

**TECHNICAL REPORT  
On the  
WAVERLEY-TANGIER Property  
(WAVERLEY Property)  
Revelstoke Mining Division  
British Columbia  
NTS 082N/5W**

**Geology, Mineralization and Potential**

51° 27' N and 117° 58' W  
Owner: Silver Phoenix Resources Inc.

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December 6, 2005, revised February 2007, December 2007, February 6 & 25, 2008,  
April 8, 2008, Nov 14, 2008, updated January 28, 2013.

**Prepared for Silver Phoenix Resources Inc.  
Canoe, BC. Canada**

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## 1.0 SUMMARY

The WAVERLEY-TANGIER Property consists of two principle old mine workings: the **Waverley**, which occur on the **Tangier** claim (388305), and the **Tangier**, which occur on the **Waverley** claim (388306), and is situated at the head of the Sorcerer Creek, about 1 km below the summit flats separating that creek from the head of Tangier Creek. The claims cover the Tangier Creek Valley to the southeast and the upper waters of Sorcerer Creek to the northwest (Figure 2).

The coordinates of the claims are 51° 27' 04" N latitude and 117° 58' 05" W longitude and are located on NTS Map Sheet 82 N/5W BC.

The topography of the **Waverley Workings** is fairly steep, consisting of ridges trending roughly northwest, generally parallel to the drainage pattern. Relief is of the order of 1500 m vertically with the highest mountains approaching 2500 m. Steep faced cirques, knife-edge ridges, and cliffs over 90 m are common above 2000 m. The **Tangier Workings** are at a lower elevation, below tree line near the saddle of two valleys.

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 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 and Leland Voll. Access is via helicopter from Revelstoke. A logging road has been constructed to the property.

Two main areas of mineralization occur on the property:

1. The WAVERLEY WORKINGS
2. The TANGIER WORKINGS

### The WAVERLEY WORKINGS

The old underground workings, which are quite extensive, date back to 1897 and 1898, when the Gold Fields of British Columbia, an English company, operated the property. The mines closed down in 1890 and were idle until 1918, when a new company took them over. Work done from 1918 to 1921 includes some 200 feet of tunneling. The lower zone occurs at 1403-1433 m and the upper zone occurs at 1463-1509 m. Assays for both zones are reported at 10% lead, 1% zinc and 0.5-oz/ton silver.

All the Waverley workings are in a band of light grey, crystalline limestone with fine-grained, argillaceous, and carbonaceous limestones intercalated the whole calcareous member being about 2,500 feet thick. Below, or west of the marble, are argillaceous

to carbonaceous grey or black schists and phyllites and above, or east of it, green or grey phyllites appear as intercalations in the limestone before the latter gives way to grey or brown quartzites with interbedded green and light grey.

### THE TANGIER WORKINGS

The Tangier workings consists old workings, adits, tunnels, etc., all of which are either caved or inaccessible. The Tangier veins and replacements consist of galena-sphalerite-silver mineralization.

On the Tangier workings band of white to grey marble at least 120 feet wide strikes north 30 degrees to 5 degrees west and dips very steeply east or is vertical. In the west, the marble is in contact by a considerable thickness of pyrite black, carbonaceous schist. The workings are on the edge of Sorcerer Creek.

The vein was drifted on for 220 feet to the southeast. It consists of calcite, some quartz, and a fine-grained mixture of pyrite, jamesonite, galena, sphalerite, and, at several places, small amounts of grey copper. The mineral identified as jamesonite (lead-sulphur-antimonide), is quite abundant, but finely intergrown with the sphalerite. It must contribute a large percentage of the lead in the ores. The vein is in the marble at or near the schist contact and occurs generally between two well - defined fault walls. Occasionally replacement of limestone by vein matter has enlarged the vein beyond the walls. Some mineralization was noted in the schists to the west of the vein proper. The width of the vein varies from 5 feet to a little more and averages about 2 feet.

The GSC in 1928 reported, that 15 tons of sulphide ore, shipped to Wales in the early days, contained 1.5 ounces gold, 130 ounces silver, and 25 per cent lead per ton.

Samples taken by the Author were from the “ore” dump on the Tangier workings, the dump is estimated to be 25 metres long X 3 metres deep x 4 metres wide. Average grades have been published by a variety of people. The BCDM estimated a reserve in this pile at “several hundred tons”. A dump nearby, estimated at 181 tonnes, came from a winze below the 30-metre level these data are similar to data reported by Barovic and W. Murray and government sources.

Table 1: Government sampling Tangier Dump

	Au(gm/mt)	Ag(gm/t)	Pb(%)	Zn(%)	
BC Gov. (MMAR 1921)	2.050	584.40	8.50	5.00	Tangier dump
	8.200	726.70	8.50	15.00	winze 30 ft. level

In September 2003, William Murray reported six samples from the Tangier workings:

Table 2: W. Murray Samples of the Tangier Dump

Description	Cu(ppm)	Pb(ppm)	Zn(ppm)	Ag(oz/t)	Au(oz/t)
D1 Grab from Tangier dump	29	3407	7196	.20	.010
D2 Grab from Tangier dump	4	147	24	.07	<.001
D3 Grab from Tangier dump	5	34	29	.02	<.001
D4 Grab from Tangier dump	4	8	4	<.01	<.001
Cut 1 Grab from Tangier dump	19941	>9999	>99999	103.74	.162
Cut 2 Grab from Tangier dump	1718	>9999	>99999	28.45	.049

High values in Antimony (Sb), Cadmium (Cd) and Strontium (Sr) also occur in the samples.

In November 2004 a shipment from the Tangier workings Dump: See Appendix II

Table 3: Shipment from the Tangier Dump

	Au(oz/ton)	Ag(oz/ton)	Pb(%)	Zn(%)	
Sterling Mining	.380	50.80	25.2	10.02	60 lb sample
	1.082	74.00	Pyritic		20 lb. sample

The Author cannot find in the literature any evidence of drilling in the WAVERLEY PROPERTY area.

Table 4: Authors sampling from the Tangier Dump

Description	Cu(%)	Pb(%)	Zn(%)	Ag(gm/t)	Au(gm/t)
19776 Grab from Tangier dump	0.033	32.6	2.34	1489	8.57
19777 Grab from Tangier dump	0.001	0.11	1.94	8	6.13
19778 Grab from Tangier dump	0.025	16.5	1.96	646	9.27

**These results verify previous results for the Tangier Workings Dump material. Previous workers have shown that economic mineralization occurs on the property. The Authors sampling of the Tangier dump verifies some of the earlier results. The project warrants continued exploration.**

In 2003 William Murray reported work on the property: Work consisted construction of 10.5 km of trail 3 metres wide on the Sorcerer 2, 6 and Waverley and Tangier Claims.

**Total Assessment was: \$ 99,009.60**

In 2005 William Murray reported work on the property: Work consisted of further construction of trail, property examination and this report.

**Total Assessment was: \$37,141.73**

In 2006 no work was done on the claims. Assessment work, in the form of cash in lieu of work as filled on the property.

In 2007 Discovery Consultants of Vernon, BC conducted a silt and rock geochemistry program over the northwest portion of the property. The results are preliminary and an assessment report is in progress.

A total of 68 silt and 14 rock samples were collected. The samples came from streams and various outcrops along the northwest extent of the Waverley–Tangier showings. The samples were analyzed for Au and 35 Element ICP. Preliminary results verify the potential of the Waverley-Tangier along strike.

**Total Assessment was: \$21,141.73**

In the summer of 2008 Discovery Consultants and Bill Murray conducted a small program of road building and some environmental work.

Exploration in 2009 included a program of Airborne Geophysics, road work and Diamond Drilling. Pre-field work included the acquisition of detailed satellite imagery. The program fell short of the 2000 metres of drilling and 5 km of road work. Also in 2009 new claims were added to the property to cover perceived Airborne Magnetic anomalies.

**Total Assessment was: \$ 446,872.76**

In 2012 Armadillo Resources conducted some road building and constructed a bridge across Sorcerer Creek.

**Total Assessment work was: \$ 89,475.00**

This technical report was prepared at the request of Silver Phoenix Resources Inc. as a an update of a previous Technical Report, dated August 10, 2010, for the Waverley-Tangier Pb, Zn, Ag and Au Property. This report is based in part on personal examination of the subject property and subsequent observations by the Author while supervising the 2009 drill program. The following table summarizes the results from the 2009 drilling.

Table 5: Waverley - Tangier Drill Sample Highlights

Hole No	From (m)	To (m)	Interval (m)	Gold (g/t)	Silver (g/t)	Lead (%)	Zinc (%)
2	50.90	62.48	11.58	1.66	148.7	0.36	1.37
includes	54.41	60.20	5.79	2.42	245.2	0.63	2.64
5	49.53	62.03	12.50	2.45	145.4	0.62	0.90
includes	51.82	53.34	1.52	6.80	162.5	2.01	2.70
and	59.58	62.03	2.44	5.30	567.9	0.56	0.64
8	62.48	71.02	8.53	3.20	190.3	0.28	1.92
includes	63.28	71.02	6.22	4.37	261.1	0.38	2.55
includes	67.82	68.58	0.76	22.30	1310.0	1.50	0.34

**On September 25, 2012 the Author conducted a site visit in the company of the owner. A helicopter from Revelstoke was used for transport. The visit lasted several hours. The Author viewed the newly constructed Bridge and drill sites. One sample was taken from the Tangier Dump. The sample was taken from a quartz breccia area of the Dump and not the main sulfide dump nearby.**

Table 6 Authors Sample 2012

	Au	Pb	Zn	Ag
	PPM	%	%	GM/T
Detection	0.005	0.01	0.01	2
Sample				
80938	1.88	0.22	1.03	101

In January 2013 Armadillo returned the property to Silver Phoenix

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 before the fieldwork. Phase I should also include detailed mapping, geochemical sampling and continued drilling at the Tangier Zone.

The above program is estimated to cost **CAD \$221,650.00**

Phase II which is contingent on Phase I Includes road building, Tangier dump removal, drilling, airborne and ground geophysics.

The above program is estimated to cost **CAD \$ 670,000.**

## 2.0 INTRODUCTION

### 2.1 Qualified Person and Participating Personnel

The following report was commissioned by Silver Phoenix Resources Inc. to summarize the geology and mineralization of the WAVERLEY-TANGIER Polymetallic Pb, Ag, Zn, Au, and Sb Vein property near Revelstoke in North eastern British Columbia. , and to report on the 2009 and 2010 assessment work. James A. Turner was retained to summarise the geology and economic potential for WAVERLEY-TANGIER Property in a form consistent with Canadian National Instrument NI 43-101. In July 2005 Silver Phoenix Resources Inc. commissioned James A. Turner, PGeo, to conduct a property visit to the WAVERLEY-TANGIER Property.

In June -November 2009 James A Turner was responsible for the property management; which included setting up a geophysical grid and plan the drill program. James A Turner was on site in August during the planning stage, the Airborne Geophysics program and the early stages of the drill program. The property geologist Norm Berg was responsible for logging core, spotting holes and road management. The Author re-logged the core and sampled several sections.

James A. Turner is the sole Author of this report and it is consistent with NI 43-101 standards.

### 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 **WAVERLEY-TANGIER Property** will be referred to as the “**WAVERLEY Property**”. Cell claims refers to claims acquired by map “staking”. These cells can be acquired over the Government of British Columbia’s website MTO Online ([www.mtonline.gov.bc.ca/](http://www.mtonline.gov.bc.ca/)). A group of cells form a claim. In the Waverley area a cell is about 40 ha. Legacy claims are ground staked claims acquired before map staking came into force. The **WAVERLEY Property** consists of 3 such claims the Waverley, the Tangier and the George1, tenure numbers 388305,388306 and 392044.

### 2.3 Source Documents

Limited previous data were also reviewed and incorporated as noted, including records of previous drifting, mining, trenching and rock-chip sampling completed between 1918 and 1987 by operators not affiliated with Silver Phoenix Resources.

## 2.4 Limitations 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 and Armadillo 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. Although there are old workings and a small “ore” dump on the property, the Author feels that the WAVERLEY Property is at an early stage of exploration.

## 2.5 Scope of Review and Site Visit

To accomplish this review, James A. Turner, was asked to complete an evaluation of the exploration history, geology, mineralization and economic potential of the WAVERLEY 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 1/2 day of rock sampling in the project area in August 2005; 3 rock 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.

**The Author is also satisfied that work was carried out in 2009 is a material change and is the subject of this report. A summary of all work known to the Author is included. James A. Turner completed several days of pre-field work and several days on the property in 2009. A current site visit was completed on August 23, 2012.**

## 3.0 RELIANCE ON OTHER EXPERTS

Information sources provided in the references section of this report and the Authors' examination has been relied upon in preparing the current summary. On August 23, 2005, a site visit was conducted on the WAVERLEY Property.

In arriving at our conclusions, we reviewed and relied to some extent upon the documents listed in the reference section of this report. Some drawings were obtained from a report by: I. Braovic, which were based on original mine and assay plans. The Author did not obtain original plans or assays. The Author also reviewed the preliminary results from the 2007 silt and rock geochemical survey conducted by Discovery Consultants of Vernon, B.C. Diamond Drill logs from Norm Berg, who conducted the drill program, were examined and in some cases were re-logged.

## 4.0 PROPERTY DESCRIPTION AND LOCATION

### 4.1 Property Location: Figure1

The WAVERLEY Property is situated at the head of the North Fork of Downie Creek,

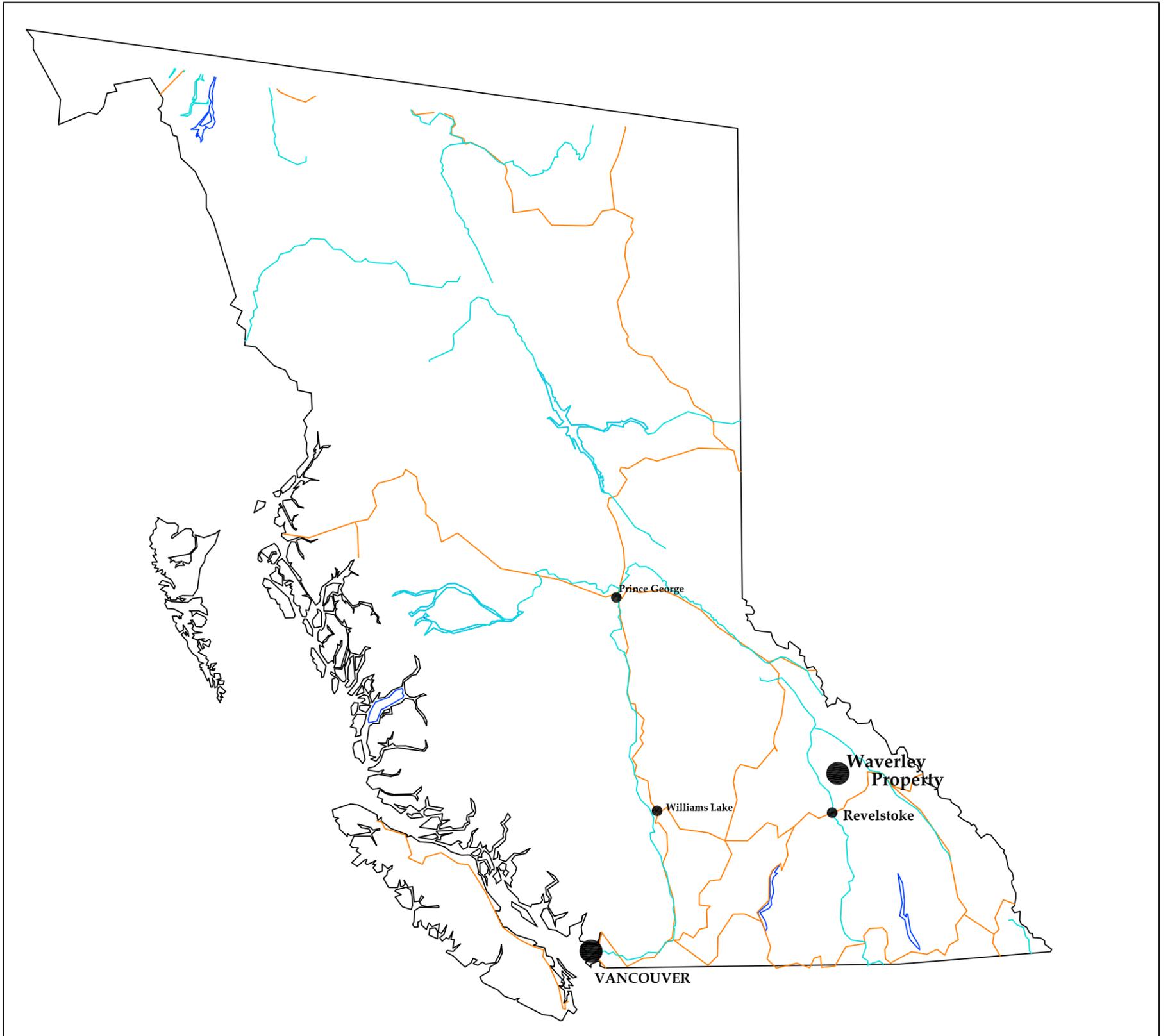
about 1 ½ miles below the summit flats separating that creek from the North Fork of the Illecillewaet River.

Although the property is tributary to Downie Creek, which flows into the Columbia River 46 miles above Revelstoke, the present route is by an old wagon-road about 28 miles in length [estimated], following the North fork of the Illecillewaet river from Albert Canyon, on the main line of the Canadian Pacific Railway 21 miles east of Revelstoke.

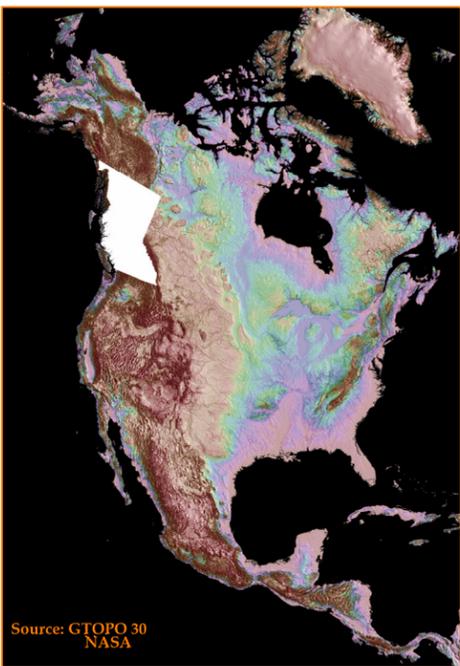
The claims cover the Tangier River Valley to the southeast and the upper waters of Sorcerer Creek to the northwest.

The coordinates of the claims are 51° 27' 04" N latitude and 117° 58' 05" W longitude and are located on NTS Map Sheet 82 N/5W BC.

This map is presented on the UTM projection in grid zone 10. The horizontal datum is NAD 83 and the vertical datum is NGVD 1983.



0 650 km



Source: GTOPO 30  
NASA

SILVER PHOENIX RESOURCES INC.

Revelstoke Mining District  
British Columbia

WAVERLEY PROPERTY

Location Map

*Figure 1*

*James A Turner, P. Geo*

## 4.2 Property Description: Figure 2

The property forms a continuous block of 25 un-patented claims totaling 4446.196 hectares and is located in the Revelstoke Mining Division of central British Columbia.

The claims were re-staked in 2006 and filed under the name of Silver Phoenix Resources Inc. The claims are contiguous.

The claims, listed below, are all located on government (crown) land and are shown on Figure 2. Armadillo added to the claims in 2009 to cover suspected airborne magnetic anomalies

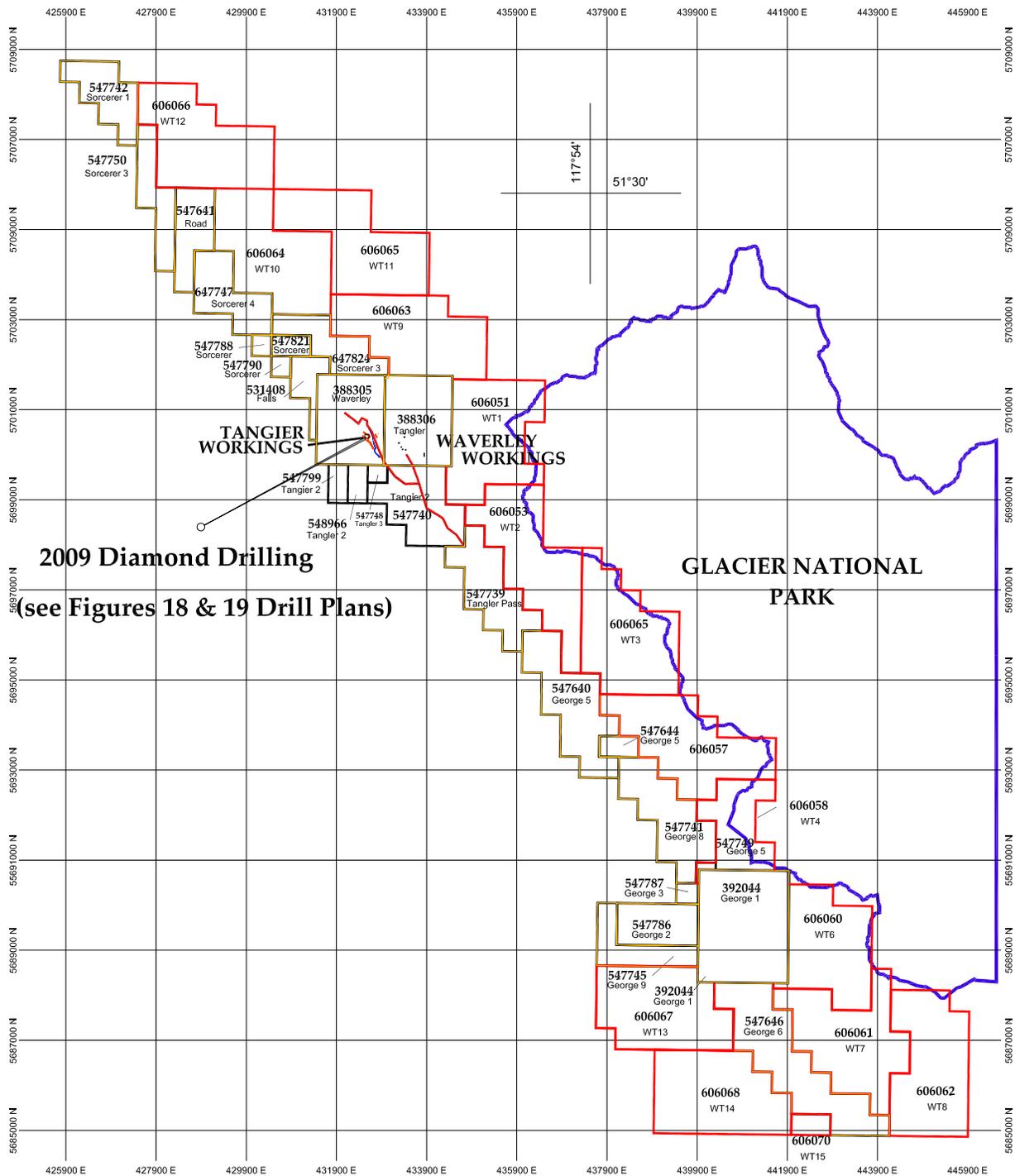
The Author has verified the “cell” claims were acquired by using the modified grid system map staking of BC. Three claims the Waverley, Tangier and George 1 were acquired by ground staking. The Author can verify the position of the cell claims as shown in Figure 2 and 4 of this report. The Author can pass no judgment on the location of the Legacy Claims; however they have been tied into the Modified Grid System.

The property has not been legally surveyed.

Table 7: WAVERLEY Property Summary

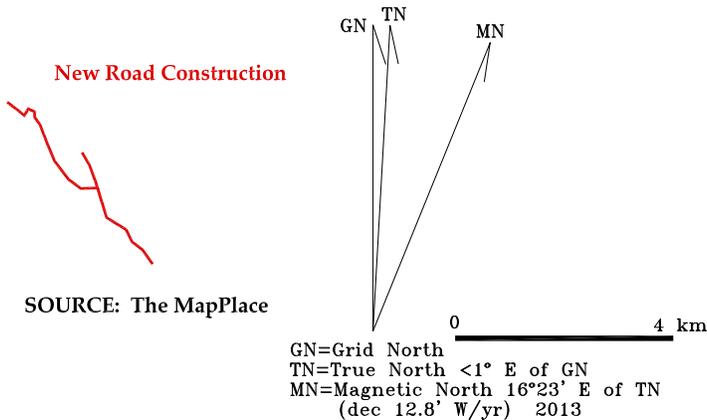
Tenure Number	Claim Name	Good To Date	Area (ha)
388305	WAVERLEY	2015/Mar/05	300
388306	TANGIER	2015/Mar/05	300
392044	GEORGE 1	2015/Mar/05	500
531408	FALLS	2015/Mar/05	120.828
547640	GEORGE 5	2015/Mar/05	342.807
547641	ROAD	2015/Mar/05	160.994
547644	GEORGE 5	2015/Mar/05	40.338
547646	GEORGE 6	2015/Mar/05	504.887
547739	TANGIER PASS	2015/Mar/05	262.016
547740	TANGIER2	2015/Mar/05	282.068
547741	GEORGE 8	2015/Mar/05	302.623
547742	SORCERER 1	2015/Mar/05	181.015
547745	GEORGE 9	2015/Mar/05	161.491
547747	SORCERER 4	2015/Mar/05	201.297
547748	TANGIER 3	2015/Mar/05	20.145
547749	GEORGE 5	2015/Mar/05	20.18
547750	SORCERER 3	2015/Mar/05	160.972
547786	GEORGE 2	2015/Mar/05	201.843
547787	GEORGE3	2015/Mar/05	40.363
547788	SORCERER	2015/Mar/05	20.134
547790	SORCER	2014/Mar/05	20.136
547799	TANGIER 2	2014/Mar/05	40.292

547821	SORCER	2014/Mar/05	40.268
547824	SORCER 3	2014/Mar/05	181.207
548966	TANGIER 2	2014/Mar/05	40.292
606051	WT1	2014/Mar/05	503.5423
606053	WT2	2014/Mar/05	503.8161
606055	WT3	2014/Mar/05	503.9759
606057		2014/Mar/05	504.2096
606058	WT4	2014/Mar/05	302.644
606060	WT6	2014/Mar/05	504.6472
606061	WT7	2014/Mar/05	504.8551
606062	WT8	2014/Mar/05	504.9117
606063	WT9	2014/Mar/05	503.3236
606064	WT10	2014/Mar/05	503.1505
606065	WT11	2014/Mar/05	503.1234
606066	WT12	2014/Mar/05	502.9216
606067	WT13	2014/Mar/05	504.7904
606068	WT14	2014/Mar/05	504.981
606070	WT15	2014/Mar/05	40.4034
<b>Total</b>			<b>11341.491 ha</b>



**2009 Diamond Drilling**  
 (see Figures 18 & 19 Drill Plans)

**GLACIER NATIONAL  
 PARK**



<b>SILVER PHOENIX RESOURCES INC.</b>	
Revelstoke Mining Division British Columbia	
<b>WAVERLEY PROPERTY</b>	
<b>CLAIM MAP</b>	
Universal Transverse Mercator Zone 11 NAD 83 Datum	<i>Figure 2</i>
<i>James A Turner, P.Geo</i>	

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

The WAVERLEY Property requires assessment at the higher level.

To keep the existing WAVERLEY Property in good standing, the annual assessment work or cash-in-lieu obligations total about \$21,000 for the assessment work.

A property may have more than 1 year applied.

#### **4.3 Tenure**

Silver Phoenix Resources Inc. has title to 100 % of the Waverley Property.

#### **4.4 Environmental Liabilities**

There appear to be no significant environmental issues related to the project. Previous disturbance of the area from road construction and mining has apparently been properly reclaimed in accordance with regulations in effect at that time. Some clean-up of previous workings may be required.

#### **4.5 Status of Required Permits**

An annual Mineral & Coal Notice of Work and Reclamation Program permit has to be filed with the Ministry of Energy and Mines for British Columbia. This permit allows the user to conduct road building, drilling, trenching and timber cutting. Any use of water is also included. The permit forms consist of 11 schedules. A reclamation bond will also be required. The Author does not know if any permits have been applied for.

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

#### **5.1 Access**

Access to the property in August 2009 and 2012 was by Helicopter from Revelstoke a distance of 50 km. The owner has constructed a one-lane road on the property. Logging companies are in the process of upgrading this road. Logging road access has been achieved.

#### **5.2 Climate and Physiography**

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 Waverley Workings is fairly steep, consisting of ridges trending roughly northwest, generally parallel to the drainage pattern. Relief is of the order of 1500 m vertically with the highest mountains approaching 2500 m. Steep faced cirques, knife-edge ridges, and cliffs over 90 m are common above 2000 m. The Tangier Workings are at a lower elevation, below treeline near the saddle of two valleys.

