

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

BC Geological Survey Assessment Report 37592



Assessment Report Title Page and Summary

C Geological Survey		Title Page and Summa
YPE OF REPORT [type of survey(s)]: Helicopter Magn	etometer & Electromagnetic Survey	TOTAL COST: 85,000.00
UTHOR(S): Slephen Balch	SIGNATURE(S):	Edalı
OTHER OF WORK PERMIT NUMBER(S)/DATE(S): May	27.28.29	YEAR OF WORK: 2018
TATEMENT OF WORK - CASH PAYMENTS EVENT NUME	ser(s)/date(s): 5698672	
ROPERTY NAME: Olivine Mountain		
LAIM NAME(S) (on which the work was done): 103811	0 Olivine East, 1031380 Olivine East, 1	035537,1031544 Hop 2,
056652 Hop East, 1031378 Olivine East, 10287	56 Olivine West, 1025818 Olivine Mou	ntain, 1041162 Olv Frac, 1051333,
038108 Olivine East, 1020626, 1020623, 105153	2 Tangelwood, 1032852, 1057916 Olivir	ne2,1057413 Olivine Ext,1051332
COMMODITIES SOUGHT: Nickel.Copper.Platinum,G	roup Elements (PGE)	
	092HSE141 092HSE095 092HNE20	11
INERAL INVENTORY MINFILE NUMBER(S), IF KNOWN.	0321102141,0321102000,0021111220	0.0001052
AINING DIVISION: Similkameen	NTS/BCGS: U92H04	10,U92H030
ATITUDE: 49 ° 29 '15 " LON	GITUDE: <u>-120</u> <u>50</u> <u>48</u> "	(at centre of work)
WNER(\$):) Platinum Belt Resources Inc.	2)	
AILING ADDRESS: 8899 Michael Drive		
Coldstream, B.C. V1V 2G1		
DPERATOR(S) [who paid for the work]:) Max Investments	2]	
MAILING ADDRESS: 3750 West 49th Ave.		
Vancouver, B.C. V6N 3TB		
PROPERTY GEOLOGY KEYWORDS (lithology, age, strat Early Jurassic Tulameen Ultramafic Complex, C	igraphy, structure, alteration, mineralization, onductive, pyrrhotite rich sulphides, nic	size and attitude): ckel copper,
and platinum, group elements (PGE)		
and plaunum, group cienterite (, e_,		

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 1566, 2526, 11888, 16661, 12506, 15434,

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres) Ground			
Magnetic 369.2		1038110,1031380,1035537,1031544,1056652,	85,000.00
Electromagnetic 369.2		1031378,1028756,1025818,1041162,1051333,	
Induced Polarization		1038108,1020626,1020623,1051532,1032852,	
Radiometric		1057916,1057413,1051332	
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for)			
Soll			•
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size) Core			
Non-core	+		
Sampling/assaving			
Petrographic			
Mineralographic			
Motellurgic			
PROSPECTING (scale, area)			
Line/arid (kilometres)			
Topographic/Photogrammetric			
Legal surveys (scale, area)			
Road, local access (kilometres)	'trail		
Trench (metres)			
Inderground day (matrice)			
Other			
Utner		TOTAL COST:	85,000.00

Geophysical Assessment Report

-- on the --

OLIVINE MOUNTAIN PROPERTY

Similkameen Mining Division, British Columbia

NTS: 92 H/046, 92 H/056

Latitude 49° 29' N, Longitude 120° 49' W

GPS 656,500 mE, 5,483,600 mN (NAD-83, UTM Zone 10N)

-- for --

Max Investments 3750 West 49th Ave Vancouver, B.C. V6N 3TB

-- covering claims --

1051332, 1057413, 1057901, 1032852, 1056651, 1057916, 1055924, 1020623, 1039299, 1031549, 1020626, 1051532, 1041162, 1038108, 1031546, 1051333, 1025818, 1028756, 1031378, 1056652, 1035537, 1038110, 1031380, 1031544, 1035143

-- prepared by --

Stephen Balch, P.Geo.

