# INDEPENDENT TECHNICAL REPORT

# Nicobat Project, Rainy River Area, Ontario

Prepared for: Sassy Resources Corporation

Prepared by:

Elisabeth Ronacher, PhD, P.Geo. Jenna McKenzie, P.Geo. Ronacher McKenzie Geoscience Inc.



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# TABLE OF CONTENTS

1.0	SUMMARY	5
2.0	INTRODUCTION	6
2.1		6
2.2	UNITS	7
2.3	QUALIFICATIONS	7
3.0	RELIANCE ON OTHER EXPERTS	8
4.0	PROPERTY DESCRIPTION AND LOCATION	8
4.1	OWNERSHIP	
	4.1.1 Cell Claims Held by Emerald Lake	
	4.1.2 Claims held by Sassy Resources	
4.2	PERMITS	
5.0	ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIC	)GRAPHY 20
5.1	ACCESS	
5.2	CLIMATE	21
5.3	PHYSIOGRAPHY AND VEGETATION	
5.4	INFRASTRUCTURE AND LOCAL RESOURCES	
6.0	HISTORY	22
6.1	CANADIAN NICKEL COMPANY ("INCO") (1972-73)	
6.2	WALTER CUMMINGS (1988-89)	23
6.3	NORANDA (1995)	
6.4	PUSKAS & ALLEN (1997)	
6.5	RAINY RIVER RESOURCES (2007)	
7.0	GEOLOGICAL SETTING AND MINERALIZATION	25
7.1	REGIONAL GEOLOGY	
7.2	LOCAL GEOLOGY	25
7.3	STRUCTURE	
7.4	PROPERTY GEOLOGY	
	7.4.1 Dobie Township Claims	29
	7.4.2 Carpenter and Central Kingsford Township Claims	29
	7.4.3 Potts/Kingsford/Fleming/northern Mather Township Claims	29
	7.4.4 Mather Township Claims	29
7.5	MINERALIZATION	
8.0	DEPOSIT TYPES	





9.0	EXPLORATION	
9.1	GROUND GEOPHYSICS – MAGNETIC AND VLF SURVEY	
9.2	HELITEM AIRBORNE MAGNETIC AND ELECTROMAGNETIC SURVEY	
	9.2.1 Survey Procedure and Quality Control	
	9.2.2 HeliTEM Results	
	9.2.3 Maxwell Modelling	
10.0	DRILLING	46
11.0	SAMPLE PREPARATION, ANALYSES AND SECURITY	48
11.1	ACTLABS QUALITY CONTROL RESULTS	
12.0	DATA VERIFICATION	50
12.1	SITE VISIT	50
12.2	QUALITY CONTROL ANALYSIS	
12.3	GROUND MAG-VLF SURVEY	56
12.4	HELITEM SURVEY	
13.0	MINERAL PROCESSING AND METALLURGICAL TESTING	57
14.0	MINERAL RESOURCE ESTIMATES	57
15.0	ADJACENT PROPERTIES	57
16.0	OTHER RELEVANT DATA AND INFORMATION	57
17.0	INTERPRETATION AND CONCLUSIONS	57
18.0	RECOMMENDATIONS	58
19.0	REFERENCES	62
20.0	STATEMENT OF AUTHORSHIP	65

# **FIGURES**

Figure 4-1: Location of the property in northwestern Ontario	9
Figure 4-2: Map showing all claim groups of the Nicobat property	14
Figure 4-3: Claim fabric in Potts, Kingsford and Fleming townships	15
Figure 4-4: Claim fabric in Kingsford and Carpenter Townships	16
Figure 4-5: Claim fabric in Dobie Township	17
Figure 4-6: Claim fabric in Mather Township	18
Figure 5-1: Access to the claims that are the subject of this report	22





Figure 7-1: Location of the Wabigoon subprovince (modified from Frieman et al., 2017) Figure 7-2: Map showing the bedrock geology of the area of the Nicobat Property. Loca	27 al Geology
Figure 7-3: Geology of the Nicobat claim group	
Figure 8-1: Schematic model for the formation of Ni-Cu-PGE deposits (from Begg, et al. 20	)10)32
Figure 9-1. Results of the Farm ground magnetic survey. The Farm Block consists of the c	laims held
by Emerald Lake	
Figure 9-2. Results of the Farm ground VLF survey, 24.8 kHz. red = in phase, blue = q	uadrature,
green = total field. The Farm Block consists of the claims held by Emerald Lake	35
Figure 9-3: Loop configuration used during the HeliTEM survey	37
Figure 9-4: Flight lines for the HeliTEM survey	
Figure 9-5: Map showing the analytic signal (colour bar units are nT).	41
Figure 9-6: Map showing dB/dt, selected anomalies and modeled plates (colour bar units a	are ms/m).
	42
Figure 9-7: Location of modeled plates in the Potts Township claim group (background	magnetic
analytic signal; nT)	44
Figure 9-8: Location of plates in Carpenter Township claim group (background magnet	ic analytic
signal: nT)	45
signal; nT) Figure 10-1: Location of diamond drill hole A-0-15 on the Nico2 prospect	
signal; nT) Figure 10-1: Location of diamond drill hole A-0-15 on the Nico2 prospect Figure 12-1: Strongly overgrown trail in the area of the claims in Potts Township	
signal; nT) Figure 10-1: Location of diamond drill hole A-0-15 on the Nico2 prospect Figure 12-1: Strongly overgrown trail in the area of the claims in Potts Township Figure 12-2: Photo showing the only outcrop encountered during the traverse across	
signal; nT) Figure 10-1: Location of diamond drill hole A-0-15 on the Nico2 prospect Figure 12-1: Strongly overgrown trail in the area of the claims in Potts Township Figure 12-2: Photo showing the only outcrop encountered during the traverse across Township, Claims	
signal; nT) Figure 10-1: Location of diamond drill hole A-0-15 on the Nico2 prospect Figure 12-1: Strongly overgrown trail in the area of the claims in Potts Township Figure 12-2: Photo showing the only outcrop encountered during the traverse across Township. Claims Figure 12-3: Photo showing a pit that may have been an indication of provious exploration	
signal; nT) Figure 10-1: Location of diamond drill hole A-0-15 on the Nico2 prospect Figure 12-1: Strongly overgrown trail in the area of the claims in Potts Township Figure 12-2: Photo showing the only outcrop encountered during the traverse across Township. Claims Figure 12-3: Photo showing a pit that may have been an indication of previous exploration Figure 12-4: View towards the part from the parthwest corner of the claims in Mather Ter	
signal; nT) Figure 10-1: Location of diamond drill hole A-0-15 on the Nico2 prospect Figure 12-1: Strongly overgrown trail in the area of the claims in Potts Township Figure 12-2: Photo showing the only outcrop encountered during the traverse across Township. Claims Figure 12-3: Photo showing a pit that may have been an indication of previous exploration Figure 12-4: View towards the east from the northwest corner of the claims in Mather Tor 427727 E. E404260N) showing the dense vegetation on these claims	
signal; nT) Figure 10-1: Location of diamond drill hole A-0-15 on the Nico2 prospect Figure 12-1: Strongly overgrown trail in the area of the claims in Potts Township Figure 12-2: Photo showing the only outcrop encountered during the traverse across Township. Claims Figure 12-3: Photo showing a pit that may have been an indication of previous exploration Figure 12-4: View towards the east from the northwest corner of the claims in Mather To 427727 E, 5404269N) showing the dense vegetation on these claims	
signal; nT) Figure 10-1: Location of diamond drill hole A-0-15 on the Nico2 prospect Figure 12-1: Strongly overgrown trail in the area of the claims in Potts Township Figure 12-2: Photo showing the only outcrop encountered during the traverse across Township. Claims. Figure 12-3: Photo showing a pit that may have been an indication of previous exploration Figure 12-4: View towards the east from the northwest corner of the claims in Mather Tor 427727 E, 5404269N) showing the dense vegetation on these claims. Figure 12-5: Outcrop on the claims in Kingsford Township.	
signal; nT) Figure 10-1: Location of diamond drill hole A-0-15 on the Nico2 prospect Figure 12-1: Strongly overgrown trail in the area of the claims in Potts Township. Figure 12-2: Photo showing the only outcrop encountered during the traverse across Township. Claims Figure 12-3: Photo showing a pit that may have been an indication of previous exploration Figure 12-4: View towards the east from the northwest corner of the claims in Mather Tor 427727 E, 5404269N) showing the dense vegetation on these claims Figure 12-5: Outcrop on the claims in Kingsford Township Figure 18-1: Locations of proposed drill holes in Carpenter Township.	

# TABLES

Table 4-1: List of claims of the Nicobat property	9
Table 6-1: Overview of historic work completed on Sassy Resources's claim in Potts,	Kingsford,
Fleming and northern Mather townships	23
Table 6-2: List of drill holes completed by Canadian Nickel Co. in 1972/73	24
Table 6-3: List of drill holes completed by Puskas and Allen in 1997.	24
Table 9-1: HeliTEM survey parameters	





Table 9-2: Flight direction and line spacing per block	39
Table 9-3: Details of the plates in Carpenter Township	43
Table 9-4: Details of the plates located in the claim group in Potts and Mather townships	43
Table 10-1: Details of drill hole A-0-15 drilled on claim 4271029 in 2015	46
Table 10-2: List of drill core samples collected from drill hole A-0-15 with assay results	46
Table 11-1: List of blanks inserted by Actlabs	49
Table 11-2: List of standards inserted by Actlabs	49
Table 18-1: Details for recommended drill holes	59
Table 18-2: Estimated cost of recommended exploration program	59

# APPENDICES

Appendix 1 – Certificates of Qualified Persons





# 1.0 SUMMARY

Sassy Resources Corporation ("Sassy Resources") holds 174 non-contiguous mining cell claims covering 2,183 ha in the Rainy River area of northwestern Ontario. A total of 165 cell claims are owned 100% by Sassy Resources Corporation ("Crystal Lake"), but are subject to a 2% net smelter return ("NSR") to Emerald Lake Development Corp. ("Emerald Lake"). Sassy Resources hold 15% and Emerald Lake 85% in nine cell claims.

