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Assessment Report

Mechanical Stripping Program

Calvert Project

Aldina Township, Thunder Bay Mining Division

Northwestern Ontario

May 16, 2016

Steven Siemieniuk, P.Geo

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Introduction

This report has been prepared to meet assessment filing requirements for the 2015 mechanical stripping program conducted on the Calvert Property in the Thunder Bay Mining Division in northwestern Ontario. Between November 22 and November 27, 2015 a program consisting of mechanical stripping, washing and channel sampling was conducted on the Calvert Project.

A target selected east of the Discovery Trench was selected due to it being a target identified by Dr. Jim Franklin but never followed up on. Recent beaver activity made the groundwater table so high it was not possible to keep the stripped area pumped out and it was abandoned and filled back in.

A second trench location west of the Discovery Trench was also identified as a possible extension of the mineralized horizon and was mechanically stripped off as well. Due to the thickness of overburden no bedrock was encountered even though overburden in proximal drillholes suggested that bedrock should be within reach of the excavator.

A total of 6 channel samples and 6 grab samples were taken from historic trenches that had no indicated sampling. The highest assay returned was 0.03% Cu and 0.028 % Zn.

While this program of trenching was not successful in exposing more outcrop along strike of the mineralized Discovery Trench the project still has many untested targets identified by Dr. Jim Franklin that warrant further investigation.

Location and Access

The Calvert Project is located in Aldina Township in the Thunder Bay Mining Division on NTS sheet 52A/05. The coordinates of the approximate centre of the claim group are 283300 East and 5365000 North (NAD 83, UTM Zone 16).

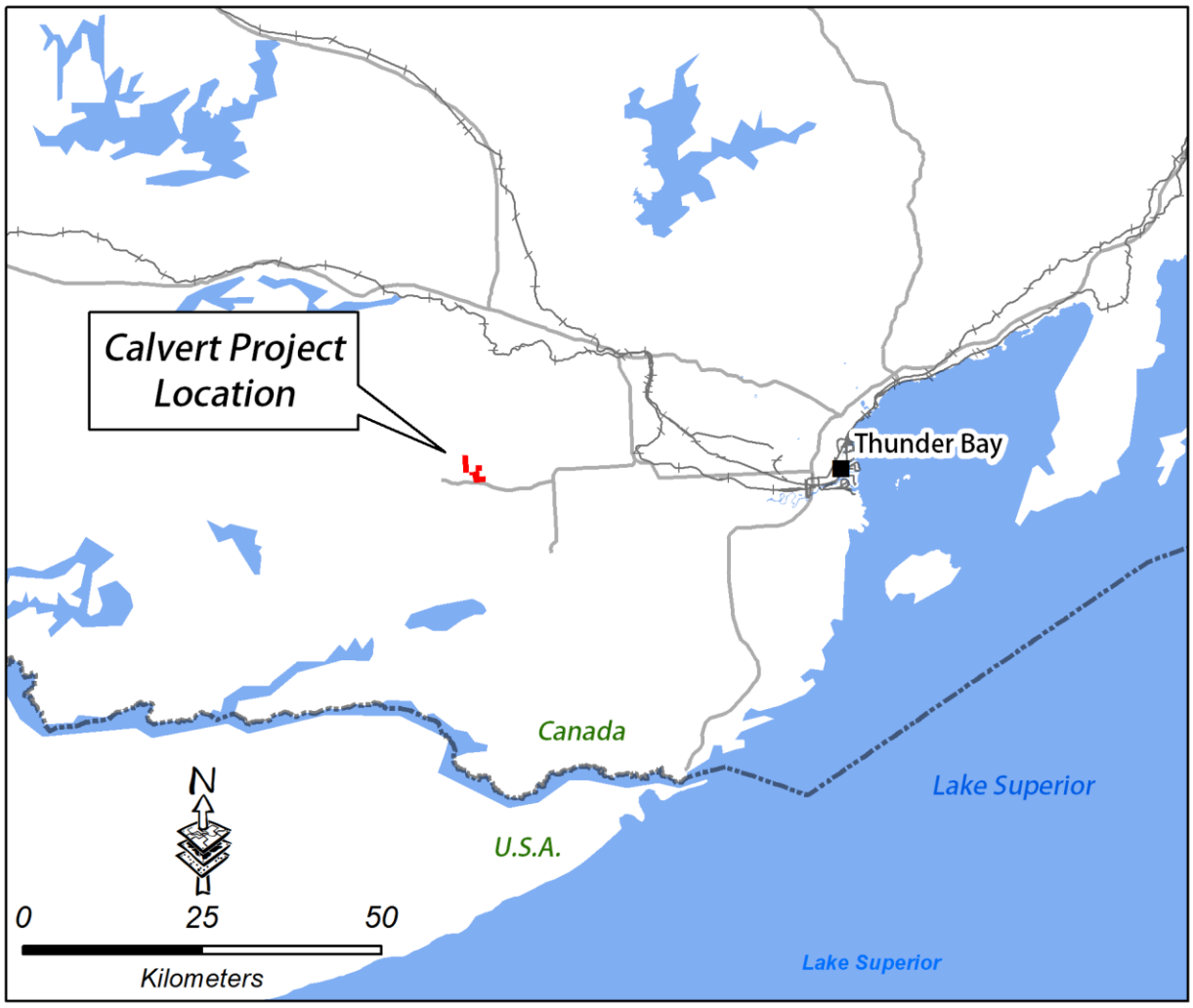

Figure 1: Regional location of the Calvert Project.

The Calvert Project can be accessed by traveling approximately 30 kilometers west on Highway 11/17 from Thunder Bay to the village of Kakabeka Falls. Approximately 1 kilometer west of the village on Highway 11/17 is the turnoff to Highway 590 which only heads south. Driving on Highway 590 for approximately 14.5 kilometers will lead to the Boreal Timber Road (Boreal Road) which is an all-season, well maintained forestry road heading west off of Highway 590. Access to the Property is via secondary forestry roads with the southern boundary of 4242857 intersecting the Boreal Road lower portion of claim at around Kilometer 11 on the Boreal Road. The turnoff to the secondary forestry road at 283992 East 5363081 North (NAD 83, UTM Zone 16) is taken to access the Discovery Trench and proposed trenching areas for the 2015 program. A four wheel drive ATV is recommended for the portions of the road network closest to the Discovery Trench.

Claims

The Property consists of two contiguous, un-patented mining claims (Figure 2, Table 1). Claim abstracts are included in Appendix A.

Table 1: Calvert Project claim details.

Township/Area	Claim Number	Recording Date	Claim Due Date	Units	Work Required	Total Applied	Total Reserve
ALDINA	4242855	2011-May-18	2016-May-18	4	$1,600	$3,200	$720
ALDINA	4242857	2011-Oct-20	2016-Oct-20	12	$4,800	$4,800	$0

Alienation WP2008-173 which covers the lower portion of 4242857 is an application for surface rights for a wind power installation. A copy of the application has been requested but not yet received. Information available from a query of the alienation states "Type N, Wind power area - App. for SRO, PLA subject to Section 28.2 (3) Mining Act. For further information on pending Wind Power appl. please contact the local MNR District Office". If granted, this will have no impact on the proposed exploration program.

The Calvert Project currently holds two Mineral Exploration Permits from the Ontario Ministry of Northern Development and Mines (PR-13-10400 and PR-15-10665). In addition to this, the Calvert Project also has an Exploration Plan in effect (PL-15-10428). A copy of the permits as well as the Exploration Plan application and circulation letter have been included as Appendix B.