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 40 inches per year. Winters, in the area are usually severe and bring several feet of snow-pack. The highest average temperatures occur in July at 23° C and average lowest temperatures occur in January at -30° C (night).

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

### **5.3 Local Resources and Infrastructure**

Revelstoke (pop. 9,000), is one of the administrative and logistical centres of the region and offers many basic services such as food stores, fuel and lumber supplies. Helicopter services and small aircraft are also available. Revelstoke is serviced by road (Trans-Canada Highway), 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.

Timber, water, sand and gravel are available on or near the property. Heavy-duty equipment is available in Revelstoke. A suitable camp can be built on the property.

### **6.0 HISTORY**

The old underground workings, which are quite extensive, date back to 1897 and 1898, when the property was being operated by the Gold Fields of British Columbia, an English company. The mines were closed down in 1890 and were idle until 1918, when a new company took them over. Since then a small crew, varying from two to six men has been engaged on development during the summer months, putting in all occasional winter. Work done from 1918 to 1921 includes some 200 feet of tunneling.

**The property comprises two separate showings, the Waverley Workings and Tangier Workings of which the former is the most important.**

## 6.1 Waverley Workings: Figures 3-10

In 1886, the Waverley Property is mentioned in the Ministry of Mines reports, some development of the surface exposures of the Tangier and Waverley veins started at that time by the Gold Fields of B. C. Limited.

In 1898, a great amount of work was done on the Waverley and Tangier mines, a property belonging to Gold Fields of B.C. Limited.

In 1918, after lying idle since 1899 the new management, composed of Seattle and Spokane men, planned excessive development. Trucks were used to take ore to Albert Canyon located on Highway #1 thirty km east of Revelstoke.

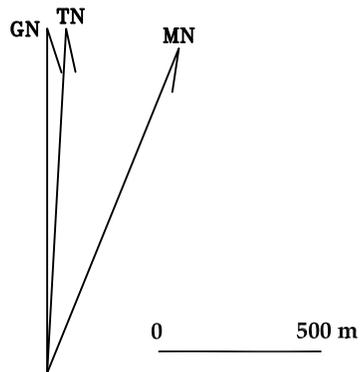
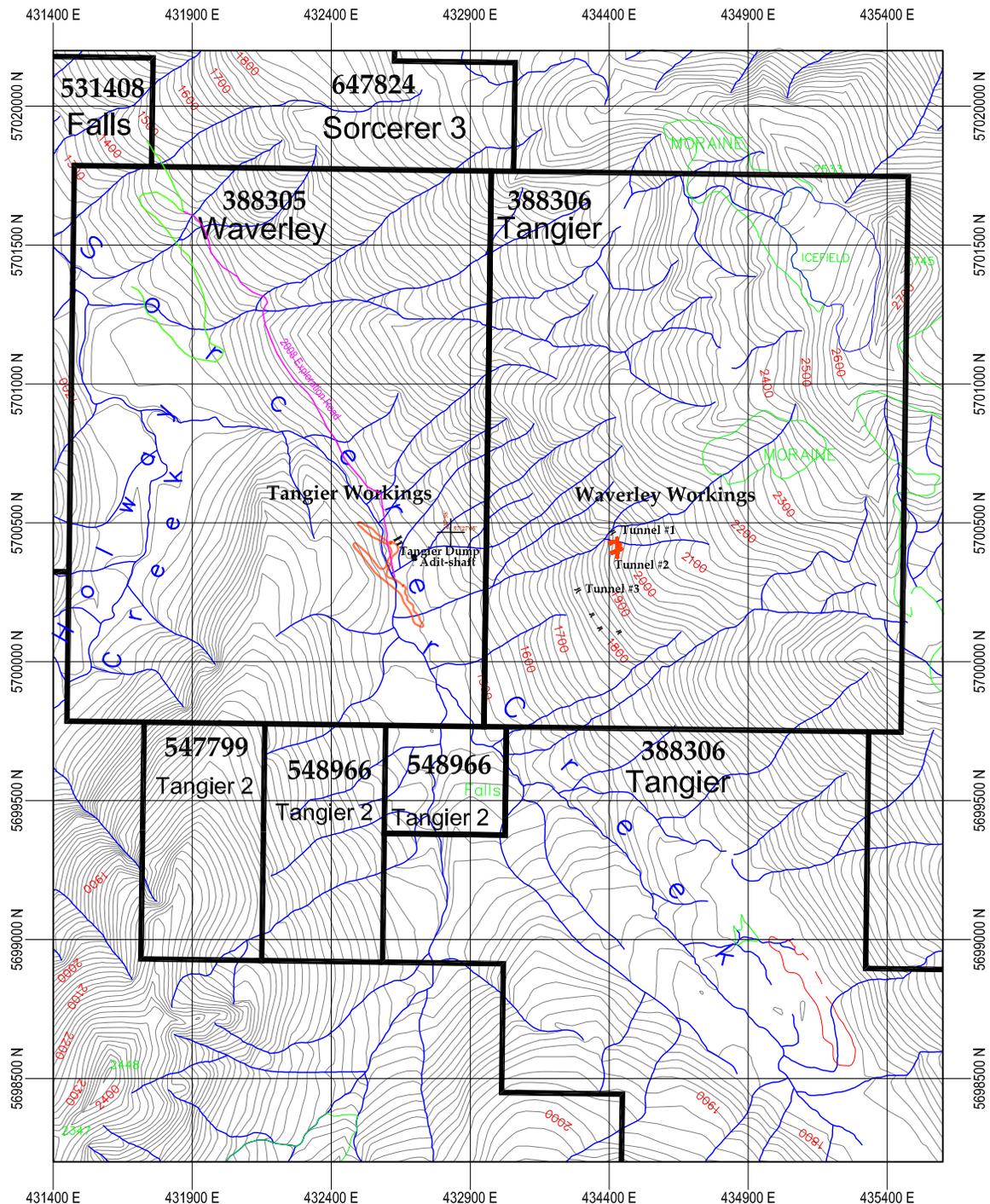
In 1919, G.H. Walters of Spokane, T. Graham and O. Sandberg of Albert Canyon acquired the property. There was a possibility of opening up a considerable body of low-grade silver-lead ore....

In 1920, G. H, Walters had the old tunnels cleaned out in preparation for further mining and development work.

Between 1918 and 1921, 200 feet of tunneling was dug by a crew of between 2 and six men.

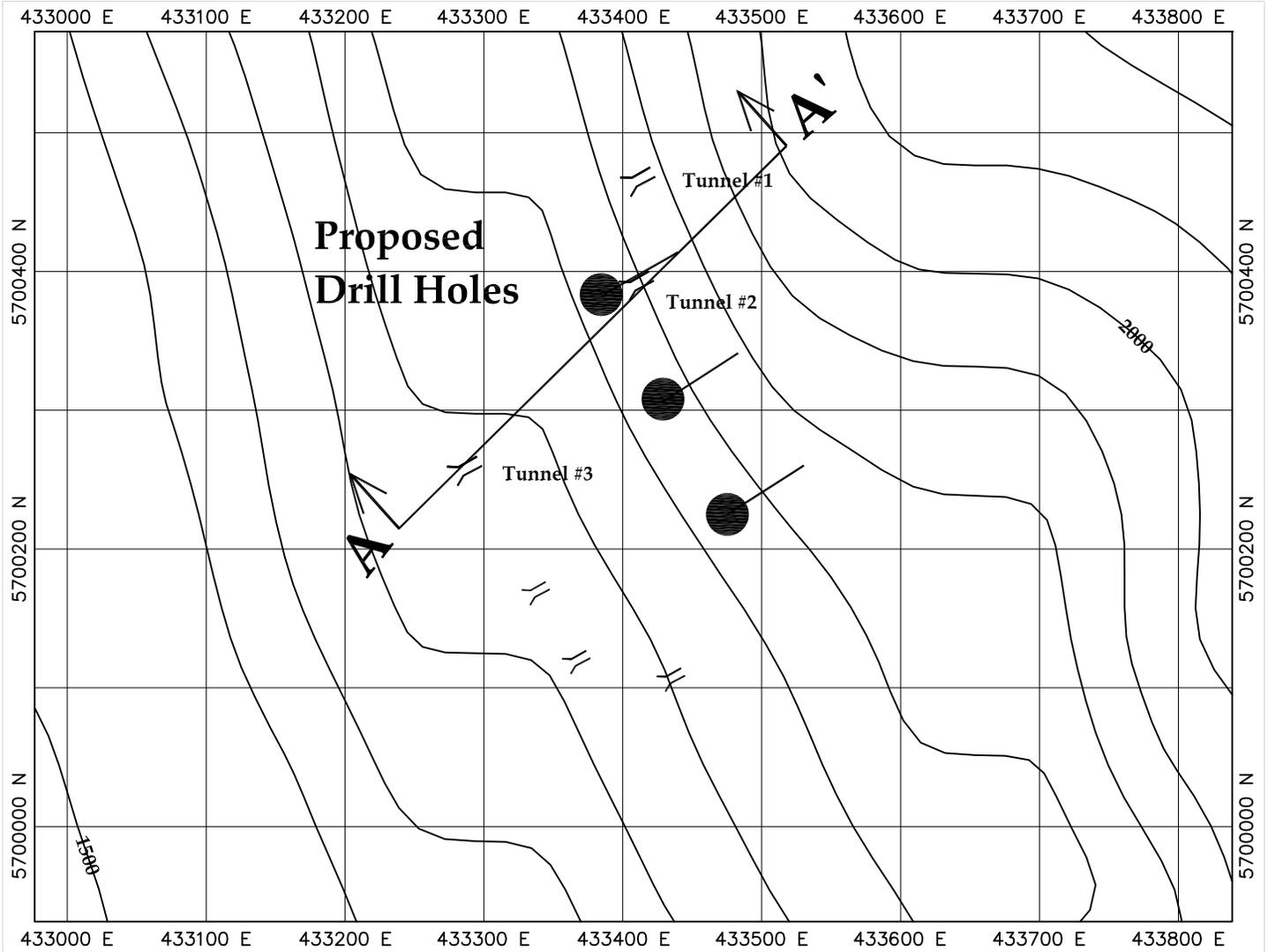
In October 1987, a short exploration program was conducted by: Mandalla Resources Ltd. under the direction of INGA Engineering & Consulting Ltd. The work comprised of grid layout and geologic mapping. INGA's recommendations for the Waverley are as follows:

*“Due to the ruggedness of the terrain and resulting physical limitations four drill holes...”* [could be drilled: at 45°, 020 & 060 azimuth, two from tunnel #1 and two from tunnel #2].



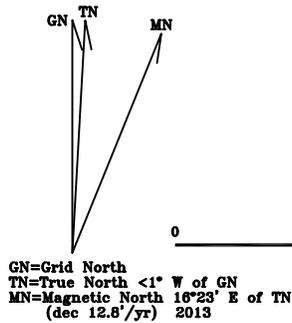
GN=Grid North  
 TN=True North <1° W of GN  
 MN=Magnetic North 16°23' E of TN  
 (dec 12.8'/yr) 2013

<b>SILVER PHOENIX RESOURCES INC.</b>	
Revelstoke Mining Division British Columbia	
<b>WAVERLEY PROPERTY</b>	
Location Map <b>WAVERLEY-TANGIER WORKINGS</b>	
Universal Transverse Mercator Zone 11 NAD 83 Datum	<i>Figure 3</i>
<i>James A Turner, PGeo.</i>	



 **Main Tunnels**  
 **Secondary adits**

SOURCE: The MapPlace  
 Barovic 1987  
 Contours STRM\_NASA



SILVER PHOENIX RESOURCES INC.

Revelstoke Mining Division  
British Columbia

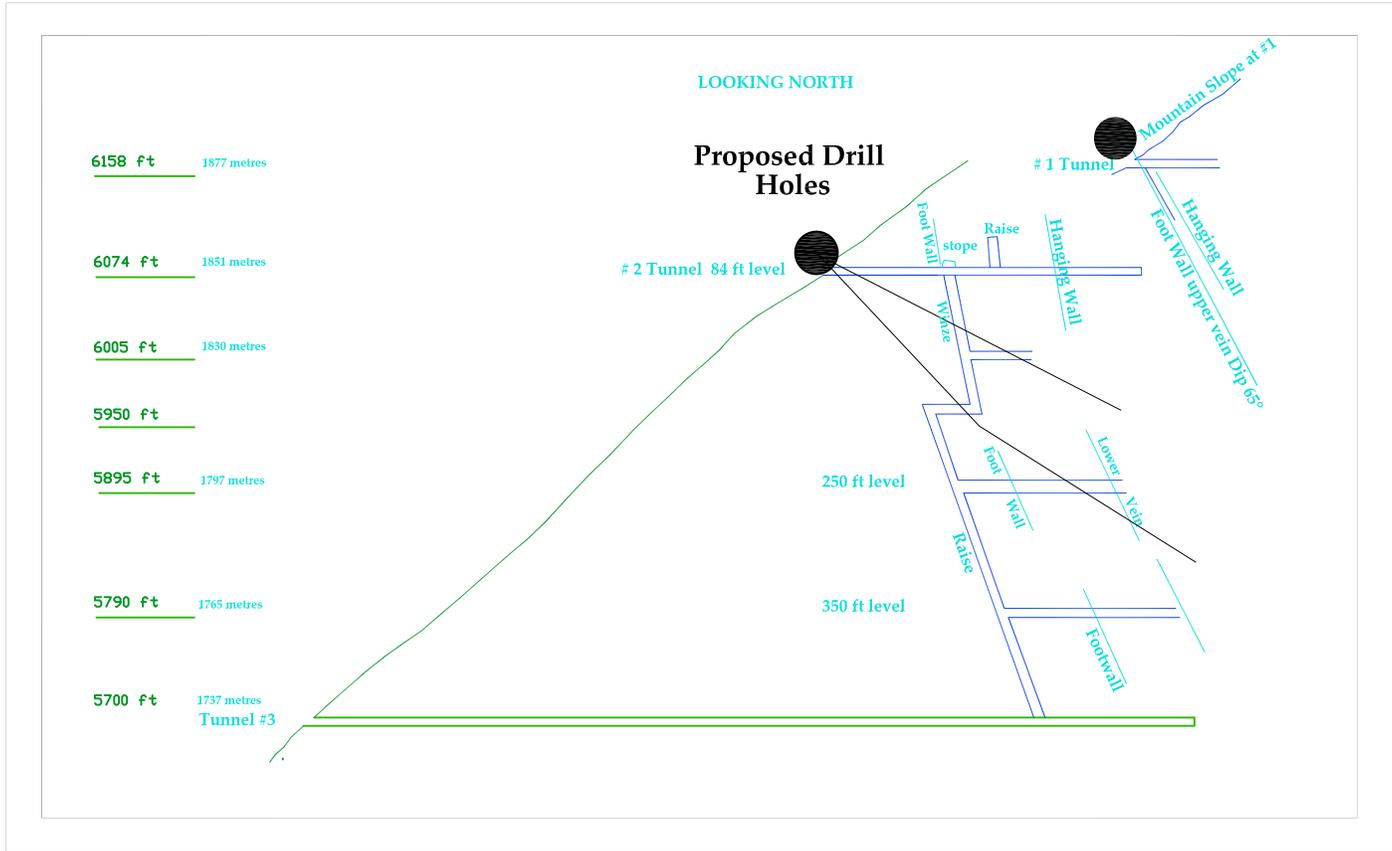
WAVERLEY PROPERTY

TUNNEL PLAN-WAVERLEY WORKINGS

Universal Transverse Mercator  
 Zone 11  
 NAD 83 Datum

Figure 4

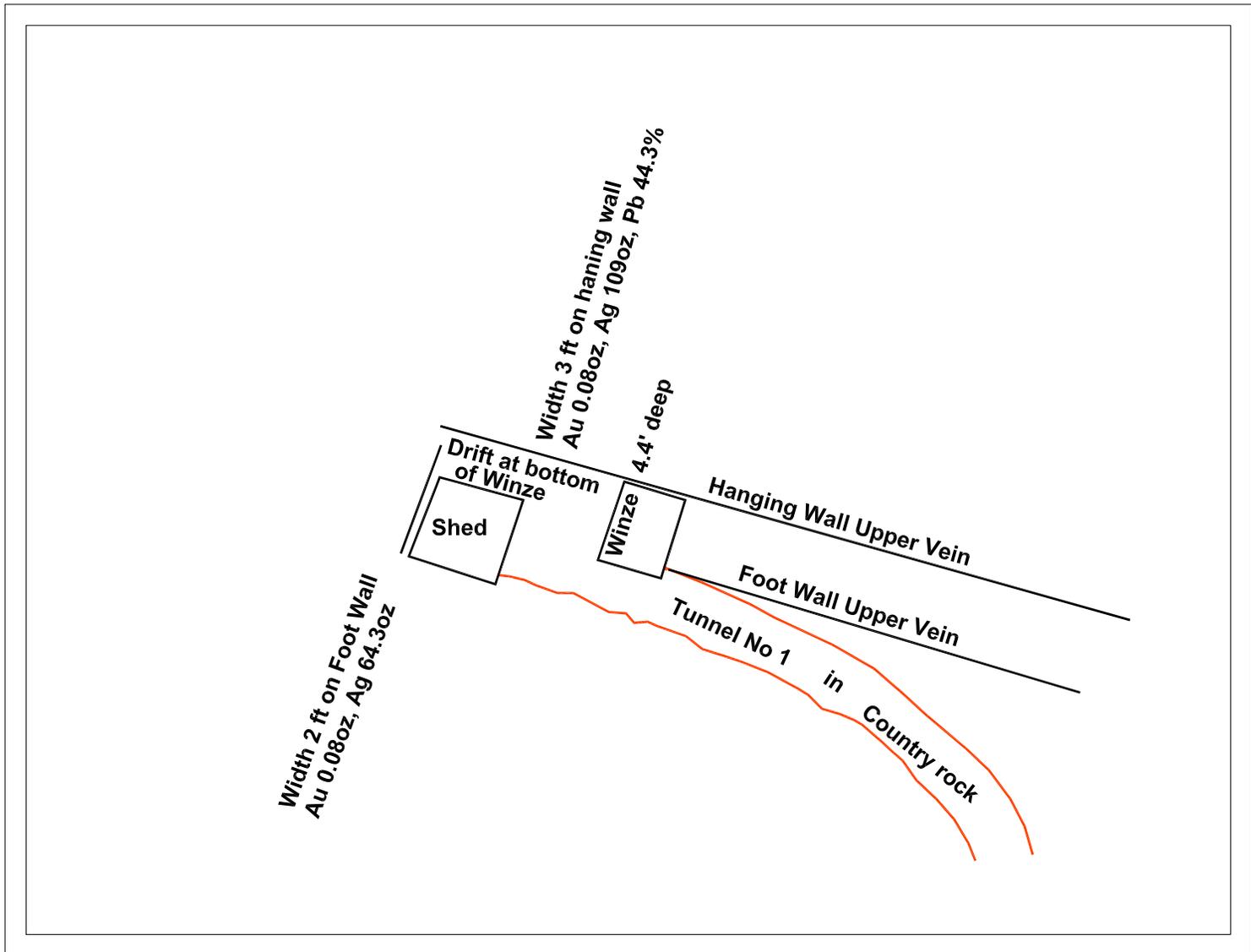
James A Turner, P.Geo



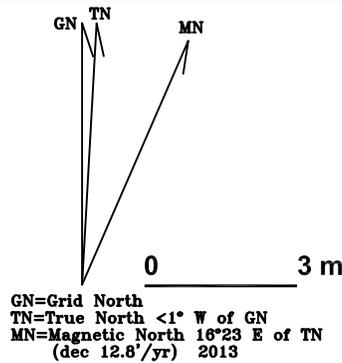
SOURCE: The MapPlace  
modified after Barovic 1987

0 1 km

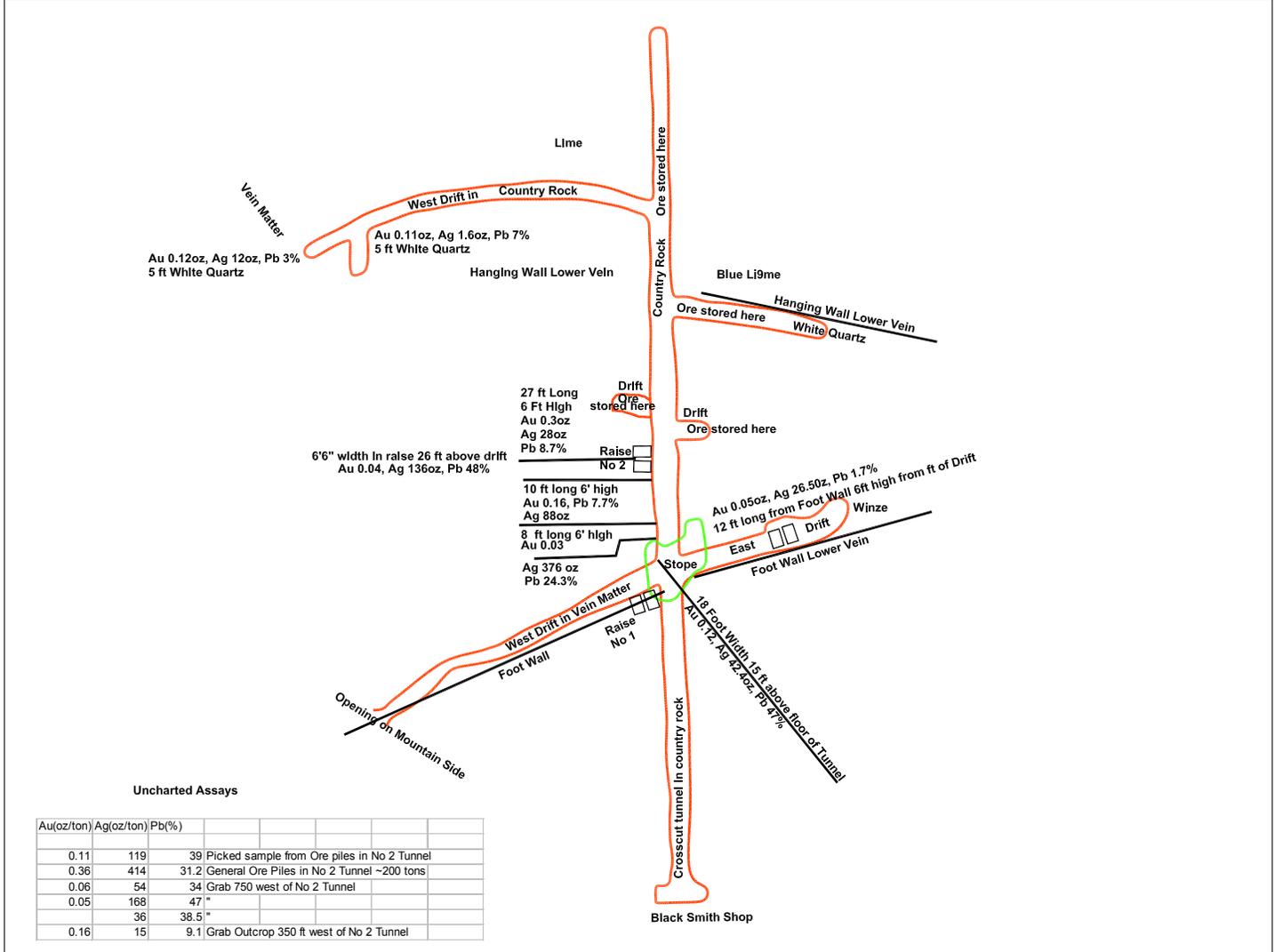
<b>SILVER PHOENIX RESOURCES INC.</b>	
Revelstoke Mining Division British Columbia	
<b>WAVERLEY-TANGIER PROJECT</b>	
<b>Longitudinal Section A-A'</b>	
Universal Transverse Mercator Zone 11 NAD 83 Datum	<i>Figure 5</i>
James A Turner, P.Geo	



Source:  
 modified after Barovic 1987  
 assays are from Barovic, taken from original plans



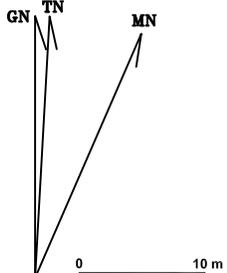
SILVER PHOENIX RESOURCES INC.	
Revelstoke Mining Division British Columbia	
WAVERLEY PROPERTY	
TUNNEL No 1	
0 LEVEL-WAVERLEY WORKINGS	
Universal Transverse Mercator Zone 11 NAD 83 Datum	Figure 6
James A Turner, P.Geo	



**Uncharted Assays**

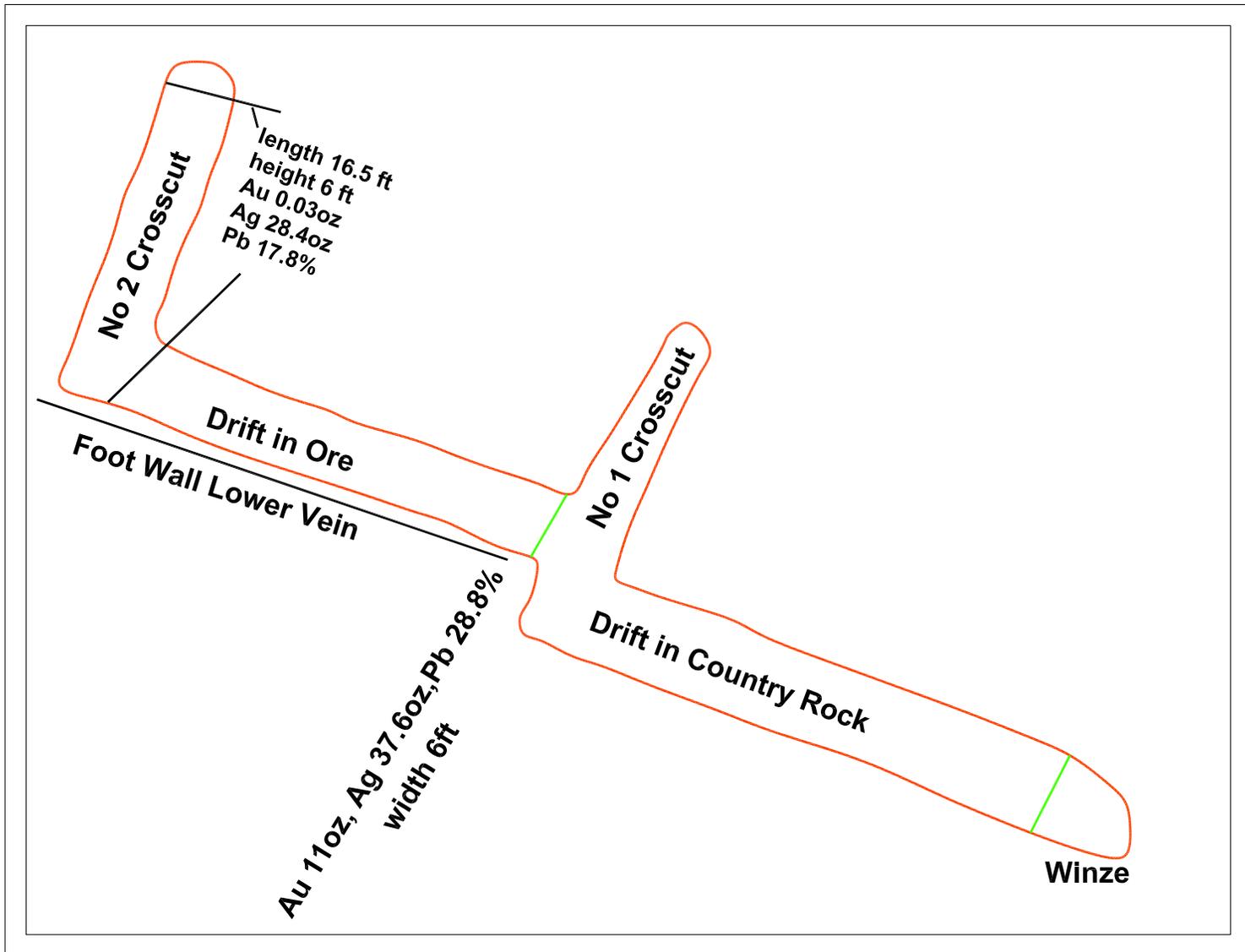
Au(oz/ton)	Ag(oz/ton)	Pb(%)	
0.11	119	39	Picked sample from Ore piles in No 2 Tunnel
0.36	414	31.2	General Ore Piles in No 2 Tunnel ~200 tons
0.06	54	34	Grab 750 west of No 2 Tunnel
0.05	168	47	"
	36	38.5	"
0.16	15	9.1	Grab Outcrop 350 ft west of No 2 Tunnel

Source:  
modified after Barovic 1987  
assays are from Barovic, taken from original plans

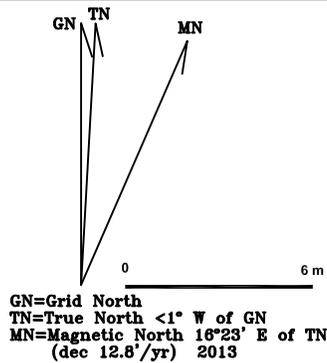


GN=Grid North  
TN=True North <1° W of GN  
MN=Magnetic North 16°23' E of TN  
(dec 12.8/yr) 2013

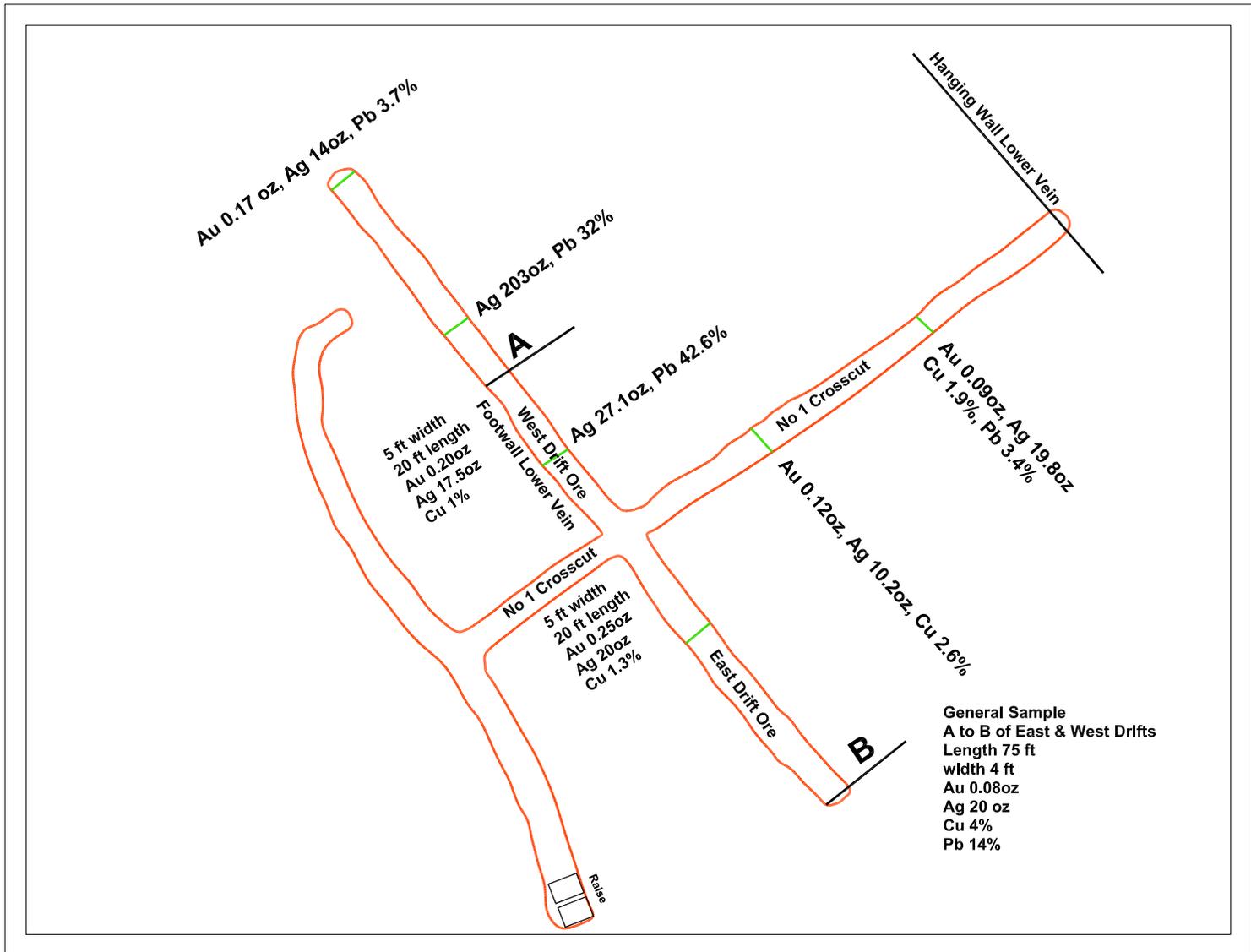
<b>SILVER PHOENIX RESOURCES INC.</b>	
Revelstoke Mining Division British Columbia	
<b>WAVERLEY PROPERTY</b>	
<b>TUNNEL No 2</b>	
<b>84 FOOT(25.6 METRE) LEVEL</b>	
<b>WAVERLEY WORKINGS</b>	
Universal Transverse Mercator Zone 11 NAD 83 Datum	<i>Figure 7</i>
James A Turner, P.Geo	



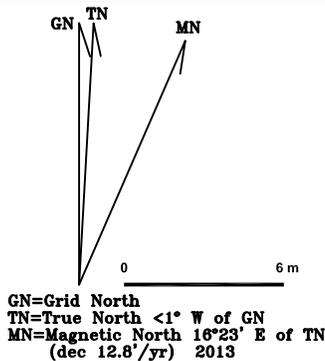
Source:  
 modified after Barovic 1987  
 assays are from Barovic, taken from original plans



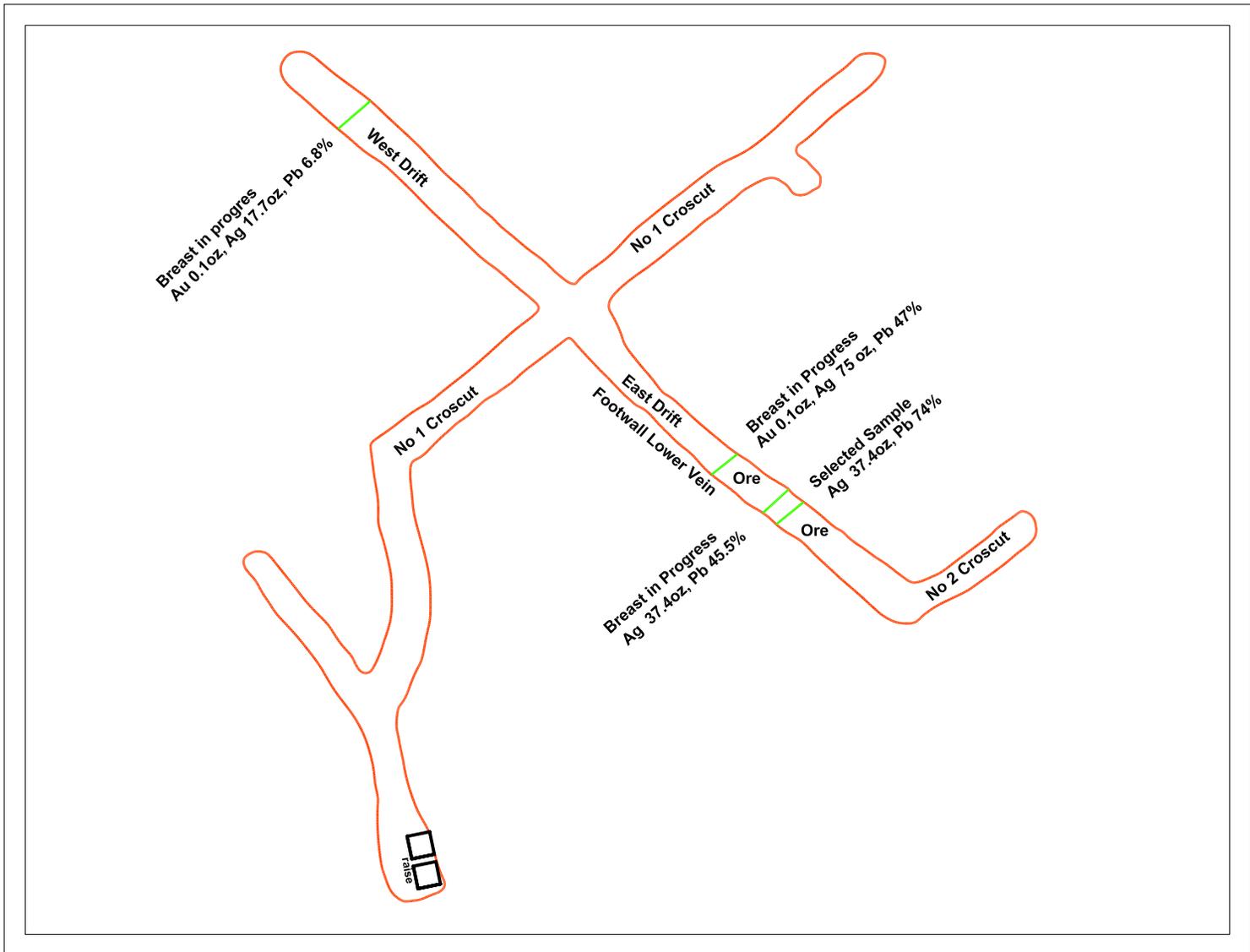
SILVER PHOENIX RESOURCES INC.	
Revelstoke Mining Division British Columbia	
WAVERLEY PROPERTY	
150 FOOT(45.7 METRE) LEVEL WAVERLEY WORKINGS	
Universal Transverse Mercator Zone 11 NAD 83 Datum	Figure 8
James A Turner, P.Geo	



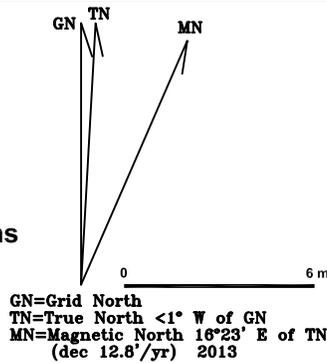
Source:  
 modified after Barovic 1987  
 assays are from Barovic, taken from original plans



SILVER PHOENIX RESOURCES INC.	
Revelstoke Mining Division British Columbia	
WAVERLEY PROPERTY	
250 FOOT(76.2 METRE) LEVEL WAVERLEY WORKINGS	
Universal Transverse Mercator Zone 11 NAD 83 Datum	Figure 9
James A Turner, P.Geo	



Source:  
 modified after Barovic 1987  
 assays are from Barovic, taken from original plans



<b>SILVER PHOENIX RESOURCES INC.</b>	
Revelstoke Mining Division British Columbia	
<b>WAVERLEY PROPERTY</b>	
350 FOOT(106.7 METRE) LEVEL WAVERLEY WORKINGS	
Universal Transverse Mercator Zone 11 NAD 83 Datum	<i>Figure 10</i>
James A Turner, P.Geo	

## 6.2 Tangier Workings: Figures 11 and 13

In 1923, Orville Young supervised road construction at the Waverley mine. The road from Albert Canyon was improved after the Flat Creek route was abandoned. The old workings were cleared and timbered (for complete observation). A small crew stayed through the winter.

IN 1924, Orville Young directed a small crew on the Waverley Property.

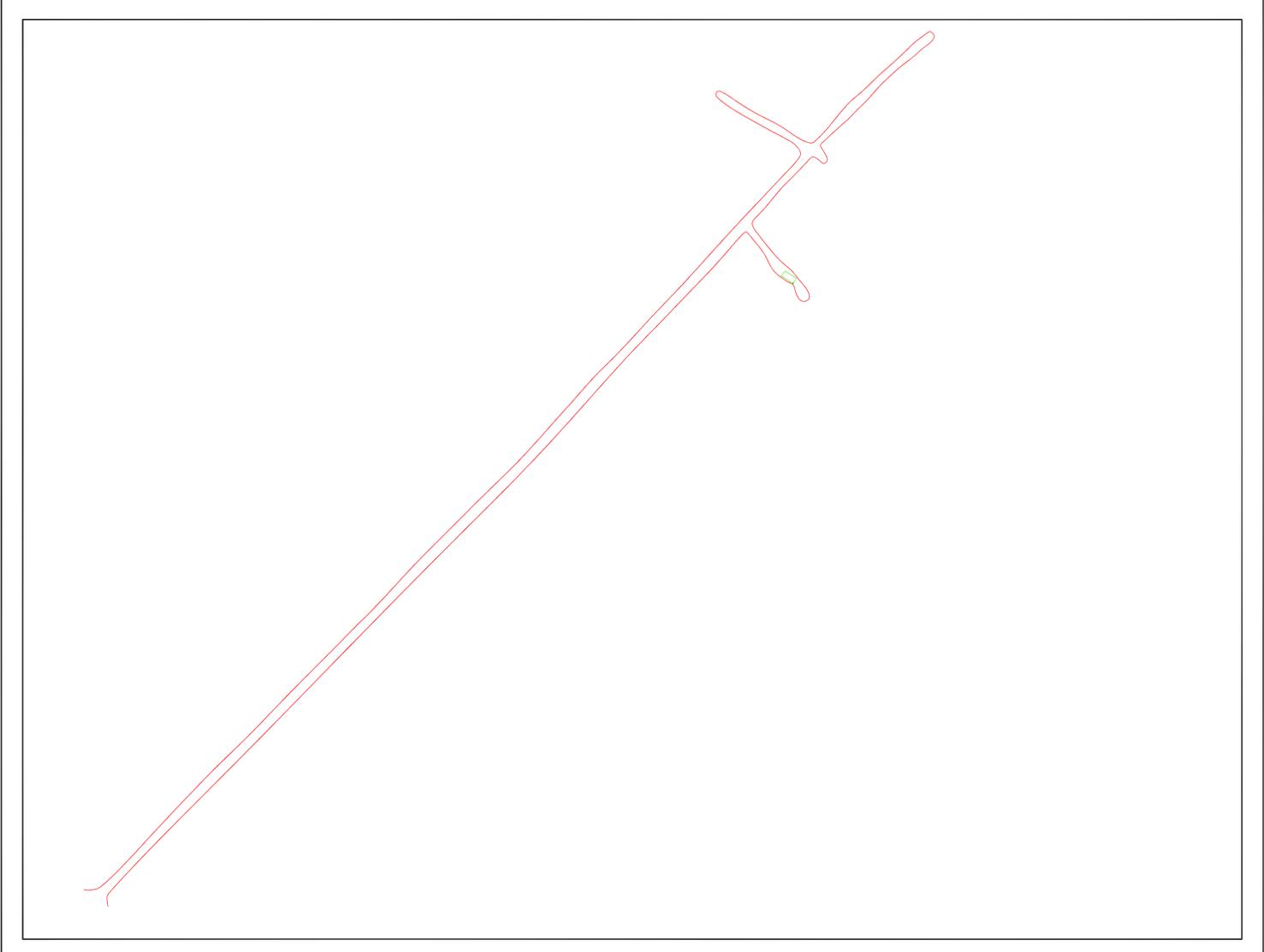
In 1925, a small crew de-watered the winze from the 100-foot level of the Tangier exposing a nice showing of silver-lead ore.

In 1929, active exploration of the Waverley and Tangier veins exposed replacement mineralization, which continued on strike toward southeast.

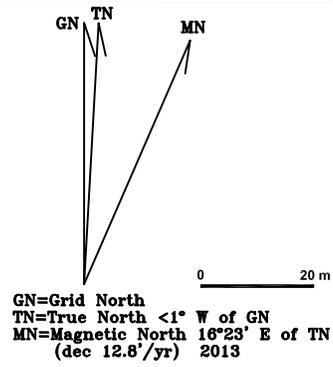
In 1951, an effort was made to reopen the old property at the head of Tangier Creek and off the north fork of Downie Creek. Six miles of road was rehabilitated before forest fires on Tangier creek shut down operations.

In October 1987, a short exploration program, conducted by Mandalla, comprised of grid layout and geological mapping. INGA'S recommendations for the Tangier are as follows:

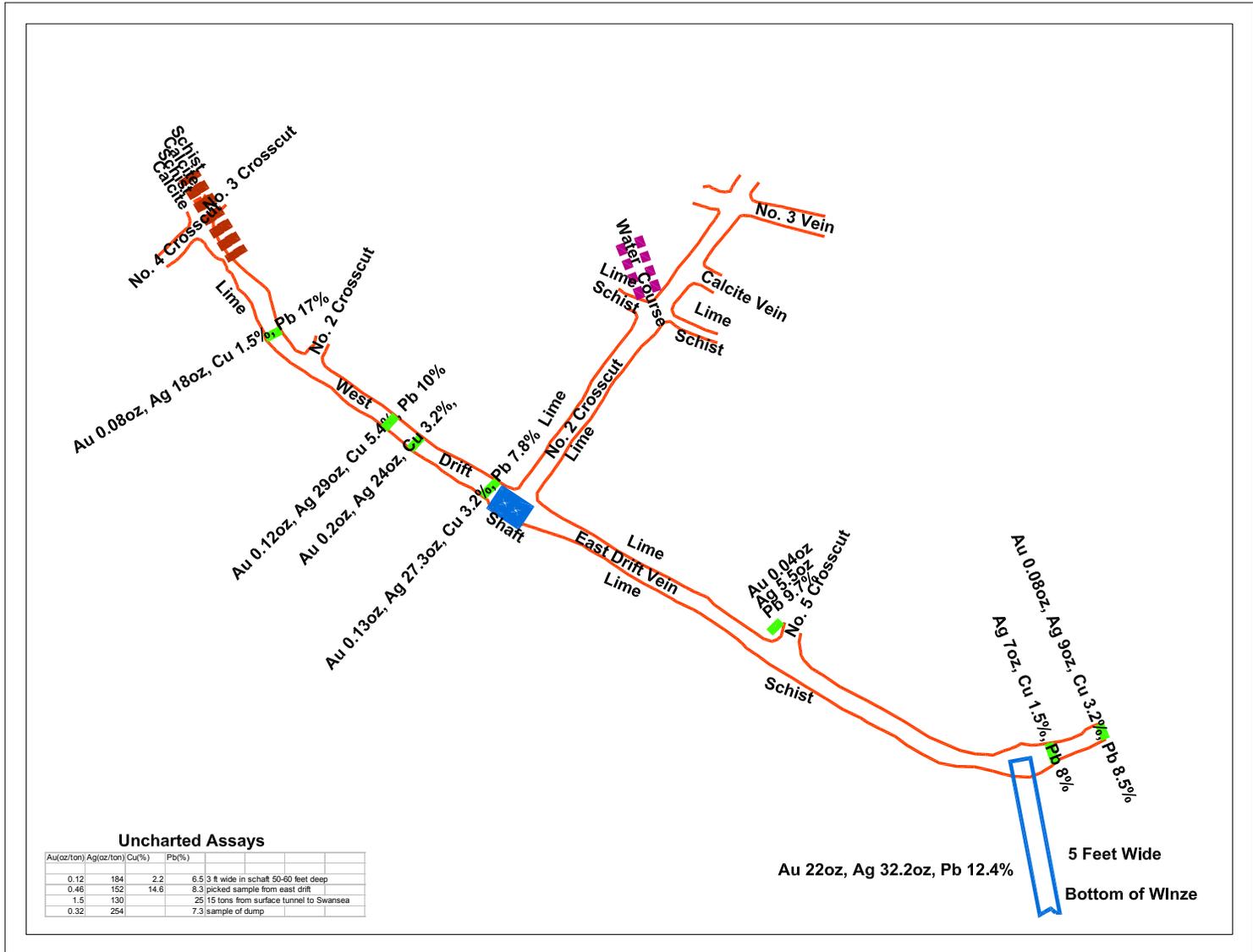
*“Six [short] drill holes are recommended for the “Tangier Zone” [Tangier Workings] at this time. These holes cover known, near surface, exposures of replacement mineralization and check the depth potential of these zones. ”, [Drill holes could be located the shaft and drilled at 45° and 60° at 020°, 040° and 060° azimuth].*



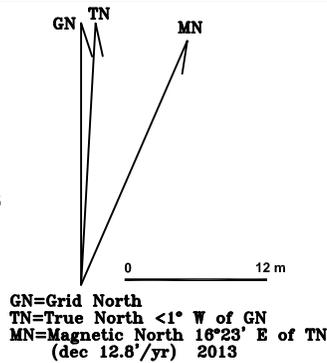
Source:  
after Arthur Lakes June 1952



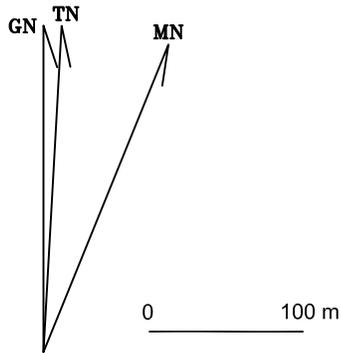
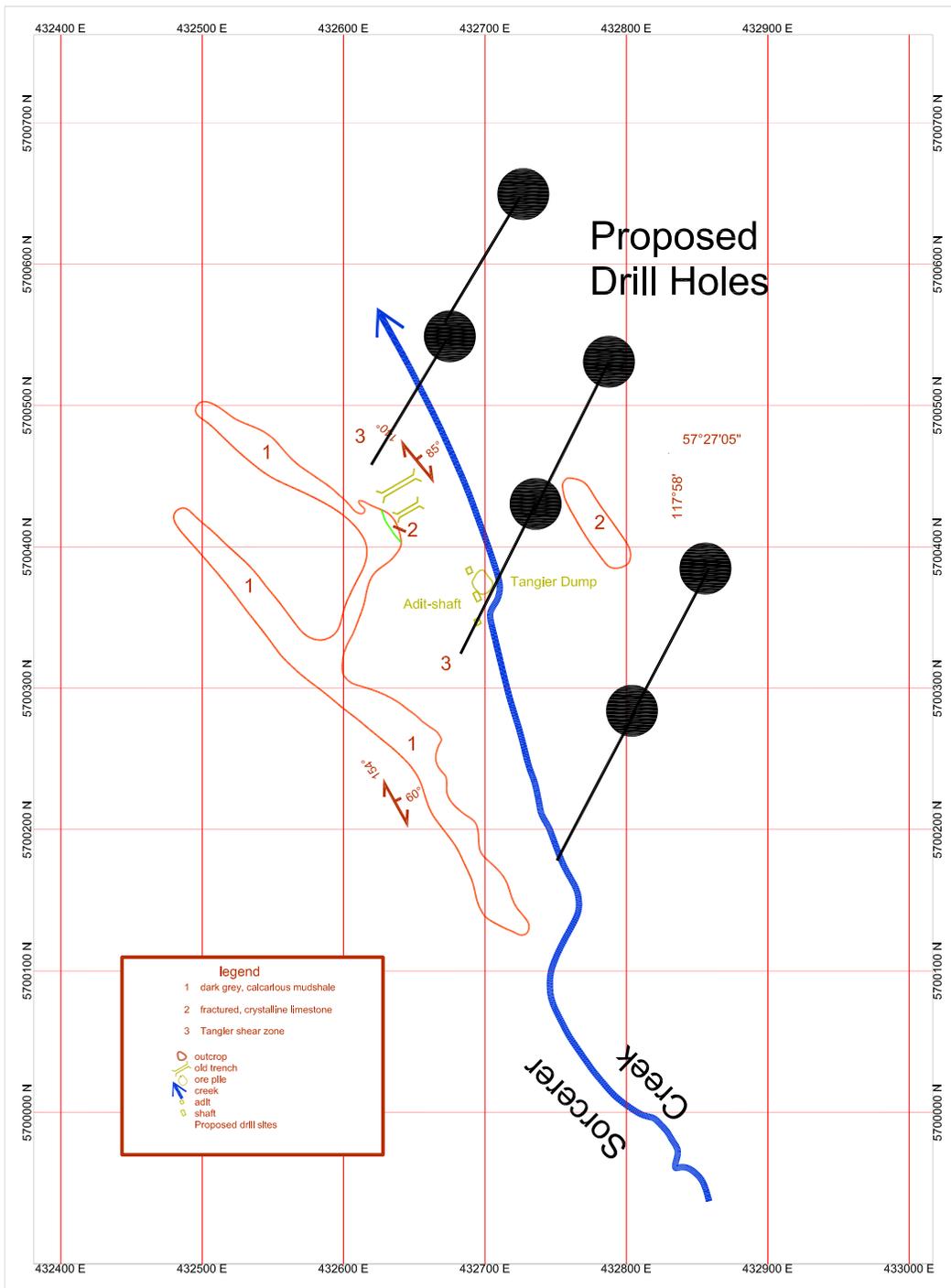
<b>SILVER PHOENIX RESOURCES INC.</b>	
Revelstoke Mining Division British Columbia	
<b>WAVERLEY PROPERTY</b>	
Tunnel No 3	
460 FOOT(137.2 METRE) LEVEL WAVERLEY WORKINGS	
Universal Transverse Mercator Zone 11 NAD 83 Datum	<i>Figure 11</i>
James A Turner, P.Geo	



Source:  
 modified after Barovic 1987  
 assays are from Barovic, taken from original plans



SILVER PHOENIX RESOURCES INC.	
Revelstoke Mining Division British Columbia	
WAVERLEY PROPERTY	
100 FOOT(33 METRE) LEVEL	
TANGIER WORKINGS	
Universal Transverse Mercator Zone 11 NAD 83 Datum	Figure 12
James A Turner, P.Geo	



GN=Grid North  
 TN=True North <1° W of GN  
 MN=Magnetic North 16°23 E of TN  
 (dec 12.8'/yr) 2013

Modified after Barovic 1987

<b>SILVER PHOENIX RESOURCES INC.</b>	
Revelstoke Mining Division British Columbia	
<b>WAVERLEY PROPERTY</b>	
<b>Geology and Proposed Drill Holes TANGIER WORKINGS</b>	
Universal Transverse Mercator Zone 11 NAD 83 Datum	<i>Figure 13</i>
<i>James A Turner, P.Geo</i>	

### 6.3 George Workings

The George group, staked in 1896, is 21 miles up the North fork of Illecillewaet River and includes the George, Reggie and Alto claims. The original owners were David and Emily Woolsey.

Further study of the Report of the Minister of Mines, dealing with the Waverly/Tangiers Property we have discovered the Waverly claims located on the northern part of the property, on the Sorcerer Creek was originally noted on a map in 1918 to be situated on the Downie Creek and written up in 1896: as follows:

*“The veins found on the Waverly and Montgue and adjoining claims on Downie Creek, are enclosed in walls of calcite, and a tunnel has been driven on the Waverly close to the hanging wall, showing a continuous body of highly mineralized ore (at this point about 6 ½ feet wide) composed of quartz, galena, tetrahedrite (grey copper), with some hydrous ferric oxide, resulting from the decomposition of iron pyrites, and occasionally stephanite (brittle silver) and cerargyrite (horn silver). Of the six samples taken from the portion of the vein, the average amount of silver per ton was 104 ounces, some picked specimens running as high as 1,400 ounces per ton. The total width of the vein is about 40 feet, containing 9 feet of good ore, 6 feet on hanging wall and 3 feet on footwall, the vein, in conformity with others found in this district, having a north-westerly and south-easterly trend, and an easterly underlie of about 2 feet to the fathom. The cropping can be traced for many claims showing it to be continuous and following its natural course and dip, the ore being much of the same character, containing, however, more gold but less percentage of copper. The Tangier Claim is on this vein, and assays taken went 100 ounces of silver and 1 ½ ounces gold per ton.”*

*“In the period 1896-98, the vein was stripped for 200 feet and an adit driven 160 feet to cut the vein at depth. A winze, depth unknown, was sunk from the adit. According to Gunning, when he examined the property in 1928 these workings were badly caved. The last work done on the property was in 1927 when Messrs. D. and O. Woolsey carried out some surface exploration.*

### 6.4 Early Development (1899-1987) and Exploration – compiled from Minister of Mines Annual Reports 1896-1968 by W. Murray

“The underground workings, which in the aggregate, will amount to about 3,000 lineal feet, mostly crosscut and develop one big ore-shoot. In the case of this shoot, which lies on the footwall side of the vein, replacement of the limestone walls has occurred on an extensive scale.

The examination was necessarily confined to the surface showings, No.1 and No. 2 tunnels, as the workings below No.2 tunnel were inaccessible owing to a cave near the portal of No. 3 tunnel and the bad condition of the timbers in the winze below No. 2 tunnel (the lower workings have since been made accessible). Practically all the development was done on the Waverley and Montague claims, principally on the former.

Commencing at the surface and preceding downwards, the workings are briefly as follows: On the Montague claim, at an elevation of about 6,200 feet, a short crosscut. Encountered the vein at a distance of 20 feet and a winze was sunk 17 feet on carbonates containing streaks of galena. A sample across 4 feet near the bottom of the winze gave: Gold, 0.04 oz.; silver, 8 oz.; lead, 11 per cent. About 350 feet south-easterly along the outcrop a sample across 18 inches in a shallow cut gave: Gold, 0.02 oz.; silver, 14.4 oz.; lead, 14.9 per cent.

On the Waverley claim, about 750 feet south-easterly from the above crosscut and at about the same elevation, No. 1 tunnel was driven 90 feet on the vein just below its apex. In this tunnel the width of the vein varies from 14 inches to 2 feet. Near the portal of the tunnel a winze was sunk on the vein to a depth of 45 feet, the lower portion of which was caved and inaccessible. A sample across 2 feet at the top of the winze gave: Gold, 0.06 oz.; silver, 39.02 oz.; lead, 17 per cent,

About 300 feet south-easterly from and 84 feet vertically-below No. 1 tunnel, No.2 tunnel is a crosscut 330 feet in length. At 85 feet in from the portal, the footwall of the ore-body was reached and drifted on for 85 feet northwesterly and 50 feet southeasterly. The 85-foot drift breaks through to the surface. Above the intersection of the crosscut and the two drifts a small stope was started. A sample across a width of 10 feet in the stope gave: Gold, 0.24 oz.; silver, 77.2 oz.; lead, 18 per cent.

The crosscut, passing through the ore-body, was then continued 245 feet farther. As the ore passes by insensible gradations into barren limestone, the width of what may constitute "ore" can only be determined by extensive sampling, having in view the grade of material which can be economically milled. The total width of the mineralized zone cut by the main tunnel is approximately 66 feet, including a horse of barren limestone of undetermined width, but which for sampling purposes was assumed to be 16 feet wide. The mineralization is strongest on the footwall side of the zone, as shown by the above-mentioned sample taken in the stope.

Samples along the crosscut gave as follows: Across 34 feet, including the good ore on the footwall side: Gold, 0.02 oz.; silver, 16 oz.; lead, 2.5 per cent. The 16-foot limestone horse was then omitted and a sample across 16 feet on the hanging-wall side of the zone gave: trace gold, silver, 2.4 oz., lead, 0.2 per cent. Little importance can be attached to these results, however, mill tests being required to give reliable information on the values to be expected.

The hanging-wall of the ore-zone, which is marked by a seam of calcite, was drifted on southeasterly for a distance of about 70 feet. The hanging wall seam was not drifted on in the opposite direction, but a little farther along the crosscut a semicircular tunnel driven north-westerly is in country-rock for the most part, but breaks into the hanging-wall of the ore zone near the face. As a short crosscut tunnel had been run off the drift at this point, it was possible to get a sample across a 16-foot section, which gave: Gold, trace; silver, 2.8 oz.; lead, 1 per cent.

Further, along the main crosscut another tunnel, driven 60 feet northwesterly along a seam of calcite, is in country-rock. Several short tunnels and a 26-foot raise off the main crosscut in the ore-zone showing strong mineralization, a grab sample from several hundred tons of material stored in these places giving: Gold, 0.14 oz.; silver, 36.8 oz.; lead, 15.5 per cent. On the first south-easterly drift above mentioned, which follows the foot-wall of the ore-body, a winze was sunk 110 feet, at which point an offset was made to connect with a raise 260 feet up from No. 3 tunnel.

The vertical depth between No.2 and No. 3 tunnels is 350 feet, and three intermediate levels have been turned off from the big winze and raise, named the 150 foot, 250 foot, and 350 foot levels, which means that they are respectively that distance vertically below No. 1 tunnel. As for reasons stated above, all the workings below No.2 tunnel were inaccessible, the information relating to them has been taken from the old company's maps and records, which show that the ore body was encountered and developed on all three intermediate levels, with good results as to width, length, and values.

No. 3 tunnel, 450 feet vertically below No.1 tunnel, is a crosscut about 635 feet long which apparently was discontinued a short distance from the expected intersection with the vein."

### 6.5.1 Production

The GSC in 1928 reported, "that 15 tons of sulphide "ore", shipped to Wales in the early days, contained 1.5 ounces gold, 130 ounces silver, and 25 per cent lead per ton."

In 1899, a 3.6-tonne shipment of selected ore from the **George** deposit was sent to the Trail smelter for testing and yielded "satisfactory" assays in gold, silver and copper.

In August 1903, 5.5 tons was shipped to the Trail smelter and gave returns of \$110 per ton.

In November of the same year, 2.5 tons was sent to Tacoma and gave returns of \$116 per ton, mainly in silver respectively" (Geological Survey of Canada Summary Report 1928 Part A, page 191).

### 6.6 Exploration 2003-2008

In September 2003, William Murray reported six samples from the Tangier Workings:  
Table 8: Tangier samples from Murray

Description	Cu(ppm)	Pb(ppm)	Zn(ppm)	Ag(oz/t)	Au(oz/t)
D1 Grab from Tangier dump	29	3407	7196	.20	.010
D2 Grab from Tangier dump	4	147	24	.07	<.001
D3 Grab from Tangier dump	5	34	29	.02	<.001
D4 Grab from Tangier dump	4	8	4	<.01	<.001
Cut 1 Grab from Tangier dump	19941	>9999	>99999	103.74	.162
Cut 2 Grab from Tangier dump	1718	>9999	>99999	28.45	.049

High values in Antimony (Sb), Cadmium (Cd) and Strontium (Sr) also occur in the samples. In November 2004 a shipment from the Tangier Dump:

William Murray also reported construction of 10.5 km of a trail building 3 metres wide on the Sorcerer 2, 6 and Waverley and Tangier Claims.

Table 9: Samples from the Tangier Workings Dump

	Au (oz/ton)	Ag (oz/ton)	Pb (%)	Zn (%)
Sterling Mining	.380	50.80	25.2	10.02
	1.082	74.00	Pyritic	
				60 lb. sample
				20 lb. sample

These samples were sent to Chris Christopherson Inc. of Kellogg, Idaho. The samples were fire assayed.

**The writer feels that the samples were handpicked from the dump and may not be representative of the average grade of the dump.**

In 2005 William Murray reported work on the property: Work consisted of further construction of a trail and a property examination (BC assessment report # 28144).

In 2006 William Murray applied cash-in-lieu of assessment work. The claims were re-acquired in 2006 by Silver Phoenix Resources Inc. using the MTO system.

In 2007 Discovery Consultants of Vernon, BC conducted a silt and rock geochemistry program over the northwest portion of the property.

A total of 68 silt and 14 rock samples were collected. The samples came from streams and various outcrops along the northwest extent of the Waverley and Tangier workings. The samples were analyzed for Au and 35 Element ICP.

### 6.6.1 Stream Sediment Results figure 16

Six creeks were anomalous in Ag, Au, Cu and/or Pb. The areas with anomalous Cu-As-Sb±Au±Ag in rocks were not identified by the stream sediment survey.

### 6.6.2 Rock Results figure 17

Rock samples 808CR02 to 05 were taken upslope from the area of a copper float discovery (808CR01) along the logging road. These samples contain pyrite, pyrrhotite and chalcocite mineralization within quartz-carbonate veins and stringers. Malachite, azurite and bornite staining is present. Three samples contain strongly anomalous copper, arsenic, and antimony. Anomalous zinc, gold and silver also occur in one of the samples.

The following table summarizes the results of this survey the maps are included in this report.

Table 10: Silt and Rock Statistics from 2007

<b># of samples</b>	<b>Element</b>	<b>Range</b>	<b>&gt; Upper Limit</b>
Silt (68) <b>Figure 16</b>	Ag (ppb)	21 - 813	
-6 Field Duplicates	Cu (ppm)	6.32- 87.83	
-3 Lab Standards	Pb (ppm)	3.54 - 101.80	
-3 Lab Blanks	Zn (ppm)	29.9 - 226.4	
	As (ppm)	1.4 – 25.0	
	Au (ppb)	<0.2 – 85.8	
	Mo (ppm)	0.17 – 1.32	
	Sb (ppm)	0.07 – 6.60	
Rock(14) <b>Figure 17</b>	Ag (ppm)	0.4 – 33.4	3 > 100
-2 Pulp Samples	Cu (ppm)	122.2 – 9781.0	3 > 1%
-2 Standards	Pb (ppm)	15.9 – 1291.0	1 > 1%
-1 Lab Blank	Zn (ppm)	18 – 2310	1 > 1%
	As (ppm)	13.8 – 7124.0	1 > 1%
	Au (ppb)	0.8 – 1131.0	
	Mo (ppm)	<0.1 – 0.2	
	Sb (ppm)	3.8 – 1850.0	3 > 2000

Approximately one kilometre to the southeast, 2 limestone samples were collected having quartz veining with copper mineralization. Geochemically, the samples contained strongly anomalous copper, antimony and silver, with minor gold values.

A third area of interest lies approximately 2.4 km northwest of the copper float discovery. The sample, consisting of a quartz-carbonate vein with galena (808CR07) contained >1% Pb and 33 ppm Ag.

In September 2008 Bill Murray finished constructing a road to the property and back filled some old shafts. A map, of this road and the location of the backfilled shaft was drafted by Discovery consultants. This road was extended as part of the 2009 exploration program.

### 6.6.3 Sample Method and Approach 2002-2007

All geochemical sampling on the WAVERLEY PROPERTY i.e. underground and shipped ore was conducted by well-respected and competent geologists and geological engineers. Sample methodology conducted by government geologists are not quoted in the MINFILE reports or the Minister of Mines Annual Reports for the specific year.

Work carried out by Barovic in 1987 comprised of sampling the Tangier Workings dump, the sampling procedure was not disclosed but is presumed to be random grab samples

over the extent of the “ore” pile, and four samples were taken. Samples were also taken of the Waverley wall rock. 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.

Work carried out by the Author included sampling the Tangier Workings dump. Three random grab samples were taken. These samples are from the “ore” and random grab may not adequately represent the material selected for sample. Sample sites were selected randomly over the pile, but mineralized boulders are much easier to see (rusty etc.) than non-mineralized ones. Samples were tagged in the field and intervals were 5-20 metres apart. A grid set up by Barovic in 1987 is overgrown.

#### **6.7.4 Sampling Bias**

Any sampling conducted over the dump material could affect sample bias. The Author cannot comment on samples taken by Barovic, as sample procedures are not known. Samples taken by the Author, of this dump could present sample bias. The very nature that most of the material observed in this dump is mineralized leads the Author to the conclusion that the material is hand sorted and is probable that this material represents mineralization representative of material in the Tangier Workings. Mineralized dumps are notoriously difficult to sample without sample bias. Statistically only random samples are allowed and not selected grabs. One way to get an average grade from these piles is to do more sampling. There are, however several instances of private and government geologists that have sampled this same dump and received similar results. Therefore sample bias reduced. The other way to avoid sample bias of this dump is to send everything to the mill.

The underground samples reported by Barovic are very likely to have no bias as they are reported to be chip and/or channel samples. No sample procedure is reported by either Barovic or Government sources. The Author concludes there is very little sample bias from underground workings. The Author could not find in any literature evidence of drilling and no description of any recovery factors of any material sent to mills at Trail or Whales.

### **7.0 GEOLOGICAL SETTING AND MINERALIZATION** as summarized by Barovic and Gibson et al.

#### **7.1 Local Regional Geological Setting: Figure 14**

“Rocks in the Sorcerer-Tangier Creeks area fall on the eastern flank of the Selkirk fan structure and near the northern extent of the Selkirk allochthon. The northern Selkirk Mountains are underlain by a sequence of miogeoclinal metasediments and metavolcanics that accumulated along the western margin of ancestral North America.

These rocks have been assigned into five lithologic units: the Neoproterozoic Horsethief Creek Group, the Precambrian Hamill Group, the Lower Cambrian Badshot Formation and the lower Paleozoic Lardeau Group.

These regional units are described below.

#### Horsethief Creek Group (Neoproterozoic: uPrHsc)

The Horsethief Creek Group comprises dark grey, green and tan calcareous phyllite and schist, intercalated with variable amounts of micaceous quartzite and grit. Light and dark grey marble horizons are present throughout the section. Volcanic rocks consisting of chloritic schist are found locally.

#### Hamill Group (Lower Cambrian: uPrCmH)

The Hamill group comprises a thick sequence of quartzitic rocks beneath the Badshot Formation. The Goldstream River area, northwest of the Waverley Project, comprises a large volume of volcanic rock. The volcanics are composed of equal portions of massive and amygdaloidal chloritic greenstones. Volcanic conglomerate, grit, quartzite and lapilli tuff horizons are intercalated with the greenstone.

#### Badshot Formation (Lower Cambrian: ICmB)

The Badshot Formation comprises 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).

#### Lardeau Group-Index Formation (lower Paleozoic: CmDLI)

The Lardeau Group overlies the Badshot limestone and includes a great thickness of sedimentary and volcanic rocks. This sequence is un-fossiliferous and highly deformed. Greenstone, thinly layered calcareous green phyllite and minor micaceous quartzite make up the Index Formation.

#### Selkirk Stocks (Cretaceous: MJSgd)

The Fang Stock intrudes the Lardeau Group just southwest of the George claims. The stock is a monzonite to granodiorite.

During the Late Jurassic and Paleocene the northern Selkirk Mountains were displaced eastwards by 200 to 300 kilometers resulting in the complex pattern of superposed folding and faulting of the northwest-trending Selkirk fan structure. The eastern flank of the fan structure is characterized by a northeast-verging imbricate thrust system that is part of the Rocky Mountain thrust belt. In contrast, the western flank of the fan structure is dominated by southwest-verging fold-nappes and thrust faults.

Rocks along the western flank range from a pervasive greenschist facies to amphibolite facies towards the core of the Selkirk Fan.

A Middle Jurassic suite of granodiorite and quartz monzonite was followed by a Mid Cretaceous suite of quartz monzonite, diorite and granite.”

## **7.2 Project Geology: Figure 15**

Underlying the Waverley Property is a series of north to northwest striking metamorphosed Precambrian sediments, which dip to the east. Extrusive greenstones are interbedded with the sediments at certain horizons and intrusive rocks of similar appearance are rather sparingly developed. All these rocks are complexly folded in a series of essentially isoclinal anticlines and synclines. The sediments include crystalline limestones, quartzites, mica schists, slates, phyllites, argillites, and chlorite schists, and are cut by numerous stocks, dykes, and sills of granitic rocks of Mesozoic age. The latter include granite, granodiorite, quartz diorite, granite pegmatite, aplite, and a few fine-grained lamprophyre dykes. Ortho and paragneisses are abundantly developed in the southwestern corner of the map area. (Barovic 1987).

### **7.2.1 Waverley Workings**

All of the Waverley Workings are in a band of light grey, crystalline limestone with fine-grained, argillaceous, and carbonaceous limestones intercalated, the whole calcareous member being about 2,500 feet thick. Below, or west of the marble, are argillaceous to carbonaceous grey or black schists and phyllites and above, or east of it, green or grey phyllites appear as intercalations in the limestone before the latter gives way to grey or brown quartzites with interbedded green and light grey phyllites. All the rocks dip steeply to the northeast and strike northwest; they are rather complexly contorted by minor folds.

The WAVERLEY workings were not examined by the writer. However, examination by Barovic in 1987 noted that:

*“The Waverley veins are confined to a zone of dark grey or black, fine-grained limestone within the main light grey, coarsely crystalline band and this zone is more complexly folded and twisted than the surrounding rocks. Within the zone are intercalations of the normal light grey marble.”*

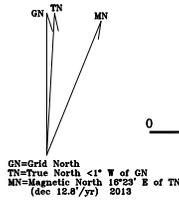
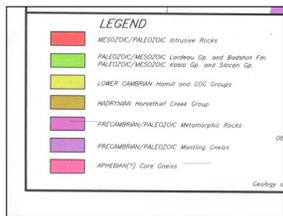
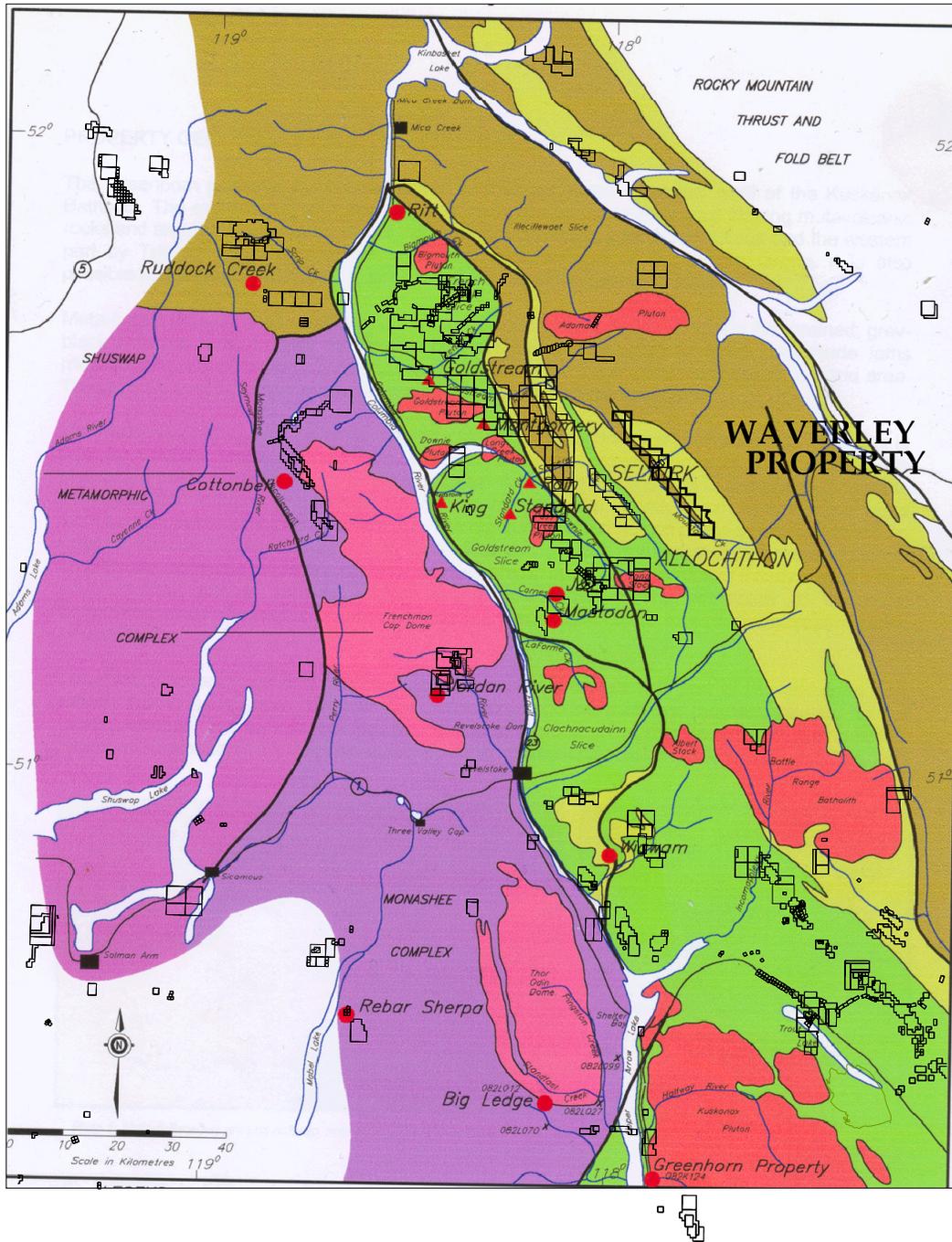
### **7.2.2 Tangier Workings**

On the Tangier workings a band of white to grey marble at least 120 feet wide strikes north 30 degrees to 5 degrees west and dips very steeply to the east. In

the west, the marble is in contact by a considerable thickness of pyritic black, carbonaceous schist. The workings are on the edge of Sorcerer Creek.

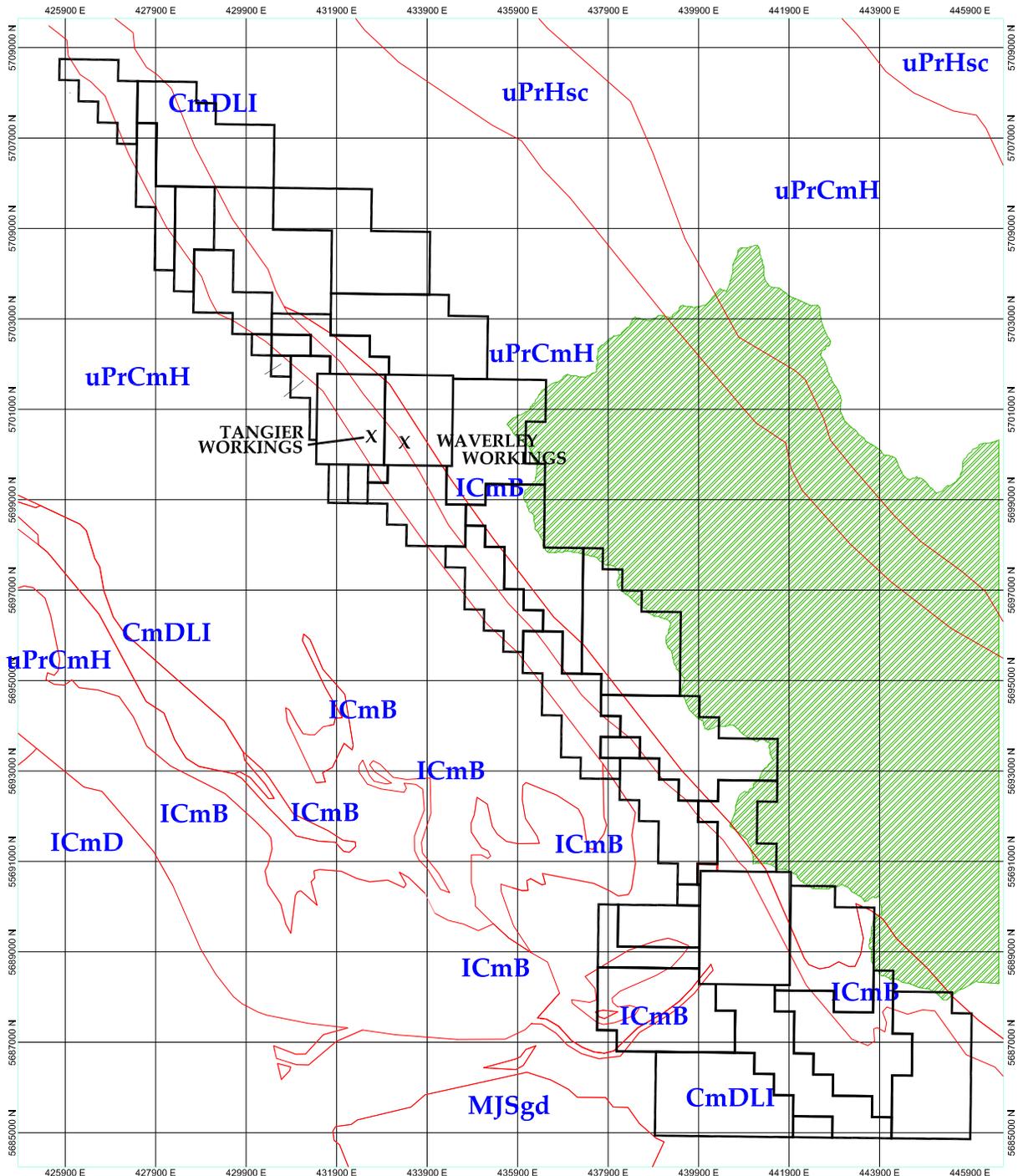
The vein has been drifted on for 220 feet to the southeast. It consists of calcite and some quartz and a fine-grained mixture of pyrite, jamesonite, galena, sphalerite, and, at several places, small amounts of grey copper. The mineral identified as jamesonite (lead-sulphur-antimonide) is quite abundantly but finely intergrown with the sphalerite and must contribute a large percentage of the lead in the ores. The vein is in the marble at or near the schist contact and occurs generally between two well -defined fault walls.

Occasionally replacement of limestone by vein matter has enlarged the vein beyond the walls. Some mineralization was noted in the schists to the west of the vein proper. The width of the vein varies from 5 feet to a little more, and averages about 2 feet

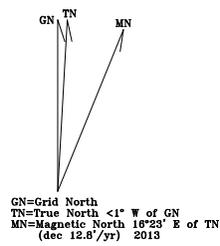


SOURCE: The MapPlace  
 Geology after Gibson and Hoy 1985

ARMADILLO RESOURCES LTD.	
Revelstoke Mining Division British Columbia	
WAVERLEY PROPERTY	
<b>REGIONAL GEOLOGY and Significant Mineral Occurrences</b>	
Universal Transverse Mercator Zone 11 NAD 83 Datum	<i>Figure 14</i>
James A Turner, P.Geo	



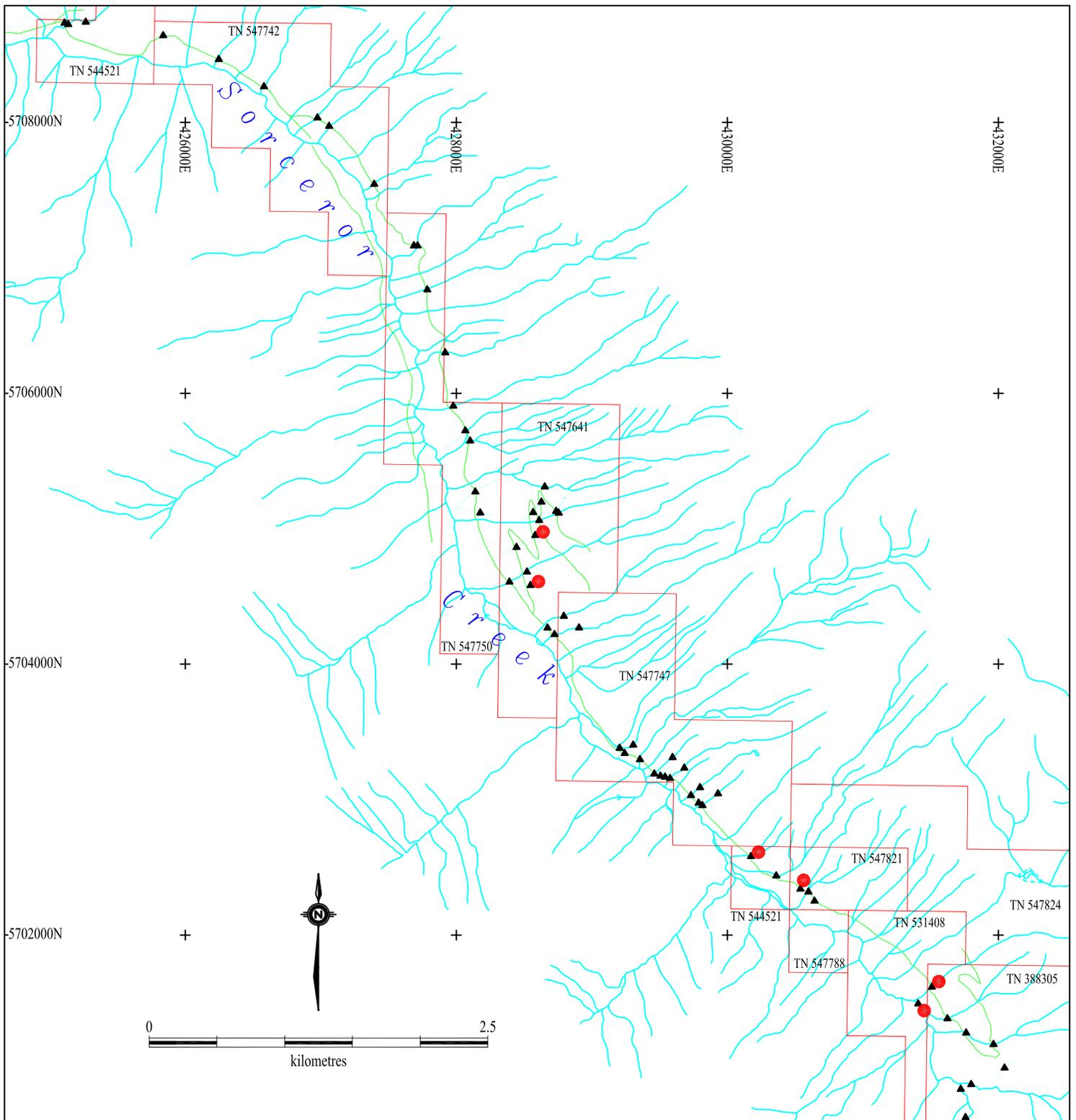
- uPrHsc** Horsethief Creek group
- uPrCmH** Hamill Group
- CmDLI** Lardeau Group- Index Fm
- ICmB** Badshot Fm
- MJSgd** Selkirk Intrusion  
Fong Stock



0 1 km

SILVER PHOENIX RESOURCES INC.	
Revelstoke Mining Division British Columbia	
WAVERLEY PROPERTY	
PROPERTY AREA GEOLOGY	
Universal Transverse Mercator Zone 11 NAD 83 Datum	<i>Figure 15</i>
<i>James A Turner, P.Geo</i>	

Source: The MapPlace



- LEGEND**
- ▲ Silt sample
  - Silt sample with anomalous Au, Ag, Cu and/or Pb

To accompany a report by : J.Turner, P.Geo.  
 Base map after : 082M.050/060 TRIM 1:20000

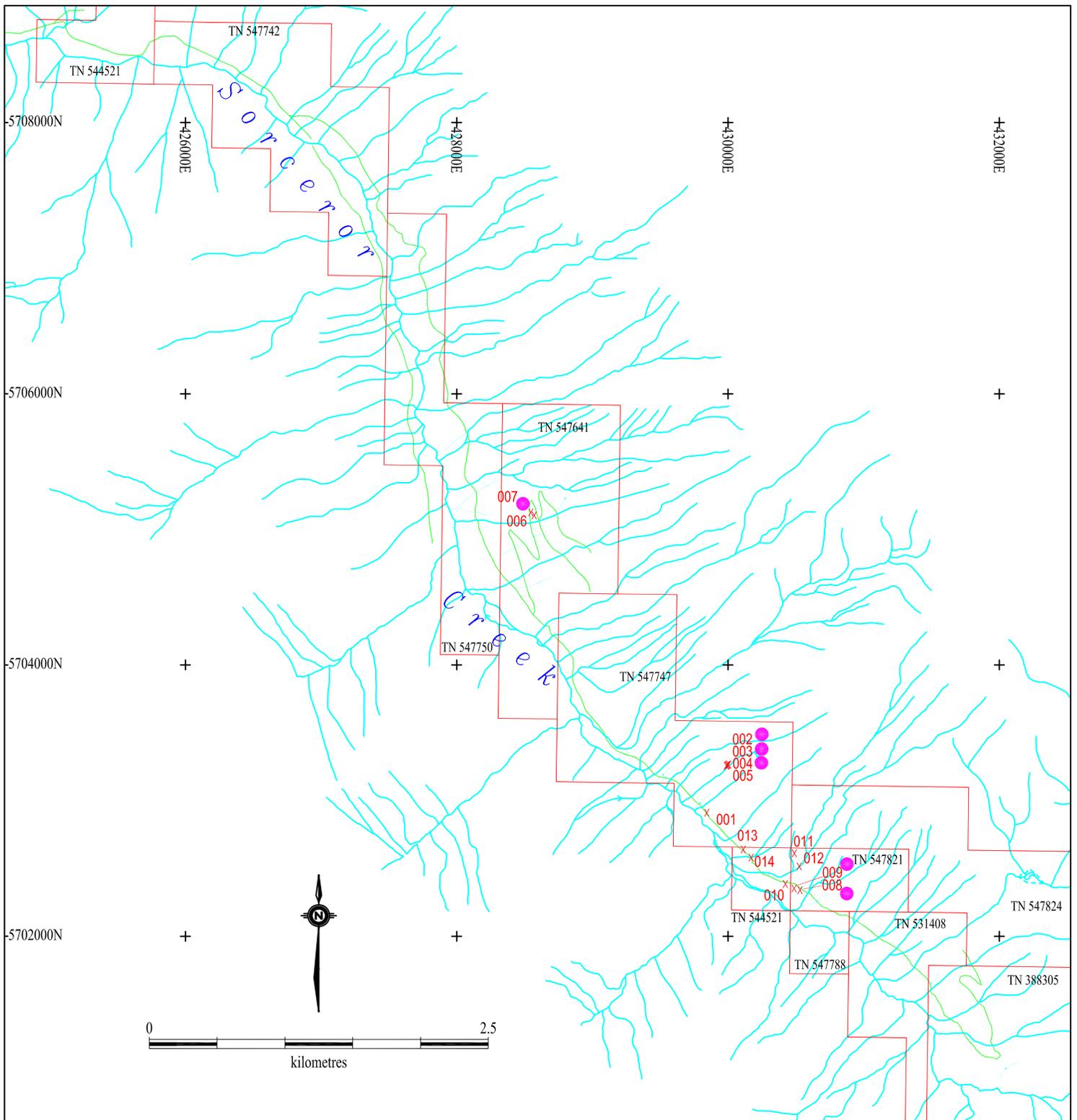
Silver Phoenix Resources Inc.