The property is located in the Wabigoon subprovince (Superior Province) of the Canadian Shield. The claims are within in the Rainy River Block, which is characterized by metavolcanic rocks into which large felsic and smaller mafic-ultramafic intrusions were emplaced. The mafic-ultramafic intrusion can host semi-massive and massive Ni-Co-Cu-PGE mineralization. Mineralization was intersected in a drill hole on claim 101078; it consists of semi-massive breccia and disseminated sulfides, dominantly pyrrhotite (60-70%) with some pentlandite (10%) and minor chalcopyrite. Elsewhere in the area, Ni-Cu-PGE occurrences are also associated with mafic-ultramafic intrusions.

The area has been explored for Ni-Cu-PGE and VMS-type Zn mineralization since the early 1950s but no major deposit has been found to date.

In 2015, Crystal Lake drilled one diamond drill hole totalling 91.44 m. The drill hole intersected gabbro and pyroxenite and up to 10% disseminated sulfides (pyrrhotite, pentlandite, chalcopyrite). Twelve drill core samples were collected by Crystal Lake for assaying; Crystal Lake reported grades of up to 0.226% Ni and 0.219% Cu over 0.91 m and 0.547% Ni and 0.218% Cu over 0.42 m. In 2018, Crystal Lake competed an airborne magnetic-electromagnetic survey on the property. The purpose of the survey was to delineate magnetic and coincident electromagnetic anomalies, which could be caused by Ni-sulfide mineralization. Conductors for the two highest-ranked anomalies were modelled using Maxwell software to determine their depth and geometry.

A personal inspection of the historic drill core was completed by Dr. Elisabeth Ronacher, P.Geo., from June 6 to 8, 2017. She visited claim 101078, inspected the drill hole collar location and reviewed drill core. Dr. Ronacher visited the property again on June 9 and 10, 2019.

The Qualified Persons (QPs) conclude that the modelled conductors represented drill targets and recommend that these targets be tested in a reconnaissance drill program. The target in the area of the Carpenter Township is Ni-Co-Cu-PGE mineralization. The target in Potts Township is VMS-type Zn mineralization.

The QPs recommend a 1,100 me diamond drilling program to test the conductors.





# 2.0 INTRODUCTION

Sassy Resources Corporation ("Sassy Resources") commissioned Ronacher McKenzie Geoscience Inc. ("Ronacher McKenzie") to prepare an Independent Technical Report ("the report") in accordance with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101") on the mineral claims of the Nicobat Project ("the property") located in the Rainy River District near Fort Frances, Ontario. Sassy Resources is a former subsidiary of Crystal Lake Mining Corporation ("Crystal Lake").

The purpose of the report is to disclose relevant technical information on the property, which is material to Sassy Resources. Another purpose is to compile and evaluate information that will allow Sassy Resources to make informed decisions about exploration on the property.

The main source of information comprised legacy data provided by Crystal Lake and Sassy Resources. Crystal Lake provided a compilation of historic and current company exploration data including drill hole information and reports. Historic information and geological literature were obtained from the public domain, dominantly the Ontario Geological Survey ("OGS"). This report is based on a Technical Report on the property dated February 5, 2018 (Ronacher et al., 2018).

Dr. Elisabeth Ronacher, P.Geo. visited the property from June 6 to 8, 2017 (see Ronacher et al., 2018). She reviewed core from drill hole A-0-15, which was drilled on cell claim 101078. She also inspected the drill hole location. Dr. Ronacher visited the property again on July 9 and 10, 2019. She visited the claims in Potts, Mather and Kingsford townships. The area of the claims is heavily vegetated and very little outcrop was encountered.

## 2.1 Terminology

Asl: above sea level

**EM:** electromagnetic; geophysical exploration method based on the measurement of alternating magnetic fields associated with currents artificially or naturally maintained in the subsurface (Bates and Jackson 1980)

MENDM: Ministry of Energy, Northern Development and Mines

ICP-MS: Induced coupled plasma mass spectrometry

**OES**: Optical Emission Spectroscopy

**OGS:** Ontario Geological Survey

**PGE**: Platinum group elements

**PGM**: Platinum group metals





## **QP**: Qualified Person

**VLF**: Very low frequency; geophysical method that uses radio communication signals to determine the electrical property of bedrock.

## 2.2 Units

The metric system of measurement is used in this report. Historic data are typically reported in imperial units and were converted for this report using appropriate conversion factors. Ounces per (short) ton are converted to grams per (metric) tonne using the conversion factor of 34.2857. One foot is 0.3048 m. One gamma (unit of magnetic intensity) is 1x10<sup>-9</sup> T or 1 nT. Surface area is given in hectares (ha). 1 ha is 2.47 acres. All dollar values are in Canadian dollars except where noted otherwise.

Universal Transverse Mercator (UTM) coordinates are provided in the datum of NAD83, Zone 15N.

#### 2.3 Qualifications

Ronacher McKenzie Geoscience is an international consulting company with offices in Toronto and Sudbury, Ontario, Canada. Ronacher McKenzie's mission is to intelligently use geoscientific data integration to help mineral explorers focus on what matters to them. We help a growing number of clients understand the factors that control the location of mineral deposits.

With a variety of professional experience, our team's services include:

- Data Integration, Analysis and Interpretation
- Geophysical Services
- Project Generation and Property Assessment
- Exploration Project Management
- Resource Estimation and Independent Technical Reporting
- Project Promotion
- Lands Management

A Qualified Person and co-author is Elisabeth Ronacher, PhD, P.Geo. Dr. Ronacher is co-founder of and Principal Geologist to Ronacher McKenzie Geoscience and a geologist in good standing of the Association of Professional Geoscientists of Ontario (APGO #1476). Dr. Ronacher has worked as a geologist since 1997 with academia and industry on a variety of exploration properties such as Au, Cu, bas-metal, Cu-Ni PGE and U. She has written numerous Independent Technical Reports (NI 43-101) on a variety of deposit types. Dr. Ronacher is responsible for all sections of this report except Section 9, 12.3 and 12.4 and visited the Property.





Another Qualified Person and co-author of this report is Ms. Jenna McKenzie, P.Geo. Ms. McKenzie is co-founder and Principal Geophysicist to Ronacher McKenzie Geoscience and a geoscientist in good standing with the Association of Professional Geoscientists of Ontario (APGO #1653). Ms. McKenzie has worked as a geophysicist since 2001 in the exploration and mining industry on a variety of exploration properties such as porphyry-copper, gold, VMS, Ni-Cu-PGE, diamond-bearing-kimberlite and potash. Ms. McKenzie has co-written several Independent Technical Reports (NI 43-101) on a variety of deposit types with specific focus on geophysical surveying and interpretation. Ms. McKenzie is responsible for Section 9 (Exploration) and section 12.3 (Data Verification – Ground Mag-VLF Survey and 12.4 (HeliTEM Survey) of this report and did not visit the Property.

Certificates of the Qualified Persons are provided in Appendix 1.

# 3.0 RELIANCE ON OTHER EXPERTS

Ronacher McKenzie relied on information provided by Sassy Resources regarding ownership of the property. The QP reviewed the status of mineral claims on the website of the Mining Lands Administration System ("MLAS") of the Ontario Ministry of Energy, Northern Development and Mines ("MENDM") (<u>https://www.mndm.gov.on.ca/en/mines-and-minerals/land-tenure-and-geoscience-resources</u>) on February 11, 2020. Whereas title documents and option agreements were reviewed for this report, this report does not constitute nor is it intended to represent a legal or any other opinion to title.

# 4.0 PROPERTY DESCRIPTION AND LOCATION

The property is located in the Rainy River area of northwestern Ontario (Figure 4-1). The property consists of 174 non-contiguous mining cell claims in six townships covering a total surface area of 2,183 ha (Table 4-1; Figure 4-2 to Figure 4-6). All cell claims are held by Sassy Resources except the nine cell claims in Dobie Township that are held by Emerald Lake Development Corp. ("Emerald Lake"; Table 4-1). Sassy Resources holds 15% of Emerald Lake's claims (see Section 4.1).

Legal access to the properties is via provincial highways and roads. Sassy Resources owns the surface rights of the nine claims in Dobie Township for which Emerald Lake holds the mineral right. The surface rights of all other claims are not owned by Sassy Resources.

In order to keep the claims in good standing, Sassy Resources must complete exploration work worth \$400 on each single cell claim and \$200 on each boundary cell claim.







Figure 4-1: Location of the property in northwestern Ontario.

Table 4-1: List	of claims	of the	Nicobat	property.

Township	Tenure ID	Owner*	Tenure Type	Anniversary Date
DOBIE	117849	Sassy Resources	Single Cell Mining Claim	2020-11-27
DOBIE	117850	Sassy Resources	Single Cell Mining Claim	2020-11-27
DOBIE	181813	Sassy Resources	Single Cell Mining Claim	2020-11-27
DOBIE	235734	Sassy Resources	Boundary Cell Mining Claim	2020-11-27
CARPENTER, KINGSFORD	334016	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER, KINGSFORD	310526	Sassy Resources	Single Cell Mining Claim	2020-12-22





Township	Tenure ID	Owner*	Tenure Type	Anniversary Date
CARPENTER	135242	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	154768	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	154769	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	154770	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	227003	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	274142	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	286278	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	115649	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	115650	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	141488	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	141997	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	141998	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	154265	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	154266	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	154267	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	200104	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	286279	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	302599	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	302600	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	320692	Sassy Resources	Single Cell Mining Claim	2020-12-22
CARPENTER	322858	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	135241	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	334015	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	323268	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	310525	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	303772	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	273928	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	273927	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	266657	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	254569	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	254568	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	254567	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	236496	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	207917	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	199905	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	187890	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	187889	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	187888	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	154767	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	141199	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	141198	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	199923	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	323284	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	334098	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	323361	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	310614	Sassy Resources	Single Cell Mining Claim	2020-12-22





Township	Tenure ID	Owner*	Tenure Type	Anniversary Date
KINGSFORD	310613	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	274014	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	255166	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	255165	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	208027	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	170027	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	141294	Sassy Resources	Single Cell Mining Claim	2020-12-22
KINGSFORD	141293	Sassy Resources	Single Cell Mining Claim	2020-12-22
MATHER	117116	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	326114	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	314075	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	314074	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	277486	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	223520	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	223519	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	211474	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	203383	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	163599	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	157570	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	143477	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	117118	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	117117	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	101918	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	279622	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	278094	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	117237	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	101919	Sassy Resources	Single Cell Mining Claim	2021-01-06
MATHER	277485	Sassy Resources	Single Cell Mining Claim	2021-02-10
MATHER	203382	Sassy Resources	Single Cell Mining Claim	2021-02-10
MATHER	101781	Sassy Resources	Single Cell Mining Claim	2021-02-10
MATHER	101782	Sassy Resources	Single Cell Mining Claim	2021-02-10
MATHER	101783	Sassy Resources	Single Cell Mining Claim	2021-02-10
MATHER	204921	Sassy Resources	Single Cell Mining Claim	2021-02-10
MATHER	204941	Sassy Resources	Single Cell Mining Claim	2021-02-10
MATHER, TAIT	262957	Sassy Resources	Boundary Cell Mining Claim	2021-02-10
MATHER, TAIT	283033	Sassy Resources	Boundary Cell Mining Claim	2021-02-10
MATHER, TAIT	290376	Sassy Resources	Boundary Cell Mining Claim	2021-02-10
POTTS	101096	Sassy Resources	Single Cell Mining Claim	2021-02-12
POTTS	342621	Sassy Resources	Single Cell Mining Claim	2021-02-12
POTTS	330787	Sassy Resources	Single Cell Mining Claim	2021-02-12
POTTS	330256	Sassy Resources	Single Cell Mining Claim	2021-02-12
POTTS	291011	Sassy Resources	Single Cell Mining Claim	2021-02-12
POTTS	271604	Sassy Resources	Single Cell Mining Claim	2021-02-12
POTTS	271570	Sassy Resources	Single Cell Mining Claim	2021-02-12
POTTS	263611	Sassy Resources	Single Cell Mining Claim	2021-02-12
POTTS	205580	Sassy Resources	Single Cell Mining Claim	2021-02-12





Township	Tenure ID	Owner*	Tenure Type	Anniversary Date
POTTS	181044	Sassy Resources	Single Cell Mining Claim	2021-02-12
POTTS	168214	Sassy Resources	Single Cell Mining Claim	2021-02-12
POTTS	123101	Sassy Resources	Single Cell Mining Claim	2021-02-12
MATHER	117168	Sassy Resources	Single Cell Mining Claim	2021-02-12
MATHER, POTTS	128322	Sassy Resources	Single Cell Mining Claim	2021-02-12
MATHER	279563	Sassy Resources	Single Cell Mining Claim	2021-02-12
MATHER	259501	Sassy Resources	Single Cell Mining Claim	2021-02-12
MATHER	230322	Sassy Resources	Single Cell Mining Claim	2021-02-12
MATHER	223568	Sassy Resources	Single Cell Mining Claim	2021-02-12
MATHER	211515	Sassy Resources	Single Cell Mining Claim	2021-02-12
MATHER	211514	Sassy Resources	Single Cell Mining Claim	2021-02-12
MATHER	163634	Sassy Resources	Single Cell Mining Claim	2021-02-12
MATHER	128323	Sassy Resources	Single Cell Mining Claim	2021-02-12
FLEMING,KINGSFORD,POTTS	222975	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD,POTTS	296304	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD,POTTS	143441	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD,POTTS	100432	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD,MATHER,POTTS	100433	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD,MATHER	314059	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD,MATHER	258938	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD,MATHER	230284	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD,MATHER	100464	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD	277470	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD	277469	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD	222998	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD	222997	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD	143460	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD	128263	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD	128262	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD	117095	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD	100466	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD	100465	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD	100463	Sassy Resources	Single Cell Mining Claim	2021-02-12
KINGSFORD	100462	Sassy Resources	Single Cell Mining Claim	2021-02-12
DOBIE	127621	Sassy Resources	Single Cell Mining Claim	2021-02-12
DOBIE	202733	Sassy Resources	Single Cell Mining Claim	2021-02-12
DOBIE	210793	Sassy Resources	Boundary Cell Mining Claim	2021-02-12
DOBIE	210794	Sassy Resources	Single Cell Mining Claim	2021-02-12
DOBIE	222852	Sassy Resources	Single Cell Mining Claim	2021-02-12
DOBIE	229610	Sassy Resources	Single Cell Mining Claim	2021-02-12
DOBIE	295654	Sassy Resources	Single Cell Mining Claim	2021-02-12
DOBIE	313399	Sassy Resources	Single Cell Mining Claim	2021-02-12
DOBIE	313400	Sassy Resources	Single Cell Mining Claim	2021-02-12
POTTS	215062	Sassy Resources	Single Cell Mining Claim	2021-02-16
POTTS	179727	Sassy Resources	Single Cell Mining Claim	2021-02-16
POTTS	166884	Sassy Resources	Single Cell Mining Claim	2021-02-16





Township	Tenure ID	Owner*	Tenure Type	Anniversary Date
MATHER, POTTS	101847	Sassy Resources	Single Cell Mining Claim	2021-02-16
POTTS	341277	Sassy Resources	Single Cell Mining Claim	2021-02-16
POTTS	341276	Sassy Resources	Single Cell Mining Claim	2021-02-16
POTTS	233586	Sassy Resources	Single Cell Mining Claim	2021-02-16
POTTS	215063	Sassy Resources	Single Cell Mining Claim	2021-02-16
POTTS	166885	Sassy Resources	Single Cell Mining Claim	2021-02-16
POTTS	121757	Sassy Resources	Single Cell Mining Claim	2021-02-16
MATHER, POTTS	259500	Sassy Resources	Single Cell Mining Claim	2021-02-16
MATHER, POTTS	214821	Sassy Resources	Single Cell Mining Claim	2021-02-16
MATHER	326113	Sassy Resources	Single Cell Mining Claim	2021-03-11
MATHER	211473	Sassy Resources	Single Cell Mining Claim	2021-03-11
MATHER	101979	Sassy Resources	Single Cell Mining Claim	2021-03-11
MATHER	279680	Sassy Resources	Single Cell Mining Claim	2021-03-11
MATHER	212148	Sassy Resources	Single Cell Mining Claim	2021-03-11
MATHER	204046	Sassy Resources	Single Cell Mining Claim	2021-03-11
CARPENTER	112982	Sassy Resources	Single Cell Mining Claim	2021-12-22
CARPENTER,KINGSFORD	112981	Sassy Resources	Single Cell Mining Claim	2021-12-22
CARPENTER	112983	Sassy Resources	Single Cell Mining Claim	2021-12-22
CARPENTER	115648	Sassy Resources	Single Cell Mining Claim	2021-12-22
CARPENTER	115651	Sassy Resources	Single Cell Mining Claim	2021-12-22
CARPENTER	115652	Sassy Resources	Single Cell Mining Claim	2021-12-22
DOBIE	101078	Emerald Lake	Single Cell Mining Claim	2020-12-30
DOBIE	123096	Emerald Lake	Single Cell Mining Claim	2020-12-30
DOBIE	123097	Emerald Lake	Single Cell Mining Claim	2020-12-30
DOBIE	151620	Emerald Lake	Single Cell Mining Claim	2020-12-30
DOBIE	168212	Emerald Lake	Single Cell Mining Claim	2020-12-30
DOBIE	205575	Emerald Lake	Single Cell Mining Claim	2020-12-30
DOBIE	216396	Emerald Lake	Single Cell Mining Claim	2020-12-30
DOBIE	291007	Emerald Lake	Single Cell Mining Claim	2020-12-30
DOBIE	291008	Emerald Lake	Single Cell Mining Claim	2020-12-30







Figure 4-2: Map showing all claim groups of the Nicobat property.







Figure 4-3: Claim fabric in Potts, Kingsford and Fleming townships.







Figure 4-4: Claim fabric in Kingsford and Carpenter Townships.







Figure 4-5: Claim fabric in Dobie Township.







Figure 4-6: Claim fabric in Mather Township.





#### 4.1 Ownership

#### 4.1.1 Cell Claims Held by Emerald Lake

Nine cell claims, previously called EL5 or "Farm Claim", in Dobie Township are held by Emerald Lake (Table 4-1). Sassy Resources holds a 15% interest in these claims. The 15% interest was assigned to Sassy pursuant to the Arrangement Agreement defined below (section 4.1.2).

The surface rights for the area covered by Emerald Lake's claims in Dobie Township are held by Crystal Lake.

#### 4.1.2 Claims held by Sassy Resources

Sassy Resources holds 100% interest in the claims that are the subject of this report except nine cell claims in Dobie Township, which are held by Emerald Lake (see 4.1.1). Emerald Lake, the previous owner of Sassy Resources' claims, retains a 2% net smelter return ("NSR"; see Crystal Lake News Release, February 27, 2018).

The 165 claims that are wholly owned by Sassy Resources were transferred from Crystal Lake Mining Corporation ("Crystal Lake") to Sassy Resources Corporation ("Sassy Resources") on February 10, 2020 pursuant to the Arrangement Agreement between Crystal Lake Mining Corporation and Sassy Resources Corporation dated July 25, 2019 (the "Arrangement") as part of the assets transferred pursuant to the Arrangement. Sassy Resources is a former subsidiary of Crystal Lake. The particulars of the Arrangement are described in the management information circular of Crystal Lake dated August 15, 2019, which was filed on September 3, 2019 on SEDAR.com and is available under the profile of Crystal Lake. The Arrangement has been approved by the shareholders of Crystal Lake and the Supreme Court of British Columbia.

The surface rights for all other claims are held by private individuals or the Crown.

#### 4.2 Permits

In Ontario, permits are generally required for exploration on unpatented mineral claims or leases.

