

**GEOPHYSICAL REPORT**

**ON A**

**MAGNETIC SURVEY**

**ON THE**

**ALOUETTE PROPERTY**

**BC Geological Survey  
Assessment Report  
31858**

**ALOUETTE LAKE, VANCOUVER MINING DIVISION, BRITISH COLUMBIA**

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**LOCATED:** 47.6 km east of the city of Vancouver  
49° 29' North Latitude, and 122° 46' West Longitude  
NTS: 92G/08

**WRITTEN FOR:** **Gerry Diakow**  
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**DATED:** April 27, 2011

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## LIST OF ILLUSTRATIONS

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	<b>Map/Fig#</b>
Magnetic Survey	GP-1

## **SUMMARY**

A 2-line grid was emplaced and a magnetic survey was carried out along that grid within the Alouette Property which is located on and to the immediate east of Alouette Lake, about 48 km east of Vancouver and about 21 km east of Coquitlam within the Vancouver Mining Division of B.C.

The main purpose of the exploration program was to extend the known magnetic signature that the gabbro outcrop exhibits north onto the overburden covered portion of the claims. The purpose of the magnetic survey was to map geology since the property is widely covered with overburden and there is little rock exposure.

The magnetic survey was carried out on the emplaced grid with a proton precession magnetometer., by taking readings every 15 m over the 2 lines for a total survey length of 1,300 meters. The readings were then diurnally corrected and then plotted onto a base map at a scale of 1:10,000, and contoured.

## **CONCLUSIONS**

1. The magnetic survey revealed three magnetic highs that may be reflecting gabbro intrusives.
2. It also revealed four lineations of magnetic lows with an apparent direction of northwesterly. The magnetic low lineations are probably reflecting geological structure such as faults and shear zones.

## **RECOMMENDATIONS**

The magnetic survey appeared to be effective in mapping gabbro intrusives and thus it is recommended to continue the surveying.

**GEOPHYSICAL REPORT**  
**ON A**  
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**ON THE**  
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**INTRODUCTION AND GENERAL REMARKS**

This report discusses survey procedure, compilation of data, interpretation methods, and the results of a magnetic survey carried out on the Alouette Property which is located to the east of Vancouver, BC.

The exploration work was carried out by two men on December 26, 2010. Two lines were surveyed comprising 181 readings over 2,805 meters.

The purpose of the exploration program on this property is to look for black gabbro suitable for ornamental and construction purposes. The type of deposit being explored for may be similar to the nearby outcrops of black gabbro.

The purpose of the magnetic survey is to map lithology since the property is widely covered by overburden with little rock outcrop.

Parts of this report were taken from the ARIS #30285 (2008) by Doug Warkentin and ARIS #28068 (2005) by Mineral Hill Industries Ltd.

**PROPERTY AND OWNERSHIP**

The property is comprised of 1 tenure that comprise an area of 464 ha and occurs within the Vancouver Mining Division as shown on figures #2 and #3. These tenures occur on BC Mineral Title map sheet M092G.028 & .038.

<u>Tenure Number</u>	<u>Type</u>	<u>Claim Name</u>	<u>Good Until</u>	<u>Area (ha)</u>
<a href="#">605973</a>	Mineral	BLUESTONE	20130713	463.5081

Total Area: 463.5081 ha

These claims are owned by Gerry Diakow.

The expiry date shown assumes the assessment work as described within this report is excepted for assessment credits.

## **LOCATION AND ACCESS**

The Alouette Property is located within the south-western section of British Columbia, as shown on figure #1, 21 km to the east of the city of Coquitlam and 47.6 km to the east of Vancouver. Part of the tenure overlaps Alouette Lake.

This property occurs within NTS map sheet number 92G/08. For the center of the property, the latitude is 49° 29' North and the longitude is 122° 46' West. The property boundaries occur within UTM co-ordinates 537000 and 541000 east; and 5458000 and 5462000 north.

From Maple Ridge, drive east on Dewdney Trunk Road to 256 street. Exit north on 256 Street and continue for 4.7 kilometers to the end of pavement. Continue another 2.0 kilometers on this maintained dirt road to the Hydro gate. The MR claim grid is located on the immediate right side of the road. This is a public road system and is maintained year round.