11500 Fifth Line Rockwood, ON, N0B 2K0

May 31, 2018

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1.0 INTRODUCTION

1.1 CONTRACTOR

Balch Exploration Consulting Inc. ("BECI", the "Contractor") having its head office at 11500 Fifth Line, Rockwood, Ontario, Canada, NOB 2K0, has performed a helicopter time domain electromagnetic (HTEM) and total magnetic field single sensor (MAG) survey.

1.2 CLIENT

Max Investments ("Max", the "Client") having its head office at 3750 West 49th Ave, Vancouver, B.C., V6N 3TB, is a mineral exploration company with mineral claims west of Princeton, B.C., known as the Olivine Mountain prospect.

1.3 SURVEY OBJECTIVES

The survey covers an area of historic gold, platinum, nickel and copper mineralization within an ultramafic unit. The main objective is to map the host rock ultramafics and identify conductive pyrrhotite-rich sulphide that could contain economic concentrations of nickel (Ni), copper (Cu) and platinum group elements (PGE).

2.0 SURVEY AREA

2.1 LOCATION AND ACCESS

The survey area is located within NTS topographic sheets 92 H/046 and 92 H/056 (1:20,000 scale) UTM Zone 10N. Access to the property is via Highway 5 from the west (Hope, B.C.) and southward on local logging roads or via Coalmont or Tulameen from the east (Princeton, B.C.) (Figure 1).

Direct access is by local logging roads.





Figure 1 - Location map of the Olivine Mountain survey showing flight lines.

2.2 INFRASTRUCTURE

Within the Olivine Mountain claims there is no mine infrastructure. There are several logging roads that provide access to the property from the closet town (Tulameen) to Princeton to the east and Hope to the west. There is no power to the property.

2.3 CLIMATE

The area is designated Central Interior with dry summers and cold winters. The coldest month is January with historical temperatures ranging from -3° to -12° C. The warmest month is July with average daily temperatures reaching 27° C throughout the month.

Winter precipitation is variable with up to 40 cm of snow in a day possible from December to March. Summers are dry with little precipitation.

2.4 TOPOGRAPHY

The general trend in topography is east-west which represents the main drainage pattern. Variation in elevation ranges from a low of 1,270 m near the northern claim limit to a high of 1,740 m at the southern claim limit. Topographic trend is toward the north-northeast.

2.5 MINERAL AND MINING CLAIMS

The mining claims within the survey area are shown in Figure 2.

OLIVINE MOUNTAIN MINERAL CLAIMS



Figure 2 - Map of claim outlines over SRTM topography.

2.6 FLIGHT AND TIE LINES

The survey was flown in one block with flight and tie line specifications summarized in Table 1. Figure 3 shows the survey lines superimposed over the mineral claims. The lines were clipped to the survey boundary post-flight from the Geosoft database.

2.7 DATUM AND PROJECTION

The survey was flown in the WGS-84 Datum, UTM Zone 10N projection. The database, digital maps, printed maps and coordinate references within this report are all WGS-84, Zone 10N unless otherwise noted.



OLIVINE MOUNTAIN IDEAL FLIGHT LINES

Figure 3 - Flight and tie lines over the Olivine Mountain claims.

Survey Block	Area (km²)	Line Type	Planned No. of Lines	Line Spacing (m)	Line Orientation	Nominal Survey Height (m)	Total Planned (km)	Total Actual (km)
Olivine 16.8		Survey	74	50	088°/268°	40	336.4	345.5
	16.8	Tie	6	1000	358°/182°	45	20.4	23.7
		Total	80				356.8	369.2

Table 1 - Summary of flight and tie line specifications.

2.8 REGIONAL GEOLOGY

The area was mapped regionally and published in 1960 (Rice, Map 888a). The predominant formations are granite-granodiorites (Cretaceous and Tertiary Intrusives) and granite-quartz diorite porphyry (Coast Intrusives). Locally, Nicola Group meta-volcanics and sediments are present.

