

McGillivray



Ministry of Energy, Mines & Petroleum Resources  
Mining & Minerals Division  
BC Geological Survey

ASSESSMENT REPORT  
TITLE PAGE AND SUMMARY

TITLE OF REPORT [type of survey(s)] AIRPHOTO INTERPRETATION TOTAL COST \$ 4200

AUTHOR(S) J. T. SHEARER, M.Sc., P. Geo SIGNATURE(S) *[Signature]*

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S) \_\_\_\_\_ YEAR OF WORK 2012

STATEMENT OF WORK - CASH PAYMENT EVENT NUMBER(S)/DATE(S) EVENT # 54 23173

PROPERTY NAME McGillivray

CLAIM NAME(S) (on which work was done) 526001, 526002

COMMODITIES SOUGHT Au/Cu/Ag

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN \_\_\_\_\_

MINING DIVISION Kamloops NTS 921/12

LATITUDE 50 ° 29 ' 20 " LONGITUDE 121 ° 40 ' 30 " (at centre of work)

OWNER(S)  
1) Atecha Resources Inc, 2) \_\_\_\_\_

MAILING ADDRESS  
Unit 5 - 2330 Tyner St.,  
PORT COQUITLAM, B.C. V3C 2Z1

OPERATOR(S) [who paid for the work]  
1) As Above 2) \_\_\_\_\_

MAILING ADDRESS  
As Above

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):  
The claims are underlain by large zones of alteration (Pyritization + Kaolin) and anomalous geochemistry typical of an epithermal Au/Ag system perhaps adjacent to porphyry intrusions. Major Faults cut the area juxtaposing Cretaceous Spences Bridge Group with Lytton Complex metamorphics.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS Assessment Rpt # 3154  
# 11,371, # 7027

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping _____			# 4200
Photo interpretation _____			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic _____			
Electromagnetic _____			
Induced Polarization _____			
Radiometric _____			
Seismic _____			
Other _____			
Airborne _____			
GEOCHEMICAL (number of samples analysed for ...)			
Soil _____			
Silt _____			
Rock _____			
Other _____			
DRILLING (total metres; number of holes, size)			
Core _____			
Non-core _____			
RELATED TECHNICAL			
Sampling/assaying _____			
Petrographic _____			
Mineralographic _____			
Metallurgic _____			
PROSPECTING (scale, area) _____			
PREPARATORY/PHYSICAL			
Line/grid (kilometres) _____			
Topographic/Photogrammetric (scale, area) _____			
Legal surveys (scale, area) _____			
Road, local access (kilometres)/trail _____			
Trench (metres) _____			
Underground dev. (metres) _____			
Other _____			
			TOTAL COST # 4200

**AIRPHOTO ASSESSMENT REPORT**  
**on the**  
**McGILLIVRAY PROJECT**

**Lytton-Lillooet Area of British Columbia**

**NTS 92I/12 (92I.042+052)**

**Latitude 50°29'20"N/Longitude 121°40'30"W**

**Permit MX-4-480**

**Event #5423173**

**For**

**BC Geological Survey  
Assessment Report  
34005**

**Atocha Resources Inc.**

**#5-2330 Tyner St.**

**Port Coquitlam, B.C.**

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**Prepared by**

**J. T. SHEARER, M.Sc., P.Geo.**

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**February 1, 2013**

**Fieldwork Completed between April 1, 2012 and December 23, 2012**

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## SUMMARY

The McGillivray property comprises 17 claim totalling 6,004.4ha, acquired to cover a series of regional polymetallic anomalies in stream sediments coincident with a series of regional aeromagnetic anomalies and the occurrence of gossans. The claims cover ground originally staked in the 1980's. Previous work in the area covered by the property outlined large zones of alteration and anomalous geochemistry typical of an epithermal gold-silver mineralized system. The property is centred on McGillivray Creek, lies 34 km east-southeast of Lillooet, British Columbia and is well served by roads and power. The claims are about midway between Lytton and Lillooet.

High grade gold intersected by diamond drilling on the nearby Skoonka Creek Claims by Strongbow in late 2005 illustrated the potential of the Belt. Strongbow's Skoonka Creek gold property represents a new gold discovery in southwestern BC. An initial drilling completed in October 2005 on the JJ prospect returned high grade gold values including 20.2 g/t gold over 12.8 metres, 26.8 g/t Au over 3.31 metres and 7.5 g/t Au over 4.1 metres. Mineralization has been traced over a strike length of 350m and remains open to the east and west as well as to depth.

Previous work on a portion of the area covered by the McGillivray property indicates that some areas are underlain by intermediate and felsic volcanic rocks which are correlated with unnamed volcanic (but probably the Spences Bridge Group) rocks of Cretaceous age. Similar rocks host the Blackdome epithermal deposit, a past producer of gold and silver 100km northwest of Blustry Mountain and the nearby Skoonka Creek discovery. Epithermal deposit types are therefore the model proposed for mineralization on the McGillivray Project.

At the centre of the McGillivray claims, intense clay (Advanced Argillic) alteration is centred on a northeasterly trending swarm of feldspar-phyric dykes and shallow, possibly subvolcanic felsic intrusions and regional fault structures. Polymetallic anomalies in soil define an elongate, prospective zone oriented sub-parallel to the dyke swarm and to the clay alteration halo. On the north side of the ridge hand trenches expose sheared and brecciated feldspar porphyry. Five samples over a 60m x 60m area averaged 0.42% Copper.

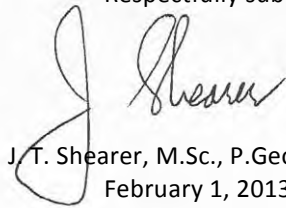
Government regional airborne magnetometer surveys detected a number of areas with anomalously strong magnetic response highs, possibly related to intrusive lithologies. The aero magnetic data also support the inferred presence of northwesterly and northeasterly trending faults in the area of the property.

An Airphoto Interpretation completed in the latter part of 2012 showed extremely well developed airphoto linears as strong through-going structures, possibly reflecting a major terrane boundary, trends approximately east-west touching mid McGillivray Creek. Strong parallel structures occur to the south along lower Luluwissan Creek and bounding the central crustal blocks and may control the emplacement of intrusive elements in the Lytton Metamorphic Complex.

A prominent splay to the southeast can be observed crossing from the McGillivray Valley into the mid Luluwissan Valley and beyond. A series of lesser linears oriented NE and NW are evident in the north fork of McGillivray Creek associated with normal faults in the upper Hat Creek Valley system.

It is recommended that an additional program of detailed geological mapping be carried out to define geological controls on the alteration and mineralization and that the soil grid be expanded to the south. Excavator trenching is warranted along the ridge crest. Contingent on favourable results, the program can be expanded, as drill targets are identified. Phase I is budgeted at \$210,000 and success contingent Phase II is projected at \$250,000.

Respectfully submitted,



J. T. Shearer, M.Sc., P.Geo. (BC & Ontario)  
February 1, 2013



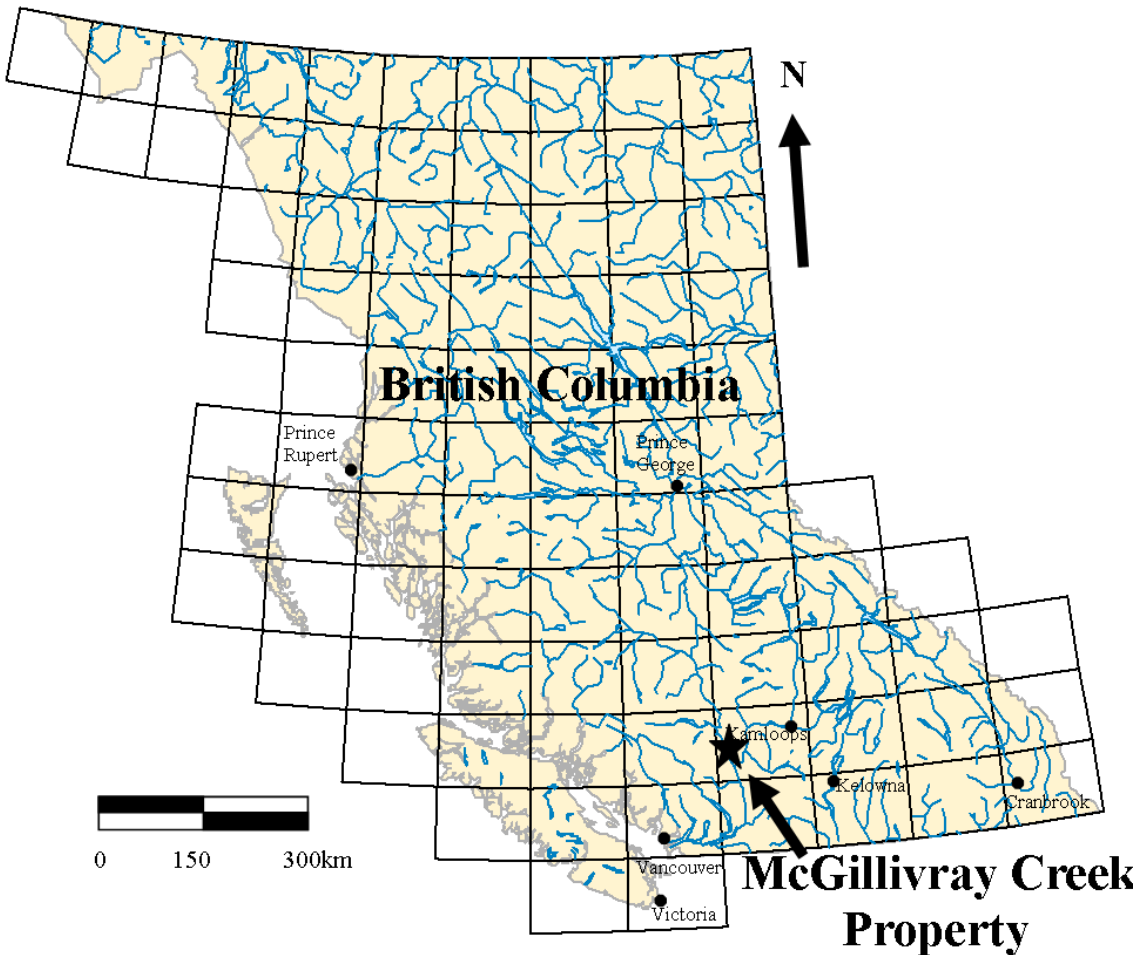
Gossan Zone at McGillivray Claims, High Silver-in-Soil Samples at Upper Right Photo, Looking Northward

## INTRODUCTION

This Report is a summary of available data to document the gold/silver potential of the area and to document the Airphoto Interpretation work program completed in the latter part of 2012. The purpose of the report is to summarize the geological setting of the McGillivray Property southeast of Lillooet, British Columbia and to propose a program of exploration on the property which is to be carried out during later in 2013 and 2014.

