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Report of Sampling at Depth  
Teck Tailings Project  
Larder Lake Mining Division

by

John der Weduwen

December 06/2022

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## Introduction

Over an eight day period in August and September 2022 a deep auger sampling program was carried out on the Teck-Hughes tailings. The purpose of the program was to test for continuity and/or possible increase in grade of surface sampling performed in 2018 and 2019. Also of importance was gaining data points to help calculate the total volume of the tailings. This work was carried out by myself on August 13,14,28 & 29th and with the assistance of Steve Polson on September 14th to 17th

## Summary:

Seventeen holes were augered at various locations ranging in depth from 3.6m to 9.2m.(see figure 2) Several holes did not reach the bottom of the tailings due to the collapse of walls of the holes. The samples were obtained by manually augering with a 50cm bit attached to 6' lengths of steel rod and extracting 1/2 meter at a time.(see photos 1&2) Rods were added as necessary until the lower extent of the tailings were reached. The total meterage augered was 108.4 meters which includes the first meter of each hole which were not sampled,

The holes were centered at stations of a previously established north-south UTM grid where the lines were spaced 100m and stations at 50m. All holes were drilled at a 90 degree azimuth and sampling starting at the 1-2 meter depth as data for the first meter was collected during earlier work. The GPS co-ordinates and a brief description for each hole are laid out in table1, whereas the numbers for each sample along with the corresponding depth and grade is listed in table 2.

This sampling was done on behalf of myself, Larry Gervais and Steve Polson who are the registered mining rights holders of the property.

### Location:

The property is located approximately 1.5 kilometers northwest of the town of Kirkland Lake. The property can be accessed by vehicle by driving north of the town and along Goodfish Road for 1.1 kilometers, then turning west onto a gravel road for 500m to access the south boundary of the tailings

### Property:

The property on which work was performed consists of 3 boundary and 2 cell claims located in Teck Township in the Larder Lake Mining District. Claim numbers are as follows:

Cell Claims: 150596, 265489

Boundary Claims: 206888, 206889, 333971

There are five surface rights owners on the property. John and Marie Esposito along with Sandra Anne Hunter are owners of the northern third of the property, while the southern two thirds is in the name of North American Land Holdings and White Cliff Holdings. These two companies are owned by Walter Qamar.

Letters of intent to work were mailed to the Espositos and Sandra Hunter.

Mr Qamar was contacted by phone.

### History:

The Teck-Huges Gold Mine milled 9.5 million tons of ore and produced 3.7million ounces of gold over its 51 years of operation from March 1917

to January 1968. The waste from the milling operation was pumped via wooden pipeline approximately 2100 meters north into Lost Lake which are now the Teck-Hughes Tailings.

In August of 1980 a nine hole drill program was conducted by Douglas Parent on behalf of Rene Paiement and Associates. These holes were drilled at 500 foot intervals along a line running NNE from the southwest edge of the tailings to the north central area. The nine holes returned an average grade of .63g/ton with slightly higher grades to the south.

In July of 1985 C Von Hessert commissioned a drill program on five separate tailings sites in the Kirkland Lake mining camp for the purpose of calculating grade and tonnage. Teck-Hughes was one of these sites.

Though the drill centers were widely spaced, a rough estimate of 6,212,000 tons grading .62g/ton for a total 121,700 ounces of gold was calculated.

In 2018 and 2019 a total of 85 surface auger samples were taken by the author. The samples were taken at 50 meter stations along 100 meter line spacing. The samples covered most of the tailing surface except for the extreme NE portion. The average grade of these surface samples was .60g/ton

## Results Summary

Although the grade is slightly higher than the earlier surface samples, there were no marked anomalies at the lower extent of the holes where the older tailings would be. There was a notable consistency in the grade of the samples assayed where 72 of the 95 samples were in the range of .50 to .80 grams au/ton. The overall average of all samples was .66g/ton.

With the data from this sampling along with that of the drill program from 1980 a rough estimate of the tonnage can be calculated as follows:

North and west portion of tailings cover an area of 22.9 ha or 229,000 square meters times 8m depth = 1,832,000 cubic meters

South portion and NE arm 11.75ha or 117,500 square meters averaging 5m depth would = 587,000 cubic meters

Therefore a total of 2,419,000 cubic meters times a specific gravity of 2.9 would equate to 6,531,300 tons of material or 138,460 ounces au.