Fault-shearing and fracturing (due to intrusive activity) is common. The trends strike northwest to northeast and dip generally to the east. Chlorite and argillic alteration have accompanied the structural movements and are thought to be the source of the mineralization including copper, gold, silver and molybdenum.

Figure 4 shows the regional geology based on the digital geology map of British Columbia – Tile NM10 Southwest B.C. (N.W.D. Massey, D.G. MacIntyre, P.J. Desjardins and R.T. Cooney, 2005).



Figure 4 - Regional geology map showing dioritic intrusives (dr), ultramafics (um) and lower grade metamorphic rocks (ml).

2.9 LOCAL GEOLOGY

The area has not been mapped in detail on a local scale.

3.0 SURVEY SYSTEM

The survey system includes a total field magnetometer located at the end of a boom and fixed to the helicopter. A spectrometer, located inside the helicopter cabin, is used to measure naturally occurring radioactive elements such as potassium, uranium and thorium. In addition to the magnetometer and spectrometer other ancillary equipment is required to properly locate the helicopter and its distance above ground. The survey system is described below in more detail.

3.1 ELECTROMAGNETIC SYSTEM

The system used was developed by Triumph Instruments (Triumph) and is known as AirTEMTM, a helicopter time domain electromagnetic (HTEM) system that is designed for mineral exploration, oil & gas exploration and geologic mapping (Figure 5). AirTEMTM is based on the concept of a concentric transmitter and receiver geometry originally developed by Aerodat Limited in 1984 under the direction of Wally Boyko.

The Triumph Instruments AirTEMTM (TS-150) system features an 8.5 m diameter transmitter weighing approximately 500 Kg and producing up to 150,000 Am^2 in transmitted power. The system records the full waveform and "X", "Y" and "Z" coil measurements for improved interpretation of complex conductor responses. Measurements of the total magnetic field are also provided and optional radiometrics is available.

. Features

- Rigid concentric geometry
- Full waveform recording
- Software selectable base frequency
- Software selectable on-time period
- dB/dt and B-field profiles
- Total magnetic field

Advantages

- Excellent early off-time response
- Excellent performance in rugged terrain
- Direct drilling of targets is possible
- Improved nomogram correlation
- Interpretation/modeling software readily available



Figure 5 - The AirTEM system (background) with magnetometer bird (foreground).

3.2 SYSTEM WAVEFORM

The AirTEM system uses a bipolar linear triangular pulse as shown in Figure 6. The on-time pulse is 33% of the half-cycle. The up-going and down-going portions of the pulse are 95% symmetric with the down-going pulse being slightly shorter in time duration.



Figure 6 - The transmitter full cycle waveform is bi-polar and triangular with 95% on-time linearity.

3.3 BASE FREQUENCY

This survey was flown using a 90 Hz base frequency. At this frequency the bi-polar waveform produces half-cycles 180 times per second. The total half cycle period is the inverse of 180 Hz or 5,556 μ s. For a one third duty cycle the on-time pulse is 1,850 μ s in duration and the off-time pulse is 3,704 μ s.

The data is stacked to a 10 Hz output sample rate. Each stack is the average of 18 half-cycles, 9 positive and 9 negative cycles. The negative half-cycles are rectified before being added to the positive cycles. The rectified and stacked half-cycles are stored at the 10 Hz sample rate.

The half-cycle is sampled at 105 kHz or one sample every 9.48 µs producing 580 half-cycle samples, 193 during the transmitter on-time and 387 during the off-time. During the on-time there are 99 up-going samples and 94 down-going samples.

3.4 TIME CHANNELS

The time channels are defined on a logarithmic scale starting at channel 10. Channels 1 through 9 are linearly spaced, have a 5 μ s width and start 10 μ s after the end of the on-time pulse. For a 90 Hz base frequency there are 41 off-time channels.

