| BRITISH<br>COLUMBIA<br>The Best Place on Earth   |  | T COLORED T                                 |
|--|--|---|
| Ministry of Energy, Mines & Petroleum Resources<br>Mining & Minerals Division<br>BC Geological Survey  |  | Assessment Report<br>Title Page and Summary |
| TYPE OF REPORT [type of survey(s)]: Airborne Magnetic  | тот  | al cost: \$6,827.21                         |
| AUTHOR(S): Walcott, A. Walcott, P  | SIGNATURE(S): digital                                      |   |
| NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): Sept 4th-8th  |  | YEAR OF WORK: 2017                          |
| STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DAT  | E(S): <u>5665109</u>                                       |   |
| PROPERTY NAME: Frog North  |  |   |
| CLAIM NAME(S) (on which the work was done): 1038628  |  |   |
| COMMODITIES SOUGHT: Copper, Gold Silver<br>MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 094L014<br>MINING DIVISION: Liard<br>LATITUDE: 58.021 ° ' LONGITUDE: 12<br>OWNER(S):<br>1) Charles Greig, Lorne Warren, Alex Walcott | NTS/BCGS: <u>094L03</u><br>27.15 <sup>°</sup> ' " (at cent | tre of work)                                |
| MAILING ADDRESS:<br>38-181 Ravine Dr, Port Moody, V3H 4T3  |  |   |
| OPERATOR(S) [who paid for the work]:<br>1) as above  | 2)   |   |
| MAILING ADDRESS:<br>as above   |  |   |
| PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, strue   | cture, alteration, mineralization, size and a              | ittitude):                                  |
|  |  |   |
|  |  |   |

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 1674, 30681,30934, 33391

| TYPE OF WORK IN<br>THIS REPORT                    | EXTENT OF WORK<br>(IN METRIC UNITS) | ON WHICH CLAIMS | PROJECT COSTS<br>APPORTIONED<br>(incl. support) |
|---|-------------------------------------|-----------------|---|
| GEOLOGICAL (scale, area)                          |                                     |                 |   |
| Ground, mapping                                   |                                     |                 |   |
| Photo interpretation                              |                                     |                 |   |
| GEOPHYSICAL (line-kilometres)                     |                                     |                 |   |
| Ground  |                                     |                 |   |
|   |                                     | -               |   |
|   |                                     |                 |   |
| Induced Polarization                              |                                     | -               |   |
| Radiometric                                       |                                     | -               |   |
| Seismic   |                                     |                 |   |
| Other   |                                     | _               |   |
| Airborne 71                                       |                                     | 1038628         | \$6,642.89                                      |
| GEOCHEMICAL<br>(number of samples analysed for)   |                                     |                 |   |
| Soil  |                                     | -               |   |
| Silt  |                                     |                 |   |
| Rock  |                                     | _               |   |
| Other   |                                     |                 |   |
| DRILLING<br>(total metres; number of holes, size) |                                     |                 |   |
| Core  |                                     |                 |   |
| Non-core  |                                     | _               |   |
| RELATED TECHNICAL                                 |                                     |                 |   |
| Sampling/assaying                                 |                                     |                 |   |
|   |                                     |                 |   |
| Mineralographic                                   |                                     |                 |   |
| Metallurgic                                       |                                     |                 |   |
| PROSPECTING (scale, area)                         |                                     |                 |   |
| PREPARATORY / PHYSICAL                            |                                     |                 |   |
| Line/grid (kilometres)                            |                                     |                 |   |
| Topographic/Photogrammetric (scale, area)         |                                     |                 |   |
| Legal surveys (scale, area)                       |                                     |                 |   |
| Road, local access (kilometres)/t                 |                                     |                 |   |
| Trench (metres)                                   |                                     |                 |   |
| Underground dev. (metres)                         |                                     |                 |   |
|   |                                     |                 |   |
|   |                                     | TOTAL COST:     | \$6,642.89                                      |
|   |                                     |                 |   |

