



NI 43-101
INDEPENDENT TECHNICAL REPORT
RESOURCE ESTIMATE
BENDING LAKE PROPERTY

Kenora Mining Division, Ontario, Canada

NTS 52F/08E Centred at:
Latitude 49°32'00" North, Longitude 92°17'00" West
UTM NAD 83, Zone 15, 559700 mE, 5463800 mN

Prepared For:



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Effective Date: September 13, 2011

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1 Summary

Fladgate Exploration Consulting Corporation (“Fladgate”) was engaged by Bending Lake Iron Group Limited (“Bending Lake”) to create a first time disclosure of a resource estimate on the Bending Lake Property (the “Property”) and prepare an Independent Technical Report compliant with National Instrument 43-101, companion policy NI 43-101CP and Form 43-101F. This report excludes any surface exploration activities conducted by Bending after January 1, 2011, and the effective date of this report with regard to all other information is September 13th, 2011. Indicated sections of the following report are taken from “Independent Technical Report, Bending Lake Property, Kenora Mining Division, Ontario, Canada” written by Michael Thompson, 2008.

The Bending Lake Deposit is located in the Kenora Mining District, Ontario, Canada, approximately 285 kilometres (177.1 miles) northwest of Thunder Bay, Ontario, 49 kilometres (30.5 miles) southwest of Ignace, Ontario and 80 kilometres (49.7 miles) north of Atikokan, Ontario. The area is covered by National Topographic System (NTS) map sheet 52F/08E. The centre of the property has approximate geographic coordinates of 49°32'00"N, 92°17'00"W (UTM NAD83 Zone 15N 559700mE, 5463800mN).

The Bending Lake Property consists of 93 contiguous, unpatented mining claims comprised of 1,318 units covering 20,636 hectares, 60 freehold patents covering 903 hectares and 3 Mining Licenses of Occupation (MLO) which allow mining rights under water bodies for 25 of the freehold patents, for a total land area of 21,537 hectares. The claims and patents are 100% controlled by Bending Lake through various property agreements described in Section 4.5, Underlying Royalties and Property Agreements.

Mr. Jason Arnold (the “Author”) and Mr. Sean Horan (the “co-author”) visited the Bending Lake Property on June 1st, 2011. Field collar checks, core logging, QA/QC sampling, core storage and sample security procedures were reviewed during the visit.

The deposit is located within the western region of the Wabigoon Subprovince of the Achaean Superior Province, a 150 kilometre (93.2 mile) wide volcano-plutonic domain that has an exposed strike extent of 900 kilometres (559.2 miles) and extends an unknown distance beneath Palaeozoic strata at either end (Beakhouse et al., 1995). The deposit is situated at the southeasterly end of a 30 kilometre (18.6 mile) long northwest-southeast trending belt of Achaean volcanic and sedimentary rocks, metamorphosed to greenschist and amphibolite facies, which is part of an arcuate, 70 kilometre (43.5 mile) long belt of supracrustal rocks referred to informally and in the literature as the Manitou-Stormy Lakes greenstone belt. The Achaean supracrustal rocks consist of a thick succession of differentiated mafic to felsic volcanic rocks and interbedded and overlying clastic and chemical sedimentary rocks, and their metamorphosed equivalents, preserved in the Bending Lake area in a broad, overturned, northeast facing, southwest dipping synformal structure bounded on the northeast by younger granitic rocks of the Revel Batholith and on the southwest and south by the Irene-Eltrut Lakes Batholithic Complex. Due to this folding and thickening of the iron formation large quantities of magnetic iron formation have been concentrated resulting in the exploitation interest.



Magnetic iron formation occurrences in the Bending Lake area have been known at least since the 1890's, and reference was made to the Bending Lake iron range in the Geological Survey of Canada Summary Report for 1891. Iron mineralization in the area was again mentioned in the Report of the Ontario Iron Ore Committee in 1923, which refers to surface work and diamond drilling done in the Bending Lake area, but no other details of this work are available in the Ontario Geological Survey's database.

Jalore Mining Company, a subsidiary of the Jones and Laughlin Steel Corporation, explored the property in two separate campaigns; 1953-1955 and 1963-1966 and completed ground magnetometer surveys and drilled seven holes for 5,450 feet (1,661 metres) and sixteen holes for 10,115 feet (3,083 metres) respectively. The property lay dormant until Algoma Steel Corporation completed further ground magnetometer surveys and drilled seventeen holes for 16,083 feet (4,349 metres) in 1976 and fifteen holes for 13,391 feet (4,082 metres) in 1977.

Lakefield Research of Canada Limited and Ontario Research Foundation, under contract by Algoma Steel Corporation, completed laboratory test work on a 55.2 tonne (612 ton) bulk sample taken during 1977, including a proposed plant flow sheet and reagent balance. Behre Dolbear was subsequently contracted to complete a resource estimate, resulting in a proven and probable ore reserve of 245,574,000 long tons at a concentrated weight recovery Fe (iron) of 28.19% undiluted or 25.08% fully diluted. Canadian Bechtel Limited, under contract by Steep Rock Iron Mines Limited (in partnership with Algoma Steel Corporation), completed a capital and operating cost estimate and engineering report. This report was based on Behre Dolbear's resource estimate and concluded capital expenditures in fourth quarter 1977 Canadian dollars of CAD\$181.7M. Average annual operating costs at a production rate of 2.5M long tons per year of pellets are estimated to be \$18.59/long ton of pellets over the life of mine. Estimated operating costs for 1981, the first year of production, are CAD\$45.45M which correspond to \$18.18/long ton of pellets. This estimate is not NI 43-101 compliant and should not be relied upon.

Bending Lake acquired the property in May, 2003 and commenced an historic core recovery program. A total of forty-nine (49) diamond drill holes comprising approximately 10,187 metres were recovered from the property, logged and sampled by Fladgate. Bending Lake also completed 2,357 metres of diamond drilling in 8 holes which were logged and sampled by Fladgate and have been used to create the current resource block model. Between 2008 and January 1st, 2011, Bending Lake re-established the historic Algoma grid and extended portions of it, completed a regional mapping program and outlined six new iron occurrences. In the spring of 2011 Fladgate completed a database validation, geological model and resource block model from the data collected in 2008.

Data verification included collar location checks, QA/QC audits, twin hole comparisons and variance check for sample support change. The block model was validated using a visual inspection, swath plots, nearest neighbour estimate and compositional statistics comparison. Resulting database concerns include variance due to sample support, nugget variance of Satmagan analysis versus Fe₂O₃ due to analytical errors and variogram instability in the dip direction due to low data density. Although important to overall integrity of the digital database, these concerns have no consequential material impact on the resulting estimate.

A preliminary pit optimization was completed applying knowledge of metal distribution, metallurgical processing and marketing requirements. Table 1 summarizes the results of each Whittle pit



optimization run for revenue factors between 0.50 and 1.00. The table demonstrates expectations of extraction up to pit shell 26; however, for reporting purposes, the generated pit shell at revenue factor 0.90 with a stripping ratio of 0.77 was selected.

Table 1 – Summary of the Pit Optimization

Pit Shell	Revenue Factor	Cash flow CAD\$M	Above CoG to Plant		Total Waste	Total Rock	Mine Life	SR
			Mt	Fe ₃ O ₄ %	Mt	Mt	(year)	
16	0.80	1,046	198.4	28.2	90.9	289.3	27.6	0.46
17	0.82	1,132	224.3	28.1	111.3	335.6	31.2	0.50
18	0.84	1,246	261.4	28.0	150.8	412.1	36.3	0.58
19	0.86	1,318	287.7	27.9	186.9	474.5	40.0	0.65
20	0.88	1,368	309.4	27.9	213.9	523.3	43.0	0.69
21	0.90	1,426	337.6	27.9	260.3	597.8	46.9	0.77
22	0.92	1,464	363.0	27.8	296.0	659.0	50.4	0.82
23	0.94	1,481	376.3	27.8	320.2	696.5	52.3	0.85
24	0.96	1,491	388.4	27.7	344.8	733.2	53.9	0.89
25	0.98	1,498	400.5	27.7	364.8	765.3	55.6	0.91
26	1.00	1,502	422.6	27.6	408.3	831.0	58.7	0.97

Fladgate used multiple criteria for classification of the resource estimate applying guidelines and definitions as per CIM standards. The resulting indicated and inferred mineral resource estimate as defined in *CIM Standards on Mineral Resources and Reserves: Definitions and Guidelines* is:

185.2 Million Tonnes Indicated at an average in-situ grade of 29.59% Magnetite

151.4 Million Tonnes Inferred at an average in-situ grade of 30.38% Magnetite

On the basis of the current inferred resource estimate, and to further exploration and development on the Bending Lake Property, Fladgate recommends that Bending Lake complete the following:

- implement an auditable and secure commercial core logging software program
- in addition to the currently planned along strike drilling, drill fences on section to define the down dip extensions of the ore body and pit bottom
- continual lab monitoring and QA/QC checks
- check Satmagan analysis for blanks and standards and that a calibration schedule be designed in conjunction with the lab
- perform a 10,000 meter drill program to increase down dip confidence and to further upgrade the block model categorization

Fladgate suggests a budget of approximately CAD\$2.3M to achieve these recommendations.



2 Introduction

2.1 Introduction

Fladgate Exploration Consulting Corporation (“Fladgate”) was engaged by Bending Lake Iron Group Limited (“Bending Lake”) to review the Bending Lake Property and prepare an independent technical report compliant with National Instrument 43-101, companion policy NI 43-101CP and Form 43-101F. This technical report is prepared as a first time disclosure of a Magnetite resource estimate on the Bending Lake Property. This report excludes any surface exploration activities conducted by Bending after January 1, 2011, and the effective date of this report with regard to all other information is September 13th, 2011. Indicated sections of this report have been taken from Thompson, 2008.

Fladgate is independent from Bending Lake according to Section 3.5 of NI43-101 Companion Policy and does not hold nor expect to hold any securities, either directly or indirectly, of the issuer or a related party of the issuer. The primary author, Jason Arnold, P.Geo., and co-author Sean Horan, completed all sections and reviewed previous reports, data and all relevant information that was judged adequate pertaining to the Bending Lake Property. A site visit to both the Wabigoon core logging facility and the Bending Lake Property was completed on June 1st, 2011; drill collar location confirmations and core library examinations were completed and found to be consistent with historic records. Core logging, sampling, QA/QC and sample security procedures were also checked at this time.