## **PHYSIOGRAPHY AND VEGETATION**

The topography on the east side of the claim boundary is flat and swampy. The elevation difference from the access road to the grid area is at approximately 5 meters. This area consists of second growth timber mainly of cedar and hemlock species.

## **HISTORY OF PREVIOUS WORK**

There is no previous work known to the writer to have been done on this property.

## **GEOLOGY**

### **(a) Regional**

The majority of the region is underlain by Coast Plutonic Rocks. Lithologic units range from gabbro to granite but diorite, quartz diorite, and granodiorite intrusions of the Jurassic to Cretaceous Coast Plutonic Complex are most abundant. Roof pendants and cappings of pre and post Coast Plutonic Rocks occur throughout the area. They consist of metasediments and volcanics, including the Paleozoic Twin Island Group, the Jurassic Harrison Lake Formation and the Lower Cretaceous Gambier Group. The region has been subjected to faulting and shearing with accompanying fracturing.

Property

The claim area is generally underlain by the coarse to medium grained quartz diorite with minor phases of diorite and granodiorite. The GSC has determined the granodiorite phase to be younger than the quartz diorite and the quartz diorite younger than the diorite. All these intrusives are members of the Coast Plutonic Group.

## **INSTRUMENTATION**

The magnetic survey was carried out with two model G-856 proton precession magnetometers manufactured by Geometrics of San Jose, California. One was used as a base station and the other was used as the field mobile unit. This instrument reads out directly in nanoTeslas (nT) to an accuracy of  $\pm 1$  nT, over a range of 20,000 - 100,000 nT. The operating temperature range is  $-40^{\circ}$  to  $+50^{\circ}$  C, and its gradient tolerance is up to 3,000 gammas per meter.

## **THEORY**

Only two commonly occurring minerals are strongly magnetic, magnetite and pyrrhotite and therefore magnetic surveys are used to detect the presence of these minerals in varying concentrations, as follows:

- Magnetite and pyrrhotite may occur with economic mineralization on a specific property and therefore a magnetic survey may be used to locate this mineralization.
- Different rock types have different background amounts of magnetite (and pyrrhotite in some rare cases) and thus a magnetic survey can be used to map lithology. Generally, the more basic a rock-type, the more magnetite it may contain, though this is not always the case. In mapping lithology, not only is the amount of magnetite important, but also the way it may occur. For example, young basic rocks are often characterized by thumbprint-type magnetic highs and lows.
- Magnetic surveys can also be used in mapping geologic structure. For example, the action of faults and shear zones will often chemically alter magnetite and thus these will show up as lineal-shaped lows. Or, sometimes lineal-shaped highs or a lineation of highs will be reflecting a fault since a magnetite-containing magmatic fluid has intruded along a zone of weakness, being the fault.

## **SURVEY PROCEDURE**

Readings of the earth's total magnetic field were taken every 15 meters along both survey lines with a separation of 85-meters. The total amount of surveying is 2,805 meters.

The diurnal variation was monitored in the field by a base station set up within the grid area to take a reading every 15 seconds.

## **DATA REDUCTION**

The data was input into a computer and then corrected for diurnal drift using the data from the survey loop. Using Geosoft software, it was next plotted with 54,400 nT subtracted from each posted value and contoured at an interval of 5 nT on a base map, GP-1, with a scale of 1:10,000.

## **DISCUSSION OF RESULTS**

The magnetic field over the two survey lines for the most part varies from a low of 53,968 nT to a high of 55,953 nT to give a range of 985 nT. (There is one unusual one-value low at the southwestern end of the survey area with a value of 51,906 nT. It may be a bad reading or it may be reflecting buried iron or steel very close to the surface.) The mean background value is 54,570 nT.

The survey revealed three magnetic highs along the two survey lines and these are probably reflecting gabbro intrusives. The strongest one is at the southwestern end of the two survey lines and reaches a high of 54,953 nT, which is 383 nT above background. The weakest one is just to the northeast of the strongest one and reaches a high of 54,708 nT, which is 138 above background. A slightly stronger one occurs at the northeast end of the survey lines and reaches a high of 54,758 nT, which is 188 nT above background.