<u>Channel</u>	Start time (ms)	<u>Channel</u>	Start time (ms)
1	0.0100	26	0.4199
2	0.0150	27	0.4810
3	0.0200	28	0.5512
4	0.0250	29	0.6320
5	0.0300	30	0.7249
6	0.0350	31	0.8317
7	0.0400	32	0.9545
8	0.0450	33	1.0957
9	0.0500	34	1.2581
10	0.0557	35	1.4448
11	0.0622	36	1.6595
12	0.0698	37	1.9063
13	0.0784	38	2.1901
14	0.0884	39	2.5164
15	0.0998	40	2.8916
16	0.1130	41	3.3230
17	0.1281	42	3.8190
18	0.1455	43	4.3893
19	0.1655	44	5.0451
20	0.1885	45	5.7992
21	0.2150	46	6.6662
22	0.2454	47	7.6631
23	0.2803	48	8.8093
24	0.3205	49	10.1273
25	0.3667	50	11.6427

 Table 2 - Time channels for the TS-150.

3.5 MAGNETOMETER SYSTEM

The airborne magnetometer system consists of the housing, the sensor and control module and Larmour frequency counter. The counter output rate is 10 Hz in digital RS 232 format. Power is provided to the sensor electronics via a 28 VDC power cable from the Triumph data system to the magnetometer housing. The larmour frequency is transmitted to the frequency counter via coaxial cable to the front of the magnetometer housing. The frequency is counted and converted to total magnetic field.

3.6 MAGNETOMETER SENSOR

The magnetometer sensor is a model CS-3 made by Scintrex Limited. It is an optical split-beam cesium magnetometer and consists of a sensor head with a 3-m cable connected to a sensor driver. The output of the sensor driver is a larmour frequency which is linearly proportional to the earth's magnetic field. The CS-3 is shown in Figure 7 and the sensor specifications are given in Table 3.

Operating Principal	Self-oscillation split-beam Cesium Vapor (non-
	radioactive Cs-133)



Figure 7 - The Scintrex CS-3 sensor with cable and driver electronics.

3.7 LARMOUR COUNTER

The larmour frequency is input into a frequency counter made by Triumph Instruments. The counter can convert the magnetic field to a theoretical accuracy of 0.2 pT. The output of the frequency counter is a digital value of the magnetic field with \pm 0.001 nT resolution. This value is transmitted from the frequency counter along the tow cable as an ASCII string using the RS 232 format.

3.8 SENSOR HOUSING

The magnetometer sensor housing is made from a thin-wall fiberglass tube. Within the housing a two-axis gimbal holds the sensor and can be rotated in both the horizontal and vertical plane. The sensor was set to the point 45° degrees forward with a 25° azimuth for this survey. The housing contains the sensor driver electronics and the larmour frequency is connected to the data console via coaxial cable.

3.9 BASE STATION MAGNETOMETER

A GSM-19 base station magnetometer (manufactured by Gem Systems and shown in Figure 8) is used to record variations in the earth's magnetic field and referenced into the master database using a GPS UTC time stamp. This system is based on the Overhauser principle and records the total magnetic field to within \pm 0.02 nT at a one (1) second time interval. The base station unit is used for the diurnal corrections. The GSM-19 specifications are summarized in Table 5.