This report is intended for use by Bending Lake to file as an NI 43-101 Technical Report with the Canadian Securities Regulatory Authorities pursuant to provincial securities legislation. Except for the purposes legislated under provincial securities laws, any other use of this report, by any third party, is at the party’s sole risk.

2.2 Terms of Reference and Units

The Metric System or SI System is the primary system of measure and length used in this report and is generally expressed in kilometres, metres and centimetres; volume is expressed as cubic metres, mass expressed as metric tonnes, area as hectares, and zinc, copper and lead grades as percent or parts per million. The precious metal grades are generally expressed as grams/tonne but may also be in parts per billion or parts per million. Conversions from the SI or Metric System to the Imperial System are provided below and quoted where practical. Many of the geologic publications and more recent work assessment files now use the SI system but older work assessment files almost exclusively refer to the Imperial System. Metals and minerals acronyms in this report conform to mineral industry accepted usage and the reader is directed to an online source at www.maden.hacettepe.edu.tr/dmmrt/index.html.

Table 2 – Glossary of Terms

Term	Meaning	Term	Meaning
AEM	Airborne Electromagnetic	Na	Sodium



Term	Meaning	Term	Meaning
Ag	Silver	Na ₂ O	sodium oxide
Al	Aluminum	NAD 83	North American Datum of 1983
Al ₂ O ₃	aluminum oxide	NE	Northeast
AW	apparent width	NI	National Instrument
As	Arsenic	Ni	Nickel
Au	Gold	NSR	net smelter return
Ba	Barium	NTS	National Topographic System
Be	Beryllium	OGS	Ontario Geological Survey
Bi	Bismuth	P	Phosphorous
C	Carbon	P ₂ O ₅	phosphorous oxide
Ca	Calcium	Pb	Lead
CaO	calcium oxide	Pd	Palladium
Cd	Cadmium	pH	Acidity
Co	Cobalt	Pt	Platinum
CO ₂	carbon dioxide	QA/QC	Quality Assurance/Quality Control
Cr	Chromium	S	South
Cr ₂ O ₃	chromium oxide	S	Sulphur
Cu	Copper	Sb	Antimony
DDH	diamond drill hole	SE	Southeast
DW	drilled width	Se	Selenium
E	East	SiO ₂	silicon oxide
EM	electromagnetic	Sn	Tin
Fe	Iron	SO ₂	sulphur dioxide
Fe ₂ O ₃	iron oxide (ferric oxide-hematite)	Sr	Strontium
Fe ₃ O ₄	iron oxide (ferrous oxide-magnetite)	Sum	Summation
HLEM	horizontal loop electromagnetic	SW	Southwest
H ₂ O	hydrogen oxide (water)	Ti	Titanium
IP	induced polarization	TiO ₂	titanium dioxide
K	Potassium	Tl	Thallium
K ₂ O	potassium oxide	TW	true width
Li	Lithium	U	Uranium
LOI	loss on ignition (total H ₂ O, CO ₂ and SO ₂ content)	U ₃ O ₈	uranium oxide (yellowcake)
Mg	Magnesium	UTM	Universal Transverse Mercator
MgO	magnesium oxide	V	Vanadium
Mn	Manganese	V ₂ O ₅	vanadium oxide
MNDMF	Ministry of Northern Development, Mines and Forestry	VLF	very low frequency
MnO	manganese oxide	VLF-EM	very low frequency-electromagnetic
Mo	Molybdenum	W	West
Mt	millions of tonnes	Y	Yttrium
N	North	Zn	Zinc
NW	northwest		

**Table 3 – Units of Measure**

Units of Measure	Abbreviation	Units of Measure	Abbreviation
Above mean sea level	amsl	Litres per minute	L/m
Ampere	A	Megabytes per second	Mb/s
Annum (year)	a	Megapascal	MPa
Billion years ago	Ga	Megavolt-ampere	MVA
British thermal unit	Btu	Megawatt	MW
Candela	cd	Metre	m
Carat	ct	Metres above sea level	masl
Carats per hundred tonnes	cpht	Metres per minute	m/min
Carats per tonne	cpt	Metres per second	m/s
Centimetre	cm	Metric ton (tonne)	t
Cubic centimetre	cm ³	Micrometre (micron)	µm
Cubic feet per second	ft ³ /s or cfs	Microsiemens (electrical)	µs
Cubic foot	ft ³	Miles per hour	mph
Cubic inch	in ³	Milliamperes	mA
Cubic metre	m ³	Milligram	mg
Cubic yard	yd ³	Milligrams per litre	mg/L
Day	d	Millilitre	mL
Days per week	d/wk	Millimetre	mm
Days per year (annum)	d/a	Million	M
Dead weight tonnes	DWT	Million tonnes	Mt
Decibel adjusted	dBa	Minute (plane angle)	'
Decibel	dB	Minute (time)	min
Degree	°	Month	mo
Degrees Celcius	°C	Newton	N
Degrees Fahrenheit	°F	Newtons per metre	N/m
Diameter	∅	Ohm (electrical)	Ω
Dry metric ton	dmt	Ounce	Oz
Foot	ft	Ounce per tonne	oz/t
Gallon	gal	Parts per billion	ppb
Gallons per minute (US)	gpm	Parts per million	ppm
Gigajoule	GJ	Pascal	Pa
Gram	g	Pascals per second	Pa/s
Grams per litre	g/L	Percent	%
Grams per tonne	g/t	Percent moisture (relative humidity)	% RH
Greater than	>	Phase (electrical)	Ph
Hectare (10,000 m ²)	ha	Pound(s)	lb
Hertz	Hz	Pounds per square inch	psi
Litre	L	Horsepower	hp
Hour	h (not hr)	Quart	qt
Hours per day	h/d	Revolutions per minute	rpm



Units of Measure	Abbreviation	Units of Measure	Abbreviation
Hours per week	h/wk	Second (plane angle)	"
Hours per year	h/a	Second (time)	s
Inch	"(symbol, not ")	Short ton (2,000 lb)	st
Joule	J	Short ton (US)	t
Joules per kilowatt-hour	J/kWh	Short tons per day (US)	tpd
Kelvin	K	Short tons per hour (US)	tph
Kilo (thousand)	k	Short tons per year (US)	tpy
Kilocalorie	kcal	Specific gravity	SG
Kilogram	kg	Square centimetre	cm ²
Kilograms per cubic metre	kg/m ³	Square foot	ft ²
Kilograms per hour	kg/h	Square inch	in ²
Kilograms per square metre	kg/m ²	Square kilometre	km ²
Kilojoule	kJ	Square metre	m ²
Kilometre	km	Thousand tonnes	kt
Kilometres per hour	km/h	Tonne (1,000kg)	t
Kilonewton	kN	Tonnes per day	t/d
Kilopascal	kPa	Tonnes per hour	t/h
Kilovolt	kV	Tonnes per year	t/a
Kilovolt-ampere	kVA	Total dissolved solids	TDS
Kilovolts	kV	Total suspended solids	TSS
Kilowatt	kW	Volt	V
Kilowatt hour	kWh	Week	wk
Kilowatt hours per short ton (US)	kWh/st	Weight/weight	w/w
Kilowatt hours per tonne (metric ton)	kWh/t	Wet metric ton	wmt
Kilowatt hours per year	kWh/a	Yard	yd
Kilowatts adjusted for motor efficiency	kWe	Year (annum)	a
Less than	<	Year	yr

The term gram/tonne or g/t is expressed as "gram per tonne" where 1 gram/tonne = 1 ppm (part per million) = 1000 ppb (part per billion). Other abbreviations include ppb = parts per billion; ppm = parts per million; oz/t = ounce per short ton; Moz = million ounces; Mt = million tonne; t = tonne (1000 kilograms); SG = specific gravity; lb/t = pound/ton; and, st = short ton (2000 pounds).

Dollars are expressed in Canadian currency (CAD\$) unless otherwise noted. Base and certain industrial metal and mineral prices are stated as US\$ per tonne (US\$/t), precious metal prices are stated in US\$ per troy ounce (US\$/oz) and Uranium and certain industrial metal and mineral prices are stated in US\$ per pound (US\$/lb).

Unless otherwise noted, Universal Transverse Mercator ("UTM") coordinates are provided in the datum of NAD 83, Zone 15 North.



Table 4 – Common Conversion Factors

To Convert From	To	Multiply By
Feet	Metres	0.3048
Metres	Feet	3.2808
Miles	Kilometres	1.6093
Kilometres	Miles	0.6214
Acres	Hectares	0.4047
Hectares	Acres	2.4711
Grams	Ounce (troy)	0.03215
Ounce (troy)	Grams	31.1035
Tonnes	Short tons	1.10231
Short tons	Tonnes	0.90718
Long tons	Kilograms	1016.046
Tonnes	Long tons	0.98421
Long tons	Tonnes	1.016046
Grams per tonne	Ounces (troy) per ton	0.02917
Ounces (troy) per ton	Grams per tonne	34.2857

2.3 Basis of the Report

This report is prepared for Bending Lake to update all material information, geological mapping, prospecting, diamond drilling and provide a first time disclosure of a Magnetite resource estimate on the Bending Lake Property. This report and recommendations are based on the following data as made available to Fladgate by Bending Lake, public domain sources, and various consultants associated with Bending Lake:

- geological information supplied by government sources
- historical exploration data supplied by Bending Lake
- site visit by Fladgate personnel on June 1st, 2011
- various reports as listed in the References section of this report

Significant portions of the report have been taken from a previous NI 43-101 compliant report on the property written by Michael Thompson, H.B.Sc., P.Geo. on November 1st, 2008.

2.4 Fladgate Qualifications

Fladgate Exploration Consulting Corporation is an international consulting company based in Thunder Bay, Ontario, Canada. Fladgate provides a wide range of geological and exploration services to the mineral and energy industries. With offices in Canada (Thunder Bay, Ontario) and South America (Vallenar, Chile), Fladgate is well positioned to service its client base.



