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Report on the 2015-2016
Prospecting and Geology Programs:
Northland Pyrite Property

Sudbury Mining Division

Best Township, Ontario

47°10’08” N, 79°44’27” W

NTS 31M/04

Tri Origin Exploration Ltd.

#18-125 Don Hillock Drive

Aurora, ON

L4G 0H8

Meghan Hewton, M.Sc, GIT

March 14, 2017

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1. Introduction and Property Description

The Northland Pyrite Property is located in Best Township, Sudbury Mining Division, approximately 38 km south-southwest of New Liskeard and 98 km north-northwest of North Bay, ON (Figure 1). The property consists of 5 claims and covers an area of 160 ha. The property is divided into two parts, with 4 contiguous claims to the north (between Granite Lake and James Lake) and a single claim (claim 4258952) to the south (between Granite Lake and Duncan Lake). The claims were optioned by Tri Origin in June of 2015, and are held as 100% interest by Tri Origin Exploration Ltd. Table 1 lists the details of the claims and current ownership, and Figure 2 shows the geographic boundaries of the claims.

The property is accessed by Highway 11, which crosses the east side of the property in a north-south direction. Further access is provided by unpaved service roads to the Trans Canada natural gas pipeline from the highway, as well as a number of smaller foot trails. The CNR rail line also crosses the property.

The Northland Pyrite Property is centred on the historic Northland Pyrite Mine, which is believed to have produced 76,067,050 lbs of pyrite ore between 1906 and 1911 from massive sulphide (pyrite-pyrrhotite) lenses hosted in Archean felsic to intermediate volcanic strata (Shynkorenko 2015). A number of other occurrences on the Northland Pyrite Property have also received moderate exploration attention, including the Danlou gold occurrence, Cuniptau silica occurrence, and Niemetz copper occurrence.

The property was traversed by Tri Origin geologists over several separate days between June and July 2015 and June 2016. Traverses were also conducted outside of the claim boundaries of the Northland Pyrite property, but these traverses are not included for assessment work in this report. Outcrops were identified, mapped, and occasionally sampled. The purpose of the 2015 and 2016 prospecting and geologic mapping programs was four-fold:

1) To determine the extent of Archean volcanic rocks that were previously mapped by the government on the northern, eastern, and southern edges of the property.
2) To investigate and sample reported and historic mineralization on the property.
3) To identify and georeference historic workings.
4) To investigate the sources of airborne electromagnetic and magnetic anomalies.

Table 1. List of Claims.

Claim Number	Number of Units	Recorded Holder	Annual Work Requirement	Due Date
4258952	4	Tri Origin Exploration (100%)	$1,600	July 3, 2017
4269507	1	Tri Origin Exploration (100%)	$400	November 29, 2017
4269508	1	Tri Origin Exploration (100%)	$400	February 21, 2017
4269509	2	Tri Origin Exploration (100%)	$800	February 10, 2017
4269511	2	Tri Origin Exploration (100%)	$800	February 27, 2017

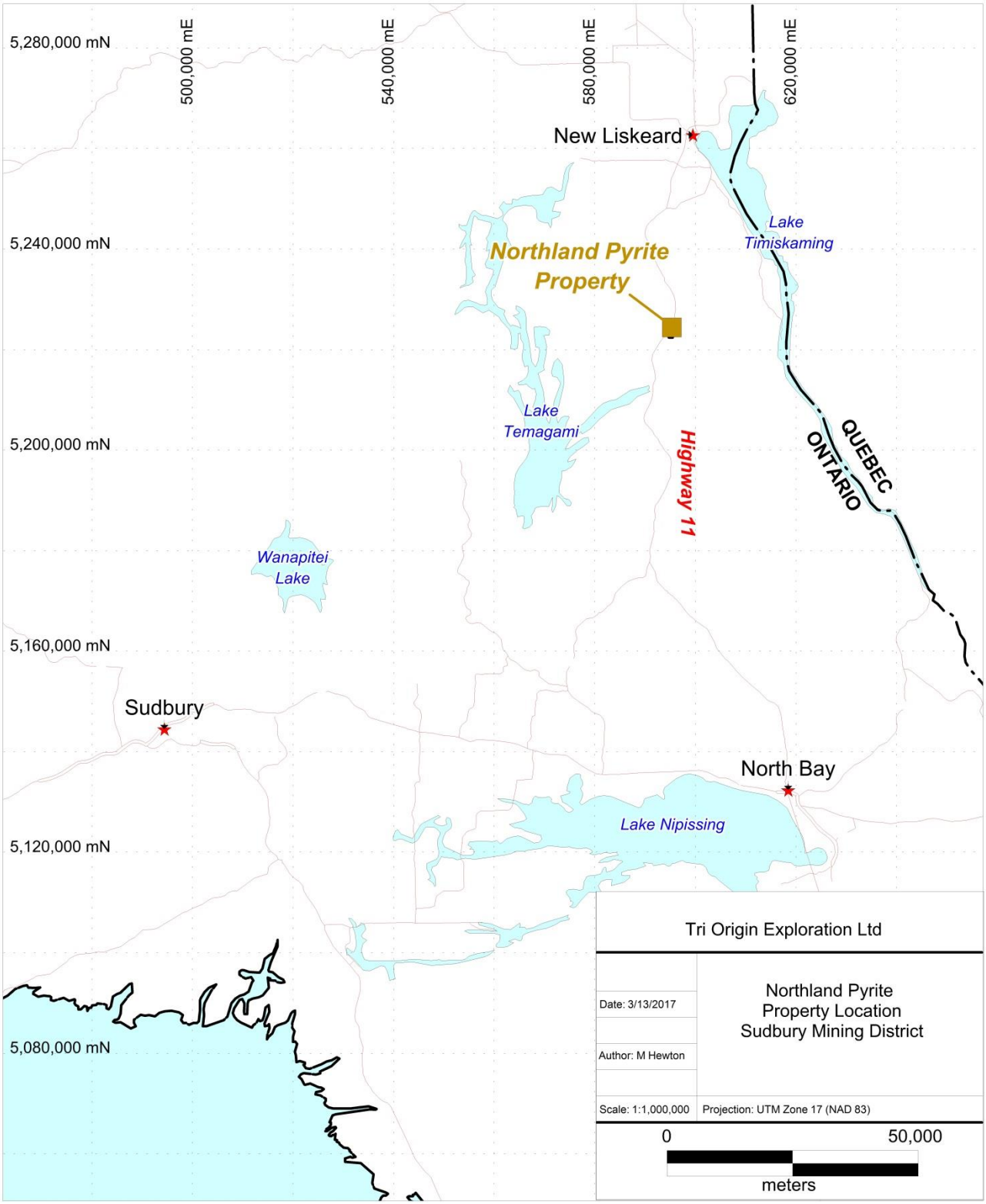


Figure 1. Location of Northland Pyrite Property, Sudbury Mining Division.

