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2021 PROSPECTING REPORT

– Drill Holes: SW-21-01

CLAIMS#

103541,103542,103543,103544,103545,105003,107714,118817,
122552,124142,125511,136147,136148,137502,137503,139364,
140129,143512,144292,161056,172866,172867,172888,180515,
181347,181348,186579,189494,190810,200324,202932,209592,
209609,215853,217342,234403,234404,234405,234406,235919,
236773,238112,239474,246570,246571,246959,246974,252729,
271781,281865,281866,283932,283933,288464,289938,294115,
295338,296568,305491,308719,312232,325110,329656,329657,
341516

Swill Diamond Drill Project
THUNDER BAY MINING DISTRICT

Prepared By: Martin Drennan, P. Eng

August 13, 2022

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1. Work Summary

Work during Spring and Summer 2021 was based on a surface anomaly identified during 2016/2017 as well as drilling completed in 2019. 3 drill hole were planned for this program. There was 1 hole completed to 198.5m. No core logging or assays were completed as the core is being logged and anticipated to be logged by next week as well as assay samples prepared. Work was performed by Martin Drennan, Dwaine Makasoff, Joseph Soucie and Raymond Osawamick.

2. Introduction

This report is a description of the drilling completed on claim 220674 (42F04E152) which is a claim in the Leslie Townships in the Thunder Bay Mining District and trail work completed on claims 181349 (42F04E133), 188122 (42F04E153), 220674 (42F04E152). The claims can be described as being located in the Manitouwadge mining camp (as defined by previous copper producers – Wilroy and Geco Mines). These claims are held by the author (Martin Drennan).

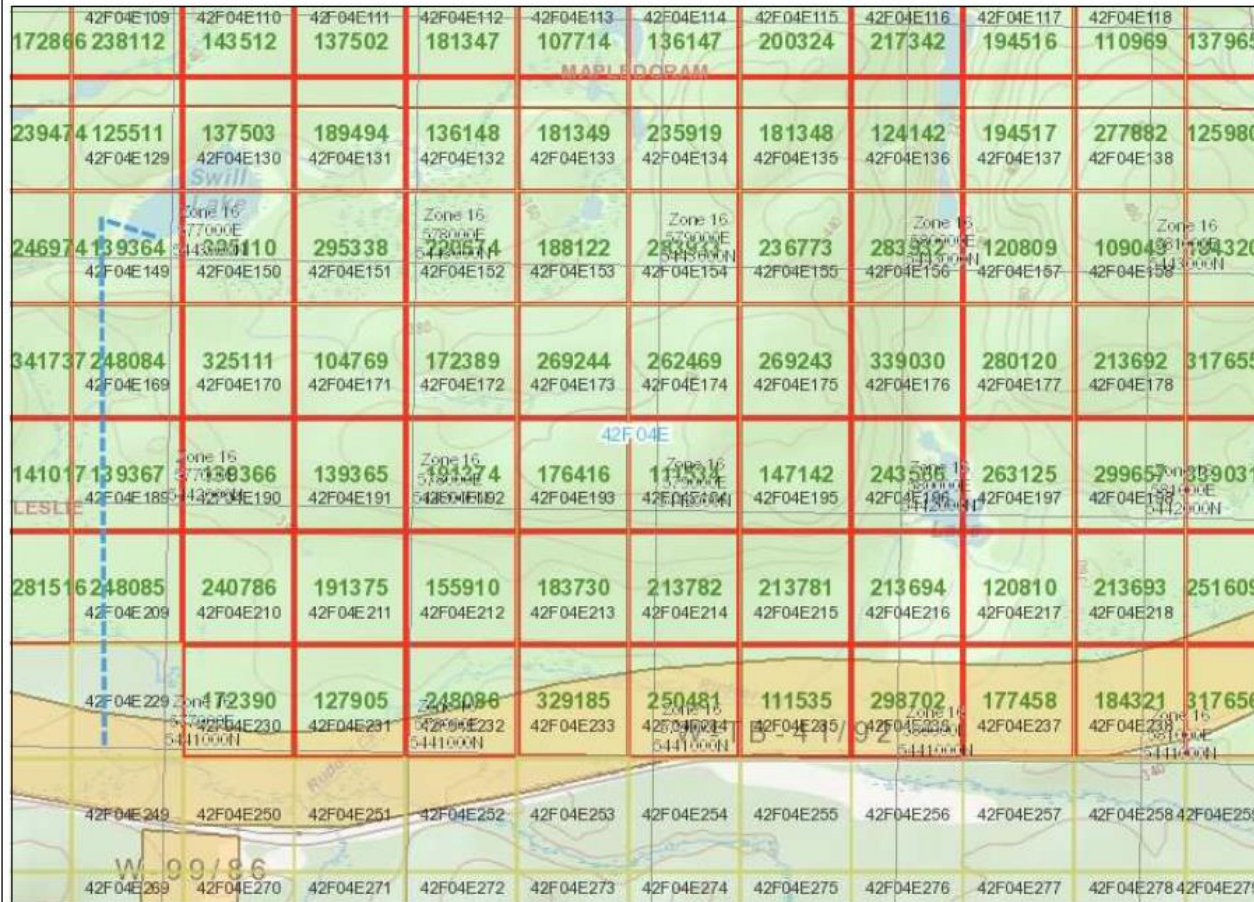
The objective of this work and a 9 hole plan submitted to MNM in early 2020 is to firstly test a specific area of interest developed from previous prospecting work. Secondly, this area of interest may have mineralization of gold, but more likely similar base metals as have been found in the region.

Coordinate information in the following text and associated support materials is UTM coordinate system within Zone 16 and uses NAD27.

This drill work was performed on PR-21-000073 drill permit.

The work in this report has been reviewed by the author and determined to be accurate. Location and Access

Leslie Township is located south east of Thunder Bay. Access is via Regional Road 614 to Caramat Industrial road. Caramat Industrial leads to the access road – Swill Lake Road. Swill Lake road was used to access the work area. See Figure 1 – Location and Access (work areas are highlighted with blue lines). No area organize was established to define “working areas” as the initial work was to establish anomaly locations. Once anomaly locations are established – a reference will be defined.