Map GP-1 also shows four lineations of magnetic lows. These have been drawn on the map by the writer and with just two survey lines to go by, appear to show a direction of northwesterly. The low lineations usually reflect geologic structure such as faults, shears and contacts since the magnetite along structures are often destroyed.



## **REFERENCES**

- Gruenwald, W. (1989) Geophysical and Geological Report Covering: Stump 1 Claim, prepared for Geoquest Consulting Ltd. ARIS Report #19145.
- Mineral Hill Industries Ltd. (2005) Geophysical Survey Program on the MR Mineral Claims ARIS Report #28,068.
- Warkentin, D. (2008) Seventy Nine Project – Reconnaissance and Sampling prepared for Crucible Resources Ltd. ARIS Report #30,285.
- Diakow, G. (2004) Prospecting Report Birch Property ARIS Report # 27,440.

## **GEOPHYSICIST'S CERTIFICATE**

I, DAVID G. MARK, of the City of Surrey, in the Province of British Columbia, do hereby certify that:

I am registered as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

I am a Consulting Geophysicist of Geotronics Consulting Inc, with offices at 6204 – 125<sup>th</sup> Street, Surrey, British Columbia.

I further certify that:

1. I am a graduate of the University of British Columbia (1968) and hold a B.Sc. degree in Geophysics.
2. I have been practicing my profession for the past 43 years, and have been active in the mining industry for the past 47 years.
3. This report is compiled from data obtained from a magnetic geophysical survey carried out by a 2-man crew over a grid within the Alouette Property located on Alouette Lake located 21 km east of the city of Coquitlam, within the New Westminster Mining Division of British Columbia. The work was done from July 7<sup>th</sup> to 9<sup>th</sup>, 2010 and the data was brought to me for reduction and interpretive report.
4. I do not hold any interest in the property discussed in this report, nor in any other property held by Gerry Diakow, nor do I expect to receive any interest as a result of writing this report.

David G. Mark, P.Geo.  
Geophysicist

May 4, 2011

**AFFIDAVIT OF EXPENSES**

Grid emplacement as well as magnetic surveying was carried out on a grid within the Alouette Property, which is located 21 km east of the city of Coquitlam, B.C. and on the southeast shore of Alouette Lake. This work was done on July 7th to July 9<sup>th</sup>, 2010, and to the value of the following:

**FIELD (Grid Emplacement and Magnetic Surveying):**

Mob/demob	\$1,30.00	
2-man crew, 3 days @ \$1000/day	<u>\$3000.00</u>	
TOTAL	\$3,130.00	\$3,130.00

**DATA REDUCTION and REPORT:**

Data reduction and mapping, 16 hours @ \$50/hour	\$800.00	
Geophysicist (David Mark) one day @ \$600/day	<u>\$600.00</u>	
TOTAL	\$1,700.00	<u>\$1,700.00</u>

**GRAND TOTAL** **\$4,500.00**

Respectfully submitted,  
Geotronics Consulting Inc.

David G. Mark, P.Geo,  
Geophysicist..... May 4, 2011

GERRY DIAKOW

# ALOUETTE PROPERTY

ALOUETTE LAKE, NEW WESTMINSTER MD, BC

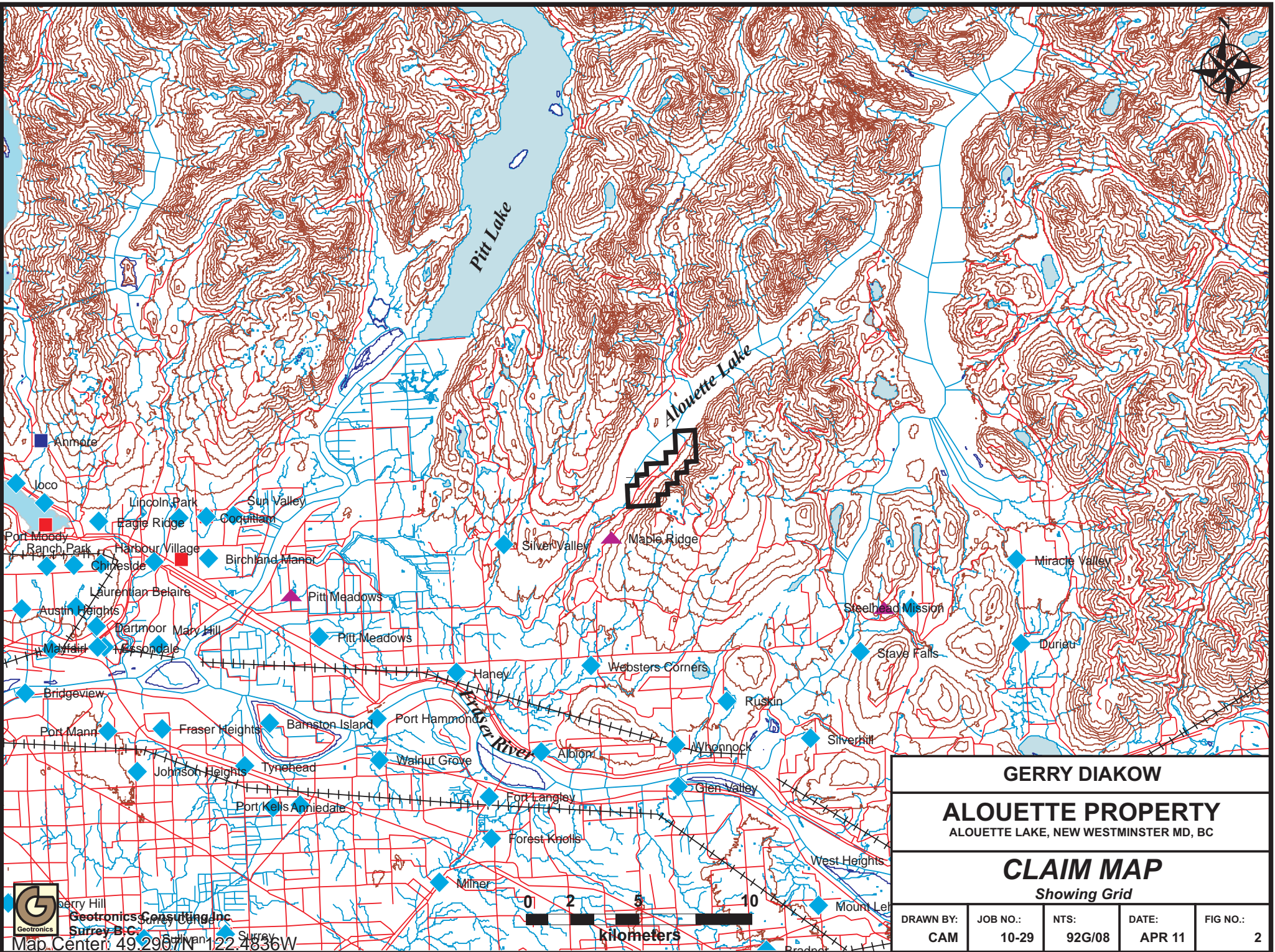
## BC LOCATION MAP

DRAWN BY:	JOB NO.:	NTS:	DATE:	FIG NO.:
CAM	10-29	92G/08	APR 11	1



Geotronics Consulting Inc  
Surrey B.C.

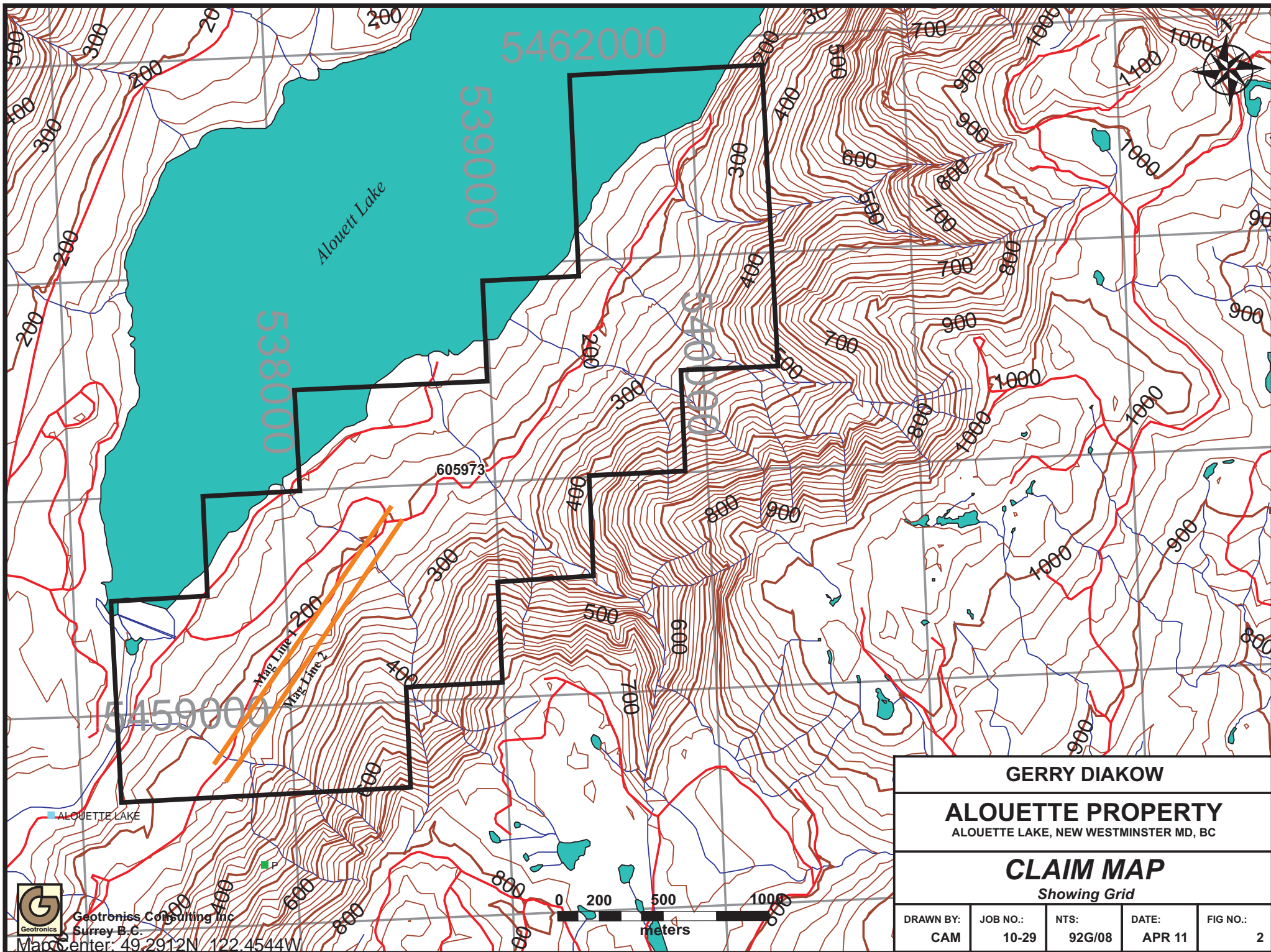





 Geotronics Consulting Inc.  
 Surrey, B.C.  
 Map Center: 49.2987°N 122.4836°W

<b>GERRY DIAKOW</b>				
<b>ALOUETTE PROPERTY</b> ALOUETTE LAKE, NEW WESTMINSTER MD, BC				
<b>CLAIM MAP</b> <i>Showing Grid</i>				
DRAWN BY:	JOB NO.:	NTS:	DATE:	FIG NO.:
CAM	10-29	92G/08	APR 11	2



