#### Windy Lake Claims

#### South Lorrain Twp.

#### Plan G - 3448

#### Assessment Report for Calendar

Year 2002

All claim information is enclosed within Report by Jim Laidlaw - June 28, 2002

Includes : Introduction

: Properties and Location

: Access to Claims

: Ownership of Claims

Pages 1 to Page 25 incl.

Report by Dave Hanes - partner.



#### <u>~ Index ~</u>

Page (s) Cover page Index 1 - 2 Introduction - 2002 - Dave Hanes 3 - 7 Trip 1 - May 19 - May 22 - 2002 8 Trip 2 - Aug. 10 - 13 - 2002 9 Sketch: 124-02 sample site 10 - 12 Trip 2 - Aug. 10 -13 - 2002 13 - 17 Trip 3 - Oct. 10 - 12 - 2002 18 Sketch - 286 - K - 5 -6 (till samples) 19 - 20 Trip 4 - Oct. 23 - 24 - 2002 21 - 22 GPS and Till sample positions 23 PHOTO SECTION Cover Page 4 pages 24 - 25 Sample K6-S <u>ASSAYS</u> 26 27 - 30 Note regarding Analysis by Lakefield Research Ltd. with sample form and Invoice No. M 2565

Swastika Laboratory

Geoscience Laboratory, Sudbury.

### Index for Part " B " Following Assays,

1/ Assessment Costs

2/ Lab. Invoices

### 3/ Analysis of KIM Samples with content page

Report by Jim Laidlaw

#### Windy Lake Claims Assessment - 2002

**Introduction to Year - 2002** 

A meeting was held in Bancroft on Thursday, May 2, 2002 at the home of partner Sherwood Plunkett. Also in attendance was partners Jim MacLachlan of Napanee and Dave Hanes of Sudbury.

We discussed objectives for 2002 while examining maps and Assay data from year 2001.

It has been decided to proceed with a Magnetometer and VLF - EM Survey on a portion of our Claim No. 1198286 which shows a Keating Anomaly as indicated on OGS, Operation Treasure Hunt Map 82 071. Jim Laidlaw of Madoc would be contracted to oversee and do the VLF - EM survey and complete a Report and Maps. Sherwood Plunkett will complete the Mag survey. Dave Hanes is to run the Base, Grid and southern tie in line as well as mark stations on the grid and base lines. Dave Hanes will also collect rock samples from several locations on the S - SW portion of the depression were bedrock en masse occurs and several outcrops at or near contact with the Nipissing Diabase Sill.

Mr. Laidlaw has completed similar Surveys on some of our other claims during 1999 & 2000 and is fully qualified to complete the final Technical Report. We hope to complete this survey sometime during May, as Jim Laidlaw's schedule permit.

Time permitting Jim will examine the dyke that was opened up during 2001 by Lathem Excavating with a view to determine rock types and if deemed advisable to collect samples and advise us on possible Analysis. This dyke traverses Claim No. 1230294 and Claim No. 1229903, striking a NE - SW direction.

There is much alteration in dyke material as it exits the Lorrain Formation Quartzite and intrudes the Nipissing Diabase, just east of an old shaft and extensive trenching on Claim No. 1230294. This area has been examined before and needs more in depth prospecting to assess the potential of the margins and contacts of the involved rock formations.

Arrangements have been made and Dave Hanes, Sherwood Plunkett and Jim Laidlaw will proceed to the Windy Lake Claims from May 19 - 22 inclusive.

## Trip 1 - May 19-22

The following covers activities and cost by Dave Hanes. Separate Reports are inclosed for Sherwood Plunkett and Jim Laidlaw.

May 19, 2002. Dave Hanes arrived at camp 11:00 AM. I proceeded to Claim No. 1229901 and examined an old pit and trench near the SW corner of the claim and east of the road. <u>SEE Sketch</u>

The Nipissing Diabase around the pit and trench is coarse grained and minor metallic inclusions. A narrow quartz vein cuts the Nipissing Diabase and can be traced up the ridge where it ends on surface but could penetrate " into" the Diabase.

Examination was made of several outcrops of Lorrain Formation Quartzites near a water filled depression on L1N - 330. Some promising Silica was discovered. These being medium to fine grained and opaque grey in color. A closer examination of a white "bull" quartz exposure near L5N - 510 was made. Previous WRA of the Quartz from here returned a Si. value of 98.90%. Since there a 2 of these "bull" quartz exposures within 70 + metres of each other, it would be to our benefit to bring in a small back hoe - excavator to strip the overburden in the hope that more of this quartz lies under the glacial till cover. Expansion of this zone would be of great value, both in tonnage and dollars accrued. This white quartz has so far been located in this one zone, other than veining and blebs contained in a dense, hard, tan quartzite that is on the western corner of Claim No. 1229901 and through Claim No. 1230295. Contacting Nipissing Diabase near old pits and trenching. As previously reported a random sample of white quartz on a vertical ridge returned a Gold value of 0.05 OPT by GFA..

Collected samples will be examined and a decision made as to future Analysis on them. Sherwood Plunkett and Jim Laidlaw arrived at about 6 PM. After dinner we had a meeting and made final decisions on work over the upcoming days.

MAY 20. After breakfast we assembled our gear and each of us equipped with a Motorola 2 way radio. As we found out, the radios proved invaluable as to person location and saving time communicating in thick bush.

To get to our destination which is a Keating Anomaly on Claim No. 1198286, we climbed up a ridge near old pits and trenches, then through heavy bush, blowdown areas and down into a steep gully on the North Side of the Nipissing Diabase dome. Proceeding West, NW, then North we managed to climb over and around an area decimated by beavers. Huge poplar and birch lie on the ground, hung up and criss crossed on each other around small ponds making prospecting and access extremely difficult.

Since Sherwood Plunkett and Jim Laidlaw have submitted separate reports, Jim Laidlaw forwarding his technical Report and Maps at a later date. The following is a generalized Report of activities written by Dave Hanes.

I also include a sample list collected by myself and Analyzed with lab results. A separate page covers my Assessment costs for this trip. Assay costs will be entered with the Assay Results. See Notes - JV 2002 + Sample list with Assay Submitted Numbers

SEE Sketches.

#### Trip May 19 to May 22, 2002

When cutting line 1100 my line compass was drawn eastward onto the ridge of Nipissing Diabase and therefore intersected the base line ---- 9 metres East of the station for line 1100E. Line was run from south at 1750N Northward to base line.

Jim Laidlaw on the next line east 1125 was drawn off line and intersected the base line approximately 12 - 15 metres east of base line station.

Consequently when I ran line 1150 southward I had to run a parallel line without compass to avoid intersecting line 1125 and maintain a separation of about 15 metres. Stations appear to be in proper position. Upon completion of line 1150, I ran a tie in line from line 1150 - Westward to line 850, our starting line and plotted distances between lines on grid map.

An easier route to the Anomaly is through a large opening in the Nipissing Diabase dome. Although there is some trees down and rock rubble, it is a much easier exit out of here. Moving east we rise to dry ground, just south of a small beaver pond and then, turning south, we parallel the Nipissing Diabase dome, through an area of large yellow birch and then through clear cut to end of our logging road at OC 2.

I consider this a viable route to build a trail by mechanized excavator with very little difficulty, hazard free and would allow side trails to other project sites.

A note here is the fact that this route, through the gap in the Nipissing Diabase dome is actually, a part of the Windy Lake Fault, which at the time of our work on the Keating Anomaly, was not recognized by any of us. It was only after returning home and studying maps and aerial photos that it dawned on me that indeed, I had traversed a portion of the Fault. It also appears that east of the pond, there is a SE trending fault, though not as extreme as the Windy Lake Fault. This fault intersects the Windy Lake Fault.

See Sketches - Photos etc.

The south side of the Windy Lake Fault beyond the beaver ponds is smoothed by glaciation, especially on the top of the dome.

The north wall in some locations is vertical, the Diabase being in irregular sizes, resembling blocks or broken rectangular columns along the cliff face. One section taking on the appearance of basalt columns.

We will, time permitting, locate and map the Windy Lake Fault from the NE to the SW as it

tracks to SW, eventually intersecting the Montreal River Fault, one of 2 Major Faults, the other being the Lake Temskaming Fault to our East and a secondary Fault, the Cross Lake Fault which strikes N - S from Cobalt to the Silver Centre Area.

According to old reports by various Authors from the former Bureau of Mines, there are is somewhat similar to the Silver Centre Mines, which produced some 20 million ounces of Silver, along with Cobalt, Nickel and minor copper values. Silver Centre being 3.5 miles S. E.

One difference encountered so far has been the non discovery of Keewatin Greenstone. If it does extend into our claims, it could be overlain by Lorrain Formation Quartzites and under the Nipissing Diabase or in outcrops not observed by us due to limited prospecting on the Nipissing Diabase.

#### Trip 2, August 10 - 13, 2002

Aug. 10

Dave Hanes arrived at camp around 3 PM. of Aug. 10. Jim Laidlaw and Sherwood Plunkett arrived about 5 PM.

After supper we had a meeting and examined maps and notes from year 2001. Decisions were made as to our first project to be completed.

It appears the bulk of our work this year will focused on Claim No. 1198286 and Claim No. 1199124.

Aug. 11

Dave Hanes, Sherwood Plunkett and Jim Laidlaw left comp in the AM and proceeded to the Keating Anomaly target area. We used a surveyors chain and extended our base line eastward, over the Nipissing Diabase dome and down a steep ridge to a small stream that drains a small pond, running northward.

Our last line was established at L 1475 E, beyond the Nipissing Diabase dome and into the over lying Lorrain Formation. Jim Laidlaw entered GPS readings for <u>All</u> stations on the base line as well as the tie in lines at the north and south ends of the grid.

Starting at L 1025E, grid lines were extended northward to the Lorrain Twp. boundary, this being the E - W claim line for new Claim No. 1199124. From the base line northward our grid lines averaged 120 metres in length.

Lines running southward have been extended to a length of approximately 300 metres. The

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Lorrain Turp

L2175N 1 Samp/e Township Boundary Line Isoil North claim line SU-124-L 1250E Nipissing Diabase old pit e trenching Nepissing Diabase claim 1199124 TU Boggs AREA Ć Shallon sloping downward to the north. Elevated top r of Dome, (N.D.) Sectimentary Formations t strs. marked at 12.5 m on East & West Flanks. K £/ Not to scale sketch: 124-02 Sample JU-124- LI250E by D. Hanes analyzed for WRA + A. . 9.

overall extension of grid lines and the additional 325 metres eastward, should now totally encompass the Keating Anomaly. and allow for a complete Mag Survey and Maps to cover the Anomaly.

Jim Laidlaw also acquired GPS co-ordinates on some old trenching. Sherwood Plunkett completed the Magnetometer survey which had been started in May 2002.

It has been extremely hot, humid and the bush is beginning to dry out drastically. Travel to and return to camp each day takes approximately  $2 - 2 \frac{1}{2}$  hours. There is an easier, quicker route to the site and sometime we must mark and open it up.

Aug. 12

We again proceeded to our site and completed the grid and survey. Dave Hanes prospected northward along a gully which has a distinct and traceable water flow down the total (125 metre) length and beyond. The east and west flanks of the gully are irregular spines of Nipissing Diabase. Along the west side are several old trenches and shallow pitting. I decided to collect a soil sample at the north end of the gully, just beyond a trench, and just a few metres from the E - W claim line.

A rock sample was also taken from a steeply inclined ridge on L 1200 E at 2166 N. This ridge is comprised of coarsely grained Nipissing Diabase with minor salmon colored feldspar inclusions.

It was our intention to locate and collect a glaciated, till sample in the vicinity of the Anomaly.

The overburden within the cedar bog was far too deep to collect a till sample. Sherwood Plunkett and Dave Hanes located 2 small pockets on the southwest outflow of the bog. The first one was on bedrock, sedimentary and contained no useable amount of material. The second pocket contained enough coarse material to extract for KIM testing.

Visual inspection of exposed bedrock along this watercourse showed a smooth but undulating surface, indicating a past that included a much larger volume of water proceeding S - SW out of the depression. Much of the water flowing out of the depression, does so under a layer of roots and moss as it can be heard gurgling when enough water is available. Soil in very thin and tree growth is much smaller here than around the base line. Here, within the depression which is of an unknown depth but, confirmed at over 3 feet of black muck, there is a grove of extremely large cedar trees. Cedars of this size are quite scarce nowadays.

A sample of coarse material was collected from a very shallow depression in bedrock, lying on the outlet from the cedar bog. When water runs in this area, you can hear it gurgling below the boulder covering and then periodically resurfaces. This pocket is located just west of L 850 E, ---- actual position being 846 E, 1840 N.

The collected material was screened and bagged and Jim Laidlaw will forward it for testing.

Much of the work completed on Aug. 11 and 12 is plotted onto Map 2, drawn by Jim Laidlaw.

A complete Technical Report with maps will be compiled and written by Jim Laidlaw and included with the Assessment Report for year 2002. A list of samples and Assays, either metals or KIM's will also be contained in the final Report.

Our Mag Survey now covers an area approximately 625 metres E - W and 425 metres N - S.

Aug. 13

This is a travel day for all of us and I ( Dave Hanes ) have some business to take care of in Cobalt. We packed our gear and headed on our way. Sherwood Plunkett and Jim Laidlaw were going to try and collect an alluvial sample near the hydro bridge over the drainage creek on Wolverine Claim No. 1231290. Those results and Report will be in Jim Laidlaw's Report.

#### <u>3rd Trip Oct. 10 -12 2002</u>

Oct. 10

On October 10, Dave Hanes and Marlene Carr arrived at our camp in South Lorrain Twp. at about 11:30 AM. Had a quick lunch and then packed gear and headed out for the afternoon.

We spent the afternoon prospecting through the bush west of the Silica Deposit described in previous reports.

It was hoped to determine the quality of the Lorrain Formation Quartzites over to the N. S. claim line of Claim No. 1229901 and Claim No. 1229903 (west).

Though many exposures were located, no quartzite of comparable color or quality was encountered.

Most of examined outcrops were of a dirty grey - brown nature and very coarse grained Quartzites in the South western area, along the trail and westward into the clear cut are of a pale green color and fine to medium grain texture. A few samples of fresh material may be submitted at a later date for Si. Analysis, possibly as a flux material or, the compact material could be used as colored aggregate. It has yet to be determined if the Quartzites along the contact of the dyke contain any mineral values.

It appears at this point in time that our better Silica lies on the eastern half of Claims 1229901 and 1229903.

Extensive work has been completed on the Silica and it has been determined that Diamond Drilling is the next step throughout Claim No. 1229903 and some limited stripping on the "Bull" Quartz zone which lies on the south side ( possible contact ) of the Nipissing Diabase offshoot.

Because of limited budget we decided not to process any of the Quartzites from today's work.

Tracking the dyke across Claim No. 1229903 from OC-5 is quite difficult due to the unexpected depth of overburden overlying the projected line of strike towards a prominent outcrop on the top end of Claim No. 1229903.

It was noted while trying to locate outcrops of the dyke that the glacial overburden contains many extremely large boulders that are difficult to identify as bedrock or float.

Closer examination and analysis results of the trenched dyke at OC-5 will determine if this extension (OC-2 - NE) to top of Claim No. 1229903 warrants further exploration and expense. We completed the day at about 5 PM.

Oct. 11

Weather today is not good, mix rain - snow and scold. Since this will be our last trip that we need to use the trailer, we've decided to tidy up and get the tarps ready to cover it for the winter.

We've left the tarp untied around the door so as to give us access while here for another 2 days. Hopefully we can complete the work we have scheduled.

#### Oct. 12

Up early and headed out to Claims 1198286 and 1199124.

We need to collect till samples as a follow up to earlier till sampling by Sherwood Plunkett and Jim Laidlaw.

I reran the original N. S. line established in 2001 by Dave Hanes and Sherwood Plunkett and took GPS coordinated at the North and South ends, an approximately distance of 150 metres.

We then located the location that was determined to be the centre of the Keating Anomaly and location of Till sample K-1. A few metres east we found the till sample K-2 location.

Both positions were marked on my GPS as reference points for our till sampling. We are limited to this one day in this location and with the weather changing throughout the day, we must determine sample locations as quickly as possible.

Since no depth of the cedar bog has been established, it is impractical to attempt any sampling within the depression.

We are positive, judging from an attempt by Jim Laidlaw on our last visit, that the bog is many meters thick.

If the Keating Anomaly lies underneath as indicated by the Mag Survey, then Diamond Drilling through to the bedrock (Kimberlite?) will determine the overburden thickness. <u>a.</u> Our first sample site is approximately 30 metres northwest of K-1. The sample location is L 1075 E - 1930 N. This till sample is now recorded in our Reports as K-5.

All sample sites are plotted onto a Map by Jim Laidlaw and Dave Hanes.

This first sample K-5 is near the western margin of the Nipissing Diabase dome, which rises approximately 50 - 60 metres near vertical. We dug down "approximately" 70 cm. to the polished Diabase bottom. The till was enclosed in an almost flat sided, funnel shaped depression in the diabase. We extracted as much of the overlying till as possible ( about 5 kg.). I then made a sketch of the sample hole and hung a site marker over the hole.

Part of the determining factor in sample locations was the results of previous till samples, and the direction of our most recent Ice Age Glaciation.

<u>b.</u> Our next location is approximately 160 metres S - SE of K-1, K-2 and approximately 75 metres SE of K-3 and K4. This site is in a shallow depression in the Nipissing Diabase at the bottom of the dome but farther away from the steep incline of the western margin.

15,

I am of the opinion that glaciated materials would be pushed along the side of the Nipissing Diabase dome S - SE and , deposited along the south slope leading to the beaver pond that occupies a part of the Windy Lake Fault.

Observations indicate a depression between the Sedimentary rock on the west (resembling granophyre) and the Nipissing Diabase on the eastern boundary of the cedar bog.

The south part of the depression has a shallow gully running southward that cuts the Nipissing Diabase and Sediments. Another opening has been glaciated on the S W portion of the bog, here being a change from a granophyre type to a compact, fine grained blackish - reddish sedimentary rock with minor silvery metallics and mica.

Samples collected in this area or north - NW should show a cumulative overview of the rock types from around and within the Keating Anomaly.

This sample, K-6 was dug to the bedrock surface which is Nipissing Diabase and approximately 5.5 kg. sample was extracted and bagged.

GPS coordinates plotted and a sketch of site K-6 is shown within the Report.

<u>c.</u> The next site is in a prohibitive location fro now. It lies within an extremely hazardous area of downed trees ( beaver) and very thick overburden with large boulders covering the area.

As it is late in the day we need to head back to camp.

We have 2 till samples and several random rock samples for examination.

The results of these 2 till samples (K-5 and K-6) and samples collected later this month by Dave Hanes and Jim Laidlaw are documented within Technical Reports by Arpad Farkas Ph. D. and Geologist Jim Laidlaw who will produce a final Report and Map (s) for our year 2002

Assessment Report covering the evaluation of a Keating Anomaly within Claims 1198286 and 1199124.

End of Trip

Note: Samples K-5 and K-6 were forwarded to Jim Laidlaw on Oct. 23 2002.

These, as well as those collected in the field on Oct. .24 were partial processed (screened) on site. Details within Jim Laidlaw's Report.

Dave Hanes

#### <u>4th Trip Oct. 23 - 24</u>

Dave Hanes traveled from Sudbury to Latchford Oct. 23. Arrived at the Northland motel about 4 PM. Had an early supper and waited for Jim Laidlaw to arrive from Madoc Ont. Jim arrived about 6 PM.

We spent the evening examining Arpad Farkas Report on KIM analysis and results. Based partially on these results we agreed on an approximate till sample collecting plan.

Early next morning, we proceeded to our destination. We left my vehicle at the bottom of our access road and drove till we came to a point, just a distance south of a branch in the road. Here we had to unload our gear and detour around the flooded section of road. Beaver in our area are a bigger hazard than any wildlife (Bears, Moose ect.) or the uneven nature of the ground we are working on.

Along the road near the south, E - W line of Claim 1229901, Jim noticed a new claim post in a location it should <u>not</u> be at.

We spent about 1/2 hour recording GPS positions of several partnership posts as well as the offending post. This matter required my return at a later date to document this apparent "NEW" claim.

Jim and I proceeded to the Keating Anomaly location on a portion of Claims 1198286 and 1199124.

Jim examined the till sample locations from previous work and decided our first sample would be northward into Claim 1199124 in hope of defining a cutoff point ( approximately ) for KIM's. This was sample K-7. Over the coarse of the afternoon we collected K-8 and K-9. Jim decided

19,

to find some water close by and do a preliminary screening of the samples and lighten our load.

Since Jim has written a complete technical report on these trips and reports submitted by Arpad Farkas, and Overburden Drilling, the Years Assessment Report will be very professional and informative.

It was near dark when we arrived back at the vehicles. Jim found a good flow of water near Silver Centre and remained behind to farther process the till samples. I proceeded back to Sudbury.

End of Trip 4.

#### **GPS COORDINATES**

And of line positions of Till Samples and other tie-in positions.

Original 150 metre line laid out by pace and compass in 2001 by Dave Hanes and Sherwood

Plunkett.

Post 1 N 47 - 13 - .927 W 79 - 33 - .682 Post 2 N 47 - 13 - .850 W 79 - 33 - .675

Centre of Keating Anomaly also position of K - 1 sample.

L 1079.5 E 1905 N

K-2 sample is approximately 5 metres East of K-1

Till sample K-5 is approximately 30 metres North of K-1.

at: L 1075 E 1930 N

N 47 - 13 - .877 W 79 - 33 - .596

Till mixed with gray clay. Sample weight approximately 15 pounds.

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Till sample K-6 is south end of line 1100 E.

It lies between L 1100 E and L 1125 E. Sample approximately 15 pounds. Minor clay mixed in

till. K-6 is approximately 155 metres South of K-1

A. L 1100 E N 47 - 13 - .796 1750N W 79 - 33 - .574

B. K-6 N 47 - 13 - .785 W 79 - 33 - .562

C. L 1125 E N 47 - 13 - .787 1725 N W 79 - 33 - .548

Sample K-7, south of sedimentary Formation which extends N-S and continues westward. This sample was collected on the western fringe of the cedar bog. This sample is our northern most till - hope fully depleted in KIM's.

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L 996 E - 2100 N Sample weighed approximately 22 pounds. (10.5 kg.)

Sample K-8 lies just east of L 954 E - 1875 N. Sample weighed approximately 18 kg.

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This sample lies within cedars on slightly higher ground and north of a Sedimentary ridge.

Sample K-9, was collected at L 994 E (just west of L 1000 E), 1893 N. Weight

approximately 10 kg..

The above 3 samples were reduced in size and weight by a preliminary screening in a water hole on site, by Jim Laidlaw, assisted by Dave Hanes.

Sample K-3, on line L 1075 E 1800N

Sample K-4, on line L 1050 E 1800N

These 2 samples combined. Gold grains recovered. See Report by Overburden Drilling Management.

# Photo

# Section

## 2002

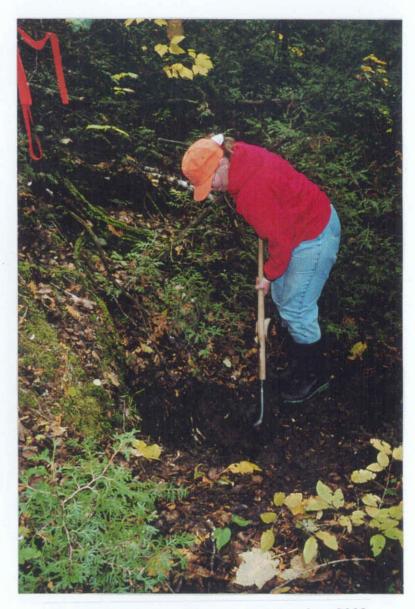


Both Photos Jim Laidlaw with old claim post and claim tag. Our Claim 1199124.





Jim Laidlaw and Sherwood Plunkett preparing Magnetometer for survey on Claims 1198286 and 1199124.



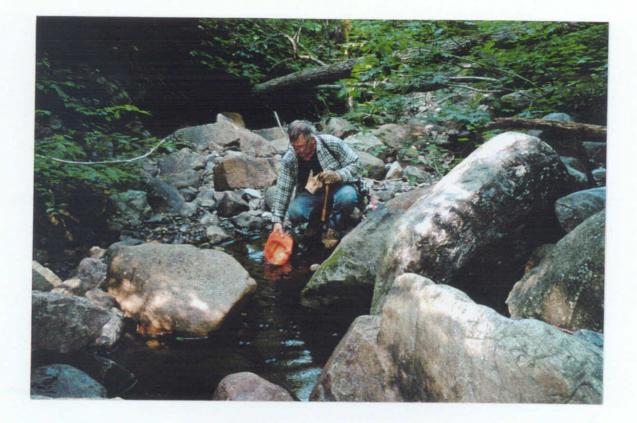
Keating Anomaly, till sample K-5 October, 2002



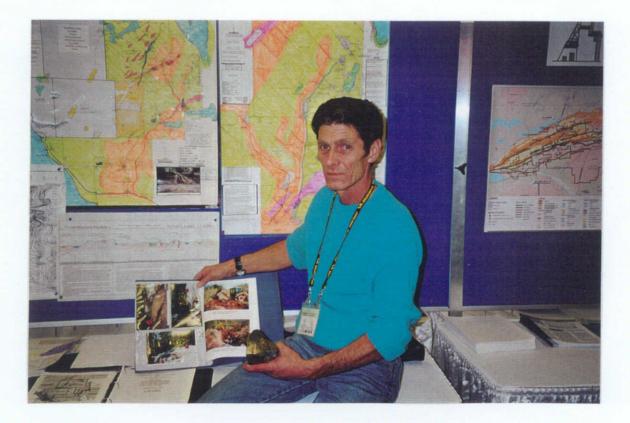
Collecting till sample on Keating Anomaly. Sample pre-screened over sized materials



Preliminary screening of till samples, K-7, K-8 and K-9 in melt water in field.



Sherwood - eastern flank of Diabase dome. Water flows north possibly part of Windy Lake Fault. Bottom: Dave Hanes at Booth during Dec. 2002 OPA Symposium.



#### Sample K6 - S

This sample was collected after initial Till Sample K-6 was collected. Sample K6-S weighed a approximately 1.5 pounds. Purpose was to test for mineral content deposited form the Nipissing Diabase dome during the most recent glaciation. There are in the area N. W. of here, extensive pits and trenching, probably mid 1920's when prospectors and mining Companies scoured the area in the search for Silver and the accompanying metals, cobalt, nickel and minor copper.

Our pervious sampling, Till samples (K-1 to K-9) were to locate and identify KIM's in proximity to a Keating Anomaly as shown on OGS Map 82-071 as part of a program called Operation Treasure Hunt.

Our Till sampling for year 2002 and follow up processing and identification has proven very positive. Complete details are contained within our Assessment Report for calendar year 2002

These results have prompted us to possibly option the properties to a company with the financing to further evaluate exact location and potential of the Keating Anomaly.

Sample K6-S was submitted to the Geoscience Laboratory in Sudbury On. The results of these analysis and a soil sample from JV-124-L1250E lack the numbers for base and precious metals that I would have hoped for but, these were small samples and probably NOT in the best locations for base metal and silver. I feel more extensive testing needs to follow. Future prospecting and sampling would be done near the old workings and on the flanks of the dome were contact is made with the Lorrain Formation Quartzites, and on the SE flank of the Nipissing Diabase dome.

24,

Complete Analysis for K6-S and JV-124-L1250E are within the Assessment Report (2002).

As noted in the Report by Overburden Management Ltd., till sample K-3 and K-4 was submitted as a combined sample and resulted in 7 visible gold grains being recovered. Since these samples are only 75 metres (K-3) and 93 metres (K-4) NW of K-6-S. I had expected some gold in the Geoscience Lab. results. The analysis showed no gold detected. Though no gold was shown, I feel that the small quantity of material submitted for analysis was partially responsible of this result. Since gold has been associated with Granophyres in contact with Nipissing Diabase or other rock types, we expect to conduct a much lager sampling this year (2003), closer to the sedimentary formation and granitic rock, lying in a large glaciated area, west - northwest of the Keating Anomaly.

This will probably be completed while collecting much larger samples of Till material for KIM's and hopefully locate Kimberlite <u>and or</u> Lamprophyre in the proximity of the Keating Anomaly.

# Assays Related

to Windy Lake Claims

South Lorrain Twp.

## <u>Non KI M</u>

Swastika Laboratories Ltd.

Geoscience Laboratories - Sudbury

with a note regarding unused

Analysis from Lakefield Research Ltd.

#### <u>NOTE ! !</u>

Regarding Samples Submitted to Lakefield Research Limited - Lakefield Ont., June 5, 2002. Following is a copy of 12 samples submitted for Analysis. Apparently there were some personnel and ownership changes while our samples were held by Lakefield Research.

After considerable time June 5 to Aug. 12, 2002 the results were faxed to partner Jim MacLachlan of Napanee. Mr. MacLachlan was also recipient of an Invoice (No. M 2565). A deposit of <u>\$ 750.00</u> had been paid and Mr. MacLachlan also paid the balance of <u>\$ 1096.55</u>. It was some time later that I (Dave Hanes), received a copy of the Analytical Results.

After reviewing the results, I became aware of errors with the Report from Lakefield Research. Aside from the fact that several sample numbers did not match with the numbers assigned to them in the field and them forwarded to Jim MacLachlan, there was a sample listed as a Drill Core Section.

Since I have been involved in <u>All</u> field work as well as researching past Reports pertaining to our Area, I can say for certain, <u>NO</u> drill core was submitted from our claims !! No records and no drill core has ever been found by us in 6 years of staking and Assessment work on our claims.

Only 1 Diamond Drill hole was put down on an old Norbay Silver property, over a mile west on the Montreal River (Wolverine Claim 1231288) in the mid 1920's. Core from this hole has never been found and is probably in the Montreal River.

Because of the errors on the part of Lakefield Research Laboratories, myself and partners Jim MacLachlan and Sherwood Plunkett and a Geologist who has worked with us are of the opinion

that the Report by Lakefield and results are unreliable and inaccurate, ---- therefore this Report is not included within our Year 2002 Assessment Report.

We have previously contracted Lakefield Research for Analytical work in the past with no resulting problems, <u>hopefully</u> this was an isolated incident.

Since this Invoice was paid, I am including the amount with our Assessment Costs, Year 2002.

Sincerely,

Dave R. Hanes Wolverine Explorations March 20, 2003

## CHAIN OF C JTODY FORM

Lakefield Research Limited						FOR LAKEFIELD RESEARCH USE ONLY								Nº	1238	
	Mineralogical Services				LIMS No.: NI 5010 JUNO2 Date Received: June						ELOD			Internal:		
	Postal Bag 4300, 185 Concession St.				Project No:			Received By: D.P.					External:	$\vdash$		
	Lakefield, ON K0L 2H0				Quote No:			Date Logged In: June 17 102					Report:	<u> </u>		
	(705) 652-2019 Fax (705) 652-3123								Logged In By: Anita K					Certificate:		
		Name: James M. Maclachlan							Name:							
		Title:							Title:	0			^			
	Report	rt Company: James M. Maclachlan							Compa		ame	as	Lepor	-		
	•	Department:						Invoice Department:								
	10:	To: Address: 6 Thomas Street						To: Address: Results to								
		City, Province, Postal Code: Napanee ON KIR K6 Telephone No: (613) 354 -6448 Fax No:						ĺ	City, Province, Postal Code: Telephone No: Fax No:							
	Purchase Order Number:							Telephone No: Fax No: Client Job Number:								
29,	No. of							e Requested (check as applicable)						SPEC		
	Samples	or Sam	ple Range	Туре	MIN SEP	SEC PREP	MINERALOGY		SEM			AGG TEST	ANALYTIC	SPECIAL INSTRUCTIONS		
	12	ا بانده ا				×	M									
	10	Sample#1	+0 12	SOLID		<u> </u>	<u> </u>									
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		Sampled by:										SAMPLE CONDITION UPON RECEIPT:				
	of Packaged and Shipped by:										Seal Intact Yes: Seal No:					
	Custody Method of Shipment and WB#:										IF NO (ex	olain):				
	Work Authorized by:							Date:	june 1	8 102						
	(Client (or representative) signature must accompany request)								U							
	Note: Please read reverse page for terms and condition					-										
	L		- P.101 0		-0.	l				1						

Lakefield Research



skefield Research Limited
 4300, 185 Concession St.
 efield, Ont., Canada KOL 2H0
 hone: (705) 652-2000
 r ax: (705) 652-6365

TO:

No.: M2565

August 12, 2002

97) James M Maclachlan
6 Thomas Street
Napanee, ON
Canada, K7R 1K6
Min : James M Moclachlan
Reference : LR2201692

G.S.T. NUMBER 89921 6352RT

Project : Lr. Ref. : MI5010-JUN02

Qty	Analysis	Description	\$ Unit	\$ Total
12		Petrography	125.00	1500.00
1		Analytical Support	225.75	225.75
			SUB TOTAL \$	1725.75
		Analysis	1725.75	1725.75
		<b>OST 7 %</b>	120.80	1846.55
		- Advance Payment	750.00	1096.55
			TOTAL \$	1096.55

Prepayment received June 10/02 Cheque #830: \$750.00

Charges are related to the preparation of detailed petrographic descriptions of 12 rock samples plus 3 geochemical analyses (Samples 4, 5 adn 7) including Cu, Ni, Co, Pt and Pd.

Sample: Sample #1, Sample #2, Sample #3, Sample #4, Sample #5, Sample #6, Sample #7, Sample #8, Sample #9, Sample #10, Sample #11 and Sample #12.

Please note a discount was applied to the cost of the petrographic reports.

\*\*\* Invoice in Canadian Funds unless stated otherwise \*\*\*

30,

	Established 1928	Swastika A Division of Assaying - Const P.O. Box 10, Swa Telephone (705) 642-33	(TSL/Ass ilting - stika, On 244	ayers Inc Repres stario P0 FAX (7)	sentatio K 1T0 05)642-33	n			C	ERTIFICATE #
		Request	for a	inaly	ses			•		
Certificate and Invoice to:	D Hane	5								
	ing Explor	p/			<u>.</u>					
in tout		ration						-		
THE MEN		ad CX P3A						-		
Phone:5	560 - 737	E Fax:	50							Mostreal River
Authorized by:	D Hones	Date:	De	ek,	25	100	2	_ P.C	).#	
Mail copy to:				/						
_	Please F.	ex Result	3	w	ler	(	10 p	~01	ter.	ed.
Type of analysis:			Dispo		nused r	nateria	<u>s:</u>	7		
Regular Ass	ay Methods: Au Ag oz./ton	or altonne. Base Metal %	$\overline{\mathcal{V}}$	Disca	JECTS			Γ		PULPS
	say Methods: Au PPB, Ag		<b>F</b>		u 90 day	/5		i.	≁	Discard Retain 6 months
Whole Rock					> 90		t cost			Retain > 6 months at cost
Other				Return	n to			-  -		leturn to
			T	r	T	T	T		 T	
Type of Sample	Sample	Numbers	Au	Ag	Cu	Pb	Zn	Co	Ni	Other
Silica	$\frac{103 - E - 1}{902 - E - 2}$	3+4								WRA
Rock			<u> </u>		<u> </u>					$\frac{WRH}{1100}$
Rock	286- KA-	2								
Kock Rock Rock	289-9-05	8-1	X	X		X				WRA+Pt+Pi
Rock	286 KA-1 286 KA- 289-P-05 289-P-05	8-2	X	X		X				WRA WRA WRA
						ļ				
1						1				
										Shippel 544 26/02

Swastika Laboratories Ltd. P.O. Box 10, 1 Cameron Ave., Swastika,Ontario P0K 1T0 Tel:(705) 642-3244 Fax:(705) 642-3300 E-Mail:swaslab@nt.net

n	V	0	ic	e

 DATE
 INVOICE #

 9/13/2002
 4646

To:

WOLVERINE EXPL. & MIN RECOVERY 100 KENT COURT APT 106 SUDBURY, ONTARIO P3A 4R5

	P.O. NO.	TERMS	PROJ	ECT #
		30 DAYS		
QTY	DESCRIPTION	CERT#	RATE	AMOUNT
1 1 2 2 6 6 6	Au Pt Pd Au Ag Pb WRA Sample Prep Business Number: RT883022329	2W-2037-RA1	18.00 8.00 3.00 1.50 24.00 3.50	18.00T 8.00T 6.00T 3.00T 144.00T 21.00T
	Wolverine Exploration	Totals GST To	ital =	=# 90.00 =# 6.30 # 96.30
	Assays NOT marked are Windy Lake Chims per This 2002 Report Dett.	GST To Windy Lake 4 Samples	Claims = {	\$ 117.70
· · · · · · · · · · · · · · · · · · ·	Report Dett.	GST	· · · · ·	14.00
TOTAL	,l			\$214.00



# Swastika Laboratories Ltd

Assaying - Consulting - Representation

## Geochemical Analysis Certificate

## 2W-2037-RG1

Company: DAVE HAINES Project: Attn: D. Haines

Date: MMM-DD-YY

\_\_\_\_

We hereby certify the following Geochemical Analysis of 6 Rock samples submitted AUG-07-02 by .

Sample Number	Au PPB	Ag PPM	Pb PPM	Pt PPM	Pd PPB	Wr a
903-E 1+2	-	-	-			Results
903-Е 3+4	-	-	-	-	-	to
286-KA 1	-	-	-	-	-	follow
286-KA 2	-	-	-	-	-	
289-P 058-1	27	0.2	1	<5	<5	
289-P 058-2	17	0.2	1	-		

Certified by Denis Chart

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0 Telephone (705) 642-3244 Fax (705) 642-3300 **DAVE HAINES** 

Attention: D. Haines

Project:

Sample: Rock

## Assay Juanada

8282 Sherbrooke St., Vancouver, B.C., V5X 4R6

Tel: (604) 327-3436 Fax: (604) 327-3423

**Report No** : 2W2037 RL Sep-03-02

Date :

**ICP Whole Rock Assay** 

Lithium Metaborate Fusion

Sample Number	SiO₂ %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	Na₂O %	TiO₂ %	K₂O %	MnO %	P₂O₅ %	LOI %	Ba ppm	Sr ppm	Zr ppm	Sc ppm	Y ppm	Be ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	V ppm	Zn ppm	Rb ppm	Nb ppm	Totai %
903-E 1+2	85.90	8.37	0.38	0.02	0.15	0.08	0.05	2.21	<0.01	0.04	1.19	150	40	40	<5	<5	<5	<5	200	5	<5	10	5	<100	<10	98.45
903-E 3+4	93.64	3.03	0.48	<0.01	0.04	0.04	0.12	0.76	0.02	0.06	0.65	30	40	60	<5	<5	<5	<5	375	60	15	5	235	<100	<10	
286-KA 1	71.78	13.61	4.44	0.07	1.06	6.74	0.40	0.25	0.02	0.09	0.94	30	50	300	10	20	<5	<5	255	5	35	75	210	<100	<10	99.51
286-KA 2	70.50	13.30	5.83	0.09	0.88	7.23	0.62	0.24	0.01	0.07	0.93	20	40	540	5	25	<5	5	320	5	30	90	205	<100	<10	99.82
289-P 058-1	73.52	11.22	5.45	0.12	0.68	3.53	0.18	1.76	0.01	0.07	2.93	270	30	110	5	10	<5	155	300	<\$	40	60	290	100	<10	99.60
289-P 058-2 🌑	76.67	11.32	2.57	0.08	1.17	6.06	0.23	0.21	0.02	0.03	1.18	30	30	130	5	5	<5	15	280	45	50	40	240	100	<10	99.64

Up to 100 ppm Cr contamination due to sample grinding.

Sample is fused with Lithium metaborate and dissolved in dilute HNO3.

Signed:

# Geo. Laboratories

GL Job No. 02-0241

.