Operating Range	15,000 to 105,000 nT
Gradient Tolerance	40,000 nT/meter
Operating Zones	10° to 85° and 95° to 170°
Hemisphere Switching	a) Automatic b) Control voltage c) Manual
Sensitivity	0.0006 nT √Hz rms
Noise Envelope	Typically, 0.002 nT P-P, 0.1 to 1 Hz bandwidth
Heading Error	+/- 0.25 nT (inside the optical axis to the field direction angle range 15° to 75° and 105° to 165°)
Absolute Accuracy	<2.5 nT throughout range
Output	 a) Continuous Larmor frequency proportional to the magnetic field (3.49857 Hz/nT) sine wave signal amplitude modulated on the power supply voltage b) Square wave signal at the I/O connector, TTL/CMOS compatible
Information Bandwidth	Only limited by the magnetometer processor used
Sensor Head	Diameter: 63 mm (2.5") Length: 160 mm (6.3") Weight: 1.15 kg (2.6 lb)
Sensor Electronics	Diameter: 63 mm (2.5") Length: 350 mm (13.8") Weight: 1.5 kg (3.3 lb)
Cable, Sensor to Sensor Electronics	3 m (9' 8"), lengths up to 5 m (16' 4") available
Operating Temperature	-40°C to +50°C
Humidity	Up to 100%, splash proof
Supply Power	24 to 35 Volts DC
Supply Current	Approx. 1.5 A at start up, decreasing to 0.5 A at 20°C
Power Up Time	Less than 15 minutes at -30°C

 Table 3 - Scintrex CS-3 specifications.



Figure 8 - The GEM base station magnetometer.

Configuration Options	Set to Base station mode
Cycle Time	1.0 sec
Environmental	-40°C to +60°C
Gradient Tolerance	7,000 nT/m
Magnetic Readings	299,593
Operating Range	10,000 to 120,000 nT
Power	12 V @ 0.62 A
Sensitivity	0.1 nT @ 1 sec
Weight (Console/Sensor)	3.2 Kg
Integrated GPS	Yes

 Table 4 - GSM-19 base station specifications.

3.10 NAVIGATION

Navigation is provided by the AGNAV system with a video panel (Figure 9) located in front of the pilot on the helicopter dash board. The navigation display provides for tracking and flight height. The specifications of the navigation GPS system are summarized in Table 6.



Figure 9 - Navigation screen from AGNAV.

3.11 RADAR ALTIMETER

The radar altimeter was fixed to the skids of the helicopter and separated roughly 40". The unit outputs an analog signal which is digitized by a Triumph 16-bit in-line converter at 10 Hz, attached to the signal cable. This data is transferred to the Triumph data system for storage. The specifications of the radar altimeter are summarized in Table 7. The altimeter measures the distance between the helicopter and the ground and is used to calculate the digital terrain model (DTM).

	Receiver Type	L1, C/A code, with carrier phase smoothing (Patented COAST technology during differential signal outage		
	Channels	12-channel, parallel tracking (10-channel when tracking SBAS)		
	Update Rate	Up to 20 Hz position		
GPS Sensor	Cold Start Time	<60 s		
	SBAS Tracking	2-channel, parallel tracking		
	Horizontal Accuracy	<0.02 m 95% confidence (RTK 1, 2) <0.28 m 95% confidence (L-Dif 1, 2) <0.6 m 95% confidence (DGPS 1,3) <2.5 m 95% confidence (autonomous, no SA1)		
	Differential Options	SBAS, Autonomous, External RTCM, RTK, OmniSTAR (HP/XP)		
Beacon Sensor	Channels	2-channel, parallel tracking		
Specifications	Frequency Range	283.5 to 325 kHz		
	MSK Bit Rates	50, 100, and 200 bps		
	Channels	Single channel		
L-Band Sensor	Frequency Range	1530 MHz to 1560 MHz		
	Satellite Selection	Manual or Automatic (based on location)		
	Startup Time	15 seconds typical		
	Serial Ports	2 full duplex RS232C		
	Baud Rates	4800 – 115200		
	USB Ports			
Communications	Correction I/O Protocol			
	Timing Output	1 PPS (HCMOS, active high, rising edge sync, 10 kΩ, 10 pF load)		
	Raw Data	Proprietary binary (RINEX utility available)		
	Operating Temperature	-30°C to +70°C		
Environmental	Storage Temperature	-40°C to +85°C		
	Humidity	95% non-condensing		
	Input Voltage Range	8 to 36 VDC		
Power	Power Consumption	3 Watts		
GPS Sensor	Current Consumption	< 250 mA @ 12 VDC		
	Antenna Voltage Output	5.0 VDC		