This estimate is very much in line with C Von Hestert's estimate in 1985 which unfortunately had no accompanying data.

## Conclusions and Recommendations:

With a grade of .66g au/ton and an 80% recovery rate the value of the tailings per ton at a current gold price of \$2373 per oz would work out to \$40.24.

More sampling in the central west region should be done in the future to fill

in some of the areas not well covered in this survey. Also, some of the samples should be reassayed for rare earth elements.

### References:

- i) Twenty eighth annual report of the Ontario Bureau of Mines, 1919  
p 120-121, Teck Hughes Gold Mines
- ii) Seventy Eighth annual report of mining operations in Ontario, 1968  
p 33-34, Teck Hughes annual report
- iii) OAFD Assessment record 42A01NE194, 1981, Report on sampling program completed on the Teck Hughes tailings deposit.
- iv) OAFD Assessment record 32D04NW0806, 1986, Appendix B, calculations of tailings reserves in the Kirkland Lake area
- v) OGS Assessment record 20000019034, 2018, Report of sampling, Teck tailings project.
- vi) OGS Assessment record 20000018049, 2019, Follow up report of sampling, Teck tailings project.



**Figure 3**  
**Regional Map**

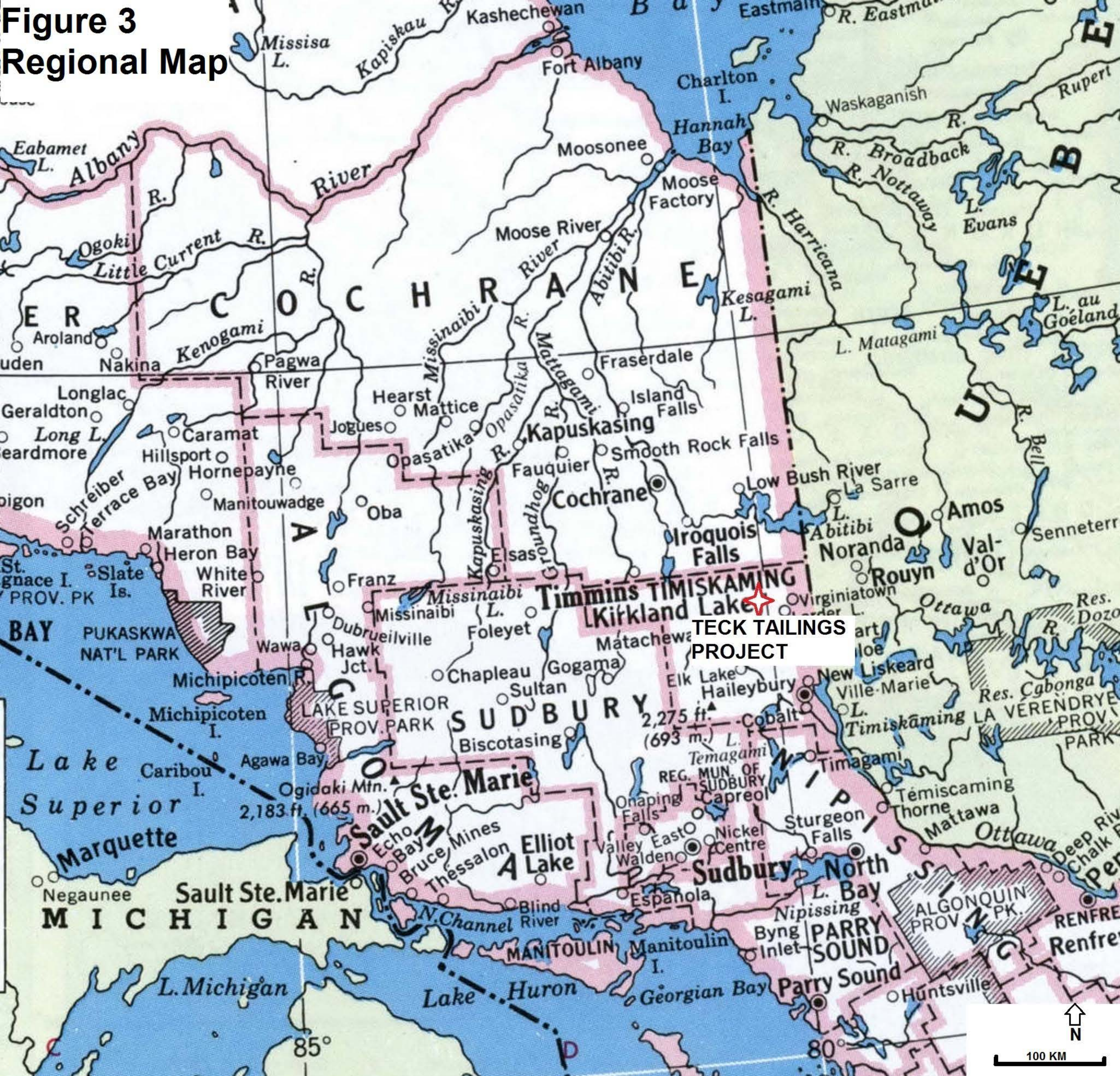
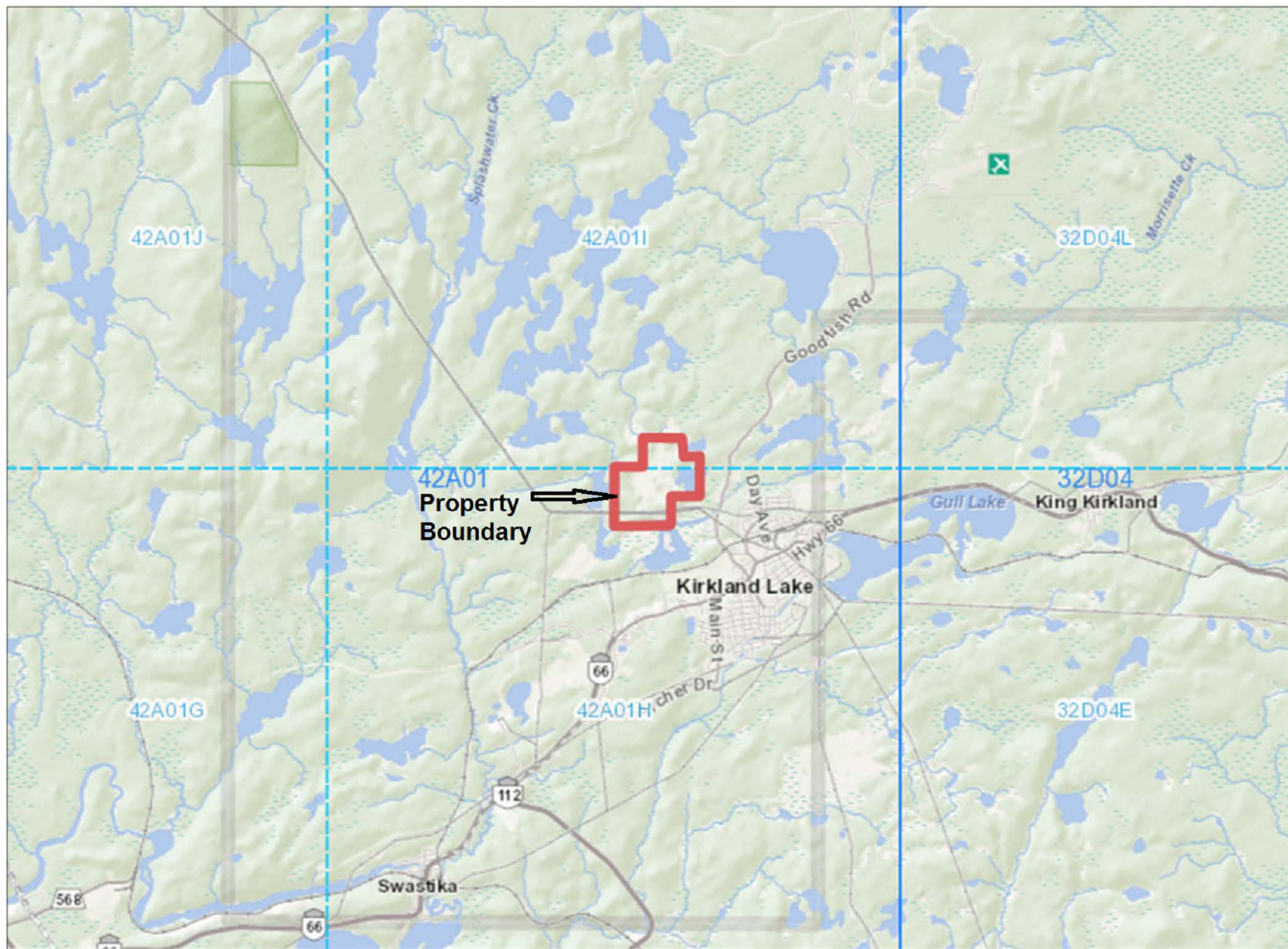


Figure 4

AREA MAP




Projection: Web Mercator



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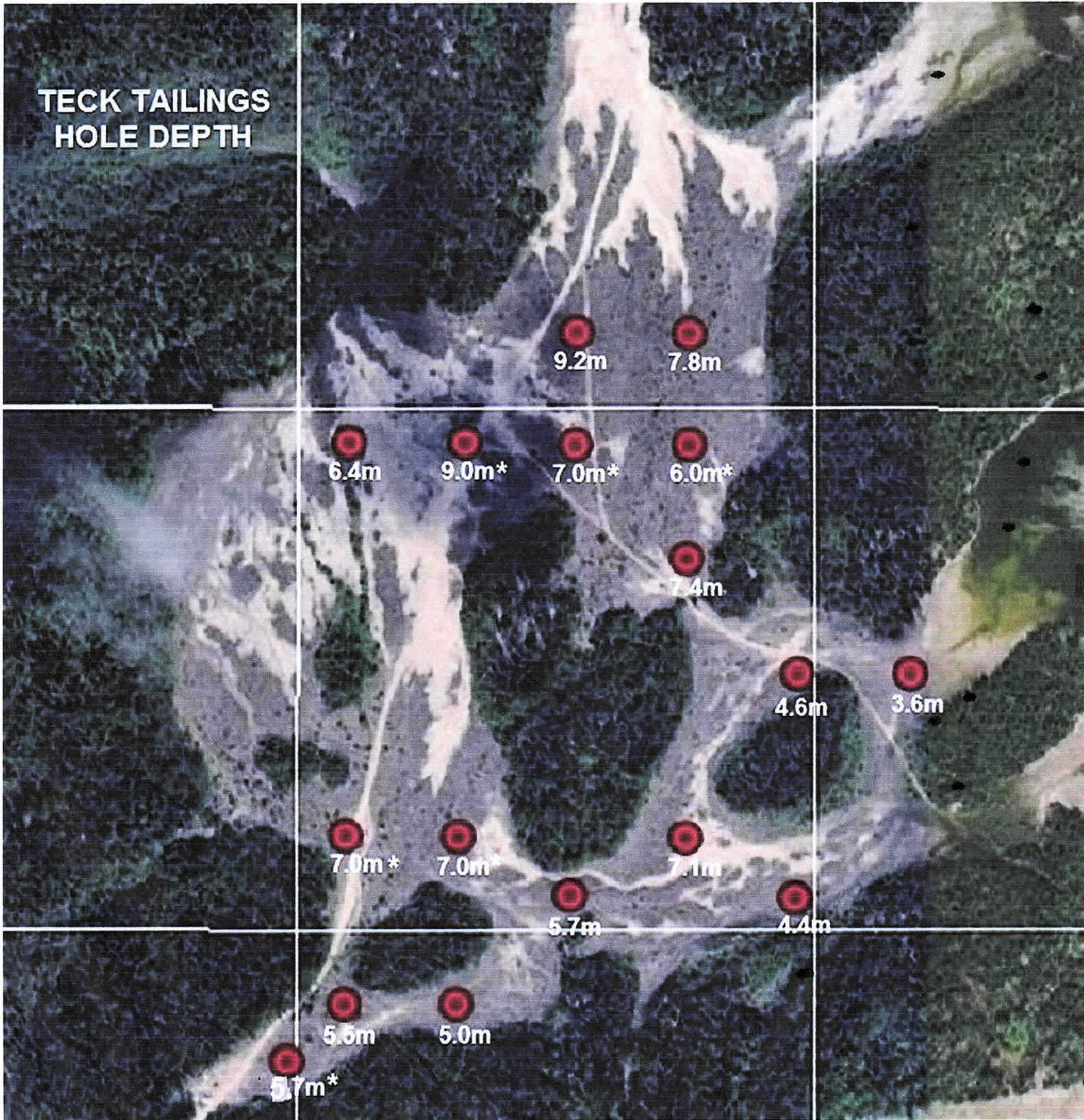
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Figure 1  
**TECK 2022**