## EVENT #5665109 & 5665111

## AN ASSESSMENT REPORT

### ON

## AIRBORNE MAGNETIC SURVEYING

## FROG NORTH & FROG SOUTH PROPERTIES TOODOGGONE AREA, BRITISH COLUMBIA

LIARD M.D. 57° 58.9 'N, 127° 12.2'W NTS 93E/ 14 & 94L/03

Claims: 1038654 & 1038628

Work Dates: September 4<sup>th</sup> – 8<sup>th</sup>, 2017

## FOR

## Charles Greig, Lorne Warren, Alex Walcott BRITISH COLUMBIA

BY

## ALEX WALCOTT, B. Sc. PETER E. WALCOTT, P. Eng.

PETER E. WALCOTT & ASSOCIATES LIMITED Coquitlam, British Columbia

**APRIL 2018** 

## **TABLE OF CONTENTS**

## Page

|  | 2  |
|--|----|
| INTRODUCTION                           |    |
| PROPERTY, LOCATION AND ACCESS          | 4  |
| PREVIOUS WORK                          | 7  |
| PROPERTY GEOLOGY                       |    |
| PURPOSE                                | 10 |
| SURVEY SPECIFICATIONS                  | 11 |
| DATA PROCESSING AND PRESENTATION       | 14 |
| DISCUSSION OF RESULTS                  | 15 |
| SUMMARY, CONCLUSIONS & RECOMMENDATIONS | 18 |

# APPENDIX I

Cost of Project Personnel Employed on Survey Certification References

## **ACCOMPANYING MAPS**

| Claim & Line Location Map<br>Frog North & Frog South              | Scale 1:10,000  |
|---|-----------------|
| Contours of Total Field Intensity (nT)<br>Frog North & Frog South | Scale 1: 10,000 |
| Frog South & Frog North   |                 |

# **INTRODUCTION.**

Between September 4<sup>th</sup> and 8<sup>th</sup>, 2017, Peter E. Walcott & Associates Limited undertook a heli-borne magnetic survey over the Frog North and Frog South properties for Charles Greig, Lorne Warren, Alex Walcott

The survey consisted of 135 line kilometers of detailed airborne magnetics flown with a nominal line spacing over two Blocks.

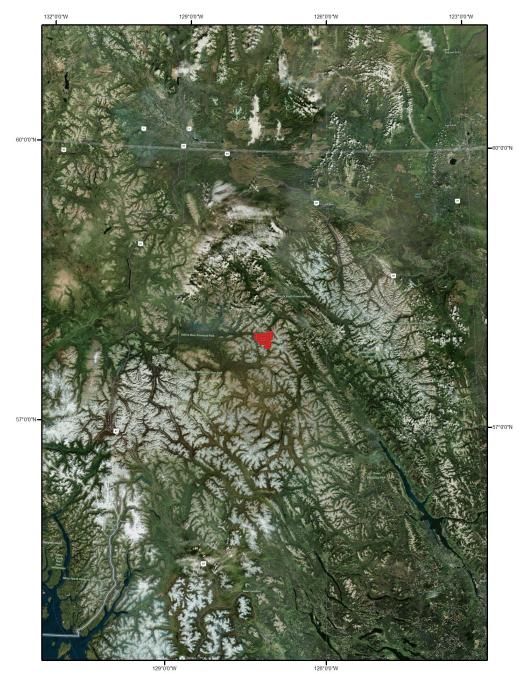
# PROPERTY LOCATION AND ACCESS

The Frog property is located some 115 kilometres in the Stikine mountain range northwest of the community of Ft. Ware, British Columbia.

Access to the property is obtained via float plane from Muncho Lake situated on the Alaska Highway, some 137 kilometers to the northeast, and then by helicopter from a small fishing cabin situated on the northern shore of Frog lake.

Alternatively, the project can be accessed by helicopter from Kemess mine site some 120 kilometers to the south-southeast where the crew was housed for the duration of this survey.

