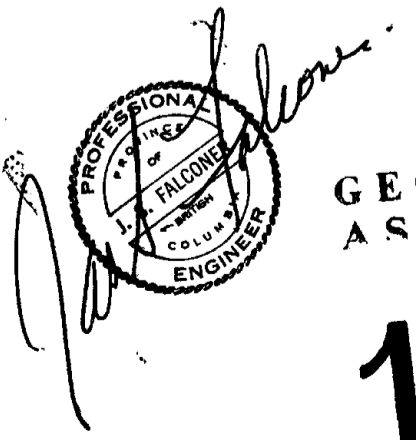
|   |                |
|---|----------------|
| LOST HORSE PROJECT  |                |
| FOR MONTELLO RESOURCES LTD.   |                |
| BY SHANGRI-LA MINERALS LIMITED  |                |
| BRITISH COLUMBIA<br><b>BRANCH REPORT</b><br>DETAIL GRID<br><b>VLF-EM Field Strength</b><br>OSOYOOS M.D., B.C. |                |
| NT 92H-8  | DATE JUNE 1986 |
| DRAWN BY: M.R.  | FIGURE NO. 3d  |

**LEGEND**

- 7 Granodiorite
- 6 Skarn
- 5 Metasiltstone
- 4 Volcaniclastic
- 3 Chert
- 2 Diorite
- 1 Limestone
- Road
- Creek
- Swamp
- MH106 Sample number & location
- P Phenocrysts
- C Conglomeratic
- Attitude of compositional layering
- Outcrop boundary
- Inferred lithologic contacts



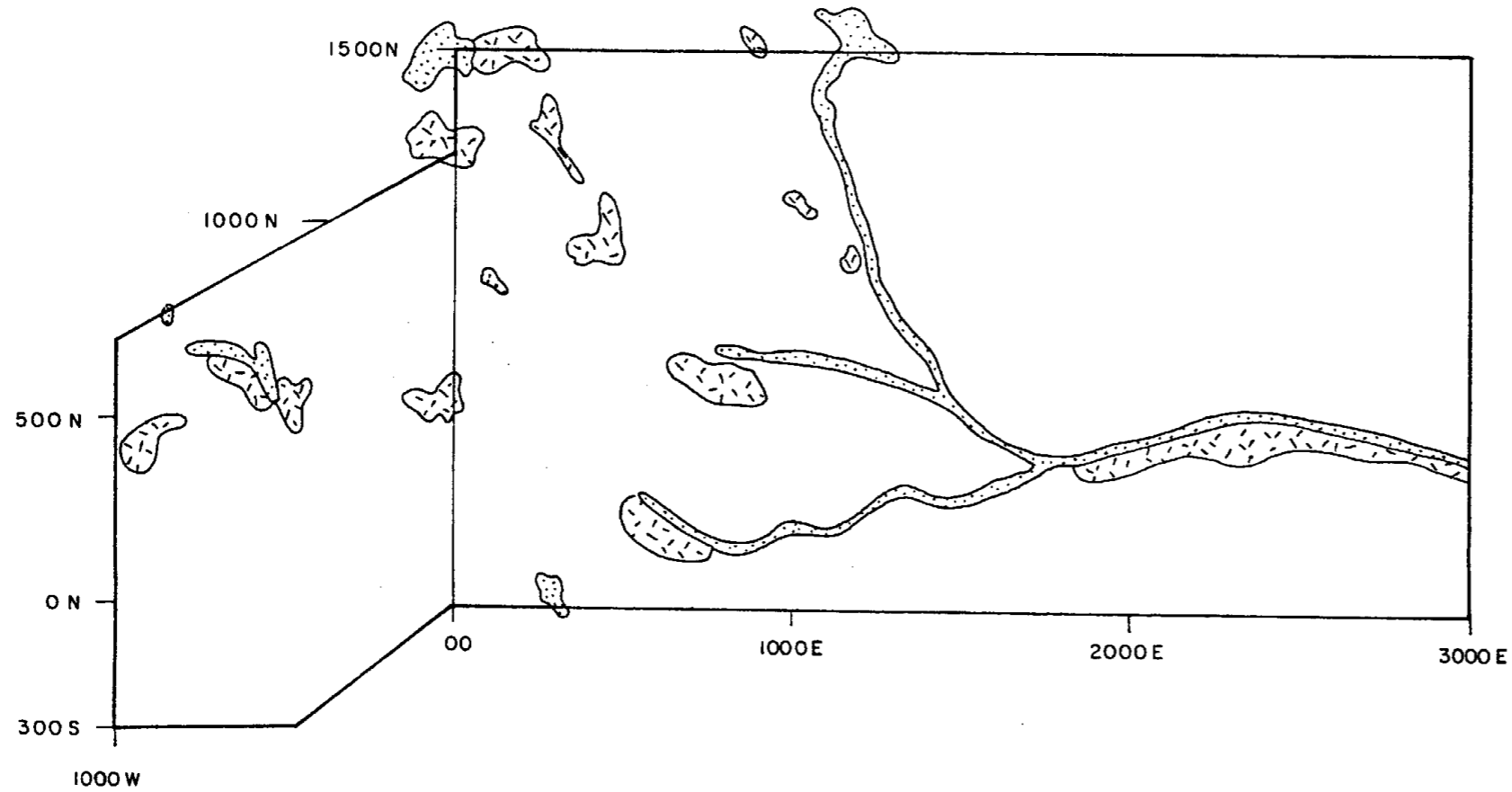
SCALE 1:5000  
0 100 300 metres






|                                 |                 |
|---------------------------------|-----------------|
| <b>LOST HORSE PROJECT</b>       |                 |
| FOR: MONTELLO RESOURCES LTD.    |                 |
| BY: SHANGRI-LA MINERALS LIMITED |                 |
| <b>GEOLOGICAL BRANCH</b>        |                 |
| <b>ASSESSMENT REPORT</b>        |                 |
| <b>GEOLOGY</b>                  |                 |
| OSCOYOS M.D., B.C.              |                 |
| M.S.: 92H-8E                    | DATE: JUNE 1986 |
| DRAWN BY: D.P., H.G., C.D.      | FIGURE No. 4    |

To accompany report by J. Falconer, P. Eng.

