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#### **TECHNICAL REPORT**

On the

## Melchett Property Mining Cells

253429 209081 201757 110656 110657

Thunder Bay Mining District Northwestern Ontario, Canada

**Prepared for:** 

Ben Kuzmich Thunder Bay, ON

Prepared by:

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June 20<sup>th</sup> 2019

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# 1.0 SUMMARY

Afzaal Pirzada of Geomap Exploration Inc. ("the author") and Alex Pleson of Pleson Geoscience were retained by Ben Kuzmich or "the Company") to explore the Melchett project and prepare a Technical Report and review on the Melchett Property ("the Property"). The report was prepared to for filing assessment work performed on the property in 2018.

The Melchett Property consists of 85 single cell mineral claims covering approximately 1,700 hectares' land located in Thunder Bay Mining District of Northwestern Ontario, Canada. The Melchett Lake property is situated north and east of Melchett Lake extending from Kapikotongwa Lake in the west to Relf Lake in the east. The property lies 110 km north of Geraldton and 60 km north of Nakina at approximately 50°45' north latitude and between B6O56' and 87002' west longitude. The Melchett Lake property is accessible via ski or float equipped aircraft from Nakina or Jellicoe to Kapikotongwa Lake, Melchett Lake or Relf Lake. Kuzmich has the option to owns 100% of the Mineral Claims by making cash payments, issuing shares and carrying out exploration work.

The Melchett Lake property lies within the English River Sub province of the Superior Province, which is of Achaean age. The property comprises part of the northern metavolcanic subzone of the Melchett metasedimentary-metavolcanic belt, which is some 5 km thick and extends for at least 50 km east-west. The belt consists of amphibolite grade schists and gneisses flanked by several phases of acidic to mafic intrusives. The schists and gneisses represent original mafic to acidic pyroclastic tuffs and flows with associated greywackes, siltstones and argillites with local iron formations. Metamorphism in the Melchett belt ranges from middle to upper amphibolite (almandine amphibolite). Local areas of partial anatexis are developed proximal to granitoids. The supracrustals are characterized by porphyroblasts of garnet, hornblende, and biotite. Schistosity surfaces with well-developed micaceous mineralogy often contain lineated to grabenschiefer hornblende prisms. Crenulation cleavages with fine micaceous layers were developed in the pelitic horizons.

Three zones of sulphide mineralization have been outlined on the property to date, the Nakina 1, Nakina 2 and Relf zones.

The historical exploration data available for the Property area includes geophysical surveys, geological mapping, trenching, sampling, and diamond core drilling. This work was carried out during the period from 1959 to 2018.

2008 Diamond drilling on the Property included one drill hole SB08-02 which was drilled to 688 m depth and its purpose was to test the down dip extension of a geochemical anomaly present in the immediate area of the Relf Zone as well as to attempt to determine the causative source of a strong conductor identified in drill hole SB07-01. The following provides a summary log of the drill hole.

- ➢ 0.00 − 0.25m Overburden
- $\blacktriangleright$  0.25m 688.00m dark grey to beige intermediate to felsic metavolcanics.

The program consisted of data compilation of all historical geophysical, geochemical, and geological information. During the program 22 grabs samples were taken for assay analysis of Cu, Zn, Pb, and Au.

The sampling approach for this work was to collect representative surface grab and channel samples, and drill core samples from each of the dominant rock type. The data presented in this report is based on the current and historical exploration work results, published assessment reports available from Kuzmich, Ontario MNDMF, the Geological Survey of Canada, and the Ontario Geological Survey.

Based on its favourable geological setting indicating surface and subsurface presence of base metals mineralization with gold potential, and the results of present study, it is concluded that the Property is a property of merit and possess a good potential for discovery of economic concentration of zinc, copper, silver and gold through further exploration and improvement of beneficiation processes. Good road access, availability of exploration and mining services in the vicinity makes it a worthy mineral exploration target.

#### Recommendations

In the qualified person's opinion, the character of the Melchett Property is sufficient to merit the following phased work program, where the second phase is contingent upon the results of the first phase.

#### Phase 1 - Geological Mapping, Trenching, Sampling, and Diamond Drilling

- Although much work as already been completed on digitizing maps/assay certificates, DDH, etc. Accurate spatial data is largely missing. Reconnaissance work will need to focus on gathering GPS data for trenches, cut lines, corner posts, DDH collars (if present, if not then drill pads), camps, trails, channel samples, etc.
- The diamond drill holes core should be re-boxed (if needed) and put into racks. A list of all drill holes and the total meterage should be compiled on site. Based on the drill logs, some portion should be sampled and/or resampled.
- We should verify as much of the main showings as possible (Relf, Nakina 1, Nakina 2). This would include grab and/or channel samples, as a quick sketch of the trenches.
- Based on the IP/Res data, anomalies E, F, and H are near surface and in the case of anomaly F, appears to outcrop. These require follow up trenching, and if significant assays are returned, then drilling.
- Some effort will have to be put into making this project either a fly-in (couple weeks at a time), or quad-in camp. It will be preferable to establish a quad trail which would split off the all-weather road SE of the property. With my mini-excavator, I suspect it would take approximately 8-12 days. Afterwards the machine will then be on the

property and would allow us to trench showings. Alternatively, construct an access trails from Melchett Lake to Relf Lake for easy traveling.

Estimated cost of this program is \$144,450 and will take 12 weeks to complete.

#### Phase 2 – Diamond Drilling

Subject to the positive results of Phase 1 work, a single, deep (600m) drill hole will be required to test the large, borehole EM anomaly which was outlined by the work done in 2007 by Stratabound Resources. The 2007 drill hole (KAR-09 a.k.a. SB07-01) tested the down hole extent of the Relf occurrence. Relf was shown to be open at depth (>600m) with a large untested conducted located to the west of the drill hole. However, the following year the company drilled another deep (>600m) hole 100m to the east (against the geophysics recommendations). Although this second drill hole (SB08-02) still his mineralization, it left the conductor untested.

Estimated cost of this program is \$300,000.

# 2.0 INTRODUCTION

#### 2.1 Purpose of Report

Afzaal Pirzada of Geomap Exploration Inc. ("the author") and Alexander Pleson of Pleson Geoscience were retained by Ben Kuzmich for the purposes of exploration, report and data management on the Melchett Property. This report is a reflection of the work done and has been prepared for filing for assessment credit with the MNDM.

## 2.2 Sources of Information

The present report is based on findings of September 2018 Property visit by the author, published assessment reports available from the Ministry of Northern Development, Mines and Forestry (MNDMF) Ontario, and published reports by the Ontario Geological Survey (OGS), the Geological Survey of Canada ("GSC"), various researches, websites, and personal observations during the Property visit. All consulted sources are listed in the References section. The sources of the maps are noted on the figures.

The authors carried out a Property visit on September 25<sup>th</sup>, 2018. The scope of Property visit was to verify historical information about: the Property geology, mineralization, and structures; past exploration work on the Property, Property accessibility and location; and location of sources of water, electricity and utilities.

The author was retained to complete this report in compliance with National Instrument 43-101 of the Canadian Securities Administrators ("NI 43-101") and the guidelines in Form 43-101 F1. The author is a "qualified person" within the meaning of National Instrument 43-101.

The information, opinions and conclusions contained herein are based on:

- Information available to the author at the time of preparation of this report;
- Assumptions, conditions, and qualifications as set forth in this report;
- Data, reports, and other information supplied by KUZMICH and other third-party sources; and
- The findings of historical exploration work on the Property by KUZMICH.

The author has no reason to doubt the reliability of the information provided by KUZMICH. The author reserves the right but will not be obliged to revise the report and conclusions if additional information becomes known subsequent to the date of this report.

# **3.0 RELIANCE ON OTHER EXPERTS**

For the purpose of the report the author has reviewed and relied on ownership information provided by Kuzmich which to the author's knowledge is correct. A limited search of tenure data on the MNDMF Database Online website on September 24, 2018 conforms to the data

supplied by Ben Kuzmich. However, the limited research by the author does not express a legal opinion as to the ownership status of the Melchett Property. This disclaimer applies to ownership information relating to the Property, and the information is available in Section 1 (Summary) and Section 4 (Property Description and Location) of this report.

# 4.0 **PROPERTY DESCRIPTION AND LOCATION**

The Melchett Lake property is comprised of 85 single cell mining claims covering approximately 1,700 hectares land located in Thunder bay Mining District, Northwestern Ontario, Canada (Figure 1). The property lies 110 km north of Geraldton and ated in Thunder bay Mining District km north of Nakina at approximately 50°45' north latitude and between B6O56' and 87002' west longitude. Locally the Property claims are situated north and east of Melchett Lake extending from Kapikotongwa Lake in the west to Relf Lake in the east (Figure 2).

The property claims were staked on ground by erecting physical posts as required by claim staking regulations in Ontario. In Ontario all mineral claims staked are subject to \$400 per unit worth of eligible assessment work to be undertaken before year 2 anniversary, followed by \$400 per unit per year thereafter. There is no past producing mine on the Property and there were no historical mineral resource or mineral reserve estimates documented.

There are remnants of an abandoned historical exploration camp and drill core which may require cleanup and can be an environmental liability for the Property. An exploration work permit (PR15-412660) was issued effective April 07, 2015 to March 06, 2018 for the Property. The permit was issued to carry out trenching, stripping, line-cutting, and drilling. Aboriginal communities potentially affected by the exploration permit activities were consulted by the Company during the exploration permit application process and at the beginning of the work program.

Claim data is summarized in the Table 1, while a map showing the claims is presented in Figure 2.

Claim	Claim	Legacy Claim		Claim Expiry
Number	Status	Number	Mining Claim Type	Date
274470	Active	4283415	Single Cell Mining Claim	3-Mar-19
136959	Active	4283415	Single Cell Mining Claim	3-Mar-19
343778	Active	4283415	Single Cell Mining Claim	3-Mar-19
343779	Active	4283415	Single Cell Mining Claim	3-Mar-19
110657	Active	4283415	Single Cell Mining Claim	3-Mar-19
274469	Active	4283415	Single Cell Mining Claim	3-Mar-19
110655	Active	4283415	Single Cell Mining Claim	3-Mar-19
110656	Active	4283415	Single Cell Mining Claim	3-Mar-19

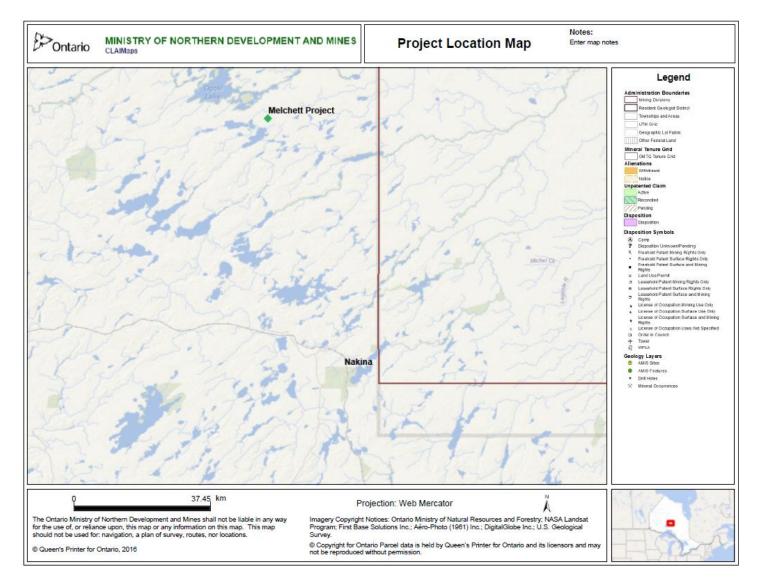
#### Table 1: Melchett Lake Property Claim List, Ogoki Lake Area

Claim Number	Claim Status	Legacy Claim Number	Mining Claim Type	Claim Expiry Date
181626	Active	4283415	Single Cell Mining Claim	3-Mar-19
291566	Active	4283415	Single Cell Mining Claim	3-Mar-19
157123	Active	4283415	Single Cell Mining Claim	3-Mar-19
136958	Active	4283415	Single Cell Mining Claim	3-Mar-19
201757	Active	4283415	Single Cell Mining Claim	3-Mar-19
189071	Active	4283415	Single Cell Mining Claim	3-Mar-19
304978	Active	4283415	Single Cell Mining Claim	3-Mar-19
136957	Active	4283415	Single Cell Mining Claim	3-Mar-19
201756	Active	4283415	Single Cell Mining Claim	3-Mar-19
209081	Active	4283415	Single Cell Mining Claim	3-Mar-19
209082	Active	4283415	Single Cell Mining Claim	3-Mar-19
181627	Active	4283415	Single Cell Mining Claim	3-Mar-19
292884	Active	4283415, 4283416	Single Cell Mining Claim	3-Mar-19
188383	Active	4283415, 4283416	Single Cell Mining Claim	3-Mar-19
180922	Active	4283415, 4283416	Single Cell Mining Claim	3-Mar-19
141816	Active	4283415, 4283416,	Single Cell Mining Claim	3-Mar-19
311093	Active	4283415, 4283416	Single Cell Mining Claim	3-Mar-19
124355	Active	4283410	Single Cell Mining Claim	3-Mar-19
141815	Active	4283410	Single Cell Mining Claim	3-Mar-19
311091	Active	4283410	Single Cell Mining Claim	3-Mar-19
292885	Active	4283410	Single Cell Mining Claim	3-Mar-19
304269		4283410	Single Cell Mining Claim	3-Mar-19
180921	Active Active	4283416	Single Cell Mining Claim	3-Mar-19
141814	Active	4283416	Single Cell Mining Claim	3-Mar-19
255687	Active	4283416	Single Cell Mining Claim	3-Mar-19
207885	Active	4283416	Single Cell Mining Claim	3-Mar-19
311092	Active	4283410	Single Cell Mining Claim	3-Mar-19
211092	ALLIVE			5-ividi-19
283280	Active	4283416, 4283417	Single Cell Mining Claim	3-Mar-19
107568	Active	4283416, 4283417	Single Cell Mining Claim	3-Mar-19
235277	Active	4283416, 4283417	Single Cell Mining Claim	3-Mar-19
303478	Active	4283416, 4283417	Single Cell Mining Claim	3-Mar-19

