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# **2019 SOIL SAMPLING PROGRAM: PORPHYRY LAKE PROPERTY**

TYRRELL TOWNSHIP  
LARDER LAKE MINING DIVISION, ONTARIO, CANADA

TIMOTHY YOUNG  
SUITE 3123  
595 BURRARD ST.  
VANCOUVER, B.C.  
V7X 1J1

November 22<sup>nd</sup>, 2019

Prepared By:

JOERG M. KLEINBOECK, P.GEO.

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## **EXECUTIVE SUMMARY**

Mr. Timothy Young requested the author to complete a technical report for assessment purposes on a recently completed reconnaissance soil sampling program on his 100% owned Porphyry Lake Property (“Property”).

The Property is situated approximately 25 km west of Gowganda, Ontario, within Tyrrell Township. The Property is bounded by UTM NAD83 coordinates 17N 497900E to 498340E, and 5276500N to 5276935N. The Property consists of 3 mining cell claims totalling approximately 17.5 ha in area.

On October 31<sup>st</sup>, 2019, the author collected 34 B-horizon soil samples. Soil samples were obtained using a Dutch auger, and were taken at approximate 25 m intervals along flagged grid lines using a GPS for control. The most prominent anomaly is sample 1029 which returned 127 ppb Au. Field notes indicate the sample was reddish-orange in colour, suggesting that the soil has been oxidized due to the presence of iron oxides. It is the author’s opinion that the source of the mineralization in sample 1029 is a local bedrock source. It is recommended that prospecting and mechanical stripping, if warranted, be completed to expose the local bedrock geology proximal to this sample.

Several other samples from the survey are also considered anomalous, and may represent possible mineralization sourced from the Breeze Lake Shear Zone that crosses the Property underneath Porphyry Lake to the north. Gold mineralization has been reported in assessment reports along this west-northwest structure, which is a common orientation for a number of gold-bearing structures in the Shining Tree Camp.

From the limited number of samples taken during the geochemical program, a significant amount of the samples are considered by the author to be anomalous. Additional infill B-horizon sampling should be completed to better define any “till streaks” originating from Porphyry Lake. An IP (induced polarization) survey is also recommended during the winter months over Porphyry Lake to assess if there are any geophysical anomalies that correspond with the interpreted Breeze Lake Shear Zone. As a first step, the survey

should only consist of a couple of lines to target areas up ice from the anomalous gold-in-soil anomalies.

## **1.0 INTRODUCTION**

On October 31<sup>st</sup>, 2019, 34 B-Horizon soil samples were collected south of Porphyry Lake on claims 117685 and 235573. Previous work by A.W. Beecham in 2010 focused on mapping the geology and prospecting around Porphyry Lake. Anomalous gold mineralization, ranging from 39 to 152 ppb, was collected along the northern and southern shores of the east bay of Porphyry Lake, where the interpreted Breeze Lake Shear Zone (“BLSZ”) passes the Property.

As recommended by A.W. Beecham (2010), the geochemical survey was designed to test for any mineralized till streaks that may emanating from the BLSZ located to the north, and underneath, Porphyry Lake.

## **2.0 PROPERTY DETAILS**

### **2.1 Location and Access**

The Property is situated approximately 25 km west of Gowganda, Ontario, within Tyrrell Township.

An old logging road branching off of Highway 560 (497690E,5277430N) provides access to the west side of the Property. Alternatively, a boat or canoe could be used to access the Property by using the boat launch where Porphyry Lake meets the highway.

### **2.2 Topography and Vegetation**

The topography of the Property is characterized by gently rolling hills and flat areas separated by Porphyry Lake. Topographic relief is less than 25 metres in hilly areas where outcrop exposure is up to 5%. Forest cover is a combination of poplar, birch, jack pine, and cedar. Abundant water resources for exploration purposes are provided by Porphyry Lake. The mean elevation of the Property is approximately 369 m above sea level.

### 2.3 Claims

The Property is bounded by UTM NAD83 coordinates 17N 497900E to 498340E, and 5276500N to 5276935N. The Property consists of 3 mining cell claims totalling approximately 17.5 ha in area (Table 1, Figure 2).



Figure 1: General Location of the Porphyry Lake Property, Ontario.

Table 1: Claim Details of the Porphyry Lake Property

Township / Area	Tenure Type	Tenure ID	Anniversary Date	Work Required	Work Applied	Total Reserve
TYRRELL	Boundary Cell Mining Claim	117685	2020-04-05	\$200	\$188	\$0
TYRRELL	Boundary Cell Mining Claim	235573	2020-04-05	\$200	\$200	\$0
TYRRELL	Boundary Cell Mining Claim	205669	2020-04-05	\$200	\$0	\$0

### 3.0 PREVIOUS WORK

This section has been sourced from an earlier report completed by A.W. Beecham in 2010.