Table !	5 -	Navigation	/ GPS	specifications.
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Accuracy	+/- 1 m on 1x1 m ² diffuse target with 50% reflectivity, up to 700 m		
Resolution	0.2 m		
Communication Protocol	RS232-8,N,1 (8 data bits, one stop bit, no parity)		
Baud Rate	9,600		
Over-sampling	~200 Hz		
Data Calibrated Range	~10 Hz		
Calibrated Range Units	Feet		
Power	7-9 VDC conditioned required, current draw at full power (~ 1.8 W)		
Dimensions	32 x 78 x 84 mm		
Weight	< 500 g (16 oz)		
Casing	Tx-Rx encased in plastic. T-4000 metal. R40 metal.		

Table	6 -	Specifications	for	radar	altimeter.
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3.12 HELICOPTER

The helicopter is a Bell 407 with registration number C-FVLY owned and operated by Valley Helicopters of Hope, British Columbia (see Figure 10).



Figure 10 - A Bell 407, C-FVLY, was used for the survey.

3.13 PERSONNEL

The following personal participated in the survey (see Table 7 below):

Crew Member	Position
Dan Robertson	Helicopter survey pilot
Dan LeBlanc	System Operator
Daryn Berry	Helicopter mechanic, fuel
Stephen Balch, B.Sc., P.Geo.	Geophysicist, processor, report
Christopher Balch	GIS maps and images

Table 7 - List of survey personnel.

4.0 DATA ACQUISITION

4.1 HARDWARE

Data was collected through the Triumph Instruments. This system accepts digital input such as the laser altimeter and GPS data and the larmour frequency which is counted and converted to a digital value in nanoteslas (nT). The specifications for the AGIS are summarized in Table 9. The EM console is shown in Figure 11.



Figure 11 - The Triumph TD-2400 EM console.

Functions	The EM console contains a high voltage supply that powers the transmitter wire (up to 448 VDC at 4 A). The console also contains a 24-bit A/D convertor that operates at 105 kHz.		
Display	The EM console contains a small display showing the current fiducial, base frequency and duty cycle.		
GPS Navigation	DGPS, Garmin 19x		
Data Sampling	10 Hz		
Storage	0.5 TB		
Power Requirements	24 to 32 VDC		
Temperature	Operating: -10°C to +55°C; storage: -20°C to +70°C		

 Table 8 - Specifications for the Triumph TD-2400 system.

4.2 SOFTWARE

The Triumph acquisition system (AirDAS) provides for data acquisition and storage. The data is stored in a column by row ASCII format on a rugged laptop computer. Post processing is provided by the Triumph processing package AirPRO. Both programs are summarized in Table 10.

AirDAS software	Acquisition software that controls the EM console. Data display and storage.			
AirPRO software	Processing software that reads the AirDAS data files and performs functions such as primary field removal, line leveling and filtering.			

 Table 9 - Specifications for AirDAS and AirPRO software.

4.3 CALENDAR

Data was acquired over a 3-day period (Table 11) with one day lost to weather (strong winds).

Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
May 25/18	May 26/18	May 27/18	May 28/18	May 29/18	May 30/18	May 31/18
mob	Install	35.6 l-km	standby	333.6 l-km	De-install	demob

Table 10 - Time Schedule for survey.

4.4 COST OF WORK STATEMENT

			Units	Rate	Total
Field					
	Mob/Demob				\$ 17,160.00
	Production		369.2	\$100 / km	\$ 36,920.00
	Fuel / Positioning		7 days	\$1600/day	\$ 11,200.00
	Operator		7 days	\$400/day	\$ 2,800.00
	Processor		7 days	\$400/day	\$ 2,800.00
	Hotel	4 people	7 days	\$115/day	\$ 3,220.00
	Food & Accom	4 people	7 days	\$75/day	\$ 2,100.00
Office					
	Initial consulting		1 day	\$800/day	\$ 800.00
	post processing		5 days	\$500/day	\$ 2,500.00
	Maps & GIS		3 days	\$600/day	\$ 1,500.00
	Report		5 days	\$800/day	\$ 4,000.00
					\$ 85,000.00

 Table 11 - Cost of work statement.

