# NI 43-101 AND ASSESSEMENT REPORT on the <br> MAMMOTH, SCOUT and the BIG SHOWING Property Revelstoke Mining Division British Columbia NTS 82K/13W 

## Linear Interpretation of SPOT-5 Satellite Data, Geology, Mineralization and Potential

Property Evaluation Report

$50^{\circ} 52^{\prime} \mathrm{N}$ and $117^{\circ} 34^{\prime} \mathrm{W}$
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The project area straddles the northern spur of the Goldsmith Mountain, southeast of the confluence of Boyd Creek and the Incommapleaux River. The lower portions of the property are covered with a dense forest of fir, spruce, cedar, pine, and alder. The underbrush is mostly willow, alder and devil's club. Thin overburden occurs on the higher elevations and above tree line of the claims.

The MAMMOTH Property is within the northern part of the Badshot Range, which is within the rugged Selkirk Mountains, 20 km north of Camborne and 70 km southeast of Revelstoke, British Columbia. (Figure 1 \& 2).

The coordinates of the claims are $50^{\circ} 52^{\prime} 30$ " N latitude and $117^{\circ} 34^{\prime} 10^{\prime \prime} \mathrm{W}$ longitude and are located on NTS Map Sheet 93 K/13 BC.

The topography of the project area is steep to extremely rugged, consisting of ridges trending roughly east west, generally parallel to the drainage pattern. Relief is of the order of 2133 m vertically with the highest mountains approaching 2743 m . Steep faced cirques, knife-edge ridges, and cliffs over 100 m are common above 1200 m .

The project area lies within a series of lower Paleozoic sedimentary and volcanic rocks of the Lardeau Group, which is underlain by the Badshot Formation and Hamill Group.

The claims were acquired by: Silver Phoenix Resources Inc. of Canoe B.C. from William Murray of Canoe. Access is via helicopter from Revelstoke.

Access is via about 50 km of gravel road north from Nakusp to Camborne. From Camborne, the property can be reached by Jet boat on the Incommapleaux River. At this point a steep trail commences a steep 3500 ft climb up a narrow ridge then drops 500 ft to the main (BIG Showing).

Three main areas of mineralization occur on the property:

1. The Big showing formerly the Ruby Silver Showing.
2. The Scout Showing
3. The Mammoth Showing

The Big Showing consists of two zones of galena-sphalerite mineralization, which occurs as patches and disseminations over widths of 4.57-7.62 m (lower) and 3.0512.19 m (upper) and is within the hinge zone of a parasitic anticlinal fold. The lower zone occurs at 1400-2133 metres and the upper zone occurs at 1463-1508 metres. Assays for both zones are reported at $10 \%$ lead, $1 \%$ zinc and $0.5-0 z /$ ton silver.

Leask (1984) suggests there is evidence for a distal volcanogenic origin. The mechanism for deposition is similar to that which produced the Red Sea Brines in Africa.

The Scout Showing consists of galena, sphalerite, and pyrite, which occur within the silicified carbonates of the hinge zone as patches and disseminations. Massive galena shoots up to 1.5 metres wide and 7.64 metres long were en countered in the Scout 76 metre long drift. The showings occur at 1768-1829 metres. Assays reported from the Scout Showing run as high as $55.5 \%$ lead, 58.4 oz/ton silver and $0.1 \mathrm{oz} /$ ton gold, Newton Emmons, 1914. A grab sample reported in Leask 1984, ran $19.6 \%$ lead, 14.1 oz/ton silver and $0.092 \mathrm{oz} /$ ton gold.

The Mammoth Showing consists of several showings of galena, sphalerite, tetrahedrite, and argentite in flat lying cross fractures in the carbonate unit within 33 metres of the Scout Fault. The showings are located at elevations of 2255 to 2438 metres.

Discovery of the initial showing on this property was in the summer of 1906 by the Edward Ballie Syndicate of Nelson B.C. Production amounted (Mammoth) to 765 tonnes of hand sorted "ore" that yielded 249 grams of gold, 484 kilograms of silver, 23 tonnes of lead and 1.95 tonnes of zinc (MINFILE). Several adits and small diggings occur on the property.

Property evaluations and reserve calculations by H.A. Simmons (International) Ltd. and W.J. Olsson Associates Ltd. were carried out. Reserves, presumably in the Big Showing, were estimated at 239,885 tons probable at $22 \mathrm{oz} /$ ton Ag. And 439,693 possible at $14 \mathrm{oz} /$ ton Ag plus values of gold lead and zinc. The MINFILE Inventory Report for February 28, 2002 report for 1987 on the Big Showing 217,620 tonnes Ag Indicated @ $754.00 \mathrm{~g} / \mathrm{t}$ and 398,833 tonnes Ag Inferred @ $480.00 \mathrm{~g} / \mathrm{t}$. (MINFILE Database 2002).

The author cannot confirm these results, as they do not conform to the N.I. 43-101 section. These results can only be considered as historical and are only presented in that context. The author cannot find in the literature any evidence of drilling in the Big Showing area.

In 2005 the author conducted sampling in the area of the SCOUT showing and results are:

| Description | $\begin{aligned} & \mathrm{Cu} \\ & \% \end{aligned}$ | $\begin{aligned} & \mathrm{Pb} \\ & \% \end{aligned}$ | $\begin{aligned} & \mathrm{Zn} \\ & \% \end{aligned}$ | Ag $\mathrm{gm} / \mathrm{mt}$ | $\begin{gathered} \mathrm{Au}^{\star *} \\ \mathrm{gm} / \mathrm{mt} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| -grab from 10 cm minor Gn , sph | 0.002 | 0.33 | 0.59 | 16 | 0.01 |
| -adit area, rusty and sil. limestone splotch of galena and sphalerite | 0.085 | 5.32 | 13.23 | 396 | 0.27 |
| -adit area, rusty and sil. limestone minor galena | 0.01 | 2.92 | 1.08 | 181 | 0.07 |
| -grab near adit, rusty mesh textured minor gn, cpy and smithsonite | 0.191 | 0.17 | 34.55 | 58 | 0.21 |

and light brown sphalerite

| -1 m chip from inside adit | 0.089 | 0.39 | 12.42 | 96 | 0.03 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| light coloured sphalerite |  |  |  |  |  |$\quad$|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | 0.553 | 1.46 | 4.26 | 158 |
|  |  |  | 5.76 |  |

Clearly it can be concluded that there are some economic grades in this area.

## The 2005 assessment work done totaled \$9,529.

In 1987 a field study was conducted to further evaluate the Mammoth Claim Group on Mount Goldsmith. The results showed promise for the mining of minerals such as silver and gold, (Letter to Shareholders Campbell Island Mines Ltd. Annual Report 1987). The project warrants continued exploration. The following program is recommended:

A Phase I program should include a detailed compilation of all data on the property. Most of the pre-existing data is not digital and not in any consistent coordinate system. This compilation should be done prior to the field-work. Satellite imagery and detailed topography should also be purchased. Road building should be considered prior to drilling. Phase I should also include detailed mapping and sampling.

No geophysics or drilling is recommended for Phase I. The above program is estimated to cost CAD \$ 77,831.

## The 2006 assessment work done totaled \$10,000

The purpose of the study is to identify geological structures. Structures that may be associated with gold occurrences in a belt of mostly mixed Paleozoic sediments and minor greenstones.

Numerous geological features, mostly linear and curvilinear, are identified. Most are considered likely to represent structures in bedrock.

The principle recommendation is to review the location of known base metal and silver occurrences in relation to the linears and other features identified from this study.
Features, especially major linears associated with gold, silver or base metal, can then be used to guide further exploration. A study of the glacial eskers and drumlins can aid in geochemical sampling. Large curvilinears or circular features are useful for targeting regional uplifts. These uplifts can be important in the search for buried intrusives. Major linears especially where they may form a regional rift is an excellent exploration tool in the search for these types of deposits.