Exploration activities such as geophysical surveys requiring a power generator, line cutting where the line width is less than 1.5 m, mechanized drilling where the total weight of the rig is less than 150 kg, mechanized surface stripping where the total stripped area is less than 100 m<sup>2</sup>, or pitting and trenching of a volume of 1 to 3 m<sup>3</sup> on unpatented mineral claims or leases require an exploration plan. Exploration permits are required for line cutting where the line width exceeds 1.5 m, for drilling where the weight of the drill exceeds 150 kg, mechanized stripping of an area greater than 100 m<sup>2</sup>





and for pitting and trenching where the total volume of rock is more than 3 m<sup>3</sup>. Plan and permit applications are submitted to the MENDM for review. The MENDM then posts these on the Environmental Registry for 30 days and circulates them to First Nations communities who have areas of cultural significance. Plans are typically approved within 30 days and permits within 60 days. Plans are valid for two years and permits are valid for three years (https://www.mndm.gov.on.ca/en/mines-and-minerals/mining-act).

No exploration plans or permits are generally required for fee simple absolute patents and for areas that are part of a closure plan. All surface rights holders must be notified of the application in advance of the submission.

Crystal Lake currently has exploration permit PR-18-11289 for mechanized drilling. The permit is valid until May 3, 2021. In addition, Crystal Lake has exploration plan PL-18-10873 for geophysical surveys requiring a generator and line cutting (<1.5 m width). The plan is valid until April 21, 2020. The permit and the plan are transferable to Sassy Resources.

The QPs are not aware of any royalties, back-in rights, payments, or other agreements and encumbrances to which the property is subject, other than the ones mentioned above.

The QPs are not aware of any environmental liabilities to which the property is subject.

The QPs are not aware of any other significant factors or risks that may affect access, title or the right or ability to perform work on the property.

# 5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

The claims are located in Dobie, Mather, Carpenter, Kingsford, Potts and Fleming townships (Figure 4-2), approximately ~400 km west of Thunder Bay, Ontario, and 45 km northwest of the Town of Fort Francis. The population of Fort Frances is 7,739 (Statistics Canada 2018). Emo is the closest settlement to the claim groups. The population of Emo is 1,333 (Statistics Canada 2018).

## 5.1 Access

Access to the claims is on provincial highways and roads with standard pick-up trucks (Figure 5-1). The claims in Dobie Township can be access from Emo, Ontario, on Highway 11 and Highway 71.





Sturgeon Creek Road off Highway 71 and Angus Road lead directly to the claims west of Highway 11 and Wilson Road to the claims east of Highway 11.

The claims in the western part of Mather Township can be accessed via Mather Road and Barwick Road off Highway 71.

The claims in Potts and northern Mather and northern Kingsford townships are accessed via Highway 615 off Highway 71.

The claims in central Kingsford Township are accessed on Mather Road off Highway 71, followed by Off Lake Road and Dance Road (also called Concession Road 2).

The claims in Carpenter Township are located 1 km east of the end of Dunbar Road.

Some locations with the claim groups are best reached by all-terrain vehicle, snowmobile or by foot.

The closest airport is located in Fort Frances.

#### 5.2 Climate

The climate in the property area is continental with long, cold winters and short warm summers. The warmest mean temperatures are typically recorded in July (~24 °C) and the coldest temperatures in January (-15 °C), however maximum temperatures can reach 30 °C in June and July and -35 °C in January and February (climate.weather.gc.ca). Maximum snow fall occurs in January (~25 cm) and maximum rainfall in June (~100 mm). Total annual precipitation is ~600 mm. Exploration can be completed year-round.

#### 5.3 Physiography and Vegetation

The area is characterized by very low relief with an average elevation of ~350-400 m above sea level (asl) and consists dominantly of farm land with some forest; birch is the dominant type of tree. Overburden is locally up to 60 m thick.

#### 5.4 Infrastructure and Local Resources

Power exists in the area of all claim groups. Water for exploration is available from streams and lakes. Mining personnel, skilled and unskilled labor are available due to recent exploration and mining activities in the area. A CN rail line runs parallel to Highway 11 connecting to Thunder Bay and Winnipeg.

Services such as stores, banks, gas stations and hotels are available in Fort Frances.





The sufficiency of surface rights for mining operations, the availability of tailings storage areas, potential waste disposal areas, heap leach pad areas, and potential processing plant sites are not relevant to the project at this stage.



Figure 5-1: Access to the claims that are the subject of this report.

# 6.0 HISTORY

Fletcher and Irvine (1954) reported that the Rainy River area started receiveing attention in terms of exploration in 1953 when base metal occurrences were found in southern Dobie Township. The historic exploration summarized below is from assessment reports that are publicly available from the MENDM (Table 6-1). The QP did not have access to any historic information for the claims in Dobie Township. The claims are surrounded by patented ground for which no assessment reports exist.







No production has been completed on the property.

Table 6-1: Overview of historic work completed on Sassy Resources' claim in Potts, Kingsford, Fleming and north	ern
Mather townships.	

Year	Company	Exploration Type	Results	Source
1973	Canadian Nickel Co. Ltd	diamond drilling: 3 holes	up to 5% pyrite/pyrrhotite; no assays provided in assessment report	Assessment report: 20007411
1988	Walter Cummings	descriptions of the 1973 Canadian Nickel Co. drill holes	Zn and Cu sulfides in gabbro (up to 1% chalcopyrite+sphalerite); no assay data provided	Assessment report: 52C13SW0003 (Ogden, 1988a)
1988	Walter Cummings	magnetometer, self-potential, biogeochemistry	southwest dipping magnetic high delineated	Assessment report: 52C13SW0002 (Ogden, 1988b)
1989	Walter Cummings	mag-EM	EM anomaly delineated, no coincident magnetic anomaly	Assessment report: 52C13SW0001 (Ogden, MacEachern and Paterson)
1995	Noranda	mag-HLEM; 23.45 line km	linear magnetic and EM anomaly delineated	Assessment report: 52C13SW0004 (Smith & Petrie, 1995a)
1997	Puskas & Allen	diamond drilling:	no assay results available; logs indicated up to 17% sulfide (pyrite; minor pyrrhotite, chalcopyrite)	Assessment report: 52C13SW2001
2007	Rainy River Resources	mapping	mostly volcanic rocks, some gabbro and pyroxenite mapped	Assessment report: 20003413 (Ayres and Tims, 2007)

#### 6.1 Canadian Nickel Company ("Inco") (1972-73)

The Canadian Nickel Company followed up on an airborne EM conductor (MacEachern and Paterson, 1989); no information is available about the airborne survey. Inco drilled two Winkie and one diamond drill holes in northern Mather Township at the border with Potts Township (Table 6-2; Assessment report 20007411). No assay data were provided in the assessment report.

#### 6.2 Walter Cummings (1988-89)

No detailed descriptions or assay data are available in the Canadian Nickel Co. drill logs but Ogden (1988a) reports in Assessment Report 52C13SW0003 that zinc and copper sulfides "associated with gabbro" overlying felsic rocks were intersected in the holes. He provided descriptions of the drill holes for the 1973 drill holes (Table 6-2). In 1988, Ogden (1988b) completed a geophysical survey (magnetometer and self-potential) on the claims drilled by the Canadian Nickel Company 1973





(Assessment Report 52C13SW0002) to determine whether any geophysical anomalies related to the sulfide mineralization in the historic drill holes could be delineated. Ogden (1988b) concluded that southwest dipping magnetic zones existed in the area. In addition to the geophysical surveys, poplar bark was analyzed for trace elements without success.

In 1989, Cummings commissioned a magnetic and electromagnetic survey on the property (Assessment Report 52C13SW0001: MacEachern and Paterson, 1989). A strong EM anomaly was delineated; however, the magnetic survey did not provide any conclusive results and no relationship between the magnetic signature and the EM anomalies was established.

48577197222668.66180-50Zn and Cu in upper portions in gabbro; 189 ft (56.61 m) fine-grained rhyolitic tuff and quartz breccia with 25% pyrrhotite and blebs of pyrite/chalcopyrite/sphalerite; 20% massive sphalerite over 15 cm at 205 ft (62.48 m) up to 1% cpy and 5% po/py; gabbro, dacite485951973360109.37360-45granitic rocks and gabbro, up to 30% sulfide; bottom of the hole intersected amphibolite with scattered pyrite	Hold ID	Year	Depth (ft)	Depth (m)	Azimuth	Dip	Comment
48578197219057.72360-45up to 1% cpy and 5% po/py; gabbro, dacite485951973360109.37360-45granitic rocks and gabbro, up to 30% sulfide; bottom of the hole intersected amphibolite with scattered pyrite	48577	1972	226	68.66	180	-50	Zn and Cu in upper portions in gabbro; 189 ft (56.61 m) of fine-grained rhyolitic tuff and quartz breccia with 25% pyrrhotite and blebs of pyrite/chalcopyrite/sphalerite; 20% massive sphalerite over 15 cm at 205 ft (62.48 m)
48595 1973 360 109.37 360 -45 granitic rocks and gabbro, up to 30% sulfide; bottom of the hole intersected amphibolite with scattered pyrite	48578	1972	190	57.72	360	-45	up to 1% cpy and 5% po/py; gabbro, dacite
and magnetite	48595	1973	360	109.37	360	-45	granitic rocks and gabbro, up to 30% sulfide; bottom of the hole intersected amphibolite with scattered pyrite and magnetite

Table 6-2: List of drill holes completed by Canadian Nickel Co. in 1972/73.

## 6.3 Noranda (1995)

Noranda completed a magnetic and horizontal loop EM survey on the same claims that were previously held by Inco and W. Cummings in northern Potts Township in 1994. Smith and Petrie (1995, Assessment Report 52C13SW0004) claimed that several untested airborne EM anomalies exist in the northern part of the claim group and north of the previously drill tested anomalies (Section 6.2.1). Noranda surveyed a total of 23.45 line km and delineated a north-south trending magnetic anomaly and an EM anomaly that is parallel to the western edge of the magnetic anomaly.

## 6.4 Puskas & Allen (1997)

Puskas and Allen drilled four diamond drill holes totalling 309.57 m on the same claims in 1997 (Assessment report: 52C13SW2001). No mafic or ultramafic rocks were intersected, however, the granitic and sedimentary rocks hosted pyrite, pyrrhotite, chalcopyrite and sphalerite (Table 6-3). Assay data are not available.

Hold ID	Year	Depth (ft)	Depth (m)	Azimuth	Dip	Comment
PW-01-97	1997	267	81.11	NE	-45	minor pyrite, pyrrhotite, chalcopyrite and sphalerite in granitoids
PW-02-97	1997	303	92.05	270	-50	minor pyrite in granitoids
PW-03-97	1997	303	92.05	90	-90	minor pyrite, pyrrhotite, chalcopyrite and sphalerite in granitoids

Table 6-3: List of drill holes completed by Puskas and Allen in 1997.





Hold ID	Year	Depth (ft)	Depth (m)	Azimuth	Dip	Comment
PW-04-97	1997	146	44.35	90	-50	minor pyrite, pyrrhotite, chalcopyrite and sphalerite in sedimentary rocks
TOTAL		1019	309.57			

#### 6.5 Rainy River Resources (2007)

Rainy River Resources ("Rainy River") mapped the area around Off Lake in Potts Township (Assessment Report 20003413: Ayres and Tims, 2007). Metagabbro and pyroxenite intrusions were mapped in a set of felsic dikes called the Off Lake felsic dike complex, in the volcanic sequence near Pinewood Lake and the Mather metasedimentary sequence. Ayres and Tims (2007) also mentioned the linear magnetic high west of Pinewood Lake where the 1972/73 Inco drill holes are located. These authors interpreted the "distinctive, irregular, aeromagnetic expression" in the Off Lake felsic dike complex to indicate that mafic-ultramafic "megablocks and large septa" exist in the subsurface and are covered by overburden.

## 7.0 GEOLOGICAL SETTING AND MINERALIZATION

## 7.1 Regional Geology

The property is located in the Wabigoon subprovince (Superior Province) of the Canadian Shield (Figure 7-1; Blackburn et al., 1991), more specifically in a wedge that forms the boundary between the southern Wabigoon and the Quetico subprovinces (Hendrickson 2016; Poulsen 2000). This wedge, called Rainy River Block by Hendrickson (2016) is bounded by the Quetico Fault in the north and by the Sein River Fault and Vermillion Fault in the south. The Wabigoon subprovince consists of volcanic rocks with a central axis of plutonic rocks; the eastern and western domains of the Wabigoon subprovince exhibit different tectonic characteristics (Percival et al., 2006). The western domain, where the property is located, is dominated by a range of volcanic rocks from tholeiitic to calc-alkalic that were deposited between 2.745 and 2.720 (Percival et al., 2006). The plutonic rocks are synvolcanic and consist mainly of tonalite, diorite and gabbro. Younger meta-sedimentary rocks form narrow belts within the volcanic sequences.

The eastern Wabigoon domain consists of greenstone belts and granitic plutons.

## 7.2 Local Geology

The bedrock geology in the Nicobat area is dominated by thick sections of metasedimentary and metavolcanic rocks of the Keewatin Series. The sedimentary rocks are dominantly greywacke, iron





formation and hornblenditic sedimentary rocks; the volcanic rocks range from felsic to intermediate to mafic (Fletcher and Irvine 1954). Granitic intrusions were emplaced into the sedimentary-volcanic sequence. Some mafic intrusives also occur in the area including norite and gabbro (Fletcher and Irvine 1954). Quartz diabase dikes cut all rocks (Figure 7-2).

Fletcher and Irvine (1954) described two major folds in the area. One is located in Carpenter Township and extends west to Emo, with the fold axis trending northeast. The second fold axis trends in a similar northeast direction was mapped in Pinewood Lake and Potts townships.

Two mafic intrusions exist in the area: the Dobie intrusion and the Carpenter-Lash intrusion. The Dobie intrusion located in Dobie Township was defined based on aeromagnetic maps, some outcrop and drill core. The intrusion consists of medium-grained hypersthene gabbro and norite, coarse-grained pyroxenite and anorthosite (Fletcher and Irvine 1954). The feldspar content increases towards the contact with the volcanic rocks into which the intrusion was emplaced. Fletcher and Irwin (1954) noted the minerals appear fresh and unaltered and that the intrusion did not exhibit any gneissic texture; therefore, they concluded that the Dobie intrusion was not strongly metamorphosed or sheared.

The second mafic intrusion, the Carpenter-Lash Intrusion, is located ~10 km east of the Dobie Intrusion. It was also defined primarily by interpretation of airborne magnetic data. Contrary to the Dobie intrusion, which consists of several phases, the Carpenter-Lash intrusion is homogeneous consisting of labradorite (50-60%) and augite/hypersthene (Fletcher and Irvine 1954).

In addition to the Dobie and Carpenter-Lash intrusions, smaller bodies of mafic rocks are reported to exist in the area (Fletcher and Irvine 1954).

The area is covered by till, fluviolacustrine and lacustrine sand, silt and clay.







Figure 7-1: Location of the Wabigoon subprovince (modified from Frieman et al., 2017).





#### 7.3 Structure

The east-west trending Quetico Fault is the most prominent structure in the area. The fault zone is over 200 km long (Blackburn et al., 1991), up to 1 km wide and includes evidence of strong shearing in the form of mylonites and pseudotachylites (Poulsen 2000); the most recent movement along the fault was dextral. It cuts across lithologic boundaries and is a major and long-lived crustal feature (Blackburn et al., 1991).



Figure 7-2: Map showing the bedrock geology of the area of the Nicobat Property. Local Geology

# 7.4 Property Geology

Outcrop is very sparse on the property. The area is covered by up to 60 m of glacial drift, with 25 to 35 m being the average thickness in the area between Emo and Lake of the Woods (Bajc 1991, 2001).





The descriptions below are based on OGS maps M1954 (Fletcher and Irvine 1954) and Ontario Geological Survey map M2443 (OGS, 1997). Figure 7-3 is based on OGS map MRD126 (2001).

## 7.4.1 Dobie Township Claims

The dominant rock types on the claims in Dobie Township are clastic sedimentary rocks (sandstone, siltstone, argillite) on the western claim group and felsic to intermediate volcanic rocks (tuff, agglomerate and breccia) on eastern claim group in Dobie Township.

## 7.4.2 Carpenter and Central Kingsford Township Claims

The claims in Carpenter Township and central Kingsford Township are hosted by a felsic intrusive (e.g., OGS 1979; Fletcher and Irvine, 1954). Fletcher and Irvine (1954) classified the intrusions in these townships as granodiorite, which intruded the hornblende schists that occur south and west of the intrusion. The granotiorite is truncated to the north by a monzonite. Fletcher and Irvine (1954) describe the granodiorite as fine- to medium-grained and light-grey to pink with moderate gneissic fabric. It consists of 30% quartz, 48% oligclase, 7% microcline and 15% biotite (Fletcher and Irvine 1954).

# 7.4.3 Potts/Kingsford/Fleming/northern Mather Township Claims

The claim group in Potts, Kingsford and northern Mather townships fall within a sequence of felsic to intermediate metavolcanic rocks (tuff, agglomerate, breccia and flows) and a sliver of mafic metavolcanic rocks. Drilling by Inco in 1972/73 appeared to intersect mafic intrusive rocks (gabbro; Assessment Report 52C13SW0003: Ogden, 1988a) but no such rocks appear on OGS map M2443 (OGS 1979).

A northeast trending structure may extend from Off Lake ~7 km north of the claim group to Pinewood Lake, which is partly within the claim group.

## 7.4.4 Mather Township Claims

The dominant rock types on the claims in Mather Townships are clastic sedimentary rocks, mainly pebble and boulder conglomerate and sandstone, siltstone and argillite. This claim group is located between the Quetico fault and a splay of the Quetico fault.







Figure 7-3: Geology of the Nicobat claim group.





#### 7.5 Mineralization

Mineralization has only been encountered on the western claim group in Dobie Township. The mineralization consists of semi-massive breccia sulfide veins and stringers in pyroxenite containing disseminated sulfides. The sulfide breccias contain sub-rounded 1-10 cm fragments of pyroxenite, and they form an anastomosing network within a larger domain of pyroxenite with disseminated sulfide mineralization. The sulfides comprise dominantly pyrrhotite (60-70%) with some pentlandite (10%) and minor chalcopyrite. The chalcopyrite is locally segregated and forms either remobilized veins or wraps around inclusions. The host rocks of the Dobie Intrusion are pyroxenites.

The geological controls, length, width, depth and continuity of the mineralization have not been determined to date.

Outside Sassy Resources' claims, Ni-Cu-PGE occurrences associated with mafic-ultramafic intrusions were documented by the OGS, including the Dobie Prospect, ~7 km south of Sassy Resources' claims in Dobie Township.

# 8.0 DEPOSIT TYPES

Orthomagmatic Ni-Cu-PGE deposits are associated with mafic-ultramafic intrusions and occur in a variety of tectonic settings, such as continental rifts and large igneous provinces. The magma is mantle derived and has undergone a high degree of partial melting, which enriches the magma in Ni and PGE (Barnes and Lightfoot 2005). In order for a Ni-Cu-PGE deposit to form, the magma must ascend to crustal levels fast so that Ni is not incorporated into olivine during cooling. Once the magma has reached the crust, an external source of sulfur is required to form sulfide melt droplets. If these droplets interact with a large volume of magma they will scavenge metals to form a Ni-, Cu- and PGE-rich melt. This melt either segregates to the base of the intrusion because it is denser than the silicate melt, or it migrates into open spaces because it solidifies at lower temperatures (~900° C) than the silicate melt (~1000° C; Figure 8-1). The morphology of these open spaces is typically controlled by regional structures (Lightfoot and Evans-Lambswood 2015).

The geophysical expression of these deposit is in the form of a magnetic anomaly caused by the often magnetite-rich mafic and ultramafic rocks. The mineralization, specifically the massive portion, may cause an EM conductivity anomaly, depending on its size and geometry. The typical geophysical footprint of the deposits together with a favorable geological and structural setting typically forms the basis of an exploration program for such deposits.







Figure 8-1: Schematic model for the formation of Ni-Cu-PGE deposits (from Begg, et al. 2010) 1 – melting and rising of mantle magma; 2 – decompression melting at shallow levels; 3 – melts migrating into upper crust; 4 – interaction of melt with crust, including sources of sulfur.

# 9.0 EXPLORATION

## 9.1 Ground Geophysics – Magnetic and VLF Survey

Emerald Lake commissioned Geosig Inc. ("Geosig") to conduct a ground magnetic ("mag") and very low frequency ("VLF") survey over the western claim group in Dobie Township (the claims held by Emerald Lake). The survey was run from August 20<sup>th</sup> – 25<sup>th</sup>, 2015 (Simoneau 2015).

The total magnetic field was collected using a GSM-19WMV magnetometer operated in "mobile mag" mode. Samples were collected every 25 ft (7.62 m). A GSM-19W magnetometer was used to measure the magnetic diurnal at the base station and was sampled every 15 s. The magnetic data was diurnally corrected during the data download process. A base datum value of 56,400 nT was removed from the dataset prior to data processing. The precision of the GSM-19 units is noted to be  $\pm$  0.1 nT (Simoneau 2015). A map of the ground magnetic results can be found in Figure 9-1.

The VLF survey was collected using the GSM-19WMV instrument. Readings were recorded every 25 ft (7.62 m). The survey utilized station NAA broadcasting at 24.0 kHz from Cutler, Maine and station





NLK broadcasting at 24.8 kHz from Jim Creek, Seattle, Washington. The results of the VLF survey were presented in profile format (Simoneau 2015). A map of the ground VLF profile results can be found in Figure 9-2. The figure denotes the 24.8 kHz results, with in-phase response displayed as red profiles, the quadrature response displayed as blue profiles and the total field response displayed as green profiles.

A total of 20 lines were surveyed east-west, using GPS. Each line was 1,320 ft (402.34 m) long and the line spacing was set to 100 ft (30.48 m). The overall survey consisted of 8.63 line-km and covered an area of 0.23 km<sup>2</sup>. Samples of both magnetic and VLF were recorded every 25 ft (7.62 m). This sample method and quality is considered representative of a typical mag and VLF survey. Apart from the powerline, no significant magnetic or electromagnetic features were noted.







Figure 9-1. Results of the Farm ground magnetic survey. The Farm Block consists of the claims held by Emerald Lake.







Figure 9-2. Results of the Farm ground VLF survey, 24.8 kHz. red = in phase, blue = quadrature, green = total field. The Farm Block consists of the claims held by Emerald Lake.





#### 9.2 HeliTEM Airborne Magnetic and Electromagnetic Survey

In 2018, Crystal Lake completed an airborne magnetic and electromagnetic survey, utilizing the HeliTEM35C electromagnetic system supplemented by a high-sensitivity cesium magnetometer. The survey was executed by CGG Canada Services Ltd. The field portion of the survey took place from March 16 to 22, 2018.

The system consists of a 40 m long cable to which the transmitter loop is attached. The cable is attached to a helicopter and the transmitter coil is approximately 34 m below the helicopter. The nominal height of the loop above the ground was 35 m. The loop configuration is shown in Figure 9-3. The receiver was a multi-coil system (X, Y, Z) with a final recording rate of 10 samples per second of X, Y and Z component data. A summary of the system parameters are listed in Table 9-1.

A total of 828 flight-line km and 71 tie-line km were flown; 185.68 line kilometers were flown over the properties that are the subject of this report. The line spacing was varied per block as either 150 or 200 m. The line directions were either E-W or N-S dependent on the geological fabric. Tie-lines were flown on all survey areas perpendicular to the flight lines. The tie-line spacing was variable for each survey block. The flight path is shown in Figure 9-4. The flight direction and line-spacing of each survey block can be found in Table 9-2.

Parameter	Specification
Helicopter	AS350 B3e
Operator	Questal
Contractor	CGG
Flight Line km	828 km
Tie Line km	71 km
Total Line km	899 km
Total Line km - Property	185.68 km
Line Spacing	150 - 200 m
Line Direction	E-W or N-S; based on geological fabric
Tie Line Spacing	Variable per block
Tie Line Direction	Orthogonal to line direction
Transmitter	Vertical axis loop slung below helicopter
Loop area	961 m <sup>2</sup>
Number of turns	4
Receiver Diameter	35 m
Nominal height above ground	35 m
Receiver	Multi-coil system (x, y, z); 10 samples per second; 30 time channels
Inflight Vertical Rx-Tx separation	0.1m
Base frequency	15 Hz
Pulse width	7.78 ms half sine pulse

Table 9-1: HeliTEM survey parameters





Parameter	Specification
Off-time	25.55 ms
Transmitter current	274 A
Dipole moment	1.06 x 10 <sup>6</sup> Am <sup>2</sup>
Transmitter waveform repetition rate	15 Hz
Magnetometer	CS-3 Scintrex Cesium Vapour, mounted in plane of transmitter loop
Magnetometer Sample rate	10.0 Hz
Radar Altimeter	Honeywell Sperry Altimeter
Laser Altimeter	Optech ADMGPA100
Transmitter loop attitude	VN-300
Transmitter Loop Position Data	NovAtel OEM4 with Aero Antenna
Barometric Altimeter	Motorola MPX4115AP analog pressure sensor mounted in the helicopter



Figure 9-3: Loop configuration used during the HeliTEM survey.







Figure 9-4: Flight lines for the HeliTEM survey.





TUDIE 3-2.11	igni unection unu ime s	pucing per block	
Block #	Flight Direction	Line Spacing	Township
1	90°	200	Potts, Mather, Kingsford, Fleming
2	1°	150	Mather
3	O°	200	Kingsford
4	O°	200	Carpenter
5	90°	150	Dobie

#### Table 9-2: Flight direction and line spacing per block

#### 9.2.1 Survey Procedure and Quality Control

CGG transferred the digital data for each flight to calculate, display and verify both the positional (flight path) and geophysical data. The initial database was examined as a preliminary assessment of the data acquired for each flight (CGG 2018).

Daily processing of CGG survey data consisted of differential corrections to the airborne GPS data, verification of EM calibrations, drift correction of the raw airborne EM data, spike rejection and filtering of all geophysical and ancillary data, verification of the digital video, calculation of preliminary data, and diurnal correction of magnetic data.

The contracted specification for flight lines did not allow for deviation from the intended flight path by more than 25% of the planned flight path over a distance of more than 1 km.

The contracted specification for the collected airborne magnetic data was that the non-normalized 4<sup>th</sup> difference would not exceed 0.1 nT over a continuous distance of 1 km excluding areas where this specification was exceeded due to natural anomalies.

The contracted specifications for the collected ground magnetic data was the non-linear variations in the magnetic data were not to exceed 10 nT per minute.

The noise envelops of the EM data, as calculated from the last off-time channel shall not exceed the following tolerances under normal survey conditions: dB/dt Z < 0.25 nT/s.

All data, including base station records, were checked on a daily basis by a Ronacher McKenzie geophysicist to ensure compliance with the survey contract specifications. Re-flights were flagged by Ronacher McKenzie if any of the following specifications were not met.





## 9.2.2 HeliTEM Results

The HeliTEM survey provided detailed magnetic and electromagnetic data for the property. Ronacher McKenzie produced magnetic filter products to better interpret the data (e.g., Figure 9-5); several magnetic anomalies are evident. Figure 9-6 is a map showing dB/dt of channel 16 of the property. Ronacher McKenzie used this information to pick conductive anomalies for further processing and detailed analysis (Figure 9-6). The highest-ranked anomalies were modeled as plates using the Maxwell software to determine the depth and geometry of the conductors. Plates were modeled for the anomalies in the Carpenter Township claim group and the Potts Township claim group. Details of the plates are listed in Section 9.2.3 - Maxwell Modelling.







Figure 9-5: Map showing the analytic signal (colour bar units are nT).







Figure 9-6: Map showing dB/dt, selected anomalies and modeled plates (colour bar units are ms/m).





## 9.2.3 Maxwell Modelling

Modelling of conductive features was completed by Condor Consulting Inc. of Denver, CO. The purpose of the modelling was to determine the depth and geometry of the conductors. dB/dT for all three components recorded by the HELITEM 35 C system was used for modelling with the Maxwell software developed by EMIT of Perth, Australia.

Anomalies were modelled one line at a time. Late channels were used for the modelling because early channels can be dominated by the response from conductive overburden (Irvine 2018).

The results of the plate modelling are shown in Table 9-3 and Table 9-4. Three plates were modelled in the claim group in Carpenter Township (Table 9-3) and nine plates for the claim group in Potts and Mather townships (Table 9-4).

#### Table 9-3: Details of the plates in Carpenter Township

ID	Claim ID	х	Y	z	Depth to top (m)	Dip (°)	Dip Dir. (°)	Length (m)	Depth Extent (m)	Conductivity (Siemens)	Thickness (m)
172	112983	439485	5397078	296	-71	46	138	41	100	55.4	9
173	227003	439929	5396900	279	-87	72	13	89	85	8.7	31
174	227003	440077	5396948	261	-106	61	195	138	87	10.5	23

Table 9-4: Details of the plates located in the claim group in Potts and Mather townships.

ID	Claim ID	х	Y	z	Depth to top (m)	Dip (°)	Dip Dir. (°)	Length (m)	Depth Extent (m)	Conductivity (Siemens)	Thick ness (m)
200	233586 /341277	436265	5409266	324	-62	90	276	90	158	21.9	8
201	233586	436304	5408988	299	-90	89	79	561	90	5.2	25
204	233586 /101847	436312	5408831	349	-46	85	266	200	475	11.8	6
205	101847	436399	5408614	360	-40	80	79	116	130	17.1	12
206	101847	436388	5408457	378	-13	71	102	97	297	44.7	4
207	211514	436538	5408259	376	-8	72	271	157	266	27.8	5
208	211514	436684	5408046	370	-11	83	228	119	133	52.3	6
209	211514	436684	5408046	370	-11	83	228	119	133	52.3	6
212	128262	439037	5407466	178	-200	82	89	200	193	1.8	73







Figure 9-7: Location of modeled plates in the Potts Township claim group (background magnetic analytic signal; nT).