Fladgate's mandate is to provide professional geological and exploration services to the mineral and energy industries at competitive rates and without compromise. Fladgate's professionals have international experience in a variety of disciplines with services that include:

- Exploration Project Generation, Design, Implementation and Management
- Data Compilation and Exploration Target Generation
- Property Evaluation and Due Diligence Studies
- Independent, NI 43-101 Compliant, Technical Reports
- Mineral Resource Modeling and Estimation
- 3D Geological Modeling and Database Management

The Qualified Person and author for this report is Jason Arnold, P.Ge., Senior Geologist with Fladgate Exploration Consulting Corporation and a member in good standing with the Association of Professional Geoscientists of Ontario (APGO #1662). Mr. Arnold has more than ten years experience in Achaean greenstone belt exploration in Australia, Nunavut and northern Ontario. Mr. Arnold has co-authored and authored numerous technical reports, including NI 43-101 compliant independent technical reports. Mr. Arnold took many sections of this report from a previous NI 43-101 compliant technical report written by Mr. Michael Thompson, P.Ge., Senior Geologist with Fladgate Exploration Consulting Corporation and a member in good standing with the Association of Professional Geoscientists of Ontario (APGO #1521).

The author's Statement of Qualifications can be found in Appendix 1.

3 Reliance on Other Experts

Fladgate has reviewed and analyzed exploration and historical data for the Bending Lake Property provided by Bending Lake, its consultants and previous explorers of the area, and has drawn its own conclusions there from, augmented by its direct field examination. While exercising all reasonable diligence in checking, confirming and testing it, Fladgate has relied upon Bending Lake presentation of the project data from previous and recently completed exploration programs. Fladgate has not carried out any independent exploration work, drilled any holes or carried out any significant program of confirmatory sampling and assaying. However, Mineralization Style is visible at surface and/or in the drill core and was observed by Fladgate. While exercising all reasonable diligence in checking, confirming and testing it, Fladgate has relied upon the data presented by Bending Lake, and any previous operators of the project, in formulating its opinion.

The various agreements under which Bending Lake holds title to the mineral lands for this project have not been thoroughly investigated or confirmed by Fladgate and Fladgate offers no opinion as to the validity of the mineral title claimed. The description of the property has been presented here for general information purposes only, as required by NI 43-101. Fladgate is not qualified to provide professional opinion on issues related to mining and exploration title and land tenure, royalties, permitting and legal and environmental matters. The authors have accordingly relied upon the representations of the issuer, Bending Lake, for Section 4 of this report and have not verified the information presented in that section.



The conclusions and recommendations in this report reflect the author's best judgment in light of the information available at the time of writing. The author and Fladgate reserve the right, but will not be obliged, to revise this report and conclusions if additional information becomes known to them subsequent to the date of this report. Use of this report acknowledges acceptance of the foregoing conditions.

This report is intended to be used by Bending Lake subject to the terms and conditions of its agreement with Fladgate. That agreement permits Bending Lake to file this report as an NI 43-101 Technical Report with the Canadian Securities Regulatory Authorities pursuant to provincial securities legislation. Except for the purposes legislated under provincial securities laws, any other use of this report, by any third party, is at that party's sole risk.

4 Property Description and Location

4.1 Property Location

The Bending Lake Property is located in the Kenora Mining Division and the Dryden Ministry of Natural Resources District, Ontario, Canada, approximately 285 km (177.1 mi) northwest of Thunder Bay, Ontario, the closest port of Lake Superior for seaboard access. The property is located approximately 49 km (30.5 mi) southwest of Ignace, Ontario and 80 km (49.7 mi) north of Atikokan, Ontario and can be accessed via a secondary access road from Highway 622 (Figure 1). The property spans approximately 11.5 km's northwest to southeast and covers parts of Bending Lake Area with claims spilling into Kawashegamuk Lake Area and Wapageisi Lake Area. A series of contiguous claims staked for infrastructure purposes extends northeast from the Bending Lake Area into the Revell Lake Area, Raleigh Lake Area, Ilsley Township and Bradshaw Township.

The area is covered by National Topographic System (NTS) map sheets 52F/08, 52G/05 and 52G/12. The centre of the property has approximate geographic coordinates of 49°32'00"N, 92°17'00"W, UTM NAD 83, Zone 15N, 559700mE, 5463800mN (Figure 2).

4.2 Ontario Mineral Policy

In Ontario, the ownership of surface rights and mining rights can vary from one property to another, particularly in regions where settlement and industry have a long history. The Canada Constitution Act, 1867 gave the then existing provinces, including Ontario, ownership of the public property in their boundaries (i.e. to the provincial Crown), which then issued grants of land known as "Crown Patents". In 1913, the province of Ontario amended its Public Lands Act so that any title granted by the Crown before the amendment was deemed to include mining rights ownership. Any parcels of land granted by the Crown after May 6, 1913, may or may not include the mining rights depending on how the title is worded. Ontario's current Public Lands Act authorizes the Minister of Natural Resources to sell or lease land. Today, the province's policy is to reserve mining rights to the Crown in the majority of land grants (MNDMF website www.mndmf.gov.on.ca).

At the time of writing the core portions of the long established mining areas in Ontario, including the Bending Lake project, are dominated by long standing Patented Mining Claims which may or may



not include other ownership titles such as surface and timber rights. On Crown lands, and private lands that do not include mining rights, mineral exploration rights may be acquired by claim staking.

A staked mining claim provides the owner the exclusive right to explore for minerals. Once a claim is staked, the owner must perform exploration work to maintain it in good standing. This is called assessment work. This work must amount to at least CAD\$400 per claim unit (1 unit = 16 ha) per year and be reported to the Mining Lands Section of the MNDMF. Assessment work is not required in the first year after recording a mining claim. Assessment work credits can be banked and used in future years. Under the MNDMF system, each claim comes due on the anniversary of the date the claim was recorded. Claims are forfeited if the assessment work is not done. The mining rights affected by the forfeiture then return to the Crown and may be staked by another party.

Patented claims do not have assessment work expenditure or reporting requirements. These claims remain in good standing as long as applicable taxes are paid to the local municipality. The claim holder's right is only to explore for minerals on mining claims. Mining (i.e. extraction of the minerals) cannot take place until the claims are brought to lease. Mining leases are issued for the express purpose of undertaking mineral exploration, development or mining. The claim holder is entitled to a lease upon fulfilling the requirements of the Mining Act.

Currently mining leases are issued for 21-year terms and may be renewed for further 21-year periods. In the past however, lease terms for as long as 99 years were common. Leases can be issued for surface and mining rights, mining rights only or surface rights only. Once issued, the lessee pays an annual rent to the province. Further, prior to a mine coming into production, the lessee must comply with all applicable federal and provincial legislation.

Mining Licenses of Occupation ("MLO") were granted for portions of patented mining claims that lie beneath a water body, and in rare occasions for the land portion of the patent. Once issued, the MLO owner pays annual rent to the province of \$5/ha to maintain the MLO in perpetuity as they have no expiry date. In rare cases where the land and water portions of a patent are covered by an MLO they are no longer subject to annual property taxes and simply the annual rent of the MLO; in these cases if the MLO is not maintained in good standing the patented ground returns to the Crown. It should be noted that MLO's have been grandfathered into the new Mining Act and are no longer granted to mineral exploration companies in Ontario.

Ontario's Mining Act is the legislation which provides for acquiring land for mineral exploration and development. Ontario's MNDMF administers the Mining Act, which sets out rules for all aspects of mineral exploration and development.

4.3 Mineral Tenure

As of September 13, 2011 the Bending Lake Property consists of 93 contiguous, unpatented mining claims comprised of 1,318 units covering 20,636 hectares, 60 freehold patents covering 903 hectares and 3 Mining Licenses of Occupation (MLO) which allow mining rights under water bodies for 25 of the freehold patents, for a total land area of 20,104 hectares (Tables 4, 5, 6). The unpatented mining claims are staked in the name of Windigo Ridge Resources Inc. ("Windigo") and have been optioned to Bending Lake with no underlying royalties. The freehold patents are



registered and owned by both Windigo and 1584859 Ontario Incorporated (“Owner”), and Bending Lake has completed rights of first refusal agreements with both companies as outlined in section 4.5, Underlying Royalties and Property Agreements.

4.4 Costs of Maintenance

Unpatented mining claims are subject to annual exploration expenditures to be filed as assessment work of \$400/claim unit. Minimum annual exploration expenditures are CAD\$527,200.00.

The freehold patents are subject to annual taxes of \$4/ha. Minimum annual taxes are CAD\$3,612.48.

The mineral exploration licenses (MLO) are subject to an annual license fee of \$5/ha. Minimum annual license fees are CAD\$1,891.00.

All maintenance costs are detailed in Tables 5, 6 and 7.

4.5 Underlying Royalties and Property Agreements

4.5.1 Windigo Ridge Resources Inc.

Bending Lake has a Right of First Refusal Agreement with Windigo, a non-arms length third party entity that directors and management of Bending Lake have a financial interest in. This agreement was first made on Monday, December 15, 2008, amended and restated as of December 14, 2010, and expires December 15, 2018. Under the agreement, Bending Lake is granted mining rights to all properties contained in the agreement in consideration of a one-time cash payment of CAD\$25,000 to Windigo. The Right to First Refusal states that if Windigo receives an offer from any person to purchase or acquire an option or any other interest in any or all of the claims described in this agreement Windigo must give Notice to Bending Lake. Bending Lake is then granted fifteen days after the receipt of the Notice within which to give Windigo notice (the “Intent to Buy”). “Intent to Buy” indicates that Bending Lake Iron Group agrees to match the offer of purchase, acquire or other interest. Lands included under this agreement are all properties located in unsurveyed territory, in the District of Kenora possessed by Windigo (Table 5 & 6).