# INVOICE



Invoice Date : Submission Da	11/06/2002 te 09/24/2002	GL Job No. : P.O./Project # :	02-0241 n/a	Invoice # : 23195 NTR Code : 9225 LABS
Issued To :	Mr. D Hanes Wolverine Explor 100 Kent Court A Sudbury, ON P3A	pt. #106	Data To :	Mr. D Hanes Wolverine Exploration and Minera 100 Kent Court Apt. #106 Sudbury, ON P3A 4R5
Phone : Fax : E-Mail :	705-560-7376 -		Phone : Fax : E-Mail :	705-560-7376 -

Qty	Method Code	Description	Unit Price	Extended Price
3	AAT-100	AA : Flame	9.50	28.50
3	GFA-ICP	GFA-ICP Finnish	0.00	0.00
3	MS-IAT	PGE Analysis	20.00	60.00
3	ОТЗ	T1/T2 OPEN DIGEST	12.00	36.00
3	PGEH	PGE High	0.00	0.00
3	SPG	Geo Sample Prep	8.00	24.00
3	XWF-101	WD-XRF : Majors	29.50	88.50
			Sub Total	237.00
			GST	16.59
			Total Due	<u>253.59</u>

Please make cheque payable to :/Paiments a l'orde du : The Minister Of Finance / Ministre Des Finance

Ministry of Northern Development and Mines Accounting Services Suite 701, 159 Cedar St. Sudbury, ON, Canada P3E 6A5 GST License # : R124668666

SERVICE CHARGE OF \$35.00 WILL APPLY TO ALL RETURNED CHEQUE DES FRAIS DE \$35.00 SERONT IMPOSES POUR TOUT CHEQUES SANS PROVISIO Please direct any inquiries to Tel. # 705-670-5637, quoting GL Job numbe Geoscience Laboratories 933 Ramsey Lake Road, Bidg A4 Sudbury, On P3E 6B5 Phone : (705)670-5637

Fax: (705)670-3047

2 Samples - Wolverine Exploration =\$/68.67

1 Sample Windy Lake = \$ 84.92 Claims





Geoscience Laboratories 933 Ramsey Lake Road, Bldg A4 Sudbury, On P3E 6B5 Phone: (705)670-5637 Fax: (705)670-3047

Issued To :	Mr. D Hanes	Certificate Date
	Wolverine Exploration and Minera 100 Kent Court Apt. #106	Certificate No. Project Number
	Sudbury, ON P3A 4R5 Canada	GL Job No
Phone :	705-560-7376	Submission Date
Fax :	-	Delivery Via
E-Mail :	-	QC Requested
Client No. :	323	

Certificate Date : 11/04/2002
Certificate No. : 12702
Project Number : <b>n/a</b>
GL Job No. : 02-0241
Submission Date : 09/24/2002
Delivery Via : MAIL
QC Requested : NO

Method Code reported with this certificate : XWF-101

Method Code	Description	Qty	Status
AAT-100	AA : Flame	3	COMPLETE
IAT-200	PGE Analysis	3	IN PROG
XWF-101	WD-XRF : Majors	3	COMPLETE

## Legend:

N.R. = Analysis not requested N.D.= Not detected N.M. =Not measured Please refer to GL Job No. 02-0241 if you have any questions. CERTIFIED BY

Noumber 4 2012 Date : Ed Debicki, Laboratory Manager

# GEOSCIENCE LABORATORIES CERTIFICATE OF ANALYSIS

# 

 CLIENT:
 Hanes

 GL JOB #:
 02-0241

 DATE:
 11/04/2002

 METHOD CODE:
 XWF-101



Client ID Unit <del>s</del> Detection Limit	SiO2 wt% 0.010	TiO2 wt% 0.010	Al2O3 wt% 0.010	Fe2O3 wt% 0.010	MnO wt% 0.010	MgO wt% 0.010	CaO wt% 0.010	Na2O wt% 0.010	K2O wt% 0.010	P2O5 wt% 0.010	LOI wt% 0.050	TOTAL wt% n/a
WE-290-1	46.85	2.75	16.32	13.36	0.15	4.01	9.85	3.53	0.62	0.12	3.37	100.93
WE-290-2	76.38	0.23	11.49	2.43	0.02	1.08	0.07	6.08	0.21	0.02	1.24	99.24
JV-124-L1250E	70.25	0.51	11.91	3.19	0.05	1.06	1.83	2.47	2.29	0.05	6.22	99.85





Geoscience Laboratories 933 Ramsey Lake Road, Bldg A4 Sudbury, On P3E 6B5 Phone: (705)670-5637 Fax: (705)670-3047

Issued To :	Mr. D Hanes	Certificate Date : 10/24/2002
	Wolverine Exploration and Minera	Certificate No. : 12661
	100 Kent Court Apt. #106	Project Number : <b>n/a</b>
	Sudbury, ON P3A 4R5 Canada	GL Job No. : 02-0241
Phone :	705-560-7376	Submission Date : 09/24/2002
Fax :	•	Delivery Via : MAIL
E-Mail :		QC Requested : NO
Client No. :	323	ac nequested . NO

## Method Code reported with this certificate : AAT-100

Method Code	Description	Qty	Status
AAT-100	AA : Flame	3	COMPLETE
IAT-200	PGE Analysis	3	IN PROG
XWF-101	WD-XRF : Majors	3	IN PROG

### Legend:

N.R. = Analysis not requested N.D.= Not detected N.M. =Not measured Please refer to GL Job No. 02-0241 if you have any questions. CERTIFIED BY <u>James Schwym For</u> Ed Dabiaki Laboratory Manager

Ed Debicki, Laboratory Manager

# **GEOSCIENCE LABORATORIES**

		CERTIFICATE OF ANALYSIS	
CLIENT : GL JOB # : DATE : METHOD CODE	Hanes 02-0241 10/24/2002 : AAT-100		I A CONTRACTOR
Client ID Units Detection Limit	Ag ppm 1.00		
WE-290-1	2		
WE-290-2	1		
JV-124-L1250E	4		

Υ.





Geoscience Laboratories 933 Ramsey Lake Road, Bidg A4 Sudbury, On P3E 6B5 Phone: (705)670-5637 Fax: (705)670-3047

Issued To :	Mr. D Hanes	Certificate Date : 11/05/2002
	Wolverine Exploration and Minera	Certificate No. : 12711
	100 Kent Court Apt. #106	Project Number : n/a
	Sudbury, ON P3A 4R5 Canada	GL Job No. : 02-0241
Phone :	705-560-7376	Submission Date : 09/24/2002
Fax :	-	Delivery Via : MAIL
E-Mail :		
Client No. :	323	QC Requested : NO

Method Code reported with this certificate : IAT-200

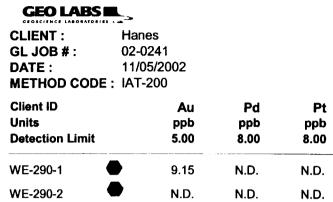
Method Code	Description	Qty	Status
AAT-100	AA : Flame	3	COMPLETE
IAT-200	PGE Analysis	3	COMPLETE
XWF-101	WD-XRF : Majors	3	COMPLETE

Legend:

N.R. = Analysis not requested N.D.= Not detected N.M. =Not measured Please refer to GL Job No. 02-0241 if you have any questions. CERTIFIED BY

November -5 2002 Date : Ed Debićki, Laboratory Manager

# **GEOSCIENCE LABORATORIES CERTIFICATE OF ANALYSIS**





Client ID Units Detection Limit	Au ppb 5.00	Pd ppb 8.00	Pt ppb 8.00
WE-290-1	9.15	N.D.	N.D.
WE-290-2	N.D.	N.D.	N.D.
JV-124-L1250E	N.D.	N.D.	N.D.

# **GEO.** Laboratories

GL. Job No. 02-0315





Geoscience Laboratories (Geo Labs) 933 Ramsey Lake Road, Bidg A4 Sudbury, ON P3E 6B5 Phone: (705) 670-5637 Toll Free : 1-868-438-5227 Fax: (705) 670-3047

Issued To :	Mr. D Hanes	Certificate Date: 11/21/2002
	Wolverine Exploration and Minera	Certificate No. : 12815
	100 Kent Court Apt. #106	Project Number : n/a
	Sudbury, ON P3A 4R5 Canada	Geo Labs Job No.: 02-0315
Phone :	705-560-7376	Submission Date : 11/07/2002
Fax :	-	Delivery Via : MAIL
E-Mail :	-	QC Requested : NO
lient No. :	323	

Method Code reported with this certificate : IA-100

Method Code	Description	Qty	Status
IA-100	ICP-AES	3	COMPLETE

### Legend:

N.R. = Analysis not requested		
N.D.= Not detected		
N.M. = Not measured		
Please refer to Geo Labs Job No. 02-0315 if you have any of	questions.	
CERTIFIED BY		
Shell	Date :	November 21, 2002,
Ed Debicki, Laboratory Manager		7

# Ø

# GEOSCIENCE LABORATORIES CERTIFICATE OF ANALYSIS



CLIENT : Geo Labs JOB DATE : METHOD CODI	#:02 11	/21/2002											
Client ID Units		Al ppm	Ba ppm	Be ppm	Ca ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Li ppm	Mg ppm
Detection Limit	t	30.0	3.00	3.00	15.0	2.00	5.00	4.00	5.00	5.00	100	3.00	20.0
WE-290-1		50424	248	N.D.	827	5	155	42	N.D.	33162	12646	15	4022
WE-290-2	۲	49334	27	N.D.	441	N.D.	18	43	73	14830	1324	7	6004
JV-124-L1250E		49314	444	N.D.	12188	6	13	54	6	19737	14718	18	5769

Client ID	Mn	Мо	Na	Ni	P	S	Sc	Sr	Ti	V	w	Y
Units Detection Limit	ррт 1.00	ррт 8.00	ррт 10.0	ррт 5.00	ppm 50.0	ррт 30.0	ррт 1.00	ррт 1.00	ррт 3.00	ррт 5.00	ppm 35.0	ppm 2.00
WE-290-1	37	24	25748	30	173	25406	5	15	823	46	N.D.	5
WE-290-2	102	N.D.	40777	40	N.D.	1681	3	12	941	28	N.D.	4
JV-124-L1250E	321	N.D.	18430	25	193	223	6	243	2318	57	N.D.	6

Client ID Units Detection Limit		Zn ppm 2.00
WE-290-1	•	8
WE-290-2		9
JV-124-L1250E		40



# INVOICE



## 

Invoice Date : Submission Date	03/17/2003 11/25/2002	GL Job No. : P.O./Project # :	02-0347 n/a	Invoice # : 23320 NTR Code : 9225 LABS		
100	D Hanes verine Exploratio Kent Court Apt. bury, ON P3A 4F	#106	Data T	Data To : <b>Mr. D Hanes</b> Wolverine Exploration and Minera 100 Kent Court Apt. #106 Sudbury, ON P3A 4R5 Canada		
Phone : 70 Fax : -	95-560-7376			• 705-560-7376		
E-Mail : -			E-Mail			

Qty	Method Code	Description	Unit Price	Extended Price
1	gfa	Gravimetric Fire Assay	17.00	17.00
1	gfa-icp	GFA-ICP Finnish	0.00	0.00
1	ia-100	ICP-AES	7.75	7.75
1	ms-iat	PGE Analysis	20.00	20.00
1	ot3	T1/T2 OPEN DIGEST	12.00	12.00
1	pgeh	PGE High	0.00	0.00
1	spg	Geo Sample Prep	8.00	8.00
	I		Sub Total	64.75
			GST	4.53
			Total Due	69.28

Please make cheque payable to :/Paiments a l'orde du : The Minister Of Finance / Ministre Des Finance Ministry of Northern Development and Mines Accounting Services Suite 701, 159 Cedar St. Sudbury, ON, Canada P3E 6A5 GST License # : R124668666

SERVICE CHARGE OF \$35.00 WILL APPLY TO ALL RETURNED CHEQUE DES FRAIS DE \$35.00 SERONT IMPOSES POUR TOUT CHEQUES SANS PROVISIO Please direct any inquiries to Tel. # 705-670-5637, quoting GL Job number. Geoscience Laboratories (Geo La 933 Ramsey Lake Road, Bidg A4 Sudbury, ON P3E 6B5 Phone : (705) 670-5637 Fax : (705) 670-3047





Geoscience Laboratories (Geo Labs) 933 Ramsey Lake Road, Bldg A4 Sudbury, ON P3E 6B5 Phone: (705) 670-5637 Toll Free : 1-868-438-5227 Fax: (705) 670-3047

Issued To :	Mr. D Hanes	Certificate Date :
	Wolverine Exploration and Minera	Certificate No.
	100 Kent Court Apt. #106	Project Number
	Sudbury, ON P3A 4R5 Canada	Geo Labs Job No.
Phone :	705-560-7376	Submission Date :
Fax :	•	Delivery Via :
E-Mail :	-	QC Requested
Client No. :	323	de requested .

Certificate Date :	12/12/2002
Certificate No. :	12970
Project Number :	n/a
Geo Labs Job No. :	02-0347
Submission Date :	11/25/2002
Delivery Via:	MAIL
QC Requested :	NO

Method Code reported with this certificate : IA-100

Method Code	Description	Qty	Status
GFA	Gravimetric Fire Assay	1	IN PROG
IA-100	ICP-AES	1	COMPLETE
IAT-200	PGE Analysis	1	IN PROG

### Legend:

N.R. = Analysis not requested		
N.D.= Not detected		
N.M. = Not measured		
Please refer to Geo Labs Job No. 02-0347 if you have an	ny questions.	
CERTIFIED BY		
Etrell.	Date :	December 12, 2:02
Ed Debiski, Laboratory Manager	_	



**CLIENT:** 

K-6-5

Hanes

# GEOSCIENCE LABORATORIES CERTIFICATE OF ANALYSIS



Geo Labs JOB # DATE : METHOD CODE :	12/12/2002											
Client ID Units Detection Limit	Al ppm 30.0	Ba ppm 3.00	Be ppm 3.00	Ca ppm 15.0	Cd ppm 2.00	Со ррт 5.00	Cr ppm 4.00	Cu ppm 5.00	Fe ppm 5.00	К ррт 100	Li ppm 3.00	Mg ppm 20.0
K-6-5	52157	424	N.D.	12839	5	18	85	21	30445	17321	31	14585

Page 1 of 3

Client ID	Мл	Мо	Na	Ni	P	S	Sc	Sr	Ti	V	W	Y
Units	ррт	ррт	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	1.00	8.00	10.0	5.00	50.0	30.0	1.00	1.00	3.00	5.00	35.0	2.00
<del>****</del> K-6-S	413	N.D.	16718	47	297	293	9	177	1885	78	N.D.	6





Geoscience Laboratories (Geo Labs) 933 Ramsey Lake Road, Bidg A4 Sudbury, ON P3E 6B5 Phone: (705) 670-5637 Toll Free : 1-866-436-5227 Fax: (705) 670-3047

# Issued To : Mr. D Hanes Wolverine Exploration and Minera 100 Kent Court Apt. #106 Sudbury, ON P3A 4R5 Canada Phone : 705-560-7376 Fax : -E-Mail : -Client No. : 323

Certificate Date :	01/07/2003
Certificate No. :	13029
Project Number :	n/a
Geo Labs Job No. :	02-0347
Submission Date :	11/25/2002
Delivery Via:	MAIL
	NO

## Method Code reported with this certificate : GFA

Method Code	Description	Qty	Status
GFA	Gravimetric Fire Assay	1	COMPLETE
IA-100	ICP-AES	1	COMPLETE
IAT-200	PGE Analysis	1	IN PROG

## Legend:

N.R. = Analysis not requested		
N.D.= Not detected		
N.M. = Not measured		
Please refer to Geo Labs Job No. 02-0347 if you have any	questions.	
CERTIFIED BY		
Effel	Date :	January 7, 2003
Ed Debicki, Laboratory Manager		
	····	



# GEOSCIENCE LABORATORIES CERTIFICATE OF ANALYSIS



CLIENT :	Hanes
Geo Labs JOB #	
DATE :	01/08/2003
METHOD CODE	: gfa
Client ID	Ag
Units	oz/ton
<b>Detection Limit</b>	0.10
K-6-S	N.D.



# GEO LABS

Geoscience Laboratories (Geo Labs) 933 Ramsey Lake Road, Bldg A4 Sudbury, ON P3E 6B5 Phone: (705) 670-5637 Toll Free : 1-866-436-5227 Fax: (705) 670-3047

## Issued To: Mr. D Hanes

Wolverine Exploration and Minera 100 Kent Court Apt. #106 Sudbury, ON P3A 4R5 Canada

Phone : 705-560-7376

Fax: -

E-Mail: -

Client No.: 323

Certificate Date :	03/06/2003
Certificate No. :	13289
Project Number:	n/a
Geo Labs Job No. :	02-0347
Submission Date :	11/25/2002
Delivery Via :	MAIL
QC Requested :	NO

Method Code reported with this certificate : IAT-200

Method Code	Description	Qty	Status
GFA	Gravimetric Fire Assay	1	COMPLETE
IA-100	ICP-AES	1	COMPLETE
IAT-200	PGE Analysis	1	COMPLETE

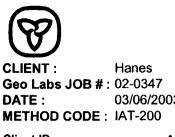
## Legend:

N.R. = Analysis not requested N.D.= Not detected N.M. = Not measured Please refer to Geo Labs Job No. 02-0347 if you have any questions. CERTIFIED BY

Date :

March 6, 200 3

Ed Debicki, Laboratory Manager



# GEOSCIENCE LABORATORIES CERTIFICATE OF ANALYSIS



Geo Labs JOB # DATE : METHOD CODE :	03/06/2003	
Client ID Units	Au ppb	Pt ppb
Detection Limit	6	1
K-6-S	N.D.	1.71

## Assessment Costs part "B"

Dave Hanes - Marlene Carr

Jim Laidlaw

Sherwood Plunkett

Jim MacLachlan

Invoices for Technical

Reports and Lab. Analysis

6 pages - Jim Laidlaw

1 page - Lakefield Research (<u>P 30</u>) with note regarding Analysis.

1 page - Overburden Drilling

2 pages - Arpad Farkas

1 page - Geo Lab.

# Dave Hanes - Assessment Costs for Windy Lake Claims - Year 2002

## Labour:

Dave Hanes - May 19 - 22 2.5 days prospecting, cutting lines, stations, and collecting samples for possible analysis	\$ 375.00
Dave Hanes - Aug. 10 - 13 2 days cutting lines, prospecting and collecting samples	- \$ 300.00
Dave Hanes & Marlene Carr - Oct. 10 - 12 1.5 days @ =	- \$450.00
Dave Hanes - Oct. 23 - 24 1 day Prospecting and collecting till samples for KIM identification.	\$ 150.00
Total Field Labour =	\$ 1275.00
Transportation: 4 trips = total km. \$0.40 x 1750 km =	\$ 700.00
Camp : 2 people, 6 days x \$ 20.00 per day = 1 person, 5 days x \$ 20.00 per day =	-
Meals : 2 people, 6 days x \$ 20.00 per day = 1 people, 5 days x \$ 20.00 per day = Total Camp and Meals =	- <u>\$ 100.00</u>
Misc. items : flagging tape, measuring thread, sample bags, propane for stove	\$ 67.00
Office supplies, postage, phone calls, file folders, photos, photo copies, maps, and mining reports pertinent to our assessment work	- \$ 100.00

Total of page 1 = \$2582.00

Assays - Swastika Laboratories Inv. No. 4646	\$ 117.00
Assays - Geo. Science Laboratories Sudbury. Inv. No. 23195	\$ 84.92
Assays - Geo. Science Laboratories Sudbury . Inv. No. 23320 Shipping and Delivery Total for Assays =	\$ 69.28 <u>\$ 30.00</u> \$ 301.90

Report Costs: Dave Hanes - report prep, Maps, sketches for field work, travel to MNDM, and assembling and submitting final reports, including sorting and filing receipts from Jim MacLachlan, Sherwood Plunkett and James Laidlaw.
30 hours x \$ 10.00 per hour = \$300.00
Marlene Carr Typing for final report. 9 hours x \$ 10.00 hr.= <u>\$ 90.00</u> Total = \$ 390.00
Total of page 2 = \$ 691.90
<u>Total of page 1 =\$ 2582.00</u>

D.H - M.C. Total Assessment Contribution, year 2002 = -----\$3274.00

# Windy Lake Claims Assessment Costs Year 2002

Jim Laidlaw, Field Work and Office. Complete Details with Report.	
Jim Laidlaw CJL 2002.08	\$ 577.80
Jim Laidlaw CJL 2002.13	\$ 385.20
Jim Laidlaw CJL 2002.15	<u>\$ 192.60</u>
Total Field Costs =	\$1155.60
Jim Laidlaw CJL 2002.09	\$ 642.00
Jim Laidlaw CJL 2002.13	\$ 577.80
Jim Laidlaw CJL 2002.15	\$ 385.20
Jim Laidlaw CJL 2003.02	<u>\$ 770.40</u>
Total office time and sample prep =	\$ 2375.40

Total = \$3531.00

## Assessment Costs - Year 2002

Sherwood Plunkett

Labour: Sherwood Plunkett - May 20 - 22 Sherwood Plunkett - Aug. 9 - 12 2.5 days labour = ----- \$ 375.00 Total labour = \$ 825.00 Sherwood Plunkett Report Prep = ------ \$ 48.00 Transportation : Sherwood Plunkett - May 19 - 22 - $1240 \text{ km x } \$0.40 = \dots \$496.00$ Sherwood Plunkett - Aug. 2 - 13  $1240 \text{ km x } \$0.40 = \dots \$496.00$ Total Travel = \$ 992.00Sherwood Plunkett's travel includes picking up Magnetometer and Jim Laidlaw for field work and return same. 2 trips. Camp and Food (2 trips) = ------ \$ 255.80 Misc. Items: Flag tape, batteries for Mag., postage, photo copies. = ------ \$ 109.45 Total = ----- \$ 365.25

Total Assessment Costs = ------ \$ 2231.25

## Assessment Costs Year 2002

## Jim MacLachlan

Jim MacLachlan's costs include all work performed by Jim Laidlaw. Consumables and

transportation ( Oct. 23 - 24 ), motel etc., were reimbursed to Mr. Laidlaw by Jim MacLachlan.

Jim MacLachlan paid for all lab costs related to till samples collected for KIM identification.

<ul> <li>1/ Lakefield Research Invoice No. M 2565 =</li></ul>	- \$ 556.40 \$ 662.95 \$ 454.75 <u>\$ 939.50</u>
Transportation Jim Laidlaw 1 trip =	- \$ 80.00
Office : Includes Shipping samples, file folders, photo copies, binders, postage and Insurance =	- \$ 752.61
Total Lab Costs =	- \$4460.15
Total Field and Office paid to Jim Laidlaw =	\$ 3531.00
Total paid by Jim MacLachlan year 2002 Assessment Costs =	\$8824.00

# Assessment Year 2002

Individual and Total costs by partners for Assessment Credit Calendar Year 2002 on Windy Lake Claims.

Jim MacLachlan = \$ 8824.00
Dave Hanes = \$ 3274.00
Sherwood Plunkett = $\$ 2231.00$
Total Assessment Costs = \$ 14,329.00

# CJL2003.02

For geological report writing;" Assessment for Prospecting Activities: Till Sampling and Electron Microprobe Analysis for Kimberlite Indicator Minerals on Part of the Windy Lake Claim Group, Claims 1198286 and 1199124, South Lorrain Township, Larder Lake Mining Division, NTS 31M/5, February 8, 2003 C.J. Laidlaw, Madoc ON". Deliverables to Mr. J. MacLachlan, Napanee, ON

## 1) Costs

A) Office Work

Date	Number of days	Rate		Costs
February 5 to 8, 2003	4	\$180/day		\$720.00
			7% GST	\$50.40_
			Sub-total	\$770.40 (i)
B) Consumable		Item		
		Copies		\$29.88
		Copies		\$35.19
		Copies		<u>\$23.62</u>
			Sub-total	\$88.69 (ii)
	·		Total (i +ii)	\$859.09

Signed and Dated February 09, 2003 C. Jim Laidlaw Madoc ON

Jam hendluw

Joverchauge jour #10.00. Jam. ceturingthe extra monies. Thanks Jim.

GST Number 864087739RT

# **ԴJL2002.08**

...ield work on Windy Lake Claim Group, Claim 1198286, South Lorrain Township: grid establishment (geotechnical), supervise magnetometer survey and conduct VLF-EM survey (geophysical) and supervise and conduct till sample collection (prospecting), for MacLachlan-Plunkett-Hanes mineral property holders.

## A) Time

May 20 <b>02</b>				
Date	Project	Township	Claim	Work Performed
20	Windy Lake Claim Group	South Lorrain	1198286	Grid set-up.
21	Windy Lake Claim Group	South Lorrain	1198286	Grid set-up and supervise Magnetometer survey.
22	Windy Lake Claim Group	South Lorrain	1198286	Conduct VLF-EM survey and and supervise and conduct till sample collection.
B) Costs	Dave	Times	Rate per dav	<u>Totals</u>
Time	Days 3	X	\$180.00	\$540.00
Time	6	A	7%GST	\$ <u>37.80</u>
				\$577.80
Signed and Dated May 24, 2002 C. Jirn Laidlaw Madoc ON				

GST Number 864087739RT

C. Jim Laidlaw, R.R.3, Madoc ON, K0K 2K0: tel. (613) 473-5065; e-mail: j.laidlaw@sympatico.ca

## CJL2002.09

Report writting and map drafting on Windy Lake Claim Group, Claim 1198286, South Lorrain Township.

## A) Time

48 hours: on June 14, 17, 18, 19, 23, 24, 25, 26, and 28, 2002.

#### B) Costs

Time	\$600.00
GST 7%	<u>\$42.00</u>
Total	\$642.00

Signed and Dated May 28, 2002 C. Jim Leidlaw Madoc ON

GST Number 864087739RT

To: James MacLachlan

From: Jim Laidlaw

Date: July 02, 2002

re: Assessment reports, additions to assessment reports, various maps and billing, June 28, 2002.

James,

1) Two copies of the assessment report, maps included. All rationalized into the white binder.

2) Included in the binder are signed copies of my bills.

3) The final costs are as follows:

Invoice CJL2002.08		\$37.80 freezions bill \$42.00	'5
Invoice CJL2002.09	GST	\$42.00J	
Photocopies		\$ 3.28	
Map copies		\$28.59	
Sample Shipping		\$14.12	
Mail to D. Hanes		\$ 8.01	

### Total \$133.80

4) Bus parcel express Way-bill Number: 4110016131

Two till samples forwarded to Overburden Drilling Management (ODM), Ottawa ON. The ODM contact there is Mr. Remy Huneault 613.226.1771. See attached letter to Overburden Drilling Management.

5) In the two reports that I have already given you, replace **page 1** in each of those copies. Secondly, place <u>The Table of Contents</u> in these reports as well.

All other copies are in proper order with respect to these pages.

Regards

Jim Laidlaw

Addendum: Memo to Dave Hanes (July 02, 2002), c.c. James MacLachlan, Sherwood Plunkett; Sent copy of assessment report and maps; will also forward a copy to Sherwood.

## CJL2002.13

Field work on Windy Lake Claim Group, Claim 1198286 and 1199124, South Lorrain Township: grid establishment (geotechnical), supervise magnetometer survey and supervise and conduct till sample collection (prospecting), for MacLachlan-Plunkett-Hanes mineral property holders.

## A) Time

i) Field: August, 2	002			
Date	<u>Project</u>	<u>Township</u>	<u>Claim</u>	Work Performed
11	Windy Lake Claim Group	South Lorrain	1198286 and 1199124	Grid set-up. One day.
12	Windy Lake Claim Group	South Lorrain	1198286 and 1199124	Complete grid set-up, supervise magnetometer survey and and prospection and collection of till and stream sediment samples. One day.
ii) Office: August, 2	002			
Date	Project	Township	<u>Claim</u>	Work Performed
27, 28, 29 and 30	Windy Lake Claim Group	South Lorrain	1198286 and	Report writing and map drafting over an aggregate of 16 hours
			119912 <b>4</b>	or two days.
iii) Office: Septemb	per, 2002			
Date	Project	Township	Claim	Work Performed
2, 3 and 4	Windy Lake Claim Group	South Lorrain	1198286 and	Report writing and map drafting over an aggregate of 8 hours
			1199124	or one day.
B) Costs				
	<u>Days</u>	<u>Times</u>	<u>Rate per day</u>	<u>Totais</u>
i)Time	5	X	\$180.00	\$900.00
•			7%GST	<u>\$63.00</u>
				\$963.00
ii) Expenses*	Binders			\$6.90
ny Expenses	Photocop	ies		\$20.70
	Map copie			<u>\$29.10</u>
			<u>Total</u>	\$1,019.70
* Receipts attache	d			

Signed and Dated Sept. 04, 2002 C. Jim Laidlaw Madoc ON

in a starting

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August - Field work. Sept. - Prep. of report

Ry

GST Number 864087739RT

## CJL2002.15

rield work on Windy Lake Claim Group, Claim 1198286 and 1199124, South Lorrain Township: supervise and conduct till sample collection (prospection), for MacLachlan-Plunkett-Hanes mineral property holders and; laboratory work to produce heavy mineral concentrates for heavy liquid separation.

## A) Time

i) Field: October, <u>Date</u> 24	2002 Project Windy Lake Claim Group	<u>Township</u> South Lorrain	<u>Claim</u> 1198286 and 1199124	<u>Work Performed</u> Till sample collection and washing silt-clay fines from samples.
ii) Laboratory: Oct <u>Date</u> 30 and 31	tober, 2002 <u>Project</u> Windy Lake Claim Group	<u>Township</u> South Lorrain	<u>Claim</u> 1198286 and 1199124	<u>Work Performed</u> Washing, sizing, panning and drying heavy mineral concentrates from till samples. Eight hours or one day.
ii) Laboratory: No <u>Date</u> 1 and 4	vember, 2002 <u>Project</u> Windy Lake Claim Group	<u>Township</u> South Lorrain	<u>Claim</u> 1198286 and 1199124	<u>Work Performed</u> Washing, sizing, panning and drying heavy mineral concentrates from till samples. Weighing and packaging heavy mineral concentrates for shipping to laboratory for heavy liquid separation. Eight hours or one day.

B) Costs	<u>Days</u>	Times	Rate per day	<u>Totals</u>
i)Time	<u>Days</u> 3	X	\$180.00 7%GST	\$540.00 <u>\$37.80</u> <b>\$577.80</b>
ii) Expenses*	Motel Fuel Food			\$78.00 \$80.05 <u>\$7.48</u>
			Total	\$743.33

\* Receipts attached

Signed and Dated Nov. 06, 2002 C. Jim Laidlaw Madoc ON

A with all all

Oct-Nov. Collect till samples Prep of samples, etc.

P.11

GST Number 864087739RT

OVERBURDEN DRILLING MANAGEMENT LIMITED 107-15 CAPELLA COURT, NEPEAN, ONTARIO, K2E 7X1 TELEPHONE: (613) 226-1771/1774 FAX: (613) 226-8753 odm@storm.ca http://www.odm.ca

TO: Mr. James MacLachlan 6 Thomas Street East Napanee, ON K7R 1K6		DATE:	28-Feb-02
RE: Batch # 855, Samples ODN #1, #2 & #3			
INVOICE # 0202110			
Laboratory Services:		<u></u>	· · · · · · · · · · · · · · · · · · ·
3 till samples processed for KIMs @	\$170.00	510.00	
			\$510.00
G.S.T. on O.D.M. services		35.70	
Expenses (before GST):			
Dicom shipping to Napanee (receipt unav	vailable)	10.00	
			\$10.00
G.S.T. on applicable items		0.70	
TOTAL INVOICE G.S.T. (registration No. 10403	0812 RT)		\$36.40
INVOICE TOTAL			\$556.40

Invoice is payable within 15 days of receipt; overdue amounts may be subject to a monthly 1.5% late fee.

J. Curit

Stuart Averill President

1.1

October 9, 2002

Mr. James MacLachlan 6 Thomas Street East Napanee, Ontario K7R 1K6

INVOICE - Per Report #1

# Re: Electron microprobe analysis of kimberlite indicator minerals from samples K1+2 and K3+4.

Fees:

Mounting of mineral grains for polished sectioning	\$ 25.00
Microprobe analysis of 28 mineral grains at \$ 20 each	\$560.00
Total fees	\$585.00
G.S.T. at 7%	\$ 40.95
Fees plus G.S.T.	\$625.95
Expenses:	
Preparation of one polished section	\$ 26.75
Postage of samples from Toronto to Nepanee	\$ 10.00
Total amount due	\$662.70
Less: advance of \$300 received from you (your cheque No 854, sept 10/02)	-\$300.00
Total amount payable:	\$362.70

Thank you,

,

lipart

Arpad Farkas Ph.D. Consulting Geologist

December 27, 2002

Mr. James MacLachlan 6 Thomas Street East Napance, ON K7R 1K6

INVOICE. per Report #2

Re: Binocular microscopy and electron microprobe analysis of kimberlite indicator minerals. Report dated December, 2002.

Total amount due:	\$939.50
Postage of samples and report	\$ 10.00
GST at 7%	\$ 59.50
Total:	\$870.00
Report writing, 2 hours at \$40/hour	\$ 80.00
Electron microprobe analysis of 23 mineral grains at \$20 each	\$460.00
Preparation of polished section	\$ 25.00
Mounting of grains for polished section	\$ 25.00
Binocular microscopy of 7 samples, \$40 each	\$280.00

Thank you,

Aspad Jacks

Arpad Farkas Ph.D. Consulting Geologist.



933 Ramsey Lake Road Sudbury, ON P3C 6B5 Tel: (705) 670-5637 Fax: (705) 670-3047

16

## INVOICE

Invoice Date: 11/29/2002

Purchase Order: n/a

Issued To:	Mr. J. Maclachlan Consultant 6 Thomas St. East Napanee, ON K7R 3M4		Data To:	Mr. J. Maclachlan Consultant 6 Thomas St. East Napanee, ON K7R 3M4
Invoice# 23208	<b>Description</b> Heavy Mineral Separation	<b>Qty</b> 3 @ under 20.0 g 4 @ above 20.0g	Unit Price \$55.00 \$65.00	Extended Price \$165.00 \$260.00

SUB TOTAL:	•	\$425.00
GST:		\$29.75
TOTAL DUE:		\$454.75

Please make cheque payable to:

Minister of Finance Ministry of Northern Development and Mines Accounting Services Suite 701, 159 Cedar St. Sudbury, ON Canada P3E 6A5



GST License #: R12466866

# Analysis of Samples for

Kimberlite Indicator Minerals

Separate Technical Reports by:

I / Jim Laidlaw - Overall Report on activities for 2002.

II / Overburden Drilling Management

III / Arpad Farkas Report # 1

IV / 1 page Mineralogy Report - Geoscience Laboratory - Sud. On.

V / Arpad Farkas Report # 2

Assessment Report for Prospecting Activities:

Till Sampling and Electron Microprobe Analysis for Kimberlite Indicator Minerals

on

Part of the Windy Lake Claim Group: Claims 1198286 and 1199124 South Lorrain Township Larder Lake Mining Division N.T.S. 31 M/5

February 8, 2003

C. Jim Laidlaw Madoc, Ontario

## Table of Contents

		rage	
1.0 Introduction	1	1	
2.0 Property and	d Location	4	
3.0 Accessing N	fining Claim 1198286 and 1199124	4	
4.0 Ownership of	of Claims	4	
5.0 Report Writ	ing and Field Supervision	4	
6.0 Dates Work	ed	5	
7.1 Ge	Current Exploration Work Conducted neral Geology ospecting Activities: Till Sampling Analysis Procedures	5 6 6	
8.0 Sample Dese	cription	8	
9.0 Results		10	
9.1 Gold grains and kimberlite indicator minerals (KIM's) observations made by Overburden Drilling Management LTD, Ottawa ON			
9.2 Kimberlite indicator minerals (KIM's) and other mineral observations made by Dr. Arpad Farkas, Consulting Geologist, Toronto ON			
9.3 Sur	nmary of kimberlite indicator minerals (KIM's) and other mineral observation from the Windy Lake Claim Group, South Lorrain Township	11	
10.0 Recommen	dations	12	
References		13	
Qualifying State	ment	15	
Appendix I Appendix II	List of Figures and Maps -Figure 1. Location Map of Project Area -Figure 2. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229903, 1230294, 1230295 and 1199124; Map G-3448, (sketch map not to scale) -Figure 3. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229903, 1230294, 1230295 and 1199124; Disposition overlaid on Geologica South Lorrain Township (Sketch map not to scale) and Geological Legend for (Geological Map 2194) -Figure 4. Windy Lake Claim Group: Location of 90% Positive Keating Coeffi Claim 1198286. (Sketch map not to scale, from Map 82 071) Overburden Drilling Management: Batch number 1075, laboratory data for two till samples K1 + K2, and K3 + K4 processed for Kimberlite Indicators and Go	1229902, I Map 2194, Figure 3. cient in	
Appendix III	<ol> <li>2002.</li> <li>Arpad Farkas Ph.D. Electron microprobe analysis of kimberlite indicator mine Temagami District, Northern Ontario, for samples K1+K2 and K3+K4, October</li> </ol>	rals from er 7, 2002	

Appendix IV	Geosciences Laboratory Job # 02-0321, tabulated weights for the light and heavy
	separated fractions of samples WLCG 846E 1847N and WLCG 1375E 2000N, WLCG
	K-5, WLCG K-6, WLCG K-7, WLCG K-8 and WLCG K-9, November 14, 2002
Appendix V	Arpad Farkas Ph.D. Consulting Geologist. Binocular microscopy and electron
	microprobe analysis of heavy mineral concentrates from till samples, Windy Lake mining
	claims, South Lorrain Township Ontario, December 23, 2002
Appendix VI	Map 1, Plan map of grid and topographic features and, till and alluvium sample locations and related notes of sample descriptions and results, Scale 1: 1 250, February 8, 2003

#### **1.0 Introduction**

South Lorrain Township, in the Larder Lake Mining Division, is located approximately 32km southeast of the town of Cobalt, (see Appendix I, Figure 1. Location Map of Project Area ). Silver was first discovered in South Lorrain Township in 1907, starting a period of widespread staking and mining.

Mining to the end of 1965 has produced 23,338,606 ounces of silver, 82% of this coming from the Keeley and Frontier Mines, and over 50% from the Keeley Mine itself. Minor amounts of cobalt, nickel and copper have also been produced.

The silver occurs in the native state in steeply dipping carbonate veins and vein arrays, localized in fracture zones, in close proximity, (within 200m) to the Nipissing Diabase sills or sheets, in the Paleoproterozoic sedimentary rocks of the Coleman Member of the Gowganda Formation. As well it can occur in the diabase, and to a lesser extent in the Archean supracrustal rocks associated with base metal enrichment. The silver veins postdate the Nipissing Diabase.

Exploration activities carried out on the Windy Lake Claim Group in South Lorrain Township by the mineral rights holders, has consisted of control grid, VLF-EM and Magnetometer geophysical surveys, outcrop power stripping, geochemical soil surveys, geochemical rock assaying, reconnaissance prospecting and whole rock analysis for precious metal, base metal and industrial mineral (high purity silica flux) commodities.

In a recent assessment report filed in January 27, 1999 written by C. J. Laidlaw on a magnetometer and VLF-EM geophysical survey, indicates that this examination appears to map the rock units in the study area and traces a weak conductive VLF-EM anomaly associated with a magnetic low linear zone interpreted to be a possible fault in close association with an olivine diabase dyke (a magnetic high), of Keweenawan age(?) and; this dike appears to cut all other rock units in the immediate survey area.

A review of assessment files by way of the Resident Geologist Office reveals a paucity of information related to this property area. There are extensive and numerous trenches and at least one shaft of undetermined depth, located on the Windy Lake Claim Group, that indicates a past history of intense mineral exploration, albeit of unknown date in which, and by whom, conducted those activities.

Contemporary research by the Ontario Geological Survey (Sage 1996), has emphasized kimberlite exploration to locate commercial exploitable diamond deposits within a region referred to as the Lake Timiskaming Structural Zone (LTSZ). Kimberlite occurs in the LTSZ in a broad north-west trending zone. There have been two widely separate, kimberlite fields identified; the Kirkland Lake and the Cobalt-New Liskeard domains. This discussion herein will refer to the Cobalt-New Liskeard area kimberlite field, as the property under discussion is within this domain.

#### **1.0 Introduction continued**

The LTSZ is represented by a graben structure and a branch of the Ottawa-Bonnechere Graben system that joins with the St. Lawrence rift system near Ottawa. The LTSZ is thought to be rooted in Proterozoic tectonics, with this structure inferred to have been re-activated several times. Kimberlite clustering occurs in the LTSZ in a broad north-west trending zone, and no single NW trending structure ties the kimberlite intrusions together and no direct connection between the LTSZ has been observed, however the zone may have provided a pathway to surface for the kimberlite magmas. The kimberlites occur at or close to the intersections of cross structures, (i.e. linears, faults or major lithological contacts) oblique to the NW structural trend.

The kimberlites are inferred to be of Jurassic in age and, geochronology indicates three ages of emplacement at 155 Ma, 142 Ma and 125 Ma. The youngest recorded age of kimberlite is from a reversely polarized pipe, thus a negative magnetic feature. In this region there are four known kimberlite pipes that have reversed polar signatures, which has led researchers to speculate that kimberlite emplacement has taken place over about a 30 Ma time span. As well, most of the kimberlite pipes located along the LTSZ, contain Paleozoic limestone and cherty xenoliths. This Paleozoic stratigraphy was present when explosive kimberlite emplacement occurred, entraining these xenoliths during the Jurassic Period.

Preliminary observation by researchers in the Cobalt-New Liskeard is that kimberlite intrusions on the east side, (east of Lake Timiskaming/ Quebec side) of the LTSZ are hypabyssal (narrow dike-like root zones at depth), and on the western shoulder, (west of Lake Timiskaming/ Ontario side) of the LTSZ the kimberlites are diatreme facies (large volume breccia, a carrot-shaped formation, above the hypabyssal zone). The inference from this model is that the east side of the graben is the faulted up-side.

About 18 kimberlite pipes have been located in the Cobalt-New Liskeard domain, that may represent a small percentage of pipes yet to be located and explored for commercial diamond potential. The bulk of the known kimberlite pipes have been under explored for their diamond economy, in surface area, volume and lithological variation, (considering that these kimberlites are complex multiphase intrusions).

