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ASSESSMENT REPORT ON

GLACIAL MATERIAL AND FEATURE MAPPING AND SPATIOTYEMPORAL GEOCHEMICAL HYDROCARBON (SGH) SURVEY

ON THE

LITTLE GREEN LAKE PROPERTY,

DARLING TOWNSHIP

EASTERN ONTARIO

By

V.N. Rampton, Ph.D., P. Eng. (Ontario)

November, 2022
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1.0 Summary

The core of the Little Green Lake claim group lies at the intersection of the Mounts Saint Patrick fault (MSP) of Proterzoic age and the Robertson Lake Shear Zone (RLSZ), the latter being host to numerous gold occurrences of a variety of types. The head of regional gold dispersal trains (humus, B-horizon, till, heavy minerals) appear to source at the south edge of this intersection. Re-examination of the Quaternary landforms and Digital Elevation Model (DEM) (2m) indicate that erosion and deposition of bedrock and unconsolidated sediment during the initial stages of deglaciation was by pressurized turbulent subglacial meltwater that eroded and transported all materials southward with no regard for the northward-facing scarp along the south side of the MSP fault or to topography in general. This flow caused displacement of large boulders with gold enriched veinlets to be moved up the MSP fault trace. Southerly trending boulder trains also mark this event.

During the later stages of deglaciation, the ice sheet shrunk and the subglacial meltwater was under less pressurized. During this phase, eskers begun to develop in the lowland north of the MSP fault scarp, first flowing southward and then flowing eastward parallel to the MSP fault scarp before turning south through a gap in the highlands occupied by Napier Lake. These eskers contain a gold dispersal train that appears to source in the lowland below the MSP fault scarp to the west of Little Green Lake.

Because of the thickness of glaciofluvial sediments in the potential source area for gold at the intersection of the MSP fault and RLSZ, a SGH soil survey was completed over the northern portion of the core of the Little Green Lake claim group; this area includes the proposed source of gold in the lowland on the north side of the MSP fault scarp. Results from the SGH sampling strongly indicate the presence of a gold target in the lowland to the west of Little Green Lake. This could well explain the gold dispersal (i) during in the early stages of deglaciation when subglacial melt water flowed across the complete area to the south and (ii) local dispersal trains within eskers, reflecting lower pressures within the subglacial meltwater. The SGH

produced a gold target with a high rating of 5 out of 6 within the lowland. The SGH vector extends southward parallel to the trace of the RLSZ.

The lowland to the north of the MSP fault is the area with the most merit for further exploration. Electromagnetics surveys have proved relatively inefficient in the area. The overburden is too deep for effective trenching. A broad drilling campaign may be necessary.

2.0 Introduction

This report presents the results of a detailed glacial materials and features mapping program and a spatiotemporal geochemical hydrocarbon (SGH) survey, previously referred to as a Soil Gas Hydrocarbon survey, the Little Green Lake Property (LGL). Finally further exploration is recommended.

Improved understanding of the movement and dispersal of rock under a decaying continental glacier throughout Canada and the availability of DEM in eastern Ontario has allowed the better determination of the dispersal of gold at, and adjacent to, the LGL claims in Darling Township. The potential source area is largely covered by unconsolidated sediments of some depth. SGH was considered to be the only reasonable investigative technique that could indicate subsurface locations with good potential for gold mineralization in this type of terrain. Mapping of the glacial geology in the area underlying that covered by the SGH survey was completed to confirm dispersal patterns and to facilitate the determination of drill targets. A quick determination of the glacial geology in the surrounding area through DEM and air photo interpretation and the authour's past experience in mapping of surficial deposits in the area was undertaken to confirm the nature of dispersal.

John Adams, P. Geo (retired) was responsible for designing the sampling grid, the soil sampling, assisting with mapping of the glacial geology and the preparation of all maps and figures. Vern Rampton, Ph.D., P.Eng. (Ontario) was responsible for the mapping of the glacial geology, logging of the shallow test pits, data processing and interpretation and the final report writing.

3.0 Location and Access

The LGL Property is located in Darling Township, Lanark County, eastern Ontario and lies about 90 kilometres west of Ottawa (Figure 1). Access to LGL Property and the Claims is by a number of cottage and logging roads leading west from Highway 511 (Figures 1 and 2), at a distance of about 15 km southeast of the village of Calabogie.

4.0 Claims

The Little Green Lake claim group is comprised of 12 claims. Specifically, claims 118923, 118924, 136606, 152526, 155885, 161706, 171871, 240752, 216482, 216483 and 282492. The portion of the claims that lies on crown land is also outlined on Figure 2.

The Claims are held in the name of Vern Rampton on behalf of a syndicate, the Little Green Lake Partnership, comprised of Rampton Resource Group Inc, Marion Gleeson, Tyrell Sutherland and John Adams.

5.0 Previous Work on the LGL Property

The LGL Property and immediately surrounding areas have been extensively explored over the years by numerous mining companies and prospecting groups including syndicates related to those above. However, that part covered by a good part of the current claims has received relatively little attention due to the thick overburden cover.

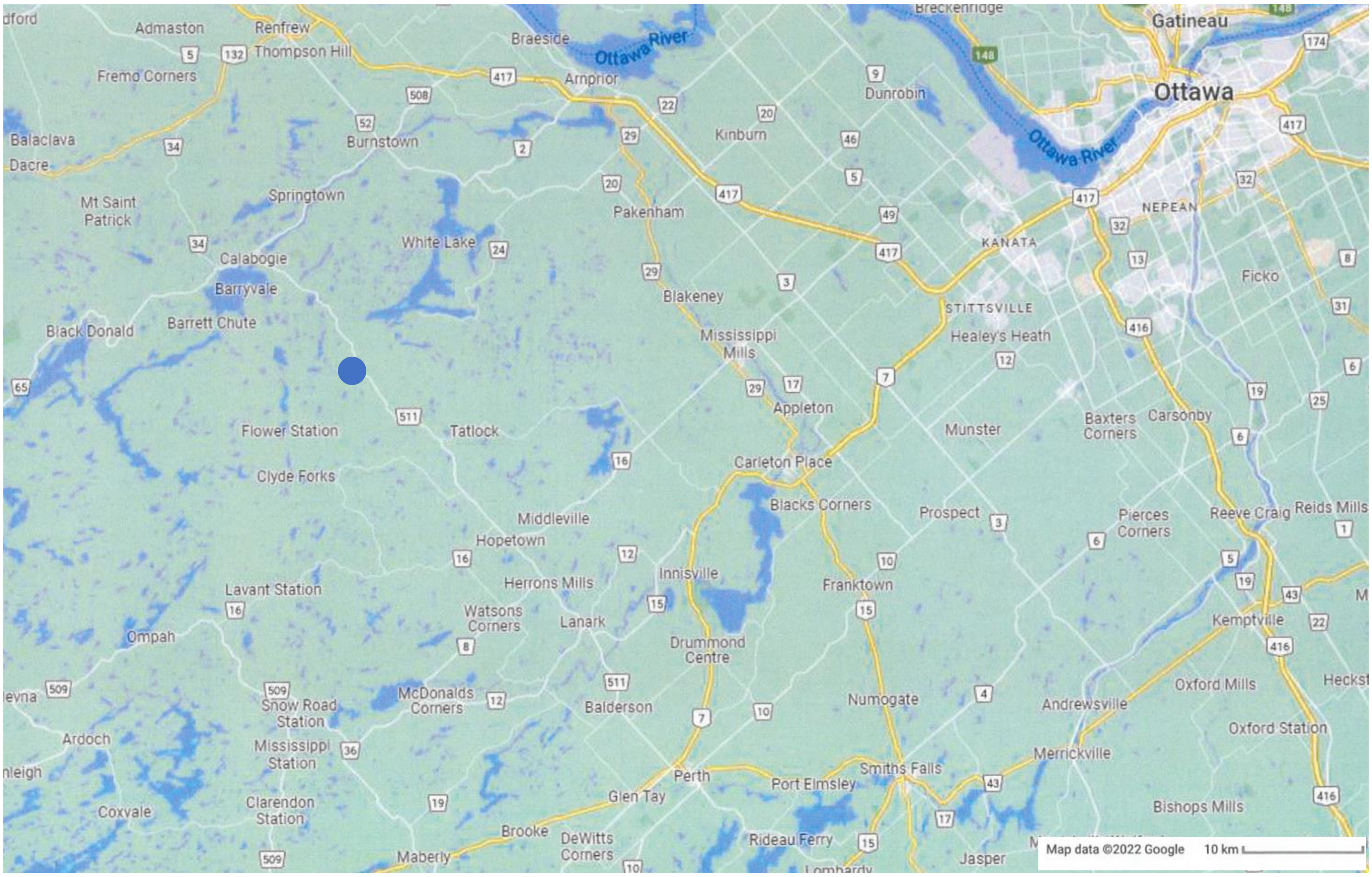


Figure 1. Location of Little Green Lake Claims

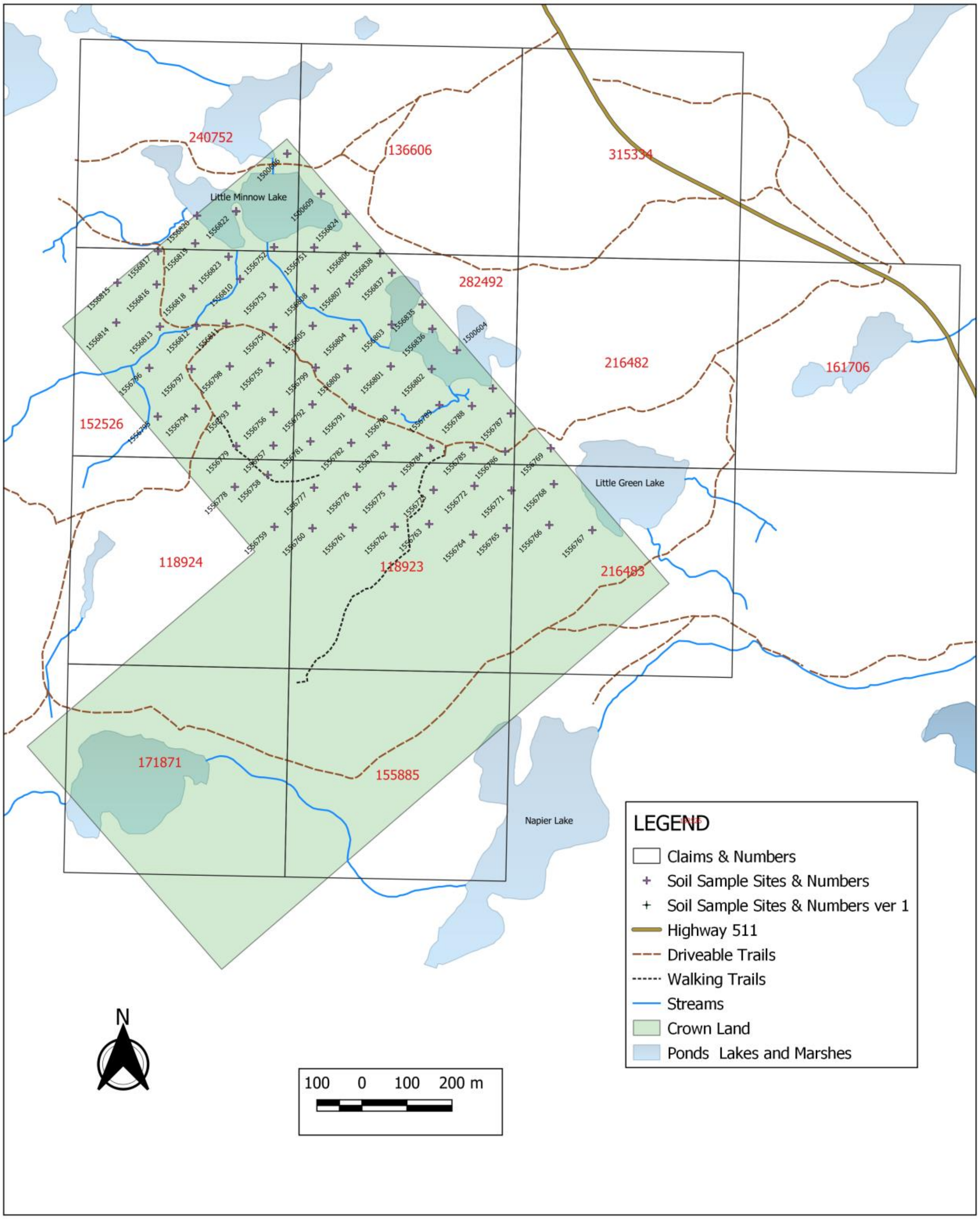


Figure 2. LITTLE GREEN LAKE CLAIM GROUP & SOIL SAMPLE SITES

The following list details the surveys completed on the LGL Property or on adjacent areas.

1962: A high grade gold-silver (1.5oz Au/ton and 12oz Ag/ton) bearing boulder (Ranworth boulder) was found 400 metres south of the Little Green Lake gold occurrence (L.22, C.II Darling Township). Rankin and Associates drilled a series of six short holes under and north of the Ranworth boulder. Hand trenching was also carried out on the Little Green Lake gold occurrence.

1963: Noranda completed a mapping and soil geochemical sampling program on, and in the vicinity of LGL property. Samples were analyzed for copper and, in selective areas, mercury. Cu anomalies were concentrated in the area of the Little Green Lake occurrence, but Hg anomalies were focused to its west.

1967: Siscoe Metals completed geological mapping and a soil geochemical (Cu) survey.

1968: Siscoe Metals completed 8 diamond drill holes in the vicinity of the Little Green Lake showing. They defined extensive zones of alteration (carbonatization, chloritization and silicification) and shearing within the Lavant Gabbro Complex, but few rocks were assayed.

1979: C.F. Gleeson staked the immediate area of the Little Green Lake showing and completed a humus gold survey. Southwest trending Au anomalies were defined northwest of Little Green Lake in the vicinity of the Ranworth boulder and around the Little Green Lake gold occurrence.

1981: The property was optioned to Dungarvon Resources and a detailed geochemical orientation study for Cu, Pb, Zn, Ag, Sb, Hg and Au in humus and soil was completed.

1983: Gleeson-Rampton Explorations carried out a regional till (various fractions) and a humus sampling program at 1km centres, which indicated significant gold mineralization along the Robertson Lake Mylonite Zone (“RLMZ”).

Detailed (100m x 100m) till + humus sampling was completed around the Little Green Lake occurrence. High values were present to the west of the Little Green Lake occurrence.

1984: Lac Minerals – Saunders Geophysics carried out airborne magnetic, electromagnetic and VLF surveys, which indicated strong conductors in various areas.

1984: Lac Minerals – Gleeson-Rampton Explorations mapped geology at 1:10,000 and delineated zones of mafic mylonite and mylonitized ferroan dolomite. They completed a map of the Quaternary geology and detailed humus sampling for gold on selected targets within and beyond the LGL Property.

1984: Lac Minerals – Gleeson-Rampton Explorations completed trenching and located trondhjemite dyke grading up to 0.48oz Au/ton in RLMZ to the east of the Little Green Lake occurrence.

1985: Lac Minerals – C.F. Gleeson & Associates Ltd. detailed humus survey (200′ x 100′) over C.II, L.21 (E½) and C.III, L.21 (W½) and outlined gold anomalies.

1985: Lac Minerals – C.F. Gleeson & Associates Ltd. completed VLF, mag and IP on claim group, defined chargeability and VLF-EM anomalies along southeast edge of claims S0673503, 502.

1985: Lac Minerals – Mertens & MacNeil's IP to southwest of previous surveys delineated high chargeability and low resistivity in areas that are possibly underlain by fault displaced strike extensions of structures underlying the Claims.

1985: Lac Minerals; 8 diamond drill holes on their "Napier Lake Zone" defined general low dip of schistosity to SE and a gold bearing zone (800 metres in length) in highly mylonitized and altered gabbro. The Napier Lake Zone bears affinities to well-known gold deposits of the Superior Province: intense seritization, ankerite alternation, the presence of arsenopyrite, bismuthinite, tourmaline and gold-pyrite relationships.

1985: Lac Minerals detailed mapping of claims adjacent and west of the Napier Lake Zone defined general low dip of schistosity to SE.

1986: Biogeochemical studies of gold using maple leaves research carried out by R.H.P. Banville to fulfill requirements for a B.S.c. (Honours) degree at Department of Geology, University of Ottawa in May 1987 delineated anomalies areas west of the Napier Lake Zone.

1988: Homestake Minerals: trenching; few nearby trenches on geochemical anomalies bottomed in overburden. Completed 5 diamond drill holes (659 metres) on claims 593640 and 593641, best values were 0.21g Au/t over 2 metres and 0.32g Au/t over 0.5 metres. Also, split and analyzed portions of holes not analyzed by Lac Minerals, e.g., LGR13-17. LGR 15 and 16 lie on possible fault-displaced strike extension of structures underlying the Claims.

1995: Gleeson-Rampton Explorations (OPAP grant to Rampton) drilled a 91.4 metre hole on the Napier Lake Zone near its northern end. Felsic mylonite and quartz, chlorite, graphite, pyrite schist were encountered, but the highest gold value obtained was 385 ppb/t over 0.75 metres.

1996: Gleeson-Rampton Explorations (OPAP grant to Rampton) trenched and drilled a number of holes on the Napier Lake and Nichols Lake Zones. One 91.6 metre hole on the Nichols Lake Zone had intercepts of 2.5g Au/t over 1.4m and 2.5g Au/t over 1.9m within pyritized mafic mylonites associated with quartz carbonate veins.

1999: Gleeson-Rampton Explorations (OPAP to Adams) completed mag and geochem surveys to east of Nichols Lake and drilled one 84 metre hole on Nichols Lake East Zone, highest gold value being 0.9g Au/t over 1.5m.

2004: Gleeson-Rampton Explorations completed a soil gas hydrocarbon survey (SGH) on claims 593641, 593642 and 1191133 north-east of Nichols Lake. An oval shaped anomalous areas up to 100m x 200m was thought to define a new zone of sulphide mineralization containing gold.

2009: Gleeson-Rampton Explorations completed a three holes 900 foot diamond drilling program testing the anomalies delineated by the 2004 soil gas survey and an IP anomaly identified in 1985. The diamond drill holes targeting the soil gas anomalies revealed minor pyrite, traces of chalcopyrite and occasional tourmaline and arsenopyrite in fragmented quartz veins. The hole targeting the IP anomaly returned 0.3m interval of Type 2 mineralization grading 1.37g/t.

2011: Dale Sutherland of Activation Laboratories Ltd. produced a supplemental report to the 2004 report prepared for Gleeson-Rampton Exploration. This supplemental report utilized SGH Pathfinder Classes of compounds whereas the 2004 report utilized individual SGH pathfinder compounds. In 2011, a specific area with a confidence rating of 4.0 out of 6.0 was defined for gold mineralization.

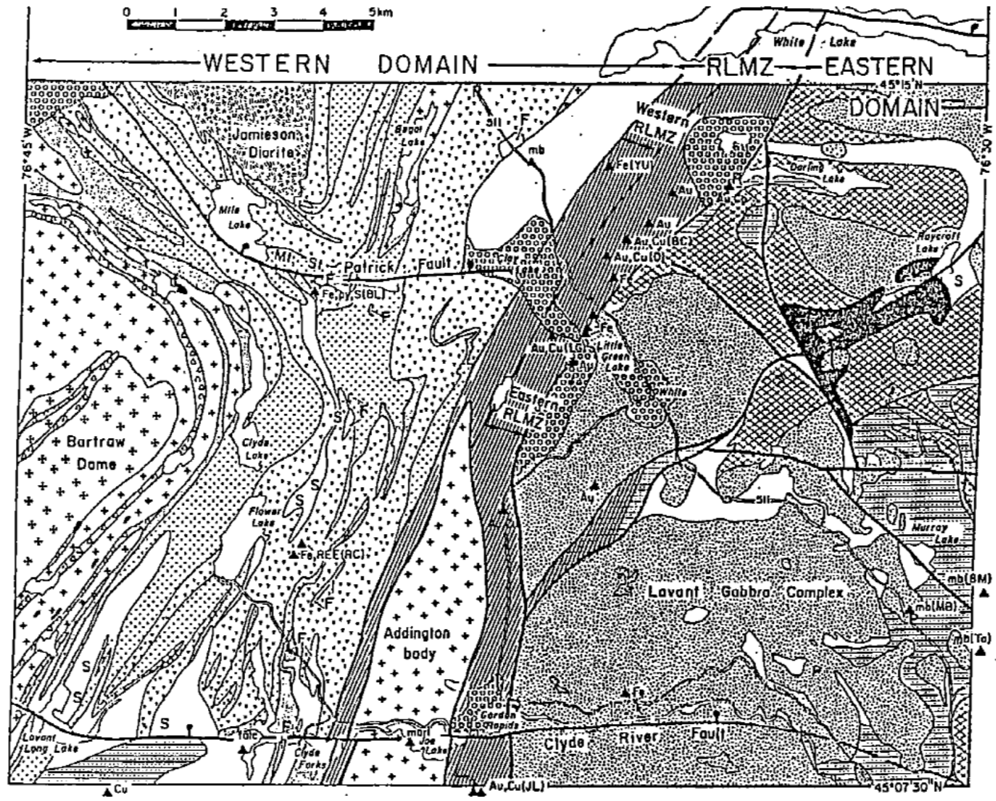
2014: The Little Green Lake Partnership completed detailed mapping and prospecting project to the west of Nichols Lake. It determined that quartz carbonate veins in dolomite, were not present in this area.

6.0 Geology and Gold Mineralization (after Rampton, 2004)

Government mapping and the above surveys indicate that the LGL Property lies within the northern end of the Lavant-Darling Camp (gold) on the east margin of the Robertson Lake Mylonite Zone “RLMZ” (Figure 3). The RLMZ separates Precambrian rocks in the Clyde Forks area into an Eastern and Western Domain (Easton and DeKemp 1987). The Eastern Domain includes mafic flows, pyroclastic rocks, dolomitic and calcitic marbles all of which are intruded by gabbros, diorites and tonalities of the Lavant Gabbro Complex. Folding is tight and the general metamorphic grade is lower amphibolite, although the RLMZ rocks are retrograded to green schist facies. Late Paleozoic faults cut the domain into several structural blocks. The Western Domain is characterized by a suite of mafic, intermediate and felsic volcanic rocks, metasediments of predominantly volcanic provenance and dolomitic and calcitic marbles. Structural deformation is greater west of the RLMZ. There the rocks are middle to upper amphibolitic facies.

The RLMZ is a major tectonic feature that extends 90km from the Precambrian-Paleozoic boundary, south of the property, to White Lake, well to the north of the property. The zone is approximately 2km wide and dips south to southeast from 40° to 50° on the western margin to 15° to 30° on the eastern margin. The structure is interpreted as a low-angle thrust fault along which rocks of the Eastern Domain have been thrust westward over the rocks of the Western Domain. The mylonitic rocks within the RLMZ vary from south to north in relation to the adjacent country rocks. In the south, the zone is split by the Addington Lake Pluton into a wider eastern zone of mylonitic mafic metavolcanic, gabbros and marbles and a narrower western zone of mylonitic felsic metavolcanic rocks (Figure 3). Moving north of the Pluton, the zones persist with an eastern zone of mylonitic amphibolite and metadiorites. Still further north, the nature of the western zone is modified by the addition of mylonitic dolomitic marbles.

The majority of the gold occurrences have been found closer to the eastern margin of the RLMZ (Figure 3 and 4). Some sixteen gold occurrences have been identified by Gleeson et al. (1989) in the area from south of Joes Lake to Darling Long Lake. They have identified the following five styles of mineralization:



Quaternary cover

P Paleozoic rocks, regoliths

mylonite (Robertson Lake Mylonite Zone (RLMZ))

EASTERN DOMAIN

gabbro, diorite, tonalite

calcite marble

dolomite marble

pyritiferous metasediments

mafic metavolcanics

WESTERN DOMAIN

muscovitic metasediments (Flinton Gp.)

diorite

granite gneiss

tonalite gneiss

anorthosite

marble breccia

calcite marble

dolomite marble

siliceous clastic metasediments, in part volcanic-derived

intermediate to felsic metavolcanics

amphibolite (mafic metavolcanics)

fault, bar on downthrown side

S Stromatolites

▲ mineral occurence, former mine, quarry

ABBREVIATIONS

Au – gold
Cu – copper
Fe – iron
mb – marble
py – pyrite
REE – rare-earth elements
S – sulphur

BC Bradford's Creek
BL Blithfield pyrite mine
BM Blue marble
D Darling
JL Joe Lake
LG Little Green Lake
MB Marble Bluff
RC Rodenhurst-Coldwell
TA Tallock

Figure 3. Geology of Darling area with major mineral occurrences and deposits (from Easton and DeKemp 1987).