Auger Holes 



**TECK TAILINGS  
HOLE DEPTH**





Report No.: A22-14359  
 Report Date: 09-Nov-22  
 Date Submitted: 05-Oct-22  
 Your Reference: Tech 22

John Der Weduwen

ATTN: John Der Weduwen

## CERTIFICATE OF ANALYSIS

95 Soil samples were submitted for analysis.

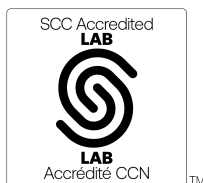
The following analytical package(s) were requested:		Testing Date:
1A2-Timmins (10g/m t)	QOP AA-Au (Au - Fire Assay AA)	2022-11-09 12:12:35

REPORT **A22-14359**

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.



LabID: 709

**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

CERTIFIED BY:

---

Elitsa Hrischeva, Ph.D.  
 Quality Control Coordinator

Analyte Symbol	Au
Unit Symbol	g/mt
Lower Limit	0.005
Method Code	FA-AA
958001	0.648
958002	0.594
958003	0.703
958004	0.716
958005	0.668
958006	0.608
958007	0.876
958008	1.23
958009	0.917
958010	0.800
958011	0.910
958012	0.750
958013	0.607
958014	0.557
958015	0.708
958016	0.536
958017	0.526
958018	0.545
958019	0.647
958020	0.672
958021	0.663
958022	0.654
958023	0.603
958024	0.857
958025	1.13
958026	0.734
958027	0.726
958028	0.647
958029	0.702
958030	0.680
958031	0.625
958032	0.711
958033	0.456
958034	0.571
958035	0.465
958036	0.503
958037	0.501
958038	0.494
958039	0.800
958040	0.944
958041	0.075
958042	0.757
958043	0.779
958044	1.03
958045	0.617
958046	0.736
958047	0.569
958048	0.555
958049	0.744
958050	0.641
958051	0.549

Analyte Symbol	Au
Unit Symbol	g/mt
Lower Limit	0.005
Method Code	FA-AA
958052	0.645
958053	0.498
958054	0.572
958055	0.659
958056	0.602
958057	0.838
958058	1.73
958059	0.560
958060	0.542
958061	0.651
958062	0.581
958063	0.536
958064	0.635
958065	0.577
958066	0.515
958067	0.529
958068	0.484
958069	0.526
958070	0.624
958071	0.585
958072	0.576
958073	0.775
958074	0.629
958075	0.595
958076	0.521
958077	0.642
958078	0.642
958079	0.802
958080	0.634
958081	0.686
958082	0.649
958083	0.710
958084	0.532
958085	0.636
958086	0.456
958087	0.515
958088	0.507
958089	0.456
958090	0.471
958091	0.468
958092	0.487
958093	0.440
958094	0.624
958095	0.636

Analyte Symbol	Au
Unit Symbol	g/mt
Lower Limit	0.005
Method Code	FA-AA
OREAS 239 (Fire Assay) Meas	3.58
OREAS 239 (Fire Assay) Cert	3.55
OREAS 239 (Fire Assay) Meas	3.60
OREAS 239 (Fire Assay) Cert	3.55
OREAS 239 (Fire Assay) Meas	3.56
OREAS 239 (Fire Assay) Cert	3.55
Oreas E1336 (Fire Assay) Meas	0.491
Oreas E1336 (Fire Assay) Cert	0.510
Oreas E1336 (Fire Assay) Meas	0.512
Oreas E1336 (Fire Assay) Cert	0.510
Oreas E1336 (Fire Assay) Meas	0.508
Oreas E1336 (Fire Assay) Cert	0.510
958007 Orig	0.908
958007 Dup	0.845
958017 Orig	0.540
958017 Dup	0.513
958027 Orig	0.740
958027 Dup	0.713
958047 Orig	0.569
958047 Dup	0.569
958050 Orig	0.641
958050 Split PREP DUP	0.676
958056 Orig	0.621
958056 Dup	0.582
958066 Orig	0.508
958066 Dup	0.522
958071 Orig	0.572
958071 Dup	0.599
958086 Orig	0.450
958086 Dup	0.463
Method Blank	< 0.005
Method Blank	< 0.005
Method Blank	< 0.005
Method Blank	< 0.005
Method Blank	< 0.005
Method Blank	< 0.005