Plan PL-15-10428 is valid from May 13, 2015 until May 12, 2017. Permit PR-13-10400 is valid from October 08, 2013 until October 07, 2016, while Permit PR-15-10665 is valid from June 11, 2015 to June 10, 2018. All plans and permits are subject to the requirements of the Mining Act, Ontario Regulation 308/12, the applicable Provincial Standards for Early Exploration. The Permits also come with the following Terms and Conditions:

The Permittee shall keep this permit or a true copy thereof on the permit area.

The person in charge of the operation conducted under this permit shall produce and show this permit or the true copy kept on the exploration permit area to any inspector whenever requested by the officer.

The requirements outlined in Schedule 1 of Ontario Regulation 308/2012 and applicable Provincial Standards for Early Exploration.

Other terms and conditions as listed on this permit.

There are no additional terms and conditions listed on Permits PR-13-10400 or PR-15-10665.

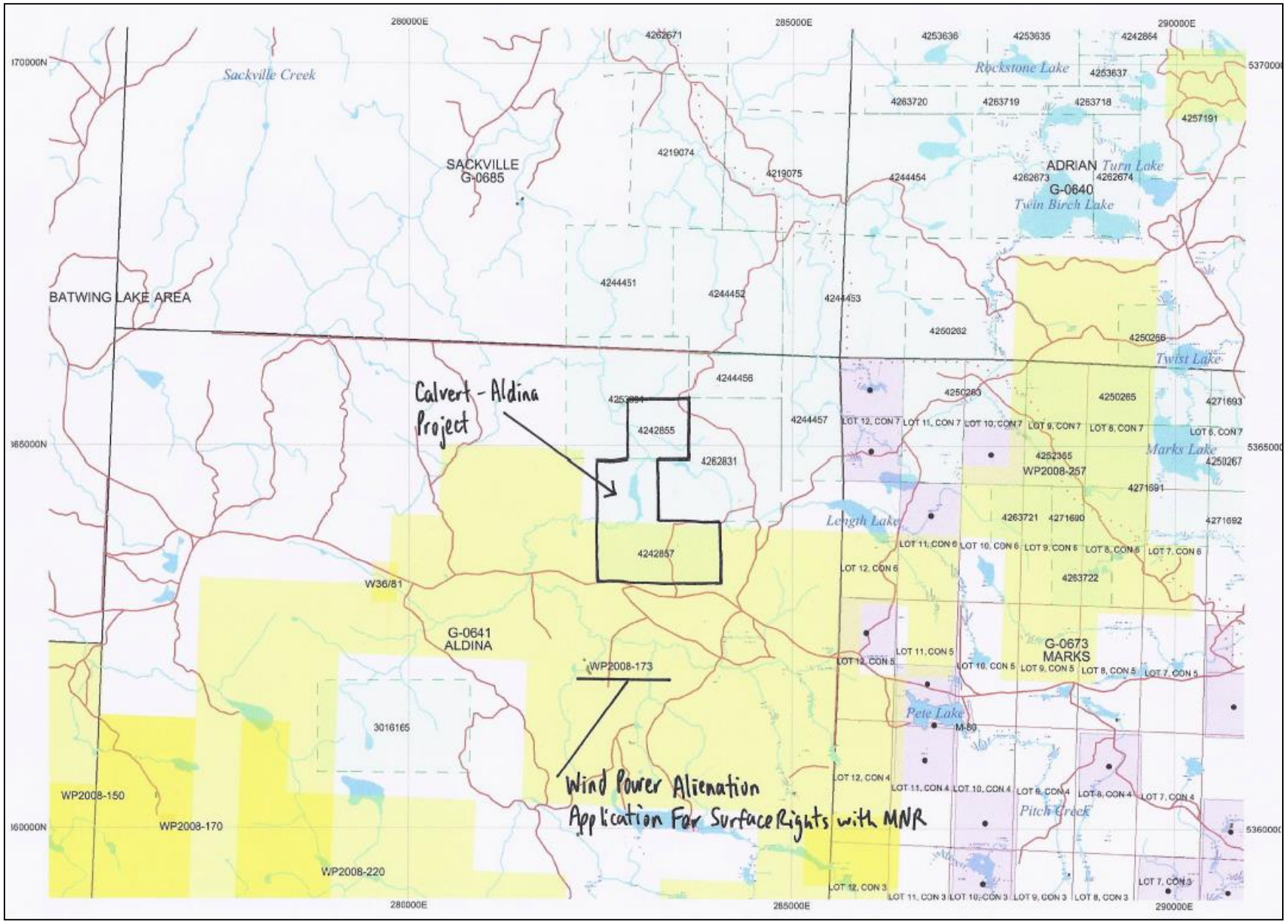

Figure 2: Calvert claim map as of September 25, 2015 (modified from CLAIMaps).

Prospecting Targets

This property hosts in-situ zinc gold sulfides. The prospecting target is additional Volcanogenic Massive Sulfide (VMS) mineralization on the property via stripping of targets identified by Dr. Jim Franklin.

Regional Geology

The regional geology of the area has been described well by Terence J. Bottrill in a 43-101 Technical Report on the Stares-Calvert Project written for RJK Explorations Ltd. and GLR Resources Inc. dated September 10th, 2003. The descriptions and figures for regional and local geology have been sourced directly from this report.

The Calvert Project initially resulted from the discovery of well mineralized massive sulfide float and its subsequent exploration back to its bedrock source within the southern part of the Shebandowan Greenstone Belt. The Shebandowan greenstone belt is part of the western Wawa Subprovince of the Archean Superior Province of the Precambrian Canadian Shield. The Shebandowan greenstone belt is one of a series of greenstone belts which extend along the north shore of Lake Superior from the western boundary of the Kapuskasing Subprovince, through the Manitouwadge, Hemlo and Schreiber belts, together with the Michipicoten belt further to the south. These are all east of the Proterozoic Lake Nipigon, mid-continent rift cover sequence. To the west of the Proterozoic the Subprovince continues through the Shebandowan belt to the Saganogans belt and into the Soudan and Newton belts of the Vermillion district of Minnesota. It is covered at the west by the Palaeozoic sedimentary rocks of the western plains. The Wawa Subprovince has also been described as the western part of the Abitibi belt.

In most respects the Shebandowan belt is similar to the other greenstone belts of the Precambrian shield. It consists predominantly of mafic volcanic rocks, with minor ultramafic and felsic volcanic rocks, sedimentary rocks, both clastic and chemical, as well as various mafic and felsic intrusions. It typically dips steeply to sub-vertical, and is divided into tectonic blocks by numerous faults.

In other respects the Shebandowan belt is somewhat different from many, but probably not all, greenstone belts. The assemblage of rocks which are typically considered as part of a greenstone belt are in this case only one part of a larger orogenic belt with three adjacent lithologically distinct terranes. These were probably all formed more-or-less together and have a strong association in their geochronology, a similarity in their geochemical signatures indicating they were derived from the same part of the lithosphere, and a similar tectonic evolution. Whilst they now have a complex structural relationship consistent with that of an orogenic belt, they may be autochthonous one to another.

The first terrane, to the south, is predominantly granite gneiss which has dates which are older than the adjacent supracrustal rocks.

The second is the greenstone assemblage of volcanic, sedimentary and intrusive rocks. It appears to have been erupted and deposited directly upon, or immediately adjacent to, the basement granite-gneiss terrane. Many of the characteristics of the mafic volcanics, the

associated ultramafic volcanics, and the relatively thin, but really extensive inter-flow sedimentary rocks (carbonaceous argillites and magnetite-jasper ironstones), indicate that they were deposited in what was a platformal environment, mostly in relatively shallow water to subaerial settings.

The third geological terrane is the Quetico Sub-province, consisting of graywackes and lesser siltstones and very minor mafic rocks. Further to the north the metamorphic grade gradually increases until the graywackes become migmatites with intrusions of two-mica granites which appear to be derived from melting of the graywacke and migmatite. While the Quetico is typically considered as a distinct Subprovince (Williams, 1991), it appears to be closely involved with the development of both the basement gneiss and the greenstone belt supracrustal rocks. The Quetico terrane turbidite graywackes were probably deposited in a deeper marine basin lying outboard of the original volcanic and basement block which stood topographically high, and are formed from the products of the adjacent greenstone belt, mafic-volcanic rocks as well as the exposed basement granite-gneiss.

Both the basement gneiss and the greenstone are intruded by a variety of granitoid plutons of similar ages. The geochemically very similar older granites and tonalites intrude both the basement granite-gneiss and the volcanic terranes. The younger, post-tectonic granites, granodiorites and quartz-monzonites intrude all three terranes and appear to be partly responsible for “welding” the supracrustal rocks to the basement.

The structure of the Shebandowan belt is also distinctive when compared with many other greenstone belts. It is predominantly homoclinal, with individual formations facing north and the overall sequence appearing in general to go from older units adjacent to the basement gneiss to younger ones towards the Quetico Subprovince to the north. It does not have the typical appearance of a symmetrical “keel” or “triple-junction” as seen in most other granite-greenstone terranes. Instead it is dominated by a series of thrust sheets which were directed to the northwest in their current orientation, in both the western and eastern parts of the belt. The stratigraphy and the thrusts strike predominantly northeast at these two extremities of the belt. The two thrust terranes are joined by the north-northwest striking linear section of the belt which is structurally dominated by imbricate, transpressive or strike-slip shear structures.

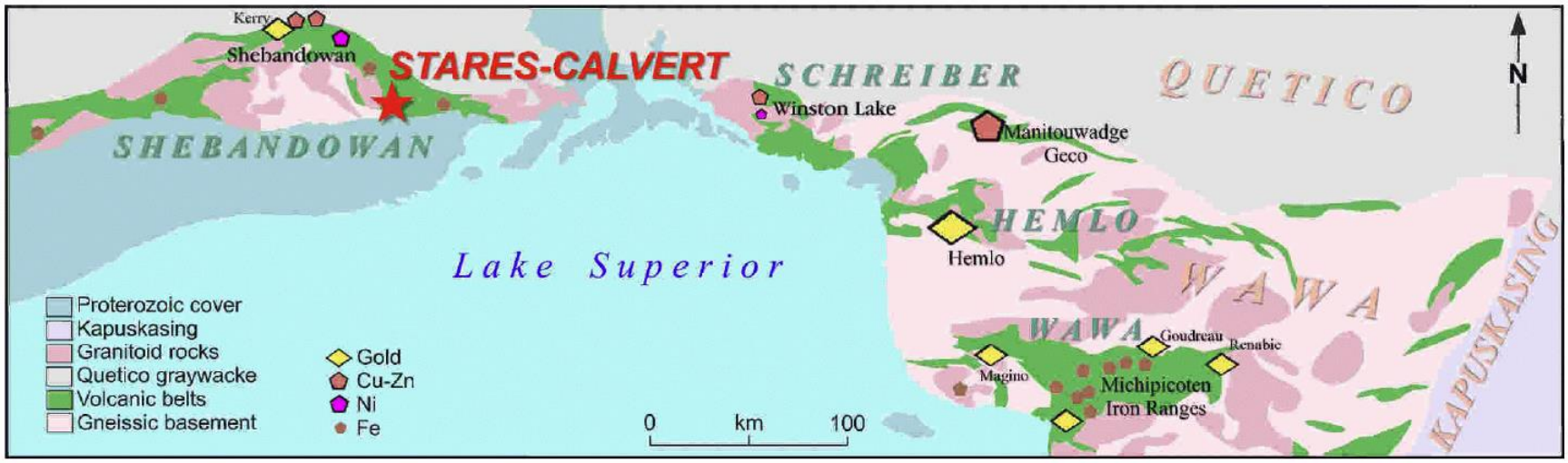

Figure 3: Geology of the Wawa Subprovince of the Superior Province.

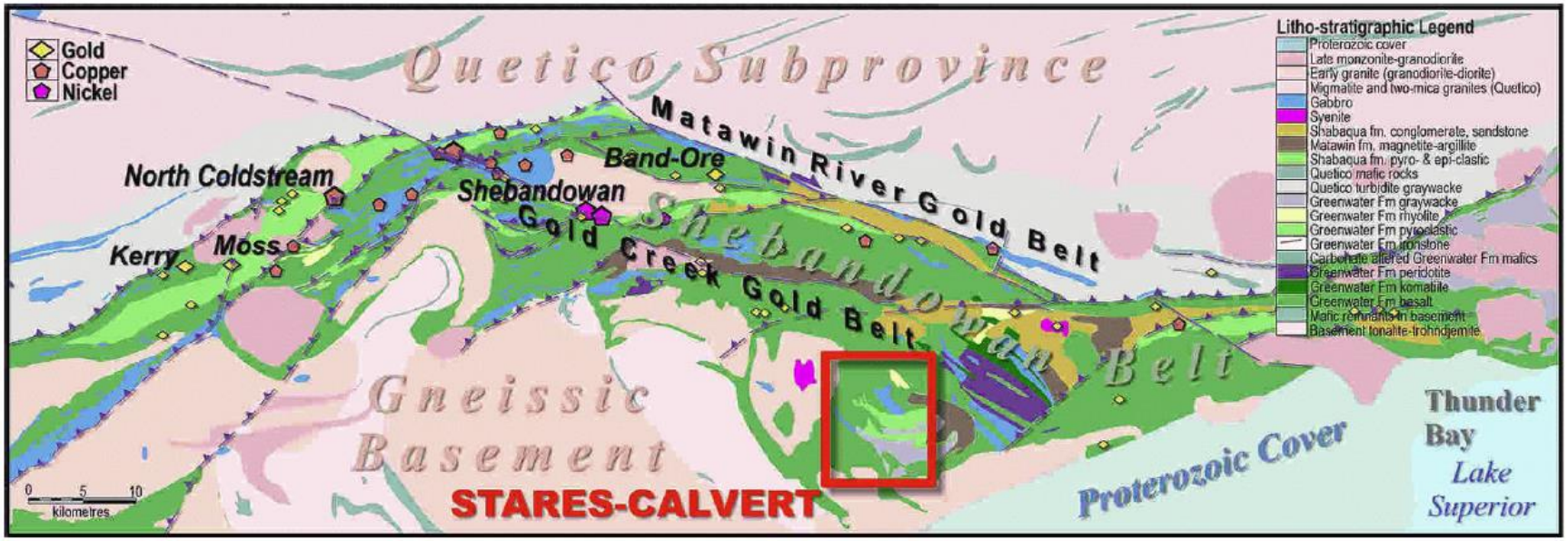

Figure 4: Geology and Mineral Deposits of the Shebandowan Greenstone Belt.