Legend

- Provincial Grid Cell**
 - Available
 - Pending
 - Unavailable
- Mining Claim**
 - Mining Claim
 - Boundary Claim
- Alienation**
 - Withdrawal
 - Notice
- ENDM Administrative Boundaries**
 - ENDM Townships and Areas
 - Geographic Lot Fabric
 - UTM Grid 1K
 - UTM Grid 10K
 - Mining Division
 - Mineral Exploration and Development Region
 - CLUPA Protected Area - Far North
 - Resident Geologist District
 - Federal Land Other
 - Native Reserves
 - AMIS Sites
 - AMIS Features
 - Drill Hole
 - Mineral Occurrences
- MLAS Mining History**
 - Withdrawal - History
 - Notice - History
 - Mining Claim - History
 - Mining Land Tenure - History
 - Legacy Claim
- Provincial Grid**
 - Provincial Grid 250K
 - Provincial Grid 50K
 - Provincial Grid Group
- Land Tenure**
 - Surface Rights
 - Mining Rights
 - Mining and Surface Rights
 - Order-in-Council

0 1.20 km

Projection: Web Mercator

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Figure 1 – Location and Access

Swill Project

3. Property Description

The claim group consists of 381 claims in Manitouwadge area within the Thunder Bay Mining District. See Figure 2 –Claim Group Map. The claims are a continuous package (outlined in red) with the eastern claims adjacent to the patented Geco Mine claims and some surface property lots. The claims are:

103541,103542,103543,103544,103545,104022,104769,105000,105001,105002,105003,105372,105577,105578,105579,105806,106894,107714,107882,109020,109049,110611,110968,110969,111534,111535,111589,111905,112279,112280,113567,114381,118817,119279,120809,120810,122552,124142,124353,124354,125281,125282,125283,125511,125977,125978,125979,125980,127905,128642,130474,130899,130900,131647,132424,135753,135754,136147,136148,136739,136815,137212,137502,137503,137963,137964,137965,139364,139365,139366,139367,140126,140127,140128,140129,140676,141017,142329,142466,143191,143512,144292,146080,146081,147142,147327,147328,147989,148331,148332,153306,155261,155262,155910,156587,157779,159618,161056,161363,162601,162602,165736,165737,166690,167188,167189,167190,170517,170518,170519,170520,171733,171734,171913,172389,172390,172642,172643,172866,172867,172888,173398,175305,175306,175340,176208,176209,176210,176211,176416,176970,177458,179158,180515,181347,181348,181349,181588,182040,182310,183730,183771,183772,184320,184321,184670,185112,186579,187051,188122,188381,188382,188807,189022,189265,189494,189749,190721,190810,191374,191375,192647,192684,193704,194516,194517,196452,196453,196648,200324,200982,201003,201041,201042,201904,202442,202932,207066,207882,207883,208546,209592,209609,209754,212925,212926,212927,213160,213659,213692,213693,213694,213781,213782,213822,214677,215523,215853,217342,220513,220514,220515,220674,221930,224709,224710,226561,229860,229901,231364,232503,232504,232704,234403,234404,234405,234406,235919,236773,238112,238388,238527,238691,239474,240124,240125,240786,241811,242068,242479,243566,245122,246321,246570,246571,246959,246974,247422,248084,248085,248086,249235,249884,250317,250318,250481,251577,251578,251579,251609,252729,255686,256365,256630,257076,257433,260356,260357,260358,260359,261983,262374,262469,263125,263872,265206,266361,266362,267164,267165,267678,268654,268655,268656,269243,269244,269285,269701,269702,269703,271781,271929,275130,275381,277882,278851,280092,280120,281514,281515,281516,281865,281866,283932,283933,285805,286538,286539,288462,288463,288464,289938,292647,292648,292649,292661,292880,292881,294115,295338,296566,296567,296568,297451,297452,297453,297454,298702,299162,299657,299924,300526,300527,302945,304782,304820,304821,304822,305200,305314,305315,305491,306014,308719,309864,310185,312232,312500,315217,315218,316891,317035,317036,317037,317655,317656,319123,321819,321820,322527,323846,323847,323885,324447,325110,325111,327733,327734,327735,328015,329185,329385,329386,329656,329657,330570,332376,332541,332542,333019,336634,336838,337292,337931,338494,339030,339031,341516,341737,341738,345446