Features that are promising for gold, silver or base metal occurrences include: Intersection points of major linears.

## Linear offsets.

Areas where linears are abundant and of sufficient length to suggest a regional break.
Areas where there are abundant linears of all types suggesting block faulting.

A two Phase succcess orientated program should include a detailed compilation of all data on the property.

Phase 1.
Most of the pre-existing data is not digital and not in any consistent coordinate system. Existing maps should be scanned and digitized. Detailed air photos and satellite images should be acquired.

1. Provisions should be made to gain better access to the property this would include building a road.
2. All existing soil and geophysics grids should be re-located and plotted in the UTM coordinate system.
3. Detailed mapping and sampling should be done on the three mineralized zones. Old adits should be located etc.

## Phase 2:

## Estimated Cost

 \$249,3061. A geophysical survey consisting of EM and VLF. The lower levels as well as the upper levels of the property should be investigated.
2. Trenching followed by drilling can then proceed.
Estimated Cost
\$510,000

### 2.0 INTRODUCTION AND TERMS OF REFERENCE

## $2.1 \quad$ Qualified Person and Participating Personnel

The following report was commissioned by Silver Phoenix Resources Inc. to summarize the geology and mineralization of the MAMMOTH gold property near Revelstoke in northeastern British Columbia. James A. Turner was retained to summarise the geology, structure and gold potential for MAMMOTH Property in a form consistent with NI 43-101. In December 2006 Silver Phoenix Resources Inc. commissioned James A. Turner, P.Geo., to conduct a Linear Interpretation of SPOT-5 satellite data of the MAMMOTH Project. James A. Turner is the sole author of this report.

### 2.2 Terms, Definitions and Units

All costs contained in this report are denominated in Canadian dollars. The term "ppm" refers to parts per million or grams per metric tonne and "ppb" refers to parts per billion or milligrams per metric tonne. The symbol "\%"refers to weight percent unless stated otherwise. All other units are imperial except where noted. The MAMMOTH, SCOUT and BIG SHOWING property will be referred to as the "MAMMOTH Property". The maps are referred to as the MMAMMOTH Project.

## 2.2 <br> Source Documents

Limited previous data were also reviewed and incorporated as noted, including records of previous drifting, mining, trenching, rock-chip sampling and of a soil geochemistry survey completed between 1980 and 1984 by operators not affiliated with Silver Phoenix Resources. Previous assessment reports were also relied upon.

### 2.4 Limitations, Restrictions and Assumptions

James A. Turner did not fully audit or test the accuracy or completeness of data collected by Silver Phoenix. In addition, Silver Phoenix Resources have informed the author that, to the best of their knowledge, no events have occurred, other than those taken into account in the report, which might, in their opinion, cause us to change our views.

## 2.5 <br> Scope of Review

To accomplish this review, James A. Turner, was asked to complete an evaluation of the exploration history, geology, mineralization and gold potential and conduct a Linear Interpretation of SPOT-5 satellite data of the MAMMOTH Property controlled by Silver Phoenix Resources Inc. of Canada. James A. Turner has no financial or other interests in Silver Phoenix Resources or the property.

James A. Turner completed 1 day of rock-chip sampling in the project area in August 2005; 6 rock-chip samples were collected. No metallurgical testing was conducted.

James A. Turner has done a brief review of legal documentation and ownership and has assumed that the presented facts are correct.

## $2.6 \quad$ Purpose of Investigation

This report describes the features observed from a study of an SPOT-5 Satellite image over the MAMMOTH Project Area. The study was commissioned by William Murray of Canoe B.C., Canada.

This study consists of four parts:
Part 1: Focuses on Satellite imagery, the task was to make detail maps of the area. All the data was corrected using a second order orthocorrection using TRIM data. Various filters and enhancements were done to create a useable image with a resolution of 2.5 metres. The final images were then used to generate maps of the area.

Part 2: Focuses on outlining the linears observed on the satellite image maps. The task was to trace linears on the images and then transfer them into AutoCad drawings.

Part 3: Focuses on identification of linear features, the task is to identify linear features that may be indicative of faults and fractures in bedrock. Precious and Base metal deposits are associated with structures of various types, including major rifting and uplifting.

Part 4: Focuses on the compilation of all data completed by the various government agencies, the task is to analyse the results of the above study and combine them with certain supplied data, such as geophysics and geology. Part 4 is not included with this report.

## Image Description

The Satellite scene was Geocoded, using a first order algorithim. The data was also levelled to show a spectral resolution of 0-255 greyscale. The resulting image was then filtered and enhanced and used as a base to make maps of the area. The SPOT-5 image covers the entire area.

## 3.0

CHARACTERISTICS AND USES OF SATELLITE DATA

## SPOT-5

The following description is from the SPOT-5 website http://spot5.cnes.fr/gb/index2.htm

The SPOT satellites orbit the Earth at an altitude of 822 kilometres at the Equator. To maintain a constant resolution, this orbit is circular. To be able to acquire images of any
point on the globe, the orbit is near polar. In other words, because of the Earth's rotation the sub-satellite point follows a regular pattern of ground tracks on the Earth's surface. The orbit is also phased so that the satellite passes over the same point every 26 days. The satellite thus repeats the same ground tracks and the maximum distance between adjacent tracks at the Equator is 108 kilometres. The combined field of view of the two instruments in twin-vertical configuration is 117 kilometres, so the entire Earth can be covered in a single 26-day cycle.
Lastly, the orbit is Sun-synchronous so that solar illumination conditions vary as little as possible. The orbital plane forms a constant angle relative to the Sun direction and the satellite passes over any given point at the same local time within two minutes. The Equator crossing time is 10:30 a.m.


SPOT satellite ground tracks (one day)
SPOT 5 will join SPOT 1, SPOT 2 and SPOT 4 on the same orbit. Each satellite is phased relative to the others to optimize repeat image acquisition and to allow receiving stations and the CMP operations control centre to track the satellites without introducing additional operational constraints.

The satellite reaches its final orbital position after a series of manoeuvres. The orbit emplacement strategy, which allows for the degree of orbit injection error due to the launch vehicle and for constraints imposed by operations on the other SPOT satellites, is designed to keep the positioning phase as short as possible and to conserve propellant for manoeuvres.

## Spectral bands and resolution

Spectral bands for Earth observation applications are selected on the basis of: spectral response-that is, the specific nature of signals reflected or emitted across a range of wavelengths-of features of interest, for example rocks and soils, vegetation, deserts, snow, moisture and urban areas
atmospheric transparency and transmission stability, which can only be sufficiently ensured within certain spectral "windows"
SPOT 5 bands in the visible and short-wave infrared portions of the spectrum are identical to those on SPOT 4:
panchromatic (wide band): 0.49 to $0.69 \mu \mathrm{~m}$
visible B0: 0.43 to $0.47 \mu \mathrm{~m}$ (on VEGETATION only)
visible B1: 0.50 to $0.59 \mu \mathrm{~m}$
visible B2: 0.61 to $0.68 \mu \mathrm{~m}$
visible B3: 0.78 to $0.89 \mu \mathrm{~m}$
short-wave infrared (SWIR): 1.58 to $1.75 \mu \mathrm{~m}$
Table 1:The new HRS instrument acquires images in the panchromatic band only.

| Spectral band | HRG | VEGETATION | HRS |
| :--- | :--- | :--- | :--- |
| PA $0.49-0.69 \mu \mathrm{~m}$ | $2.5 \mathrm{~m}^{*}$ ou 5 m | - | 10 m |
| B0 $0.43-0.47 \mu \mathrm{~m}$ | - | 1 km | - |
| B1 $0.49-0.61 \mu \mathrm{~m}$ | 10 m | - | - |
| B2 $0.61-0.68 \mu \mathrm{~m}$ | 10 m | 1 km | - |
| B3 $0.78-0.89 \mu \mathrm{~m}$ | 10 m | 1 km | - |
| SWIR $1.58-1.75 \mu \mathrm{~m}$ | 20 m | 1 km | - |
| Swath | 60 km | 2250 km | 120 km |

Spectral bands and resolution of SPOT 5 instruments
*Imagery at a resolution of 2.5 metres in the panchromatic band is obtained using a sampling concept unique to SPOT 5, called Supermode. This concept processes two 5-metre panchromatic images acquired simultaneously to generate a single image at a resolution of 2.5 metres.