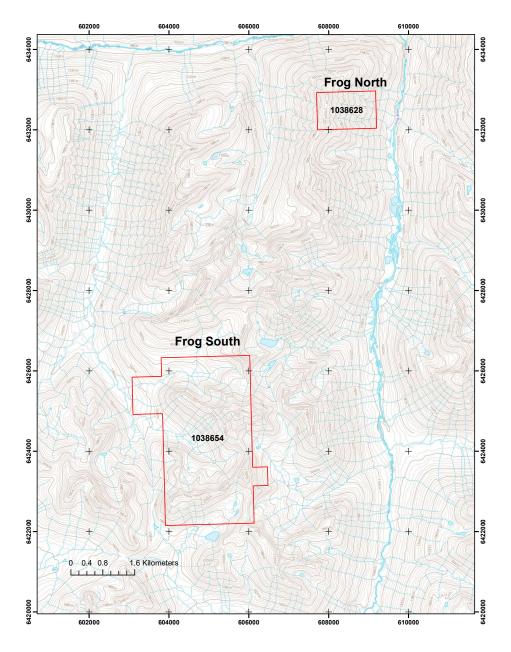
# PROPERTY LOCATION AND ACCESS cont'd



Property Location Map

Peter E. Walcott & Associates Limited Geophysical Services 2017 Heliborne Magnetic Survey Frog North & South Properties, Toodoggone Region, B.C.

## PROPERTY LOCATION AND ACCESS con't



Claim Map

## PREVIOUS WORK.

The first recorded work in the area was conducted in 1968 by Cordilleran Engineering Limited for Quebec Cartier Mining Company. Geological mapping and stream sediment sampling were undertaken, investigating for copper and molybdenum occurrences.

Bitterroot Resources Ltd. staked a portion of the Frog property in April 2007 to investigate elevated RGS stream sediments samples and in July of 2008, a four person crew spent a single day on the property collecting stream sediment samples. The results of the survey yielded extremely anomalous copper and molybdenum, with the highest value being 3200 ppm copper.

In 2011 International Samuel Limited optioned the Frog property from Alex Walcott and Charles Greig, and in late spring of 2011, flew a 1029 kilometer airborne magnetic survey with a nominal line spacing of some 200 meters.

A follow up prospecting and sampling program was later carried out in the summer with the collection of 117 samples. The results of the program proved sufficiently encouraging to conduct a second program in the following year.

In 2012, International Samuel Limited collected some 520 rock and talus samples, and recorded some 80 regional observation points. The results of the program showed highly anomalous copper / molybdenum values over a broad region.

However, given the remoteness of the project, International Samuel Limited terminated the option in September 2014.

In 2015, Peter E. Walcott & Associates undertook a review of geophysical and remote sensing data.

For further information the reader is referred to the Government of British Columbia Aris website.

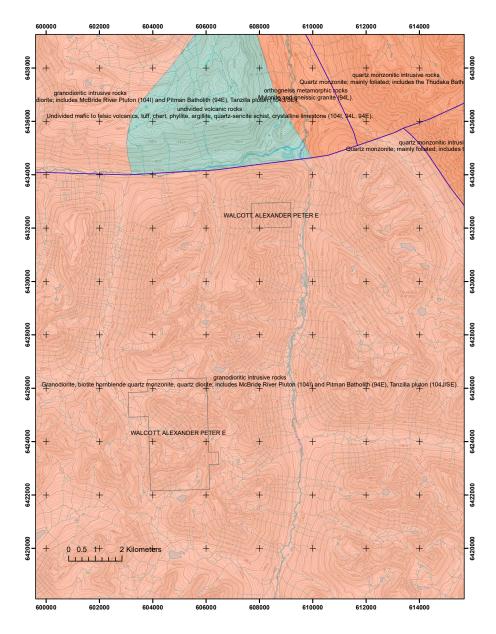
## **GEOLOGY.**

The Frog property located in the Quesnellia terrane. Based on regional mapping the property appears to be underlain entirely by early Jurassic granodiorite intrusive rocks related to the Pitman Batholith. The property is bounded by the Pitman fault to the north, and Frog River fault in the east.