Figure 9-8: Location of plates in Carpenter Township claim group (background magnetic analytic signal; nT).





# 10.0 DRILLING

Crystal Lake completed one diamond drill hole on cell claim 101078 between September 26 and 28, 2015 (Figure 10-1). Drill hole details are listed in Table 10-1. The core diameter was NQ (47.6 mm) and the drilling contractor was Full Force drilling of Peachland, BC.

Table 10-1: Details of drill hole A-0-15 drilled on claim 4271029 in 2015.

Drill Hole ID	Easting*	Northing*	Azimuth (°)	Dip (°)	Final Length
A-0-15	431715	5396626	262	-45	91.44

\*NAD 83, UTM Zone 15N

Drill hole collar locations were recorded with a hand-held GPS. Downhole deviation was recorded using a Reflex EZ-Shot instrument. However, this instrument is not suitable for determining downhole deviation in strongly magnetic rocks such as the ones on this property. Drill core was logged and cut at Crystal Lake's core shed on the property. No other details of drilling procedures were available to the QP.

Mafic and ultramafic rocks with disseminated sulfides were logged. Disseminated, vein and blebby sulfide was described in the drill logs; locally 10% sulfide content was recorded. Twelve samples were collected and submitted for assaying. The results were reported in drill hole logs provided by Crystal Lake (Table 10-2); no assay certificates were provided.

SAMPLE #	From (m)	To (m)	Interval (m)	Au (ppb)	Pd (ppb)	Pt (ppb)	Cu (%)	Ni (%)
187064	20.12	21.34	1.22	3	< 5	10	0.107	0.148
187065	21.34	22.86	1.52	10	< 5	< 5	0.107	0.100
187066	22.86	23.77	0.91	6	7	6	0.219	0.226
187067	23.77	24.69	0.91	8	6	< 5	0.253	0.157
187068	24.69	25.04	0.35	34	10	< 5	0.377	0.277
187069	26.00	26.18	0.18	14	21	13	0.150	0.146
187070	28.04	28.96	0.91	15	48	29	0.080	0.064
187071	30.94	31.09	0.15	32	27	14	0.356	0.172
187072	40.90	41.76	0.86	13	32	13	0.143	0.198
187073	44.20	44.62	0.42	48	19	11	0.218	0.547
187074	57.79	57.92	0.13	17	64	19	0.108	0.272
187075	57.92	58.83	0.91	7	20	8	0.042	0.050

Table 10-2: List of drill core samples collected from drill hole A-0-15 with assay results.

The results indicate that low-grade Ni mineralization is present in the drill core.







Figure 10-1: Location of diamond drill hole A-0-15 on the Nico2 prospect.





A petrographic examination of one sample from drill core A-0-15 at 25 m depth indicated an assemblage of pyrrhotite, chalcopyrite, and granular pentlandite in a strongly recrystallized amphibolite (Peter C. Lightfoot, pers. commun.). Microprobe analyses completed at the University of Western Ontario using a Jeol system was used to establish the compositions of pyrrhotite and pentlandite in a sub-sample from this sample. Pyrrhotite from this sample has a Ni abundance of <0.021 wt% and 1.14-1.91 % Co. Analysis of granular pentlandite from the same polished thin section was undertaken and 37.2-39.2 wt% Ni in pentlandite and <0.2 wt% Co in pentlandite were recorded (Peter C. Lightfoot, pers. commun.).

Insufficient information about the orientation of the mineralization is known at this stage; the sample intervals do not reflect the true thickness of the mineralization. Some sample intervals are short and these samples may not be representative. The QP did not determine any drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the results other than the ones mentioned above.

# 11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

The drilling company delivered the drill core to Crystal Lake's secure logging facility. Sample intervals were selected by Crystal Lake's logging geologist and the selected intervals were split using a core saw. Sample intervals range from 0.13 to 1.52 m. Samples were placed in plastic sample bags with pre-labeled sample tags. No external certified reference materials and blanks were inserted into the sample stream. No duplicates were included. Samples were stored in Crystal Lake's logging facility until they were shipped to Activation Laboratories ("Actlabs") in Ancaster, Ontario, by courier. At Actlabs, the samples were crushed, and an aliquot was pulverized. The samples were then analyzed by fire assay with an ICP-OES finish for Au, Pd and Pt. Silver was analyzed by fire assay with a gravimetric finish. Copper, nickel and cobalt were analyzed by total digestion and OES.

Actlabs is accredited to international quality standards through the International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) 17025, which includes ISO 9001 and 9002. The accreditation includes fire assay analysis for Au as used by Crystal Lake. Actlabs is also accredited for Pt and Pd analysis by fire assay with an ICP finish.

There is no relationship between Actlabs and Sassy Resources other than that Crystal Lake commissioned Actlabs to complete the drill core sample analysis.

Crystal Lake did not have sufficient quality control procedures in place and did not take sufficient quality assurance actions. Any future drilling programs should follow the Best Practice Guidelines outlined by the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") and include standards,





blanks and duplicates in the sample stream. Given the lack of external standards and blanks, quality control procedures implemented by Actlabs were reviewed.

#### 11.1 Actlabs Quality Control Results

Crystal Lake did not include standards, blanks and duplicates. Internal standards, blanks and duplicates were inserted by Actlabs. A total of 40 method blanks were analyzed during the analyses for the various elements (Table 11-1). No information is available on what the blank material was and where in the sample sequence the blanks were inserted. There were no blank failures.

Table 11-1: List of blanks inserted by Actlabs.				
Element Analyzed	No of Blanks inserted	No of Failed Blanks		
Ag	16	0		
Au	1	0		
Au, Ag	1	0		
Au, Pd, Pt	15	0		
Cu, Ni, Co	7	0		
Total	40	0		

A total of 42 standards were inserted by Actlabs (Table 11-2). It is not known in what sequence the standards were analyzed. Two standards fell outside the certified value ±3 standard deviations and thus failed.

Standard Name Commodities		No of Standards Inserted	Standards Failed	
PTM-1	Cu, Ni	2	1	
CCU-1C	Cu	1	1	
MP-1b	Cu	1	0	
CZN-4	Cu, Co	2	0	
CDN-GS-5H	Ag	9	0	
OxK110	Au	1	0	
CDN-PGMS-24	Au, Pd, Pt	8	0	
CDN-PGMS-25	Au, Pd, Pt	6	0	
CDN-GS-5P	Au, Ag	9	0	
OXN117	Au	1	0	
PTC-1b	Cu, Ni, Co	2	0	
TOTAL		42	2	

Table 11-2: List of standards inserted by Actlabs.

The data are adequate for the purpose of this report as they reproduce original assays (Ronacher et al., 2018), indicate a range in MgO contents of 8.7-17.7 wt% based on a sodium peroxide fusion





decomposition and ICP-MS analysis) and provide basic information on sulfide Ni tenors (3.3-5.5 wt% Ni for samples with >0.75%S, assuming a standard assemblage of pyrrhotite, pentlandite, and chalcopyrite, with no correction for silicate Ni content); however, any future drilling program should include external standards, blanks and duplicates.

In the author's opinion, sample preparation, security and analytical procedures were adequate. Quality control and assurance procedures were not adequate.

# 12.0 DATA VERIFICATION

#### 12.1 Site Visit

Elisabeth Ronacher visited the property from June 6 to 8, 2017. The site visit focused on the western claim group in Dobie Township, the only part of the property where Crystal Lake has completed exploration work at that time. She reviewed the drill core from hole A-0-15 and visited the drill hole collar location (see Ronacher et al., 2018 for further details).

Another personal inspection was completed by Elisabeth Ronacher on July 9 and 10, 2019. She completed a traverse across the claims in Potts Township where most of the conductors modelled based on the airborne magnetic and EM survey are located. The purpose of the inspection was to (1) determine whether any evidence of mineralization or alteration could be observed on the surface in the area of the modelled plates, (2) to determine if any of the historic drill holes in this area could be located, and (3) to determine access to the areas of interest in preparation for a potential drilling program to test the conductors. The area of the Potts Township claims is densely vegetated and very little outcrop was encountered. A strongly overgrown trail exists on the claims (Figure 12-1). It was not possible to recognize any potential surface expression of conductors or find historic drill holes. One outcrop was encountered at approximately 436210 E and 540803 N. It consisted of pink granitic gneiss with minor quartz veins (Figure 12-2). No mineralization was observed in the form of strongly overgrown pits and trenches. The pits were water-filled and no rocks were observed (Figure 12-3.

The northwestern corner of the claims in Mather Township were also visited. Access to these claims is on Barwick Road. These claims are also heavily forested and no outcrop was observed Figure 12-4).





The claims in Kingsford Township were accessed via Dance Road. Although these claims are equally vegetated as the area in general, some outcrop was observed on the southern cells of this claim group along Dance Road (Figure 12-5). The rock is a light coloured felsic intrusive.

It was attempted to access the claims in Carpenter Township via Dunbar Road. However, extensive swamp and dense forest made it impossible to inspect the area of the conductors on these claims.







Figure 12-1: Strongly overgrown trail in the area of the claims in Potts Township.







Figure 12-2: Photo showing the only outcrop encountered during the traverse across the Potts Township. Claims.







Figure 12-3: Photo showing a pit that may have been an indication of previous exploration.







Figure 12-4: View towards the east from the northwest corner of the claims in Mather Township (at 427727 E, 5404269N) showing the dense vegetation on these claims.







Figure 12-5: Outcrop on the claims in Kingsford Township.

## 12.2 Quality Control Analysis

Crystal Lake did not include standards, blanks and duplicates.

Based on the analysis of the quality control procedures implemented by Actlabs (Section 11.1), the data are adequate for the purpose of this report; however, any future drilling program should include external standards, blanks and duplicates.