1931: McIntyre Porcupine Mines completed stripping and trenching as part of a program completed in the McIntyre Lake area (currently known as the Duggan Zone).

1931: Shahan Group explored areas around Breeze Lake extending WNW along the BLSZ to the outlet of Porphyry Lake.

1958: Ranworth Exploration Ltd. completed six diamond drill holes to the southwest of the Property.

1961: Sunbeam Exploration completed magnetometer and geological surveys over the northern half of the Property.

1971: Timiskaming Nickel held claims in the Porphyry Lake area.

1974: Sloan Mining completed geological mapping on the north half of the Property.

1994-1995: Haddington Resources completed geological mapping and a magnetometer survey east of the Property.



1997: Shining Tree Resources completed magnetometer, VLF, EM, IP surveys over the north half of the Property.

2003: S. Swain completed prospecting on the northeast part of the Property.

2004: Temex Corp. held claims on the west side of Porphyry Lake and completed trenching and sampling.

2010: Tim Young (through A.W. Beecham), completed prospecting and geological mapping along the shoreline and traverses off of Porphyry Lake.

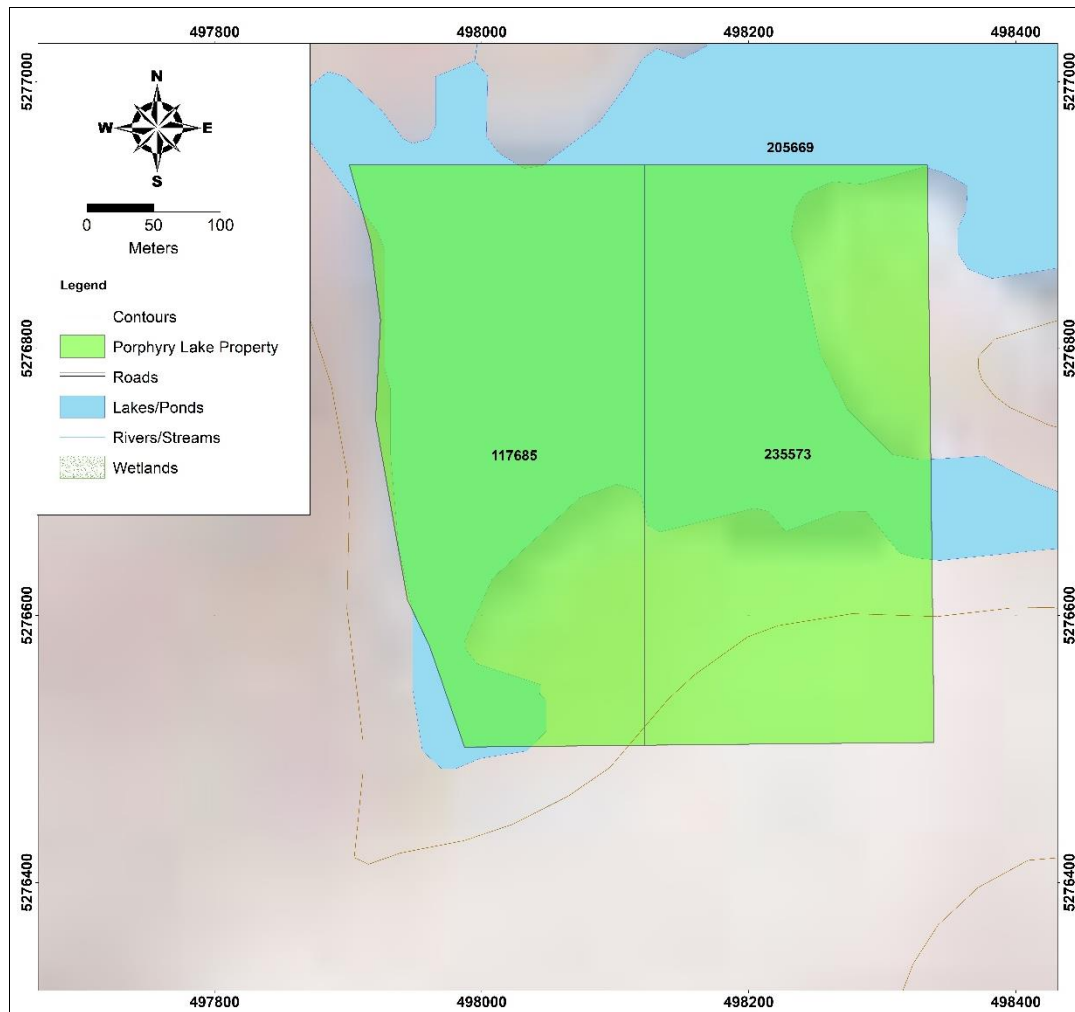


Figure 2: Tenure of the Porphyry Lake Property.