To date limited geological mapping has been undertaken in the project area, however the author would refer the reader to Aris reports 1674 and 30934, for a general synopsis of the geology.

For a detailed overview the author would refer the reader to the various assessment reports which contain detailed descriptions of the property geology.





Property Geology After BCGS

# PURPOSE.

The purpose of the survey was to re-fly select portions of the Frog property to locate subtle magnetic features which may be associated with mineralization observed within historic samples.

# SURVEY SPECIFICATIONS.

## The Airborne Magnetic Survey.

The airborne magnetic survey was conducted using a bird type system towed on a 65' line by a ASTAR BA (GSKJ) operated by Silver King Helicopters Ltd of Smithers, British Columbia.

The bird unit consists of three main components – C-824 Cesium Magnetometer manufactured by Geometrics San Jose, California, AR3000 Laser Range Finder manufactured by Acuity of Portland, Oregon and a 19x GPS manufactured by Garmin International Inc. of Kansas City, Kansas.

The C-824 Cesium Magnetometer is a highly sensitive magnetic sensor capable of providing sensitivity up to 0.01 nT and sampling rates up to 1000 Hz. On this survey a sampling rate of 10 Hz was employed.

The respective components were in turn connected to the helicopter via a shielded multiconductor cable within the tow line for power and data transmission to the logging units on the helicopter.

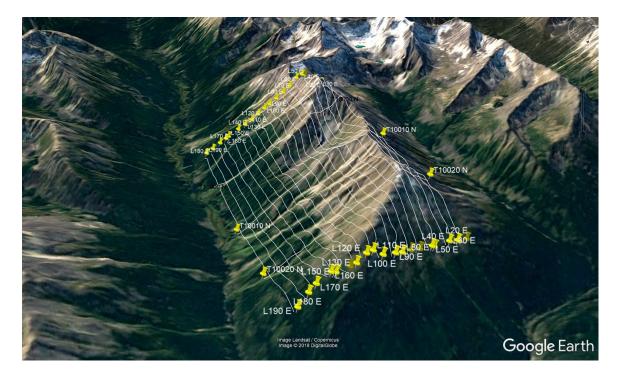
Flight line navigation data was obtained using Hemisphere R330 GNSS receiver with a 10 Hz update rate.

Data logging and navigation were carried out utilizing Geometrics MagLogPro software on a Panasonic CF-19 Toughbook computer with a secondary 7" daylight viewable pilot navigation monitor.

In addition to the airborne unit the survey also utilized two GSM 19 overhauser magnetometer manufactured by GEM Instruments of Richmond Hill, Ontario as base magnetometers. These instruments measure variations in the total intensity of the earth's magnetic field to an accuracy of plus or minus one nanotesla.

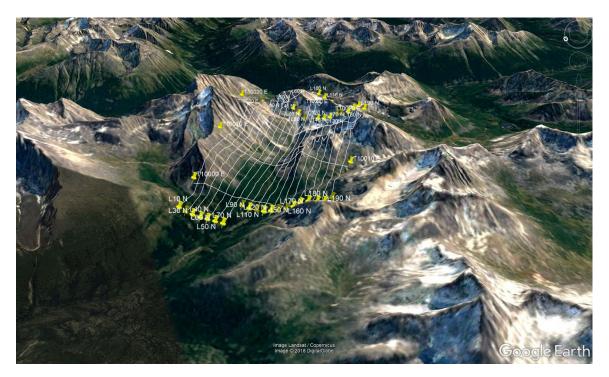
# **SURVEY SPECIFICATIONS cont'd**

| Survey Area | # of Lines | # of Tie Lines | Total Distance | Mean Bird |
|-------------|------------|----------------|----------------|-----------|
|             |            |                |                | Height    |
| Frog North  | 19         | 3              | 71 km          | 59.4 m    |
| Frog South  | 20         | 4              | 61.1 km        | 61.1 m    |



Flight Lines Frog North in Google Earth

# **SURVEY SPECIFICATIONS cont'd**



Flight Lines Frog South in Google Earth

## DATA PROCESSING AND PRESENTATION.

The data was first exported from MagLogPro, where the various sensor inputs were merged into Geosoft compatible ascii files. This merged dataset was then loaded into Geosoft Oasis Montaj for data reduction and processing.