Attention has focussed on a new belt of newly discovered gold showings nearby on the Strongbow/Almaden's Skoonka Creek gold property, which represents a new gold discovery in southwestern BC. An initial drilling program completed in October 2005 on the JJ prospect returned high grade gold values including 20.2 g/t gold over 12.8 metres, 26.8 g/t Au over 3.31 metres and 7.5 g/t Au over 4.1 metres. Mineralization has been traced over a strike length of 350m and remains open to the east and west as well as to depth.

The Skoonka Creek property is about 12km southeast of the McGillivray Claims along the regional trend.



**Figure 1**      **Location Map**



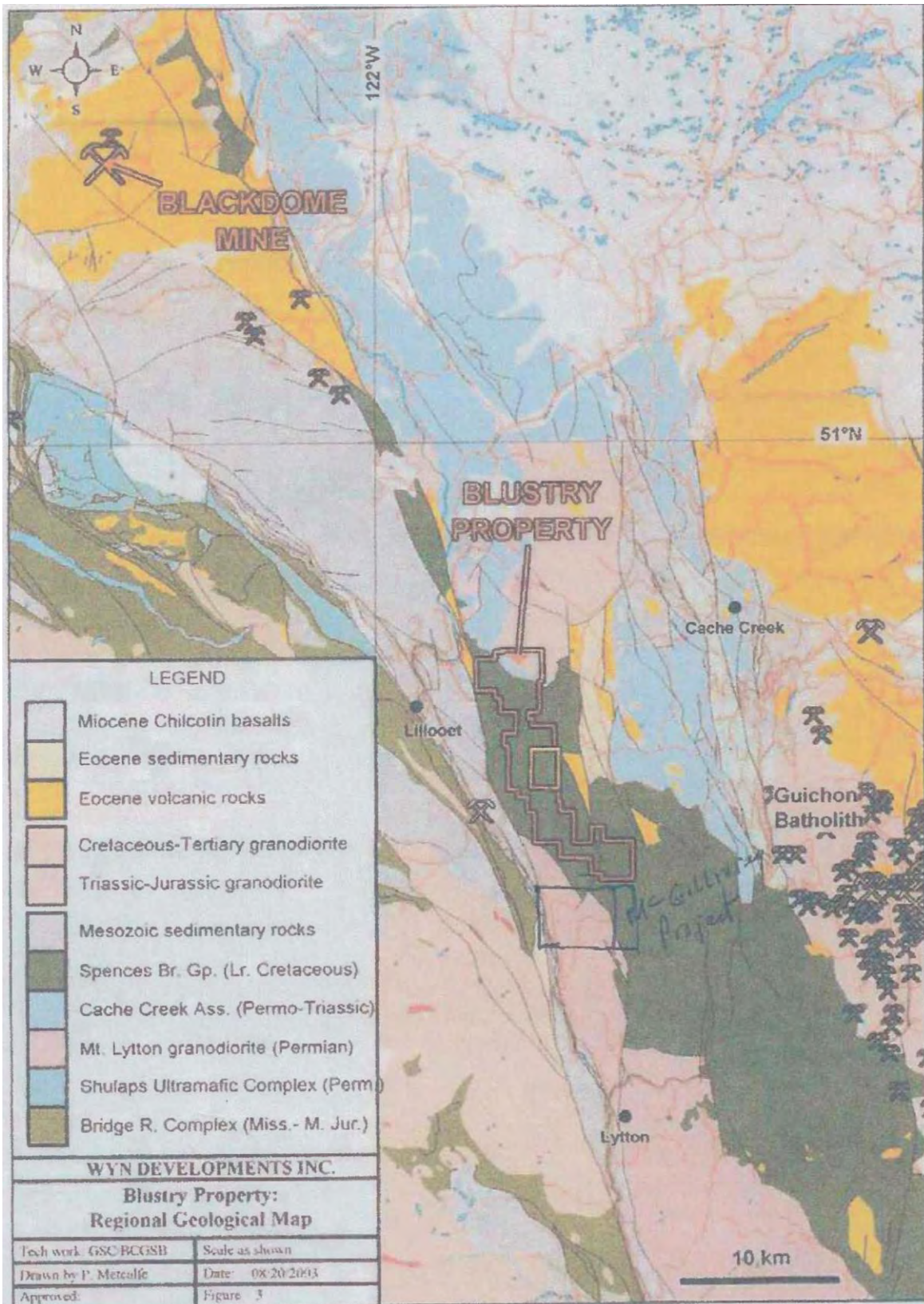


Figure 2 Access Map

## PROPERTY CLAIM STATUS

### Property Status (List of Claims)

The property consists of the following mineral claims as tabulated in Table 1 and illustrated on Figure 3. The claims are in the Kamloops and Lillooet Mining Divisions.

### Claim Status

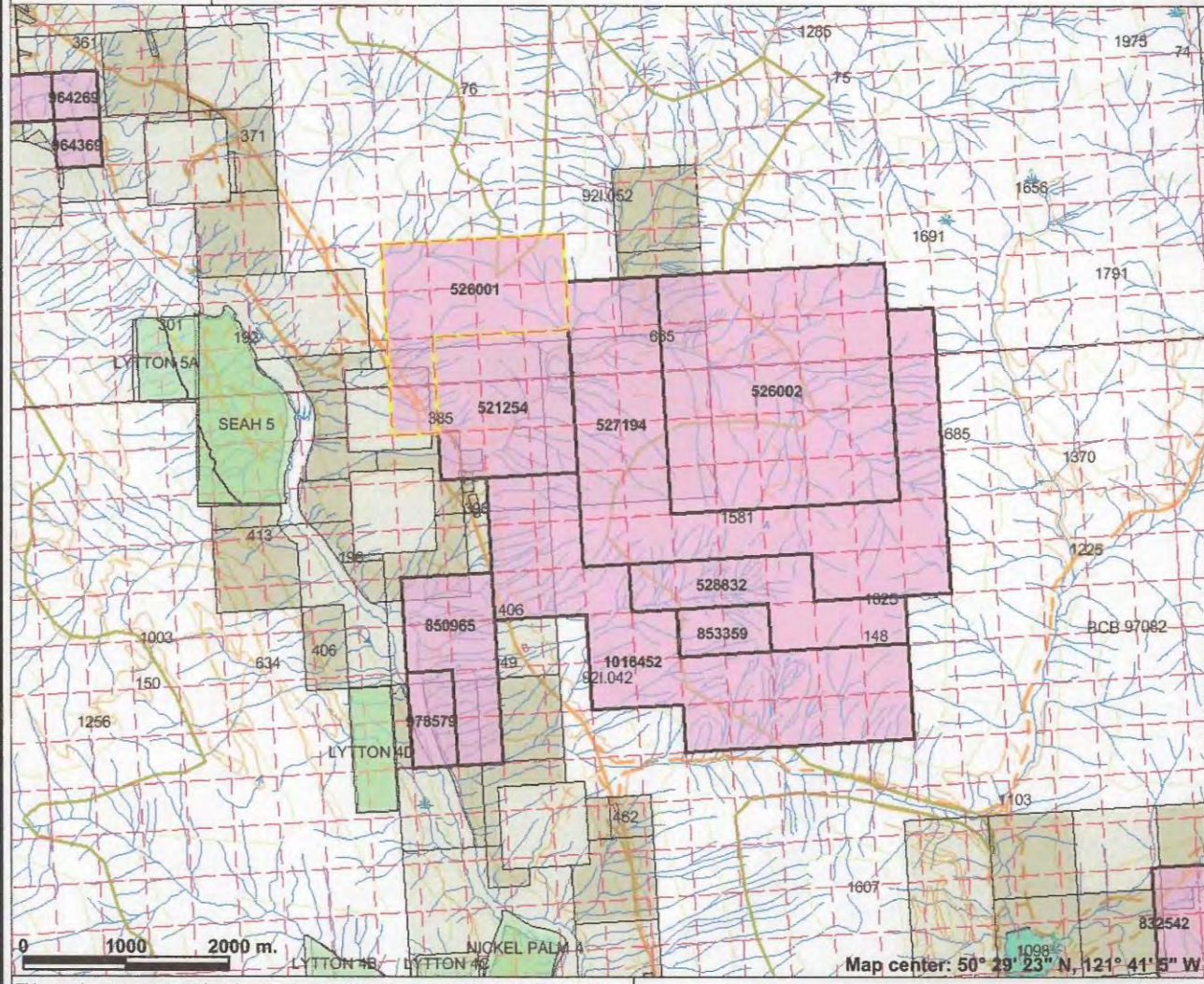
The staked claims are recorded as follows:

Tenure Number	Name	Registry Date	Current Expiry*	Size (cell Units)	Cell Area (ha)	Owner
526001	MCGILL THREE	2006 Jan 21	2013 Oct 1	10	205.503	Atocha
526002	MCGILLVERY CREEK ONE	2006 Jan 21	2013 July 1	25	513.858	Atocha
521254	MCGILLIVERY WEST 1	2005 Oct 15	2013 June 1	18	370.020	Atocha
527194	MCGILL 1	2006 Feb 07	2014 June 1	25	513.922	Atocha
528832	MCGILLIVRAY SOUTHEAST	2006 Feb 23	2013 June 1	25	514.121	Atocha
542787	Lau-Lu	2006 Oct 08	2013 Jan 30	16	329.17	Atocha
836071	MCG 1	2010 Oct 16	2013 Jan 30	25	514.22	Atocha
836072	MCG 2	2010 Oct 16	2013 Jan 30	24	493.93	Atocha
836073	MCG 3	2010 Oct 16	2013 Jan 30	21	6431.76	Atocha
836074	MCZ 1	2010 Oct 16	2013 Jan 30	6	123.54	Atocha
852349	G Nor	2011 Apr 23	2013 Jan 30	24	493.11	Atocha
853271	TQ	2011 May 2	2013 Jan 30	10	205.58	Atocha
846423	MCGILL 11	2011 Feb 13	2013 Jan 30	16	329.05	Atocha
853271	Alice	2011 May 2	2013 Jan 30	11	226.15	Atocha
853359	La Lau East	2011 May 3	2013 Jan 30	18	370.19	Atocha
830342	LA LAU 3	2011 May 3	2013 Jan 30	11	226.25	Atocha
841116	LA LAU 4	2010 Dec 10	2013 Jan 30	7	144.00	Atocha
			<b>Total Area</b>	<b>292</b>	<b>6,004.374</b>	

\* Subject to approval of work documented in the Assessment Report

Following revisions to the Mineral Tenures Act on July 1, 2012, claims bear the burden of \$5 per hectare for the initial two years, \$10 per hectare for year three and four, \$15 per hectare for year five and six and \$20 per hectare each year thereafter.

