Summary Report

Prospecting, Soil Gas Hydrocarbon Geochemical Survey, and Multiple Method Geophysical Survey, and Mechanical Stripping in the Jumping Lake Area

Fourbay Lake, Northwestern Ontario

June 4th to November 24th, 2010

Prepared for:

Ministry of Northern Development and Mines

Submitted by:

Aur Lake Exploration Inc.

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Table of Contents

KEY PLAN	0.5
INTRODUCTION	1.0
LOCATION AND ACCESS	2.0
PERSONNEL	3.0
REGIONAL GEOLOGY –JUMPING LAKE AREA	4.0
RATIONALE FOR THE WORK PERFORMED	5.0
CHRONOLOGY OF WORK	6.0

APPENDIX A - Soil Gas Hydrocarbon Reports for Gold and VMS (Phases II and III)

APPENDIX B – SGH Sample Methodology

APPENDIX C – Soil Gas Hydrocarbon Data

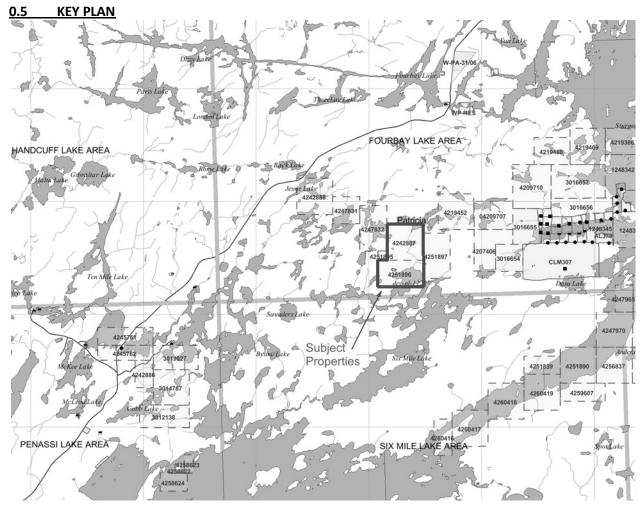
APPENDIX D - Map of Claims 4242887, 4251897, 4251895 & 4251896 / SGH Survey Plan

APPENDIX E – Geophysical Data and Report-ClearView

APPENDIX F – Geophysical Report-Reed

APPENDIX G – Geological Report-Powers

APPENDIX H – Grab Sample Assay Results



1.0 INTRODUCTION

Some additional line cutting was performed by a contractor in early June, 2010 and added to an existing grid. A geophysical survey was conducted on claim 4242887 from June 17th to June 23rd. During the same period an extension to the two previous phases of Soil Gas Hydrocarbon (SGH) geochemical surveying was undertaken by Aur Lake Exploration Incorporated (Aur) on parts of the Jumping Lake claim (claim number 4242887) held by Aur in the Sturgeon Lake greenstone belt during the period of June 5th to June 11th, 2010. 100 soil samples were collected. A geophysical report was issued by the geophysical contractor, and mechanized trenching was performed both on claim number 4242887 and on claim number 4251896 in October of the same year to test assertions in that report. A geophysical report by a second independent geophysicist was commissioned to review the work and report from the contractor was issued on September 14th, 2010, and a geologist was commissioned to review the entire project data and issue a report including recommendations, which was issued November 24th, 2010. Data processing, plotting and reporting was done off claim.

2.0 LOCATION AND ACCESS

The Jumping Lake claim (approx 50.02° north / 90.88° west) is approximately 4.4 km south of highway 599, and is accessible via the Six Mile Lake Road (5.0 km), and then the Jumping Lake Road (3.85 km) from there. The Jumping Lake claim was accessed by truck to the intersection of the Six Mile Lake Road and the Jumping Lake Road, and from there by snow machine or ATV to the grid. Claim 4251896 is adjacent to the Jumping Lake claim and only accessed on foot.

3.0 PERSONNEL

The SGH survey was performed by Aur's COO and the author of this report, Michael Bulatovich (MB) of Toronto, with assistance of Hunter Fassett (HF) of Ignace, Ontario. The geophysical survey was conducted by ClearView Geophysics Inc. of Brampton Ontario ("ClearView"). Their report in the appendix of this submission details their staffing contingent. Linecutting was conducted by Sidney Belmore of Savant Lake. The geophysical report of September 14th, 2010 was authored by Laurie Reed of L.E. Reed Geophysical Consultant Inc., and the geological report of November 24th, 2010 was authored by David Powers of David Powers Geological Services. The mechanical stripping program was conducted by MB with the assistance of Larry Bolduc (LB) and Bruce Zapora (BZ), both of Ignace Ontario. General prospecting assistance was provided by Holly Russell (HR) of Ignace.

4.0 REGIONAL GEOLOGY – JUMPING LAKE AREA

The subject areas are located with the Archean greenstone belt of the Wabigoon Subprovince. The rocks have been subject to greenschist-lower-amphibolite facies metamorphism and as such are referred to as metavolcanic and metasedimentary units. The area is underlain by mafic pillows and flows. There is a substantial granodiorite stock at the north end of the Jumping lake claim, and proximate to that there is a quartz feldspar porphyry intrusion. There are minor occurrences of crystal tuff in narrow lenses and a metasedimentary unit bearing sulphide facies iron.

5.0 RATIONALE FOR THE WORK PERFORMED

The Jumping Lake claim was subject of three different geochemical methods conducted by Aur in 2009 after Aur had obtained very high gold assays from grab samples taken as early as 2007. The SGH portion of the 2009 geochemical surveys had reported a gold anomaly under a bog between the Jumping Lake granodiorite stock and the mineralized vein where the high gold assays were obtained. An extension of a grid cut for previous geophysical work, roughly perpendicular to the 2009 SGH transect, was cut for Aur by Sidney Belmore of Savant Lake in April of 2010. This grid was intended for a geophysical survey and an expansion of the SGH survey. The subsequent and larger phase of SGH sampling was completed in April of 2010, and that work indicated numerous gold anomalies in the survey area. A further extension of the SGH sampling on the property, a multiple mode geophysical survey, and a mechanical stripping program, prospecting activities and independent geophysical and geological reports are the subject of this report.

6.0 CHRONOLOGY OF WORK

The author had devised a grid normal to the known mineralized vein on the Jumping Lake property in August of 2009, which was cut by contractors in 2009. At that time 3390 meters of grid lines picketed at 25 meter intervals were cut, as was a baseline of 400 meters in length.

Over the summer of 2009, Aur Lake had received the results of its geochemical surveys of the Jumping Lake grid and along an arcuate transect south of the Jumping Lake stock. The detection of a gold anomaly along the transect by the SGH method employed there caused Aur Lake to add to the original grid so as to cover the area of the SGH gold anomaly with new line cutting.

A total of 5105 meters of linecutting and picketing was contracted to Sidney Belmore of Savant Lake, Ontario on April 7th, 2010 as previously reported.

June 4th, 2010

The author (MB) flew from Toronto to Thunder Bay, arriving at approximately 11 a.m. and, with a rented truck, gathered equipment from Aur's storage facility there and drove to accommodations at Cobb Bay Lodge ("the lodge"). MB arrived at the lodge around 6 p.m.

June 5th, 2010

MB and HF arrived at the site at the site at 9:15 a.m. and collected 10 SGH soil samples on lines 12 and 13 on the way to prospect an area southwest of the grid that had been an area of exploration and a separate claim #836245 in the past. The perimeter of a central low area in this previous claim was explored but no signs of mineralization were found on several mafic outcrops found. At 2:00 p.m. the crew left to returned to the grid and found and mapped a large quartz boulder imbedded in the surface before collecting another 18 soil samples on lines 1-4 southeast of the pond. Line 5 was still being finished by the line cutting crew, so MB and HF left the grid at around 3:45 p.m. and performed trail maintenance on the way back to the truck, where they arrived at 5:00 p.m. The crew arrived back at the lodge at about 5:30 p.m.

June 6th, 2010

MB and HF arrived at the site at the site at 8:45 a.m. The crew traversed a long circuit from the grid, through the central low described immediately above, all the way to the lake numbered 4181 in Operation Treasure Hunt and back by another route. On the outbound leg of the traverse a couple quartz veins were encountered that bear around 164/344 and appeared to be unmineralized like the others with that bearing on the site. At the east end of a small round pond, a quartz vein bearing 117/297 was found and three samples were collected (S500, 501, & 502). From there the crew proceeded to the west end of Lake 4181 where OGS maps indicated QFP intrusives and a significant fault, but no mineralization was apparent there. The return leg of the traverse found little outcrop. MB and HF left the grid at around 4:45 p.m. and arrived back at the lodge at about 5:30 p.m.

June 7th, 2010

MB and HF arrived at the site at the site at 9:00 a.m. by ATV. The crew proceeded NW along Line 9, taking soil samples according to the survey design, collecting intrusive rock grab samples, and mapping as they went to the lake numbered 4099 in Operation Treasure Hunt, reaching the lake at 11:00 a.m. They proceeded SW along the lakeshore to Line 13, and then at 12:00 p.m. sampled back towards the baseline to grid location 700W. From there they walked across to Line 12 and collected 4 samples to grid 800W and then dead-walked back to grid 375W, where they walked to Line 11. The collected along Lines 11 and 10 finishing at the quartz boulder mentioned above under June 5th. The crew collected three rock samples (S1, 2, &3) from the boulder after some excavation to dislodge it from the ground. The crew left the site by ATV at 4:45 p.m. and eventually arrived back at the lodge at 5:30 p.m.

June 8th, 2010

MB and HF arrived at the site at the site at 9:00 a.m. by ATV parking it at the quartz boulder mentioned above. From there they traversed to the top of the former claim #836245 and then due south to the center of the central low mentioned above looking for mineralization or signs of previous workings, but this was unsuccessful. The progress was slow due to extensive blowdown along half this route. The crew then returned to the ATV and took it to the Baseline at Line 8. From there the crew collected samples on the east side of the grid on Lines 5, 10, 11, 12, and 13. The crew left the site by ATV at 4:30 p.m. and eventually arrived back at the lodge at 5:20 p.m.

June 9th, 2010

MB and HR arrived at the site at the site at 9:15 a.m. The geophysical crew was met and guided to the grid and helped in moving supplies to various parts of the grid. Certain trails were blazed for the convenience of the geophysical crew. Then at around 11:00 a.m. the crew took the ATV to the baseline and Line 12. From there the crew traversed to the site of the grab samples S500, 501, & 502 at the edge of a small round pond. From there, the area between the pond and Lake 4181 was searched for outcrop, but very little was found and mapped. No mineralization was detected, and only some interstitial quartz was found on one outcrop south of the pond and the crew returned to the ATV by 4:15 p.m. Two outcrops were found between the pond and the grid on the traverse, one of which had a quartz vein bearing at 177/357 but did not appear mineralized. The crew arrived back at the truck at 4:45 p.m. and at the lodge at 5:15 p.m.

June 10th, 2010

MB and HR arrived at the site at the site at 9:15 a.m. by ATV and found evidence that the geophysical crew was on site. The crew made contact with the geophysical crew at Line 11 to review their progress and then went to spend the day investigating the area of some historic trenching where a sulphide iron facies sedimentary unit has been mapped by previous exploration.

Attempts were made to locate a number of trenches and blast pits created by previous claim holders by using the maps submitted to the ministry but in no cases was any evidence found of any human activity in those locations, so the crew returned to the one known trench in this area and cleaned out the trench with hand tools and stripped away topsoil in the vicinity where there were fewer large tree roots in order to establish continuity and bearing of the sedimentary formation. All of these efforts were unsuccessful.

Near the end of the day, as the crew was packing up to leave, MB discovered a series of three historic trenches in thick brush south of the known trench, one about 20 meters long and filled with water. The orientation and length of the longer trench suggests that it was the one that followed a sheared and mineralized granodiorite dike described in the archival assessment submission, though its location deviates from the map submitted.

The crew left the site together by ATV around 4:30 p.m. and went home in separate trucks.

June 11th, 2010

MB and HR returned to the flooded trenches found the previous day. The dense brush around them was cleared by machete to permit access. The two smaller ones were drained by hand using a pail, and their bottoms were excavated in a few locations to see if bedrock could be found but excavation could not advance more than half a meter before hole would fill with water or the trench side would cave in. The volume of water in the large trench was too great for manual bailing, but the bottom of the trench was tested to the depth of the available Dutch auger but no solid bottom could be found, only black organic muck.

A cutoff trench was dug by hand north of the long trench to see if the presumed dike could be intercepted above the water table, but it was not found in the bedrock uncovered. Further investigation of the trenches will require heavy equipment and pumps so they were mapped using GPS waypoints and the crew left the site at 4:30 p.m. At about 5:00 p.m. the crew left the Jumping Lake road in separate trucks.

June 12th, 2010

MB spent half a day cataloguing soil and rock samples, and then packing them up for transport.

June 13th, 2010

This day was spent packing up the equipment and driving back to Thunder Bay. The accessories were put into storage, and the soil samples were delivered to Activation Labs and the rock samples to Accurassay Lab. The rental truck was returned and MB flew back to Toronto, arriving in the evening.

In June of 2010, partially overlapping with the above prospecting activities and as detailed above, ClearView performed a multiple method geophysical survey on part of the cut grid. Methods used included spectral time domain induced polarization, ground electromagnetic, and ground magnetic methods. ClearView's report can be found in Appendix E.

In August of 2010 Laurie Reed, a consultant geophysicist, was retained by Aur to review the report issued by ClearView. He issued a report on September 14th, 2010 that can be found in Appendix F.

October 8th, 2010

The author (MB) flew from Toronto to Thunder Bay, arriving at approximately 11 a.m. and, with a rented truck, gathered equipment from Aur's storage facility there and drove to accommodations at Cobb Bay Lodge ("the lodge"). MB arrived at the lodge around 6 p.m.

October 9th to 11th, 2010

MB worked on another property in the area, and this work was covered by another report.

October 12th to October 16th, 2010

MB returned to the Jumping Lake claim with LB and BZ and track hoe to selectively uncover rock in N=1 target locations identified by ClearView that were easy to access and likely to be above the water table. The purpose of this exercise was to test whether the character of mineralization indicated by ClearView's spectral parameters could be confirmed at the top of bedrock in these locations and to take representative grab samples from these locations for assay. Trench locations are indicated on the attached map, Appendix D.

October 17th, 2010

MB worked on another property in the area, and this work was covered by another report.

October 18th, 2010

This day was spent packing up all samples and equipment and driving back to Thunder Bay. The accessories were put into storage, and the soil samples were delivered to Activation Labs and the rock samples to Accurassay Lab. The rental truck was returned and MB flew back to Toronto, arriving in the evening.

While the above stripping program was underway David Powers, a consultant geologist, was retained by Aur to review the company database with respect to the Jumping Lake property. Mr. Powers' report can be found in Appendix G.

This report was completed on September 25th, 2011 by Michael Bulatovich.

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APPENDIX A

SGH Survey Report



SGH – SOIL GAS HYDROCARBON **Predictive Geochemistry**

for

AUR LAKE EXPLORATION LTD. "SGH SURVEY – PART III"

July 10, 2010

* Dale Sutherland, Eric Hoffman Activation Laboratories Ltd

(* - author)

EVALUATION OF SGH DATA FOR "SOIL SAMPLES"

EXPLORATION FOR: "GOLD" TARGETS

Workorder: A10-3135

Activation Laboratories Ltd.

Page 1 of 25

Quality Analysis ...



Table Of Contents

Heading

SGH Geochemistry Overview:	
Sample Type and Survey Design	4
Sample Preparation and Analysis	5
Mobilized Inorganic Geochemical Anomalies	5
The Nugget Effect	5
SGH Interpretation Report	6
SGH Rating System:	
Description	6
History and Understanding	7
SGH Data Quality:	
Reporting Limit	10
Laboratory Replicate Analysis	10
Historical SGH Precision	11
Laboratory Materials Blank – Quality Assurance (LMB-QA)	12
SGH Survey Interpretation and Sample Location Maps	13
SGH Pathfinder Class Maps	16
SGH Survey Interpretation Rating	
Cautionary Note Regarding Assumptions and Forward Looking Statements	24
Certificate of Analysis	25

Quality Analysis ...



SOIL GAS HYDROCARBON (SGH) GEOCHEMISTRY - OVERVIEW

SGH is a deep penetrating geochemistry that involves the analysis of surficial samples from over potential mineral or petroleum targets. The analysis involves the testing for 162 hydrocarbon compounds in the C5-C17 carbon series range applicable to a wide variety of sample types. SGH has been successful for delineating targets found at over 500 metres in depth. Samples of various media have been successfully analyzed such as soil (any horizon), drill core, rock, peat, lake-bottom sediments and even snow. The SGH analysis incorporates a very weak leach, essentially aqueous, that only extracts the surficial bound hydrocarbon compounds and those compounds in interstitial spaces around the sample particles. These are the hydrocarbons that have been mobilized from the target depth. SGH is unique and should not be confused with other hydrocarbon tests or traditional analyses that measure C1 (Methane) to C5 (Pentane) or other SGH is also different from soil hydrocarbon tests that thermally extract or desorb all of the gases. hydrocarbons from the whole soil sample. This test is less specific as it does not separate the hydrocarbons and thus does not identify or measure the responses as precisely. These tests also do not use a forensic approach to identification. The hydrocarbons in the SGH extract are separated by high resolution capillary column gas chromatography to isolate, confirm, and measure the presence of only the individual hydrocarbons that have been found to be of interest from initial research and development and from performance testing in two Canadian Mining Industry Research Organization (CAMIRO) projects (97E04 and 01E02).

Over the past 14 years of research, Activation Laboratories Ltd. has developed an in-depth understanding of the unique SGH signatures associated with different commodity targets. Using a forensic approach we have developed target signatures or templates for identification, and the understanding of the expected geochromatography that is exhibited by each class of SGH compounds. In 2004 we began to include an SGH interpretation report delivered with the data to enable our clients to realize the complete value and understanding of the SGH results in the shortest time frame and provide the benefit from past research sponsored by Actlabs, CAMIRO, OMET and other projects.

SGH has attracted the attention of a large number of Exploration companies. In the above mentioned research projects the sponsors have included (in no order): Western Mining Corporation, BHP-Billiton, Inco, Noranda, Outokumpu, Xstrata, Cameco, Cominco, Rio Algom, Alberta Geological Survey, Ontario Geological Survey, Manitoba Geological Survey and OMET. Further, beyond this research, Activation Laboratories Ltd. has interpreted the SGH data for over 400 targets from clients since January of 2004. In both CAMIRO research projects over known mineralization and in exploration projects over unknown targets, SGH has performed exceptionally well. As an example, in the first CAMIRO research project that commenced in 1997 (Project 97E04), there were 10 study areas that were submitted blindly to Actlabs. These study sites were selected since other inorganic geochemistries were unsuccessful at illustrating anomalies related to the target.



SOIL GAS HYDROCARBONS (SGH) GEOCHEMISTRY – OVERVIEW

Although Actlabs was only provided with the samples and their coordinates, SGH was able to locate the blind mineralization with exceptional accuracy in 9 of the 10 surveys. SGH has recently been very successful in exploration and discovery of unknown targets e.g. Golden Band Resources drilled an SGH anomaly and discovered a significant vein containing "visible" gold. (www.goldenbandresources.com)

Sample Type and Survey Design: It is highly recommended that a *minimum* of 50 sample "locations" is preferred to obtain enough samples into background areas on both sides of small suspected targets (wet gas plays, Kimberlite pipes, Uranium Breccia pipes, veins, etc.). SGH is not interpreted in the same way as inorganic based geochemistries. SGH must have enough samples over both the target and background areas in order to fully study the dispersion patterns or geochromatography of the SGH classes of compounds. Based on our minimum recommendation of at least 50 sample locations we further suggest that all samples be evenly spaced with about one-third of the samples over the target and one-third on each side of the target in order for SGH to be used for exploration. Targets other than gas plays, pipes, dykes or veins usually require additional samples to represent both the target and background areas.

SGH has been shown to be very robust to the use of different sample types even "within" the same survey or transect. Research has illustrated that it is far more important to the ultimate interpretation of the results to take a complete sample transect or grid than to skip samples due to different sample media. The most ideal natural sample is still believed to be soil from the "Upper B-Horizon", however excellent results can also be obtained from other soil horizons, humus, peat, lake-bottom sediments, and even snow. The sampling design is suggested to use evenly spaced samples from 15 metres to 200 metres and line spacing from 50 metres to 500 metres depending on the size and type of target. A 4:1 ratio is suggested, however, larger orientation surveys have also been successful. Ideally even large grids should have one-third of the samples over the target and two-thirds of the samples into anticipated background areas. This will allow the proper assessment of the SGH geochromatographic vectoring and background site signature levels with minimal bias. Individual samples taken at significant distances from the main survey area to represent background are not of value in the SGH interpretation as SGH results are not background subtracted. Samples can be drip dried in the field and do not need special preservation for shipping and has been specifically designed to avoid common contaminants from sample handling and shipping. SGH has also been shown to be robust to cultural activities even to the point that successful results and interpretation has been obtained from roadside right-ofways.



<u>SOIL GAS HYDROCARBONS (SGH) GEOCHEMISTRY – OVERVIEW</u>

Sample Preparation and Analysis: Upon receipt at Activation Laboratories the samples are air-dried in isolated and dedicated environmentally controlled rooms set to 40°C. The dried samples are then sieved. In the sieving process, it is important that compressed air is not used to clean the sieves between samples as trace amounts of compressor oils "may" poison the samples and significantly affect some target signatures. At Activation Laboratories a vacuum is used to clean the sieve between each sample. The -60 mesh sieve fraction (<250 microns, although different mesh sizes can be used at the preference of the exploration geologist) is collected and packaged in a Kraft paper envelope and transported from our sample preparation building to our analytical building on the same street in Ancaster Ontario. Each sample is then extracted, separated by gas chromatography and analyzed by mass spectrometry using customized parameters enabling the highly specific detection of the 162 targeted hydrocarbons at a reporting limit of one part-per-trillion (ppt). This trace level limit of reporting is critical to the detection of these hydrocarbons that, through research, have been found to be related at least in part to the breakdown and release of hydrocarbons from the death phase of microbes directly interacting with a deposit at depth. The hydrocarbon signatures are directly linked to the deposit type which is used as a food source. The hydrocarbons that are mobilized and metabolized by the microbes are released in the death phase of each successive generation. Very few of the hydrocarbons measured are actually due to microbe cell structure, or hydrocarbons present or formed in the genesis of the deposit or from anthropogenic contamination. The results of the SGH analysis is reported in raw data form in an Excel spreadsheet as "semi-quantitative" concentrations without any additional statistical modification.

Mobilized Inorganic Geochemical Anomalies: It is important to note that SGH is essentially "blind" to any inorganic content in samples as only organic compounds as hydrocarbons are measured. Thus inorganic geochemical surface anomalies that have migrated away from the mineral source, and thus may be interpreted and found to be a false target location, is not detected and does not affect SGH results. This fact is of great advantage when comparing the SGH results to inorganic geochemical results. If there is agreement in the location of the anomalies between the organic and inorganic technique, such as Actlabs' Enzyme Leach, a significant increase in confidence in the target location can be realized. If there is no agreement or a shift in the location of the anomalies between the techniques, the inorganic anomaly may have been mobilized in the surficial environment.

The Nugget Effect: As SGH is "blind" to the inorganic content in the survey samples, any concern of a "nugget effect" will not be encountered with SGH data. A "nugget effect" may be of a concern for inorganic geochemistries from surveys over copper, gold, lead, nickel, etc. type targets.



<u>SOIL GAS HYDROCARBONS (SGH) GEOCHEMISTRY – OVERVIEW</u>

SGH Interpretation Report: All SGH submissions must be accompanied by relative or UTM coordinates so that we may ensure that the sample survey design is appropriate for use with SGH, and to provide an SGH interpretation with the results. In our interpretation procedure, we separate the results into 19 SGH subclasses. These classes include specific alkanes, alkenes, thiophenes, aromatic, and polyaromatic compounds. Note that none of the SGH hydrocarbons are "gaseous" at room temperature and pressure. The classes are then evaluated in terms of their geochromatography and for coincident compound class anomalies that are unique to different types of mineralization. Actlabs uses a six point scale in assigning a subjective rating of similarity of the SGH signatures found in the submitted survey to signatures previously reviewed and researched from known case studies over the same commodity type. Also factored into this rating is the appropriateness of the survey and amount of data/sample locations that is available for interpretation. This rating scale is described in detail in the following section.

SGH RATING SYSTEM - DESCRIPTION

To date SGH has been found to be successful in the depiction of buried mineralization for Gold, Nickel, VMS, SEDEX, Uranium, Polymetallic, and Copper, as well as for Kimberlites. SGH data has developed into a dual exploration tool. From the interpretation, a vertical projection of the predicted location of the target can be made as well as a statement on the rating of the comparability of the identification of the anticipated target type to that from known case studies, as an example: if the client anticipates the target to be a Gold deposit, what is the rating or comparability that the target is similar to the SGH results over a Gold deposit in Nunavut, shear hosted and sediment hosted deposits in Nevada, or Paleochannel Gold mineralization in Western Australia.

- A rating of "6" is the highest or best rating, and means that the SGH classes most important to describing a Gold related hydrocarbon signature are all present and consistently vector to the same location with well defined anomalies. To obtain this rating there also needs to be other SGH classes that when mapped lend support to the predicted location.
- A rating of "5" means that the SGH classes most important to describing a Gold signature are all present • and consistently describe the same location with well defined anomalies. The SGH signatures may not be strong enough to also develop additional supporting classes.
- A rating of "4" means that the SGH classes most important to describing a Gold signature are mostly present describing the location with well defined anomalies. Supporting classes may also be present.



SGH RATING SYSTEM - DESCRIPTION (continued)

- A rating of "3" means that the SGH classes most important to describing a Gold signature are mostly present and describe the same location with <u>fairly well</u> defined anomalies. Some supporting classes may or may not be present.
- A rating of "2" means that some of the SGH classes most important to describing a Gold signature are present but a predicted location is difficult to determine. Some supporting classes may be present
- A rating of "1" is the lowest rating, and means that one of the SGH classes most important to describing a Gold signature is present but a predicted location is difficult to determine. Supporting classes are also not helpful.
- The SGH rating is directly and significantly affected by the survey design. Small data sets, especially if significantly <50 sample locations, or transects/surveys that are geographically too short <u>will automatically receive a lower rating no matter how impressive an SGH anomaly might be</u>. When there is not enough sample locations to adequately review the SGH class geochromatography, or when the sample spacing is inadequate, or if the spacing is highly variable such that it biases the interpretation of the results, then the confidence in the interpretation of any geochemistry is adversely affected. The SGH rating is not just a rating of the agreement between the SGH pathfinder classes for a particular target type; it is a rating of the overall confidence in the SGH results from this particular survey. The interpretation is only based on the SGH results without any information from other geochemical, geological or geophysical information unless otherwise specified.

SGH RATING SYSTEM – HISTORY & UNDERSTANDING

The subjective SGH rating system has been used since 2004 when Activation Laboratories started providing an SGH Interpretation Report with ever submission for SGH analysis to aid our clients in understanding this organic geochemistry and ensuring that they obtain the best results for their surveys. As explained in the previous section, the SGH rating is not just a rating of how definitive an SGH anomaly is, and is not based just on the map(s) provided in this report. It is a rating of "confidence in the interpreted anomaly" from the combination of (i) are the expected SGH Pathfinder Classes of compounds present from the template for this target type (one Pathfinder Class map is shown in the report, at least three must be present to adequately describe the correct signature for a particular target), (ii) how well do these SGH Pathfinder Classes agree in describing an particular area, (iii) how well does this agreement compare to SGH case studies over known targets of that type, (iv) how well is the interpreted anomaly defined by the survey (i.e. a single



<u>SGH RATING SYSTEM – HISTORY & UNDERSTANDING (cont.)</u>

transect does not provide the same confidence as a complete grid of samples), and (v) is there at least a minimum of 50 sample locations in the survey so that there may be an adequate amount of data to observe the geochromatography of the different SGH Pathfinder Class of compounds.

The question often arises by clients as to the frequency of a rating, e.g. "how often is a rating of 5.0 given in an interpretation". To better understand this we present this review of the history of the SGH rating program since 2004 and some of the underlying situations that can affect the historical rating charts.

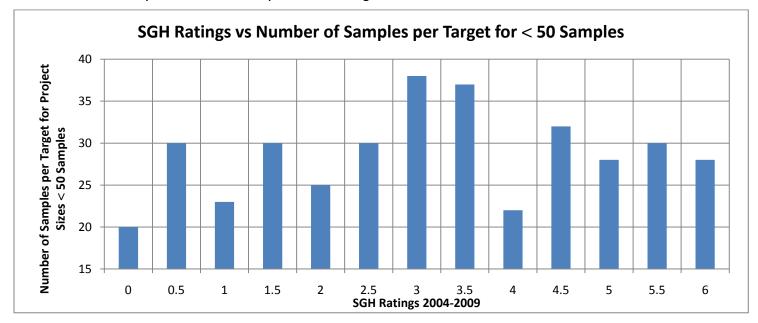
Originally it was recommended that a minimum of 35 sample location be used for small target exploration, however it was quite quickly realized that this is often insufficient and at least 50 sample locations were required. In 2007, the rating scale was refined to include increments of 0.5 units rather than just integer values from 0 to 6.

A rating frequency may be biased high as most clients conduct an orientation study over a known target, thus several of these projects result in high ratings. Note that, at this time, the rating is not said to be linked to grade of a deposit or depth to the target. Even in exploration surveys clients tend to submit samples over more promising targets due to knowledge of the geology and prior geochemical or geophysical results. As shown in the following chart, projects with SGH data from 200 or more sample locations have a higher level of confidence in the interpretation as the geochromatography of the SGH Pathfinder Classes of compounds can be more completely observed and reviewed.

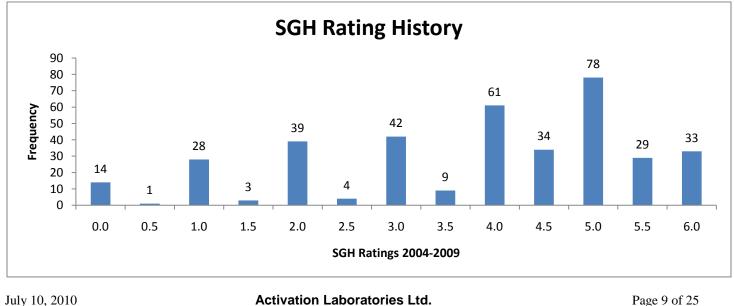


SGH RATING SYSTEM - HISTORY & UNDERSTANDING (cont.)

The rating frequency may be biased low as research projects often include a bare minimum of samples to reduce costs. Research projects may also be over targets known to be difficult to depict with geochemistry. Multiple targets in close vicinity in a survey may result in a low bias as the Pathfinder Class geochromatography is more difficult to deconvelute. Ratings may also be biased low if less than the recommended 50 sample locations is submitted as indicated by the following chart. This chart also illustrates that there is no interpretation bias to a particular rating value.



The overall rating frequency for over 400 targets from January 2004 to December 2009 is shown in the chart below illustrating that surveys over more promising targets are most often submitted for best use of research or exploration dollars. It also indicates that the 0.5 increments were less frequent as they started in 2007.



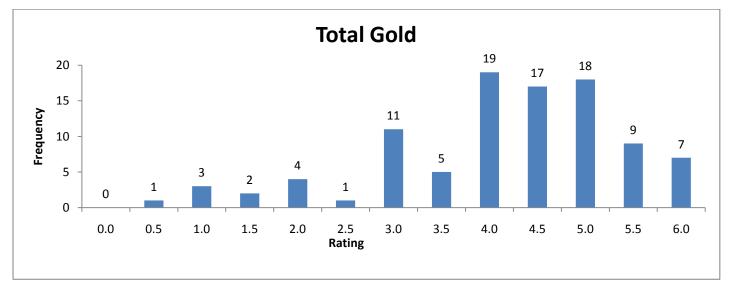
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<u>SGH RATING SYSTEM – HISTORY & UNDERSTANDING (cont.)</u>

More specific for SGH interpretation for Gold targets, the overall rating frequency for 97 targets from January 2004 to December 2009 is shown in the chart below that also illustrates that surveys over more promising Gold targets are most often submitted for best use of research or exploration dollars.



SGH DATA QUALITY

- **<u>Reporting Limit</u>**: The SGH Excel spreadsheet of results contains the raw unaltered concentrations of the individual SGH compounds in units of "part-per-trillion" (ppt). The reporting of these ultra low levels is vital to the measurement of the small amounts of hydrocarbons now known to be leached/metabolized and subsequently released by dead bacteria that have been interacting with the ore at depth. To ensure that the data has a high level of confidence, a "reporting limit" is used. The reporting limit of 1 ppt actually represents a level of confidence of approximately 5 standard deviations where SGH data is assured to be "real" and non-zero. Thus in SGH the use of a reporting limit automatically removes site variability and there is no need to further background subtract any data as the reporting limit has already filtered out any site background effects. Thus we recommend that all data that is equal to or greater than 2 ppt should be used in any data review. It is important to review all SGH data as low values that may be the centre of halo anomalies and higher values as apical anomalies or as halo ridges are all important.
- Laboratory Replicate Analysis: A laboratory replicate is a sample taken randomly from the submitted survey being analyzed and are not unrelated samples taken from some large stockpile of bulk material. In the Organics laboratory an equal portion of this sieved sample, or pulp, is taken and analyzed in the same manner using the Gas Chromatography/Mass Spectrometer. The comparison of laboratory replicate and field duplicate results for chemical tests in the parts-per-million or even parts-per-billion range has typically



SGH DATA QUALITY (continued)

been done using an absolute "relative percent difference (RPD)" statistic which is an easy proxy for error estimation rather than a more complete analysis of precision as specified by Thompson and Howarth. An RPD statistic is not appropriate for SGH results as the reporting limit for SGH is 1 part-per-trillion. Further, <u>SGH is a semi-quantitative technique</u> and was not designed to have the same level of precision as other less sensitive geochemistry's as it is only used as an exploration tool and not for any assay work. SGH is also designed to cover a wide range of organic compounds with an unprecedented 162 compounds being measured for each sample. In order to analyze such a wide molecular weight range of compounds, sacrifices were made to the variability especially in the low molecular weight range of the SGH analysis. The result is that the first fifteen SGH compounds in the Excel spreadsheet is expected to exhibit more imprecision than the other 147 compounds. An SGH laboratory replicate is a large set of data for comparison even for just a few pairs of analyses. Precision calculations using a Thompson and Howarth approach should only be used for estimating error in individual measurements, and not for describing the average error in a larger data set. In geochemical exploration geochemists seek concentration patterns to interpret and thus rigorous precision in individual samples is not required because the concentrations of many samples are interpreted collectively. For these reasons recent and independent research at Acadia University in Canada promote that a percent Coefficient of Variation (%CV) should be used as a universal measurement of relative error in all geochemical applications. As SGH results are a relatively large data set for nearly all submissions, %CV is a better statistic for use with SGH. By using %CV, the concentration of duplicate pairs is irrelevant because the units of concentration cancel out in the formation of the coefficient of variation ratio. For SGH, the %CV is calculated on all values \geq 2 ppt. These values are averaged and represent a value for each pair of replicate analysis of the sample. All of the %CV values for the replicates are then averaged to report one %CV value to represent the overall estimate of the relative error in the laboratory sub-sampling from the prepared samples, and any instrumental variability, in the SGH data set for the survey. Actlabs' has successfully addressed the analytical challenge to minimize analytical variability for such a large list of compounds. Thus as SGH is also interpreted as a signature and is solely used for exploration and not assay measurement, the data from SGH is "fit for purpose" as a geochemical exploration tool.

Historical SGH Precision: In the general history of geochemistry, studies indicate that a large component of total measurement error is introduced during the collection of the initial sample and in subsampling, and that only a subordinate amount of error in the result is introduced during preparation and analysis. A historical record encompassing many projects for SGH, including a wide variety of sample



SGH DATA QUALITY (continued)

types, geology and geography, shows that the consistency and precision for the analysis of SGH is excellent with an overall precision of 6.8% Coefficient of Variation (%CV). When last calculated, this number has a range having a maximum of 12.4% CV, a minimum of 3.0% CV, with a standard deviation of 1.6%, in a population made up of over 400 targets (over 45,000 samples) interpreted since June of 2004. Again the precision of 6.8% CV included all of the sample types as soil from different horizons, peat, till, humus, lake-bottom sediments, ocean-bottom sediments, and even snow. When field duplicates have been revealed to us, we have found that the precision of the field duplicates are in the range of about 9 to 12 %CV. As SGH is interpreted using a combination of compounds as a chemical "class" or signature, the affect of a few concentrations that may be imprecise in a direct comparison of duplicates is not significant. Further, projects that have been re-sampled at different times or seasons are expected to have different SGH concentrations. The SGH anomalies may not be in exactly the same position or of the same intensity due to variable conditions that may have affected the dispersion of different pathfinder classes. However, the SGH "signature" as to the presence of the specific mix of SGH pathfinder classes will definitely still exist, and will retain the ability to identify the deposit type and vector to the same target location.

LABORATORY MATERIALS BLANK – QUALITY ASSURANCE (LMB-QA):

The Laboratory Materials Blank Quality Assurance measurements (LMB-QA) shown in the SGH spreadsheet of results are matrix free blanks analyzed for SGH. These blanks are not standard laboratory blanks as they do not accurately reflect an amount expected to be from laboratory handling or laboratory conditions that may be present and affect the sample analysis result. The LMB-QA measurements are a pre-warning system to only detect any contamination originating from laboratory glassware, vials or caps. As there is no substrate to emulate the sample matrix, the full solvating power of the SGH leaching solution, effectively a water leach, is fully directed at the small surface area of the glassware, vials or caps. In a sample analysis the solvating power of the SGH leaching solution is distributed between the large sample surface area (from soil, humus, sediments, peat, till, etc.) and the relatively small contribution from the laboratory materials surfaces. The sample matrix also buffers the solvating or leaching effect in the sample versus the more vigourous leaching of the laboratory materials which do not experience this buffering effect. Thus the level of the LMB-QA reported is biased high relative to the sample concentration and the actual contribution of the laboratory reagents, equipment, handling, etc. to the values in samples is significantly lower. This situation in organic laboratory analysis only occurs at such extremely low part-pertrillion (ppt) measurement levels. This is one of the reasons that SGH uses a reporting limit and not a detection limit. The 1 ppt reporting limit used in the SGH spreadsheet of raw concentration data is 3 to 5

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Quality Analysis ...



SGH DATA QUALITY (continued)

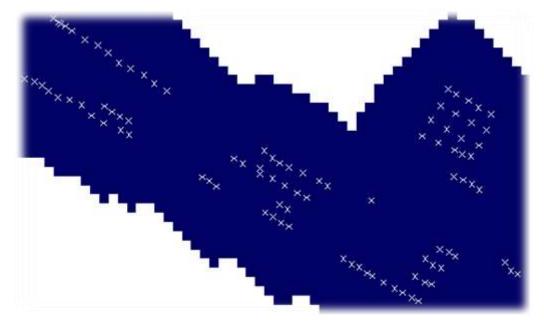
times greater than a detection limit. The reporting limit automatically filters out analytical noise, the actual LMB-QA, and most of the sample survey site background. This has been proven as SGH values of 1 to 3 parts-per-trillion (ppt) have very often illustrated the outline of anomalies directly related to mineral targets. Thus all SGH values greater than or equal to 1 or 2 ppt should be used as reliable values for interpretations.

The LMB-QA values thus should not be used to background subtract any SGH data. The LMB-QA values are only an early warning as a quality assurance procedure to indicate the relative cleanliness of laboratory glassware, vials, caps, and the laboratory water supply at the ppt concentration level. <u>Do not subtract the LMB-QA values from SGH sample data.</u>

<u>INTERPRETION OF SGH RESULTS – A10-3135</u> <u>AUR LAKE EXPLORATIOM LTD. – SGH SURVEY – PART III</u>

SGH SURVEY INTERPRETATION

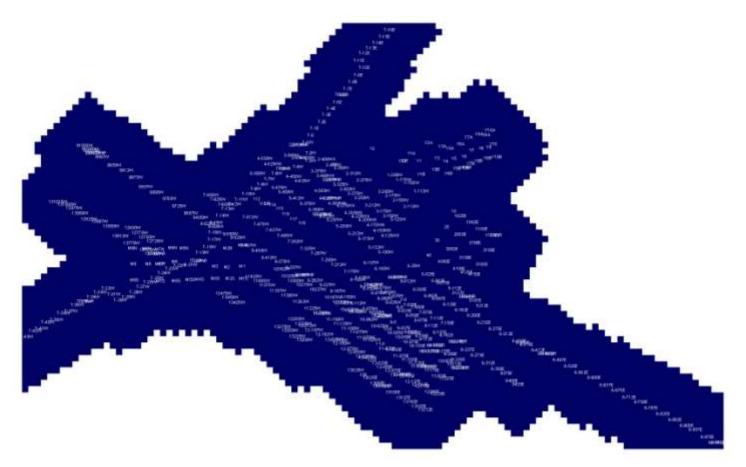
• This report is based on the SGH results from the analysis of a total of 100 soil samples at the SGH Part III survey in the following map:



For the purposes of showing the interpretation in this report, these phase III sample results (workorder A10-3135) are combined with those from phase II (A10-1749) and the data from phase I sampling (A09-5745). The complete grid of all phases of sampling to date is shown with the sample identification in the map on the next page.



INTERPRETION OF SGH RESULTS – A10-3135 AUR LAKE EXPLORATIOM LTD. - SGH SURVEY- PART III



- The number of samples submitted for this project is adequate to use SGH as an exploration tool. Note that the SGH data is only reviewed for the particular target deposit type requested, in this case for the presence of Gold based mineralization. It is also assumed that there is only one potential target. To obtain the best interpretation the client should indicate if there are possible multiple targets, say from geophysical data. The possibility of multiple targets "in close proximity" should be known due to potential overlap and increased complexity of resulting geochromatographic anomalies which could alter the interpretation.
- Note that the associated SGH results are presented in a separate Excel spreadsheet. This raw data is semi-quantitative and is presented in units of picograms/ gram (pg/g) or <u>parts-per-trillion</u> (ppt) as the concentration of specific hydrocarbons in each sample.



INTERPRETION OF SGH RESULTS – A10-3135 AUR LAKE EXPLORATIOM LTD. - SGH SURVEY- PART III

SGH SURVEY INTERPRETATION

- The overall precision of the SGH analysis for the these phase III soil samples was excellent as demonstrated by 7 samples used for laboratory replicate analysis. The average Coefficient of Variation (%CV) of the replicate results was 6.7% CV, an excellent level of analytical performance.
- SGH has been observed to reflect the presence of a REDOX cell. SGH is described by the Ontario Geological Survey of Canada (OGS) as a "REDOX cell locator". Many SGH surveys for Gold and other mineral targets can result in multiple types of anomalies, depending on the class of SGH compounds, even over the same target and in the same set of samples. Thus "Apical", "Nested-Halo", and "Rabbit-Ear" or "Halo" type anomalies are all typically observed from the effect of REDOX cells that have developed over deposits. REDOX cells are also related to the presence of bacteriological activity.
- Note that SGH is "blind" to the presence of inorganic elements that may represent mobilized anomalies.
- SGH results have also been shown to correlate well with geophysical anomalies such as magnetic anomalies and those of CSAMT.
- The client provided the correct UTM coordinates in WA264 datum and verified the complete survey orientation prior to this report.
- It was requested that the results from the analysis of the samples collected in September 2009 (Phase I), April 2010 (Phase II - Spring) and results from these summer samples (Phase III) be mapped and interpreted together. The combination of data sets of SGH data is straight forward and rarely requires levelling. As described in the Phase II report dated May 15, 2010: levelling of Phase I results was required from observations of the data and that the client reported that the field conditions were significantly different during collection of the April 2010/Spring samples from that encountered in September of 2009. It was reported that icy and frozen ground was encountered in April 2010. This accounts for the difference in the SGH response for the two sets of data. The low ground temperature in April of 2010 was effectively a "cold trap" to the flux of hydrocarbons dispersed from the target at depth. This results in higher concentrations for the SGH Gold Pathfinder Classes in the 2010 data. Further the anomalies seen in 2010 are sharper and more distinct than was observed in the 2009 data. Fortunately the 2009 data intersected and crossed through the north-western end of the 2010 survey. Thus, to perform the levelling between these two sets of data, 7 samples from the 2009 data set that were nearest neighbours to samples in 2010 were chosen for a comparison of SGH response. Some of these samples were anomalous and some were

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INTERPRETION OF SGH RESULTS – A10-3135 AUR LAKE EXPLORATIOM LTD. – SGH SURVEY– PART III

SGH SURVEY INTERPRETATION – PATHFINDER CLASS MAPS – Pages 18 and 20

not which provided a range of comparison in the concentration values. A response factor of the difference between these two sets of data was determined for each of these 7 samples. The range of response in this comparison was divided into quartiles. Each quartile was assigned a response factor. Thus the 2009 data was multiplied by a factor of 2.17 (for values in the lowest quartile concentration range), 2.55, 2.85, or 3.15 (for values in the highest quartile concentration range) depending where the pathfinder class concentration for each sample data fell for mapping with the Phase II data. As there was new data in this summer Phase III sampling in the vicinity of the 2009 transect, the levelling was reviewed and slightly modified. Thus the 2009 data was multiplied by a factor of 3.26 (for values in the lowest quartile concentration range), 3.83, 4.28, or 4.73 (for values in the highest quartile concentration range) depending where the pathfinder class concentration for each sample data fell for mapping with the Phase II and Phase III data. It is noted by experts that any type of data levelling should be regarded as an approximation.

- The map shown on page 18 and 20 in plan view, and pages 19 and 21 in 3D view, represent the results obtained from the combined 2009 (workorder A09-5745), 2010 spring survey (A10-1749), and this 2010 summer survey (A10-3135) and are SGH "Pathfinder Class maps" for targeting Gold mineralization. Each of these maps represent the simple summation of several individual hydrocarbon compound concentrations, that are grouped from within the same organic chemical class, that has been associated with gold mineralization from several years of case study research. Map #1 on page 18 is a different SGH Gold Pathfinder Class than that shown on page 20 as Map #2. The interpretation as derived from the Phase I and II data is applied to Map #2 for the reader's reference. SGH Pathfinder Class maps have been shown to be robust as they are each described using from 4 to 14 (unless otherwise stated) chemically related SGH compounds which are simply summed to create each class map. Thus each map has a higher level of confidence as it is not illustrating just one compound response. A legend of the compound classes appears at the bottom of the SGH data spreadsheet.
- The overall SGH interpretation Rating has even a higher level of confidence as it further relies on the consensus between at least two additional pathfinder classes (one of these additional pathfinder maps is shown in this report) that together make the signature of the target at depth.



INTERPRETION OF SGH RESULTS – A10-3135 AUR LAKE EXPLORATIOM LTD. – SGH SURVEY– PART III

SGH SURVEY INTERPRETATION – PATHFINDER CLASS MAPS – Pages 18 and 20

The Gold template of SGH Pathfinder Classes uses low and medium weight classes of hydrocarbon compounds. At least three Pathfinder Class maps, associated with the SGH signature for Gold, must be present to begin to be considered for assignment of a good rating. Usually, only one SGH Gold Pathfinder Class map has been shown in this report to keep the SGH price as reasonable as possible. The Pathfinder Class anomalies must also concur and support a consistent interpretation, in relation to the expected geochromatographic characteristics of the Pathfinder Class, for a specific area. An additional SGH Pathfinder Class map for Gold has been added in this report to show some of this "between class" correlation. These maps are part of the general Gold template that has been shown to be applicable to epithermal, porphyry, vein hosted, and other types of gold deposits. The Pathfinder Class map on page 18 and 20 are just two maps that is diagnostic for the presence of gold based mineralization.

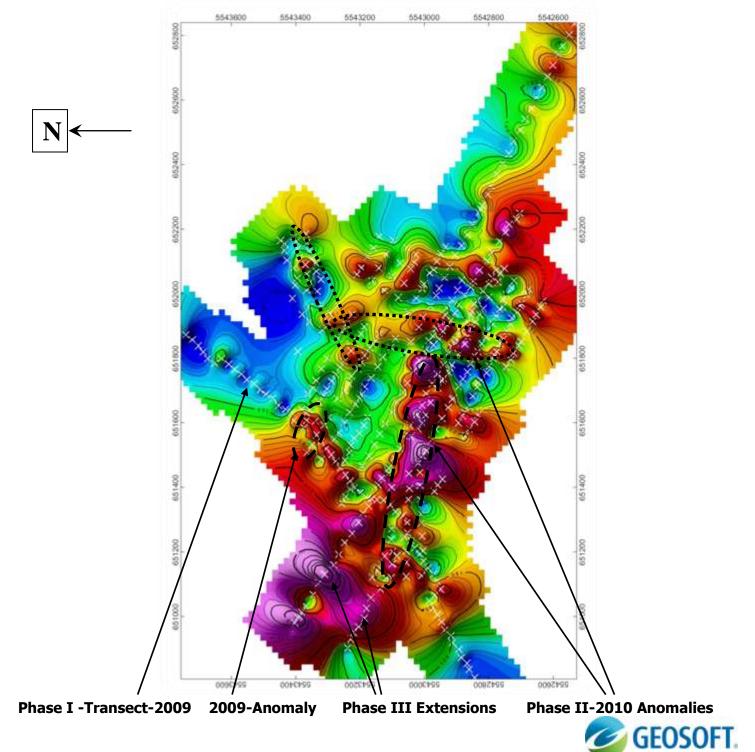
SGH SURVEY INTERPRETATION

On page 22, Map#2 having all the data from Phase I, II, & III is repeated. This SGH Gold Pathfinder map illustrates that the two sample transect extensions to the west of the main grid, that were taken in this Phase III summer field work, are not likely to be over a gold deposit (based only on SGH data) as the pathfinder class on Map #2 has essentially no response in these extensions. With this new Phase II data set, this SGH Gold Pathfinder class (Map #2) appears to be more concise in the Aur Lake survey area so it was decided to show the most up to date interpretation on this map. Thus, the dashed "blue" boundaries on page 22 represent the interpretation that combines all three phases of sample surveys. Some areas to the east of these boundaries have "doted" boundaries to illustrate areas of lower confidence and thus a lower rating as discussed in the next section. The data from the Phase I transect in 2009 was also leveled for representation with the Phase II and Phase III data in this SGH class map. Again, each of these maps is the plot of the simple summation of several of the hydrocarbons in one of the chemical classes, from the Excel spreadsheet of results, which have been associated with gold mineralization.



<u>INTERPRETION OF SGH RESULTS – A10-3135</u> <u>AUR LAKE EXPLORATIOM LTD. – SGH SURVEY– PART I, II, & III</u>

SGH "GOLD" PATHFINDER CLASS MAP #1 - with PHASE I & II INTERPRETATIONS



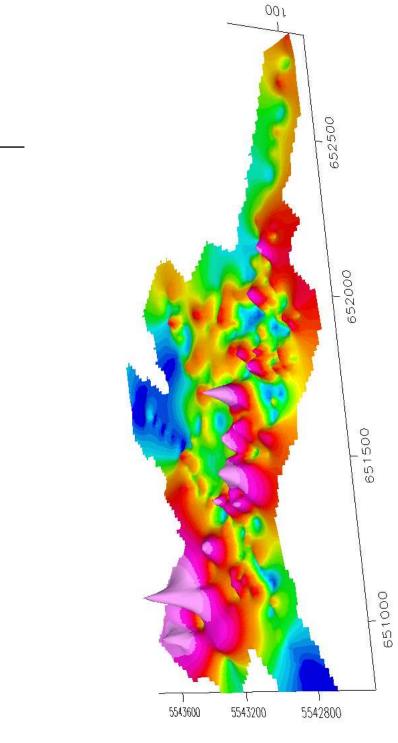
July 10, 2010	Activation Laboratories Ltd.	Page 18 of 25		
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<u>INTERPRETION OF SGH RESULTS – A10-3135</u> <u>AUR LAKE EXPLORATIOM LTD. – SGH SURVEY– PART I, II, & III</u>

SGH "GOLD" PATHFINDER CLASS MAP #1



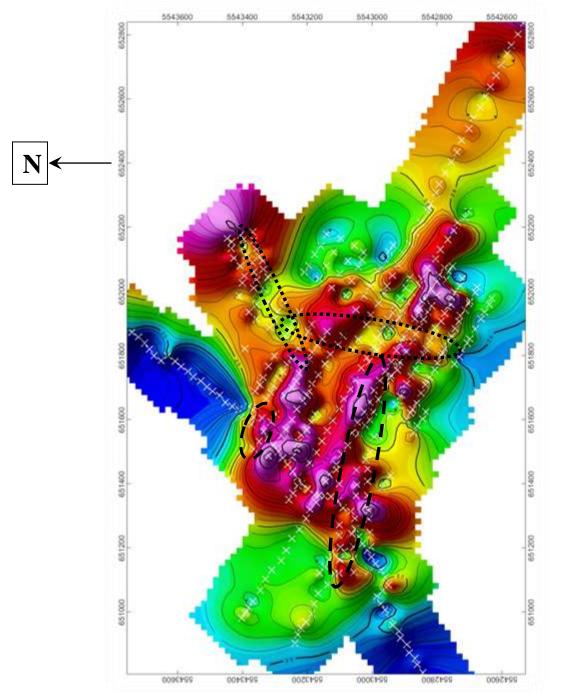


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E-mail: dalesutherland@actlabsint.com				



<u>INTERPRETION OF SGH RESULTS – A10-3135</u> AUR LAKE EXPLORATIOM LTD. – SGH SURVEY– PART I, II, & III

SGH "GOLD" PATHFINDER CLASS MAP #2 - with PHASE I & II INTERPRETATIONS

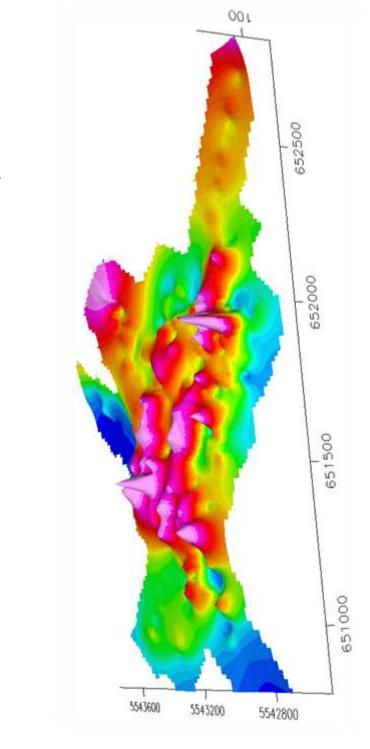






INTERPRETION OF SGH RESULTS – A10-3135 AUR LAKE EXPLORATIOM LTD. - SGH SURVEY- PART I, II, & III

SGH "GOLD" PATHFINDER CLASS MAP #2

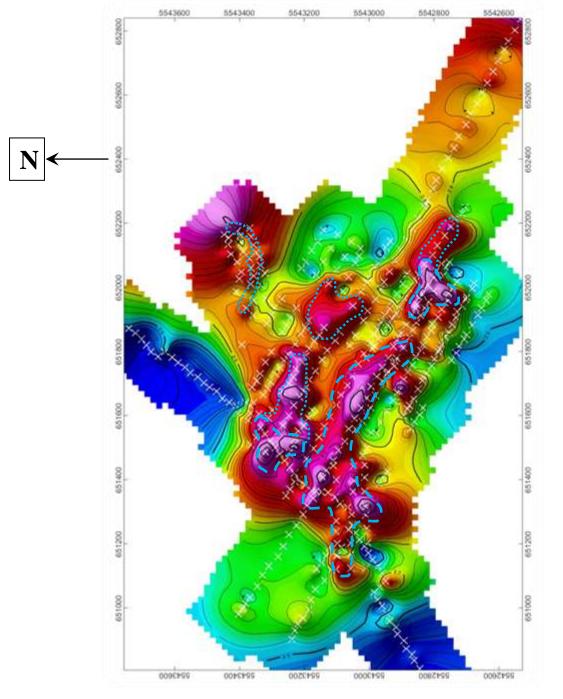






<u>INTERPRETION OF SGH RESULTS – A10-3135</u> <u>AUR LAKE EXPLORATIOM LTD. – SGH SURVEY– PART I, II, & III</u>

SGH "GOLD" PATHFINDER CLASS MAP #2 - with PHASE III INTERPRETATIONS



SGH RATED ANOMALIES WITHIN LIGHT BLUE BOUNDARIES



July 10, 2010	Activation Laboratories Ltd.	Page 22 of 25	
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INTERPRETION OF SGH RESULTS – A10-3135 AUR LAKE EXPLORATIOM LTD. - SGH SURVEY- PART III

SGH SURVEY INTERPRETATION RATING

- One large and two small anomalous areas, outlined by "blue dashed shapes" on page 22 represent the areas that best agree with the SGH Gold template developed from known gold case studies. Two extensions and two additionAL areas outlined by "blue dotted shapes" are anomalous areas with slightly lower confidence in comparison as having the hydrocarbon signature that has been related to the presence of gold mineralization. The positioning of these interpreted areas is approximate and is based on the combined SGH data from 2009 that has been leveled to the results of the data from the spring (Phase II) and summer (phase III) 2010 samples. Other geological, geochemical and geophysical data that the client may have may result in a different interpretation of the possible location of mineralization.
- The anomalous area interpreted from the previous report of May 15, 2010 appears to be supported and enhanced by the samples gathered in the summer of 2010.
- After review of all of the SGH Pathfinder Class maps developed from the samples collected in September 2009 (Phase I) that was leveled and combined with the samples collected in April 2010 (Phase II) and the Summer of 2010 (Phase III), the SGH results suggest a "rating of 5.5" for the areas within the blue dashed ovals, and "rating of 4.5" for the areas within the blue dotted ovals in relation to the presence of a Gold based target. These ratings are subjective and are based on a scale of 6.0, in increments of 0.5, with a value of 6.0 being the best. These ratings represent the similarity of these SGH results, and the developed SGH Pathfinder Class maps, primarily to the general SGH template or signature for Gold developed from case studies for vein hosted Gold in Nunavut, Northern Saskatchewan, and the interior of British Columbia; porphyry Gold in North-Central British Columbia; shear hosted as well as sediment hosted deposits in Nevada; and Paleochannel Gold deposits in Australia. The degree of confidence in the rating only starts to be "good" at a level of 4.0.
- The locations of coincident high apical responses in Map #1 and Map #2 would represent the best locations for a vertical drill target at this Aur Lake survey, although vertical drilling may not be the best approach. Again, this interpretation is based only on the interpretation of this SGH data.
- The client should use a combination of these SGH results and its report with additional geochemical, geophysical, and geological information to possibly obtain a more confident and precise target location.



Cautionary Note Regarding Assumptions and Forward Looking Statements

The statements and target rating made in the Soil Gas Hydrocarbon (SGH) interpretive report or in other communications may contain certain forward-looking information related to a target or SGH anomaly.

Statements related to the rating of a target are based on comparison of the SGH signatures derived by Activation Laboratories Ltd. through previous research on known case studies. The rating is not derived from any statistics or other formula. The rating is a subjective value on a scale of 0 to 6 relative to the similarity of the SGH signature reviewed compared to the results of previous scientific research and case studies based on the analysis of surficial samples over known ore bodies. No information on other geochemistries, geophysics, or geology is usually available as additional information for the interpretation and assignment of a rating value unless otherwise stated. The rating does not imply ore grade and is not to be used in mineral resource estimate calculations. References to the rating should be viewed as forward-looking statements to the extent that it involves a subjective comparison to known SGH case studies. As with other geochemistries, the implied rating and anticipated target characteristics may be different than that actually encountered if the target is drilled or the property developed.

Activation Laboratories Ltd. may also make a scientifically based reference in this interpretive report to an area that might be used as a drill target. Usually the nearest sample is identified as an approximation to a "possible drill target" location. This is based only on SGH results and is to be regarded as a guide based on the current state of this science.

Unless stated, Activation Laboratories Ltd. has not physically observed the exploration site and has no prior knowledge of any site description or details. Actlabs makes general recommendations for sampling and shipping of samples. Unless stated, the laboratory does not witness sampling, does not take into consideration the specific sampling procedures used, season, handling, packaging, or shipping methods. The majority of the time, Activation Laboratories Ltd. has had no input into sampling survey design. Where specified Activation Laboratories Ltd. may not have conducted sample preparation procedures as it may have been conducted at the client's assigned laboratory. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ scientifically which may impact the associated interpretation and target rating from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended.

In general, any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, future events or performance are not statements of historical fact. These "scientifically based educated theories" should be viewed as "forward-looking statements".

Readers of this interpretive report are cautioned not to place undue reliance on forward-looking information. Forward looking statements are made based on scientific beliefs, estimates and opinions on the date the statements are made and the interpretive report issued. The Company undertakes no obligation to update forward-looking statements or otherwise revise previous reports if these beliefs, estimates and opinions, future scientific developments, other new information, or other circumstances should change that may affect the analytical results, rating, or interpretation.

> Actlabs nor its employees shall be liable for any claims or damages as a result of this report, any interpretation, omissions in preparation, or in the test conducted. This report is to be reproduced in full, unless approved in writing.

Quality Analysis ...



Date Submitted: June 16, 2010 Date Analyzed: June 25-28, 2010 Interpretation Report: July 10, 2010

Aur Lake Exploration Ltd.

95 Springdale Blvd. Toronto, Ontario

Attention: Michael Bulatovich

RE: Your Reference: Aur Lake SGH Survey – Part III

CERTIFICATE OF ANALYSIS

100 Soil samples were submitted for analysis.

Code S4 – Drying at 40°C, Sieving -60 mesh The following sample preparation was completed: The following analytical package was requested: Code SGH - Soil Gas Hydrocarbon Geochemistry

REPORT/WORKORDER: A10-3135

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at the time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of the material submitted for analysis.

Notes:

The SGH – Soil Gas Hydrocarbon Geochemistry is a semi-guantitative analytical procedure to detect and measure 162 hydrocarbon compounds as the organic signature in the sample material collected from a survey area. It is not an assay of mineralization but is a predictive geochemical tool used for exploration. This certificate pertains only to the SGH data presented in the associated Microsoft Excel spreadsheet of results.

The author of this SGH Interpretation Report, Mr. Dale Sutherland, is the creator of the SGH organic geochemistry. He is a Chartered Chemist (C.Chem.) and Forensic Scientist specializing in organic chemistry. He is not a professional geologist or geochemist.

CERTIFIED BY: Jutherturk

Dale Sutherland, B.Sc., B.Sc., B.Ed., C.Chem. Forensic Scientist, Organics Manager, Director of Research Activation Laboratories Ltd.

July 10, 2010

Activation Laboratories Ltd.

Page 25 of 25



Innovative Technologies

SGH – SOIL GAS HYDROCARBON Predictive Geochemistry

for

AUR LAKE EXPLORATION LTD. "SGH SURVEY – PART III JUMPING LAKE PROJECT"

July 19, 2010 * Dale Sutherland, Eric Hoffman Activation Laboratories Ltd

(* - author)

EVALUATION OF SGH DATA FOR "SOIL SAMPLES"

EXPLORATION FOR: "VMS" TARGETS

Workorder: A10-3135

July 19, 2010

Activation Laboratories Ltd.

Page 1 of 32

Quality Analysis ...



Table Of Contents

Heading	Page Location
SGH Geochemistry Overview:	3
Sample Type and Survey Design	4
Sample Preparation and Analysis	5
Mobilized Inorganic Geochemical Anomalies	5
The Nugget Effect	5
SGH Interpretation Report	6
SGH Rating System:	
Description	6
History and Understanding	7
SGH Data Quality:	
Reporting Limit	10
Laboratory Replicate Analysis	10
Historical SGH Precision	11
Laboratory Materials Blank – Quality Assurance (LMB-QA)	12
Geochemical Threshold	13
Data Magnitude and Data Leveling	14
Disclaimer	15
Forensic Geochemical Signature	16
SGH Survey Interpretation and Sample Location Maps	20
SGH VMS Pathfinder Class Maps	25
SGH Survey Interpretation Rating	29
SGH "Gold" Pathfinder Class Map with SGH VMS Interpretation	30
Cautionary Note Regarding Assumptions and Forward Looking Stateme	ents 31
Certificate of Analysis	32

July 19, 2010

Activation Laboratories Ltd.

Quality Analysis ...



SOIL GAS HYDROCARBON (SGH) GEOCHEMISTRY - OVERVIEW

SGH is a deep penetrating geochemistry that involves the analysis of surficial samples from over potential mineral or petroleum targets. The analysis involves the testing for 162 hydrocarbon compounds in the C5-C17 carbon series range applicable to a wide variety of sample types. SGH has been successful for delineating targets found at over 500 metres in depth. Samples of various media have been successfully analyzed such as soil (any horizon), drill core, rock, peat, lake-bottom sediments and even snow. The SGH analysis incorporates a very weak leach, essentially aqueous, that only extracts the surficial bound hydrocarbon compounds and those compounds in interstitial spaces around the sample particles. These are the hydrocarbons that have been mobilized from the target depth. SGH is unique and should not be confused with other hydrocarbon tests or traditional analyses that measure C1 (Methane) to C5 (Pentane) or other SGH is also different from soil hydrocarbon tests that thermally extract or desorb all of the gases. hydrocarbons from the whole soil sample. This test is less specific as it does not separate the hydrocarbons and thus does not identify or measure the responses as precisely. These tests also do not use a forensic approach to identification. The hydrocarbons in the SGH extract are separated by high resolution capillary column gas chromatography to isolate, confirm, and measure the presence of only the individual hydrocarbons that have been found to be of interest from initial research and development and from performance testing in two Canadian Mining Industry Research Organization (CAMIRO) projects (97E04 and 01E02).

Over the past 14 years of research, Activation Laboratories Ltd. has developed an in-depth understanding of the unique SGH signatures associated with different commodity targets. Using a forensic approach we have developed target signatures or templates for identification, and the understanding of the expected geochromatography that is exhibited by each class of SGH compounds. In 2004 we began to include an SGH interpretation report delivered with the data to enable our clients to realize the complete value and understanding of the SGH results in the shortest time frame and provide the benefit from past research sponsored by Actlabs, CAMIRO, OMET and other projects.

SGH has attracted the attention of a large number of Exploration companies. In the above mentioned research projects the sponsors have included (in no order): Western Mining Corporation, BHP-Billiton, Inco, Noranda, Outokumpu, Xstrata, Cameco, Cominco, Rio Algom, Alberta Geological Survey, Ontario Geological Survey, Manitoba Geological Survey and OMET. Further, beyond this research, Activation Laboratories Ltd. has interpreted the SGH data for over 400 targets from clients since January of 2004. In both CAMIRO research projects over known mineralization and in exploration projects over unknown targets, SGH has performed exceptionally well. As an example, in the first CAMIRO research project that commenced in 1997 (Project 97E04), there were 10 study areas that were submitted blindly to Actlabs. These study sites were selected since other inorganic geochemistries were unsuccessful at illustrating anomalies related to the target.



SOIL GAS HYDROCARBONS (SGH) GEOCHEMISTRY – OVERVIEW

Although Actlabs was only provided with the samples and their coordinates, SGH was able to locate the blind mineralization with exceptional accuracy in 9 of the 10 surveys. SGH has recently been very successful in exploration and discovery of unknown targets e.g. Golden Band Resources drilled an SGH anomaly and discovered a significant vein containing "visible" gold. (www.goldenbandresources.com)

Sample Type and Survey Design: It is highly recommended that a *minimum* of 50 sample "locations" is preferred to obtain enough samples into background areas on both sides of small suspected targets (wet gas plays, Kimberlite pipes, Uranium Breccia pipes, veins, etc.). SGH is not interpreted in the same way as inorganic based geochemistries. SGH must have enough samples over both the target and background areas in order to fully study the dispersion patterns or geochromatography of the SGH classes of compounds. Based on our minimum recommendation of at least 50 sample locations we further suggest that all samples be evenly spaced with about one-third of the samples over the target and one-third on each side of the target in order for SGH to be used for exploration. Targets other than gas plays, pipes, dykes or veins usually require additional samples to represent both the target and background areas.

SGH has been shown to be very robust to the use of different sample types even "within" the same survey or transect. Research has illustrated that it is far more important to the ultimate interpretation of the results to take a complete sample transect or grid than to skip samples due to different sample media. The most ideal natural sample is still believed to be soil from the "Upper B-Horizon", however excellent results can also be obtained from other soil horizons, humus, peat, lake-bottom sediments, and even snow. The sampling design is suggested to use evenly spaced samples from 15 metres to 200 metres and line spacing from 50 metres to 500 metres depending on the size and type of target. A 4:1 ratio is suggested, however, larger orientation surveys have also been successful. Ideally even large grids should have one-third of the samples over the target and two-thirds of the samples into anticipated background areas. This will allow the proper assessment of the SGH geochromatographic vectoring and background site signature levels with minimal bias. Individual samples taken at significant distances from the main survey area to represent background are not of value in the SGH interpretation as SGH results are not background subtracted. Samples can be drip dried in the field and do not need special preservation for shipping and has been specifically designed to avoid common contaminants from sample handling and shipping. SGH has also been shown to be robust to cultural activities even to the point that successful results and interpretation has been obtained from roadside right-ofways.



<u>SOIL GAS HYDROCARBONS (SGH) GEOCHEMISTRY – OVERVIEW</u>

Sample Preparation and Analysis: Upon receipt at Activation Laboratories the samples are air-dried in isolated and dedicated environmentally controlled rooms set to 40°C. The dried samples are then sieved. In the sieving process, it is important that compressed air is not used to clean the sieves between samples as trace amounts of compressor oils "may" poison the samples and significantly affect some target signatures. At Activation Laboratories a vacuum is used to clean the sieve between each sample. The -60 mesh sieve fraction (<250 microns, although different mesh sizes can be used at the preference of the exploration geologist) is collected and packaged in a Kraft paper envelope and transported from our sample preparation building to our analytical building on the same street in Ancaster Ontario. Each sample is then extracted, separated by gas chromatography and analyzed by mass spectrometry using customized parameters enabling the highly specific detection of the 162 targeted hydrocarbons at a reporting limit of one part-per-trillion (ppt). This trace level limit of reporting is critical to the detection of these hydrocarbons that, through research, have been found to be related at least in part to the breakdown and release of hydrocarbons from the death phase of microbes directly interacting with a deposit at depth. The hydrocarbon signatures are directly linked to the deposit type which is used as a food source. The hydrocarbons that are mobilized and metabolized by the microbes are released in the death phase of each successive generation. Very few of the hydrocarbons measured are actually due to microbe cell structure, or hydrocarbons present or formed in the genesis of the deposit or from anthropogenic contamination. The results of the SGH analysis is reported in raw data form in an Excel spreadsheet as "semi-quantitative" concentrations without any additional statistical modification.

Mobilized Inorganic Geochemical Anomalies: It is important to note that SGH is essentially "blind" to any inorganic content in samples as only organic compounds as hydrocarbons are measured. Thus inorganic geochemical surface anomalies that have migrated away from the mineral source, and thus may be interpreted and found to be a false target location, is not detected and does not affect SGH results. This fact is of great advantage when comparing the SGH results to inorganic geochemical results. If there is agreement in the location of the anomalies between the organic and inorganic technique, such as Actlabs' Enzyme Leach, a significant increase in confidence in the target location can be realized. If there is no agreement or a shift in the location of the anomalies between the techniques, the inorganic anomaly may have been mobilized in the surficial environment.

The Nugget Effect: As SGH is "blind" to the inorganic content in the survey samples, any concern of a "nugget effect" will not be encountered with SGH data. A "nugget effect" may be of a concern for inorganic geochemistries from surveys over copper, gold, lead, nickel, etc. type targets.



<u>SOIL GAS HYDROCARBONS (SGH) GEOCHEMISTRY – OVERVIEW</u>

SGH Interpretation Report: All SGH submissions must be accompanied by relative or UTM coordinates so that we may ensure that the sample survey design is appropriate for use with SGH, and to provide an SGH interpretation with the results. In our interpretation procedure, we separate the results into 19 SGH subclasses. These classes include specific alkanes, alkenes, thiophenes, aromatic, and polyaromatic compounds. Note that none of the SGH hydrocarbons are "gaseous" at room temperature and pressure. The classes are then evaluated in terms of their geochromatography and for coincident compound class anomalies that are unique to different types of mineralization. Actlabs uses a six point scale in assigning a subjective rating of similarity of the SGH signatures found in the submitted survey to signatures previously reviewed and researched from known case studies over the same commodity type. Also factored into this rating is the appropriateness of the survey and amount of data/sample locations that is available for interpretation. This rating scale is described in detail in the following section.

SGH RATING SYSTEM - DESCRIPTION

To date SGH has been found to be successful in the depiction of buried mineralization for Gold, Nickel, VMS, SEDEX, Uranium, Polymetallic, and Copper, as well as for Kimberlites. SGH data has developed into a dual exploration tool. From the interpretation, a vertical projection of the predicted location of the target can be made as well as a statement on the rating of the comparability of the identification of the anticipated target type to that from known case studies, as an example: if the client anticipates the target to be a Gold deposit, what is the rating or comparability that the target is similar to the SGH results over a Gold deposit in Nunavut, shear hosted and sediment hosted deposits in Nevada, or Paleochannel Gold mineralization in Western Australia.

- A rating of "6" is the highest or best rating, and means that the SGH classes most important to describing a Gold related hydrocarbon signature are all present and consistently vector to the same location with well defined anomalies. To obtain this rating there also needs to be other SGH classes that when mapped lend support to the predicted location.
- A rating of "5" means that the SGH classes most important to describing a Gold signature are all present • and consistently describe the same location with well defined anomalies. The SGH signatures may not be strong enough to also develop additional supporting classes.
- A rating of "4" means that the SGH classes most important to describing a Gold signature are mostly present describing the location with well defined anomalies. Supporting classes may also be present.



SGH RATING SYSTEM - DESCRIPTION (continued)

- A rating of "3" means that the SGH classes most important to describing a Gold signature are mostly present and describe the same location with <u>fairly well</u> defined anomalies. Some supporting classes may or may not be present.
- A rating of "2" means that some of the SGH classes most important to describing a Gold signature are present but a predicted location is difficult to determine. Some supporting classes may be present
- A rating of "1" is the lowest rating, and means that one of the SGH classes most important to describing a Gold signature is present but a predicted location is difficult to determine. Supporting classes are also not helpful.
- The SGH rating is directly and significantly affected by the survey design. Small data sets, especially if significantly <50 sample locations, or transects/surveys that are geographically too short <u>will automatically receive a lower rating no matter how impressive an SGH anomaly might be</u>. When there is not enough sample locations to adequately review the SGH class geochromatography, or when the sample spacing is inadequate, or if the spacing is highly variable such that it biases the interpretation of the results, then the confidence in the interpretation of any geochemistry is adversely affected. The SGH rating is not just a rating of the agreement between the SGH pathfinder classes for a particular target type; it is a rating of the overall confidence in the SGH results from this particular survey. The interpretation is only based on the SGH results without any information from other geochemical, geological or geophysical information unless otherwise specified.

SGH RATING SYSTEM – HISTORY & UNDERSTANDING

The subjective SGH rating system has been used since 2004 when Activation Laboratories started providing an SGH Interpretation Report with ever submission for SGH analysis to aid our clients in understanding this organic geochemistry and ensuring that they obtain the best results for their surveys. As explained in the previous section, the SGH rating is not just a rating of how definitive an SGH anomaly is, and is not based just on the map(s) provided in this report. It is a rating of "confidence in the interpreted anomaly" from the combination of (i) are the expected SGH Pathfinder Classes of compounds present from the template for this target type (one Pathfinder Class map is shown in the report, at least three must be present to adequately describe the correct signature for a particular target), (ii) how well do these SGH Pathfinder Classes agree in describing an particular area, (iii) how well does this agreement compare to SGH case studies over known targets of that type, (iv) how well is the interpreted anomaly defined by the survey (i.e. a single



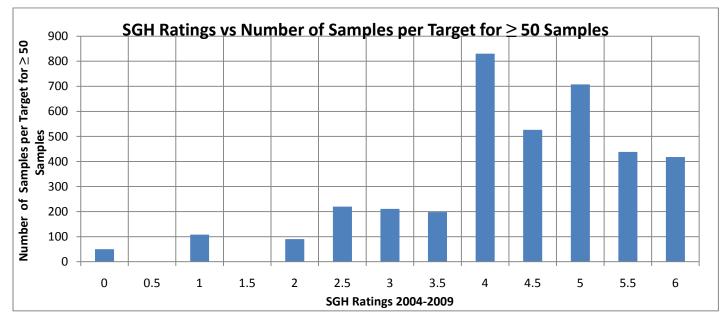
<u>SGH RATING SYSTEM – HISTORY & UNDERSTANDING (cont.)</u>

transect does not provide the same confidence as a complete grid of samples), and (v) is there at least a minimum of 50 sample locations in the survey so that there may be an adequate amount of data to observe the geochromatography of the different SGH Pathfinder Class of compounds.

The question often arises by clients as to the frequency of a rating, e.g. "how often is a rating of 5.0 given in an interpretation". To better understand this we present this review of the history of the SGH rating program since 2004 and some of the underlying situations that can affect the historical rating charts.

Originally it was recommended that a minimum of 35 sample location be used for small target exploration, however it was quite quickly realized that this is often insufficient and at least 50 sample locations were required. In 2007, the rating scale was refined to include increments of 0.5 units rather than just integer values from 0 to 6.

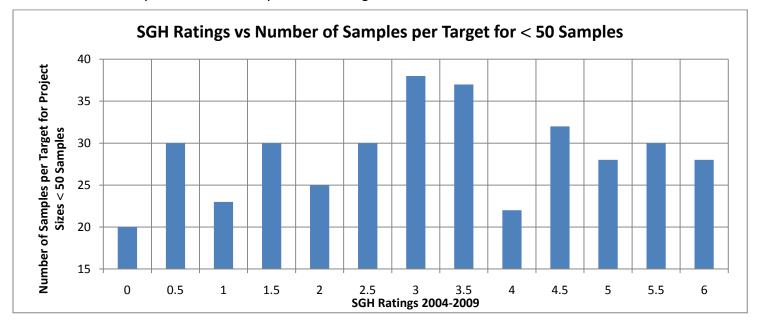
A rating frequency may be biased high as most clients conduct an orientation study over a known target, thus several of these projects result in high ratings. Note that, at this time, the rating is not said to be linked to grade of a deposit or depth to the target. Even in exploration surveys clients tend to submit samples over more promising targets due to knowledge of the geology and prior geochemical or geophysical results. As shown in the following chart, projects with SGH data from 200 or more sample locations have a higher level of confidence in the interpretation as the geochromatography of the SGH Pathfinder Classes of compounds can be more completely observed and reviewed.



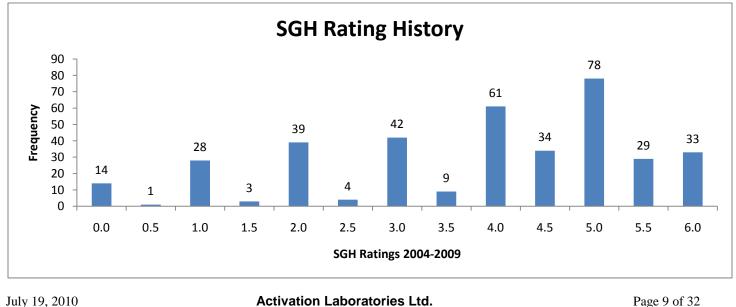


SGH RATING SYSTEM - HISTORY & UNDERSTANDING (cont.)

The rating frequency may be biased low as research projects often include a bare minimum of samples to reduce costs. Research projects may also be over targets known to be difficult to depict with geochemistry. Multiple targets in close vicinity in a survey may result in a low bias as the Pathfinder Class geochromatography is more difficult to deconvelute. Ratings may also be biased low if less than the recommended 50 sample locations is submitted as indicated by the following chart. This chart also illustrates that there is no interpretation bias to a particular rating value.



The overall rating frequency for over 400 targets from January 2004 to December 2009 is shown in the chart below illustrating that surveys over more promising targets are most often submitted for best use of research or exploration dollars. It also indicates that the 0.5 increments were less frequent as they started in 2007.



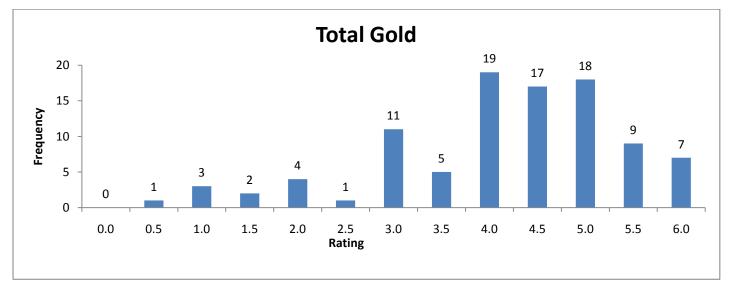
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<u>SGH RATING SYSTEM – HISTORY & UNDERSTANDING (cont.)</u>

More specific for SGH interpretation for Gold targets, the overall rating frequency for 97 targets from January 2004 to December 2009 is shown in the chart below that also illustrates that surveys over more promising Gold targets are most often submitted for best use of research or exploration dollars.



SGH DATA QUALITY

- **<u>Reporting Limit</u>**: The SGH Excel spreadsheet of results contains the raw unaltered concentrations of the individual SGH compounds in units of "part-per-trillion" (ppt). The reporting of these ultra low levels is vital to the measurement of the small amounts of hydrocarbons now known to be leached/metabolized and subsequently released by dead bacteria that have been interacting with the ore at depth. To ensure that the data has a high level of confidence, a "reporting limit" is used. The reporting limit of 1 ppt actually represents a level of confidence of approximately 5 standard deviations where SGH data is assured to be "real" and non-zero. Thus in SGH the use of a reporting limit automatically removes site variability and there is no need to further background subtract any data as the reporting limit has already filtered out any site background effects. Thus we recommend that all data that is equal to or greater than 2 ppt should be used in any data review. It is important to review all SGH data as low values that may be the centre of halo anomalies and higher values as apical anomalies or as halo ridges are all important.
- Laboratory Replicate Analysis: A laboratory replicate is a sample taken randomly from the submitted survey being analyzed and are not unrelated samples taken from some large stockpile of bulk material. In the Organics laboratory an equal portion of this sieved sample, or pulp, is taken and analyzed in the same manner using the Gas Chromatography/Mass Spectrometer. The comparison of laboratory replicate and field duplicate results for chemical tests in the parts-per-million or even parts-per-billion range has typically



SGH DATA QUALITY (continued)

been done using an absolute "relative percent difference (RPD)" statistic which is an easy proxy for error estimation rather than a more complete analysis of precision as specified by Thompson and Howarth. An RPD statistic is not appropriate for SGH results as the reporting limit for SGH is 1 part-per-trillion. Further, <u>SGH is a semi-quantitative technique</u> and was not designed to have the same level of precision as other less sensitive geochemistry's as it is only used as an exploration tool and not for any assay work. SGH is also designed to cover a wide range of organic compounds with an unprecedented 162 compounds being measured for each sample. In order to analyze such a wide molecular weight range of compounds, sacrifices were made to the variability especially in the low molecular weight range of the SGH analysis. The result is that the first fifteen SGH compounds in the Excel spreadsheet is expected to exhibit more imprecision than the other 147 compounds. An SGH laboratory replicate is a large set of data for comparison even for just a few pairs of analyses. Precision calculations using a Thompson and Howarth approach should only be used for estimating error in individual measurements, and not for describing the average error in a larger data set. In geochemical exploration geochemists seek concentration patterns to interpret and thus rigorous precision in individual samples is not required because the concentrations of many samples are interpreted collectively. For these reasons recent and independent research at Acadia University in Canada promote that a percent Coefficient of Variation (%CV) should be used as a universal measurement of relative error in all geochemical applications. As SGH results are a relatively large data set for nearly all submissions, %CV is a better statistic for use with SGH. By using %CV, the concentration of duplicate pairs is irrelevant because the units of concentration cancel out in the formation of the coefficient of variation ratio. For SGH, the %CV is calculated on all values \geq 2 ppt. These values are averaged and represent a value for each pair of replicate analysis of the sample. All of the %CV values for the replicates are then averaged to report one %CV value to represent the overall estimate of the relative error in the laboratory sub-sampling from the prepared samples, and any instrumental variability, in the SGH data set for the survey. Actlabs' has successfully addressed the analytical challenge to minimize analytical variability for such a large list of compounds. Thus as SGH is also interpreted as a signature and is solely used for exploration and not assay measurement, the data from SGH is "fit for purpose" as a geochemical exploration tool.

Historical SGH Precision: In the general history of geochemistry, studies indicate that a large component of total measurement error is introduced during the collection of the initial sample and in subsampling, and that only a subordinate amount of error in the result is introduced during preparation and analysis. A historical record encompassing many projects for SGH, including a wide variety of sample



SGH DATA QUALITY (continued)

types, geology and geography, shows that the consistency and precision for the analysis of SGH is excellent with an overall precision of 6.8% Coefficient of Variation (%CV). When last calculated, this number has a range having a maximum of 12.4% CV, a minimum of 3.0% CV, with a standard deviation of 1.6%, in a population made up of over 400 targets (over 45,000 samples) interpreted since June of 2004. Again the precision of 6.8% CV included all of the sample types as soil from different horizons, peat, till, humus, lake-bottom sediments, ocean-bottom sediments, and even snow. When field duplicates have been revealed to us, we have found that the precision of the field duplicates are in the range of about 9 to 12 %CV. As SGH is interpreted using a combination of compounds as a chemical "class" or signature, the affect of a few concentrations that may be imprecise in a direct comparison of duplicates is not significant. Further, projects that have been re-sampled at different times or seasons are expected to have different SGH concentrations. The SGH anomalies may not be in exactly the same position or of the same intensity due to variable conditions that may have affected the dispersion of different pathfinder classes. However, the SGH "signature" as to the presence of the specific mix of SGH pathfinder classes will definitely still exist, and will retain the ability to identify the deposit type and vector to the same target location.

LABORATORY MATERIALS BLANK – QUALITY ASSURANCE (LMB-QA):

The Laboratory Materials Blank Quality Assurance measurements (LMB-QA) shown in the SGH spreadsheet of results are matrix free blanks analyzed for SGH. These blanks are not standard laboratory blanks as they do not accurately reflect an amount expected to be from laboratory handling or laboratory conditions that may be present and affect the sample analysis result. The LMB-QA measurements are a pre-warning system to only detect any contamination originating from laboratory glassware, vials or caps. As there is no substrate to emulate the sample matrix, the full solvating power of the SGH leaching solution, effectively a water leach, is fully directed at the small surface area of the glassware, vials or caps. In a sample analysis the solvating power of the SGH leaching solution is distributed between the large sample surface area (from soil, humus, sediments, peat, till, etc.) and the relatively small contribution from the laboratory materials surfaces. The sample matrix also buffers the solvating or leaching effect in the sample versus the more vigourous leaching of the laboratory materials which do not experience this buffering effect. Thus the level of the LMB-QA reported is biased high relative to the sample concentration and the actual contribution of the laboratory reagents, equipment, handling, etc. to the values in samples is significantly lower. This situation in organic laboratory analysis only occurs at such extremely low part-pertrillion (ppt) measurement levels. This is one of the reasons that SGH uses a reporting limit and not a detection limit. The 1 ppt reporting limit used in the SGH spreadsheet of raw concentration data is 3 to 5

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SGH DATA QUALITY (continued)

times greater than a detection limit. The reporting limit automatically filters out analytical noise, the actual LMB-QA, and most of the sample survey site background. This has been proven as SGH values of 1 to 3 parts-per-trillion (ppt) have very often illustrated the outline of anomalies directly related to mineral targets. Thus all SGH values greater than or equal to 1 or 2 ppt should be used as reliable values for interpretations.

The LMB-QA values thus should not be used to background subtract any SGH data. The LMB-QA values are only an early warning as a quality assurance procedure to indicate the relative cleanliness of laboratory glassware, vials, caps, and the laboratory water supply at the ppt concentration level. Do not subtract the LMB-QA values from SGH sample data.

SGH DATA INTERPRETATION

GEOCHEMICAL ANOMALY THRESHOLD VALUE:

In the interpretation of "inorganic" geochemical data one of the determinations to be made is to calculate a "Threshold" value above which data is considered anomalous. This is done on an element by element basis. In the interpretation of this "organic" geochemical data this determination is done differently. The determination of a threshold value is not calculated for each hydrocarbon compound. The determination of a threshold value is also a concentration below which geochemical data is considered as "noise" for the purposes of geochemical interpretation. As discussed on page 10, SGH uses a "Reporting Limit" instead of some type of Detection Limit. The amount of noise that is already eliminated in the data, as below the Reporting Limit of 1 part-per-trillion (shown in the data spreadsheet as "-1" as "not-detected at a Reporting Limit of 1 ppt") is equivalent to approximately 5 standard deviations of variability. To thus calculate an additional Threshold Value is a loss of real and valuable data. Further, in the interpretation of SGH data, individual compounds are not considered (unless explicitly mentioned in the report). The interpretation of SGH data is exclusively conducted by "compound chemical class" which is the sum of four to fourteen individual hydrocarbons in the same organic chemical class as these compounds naturally have the same chemical properties that ultimately define their spatial dispersion characteristics in their rise from a mineral target through the overburden. This combined class is more reliable than the measurement of any one compound. SGH also eliminates the need for a Threshold value determination above the Reporting Limit due to the "high specificity" of the specific hydrocarbons and the classes they form. Each of the hydrocarbons has been hand selected due to their lower probability of being found in general surface soils. Further, only those classes where the majority of the compounds are detected above the Reporting Limit are considered in the interpretation. This defines the SGH geochemistry as having less



SGH DATA INTERPRETATION

GEOCHEMICAL ANOMALY THRESHOLD VALUE: (continued)

geochemical noise due to the use of a reporting limit and as having higher confidence in the use of groups (classes) of data instead of individual compounds. However the most important aspect of interpretation is the use of a forensic signature. At least three specific "Pathfinder" classes, based on the combinations or template of classes we have developed, must be present to define the hydrocarbon signature to confidently predict the presence of a specific type of mineral target. <u>Do not calculate another Threshold value</u>. <u>FACT:</u> It has been proven many times that important chemical anomalies can exist even at 5 ppt.

<u>SGH PATHFINDER CLASS MAGNITUDE</u>:

The magnitude of any individual concentration or that of a hydrocarbon class <u>does not imply</u> that the data is of more importance or that mineralization is of higher quantity or grade. SGH interpretation must use the review of the combination of specific hydrocarbon classes to make any interpretation.

SGH DATA INTERPRETATION

• SGH DATA LEVELING:

The combination of SGH data from different field sampling events has rarely required leveling in order to combine survey grids. The only circumstances that have occasionally required leveling has been the combination of samples that are very fine in texture, thus having a combined large surface area to samples of peat that may be in nearby areas. Even after maceration of the peat and in using the maximum size of sample amenable to this test method, peat samples have a significantly lower surface area. Peat samples have only required leveling in one survey in the last 500 SGH interpretations.

In only the last year it has been observed that SGH data **may** require leveling when different field sampling events have significantly different soil temperature. It has been documented that only when "soil" samples are taken from "frozen" ground that data leveling may be required as frozen sample act as a frozen cap to the hydrocarbon flux and may collect a higher concentration of hydrocarbon compounds compared to sampling during seasons where the samples are not frozen. Only two surveys have required leveling in the last 500 SGH interpretations.

The author has taken introductory training in the leveling of geochemical data. If leveling is required, both data sets are reviewed in terms of maximum, minimum and average values for each SGH Pathfinder Class intended for use in the interpretation. Data in sectioned into quartiles and each section is assigned specific leveling factors that is then applied to one data set. It should be noted that any type of data leveling is an approximation.

Quality Analysis ...



SGH DATA INTERPRETATION

DISCLAIMER:

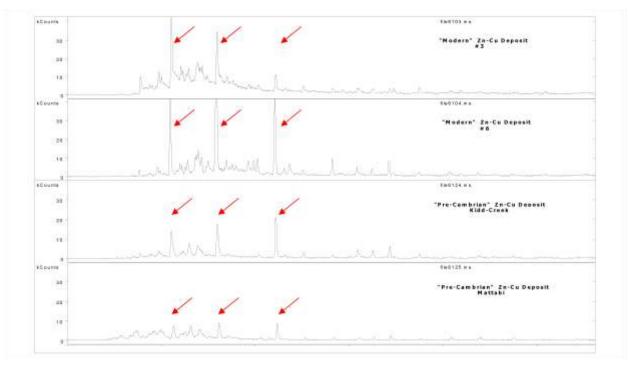
This "SGH Interpretation Report" has been prepared to assist the user in understanding the development and capabilities of this Organic based Geochemistry. The interpretation of the Soil Gas Hydrocarbon (SGH) data is in reference to a template or group of SGH classes of compounds specific to a type of mineralization or target that is chosen by the client (i.e. the template for gold, copper, VMS, uranium, etc.). Although the template of SGH Pathfinder Classes that has been developed through research and review of case studies has proven to be able to address many lithologies, Activation Laboratories Ltd. cannot guarantee that the template is applicable to every type of target in every type of environment. The interpretation in this report attempts to identify an anomaly that has the best SGH signature in the survey for the type of mineralization or target chosen by the client. However, this interpretation is not exhaustive and there may be additional SGH anomalies that may warrant interest. It should not be viewed due to the generation of this SGH report, that Activation Laboratories Ltd. has the expertise or is in the business of interpreting geochemical data as a general service. As the author is the originator of the SGH geochemistry, has researched and developed this exploration tool since 1996, and has produced similar interpretations using SGH data for over 500 surveys, he is perhaps the best qualified to prepare this interpretation as assistance to clients wishing to use SGH. Activation Laboratories Ltd. can offer assistance in general suggestions for sampling protocols and in sample grid location design; however we accept no responsibility to the appropriateness of the samples taken. Activation Laboratories Ltd. has made every attempt to ensure the accuracy and reliability of the information provided in this report. Activation Laboratories Ltd. or its employees, does not accept any responsibility or liability for the accuracy, content, completeness, legality, or reliability of the information or description of processes contained in this report. The information is provided "as is" without a guarantee of any kind in the interpretation or use of the results of the SGH geochemistry. The client or user accepts all risks and responsibility for losses, damages, costs and other consequences resulting directly or indirectly form using any information or material contained in this report or using data from the associated spreadsheet of results.



Innovative Technologies

<u>SGH – FORENSIC GEOCHEMICAL SIGNATURES</u>

One of the first experiments in 1996 in the development of the SGH analysis was to observe if an SGH response could be obtained directly from an ore sample. From office shelf specimens, small rock chips were obtained which were then crushed and milled. The fine pulp obtained was then subjected to the SGH analysis. These shelf specimen samples were from well known Volcanic Massive Sulphide deposits of the Mattabi deposit from the Archean Sturgeon Lake Camp in Northwestern Ontario and from the Kidd Creek Archean volcanic-hosted copper-zinc deposit. Even these specimen samples contain a geochemical record of the hydrocarbons produced by the bacteria that had been feeding on these deposits at depth. As a comparison, SGH analysis were similarly conducted on modern-day VMS ore samples taken from a "black smoker" hydrothermal volcanic vent from the deep sea bed of the Juan de Fuca Ridge where high concentrations of microbial growth was also known to exist. The raw data profiles as GC/MS Total Ion Chromatograms are shown below to illustrate the "visible" portion of the VMS signature obtained from the SGH analysis.

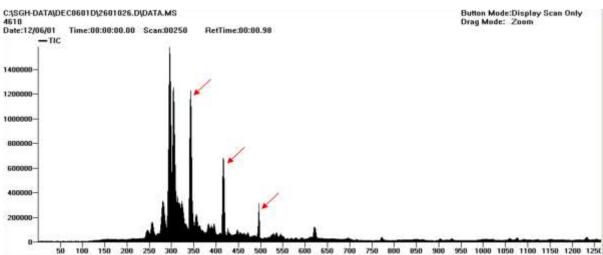


The top two profiles were obtained from two samples of the modern day "black smokers". The third and fourth chromatograms in the above image were obtained from the Pre-Cambrian Zn-Cu Kidd Creek and Mattabi deposits. The red arrows point to three compounds that are <u>a portion</u> of the SGH signature for VMS type deposits. This visible portion of the VMS signature of hydrocarbons can easily be seen in the analysis of each of these four samples.

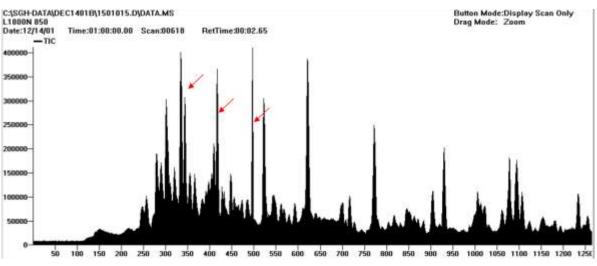


SGH – FORENSIC GEOCHEMICAL SIGNATURES (cont.)

The next question in our early objectives was to see if this SGH signature could also be observed in surficial soil samples that had been taken over VMS deposits. Through our research projects, soil samples were obtained from over the Ruttan Cu-Zn VMS deposit near Leaf Rapids, Manitoba and located in the Paleoproterozoic Rusty Lake greenstone belt. The profile obtained, as observed in the raw GC/MS chromatogram, is shown in this next image below:



The three compounds indicated by the red arrows represent the same visible portion of the VMS signature observed from the modern day black smoker samples and the ore samples taken from the Mattabi and Kidd Creek, even though this soil was taken from over a different VMS deposit in a geographically different area. Is this coincidence? Another soil sample was obtained from Noranda's Gilmour South base-metal occurrence in the Bathurst Mining camp in northern New Brunswick. As shown below, this sample contained a very complex SGH signature, however the visible portion of the VMS signature as indicated by the red arrows is still observed as in the black smoker, Mattabi and Kidd Creek ore samples.

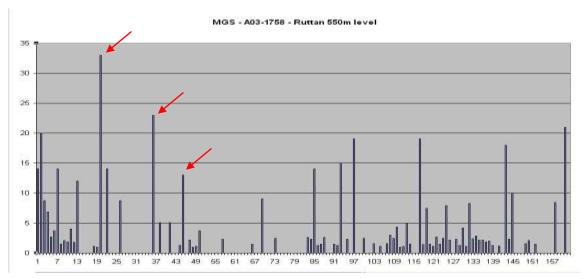




SGH – FORENSIC GEOCHEMICAL SIGNATURES (cont.)

In research conducted by the Ontario Geological Survey, this same portion of the SGH signature was also observed over the VMS deposit at Cross Lake in Ontario. Note that the visible signature shown as the three compounds indicated by the red arrows is only a small portion of the complete SGH VMS signature. The full VMS signature is made up of at least three groups, as three organic chemical classes, that together contain at least 35 of the individual SGH hydrocarbons.

The chromatograms shown on the preceding page from the GC/MS analysis are not used directly in the interpretation of SGH data. As we are only interested in a specific list of 162 hydrocarbons, the mass spectrometer and associated software programs specifically identifies the hydrocarbons of interest, runs calculations using relative responses to a short list of hydrocarbons used as standards, and develops an Excel spreadsheet of semi-quantitative concentration data to represent the sample. Thus the SGH results for a sample, like that observed in ore from the Ruttan, are filtered to obtain the concentrations for the specific 162 hydrocarbons. A simple bar graph drawn from the Excel spreadsheet of the hydrocarbons and their concentrations results in a DNA like forensic SGH signature as shown below. The portion discussed hear as the "visible" SGH VMS signature in the GC/MS chromatograms, is again shown by the red arrows.



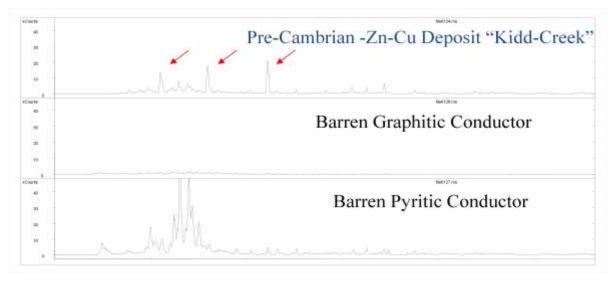
Through the work done in the SGH CAMIRO research projects, it was observed that the hydrocarbon signature produced by the SGH technique appeared to also be able to be used to differentiate barren from ore-bearing conductors. This was explored further through the submission and analysis of specific specimen samples that represented a barren pyritic conductor and a barren graphitic conductor.



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SGH – FORENSIC GEOCHEMICAL SIGNATURES (cont.)

The GC/MS chromatograms from these two specimens are compared to that obtained from the Kidd-Creek ore as shown below. This diagram conclusively shows that the SGH signatures obtained from the two types of barren conductors are completely different than that obtained by SGH over VMS type ore. SGH is thus able to differentiate between ore-bearing conductors and barren conductors as <u>the Forensic SGH</u> <u>Geochemical signature is different</u>.



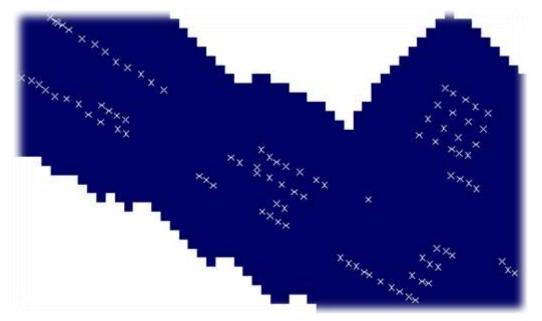
- SGH has been described by the Ontario Geological Survey of Canada (OGS) as a "REDOX cell locator". Many SGH surveys for Gold and other mineral targets can result in multiple types of anomalies, depending on the class of SGH compounds, even over the same target and in the same set of samples. Thus "Apical", "Nested-Halo", and "Rabbit-Ear" or "Halo" type SGH anomalies are all typically observed from the effect of REDOX cells that have developed over deposits. REDOX cells are also related to the presence of bacteriological activity.
- The VMS template of SGH Pathfinder Classes uses low and medium weight classes of hydrocarbon compounds. Again, at least three Pathfinder Class group maps, associated with the SGH signature for VMS, must be present to begin to be considered for assignment of a good rating. The Pathfinder Class anomalies in these maps must logically concur and support a consistent interpretation in relation to the expected geochromatographic characteristics of the Pathfinder Class, for a specific area.
- The interpretation development history shown here on pages 16-19 for VMS SGH Pathfinder Class map(s) shown in this report is similar to the development history for other target types. The reader should not draw a conclusion that SGH is used only for sulphide based mineralization as some of the most intense SGH anomaly have been associated with Kimberlites where sulphides are essentially not present.



<u>INTERPRETION OF SGH RESULTS – A10-3135</u> <u>AUR LAKE EXPLORATION LTD. – JUMPING LAKE SGH SURVEY – PART III</u>

SGH SURVEY INTERPRETATION

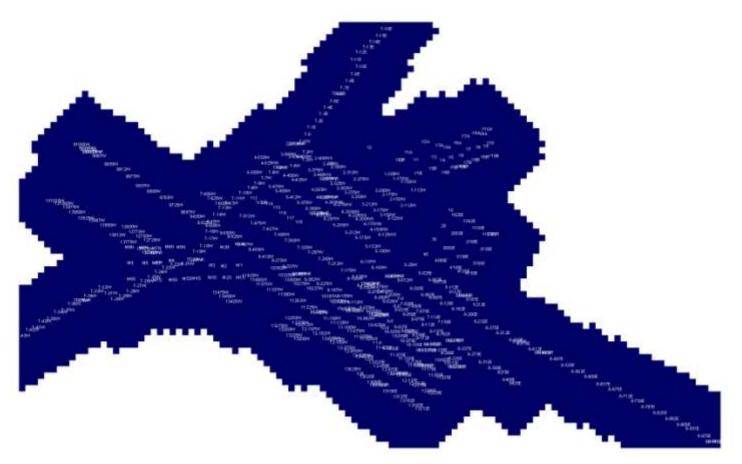
• This report is based on the SGH results from the analysis of a total of 100 soil samples at the SGH Part III survey in the following map:



For the purposes of showing the interpretation in this report, these phase III sample results (workorder A10-3135) are combined with those from phase II (A10-1749) and the data from phase I sampling (A09-5745). The complete grid of all phases of sampling to date is shown with the sample identification in the map on the next page.



INTERPRETION OF SGH RESULTS – A10-3135 AUR LAKE EXPLORATION LTD. - JUMPING LAKE SGH SURVEY- PART III



- The number of samples submitted for this project is adequate to use SGH as an exploration tool. Note that the SGH data is only reviewed for the particular target deposit type requested, in this case for the presence of VMS based mineralization. It is also assumed that there is only one potential target. To obtain the best interpretation the client should indicate if there are possible multiple targets, say from geophysical data. The possibility of multiple targets "in close proximity" should be known due to potential overlap and increased complexity of resulting geochromatographic anomalies which could alter the interpretation.
- Note that the associated SGH results are presented in a separate Excel spreadsheet. This raw data is semi-quantitative and is presented in units of picograms/ gram (pg/g) or <u>parts-per-trillion</u> (ppt) as the concentration of specific hydrocarbons in each sample.



INTERPRETION OF SGH RESULTS – A10-3135 AUR LAKE EXPLORATION LTD. – JUMPING LAKE SGH SURVEY– PART III SGH SURVEY INTERPRETATION

- The overall precision of the SGH analysis for the these phase III soil samples was excellent as demonstrated by 7 samples used for laboratory replicate analysis. The average Coefficient of Variation (%CV) of the replicate results was 6.7% CV, an excellent level of analytical performance.
- SGH has been observed to reflect the presence of a REDOX cell. SGH is described by the Ontario Geological Survey of Canada (OGS) as a "REDOX cell locator". Many SGH surveys for Gold and other mineral targets can result in multiple types of anomalies, depending on the class of SGH compounds, even over the same target and in the same set of samples. Thus "Apical", "Nested-Halo", and "Rabbit-Ear" or "Halo" type anomalies are all typically observed from the effect of REDOX cells that have developed over deposits. REDOX cells are also related to the presence of bacteriological activity.
- Note that SGH is "blind" to the presence of inorganic elements that may represent mobilized anomalies.
- SGH results have also been shown to correlate well with geophysical anomalies such as magnetic anomalies and those of CSAMT.
- The client provided the correct UTM coordinates in WA264 datum and verified the complete survey orientation prior to this report.
- It was requested that the results from the analysis of the samples collected in September 2009 (Phase I), April 2010 (Phase II - Spring) and results from these summer samples (Phase III) be mapped and interpreted together. The combination of data sets of SGH data is straight forward and rarely requires levelling. As described in the Phase II report dated May 15, 2010: levelling of Phase I results was required from observations of the data and that the client reported that the field conditions were significantly different during collection of the April 2010/Spring samples from that encountered in September of 2009. It was reported that icy and frozen ground was encountered in April 2010. This accounts for the difference in the SGH response for the two sets of data. The low ground temperature in April of 2010 was effectively a "cold trap" to the flux of hydrocarbons dispersed from the target at depth. This results in higher concentrations for the SGH Gold Pathfinder Classes in the 2010 data. Further the anomalies seen in 2010 are sharper and more distinct than was observed in the 2009 data. Fortunately the 2009 data intersected and crossed through the north-western end of the 2010 survey. Thus, to perform the levelling between these two sets of data, 7 samples from the 2009 data set that were nearest neighbours to samples in 2010 were chosen for a comparison of SGH response. Some of these samples were anomalous and some were

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approximation.



INTERPRETION OF SGH RESULTS – A10-3135 AUR LAKE EXPLORATION LTD. – JUMPING LAKE SGH SURVEY– PART III

SGH SURVEY INTERPRETATION – PATHFINDER CLASS MAPS – Pages 25 and 27 not which provided a range of comparison in the concentration values. A response factor of the difference between these two sets of data was determined for each of these 7 samples. The range of response in this comparison was divided into quartiles. Each quartile was assigned a response factor. Thus the 2009 data was multiplied by a factor of 2.17 (for values in the lowest quartile concentration range), 2.55, 2.85, or 3.15 (for values in the highest quartile concentration range) depending where the pathfinder class concentration for each sample data fell for mapping with the Phase II data. As there was new data in this summer Phase III sampling in the vicinity of the 2009 transect, the levelling was reviewed and slightly modified. Thus the 2009 data was multiplied by a factor of 3.26 (for values in the lowest quartile concentration range), 3.83, 4.28, or 4.73 (for values in the highest quartile concentration range) depending where the pathfinder class concentration for each sample data fell for mapping with the Phase II and Phase III data. It is noted by experts that any type of data levelling should be regarded as an

- The map shown on page 25 and 27 in plan view, and pages 26 and 28 in 3D view, represent the results obtained from the combined 2009 (workorder A09-5745), 2010 spring survey (A10-1749), and this 2010 summer survey (A10-3135) and are SGH "Pathfinder Class maps" for targeting VMS mineralization. Each of these maps represent the simple summation of several individual hydrocarbon compound concentrations, that are grouped from within the same organic chemical class, that has been associated with VMS mineralization from several years of case study research. Map #1 on page 25 is a different SGH VMS Pathfinder Class than that shown on page 27 as Map #2. These VMS Pathfinder Class maps are different than the two Pathfinder Class maps associated with Gold mineralization that are shown in the previous report dated July 10, 2010. The interpretations for Gold mineralization from that report is applied to Map #1 for the reader's reference. SGH Pathfinder Class maps have been shown to be robust as they are each described using from 4 to 14 (unless otherwise stated) chemically related SGH compounds which are simply summed to create each class map. Thus each map has a higher level of confidence as it is not illustrating just one compound response. A legend of the compound classes appears at the bottom of the SGH data spreadsheet.
- The overall SGH interpretation Rating has even a higher level of confidence as it further relies on the consensus between at least two additional SGH VMS Pathfinder classes (one of these additional pathfinder maps is shown in this report) that together make the signature of the target at depth.



INTERPRETION OF SGH RESULTS – A10-3135 AUR LAKE EXPLORATION LTD. – JUMPING LAKE SGH SURVEY– PART III SGH SURVEY INTERPRETATION – PATHFINDER CLASS MAPS – Pages 25 and 27

The VMS template of SGH Pathfinder Classes uses low and medium weight classes of hydrocarbon compounds. At least three Pathfinder Class maps, associated with the SGH signature for VMS, must be present to begin to be considered for assignment of a good rating. Usually, only one SGH VMS Pathfinder Class map has been shown in this report to keep the SGH price as reasonable as possible. The Pathfinder Class anomalies must also concur and support a consistent interpretation, in relation to the expected geochromatographic characteristics of the Pathfinder Class, for a specific area. An additional SGH Pathfinder Class map for VMS has been added in this report to show some of this "between class" correlation. These maps are part of the general SGH VMS template that has been shown to be applicable to Kuroko type massive sulphide, and other VMS related types of deposits. The Pathfinder Class map on page 25 and 27 are just two maps that are diagnostic for the presence of VMS based mineralization.

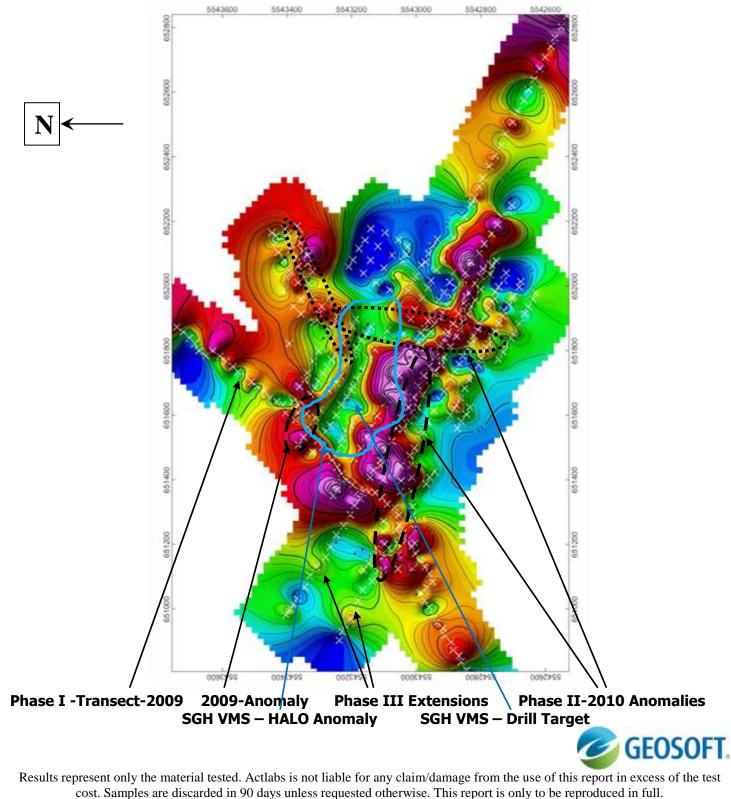
SGH SURVEY "VMS" INTERPRETATION

SGH responses are affected by the presence of REDOX cells and related bacteriological activity. In the case of VMS deposits the theory is that sulphide reducing bacteria thrive and strong REDOX cells are formed. Note that SGH is not a sulphide detector as some of the strongest SGH responses have shown REDOX cells over Kimberlite Pipes that are not associated with the presence of sulphides. The SGH VMS Pathfinder map #1 on page 25 is of a class of compounds that is reliable and expected to form a halo type anomaly for VMS. This map does appear to illustrate the possible location of a halo anomaly that could indicate the presence of a REDOX cell. The outline boundary of this halo anomaly has been shown as a light blue solid irregular oval. A confirmation of a VMS based REDOX cell is an expected apical type anomaly within the halo anomaly for the Pathfinder Class map on page 27. The same light blue solid irregular oval has been placed in the same position on this map. The apical anomaly is present as expected. This apical anomaly appears to be dispersed somewhat from the centre area of the light blue oval. Note that SGH does not exhibit "platform" type apical anomalies. Other SGH Pathfinder Classes (not shown) together make the VMS SGH signature and confirm the possible presence of VMS style mineralization "*within"* the light blue oval as the outer edge of the REDOX cell. The SGH Gold interpretations in the report of July 10th have also been applied to these maps for reference and to make note of the fact that some SGH Gold Pathfinder classes overlap those for the SGH VMS signature. Again, each of these maps is the plot of the simple summation of several of the hydrocarbons in one of the chemical classes, from the Excel spreadsheet of results, which have been associated with VMS deposits.



INTERPRETION OF SGH RESULTS – A10-3135 AUR LAKE EXPLORATION LTD.-JUMPING LAKE SGH SURVEY-PART I,II,& III

SGH "VMS" PATHFINDER CLASS MAP #1 - with PHASE I & II INTERPRETATIONS

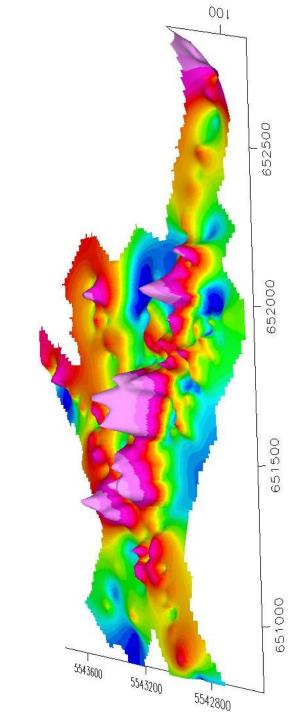


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<u>INTERPRETION OF SGH RESULTS – A10-3135</u> <u>AUR LAKE EXPLORATION LTD.–JUMPING LAKE SGH SURVEY–PART I,II,& III</u>

SGH "VMS" PATHFINDER CLASS MAP #1



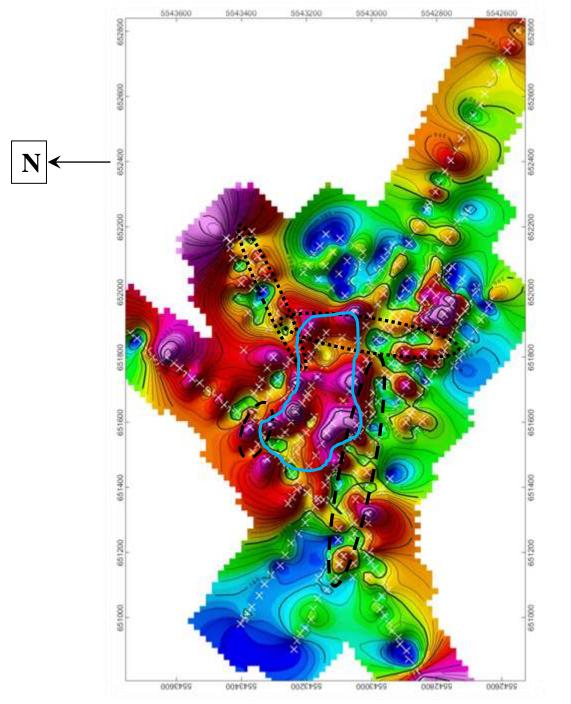


July 19, 2010	Activation Laboratories Ltd.	Page 26 of 32
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<u>INTERPRETION OF SGH RESULTS – A10-3135</u> AUR LAKE EXPLORATION LTD.–JUMPING LAKE SGH SURVEY–PART I,II,& III

SGH "VMS" PATHFINDER CLASS MAP #2 - with PHASE I & II INTERPRETATIONS





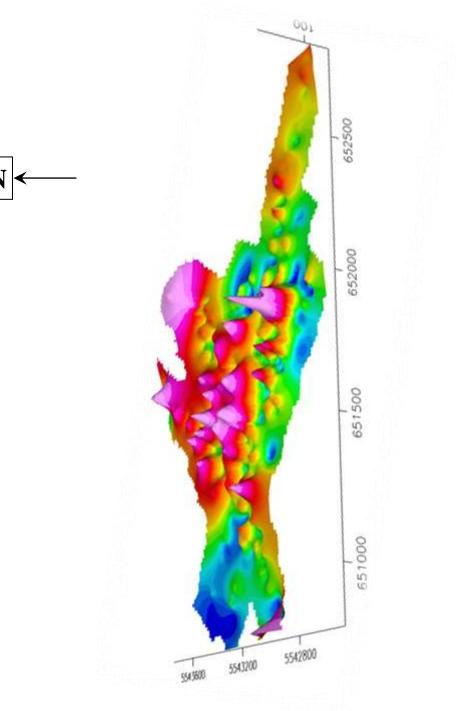
Quality Analysis ...



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<u>INTERPRETION OF SGH RESULTS – A10-3135</u> <u>AUR LAKE EXPLORATION LTD.–JUMPING LAKE SGH SURVEY–PART I,II,& III</u>

SGH "VMS" PATHFINDER CLASS MAP #2





July 19, 2010	Activation Laboratories Ltd.	Page 28 of 32
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INTERPRETION OF SGH RESULTS – A10-3135 AUR LAKE EXPLORATION LTD.-JUMPING LAKE SGH SURVEY-PART I,II,& III

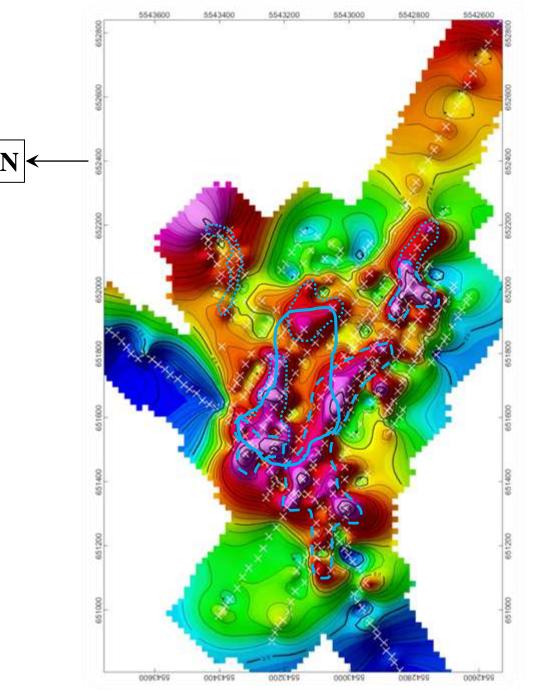
SGH SURVEY INTERPRETATION RATING

- The interpretations for the presence of an SGH Gold signature, as reported on July 10, is shown on the previously reported SGH Gold Pathfinder Class map on page 30 with the outline of the REDOX cell with the VMS based SGH signature. This perhaps illustrates the possible presence of gold mineralization that surrounds the possible VMS based mineralization. It also may indicate that the outer ridge responses of the REDOX cell are enhanced by the apical responses related to Gold. The positioning of these interpreted areas is approximate and is based on the combined SGH data from 2009 that has been leveled to the results of the data from the spring (Phase II) and summer (phase III) 2010 samples. Other geological, geochemical and geophysical data that the client may have may result in a different interpretation of the possible location of mineralization.
- After review of all of the SGH Pathfinder Class maps developed from the samples collected in September 2009 (Phase I) that was leveled and combined with the samples collected in April 2010 (Phase II) and the Summer of 2010 (Phase III), the SGH results suggest a "rating of 5.0" for the areas within the solid blue oval line in relation to the presence of a VMS based target. This rating is subjective and is based on a scale of 6.0, in increments of 0.5, with a value of 6.0 being the best. This rating represents the similarity of these SGH results with case studies over Volcanic Massive Sulphide (VMS) type targets from SGH case studies conducted at the Hanson Lake VMS deposit in Saskatchewan, the South Gilmour VMS deposit in New Brunswick and the Cross Lake VMS deposit in Ontario. The degree of confidence in the rating only starts to be "good" at a level of 4.0.
- The location shown on the map on page 25, as the centre of the halo anomaly illustrating the REDOX cell response, would represent the best vertical spatial projection of the location for a drill target at this Aur Lake "Jumping Lake" survey. Note this does not imply that vertical drilling would be the best approach to explore this mineralization at this location. Again, this interpretation is based only on the interpretation of this SGH data.
- The client should use a combination of these SGH results and its report with additional geochemical, geophysical, and geological information to possibly obtain a more confident and precise target location.



<u>INTERPRETION OF SGH RESULTS – A10-3135</u> AUR LAKE EXPLORATION LTD.–JUMPING LAKE SGH SURVEY–PART I,II,& III

SGH "GOLD" PATHFINDER CLASS MAP #2 - with PHASE III INTERPRETATIONS



SGH RATED "GOLD" ANOMALIES WITHIN LIGHT BLUE DASHED OR DOTTED BOUNDARY LINES SGH RATED "VMS" ANOMALY WITHIN SOLID LIGHT BLUE BOUNDARY LINE





Cautionary Note Regarding Assumptions and Forward Looking Statements

The statements and target rating made in the Soil Gas Hydrocarbon (SGH) interpretive report or in other communications may contain certain forward-looking information related to a target or SGH anomaly.

Statements related to the rating of a target are based on comparison of the SGH signatures derived by Activation Laboratories Ltd. through previous research on known case studies. The rating is not derived from any statistics or other formula. The rating is a subjective value on a scale of 0 to 6 relative to the similarity of the SGH signature reviewed compared to the results of previous scientific research and case studies based on the analysis of surficial samples over known ore bodies. No information on other geochemistries, geophysics, or geology is usually available as additional information for the interpretation and assignment of a rating value unless otherwise stated. The rating does not imply ore grade and is not to be used in mineral resource estimate calculations. References to the rating should be viewed as forward-looking statements to the extent that it involves a subjective comparison to known SGH case studies. As with other geochemistries, the implied rating and anticipated target characteristics may be different than that actually encountered if the target is drilled or the property developed.

Activation Laboratories Ltd. may also make a scientifically based reference in this interpretive report to an area that might be used as a drill target. Usually the nearest sample is identified as an approximation to a "possible drill target" location. This is based only on SGH results and is to be regarded as a guide based on the current state of this science.

Unless stated, Activation Laboratories Ltd. has not physically observed the exploration site and has no prior knowledge of any site description or details. Actlabs makes general recommendations for sampling and shipping of samples. Unless stated, the laboratory does not witness sampling, does not take into consideration the specific sampling procedures used, season, handling, packaging, or shipping methods. The majority of the time, Activation Laboratories Ltd. has had no input into sampling survey design. Where specified Activation Laboratories Ltd. may not have conducted sample preparation procedures as it may have been conducted at the client's assigned laboratory. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ scientifically which may impact the associated interpretation and target rating from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended.

In general, any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, future events or performance are not statements of historical fact. These "scientifically based educated theories" should be viewed as "forward-looking statements".

Readers of this interpretive report are cautioned not to place undue reliance on forward-looking information. Forward looking statements are made based on scientific beliefs, estimates and opinions on the date the statements are made and the interpretive report issued. The Company undertakes no obligation to update forward-looking statements or otherwise revise previous reports if these beliefs, estimates and opinions, future scientific developments, other new information, or other circumstances should change that may affect the analytical results, rating, or interpretation.

> Actlabs nor its employees shall be liable for any claims or damages as a result of this report, any interpretation, omissions in preparation, or in the test conducted. This report is to be reproduced in full, unless approved in writing.

Quality Analysis ...



Date Submitted: June 16, 2010

Date Analyzed: June 25-28, 2010

VMS Interpretation Report: July 19, 2010

Aur Lake Exploration Ltd.

95 Springdale Blvd. Toronto, Ontario

Attention: Michael Bulatovich

RE: Your Reference: Aur Lake – Jumping Lake SGH Survey for VMS – Part III

CERTIFICATE OF ANALYSIS

100 Soil samples were submitted for analysis.

The following sample preparation was completed: Code S4 – Drying at 40°C, Sieving -60 mesh The following analytical package was requested: Code SGH - Soil Gas Hydrocarbon Geochemistry

REPORT/WORKORDER: A10-3135

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at the time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of the material submitted for analysis.

Notes:

The SGH – Soil Gas Hydrocarbon Geochemistry is a semi-guantitative analytical procedure to detect and measure 162 hydrocarbon compounds as the organic signature in the sample material collected from a survey area. It is not an assay of mineralization but is a predictive geochemical tool used for exploration. This certificate pertains only to the SGH data presented in the associated Microsoft Excel spreadsheet of results.

The author of this SGH Interpretation Report, Mr. Dale Sutherland, is the creator of the SGH organic geochemistry. He is a Chartered Chemist (C.Chem.) and Forensic Scientist specializing in organic chemistry. He is not a professional geologist or geochemist.

CERTIFIED BY:

Jutherturch

Dale Sutherland, B.Sc., B.Sc., B.Ed., C.Chem. Forensic Scientist, Organics Manager, Director of Research Activation Laboratories Ltd.

July 19, 2010

Activation Laboratories Ltd.

Page 32 of 32

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APPENDIX B

SGH Sample Methodology

Soil samples were gather with a metal "Dutch" or hand auger at 12.5, 25 or 37.5 meter spacings on sample lines that are 25 or 50 meters as indicated on the accompanying map. Positions were determined with GPS units.

After removing the top organic black layer from the bit and the leached A0 horizon, 200-300 grams of inorganic soil, typically from the B horizon, was placed in a heavy duty polyethylene Ziploc bag after removing as much of the air inside as possible. The bags were then labeled on the exterior with an indelible marker, and carried in a back pack.

Typical sample depths were between 2 and 8 inches below the surface and the samples were shipped to the lab in the Ziploc bags.

APPENDIX C

Soil Gas Hydrocarbon Data

	001 - LA	002 - LA	003 - LB	004 - LA		006 - LB	007 - LA	008 - LB	009 - LB	010 - LB	011 - LA	012 - LB	013 - LBA	014 - LB
10	47	95	49	8	44	51	6	10	2	-1	-1	-1	3	-1
1025E	54	130	66			87	7	16	2	-1	1	-1	3	-1
1062E	9	89	38	22	35	41	7	10	1	-1	-1	-1	2	-1
1100E	38	56	39		32	38	5		1	-1	-1	-1	1	-1
1137E	32	77	36		19	19	4	7	1	-1	-1	-1	3	-1
1137E-R	33	81	41	17	-		5	9	2	-1	-1	-1	2	? -1
20	35	99	41	3	30	31	3	5	-1	-1	-1	-1	2	-1
2050E	56	110	59				9	11	2	-1	1	-1	1	-1
2100E	46	111	53	62	39	46	8	6	-1	-1	1	-1	1	-1
2150E	35	47	35	5			6	8	1	-1	-1	-1		2 -1
30	19	120	48	32	51	51	10	16	2	-1	2	-1	3	-1
3050E	10	20	41				8	7	-1	-1	-1	-1	2	2 -1
3100E	9	74	28	11	20	25	4	5	-1	-1	-1	-1	2	-1
3150E	70	97	37				-1	33	3	-1	-1	-1	1	-1
40	30	21	39		26	26	4	1	-1	-1	-1	-1	1	-1
4050E	32	107	56			69	7	=0		-1	2	-1	-1	1
4100E	33	102	46	14	71	70	5	19	-	-1	1	-1	1	-1
4125E	32	104	44			56	4		2	-1	1	-1	3	-1
4150E	47	138	45	20	51	52	7	29	3	-1	1	-1	3	-1
5137E	47	92	33						<u> </u>	-1	<u>1</u>	1	-1	1 · · · · · · · · · · · · · · · · · · ·
5162E	10	79	41	14	-	70	3	18	3	-1	1	-1	2	-1
5162E-R			43	6			4	19	3	-1	1	-1		3 1
5187E	22 42	99 95	39 34	3	35 18	35 17	4	8	1	-1	-1	-1	4	- 1
5212E 8375E		95				111		30				-1		
8400E	35	102	34	-			7	 		-1		-1		2 1
8425E	33	89	34	13	87	25	1	27		-1	-1	-1	1	1
9687W	41	122	81	-		138	4	-		-1		-1		1
9725W	38	84	54		86	85	1	42	6	2	1	-1		2
9763W	53						3		3	-1	1	-1	1	
9800W	38	118	56	17	60	62	7	23	5	-1	1	-1	2	2 1
9837W	12		45				2		3	-1	-1	-1	2	2
9875W	45	99	90	6	443	442	6	44	8	-1	2	-1	5	5 1
9912W	46	66	54	28	125	118	-1	20	-1	1		-1		-1
9950W	57	82	28	5	39	48	-1	9	2	-1	-1	-1	2	2 1
9987W	26	96	52	13	20	24	7	13	-1	-1	-1	-1	2	-1
91012W	31	112	44	5	41	50	5	29	3	-1	1	-1	-1	2
91012W-R	36	121	46	20	38	38	7	14	3	-1	2	-1	1	2
91025W	27	94	60	14	36	38	6	10	2	-1	1	-1	1	-1
91037W	19	116	105	4	367	366		57	11	2	2	-1		2 1
91050W	12	91	35	13	83	82	-1	138	7	-1	2	-1	3	8 2
10162W	40		70	29		81		35	• • • • • 7	1		· · · · -1	2	2 2
10187W	25	111	53	20	40	42	7	18	3	-1	2	-1	2	2 1
10237W	46	110	51		101		6		5	-1	2	-1	7	′ <u> </u>
10275W	53	144	62		43	48	7	64	-1	-1	1	-1	1	2
10300W	29	119	67	9		159	3	÷.	6	1	-1	-1		-1
10325W	28	78	52	19	48	49	9	21	-1	2	2	-1	4	-1
10362W	103	221	64	98		118	-1	30	5	-1	2	-1	2	2 2
10187E	19	72	28	2	70	52	3	20	3	-1	-1	-1	1	-1
10212E	30	29	37				6		1	-1	-1	-1	-1	-1
10237E	43	92	34		85	84	2	24	4	-1	1	-1	1	1
10237E-R	39	80	34	4	-		2	20	4	-1	· · · · 1	••••-1	· · · · 1	· · · · · 1
11200W	25	89	80	19	62	64	10	17	3	-1	1	-1	3	-1
11225W	49	103	46	8	47	46	3	13	-1	-1	1 1	-1	1 1	-1

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	001 - LA	002 - LA	003 - LB	004 - LA	005 - LB	006 - LB	007 - LA	008 - LB	009 - LB	010 - LB	011 - LA	012 - LB	013 - LBA	014 - LB
11262W	44	132	53	19	80	80	9	23	4	-1	3	-1	2	2
11300W	53	90	24	4	17	20	5	5	-1	-1	1	-1	1	-1
11337W	33	120	42	15	-	43	6	13		-1	2	-1	1	-1
11375W	69	129	62	29		225	-1	50	9	2	1	-1	2	2 2
11400W	42	143	91	29		167	2	26		-1	3	-1	2	2
11425W	22	83	64	61		133	-1	34	5	i 1	-1	-1	-1	1
11175E	8	82	41	13	23	26	3	-1		-1	-1	-1	2	1
11200E	36	104	36	14					-1	-1	-1	-1	-1	1
11225E	19	130	32	6	28	27	4	11	1	-1	-1	-1	-1	-1
12225W	47	128	47	17			7		4	-1	4	••••-1	2	2 2
12250W	61	169	52	22	44	41	8	47	3	-1	2	-1	1	1
12275W	40	117	36	17						-1	2	-1	3	-1
12275W-R	34	112	39	21	46		6	15		-1	2	-1	4	-1
12725W	38	123	56				3		6	-1		-1	6	3
12750W	28	92	32	6	48	48	5	17	3	-1	1	-1	2	- <u>1</u>
12775W	29	97	35	16			5		3	-1	-1	-1	4	1
12800W	44 35	99 110	32	4	51 69	51	2	17	3	-1	2	-1	4	2
12175E 12200E			43 45	20	<u>. 69</u> 42	83 42		18		-1			4 4	<u> · · · · · · · · · · · · · · · · · · ·</u>
12200E 12225E	9	85 82		<u>23</u> 13			4	7	1	-1	-1	-1	3	-1 -1
12225E 13200W	23 39	82	51 40	45	-	53		17		-1	1	1	A	3 3
13225W	50	175		32	84			25	5	-1	-1	- 1	4	
13250W	31	109	50		59	56	6	43		-1	1	-1	2	2
13275W	59	103	37	25			•	-		-1	· · · · · · · · · · · · · · · · · · ·		1	· · · · · · · · · · · · · · · · · · ·
13425W	25	46	44	28	118	113	8	25	4	-1	2	-1	2	, 1
13450W	48	119	64	54	-		3		6	-1	2	-1	1	2
13475W	39	118	40	34	52	52	9	16		-1	2	-1	2	- <u>-</u>
13700W	63	169	47	51	38		8		-	-1	· · · · · · 1	· · · · -1		-1
13700W-R	61	169	44	59		39	11		2	-1	1	-1	2	-1
13725W	53	112	32	8	46	44	-1		-1	-1	-1	-1	-1	-1
13775W	31	96	33	47	20	19	1	11	-1	-1	-1	-1	2	-1
13812W	14	106	35	17	82	88	5	18	3	-1	2	-1	6	S -1
13850W	44	83	38	40	83	90	-1	21	3	-1	-1	-1	2	2 2
13887W	46	107	40		115	113	-1	27	5	j 1	-1	-1	2	2
13925W	37	113	77	34	96	95	6	21	4	-1	1	-1	2	2
13950W	42	74	35	29			-1	-	3	1	-1	-1	2	2 2
13975W	43	129	53	19	78	88	4	48	4	-1	2	-1	5	, 2
131000W	16	101	38	6			6	21	4	-1	2	-1	1	<u> 1</u>
131025W	22	73	34	8	18		3	5		-1	1	-1	-1	
13025W	30	93	30	15			6		-1	1	2	-1	-1	1
130	29	101	33	16	39	39	5	17	3	-1	2	-1	2	-1
13025E	43	98	31	<u>····7</u>			8	24	5	-1	2		2	2 2
13050E	50	117	31	8	21	24	7	12	2	-1	-1	-1	1	-1
13062E	40		30	28			1			-1	-1	-1	2	1
13062E-R	27	94	31	25	43	50	-1			-1	2	-1	+ • • • • • • • • • • • • • • • • • • •	3
13100E 13137E	30	99 89	42	15 46	38 51		5	13		1	2		2	2 1
13137E 13162E	61 35	89 109	57 35	40	-	53 101	9		5	-1	2	-1	<u> </u>	2 1
13162E 13187E		109		8	38		5			-1	<u> </u>		3	
13187E 13212E	36 23	19	20 	34		40	4	18 28	-	-1	1	-1	4	
IJZIZE .		192								/ 1	<u> ∠</u>		1	<u> </u>
LMB-QA	28	59	- 13		-1	-1	1	2		-1		1		1
LMB-QA	30		13	9	_1	1	1	1	_1	_1	-1 _1	_1	1	
LMB-QA	43	25	25	12	-1	-1		۲- ۸	-1	-1	-1	1	· · · · ·	-1
LIVID-QA	43	25	25	12	T	1	-1	0	-1	-1	-1	-1	-1	1 · · · · · · · · · · · · · · · · · · ·

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• • • • • • •	001 - LA	002 - LA	003 - LB	004 - LA	005 - LB	006 - LB	007 - LA	008 - LB	009 - LB	010 - LB	011 - LA	012 - LB	013 - LBA	014 - LB

SOIL GAS HYDROCARBONS (SGH) by GC/MS

A10-3135 - Date: June 25, 2010 - Activation Laboratories Ltd. Results represent only the material tested. Actiabs is not liable for any claim/damage from use of this report in excess of the test cost. Unless requested samples are discarded in 90 days This report is only to be reproduced in full.

Aur Lake Exploration Ltd. - Micheal Bulatovich Aur Lake SGH Survey - Phase III

R=Replicate Sample -1=Reporting Limit of 1pg/g (ppt=parts per trillion) LMB-QA = Laboratory Materials Blank - Quality Assurance

LEGEND FOR COLUMN HEADINGS - SGH COMPOUND CLASSES

LA, HA, LBA, HBA = ALKYL-ALKANES LB, HB, LPB, HPB = ALKYL-BENZENES LAR, MAR, HAR = ALKYL-AROMATICS LBI, MBI, HBI, LPH, MPH, HPH = ALKYL-POLYAROMATICS THI = ALKYL-DIVINYLENE SULPHIDES ALK = ALKYL-ALKENES

	015 - LAR	016 - LB	017 - LB	018 - LB	019 - LB	020 - LA	021 - LPH	022 - LBA	023 - LAR	024 - LB	025 - LAR	026 - LBA	027 - LB	028 - ALK
10	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	1	-1	-1
1025E	-1	-1	-1	-1	-1	1	-1	-1	-1	-1	1	1 1	-1	• • • 1
1062E	-1	-1	1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
1100E	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
1137E	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
1137E-R	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	1	-1	-1
20	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
2050E	-1	-1	-1	-1	-1	1	-1	-1	-1	-1	-1	-1	1	-1
2100E	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
2150E	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
30	-1	1	2	1	1	2	-1	-1	-1	-1	-1	2	2 1	1
3050E	-1	-1	-1	1	-1	-1	-1	-1	-1	-1	· · · · · · 1	-1	1	-1
3100E	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
3150E		1	1		2	-1	-1	-1	5	-1		2	8 4	4
40	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
4050E		3	2	1			-1	· · · · -1	12				6	8
4100E	1	-1	-1	2	2	-1	-1	-1	8	-1	2		7	5
4125E	-1	-1	1	1		-1	-1		5	-1	-1		(3
4150E 5137E	-1	-1	-1	-1	-1	1	-1	-1	5	-1	-1	3	2	3
	-1	-1	-1			-1	-1	-1		-1		1		1
5162E 5162E-R	•••••	-1	-1	-1		-1	-1	1	6				5	4
5187E	1	1	1	2	2	-1	-1	-1	3	-1	1		y J	4
5212E	-1	-1	-1	-1	-1	-1		-1	3	-1				
8375E	-1	-1	2	-1	-1	-1	-1	-1	16	-1			12	10
8400E	-1	2	-1		2	-1	-1		5	<u></u>			3	3
8425E	1	2	3	2	-1	-1	-1	-1	8	-1	2		5	6
9687W	2	4	2	2	2	• • • • • 1	-1	-1	20	-1		7	10	13
9725W	2	4	-1	3	4	1	-1	-1	11	-1	3	3 5	5 7	8
9763W	1		-1				-1	-1		-1		2	6	
9800W	-1	2	-1	2	-1	1	-1	1	7	-1	1	3	8 2	5
9837W	-1	2	-1	-1	-1	-1		-1	8	-1		2	3	5
9875W	2	3	-1	2	3	-1	-1	-1	12	-1	3	6	5 12	9
9912W	1	2	1	-1	2	-1	-1	-1	10	-1		3 4	. 7	6
9950W	1	2	-1	-1	2	-1	-1	-1	8	-1	2	2 3	5 5	6
9987W	-1	1	-1	-1	-1	-1	-1	-1	1	-1	-1	1	1	1
91012W	-1	2	-1	1	3	-1	-1	-1	8	-1	2	4	. 3	5
91012W-R	-1	2	1	-1	3		-1		8		2	5 5	6 4	5
91025W	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	1	-1	-1
91037W			1			1	-1	-1	-				5	
91050W 10162W	2	2	1	3	4	-1			13		5		13	10
10162W 10187W	2		1	· · · · · · 1	· · · · · 1· 2	1	1		10	1 1		2		
10187W 10237W	-1		1	-1	Z	-1	-1	-1	15	-1	4	4	2	5
10237W 10275W		1	<u> </u>	<u></u> 1	<u></u>	· · · · · · · · · · · · · · · · · · ·	-1	-1	рания (19 Б	-1	<u> 4</u>	<u></u>	· · · · · · · · · · · · · · · · · · ·	
10275W		-1		-1		-1	-1		18		6		19	4
10300W	_1	1	2	-1	2	_1	_1	-1 _1	2	_1	_1		-1 -1	12
10323W	-1		3		2	-1	-1	-1	3	-1	1		-1	3
1030277 10187E	1	2				-1	_1	_1	4	-1		<u> </u>	6	3
10212E	-1		-1	_1	-1	-1		-1	1		-1		-1	1
10237E	1	2	-1	2	3	-1	-1	-1	7	-1	2	2	6	5
10237E-R	1	2	-1	1	2	-1	-1	-1		-1		2	6	5
11200W	-1	-1	-1	1	1	-1	-1	-1	-1	-1	-1	2	-1	-1
11225W	1	-1	-1	-1	2	-1	-1	-1	9	-1	2	2 3	3	6

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• • • • • • • • •	015 - LAR	016 - LB	017 - LB	018 - LB	019 - LB	020 - LA	021 - LPH	022 - LBA	023 - LAR	024 - LB	025 - LAR	026 - LBA	027 - LB	028 - ALK
11262W	-1	3	2	1	3	1	-1	-1	17	-1	6	5	6	6 12
11300W	2	2	3	2	2	-1		-1	12	-1	3	2	6	i 8
11337W	-1	-1	-1	-1	1	-1		-1	9	-1	2	4	5	6 6
11375W	1	3	1	3	3	2		-1	9	-1	2	6	6	6 6
11400W	2	3	4	3	3	2	-1	-1	10	-1	3	7	7	8
11425W	2	2	-1	2	, , , , , , , , , , , , , , , , , , ,		-1	3	6	-1	2	5	5 5	
11175E	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	
11200E 11225E	-1	-1	-1	-1		-1		-1	-1	-1	-1		-1	
12225E	-1	-1	-1	-1	-1		-1	-1	-1	-1	-1	- 1	-1	-1
12225W	2	3				1	1	1		1	2			5
12230W			1		2	-1		-1		-1	2			· · · · · · 5
12275W-R	1	2	1	2	3	1	-1	-1	7	-1	2	4	6	5
12725W	2	- 4	3	- 1		-1		-1	11	-1	- 3	5	8	7
12750W	1	2	-1	2	2	-1	-1	-1	7	-1	1	4	9) 4
12775W	1	-1	-1	2		-1	-1		8	-1	2	4	4	6
12800W	1	3	4	2	-1	-1	-1	-1	10	-1	3	5	5 7	7
12175E	2		1	-1	-1	1	-1	-1		-1	3	. 4	5	i 8
12200E	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
12225E	-1	-1	-1	-1	1	-1	-1	-1	-1	-1	-1	-1	-1	-1
13200W	1	2	-1	-1	-1	-1	-1	-1	9	-1	2	4	. 9	7
13225W	1	3	1	-1	3	2	-1	2	11		2	4	5	5 7
13250W	1	3	-1	2	3	-1	-1	-1	10	-1	3	4	7	7
13275W				-1		-1	-1	-1		-1		3	4	
13425W 13450W	2	3		-1	3	1	'	-1	15	-	5	4	5 <u>11</u> 6	
13450W 13475W	1	3	1		4	-1	-1	-1	15		5		13	-
13700W	-1		-1	-1		-1	-1	-1	3		-1	1		
13700W-R	-1	1	-1	-1	-1	-1	-1	-1	3	-1	-1		2	2
13725W	1		-1	-1				-1		-1	3		6	5 7
13775W	1	3	3	2	-1	-1	-1	-1	8	-1	2	4	7	′ 7
13812W	• • • • 2	4	• • • • • 1	•••••-1	3	• • • • -1	• • • • • -1	• • • • • -1	16	i -1	6	5	17	14
13850W	2	3	4	2	3	-1	-1	-1	12	-1	4	4	11	11
13887W		4	5	3	-1	-1	-1	-1	17	-1	5	6	5 15	5 13
13925W	2	4	1	-1	3	1	-1	-1	15		5	5	8	8 12
13950W	3	5	1	5	6	-1	-1	-1	24	-1	10	8	19	17
13975W	2	3	2	1	4	-1	-1	-1	11	-1	3	5	7	8
131000W	1			2	2		-1	-1		-1	2		8	
131025W 13025W	-1	-1	-1	-1	-1	-1	-1	-1	-1 16	-1	-1	-1	-1 19	
1302500	2		1	1	-1	-1	-1	-1			5		5) 14 10
13025E	2	4	5		1			1	12		4	5	, , , , , , , , , , , , , , , , , , ,	-
13025L 13050E	-1	-1	-1	-1			-1	-1	-1	-1	-1		-1	
13062E	2	3	4	-1	-1	2	-1		13	-1	2	7	9	9
13062E-R	2	3	4	2	-1	3	-1	-1	12		2	7	9	
13100E	1	2	1	1	-1	-1	-1	-1	9		1	4	3	3 6
13137E	-1	-1	-1	1	1	2	-1	2	1	-1	-1	2	-1	1
13162E	2	2	1	-1	-1	-1	-1	-1	14	-1	3	5	5 11	12
13187E	2	3	4	2	2	-1	-1	-1	13	-1	4	4	20	
13212E	2		-1	-1		2	-1	2	10	-1	3		12	2 10
		L		L	<u> </u>	<u> </u>	<u> </u>		ļ	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
LMB-QA	••••-1	••••-1	-1	· · · · -1	•••••-1	••••-1	• • • • • -1	• • • • -1	· · · · · 1	-1	· · · · -1	•••••	• • • • -1	· · · · -1
LMB-QA	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
LMB-QA	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1

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015	LAR 016 - LB	017 - LB	018 - LB	019 - LB	020 - LA	021 - LPH	022 - LBA	023 - LAR	024 - LB	025 - LAR	026 - LBA	027 - LB	028 - ALK

	029 - HB	030 - HB	031 - HB	032 - HB	033 - HB	034 - HB	035 - LAR	036 - LBA	037 - HB	038 - LBA	039 - LAR	040 - LPB	041 - LBA	042 - LPB
10	-1	-1	-1	-1	-1	-1	-1	1	-1	2	-1	-1	-1	-1
1025E	-1	-1	-1	-1	-1	-1	-1	-1	-1	3	- 1	-1	3	-1
1062E	-1	-1	-1	-1	-1	-1	-1	-1	-1	1	-1	-1	2	-1
1100E	-1	-1	-1	-1	-1	-1	-1		-1	2	-1	-1	1	-1
1137E	-1	-1	-1	-1	-1	-1	-1	-1	-1	2	-1	-1	2	-1
1137E-R	-1	-1	-1	-1	-1	-1	-1	-1	-1	2	-1	-1	1	-1
20	-1	-1	-1	-1	-1	-1	-1	1	-1	-1	-1	-1	-1	
2050E	-1	-1	-1	-1	-1	-1	-1	-1	-1	1	-1	-1	-1	-1
2100E	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	2	-1
2150E	-1	-1	-1	-1	-1	-1	-1	-1	-1	1	-1	-1	1	-1
30	-1	-1	-1	-1	-1	-1	-1	2	-1	3	-1	-1	2	-1
3050E	-1	-1	-1	- 1	-1	-1	-1	-1	-1	1	1	-1	-1	-1
3100E	-1	-1	-1	-1	-1	-1	-1	-1	-1	1	-1	-1	-1	-1
3150E		-1		-1	-1	-1	-1	1	2	2	-1	-1	-1	-1
40	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
4050E	3	-1	6	-1	-1	-1	-1	1	2	3	-1	-1	4	-1
4100E	2	-1	4	-1	-1	2	-1	-1	3	-1	-1	-1	1	-1
4125E	-1	-1	3	-1	-1	2	-1	1	3	-1	-1	-1	-1	-1
4150E	2	-1	3	-1	-1	-1	-1	1	2	-1	-1	-1	2	-1
5137E	-1	-1	1	-1	-1	-1	-1	-1	1	-1	-1	-1	-1	-1
5162E	2	-1	3	-1	-1	-1	-1	-1	2	2	-1	-1	1	-1
5162E-R	1	1	4	1	-1	-1	-1		2	1	-1	-1		-1
5187E	1	-1	2	-1	-1	-1	-1	-1	-1	-1	-1	-1	2	-1
5212E	1	-1	2	-1	-1	-1	-1	-1	-1	-1	-1	-1	2	-1
8375E	5	-1	7	-1	-1	4	-1	1	2	-1	-1	-1	-1	1
8400E	2	-1		-1		· · · · · -1	-1	· · · · -1	1	· · · · · 1	-1	1	-1	· · · · -1
8425E	3	-1	5			2	-1	-1	2	-1	-1	-1	1	-1
9687W	4	-1	4	-1	-1	-1	-1	1	-1	2	-1	-1	3	-1
9725W	4	-1	1	-1	-1	2	-1	1	2	1	-1	-1	1	-1
9763W	3	-1	4	-1	1.		-1	1			1	-1	1	<u></u> .
9800W	1	-1	4	-1	-1	-1	-1	-1	1	2	-1	-1	2	-1
9837W	1	• • • • • • • • • • • • • • • • • • • •	4	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • •		••••-1			2		· · · · -1		
9875W	∠	-1	3	-1	-1	3	-1	-1	3	2	-1	-1	4	1
9912W		-1		-1	-1		-1	-1			-1	-1		<u> </u>
9950W 9987W	-1	-1	4	- 1	-1		-1	-1			- 1	-1	4	
99877V 91012W	1	1	1	1	-1	1	-1		1	1	1.	-1		-1
91012W 91012W-R	3	-1	4	-1	-1	-1	-1	-1	- 1		-1	- 1	2	-1
91025W	1	-1		-1	-1	-1	-1	1	1	-1	-1	- 1	1	1
91025W 91037W	-1	-1	-1	-1	-1	-1		-1	-1	1	-1	-1	-1	-1
91050W	1		6	_1			_1	_1		2	_1			_1
10162W	2	1	4		· · · · · · · · · · · · · · · · · · ·	-1	· · · · -1	-1		1		-1	1	· · · · · · · 1
10187W	2	_1	4	_1	_1	_1	_1	1	1	2	_1	_1	3	_1
10107W	1	-1						1	· · · · · <u>-</u> 1	1		1		1
10275W	2		2	-1	_1	_1	_1	1	1	2	-1	_1		
10300W	2	-1	7	-1	-1	-1	-1	1	-1	- 1	-1	-1	j ž	-1
10325W	-1	-1	1	-1	-1	-1	-1	2	-1	1	-1	-1	3	-1
10362W	-1	-1	2	-1	-1	-1	-1	2	2	4	-1	-1	3	-1
10187E	2	-1		-1	_1	1	_1	-1	1	3	-1	-1	3	-1
10107E	-1	-1	1	-1	-1	-1	-1	2	-1	1	-1	-1	Ž	-1
10237E	3	-1	5	-1	-1	1	-1	-1	2	3	-1	-1	2	-1
10237E-R	3	-1	4	-1	-1	-1	-1	1	3	1	-1	-1	-1	1
11200W	-1	-1	-1	-1	-1	-1	-1	1	-1	2	-1	-1	-1	-1
11225W	2	1	4	-1	-1	-1	-1	-1	-1	-1	-1	-1	1	-1
	2	- 1	-								⁻ '		1	· · · · · · · · · · · · · · · · · · ·

Results represent only the material tested. Actlabs is not liable for any claim/damage from use of this report in excess of the test cost. Unless requested A10-3135 samples are discarded in 90 days. This report is only to be reproduced in full. 7/36

4

11262W

SOIL GAS HYDROCARBONS (SGH) by GC/MS AUR LAKE SGH SURVEY - PHASE III

-1

-1

3

-1

· 029 - HB . . 030 - HB . . 031 - HB . . 032 - HB . . 033 - HB . . 034 - HB . . 035 - LAR . . 036 - LAR . . 037 - HB . . 037 - HB . . 039 - LAR . . 040 - LPB . . 041 - LPB . . 042 - LPB

-1

-1

2

-1

-1

3

-1

-1=Reporting Limit of 1pg/g (ppt=parts per trillion)

-1

1300W	2	-1	5	-1	-1	-1	-1		-1	2	-1	-1	2	
1337W	-1	-1	4	-1	-1	-1	-1	-1	2	-1	-1	-1	1	-1
1375W		-1		-1	-1		-1		2		-1	-1		-1
1400W	2	-1	5	-1		3	-1	1	3	4	-1	-1	4	-1
1425W	3	-1	3	-1	-1	2	-1	-1	2	3	-1	-1	3	-1
1175E		-1	-1	-1	_1	-1	-1	-1	-1	-1	-1		, in the second s	-1
1200E	-1	-1	-1	-1	-1	-1			-1		-			-1
1225E	1	1	1	_1		1	-1	1	-1	-1	-1	1	1	1
1225E	-1	-1	-1	'		-1		2	-1			-1	-1	-1
	1	1				1		1		1			4	1
2250W		-1	4	- 1	-1	-1	-1			-1	-1	-1	2	-1
2275W	2	-1	4	- 1		-1	-	- 1	1		-1			-1
2275W-R	2	-1	4	-1		-1	-1	-1	1	3	-1		•	-1
2725W		-1	4	-1	-1	-1	-1		-1	2			2	-1
2750W	2	-1	4	-1	-1	1	-1	1	4	-1	-1		1	-1
2775W	2	-1	4	-1	-1	-1	-1	-1	1	2	-1	-1	2	-1
2800W	2	-1	6	-1	-1	3	-1	-1	3	4	-1	-1	2	-1
2175E	3	-1	3	-1	-1	-1	-1	1		2	-1	-1	2	-1
2200E	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
2225E	-1	-1	-1	-1	-1	-1	-1	1	-1	1	-1	-1	-1	-1
3200W	2	-1	5	-1		-1	-1	1	2	-1	-1			-1
3225W		1	2	-		-1	• • • • • • • • • • • • • • • • • • • •	1	· · · · · 1		-		-	-1
3250W		_1	5	_1	_1	_1	-1	_1	-1	-1	-1	-1		_1
3275W	1	-1		-1	-1	-1		-1	-1				1	-1
3425W		-1		-1	-1	-1		-1	-1		-1	-1	1	-1
	4	-1		-1	-1		-1			-1			2	-1
3450W	2	· · · · -1	6			· · · · · -1	-1	1			-1		· · · · -1	-1
3475W	2	-1	6	-1		-1	-1	1	-1		-1		1	-1
3700W	-1	-1	2	-1	-1	-1		-1	2	-1		-1	-1	-1
3700W-R	-1	-1	2	-1	-1	-1	-1	1	2	-1	-1	-1	-1	-1
3725W	3	-1	5	-1	-1	-1	-1	1	-1	3	-1	-1		-1
3775W	2	-1	5	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
3812W	2	-1	7	-1	-1	-1	-1	1	-1	-1	1	-1	-1	-1
3850W	4	-1	6	-1	-1	-1	-1	-1	2	-1	-1	-1	-1	-1
3887W		-1		-1	-1		-1		4	-1	-1	-1	-1	1.1.1
3925W	5	-1	8	-1	-1	1	-1	2	3	1	-1	-1	2	-1
3950W	6	-1	5	-1	-1	-1	-1	2	-1	-1	-1	-1	1	1
3975W	2	-1	7	-1	-1	-1	-1	-1	2	2	-1	-1	2	-1
31000W		-1	4	-1	-1	-1	-1	1		2	-1	-1	$\cdot \cdot \cdot \cdot \cdot \cdot 1$	-1
31025W		-1	-1	-1		-1	-1	-1	-1	2	-1	-1	-1	_1
3025W	3	-1	- 8			-1		2	-1	-1			-1	· · · · · · · · · · · · · · · · · · ·
302.577		1		1	1	1	-1	1	1	I	1	1	1	1
3025E	5	1		- 1	-1	-1		-1	-1		- 1	1	1	-1
	5		1		-1	4						<u></u>	· · · · · · · · · · · · · · · · · · ·	
3050E	-1	-1	-1	-1	-1	-1	-1	3	-1		-1			-1
3062E		-1	6	-1	-1	3		2	4		-1		-1	1
3062E-R	2	-1	2	-1	-1	3	-1	1	4	-1	-1	-1	3	1
3100E	2	-1	1	-1	-1	-1	-1	-1	2	1	-1	-1	1	-1
3137E	-1	-1	1	-1	-1	-1	-1	2	-1	3	-1	-1	1	-1
3162E	3	-1	2	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
3187E	2	-1	5	-1	-1	-1	-1	1	-1	2	-1	-1	1	-1
3212E	1	-1	4	-1	-1	-1	-1	-1	-1		-1	-1	1	-1
										1				
MB-QA	-1	-1	-1	-1	-1	-1	-1	1	-1	-1	-1	-1	-1	-1
MB-QA	-1	-1	-1	-1		-1	-1	1	-1		-1	-1		-1
MB-QA		-1		-				-1	· · · · · · -1	-			-	-1

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029 -	IB 030 - HB	031 - HB	032 - HB	033 - HB	034 - HB	035 - LAR	036 - LBA	037 - HB	038 - LBA	039 - LAR	040 - LPB	041 - LBA	042 - LPB

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1025E

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SOIL GAS HYDROCARBONS (SGH) by GC/MS AUR LAKE SGH SURVEY - PHASE III

. . . .

-1

- -1

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1943 - HB · .] . . 044 - HB · .] . . 045 - LA · .] . . 046 - LPH · .] . . 047 - LBA · .] . . 048 - HB · .] . . 049 - HB · .] . . 050 - LBA · .] . . 051 - LBI · .] . . 052 - LPB · .] . . 053 - LPB · .] . . 054 - HB · .] . . 056 - LBI

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-1

-1=Reporting Limit of 1pg/g (ppt=parts per trillion)

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1025E	-1	-1	3		- 1	-1	-1	2	-	- 1	- 1	- 1	-1	- 1
1062E	-1	-1	2	-1	-1	-1	-1	1	-1	-1	-1	-1	-1	-1
100E	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
137E	-1	-1	1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
1137E-R	-1	-1	1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
20	-1	-1	1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
2050E	-1	-1	2	-1	1	-1	-1	1	-1	-1	-1	-1	-1	-1
2100E	-1	-1	2	-1	1	-1	-1	-1	-1	-1	-1	-1	-1	-1
2150E	-1	-1	1	-1	1	-1	-1	1	-1	-1	-1	-1	-1	-1
30	-1	-1	3	-1	2	-1	-1	2	-1	-1	-1	-1	-1	-1
3050E	-1	-1	1	-1	- 1	-1	-1	1	-1	-1	-1	-1	-1	-1
3100E	-1	-1	-1	-1	1	-1	-1	1	-1	-1	-1	-1	-1	-1
3150E	-1	-1		-1	2	-1	-1	-1	-1	-1	-1	-1	-1	-1
40	-1	-1	1	-1	1	-1	-1	-1	-1	-1	-1	-1	-1	-1
4050E	-1	-1	4	-1	3	-1	-1	3	-1	-1	-1	1	-1	-1
4100E	-1	-1	2	-1	2	-1	-1	1	-1	-1	-1	1	-1	-1
4125E	-1	-1	3	-1	2	1	1	2	-1	-1	-1	1	-1	-1
4150E	-1	-1	3	-1	2	-1	-1	2	-1	-1	-1	-1	-1	-1
5137E	-1	-1	2	-1	1	-1	-1	1		-1	-1	-1	-1	-1
5162E	-1	-1	2	-1	2	-1	-1	1	-1	-1	-1	1	-1	-1
5162E-R	-1	-1		-1	2	-1	-1	-1	-1	-1	-1	-1	-1	-1
5187E	-1	-1			2	-1		1	-1	-1	-1		-1	-1
5212E	-1	-1	3	-1	2	-1	-1	-1	-1	-1	-1	-1	-1	-1
3375E	-1	-1	4	-1	3	-1	-1	2	-1	-1	-1	-1	-1	-1
3400E	-1	-1	3	-1	2	1	1		-1	-1	-1	-1	-1	-1
8425E	-1	-1	2	-1	1	-1	-1	-1	-1	-1	-1	1	-1	-1
9687W	-1	-1	6	-1	5	-1	· · · · · -1	3	-1	-1		-1	-1	-1
9725W	-1	-1	5	-1	4	-1	-1	2	-1	-1	-1	-1	-1	-1
9763W	-1	-1		-1		1		1	-1	-1	-1		-1	-1
9800W	-1	-1		-1	2	-1	-1	1	-1	-1	-1	-1	-1	-1
9837W	-1	• • • • • •1	4	-1	3	-1		2	• • • • • • • • • • • • • • • • • • • •	-1	-1	-1	-1	1
9875W	-1	-1	4	-1	3	-1	-1	2	-1	-1	-1	-1	-1	-1
9912W	• • • • • -1	1		-1	2	· · · · · -1	-1		• • • • • • • • • • • 1	-1	1	1	• • • • • • -1	1
9950W	-1	-1	3	-1	2	-1	-1	1	-1	-1	-1	1	-1	-1
9987W	-1	-1		-1	1	-1	-1	1	-1	-1	-1	-1	-1	-1
91012W	-1	-1	3	-1	3	-1	-1	2	-1	-1	-1	1	-1	-1
91012W-R	-1	-1	4	-1	3	-1	· · · · · -1	• • • • • 1	-1	-1	· · · · · · -1	-1	-1	-1
91025W	-1	-1	2	-1	1	-1	-1	-1	-1	-1	-1	-1	-1	-1
91037W	-1	-1	6	-1	4	-1	-1	2	-1	-1	-1	-1	-1	-1
91050W	-1	-1	3	-1	2	-1	-1	2	-1	-1	-1	-1	-1	-1
10162W	-1	1	4	1	3	-1	· · · · -1	2	1	-1	-1	• • • • -1	-1	1
10187W	-1	-1	4	-1	3	-1	-1	2	-1	-1	-1	-1	-1	-1
10237W	-1	-1	4	-1	3	-1	-1	2	-1	-1	-1	-1	-1	-1
10275W	-1	-1	4	-1	3	-1	-1	2	-1	-1	-1	-1	-1	-1
10300W	-1	-1		-1	3	-1	-1	2	-1	-1	-1	-1	-1	-1
10325W	-1	-1	3	-1	3	-1	-1	2	-1	-1	-1	-1	-1	-1
10362W	-1	-1		-1	6	-1	· · · · · -1	3	-1	-1	· · · · · -1	· · · · 1	-1	-1
10187E	-1	-1	4		2	-1	-1	2	-1	-1	-1	1	-1	-1
10212E	-1	-1	2	-1	1	-1	-1	1	-1	-1	-1	-1	-1	-1
10237E	-1	-1	3	-1	3	-1	-1	2	-1	-1	-1	1	-1	-1
10237E-R	-1	1	3	-1	2			2	-1	-1	-1	1	-1	- 1
11200W	-1	-1	2	-1	1	-1	-1	-1	-1	-1	-1	-1	-1	-1
11225W	· · · · -1	• • • • • • • • • • • • • • • • • • • •	2					1		-1	· · · · -1		1	
	!!	!	-		-									

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11262W

SOIL GAS HYDROCARBONS (SGH) by GC/MS AUR LAKE SGH SURVEY - PHASE III

-1

3

· . 043 - HB · . 044 - HB · . 045 - LA · . 046 - LPH · . 047 - LBA · . 048 - HB · . 049 - HB · . 050 - LBA · . 051 - LBI · . 052 - LPB · . 053 - LPB · . 054 - HB · . 055 - LPB · . 055

-1

-1

2

-1

-1

-1

-1=Reporting Limit of 1pg/g (ppt=parts per trillion)

-1

-1

4

1120200	-1	- 1	4		1 3	-1		2				. 1	-1	- 1
11300W	-1	-1	2	-1	1 2	-1	-1	1		(-1	-1	-1	-1	-1
11337W	-1	-1	3	-1	1 2	-1	-1	2	-1	1 -1	-1	1	-1	-1
11375W	-1	-1	6	-1	1 5	-1	-1		-1	1 -1	-1	-1	-1	-1
11400W	-1	-1	7	-1	5	-1	-1	2	-1	1 -1	-1	-1	-1	-1
11425W	-1	-1	5	i -1	1 4	-1	-1	1	-1	1 -1	-1	-1	-1	-1
11175E	-1	-1	1	-1		-1	-1		-1					-1
11200E	-1		1			-1								-1
11225E	-1	_1	1	-1		_1	-1	-1	-1					-1
12225W	1	1	7		1	-1		2						-1
12223W	1	1	2	-1		-1	-1	2	-1		-1		1	1
12275W		-1			Ŭ	-1	1	1					-1	-1
12275W-R	-1	-1		· · · · · · · · · · · · · · · · · · ·	<u> </u>	-1			-1		-1		-1	-1
	-1	-1	2	-1	<u> </u>	-1	-1	1			-1	1	-1	-1
12725W	-1							2						-1
12750W	-1	-1	3		-	-1	-1	1	-1					-1
12775W	-1	-1	2		-	-1	-1	· · · · 1	-1				-1	-1
12800W	-1	-1	5	5 -1		-1	-1	3	-1				-1	-1
12175E	-1	-1	3	-1	1	-1	-1	2	-1	1 -1	-1	-1	-1	-1
12200E	-1	-1	-1	-1	1 -1	-1	-1	-1	-1	1	-1	-1	-1	-1
12225E	-1	-1	1	-1	1 1	-1	-1	-1	1	1 -1	-1	-1	-1	1
13200W	-1	-1	3	-1	2	-1	-1	2	-1			-1	-1	-1
13225W	-1	-1	3	-1	1 3	-1	-1	2	-1	1 -1	1	-1	-1	-1
13250W	-1	-1	2	-1	1 2	-1	-1	1	-1	1 -1	-1	-1	-1	-1
13275W	-1	-1	3	-1	1 2	-1	-1	2	-1	1 -1	-1	-1	-1	-1
13425W	-1	-1	3	-1	3	-1	-1	2	-1	1 -1	-1	-1	-1	-1
13450W	-1	-1	3	-1	1 3	-1	-1	2	-1	1 -1	-1	-1	-1	-1
13475W	-1	-1	3	-1	1 2	-1	-1	2	-1		-1			-1
13700W	-1	-1	2	-1	1 1	-1			-1	1 -1			-1	-1
13700W-R	-1	_1	2	-1		-1	-1	-1	-1	<u></u>				-1
13725W	-1	1				-1							· · · · · · · · · · · · · · · · · · ·	
13775W	1	1	2		1 2	1	-1		-1		-1		1	1
13812W	-1	-1	3	· · · · · · · · · · · · · · · · · · ·	1 2	-1		2	1	1			-1	-1
13850W	-1	- 1	3	3 -1		-1		2		· · · · · · · · · · · · · · · · · · ·				-1
	-	-1	3		-		-1		-1					-1
13887W	-1	-1	4		-				-1					
13925W	-1	-1	4	-1		-1	-1	2	-1			· · · · · · · · · · · · · · · · · · ·		-1
13950W	-1	-1	5	5 -1	1 3			2					-1	
13975W	-1	-1	3	-1	1 2	-1	-1	2	-1				-1	-1
131000W	-1	-1	3	-1	· · · · · · · ·	-1		2	-1	<u></u>			-1	-1
131025W	-1	-1	1	-1		-1	-1	-1	-1				-1	-1
13025W	-1	-1		-1	1 3	-1		2			-1	-1	-1	-1
130	-1	-1	3	-1	1 3	-1	-1	2	-1		-1		-1	-1
13025E	-1	-1	4	-1	1 3	-1	-1	2	-1	1 -1	-1	-1	-1	-1
13050E	-1	-1	1	-1		-1	-		-1	1 -1	-1	-1	-	-1
13062E	-1	-1	6	-1	1 5	-1	-1	1	-1	1 -1	-1	-1	-1	-1
13062E-R	-1	-1	9	-1	1 8	-1	-1		-1				-1	-1
13100E	-1	-1	3	-1	1 3	-1	-1	2	-1	1 -1	-1	-1	-1	-1
13137E	-1	-1	2	-1	1 2	-1	-1	1	-1	1 -1	-1	-1	-1	-1
13162E	-1	-1	4	-1	1 3	-1	-1	2	-1	1 -1	-1	1	-1	-1
13187E	-1	-1	4	-1	1 3	-1	-1	2	-1	<u> </u>	-1	-1	-1	-1
13212E	-1	-1	4		·	-1		-1					· · · · · · · · · · · · · · · · · · ·	-1
	· · · · · ·		[· · · · · · ·	<u> </u>	†	<u> </u>				1	t 	+	<u> · · · · · · · · · · · · · · · · · · ·</u>	<u> </u>
LMB-QA		1	1		1	• • • • • -1	• • • • • -1	-1	1	1		····		1
LMB-QA	1	- 1	1		1 1	-1	1	1	-1		1	1	-1	1
	-1	-1	-1	-1	1 -1								-1	-1
LMB-QA						-1	-1	-1	1 • • • • • • • • • • • • • • • • • • •	1 -1	1	-1		

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• • • • • • • •	043 - HB	044 - HB	045 - LA	046 - LPH	047 - LBA	048 - HB	049 -HB	050 - LBA	051 - LBI	052 - LPB	053 - LPB	054 - HB	055 - LPB	056 - LBI

067 - LBI 068 - HPB 069 - LA 070 - HPB

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-	r=reporting		g/g (ppt-pa		///////////////////////////////////////		56H 50KV		L III	
	057 - ALK	058 - LPB	059 - LPB	060 - LPH	061 - LBI	062 - LBA	063 - LPH	064 - LBA	065 - HPB	066 - LBA
10	-1	-1	-1	-1	1	3	2	3	1	4
1025E	-1	-1	-1	-1	1	3	2	3	1	4
1062E	-1	-1	-1	-1	-1	3	1	3	1	3
1100E	-1	-1	-1	-1	-1	3	1	3	1	3
1137E	-1	-1	-1	-1	1	3	1	2	1	3
1137E-R	-1	-1	-1	-1	-1	2	2	3	1	3
20	-1	-1	-1	-1	1	2	1	2	1	3
2050E	-1	-1	-1	-1	1	3	2	3	1	3
2100E	-1	-1	-1	-1	-1	3	1	3	1	3
2150E	-1	-1	-1	-1	1	3		3	1	4
30	-1	-1	-1	-1	1	4	3	4	1	5
3050E	• • • • -1	• • • • • • •1	-1	1 1	· · · · · 1	• • • • • 3	• • • • 2		· · · · · -1	4
3100E	-1	-1	-1	-1	-1	3	-1	2	-1	3
3150E	-1	-1	-1	-1		4	2		1	5
40	-1	-1	-1	-1	-1	2	1	2	1	3
4050E	-1	-1	-1	-1	1	5	1	5	-1	7
4100E	-1	-1	-1	-1	1	4	1	4	-1	5
4125E	-1	-1	-1	-1	1	3	1	4	1	5
4150E	-1	-1	-1	-1	1	4	1	3	1	5
5137E	-1	-1	-1	-1	1	3	-1	3	1	4
5162E	-1	-1	-1	-1	-1	3	1	3	1	4
5162E-R	• • • • -1	• • • • • • •1	· · · · · -1	• • • • • • • • • • • • • • • • • • • •	• • • • • • 1	• • • • • 3	• • • • • • 1	• • • • 3	· · · · · 1	••••5•
5187E	-1	-1	-1	-1	-1	3	-1	3	-1	3
5212E	-1	-1	-1	-1	-1	3	-1	3	1	4
8375E	-1	-1	-1	-1	1	4	2	5	1	6
0 1 0 0 5			+							

40	-1	-1	-1	-1	-1	2	1	2	1	3	-1	-1	4	-1
4050E	-1	-1	-1	-1	1	5	1	5	-1	7	1	1	7	1
4100E	-1	-1	-1	-1	1	4	1	4	-1	5	1	1	5	1
4125E	-1	-1	-1	-1	1	3	1	4	1	5	-1	-1	6	1
4150E	-1	-1	-1	-1	1	4	1	3	1	5	-1	1	6	-1
5137E	-1	-1	-1	-1		3	-1	3	1		-1	-1	4	-1
5162E	-1	-1	-1	-1	-1	3	1	3	1	4	-1	-1	5	1
5162E-R	-1	-1	-1		1	3	1	3	1	5	1	1	4	-1
5187E	-1	-1	-1	-1	-1	3	-1	3	-1	3	-1	-1	4	-1
5212E	-1	-1	-1	-1	-1		-1	3	1	4	-1	1		
8375E	-1	-1	-1	-1	1	4	2	5	1	6	1	1	7	1
8400E	-1	-1	-1	-1	1	3	-1	4	1	5	-1	-1	6	1
8425E	-1	-1	-1	-1	1	3	1	4	-1	5	-1	-1	5	-1
9687W	-1	-1	-1	-1	1	6	2	6	1	8	1	1	8	1
9725W	-1	-1	-1	-1	1	5	2	5	1	7	1	1	7	1
9763W	-1	-1	-1	-1		4		4	1	5	-1	-1	5	
9800W	-1	-1	-1	-1	1	3	1	3	1	5	-1	-1	6	-1
9837W	• • • • -1	• • • • • • • • • • • • • • • • • • • •	-1	• • • • • -1	• • • • • -1	• • • • • 4	· · · · · 1	• • • • 4	· · · · · 1	- 6	· · · · 1	••••	7	• • • • • • • • • • • • • • • • • • • •
9875W	-1	-1	-1	-1	1	5	2	5	-1	7	-1	-1	6	1
9912W	-1	-1	-1			4	1	4	1	6	1	-1	5	-1
9950W	-1	-1	-1	-1		3	1	3	1	5	-1	-1	6	1
9987W	-1	-1	-1	-1	-1	3	1	3	-1		-1	1	4	-1
91012W	-1	-1	-1	-1	1	4	-1	4	1	5	-1	-1	6	1
91012W-R	-1	-1	-1	-1	1	4	-1	4	1	6	1	-1	6	1
91025W	-1	-1	-1	-1	1	3	-1	3	-1	4	-1	-1	4	-1
91037W	1	-1	-1			6			-1	9				
91050W	-1	-1	-1	-1		4	1	4	1	8	-1	1	5	1
10162W	1	• • • • • • • • • • • • • • • • • • • •	••••-1		••••	6	· · · · · · 2		1	6	• • • • • -1	• • • • • • 1	8	• • • • • 1
10187W	-1 -1	-1	-1	-1		5	1	4	1	6	-1	1	8	1
10237W	-1	-1	-1		1	5	•••••1		1	6	-1		7	1
10275W 10300W	-1	-1	-1	-1	1	4	-1	4	1	6 	· · · · · · · · · · · · · · · · · · ·		/	1
10300W 10325W	1	-1	· · · · · - 1	.	1	5	<u> </u>	5	1	9			8	1
10325W 10362W	-1	-1	-1	- 1		4	-1	4	1	4	-1	-	10	1
10302VV 10187E	-1	-1	-1	-1	1	5	1	5	1	1	1		10	1
10187E	-1	-1	-1	-1		4		4	1	0	-1	-	0	1
10212E 10237E	1	-1		-1			1		1	. 4 Б	1		5	1
10237E-R	-1	-1	-1	-1	1	4	· · · · · · · · 1	4	1	5			4	-1
11200W	-1		1	1	1	3	1	4	1	1	1			1
11200W		-1	-1	-1	1		1			5	-1		5	-1
1122.300		I ⁻ !		I I.	<u> </u>		I J	1	. !		<u> '</u>	· · · · · · ·		!

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	057 - ALK	058 - LPB	059 - LPB	060 - LPH	061 - LBI	062 - LBA	063 - LPH	064 - LBA	065 - HPB	066 - LBA	067 - LBI	068 - HPB	069 - LA	070 - HPB
11262W	-1	-1	-1	-1	1	5	1	5	5 1	7	1	1	8	1
11300W	-1	-1	-1	-1	1	4	1	4	1	5	-1	1	6	1 1
11337W	-1	-1	-1			3	1	4	1	5	1	-1	5	1
11375W	-1	-1	-1	-1	1	5	2	6	5 1	3	1	1	9	1
11400W	-1	-1	-1	-1	1	6	2	5	5 1	7	1	1	9	1
11425W	-1	-1				5	1	5	i -1	6			9	
11175E	-1	-1				3	-1	3	1	3	-1	-1	4	-1
11200E	-1	-1			-1	3	-1	3	1				3	-1
11225E	-1	-1	-1	-1	-1	3		3		4	-1	-1	4	-1
12225W 12250W		-1	-1	-1	••••1		••••1	5	i · · · · · · · 1		1	••••1	9	• • • • • • • • • • 1
12230W 12275W		-1			1	4	-1	4		5	-1	1	0	1
12275W-R	-1	-1			1	4			1	5	1	1		-1
12725W	-1	-1			1	4	1	4	1	5	-1	1	6	1
12750W	-1	-1	-1	-1	1	4	1	4	1	4	-1	1	5	1
12775W	-1	-1	-1	-1	1	4	-1	4	-1	5	-1	1	5	1
12800W	-1	-1	-1	-1	1	4	1	4	1	7	1	1	7	1
12175E	-1	-1	-1	-1		4	1	4	1	6	-1	1		
12200E	-1	1	-1	-1	1	2	-1	3	-1	4	-1	-1	5	-1
12225E	-1	-1	-1	-1	-1	3	-1	3	1	4	-1	-1	4	- 1
13200W	-1	-1	-1	-1	1	4	1	4	-1	6	-1	1	6	1
13225W	-1	-1	-1	-1	1	4	1	4	1	6	-1	1	9	1
13250W	-1	-1	-1	-1	1	3	1	4	1	7	-1	1	6	1
13275W	-1	-1		-1	1	4	-1		1	5	1	-1		-1
13425W	-1	-1	-1	-1	1	4	1	4	1	6	1	1	7	1
13450W	· · · · -1	· · · · -1	-1	-1	· · · · 1		1	4	1	7	1	· · · · 1	7	1
13475W 13700W	-1	-1			1	4		4	-1	6	-1	-1	5	1
13700W 13700W-R	-1	-1	-1				-1		<u> </u>		-1	-1		1
13725W	-1			-		4		4	· · · · · · · · · · · · · · · · · · ·	6			4	
13775W	-1	-1	-1	-1	1	4	1	4	-1	5	-1	1	5	1
13812W	1	1	-1	1	1	4	• • • • • • • 1	4		6	1	1	5	1
13850W	-1	-1	-1	-1	1	4	1	4	1	7	1	-1	5	1
13887W		-1	-1	-1	1	5	2		5 1					1
13925W	-1	-1	-1	-1	1	4	1	4	1	7	1	1	6	1
13950W	2	-1	-1	-1	1	6	2	6	i -1	10	-1	1	7	1
13975W	-1	-1	-1	-1	1	4	1	4	-1	6	1	1	6	1
131000W	-1					3		4	1	5			5	-1
131025W	-1	-1				3	-1	3	1	3	-1	-1	3	-1
13025W	-1	-1				4	2	4	1	8	-1		6	<u> ····</u>
130 13025E	-1	-1	-1			4	1	4	-1	6	-1	1	6	1
13025E 13050E	-1	-1	-1	-1	1	4	- 2	4	1		1	-1		· · · · · · 1
13050E 13062E		-1	-1	-1	 · · · · · · · · · · · · · · · · · ·	4	-1	4	1		-1		0	-1
13062E-R	1	-1	-1		1	6	2	7	1	S	-1	1	11	
13100E	-1	-1			-1	4	1	4	1		-1			
13137E	-1	-1	-1	-1	1	3	-1	3	1	4	-1	-1	4	-1
13162E	-1	-1	· · · · · -1	· · · · · · -1	· · · · · 1	• • • • • • • • • • • • • • • • • • • •	· · · · 1	• • • • • • • • • • • • • • • • • • • •	1	6	· · · · · · · · · · · · · · · · · · ·	· · · · -1	6	· · · · 1
13187E	-1	-1	-1	-1	1	5	2	6	1	3	1	-1	6	1
13212E	-1	-1	-1	-1		5	1	5	1		1			
LMB-QA	-1	-1	-1	-1	• • • • 1	3	-1	3	-1	3	-1	-1	3	• • • • • • • • • • • • • • • • • • • •
LMB-QA	-1	-1	-1	-1	1	2	-1	3	-1	3	-1	-1	3	-1
LMB-QA	-1	-1	-1	-1	-1		-1	3	1	3	-1	-1	4	-1

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057 - A	K 058 - LPB	059 - LPB	060 - LPH	061 - LBI	062 - LBA	063 - LPH	064 - LBA	065 - HPB	066 - LBA	067 - LBI	068 - HPB	069 - LA	070 - HPB

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1025E

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SOIL GAS HYDROCARBONS (SGH) by GC/MS AUR LAKE SGH SURVEY - PHASE III

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.071. HPB . . 072 - HPB. . . 073 - HBA . . 074. - HBA . . 075 - HPB . . 076. - LPH . . 077 - MAR . . 078 - ALK . . 079 - LBI . . 080 - LPH . . 081. MAR . . 082 - LPH . . 083 - HBA . . 084 - HBA

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-1=Reporting Limit of 1pg/g (ppt=parts per trillion)

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1025E	1		3	4	1	-1	-1	1	- 1			4	5	
062E	-1	1	2	3	3 1	-1	-1	1	-1	-1	1	2	2 4	2
100E	-1	-1			3 1	-1	-1		-1	1			2 6	1
137E	-1	-1	3	2	2 1	-1	-1	1	-1	1	1	2	2 5	2
137E-R	-1	1	3	3	-1	-1	-1	1	-1	1	1	2	6	2
20	-1	-1	2	-	1	-1		1	-1	1	1		2 5	2
2050E		1			-1	· · · · · · · · · · · · 1			-1		2		•	1
2100E	1	1) -1) 1	· · · · · · · · · · · · · · · · · · ·	1	1	1	••••••••••	<u> </u>			
	1		3			-1	-1		-1	1		4	5	2
2150E	1	-1		3	-1	-1		1	-1	-1	1	2	2 6	
30	1	1	4	. 4	1	-1	-1	2	-1	1	2	4	6	1
3050E	1	1	3	2	2 1	-1		1	-1	• • • • • 1	1		2 7	2
3100E	-1	-1	3	3	-1	-1	-1	1	-1	1	1	2	2 5	1
3150E			. 4		3 1				-1				2 7	
10	-1	-1	3	3	-1	-1	-1	1	-1	1	1	2	9 9	2
1050E	1	2	6	7	1	-1	1	2	-1	1	2	2	2 9	2
100E	1	1	4	. 5	5 1	-1	-1	2	-1	-1	2	2	2 6	1
1125E	1		4		1	-1	-1	2	-1	1	2		2 8	2
1150E	_1	_1	5		3 1	_1	-1	2	-1	1	2		2 8	2
5137E	-1				-1			<u> </u>		1	1		27	
5162E	1	1		4	1	1	-1	°	-1	1	1		7	
5162E-R	4	-1	4		· · · · · · · 1	-1	-1	1	-1	1	1	4	2	2
	-1	4	4	4						4			0	2
5187E	-1	-1	3	4	1	-1	-1		-1	1	<u> </u>		8	1
5212E	-1	1	4		1	-1				1	1		2 9	2
3375E	1	1	5	5	3 1	-1	-1		-1	1	2	2	2 4	2
3400E	-1	-1		5	5 1	-1	-1	2	-1	1	1	2	5	2
3425E	-1	1	4	. 3	3 1	-1	-1	2	-1	1	2	2	2 3	1
9687W	1	1	6	7	1	1	1 1	2	-1	2	2	2	2 2	2
9725W	1	1	6	6	6 1	-1	-1	3	-1	1	2	2	2 8	2
9763W					3 1	-1			-1		1		2 3	
9800W	-1	-1	4	. 4	-1	-1	-1	2	-1	1	1	2	2 8	2
9837W	-1		5	4	-1	-1		2	1	1	1		9	2
9875W	1	1	5		5 1	-1	-1	2	-1	1	1	2	2 8	2
9912W	-1	-1	4		1	· · · · · · · · · · · · · · · · · · ·	· · · · · -1	-	-1	1	1		· · · · · · · · · · · · · · · · · · ·	- 2
9950W	1	1			1	_1	-1	2	-1	1	2		5 5	2
9987W		-1		4	1	-1		1	-1		2		2 6	
9987 W 91012W	1			4	-1	-1				1			0	1
	-1	1	4			-1	-1	2	-1		2	4	9	1
01012W-R	1	1	5		1	-1	-1		-1	1	2	2	9 9	2
91025W	-1	-1	3	,	-1	-1	-1		-1	1	2	4	2 /	1
91037W	1			. 4	1 1	-1			-1				2 8	
91050W	1	1	5	6 6	S 1	-1	-1	2	-1	1	1	2	2 4	2
10162W	1	1	5	6	S 1	1	-1	2		1	2		2 9	2
10187W	1	1	6	5	5 1	-1	-1	2	-1	1	2	2	2 12	2
10237W	1	1	4	4	1 1	1	-1	2	-1	1	2	2	2 3	1
10275W	-1	-1	5	3	3 1	-1	-1	2	-1	1	3	2	2 9	2
10300W	1	1	7	7	1	-1	-1	3	-1	1	2		2 1	2
10325W	-1	1	5	6	3 1	_1	_1	2	-1	1	2		2 10	2
10362W	1	1	6	5		1	-1		-1	-1	2	2	-	
1030277 10187E	-1	1	5			-1	-1		-1	1	1			
10187E	-1	-1	5							1		1		
	1	-1				• • • • • • • • • • • • • • •		1			1		8	
10237E	-1	-1	5			-1	-1	2	-1	$1 \cdots 1$	2	· · · · · · · · · · · · · · · · · · ·	<u> </u>	1
10237E-R	-1	- 1	5		<u> 1</u>	-1			• • • • • • • • • • • • • • • • • • • •	• • • • • • 1	1		2 6	
11200W	-1	-1	4	-	2 1	-1	-1	-	-1	1	2	2	9	2
11225W	-1	1	4		2	· · · · · -1	· · · · · · · · 1		· · · · · 1	· · · · · ·-1	$1 \cdot \cdot \cdot \cdot \cdot 1$	· · · · · · 2		

Results represent only the material tested. Actlabs is not liable for any claim/damage from use of this report in excess of the test cost. Unless requested A10-3135 samples are discarded in 90 days. This report is only to be reproduced in full. 16/36

-1=Reporting Limit of 1pg/g (ppt=parts per trillion)

	071 - HPB	072 - HPB	073 - HBA	074 - HBA	075 - HPB	076 - LPH	077 - MAR	078 - ALK	079 - LBI	080 - LPH	081 - MAR	082 - LPH	083 - HBA	084 - HBA
11262W	1	1	6	7	1	-1	-1	2	-1	1	2	2	2	. 2
11300W	1	1	4	4	1	-1	-1	2	-1	1	2	2	2	2
11337W	-1	1	4	5	1	-1	-1	2	-1	1	2	2	4	2
11375W	1	1	6	8	1	1	-1	2	-1	1	2	2	10	2
11400W	1	1	7	6	1	1	1	2	-1	1	2	2	9	2
11425W	1	1	5	6	1	-1	-1	2	-1	-1	2	2	5	5 2
11175E	1	-1	3	3	-1	-1	-1	1	-1	1	1	2	8	2
11200E	-1	-1	3		-1	-1	-1	1	-1		1		8	
11225E	-1	-1	3	4	-1	-1	-1	1	-1	1	2	2	6	1
12225W	1	1	5		1		· · · · -1	2	•••••	1	2			
12250W 12275W	••••-1	1	4	5	1	-1	1	2	-1 -1	1	2		12	
12275W-R	-1	1		. J	1	-1			-1	1		2		2
12725W		1		3	· · · · · · · · · · · · · · · · · · ·	-1	-1		-1	· · · · · · · · · · · · · · · 1	2	2		2
12750W	1	1	4	5	1	-1	-1	2	-1	1	1	2	5	2
12775W	1	1	5	5	1	-1	-1	2	-1	1		2	6	2
12800W	1	1	5	7	-1	-1	1	2	-1	1	2	2	8	2
12175E	1		4		1	-1	-1	2	-1		2			
12200E	-1	-1	4	2	-1	-		1	-1	1	1	2	5	2
12225E	-1	-1	3	-1	1	-1	-1	1		1	1		6	2
13200W	1	1	5	2	1	1	-1	2	-1	1	2	2	3	1
13225W	1	1	5	7	1	-1	-1	2	-1	1	2	2	9	2
13250W	1	1	4	2	1	-1	-1	2	-1	1	2	2	6	2
13275W		1			1	-1	1	2	-1	1	2	2	2	2
13425W	1	1	5	6	1	1	-1		-1	1	2		11	<u> </u>
13450W 13475W	1	1	····5 5	2	· · · · · 1	-1		2		• • • • • • • • • • • • • • • • • • • •	2	2	11	2
13700W	•••••	1	3	4	1			1	-1	1		2	6	2
13700W-R	-1	-1	3	4	1	-1		1	-1	1	2	2	4	1
13725W	-1				1	-1	-1	2	-1	1	1		6	2
13775W	1	1	5	5	1	-1	-1	2	-1	1	2	2	1	2
13812W	• • • • • • • • • • • • •	1	4	5	1	-1	-1	2	-1	1	1		2	2
13850W	1	1	5	5	1	-1	-1	2	-1	1	1	2	1	2
13887W		1	5	5		. 1	-1	3	-1		2	2	3	2
13925W	1	1	5	-1	1	-1		2	-1	1	2	2	1	2
13950W	1	1	· · · · · 6	7	· · · · · 1			3	•••••-1	· · · · · 2	· · · · <u>· 2</u>		2	2
13975W	1	1	5	3	1	-1		2	-1	1	2	2	8	2
131000W 131025W	-1	-1		-1	1	-1	-1	1	-1		1			<u> </u>
13025W	-1	-1	6	6	-1	-1		2	-1	- 1	2		1	2
130	1	1	5	-1	1	-1	-1	2	-1	1	2	2	2	2
13025E	4	1	5	4	••••	• • • • -1	• • • • • • • • • • • • • • • • • • • •	2	· · · · · 1	1			3	2
13050E	-1	-1	5	3	-1	-1	-1	2	-1	-1	1	2	13	2
13062E		1			1		-1		-1	1		2	4	
13062E-R	1	1	3	5	1	-1	-1	3	1	1	2	2	2	2
13100E	-1	1	5	3	1	-1	-1	2	-1	1	1	2	4	. 2
13137E	-1	-1	4	4	1	-1	-1	1	-1	1	1	2	8	2
13162E	-1	1	5		1		-1	2	-1	1	2	2	7	1
13187E	1	1	6		1	-1	-1	3	-1	1	1	2	2	2
13212E	1	1	5		1	-1	-1	2	-1		1		2	2 2
		· · · · ·			· · · · · · · · · · · · · · · · · · ·		+ • • • • • • •	· · · · · · · · · · · · · · · · · · ·	· · · · ·		· · · · · · · · · · · · · · · · · · ·	· · · · · ,	····-	<u> </u>
LMB-QA	-1	-1		3	1-	-1	••••-1	1	····-1	1	· · · · -1	•••••1	5	1
LMB-QA LMB-QA	-1	-1	3	3	-1	-1	-1	1	-1		1 • • • • • •		4	1
		<u> </u>		۱	1	1	. J	<u> </u>	<u>.</u> l	<u> </u>	<u></u>	<u> </u>	4	<u> </u>

Results represent only the material tested. Actlabs is not liable for any claim/damage from use of this report in excess of the test cost. Unless requested A10-3135 samples are discarded in 90 days. This report is only to be reproduced in full. 17/36

071-+	PB 072 - HPB	073 - HBA	074 - HBA	075 - HPB	076 - LPH	077 - MAR	078 - ALK	079 - LBI	080 - LPH	081 - MAR	082 - LPH	083 - HBA	084 - HBA

085 - LPH

086 - LBI 087 - MAR 088 - HBA

089 - THI

SOIL GAS HYDROCARBONS (SGH) by GC/MS AUR LAKE SGH SURVEY - PHASE III

092 - LPH

093 - LA

094 - LBI

095 - MAR

090 - HPB 091 - LBI

096 - LPH

097 - HBA 098 - THI

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9 9

10	8 -1	2	5	-1	2	2	2	9	2	2	3	8 7	
1025E	8 -1	2	7	-1	2	2 2	2	12	2	2	4	10	•
1062E	6 -1	4	4	-1	2	. 1	2	10	2	1	3	8 7	
1100E		3	4	-1		1		9				. 3	
1137E	5 -1		3	-1	2	1	2	8	2	2	3	8 4	
1137E-R	6 -1	3	4	-1	2	1	2	8	2	2	3	3	
20	6 1	2	4	-1	2	1	2	8	1	1	2	2 5	
2050E	7 -1	3	7	-1	2	1	2	10	2	2	5	9	
2100E	8 -1	5	5	-1	3	2	3	9	2	2	5	3	_
2150E	8 -1		5	-1	2	<u></u>		10		1		8 8	·
30	8 1	14	5	-1	4	2	3	15	2	2	6	13	_
3050E	<u>••••</u> • <u>9</u> •••••1	3	5	-1		1	3	11	2	2	5	1	<u> </u>
3100E	6 -1		5	-1	2	1	1	8		2	2	2 7	Į.
3150E			8		2	2				2		12	_
40	8 -1	2	5	-1	2	1	2	8	1	1	2	6	<u> </u>
4050E	13 1	3	10	1		2	2	20	2	2	5	18	┢
4100E	8 1	2	9	-1	2	1	2	12	2	2	3	9	┢
4125E 4150E	13 1	2	9	-1			2	13 14		2		10	
4150E 5137E	<u> </u>	3	ő	-1		<u> </u>	<u> </u>		2	<u> </u>	3	6 12 9 9	_
5162E	11 1	4	6	-1	· · · · 4	<u> </u>	1 · · · · · · · · · · · · · · · · · · ·	11	2		· · · · · · 2	10	÷
5162E-R			6	-1	4		2	12		2	4	. 10	ł-
5162E-R 5187E	9 -1	1	6	-1	2		1	10	2	2	2		F
5187E	-1 -1							10		<u> </u>		. /	┢
8375E	12 1	2	9 8	-1		2	2	14	2	2	5	14	+
8400E	10 -1	2	7		2	1	2	13	2	2	3	11	┢╾
8425E	6 1	2	3	-1	2	2	2	12	2	2	3	11	
9687W		2	8	· · · · · -1		2	2	21	- 2	- 2	4		
9725W	14 1	2	12		2	2	2	21	2	2	3	18	_
9763W		2				2	2						
9800W	11 -1	2	7	-1	2	1	2	13	2	2	2	11	-
9837W	• • • • • 13 • • • • • 1	2	11	• • • • • • 1	2	2	2	17		2	2	. 15	ſ
9875W	12 1	2	6	1	2	2	2	15	2	2	3	14	ſ
9912W	10 -1	2	7	-1		1	2	12	2		2	11	Ŀ
9950W	10 -1	2	8	-1	2	2	2	14	2	2	3	12	
9987W		2	7	-1	2	2	2	10	2	-1	2	9	Г
91012W	12 1	2	10	-1	2	2	2	16	2	2	2	15	
91012W-R	13 1	2	6	-1	2	2	2	18	2	2	3	16	
91025W	10 -1		8	-1	2	2	1	11	2	2	2	9	L
91037W		2	9	-1		2	2	19	. 2		4	16	<u> </u>
91050W	11 1	2	8	-1	2	2 2	2	16	2	2	3	14	
10162W	15 1	2	10	1	3	2	3	20	2	2	5	5 17	-
10187W	14 1	2	9	-1	2	2	2	20	2	2	2	18	
10237W	10 1	2	7		2	1	3	12	2	2	5	10	-
10275W	16 1	2	12		2	2	2	18	2	2	2	16	
10300W	8 1	2	6	-1	2	2	2	18	2	2	3	16	-
10325W	12 -1	3	9	-1	2	1	2	12	2	2	2	10	
10362W	13 1	Ŭ	11		2	2	2	28	3	2	3	8 24	
10187E	16 -1		8	-1	2	2	2	18	2	2	3	16	┡
10212E		2	8			1	1	9	. 2	2		4	ŀ
10237E	9 -1	2	9	-1	2	2	2	14	2	2	3	12	
10237E-R	10 1	2	5	•••••				16	2			13	÷
11200W	10 -1	2	9	-1	2	2	2	11	2	2	2	9	Ł
11225W	10 1	1 1	6	-1	2	2	2	12	2	2	2	9	1

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16

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11262W

11300W

SOIL GAS HYDROCARBONS (SGH) by GC/MS AUR LAKE SGH SURVEY - PHASE III

2

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2

085 - LPH . 086 - LBI . 087 - MAR . 088 - HBA . 089 - THI . 090 - HPB . 091 - LBI . 092 - LPH . 093 - LA . 094 - LBI . 095 - MAR . 096 - LPH . 097 - HBA . 097 - HBA . 098 - THI

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20

13

2

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2

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18

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12

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-1=Reporting Limit of 1pg/g (ppt=parts per trillion)

10

6

2

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-1

-1

130000														
1337W	9	1	2	5	-1	2	2	2	12	. 2	2	2 3	11	2
1375W	10	1	2	8	-1	2	2	2	18	2	2	2	16	
1400W	14	2	2	10		2	2	2	22) <u> </u>	. 19	
1425W	11	- 1	2			2	- 2	- 2					14	
1425W 1175E	11	1		6									14	
	9	-1	3	0		2			9			2	0	4
1200E	6	-1	3					1			4	2	3	
1225E	9	-1	2	8		2	1	2	5	2	2	2 2	4	
2225W	17	1	4	16	-1	3	2	2	20			3 4	16	
2250W	14	1	3	8	1	2	2	2	15	2	2	2 3	14	2
2275W	• • • • 11	• • • • • • 1	2	• • • • 7	' · · · · · · · · · · · · · · · · · · ·		• • • • • • 2	2	14	2	$\cdots 2$	$2 \cdot \cdot \cdot \cdot \cdot \cdot \cdot 3$	12	
2275W-R	12	1	2	7	-1	2	2	2	14	2	2	2 3	13	
2725W	10	1	2	8	-1	2	2	2			2		14	
2750W	10	1	2	5	1	2	2	2	13				11	
	9	1	2		4	2	2	2			4		13	
2775W	13	1	2	8	1	2	2	2			2	2 3		
2800W	13	1	2	9	-1	2	2	2	20		2	4	18	
2175E	16	1	2	7	-1	2		2	15	2		5 4	12	
2200E	10	-1	2	6	-1	2	1	1	9	1	2	2 2	7	
2225E	7	1	2		-1	2	1	1	9		2	2 2	8	
3200W	13	1	2	9	-1	2	2	2	14	2	2	2 4	12	
3225W	15	• • • • • • • 1	2	12	1	2		2	17		2		15	
3250W	11	1	2	8	-1	2	2	2	12				10	
3275W	16	1		9	-1								16	
3425W	13	_1	2	8	_1	3	2	3	13				12	
3450W	13	-1	2	11	-1	2	2	3	20				12	4
		1	2		-1	2	Z	2				4		
3475W	11	1	2	9	-1	2	1	2	14		4	4	12	
3700W	12	-1	2	/	-1	2	2	2	11	1		2	9	
3700W-R	10	-1	2	. 7	-1	2	1	2	9	2	1	2	3	
3725W	9	-1	2	6	-1	2		2	13	2	2	2	11	
3775W	10	1	2	. 7	-1	2	2	2	12	1	2	2 3	4	
3812W	10	· · · · · 1	2	7	· · · · · -1	2	· · · · · 2	2	12		2	2 3	11	
3850W	9	1	2	7	-1	2	2	2	15	2	2	2 3	12	
3887W	13				-1	2	2	2		2	2	2	14	
3925W	12	1	2	9	1	2	1	2	14				12	
3950W	10	2	2	7	1	2	2	2				2 4	15	
3975W	(=	1	2	10	1		2	2						
	17	1	2	10		<u> </u>	Z	2	15		4	4	13	4
31000W	10		4	· · · · · · · · · · · · · · · · · · ·		<u></u>		<u></u>	13	4			11	
31025W	10	-1	2		-1	2	1	2	8	1	4	4	6	
3025W	15	1	2	7	-1	2	2	3				2 5	13	
30	13	1	2	12		2	2	2	13		2	3	11	1
3025E	13	1	2	5	-1	2	2	2	12	2	2	2 3	5	• • • • • • • • • • • • • • • • • • • •
3050E	13	-1	2	8	-1	2	2	1	10	1	2	2 2	9	2
3062E	11	1	2	10	1	2	2	2		2	2	2	18	
3062E-R	13	1	2	10		2	2	2	29		2	2 3	26	4
3100E		-1	1	6	<u> </u>	2	2	2					12	
3137E	Q	_1	2	5	_1	2	1	1	A	2			5	
3162E	15	-1	2	11	-1	2	່ 	· · · · · · · · · · · · · · · · · · ·	15	2	4		12	
3187E			4			· · · · · · · · · · · · · · · · · · ·		4			 /	<u></u>	12	•••••
	11		1	/		<u> </u>	2	2	16		4		4	
3212E	18	<u></u> 1		10	-1	2	2	2	16	2	2	(<mark></mark> 3	13	·····
		L	· · · · · · · ·	<u>-</u>	<u> </u>		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · .		<u> </u> ,	 	<u> </u>	· · · ·
MB-QA	• • • • 6	1	1	3	••••-1		• • • • • • 1	1			2	2		
MB-QA	7	-1	1	3	-1	2	1	1	8	2	. 1	2	5	2
MB-QA	6	-1	1 1 1		-1	1	1	1 1		1				

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085	LPH 086 - LBI	087 - MAR	088 - HBA	089 - THI	090 - HPB	091 - LBI	092 - LPH	093 - LA	094 - LBI	095 - MAR	096 - LPH	097 - HBA	098 - THI

••••••	099 - LPH	100 - LPH	101 - MAR	102 - MBI	103 - LPH	104 - MAR	105 - ALK	106 - MBI	107 - MBI	108 - LPH	109 - MAR	110 - HBA	111 - MAR	112 - MBI
10	3	3	-1	2	2 2	2	2	1	2	6	7	13		6
1025E	3	3	-1	2	2	2	2	1	2	6	7	14	3	7
1062E	2	2	-1	2	2 2	2	2	1	2	6	7	10	-	6
1100E	2	3	-1		2	2	2	1	2	6		12	-	6
1137E	2	3	-1	1	2	2	2	1	2	6	7	12		5
1137E-R	3	3	· · · · -1	· · · · · 2	2	2	2	1	2	6	6			5
20	Z	2	-1	2	2	2	2	1	4	5	6	11	-	6
2050E 2100E	4			· · · · · · · · · · · · · · · · · · ·					<u> </u>			12		
2150E		3	-1		. J	2		-1		6				6
30		4	-1	2	2 3	3	3	1	2	7	7	16		9
3050E	4	- 4	1	2	2			1		6	6		-	• • • • • 8
3100E	2	2	-1	2	2	2	2	1	2	6	6	11	4	5
3150E	3	-1	-1	2	2	2	3	1	2	6	7	14	4	7
40	2	2	-1	2	2 2	2	2	1	2	6	7	11		5
4050E	4	4	-1	2	2	4	3	1	2	7	10	19	4	7
4100E	3	3	-1	1	2	2	3	1	2	5	6	13	3	6
4125E	3		-1	2	2	2	3	1	2	6	6	13	4	6
4150E	2	3	-1	2	2 2	2	3	1	2	6	7	16		6
5137E	2				2	2		1		6	7	11		5
5162E	2	2	-1	2	2	2	3	1	2	5	6	14	-	5
5162E-R	2	2	-1	2	2	2	2	1	2	5	6		3	6
5187E	2	2	-1	2	2	2	3	1	2	5	6	12	4	5
5212E 8375E		-1	-1	2	<u> </u>			1				15		5
8400E	2	3	-1	2	2	2	3		2	6	0 7	17		6
8425E	2	3	-1	2	2	2	3	1	2	6	7	13		7
9687W		3		2	2	3	4	1	2	6	9			9
9725W	3	3	-1	2	2	2	3	1	2	6	7	18		8
9763W			-1					1		6			4	6
9800W	2	2	-1	2	2 2	2	3	1	2	6	7	13	4	7
9837W	2	2	-1	- 2	2	2	3	1		6	8	16	4	6
9875W	3	2	-1	2	2 2	2	3	1	2	2 7	7	16		7
9912W	2	2	-1		2	2	3	1	2	7	8			6
9950W	2	3	-1	2	2	2	3	1	2	6	7	15		7
9987W			-1		2					5		12		
91012W	2	2	-1	2	2 2	2	3	1	2	6	/	16		7
91012W-R 91025W	2	2	-1	2	2	2	3	1	2	1	8			/
91025W 91037W	4	2	- 1	2	- <u>2</u>	2	2			6	9	18		5
91057W			_1	2	2 2	2		1	2	7				
10162W	4	3	-1	2	2	3	3	1	2	6	8			7
10187W	2	3	-1	2	2	2	3	2	-1	6	8	18		6
10237W	4	4	-1	2	2	4	3	1	2	7	8			8
10275W	2	2	-1	2	2	2	3	1	2	6	7	15		6
10300W	3	3	-1	2	2	3	5	1	2	7	8	19	4	7
10325W	2	2	-1	2	2 2	2	3	1	2	6	7	16		5
10362W	2	2	-1	2	2	3	3	2	2 2	6	7	18		6
10187E	2	2	-1	2	2 2	2	5	1	2	7	8	16		6
10212E	2		-1		2	2		1		5	6			
10237E	2	2	-1	2	2	2	3	1	2	6	7	15		6
10237E-R	2	3	1	· · · · · · · · 2	<u> 2</u>	2		··· 1	$1 \cdot \cdot$	<u>••••6</u>	7	- 14		••••6
11200W	2	2	-1	2	2	2	2	1	2	6	/	13	4	5
11225W	2	2	-1	2	2	2	2	1	2	6	/	13	3	5

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11262W

11300W

SOIL GAS HYDROCARBONS (SGH) by GC/MS AUR LAKE SGH SURVEY - PHASE III

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-1=Reporting Limit of 1pg/g (ppt=parts per trillion)

11337W	3	3	-1	2	2 2	2 2	3	1	2	2 6	7	15	4	6
11375W	3	3	-1	2	2 2	2	4	1	2	2 7	7	16	3	8
11400W	4	3	-1	2	2	3	4	2	2	° 6	P	19		8
11425W	3	3	-1	2	2	2	4	1		6				6
11423W			-1	2			4	1		0		10		0
-	2	2	-1	4	2 2	2	2	1	4	0	1	12		5
11200E	2		-1		2 2	2 2		-1		2 6	6			5
11225E	2	2	-1	2	2 2	2 2	3	1	2	6	6	10	-	5
12225W	3	- 1	-1	2	2 2	3	4	2		6	8	17	4	8
12250W	3	3	-1	2	2 2	2 3	3	1	2	2 5	7	16	4	6
12275W	3	3	-1	2	2 2	2	3		2	6	6	15	4	7
12275W-R	3	3	-1	2	2 2	2 2	3	1	2	2 6	7	14	4	6
12725W	3	3		2	2 2	2	3	1	2	2 6	8			7
12750W	3	3	1		2 2	2	3	1	1	6		15		6
12775W	3	3	-1	2		2 2	3			6	7			0
	3	3		4	2 2	2	3	1	-1	6	/			5
12800W	4	3	-1	2	2 2	3	3	1	2	6	1	17		/
12175E	4	-1	-1	2	2 3	3	. 4	1		2 7	8		4	7
12200E	2	2	-1	2	2 2	2 2	2	1	2	5 5	6	12	3	5
12225E	2		-1	2	2 2	2		1		2 6	7	12	3	5
13200W	4	-1	-1	2	2 2	2	3	1	2	6	7	15	3	6
13225W	3	• • • • • 3	-1		2 2	2	• • • • • • 3	2		2 6	7	16	4	· · · · · · 7
13250W			-1	2	2 2	2	4	1	2	6	7	14		6
13275W		3	-1		2	3	4	1		9 6	ç		-	6
13425W	4	-1	-1		2 3	3	4	1		7		17	4	8
13450W	4	3	-1	2	2 2	3	4	· · · · · · · · · · · · · · · · · · ·	2	2 5	7	+	4	7
	4	3	-1	2	2	3	4		4				4	
13475W	3	-1	-1	2	<u> </u>	3	3	1	2	0	/	17	4	1
13700W	2		-1	2	2 2	2 2			2	2 5	7	12		
13700W-R	2	3	-1	2	2 2	2 2	2	1	2	6	6	12		5
13725W	3		-1		2 2	2		1		2 6		14	4	
13775W	3	3	-1	2	2 2	2 2	3	1	2	2 6	7	15	3	9
13812W		3	-1	2	2 2	2	• • • • • 3	1	2	2 5	7	16	4	- 7
13850W	3	3	-1	2	2 2	2 2	3	1	2	2 6	7	17	4	7
13887W		3	-1	2	2 2	3	4		2	2 6		19	4	11
13925W		-1	-1	2	2	3	3	1	2	7	8	16		8
13950W	3	-1	-1	2	3	3	4	1	-1	7	8		-	12
13975W	0	3	1		2 2			1	2	6	9	17		9
	4	3	-1	2	2 2	2	3	1		2 6		14	4	0
131000W	<u></u>				<u> </u>			<u></u>		0	/			
131025W	2	2	-1		2 2	2 2	=	1	2	6	1	12		5
13025W	4		-1		2 2	3		1		2 6				
130	3	3	-1	2	2 2	3	3	1	2	2 6	-1	16	-	6
13025E	3	3	-1	2	2 2	2	3	1	2	2 5	7	15	4	8
13050E	2	2	-1	2	2 2	2	3	1	2	6	7	15	4	5
13062E	3	-1	-1	2	2 2	2	3	1	2	2 6	7	16	4	10
13062E-R	3	3	-1	2	2 2	3	4	1	2	6	8	15		10
13100E	2	2	-1	2	2	2	3	1	2	6	7			6
13137E	2	2	_1	5	2	2	2	1	2	6	F	12		5
13162E		2	-1		2	2	2	1		2 6				8
		· · · · · · · · · · · · · · · · · · ·		+ • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·				· · · · · · · · · · · · · · · · · · ·		· · · · · /	19		Ů
13187E	3	<u>_</u>	-1	4	<u> </u>		3	1	4	/	8			10
13212E	3		-1	2	2	3	4	1 1		<u> /</u>		18	4	
		L				<u> </u>				<u> </u>	<u> </u>	<u> </u>		
MB-QA	· · · · 1	• • • • • • 2	-1		2	2	2	• • • • 1	• • • • • 2	2 5	• • • • 6	12	3	• • • • • • 4
_MB-QA	2	2	-1	2	2 2	2 2	2	1	2	5 5	6	11	3	4
MB-QA		2	1		2			1 1				· 11	0	1

Results represent only the material tested. Actlabs is not liable for any claim/damage from use of this report in excess of the test cost. Unless requested A10-3135 samples are discarded in 90 days. This report is only to be reproduced in full. 23/36

099 - LPH	100 - LPH	101 - MAR	102 - MBI	103 - LPH	104 - MAR	105 - ALK	106 - MBI	107 - MBI	108 - LPH	109 - MAR	110 - HBA	111 - MAR	112 - MBI

	113 -HBA	114 - MBI	115 - MBI	116 - MAR	117 - HA	118 - MPH	119 - HBA	120 - THI	121 - MPH	122 - MPH	123 - MPH	124 - MBI	125 - HAR	126 - MPH
10	14	5	6	4	21	-	14	5	6	i 9	-1	6	6	6
1025E	13	5	6	4	23	6	9	-1	6	i 10	6		7	7
1062E	13	6	7	4	22	6	7	5	5	i 10	5	7	6	5
1100E	11	6	6	4	18	6	8		5	9	-1		6	6
1137E	11	5	6	4	19	6	16	5	5	9	5	6	6	5
1137E-R	2	5	5	3	18	5	13	4	5	9	5	6	6	5
20	11	5	6	4	20	6	5	4	5	9	-1	-1	6	6
2050E	12	5	6	4	21	8	16	5	7	10	6	7	5	7
2100E	12	6	6	-	22	7	8	4	. 7	9	6	7	6	7
2150E	14	5	6		21	6	14	4	6	10	-1		6	6
30	13	7	8	4	32	8	6	5	8	10	7	2	. 7	8
3050E	7	6	7	- 4	20	7	15	- 4	7	9	7		6	7
3100E	13	4	5	4	20	5	13	4	. 5	i 10	-1	-1	6	6
3150E	15	6	6	4	24		20	5	7	10	6			7
40	11	4	5	4	20	6	14		5	9	5	6	5	5
4050E	16	6		4		15		5	12	11	11	9	8	13
4100E	15	5	6	4	23	6	18	4	6	i 10	7	7	6	7
4125E	13	6	6	4		6	10	4	6	9	6	8	6	7
4150E	14	5	6	-	26	7	18	5	6	i 9	3	8	6	6
5137E	13	5	5	4		5	8	4	5	-	6		5	6
5162E	15	5	5	4	24	6	18	5	6	i 10	6	7	6	6
5162E-R	14	- 5	6	3		6	- 7	4	5	5 9	5	7	6	6
5187E	13	5	5	4	17	5	8	5	5	5 10	5	7	6	5
5212E	13	5	5	4		6	21	5	5	i 10	5	8	6	5
8375E	15	6	7	4	28	9	19		. 9	11	8	ç	7	9
8400E	15	5	5	4	=•	6		5	6	10	6	7	6	6
8425E	13	5	6	4	25	6	17	4	6	9	6	7	6	7
9687W	18	6	. 7	4		7	20	5	7	12	7	10	6	7
9725W	17	6	7	4	32	6	22	4	6	11	-1	g	6	7
9763W	15		6		-	5		4	5	11	6		6	6
9800W	14	5	6	4	26	-1	18	4	6	10	6	g	6	6
9837W	16	• • • • • 5	6	4	20	••••6	••••7	5	6	10	• • • 6	8	6	6
9875W	18	6	/	4	30	6	3	4	6	11	6	1	6	6
9912W	13	5	6	4	=0	6		4	5	1	5	8	6	6
9950W	14	6	6	4	25	6	17	5	6	10	6	8	6	6
9987W	13 14	5	6	4		-1	16	4	5	5 10 5 10	5	1	6	6
91012W		/	7	4	28	0		4	7		0	9	6	6
91012W-R	13 13	5			30 17	/	22	5	· · · · · ·	10	1	10	6	7
91025W	-	4	6			5	10	4		9			-1	0
91037W 91050W			0			b	19 22	5	6	5 11 10	7	9		7
91050W 10162W	15	6		4		8		5	10		-1	· · · · 11	0	/
10182W	10	5	5	4	· · · · 33 30	7	17	5		10	6		7	10
10187W 10237W	16	5	5	4			19	о 	11	-	0		0	0
10237W 10275W	15		5		32					10	0		-1	UI
10275W	18	5	-	-					7	10	-1	8	-1	7
10300W 10325W	13	5	۲		23	۲	18	5		12			0	6
10323W	13	6	7	4		6					6	11	6	6
1030277 10187E	13	5	، م	4	31	6	22	5	0 A	10	0	7	0 A	6
10107L			5	4		5		1		10	_1		6	6
10212L 10237E	14	5	6	<u> </u>	25	6	17	-1		11	۱- ۸	7	5	7
10237E-R		5	6	4		6			6	10	6		6	6
11200W	12	5	5	4	24	6	20	4		10	5	7	0 A	5
11225W	13	5		4	24	0 A · · · · ·	17	+ • • • • • A		10			0 a · · · · ·	5
1122344	14	3	<u>ງ</u>	4	23	0	17	4	. J	10	5	/	0	

Results represent only the material tested. Actlabs is not liable for any claim/damage from use of this report in excess of the test cost. Unless requested A10-3135 samples are discarded in 90 days. This report is only to be reproduced in full. 25/36

16

11262W

11300W 11337W 11375W 11400W 1425W 1175E 1200E 1225E 2225W

2250W

2275W 2275W-F 2725W 2750W 2775W

12800W

2175E

2200E 2225E

3200W

3225W 3250W 3275W 3425W

3450W

3475W 3700W

3700W-F 3725W

3775W

3812W 3850W 13887W

13925W 3950W

3975W 31000W 31025W 3025W

30 3025E

3050E

3062E 3062E-F

3100E

3137E 3162E 3187E 13212E

LMB-QA

LMB-QA

LMB-QA

SOIL GAS HYDROCARBONS (SGH) by GC/MS AUR LAKE SGH SURVEY - PHASE III

7

31

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113-HBA . 114-MBI . 115-MBI . 116-MAR . 117-HA . 118-MPH . 119-HBA . 120-THL . 121-MPH . 122-MPH . 123-MPH . 124-MBI . 125-HAR . 125-HAR . 126-MPH.

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-1=Reporting Limit of 1pg/g (ppt=parts per trillion)

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	16	6	1	4	31	1	19	5	1	11	-1	L. L.	6	
· .	13	6	5	4	23	6	16	5	6	10	6	7	6	
1	16	5	6	4	27	7	9	4	. 7	9	4	. 6	6	
· .	16	6	6	4	14	7	16	4	7	10	4	e e	6	
1	15	6	6	4	30	7	18	5	7	10	-1	<u>ç</u>	6	
1	17	5	6	4	27	7	13	5	7	10	1	ę	7	۱. ·
	11	5	5	4	18	6	17	5	5	9	5	7	6	
•	14		6	. 4	19	5			5	9	6	6	6	
	12	5	5	3	20	5	14		5	10	6	6	5 5	
'• '	18	7	7	- 4	32	7	19		7	11	- 7	12	-1	
'	16	6	7	4	26	7	20		7	10	3	10	6	
•	15	6	7	4	25	. 8	14	4	8	10	1		6	• •
-R	13	6	6	4	25	8	18		8	10	1	ç	6	
· .	15	5	6	4	27		17	-	6	10	-1	e e	6	
	14	5	6	4	26	7	20		6	10	6	8	6 6	
	14	5	5	4	28	7	22		7	9	6	8	5 5	
	16	6	6	4	33	8	17	-	8	10	4	. ç	6	
•	14	5	6	4	28	8	18	5	8	11	4	ç	6	
	2	4	5	3	25	5	2	4	5	9	5	6	6 6	
•	13	5		4		5	13		5	9	6	6	6	
	16	5	6	4	24	8	3	5	8	9	4		7	
•	17		6	4	29	7			. 7				6	
	14	5	6	3	22	/	14		/	10		/	/	
•	18	5	6	4	34		-		7		/	10	6	
	16	6	/	4	27	9	19		10	<u> </u>	5	8	· · · · · · · · · · · · · · · · · · ·	<u> </u>
•	17	6	7	4	33	8	-	1	8	11	1	11		·
	17	6	/	4	29	8	21	5	8	11	1		6	
Б	12	5	5	4	20	5	15		5	9	5	1	6	<u> </u>
-R	11	5	5	4	19	5	14		5	8	5	6	5	
•	17	5		4	26 24	6	17 18			10	1			•
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	16	· · · · · 6	7	4	26 28	1	2		7	10			6	
	16	5	1	4	20 30	6	8 21	-	0	10	0		0 U	
•	10	6	7	4	24	7	17		1	10	1			•
	13	0	1	4	32				7	10	-1		0	-
	15	-	6	1	31	8	11	-1	7	10	3		6	
٨ŀ	13	5	5	4	24	7		-1	7	9	5		6	•
Ň	13	4	5	4	19	5	15		5	a	5	F		<u> </u>
	16		8	4	30				8	10	3	5	6	
_	16	5	6	3	24	7	18		. 7	9	-1		6	
•	14	6	7	4	28	6	18		7	10	6		6	
-	16	5	5	4	27	5	20		5	9	5	-1	6	
•	17	6	7	4	28	6	19	5	7	10	-1	7	6	• •
R	14	6	7	4	32	6	21	4	- 6	10	6	8	6	
۰.	14	5	5	4	23	5	19	4	5	9	5	8	6	· · ·
	14	5	5	4	19	5	14		5	9	5	1	6	
	14	6	6	4	26	6	20	4	5	9	5	7	6	
-	18	6	7	4	33	6	21	4	6	10	3	8	3 7	T
•	15	6	6	4	28	7		5	7	10	7		6	
<u>۱</u>	12	- 4	5	4	19	5	12	4	5	10	-1	6	6	
1	-1	5	5	3	20	5	14	-1	5	9	5	6	6	
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113 -HBA	114 - MBI	115 - MBI	116 - MAR	117 - HA	118 - MPH	119 - HBA	120 - THI	121 - MPH	122 - MPH	123 - MPH	124 - MBI	125 - HAR	126 - MPH

SOIL GAS HYDROCARBONS (SGH) by GC/MS AUR LAKE SGH SURVEY - PHASE III

. 127 - MPH . | . 128 - MPH . | . 129 - HAR . | . 130 - HAR . | . 131 - MPH . | . 132 - ALK . | . 133 - HAR . | . 134 - HAR . | . 135 - MPH . | . 136 - MPH . | . 137 - HBI . | . 138 - HBI . | . 139 - HPH . | . 140 - HPH .

-1=Reporting Limit of 1pg/g (ppt=parts per trillion)

10	5	3	4	6	5 5	17		16	11	10	6	6 9	11	
1025E	• • • • • 5	• • • • • • 3	• • • • • 4	• • • • • • • • • • • • • • •	6	• • • • • 16	<u>.</u> 12	• • • • • 16	• • • • 10	10	••••	$5 \cdot \cdot \cdot \cdot \cdot \cdot g$	16)
1062E	4	3	4	5	5 5	17	7 12	16	12	9	5	5 9	10)
1100E	4	3		5	5	12		16	10	g	Į.	5 8	9)
1137E	5	3	4	5	6	16		17				3 8	11	
		3	- 4	6	0					-				
1137E-R	4	3		6	6								-	<u>'</u>
20	5	3	4	5	5 5	15		17	11	-	E		11	
2050E	6		4	5	5 7	16		17	12	9	6	6 9) 2	?
2100E	5	3	4	5	6	16	6 12	17	11	11	6	6 9) 2	2
2150E	4	3	4	5	6 6	1	7 11	17	11	10	£	6 g	11	
30	7	3	4	5	5 7	17	7 12	18	13	10	7	7 8	11	
3050E	6		4	5	6	16		17				7 10	10	1
3100E						15		14					10	
	4	3	4	3	5 5									
3150E	5	3		6	6							6 8		
0	4	3	4	5	5 5	14		16		-		5 6	3 10	
050E	9	4	4	6	6 10	26	6 12	23	16	11	Ī	7 10) 3	3
100E	5	3	4	5	6	18	3 12	17	11	10	6	6 9) 11	
125E	5	3	4	5	i 7	18	3 12	17	12	10	7	7 9	11	
150E	5	.3	4	5	6	19		15			F	6 9	11	
137E	1		4	5	5 5							5		
5162E	4					18								
-	4	3	4	5	5		-	-	-	-				<i>,</i>
162E-R	5	• • • • 3	4	5	6	1.						<u> </u>		
187E	4	3	4	5	5	10		15				5 B	3 10	
212E	4	3	4	5	i 5	17	7 11	16	11	10	E	6 9	10)
375E	6	3	5	6	8	21	1 12	19	13	10	1	7 9) 2	2
400E	5	4		5	6	20) 12	17	12	10	6	6 6	1	· · · · · · · · · ·
425E	5	3	4	5	6	19						5 10		
687W	5	4	4	6	6					-		7 0		
9725W	5				0	24							<u> </u>	
	5	3	4		0 0					-				
9763W	4			5	6 6							S		
9800W	5	3	4	5	6	20		17	11		6	6 9	11	
9837W	5	4	- 4	5	6 6	2′	1 11	17	12	9	(6 9	11	
9875W	5	3	5	6	6 6	23	3 12	16	12	11	6	6 9) 2	2
912W	4	3	4	5	6	18		18	12	10	• • • • • •	5	10)
9950W	5	3	5	6	6	2'						5 C	11	
987W	1		4	6	5							7 10		
										-				
91012W	5	3	4	5	6	19		17	11				11	
01012W-R	6	3	4	5	n 6	20						j 9)	,
91025W	5	3	4	5	5 5	15		15				5 8	1	1
1037W	5			5	6	2	1 12	18	12	10	f	6 g	11	
1050W	5	3	4	6	6	20) 12	17	13	11	7	7 g	11	1
0162W	6		4	5	8	20		20	14	11		7 9	11	
0187W	5	3	4	5	e e	19							12	
0137W						2				-		3 10		
		4			9									
0275W	4	3	4	5	6	2'						,	, I	
0300W	5	3		6	6						7	7 10		
0325W	5	3	4	5	5	18		17	11	-	6	6 8	11	
0362W	5	3	4	5	i 6	21	1 12	17	12	10	6	6 9) 2	2
0187E	5	3	4	6	5 5	2'	1 12	17	12	10	e e	6 g	2	2
0212E	4	3	4	5	5	- 17				-		5 S	10)
0237E						17		17					10	
	5		4		0						<u> </u>			
0237E-R	4	• • • • • 3	4	5	6							6 9		
1200W	4	3	5	6	5	16		15				j g	10	
1225W	5	- 3	4	5	5	16	6 12	17	10			7		

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-1=Reporting Limit of 1pg/g (ppt=parts per trillion) AUR

SOIL GAS HYDROCARBONS (SGH) by GC/MS AUR LAKE SGH SURVEY - PHASE III

	127 - MPH	128 - MPH	129 - HAR	130 - HAR	131 - MPH	132 - ALK	133 - HAR	134 - HAR	135 - MPH	136 - MPH	137 - HBI	138 - HBI	139 - HPH	140 - HPH
11262W	5	3	4	6	6	21	13	18	13	12	7	e e	12	9
11300W	4	3	4	6	5	18	12	17	12	10	6	ç	10) 9
11337W	5	3	4	6	7	19	11	18	12	9	6	ç.	10	9
11375W	5	3		5	5	19	12	17	13	10	6	9	2	. 9
11400W	5	3	4	5	7	20	12	18	12	. 11	7	10	10	ı 9
11425W	5	3	4	6	6	19	13	18	11	9	6	10) 11	10
11175E	5	3	4	6	5	16	11	17	11	10	6	ç	10	ı 9
11200E	5		4	5	6	15	. 13	17			6		11	
11225E	4	3	4	5	5	15	11	17			6	-	9	9
12225W	5	4	4	6	6		13	19			7	10		-
12250W	5	3	4	6	6	19	12	17	13		5	ç	11	Ţ
12275W	5	3	4	5	7	17	11	16			6	ç) 1 1	9
12275W-R	5	3	5	6	7	19	12	17	12	11	6	ç	1	9
12725W	5	4		5	6	-		17			6	ç.	2	-
12750W	5	3	4	5	6	19	13	17			6	ç	10	-
12775W		3	4	5	6	19	12	17	12		6	· · · · · · · · · · · · · · · · · · ·	11	
12800W	6	3	4	6	7	23	12	18	13		6	10	11	
12175E	. 7		4		7	21	12	19	14	11	7	9		
12200E	4	3	4	5	6	19	12	16	12	10	6	<u> </u>	10	-
12225E	5	3	4	5	5	15	-	-		-	6	9	10	-
13200W	6	3	4	5	/	21	12	17	12		5		12	-
13225W 13250W	5	3	4	5	6	20	12	10		10	5			
	5		4	3	0	19	12	17 19	11	9 10	0		11	-
13275W 13425W	5	3	4	6	6	20 20	11	20			6		10	
13425W 13450W	0	3	4	5	0	20	12	20			7	- 10	12) 11	
13475W			4	5		20	12	16	13	-	7		12	
13700W	4		4	5	5	17	12	10	-	-			1	
13700W-R		3		5		15	11	17	10	10	6		2	
13725W	5	3	4	ő	6	19	12	18		8	6		11	9
13775W	5		4	5	6	21	12	16			6		11	
13812W	5		4	5	7	19	12	10	12		7		2	9
13850W	5	3	4	6	6	21	12	17	11		5	ģ	1	10
13887W	6	3	5	6	7	25	13	19			6	9	2	2 10
13925W	5	3	4	5	6	19	12	15	12		6	9	10	
13950W	5	3	5	6	6	25	12	18			7	11	11	10
13975W	6	3	5	6	7	23	13	16	13	10	7	ę.	12	9
131000W	5	3	4	5	7	19	12	17	12	9	5	9	10	9
131025W	4	3	4	5	5	16	12	15	11	10	6	6	8 10	8
13025W	6		5	6		23		17		10	6	ç	11	. 9
130	6	3	4	6	6	20	11	18	14	. 9	6	e e	11	
13025E	4	- 3	4	5	5	21	11	18	12	10	6	10		
13050E	4	3	4	4	5	18	12	14	11		6	ç	10	-
13062E		3	4	6	6		12			11	6	ç		
13062E-R	5	3	4	5	6	22	12	17	12	9	6	9	11	-
13100E	5	3	4	5	5		12	16			7	6	10	8
13137E	4	3	4	5	5	16	11	15		-	5	8	9	8
13162E	5	3	4	5	6	20	12	16			6	ļ	11	
13187E	5	3	5	6	5	23	12	17	11		6	9	11	
13212E	5			6	6		13	15			6		10	<u> </u>
		· · · · · .	· · · · · · .	· · · · · · · · · · · · · · · · · · ·	<u>-</u>				10	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	 ;		
LMB-QA	4			6		15		15	12	-	6		<u>····10</u>	-
LMB-QA LMB-QA	4	3	4	5	5	14	12	15	10	10	6	8	10	9
LIVID-QA	4	3	4	0	5	15	12	15	12	10	0	ں ا	9 9	9

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127 - MP	H 128 - MPH	129 - HAR	130 - HAR	131 - MPH	132 - ALK	133 - HAR	134 - HAR	135 - MPH	136 - MPH	137 - HBI	138 - HBI	139 - HPH	140 - HPH

	141 - HBI	142 - HPH	143 - HA	144 - HBI	145 - HBA	146 - HPH	147 - HBI	148 - HPH	149 - HBI	150 - HPH	151 - HBI	152 - HPH	153 - HPH	154 - HPH
10	10	12	35	12	38	4	7	8	12	2 2	10	14	17	17
1025E	9	11	47	13	30	17	. 7	8	11	10	9	12	16	17
1062E	9	12	37	11	26	3	8	9	1	11	10	2	16	17
1100E			37		31	17	7	8	11	10	9	13		16
1137E	9	11	37	11	31	3	7	9	11	10	9	14	17	17
1137E-R	9	11	30			2	7	8	11	10	9	13	16	17
20	9	10	35		23	18	7	9	11	11	10	2	16	18
2050E	9	11	41	12	32	3		9	11	1	9	13	17	17
2100E	9	11	37	11	27	3	7	8	6	5 2	9	12	16	17
2150E	10		30		34	18	. 7	9	11		10		16	17
30	10	11	45		<u> </u>	3	8	9	13	3 11	10	2	17	18
3050E	10	12		12		18	8	9	11	11	10	13	2	18
3100E	9	2	20	10	34	2	7	8	10	10	10	13	16	17
3150E	10	1	41			3	8	9	12		10	14	20	
40	9	2	35		23	2	7	8	11	<u> </u>	9	3	15	
4050E	12	15	45	13	-	23	9	11	13	8 14	10	16	25	19
4100E	10	11	40	11	36	3	8	9	2	2 11	9	2	18	17
4125E	10	11	43	2	36	18	8	8	12	2 11	10	14	17	17
4150E	10	11	41	12	38	17	7	9	11	10	9	3	17	16
5137E	9					2		8	2	11	9	13	17	
5162E	10	11	39	10		4	7	8	11		9	13	17	17
5162E-R	9	2		11	33	3	7	8	11	10	9	3	17	17
5187E	8	9	39	10	29	3	/	8	1	11	10	13	16	2
5212E	10	1	46			2		9	11		10	2	19	17
8375E	10	11	46		-	19	8	9	2	2 12	9	2	20	18
8400E		11	45				7	8	12	2 2	9	13	19	18
8425E	10 9	11	42		43 43	3	/	9	12	2 11	9	13	18	17
9687W	9 10	10			43	2	0	9	12		10	2	20	10
9725W 9763W	9	12	56 50			4	7	9	12	2	10	J 12	20 18	17
9800W		1	43	11	24	2				11			23	
9837W		12		12				9	1	10	10	13	20	10
9875W	9	11	46		39	17	8	9	12	10	11	14	18	17
9912W	10	• • • • 11	41		36	16			11	10	10	13	18	17
9950W	10	11	45	13	39	17		9	11		10	14		18
9987W		10		11		1	7	ğ	12		9	13	17	17
91012W	10	11	54		40	18	7	9	11		10	14	23	18
91012W-R	10		51	12				9	11		10	13	24	19
91025W	10	11	34			3	7	9	11	1	9	12	15	3
91037W	10	10				4		9	12		10		18	18
91050W	11	13	50	13	46	19	8	10	13	12	10	3	18	3
10162W	9	• • • • 11	48	11	40	19			12	2 2	10	15	25	18
10187W	10	11	51	12	46	2	8	9	11	11	10	14	21	18
10237W	9	13	45	13	41	21	8	9	13	13	9	14	20	19
10275W	10	12	51	11	48	3	8	9	11	11	10	14	20	18
10300W	10	11	36	12	43	17	8		2	2 12	10	14	19	18
10325W	10	1	40	12	31	2	7	9	2	2 11	10	13	16	17
10362W	10	2	59	12	39	8	8	9	12	2 11	9	3	18	17
10187E	9	12	48	11	40	18	7	9	11	11	10	2	17	17
10212E	9		7	12	37	1		9	11	12	10	13	3	
10237E	9	1	45	12	39	2	8	8	2	2 11	9	2	17	3
10237E-R	10	11	43	12	34	17	8	9	11	11	10	13	17	- 3
11200W	9	12	34	11	41	18	7	8	11	2	10	13	17	17
11225W	9	1	45	11	31	2	7	9	2	2 11	9	3	17	17

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	141 - HBI	142 - HPH	143 - HA	144 - HBI	145 - HBA	146 - HPH	147 - HBI	148 - HPH	149 - HBI	150 - HPH	151 - HBI	152 - HPH	153 - HPH	154 - HPH
11262W	9	11	46	12	36	3	7	9	12	2 12	9	3	22	19
11300W	10	12	29	12	32	3	8	9	11	11	10	14	21	17
11337W	10	11	43	13	38	4	7	9	12	2 12	10	14	18	3
11375W	10	1			-	2	7	8	11	11	10	13	19	
11400W	9	12	49			18	8	9	11		10	14	21	
11425W	10	11					7	9	11	11	10	14	=0	18
11175E	9	11	18		35	17	8	9	11	10	10	2	17	17
11200E	9	10				4		1						
11225E	9	11				4	8	9	11		10	13	17	
12225W	10	2				· · · · 3		• • • • • 10	12	2	10	8	26	19
12250W	9	12	18 38		÷.	19	8		12	2 11	10		23 20	17
12275W 12275W-R	9	12	38	13	42	3	0	9	12	11	10	2	20	1/
12725W-K	10	12					7	s g	12	11	9	43	19	18
12723W	10	12	36		36		7		11		10	3	19	
12736W	9	12				3	8				9	13	18	
12773W	10	12	49			4	0		12	12	10		20	
1200011 12175E	9	11	-			3	7	g	12		10	13	20	
12200E	9	11	37	10		2	7	9	11	2	10	13	17	
12225E	9	11				17	7	8	11	11	9	13	16	
13200W	11	2	43	12		2	8	9	11	12	10	14	18	17
13225W	10	12	40	12	42	2	8	8	12	2 11	9		21	18
13250W	10	11	43	12	38	2	7	9	11	12	10	14	19	18
13275W	9	12	54	12	46	18	8	9	12	2 11	9	2	21	18
13425W	10	12	-	-		5	8	9	12	2 12	10	3	20	
13450W	9	10	ţ.			4	7	ģ) 11		10	3	21	
13475W	10	11	46		41	4	8	10	12		10	2	19	
13700W	8	11				3		9	2	2 11	10	12	15	
13700W-R	8	10	33			3		8	11	11	9	2	16	
13725W	10	10	43		-	4	8		12		10	13	18	-
13775W 13812W	<u>11</u>	<u>11</u> 10	24 45	12 13	34 41	Z	8	9) 12) 12		10	14	21	17
13850W	9 11	10	45			- 4	0	9	12		10	13	17	17
13830W	11	12					8		12			13	20	
13925W	9	11				17			11		10		20	
13950W	5	13					8	10				14		
13975W	10	12	28	12		4	7	9	11		10	2	19	
131000W	9	1				2	8	9			10	3	19	
131025W	8	10	6	11	20	4	7	8	3 10	11	9	2	15	17
13025W	11	13	52	13		19		10) 12	2 12	10	14	20	18
130	11	12	39	12		18	8	9	11		10	3	19	
13025E	9	10				4	. 7		11	11	10	2	19	
13050E	9	2	39	11	38	2	7	8	2	2 10	9	12	16	-
13062E	1	12				18	8		13	3 11	10	13		17
13062E-R	11	11	61	13		4	7	9	11	11	10	13	21	17
13100E	9	11				18		8	11		10	13	18	-
13137E	9	10	39		31	4	7	8	10		9	13	15	
13162E	10	2	41			2	/	8	12	2 11	10	3	18	
13187E 13212E	9	12	50 43			4	8	10	12	2 12	10	3	19 17	18
132.12E	10	· · · · 11		12		3	8	8	<u> </u>		10		17	1
LMB-QA	0	· · · ·		11	27		7		11	10	10		16	17
LMB-QA	9	10	19		21	2	7	я	10	10	10 Q	13	15	
LMB-QA		11				17				· · · · · · · · 10	a		16	10
			55	10	20		(0	· 2	. 10		4		, 10

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141 - HBI	142 - HPH	143 - HA	144 - HBI	145 - HBA	146 - HPH	147 - HBI	148 - HPH	149 - HBI	150 - HPH	151 - HBI	152 - HPH	153 - HPH	154 - HPH

	155 - HPH	156 - HBI	157 - HAR	158 - HBA	159 - HBA	160 - HBI	161 - HA	162 - HPH
10	17	14	14	39	18	19	54	18
1025E	18	15		45		18	77	3
1062E	20	14	15	3	2	17	51	19
1100E	17	-1	. 14				45	
1137E	16	14	15	43	18	17	52	3
1137E-R	18	13	14	38	3	17	47	17
20	19	14	15	40	16	17	34	19
2050E	17	14	15	43	18	18	8	18
2100E	18	14	15	41	3	19	51	19
2150E	17	14	15	40	18	18	25	18
30	16	13	14	38	19	19	33	18
3050E	18	14	15	40	18	18	48	20
3100E	16	14	14	36	16	4	41	19
3150E		15	16	45		21	56	20
40	17	14	14	38	17	17	21	19
4050E	20	16	16	46	19	20	10	20
4100E	18	14	13	39	16	17	17	3
4125E	17	14	15	46	19	20	60	20
4150E	17	13	13	40	2	18	44	Z
5137E 5162E	17 17	13 13	15 14	41	19 18	18	29 50	18
5162E-R	17	13	14	41	16			3
5187E	17	14	14	36	18	18	51	3
5212E	17	14	15	44	18	17	9	
8375E	18	15	16	46	2	19	53	19
8400E	18	15	15	45	19	18	53	19
8425E	17	14	14	41	19	18	52	18
9687W	17	15	15	20	19	18	49	19
9725W	18	14	15	43	3	3	54	19
9763W	17	14	15	39	19			19
9800W	17	15	14	42	17	17	56	4
9837W	16	14	13		17	18	23	18
9875W	18	14	15	40	19	19	54	18
9912W	17	14	15	43	17	17	41	18
9950W	17	15	15	-1	17	18	53	20
9987W	17	14	15	42	3	3	16	19
91012W	17	15	15	44	18	19	7	19
91012W-R	18	14	15	40	18	2	8	3
91025W	17	14	14	40	2	16	48	19
91037W	19	14	15	43	19	18		20
91050W	19	14	-1	44	3	18	35	20
10162W	18	15	15	44	17	18		19
10187W	17	15	14 16	2	17	18	51	20
10237W 10275W	18 16	15 15	15	39 45	19 18		36 55	20
10275VV 10300W	16	15	15	45	18	10	55	
10300W	18	13	16	-1	18	19	54	
10323W	18	14	15	47	19		59	
1030277 10187E	18	13	15	47	10	18	56	2
10107E	10	15	15	40	2	18	29	19
10212E	18	14	15	43	19	18	21	3
10237E-R	3	14	16	48	18	18	51	19
11200W	18	14	16	43	17	18	50	2
11225W	16	14	15	• • • • 44	19	18	24	- 19

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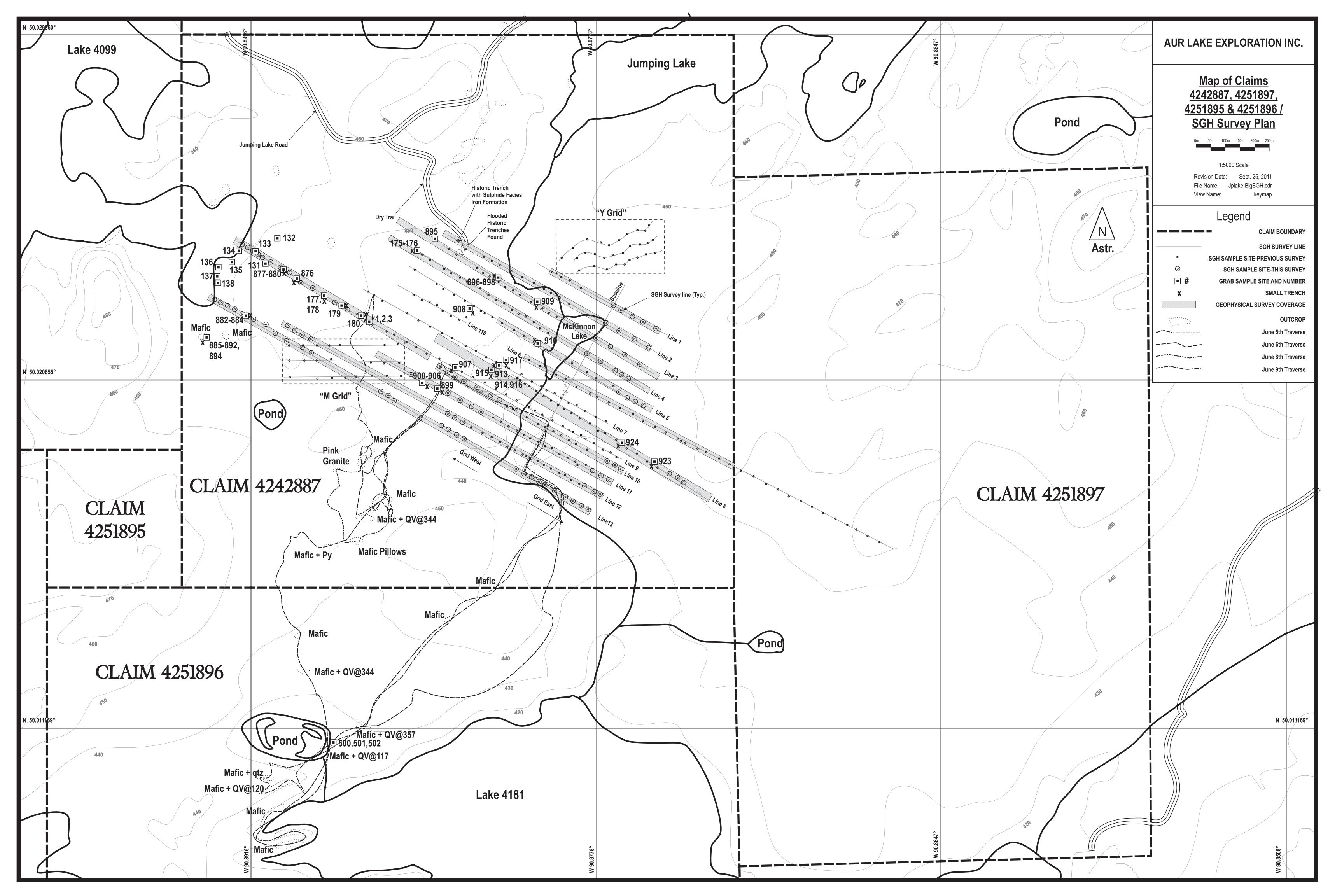
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155 - HPH	156 - HBI	157 - HAR	158 - HBA	159 - HBA	160 - HBI	161 - HA	162 - HPH

APPENDIX D

Claim Map/Line Cutting Plan/Sampling Plan



APPENDIX E

ClearView Report

Report on Geophysical Surveys

at the

Jumping Lake Project

NW Ontario

2010



ClearView Geophysics Inc.

Report On Geophysical Surveys at the Jumping Lake Project NW Ontario

On behalf of:

Aur Lake Exploration Inc. 1603-7 Jackes Ave. Toronto, ON M4T 1E3 telephone: 416-406-1531 facsimile: email: mb@michaelbulatovich.ca

Contact: Mr. Michael Bulatovich, Project Manager/COO

By:

ClearView Geophysics Inc.

12 Twisted Oak Street Brampton, Ontario L6R 1T1

telephone: 905.458.1883 facsimile: 905.792.1884 cellular: 416.617.1884 E-mail: joe.mihelcic@geophysics.ca

Contact: Mr. Joe Mihelcic, Geophysicist/President

ClearView Ref: 00321

TABLE of CONTENTS

11.		STATEMENT OF QUALIFICATIONS, JOE MIHELCIC27			
10.		CONCLUSIONS26			
9.	R	ECOMMENDATIONS23			
8	8.5.5 Aur Lake Exploration Inc21				
8	3.5.4 Loydex Resources Inc20				
8	2.5.3 Steep Rock Iron Mines Limited20				
8	.5.2	2 Granges Exploration19			
8	.5.1	Mattagami Lake Mines18			
8.5		Previous Work: 18			
8.4		VLF Conductor Axes: 17			
8.3		Magnetics Regions:17			
8.2		Medium and Long Tau Regions:13			
8.1		Short Tau Regions:11			
8.	D	ISCUSSION OF RESULTS11			
7.	PI	ROBLEMS & LOGISTICAL ISSUES10			
6.3		VLF-EM Survey9			
6.2		Magnetometer Survey8			
6.1		IP Survey7			
6.	D	ATA PROCESSING AND PRESENTATION7			
5.3		VLF-EM Survey6			
5.2		Magnetometer Survey6			
5.1		IP Survey5			
5.		URVEY METHODOLOGY5			
4.		URVEY SPECIFICATIONS & EQUIPMENT 2			
<u>-</u> . 3.	PERSONNEL 2				
2.		OCATION & ACCESS1			
1.	INTRODUCTION1				

APPENDIX A – Transmitter Field Notes APPENDIX B – Instrument Specifications APPENDIX C – Plates and CD-ROM

LIST of TABLES

Table 1 – Daily Survey Summary	2,3
Table 2 – IP Survey Coverage	
Table 3 – Magnetometer Survey Coverage	
Table 4 – VLF Survey Coverage	
Table 5 – IP Survey Specifications and Equipment	
Table 6 – Magnetometer Survey Specifications and Equipment	
Table 7 – VLF Survey Specifications and Equipment	
• • • • • • • • • • • • • • • • • • • •	

LIST of CD-ROM subdirectories

/EditedData /Inversion_Files /IPR12DataDumps /ClientSupplied /Plates /Pics /GeosoftOasisViewer

LIST of PLATES

Plate 1: Spectral IP/Res. Sections; Line 1S: 1:2500 Plate 2: Spectral IP/Res. Sections; Line 2S; 1:2500 Plate 3: Spectral IP/Res. Sections; Line 3S; 1:2500 Plate 4: Spectral IP/Res. Sections; Line 4S; 1:2500 Plate 5: Spectral IP/Res. Sections; Line 5S; 1:2500 Plate 6: Spectral IP/Res. Sections; Line 6S; 1:2500 Plate 7: Spectral IP/Res. Sections; Line 8S; 1:2500 Plate 8: Spectral IP/Res. Sections; Line 9S; 1:2500 Plate 9: Spectral IP/Res. Sections; Line 10S; 1:2500 Plate 10: Spectral IP/Res. Sections; Line 11S; 1:2500 Plate 11: Spectral IP/Res. Sections; Line 12S; 1:2500 Plate 12: Spectral IP/Res. Sections; Line 13S; 1:2500 Plate 13: Total Field Magnetics; colour-contour and profile plan map; 1:2500 Plate 14: VLF-EM; Profiles and 1st Horizontal Derivative colour-contour plan map; 1:2500 Plate 15: Mx n=2 "a"=25 m; colour-contour plan map; 1:2500 Plate 16: Res n=2 "a"=25 m; colour-contour plan map; 1:2500 Plate 17: Approximate Elevations; colour-contour plan map; 1:2500 **Plate 18:** Interpretation; labeled and outlined zones and targets; 1:2500



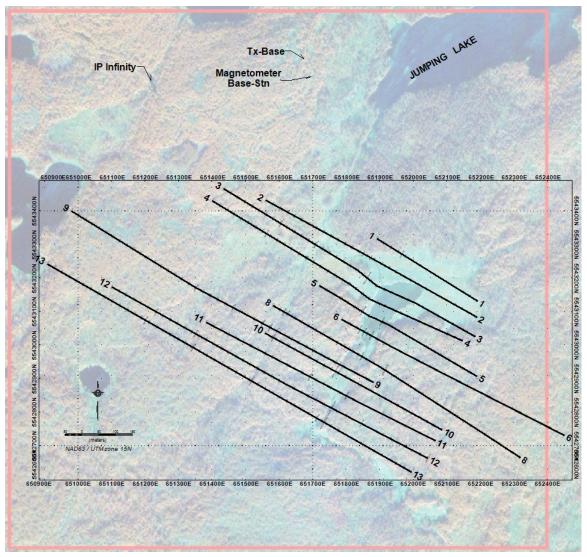
1. INTRODUCTION

ClearView Geophysics Inc. carried out Spectral IP (Induced Polarization) Surveys for Aur Lake Exploration Inc. on their Jumping Lake Project located near Savant Lake, NW Ontario on claim block #4242887. The work was completed between June 7 and June 25, 2010 in order to locate targets for further exploration.

2. LOCATION & ACCESS

The base of operations was in Savant Lake. Daily access was by 4W drive truck to Six Mile Lake Road and then along Jumping Lake Road to a location approximately 250 metres west of the southwest tip of Jumping Lake. The logging road was followed for approximately 500 metres on foot to the north corner of the survey grid.

Site Location Map



ClearView Geophysics Inc.

JULY 31, 2010

3. Personnel

Joe Mihelcic; Geophysicist:

Mr. Mihelcic operated the IP receiver, VLF receiver and Magnetometer. He was responsible for the surveys and data quality. He also processed and plotted the data on a daily basis, and prepared this report.

Innocent Ezenwa and LiFei Zhao; Geophysicists:

Mr. Ezenwa and Mr. Zhao Timoshenko operated the current and potential electrodes.

Sabina Mihelcic, Turner Ruetz, Ashley Tossounian; Assistants:

Ms. Mihelcic and Ms. Tossounian operated the IP transmitter and connected potential electrodes. Ms. Mihelcic also assisted with the VLF and Magnetometer surveys. Mr. Ruetz connected potential electrodes.

4. SURVEY SPECIFICATIONS & EQUIPMENT

The following tables summarize the survey specifications and equipment:

]			
Date	Line	Activity	Comments/Weather
June 7	n/a	Mobilization	Joe/Sabina/gear Brampton to Sudbury.
June 8	n/a	Mobilization	Joe/Sabina/gear Sudbury to Thunder Bay.
			Innocent/LiFei/Turner/Ashley Toronto to
			Thunder Bay, Crew/gear Thunder Bay to Savant
June 9	n/a	Mobilization	Lake.
			Site Orientation, brush out access trails, setup
June 10	n/a	IP Surveys	IP infinity and access wire, lay out snake.
June 11	11, 12	IP Surveys	Overcast and drizzle.
			Moose broke access wire ¾ down '1 st Ave.',
June 12	12, 13	IP Surveys	wire pulled through bush; Rain, overcast.
			Overcast and rain AM, sunny/cloudy periods
June 13	13, 9	IP Surveys	11am, rain PM.
June 14	9, 10, 8	IP Surveys	Moose broke infinity wire; Sunny.
June 15	8, 6	IP Surveys	Resurvey section L8; Cloudy.
June 16	6, 8, 2	IP Surveys	Resurvey section L8; cloudy periods.

Table 1: Daily Survey Summary

June 17	1, 3	IP Surveys	Setup pond crossing; sunny AM, cloudy PM.
			Setup pond crossing; sunny/high winds, cleared
			trees along Jumping Lake and Six Mile Lake
June 18	3, 4	IP Surveys	Road, Power out Savant Lake until ~9 pm.
			Setup pond crossing; Rain delay AM,
June 19	4, 5	IP Surveys	cloudy/wet PM.
			Innocent/LiFei/Turner/Ashley Savant Lake to
		IP Surveys,	Toronto; Disassemble pond crossing setup;
June 20	n/a	Demob	sunny.
		Mag Surveys,	
June 21	Grid	IP Surveys	Reel-up infinity, pull out IP gear; Mostly sunny.
June 22	Grid	VLF Surveys	Mostly sunny, minor rain.
		VLF Surveys,	Pull out last of IP gear, resurvey Mag/GPS
June 23	Grid	Mag Surveys	portion of L9/L13; mostly sunny, minor rain
June 24	n/a	Demobilization	Joe/Sabina/gear Savant Lake to Kapuskasing
June 25	n/a	Demobilization	Joe/Sabina/gear Kapuskasing to Brampton - EOJ

Table 2: IP Survey Coverage

Line #	"a" spacing	From (first elec.)	To (last elec.)	Distance Covered
1	25 m	225W	150E	375 m
2	25 m	550W	150E	700 m
3	25 m	675W	200E	875 m
4	25 m	675W	175E	850 m
5	25 m	275W	250E	525 m
6	25 m	175W	500E	675 m
8	25 m / 50 m	375W	500E	875 m
9	25 m	1050W	50W	1000 m
10	25 m	375W	250E	625 m
11	25 m	525W	250E	775 m
12	25 m	825W	250E	1075 m
13	25 m	1025W	225E	1250 m
			TOTAL	9 600 m

Table 3: Magnetometer Survey Coverage

Survey Paths (GPS Walking-mode)	Reading interval	Distance Covered
Walking Mode along IP grid lines, access trails, intermediate areas and traverses between grid lines	1 s	12.5 km

Table 4: VLF Survey Coverage

Line #	From (NW)	To (SE)	Distance Covered
1	200W	150E	350 m
2	550W	175E	725 m
3	675W	125W	550 m
4	675W	112.5W	562.5 m
5	275W	100W	175 m
6	175W	575E	750 m
8	375W	500E	875 m
9	1050W	262.5W	787.5 m
10	350W	250E	600 m
12	825W	250E	1075 m
13	1025W	225E	1250 m
		TOTAL	7 700 m

Table 5: IP Survey Specifications & Equipment

Refer to Appendix A for Instrument Specifications.

Pole-Dipole Array	n=1-6, "a"=25 m; L8: n=1-6, "a"=25 m, n=7,8 "a"=50 m
Station interval	25 metres
Line separation	Nominally 50 m
Receiver	Scintrex IPR12, time domain
Transmitter	Walcer TX KW10

Table 6: Magnetometer Survey Specifications & Equipment

Total Field Magnetics	Back-pack mounted sensor, 0.8 m above head	
Rover Magnetometer	GEM Systems Overhauser version 7	
Base Station Magnetometer	GEM System Overhauser version 6	
Station interval	GPS Walking-mode, 1 s	
Line separation	Nominally 50 m	

Refer to Appendix A for Instrument Specifications.

Table 7: VLF Survey Specifications & Equipment

Target Mineralization	East-West Trends
Transmitter Station	Cutler Maine, NAA 24.0 kHz
Receiver	Geonics EM16
Station interval	12.5 m
Line separation	Nominally 50 m

Refer to Appendix A for Instrument Specifications.

5. SURVEY METHODOLOGY

5.1 IP SURVEY

The <u>IP survey</u> consisted of injecting an electrical current into the ground for two seconds. The transmitter current was then turned off for two seconds, during which time an IP receiver recorded the decaying voltage at pre-defined intervals.

One current electrode is located on the survey line, the other at 'infinity', as indicated on the Site Location Map, page 1. The line current electrode was moved along the survey line and maintained a distance of 25 metres ("a"=25 m) from the nearest receiver electrode. There were seven receiver electrodes placed at equal intervals down the survey line. The potential receiver electrode, which is nearest the transmitter current electrode, is called "P1". The furthest electrode down the line is called "P7". Electrode pairs are called dipoles. Six dipoles were read for every position except at the end of the completed survey line segments where dipoles were dropped. Line 8 was surveyed with eight dipoles. The first six dipoles were with 25-metre dipoles. Dipoles 7 and 8 were with "a"=50 metres and the furthest electrode is called "P9".

Voltage drops are measured for each dipole. The transmitter operator measured the contact resistance and electric current passing through the current electrodes during the

readings. These current measurements were relayed to the receiver operator and entered into the IPR12 instrument for subsequent apparent resistivity calculations. As the dipoles increased in distance from the transmitter current electrode, they obtained decay information from deeper features. Therefore, the results are displayed as "pseudosections" (Appendix C, CD-ROM: /Plates, Geosoft Oasis version 6.4.1 and Acrobat Adobe PDF formats).

The transmitter operator also wrote down field notes relayed by the line workers. These notes are related to topography and obstacles encountered along the survey line (e.g., cliffs, swamps, etc.) that could be relevant to data interpretation (Appendix B).

5.2 MAGNETOMETER SURVEY

The <u>walking-mode magnetometer surveys</u> were carried out using GEM Systems Overhauser magnetometers. The internal GPS from the magnetometers was used for timing and positioning. Readings were acquired at 1x per second. The magnetometer sensor was located on a backpack staff almost 1 metre above the operator's head. The GPS sensor antenna was located on another staff attached to the backpack.

A GEM Systems Overhauser magnetometer was also used for the base station corrections. The base station magnetics data were real-time UTC stamped. Its location is indicated on the Site Location Map, Page 1.

5.3 VLF-EM SURVEY

The <u>VLF-EM surveys</u> were carried out using a Geonics EM16 receiver. The receiver has two receiving coils built into the instrument handle. One coil has normally vertical axis and the other is horizontal. The signal from one of the coils (vertical axis) is first minimized by tilting the instrument. The tilt-angle is calibrated in percentage. The remaining signal in this coil is finally balanced out by a measured percentage of a signal from the other coil, after being shifted by 90 degrees. This coil is normally parallel to the primary field. Thus if the secondary signals are small compared to the primary horizontal field, the mechanical tilt-angle is an accurate measure of the vertical real-component (inphase), and the compensation 90 degrees signal from the horizontal coil is a measure of the quadrature vertical signal.

Readings were acquired at 12¹/₂ metre intervals along the survey lines. The Cutler Maine VLF transmitter station was used. This station is located east of the survey area and provides the strongest available signal.

6. DATA PROCESSING AND PRESENTATION

The IP, Magnetics and VLF surveys were mostly completed on adjacent survey lines (refer to plan maps, Appendix C) so that lateral trends and anomalies could be detected. All plan maps, including overlays from historic geophysics and recent SGH (soil/gas/hydrocarbons) work, are presented as overlays on a single Geosoft Oasis file <PlanMaps.map> included on the CD-ROM, Appendix C. This file can be viewed using the free viewer supplied from Geosoft's website: <u>www.geosoft.com</u>. A copy is also included on the CD-ROM: \GeosoftOasisViewer.

6.1 IP SURVEY

Plates 1 through Plate 12 include a number of panels presenting IP, apparent resistivity, magnetics and VLF data. Inversion models for the IP and apparent resistivity data are also presented as depth sections in these plates. Pseudosection panels are presented for the Mx chargeability (690 ms – 1050 ms decay slice), apparent resistivity, Spectral *M-IP*, Spectral *Tau* and Spectral *c*.

UBC 2d inversions were completed and presented as stacked sections on the pseudosection plates. Inversion parameters and results are preserved on the CD-ROM: /Inversion_Files.

Discussions regarding dips for the 2d inversions are relative to the survey line direction. Survey lines are oriented northwest and southeast, so dips are interpreted as being to the northwest or to the southeast, even though the structure might cross-cut the survey line at less than 90 degrees. For example, an east-west striking feature might dip to the south but be interpreted from the 2d inversion along the northwest/southeast oriented survey line as dipping to the southeast.

Interpreted depth values are approximate and to the top of the source, unless indicated otherwise. 'At-surface' depths indicate anomalies that extend to the lowest dipole. Overburden of various thickness and characteristics could obscure the source from visibility.

Colour contour plan maps for the pseudosection n=2 cut were also presented. The IP data are presented on the CD-ROM in raw dump format: /IPR12DataDumps, and in edited format: /EditedData.

The selected chargeability slice of 690 ms to 1050 ms is the industry standard slice used by the *Scintrex* IPR-11 receiver. This was done so that experience gained during the past few decades could be applied more readily to the present data.

Spectral IP:

Spectral data for *Tau*, *M-IP* and *c* are calculated from a modified version of *Scintrex' Spectrum* software. This software matches the IP data to a suite of master curves. Readings with poor matches are screened and not plotted.

Detailed information about Spectral IP can be found in the following technical paper: Geophysics, Vol. 49, No. 11, (November 1984), P. 1993-2003 "Spectral induced polarization parameters as determined through time-domain measurements". A brief description of Spectral IP follows:

The spectral parameters calculated from the IPR12 data provide an increased dimension to IP interpretation. The time constant *Tau* and exponent *c* are measurable physical properties which describe the shape of the decay curve. *Tau* can be used to discriminate between fine and coarse-grained polarizable mineralization. For a 2-second pulse, it ranges between 0.01 s for fine-grained sulphides, to 100 s for coarse-grained sulphides. *Tau* is important in gold exploration as gold is often associated with fine-grained sulphide mineralization.

Exponent c is diagnostic of the uniformity of the grain size of the target. It ranges from 0.1 for non-uniform grain size to 0.8 for uniform grain size and 1.0 for inductive coupling effects. Low c means that there is less certainty to the calculated *M-IP* and *Tau* values because there are likely multiple chargeable sources contributing to the response. The Cole-Cole models are based on theoretical decay curves for a uniform source.

The *M-IP* is the relative residual voltage which would be seen immediately after the shut-off of the transmitted pulse. It is expressed as mV/V and its amplitude relates to the quantity of the polarizable mineralization.

The *M-IP* parameter is very useful because theoretically it is not affected by ground resistivity. Normally, low resistivity tends to suppress the measured (apparent) chargeability decreasing its amplitude. A problem in areas of very high resistivity is that the apparent chargeability moves sympathetically with high resistivities. Therefore, when a high chargeability anomaly correlates with a resistivity high, it is impossible to know when the anomaly is solely caused by sulphides unless the *M-IP* parameter is used.

The *M-IP* parameter allows for the selection of chargeability anomalies associated with resistivities that have a high probability to be associated with sulphides. In gold exploration this is very important because highly silicified areas are usually associated with gold mineralization. However, sulphide zones are the most favourable gold exploration targets within the zone of silicification.

The procedure for determining the spectral parameters plotted on the pseudosections is the result of Cole-Cole model curve matching. Matches that have a poor RMS standard deviation fit are not plotted. Poor fits to the model curves can result from inductive coupling, which is usually seen in the early decay slices, lack of significantly chargeable response, or noisy readings.

6.2 MAGNETOMETER SURVEY

All data were downloaded and transferred to a central laptop computer. *In-house* and *Geosoft* software were used to convert and present the readings. The Overhauser magnetometer clocks were synchronized to UTC time using their internal GPS receivers.

Magnetic diurnal corrections were done with *Geosoft's Table-lookups*. This application linked the files according to GPS acquired UTC time. Base station readings were taken at 1-second intervals. Straight-line interpolation was applied to the base station readings to match the coinciding field magnetometer readings.

There are different database formats for the data:

Central Databases: <mag.gdb> <base.gdb>.

The <mag.gdb> database contains all of the presently acquired ground magnetics data. The
ses.gdb> database contains all of the base station data. The line number represents the day of the month in June, and the decimal 6 or 7 relates to the GEM Systems magnetometer version number.

There is a pair of databases that were derived from the central database <mag.gdb>:

<Mag_GPS_Stations.gdb>, <Mag_LineStn.gdb>.

The first is the GPS data linked to grid lines and station numbers based on the magnetics coverage. The second is the mag data stripped to each line number covered by the IP surveys, so that they could be presented as profiles on the stacked IP sections (i.e., Plate 1 through Plate 12). A colour contour plan map was produced from the <mag.gdb> central database and presented in Plate 13. The GPS data were used to produce a colour-contour plan map of the elevations. Note that these elevations are approximate and should only be used to differentiate between broad areas of high versus low ground.

6.3 VLF-EM SURVEY

Readings from the Geonics EM16 instrument are obtained from dials and an attached inclinometer. These readings were written down in a field book and subsequently transferred to the computer in an MS Excel spreadsheet format. From there, they were imported into a Geosoft database for plotting and analysis.

The results are plotted as profiles for the inphase and quadrature components on the stacked IP pseudosection Plate 1 through Plate 12. They are also presented in profile format in Plate 14. Colour shading in Plate 14 is from a 1st horizontal derivative for the inphase component. Positive crossovers are indicated as maximum responses in this representation. The method is similar to a Fraser Filter which accentuates conductor axes.

7. PROBLEMS & LOGISTICAL ISSUES

The survey encountered a few problems and logistical issues that were overcome as the surveys progressed. These are discussed briefly below:

Weather was a concern during much of the survey, with rain almost daily. High winds on June 18 knocked several trees across Six Mile Lake Road and Jumping Lake Road. These conditions slowed production. Power was also knocked out in the surrounding area.

Wildlife, likely moose, broke both the heavy gauge access wire and infinity wire on separate days. This caused delays related to locating and repairing the wire which was dragged into the woods.

A 'Pond' (refer to plates) located at the centre of Lines 3, 4 and 5 required extra effort to survey across without missing stations or dipoles. This was achieved by stretching a wire across the pond. Water bottles were tied to the wire to keep it afloat. Separate leads and the receiver snake was dragged across the pond as the survey progressed.

Data from a systematic grid positioning survey was not available at the time of the present geophysical surveys. The magnetometer survey was carried out in GPS walking-mode (readings at 1 second intervals) instead of in grid-station mode so that both positioning and magnetometer data could be obtained. These positioning data were referenced to grid endpoints and used to position the IP and VLF survey data.

The magnetometer instrument had a broken GPS cable that was noticed partly through the magnetometer survey. This was caused by rough bush encountered between survey lines. Although magnetics data were not affected, the absence of positioning data required the resurvey of the northwest ends of line 9 and line 13

The VLF instrument had a broken quadrature adjustment knob that was noticed just as line 11 was started at the southeast end. This break could not be repaired in the field and the instrument was returned to Geonics. Line 11 and the parts of lines 3, 4 and 5 located southeast of the 'Pond' were not completed due to this equipment failure. The knob likely seized during the bush crash from line 12 to line 11.

Both magnetometer and VLF instrument failures are attributed to bush-crashing between survey lines. The bush at this grid consists of numerous dead-fall, described as resulting from blow-down following an early 80's forest fire that swept through the area. Damage to equipment, data loss and poorer than normal production can be avoided by ensuring tie-lines are cut near or at the ends of cross-lines.

8. DISCUSSION OF RESULTS

Interpretation map Plate 18 (Appendix C) includes a compilation of anomalies interpreted from the pseudosections, depth sections and profiles presented in Plate 1 through Plate 12 (L1 through L6 and L8 through L13). A number of features were subsequently identified and briefly discussed below:

8.1 SHORT TAU REGIONS:

Most of the spectral c values are relatively small – ranging from 0.1 to 0.3, indicating a generally variable grain size. The *Tau* values are less reliable for lower c values due to interference between chargeable sources with different characteristics (e.g., size, shape, density, etc.).

Nonetheless, a number of chargeability anomalies and zones with short *Tau* are indicated on the Compilation as *S1* through *S11*. These are typical for fine grained sulphides. Short *Tau* anomalies are generally given highest priority for gold exploration because economic concentrations are often associated with fine grained or disseminated sulphides. Larger sulphide quantities generally coincide with higher *MIP* values. The anomaly and zone limits and orientations are indicated to outline one or clusters of distinct features or geologic sources, and therefore do not necessarily indicate stratigraphic and structural units and trends.

<u>S1 through S3</u>:

These chargeability zones are indicated in the northern part of the survey grid. *S1* is a single line anomaly, but appears to extend beyond the present survey southwest survey limits (refer to 8.5.5 Aur Lake Exploration Inc.). The chargeability inversion indicates a source located approximately 15 metres deep. The anomaly coincides with the southeast edge of a broad weak apparent resistivity high zone, which is likely a mineralized contact between different rock types.

S2 is indicated as a relatively broad chargeability zone. It is poorly defined but is associated with larger spectral c values, which provides more confidence for short *Tau*. Poorly defined VLF anomaly V2 and a sharp magnetic high and low anomaly extends through S2 on L3. The peak chargeability on L3 is located immediately northwest of a weak apparent resistivity high zone, which could indicate a contact.

S3 is a weak chargeability zone. Although indicated with a north-south trend, it might be an extension of S2 discussed previously. The relatively flat VLF quadrature and more variable VLF inphase indicate a poor conductor within resistive ground. The IP anomalies indicate minor sulphides.

<u>S4</u>:

This moderately strong chargeability zone is located at the edge of a swamp in a magnetically flat area. The UBC inversion indicates a depth of 20 metres on L2 to 50 metres on L1. This anomaly could indicate fine grained sulphides over a broad area.

<u>S5</u>:

S5 is located on the east side of the 'Pond'. The southeast limb on L3 coincides with magnetic and resistivity low anomalies typical of alteration. It is located northwest of a predominantly magnetic high region, indicating a contact zone. The northwest limb coincides with a weakly elevated apparent conductivity anomaly and background magnetics. Inversion results on L2 indicate a depth of approximately 30 metres for both the chargeability and resistivity response.

<u>S6 and S7</u>:

These single-line anomalies are located at the southwest survey limit. S6 coincides with VLF conductor V8 and an apparent resistivity low zone. A conductive source caused by sulphides typically has long *Tau*. The inverse quadrature response for V8 is weak but relevant. The magnetics data also indicate variability through S6. This suggests that S6 likely results from a mineralized alteration or shear zone. Minor amounts of magnetic minerals such as pyrrhotite might be present.

S7 is located further southeast along L13. It is moderately strong and related to an apparent resistivity high zone. Inversion models indicate a depth of approximately 20 metres. Magnetics and VLF data are relatively flat. *S7* is likely related to fine grained sulphides associated with quartz mineralization.

<u>S8</u>:

S8 consists of moderately strong anomalies on L10 and L11. The anomalies on L11 have relatively high spectral c, which is indicative of a more uniform grain size, and therefore greater confidence in spectral *Tau*. Apparent resistivity and magnetics data are variable across the zone. Inversion results indicate that the location of peak chargeability responses occur between resistivity high zones. There are no VLF data on L11; however, VLF data at S8 on L10 are not anomalous.

<u>S9</u>:

This relatively large chargeability zone extends across L8 through L13. On L8, the inversion model indicates a steeply southeast dipping source. The apparent resistivity data indicate a geometric affect that can be caused by topography or buried escarpments. The elevation data obtained from the magnetometer survey (refer to Plate 17) indicates a broad topographic high in this area. This high could result from a harder rock such as quartz. The apparent resistivity amplitudes are very high, typical of silicified rocks.

Spectral *c* values are relatively high for the short *Tau* reading, indicating a uniform and fine-grained mineralization.

Further southwest on L9 and L10, the zone coincides with very high and high apparent resistivity values respectively. The drop off in apparent resistivity high amplitude coincides with the drop off in elevation, and could indicate less silicified mineralization. On L11, the zone is located between apparent resistivity high and low zones. VLF anomaly V10 and a coinciding apparent resistivity low zone axis (refer to Compilation Map, Plate 18) appear to terminate or deviate near the edge of S9 on L10 and L11. On L12, the apparent resistivity, and possibly elevation, values are more elevated, indicating a possible increase in harder/less weathered, more silicified rocks. S9 appears to narrow and possibly pinch out on L13, but this is uncertain at the survey limit.

<u>S10</u>:

Much of the southeast end of L13 consists of short Tau chargeability zone S10. The chargeability inversion model indicates a relatively broad zone with peak response at 50W and at approximately 25 metres deep. Apparent resistivity values are variable but mostly high and very high through S10. VLF and magnetics data are mostly flat, although the elevated inphase response through S10 could indicate a flat lying near surface feature. This coincides with lower apparent resistivity values for the first few IP dipoles. The source mineralization for S10 is located under the possible flat lying VLF source (e.g., siltey or clayey till overburden).

The L12 portion of S10 contains a single anomaly that includes longer Tau readings. VLF anomaly V12 extends through S10 in this area, and could indicate a geologic break or contact. This break or contact could explain why S9 is separated from S10. The location of the creek passing between S9 and S10 is likely not a coincidence and probably relates to altered/sheared and therefore softer more easily eroded rocks.

<u>S11</u>:

This narrow feature is associated with weak and poorly defined VLF anomaly *V11*. The chargeability anomalies are weak and associated with apparent resistivity high and weak high zones. This zone could result from minor sulphides, although the elevated apparent resistivity readings tend to amplify the chargeability.

8.2 MEDIUM AND LONG TAU REGIONS:

Most of the interpreted IP anomalies contain medium and long spectral *Tau*. These are typical of coarse-grained and linked sulphides. As with the short *Tau* regions, the higher the *MIP* values, the more sulphides are expected. The 'Chargeability Zone' boundaries indicated on the Compilation map (Plate 18) includes these anomalies. The zones are numbered *C1* through *C17*, and are briefly discussed below:

<u>C1 and C2:</u>

These anomalies are located in the north end of the survey grid. They coincide with strong VLF inphase anomaly *V1. C1* is a poorly defined, moderately strong, chargeability zone. It coincides with weak magnetics high and apparent resistivity zones. This anomaly could result from sulphides.

C2 is a strong anomaly on L2 and very strong on L3. S1 discussed earlier is located within C2. The coinciding VLF anomaly its strongest inverse inphase and quadrature response on L2 and L3. The magnetics data are also highly variable in this area. C2 is likely the result of massive sulphides.

<u>C3 and C4</u>:

These moderately strong chargeability zones are located northwest of the 'Pond' in the primarily wooded areas. C3 consists of a single line and single station splay to the north from the larger C4. Anomaly S4 discussed earlier is located within C4. Magnetics data are highly variable. Poorly defined VLF axes V3 passes through C3, and V4 passes through C4. The inversion model at L1 through L5 indicates that the top of the bulkiest portions of the C4 zone is located at 20 metres to 40 metres deep.

<u>C5</u>:

C5 is located west of the 'Pond'. It extends from L4 and poorly defined VLF axis V6 in the north, to L8 in the south and further to S9 discussed earlier. The chargeability zone on L4 and L5 is located immediately northwest of a strong apparent resistivity low anomaly. This could indicate an association with a geologic break or contact. It is also inversion modeled as an at-surface source on L4 through L6. On L8, a broad southeasterly dipping feature is indicated (<u>Note</u>: section 6.1 IP Survey for description of UBC 2d inversion dip directions).

<u>C6</u>:

This broad chargeability zone is indicated as a continuation of C4 on L1 in the northwest, to L6 where the zone splays into C7 through C9 in the south (discussed later). The zone contains a number of sharp magnetic high and magnetic low zones on L3 (S5) and L4. The magnetics are relatively flat on L1, L2, L5 and L6. The inversion model at C6 on L4 provides deeper information compared to elsewhere on this and other survey lines. Source mineralization is at 25 metres on the baseline 0, and possibly as deep as 80 metres to 125E. *Tau* values are mixed, indicating mixed grain-size.

A gold showing that consists of coarse-grained pyrite in quartz is located south of the 'Pond'. This showing is likely part of C6. The significance of the anomaly is that although the showing is at surface, the inversion indicates deeper sources towards the east and possible extension to the northeast through the more favourable S5 zone. C6 begins to splay into C7 through C9 at a topographic high area. Whether this is significant to the

interpretation is uncertain, but could indicate a structural feature, such as folding or offsetting.

<u>C7</u>:

This moderately strong chargeability zone extends from L6 at the 'Pond' and from C6 discussed previously, to L11 in the south. VLF anomaly V11 and a coinciding apparent resistivity low zone cut across and appear to terminate at C7. The VLF anomaly is strong in both the inphase and inverse response in the quadrature. This is indicative of a metallic conductor source.

C7 contains a pair of chargeability anomalies on L10. The southeast anomaly is inversion modeled with a source that extends to surface at 50W. The northwest anomaly models with a source located 20 metres deep at 125W. It is, more specifically, this northwest anomaly that coincides with the western end of V10 and apparent resistivity low zone. Also, magnetics data are elevated and more variable above the V10/res-low boundary. These factors could indicate a contact zone and possible pooling of sulphide mineralization at L10.

The C7 zone is modeled with a well defined source located 45 metres deep. Magnetics data south of the V10/res-low boundary are also suppressed. This could indicate a faulted shift of the rocks south of the boundary. Rock to the south might be shifted vertically rather than horizontally based on the weakening magnetic response to the south compared to the north. Apparent resistivity data indicate the apparent resistivity low zone bends towards the south on L11 from L10. This could indicate a structural fold or contact at the S9 zone discussed earlier. Further south, the zone transforms to short *Tau* at S10, also discussed earlier.

<u>C8 and C9</u>:

These chargeability zones extend from C6 in the north through V10 and V11 in the south. C8 and C9 extend from elevated topography discussed earlier (refer to C6). The chargeability anomalies on L6 are moderately strong but inversion model as near surface narrow sources. The L8 anomalies cross-cut V10/res-low anomalies and inversion model as a broad northwest dipping subtle feature approximately 40 metres deep. Magnetics data appear suppressed south of V10/res-low, as was the case for C7, indicating source mineralization could be deeper, or shifted upwards and clipped to the south. There is evidence in this section (discussed 2 paragraphs down) and in the next for C10 and C11, suggesting the former is more likely (i.e., downward shift to south).

On L10 and L11, **C9** extends through **S11** discussed earlier. **C8** consists of moderately strong chargeability anomalies that coincide with apparent resistivity high anomalies. The chargeability inversion models from both lines indicate a source that appears to be dipping towards the northwest. Although the inverted chargeability extends to surface, it becomes more attenuated at 30 metres, indicating the possible overlap of at least two sources – one to surface and the more relevant one at depth.

C8 and C9 are indicated as converging at L12. From there they extend to S10 discussed earlier. The anomaly at L12 is modeled as an at-surface moderately strong chargeability but high MIP spectral. This could indicate a transition zone between the deeper anomalies in the north and the short Tau anomalies of S10 in the south. A deeper extension to this chargeability anomaly at L12 is inversion modeled at a depth of 50 metres further northwest at 25W. This location is south of C7 discussed earlier, and could be part of the C7 zone extended at depth.

<u>C10 and C11</u>:

The V10/res-low anomalies appear to have bounded C10 in the north, as there is no coinciding chargeability anomaly on L5. The magnetics data are again attenuated south of this boundary. Inversion modeling for the anomalies on L6 indicates at-surface sources for C10, but for C11 the source is modeled 30 metres deep. On L8 the zones converge into a single broad and strong anomaly that inversion models as a near surface source. V11 is indicated as extending through L8, but the anomaly is very weak and therefore poorly defined. Spectral *Tau* data are medium on L8, which could indicate medium-grained sulphides.

<u>C12</u>:

This moderately strong chargeability zone is located at the eastern end of the survey limits. It is inversion modeled at a depth of 15 metres. Apparent resistivity values are very high and high. The source could be sulphides with silicified rock.

<u>C13</u>:

C13 extends through S9 in the east and S8 in the west. The zone is strong at the northwest end of L8 where it coincides with a poorly defined VLF anomaly V7 and an apparent resistivity low. This could indicate massive sulphides or sulphides within a shear zone. C13 generally coincides with a broad magnetics high zone that extends from L9 through L12. It also coincides with high and very high apparent resistivity values. The non-linear shape of C13 indicates possible folding or displacement of mineralization throughout the area.

<u>C14</u>:

This zone links S7 with S8, discussed earlier. The zone consists of strong and moderately strong anomalies on L12 that are southeast of VLF anomaly V8 and an apparent resistivity low zone. A magnetics low anomaly is located at 500W. Altered mineralization is interpreted at the edge of a slight topographic high.

C15 through C17:

These zones are indicated as extending across L10 and L11, where there is no IP coverage. The magnetics plan map (Plate 13) indicates that the zones coincide with

generally higher magnetics readings compared to immediately southeast. This indicates a geologic contact near the southeast part of *C15*.

C15 is poorly defined on L12. The inversion results for L13 indicate a strong feature located 25 metres deep. The anomaly on L9 is modeled as a near-surface source at 675W. **C16** is a relatively narrow zone. It consists of a strong chargeability anomaly on L9 that inversion models as an at-surface source. The moderate chargeability response on L12 is poorly defined. **C17** extends from L9 to L13, although there is no data or the intermediate survey lines. The zone coincides with high and very high apparent resistivity response, typical of quartz mineralization. Inversion results indicate a depth of 10 metres on L9 and at-surface on L13.

8.3 MAGNETICS REGIONS:

The magnetics data are complex and highly variable across the survey area. The colour plan map indicates a number of high and low magnetic regions. Subtle broad variations appear related to east-west trending V10/res-low anomalies, discussed earlier. Sharper anomalies, indicating near surface sources, are best seen from the profile presentations. Negative magnetics anomalies (e.g., L2, 225W) could indicate remnant magnetization that has been tilted since its original formation relative to the Earth's magnetic field.

Reverse magnetization occurs when the rock was formed prior to a reversal in the Earth's magnetic field. Although there are numerous cases of magnetic low anomalies, such as at L3, 150W, they more likely result from alteration or the absence of higher magnetic susceptible materials. The coinciding low apparent resistivity anomaly at L3/150W adds support to an alteration or fault zone at this location.

8.4 VLF CONDUCTOR AXES:

The VLF first horizontal derivative (inphase) plan map Plate 14 was contoured in an east-west direction, although survey lines were run in a northwest-southeast direction. This low angle stretches and skews the anomalies, and therefore depth and dip estimates would require additional processing to correct for this survey angle. Shallow sources have sharper and shorter peak-to-peak distances compared to deep features, all things being equal.

As with the magnetics data, the VLF data can further characterize IP anomalies. Anomalies that have well defined and inverse inphase and quadrature relationships typically result from metallic sources. Anomalies V7, V8, V9 and V10 have well defined inverse inphase/quadrature relationships. VLF anomalies that exhibit strong quadrature response with the same polarity as the inphase response are typical of non-metallic sources, such as overburden, swamps, faults, and alteration. That is because the quadrature response is more responsive to less conductive sources such as siltey and clayey soils. There are no clear examples of this at the survey area, as overburden factors into all anomalies. However, *V2*, *V3* and *V4* seem to exhibit these characteristics along their profiles more so than others at the survey area.

Flat quadrature response with strong inphase response is typical for a conductor located within a more resistive background. Examples of this are *V1*, *V5* and *V6*.

8.5 PREVIOUS WORK:

There were a number of geophysical surveys completed over the present survey area during the past few decades:

- Mattagami Lake Mines, 1970
- Granges Exploration, 1972
- Steep Rock Iron Mines Limited, 1983
- Loydex Resources Inc., 1983
- Aur Lake Exploration Inc., 2009

These are filed under /ClientSupplied on the CD-ROM. Relevant map presentations for each survey were converted to JPEG and combined with the present survey results as overlays. Georeferencing was done using available topographic information indicated on the maps. Most of the maps required a clockwise rotation of 3 to 6 degrees, presumably to account for the magnetic declination. The maps do not overlay exactly, and so discussions regarding coincident anomalies between surveys are based on the fact that the historic data were plotted on ideal grids and therefore not accurate. The present survey was plotted using GPS obtained coordinates, albeit from the magnetometer survey (refer to section 7. Problems and Logistical Issues).

8.5.1 Mattagami Lake Mines

The <u>Mattagami Lake Mines</u> work consisted of fluxgate vertical field magnetics, VLF-EM surveys using the Cutler transmitter at 17.8 kHz, and HLEM (horizontal loop EM) surveys with 400-foot Rx/Tx separation and 1600 Hz (Geonics EM-17). The survey lines were run north south.

VLF anomaly V1 coincides with VLF 33-1 and HLEM 'D'. Anomaly V4 and V6 are part of 33-6, which is indicated to curve down towards the 'Pond'. This curved section is parallel and along L4, and therefore difficult to confirm from the present survey. VLF 33-6 also extends to V9 further west. However, the HLEM survey indicates conductor 'E' coincides with V4 as interpreted from the present survey.

The presence of the HLEM anomalies is significant because terrain is relatively flat and therefore not a factor for the large 400-foot Tx/Rx spacing. HLEM surveys are typically done at three frequencies. For base metal exploration, these typically include 440 Hz, 1760 Hz and 14080 Hz, for example. The lower frequencies have deeper penetration but lower resolution. The opposite is true for higher frequencies. The large intercoil separation attenuates the response amplitude of shallow sources, compared to the response from smaller separations. For this survey at 1600 Hz, the HLEM anomalies are quite wide due to the combination of multiple sources and the large intercoil separation. Nonetheless, the interpreted anomaly axes correlate well with the present interpreted VLF axes (i.e., VI and V4).

The magnetics map presented with the Mattagami work indicates a few magnetic high zones that correlate with anomalous areas from the present survey. No discernible trend can be seen in the Mattagami data, although the contours appear parallel to the VLF axes. The Mattagami survey measured only the vertical component of the magnetic field, whereas the present survey measured the total field. The fluxgate survey provided a filtered appearance to the data compared to the present survey.

8.5.2 Granges Exploration

Five holes were drilled by Granges in 1972, which followed-up VLF anomalies from the Mattagami work. The nearest boreholes, SPO-17 and SPO-18, are located approximately 1 km west of the end of L13. They were drilled at 50 degrees measured at the collar. Depths discussed below are along the boreholes.

SPO-17 intersected diorite from 35 feet to 142 feet down the borehole, and near solid graphite from 142 feet to 146 feet. The hole intersected 10% graphite and 30% pyrrhotite between 168 feet and 170 feet. Sulphides of mostly low concentrations were detected throughout the borehole from under the diorite to 219 feet. The borehole ended at 227 feet.

SPO-18 intersected diorite from 22 feet to 99 feet. Thirty percent pyrite and other minor sulphides extended from 99 feet to 102 feet. Minor percentages of sulphides extended from 102 feet to 189 feet with an interval of 30% pyrrhotite and 10% graphite between 149 feet and 154 feet.

The intersected graphite and sulphide mineralization are of sufficient concentrations to produce VLF and magnetics anomalies that likely led to the selection of these drill targets. Assays were for base metals copper and zinc. There were no gold assays indicated on the drill logs. These intersections would likely indicate long spectral *Tau* values where graphite and coarse grained sulphides are present and possibly short *Tau* in sections that are disseminated. The borehole logs do not specify relative or absolute grain sizes for the sulphides.

8.5.3 Steep Rock Iron Mines Limited

The <u>Steep Rock</u> surveys included total field magnetics survey using a Scintrex Proton Precession MP-2 magnetometer, and VLF-EM surveys using a Geonics EM16 receiver with Cutler transmitter at 17.8 kHz. This configuration is similar to the present survey, although the Cutler transmitter now operates at 24 kHz. Also, the Steep Rock work was carried out on north-south survey lines and did not include coverage north of the 'Pond', or west of ~625W on L13.

VLF anomalies V6 through V10 appear to have been detected by the Steep Rock survey. V11 shows no response. Notable is the quadrature response that is generally in synch with the inphase response. The present survey indicated inverse responses at V10, for example. This discrepancy could be related to the Steep Rock instrument needing calibration. The instrument from the present survey was brand new and calibrated immediately prior to this survey.

The present survey defined V10/res-low to the edge of the survey area on L6. The Steep Rock VLF survey coverage extended further to the east. The eastern continuation of the V10 feature is poorly indicated 100 metres to 400 metres east of where it was defined on L6 by the present survey. It is slightly better defined 500 metres east where Robinson and MacLean (MNDM Open File Map 185, Geology of the Six Mile Lake Area) noted outcrop with massive and pillowed flows, but changes direction and might splay or terminate beyond.

The Steep Rock report refers to "Envelope 2. VLF Survey Filtered Data 7 Maps". They were not available at the time of this report. These maps presumably indicate the interpreted conductor axes referred to in the report. The magnetics presentation indicates a number of single- and multi-line anomalies that do not exhibit any broad-based discernible trends across the survey area.

8.5.4 Loydex Resources Inc.

The <u>Loydex</u> work was also completed on north-south survey lines completed north of an east-west line drawn across the top of the 'Pond'. The work consisted of total field magnetics surveys using a GSM-8 Proton Precession Magnetometer and Geonics EM16 VLF-EM receiver. Although not indicated, the Cutler transmitter at 17.8 kHz was likely used. Overlay positioning of the Loydex maps shows obvious distortions of at least 50 metres, such as the access roads in the area of the IP transmitter base location.

VLF-EM anomaly 'F' coincides with V1. EM Anomaly 'G' appears to coincide with V4 and V9. The anomaly appears to bend towards V6 as was the case with the Mattagami VLF interpretation. An unnamed Fraser filtered VLF anomaly appears to extend east-northeast from V3.

The magnetics data are contoured parallel to the VLF conductor axes. Magnetic zones are indicated at V1 and at or near V3 and V4, indicating the potential for magnetic sulphides.

Loydex also carried out a detailed geologic investigation which included bulk sampling at conductor 'F'/VI. They noted semi-massive sulphides with pyrite and minor amounts of pyrrhotite and chalcopyrite. The follow-up geologic work was completed after a logging company had stripped much of the area and removed the geophysics survey grid. It is uncertain if this included the present survey area, and if so, how accurate the follow-up work related to the geophysics work.

Assay results from the work at the 'F' conductor were not favourable for follow-up. The Loydex report recommended:

"A potentially more favourable stratigraphic position, given the mafic suite of volcanic underlying the property, would likely be further south at the top of the Jumping Lake – Six Mile Lake mafic volcanic, i.e., stratigraphically subjacent to the upper felsic volcanic unit."

The Loydex programme targeted geophysical anomalies that were broad based. That is, economic quantities of gold mineralization are typically associated with disseminated sulphide mineralization. VLF and magnetics data should be used to help prioritize IP targets, but should not be used solely to select target areas. Most of the short time constant IP responses, which are typical of disseminated sulphides, are not associated with VLF anomalies.

8.5.5 Aur Lake Exploration Inc.

<u>Aur Lake</u> commissioned an IP survey in late 2009. The survey consisted of a four dipole, dipole-dipole array on L400, L300 and L200. These correspond to the location of the present survey's L4, L3 and L2. An additional IP line was surveyed along a skidder trail that runs roughly perpendicular to these survey lines. The 2009 survey detected several anomalies that warranted the present follow-up investigation. The IP pseudosections that were reviewed appeared smoothened or filtered; however, this could also result from the software used for contouring and presentation. A small magnetics survey was also completed, although the results were not diurnally corrected.

The IP data on L400 is located at L4 for the present survey. The response from the chargeability and apparent resistivity sections correlate quite well. Chargeability amplitudes are approximately 25% higher for the 2009 survey compared to the present survey. Similarly, the L300 2009 data coincides with the present survey L3 although there appears to be problems with the apparent resistivity data in the northern/western half of the 2009 survey data. Also, chargeability amplitudes are more suppressed or DC-shifted downwards compared to the present survey.

It was noticed during the present survey that negative or suppressed chargeability responses can occur if too much electrical current was transmitted. In most cases, a very narrow range of electrical currents was used to provide the higher amplitude responses. This negative shift is a different phenomenon from negative or depressed chargeability responses that can occur under the peak location of pole-dipole anomalies. For example, the negative response on L3 at 500W in the present survey is a result of the normal IP response from a very strong chargeability anomaly. Strong drops in apparent resistivity (e.g., L3, 150W) can also force negative chargeability shifts.

The skidder trail IP line extends from approximately L4 500W at S1 to approximately L9 625W at C15 next to V9. Chargeability anomalies were detected at the corresponding present survey anomalies. Between L4 and L9 where the present survey has no coverage, the C2 and/or S1 zones appear to extend almost 100 metres towards the southwest from L4. However, the zone limits are not defined northwest or southeast of this IP line.

Aur Lake Exploration also carried out an SGH (soil/gas/hydrocarbon) survey to analyze samples for hydrocarbon compounds. The laboratory submitted a report that described their experience with the method and a few untrimmed 2d and 3d colour contour plan maps. The gridded data in JPEG format were trimmed and overlaid on the present survey (refer to Geosoft format file <PlanMaps.map>, CD-ROM Appendix C). The SGH1 overlay provides better correlation to gold compared to SGH2, according to the laboratory that analyzed the results.

The SGH1 overlay indicates a number of reddish zones, which are deemed favourable SGH regions for gold exploration. The strongest anomalies all coincide with IP anomalies, except for one at the northwest end of L9. In that case, the IP array may not have extended far enough to detect sulphide mineralization in a freshly stripped quartz outcrop at the shoreline. Strong SGH1 anomalies are indicated at *S8* and immediately east and west of *S9* at *C5* and *C13* respectively. Other strong SGH anomalies are at *C15* and *C17*. These co relatable SGH1 anomalies could be used to elevate the significance of the coinciding IP anomalies.

Note that because the IP anomalies are indicated from the pseudosections, inversion results should be referred to for correct positioning of deeper dipole anomalies. For example, the modeled lateral location of the n=4, 340 mV/V, 0.1 s anomaly indicated at 200W on L10 pseudosection (refer to Plate 0) is uncertain due to interference from adjacent anomalies. Therefore, SGH anomalies that are adjacent to indicated IP zones could be directly related.

9. **RECOMMENDATIONS**

The present geophysical surveys were analyzed and results compiled on the presentation plates. Historic and recent geophysical and geological information were also reviewed to aid with the interpretation of the present surveys. Overlays for these data are included on the CD-ROM: <PlanMaps.map>, Geosoft Oasis Format. Although useful as a guide, none of the information from the past geophysical and geologic work provided a clean signature for economic concentrations of gold or base metal mineralization within the survey area.

A relatively large number of IP anomalies were detected across the survey area. Exploration target locations were selected for most of the IP zones. Highest priority is given to short IP *Tau* anomalies that have the best potential for economic quantities of gold mineralization. IP surveys over base metal mineralization typically return long *Tau* values. However; given the large number of long *Tau* IP anomalies at the survey area, additional EM surveys are required to better prioritize these features. As such, long *Tau* IP anomalies are mostly rated 'Lower priority'. Time domain EM surveys can be used to further prioritize these long *Tau* anomalies, although graphite was noted in historic boreholes to the west, and this can cause interference and misleading anomalies.

Tested targets should be assessed for economic viability. Higher *MIP* values typically indicate higher quantities of sulphides. This may or may not be relevant to economic grades of gold. Base metal deposits almost always occur with high *MIP*, although high *MIP* values don't necessarily indicate base metals.

The present IP survey identified a large number of chargeability anomalies and targets throughout the survey area. Chargeability zones were outlined to assist with quantifying their lateral size. In the absence of geologic data, targets within broader and larger zones should be given higher priority for testing compared to targets within narrow zones, all things being equal.

The following short *Tau* targets are numbered according to the overall lateral area of the corresponding chargeability zone. The medium and long *Tau* targets are sorted from highest to lowest priority and highest *MIP* amplitude to lowest *MIP* amplitude for potential coarse-grained or linked base metal targeting.

Short Spectral IP Tau targets (e.g., Gold)

T9: *High Priority*: L10/125W – test *S9/C7* near end *V10*/res-low axes at 15 m depth; *MIP*=320 mV/V.

T9a: *High Priority*: L8/210W – test *S9* near surface; *MIP*=336 mV/V.

T10: *High Priority*: L13/50W – test *S10* at 25 m depth; *MIP*=305 mV/V.

T5: *High Priority*: L3/50E – test S5 at 30 m depth; *MIP*=164 mV/V & 324 mV/V.

T8: *High Priority*: L11/375E – test *S8* near surface; *MIP*=270 mV/V.

T2: High Priority: L4/460W – test S2 near surface; MIP=310 mV/V.

T1: *High Priority*: L4/500W – test *S1* at 15 m depth; *MIP*=249 mV/V.

T4: *High Priority*: L4/175W – test *S4* at 20 m depth; *MIP*=285 mV/V.

T7: *High Priority*: L13/575E – test *S7* at 20 m depth; *MIP*=232 mV/V.

T6: High Priority: L13/625E – test S6 at 15 m depth; MIP=262 mV/V.

T3: *High Priority*: L3/340W – test *S3* and *V3* at 30 m depth; *MIP*=160 mV/V.

T11: Lower Priority: L10/190W – test *S11* at 20 m depth; *MIP=294 mV/V*.

Medium to Long Spectral IP Tau targets (e.g., Base Metals)

T19: High Priority; MIP=344 mV/V: L8/300E – test C10 near surface.

T16: *High Priority; MIP=328 mV/V*: L10/50W – test *C7* near surface and possible vertically shifted rock south of *V10*/res-low.

T26: Lower Priority; *MIP*=545 mV/V: L9/750W – test *C16* near surface.

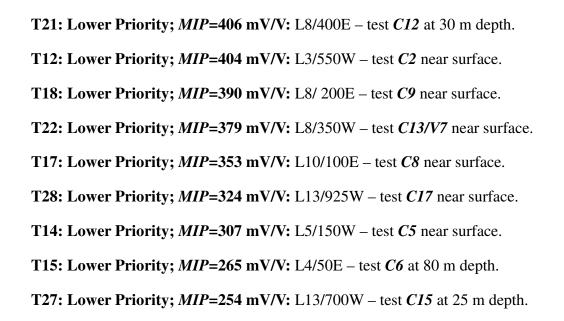
T20: Lower Priority; *MIP*=432 mV/V: L6/300E – test *C11* at 30 m depth.

T23: Lower Priority; *MIP*=424 mV/V: L9/325W – test *C13* near surface.

T25: Lower Priority; *MIP*=422 mV/V: L9/675W – test *C15* at 10 m depth.

T13: Lower Priority; *MIP*=417 mV/V: L3/200W – test *C4* near surface and 20 m depth.

T24: Lower Priority; *MIP*=411 mV/V: L12/525W – test *C14* at 15 m depth.



The targets should be prioritized further based on geologic information. More than one round of drilling might be necessary to test sufficient numbers of these targets before a definitive answer regarding the ideal geophysical signature for economic mineralization is known.

'Near surface' targets could potentially be exposed by stripping or trenching if the overburden is not too thick or wet. Additional geophysical coverage is recommended to fill gaps in coverage where warranted. Borehole IP might be useful to help quantify sulphides intercepted, and in certain cases, detect and determine direction to off-hole sulphides. Geonics EM31 surveys can be used to map-out near surface stringer or massive sulphide mineralization.

10. CONCLUSIONS

There are a large number of IP anomalies that have characteristics of gold and base metals. As these targets are tested, a clearer geophysical signature for favourable mineralization at this property can be developed and target prioritization refined. The targets identified above represent a relatively wide range of geophysical scenarios that could contain favourable mineralization.

Attempting to prioritize these targets beyond 'high' vs. 'lower', 'near surface' vs. 'at depth', and 'wide zone' vs. 'small/narrow zone' with the information presently available can lead to unnecessary disappointment.

Mineralization might not necessarily be in economic concentrations if associated with quartz and coarse sulphide crystals, for example, even if they occur in high concentrations. These showings typically indicate the 'smoke'. A more favourable and minable scenario is moderate or even low concentrations of gold over wide intervals, such as is typical when associated with disseminated (short *Tau*) sulphides.

Nonetheless, the preferred style of economic gold and base metal mineralization should be determined by a qualified geologist familiar with regional and local geology, and work done at the survey area to date.

If there are any questions about the surveys or this report, please do not hesitate to contact the undersigned.

Sincerely, ClearView Geophysics Inc.

Per:

Joe Mihelcic, P.Eng., M.B.A. Geophysicist/President JULY 31, 2010

11. STATEMENT OF QUALIFICATIONS, JOE MIHELCIC

I, Joe Mihelcic, Hereby certify that:

- 1) I am a geophysicist with business office at 12 Twisted Oak Street, Brampton, Ontario L6R 1T1.
- 2) I am the owner of ClearView Geophysics Inc., a company performing geophysical services.
- 3) I am a graduate of Queen's University in Applied Science, Geological Engineering (B.Sc. 1988) and of Ivey Business School (M.B.A. 1995).
- 4) I am a member of the Professional Engineers of Ontario (PEO).
- 5) I have practiced my profession for over 20 years.

Signed _____

Joe Mihelcic, P.Eng., M.B.A. Brampton, Ontario July 31, 2010 **APPENDIX A – Instrument Specifications**

APPENDIX B – Transmitter Field Notes

APPENDIX C – Plates & CD-ROM