4.5.2 1584859 Ontario Incorporated

Bending Lake has a Right of First Refusal Agreement with 1584859 Ontario Incorporated (“Owner”), a non-arms length third party entity that directors and management of Bending Lake have a financial interest in. This agreement was first made on Monday, December 15, 2008, amended and restated as of December 14, 2010, and expires December 15, 2018. Under the agreement, Bending Lake is granted mining rights to all properties contained in the agreement in consideration of a one-time cash payment of CAD\$25,000 to Owner. The Right to First Refusal states that if Owner receives an offer from any person to purchase or acquire an option or any other interest in any or all of the claims described in this agreement the Owner must give Notice to Bending Lake. Bending Lake is then granted fifteen days after the receipt of the Notice within which to give Owner notice (the “Intent to Buy”). “Intent to Buy” indicates that Bending Lake Iron Group agrees to match the offer of purchase, acquire or other interest. Lands included under this agreement are freehold patents K26016-K26017 and K22817-K22825 (Table 6).



4.5.3 Mining License of Occupation

A mining license of occupation (“MLO”) is granted for the water portion of patents overlying a water body. Bending Lake has acquired three MLO’s, 12766 through 12768, which have no expiry dates provided Bending Lake maintain annual rent payments of CAD\$1,891.00. The land area under water covered by MLO 12766 through MLO 12768 is 378 hectares (Table 7).

4.6 Environmental and Permitting

All phases of Bending Lake exploration activities are subject to environmental regulation in the jurisdictions in which it operates. These regulations mandate, among other things, the maintenance of air and water quality standards and land reclamation and provide for restrictions and prohibitions on spills, releases or emissions of various substances produced in association with certain exploration and mining industry activities and operations. They also set forth limitations on the generation, transportation, storage and disposal of hazardous waste. A breach of such regulations may result in the imposition of fines and penalties. In addition, certain types of exploration and mining activities require the submission and approval of environmental impact assessments.