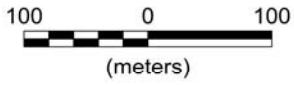
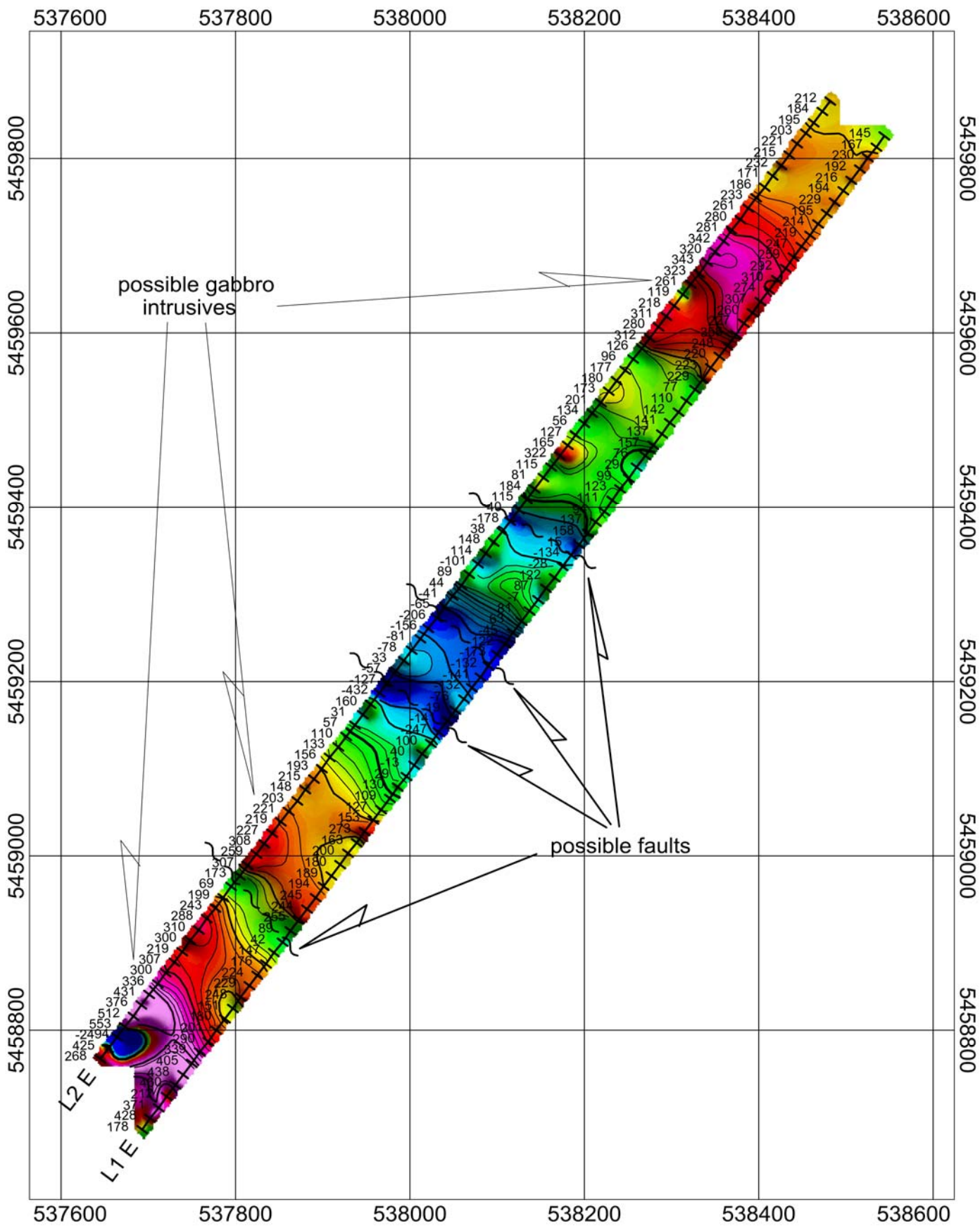


**GERRY DIAKOW**

**ALOUETTE PROPERTY**  
ALOUETTE LAKE, NEW WESTMINSTER MD, BC

**CLAIM MAP**  
Showing Grid

DRAWN BY:	JOB NO.:	NTS:	DATE:	FIG NO.:
CAM	10-29	92G/08	APR 11	2



Instrumentation:  
2 Geometrics magnetometers  
Model G-856 - one base, one mobile

Survey Date:  
July 2010

Units:  
nanoTeslas (nT)

Magnetometer Reading Base:  
54,400 nT total field

Survey Grid Base  
UTM, NAD83, Zone 10



**Geotronics Consulting Inc**  
Surrey B.C.

<b>GERRY DIAKOW</b>				
<b>ALOUETTE PROPERTY</b> ALOUETTE LAKE, NEW WESTMINSTER MD, BC				
<b>MAGNETIC SURVEY</b> <b>CONTOUR PLAN</b>				
<b>DRAWN BY:</b> CAM	<b>JOB NO.:</b> 10-29	<b>NTS:</b> 92G/08	<b>DATE:</b> Apr '11	<b>FIG NO.:</b> GP-1