15.177



- LEGEND**
-  GLACIAL TILL
  -  ALLUVIUM
  -  COLLUVIUM

  
**GEOLOGICAL BRANCH**  
**ASSESSMENT REPORT**

To accompany report by J. Falconer, P. Eng.

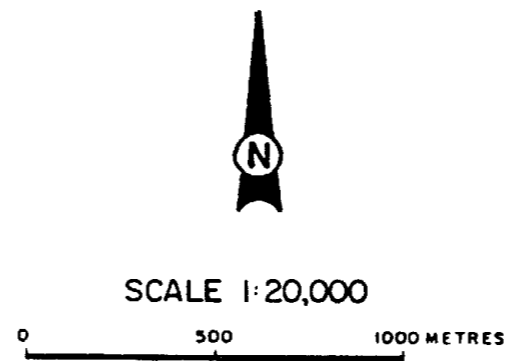
15,177

|                               |
|-------------------------------|
| <b>LOST HORSE PROJECT</b>     |
| FOR: MONTELLO RESOURCES LTD.  |
| BY: SHANGHAI MINERALS LIMITED |

**SOIL PARENT MATERIALS  
MAP**

OSOYOOS M.D., B.C.

|                |                 |
|----------------|-----------------|
| NTS. 92H-8E    | DATE: JUNE 1986 |
| DRAWN BY: R.T. | FIGURE NO. 5a   |





**LEGEND**

- ORTHIC FERRO - HUMIC PODZOLS ( O. FHP )
- ELUVIATED DYSTRIC BRUNISOLS ( E. DB )
- ORTHIC DYSTRIC BRUNISOLS ( O. DB )
- ORTHIC SOMBRIC BRUNISOLS ( O. SB )
- ORTHIC HUMIC GLEYSOLS ( O. HG )
- FERA HUMIC GLEYSOLS ( F. HG )

PROFESSIONAL  
 Geologist  
 S. CALDWELL  
 GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

To accompany report by J. Calder, P. Eng.