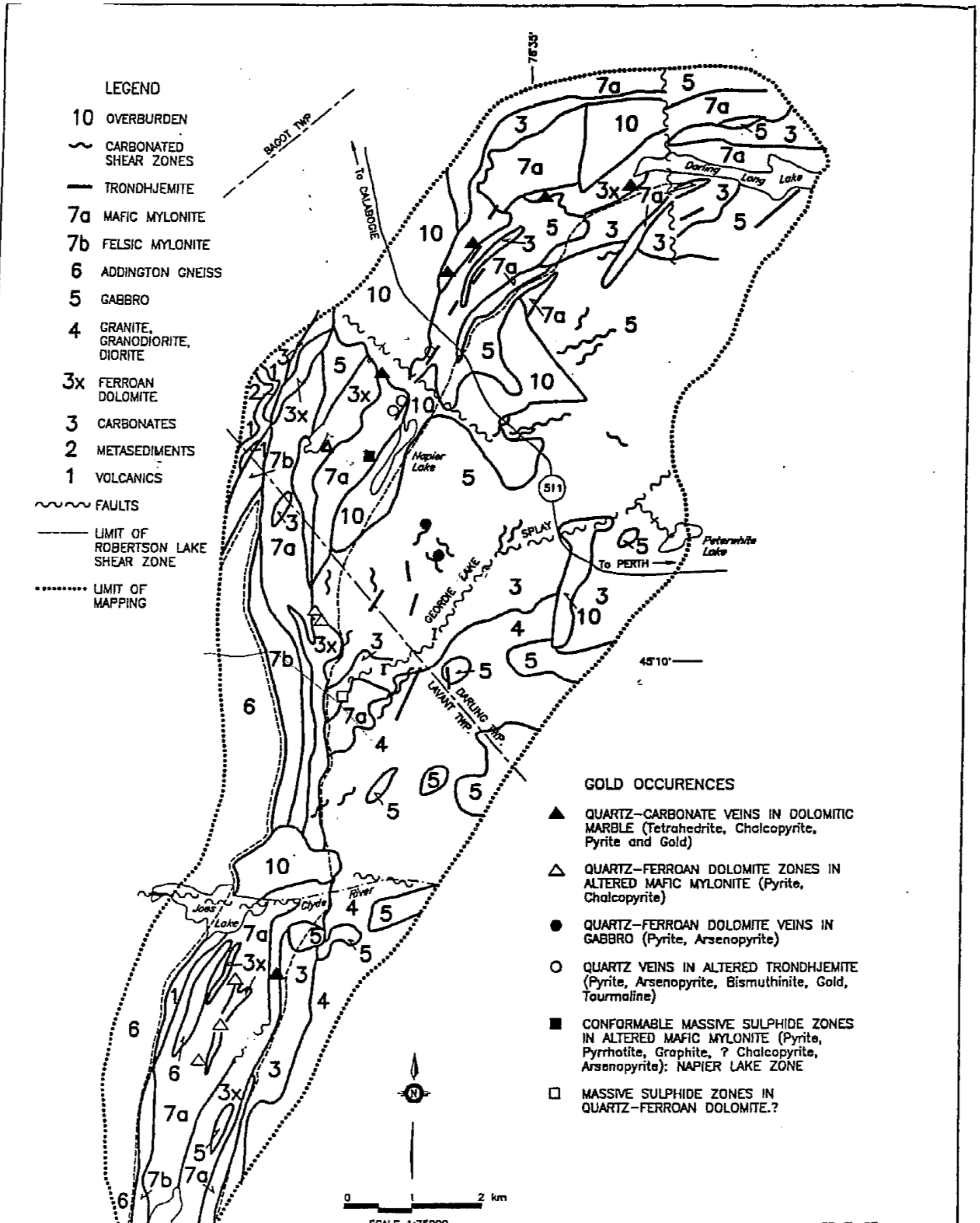


Figure 4. Geology: Parts of Darling and Lavant Townships.

Type: 1. quartz-carbonate veins in dolomitic marble (tetrahedrite, chalcopyrite, pyrite and gold) – 6 occurrences

2. quartz-ferroan dolomite zones in altered mafic mylonite (pyrite, chalcopyrite) – 4 occurrences

3. quartz-ferroan dolomite veins in gabbro (pyrite, arsenopyrite) – 1 occurrence

4. quartz veins in altered trondhjemite (pyrite, arsenopyrite, bismuthinite, gold, tourmaline) – 4 occurrences

5. conformable massive sulphide zones in altered mafic mylonite (pyrite, pyrrhotite, graphite, chalcopyrite, arsenopyrite) - 1 occurrence

Of the sixteen gold occurrences that have been identified in the map area, six (all of type 1) were previously known; the remainder has been found as a result of more recent exploration following up geochemical and geophysical (IP + VLF-EM) anomalies (Gleeson et al. 1989). The occurrences defined by the 1996 drill hole on the Nichols Lake Zone hereinafter defined as the "Nichols Lake South Zone" best fit the Type 2 style of mineralization. High grade massive sulphide boulders (up to 20g Au/t) hosted in quartz-ferroan dolomite also have been found 4km SSW of Little Green Lake. However, their source has yet to be located.

The present LGL claims under investigation are the host to a type 1 quartz-carbonate veins in dolomitic marbles (tetrahedrite, chalcopyrite, pyrite and gold) occurrence. In addition, two quartz veins in altered trondhjemite (pyrite, arsenopyrite, arsenopyrite) are present.

As indicated on Figures 3 and 4 the RLMZ is a highly mineralized structure with numerous gold showings of various types along its extent. The most continuous, albeit sub-economic to date, deposit type is the Type 5 deposit on Figure 4 (conformable massive sulphide zones in altered mafic mylonite). Drilling by Lac Minerals outlined this deposit near Napier Lake where 0.8g Au/t over 4.9 metres, including 1.2g Au/t over 3 metres, was intersected in massive sulphide and silicified zones (felsic tuff mapped by Lac Minerals is probably silicified mylonitized gabbro).

These zones parallel the schistosity of the mafic mylonites and are characterized by pyrite, pyrrhotite, graphite, arsenopyrite and traces chalcopyrite.

The most prospective results to date are values of 2.5 g Au/t over 1.4m and 2.5g Au/t over 1.9m within mafic pyritized mylonites associated with quartz carbonate veins from the 1996 drill hole on the Nichols Lake South Zone

7.0 Quarternary Geology and Gold Dispersal

The Quaternary Geology of the RLSZ from Darling Long Lake in the north to well south of Joes Lake in the south and adjacent terrain was mapped (Figure 5) by Gleeson-Rampton Explorations (Gleeson et al, 1989). Much of the area was covered by light yellowish brown, loose to compact material classified as ablation till. From the dispersal trains developed within material then mapped as ablation till, it was determined that it contained rock eroded and moved by active ice flowing south and south-south east as determined from glacial striae.

The only other deposits of significance noted were glaciofluvial deposits, namely sand and gravel. Most of these deposits have been mapped to the northeast of a scrap running parallel to Highway 511. These glaciofluvial deposits were mainly deposited at the base of the escarpment, which runs from just south of Little Minnow Lake (LM Lake) to Little Green Lake (LG Lake) and beyond by meltwater flowing in a south-easterly direction here. Just east of LG Lake, glacial water flowed through a gap in the highlands, depositing glaciofluvial deposits well to the south of Napier Lake.

In the many years following the original mapping, it was realized that the boulder trains and sand bars on the uplands mapped as ablation till showed transport directions in a southerly direction. Trenches in the area mapped as ablation till commonly showed glaciofluvial sediments throughout their exposed sections. It became apparent that much of the terrain characterized by ablation till and by flow features developed in both bedrock and unconsolidated materials could only have been developed by subglacial meltwater flowing under tremendous pressures under decaying continental glaciers. (Shoe maker 1992, Alley et al 1997).

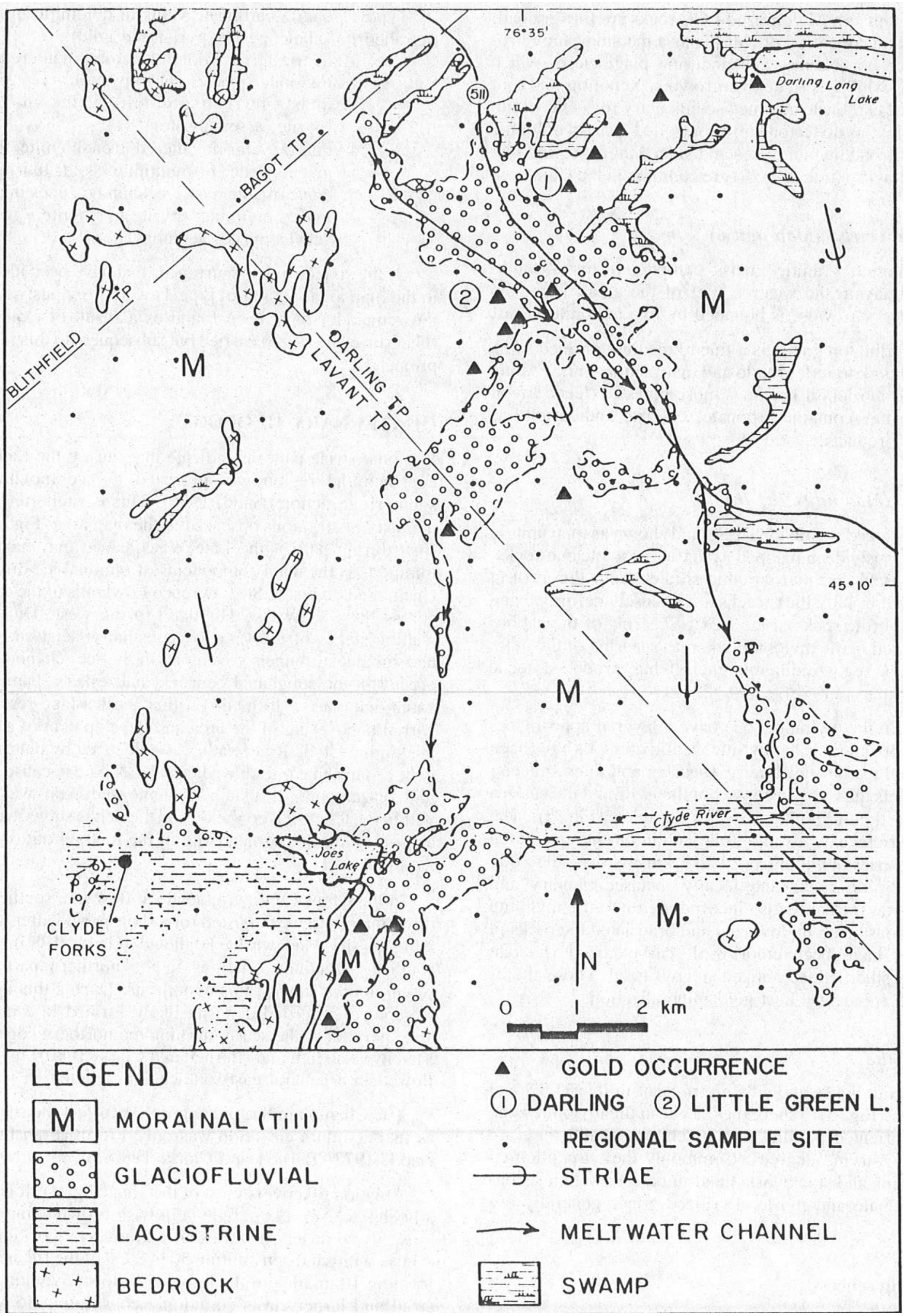


Figure 5. Quaternary Geology from Gleeson et al 1989

Rampton spent many summers between 1995 and 2002 investigating dispersal of kimberlites in Slave Province of he Northwest Territories that was largely sculpted by subglacial meltwater (Rampton 2000, Rampton and Sharpe 2015). With a thin vegetation cover, features and materials resulting from subglacial meltwater erosion, transportation and deposition were easily identified in this terrain. This allowed a appraisal of the effects of subglacial meltwater and how it was mapped previously as ablation till. It also explained gravel associated with trenching in ablation till, boulder trains and sand bars near Nichols Lake. A Digital Elevation Model 2m) (DEM) showed uplands whose surfaces were completely affected by subglacial meltwater.

8.0 Work Completed

8.1 Mapping of Glacial geology (Figure 6)

Remapping of the Quaternary geology for the LGL claims involved a review of the DEM, a review of previous observations concerning surficial materials and gold dispersal by Rampton from work on the LGL claims, beginning in 1985, the examination of materials from test pits used to collect SGH soil samples (Appendix One) and an investigation of surface features throughout the present LGL claims. Much time was spent detailing the glaciofluvial features, primarily eskers in the area covered be evergreen trees as they were not evident on air photos, topographic maps or DEM.

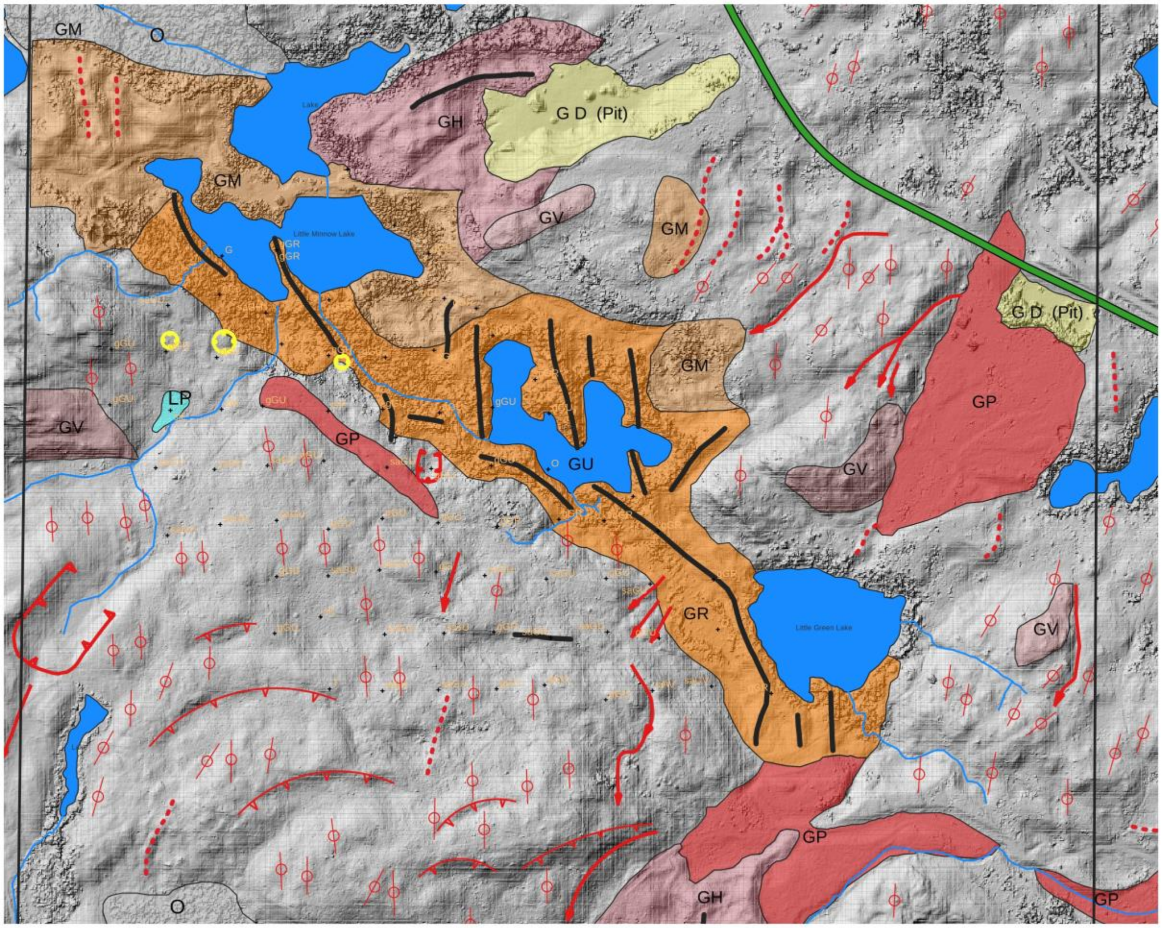
An analysis of material from test pits on the uplands to the southwest of the lowland occupied by LG Lake (LG Lake) to the southeast and LM Lake to the northwest, during this years exploration revealed a mainly silty sandy gravel. Earlier test pitting indicated that it graded into stratified or a poorly sorted silty sediment with many pebbles cobbles and boulders. The surface pattern as can be seen from DEM are characterized by flutes generally aligned in a N-S direction along with irregular-shaped mounds, especially on the bedrock highs. Other features such as low southerly oriented ridges composed of sand and gravel; sub-glacial meltwater channels; meltwater channels in bedrock; fossil whirlpools, commonly floored by boulders; crescentic erosional scarps, concavely oriented to the south; and oversized blind valleys with their rounded heads, frequently with boulder lags on their upper extents, are also present on the highlands southwest of the LG Lake – LM Lake lowlands.

It is difficult to identify glacial diamictons (a form of glaciofluvial deposits) deposited from high velocity turbulent subglacial meltwater versus subglacially deposited normally graded sands and gravels. This is especially difficult in shallow pits. The compactness of the diamictons can lead to them being classifies as tills if the stratigraphy and land forms are not taken into context. This difficulty can also be encountered in shallow pits on eskers and kames and kettles composed of glaciofluvial deposits.

Between the LG Lake – LM Lake lowland and the northeast edge of the LGL claim group, the terrain is characterized by fluting and low ridges of sand and gravel primarily with a southerly orientation. Other glacier features are not as common to the south. One large expanse of flat outwash gravel is also present.

The linear lowland containing LG Lake and LM Lake is unique. It is filled with glaciofluvial; sands and gravels. Some of the glaciofluvial sediments are in the form of hummocky or rolling kame and kettle topography, but mostly well-defined eskers. At the base of the highlands south of the LG Lake – LM Lake lowland the eskers indicate flow to the southwest through a gap in the highlands occupied by Napier Lake. In the lowland occupied by LG Lake and LM Lake the eskers show a southward trending before being diverted to a southeast azimuth at the base of the MSP fault scarp. The glaciofluvial deposits are all composed of stratified, rarely massive, sands and gravels, infrequently silty.

QUARTERNARY GEOLOGY
LITTLE GREEN LAKE PROPERTY



LEGEND

- LGL Study Area 2022
- Highway
- Sample Points & Shallow Test pits
- Eskers; steep slopes, standing well above adjacent terrain
- Ridges;moderate slopes, low relief
- Subglacial meltwater channel
- Fluting; with broad liner structures having low relief
- Crescentic erosional scarp; concaveity downflow
- Fossil Whirl Pools; commonly bouldery
- Oversized dry valleys; eroded by subglacial meltwater
- Streams
- Ponds Lakes and Marshes
- O Organics; peat or silt, high organic content
- LP Lacustrine or Pond; flat, silty with clasts, some organics
- GP Glaciofluvial; outwash
- GR Glaciofluvial; eskers
- GH Glaciofluvial; hummocky, sharp slopes
- GM Glaciofluvial; rolling, smooth slopes
- GV Glaciofluvial veneer; 0.5 to 3m thick
- GD Glaciofluvial; disturbed
- GU Glaciofluvial; rolling, commonly reflecting underlying bedrock; poorly sorted silty cobbly to gravelly diamicton

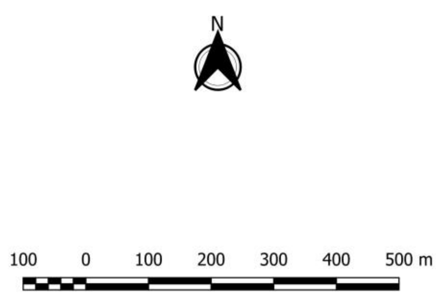


Figure 4

8.2 SGH Survey.

Seventy-three soil samples were collected for SGH analysis on the ten lines with an E-W bearing on the northern part of the crown land portion of the LGL claims (Figure 2). The sample sites are approximately 90m apart on the lines, which in turn are 90m apart. More than 19.5 km of line were traversed. Excess km was traversed due to interruptions in lines by lakes. Sites were located off line when lakes made it impossible to collect a soil sample at exact grid location. All soil samples were analyzed with five samples being analyzed in duplicate.

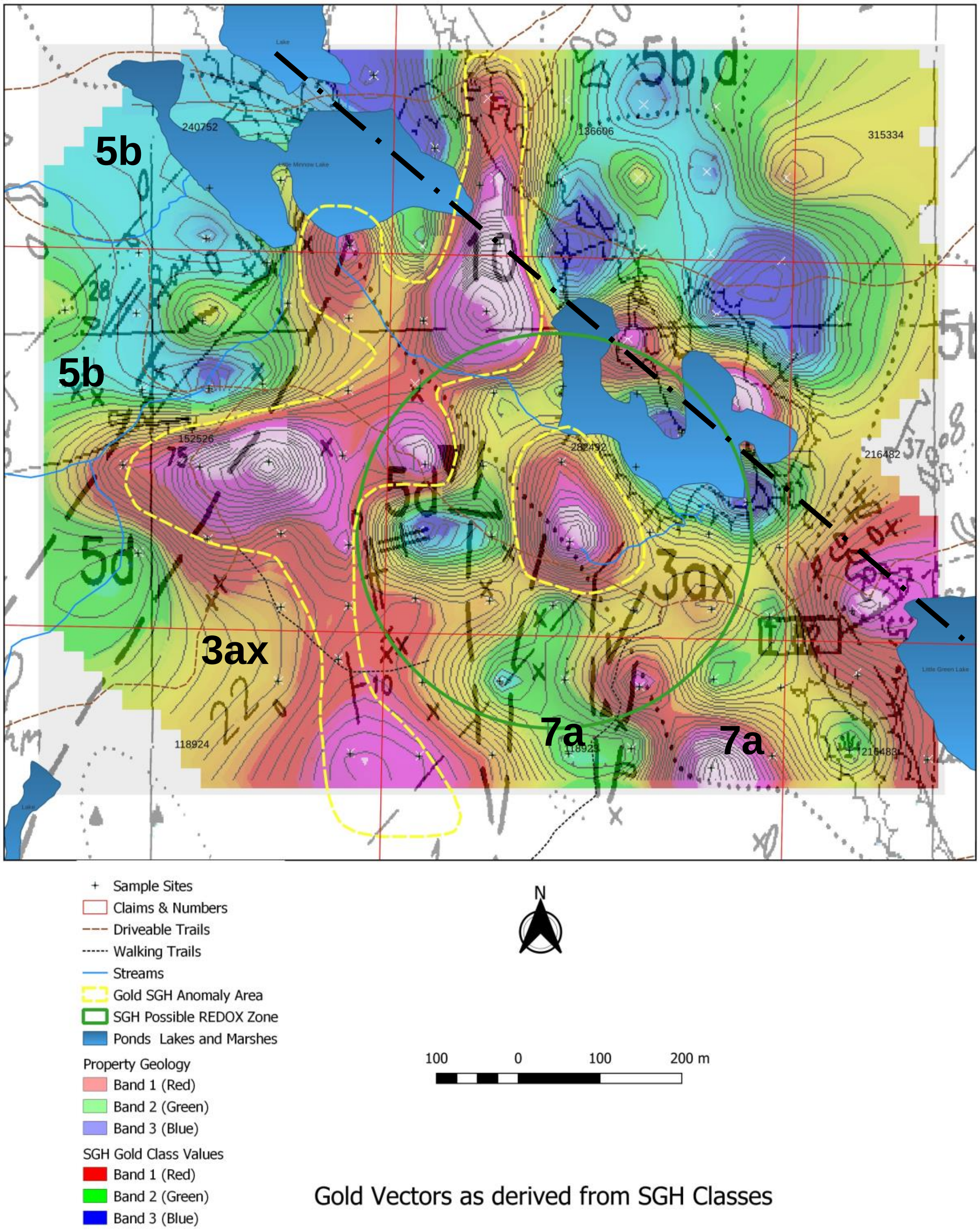
At each site a shallow 0.3m – 0.5m test pit was dug in order to identify the unconsolidated material underlying the surficial turf and humus. These pits were dug with a D-handle shovel and samples were procured with a sturdy six inch hunting knife. In general, the sample for analysis consisted of the bottom part of the near-surface humus or organics and an equal portion of the underlying mineral material. In a few localities, only mineral material was collected because of the absence of humus. The soil layer, be it humus, or partially decomposed turf, generally varied between 2 and 10 cm, locally it could be up to 12.5 cm thick.

At each site the nature of the mineral material was identified, described and classified; the organic layer was described and its thickness measured; and the geomorphology of the site location, including the slope at the collection site, was described.

Soil samples were collected on a grid with 90m intervals between samples. This provided the number of samples and sample material required by Activation Laboratories Ltd. (Actlabs) for a robust spatiotemporal geochemical hydrocarbon (SGH) survey and interpretation (Figure 7; Table 2). The samples were dried and sieved and sent to an organics laboratory where hydrocarbon compounds were extracted and analyzed by gas chromatography, coupled with mass spectrometry, which allowed measurement of the compounds concentration to a reporting limit of one part per trillion (approximately five times the standard deviation of low-level analysis). During the course of the analysis, 5 samples were analyzed in duplicate and their average Coefficient of Valuation (%CV) was 8.5%, which is an excellent level of analytical performance at such low concentrations of compounds. Pathfinder

Class maps are then developed, each Class consisting of a number of compounds. A number of the Classes will show typical patterns for gold if the gold is present in the subsurface. Those Classes are plotted to investigate whether the patterns suggest a common target for gold mineralization. The results of these investigations will then allow determination of areas where gold might be found below the areas. The quality of the analysis, the number of Classes showing corresponding patterns indicative of vectors to gold and the similarity to patterns in other investigation where follow-up investigations, verified by drilling, were successful in location of gold mineralization were all assessed to determine a qualitative SGH rating of confidence.

A gold target was identified on LGL claims (Figure 7). A reinterpretation of compound patterns in a 2004 survey that overlaps the southwest portion of the present grid in 2011 was completed. The 2011 reinterpretation utilized Classes. It showed a very similar pattern to that of the present SGH survey in the area of overlap. The main difference between the surveys was the 50m distance between the samples collected in 2004 and the 90m distance between samples in this year's survey. It was the opinion of Jeff Brown at Actlabs (2022) that this very close similarity added to the confidence of the 2022 survey.