Recent activities supervised by the Ontario Geological Survey, for Operation Treasure Hunt, a geoscience initiative, funded by the Ontario Government, has derived among others, a series of Airborne Magnetic and Electromagnetic Surveys that cover the Temagami Area: Map 82 070, Residual magnetic field and electromagnetic anomalies; Map 82 071, Shaded image of the second derivative of the magnetic field and Keating coefficients and; Map 82 072, EM decay constant and electromagnetic anomalies.

The Ontario Geological Survey, released mid summer 2002: Open File Report 6088, Regional modern alluvium sampling survey of the Mattawa-Cobalt corridor, northeastern Ontario; the primary objective of this study was to extend the regional information base

#### **1.0 Introduction continued**

concerning the types and distribution of kimberlite indicator minerals (KIMs), as well as heavy mineral assemblages were examined for metamorphic or massive sulfide indicator minerals and gold grains.

Parts of this survey was conducted in South Lorrain Township. Conclusions reached in this study were two-fold: 1) detailed exploration for kimberlite is strongly recommended due to the number of recovered KIMs, the presence of diamond potential indicators such as G10 garnets and diamond inclusion chromites, and the deep seated structures present in the area along with the LTSZ, which is believed to be associated with kimberlites identified to the north of the study area and; 2) heavy mineral anomalies were identified, that are indicative of magmatic or volcanogenic massive sulfide deposits which may be associated with Nipissing diabase, in the South Lorrain Township area.

Of particular interest related to the Windy Lake Claim Group, is a 90% positive Keating Coefficient anomaly located on Map 82 071, (Shaded image of the second derivative of the magnetic field and Keating coefficients). From map inspection this anomaly is located in South Lorrain Township, covered by claims 1198286 and 1199124, centered at UTM coordinates, Zone 17, 609000E, 5231650N, Datum NAD 27. (see Appendix I: Figure 4. Windy Lake Claim Group: Location of 90% Positive Keating Coefficient in Claim 1198286)

Keating anomalies have been cited as a means for targeting kimberlite rocks in diamond exploration.

More recent exploration activities supervised and conducted by the author on behalf and with the Windy Lake Claim Group claim holders participation, was composed of detailed grid control set-up, detailed total field magnetometer surveying and prospecting activities that was comprised of rock sampling for petrographic and assay analysis, till sampling for kimberlite indicator minerals (KIM's), to identify and analyze KIM's and preliminary mapping for lithology, (Laidlaw 2002). These activities were conducted in order to assess the kimberlite and thus diamond potential, nearby the Keating anomaly (as described by government surveys), in claim 1198286 and in recently staked claim 1199124.

This current report covers the Prospecting Activities related to till sampling, recovery of kimberlite indicator minerals (KIM's) and the qualification of and microprobe analysis of KIM's and other observations related to the nearby the Keating anomaly in claims 1198286 and 1199124.

### 2.0 Property and Location

The Windy Lake Claim Group consist of nine claim blocks comprised of 22 unpatented mining claim units as follows: 1198177, 3 units, 1198286, 2units, 1199036, 6 units, 1229901, 1 unit, 1229902, 1 unit, 1229903, 1 unit, 1230294, 4 units, 1230295, 2 units and recently staked claim 1199124, 2 units. These mining claims are located in South Lorrain Township, Plan 3448 in the Larder Lake Mining Division, (see Appendix I, Figure 2. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294, 1230295 and 1199124; Map G-3448). This report covers work conducted on parts of claim 1198286 and 1199124.

## 3.0 Accessing Mining Claim 1198286 and 1199124 Control Grid

From North Bay travel north to the junction of Highways #11 and #11B, turn on to #11B, travel through Cobalt to North Cobalt. At North Cobalt take highway #567, and drive south for about 31 km, (UTM 17, 613441E 5230030N), turn right on to a gravel road with posted sign that reads "Road Closed Permanently at Upper Notch". Continue for 7.5 km (to UTM 17, 609169E 5228865N) on this road, to a logging road in a clear cut area, turning right (heading north), continue for approximately 9.5 km to the end of access road ( to UTM 17, 609466E, 5230797N ); from this point compass and pace to UTM 17, 608956 E, 5231499 N, to control grid coordinates L1025E and 1750N, (NB. Datum: NAD 27, UTM grid coordinates).

## 4.0 Ownership of Claims

The Claim Blocks covered in this report are held 33.33% equally by:

a) Dave Hanes, 100 Kent Court Apt. 106, Sudbury ON, P3A 4R5, Client Number 301098; and

b) Sherwood Plunkett, RR#3, Bancroft ON, K0L 1C0, Client Number 183125; and

c) James Mac Lachlan, 6 Thomas Street East, Napanee ON, K7R 1K6, Client Number 162788;

### 5.0 Report Writing and Field Supervision

C. James Laidlaw of R.R.3, Lot 6 Concession 7, Madoc Tp., Madoc ON, K0K 2K0, is the author of this report and responsible for all map drafts and report writing, and as well, conducted the till sampling and heavy mineral rendering as outlined herein.

#### 6.0 Dates Worked

a) Prospecting Activities:

Dave Hanes and Marlene Carr conduct till sampling, October 12, 2002 one working day and;

Dave Hanes and C. Jim Laidlaw conduct till sampling, October 24, 2002 one working day.

b) Prospecting Activities: (previously reported)

Sherwood Plunkett and C.J. Laidlaw conducted prospecting activities, rock sampling and till sampling, May 22, 2002, for one working day;

Sherwood Plunkett, Dave Hanes and C.J. Laidlaw conducted prospecting activities, comprised of collecting overburden material and stream sediment samples and related observations, August 12, 2002, for one-half day.

d) Report Writing and Map Drafting;

C. James Laidlaw conducted this work over 4 days, February 5 to 8, 2003.

### 7.0 Summary of Current Exploration Work Conducted

### 7.1 General Geology

The generalized geology of the area with in the claim blocks 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294, 1230295 and 1199124 is comprised of the following; a large areal extent, north-south trending Proterozoic Nipissing diabase sill throughout claims 1198177, 1230294, 1198286 and 1199124 as well a narrow east-west trending diabase is observed and inferred in the southern half of claim block 1229901. These diabase areas are flanked by Cobalt Group quartzite, both observed and inferred. Both the diabase and the quartzite rocks are in turn intruded by a younger Keweenawan(?) olivine diabase.

The quartzite rocks weather relatively evenly forming moderate rolling and level topographical hills and knolls; the Nipissing diabase forms the dominant and extreme topographical relief as outcrop highlands, ridges and sheer cliff faces in contact with the quartzite. The Keweenawan olivine diabase weathers recessively with poorly exposed sparse outcrop areas, (see Appendix I, Figure 3. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294, 1230295 and 1199124; Disposition overlaid on Geological Map 2194, South Lorrain Township, (sketch map not to scale))

No known mineral occurrences have been previously reported from these claim blocks, and for further detailed information on the geology of the area, the reader is referred to Geological Report 83, Geology of South Lorrain Tp.. by W.H. Mc Ilwaine, 1970, Ontario Department of Mines.

## 7.2 Prospecting Activities: Till Sampling and Analysis Procedures

Till Samples were collected in the following manner:

Sherwood Plunkett and C.J. Laidlaw collect and describe two composite till samples K1+K2 and K3+K4 on May 22, 2002 and;

Sherwood Plunkett, Dave Hanes and C.J. Laidlaw collect and describe two alluvium samples; numbered WLCG 846E 1847N and WLCG 1375E 2000N on August 12, 2002, and;

Dave Hanes and Marlene Carr collect two till samples; numbered WLCG K-5 and WLCG K-6, October 12, 2002 and;

Dave Hanes and C. Jim Laidlaw collect three till samples; numbered WLCG K-7, WLCG K-8 and WLCG K-9, October 24, 2002.

Composite till samples K1+K2 and K3+K4 were initial test samples that were submitted to Overburden Drilling Management (ODM) in Nepean ON, and examined for kimberlite indicator minerals and gold grain counts. A laboratory report with results was received from ODM, (see Appendix II Overburden Drilling Management: Batch number 1075, laboratory data for two composite till samples K1 + K2, and K3 + K4 processed for Kimberlite Indicators and Gold, August 13, 2002).

Subsequently, kimberlite indicator minerals detected by ODM were forwarded to Arpad Farkas Ph.D., Consulting Geologist of Toronto ON for electron microprobe analysis of kimberlite indicator minerals, (see Appendix III, Arpad Farkas Ph.D. Consulting Geologist. Electron microprobe analysis of kimberlite indicator minerals from Temagami District, Northern Ontario, for samples K1+K2 and K3+K4, October 7, 2002 ).

Remaining samples, alluvium WLCG 846E 1847N and WLCG 1375E 2000N, and till samples WLCG K-5, WLCG K-6, WLCG K-7, WLCG K-8 and WLCG K-9, were collected and described and washed in the field at convenient water sources on October 24, 2003 and a -1.00 mm panned fraction was obtained. These -1.00 mm panned fractions were air dried for about one week.

After samples had been dried, they were packaged and forwarded to the Ministry of Northern Development and Mines, Geosciences Laboratories, in Sudbury ON.

A total of seven concentrates were submitted for heavy liquid separation. The samples were separated using tetrabromoethyne (T.B.E.) at a specific gravity of 2.964 g/cubic cm, (see Appendix IV Geosciences Laboratory Job # 02-0321, tabulated weights for the light and heavy separated fractions of samples WLCG 846E 1847N and WLCG 1375E 2000N, WLCG K-5, WLCG K-6, WLCG K-7, WLCG K-8 and WLCG K-9, November 14, 2002).

# 7.2 Prospecting Activities: Till Sampling and Analysis Procedures continued

The concentrates were consequently forwarded to Dr. Arpad Farkas, who performed binocular microscopy and electron microprobe analysis of heavy mineral concentrates from till samples and produces a report as requested by Mr. James MacLachlan. (see Appendix V, Arpad Farkas Ph.D. Consulting Geologist. Binocular microscopy and electron microprobe analysis of heavy mineral concentrates from till samples, Windy Lake mining claims, South Lorrain Township Ontario, December 23, 2000).

#### **8.0 Sample Descriptions**

Composite sample K-1 + K-2. Combined sample weight 11.3 kg. Grid 1079E, 1905N; UTM\* 609002E, 5231625N; till, level blanket, near edge of steep west facing till covered Nipissing diabase ridge, 5m height; -5° east slope, well drained hardwood mix, B-horizon; pocket of drift about 1m thick, over polished gabbro outcrop; silty sandy pebble-cobble-boulder till with clasts comprised of mafic and felsic intrusive and sedimentary rock types and white marble-like cobbles; composite sample from two holes about 5m apart and this description for hole K1 only. Note 3.\*\*

Composite sample K-3 + K-4. Combined weight 7.2 kg. <u>Hole K-3</u>; grid 1072E, 1800N; UTM\* 609001E, 5231542N; till, > 2m thick apron-like blanket near edge of steep west facing 2m ridge; sample depth 1.10m; edge of low wet area; silty sandy pebble-cobble-boulder till with clast comprised of mafic and felsic intrusive and sedimentary rock types and;

Hole K-4; grid 1050E, 1800N; UTM\* 608968E, 5231549N; till, > 1m, level blanket at edge of low wet area; sample hole fills rapidly with water; Nipissing diabase outcroppings; silty sandy pebble-cobble-boulder till with clast comprised of mafic and felsic intrusive and sedimentary rock types. Note 4 \*\*.

WLCG K-5. Grid 1075E, 1930N; UTM\* 608992E, 523168N; till, > 1m, level blanket; sample depth .90m, sample weight 7.25 kg; hole terminates on Nipissing diabase outcrop; clayey silty sandy pebble-cobble-boulder till with clast comprised of mafic and felsic intrusive and sedimentary rock types. Note 5.

WLCG K-6. Grid 1120E, 1746N; UTM\* 609038E, 5231479N; till, .60 m, inclined, till filled depression at edge of +10° East slope; hole terminates on Nipissing diabase outcrop; sample weight 5.25 kg; silty sandy pebble-cobble-boulder till with clast comprised of mafic and felsic intrusive and sedimentary rock types. Note 6.

WLCG K-7. Grid 996E, 2100N, UTM\* 608925E, 5231808N: till, level blanket, edge of bog adjacent to sandstone outcrop area; hole terminates in till at .70 m and fills with water immediately; sample weight 14.25 kg; silty sandy pebble-cobble-boulder till with clast comprised of mafic and felsic intrusive and sedimentary rock types. Note 7.

WLCG K-8. Grid 954E, 1871N, UTM\* 608883E, 5231610N; till, level blanket, thin drift over sandstone outcrop area; hole terminates on sandstone outcrop at .40 m; sample weight 18.00kg; silty sandy pebble-cobble-boulder till with clast comprised of mafic and felsic intrusive and sedimentary rock types. Note 8.

WLCG K-9. Grid 994E, 1897N, UTM\* 608923E, 5231639N; till, inclined blanket, .85 m depth, hole ends at .85 m on outcrop of Nipissing diabase; sample weight 10.00 kg; silty sandy pebble-cobble-boulder till with clast comprised of mafic and felsic intrusive and sedimentary rock types. Note 9.

#### **8.0 Sample Descriptions continued**

Alluvium, WLCG 1375E, 2000N. Grid 1375E, 2000N; UTM\* 609280E, 5231762N; coarse sand and gravel in boulder field over sandstone pebble conglomerate bedrock; organic debris choked creek, draining Windy Lake area; drainage to the north, on a -4° slope; reworked till, poorly sorted cobbles and boulders, sub-angular to well rounded comprised of 60% sedimentary, 10% metasedimentary, 10% Nipissing diabase, 10% felsic intrusive. Note 10.

Alluvium, WLCG 846E, 1847N. Grid 846E, 1847N; UTM\* 608776E, 5231582N; intermittent creek, sandstone pebble conglomerate outcrop floored creek bottom; drainage at azimuth 240°, -3° slope inclination, thin veneer overburden well drained, cedar and spruce and polar and birch; pockets of coarse sand contaminated with high content of organic debris, dark brown colour. Note 11.

\* all UTM coordinates Zone 17, Datum NAD 27.

\*\* previously reported in assessment report dated September 4, 2002. (See Appendix VI, Map 1, Plan map of grid and topographic features and, till and alluvium sample locations and related notes of sample descriptions and results, Scale 1: 1 250, February 8, 2003).

#### 9.0 Results

## <u>9.1 Gold grains and Kimberlite Indicator Minerals (KIM's) observations made by</u> Overburden Drilling Management LTD, Ottawa ON:

Composite sample K-1 + K-2. no gold observed; 55 KIM's, 9 purple garnets, 1 orange garnet, 1 chrome diopside, 8 ilmenites, 6 chromites, 30 forsteritic olivines.

Composite sample K-3 + K-4. 7 re-shaped gold grains; 9 KIM's, 3 purple garnets, 3 ilmenites, 2 chromites, 1 forsteritic olivine.

# 9.2 Kimberlite Indicator Minerals (KIM's) and other mineral observations made by Dr. Arpad Farkas, Consulting Geologist, Toronto, ON:

Till sample WLCG K-5; 18 KIM's, 4 pyrope, 10 chromite, 4 Mg-ilmenite, Mg-olivine observed and; 1 low-Cr diopside and 14 uvarovite.

Till sample WLCG K-6: 10 KIM's, 6 chromite, 4 Mg-ilmenite, Mg-olivine observed and; 4 uvarovite.

Till sample WLCG K-7: ; 6 KIM's, 3 chromite, 3 Mg-ilmenite.

Till sample WLCG K-8: 8KIM's, 1 pyrope, 5 chromite, 2 Mg-ilmenite and; 1 low-Cr diopside.

Till sample WLCG K-9: 3 KIM's, 2 chromite, 1 Mg-ilmenite, and; 2 low-Cr diopside and 1 Uvarovite.

Alluvium sample WLCG 1375E 2000N: 3KIM's, 1 chromite, 2 Mg- ilmenite.

Alluvium sample WLCG 846E, 1847N: 2 KIM's, 2 chromite.

\* all UTM coordinates Zone 17, Datum NAD 27.

\*\* previously reported in assessment report dated September 4, 2002.

(See Appendix VI, Map 1, Plan map of grid and topographic features and, till and alluvium sample locations and related notes of sample descriptions and results, Scale 1: 1 250, February 8, 2003).

# 9.3 Summary of Kimberlite Indicator Minerals (KIM's) and other mineral observations from Windy Lake Claim Group, South Lorrain Township

Kimberlite indicator minerals have been detected in till and alluvium samples. The samples were collected from an area on this claim block, were a recent government sponsored airborne magnetic survey has indicated a possible Keating anomaly that might be indicative of geological structures that are potentially kimberlitic intrusive in nature.

An initial two till samples were processed in the laboratory by Overburden Drilling Management, Nepean ON, whereby the presence of KIM's originally were detected. These KIM's are then examined by Dr. Arpad Farkas, Toronto ON and favourable KIM chemistry determined. Follow-up sampling of five tills and two alluvium overburden samples and, subsequent KIM determination and analysis yielded additional positive results.

The sample population is small and, to determine the significance of these observed KIM anomalies, as they might be related to the Keating target on the claim property, would require a larger data set of mineral analysis to further assess kimberlite/diamond potential in the target area.

Garnets, ilmenites and chromites have been observed and described. As well, electron microprobe analysis on mineral grains of high potential have been performed.

Results of this analysis show: the pyrope garnets are of kimberlitic origin, falling into the G-9 field, with a few grains having high chromium content ranging up to 10.27% and; Ilmenites are magnesian ilmenites, as indicated by high MgO (10.3 to 12.1%), and on a Cr2O3 - MgO plot, their composition falls in the reduced field indicating conditions favourable for diamond preservation and;

Chromites analyzed have Cr2O3 ranging from 32.2 to 57% and on a Cr2O3 - MgO plot, their composition falls outside of the diamond inclusion and diamond intergrowth fields. However there are high chromium chromites, ranging 54 to 57%.

One analyzed grain examined yielded an analysis similar to zinc-enriched, chrome-spinels that may be indicative of diamond bearing subalkaline lamprophyre-like rocks as have been observed in the Wawa area and to the north of this property in Lorrain Township.

For detailed observations, analytical results and conclusions see attached: Appendix III, Arpad Farkas Ph.D. Electron microprobe analysis of kimberlite indicator minerals from Temagami District, Northern Ontario, for samples K1+K2 and K3+K4, October 7, 2002 and;

Appendix V, Arpad Farkas Ph.D. Consulting Geologist. Binocular microscopy and electron microprobe analysis of heavy mineral concentrates from till samples, Windy Lake mining claims, South Lorrain Township Ontario, December 23, 2002.

#### 10.0 Recommendation

a) Detailed prospecting and mapping in the Keating anomaly area, attempting to located the source material for the observed KIM anomalies.

b) A till geochemical survey, exploring for a kimberlitic signature as defined by Ni, Ba, Cr, La, Nb, MgO and P2O5 anomalies in the coarser size fraction of sand, (i.e. 0.5 to 2.0 mm size fraction). Survey area to cover the Keating - KIM anomaly area.

c) Property wide prospecting and mapping for lamprophyre-like rocks, with follow-up rock sampling, for lithological determination and caustic fusion to determined diamond content and/or heavy mineral rendering from overburden overlying areas of interest for zinc-enriched, chrome-spinels indicator minerals and/or diamonds.

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#### **Qualifying Statements**

With regards to my report of February 8, 2003 I, C. James Laidlaw of RR 3, Lot 6 Concession VII, Madoc Tp., Madoc, Ontario, do state that:

- 1) I graduated from the Geological Technician Program at Sir Sandford Fleming College, Lindsay, ON in 1977 as a Geological Technician.
- 2) That I represent myself as a self-employed **prospector/geological technician**, conducting technical phases of mineral exploration, nothing more and nothing less.
- 3) I have been employed continuously in mineral exploration for 26 years.
- 4) I have been involved with geophysical, geological and geochemical exploration programs and diamond drill activities for gold, uranium, base metals and diamonds in Saskatchewan, Manitoba, Northwest Territories, British Columbia, Ontario and Quebec.
- 5) That I personally conducted and, supervised the till sampling and the prospecting activities as stated and, completed all drafting and report writing as outlined in the above report, dated February 8, 2003.
- 6) That I do not have any beneficial interest, nor do I expect any beneficial interest with respects to the above mentioned mining claims that are outlined in the above report dated February 8, 2003.

C. James Laidlaw

February 8, 2003

Mindun

Madoc, Ontario

## **Appendix I**

List of Figures and Maps

Figure 1. Location Map of Project Area

Figure 2. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294, 1230295 and 1199124; Map G-3448, (sketch map not to scale)

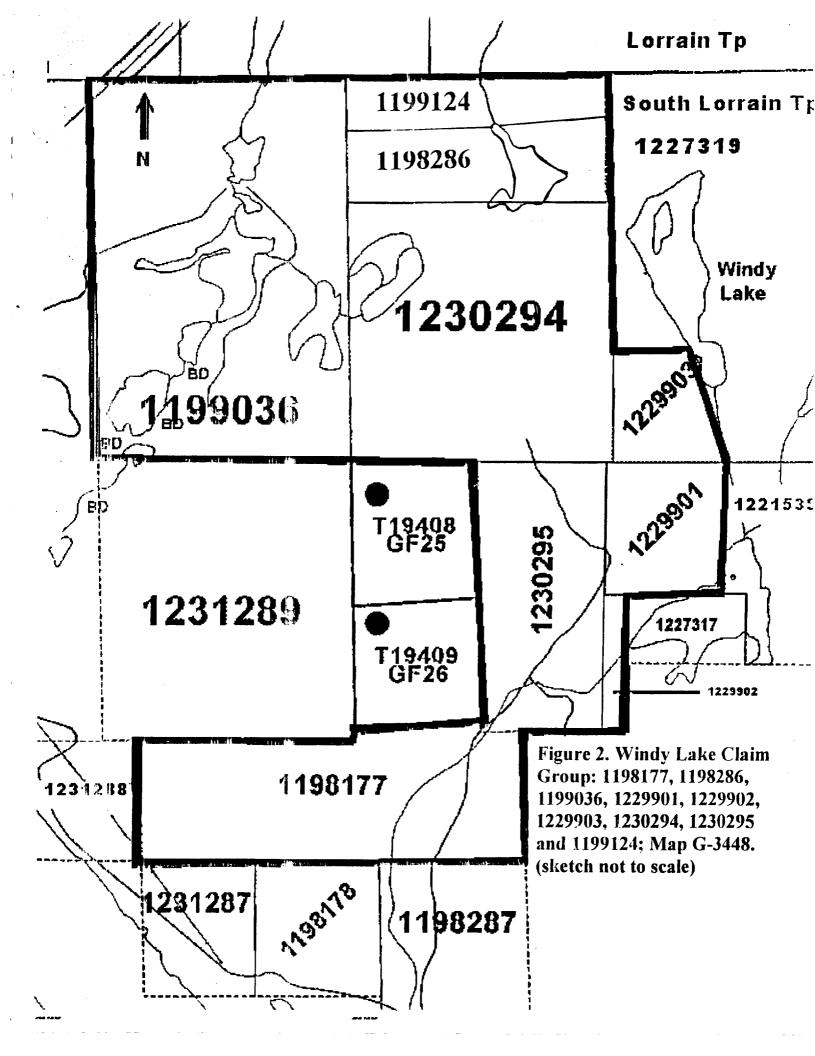
Figure 3. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294, 1230295 and 1199124; Disposition overlaid on Geological Map 2194, South Lorrain Township (Sketch map not to scale)

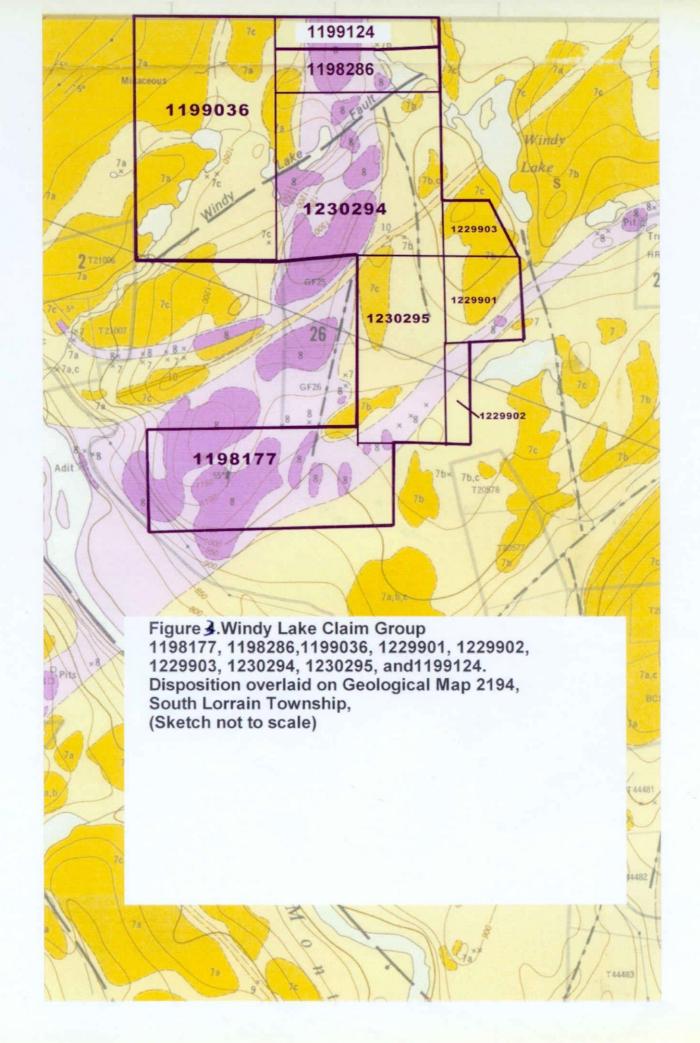
and Geological Legend for Figure 3. (Geological Map 2194)

Figure 4. Windy Lake Claim Group: Location of 90% Positive Keating Coefficient in Claim 1198286. (Sketch map not to scale, from Map 82 071)



**Figure 1. Location Map of Project Area** 





#### LEGEND

#### CENOZOIC"

PLEISTOCENE AND RECENT

Sand, gravel, till.

UNCONFORMITY

#### PRECAMBRIAN<sup>b</sup>

#### GRENVILLE PROVINCE

#### METASEDIMENTS

12

FAULT CONTACT

12 Biolile-quartz-feldspar paragneisses.

#### ROCKS NOT ASSIGNED TO SUPERIOR OR GRENVILLE PROVINCES

#### UNCLASSIFIED METASEDIMENTS

**Quartzose and guartzose feldspathic** paragneisses, characterized by open



folds. FAULT CONTACT

#### SUPERIOR PROVINCE

#### PROTEROZOIC

LATE MAFIC INTRUSIVE ROCKS 10 Olivine diabase (Keweenawan). Diabase, undifferentiated (may be g

Malachewan age in part). 9a Ouartz diabase.



ł

#### INTRUSIVE CONTACT

8 Quartz diabase (Nipissing).

#### HURONIAN

COBA	LT GROUP
LOR	RAIN FORMATION
7c	Undifferentialed. Grey feldspathic quartzile. Pale green to white quartzile Arkose. Red quartzile.

FIRSTBROOK FORMATION



6

7

COLEMAN FORMATION

Undifferentiated.

6a Laminated quartzite. 6b Quartzite.

5 Undifferentiated.

5a Quartzose silfstone and greywacke. 5b Arkose. 5c Conglomerate.

5d Schislose rocks. 5e Laminaled argillite.

## **Geological Legend for Figure 3.** (Geological Map 2194)

UNCONFORMET ARCHEAN FELSIC TO INTERMEDIATE INTRUSIVE ROCKS

	Quartz diorite.
i	Granitic rocks, undifferentialed. a Hornblende granite. b Gneissic granite. c Granodiorite. d Quartz monzonite.
EAR	INTRUSIVE CONTACT
2 - 2	Lamprophyre, undifferentialed. Pa Hornblende lamprophyre. Pb Biotite lamprophyre.
	INTRUSIVE CONTACT
MET	AVOLCANICS AND ETASEDIMENTS
	Undifferentiated. Intermediate to mafic metavolcanics. In Amygdaloidal basaltic rocks. Ic Metadiabase, metagabbro, or diabasic flows. Id Quartzite and greywacke. Ie Felsic metavolcanics with or without interbedded quartzite. If Pyroclastic rocks. Ig Quartz-feldspar porphyty.
	1h Schist, mainly chlorilic. 1j  Pillow lava.

新

- Silver.
- Gold. Au

Ag

- Calcite. calc
- Cobalt. Co
- Cu Copper.
- Erythrite. er y
- Ni Nickel.
- Quartz. q
- Quartz carbonate. qc
- Sulphide mineralization. S

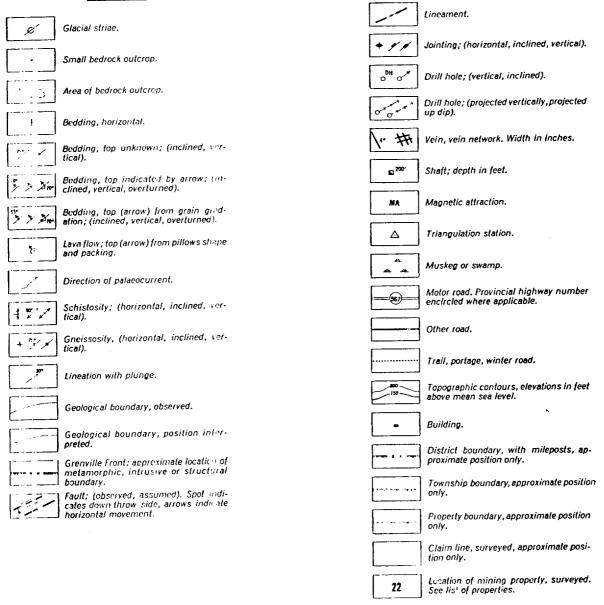
\*Unconsolidated deposits. Cenozoic deposits are not differentiated on the map. For the most part they coincide with the lighter coloured parts of the map.

**b** Bedrock geology. Outcrops and inferred extensions of each rock map unit are shown respectively in deep and light tones of the same colour. Where in places a formation is too narrow to show colour and must be represented in black, a short black bar appears in the appropriate block.

CAge unknown.

dThe rocks in these groups are subdivided lithologi-cally and the order does not imply age relationship within the group.

#### SYMBOLS



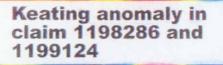
Location of mining property, unsur-

veyed. See list of properties.

(12)

## Geological Legend for Figure 3. (Geological Map 2194)

1



Lorrain Township



Windy

Lake

Figure 4. Windy Lake Claim Group: Location of 90% Positive Keating Coefficient in claims1198286 and 1199124. (Sketch map not to scale, from Map 82 071)

# **Appendix II**

**Overburden Drilling Management: Batch number 1075, laboratory data for two** composite till samples K1 + K2, and K3 + K4 processed for Kimberlite Indicators and Gold, August 13, 2002



## OVERBURDEN DIBLLING MANAGEMENT LIMITED

August 13, 2002

Mr. James MacLachlan 6 Thomas Ste. E Napanee, ON K7R 1K6

Dear Mr. MacLachlan:

Re: KIMs in Till Samples K1 + K2 and K3 + K4, Temagami District, Ontario

Attached please find our laboratory data for the above two composite till samples.

The major background heavy minerals in both samples are paramagnetic augite and almandine and nonparamagnetic epidote (pale coloured, Fe-poor variety) and diopside. Both samples also contain KIMs. This in normal for till samples from the Temagami district but Sample K1 + K2 's much more anomalous than Sample K3 + K4 and may have been taken closer to a kimberlite source. When comparing your results to those of regional OGS surveys covering the same area, keep in mind that most OGS samples were of alluvial gravel which tends to contain 5-10 times more KIMs than till.

I hope these observations and suggestions are helpful. Please call me if you have any questions.

Yours sincerely,

Stuart Averill, President

Mines Arc Wh<del>ota <u>WE</u> " M Them.</del>

107-15 Capella Court Nepean, Ontario K2E 7X1 Tel. 613-226-1771 FAX 613-226-8753

#### OVERBURDEN DRILLING MANAGEMENT LIMITED 107-15 CAPELLA COURT, NEPEAN, ONTARIO, K2E 7X1 TELEPHONE: (613) 226-1771 FAX NO.: (613) 226-8753 EMAIL: odm@storm.ca

#### DATA TRANSMITTAL REPORT

DATE:	13-Aug-02	
ATTENTION:	Mr. James MacLachl	an
CLIENT:	Mr. James MacLachla 6 Thomas St. Napanes,Ontario K7R 1K6	ân ,
Phone #:	613-354-6448	e-Mail: james.maclachlan@sympatico.ca
NO. OF PAGES:	6	
PROJECT:	KEATING	
FILE NAME:	J.Laidlaw - Keating - 2	2 samples - Kims&Gold - August 2002
SAMPLE NUMBERS:	K1 + K2 and K3 + K4	
ATCH NUMBER:	1075	
NO. OF SAMPLES:	2	
THESE SAMPLES WERE	E PROCESSED FOR:	KIMBERLITE INDICATORS

### SPECIFICATIONS:

- 1. Submitted by client: 7.2 and 11.8 kg bulk till samples.
- 2. Heavy liquid separation specific pravity: 3.20.
- 3. 0.25-2.0 mm nonferromagnetic heavy mineral fraction picked for indicator minerals.
- 4. All other sample fractions are presently stored.

**FIEMARIKS:** 

Remy Huneault Laboratory Manager

## OVERBURDEN DRILLING MANAGEMENT LIMITED LABORATORY ABBREVIATIONS

SEDIMENT LOG		
Largest Clasts Present G: Granules P: Pebbles C: Cobbles BL: Boulder fragment BK: Bedrock fragment V/S: Volcanics and se GR: Granitics LS: Limestone, carbo OT: Other Lithologies (refer to footnote TR: Only trace prese NA: Not applicable OX: Very oxidized, un	ts hts hdiments phates s s) nt	Matrix Grain Size: S: Sorted U: Unsorted SD: Sand — F: Fine M: Medium C: Coarse ST: Silt CY: Clay OR: Organics Y: Fraction present +: Fraction more abundant than normal -: Fraction less abundant than normal N: Fraction not present L: Lumps present
<u>Matrix Colour:</u> B: Beige GY: Grey GB: Grey-beige GN: Green GG: Grey-green	BN: Brown BK: Black PP: Purple PK: Pink OC: Ochre	L: Light M: Medium D: Dark R: Red

## GOLD GRAIN LOG

Number of Grains:	<u>Remarks:</u>
T: Number found on shaking table P: Number found by panning	%: Percentage of HMC (estimated from panning of table concentrate)
	gr. Grains (estimated number)
Thickness:	µM: Microns (1/1000 mm)
C: Calculated thickness of grain (microns)	py: Pyrite
M: Actual measured thickness of grain (micro	
WI. Actual monorates mensione of Brand Constant	aspy: Arsenopyrite
	marc: Marcasite
	Vg: Limonite/goethite
	sid: Siderite

### KIM (kimberlite indicator mineral) LOG

- GP: Purple garnet (G9/G10 chrome pyrope).
- GO: Orange mantle garnet; includes both eclogitic pyrope-almandine (G3) and Cr-poor megacrystic pyrope (G1/G2) varieties; may include unchecked (by SEM) grains of common crustal garnet (G5) lacking diagnostic inclusions or crystal faces.
- DC: Chrome diopside, emerald green; paler green low-Cr diopside picked separately.
- IM: Mg-ilmenite; may include unchecked (by SEM) grains of common crustal ilmenite lacking diagnostic inclusions or crystal faces.
- CR: Chromite.
- OL: Olivine
- FO: Forsterite.

## MMSIM (metamorphosed or magmatic massive sulphide indicator mineral) LOG

- Ky: Kyanite
- Sil: Sillimanite
- Rut: Rutile
- Tm: Tourmaline
- St: Staurolite
- OI: Olivine
- Fay: Fayalite
- Opx: Orthopyroxene

Cr: Chromite Sps: Spessartine Gth: Goethite Py: Pyrite Cpy: Chalcopyrite

#### 'age 1 of 1

#### Keating

## 13-Aug-02

OVERBURDEN DRILLING MANAGEMENT LIMITED LABORATORY SAMPLE LOG

Proj. \_\_\_ KEATING Filename: J.Laidlaw - Keating - 2 samples - Kims&Gold - August 2002 Total Number of Samples in this Report = 2

t.		Weig	ht (kg)			Cla	sts >2	.0 mп	1			Mat	rix <2.1	0 mm			
:							Perce	anlage_			Dist	ibution		Co	lour		1.4
Sample Number	Bulk Resid	Table Split	+2 mm Clasis	Table Feed	5   2 e	v/s	GR	LS	ŎΤ	SZU	SD	ST	CY	Sand	Clay	0 r	Class
K1 + K2 K3 + K4	11.8 7.2	11.3 6.7	2.9 1.1	<b>8</b> .4 <b>5</b> .6	P P	<b>30</b> 5	40 95	30 Tr	0	ม น	Y Y	Y Y	Y		LOC		TILL TILL

Batch Number: 1075

#### Keating

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#### 13-Aug-02

### OVERBURDEN DRILLING MANAGEMENT LIMITED GOLD GRAIN SUMMARY SHEET

Project: KEATING

Fileneme: J.Laldlaw - Keating - 2 samples - Kims&Gold - August 2002 Total Number of Samples in this Report = 2

	ber of Sampl	les in this	Peport = 2		_			Batch Nun	nber: 1075
Sample Numb <b>e</b> r	Numb	er of Visib	le Gold Gr	ains	Nonmag HMC Weight	Calcula	aled PPB Vi	sible Gold	in HMC
[]	Total R	leshaped	Modified	Pristine	(g)	Totai	Reshaped	Modified	Pristine
K1 + K2 K3 + K4	0 7	0 7	0	0	33.6 22,4	0 126	0	0	0

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#### 'age 1 of 1

Keating

### OVERBURDEN DRILLING MANAGEMENT LIMITED DETAILED GOLD GRAIN SHEET

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 DETAILS

 Y. St.
 J. Laidiaw - Keating - 2 samples - Kims&Gold - August 2002

 Total Number of Samples in this Report = 2

Sample Number	Panned Yes/No	Dimens	ions (mic	rons)	Num	iber of Visi	ble Gold Gra	lins	Nonmag HMC Weight	Calculated V.G. Assay In HMC	Remarks	1 - 2 1 - 1
		Thickness	Wida	Length	Hashaped	Modilisd	Pristine	Total	(g)	(ddd)		
K1 + K2	No	NO VISIBL	e gold									
K3 + K4	No	4 C	15	25	2			2				
		8 C	25	50	1			1				
		10 C	25	75	1			1				
		13 Ç	50	75	1			1				
		15 C	75	75	1			1				
		20 C	75	125	1							
				-			-	7	22.4	126		

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Page 1011

13-Aug-CL

# OVERBURDEN DRILLING MANAGEMENT LIMITED LABORATORY SAMPLE LOG KIMBERLITE INDICATOR MINERAL COUNTS

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Output         Output         Salected MMSIMs         KiM Count (* species not rigorously picked; excluded from total)           0.25-2.0 mm Heavy Liquid Separation S.G.3.20         1.0 - 2.0 mm         0.5 - 1.0 mm         0.5 - 0.5 mm         0.5 - 0.5 mm         0.5 - 1.0 mm         0.5 mm         <				XCILI	<u>BU: 6</u>	iv ara				d it cou	"num	rii Min	ĸ					Ma	IMMS	Salacted			1			à	minate (g	1 Couce	nu japie	<2.0 п				
			U.2							<u>i i shi</u>						.5 mm	0.25 - 0	n	1.0 mr	0.5 -	ini	2.0 m	1.0 -	 20				n Heavy	i-2.0 mm	0.29				
																								 	<u></u>			Proces			Liana			
Number Total 925 mm UgAd HAC Total % Weght mm degite control C	M" CR FO'   1	DC I	P GO	6	FD <sup>.</sup>	M CP	DC	60	GP	FO FO	1 CI	с ім	KU 00	SP G	Sh G	сру С			Carr	LOW-CI INNEXIN	նհ		Low-Or depisite	9.510 1.D.mm		rom .	Weght	×	Total	Mag HMC		-9.25 mm	Total	Semple Journber

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#### Keating

### OVERBURDEN DRILLING MANAGEMENT LIMITED KIMBERLITE INDICATOR MINERAL PICKING FOOTNOTES

Project: KEATING Filename: J.Laid/aw - Keating - 2 samples - Kims&Gold - August 2002 Total Number of Samples in this Report = 2 Balch Number. 1075

SAMPLE NO.	REMARKS:
K1 + K2	Augite-almandine/epidote-diopside assemblage. SEM checks from 0.5-1.0 mm fraction: 1 GO versus staurolite candidate = 1 Mn-almandine; 2 lM versus crustal ilmenite candidates = 1 IM and 1 crustal ilmenite; and 3 FO versus epidote candidates = 3 FO. SEM checks from 0.25-0.5 mm fraction: 1 GO versus almandine candidate = 1 spessartine; 10 IM versus crustal ilmenite candidates = 3 IM and 7 crustal ilmenite; 5 CR versus andradite candidates = 3 CR (1 Zn-bearing), 1 Ti-andradite and 1 IM; and 1 FO versus epidote candidate = 1 FO.
КЗ + К4	Augite-almandine/epidote-diopside assemblage. SEM checks from 0.25-0.5 mm fraction: 2 GO versus spessartine candidates = 1 grossular and 1 almandine; 1 IM versus crustal ilmenite candidate = 1 IM; 2 CR versus IM candidate = 1 CR and 1 crustal ilmenite; and 4 FO versus zoisite candidates = 1 FO, 2 zoisite and 1 enstatite.