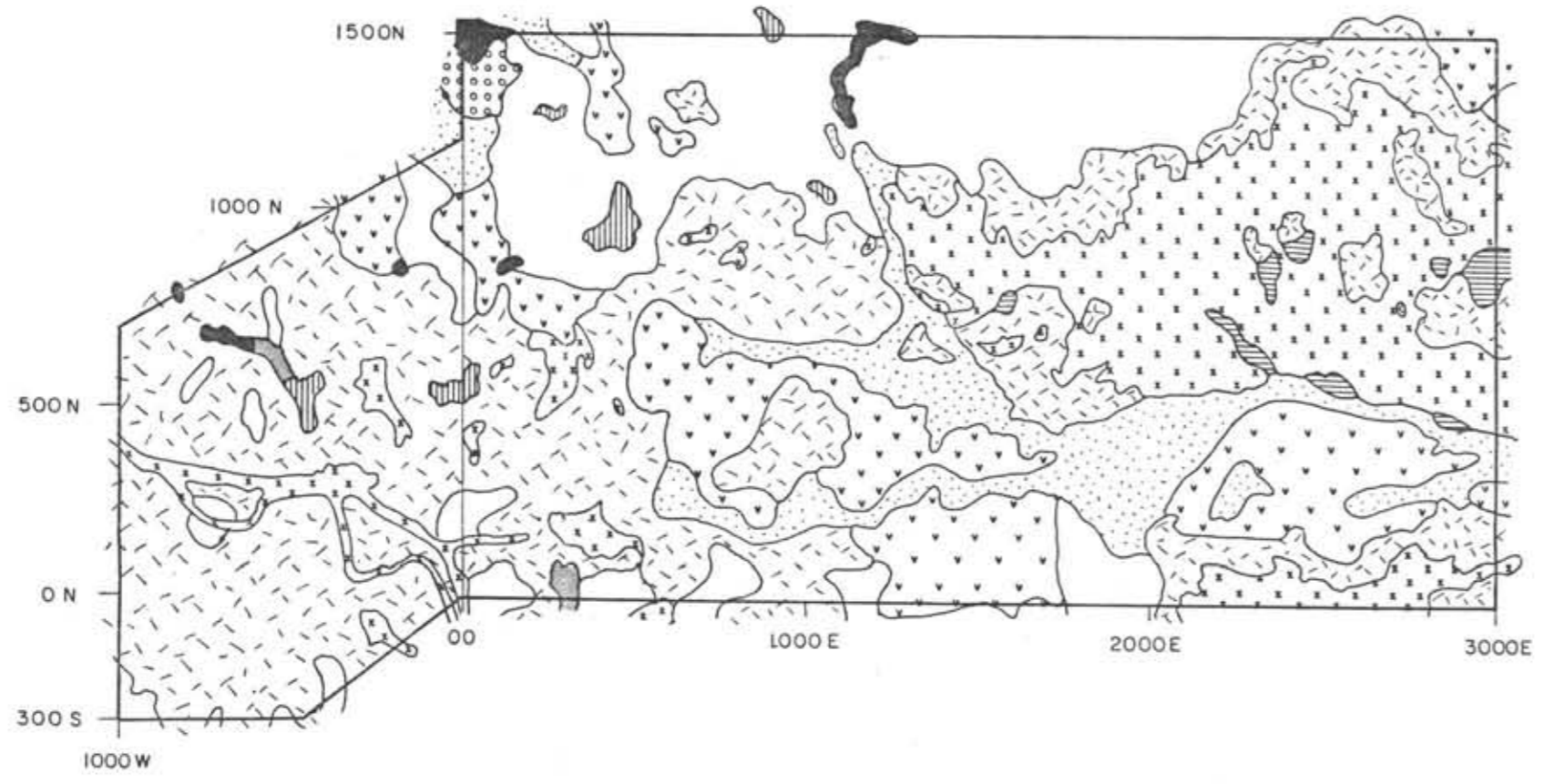
15,177

|                                 |                 |
|---------------------------------|-----------------|
| LOST HORSE PROJECT              |                 |
| FOR MONTELLO RESOURCES LTD.     |                 |
| BY: SHANGRI-LA MINERALS LIMITED |                 |
| <b>SOIL UNITS MAP</b>           |                 |
| OSOYOOS M.D., B.C.              |                 |
| NTS. 92H-8E                     | DATE: JUNE 1986 |