Figure 1 – Bending Lake Property Regional Location Map

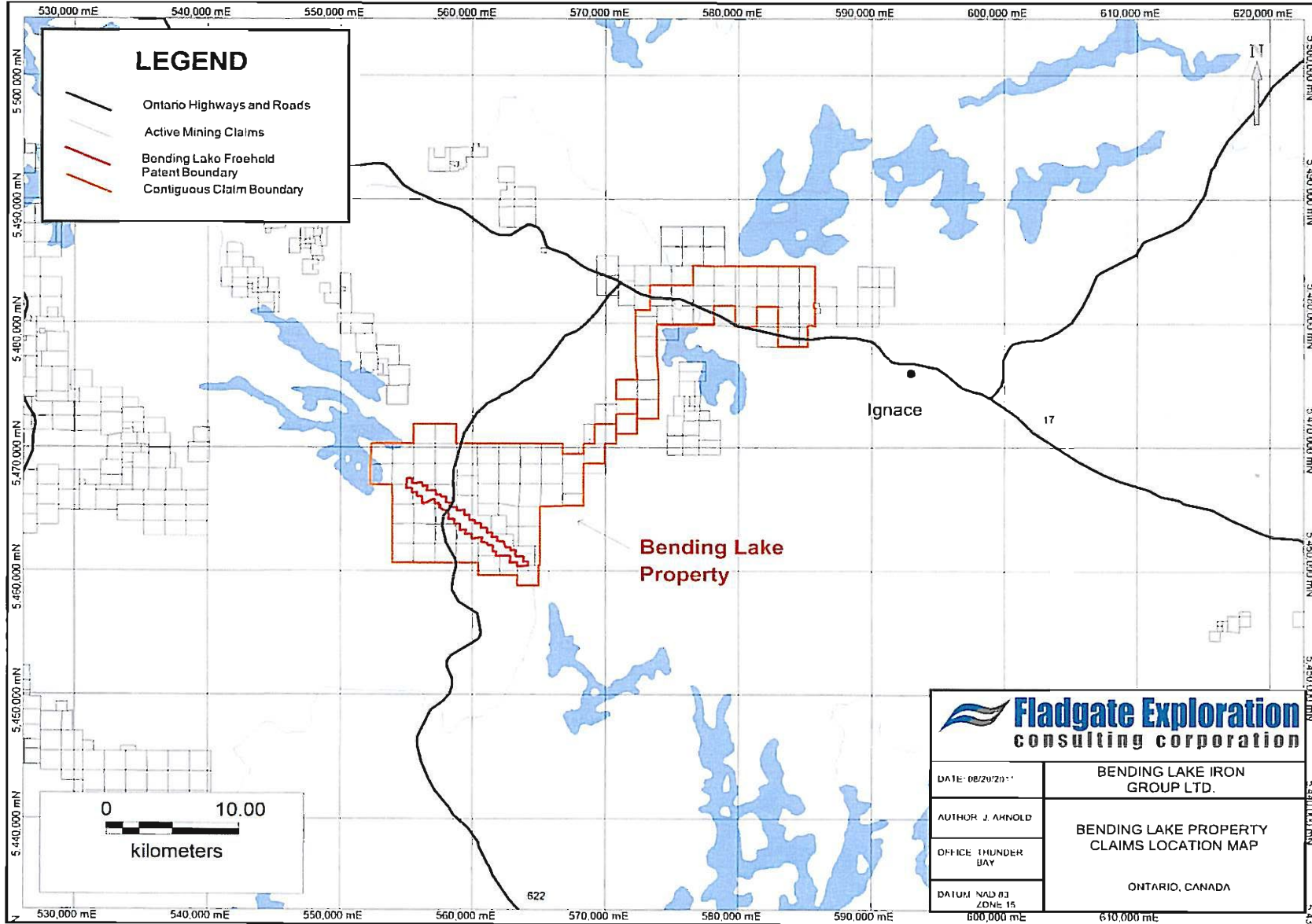


Figure 2 – Bending Lake Property Contiguous Land Tenure

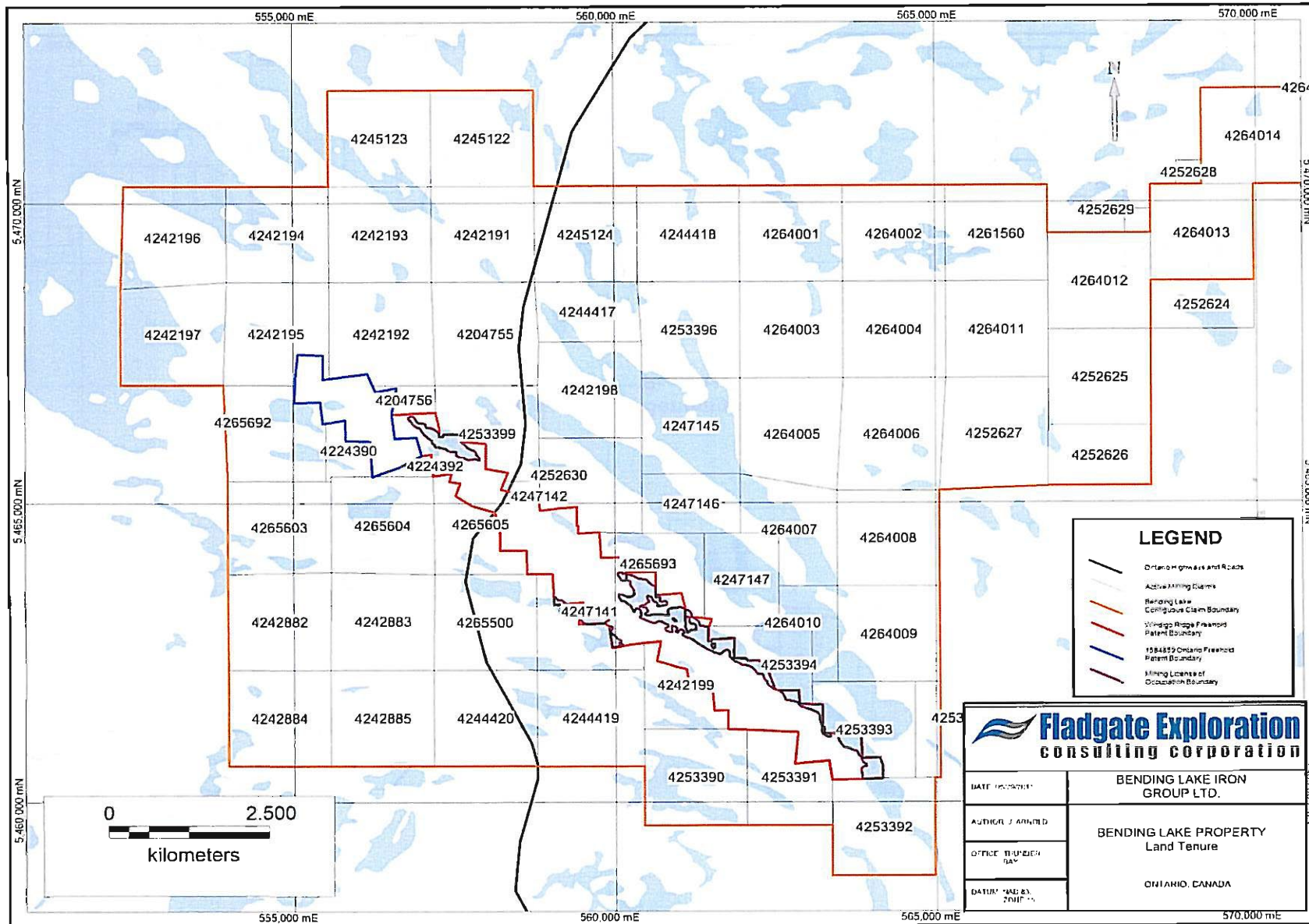


Figure 3 – Bending Lake Property Southwest Claims

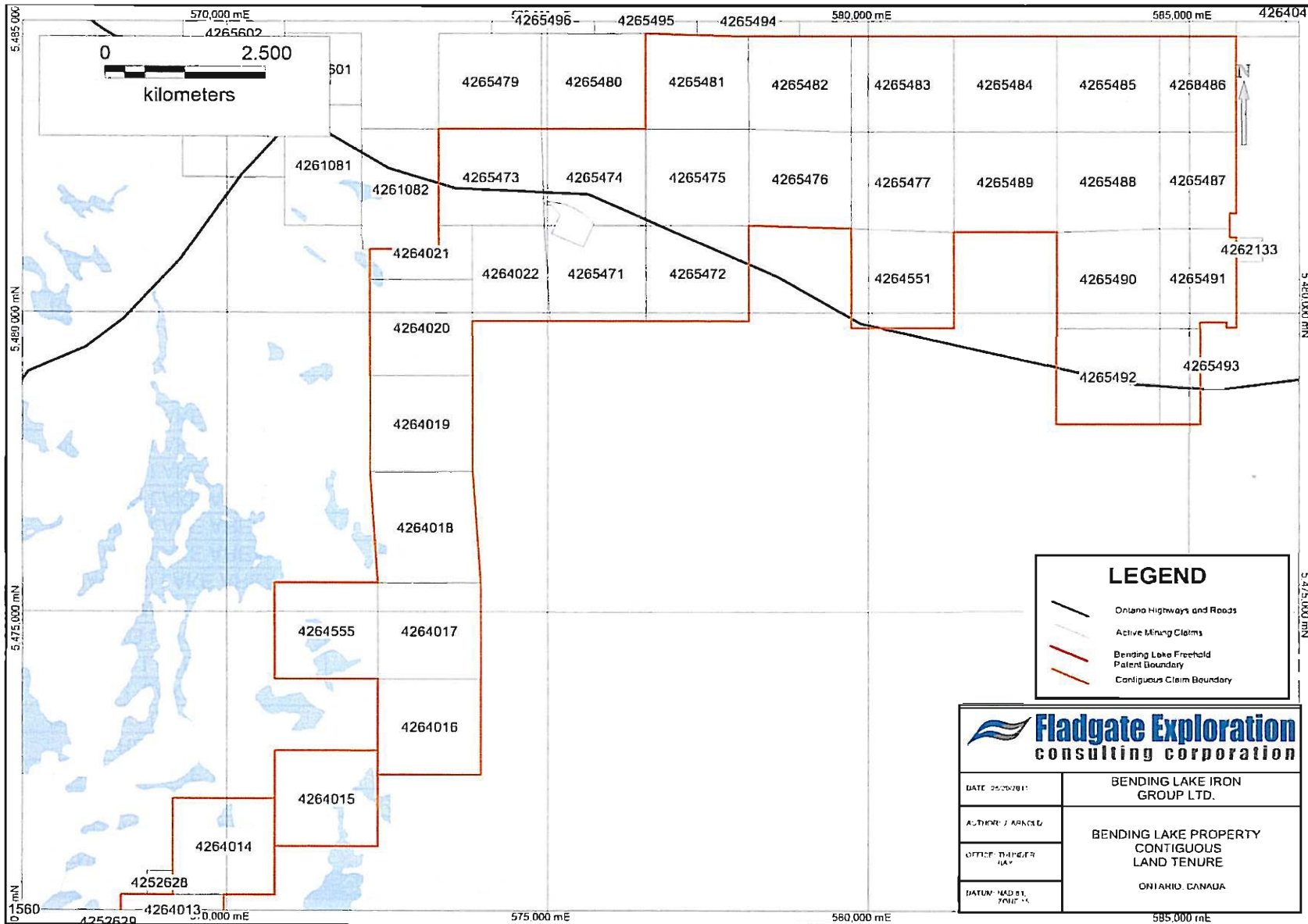


Figure 4 – Bending Lake Property Northeast Claims



Table 5 – Bending Lake Property Unpatented Mining Claims

Township/Area	Claim Number	Claim Due Date	Work Required	Claim Units	Area (ha)	NSR %	Vendor
BENDING LAKE AREA	4204755	2011-Dec-04	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4204756	2011-Feb-17	\$3,200.00	8	33	0%	Windigo
BENDING LAKE AREA	4224390	2011-Feb-17	\$4,800.00	12	52	0%	Windigo
BENDING LAKE AREA	4224392	2011-Feb-17	\$1,200.00	3	17	0%	Windigo
REVELL	4242191	2011-Sep-26	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4242192	2011-Sep-26	\$6,400.00	16	256	0%	Windigo
REVELL LAKE AREA	4242193	2011-Sep-26	\$6,400.00	16	256	0%	Windigo
REVELL LAKE AREA	4242194	2011-Sep-26	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4242195	2011-Sep-26	\$6,000.00	15	255	0%	Windigo
KAWASHEGAMUK LAKE AREA	4242196	2011-Sep-26	\$6,400.00	16	256	0%	Windigo
WAPAGEISI LAKE AREA	4242197	2011-Sep-26	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4242198	2011-Sep-26	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4242199	2011-Sep-26	\$3,600.00	9	120	0%	Windigo
BENDING LAKE AREA	4242882	2011-Sep-26	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4242883	2011-Sep-26	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4242884	2011-Sep-26	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4242885	2011-Sep-26	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4244417	2011-Oct-29	\$4,000.00	10	159	0%	Windigo
REVELL LAKE AREA	4244418	2011-Oct-29	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4244419	2011-Sep-26	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4244420	2011-Sep-26	\$6,400.00	16	256	0%	Windigo
REVELL LAKE AREA	4245122	2011-Oct-17	\$6,400.00	16	256	0%	Windigo
REVELL LAKE AREA	4245123	2011-Oct-17	\$6,400.00	16	256	0%	Windigo
REVELL LAKE AREA	4245124	2011-Oct-29	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4247141	2011-Feb-24	\$4,800.00	12	146	0%	Windigo
BENDING LAKE AREA	4247142	2011-Feb-24	\$800.00	2	12	0%	Windigo
BENDING LAKE AREA	4247145	2012-Mar-31	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4247146	2012-Mar-31	\$4,800.00	12	153	0%	Windigo
BENDING LAKE AREA	4247147	2012-Apr-08	\$4,800.00	12	179	0%	Windigo
BENDING LAKE AREA	4252625	2013-Jun-29	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4252626	2013-Jun-29	\$3,200.00	8	128	0%	Windigo
BENDING LAKE AREA	4252627	2013-Jun-29	\$6,400.00	16	256	0%	Windigo



Township/Area	Claim Number	Claim Due Date	Work Required	Claim Units	Area (ha)	NSR %	Vendor
BENDING LAKE AREA	4253390	2013-May-03	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4253391	2013-May-03	\$4,400.00	11	179	0%	Windigo
BENDING LAKE AREA	4253392	2013-May-03	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4253393	2013-May-03	\$4,800.00	12	181	0%	Windigo
BENDING LAKE AREA	4253394	2013-May-03	\$3,600.00	9	114	0%	Windigo
BENDING LAKE AREA	4253396	2013-May-03	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4253398	2013-May-25	\$1,600.00	4	64	0%	Windigo
REVELL	4264001	2013-May-25	\$6,400.00	16	256	0%	Windigo
REVELL	4264002	2013-May-25	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4264003	2013-May-25	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4264004	2013-May-31	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4264005	2013-May-31	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4264006	2013-May-31	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4264007	2013-May-31	\$5,600.00	14	208	0%	Windigo
BENDING LAKE AREA	4264008	2013-May-31	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4264009	2013-May-25	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4264010	2013-May-25	\$3,200.00	8	98	0%	Windigo
BENDING LAKE AREA	4264011	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4264012	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4265500	2013-Jun-29	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4265603	2013-Jun-29	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4265604	2013-Jun-29	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4265605	2013-Jun-29	\$4,000.00	10	160	0%	Windigo
BENDING LAKE AREA	4265692	2013-Jun-21	\$6,000.00	15	234	0%	Windigo
BENDING LAKE AREA	4253399	2013-July-25	\$4,800.00	12	194	0%	Windigo
BENDING LAKE AREA	4252630	2013-July-25	\$5,600.00	14	229	0%	Windigo
BENDING LAKE AREA	4265693	2013-Aug-16	\$3,600.00	9	137	0%	Windigo
BENDING LAKE AREA	4261560	2013-Aug-19	\$6,400.00	16	256	0%	Windigo
REVELL LAKE AREA	4264013	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
BENDING LAKE AREA	4264014	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
REVELL LAKE AREA	4264015	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
RALEIGH LAKE AREA	4264016	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
RALEIGH LAKE AREA	4264017	2013-Jun-10	\$6,400.00	16	256	0%	Windigo



Township/Area	Claim Number	Claim Due Date	Work Required	Claim Units	Area (ha)	NSR %	Vendor
RALEIGH LAKE AREA	4264018	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
ILSLEY	4264019	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
ILSLEY	4264020	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
ILSLEY	4264021	2013-Jun-10	\$2,400.00	6	102	0%	Windigo
ILSLEY	4264022	2013-Jun-10	\$4,000.00	10	185	0%	Windigo
ILSLEY	4264551	2013-Aug-16	\$6,400.00	16	256	0%	Windigo
REVELL	4264555	2013-Aug-16	\$6,400.00	16	256	0%	Windigo
REVELL	4264560	2013-Aug-16	\$6,400.00	16	256	0%	Windigo
ILSLEY	4265471	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
ILSLEY	4265472	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
ILSLEY	4265473	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
ILSLEY	4265474	2013-Jun-10	\$6,000.00	15	241	0%	Windigo
ILSLEY	4265475	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
ILSLEY	4265476	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
BRADSHAW	4265477	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
ILSLEY	4265481	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
ILSLEY	4265482	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
BRADSHAW	4265483	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
BRADSHAW	4265484	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
BRADSHAW	4265485	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
BRADSHAW	4265486	2013-Jun-10	\$4,800.00	12	192	0%	Windigo
BRADSHAW	4265487	2013-Jun-10	\$4,800.00	12	189	0%	Windigo
BRADSHAW	4265488	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
BRADSHAW	4265489	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
BRADSHAW	4265490	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
BRADSHAW	4265491	2013-Jun-10	\$4,800.00	12	193	0%	Windigo
BRADSHAW	4265492	2013-Jun-10	\$6,400.00	16	256	0%	Windigo
BRADSHAW	4265493	2013-Jun-10	\$2,400.00	6	101	0%	Windigo