Gold Vectors as derived from SGH Classes

Figure 7

+, 45, ✕ BEDDING (horizontal, inclined, vertical)

10 FOLIATION, CLEAVAGE, SCHISTOSITY (inclined, vertical, dip unknown, second generation)

35 GNEISSOSITY (inclined, vertical, dip unknown)

60 MYLONITIC BANDING (inclined, vertical)

20 JOINT (horizontal, inclined, vertical)

50 SHEAR (horizontal, inclined, vertical, dip unknown)

30 CARBONATED SHEAR (inclined, vertical, dip unknown)

40 Q Q Q Q VEIN (horizontal, inclined, vertical, dip unknown) Q-QUARTZ, C-CARBONATE, E-EPIDOTE

10 peg DYKE (peg- pegmatite)

10 LINEATION (with plunge, without plunge)

ROCK OUTCROP, AREA OF OUTCROP, FLOAT

C161 ROCK THIN SECTION

KNOWN GOLD OCCURRENCES AND SAMPLES > 300 ppb

LIMIT OF ROBERTSON LAKE SHEAR ZONE

KNOWN IRON OCCURRENCES (magnetite)

GEOLOGY LEGEND

1 INTERMEDIATE TO MAFIC GNEISSES
- a Amphibolite

2 METASEDIMENTS
- a Paragneiss, b Muscovite-carbonate schist,
- c Quartz-muscovite schist, d Quartzite and graphite schist,
- e Talc-sericite-carbonate schist, f Granitic gneiss

3 CARBONATES
- a Dolomite, ax Ferroan dolomite, b Calcite-dolomite,
- c Arenaceous carbonate, m Highly sheared phases of above

4 INTRUSIVES
- a Granite, b Granodiorite, c Diorite

5 LAVANT GABBRO COMPLEX
- a Fine grained gabbro, b Medium grained gabb
- c Coarse grained gabbro, d Highly sheared phas
- e Gabbro-diorite

6 ADDINGTON GNEISS

7 MYLONITES
- a Mafic mylonite, b Felsic mylonite

8 LEUCOGRANITE

9 CARBONATED SHEAR ZONES

10 THICK OVERBURDEN

7a(5) MAFIC MYLONITE; IN PLACES RECOGNIZABLE AS GABBRO

GEOLOGICAL SYMBOLS

GEOLOGICAL BOUNDARY (defined, approximate, assumed)

FAULT (approximate)

LIMIT OF CLAIMS (ora

9.0 Discussion of Results

9.1 Glacial Geology and Gold Dispersion

Regional geochemical maps prepared for exploration along the RLSZ (Gleeson-Rampton Explorations 1985, Gleeson et al 1989) showed a relatively straight-forward dispersion of gold from just south of LM Lake to near Joe's Lake, some 8 km to the south (Figure 8). Most of the dispersion was considered to have occurred by the movement of glacier ice carrying eroded material and depositing it as ablation till. The RLSZ, marked by ferroan dolomites, felsic and mafic mylonites and numerous gold showings, parallels this regional dispersion of gold. Occurrences were thought to extend the length of the dispersal train in its southern portion.

The investigation of the glacial deposits within the area where detailed observations of landforms and glacial materials, including those in the shallowest pits excavated for SGH samples, combined with observation since 1985 and the newly available DEM, has revealed that the broad area including the LGL claims has been affected by a broad subglacial meltwater sheet that was powerful enough to move eroded materials, including large boulders up the escarpment to the south of the LG Lake - LM Lake lowland, producing fossil whirlpools, blind valleys floored with boulder and course gravel lags, and climbing meltwater channels. Materials that were previously mapped as silty gravelly till are now recognized as a mixture of poorly sorted, silty gravels or massive poorly sorted silty sands containing an array of cobbles and boulders, a "glacial diamiction." All these features are evidence of broad sub-glacial erosion, transportation and depositions.

The occasional variations in fluting, eskers and meltwater channel orientations probably relates to changes in the velocity and turbidity of the sub-glacial meltwater as topography is known to affect the flow direction when pressures are reduced.

The orientation of eskers and the bulk of glaciofluvial sediments in the Napier Lake Valley attest to a time when the hydrological pressures related to the slope of an overlying glacier were reduced and sheet flow topping the escarpment south of the LG Lake - LM Lake lowland ended. Tunnels began to develop in the glacier ice lowland with eskers being formed in the lowland north of the MSP. Meltwater flow was diverted to the southeast along the lowland and the water carrying sediment flowed through the Napier Lake gap to the south. The head of this valley south of Napier Lake is about 120m above the level of LG Lake, indicating that the melt water still had enough velocity to move sediments and deposit them to near the elevation of the pass at 120m.

Recognition that much of the terrain south of LM Lake showed signs of broad sub-glacial erosion, transportation and deposition made it more probable that most of the gold had been dispersed from a single source near LM Lake. Trenching and drilling had located some indications of high-grade gold in quartz veins within ferroan dolomites, mylontized carbonates and trondhjemite dikes, but it was improbable that the gold occurrences found to date could account for all the gold in the 8km long dispersal train.

During the course of detailed soil sampling (Gleeson-Rampton Explorations 1985), it was found that eskers flowing parallel to the LG Lake-LM Lake lowland contained very high gold contents and that they showed a source toward LM Lake The present mapping confirmed the configuration of the eskers here. A bedrock source that could have provided gold for the long dispersal train to the south plus that found within the eskers would be difficult to locate from prospecting because of the complete cover by glaciofluvial sediments in the form of eskers and kame and kettles plus the apparent ineffectiveness of geophysical surveys in the particular area of the LGL claims. (See Edwin Gaucher and Associates Inc. 1985).

An SGH survey was deployed to investigate the possibility of a buried source in this particular area.

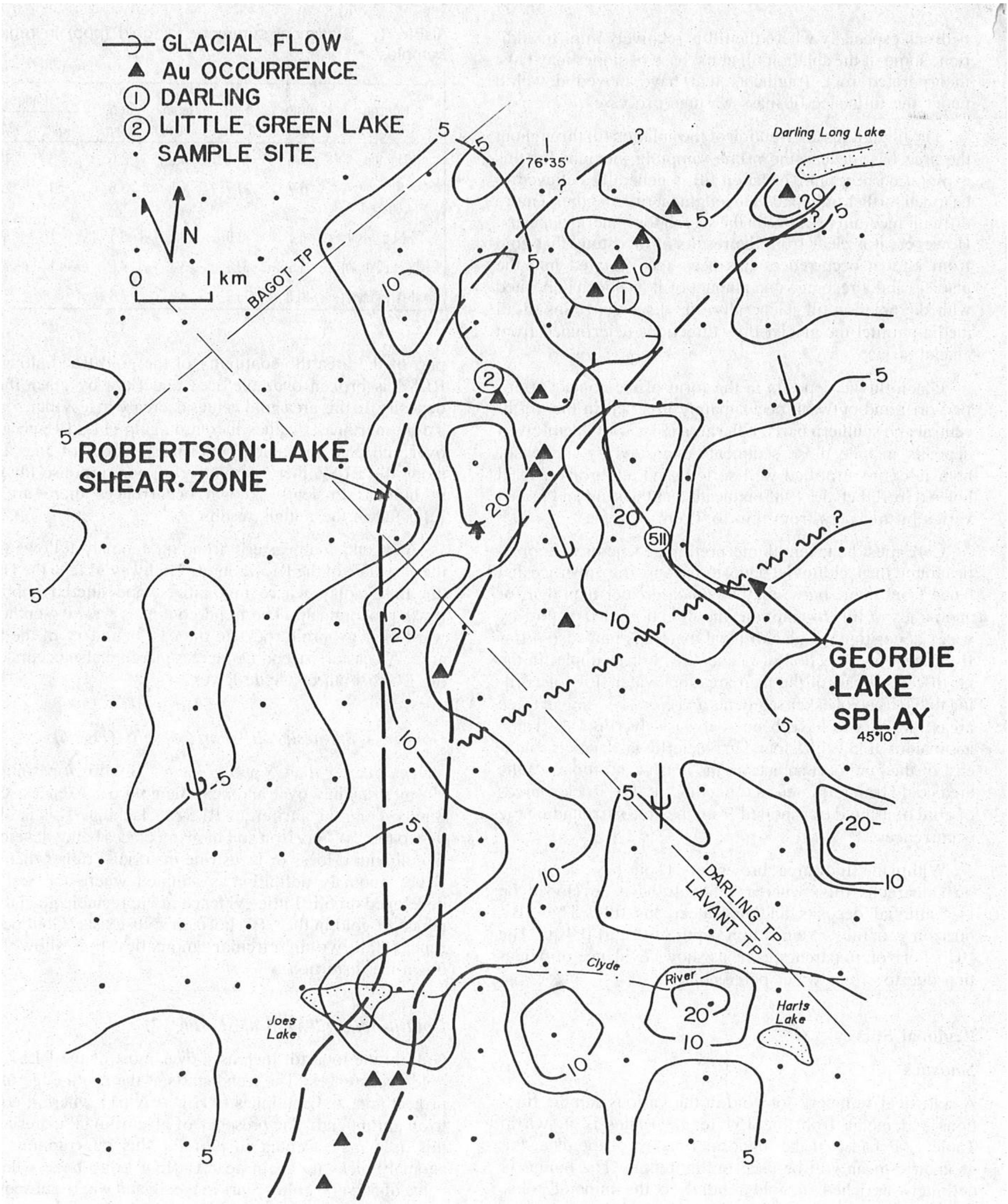


Figure 8. Gold (ppb) in humus from Gleeson et al 1989

9.2 SGH Survey

Actlabs has outlined an area where potential gold mineralization is present. It also notes the presence of a redox cell within the area (Figure 7). It has been noted that the area with potential gold mineralization is nearly identical to the southwestern part of the grid where an older SGH survey had been completed at different sampling intervals. The confidence level for the outlined potential area for underlying gold mineralization is 5.0 out of 6.0, which is a high rating. It indicates 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 patterns. Actlabs portfolio of past studies also has a relatively high success rate for the discovery of gold mineralization in the underlying bedrock where the rating was 5.0 or above.

To the south of the LG Lake - LM Lake lowland the rock consists of mylontized felsic and mafic rocks, carbonates, ferroandolomites within the RLSZ trending N-S. Numerous gold showings are present and mineralized float is common on the uplands here. The RLSZ is intersected by the trace of the Mount Saint Patrick fault (MSP), in the lowland between the LG Lake – LM Lake. This intersection is well defined on the residual magnetic maps for this area (Ontario Geological Survey 2014). The MSP fault may have been a conduit for mineralized fluids during development of the RLSZ. A number of drill holes have been drilled nearby in the past, generally intersecting ferroan dolomite and mafic mylonites with traces of mineralization. A recent hole drilled just off of the SGH defined area showing gold mineralization potential had an interval that assayed 1.37g Au/t in laminated carbonates and quartz. The nearby Little Green Lake showing has yielded samples that assayed up to 1.5oz Au/t. The setting does support the potential for robust mineralization in the defined target area within the LG Lake - LM Lake lowland.

10.0 Conclusions and Recommendations

10.1 Conclusions

A SGH survey has indicated a possible source of gold mineralization that could have contributed (i) to the dispersal of gold mineralization some 8km south of LM Lake by subglacial meltwater flow and (ii) dispersal to the southeast of LM Lake in eskers. A portion of highly rated SGH area for gold mineralization lies within the LM Lake – LG Lake lowland where cover by glaciofluvial sediments is complete.

10.2 Recommendation

All previous exploration, including historic drill holes needs compilation and reviewing before any drilling should be completed based of the SGH recommended areas for gold mineralization. The overburden is too thick for trenching to be effective. Geophysical techniques for detailing subsurface geology and mineralization needs researching, although results from magnetics and VLF surveys to date were not encouraging. Detailed magnetic and IP-Resistivity might be worth considering. The SGH surveys usually provide good vectors to gold mineralization when the confidence level is 5 out of 6, but the depth and precise location can be challenging.

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12.0 Certificates

CERTIFICATE

This is to certify that:

I have been a resident of Kemptville, province of Ontario since 1979.

I graduated from Carleton University with an honours B.Sc. in Geology in 1971.

I have been a contracting and consulting geologist for 45 years.

I am a retired member of the Association of Professional Geoscientists of Ontario (registration # 1484).

I personally assisted with the sample collection, data recording and map preparation described in this report between June 28th and November 20th, 2022.

John Adams

John H. Adams, B.Sc., P.Geo. Retired
Kemptville, Ontario, K0G 1J0

Statement of Qualifications

Dr. V.N. Rampton, P.Eng.
Rampton Resources Group Inc.
P.O. Box 158, 3226 Carp Road
Carp, Ontario. K0A 1L0
Tel: (613) 836-2594; E-mail: vrampton@rogers.com

I, V.N. Rampton, Ph.D., P.Eng., do hereby certify that

1. I am President of Rampton Resource Group Inc.
2. I graduated with a B.Sc. Eng. (Geology) from University of Manitoba in 1962 and with a Ph.D. (Geology) from University of Minnesota in 1969.
3. I am a member of the Professional Engineers of Ontario.
4. I have worked as a geologist for over 50 years, specifically in mineral exploration for the last 40 years, in Canada, Slovakia, Finland, Spain, Burkina Faso, Jamaica and the United States of America.
5. My professional specialty is in Quaternary geology and mineral tracing.
6. I am the author and bear responsibility for the preparation of the technical report titled "Glacial Material and feature Mapping and Spaciotemporal Geochemical Hydrocarbon (SGH) Survey on the Little Green Lake Property ". The technical information contained within the report was collected and interpreted either by myself or under my authority.

Dated the 21st day of November 2022.

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Vernon Neil Rampton

Table 1. Soil sample sites; location, geomorphology and sampled material											
			Location and Geomorphology					Sub-humus material			
Sample Number	Northing	Easting	Comment- Surface (Azimuth,degrees)	Slope	Surface Material	Type	Humus thick	Texture of soil C/B horizon	Colour	Description	Symbol
1556751	5007368	373409	slopes to grid Wand lake		bldrr grvl	humus	thin	grvl	ox	Glacifuvial	**gGR**
1556752	5007369	373320	lake to grid W,		bldrr grvl	humus	thin	crs grvl	ox	Glacifuvial	**gGR**
1556753	5007280	373319	knob		bldrr grvl	humus	thin	grvl	ox	Glacifuvial	**gGH**
1556754	5007192	373319	edge of terrace; trail nearby	flat		blk humus	thin	grvl	br	Glacifuvial	**GP**
1556755	5007112	373312	long trench,25x2.5x2, AZ 136 nearby			v blk humus		si w ang cbl	blk	Subwash	**siGU**
1556756	5007003	373319	bldr; edge of road to grid W	med	bldrr	humus	thin	si,sa grvl	ox	Subwash	**gGU**
1556757	5006928	373319	scat,large,ang bldr	flat	ang bldr	br-blk humus	thin	si sa,few pbl		Subwash	**saGU**
1556758	5006863	373306	valley	flat		humus	v thin	sa si, fw pb	br	Pond	**siL**
1556759	5006748	373321	top of ridge, AZ 97			humus	v thin	si, tr sa+ grit	br	Till	**T**
1556760	5006745	373406	near road		semi-ang bldr	blk humus, roots	thick	si	br-blk	Subwash ?	**siGU**
1556761	5006746	373495	swale,flat			blk humus,	2cm	fn pb sa	br	Subwash	**saGU**
1556762	5006748	373588				humus, roots	5cm	si, fn sa, pbs	br	Subwash	**gGU**
1556763	5006754	373665	east of small howl			blk humus,roots	6cm	pb si sa	br	Subwash	**gGU**
1556764	5006731	373762	near elbow in road			br humus, roots	5cm	pb si sa	orange br	Subwash	**gGU**
1556765	5006745	373837	gulch 270 AZ; flat rock surface	gentle		br-bl humus, roots	2cm	sa si,organic,		Alluvial	**siAV**
1556766	5006752	373931	bowl features	steep	semi-ang bldr	bl fn humus	43cm	si fn sa		Not classified	**saUV**
1556767	5006741	374027	esker ridge sw LGL			humus	thin	pb si sa		Glaciofluvial	**gGR**
1556768	5006846	373940	edge of swamp		semi-ang bldr	humus		si		Organic	**O**
1556769	5006924	373939	esker ridge; SW of LGL			humus	thin	si fn pb,sa		Glaciofluvial	**gGR**
1556771	5006829	373848		steep		moss	1.5cm	sa, fn pb, si		Subwash	**gGU**
1556772	5006839	373765		steep		humus, roots	6cm	sa si, fw pb	br	Subwash	**saGU**
1556773	5006830	373674	esker ridge			part decompose turf	thin	si, fn sa+ fn pb	rusty br	Glaciofluvial	**saGR**
1556775	5006838	373584	esker ridge	gentle		humus, roots	1.5cm	sa pb si	br	Glaciofluvial	**gGR**
1556776	5006837	373504	slope on upper side ravine	steep		humus, part decompose	1.5cm	sa si	br	Subwash	**siGU**
1556777	5006835	373409			Large ang bldr	nil humus	0cm	si fn pb sa		Subwash ?	**saGU**
1556778	5006836	373233		med	semi-ang bldr	nil humus; rooty layers	0cm	pbl sa si		Subwash	**gGU**
1556779	5006927	373236		gentle		part decompose organic	3cm	sa si pb cbl grvl		Subwash	**gGU**
1556781	5006938	373401		gentle	round med bldr	poor decompose humus	3cm	sa fn pb si- sa	orange br	Subwash	**saGU**
1556782	5006935	373491	knobs or ridges; channel N-S	med		partially decompose hu	3.5cm	si pbl sa	orange br	Glaciofluvial ?	**gG**
1556783	5006929	373569		med+		humus	2cm	si fn sa w pb	br	Subwash	**saGU**
1556784	5006923	373667	W side of large bowl in esker	med	round med bldr	humus	4cm	si fn sa w pb	blk	Subwash ?	**saGU**
1556785	5006924	373763	small flat bench. N-facing	flat		br humus	1.5cm	si fn pb sa		Subwash	**gGU**
1556786	5006915	373834		gentle		br blk decomposed organic		sa si, fw pb		Subwash	**saGU**
1556787	5007000	373846	esker crest	gentle		chocolate br humus	1.5cm	si fn pb grvl	br	Glaciofluvial	**gGR**

1556788	5007016	373760	esker side	steep		poorly decomposed	1.5cm	sa si,fw pb	br	Glaciofluvial	**saGR**
1556789	5007018	373687	side hill,parrell ridges,AZ 138	steep		blk humus	5cm	pb si sa	br	Glaciofluvial ?	**gGR**
1556790	5007007	373589				br-blk humus, roots	3cm	si pb sa	br	Glaciofluvial	**gGP**
1556791	5007013	373494	bedrock controlled ridge	med		blk humus, roots	10cm	pb si sa	br	Subwash	**gGU**
1556792	5007020	373405	slope to S		bldr	blk humus	20cm	si sa pb grvl	br	Subwash	**gGU**
1556793	5007017	373236		flat		blk humus	3cm	fn sa	br	Subwash	**saGU**
1556794	5007010	373146				br blk humus	10cm	si sa	dark br	Subwash	**saGU**
1556795	5006993	373062	near edge of crown land	med	lrg bldrs,	br blk humus	8cm	si sa	br	Subwash	**saGU**
1556796	5007101	373043		med		br humus	4cm	si fn sa,fw pb	br	Subwash	**saGU**
1556797	5007098	373137	slope		rare bldr	blk humus, roots	10cm	si sa, fw pb	orange br	Subwash	**saGU**
1556798	5007105	373222			odd bldr	humus, roots	8cm	sa si	dark br	Subwash	**saGU**
1556799	5007102	373413			fw bldr	blk br humus, roots	6cm	sa +si		Subwash	**saGU**
1556800	5007100	373484				br humus	5cm	si pb gr	light br	Subwash	**gGU**
1556801	5007104	373579				blk humus	2.5cm	pb sa gr	orange br	Subwash	**gGU**
1556802	5007098	373670	drained swamp					blk muck , sa		Organic	**O**
1556803	5007197	373581	esker mounds,edge of swamp			humus. needles	3cm	pb md sa	br	Subwash	**gGU**
1556804	5007189	373497				humus	3cm	pb sa	br	Subwash	**gGU**
1556805	5007414	373480				humus	5cm	pb sa	br	Subwash	**gGU**
1556806	5007371	373504	ridges bear S from upper ridge	med		humus	3cm	pb sa	orange br	Subwash	**gGU**
1556807	5007289	373488	W side of large bowl in esker	med		poor decompose humus	6cm	pbsa	br	Subwash	**gGU**
1556808	5007277	373410	kame and kettle w slope	steep		rusty humus	2.5cm	pb sa	orange br	Subwash	**gGU**
1556810	5007298	373245	reverse whirl pool ,rdge at edge, small dry bldr creek		large bldr,some ang green schist	blk humus	5cm	sa	gray	Subwash	**bGU**
1556811	5007200	373214		steep	ang bldr	dark humus, peaty	6cm	sa pb si		Subwash	**gGU**
1556812	5007194	373148	flood plain	flat		humus	10cm	si, fw pb		Alluvium	**siA**
1556813	5007193	373067	flat bowl,200ME-W,30mN-S, outcrop to E, 2m N small creek		bldr to E	blk humus	12cm	si		Pond	**siLP**
1556814	5007202	372970				prt decopose blk humus	12.5cm	si pb fn sa		Subwash	**gGU**
1556815	5007290	372972	near large outcrop, greenstone			orange br humus	4cm	si fn sa pb grvl	orange br	Subwash	**gGU**
1556816	5007286	373060	bowls below	steep		br blk humus	4cm	si pb sa		Subwash	**gGU**
1556817	5007370	373051	bowl featues, back to slope			humus	12cm	MD PB sa si	gray br	Subwash	**saGU**
1556818	5007277	373141	E of small bowl in grvl			br humus roots	4cm	si pb sa			**gGU**
1556819	5007378	373145		steep		rooty br humus	8cm	si sa grvl	br	Subwash	**gGU**
1556820	5007439	373149		steep		dk br humus	3 cm	pb md sa		?	**G**
1556822	5007449	373236	narrow esker ridge trend E-W	gentle		?	thin	grvl sa		Glaciofluvial	**gGR**
1556823	5007348	373219	knobby terrain				6cm	fn grit, md sa		Glaciofluvial	**saGH**
1556824	5007451	373498	between road and truck 40m			br blk humus	3cm	pb sa	br	Glaciofluvial	**gGH**
1556835	507254	373498	sharp crested esker, AZ N-S	gentle	fw bld						**gGR**
1556836	5007188	373498	book is 169? W base of esker	gentle		humus ,roots	2.5cm	pb cbl sa	gray	Subwash	**gGU**

1556837	5007312	373498	N end drain grassy depression	flat		humus, mainly needles	2cm	pb sa	gray	Glaciofluvial	**gGM**
1556838	500363	373498	swale between 2 // eskers	med		dark humus	7cm	pb sa	br	Glaciofluvial	**gGR**
1500603	5007055	373806	on esker			nil humus	0cm	sa, pb grvl		Glaciofluvial	**gGR**
1500604	5007140	373726	low esker into lake	flat		br humus	3cm	gritty si, sa		Glaciofluvial	**SaGR**
1500606	5007577	373350	edge of esker	steep		humus	4.5cm	sa w fw pb	br	Glaciofluvia	**SaGR**
1500609	5007488	373424				bl humus	4cm	pb sa grvl	br	Glaciofluvial	**G**

Slopes

flat		0° - 5°
gentle		6° - 12°
med	medium, moderate	13° - 30°
steep		30° - 60°

Other

Az, az	azimuth in degrees
qtz	quartz
w232	alternate waypoint

Texture

ang	angular
cbl	cobble
crs	coarse
fn	fine
fw	few
grvl	gravel
pb	pebble
sa	sand
si	silt
v	very
w	with

Color

blk	black
br	brown
ox	orangish

Lengths

cm	centimetre
m	metre
v	very

Surficial Units

A	Alluvial
AV	Alluvial, thin
G	Glaciofluvial
GF	Glaciofluvial, hummocky, sharp
GM	Glaciofluvial ,rolling, smooth
GP	Glaciofluvial. Plain
GR	Glaciofluial, Esker
GU	Glaciofluvial, subwash, poorly sorted diamicton
b	boulders, bouldery gravel
g	gravel, pebbly sand
sa	sand, sandy
si	silt , silty

Table 2. SGH – Redox and SGH – Gold sample identifications and values

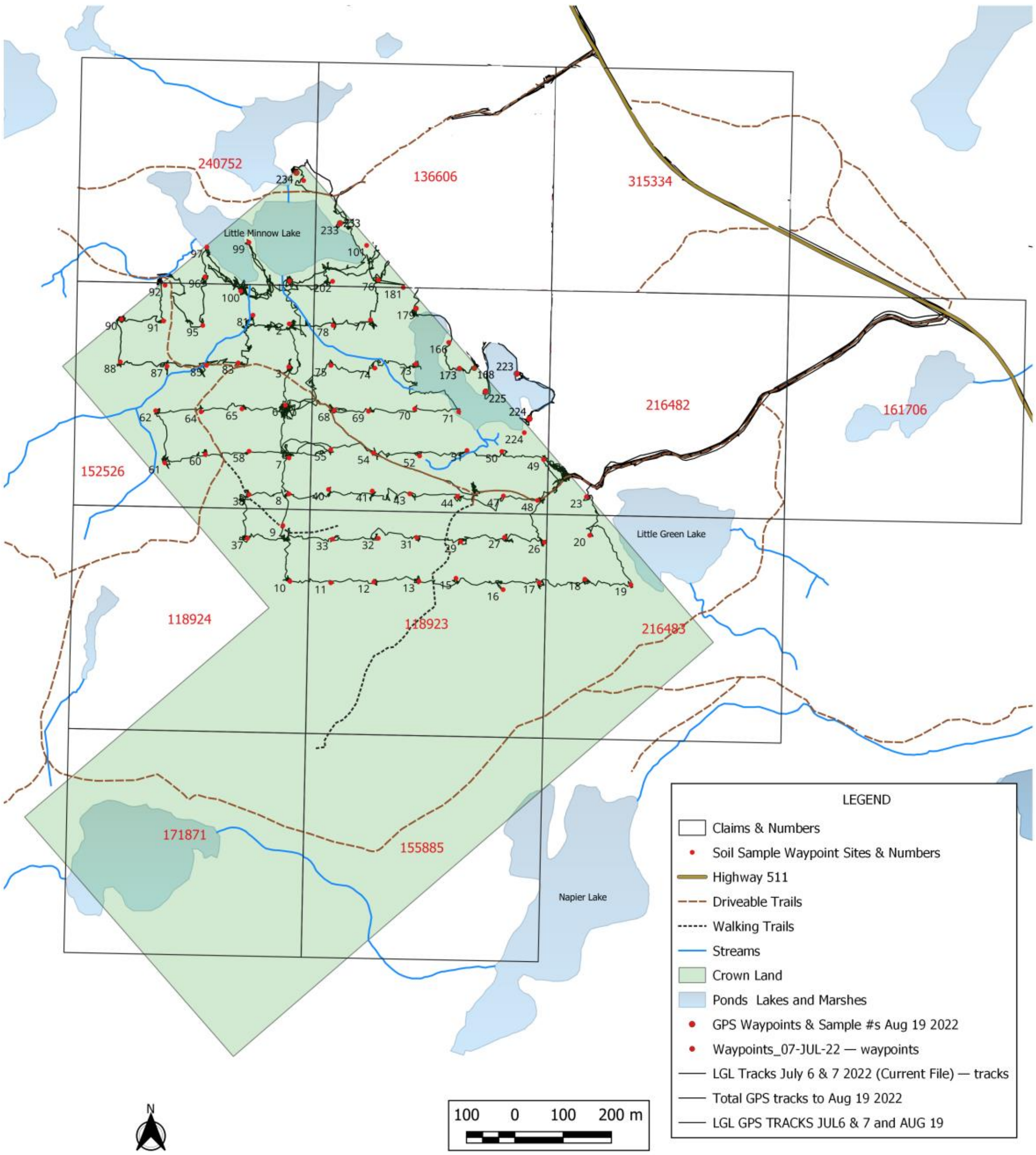
Rampton Resources Group
Little Green Lake SGH Project