| DRAWN BY: RT.                   | FIGURE NO. 5b   |



SCALE 1:20,000

0 500 1000 METRES



**LEGEND**

- WILLOW SWAMP
- ALPINE MEADOW
- WET ALPINE MEADOW
- PINE RANGE
- OPEN RANGE
- MIXED SPRUCE PINE FOREST
- PINE FOREST
- SPRUCE FOREST
- YOUNG MIXED FOREST
- ASPEN SPRUCE RANGE



SCALE 1:20,000



  
**GEOLOGICAL BRANCH**  
**ASSESSMENT REPORT**

To accompany report by J. Falconer, P. Eng.

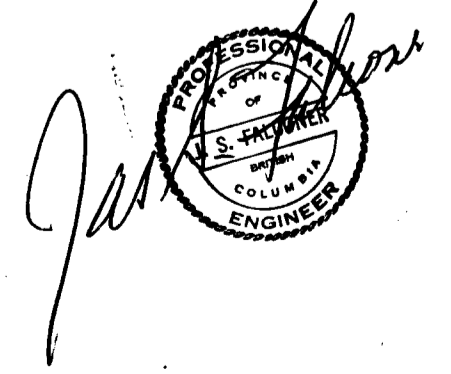
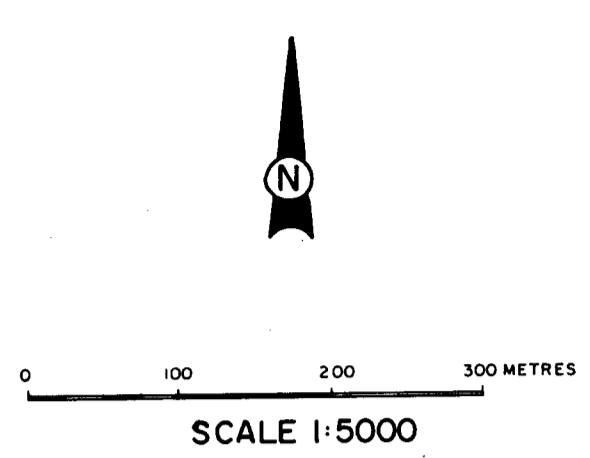
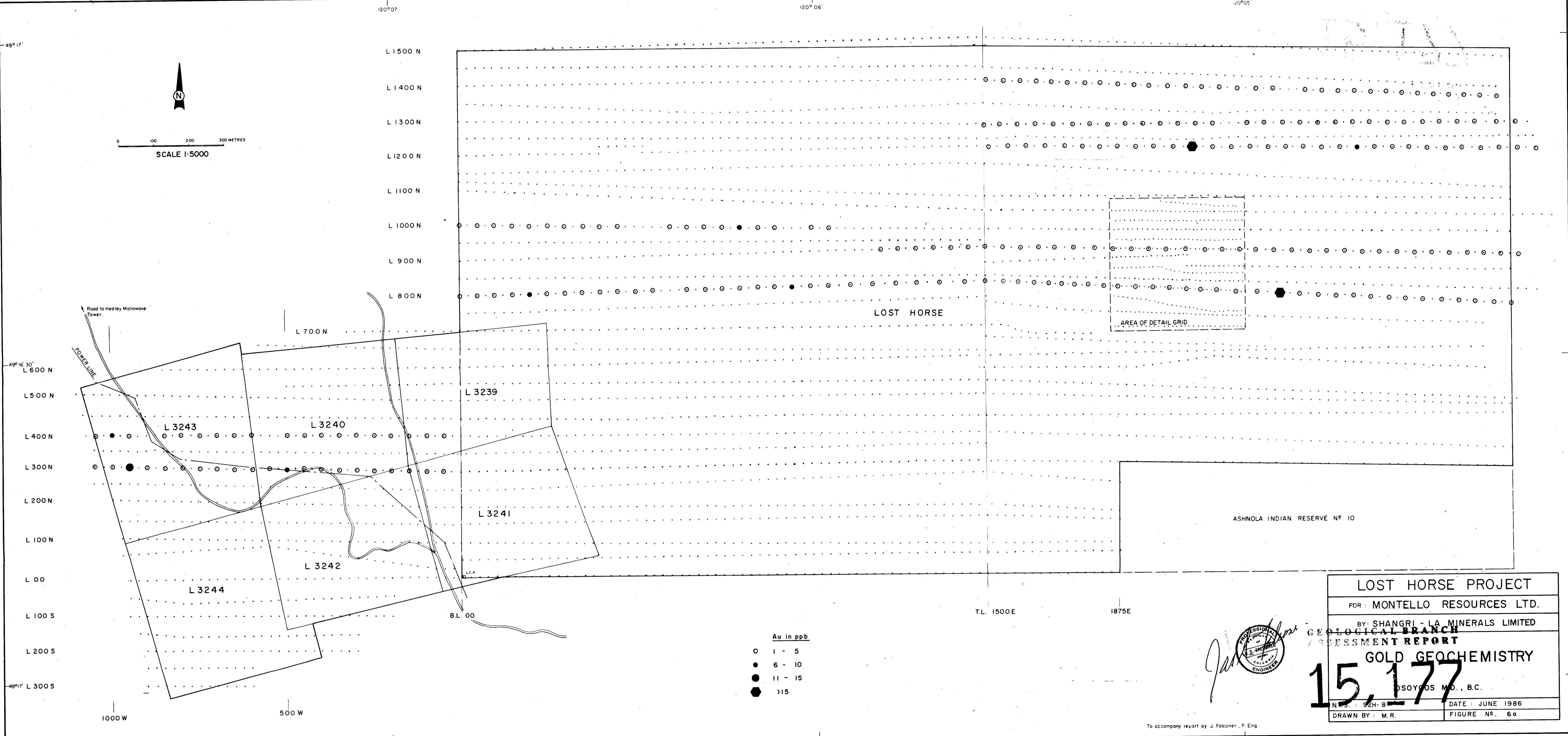
15177