Table 6 – Bending Lake Property Freehold Patents

Property	Township/Area	Patent Number	Parcel Number	Area (ha)	Annual Taxes (\$/ha)	Vendor
Bending Lake	Bending Lake Area	K17531	21091	19.2	\$76.80	Windigo
Bending Lake	Bending Lake Area	K17532	21092	13.0	\$51.84	Windigo
Bending Lake	Bending Lake Area	K17533	21093	13.8	\$55.16	Windigo
Bending Lake	Bending Lake Area	K17534	21094	12.1	\$48.40	Windigo
Bending Lake	Bending Lake Area	K17535	21095	15.6	\$62.24	Windigo
Bending Lake	Bending Lake Area	K17536	21096	16.7	\$66.96	Windigo
Bending Lake	Bending Lake Area	K17537	21068	13.2	\$52.92	Windigo
Bending Lake	Bending Lake Area	K17538	21087	9.9	\$39.52	Windigo
Bending Lake	Bending Lake Area	K17539	21077	8.9	\$35.60	Windigo
Bending Lake	Bending Lake Area	K17540	21078	12.5	\$50.08	Windigo
Bending Lake	Bending Lake Area	K17541	21079	12.4	\$49.68	Windigo
Bending Lake	Bending Lake Area	K17542	21080	10.0	\$40.12	Windigo
Bending Lake	Bending Lake Area	K17543	21081	16.6	\$66.44	Windigo
Bending Lake	Bending Lake Area	K17544	21097	17.0	\$68.16	Windigo
Bending Lake	Bending Lake Area	K17545	21098	13.0	\$52.00	Windigo
Bending Lake	Bending Lake Area	K17546	21099	13.1	\$52.36	Windigo
Bending Lake	Bending Lake Area	K17547	21100	11.4	\$45.52	Windigo
Bending Lake	Bending Lake Area	K17548	21101	19.4	\$77.72	Windigo
Bending Lake	Bending Lake Area	K17549	21102	20.4	\$81.68	Windigo
Bending Lake	Bending Lake Area	K17550	21069	10.3	\$41.32	Windigo
Bending Lake	Bending Lake Area	K17551	21070	21.3	\$85.32	Windigo
Bending Lake	Bending Lake Area	K17552	21082	11.3	\$45.04	Windigo
Bending Lake	Bending Lake Area	K17553	21071	16.8	\$67.20	Windigo
Bending Lake	Bending Lake Area	K17555	21103	14.9	\$59.56	Windigo
Bending Lake	Bending Lake Area	K17556	21104	12.0	\$47.80	Windigo
Bending Lake	Bending Lake Area	K17557	21105	12.1	\$48.44	Windigo
Bending Lake	Bending Lake Area	K17558	21106	16.8	\$67.08	Windigo
Bending Lake	Bending Lake Area	K17559	21107	19.6	\$78.20	Windigo
Bending Lake	Bending Lake Area	K17560	21072	13.2	\$52.88	Windigo
Bending Lake	Bending Lake Area	K17561	21073	14.7	\$58.96	Windigo



Property	Township/Area	Patent Number	Parcel Number	Area (ha)	Annual Taxes (\$4/ha)	Vendor
Bending Lake	Bending Lake Area	K17562	21074	18.3	\$73.00	Windigo
Bending Lake	Bending Lake Area	K17563	21075	18.1	\$72.48	Windigo
Bending Lake	Bending Lake Area	K17878	21108	12.9	\$51.68	Windigo
Bending Lake	Bending Lake Area	K17879	21109	27.2	\$108.92	Windigo
Bending Lake	Bending Lake Area	K17880	21110	23.3	\$93.20	Windigo
Bending Lake	Bending Lake Area	K17882	21112	16.4	\$65.76	Windigo
Bending Lake	Bending Lake Area	K17883	21076	18.9	\$75.40	Windigo
Bending Lake	Bending Lake Area	K17884	21113	21.5	\$85.96	Windigo
Bending Lake	Bending Lake Area	K17885	21114	12.7	\$50.76	Windigo
Bending Lake	Bending Lake Area	K17887	21089	13.5	\$54.08	Windigo
Bending Lake	Bending Lake Area	K17888	21090	13.2	\$52.88	Windigo
Bending Lake	Bending Lake Area	K17889	21083	10.8	\$43.08	Windigo
Bending Lake	Bending Lake Area	K17890	21084	8.9	\$35.48	Windigo
Bending Lake	Bending Lake Area	K17891	21085	12.0	\$47.92	Windigo
Bending Lake	Bending Lake Area	K17892	21086	9.1	\$36.36	Windigo
Bending Lake	Bending Lake Area	K183	6308	15.8	\$63.32	Windigo
Bending Lake	Bending Lake Area	K184	6309	16.6	\$66.52	Windigo
Bending Lake	Bending Lake Area	K185	6310	16.5	\$65.88	Windigo
Bending Lake	Bending Lake Area	K186	6311	16.6	\$66.20	Windigo
Bending Lake	Bending Lake Area	K26016	24523	17.3	\$69.12	Ontario 1584859
Bending Lake	Bending Lake Area	K26017	24524	15.9	\$63.44	Ontario 1584859
Bending Lake	Bending Lake Area	K22817	24514	14.6	\$58.52	Ontario 1584859
Bending Lake	Bending Lake Area	K22818	24515	13.8	\$55.24	Ontario 1584859
Bending Lake	Bending Lake Area	K22819	24516	14.1	\$56.40	Ontario 1584859
Bending Lake	Bending Lake Area	K22820	24517	15.2	\$60.80	Ontario 1584859
Bending Lake	Bending Lake Area	K22821	24518	15.8	\$63.00	Ontario 1584859
Bending Lake	Bending Lake Area	K22822	24519	21.1	\$84.28	Ontario 1584859
Bending Lake	Bending Lake Area	K22823	24520	14.5	\$58.12	Ontario 1584859
Bending Lake	Bending Lake Area	K22824	24521	12.3	\$49.16	Ontario 1584859
Bending Lake	Bending Lake Area	K22825	24522	15.1	\$60.52	Ontario 1584859

**Table 7 – Bending Lake Property Mining Licenses of Occupation (MLO)**

MLO Number	Township/Area	Patent Number	Area (ha)	Recording Date	Annual License Fee (\$5/ha)
12766	Bending Lake Area	K17531	19.2	1-Jun-58	\$96
12766	Bending Lake Area	K17532	13.0	1-Jun-58	\$65
12766	Bending Lake Area	K17533	13.8	1-Jun-58	\$69
12766	Bending Lake Area	K17534	12.1	1-Jun-58	\$61
12766	Bending Lake Area	K17535	15.6	1-Jun-58	\$78
12766	Bending Lake Area	K17536	16.7	1-Jun-58	\$84
12766	Bending Lake Area	K17545	13.0	1-Jun-58	\$65
12766	Bending Lake Area	K17546	13.1	1-Jun-58	\$65
12766	Bending Lake Area	K17547	11.4	1-Jun-58	\$57
12766	Bending Lake Area	K17548	19.4	1-Jun-58	\$97
12766	Bending Lake Area	K17549	20.4	1-Jun-58	\$102
12766	Bending Lake Area	K17552	11.3	1-Jun-58	\$56
12766	Bending Lake Area	K17557	12.1	1-Jun-58	\$61
12766	Bending Lake Area	K17561	14.7	1-Jun-58	\$74
12766	Bending Lake Area	K17562	18.3	1-Jun-58	\$91
12766	Bending Lake Area	K17563	18.1	1-Jun-58	\$91
12767	Bending Lake Area	K17878	12.9	1-Jun-58	\$65
12767	Bending Lake Area	K17879	27.2	1-Jun-58	\$136
12767	Bending Lake Area	K17880	23.3	1-Jun-58	\$117
12767	Bending Lake Area	K17881	10.6	1-Jun-58	\$53
12768	Bending Lake Area	K17544	17.0	1-Jun-58	\$85
12768	Bending Lake Area	K17886	7.5	1-Jun-58	\$37
12768	Bending Lake Area	K17887	13.5	1-Jun-58	\$68
12768	Bending Lake Area	K17888	13.2	1-Jun-58	\$66
12768	Bending Lake Area	K17889	10.8	1-Jun-58	\$54

5 Accessibility, Physiography, Infrastructure and First Nations

5.1 Accessibility

The Bending Lake Property may be accessed by Ontario Provincial Highway No. 622 which crosses the northwestern part of the Property between Bending Lake and Stormy Lake at approximately 80 km northerly from the town of Atikokan, Ontario, and 25.8 km southerly from the junction of Highway No. 622 and the Trans Canada Highway (Ontario Highway # 17) which is located approximately 32.2 km northwesterly along the Trans Canada Highway from the town of Ignace. A considerable amount of logging has recently taken place over approximately 60% of the property, and a system of logging roads provides access to the Property from two points on Highway No. 622 (Figure 2).



5.2 Physiography

The Bending Lake Property lies within the Severn Upland physiographic subdivision of the Canadian Shield.

5.2.1 Topography and Drainage

The Property lies along and parallel to the southwestern most arm of Bending Lake. Although ice sheets moved in a southwesterly direction through the area, topography at the property consists of a northwesterly trending, sub-parallel series of glacially sculptured ridges and topographic depressions that are controlled by underlying geology. A steep escarpment along the southwest shore of southwestern most arm of Bending Lake trends northwesterly through the centre of the claim group. A succession of small hills define a resistant ridge that extends northwestwards from and includes the escarpment mentioned above. Continuing from the northwest extremity of this arm of Bending Lake, there is a topographic depression that extends along the northeast side of the claim block through Staurolite Lake, Herman Lake and several other small unnamed lakes.

Relief varies from approximately 395 m (level of Bending Lake at 1296 ft) to 445 m (1460 ft) above sea level. Topography in the region is strongly influenced by bedrock lithology and structure. Outcrop is estimated to be approximately 10% of the total land area with up to 30% locally. The region was glaciated by southward and southwestward moving ice sheets during the Pleistocene. Glacial erosion modified the uplands and glacial deposition filled the lowlands with till and glaciofluvial deposits. The claims are extensively covered with a mantle of glaciofluvial deposits and glacial till and colluvium derived from the underlying bedrock but large amounts of the property have only thin veneers of approximately one metre.

5.2.2 Climate

The climate is temperate, humid, continental, with a cold winters when temperatures may fall as low as -40°C (-40°F), and accumulations of snow may reach 1 to 2 m (3.3 to 6.6 ft) in depth. Mostly snow-free months extend from May to September, and summer temperatures may rise to +30°C (+86°F). Average annual precipitation ranges from 80 to 160 cm (31.5 to 63 inches).