		Legacy		
Claim	Claim	Claim		Claim Expiry
Number	Status	Number	Mining Claim Type	Date
		4283416,		
320169	Active	4283417	Single Cell Mining Claim	3-Mar-19
180690	Active	4283417	Single Cell Mining Claim	3-Mar-19
235276	Active	4283417	Single Cell Mining Claim	3-Mar-19
342221	Active	4283417	Single Cell Mining Claim	3-Mar-19
187470	Active	4283417	Single Cell Mining Claim	3-Mar-19
342239	Active	4283417	Single Cell Mining Claim	3-Mar-19
135488	Active	4283417	Single Cell Mining Claim	3-Mar-19
291325	Active	4283417	Single Cell Mining Claim	3-Mar-19
107569	Active	4283417	Single Cell Mining Claim	3-Mar-19
180706	Active	4283417	Single Cell Mining Claim	3-Mar-19
		4283417,		
107585	Active	4283419	Single Cell Mining Claim	3-Mar-19
309120	Active	4283419	Single Cell Mining Claim	3-Mar-19
199666	Active	4283417	Single Cell Mining Claim	3-Mar-19
291324	Active	4283417	Single Cell Mining Claim	3-Mar-19
199667	Active	4283417	Single Cell Mining Claim	3-Mar-19
123501	Active	4283417	Single Cell Mining Claim	3-Mar-19
		4283417,		
254267	Active	4283419	Single Cell Mining Claim	3-Mar-19
268608	Active	4283419	Single Cell Mining Claim	3-Mar-19
		4283417,		
216542	Active	4283418	Single Cell Mining Claim	3-Mar-19
		4283417,		
236632	Active	4283418	Single Cell Mining Claim	3-Mar-19
		4283417,		
135281	Active	4283418	Single Cell Mining Claim	3-Mar-19
		4283417,		
342215	Active	4283418	Single Cell Mining Claim	3-Mar-19
		4283417,		
		4283418,		
181231	Active	4283419	Single Cell Mining Claim	3-Mar-19
176288	Active	4283419	Single Cell Mining Claim	3-Mar-19
342200	Active	4283418	Single Cell Mining Claim	3-Mar-19
103699	Active	4283418	Single Cell Mining Claim	3-Mar-19
253429	Active	4283418	Single Cell Mining Claim	3-Mar-19
291144	Active	4283418	Single Cell Mining Claim	3-Mar-19
		4283418,	-	
161754	Active	4283419	Single Cell Mining Claim	3-Mar-19
309119	Active	4283419	Single Cell Mining Claim	3-Mar-19

Claim Number	Claim Status	Legacy Claim Number	Mining Claim Type	Claim Expiry Date
253411	Active	4283418	Single Cell Mining Claim	3-Mar-19
330341	Active	4283418	Single Cell Mining Claim	3-Mar-19
181230	Active	4283418	Single Cell Mining Claim	3-Mar-19
342214	Active	4283418	Single Cell Mining Claim	3-Mar-19
123294	Active	4283418, 4283419	Single Cell Mining Claim	3-Mar-19
213123	Active	4283419	Single Cell Mining Claim	3-Mar-19
330340	Active	4283418	Single Cell Mining Claim	3-Mar-19
123264	Active	4283418	Single Cell Mining Claim	3-Mar-19
235122	Active	4283418	Single Cell Mining Claim	3-Mar-19
282566	Active	4283418	Single Cell Mining Claim	3-Mar-19
161753	Active	4283418	Single Cell Mining Claim	3-Mar-19
253410	Active	4283418	Single Cell Mining Claim	3-Mar-19
167770	Active	4283418	Single Cell Mining Claim	3-Mar-19
291143	Active	4283418	Single Cell Mining Claim	3-Mar-19
235123	Active	4283418	Single Cell Mining Claim	3-Mar-19
342216	Active	4283418	Single Cell Mining Claim	3-Mar-19

#### Figure 1: Property Location Map



#### Figure 2: Mineral Claim Map

E	> Onta	rio <sup>MIN</sup>		F NORTI Map View		EVELOP	MENT A		S	Melch	ett La	ke Pro	perty	No	otes:	
297	298	299	300	281	282	283	284	285	) 286	287	288	289	290	291	252	Legend Provincial Grid Cell
312	318	319 14A	320	301	302	303	364	305	305	307	308	309	310	311	312	Pending Unavailable Mining Claim
337	338	339	340.5	321	322	323	324	325	326	327	328	329	330	331	332	Mining Lease
357	274469 358	157123 359	136957 360	<sup>341</sup> 292884	342 1243 55	343 180921	3 283 280 344	180690 345	13 5488 346	199666 347	216542 348	3 <b>42200</b> 349	350 253 411	351 330340	352	Surface and Mining Rights Mining Licence of Occupation
377	378 110655	379 136958	<sup>380</sup> 201756	361 188383	<sup>362</sup> 141815	<sup>363</sup> 141814	364 107568	365 235276	<sup>366</sup> 291325	<sup>367</sup> 291324	<sup>368</sup> 236632	369 103 699	370 330341	<sup>371</sup> 123264	372	Surface Rights Only Mining Rights Only Surface and Mining Rights
397	<sup>398</sup> 110656 <i>TE</i>	399 <b>201757</b> 4283415	400 209081	381 180922	382 311091 7B4	383 <b>255687</b> 283416	384 235277	385 342221	386 107569 TB4283	<sup>387</sup> 199667 417	135281	389 253 429 Ti	390 <b>181230</b> 428341	391 235122 1	392	Mining Patent Surface Rights Only Mining Rights Only
017	018 181626	019 189071	020 209082	001 141816	002 292885	003 207885	004 303 478	005 187470	006 180706	007 123501	008 3 <b>42215</b>	009 291144	010 342214	011 282566	012	Surface and Mining Rights
037	<sup>038</sup> 291566	039 304978	040 181627	021 311093	<sup>022</sup> 304269	023 311092	024 320169	025 3 <b>42239</b>	026 107585	<sup>027</sup> 254267	421	10L	030 123294	031 161753	032	Mining Claim - History Mining Land Tenure - History Mining Division
TE	NNANT	LAKEA	REA	041	DURE	R LAKE	AREA	.045	046 309120	047 268608	842834 176288 048	and the second	050 213123	051	052	MNDM Townships and Areas
077	42 078	079	980	Q61 Zone 16	062	063	064	065	066	067	968	069	070 504360	071 504365 31690	072 504367	Non-Mining Land Tenure Patent, Surface Rights Only Patent, Mining Rights Only
997	2098	099	100	500000E 5629890N	082	083	084	085	086	087	088	- 089	090 5043.63	091 504366	092 504361	Patent, Surface and Mining R
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# 5.0 ACCESS, CLIMATE, PHYSIOGRAPHY, LOCAL RESOURCES, AND INFRASTRUCTURE

## 5.1 Access

The Melchett Lake property is accessible via ski or float equipped aircraft from Nakina or Jellicoe to Kapikotongwa Lake, Melchett Lake or Relf Lake. At present, an all-weather road owned by Dofasco exists between Nakina and that company's inactive iron ore mine site at Melchett Lake. To the point of most likely tum off from this road to the property, the distance to Nakina is approximately 90km. From this tum off to the Relf mineralized zone, is approximately 8km.



Photo: Float plane landing dock at Relf Lake

## 5.2 Climate

The Property area is part of Greenstone community which experiences a humid continental climate, with long, brutally cold winters and warm summers. The highest temperature ever recorded was 40.0 °C (104 °F) on July 11 & 12, 1936 (at Longlac). The coldest temperature ever recorded was -50.2 °C (-58.4 °F) on 31 January 1996 (at Geraldton Airport). Christmas of 2017 brought bitterly cold weather to the region, with nearly a week of temperatures near -50°C. The summer period is approximately 97 days in length extending from the beginning of June to the beginning of September; fall lasts about 60 days and extends to November. The winter season lasts approximately 6 months extending from November through to May. Although the area normally has about six months of snow-free conditions, exploration and mining work can be carried out throughout the year.

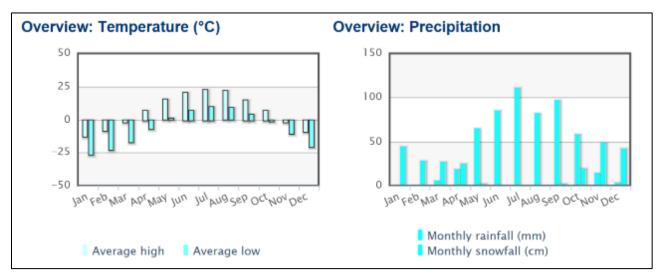


Figure 3: Climate Data

## 5.3 Physiography

The relief on the property is generally subdued, with areas of moderate relief. These areas are represented by outcrops which may range between 5 and 35m in relief with commonly steeply sloping faces on the north, and ridges of glacial deposits. Subvertical to sloping cliffs up to 15 meters high are found on the north and northeast facing margins of bedrock highs. Location of bedrock highs is apparently controlled by proximity to lineaments, glacial drift orientation and occasionally lithological parameters. The latter is evidenced by distinct northwest and north trending patchy ridges dominated by late Precambrian diabase dykes. A number of elongated, discontinuous sinuous ridges extending across the Melchert property consist solely of glacial debris.

The drainage pattern trends south and southwest, which is parallel to the direction of the last glaciation to affect the area. Although elongate finger lakes are common, many of the streams and lakes simply wrap around bedrock and glacial ridges. Many lakes and streams are modified by an abundance of beaver dams. Recent sedimentation in the lakes, especially the predominance of sandy spits on the northeast shoreline of Kapikotongwa and the corresponding bedrock cliffs surrounding the northern shores of Melchert Lake, shows a distinct relationship to the local availability of glacially derived detritus.

The vegetation on the property is controlled by both lithological and glaciological parameters. The glacial ridges support mixed forests of fir, poplar, birch, spruce and jack pine, whereas the lowlands are covered by sparse and sphagnum mosses. The bogs and wetlands support alder and cedar. The outcrops are commonly covered by deadfall from the vegetation in the surrounding area.



Photo: Aerial view of the Melchette Property area physiography.

#### 5.4 Local Resources and Infrastructure

The property is part of Greenstone area which is an amalgamated town in the Province of Ontario with a population of 4,636 according to the 2016 Canadian census. Greenstone Town stretches along Highway 11 from Lake Nipigon to Longlac and covers 2,767.19 square kilometres (1,068.42 sq mi). The town was formed in 2001, by combining the former Townships of Beardmore and Nakina, the Towns of Geraldton and Longlac with large unincorporated portions of Unorganized Thunder Bay District.

Town of Geraldton has a population of 1893 (2011c). Geraldton is situated in northwestern Ontario on the Canadian National Railway, 282 km northeast of Thunder Bay. Established in the early 1930s as a consequence of the Little Long Lac gold rush. At the height of the boom in the later 1930s, Geraldton acted as a service centre to a dozen gold-mining camps as well as to the developing pulpwood industry in the area.

The city of Thunder Bay, located about 300 kilometers to the southwest of the Property has most of the required supplies for exploration work including drilling and geophysical survey companies, grocery stores, hardware stores, exploration equipment supply stores, restaurants, hotels, and a hospital. The population of the city of Thunder Bay was 109,140 people in 2006 (Statistics Canada, www.statcan.gc.ca). Many junior exploration and mining companies are based in Thunder Bay, and thus the city is a source of skilled mining labour.

There are several lakes, rivers and creeks in and around the Melchett Property area which can be a source of water. There is no power in the vicinity of the Proprety. An onsite camp will be required for long term exploration work such as drilling, geophysical surveys and geochemical sampling.

(Source: <u>http://www.thunderbaydirect.info/about thunder bay</u> <u>http://www.thunderbay.ca/Doing Business/About Thunder Bay.htm</u> <u>https://www.thecanadianencyclopedia.ca/en/article/geraldton</u>)

# 6.0 HISTORY

## 6.1 Exploration Work From 1959-1997

Data on file with the Ontario Geological Survey (OGS) assessment library indicates that the first reported work in the Melchert Lake area was carried out in 1959. Subsequent to this time work has been ongoing albeit sporadically. Listed below is a summary of work on file with the OGS as it applies to the Melchert property.

Year	Operator	Work
1959-63	Kerr-Lund and Little Long Lac	discovery of zinc mineralization
	Mines Option	<ul> <li>trenching, geophysics (S.P.) and geochemistry</li> </ul>
		<ul> <li>drilling 6 holes at Relf Lake</li> </ul>
1964	Shawmine Exploration	Relf Zone exploration
		• trenching main zone 45 feet wide
		<ul> <li>average results: 9.43 oz/t Ag, 13% Zn, 1.2% Pb, 0.26% Cu</li> </ul>
		<ul> <li>best results: 16.4 oz/t Ag, 19.1% Zn,</li> </ul>
		2.2% Pb, 0.40% Cu
		drilling of four holes
1967-68	Nakina Mines Ltd.	<ul> <li>magnetics and EM, geochemistry</li> <li>best results: 0.84 oz/t Au, 14.85% Zn</li> </ul>
1968-70	Chimo Gold Mines	magnetics and EM at Relf Zone
		<ul> <li>no conductors, magnetically flat</li> </ul>
		<ul> <li>were unable to join Nakina Mines zones and Relf Zone</li> </ul>
1975	Falconbridge	airborne magnetics and EM
		<ul> <li>numerous (40) conductors but none related to known mineralization</li> </ul>
1978	Cominco	<ul> <li>magnetics, I.P. and geologic mapping</li> </ul>
		• drilled 10 holes on I.P. anomalies
		<ul> <li>intersected disseminated pyrite</li> </ul>
		did not drill known sulphide zones
1983-87	Kerr Adison Mines Ltd.	<ul> <li>magnetics, VLF, geologic mapping, whole rock geochem, soil geochem</li> </ul>

		• diamond drilling, down hole EM
1997	Redbird Gold Corporation	<ul> <li>magnetics and HLEM (horizontal loop electromagnetics)</li> <li>results indicate low mag and no conductors on the eastern part; and high mag plus multiple conductors on the west side</li> </ul>

## 6.2 2007 Drill Program

In 2007, a single deep (619 m) drill hole (SB07-01) tested the downward extension of mineralization associated with the Relf zone. Diamond drilling was performed by Boart-Longyear of Haileybury, Ontario, between October 22 and November 10, 2007. The drill core size used was BQ. The drill operation required the establishment of a base camp on Relf Lake which was serviced by fixed wing aircraft (Leuenberger Air Services) from Nakina. The drill mob and demob was serviced by helicopter (Great Slave Helicopters).

2007 drilling results indicated that mineralization to be continuous and open at depth. Down hole EM survey outlined a 'strong conductive anomaly' past the current extent of drilling. This drill hole ended in a 7m wide, highly silicified unit which is believed to be associated with the untested anomaly.

Length (m)	Zone	Au (g/t)	Ag (g/t)	Zn (%)	Cu (%)	Pb (%)
1.67 *	Nakina		12	2.37		
0.61*	Nakina	0.6	24	8.25		1.08
Grab	Nakina	9.3	29	14.85	0.23	
Grab	Nakina	26.1	123	0.15	1.65	
Grab	Nakina	0.9	60	2.97	0.05	5.5
Grab	Nakina	0.3	12	7.65	0.10	
6.65*	Relf			0.84		
13.71**	Relf		293	13.0	0.26	1.2
Grab **	Relf		510	19.1	0.40	2.2
Grab	Relf	1.7	160	6.19	0.70	1.02
Grab	Relf	0.1	58	10.3	0.20	0.19

(\* values from diamond drilling, \*\* values from trenching)

## 6.3 2008 Drill Program

In 2008 another drill hole was drilled on the Property by Layne Christensen of Sudbury, Ontario. The drill core size used was BQ. Hole SB08-02 was drilled to 688 m depth and its purpose was to test the down dip extension of a geochemical anomaly present in the immediate area of the Relf Zone as well as to attempt to determine the causative source of a strong conductor identified in drill hole SB07-01. GPS location of drill collar is 503728-5622022. The dip of the hole was begun at 80° on an azimuth of 180°.

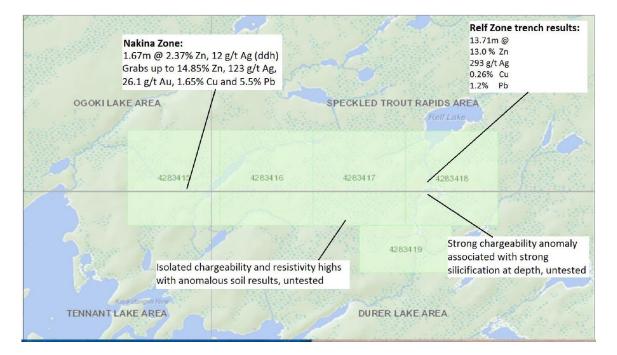
#### Description of Drill Hole

Depth to bedrock in this hole was 0.25m. The following provides a summary log of the drill hole.

- ➢ 0.00 − 0.25m Overburden
- ▶ 0.25m 688.00m dark grey to beige intermediate to felsic metavolcanics.

#### Drill Core Recovery

Core recovery was in general very good, the average recovery obtained during the 2008 drilling program was 99.5% influenced by moderate to intense fracturing of rock along small intervals. So competent was the rock that several 3m runs returned continuous unbroken sections of core.





Whole Rock Geochemistry - Core Sampling & Analyses

Drill hole data indicated that the Relf North Zone, which is known from previous studies to be of limited extent, is present but subdued in response. Importantly the intensely altered/mineralized zone referred to as the Relf South Zone is well defined. It is this stratigraphy that was the target in this drill hole and clearly anomalous concentrations of Zn are found across the entire 140m thickness of this unit. The rock geochemistry continues to trace the alteration and mineralization characteristically associated with volcanogenic sedimentary massive sulphide occurrences.

#### **Down Hole Geophysics**

One of the primary objectives of the 2008 drill program was to investigate the causative source of a conductor identified in hole SB07-01 located approximately 100m east of the present hole. That conductor (strong 20 channel) was noted at the bottom of that hole (6l3m) with the conductive zone believed to be approximately 100m to the east of the hole.



Photo: Disseminated sulphides in historical drill core



Photo; Historical drill hole location on the Property.

#### DISCUSSION OF RESULTS

The 2008 drilling provided important information for further exploration programs. Firstly, descriptively, the drill hole intersected the down dip extension, as projected, of the "mineralized horizon"; being the unit which reported, at surface, highly anomalous whole rock geochemical indicators characteristically associated with volcanogenic massive sulphides. Secondly, the whole rock geochemical data returned from the sampling of SB08-02 strongly indicate that the alteration patterns reported at surface and drill holes cutting the "mineralized horizon" up dip of SB08-02 will be shown to be not only present in SB08-02 but where both alteration intensity and concentration of economic sulphides (sphalerite, galena and chalcopyrite) are greater than either the surface samples or in the adjacent hole SB07-01.

# 7.0 GEOLOGICAL SETTING AND MINERALIZATION

## 7.1 Regional Geology

The Melchett Lake property lies within the English River Sub province of the Superior Province, which is of Achaean age. The property comprises part of the northern metavolcanic subzone of the Melchett metasedimentary-metavolcanic belt, which is some 5 km thick and extends for at least 50 km east-west. The belt consists of amphibolite grade schists and gneisses flanked by several phases of acidic to mafic intrusives. The schists and gneisses represent original mafic to acidic pyroclastic tuffs and flows with associated greywackes, siltstones and argillites with local iron formations.

The Melchett Lake metavolcanic assemblage has been estimated to contain approximately 10% mafic rocks, 80% intermediate rocks and 10% acidic rocks, and forms a northwards younging sequence with a 500 m thickness of massive and pillowed mafic volcanic flows grading upwards into a 1500 m thickness of a well layered, thickly bedded sequence of intermediate tuffs and pyroclastics. Above these lies a unit of felsic tuffbreccias and flows, this is extensively mineralized with pyrite and some sphalerite. This unit is estimated to reach a thickness of 700 m in the centre of the property but thins markedly both to the east and west to a few metres in thickness over a distance of some 15 km in each direction. A thickness of between 750 and 900m of intermediate tuffs, breccias and flows overlies this sequence, and marks the onset of a new volcanic cycle.

The supracrustal succession exhibits easterly trending schistosity with steeply to moderately dipping linear structures and has clearly been strongly folded. Several lineaments can be interpreted from aerial photographs, but the consistent outcrop pattern of the late diabase dykes suggest a minimum of late faulting. Many of the observed lineaments may reflect only erosion resulting from the latest glaciation.

Several lineaments can be interpreted from air photographs but consistent outcrop series of diabase dykes suggests a minimum of late faulting. The northeast trending lineament through Kapikotongwa River offsets diabase dykes in a dextral sense for a distance of 300 meters. Many lineaments may reflect only the latest glaciation.

Metamorphism in the Melchett belt ranges from middle to upper amphibolite (almandine amphibolite). Local areas of partial anatexis are developed proximal to granitoids. The supracrustals are characterized by porphyroblasts of garnet, hornblende, and biotite. Schistosity surfaces with well-developed micaceous mineralogy often contain lineated to grabenschiefer hornblende prisms. Crenulation cleavages with fine micaceous layers were developed in the pelitic horizons.



Figure 4: Regional geological map

## 7.2 Property Geology

The rocks on the Melchett Lake property consist of an east-west trending assemblage of schists and gneisses derived from mafic to acidic volcanics and associated epiclastic deposits. The mafic to intermediate rocks are now massive to foliated homblende- feldspar(-garnet) schists with some fragments in which clast sizes may reach 45cm x 15cm and abundances may reach between 40% and 80%. These fragments probably represent mafic lapilli tuffs. The acidic volcanics are now massive to schistose quartz- feldspar (-sericite) schists and gneisses, often with siliceous and micaceous layers alternating, and fragmental units containing quartz-feldspar-garnet clasts of up to 40cm x l0cm in size. Some presumed lapilli reach up to 100cm in length, but the degree of structural stretching is unknown.

A few strongly chloritised and schistose mafic dykes occur within the schists and gneisses at Melchett Lake. These are generally deformed, and concordant or semi- concordant to the schistosity of their hosts. There are also pegmatitc's and quartz veins up to 35cm in width intruding various lithologies on the Melchett Lake property, and late (Keweenawan?) diabase dykes of three types cut across the Archaean supracrustal rocks.

Fold axes and rare facing orientations suggest that the rocks on the Melchett Lake property young northwards and form the northern limb of a large easterly double plunging antiform. Later north-south folding and brittle fault features are indicated by crenulations and offsets of strata.

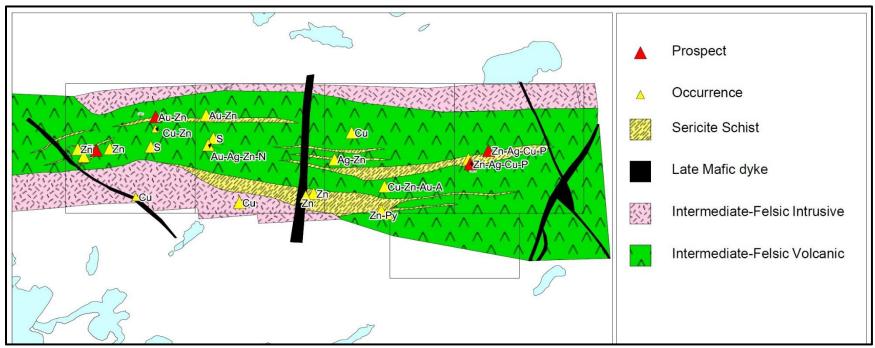


Figure: Property geology with historical soil geochem anomalies.



#### 7.3 Mineralization

Three zones of sulphide mineralization have been outlined on the property to date, the Nakina 1, Nakina 2 and Relf zones. Nakina 1 extends for some 1.5km east-west, with the central 300m containing zinc (sphalerite) and silver mineralization and is developed in acidic to intermediate metavolcanic schists with abundant pyrite, sericite and chloride alteration. Nakina 2 has been defined over approximately 800m, with primarily gold mineralization recorded in trenches, and is developed in acidic to intermediate metavolcanic schists with abundant sericite alteration, minor chloritisation and disseminated pyrite. The Relf zone extends for approximately 1.3km east-west, with zinc-silver (with minor copper and lead) mineralization in intermediate metavolcanic schists occurring over the western 300m.

The Relf and Nakina 1 zones, separated by approximately 5km, are believed to lie at the same stratigraphic horizon, with the Nakina 2 zone some 400m higher in the stratigraphy than Nakina



1. A major strike-slip fault trending NW with an interpreted dextral movement of 500m cuts the mineralized sequence between the Nakina 1 and Relf zones.

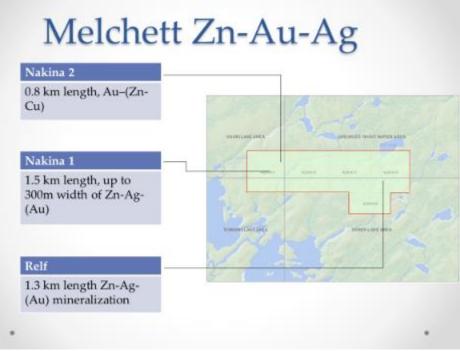
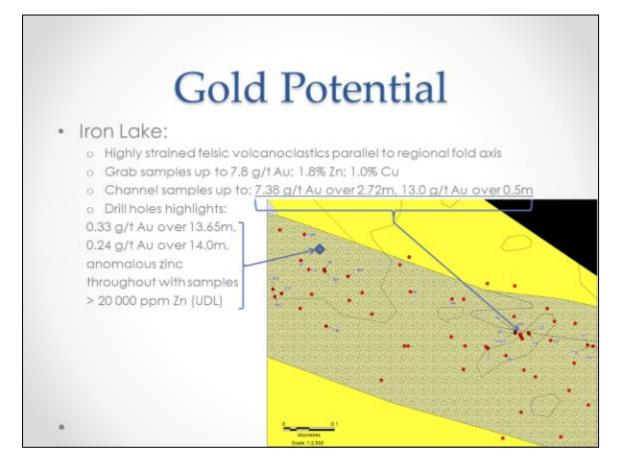


Figure: Historical Mineralization shown on the Property



## 8.0 DEPOSIT TYPES

Based on the property geology and mineralization, the most probable deposit model for the property is volcanogenic massive sulphide (VMS) deposit type.

Volcanogenic massive sulphide (VMS) deposits are also known as volcanic-associated, volcanichosted, and volcano-sedimentary-hosted massive sulphide deposits. They typically occur as lenses of polymetallic massive sulphide that form at or near the seafloor in submarine volcanic environments. They form from metal-enriched fluids associated with seafloor hydrothermal convection. Their immediate host rocks can be either volcanic or sedimentary. VMS deposits are major sources of Zn, Cu, Pb, Ag and Au, and significant sources for Co, Sn, Se, Mn, Cd, In, Bi, Te, Ga and Ge. Some also contain significant amounts of As, Sb and Hg. Historically, they account for 27% of Canada's Cu production, 49% of its Zn, 20% of it's Pb, 40% of its Ag and 3% of its Au. Because of their polymetallic content, VMS deposits continue to be one of the best deposit types for security against fluctuating prices of different metals (Galley et. al., 2007). These deposit types are also known as volcanic-exhalative deposits in contrast to the similar SEDEX (sedimentary exhalative) deposits which are formed in sedimentary sequences.

(Source: http://www.geocities.com/ijkuk/ik model.htm).

As shown in the figure below most VMS deposits have two components. There is typically a moundshaped to tabular, stratabound body composed principally of massive (>40%) sulphide, quartz and subordinate phyllosilicates and iron oxide minerals and altered silicate wallrock. These stratabound bodies are typically underlain by discordant to semi-concordant stockwork veins and disseminated sulphides. The stockwork vein systems, or "pipes", are enveloped in distinctive alteration halos, which may extend into the hanging-wall strata above the VMS deposit (Galley et. al., 2007).

The most common feature among all types of VMS deposits is that they are formed in extensional tectonic settings, including both oceanic seafloor spreading and arc environments (Figure 6). Modern seafloor VMS deposits are recognized in both oceanic spreading ridge and arc environments (Herzig and Hannington, 1995), but deposits that are still preserved in the geological record formed mainly in oceanic and continental nascent-arc, rifted arc and back-arc settings (Allen et al. 2002; Franklin et al. 1998) (Figure 7). This is because during subduction-driven tectonic activity much of the ancient ocean-floor is subducted, leaving only a few ophiolite suites as remnants of obducted ocean-floor.

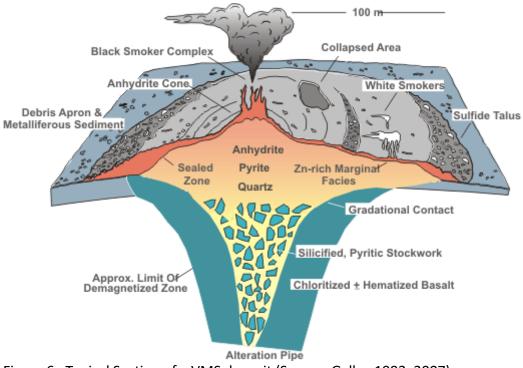


Figure 6: Typical Section of a VMS deposit (Source: Galley 1993, 2007)

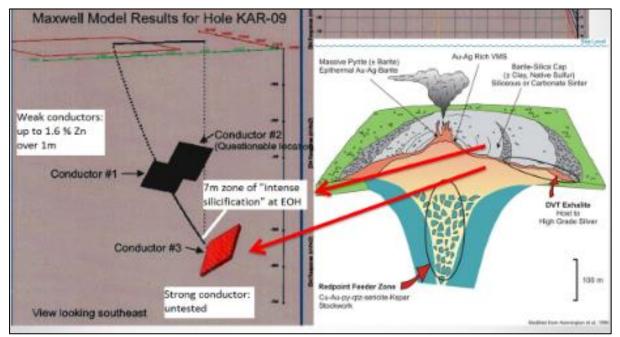


Figure: Deposit Model based on 2007-08 drilling

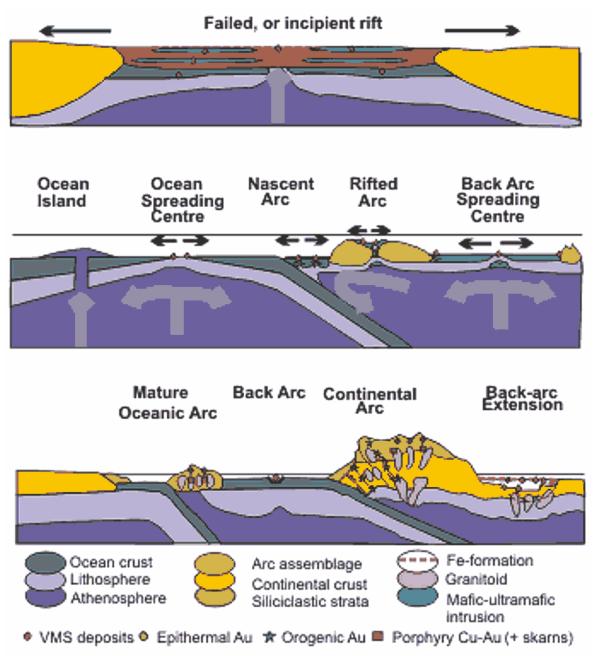


Figure 7: Three principal tectonic environments of VMS deposits (Galley et. al., 2007).

#### **Exploration Criteria:**

The following are the major exploration criteria for Canadian VMS deposits and key attributes of VMS-hosting volcanic complexes.

 The deposits occur in volcanic belts from Late Archean to Eocene in which extension is indicated by relatively primitive (tholeiitic to transitional) bimodal volcanism in nascent arc, rifted arc and back-arc environments. Some obducted seafloor-spreading centers and rifted continental margins are also prospective.

- VMS formation occurs during periods of major ocean-closing and terrane accretion. This includes the Late Archean (2.8-2.69 Ga), Paleoproterozoic (1.92-1.87 Ga), Cambro-Ordovician (500-450 Ma), Devono-Mississippian (370-340 Ma), and Early Jurassic (200-180 Ma).
- 3. In effusive flow-dominated settings in oceanic arc and continental margin arcs, VMS can be associated with 15-25 km-long mafic to composite synvolcanic intrusions. These intrusions are Na-rich and depleted in low field strength elements and have low airborne radiometric responses but commonly show magnetic halos due to surrounding zones of high-temperature fluid interaction. Exploration should be focused up to 3000 m upsection in the comagmatic volcanic suites in the hanging wall of the intrusions. Rhyolites with high Zr (>300 ppm), negative chondrite-normalized Eu anomalies, (La/Yb)N<7, (Gd/Yb)N<2 and Y/Zr< 7 define high-temperature (>900oC) felsic volcanic environments favourable for VMS formation. The presence of synvolcanic dike swarms and exhalite horizons are indicative of areas of high paleo-heat flow.
- 4. In continental back arc, bimodal siliciclastic-dominated settings aeromagnetic surveys can be used to identify areally extensive Fe-formations to target hydrothermally active paleoseafloor horizons. Variations in the mineralogy of the iron formations and varying element ratios can serve as vectors toward high-temperature hydrothermal centers. Volumetrically minor sill-dike complexes also may identify higher temperature hydrothermal centers.
- 5. In upper greenschist-amphibolite metamorphic terranes distinctive, coarse-grained mineral suites commonly define VMS alteration zones. These include chloritoid, garnet, staurolite, kyanite, andalusite, phlogopite and gahnite. More aluminous mineral assemblages commonly occur closer to a high temperature alteration pipe. Metamorphic mineral chemistry, such as Fe/Zn ratio of staurolite, is also a vector to ore. These largely refractory minerals have a high survival rate in surficial sediments, and can be used through heavy mineral separation as further exploration guides in till-covered areas.
- 6. Mineralogy and chemistry can be used to identify large-scale hydrothermal alteration systems in which clusters of VMS deposits may form. Broad zones of semiconformable alteration will show increases in Ca-Si (epidotization-silicification), Ca-Si-Fe (actinolite-clinozoisite-magnetite), Na (spilitization), or K-Mg (mixed chlorite-sericite±K-spar). Proximal alteration associated with discordant sulphide-silicate stockwork vein systems includes chlorite-quartz-sulphide- or sericite-quartz-pyrite±aluminosilicate-rich assemblages and is typically strongly depleted in Na and Ca due to high-temperature feldspar destruction. In addition to geochemical analysis, X-ray diffraction, PIMA and oxygen isotope analysis can assist in vectoring towards higher-temperature proximal alteration zones and associated VMS mineralization. Although PIMA has been used most effectively on alteration systems that contain minerals with a high reflective index, there has been some success in identifying greenschist facies minerals within Precambrian VMS hydrothermal systems (Galley et. al., 2007).

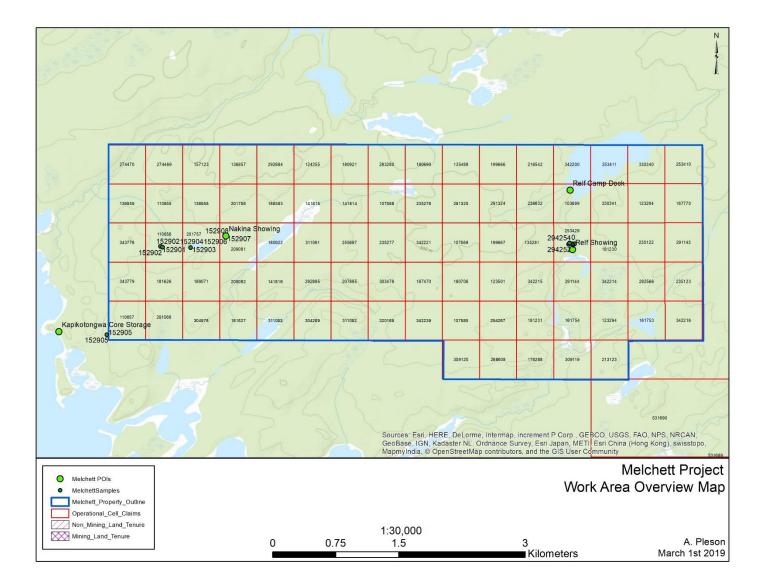
## 9.0 EXPLORATION

Work on the project was carried out from March 10<sup>th</sup> 2018 to January 14<sup>th</sup> 2019. The completed work included prospecting, trail cutting, data compilation, core storage inventory, and infrastructure analysis. The work completed is outlined in Appendix I. The prospecting completed confirmed the presence of zinc mineralization at the Relf showing. The data compilation has provided an invaluable insight into the structural and style of zinc mineralization on the property. Table 3 lists the samples taken from both the Relf and Nakina Zones with the work area and samples outlined in figures 9.1, 9.2, and 9.3.

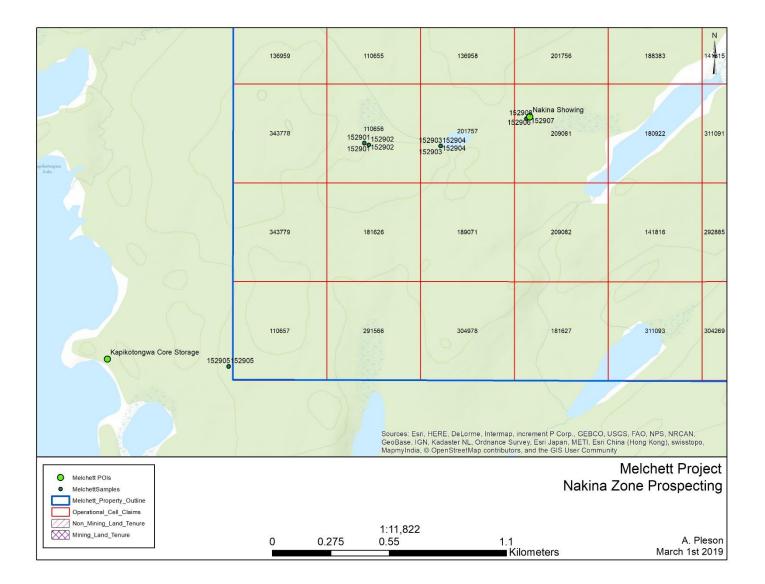
The sampling project was completed in two phases. Phase 1 focused on the Nakina Trend from August 5<sup>th</sup> to 9<sup>th</sup> 2018, while Phase 2 focused on the Relf Showing on September 25<sup>th</sup> 2018. This campaign was successful in determining the nature of mineralization and location of the Relf Showing as indicated in the UTM coordinates in the table below. The sampling program defined a mineralized trend associated to the MDI location of the Nakina Zone. However, no historic work was discovered where the MDI coordinate is located or within a 100m radius. More work will need to be completed to locate this area. The eligible expenditures for Phase 1 and Phase 2 totals \$29,794.00 CAD and is outlined in the work log and in Appendix IV.

Sample ID	Sampler	Location ID	Easting	Northing	Туре	Description	
152901	A. Pleson	West Nakina Trend	498854	5622211	Grab	4% blebby po, minor diss py, very rusty, silceous felsic volcanic, wk magnetic	
152902	A. Pleson	Nakina Trend	498875	5622202	Grab	50-60% quartz. Quartz flooded felsic volanic, 2% disseminated po, weakly magnetic	
152903	A. Pleson	Nakina Trend	499212	5622197	Grab	Sercite schist, quartz flooded, mod foliation, trace biotite, 1% diss pyrite, tr po,	
152904	A. Pleson	Nakina Trend	499212	5622197	Grab	Strong ankerite orange alteration on weather surface, with patches of pure black oxidation, felsic vol, 2% diss f.g. py.	
152905	A. Pleson	Nakina South	498216	5621163	Grab	gossaned outcrop, highly siliceous biotite-serecite schist, 3% po diss, trace diss py, minor blebs of coarse grained py throughout, mod folition	
152906	A. Pleson	Nakina Trend	499629	5622335	Grab	rusty felsic volcanic, similar to the rest of the trend, disseminated po and py (~2% combined) fine grained, weak foliation E-W trend, 10% of sample is white quartz vein, not mineralized	
152907	A. Pleson	Nakina Trend	499629	5622335	Grab	same as previous but ~ 0.5% more po, weakly magnetic	
152908	A. Pleson	Nakina Trend	499615	5622326	Grab	gossaned outcrop, highly siliceous biotite-serecite schist, 3% po diss, trace diss py, minor blebs of coarse grained py throughout, mod folition	
294251	Afzaal Pirzada	Relf Trench	503703	5622234	Grab	Tr sulphides	
294252	Afzaal Pirzada	Relf Trench	503744	5622241	Grab	serecite schist	
294253	Afzaal Pirzada	Relf	503774	5622241	Grab	Zn, argillite	
294254	Afzaal Pirzada	Relf	503744	5622241	Grab	Massive sulphide zone	
294415	Afzaal Pirzada/Alex Pleson	Relf Core	503715	5622249	Drill Core	Serecite schist, silceous, tr cpy blebs, ~2% diss py, bands or stringers of sphalerite cross-cut foliation (5-8%)	
294416	Afzaal Pirzada/Alex Pleson	Relf Core	503715	5622249	Drill Core	Serecite schist, siliceous, massive blebs of cpy + py associated to very silica flooded layer, spacradic crystals of sphalerite	

Table 3 Sample Description List

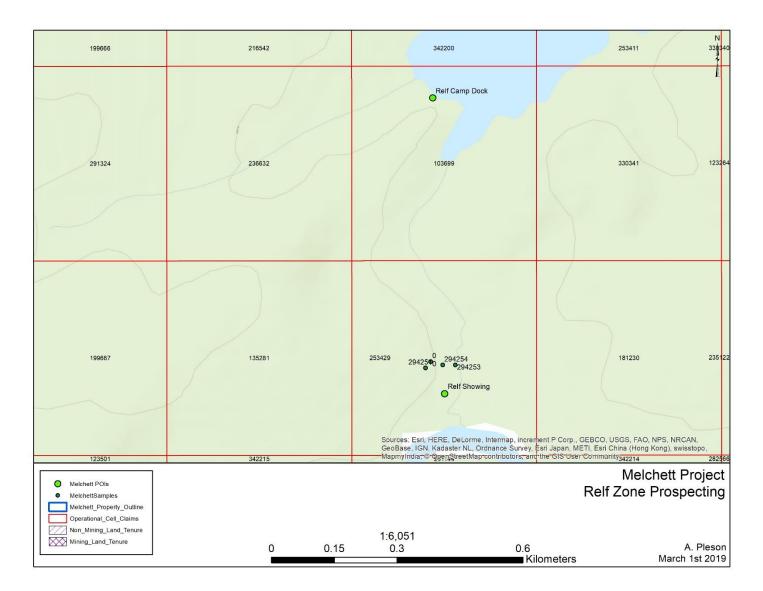


# Figure 9.1 Project Overview Map



# Figure 9.2 Nakina Zone Sampling

# Figure 9.3 Relf Zone Sampling



# **10.0 DRILLING**

No drilling was done on the Melchett Property by Kuzmich. The historical drilling on the Property carried out by various operators is discussed in Section 6 of this report.

## **11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY**

All surface rock and core samples for this study and other 2018 work were analyzed at Activation Laboratories (Actlabs) in Thunder Bay and Toronto. Actlabs is ISO 17025 accredited and/or certified to 9001: 2008, and is independent of KUZMICH. Activation Laboratories has its own quality assurance and quality control program on sample preparation, analysis and security. The samples for this program were assayed using the following ACTLABS packages:

- Code 8 AR ICP-MS: A 0.5 g sample is digested in aqua regia and diluted volumetrically to 250 ml with 18 megaohm water. CANMET reference materials for the appropriate elements are digested the same way and are used as a verification standard(s). Samples are analyzed on a Varian Vista 735 ICP-OES or ICP-MS.

- Precious Metals package, Code 1C- ICP OES Fire Assay (FA-ICP): A 30 g sample is mixed with fire assay fluxes (borax, soda ash, silica, litharge) and with Ag added as a collector and the mixture is placed in a fire clay crucible. The mixture is then preheated at 850°C, intermediate 950°C and finish 1060°C. After cooling the sample solution is analyzed for Au by ICP/OES using a Varian 735 ICP. The instrument is recalibrated every 45 samples. On each tray of 42 samples there are two method blanks, three sample duplicates, and 2 certified reference materials (Source: Actlabs website).

### <u>Samples for 2008 Drilling</u>

For drill hole SB08-02, a total of 107 whole rock geochemical samples were collected down the entire length of the hole. Samples were routinely collected at 8m intervals down the hole with each sample consisting of 4 pieces of whole core, approximately 5cm in length, across a 1m interval. Across the 1 m sample interval one sample was taken at both the beginning and end and at 1/3 and 2/3 of the way across the sampled interval. Where heavier mineralization was encountered additional samples. were collected using the same sample collection protocol. Each sample was subsequently prepared and analyzed for 30 elements by ICP methods after multi acid digestion and for Au by fire assay with AA finish. The samples were analyzed at the SCHS Laboratories located in Don Mills Ontario.

For the present study, the sample preparation, security and analytical procedures used by the laboratories are considered adequate. No officer, director, employee or associate of Kuzmich was involved in sample collection, preparation and analysis. Historical grades and assay data used for the present study are taken from MNDM assessment reports and OGS geological reports which are deemed reliable. Historical geological descriptions taken from the above mentioned sources were prepared and approved by the professional geologists or engineers and are deemed reliable.

## **12.0 DATA VERIFICATION**

The author visited the Property on September 25<sup>th</sup>, 2018. A floatplane was chartered from Nakina to carry out the Property visit. The geological work performed in order to verify the existing data consisted of rock chip sampling, soil and sediment sampling, and visiting approachable outcrops. The samples collected during the present study are considered to represent the type of rock formations, soil types and stream sediments present on the Property. Field description of the samples collected during the Property visit is provided in table 4.

All surface rock and core samples for this study and other 2018 work were analyzed at Activation Laboratories (Actlabs) in Thunder Bay and Toronto. Actlabs is ISO 17025 accredited and/or certified to 9001: 2008, and is independent of KUZMICH. The samples were crushed to -10 mesh followed by pulverizing a 250-gram split to -150 mesh (95%). Each sample was analyzed for Iron Ore Analysis or XRF, and several composite samples were tested for Davis Tube Magnetic Separation at -200 mesh fraction.

Sample ID	Easting	Northing	Туре	Description
	0710911	5346690	Grab, outcrop	Dark brown, mostly hematite bearing chert and limestone,
294251				with thinly bedded magnetic seams.
	0710984	5346860	Grab, outcrop	Brown taconite, mainly hematite bearing chert and sediments
				with concentration of magnetite at places. No visible control
294252				of magnetic and nonmagnetic minerals concentration.
	0711332	347366	Grab, outcrop	Dark brown outcrop of banded iron formation with algal chert
294253				concretion mostly hematitic.
	0503728	5622022	Grab, outcrop	Dark brown felsic volcanic rock, fine to medium grained,
				siliceous to gneissic appearance.
294254				
	0711884	5347811	Selected core	Dark grey felsic volcanic rock, fine to medium grained,
			sample from	siliceous to gneissic appearance.
			Historical drill	
294415			hole	

#### Table 4: Description of Samples

Highlights of the assay results are provided in the following table.

#### Table 5: Results of September 25, 2018 Sampling

Analyte Symbol	Au	Ag	Cu	Mn	Pb	Zn	As	Bi	Co	Fe	Mg
Unit Symbol	ppb	ppm	%	%							
Detection Limit	5	0.2	1	5	2	2	2	2	1	0.01	0.01

Analysis Method	FA- AA	AR- ICP	AR- ICP	AR- ICP	AR- ICP	AR-ICP	AR- ICP	AR- ICP	AR- ICP	AR- ICP	AR- ICP
294251	15	0.9	51	1000	15	204	< 2	< 2	22	4.77	1.12
294252	55	43.6	368	1600	1110	667	18	42	4	5.43	0.22
294253	80	80.7	1670	1980	2190	46,000* (4.6%)	33	104	87	8.1	0.96
294254	99	120*	1990	1610	3440	60,400* (6.04%)	7	183	58	6.16	0.7
294415	126	1.6	252	1830	129	16,700* (1.67%)	12	< 2	45	7.76	1.93
294416	84	8.3	2460	1230	69	836	3	< 2	24	6.48	0.8

(\* Re-assayed using higher detection limit methods (FA-GRA for Ag, and FUS Na2O2 for Zn)

The assay results of samples indicate gold values in the range of 15 parts per billion (ppb) to 126 ppb, silver 0.9 parts per million (ppm) to 120 ppm, copper 51 ppm to 2460 ppm, manganese 1000 ppm to 1980 ppm, lead 15 ppm to 3440 ppm, zinc 204 ppm to 60,400 ppm (6.045), iron 4.77% to 8.1%.

For the present study, the sample preparation, security and analytical procedures used by the laboratories are considered adequate. No officer, director, employee or associate of Kuzmich was involved in sample preparation and analysis. Historical grades and assay data for the present study are taken from MNDM assessment reports and OGS geological reports which are deemed reliable. Historical geological descriptions taken from the above mentioned sources were prepared and approved by the professional geologists or engineers and are deemed reliable.



Photo 1: Float plane landing dock at Relf Lake (Photo taken during Sep 2018 Property Visit)



Photo 2: Historical drill core photo (Photo taken during Sep 2018 Property Visit)

## **13.0 MINERAL PROCESSING AND METALLURGICAL TESTING**

No metallurgical testing was done on the property by Kuzmich.

## **14.0 MINERAL RESOURCE ESTIMATES**

No mineral resource estimates were carried out by Kuzmich.

### Items 15 to 22 are not applicable.

## **23.0 ADJACENT PROPERTIES**

Several mineral claims located adjacent to the east of the Melchett Property are held by various mining companies and individual prospectors (Figure 12). Historical work on adjacent claims and the area immediately south and east of the Melchett Property is summarized in the following sections. The following information is taken from the publically available sources which are identified in the text and in Section 27. The writer has not been able to independently verify the information contained although he has no reason to doubt the accuracy of the descriptions. The information is not necessarily indicative of the mineralization on the Melchett Property, which is the subject of this technical report.

The Melchett Lake greenstone belt (MLGB) hosts a number of gold and base metal occurrences, some of which suggest a volcanogenic massive sulphide (VMS) environment (Table 1). The Melchett Lake banded iron formation was the focus of iron exploration in the 1960s and hosts 2 iron resources: Skibi Lake (335 000 000 tons of 26.2% acid-soluble Fe) and Stewart Lake (49 500 000 tons grading 30% Fe; Ontario Geological Survey 2016). The MLGB is approximately 8 by 40 km in size, and consists largely of felsic metavolcanic rocks, namely east-trending, amphibolite-facies lithological units (Figure 1; Bond and Foster 1981a, 1981b; Devaney 1999). It is flanked to the south by the Melchett Lake banded iron formation, which extends for over 60 km. The MLGB is located approximately 65 km north-northwest of Nakina and can be accessed by the Anaconda Road, which extends north from Nakina to the southwestern corner of the MLGB. The remainder of the belt can be accessed by boat on Melchett Lake and Nass Lake or by float-plane or helicopter.

Exploration for VMS deposits in the MLGB has occurred sporadically following the discovery of zinc mineralization at the Nakina Mine prospect (Nakina 1) in 1959. The area, which hosts the Nakina 1 and Relf zones, was described by Wahl (1985) as a lenticular felsic metavolcanic sequence, approximately 15 km in strike length and upwards of 1500 m thick, which appears to thin at the eastern and western ends. Mineralization was interpreted to occur in paleotopographic depressions as a result of fumarolic activity during a volcanic hiatus, depositing polymetallic massive sulphides in 2 currently Page 45 of 69

recognized areas (Nakina 1 and Relf; Wahl 1985). Alteration, characterized by sodium depletion and iron + magnesium enrichment, were noted in areas proximal to the Nakina 1 and Relf zones, as well as in northeastern portion of the MLGB around Colpitts Lake (Wahl 1985; Devaney 1999). The Nakina 2 zone was recognized by Ottone (1987) as a gold target and lies stratigraphically above the Nakina 1 target, possibly representing a later-stage, gold-rich mineralizing event related to VMS deposition.

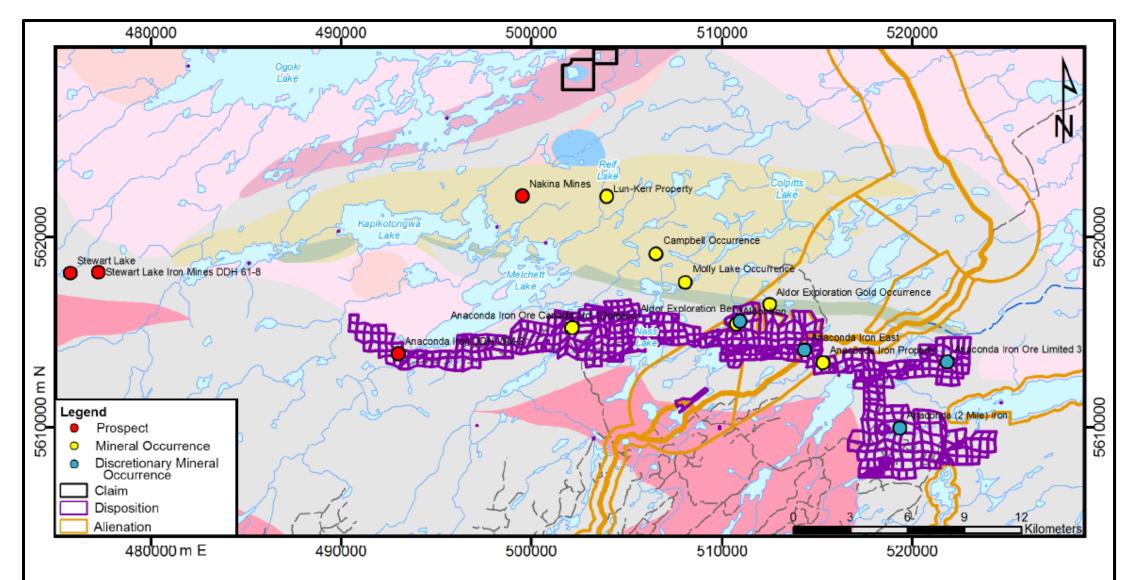
Several mineral claims located adjacent to the east of the Melchett Property are held by various mining companies and individual prospectors (Figure 12). Historical work on adjacent claims and the area immediately south and east of the Melchett Property is summarized in the following sections. The following information is taken from the publically available sources which are identified in the text and in Section 27. The writer has not been able to independently verify the information contained although he has no reason to doubt the accuracy of the descriptions. The information is not necessarily indicative of the mineralization on the Melchett Property, which is the subject of this technical report.

Mineral Deposit Inventory (MDI) Number	Assay Highlights	Description of Occurrence
MDI42L14SE00005	14.85% Zn, 0.13% Cu, 0.92 oz/ton Ag and 0.30 oz/ton Au (assay from trench; Nakina Mines Ltd., 1968)	Polymetallic pyrite-sphalerite- chalcopyrite-galena mineralization occurs within felsic to intermediate
	8.25% Zn, 1.08% Pb, 0.76 oz/ton Ag and 0.20 oz/ton Au (Hole N-4, Nakina Mines Ltd., 1968)	metavolcanic schists within abundant pyrite, sericite and chloritic alteration.
MDI42L15SW00003	19.1% Zn, 0.40% Cu, 2.2% Pb and 16.4 oz/ton Ag (assay from trench, Shawmine Explorations Ltd., 1964)	Polymetallic pyrite-sphalerite- chalcopyrite-galena mineralization occurs within muscovite-sericite schists and quartzo-feldspathic mica schists
MDI42L10NW00007	0.52 oz/ton over 25 cm	Sample from quartz vein in a quartz gabbro dike (later interpreted to be a mafic metavolcanic unit)
n/a	1.8% Zn, 1.0% Cu and 0.06 oz/ton Au (assay from grab sample)	Disseminated copper, zinc, gold mineralization from pyritic quartz-sericite schist (altered felsic pyroclastic rocks)
n/a	1.5 % Zn and 0.17 oz/ton Au	Mineralization consists of massive pyrrhotite in a 3 m thick amphibolite schist laver
	(MDI) Number MDI42L14SE00005 MDI42L15SW00003 MDI42L10NW00007 n/a	(MDI) NumberMDI42L14SE0000514.85% Zn, 0.13% Cu, 0.92 oz/ton Ag and 0.30 oz/ton Au (assay from trench; Nakina Mines Ltd., 1968) 8.25% Zn, 1.08% Pb, 0.76 oz/ton Ag and 0.20 oz/ton Au (Hole N-4, Nakina Mines Ltd., 1968)MDI42L15SW0000319.1% Zn, 0.40% Cu, 2.2% Pb and 16.4 oz/ton Ag (assay from trench, Shawmine Explorations Ltd., 1964)MDI42L10NW000070.52 oz/ton over 25 cmn/a1.8% Zn, 1.0% Cu and 0.06 oz/ton Au (assay from grab sample)

 Table 1.
 Summary of occurrences/prospects in the Melchett Lake greenstone belt (excluding iron occurrences and deposits;

 MDI data from OGS 2016).
 Universal Transverse Mercator (UTM) co-ordinates in North American Datum 83 (NAD83), Zone 16.

2019 Report



**Figure 1.** Geological map showing Mineral Deposit Inventory points in the Melchett Lake greenstone belt (beige and olive green). UTM co-ordinates in NAD83, Zone 16; claim units as of October 4, 2016; regional geology *from* Ontario Geological Survey (2011).

## 24.0 OTHER RELEVANT DATA AND INFORMATION

### 24.1 Environmental Concerns

There is no historical production from the Melchett Property, however there are remnants of a historical camp at Relf Lake which may need a clean up to remove old structures and other camp waste. The author is not aware of any other environmental liabilities which have accrued from historical exploration activity.

Ministry of Northern Development, Mines and Forestry (MNDMF) Ontario encourages claim holders to engage with Aboriginal communities and begin developing a working relationship as early in the mining sequence as possible.

## **25.0 INTERPRETATION AND CONCLUSIONS**

The Melchett Property consists of 115 units covering 1,840 hectares' land located in Thunder Bay Mining District of Northwestern Ontario, Canada. The Melchett Lake property is situated north and east of Melchett Lake extending from Kapikotongwa Lake in the west to Relf Lake in the east. The property lies 110 km north of Geraldton and 60 km north of Nakina at approximately 50°45' north latitude and between B6O56' and 87002' west longitude. The Melchett Lake property is accessible via ski or float equipped aircraft from Nakina or Jellicoe to Kapikotongwa Lake, Melchett Lake or Relf Lake. Kuzmich has the option to owns 100% of the Mineral Claims by making cash payments, issuing shares and carrying out exploration work.

The Melchett Lake property lies within the English River Sub province of the Superior Province, which is of Achaean age. The property comprises part of the northern metavolcanic subzone of the Melchett metasedimentary-metavolcanic belt, which is some 5 km thick and extends for at least 50 km east-west. The belt consists of amphibolite grade schists and gneisses flanked by several phases of acidic to mafic intrusives. The schists and gneisses represent original mafic to acidic pyroclastic tuffs and flows with associated greywackes, siltstones and argillites with local iron formations. Metamorphism in the Melchett belt ranges from middle to upper amphibolite (almandine amphibolite). Local areas of partial anatexis are developed proximal to granitoids. The supracrustals are characterized by porphyroblasts of garnet, hornblende, and biotite. Schistosity surfaces with well-developed micaceous mineralogy often contain lineated to grabenschiefer hornblende prisms. Crenulation cleavages with fine micaceous layers were developed in the pelitic horizons.

Three zones of sulphide mineralization have been outlined on the property to date, the Nakina 1, Nakina 2 and Relf zones.

The historical exploration data available for the Property area includes geophysical surveys, geological mapping, trenching, sampling, and diamond core drilling. This work was carried out during the period from 1959 to 2018.

2008 Diamond drilling on the Property included one drill hole SB08-02 which was drilled to 688 m depth and its purpose was to test the down dip extension of a geochemical anomaly present in the immediate area of the Relf Zone as well as to attempt to determine the causative source of a strong conductor identified in drill hole SB07-01. The following provides a summary log of the drill hole.

- ▶ 0.00 0.25m Overburden
- ➢ 0.25m − 688.00m dark grey to beige intermediate to felsic metavolcanics.

The sampling approach for this work was to collect representative surface grab and channel samples, and drill core samples from each of the dominant rock type. The data presented in this report is based on the current and historical exploration work results, published assessment reports available from Kuzmich, Ontario MNDMF, the Geological Survey of Canada, and the Ontario Geological Survey.

Based on its favourable geological setting indicating surface and subsurface presence of Gunflint Iron formation (GIF), and the results of present study, it is concluded that the Property is a property of merit and possess a good potential for discovery of economic concentration of iron bearing rocks through further exploration and improvement of beneficiation processes. Good road access, availability of exploration and mining services in the vicinity makes it a worthy mineral exploration target.

### 26.0 **RECOMMENDATIONS**

In the qualified person's opinion, the character of the Melchett Property is sufficient to merit the following phased work program, where the second phase is contingent upon the results of the first phase.

### Phase 1 – Data Compilation, Prospecting, Trenching, and Sampling

- Although much work as already been completed on digitizing maps/assay certificates, DDH, etc. Accurate spatial data is largely missing. Reconnaissance work will need to focus on gathering GPS data for trenches, cut lines, corner posts, DDH collars (if present, if not then drill pads), camps, trails, channel samples, etc.
- The diamond drill holes core should be re-boxed (if needed) and put into racks. A list of all drill holes and the total meterage should be compiled on site. Based on the drill logs, some portion should be sampled and/or resampled.

- We should verify as much of the main showings as possible (Relf, Nakina 1, Nakina 2). This would include grab and/or channel samples, as a quick sketch of the trenches.
- Based on the IP/Res data, anomalies E, F, and H are near surface and in the case
  of anomaly F, appears to outcrop. These require follow up trenching, and if
  significant assays are returned, then drilling. One of the most attractive
  showings, is anomaly F as outline from the Cominco IP/Res survey. This anomaly
  Resisitivty (caused by alteration) high is semi-discordant to foliation, with a
  >400m, lenticular conductive anomaly (massive sulphide?), surounded by an IP
  chargeability anomaly (disseminated py). Surface maps indicate zinc
  mineralization and a single drill hole tested the anomaly which outlined an
  altered felsic/intermediate package with zinc mineralization by no reported
  assays. There are two other anomalies on the property which are all located near
  Relf and in an area of highly geochemically altered felsic.
- Some effort will have to be put into making this project either a fly-in (couple weeks at a time), or quad-in camp. It will be preferable to establish a quad trail which would split off the all-weather road SE of the property. With my mini-excavator, I suspect it would take approximately 8-12 days. Afterwards the machine will then be on the property and would allow us to trench showings. Alternatively, construct an access trails from Melchett Lake to Relf Lake for easy traveling.

Estimated cost of this program is \$144,050 and will take 12 weeks to complete.

Item	Unit	Unit Rate (\$)	Number of Units	Total (\$)
Data compilation	day	\$650	10	\$6,500
Prospecting, Geological work and sampling (3 person crew)	day	\$1,500	15	\$22,500
Property Access	lump sum	\$15,000	1	\$15,000
Excavator for trenching and drilling	hrs	\$135	100	\$13,500
Equipment rentals	lump sum	\$2,000	1	\$2,000
Transportation air	airfare	\$6,000	6	\$36,000
Transportation ground	day	\$150	50	\$7,500
Field supplies	lump sum	\$2,000	1	\$2,000
Meal and board	day	\$200	60	\$12,000
Sample assays	sample	\$50	200	\$10,000
GIS work	hrs	\$60	20	\$1,200
Report and filing	day	\$650	15	\$9,750
Project management	day	\$650	10	\$6,500
TOTAL BUDGET ESTIMATE				\$144,450

Table 6: PHASE 1 BUDGET- Data Compilation, Prospecting, Trenching and Sampling

### Phase 2 – Diamond Drilling

Subject to the positive results of Phase 1 work, a single, deep (600m) drill hole will be required to test the large, borehole EM anomaly which was outlined by the work done in 2007 by Stratabound Resources. The 2007 drill hole (KAR-09 a.k.a. SB07-01) tested the down hole extent of the Relf occurrence. Relf was shown to be open at depth (>600m) with a large untested conducted located to the west of the drill hole. However, the following year the company drilled another deep (>600m) hole 100m to the east (against the geophysics recommendations). Although this second drill hole (SB08-02) still his mineralization, it left the conductor untested.

Estimated cost of this program is \$300,000.

# **27.0 REFERENCES**

- Aung Myint Thein, 2011; Assessment Report on the Melchett Iron Property, Melchett Township, Thunder Bay South Mining Division, Ontario, Claims 4252101, 4252102, 4252103, 4252104, 4252105, 4252106, 4252107, 4252108, 4252109, 4252110, 4252111, 4252112, 4252113, 4252114, 4252115, 4252116 and 4252117, October 26, 2011.
- Aung Myint Thein, 2012; Assessment Report on the Melchett Iron Property, Melchett Township, Thunder Bay South Mining Division, Ontario, Claims 4252101, 4252102, 4252103, 4252104, 4252105, 4252106, 4252107, 4252108, 4252109, 4252110, 4252111, 4252112, 4252113, 4252114, 4252115, 4252116 and 4252117, August 30, 2012.
- 3.0 Flint Rock Mines Limited, 1962; Drill Hole Logs Whitefish Lake Property; Port Arthur Mining Division, May 07, 1962.
- 4.0 G.A. Gross, 2009; Iron Formation in Canada, Genesis and Geochemistry; Geological Survey of Canada Open File 5987.
- 5.0 Goodwin, A.M. (1961), Gunflint Iron Formation of the Whitefish Lake Area, District of Thunder Bay, Ontario, Ontario Department of Mines report ORV 69.
- 6.0 Gordon J. Allen, 2008; Assessment Report on Geological Mapping, Rock Sampling, and Radiometric Survey on Gunflint (Mt.Edna) Property, Thunder Bay Mining Division, Ontario; for Raytech Metals Corp., Dec 31, 2008.
- 7.0 Gunter Faure and Jack Kovach, 1969; Age of Gunflint Iron Formation of Animikie Series in Ontario, Canada; PP Geological Society of America.
- 8.0 J.F. Wright, 1952; Concentration Tests on Cores from Gunflint Range Exploration Drilling, November 27, 1952.
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- 10.0 Pier Kenneth Pufahl, 1996; Stratigraphic Architecture of a Paleoproterozoic Iron Formation Depositional System: the Gunflint, Mesabi and Cyyuna Iron Ranges; Master of Science Thesis, Lakehead University, Thunder Bay, Ontario.
- 11.0 Roman Shklanka, 1968; Iron Deposits of Ontario; Department of Mines, Mineral Circular No. 11, 1968.
- 12.0 Sharpe George C., 2011; Technical report on Gunflint Property, Thunder Bay Mining District, Ontario; prepared for Canada Iron Inc., dated August 10, 2011.
- 13.0 Zago Neal, and Gutta Blair, 2012; Whitefish River assessment report, prepared for Lakehead Region Conservation Authority; August 2012.
- 14.0 Websites:

http://www.canadaironinc.com/66901/67301.html

http://gsabulletin.gsapubs.org/content/80/9/1725.short#

http://www.thunderbaydirect.info/about thunder bay

http://www.thunderbay.ca/Doing Business/About Thunder Bay.htm

http://www.mnsu.edu/urc/journal/URC2007journal/Drommerhausen.pdf

http://www.thunder-bay.climatemps.com/graph.php

http://www.mndm.gov.on.ca/en/mines-and-minerals/applications/exploration-permits

http://minerals.usgs.gov/minerals/pubs/commodity/iron\_ore/mcs-2010-feore.pdf

## 28.0 SIGNATURE PAGE

Dated: November 30, 2018

## **29.0 CERTIFICATE OF AUTHOR**

I, Afzaal Pirzada, P.Geo., as an author of this report entitled, "Technical Report on the Melchett Property, Thunder Bay Mining District, Northwestern Ontario, Canada; Dated November 30<sup>th</sup>, 2018", do hereby certify that:

- 1. I am a consulting geologist of: GEOMAP EXPLORATION INC. Unite 113 5983 Gray Avenue, Vancouver, British Columbia, Canada, V6S 0G8.
- 2. I have M.Sc. degree in Geology from Punjab University, Lahore, Pakistan in 1979.
- This certificate applies to the report entitled "Technical Report on the Melchett Property, Thunder Bay Mining District, Northwestern Ontario, Canada; Dated November 30<sup>th</sup>, 2018".
- 4. I am registered as a Professional Geologist in British Columbia (License #: 28657) Canada.
- 5. I have been practicing my profession continuously since 1979, and have over twenty years of experience in mineral exploration for uranium, iron, titanium, lithium, rare metals, base metals, coal, PGE, and gold.
- 6. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI43-101") and certify that by reason of my education, affiliation with professional associations and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purpose of NI43-101.
- I visited the property on September 25<sup>th</sup>, 2018, and I am the Author of the report. To my knowledge, no exploration work has been carried out by Kuzmich on the property since my last visit to the Property.
- 8. I am responsible for all items of this report.
- 9. I have no interest, direct or indirect in the Melchett Property, nor do I have any interest in any other properties of Kuzmich, nor do I own directly or indirectly any of the securities of neither Kuzmich, nor do I expect to receive any such interest or securities in the future.
- 10. I am independent of Kuzmich and the Vendors, as that term is defined in Section 1.5 of NI 43-101.
- 11. I have no prior involvement with the Melchett Property other than as disclosed in item 7 of this certificate.
- 12. I have read National Instrument 43-101 ("NI43-101"), and the Technical Report has been prepared in compliance with NI43-101, and Form 43-101F1.

- 13. I am not aware of any material fact or material change with respect to the Melchett Property the omission of which would make this report misleading.
- 14. As at the date of this certificate, to the best of my knowledge, information and belief the technical report contains all scientific and technical information that is required to be disclosed to make this technical report not misleading.

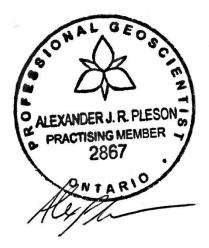
Dated: November 30<sup>th</sup>, 2018

I, Alexander Pleson, P.Geo., as an author of this report regarding the exploration project in the Thunder Bay Mining District, Northwestern Ontario, Canada; do hereby certify that:

- 15. I am a consulting geologist at Pleson Geoscience of Nipigon, ON, CA POT 2JO
- 16. I have B.Sc. degree in Geology from Lakehead University.
- 17. I am registered as a Professional Geologist in Ontario (License #: 2867).
- 18. I have been practicing as a professional since 2017, and have 11 years of experience in mineral exploration.
- 19. The exploration work was carried out under my supervision and I was on site through the duration of the project.
- 20. I hold no direct interest in the mining cells identified in this report.