|                              |
|------------------------------|
| <b>LOST HORSE PROJECT</b>    |
| FOR: MONTELLO RESOURCES LTD. |
| BY SHANGHAI MINERALS LIMITED |

**ECOSYSTEM UNITS MAP**

OSOYOOS M.D., B.C.

|              |                 |
|--------------|-----------------|
| NTS 92H-8E   | DATE: JUNE 1986 |
| DRAWN BY: RT | FIGURE NO. 5c   |



|                                 |                  |
|---------------------------------|------------------|
| <b>LOST HORSE PROJECT</b>       |                  |
| FOR: MONTELLO RESOURCES LTD.    |                  |
| BY: SHANGRI-LA MINERALS LIMITED |                  |
| <b>GEOLOGICAL BRANCH</b>        |                  |
| <b>ASSESSMENT REPORT</b>        |                  |
| <b>GOLD GEOCHEMISTRY</b>        |                  |
| SOYUCOS M.D., B.C.              |                  |
| NO. : 92H-8                     | DATE : JUNE 1986 |
| DRAWN BY : M.R.                 | FIGURE No. 6a    |

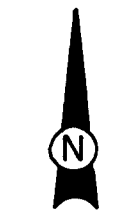
15,177



49° 17'

120° 07'

120° 06'



0 100 200 300 METRES  
SCALE 1:5000

L 1500 N

L 1400 N

L 1300 N

L 1200 N

L 1100 N

L 1000 N

L 900 N

L 800 N

L 700 N

49° 16' 30"