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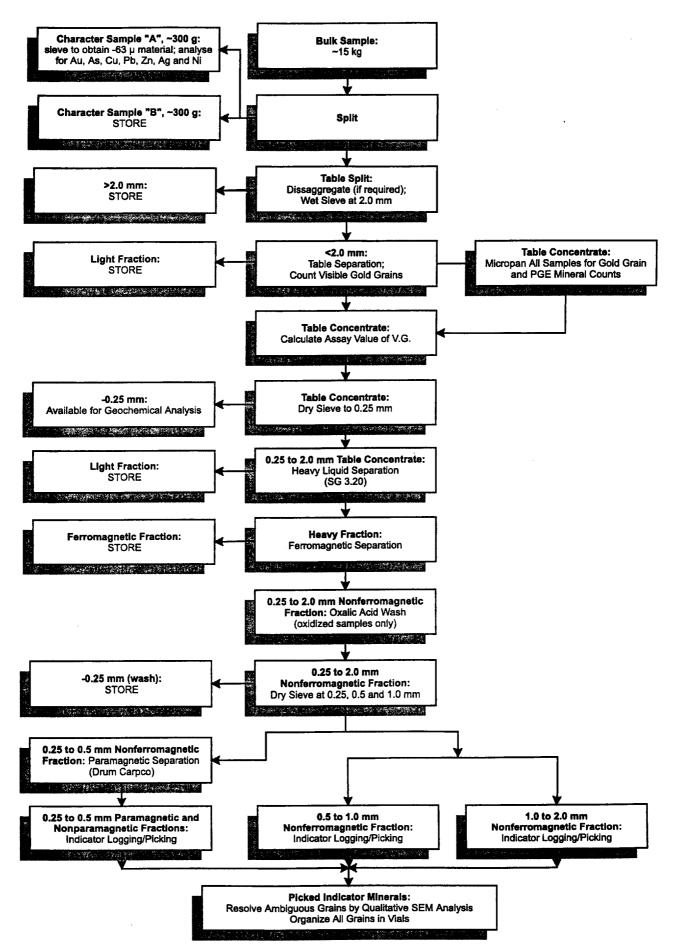
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## **OVERBURDEN DRILLING MANAGEMENT LIMITED**

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Processing Flowsheet for Gold Grains + Kimberlite Indicators + MMSIMs + PGE Indicators

## **Appendix III**

Arpad Farkas Ph.D. Electron microprobe analysis of kimberlite indicator minerals from Temagami District, Northern Ontario, for samples K1+K2 and K3+K4, October 7, 2002

## WINDY LAKE CLAIMS

## SOUTH LORRAIN TOWNSHIP.

Dave R. Hanes 100 Kent Court, Apt. 106, Sudbury, Ont. P3A 4R5 (705) 560-7376 Sherwood Plunkett R.R. # 3, Bancroft, Ontario. KOL 1C0 (613) 332-2240 James MacLachlan 6 Thomas St. East, Napanee, Ontario. K7R 1K6 (613) 354-6448

### Report # One.

By

## **ARPAD FARKAS, Ph.D. Consulting Geologist**

70 Crendon Drive, Toronto, Ontario. M9C 3H2 (413) 622-1672

### Electron microprobe analysis of kimberlite indicator minerals from the Temagami District, Northern Ontario.

The kimberlite indicator minerals were recovered from two composite till samples K1+K2 and K3+K4, by Overburden Drilling management Ltd. Mr. James MacLachlan of Napanee. Ontario, requested the analysis of some of these indicator minerals by electron microprobe.

Twelwe garnets, eleven ilmenites and five chromite grains were analysed using an SX-50 Cameca electron microprobe at the Department of Geology, University of Toronto. Pyrope, magnesian ilmenite and chromite were used as standards. The results of analysis are in the Appendix. Since the first set of ilmenite and chromite analysis gave low total oxides, some of these were repeated. The data is plotted in Figures 1 to 3.

#### Garnet.

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All the garnets are pyropes of kimberlitic origin. On a  $Cr_2O_3$ -CaO plot, their composition falls in the G-9 field (Figure 1). One grain from composite till sample K3+K4, falls near the dividing line separating the G-9 and G-10 fields. Three of the grains have high chromium oxide content ranging from 6.7 to 8.3%.

#### Ilmenite.

The magnesian ilmenites analysed, have high magnesium oxide content and on a  $Cr_2O_3$ -MgO plot, their composition falls in the reduced field indicating conditions favourable for diamond preservation (Figure 2).

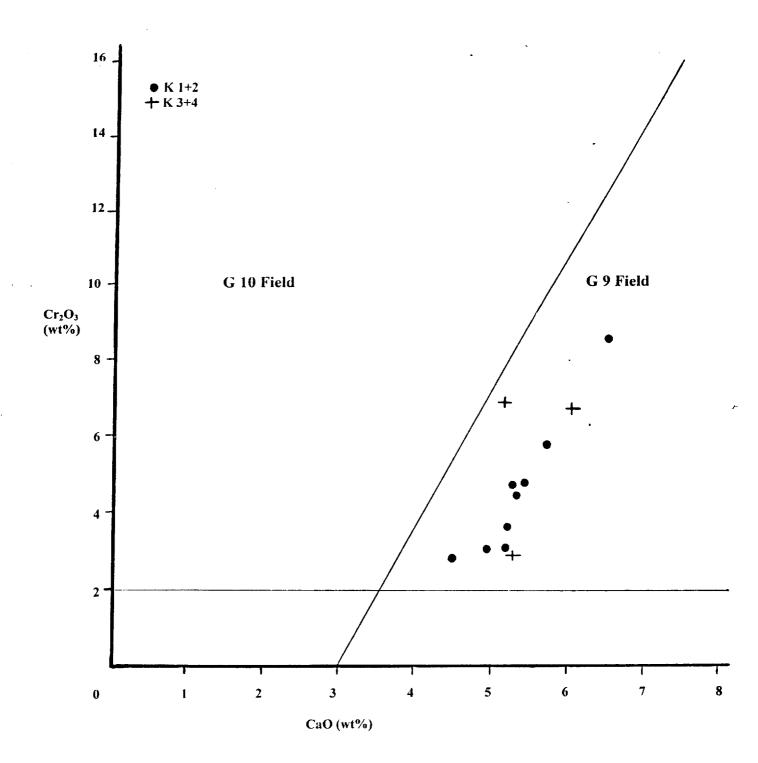
#### Chromite.

The chromites analysed are high chromium chromites with a  $Cr_2O_3$  content ranging from about 54 to 57%. On a plot of  $Cr_2O_3$ -MgO, their composition is close to, but does not fall into the diamond inclusion and diamond intergrowth fields (Figure 3). The chromites have quite low titanium oxide content (0.1 to 0.4% range), and on a  $Cr_2O_3$ -TiO<sub>2</sub> plot (not shown), they would fall into the overlap field (overlap between the kimberlitic and nonkimberlitic fields).

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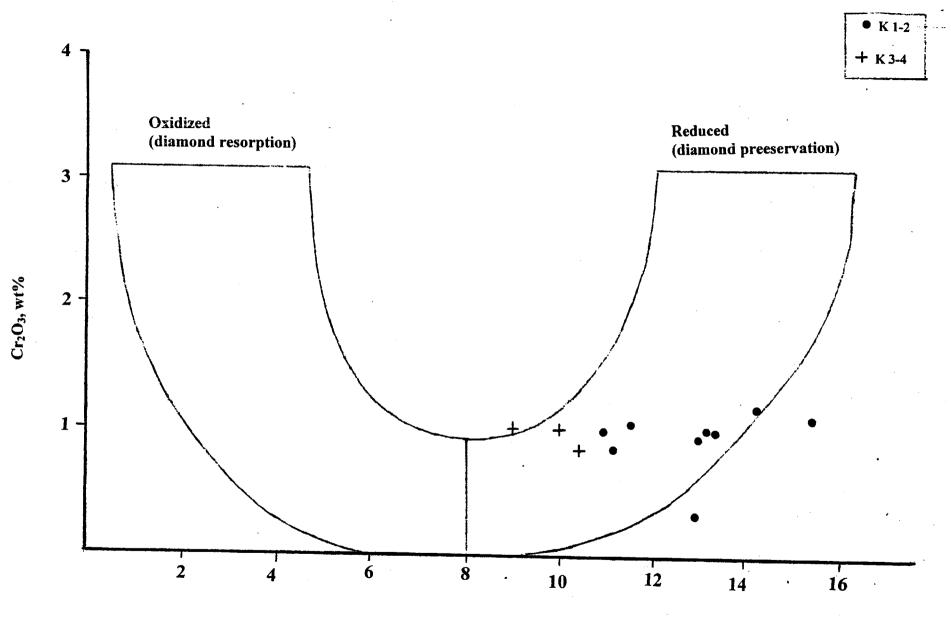
Arpad Farkas, Ph.D. Consulting Geologist.

October 7, 2002, Toronto, Ont.



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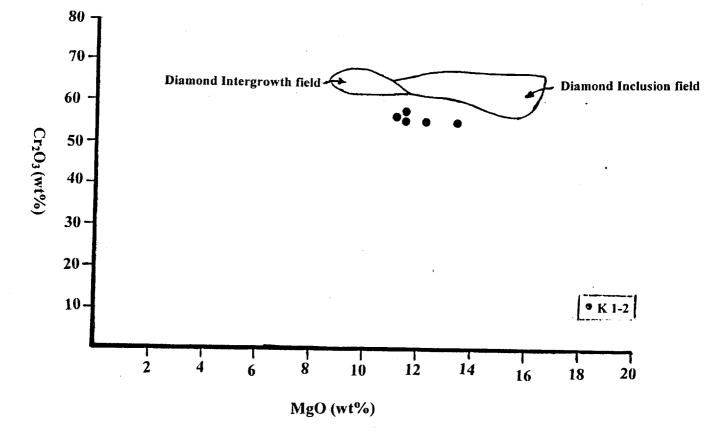
Figure 1: Garnet Cr<sub>2</sub>O<sub>3</sub>-CaO plot.

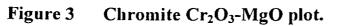




## Figure 2 Mg-ilmenite, Cr<sub>2</sub>O<sub>3</sub>-MgO plot.

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APPENDIX.

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## **RESULTS OF ELECTRON MICROPROBE ANALYSIS.**

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	Numb "MgO Oxide   20 K1-2 ilmenite 1	Percents	A1203 UXIÇ	FeO Oxide	ZhO Oxide	1102 Oxide	Cr2O3 Oxi	Oxide Totals
011	95	11.546001	0.050404	07.005.47	0.040004	50 0 <b>7</b> 705		
Lin	21 K1-2 ilmenite 2	11.546001	0.258404	37.00547	0.040901	52.27765	0.862174	101.9906
00	96	14 704414	0.440040	00 57000				
Un	22 K1-2 ilmenite 3	14.734414	0.448912	30.57828	0	54.99362	1.106295	101.8615
0.1	97	11 165702	0.273232	26 66 400	0.040700	54 00404	0.000005	100 7000
Un	23 K1-2 ilmenite 4	11.105792	0.273232	30.00499	0.046722	51.00181	0.980265	100.7928
0	98	1/ 30770	0.544439	21 59500	0.099722	E4 71010	1 150005	100 1001
Un	24 K1-2 ilmenite 5	14.52775	0.544459	31.36306	0.099722	54.71616	1.158895	102.4321
011	99	13.299989	0.611236	32.86807	0	54 0040	0.007100	404 0007
Un	25 K1-2 ilmenite 1 (hole 3)	10.235505	0.011230	32.00007	0	54.2343	0.967123	101.9807
0.1	100	13.053889	0.384064	34 26352	0.038046	50 1144	0.054000	101 0000
Un	26 K1-2 ilmenite 2 (hole 3)	10.000000	0.004004	04.20002	0.038040	55.1144	0.954922	101.8088
•	101	11 702435	0.341306	35 03155	0	52.45422	1.063442	101 4000
Un	27 K3-4 ilmenite 1	11.702400	0.041000	00.00100	0	52.45422	1.003442	101.4929
	102	12,886386	0.490543	34 69994	0.09653	53.52501	0.337637	102.036
Un	28 K1-2 chromite 1	.2.000000	0.100040	04.00004	0.03000	33.32301	0.337037	102.036
	103	14.752209	14 64709	18 30252	0.032382	0 306337	55 48202	103.5226
Un	29 K1-2 chromite 2		11.017.00	10.00202	0.002002	0.000007	55.40205	103.5220
	104	13.653689	15.69137	17.7281	0.244216	0.149461	56.78827	104.2551
Un	30 K1-2 chromite 3				0.244210	0.140401	30.70027	104.2001
	105	12.343406	10.74059	21.05517	0.30722	0.453674	58 11227	103.0123
Un	31 K1-2 chromite 4			21.00017	0.00722	0.400074	50.11227	103.0123
	106	12.297514	11.03657	21.34209	0.24637	0 4433	57.60658	102.9724
Un	32 K1-2 chromite 5			2110.200	0.24007	0.4400	57.00030	102.9724
	107	12.575939	10.5902	20.90723	0.020531	0 415658	58.33832	102 8479
Un	33 K3-4 ilmenite 2				3.020001	3.110000	50.000Z	102.04/3
	108	9.91005	0.217714	40.39306	0.029159	49.38682	0.985362	100.9222

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	########		oonalana								
		AI2O3 Oxic	FeO Oxide	ZnO Oxide	TiO2 Oxide	Cr2O3 Oxi Na	20 Oxid SiO2	2 Oxide MnC	) Oxide CaC	Oxide Oxide Totals	
U	n 38 ilmenite std										
	181 0.331631	0.043014	47.11981	0.058425	46.35035	0.009755	0	0	0	0 93.91299	
U	n 39 chromite std										
	182 15.14245	9.914912	13.10963	0.005682	0.145077	60.44942	0	0	0	0 98.76717	
U	n 40 K1-2 ilm 1										
	183 10.30023	0.250552	35.59142	0	50.2362	0.896379	0	0	0	0 97.27478	
U	n 43 K1-2 ilm 2	0 414054	00 0010	0.005000	50.00000	0.007.17.1			-		
11	184 13.32117 n 44 K1-2 ilm 3	0.411951	29.6216	0.005666	53.83262	0.997474	0	0	0	0 98.19049	
0		0.264189	35 84416	0 1/00/8	10 52618	0 880447	0	0	0	0 00 00154	
U	n 45 K1-2 ilm 4	0.204103	00.04410	0.140540	49.02010	0.009447	U	U	0	0 96.89154	
0	186 12.73618	0.526487	30.2195	0	52.31916	1 007933	0	0	0	0 96.80925	
U	n 46 K1-2 ilm 5			·	02:01010		Ũ	U	Ŭ	0 00.00925	
	187 12.18364	0.589892	31.91252	0.016969	51.72986	0.917142	0	0	0	0 97.35004	
U	n 47 K1-2 ilm 1 hol	e 3									
	188 13.26378		32.43742	0.01415	50.40491	0.799	0	0	0	0 97.3288	
U	n 48 K1-2 ilm 2 hol										
	189 12.03877		33.37736	0	50.68325	0.970926	0	0	0	0 97.44869	
U	n 49 K1-2 ilm 3 hol		04.00050	0 101500	50 45 440	0.007004	•	•	-		
	190 10.73237 n 50 K3-4 ilm 1	0.307122	34.98252	0.101563	50.45449	0.987324	0	0	0	0 97.62538	•
0	191 11.31401	0 479554	34 31031	0 098831	50 69403	0 32105/	0	0	0	0 97.2187	
υ	n 51 K3-4 ilm 2	0.170001	01.01001	0.000001	00.00400	0.021004	Ū	U	U	0 97.2107	
-	192 10.64254	0.236702	35.29768	0.031025	50.03222	0.837617	0	0	0	0 97.07779	
U	n 52 K3-4 ilm 3						-	-	-	0 0/10/110	
	193 8.925349	0.221686	38.90637	0.039368	47.51865	1.02293	Ο.	0	0	0 96.63435	
U	n 53 K1-2 chromi 1										
	194 11.47227		19.96102	0.200755	0.426736	55.36746	0	0	0	0 97.44106	
U	n 54 K1-2 chromi 2										
	195 11.24977 n 55 K1-2 chromi 3		20.81281	0.141339	0.438594	55.49971	0	0	0	0 98.51523	

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		·										
		196 11.46205	10.09708	20.04754	0.096143	0.399603	56.13796	0	0	0	0	98.24036
	Un	56 K1-2 chromi 4										
		197 12.17729	14.46312	16.75822	0.113717	0.097279	54.63329	0	0	0	0	98.24292
	Un	57 K1-2 chromi 5										
		198 13.53447	13.86042	17.10942	0.156451	0.243635	53.85299	0	0	0	0	98.75739
	Un	58 ilme std										
		199 0.311809	0.02055	46.92661	0.022259	46.03101	0.05318	0	0	0	0	93.36542
	Un	59 chromite std			_	_						
	1.1	200 15.19196	9.942915	13.30788	0	0.145902	60.08557	0	0	0	0	98.67422
	Un	61 K1-2 garnet 1	10 5 4007	7 054004								
	Lin	217 19.68055	19.54267	7.251691	0	0.053264	5.817236	0.027156	41.27914	0.418389	5.715669	99.78577
	Un	62 K1-2 garnet 2 218 19.25909	21 09541	7 005005	0	0.010000	4 4 4 0 0 0 0	0.000000	14 500 10			
	Un	63 K1-2 garnet 3	21.00041	7.000900	U	0.019323	4.449668	0.000328	41.52042	0.469343	5.339954	100.0294
	UII	219 19.63677	21 73169	7.87468	0	0 020400	2 600005	0.040000	44 00400	0 400000	5 400000	
	Lin	64 K1-2 garnet 4	21.75100	7.07400	U	0.030429	3.608895	0.049606	41.63462	0.496922	5.182806	100.2464
	011	220 19.72937	22 03407	8 38/112	0	0.040919	3.153906	0.000021	41 60606	0.000000	E 170014	100 5000
	Un	65 K1-2 garnet 5	22.00107	0.004112	Ŭ	0.040010	0.100000	0.003331	41.00090	0.302000	5.172014	100.5228
		221 19.53573	22.29845	8.534844	0	0 232485	2.799939	0.034818	41 74707	0 43535	4.554576	100 1722
	Un	66 K1-2 garnet 6		0.001011	v	0.202400	2.700000	0.004010	41.74707	0.40000	4.004070	100.1752
		222 19.7767	20.27114	7.389926	0	0.280737	4 789291	0.03171	41.32096	0 346218	5 / 52712	00 65030
:	Un	67 K1-2 garnet 7			•	0.200.07		0.00171	41.02000	0.040210	0.402112	33.03333
		223 19.47361	21.95509	8.038767	0	0.000923	3.106091	0.012165	41,79236	0.393733	4 979096	99 75183
	Un	68 K1-2 garnet 8								0.0007.00	1.07 0000	00.70100
		224 20.15639	20.23385	7.095964	0	0.161215	4.668194	0.022272	41.31176	0.340967	5.299591	99.29021
	Un	69 K1-2 garnet 9										
		225 19.57805	17.48512	6.254718	0	0.089647	8.330358	0.035748	40.98035	0.329253	6.500599	99.58384
	Un	70 K3-4 garnet 1										
		226 19.03918	19.2753	7.295498	0	0.057724	6.686262	0.040865	41.12299	0.493953	6.089407	100.1012
	Un	71 K3-4 garnet 2										
		227 20.34481	18.77877	6.166535	0	0.183443	6.897701	0.034999	41.49951	0.320668	5.191071	99.4175
	Un	72 K3-4 garnet 3							•			
		228 19.55983	20.90934	8.504786	0	0.622956	2.949667	0.047883	41.45921	0.297457	5.278778	99.6299
	Un	73 pyrope std										•
		229 18.55952	23.72106	10.68124	0	0.36461	0.108557	0.028318	41.4376	0.366397	5.026616	100.2939

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Probe for Windows Microanalysis Database File: D:\Program Files\Probe for Windows\UserData\farkas26-9-02.mdb Database File Type: PROBE DataFile Version Number: 5.38 Program Version Number: 5.38 Database File User Name: cc Database File Description: Probe for Windows NT Run on SX-50 Hardware Current Date and Time: 10/1/02 10:41:33 AM Nominal Beam: 35.1 (nA) 6 K1-2/1 Un TakeOff = 40 KiloVolts = 15 Beam Current = 35 Beam Size = 1 Number of 'Good' Data Lines: 1 Number of Data Lines: 1 First/Last Date-Time: 09/26/2002 08:03:06 PM to 09/26/2002 08:03:06 PM WARNING- Using Slope-Hi Off-Peak correction for na ka WARNING- Using Slope-Hi Off-Peak correction for si ka WARNING- Using Slope-Hi Off-Peak correction for ti ka WARNING- Using Slope-Hi Off-Peak correction for al ka WARNING- Using Slope-Hi Off-Peak correction for cr ka WARNING- Using Slope-Hi Off-Peak correction for fe ka WARNING- Using Slope-Hi Off-Peak correction for mn ka WARNING- Using Slope-Hi Off-Peak correction for mg ka WARNING- Using Slope-Hi Off-Peak correction for ca ka 45.189 Average Total Weight%: 101.773 Average Total Oxygen: Average Calculated Oxygen: 45.189 Average Atomic Number: 12.311 .000 Average Atomic Weight: 21.605 Average Excess Oxygen: 4.00 Average MAN Iteration: 2.00 Average ZAF Iteration:

Oxygen Calculated by Cation Stoichiometry and Included in the Matrix Correction

Results in Elemental Weight Percents

SPEC: O TYPE: CALC

AVER: SDEV:	45.189 .000									
ELEM: BGDS: TIME:	Na S-HI 10.00	Si S-HI 10.00	Ti S-HI 10.00		Cr S-HI 10.00	Fe S-HI 10.00				
ELEM: 65	Na n.d.	Si 19.6	Ti n.d.	Al 11.2	Cr 3.1	Fe 6.1	Mn .38	Mg 11.9	Ca 4.0	SUM 101.773
AVER: SDEV: SERR: %RSD:	.020 .000 .000 .0	19.663 .000 .000 .0	.007 .000 .000 .0		3.164 .000 .000 .0	6.232 .000 .000 .0	.000	.000	.000	101.773
	ion limit	: at 99 %	Confide	nce in E	lemental	Weight	Percent	(Single	Line):	
ELEM: 65	Na .026	Si .018	ті .037	A1 .020	Cr .056	Fe .055		Mg .016	Ca .026	
AVER: SDEV: SERR:	.026 .000 .000	.018 .000 .000	.037 .000 .000	.000	.056 .000 .000	.000	.000	.000	.000	
TakeOf Number First/ WARNIN	Last Date G- Using	KiloVol Lines: e-Time: 0 Slope-Hi	5 9/30/200 Off-Pea	2 06:42: 1k correc	Number o	f 'Good 09/30/ fe ka	Beam S: ' Data L: 2002 06:4	ines: 5		
Averag Averag	e Excess	Oxygen: ated Oxyg Oxygen: eration:	ren: 33.	660	Average Average Average Average	Atomic Atomic	Number: Weight:	101.058 17.102 27.308 2.00		

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Oxygen Calculated by Cation Stoichiometry and Included in the Matrix Correction

Results in Elemental Weight Percents

SPEC: 0

TYPE:	CALC		-						
AVER: SDEV:	33.660 .168								
SDEV:	.100								
ELEM:	Mg	Al	Fe	Zn	Ti	Cr			
BGDS:	LIN	LIN	S-HI	LIN	S-HI	LIN			
TIME:	10.00	10.00	10.00	10.00	10.00	10.00			
ELEM:	Mg	Al	Fe	Zn	Ti	Cr	SUM		
151	9.81	5.55	10.0	n.d.	.09	42.2	101.914		
152	9.85	5.52	10.0	n.d.	.05	41.7	101.038		
153	9.81	5.56	10.0	n.d.	.07	41.9	101.257		
154	9.79	5.58	9.8	n.d.	.06	41.6	100.339		
155	9.79	5.56	10.0	n.d.	.06	41.7	100.744		
AVER:	9.812	5.559	10.042	.062	.066	41.857	101.058		
SDEV:	.025	.018	.173	.041	.013	.276			
SERR:	.011	.008	.077	.018	.006	.123			
%RSD:	.3	.3	1.7	66.5	19.0	.7			
Detecti	ion limit	at 99 %	Confide	nce in E	lemental	Weight	Percent	(Single	Line):
ELEM:	Mg	Al	Fe	Zn	Ti	Cr			
151	.018	.017	.069	.099	.036	.045			
152	.019	.016	.071	.104	.037	.049			
153	.019	.017	.064	.101	.034	.045			
154	.019	.016	.072	.106	.037	.048			
155	.018	.017	.072	.107	.036	.047			
AVER:	.019	.016	.070	.103	.036	.047			
SDEV:	.001	.001	.003	.003	.001	.002			
SERR:	.000	.000	.001	.002	.001	.001			
							,		

Detection Limit in Elemental Weight Percent (Average of Sample):

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ELEM:	Mg	Al	Fe	Zn	Ti	Cr
60ci				023	.008	
80ci				.038	.013	

	90ci				.053	.018				
	95ci				.069	.024				
	99ci				.114	.039				
	Project	ed Detect	ion Limi	t <b>s</b> (99%	CI) in	Elemental	Weight	Percent	(Average of	Sample):
	ELEM:	Mg	Al	Fe	Zn	Ti	. Cr			
	TIME:	.16	.16	.16	.16	16	.16			
	PROJ:				.915	.314				
	TIME:	.31	.31	.31	.31	.31	.31			
	PROJ:	`			.647	.222				
	TIME:	.63	. 63	. 63	.63	.63	.63			
	PROJ:				.457	.157				
	TIME:	1.25	1.25	1.25	1.25	1.25	1.25			
	PROJ:				.323	.111				
	TIME:	2.50	2.50	2.50	2.50	2.50	2.50			
	PROJ:				.229	.079				
	TIME:	5.00	5.00	5.00	5.00	5.00	5.00			
	PROJ:				.162	.056				
	TIME:	10.00	10.00	10.00	10.00	10.00	10.00			
	PROJ:				.114	.039				
	TIME:	20.00	20.00	20.00	20.00	20.00	20.00			
	PROJ:				.081	.028				
	TIME:	40.00	40.00	40.00	40.00	40.00	40.00			
	PROJ:				.057	.020				
	TIME:	80.00	80.00	80.00	80.00	80.00	80.00			
	PROJ:				.040	.014				
	TIME:	160.00	160.00	160.00	160.00	160.00	160.00			
	PROJ:				.029	.010				
•	TIME:	320.00	320.00	320.00	320.00	320.00	320.00			
	PROJ:				.020	.007				
	TIME:	640.00	640.00	640.00	640.00		640.00			
	PROJ:				.014					

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Un 37 ilme std TakeOff = 40 KiloVolts = 15 Beam Current = 35 Beam Size = 1 Number of Data Lines: 5 Number of 'Good' Data Lines: 5 First/Last Date-Time: 09/30/2002 06:50:55 PM to 09/30/2002 06:57:40 PM WARNING- Using Slope-Hi Off-Peak correction for fe ka WARNING- Using Slope-Hi Off-Peak correction for ti ka

Average Average Average Oxygen (	Total Oxy Calculate Excess O: ZAF Itera Calculate in Element	ed Oxyge xygen: ation: d by Cat	.0 3. ion Stoi	64 2 00 2 00 2 chiomet	Average To Average A Average A Average M ry and In	tomic Nu tomic We AN Itera	<pre>mber: eight: ation:</pre>	93.231 19.162 30.532 3.00 atrix Correction
0000.	0							
SPEC:	-							
TYPE:	CALC							
AVER:	29.064							
SDEV:	.120							
SDEV:	.120							
ELEM:	Mg	Al	Fe	Zn	Ti	Cr		
BGDS:	LIN	LIN	S-HI	LIN	S-HI	LIN		
TIME:	10.00	10.00	10.00	10.00	10.00	10.00		
I IME .	10.00	10.00	10.00					
ELEM:	Mg	Al	Fe	Zn	Ti	Cr	SUM	
156	.19	.02	36.1	n.d.	27.7	n.d.	93.233	
157	.24	.02	36.3	n.d.	27.7	n.d.	93.483	
158	.24	.03	36.0	n.d.	28.0	.05	93.486	
158	.24	.03	36.1	n.d.	27.7	n.d.	93.312	
160	.24	.02	35.9	n.d.	27.5	n.d.	92.641	
100	. 24	.02	55.7		2.10			•
AVER:	.226	.026	36.143	.030	27.726	.015	93.231	
SDEV:	.022	.025	.199	.030	.162	.022		
SDEV: SERR:	.022	.002	.089	.014	.072	.010		
%RSD:	9.7	18.6	.5	100.1	.6	141.4		
TRAD:	5.7	10.0		2000-				
Detecti	ion limit	at 99 %	Confide	nce in H	Elemental	Weight	Percent	(Single Line):
ELEM:	Mg	Al	Fe	Zn	Ti	Cr		
156	.021	.017	.084	.112	.047	.045		
157	.021	.017	.078	.113	.047	.045		
158	.021	.017	.085	.114		.044		
158	.022	.017	.088	.115		.043		
160	.020	.017	.085	.113	.047	.043		
100	.020							
AVER:	.021	.017	.084	.113	.047	.044		
SDEV:	.021	.000	.004	.001		.001		
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SERR:	.000	.000	.002	.000	.000	.000
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Detection Limit in Elemental Weight Percent (Average of Sample):

ELEM:	Mg	Al	Fe	Zn	Ti	Cr
60ci	.007	.001		.017		.016
80ci	.011	.002		.027		.026
90ci	.015	.003		.038	·	.036
95ci	.020	.004		.050		.047
, 99ci	.033	.007		.082		.078

Projected Detection Limits (99% CI) in Elemental Weight Percent (Average of Sample):

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ELEM:	Mg	Al	Fe	Zn	Ti	Cr
TIME:	.16	.16	.16	.16	.16	.16
PROJ:	.260	.053		.660		.623
TIME:	.31	.31	.31	.31	.31	.31
PROJ:	.184	.037		.467		.441
TIME:	.63	.63	.63	.63	.63	.63
PROJ:	.130	.026		.330		.312
TIME:	1.25	1.25	1.25		1.25	1.25
PROJ:	.092	.019		.233		.220
TIME:	2.50	2.50	2.50	2.50	2.50	2.50
PROJ:	.065	.013		.165		.156
TIME:	5.00	5.00	5.00	5.00	5.00	5.00
PROJ:	.046	.009		.117		.110
TIME:	10.00	10.00	10.00	10.00	10.00	10.00
PROJ:	.033	.007		.082		.078
TIME:	20.00	20.00	20.00	20.00	20.00	20.00
PROJ:	.023	.005		.058		.055
TIME:	40.00	40.00	40.00	40.00	40.00	40.00
PROJ:	.016	.003		.041		.039
TIME:	80.00	80.00	80.00	80.00	80.00	80.00
PROJ:	.011	.002		.029		.028
TIME:	160.00	160.00	160.00	160.00	160.00	160.00
PROJ:	.008	.002		.021		.019
TIME:	320.00	320.00	320.00	320.00	320.00	320.00
PROJ:	.006	.001		.015		.014
TIME:	640.00	640.00	640.00	640.00	640.00	640.00
PROJ:	.004	.001		.010		.010

## Appendix IV

Geosciences Laboratory Job # 02-0321, tabulated weights for the light and heavy separated fractions of samples WLCG 846E 1847N and WLCG 1375E 2000N, WLCG K-5, WLCG K-6, WLCG K-7, WLCG K-8 and WLCG K-9, November 14, 2002



Ministry of Northern Development and Mines



Geoscience Laboratories Willet Green Miller Centre 933 Ramsey Lake Road Sudbury, ON P3E 6B5 705-670-5637 FAX: 705-670-3047

## **Mineralogy Report**

Geoscience Laboratory Job #: 02-0321

Client Contact: James MacLachlan

Prospectors Lic#: A51042

**Test Group: HVYMIN** 

A total of seven concentrates were submitted for heavy liquid separation. The samples were separated using tetrabromoethyne (T.B.E.) at a specific gravity of 2.964 g/cm<sup>3</sup>. Weights for the light and heavy separated fractions are presented below.

sample name	initial weight (g)	heavies (g)	lights (g)	% heavies	% lights
WLCG 846E184 <b>7</b> N	20.331	2.541	17.778	12.50%	87.44%
WLCG 1375E 2000N	29.824	4.240	25.336	14.22%	84.95%
WLCG K-5	17.749	3.918	13.715	22.07%	77.27%
WLCG K-6	36.113	3.954	32.250	10.95%	89.30%
WLCG K-7	35.032	5.969	29.083	17.04%	83.02%
WLCG K-8	16.563	5.578	10.823	33.68%	65.34%
WLCG K-9	16.460	3.184	13.116	19.34%	79.68%

The concentrates have been forwarded to Dr Arpad Farkas, 70 Crendon Drive, Etobicoke, ON M9C 3H2 416.622.1672 as requested.

Prepared by

) Larese

T. Larose Laboratory Assistant

Authorized by

L. Semenyna Scientist

Date: November 14, 2002

## Appendix V

Arpad Farkas Ph.D. Consulting Geologist. Binocular microscopy and electron microprobe analysis of heavy mineral concentrates from till samples, Windy Lake mining claims, South Lorrain Township Ontario, December 23, 2002

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## WINDY LAKE CLAIMS

## SOUTH LORRAIN TOWNSHIP.

Dave R. Hanes 100 Kent Court, Apt. 106, Sudbury, Ont. P3A 4R5 (705) 560-7376 Sherwood Plunkett R.R. # 3, Bancroft, Ontario. K0L 1C0 (613) 332-2240 James Mac Lachlan 6 Thomas St. East, Napanee, Ontario. K7R 1K6 (613) 354-6448

Report # Two.

## By

## ARPAD FARKAS, Ph.D. Consulting Geologist

70 Crendon Drive, Toronto, Ontario. M9C 3H2 (413) 622-1672 Binocular microscopy and electron microprobe analysis of heavy mineral concentrates from till samples, Windy Lake mining claims, South Lorrain Township, Ontario.

> Arpad Farkas, Ph.D. Consulting Geologist.

December 23, 2000.

Toronto, Ontario.

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## Binocular microscopy and electron microprobe analysis of heavy mineral concentrates from till samples, South Lorraine Township, Ontario.

This report was requested by Mr. James MacLachlan, Napanee, Ontario, who is a coowner of the mining claims located in South Lorrain Township. The till samples were collected by Mr. Jim Laidlaw, Consulting Geologist, during the fall of 2002. Mr. Laidlaw also carried out a preliminary concentration of heavy minerals by panning and jigging. The concentrates were submitted to the Geoscience Laboratories of the OGS in Sudbury, Ontario, for heavy liquid separation. The OGS report is included in the Appendix. The grainsize of the concentrates is in the 0.25 to 1 mm range, but each sample contains a small portion of 1 to 2 mm size fraction.

Seven heavy mineral concentrates sent by the OGS, were examined by the writer with a binocular microscope, and kimberlite indicator minerals (KIM) were selected. After preparation of a polished grain mount, some of the mineral grains selected, were analyzed using a Cameca SX-50 electron microprobe at the Department of Geology, University of Toronto. The results of electron microprobe analysis are in the Appendix.

The results of binocular microscopy are summarized in the table below. Exept for the Mg-olivine grains, which were not counted, the number of KIM grains found in each sample, are indicated in the table.

Sample No.	Pyrope	Chromite	Mg- ilmenite	Low-Cr diopside	Mg- olivine	Uvarovite
WLCG K-5	-4	10	4	1	Present	14
WLCG K-6	ND.	6	4	ND.	Present	4
WLCG K-7	ND.	3	3	ND.	ND.	ND.
WLCG K-8	1	5	2	1	ND.	ND.
WLCG K-9	ND.	2	1	2	ND.	1
WLCG 846E 1 <del>84TN</del>	ND.	2	ND.	1	ND.	ND.
WLCG 1375E 2000N	ND.	1	2	ND.	ND.	ND.

Table 1.	KIM	counts	of sam	ples	examined.
----------	-----	--------	--------	------	-----------

#### ND. Not detected.

The highest KIM counts pertain to samples K-5 and K-6. One of the pyrope grains in sample K-5 is about 1mm in diameter and has a well preserved "orange peel" texture

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Alluvium

(rough surface like that of an emery paper). Although the keliphitic rim is not preserved on this pyrope grain, the surface morphology suggests short glacial transport in the till. This type of rough surface was also seen on a few of the ilmenite grains.

The uvarovite fragments are 0.5 mm diameter or smaller. They are characterized by intensive emerald green colour and often have a polycrystalline appearance. This morphology is more typical of secondary uvarovite than kimberlitic xenocrysts.

The chromites are fragments of rounded octahedral crystals which are weakly magnetic or nonmagnetic. The fragments of weakly emerald green diopsides probably have low chromium content.

#### Results of electron microprobe analysis.

A total of 24 grains (7 garnets. 6 ilmenites and 10 chromites and one unidentified Crbearing oxide mineral) were analyzed with the electron microprobe. Some of the pyrope grains have quite high chromium content ranging up to 10.27 % Cr<sub>2</sub>O<sub>3</sub> (analysis No 90, sample K-5). Despite this, on a CaO versus Cr2O3 plot they all fall within the G-9 field. The pyrope compositions including those previously described by the writer from this locality, are plotted in Figure 1.

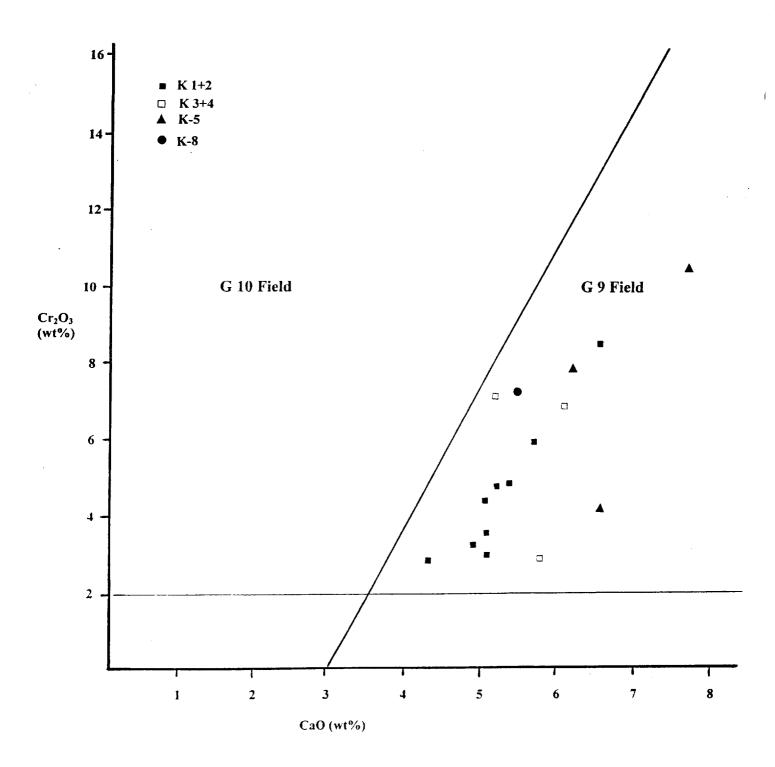
Two grains of uvarovite were analyzed (analysis No 91 and 103 in the Appendix), one from sample K-5 and one from sample K-8. Both grains have high chromium and low magnesium content (0.37 and 0.20 % MgO). In comparison, uvarovites from kimberlites have high MgO content (often above 10 weight percent). The uvarovites analyzed, must have formed by hydrothermal replacement of chromite along fractures in a chromium-rich mafic or ultramafic rock. Therefore, a kimberlitic source rock for the uvarovite found in the heavy mineral concentrates, is one of the many possibilities. If further sampling in the area is contemplated, and if fragments of single crystals of uvarovite are found, these should be analyzed. Analysis of this type of grains would likely yield answer to the origin of this mineral.

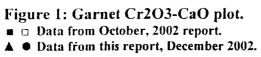
The magnesian ilmenites analyzed have high MgO content (10.3 to 12.1 %) and with the exeption of one grain, they have 0.5 to 1 %  $Cr_2O_3$  content. The chemical composition of these ilmenites is very similar to ilmenites described by the writer in his previous report. On a  $Cr_2O_3$ -MgO plot, their composition falls in the diamond preservation field. One ilmenite grain from sample K-5 (analysis No 94), has very high  $Cr_2O_3$  content (6.7%). This chromium content is outside the range commonly encountered in kimberlitic magnesian ilmenites (0-to 4%  $Cr_2O_3$ ). This ilmenite was likely derived from a kimberlite enriched in chromium. Similar ilmenites were reported from kimberlites found in the James Bay Lowlands (OGS Open File Report 6019).

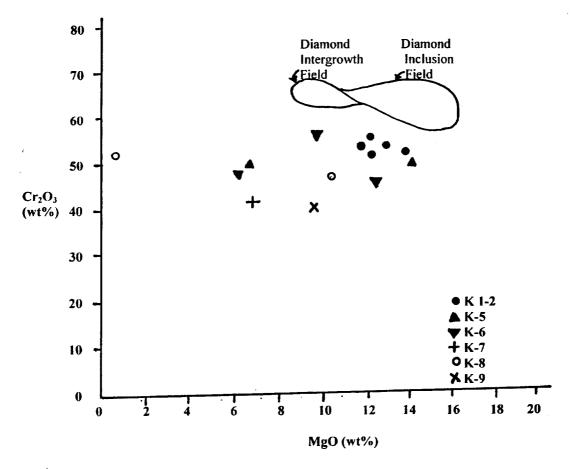
The magnesian chromites analyzed, have 32.2 to 54.9 % Cr2O3 content. On a Cr2O3-MgO plot, their composition falls outside the diamond intergrowth and diamond inclusion fields. (Figure 2). It is noteworthy that, with the exeption of one grain, the chromites have low ZnO content (less than 0.2 %). Chromite from sample K-8 (analyzis

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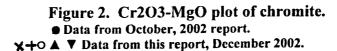
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No 109) has very low MgO (0.39 %) and high ZnO (1.49 %). This composition is similar to Zn-enriched Cr-spinels reported from diamond bearing subalkaline lamprophyre-like rocks from the Wawa area of Ontario (OGS Open File Report 6016). Similar diamond bearing rocks were recently found in Lorrain Township, immediately North of the Windy Lake mining claims. (Ontario Geological Survey, Report of Activities, 2002).

#### Comments regarding diamond exploration.

The composite till sample K 1-2 examined earlier and, sample WLCG K-5 which was taken in the vicinity of K 1-2, verify the presence of a strong KIM anomaly in glacial till. This anomaly is adjacent to a magnetic feature (Keating anomaly) characteristic to pipe-like intrusive bodies like kimberlites (Mr. Jim Laidlaw, personal communication). KIM anomaly WLCG K-6, which is downice from K-5, may be related to the same body or possibly, related to a separate kimberlite intrusion.

At present only a limited amount of data is available on the chemistry of indicator minerals. Although only G-9 pyropes were found, some of them have quite high chromium content and plot near the 85 % line separating the G-9 and G-10 fields. Keeping in mind the limited sample size, more detailed work may result in finding G-10 pyrope and/or chromite with chemical composition in the diamond intergrowth or diamond inclusion fields.

It is interesting to note that, although the presence of G-10 pyrope and high chromium chromites are thought to be favourable for finding diamandiferous kimberlites, there is one significant diamond occurrence described in the literature, which does not have this attribute. The Victor kimberlite pipe of De Beers in the James Bay area of Northern Ontario has very few pyrope with favourable chemistry. Sage (OGS Open File Report 6019, published in 2000), analyzed 200 purple and red pyrope grains from the Victor pipe. Only two of the 200 grains fall in the G-10 field and even these two grains are barely within the G-10 field. Furthermore, analysis of chromite grains from the Victor pipe, did not reveal the presence of chemical compositions favourable for finding diamonds. Despite this the Victor pipe has high enough diamond content to be on the verge of commercial development by De Beers.

One of the chromite grains analyzed has chemical composition similar to chromite from lamprophyre-like subalkaline rocks known to carry diamonds in the Wawa area. (OGS Open File Report 6016 by Sage.R. published in 2000). The recent discovery of diamonds in bedrock of similar character immediately North of the Windy Lake mining claims, suggests that the property should also be explored for this type of target. So far, low-Mg zincian chromite is the only known indicator mineral for this type of rocks.

lopad Jarkas

Arpad Farkas, Ph.D., Consulting Geologist. 70 Crendon Drive, Toronto, Ont. M9C 3H2 Ph: (416) 622-1672. Dated Dec. 21, 2002.

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## APPENDIX.

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## Results of electron microprobe analyzis and report from the OGS on the separation of heavy minerals.

TakeOff = 40 KiloVolts = 15 Standard Description Al O ELEM: ELWT: 52.930 47.070 St 222 TiO2sx2 TakeOff = 40 KiloVolts = 15 Standard Description ELEM: Ti O ELWT: 59.950 40.050 St 226 haematsx1 TakeOff = 40 KiloVolts = 15 Standard Description ELEM: Fe Al 0 ELWT: 69.860 .100 30.060 St 338 gahnitesx1 TakeOff = 40 KiloVolts = 15 Standard Description ELEM: Zn Al Fe Mn 0 ELWT: 34.150 29.280 .780 .770 35.190 St 324 ilmsx1 TakeOff = 40 KiloVolts = 15 Standard Description Fe Mg ELEM: Ti Mn Nb O 36.600 .190 27.560 3.720 .650 31.490 ELWT: St 334 chromisx1 TakeOff = 40 KiloVolts = 15 Standard Description ELEM: Cr Al Fe Mn Ma Ca ELWT: 41.390 5.250 10.140 .085 9.170 .090 32.770

St 442 bustamsx1 TakeOff = 40 KiloVolts = 15 Standard Description ELEM: Si Al Fe Mn Zn Ma Ca 0 ELWT: 22.460 .020 6.320 18.830 .200 .130 13.560 38.390 St 461 pyropKsx1 TakeOff = 40. KiloVolts = 15 Standard Description ELEM: Si Al Τi Fe Mg Mn Ca 0 ELWT: 19.380 12.560 .290 8.300 11.160 .220 3.700 44.690 St 470 pxTiAlsx1 TakeOff = 40 KiloVolts = 15 Standard Description ELEM: Si Ti Al Mq Ca 0 ELWT: 18.150 6.030 6.800 7.420 18.000 43.600 St 224 Cr203sx1 TakeOff = 40 KiloVolts = 15 Standard Description ELEM: Cr 0 ELWT: 68.420 31.580 St 464 albitesx1 TakeOff = 40 KiloVolts = 15 Standard Description Si ELEM: Al Ca Na к 0 ELWT: 32.030 10.340 .090 8.600 .180 48.760 St 212 MgOsx1 TakeOff = 40 KiloVolts = 15 Standard Description ELEM: Ma 0 60.310 39.690 ELWT: St 213 Å1203sx1

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Probe data for James MacLachlan

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275.00000	15.226135	9.967893	13.314260	.086878	.118480	60.630520	99.344162
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•							
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"Un 96 Sample K-5							-
290.000000	.030191	. 05 0 0 3 8	89.667053	.053401	.028793	1.374293	91.203766
"Un 98 Sample K-6							
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"Un 99 Sample K-6					1100 1271	40.077708	77.010040
293.000000	12.247697	15.803969	22.947783	.150014	1.142040	44.514435	04 005000
"Un100 Sample K-6			221741100	.130014	1.142040	44.214432	96.805939
294.000000	10.027903	10.190911	22.025539	487560	h 00000		
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295.000000	10.349994	.335013	05 40/003				
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302.000000	12.117356	.653181	31.620899	.000000	51.588951	F 845 87	
"Un109 Sample K-8			01.02.0077	.086888	21.200921	.501506	96.481983
303.000000	.393205	7.525214	99 KEKKAA	4 600.005			
"Un111 Sample K-9		1.323214	33.454460	1.488095	.326838	51.778130	94.965942
305.000008	16.761858	00 06000C	46 575044				
		32.343800	14.565911	.087897	.799554	32.187412	96.746429
"Un112 Sample K-9		40.051015					
306.000000	9.713051	12.256265	31.273109	.063464	3.199921	40.283886	96.789696
"Un113 S 1375E200							
307.00000	11.783399	.472432	31.965820	. 000000	51.604435	.796602	96.622681
							•

Pay. 1

## **Appendix VI**

Map 1,

Plan map of grid and topographic features and, till and alluvium sample locations and related notes of sample descriptions and results, Scale 1: 1 250, February 8, 2003 Reports by Jim Laidlaw

June 28, 2002

and

September 4, 2002

Brief Summary of Field Work

By Sherwood Plunkett



SOUTH LORRAIN

31M04NE2037 2.25390

Assessment Report for A Total Field Magnetometer Survey and Prospecting Activities on Part of the Windy Lake Claim Group: Claim 1198286 South Lorrain Township Larder Lake Mining Division N.T.S. 31 M/5

June 28, 2002

C. Jim Laidlaw Madoc, Ontario

## Table of Contents

		U
1.0 Introductio	m	1
2.0 Property as	nd Location	4
3.0 Accessing	Mining Claim 1198286	4
4.0 Ownership	of Claims	4
5.0 Report Wr	iting and Field Supervision	4
6.0 Dates Wor	ked	5
7.1 G 7.2 G 7.3 G	of Current Exploration Work Conducted eneral Geology rid Establishment eophysical Surveys 7.3.1 Total Field Magnetometer Survey rospecting Activities	6 6 7 7 8
8. E Si	of Geophysical Survey Results urvey Parameters - Magnetic Method iscussion of Results 8.2.1 Total Field Magnetometer Survey 8.2.2 Prospecting Activities	8 8 10 10 10
9.0 Recommen	dation	11
References		12
Qualifying Stat	ement	13
Appendix I Appendix II Appendix III	<ul> <li>-Figure 1. Location Map of Project Area</li> <li>-Figure 2. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294 and 1230295;</li> <li>Map G-3448, (sketch map not to scale)</li> <li>-Figure 3. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294 and 1230295; Disposition overlaid on Geological Map 2194, South Lorrain Township (Sketch map not to scale) and Geological Legend for Figure 3. (Geological Map 2194)</li> <li>-Figure 4. Windy Lake Claim Group: Location of 90% Positive Keating Coefficient in Claim 1198286. (Sketch map not to scale, from Map 82 071)</li> <li>endix II</li> </ul>	
Appendix IV	Map 1. Magnetometer Survey, Total Field Contours, Scale 1: Map 2. Prospecting Activities Map, Scale 1: 1 250 Prospecting Data Base Tabulation	1 250

### 1.0 Introduction

South Lorrain Township, in the Larder Lake Mining Division, is located approximately 32km southeast of the town of Cobalt, (see Appendix I, Figure 1. Location Map of Project Area). Silver was first discovered in South Lorrain Township in 1907, starting a period of widespread staking and mining.

Mining to the end of 1965 has produced 23,338,606 ounces of silver, 82% of this coming from the Keeley and Frontier Mines, and over 50% from the Keeley Mine itself. Minor amounts of cobalt, nickel and copper have also been produced.

The silver occurs in the native state in steeply dipping carbonate veins and vein arrays, localized in fracture zones, in close proximity, (within 200m) to the Nipissing Diabase sills or sheets, in the Paleoproterozoic sedimentary rocks of the Coleman Member of the Gowganda Formation. As well it can occur in the diabase, and to a lesser extent in the Archean supracrustal rocks associated with base metal enrichment. The silver veins postdate the Nipissing Diabase.

New exploration activities carried out on the Windy Lake Claim Group in South Lorrain Township by the mineral rights holders, has consisted of control grid, VLF-EM and Magnetometer geophysical surveys, outcrop power stripping, geochemical soil surveys, geochemical rock assaying, reconnaissance prospecting and whole rock analysis for precious metal, base metal and industrial mineral (high purity silica flux) commodities. (see Appendix I: Figure 1. Location Map of Project Area)

In a recent assessment report filed in January 27, 1999 written by C. J. Laidlaw on a magnetometer and VLF-EM geophysical survey, indicates that this examination appears to map the rock units in the study area and traces a weak conductive VLF-EM anomaly associated with a magnetic low linear zone interpreted to be a possible fault in close association with an olivine diabase dyke (a magnetic high), of Keweenawan age(?) and; this dike appears to cut all other rock units in the immediate survey area.

A review of assessment files by way of the Resident Geologist Office reveals a paucity of information related to this property area. There are extensive and numerous trenches and at least one shaft of undetermined depth, located on the Windy Lake Claim Group, that indicates a past history of intense mineral exploration, albeit of unknown dates in which these activities were conducted.

Contemporary research focus by the Ontario Geological Survey, has emphasized kimberlite exploration to locate commercial exploitable diamond deposits within a region referred to as the Lake Timiskaming Structural Zone (LTSZ). Kimberlite occurs in the LTSZ in a broad north-west trending zone. There have been two widely separate, kimberlite fields identified; the Kirkland Lake and the Cobalt-New Liskeard domains. This discussion herein will refer to the Cobalt-New Liskeard area kimberlite field, as the property under discussion is within this domain.

### **1.0 Introduction continued**

The LTSZ is represented by a graben structure and a branch of the Ottawa-Bonnechere Graben system that joins with the St. Lawrence rift system near Ottawa. The LTSZ is thought to be rooted in Proterozoic tectonics, with this structure inferred to have been re-activated several times. Kimberlite clustering occurs in the LTSZ in a broad north-west trending zone, and no single NW trending structure ties the kimberlite intrusions together and no direct connection between the LTSZ has been observed, however the zone may have provided a pathway to surface for the kimberlite magmas. The kimberlites occur at or close to the intersections of cross structures, (i.e. linears, faults or major lithological contacts) oblique to the NW structural trend.

The kimberlites are inferred to be of Jurassic in age and, geochronology indicates three ages of emplacement at 155 Ma, 142 Ma and 125 Ma. The youngest recorded age of kimberlite is from a reversely polarized pipe, thus a negative magnetic feature. In this region there are four known kimberlite pipes that have reversed polar signatures, which has led researchers to speculate that kimberlite emplacement has taken place over about a 30 Ma time span. As well, most of the kimberlite pipes located along the LTSZ, contain Paleozoic limestone and cherty xenoliths. This Paleozoic stratigraphy was present when explosive kimberlite emplacement occurred, entraining these xenoliths during the Jurassic Period.

Preliminary observation by researchers in the Cobalt-New Liskeard is that kimberlite intrusions on the east side, (east of Lake Timiskaming/ Quebec side) of the LTSZ are hypabyssal (narrow dike-like root zones at depth), and on the western shoulder, (west of Lake Timiskaming/ Ontario side) of the LTSZ the kimberlites are diatreme facies (large volume breccia, a carrot-shaped formation, above the hypabyssal zone). The inference from this model is that the east side of the graben is the faulted up-side.

About 18 kimberlite pipes have been located in the Cobalt-New Liskeard domain, that may represent a small percentage of pipes yet to be located and explored for commercial diamond potential. The bulk of the known kimberlite pipes have been under explored for their diamond economy, in surface area, volume and lithological variation, (considering that these kimberlites are complex multiphase intrusions).

Recent activities supervised by the Ontario Geological Survey, for Operation Treasure Hunt, a geoscience initiative, funded by the Ontario Government, has derived among others, a series of Airborne Magnetic and Electromagnetic Surveys that cover the Temagami Area: Map 82 070, Residual magnetic field and electromagnetic anomalies; Map 82 071, Shaded image of the second derivative of the magnetic field and Keating coefficients and; Map 82 072, EM decay constant and electromagnetic anomalies.

## **1.0 Introduction continued**

Of particular interest and directly related to this report is a 90% positive Keating Coefficient anomaly located on Map 82 071, (Shaded image of the second derivative of the magnetic field and Keating coefficients). From map inspection this anomaly is located in South Lorrain Township, claim 1198286, centered at UTM coordinates, Zone 17, 609000E, 5231650N, Datum NAD 27.

(see Appendix I: Figure 4. Windy Lake Claim Group: Location of 90% Positive Keating Coefficient in Claim 1198286)

Keating anomalies have been cited as a means for targeting kimberlite rocks in diamond exploration.

A VLF-EM survey was commenced but not completed, and therefore will be reported on in a future report once completed.

This report covers a Total Field Magnetometer Survey and Prospecting Activities, (rock sample assaying, till sampling for kimberlite indicator minerals and preliminary mapping for lithology) that are a first pass examination in assessing the Keating anomaly/ kimberlite potential in claim 1198286.

## 2.0 Property and Location

The Windy Lake Claim Group consist of eight claim blocks comprised of 20 unpatented mining claim units as follows: 1198177, 3 units, 1198286, 2units, 1199036, 6 units, 1229901, 1 unit, 1229902, 1 unit, 1229903, 1 unit, 1230294, 4 units and 1230295, 2 units. These mining claims are located in South Lorrain Township, Plan 3448 in the Larder Lake Mining Division, (see Appendix I, Figure 2. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294 and 1230295; Map G-3448).

This report covers work conducted on part of claim 1198286.

## 3.0 Accessing Mining Claim 1198286

From North Bay travel north to the junction of Highways #11 and #11B, turn on to #11B, travel through Cobalt to North Cobalt. At North Cobalt take highway #567, and drive south for about 31 km, to the Cobatec and Silver Centre sign, turn right on to a gravel road. Continue for 6.7 km on this road, to a logging road in a clear cut area, turning north, continue for approximately 2.4 km to the end of this access road; and using a GPS hand-held navigational tool, "Go To" UTM coordinates, Zone 17, 609466 E, 5230797 N at the end of the road; then Go To UTM coordinates, Zone 17, 608956 E, 5231499 N, that is control grid L 1025 E and 1750 N.

## 4.0 Ownership of Claims

The Claim Blocks covered in this report are held 33.33% equally by:

a) Dave Hanes,100 Kent Court Apt. 106, Sudbury ON,P3A 4R5, Client Number 301098; and

b) Sherwood Plunkett, RR#3, Bancroft ON, K0L 1C0, Client Number 183125; and

c) James Mac Lachlan, 6 Thomas Street East, Napanee ON, K7R 1K6, Client Number 162788;

## 5.0 Report Writing and Field Supervision

C. James Laidlaw of R.R.3, Lot 6 Concession 7, Madoc Tp., Madoc ON, K0K 2K0, is the author of this report and responsible for all map drafts and report writing, and as well, conducted grid control set-up and prospecting activities, and supervised the Magnetometer Survey.

## 6.0 Dates Worked

a) Linecutting and grid control set-up:

Sherwood Plunkett May 20, 2002 helps cut and chain tie-line 2000 N, for half day, then begins magnetometer survey; and Dave Hanes and C. Jim Laidlaw, May 20 and 21, 2002 conduct linecutting and chaining of tie-line 2000N and completed flagged grid control set-up. C.J. Laidlaw supervised the work over 2 working days.

**b)** Magnetometer Survey; Sherwood Plunkett conducted this survey May 20 and 21, 2002 in 1.5 working days.

c) Prospecting Activities;

Sherwood Plunkett and C.J. Laidlaw conducted prospecting activities, rock sampling and till sampling, May 22, 2002, for one working day.

d) Report Writing and Map Drafting;

C. James Laidlaw conducted this work in 48 hours, June 14, 17, 18, 19, 23, 24, 25, 26 and 28, 2002.

## 7.0 Summary of Current Exploration Work Conducted

## 7.1 General Geology

The generalized geology of the area with in the claim blocks 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294 and 1230295 is comprised of the following; a large areal extent, north-south trending Proterozoic Nipissing diabase sill throughout claims 1198177, 1230294 and 1198286, as well a narrow east-west trending diabase is observed and inferred in the southern half of claim block 1229901. These diabase areas are flanked by Cobalt Group quartzite, both observed and inferred. Both the diabase and the quartzite rocks are in turn intruded by a younger Keweenawan(?) olivine diabase.

The quartzite rocks weather relatively evenly forming moderate rolling and level topographical hills and knolls; the Nipissing diabase forms the dominant and extreme topographical relief as outcrop highlands, ridges and sheer cliff faces in contact with the quartzite. The Keweenawan olivine diabase weathers recessively with poorly exposed sparse outcrop areas, ( see Appendix I, Figure 3. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294 and 1230295; Disposition overlaid on Geological Map 2194, South Lorrain Township, (sketch map not to scale))

No known mineral occurrences have been previously reported from these claim blocks, and for further detailed information on the geology of the area, the reader is referred to Geological Report 83, Geology of South Lorrain Tp.. by W.H. Mc Ilwaine, 1970, Ontario Department of Mines.

## 7.2 Grid Establishment

A cut and chained tie-line 2000 N and a flagged control grid was established relative to the north boundary claim line of claim 1198286. The number 4 claim post of 1198286 was used as the point of origin for the grid: at UTM coordinates - Zone 17, 608722E, 5231736N, Datum NAD 27.

Tie-line 2000 N at azimuth of 90° and was cut and chained with pickets established at 25 m stations, and numbering on pickets increasing from west to east, i.e., L 800 E to L 1150 E along the north boundary of claim 1198286.

Control lines were turned off from TL 2000 N at the 25 m line pickets from L 850 E through to L 1150 E, at an azimuth of 0° compass bearing and; flagged stations marked 2025 N and 2050 N, and chained using a hip chain topo-thread device; intermediate flagging set-up between stations to facilitate subsequent line tracing.

## 7.2 Grid Establishment continued

Control line were turned off from TL 2000 N at the 50 m line pickets from L 850 E through to L 1150 E, at an azimuth of 180° compass bearing and; flagged stations marked 1975 N and 1750 N at 25 m intervals, and chained using a hip chain topo-thread device; intermediate flagging set-up between stations to facilitate subsequent line tracing and; alternate lines were compassed and backchained to tie-line 2000 N, from station 1750 N, establishing line and flagged stations; and attendant chainage errors were recorded.

Finally a tie line was compassed and topo chained from L 1150 E to L 850 E, along the 1750 N latitude, to facilitate the production of a 1:1 250 scale plan map of the control grid.

A single tie-line, cut and chained amounted to .350 line-km. There was13 control lines aggregating 3.9 line-km, set-up. A total of 4.250 line-km of line established.

## 7.3 Geophysical Surveys

## 7.3.1. Total Field Magnetometer Survey

A total field magnetometer survey was conducted using a Geometrics G-826 Portable Proton Magnetometer, which reads the earth's total magnetic field in gamma units. (See Appendix II, Geophysical Instrument Specifications)

A base-station loop-method was employed for daily diurnal magnetic variation correction of field results. A prime base station value was determined and assigned to TL 2000 N L 800 E and at 25 m line intervals along TL 2000 N, subsequent tie-in magnetic base station were determined, relative to the prime base station.

Total field magnetometer readings were taken along the control lines at 12.5 m station intervals.

The number of written readings are as follows: a) TL 2000 N, 15 readings noted and; b) from 13 control lines, 327 readings recorded. For an aggregate total field magnetic observation made equaling 342 observations.

The results of this survey are presented as contoured plots, at a 50 gamma contour interval. To ascertain the true values add 57,000 gamma to the plotted data. (See Appendix III, Map Plots: Map 1. Magnetometer Survey, Total Field Contours, Scale 1:1 250).

## 7.4 Prospecting Activities

Sherwood Plunkett and C.J. Laidlaw conducted mapping-prospecting activities on May 22, 2002, that consisted of: locating the approximate centre of the 90% positive Keating Anomaly via GPS navigation, preliminary mapping of topographical observations, a clinometer survey of the slope along TL 2000 N, L 800 E to L 1150 E, locating a previous established reconnaissance prospecting line AB, till sampling and description and rock sampling for lithological and assaying purposes.

Results of this field work have been plotted. Till samples are to be subjected to heavy mineral concentration and kimberlite indicator mineral picking and qualitative assessment by Overburden Drilling Management in Nepean ON. Rock sample assaying for Au, Pt and Pd and petrographic description for select samples is being supervised by Lakefield Research, in Lakefield ON. Analytical results are pending. (See: Appendix III, Map Plots: Map 2. Prospecting Activities Map, Scale 1:1).

Prospecting observations have been tabulated and are attached to this report. (See: Appendix IV, Prospecting Data Base Tabulation).

## 8.0 Discussion of Geophysical Survey Results

## 8.1 Survey Parameters - Magnetic Method

Magnetic methods, both ground and airborne based, have been effectively and successfully applied to mineral, petroleum and coal exploration, and to archeological investigations and engineering studies.

Total field magnetic surveys main objectives are the identification and description of spatial changes in the earth's magnetic field. These spatial variation or anomalies may be detected and mapped over several metres to several kilometers. The causes of magnetic anomalies are abundance of magnetic minerals such as, primarily common magnetite, a heavy, dark, hard and resistive mineral and its related minerals, such as ulvospinel, titanomagnetite, maghemite etc., distributed within rock formation. Occurring to a far lesser extent, ilmenite and pyrrhotite, may produce magnetic anomalies occurring with sulfide mineralization. Magnetite occurs in all rock types from a fraction of a percent to several percent, and even several tens of percent as in the case of magnetic iron ores.

Man-made iron objects and other cultural features of interest can be detected by strong magnetic responses and or observed magnetic contrast owing to numerous artificial features such man-made structures, voids, etc.

Total field magnetic data corrected for diurnal drift, are plotted on a plan map and contoured using contour intervals suitable to highlight magnetic features of interest.

### 8.1 Survey Parameters - Magnetic Method continued

Structural interpretation of faults, contact zones, determination of lateral changes in rock types, configuration of subsurface structures, depth to magnetic bedrock overlain by deep overburden, etc. is based primarily on distortion and truncations of magnetic trends. Qualitative interpretation of magnetic survey data is relatively simply, however quantitative analysis of magnetic survey data is highly involved and difficult for the non-geophysicist. Correlation with other surveys are made to aid in magnetic interpretation.

Additionally, with respects to recent airborne surveys conducted for the Ontario Geological Survey's, Ontario Treasure Hunt, specifically; Map 82 071, shaded image of the second derivative of the magnetic field and Keating coefficients the following quote:

"The second derivative of the magnetic field

The second vertical derivative values of the magnetic field were computed directly from the gridded residual magnetic intensity data using a fast Fourier transform, combining the transfer functions of the second vertical derivative and an eight-order Butterworth filter (200 m cut-off wavelength). The low-pass filter was aimed at attenuating unwanted high frequencies enhanced by the derivative operator.

Shaded inclination: 030° Shaded declination 0° "

### and;

"Keating Correlation Coefficients

Possible kimberlite targets have been identified from residual magnetic intensity data, based on the identification of roughly circular anomalies. This procedure was automated by using known pattern recognition technique (Keating 1995), which consists of computing, over a moving window, a first order regression between a vertical cylinder model anomaly and the gridded magnetic data. Only the results where the absolute value of correlation coefficient is above 75% were retained. The results are depicted as circular symbols, scaled to reflect the correlation value. The most favourable targets are those that exhibit a cluster of high amplitude solutions. Correlation coefficients with a negative value correspond to reversely magnetized sources. It is important to be aware that other magnetic sources may correlate well with the vertical cylinder model, whereas some kimberlite pipes of irregular geometry may not."

and;

"The cylinder model parameters are as follows:

Cylinder diameter: 200m Cylinder length: infinite Overburden thickness: 3 m Magnetic inclination: 74.04° Magnetic declination: 12.05° "

## 8.2 Discussion of Results

## **8.2.1 Total Field Magnetometer Survey**

The magnetic survey appears to map out the rock units throughout this surveyed area.

A total of 342 magnetometer readings were recorded from 4.250 line-km of control lines. These values are posted on a plan map, at 1:1 250 scale. Observed magnetic recordings range from 56 932 to 57 895 gamma. Contour intervals of 50 gamma were drawn from the posted magnetic values. (See Appendix III, Map Plots: Map 1. Magnetometer Survey, Total Field Contours, Scale 1:1 250).

A pronounced N-S high magnetic unit dominates an area bounded by the 57 300 gamma contour interval and greater, (up to 57 895 gamma), at about L 1100 E to off grid east of L 1150 E from 1750 N to 2050 N, and preliminary field observations show this area to be underlain by Nipissing gabbro, with thin drift cover and of ridged topographic expression.

An area bounded by L 950 E to L 1050 E from 1800 N to 2050 N with contour intervals ranging from 57 150 to 57 250 gamma, showing a distinct isomagnetic signature, that appears to be overlain by the Nipissing gabbro in the eastern part of the grid and adjacent to a magnetically quiescent area to the west of L 950 E. Preliminary observations in this area show the terrain to be till covered to a low wet swampy level tract, where no outcrop exposures are recorded.

A magnetically quiescent area bounded by L 850 E to L 950 E of under 57 150 gamma readings is observed to be underlain by Lorrain formation sandstone/ quartzite, of level topographic expression and the occasional blocky or joint bound ridges.

A few isolated magnetic highs are seen to be interspersed in the isomagnetic area, in the magnetic low area and in the Nipissing gabbro with no observed cause to these anomalies.

Isolated magnetic lows are noted in the various magnetic domains, but are also unexplained at this writing.

## **8.2.2 Prospecting Activities**

Various observations related to the location of the centre of the Keating anomaly, clinometer survey, previous prospecting reconnaissance work, claim lines and claim posts, control grid plan, drainage indications, till sample and rock sample locations and mapped topographic information have been plotted.

(See Appendix III, Map Plots: Map 2. Prospecting Activities Map, Scale 1:1 250).

## **8.2.2 Prospecting Activities continued**

The clinometer survey values are read in percent scale, and a 0% datum was chosen at TL 2000 N, L1000E. This survey indicates a relative topographic profile of level flat-lying terrain from L 800 E to L 930 E; with a low-lying cedar bog from L 930 E to L 1050 E, and a sharp rising, steep topographic highland in the eastern portion of the grid relative to TL 2000 N.

The results of the assays, heavy mineral concentration and kimberlite indicator mineral from this work are pending completion by third party consultants and will presented with a future assessment report.

## 9.0 Recommendation

a) Follow-up detailed geological mapping of Keating anomaly.

b) Further recommendations pending results of rock assaying results and kimberlite indicator mineral results from third party consultants.

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## **Qualifying Statements**

With regards to my report of June 28, 2002, I, C. James Laidlaw of RR 3, Lot 6 Concession VII, Madoc Tp., Madoc, Ontario, do state that:

- 1) I graduated from the Geological Technician Program at Sir Sandford Fleming College, Lindsay, ON in 1977.
- 2) I have been employed continuously in mineral exploration for 25 years.
- 3) I have been involved with geophysical, geological and geochemical exploration programs and diamond drill activities for gold, uranium, base metals and diamonds in Saskatchewan, Manitoba, Northwest Territories, British Columbia, Ontario and Quebec.
- 4) That I personally conducted grid establishment and, supervised the Magnetometer Survey and the prospecting activities and, completed all drafting and report writing as outlined in the above report, dated June 28, 2002.
- 5) That I do not have any beneficial interest, nor do I expect any beneficial interest with respects to the above mentioned mining claims that are outlined in the above report dated June 28, 2002.

C. James Laidlaw

(2 m. Laullan

June 28, 2002

Madoc, Ontario

## **Appendix I**

## List of Figures and Maps

Figure 1. Location Map of Project Area

Figure 2. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294 and 1230295; Map G-3448, (sketch map not to scale)

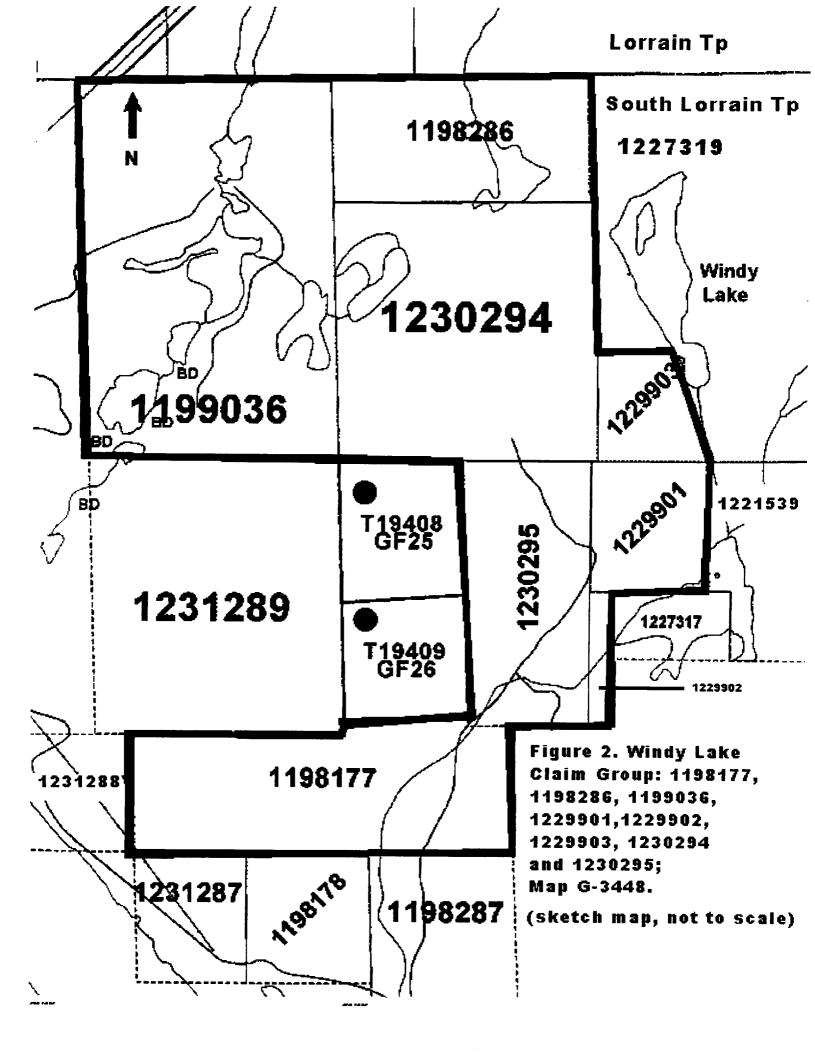
Figure 3. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294 and 1230295; Disposition overlaid on Geological Map 2194, South Lorrain Township (sketch map not to scale)

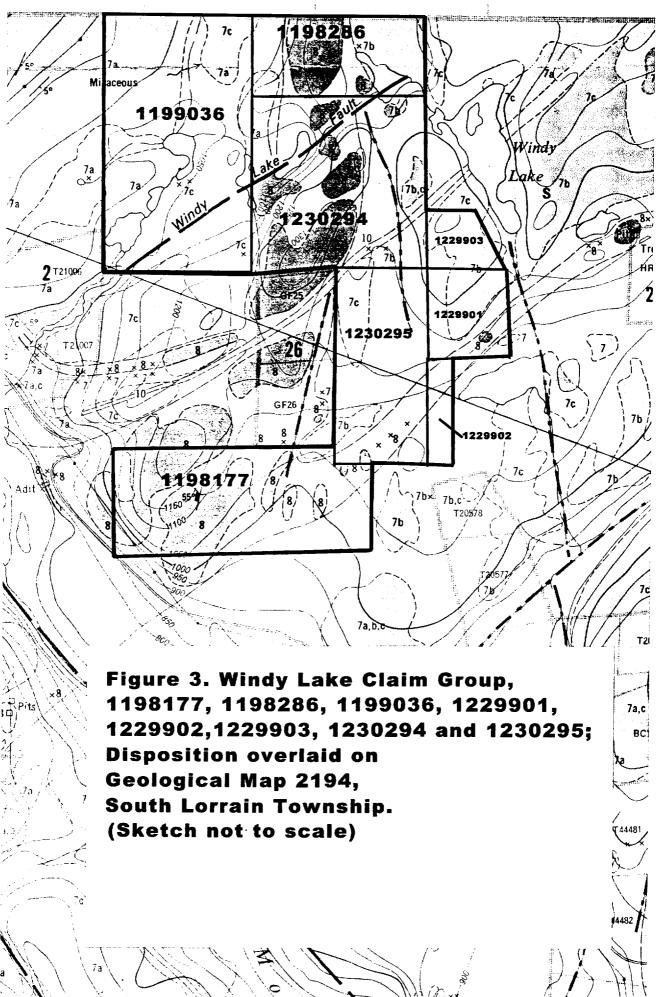
and Geological Legend for Figure 3. (Geological Map 2194)

Figure 4. Windy Lake Claim Group: Location of 90% Positive Keating Coefficient in Claim 1198286. (sketch map not to scale, from Map 82 071)



Figure 1. Location Map of Project Area





#### LEGEND

#### CENOZOIC<sup>\*</sup>

PLEISTOCENE AND RECENT

Sand, gravel, till.

UNCONFORMITY

#### PRECAMBRIAN<sup>b</sup>

#### GRENVILLE PROVINCE

#### METASEDIMENTS

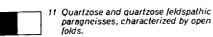
12

FAULT CONTACT

12 Biotite-quartz feldspar paragneisses.

#### ROCKS NOT ASSIGNED TO SUPERIOR OR GRENVILLE PROVINCES

#### UNCLASSIFIED METASEDIMENTSC

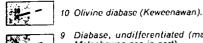


FAULT CONTACT

#### SUPERIOR PROVINCE

#### PROTEROZOIC

#### LATE MAFIC INTRUSIVE ROCKS



 Diabase, undifferentiated (may be Matachewan age in part).
 Quartz diabase.



8 Quartz diabase (Nipissing).

INTRUSIVE CONTACT

#### HURONIAN

COBALT GROUP

LORRAIN FORMATION

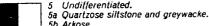
- 7 Undifferentiated.
- 7a Grey feldspathic quartzite. 7b Pale green to while quartzite.
  - 7c Arkose.
  - 7d Red quartzite.

FIRSTBROOK FORMATION

6 Undifferentiated. 6a Laminated quartzite. 6b Quartzite.

7

COLEMAN FORMATION<sup>d</sup>



5b Arkose. 5c Conglomerate. 5d Schistose rocks.

- 5e Laminated argillite.
- -----

UNCONFORMITY

#### ARCHEAN

#### FELSIC TO INTERMEDIATE INTRUSIVE ROCKS<sup>d</sup>



1

ł

4 Quartz diorite.

<u> </u>	Granitic rocks, undifferentiated	1.
	<ul> <li>Granitic rocks, undifferentiated a Hornblende granite.</li> <li>B Gneissic granite.</li> </ul>	
	b Gneissic granite.	
	Rc Granodiorite.	
	3d Quartz monzonite.	

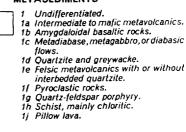
INTRUSIVE CONTACT

#### EARLY MAFIC INTRUSIVE ROCKSd

2 Lamprophyre, undifferentiated. 2a Hornblende lamprophyre. 2b Biotite lamprophyre.

INTRUSIVE CONTACT

#### METAVOLCANICS AND METASEDIMENTS



Ag Silver.

- Au Gold.
- calc Calcite.
- Co Coball.
- Cu Copper.
- ery Erythrite.
- Ni Nickel.
- q Quartz.
- qc Quartz carbonate.
- Sulphide mineralization.

 Unconsolidated deposits. Cenozoic deposits are not differentiated on the map. For the most part they coincide with the lighter coloured parts of the map.

**b** Bedrock geology. Outcrops and inferred extensions of each rock map unit are shown respectively in deep and light tones of the same colour. Where in places a formation is too narrow to show colour and must be represented in black, a short black bar appears in the appropriate block.

CAge unknown.

**d**The rocks in these groups are subdivided lithologically and the order does not imply age relationship within the group.

## Geological Legend for Figure 3. (Geological Map 2194)

#### SYMBOLS

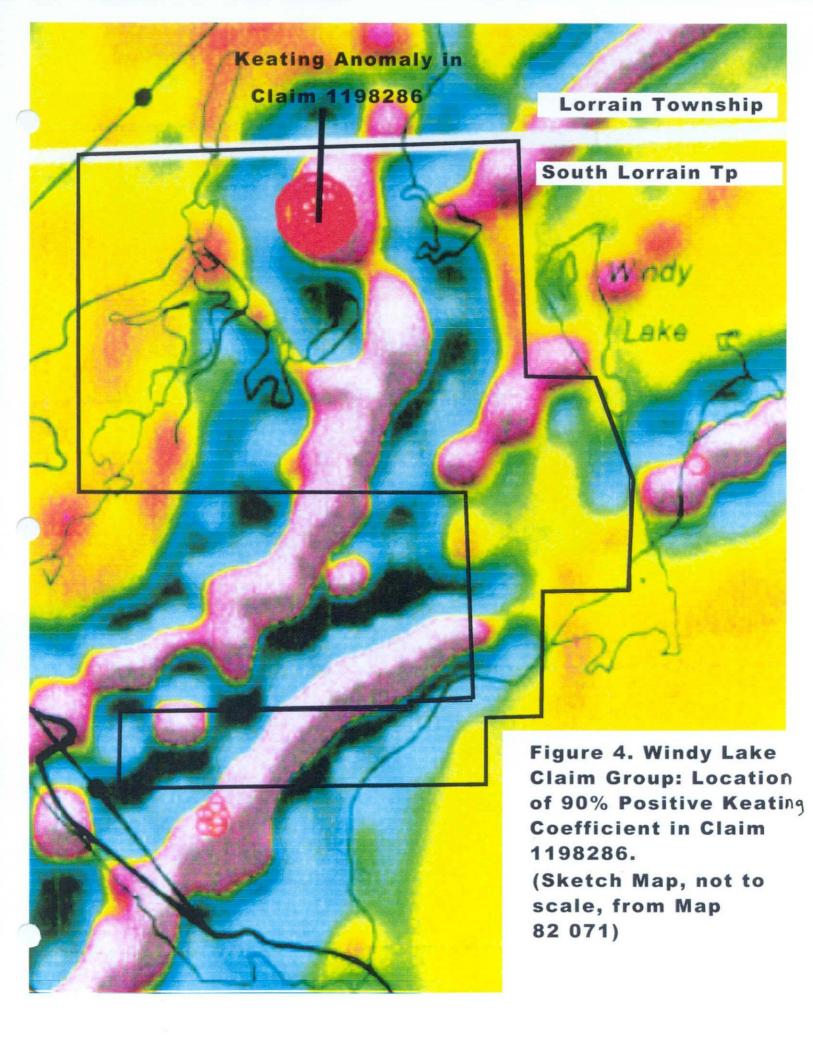
			Lineament.
×	Glacial striae.	+ 4 1	Jointing; (horizontal, inclined, vertical).
я	Small bedrock outcrop.		Drill hole; (vertical, inclined).
$\square$	Area of bedrock outcrop.		
+	Bedding, horizontal.	Or or the	Drill hole; (projected vertically, projected up dip).
<b>*</b> / /	Bedding, top unknown; (inclined, ver- tical).	1. #	Vein, vein network. Width in inches.
No X X No	Bedding, top indicated by arrow; (in- clined, vertical, overturned).	£ 200°	Shaft; depth in feet.
eer Y X Xm	Bedding, top (arrow) from grain grad- ation; (inclined, vertical, overturned).	MA	Magnetic attraction.
6	Lava flow; top (arrow) from pillows shape and packing.		Triangulation station.
	Direction of palaeocurrent.	**	Muskeg or swamp.
+71	Schistosity; (horizontal, inclined, ver- tical).		Motor road. Provincial highway number encircled where applicable.
+ " / ×	Gneissosity, (horizontal, inclined, ver- tical).		Other road.
	Lineation with plunge.		Trail, portage, winter road.
	Geological boundary, observed.	750	Topographic contours, elevations in feet above mean sea level.
	Geological boundary, position inter- preted.	-	Building.
	Grenville Frant; approximate location of metamorphic, intrusive or structural		District boundary, with mileposts, ap- proximate position only.
	boundary. Fault; (observed, assumed). Spot indi- cates down throw side, arrows indicate		Township boundary, approximate position only.
4/	horizontal movement.		Property boundary, approximate position only.
			Claim line, surveyed, approximate posi- tion only.
		22	Location of mining property, surveyed. See list of properties.

\_\_\_

Location of mining property, unsurveyed. See list of properties.

(12)

## Geological Legend for Figure 3. (Geological Map 2194)



# Appendix II

## **Geophysical Instrument Specifications**

Operating Manual Model G-826 Portable Proton Magnetometer

#### 1.3 SPECIFICATIONS

Sensitivity: Range: Tuning:

Gradient Tolerance: Sampling Rate: ±1 gamma throughout range

20, 000 to 90, 000 gainmas (worldwide)

Multi-position switch with signal amplitude indicator light on display

Exceeds 800 gammas/It

Manual push-button, one reading each 6 seconds.

Output:

•

Power Requirements:

#### Temperature Range:

Accuracy (Total Field):

Sensor:

Size:

Weight:

۲

5 digit numeric display with readout directly in gammas

Twelve self-contained 1.5 volt "D" cell, universally available flashlight-type batteries. Charge state or replacement signified by flashing indicator light on display.

Console and sensor:  $-40^{\circ}$  to  $+85^{\circ}$  C Battery Pack:  $0^{\circ}$  to  $+50^{\circ}$  C (limited use to  $-15^{\circ}$  C; lower temperature operation--optional)

 $\pm 1$  gamma through 0<sup>°</sup> to 50<sup>°</sup> C temperature range

High signal, noise cancelling, interchangeably mounted on separate staff or attached to backpack

Console: $9.5 \ge 18 \ge 27 \mod (3.75 \ge 7 \ge 10.5 \ \text{in})$ Sensor: $8.9 \mod \text{dia} \ge 12.7 \mod (3.5 \ge 5 \ \text{inche})$ Staff: $2.5 \mod \text{dia} \ge 2.4 \mod (1 \ \text{inch} \ \text{diamete})$ 

÷.

	Kgs.	Lbs.	
Console (w/batteries):	2.5	5.5	
Sensor and signal cable:	1.8	4	•
Aluninun staff	0.9	2	
	5.2	11.5	

· ...

.

## **Appendix III**

## **Map Plots**

Map 1. Magnetometer Survey, Total Field Contours, Scale 1: 1 250 Map 2. Prospecting Activities Map, Scale 1: 1 250

# Appendix IV

Prospecting Data Base Tabulation

See also: Appendix III, Map Plots: Map 2. Prospecting Activities Map, Scale 1:1 250

#### 1. Mapping:

a) Centre of 90% coefficient Keating Anomaly as determined by map inspection of OGS Map 82 071 at UTM coordinates, Zone 17, 609000E, 5231650N, Datum NAD 27.

b) 90% positive Keating coefficient anomaly location, GPS field reading for estimated centre position, UTM coordinates, 17, 609002E, 5231652N.

- topographical setting; located on a till covered gabbro outcrop ridge, at top of a 5 m raised

25° east slope.

- shallow till over Nipissing bedrock ridge, (till covered ridge?).

c) Topographic observations:

- Swamp edges at:	
910 E 1910 N	962 E 1925 N
910 E 1912 N	973 E 1950 N
925 E 2037 N	980 E 1950 N
928 E 2025 N	990 E 1900 N
930 E 2000 N	1000 E 1900 N
938 E 1925 N	1008 E 1900 N
944 E 1962 N	1025 E 1930 N
944 E 1900 N	1030 E 2000 N
950 E 1912 N	1044 E 2025 N
950 E 2048 N	

See also: Appendix III, Map Plots: Map 2. Prospecting Activities Map, Scale 1:1 250

d) Clinometer survey along TL 2000 N, L 800 E to L 1150 E, (readings grid east):

<b>Station</b>	<u>Clinometer</u>	Remarks
800 E to 825 E	1%	Till.
825 E to 850 E	-3%	Till.
850 E to 875 E	-3%	Sandstone outcrop.
875 E to 900 E	0%	Sandstone outcrop.
900 E to 925 E	-4%	Sandstone outcrop.
925 E to 930 E	-32%	Sandstone outcrop, 2 m ridge.
930 E to 950 E	0%	Cedar Bog.
950 E to 975 E	0%	Cedar Bog.
975 E to 1000 E	0%	Cedar Bog.
1000 E to 1025 E	0%	Cedar Bog.
1025 E to 1050 E	3%	Cedar bog - till, swamp edge at 1030 E TL 2000 N.
1050 E to 1075 E	22%	Till - gabbro.
1075 E to 1100 E	40%	Till - gabbro.
1100 E to 1125 E	40%	Till - gabbro.
1125 E to 1150 E	50%	Till - gabbro.
1150 E to 1175 E	50%	Till - gabbro.

e) Line A-B:

- point of origin Line AB, 0 m, at L 937.5 E and 2000 N , UTM 17, 608860E, 5231737N, located in cedar bog.

- Line AB, 40 m at L 947 E 1963 N.

See also: Appendix III, Map Plots: Map 2. Prospecting Activities Map, Scale 1:1 250

#### 2. Prospecting - till sampling:

a) Keating 1 and 2; L 1979.5 E, 1905 N; UTM Zone 17, 609002E, 5231625N.

- blanket, level, near edge of steep west facing till covered, ridged gabbro outcrop, 5 m height.

- 5° east slope; well drained; hardwood mix; B horizon.

- material thickness, pocket of drift within bedrock depression, about 1 m thick.

- 5 cm black organic layer, 50 cm orange oxidized upper B horizon, 40 cm gray-brown fresh lower B horizon, over polished gabbro bedrock.

- coarse silty sand, abundant pebble-cobble-boulder of mafic and felsic intrusives and sedimentary rock types.

- composite sample from two sample holes 5 m apart, hole description is for Keating 1 only;

both holes yeilded white marbliferous cobbles; provenance study from pebble count pending;

systematic sample, position is at the centre of the 90% positive Keating coefficient anomaly as derived

from map inspection of OGS Map 82 071;

see Sketch of Soil Profile for Keating 1 Till Sample Site, (attached).

#### b) Keating 3; L 1072 E 1800 N; UTM Zone 17, 609001E, 5231542N.

- blanket, near edge of steep west facing till covered apron, 2 m height, at edge of swampy area to the west.

- thick drift, > 2 m.

- 5 cm black organic layer, 50 cm orange oxidized upper B horizon, > 60 cm gray-brown fresh lower B horizon, hole terminates at 1.10 m depth in rounded boulder layer.

- coarse silty sand, abundant pebble-cobble-boulder of mafic and felsic intrusives and sedimentary rock types.

- systematic sample, position is down-ice from the centre of the 90% positive Keating coefficient anomaly.

c) Keating 4 ; L 1050 E 1800 N; UTM Zone 17, 608968E, 5231549N.

- blanket, level at west edge of low wet area.

- thick drift, > 1 m.

- 5 cm black organic layer, 60 cm orange oxidized B horizon, hole terminates at 60 cm depth in rounded boulder layer.

- coarse silty sand, abundant pebble-cobble-boulder of mafic and felsic intrusives and sedimentary rock types.

- systematic sample, position is down-ice and west of the centre of the 90% positive Keating coefficient anomaly,

sample hole fills rapidly with water, water flow appears to flow grid NW, undersized sample,

Nipissing gabbro outcrop area to west of sample site.

NB. Keating 3 and Keating 4 are made into a composite sample.

These till samples are to be forwarded to Overburden Drilling Management, Nepean ON,

for heavy mineral kimberlite indicator mineral count analysis, results pending.

See also: Appendix III, Map Plots: Map 2. Prospecting Activities Map, Scale 1:1 250

#### 3. Prospecting - rock sampling:

a) Grab sample for lithological determination: L 925 E 2006 N; outcrop, massive, pink to white weathered, flat lying, thickly bedded; coarse-grained granule-rich sandstone; well-rounded gray quartz and pink feldspar granules. Note 4.

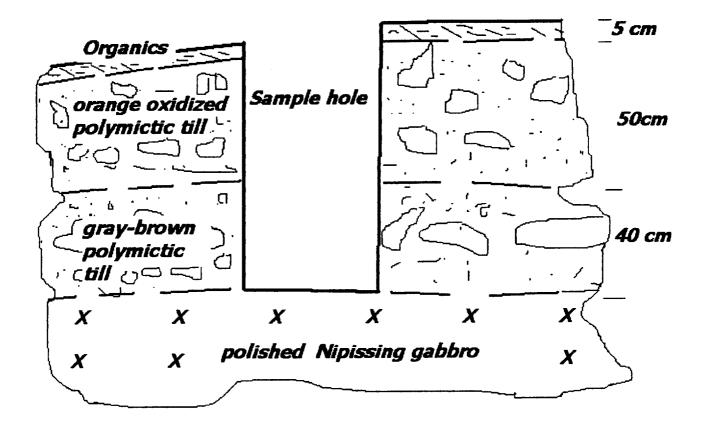
b) Grab sample for lithological determination: L 854 E 1999 N; outcrop, massive dark gray-black weathered, flat lying, bedded(?); fine to medium-grained sandstone, grayish-pink, with few coarse quart and pink feldspar. Note 5.

c) Grab sample for Pt Pd and Au analysis: L 1070 E 1916 N; UTM coordinates, 17, 609001E, 5231655N; massive, diabasic coarse-grained, (varied-textured), few clear quartz eyes, weathers dark gray to rusty brown, medium to coarse-grained, euhedral and anhedral white plagioclase, medium to coarse-grained euhedral black pyroxene, medium to coarse-grained anhedral grayish quartz, few medium-grained black euhedral leucoxene,
< 1 % disseminated pyrrhotite and trace chalcopyrite,</li>
1 x 2 m outcrop exposure in mid-slope location, similiar smaller outcrops nearby, covered by thin drift and moss.

#### Nipissing gabbro. Note 6.

d) Grab sample for lithological determination: L 1046 E 1800 N; UTM coordinates, 17, 608975E, 5231546N; massive, fine-grained, Nipissing gabbro, 1 m outcrop ridge, well exposed, green-gray weathered surface. Note 7.

## Sketch of Soil Profile for Keating 1 Till Sample Site L 1079 E, 1905 N, UTM 17, 609002E, 5231652N



Windy Lake Claim Group - Claim 1198286 South Lorrain Township Larder Lake Mining Division Assessment Report for A Total Field Magnetometer Survey and Prospecting Activities on Part of the Windy Lake Claim Group: Claims 1198286 and 1199124 South Lorrain Township Larder Lake Mining Division N.T.S. 31 M/5

September 4, 2002

C. Jim Laidlaw Madoc, Ontario



# **Table of Contents**

		Page	
1.0 Introducti	on	1	
2.0 Property and Location			
3.0 Accessing Mining Claim 1198286 and 1199124			
4.0 Ownership of Claims			
5.0 Report Writing and Field Supervision		4	
6.0 Dates Worked			
7.0 Summary of Current Exploration Work Conducted			
710	General Geology	6	
	Grid Establishment	6	
	Geophysical Surveys	6	
1.5 0	7.3.1 Total Field Magnetometer Survey	7	
74 P	rospecting Activities	7	
, <b>.</b>	rospecting / territies	8	
8.0 Discussion	of Geophysical Survey Results	9	
8.1 Survey Parameters - Magnetic Method			
820	biscussion of Results	9	
0.2 15	8.2.1 Total Field Magnetometer Survey	10	
	8.2.2 Prospecting Activities	10	
	0.2.2 Hospeeting Activities	12	
9.0 Recommendation		13	
References		14	
Qualifying Statement		15	
Appendix I	List of Figures and Maps		
Appendix II Appendix III	<ul> <li>-Figure 1. Location Map of Project Area</li> <li>-Figure 2. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294, 1230295 and 1199124;</li> <li>Map G-3448, (sketch map not to scale)</li> <li>-Figure 3. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294, 1230295 and 1199124; Disposition overlaid on Geological Map 2194 South Lorrain Township (Sketch map not to scale) and Geological Legend for Figure 3. (Geological Map 2194)</li> <li>-Figure 4. Windy Lake Claim Group: Location of 90% Positive Keating Coefficient in Claim 1198286. (Sketch map not to scale, from Map 82 071)</li> <li>I Geophysical Instrument Specifications</li> </ul>		
Appendix III	Map Plots Map 1. Magnetometer Survey, Total Field Contours, Scale 1: 1.2.	50	
	Map 2. Prospecting Activities Map, Scale 1: 1 250		
Appendix IV	Prospecting Data Base Tabulation		
	Comparison Delling Management Provide and the 1075 of the		
1		1	

# **1.0 Introduction**

South Lorrain Township, in the Larder Lake Mining Division, is located approximately 32km southeast of the town of Cobalt, (see Appendix I, Figure 1. Location Map of Project Area ). Silver was first discovered in South Lorrain Township in 1907, starting a period of widespread staking and mining.

Mining to the end of 1965 has produced 23,338,606 ounces of silver, 82% of this coming from the Keeley and Frontier Mines, and over 50% from the Keeley Mine itself. Minor amounts of cobalt, nickel and copper have also been produced.

The silver occurs in the native state in steeply dipping carbonate veins and vein arrays, localized in fracture zones, in close proximity, (within 200m) to the Nipissing Diabase sills or sheets, in the Paleoproterozoic sedimentary rocks of the Coleman Member of the Gowganda Formation. As well it can occur in the diabase, and to a lesser extent in the Archean supracrustal rocks associated with base metal enrichment. The silver veins postdate the Nipissing Diabase.

New exploration activities carried out on the Windy Lake Claim Group in South Lorrain Township by the mineral rights holders, has consisted of control grid, VLF-EM and Magnetometer geophysical surveys, outcrop power stripping, geochemical soil surveys, geochemical rock assaying, reconnaissance prospecting and whole rock analysis for precious metal, base metal and industrial mineral (high purity silica flux) commodities. (see Appendix I: Figure 1. Location Map of Project Area)

In a recent assessment report filed in January 27, 1999 written by C. J. Laidlaw on a magnetometer and VLF-EM geophysical survey, indicates that this examination appears to map the rock units in the study area and traces a weak conductive VLF-EM anomaly associated with a magnetic low linear zone interpreted to be a possible fault in close association with an olivine diabase dyke (a magnetic high), of Keweenawan age(?) and; this dike appears to cut all other rock units in the immediate survey area.

A review of assessment files by way of the Resident Geologist Office reveals a paucity of information related to this property area. There are extensive and numerous trenches and at least one shaft of undetermined depth, located on the Windy Lake Claim Group, that indicates a past history of intense mineral exploration, albeit of unknown dates in which these activities were conducted.

Contemporary research focus by the Ontario Geological Survey (Sage 1996), has emphasized kimberlite exploration to locate commercial exploitable diamond deposits within a region referred to as the Lake Timiskaming Structural Zone (LTSZ). Kimberlite occurs in the LTSZ in a broad north-west trending zone. There have been two widely separate, kimberlite fields identified; the Kirkland Lake and the Cobalt-New Liskeard domains. This discussion herein will refer to the Cobalt-New Liskeard area kimberlite field, as the property under discussion is within this domain.

## **1.0 Introduction continued**

The LTSZ is represented by a graben structure and a branch of the Ottawa-Bonnechere Graben system that joins with the St. Lawrence rift system near Ottawa. The LTSZ is thought to be rooted in Proterozoic tectonics, with this structure inferred to have been re-activated several times. Kimberlite clustering occurs in the LTSZ in a broad north-west trending zone, and no single NW trending structure ties the kimberlite intrusions together and no direct connection between the LTSZ has been observed, however the zone may have provided a pathway to surface for the kimberlite magmas. The kimberlites occur at or close to the intersections of cross structures, (i.e. linears, faults or major lithological contacts) oblique to the NW structural trend.

The kimberlites are inferred to be of Jurassic in age and, geochronology indicates three ages of emplacement at 155 Ma, 142 Ma and 125 Ma. The youngest recorded age of kimberlite is from a reversely polarized pipe, thus a negative magnetic feature. In this region there are four known kimberlite pipes that have reversed polar signatures, which has led researchers to speculate that kimberlite emplacement has taken place over about a 30 Ma time span. As well, most of the kimberlite pipes located along the LTSZ, contain Paleozoic limestone and cherty xenoliths. This Paleozoic stratigraphy was present when explosive kimberlite emplacement occurred, entraining these xenoliths during the Jurassic Period.

Preliminary observation by researchers in the Cobalt-New Liskeard is that kimberlite intrusions on the east side, (east of Lake Timiskaming/ Quebec side) of the LTSZ are hypabyssal (narrow dike-like root zones at depth), and on the western shoulder, (west of Lake Timiskaming/ Ontario side) of the LTSZ the kimberlites are diatreme facies (large volume breccia, a carrot-shaped formation, above the hypabyssal zone). The inference from this model is that the east side of the graben is the faulted up-side.

About 18 kimberlite pipes have been located in the Cobalt-New Liskeard domain, that may represent a small percentage of pipes yet to be located and explored for commercial diamond potential. The bulk of the known kimberlite pipes have been under explored for their diamond economy, in surface area, volume and lithological variation, (considering that these kimberlites are complex multiphase intrusions).

Recent activities supervised by the Ontario Geological Survey, for Operation Treasure Hunt, a geoscience initiative, funded by the Ontario Government, has derived among others, a series of Airborne Magnetic and Electromagnetic Surveys that cover the Temagami Area: Map 82 070, Residual magnetic field and electromagnetic anomalies; Map 82 071, Shaded image of the second derivative of the magnetic field and Keating coefficients and; Map 82 072, EM decay constant and electromagnetic anomalies.

The Ontario Geological Survey, released mid summer 2002: Open File Report 6088, Regional modern alluvium sampling survey of the Mattawa-Cobalt corridor, northeastern Ontario; the primary objective of this study was to extend the regional information base

# **1.0 Introduction continued**

concerning the types and distribution of kimberlite indicator minerals (KIMs), as well as heavy mineral assemblages were examined for metamorphic or massive sulfide indicator minerals and gold grains.

Parts of this survey was conducted in South Lorrain Township. Conclusions reached in this study were two-fold: 1) detailed exploration for kimberlite is strongly recommended due to the number of recovered KIMs, the presence of diamond potential indicators such as G10 garnets and diamond inclusion chromites, and the deep seated structures present in the area along with the LTSZ, which is believed to be associated with kimberlites identified to the north of the study area and; 2) heavy mineral anomalies were identified, that are indicative of magmatic or volcanogenic massive sulfide deposits which may be associated with Nipissing diabase, in the South Lorrain Township area.

Of particular interest and directly related to this report is a 90% positive Keating Coefficient anomaly located on Map 82 071, (Shaded image of the second derivative of the magnetic field and Keating coefficients). From map inspection this anomaly is located in South Lorrain Township, claim 1198286, centered at UTM coordinates, Zone 17, 609000E, 5231650N, Datum NAD 27.

(see Appendix I: Figure 4. Windy Lake Claim Group: Location of 90% Positive Keating Coefficient in Claim 1198286)

Keating anomalies have been cited as a means for targeting kimberlite rocks in diamond exploration.

A VLF-EM survey was commenced but not completed, and therefore will be reported on in a future report once completed.

This report covers a Total Field Magnetometer Survey and Prospecting Activities, (rock sampling for petrographic and assay analysis, till sampling for kimberlite indicator minerals and preliminary mapping for lithology) that are a first pass examination in assessing the Keating anomaly/ kimberlite potential in claim 1198286 and in recently staked claim 1199124.

# 2.0 Property and Location

The Windy Lake Claim Group consist of nine claim blocks comprised of 22 unpatented mining claim units as follows: 1198177, 3 units, 1198286, 2units, 1199036, 6 units, 1229901, 1 unit, 1229902, 1 unit, 1229903, 1 unit, 1230294, 4 units, 1230295, 2 units and recently staked claim 1199124, 2 units. These mining claims are located in South Lorrain Township, Plan 3448 in the Larder Lake Mining Division, (see Appendix I, Figure 2. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294, 1230295 and 1199124; Map G-3448). This report covers work conducted on parts of claim 1198286 and 1199124.

# 3.0 Accessing Mining Claim 1198286 and 1199124 Control Grid

From North Bay travel north to the junction of Highways #11 and #11B, turn on to #11B, travel through Cobalt to North Cobalt. At North Cobalt take highway #567, and drive south for about 31 km, (UTM 17, 613441E 5230030N), turn right on to a gravel road with posted sign that reads "Road Closed Permanently at Upper Notch". Continue for 7.5 km (to UTM 17, 609169E 5228865N) on this road, to a logging road in a clear cut area, turning right (heading north), continue for approximately 9.5 km to the end of access road ( to UTM 17, 609466E, 5230797N ); from this point compass and pace to UTM 17, 608956 E, 5231499 N, to control grid coordinates L1025E and 1750N, (NB. Datum: NAD 27, UTM grid coordinates).

# 4.0 Ownership of Claims

The Claim Blocks covered in this report are held 33.33% equally by:

a) Dave Hanes, 100 Kent Court Apt. 106, Sudbury ON, P3A 4R5, Client Number 301098; and

b) Sherwood Plunkett, RR#3, Bancroft ON, K0L 1C0, Client Number 183125; and

c) James Mac Lachlan, 6 Thomas Street East, Napanee ON, K7R 1K6, Client Number 162788;

# 5.0 Report Writing and Field Supervision

C. James Laidlaw of R.R.3, Lot 6 Concession 7, Madoc Tp., Madoc ON, K0K 2K0, is the author of this report and responsible for all map drafts and report writing, and as well, conducted grid control set-up and prospecting activities, and supervised the Magnetometer Survey.

# 6.0 Dates Worked

# a) Linecutting and grid control set-up:

Sherwood Plunkett May 20, 2002 helps cut and chain tie-line 2000 N, for half day, then begins magnetometer survey; and Dave Hanes and C. Jim Laidlaw, May 20 and 21, and August 11 and 12, 2002 conduct linecutting and chaining of tie-line 2000N and completed flagged grid control set-up. C.J. Laidlaw supervised the work over 4 working days..

b) Magnetometer Survey;

Sherwood Plunkett conducted this survey May 20 and 21, and August 11 and 12, 2002 in 3.5 working days.

c) Prospecting Activities;

Sherwood Plunkett and C.J. Laidlaw conducted prospecting activities, rock sampling and till sampling, May 22, 2002, for one working day.

Sherwood Plunkett, Dave Hanes and C.J. Laidlaw conducted prospecting activities, comprised of collecting overburden material and stream sediment samples and related observations, August 12, 2002, for one-half day.

## d) Report Writing and Map Drafting;

C. James Laidlaw conducted this work over 89 hours, June 14, 17, 18, 19, 23, 24, 25, 26 and 28 and, August 27, 28, 29 and 30 and, September 2, 3, and 4, 2002.

# 7.0 Summary of Current Exploration Work Conducted

# 7.1 General Geology

The generalized geology of the area with in the claim blocks 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294, 1230295 and 1199124 is comprised of the following; a large areal extent, north-south trending Proterozoic Nipissing diabase sill throughout claims 1198177, 1230294, 1198286 and 1199124 as well a narrow east-west trending diabase is observed and inferred in the southern half of claim block 1229901. These diabase areas are flanked by Cobalt Group quartzite, both observed and inferred. Both the diabase and the quartzite rocks are in turn intruded by a younger Keweenawan(?) olivine diabase.

The quartzite rocks weather relatively evenly forming moderate rolling and level topographical hills and knolls; the Nipissing diabase forms the dominant and extreme topographical relief as outcrop highlands, ridges and sheer cliff faces in contact with the quartzite. The Keweenawan olivine diabase weathers recessively with poorly exposed sparse outcrop areas, (see Appendix I, Figure 3. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294, 1230295 and 1199124; Disposition overlaid on Geological Map 2194, South Lorrain Township, (sketch map not to scale))

No known mineral occurrences have been previously reported from these claim blocks, and for further detailed information on the geology of the area, the reader is referred to Geological Report 83, Geology of South Lorrain Tp.. by W.H. Mc Ilwaine, 1970, Ontario Department of Mines.

# 7.2 Grid Establishment

A cut and chained tie-line 2000N and a flagged control grid was established relative to the common claim boundary separating claims 1198286 and 1199124. The number 4 claim post of 1198286 was used as the point of origin for the grid: at UTM coordinates 17, 608722E, 5231736N, Datum NAD 27.

Tie-line 2000N heading at about 90°, was cut and chained with pickets established at 25 m stations, and numbering on pickets increasing from west to east, i.e. 800E to 1150E and; at 50 m intervals from 1150E to 1350E, and; again at 25 m intervals 1350E, 1375, 1400E 1425E, 1450E for an approximate line length of .675 km along common claim boundary of claims 1198286 and 1199124.

Control lines were turned off from 2000 N heading at 0° and 180°. A total of 19 lines were established, aggregating 6.516 km. Stations were established at 25 m flagged stations, and with intermediate 12.5 m flagged markers between stations to facilitate line traversing and magnetometer surveying. A total of 7.191 line km of control line was established.

# 7.3 Geophysical Surveys

# 7.3.1. Total Field Magnetometer Survey

A total field magnetometer survey was conducted using a Geometrics G-826 Portable Proton Magnetometer, which reads the earth's total magnetic field in gamma units. (See Appendix II, Geophysical Instrument Specifications)

A base-station loop-method was employed for daily diurnal magnetic variation correction of field results. A prime base station value was determined and assigned to TL2000N L800E and at 25 m and 50 m line intervals along TL2000N, subsequent tie-in magnetic base station were determined, relative to the prime base station.

Total field magnetometer readings were taken along the control lines at 12.5 m station intervals.

The number of recorded readings are as follows: a) TL2000N, 21 readings noted and; b) from 19 control lines, 526 readings noted. For an aggregate total field magnetic observation made equaling 547 observations.

The results of this survey are presented as contoured plots. To facilitate the hand contouring, contour lines are plotted as: at a 50 gamma increments for values 300 gamma and less and; at 100 gamma increments for values 300 gamma and greater. To ascertain the true values add 57,000 gamma to the plotted data.

(See Appendix III, Map Plots: Map 1. Magnetometer Survey, Total Field Contours, Scale 1:1 250).

# 7.4 Prospecting Activities

Sherwood Plunkett and C.J. Laidlaw conducted mapping-prospecting activities on May 22, 2002, that consisted of: locating the approximate centre of the 90% positive Keating Anomaly via GPS navigation; preliminary mapping of topographical observations, a clinometer survey of the slope along TL2000N, L800E to L1150E; locating a previous established reconnaissance prospecting line AB; till sampling and description and rock sampling for lithological and assaying purposes.

Sherwood Plunkett, Dave Hanes and C.J. Laidlaw conducted prospecting activities, comprised of collecting overburden material and stream sediment samples and related observations, August 12, 2002, for one-half day. Prospecting observations have been tabulated and are attached to this report. (see Appendix IV, Prospecting Data Base Tabulation).

Till samples been examined and a laboratory report has been received for kimberlite indicator mineral picking and gold grain counts and a qualitative assessment by Overburden Drilling Management in Nepean ON has been made, (see Appendix V, Overburden Drilling Management: Batch 1075, laboratory data for two composite till samples K1 + K2, and K3 + K4 processed for Kimberlite Indicators and Gold). Rock sample assaying for Au, Pt and Pd and petrographic description for select samples is being supervised by Lakefield Research, in Lakefield ON. Analytical results are pending. Results of this field work have been plotted, (see Appendix III, Map Plots: Map 2. Prospecting Activities Map, Scale 1:1 250 ).

# 8.0 Discussion of Geophysical Survey Results

# 8.1 Survey Parameters - Magnetic Method

Magnetic methods, both ground and airborne based, have been effectively and successfully applied to mineral, petroleum and coal exploration, and to archeological investigations and engineering studies.

Total field magnetic surveys main objectives are the identification and description of spatial changes in the earth's magnetic field. These spatial variation or anomalies may be detected and mapped over several metres to several kilometers. The causes of magnetic anomalies are abundance of magnetic minerals such as, primarily common magnetite, a heavy, dark, hard and resistive mineral and its related minerals, such as ulvospinel, titanomagnetite, maghemite etc., distributed within rock formation. Occurring to a far lesser extent, ilmenite and pyrrhotite, may produce magnetic anomalies occurring with sulfide mineralization. Magnetite occurs in all rock types from a fraction of a percent to several percent, and even several tens of percent as in the case of magnetic iron ores.

Man-made iron objects and other cultural features of interest can be detected by strong magnetic responses and or observed magnetic contrast owing to numerous artificial features such man-made structures, voids, etc.

Total field magnetic data corrected for diurnal drift, are plotted on a plan map and contoured using contour intervals suitable to highlight magnetic features of interest.

Structural interpretation of faults, contact zones, determination of lateral changes in rock types, configuration of subsurface structures, depth to magnetic bedrock overlain by deep overburden, etc. is based primarily on distortion and truncations of magnetic trends. Qualitative interpretation of magnetic survey data is relatively simply, however quantitative analysis of magnetic survey data is highly involved and difficult for the non-geophysicist. Correlation with other surveys are made to aid in magnetic interpretation.

Additionally, with respects to recent airborne surveys conducted for the Ontario Geological Survey's, Ontario Treasure Hunt, specifically; Map 82 071, shaded image of the second derivative of the magnetic field and Keating coefficients the following quote:

"The second derivative of the magnetic field

The second vertical derivative values of the magnetic field were computed directly from the gridded residual magnetic intensity data using a fast Fourier transform, combining the transfer functions of the second vertical derivative and an eight-order Butterworth filter (200 m cut-off wavelength). The low-pass filter was aimed at attenuating unwanted high frequencies enhanced by the derivative operator.

Shaded inclination: 030°, Shaded declination 0° "

# 8.1 Survey Parameters - Magnetic Method continued

and;

"Keating Correlation Coefficients

Possible kimberlite targets have been identified from residual magnetic intensity data, based on the identification of roughly circular anomalies. This procedure was automated by using known pattern recognition technique (Keating 1995), which consists of computing, over a moving window, a first order regression between a vertical cylinder model anomaly and the gridded magnetic data. Only the results where the absolute value of correlation coefficient is above 75% were retained. The results are depicted as circular symbols, scaled to reflect the correlation value. The most favourable targets are those that exhibit a cluster of high amplitude solutions. Correlation coefficients with a negative value correspond to reversely magnetized sources. It is important to be aware that other magnetic sources may correlate well with the vertical cylinder model, whereas some kimberlite pipes of irregular geometry may not."

and;

"The cylinder model parameters are as follows:

Cylinder diameter: 200m Cylinder length: infinite Overburden thickness: 3 m Magnetic inclination: 74.04° Magnetic declination: 12.05° "

# 8.2 Discussion of Results

## **8.2.1 Total Field Magnetometer Survey**

The magnetic survey appears to map out the rock units throughout this surveyed area.

A total of 547 magnetometer readings were recorded from 7.191 line-km of control lines. These values are posted on a plan map, at 1:1 250 scale. Observed magnetic recordings range from 56 932 to 59 015 gamma. Contour intervals of 50 gamma were drawn from the posted magnetic values. (See Appendix III, Map Plots: Map 1. Magnetometer Survey, Total Field Contours, Scale 1:1 250).

A pronounced N-S high magnetic unit dominates the central portion of the study area, an area bounded by the 57 300 gamma contour interval and greater, (up to 59 015 gamma), at about 1150E to 1250E, from north to south and preliminary field observations show this area to be underlain by an extensive exposure of Nipissing gabbro, with thin drift cover and of ridged topographic expression.

An area bounded by L 950 E to L 1150 E from 180 N to 2000N with contour intervals ranging from 57 150 to 57 250 gamma, showing a distinct isomagnetic signature, that

# 8.2.1 Total Field Magnetometer Survey continued

appears to be overlain by the Nipissing gabbro in the eastern part of the grid and adjacent to a magnetically quiescent area to the west of 950E. Preliminary observations in this area show the terrain to be till covered to a low wet swampy level tract, where no outcrop exposures are recorded.

Magnetically quiescent areas are located: a) at 850E to 950E of under 57 150 gamma readings are observed to be underlain by Lorrain formation sandstone/ quartzite, of level topographic expression and the occasional blocky or joint bound ridges and; b) east of 1350E, an area of broad low magnetics, all under 57 000 gamma, observed outcroppings of sandstone are exposed in an area of level topographic expression with an extensive drape of till and; a pronounced N-S orientation to the contoured data along 1375E may reflect the diabase-sandstone contact, (observed).

# **8.2.2 Prospecting Activities**

Various observations related to the location of the centre of the Keating anomaly, clinometer survey, previous prospecting reconnaissance work, claim lines and claim posts, control grid plan, drainage indications, till sample and rock sample locations and mapped topographic information have been plotted. (See Appendix III, Map Plots: Map 2. Prospecting Activities Map, Scale 1:1 250).

The clinometer survey values are read in percent scale, and a 0% datum was chosen at TL 2000 N, L1000E. This survey indicates a relative topographic profile of level flat-lying terrain from L 800 E to L 930 E; with a low-lying cedar bog from L 930 E to L 1050 E, and a sharp rising, steep topographic highland in the eastern portion of the grid relative to TL 2000 N.

The results for the petrographic analysis and rock geochemical assays are pending.

Kimberlite indicator mineral and gold grain heavy mineral results are encouraging.

Two samples were collected and analyzed for KIMs and gold grains.

Sample K1 + K2 yielded the more anomalous concentration of KIMs, totaling 55 grains comprised of 9 purple garnets, 1 orange garnet, 1 chrome diopside, 8 ilmenites, 6 chromites and 30 forsteritic olivines. Possible nearby source for kimberlite may be indicated by the quantity if KIMs and by the chrome diopside grain, which may suggest a short glacial transport distance.

Sample K3 + K4 yeilded 9 KIMS, comprised of 3 purple garnets, 3 ilmenites, 2 chromites and 1 forsteritic olivine. Additionally 7 gold grains were recovered, all reshaped, indicating distal long distance transport.

Sample K1 + K2 pebble counts are 30% volcanic/sediment, 40% granitics, and 30% limestone, carbonates. Sample K3 + K4 pebble counts are 5% volcanic/sediment, 95% granitics, and trace limestone, carbonates. The pebble count determinations indicate that there is possibly two separate provnances for the tills in this sample set.

# 9.0 Recommendation

a) Follow-up detailed geological mapping of Keating anomaly area to determine the distribution and nature of the rock types and overburden present;

b) Ascertain the glacial strike over the property and specifically in the Keating anomaly area;

c) A systematic till sampling program covering the Keating anomaly area, to assess the background count, nature and distribution and a northern cut-off (?) of KIMs as they may be related to the Keating anomaly:

d) Microprobe KIMs from K1 + K2 and K3 + K4: i) to ascertain diamond potential chemistry in purple garnets (G10 classification) and chromites (diamond inclusion chromites), and ilmenites (to determine if ilmenite is of kimberlitic affinity and, diamond preservation conditions at time of kimberlite emplacement(?)).

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## **Qualifying Statements**

With regards to my report of September 4, 2002, I, C. James Laidlaw of RR 3, Lot 6 Concession VII, Madoc Tp., Madoc, Ontario, do state that:

- 1) I graduated from the Geological Technician Program at Sir Sandford Fleming College, Lindsay, ON in 1977.
- 2) I have been employed continuously in mineral exploration for 25 years.
- 3) I have been involved with geophysical, geological and geochemical exploration programs and diamond drill activities for gold, uranium, base metals and diamonds in Saskatchewan, Manitoba, Northwest Territories, British Columbia, Ontario and Quebec.
- 4) That I personally conducted grid establishment and, supervised the Magnetometer Survey and the prospecting activities and, completed all drafting and report writing as outlined in the above report, dated September 4, 2002.
- 5) That I do not have any beneficial interest, nor do I expect any beneficial interest with respects to the above mentioned mining claims that are outlined in the above report dated September 4, 2002.