Local Geology

As mentioned above, the regional and local geology of the area has been described well by Terence J. Bottrill in a 43-101 Technical Report on the Stares-Calvert Project written for RJK Explorations Ltd. and GLR Resources Inc. dated September 10th, 2003. The descriptions and figures for regional and local geology have been sourced directly from this report.

The geology in the area of the Calvert project has been interpreted from the available outcrops as mapped during the exploration programme and as reported on published maps of the Ontario Geological Survey, which were published as recently as 1995. The local stratigraphic sequence is characteristic of many greenstone belts in areas associated with volcanic hosted base and precious metal mineralization. This sequence is primarily a basal iron tholeiite basalt overlain by variable thicknesses of felsic volcanic rocks and in turn by a thick sequence of turbiditic graywackes.

The felsic rocks are predominantly rhyolites which can be further divided into a younging sequence from subaqueous quartz-phyric high-silica rhyolites upwards to progressively more subaerial quartz-feldspar phyric rhyolite tuffs. The basal high-silica rhyolites include thinly bedded ignimbrite units which include basal tuff-breccia to agglomeratic horizons with similar coarse fragmental textures to those seen in sulphide mineralization. The tops of these units are finely laminated and graded ash-tuffs. Additional signs of probable subaerial volcanism include distinctive phreatic breccias restricted to single horizons in highly siliceous ash tuffs.

Throughout the sequence there are abundant ironstones and cherty tuffites, the latter being more abundant in the rhyolite units. The ironstones include chert-magnetic jasperoids as well as magnetite-silicate (amphibole-garnet) facies. The distribution of the different ironstones facies corresponds to probable water depths and each type is associated with a correspondingly appropriate rock type consistent with the appropriate water depth. The iron-oxide rich units are associated with the subaerial units, whereas separate pyretic and carbonaceous chert tuffites are located in progressively more subaqueous hosts. This facies distribution may reflect an original volcanic topography with a volcanic high in the area around the known sulphide mineralization progressively deepening to the north and east into the turbiditic graywacke basin.

These units are deformed and metamorphosed. The intensity of deformation is different among thevarious rocks types, with some such as the original mudstones showing the development of schistosity, whereas, by contrast, units such as the rhyolite ignimbrites, are almost internally pristine and mostly show brittle failure in locally closely-spaced faults. The ironstones, especially magnetite-silicate facies ironstones are very finely laminated and unlike the many banded jasperoid ironstones show none of the classical internal folding.

The overall structure on the property is a southern isoclinally folded, steeply dipping overturned antiform, with the central area a corresponding synform underlain by the turbitic graywackes, with a further antiform in the northern part of the property. Each of these folds have east-west axial planes. They appear to have been re-folded around later northeast striking axes providing the oroclinal form of the folds, convex to the northeast. To a large extent the interpretation of the

property geology has been based on the 1991 OGS airborne magnetic and electromagnetic survey, and the relationshop between the local geology with the ground magnetic data.

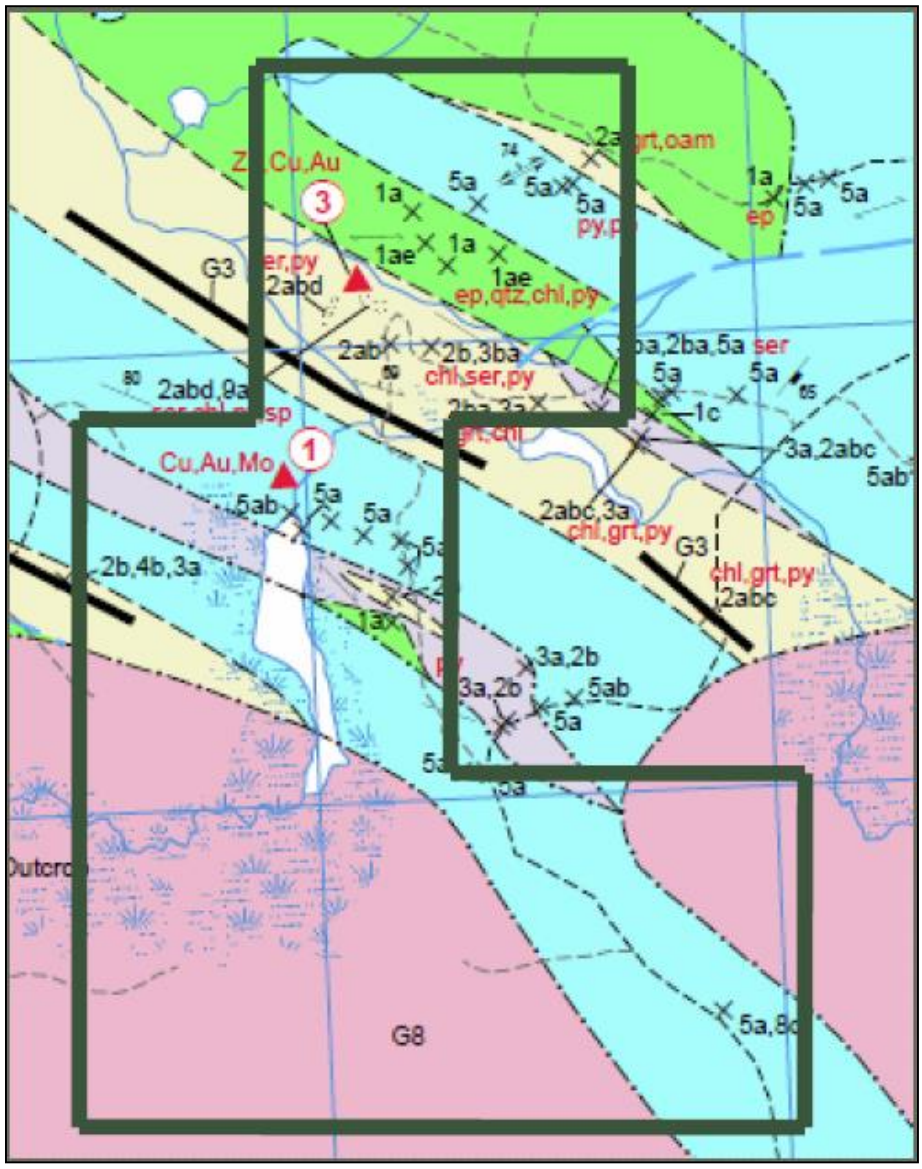

Figure 5: Geology of the Calvert Project (Lodge, 2014).

Property Geology

The area of focus on the property is the Discovery Trench and associated volcanic stratigraphy. Mapping the Ontario Geological Survey shows a pod of massive sulfides encased in felsic tuffs, xenolitic rhyolite porphyry and sericite schist (Figure 6). A 6.5 meter chip sample in the Discovery Trench assayed 2.44% Zn, 465 ppm Cu, 521 ppm Pb, 13 ppm Ag and 54 ppb Au (Schneiders et al., 2001).