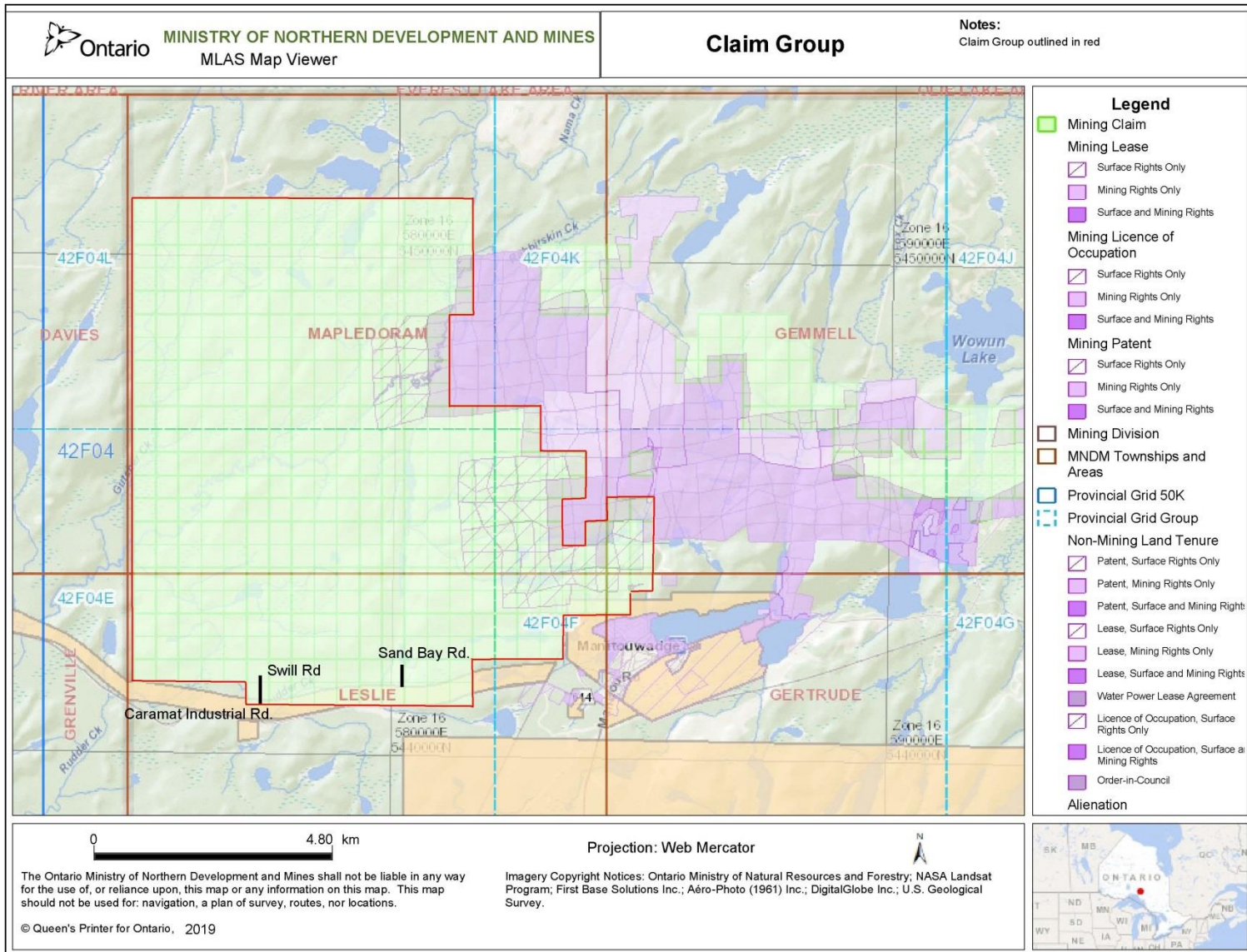


Figure 2 – Claim Group Map

Swill Project

4. Regional Geography

Topography in the area is a mix of low areas with water and hills/ridges with a general east-west orientation. Outcrops are common of hillsides with numerous fragmented rocks buried in soil.

Vegetation is principally coniferous, and deciduous trees as well as numerous alder bush. In low lying areas, grass and cedars are predominant.

Wildlife activity is principally moose, bear, wolves, and beaver. Numerous bird species are present including grouse, and crows.

5. Regional Geology

The property is located within the Manitouwadge greenstone belt, which is located within the Wawa subprovince of the Archean Superior province. The Manitouwadge greenstone belt is located south of a tectonic boundary between the volcano-plutonic Wawa subprovince and the metasedimentary-migmatitic Quetico subprovince to the north (Zaleski and Peterson 1995). The Manitouwadge greenstone belt consists of bimodal felsic-mafic volcanic rocks, greywacke, iron-formation, and intrusive rocks that have all been metamorphosed to upper amphibolite facies and subject to four episodes of deformation (Zaleski and Peterson 1995). The Manitouwadge synform is the major structure present in the Swill Lake area. It is part of a group of regional Z-shaped D3 folds formed in response to dextral transpression (Zaleski and Peterson 1995). The Manitouwadge synform consists of an inner and outer volcanic belt which mantle a synvolcanic trondhjemite (Lodge 2013). The inner and outer belt are separated on the southern limb of the synform by metasedimentary rocks. Previously mined volcanogenic massive sulfide deposits are located on the southern limb of the Manitouwadge synform and have all been hosted in the inner volcanic belt (Lodge 2013).

6. Property Geology

The Swill Lake claims cover the hinge and the upper limbs of the Manitouwadge synform and have previously been interpreted to be stratigraphically above the Geco Mine Horizon (Degagne 1989). The metavolcanic rocks on this property belong to the outer volcanic belt of the Manitouwadge synform. The surficial geology of the claims from the southern limb to the core consists of mafic metavolcanics rocks including amphibolites, mafic schists and gneisses as well as foliated gabbroic units. Thin bands of felsic metavolcanics rocks including felsic gneisses and felsic schists are interlaid within the main mafic component. North of these units are felsic to intermediate metavolcanics rocks generally as muscovite-garnet to amph-muscovite-garnet schists and gneisses. Metasedimentary rocks, predominantly metagreywacke overlay the felsic to intermediate metavolcanics and

are mainly located in the eastern claims. A massive tonalite is present in the core. In the northeastern portion of the claims granodiorite-monzadiorite of the Nama Creek pluton is present. NE-SW trending and NW-SE trending diabase dikes cut through the previously described units. A minor orthoamphibole-garnet ± cordierite gneiss outcrops SW of Swill Lake. Quartz veining observed on outcrop consists of thin 1-15 cm veins with occasional minor pyrite mineralization.

7. Mineral deposit types-model-reasons

Exploration in the Swill Lake mining claims has targeted volcanogenic massive sulfide mineralization- Cu, Zn ± Au, Ag.

The Swill Lake mining claims lie east of four past producing volcanogenic massive sulfide deposits: Geco (55 Mt at 2.3% Cu, 8.2 Zn, 74 g/t Ag), Willroy (4.6 Mt at 1.3% Cu, 5.7% Zn, 48 g/t Ag), Willecho (3.8 Mt at 0.6% Cu, 3.9% Zn, 53 g/t Ag) and Nama Creek (0.3 Mt at 0.8% Cu, 3.9 % Zn, 28 g/t Ag) (Lodge 2012 and ref. within).

Although all known economic mineralization occurs in the inner volcanic belt, Zaleski and Peterson, 1995 correlated the inner and outer volcanic belts of the Manitouwadge synform as a product of D2 fold repetition. This is significant as, barring removal from erosion or faulting, altered and/or mineralized zones from the Wilroy-Geco area should be repeated (Zaleski and Peterson 1995).