## Satellite



The new SPOT 5 satellite is designed to ensure SPOT data users continuity of service, enhanced image quality and improved services.

The two new HRG instruments, derived from the HRVIR instruments on SPOT 4, offer higher resolution: 2.5 metres to 5 metres in panchromatic mode and 10 metres in multispectral mode. Imagery at a resolution of 2.5 metres is generated using a new sampling concept dubbed "Supermode". SPOT 5 features a new HRS imaging instrument operating in panchromatic mode. HRS points forward and aft of the satellite, giving it the ability to acquire stereo-pair images almost simultaneously to map relief.

SPOT 5 is also carrying the recurrent VEGETATION 2 instrument and the DORIS instrument.

The SPOT 5 bus is also derived from SPOT 4. A new star tracker will improve image location accuracy from 350 metres on previous satellites to just 50 metres.

Table 2: $\quad$ Spot satellite technical data

| Satellite | Spot 1,2,3 | Spot 4 | Spot 5 |
| :--- | :--- | :--- | :--- |

## General features

| Total mass | 1800 kg | 2760 kg | 3000 kg |
| :---: | :---: | :---: | :---: |
| Solar array (end of life) | 1100 W | 2100 W | 2400 W |
| Altitude at equator | 822 km | 822 km | 822 km |
| Inclination | $98.7^{\circ}$ | $98.7^{\circ}$ | $98.7^{\circ}$ |
| Velocity | 7.4 kps | 7.4 kps | 7.4 kps |
| Orbital period | 101.4 mn | 101.4 mn | 101.4 mn |
| Orbital cycle | 26 days | 26 days | 26 days |
| Dimensions |  | 2x2x5,6 m | $3.1 \times 3.1 \times 5.7 \mathrm{~m}$ |
| Lifetime | 3 years | 5 years | 5 years |
| AOCS pointing | $0.05^{\circ}$ per second | $0.05^{\circ}$ per second | $\begin{aligned} & 0.05^{\circ} \text { per } \\ & \text { second + yaw } \\ & \text { guidance } \end{aligned}$ |
| AOCS velocity | $610-4^{\circ}$ per second | $610-4{ }^{\circ}$ per second | 6 10-4 ${ }^{\circ}$ per second |
| Hydrazine | 150 kg | 150 kg | 150 kg |
| Telemetry | 2048 bps | 4096 bps | 4096 bps |
| Telecommand | 20 words per second | 60 words per second | 60 words per second |
| Launch vehicule | Ariane 2/3 | Ariane 4 | Ariane 4 ou 5 |

high-resolution instrument

|  | 2 HRV | 2 HRVIR | 2 HRG |
| :---: | :---: | :---: | :---: |
| Spectral bands | 1 panchromatic ( 10 m ) 3 multispectral (20 m) | $\begin{aligned} & 1 \text { panchromatic }(10 \mathrm{~m}) \\ & 3 \text { multispectral }(20 \mathrm{~m}) \\ & 1 \text { short-wave infrared }(20 \mathrm{~m}) \end{aligned}$ | $\begin{aligned} & 1 \\ & \text { panchromatic } \\ & (2.5 \text { ou } 5 \mathrm{~m}) \\ & 3 \\ & \text { multispectral } \\ & (10 \mathrm{~m}) \\ & 1 \text { short-wave } \end{aligned}$ |


|  |  |  | infrared (20m) |
| :---: | :---: | :---: | :---: |
| Swath | $2 \times 60 \mathrm{~km}$ | idem Spot 1 | idem Spot 1 |
| Revisit interval | 2 to 3 days | idem Spot 1 | idem Spot 1 |
| HRS instrument |  |  |  |
| Spectral bands |  |  | $\begin{aligned} & 1 \\ & \text { panchromatic } \\ & (10 \mathrm{~m}) \end{aligned}$ |
| Swath |  |  | 120 km; aft telescope$20^{\circ}$, forward telescope $+20^{\circ}$ |
| Revisit interval |  |  | 26 days |
| VEGETATION instrument |  |  |  |
| Spectral bands |  | 4 | idem Spot 4 |
| Swath |  | 2200 km | idem Spot 4 |
| Revisit cycle |  | daily coverage of almost all the globe's landmasses | idem Spot 4 |
| Paylaod telemetry bay |  |  |  |
| Recording capacity | 2x 60 Gbits recorder, 160 images | 120 Gbits recorder(nominal+redondant), 9 Gbits solid-state memory, 400 images | 90 Gbitssolid state memory,550 images |
| Onboard image processing | Two images processed concurrently, then downlinked or recorded using a 1.3 compression ratio | Two images processed concurrently, then downlinked or recorded using a 1.3 compression ratio | Up to 5 images, 2 downlinked in real time, 3 stored onboard using a 2.6 compression ratio |
| Image telemetry link(8 GHz) | $50 \mathrm{Mbits} / \mathrm{s}$ | $50 \mathrm{Mbits} / \mathrm{s}$ | 2x 50 Mbits/s |
| Orbit determination | Doris | DORIS in real time,5 m rms | DORIS in real time, 5 m rms |
| Location accuracy | 350 m | 350 m | 50 m |



The SPOT satellites

## Terms Used to Describe Linear Features

Linear features shown on the satellite imagery are caused by geomorphic features and tonal contrast or differences. Typically linears on an image indicate: topographic features (rivers, streams, glacial deposits, etc.) and/or bedrock features (changes in rock or soil type, structural breaks, etc.). Linear features can be enhanced or suppressed using a variety of filters. Definitions used in this section are summarised below.

A linear feature expresses line-like characteristics of surface features or roughness without structural implications.

A curvilinear feature expresses full or partial circular features on an image without inferring structure.

A lineament is a mappable feature or series of linear features that align in a straight or slightly curving manner and are distinctive from the patterns of adjacent features. Generally a lineament expresses a subsurface, structural phenomenon.

A linear intersection is a point where two or more linears or lineaments intersect.

North-South and East-West linears are referred to as such and labelled " $\mathrm{N}-\mathrm{S}$ " and " $\mathrm{E}-\mathrm{W}$ " respectively. The convention adopted for naming linears that are not trending along the cardinal points of the compass is to refer to their north-hemisphere orientation. For example, a linear trending

Northeast-Southwest is labelled "NE" and referred to as "Northeast" (i.e. not "Southwest").

## 4.0 <br> PROPERTY DESCRIPTION AND LOCATION

### 4.1 Location

The MAMMOTH Property is within the northern part of the Badshot Range, which is within the rugged Selkirk Mountains, 20 km north of Camborne, British Columbia.
(Figure $1 \& 2$ ).
The coordinates of the claims are $50^{\circ} 52^{\prime} 30$ " N latitude and $117^{\circ} 34^{\prime} 10^{\prime \prime} \mathrm{W}$ longitude and are located on NTS Map Sheet $93 \mathrm{~K} / 13 \mathrm{BC}$. This map is presented on the UTM projection in grid zone 11. The horizontal datum is NAD 83 and the vertical datum is NGVD 1929.

## $4.2 \quad$ Property Description

The property forms a continuous block of 40 un-patented claims totaling 1000 hectares and is located in the Revelstoke Mining Division of central British Columbia. The claims were staked in 1988 and filed under the name of William Murray. The claims are contiguous, and each unit covers an area of 500 by 500 metres for 25 hectares. The claims, listed below, are all located on government (crown) land and are shown on Figure 2. The author has not verified all of the claim posts and can pass no opinion on the manner of staking, nor can he verify the position of the claims as shown in Figure 2 of this report. The property has not been legally surveyed.

Table 3
: MAMMOTH PROPERTY SUMMARY

| Claim Name | Record No. | Units | $\underline{\text { Area }}$ | $\underline{\text { Expiry Date }}$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | (ha) |  |
| Big Showing | 390111 | 20 | 500 | Dec 5, 2007 |
| Mammoth | 390112 | 12 | 300 | Dec 5, 2007 |
| Scout | 405424 | 8 | 200 | Dec 5, 2007 |
| Ruby Silver | 529121 |  | 285.524 | Dec 5, 2007 |

Mineral claims in British Columbia may be kept in good standing by applying assessment work, on or before the anniversary date.

## 5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

### 5.1 Access

Access is via about 50 km of gravel road north from Nakusp to Camborne. From Camborne the property can be reached by Jet boat on the Incommapleaux River. At this point a steep trail commences a steep 1067 m climb up a narrow ridge then drops 152 m to the main (BIG Showing). In August the Mammoth showing was visited via helicopter from Revelstoke. Logging roads provide access to some areas near Camborne. As at the time of the property visit these roads were grown over. Logging activity occurred some 20 years earlier.

## $5.2 \quad$ Climate and Physiography

The project area straddles the northern spur of the Goldsmith Mountain, southeast of the confluence of Boyd Creek and the Incommapleaux River. The lower portions of the property are covered with a dense forest of fir, spruce, cedar, pine, and alder. The underbrush is mostly willow, alder and devil's club. Very few outcrops occur in the area, which is covered by thick layers (up to 200 m ) of drift and glacial till. Thin overburden occurs on the higher elevations and above tree line of the claims.

The topography of the project area is steep to extremely rugged, consisting of ridges trending roughly east west, generally parallel to the drainage pattern. Relief is of the order of 2133 m vertically with the highest mountains approaching 2743 m . Steep faced cirques, knife-edge ridges, and cliffs over 100 m are common above 1219 m .

Several post-glacial drainage features or depressions are now swamps and streams. Glaciation has carved rugged cirques and tarns. Glacial Moraines dominate most of the cirques. Large and small Glaciers occur locally.

The area is within the Interior Wet Belt where precipitation exceeds an average of 100 cm per year. Winters, in the area are usually severe and bring several feet of snowpack. The highest average temperatures occur in July at $23^{\circ} \mathrm{C}$ and average lowest temperatures occur in January at $-20^{\circ} \mathrm{C}$ (night).

The field season lasts from early June to the latter part of October.

### 5.3 Local Resources and Infrastructure

Nakusp (pop. 3,000), is one of the administrative and logistical centres of the region and offers many basic services such as food stores, fuel and lumber supplies. Hellicopter services and small aircraft are also available. Nakusp is connected to the south via highway 5 and to the north via highway 6. Revelstoke (pop. 9000) is the major city in the area. It is serviced by road, and rail from Vancouver.

There are no apparent serious impediments to exploration in the form of surface rights alienation, but this would require careful checking before any development work was contemplated. At present, electrical power is not available on the property, but power lines are within 40 km . In the event of mining activities, there appear to be ample sites for processing facilities, waste storage areas, or tailing ponds.

### 6.0 HISTORY

Discovery of the initial showing on this property was in the summer of 1906 by the Edward Ballie Syndicate of Nelson B.C. Production amounted (Mammoth) to 765 tonnes of hand sorted "ore" that yielded 249 grams of gold, 484 kilograms of silver, 23 tonnes of lead and 1.95 tonnes of zinc (MINFILE). The Consolidated Mining and Smelting Company (now Teck-Cominco) optioned the property in the summer of 1913 but little work was done before 1914. The advent of World War I halted exploration on the property. The ground became open in 1973 when the Leask Syndicate staked it. Their claims lapsed in the fall of 1977 but were re-staked in the spring of 1978: the claims lapsed on May $28^{\text {th }} 1979$. On May $29^{\text {th }}, 1979$ eighteen units were located using the modified grid system. Detailed mapping and prospecting commenced in the first part of June 1979 and continued until the end of July 1979. An additional 4 units comprising the Goldy group were tied on to the existing group July $21^{\text {st }}, 1979$.

In the early 1980's, the Big Showing and the Scout were re-staked as the A to F group of six 2-post claims. The property was held by P. F. Explorations Ltd. and subsequently optioned to summer 90 Resources Ltd. and re-optioned to New Campbell Island Mines Ltd. Work in the following years included geological mapping and geochemical soil and rock sampling.

Property evaluations and reserve calculations by H.A. Simmons (International) Ltd. and W.J. Olsson Associates Ltd. were carried out. Reserves, presumably in the Big Showing, were estimated at 239,885 tons probable at $22 \mathrm{oz} /$ ton Ag. And 439,693 possible at $14 \mathrm{oz} /$ ton Ag plus values of gold lead and zinc. The MINFILE Inventory Report for February 28, 2002 report for 1987 on the Big Showing 217,620 tonnes Ag Indicated @ $754.00 \mathrm{~g} / \mathrm{t}$ and 398,833 tonnes Ag Inferred @ $480.00 \mathrm{~g} / \mathrm{t}$. (MINFILE Database 2002).

The author cannot confirm these results, as they do not conform to the N.I. 43-101. These results can only be considered as historical and are only presented in that context. The author cannot find in the literature any evidence of drilling on the MAMMOTH PROPERTY.

In 1987 a field study to further evaluate the Mammoth Claim Group on Mount Goldsmith. The results showed promise for the mining of minerals such as silver and gold, (Letter to Shareholders Campbell Island Mines Ltd. Annual Report 1987).

In 2005 James A Turner, in the company of Bill Murray et al. conducted a property visit to the Mammoth property for the purpose of writing an assessment report. The results of this report are in BC Assessment Report \# 28321. A summary is presented throughout this report.

## 7.0 <br> GEOLOGICAL SETTING as summarized by Leask 1984

### 7.1 Regional Geological Setting

The MAMMOTH Property, formerly the Ruby Silver and Goldy claim groups is located in the Lardeau portion of the Kootenay Are. Regional geology was compiled by Peter Read for the Geological Survey of Canada at a scale of 1:250,000.

The project area of this study lies within a series of lower Paleozoic sedimentary and volcanic rocks of the Lardeau Group, which is underlain by the Badshot Formation and Hamill Group. These regional units are described below.

Hamill Group (Lower Cambrian)
Hamill group comprises a thick sequence of quartzitic rocks beneath the Badshot Formation. One member, the Marsh Adams Formation outcrops north of Boyd Creek where it contacts the Battle Range Batholith disconformably. The Marsh Adams Formation consists of quartzite, micaceous quartzite and phyllite. This is overlain by the Mohican Formation which consists of phyllite and limestone.

Badshot Formation (Lower Cambrian)
The Badshot Formation overlies the Mohican Formation conformably. The lithology consists mainly of grey, thick bedded to massive micritic limestone. Lenses of marble are observed within the limestone and commonly contain black argillaceous material. Algal pellets and Archeocyathids have been found in several locations by James T. Files (1964). The northern extent of the Badshot Formation is just north of the confluence between Boyd Creek and the Incommapleaux River. It has thinned down to a few tons of feet at this point from a thickness of over 900 feet (274.74 m) southeast of Duncan Lake.

## Lardeau Group (lower Paleozoic)

Lardeau Group overlies the Badshot limestone and includes a great thickness of sedimentary and volcanic rocks. This sequence is un-fossiliferous and highly deformed. Detailed stratigraphy (Fyles and Eastwood, 1962) was determined by sufficient observations of graded bedding between the Alkolkolex River and the Incommapleaux River. Only the lowermost member the Index Formation is of interest in this study because it hosts the Ruby Silver and Goldy mineralization and comprises all the units mapped on the $1: 10,000$ detailed property maps.