## 4.0 GEOLOGY

### 4.1 Property Geology

The Shining Tree area is part of the southern Abitibi sub-province and is roughly 40 by 28 km's size and encompasses 12 townships: Cabot, Kelvin, Natal, Knight, Connaught, Churchill, MacMurchy, Tyrrell, Miramichi, Asquith, Fawcett and Leonard.

The Property is primarily underlain by intermediate (to felsic) volcanics. The west-northwest trending BLSZ crosses the Property underneath Porphyry Lake. Gold mineralization has been reported in assessment reports along this structure, which is a

common orientation for a number of gold-bearing structures in the Shining Tree Camp, including the Tyrrell Shear Zone (“TSZ”), a parallel structure located 2 km to the south. A north-south trending Matachewan-type diabase dyke, located on the east side of Porphyry Lake, cross cuts all other rock types.

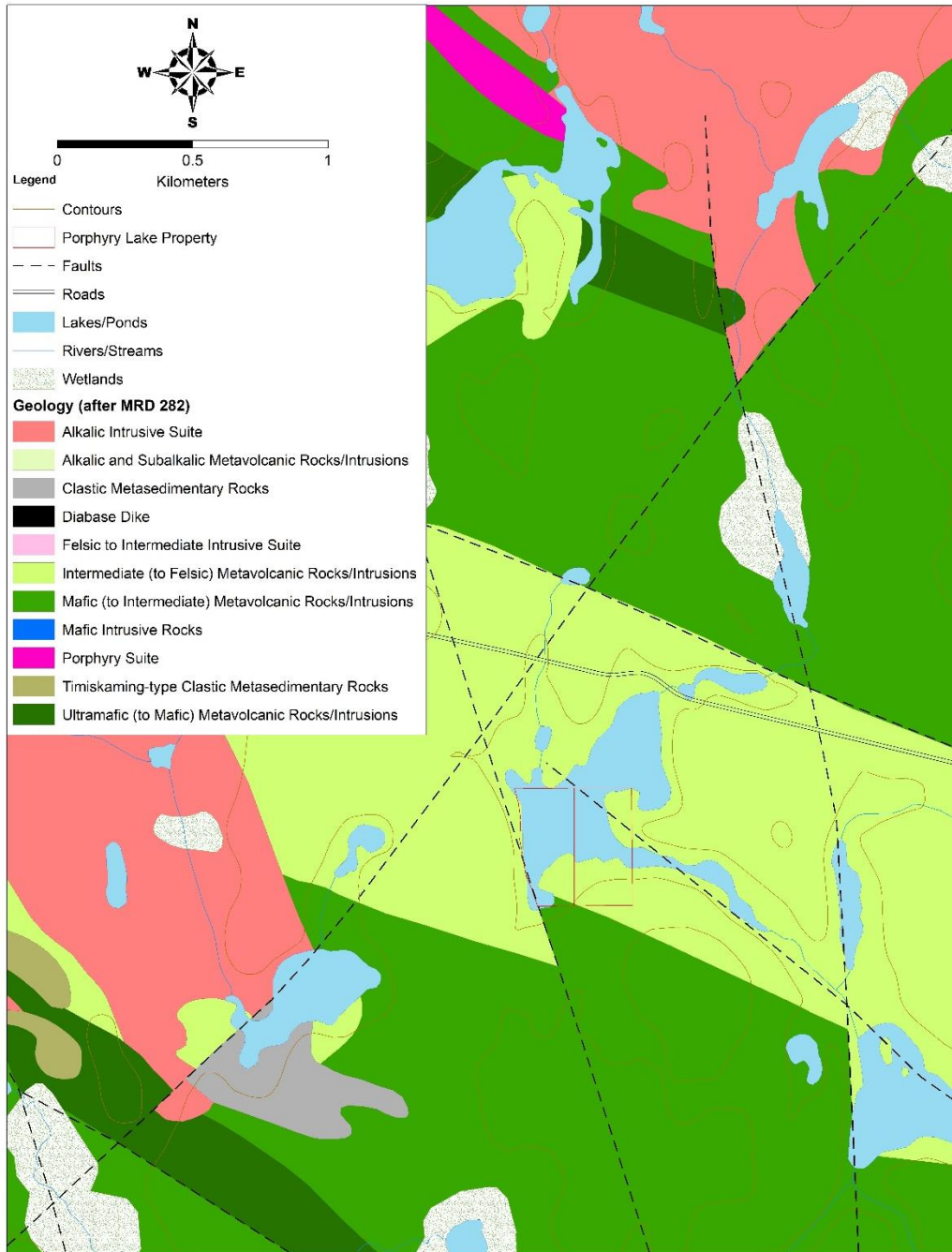


Figure 3: Regional Geology of the Porphyry Lake Property (after MRD 282).