# Claim Map



### Legend

- Indian Reserves
- National Parks
- Conservancy Areas
- Parks
- Federal Transfer Lands
- MTO Grid (MTO)
- Mineral Tenure (current)
  - Mineral Claim
  - Mineral Lease
- Mineral Reserves (current)
  - Placer Claim Designation
  - Placer Lease Designation
  - No Staking Reserve
  - Conditional Reserve
  - Release Required Reserve
  - Surface Restriction
  - Recreation Area
  - Others
  - First Nations Treaty Related Lands
- First Nations Treaty Lands
- Survey Parcels
- BCGS Grid
- Contours (1:250K)
  - Contour - Index
  - Contour - Intermediate
  - Area of Exclusion
  - Area of Indefinite Contours
- Transportation - Points (TRIM)
  - Helipad
- Transportation - Lines (TRIM)

Scale: 1:58,151

0 1000 2000 m.

Map center: 50° 29' 23" N, 121° 41' 5" W

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Figure 3 Claim Map

## LOCATION and ACCESS

The terrain is mountainous with moderately steep slopes usually easily traversed on foot. Locally, cliff exposures on valley sides impede access to certain areas. Elevations range from 450m (1,500ft.) to 1,600m (5,400ft.) on McGillivray Mountain.

The area lies in the rain shadow of the Coast Mountains, therefore the climate is relatively dry; Lytton receives less than 40 cm precipitation per annum, of which 25% falls as snow during the winter months. Mean temperatures vary from -4°C in winter to 30°C in the summer. As a consequence, open grassy hillsides cover the property at higher elevations, particularly in sheltered valleys. At lower elevations, the vegetation is open pine forest. The area is grazed by cattle during the summer months and mule deer are a common sight throughout the year.

The property is centred on McGillivray Creek, 34 kilometres southeast of Lillooet. The Hat Creek valley lies to the east, and Fountain Valley to the west; the property is therefore close to services and to power. The area's population (almost 50,000) is involved in all aspects of logging, ranching, supply and services and the hospitality industry. This provides a ready source of skilled labour and heavy equipment.

Access to the property is by pre-existing logging and exploration roads originating either from Hat Creek, west of Cache Creek along Highway 1, from Pavilion or along Highway 9 linking Lytton to Lillooet, thence by 4-wheel drive vehicle along branch logging roads. Several other roads, established by ongoing logging and ranching operations, are located in areas along the edges of the property, allowing for relative ease of access. Presently it is believed these roads could be accessed by truck for most of their length.

The region surrounding the McGillivray Project has been utilised since the early pioneering days of the mid-1800's by ranchers, prospectors, foresters, farmers and as a transportation byway. All these activities persist in the area. Active and old logging roads enter the property and old, unrecorded, prospecting pits and placer workings have been noted within the property boundaries by previous workers.

J. T. Shearer, has initiated informal discussions with First Nations Bands near the property. These are the Fountain, Bonaparte and Lytton Bands.

There is no report of any fish existing in streams within the property boundaries, in fact there is a limited amount of water in the semi-arid environment. Wildlife throughout the area is sparse and primarily comprises deer and rare, itinerant black bears. Hill slopes are seasonal range for cattle.

There are no known environmental concerns or new parks planned for in any area contained within the McGillivray Property.

## HISTORY

In 1978 to 1984 a geochemical survey was initiated by Ryan Exploration, a division of U.S. Borax, and designed to provide geochemical data over the area considered to be the best target (Richards, 1984b and Malcolm, 1978). Results indicated several areas of anomalous values in copper and zinc.

Western Aero Data completed 80 line km of VLF-EM and Magnetics airborne survey.

To the north on Blustry Mountain, in 1987 Aerodat Ltd. of Mississauga, Ontario was commissioned by Kangel Resources to conduct an airborne geophysical survey over the property. This survey consisted of a low level, helicopter supported programme which included a frequency VLF electromagnetic system, a high sensitivity caesium vapour magnetometer. Results of this survey were used to control the grid placement for a 1987 soil sampling programme conducted by Mark Management Ltd. (Gonzalez and Lechow, 1987).

In 1987 Mark Management Ltd. on the Blustry Mountain Property under the direction of Archean Engineering conducted a soil geochemical survey over a grid area of 900m x 100m in size. A total of 349 samples were collected and analyzed by Chemex Labs Ltd. using an ICP geochemical analytical technique. In general, anomalous values for Au, Ag, As, Cu, Hg, Mo, Sb, Pb and Zn outlined an open ended zone 650m long by 220m wide (Gonzalez and Lechow, 1987).

In 2003, Wyn Development completed geological mapping, prospecting geochemistry and detailed Induced Polarization (IP) on the nearby Blustry Mountain Property. Numerous drill targets have been selected based on the geology and IP results. Wyn is currently negotiating with the Fountain Indian Band to address First Nation concerns.

### Previous Geophysics

Several different airborne geophysical surveys were flown by the Geological Survey of Canada during the late 1960's and early 1970's, over ground which includes the McGillivray Property. The line spacings were somewhat broad and the instrumentation (non-digital) not as refined or precise as those currently available, but the data is, nonetheless, of very good quality.

Some very distinct patterns are apparent in the reprocessed data. Most obvious are the linear trends between positive and negative magnetic anomalies, which reflect the pattern of northwesterly and northeasterly trending faults in this area of the Cordillera. In addition it is clear that regional geochemical anomalies in pathfinder elements are often found in drainages which have their source in areas of moderate, negative magnetic relief. It is possible that ground geophysical surveys, properly managed, would be a useful exploration tool.

The 1983 Aeroborne Survey (Pezzot and White) document several magnetic lows correlated with major fault zones.

To this end a detail 3D IP survey was completed in the spring of 2004 and 2005, the results of which are documented in separate reports, Pezzot (2004) and S. J. Visser, 2005 on the nearby Blustry Mountain Property.

The survey was configured as a 3-D array with current and potential electrodes located on adjacent survey lines, spaced at 100 metre intervals. This configuration allows for the application of 3-D interpretation techniques, including 3-D inversion algorithms.

Combinations of resistivity and chargeability characteristics have outlined 3 distinct geological regimes across the survey area. A large portion of the northeastern corner of the grid (Lines 1600N – 2400N) is covered by a thin (50m thick) cap of highly resistive material. This overlies a 100m thick layer of highly variable material that include several pods of extremely conductive and chargeable material. Basement rocks in this area appear to relatively

uniform, exhibiting low resistivity and elevated chargeability. The second regime is mapped from 1500N to 900N. It is also characterized with a resistive cap which often occurs as two or more thin layers. The underlying rocks exhibit low resistivity and low chargeability and contain a few isolated anomalies. The third regime covers the southwest corner of the grid. It is characterized by scattered zones of variable chargeability and resistivity in the top 75 metres. At depth the geophysical responses become more uniform and reveal two structural trends: N15°W and N45°E.

There are several lineations and trends that are mapped as abrupt discontinuities of particular geophysical parameter. These are likely representing sharp geological contacts or fault zones. There are several pods of extremely high resistivity that can be interpreted as areas of silica flooding. Several pods of anomalously high chargeability have been identified that could represent disseminated sulphide mineralization.

## **GEOLOGICAL SETTING**

### **Regional Geology**

A geological map of the McGillivray Creek and surrounding areas is shown in Figure 3. Despite the apparently comprehensive nature of the map, it is based upon mapping carried out by Duffell and McTaggart (1952) and Trettin (1961); smaller studies by Mortimer (1987) and Read (1988a, 1988b, 1990) have augmented the broader regional mapping. The area was compiled as part of the Geological Survey of Canada's Terrane Assemblage Map by Monger and Journeay (1994).

The McGillivray property lies on the east side of the Fraser Fault, which experienced Eocene strike-slip movement of approximately 80km and which forms a geological boundary to the west. The basement to the area comprises rocks of the Permo-Triassic Cache Creek Complex, which are bounded to the southwest by granodioritic intrusive rocks of the Permo-Triassic Mount Lytton Complex. To the north of the study area, the Cache Creek assemblage is intruded by Late Jurassic granodioritic intrusive rocks associated with the Mount Martley and Tiffin Creek Stocks.

The McGillivray property is shown on Figure 3 to be underlain by calc-alkaline volcanic rocks of the Lower Cretaceous Spences Bridge Group in fault contact to the west with Lytton metamorphic complex. Outliers of the Eocene volcanic rocks assigned to the Kamloops Group occur to the east.

The Spences Bridge Group was previously not considered prospective for epithermal deposits, until the successful drilling in late 2005 by Strongbow discovered a promising intersection of 12.8m averaging 20.02g/tonne gold.

Regional structural geology in the area is not well defined. Brittle faults cross the property, with two prominent strike direction, parallel (northwesterly) and crudely perpendicular (northeasterly) to the structural grain of the Canadian Cordillera. Normal movement is apparent on several of the faults by the lateral juxtaposition of the Cretaceous volcanic rocks against older rocks.

### **Local Geology**

A summary of general property geology (Richards, 1984b) is as follows:

Geological mapping is just starting to be done on a property scale for the area now covered by the McGillivray property. As noted above, regional mapping by the Geological Survey of Canada (Duffell and McTaggart, 1952) is over 50 years old and subsequent mapping by the British Columbia Geological Survey Branch (Mortimer, 1987; Read, 1988a, 1988b, 1990) did not cover the entire area.

Previous authors have noted that the McGillivray mineral claims are underlain by volcanic rocks of the lower Cretaceous Spences Bridge Group. This Group is composed mainly of an accumulation of lavas and pyroclastic rocks. Most of the lavas are porphyritic and are fine to coarse grained rocks of various colours. The colours are red, green mauve, purple, brown, grey, white and black.

In the vicinity of McGillivray Creek, dacites and minor rhyolites form part of the Spences Bridge Group and are intruded by a northeasterly trending dyke swarm of creamy pink, weakly feldspar hornblende phyric andesite. Gabbroic rocks intrude the volcanic sequence to the southwest of Blustry Mountain (Richards, 1984a, b) and a small plug of syenite, possibly a coarser grained equivalent of the pink feldspar-phyric dykes has been observed south of Cairn Peak.

The gossanous rocks south of McGillivray Creek shows a strong altered zone characterized by alunization with intense silica-kaolin alteration. Areas of vuggy porosity in silica matrix with kaolin are cut by fine stringers of translucent quartz. The vugs are normally lined with fine glassy quartz crystals. Some late stage quartz veins were also noted associated with occasional fine metallic lustre minerals – possible specularite. On the north side of the

ridge hand trenches expose sheared and brecciated feldspar porphyry. Five samples over a 60m x 60m area averaged 0.42% Copper.

This section of the zone appears to have undergone a higher degree of silicification as evident by the quartz veining, suggesting several stages of silica flooding.

The alteration zone appears in part to represent a silica-clay cap of an epithermal system. The multi precious-base metal soil geochemical anomalies over the zone also support such an environment.

The coincidental geochem anomalies and the intense silica-clay alteration zone may be pointing to near a surface precious metal-polymetallic epithermal deposit.

Basaltic volcanic rocks of the Kamloops Group are found to the east of the property, near Hat Creek. In Hat Creek valley, a thick section of sedimentary rocks is preserved in a graben that is floored by Eocene volcanic rocks.

### **Petrology**

Zones of alteration are strongly controlled by structure. The most prominent structural trend is northeasterly while north-northwesterly trends also appear to have influenced the localization of alteration. These structural trends are thought to reflect Lower Tertiary translation and extensional tectonics that are well developed within this area.

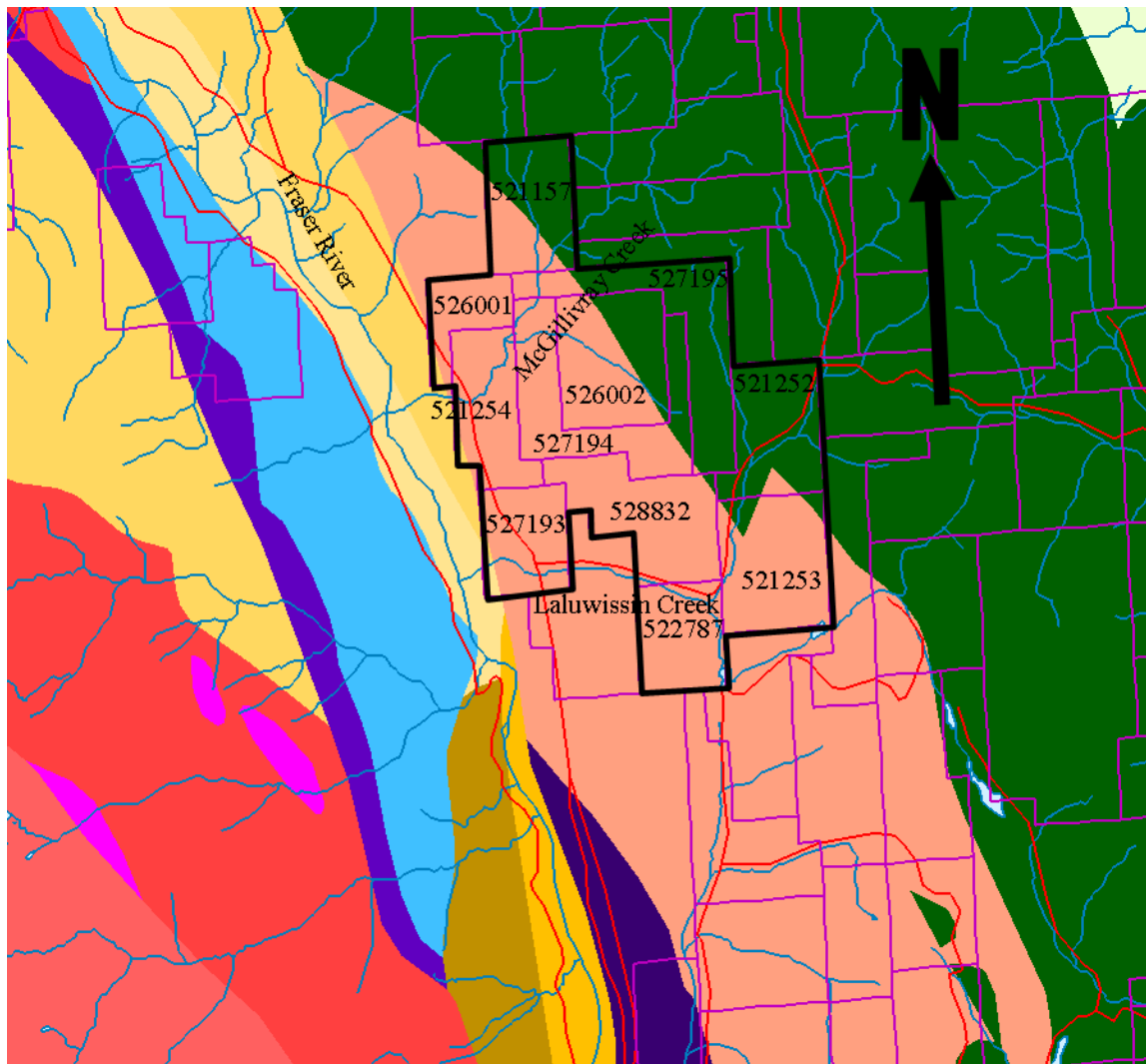
The northeasterly trending dyke swarm is associated with a clay-sulphide zone that is developed over an area 4500 metres long and as wide as 1500 metres. Within the clay-sulphide zone are areas of silicification (silica flooding) which host precious metal and minor base metal mineralization.

Altered rocks from the Blustry Mountain area to the north of McGillivray Creek are dominated by vuggy silica/quartz alteration ± adularia ± Kaolinite ± possible alunite. The vuggy silica may be largely derived as a residual product of acid leaching. Quartz/silica forms a dense mosaic texture. Vuggy quartz alteration forms by reaction of extremely low-pH aqueous fluids or vapours with the host rocks. These fluids effectively remove all components in the rock apart from SiO<sub>2</sub> and TiO<sub>2</sub> leaving residual vuggy quartz. On the margins of this type of alteration zone, vuggy quartz may grade into quartz-alunite and quartz-kaolinite (or pyrophyllite) alteration. This change reflects the partial neutralization of the low-pH fluids during wall rock interaction. Low-pH fluids are commonly magmatic in origin and vuggy quartz alteration often form the cores of high-sulfidation precious metal systems. Sutured grain boundaries are common and suggest variable stress perhaps along nearby faults.

Kaolinite and dickite, (Al<sub>2</sub>Si<sub>2</sub>O<sub>5</sub>(OH)<sub>4</sub>), which are polymorphs occur in several specimens. The Kaolinite/dickite is mainly very fine grained anhedral, platy flakes. This mineral is indicative of formation at a pH of around 3 to 4 in the marginal argillic zone of high sulfidation systems (kaolinite forms under low-temperature conditions <150-200°C, whereas dickite at higher temperatures <200-250°C transitional to those for pyrophyllite formation). Sericite is commonly associated with kaolinite.

Possible fine grained alunite, (Na,K)Al<sub>3</sub>SO<sub>4</sub>)<sub>2</sub>(OH)<sub>6</sub>, was tentatively identified in one sample, closely associated with fine grained kaolinite. Further work with a "PIMA" short wave infrared (SWIR) spectroscopy analyzer may be useful to define the presence of both kaolinite/dickite and alunite. Alunite is indicative of advanced argillic alteration and is often found in high-sulfidation epithermal precious metal systems. In this environment, magmatic SO<sub>2</sub> in the presence of water generates H<sub>2</sub>S and H<sub>2</sub>SO<sub>4</sub> which together with HCl react with host rocks to form zones of alunite-bearing advanced argillic alteration.

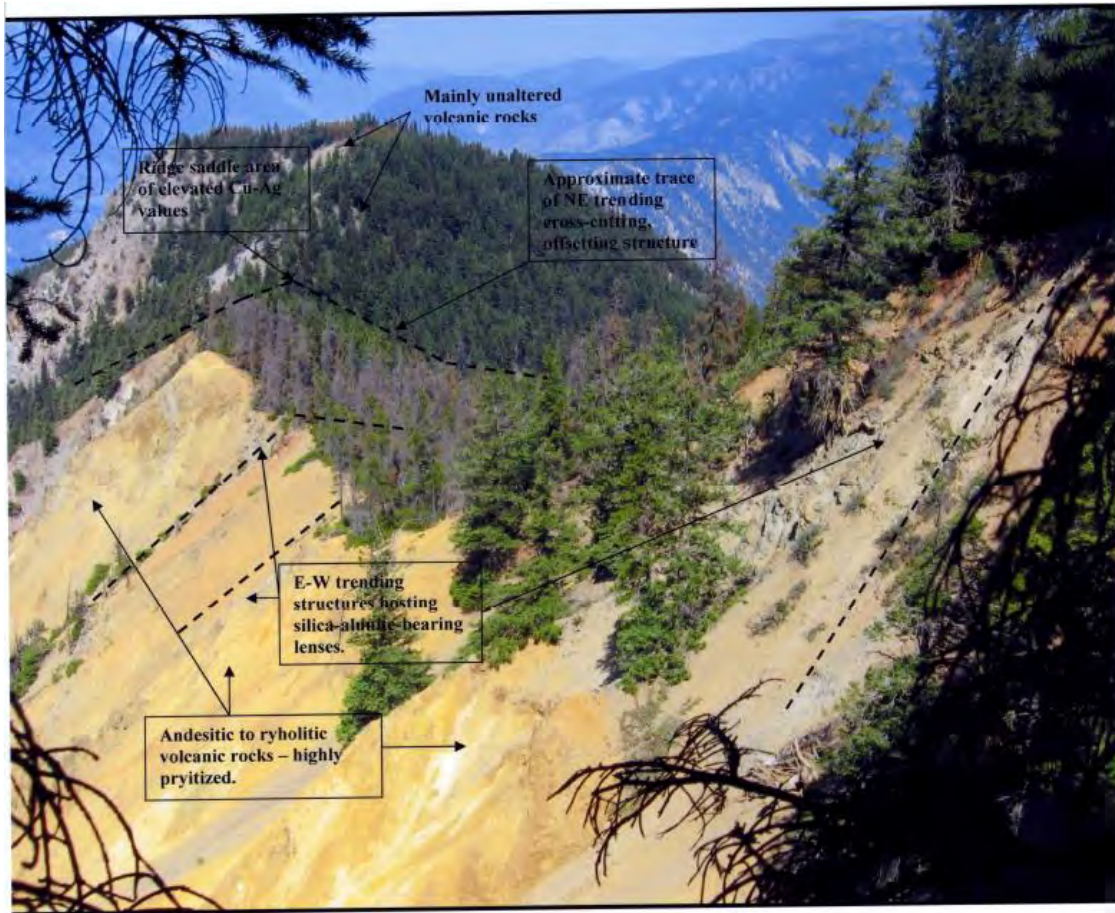




McGillivray Creek Claims overlain on the geology, roads (red) and creeks/ivers (blue).  
 Claim numbers locate the claims (purple boundaries inside black property boundary)

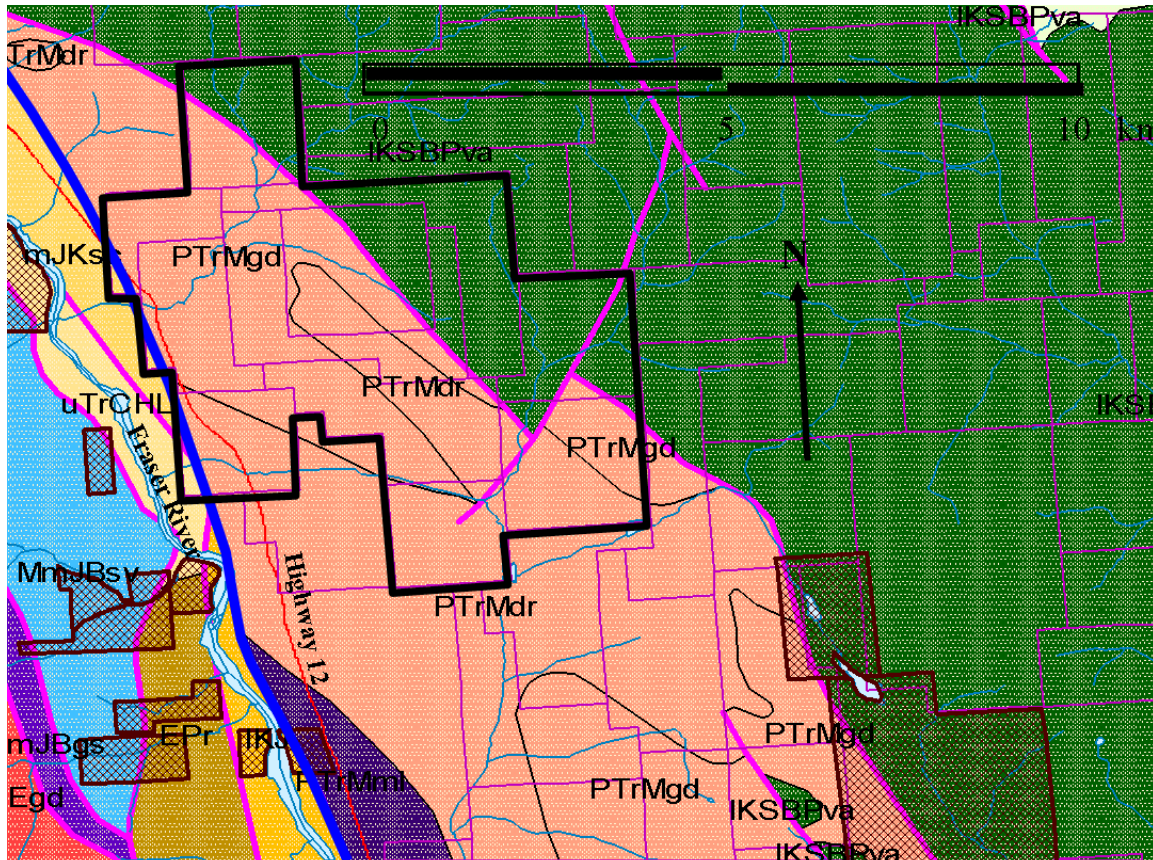
**FIGURE 4 Regional Geology**

## Mineralization






McGillivray Cliff exposure looking northwesterly. Highly pyritized volcanic rocks consisting predominately of siliceous andesite with subordinate dacitic to rhyolitic lenses. Interpreted by author as part of the Cadwallader Island arc volcanic terrane.

D.G. Cardinal, P.Geo.



### Geology of the McGillivray Creek Property

PTrMdr	Permian to Triassic Mount Lytton Complex diorite
PTrMgd	Permian to Triassic Mount Lytton Complex granodiorite
PTrMml	Permian to Triassic Mount Lytton Complex metamorphic rocks
IKSBPva	lower Cretaceous Spences Bridge Group—Pimainus Formation volcanics

Native Reserve	
Property Boundary	
Fraser Fault	

Source BC MEMPR MapPlace

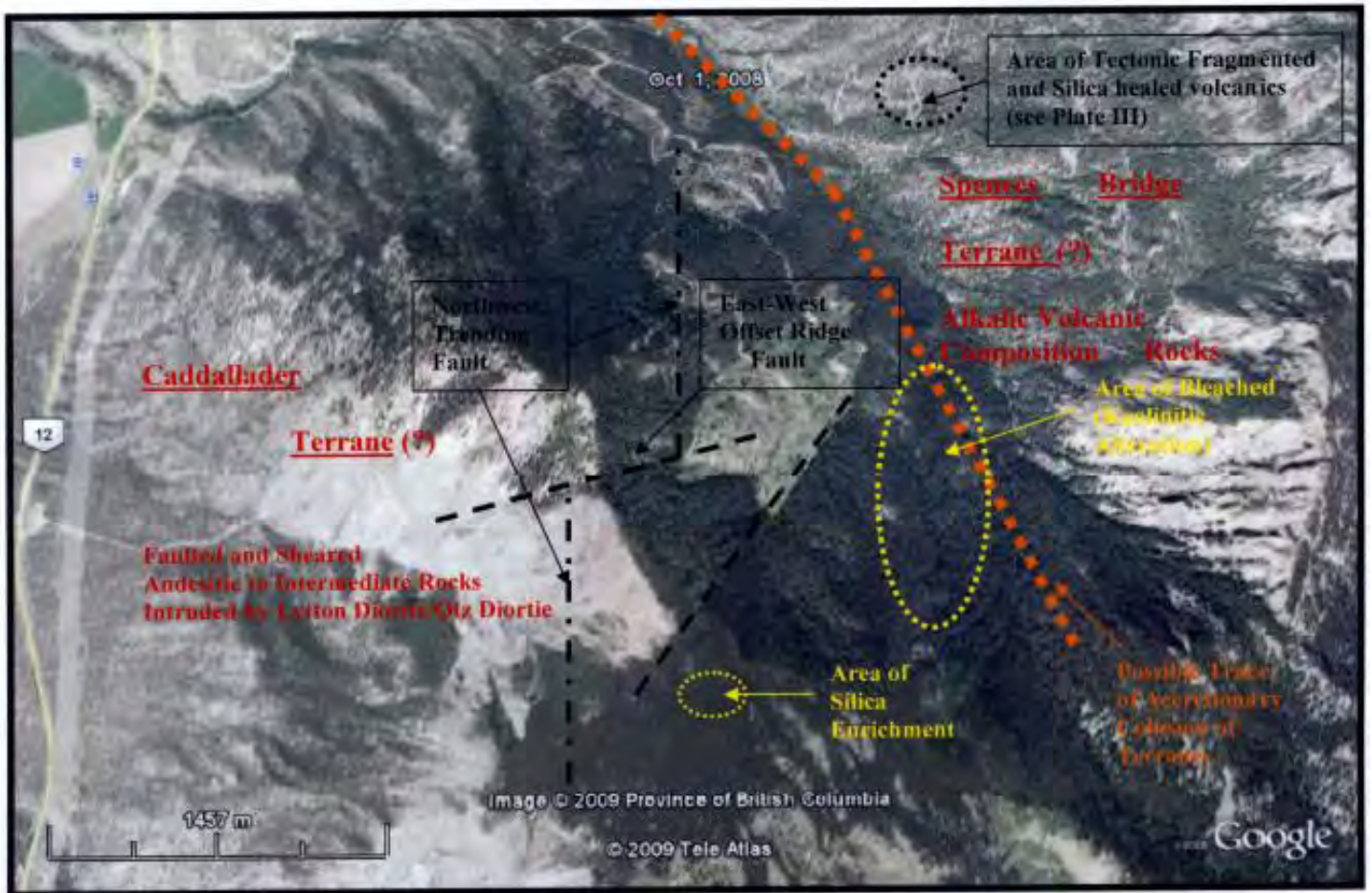
**Figure 5 Local Geology**

#### Styles of Mineralization

Several types of mineralization were identified and described by Richards (1984b). Quartz breccias with quartz crystal lined vugs and intense silicification of included wallrock have been noted in float. Sulphide content is generally less than 1% or 2% but tetrahedrite, galena and other silver coloured sulphides have been recognized with fine grained pyrite.

A second type of silica flood occurs as dark grey quartz veins in parallel bands, commonly 2mm wide but in places attaining a width of several centimetres. These compose as much as 70%, but on average 10%, of rock volume. This mineralization is developed in an area 50 to 100m wide and 200 to 300m long.

A third type of silicification occurs in rhyolite breccia with moderate clay alteration and less than 3% void space. The rhyolite breccia contains local zones with silicified fragments and with grey quartz partly filling the vugs. Silica flooding also occurs within the rhyolite and is accompanied by intense clay alteration.