L 600 N

L 500 N

L 400 N

L 300 N

L 200 N

L 100 N

L 00

L 100 S

L 200 S

49° 17' L 300 S

LOST HORSE

AREA OF DETAIL GRID

ASHNOLA INDIAN RESERVE NO. 10

L 3243

L 3240

L 3239

L 3241

L 3242

L 3244

B.L. 00

TL. 1500 E

1875 E

- Ag in ppm.
- .1 - .3
  - .4 - .6
  - .7 - .9
  - >.9

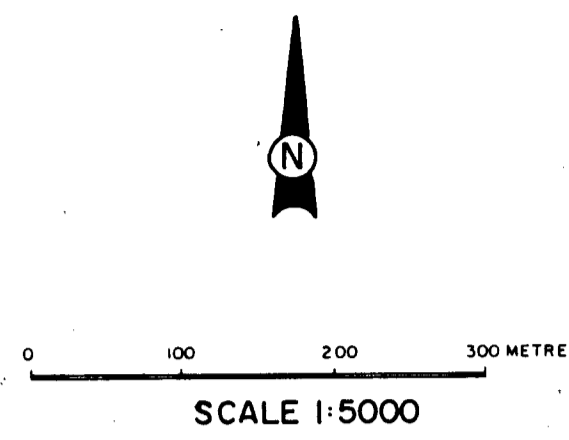
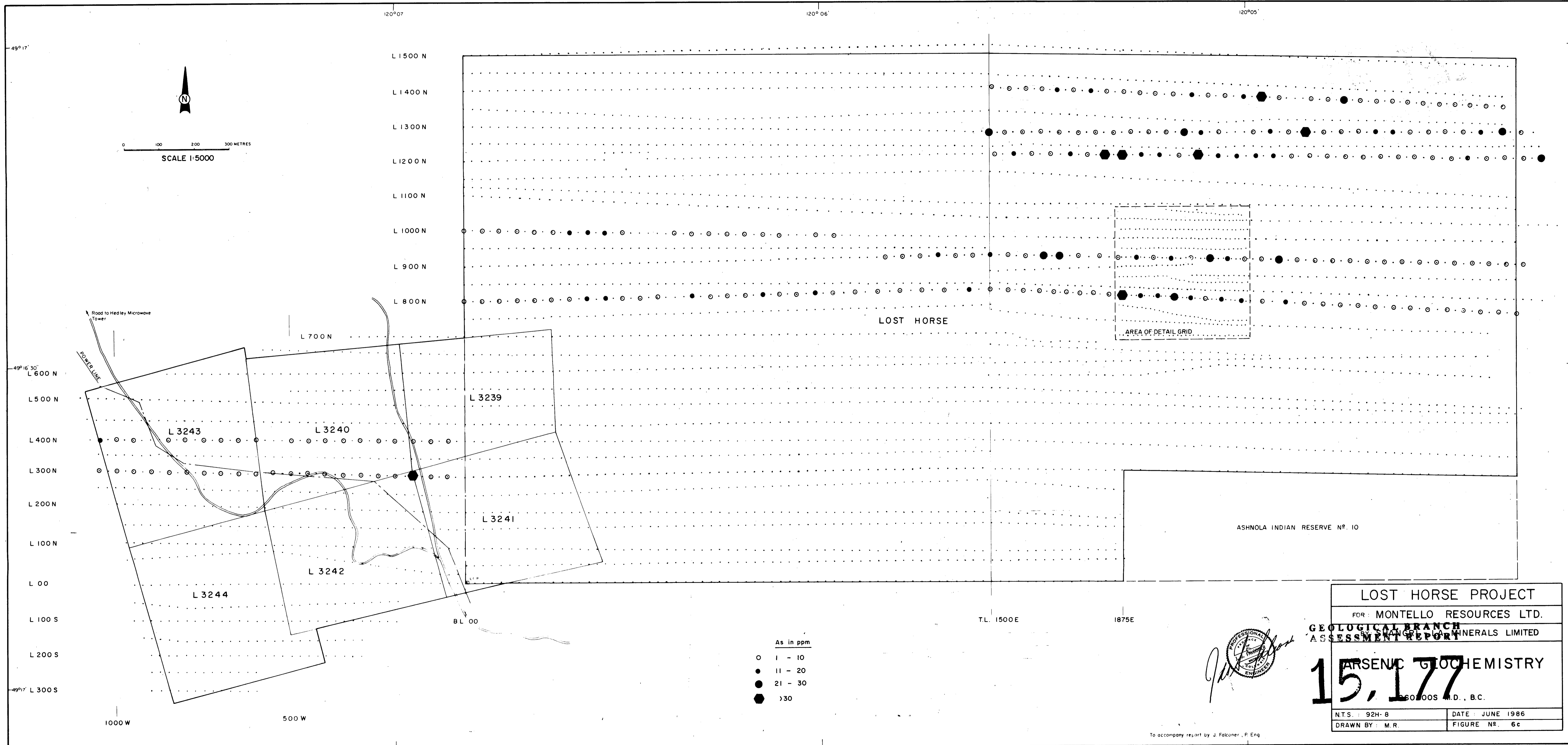
1000 W

500 W

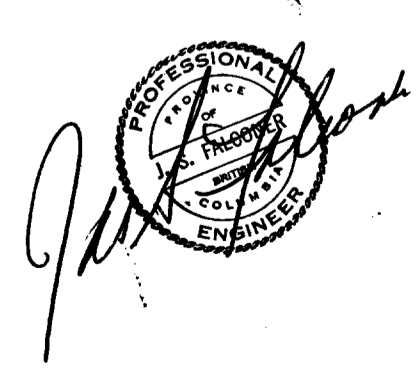
*Handwritten signature*

|   |               |
|---|---------------|
| LOST HORSE PROJECT  |               |
| FOR: MONTELLO RESOURCES LTD.                                  |               |
| BY: SHANGRI - LA MINERALS LIMITED                             |               |
| GEOLOGICAL BRANCH<br>ASSESSMENT REPORT<br>SILVER GEOCHEMISTRY |               |
| 15,177 OSO 00S D.D., B.C.                                     |               |
| DATE: JUNE 1986   | FIGURE NO. 6b |
| DRAWN BY: M.R.  |               |

To accompany report by J. Falconer, F. Eng



- As in ppm
- 1 - 10
  - 11 - 20
  - 21 - 30
  - >30



|                              |                 |
|------------------------------|-----------------|
| <b>LOST HORSE PROJECT</b>    |                 |
| FOR: MONTELLO RESOURCES LTD. |                 |
| BY SHANGHAI MINERALS LIMITED |                 |
| <b>GEOLOGICAL BRANCH</b>     |                 |
| <b>ASSESSMENT REPORT</b>     |                 |
| <b>ARSENIC GEOCHEMISTRY</b>  |                 |
| <b>15,177</b>                |                 |
| 60005 M.D., B.C.             |                 |
| N.T.S.: 92H-8                | DATE: JUNE 1986 |
| DRAWN BY: M.R.               | FIGURE No. 6c   |

To accompany report by J. Falconer, P. Eng.