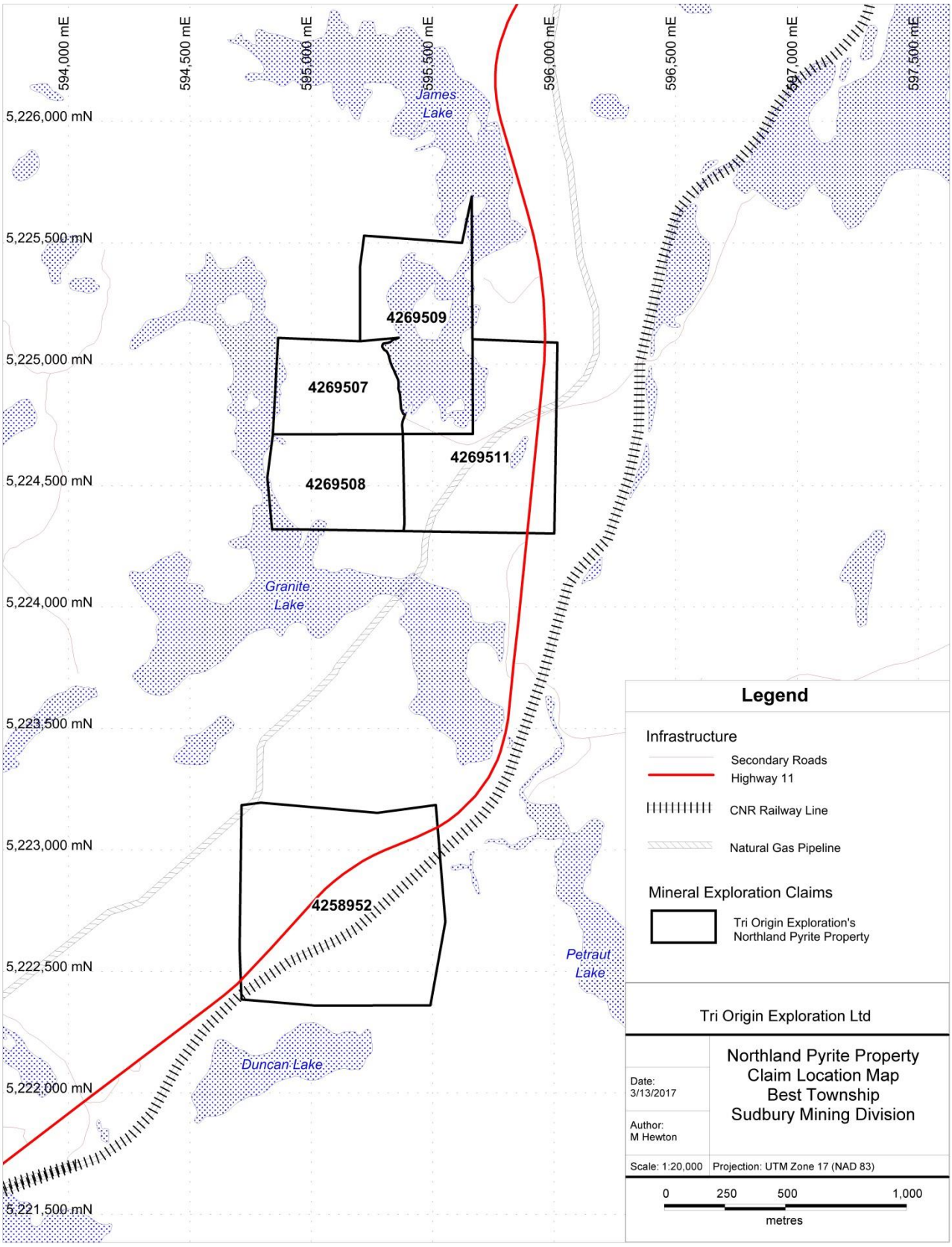


Figure 2. Northland Pyrite Property claim boundaries.

2. Regional and Property Geology

The property is located within the southern-most Abitibi Subprovince, a geological subprovince which is comprised of Archean age volcanic, sedimentary, and intrusive rocks. The property lies within the James Lake Volcanic Belt which is a northerly extension of the Temagami Greenstone belt. Strikes of these rocks generally appear to be north-south with steep dips to the east.

Previous government mapping (Figure 3) shows the James Lake Volcanic Belt to be cut off to the west by an Archean-age granite to granodiorite pluton and overlain to the east by nearly flat-lying Proterozoic age Cobalt Group (Gowganda and Lorraine formations) sediments, which in turn are intruded by Nipissing diabase sills.

On the Northland Pyrite Property, mafic, intermediate, and felsic volcanic and volcaniclastic rocks include north-south striking and steeply east-dipping tuffs, agglomerates, flows, and minor chert. South of the property, along the shore of Granite Lake, minor gabbro has been noted.

The area is covered by mixed vegetation that appears to be covering an area littered with glacial boulders.