5.2.3 Flora and Fauna

The area is dominated by conifer species such as black and white spruce, jack pine, balsam fir, tamarack and eastern white cedar and deciduous species like poplar and white birch characteristic of Boreal forests. The property overlies numerous small lakes including Bending Lake and is part of the Arctic Watershed. Numerous streams and swamps occur throughout the property and abound with tag alders and cedar. The forest also contains hundreds of plant species such as ferns, moss, fungi, shrubs and herbs.

The area hosts an abundance of wildlife which includes predators such as wolves, lynx and fox. Herbivores include larger mammals such as moose, deer and black bear, which is occasional a scavenging carnivore. Smaller mammals include rabbits, beavers, otter, pine martins, porcupine and squirrels. Many species of bird also live in the area including crows, chickadees, ruffed grouse and bald eagles. Migratory birds visit the area including ducks, cranes and the ubiquitous Canada Goose.



5.3 Infrastructure

Infrastructure proximal to the Property includes seasonally accessible roads and trails which are accessed via highway No. 622. The Trans-Canada Highway, approximately 25 km north of the property, provides access to hydro-electrical grid, natural gas pipelines and rail lines that parallel the highway. Skilled work force is also available in the towns of Atikokan and Ignace, 80 km and 49 km by road respectively. The city of Thunder Bay, Ontario, is approximately 285 km southeast of the property and provides skilled labour and industrial support. It is also the closest port to the property and provides seaboard access via Lake Superior.

Mining and milling facilities could be built on site, and there is ample space to engineer appropriate locations for ore stockpile, waste rock pile and tailings facilities. The historic Steep Rock facility to the south near Atikokan could be re-commissioned as a processing facility or a short rail line could access a new processing plant adjacent to the Trans-Canada highway, north of the resource. There is no documented agriculture or mining in the immediate claims area. Lakes in the Bending Lake area provide a recreational fishery to a fishing lodge and other local cabins located on nearby lakes.

5.4 First Nations

First Nation's and Metis communities are situated near the Bending Lake Property and consider the area part of their traditional territory. Currently there is no active Memorandum of Understanding (MOU) or Exploration Agreements (EA) with any First Nations in the Bending Lake Area. Consultation has begun with the following communities:

- Wabigoon Lake First Nation (FN)
- Eagle Lake FN
- Lac Des Mille Lacs FN
- Wabigoon Metis
- Lac La Croix FN
- Seine River FN
- Lac Suel FN
- Rainy Lake Tribal Council
- Grand Council Treaty #3.

Bending Lake is in the first stages of drafting a MOU and Exploration Agreement Protocol with the communities of Wabigoon Lake FN and the Wabigoon Metis. At this time, Bending Lake is not aware of any other First Nations communities whose traditional lands could be impacted by Bending Lake's activities on the Property.



6 History

The following property history sections, 6.1 Previous Exploration Programs and 6.2 Historical Resource Estimates have been taken from Thompson, 2008. Thompson derived portions of this information was derived from reports by Ontario Research Foundation Volume 1 and Volume 2 (Melnbardis et. al., 1977).

6.1 Previous Exploration Programs

Magnetic iron formation occurrences in the Bending Lake area have been known at least since the 1890's, and reference was made to the Bending Lake iron range in the Geological Survey of Canada Summary Report for 1891. Iron mineralization in the area was again mentioned in the Report of the Ontario Iron Ore Committee in 1923, which refers to surface work and diamond drilling completed in the Bending Lake area, but no other details of this work are available in the Ontario Geological Survey's database. A complete summary of historical exploration on the property is provided in Table 8.

The Bending Lake area (southeast quarter of N.T.S. map-area 52F/08) has never been systematically mapped by the Ontario Geological Survey. The Manitou Lake-Stormy Lake region to the west and northwest was mapped at a scale of 1 mile to 1 inch by J. E. Thompson in 1932 with results published as Map 42C in the Ontario Annual Report of Mines for 1933. The geology of the Bending Lake area shown on a 1:253,440 scale regional compilation map published by the OGS in 1981 (Map 2443 "Kenora-Fort Frances") relied on reconnaissance geological data as well as data from mineral exploration programs, and in other areas where there was no data, bedrock geology was interpreted extensively based on geophysics. OGS Open File Report 5659 includes geological coverage of Kawashegamuk Lake area in the northwest quadrant of N.T.S. map-area 52-F-8, to the north of Bending Lake (OGS maps P2569, P2570, and P3100).

In 1980, an airborne electromagnetic and total field magnetic survey was flown by Kenting Earth Sciences Limited over the Manitou-Stormy Lakes area for the OGS, utilizing a Scintrex/Kenting Tridem system and a Gulf MK V flux gate magnetometer; compiled survey data was published at a scale of 1:20,000. Map M80476 of this survey covers the Bending Lake area. Most of the southwest arm of Bending Lake was covered, but coverage extended just to the east of the east end of Staurolite Lake, and consequently the survey covered only the southeastern portion of the claim block. In 2001 an airborne electromagnetic and total field magnetic survey was again flown over the Manitou-Stormy Lakes area for the OGS by Fugro Airborne Surveys utilizing a Scintrex CS-2 Cesium vapour magnetometer and GEOTEM III and MEGATEM electromagnetic survey systems. Portions of maps M82170, M82171, M82175, and M82176 cover the claims with most of the property covered on maps M82170, M82171, and M82176.



In late 1953, the Jalore Mining Company, a subsidiary of the Jones and Laughlin Steel Corporation, staked 47 claims along the southwest arm of Bending Lake to cover the iron formation, following a prospecting program carried out in the area in the summer of 1953. In 1954, a grid was established on the claims, with a surveyed baseline oriented N52°W, and cross lines cut at 90° to the baseline at 400' and 800' spacing (122 and 244 metres respectively), and geological mapping was carried out over the grid-area at a scale of 1":200'. Geophysical surveying consisting of a dip needle survey was carried out over the grid-area during January and February, and May and June of 1955. Three BX diameter holes were diamond drilled at the property in the summer of 1954, and four more BX diameter holes were drilled in the summer of 1955, for a total of 5,788' (1,764.63 m). All of the holes intersected magnetite and hematite-bearing iron formation with associated minor specularite, interbedded with quartz-biotite schist, chlorite-amphibole schist, chert, and graphitic metasedimentary rocks. Samples of split core were assayed and beneficiation tests were done on composite samples. This data is not available to the Author.

No further work was apparently done at the property until 1963, when the Jalore Mining Company purchased four patented claims located internally to Jalore's Bending Lake claim group, and carried out a ground magnetic survey over the pre-existing grid utilizing a McPhar M500 flux gate magnetometer, which measures the vertical component of the earth's magnetic field. In 1964, Jalore drilled a further 16 AX diameter diamond drill holes totaling 9,866' (3,007.93 m). Samples of split core were tested for head and Davis tube analysis at the research laboratory of the Jones and Laughlin Steel Corporation. The results of these analyses are not available to the Author. Lockwood Survey Corp. prepared topographic maps of the Bending Lake area in 1965.

The property lay dormant again until 1976 when it was optioned from Jalore by the Algoma Steel Corporation, Limited. During 1976 Algoma cleared and re-chained the original Jalore grid, and performed ground magnetic surveying utilizing a McPhar M700 flux gate magnetometer that measures the vertical component of the earth's magnetic field. Soundings were taken of the southwest arm of Bending Lake at 100' (30.5 m) intervals. Algoma established a new baseline, and cut cross lines at 200' (61 m) intervals. The grid was extended northwest and southeast and geological mapping and ground magnetic surveying were carried out over the grid. Additional diamond drilling was done, consisting of 12 AQ diameter holes and 6 EXT diameter holes, totaling 14,395.2' (4,388.78 m).

The following year, in 1977, Algoma drilled 15 AQ diameter diamond drill holes totaling 11,899.5' (3,627.9 m). In addition, 23 holes were drilled totaling 1,208.5' (368.45 m) to investigate the type and depth of overburden in the vicinity of the proposed pit brow, and a six mile (10 km) long winter road was constructed providing access to the property from a logging road. Three AQ diameter holes totaling 893.7' (272.47 m) were drilled for geotechnical testing. A bulk sample of approximately 612 tons was taken from the "Main Zone", of which some 353 tons was shipped to



Lakefield and Ontario Research Foundation laboratories for metallurgical and pilot plant studies.

A report prepared by Lakefield Research of Canada Limited, dated October 17, 1977, describes the results of laboratory test work on the bulk sample, and includes details of a proposed plant flow sheet and reagent balance.

A report entitled "Geology Report, Bending Lake Property", dated October 31, 1977 was prepared for Algoma Steel Corporation, Limited by M. A. Khan. The report describes the geology of the property, summarizes previous work, and includes plan maps of the diamond drill holes and maps of the 1976 ground magnetic survey, as well as 17 cross sections through the iron deposit, along a strike length of 8,800' (2,682.9 m). Each of the cross sections incorporates drill hole data from one to as many as five drill holes.

A report entitled "Bending Lake Study II, Capital and Operating Cost Estimate and Engineering Report", dated November, 1977 was prepared for Steep Rock Iron Mines Limited by Canadian Bechtel Limited. The scope of this report was to develop overall design concepts, to arrange for and supervise metallurgical pilot plant test work, to assess the comparative economics of different plant design concepts, conduct optimization studies with respect to grinding systems and tailings disposal, to review the mining plan and capital and operating costs, to arrange for an independent ore reserve calculation (which was done by Behre Dolbear), and to liaise with Beak Consultants Ltd., who were retained by Steep Rock to prepare an environmental evaluation, etc. Most of the work described in the Bechtel report is outside of the Author's usual area of expertise, and this present report relies completely on the findings of the experts who prepared the Bechtel report insofar as discussions herein of historic ore reserves and mining methods are concerned.

Predecessor companies of Bending Lake Iron Group Limited purchased the property from Noranda Inc. (now Xstrata Canada Inc.). The details of Noranda's acquisition of the property from Algoma Steel are not known to the Author at this time. In May, 2003 title of the property patents were transferred to Turtle River Wilderness Lodge II and officially registered in Bending Lake Iron Group Limited's name in July, 2008.