Dated: February 23, 2019

Signed and Sealed:



## Appendix I: Work log

Task	Dates	Duratio n (days)	Personnel	Description
Data Compilation	March 10- 31st 2018	21	Ben Kuzmich	Compile all historic geochem data, georeference maps, compile DDH data, digtize geochem data and produce approximated coordinates for all data that was grid based
Data Compilation	April 3-10 th 2018	8	Ben Kuzmich	Compile soil sampling data + surface and DDH geophysic data
Data Interpretatio n	June 3-6 2018	4	Alex Pleson	Create database
Planning	August 3-4 2018	2	Alex Pleson	develop plan based on historic data compilation and newly created database, schedule flights and equipment rentals, pack gear and food, arrange boat rental and delivery
Exploration Phase 1	August 5-9 2018	5	Alex Pleson, Ben Kuzmich, Nathan Brandon	Stay on kapakotongwa Lake, use trails to access Nakina showing and prospect trend identified as on strike of Nakina showing
Exploration Phase 2	Sept 23 Sept 26 2018	4	Alex Pleson, Afzaal Pirzada, Jay Nicol, Nathan Brandon	Afzaal travel to Thunder Bay, meeting and make a plan, travel to Nakina, fly to Relf, prospect and locate Relf showing and record location of core from DDH holes. Sample Relf showing and portions of favourable drill core
Access	June 2- 11th 2018	10	Alex Pleson, Nathan Brandon	flag trail from Ogokia road to Relf Lake along high ground for winter drill road. Machette trail for easier walking. Flag trail south from Relf lake to Relf Showing, south across Relf creek to BrairCliffe Lake (7.6

				kilometers). Locate old drill road and cut lines from Relf Showing to Nakina Showing. Follow old road from Nakina showing to Kapikotongwa Lake where portions of both Nakina and Relf historic core is stored.
Trail Cutting	June 11- 18th 2018	8	Alex Pleson, Nathan Brandon	Cut walking trail (eventually will be drill trail from Nakina showing to Relf Showing and from Nakina showing to Kapikotongwa Lake).
Data Processing	December 7-8 2018	2	Alex Pleson	Compile data from Phase 1 and Phase 2 along with assay results
Report	December 28 2019, January 6- 10 2019	6	Alex Pleson	Prepare report based on Access, Trail, Phase 1 and Phase 2 programs including Afzaal's work
43-101	December 2nd - 11 2018, Jan 12-14th 2019	13	Afzaal Pirzada	Technical Report

Appendix II: Expenditures for Entire 2018 Project (Including Phase 1 and 2)

Data Compilation	21	Ben Kuzmich	\$10,500	\$750	Compile all historic geochem data, georeference maps, compile DDH data, digtize geochem data and produce approximated coordinates for all data that was grid based
Data Compilation	8	Ben Kuzmich	\$4,000	\$500	Compile soil sampling data + surface and DDH geophysic data
Data Interpretation	4	Alex Pleson	\$2,400		review all compilation data and compile into database
Planning	2	Alex Pleson	\$1,200		produce an exploration plan for Phase 1 and 2 and work schedule
Access	10	Alex Pleson and Nathan Brandon	\$10,170		Locate historic drill road to both Nakina and Relf showings, flag walking trails to the showings
Trail Cutting	8	Nathan Brandon, Alex Pleson	\$6,936		Cut trail along old drill road from Kapakotongwa Lake to Nakina showing to Relf showing
Exploration Phase 1	5	Alex Pleson, Ben Kuzmich, Nathan Brandon	\$7,585		Locate historic core, Nakina Showing, prospect from Kap Lake to Nakina
Exploration Phase 2	4	Alex Pleson, Afzaal Pirzada, Jay Nicol, Nathan Brandon	\$9,736		Locate Relf, core, and Relf trench, prospect mineralized halo around Relf
Data Processing	2	Alex Pleson	\$1,200	\$250	Compile data collected from phase 1+2 programs, prep samples for lab submittal

Report	6	Alex Pleson	\$3,600	\$500	Assessment Report
Report	13	Afzaal Pirzada	\$13,000	\$1,10 0	Technical Report, Data analysis, recommendations
Assays			\$751		Cost of assays plus overlimit re-run
Travel (Leuenbergers Air)		Alex, Ben, Nathan	\$1,895		Flight to/from Kapatowanga Lake August 2018
Travel (Leuenbergers Air)		Alex, Afzaal, Jay, and Brandon	\$1,492		Flight to/from Relf Lake September 2018
Travel (Truck A)		Alex Pleson	\$456		Phase 1 + Phase 2 travel to/from Nakina
Travel (Truck A)		Alex Pleson	\$98		Deliver sampes to lab (Phase 1+2)
Travel (Truck A)		Alex Pleson	\$322		Access and Trail cutting
Travel (Airfare - Afzaal)			\$1,256		Vancouver to Thunder Bay (+return)
Travel (Afzaal)			\$187		Travel from Thunder Bay to Nipigon (return)
Travel (Truck B)		Ben <i>,</i> Nathan	\$378		Phase 1 Thunder Bay-Nakine (return)
Travel (ATV)			\$500		10 @ \$50/day
Food (Phase 1)	5		\$630		3 guys @ \$42/day
Food (Phase 2)	4		\$672		4 guys @ \$42/day
Food (Access)	10		\$840		2 guys @ \$42/day
Food (Trail Cutting)	8		\$672		2 guys @ \$42/day
Supplies			\$389		sample bags, tags, flagging, etc.
Supplies			\$528		Gas for boats + chainsaw + generator
Boat Rental (Phase 1)	5		\$500		\$100/day
Boat Motor Rental (Phase 1)	5		\$275		\$55/day
Boat + Motor Rental	18		\$1,980		\$110/day

(Access+Cuttin				
g)				
Chainsaw	5	\$125		\$25/day
Rental (Phase				
1)				
Trimble GPS	5	\$375		\$75/day
Camp Rental	5	\$1,311		5 nights @ \$262.27/night
(Phase 1)				
Camp Rental	18	\$2,250		18 nights @125/night
(Access +				
Trails)				
Accomodations	3	\$417		3 nights in hotel, 1 Thunder
(Hotel/Afzaal)				Bay, 2 nights in Nipigon
Generator	23	\$690		23 total @ \$30/day
Rental				
Sat Phone + Sat	23	\$500		1 month rental
Internet				
		\$89,816	\$3,10	
			0	
				Total
				\$92,916

Melchett Property

## Appendix II: Daily Work Log

Phase	Date	Location	Cell ID(s)	Personnel	Detailed Log
					Review data Ben compiled on the historic Relf and Nakina zones, develop target
	August 3, 2018		All Claims Worked Phase 1	Alex Pleson	coordinates to find showings based on old survey grids
	August 4, 2018		All Claims Worked Phase 1	Alex Pleson, Ben Kuzmich, Nathan Brandon	Final planning, buy supplies, travel to Nakina
	August 5, 2018	Nakina Trend	All Claims Worked Phase 1	Alex Pleson, Ben Kuzmich, Nathan Brandon	Travel to Nakina (Fly-out from Nakina to Kap Lake, set-up camp)
					Traverse north to locate "Nakina Showing". MDI was not correct for location of
					Nakina. No Evidence of historic sampling as described in past reports report, collect
					samples 152901 to 152902, Alex Pleson collected and logged both grab samples from
	August 6, 2018	Nakina Trend	110656	Alex Pleson, Ben Kuzmich, Nathan Brandon	claim 110656. flag trail back to camp on Kap Lake
					Traverse northeast from camp to avoid large swamp crossed during previous day
1					expedition, Nathan Brandon collected sample 152905 from claim ID 110657 while we
					tried to find high topography to traverse to potential Nakina showing site. Ben and
	August 7, 2018	Nakina Trend	110657 201757	Alex Pleson, Ben Kuzmich, Nathan Brandon	Alex collected samples 152903 and 152904 on claim ID 201757.
					Final Traverse to locate historic Nakina showing, found sphalerite on what potential is
					the Nakina Trend. Alex Pleson collected sampless 152906 and 152907 on claim ID
					209081. Nathan Brandon collected 152908 on claim 209081 which is also thought to
					be on the Nakina trend, sample was described by Alex Pleson. No historic workings
	August 8, 2018	Nakina Trend	209081	Alex Pleson, Ben Kuzmich, Nathan Brandon	were found.
					Demob camp on Kap Lake, pack samples, weather delay/ fogged in, get pick-up by
	August 9, 2018	Nakina Trend	All Claims Worked Phase 1	Alex Pleson, Ben Kuzmich, Nathan Brandon	float plane at lunch time, travel from Nakina back to Nipigon/Thunder Bay
	September 24, 2018	Relf	253429	Alex Pleson, Afzaal Pirzada, Jay Nicol	Ontario Travel - (Afzaal Toronto-Thunder Bay- Nakina) Alex and Jay (Nipigon-Nakina)
					Fly-out to Relf Lake, traverse from Relf Float Plane dock to claim ID 253429. Collect
2					grab samples on Relf main showings to test Zinc mineralization, collected samples of
					extents of fractures with sphalerite that appeared to have not been sampled
	September 25, 2018	Relf	253429	Alex Pleson, Afzaal Pirzada, Jay Nicol	previously
All	January 10, 2019		All IDs noted above	Alex Pleson and Afzaal Pirzada	Compile data from Phase 1 and Phase two sampling programs, produce maps
All	January 11, 2019		All IDs noted above	Alex Pleson and Afzaal Pirzada	Finalize Report and Maps

### Appendix III: Sampling Program Expenditures

		2018 Exploration Project Ex	penditu	res on Melchet	t (Nakina + Relf)
	Yellow Highlight i	s eligible Phase 1 and Phase 2 Sampling Work			
Task	Duration (days)	Personnel	Cost	Software/GIS Costs	Details
					Compile all historic geochem data, georeference maps, compile DDH data, digtize geochem
Data Compilation	21	Ben Kuzmich	\$10,500	\$750	data and produce approximated coordinates for all data that was grid based
Data Compilation	8	Ben Kuzmich	\$4,000	\$500	Compile soil sampling data + surface and DDH geophysic data
Data Interpretation	4	Alex Pleson	\$2,400		review all compilation data and compile into database
Planning	2	Alex Pleson	\$1,200		produce an exploration plan for Phase 1 and 2 and work schedule
Access	10	Alex Pleson and Nathan Brandon	\$10,170		Locate historic drill road to both Nakina and Relf showings, flag walking trails to the showings
Trail Cutting	8	Nathan Brandon, Alex Pleson	\$6,936		Cut trail along old drill road from Kapakotongwa Lake to Nakina showing to Relf showing
Exploration Phase 1	5	Alex Pleson, Ben Kuzmich, Nathan Brandon	\$7,585		Locate historic core, Nakina Showing, prospect from Kap Lake to Nakina
Exploration Phase 2	2	Alex Pleson, Afzaal Pirzada, Jay Nicol, Nathan Brandon	\$4,868		Locate Relf, core, and Relf trench, prospect mineralized halo around Relf
Data Processing	2	Alex Pleson	\$1,200	\$250	Compile data collected from phase 1+2 programs, prep samples for lab submittal
Report	2	Alex Pleson	\$1,200	\$500	Assessment Report
Report	2	Afzaal Pirzada	\$2,000	\$300	Technical Report, Data analysis, recommendations
Assays			\$751		Cost of assays plus overlimit re-run
Travel (Leuenbergers Air)		Alex, Ben, Nathan	\$1,895		Flight to/from Kapatowanga Lake August 2018
Travel (Leuenbergers Air)		Alex, Afzaal, Jay, and Brandon	\$1,492		Flight to/from Relf Lake September 2018
Travel (Truck A)		Alex Pleson	\$456		Phase 1 + Phase 2 travel to/from Nakina
Travel (Truck A)		Alex Pleson	\$98		Deliver sampes to lab (Phase 1+2)
Travel (Truck A)		Alex Pleson	\$322		Access and Trail cutting
Travel (Airfare - Afzaal)			\$1,256		X
Travel (Afzaal)			\$187		Travel from Thunder Bay to Nipigon (return)
Travel (Truck B)		Ben, Nathan	\$378		Phase 1 Thunder Bay-Nakina (return)
Travel (ATV)			\$500		10 @ \$50/day
Food (Phase 1)	5		\$630		3 guys @ \$42/day
Food (Phase 2)	4		\$672		4 guys @ \$42/day
Food (Access)	10		\$840		2 guys @ \$42/day
Food (Trail Cutting)	8		\$672		2 guys @ \$42/day
Supplies	Ū		\$389		sample bags, tags, flagging, etc.
Supplies			\$528		Gas for boats + chainsaw + generator
Boat Rental (Phase 1)	5		\$520		\$100/day
Boat Motor Rental (Phase 1)	5		\$275		\$55/day
Boat + Motor Rental (Access+Cutting)	18		\$1,980		\$110/day
Chainsaw Rental (Phase 1)	5		\$1,580		\$25/day
Trimble GPS	5		\$375		\$75/day
Camp Rental (Phase 1)	5		\$1,311		5 nights @ \$262.27/night
Camp Rental (Access + Trails)	18		\$1,511 \$2,250		18 nights @125/night
Accomodations (Hotel/Afzaal)	3		\$2,250		3 nights in hotel, 1 Thunder Bay, 2 nights in Nipigon
Generator Rental	23		\$690	150	23 total @ \$30/day (5 days = \$150)
Sat Phone + Sat Internet	23		\$500		1 month rental/ (\$165= 1/3 of month for Phase 1 and 2)
Sat mone + Sat Internet	23		\$71,548		
			48 د, 1 / د	\$2,500	Total
					\$73.848
					₹7570%0
		PHASE 1 + PHASE 2 Total	\$28,679	\$1,115	
		PHASE 1 + PHASE 2 TOTAL	\$28,679	\$1,115	TOTAL
				ŞZ9,794	

Quality Analysis ...



### Innovative Technologies

Date Submitted:26-Oct-18Invoice No.:A18-16041Invoice Date:23-Nov-18Your Reference:

Pleson Geoscience 118 Greenmantle Dr. Nipigon Ontario P0T 2J0 Canada

ATTN: Alex Pleson

## **CERTIFICATE OF ANALYSIS**

8 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay) Code 1E3-Tbay Aqua Regia ICP(AQUAGEO)

#### REPORT A18-16041

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

Emmanuel Eseme , Ph.D. Quality Control

ACTIVATION LABORATORIES LTD.

1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6 TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613 E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com Results

Activation Laboratories Ltd.

### Report: A18-16041

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Мо	Ni	Pb	Zn	AI	As	В	Ва	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	к	La
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm							
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP																					
152901	13	0.7	< 0.5	4	1260	1	24	64	210	3.19	16	< 10	16	< 0.5	< 2	1.06	7	38	4.46	< 10	2	0.49	10
152902	9	0.6	< 0.5	14	926	1	21	49	89	2.05	22	< 10	18	< 0.5	< 2	0.33	6	37	4.73	< 10	< 1	0.40	11
152903	76	1.8	< 0.5	10	230	1	22	11	28	1.46	15	12	11	< 0.5	< 2	0.27	11	21	3.36	< 10	< 1	0.53	< 10
152904	43	0.7	< 0.5	9	283	< 1	9	11	60	1.43	24	11	20	< 0.5	< 2	0.67	3	18	3.14	< 10	< 1	0.48	< 10
152905	11	< 0.2	< 0.5	12	495	< 1	30	13	56	4.28	12	< 10	13	0.5	< 2	1.63	19	15	5.53	< 10	< 1	0.82	< 10
152906	5	0.2	< 0.5	18	513	1	27	3	43	1.77	4	< 10	24	< 0.5	< 2	0.59	14	34	3.63	< 10	< 1	0.63	12
152907	< 5	< 0.2	< 0.5	22	540	< 1	22	3	59	2.72	< 2	< 10	69	< 0.5	< 2	1.40	11	34	3.42	< 10	< 1	0.60	15
152908	8	< 0.2	< 0.5	19	392	1	18	5	41	1.89	2	< 10	24	< 0.5	< 2	0.77	5	29	3.39	< 10	< 1	0.55	11

Results

Activation Laboratories Ltd.