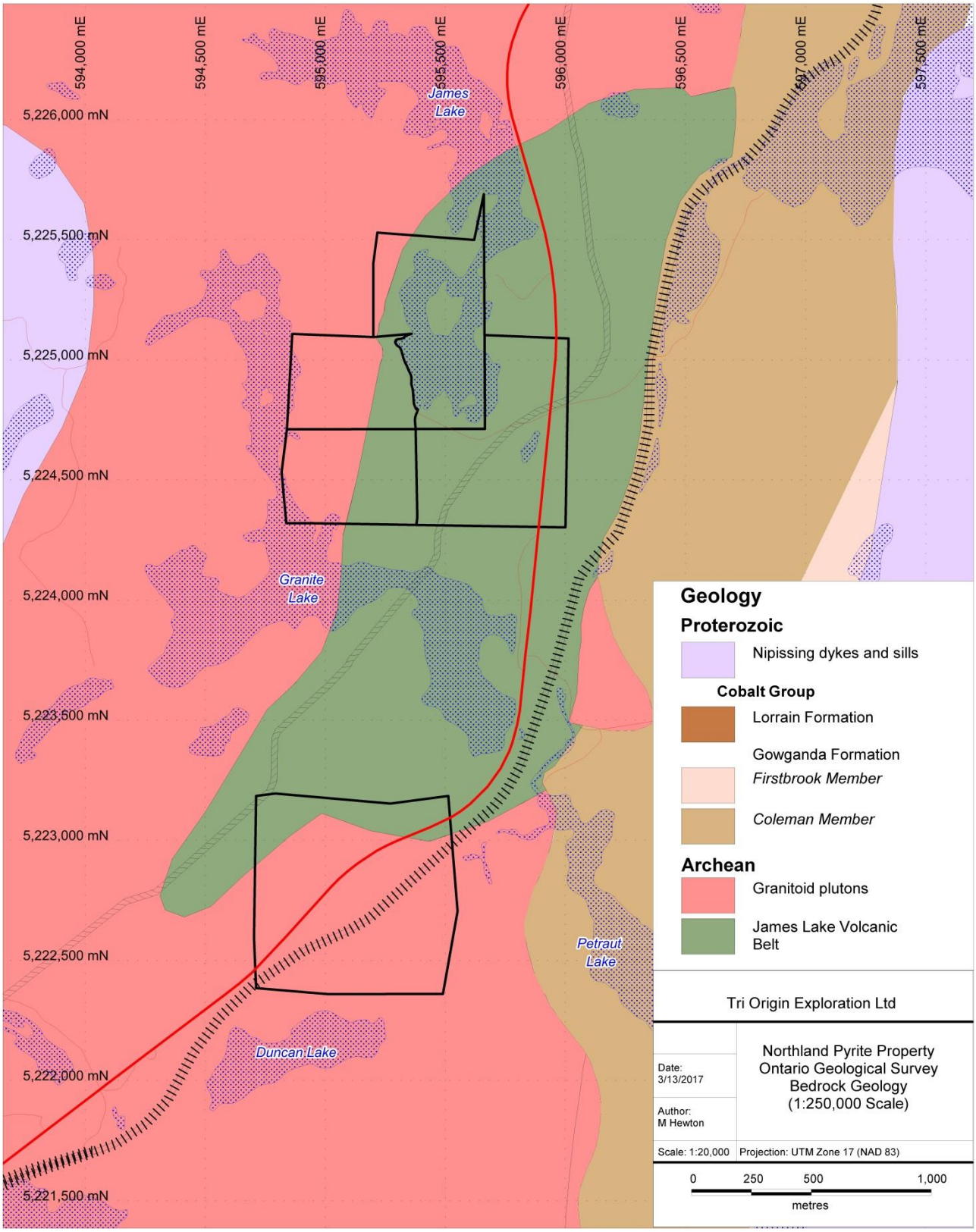


Figure 3. Regional geology around the Northland Pyrite Property (modified from Ontario Geological Survey MRD-126, 2011).

3. 2015 Prospecting and Geological Mapping Program

A total of three days were spent on the property (June 29th and 30th and July 3) by two geologists and a field assistant during the 2015 program. The 2015 program's focus was on investigating the area immediately around the historic Northland Pyrite Mine, and so the majority of outcrops were mapped around the mine site. On the appended Map 1, outcrops mapped during the 2015 program are labelled as per the mapping geologist (FRK-SA15-*** were mapped by Frank Kendle, and MLH-SA15-*** mapped by Meghan Hewton). Traverses conducted outside of the boundaries of the Northland Pyrite property claims (as seen on Map 1) are not included in this report for assessment credit. A total of 19 outcrops were mapped (Appendix B Table 2) and 13 samples were collected (12 of which were analysed for gold assay values, 2 were analysed for major element oxides, and all 13 were analysed for trace element and base metal values; Appendix C Tables 3, 4, and 5).

Outcrop exposure at and near the historic Northland Pyrite Mine was very good, with about 40-50% exposure. Outcrop exposure declines away from the mine site to less than 10%. Bedrock is mostly exposed as rounded, moss and lichen covered outcrops around lake shorelines, but is also occasionally exposed in ridges and historic workings (exploration trenches and pits). Rock piles around the mine site, presumably comprised of rock extracted from the underground mine workings, gave an idea of the underground extension of the surficial geology.

The outcrops mapped in 2015 were predominantly of basalt to andesite volcanic flows, mafic to intermediate volcanic tuffs and volcaniclastics, and felsic to intermediate tuffs and agglomerate near the historic mine site (Appendix B Table 2). The structural trend of the volcanics is north-south with very steep to vertical dips. Sulphide (mostly as pyrite or pyrrhotite, minor chalcopyrite) is commonly encountered. Outcrops are generally, but not always, gossanous. Metamorphic grade is greenschist and primary textures, such as tuff bedding and flow banding, are often well-preserved. A moderate foliation overprints primary textures, but generally has the same strike, so it is difficult to tell the two apart.

Granite to granodiorite of the Granite Lake pluton was encountered 80 to 100 m west of James Lake.

Rock samples were collected by Tri Origin geologists during mapping. Sample analysis was conducted by SGS Minerals Services in Lakefield, Ontario. A list of samples can be found in Tables 3, 4, and 5 (Appendix C). All rock samples were crushed and pulverized to a fine powder. Major element oxide analysis was prepared by borate fusion and analysed using wavelength dispersion XRF. Trace element analysis was prepared by sodium peroxide fusion and analysed with ICP-OES. Gold analysis was prepared by lead oxide fusion and analysed by flame atomic absorption spectrometry (AAS).

The majority of samples returned gold values below detection limit (<5 ppb). Only one sample returned anomalous gold (sample 651017; 353 ppb). This sample was a grab sample of poddy chalcopyrite-pyrite taken from pillow basalt near Highway 11 (outcrop FRK-SA15-040). The same sample also returned values of greater than 10,000 ppm Cu, 10 ppm Ag of 10 ppm, and 229 ppm Zn.

4. 2016 Prospecting and Geological Mapping Program

A total of four days were spent on the property (June 9th, 10th, 28th, and 29th) by four geologists during the 2016 program. The 2016 program's focus was on expanding the known extent of mineralization and mapping the geographic extents of the James Lake Volcanic Belt. On Map 1, outcrops mapped during the 2016 program are labelled as per the mapping geologist (FRK-SA16-*** were mapped by Frank Kendle; MLH-SA16-*** mapped by Meghan Hewton; CLC-SA16-*** mapped by Lisa Cupelli; and NMP-SA16-*** were mapped by Nicole Patrizio). A total of 38 outcrops were mapped (Appendix B Table 2) and 5 samples were collected (2 of which were analysed for gold assay values, and all 5 were analysed for major element oxide, trace element, and base metal values; Appendix C Tables 3, 4, and 5).

Outcrop exposure across the property ranged from very poor (<1%) to limited (10% exposure). Bedrock is mostly exposed as rounded, moss and lichen covered outcrops around lake shorelines, but is also occasionally exposed in ridges and historic workings (exploration trenches and pits). Bedrock exposure on the southern claim (claim 4258952) was very limited with approximately 10% poorly exposed outcrops observed. The area was covered by mixed vegetation that appears to be covering an area littered with glacial boulders.

The outcrops mapped in 2016 were predominantly of granite to granodiorite around the east side of the northern arm of Granite Lake (west side of the property) and across the northern part of claim 4258952, and predominantly of basalt to andesite volcanic flows, mafic to intermediate volcanic tuffs and volcaniclastics, and felsic to intermediate tuffs and agglomerate around James Lake and near Highway 11 on claim 4258952. Minor gabbro or coarse-grained basalt occurs on the east side of James Lake. The structural trend of the volcanics is north-south with very steep to vertical dips. Sulphide (mostly as pyrite or pyrrhotite, minor chalcopyrite) is commonly encountered near the mine site, but is only seen as trace fine grained pyrite away from the mine. Metamorphic grade is greenschist and primary textures, such as tuff bedding and flow banding, are often well-preserved. A moderate foliation overprints primary textures, but generally has the same strike, so it is difficult to tell the two apart. A single fold mapped at outcrop MLH-SA16-052 suggests the overprinting deformation (manifest as F1) does strike north-south. An historic exploration trench was discovered at outcrop MLH-SA16-056. The trench is 2 m wide and 6 m long, and exposed in a north-south direction. The outcrop is highly gossanous and with a strong sulphurous odor. The host rocks are a mix of intermediate, felsic, and mafic fine-grained volcanics and tuffs, being more mafic on the east side and felsic and more rusty on the west side of trench. A strong foliation (S1) strikes at 160 and dips 85°. Disseminated sulphides comprise <2%, and the rock is locally magnetic, probably indicating a substantial amount of pyrrhotite as the dominant sulphide mineral. This trench was found while investigating the source of a VTEM anomaly and suggests that a buried semi-massive to massive sulphide lens could be the source of the anomaly.