## Battle Range Intrusions (Cretaceous)

Battle Range Batholith intrudes the Hamill and Lardeau groups about three miles north of the Ruby silver showing. The intrusion is composite; the southern portion consists of a biotite-hornblende quartz monzonite containing sodic andesine but the main body of the batholith is a muscovite-biotite granodiorite with calcic oligoclase. A pyritiferous alaskite is present in the central portion of the batholith.
7.2 Project Geology Figures refer to Leask (1984).

Overall structure on detailed map consists of a series of nearly upright folds within the lower Paleozoic Lardeau group (Fig. 1A). Observations of graded bedding; (Fyles and Eastwood, 1962) have served to indicate the stratigraphic order, as no fossils have been found in this group to date. All members except the uppermost unit, unit 4, (Fig.5) exhibit lateral facies changes between the lithologies contained within them lithologies present in stratigraphic succession from lowest to highest are;
(1) Unit 1A, a quartz, grit and green gritty phyllitic,
(2) Unit 1B, gray-green and light green phyllitic siltstone,
(3) Unit 2A, lead-zinc mineralization with associated silicification,
(4) Unit 2B, mangano-siderite with massive magnetite-hematite and lead zinc,
(5) Unit 3A, gray sugary limestone,
(6) Unit 3B, gray graphitic limestone with thinly interbedded dark graphitic phyllites,
(7) Unit 4, dark green phyllite to and greenstone (Fig. 5).

Stratigraphy:
Stratigraphy of the Index Formation sedimentary and volcanic rocks is well exposed on the Ruby Silver and Goldy claims in the amphitheater-like basins and on the narrow ridges. Dips are moderate to steep to the northeast, with some dip slopes being formed on the north facing slopes as a result of bedding and foliation orientation.
Unit 1, the lowermost member of the index Formation, is a mixture of quartz grit and green, chloritic, gritty phyllite; it has a thickness of approximately 800 feet. An upper sub--unit (Unit 1B) of gray-green and light green phyllite is lenticular in morphology and is not continuously present. This unit has a maximum thickness of 120 feet. In some places the contact between gritty phyllite and upper gray-green and light green phyllite is distinct, in other places it is gradational. Lenticular manganiferous siderite (Unit 2B), meta-chert and associated lead-zinc mineralization (Unit 2A) occur at the contact between Unit 1B and Unit 3A, a gray sugary limestone (Fig. 5). This gray sugary limestone forms the lower part of Unit 3, the major carbonate unit.

This lower division appears bleached near the lower contact and locally has a white sugary appearance. In other places, particularly on the ridge between the Ruby Silver
and Goldy claims, rusty lenticular, lenses that contain up to two percent disseminated crystals of magnetite are found within the sugary limestone. The intermediate division, Unit 3B, is a gray graphitic limestone with thinly, interbedded dark graphitic phyllites and has, a maximum thickness of approximately 300 feet (Fig. 5).

The uppermost unit is a dark green phyllite and greenstone with rare pillows (Fyles and Eastwood, 1962). This submarine volcanic unit is approximately 150 feet thick and conformably overlies the carbonate.

## $7.3 \quad$ Structure Figures refer to Leask (1984).

Regionally, the stratified rocks of this area lie on the western limb of the Purcell Anticlinorium (Reesor, 1973). Three phases of folding give rise to the map patterns observed (Fig 1).

The first phase of folding resulted in the recumbent southeast plunging Alkokolex Anticline (Fyles, 1962), which closes, to the northeast. Sparse evidence of this event is preserved but where it exists, it is marked by rootless, isoclinal folds with well-developed axial plane foliation. Welldeveloped cleavage, likely due to shear folding of the first event fans around phase two fold axes to some degree (Fig. 7).

Second phase folds are macroscopic and ubiquitous, and are largely responsible for the map distribution of rock units in figure 1. These folds are commonly asymmetric with the majority being isoclinal. The F2 fold axes are defined on the stereo net plot by poles to F1 and F2 axial plane cleavage (Fig. 7) and minor fold axes (Fig. 9). Some incompetent units are repeated within themselves by isoclinal folding as is well displayed on the precipitous cliff north of Goat Creek (Fig.1). Complexities of these structures are often so great that the original stratigraphy is no longer decipherable. Competent units tend to be broken into lenses surrounded by well-cleaved incompetent, micaceous units. Observed thicknesses give little indication of original stratigraphic thickness because of the high degree of flowage. Some homoclines have been formed by attenuation during the later progression of the second folding event.

Only the lower overturned limb of the Alkokolex Anticline is observed in the study area, thus the stratigraphic sequence 13 overturned. The first two phases of folding were nearly coaxial with a trend of 148 degrees azimuth and plunge of 10 degrees. The two phases of folding are interpreted as a simple progression of a single stress configuration. Later stages have deformed phase two axial planes and fold axes slightly about a roughly easterly trending fold axis with a plunge of 60 degrees.

The observed faulting episode was post phase two folding and likely resulted from the natural progression of the stress condition that gave rise to F1 and F2 folds because the fault planes are nearly parallel to F2 axial planes. All observed fold
vergences were consistent with the geologic and structural interpretation shown in Figure 1A.

## 8.0 DEPOSIT TYPES modified after Leask 1984

Lower Index formation clastics (Unit 1A) formed under conditions of high cratonic relief and were likely basinal slope deposits. The chlorite rich graygreen and light green phyllitic siltstone likely reflects a deeper basin environment. Overlapping lateral facies changes resulted from multiple transgressions and regressions, although structural complexity complicates this interpretation. Massive chlorite at the base of the silicified ore zone (Unit 2A) reflects hydrothermal activity in the basin. Lead-zinc mineralization associated with silicification is precipitated from metalliferous brines originating from fissures at some depth in the basin. The manganiferous siderite horizon is generally stratigraphically y coincident with the lead-zinc mineralization but was precipitated more distally from the source of metalliferous brines.

Speculatively, rates of influx of hydrothermal brines may have varied because of sea level changes and subsequent changes in hydrostatic head in the fissure system (Degens Ross, 1970). Mineralizing episodes appear to have been fairly closely followed by either uplift or regression of the sea. Gray micritic limestone (Unit 3A) was apparently deposited above the carbonate compensation depth, in an off-shelf environment, as pelagic ooze. Rusty lenticular lenses that contain up to two percent disseminated magnetite are present at several horizons within the gray limestone. These rusty horizons possibly represent several pauses in carbonate deposition with concomitant formation of insoluble residue by carbonate dissolution along these unconformities. Transgressions of the sea resulted in more stagnant, deeper water conditions and deposition of graphitic carbonate with thinly interbedded black graphitic phyllites (Unit 3B). Sea level regression followed, and deposition of pelagic oozes became dominant again.

Unit 4, volcanic greenstone and dark green phyllite formed in a submarine environment as flow rocks because rare pillows arc found.

## 9.0 <br> MINERALIZATION, ALTERATION AND EXPLORATION

Three main areas of mineralization occur on the property:

1. The Big Showing formerly the Ruby Silver Showing.
2. The Scout Showing
3. The Mammoth Showing

The Big Showing consists two zones of galena-sphalerite mineralization, which occurs as patches and disseminations over widths of 15-25 feet (lower) and 10-40 feet (upper) and is within the hinge zone of a parasitic anticlinal fold. The lower zone
occurs at 4600-4700 feet and the upper zone occurs at 4800-4950 feet. Assays for both zones are reported at 10\% lead, $1 \%$ zinc and $0.5 \mathrm{oz} /$ ton silver.

Leask (1984) suggests there is evidence for a distal volcanogenic origin. The mechanism for deposition is similar to that which produced the Red Sea Brines in Africa.

The Scout Showing consists of galena, sphalerite, and pyrite, which occur within the silicified carbonates of the hinge zone as patches and disseminations. Massive galena shoots up to 5 feet wide and 25 feet long were encountered in the Scout 76 m long drift. The showings occur at 1768-1829 metres. Assays reported from the Scout Showing run as high as $55.5 \%$ lead, $58.4 \mathrm{oz} /$ ton silver and $0.1 \mathrm{oz} /$ ton gold, Newton Emmons, 1914. A sample reported in Leask 1984, ran $19.6 \%$ lead, 14.1 oz/ton silver and $0.092 \mathrm{oz} /$ ton gold.

The Mammoth Showing consists of several showings of galena, sphalerite, tetrahedrite, and argentite in flat lying cross fractures in the carbonate unit within 33 metres of the Scout Fault. The showings are located at elevations of 2256 to 2438 metres.

The Scout Fault apparently served as a conduit for digenetic mineralizing fluids that deposited sulphides along this structural trap. These fluids are likely responsible for the massive silicification of the fault zone (Leask 1984).

The Mammoth showings were observed and sampled by the writer in September 2005.

## 9.1 <br> Exploration (2005)

In the spring of 2005 Bill Murray and a helper conducted work for 6 days on the property:

## Work Performed: prospecting

Date started June 3 /2006
Date finished August 25/2006
"I Spent one day working on the Southeast side.
The terrene is very steep, were able to travel a long way on the 4 wheeler as there is a logging road that cuts through the corner of the property. The bush is very heavy going from the road to the property and then gets very steep. Spent most of the day in the trees. Did not find anything of interest.

B] Spent one day working on the Northeast end of property.
Not as steep in this area but did not find anything of interest other than an old claim post just off the road.

C] Spent the day on the Northwest end of the property west of the creek. Terrene is very steep in this area and the only way to prospect it would be to come down from the top with a safety rope. Found lots of float.

D] Spent one day working on the North end of property.
Found some small veins in a couple spots on the east side of the creek about 300 meters from the road and 130 to 150 meters above the creek. Flagged the location. Took some samples but did not have them assayed. It was very steep going and we had to use a rope to get back down.

E] Spent one day on the west side at north end of the property. There is an old trail on this side of the property that goes all the way to the top. We did not make it all the way to the top as we did not have enough time. Got just below what looked like an old helicopter landing. The trail is very steep and takes just about as long to go down as it does to go up. The terrene is too steep here to put in a 4 wheeler trail. We found some float that someone earlier had flagged, did not take any samples.

F] Spent one day with helicopter on the southwest side with Jim Turner, and two other helpers and collected samples from and around some old workings. The terrene is very steep in this area. There is an old cabin still standing about 200 feet above the old workings and above the tree line."

In August, 2005 James A. Turner, P.Geo. Bill Murray and two prospectors examined the Mammoth Showings.

### 10.0 SAMPLING METHOD AND APPROACH

All geochemical sampling, of the MAMMOTH Property i.e. soil, rock and trench, was conducted by well-respected and competent geologists and geological engineers (see list of references). Details of sampling methods are found in the assessment reports describing each of the projects. Sample sites were tagged in the field. Sample intervals were normally 5-20 metres apart. While previous grids were not found, most are overgrown; the writer is of the opinion that the sampling method used was adequate considering the nature of the project and industry standards at the time.

### 11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

All trench and rock samples taken by James A. Turner were placed in plastic bags and closed with ties. Acme Analytical Laboratories Inc. completed the analysis. The geochemical results were transmitted to the writer via e-mail. Samples were delivered via the writer directly to the Lab.

The rock samples were prepared by air-drying, then crushing to 10-mesh (<2 mm); a 250 g portion was pulverized to 200 -mesh ( $<75$ microns). The sample pulps will be in locked facility for long-term storage. Access to this facility is only through the particular Laboratory.

At Acme Analytical Laboratories, the samples were analyzed for 32 elements using two methods. Gold content was determined to the 0.2 ppb level using the Acme Group 3A wet digestion method. A 10 g sample was digested in Aqua Regia, and analyzed by Graphite Furnace Atomic Absorption Spectroscopy or Inductively Coupled Plasma Mass Spectroscopy (ICP-MS) finish. The Acme Group 1 D multi-element method was used on a minimum 1 g pulp to determine other elements and gold to the ppm level. In this method, the samples were digested in hot Aqua Regia and analyzed by Inductively Coupled Plasma Atomic 'Emission Spectroscopy (ICP-AES).

### 12.0 DATA VERIFICATION

No sample data verification other than those provided by TSL (blanks, standards, duplicates) was included in the 2005 program.

Table 4: Samples collected by James A. Turner, P.Geo. Figure 2a
Acme file \# A505047 Received: AUG 30 2005* 5 samples in this disk file.
Analysis: GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML , ANALYSED BY ICP-ES.

AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.

| ELEMENT | Northings | Eastings Elevation Description |  |  | Cu | Pb | Zn | $\mathrm{Ag} A u^{*}$ $\mathrm{gm} / \mathrm{mt} \mathrm{gm} / \mathrm{mt}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SAMPLES |  |  |  |  | \% | \% | \% |  |  |
| 19771 | 5634092 | 459575 | 2077 | -grab from 10 cm minor Gn , sph | 0.002 | 0.33 | 0.59 | 16 | 0.01 |
| 19772 | 5634058 | 459652 | 2050 | -adit area, rusty and sil. limestone splotch of galena and sphalerite | 0.085 | 5.32 | 13.23 | 396 | 0.27 |
| 19773 | 5633983 | 459654 | 2050 | -adit area, rusty and sil. limestone minor galena | 0.01 | 2.92 | 1.08 | 181 | 0.07 |
| 19774 | 5633993 | 459522 | 2050 | -grab near adit, rusty mesh textured minor gn, cpy and smithsonite and light brown sphalerite | 0.191 | 0.17 | 34.55 | 58 | 0.21 |
| 19775 | 5634032 | 459601 | 2050 | -1 m chip from inside adit light coloured sphalerite | 0.089 |  | 12.42 | 96 | 0.03 |
| STANDARD | R-2a/OxL34 |  |  |  | 0.553 | 1.46 | 4.26 | 158 | 5.76 |

These samples were taken in the area thought to be at or along strike from the SCOUT showing. A adit was found: it was approx. 2 m square at the opening and drifted down at an angle of $25-30^{\circ}$ into the hill. It appeared to be $3-5 \mathrm{~m}$ deep. Some offset drifting was done, presumably to follow the structure. The stratigraphy appeared to be stratabound galena, sphalerite and some chalcopyrite, mineralization. It is not known if any production came from this adit.

The writer is familiar with the geochemical database and has verified locations of anomalies reported in the data with values as reported in the original assessment reports. Much of the sampling was done prior to implementation of National Instrument 43-101 quality control measures and data verification procedures applied at that time may have varied from those now required under the Instrument. However, the analytical procedures and industry standards used at the time are considered adequate.

The writer has not verified the targets set out in the interpretation as snow conditions prevented a site visit. A site visit is scheduled when weather conditions improve.

## 13.0

## INTERPRETATION AND CONCLUSIONS

The Property contains several high-grade silver, lead and zinc showings that are related to events similar to a distal volcanogenic model.

The Big Showing;
1)

Is a distal volcanogenic type
2) Has been subjected to deformation and shearing

The Scout and Mammoth Showings;
3)

Are related to a fault
Have some stratabound component

## 14.0

 INTERPRETATION OF THE SPOT-5 IMAGE
## Methods Applied

For this study, all major and minor linear features were outlined on the SPOT_5 image. The linears were then digitized using AutoCad 2005. While many features can be identified from the images, caution must be exercised in interpreting satellite data without follow-up field investigation or "ground truthing". Only ground investigation can determine whether features are structural, geological, topographic or cultural.

## Description of Linear Features

Linear and curvilinear features have been grouped by orientation and described in general terms below. The more significant individual linear and curvilinear features are labelled on Figures 6 to 9 . Figure10 is a compilation of all linear features. Figure11 are rose diagrams for each feature described below. The areas listed in above have been selected with the understanding that interpretation of structure from satellite images is only one of the numerous methods used in any exploration program.

The localities listed below should be reviewed in the light of other data, particularly data derived from on-site examination.

- North-South and East-West linear features (Figure 6) Count 84 and 43 These linears are not abundant in the map area. Linear NS-1 is 6 km long and occurs in the northeast part of the SPOT-5 image; no EW linears occur here. Linear EW-1 is ~6 km long and occurs near the northwest boundary of the image area. There are two areas where both NS and EW linears are abundant, near the Mammoth and near the Alma occurrences.

North-South linears trend from $350^{\circ}$ to $000^{\circ}$ azimuth and EW linears trend $080^{\circ}$ to $100^{\circ}$ azimuth.

- Northwest linear features (Figure 7) Count 193 NW linears are the most abundant in the map area. Six linears or linear composites have been identified NW1-6. Most linears are less than 3 km in length but several continuous linears can be traced for up to 6.5 km . i.e. NW-6. Most of these linears occur in the central portion of the image area, just southeast and southwest of the boundary of the claims. The ranges of NW linears are $300^{\circ}$ to $330^{\circ}$ azimuth, with most of the linears in the $310^{\circ}$ to $320^{\circ}$.
- Northeast linear features (Figure 7) Count 56 NE linears are not abundant on the image area. Most linears are short in the $1-2 \mathrm{~km}$ range. However Linear NE-1 is 6 km long. It occurs in the Alma area, several NW linears also occur here. Linear intersections occur with NE-1 and NW-2-4. Most linears occur at $040^{\circ}-070^{\circ}$ azimuth but they range from about $030^{\circ}$ to $080^{\circ}$ azimuth.
- North-Northwest linear features (Figure 8) Count 109 NNW linears are the second most abundant on the image area. Linear NNW-1 can be traced continuously over 6km as linear NNW4 can be traced for 5 km . Linears NNW- 2 and 3 are discontinuous and occur south and southeast of the Mammoth deposit. High density linears also occur here. The linears range from $320^{\circ}$ to $360^{\circ}$ azimuth, but most are in the $330^{\circ}$ to $340^{\circ}$ range.
- North-Northeast linear features (Figure 8) Count=93

NNE linears are mostly $<3 \mathrm{~km}$ on the image area. One linear, NNE-4, can be traced discontinuously for up to 14 km . This linear occurs in the north western part of the map area. This linear intersects several NNW linears in the Mammoth area. NorthNortheast linears trends are over several azimuths from $000^{\circ}$ to $050^{\circ}$, but most are in the $010^{\circ}$ to $020^{\circ}$ range.

- West Northwest linear features (Figure 9) Count 67

These linears are also not abundant in the map area and are generally $<3 \mathrm{~km}$ length. Only one linear is in the 4 km range i.e. WNW-1. Several of these linears are discontinuous i.e. WNW -2 and pass through the Mammoth property. West Northwest linears trend from $280^{\circ}$ to $300^{\circ}$ azimuth but most trend $280^{\circ}$ to $300^{\circ}$.

- East Northeast linear features (Figure 9) Count 25

These linears are not abundant in the map area. They trend from $060^{\circ}$ to $090^{\circ}$ azimuth, but most trend $070^{\circ}$ to $080^{\circ}$.

- Curvilinear features

There are no curvilinear features recognized in the image area.

## Use of Linears

The greatest value of the satellite and magnetic features described in this report is to be derived from observing linears most closely related to precious or base metal occurrences or to geochemical anomalies. Features so identified can then be used to guide further exploration.

The following structural features are considered positive for precious or base metal exploration:

- rift valleys or evidence of hoarst and graben structures in the basement
- linear intersections particularly those associated with the above
- areas of dense linears of all types
- small circular features especially those near linear intersections


## 15.0 CONCLUSIONS

Inspection of the various linear directions and the density of the linears (Figure 10) suggest that there are three areas of the study area that are prospective for base metal deposits. The preferred orientation of linears is Northwest-Southeast, a direction of regional geologic trends. Local orientations also suggest this preferred trend. The Fergusson silver deposits are evident along this trend.

1. The area outlined by the polygon $445605 \mathrm{E}, 5632833 \mathrm{~N}$ to 453825 E 5625792 N has several showings of silver and or gold. The Canborne camp is near this area.
2. The area outlined by the polygon $455500 \mathrm{E}, 5631966 \mathrm{~N}$ to $461412 \mathrm{E}, 5625295 \mathrm{~N}$ also has several showings and is located almost directly east of area 1.
3. 

The are of the MAMMOTH property has also an abundance of linears of all types. Mineralization here definitely occur along northwest-southeast faults.

A caution that all linears are not exposed and may be under overburden particularly in the incomappleax River valley between area 1 and 2 . All possible linears may not get mapped.

## The mineralization that occurs in the area does have a preferred orientation. Geologic mapping suggests that several prospective horizons occur on and around the property for silver enriched base metal deposits. There exists sufficient evidence that more mineralization can be found on the MAMMOTH property.

## 16.0

 DATEThe effective date of this report is February 09, 2007

## 17.0

RECOMMENDATIONS
A two Phase success orientated program should include a detailed compilation of all data on the property.

Phase 1.
Most of the pre-existing data is not digital and not in any consistent coordinate system. Existing maps should be scanned and digitized. Detailed air photos and satellite images should be acquired.
4. Provisions should be made to gain better access to the property this would include building a road.
5. All existing soil and geophysics grids should be re-located and plotted in the UTM coordinate system.
6. Detailed mapping and sampling should be done on the three mineralized zones. Old adits should be located etc.

Phase 2:

1. A geophysical survey consisting of EM and VLF. The lower levels as well as the upper levels of the property should be investigated.
2. Trenching followed by drilling can then proceed.

| SPOT-5 SATELLITE IMAGERY | $3,665.00$ |
| :---: | ---: |
| Geologists Fees | $\underline{6,335.00}$ |
| Total | $\mathbf{1 0 , 0 0 0 . 0 0}$ |

### 19.0 COST ESTIMATE for 2007 program

| QuickBird Satellite imagery | 1 | 3500 | 3,500 |
| :---: | :---: | :---: | :---: |
|  | 7 days @ | 500 | 3,500 |
|  | Total |  | 7,000 |
| ROAD BUILDING | 20 days | @1200 | 24,000 |
| GEOLOGIC MAPPING |  |  |  |
| Field supplies |  |  | 6,000 |
| Geologist time | 25 days @ | 500 | 12,500 |
| Geologist time-assistant | 20 days @ | 300 | 6,000 |
| vehicle operating expenses | 3000 km @ | 0.55 | 1,650 |
| living expenses, motel | 20 days @ | 104 | 2,080 |
| meals | 40 days @ | 100 | 4,000 |
| Data compilation, map prep | 8 days @ | 300 | 2,400 |
| Travel |  |  | 5,000 |
| Geologist supervision | 6 days @ | 500 | 3,000 |
|  | Total |  | 42,630 |
| GEOCHEMISTRY |  |  |  |
| Assay rock samples | 70 @ | 22.5 | 1,575 |
| Collecting soil samples | 300 @ | 6 | 1,800 |
| Assay soil samples | 300 @ | 22.5 | 6,750 |
| Data plotting, evaluation | 4 days @ | 300 | 12,000 |
| Geologist supervision | 4 days @ | 500 | $\underline{2,000}$ |
|  |  |  | 24,125 |
| CAMP and Supplies and cook |  |  |  |
| Camp |  |  | 50,000 |
| Supplies |  |  | 35,000 |
| Cook |  |  | 25,000 |
|  |  |  | 110,000 |
| Total Phase One |  |  | 207,755 |
| Contingencies @ 20\% |  |  | 41,551 |
| Grand Total |  |  | 249,306 |