8. Drill Hole Summary Tables:

Drill hole number:	Swill 2021-01
Collar Location (UTM Zone 16N)	578304 E, 5443110
Azimuth:	334°
Dip:	80
Hole length:	198.5m
Number of Samples:	X (Pending)
Number of Assays:	X (Pending)

9. Work History

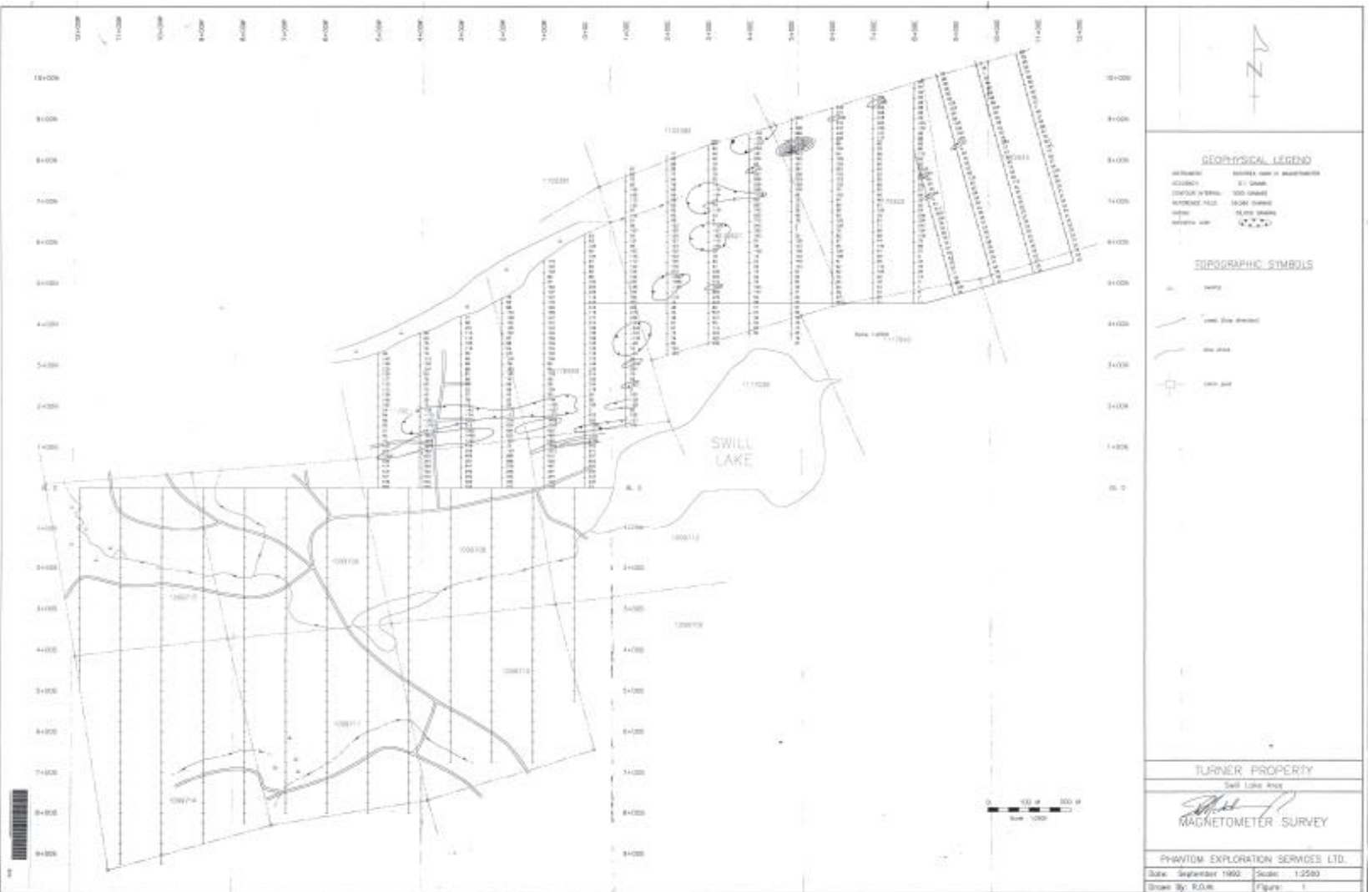
Work has been completed by Noranda which included magnetometer, followed by diamond drilling in any anomalous areas.² Other companies such as OKLECO, OKLEND, Delmico Mines and C.H.I.P. Mines performed magnetometer and geological surveys.³ Anomalies appear to have been followed up with additional work including diamond drill. Unfortunately, no details on diamond drill results have been found by this author. Previous authors elude to finding results and reference to "G.D.I.F. 190 for further information".⁴

Further research was performed and work of interest was identified. Claims in this area were held in the early 1990's by Albert Turner. Mr. Turner drilled several shallow (less than 30m) drill holes. No significant assay data was recorded. Assays were for Ag, Au, Cu, Zn.⁵ Additionally, Mr. Turner employed Phantom Exploration Services Ltd. (Phantom) of Thunder Bay to perform a geophysics study. The study consisted of VLF and proton magnetometer surveys. The surveys were conducted as per Figure 3.⁶

The results were summarized as a local magnetic high was noted as a diabase dyke. The next notable magnet anomaly was noted as iron rich mafic volcanics. Additionally, the results were cautioned as the topography and the soil clay content made all trends to be "considered superficial in nature"⁷

Swill Project

Figure 3 - Phantom Geophysics Testing



10. Work this Period

a. May-August, 2021

Period Summary

Work was focused on accessing the target drill claims. A dozer was initially used to clear an area in swampy ground. Subsequently, an excavator was purchased and a "trail" was developed around the swampy ground on the edge of a hill. Development was slow through thick brush and a "road" was developed with material (sand/aggregate) as a dressing material. Development continued to target holes "4", "5", "6" and approaching "7".

Water sources were identified and areas for water collection were created.

Dwaine Makasoff (driller) was sourced from Swan River, MB and arrived in Manitouwadge late August.

b. September, 2021

Period Summary

Additional, personnel were sourced for drilling. Joseph Soucie and Ray Osawamick started drilling with Dwaine on Labour Day. Drilling progressed with 198.5m completed by September 16th. A contract resulted in what was anticipated to be a brief delay. Drill was anticipated to resume in October. The delay was actually until May 2022.