Waverly-Tangier Property

Figure 16

**Geochemical Silt Survey**

Dwg. by	RM	Scale	1:40000
Date	February 4, 2008	Figure:	



**LEGEND**

x 002  
●

Rock sample  
Rock sample with anomalous  
Cu, As, Sb ± Au ± Ag

after Discovery Consultants 2008

To accompany a report by : J.Turner, P.Geo.

Base map after : 082M.050/060 TRIM 1:20000

Silver Phoenix Resources Inc.

Waverly-Tangier Property

**Figure 17**

**Geochemical Rock Survey**

Dwg. by	RM	Scale	1:40000
Date	February 4, 2008	Figure:	

### 7.3 Structure

Rocks in the Selkirk allochthon have undergone at least three stages of deformation. Phase 1 is related to the larger Selkirk fan structure that may have inverted much of the stratigraphy of the Goldstream slice of the allochthon. Large, tight isoclinal to recumbent folds with strong axial planar foliation along northwest fold axes define Phase 2 folding. A third phase of deformation is characterized by kink folds, crenulation cleavages and broad, upright, open folds (Raven, 1997, p. 10).

On the Waverley Property the average strike is northwest and the dip steep (60° to 90°) to the northeast. Minor folding of a complex nature is abundant and shear zones and fissures are common. In the crystalline limestone on the Waverley Workings two major joint systems, striking north 15 degrees east and north 45 degrees west and dipping 70 degrees northwest and 30 degrees southwest, respectively, are developed.

### 8.0 DEPOSIT TYPES modified after GSC summary report 28

Stratabound mineral occurrences in the project area are of two main types: massive sulfide vein and carbonate replacement deposits.

The present sulphides are formed by, oxidation (by ascending meteoric waters), of original gold and silver bearing pyritic galena-sphalerite deposits in limestone. The sulphides were deposited along fissures in the limestone and by replacement of the limestone. Mineralization is found as irregular bodies elongated along the predominate shear and fault zones. Larger bodies of mineralization occur in crosscutting shears and faults. Veins of quartz and calcite occur locally but appear to be mostly barren.

The Waverley and Tangier mineralization is similar to Polymetallic Manto-Type Replacement Deposits such as the Midway of northern BC and the Bluebell in southeast BC. J.L. Nelson describes the ore controls and genetic model of these deposits as:

*“The irregular shapes of these deposits and their occurrence in carbonate hosts emphasize the importance of ground preparation in controlling fluid channels and depositional sites. Controlling factors include faults, fault intersections, fractures, anticlinal culminations, bedding channel ways (lithologic contrasts), karst features and pre-existing permeable zones. In several districts karst development associated with unconformities is believed to have led to development of open spaces subsequently filled by ore. Some deposits are spatially associated with dikes.”*

*“Manto deposits are high-temperature replacements as shown by fluid inclusion temperatures in excess of 300° C, high contents of Ag, presence of Sn, W and complex sulphosalts, and association with skarns and small felsic intrusions.*

*They are the product of pluton-driven hydrothermal solutions that followed a variety of permeable pathways, such as bedding, karst features and fracture zones.”*

## **9.0 EXPLORATION**

### **9.1 Exploration 2009**

During the 2009 field season, Armadillo Resources commissioned a drilling campaign on the Tangier zone totaling 761.6 meters in 8 holes (Table 9). This program indicate a mineralized zone over a strike of 100 meters and a width of at least 10 meters to a depth of 50 meters below the bedrock/overburden interface and open to the northwest, southeast and southwest, as well as to depth.

**In the Author’s opinion, there is insufficient drilling at this stage to warrant calculating an NI 43-101-compliant resource.**

Armadillo completed some 5 km of road work. Most of the work was to clear some debris and continue a road to the Georgie workings. The road work was suspended in late summer and the effort was to start the drilling program before the weather closed in. Approximately 450 m of line cutting was attempted near the Tangier workings but was abandoned due to high cost and dense bush.

#### **9.1.1 Airborne Geophysics** figures are from Poon, 2009

A Logistics report outlines the survey operations and data processing actions taken during the airborne geophysical survey flown in the Tangier River region, north of Revelstoke, BC.

The airborne geophysical survey was flown by Precision GeoSurveys Inc. for Armadillo Resources. The geophysical survey, carried out between May 22 and June 13, 2009, saw the acquisition of gamma ray spectrometer data and magnetic data.

This series of four adjacent blocks located on the headwaters of the Tangier River (figure1 below) is located approximately 50 km north east of Revelstoke, BC. The survey area itself is approximately 22 km by 6 km. A total of 1,323 line kilometers of Radiometric and magnetic data were flown for this survey; this total includes tie lines and survey lines. The survey lines were flown at 100 meter spacings and a 90° heading; the tie lines were flown at 1 km spacings at a 0° heading.

### 9.1.2 Interpretation

A preliminary interpretation follows: The magnetics tends to follow the geology of the property (figure 2 below). The contact zone found through drilling may be magnetic although no susceptibility measurements were done some magnetic highs may indicate buried intrusives. A much more rigorous interpretation needs to be done. The writer is not experienced enough to comment on the Radiometrics as the survey was done under winter conditions (snow).



Figure 1: Survey blocks outlined in red and survey lines in black

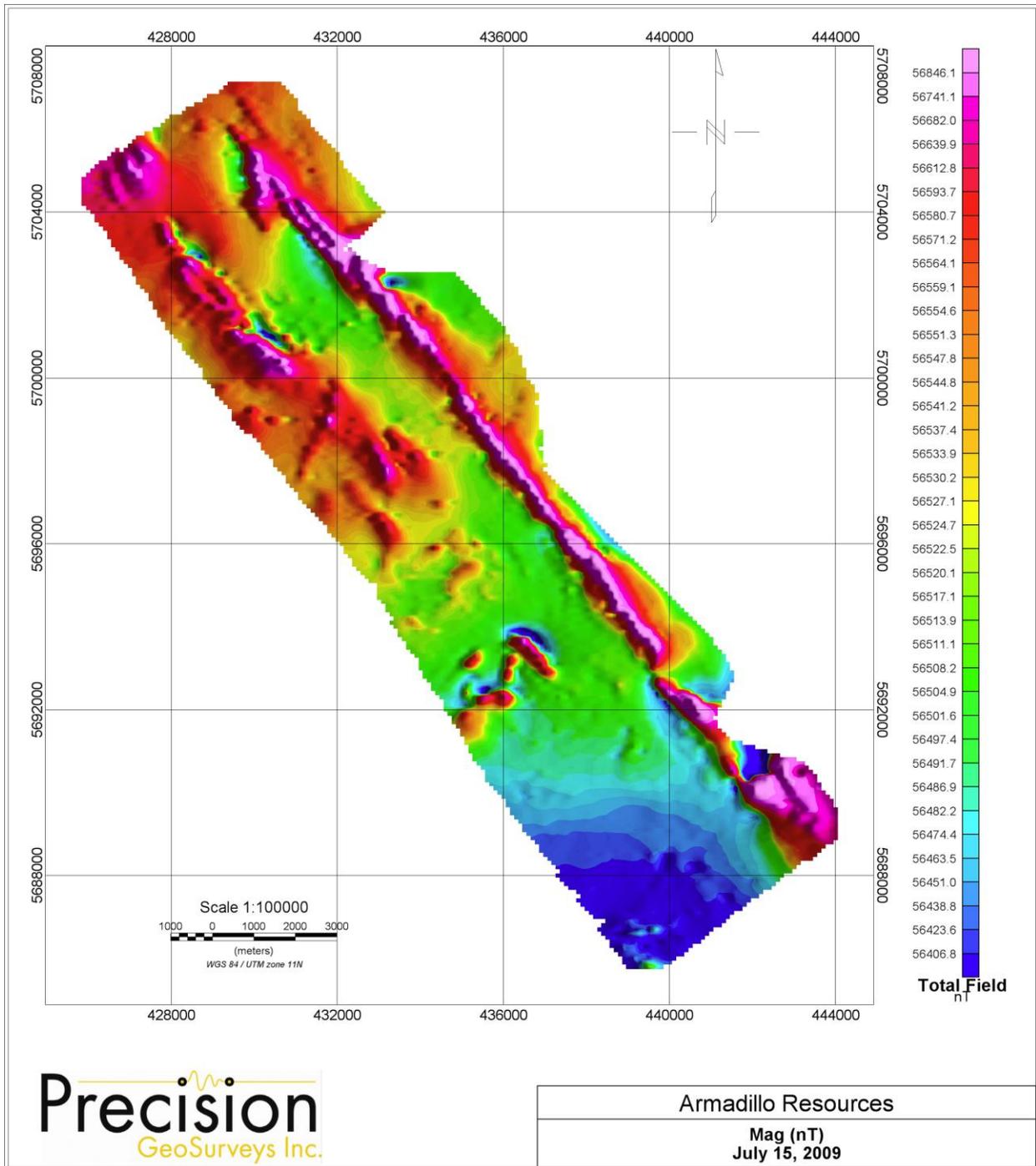


Figure 2: Waverley-Tangier total magnetic field map.

## 10.0 DRILLING figures 18-27

The 2009 program was carried out by a contractor, Norm Berg of Nanaimo, B.C., who provided on-site expertise for spotting holes and supervising drilling. Mr. Berg also logged several of the holes. ALS Chemex Laboratories of North Vancouver, B.C., provided chemical analyses of the drill core.

Collar data are reported in Table 4; hole by hole statistics for Au, Cu and Zn are reported in Table 10; and significant intersections are reported in Table 5 and section. The true width of the reported intervals cannot be determined with a high level of certainty at this stage of the program. The information recorded to date indicates that the mineralized zone is vertical or at least steeply dipping to the northeast.

Consequently the true width of any given interval approximates an aggregate of the measured sample length multiplied by the cosine of the inclination of the hole at that depth. The results range from approximately 34% of the interval length on a  $-70^{\circ}$  hole to 50% in a  $-60^{\circ}$  hole to 57% in a  $-55^{\circ}$  hole. The true width of samples in a vertical hole cannot be reliably determined.

Table 11: Engineering Data for the 2009 drill program

Hole ID	Start Date	End Date	Northing(m)	Easting(m)	Elevation (m)	Collar AZ	Collar Dip	Length(m)
T09-1	29-Sep	30-Sep	5700440.6	432612.7	1453.5	248.0	-45.0	4.0
T09-2	30-Sep	01-Oct	5700428.7	432617.6	1455.0	248.0	-45.0	83.2
T09-3	01-Oct	02-Oct	5700428.9	432618.3	1455.0	248.0	-60.0	132.6
T09-4	03-Oct	04-Oct	5700429.8	432617.2	1455.0	284.0	-45.0	117.3
T09-5	04-Oct	05-Oct	5700427.4	432619.1	1455.0	233.0	-45.0	117.3
T09-6	05-Oct	05-Oct	5700427.9	432619.7	1455.0	233.0	-60.0	93.0
T09-7	06-Oct	07-Oct	5700420.0	432619.4	1456.0	218.0	-45.0	33.2
T09-8	07-Oct	07-Oct	5700420.5	435619.7	1456.0	218.0	-55.0	71.0
							<b>Total</b>	<b>761.6</b>

The objectives of the 200 program were test and verify mineralization in the Tangier Zone.

During the period Sept 29<sup>th</sup> to Oct 7<sup>th</sup>, 2009, a total of 761.6 metres were drilled in eight holes. The program was suspended due to weather.

The drill contractor was Black Hawk Drilling based in Smithers B.C. and under contract to Armadillo Resources Ltd. The program was supervised by James A. Turner, P.Geo. and Norm Berg was the on-site geologist. Mr. Turner is a Qualified Person for Armadillo Resources Ltd.

The drill used was a custom built hydrostatic drill utilizing NQ-2 tools provided by Black Hawk Drilling. Fuel and other supplies were mobilized by truck to the Waverley Property

then moved by Cat to the site. Transport for the crew and core between the camp and drill sites was by ATV or Truck.

The drillers left casing in holes T09-1, 3, 4, 6 and T09-8 to accommodate re-entry at a later time.

## 10.1 2009 Drill Hole Descriptions

Table 12: Analytical statistics of the 2009 core samples.

<u>Hole No.</u>	<u>Populatio n</u>	<u>Elemen t</u>	<u>Min</u>	<u>Max</u>	<u>Mean (M)</u>	<u>Standard Deviation (SD)</u>	<u>#Backgroun d (M+1SD)</u>	<u>#Slightly Anomalou s (M+2SD)</u>	<u>#Anomalou s (M+3SD)</u>	<u>#Strongly Anomalou s (M+&gt;3SD)</u>
T-09-01- 8	34	Au(gm)	0.005	12.0*	1.41	2.526	53	2	0	3
		Ag (gm)	0.02	1,310	1,310	103.565	54	1	1	2
		Pb (%)	0.002	2.69	0.312	0.5078	50	5	2	1
		Zn (%)	0.000	9.93	.886	1.7954	54	2	0	2

\* a high value of 22.3 g/t Au was cut to 12 g/t for statistical purposes

Hole T09-1 was commenced on Sept 29, 2009 and was completed to a depth of 114 meters with a dip of -45°. The hole intersected, mostly massive banded Limestone throughout, a thin section of black argillaceous schist occurs at 7.6-8.1 metres. A quartz breccia zone, which is thought to be the mineralized horizon, occurs at 48.2-50 metres. The banding of the limestones is fairly steep at 40-80° to the core axis. Small amounts of sphalerite and jamesonite occur in the mineralized section. Figures 8 & 9.

A 2.29 metre interval from 48 to 50.29 metres returned a length-weighted average of 0.573 g/t Au, 0.29.98 g/t Ag, 0.473 % Pb and 0.44% Zn. The casing was left in the hole.

Hole T09-2 was commenced on Sept 30, 2009 and was completed to a depth of 83 meters with a dip of -45°. The hole intersected, mostly massive banded Limestone throughout, two thin sections of black argillaceous schist occurs at 9.14-10.9 metres. Two quartz breccia zones, which are thought to be the mineralized horizon occurs at 52.55-54.15 and 58.6-59.6 metres. The banding of the limestones is fairly steep at 50-80° to the core axis. A thin 10 cm section of fault gouge occurs at 13.2 metres. Sulfides include sphalerite and jamesonite which occur in the mineralized section. Figures 10 & 11.

An 11.582 metre interval from 50.9 to 62.48 metres returned a length-weighted average of 1.66 g/t Au, 148.68 g/t Ag, 0.36% Pb and 1.37% Zn including a 5.79 metre interval of 2.42 g/t Au, 245.22 g/t Ag, 0.63% Pb and 2.64% Zn.

Hole T09-3, drilled from the hole # 2 platform and was commenced on Oct 1, 2009 and was completed to a depth of 132.6 meters with a dip of  $-60^{\circ}$ . The hole intersected, mostly massive banded limestone throughout, one thin section of black argillaceous schist occurs at 6.10-12.8 metres. A quartz breccia zone occurs at 62.55-66.8 metres. The banding of the limestones is fairly shallow at  $20-40^{\circ}$  to the core axis, although some steeper banding occurs at the bottom of the hole.

A 3.78 metre interval from 63.28 to 67.06 metres returned low values in Au, Ag, Pb and Zn.

Hole T09-4 (figures 7, 8, and 9) was commenced on Oct 3, 2009 and was completed to a depth of 117.3 meters with a dip of  $-45^{\circ}$ . The hole intersected, mostly massive banded limestone throughout, one section of black argillaceous schist occurs at 12.2-16.8 metres. A quartz breccia zone occurs at 68.4-68.8 metres. The banding of the limestones is fairly shallow at  $30-60^{\circ}$  to the core axis. No samples were taken from this hole.

Hole T09-5 (figures 7, 8, and 9) was commenced on Oct 4, 2009 and was completed to a depth of 117.3 meters with a dip of  $-45^{\circ}$ . The hole intersected, mostly massive banded limestone throughout, two thin sections of black argillaceous schist occurs at 10.67-13.8 metres and 58.1- 68.1 metres. A quartz breccia zone occurs at 51.8-62.0 metres. The banding of the limestones is fairly shallow at  $40-60^{\circ}$  to the core axis, although some steeper banding occurs at the bottom of the hole. Sulfides include sphalerite and jamesonite which occur in the mineralized section. Figures 12 & 13.

A 12.5 metre interval from 49.53 to 62.03 metres returned a length-weighted average of 2.45 g/t Au, 145.36 g/tm Ag, 0.62% Pb and 0.90% Zn including a 1.52 metre interval of 6.4802 g/t Au, 162.50 g/t Ag, 2.01% Pb and 2.70% Zn and 2.44 metres of 5.3 g/t Au, 567.88 g/t Ag, 0.56% Pb and 0.64% Zn.

Hole T09-6, drilled from the hole # 5 platform was commenced on Oct 5, 2009 and was completed to a depth of 93 meters with a dip of  $-60^{\circ}$ . The hole intersected, mostly massive banded limestone throughout, one thin section of black argillaceous schist occurs at 13.50-17.00 metres. A quartz breccia zone occurs at 65.5-67.00 metres. The banding of the limestones is  $40-60^{\circ}$  to the core axis. Samples taken from the schist and breccia zones yielded low values.

Hole T09-7 (figures 7, 8, and 9) was commenced on Oct 6, 2009 and was completed to a depth of 71 meters with a dip of  $-45^{\circ}$ . The hole intersected mostly massive banded limestone and black argillaceous schist. A 2.5 metre void occurred at 10.67 metres and a gouge section at the end of the hole and as a result the hole was lost. No sampling was done. Figures 14 & 15.

Hole T09-8, drilled from the hole # 7 platform was commenced on Oct 7, 2009 and was completed to a depth of 71 meters with a dip of  $-55^{\circ}$ . The hole intersected, mostly massive banded limestone throughout, one thick section of black argillaceous schist

occurs at 12.19-21.4.00 metres. A quartz breccia zone occurs at 61.90-71.0 metres. A gouge occurs at the end of the hole and as a result the hole was lost. Hole #8 was drilled to intersect a high gold value of **20 oz/t** encountered in the Tangier workings (Turner 2009).

A 8.53 metre interval from 62.48 to 71.02 metres returned a length-weighted average of 3.20 g/t Au, 190.32 g/tm Ag, 0.28% Pb and 1.92% Zn including a 6.22 metre interval of 4.37 g/t Au, 261.09 g/t Ag, 0.38% Pb and 2.55% Zn and 0.76 metres of 22.3 g/t Au, 1310 g/t Ag, 1.5% Pb and 0.338% Zn.

In 2012 Armadillo spent some time re-constructing parts of the road leading to the drill area. They also constructed a bridge leading across Sorcerer Creek to provide access to the Tangier Dump. Figure16.

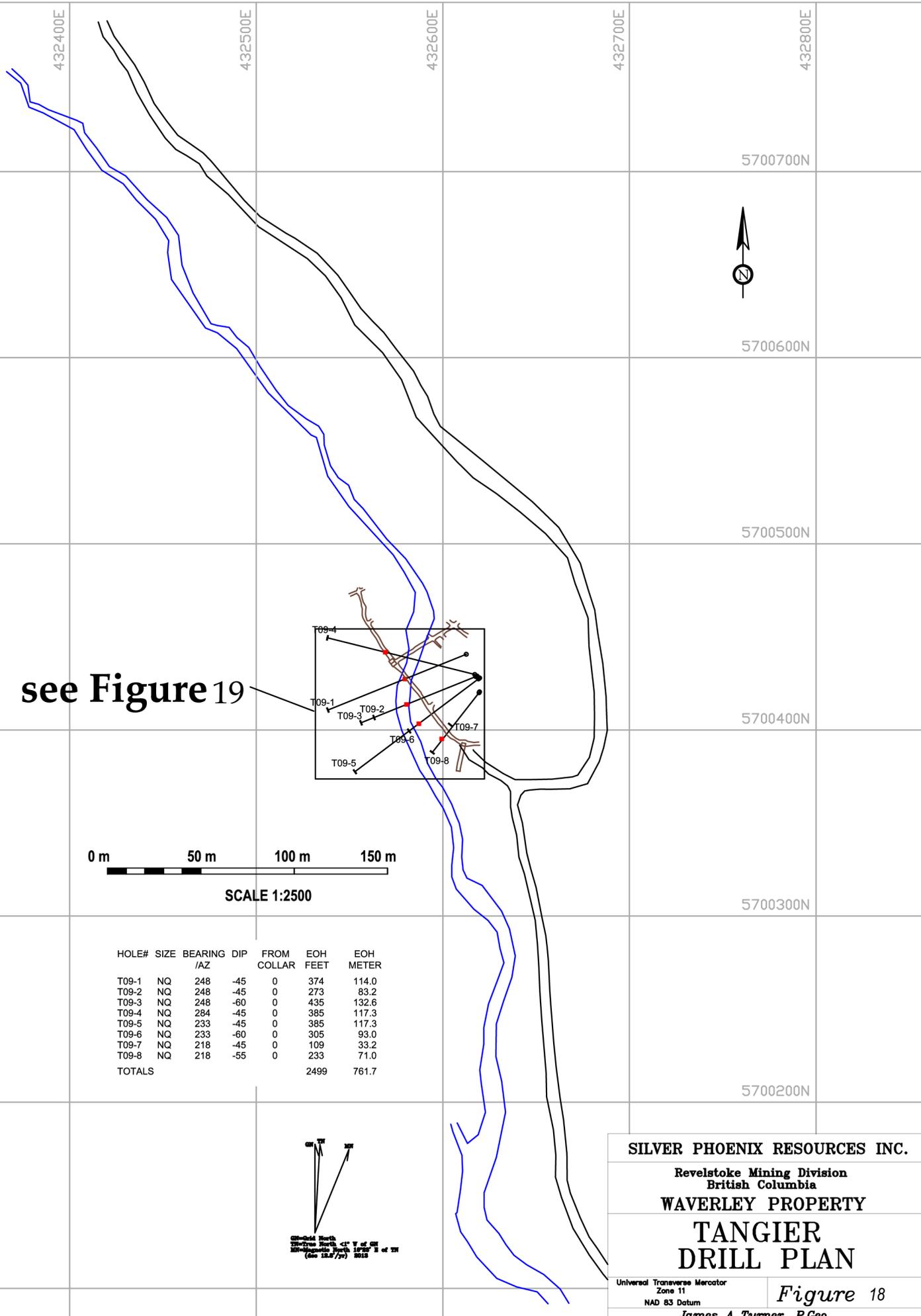
**On September 25, 2012 the Author conducted a site visit in the company of the owner. A helicopter from Revelstoke was used for transport. The visit lasted several hours. The Author viewed the newly constructed Bridge and drill sites. One sample was taken from the Tangier Dump. The sample was taken from a quartz breccia area of the Dump and not the main sulfide dump nearby.**

**This material is similar to material found in drill hole # 8 which assayed anomalous gold, silver, lead and zinc Figure 26 & 27. The sample contained jamesonite in thin fractures and stibnite. Acme Labs conducted the assay.**

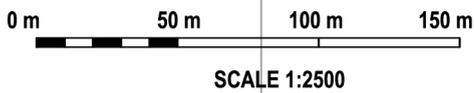
Table 13: Site visit Sample result

Technique	G6	7AR	7AR	7AR
	Au	Pb	Zn	Ag
	PPM	%	%	GM/T
Detection	0.005	0.01	0.01	2
Sample				
80938	1.88	0.22	1.03	101

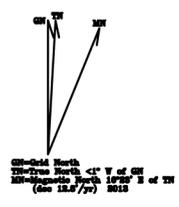
**This result is similar to the result obtained from ddh # 8.**



see Figure 19



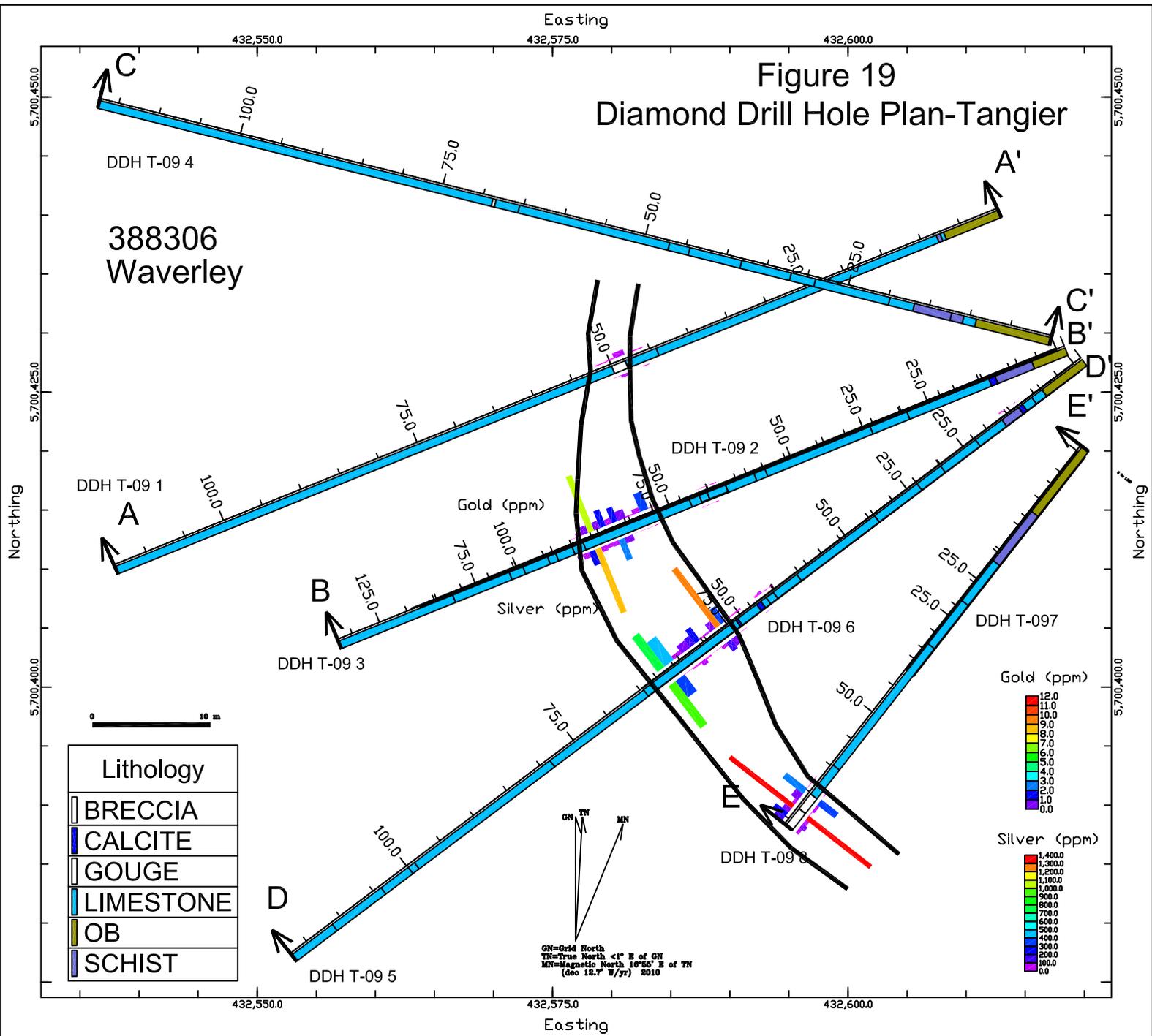
HOLE#	SIZE	BEARING /AZ	DIP	FROM COLLAR	EOH FEET	EOH METER
T09-1	NQ	248	-45	0	374	114.0
T09-2	NQ	248	-45	0	273	83.2
T09-3	NQ	248	-60	0	435	132.6
T09-4	NQ	284	-45	0	385	117.3
T09-5	NQ	233	-45	0	385	117.3
T09-6	NQ	233	-60	0	305	93.0
T09-7	NQ	218	-45	0	109	33.2
T09-8	NQ	218	-55	0	233	71.0
TOTALS					2499	761.7

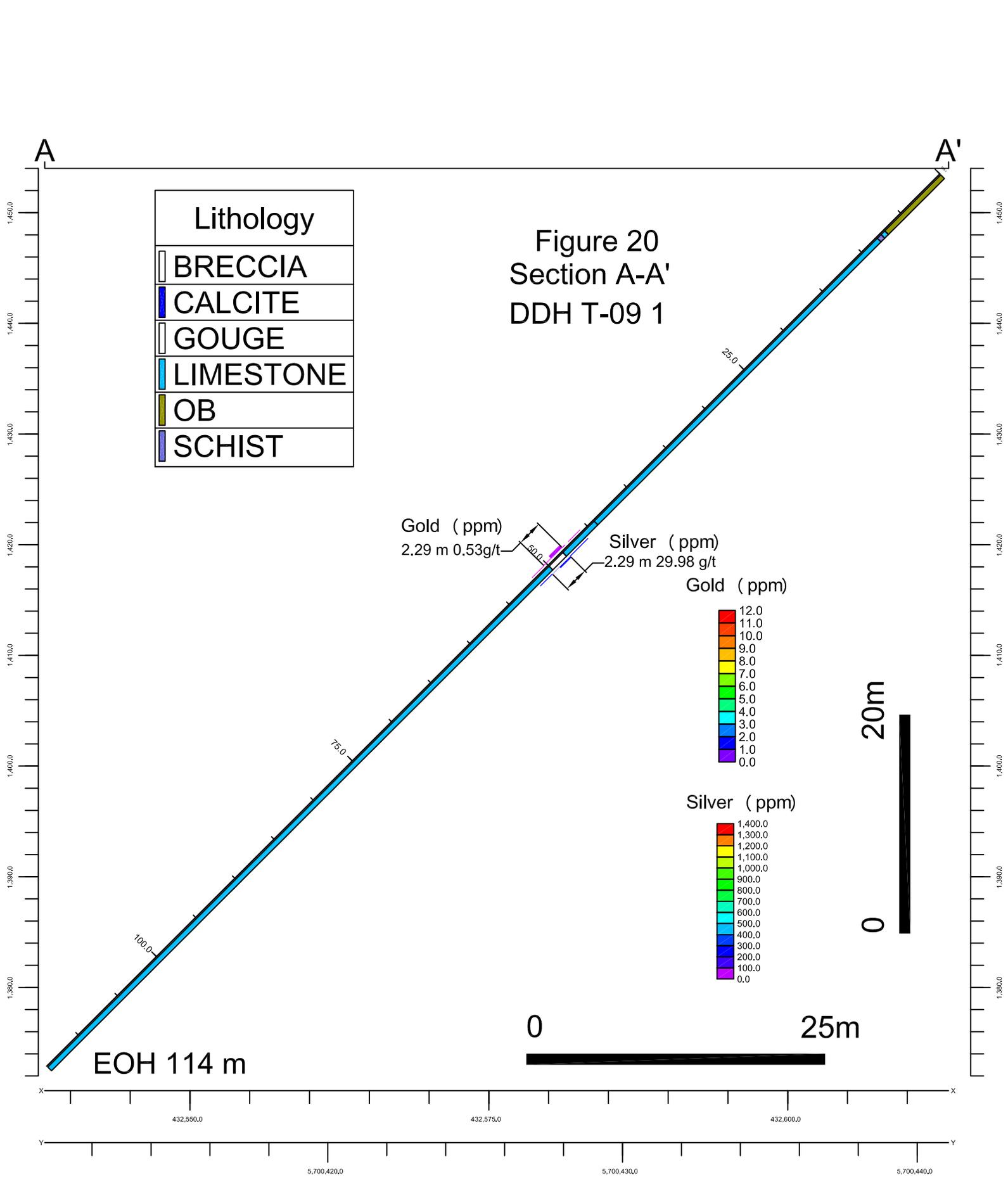


**SILVER PHOENIX RESOURCES INC.**  
 Revelstoke Mining Division  
 British Columbia  
**WAVERLEY PROPERTY**  
**TANGIER**  
**DRILL PLAN**  
 Universal Transverse Mercator  
 Zone 11  
 NAD 83 Datum  
*Figure 18*  
 James A Turner, P. Geo

Figure 19  
Diamond Drill Hole Plan-Tangier

388306  
Waverley





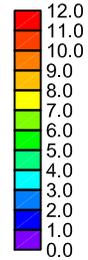
Lithology	
[White box]	BRECCIA
[Blue box]	CALCITE
[White box]	GOUGE
[Light blue box]	LIMESTONE
[Yellow box]	OB
[Purple box]	SCHIST

Figure 20  
Section A-A'  
DDH T-09 1

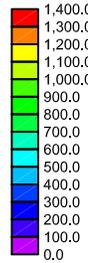
Gold (ppm)  
2.29 m 0.53g/t

Silver (ppm)  
2.29 m 29.98 g/t

Gold (ppm)



Silver (ppm)



20m

0

0

25m

EOH 114 m

432,550.0

432,575.0

432,600.0

5,700,420.0

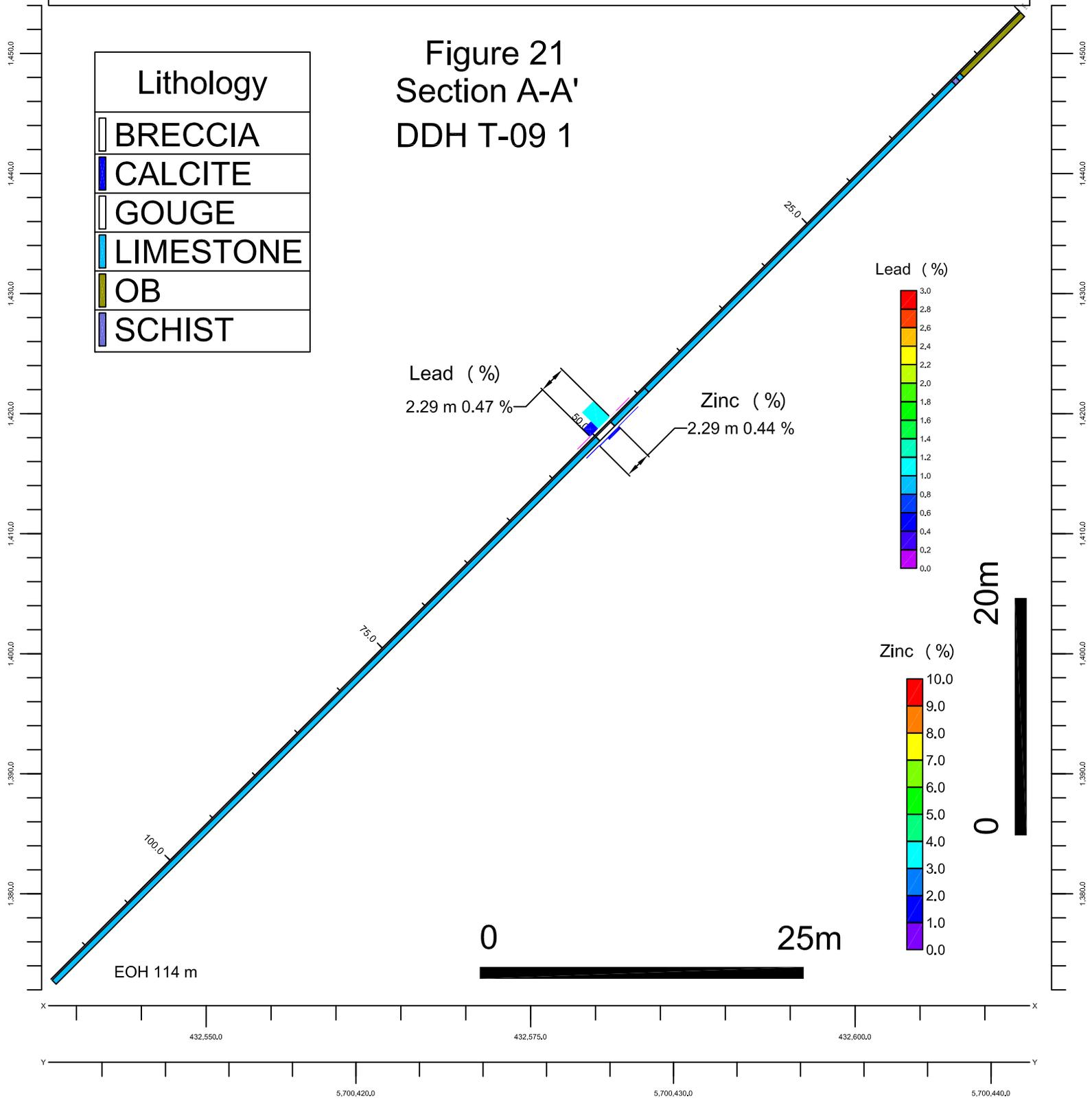
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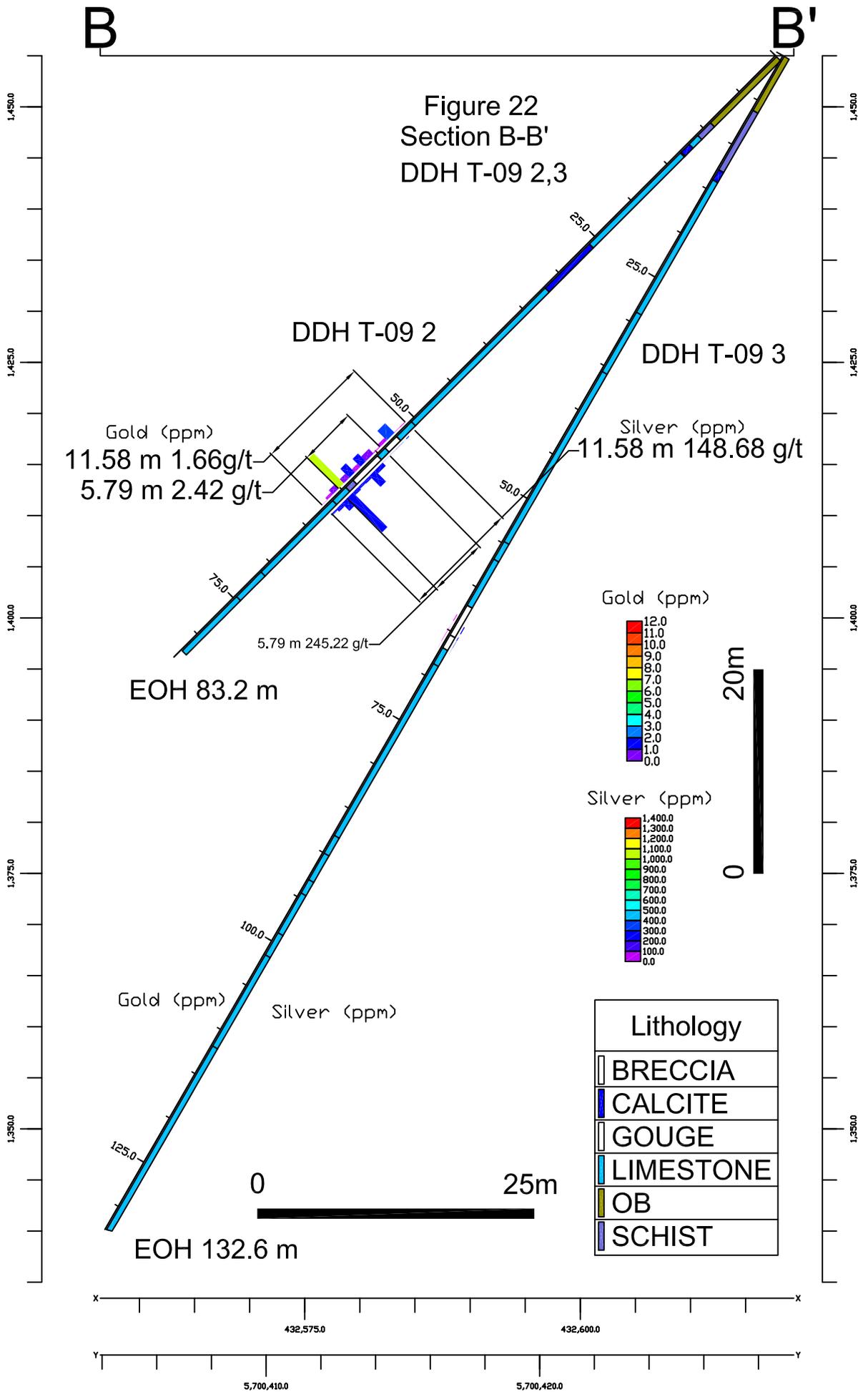
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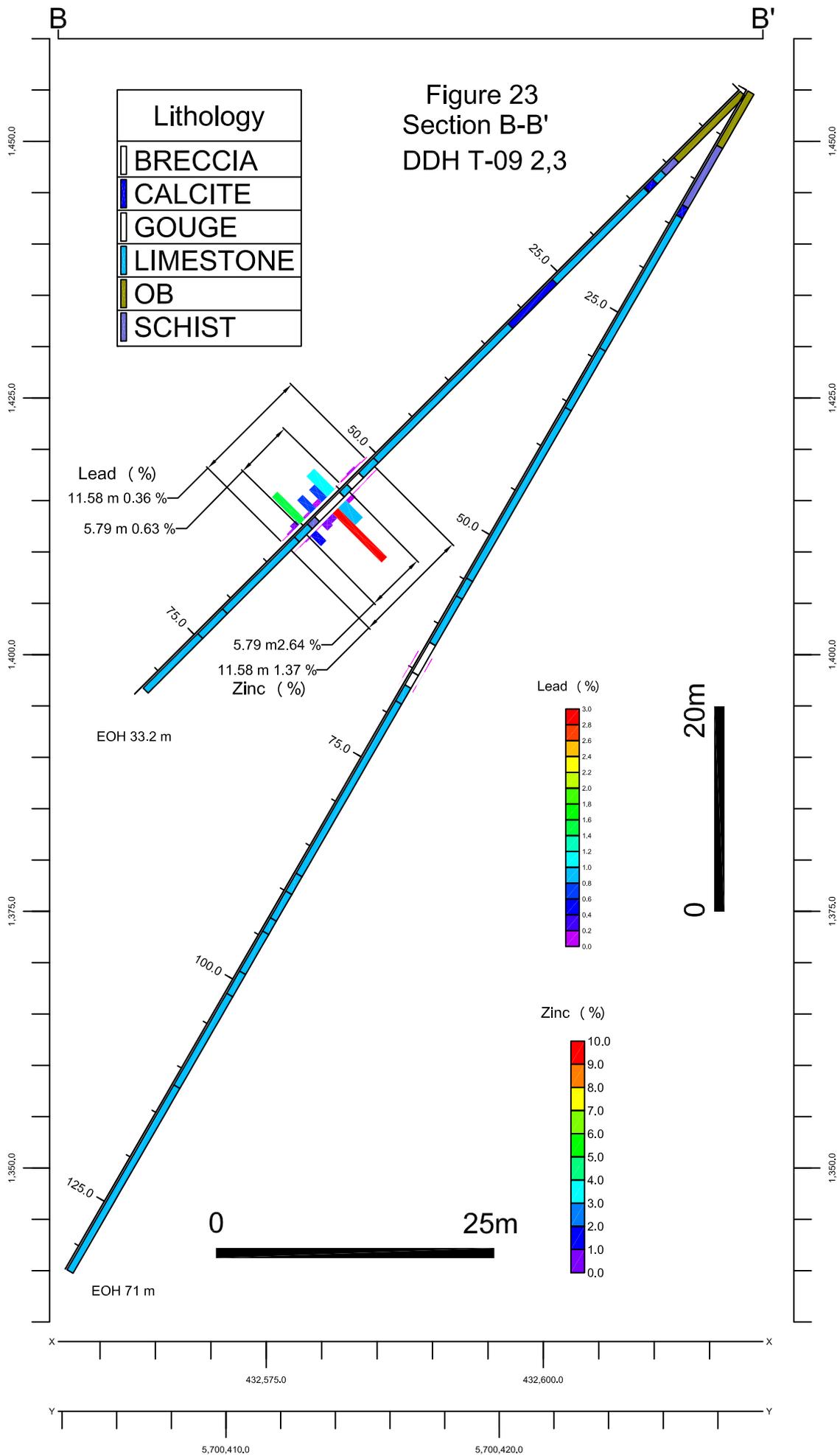
# A A'

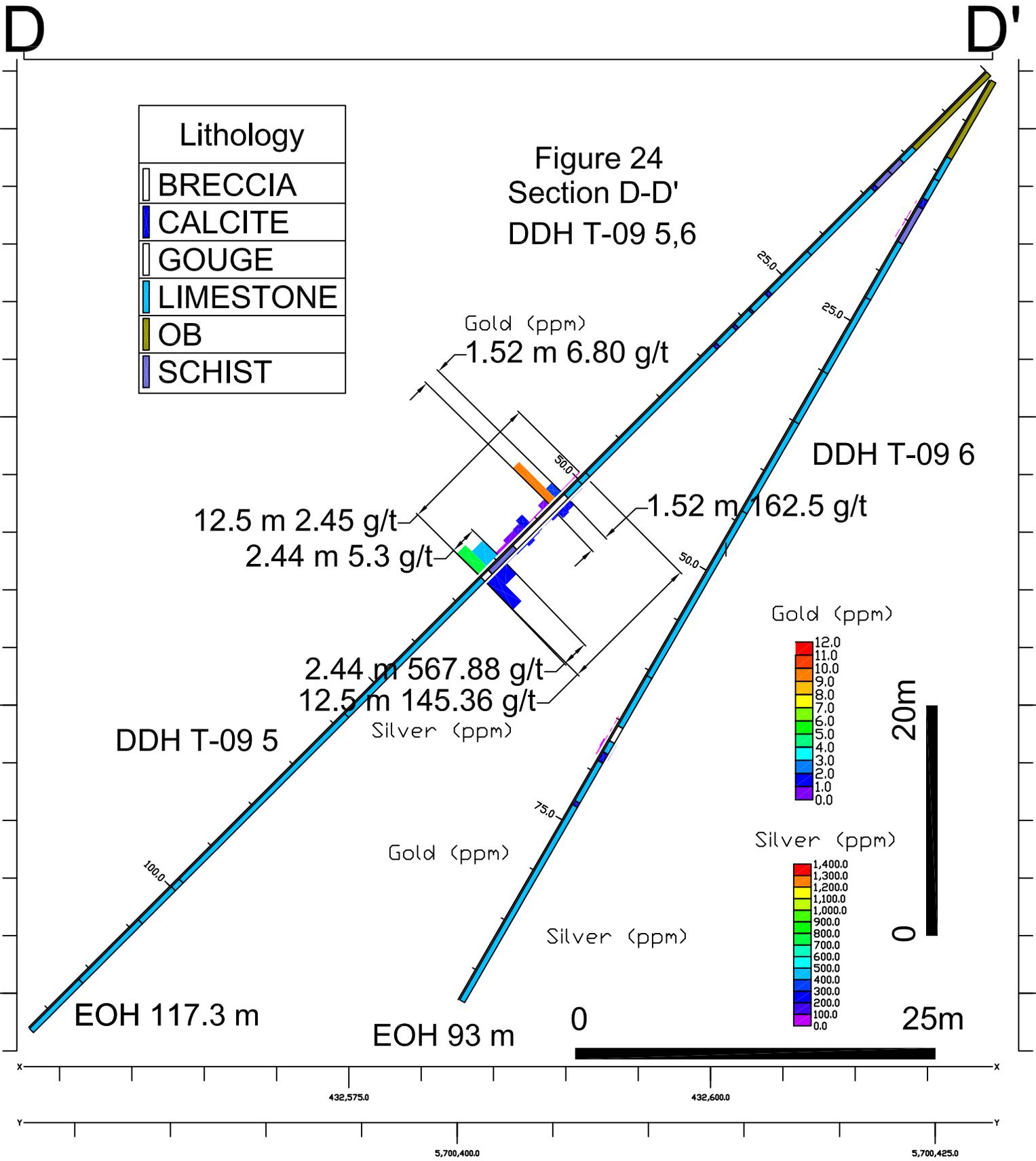
Figure 21  
Section A-A'  
DDH T-09 1

Lithology	
	BRECCIA
	CALCITE
	GOUGE
	LIMESTONE
	OB
	SCHIST







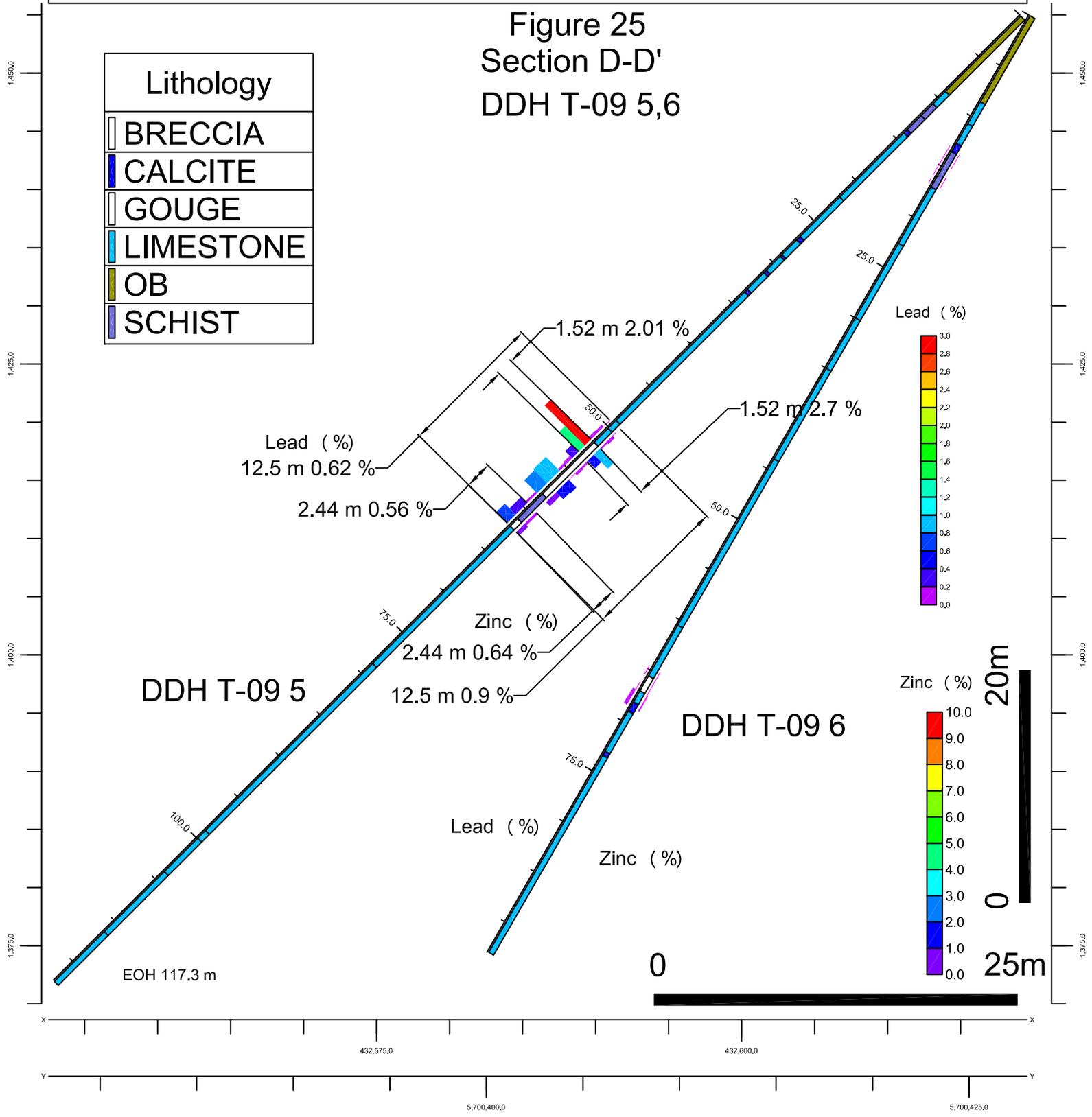


D

D'

Figure 25  
Section D-D'  
DDH T-09 5,6

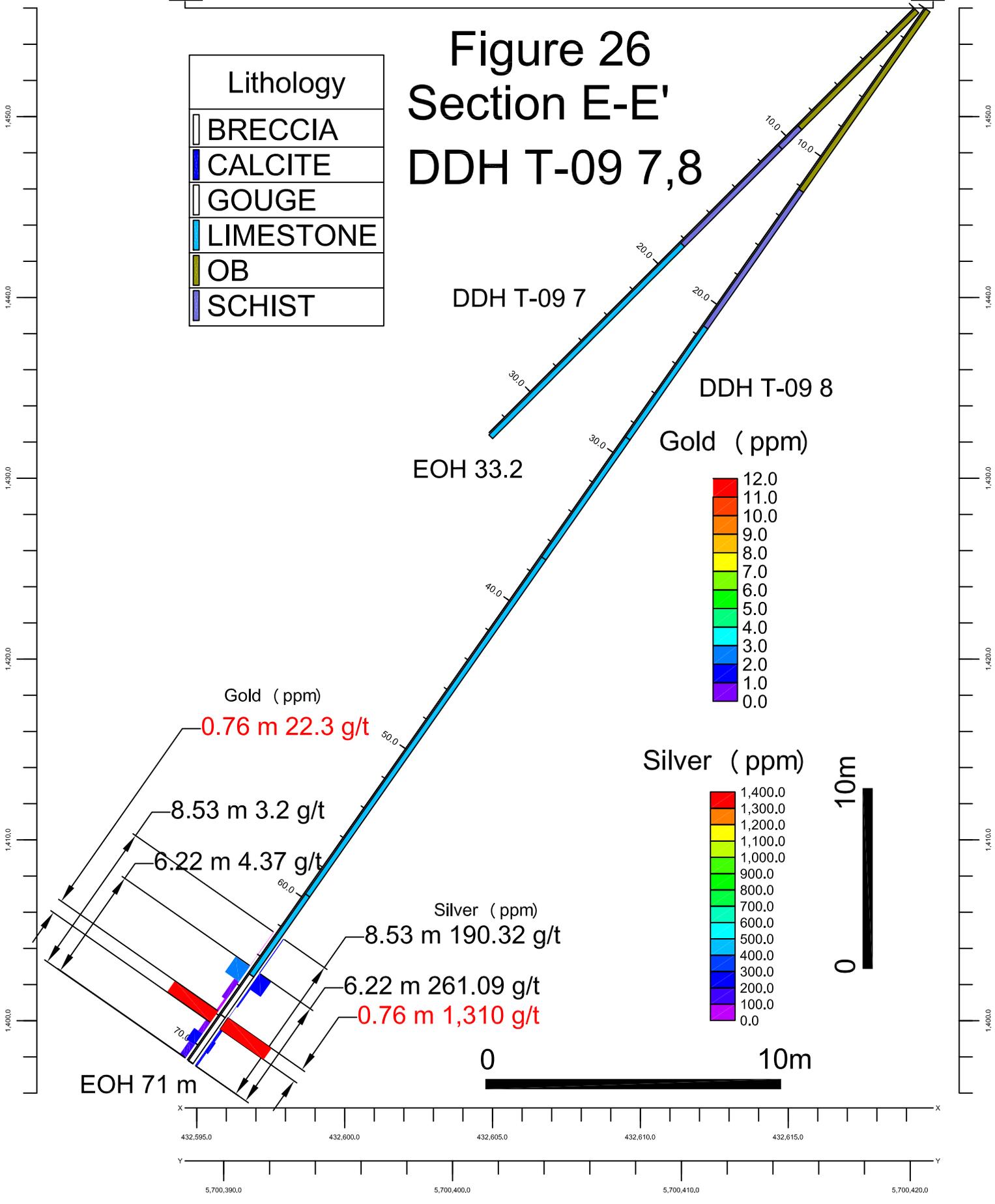
Lithology	
	BRECCIA
	CALCITE
	GOUGE
	LIMESTONE
	OB
	SCHIST