SGH Units – ppt (Parts-per-trillion)

	SGH-Redox	SGH-Gold	Easting	Northing
1556751	211	17.4	5007368	373409
1556752	1295	40.8	5007369	373320
1556753	376	30.2	5007280	373319
1556754	401	32.4	5007192	373319
1556755	265	36.3	5007112	373312
1556755-R	327	34.1	5007112	373312
1556756	797	38.3	5007003	373319
1556757	290	32.8	5006928	373319
1556758	332	34.4	5006863	373306
1556759	553	39.4	5006748	373321
1556760	833	38.2	5006745	373406
1556761	459	33.0	5006746	373495
1556762	249	20.5	5006748	373588
1556763	425	19.5	5006754	373665
1556764	703	50.6	5006731	373762
1556765	169	33.8	5006745	373837
1556766	212	21.4	5006752	373931
1556767	410	34.5	5006741	374027
1556768	400	30.7	5006846	373940
1556769	271	41.3	5006924	373939
1556771	325	29.2	5006838	373584
1556771-R	222	24.9	5006838	373584
1556772	255	20.3	5006839	373765
1556773	666	40.1	5006830	373674
1556775	232	25.4	5006838	373584
1556776	173	19.0	5006837	373504
1556777	542	32.1	5006835	373409
1556778	293	29.7	5006836	373233
1556779	452	30.0	5006927	373236
1556781	318	34.8	5006938	373401
1556782	294	33.6	5006935	373491
1556783	234	21.1	5006929	373569
1556784	193	25.6	5006923	373667
1556785	341	32.5	5006924	373763
1556786	161	21.7	5006915	373834
1556787	217	28.0	5007000	373846
1556787-R	262	28.6	5007000	373846
1556788	323	25.7	5007016	373760
1556789	215	27.3	5007018	373687
1556790	442	48.3	5007007	373589

1556791	181	18.6	5007013	373494
1556792	158	10.5	5007020	373405
1556793	376	32.0	5007017	373236
1556794	1323	37.0	5007010	373146
1556795	211	20.4	5006993	373062
1556796	443	36.2	5007101	373043
1556797	1042	45.1	5007098	373137
1556798	718	55.8	5007105	373222
1556799	304	45.0	5007102	373413
1556800	290	25.0	5007100	373484
1556801	552	36.0	5007104	373579
1556802	170	19.1	5007098	373670
1556802-R	181	18.9	5007098	373670
1556803	219	22.8	5007197	373581
1556804	255	23.8	5007189	373497
1556805	518	33.3	5007414	373480
1556806	377	49.8	5007371	373504
1556807	319	76.0	5007289	373488
1556808	754	33.0	5007277	373410
1556810	2197	26.4	5007298	373245
1556811	280	19.3	5007200	373214
1556812	191	12.6	5007194	373148
1556813	202	18.8	5007193	373067
1556814	483	19.8	5007202	372970
1556815	297	24.5	5007290	372972
1556816	272	17.7	5007286	373060
1556817	250	19.4	5007360	373063
1556818	425	33.9	5007277	373141
1556818-R	351	22.2	5007277	373141
1556819	215	16.1	5007378	373145
1556820	306	20.4	5007439	373149
1556822	398	25.4	5007449	373236
1556823	371	18.8	5007348	373219
1500603	157	8.2	5007055	373806
1500604	134	7.2	5007140	373726
1500609	308	11.6	5007488	373424
1500606	184	9.9	5007577	373350
1500607	225	12.1	5007231	373858

Appendix One: Location of field observations and surficial material descriptions and classifications.



LITTLE GREEN LAKE SAMPLING WAYPOINTS & TRACKS

Appendix One. Location of field obsevations and surficial material desciptions and classifications.

Type	Ident	Sample #	Latitude	Longitude	Northing	Easting	Comment- Surface (Azimuth,degrees)	Slope	Surface	Humus id.	H. thick	Texture	Colour	Name	Symbol	
WAYPOINT	202	1556751	45.2084235	-76.61202457	5007368	373409	slopes to grid Wand lake		bld grvl	humus	thin	grvl	ox	Glacifuvial	**gGR**	
WAYPOINT	1	1556752	45.2084164	-76.61316268	5007369	373320	lake to grid W,		bld grvl	humus	thin	crs grvl	ox	Glacifuvial	**gGR**	
WAYPOINT	2	1556753	45.2076154	-76.61315277	5007280	373319	knob		bld grvl	humus	thin	grvl	ox	Glacifuvial	**gGH**	
WAYPOINT	3	1556754	45.2068236	-76.61313038	5007192	373319	edge of terrace; trail, w5	flat		blk humus	thin	grvl	br	Glacifuvial	**GP**	
WAYPOINT	4	1556755	45.206104	-76.613204	5007112	373312	long trench,25x2.5x2,			v blk humus		si w ang cbl	blk	Subwash	**siGU**	
WAYPOINT	5	1556756	45.205123	-76.613081	5007003	373319	bld; road to grid W, w7	med	bld	humus	thin	si,sa grvl	ox	Subwash	**gGU**	
WAYPOINT	6	1556757	45.204452	-76.613066	5006928	373319	scat,large,ang bld; w6	flat	ang bld	br-blk humus	thin	si sa,few pbl		Subwash	**saGU**	
WAYPOINT	7	1556758	45.203861	-76.613206	5006863	373306	valley; w9?	flat		humus	v thin	sa si, fw pb	br	Pond	**siL**	
WAYPOINT	10	1556759	45.202826	-76.612991	5006748	373321	top of ridge, 97AZ; **w98**			humus	v thin	si, tr sa+ grit	br	Till	**T**	
WAYPOINT	11	1556760	45.202814	-76.611915	5006745	373406	w97		semi-ang bld	blk humus, roots	thick	si	br-blk	subwash ?	**siGU**	?
WAYPOINT	12	1556761	45.202844	-76.610779	5006746	373495	swale,flat w96			blk humus,	2cm	fn pb sa	br	Subwash	**saGU**	
WAYPOINT	13	1556762	45.202875	-76.609593	5006748	373588	w95			humus, roots	5cm	si, fn sa, pbs	br	Subwash	**gGU**	
WAYPOINT	14		45.202866	-76.6092	5006746	373619	trail az212									
WAYPOINT	15	1556763	45.202944	-76.608619	5006754	373665	w94			blk humus,roots	6cm	pb si sa	br	Subwash	**gGU**	
WAYPOINT	16	1556764	45.202751	-76.60737	5006731	373762	w93			br humus, roots	5cm	pb si sa	orangish	Subwash	**gGU**	
WAYPOINT	17	1556765	45.202895	-76.606424	5006745	373837	gulch 270 AZ; flat rock surface w92	gentle		br-bl humus, roots	2cm	sa si,organic,		Alluvial	**siAV**	
WAYPOINT	18	1556766	45.202974	-76.605223	5006752	373931	w91	steep	semi-ang bld	bl fn humus	43cm	si fn sa		Not classified	**saUV**	
WAYPOINT	19	1556767	45.202888	-76.604005	5006741	374027	Esker ridge sw LGL			humus	thin	pb si sa		Glaciofluvial	**gGR**	
WAYPOINT	20	1556768	45.203823	-76.605135	5006846	373940	Edge of swamp w90+21		semi-ang bld	humus		si		Organic	**O**	
WAYPOINT	22		45.2041833	-76.604917	5006886	373958	Creek									
WAYPOINT	23	1556769	45.204519	-76.605166	5006924	373939	Esker ridge; SW of LGL w121			humus	thin	si fn pb,sa		Glaciofluvial	**gGR**	
No WP	nil	1556770					No sample									
WAYPOINT	26	1556771	45.203649	-76.60631	5006829	373848	w107	steep		moss	1.5cm	sa, fn pb, si		Subwash	**gGU**	
WAYPOINT	27	1556772	45.203725	-76.60736	5006839	373765	w108	steep		humus, roots	6cm	sa si, fw pb	br	Subwash	**saGU**	
WAYPOINT	29	1556773	45.203628	-76.608514	5006830	373674	Esker ridge w109			part decompose turf	thin	si, fn sa+ fn pb	rusty br	Glaciofluvial	**saGR**	
No WP	30	1556774	45.203696	-76.608867	5006838	373647	No sample									
WAYPOINT	31	1556775	45.203686	-76.609671	5006838	373584	Easker ridge w110	gentle		humus, roots	1.5cm	sa pb si	br	Glaciofluvial	**gGR**	
WAYPOINT	32	1556776	45.203659	-76.610687	5006837	373504	Slope on upper side ravine	steep		humus, part decompose	1.5cm	sa si	br	Subwash	**siGU**	
WAYPOINT	33	1556777	45.203626	-76.611893	5006835	373409			Large ang bld	nil humus	0cm	si fn pb sa		Subwash	**saGU**	?
WAYPOINT	34		45.203672	-76.612706	5006841	373345	trail at 80AZ									

WAYPOINT	35		45.203803	-76.613057	5006856	373318	trail ends, circles to 145AZ									
WAYPOINT	36		45.203609	-76.613132	5006835	373312	w7?									
WAYPOINT	37	1556778	45.203609	-76.614134	5006836	373233		med	semi-ang bld	nil humus; rooty layers	0cm	pbl sa si		Subwash	**gGU**	
WAYPOINT	38	1556779	45.204426	-76.614115	5006927	373236		gentle		part decompose organic	3cm	sa si pb cbl grvl		Subwash	**gGU**	
WAYPOINT	38	1556780	45.204426	-76.614115	5006927	373236	Large marble bld;qtz veins, tag780									
WAYPOINT	39		45.204436	-76.613008	5006927	373323	w6?									
WAYPOINT	40	1556781	45.20455	-76.612023	5006938	373401	w127	gentle	round med bld	poor decompose humus	3cm	sa fn pb si- sa		Subwash	**saGU**	
WAYPOINT	40.5		45.2044842	-76.61305152	5006932	373320	large marble bld w qtz veins.#									
WAYPOINT	41	1556782	45.204538	-76.61087	5006935	373491	knobs or ridges; channel N-S w126	med		partially decompose hu	3.5cm	si pbl sa	orange br	Glaciofluvial	**gG**	?
WAYPOINT	42		45.204483	-76.610459	5006928	373524	20x 4x3m trench az124									
WAYPOINT	43	1556783	45.204501	-76.609881	5006929	373569	w125	med+		humus	2cm	si fn sa w pb	br	Subwash	**saGU**	
WAYPOINT	44	1556784	45.204467	-76.608626	5006923	373667	W side of large bowl in esker	med	round med bld	humus	4cm	si fn sa w pb	blk	Subwash	**saGU**	?
WAYPOINT	44		45.204467	-76.608626	5006923	373667	Good road AZ 44	gentle								
WAYPOINT	45		45.204394	-76.608211	5006914	373700	intersection. Main and side,az110	gentle								
WAYPOINT	47	1556785	45.204494	-76.607412	5006924	373763	small flat bench. N-facing w123	flat		br humus	1.5cm	si fn pb sa		Subwash	**gGU**	
WAYPOINT	48	1556786	45.204424	-76.60651	5006915	373834	w122	gentle		br blk decomposed O		sa si, fw pb		Subwash	**saGU**	
WAYPOINT	48		45.204424	-76.60651	5006915	373834	main road AZ 280	gentle								
WAYPOINT	49	1556787	45.205189	-76.606374	5007000	373846	esker crest w137	gentle		humus	1.5cm	si fn pb grvl	br	Glaciofluvial	**gGR**	
WAYPOINT	50	1556788	45.205322	-76.607477	5007016	373760	esker side w138	steep		poorly decomposed	2cm	sa si,fw pb	br	Glaciofluvial	**saGR**	
WAYPOINT	51	1556789	45.205328	-76.608396	5007018	373687	side hill,parrell ridges,az138 w139	side		blk humus	5cm	pb si sa	br	Glaciofluvial	**gGR**	?
WAYPOINT	52	1556790	45.205208	-76.609641	5007007	373589	w140			br-blk humus, roots	3cm	si pb sa	br	Glaciofluvial	**gGP**	
WAYPOINT	53		45.205262	-76.610856	5007015	373494	road centre,az292									
WAYPOINT	54	1556791	45.205245	-76.610852	5007013	373494	bedrock controlled ridge w141	med		blk humus, roots	10cm	pb si sa	br	Subwash	**gGU**	
WAYPOINT	55	1556792	45.20529	-76.611986	5007020	373405	slope to S w142		bld	blk humus	20cm	si sa pb grvl	br	Subwash	**gGU**	
WAYPOINT	56		45.205262	-76.612225	5007017	373387	Trench 7m by 3.5m by 3.5m,az130									
WAYPOINT	57		45.205147	-76.613112	5007006	373317	w5?									
WAYPOINT	58	1556793	45.205233	-76.614137	5007017	373236	w144	flat		blk humus	3cm	fn sa	br	Subwash	**saGU**	
WAYPOINT	59		45.205177	-76.614854	5007012	373180	Road to uphill AZ 158									
WAYPOINT	60	1556794	45.205158	-76.615283	5007010	373146	w145			br blk humus	10cm	si sa	dark br	Subwash	**saGU**	
WAYPOINT	61	1556795	45.204986	-76.616352	5006993	373062	edge of crown land	med	lrg blds,	br blk humus	8cm	si sa	br	Subwash	**saGU**	
WAYPOINT	62	1556796	45.205953	-76.616619	5007101	373043	w161	med		br humus	4cm	si fn sa,fw pb	br	Subwash	**saGU**	

WAYPOINT	63		45.205994	-76.615566	5007104	373126	secondary trail AZ 50									
WAYPOINT	64	1556797	45.205949	-76.615422	5007098	373137	slope ? w160		rare bld	blk humus, roots	10cm	si sa, fw pb	br	Subwash	**saGU**	
WAYPOINT	65	1556798	45.206019	-76.614347	5007105	373222	w159		odd bld	humus, roots	8cm	sa si		Subwash	**saGU**	
WAYPOINT	66		45.206037	-76.613193	5007105	373312	w4 ?									
WAYPOINT	67		45.20617	-76.612371	5007118	373377	Good Road AZ346 down,97 up to E									
WAYPOINT	68	1556799	45.206027	-76.611915	5007102	373413	w157		fw bld	blk br humus, roots	6cm	sa +si		Subwash	**saGU**	
WAYPOINT	69	1556800	45.206021	-76.611012	5007100	373484	w156			br humus	5cm	si pb gr	light br	Subwash	**gGU**	
WAYPOINT	70	1556801	45.206082	-76.609794	5007104	373579	w155			blk humus	2.5cm	pb sa gr	orange br	Subwash	**gGU**	
WAYPOINT	71	1556802	45.206045	-76.608633	5007098	373670	drained swamp w154					blk muck , sa		Organic	**O**	
WAYPOINT	72		45.206552	-76.609844	5007157	373576	dam across creek,flow S									
WAYPOINT	73	1556803	45.206918	-76.609793	5007197	373581	esker mounds,edge of swamp w170			humus. needles	3cm	pb md sa	br	Subwash	**gGU**	
WAYPOINT	74	1556804	45.206827	-76.610868	5007189	373497	w171			humus	3cm	pb sa	br	Subwash	**gGU**	
WAYPOINT	75	1556805	45.208851	-76.611137	5007414	373480	w172			humus	5cm	pb sa	br	Subwash	**gGU**	
WAYPOINT	76	1556806	45.208471	-76.610819	5007371	373504	ridres bear S from upper ridge w201	med		humus	3cm	pb sa	orange br	Subwash	**gGU**	
WAYPOINT	77	1556807	45.207724	-76.61101	5007289	373488	W side of large bowl in esker w186	med		poor decompose humus	6cm	pbsa	br		**gGU**	
WAYPOINT	78	1556808	45.207606	-76.61199	5007277	373410	kame and kettle w slope w187	steep		rusty humus	2.5cm	pb sa	orange br		**gGU**	
WAYPOINT	79		45.2076	-76.61272	5007278	373353	20 mtoE is creek flowing at AZ332, 3m wide									
WAYPOINT	80	1556809	45.20756	-76.61350	5007274.396	373291.4309	100m qtz Vn,limonitic stain, in mafic schist bld tag #809									
WAYPOINT	81	1556810	45.207768	-76.61410	5007298	373245	reverse whirl pool ,rdge at edge, small dry bld creek w187		lrge bld,some ang green schist	blk humus	5cm	sa	grey	Subwash	**bGU**	
	82		45.207134	-76.61422	5007228	373234	road AZ 108 + 232; greenstone on slope to N	steep								
WAYPOINT	83	1556811	45.206874	-76.61447	5007200	373214	w174	steep	ang bld	dark humus	6cm	sa pb si		Subwash	**gGU**	
WAYPOINT	84		45.206872	-76.61487	5007200	373182	uphil rad at AZ190									
WAYPOINT	85	1556812	45.206815	-76.61530	5007194	373148	flood plain w175	flat		humus	10cm	si, fw pb		Alluvium	**siA**	
WAYPOINT	87	1556813	45.206785	-76.61634	5007193	373067	flat bowl,200ME-W,30mN-S, outcrop to E, 2m N small creek w176		bld to E	blk humus	12cm	si		Pond	**siL**	
WAYPOINT	88	1556814	45.206848	-76.61758	5007202	372970	w177			prt decopose blk humus	12.5cm	si pb fn sa		Subwash	**gGU**	
WAYPOINT	90	1556815	45.207645	-76.61757	5007290	372972	large outcrop, greenstone w192			orange br humus	4cm	si fn sa pb grvl	orange br	Subwash	**gGU**	
WAYPOINT	91	1556816	45.207626	-76.61646	5007286	373060	bowls below w191	steep		br blk humus	4cm	si pb sa		Subwash	**gGU**	

WAYPOINT	92	1556817	45.208381	-76.61659	5007370	373051	bowl featues, back to slope w206			humus	12cm	sa si		Subwash	**saGU**	
WAYPOINT	93		45.20848	-76.61655	5007381	373054	road elbow AZ 108, 120 ark to 174									
	94	94	45.207602	-76.61582	5007283	373109	going E off road AZ 180 and 323									
WAYPOINT	95	1556818	45.207558	-76.61542	5007277	373141	E of small bowl in grvl									
WAYPOINT	96	1556819	45.208464	-76.61539	5007378	373145	w205	Steep		rooty br humus	7cm	si sa grvl	br	Subwash	**gGU**	
WAYPOINT	97	1556820	45.209019	-76.61536	5007439	373149		Steep		dk br humus	3 cm	pb md sa				
No WP	NIL	1556821					No sample number									
WAYPOINT	98		45.208231	-76.61370	5007349.249	373277.3722	Craig creek, 3m wide, med flow	gentle								
WAYPOINT	99	1556822	45.209121	-76.61425	5007449	373236	narrow esker ridge trend E-W w203	gentle						Glaciofluvial	**gGR**	
WAYPOINT	100	1556823	45.20821	-76.61444	5007348	373219	knobby terrain w202				6cm	fn grit, med sa		Glaciofluvial	**saGH**	
WAYPOINT	101	1556824	45.209187	-76.61092	5007451	373498	between road and truck 40m w216			br blk humus	3cm	pb sa		Glaciofluvial	**gGH**	
WAYPOINT	102		45.209219	-76.61059	5007454	373524	trucked parked									
WAYPOINT	103		45.211677	-76.60632	5007721	373865	old access to pit AZ 248 and 65									
WAYPOINT	104		45.211415	-76.60627	5007691	373868	old trail AZ 102 + 57									
WAYPOINT	116		45.211136	-76.60568	5007659	373914	intersection of trails AZ 18, 283, 98									
WAYPOINT	117		45.210565	-76.60591	5007596	373894	30m back pit edge,trail AZ121									
WAYPOINT	118	1556825	45.210059	-76.60633	5007541	373860	30m back from pit area;s w227	med	bld	red br humus	9cm	pb si sa	red br	GLaciofluvial	**gGM**	?
WAYPOINT	119	1556826	45.209252	-76.60638	5007451	373854	mounds w212		lrge semi rd bld	br prt decompose humus	7cm	pb si sa		Glaciofluvial	**gGM**	
WAYPOINT	119		45.209252	-76.60638	5007451	373854	elbow in rd. AZ 100 and 190									
WAYPOINT	120		45.209364	-76.60657	5007464	373840										
WAYPOINT	128	1556827	45.209303	-76.60763	5007459	373757	outcrop to E, gabbro w213	flat	bld,semiang	blk humus	3cm	si sa ,rare pb, grit		Subwash	**saGU**	?
WAYPOINT	133		45.209445	-76.60747	5007474	373769	trail, AZ 84									
WAYPOINT	134	1558628	45.210021	-76.60750	5007538	373768	To E bedrock core mound: pit to N 25m		Pit shows 5m+ gr ; bld near top							
WAYPOINT	134	1558628	45.210021	-76.60750	5007538	373768		gentle	gr sa surface	rusty blk humus	4cm	si pb sa		Subwash	**gGU**	?
WAYPOINT	135	1556829	45.210037	-76.60753	5007540.217	373765.5787	Recrzt carbonate, ca vn, spec or at crest									
WAYPOINT	143	1556830	45.210026	-76.60863	5007541	373680	pit 30m to N;	gentle	semi ang bld	humus.		sa			**saGU**	?
WAYPOINT	148	1555631	45.209223	-76.60869	5007452	373673			no bld	br blk humus	4.5cm	pb sa	light br	Glaciofluvial	**gGM**	
	149		45.20909	-76.608578	5007437	373682	road to E, AZ 255 ; to W, AZ 50									
WAYPOINT	150	1556832	45.208443	-76.608615	5007365	373677		med		humus	6cm	pb sa	br	Glaciofluvia	**gGM**	
	151		45.208407	-76.608801	5007361	373662	main road									
WAYPOINT	153	1556833	45.208406	-76.607538	5007359	373762	slope	gentle	no bld	blk humus, roots	7cm	pb sa	light br	Glaciofluvial	**gGM**	
	158		45.208123	-76.60752	5007328	373762	main road									
WAYPOINT	164	1556834	45.20774	-76.607433	5007285	373768	edge deep kettle; grvl linears at right angles to line w183	med		blk humus, roots	7cm	fn si cbl sa		Glaciofuvial	**gGH**	
	165		45.207652	-76.608125	5007276	373714	rough trail AZAZ10 then 310									

WAYPOINT	166	1556835	45.207599	-76.608649	507254	373660	sharp crested esker, AZ N-S w184	gentle	fw bld						gGR	
	168		45.206862	-76.608245	5007189	373703	Esker continues to S; marsh?	gentle								
WAYPOINT	173	1556836	45.206848	-76.608637	5007188	373672	book is 169? W base of esker w169	gentle		humus ,roots	2.5cm	pb cbl sa	gray	Subwash	gGU	
WAYPOINT	179	1556837	45.207953	-76.609815	5007312	373582	N end drain grassy depression w185?	flat		humus, mainly needles	2cm	pb sa	gray	Glaciofluvial	gGM	
	180		45.208377	-76.609858	5007359	373579	Esker ridge from N . w196?	gentle								
WAYPOINT	181	1556838	45.208504	-76.609666	500363	373563	Swale between 2 // eskers w200	med		dark humus	7cm	pb sa	br	Glaciofluvial	gGR	
	188		45.208782	-76.609674	5007404	373595	Main road									
WAYPOINT	193	1556839	45.209202	-76.609858	5007451	373581	gabbro , ridge trend AZ106, w215			br part decompse humus	2.5cm	fn pb sa		Subwash?	saGU	?
WAYPOINT	194	1556840	45.210062	-76.609844	5007547	373584	mound above pit to W w230	gentle		br blk md decompose	10cm	pb sa	br	subwash?	gGU	?
WAYPOINT	195	1556841	45.210071	-76.61105	5007549	373490	edge main road w231	med		mod decompose humus	6cm	pb sa	br		gGU	?
WAYPOINT	221	1500601	45.207676	-76.605501	5007274	373920	esker ridge trends road to lake	med steep		partial decompose humus	3cm	pb sa grvl	br	Glaciofluvial	gGR	
WAYPOINT	222	1500607	45.207274	-76.606272	5007231	373858	swale between eskers, parallel eskers	gentle		humus	<1cm	grilty si		Pond? In GR	LP	
WAYPOINT	223	1500602	45.206776	-76.607127	5007177	373790	small esker crest into lake			br humus	5cm	sa, si, grvl w pb	dark br	Glaciofluvial	gGR	
WAYPOINT	224	1500603	45.205942	-76.606767	5007055	373806	on esker			nil humus	0cm	sa, pb grvl		Glaciofluvial	gGR	
WAYPOINT	225	1500604	45.206431	-76.607933	5007140	373726	low esker into lake	flat		br humus	3cm	gritty si, sa		Glaciofluvial	SaGR	
WAYPOINT	232	1500610	45.208338	-76.606441	5007349	373847	gravel upland	gentle		bl humus	5cm	pb sa grvl	rusty br	Glaciofluvial	G	
WAYPOINT	233	1500609	45.209511	-76.61186	5007488	373424				bl humus	4cm	pb sa grvl	br	G;aciofluvial	G	
WAYPOINT	234	1500606	45.210437	-76.613035	5007577	373350	edge of esker	steep		humus	4.5cm	sa w fw pb	br	Glaciofluvia	SaGR	

Slopes

flat		0° - 5°
gentle		6° - 12°
med	medium, moderate	13° - 30°
steep		30° - 60°

Other

Az, az	azimuth in degrees
qtz	quartz
w232	alternate waypoint

Texture

ang	angular
cbl	cobble
crs	coarse
fn	fine
fw	few
grvl	gravel
pb	pebble
sa	sand
si	silt
v	very
w	with

Color

blk	black
br	brown
ox	orangish

Lengths

cm	centimetre
m	metre
v	very

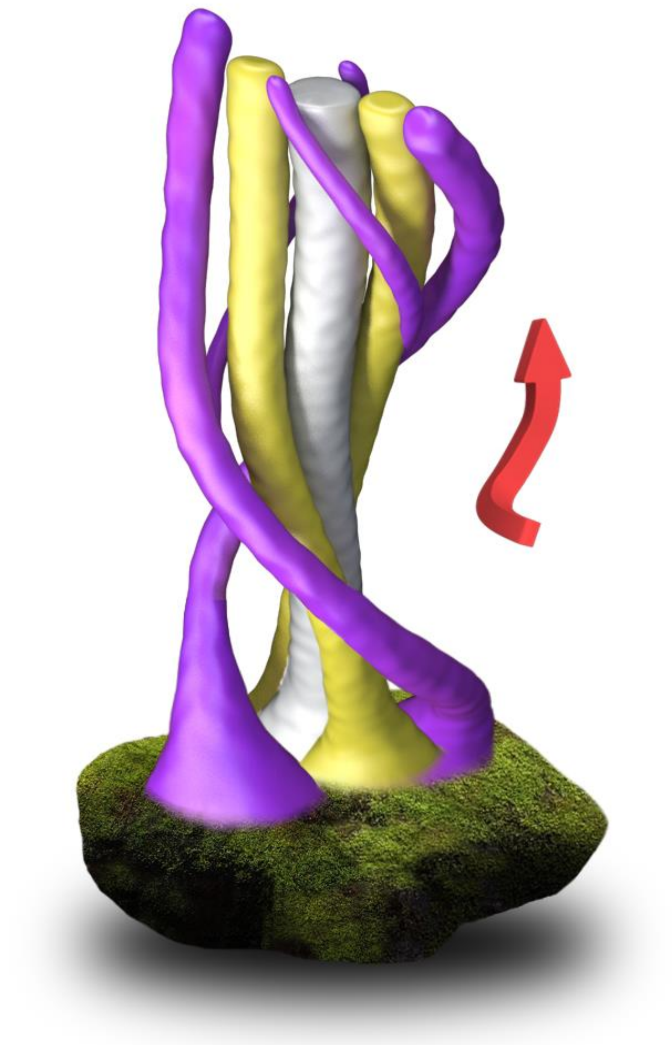
Surficial Units

A	Alluvial
AV	Alluvial, thin
G	Glaciofluvial
GF	Glaciofluvial, hummocky, sharp
GM	Glaciofluvial ,rolling, smooth
GP	Glaciofluvial. Plain
GR	Glaciofluial, Esker
GU	Glaciofluvial, subwash, poorly sorted diamicton
b	boulders, bouldery gravel
g	gravel, pebbly sand
sa	sand, sandy
si	silt , silty

3D - SGH

"A SPATIOTEMPORAL GEOCHEMICAL HYDROCARBON INTERPRETATION"

RAMPTON RESOURCES GROUP INC.
LITTLE GREEN LAKE SGH SURVEY



41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

E-mail: SGH@actlabs.com ● Web Site: www.actlabs.com

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SGH – SOIL GAS HYDROCARBON
Predictive Geochemistry

for

RAMPTON RESOURCES GROUP INC.

LITTLE GREEN LAKE SGH SOIL SURVEY

** Jeff Brown,*

Activation Laboratories Ltd

(- author)*

Dale Sutherland (- originator)

EVALUATION OF SAMPLE DATA – EXPLORATION FOR:
"GOLD" TARGETS

THE SGH GOLD INTERPRETATION TEMPLATE IS
USED FOR THIS REPORT

Workorder: A22-09763

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E-mail: SGH@actlabs.com ● Web Site: www.actlabs.com

Executive Summary

It is important to read the Report Preface on the next page as an introduction to the report. For more detail the Overview section on page 8 could also be read.

The Little Green Lake project area had 93 samples collected in a grid with approximately 90m sample spacing. These samples were received by Actlabs. After sorting and drying in our walk-in temperature controlled drying room and subsequent sieving, the samples were made available to the Organics Laboratory for analysis. Samples were extracted and analyzed by Gas Chromatography coupled with Mass Spectrometry (GC/MS). The data was processed and initial mapping completed. After review and interpretation of this project site, a second set of SGH Class maps was developed. The background SGH information, site interpretation and final maps were then entered into the SGH Interpretation Report.

The customized section for this LITTLE GREEN LAKE Survey starts on page 15. In the author's opinion, the SGH appeared to perform well in terms of response. The grid shape of this survey was beneficial in identifying the possible presence of a redox zone with the corresponding mineralization.

Note that some exploration companies submit this report intact to government assessors as proof of work on their claim. Be aware that the SGH data is not attached to this report; it is supplied separately as an Excel spreadsheet. Government assessors will also have to be supplied with this data.

41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

E-mail: SGH@actlabs.com ● Web Site: www.actlabs.com

PREFACE

THIS "STANDARD" SGH INTERPRETATION REPORT:

The purpose of this Soil Gas Hydrocarbon (SGH) interpretation "Standard Report" is to ensure that clients and other potential reviewers of the results have a good understanding of this organic, deep penetrating geochemistry. As SGH provides such a large data set and is not interpreted in the same way as an inorganic geochemical method, the provision of this interpretation and report enables the user to realize the results in a timely fashion and capitalizes on years of research and development since the inception of SGH in 1996 combined with the knowledge obtained by Activation Laboratories through the interpretation of SGH data from over 1,100 surveys for a wide variety of target types in various lithologies from many geographical locations. Although referenced today as a "nano-technology", the analysis of SGH has not changed since inception. The report is compulsory as it is the only known organic geochemistry that, in spite of the name, uses "non-gaseous" semi-volatile organic compounds interpreted using a forensic signature approach. Many different sample types can be used in the same survey. Interpretation is based solely on SGH data and does not include the consideration from any other geochemistry (inorganic), geology, or geophysics that may exist related to the survey area(s). This report can also provide evidence of project maintenance. To keep the price to a minimum and to provide as short a turnaround time as practically possible, usually only one SGH Pathfinder Class map is illustrated in a "Standard Report" with an applied interpretation although several other SGH Pathfinder Class maps are used and referenced. Definitions of certain terms or phrases used in this report can be found in Appendix A.

The interpretation in this report has used the results from some of the research with SGH in recent years which has focused on the potential that the SGH data is able to further dissect and understand the relationships between the chemical Redox conditions in the overburden the development of an electrochemical cell and its affect in shaping the upward migration of geochemical anomalies. This has resulted in the development by Activation Laboratories of a new enhanced model of the Electrochemical/ Redox Cell theory originated by Govett (1976) that was further developed to the model by Hamilton (2004, 2007). The new enhanced model developed by Sutherland (2011) takes the general anomalies expected by the Hamilton model to a higher level of detail and specificity. This has resulted in a more confident level of interpretation which has been referenced as 3D-SGH or **3D-"Spatiotemporal Geochemical Hydrocarbons (SGH)"**. This model was formally introduced at the International Applied Geochemistry Symposium (IAGS) organized by The Association of Applied Geochemists that took place in Rovaniemi, Finland, in August 2011. This new level of understanding of the expected anomaly types that can be observed with SGH provides a new level of quality control in the interpretation process as the symmetry of SGH anomalies can assure the interpreter which anomalies are as a result of a buried target. With the enhanced 3D-SGH interpretation that was introduced in 2012, we also mark the beginning of the ability to make some statements regarding the possible depth to mineralization for some projects as we dissect the Redox cell relative to the new Electrochemical Cell theory. The cover of this report is an artist's rendering of the pathways of different classes of Spatiotemporal Geochemical Hydrocarbons which migrate through the overburden. This model is used as the new 3D-SGH interpretation approach.

41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

E-mail: SGH@actlabs.com ● Web Site: www.actlabs.com

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 petroleum, gold, copper, VMS, uranium, etc.). The various templates of SGH Pathfinder Classes that together define the forensic identification signature for a wide range of commodity target types; Gold, Nickel, VMS, SEDEX, Uranium, Cu-Ni-PGE, IOCG, Base Metal, Polymetallic, and Copper, as well as for Kimberlites, Coal Seam, Wet Gas and Oil Play, have been developed through years of research and have been further refined from review of case studies and orientation studies has proven to be able to also address a wide range of lithologies. Even with 20+ years of development and experience with SGH, Activation Laboratories Ltd. cannot guarantee that the templates used are 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 any other type of geochemical data as a general service. As the author was trained by the originator of the SGH geochemistry, who has researched and developed this exploration tool since 1996, and has produced similar interpretations using SGH data for over 1,000 surveys, he is the best qualified person to prepare this interpretation as assistance to clients wishing to use this SGH geochemistry. Activation Laboratories Ltd. can offer assistance in general suggestions for sampling protocols and in sample grid 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 do 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 from using any information or material contained in this report or using data from the associated spreadsheet of results.

41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

E-mail: SGH@actlabs.com ● Web Site: www.actlabs.com

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 or imply certain forward-looking information related to the quality of 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 the results from other geochemical methods, geophysics, or geology is usually available as additional information for the interpretation and assignment of a rating value unless otherwise stated. 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 geochemical methods, an implied rating and the associated anticipated target characteristics may be different than that actually encountered if the target is drilled tested or the property developed. Activation Laboratories Ltd. may also make a scientifically based prediction 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 otherwise stated, Activation Laboratories Ltd. has not physically observed the exploration site and has no prior knowledge of any site description or details or previous test results. 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 or factors such as; the season of sampling, sample 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 external to Actlabs. Although Actlabs 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 that are not 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 for 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.

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E-mail: SGH@actlabs.com ● Web Site: www.actlabs.com

SOIL GAS HYDROCARBON (SGH) GEOCHEMISTRY – OVERVIEW

In the search for gas, oil, minerals and elements, geologists require tools to assess the location and potential quantity of minerals and ores. In the past people looked at the landscape to find the deposit. Similar landscapes indicate similar mineral and metal deposits. This is searching on a macro level, while geochemistry is searching on a micro level. Surficial materials requires many minerals and elements, so surficial materials can contain indications of the presence of minerals and elements.

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. These hydrocarbons have been shown to be residues from the decomposition of bacteria and microbes that feed on the target commodity as they require inorganic elements to catalyze the reactions necessary to develop hydrocarbons and grow cells in their life cycle. Specific classes of hydrocarbons (SGH) have been successful for delineating mineral targets found at over 950 metres in depth. Samples of various media have been successfully analyzed i.e., soil (any horizon), sand, till, drill core, rock, peat, humus, lake-bottom sediments and even snow. After preparation in the laboratory, 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 gases. Thus, in spite of the name, SGH does not analyze for any hydrocarbons that are actually gaseous at room temperature and SGH can also be used to analyze for hydrocarbons in sample types other than soil. SGH is also different from other soil hydrocarbon tests that thermally extracts or desorbs all of the 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 for identification. In SGH, the hydrocarbons in the sample extract are separated by high resolution capillary column gas chromatography and then detected by mass spectrometry 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 especially from two Canadian Mining Industry Research Organization (CAMIRO) projects (97E04 and 01E02).

Over the past 20+ 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 a short time frame and provide the benefits to them from past research sponsored by Actlabs, CAMIRO, OMET and other industrial sponsors. In 2011, a new model of Electrochemical/Redox Cell theory was proposed and the new 3D-SGH interpretation approach based on this theory was incorporated in 2012 on a routine basis for SGH interpretation reports.

SGH has attracted the attention of a large number of Exploration companies. In the above mentioned initial research projects the sponsors have included (in no order): Western Mining Corporation, BHP-Billiton, Inco, Noranda, Outokumpu, Xstrata, Cameco, Cominco, Rio Algom, Alberta

41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

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Geological Survey, Ontario Geological Survey, Manitoba Geological Survey and OMET. Further, beyond this research, Activation Laboratories Ltd. has interpreted the SGH data for over 1,000 targets from clients since January of 2004. In both CAMIRO research projects over known mineralization, client orientation studies, 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 specifically selected since other inorganic geochemical methods were unsuccessful at illustrating anomalies related to the target. 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. In 2007, shortly after providing SGH interpretation reports, SGH was credited in helping locate previously unknown mineralization, e.g. Golden Band Resources drilled an SGH anomaly and discovered a significant vein containing "visible" gold. (www.goldenbandresources.com) SGH has been very successful and mining companies have repeatedly used SGH on several reports. Of those clients that try this SGH Geochemistry, over 90+% have continued to use this technique as repeat clients. SGH has helped discover a large number of new deposits, however many clients have kept this to themselves as a competitive strategy.

SOIL GAS HYDROCARBON SURVEY DESIGN AND SAMPLING

Summary: See Appendix C for more details

In summary, the best conditions for the sample type and survey design include:

- Fist sized samples are usually retrieved from a shallow dug hole in the 15 to 40 cm range of depth.
- Different sample types can be taken even "within" the same survey or transect, data leveling is rarely required. SGH is highly effective in areas of very difficult terrain. The Golden Rule is to always take a sample.
- Samples should be evenly spaced in a grid or as a second choice, in a series of transects with sample lines spaced at a ratio of up to 4:1 (line spacing: sample spacing).
- A minimum of 50 sample "locations" is recommended with one-third over the target and one-third on each side of the target into background if this can be predicted. More samples representing a larger area is preferred in order to optimize data contrast.
- If very wet, samples can be drip dried in the field. No special preservation is required for shipping.
- Relative or UTM sample location coordinates are required to allow interpretation.

SAMPLE PREPARATION AND SGH ANALYSIS

Summary: See Appendix D for more details

Upon receipt at Activation Laboratories:

- The samples are air-dried at a relatively low temperature of 40°C.
- The samples are then sieved and the -80 mesh sieve fraction (<177 microns, although different mesh sizes can be used at the preference of the exploration geologist) is collected.
- The collected "pulp" is packaged in a Kraft paper envelope and transferred from our sample preparation department to our Organic Geochemical department also located in our World Headquarters in Ancaster, Ontario, Canada.
- Each sample is then extracted, compounds separated by gas chromatography and detected by mass spectrometry at a *Reporting Limit* of one part-per-trillion (ppt).
- 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.

41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

E-mail: SGH@actlabs.com ● Web Site: www.actlabs.com

SGH DATA QUALITY

Summary: See Appendix E for more details

Reporting Limit:

- The Excel spreadsheet of concentrations for the Hydrocarbons monitored is in units of ppt as "parts-per-trillion" which is equivalent to nanograms/kilogram (ng/Kg). The reporting limit of 1 ppt represents a value of approximately 5 times the standard deviation of low level analysis. Essentially all background noise has already been eliminated. All data reported should be used in geochemical mapping. Actual detectable levels can be significantly < 1 ppt.

Laboratory Replicate Analysis:

- An equal aliquot of a random sample is analyzed as a laboratory replicate.
- Due to the large amount of data, the estimate of method variability is reported as the percent coefficient of Variation (%CV).
- A laboratory replicate analysis is reported at a frequency of 1 for every 15 samples analyzed.
- The variability of field duplicate samples are similarly reported if identified.

Historical SGH Precision:

- Although the SGH analysis reports results at such trace ppt concentration levels, the average %CV for laboratory replicates is excellent at an average of 8% within a range of ±4%.
- Field duplicates have historically been 3 to 5% higher than laboratory replicates.

41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

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SGH DATA INTERPRETATION

Summary: See Appendix F for more details

SGH Interpretation and Report:

- Due to the very large data set provided by the SGH analysis, this interpretation report is provided to offer guidance in regards to the results of this geochemistry for the survey.
- In our interpretation procedure, we separate the 162 compound results into 19 SGH sub-classes. These classes include specific alkanes, alkenes, Thiophenes, aromatic, and polyaromatic compounds. The concentrations of the individual hydrocarbons within a class are simply summed. None of these compounds are gaseous at room temperature.
- At this time the magnitude of the hydrocarbon class data has not been proven to imply a higher grade or quantity of the mineralization if present.
- A "geochemical anomaly threshold value" should not be calculated for SGH data as any background or noise has already been filtered out through the use of a Reporting Limit instead of some type of detection limit.
- SGH hydrocarbon data should never be interpreted individually. Interpretation must always use a compound class.
- Multiple SGH Classes are compared. Multiple SGH Classes that have been associated with the presence of specific mineralization are called SGH Pathfinder Classes that together represent the forensic signature or fingerprint identification that is associated with a specific type of mineralization or petroleum play.
- The anomalies of each class are compared as to their geochromatographic dispersion and ability to vector to a common location that may be referenced as a potential drill target.
- The agreement and behaviour between SGH Pathfinder Classes for a type of target, as a template of Classes, is compared against SGH research and orientation studies. The quality of agreement is expressed as an SGH Rating of confidence that the SGH anomalies of the survey being interpreted are similar to the behaviour of these classes over known mineralization.
- The interpretation is customized for the project survey by the Author. The SGH Rating and Interpretation is subjective and based on the experience from 1,000+ SGH survey interpretations. The interpretation is not conducted or assisted by any computerized process.

41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

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SGH CHARACTERISTICS

Summary: See Appendix G for more details

SGH Characteristics:

- The pattern of SGH anomalies are usually of high contrast and easily observed.
- SGH is able to illustrate exceptionally symmetrical anomalies in spite of exotic overburden and barriers such as permafrost, shale and basalt caps, previously thought to be impenetrable.
- Inorganic geochemistry can illustrate anomalies of metals that have been mobilized by surficial physical processes. As SGH is essentially “blind” to the inorganic content of a sample, SGH anomalies illustrate the true source of mineralization as it is not affected by the effects of terrain or from mobilized cover such as from glacial transport.
- As SGH hydrocarbons are essentially non-polar, highly symmetrical anomalies are observed. As such symmetry is rare in geochemistry this provides a higher level of confidence to the interpretation that is reflected by a higher SGH Rating Score in comparison to known case studies.
- SGH can be analyzed on samples collected in different seasons or adjacent years. The combined data most often does not require any data leveling.

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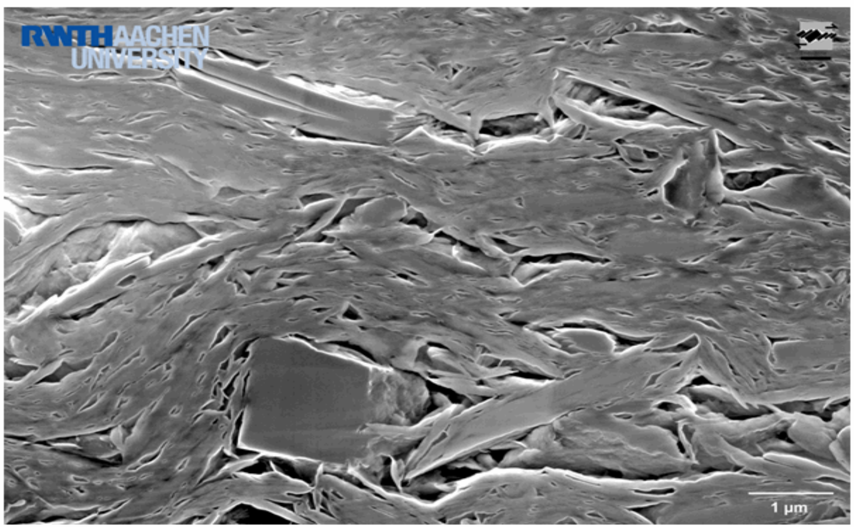
E-mail: SGH@actlabs.com ● Web Site: www.actlabs.com

SGH INTERPRETATION – LATEST ENHANCEMENTS

SGH continues to be developed even after 18 years since inception. Although the sample preparation and analysis has stayed the same, in the last 10 years in particular it is the interpretation and understanding of the SGH data and the intricacies of the SGH signatures that have been more refined. In the last 4 years this understanding has extended to the ability to make some prediction of depth from just the use of this geochemistry. A "first" for a geochemistry that is unique to SGH. Today the latest SGH development is the introduction of the concept of the "transparent overburden". The basis of this ability is the understanding that SGH is a Nano-geochemistry. The term "Nano" is not only used to describe the capability in detecting "Nano" quantities of these hydrocarbon based bacterial decomposition products, with the ability to detect 1 nanogram per kilogram (ng/Kg or 1 part-per-trillion), but "Nano" also describes the size of the hydrocarbon compounds detected which are typically < 1 micron in size. These relatively non-polar hydrocarbons are far smaller in size than inorganic oxides and sulphides. This difference is the reason why SGH anomalies are reliable vertical projections of mineral and/or petroleum based targets. This SGH Nano-geochemistry thus makes even the most exotic overburden "transparent". The SEM (Scanning Electron Microscope) image below illustrates the large number of micron sized pore spaces in "Boom Clay", specific high density clay, used to cap deep chambers of high hazard and radioactive wastes. To SGH, this is just a sieve that these hydrocarbons are able to still migrate through by Nano-Capillary action. Inorganic oxides and sulphide anomalies from targets below such complex overburden may be laterally displaced as they must rely on faults and shears in order to migrate to the surface



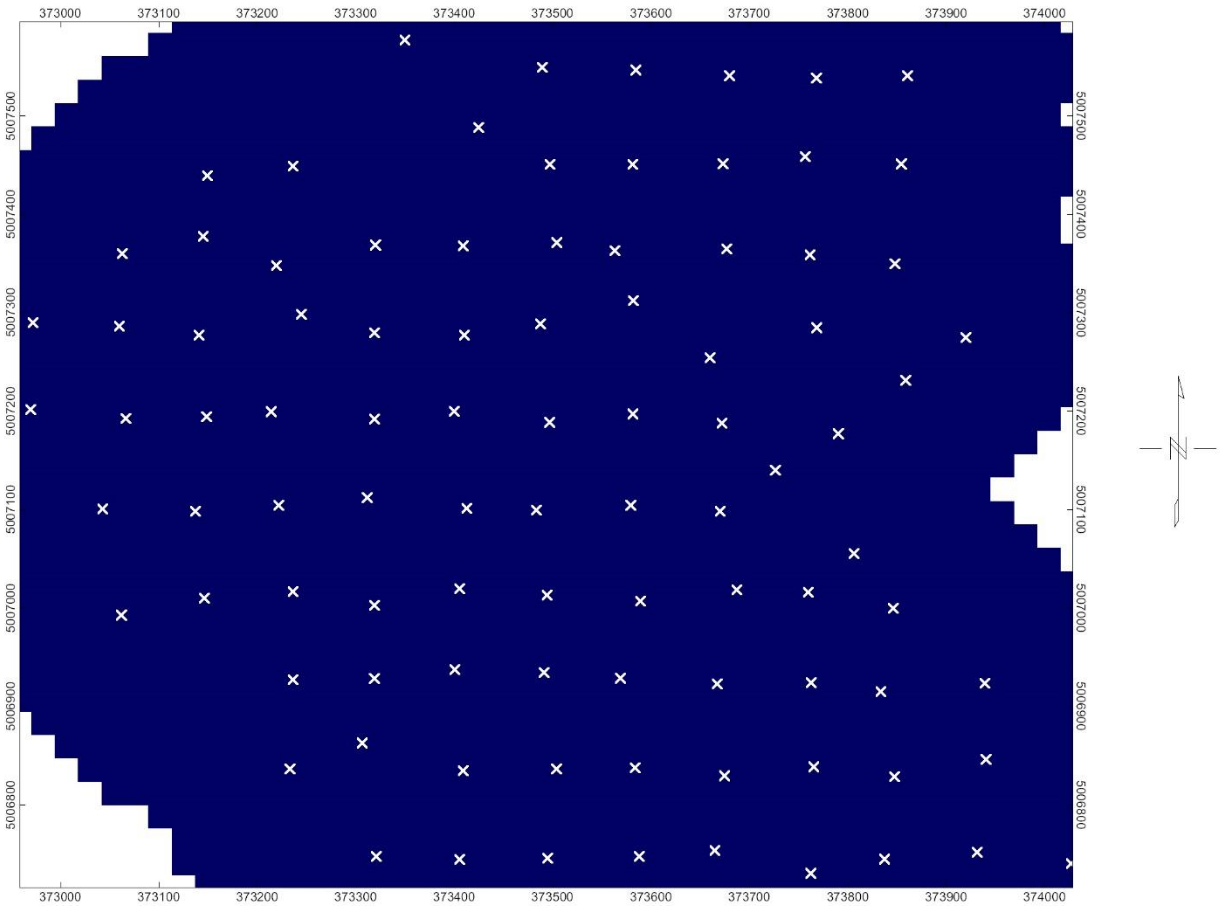
This new understanding of the rationale of why SGH anomalies are so reliable in their vertical projection of the location of mineralization and in the ability to so accurately delineate shallow and deep mineralization has further lead to the ability to use SGH to review different layers of the overburden as it relates to the mineral target due to the wide molecular weight range of the SGH Nano-geochemistry. Another factor that aids in this review of layers, much like peeling back the layers of a sweet-onion, is the understanding of weathering processes in the 5 metres near the surface that includes the Vadose zone.

41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

E-mail: SGH@actlabs.com ● Web Site: www.actlabs.com

INTERPRETATION OF SGH RESULTS - A22-09763
RAMPTON RESOURCES GROUP – LITTLE GREEN LAKE SURVEY

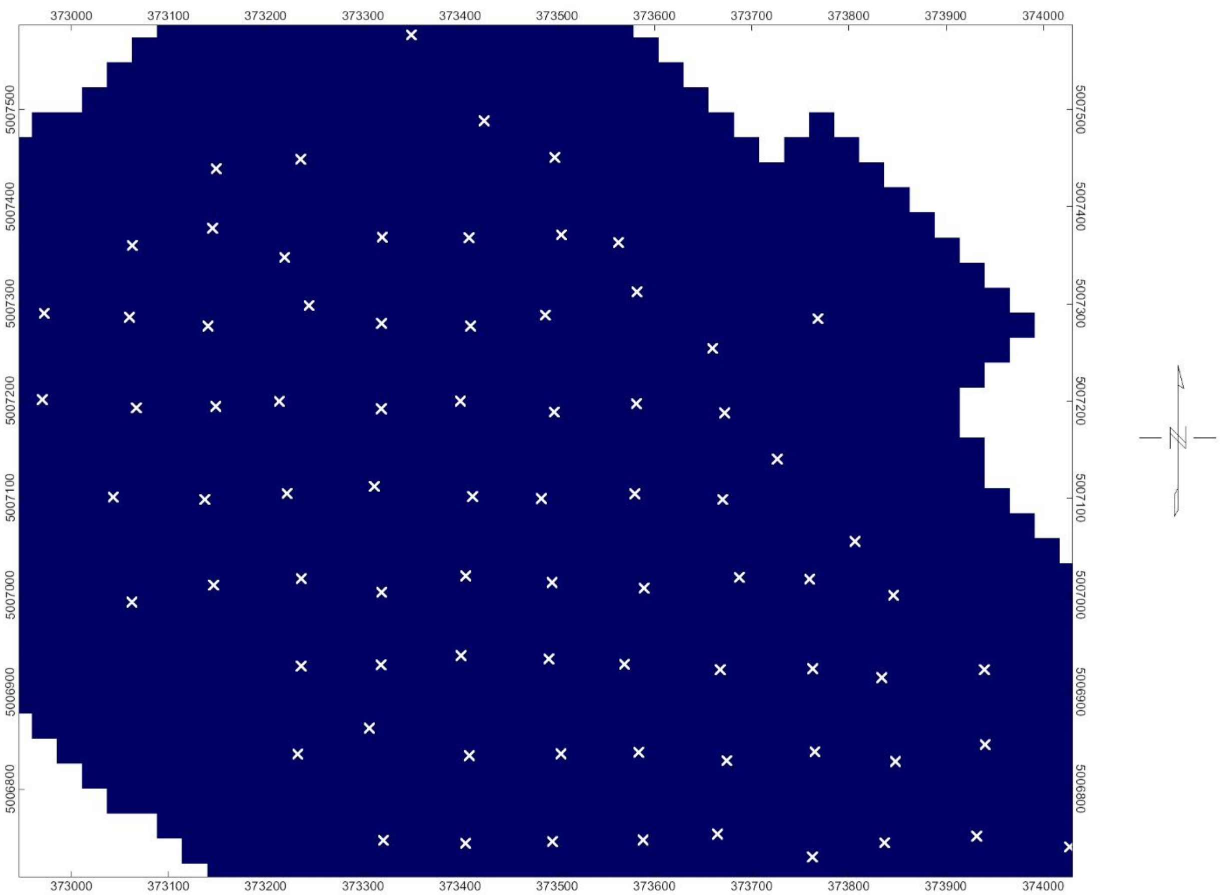
This report is based on the SGH results from the analysis of a total of 93 soil samples from the LITTLE GREEN LAKE survey. The survey can be described as a uniform grid with sample spacing of approximately 90m. The samples were shipped to Actlabs Global Headquarters, then prepared for analysis. Sample coordinates were provided for mapping of the SGH results for these samples in UTM format. A sample location map is shown below.



41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

E-mail: SGH@actlabs.com ● Web Site: www.actlabs.com

The LITTLE GREEN LAKE survey consisted of 93 samples, 78 of which were classified as "RRG Partners" and 15 as "TCC". As per the client an additional interpretation was to be performed on the "RRG Partner" samples, exclusive of the "TCC" samples. A sample location map with "TCC" samples removed is shown below.



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SGH INTERPRETATION - A22-09763 – RAMPTON RESOURCES GROUP QUALITY ASSURANCE – LITTLE GREEN LAKE SOIL SURVEY

Note that the associated SGH results are presented in a separate Excel spreadsheet. This data is semi-quantitative and is presented in units of pg/g or *parts-per-trillion* (ppt) as the concentration of specific hydrocarbons in the sample. <u>The number of samples submitted for this survey is more than adequate to use SGH as an exploration tool</u>. SGH has been proven to discriminate between false mobilized soil anomalies and is able to actually locate the source target deposition. SGH is a deep-penetrating geochemistry and has been proven to locate Copper, Gold, VMS, and other types of mineralization as well as for petroleum targets at several hundred metres below the surface irrespective of the type of overburden. Note that the SGH data is only reviewed for the particular target deposit type requested, in this case for the presence of gold. It is assumed that there is only one potential target. If known, in surveys with several complex geophysical targets, to obtain the best interpretation the client should indicate that there are possibly multiple targets. The possibility of multiple geophysical targets should be known due to potential overlap and increased complexity of the resulting geochromatographic anomalies, which could alter the interpretation as to which targets are mineralized or not.

The overall precision of the SGH analysis for the samples at the LITTLE GREEN LAKE Soil Survey was excellent as demonstrated by 6 samples taken from this survey which were used for laboratory replicate analysis and were randomized within the analytical run list. The average Coefficient of Variation (%CV) of the replicate results for the samples in this survey was **8.5%** which represents an excellent level of analytical performance especially at such low parts-per-trillion concentrations.

The location of **Field Duplicate samples was not identified from the LITTLE GREEN LAKE Soil Survey.** It is typically observed that the variability of field duplicates are 5% to 8% CV higher than for laboratory duplicates of random samples taken from the survey. Note that the SGH geochemistry does not detect all organic hydrocarbons present in the samples.

No other statistics were used on the data for this report for mapping or interpretation purposes aside from the use of a Kriging trending algorithm in the GeoSoft Oasis Montaj mapping software. **This interpretation is based only on the analytical results provided by the SGH Nano-Geochemistry from this submission of samples for the LITTLE GREEN LAKE survey samples.** A template or group of SGH Pathfinder Classes that have been found to be associated with buried Gold targets was used as the basis for the interpretation of this area. The final interpretation is customized and conducted by the author. Although the term "template" or "signature" appears in this SGH Report, a computerized interpretation is not used.

41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

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SGH INTERPRETATION - SGH TARGET PATHFINDER CLASS MAPS

The maps shown in plan and in 3D views in this report are SGH "Pathfinder Class maps" for targeting various chemical classes of hydrocarbon flux signatures related to Redox conditions and gold type targets. This report may have been expanded by the author to include additional SGH information that may help understand the structure of the findings if present at the LITTLE GREEN LAKE survey area. The maps shown represent the simple summation of several individual hydrocarbon compound concentrations that are grouped from within the same organic chemical class. SGH Pathfinder Class maps have been shown to be robust as they are each described using from 4 to 14 chemically related SGH compounds (unless otherwise stated) which are simply summed to create each chemical class map. Thus, each map has a higher level of confidence as it is not illustrating just one compound measurement.

The Gold template of SGH Pathfinder Classes uses primarily low and medium molecular weight classes of hydrocarbon compounds. At least three Pathfinder Class maps, associated with the SGH signature developed must be present to begin to be considered for assignment of a good rating relative to the SGH performance in case studies over known Gold types of mineralization(some of these maps might not be shown in this report). These SGH classes must also concur and support a consistent interpretation in relation to the expected geochromatographic characteristics of the Pathfinder Class. The *overall* SGH interpretation Rating has even a higher level of confidence as it further implies the consensus between at least three SGH pathfinder classes. A combination of these SGH Pathfinder Classes potentially defines the signature of a target at depth if present. Each of the SGH Pathfinder Class maps shown in this report is a specific *portion* of the SGH signature relative to the presence of Gold as described. Each pathfinder class map is still just one of the Pathfinder Class maps used in the interpretation template for Gold. Additional interpretation information which may contain additional SGH Pathfinder Class maps is available as a Supplementary Report at an additional price (see Appendix H).

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SGH TARGET PATHFINDER CLASS MAPS

Note that any concentration value in the accompanying Excel spreadsheet greater than the "Reporting Limit" of 1 ppt is important data and has been able to depict mineralization or petroleum plays at depth under cover in other projects. The majority of the variability or noise has already been eliminated; additional filtering will adversely affect any interpretation. Note again that a Kriging trending algorithm has been applied to the mapping routine in the Geosoft Oasis Montaj software in the development of the SGH Class maps. SGH concentrations are in some way probably related to the amount of mineralization or petroleum resource present, which probably defines the characteristics or quantity of the biofilm(s) in contact with the target, as well as being related to the depth to the target. SGH results have also been shown to correlate well with geophysical measurements such as magnetic anomalies and those of CSAMT.

The SGH Class maps are the plot of the sums of the particular hydrocarbon class in parts-per-trillion concentration. The dark blue areas of these maps represent very low or non-detect values or areas where no samples were taken. For plotting purposes the values at the Reporting Limit are plotted as one-half of this filtering, or one-half of 1.0 ppt. The hotter colours represent higher concentrations of the sum of the class with the highest values being purple in colour. The lowest concentrations that may be at 0.5 ppt, are shown in blue.

SGH is a "deep penetrating" geochemistry but also works well for deep targets as well as relatively shallow targets. Targets shallower than about 3 to 5 metres (or potentially outcrop) will have a reduced SGH signal due to interaction with atmospheric conditions and samples taken right at surface outcrops will have even weaker signals due to a higher degree of weathering from various environmental processes on these volatile and semi-volatile organic hydrocarbons.

In the interpretation of SGH data there are several goals. In order of importance they are:

- Review for the presence of Redox Cells
- Vector to the location of a mineral target
- Delineate the mineral target
- Identify the type of mineral target
- Describe the features of the possible mineral target
- See if there is information on the basement structure
- Predict a drill target
- Predict the possible depth to the mineral target

Not every goal is expected to be able to be achieved with each SGH data set or survey.

41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

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A22-09763 – RAMPTON RESOURCES GROUP
LITTLE GREEN LAKE SOIL SURVEY
SGH INTERPRETATION RATING AND CLARIFICATION

Often a geochemistry such as SGH is used as an economical exploration investigation tool to provide more information on an exploration target as some geological body or help prioritize some geophysical target. Such occurrences are in general expected to change the chemistry of the immediate overburden which in turn is expected to result in a chemical anomaly as detected in surficial samples. The author believes that it is important to convey to the client the presence of an anomaly even if there is only part of the SGH signature present that may be related to the mineral signature or template requested. In other words, the anomaly illustrated in the report may not be representative of the mineralization sought as only a part of the SGH signature is present, but the anomaly may confirm the presence of some geological or geophysical target which may be valuable to the client for comparison with other data. In addition, it would confirm the ability and sensitivity of SGH to show geological or geophysical occurrences. Example: A well defined rabbit-ear anomaly on an SGH Pathfinder Class map in a report, even though it may have a lower rating of 2.0 or 3.0, may illustrate to the exploration geologist that SGH does agree that there is some geological body at depth that is changing the chemistry and forming a Redox cell in the overburden. However, the SGH forensic signature Rating indicates that there is a lower confidence that the "identification" of that body is likely to be say Gold (if the SGH Gold template is requested). This information would provide a confirmation that a target does exist, however if the SGH Rating indicates that the target has a lower level of confidence then the target does not have the forensic signature of the mineralization sought. SGH would thus provide a savings to the exploration program and divert focus to potentially other targets having a higher confidence in the SGH identification Rating for Gold in this example.

Thus, the SGH rating must always be considered in conjunction with the SGH Pathfinder Class map(s) shown in the report. It is this rating that provides an insight into the authors' complete interpretation and is a measure of the confidence and to what degree the complete SGH signature compares with the SGH results from over case studies of similar known deposits. Unfortunately, the interpretation of a visual, as the SGH map provided, is so ingrained in humans that the reader may erroneously disregard the author's subjective rating to a large degree. As of November 25, 2011, the author now highlights the rating directly on the page having the plan view of the SGH Pathfinder Class map chosen to be illustrated. Thus to the reader of the report, the authors Rating is actually **MORE IMPORTANT** than the readers instinctive interpretation of just the one map provided. Again, SGH should not be used in isolation from other site information, and that a Rating of 4.0 is when, in the authors' estimation, a signature only starts to have a good identification relative to that type of mineralization, and that the survey may warrant further study although it is not a specific recommendation to drill test the anomaly. As the SGH interpretation is represented by a signature, the SGH Pathfinder Class map(s) illustrated in reports is always only "PART" of the specific SGH signature or template that the client requests (i.e. for Gold, etc.). No one SGH map can represent the complete signature due to the different amounts of spatial dispersion of the anomalies that are expected for the variety of SGH chemical classes within each signature. Thus the author selects the one SGH Class Map relative to the mineralization requested that best represents an anomaly that estimates the overall signature found in the survey.

41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

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A22-09763 – RAMPTON RESOURCES GROUP – LITTLE GREEN LAKE SGH "REDOX" INTERPRETATION

As a general comment in regard to the SGH results at the LITTLE GREEN LAKE Soil Survey, the SGH data in general had good signal strength and the SGH Class maps in this report are fairly good in contrast. It's important to not think of contrast with SGH as Signal:Noise as by using a "Reporting Limit" the noise has already been completely or nearly completely removed.

One of the first steps in the interpretation of the spatial aspect of SGH data is to locate potential Redox conditions in the overburden. Redox conditions have been well known to be related to blind mineral or petroleum targets; however, Redox conditions can also be attributed to other geological bodies that are of no particular interest. SGH signatures have been shown to be able to differentiate between these targets. SGH has been described by the Ontario Geological Survey of Canada (OGS) as a "Redox Cell locator". Redox Cells can be related to the presence of bacteriological activity related to mineralization but also may be related to the presence of geological bodies such as Granite Gneiss, Dunite, etc. Recently SGH has been shown to be far more sensitive to depicting Redox conditions than even measurements using pH or ORP tests. It is important to understand that; not only is SGH a Redox cell locator, but due to the forensic signature of mineralization used in the interpretation process, SGH can discriminate mineral targets and other target types from geological bodies, other magnetically detected targets, mineralized versus non-mineralized conductors, cultural effects, etc. even in surveys over highly difficult or exotic terrain that often requires the collection of multiple sample types. In the interpretation it is not necessary to detect a Redox cell if mineralization is within approximately 30 metres of the surface as this would be insufficient depth to develop a dispersion halo anomaly. Many SGH surveys for Gold, Petroleum, and other mineral and petroleum based 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", "Segmented-Nested-Halo", and "Rabbit-Ear" or "Segmented Halo" type anomalies are all typically observed within the SGH data set from the effect of Redox cells that have developed over mineralization and their interaction with Redox conditions and the electromotive forces produced by the subsequent Electrochemical Cell. Different types of anomalies have also been associated with the depth to the target. The types of anomalies developed have been recently explained by the use of the 3D-SGH model of interpretation. The highly symmetrical anomalies illustrated by SGH data closely follow the expected self-organizing patterns of neutral species within an electrochemical cell in recent experiments in physics laboratories. The highly symmetrical anomalies are also able to be observed as the Nano-sized dimensions of these organic hydrocarbons are much smaller than inorganic oxides and sulphides. Thus the SGH hydrocarbons can migrate through the Nano-sized fissures of even clay, basalt, and permafrost caps by means of Nano-capillary action. The simple fact that the SGH anomalies are geometrically symmetrical and not random further improves the confidence of SGH interpretations.

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The SGH Pathfinder Class map shown on page 22 and in 3D view on page 23 shows the anomaly from one of the most reliable SGH Pathfinder class maps in predicting the presence of redox conditions that can support other SGH Pathfinder Class maps for Gold mineralization. Remember that signals near the edges of the survey or at the ends of transects can appear to be higher due to the Kriging trending algorithm applied for mapping. For this reason, these anomalies may not be interpreted.

The SGH Pathfinder Class map shown on page 24 and in 3D view on page 25 with the "TCC" samples removed shows the same Redox anomaly as that with all samples combined.

The SGH Class maps are only a portion of the SGH Gold signature used in each interpretation. There is not any one SGH Class map that can, as a single map, be reliably used to interpret the presence of Copper, Gold or any other type of mineralization. Again, as signals or anomalies due to any analytical, sample preparation, or sampling procedure "noise" have been removed through the use of the Reporting Limit filter, any SGH anomaly on this Pathfinder Class Map has a high probability of being real data. The SGH Pathfinder Class maps shown are highly sensitive in illustrating strong results for Gold based on previous research and case studies. Other SGH Classes at the LITTLE GREEN LAKE survey also agree with the interpretation shown in the following pages.

This portion of the SGH hydrocarbon signatures is predicted to be associated with Gold targets as the detection of those hydrocarbon residues produced by the decomposition of microbes and bacteria from the life cycle death phase that have been feeding on Gold. These residues have subsequently migrated to the surface as a flux of different classes of hydrocarbons or decomposition products. During migration to the surface, dispersion away from the mineralization is expected. The distance of dispersion is dependent on the principle of geochromatography that is in generally related to the average molecular weight of the class. It has been found that the complexity of the overburden does not affect the geochromatographic dispersion of the SGH classes of this Nano-Geochemistry, unless a situation is encountered such as that of a "major" fault that may result in a very slight deflection of this path. This is the basis of the 3D-SGH interpretation as the relatively neutral hydrocarbons that SGH detects are spatially observed as very symmetrical anomalies (as presented by the creator at the IAGS conference in Finland in 2011 and further at the IAGS conference in New Zealand in November of 2013 and Tucson Arizona in 2015).

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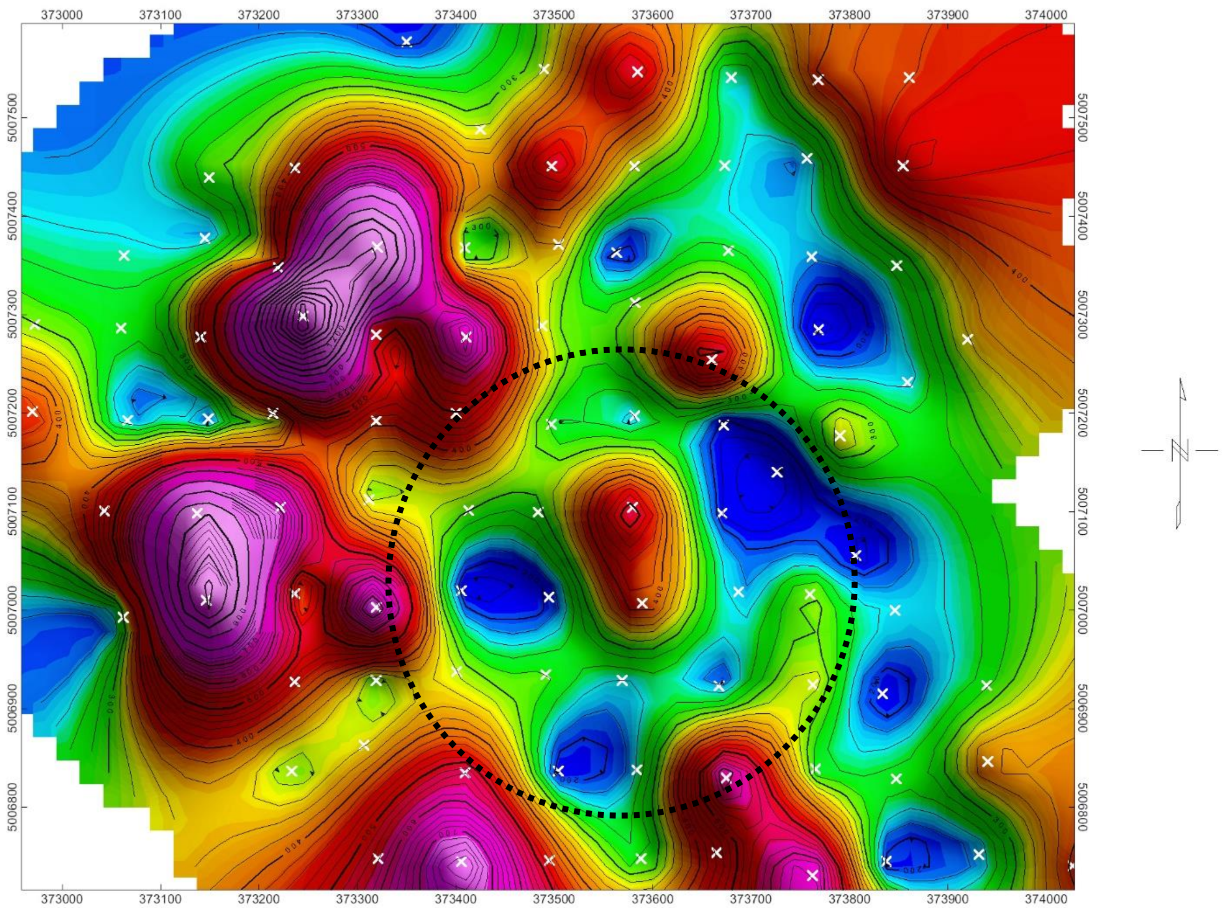
A22-09763 – RAMPTON RESOURCES GROUP – LITTLE GREEN LAKE SGH "REDOX" PATHFINDER CLASS MAP



SEGMENTED-NESTED HALO ANOMALY ILLUSTRATING POSSIBLE PRESENCE OF REDOX ZONE

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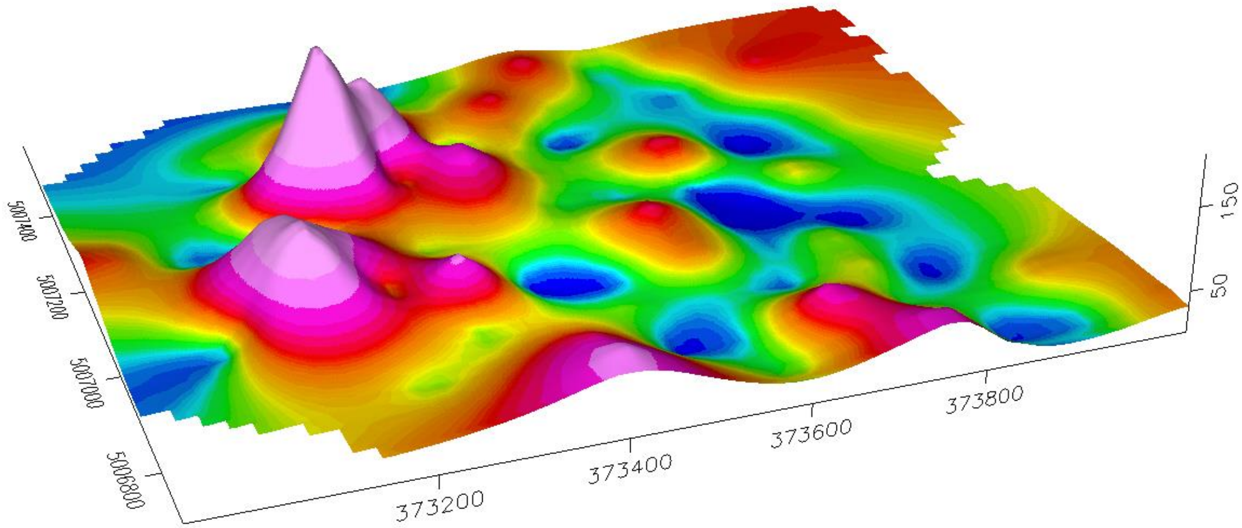
A22-09763 – RAMPTON RESOURCES GROUP – LITTLE GREEN LAKE
SGH "REDOX" PATHFINDER CLASS MAP



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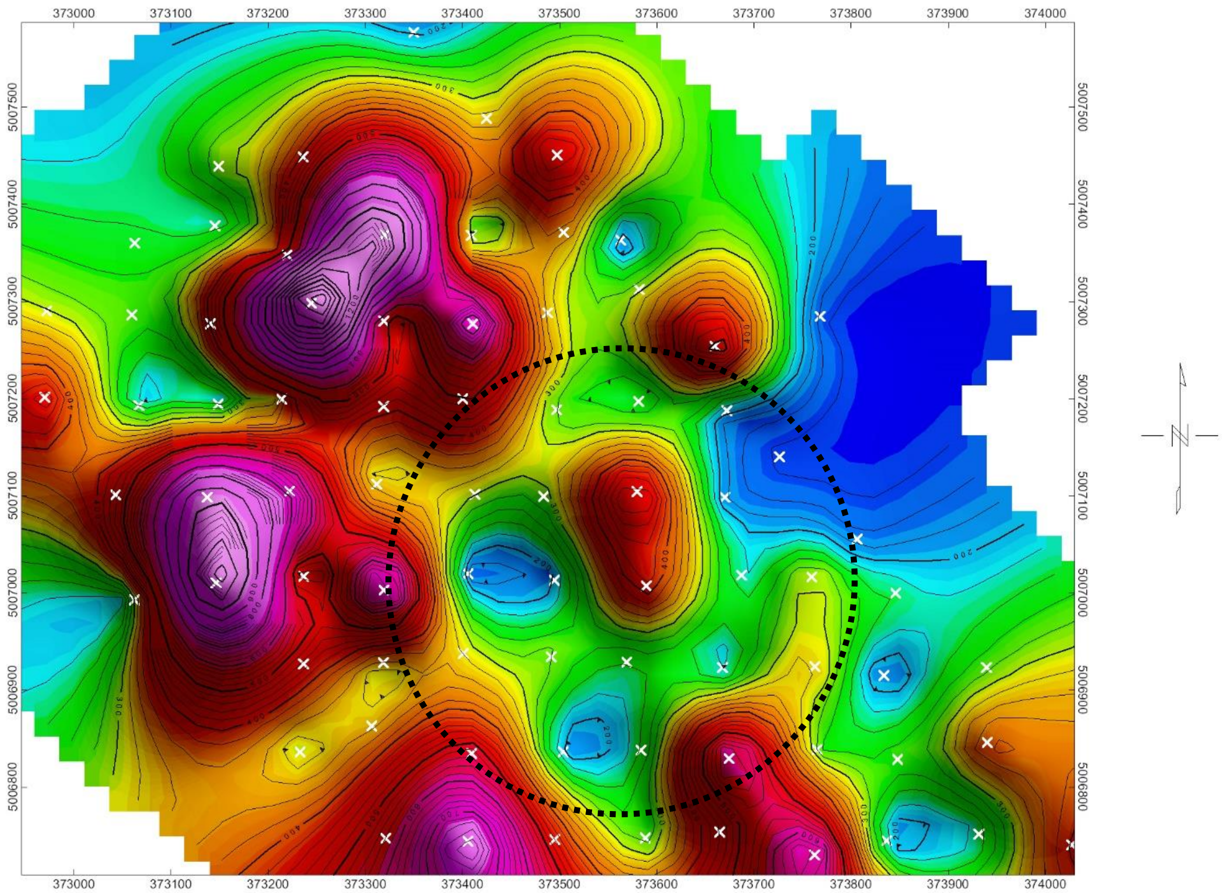
A22-09763 – RAMPTON RESOURCES GROUP – LITTLE GREEN LAKE
"TCC" SAMPLES REMOVED
SGH "REDOX" PATHFINDER CLASS MAP



SAME SEGMENTED-NESTED HALO ANOMALY ILLUSTRATING POSSIBLE PRESENCE OF REDOX ZONE

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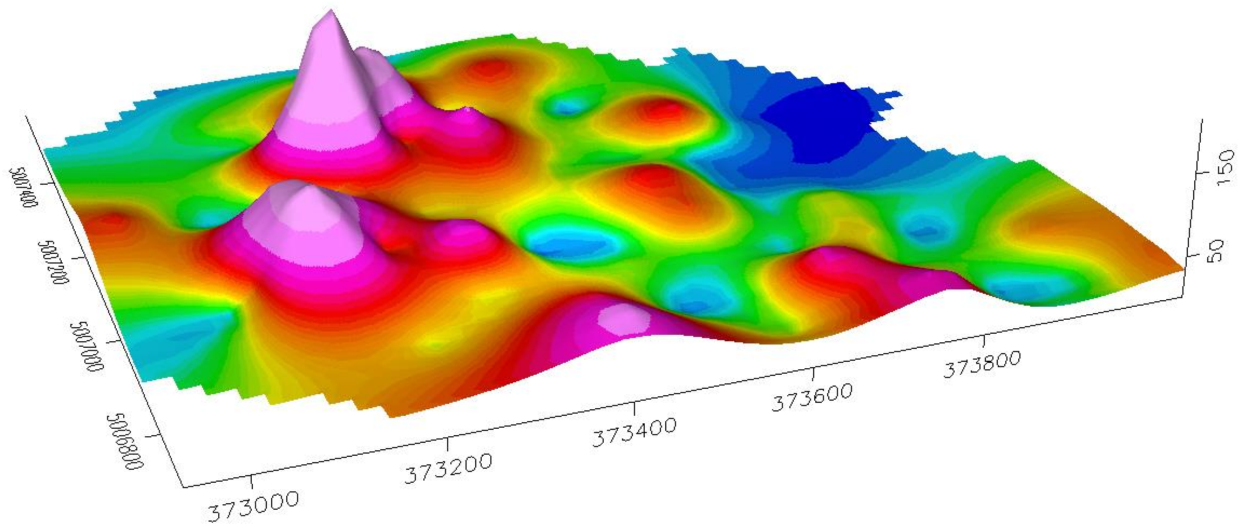
"TCC" SAMPLES REMOVED
SGH "REDOX" PATHFINDER CLASS MAP



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Page 28 of this report, and in 3D-view on page 29, shows the anomalies from the most reliable SGH Pathfinder Class in predicting the presence of Gold Mineralization. This map illustrates a region of apical anomalies outlined in yellow, on the western edge and at the center of the redox zone. The same anomalies can be observed on the SGH Pathfinder Class map with the “TCC” samples removed. This is shown on page 30 and in 3D on page 31. We believe that mineralization might exist at these locations as a vertical projection beneath these anomalies. Several other SGH Pathfinder Class Maps associated with the presence of Gold mineralization (not shown in this report) support the interpretation of these anomalies at the LITTLE GREEN LAKE Project.

Again, the prediction of these anomalies for Gold mineralization is based only on SGH.

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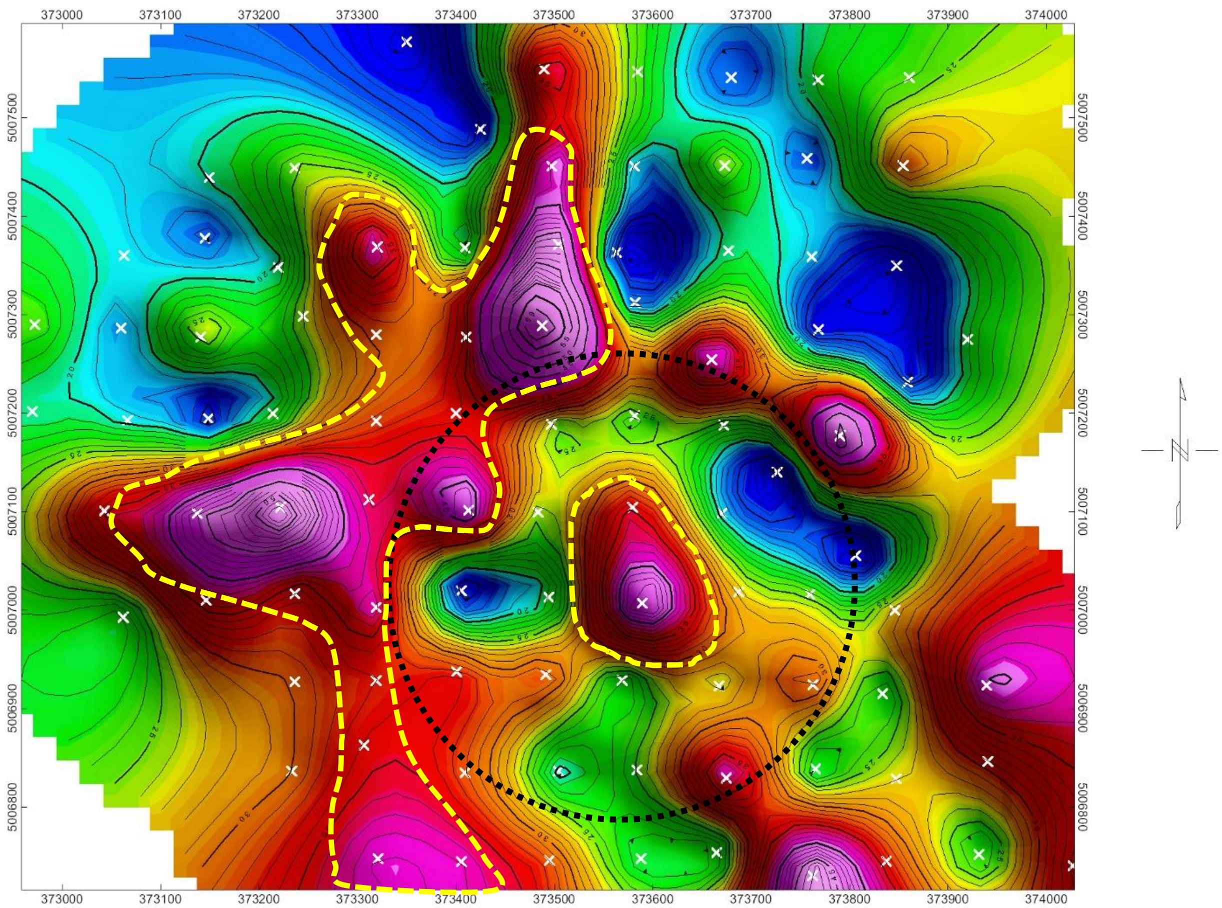
A22-09763 – RAMPTON RESOURCES GROUP – LITTLE GREEN LAKE
SGH "GOLD" PATHFINDER CLASS MAP



PREDICTED GOLD MINERALIZATION – YELLOW OUTLINE

SGH SIGNATURE RATING RELATIVE TO "GOLD" = 5.0 OF 6.0

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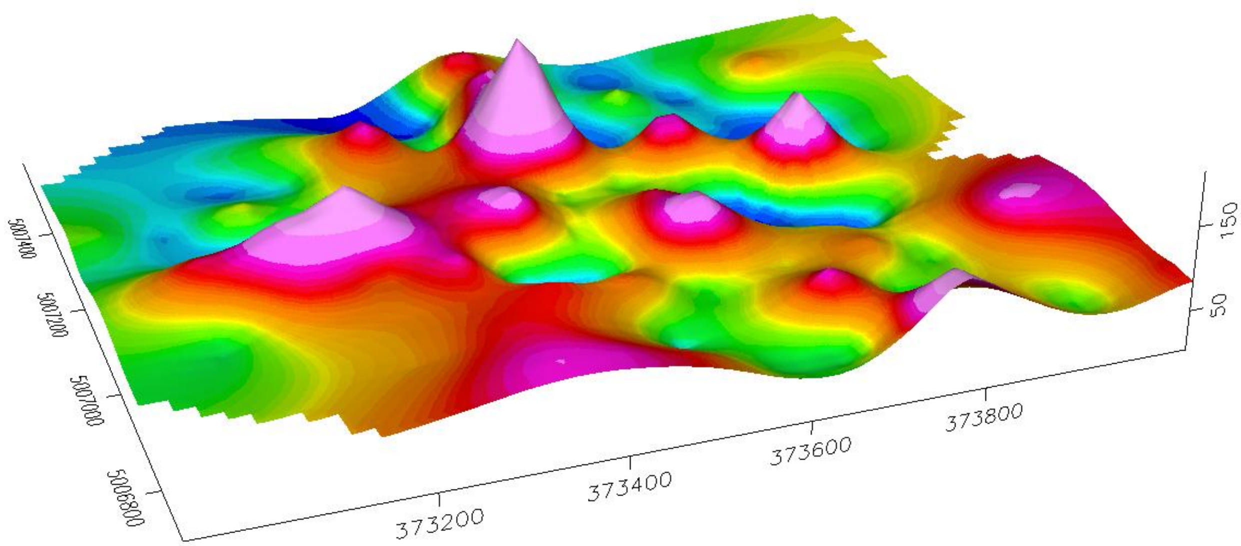
A22-09763 – RAMPTON RESOURCES GROUP – LITTLE GREEN LAKE SGH "GOLD" PATHFINDER CLASS MAP



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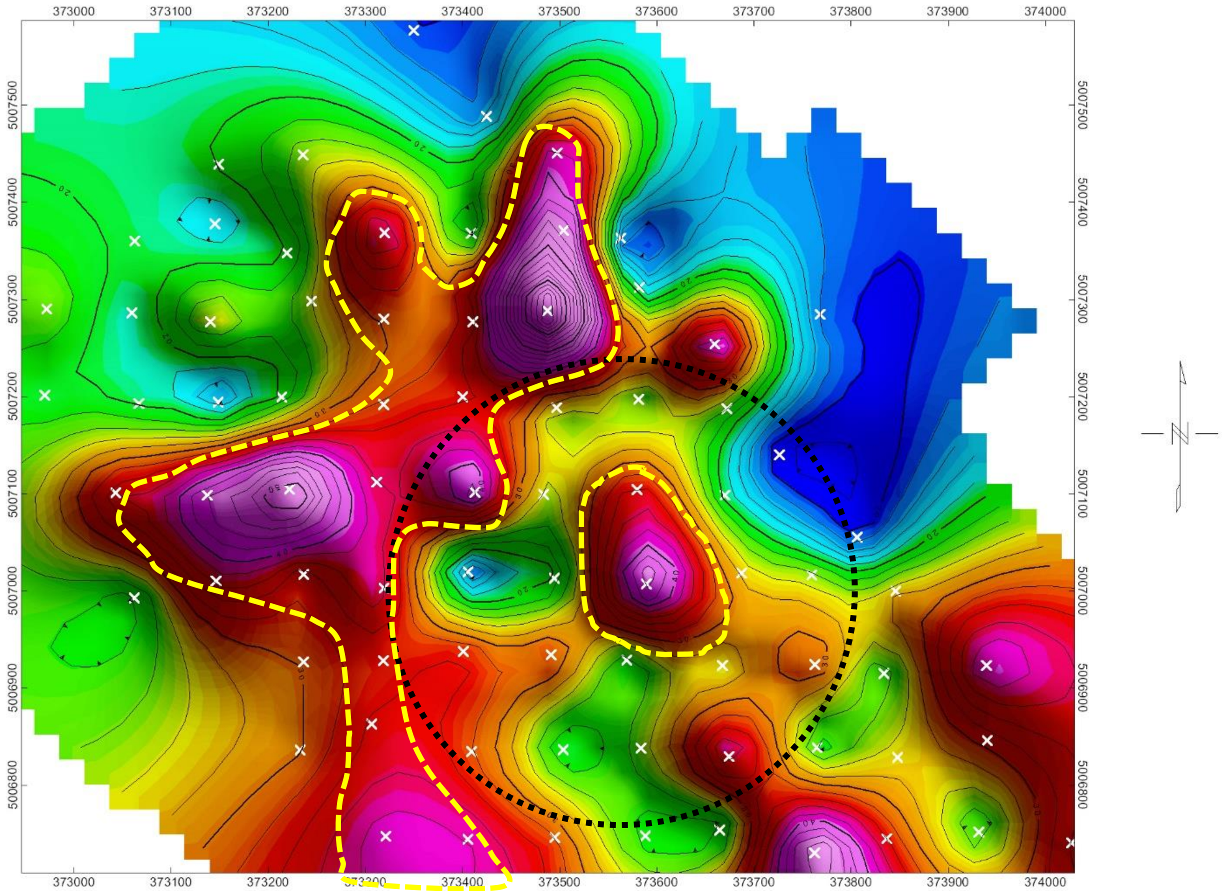
A22-09763 – RAMPTON RESOURCES GROUP – LITTLE GREEN LAKE
"TCC" SAMPLES REMOVED
SGH "GOLD" PATHFINDER CLASS MAP



PREDICTED GOLD MINERALIZATION – YELLOW OUTLINE

SGH SIGNATURE RATING RELATIVE TO "GOLD" = 5.0 OF 6.0

GEOSOFT.

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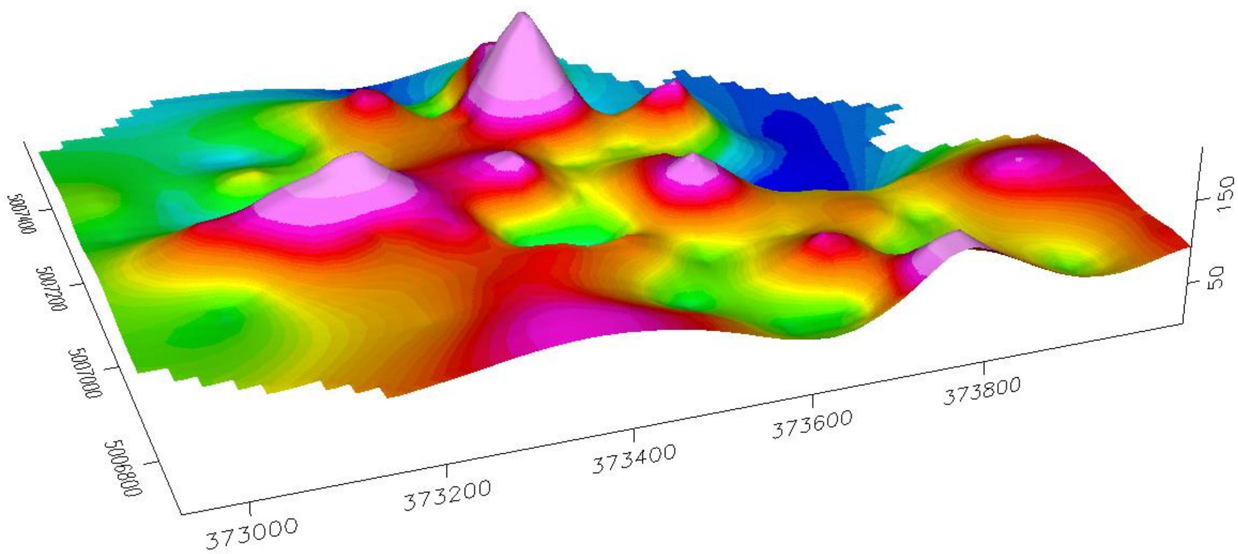

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A22-09763 – RAMPTON RESOURCES GROUP
LITTLE GREEN LAKE SOIL SURVEY - SGH INTERPRETATION FOR THE PRESENCE OF MINERALIZATION

The interpretation of the SGH data on pages 28 and 30 relative to the presence of Gold mineralization at the LITTLE GREEN LAKE survey may be based on what may appear to be the presence of a Redox Zone. Based also on the makeup of the SGH signatures, this Redox Zone may be associated with the possible presence of Gold mineralization.

In general, SGH is not a perfect confirmatory technique for inorganic chemistry's. Inorganic methods will show the highest anomalies for outcrops at surface whereas the SGH sensitivity is reduced at this point due to further degradation by environmental exposure to sun, rain, UV, etc. This reduction may not be seen on the maps provided due to normalization to the highest response in the map overall. SGH predicts whether the mineralization is present at subcrop or deeper portions relative to the mineralized structure.

The subjective SGH confidence rating for the LITTLE GREEN LAKE survey assigned to the anomalies in general on these maps where the anomalies coincide on their location is on average 5.0 on a scale of 6.0. The Rating for the LITTLE GREEN LAKE survey means that, based only on SGH, that there is a high probability that mineralization may be present. Note, as the SGH Rating is one of confidence, in our judgment an assignment of a Rating of 0.0 cannot be given out. From client feedback in recent years, a few grass roots exploration surveys that have been interpreted with an SGH Confidence Rating of 4.0 (±0.5) have been drill tested and have had successful mineralization intersections. However, the frequency of success is much more prevalent for those targets that have associated SGH Rating Scores of ≥5.0.

The SGH Ratings shown on pages 28 and 30 in this and all SGH reports are based on a scale of 6.0, in 0.5 increments, with a value of 6.0 being the best. The SGH Ratings discussed in relation to mineralization represents the similarity of these SGH results with other SGH case studies and orientation studies over known mineralization. Theses SGH signatures or templates have been constantly refined and enhanced since inception and has been proven to be effective and reliable. The SGH templates are based on the interpretation from over 1,100 interpretations of surveys in many different geographical regions and from a wide variety of lithologies. The degree of confidence in the SGH Rating only <u>starts to be "good" at a level of 4.0</u>. A Rating of 4.0 or more is an indication that this SGH Nano-Geochemistry predicts that the zone(s) described may warrant more work or more consideration.

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Any identification of a drill target is not an explicit recommendation by Activation Laboratories Ltd. to drill test the associated location or SGH anomaly. A drill target is implied to ensure that the reader is aware of the location having the highest confidence of being the location of the vertical projection of mineralization, based only on SGH data. This is also not a recommendation for vertical drilling. Vertical drilling may not be the best approach to test the SGH anomaly in this area although SGH anomalies are very much a vertical projection of the target at depth regardless of the makeup of the overburden. Activation Laboratories Ltd. has no experience in actual exploration drilling techniques. Other geological, geochemical and/or geophysical information should also be considered.

It must be remembered that other SGH Class maps not shown in this report have also been reviewed to support the interpretation shown. To deduce the most scientifically sound interpretation of the SGH surveys, the client should use a combination of the SGH results shown in this report with additional geochemical, geophysical, and geological information to possibly obtain a more confident and precise target location. This is not a statement to convey some lower level of confidence in SGH results. This statement is made to recognize the proper use and interpretation of any scientific data. Whenever possible, multiple methods should always be employed so that any decisions do not rely on any one technique.

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LITTLE GREEN LAKE SOIL SURVEY - SGH SURVEY RECOMMENDATIONS

In general, the number of samples was more than adequate to show what the author believes to be valuable information at the LITTLE GREEN LAKE survey. Our recommendation states to use a minimum of 50 sample locations to be taken with at least 2 or 3 samples taken within 1 metre of a location as field duplicates. Survey designs that use a regular grid are very powerful tools although a 4:1 ratio as spacing between transects: spacing of samples along transects has also had excellent results with SGH. There is no recommendation for immediate infill sampling on this survey. Additional in-fill samples should be able to be easily added to the current data set without data leveling 90+% of the time. As the interpretation is difficult for surveys having less than 50 sample locations and the corresponding confidence is significantly lower, surveys with less than 50 sample locations may not be accepted and may be returned to the client at their expensive. We believe a survey with less than 50 sample locations is not beneficial or cost effective to the client.

GENERAL RECOMMENDATIONS FOR ADDITIONAL OR IN-FILL SAMPLING FOR SGH ANALYSIS

In general, if the client decides that in-fill sampling may be warranted, to obtain the best results from additional sampling for SGH it is usually recommended that sample locations from the original survey within, or bordering, the area of interest be re-sampled rather than just combining new sample results with the sample data from the initial survey. Although several SGH surveys have previously been easily and directly, combined without data leveling, it cannot be guaranteed that data leveling will not be required. It has been found that data leveling is more apt to be required should the new samples be collected under significantly different environmental conditions than during the initial sample survey, i.e. summer collection versus winter collection

The process of data leveling adds a minimum of 3 to 5 days of work to conduct the additional data evaluation, develop additional plots of the results, conduct new interpretations, and additional report descriptions. Results from data leveling is also always considered "an approximation", thus the confidence in a combined interpretation will be lower than the interpretation from samples collected during one excursion to the field and submitted as one survey. An additional cost will be invoiced should data leveling operations be required if the client requests that two SGH data sets be interpreted and reported together. Thus re-sampling a few of the original sample locations will provide a faster turnaround time for results and provide more accurate and confident surveys for evaluation and aid in deciding specific drill targets.

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Date Received at Actlabs (Ancaster): August 23, 2022

Date Analysis Complete: August 29, 2022

Interpretation Report: September 14, 2022

RAMPTON RESOURCES GROUP INC.

110 Westhunt Drive, Unit 2,

Carp, Ontario, Canada

K0A 1L0

Attention: Vern Rampton

RE: Your Reference: LITTLE GREEN LAKE Survey

Activation Laboratories Workorder: A22-09763

CERTIFICATE OF ANALYSIS

This Certificate applies to the associated Excel Spreadsheet of Hydrocarbon results combined with the discussion and SGH Pathfinder Class maps of the data shown in this report.

93 Samples were analyzed for this submission.

Sample preparation –Actlabs Ancaster – SGH-1: Drying at 40°C and Sieving with -80 mesh collected

Interpretation relative to Gold targets was requested.

The following analytical package was requested and analyzed at Actlabs Ancaster Canada:

Analysis Code SGH – Soil Gas Hydrocarbon Geochemistry using High Resolution Gas Chromatography/Mass Spectrometry (HRGC/MS)

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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-quantitative 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.

Mr. Dale Sutherland, is the creator of the SGH and OSG organic geochemical methods. He is a Chartered Chemist (C.Chem.) and Forensic Scientist specializing in organic chemistry. He is a member of the Association of the Chemical Profession of Ontario, the Association of Applied Geochemists, the International Association of GeoChemistry, the Ontario Prospectors Association, the Association for Mineral Exploration British Columbia, the Geochemical Society Association, the Ontario Petroleum institute, the Chemical Institute of Canada, and the Canadian Society for Chemistry, as well as having memberships in several national and international Forensic associations. He is not a professional geologist.

CERTIFIED BY:

Jeff Brown
Organics Supervisor
Activation Laboratories Ltd.

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APPENDIX "A"

List of terms

1. **SGH** – "SOIL GAS HYDROCARBON" GEOCHEMISTRY – a Predictive Geochemistry, used for delineate buried inorganic mineral deposits and organic petroleum plays. This is the original name used to describe this geochemistry since inception in 1996. Code SGH is still used when submitting samples.
2. **3D-SGH**- "3D- SPATIAL TEMPORAL GEOCHEMICAL HYDROCARBONS - the method of interpreting SGH and OSG results based on the Redox/Electrochemical Cell model developed by Activation Laboratories Ltd. in 2011.
3. **Redox cell**- an area of oxidation-reduction reactions or exchange of electrons that is produced over geological bodies, mineralization and petroleum based plays.
4. **Electrochemical cell**- the effect of adjacent chemically reduced areas and chemically oxidized areas as a Redox cell produces a electrical gradient that obeys the physics of a typical Electrochemical cell.
5. **Anthropogenic contamination-** the introduction of impurities/compounds of the same type as those that are being analyzed by human actions that could lead to erroneous results.
6. **Background areas**- the area around a mineral deposit that is beyond the effect of the Redox cell formed over geological bodies or exploration targets. Sampling is required into background areas to produce data that has sufficient contrast to illustrate and differentiate anomalies associated with exploration targets.
7. **Background subtracted**- A sample taken some distances away as to not contain any elements of the target being analyzed.
8. **Biofilm**- a layer of microorganisms and microbe and their related secretions and decomposition products, in this case found to inhabit mineral deposits .
9. **Biomarker**- a compound used as an indicator of a biological state. In this case a biological substance used to indicate the presence of a mineral deposit.
10. **Blind mineralization** – buried mineralization that shows no physical indication of its existence at the surface
11. **Compound** – used synonymously with the term hydrocarbon in this report
12. **Compound chemical class** – a group of hydrocarbons that are similar in size, structure, and molecular weight such that their chemical characteristics, such as water solubility, partition coefficients, vapour pressures, etc. are similar
13. **Cultural activities** – human initiated processes that may affect the physical and chemical characteristics at the earth's surface
14. **Delineating targets**- indicate the position or outlines of an exploration target as a vertical projection of the target at depth.
15. **Geochemical anomalies** – inorganic element or organic hydrocarbon measurements that are significantly different than the average low level measurements or background in a survey i.e. the needle in a haystack is an anomaly
16. **Dispersion patterns** – the movement/ spreading of something. In this context the spatial arrangements of hydrocarbons caused by their movements to the surface from some depth.

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17. **Exploration tool** – a geological, geophysical or geochemical method that attempts to illustrate data in exploration activities that may indicate the presence of mineralization or petroleum plays.
18. **Fit for purpose**- this method is ideal for its intended use.
19. **Forensic signature**- a grouping or pattern found to identify a substance having multiple characteristics with a high degree of specificity.
20. **High specificity**- as in being very specific to the mineralization.
21. **Anomalies**- this is the spatial representation of data that illustrates a high or low response as well as the combined spatial shape of anomalous data from several neighbouring samples in a survey that can form anomalies described as Rabbit-Ear, Halo, Segmented-halo, nested-halo, etc.
22. **Inorganic geochemistry** – the measurement of inorganic elements in a survey of near surface samples as a tool for exploration
23. **Data leveling** – a technique that attempts to normalize the data sets obtained between two or more sampling programs. The results of data leveling is always considered as an approximation.
24. **Lithologies-** the characteristics and classifications of rock.
25. **Locations-** the physical/ geographical position or coordinates of samples in a survey.
26. **Noise-** interference in a measurement which is independent of the data signal.
27. **Nugget effect-** Anomalously high precious metal assays resulting from the analysis of samples that may not adequately represent the composition of the bulk material tested due to non-uniform distribution of high-grade nuggets in the material to be sampled. (Webster's online dictionary)
28. **Organic geochemistry-** the Soil Gas Hydrocarbon geochemistry (SGH), or now more accurately named as Spatiotemporal Geochemical Hydrocarbons, is the analysis to detect specific organic, or carbon based, hydrocarbon compounds in a sample. The Organo-Sulphur Geochemistry (OSG) is the analysis to detect specific organic compounds that have sulphur joined to carbon in its molecular structure.
29. **Percent Coefficient of Variation (%CV)** – a measure of data variability
30. **Project maintenance** – an activity where the associated cost is applied to the exploration, advancement, and/or operation of activities associated with a particular claim
31. **Rating-** a value given to the overall confidence in the SGH results
32. **Real (in relation to data)-** any rational or irrational number
33. **Reporting Limit –** minimum concentration of an analyte that can be accurately measured for a given analytical method.
34. **Sample matrix-** the components of a sample other than the analyte.
35. **Sample type** – soil, till, humus, lake bottom sediment, sand, snow, etc.
36. **Semi-quantitative-** yielding an approximation of the quantity or amount of a substance
37. **SGH anomalies** ("Apical", "Nested-Halo", and "Rabbit-Ear" or "Halo")
38. **SGH Pathfinder** (class map/compounds)
39. **SGH template** – a set of hydrocarbon classes that together form a geochemical signature that has been associated with the presence of a particular type of mineralization the majority of the time
40. **Surficial bound hydrocarbons** –
41. **Surficial samples-** a sample from near the earth's surface.
42. **Survey-** the area, position, or boundaries of a region to be analyzed, as set out by the client.

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43. **Project-** a planned undertaking
44. **Transect-** A straight line or narrow section through an object or across a section of land.
45. **Target-** Target refers to the ore body of interest

    Target signature: the unique characteristics that identify the target.

    Target type:

    i.e. Gold, Nickel, Copper, Uranium, SEDEX, VMS, Lithium Pegmatites, IOCG, Silver, Ni-Cu-PGE, Tungsten, Polymetallic, Kimberlite as well as Coal, Oil and Gas.
46. **Threshold-** level or point at which data is accepted as significant or true.
47. **Total measurement error-** An estimate of the error in a measurement. Based on either limitation of the measuring instruments or from statistical fluctuations in the quantity being measured.
48. **Visible (in terms of signature**)- the portion shown in a chart or map

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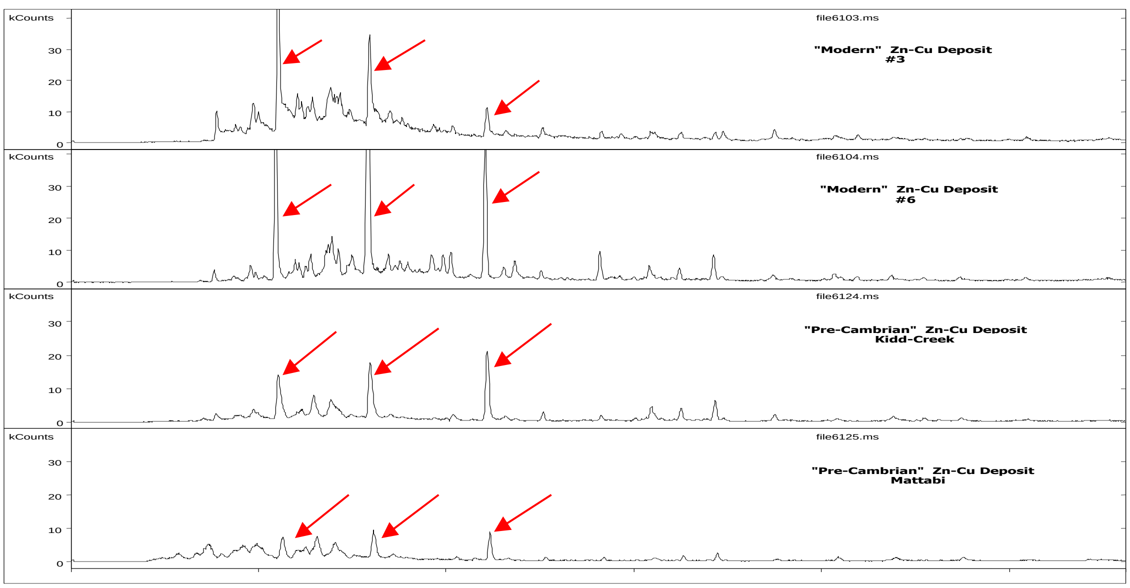
APPENDIX "B"

EXAMPLE OF AN SGH FORENSIC GEOCHEMICAL SIGNATURE
EXAMPLE SHOWN FOR A VMS TARGET

The following analyses examine the Volcanic Massive Sulphide (VMS) deposit in various known locations. These analyses show how the gas chromatography indicates the reality of deposits. For all the profiles in this section, the red arrows indicate the signature of the VMS, which have all been found by organic geochemistry. These forensic geochemical signatures are shown to be consistent for similar target areas; therefore, the analyses are reliable indicators for the presence of VMS.

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 VMS 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 above profiles are:

- First profile: Samples from modern day "black smokers"
- Second profile: Samples from modern day "black smokers"
- Third profile: Samples from Pre-Cambrian Zn-Cu Kidd Creek deposit
- Fourth profile: Samples from Mattabi deposit

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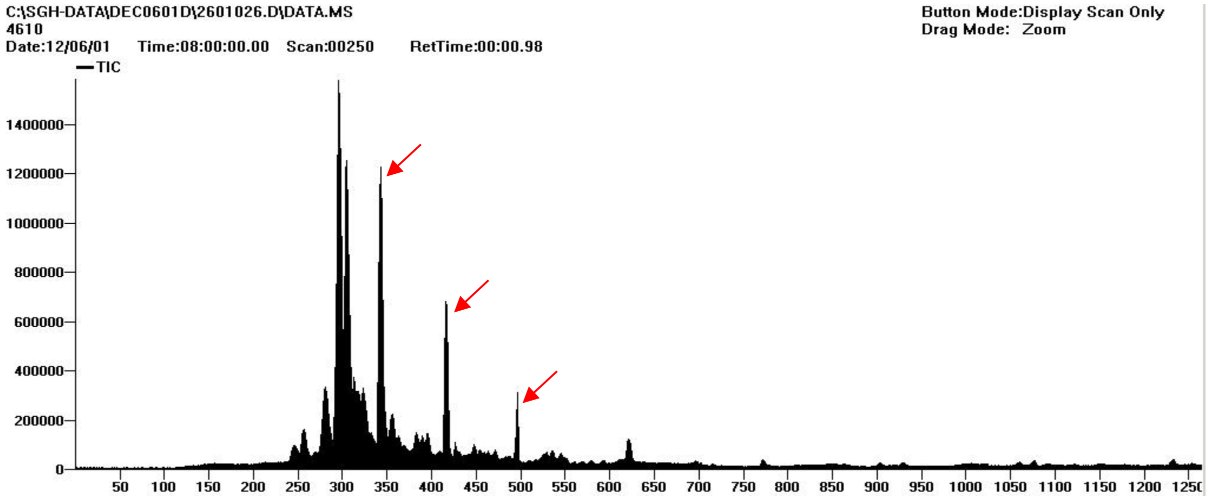
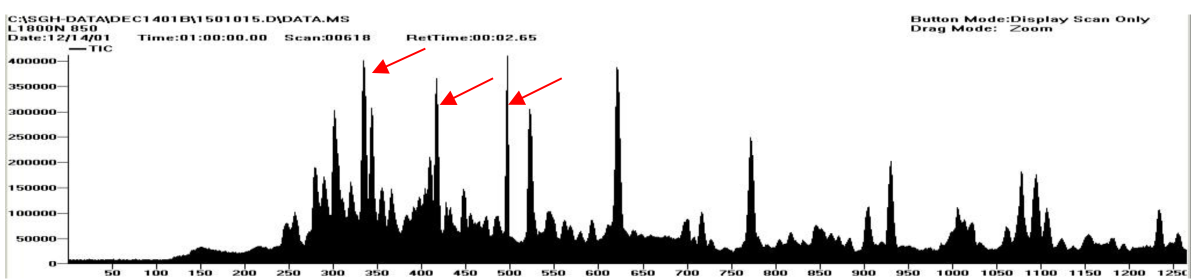
The red arrows point to three compounds that are a *portion* of the SGH signature for VMS type deposits. This visible portion of the VMS signature of hydrocarbons can easily be seen in the analysis of each of these four samples.

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.



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**

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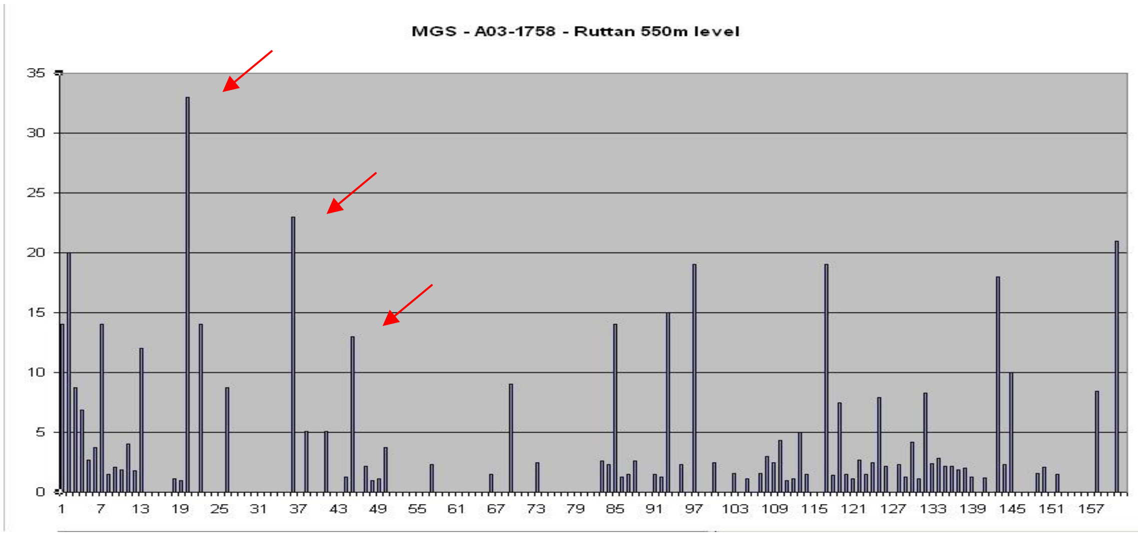
complete SGH VMS signature. The full VMS signature is made up of at least three groups, as three organic chemical classes, that together contain at least 35 of the individual SGH hydrocarbons.

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.

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 **the Forensic SGH Geochemical signature is different**.

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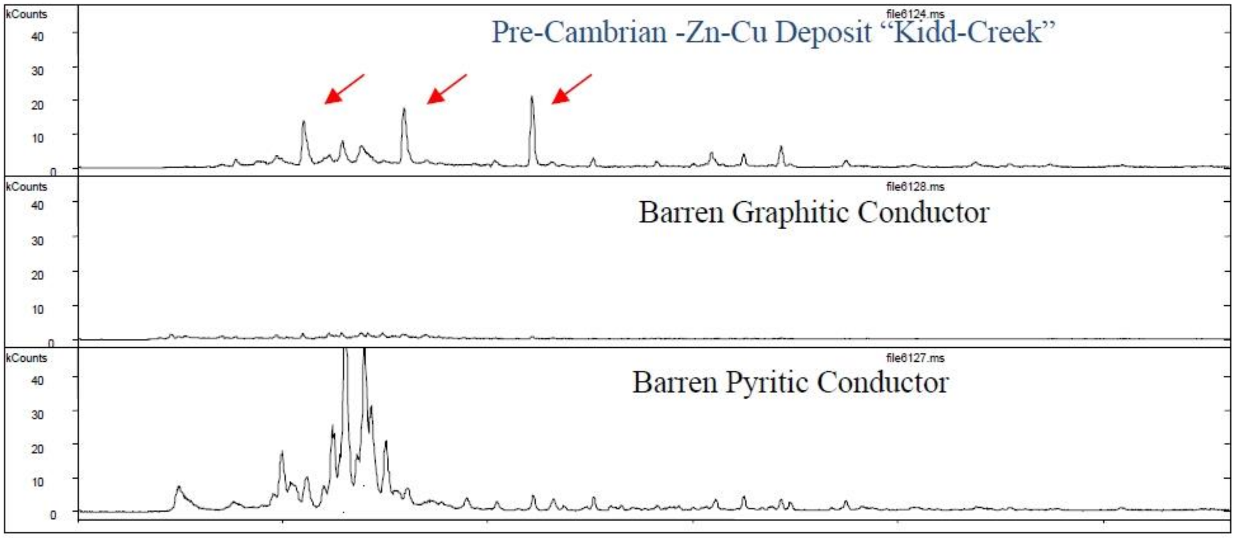

SGH has been described by the Ontario Geological Survey of Canada (OGS) as a "REDOX cell locator". Many SGH surveys for Gold and other mineral targets can result in multiple types of anomalies, depending on the class of SGH compounds, even over the same target and in the same set of samples. Thus "Apical", "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 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 has been associated with Kimberlites where sulphides are essentially not present.

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APPENDIX "C"

SOIL GAS HYDROCARBON SURVEY DESIGN AND SAMPLING

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 geochemical method. 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-of-ways. In conclusion, the conditions for the sample type and survey design include:

- Fist sized samples are retrieved from a shallow dug hole in the 15-40 cm range of depth.
- Different sample types can be taken even "within" the same survey or transect, data leveling is rarely ever required. SGH is highly effective is areas of very difficult terrain. The Golden Rule is to always take a sample.
- Samples should be evenly spaced in a grid or a series of transects with sample lines spaced at a ratio of up to 4:1 (line spacing: sample spacing).
- A minimum of 50 sample "locations" is recommended with one-third over the target and one-third on each side of the target into background if this can be predicted. This provides the opportunity of optimal data contrast.
- If very wet, samples can be drip dried in the field.
- No special preservation is required for shipping.

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APPENDIX "D"

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. Solvents such as Acetone, Methanol, and Hexane cannot be used at any time for cleaning sample containers or sampling apparatus ie. Cleaning sieves between samples. The use of solvents at this time severely reduces the response of the hydrocarbons measured. 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 transferred from our sample preparation department to our Organics Geochemical department also in our World Headquarters in Ancaster, Ontario, Canada. 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.

41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

E-mail: SGH@actlabs.com ● Web Site: www.actlabs.com

APPENDIX "E"
SGH DATA QUALITY
Reporting Limit

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 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, *SGH is a semi-quantitative technique* 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 ≥ 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

41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

E-mail: SGH@actlabs.com ● Web Site: www.actlabs.com

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 sub-sampling, 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 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 had a range of 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.

41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

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APPENDIX "F"
SGH DATA INTERPRETATION

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 sub-classes. 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 PATHFINDER CLASS MAGNITUDE

The magnitude of any individual concentration or that of a hydrocarbon class *does not imply* 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.

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, 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 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

41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

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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. *Do not calculate another Threshold value*. **Fact:** It has been proven many times that important SGH anomalies that depict mineralization at depth can exist even with data at 3 ppt.

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 other inorganic geochemical methods from surveys over copper, gold, lead, nickel, etc. type targets.

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 is sectioned into quartiles and each section is assigned specific leveling factors that are then applied to one data set. It should be noted that any type of data leveling is an approximation.

41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

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APPENDIX "G"
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, Cu-Ni-PGE, IOCG, Base Metal, Tungsten, Lithium, Polymetallic, and Copper, as well as for Kimberlites, Coal Seam, Wet Gas and Oil Plays. 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.
- **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 fairly well 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 *will automatically receive a lower rating no matter how impressive an SGH anomaly might be*. 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.

HISTORY & UNDERSTANDING

The subjective SGH rating system has been used since 2004 when Activation Laboratories started providing an SGH Interpretation Report with every submission for SGH analysis to aid our clients in understanding this organic geochemistry and ensuring that they obtain the best results for their

41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

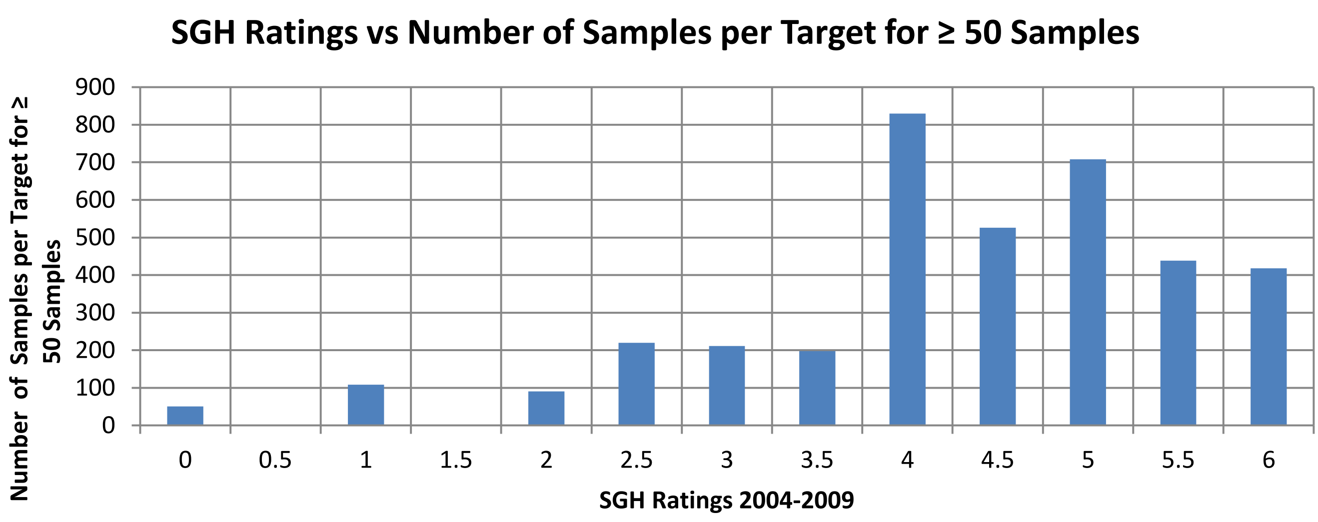
E-mail: SGH@actlabs.com ● Web Site: www.actlabs.com

surveys. As explained in the previous section, the SGH rating is not just a rating of how definitive an SGH anomaly is, and it 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 a 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 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.



41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

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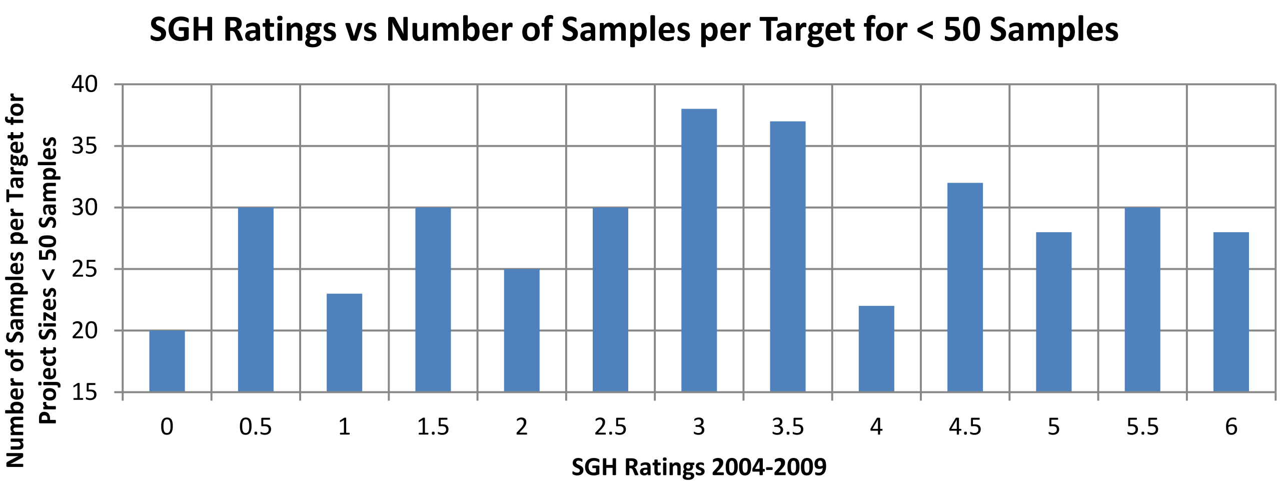
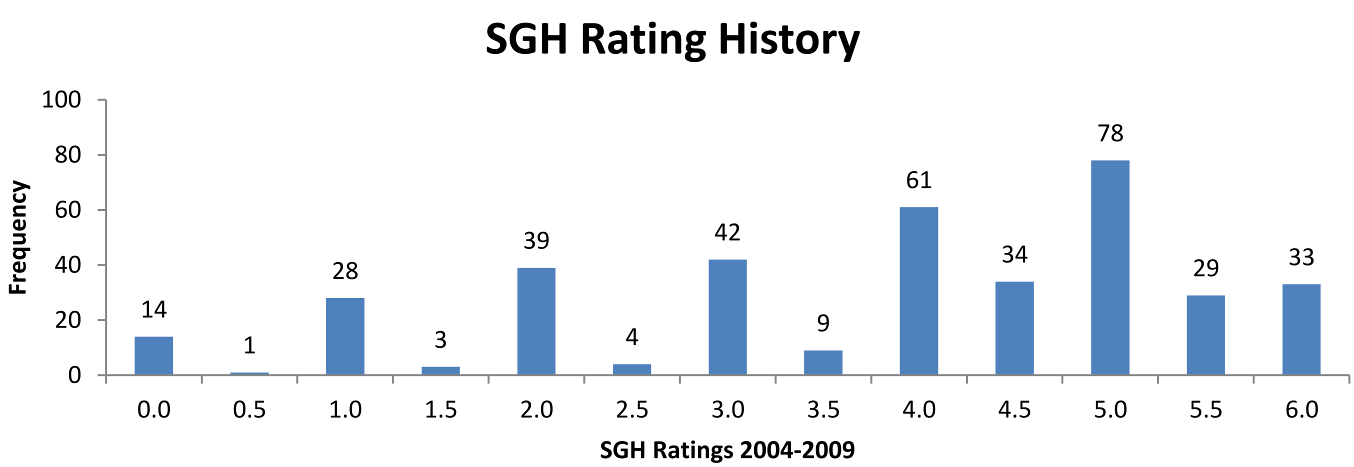
The rating frequency may be biased low as research projects often include a bare minimum of samples to reduce costs. Research projects may also be over targets known to be difficult to depict with geochemistry. Multiple targets in close vicinity in a survey may result in a low bias as the Pathfinder Class geochromatography is more difficult to deconvelute. Ratings may also be biased low if less than the recommended 50 sample locations are 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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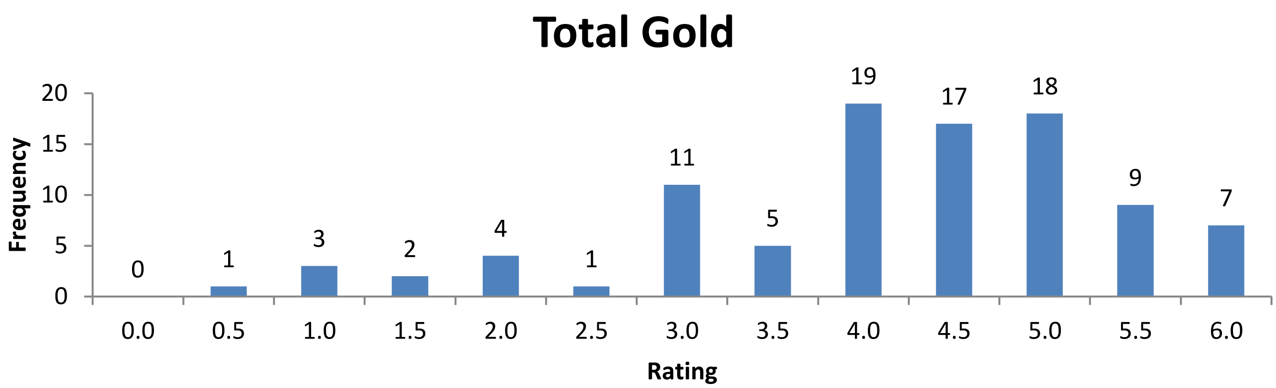
E-mail: SGH@actlabs.com ● Web Site: www.actlabs.com

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.



41 Bittern St. ● Ancaster, ON ● L9G 4V5 ● CANADA ● Tel: (905) 648-9611 ● Fax: (905) 648-9613 ● Toll Free: 1-888-ACTLABS

E-mail: SGH@actlabs.com ● Web Site: www.actlabs.com

APPENDIX "H"

NOTE: THERE IS NEW PRICING FOR THE SGH GEOCHEMISTRY

SAMPLE PREPARATION: CODE S4 - $4.50 per sample

INTERPRETATION FOR ONE COMMODITY TARGETS: Included in the price of analysis of $50.40 per sample

INTERPRETATION FOR MULTI-COMMODITY TARGETS: i.e. VMS, SEDEX, Polymetallic, IOCG, IOCGU, Cu-Au-Porphyry, etc. – add additional price of $500 is applied to cover the additional time in interpretation.

"ADDITIONAL INTERPRETATIONS": ($ 525.00) - if within 60 days after delivery of the report.

The SGH data can be interpreted multiple times in comparison to a variety of SGH templates developed for exploration for different mineral targets or petroleum plays. The samples do not have to be reanalyzed. This can be addressed as a separate section of a report or as a separate report based on the client's wishes. The price is per survey area, e.g. if there are two projects in a submission, perhaps a North area and South area, and both survey areas are to be interpreted for say Gold and Copper, the first interpretation is included in the SGH analysis price, the second interpretation for each area would be priced at $525 per area, thus a total of $1050.

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