11. Conclusion and Recommendations

The work performed in 2021 was reasonable with respect to obtaining this drill hole data. The presence of granite and chloritized zones was noted in the drill core. The metres drilled were in the range for the program though having only 1 hole partially completed is a minor disappointment. The recommendation is simply to continue the planned 9 hole program and assemble data as it is acquired to realign drilling. Some additionally drilling maybe warranted after the first and second hole during 2022 drilling.

12. References

1. GRANGES INC., MAN PROJECT, GEMMEL, GERTRUDE, MAPLEDORAM AND LESLIE TOWNSHIPS CENTRAL AND NORTH CENTRAL GRID GEOLOGY REPORT, Warren Bates, B.Se., Hons. Geol August 6, 1993 (Page 2)
2. GRANGES INC., MAN PROJECT, GEMMEL, GERTRUDE, MAPLEDORAM AND LESLIE TOWNSHIPS CENTRAL AND NORTH CENTRAL GRID GEOLOGY REPORT, Warren Bates, B.Se., Hons. Geol August 6, 1993 (Page 3)
3. GRANGES INC., MAN PROJECT, GEMMEL, GERTRUDE, MAPLEDORAM AND LESLIE TOWNSHIPS CENTRAL AND NORTH CENTRAL GRID GEOLOGY REPORT, Warren Bates, B.Se., Hons. Geol August 6, 1993 (Page 3)
4. GRANGES INC., MAN PROJECT, GEMMEL, GERTRUDE, MAPLEDORAM AND LESLIE TOWNSHIPS CENTRAL AND NORTH CENTRAL GRID GEOLOGY REPORT, Warren Bates, B.Se., Hons. Geol August 6, 1993 (Page 3)
5. 42F04NW0001-Turner – Assessment work after staking a claim – work report number 1
6. 42F04NW0033-Turner-Maps - Geological and Geophysical Reports – Phantom Exploration Services Ltd. September 1992
7. 42F04NW0033-Turner – Geological and Geophysical Reports – Phantom Exploration Services Ltd. September 1992 (Page 5)

13. Appendices

14.1 Logging codes

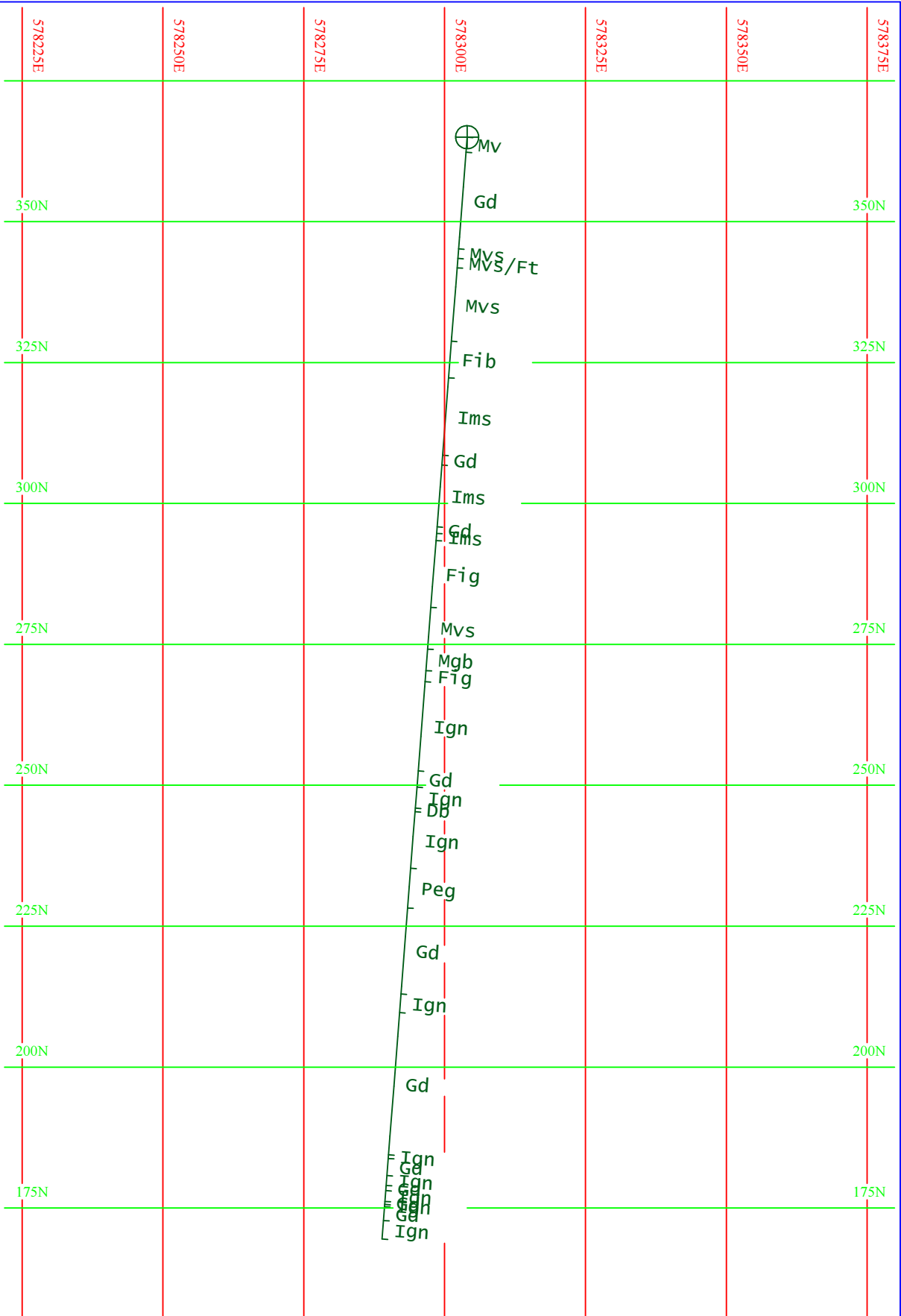
Dt	Diorite	Grt	Granite
Gt	Granodiorite	Db	Diabase
Fis	Felsic-intermediate schist	Fig	Felsic-intermediate gneiss
Mvs	Mafic schist	Mgb	Metagabbro
Mgn	Mafic gneiss	Peg	Pegmatite
Sgw	Metagreywacke		