To the best of the Author's knowledge, no further mineral exploration work was done at the Bending Lake property from 1977 until September, 2008 when Bending Lake Iron Group commenced a program of cataloguing, relogging and resampling historic drill core. A program of diamond drilling was also completed in October, 2008, with the objective of drilling holes at closer spacing than in the existing sections for purposes of calculating an NI 43-101 compliant mineral resource. As of the effective date of this report, no samples had been shipped for analysis, but it is Bending's intention to ship the samples for analysis in the near future.

**Table 8 – Past Exploration on the Bending Lake Property (Thompson, 2008)**

Year	Operator	Work
1953	Jalore Mining Company Limited	prospected and staked 47 mining claims
1954	Jalore Mining Company Limited	control grid established
1955	Jalore Mining Company Limited	5787 feet of diamond drilling in 7 BX holes completed
1955	Jalore Mining Company Limited	split core samples were assayed and beneficiation tests were carried on composite samples
1963	Jalore Mining Company Limited	four patented claims purchased within Jalore's claim group bringing total number of patented claims to 51
1963	Jalore Mining Company Limited	magnetometer survey, utilizing the M-500 instrument, was carried at 400 foot intervals on the established grid
1964-1966	Jalore Mining Company Limited	9866 feet of diamond drilling in sixteen AX holes completed concentrated on the main zone
1965	Jalore Mining Company Limited	split core samples were tested for head and Davis tube assays at a and Laughlin's research laboratory
1965	Jalore Mining Company Limited	topographic maps of the Bending Lake area prepared by Lo Survey
1976	Algoma Steel Corporation Limited	Jalore grid re-established and extended over the ice on Bending Lake
1976	Algoma Steel Corporation Limited	magnetometer survey, utilizing the M-700 instrument, was carried
1976	Algoma Steel Corporation Limited	southwest bay of Bending Lake was sounded at 100 foot intervals
1976	Algoma Steel Corporation Limited	new grid established with 200 foot interval cross lines
1976	Algoma Steel Corporation Limited	magnetometer survey, utilizing the M-700 instrument, was carried
1976	Algoma Steel Corporation Limited	geological survey completed
1976	Algoma Steel Corporation Limited	14,395.2 feet of diamond drilling in twelve AQ holes and six extensions of previous holes completed
1976	Algoma Steel Corporation Limited	five mining claims staked adjoining Jalore's block to provide protection for the iron horizon and planned pit brow area
1977	Algoma Steel Corporation Limited	11,899.5 feet of diamond drilling in fifteen AQ holes completed
1977	Algoma Steel Corporation Limited	twenty-three hole (1,208.5 feet) soil sampling program completed to investigate depth and nature of overburden in the pit brow and area
1977	Algoma Steel Corporation Limited	six mile winter road bulldozed to link the property with an all-weather lumber road
1977	Algoma Steel Corporation Limited	612 ton bulk sample obtained from the main zone; 353 tons of material shipped to Lakefield and Ontario Research Foundation laboratory for pilot plant studies



6.2 Historic Resource Estimates

Historic drilling programs resulted in a total of 13,175 metres (45,039 ft) of diamond drilling in fifty-six (56) holes, and are the basis for the following historic resource/reserve estimations. The area of investigation has been drilled off on 152 metre (500 ft) centers and 122 metre (400 ft) intervals across section. Steep Rock Mines furthered their investigation to design an open pit designed at the time to yield 2.5 million long tons of concentrate per year for 25 years of operation.

6.2.1 Steep Rock Iron Mines Ltd. 1977

Ore reserves were calculated by applying a block type method of measurement on each section. The influence of each drill hole was defined as half way to the next hole and the Davis Tube analyses were used to categorize the ore on the basis of weight recovery. The categories applied were >20% weight recovery, >15 – 20 % recovery, >10 – 15 % recovery and <10 % recovery. The intention was to provide flexibility in cut off grade and calculation of the reserves. Bands of material less than 25 feet were included in the adjacent material and the total material was subsequently categorized on the basis of the weights average analyses of the material.

Tonnage factors for the various categories were: > 15% weight recovery – 11 cubic feet per long ton, >10 % - 15 % weight recovery 12 cubic feet per long ton and <10 % weight recovery 12.5 cubic feet per long ton. A factor of 1.6 long tons per cubic yard was used for overburden calculations. The ore and waste factors were confirmed by specific gravity on random samples of ore and waste.

For the final Steep Rock analyses it was assumed that >15% weight recovery would be considered 'crude ore' and <15 % recovery be included as waste. A physical measurement was made on all the sections, and on the basis of becoming ore on all contacts, a 4% reduction in concentrate quantities was calculated. This 4% loss was used as the mining loss in the ore reserve calculation. The results are summarized in Table 9.

Table 9 - Weight (wt %) recovery of iron concentrate of >20 %, >15 – 20 %, >10 – 15 % and < 10 % recovery. Total excavation, waste, losses and reserves are plotted below. With a summary of net concentrate reserves outlining rock waste and overburden at the bottom (Thompson, 2008).

Excavation	Crude Waste Long Tons	Crude Mag. Fe	Crude Sol. Fe	Wt. Rec: Percent	Concentrate Long Tons	Conc. Sol. Fe
>20 % Wt. Recovery	216,785,000	20.46	25.64	29.62	64,222,000	69.04
> 15 % - 20 % Wt. Recovery	28,789,000	11.92	16.22	17.42	5,014,000	68.5
>10 % - 15 % Wt. Recovery	10,049,000	9.02	12.55	13.11	1,318,000	68.79
< 10 % Wt. Recovery	104,067,000	-	-	-	-	-
Overburden	26,278,000	-	-	-	-	-
Total Excavation	385,968,000					
Mining Loss						



Excavation	Crude Waste Long Tons	Crude Mag. Fe	Crude Sol. Fe	Wt. Rec: Percent	Concentrate Long Tons	Conc. Sol. Fe
Crude Ore (> 15 % Wt. Rec)	245,574,000	19.46	25.54	28.19	69,236,000	69
Waste – 4 %	9,823,000	0.79	1.1	1.15	113,000	68.79
Crude – 4 %	-9,823,000	-	-	-	2,769,000	69
Ore Reserves (Plant Feed)	245,574,000	10.71	24.56	27.11	66,580,000	69
Plant Loss (-7.5% Conc)					4,994,000	
Net Concentrate Reserves				25.08	63,586,000	70
Rock Waste 114,116,000 t Overburden 26,278,000 t						

The mining loss of 4% was calculated by measuring all of the ore-waste contacts (>15% <15% recovery) and calculating the quantities of materials in a seven foot width on each contact. It was assumed that seven feet of ore was lost to waste and seven feet of water diluted the ore. Because a portion of the waste (>10% - 15% weight recovery) has known iron units in it, a small gain of iron units is realized and included in the calculation (Table 10).

Table 10 – Weight (wt %) recovery of iron concentrate of >10 – 15 %, <10 % wt. recovery and the net average analysis (Thompson, 2008).

	Crude Waste Long Tons	Crude Mag. Fe	Crude Sol. Fe	Wt. Rec: Percent	Concentrate Long Tons	Conc. Sol. Fe
>10 % - 15 % Wt. Recovery	10,049,000	9.02	12.53	13.11	-	68.79
<10 % Wt. Recovery	104,067,000	-	-	-	-	-
Net Average Analysis	114,116,000	0.79	1.1	1.15	-	68.79

A final concentrate soluble iron of 70.00% was achieved through flotation in pilot plant testing. The loss incurred in upgrading is reflected as part of the 7.5 % plant loss.

Behre Dolbear further reviewed the exploration history of the Bending Lake deposit and examined data and reports supplied by Steep Rock and Algoma to obtain information relating to the effect of geology on the mining and reserves for Steep Rock's proposed pit design. The Bending Lake iron deposit occurs within a Precambrian formation, consisting of metamorphosed sedimentary rocks extending from Upper Manitou Lake to Smirch Lake. The formation extends in a northwest-southeast direction for approximately 32 miles with an average width of 4 miles. Siliceous iron formation bands occur with sedimentary belt of the above formation over a distance of approximately six miles between Stormy Lake and the southerly



edge of Bending Lake. In places the iron formation bands attain widths of up to 200 feet, but are generally less.

Near Bending Lake, the iron formation thickens to more than 1,100 feet (335 m) width and a length of 3,400 feet (1,036 m) it is this that forms an important portion of the mineable deposit. The thickening has been interpreted to be the result of repetitive tight isoclinal folding and this interpretation is supported by the presence of apparently continuous schist bands from hole to hole horizontally and in drill cross sections. In the thicker portion, the average hanging wall dip approximates 52° and the footwall 46° both to the southwest. Iron occurs principally as magnetite although specularite, pyrite and pyrrhotite have been observed in lesser quantities.

Comprehensive study of reserve estimates and geological rationale, including the treatment of internal and external waste bands within the pit limits was undertaken by Behre Dolbear in 1977. Behre Dolbear's comprehensive analysis of drilling results suggested that each foot of core within the ore reserve boundaries has been credited with an estimated 13,613 ton of ore. Behre Dolbear concluded that the systematic and cautious work of Algoma and Steep Rock has established the estimated tonnage of 245,574,000 long tons within the pit limits which is recoverable at an attainable grade of 19.46% magnetic iron.

The Steep Rock pit design is based on drilling at 500 - 600 feet (152-183 m) horizontal intervals believed by Behre Dolbear to be too wide to permit a detailed pit design that takes into consideration the fall effect of geologic structure. This is especially true of the first four years of production; believed to be the least flexible in terms of supplying the required annual tonnage of concentrate. Behre Dolbear therefore recommended an additional 5,150 feet (1,570 m) of drilling within the proposed four year pit limits. However it is important to emphasize that Behre Dolbear did not believe that the recommended drilling should defer a decision to proceed with the overall project.

Table 11 – Proven, probable and the sum of proven and probable reserves, with tonnage and % recovery (Thompson, 2008).

	Tonnage	% Concentrate Weight Recovery
Proven Ore Reserves (by drilling)	225,579,000	28.27
Probable Ore Reserves (by drilling)	19,995,000	27.27
Sum of Proven & