We are committed to providing accessible customer service.
If you need accessible formats or communications supports, please contact us.

Nous tenons à améliorer l'accessibilité des services à la clientèle.
Si vous avez besoin de formats accessibles ou d'aide à la communication, veuillez nous contacter.

Ontario

Osisko Mining Inc.

Assessment Report

Unpatented Mining Claim

1204299

Holloway Township

Larder Lake Mining Division

Mobile Metal Ions Process Geochemical Survey

November, 2017 **Brian Madill**

.

TABLE OF CONTENTS

FIGURES

APPENDIX

SOIL SAMPLING PLANS

.

Introduction:

Between November 6th and 7th of 2017, Osisko Mining Inc. conducted a geochemical soil sampling survey program on the 100% owned Holloway North Property. The Holloway North property is located in Holloway Township (See Figure 1-Claim Map). The claim is described as follows:

Claim No.	No. of Units	No. of Hectares
1204299	2	32.2

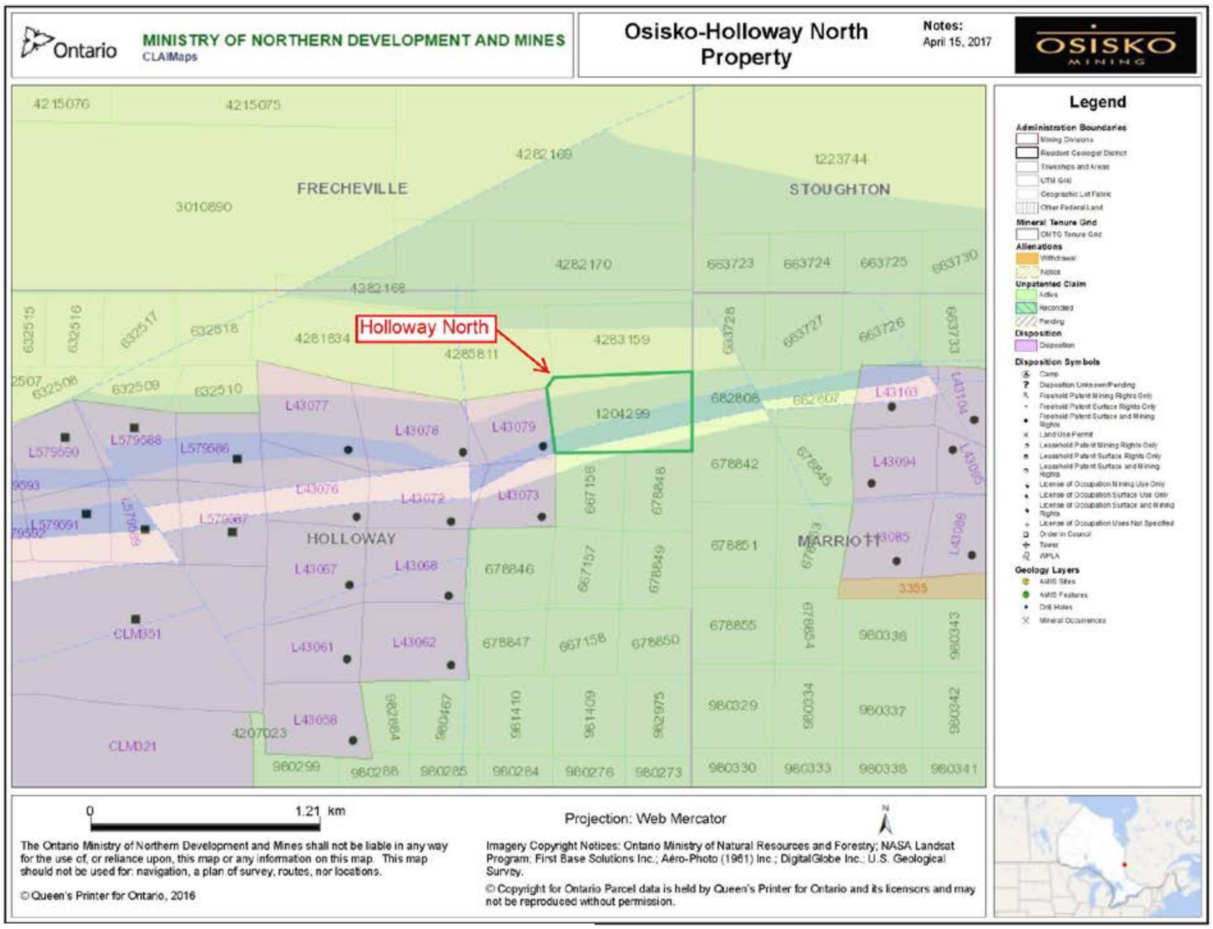


Figure 1: Claim Map (After MNDM ClaimMaps)

The purpose of the survey was to uncover any possible anomalous precious or base metal geochemical signatures that may be associated with ore deposits. A total of 62 samples were collected. The samples were sent to SGS Mineral Services in Burnaby, BC, for geochemical analysis.

Location and Access:

The Holloway Tailings Property is located approximately 70km to the northeast of the town of Kirkland Lake, and 66 km E of the town of Matheson in the Larder Lake Mining Division, District of Cochrane of northeastern Ontario.

The property is easily accessible by a north trending bush road that passes within a 100m of the eastern boundary. (See Figure 2-Location Map)

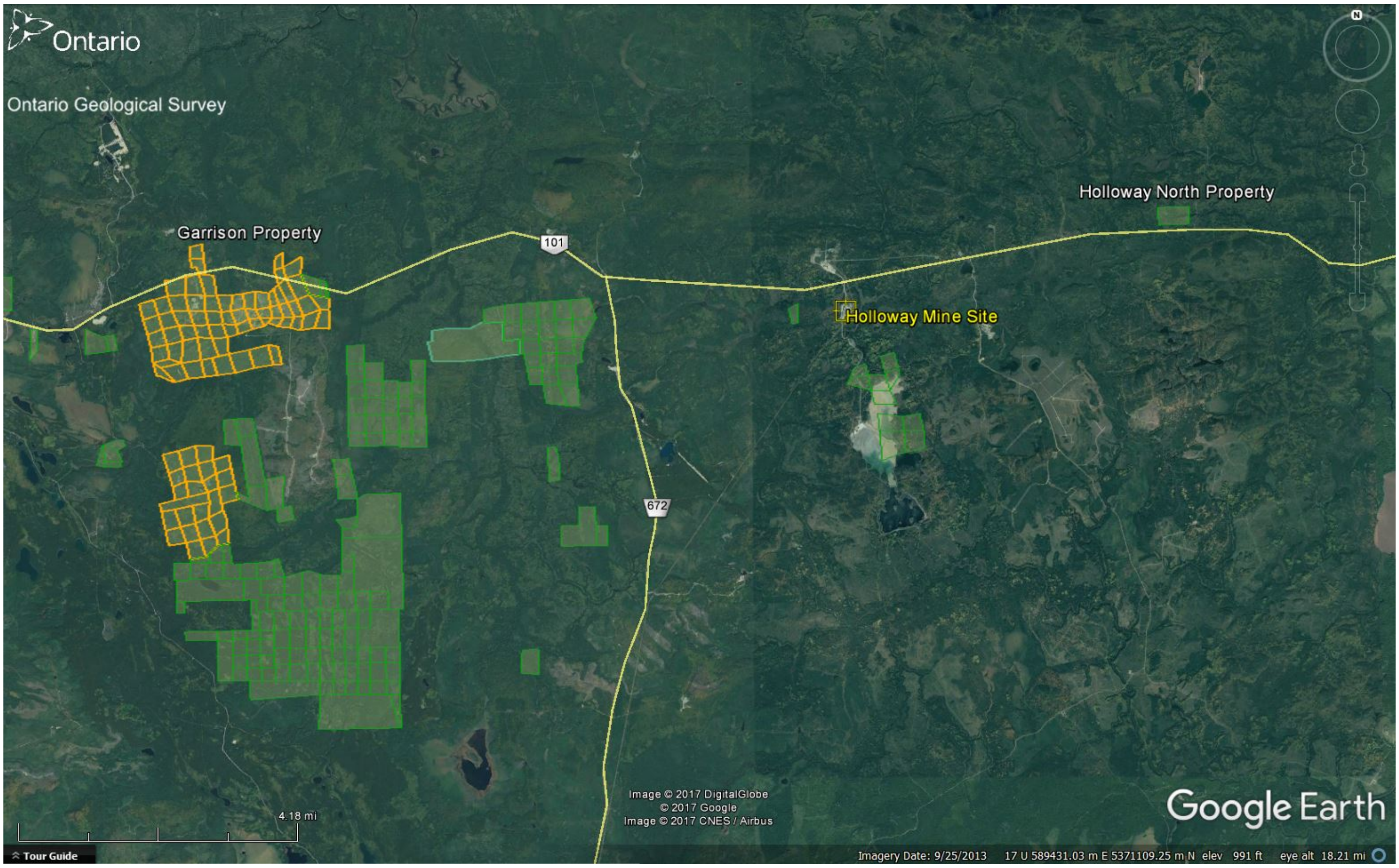


Figure 2: Location Map (After OGS and Google Earth)

Property Description:

The Holloway North property lies within the central Canadian Shield of the western Abitibi sub-province of which is primarily covered by boreal forest, swamps and lakes. The vegetation consists of balsam, poplar, and spruce with thick tag alder undergrowth.

The climatic conditions are typical for this region of northeastern Ontario with short mild summers and cold winters lasting from late October to mid to late March. The average means temperatures range from -17 degrees in January to 18 degrees in July. The average precipitation is from 812mm to 876mm

.

Previous Work:

Previous work on the Holloway North property is described as follows:

Year	Company Name	Type of Work	MNDM File No.
1983	Bruno Mining Corp.	Geol., Prosp.	KL-0294
1996	Gervais-Robitaille	Line cutting, Mag. and VLF	KL-4032
1996	O'Bradovich, T.	Geol., VLF.	KL-4046
2000	O'Bradovich, T.	IP	KL-4867
2002	O'Bradovich, T.	Diamond Drilling	AFRI: 32D12SE2031
2006	Gervais, L.N.	Diamond Drilling	AFRI: 20003040

Regional Geology:

The Holloway North Property is located in the Abitibi greenstone belt, an 800 km long and 240 km wide suite of Archean volcanic rocks stretching from Chibougamau, Quebec to west of Timmins, Ontario along the Destor-Porcupine fault system.

The property lies within the northern limb of an east-west trending Blake River synclinorium. Contained within the northern limb are 4 major volcanic events, the Larder Lake Group of komatitic lavas, the Kinojevis Group of theoleitic basalts, and the Blake River Group of calc-alkalic rocks and the Temiskaming Group of alkalic volcanic rocks. Within these volcanic suites sedimentary assemblages of Temiskaming age were deposited, these sediments are comprised of shales, argillites and cherts. The youngest geological events are the numerous intrusive sills, dykes, and stocks of felsic and mafic composition found throughout the region. (See Figure 3)

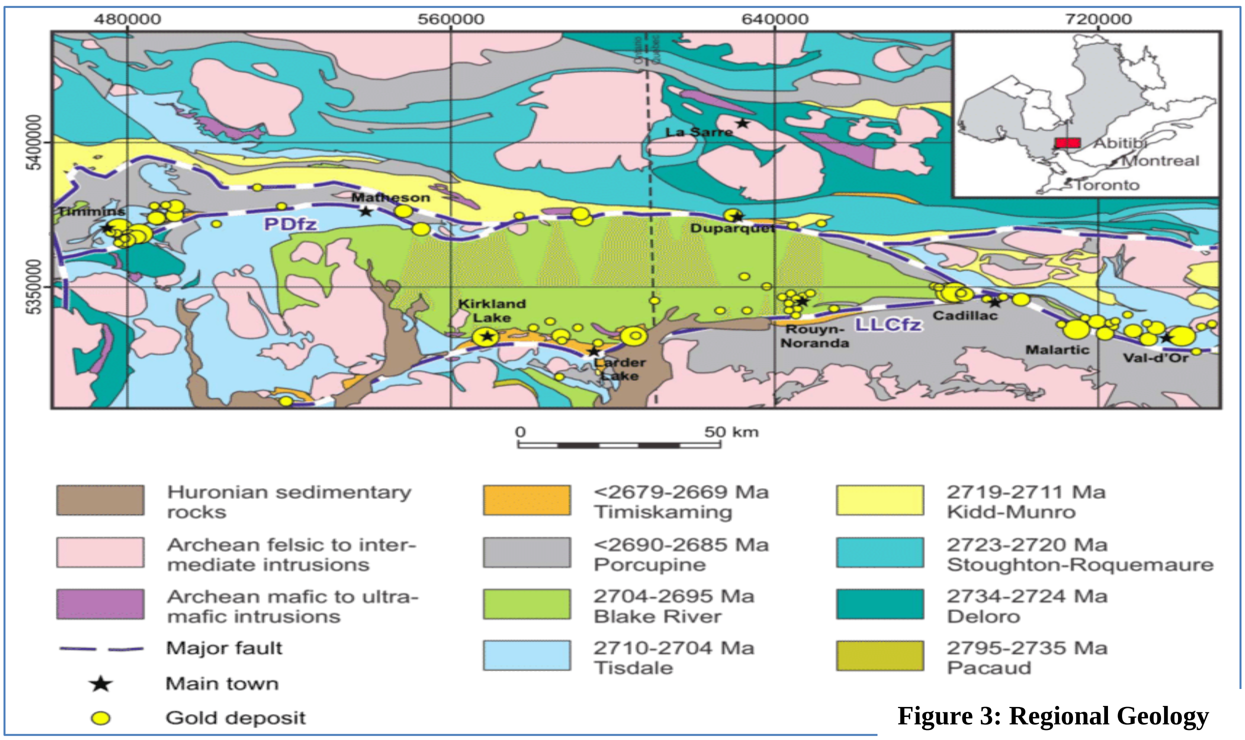


Figure 3: Regional Geology

Property Geology:

On the Holloway North property, the geology consists of Intermediate to felsic metavolcanic rocks and intrusions (3) bisecting the north western portion of the claim. To the south and central part of the claim lies a band of mafic to intermediate band of metavolcanic rocks and intrusions (2). Laying immediately to the south is a band of ultramafic to mafic metavolcanic rocks and intrusions (1). Along the bottom and trending parallel lies a band of Timiskaming type clastic metasedimentary rocks (8) and to the south is an suite of ultamafic metavolcanic rocks and intrusions (2). (See Figure 4)

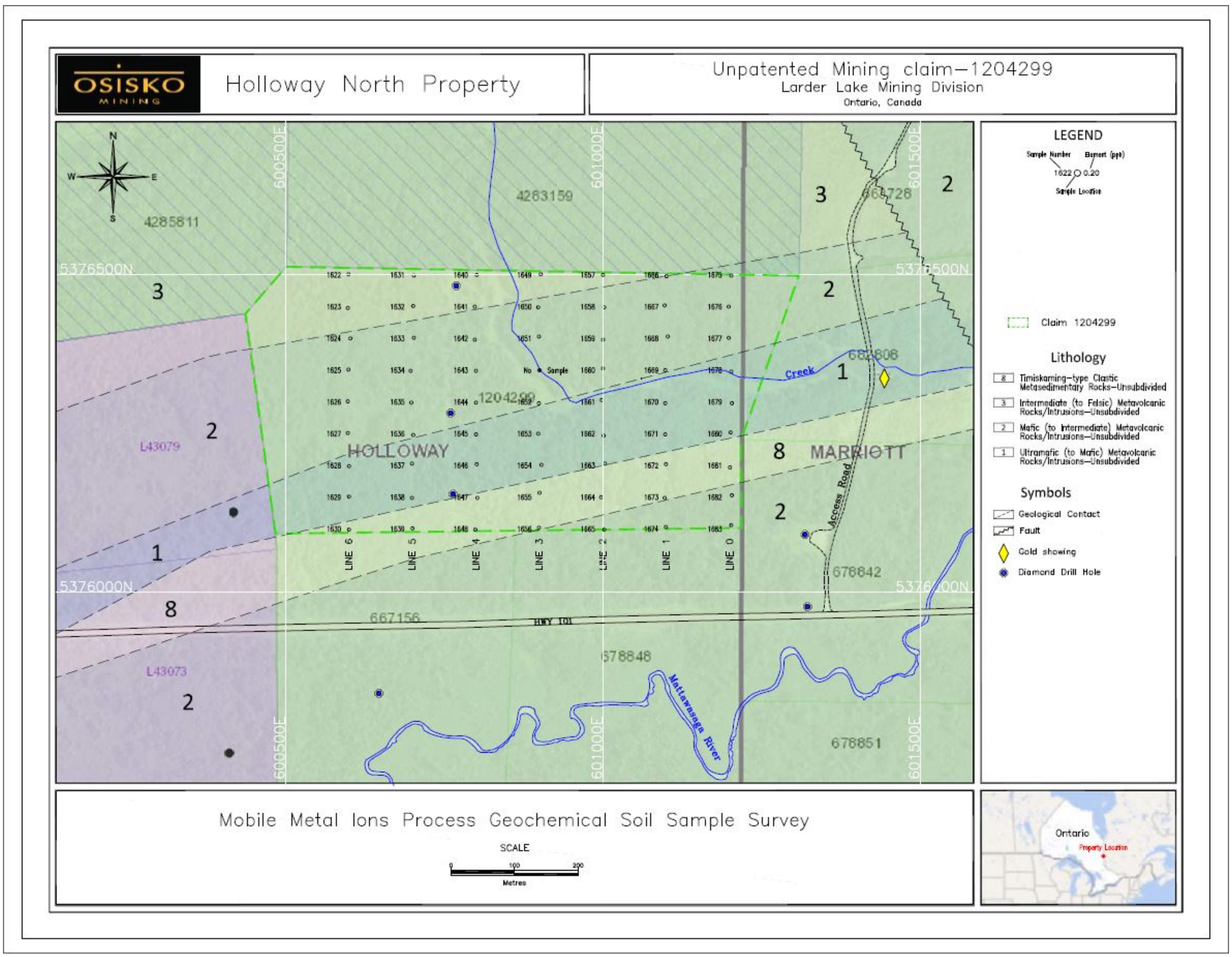


Figure 4: Property Geology (After MNDM ClaimMaps)

Sample Procedure:

A virtual line grid was planned using ArcGIS software having 7 lines spaced at 100m, and stations were allocated for every 50m intervals along each N-S line for a total of 2.8km. UTM coordinates were derived for each station and two personnel (Dave Eves and Lisa Lang) were outfitted with maps depicting the stations, and a Garmin GPS MAP 76 in order to locate the stations.

Sixty two samples were taken using a steel garden spade, and placed into 6mil poly bags that were labelled with the corresponding station designation. These bags were then placed into a larger 6 mil poly bag in order to separate the samples by line, and to facilitate easy handling. Each sample was given a quick written description including: depth of sample, sample name, soil type, soil condition, and local dendrology. (See Figure 5)

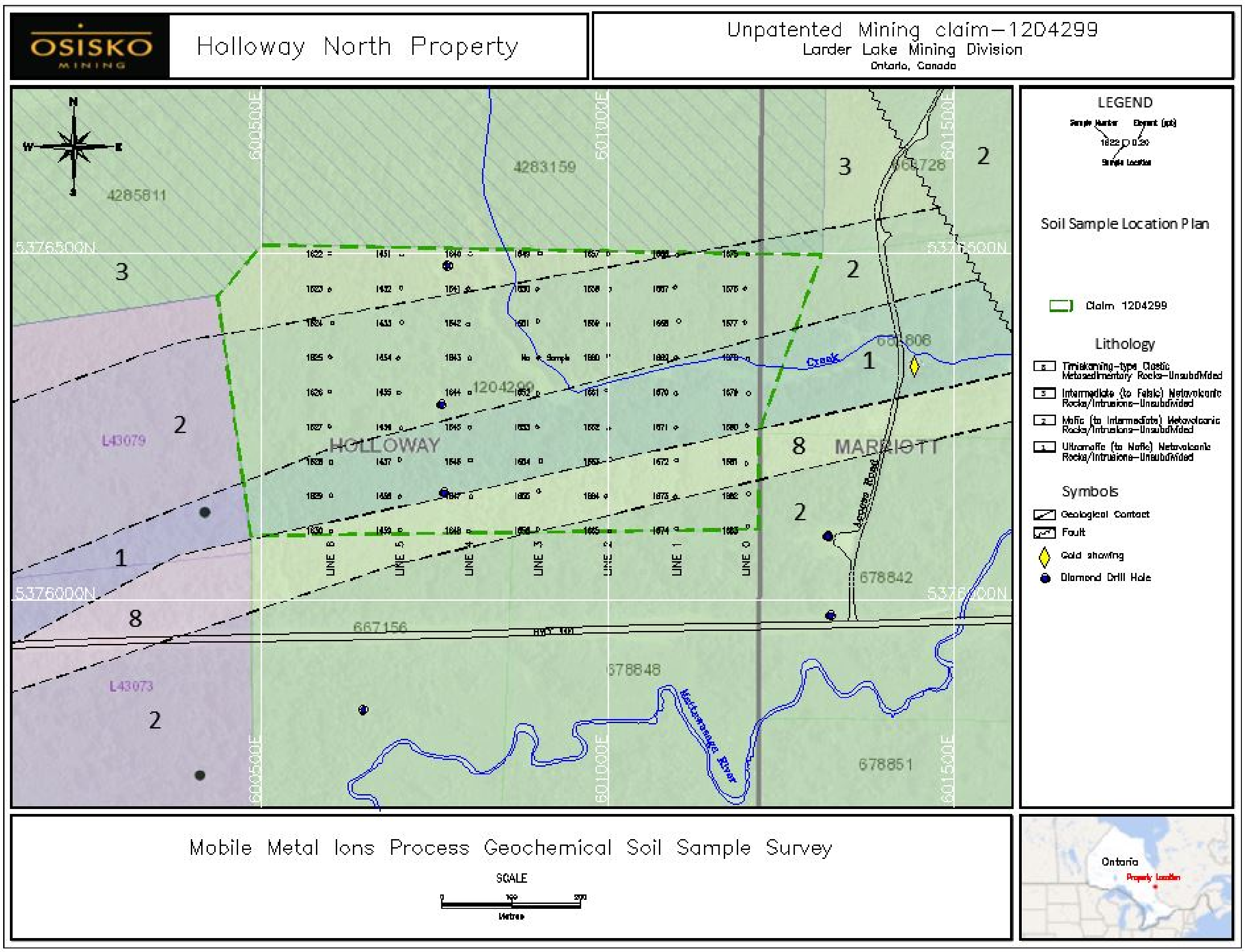


Figure 5: Soil Sample Location Plan (After MNDM

.

The following is an excerpt from the MMI Soil Sampling Guide, by SGS Labs, in regards to sampling in Boreal Climactic Zones:

- *Scrape away any loose non-decomposed matter, debris, and any possible cultural contamination.*
- *Dig a small pit to penetrate the organic material that still has structure (i.e. decomposing leaves, bark, twigs and peat).*
- *Identify where the organics begin to decompose and you start to see soil formation. This is the true interface (organic / inorganic) at which to begin your measurements.*
- *Collect the sample between 10 and 25 cm below this interface. The sample should be a continuous composite taken from the 15 cm interval.*
- *Using a plastic scoop take a cross section of the material between the 10 to 25 cm depth and put into clean, properly labelled plastic bags. Collect approx. 250 to 350 grams of material.*
- *Samples were counted and logged by the author upon receipt, then placed into boxes for shipping to SGS Labs.*

Assay Method:

Samples were sent to SGS Labs for Mobile Metal Ion detection assays using the MMI-M package to take advantage of the flexible multi-element assay (8) option with lower detection limits, at a reasonable cost. We will test for Gold(Au), Silver(Ag), Copper(Cu), Arsenic(As), Zinc(Zn), Lead(Pb), Platinum(Pd), and Potassium(K).

MMI Theory:

The theory given below was taken from the SGS Labs - Geochem Analysis 2012 Brochure:

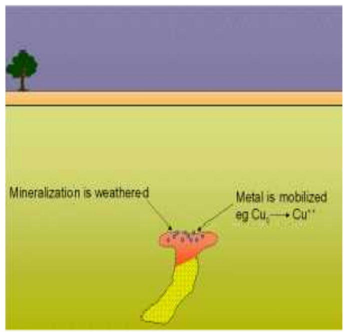
MMI® Technology is an innovative analytical process that uses a unique approach to the analysis of metals in soils and weathered materials.

Target elements are extracted using weak solutions of organic and inorganic compounds rather than conventional aggressive acid or cyanide- based digests. MMI® solutions contain strong ligands, which detach and hold in solution the metal ions that were loosely bound to soil particles by weak atomic forces. The extraction does not dissolve the bound forms of the metal ions. Thus, the metal ions in the MMI solutions are the chemically active or 'mobile' component of the sample. Because these mobile, loosely bound complexes are in very low concentrations, *measurement is by conventional ICP-MS and the latest evolution of this technology, ICP-MS Dynamic Reaction Cell™ (DRC II™).* (See Figure 6)

The MMI Theory - What is MMI Geochemistry

Mobile Metal Ions is a term used to describe ions which have moved in the weathering zone and that are only weakly or loosely attached to surface soil particles. It is a widely held belief that these Mobile Metal Ions are transported from deeply-buried ore bodies to the surface. Scientists from around the world have been studying this phenomenon for many years.

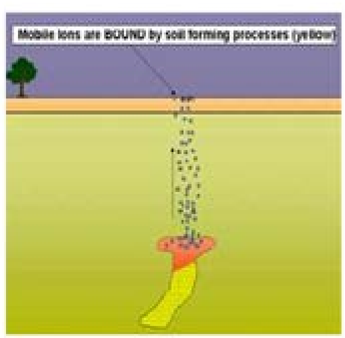
No-one is completely clear on exactly how the metal ions migrate to the surface. However, research and case studies over known ore-bodies have shown that mobile metal ions accumulate in surface soils above mineralization, indicating that the metals are derived from the mineralization source. The diagram below demonstrates a hypothetical model by which mobile ions are released from ore bodies, migrate vertically and accumulate in surface soils.



As the ions reach the surface, they attach themselves weakly to the soil particles. These are the ions that are measured by the MMI Technique to find mineralization at depths. The weakly attached ions are at very low concentrations. Because the ions have recently arrived to the surface they provide a precise 'signal' on where the ore-bodies are.

When the mobile metal ions have arrived at the surface they have a limited lifetime as 'mobile' ions. At the surface the ions are subject to weathering and are bound up by soil forming processes (i.e. they become part of the soil). The diagram below demonstrates this process. Note that bound ions (yellow) are subject to lateral movement away from the mineralization. The mobile ions (blue), however, do not move away from the source (mineralization) because they have a limited lifetime before they are

When the mobile metal ions have arrived at the surface they have a limited lifetime as 'mobile' ions. At the surface the ions are subject to weathering and are bound up by soil forming processes (i.e. they become part of the soil). The diagram below demonstrates this process. Note that bound ions (yellow) are subject to lateral movement away from the mineralization. The mobile ions (blue), however, do not move away from the source (mineralization) because they have a limited lifetime before they are converted to a bound form.



By only measuring the mobile metal ions in the surface soils, MMI Geochemistry will produce very sharp responses (anomalies) directly over the source of mobile ions. This source is ore-bodies at depth, which emit metal ions, which make up that ore-body. For example a Cu, Pb, Zn base metal deposit will emit (release) Cu, Pb and Zn ions.

Figure 6: MMI Theory

Results:

<u>Ag</u>: All 62 samples reported well above the detection limit of 0.5ppb. The highest value of 21ppb is found at the south end of Line 2. The values above 15ppb are concentrated in the northeast quadrant of the claim block. (See Plan Map Ag.)

<u>As</u>: All of the Arsenic values with the exception of 2 located at the north end of Line 5 are at or below the detection limit of 10ppb. The 2 values above the detection limit are 20 ppb. (See Plan Map As.)

<u>Au</u>: Of the 62 samples collected and assayed for gold 37.8% are below the detection limit. The remaining values range from 0.1 to 0.2ppb. The highest assay of 0.3ppb is located along Line 5 at 600701E/5376248N.(See Plan Map Au.)

<u>Cu</u>: All 62 samples reported well above the detection limit of 10ppb. Elevated copper values are showing a correlation along strike that straddles the contact between the mafic and ultramafic units trending northeast-southwest through the central portion of the claim block.

<u>K</u>: All 62 samples reported well above the detection limit of 0.5ppm. Elevated values in the 30 to 50ppm+ range seem concentrated in the northeast portion of the claim block. It is interesting to note that values in the 30 to 40ppm range show a correlation with the metasediment unit crossing through the south eastern part of the claim block.

<u>Pb</u>: All 62 samples reported well above the detection limit of 5ppb. Of these 22.6% were above 400ppb and scattered across the entire claim showing no evident trends.

Pb: All 62 samples were below the detection limit for palladium of 1ppb.

Zn: All 62 samples reported well above the detection limit of 10ppb. Of the 62 samples 19.4% were above 1200ppb. These all appear to be confined to the mafic and ultramafic units crossing the claim.

Conclusions and Recommendations:

In conclusion the MMI Geochemical Survey has produced some interesting results. The effectiveness of the MMI Survey proved to be somewhat unclear. It would be prudent at this stage to augment the MMI Survey with some type of deep penetrating geophysical method as well as investigate further any known drill holes in the vicinity of the property.

.

References:

1948 Satterly, J., Geology of Garrison Township, District of Cochrane, PR 1948-2 Ontario Department of Mine

1949 Satterly, J., O.G.S. Map No. 1948-1, Scale 1:20,000

1999 Ayer, J.A., Berger, B.R. and Trowell, N.F., 1999, Geological compilation of the Lake Abitibi greenstone belt, O.G.S. Map P3398, Scale 1:100,000

STATEMENT OF QUALIFICATIONS

I, Brian Madill, of 142 Carter Ave. Kirkland Lake, Ontario, do hereby certify that:

1. I am a Prospector/Geological/Geophysical Technician and have been practicing my profession for the past 38 years.

2. I am a graduate of Cambrian College, Sudbury, Ontario having obtained a Geological Engineering Technician diploma in 1979.

3. My knowledge of the property described herein was obtained by fieldwork and documentation.

4. I do not have or expect to receive any interest in the property that forms the basis of this report.

5. I am qualified to author this report.

Respectfully,

Brian H. Madill

Brian H. Madill

APPENDIX

Holloway North MMI Soil Sample Index Sheet

Easting (Proposed)	Northing (Proposed)	Easting (Actual)	Northing (Actual)	Line #	Sample Number	Depth of Sample Sample (cm)	Type of Soil	Description of Soil Type	Comments
600600	5376500	**600599**	**5376501**	**6**	**1622**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600600	5376450	**600598**	**5376448**	**6**	**1623**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600600	5376400	**600602**	**5376400**	**6**	**1624**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600600	5376350	**600599**	**5376351**	**6**	**1625**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600600	5376300	**600598**	**5376301**	**6**	**1626**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600600	5376250	**600598**	**5376251**	**6**	**1627**	**40**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600600	5376200	**600600**	**5376199**	**6**	**1628**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600600	5376150	**600600**	**5376151**	**6**	**1629**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600600	5376100	**600600**	**5376099**	**6**	**1630**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	

Easting (Proposed)	Northing (Proposed)	Easting (Actual)	Northing (Actual)	Line #	Sample Number	Depth of Sample Sample (cm)	Type of Soil	Description of Soil Type	Comments
600700	5376500	**600702**	**5376499**	**5**	**1631**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600700	5376450	**600701**	**5376451**	**5**	**1632**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600700	5376400	**600702**	**5376401**	**5**	**1633**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600700	5376350	**600697**	**5376349**	**5**	**1634**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600700	5376300	**600698**	**5376299**	**5**	**1635**	**40**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600700	5376250	**600701**	**5376248**	**5**	**1636**	**35**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600700	5376200	**600699**	**5376203**	**5**	**1637**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600700	5376150	**600699**	**5376149**	**5**	**1638**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600700	5376100	**600700**	**5376101**	**5**	**1639**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	

Holloway North MMI Soil Sample Index Sheet

Easting (Proposed)	Northing (Proposed)	Easting (Actual)	Northing (Actual)	Line #	Sample Number	Depth of Sample Sample (cm)	Type of Soil	Description of Soil Type	Comments
600800	5376500	**600801**	**5376500**	**4**	**1640**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600800	5376450	**600798**	**5376450**	**4**	**1641**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600800	5376400	**600798**	**5376398**	**4**	**1642**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600800	5376350	**600800**	**5376349**	**4**	**1643**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600800	5376300	**600800**	**5376299**	**4**	**1644**	**40**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600800	5376250	**600800**	**5376249**	**4**	**1645**	**35**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600800	5376200	**600801**	**5376202**	**4**	**1646**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600800	5376150	**600802**	**5376149**	**4**	**1647**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600800	5376100	**600799**	**5376099**	**4**	**1648**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	

Easting (Proposed)	Northing (Proposed)	Easting (Actual)	Northing (Actual)	Line #	Sample Number	Depth of Sample Sample (cm)	Type of Soil	Description of Soil Type	Comments
600900	5376500	**600902**	**5376501**	**3**	**1649**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600900	5376450	**600898**	**5376449**	**3**	**1650**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600900	5376400	**600899**	**5376403**	**3**	**1651**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600900	5376350			**3**				**NO SAMPLE**	**BEAVER POND**
600900	5376300	**600899**	**5376298**	**3**	**1652**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600900	5376250	**600898**	**5376250**	**3**	**1653**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600900	5376200	**600903**	**5376201**	**3**	**1654**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600900	5376150	**600900**	**5376157**	**3**	**1655**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
600900	5376100	**600899**	**5376102**	**3**	**1656**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	

Holloway North MMI Soil Sample Index Sheet

Easting (Proposed)	Northing (Proposed)	Easting (Actual)	Northing (Actual)	Line #	Sample Number	Depth of Sample Sample (cm)	Type of Soil	Description of Soil Type	Comments
601000	5376500	**601000**	**5376500**	**2**	**1657**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601000	5376450	**601002**	**5376449**	**2**	**1658**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601000	5376400	**601000**	**5376398**	**2**	**1659**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601000	5376350	**601000**	**5376353**	**2**	**1660**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601000	5376300	**600998**	**5376303**	**2**	**1661**	**40**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	**ON BANK OF CREEK**
601000	5376250	**601001**	**5376247**	**2**	**1662**	**35**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601000	5376200	**601003**	**5376203**	**2**	**1663**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601000	5376150	**600997**	**5376150**	**2**	**1664**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601000	5376100	**601002**	**5376099**	**2**	**1665**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	

Easting (Proposed)	Northing (Proposed)	Easting (Actual)	Northing (Actual)	Line #	Sample Number	Depth of Sample Sample (cm)	Type of Soil	Description of Soil Type	Comments
601100	5376500	**601100**	**5376498**	**1**	**1666**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601100	5376450	**601097**	**5376452**	**1**	**1667**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601100	5376400	**601102**	**5376403**	**1**	**1668**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601100	5376350	**601098**	**5376350**	**1**	**1669**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	**ON BANK OF CREEK**
601100	5376300	**601098**	**5376298**	**1**	**1670**	**40**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601100	5376250	**601098**	**5376249**	**1**	**1671**	**35**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601100	5376200	**601099**	**5376202**	**1**	**1672**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601100	5376150	**601097**	**5376149**	**1**	**1673**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601100	5376100	**601099**	**5376103**	**1**	**1674**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	

Holloway North MMI Soil Sample Index Sheet

Easting (Proposed)	Northing (Proposed)	Easting (Actual)	Northing (Actual)	Line #	Sample Number	Depth of Sample Sample (cm)	Type of Soil	Description of Soil Type	Comments
601200	5376500	**601202**	**5376499**	**0**	**1675**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601200	5376450	**601198**	**5376450**	**0**	**1676**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601200	5376400	**601198**	**5376401**	**0**	**1677**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601200	5376350	**601202**	**5376348**	**0**	**1678**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	**ADJACENT TO BEAVER DAM**
601200	5376300	**601203**	**5376298**	**0**	**1679**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601200	5376250	**601201**	**5376252**	**0**	**1680**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601200	5376200	**601200**	**5376197**	**0**	**1681**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601200	5376150	**601203**	**5376153**	**0**	**1682**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	
601200	5376100	**601202**	**5376106**	**0**	**1683**	**30**	**Clay**	**Greyish brown to dark brown, fine grained, minor organics**	

Certificate of Analysis
Work Order : VC174138
[Report File No.: 0000026156]

Date: November 22, 2017

To: **GREG MATHESON**
OSISKO MINING INC
155 UNIVERSITY AVE
SUITE 1440
TORONTO ON M5H 3B7

P.O. No.: 62 MMI samples
Project No.: -
Samples: 62
Received: Nov 15, 2017
Pages: Page 1 to 3
(Inclusive of Cover Sheet)

Methods Summary

No. Of Samples	Method Code	Description
62	G_LOG02	Pre-preparation processing, sorting, logging, boxing
62	GE_MMI_M	Mobile Metal ION standard package/ICP-MS

Storage: Pulp & Reject

REJECT STORAGE : DISPOSE AFTER 30 DAYS

Certified By : ______________
John Chiang
QC Chemist

SGS Minerals Services Geochemistry Vancouver conforms to the requirements of ISO/IEC 17025 for specific tests as listed on their scope of accreditation which can be found at http://www.scc.ca/en/search/palcan/sgs

Report Footer:

L.N.R.	= Listed not received	I.S.	= Insufficient Sample
n.a.	= Not applicable	--	= No result

*INF = Composition of this sample makes detection impossible by this method

M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Methods marked with an asterisk (e.g. *NAA08V) were subcontracted
Elements marked with the @ symbol (e.g. @Cu) denote assays performed using accredited test methods

SGS

Final : VC174138 Order: 62 MMI samples

Report File No.: 0000026156

Element	Au	Ag	Cu	As	Zn	Pb	Pd	K
Method	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M
Det.Lim.	0.1	0.5	10	10	10	5	1	0.5
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm
1622	0.1	5.3	390	<10	1070	420	<1	35.1
1623	<0.1	12.2	450	<10	620	418	<1	28.6
1624	0.1	7.1	360	<10	570	358	<1	40.6
1625	0.1	7.0	360	<10	1290	399	<1	25.9
1626	0.1	7.9	320	<10	990	575	<1	29.0
1627	0.2	9.6	590	<10	460	299	<1	25.8
1628	<0.1	6.5	250	<10	590	416	<1	27.8
1629	0.1	8.2	410	<10	60	253	<1	23.2
1630	0.2	7.0	610	<10	90	143	<1	19.6
1631	0.1	3.9	320	<10	450	205	<1	20.0
1632	<0.1	8.1	320	20	530	378	<1	24.9
1633	<0.1	6.6	330	20	760	299	<1	25.3
1634	<0.1	14.0	330	<10	1200	284	<1	47.8
1635	0.1	6.0	410	10	460	319	<1	15.6
1636	0.3	3.5	610	<10	620	428	<1	15.6
1637	0.1	9.5	640	<10	300	436	<1	31.0
1638	0.2	11.0	340	<10	770	313	<1	42.7
1639	0.1	10.0	320	<10	800	290	<1	33.5
1640	<0.1	5.4	240	<10	1200	333	<1	29.8
1641	0.2	8.9	330	<10	690	225	<1	22.5
1642	0.1	9.5	410	<10	350	407	<1	29.0
1643	0.2	7.6	760	<10	2010	241	<1	17.7
1644	0.1	4.0	810	<10	200	112	<1	12.6
1645	0.2	7.0	360	<10	830	189	<1	25.6
1646	0.2	4.9	410	<10	410	263	<1	17.5
1647	<0.1	9.0	330	<10	440	324	<1	35.0
1648	0.1	8.6	380	<10	720	322	<1	32.5
1649	<0.1	16.6	500	<10	1370	207	<1	31.8
1650	<0.1	9.4	280	<10	850	298	<1	20.8
1651	<0.1	9.5	340	<10	2430	294	<1	19.8
1652	0.1	5.6	360	<10	590	249	<1	24.1
1653	<0.1	7.3	260	<10	690	379	<1	24.8
1654	0.1	9.1	270	<10	1200	404	<1	24.1
1655	<0.1	11.6	300	<10	760	413	<1	29.9
1656	0.1	6.4	360	<10	840	278	<1	38.0
1657	0.2	2.9	470	<10	770	237	<1	29.2
1658	0.1	16.0	560	<10	680	548	<1	58.5
1659	<0.1	7.2	260	<10	630	271	<1	35.3
1660	0.1	11.6	530	<10	930	108	<1	28.5
1661	0.1	13.6	1370	<10	170	63	<1	22.9

Final : VC174138 Order: 62 MMI samples

Report File No.: 0000026156

Element	Au	Ag	Cu	As	Zn	Pb	Pd	K
Method	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M	GE_MMI_M
Det.Lim.	0.1	0.5	10	10	10	5	1	0.5
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm
1662	<0.1	13.1	340	<10	1320	370	<1	21.9
1663	<0.1	8.6	490	<10	780	507	<1	36.6
1664	<0.1	7.3	430	<10	660	505	<1	37.8
1665	0.1	21.0	390	<10	1030	261	<1	42.2
1666	0.1	6.5	350	<10	430	237	<1	38.5
1667	0.2	6.2	440	<10	350	200	<1	33.2
1668	<0.1	14.4	320	<10	110	341	<1	52.4
1669	0.1	13.8	1150	<10	520	153	<1	12.2
1670	0.2	15.2	460	<10	890	360	<1	26.1
1671	0.1	13.4	260	<10	530	362	<1	44.7
1672	<0.1	6.9	360	<10	1070	541	<1	35.9
1673	<0.1	8.1	360	<10	640	389	<1	37.3
1674	<0.1	6.2	440	<10	460	254	<1	16.6
1675	0.2	10.7	530	<10	170	176	<1	44.9
1676	0.1	13.9	310	<10	590	310	<1	29.4
1677	<0.1	11.7	490	<10	610	271	<1	38.9
1678	0.2	17.1	840	<10	370	138	<1	38.4
1679	0.1	6.1	360	<10	900	188	<1	29.4
1680	<0.1	11.4	470	<10	1360	445	<1	37.0
1681	0.1	7.0	430	<10	770	358	<1	35.7
1682	<0.1	10.9	490	<10	640	362	<1	83.0
1683	<0.1	3.8	260	<10	560	384	<1	38.4
*Rep 1622	0.1	3.9	410	<10	950	376	<1	32.3
*Rep 1641	<0.1	11.9	340	10	770	199	<1	25.4
*Rep 1658	<0.1	17.2	570	<10	670	526	<1	56.5
*Rep 1668	<0.1	15.9	330	<10	110	352	<1	53.7
*Rep 1671	<0.1	12.0	250	<10	530	415	<1	42.0
*Std MMISRM19	4.6	26.9	2080	<10	2360	946	<1	92.2
*Std MMISRM19	4.6	25.8	1940	<10	2170	800	<1	92.2
*Blk BLANK	<0.1	<0.5	<10	<10	<10	<5	<1	<0.5
*Blk BLANK	<0.1	<0.5	<10	<10	<10	<5	<1	<0.5

SOIL SAMPLE PLAN MAPS

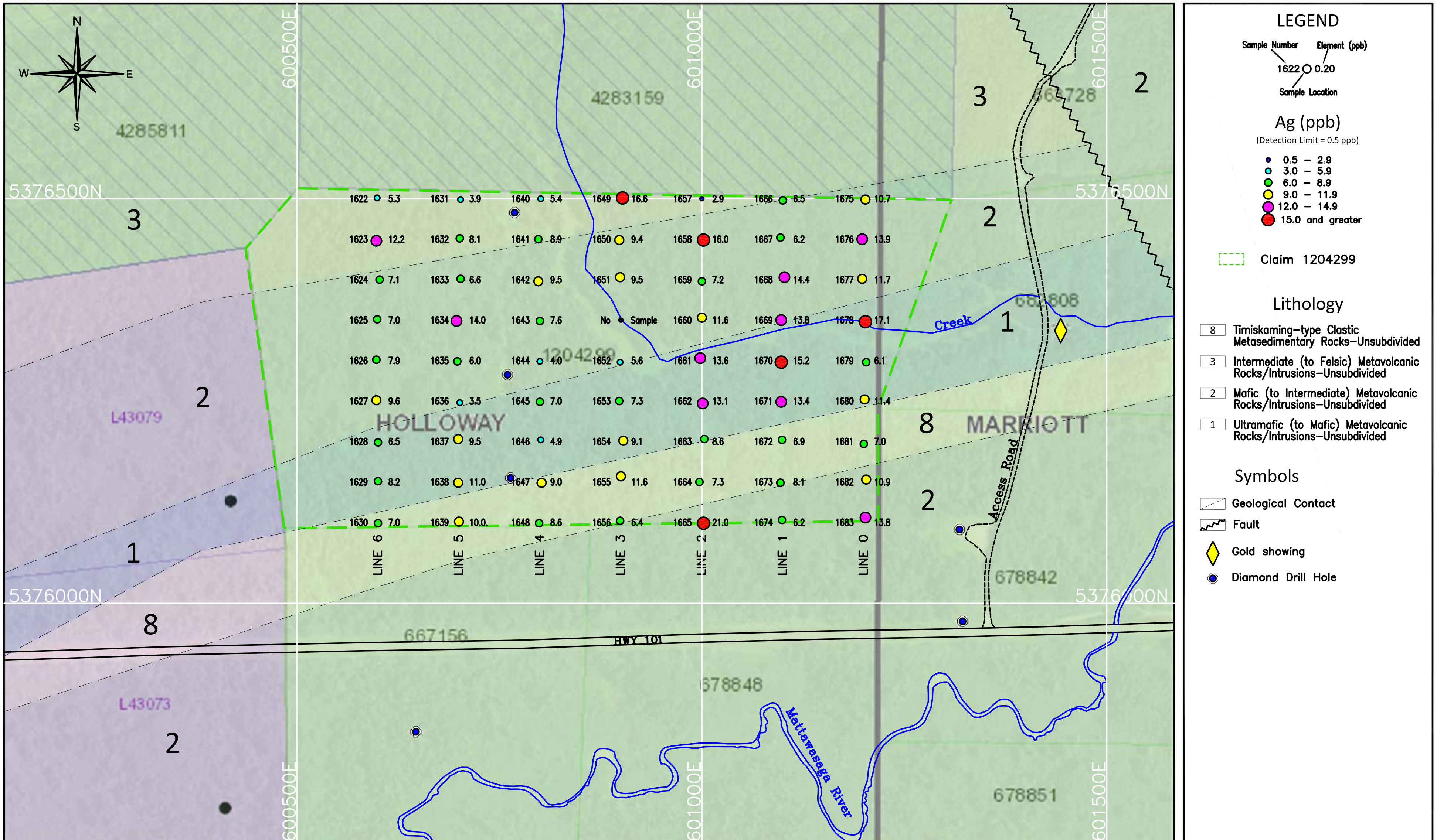
OSISKO MINING

Holloway North Property

Unpatented Mining claim–1204299

Larder Lake Mining Division

Ontario, Canada



Mobile Metal Ions Process Geochemical Soil Sample Survey

SCALE

0 100 200

Metres

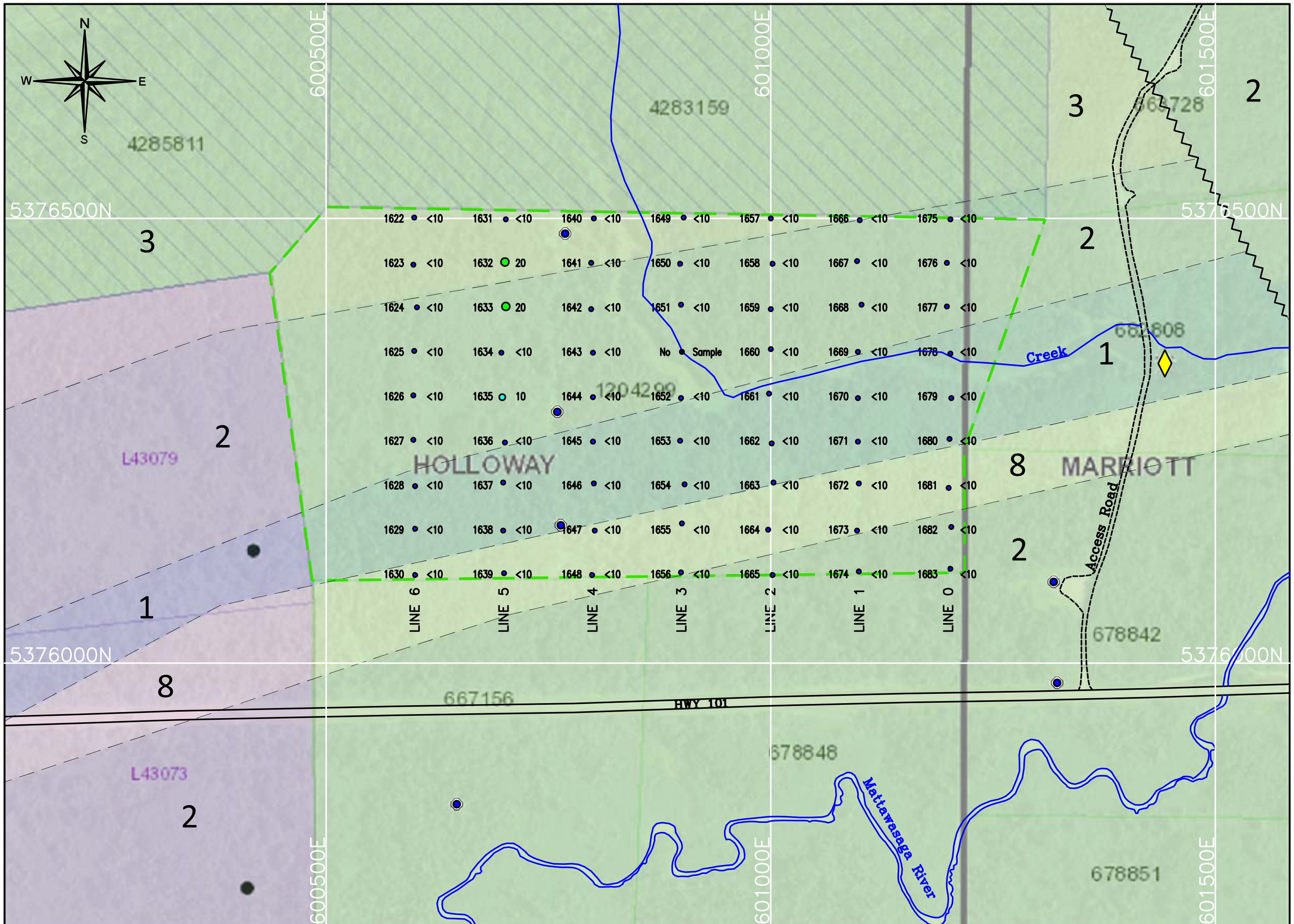
OSISKO MINING

Holloway North Property

Unpatented Mining claim–1204299

Larder Lake Mining Division

Ontario, Canada



LEGEND

Sample Number — Element (ppb) — Sample Location: 1622 ○ 0.20

As (ppb)
(Detection Limit = 10 ppb)

- Less than 10
- 10.0 – 19.9
- 20.0 – 29.9
- 30.0 – 39.9
- 40.0 – 49.9
- 50.0 and greater

Claim 1204299

Lithology

- 8 Timiskaming–type Clastic Metasedimentary Rocks–Unsubdivided
- 3 Intermediate (to Felsic) Metavolcanic Rocks/Intrusions–Unsubdivided
- 2 Mafic (to Intermediate) Metavolcanic Rocks/Intrusions–Unsubdivided
- 1 Ultramafic (to Mafic) Metavolcanic Rocks/Intrusions–Unsubdivided

Symbols

- Geological Contact
- Fault
- Gold showing
- Diamond Drill Hole

Mobile Metal Ions Process Geochemical Soil Sample Survey

SCALE

0 100 200

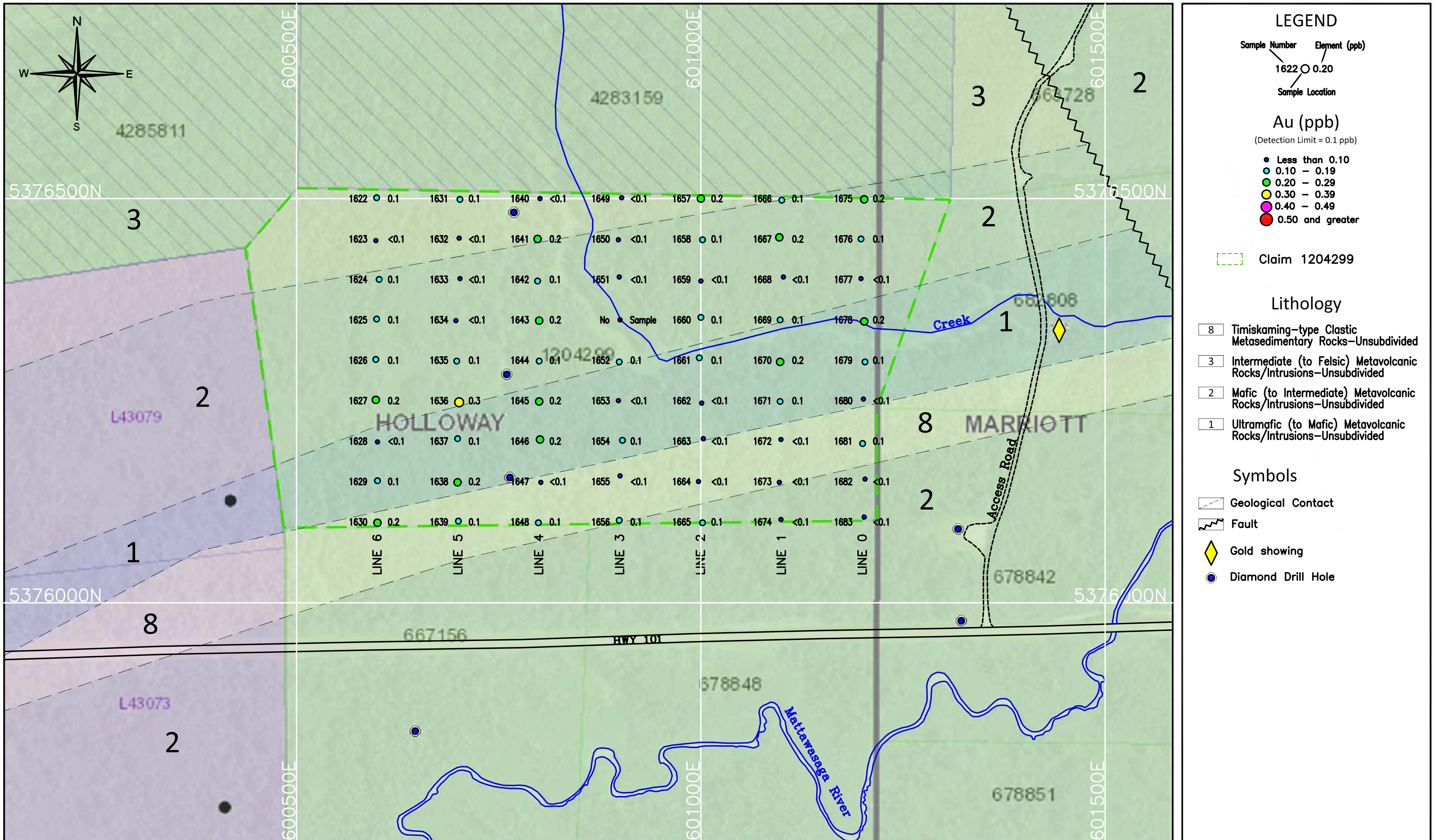
Metres

Holloway North Property

Unpatented Mining claim–1204299

Larder Lake Mining Division

Ontario, Canada



Mobile Metal Ions Process Geochemical Soil Sample Survey

SCALE

0 100 200

Metres

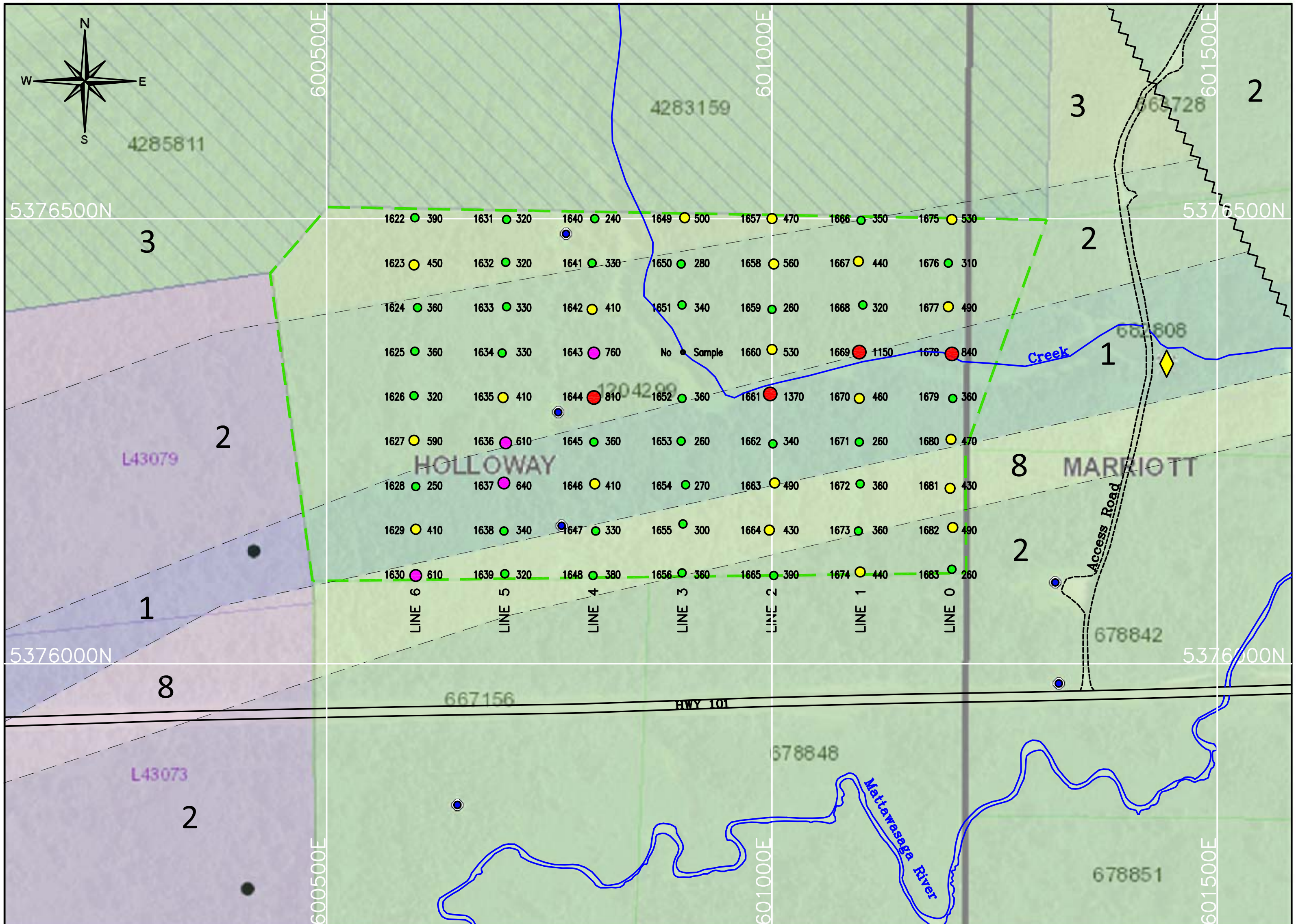
OSISKO MINING

Holloway North Property

Unpatented Mining claim–1204299

Larder Lake Mining Division

Ontario, Canada



LEGEND

Sample Number — Element (ppb)

1622 ○ 0.20

Sample Location

Cu (ppb)

(Detection Limit = 10 ppb)

- Less than 10
- 10.0 – 199.9
- 200.0 – 399.9
- 400.0 – 599.9
- 600.0 – 799.9
- 800.0 and greater

Claim 1204299

Lithology

- 8 Timiskaming–type Clastic Metasedimentary Rocks–Unsubdivided
- 3 Intermediate (to Felsic) Metavolcanic Rocks/Intrusions–Unsubdivided
- 2 Mafic (to Intermediate) Metavolcanic Rocks/Intrusions–Unsubdivided
- 1 Ultramafic (to Mafic) Metavolcanic Rocks/Intrusions–Unsubdivided

Symbols

- Geological Contact
- Fault
- Gold showing
- Diamond Drill Hole

Mobile Metal Ions Process Geochemical Soil Sample Survey

SCALE

0 100 200

Metres

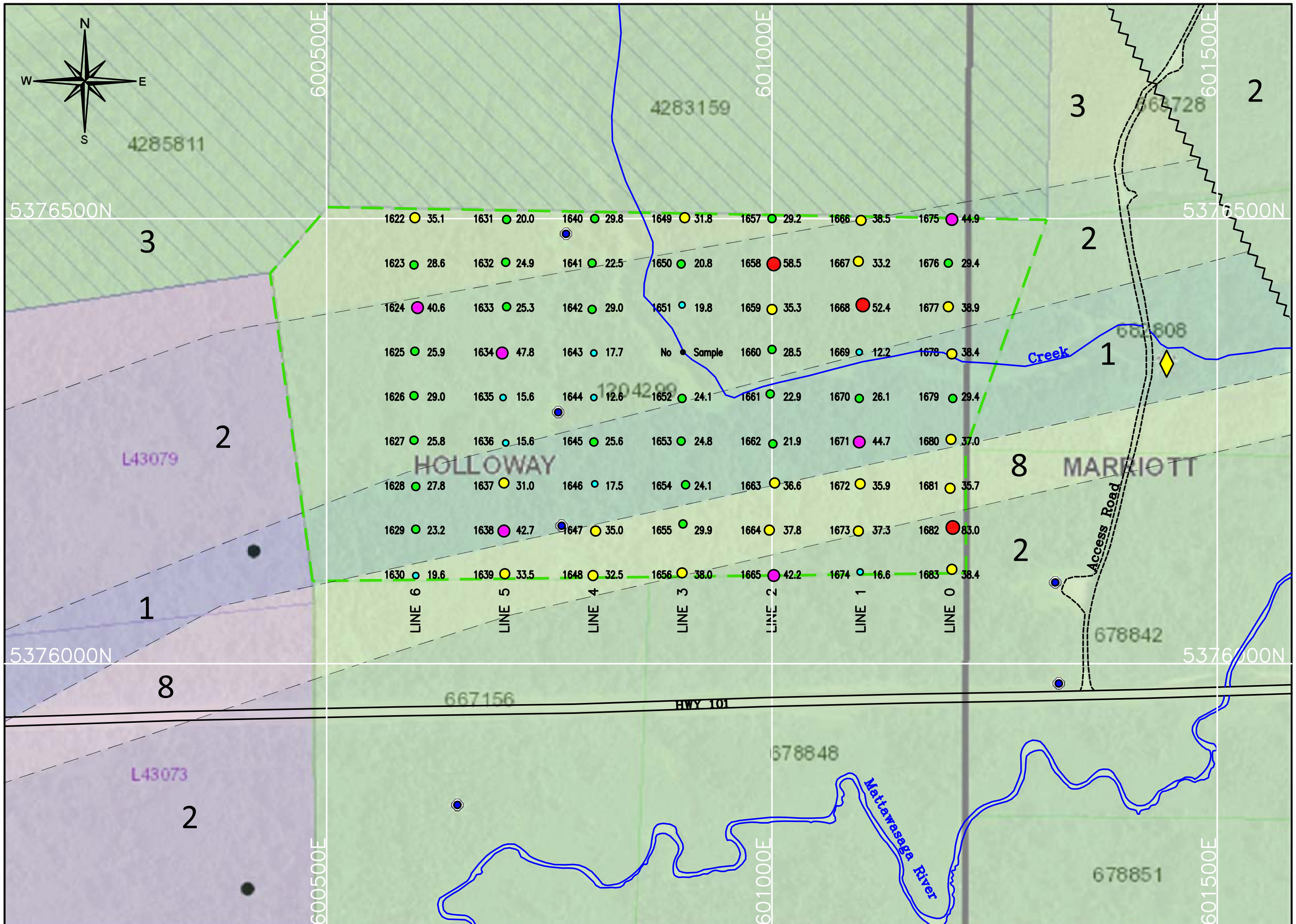
OSISKO MINING

Holloway North Property

Unpatented Mining claim–1204299

Larder Lake Mining Division

Ontario, Canada



LEGEND

Sample Number — Element (ppb)

1622 ○ 0.20

Sample Location

K (ppb)

(Detection Limit = 0.5 ppm)

- 0.5 – 9.9
- 10.0 – 19.9
- 20.0 – 29.9
- 30.0 – 39.9
- 40.0 – 49.9
- 50.0 and greater

Claim 1204299

Lithology

- 8 Timiskaming–type Clastic Metasedimentary Rocks–Unsubdivided
- 3 Intermediate (to Felsic) Metavolcanic Rocks/Intrusions–Unsubdivided
- 2 Mafic (to Intermediate) Metavolcanic Rocks/Intrusions–Unsubdivided
- 1 Ultramafic (to Mafic) Metavolcanic Rocks/Intrusions–Unsubdivided

Symbols

- Geological Contact
- Fault
- Gold showing
- Diamond Drill Hole

Mobile Metal Ions Process Geochemical Soil Sample Survey

SCALE

0 100 200

Metres

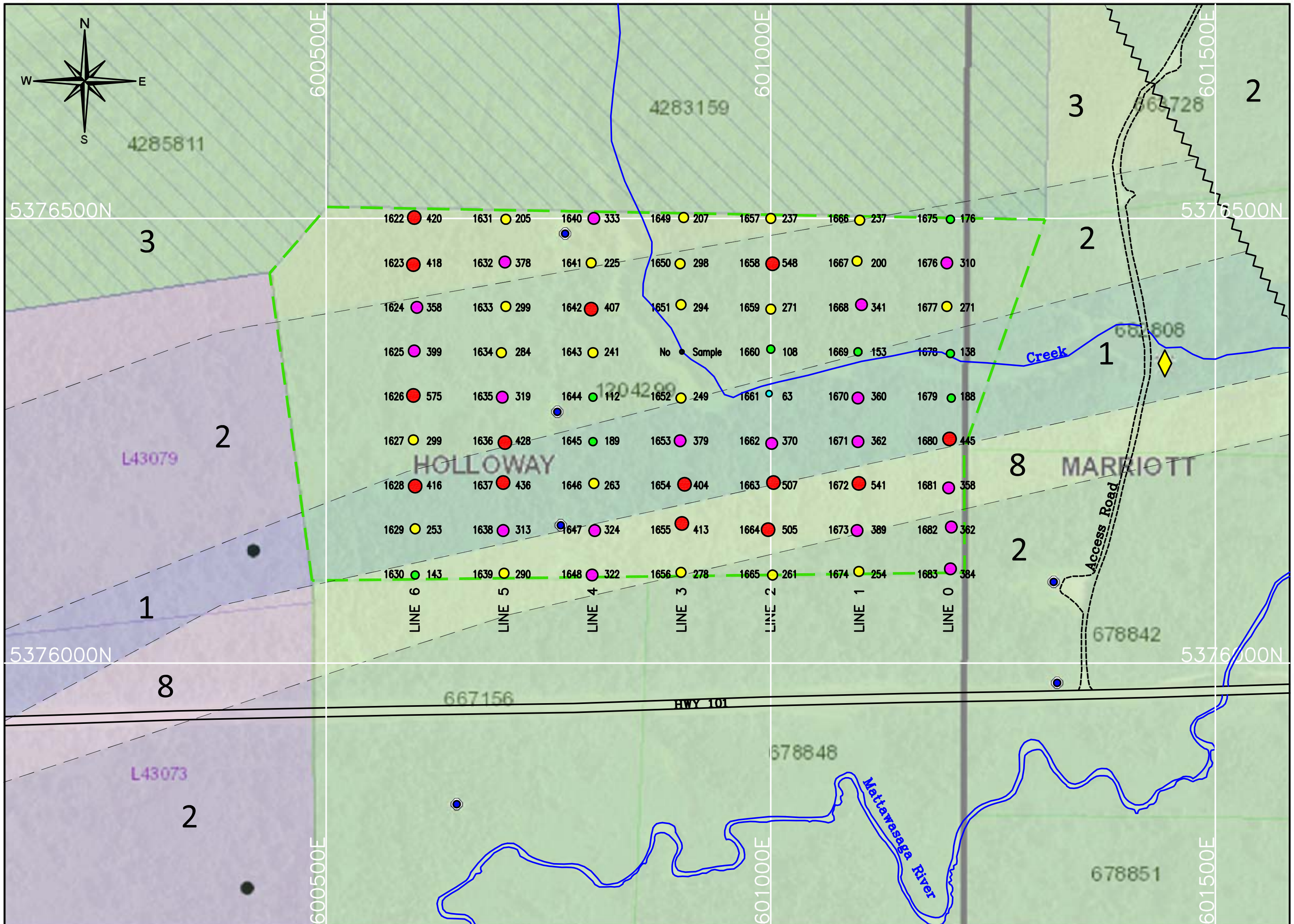
OSISKO MINING

Holloway North Property

Unpatented Mining claim–1204299

Larder Lake Mining Division

Ontario, Canada



LEGEND

Sample Number — Element (ppb)

1622 ○ 0.20

Sample Location

Pb (ppb)

(Detection Limit = 5 ppb)

- Less than 5
- 5.0 – 99.9
- 100.0 – 199.9
- 200.0 – 299.9
- 300.0 – 399.9
- 400.0 and greater

Claim 1204299

Lithology

- 8 Timiskaming–type Clastic Metasedimentary Rocks–Unsubdivided
- 3 Intermediate (to Felsic) Metavolcanic Rocks/Intrusions–Unsubdivided
- 2 Mafic (to Intermediate) Metavolcanic Rocks/Intrusions–Unsubdivided
- 1 Ultramafic (to Mafic) Metavolcanic Rocks/Intrusions–Unsubdivided

Symbols

- Geological Contact
- Fault
- Gold showing
- Diamond Drill Hole

Mobile Metal Ions Process Geochemical Soil Sample Survey

SCALE

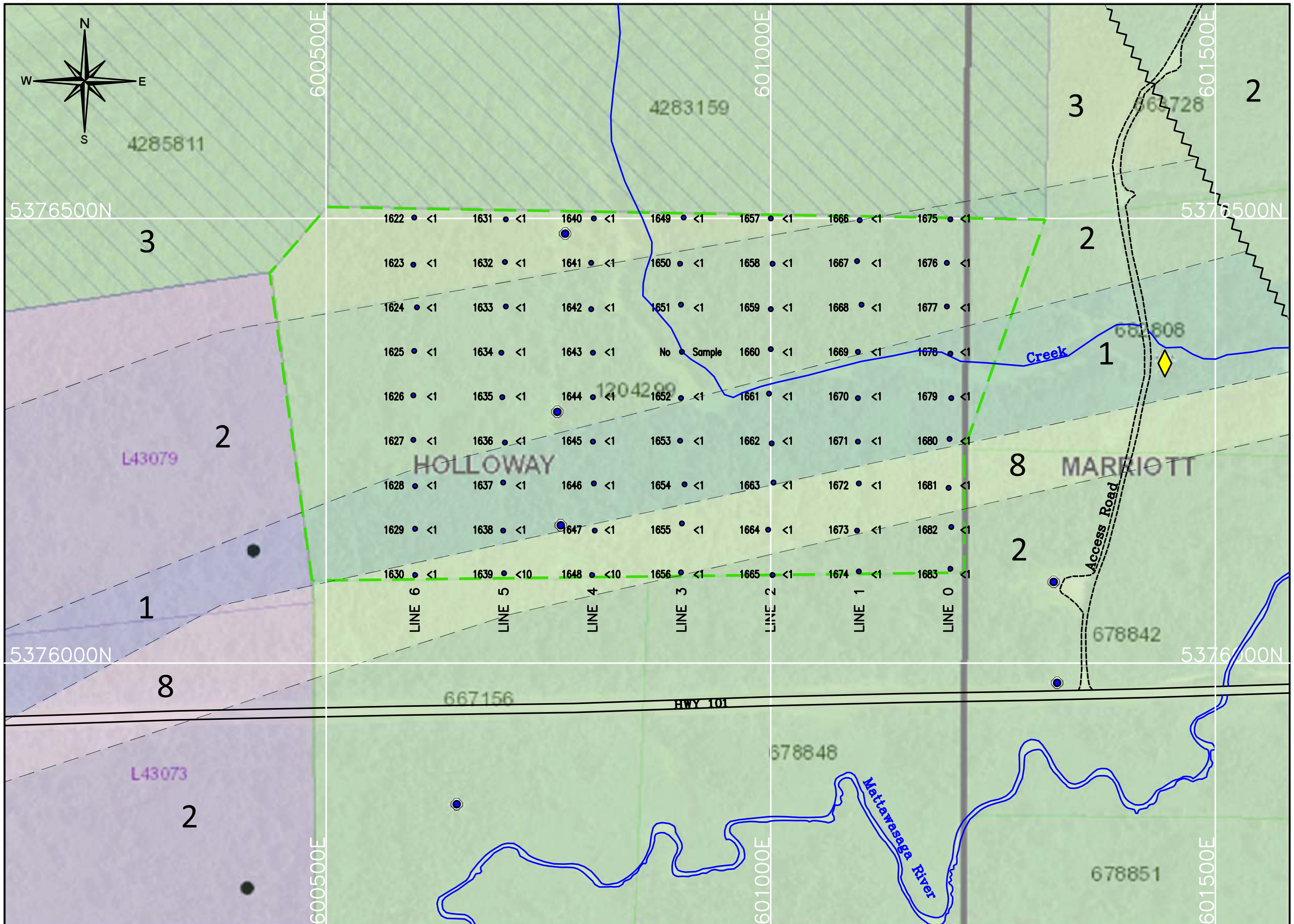
0 100 200

Metres

Holloway North Property

OSISKO MINING

Unpatented Mining claim–1204299
Larder Lake Mining Division
Ontario, Canada



LEGEND

Sample Number — Element (ppb)

1622 ○ 0.20

Sample Location

Pd (ppb)

(Detection Limit = 1 ppb)

- Less than 1
- 1.0 – 1.9
- 2.0 – 2.9
- 3.0 – 3.9
- 4.0 – 4.9
- 5.0 and greater

Claim 1204299

Lithology

- 8 Timiskaming–type Clastic Metasedimentary Rocks–Unsubdivided
- 3 Intermediate (to Felsic) Metavolcanic Rocks/Intrusions–Unsubdivided
- 2 Mafic (to Intermediate) Metavolcanic Rocks/Intrusions–Unsubdivided
- 1 Ultramafic (to Mafic) Metavolcanic Rocks/Intrusions–Unsubdivided

Symbols

- Geological Contact
- Fault
- Gold showing
- Diamond Drill Hole

Mobile Metal Ions Process Geochemical Soil Sample Survey

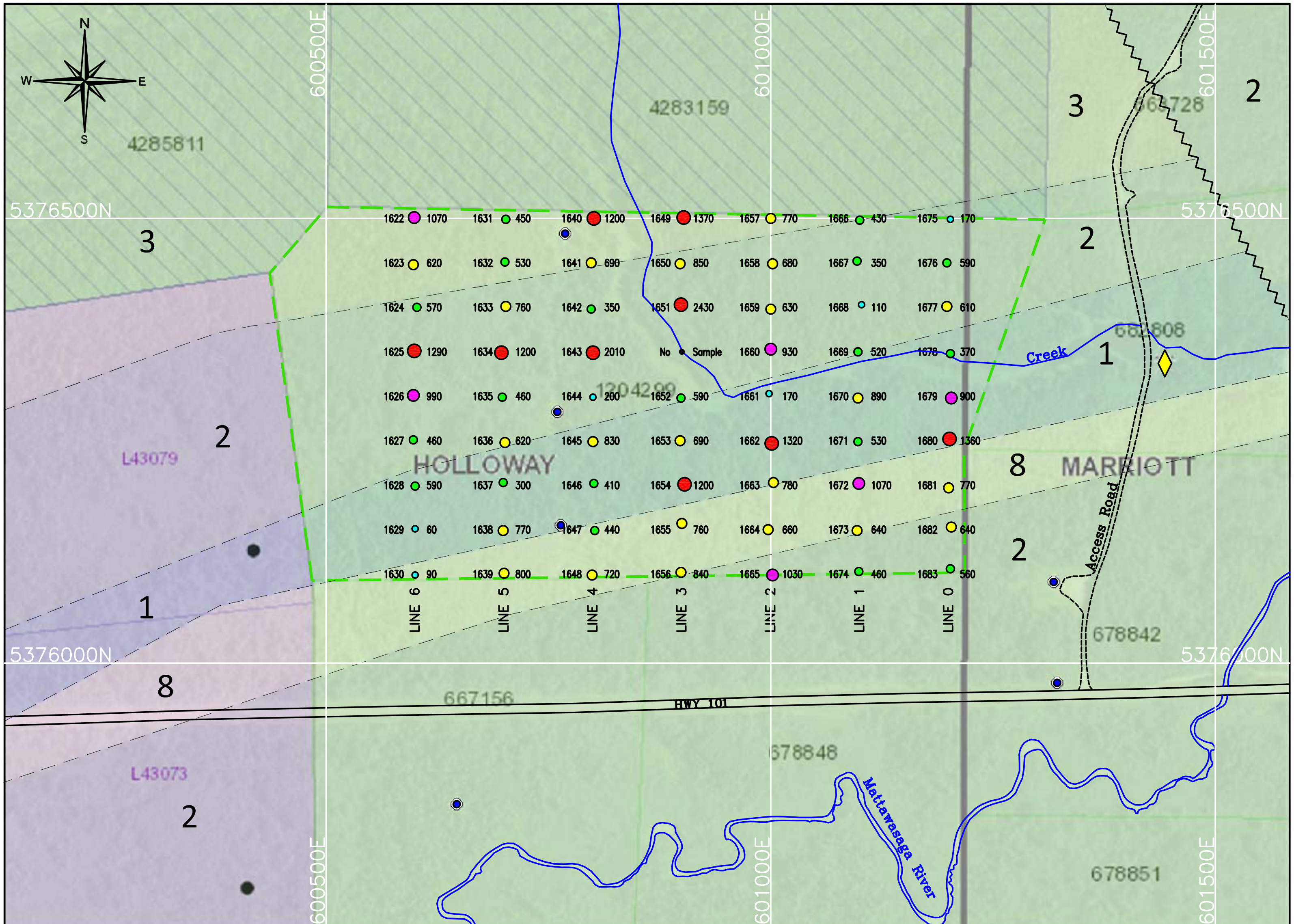
SCALE

0 100 200

Metres

Holloway North Property

Unpatented Mining claim–1204299
Larder Lake Mining Division
Ontario, Canada



LEGEND

Sample Number — Element (ppb)
1622 ○ 0.20
Sample Location

Zn (ppb)
(Detection Limit = 10 ppb)

- Less than 10
- 10.0 – 299.9
- 300.0 – 599.9
- 600.0 – 899.9
- 900.0 – 1199.9
- 1200.0 and greater

Claim 1204299

Lithology

- 8 Timiskaming–type Clastic Metasedimentary Rocks–Unsubdivided
- 3 Intermediate (to Felsic) Metavolcanic Rocks/Intrusions–Unsubdivided
- 2 Mafic (to Intermediate) Metavolcanic Rocks/Intrusions–Unsubdivided
- 1 Ultramafic (to Mafic) Metavolcanic Rocks/Intrusions–Unsubdivided

Symbols

- Geological Contact
- Fault
- Gold showing
- Diamond Drill Hole

Mobile Metal Ions Process Geochemical Soil Sample Survey

SCALE
0 100 200
Metres