E E'

# Figure 26 Section E-E' DDH T-09 7,8

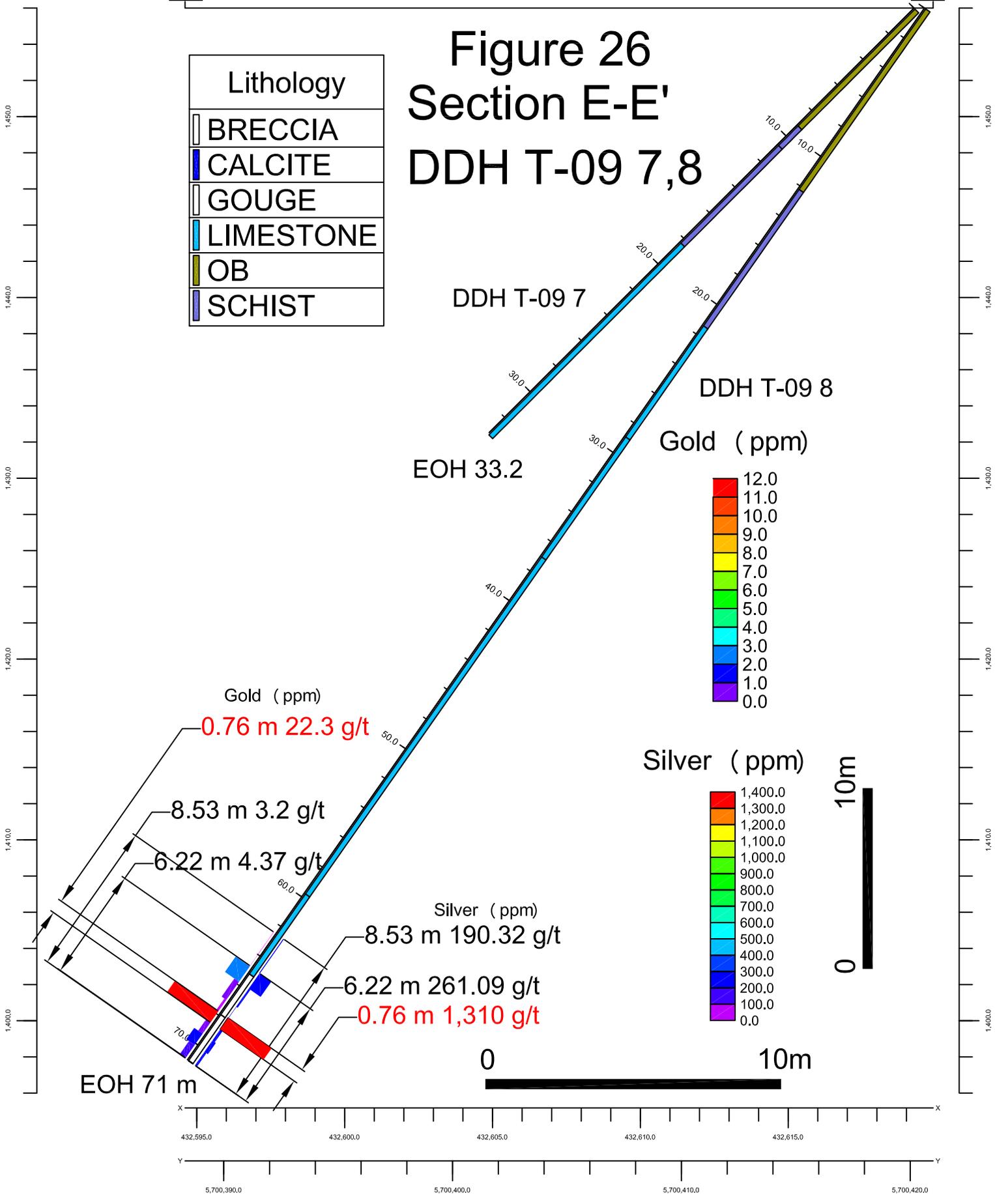
Lithology	
	BRECCIA
	CALCITE
	GOUGE
	LIMESTONE
	OB
	SCHIST

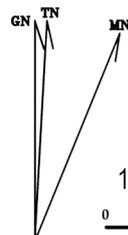
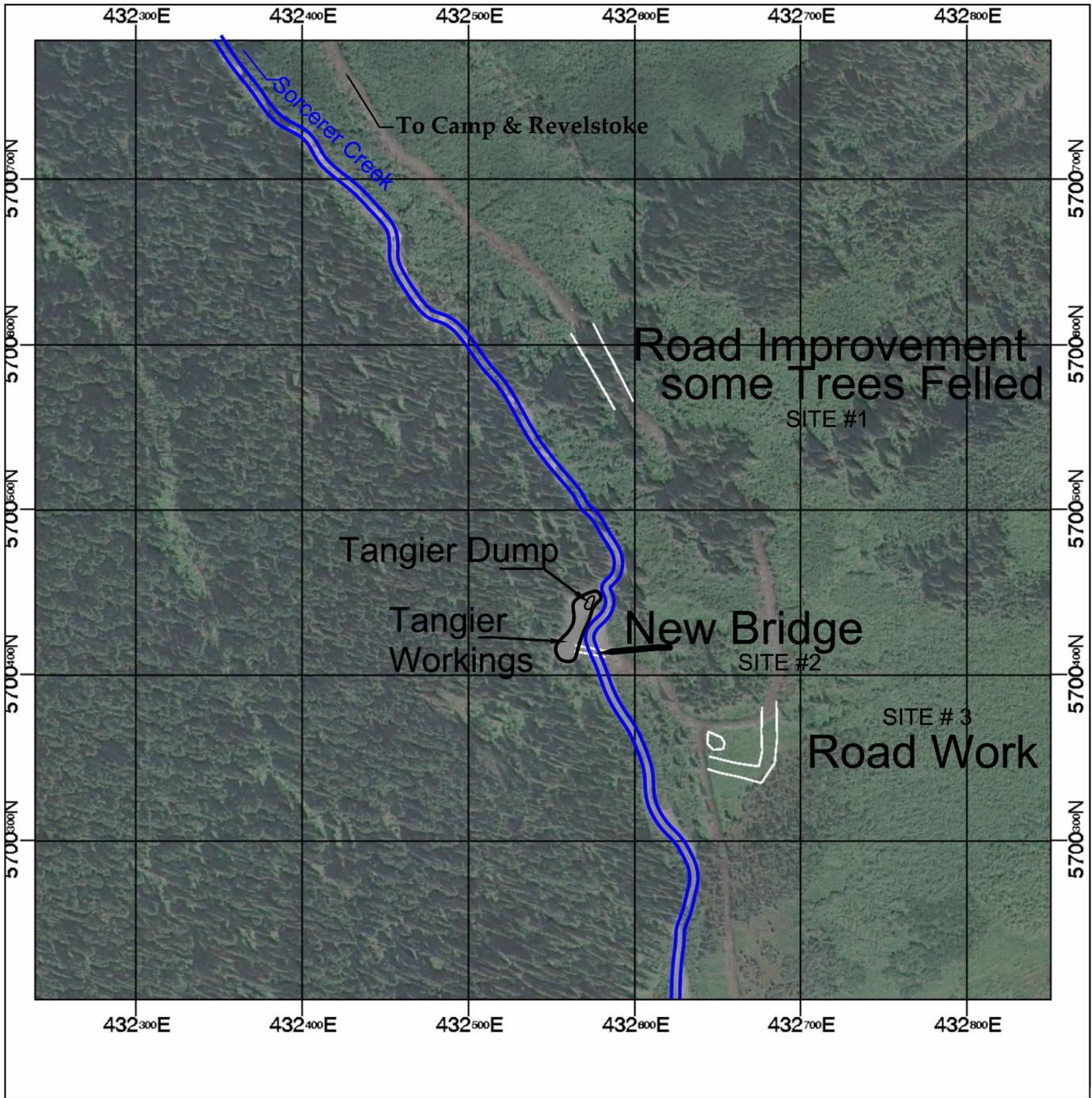


E E'

# Figure 26 Section E-E' DDH T-09 7,8

Lithology	
	BRECCIA
	CALCITE
	GOUGE
	LIMESTONE
	OB
	SCHIST





GN=Grid North  
 TN=True North <1° W of GN  
 MN=Magnetic North 16.23° E of TN  
 (dec 12.8/yr) 2013

1:3,333  
 0 50 m

SILVER PHOENIX RESOURCES INC.	
Revelstoke Mining Division British Columbia	
WAVERLEY PROPERTY	
2012 Road and Bridge Work	
Universal Transverse Mercator Zone 11 NAD 83 Datum	Figure 28

## **11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY**

All geochemical sampling on the WAVERLEY PROPERTY i.e. underground and shipped ore, was conducted by well-respected and competent geologists and geological engineers. Sample methodology conducted by government geologists are not quoted in the MINFILE reports or the Minister of Mines Annual Reports for the specific year.

Work carried out by Barovic in 1987 comprised of sampling the Tangier Workings dump, the sampling procedure was not disclosed but is presumed to be random grab samples over the extent of the “ore” pile, and four samples were taken. Samples were also taken of the Waverley wall rock. 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.

Work carried out by the Author included sampling the Tangier Workings dump. Three random grab samples were taken. These samples are from the “ore” and random grab may not adequately represent the material selected for sample. Sample sites were selected randomly over the pile, but mineralized boulders are much easier to see (rusty etc.) than non-mineralized ones. Samples were tagged in the field and intervals were 5-20 metres apart. A grid set up by Barovic in 1987 is overgrown.

### **11.1 Sieved Silt Sampling Method and Approach 2008**

Large amounts of high-energy streambed sediment were wet sieved to obtain about 2.5 kg of coarse sand and silt (-20 mesh or <850 microns). The samples were collected by carefully shoveling the sediments into a -20 mesh stainless steel sieve (diameter 36 cm, depth 17 cm) that rests in a large aluminum pan containing water. Some liquid detergent was added to the wash water to prevent flotation of small metallic mineral grains. Using handles on the sieve, a rotary-type motion like a washing machine was used to sieve the sediments. Sieves and pans were thoroughly cleaned after each sample.

The stream sediments were collected from creeks that show on the 1:20,000 BCGS maps and contain sufficient stream sediments. Many of the mapped creeks are not viable for sampling. GPS readings and thread chain were used to locate the sites. Site locations are shown on Figure 15.

### **11.2 Rock Sampling Method and Approach 2008**

A reconnaissance type prospecting and rock sampling program was conducted by C. Lynes of Rich River Exploration in August 2007. Fourteen rock chip and grab samples were taken and sent for analysis

All rock samples taken by James A. Turner were placed in plastic bags and closed with ties. Acme Analytical Laboratories Inc. completed the analysis. Samples were delivered

via the writer directly to the Lab. The geochemical results were transmitted to the writer via e-mail.

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.

The rock samples were sent to Acme Analytical Laboratories in Vancouver. Site locations are shown on Figure 16. Rock descriptions are summarized in Table 7. Rock samples that are grab samples represent the best mineralized material present. The chip samples are representative of the average rock composition as a whole.

At Acme Analytical Laboratories, the samples were analyzed for 23 elements using two methods. Gold content was determined to the 0.2 ppb level by Fire Assay from a 1 A.T. (assay ton) sample. The other elements were analyzed by ACME's group 7AR method. A 1.0 g sample was digested in Aqua Regia; digestion to 100 ml and analyzed by Graphite Furnace Atomic Absorption Spectroscopy or Inductively Coupled Plasma Mass Spectroscopy (ICP-MS) finish.

### **12.1 Silt Sampling Preparation, Analysis and Quality Control- 2007 survey**

Field-sieved samples were sent by truck with a bonded transportation company to Acme Analytical Laboratories Ltd., in Vancouver, BC, for sample preparation and analysis.

#### Sample Preparation

The field samples were sieved to -80 mesh (<177 microns).

#### Analysis

Following aqua regia (HCl-HNO<sub>3</sub>-H<sub>2</sub>O) digestion, the samples were analyzed by ICP-MS techniques (method Group 1F-MS). Gold and 36 other element determinations were made. The sub-sample for digestion and analysis was 30 g. The use of aqua regia digestion preceding gold analysis is suitable for geochemical stream sediment surveys. Gold in native form and within sulphide and secondary oxide minerals was determined. The ICP-MS determined a suite of elements that assists in interpretation.

Quality Control (QC)The laboratory has inserted blank 'silt' samples at the start of each batch and also within the batch. These samples went through the same preparation and analysis as the regular samples. The analysis of the blanks shows no problems with contamination in the sample preparation. The analytical results of the silt samples are shown in the Table Y.

Precision is monitored by the collection of duplicate field samples. Duplicate field samples were collected at 3 of the 62 sites and inserted into the sample stream. The precision indicates the cumulative error in the field sampling, laboratory sample

preparation and analysis. Field sample collection is assumed to be the largest component. The data base is not large enough to measure the precision by Thompson-Howarth Plots in a statistically rigorous manner.

The laboratory also monitors precision by analyzing another sub-sample of -80 mesh sediments. This is done about one every 30 analyses. The results indicate the precision of the sample preparation and analysis. The data base is not large enough to measure the precision in a statistically rigorous manner.

The laboratory has inserted a standard, after about every 30 samples, to monitor for errors in the analytical process. The analyses of the inserted standards show acceptable results. Acme Analytical Laboratories Ltd. has ISO 9001:2000 accreditation.

## **12.2 Rock Sample Preparation, Analysis and Quality Control- 2007 survey**

Rock sample preparation involved crushing the sample to 10 mesh, then pulverizing a 250 g split to -150 mesh. A 30 gram sub-sample was digested in hot (95° C) aqua regia (HCl-HNO<sub>3</sub>-H<sub>2</sub>O); following this, the samples were analyzed by inductively-coupled plasma mass spectrometry (ICP-MS) techniques (Acme's Group 1DX). Analysis of 36 elements was made. The analytical results of the rock samples are shown in the Table 8.

Quality control samples from the lab are included with each batch to ensure that the analytical results are valid. These include control blanks, duplicates and standards. The laboratory inserts blank samples at the start of each batch and also within the batch. These samples go through the same preparation and analysis as the regular samples. Similarly, standard reference materials of similar composition to the samples are analyzed.

Within the batch of fourteen samples, one pulp duplicate was run, along with two analyses of a standard and two analyses of a blank sample. No problems with the quality control samples are evident.

## **11.3 Drilling 2009**

Drill holes were laid out by the Author and discussed with Armadillo Management via email or personal communication. Only two drill pads were used during the program. In all cases, the collar azimuths and inclinations were established with a Brunton pocket transit.

The drill contractor used the imperial system of measurement in the field. Consequently the core was delivered with the boxes and blocks marked in feet. The logging was also done in feet and subsequently converted to metric units. The boxes and blocks were relabeled in metric units. Sampling was in metric units. All drill sites were inspected after completion of the work to ensure that they were clean and clear of drill related debris.

The casing was left in most holes in the event that deepening is required.

When the core boxes arrived at the core logging facility, the boxes were opened and the Author reviewed them immediately. A quick log with interval lengths, major rock types, alteration and mineralization was prepared, and then e-mailed daily to Armadillo's office.

At the end of the program core was transported to Vancouver to a locked facility where it was logged in detail and mineralized sections were split. All core logging was carried out by the Mr. Berg on Excel-based forms provided by Armadillo. Sections were manually updated on a daily basis and progress was monitored in relation to the expected target.

The Author supervised the core logging and suggested several more intervals be split. This extra splitting was done by the Author. Plots in **AutoCAD** and **Rockworks** were also maintained. Plots were then converted to **Acrobat PDF** for insertion into the report. **ER Mapper 7.0** was used for the satellite image processing.

Drill core was photographed using a digital camera to provide an additional record for future reference. The core was always wet when the photos were taken. Some core was photographed after the core was split. The photos are clearly labeled showing the interval in the photographs. All rock samples taken by James A. Turner were placed in plastic bags and closed with ties. ALS Chemex Labs of North Vancouver completed the analysis. Samples were delivered via the writer directly to the Lab. The geochemical results were transmitted to the writer via e-mail.

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 ALS Chemex, the samples were analyzed for 41 elements using two methods. Gold content was determined to the 0.2 ppb level by Fire Assay from a 1 A.T. (assay ton) sample. The other elements were analyzed by ME ICP41 method. A 1.0 g sample was digested in Aqua Regia; digestion to 100 ml and analyzed by Graphite Furnace Atomic Absorption Spectroscopy or Inductively Coupled Plasma Mass Spectroscopy (ICP-MS) finish.

Following aqua regia (HCl-HNO<sub>3</sub>-H<sub>2</sub>O) digestion, the samples were analyzed by ICP-MS techniques. Gold and 41 other element determinations were made. The sub-sample for digestion and analysis was 30 g. The use of aqua regia digestion preceding gold analysis is suitable for geochemical stream sediment surveys. Gold in native form and within sulphide and secondary oxide minerals was determined. The ICP-MS determined a suite of elements that assists in interpretation.

Rock sample preparation involved crushing the sample to 10 mesh, then pulverizing a 250 g split to -150 mesh. A 30 gram sub-sample was digested in hot (95° C) aqua regia (HCl-HNO<sub>3</sub>-H<sub>2</sub>O); following this, the samples were analyzed by inductively-coupled plasma mass spectrometry (ME ICP41) techniques.

For Au-AA23, samples are fused in batches of 84 which included 1 blank, 2 reference materials, and 3 duplicates. The remaining 78 positions consist of client samples – therefore, it is possible that several client QC samples could end up in one fusion batch depending on the frequency inserted. When a re-assay is requested, we usually re-ran the sample in question plus surrounding samples. If the results for the surrounding samples show a problem with the original results we will go back and re-assay more samples (possibly from the last passing QC sample) or the entire fusion batch if necessary.

Re-assays are done at our cost if a problem is found. Each method has an associated precision tolerance which is based on the decomposition technique, instrumentation, analyte, etc. For Au-AA23, this precision tolerance is +/-10%. The following calculation is used to determine control limits for standards using the method precision and lower detection limit of the method.

Table 14: ME-OG 46 elements analyzed

Element	Symbol	Units	Lower Limit	Upper Limit
Silver	Ag	ppm	1	1500
Lead	Pb	%	0.001	20
Zinc	Zn	%	0.001	60

#### Assay Procedure – ME-OG46

Ore Grade Elements by Aqua Regia Digestion Using Conventional ICP-AES Analysis

**Analytical Method:** Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP AES)\*

\*NOTE: ICP-AES is the default finish technique for ME-OG46. However, under some conditions and at the discretion of the laboratory an AA finish may be substituted. The certificate will clearly reflect which instrument finish was used.

#### Ore Grade Digestions for Silver

Using the Ag-OG46 analytical procedure, higher grades (up to 1,500ppm (50 oz/t)) of silver can be digested with aqua regia. This method is suitable for most silver ores with the exception of halide salts, where we recommend Ag-OG62. Both are cheaper, quicker alternatives to fire assay procedures and equally accurate. In some cases, depending on mineralogy, there may be still precipitation of Silver as its Sulphate salt. We recommend sending in a test batch for verification by alternative methods before deciding on the most appropriate assay procedure.

#### Limitations of Silver Analytical Methodology

In the determination of silver using acid digestions, the analyst must be aware that silver has a propensity to precipitate from solution in the presence of trace halides. Silver may also co-precipitate with insoluble sulfates. Strong hydrochloric acid will stabilize silver in

solution or it may be complexed with sodium thiosulfate. For routine geochemical analysis it is advantageous to determine the silver as soon as possible after bulking to volume.

When silver is determined by ICP-AES, there can be a significant spectral interference from iron. If samples contain "normal" levels of iron, i.e. in the range of several percent, a successful correction can be made. However for samples containing elevated iron concentrations, we recommend that AAS techniques be used in preference to ICP. As part of our Quality Assurance program, we do carry out random AAS checks of ICP-generated silver data where it is suspected that elevated levels of iron may be present.

## **Fire Assay Process**

### Lead Collection

The standard fire assay procedure has been used for millennia to dissolve and separate gold, silver and other precious metals. In the first part of the fire assay, precious metals are dissolved using an aggressive fusion mixture consisting of litharge (lead oxide) and a variety of other fluxes such as sodium carbonate, borax, silica, potassium nitrate and household flour. During the complex reactions that occur between sample and the flux mixture, the litharge is reduced to molten lead and the silica within the sample is oxidized to a borosilicate slag. The molten lead that is produced within the reaction mixture forms as tiny droplets throughout. Because of the high specific gravity of the lead droplets, they filter down through the reaction mixture, dissolving and collecting the precious metals as they do so. In an ideal fusion, the end result is a clean two-phase melt in which the barren borosilicate slag floats on top of the molten lead containing the precious metals. When this two-phase melt is poured into an iron mold to cool, the lead solidifies and can be recovered. The subsequent separation of lead and precious metals occurs during the next step known as cupellation.

### Cupellation

Cupellation most commonly refers to that part of the fire assay process. Following a successful fusion, the analyst is left with a lead "button" which contains all the precious metals from a particular sample. Cupellation is the process by which the lead is separated from the precious metals. Cupellation is considered "total" if the lead is removed in its entirety and "partial" if it is not. For the determination of gold, silver, platinum, palladium, a total cupellation is standard. In this case, the lead button is placed on a magnesia cupel in a furnace at 960-1000? C. At this temperature, the lead melts and is simultaneously oxidized. Part of the lead is volatilized and part is drawn into the cupel by capillary attraction. Eventually the lead is entirely removed and what remains behind is a small precious metal bead that represents the entire precious metal content of the original sample. This bead can then be analyzed by a variety of methods

A partial cupellation can be used for the analysis of platinum group metals (PGM) following a lead collection. A total cupellation cannot be used as losses in ruthenium, rhodium, osmium and iridium would result. However, if the cupellation is partial then the bulk of the lead is removed and losses of PGM can be avoided. Further chemical manipulations are required however to dissolve and remove the remainder of the lead

Limitations of the fire assay procedure have been discussed elsewhere on this website. The principal limitations in the measurement of silver are the inability to determine trace

concentrations plus the silver losses that occur during cupellation. Cupelling at a lower temperature can reduce cupellation losses. The concurrent analysis of proof silver inquarts may be used to quantify these losses and corrections made based on these recoveries

The ALS recommended analytical procedure is to select a 1000 gram "metallics" or screen fire assay (method codes Au-SCR21 (100 micron dry screen) or Au-SCR22 (75 micron wet screen)). In the Au-SCR22 procedure, 1000grams of the final prepared pulp is washed through a 75 micron (200 mesh) screen to separate any coarse (+75 micron) material. Any +75micron material remaining on the screen is dried, weighed and analyzed in its entirety. The 75 micron fraction is dried and homogenized. Duplicate sub-samples are analyzed using the standard fire assay procedures. The gold values for both +75 micron and 75 micron fractions are reported together with the weight of each fraction as well as the calculated total gold content of the sample. In this way a client can evaluate the magnitude of the coarse gold effect as demonstrated by the levels of the +75 micron material.

## 12.0 DATA VERIFICATION

Sample data verification other than those provided by ACME (blanks, standards, duplicates) was included in the 2005 program.

Table 15: Samples taken by James Turner on the Tangier Dump

From ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6  
To Blue Map Geomatics

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.

SAMPLES	Northings	Eastings	Elevation	Description	Cu %	Pb %	Zn %	Ag gm/mt	Au** gm/mt
19776				Grab from Dump	0.033	32.6	2.34	1489	8.57
19777				Grab from Dump	0.001	0.11	1.94	8	6.13
19778				Grab from Dump	0.025	16.5	1.96	646	9.27
STANDARD R-2a/OxL34					0.553	1.46	4.26	158	5.76

Table 16: Samples taken by Barovic 1987 and others

Barovic	Sample #	Au <u>oz/ton</u>	Ag <u>oz/ton</u>	Pb <u>%</u>	Zn <u>%</u>	
	4826 c	0.024	1.71	0.35	15.46	Tangier dump
	4827	0.810	10.55	9.28	2.22	Tangier dump
	4828	2.902	12.62	13.98	1.19	Tangier dump
	4829	0.704	1.29	0.02	0.59	Tangier dump
Waverley wall rock	4830	0.010	0.10	0.07	0.01	grab
	4831	0.006	0.05	0.02	0.01	grab
	4832	0.006	0.05	0.02	0.04	grab
	4833	0.010	0.08	0.02	0.06	grab
	4834 c	0.010	0.05	0.02	0.01	grab
W. O. Young 1924		0.320	25.40	17.90		200 ton dump
Tangier Workings		0.030	32.60	19.50		200 ton dump coarse
		1.640	95.70	26.70		select dump
		1.070	73.20	27.60		select dump
		0.630	64.90	23.00		Winze Pile
Waverley Tunnel No 2	6.5 feet beginning from					
	footwall in the first stope	0.04	13.6	4.8		
		0.12	12.0	3.1		+ 5 feet
		0.05	26.5	1.7		+12 feet
		0.06	18.9	4.7		+18 feet
		0.10	16.7	42.2		+ 5 feet
		0.06	22.4	3.7		+ 7 feet
		0.09	11.0	5.8		+ 12 feet
		0.02	13.5	14.6		+ 10 feet
		0.25	96.3	24.4		Select hard
		0.04	37.8	12.6		Select soft
Waverley Tunnel No 1		0.16	37.2	34.4		Top of Winze 4 ft.
		0.23	69.7	27.5		Bottom of Winze 4 ft.
		0.16	15.8	9.1		North Outcrop
		0.20	44.6	17.5		North Outcrop
		0.05	32.4	22.5		North Outcrop
	Short Tunnel					
		0.09	11.9	19.8		North 3 ft.
		0.07	23.4	18.7		Winze 3 ft.

	<u>gm/t</u>	<u>gm/t</u>			
Wales (1928)					
Production	51.400	4456.40	25.00		13 tonnes Hand sorted
BC Gov. (MMAR 1921)	2.050	584.40	8.50	5.00	Tangier dump
	8.200	726.70	8.50	15.00	winze 30 ft. level

Table 17: In September 2003, William Murray reported six samples from the Tangier Workings Dump:

Description	Cu(ppm)	Pb(ppm)	Zn(ppm)	Ag(oz/t)	Au(oz/t)
D1 Grab from Tangier dump	29	3407	7196	.20	.010
D2 Grab from Tangier dump	4	147	24	.07	<.001
D3 Grab from Tangier dump	5	34	29	.02	<.001
D4 Grab from Tangier dump	4	8	4	<.01	<.001
Cut 1 Grab from Tangier dump	19941	>9999	>99999	103.74	.162
Cut 2 Grab from Tangier dump	1718	>9999	>99999	28.45	.049

High values in Antimony (Sb), Cadmium (Cd) and Strontium (Sr) also occur in the samples.

Table 18: In November 2004 a shipment from the Tangier Workings Dump yielded:

	Au(oz/ton)	Ag(oz/ton)	Pb(%)	Zn(%)	
Sterling Mining	.380	50.80	25.2	10.02	60 lb. sample
	1.082	74.00	Pyritic		20 lb. sample

Much of the sampling was done before 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.

**These results verify previous results for the Tangier Workings Dump material. Previous workers have shown that economic mineralization occurs on the property. The Authors sampling of the Tangier Workings Dump verifies some of the earlier results. The project warrants continued exploration.**

Table 19: WAVERLEY Property 2007  
Rock Descriptions and Locations

Samples taken by Discovery  
Consultants, Vernon B.C.