# Table1

## Sample Locations:

GPS Datum Nad83 Zone 17U

<u>Sample #'s</u>	<u>Easterly</u>	<u>Northerly</u>	<u>Depth</u>	<u>Notes</u>
175-1B to 175-1F	570177	5334681	5.7m	Hole Collapse (did not reach bottom)
225-2B to 225-2F	570225	5334731	5.5m	Lake Bottom
225-5B to 225-5G	570225	5334883	7.0m	Hole Collapse (did not reach bottom)
225-12B to 225-12G	570225	5335235	6.4m	Lake Bottom
325-2B to 325-2E	570325	5334732	5.0m	Lake Bottom
325-5B to 325-5G	570323	5334881	7.0m	Hole Collapse (did not reach bottom)
325-12B to 325-12I	570326	5335233	9.0m	EOH (too difficult to pull rods)
425-4B to 424-4F	570426	5334831	5.7m	Lake Bottom
425-12B to 425-12G	570425	5335232	7.0m	Hole Collapse(did not reach bottom)
425-14B to 425-14I	570425	5335331	9.2m	Lake Bottom( no sample for 9.0-9.2)
525-5B to 524-5G	570525	5334882	7.1m	Lake Bottom( no sample for 7.0-7.1)
525-10B to 525-10H	570524	5335132	7.4m	Lake Bottom
525-12B to 525-12F	570525	5335232	6.0m	EOH (too difficult to pull rods)
525-14B to 525-14H	570524	5335232	7.8m	Lake Bottom
625-4B to 625-4E	570625	5334881	4.4m	Lake Bottom
625-8B to 625-8E	570624	5335080	4.6m	Lake Bottom
725-8B to 725-8D	570725	5335032	3.6m	Lake Bottom