The data was first corrected for diurnal magnetic drift, utilizing the magnetic base stations. The data was then lag corrected to account for positioning errors due to instrument delay and other positional errors. Tie line levelling was then undertaken prior to gridding.

Gridding was then undertaken on the levelled line data utilizing Geosoft's Rangrid algorithm using a 17.5 meter cell size.

The reduced and leveled data set was then subject to several filtering techniques using the Geosoft MagMap module for evaluation and presentation.

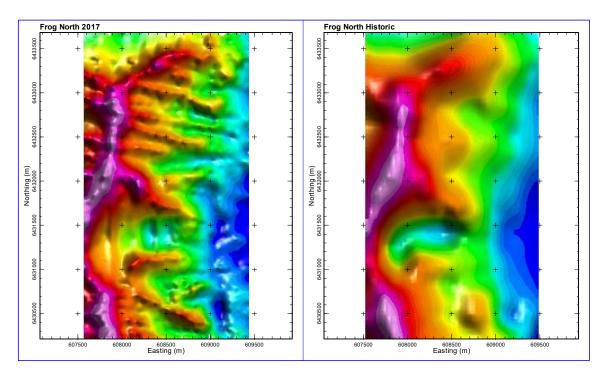
The magnetic data for each of the respective blocks presented in this report is Contours of Total Magnetic Intensity

# **DISCUSSION OF RESULTS.**

The 2017 high resolution airborne magnetic survey conduced over the Frog properties was designed to re-fly select portions of the Frog property which were previously flown by International Samuel Limited in 2011. This was carried out for two reasons; A) to achieve a higher density data B) to attempt to reduce the instrument high by varying the flight line directions.

# Frog North

On the northern Block, the flight lines were orientated in a north-south direction along slope, to bisect a series of potential structures identified in the historic survey. This also allowed a significant reduction within the flight height.



Flight Area Comparison Plot Between 2017 & Historic Airborne Magnetics Surveys

Unfortunately, due to weak magnetic response of the underlying rock unit, anomalous features are dominated by terrain effects and were unsuccessful in defining any discrete zones.

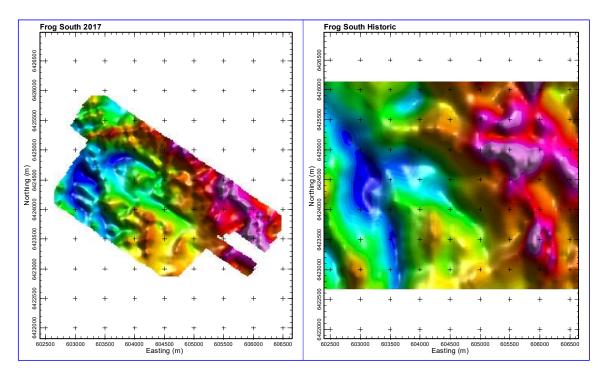
## **DISCUSSION OF RESULTS cont'd.**

## Frog South

The southern flight block, survey lines were orientated in a northeast-southwest orientation utilizing a 100-meter line spacing. The orientation was selected to be navigate the steep terrain and keep the bird height lower than the previous survey.