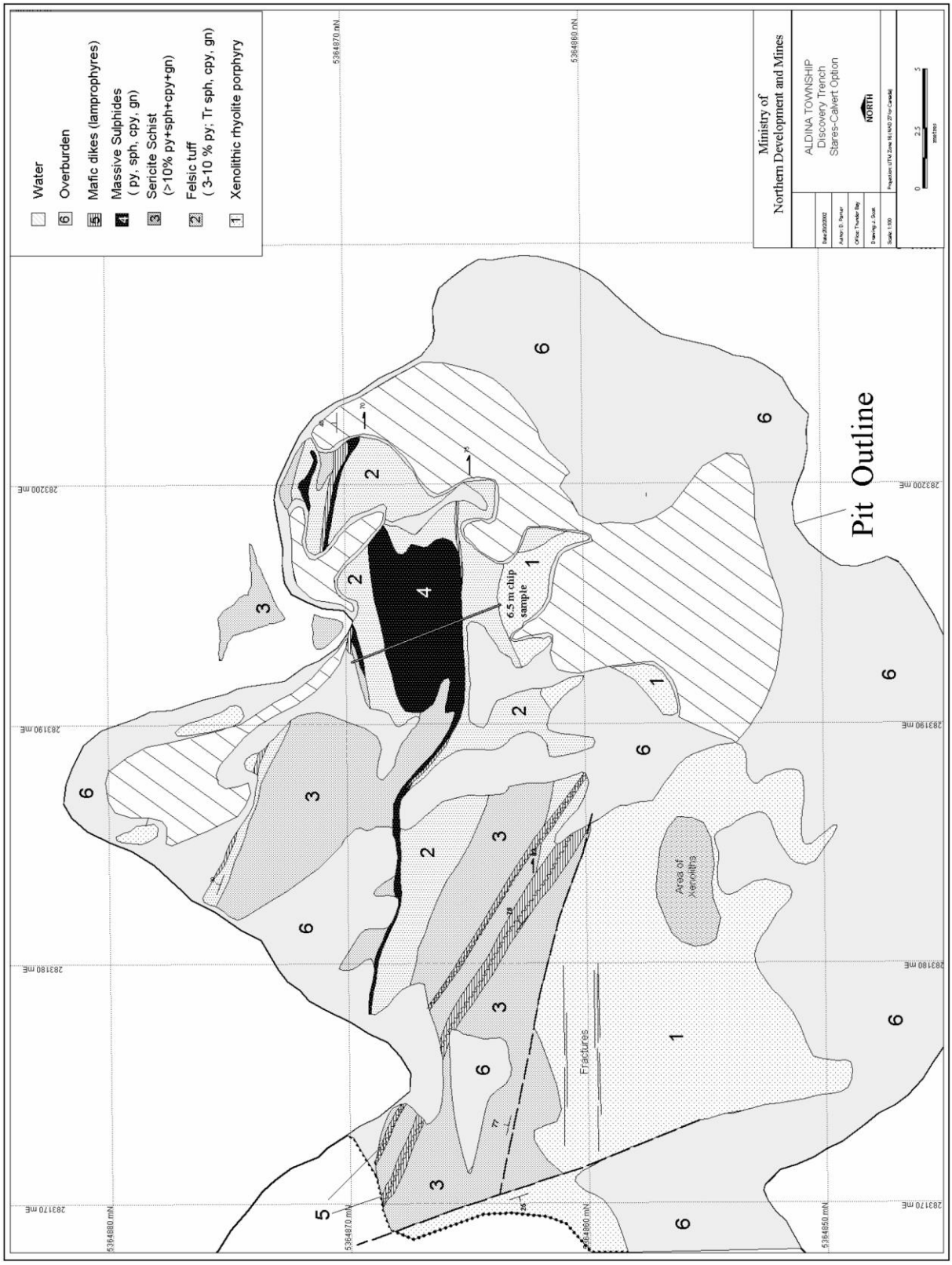

Figure 6: Geology of the Discovery Trench (Schneiders et al., 2001).

Previous Work

Since the property was staked, the only work performed was while the project was under option to Platinum Group Metals ("PGM"). PGM had Condor Geophysics model the 2004 VTEM flown over the showing in order to perform assessment work and keep the claims in good standing. PGM returned the project because the company they had intended to Joint Venture the project with decided not to pursue it. Appendix C contains the final report from Condor Geophysics. Appendix D is a summary of the Calvert property which includes a review of previous work done on the property as well as highlights of work. A compilation map of the diamond drilling performed on the property is included as Appendix E.

Historical work previous to the current property holder is as follows:

Year	Company / Individual	Method
1996	Stares brothers	Prospecting
1996	Cumberland Resources	Quaternary, Geological, Lithogeochem, Soils, Ground Geophysics, Diamond Drilling
1998	RJK Explorations / Greater Lenora Resources	IP, Stripping and Trenching, Prospecting
2000-2001	RJK Explorations / Greater Lenora Resources	IP, Stripping and Trenching
2001	RJK Explorations / Greater Lenora Resources	Stripping and Trenching, Diamond Drilling
2002	RJK Explorations / Greater Lenora Resources	Geological, Geochem, Stripping and Trenching, Diamond Drilling
2003	RJK Explorations / Greater Lenora Resources	Geological
2004	RJK Explorations / Greater Lenora Resources	VTEM, Diamond Drilling
2005	RJK Explorations / Greater Lenora Resources	IP, Diamond Drilling
2006	RJK Explorations / Greater Lenora Resources	Diamond Drilling
2007	RJK Explorations / Greater Lenora Resources	VTEM
2007	RJK Explorations / Greater Lenora Resources	Diamond Drilling

Rationale of Project

This project has returned significant drill intercepts of zinc mineralization as well as the in situ massive sulfide occurrence discovered by mechanical stripping (Figure 6) which a 6.5 meter chip

sample in the Discovery Trench assayed 2.44% Zn, 465 ppm Cu, 521 ppm Pb, 13 ppm Ag and 54 ppb Au (Schneiders et al., 2001).

This claim has four untested target areas identified by Dr. Jim Franklin in a report for RJK titled "Preliminary Assessment of the Lithogeochemistry of the Aldina Township Base Metal-Gold-Silver Property". This report is included as Appendix F. Personal communication with Dr. Franklin in 2014 with the author confirmed his belief in the project and its potential to hose a significant VMS ore body. It is widely accepted that Dr. Franklin is a world-renowned expert in VMS deposits, their genesis and exploration for them.

2015 Exploration Program

Between November 22 and November 27, 2015 a program consisting of mechanical stripping, washing and channel sampling was conducted on the Calvert Project.

A target selected east of the Discovery Trench was selected due to it being a target identified by Dr. Jim Franklin but never followed up on. Recent beaver activity made the groundwater table so high it was not possible to keep the stripped area pumped out and it was abandoned and filled back in.

A second trench location west of the Discovery Trench was also identified as a possible extension of the mineralized horizon and was mechanically stripped off as well. Due to the thickness of overburden no bedrock was encountered even though overburden in proximal drillholes suggested that bedrock should be within reach of the excavator.

A total of 6 channel samples and 6 grab samples were taken from historic trenches that had no indicated sampling. The highest assay returned was 0.03% Cu and 0.028 % Zn.

A copy of the prospecting logs are included in Appendix A, sample descriptions and sample photos in Appendix B, assay certificates in in Appendix C, and field map and photos in Appendix D.

While this program of trenching was not successful in exposing more outcrop along strike of the mineralized Discovery Trench the project still has many untested targets identified by Dr. Jim Franklin that warrant further investigation.