Sorted Assays

**Table 2**

Sample	Location	Sample Depth	Grade	Sample	Location	Sample Depth	Grade
958001	-175-1B	1-2 meters	0.648	958051	-425-14B	1-2 meters	0.549
958002	-175-1C	2-3 meters	0.594	958052	-425-14C	2-3 meters	0.645
958003	-175-1D	3-4 meters	0.703	958053	-425-14D	3-4 meters	0.498
958004	-175-1E	4-5 meters	0.716	958054	-425-14E	4-5 meters	0.572
958095	-175-1F	5-5.7 meters	0.636	958055	-425-14F	5-6 meters	0.659
968005	-225-2B	1-2 meters	0.668	958056	-425-14G	6-7 meters	0.602
958006	-225-2C	2-3 meters	0.608	958057	-425-14H	7-8 meters	0.838
958007	-225-2D	3-4 meters	0.876	958058	-425-14I	8-9 meters	1.73
958008	-225-2E	4-5 meters	1.23	958059	-525-5B	1-2 meters	0.56
958009	-225-2F	5-5.5meters	0.917	958060	-525-5C	2-3 meters	0.542
958010	-225-5B	1-2 meters	0.8	958061	-525-5D	3-4 meters	0.651
958011	-225-5C	2-3 meters	0.91	958062	-525-5E	4-5 meters	0.581
958012	-225-5D	3-4 meters	0.75	958063	-525-5F	5-6 meters	0.536
958013	-225-5E	4-5 meters	0.607	958064	-525-5G	6-7 meters	0.635
958014	-225-5F	5-6 meters	0.557	958065	-525-10B	1-2 meters	0.577
958015	-225-5G	6-7 meters	0.708	958066	-525-10C	2-3 meters	0.515
958016	-225-12B	1-2 meters	0.536	958067	-525-10D	3-4 meters	0.529
958017	-225-12C	2-3 meters	0.526	958068	-525-10E	4-5 meters	0.484
958018	-225-12D	3-4 meters	0.545	958069	-525-10F	5-6 meters	0.526
958019	-225-12E	4-5 meters	0.647	958070	-525-10G	6-7 meters	0.624
958020	-225-12F	5-6 meters	0.672	958071	-525-10H	7-7.4 meters	0.585
958021	-225-12G	6-6.4 meters	0.663	958072	-525-12B	1-2 meters	0.576
958022	-325-2B	1-2 meters	0.654	958073	-525-12C	2-3 meters	0.775
958023	-325-2C	2-3 meters	0.603	958074	-525-12D	3-4 meters	0.629
958024	-325-2D	3-4 meters	0.857	958075	-525-12E	4-5 meters	0.595
958025	-325-2E	4-5 meters	1.13	958076	-525-12F	5-6 meters	0.521
958026	-325-5B	1-2 meters	0.734	958077	-525-14B	1-2 meters	0.642
958027	-325-5C	2-3 meters	0.726	958078	-525-14C	2-3 meters	0.642
958028	-325-5D	3-4 meters	0.647	958079	-525-14D	3-4 meters	0.802
958029	-325-5E	4-5 meters	0.702	958080	-525-14E	4-5 meters	0.634
958030	-325-5F	5-6 meters	0.68	958081	-525-14F	5-6 meters	0.686
958031	-325-5G	6-7 meters	0.625	958082	-525-14G	6-7 meters	0.649
958032	-325-12B	1-2 meters	0.711	958083	-525-14H	7-7.8 meters	0.71
958033	-325-12C	2-3 meters	0.456	958084	-625-4B	1-2 meters	0.532
958034	-325-12D	3-4 meters	0.571	958085	-625-4C	2-3 meters	0.636
958035	-325-12E	4-5 meters	0.465	958086	-625-4D	3-4 meters	0.456
958036	-325-12F	5-6 meters	0.503	958087	-625-4E	4-5 meters	0.515
958037	-325-12G	6-7 meters	0.501	958088	-625-8B	1-2meters	0.507
958038	-325-12H	7-8 meters	0.494	958089	-625-8C	2-3 meters	0.456
958039	-325-12I	8-9 meters	0.8	958090	-625-8D	3-4 meters	0.471
958040	-425-4B	1-2 meters	0.944	958091	-625-8E	4-5 meters	0.468
958041	-425-4C	2-3 meters	0.75?	958092	-725-8B	1-2 meters	0.487
958042	-425-4D	3-4 meters	0.757	958093	-725-8C	2-3 meters	0.44
958043	-425-4E	4-5 meters	0.779	958094	-725-8D	3-3.6 meters	0.624
958044	-425-4F	5-5.7 meters	1.03				
958045	-425-12B	1-2 meters	0.617				
958046	-425-12C	2-3 meters	0.736				
958047	-425-12D	3-4 meters	0.569				
958048	-425-12E	4-5 meters	0.555				
958049	-425-12F	5-6 meters	0.744				
958050	-425-12G	6-7 meters	0.641				