Phase 2

## GEOPHYSICS

Ground Geophysics 25 line Km @ \$2000/line km 50,000
Drilling 3000 m @ \$125/m
375,000
Total phase 2 425,000

Contingencies @ 20\% 85,000
Grand Total $\quad 510,000$

## 20.0

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## CERTIFICATE OF James A. Turner, P.Geo

I, James A. Turner, P.Geo., am a Professional Geoscientist of South Surrey, British Columbia, hereby certify that:

1. I am a geologist residing at 14149-17A Avenue, Surrey, British Columbia.
2. I am a graduate of the University of British Columbia with a Bachelor of Science Degree in Physics, Math and Geology in 1973 and 1976 and have practiced my profession since 1976 and continuously since 1980.
3. From 1998 to June 2001 I was a consultant to Pacific Geomatics Inc., a private remote sensing company specializing in data acquisition, processing and interpretation.
4. From March 1995 to April 1998 I was a principal of TerraSat Geomatics Inc., a private company, specialising in satellite imaging and its application to mining exploration.
5. From 1990 to March 1995, I subcontracted my services as an image analyst to MineQuest Exploration Associates Inc.
6. I am a registered member of the Professional Engineers and Geoscientists of British Columbia, (Registration \#19843).
7. I am the sole author of this report and my compensation is strictly on a professional fee basis.
8. I am presently a Consulting Geologist and have been so since March 1989. As a result of my experience and qualifications I am a qualified person as defined in National Instrument 43-101.
9. Since 1976 I have been involved in mineral exploration (with major mining companies such as Cominco, Noranda and Newmont) for copper, lead, zinc, gold, silver, tungsten, tin and diamonds. I have been involved in remote sensing and Geomatics since 1984. Since 1990 I have been involved in remote sensing and satellite interpretation for diamond deposits in the Lac de Gras area of the NWT. I have also conducted remote sensing work for companies working in Ghana, Guyana, Mali, Alberta, British Columbia, Mexico, Vietnam, China, Ireland, Arizona, Utah, Nevada, Bolivia, Chile, Peru, Nunavut, Quebec, Central America, Brazil, India and Indonesia.
10. I have read the several reports and historic documents, and am familiar with the subject matter of the report.
11. In the disclosure of information relating to the MAMMOTH Property I have relied on information provided to me by the Silver Phoenix Resources Inc. and William Murray.
12. I am not aware of any material fact or material change with respect to the subject matter of this technical report, which is not reflected in this report, the omission to disclose which would make this report misleading.
13. I, in the company of William Murray and two helpers examined the MAMMOTH Property in August of 2005 and also examined certain exposures of rock on the present location of the claims.
14. I have no interest, direct or indirect, in the MAMMOTH Property or the property ownerships, nor do I expect to receive such interest. I was independent of Silver Phoenix Resources Inc. when I examined the property and sampled certain exposures in the Scout and Mammoth Zones, in accordance with of Section 1.5 of National Instrument 43-101.

Signed and sealed at Vancouver James A. Turner, P.Geo.

## James A. Turner, P.Geo.

14149-17 A Avenue
Surrey B.C.
V4A 6R8


February, 2007.
Reg. No. 19843 Association of
Professional Engineers and Geoscientists of British Columbia.
22.0
23.0

ILLUSTRATIONS
APPENDIX I Certificate of Analysis (available on request)


SILVER PHOENIX RESOURCES INC.
Revelstoke Mining Division
British Columbia
MAMMOTH PROJECT
Location Map
Figure 1
James A Turner, P.Geo




MESOZOCC PMEEOZOC Intusive Rocks
PALEOZOCC MMESOZOC Lardeau GP. and Bacshot Fim

LOWER CMMBRAN Homill and GOG Groups
hadiryan Horsethief Creek Group
PRECOMBRAN PPALEOZOIC Metomorphic Rocks

APHeBan(s) Core Gneiss

SILVER PHOENIX RESOURCES INC.
Slocan Mining Division British Columbia
MAMMOTH PROJECT
REGIONAL GEOLOGY
and Significant Mineral Occurrences



Teddy Glacier (showings from Minfile)



Teddy Glacier (showings from Minfile)

|  | Linears | $\begin{array}{c\|l} \begin{array}{c} \text { Source } \\ \text { of data } \end{array} & \text { SPoT-5 Satellite } 02.5 \mathrm{~m} \text { pixel resolution } \\ \text { Acquired 06-07-2002/path/row-13/22 } \end{array}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | SILVER PHOENIX RESOURCES INC. |  |  |
|  |  | Fergusson Silver District |  |  |
|  |  | MAMMOTH BASE METAL PROJECT |  |  |
|  |  | Trim Map Sheets $82 \mathrm{~K} 082-083$ |  |  |
|  |  | NORTH-SOUTH \& EAST-WEST LINEARS |  |  |
|  | 5 km | Universal Transverse MercatorZone 11NAD 83 Datum | Figure |  |
|  |  |  | rigure |  |



Teddy Glacier (showings from Minfile)
Linears


GN=Grid North
$\mathrm{GN}=$ Grid North
$\mathrm{TN}=$ True North $0.45^{\circ} \mathrm{W}$ of GN
MN=Magnetic North $17^{\circ} 24^{\prime}$ E of TN
( $\operatorname{dec} 14 / 1 / \mathrm{rr}$ ) 2007

Source $\mid$ SPOT-5 Satellite © 2.5 m pixel resolution of data Acquired 06-07-2002/path/row-13/22

SILVER PHOENIX RESOURCES INC.
Fergusson Silver District Revelstoke Mining Division
MAMMOTH BASE METAL PROJECT
Trim Map Sheets 82 K 082-083
NORTHWEST \& NORTHEAST
LINEAR FEATURES
5 km

| SILVER PHOENIX RESOURCES INC. |  |
| :---: | :---: |
| Fergusson Silver District <br> Revelstoke Mining Division |  |
| MAMMOTH BASE METAL PROJECT |  |
| Trim Map Sheets 82 K 082-083 |  |
| NORTHWEST \& NORTHEAST |  |
| LINEAR FEATURES |  |


.Teddy Glacier (showings from Minfile)
Linears



Teddy Glacier (showings from Minfile)

|  | Linears | Source SPOT-5 Satellite 02.5 m pixel resolution <br> of data Acquired 06-07-2002/path/row-13/22 |  |
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|  |  | SILVER PHOENIX RESOURCES INC. |  |
|  |  | Fergusson Silver District Revelstoke Mining Division |  |
|  |  | MAMMOTH BASE METAL PROJECT |  |
|  | 5 km | Trim Map Sheets 82 K 082-083 WEST-NORTHWEST\&EAST-NORTHEAST LINEAR FEATURES |  |
| TN=True North $0.45^{\circ} \mathrm{W}$ of GN $\mathrm{MN}=$ Magnetic North $17^{\circ} 24^{\prime} \mathrm{E}$ of TN$\left(\operatorname{dec} 14^{\prime} / \mathrm{yr}\right) \quad 2007$ |  | Universal Transverse Mercator Zone 11 NAD 83 Datum | Figure 9 |
|  |  | James A | r, P.Geo |



Teddy Glacier (showings from Minfile)
Linears


|  |  |  |
| :---: | :---: | :---: |
|  |  <br> NNW LINEARS -109 |  |
|  <br> WNW LINEARS -67 |  |  |


| SILVER PHOENIX RESOURCES INC. |  |  |
| :---: | :---: | :---: |
| Fergusson Silver District Revelstoke Mining Division |  |  |
| MAMMOTH BASE METAL PROJECT |  |  |
| Trim Map Sheets $82 \mathrm{~K} 082-083$ |  |  |
| ROSE DIAGRAMS FOR ALL LINEAR FEATURES |  |  |
| Universal Transverse Mercator Zone 11 NAD 83 Datum | Figure |  |
| James A Turner, P.Geo |  |  |