ALTERATION CODES			
Unalt	Unaltered	Dol	Dolomite
Chl	Chlorite	Cc	Calcite
Qtz	Quartz	Ank	Ankerite
Ser	Sericite	K	Potassic
Bt	Biotite	Msc	Muscovite
Fch	Fuchsite		
Sp	Serpentine	ALTERATION INTENSITY	
Tc	Talc	Wk	Weak
Ep	Epidote	Md	Moderate
Ab	Albite	Str	Strong

Swill Project

Figure 4- SW-21-01 Section

main_graphics_layer_09



Gemcom Software		
Swill Lake 2021 Drilling Hole: SW-21-01 Plotted By: M. Drennan		
Scale: 1:	1000	Plan No.
		Date: 12-Aug-22

Drennan Consulting and Diamond Drilling

GEOLOGICAL DRILL LOG - SWILL PROJECT

Project Summary and Code Legend Table. Includes fields for Project (Swill 2021), Logged by (Rob Reukl), Hole ID (Swill 2021-01), UTM coordinates, Start/End dates (4-Sep-21 to 16-Sep-21), Azimuth (334), Dip (-80), Collar Elev. (365), Depth (198.5), and various Lithology, Alteration, Mineralization, and Sample Type codes.

Main Geological Data Table. Columns include Interval (From/To), Lithology Code, Alt. Code, Alt. Intensity, Alteration (Interval, Unalt, Chl, Qtz, Ser, K, Bt, Sp, Gar, Ep, Ab, Dol, Cc, Fe, Comments), Mineralization (Interval, Py, Po, Cpy, Pnt, Bo, Gd, Hm, Mg, Sph, Ga, Comments & Textures), Structure (Interval, Code, Core angle, Comments), Descriptive Log, and Samples (Interval, Sample #, Type). The table contains detailed data for intervals from 0.00 to 198.50 meters depth.

INTERVAL		LITHOLOGY CODE	ALT. CODE	ALT. INTENSITY	ALTERATION													Comments	MINERALIZATION											Comments	STRUCTURE			DESCRIPTIVE LOG	SAMPLES		
					Interval		Unalt	Chi	Qtz	Ser	K	Bt	Sp	Gar	Ep	Ab	DoI		Cc	Fe	Interval	Py	Po	Cpy	Pnt	Bo	Gd	Hm	Mg		Sph	Ga	Comments & Textures		Interval		Code
From	To	From	To	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	%	%	%	%	%	%	%	%	%	%	From	To	Code	Core angle	Comments			From	To	Sample #

INTERVAL		LITHOLOGY CODE	ALT. CODE	ALT. INTENSITY	ALTERATION														Comments	MINERALIZATION											STRUCTURE			DESCRIPTIVE LOG	SAMPLES		
					Interval		Unalt	Chl	Qtz	Ser	K	Bt	Sp	Gar	Ep	Ab	Dol	Cc		Fe	Interval	Py	Po	Cpy	Pnt	Bo	Gd	Hm	Mg	Sph	Ga	Comments & Textures	Interval		Code	Core angle	Comments
From	To	From	To	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	%	%	%	%	%	%	%	%	%	From	To	From	To						

INTERVAL		LITHOLOGY CODE	ALT. CODE	ALT. INTENSITY	ALTERATION														Comments	MINERALIZATION											Comments & Textures	STRUCTURE			Comments	DESCRIPTIVE LOG	SAMPLES		
Interval					Unalt	Chi	Qtz	Ser	K	Bt	Sp	Gar	Ep	Ab	Dol	Cc	Fe	Interval		Py	Po	Cpy	Pnt	Bo	Gd	Hm	Mg	Sph	Ga	Interval		Code	Core angle	Interval			Sample #	Type	
From	To				Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	Int	From		To	%	%	%	%	%	%	%	%	%	From		To	From	To					

|

Cu 170

Finances for Hole 4:

** Assay invoice attached as per Work Report 3440

Without Taxes:

1. **Drilling: Hole #4** (2021-Hole#1) on **Claim 220674**
single cell mining claim - 1 unit - instrument PR-21-00073
 - a. Value: $198.5 \times \$105$
 - b. Assay: No samples and subsequently no assays have been performed at this time.
 - c. Logging = $\$9/m \times 198.5 = \$1,786.5$

Total value for drilling for this submission:

$$198.5 \times 105 + 1786.5 = \$22,629$$

Hole 4 was started on Labour Day 2021. Challenges of getting drillers and drill helpers were high during this period. The hole was completed on Sept 16th, 2021. Further details are available in file DCDD_Swill2021_01.xlsx .