## 5.0 2019 SOIL GEOCHEMICAL PROGRAM

### 5.1 Description of Work

On October 31<sup>st</sup>, 2019, the author collected 34 B-horizon soil samples. Soil samples were obtained using a Dutch auger, and were taken at approximate 25 m intervals along flagged grid lines using a GPS for control. The most prominent anomaly is sample 1029 which returned 127 ppb Au. Field notes indicate the sample was reddish-orange in colour, suggesting that the soil has been oxidized due to the presence of iron oxides. It is the author's opinion that the source of the mineralization in sample 1029 is a local bedrock source. It is recommended that prospecting and mechanical stripping, if warranted, be completed to expose the local bedrock geology proximal to this sample. Several other samples from the survey are considered anomalous, and may represent possible mineralization sourced from the Breeze Lake Shear Zone that crosses the Property underneath Porphyry Lake to the north (Table 2, Map 1). Gold mineralization has been reported in assessment reports along this west-northwest trending structure, which is a common orientation for a number of gold-bearing structures in the Shining Tree Camp.

Soil sample descriptions and results are provided in Appendix II, and the assay certificate is provided in Appendix III. Map 1, located in the back pocket, shows the sample locations.

Table 2: Selected Soil Sample Highlights.

Sample	Easting (NAD83)	Northing (NAD83)	Au(ppb)
1001	498325	5276642	48
1018	498125	5276600	46
1019	498147	5276600	58
1022	498228	5276600	34
1023	498257	5276600	26
1027	498325	5276550	63
1029	498275	5276550	127

## **6.0 CONCLUSIONS & RECOMMENDATIONS**

From the limited number of samples taken during the geochemical program, a significant amount of the samples are considered by the author to be anomalous. Additional infill B-horizon sampling should be completed to better define any till streaks originating from Porphyry Lake. An IP (induced polarization) survey is also recommended during the winter months over Porphyry Lake to assess if there are any geophysical anomalies that correspond with the interpreted Breeze Lake Shear Zone. As a first step, the survey should only consist of a couple of lines to target areas up ice from the anomalous gold-in-soil anomalies.

## **7.0 REFERENCES**

Ayer, J.A. and Chartrand, J.E. 2011. Geological compilation of the Abitibi greenstone belt; Ontario Geological Survey, Miscellaneous Release—Data 282.

Beecham, A.W. 2010. Reconnaissance Geological Mapping, Porphyry Lake Claim, 1227282. Tyrrell Township, Larder Lake Mining Division, Northeastern Ontario.

Ministry of Northern Development and Mines; Geology of Ontario, Assessment File Research Information (AFRI) found at [www.geologyontario.mndm.gov.on.ca](http://www.geologyontario.mndm.gov.on.ca)

**Appendix I**  
**Statement of Qualifications**

## Statement of Qualifications

I, Joerg Martin Kleinboeck of 147 Lakeside Drive, North Bay, Ontario, do hereby certify that:

I am a graduate of Laurentian University, Sudbury, Ontario with a B.Sc. Geology, 2000, and have been practising my profession as a geologist since.

I am a member with the Association of Professional Geoscientists of Ontario (#1411).

I am a member of the Ontario Prospectors Association.

I am independent of the subject Property.



The image shows a handwritten signature in cursive that reads "Joerg Kleinboeck". To the right of the signature is a circular professional seal. The seal contains a stylized flower or star symbol in the center. The text around the inner border of the seal reads "PROFESSIONAL GEOSCIENTIST" at the top and "ONTARIO" at the bottom. Inside the seal, below the symbol, it says "JOERG M. KLEINBOECK" and "PRACTISING MEMBER 1411".

Joerg Martin Kleinboeck  
JMK Exploration Consulting  
November 22<sup>nd</sup>, 2019  
North Bay, Ontario