Granite to granodiorite of the Granite Lake pluton occurs across the west half of the property and covers the majority of the north half of claim 4258952. This granite to granodiorite is a medium-grained, equigranular biotite granite. The biotite is very weakly magnetic and slightly chloritized.

Rock samples were collected by Tri Origin geologists during mapping. Sample analysis was conducted by SGS Minerals Services in Lakefield, Ontario. A list of samples can be found in Tables 3, 4, and 5 (Appendix C). All rock samples were processed and analysed in the same way as in 2015.

Only two samples were analysed for gold, and these samples were not anomalous (Au of 10 and 11 ppb). Only one sample returned silver above detection limit (sample 652932; 16 ppm). This sample was a grab sample of poddy chalcopyrite-pyrite taken from pillow basalt near Highway 11 (outcrop FRK-SA15-040). The same sample also returned values of greater than 10,000 ppm Cu, 10 ppm Ag of 10 ppm, and 229 ppm Zn.

5. Conclusions and Recommendations

Outcrop mapping of the property demonstrates that the bedrock geology of the property can be divided into a western domain and an eastern domain. The western domain consists of the Granite Lake pluton which intrudes the eastern domain, the James Lake Volcanic Belt. Structural measurements from volcanic rocks of the James Lake Volcanic Belt suggest that the belt is a northern extension of the Temagami Greenstone belt to the south. Additional mapping should be conducted on the southern half of claim 4258952 to locate the southern extension of the James Lake Volcanic belt. Additional prospecting and mapping is recommended around the northern part of the property in the area of outcrop MLH-SA16-056 (the historic exploration trench) to explore for more gossanous trenches or outcrop.

6. List of Personnel

The following geologists were employed by Tri Origin in the summers of 2015 and 2016 and conducted mapping, prospecting, and sampling work at the Northland Pyrite Property.

Meghan Hewton	Contract Geologist	2015 & 2016	Goodwood, Ontario
Frank Kendle	Contract Geologist	2015 & 2016	Queensville, Ontario
Lisa Cupelli	Contract Geologist	2016	Bowmanville, Ontario
Nicole Patrizio	Contract Geologist	2016	Waterloo, Ontario
Fraser Valliant	Field Assistant	2015	Uxbridge, Ontario

7. Statement of Qualifications

I, Meghan Hewton, of 17 Tindall Lane, Goodwood, Ontario, L0C 1A0, do hereby certify that:

1. I am a consulting geologist contracted by Tri Origin Exploration Ltd.
2. I graduated with a Master's of Science (Geology) from Simon Fraser University in 2012, and a Bachelor of Science (Honours Environmental Geosciences) from the University of Western Ontario in 2010.
3. Hold a GIT (Geoscientist-in-Training) membership with the Association of Professional Geoscientists of Ontario (membership number 10384).
4. I have worked as a geologist for a total of four years.
5. I am responsible for the technical report titled "Report on the 2015-2016 Prospecting and Geology Programs: Northland Pyrite Property".
6. My knowledge of the property as described herein was obtained by field work and literature review.
7. I have no direct interest, nor do I expect to receive any interest in the mining claims that comprise the Northland Pyrite Property within Best Township, Sudbury Mining Division.
8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
9. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 14th day of March, 2017.

Meghan Hewton, MSc, GIT

8. References

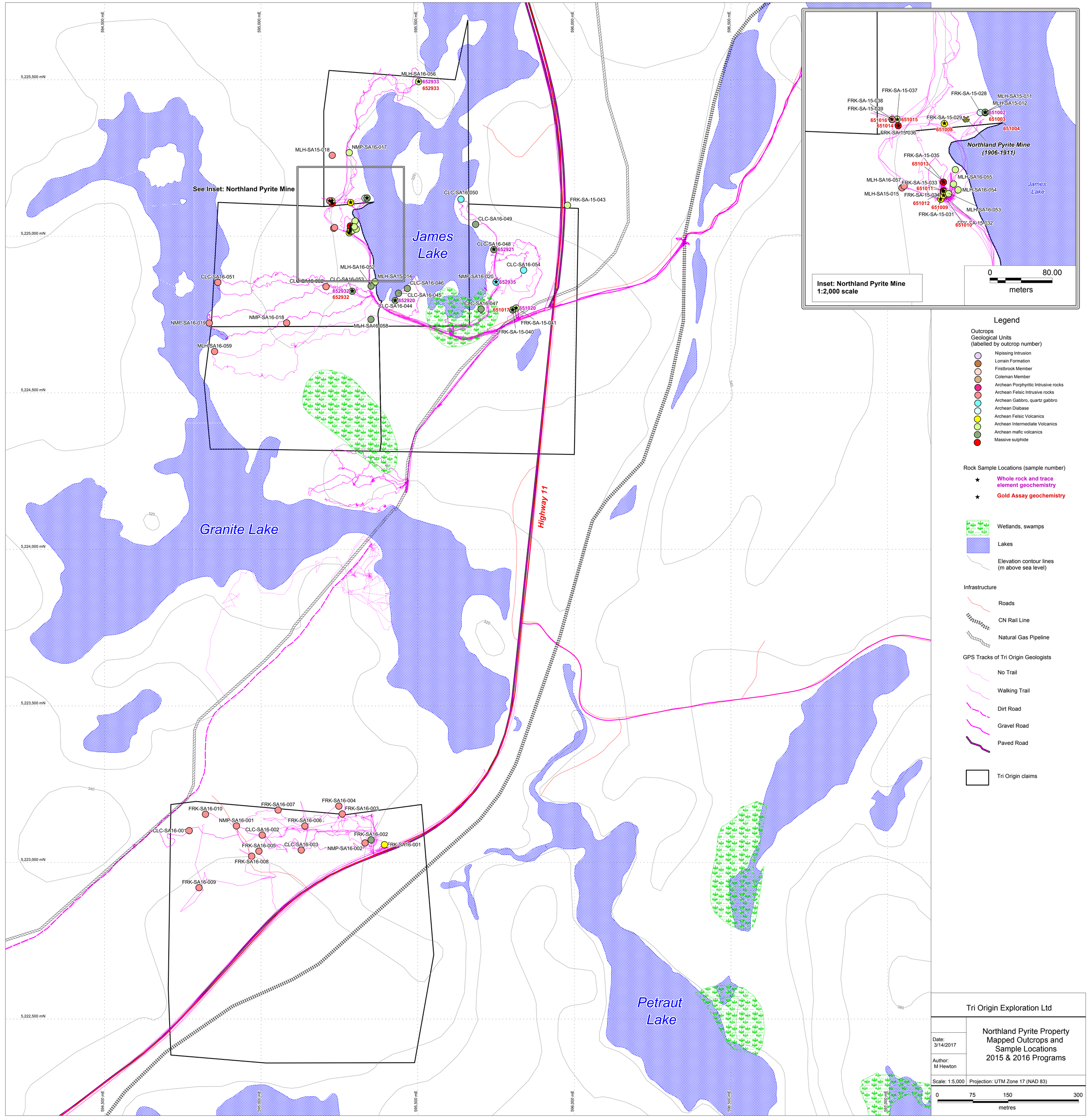
Shynkorenko, E. 2015. 2015 Work Assessment Report: Claim S-4269508, Best Township. Work Report 2.56020.

Ontario Geological Survey. 2011. 1:250 000 scale bedrock geology of Ontario; Ontario Geological Survey, Miscellaneous Release Data 126-Revision 1.

Appendix A

Appended Map 1

Outcrop and Sample Locations and Outcrop Geology


See Inset: Northland Pyrite Mine
James Lake
Granite Lake
Petraut Lake
Highway 11
MLH-SA16-056
652933
652933
MLH-SA15-018
NMP-SA16-017
CLC-SA16-050
FRK-SA-15-043
CLC-SA16-049
CLC-SA16-048
652921
CLC-SA16-054
MLH-SA16-052
CLC-SA16-051
CLC-SA16-053
MLH-SA15-014
CLC-SA16-046
NMP-SA16-020
652935
652932
652932
CLC-SA16-045
652920
CLC-SA16-044
CLC-SA16-047
651017
651020
FRK-SA-15-041
NMP-SA16-018
NMP-SA16-019
MLH-SA16-058
FRK-SA-15-040
MLH-SA16-059
FRK-SA16-010
FRK-SA16-007
FRK-SA16-004
FRK-SA16-003
NMP-SA16-001
FRK-SA16-006
CLC-SA16-001
CLC-SA16-002
FRK-SA16-002
FRK-SA16-005
CLC-SA16-003
NMP-SA16-002
FRK-SA16-001
FRK-SA16-008
FRK-SA16-009
594,500 mE
595,000 mE
595,500 mE
596,000 mE
596,500 mE
5,225,500 mN
5,225,000 mN
5,224,500 mN
5,224,000 mN
5,223,500 mN
5,223,000 mN
5,222,500 mN
320
340
380
FRK-SA-15-037
FRK-SA-15-038
FRK-SA-15-039
FRK-SA-15-028
MLH-SA15-011
MLH-SA15-012
651002
651003
651004
651016
651015
651014
FRK-SA-15-029
651008
FRK-SA-15-036
Northland Pyrite Mine
(1906-1911)
FRK-SA-15-035
651013
MLH-SA16-055
MLH-SA16-057
FRK-SA-15-033
651011
MLH-SA16-054
MLH-SA15-015
FRK-SA-15-034
651012
651009
MLH-SA16-053
FRK-SA-15-031
651010
FRK-SA-15-032
James Lake
Inset: Northland Pyrite Mine
1:2,000 scale
0
80.00
meters
Legend
Outcrops
Geological Units
(labelled by outcrop number)
Nipissing Intrusion
Lorrain Formation
Firstbrook Member
Coleman Member
Archean Porphyritic Intrusive rocks
Archean Felsic Intrusive rocks
Archean Gabbro, quartz gabbro
Archean Diabase
Archean Felsic Volcanics
Archean Intermediate Volcanics
Archean mafic volcanics
Massive sulphide
Rock Sample Locations (sample number)
Whole rock and trace element geochemistry
Gold Assay geochemistry
Wetlands, swamps
Lakes
Elevation contour lines
(m above sea level)
Infrastructure
Roads
CN Rail Line
Natural Gas Pipeline
GPS Tracks of Tri Origin Geologists
No Trail
Walking Trail
Dirt Road
Gravel Road
Paved Road
Tri Origin claims
Tri Origin Exploration Ltd
Northland Pyrite Property
Mapped Outcrops and
Sample Locations
2015 & 2016 Programs
Date:
3/14/2017
Author:
M Hewton
Scale: 1:5,000
Projection: UTM Zone 17 (NAD 83)
0
75
150
300
metres

Appendix B

Appended Table 2

Outcrop Locations and Descriptions

Table 2. Outcrop locations and descriptions.

Outcrop Field ID	UTM coordinates*		Elevation (m a.s.l.)	Rock Type	Description	Structure	Strike/ Dip	Structure	Strike/ Dip	Sulphide Mineralogy	Sulphide Texture	Sample Type
	Northing	Easting										
FRK-SA-15-028	5225123	595332	323	Diabase Dyke/gabbro	Fine-medium grained intermediate massive volcanic rock. Diabase dyke? Large angular block from stockpile at the Northland Pyrite mine.							
FRK-SA-15-029	5225109	595286	315	Semi-massive Pyrite in felsic volcanics	Semi-massive to massive pyrite in a fine grained silica rich felsic volcanic. Sub rounded to cubic pyrite 1mmin size with a silica matrix. Up to 90% pyrite.					Pyrite	Semi-massive	Assay
FRK-SA-15-031	5225012	595281	316	Semi-massive Pyrite in felsic volcanics	Sample from adit face (SW corner), massive 90% pyrite as fg cubic and sub-euhedral crystals. Parts of beds are weathered to a sulphide sand (not consolidated at all.					Pyrite	Semi-massive	Assay
FRK-SA-15-032	5225017	595285	318	Felsic to intermediate volcanic tuff?	Fine grained light to dark grey felsic to intermediate volcanic in contact with FRK-SA-15-031. Probably a tuff. Fine grained aphanitic matrix with 1-5% pyrite usually cubic & mm scale.					Pyrite	cubic	Assay
FRK-SA-15-033	5225023	595285	317	Massive Pyrite in volcanics	Sample from adit face ~10m norht of FRK-SA-15-031. Massive fine to medium grained pyrite with minor silica in the matrix.					Pyrite	Semi-massive	Assay
FRK-SA-15-034	5225022	595285	320	Rhyolite	Large bomb? Of Rhyolite within a felsic to intermediate tuff? Bomb is 1m x 3m oblong shaped, fine to medium grained quartz-feldspar rich rhyolite. Probably just a truncated flow, <1-3% py.					Pyrite	Disseminated	Assay
FRK-SA-15-035	5225034	595285	316	Massive Pyrite in volcanics	On western face of adit ~ 20-25m north of FRK-SA-15-031. Massive pyrite within a fg felsic to intermediate volcanic (tuff?). Highly weathered (~50% gossan).					Pyrite	Semi-massive	Assay
FRK-SA-15-036	5225106	595227	309	Massive Pyrite in volcanics	Small 1m 15m x 2m high test pit west of pyrite mine. Massive fine - medium grained cubic and sub-euhedral pyrite. Highly gossanous weathered surface on east face of the pit.					Pyrite	Semi-massive	Assay