Sample Number	UTM Easting	UTM Northing	Location	Sample Type	Visible Mineralization
808CR01	429841	5702914	along road	float	copper float
808CR02	430002	5703269	upslope of copper float	20 cm chip	py, po, chalcocite as massive pods
808CR03	430008	5703269	upslope of copper float	15 cm chip	pod of massive py-chalcocite
808CR04	430008	5703269	upslope of copper float	25 cm chip across vein	chalcocite, mal stain, bornite stain
808CR05	430008	5703269	upslope of copper float		
808CR06	428570	5705107	logging road		qtz-carb vein, 20-25 cm, with galena and possible tetrahedrite
808CR07	428543	5705130	logging road	float	qtz vein with copper-py
808CR08	430527	5702341		float	qtz vein, mal, bornite staining
808CR09	430484	5702356		float	silicified, chalcocite, mal bornite stain
808CR10	430420	5702388	along road		silicified, highly altered, semi-massive pyrite bands, stringers
808CR11	430485	5702614		outcrop	10% pyrite as pods and semi-massive
808CR12	430522	5702518	creek bed avalanche chute?	float	stringers of semi-massive pyrite hematite stain
808CR13	430110	5702646	road cut	outcrop?	heavy gossanous, sericite
808CR14	430179	5702570	culvert along road	slide debris	rusty sulphides, heavily oxidized mal stained qtz, hematite staining

**Abbreviations**

py = pyrite  
 po = pyrrhotite  
 qtz = quartz  
 mal = malachite

**Rock  
 Sample  
 Results 2007** Table 20

 Discovery  
 Consultants

Sample ID	Lab Rpt #	Cu PPM	Ag PPM	Pb PPM	As PPM	Sb PPM	Zn PPM	Cd PPM	Au PPB
808CR01	van07000732	7824	12.2	50.2	2472.0	1850.0	922	9.1	26.9
808CR02	van07000732	>10000	44.2	299.0	7124.0	>2000	2310	22.4	142.8
808CR03	van07000732	>10000	18.9	81.7	3580.0	1313.0	306	2.2	105.0
808CR04	van07000732	>10000	>100.0	168.1	>10000.0	>2000	>10000	146.8	1131.0
808CR05	van07000732	300	<0.1	31.6	85.3	21.5	18	<0.1	1.5
808CR06	van07000732	812	33.4	>10000.0	16.9	25.0	36	14.1	9.7
808CR07	van07000732	3586	2.8	32.1	188.6	236.6	142	1.7	1.0
808CR08	van07000732	7751	>100.0	1291.0	511.7	1745.0	646	28.1	68.4
808CR09	van07000732	9781	>100.0	390.5	413.0	>2000	814	27.3	242.7
808CR10	van07000732	122	3.8	76.4	35.0	9.9	21	0.3	13.9
808CR11	van07000732	143	5.4	15.9	10.4	20.9	25	0.3	1.8
808CR12	van07000732	219	0.4	235.0	23.9	3.8	33	0.2	1.3
808CR13	van07000732	195	0.5	123.9	92.3	4.4	58	<0.1	0.8
808CR14	van07000732	1171	0.4	59.9	13.8	4.0	43	0.2	1.9

**Pulp Duplicates:**

808CR13	van07000732	195	0.5	123.9	92.3	4.4	58	<0.1	0.8
808CR13r	van07000732	209	0.5	132.3	99.6	4.9	64	<0.1	1.5

**Reference Materials:**

STD DS7	van07000732	106	0.5	77.1	47.7	5.4	388	5.6	62.6
STD DS7	van07000732	119	0.8	74.2	48.3	7.2	393	5.6	58.6
BLK	van07000732	<0.1	<0.1	<0.1	<0.5	<0.1	<1	<0.1	<0.5
<b>Prep Wash:</b>									
G1	van07000732	6.5	<0.1	2.7	<0.5	<0.1	46	<0.1	1.2
G1	van07000732	2.8	<0.1	2.8	<0.5	<0.1	44	<0.1	<0.5

Table 21 Silt Sample Results  
(2007)

Sample ID	Lab Rpt #	UTM		Ag PPB	Pb PPM	As PPM	Sb PPM	Zn PPM	Cd PPM	Au PPB	Mo PPM	Tl PPM	Hg PPB	Cu PPM
		Easting	Northing											
808V001	van07000738	429459.0000	5703195.0000	185	32.24	10.4	2.02	67.8	0.24	2.3	0.87	0.03	55	40.78
808V002	van07000738	429593.5752	5703316.3943	239	60.03	2.7	1.58	30.7	0.29	1.4	0.27	0.03	30	6.32
808V003	van07000738	429204.0000	5703385.0000	42	15.00	6.0	0.36	42.2	0.06	1.5	0.38	0.02	8	20.03
808V004	van07000738	429303.7880	5703407.9199	39	16.71	6.2	0.34	42.3	0.05	1.6	0.34	0.02	9	19.23
808V005	van07000738	428723.0000	5704224.0000	47	16.67	8.1	0.29	51.9	0.06	3.6	0.42	0.03	7	27.97
808V006	van07000738	428904.0834	5704272.7774	44	17.89	8.2	0.31	53.3	0.05	0.6	0.42	0.03	9	29.15
808V007	van07000738	428672.0000	5704272.0000	55	18.05	6.5	0.29	53.2	0.08	3.1	0.42	0.04	9	20.13
808V008	van07000738	428792.2298	5704358.7561	64	17.55	10.2	0.49	51.1	0.13	1.5	0.44	0.03	15	22.92
808V009	van07000738	429575.1090	5703161.1596	143	37.17	14.9	3.04	84.0	0.35	1.5	0.61	0.06	99	47.42
808V010	van07000738	429680.2017	5703238.2362	139	27.33	11.4	4.40	56.8	0.13	11.3	0.53	0.05	40	46.24
808V011	van07000738	429729.0000	5703036.0000	242	19.21	12.0	6.60	54.9	0.22	1.1	0.60	<0.02	25	41.18
808V012	van07000738	429795.7438	5703094.0419	91	18.29	9.6	4.07	45.0	0.21	0.8	0.74	<0.02	26	33.85
808V013	van07000738	429786.0000	5702980.0000	87	18.83	10.7	3.40	49.1	0.18	1.1	0.47	0.03	28	35.93
808V014	van07000738	429814.0000	5702962.0000	76	11.17	6.9	1.94	46.1	0.18	1.3	0.50	<0.02	20	23.58
808V015	van07000738	429928.6399	5703048.7252	103	31.45	21.3	4.53	81.0	0.51	1.5	0.86	0.03	48	45.65
808V016	van07000738	430172.0000	5702586.0000	162	59.50	11.0	2.20	87.4	0.36	1.6	1.32	0.03	48	87.83
808V017	van07000738	430358.4602	5702443.1281	317	53.64	18.3	3.16	121.7	0.51	10.4	1.31	0.03	59	29.18
808V018	van07000738	430536.0000	5702346.0000	813	66.89	16.4	6.60	115.8	0.51	7.1	1.17	0.06	59	31.38
808V019	van07000738	430595.3849	5702324.3367	123	22.15	8.3	1.16	60.9	0.15	1.1	0.34	0.05	15	15.08

808V020	van07000738	430640.0000	5702257.0000	38	13.74	6.4	0.42	49.7	0.08	0.7	0.27	0.03	<5	15.17
808V021	van07000738	431488.4400	5701651.0100	801	101.80	25.0	3.64	158.0	0.84	79.4	0.72	0.07	38	27.82
808V022	van07000738	431621.0696	5701388.8048	219	35.97	11.2	1.28	102.1	0.42	3.6	0.66	0.04	17	19.06
808V023	van07000738	431758.1582	5701283.6361	50	15.54	3.3	0.67	150.5	0.96	0.6	0.26	0.03	7	11.05
808V024	van07000738	431960.0000	5701199.0000	50	14.00	2.7	0.55	100.6	0.62	0.5	0.26	0.02	<5	11.22
808V025	van07000738	432041.0000	5701025.0000	307	70.82	4.8	2.92	64.2	0.32	6.4	0.26	0.03	9	18.14
808V026	van07000738	431795.4588	5700903.1996	239	44.46	4.2	2.77	67.9	0.41	7.1	0.27	0.02	12	17.83
808V027	van07000738	431718.7535	5700868.4915	38	17.28	8.1	0.23	46.4	0.03	0.5	0.32	0.03	<5	34.00
808V028	van07000738	431754.0000	5700660.0000	29	16.02	7.2	0.22	46.0	0.03	<0.2	0.37	0.03	<5	28.80
808V029	van07000738	431405.0000	5701499.0000	375	101.10	6.7	1.69	56.2	0.22	85.8	0.23	0.02	12	26.09
808V030	van07000738	428176.0000	5705121.0000	133	35.17	9.8	0.54	63.2	0.13	1.3	0.48	0.04	44	47.87
808V031	van07000738	429538.5285	5703171.8504	40	12.50	3.8	0.66	41.2	0.07	1.7	0.25	0.03	14	11.54
808V032	van07000738	429504.5004	5703179.9467	113	32.41	2.5	0.89	70.7	0.07	1.0	0.25	0.02	19	7.40
808V033	van07000738	429353.3460	5703301.1270	122	24.65	10.0	0.95	64.8	0.18	1.2	0.40	0.05	33	30.20
808V034	van07000738	429241.1404	5703346.6657	47	18.83	6.7	0.22	54.7	0.07	1.2	0.39	0.03	13	22.93
808V035	van07000738	428547.0000	5704586.0000	232	35.66	6.0	1.31	75.0	0.10	1.3	0.51	0.03	33	75.03
808V036	van07000738	428520.0000	5704685.0000	363	51.06	7.9	1.54	62.8	0.25	2.2	0.51	0.06	49	52.85
808V037	van07000738	428443.0000	5704867.0000	170	57.18	12.8	1.50	64.2	0.25	2.5	0.56	0.05	44	47.40
808V038	van07000738	428581.0000	5704955.0000	205	43.49	20.8	1.65	70.6	0.25	3.6	0.87	0.05	50	65.05
808V039	van07000738	428610.3437	5705065.1800	126	22.61	7.5	0.46	128.7	0.16	1.1	0.33	0.03	27	38.87
808V040	van07000738	428566.0000	5705124.0000	39	11.22	5.1	0.26	43.7	0.06	0.8	0.17	0.03	13	14.98
808V041	van07000738	428627.0000	5705201.0000	270	38.72	20.3	0.77	120.7	1.12	1.7	0.41	0.05	33	32.73
808V042	van07000738	428651.1167	5705312.8736	51	13.46	7.9	0.40	47.3	0.11	0.9	0.24	0.03	16	16.17
808V043	van07000738	428735.0000	5705133.0000	73	13.93	11.0	0.38	226.4	0.08	0.9	0.26	0.02	10	20.22
808V044	van07000738	428754.2483	5705120.0938	76	17.47	8.3	0.52	90.6	0.11	0.6	0.27	0.03	18	23.95
808V046	van07000738	425111.3985	5708735.0748	38	9.39	6.7	0.15	47.3	0.04	2.4	0.27	<0.02	<5	29.27
808V047	van07000738	425265.0000	5708738.0000	38	10.41	7.4	0.14	43.9	0.04	0.9	0.22	<0.02	<5	32.30
808V048	van07000738	425137.0000	5708726.0000	35	8.24	5.4	0.14	47.3	0.04	1.4	0.33	<0.02	<5	26.17
808V049	van07000738	425839.0000	5708639.0000	21	3.54	1.4	0.07	29.9	0.03	1.6	0.20	<0.02	8	27.30
808V051	van07000738	426248.0000	5708467.0000	99	18.38	12.3	0.27	74.1	0.09	1.3	0.67	<0.02	17	40.59
808V052	van07000738	426581.0000	5708266.0000	42	11.88	8.5	0.14	39.5	0.04	0.2	0.23	<0.02	<5	28.56
808V053	van07000738	426975.7451	5708035.5137	41	8.48	6.9	0.10	55.9	0.04	0.7	0.34	<0.02	7	17.91
808V054	van07000738	427062.0000	5707974.0000	170	15.06	10.3	0.19	61.4	0.07	2.9	0.61	<0.02	17	25.68
808V055	van07000738	427394.5160	5707545.7925	79	19.44	11.2	0.22	59.4	0.05	8.7	0.53	0.03	13	23.82
808V056	van07000738	427687.0563	5707092.0388	80	23.69	7.3	0.31	60.4	0.04	1.4	0.43	0.02	17	30.32
808V057	van07000738	427713.9719	5707091.9188	62	29.50	9.6	0.48	70.0	0.07	0.9	0.36	<0.02	11	30.10

<b>808V058</b>	van07000738	427785.5635	5706767.2222	43	18.98	13.4	0.22	49.2	0.04	0.8	0.49	0.02	8	27.69
<b>808V059</b>	van07000738	427917.6035	5706302.7518	93	22.50	13.5	0.30	66.8	0.05	0.9	0.38	<0.02	10	26.19
<b>808V060</b>	van07000738	427977.0000	5705909.0000	141	19.21	7.9	0.17	61.4	0.17	1.8	0.34	0.04	18	21.01
<b>808V061</b>	van07000738	428391.2771	5704611.0263	141	32.38	6.5	1.26	53.8	0.17	1.2	0.36	0.04	26	41.29
<b>808V062</b>	van07000738	428139.3470	5705276.1689	54	14.93	9.1	0.33	50.5	0.08	1.0	0.32	0.03	9	25.60
<b>808V063</b>	van07000738	428101.6259	5705651.5172	78	21.48	13.7	0.31	67.6	0.09	1.2	0.46	0.03	14	33.18
<b>808V068</b>	van07000738	428066.0000	5705727.0000	48	14.76	9.8	0.28	40.7	0.05	0.9	0.27	0.03	9	21.98

**Pulp Duplicates:**

<b>808V015</b>	van07000738			103	31.45	21.3	4.53	81.0	0.51	1.5	0.86	0.03	48	45.65
<b>808V015r</b>	van07000738			104	30.58	20.3	4.33	79.7	0.52	1.1	0.80	0.03	47	44.07
<b>808V032</b>	van07000738			113	32.41	2.5	0.89	70.7	0.07	1.0	0.25	0.02	19	7.40
<b>808V032r</b>	van07000738			107	31.23	2.5	0.87	71.0	0.07	0.9	0.27	0.02	19	7.68
<b>808V043</b>	van07000738			73	13.93	11.0	0.38	226.4	0.08	0.9	0.26	0.02	10	20.22
<b>808V043r</b>	van07000738			74	14.87	11.3	0.38	232.5	0.09	1.0	0.28	0.03	13	21.24
<b>808V064</b>	van07000738			46	13.73	7.6	0.59	47.4	0.08	0.4	0.20	0.03	8	12.53
<b>808V064r</b>	van07000738			48	13.60	7.5	0.56	47.7	0.10	0.4	0.22	0.03	13	12.27

**Field Duplicates:**

<b>808V020</b>	van07000738			38	13.74	6.4	0.42	49.7	0.08	0.7	0.27	0.03	<5	15.17
<b>808V064</b>	van07000738			46	13.73	7.6	0.59	47.4	0.08	0.4	0.20	0.03	8	12.53
<b>808V040</b>	van07000738			39	11.22	5.1	0.26	43.7	0.06	0.8	0.17	0.03	13	14.98
<b>808V045</b>	van07000738			39	11.30	5.2	0.26	44.9	0.05	0.7	0.18	0.03	11	14.40
<b>808V068</b>	van07000738			48	14.76	9.8	0.28	40.7	0.05	0.9	0.27	0.03	9	21.98
<b>808V069</b>	van07000738			88	17.65	15.2	0.32	55.8	0.10	1.6	0.33	0.02	8	33.60

**Lab Standard:**

<b>STD DS7</b>	van07000738			827	69.41	48.0	6.02	414.4	6.66	79.9	21.49	4.21	199	109.20
<b>STD DS7</b>	van07000738			824	70.59	47.6	4.37	394.2	6.21	66.4	20.22	4.27	199	104.40
<b>STD DS7</b>	van07000738			834	65.08	52.7	5.95	392.3	6.44	81.1	21.27	4.29	185	101.60

**Lab Blanks:**

<b>BLK</b>	van07000738	<2	<0.01	<0.1	<0.02	<0.1	<0.01	<0.2	<0.01	<0.02	<5	<0.01
<b>BLK</b>	van07000738	<2	<0.01	<0.1	<0.02	<0.1	<0.01	<0.2	<0.01	<0.02	<5	<0.01
<b>BLK</b>	van07000738	<2	<0.01	<0.1	<0.02	<0.1	<0.01	<0.2	<0.01	<0.02	<5	<0.01

**Lab Blanks:**

<b>808V050</b>	van07000738	155	8.50	3.4	0.23	52.9	0.54	1.4	1.08	0.06	<5	33.81
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## 12.1 DATA VERIFICATION 2009

Quality Control (QC) The laboratory has inserted blank 'silt' samples at the start of each batch and also within the batch. These samples went through the same preparation and analysis as the regular samples. The analysis of the blanks shows no problems with contamination in the sample preparation.

Table 22: results of "metallics method"

Method	ME-SCR21 Au Total (+)(-) Combined	ME-SCR21 Ag Total (+)(-) Combined	ME-SCR21 Au (+) Fraction	ME-SCR21 Au (-) Fraction	ME- SCR21 Ag (+) Fraction	ME- SCR21 Ag (-) Fraction	Au- AA23/ *Au- GRA21	Ag-OG46
Analyte	ppm	Ppm	ppm	ppm	ppm	ppm	ppm	ppm
	0.05	5	0.05	0.05	5	5		
13052	<b>11.45</b>	<b>165</b>	27.3	7.58	113	177	<b>10.85*</b>	<b>181</b>
13060	<b>3.72</b>	<b>256</b>	19.15	2.37	164	264	<b>4.6</b>	<b>336</b>
13061	<b>5</b>	<b>661</b>	18.65	3.67	567	671	<b>6.38</b>	<b>866</b>
13067	<b>2.28</b>	<b>350</b>	3.46	2.18	240	359	<b>2.35</b>	<b>364</b>
13071	<b>9.92</b>	<b>1150</b>	57.1	6.82	1075	1150	<b>8.99</b>	<b>1130</b>
13075	<b>4.3</b>	<b>423</b>	3.78	4.36	321	433	<b>3.89</b>	<b>356</b>
13078	<b>19.7</b>	<b>1280</b>	136.5	8.99	946	1310	<b>22.3*</b>	<b>1310</b>

The laboratory also monitors precision by analyzing another sub-sample of -80 mesh sediments. This is done about one every 30 analyses. The results indicate the precision of the sample preparation and analysis. The data base is not large enough to measure the precision in a statistically rigorous manner.

Four samples were re-assayed using the metallics technique ME SCR 21 above. This was done as a precaution for the "nugget effect" as native silver was observed in hole # T-09 8. Gold was also done. The results showed very little difference and no nugget effect was observed.

## 13.0 MINERAL RESOURCE ESTIMATES

No estimate of Mineral Reserves or Resources which are compliant with NI-43-101 has been made for Waverley-Tangier Property.

## 14.0 ADJACENT PROPERTIES

There are no adjacent properties and therefore there are no comments under this heading.

## 15.0 INTERPRETATION AND CONCLUSIONS

The Waverley Property contains veins of high-grade silver, lead and zinc showings that are related to events similar to a carbonate replacement model. Replacement veins occur at structures and structural intersections within the stratigraphy. The veins are reported to be Stratabound.

## 15.1 The WAVERLEY Workings:

1. Has been subjected to deformation and shearing
2. Are related to a fault
3. Have some Stratabound component

The veins on the Waverley may have down dip and on strike extent. Drifting on the third level did not encounter any vein material as the tunnel did not extend to the down dip projection.

## 15.2 The TANGIER Workings:

### 15.2.1 Tangier Mineralization (from 2009 drilling)

Mineralization consists of honey-coloured sphalerite ( $ZnFeS$ ), jamesonite ( $Pb_4FeSb_6S_{14}$ ), stibnite ( $Sb_2S_3$ ) and native silver ( $Ag$ )<sup>2</sup> and is contained in a zone of quartz breccia footwall rocks and capped by a carbonaceous schist. The zone varies from 8.5 metres, in hole # 8 to 12.5 metres, in hole # 2. The entire mineralized section is contained in laminated limestones and calcareous phyllites.

<sup>2</sup> silver may also occur in jamesonite

1. May also be subject to deformation and shearing
2. Have some Stratabound component
3. Have replacement components

The vein on the Tangier Workings is situated in a more favorable location for further exploration. Drilling would not be difficult.

**These conclusions have met the objective of determining if the WAVERLEY is a Property of merit and may host an economic deposit.**

The 2007 geochemical survey was designed to test the possible extent of the Waverly and Tangier Workings. The preliminary results demonstrate there is potential along strike to the northwest of the main zone, although stream sampling may have limited the extent. More work is needed in this area.

### Note on sample density and uncertainties

Only a small area was sampled by the Author and the density was that random grabs over a 25m x 25 m area of the Tangier Dump. As discussed above in section 6.3.4 on sample bias there are uncertainties of sampling a mineralized dump. As several other qualified people sampled this same dump it is unlikely they sampled the same rocks. All data from this dump revealed similar results thus reducing bias and increasing the density.

The Author is satisfied that both silt and rock sampling done by Discovery is adequate and samples are representative. Uncertainties occur as this was a reconnaissance survey. An increase in sample density is recommended.

The Author is satisfied by the underground sampling that very little bias or uncertainty has occurred, but because of caving verification did not take place in the site visits.

The Author is satisfied that sampling of the core by both The Author and Norm Berg was done to proper standards.

## **16.0 OTHER RELEVANT DATA AND INFORMATION**

Any development project proposed for the WAVERLEY PROPERTY may face environmental hurdles.

Exploration work completed to date has been done in compliance with all relevant regulations that existed at the time that the work was done. To the best of my knowledge, there are no environmental liabilities known to exist on the property that can be attributed to the Company or that would become the Company's responsibility.

The "ore" dump on the TANGIER Workings is near a stream and minerals may be leaching and draining into the water. Part of the plan for a first phase is to remove this dump. Permitting for the next phase of work on the properties is not foreseen as likely to cause serious delays, as all of the planned work would involve physical disturbance of less than 10 hectares.

Further drilling will require minimum new roadwork. Any serious work may influence indigenous peoples who should be consulted. The WAVERLEY Property is in an area in British Columbia that is used for Heli-skiing, and any development should include discussions with the people involved. The southeastern part of the property borders Glacier National Park and permitting of any future development should consider this fact.

## **17.0 RECOMMENDATIONS**

A comprehensive 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. Existing maps should be scanned and digitized. A ground geophysics survey is also proposed.

This program should be completed before any consideration of underground verification of previous results take place.

1. Provisions should be made to gain better access to the property this would include continuing building the access road
2. All existing data should be re-located and plotted in the UTM coordinate system.
3. Detailed mapping and sampling should be done on the two mineralized zones.
4. The TANGIER Workings Dump should be removed or, at least, stock piled further away from the stream. A more detailed study is needed on this dump.
5. Ground geophysics is proposed for the TANGIER Workings area.
6. Ground follow-up of stream and rock geochemistry completed in 2007.
7. Drilling is to continue on the Tangier
8. Preparation can then be done to verify underground results.

## 18.0 COST ESTIMATES

Table 23: Phase I Mapping

### PRE -FIELD

Geologist time	7	1,000.00	\$7,000.00
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### GEOLOGIC MAPPING

Field supplies

Camp Costs

Geologist time	15	1,000.00	\$15,000.00
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Geologist time-assistant	15	450.00	\$6,750.00
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Vehicle operating expenses	3000	1.00	\$3,000.00
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Data compilation, map prep	10	300.00	\$3,000.00
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Travel

Total

### GEOCHEMISTRY

Assay rock samples	200	30.00	\$6,000.00
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Assay soil samples	30	30.00	\$900.00
Data plotting, evaluation	10	300.00	\$3,000.00
Geologist supervision	7	1,000.00	\$7,000.00
<b>GEOPHYSICS</b>			
Detail mag, EM, IP Drill area	25	6,000.00	\$150,000.00
	<b>Total Phase I</b>		\$201,650.00
	Contingencies		\$20,000.00
	<b>Grand Total Phase I</b>		<b>\$221,650.00</b>

Table 24: Phase II Drilling

Camp cost	25k
Drilling (5000m) @ \$100/m	500k
Fees and Misc.	50k
Rentals	20k
Sampling	20k
Roads	15k
Reclamation and Dump Removal	<u>50k</u>
<b>Total Phase II</b>	<b>\$670k</b>

## 19.0 REFERENCES

Barovic, I., 1987: Report on the Mineral Exploration and Mining of the Tangier – Waverley Project; Summary and Evaluation for Mandalla Resources Ltd.: The Placer Dome File, Victoria, British Columbia.

Gibson, G., and Hoy, T, 1985: Rift, A zinc-Lead Massive Sulphide Deposit in Southeastern British Columbia: Ministry of Energy, Mines and Petroleum Resources.

Hoy, Trygve, 1996: Irish-Type Carbonate-Hosted Zn-Pb, B.C. Geologic Survey: Reproduced on the Ministry of Energy & Mines Website:  
<http://www.em.gov.bc.ca/Mining/MetalicMinerals/mdp/Profiles/E13.htm>

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Murray, Wm. J. 2002: Summary- WAVERLEY~Mamouth~ Scout, Irish type carbonate-hosted Pb, Zn~ Poly-metallic veins Ag, Pb, Zn, Au: Compiled for Silver Phoenix Resources Inc.

The MapPlace 2005. and [www.mtonline.gov.bc.ca/](http://www.mtonline.gov.bc.ca/)

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## 20.0 DATE AND SIGNATURE PAGE

The effective date of this report is January 28, 2013

“Signed and sealed” at Vancouver  
James A. Turner, PGeo.

**James A. Turner, PGeo.**

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

Yours truly,

James A. Turner, PGeo.

Signed

James A. Turner, PGeo.  
14149-17A Avenue  
Surrey B.C.  
V4A 6R8



Dated at Surrey, B.C. on this  
January 28, 2013  
Reg. No. 19843 Association of  
Professional Engineers and Geoscientists of  
British Columbia.

## 21.0 CERTIFICATE OF QUALIFIED PERSON

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

#### DECLARATION

In regard to the report titled “TECHNICAL REPORT on the WAVERLEY-TANGIER Property (WAVERLEY Property), Revelstoke Mining Division, British Columbia, NTS 082N/5W. Geology, Mineralization and Potential, Property Evaluation Report” and dated January 28, 2013, I, James A. Turner, PGeo, 14149 17 A Avenue of South Surrey, British Columbia, hereby certify that:

1. 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.
2. 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.
3. 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.
4. From 1990 to March 1995, I subcontracted my services as an image analyst to MineQuest Exploration Associates Inc.
5. 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.
6. I am a registered member of the Professional Engineers and Geoscientists of British Columbia, (Registration #19843).
7. I am a former fellow of the Geological Association of Canada.
8. I am the sole Author of this report and take full responsibility of its contents, titled the WAVERLEY-TANGIER Property, (Waverley Property), Revelstoke Mining Division, British Columbia NTS 082N/5W and my compensation is strictly on a professional fee basis.

9. I am presently a Consulting Geologist and have been so since March 1989.
10. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
11. I have read National Instrument 43-101 and Form 43-101F1. This technical report has been prepared in compliance with those documents.
12. I have read the several reports and historic documents, and am familiar with the subject matter of the report.
13. To the best of my knowledge, information and belief, the technical report, dated January 28, 2013, contains all scientific and technical information that is required to be disclosed to make the report not misleading.
14. **I, in the company of William Murray and two helpers examined the WAVERLEY Property 1/2 day on August 23, 2012 and also examined certain exposures of rock on the present location of the claims.**
15. I have no interest, direct or indirect, in the WAVERLEY Property or the property ownerships, nor do I expect to receive such interest. I was **independent** of the issuer Silver Phoenix Resources Inc., when I examined the property and sampled certain exposures on the Tangier Workings “Dump”. I am also independent of the issuer as of the date (January 28, 2013) of this certificate, in accordance with of Section 1.4 of National Instrument 43-101 and Section 3.5 of its Companion Policy 43-101CP.

Yours truly,

James A. Turner, P. Geo.

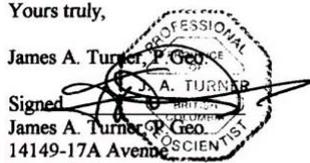
Signed

James A. Turner, P. Geo.

14149-17A Avenue

Surrey B.C.

V4A 6R8



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

**James A. Turner, P. Geo.** Author

14149-17 A Avenue

Surrey B.C.

V4A 6R8

Dated at Surrey, B.C. this 28<sup>th</sup> day of  
January, 2013.

Reg. No. 19843 Association of  
Professional Engineers and Geoscientists of British  
Columbia.



**Photo 1 Assay samples: Tangier Workings Dump**





**Photo 4:Tangier Dump**



**Photo 3 Waverley Workings –dark gray area**