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## **Appendix II**

### **Soil Sample Descriptions**

Date	Sample	X (NAD83)	Y (NAD83)	Colour	Texture	Description	Work Order	Au(ppb)
31/10/2019	1001	498325	5276642	orange-brown	sandy-silt w pebbles	slope N to lake 3m	A19-14999	48
31/10/2019	1002	498290	5276645	orange-brown	sandy-silt w pebbles	slope N to lake 5m	A19-14999	17
31/10/2019	1003	498275	5276650	light grey to beige	silty-clay	flat	A19-14999	8
31/10/2019	1004	498242	5276650	light grey to beige	silty-clay	south side of lake	A19-14999	5
31/10/2019	1005	498220	5276645	light grey to beige	clay	flat valley with boulders	A19-14999	8
31/10/2019	1006	498200	5276650	orange-brown	sandy-silt	flat	A19-14999	15
31/10/2019	1007	498175	5276650	orange-brown	sandy-silt	slight slope to NW	A19-14999	6
31/10/2019	1008	498150	5276650	orange-brown	sandy-silt	flat, lake 5m to N	A19-14999	11
31/10/2019	1009	498125	5276650	grey	clay	slight slope N to lake	A19-14999	7
31/10/2019	1010	498100	5276650	light orange	sandy-silt	flat	A19-14999	2
31/10/2019	1011	498071	5276650	orange-brown	sandy-silt	slope N to lake	A19-14999	2
31/10/2019	1012	498050	5276650	orange-brown	sandy-silt	slope N to lake 5m	A19-14999	6
31/10/2019	1013	498000	5276600	orange-brown	sandy-silt	slope N to lake 5m	A19-14999	7
31/10/2019	1014	498025	5276600	orange-brown	sandy-silt	slight slope to S	A19-14999	2
31/10/2019	1015	498050	5276600	orange-brown	sandy-silt	slight slope to S	A19-14999	8
31/10/2019	1016	498075	5276600	orange-brown	sandy-silt	slight slope to S	A19-14999	2
31/10/2019	1017	498100	5276600	orange-brown	sandy-silt	flat	A19-14999	2
31/10/2019	1018	498125	5276600	orange-brown	sandy-silt	slight slope to S	A19-14999	46
31/10/2019	1019	498147	5276600	orange-brown	sandy-silt	boulders, flat	A19-14999	58
31/10/2019	1020	498175	5276600	orange-brown	sandy-silt	slight slope to E	A19-14999	6
31/10/2019	1021	498200	5276600	light orange	sandy-silt	flat	A19-14999	5
31/10/2019	1022	498228	5276600	light orange-beige	silty-clay	o/c to E, swamp to W	A19-14999	34
31/10/2019	1023	498257	5276600	light orange-beige	silty-clay	slight slope to W	A19-14999	26
31/10/2019	1024	498275	5276600	orange-brown	sandy-silt	flat	A19-14999	2
31/10/2019	1025	498300	5276600	beige	silty-clay	slight slope to NW	A19-14999	5
31/10/2019	1026	498325	5276600	beige to grey	silty-clay	slight slope to NW	A19-14999	2
31/10/2019	1027	498325	5276550	beige to grey	silty-clay	flat	A19-14999	63
31/10/2019	1028	498300	5276550	orange-brown	sandy-silt	slope to W	A19-14999	9
31/10/2019	1029	498275	5276550	reddish-orange	silty-clay	slight slope to N	A19-14999	127
31/10/2019	1030	498250	5276550	light brown	silty-clay	flat	A19-14999	2
31/10/2019	1031	498225	5276550	orange-brown	sandy-silt	flat	A19-14999	14
31/10/2019	1032	498198	5276548	orange-brown	sandy-silt	flat	A19-14999	2
31/10/2019	1033	498175	5276550	orange-brown	sandy-silt	slope to N	A19-14999	15

31/10/2019	1034	498150	5276550	light orange	pebbly sandy-silt	slope to N	A19-14999	2
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**Appendix III**  
**Assay Certificate**



Report No.: A19-14999
Report Date: 18-Nov-19
Date Submitted: 04-Nov-19
Your Reference: Porphyry Lake

JMK Exploration Consulting
147 Lakeside Dr.
North Bay ON P1A 3E1
Canada

ATTN: Joerg Kleinboeck

CERTIFICATE OF ANALYSIS

34 Soil samples were submitted for analysis.

Table with 2 columns: The following analytical package(s) were requested, Testing Date. Row 1: 1A2-Timmins, QOP AA-Au (Au - Fire Assay AA), 2019-11-17 13:02:53

REPORT A19-14999

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

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

CERTIFIED BY:

Handwritten signature of Emmanuel Esemé

Emmanuel Esemé, Ph.D.
Quality Control Coordinator

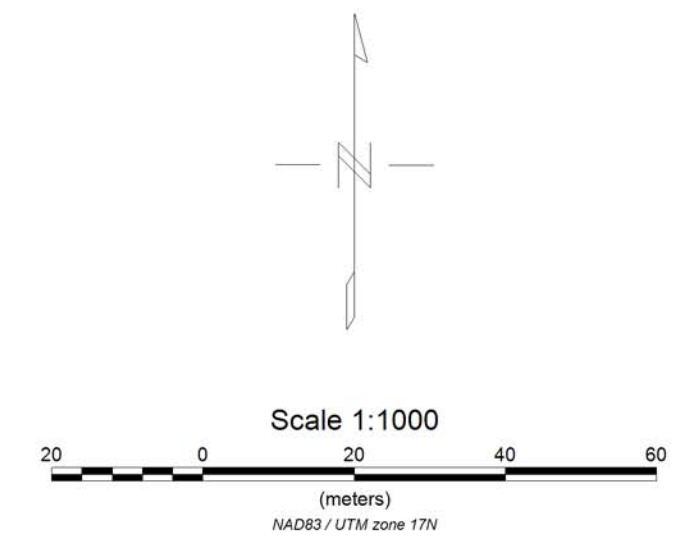
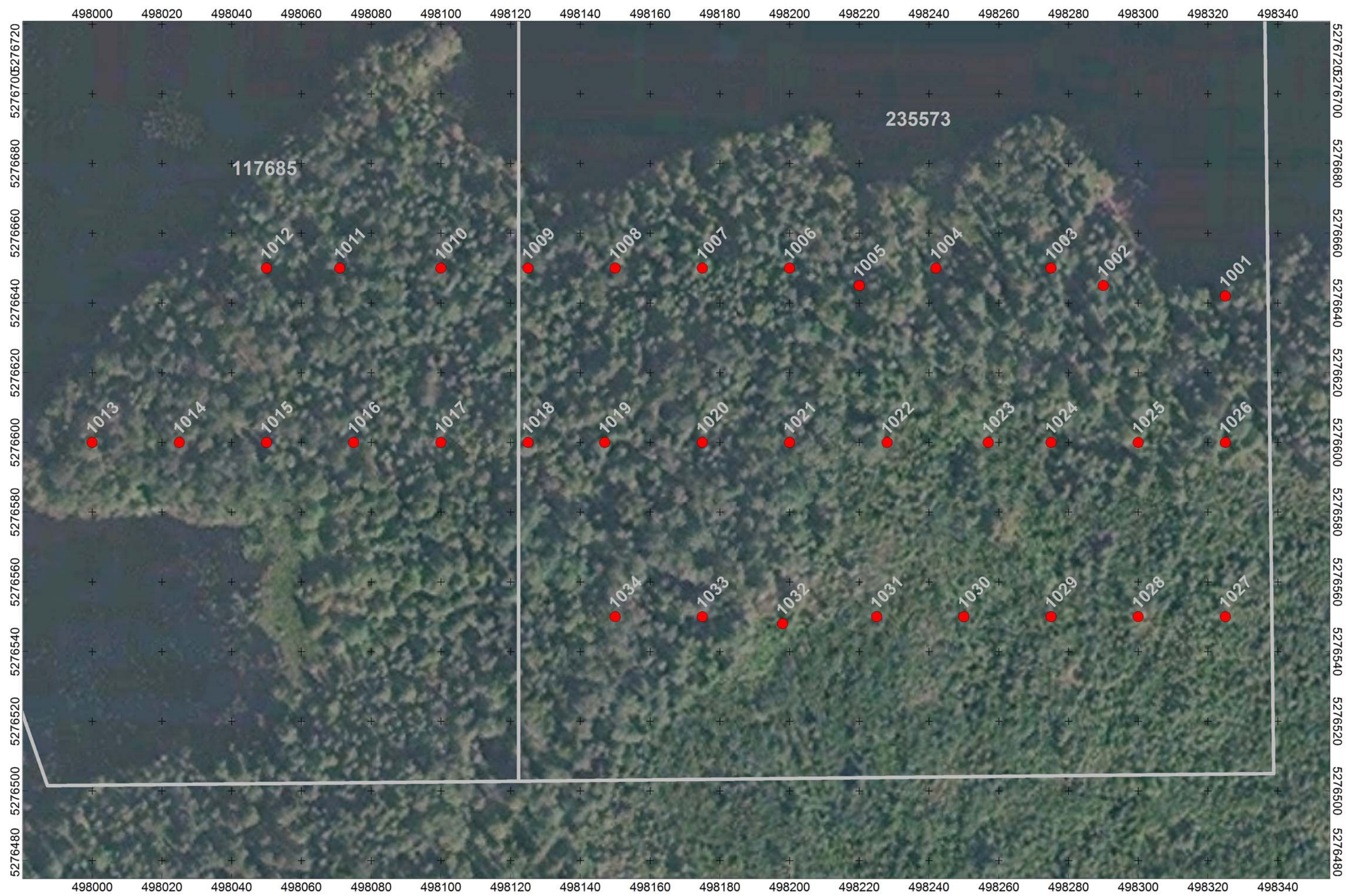
ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
1001	48
1002	17
1003	8
1004	5
1005	8
1006	15
1007	6
1008	11
1009	7
1010	< 5
1011	< 5
1012	6
1013	7
1014	< 5
1015	8
1016	< 5
1017	< 5
1018	46
1019	58
1020	6
1021	5
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1031	14
1032	< 5
1033	15
1034	< 5

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
OREAS 254 Fire Assay Meas	2480
OREAS 254 Fire Assay Cert	2550
OREAS 217 (Fire Assay) Meas	326
OREAS 217 (Fire Assay) Cert	338
1010 Orig	5
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1030 Dup	< 5
Method Blank	< 5
Method Blank	< 5

## **MAPS**

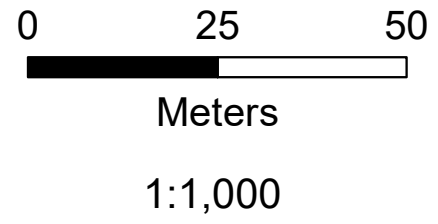
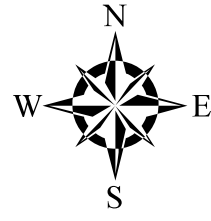