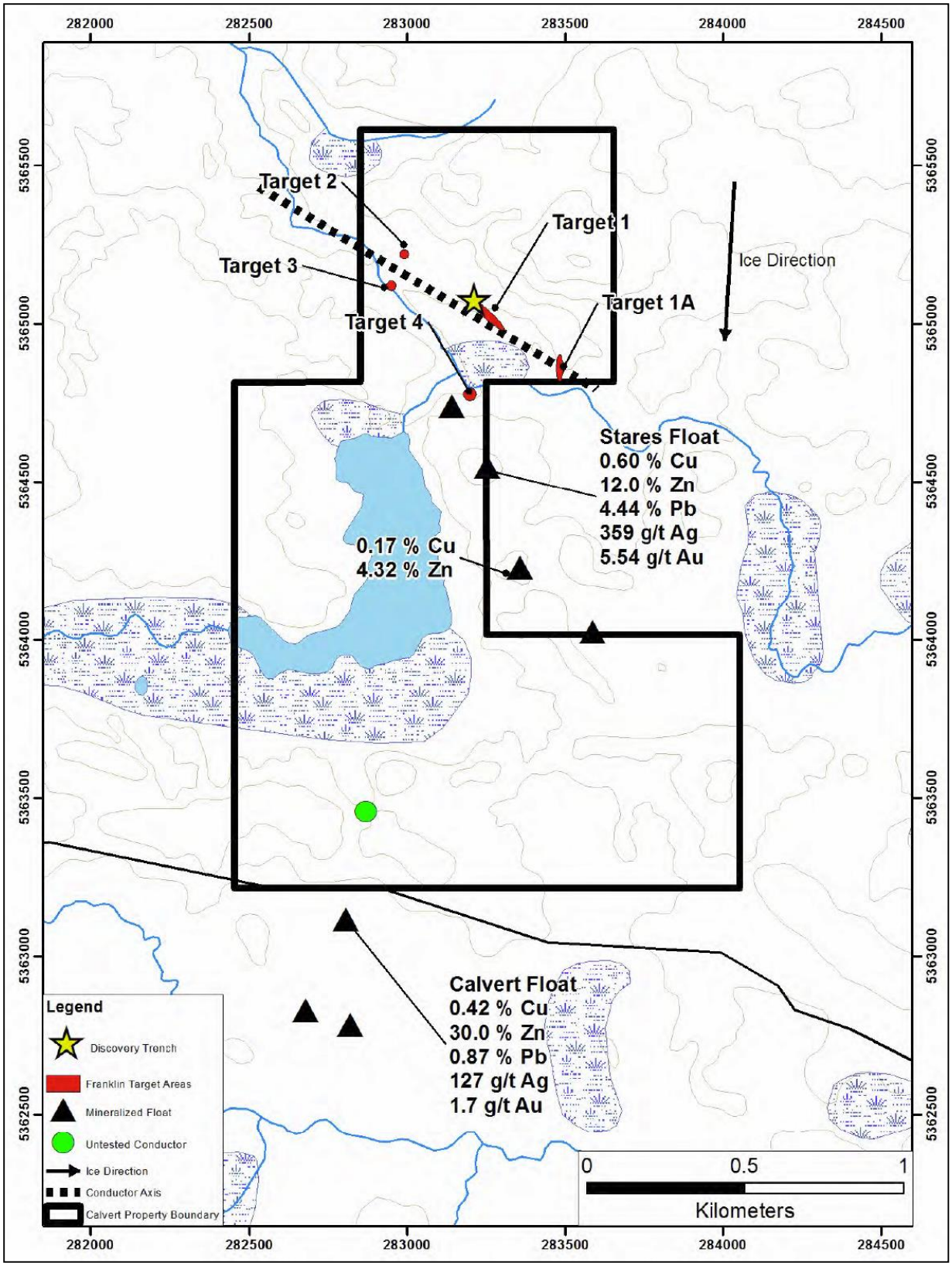

Figure 7: Map showing Franklin Target Areas.

References

Bottrill, T. 2003. National Instrument 43-101 Technical Report on the Stares-Calvert Project for RJK Explorations Ltd. and GLR Resources Inc., dated September 10, 2003, 52 pages.

Lodge, R.W.D. 2014. Precambrian geology of Aldina Township; Ontario Geological Survey, Preliminary Map P.3776, scale 1:20 000.

Schnieders, B.R., Scott, J.F., Smyk, M.C., Parker, D.P. and O'Brien, M.S. 2002. Report of Activities 2001, Resident Geologist Program, Thunder Bay South Regional Resident Geologist Report: Thunder Bay South District; Ontario Geological Survey, Open File Report 6081, 45p.

Appendices

Appendix A

Daily Log

Date	Activity	People
22-Nov-15	Field access check, location of Franklin targets in field.	Steven Siemieniuk, Henry Siemieniuk, Christian Carl
23-Nov-15	Layout of trench axes, flagging of road for excavator float	Steven Siemieniuk, Henry Siemieniuk, Christian Carl
24-Nov-15	Mob of excavator to property, test pit on eastern extension, too much groundwater, begin western trench	Steven Siemieniuk, Henry Siemieniuk, Christian Carl
25-Nov-15	Completion of western trench, some rock encountered, demob of excavator	Steven Siemieniuk, Henry Siemieniuk, Christian Carl
26-Nov-15	Washing off of western trench, rock encountered was glacial float	Steven Siemieniuk, Henry Siemieniuk, Christian Carl
27-Nov-15	Channel sampling of historic trench	Steven Siemieniuk, Henry Siemieniuk, Christian Carl

Appendix B

Sample Descriptions and Photos

Sample Number	Easting (NAD 83, z16)	Northing (NAD 83, z16)	Type	Length (m)	Description
296351	283152	5365102	Channel	1.00	Felsic volcanic, aphanitic, 12-15% fg disseminated pyrite, trace chalcopyrite
296352	283152	5365103	Channel	1.00	Felsic volcanic, aphanitic, 8-10% fg disseminated pyrite, trace chalcopyrite
296353	283152	5365104	Channel	0.90	Felsic volcanic, aphanitic, 3-5% fg disseminated pyrite
296354	283152	5365105	Channel	0.85	Felsic volcanic, aphanitic, 8-10% fg disseminated pyrite
296355	283152	5365106	Channel	1.00	Felsic volcanic, banded, aphanitic, 3% fg disseminated pyrite
296356	283152	5365107	Channel	1.10	Felsic volcanic, aphanitic, 1% fg disseminated pyrite
293357	283119	5365112	Grab		Graphitic argilitte breccia, 25% cg recrystallized euhedral to subhedral pyrite
293358	283119	5365112	Grab		Graphitic argilitte breccia, 20-25% cg recrystallized euhedral to subhedral pyrite
293359	283121	5365110	Grab		Foliated felsic volcanic, banded, 12% disseminated fg pyrite
293360	283122	5365109	Grab		Graphitic argilitte breccia, 55% cg recrystallized euhedral to subhedral pyrite
293361	283094	5365116	Float (Trench)		Felsic volcanic, minor chlorite whisps, 1% pyrite
293362	283098	5365126	Float (Trench)		Felsic volcanic, trace disseminated pyrite


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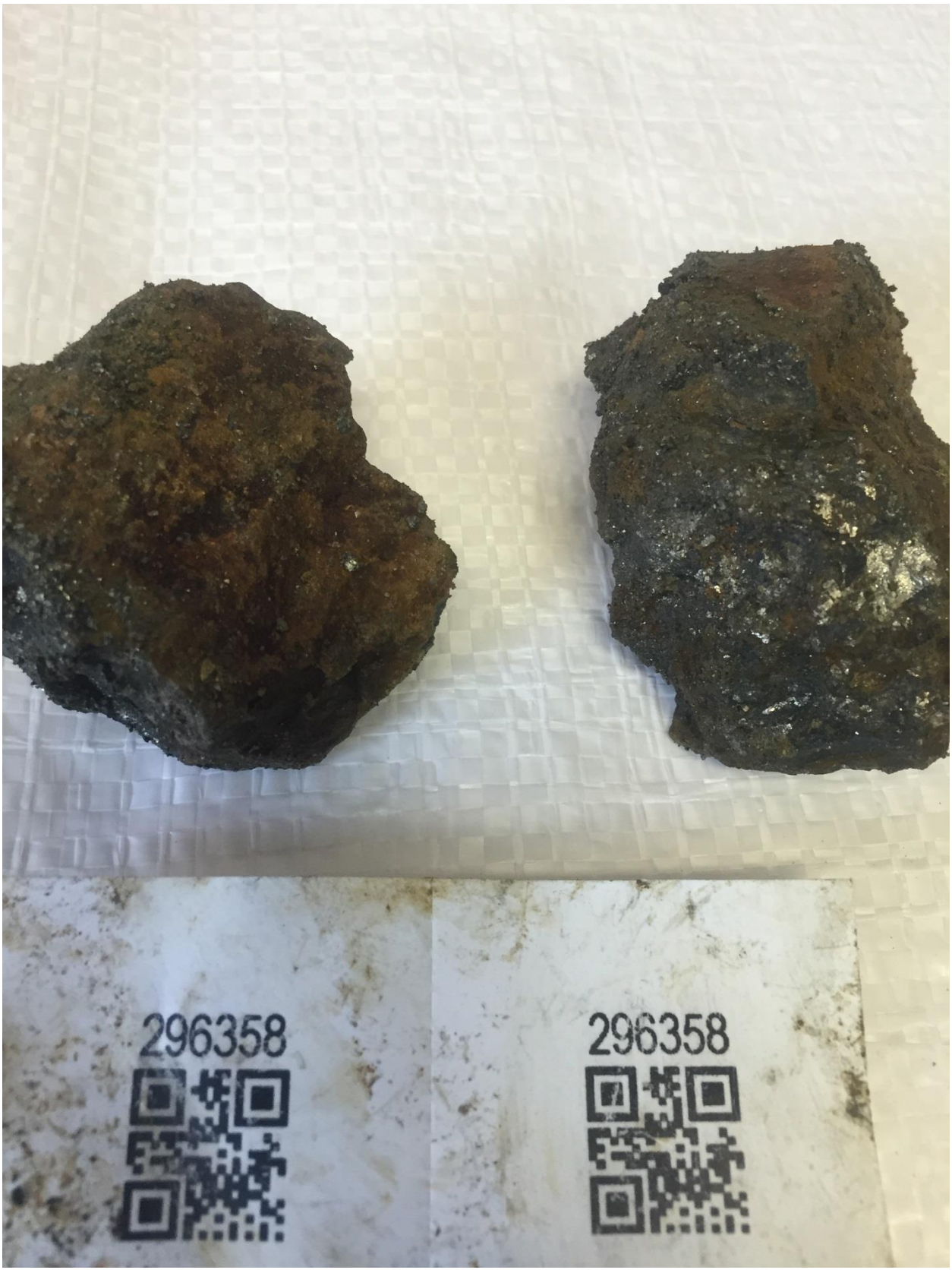
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296360
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Appendix C

Assay Certificates

ACCURASSAY LABORATORIES
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Thunder Bay, ON
Canada P7B 5X5
Tel: (807) 626-1630
Fax: (807) 622-7571
www.accurassay.com
assay@accurassay.com

Wednesday, January 13, 2016

Final Certificate

Clark Consulting
1000 Alloy Dr.
Thunder Bay, ON, CAN
P7A6G5
Ph#: (807) 622-3284
Fax#: (807) 622-4156
Email: gjclark@tbaytel.net, steve@clarkexploration.com

Date Received: 01/07/2016
Date Completed: 01/13/2016
Job #: 201640021
Reference:
Sample #: 12

Acc #	Client ID	Au g/t (ppm)	Ag ppm	Cu ppm	Zn ppm
2079	296351	<0.005	<1	12	47
2080	296352	<0.005	<1	14	95
2081	296353	<0.005	<1	33	43
2082	296354	<0.005	<1	37	138
2083	296355	<0.005	<1	15	58
2084	296356	<0.005	<1	20	62
2085	296357	<0.005	<1	363	281
2086	296358	<0.005	<1	59	71
2087	296359	0.012	<1	119	100
2088	296360	<0.005	<1	151	284
2089	296360 Dup	<0.005	<1	151	289
2090	296361	<0.005	<1	23	371
2091	296362	<0.005	<1	33	67

APPLIED SCOPES: ALP1, ALFA1, ALCuMA1, ALZnMA1, ALAgMA1

Validated By:
Jesse Deschutter
Assistant Manager - Thunder Bay

Certified By:
Jason Moore, VP Operations, Assayer

Authorized By:
Derek Demianiuk, VP Quality

The results included on this report relate only to the items tested.
The Certificate of Analysis should not be reproduced except in full, without the written approval of the laboratory.

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Date Received: 01/07/2016
Date Completed: 01/13/2016
Job #: 201640021
Reference:
Sample #: 12

Control Standards

QC Type	Element	QC Performance (ppm)	Mean (ppm)	Std Dev (ppm)
GS42	Au	0.665	0.650	0.040
ATQA	Au	4.922	5.000	0.050
MBLK	Ag	<0.005	<0.005	1
MBLK	Cu	3	<0.005	1
MBLK	Zn	3	<0.005	<0.005
M600	Ag	23	<0.005	<0.005
M600	Cu	475	482	23
M600	Zn	606	<0.005	<0.005
M601	Ag	47	<0.005	<0.005
M601	Cu	947	1010	40
M601	Zn	1250	<0.005	<0.005
MABK	Ag	<0.005	<0.005	1
MABK	Cu	2	<0.005	1
MABK	Zn	1	<0.005	<0.005

APPLIED SCOPES: ALP1, ALFA1, ALCuMA1, ALZnMA1, ALAgMA1

Validated By:
Jesse Deschutter
Assistant Manager - Thunder Bay

Certified By:
Jason Moore, VP Operations, Assayer

Authorized By:
Derek Demianiuk, VP Quality

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Appendix D

Field Map and Photos

283080
283100
283120
283140
283160
283180
5365160
5365140
5365120
5365100
5365080
52A/05
293362
293361
293357
293358
293359
293360
296356
296355
296354
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296352
296351
1600