120°07'

120°06'

120°05'

49°17'

L 1500 N

L 1400 N

L 1300 N

L 1200 N

L 1100 N

L 1000 N

L 900 N

L 800 N

L 700 N

49°16'30"

L 600 N

L 500 N

L 400 N

L 300 N

L 200 N

L 100 N

L 00

L 100 S

L 200 S

49°17' L 300 S

L 300 S

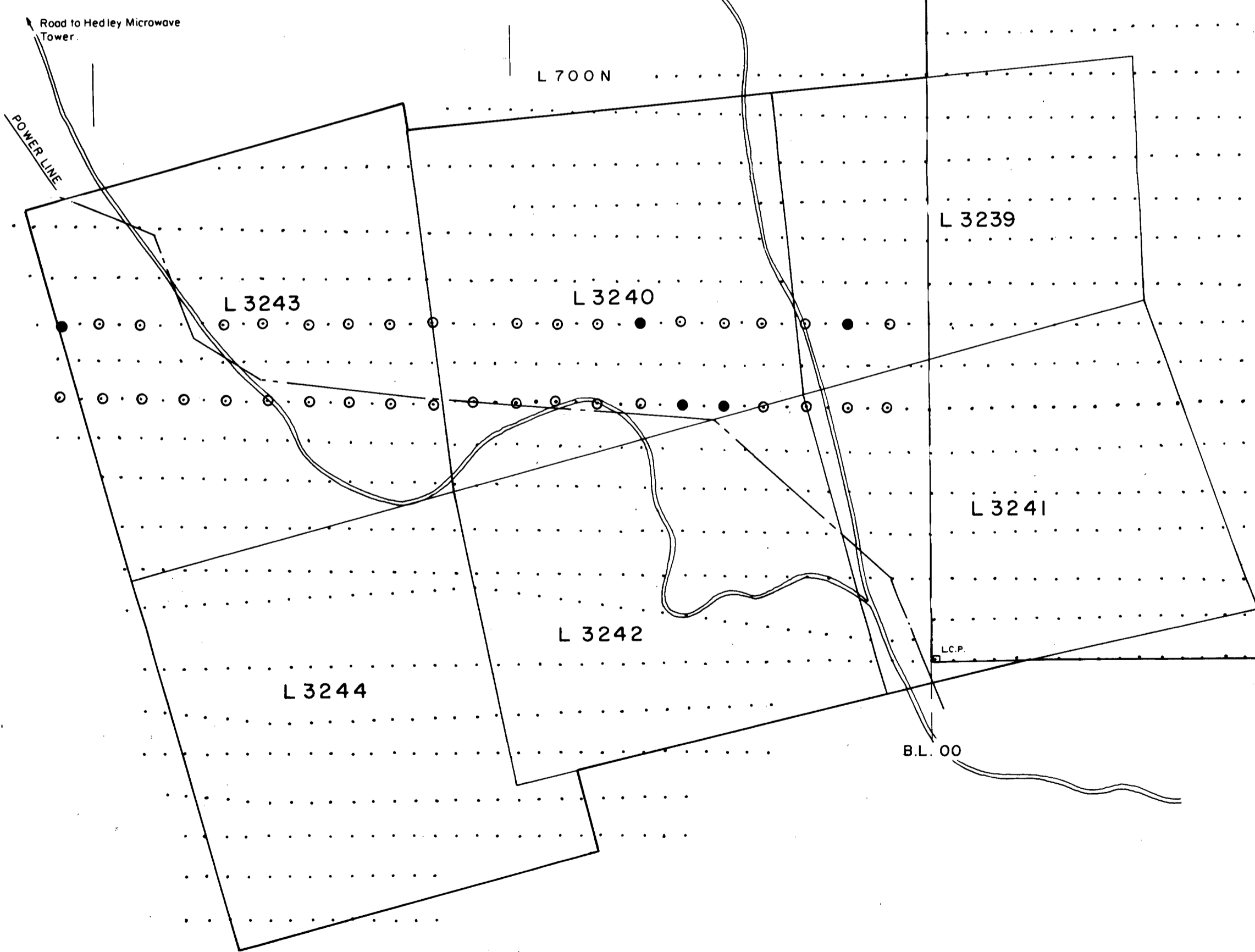
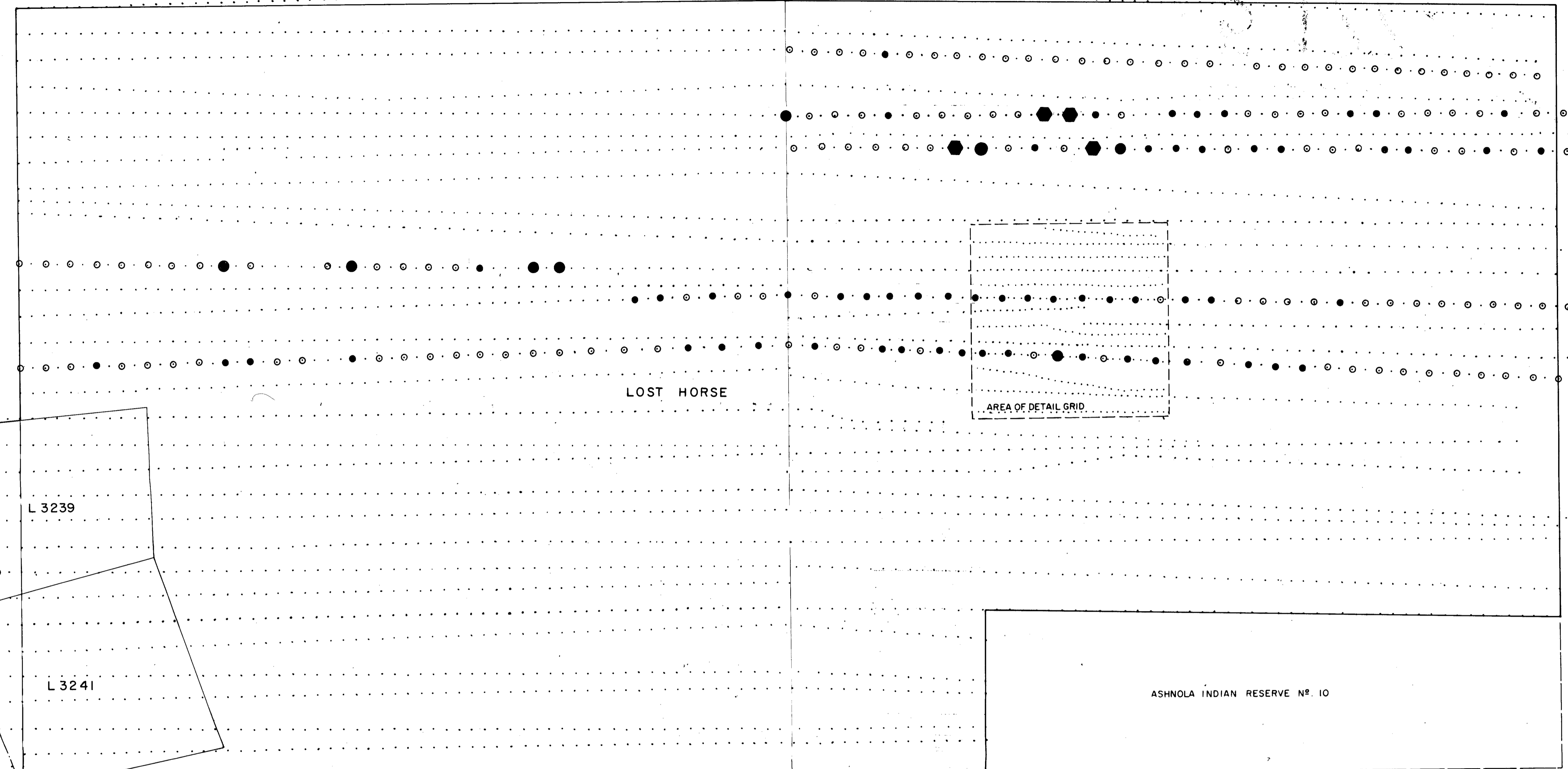
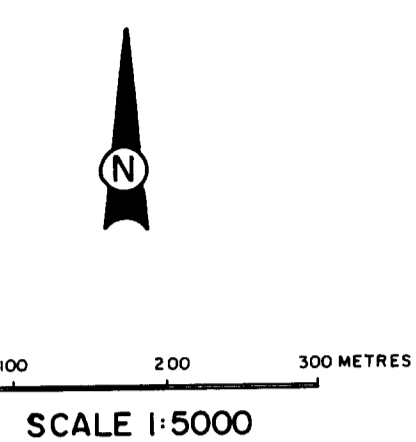
1000 W