Tim Young
Porphyry Lake Property B-Horizon Soils
map by: Joerg Kleinboeck



Porphyry Lake Property  
2019 Geochemical Survey  
Tyrrell Township  
Shining Tree, Ontario

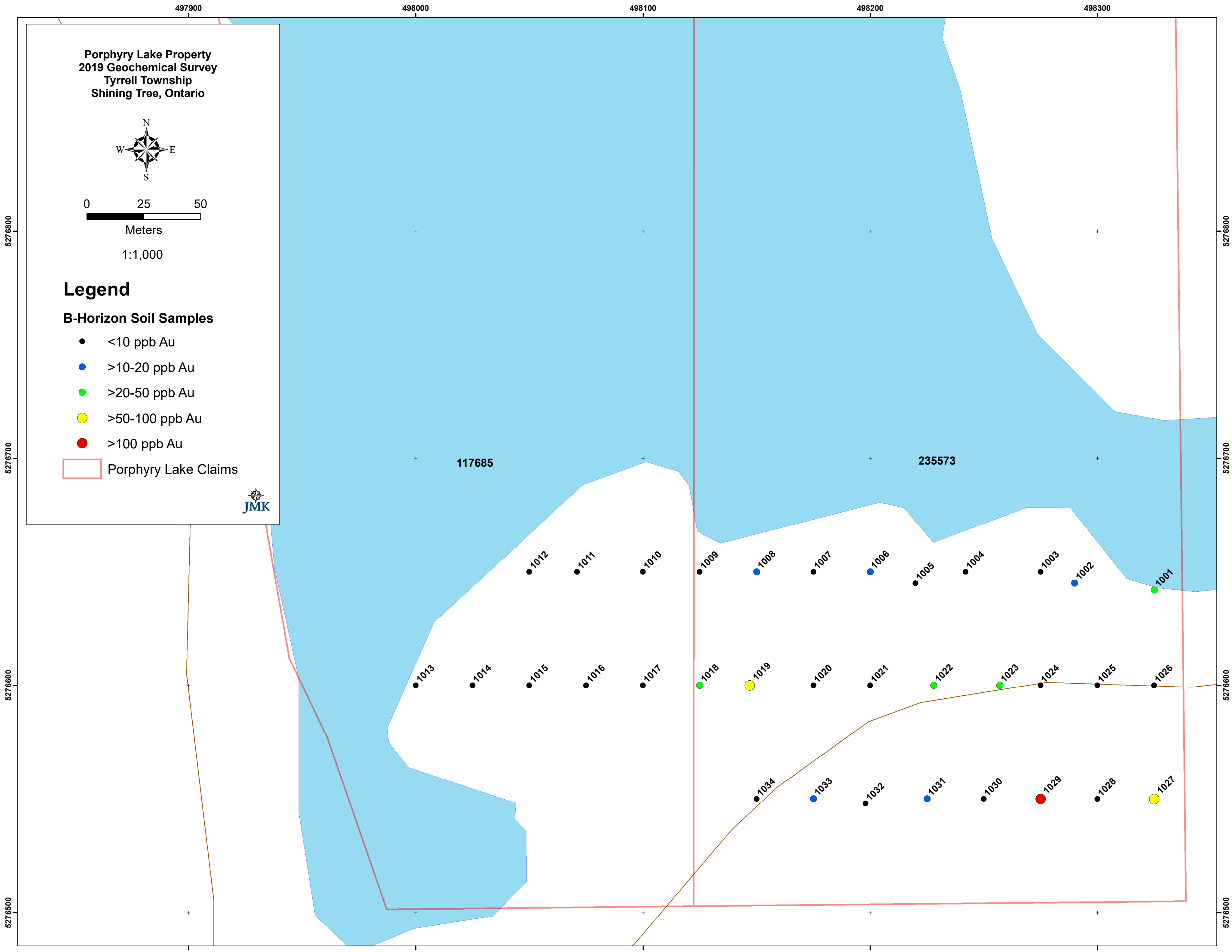


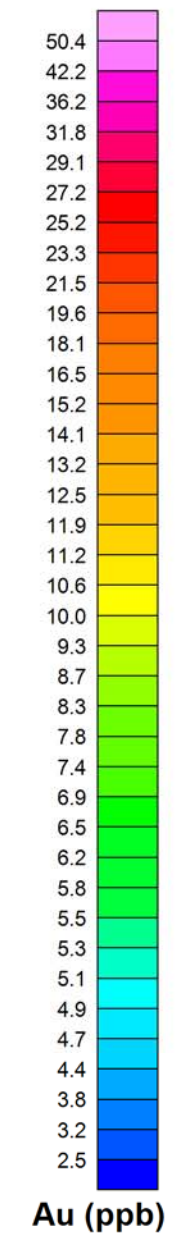
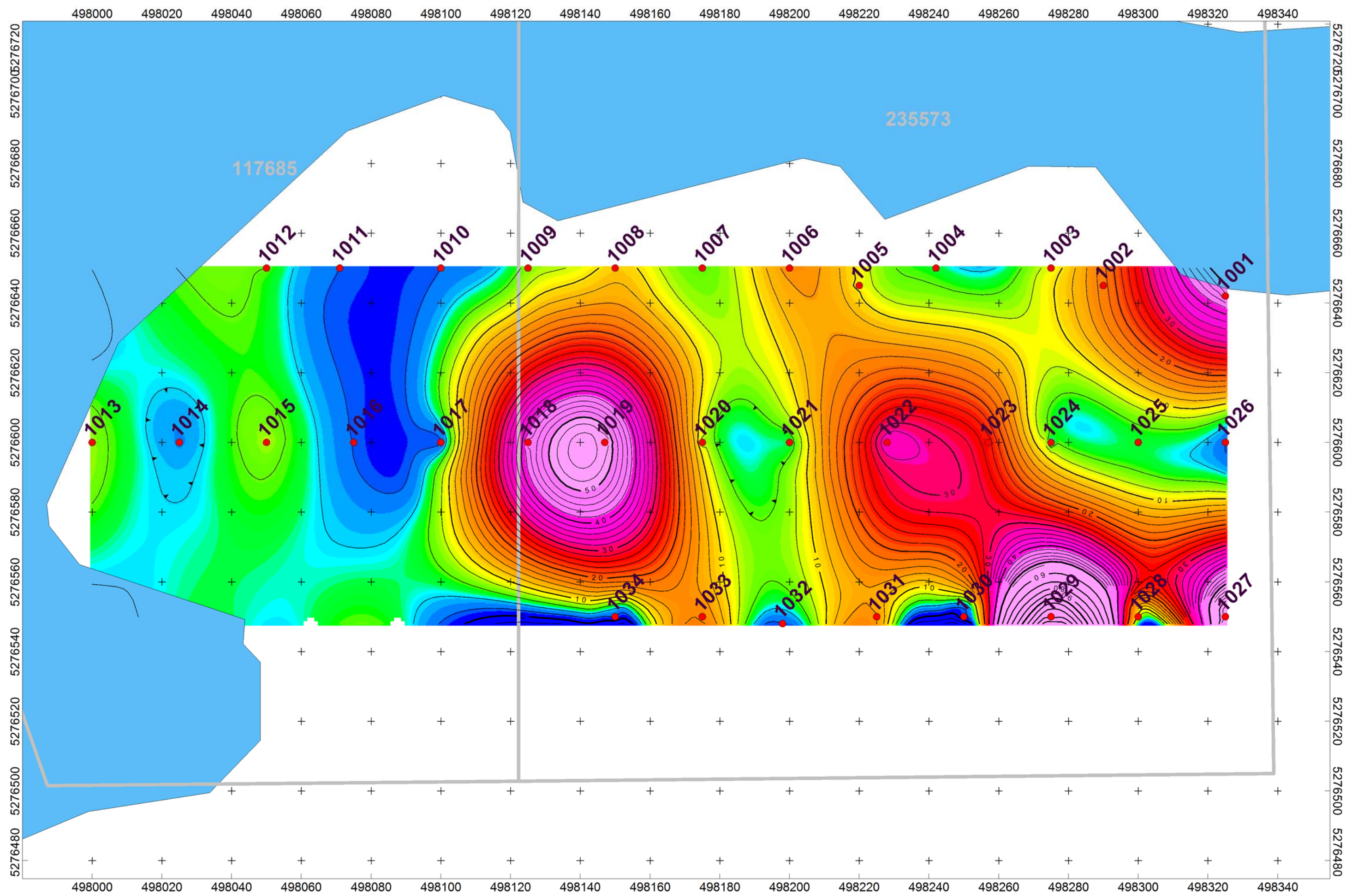
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**B-Horizon Soil Samples**

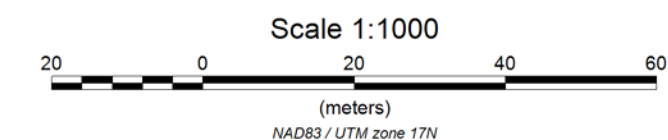
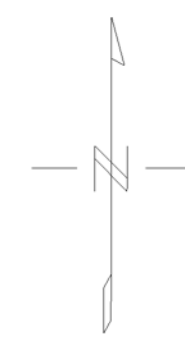
- <10 ppb Au
- >10-20 ppb Au
- >20-50 ppb Au
- >50-100 ppb Au
- >100 ppb Au

□ Porphyry Lake Claims





Au (ppb)



Tim Young  
 Porphyry Lake Property  
 B-Horizon Soils  
 map by: Joerg Kleinboeck