C. James Laidlaw

September 4, 2002

Madoc, Ontario

fmbailtau September 4, 2002

# Appendix I

# List of Figures and Maps

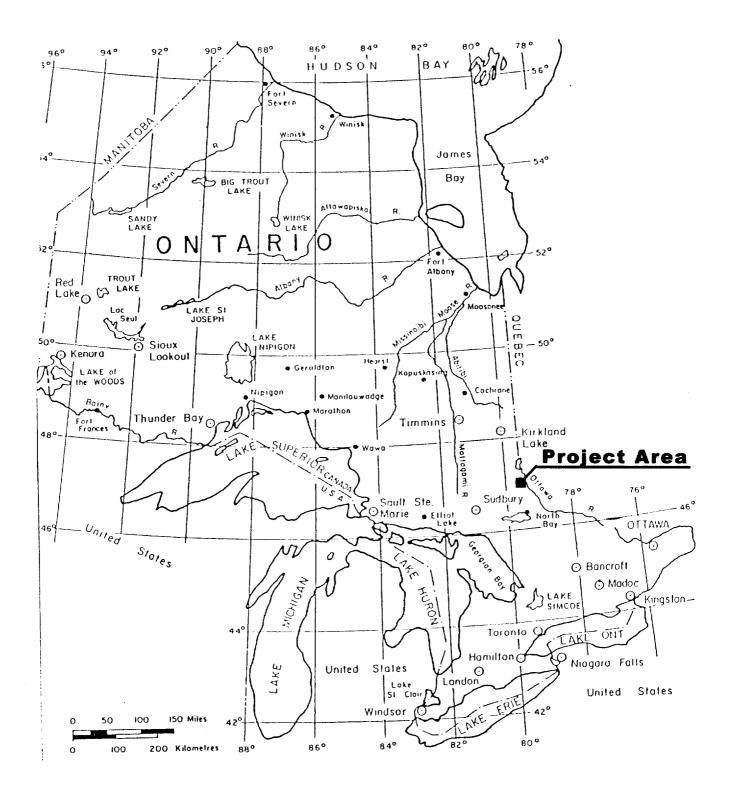
Figure 1. Location Map of Project Area

Figure 2. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294, 1230295 and 1199124; Map G-3448, (sketch map not to scale)

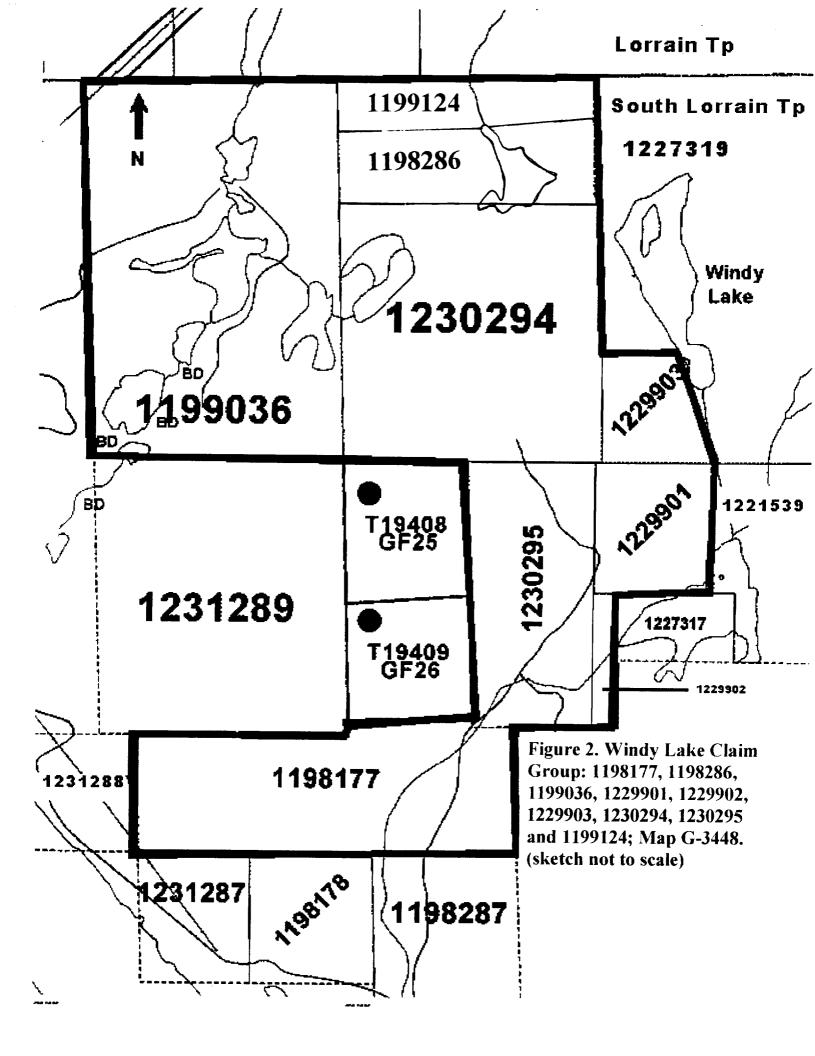
Figure 3. Windy Lake Claim Group: 1198177, 1198286, 1199036, 1229901, 1229902, 1229903, 1230294, 1230295 and 119124; Disposition overlaid on Geological Map 2194, South Lorrain Township (sketch map not to scale)

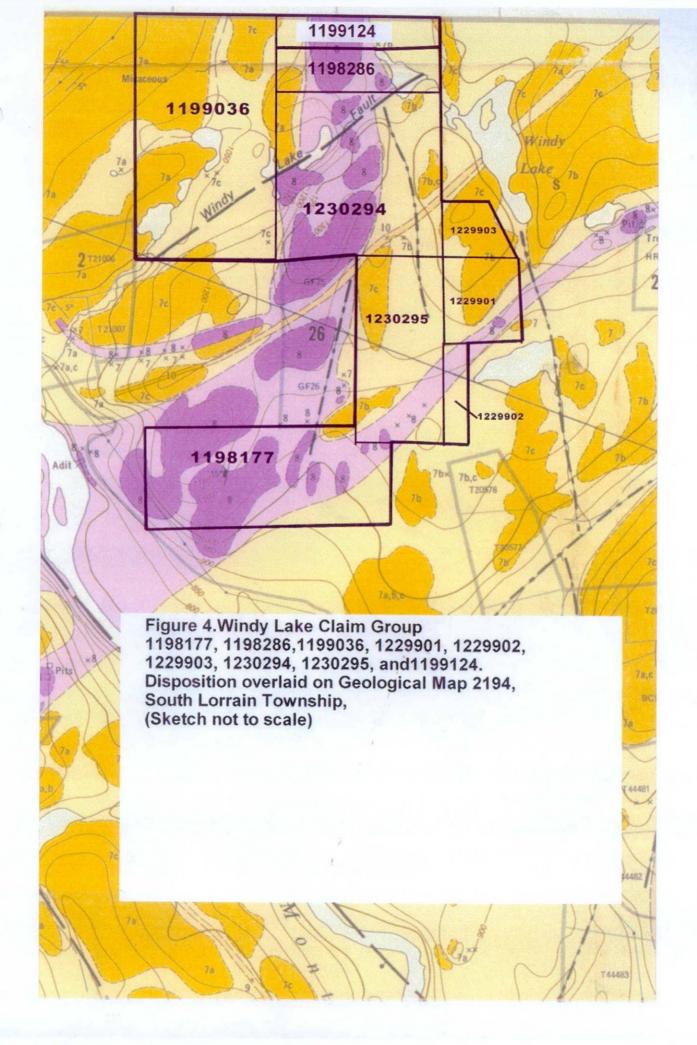
and Geological Legend for Figure 3. (Geological Map 2194)

Figure 4. Windy Lake Claim Group: Location of 90% Positive Keating Coefficient in Claim 1198286. (sketch map not to scale, from Map 82 071)



**Figure 1. Location Map of Project Area** 





### LEGEND

#### CENOZOIC\*

PLEISTOCENE AND RECENT Sand, gravel, till.

UNCONFORMITY

#### PRECAMBRIAN<sup>®</sup>

### **GRENVILLE PROVINCE**

#### METASEDIMENTS

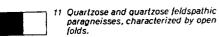
12

FAULT CONTACT

12 Biolite-guartz-feldspar paragneisses.

#### ROCKS NOT ASSIGNED TO SUPERIOR OR GRENVILLE PROVINCES

#### UNCLASSIFIED METASEDIMENTSC



FAULT CONTACT

#### SUPERIOR PROVINCE

#### PROTEROZOIC

LATE MAFIC INTRUSIVE ROCKS



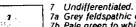
10 Olivine diabase (Keweenawan).

Diabase, undifferentiated (may be 9 Matachewan age in part). 9a Ouartz diabase.

8 Quartz diabase (Nipissing).

#### INTRUSIVE CONTACT HURONIAN

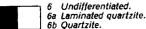
COBALT GROUP LORRAIN FORMATION



7a Grey feldspathic quartzite. 7b Pale green to white quartzite.

7c Arkose. 7d Red quartzile.

FIRSTBROOK FORMATION



#### COLEMAN FORMATION



- 5 Undifferentiated.
- 5a Quartzose siltstone and greywacke. 5b Arkose.
- 5c Conglomerate.
- 5d Schistose rocks. 5e Laminated argillite.

# **Geological Legend for Figure 3.** (Geological Map 2194)

UNCONFORMITY

	UNCONFORMIT					
ARCHEAN						
FELSIC TO INTERMEDIATE INTRUSIVE ROCKS						
	4 Quartz diorite.					
3	3 Granitic rocks, undifferentiated. 3a Hornblende granite. 3b Gneissic granite. 3c Granodiorite. 3d Quartz monzonite.					
	INTRUSIVE CONTACT					
EA	ARLY MAFIC INTRUSIVE ROCKS					
2	2 Lamprophyre, undifferentiated. 2a Hornblende lamprophyre. 2b Biotite lamprophyre.					
	INTRUSIVE CONTACT					
METAVOLCANICS AND METASEDIMENTS <sup>Ø</sup>						
1	<ol> <li>Undifferentiated.</li> <li>Intermediate to mafic metavolcanics.</li> <li>Amygdaloidal basaltic rocks.</li> <li>Metadiabase, metagabbro, or diabasic flows.</li> <li>Quartzite and greywacke.</li> <li>Felsic metavolcanics with or without interbedded quartzite.</li> <li>Pyroclastic rocks.</li> <li>Quartz-feldspar porphyry.</li> <li>Schist, mainly chloritic.</li> <li>Pillow lava.</li> </ol>					
Ag	Silver.					
Au	Gold.					
caic	Calcite.					
Co	Cobalt.					
Cu	Copper.					
ery Ni	Erythrite. Nickel.					
4	Ouartz.					
4 QC	Quartz carbonate.					
S	Sulphide mineralization.					

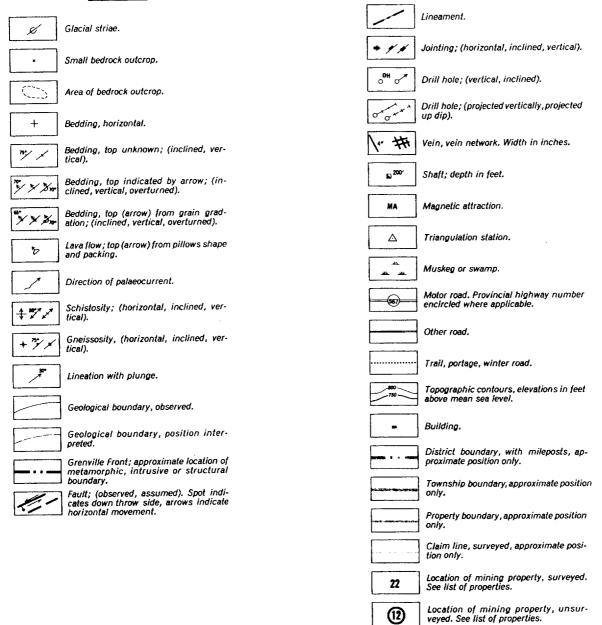
Occonsolidated deposits. Cenozoic deposits are not differentiated on the map. For the most part they co-incide with the lighter coloured parts of the map.

**b**Bedrock geology. Outcrops and inferred extensions of each rock map unit are shown respectively in deep and light tones of the same colour. Where in places a formation is too narrow to show colour and must be represented in black, a short black bar appears in the appropriate block.

CAge unknown.

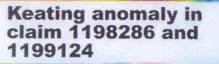
dThe rocks in these groups are subdivided lithologi-cally and the order does not imply age relationship within the group.

#### SYMBOLS



(12)

## **Geological Legend for Figure 3.** (Geological Map 2194)



Lorrain Township



Windy Lake

Figure 4. Windy Lake Claim Group: Location of 90% Positive Keating Coefficient in claims1198286 and 1199124. (Sketch map not to scale, from Map 82 071)

# **Appendix II**

# **Geophysical Instrument Specifications**

Operating Manual Model G-826 Portable Proton Magnetometer

## 1.3 SPECIFICATIONS

Sensitivity: Range:

Tuning:

Gradient Tolerance: Sampling Rate: ±1 gamma throughout range

20,000 to 90,000 gainmas (worldwide)

Multi-position switch with signal amplitude indicator light on display

Exceeds 800 gammas/ft

Manual push-button, one reading each 6 seconds.

### Output:

Power Requirements:

Temperature Range:

Accuracy (Total Field):

Sensor:

Size:

## Weight:

5 digit numeric display with readout directly in gammas

Twelve self-contained 1.5 volt "D" cell, universally available flashlight-type batteries. Charge state or replacement signified by flashing indicator light on display.

Console and sensor:  $-40^{\circ}$  to  $+85^{\circ}$  C Battery Pack:  $0^{\circ}$  to  $+50^{\circ}$  C (limited use to  $-15^{\circ}$  C; lower temperature operation--optional)

 $\pm 1$  gamma through  $0^{\circ}$  to  $50^{\circ}$  C temperature range

High signal, noise cancelling, interchangeably mounted on separate staff or attached to backpack

Console: $9.5 \times 18 \times 27 \text{ cm} (3.75 \times 7 \times 10.5 \text{ in})$ Sensor: $8.9 \text{ cm} \text{ dia} \times 12.7 \text{ cm} (3.5 \times 5 \text{ inche})$ Staff: $2.5 \text{ cm} \text{ dia} \times 2.4 \text{ m} (1 \text{ inch} \text{ diamete})$ 

	Kgs.	Lbs.
Console (w/batteries):	2.5	5.5
Sensor and signal cable:	1.8	4
Aluminum staff	0.9	2
	5.2	11.5

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# **Appendix III**

# **Map Plots**

Map 1. Magnetometer Survey, Total Field Contours, Scale 1: 1 250 Map 2. Prospecting Activities Map, Scale 1: 1 250

# Appendix IV

Prospecting Data Base Tabulation



31M04NE2037 2.25390

.

SOUTH LORRAIN

See also: Appendix III, Map Plots: Map 2. Prospecting Activities Map, Scale 1:1 250

#### 1. Mapping:

a) Centre of 90% coefficient Keating Anomaly as determined by map inspection of OGS Map 82 071 at UTM coordinates, Zone 17, 609000E, 5231650N, Datum NAD 27.

b) 90% positive Keating coefficient anomaly location, GPS field reading for estimated centre position, UTM coordinates, 17, 609002E, 5231652N.

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- topographical setting; located on a till covered gabbro outcrop ridge, at top of a 5 m raised

25° east slope.

- shallow till over Nipissing bedrock ridge, (till covered ridge?).

c) Topographic observations:

- Swamp edges at:	
910 E 1910 N	962 E 1925 N
910 E 1912 N	973 E 1950 N
925 E 2037 N	980 E 1950 N
928 E 2025 N	990 E 1900 N
930 E 2000 N	1000 E 1900 N
938 E 1925 N	1008 E 1900 N
944 E 1962 N	1025 E 1930 N
944 E 1900 N	1030 E 2000 N
950 E 1912 N	1044 E 2025 N
950 E 2048 N	

See also: Appendix III, Map Plots: Map 2. Prospecting Activities Map, Scale 1:1 250

d) Clinometer survey along TL 2000 N, L 800 E to L 1150 E, (readings grid east):

Station	<u>Clinometer</u>	<u>Remarks</u>
800 E to 825 E	1%	Till.
825 E to 850 E	-3%	Till.
850 E to 875 E	-3%	Sandstone outcrop.
875 E to 900 E	0%	Sandstone outcrop.
900 E to 925 E	-4%	Sandstone outcrop.
925 E to 930 E	-32%	Sandstone outcrop, 2 m ridge.
930 E to 950 E	0%	Cedar Bog.
950 E to 975 E	0%	Cedar Bog.
975 E to 1000 E	0%	Cedar Bog.
1000 E to 1025 E	0%	Cedar Bog.
1025 E to 1050 E	3%	Cedar bog - till, swamp edge at 1030 E TL 2000 N.
1050 E to 1075 E	22%	Till - gabbro.
1075 E to 1100 E	40%	Till - gabbro.
1100 E to 1125 E	40%	Till - gabbro.
1125 E to 1150 E	50%	Till - gabbro.
1150 E to 1175 E	50%	Till - gabbro.

e) Line A-B:

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- point of origin Line AB, 0 m, at L 937.5 E and 2000 N, UTM 17, 608860E, 5231737N, located in cedar bog. Note 8. - Line AB, 40 m at L 947 E 1963 N.

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See also: Appendix III, Map Plots: Map 2. Prospecting Activities Map, Scale 1:1 250

#### 2. Prospecting - till sampling:

a) Keating K1 + K2; L 1979.5 E, 1905 N; UTM 17, 609002E, 5231625N.

- blanket, level, near edge of steep west facing till covered, ridged gabbro outcrop, 5 m height.

- 5° east slope; well drained; hardwood mix; B horizon.

- material thickness, pocket of drift within bedrock depression, about 1 m thick.

- 5 cm black organic layer, 50 cm orange oxidized upper B horizon, 40 cm gray-brown fresh lower B horizon, over polished gabbro bedrock.

- coarse silty sand, abundant pebble-cobble-boulder of mafic and felsic intrusive and sedimentary rock types.

- composite sample from two sample holes 5 m apart, hole description is for Keating 1 only,

both holes yeilded white marble-like cobbles; provenance study from pebble count pending;

systematic sample, position is at the centre of the 90% positive Keating coefficient anomaly as derived

from map inspection of OGS Map 82 071;

see Sketch of Soil Profile for Keating 1 Till Sample Site, (attached).

b) Keating 3, K3; L 1072 E 1800 N; UTM 17, 609001E, 5231542N.

- blanket, near edge of steep west facing till covered apron, 2 m height, at edge of swampy area to the west.

- thick drift, > 2 m.

- 5 cm black organic layer, 50 cm orange oxidized upper B horizon, > 60 cm gray-brown fresh lower B horizon, hole terminates at 1.10 m depth in rounded boulder layer.

- coarse silty sand, abundant pebble-cobble-boulder of mafic and felsic intrusive and sedimentary rock types.

- systematic sample, position is down-ice from the centre of the 90% positive Keating coefficient anomaly.

c) Keating 4, K4 ; L 1050 E 1800 N; UTM Zone 17, 608968E, 5231549N.

- blanket, level at west edge of low wet area.

- thick drift, > 1 m.

- 5 cm black organic layer, 60 cm orange oxidized B horizon, hole terminates at 60 cm depth in rounded boulder layer.

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- coarse silty sand, abundant pebble-cobble-boulder of mafic and felsic intrusive and sedimentary rock types.

- systematic sample, position is down-ice and west of the centre of the 90% positive Keating coefficient anomaly;

sample hole fills rapidly with water, water flow appears to flow grid NW, undersized sample,

Nipissing gabbro outcrop area to west of sample site.

NB. Keating 3 and Keating 4 are made into a composite sample K3 + K4. These till samples are to be forwarded to Overburden Drilling Management, Nepean ON, for heavy mineral kimberlite indicator mineral count analysis, results pending.

See also: Appendix III, Map Plots: Map 2. Prospecting Activities Map, Scale 1:1 250

### 3. Prospecting - rock sampling and observations:

a) Grab sample for lithological determination: L 925 E 2006 N; outcrop, massive, pink to white weathered, flat lying, thickly bedded; coarse-grained granule-rich sandstone; well-rounded gray quartz and pink feldspar granules. Note 4.

b) Grab sample for lithological determination: L 854 E 1999 N; outcrop, massive dark gray-black weathered, flat lying, bedded(?); fine to medium-grained sandstone, grayish-pink, with few coarse quart and pink feldspar. Note 5.

c) Grab sample for Pt Pd and Au analysis: L 1070 E 1916 N; UTM, 17, 609001E, 5231655N;
massive, diabasic coarse-grained, (varied-textured), few clear quartz eyes, weathers dark gray to rusty brown, medium to coarse-grained, euhedral and anhedral white plagioclase, medium to coarse-grained euhedral black pyroxene, medium to coarse-grained anhedral grayish quartz, few medium-grained black euhedral leucoxene,
< 1 % disseminated pyrrhotite and trace chalcopyrite,</li>
1 x 2 m outcrop exposure in mid-slope location, similar smaller outcrops nearby, covered by thin drift and moss.

Nipissing gabbro. Note 6.

d) Grab sample for lithological determination: L 1046 E 1800 N; UTM, 17, 608975E, 5231546N; massive, fine-grained, Nipissing gabbro, 1 m outcrop ridge, well exposed, green-gray weathered surface. Note 7.

e) Grab sample for lithological determination: L1002E 2155N, extensive outcrop area, flat lying, pink, matted weathered surface, devoid of overburden, sandstone with pink feldspar pebbles. Note 9.

f) Observation: L1475E 1950N area, UTM, 17, 609384 5231713; buff to white matted weathered surface, pebble conglomerate sandstone, exposure > 10 square metres. Note 10.

g) Observation: L1375E, 2027N area, exposure in north flowing creek, west bank, in-filled exploration trench opened in to base of inclined diabase ridge, in contact with steeply dipping sandstone (pebble conglomerate (?)), pink carbonate, altered (?). Note 11.

h) Observation: stream sediment at L1375E 2000N area, UTM, 17, 609280E, 5231762N.

- coarse sand and gravel in boulder field over sandstone pebble conglomerate bedrock;

- debris choked creek, draining Windy Lake, drainage to the north at -4°;

- re-worked till, poorly sorted, cobbles and boulders sub angular to well rounded comprised of

sediment 60 %, metasedimentary 10 %, Nipissing diabase 10 %, and felsic intrusive 10 %;

- sample contaminated by dark brown organics, sample to be panned for gold and KIM's. Note 12.

See also: Appendix III, Map Plots: Map 2. Prospecting Activities Map, Scale 1:1 250

### 3. Prospecting - rock sampling and observations:

i) Observation: stream sediment at L846E 1847N area, UTM, 17, 608776E 5231582N.
 intermittent creek, sandstone pebble conglomerate outcrop floor in creek, drainage azimuth 250°, minus 3°, veneer, well drained, conifers cedar and spruce and birch and poplar, pockets of coarse sand with organics, dark brown. Sample number 846E1847N.
 Test for KIM's and gold grains by panning method. Note 13.

#### 4. Results:

a) Selected rock sample results pending, (petrographic descriptions and geochemical analysis).

b) Kimberlite Indicator and Gold heavy mineral results, (also refer to Appendix V, Overburden Drilling Management: Batch number 1075, laboratory data for two composite till samples K1 + K2, and K3 + K4 processed for Kimberlite Indicators and Gold):

i) Composite sample K1 + K2: no gold observed; 55 KIMs comprised of 9 purple garnets, 1 orange garnet, 1 chrome diopside, 8 ilmenites, 6 chromites and 30 forsteritic olivine. Note 14-1.

ii) Composite sample K3 + K4: 7 reshaped gold grains; 9 KIMs comprised of 3 purple garnets, 3 ilmenites, 2 chromites and 1 forsteritic olivine. Note 14-2.

Brief Summary of Field Work

And Costs

By Sherwood Plunkett

Windy Lake Claims

Prior to this date I had purchased flagging tape, fly spray, groceries, batteries for our magnetometer, and gas to fill the truck in preparation for the trip to our claims at Windy Lake, South Lorraine Township.

On Sunday the 19th of May, 2002 I left Bancroft at 7:00 a.m. and drove my truck to Madoc to pick up Jim Laidlaw, who is a geologist, who we are going to assist to do a magnetometer and VLF survey on claim # 1198286. I arrived at Jim's house at 8:00 a.m. and we loaded up his gear in the back of my camper and we headed for the claims. Jim brought his small dog along and we stopped several times to get a break. We stopped in North Bay to buy a few items and had supper and put gas in the truck. We arrived at the claims at 5:15 p.m. It is 620 kms from Bancroft to Madoc and to the claims. We talked to Dave, who had arrived earlier in the day, about arrangements for the work we will do tomorrow. We unloaded the truck and I set up my tent for cooking and made my bed in the camper and Jim set up his tent to sleep in . We went to bed at 10:00 p.m.

Sherwood Plunkett

Windy Lake Claim

We got up at 6:00 a.m. and had breakfast. Jim was doing some map work and I put the new batteries in the magnetometer. We left the camp and walked to the magnetic anomaly on claim # 1198286. After some discussion we decided to set up a grid three hundred meters square. This grid would use the north claim line of claim # 1198286 which runs east from corner post # 4 of claim #1198286 as the base line. We set about placing stations on this base line every twenty five meters. The corner post #4 of claim # 1198286 became station L800 E 2000 N, we proceeded twenty five meters east and placed station L825 E 2000 N and continued east along base line placing stations L850 E 2000 N, L875 E 2000 N, L900 E 2000 N, L925 E 2000 N, L950 E 2000 N, L975 E 2000 N, L1000 E 2000N, L1025 E 2000 N, L1050 E 2000 N, L1075 E 2000 N, L1100 E 2000 N, L1125 E 2000 N, L1150 E 2000 N. Our grid is going to start on the west side at L850 E and continue east along base line to L1150 E for a grid width of three hundred meters. We completed the base line at 11:45 a.m. It was agreed that Dave and Jim Laidlaw would start flagging the north south lines for the grid placing stations every twelve and half meters and I would do the magnetometer readings on these stations. We started the north west corner of the grid four stations north of station L850 E 2000 N so it became L850 E 2050 N and continued three hundred meters south to station L850 E 1750 N. I started the magnetometer reading on the base line at station L800 E 2000 N where I took five readings over a fifteen minute period then I proceeded east along the base line taking a reading at every station until I reached L1150 E 2000 N and then I returned to L800 E 2000 N. Then I started on line L 850 E. By 4:00 p.m. I had completed the magnetometer readings on lines L850 E, L875 E, L900 E, L925 E, L950 E, L975 E. We walked out of the bush to the clear cut north of our camp. Jim Laidlaw and I did some prospecting at OC2 and OC5 where we had done some trench work last year. Jim Laidlaw was very interested with the rocks at OC5. He thought it could be lamprophyre. I gave Jim Laidlaw a map that I had made of OC5 in May 31, 2001. We got back to camp at 7:00 p.m. Had a late supper and went to bed.

Sherwood Plunkett

Tuesday May 21,2002

We got up at 6:00 a.m. and had breakfast. We flagged a new trail while walking to the new grid. I started magnetometer readings while Jim and Dave were completing the grid. I had to do over the four stations north of the base line on line L975 E 2000 N to station L975 E 2050 N because I forgot to tie into the base line the night before. I did lines L1000 E, L1025 E, L1050 E and L1075 E. by 12:30 p.m. I completed lines L1100E, L1125 E and L1150 E at 3:30 p.m. and tied in at the end of line L1125 E 1750 N and L1100 E 1750 N. I left the magnetometer at the south end of the grid at station L1100 E 1775 N so I could pick it up on my way back to camp. Then I went to the center of the keating anomaly where I wanted to get some till samples. Sample # 1, I marked the bag as L1084 E 1905 N. The hole was about two and a half feet deep. Had some clay in the bottom and looked like white calcite which I could not get out. I found a piece of green serpentine about one inch round which I put into the bag. I collected Sample # 2 and numbered the bag L1079 E 1905 N. This hole was ninety centimeters deep and had some clay in the bottom. I did collect three pieces of calcite about six inches in diameter. I filled the bag with till from this hole and showed the calcite to Jim Laidlaw. We took a sample of the calcite. We carried the till samples to where I had left the magnetometer and picked it up and went back to camp. We arrived at 7:30 p.m. I had supper and went to bed.

We were up at 5:30 a.m. and had breakfast. We packed up our gear after breakfast and put every thing back into the truck. We left for the grid at 8:00 a.m. Jim was going to do a VLF survey on the grid and I was going to take some more till and rock samples. On the way in we found a flat rock that had glaciation lines on it. It looked like it had been marked in two directions. It looked like the first glaciation direction was 168 degrees southeast and the second glaciation direction was 186 degrees southwest. The center of the keating anomaly is at station L1079 E 1912 N so I was going to take some till samples down ice of this location. At the south end of the grid between lines L1050 E and L1075 E the cedar swamp narrows down to about thirty meters. I found the middle of the swamp to wet to get till samples so I took keating sample #3 at L1072 E 1800 N. I dug a hole 1.1 meters deep to bedrock. I took the till sample from the bottom of this. I marked the bag L1072 E 1800 N. Then I proceeded to take keating sample # 4 at L1050 E 1800 N. The hole is about sixty centimeters deep and I filled the bag from the bottom of this hole and marked the bag L1050 E 1800 N. About this time Jim Laidlaw appeared. He was not having good luck with his VLF. Just to the west of where I took till sample #4 there is a small rock outcrop at L1045 E 1803 N. Jim sampled this and it appeared to be nipissing diabase. Then we went up to the center of the keating anomaly to see if we could find any rock outcrops. At L1070 E 1916 N we found course nipissing diabase that was altered and had some sulfides and rust and Jim Laidlaw thought it should be tested for platium. We carried our samples back to OC5 where Jim wanted to collect some samples. We collected samples from four locations on OC5 and put them in the same sample bag. Jim suspects this may be lamprophyre. It is now 3:00 p.m. and we are leaving for Bancroft and Madoc. We travelled to North Bay where we stopped for supper and gas. Proceed to Madoc and unloaded Jim's equipment and I returned to Bancroft arriving at 12:00 midnight. It is 620 kms from the claims to Madoc and back to Bancroft.

Cost Related to Assessment Work on Windy Lake Claims-----2002

## Trip to South lorrain TWP. Claims May 19 to May 22,2202

Page #1

May 19, 2002 Travelled from Bancroft to Madoc to Claim \$0.30 x 620 Km's					
Food Receipts			\$ 8	85.19	
Camp		\$ 15.00 x 2	\$ 3	30.00	
Flagging Tape			\$	13.08	
Duracell Batteries for Magnetometer					
Postage and copies			\$	4.09	
Maps, report prep	(\$ 8.00 per hour)	\$ 8.00 x 3	\$	24.00	
May 22, 2002 Travelled fro	om claim to Madoc to Bancroft	\$0.30 x 620Kms	\$	186.00	
		Total	\$	562.75	

### Labour Cost

May 20, 2002	Base line and Magnetometer Readings	\$150.00
May 21, 2002	Magnetometer Reading and prospecting	\$150.00
May 22, 2002	Prospecting Claims #1198286 and #1230294	\$150.00
	Labour cost Total Page one Total	\$ 450.00 \$ 562.75
	Total	\$1012.75

Prior to this date I had purchased flagging tape, groceries, fly spray, and gas to fill the truck in preparation for the trip to the Windy Lake Claims South Lorraine Township, south of Cobalt Ontario. I left Bancroft at 7:00 a.m. And arrived at Jim Laidlaw's house in Madoc at 8:00 a.m. Jim Laidlaw is a geologist who is in charge of our magnetometer survey. We loaded his gear into my truck and left for the claims. Jim brought his dog so we stopped at Tim Hortons in Bancroft, the west gate of the park and at North Bay. Where I bought batteries for the magnetometer and gas for the truck. We traveled to Temagami where I bought supper for Jim and I because we are going to arrive late and still have a lot of work to do. Jim wanted to stop at a small creek that flows into the Montreal river from our claims to get a till sample where the Ministry had collected a kimberlite indicator sample. By this time it was 7:00 p.m.. We took the bush road into the claims and had to lower a beaver dam which had flooded the road. By the time we got this done and the camp set up it was 10:00 p.m. and we went to bed.

I got up at 6:00 a.m. and had breakfast then washed the dishes. I took a reading at the camp with my GPS. It is 17M0609693E and 5230403N. This is using UTM (nad27). I got the magnetometer from the truck and installed the new batteries and then we walked to the claims. We decided to expand our existing magnetometer survey grid to the north and to the east. I started extending line 1150E from station 2050N, 50 meters north to 2100N. Dave Hanes and Jim Laidlaw are going to extend lines 1125E, 1100E, 1075E, 1050E, 1025E and 1000E. As soon as I got my line extended I started the magnetometer survey. I started the magnetometer survey on line 1150E on the base line at station 2000N going north, then south on line 1125E, then north on line 1100E, then south on line 1075E, then north on line 1050E, then south on line 1025E, then north on line 1000E, and then I tied off at 1025E at station 2175N and 1050E at station 2150N and base line at 1150E at station 2000N. Then I went to the new extended base line 1200E. I took a reading at line 1200E station 2000N. I had lunch and wrote some notes. After lunch I did the new extended base line to the east. I did a reading at line 1200E 2000N, line 1250E 2000N, line 1300E 2000N, line 1375E 2000N, line 1425E 2000N, line 1475E 2000N. I completed the mag readings on lines 1475E, 1425E and 1375E. Then I went back and tied off at line 1175E 2000N. Then I went to line 1200E 2000N and got a reading. We got back to camp at 6:00 p.m. I gave Jim Laidlaw 11 pages of mag readings.

Monday Aug. 12,2002

We got up at 6:00 a.m. Had breakfast and are going to finish the mag survey and collect some till samples. It takes almost an hour to walk from the camp to the grid. I started the mag survey on the base line at 1200E 2000N and went north, then came back to base line and proceed south on line 1200E. Then I traveled north on line 1250E. Then south on line 1300E to station 2000N at the base line. I did some notes waiting for Jim Laidlaw to flag line 1300E south of the base line. The time is 12:50 p.m. There is a trench that starts at line 1300E station 2000N and runs 11 meters west from this station and is about one and half meters deep. I followed Jim Laidlaw's flag line south on line 1300E to completion at 2:05 p.m. There is some trenching on line 1300E south of the base line as well. I left the magnetometer at the south end of the grid where I can pick it up on the way out to camp. I helped Jim Laidlaw get some measurements at the south ends of the lines of 1125E and 1150E. Then I went to meet Dave Hanes to try and get a till sample at the west side of our grid. We took the sample in a small trickle of water which runs to the south west off our grid. The location is four meters west of line 850E at station 1845N. The GPS reading is 17M608776E and 5231582N. This is an outlet from the main swamp. The water has been running underground. We had a hard time finding gravel. Jim Laidlaw came over to where we were and said the sample would be okay. We started back to the camp after I picked up the magnetometer. We got back to the camp at 6:00 p.m. I gave Jim six pages of mag. readings.

We got up at 7:00 a.m., made breakfast, cleaned up dishes and tore down the camp. Jim wanted to collect another sample at the outlet of the creek which runs off our claim into the Montreal river. We did this and then I helped Jim Laidlaw carry the samples to the river and he used screens and a gold pan to concentrate the till samples. With this completed at 11:00 a.m., we started for Bancroft. We stopped at my home in Bancroft and had supper and then I drove Jim Laidlaw home to Madoc and then returned back to Bancroft.

Cost Related to Assessment Work on Windy Lake Claims-----2002

Trip to South Lorraine TWP. Claims August 9 to August 13, 2002					
Aug. 9, 2002 Traveled from Bancroft to Madoc to Claim \$0.30 x 620 Km's \$186.00					
Food Receipts			\$ 95.61		
Camp		\$15.00 x 3	\$ 45.00		
Flagging tape			\$ 8.37		
Duracell Batteries for Magnetometer					
Insect repellent			\$ 7.46		
Propane			\$ 6.91		
Postage			\$ 1.54		
Report prep	(\$8.00 per hour)	\$8.00 x 3hr	\$ 24.00		
Aug.13,2002 Traveled from claims to Madoc to Bancroft \$0.30 x 620 Km's					
Page 1 total		Total	\$594.50		

### Trip to South Lorraine TWP. Claims August 9 to August 13, 2002

#### Labour Cost

August 11,2002 N	Magnetometer readings	\$150.00
August 12, 2002	Prospecting and Magnetometer readings	\$150.00
August 9 and 13, 2	2002 Till samples <sup>1</sup> / <sub>2</sub> day	\$ 75.00
	Labour cost total	\$375.00
	Page one total	<u>\$594.50</u>
	TOTAL	\$969.50



#### Work Report Summary

Transaction No:	W0380	.00606		S	tatus:	APPI	ROVED			
Recording Date:	2003-A	PR-09		Work Done	from:	2002	2002-MAY-19 2002-OCT-24			
Approval Date:	2003-M	AY-02			to:	2002				
Client(s):										
16278	38 N	IACLACHLAN	, JAMES MA	ALCOLM						
18312	25 P	LUNKETT, SH	IERWOOD							
30109	98 H	IANES, DAVE	ROSS							
Survey Type(s):										
<b>J J ( ( )</b>		GCHMET		LC			MAG			
Work Report Deta	ails:									- 14 (array)
Claim#	Perform	Perform Approve	Applied	Applied Approve	Ass	sign	Assign Approve	Reserve	Reserve Approve	Due Date
L 1198177	<b>\$</b> 0	\$0	\$3,600	\$3,600		\$0	0	\$0	\$0	2006-MAY-28
L 1198286	\$13,000	\$13,000	\$0	\$0	\$13,	,000	13,000	\$0	\$0	2004-MAY-14
L 1199036	\$0	\$0	\$9,400	\$9,400		\$0	0	\$0	\$0	2006-AUG-01
L 1199124	\$1,329	\$1,329	\$1,329	\$1,329		\$0	0	\$0	\$0	2005-AUG-16
	\$14,329	\$14,329	\$14,329	\$14,329	\$13,	,000	\$13,000	\$0	\$0	-
External Credits:		\$0								
Reserve:		\$0 Res	erve of Worl	< Report#: W0	380.00	0606				
		\$0 Tota	I Remaining							

Status of claim is based on information currently on record.



31M04NE2037 2.25390 SOUTH LORRAIN

Ministry of Northern Development and Mines

Date: 2003-MAY-05

DAVE ROSS HANES

SUDBURY, ONTARIO

CANADA

100 KENT COURT

APT. 106

P3A 4R5

Ministère du Développement du Nord et des Mines 🕅 Ontario

GEOSCIENCE ASSESSMENT OFFICE 933 RAMSEY LAKE ROAD, 6th FLOOR SUDBURY, ONTARIO P3E 6B5

Tel: (888) 415-9845 Fax:(877) 670-1555

Submission Number: 2.25390 Transaction Number(s): W0380.00606

Dear Sir or Madam

Subject: Approval of Assessment Work

We have approved your Assessment Work Submission with the above noted Transaction Number(s). The attached Work Report Summary indicates the results of the approval.

At the discretion of the Ministry, the assessment work performed on the mining lands noted in this work report may be subject to inspection and/or investigation at any time.

If you have any question regarding this correspondence, please contact STEVEN BENETEAU by email at steve.beneteau@ndm.gov.on.ca or by phone at (705) 670-5855.

Yours Sincerely,

mechil.

Ron Gashinski Senior Manager, Mining Lands Section

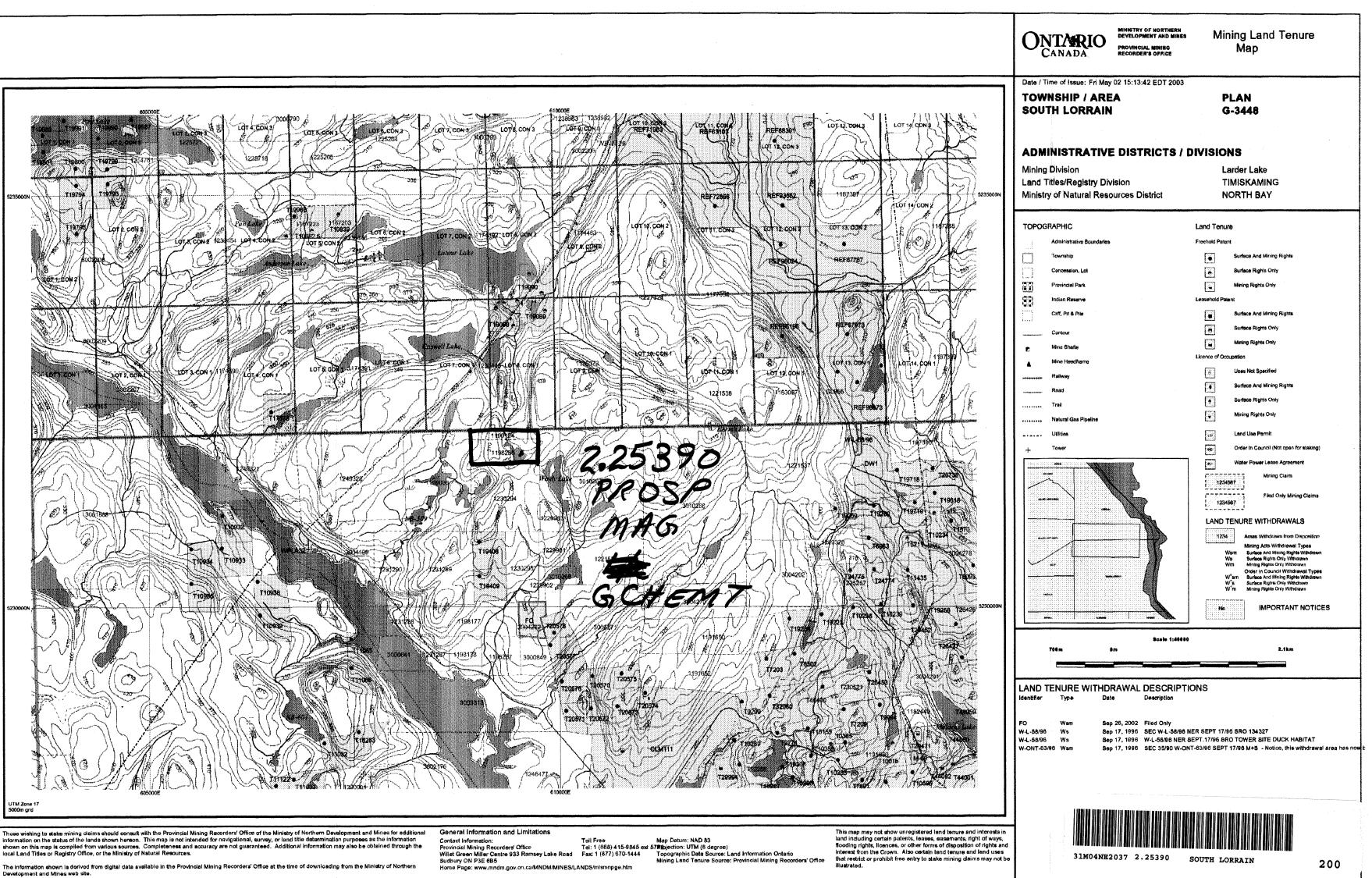
Cc: Resident Geologist

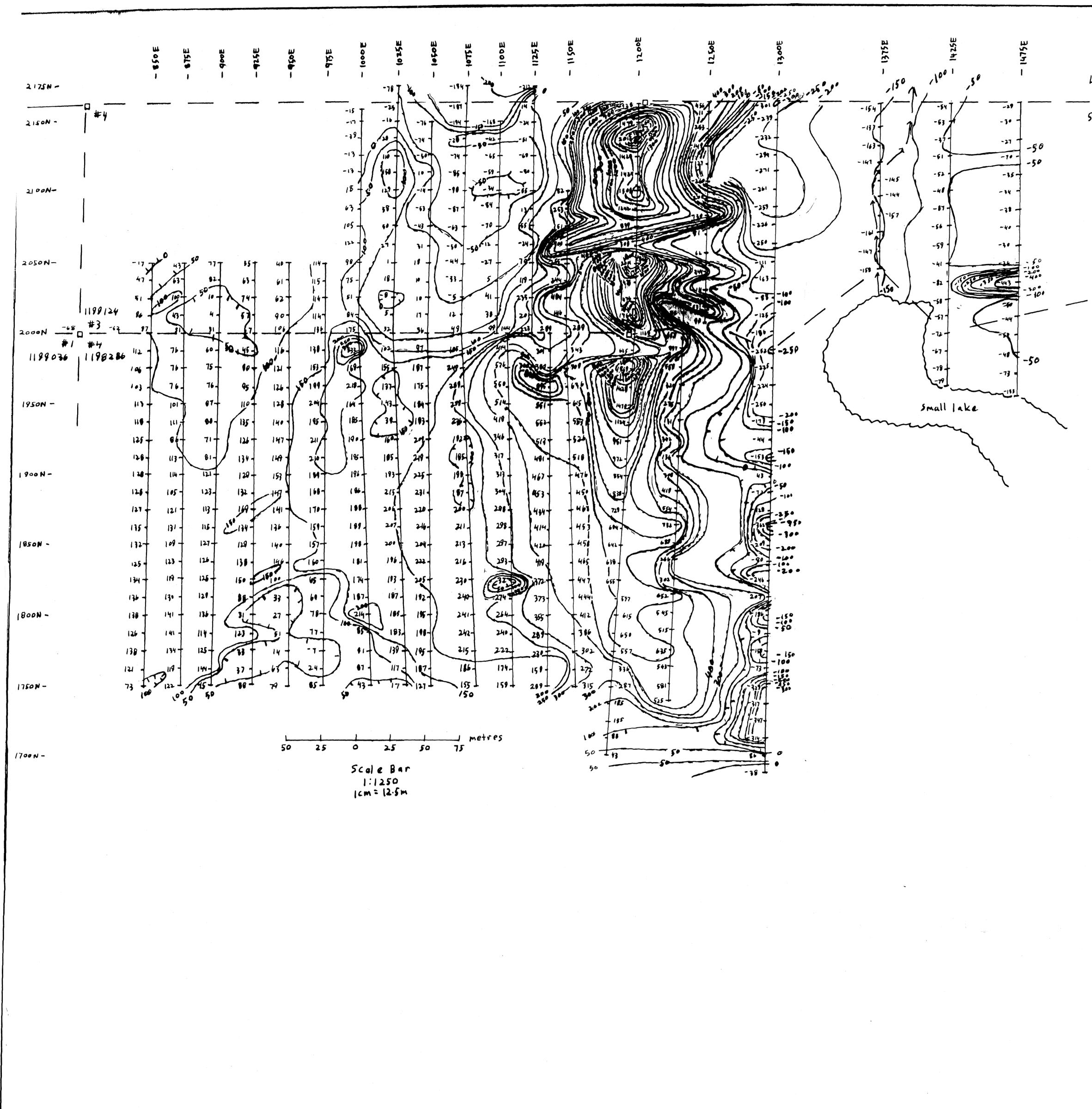
James Malcolm Maclachlan (Claim Holder)

Dave Ross Hanes (Claim Holder) Assessment File Library

Sherwood Plunkett (Claim Holder)

Dave Ross Hanes (Assessment Office)





31M04NE2037 2.25390 SOUTH LORRAIN

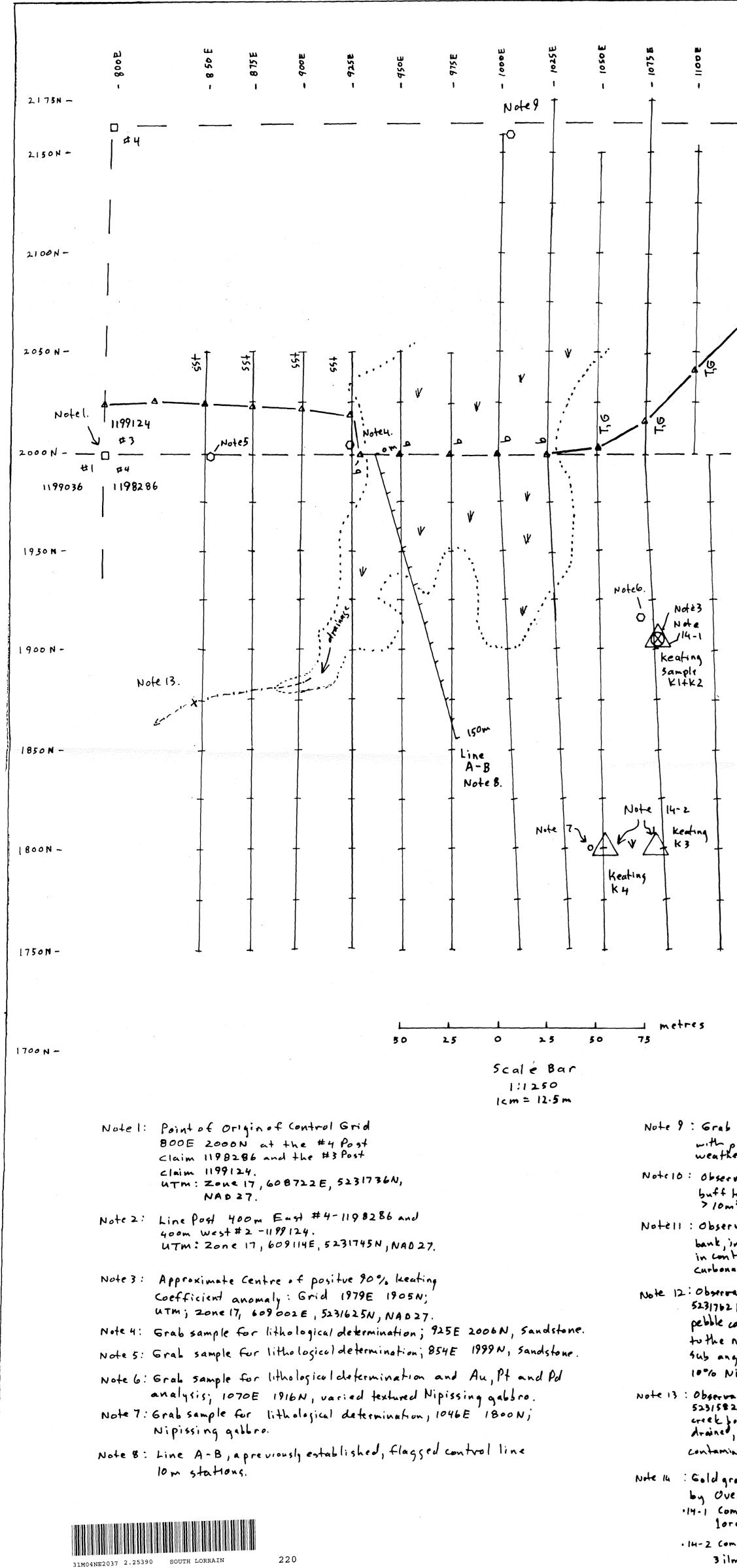
210

Lorrain Tp. Astronomic North South Lorrain Tp #14 Declination 12°W 1199124 1198286 Legend Located claim post Claim line Control line with posted values from magnetometer Survey. - 7 NB. Add 57000 to posted values for true Total Field magnetic values in gamma (x) 24 50-Contour lines: in 50 gamma increments for values 300 gammas and less; in 100 gamma increments for values 300 gammas or greater Chicker gradient magnetic values) Magnetic depression Frico Instrument: Geometrics G-826 portuble proton magnetometer Surveyed by: Sherwood Plunkett Supervised by: C.J. Louidlaw Magnetometer Survey Total Field Contours Windy Lake Claim Group Mining Claims 1198286 and 1198124 South Lorrain Township Plan 6-3448 NTS : 31m/4 Scale 1:1250 Map: 1 Drawn by: C.J. Laidlaw Date: Im hurdlau September. . 2002

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80 50 80



Note 9 : Grab sample for lithological determination; 1002E 2155N, sandstone with pink feldspar pebbles; extensive outerop area, flat lying, pink weathered, matted surface; devoid of overburden on 20% of surface.

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Note.2

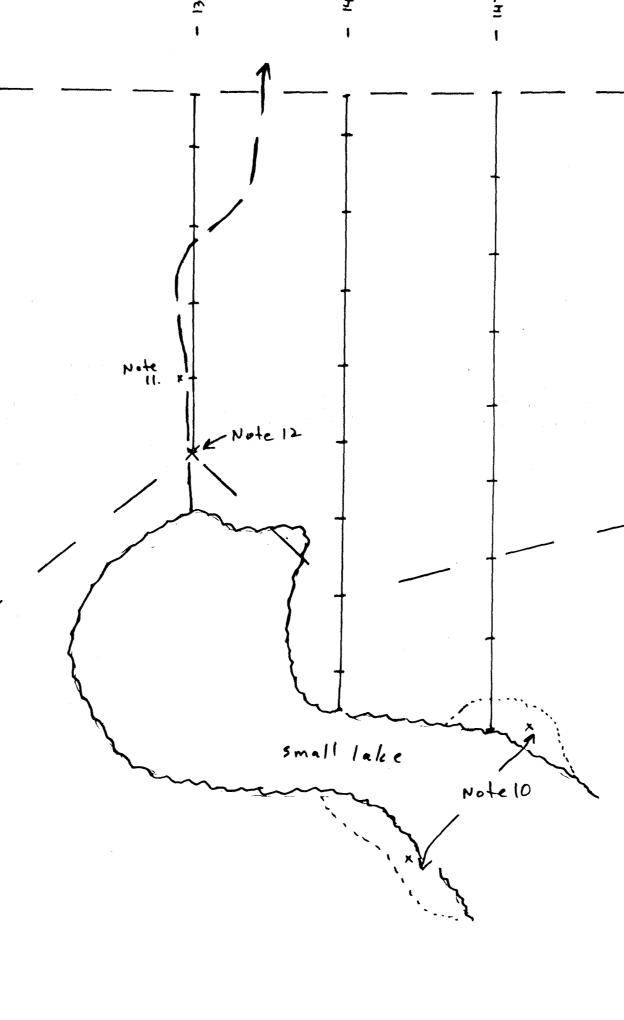
Note 10: Observation; 1475E 1950N area, UTM 17, 6093848, 52317 134, NA 627; buff to white weathered, matted surface, pebble conglomerate sandstone, > 10m² area.

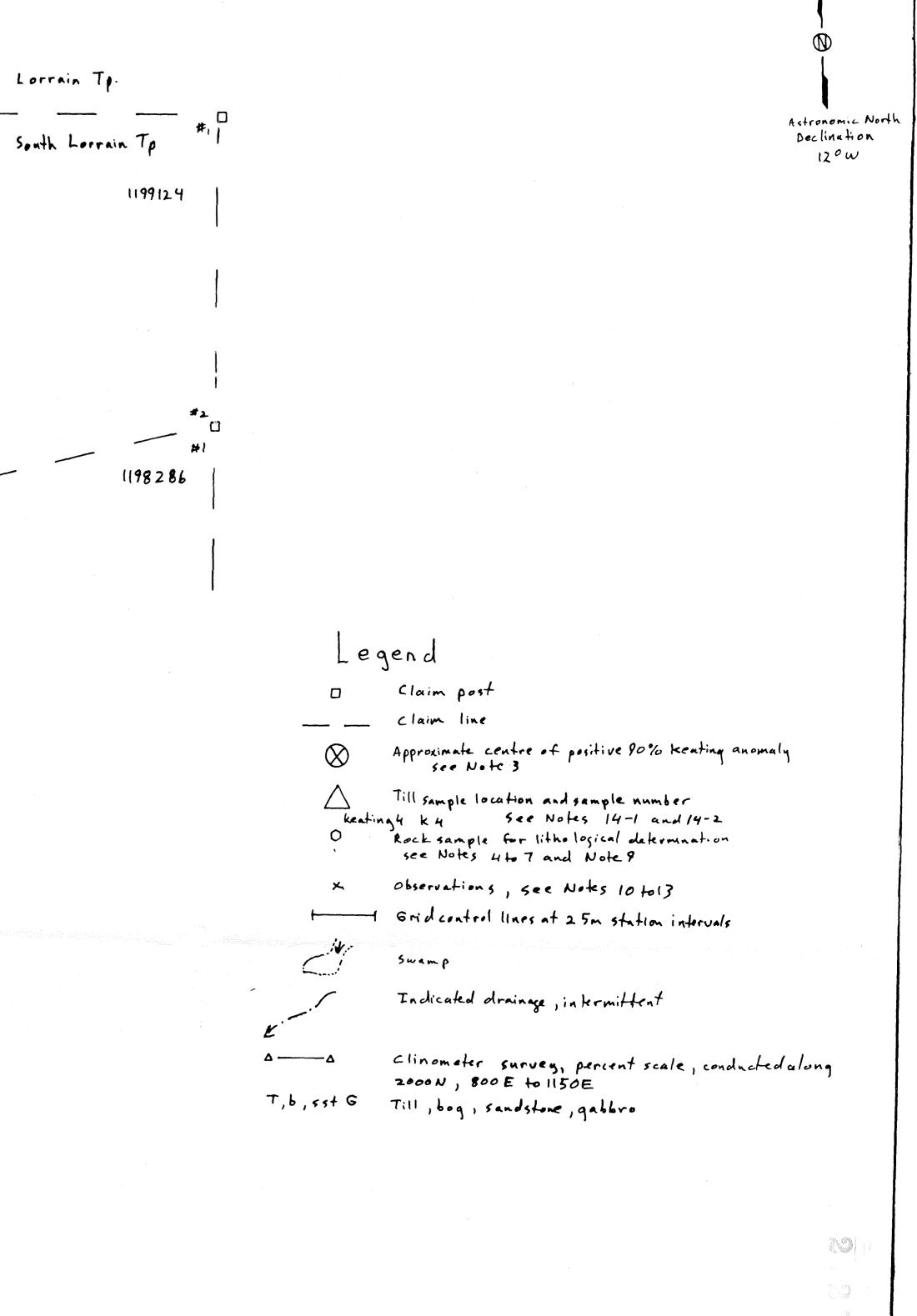
Notell : Observation; 1375E 2017 Narex, exposure in north flowing creek, west bank, in-filled exploration trench opened at base of inclined diabase ridge in contact with steeply dipping sandstone (pebble conglomerate (?)), pink curbonate, altered (?).

Note 12: Observation; Stream sediment at 1375 E 2000 N, UTM 17, 609280E 5231762 N, NAD 27; coasses and and gravel in boulder field over sandstone pebble conglomerate bedrock; debre choked creek, draing windy hake, drainage to the north at -4° slope; re-worked till, poorly sorted, cubbles and boulders Sub angular to well rounded comprised of 60% sediment, 10% metasediment, 10% Nipissing diabase, 10% febric intrusive; organic contamination.

Note 13: Observation, stream sediment at 846E 1874N area, UTM 17,608776E, 5231582 N, NAD27; intermittent creek, sandstone pebble conglomerate outcrop floored creek bottom; drainge at azimnth 250°, - 3° slope inclination, veneer, well drained, conifers readar and spruce, and poplar and birch, pockets of coarse sand contaminated with organic debris, dark brown.

Note 14 : Gold grains and kimberlife Indicator Minerals (KIMs) observation made by Overburden Drilling Management Ltd. Ottawa ÓN. 14-1 Composite sample KI+ K2: No gold observed; 55 KIMs, 9purple garnets lorange garn et, I chrome diopside, Bilmenites, 6 chromites, 30 forsteritic olivine . 14-2 composite sample K3 + K4: 7 reshaped guldgrains; 9 KIMs, 3purple garnets 3 ilmenites, 2 chromites, 1 forsterificolivine.



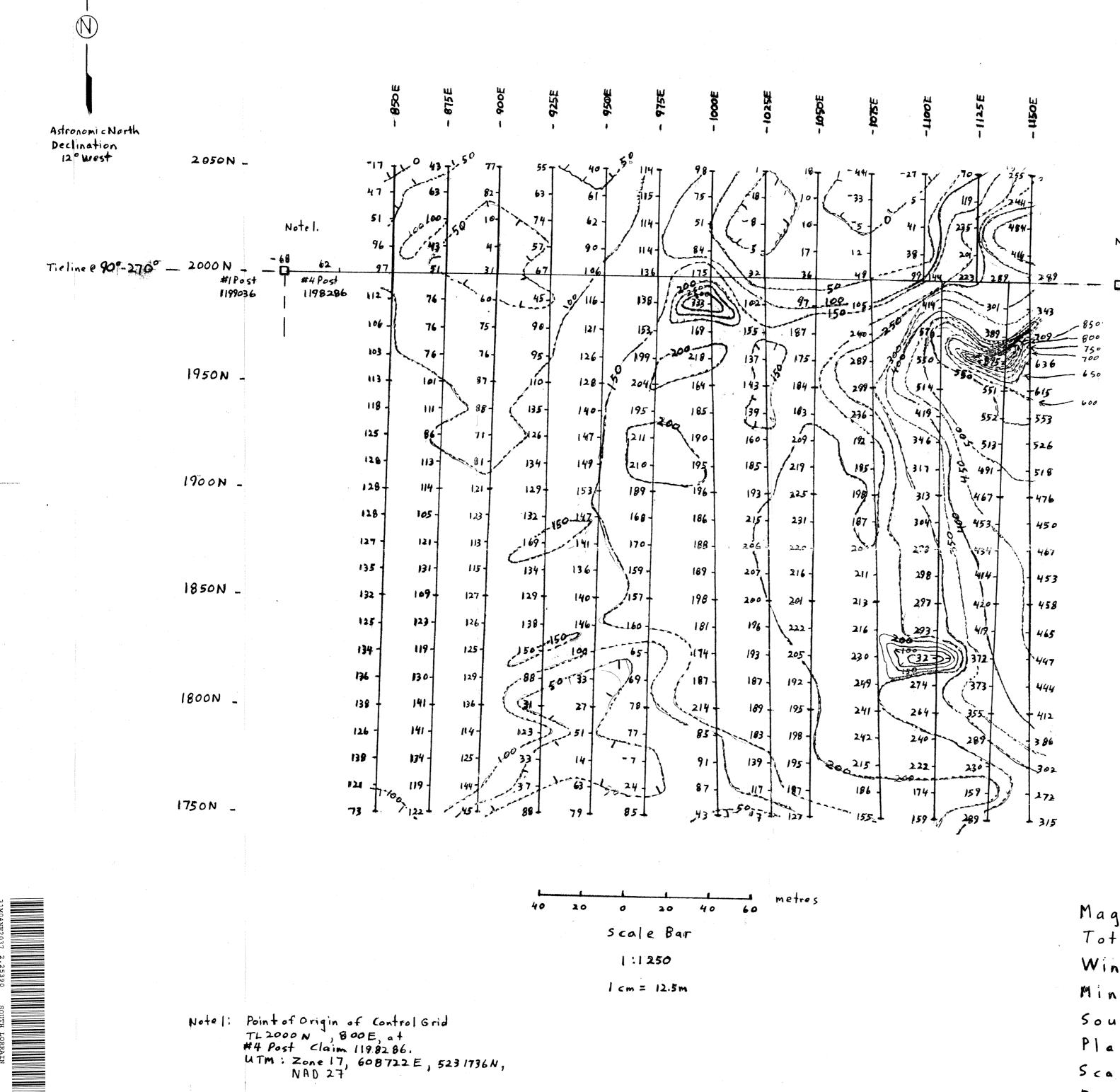


Prospecting Activites Map

Windy Lake Claim Group Mining Claims 1198286 and 1199124 South Lorrain Township Plan G - 3448 N.T.S. : 31 M /4 Scale 1: 1250 Map: 2 Drawn by: C. J. Laidlaw Date:

Work Supervised by: C.J. Laidlaw

Work Conducted by: S. Plunkett, D. Hanes and C.J. Laidlaw



Note2: Line Post 400m East #4-1198286. UTM: Zone 17, 609/14E, 5231745N. NAD 27

230

Note 2.

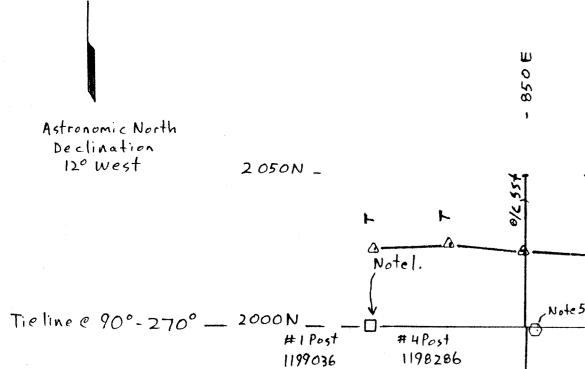
egend Located claim posts Claimline -----77 Control line with posted magnetic values NB. Add 57,000 for Total Field -7 Values in gamma 24 Contour lines in 50 gamma increments 50-100 Magnetic Depression 6100

Instrument: Geometrics G-826 portable proton magnetometer

Surveyedby: Sherwood Plunkett

Magnetometer Survey Total Field Contours Windy Lake Claim Group Mining Claim 1198286 South Lorrain Township Plan 6-3448 NT 5: 31M/4 Scale: 1:1250 Map: 1 Drawn By: C. Jim Laidlaw Date: June 28,2002

10



(N)

1950N \_

1900N \_ 1850N \_

1800N \_ 1750N \_

,Note5 . 12 V

875E

3006

925E

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950

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Note 4.

V

9751

V

150m

L.A-B Note8.

1000

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 $\mathbf{V}$ 

V

20 0 20 40 Scale Bar 1:1250

 $1 \, \mathrm{cm} = 12.5 \, \mathrm{m}$ 

Notel: Point of Origin of Control Grid TL2000N ; BOOE at the #4 Post Claim 1198286 UTM: Zonel7, 608722E, 5231736N, NAD 27.

Note2: LinePost 400 m East #4-1198286 UTM: Zone 17, 609114E, 5231745N, NAD 27,

Note 3: Approximate centre of positive 90% keating coefficient anomaly : Grid L 1979 E, 1905N; UTM; Zone 17, 609J002 E, 5231625N, NAD 27.

Note 4: Grab sample for Lithological determination, Grid L925E, 2006N, sandstone.

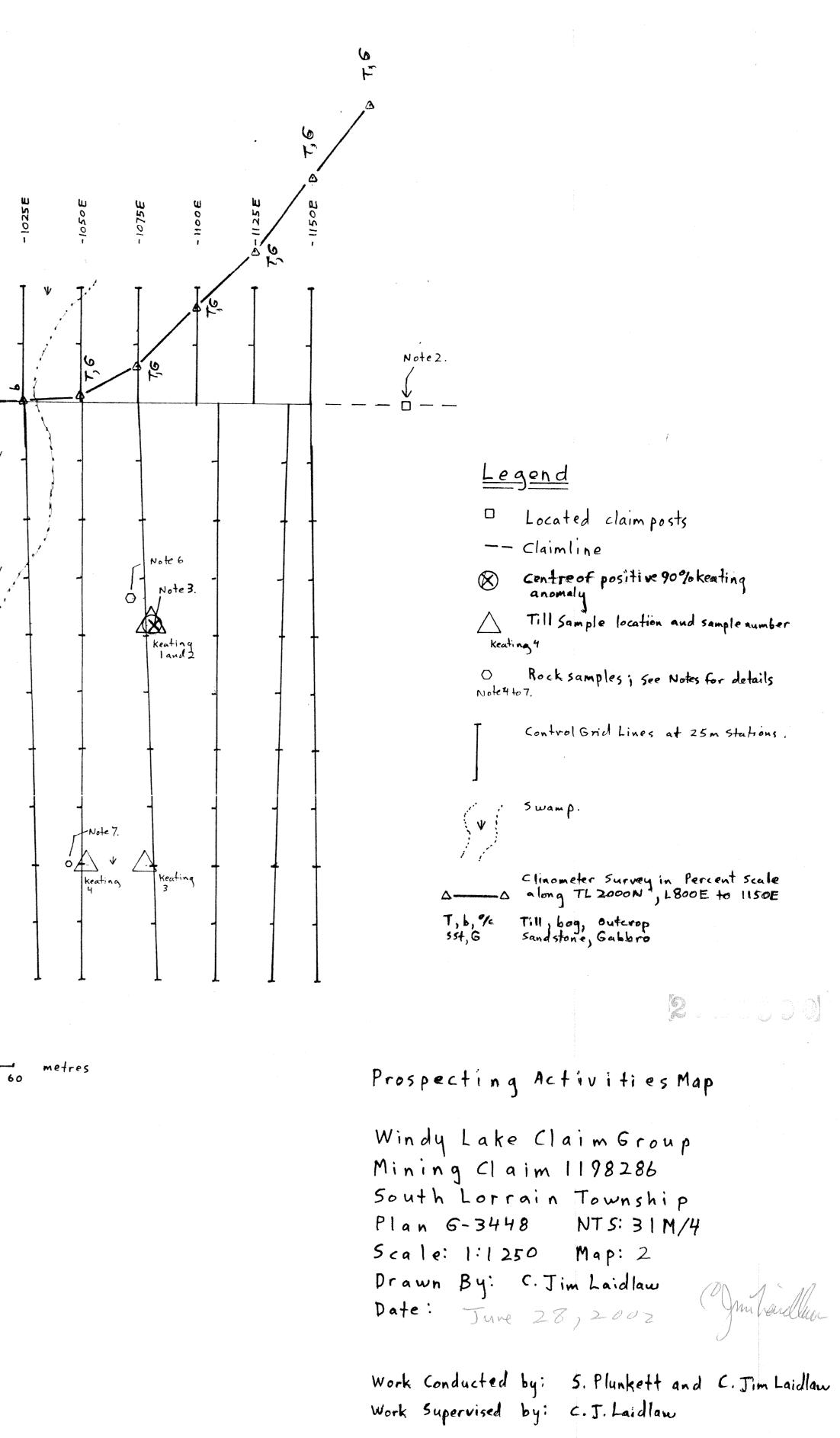
Note 5: Grab Sample for Lithological determination, Grad L 854E, 1999N, Sandstone.

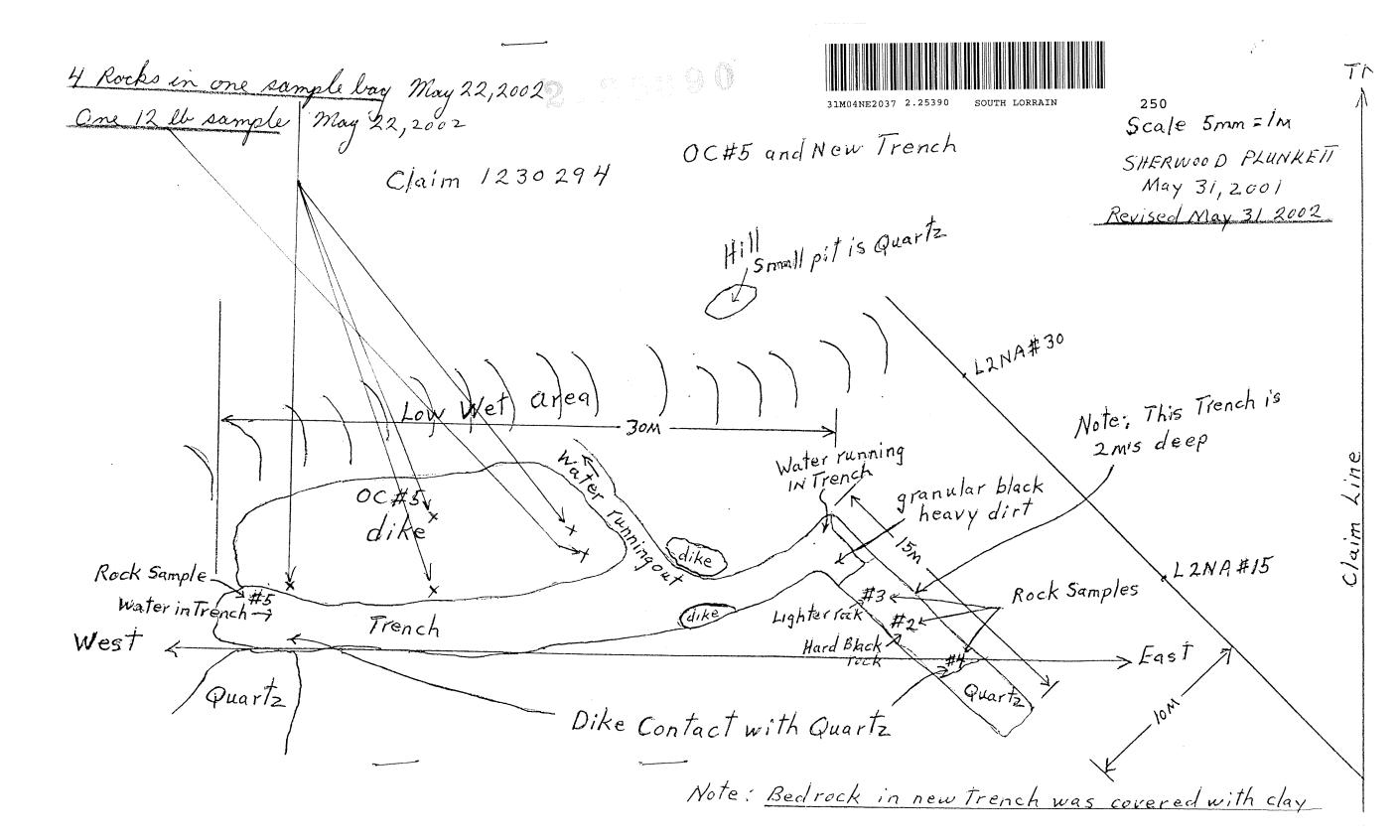
Note 6: Grub Sample for Lithological determination and An Pt and Pd analysis, Grid L 1070E, 1916N, varied textured Nipissing gabbro.

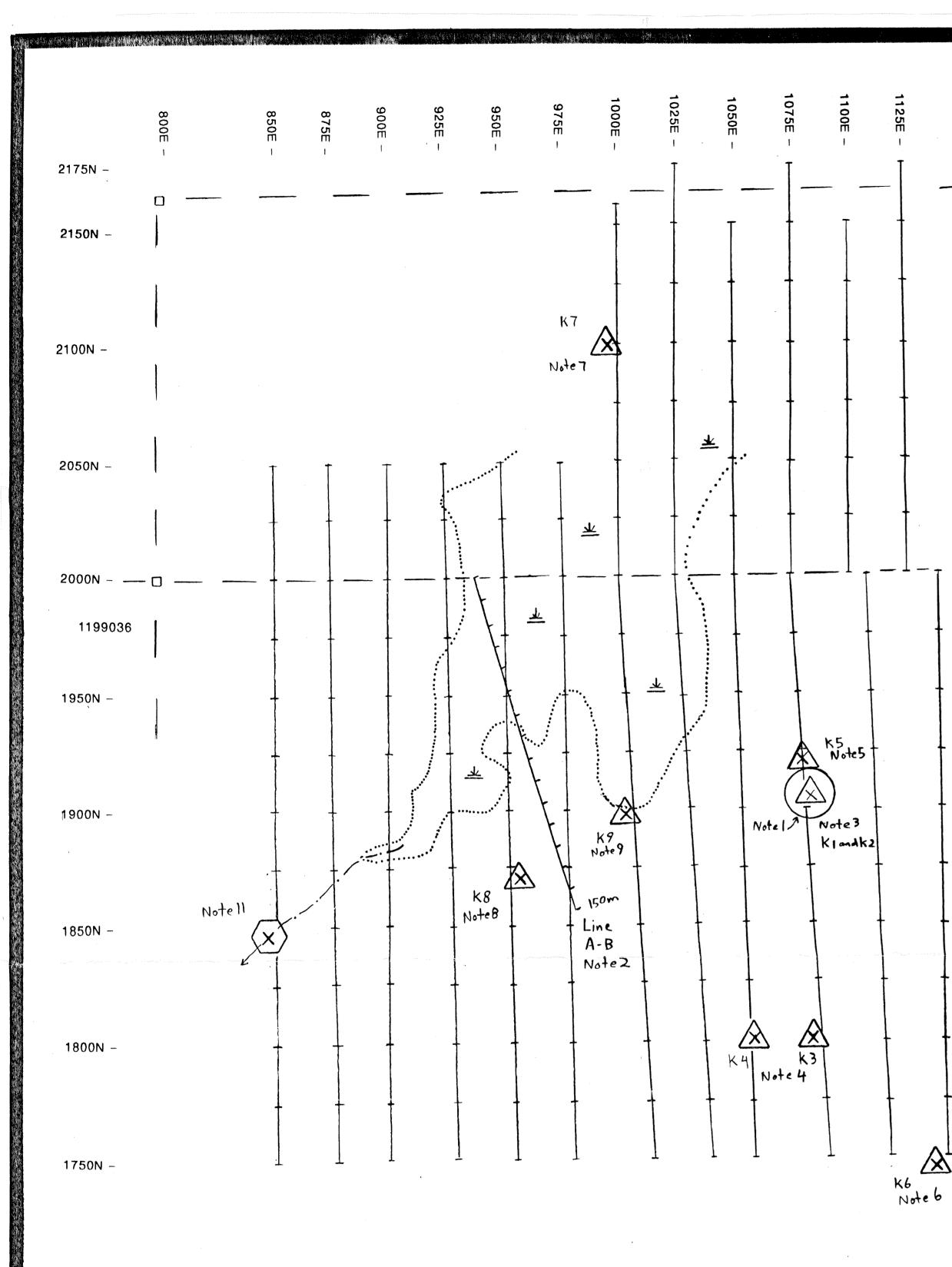
Note 7: Grub Sample for Litho losicul determination, Grid L104'6E, 1800 N, Nipissing gabbro.

Note 8: L.A-B , previously established flagged control line, 10m stations.









1700N -

<u>Notes</u>

Approximate centre of positive 90% Keating coefficient anomaly; grid 1979E Note 1: 1905N; UTM 609002E, 5231625N, NAD 27\*.

Line A-B, a previously established flagged control line at 10m station intervals. \*\* Note 2:

Composite sample K-1 + K-2. Combined sample weight 11.3 kg. Grid 1079E, Note 3: 1905N; UTM 609002E, 5231625N; till, level blanket, near edge of steep west facing till covered Nipissing diabase ridge, 5m height; -5° east slope, well drained hardwood mix, B-horizon; pocket of drift about 1m thick, over polished gabbro outcrop; silty sandy pebble-cobble-boulder till with clasts comprised of mafic and felsic intrusive and sedimentary rock types and white marble-like cobbles; composite sample from two holes about 5m apart and this description for hole K1 only. Gold grains and Kimberlite Indicator Minerals (KIM's) observations made by Overburden Drilling Management LTD, Ottawa ON; no gold observed; 55 KIM's, 9 purple garnets, 1 orange garnet, 1 chrome diopside, 8 ilmenites, 6 chromites, 30 forsteritic olivines. \*\*

Composite sample K-3 + K-4. Combined weight 7.2 kg. <u>Hole K-3</u>; grid 1072E, <u>Note 4:</u> 1800N; UTM 609001E, 5231542N; till, > 2m thick apron-like blanket near edge of steep west facing 2m ridge; sample depth 1.10m; edge of low wet area; silty sandy pebble-cobble-boulder till with clast comprised of mafic and felsic intrusive and sedimentary rock types and; Hole K-4; grid 1050E, 1800N; UTM 608968E, 5231549N; till, > 1m, level blanket at edge of low wet area; sample hole fills rapidly with water; Nipissing diabase outcroppings; silty sandy pebble-cobble-boulder till with clast comprised of mafic and felsic intrusive and sedimentary rock

types Gold grains and Kimberlite Indicator Minerals (KIM's) observations made by Overburden Drilling Management LTD, Ottawa ON; 7 re-shaped gold grains; 9 KIM's, 3 purple garnets, 3 ilmenites, 2 chromites, 1 forsteritic olivine. \*\*

WLCG K-5. Grid 1075E, 1930N; UTM 608992E, 523168N; till, > 1m, level blanket; Note 5: sample depth .90m, sample weight 7.25 kg; hole terminates on Nipissing diabase outcrop; clayey silty sandy pebble-cobble-boulder till with clast comprised of mafic and felsic intrusive and sedimentary rock types.

Kimberlite Indicator Minerals (KIM's) and other mineral observations made by Dr. Arpad Farkas, Consulting Geologist, Toronto, ON; 18 KIM's, 4 pyrope, 10 chromite, 4 Mg-ilmenite, Mg-olivine observed and; 1 low-Cr diopside and 14 uvarovite.

WLCG K-6. Grid 1120E, 1746N; UTM 609038E, 5231479N; till, .60 m, inclined, till Note 6: filled depression at edge of +10° East slope; hole terminates on Nipissing diabase outcrop; sample weight 5.25 kg; silty sandy pebble-cobble-boulder till with clast comprised of mafic and felsic intrusive and sedimentary rock types.

Kimberlite Indicator Minerals (KIM's) and other mineral observations made by Dr. Arpad Farkas, Consulting Geologist, Toronto, ON; 10 KIM's, 6 chromite, 4 Mg-ilmenite, Mg-olivine observed and; 4 uvarovite.

## Notes

WLCG K-7. Grid 996E, 2100N, UTM 608925E, 5231808N: till, level blanket, edge of Note 7: bog adjacent to sandstone outcrop area; hole terminates in till at .70 m and fills with water immediately; sample weight 14.25 kg; silty sandy pebble-cobble-boulder till with clast comprised of mafic and felsic intrusive and sedimentary rock types. Kimberlite Indicator Minerals (KIM's) and other mineral observations made by Dr. Arpad Farkas, Consulting Geologist, Toronto, ON; 6 KIM's, 3 chromite, 3 Mg-ilmenite.

WLCG K-8. Grid 954E, 1871N, UTM 608883E, 5231610N; till, level blanket, thin Note 8: drift over sandstone outcrop area; hole terminates on sandstone outcrop at .40 m; sample weight 18.00kg; silty sandy pebble-cobble-boulder till with clast comprised of mafic and felsic intrusive and sedimentary rock types.

Farkas, Consulting Geologist, Toronto, ON; 8KIM's, 1 pyrope, 5 chromite, 2 Mg-ilmenite and; 1 low-Cr diopside.

WLCG K-9. Grid 994E, 1897N, UTM 608923E, 5231639N; till, inclined blanket, .85 Note 9: m depth, hole ends at .85 m on outcrop of Nipissing diabase; sample weight 10.00 kg; silty sandy pebble-cobble-boulder till with clast comprised of mafic and felsic intrusive and sedimentary rock types.

Kimberlite Indicator Minerals (KIM's) and other mineral observations made by Dr. Arpad Farkas, Consulting Geologist, Toronto, ON; 3 KIM's, 2 chromite, 1 Mg-ilmenite, and; 2 low-Cr diopside and 1 Uvarovite.

Alluvium, WLCG 1375E, 2000N. Grid 1375E, 2000N; UTM 609280E, 5231762N; Note 10: coarse sand and gravel in boulder field over sandstone pebble conglomerate bedrock; organic debris choked creek, draining Windy Lake area; drainage to the north, on a -4° slope; reworked till, poorly sorted cobbles and boulders, sub-angular to well rounded comprised of 60% sedimentary, 10% metasedimentary, 10% Nipissing diabase, 10% felsic intrusive. Kimberlite Indicator Minerals (KIM's) and other mineral observations made by Dr. Arpad Farkas, Consulting Geologist, Toronto, ON; 3KIM's, 1 chromite, 2 Mg- ilmenite.

Alluvium; WLCG 846E, 1847N. Grid 846E, 1847N; UTM 608776E, 5231582N; Note 11: intermittent creek, sandstone pebble conglomerate outcrop floored creek bottom; drainage at azimuth 240°, -3° slope inclination, thin veneer overburden well drained, cedar and spruce and polar and birch; pockets of coarse sand contaminated with high content of organic debris, dark brown

colour. Kimberlite Indicator Minerals (KIM's) and other mineral observations made by Dr. Arpad Farkas, Consulting Geologist, Toronto, ON; 2 KIM's, 2 chromite.

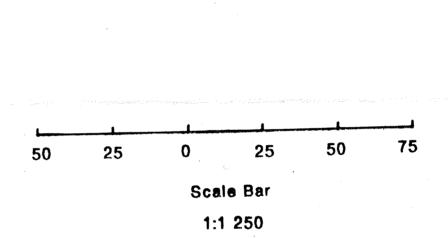
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\* all UTM coordinates Zone 17, Datum NAD 27. \*\* previously reported in assessment report dated September 4, 2002.



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Kimberlite Indicator Minerals (KIM's) and other mineral observations made by Dr. Arpad



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Note 10

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1 cm = 12.5 m

LORRAIN TP SOUTH LORRAIN TP 1199124 1198286

□ 1199124
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## Legend

Claim post

Claim line and claim number

Grid control line with 25 m station intervals

Swamp

Lake

Drainage, flow direction indicated

Approximate centre of positive 90% Keating Anomaly, see Note 1 Line A-B, see Note 2

Till sample location and sample number, see Notes 3 to 9

Alluvium sample location and sample number, see Notes 10 and 11

# **Propecting Activities Map**

## Windy Lake Claim Group

Plan Map of Grid and Topographic Features and, Till and Alluvium Sample Locations and Related Notes of Sample Descriptions and Results

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madoc on

Hebrian

Mining Claims 1198286 and 1190124

South Lorrain Township

N.T.S. 31M/4 Plan G - 3448

Map 1 Scale 1: 1 250

Drawn by: C.J. Laidlaw

Date: February 5, 2003

Work Performed by: D. Hanes and C.J. Laidlaw Work Supervised by: C.J. Laidlaw