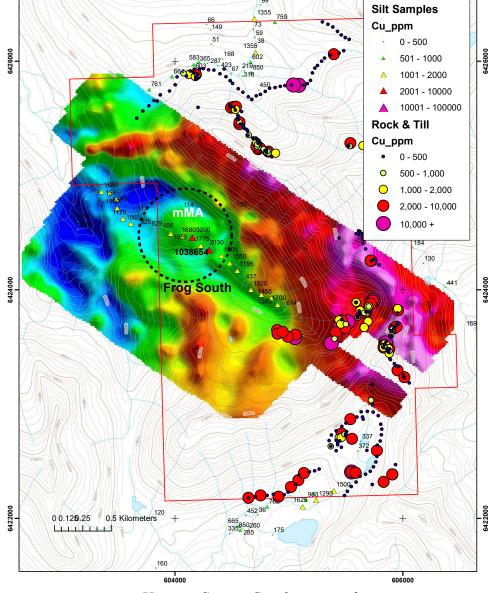
Similar the northern block, the results of the magnetic survey met with limited success. The airborne magnetic survey anomalies mimics terrain, except for a weak plug like feature within the valley bottom.

Anomaly mMA is situated in the middle of the survey block. The feature lies proximal to several extremely high copper silt samples, which maybe related to it, however these samples are more likely related to downslope dispersion.



Flight Area Comparison Plot Between 2017 & Historic Airborne Magnetics Surveys

# DISCUSSION OF RESULTS cont'd.



Historic Copper Geochemistry of 2017 Airborne Magnetics

606000

Legend

# SUMMARY, CONCLUSIONS & RECOMMENDATIONS.

Between September 4<sup>th</sup> and 8<sup>th</sup>, 2017, Peter E. Walcott & Associates Limited undertook a high resolution airborne magnetic survey over two properties, located in the Toodoggone area of British Columbia.

The surveys were conducted using with a nominal spacing of some 100 meters on northsouth and northwest-southeast orientations for the Frog North and South blocks respectively. In total some 135 line-kilometers of airborne magnetics was completed.

The survey met with limited success in identifying additional targets utilizing the total field magnetics, except for an extremely weak magnetic target in the southern block proximal extremely high copper silt sample.

Advanced 3D magnetic inversion techniques should be applied to the dataset to account for bird height and extreme topography variations. Geological mapping and geochemical sampling should then be carried out over any targets identified.

## Respectfully submitted,

# PETER E. WALCOTT & ASSOCIATES LTD.

Alexander Walcott Geophysicist Peter E. Walcott, P.Eng. Geophysicist

Coquitlam, B.C. April 2018

# APPENDIX I

## COST OF PROJECT.

Peter E. Walcott & Associates Limited undertook the survey on a day rate of \$3,500 per day, 5.2 hours of helicopters were used including ferry from Kemess at a rate of \$1500.00 per hour. A remote fuel cache was established and removed by Liard Air Tours for \$4,590.00.

Mobilization to Kemess was split with other projects for \$2000.00 including personnel, helicopter ferry, and accommodations. Thus, the total cost of services was \$19,190.00.

Based on flight hours 64.4% of the project was allocated to Frog South, and 35.6% to Frog North. Frog South incurred higher charges due to heavy winds in the cirque which aborted the initial attempt due to safety concerns.

# PERSONNEL EMPLOYED.

| Name                 | Occupation   | Address   | Dates                             |
|----------------------|--------------|---|-----------------------------------|
| Peter E. Walcott     | Geophysicist | Unit 111- 17<br>Fawcett Rd.<br>Coquitlam, B.C.<br>V3K 6V2 |                                   |
| Alexander<br>Walcott | "            | "   | Sept $4^{th t}$ - $8^{th}$ , 2017 |
| Pierre Bernier       | Pilot        | Silver King<br>Helicopters.                               | "                                 |

# **CERTIFICATION.**

## I, Peter E. Walcott, of 605 Rutland Court, Coquitlam, British Columbia, hereby certify that:

- 1. I am a graduate of the University of Toronto in 1962 with a B.A.Sc. in Engineering Physics, Geophysics Option.
- 2. I have been practicing my profession for the last fifty two years.
- 3. I am a member of the Association of Professional Engineers of British Columbia and Ontario.

Peter E .Walcott, P.Eng.

Coquitlam, B.C. April 2018

## **CERTIFICATION.**

I, Alexander Walcott, of 38-181 Ravine Dr., Port Moody, British Columbia, hereby certify that:

- 1. I am a graduate of the University of Alberta with a B.Sc. Earth Sciences Major, with a Physics Minor.
- 2. I have been active in mineral exploration for the past 20 years.
- 3. I am currently employed by Peter E. Walcott & Associated Limited.

Alexander Walcott, B.Sc.

Coquitlam, B.C. April 2018

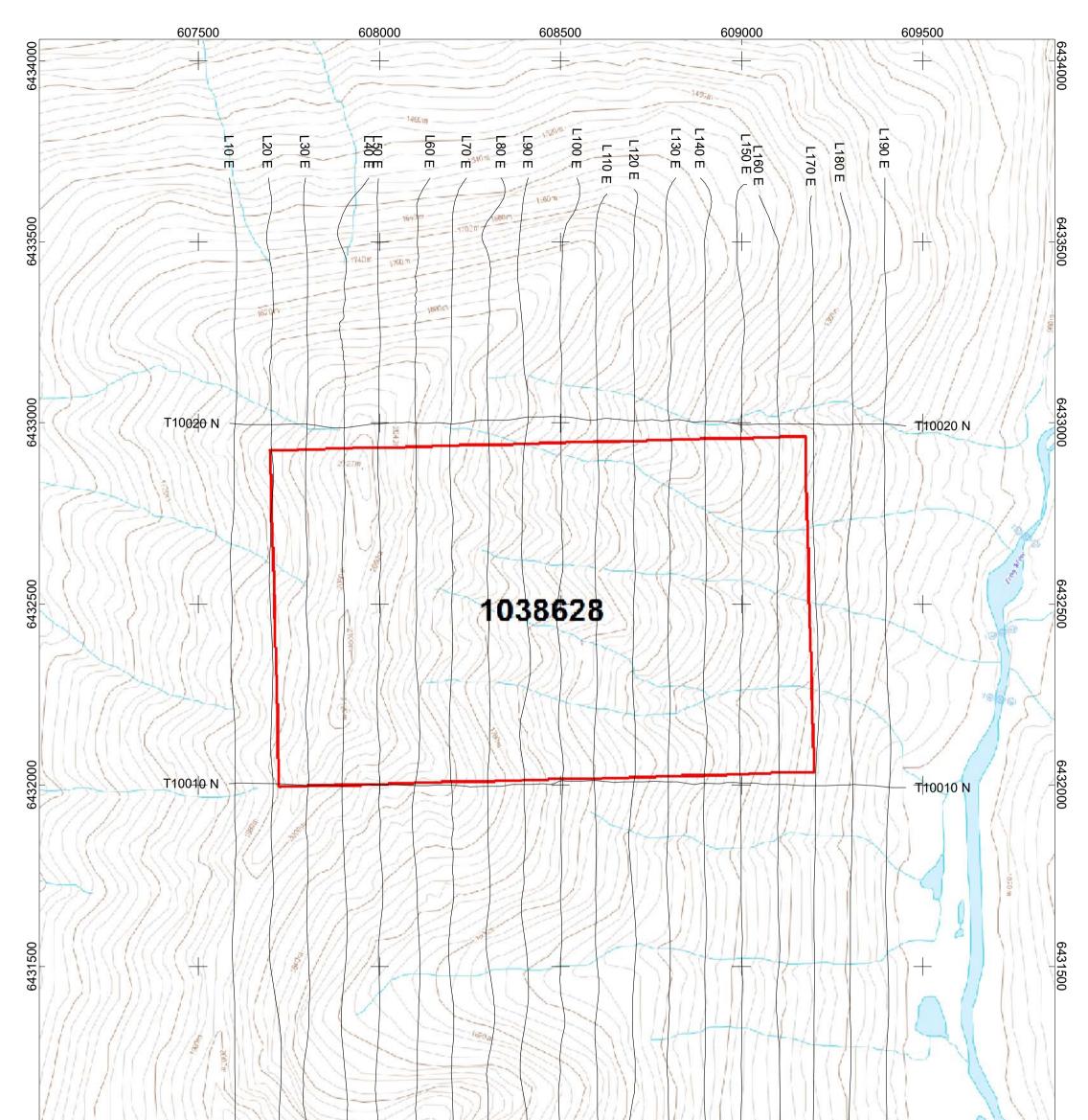
## **REFERENCES.**

Bell, T., A geochemical and Prospecting Report on the Copper Frog Property, Liard Mining Division, British Columbia, Assessment Report 30934