Analyte Symbol	Mg	Na	Р	S	Sb	Sc	Sr	Ti	Th	Те	TI	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm							
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP															
152901	1.58	0.358	0.043	1.85	2	6	29	0.15	< 20	< 1	< 2	< 10	56	< 10	8	40
152902	1.59	0.072	0.047	1.45	< 2	5	15	0.16	< 20	< 1	< 2	< 10	51	< 10	5	34
152903	0.35	0.060	0.013	3.06	< 2	2	10	0.02	< 20	< 1	< 2	< 10	19	< 10	4	60
152904	0.43	0.057	0.047	1.37	< 2	2	11	0.05	< 20	< 1	< 2	< 10	23	< 10	6	7
152905	0.67	0.632	0.048	4.03	< 2	4	34	0.09	< 20	2	< 2	< 10	41	< 10	6	35
152906	1.22	0.136	0.067	1.14	< 2	8	19	0.19	< 20	5	< 2	< 10	71	< 10	7	27
152907	1.35	0.143	0.068	0.55	< 2	8	32	0.18	< 20	< 1	< 2	< 10	69	< 10	8	22
152908	0.98	0.133	0.047	1.09	< 2	4	19	0.12	< 20	3	< 2	< 10	47	< 10	5	30

QC

#### Activation Laboratories Ltd.

Report: A18-16041

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Мо	Ni	Pb	Zn	Al	As	В	Ва	Be	Bi	Ca	Со	Cr	Fe	Ga	Hg	К	La
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm							
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP																					
OREAS 904 (Aqua Regia) Meas		0.2	< 0.5	5940	452	2	33	8	27	2.04	93		80	7.6	< 2	0.05	95	25	6.27	< 10		1.01	39
OREAS 904 (Aqua Regia) Cert		0.366	0.0580	6300	410	2.02	36.6	8.49	22.4	1.25	91.0		68.0	6.54	3.74	0.0404	82.0	17.5	6.40	3.40		0.603	33.9
OREAS 922 (AQUA REGIA) Meas		0.6	< 0.5	2150	781	< 1	33	59	276	3.03	6		75	0.8	5	0.43	19	44	5.18	< 10		0.54	38
OREAS 922 (AQUA REGIA) Cert		0.851	0.28	2176	730	0.69	34.3	60	256	2.72	6.12		70	0.65	10.3	0.324	19.4	40.7	5.05	7.62		0.376	32.5
OREAS 923 (AQUA REGIA) Meas		1.4	< 0.5	4150	862	< 1	30	79	342	2.98	3		40	0.7	11	0.43	21	42	5.82	< 10		0.46	34
OREAS 923 (AQUA REGIA) Cert		1.62	0.40	4248	850	0.84	32.7	81	335	2.80	7.07		54	0.61	21.8	0.326	22.2	39.4	5.91	8.01		0.322	30.0
OREAS 254 Meas	2490																						
OREAS 254 Cert	2550																						
Oreas 221 (Fire Assay) Meas	1060																						
Oreas 221 (Fire Assay) Cert	1060																						
152905 Orig	9																						
152905 Dup	12																						
Method Blank	< 5																						
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2		< 0.01	< 2	< 10		< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10

QC

#### Activation Laboratories Ltd.

Analyte Symbol	Mg	Na	Р	S	Sb	Sc	Sr	Ti	Th	Те	TI	U	V	w	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm							
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OREAS 904 (Aqua Regia) Meas	0.23		0.097	0.04	2	5	20		< 20		< 2	< 10	36		17	
OREAS 904 (Aqua Regia) Cert	0.143		0.0950	0.0340	0.780	3.83	16.5		7.56		0.150	5.20	21.7		17.2	
OREAS 922 (AQUA REGIA) Meas	1.41	0.036	0.061	0.35	< 2	4	16		< 20		< 2	< 10	40	< 10	20	17
OREAS 922 (AQUA REGIA) Cert	1.33	0.021	0.063	0.386	0.57	3.15	15.0		14.5		0.14	1.98	29.4	1.12	16.0	22.3
OREAS 923 (AQUA REGIA) Meas	1.48		0.057	0.62	3	4	14		< 20		< 2	< 10	38	< 10	18	32
OREAS 923 (AQUA REGIA) Cert	1.43		0.061	0.684	0.58	3.09	13.6		14.3		0.12	1.80	30.6	1.96	14.3	22.5
OREAS 254 Meas																
OREAS 254 Cert																
Oreas 221 (Fire Assay) Meas																
Oreas 221 (Fire Assay) Cert																
152905 Orig																
152905 Dup																
Method Blank																
Method Blank	< 0.01	0.014	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	0.014	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1

Quality Analysis ...



### Innovative Technologies

 Date Submitted:
 26-Oct-18

 Invoice No.:
 A18-16042

 Invoice Date:
 27-Nov-18

 Your Reference:

GEOMAP EXPLORATION INC. 12430-7G AVENUE SURRY BC V3W 2T5 Canada

ATTN: Afzaal Pirzada

## **CERTIFICATE OF ANALYSIS**

6 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay) Code 1E3-Tbay Aqua Regia ICP(AQUAGEO)

#### REPORT A18-16042

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

Emmanuel Eseme , Ph.D. Quality Control

ACTIVATION LABORATORIES LTD.

1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6 TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613 E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com Results

Activation Laboratories Ltd.

### Report: A18-16042

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	В	Ва	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	К	La
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm							
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP							
294251	15	0.9	0.6	51	1000	2	25	15	204	1.84	< 2	< 10	16	< 0.5	< 2	0.64	22	28	4.77	< 10	< 1	0.70	12
294252	55	43.6	2.5	368	1600	1	3	1110	667	1.15	18	< 10	36	< 0.5	42	0.14	4	16	5.43	< 10	3	0.46	11
294253	80	80.7	198	1670	1980	6	12	2190	> 10000	2.09	33	< 10	< 10	< 0.5	104	0.47	87	20	8.10	< 10	8	0.54	< 10
294254	99	> 100	263	1990	1610	2	8	3440	> 10000	2.01	7	< 10	< 10	< 0.5	183	0.83	58	17	6.16	< 10	10	0.42	< 10
294415	126	1.6	59.6	252	1830	< 1	24	129	> 10000	2.50	12	< 10	< 10	< 0.5	< 2	0.28	45	26	7.76	< 10	< 1	1.43	< 10
294416	84	8.3	1.3	2460	1230	1	20	69	836	2.45	3	< 10	< 10	< 0.5	< 2	0.24	24	19	6.48	< 10	2	1.30	< 10

Results

Activation Laboratories Ltd.

Analyte Symbol	Mg	Na	Р	S	Sb	Sc	Sr	Ti	Th	Те	TI	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm							
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP															
294251	1.12	0.150	0.055	2.19	< 2	10	9	0.17	< 20	< 1	< 2	< 10	77	< 10	7	41
294252	0.22	0.057	0.052	0.74	4	2	9	0.03	< 20	< 1	< 2	< 10	24	< 10	4	4
294253	0.96	0.059	0.069	8.24	3	4	5	0.11	< 20	4	< 2	< 10	35	< 10	7	29
294254	0.70	0.040	0.043	6.37	4	3	6	0.07	< 20	7	< 2	< 10	29	< 10	4	24
294415	1.93	0.147	0.035	5.79	3	8	4	0.18	< 20	< 1	< 2	< 10	72	11	4	20
294416	0.80	0.067	0.044	3.47	2	4	8	0.13	< 20	3	< 2	< 10	33	< 10	5	29

QC

#### Activation Laboratories Ltd.

Report: A18-16042

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Мо	Ni	Pb	Zn	AI	As	В	Ва	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	к	La
	ppb	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm							
<u> </u>	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
	FA-AA	AR-ICP		AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP		AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP		AR-ICP		AR-ICP
OREAS 904		0.3	< 0.5	5940	452	2	33	8	27	2.04	93		80	7.6		0.05	95	25	6.27	< 10		1.01	39
(Aqua Regia) Meas																							
OREAS 904		0.366	0.0580	6300	410	2.02	36.6	8.49	22.4	1.25	91.0		68.0	6.54	3.74	0.0404	82.0	17.5	6.40	3.40		0.603	33.9
(Aqua Regia) Cert																							
OREAS 904		0.2																					
(Aqua Regia) Meas																							
OREAS 904		0.366																					
(Aqua Regia) Cert		0.300																					
OREAS 922		0.8	< 0.5	2150	781	< 1	33	59	276	3.03	6		75	0.8	5	0.43	19	44	5.18	< 10		0.54	38
(AQUA REGIA) Meas																							
OREAS 922		0.851	0.28	2176	730	0.69	34.3	60	256	2.72	6.12		70	0.65	10.3	0.324	19.4	40.7	5.05	7.62		0.376	32.5
(AQUA REGIA) Cert																							
OREAS 922		0.6																					
(AQUA REGIA) Meas		0.0																					
OREAS 922		0.851																					
(AQUA REGIA) Cert																							
OREAS 923		2.0	< 0.5	4150	862	< 1	30	79	342	2.98	3		40	0.7	11	0.43	21	42	5.82	< 10		0.46	34
(AQUA REGIA) Meas																							
OREAS 923 (AQUA REGIA)		1.62	0.40	4248	850	0.84	32.7	81	335	2.80	7.07		54	0.61	21.8	0.326	22.2	39.4	5.91	8.01		0.322	30.0
Cert																							
OREAS 923		1.4																					
(AQUA REGIA) Meas																							
OREAS 923		1.62																					
(AQUA REGIA)																							
Cert																							
OREAS 254 Meas	2470																						
OREAS 254 Cert	2550																						
Oreas 621 (Aqua Regia) Meas		68.5																					
Oreas 621 (Aqua Regia) Cert		68.0																					
294251 Orig	15	1.0	0.8	51	998	2	25	16	202	1.84	< 2	< 10	16	< 0.5	< 2	0.64	22	28	4.75	< 10	< 1	0.70	12
294251 Dup	15	0.9	0.5	51	1000	2	25			1.84	< 2	< 10	15		< 2	0.64	22	28		< 10	< 1	0.70	12
Method Blank	< 5					_																	
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	<1	< 5	< 1	< 1	< 2		< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	<1	< 1	< 0.01	< 10	<1	< 0.01	< 10
Method Blank		< 0.2							<u> </u>				1		<u> </u>								1.0

QC

#### Activation Laboratories Ltd.

Analyte Symbol	Mg	Na	Р	S	Sb	Sc	Sr	Ti	Th	Te	TI	U	V	w	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm							
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OREAS 904 (Aqua Regia) Meas	0.23		0.097	0.04	2	5	20		< 20		< 2	< 10	36		17	
OREAS 904 (Aqua Regia) Cert	0.143		0.0950	0.0340	0.780	3.83	16.5		7.56		0.150	5.20	21.7		17.2	
OREAS 904 (Aqua Regia) Meas																
OREAS 904 (Aqua Regia) Cert																
OREAS 922 (AQUA REGIA) Meas	1.41	0.036	0.061	0.35	< 2	4	16		< 20		< 2	< 10	40	< 10	20	17
OREAS 922 (AQUA REGIA) Cert	1.33	0.021	0.063	0.386	0.57	3.15	15.0		14.5		0.14	1.98	29.4	1.12	16.0	22.3
OREAS 922 (AQUA REGIA) Meas																
OREAS 922 (AQUA REGIA) Cert																
OREAS 923 (AQUA REGIA) Meas	1.48		0.057	0.62	3	4	14		< 20		< 2	< 10	38	< 10	18	32
OREAS 923 (AQUA REGIA) Cert	1.43		0.061	0.684	0.58	3.09	13.6		14.3		0.12	1.80	30.6	1.96	14.3	22.5
OREAS 923 (AQUA REGIA) Meas																
OREAS 923 (AQUA REGIA) Cert																
OREAS 254 Meas																
OREAS 254 Cert																
Oreas 621 (Aqua Regia) Meas																
Oreas 621 (Aqua Regia) Cert																
294251 Orig	1.11	0.151	0.055	2.19	2	10	9	0.17	< 20	< 1	< 2	< 10	77	< 10	7	41
294251 Dup	1.12	0.150	0.055	2.18	< 2	10	9	0.17	< 20	5	< 2	< 10	77	< 10	7	41
Method Blank																
Method Blank	< 0.01	0.014	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	0.014	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank																

Quality Analysis ...



### Innovative Technologies

 Date Submitted:
 26-Oct-18

 Invoice No.:
 A18-16042 (i)

 Invoice Date:
 05-Dec-18

 Your Reference:
 Volume

GEOMAP EXPLORATION INC. 12430-7G AVENUE SURRY BC V3W 2T5 Canada

ATTN: Alex Pleson

## **CERTIFICATE OF ANALYSIS**

6 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay) Code 1E3-Tbay Aqua Regia ICP(AQUAGEO)

#### REPORT A18-16042 (i)

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

Emmanuel Eseme , Ph.D. Quality Control

ACTIVATION LABORATORIES LTD.

1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6 TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613 E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com Activation Laboratories Ltd.

Analyte Symbol	Ag	Zn
Unit Symbol	g/tonne	%
Lower Limit	3	0.01
Method Code	FA- GRA	FUS- Na2O2
294253		4.60
294254	120	6.04
294415		1.67

Analyte Symbol	Ag	Zn
Unit Symbol	g/tonne	%
Lower Limit	3	0.01
Method Code	FA- GRA	FUS- Na2O2
GBW 07239 (NCS DC 70007) Meas		< 0.01
GBW 07239 (NCS DC 70007) Cert		0.01
MP-1b Meas		17.0
MP-1b Cert		16.7
CZN-4 Meas		55.4
CZN-4 Cert		55.07
OREAS 922 (Peroxide Fusion) Meas		0.02
OREAS 922 (Peroxide Fusion) Cert		0.03
OREAS 621 (Peroxide Fusion) Meas		5.27
OREAS 621 (Peroxide Fusion) Cert		5.22
CCU-1e Meas		3.04
CCU-1e Cert		3.02
CDN-GS-3M Meas	98	
CDN-GS-3M Cert	95.4	
CDN-GS-3M Meas	96	
CDN-GS-3M Cert	95.4	
294254 Orig	119	
294254 Dup	122	
Method Blank	< 3	
Method Blank		< 0.01