Airphoto depicts interpretation, both from preliminary filed surveys and photos, a NW trending structural trace of accretionary collision of Cadwallader and Spences Bridge terranes with related first-second order structures and potential epithermal signatures. Silica-healed breccia-fragmented alkalic volcanic rocks outlined above are interpreted to be tectonic-accretion related.

## PREVIOUS EXPLORATION

The 2006 work program consisted of prospecting and soil/rock sampling. A total of 453 soils and 40 rock samples were collected in 2006. Results are contained in Appendix III.

The soil grid is plotted on Figure 10 (in pocket) at a scale of 1:1,250. Silver appears to be anomalous in two sub-parallel zones with a central area low in silver content.

Reconnaissance soil sampling along the ridge shows highly anomalous silver in soils with values up to 42.0 ppm Ag. Anomalous values in Pb, Cu, Mo, and As.

Banded silicified zones was discovered at lower elevations which may be related to through-going fault zones.

Past producing deposits in the area shown in Fig. 3 are generally restricted to the Highland Valley porphyry deposits associated with granodioritic intrusive rocks of the Late Triassic to Early Jurassic Guichon Creek Batholith at the southeastern edge of the area. This intrusion is not exposed at Blustry.

The only other past producer in the general area is the Blackdome low-sulphidation epithermal gold deposit 96 km to the northwest (Fig. 3; MINFILE 0920053). From start of production in April 1986, until the end of July 1990, the mine processed a total of 305,614 tonnes of ore yielding 6303 km Au and 19,518 kg Ag. This deposit is hosted by Eocene volcanic rocks of the type reported on the Blustry property; This deposit type is therefore to be targeted in the proposed exploration.

The two British Columbia Geological Survey Branch mineral deposit profiles appropriate to Blackdome are reproduced from government files in Appendix A (Panteleyev 1988, 1992). Figure 11 (Appendix I) is a schematic diagram for their inferred mode of formation. In brief, epithermal deposits are inferred to form near the top of magmatic hydrothermal systems common to the various types of porphyry deposit. Gold deposition in epithermal systems is inferred to result from boiling of auriferous solutions in prepared (fracture hosted) conduits. Breccia textures and polyphase silica flooding (often referred to as silicification) are common. Both replacement and void filling mineralization can occur.

The abundance of regional geochemical data for the Ashcroft map sheet (092I) and for adjoining sheets to the north and west (BCGSB RGS 35, 36,40, 41) permits a regional assessment for tracer elements appropriate to high and low sulphidation epithermal environments. The locations of regional stream sediment samples, including those which returned values in the top ten, five and two percent for the area's sample population in Au, Ag, As, Sb, Hg, and Mo. All are tracer elements for epithermal mineralization, among other types. All elements show an increase in anomalous samples in the vicinity of the Blustry property, suggesting that the drainages samples cross rocks with elevated values of the elements. More comprehensive sampling in the vicinity of the property is necessary.

The work program in 2006 (Butler, 2007) included field grid development and soil and rock geochemistry. There was some geological mapping of the north facing bowl area that was the focus of the program. Another area of focus was around the rim of a large gossanous landslide that faces southwest. This landmark is clearly visible from a distance and was one of the reasons this property was located by Mr. Shearer.

The work included development of systematic lines of geochemical soil sampling along the ridge line and other geographic landmarks. A total of 453 soils and 40 rock samples were collected in 2006. A line along the ridge includes two samples with anomalous silver of 26 and 42 ppm. There are elevated values in lead in these two samples. The samples are located near a linear structure seen in the contour map. Several of the nearby samples are also elevated or anomalous in silver.

Prospecting of several other areas was completed to assess the outlying areas of the property.



Figure 6 Trim Map of Claim Area, 1:20,000

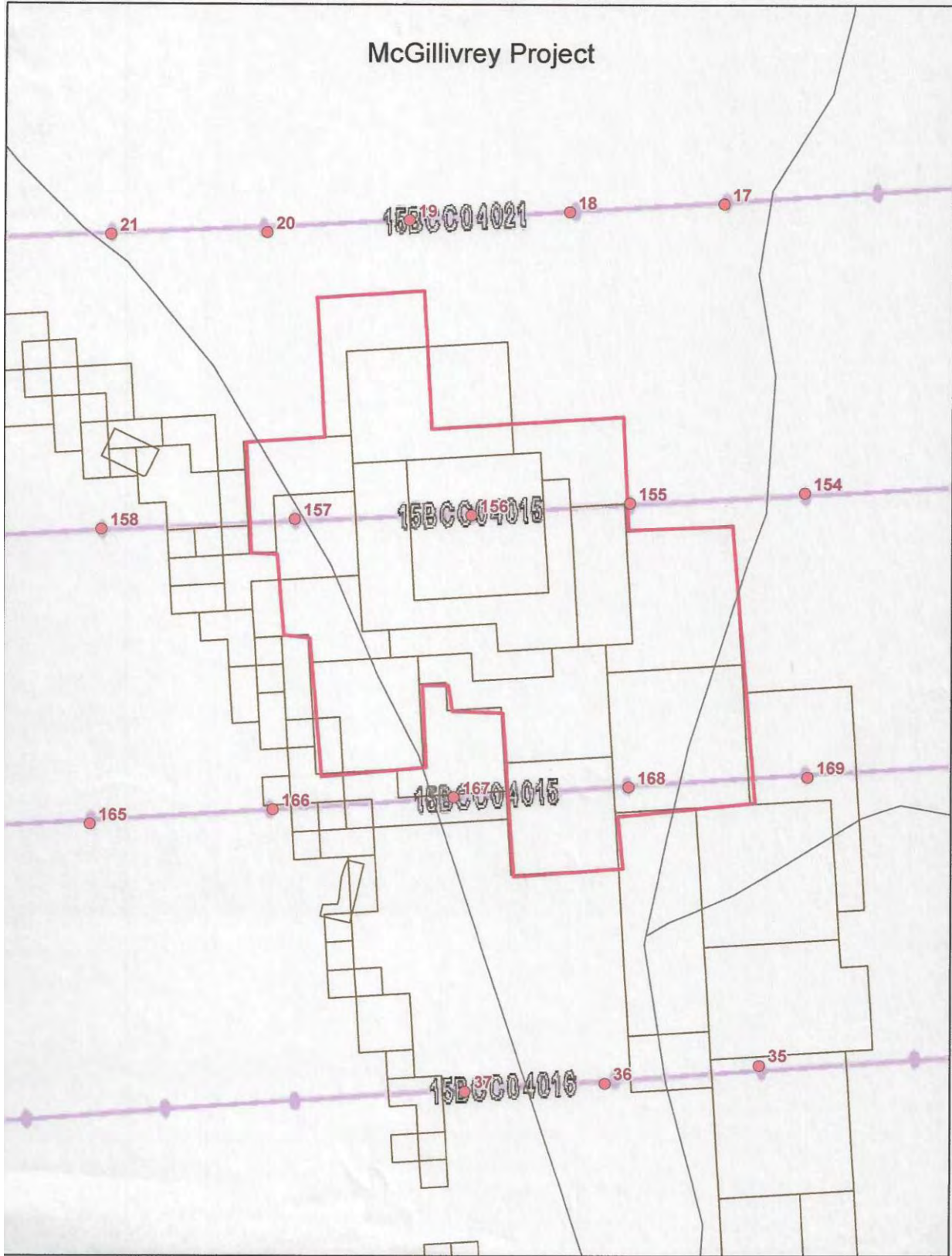


Figure Airphoto Key

## AIRPHOTO INTERPRETATION

A total of 18 colour airphotos were received on digital DC format (consisting of 5 CD's). Each photo was greater than 1 GB of data. A selection of low digital scans of the printed product are contained in Appendix III. Each photo was plotted on standard airphoto size as to 9 inch by 9 inch and grouped to the flight lines.

The most important series are:

- (1) Flight line 15BCC04021 No. 21, 20, 19, 18, 17
- (2) Flight line 15BCC04015 No. 158, 157, 156, 155, 154
- (3) Flight line 15BCC04015 No. 165, 166,167, 168,169
- (4) Flight line 15BCC04016 No. 37, 36, 35

A transparent overlay was attached and the prominent geological features as mapped were noted. Each stereo pair was examined in detail using a Gordon stereoscope type F-71 serial #9466. Detailed attention was given to the mapped location of the known alteration and mineralized zones.