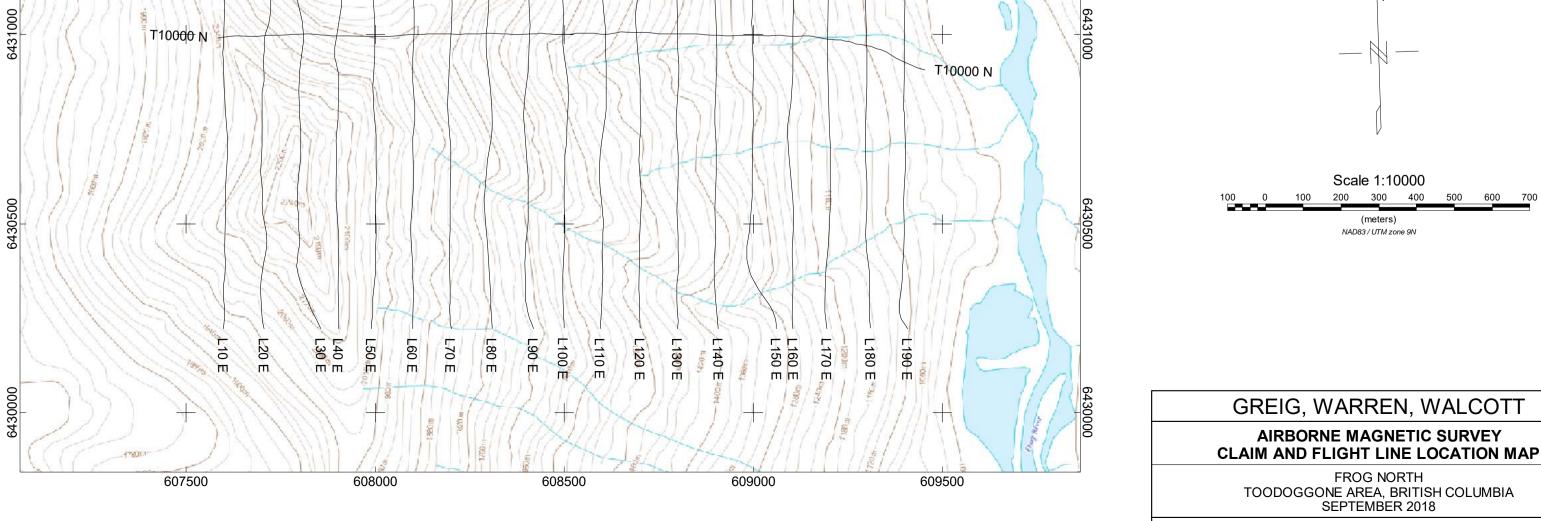
Flasha, S.T. and Greig C.J., 2008 Stream Sediment Geochemistry, Pit Bullfrog Property, Toodoggone River Area Liard Mining Division, Northern British Columbia, Assessment Report 30681.

Kalninus, T. and Stollery, J.W., Geological and Geochemical Report from July 21 to August6, 1968 on the TK Nos. 1 – 88 Claims, Liard Mining Division, British Columbia, Assessment Report No 1674.

Strickland, Derrick, Assessment Report on the Frog Property, Liard Mining Division, Northern British Columbia, Assessment Report 33391







PETER E. WALCOTT & ASSOCIATES LIMITED