500 W

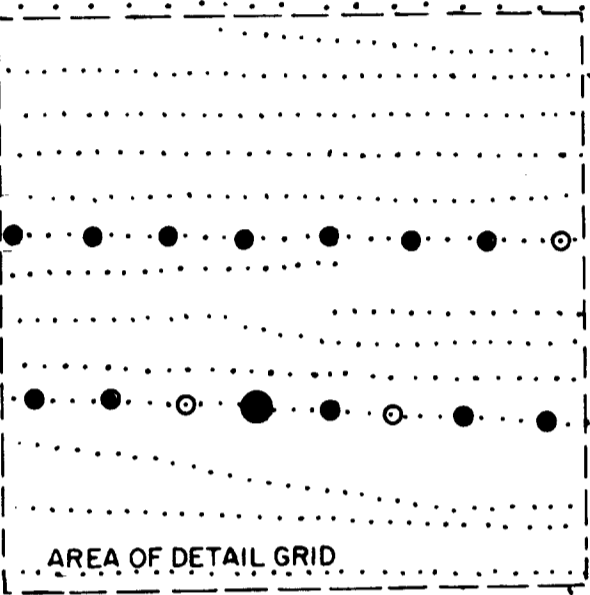
B.L. 00

T.L. 1500E

1875E



- Cu in ppm
- 1 - 30
  - 31 - 60
  - ◐ 61 - 90
  - ◑ >90



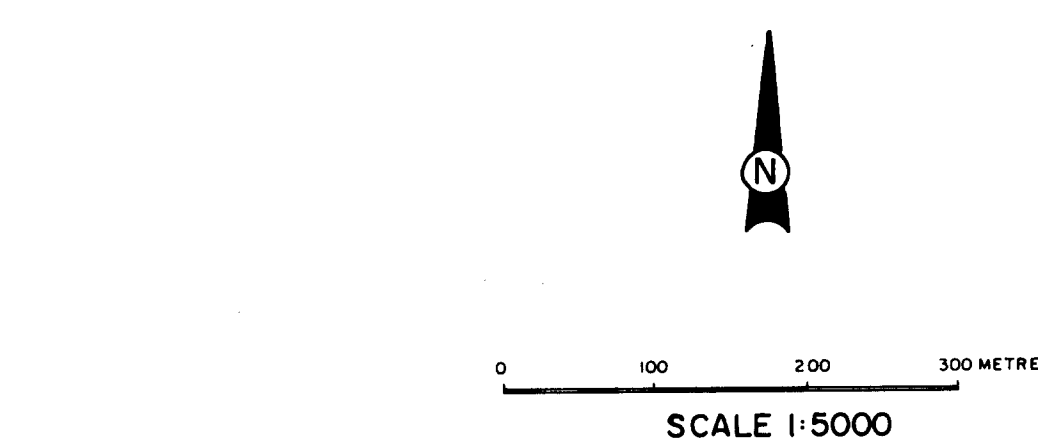
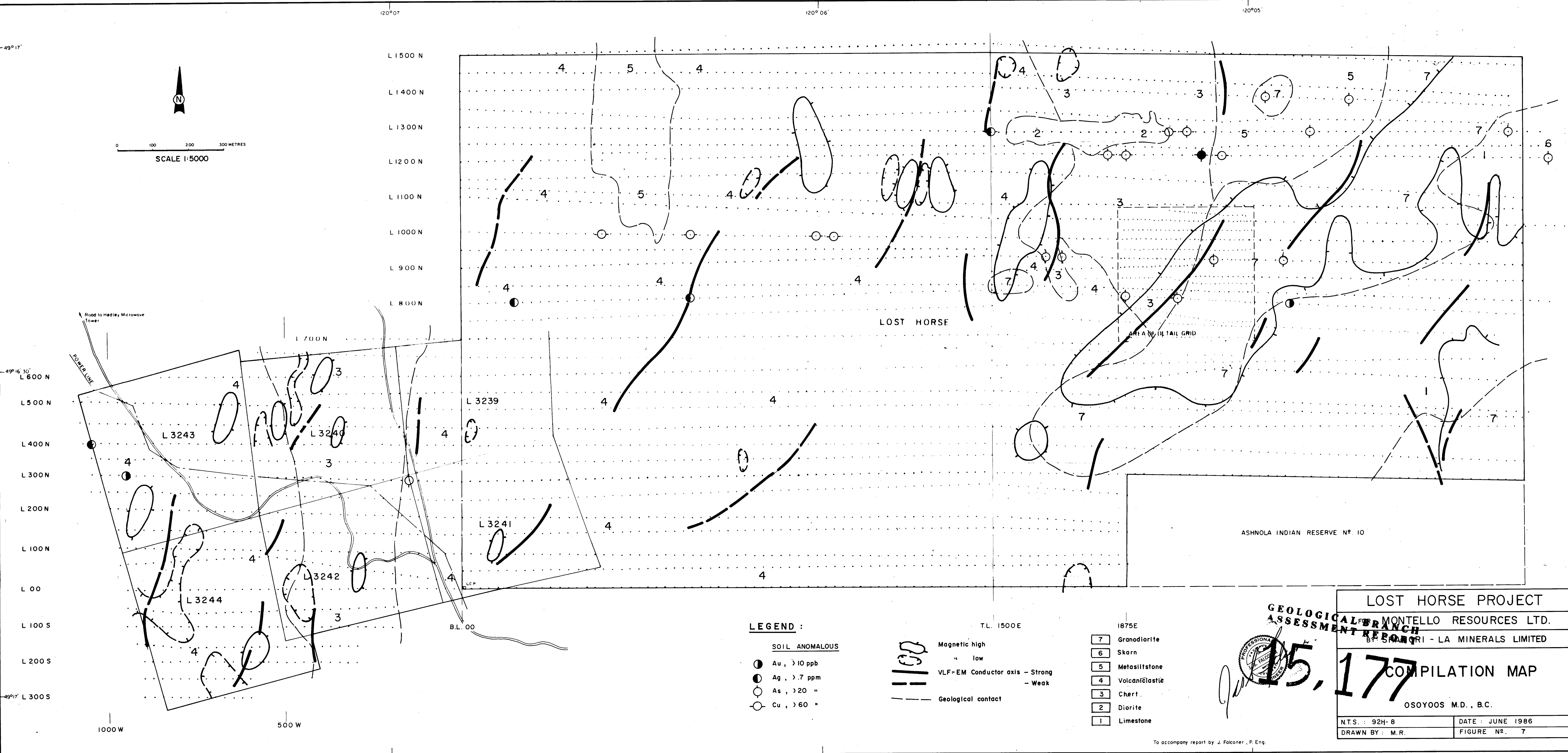
ASHNOLA INDIAN RESERVE No. 10

|                                   |                 |
|-----------------------------------|-----------------|
| <b>LOST HORSE PROJECT</b>         |                 |
| FOR: MONTELLO RESOURCES LTD.      |                 |
| BY: SHANGRI - LA MINERALS LIMITED |                 |
| <b>GEOLOGICAL BRANCH</b>          |                 |
| <b>ASSESSMENT REPORT</b>          |                 |
| <b>COPPER GEOCHEMISTRY</b>        |                 |
| OSQ 005 D.D., B.C.                |                 |
| N.T.S.: 92110                     | DATE: JUNE 1986 |
| DRAWN BY: M.R.                    | FIGURE No. 6d   |

*John Falconer*

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To accompany report by J. Falconer, P. Eng.



**LEGEND :**

- SOIL ANOMALOUS**
- Au, >10 ppb
  - Ag, >.7 ppm
  - As, >20 "
  - Cu, >60 "

- Magnetic high
- " low
- VLF-EM Conductor axis - Strong
- Weak
- Geological contact

- T.L. 1500E
- 1875E
- 7 Granodiorite
  - 6 Skarn
  - 5 Metasilstone
  - 4 Volcaniclastic
  - 3 Chert
  - 2 Diorite
  - 1 Limestone

**GEOLOGICAL ASSESSMENT REPORT**

**15,177**

|                                  |                  |
|----------------------------------|------------------|
| <b>LOST HORSE PROJECT</b>        |                  |
| MONTELLO RESOURCES LTD.          |                  |
| BY SPANGRI - LA MINERALS LIMITED |                  |
| <b>COMPILATION MAP</b>           |                  |
| OSOYOOS M.D., B.C.               |                  |
| N.T.S. : 92H-8                   | DATE : JUNE 1986 |
| DRAWN BY : M.R.                  | FIGURE No. 7     |

To accompany report by J. Falconer, P. Eng.