5.0 DATA PROCESSING

Preliminary data processing is performed using BECI proprietary software. For the HTEM data this includes primary field removal, conversion from samples to time channels, line leveling and filtering. For the MAG data this includes magnetic compensation, and the determination of heading error. Diurnal corrections (due to variations in the Earth's natural magnetic field) are made in Geosoft. Calculation of the vertical magnetic gradient, analytic signal, digital terrain model, bird height, and merging of the base station magnetic data (sampled at 1.0 sec) with the survey data (sampled at 0.1 sec) are performed in Geosoft.

5.1 NAVIGATION

The helicopter pilot uses "ideal" flight lines as guidance during surveying as displayed on the real-time AGNAV navigation system with the aid of a helicopter mounted GPS. A separate GPS mounted to the HTEM airframe is used to record actual position. The sample rate of the GPS is 10 Hz, the same as the EM, MAG and ancillary data collected in flight.

The GPS unit outputs both latitude, longitude and easting, northing values, all in the WGS-84 Datum,

using a UTM Projection. The positional data is not filtered but occasional bad data points are interpolated using a linear algorithm.

5.2 TERRAIN CLEARANCE

The radar altimeter is located under the base of the helicopter on the skid tubes. The helicopter mounted altimeter is used by the pilot to maintain terrain clearance. A digital indicator is mounted on the dashboard of the helicopter. This installation is approved by a licensed helicopter engineer. The typical range of the altimeter is 40 ft to 2,500 ft with an approximate 1% accuracy (3 ft).

5.3 MAGNETOMETRIC PROCESSING

The magnetometer requires compensation for the EM primary field because the sensor samples for the entire 0.1 sec time-period. This compensation is carried out in the AirPRO software.

5.4 ELECTROMAGNETIC PROCESSING

The EM data is processed using BECI proprietary software designed to compensate, filter and level both the off-time and on-time data.

The first step in processing is to determine the transmitter shut-off time and align the time gates to this position. The length of time that the transmitter is on is known as the on-time. The time gates are logarithmically spaced in the off-time and linearly spaced in the on-time.

The second processing step is the calculation of the system background transient. This is done at a suitable flight height, nominally 1,000 feet or higher. During this time EM data is collected for a period of 50 seconds and averaged into a single background transient. This is subtracted from the transients recorded on line.

The third step is to assign the flight line numbers to each data point so that the flight can be separated into flight lines within Geosoft.

Line-leveling and drift-correction are achieved on a flight by flight basis using the background transients, recorded at the start and end of each flight.

Filtering the data involves a two-step process. Spikes are removed using an algorithm based on the Naudy non-linear filtering algorithm. This is followed by a 61-point Hanning filter that has the effect of smoothing the profiles over an equivalent distance of approximating twice the nominal flight height.

Micro-leveling of the late time channels is also performed before the data file is written to disk. Conductor picks and Tau time constants are determined at this point as well.

6.0 RESULTS

6.1 PREVIOUS EXPLORATION

The information contained in this section was derived from assessment reports provided by J Kerr. The area around Tulameen River has a long history for gold exploration dating back to 1885 when coarse gold grains were discovered along Granite Creek. Platinum, associated with the gold, was also recovered with some nuggets as large as 0.5 ounces.

Geological investigations dating back to 1902 focused on the relationship between platinum and gold. Several studies were conducted over the years. Nixon (1989) traced the origin of platinum to chromite horizons within the dunite-rich core of the Tulameen ultramafic complex (TUC). But poor access to the TUC limited exploration for economic minerals south of the Tulameen River where most of the TUC is located.

Despite the access problem, Fort Reliance Minerals Limited, discovered copper mineralization in the 1960's and trenched mineralization grading over 1% Cu for widths up to 6 m.