Hole 175-1 Dip 90  
Claim# 206889

0m  
1m  
2m  
3m  
4m  
5m  
6m  
7m  
8m  
9m



Hole 225-5 Dip 90  
Claim# 265489

0m  
1m  
2m  
3m  
4m  
5m  
6m  
7m  
8m  
9m



Hole 325-2 Dip 90  
Claim#333971

0m  
1m  
2m  
3m  
4m  
5m  
6m  
7m  
8m  
9m



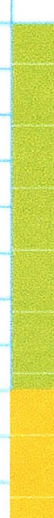
Hole 225-2 Dip 90  
Claim# 333971

0m  
1m  
2m  
3m  
4m  
5m  
6m  
7m  
8m  
9m



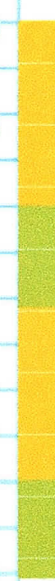
Hole# 225-12 Dip 90  
Claim# 265489

0m  
1m  
2m  
3m  
4m  
5m  
6m  
7m  
8m  
9m

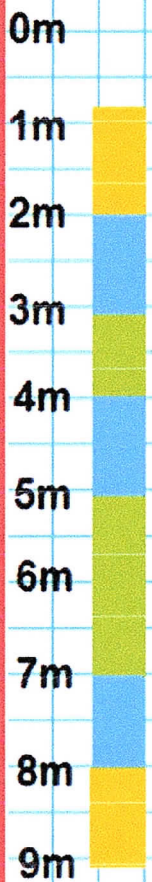


Hole 325-5 Dip 90  
Claim# 265489

0m  
1m  
2m  
3m  
4m  
5m  
6m  
7m  
8m  
9m



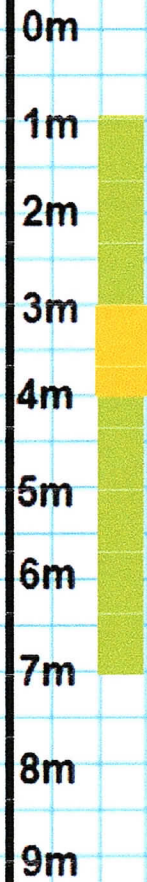
Hole 325-12 Dip 90  
Claim# 265489



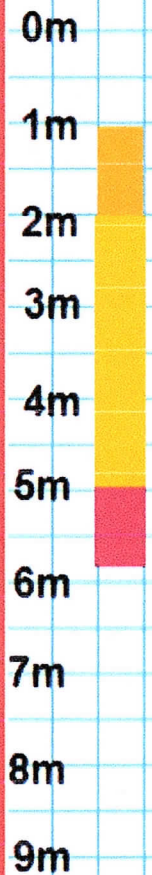
Hole 425-12 Dip 90  
Claim# 265489



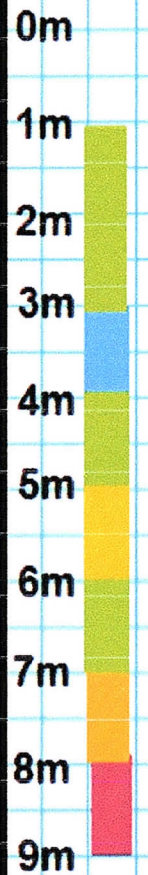
Hole 525-5 Dip 90  
Claim# 265489



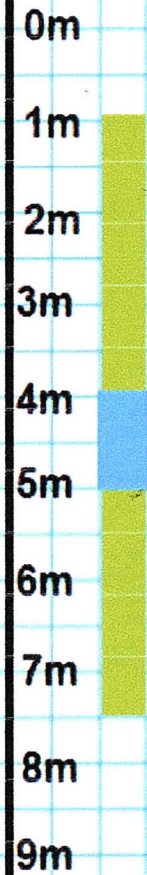
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Claim# 265489



Hole 425-14 Dip 90  
Claim# 150596



Hole 525-10 Dip 90  
Claim# 265489



Hole Log p2

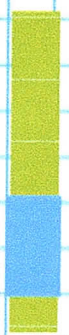
Hole 525-12 Dip 90  
Claim# 265489

0m  
1m  
2m  
3m  
4m  
5m  
6m  
7m  
8m  
9m



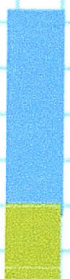
Hole 625-4 Dip 90  
Claim# 265489

0m  
1m  
2m  
3m  
4m  
5m  
6m  
7m  
8m  
9m



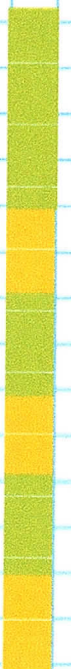
Hole 725-8 Dip 90  
Claim# 206888

0m  
1m  
2m  
3m  
4m  
5m  
6m  
7m  
8m  
9m



Hole 525-14 dip 90  
Claim# 150596

0m  
1m  
2m  
3m  
4m  
5m  
6m  
7m  
8m  
9m








Hole 625-8 Dip 90  
Claim# 265489

0m  
1m  
2m  
3m  
4m  
5m  
6m  
7m  
8m  
9m



### Sample Grades

-  < Than .50
-  .501 to .65
-  .651 to .80
-  .801 to .95
-  > than .95





## Expenses

Travel : 5 trips South Porcupine to Kirkland Lake and return

1350k @ .50/k----- \$625.00

Bus Fare-----\$161.65

Labour: 12 man days @ \$300/day-----\$3600.00

Supplies:-----\$210.08

Meals:-----\$163.55

Lodging:-----\$558.00

Assays:-----\$2251.50

Total Expenses:   \$7569.78