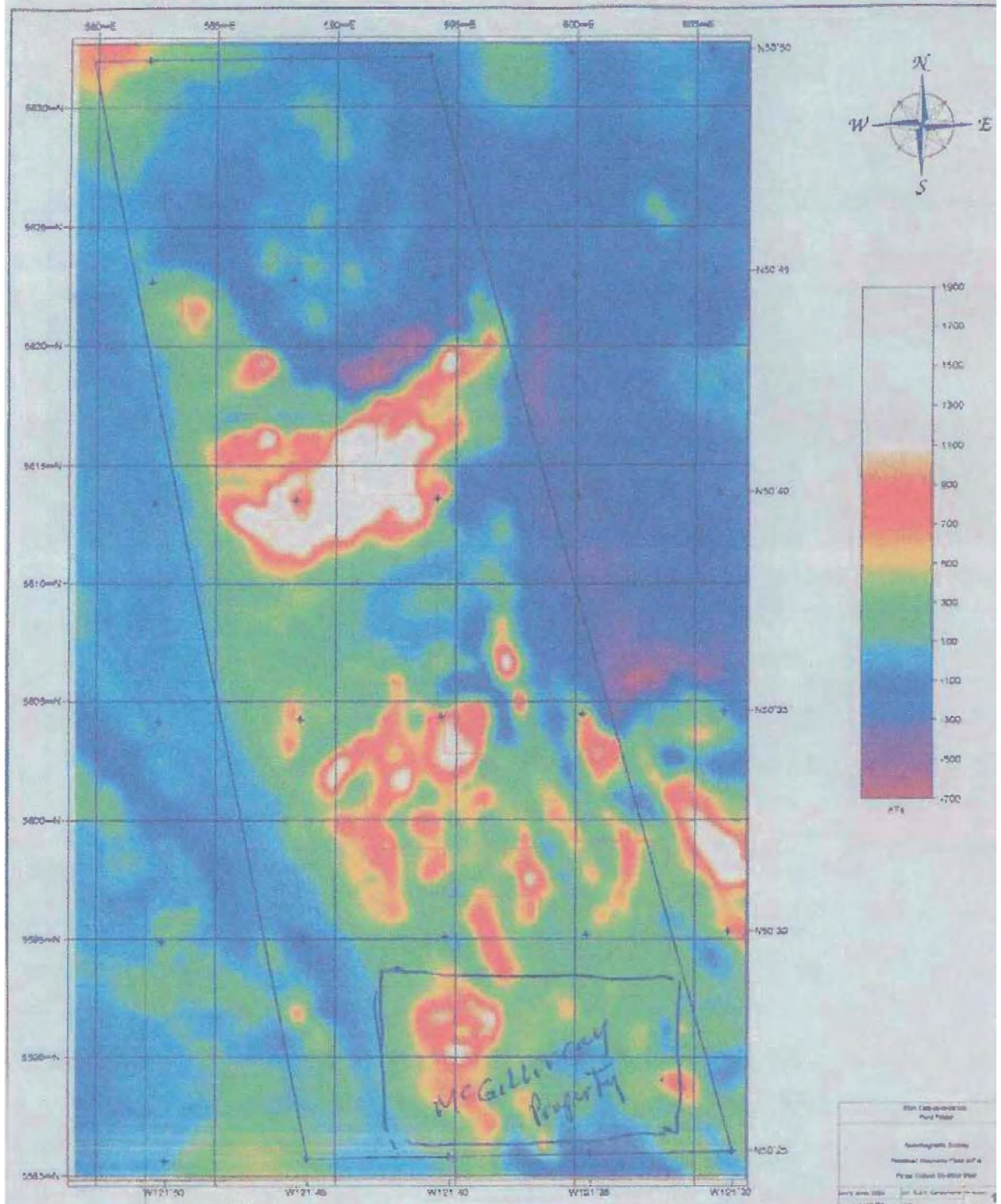
Figure 8 illustrates some of the Airphoto linears that are apparent. A very strong through-going structure, possibly reflecting a major terrane boundary, trends approximately east-west touching mid McGillivray Creek. Strong parallel structures occur to the south along lower Luluwissan Creek and bounding the central crustal blocks and may control the emplacement of intrusive elements in the Lytton Metamorphic Complex.

A prominent splay to the southeast can be observed crossing from the McGillivray Valley into the mid Luluwissan Valley and beyond. A series of lesser linears oriented NE and NW are evident in the north fork of McGillivray Creek associated with normal faults in the upper Hat Creek Valley system.





**Figure 8 Airphoto Linears Airphoto 15BCC05015 No. 156**



**Figure 9 Airborne Magnetics**

## CONCLUSIONS and RECOMMENDATIONS

The McGillivray Project, centred around McGillivray Creek in south-central British Columbia, represents a potentially large belt of underexplored, poorly understood volcanic rocks, of Cretaceous Spences Bridge Group and similar in structure, alteration and mineralization to those hosting the former producing Blackdome mine to the north and the newly discovered Skoonka Creek Zones of Strongbow. Anomalous precious metal values are associated with later stage silica flooding/stockwork veinlets which cut felsic volcanic rocks. The altered volcanic system which contains this system extends over several kilometres. A methodical approach of detailed structural mapping and sampling, would define the geological controls on the existing anomalies. Prospecting and regional sampling of more remote areas with polymetallic anomalies in the regional geochemical survey might well define new areas of prospective mineralization.

A very strong through-going structure, possibly reflecting a major terrane boundary, trends approximately east-west touching mid McGillivray Creek. Strong parallel structures occur to the south along lower Luluwissan Creek and bounding the central crustal blocks and may control the emplacement of intrusive elements in the Lytton Metamorphic Complex.

A prominent splay to the southeast can be observed crossing from the McGillivray Valley into the mid Luluwissan Valley and beyond. A series of lesser linears oriented NE and NW are evident in the north fork of McGillivray Creek associated with normal faults in the upper Hat Creek Valley system.

An initial Phase I consisting of prospecting and soil sampling was carried out during the latter part of 2006 (Shearer, 2006). An additional period of 84 man days in the field is recommended, in addition to time expended in preparation and in report writing. The purpose of the fieldwork will be to re-establish a grid in the central area of the property and resample certain areas, predominantly those locations from which samples were anomalous as well as to expand the sampling to other mineralized zones. Silt sampling and prospecting of all drainages should be undertaken to aid in locating new or hidden targets. Coincident with the sampling, a programme of geological mapping will prioritize location of alteration, rock units and structures controlling or channelling the mineralizing fluids and upon establishing the limits of the gold-bearing mineralization. To this end, it is recommended that preparations for the field include facilities for staining to detect potassium in altered samples and also rental of a PIMA unit to expedite mapping of the alteration and mineralization. The budget for Phase I is estimated at \$210,000 as follows. (see next page)

## Cost Estimate of Future Work

### Phase I

Phase I programme at \$210,000 should consist of more detailed mapping, sampling, and expansion of anomalous zones, and IP geophysics followed by contingent diamond drilling if warranted. Phase II budget is set at \$249,000 as follows.

Senior Geologist	42 days @ \$600/day	\$ 25,200.00
Geotechnician	42 days @ \$400/day	16,800.00
Geotechnician	42 days @ \$300/day	12,600.00
Labour	42 days @ \$250/day	10,500.00
Management Fee, WCB, Office and Overhead @ 10%		6,510.00
IP Geophysics		40,000.00
Equipment Rental		
(2) 4x4 Trucks	42 days @ \$75/day	3,150.00
(2) 4-Trax	42 days @ \$50/day	2,100.00
Camp @ \$3,000/month		4,500.00
(2) PIMA Geophysics Instrument @ \$500/month		4,000.00
GST 6%		7,521.00
Excavator Trail Building		19,119.00
Excavator Trenching		9,000.00
Petrographic Work		5,000.00
Food and Fuel, Mob/Demob		3,000.00
Assays	1600 samples @ \$15/sample	21,000.00
Field Supplies (pickets, tags, sample bags, flagging, etc.)		3,000.00
Preparation and Report Writing		8,000.00
Contingency @ 10%		9,000.00
<b>TOTAL – Phase I</b>		<b>\$ 210,000.00</b>
Phase II: Contingent Diamond Drilling		
Diamond drilling (1000m @ \$75/m all in)		\$ 150,000.00
Geological Mapping		30,000.00
Assays		14,000.00
Support, Camp, Supplies		30,000.00
Contingency		25,000.00
<b>GRAND TOTAL – Phase II</b>		<b>\$ 249,000.00</b>

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**APPENDIX I**

**STATEMENT of QUALIFICATIONS**

**FEBRUARY 1, 2013**



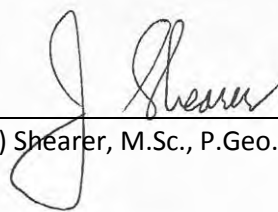
## STATEMENT OF QUALIFICATIONS

I J. T. (Jo) Shearer do hereby certify that:

1. I am a consulting geologist and principal of Homegold Resources Ltd.
2. My academic qualifications are:
  - Bachelor of Science, Honours Geology from the University of British Columbia, 1973
  - Associate of the Royal School of Mines (ARSM) from the Imperial College of Science and Technology in London, England in 1977 in Mineral Exploration
  - Master of Science from the University of London, 1977
3. My professional associations are:
  - Member of the Association of Professional Engineers and Geoscientists in the Province of British Columbia, Canada, Member #19,279
    - Fellow of the Geological Association of Canada, Fellow #F439
    - Fellow of the Geological Society of London
    - Fellow of the Canadian Institute of Mining and Metallurgy, Fellow # 97316
    - Fellow of the Society of Economic Geologists (SEG), Fellow #723766
4. I have been professionally active in the mining industry continuously for over 30 years since initial graduation from university.
5. I am responsible for the preparation of all sections of the technical report entitled "Airphoto Assessment Report on the McGillivray Property" dated February 1, 2013. I have most recently visited the Property on May 18 and 19, 2012. General geological parameters were also examined.

Signed and dated in Vancouver B.C.

February 1, 2013  
Date

  
\_\_\_\_\_  
J.T. (Jo) Shearer, M.Sc., P.Geo.

**APPENDIX II**

**STATEMENT of COSTS**

**FEBRUARY 1, 2013**

## Statement of Costs McGillivray Project 2012

Wages		Total
		without HST
	J.T. Shearer, M.Sc., P.Geo., 4 days @ \$700/day, May 18+19, 2012	\$ 2,800.00
Expenses		
Transportation:		
	Truck 1 Rental, 2 truck days @ \$120/day	240.00
	Fuel	215.00
	Food & Meals and Hotel	156.00
	Supplies – ribbon, bags, GPS, Radios, Mapping Tablet	200.00
	Computer Mapping	175.00
	Airphoto Cost	225.00
	Word Processing and Reproduction	250.00
	Report Writing	1,400.00
	<b>Total</b>	<b>\$ 5,661.00</b>

Event #	5423173
Date	December 23, 2012
File	\$4,200.00
PAC Debit	\$1,041.66
Total	\$5,241.66

**APPENDIX III**

**AIRPHOTO DATABASE**

**FEBRUARY 1, 2013**

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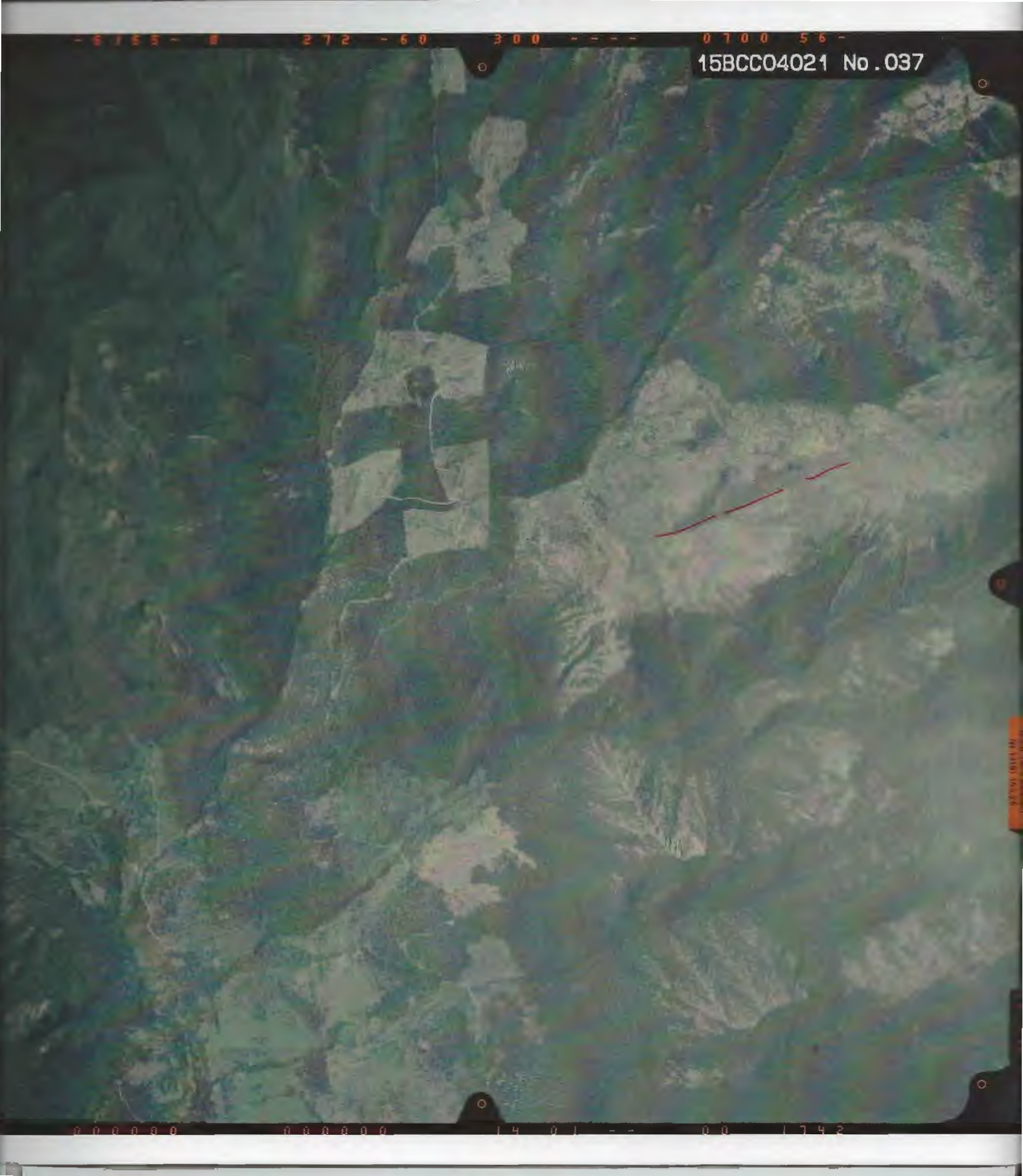
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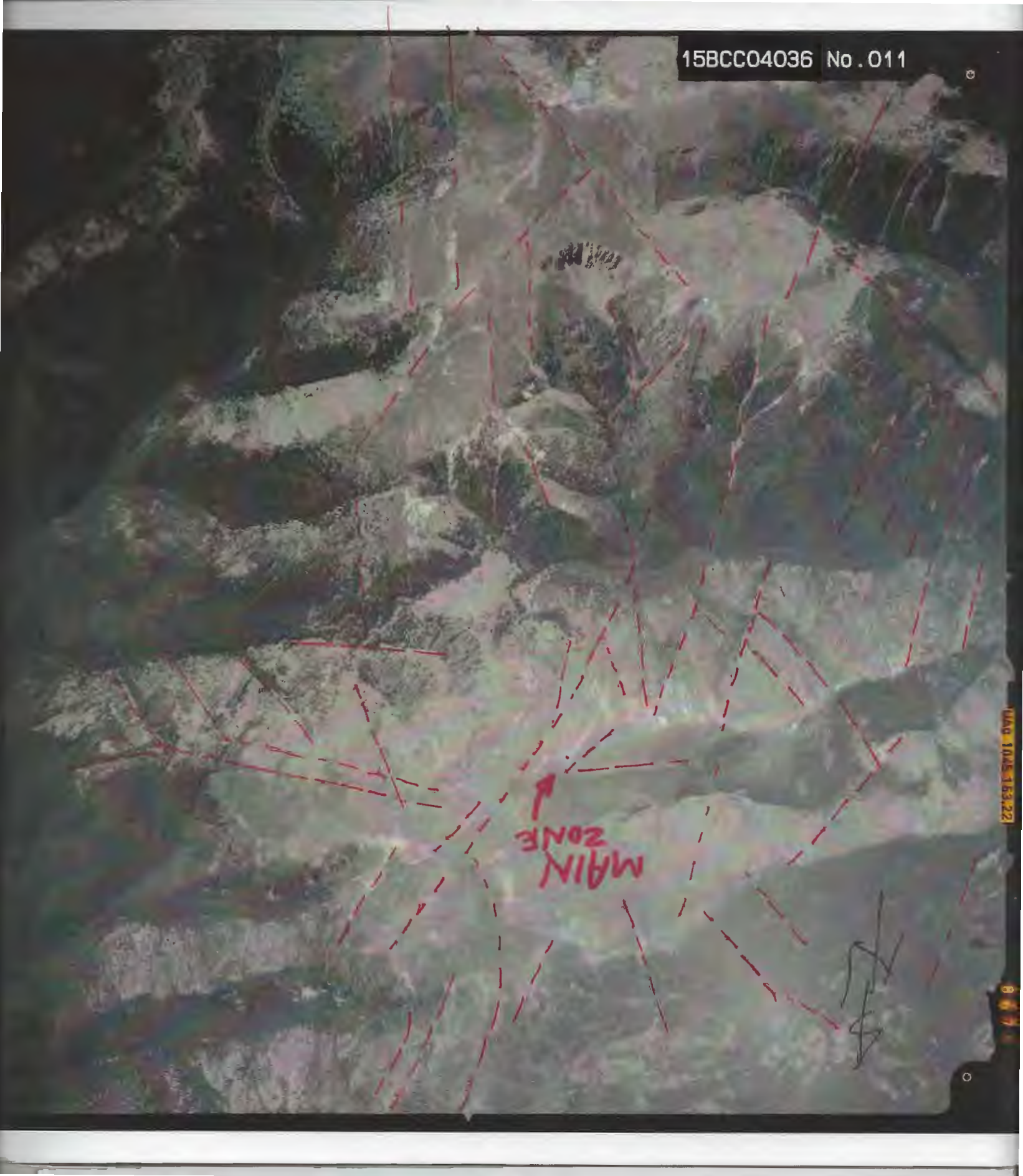
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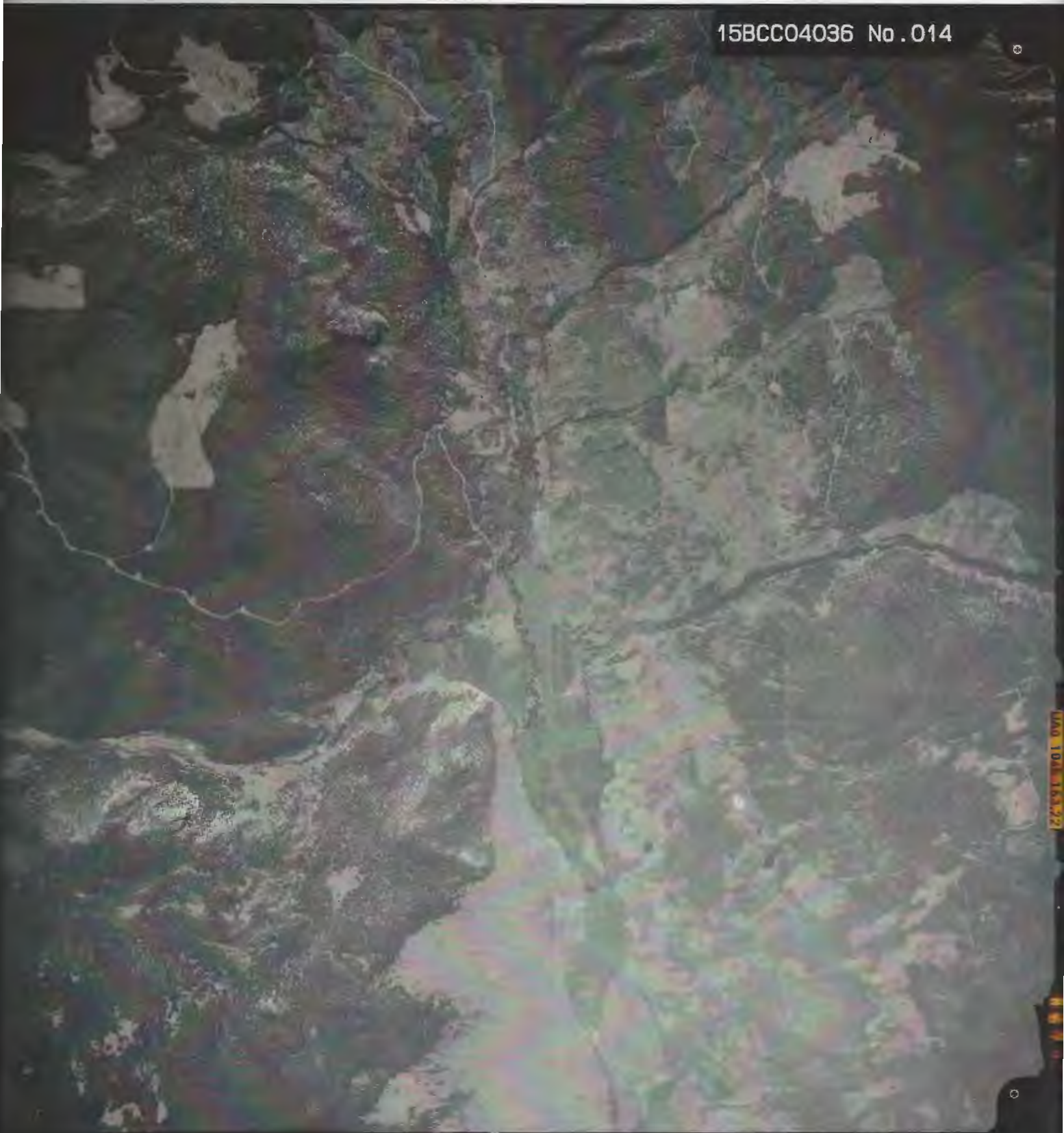
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