#### 12.3 Ground Mag-VLF Survey

The ground geophysics data was provided in digital format and was reviewed in the geophysical software package Geosoft Oasis Montaj. The GPS location information was reviewed against the GIS compilation and determined to be in the correct location. The magnetic data was imported and gridded as well as inspected in profile format. Grids and profiles for both the 24.0 kHz and 24.8 kHz datasets (in-phase, quadrature and total field) were also inspected.





It is the opinion of Jenna McKenzie, P.Geo. and Qualified Person of this report that the magnetic and VLF dataset is adequate for the purposes used in this technical report.

#### 12.4 HeliTEM Survey

The HeliTEM data was provided in digital format and was reviewed in the geophysical software package Geosoft Oasismontaj. The flight-line information was reviewed against the GIS compilation and determined to be in the correct location. The magnetic and electromagnetic data was imported and gridded as well as inspected in profile format. Grids supplied by CGG were also inspected.

It is the opinion of Jenna McKenzie, P.Geo. and Qualified Person of this report that the HeliTEM magnetic and electromagnetic dataset is adequate for the purposes used in this technical report.

# 13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Sassy Resources has not completed any mineral processing and metallurgical testing.

## 14.0 MINERAL RESOURCE ESTIMATES

Sassy Resources has not completed any resource estimates on the property.

## **15.0 ADJACENT PROPERTIES**

The claims are surrounded by patented ground for which no exploration information was available.

## 16.0 OTHER RELEVANT DATA AND INFORMATION

The QPs are not aware of any other relevant data, information or explanation that would make this report understandable or not misleading.

## **17.0** INTERPRETATION AND CONCLUSIONS

The Nicobat property consists of multiple, non-contiguous claim groups in the Rainy River district of north-western Ontario. The Quetico Fault is a major strike-slip fault in the area, where early dextral transtension was followed by late sinistral transpression. Such environments are conducive to the emplacement of mafic-ultramafic intrusions and associated semi-massive to massive Ni-Cu-Co-PGE mineralization (Hendrickson 2016).





Two main mafic-ultramafic intrusions, the Dobie and Carpenter-Lash intrusions, were mapped in the area. The intrusions were emplaced into metavolcanic and metasedimentary rocks. Nickel occurrences are mentioned in historic reports from the Dobie intrusion but no significant Ni-Cu-PGE mineralization has been found to date.

In 2015, Crystal Lake completed one diamond drill hole on claim 101078, which intersected gabbro and locally up to 20% sulfide. Twelve drill core samples were collected; the samples returned Ni values of up to 0.229 % Ni over 0.91 m and 0.547% Ni and 0.218% Cu over 0.42 m according to Crystal Lake's logs.

In 2018, Crystal Lake completed an airborne magnetic-electromagnetic survey over the property to determine whether magnetic and coincident conductors exist in the area. Such coinciding anomalies may be caused by semi-massive or massive sulfide mineralization. The results of the survey indicated several magnetic and electromagnetic anomalies. Anomalies in two areas, the claims in Carpenter Township and the claims in Potts Township, were selected for further review based on their magnetic and EM signature. The purpose of the additional review was to determine the depth, geometry and strength of the conductive response. EMIT Maxwell software was used to model the conductors. The modelling results indicate that three conductive features at depths of 70 m to 106 m may exist in Carpenter Township claim group. Nine conductive features at depths of 10 m to 200 m may occur in the Potts Township claim group.

Based on the geological setting of the area, the historic exploration and the limited exploration completed by Crystal Lake and Sassy Resources on the Nicobat properties, the QP concludes that testing the modelled conductors in Carpenter Township for the presence of Ni-sulfide mineralization associated with mafic-ultramafic intrusions is warranted. In addition, the QP concludes that testing the modelled conductors in Potts Township for the presence of VMS-type Zn mineralization is warranted.

The QPs are not aware of any significant risks or uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information. No economic outcomes are projected from the data at this early stage of exploration. There are no reasonably foreseeable impacts associated with the omission of standards and blanks and the failure to use an appropriate downhole survey tool given the early stage of exploration.

## 18.0 RECOMMENDATIONS

The airborne survey delineated two areas where modelling of the conductive response was warranted. The modelled plates are interpreted to be drill targets; the QPs recommend testing these





targets in a reconnaissance drilling program to determine whether the geophysical anomalies are caused by Ni-Cu-PGE sulfide or Zn-sulfide mineralization.

Two diamond drill holes totalling 400 m are recommended to test the targets in Carpenter Township (Table 18-1, Figure 18-1). Four diamond drill holes totally 700 m are recommended to test the targets in Potts Township (Table 18-1, Figure 18-2).

It is strongly recommended that an appropriate, carefully constructed and thorough QA/QC program be implemented during the drilling program to maintain chain of custody and quality control on every aspect of the work to comply with best practices. A downhole deviation survey tool that is unaffected by magnetic interference from highly magnetic rocks should be used.

A cost estimate for the recommended exploration is shown in Table 18-2.

Hole ID	Easting	Northing	Depth (m)	Azimuth (°)	Dip (°)	
Carpenter Township						
C1	440061	5396905	200	30	-80	
C2	439939	5396937	200	200	-80	
Potts Township						
OL1	436253	5408835	200	80	-60	
OL2	436449	5408632	170	260	-70	
OL3	436437	5408456	150	280	-60	
OL4	436450	5408263	170	90	-60	

#### Table 18-1: Details for recommended drill holes.

Table 18-2: Estimated cost of recommended exploration program.

Item	Unit	No of Units	Cost/Unit	Total Cost
Diamond Drilling	meter	1100	\$110	\$121,000
Drilling Program Execution (geologist, geological assistant,				
vehicles, accommodation, meals, etc.)				\$80,000
Assaying	sample	200	\$50	\$10,000
Reporting				\$10,000
TOTAL				\$221,000







Figure 18-1: Locations of proposed drill holes in Carpenter Township.







Figure 18-2: Locations of proposed drill holes in Potts Township.





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# 20.0 STATEMENT OF AUTHORSHIP

This report, titled "Independent Technical Report – Nicobat Project, Rainy River Area, Ontario", dated February 11, 2020, and prepared for Sassy Resources Corporation, was completed and signed by the following authors:

"Signed and sealed"

Elisabeth Ronacher, PhD, P.Geo. February 11, 2020 Sudbury, ON

"Signed and sealed"

Jenna McKenzie, P.Geo. February 11, 2020 Toronto, ON





# Appendix 1 – Certificates of Qualified Persons





#### CERTIFICATE OF QUALIFICATIONS

Elisabeth Ronacher Ronacher McKenzie Geoscience 2015 Long Lake Road P.O. Box 40038 Sudbury, ON, P3E 0B2 Canada <u>Elisabeth.Ronacher@RMGeoscience.com</u> 705-419-1508

I, Elisabeth Ronacher, do hereby certify that:

- 1. I am the Principal Geologist at Ronacher McKenzie Geoscience Inc.
- 2. I am responsible for all sections of the report titled "Independent Technical Report, Nicobat Project, Rainy River Area, Ontario" dated February 11, 2020, and prepared for Sassy Resources Corporation, except Sections 9, 12.3 and 12.4.
- 3. I hold the following academic qualifications: M.Sc. Geology (1997), University of Vienna, Vienna, Austria; Ph.D. Geology (2002), University of Alberta, Edmonton, Canada.
- 4. I am a member in good standing of the Association of Professional Geologists of Ontario (APGO, member # 1476), the Society of Economic Geologists (SEG) and the Society for Geology Applied to Mineral Deposits (SGA).
- 5. I have worked on exploration projects worldwide (including Canada, Mongolia, China, Austria) and on a variety of commodities including Au, Cu, base-metal, Cu-Ni PGE and U deposits since 1997.
- 6. I have read the definition of "Qualified Person" set out in the National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for the purposes of NI 43-101.
- 7. I visited the property on from June 6-8, 2017, and on July 9 and 10, 2019.
- 8. I am independent of the issuer and the vendors as described in section 1.5 of the National Instrument 43-101.
- 9. I have had prior involvement with the property that is subject of this report: I completed a previous technical report on the Nicobat property for Crystal Lake Mining Corporation.
- 10. I have read the National Instrument 43-101 and this report has been prepared in compliance with this Instrument.
- 11. That, as of the date of this technical report, 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 the technical report not misleading.

Dated this 11<sup>th</sup> Day of February 2020

"Signed and sealed"

Elisabeth Ronacher, Ph.D., P.Geo. Ronacher McKenzie Geoscience





#### CERTIFICATE OF QUALIFICATIONS

I, Jenna McKenzie, do hereby certify that:

- 1. I am the Principal Geophysicist at Ronacher McKenzie Geoscience Inc.
- 2. I am responsible for Sections 9, 12.3 and 12.4 of the report titled "Independent Technical Report Nicobat Project, Rainy River Area, Ontario" dated February 11, 2020, and prepared for Sassy Resources Corporation.
- 3. I hold the following academic qualifications: Hons.B.Sc. Applied Physics Geophysics (2002), University of Toronto, Toronto, Ontario.
- 4. I am a member in good standing of the Association of Professional Geologists of Ontario (APGO, member # 1653), the Society of Exploration Geophysicists (SEG) and am an executive member of the Canadian Exploration Geophysical Society.
- 5. I have worked on exploration projects worldwide (including Canada, USA, Mexico, Dominican Republic, Angola, Democratic Republic of Congo, Zambia, Republic of South Africa, Russia, Turkey and Indonesia). I have worked on porphyry-copper, gold, diamond, Ni-Cu-PGE, potash and rare-element pegmatites deposits since 2001.
- 6. I have read the definition of "Qualified Person" set out in the National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for the purposes of NI 43-101.
- 7. I have not visited the property.
- 8. I am independent of the issuer and the vendors as described in section 1.5 of the National Instrument 43-101.
- 9. I have had prior involvement with the property that is subject of this report: I completed a previous technical report on the property.
- 10. I have read the National Instrument 43-101 and this report has been prepared in compliance with this Instrument.
- 11. That, as of the date of this technical report, 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 the technical report not misleading.

Dated this 11<sup>th</sup> Day of February, 2020

"Signed and sealed"

Jenna McKenzie, P.Geo. Ronacher McKenzie Geoscience