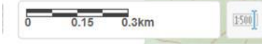
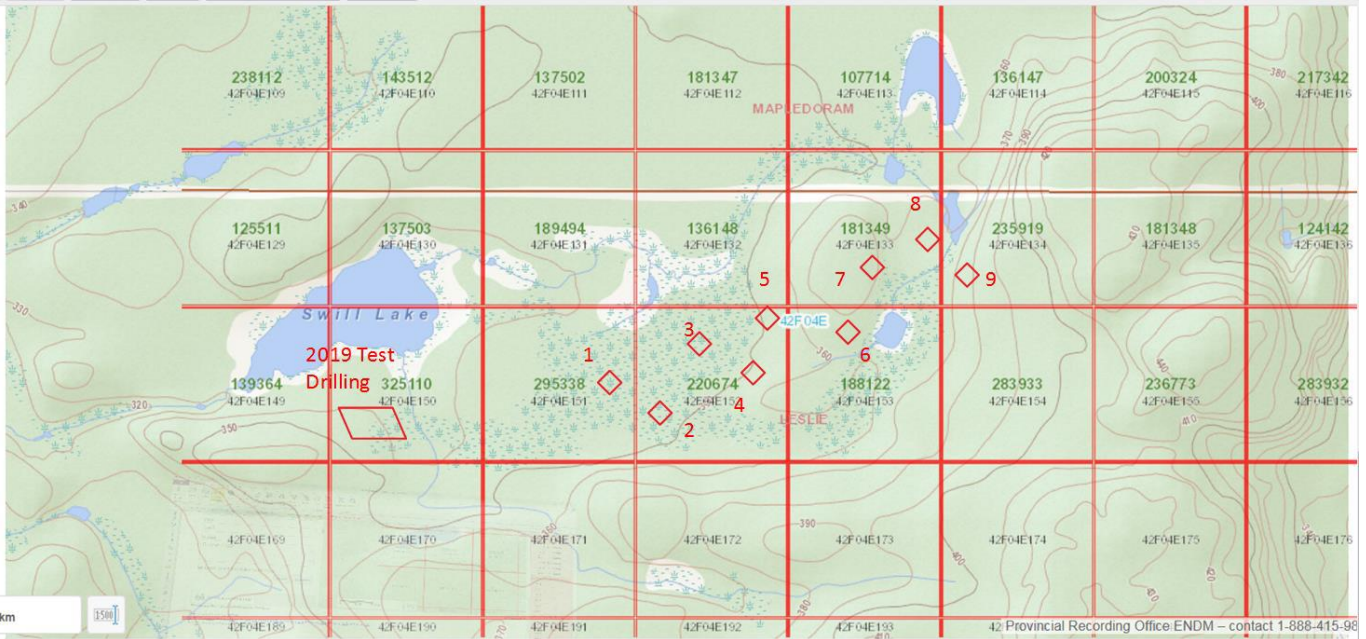
Additionally, there are holes drilled in 2020 (2020 – Swill – Hole 1, 2, 3A and 3B). Holes 1 and 2 were logged and reported but due to the \$50,000 annual cap for claims as well as logging issues (geologist availability). These holes have not been entered at this time. Drilled quantity for these holes is in excess of 500m.

There are 9 holes submitted as a plan for drilling during the 2020/2021 drill season (3 sets of 3 holes including access for claims development). Kourtney Clements is familiar with this plan. The original plan was to have the first three holes (2 complete) and the third partially completed were performed on instrument PR-17-11122. However, getting through a very difficult swamp area as well as COVID19 limitations/stresses offset the planned schedule such that PR-17-11122 reached its end of life. As such, the 3rd hole and the remaining 6 holes will be drilled once a new permit is achieved. The plan due to the late season is finish Hole 3 and drill 3 more holes in November/December 2020. The last 3 holes will be drilled depending on weather/COVID19 conditions either in the Winter or March/April/May 2021.

The last 6 holes were delayed even further with covid as well as the high industry demand for qualified drill personnel. The first of the 6 holes is this report. The hole was planned at 4-500m but it was cut short due to other “quick” drilling demands.

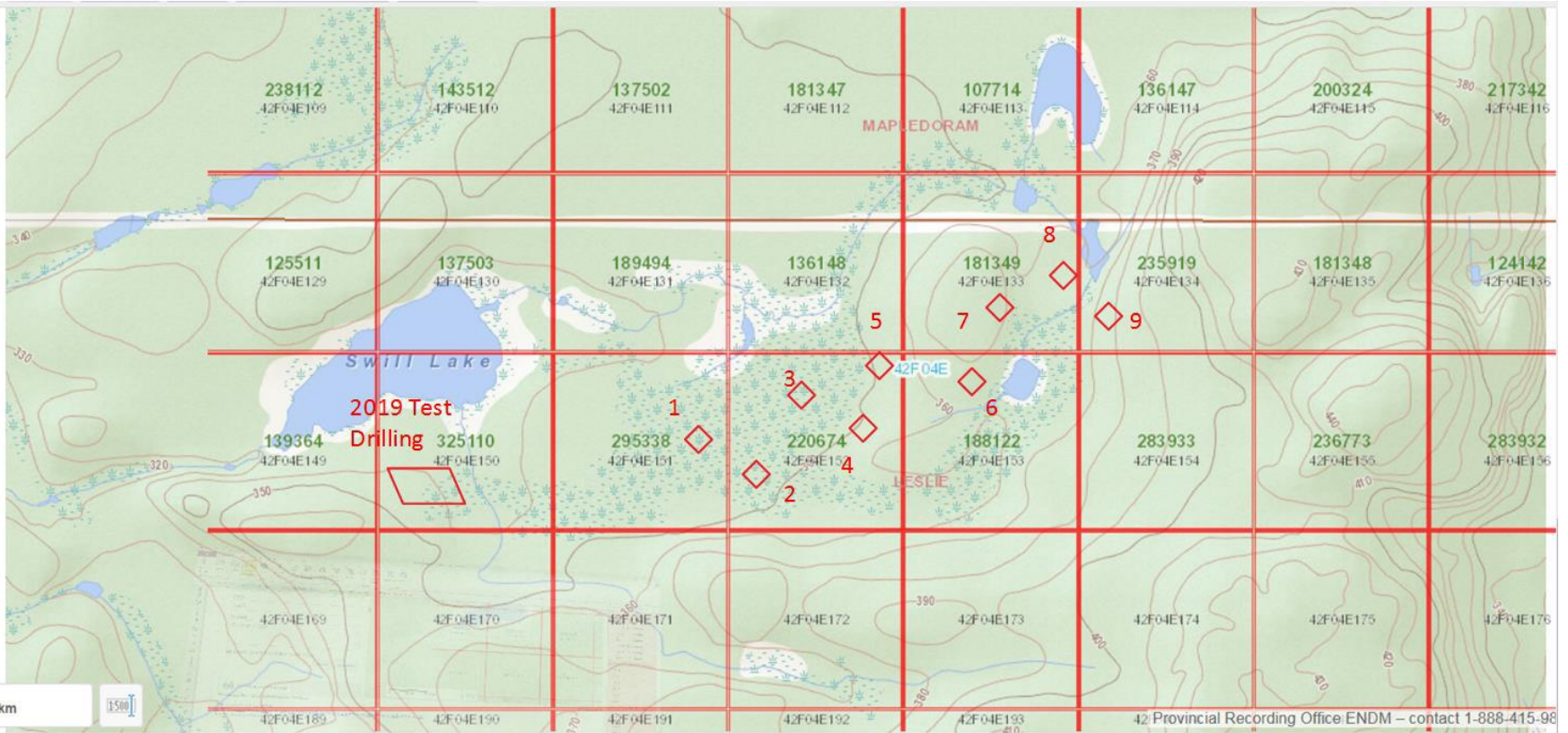
Please reference the map below for clarification on the planned drilling. Of note, The access road is complete to Holes 1, 2, 3, 4, 5, 6, and 7. The access road to Holes 8 and 9 are planned for this summer once the area dries from the winter melt.

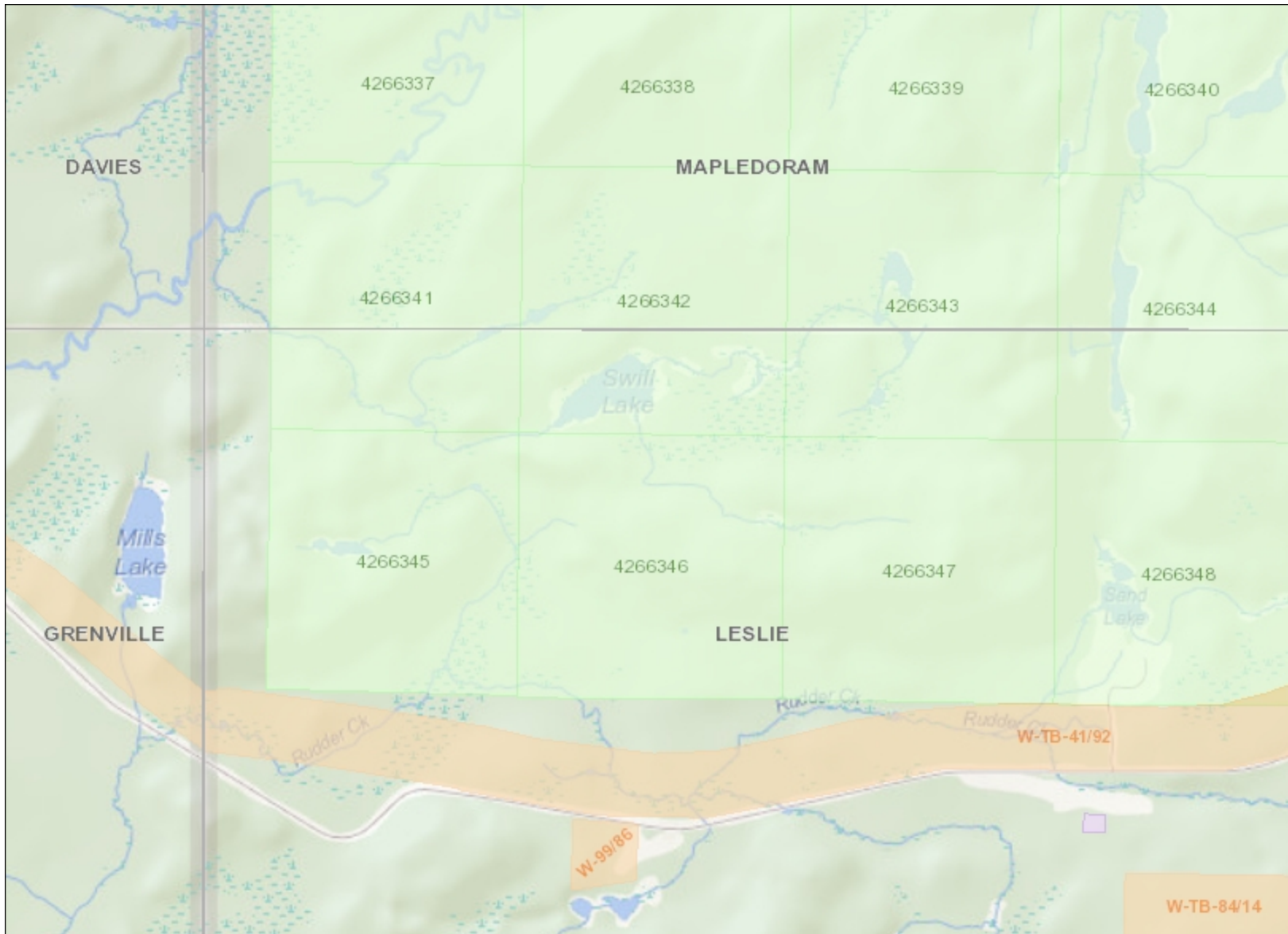
I want to...



© Land Information Ontario

I want to...





Legend

Administration Boundaries

- Mining Divisions
- Resident Geologist District
- Townships and Areas
- UTM Grid
- Geographic Lot Fabric
- Other Federal Land

Mineral Tenure Grid

- OMTG Tenure Grid

Alienations

- Withdrawal
- Notice

Unpatented Claim

- Active
- Reconciled
- Pending

Disposition

- Disposition

Disposition Symbols

- Camp
- Disposition Unknown/Pending
- Freehold Patent Mining Rights Only
- Freehold Patent Surface Rights Only
- Freehold Patent Surface and Mining Rights
- Land Use Permit
- Leasehold Patent Mining Rights Only
- Leasehold Patent Surface Rights Only
- Leasehold Patent Surface and Mining Rights
- License of Occupation Mining Use Only
- License of Occupation Surface Use Only
- License of Occupation Surface and Mining Rights
- License of Occupation Uses Not Specified
- Order in Council
- Tower
- WPLA

Geology Layers

- AMIS Sites
- AMIS Features
- Drill Holes
- Mineral Occurrences



Projection: Web Mercator



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The trail was built with an excavator and dozer. Access is 4-5m with and accessible by pickup truck.

Total kms of road is 2.07kms. Excavator hours = 84 hours (14 days x 6 hour) @ \$120/hour;

Dozer Hours (dress and maintenance) = 72 hours (12 days x 6 hours) @ \$100/hour

Total Value: $84 \times \$120 + 72 \times \$100 = \$17,280.00$

Claims work performed are:

Claim

181349

188122

220674