Legend

N

- Sample_Locations
- 2015 Trench
- Historic Trench

GIS Cartography:
Clark Exploration Consulting Inc

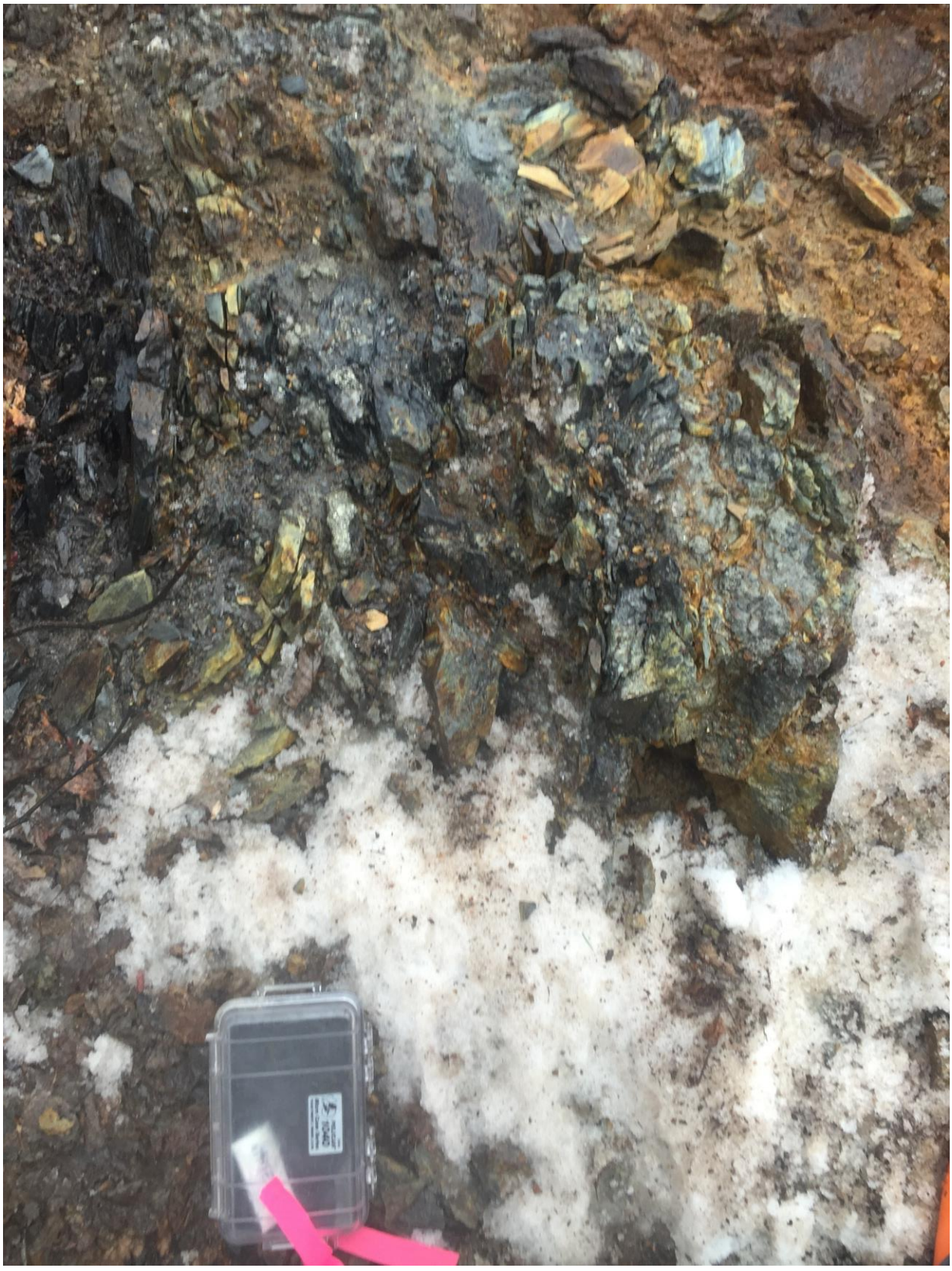
Title: **Calvert Project**
Trench and Sample Locations

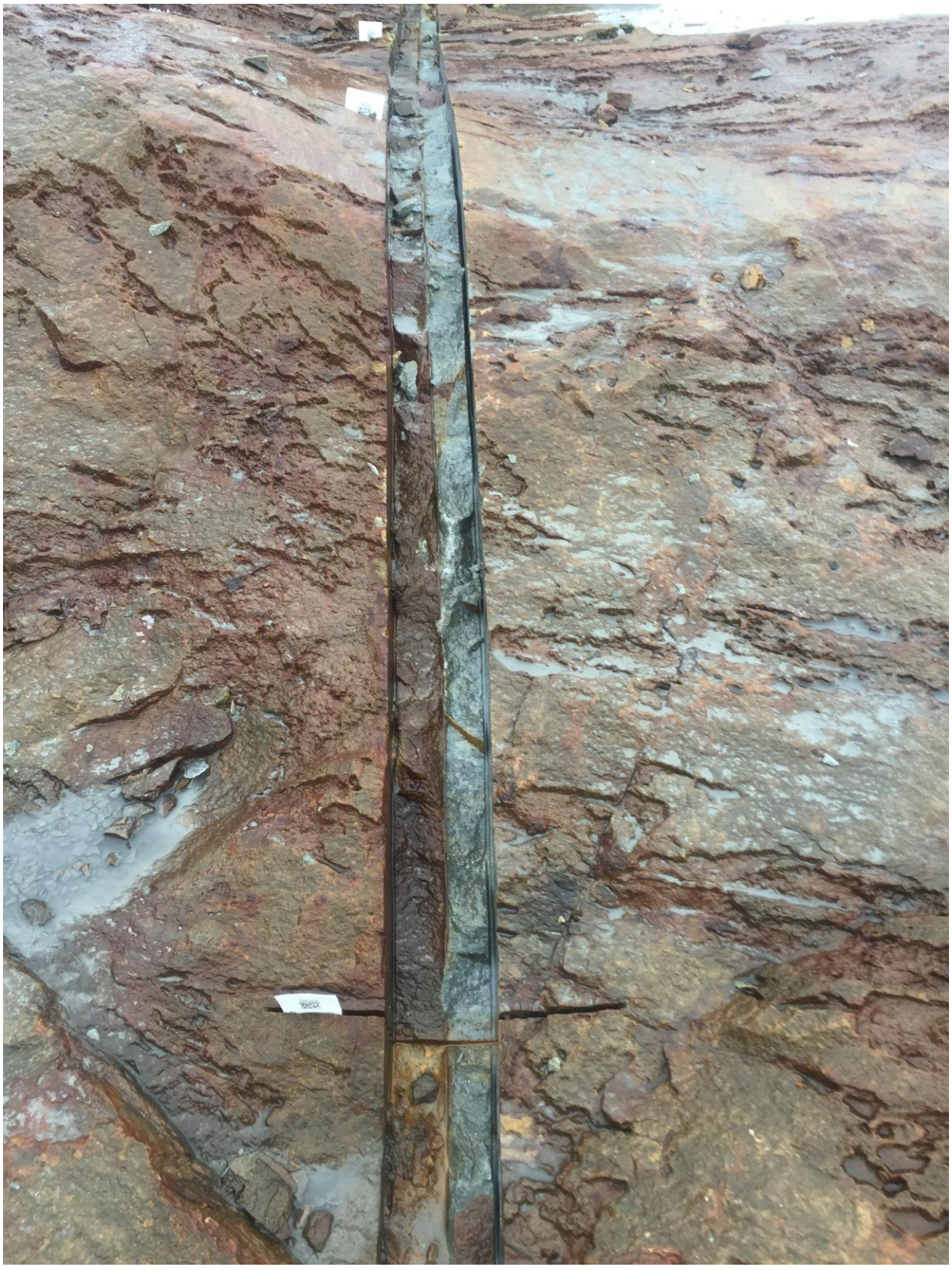
Author:
NTS Sheet(s):
Projection: **NAD 83, UTM Zone 16N**
Map File:

3 1.5 0 3 6
Meters


VOLVO
VOLVO


VOLVO
EC210L
VOLVO
CAT





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