Exploration programs in 1987 and 1989 by Allen and Brownlee identified VLF-EM-16 conductors and magnetic trends associated with copper and nickel mineralization with elevated platinum, palladium and chromite (consistent with Cu-Ni-PGE mineralization).

6.2 CURRENT EXPLORATION

In the current survey, measurements were made of the electromagnetic field and total magnetic intensity from which the inline gradient was calculated. With this new data, the magnetic intensity has identified a magnetic trend with an associated conductive response that extends for approximately 725 m.

Figure 12 shows the total magnetic intensity with conductor picks for the Olivine Mountain survey. The trend strikes northwest and cross-cuts the local topography (suggesting it is bedrock and not overburden related). The trend is centered at 656,356 mE and 5,483,340 mN.

Figure 13 shows the conductor trend plotted on the horizontal magnetic gradient where it occurs at a cross-over, parallel to geologic strike.

Figure 14 shows the early "z"-axis off-time as a colour image. The magenta colour represents elevated early off-time response. The main conductor trend is clearly visible. There are other trends as well, but they are poorly developed.

OLIVINE MOUNTAIN CONDUCTOR PICKS ON TMI



Figure 12 - Total Magnetic Intensity over Olivine Mountain showing conductor picks (white arrow).

Figure 15 shows the best developed profile for the anomalous trend mentioned above, which occurs on flight line L-500. The early time peak reaches an amplitude of 650 nT/s but the response has decayed to below the system noise level (+/- 10 nT/s) by channel 16.

Figure 16 shows the decay profile for flight line L-500 over the center of the anomaly. The profile response has decayed to 1/e of its initial amplitude by the eighth time channel, giving the anomaly a time constant of approximately 45 μ s. This is a very rapid decay.

Figure 17 shows the digital terrain model derived from the GPS elevation and radar altimeter output. The conductor trend does not appear in a valley, further suggesting it is within the bedrock. There are other minor conductor responses, but these are thought to represent variations in overburden thickness and are not of exploration interest.

The main conductor trend does not show a strong late-time response. The origin of the response could be alteration of an ultramafic host rock that could contain nickel and copper mineralization.

OLIVINE MOUNTAIN HORIZONTAL MAGNETIC GRADIENT



Figure 13 - Horizontal magnetic gradient over Olivine Mountain.

OLIVINE MOUNTAIN EARLY EM OFF-TIME



Figure 14 - Early EM off-time (ZOFF1).



Figure 15 - EM profiles over main conductor trend for L-500.



Figure 16 - Decay profile over the L-500 conductor.

OLIVINE MOUNTAIN DIGITAL TERRAIN MODEL



Figure 17 - Digital terrain model for Olivine Mountain.

7.0 QUALIFICATIONS

I, Stephen Balch, do hereby claim the following to be true:

- 1. I am a professional geoscientist (P.Geo.) in good standing, registered with the Association of Geoscientists of Ontario (#2250);
- 2. I am a graduate of the University of Western Ontario with a degree in Honors Geophysics (B.Sc., 1985);
- 3. I am a practicing exploration geophysicist with more than 30 years experience;
- 4. I reside at 11500 Fifth Line, Rockwood, Ontario, N0B 2K0;
- 5. I have no direct interest in the Olivine Mountain prospect or in Max Investments;
- 6. The contents of this report are my own and are the result of my review of the historic data and the recently completed airborne survey summarized in this report.

Dated at Rockwood, Ontario this the 31st of May 2018.

Hol

Stephen Balch, P.Geo. President Balch Exploration Consulting Inc.

<u>Appendix A</u>

Outline of Survey Polygon

Polygon corners are given in meters easting and northing, WGS-84, ZONE 10N

Easting (m)	Northing (m)
659,301	5,482,140
654,300	5,481,980
654,209	5,485,672
659,181	5,485,846
659,214	5,484,893
657,402	5,484,833
657,424	5,483,915
659,247	5,483,970
659,264	5,483,098