Outcrop Field ID	UTM coordinates*		Elevation (m a.s.l.)	Rock Type	Description	Structure	Strike/ Dip	Structure	Strike/ Dip	Sulphide Mineralogy	Sulphide Texture	Sample Type
	Northing	Easting										
FRK-SA-15-037	5225114	595226	308	Intermediate Volcanic	Fine-medium grained intermediate volcanic rock on west face of test pit comprised of feldspar, amphibole and minor quartz. 15-20% pyrite as stringers and disseminations.					Pyrite	Stringers and disseminations	Assay
FRK-SA-15-038	5225114	595219	311	Felsic to intermediate volcanic tuff?	Contact between granite and Archean Rocks just west of mine shaft and north of test pit. Recrystallized archean volcanic in contact with granite (FRK-SA-15-039). Quartz feldspar rich with with 5% banded pyrite. Contact irregular.	Contact	186/82			Pyrite	Banded	Assay
FRK-SA-15-039	5225114	595219	325	Granite	Fine to medium grained light grey with pinkish tints granite.					Pyrite	Disseminated	
FRK-SA-15-040	5224766	595803	323	Basalt	Small 25cm x 40cm rusty zone within a mafic to intermediate pillow flow. Core of rusty zone is 5cm of massive pyrite, fine grained cubic and sub-euhedral crystals, trace -1% py, trace bornite.					Pyrite, chalcopyrite, Bornite.	Semi-massive	Assay
FRK-SA-15-041	5224772	595814	320	Intermediate to mafic flow	Sample for whole rock, very fine grained interflow of intermediate to mafic non magnetic massive flow near pillow flow (FRK-SA-15-040). Predominately feldspar and amphibole (unable to see crystals. Low grade metamorphism.					Pyrite	Disseminated	Whole Rock
FRK-SA-15-043	5225100	595978	326	Intermediate to mafic flow	Outcrop beside Hwy #11. Fine grained intermediate to mafic massive flow near contact with diabase dyke. Aphanitic matrix comprised of altered feldspars, amphibole, and minor quartz. Some positive weathering with some K-spar.	S1?	344/80					
MLH-SA15-011	5225123	595338	318	felsic intrusive/ dyke	sample of pink, fine-grained felsic intrusive (aplite or rhyolitic dyke?) found in waste rock pile at Northland Pyrite Mine; hosting 1-2% fine-grained disseminated sulphide (pyrite or arsenopyrite?)					pyrite?	disseminated grains, up to 3 mm	Whole Rock

Outcrop Field ID	UTM coordinates*		Elevation (m a.s.l.)	Rock Type	Description	Structure	Strike/ Dip	Structure	Strike/ Dip	Sulphide Mineralogy	Sulphide Texture	Sample Type
	Northing	Easting										
MLH-SA15-012	5225123	595338	319	mafic to intermediate volcanics, tuff	mafic to intermediate volcanics with silicified/cherty beds and pyrite along bedding					pyrite	stratiform	Assay
MLH-SA15-014	5224856	595364	321	intermediate volcanics, tuff	intermediate volcanics/tuffs, maybe approaching felsic; fine-grained dark grey-green bedded and foliated; chloritic, trace pyrite rust spots; bedding 178/80, foliation about same; non-magnetic	bedding	178/80			pyrite	trace disseminated grains, up to 3 mm	
MLH-SA15-015	5225027	595232	322	biotite granite	medium-grained, equigranular biotite granite; biotite very weakly magnetic, slightly chloritized; grains ~1-3 mm, biotite somewhat clotty; quartz (40%), feldspar (albite)(30%), biotite (30%)							
MLH-SA15-018	5225260	595227	327	biotite granite	same granite as previous							
CLC-SA16-001	5223103	594771	331	Granite	Massive, medium to coarse grained pink granite, non-magnetic							
CLC-SA16-002	5223089	595004	329	Granite	Massive, medium to coarse grained pink granite, non-magnetic							
CLC-SA16-003	5223041	595128	299	Granite	Massive, medium to coarse grained pink granite, non-magnetic							
CLC-SA16-044	5224796	595429	322	mafic to intermediate volcanic	Appears to have compositional bedding which could be lapilli, there does not appear to be any visible sulphides.	compositional banding	340/70					
CLC-SA16-045	5224819	595439	328	mafic to intermediate volcanic	Poor exposure, can only see the side of outcrop. Appears fg grey and massive.							
CLC-SA16-046	5224835	595467	326	mafic to intermediate volcanic	Fine grained grey and massive, the outcrop trends N-S							

Outcrop Field ID	UTM coordinates*		Elevation (m a.s.l.)	Rock Type	Description	Structure	Strike/ Dip	Structure	Strike/ Dip	Sulphide Mineralogy	Sulphide Texture	Sample Type
	Northing	Easting										
CLC-SA16-047	5224769	595702	319	mafic to intermediate volcanic	Fg grey and massive, the outcrop trends N-S along the edge of the water, if you stood in the water the exposure would be great but on top it is very covered. Contains some carbonate and or k-spar veining.							
CLC-SA16-048	5224959	595743	309	mafic to intermediate volcanic	Fg grey and massive, >1% trace diss sulphide							
CLC-SA16-049	5225039	595685	318	mafic to intermediate volcanic	Appears to have compositional bedding which could be lapilli, there does not appear to be any visible sulphides. Hard to find surface to take dip but appear close to vertical.	compositional banding	340/ almost vertical					
CLC-SA16-050	5225120	595638	318	gabbro	Massive equigranular intermediate to mafic volcanic. 1-2mm grains.							
CLC-SA16-051	5224854	594862	306	Granite	Massive equigranular, continues along shore line							
CLC-SA16-052	5224841	595207	330	Granite	poorly exposed massive equigranular granite							
CLC-SA16-053	5224826	595291	330	sulphidic mafic to intermediate volcanic	sulphur smelling rock found in small pit. Rusty brown pervasive weathering.							
CLC-SA16-054	5224893	595838	321	Gabbro, or Coarse-grained Mafic to Intermediate Volcanics	Massive equigranular intermediate to mafic volcanic. 1-2mm grains.							
FRK-SA16-001	5223058	595394	315	Felsic volcanic	Rock face on edge of Trans-Canada. Highly siliceous felsic volcanic intruded by numerous quartz veins (quartz flooded) very deformed. Small mafic interflow ~12m S (sampled 689123). Some Fe staining along fractures. Occasionaly porphyritic <5% 1-2mm plag phenocrysts.							

Outcrop Field ID	UTM coordinates*		Elevation (m a.s.l.)	Rock Type	Description	Structure	Strike/ Dip	Structure	Strike/ Dip	Sulphide Mineralogy	Sulphide Texture	Sample Type
	Northing	Easting										
FRK-SA16-002	5223074	595351	316	Mafic Volcanic	Sampled previously 689122. Light grey-green, mg, massive homogeneous mafic volcanic							
FRK-SA16-003	5223156	595259	332	Granite	Massive homogeneous granite forming small ridge.							
FRK-SA16-004	5223181	595248	316	Granite	Massive mg granite.							
FRK-SA16-005	5223037	594993	311	Granite	Massive mg granite.							
FRK-SA16-006	5223118	595140	379	Granite	Massive f-mg granite							
FRK-SA16-007	5223169	595054	324	Granite	Massive f-mg granite							
FRK-SA16-008	5223021	594970	331	Granite	Massive homogeneous granite.							
FRK-SA16-009	5222921	594802	334	Granite	Massive homogeneous granite.							
FRK-SA16-010	5223155	594822	339	Granite	No exposure under 3-6" of moss. Massive homogeneous granite.							
MLH-SA16-052	5224842	595351	318	Mafic to intermediate volcanics	Mafic to intermediate volcanics; S0/S1 strikes 008; weak S2 at 358	S0/S1	008	S2	358			
MLH-SA16-053	5225019	595291	321	Intermediate to felsic volcanic, pyroclastic flows	Intermediate (maybe a little felsic) pyroclastic volcanics with felsic bombs (rounded, elongated 4:1) up to 30 cm long; sulphide (py) clasts up to 40 cm long; locally weakly magnetic (probably po); outcrop very rusty; disseminated and podiform py-po (+/- cpy); S0/S1 @ 015, very steep to vertical dip	S0/S1	015			pyrite, pyrrhotite	clasts, disseminated, podiform	
MLH-SA16-054	5225024	595304	323	Intermediate to felsic volcanic, pyroclastic flows	South side of roast pile; same as previous; see drawing in notes of S-fold structures; S0/S1 @ 028/vertical, fold hinge at 330/90, fold scale ~15 cm	S0/S1	028/90	S fold hinge	330/90	pyrite, pyrrhotite	clasts, disseminated, podiform	
MLH-SA16-055	5225032	595298	320	Intermediate to felsic volcanic, pyroclastic flows	Same as previous; abundant, siliceous bombs/clasts up to 30 cm, rounded, pyrite clasts; S0/S1 @ 012/vertical; patches reacting quickly with CLR and turning pale powdery green (looks like lichen, but not)	S0/S1	012/90			pyrite, pyrrhotite	clasts, disseminated, podiform	

Outcrop Field ID	UTM coordinates*		Elevation (m a.s.l.)	Rock Type	Description	Structure	Strike/ Dip	Structure	Strike/ Dip	Sulphide Mineralogy	Sulphide Texture	Sample Type
	Northing	Easting										
MLH-SA16-056	5225495	595503	320	Mafic and felsic volcanics	2 m W x 6 m long, N-S exploration trench; gossanous weathering, sulphur stink; intermediate, felsic, and mafic volcanics, fine-grained; S1 @ 160/85; more mafic on east side, felsic light green/pale and more rusty on west side of trench; disseminated sulphides <2%; locally magnetic (weak and very occasional)	S1	160/85			pyrite, pyrrhotite	clasts, disseminated, podiform	
MLH-SA16-057	5225029	595235	321	Granite	granite, light pink, medium grained; 3 x 3 m flat outcrop; poor to moderately well exposed; low in mafic minerals							
MLH-SA16-058	5224736	595351	320	Mafic volcanics	mafic volcanics; large outcrop, good exposure; 8 m x 8 m on river edge; fine grained to aphanitic; weathers dark green-grey to green black; fresh is dark green-grey, fine grained; non-magnetic; rare sulphides (py + po) in veins and disseminated pods; S0/S1 @ 004/90	S0/S1	004/90			pyrite, pyrrhotite	rare, in veins and disseminated pods	
MLH-SA16-059	5224633	594851	318	Granite	granite							
NMP-SA16-001	5223118	594921	279	Granite	Massive, medium grained granite boulders covering 10m^2 (boulder/possible outcrop around 2m of exposure), non-magnetic							
NMP-SA16-002	5223064	595332	326	Granite	Massive, medium grained granite ridge <20m in size, non-magnetic							
NMP-SA16-017	5225268	595282	320	Intermediate to mafic volcanics	Fine grained intermediate to mafic volcanics with compositional flow banding and lapilli and bomb structures seen < 3cm in size.	Mafic and intermediate flow banding	trends 034 degrees and dips vertical					
NMP-SA16-018	5224725	595082	323	Granite	Medium grained, massive equigranular granite rich in quartz							
NMP-SA16-019	5224724	594835	316	Granite	Medium grained, massive equigranular granite rich in quartz							

Outcrop Field ID	UTM coordinates*		Elevation (m a.s.l.)	Rock Type	Description	Structure	Strike/ Dip	Structure	Strike/ Dip	Sulphide Mineralogy	Sulphide Texture	Sample Type
	Northing	Easting										
NMP-SA16-020	5224855	595750	333	Gabbro, or Coarse-grained Mafic to Intermediate Volcanics	Fine grained intermediate to mafic volcanics with compositional flow banding that dips vertically	Flow Banding	Trends 012 degrees and dips vertical			Fine grained sulfides	Disseminated	

**Note – UTM Coordinate system is UTM NAD 83, Zone 17.*

Appendix C

Appended Table 3

Gold Assay Sample Locations and Analytical Results

Appended Table 4

Major Element Oxide Sample Locations and Analytical Results

Appended Table 5

Trace Element Sample Locations and Analytical Results

Table 3. Gold assay sample locations and analytical results.

Outcrop Field ID	UTM coordinates*		Elevation (m a.s.l.)	Rock Sample Type	Assay Sample	Au, ppb (detection limit = 5 ppb)
	Northing	Easting				
FRK-SA-15-029	5225109	595286	315	Semi-massive Pyrite	651008	<5
FRK-SA-15-031	5225012	595281	316	Semi-massive Pyrite	651009	11
FRK-SA-15-032	5225017	595285	318	Felsic to intermediate volcanic tuff?	651010	6
FRK-SA-15-033	5225023	595285	317	Massive Pyrite	651011	6
FRK-SA-15-034	5225022	595285	320	Rhyolite	651012	<5
FRK-SA-15-035	5225034	595285	316	Massive Pyrite	651013	<5
FRK-SA-15-036	5225106	595227	309	Massive Pyrite	651014	<5
FRK-SA-15-037	5225114	595226	308	Intermediate Volcanic	651015	<5
FRK-SA-15-038	5225114	595219	311	Felsic to intermediate volcanic tuff?	651016	<5
FRK-SA-15-040	5224766	595803	323	Basalt	651017	353
MLH-SA15-011	5225123	595338	318	felsic intrusive	651003	<5
MLH-SA15-012	5225123	595338	319	mafic to intermediate volcanics, tuff	651004	<5
CLC-SA16-053	5224826	595291	330	sulphidic mafic to intermediate volcanic	652932	11
MLH-SA16-056	5225495	595503	320	Mafic and felsic volcanics	652933	10

**Note – UTM Coordinate system is UTM NAD 83, Zone 17.*

Table 4. Major Element Oxide Sample Locations and Analytical Results.

Outcrop Field ID	UTM coordinates		Elevation (m a.s.l.)	Major Oxide Sample	LOI	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	K_2O	Na_2O	TiO_2	MnO	P_2O_5	Cr_2O_3	V_2O_5	Sum
	Northing	Easting			%	%	%	%	%	%	%	%	%	%	%	%	%	%
FRK-SA-15-041	5224772	595814	320	651020	1.71	49.8	14.2	15	6.2	7.18	0.6	3.71	0.79	0.25	0.04	0.06	0.04	99.6
MLH-SA15-011	5225123	595338	318	651002	0.939	76.3	12.8	0.86	0.08	0.74	4.04	4.37	0.03	<0.01	<0.01	0.02	<0.01	100.1
CLC-SA16-044	5224796	595428	322	652920	1.94	50.7	13.7	11.2	6.89	12.4	0.76	1.34	0.94	0.21	0.06	0.07	0.04	100.2
CLC-SA16-048	5224959	595743	309	652921	2.09	49	13.2	14.6	8.39	8.32	1.48	2.32	0.71	0.22	0.04	0.05	0.04	100.4
CLC-SA16-053	5224826	595291	330	652932	4.29	72.8	12.7	3.23	1.52	0.19	3.55	0.22	0.49	0.11	0.06	0.03	<0.01	99.2
MLH-SA16-056	5225495	595503	320	652933	7.9	53.3	11.7	21	2.29	0.45	1.74	0.12	0.41	0.11	0.12	0.01	<0.01	99.3
NMP-SA16-020	5224855	595750	333	652935	1.86	48.9	13.8	15.8	7.23	7.14	1.12	2.91	0.95	0.11	0.06	0.03	0.05	100.1

**Note – UTM Coordinate system is UTM NAD 83, Zone 17.*

Table 5. Trace Element Sample Locations and Analytical Results.

Outcrop Field ID	UTM coordinates		Elevation (m a.s.l.)	Trace Element Sample	Element	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	La	Li	Mg
	Northing	Easting			Lower Detection	2	0.01	30	1	0.5	5	0.01	1	1	1	0.5	0.01	0.01	0.5	1	0.01
						ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%
FRK-SA-15-029	5225109	595286	315	651008		11	2.76	<30	54	<0.5	--	1.19	<1	119	140	763	>15	0.85	2.5	12	0.54
FRK-SA-15-031	5225012	595281	316	651009		12	0.21	31	<1	<0.5	--	0.49	<1	143	141	71.1	>15	<0.01	<0.5	1	0.38
FRK-SA-15-032	5225017	595285	318	651010		4	7.63	<30	433	0.6	<5	2.98	<1	2	97	157	5.76	1.52	15.6	42	1.21
FRK-SA-15-033	5225023	595285	317	651011		14	0.09	<30	<1	<0.5	--	0.28	<1	102	128	141	>15	<0.01	<0.5	<1	0.37
FRK-SA-15-034	5225022	595285	320	651012		<2	7.09	<30	270	1.5	<5	0.36	<1	2	61	19.2	1.09	3.04	7	7	0.03
FRK-SA-15-035	5225034	595285	316	651013		5	9.66	<30	228	<0.5	<5	2.9	<1	8	97	1348	9.22	2.76	25.5	71	2.1
FRK-SA-15-036	5225106	595227	309	651014		14	0.58	<30	12	<0.5	--	0.27	<1	26	58	1520	>15	0.03	<0.5	2	0.54
FRK-SA-15-037	5225114	595226	308	651015		4	5.77	<30	283	<0.5	<5	1.33	<1	5	132	354	12.1	0.53	19.6	36	1.77
FRK-SA-15-038	5225114	595219	311	651016		4	8.01	<30	300	0.8	<5	1.32	<1	5	163	202	12.8	0.82	21.7	47	1.84
FRK-SA-15-040	5224766	595803	323	651017		10	4.08	<30	34	<0.5	--	4.91	1	395	197	>10000	13.6	0.19	12.9	17	2.62
FRK-SA-15-041	5224772	595814	320	651020		2	7.88	<30	127	<0.5	<5	4.97	<1	44	278	262	9.62	0.54	1.4	27	3.72
MLH-SA15-011	5225123	595338	318	651003		<2	6.22	<30	437	1	<5	0.55	<1	2	44	8.5	0.52	3.08	6.8	4	0.03
MLH-SA15-012	5225123	595338	319	651004		4	6.9	<30	84	<0.5	<5	2.08	<1	13	54	82.3	9.88	2.07	19.3	56	1.02
CLC-SA16-044	5224796	595428	322	652920		<1	7.16	<5	153	<5	0.2	8.7	<0.2	41.4	364	37	7.97	0.7	3.7	18	4.04
CLC-SA16-048	5224959	595743	309	652921		<1	6.78	<5	373	<5	<0.1	5.8	<0.2	51.4	330	<10	10.1	1.3	1.1	23	4.92
CLC-SA16-053	5224826	595291	330	652932		16	6.47	14	544	<5	0.8	0.1	0.8	8.3	164	41	2.27	3.1	9.3	45	0.86
MLH-SA16-056	5225495	595503	320	652933		<1	6.04	<5	299	<5	1.3	0.3	1.7	9.9	80	232	14.8	1.6	9.1	55	1.34
NMP-SA16-020	5224855	595750	333	652935		<1	7.13	<5	323	<5	<0.1	4.9	<0.2	52.4	172	18	11.1	1	4	34	4.13

**Note – UTM Coordinate system is UTM NAD 83, Zone 17.*

Table 5. Continued.

Outcrop Field ID	UTM coordinates		Elevation (m a.s.l.)	Trace Element Sample	Element	Mn	Mo	Ni	P	Pb	Sb	Sc	Sn	Sr	Ti	V	W	Y	Zn	Zr
	Northing	Easting			Lower Detection	2	1	1	0.01	20	5	0.5	10	0.5	0.01	2	10	0.5	1	0.5
						ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
FRK-SA-15-029	5225109	595286	315	651008		1077	9	37	0.02	226	9	9.4	<10	43.9	0.24	52	<10	8	245	65.3
FRK-SA-15-031	5225012	595281	316	651009		513	11	27	<0.01	<20	10	1.4	<10	5.4	<0.01	32	<10	1.1	30	5.2
FRK-SA-15-032	5225017	595285	318	651010		2932	1	18	0.04	<20	<5	9.7	<10	211	0.25	63	<10	14.8	159	153
FRK-SA-15-033	5225023	595285	317	651011		251	12	37	<0.01	<20	19	1	<10	1	<0.01	30	<10	1.5	33	4.5
FRK-SA-15-034	5225022	595285	320	651012		356	<1	2	<0.01	36	<5	2	<10	37.7	0.02	2	<10	15.9	10	104
FRK-SA-15-035	5225034	595285	316	651013		1500	5	14	0.09	<20	<5	12.6	<10	262	0.38	114	<10	14.7	113	169
FRK-SA-15-036	5225106	595227	309	651014		2650	8	140	<0.01	<20	15	<0.5	<10	2.7	0.02	35	<10	1.1	314	7.8
FRK-SA-15-037	5225114	595226	308	651015		1699	5	32	0.07	<20	<5	12.5	<10	157	0.24	100	<10	10.7	189	132
FRK-SA-15-038	5225114	595219	311	651016		1469	6	30	0.02	245	<5	14.3	<10	112	0.34	161	<10	12.3	250	89.8
FRK-SA-15-040	5224766	595803	323	651017		873	3	920	0.1	--	<5	30.8	<10	138	0.23	191	<10	20.3	229	15.1
FRK-SA-15-041	5224772	595814	320	651020		1824	4	93	0.02	<20	<5	41.6	<10	79.9	0.46	265	<10	15.1	60	37.4
MLH-SA15-011	5225123	595338	318	651003		95	<1	2	<0.01	<20	<5	0.7	<10	26.1	0.02	<2	<10	8	24	47.6
MLH-SA15-012	5225123	595338	319	651004		1407	4	22	0.07	<20	<5	9.7	<10	157	0.21	77	<10	12	136	129
CLC-SA16-044	5224796	595428	322	652920		1507	2	138	0.03	<5	<0.1	36	3	179	0.55	302	2	19.1	92	52.5
CLC-SA16-048	5224959	595743	309	652921		1557	<2	100	0.02	<5	<0.1	39	1	60	0.41	297	1	11	116	38.1
CLC-SA16-053	5224826	595291	330	652932		258	9	15	0.03	434	1.8	13	4	74	0.29	118	2	8	349	140
MLH-SA16-056	5225495	595503	320	652933		1367	6	7	0.05	939	0.4	10	4	32	0.24	60	2	14.5	854	182
NMP-SA16-020	5224855	595750	333	652935		1983	<2	78	0.02	<5	0.2	39	3	87	0.53	350	<1	16.7	144	51.4

**Note – UTM Coordinate system is UTM NAD 83, Zone 17.*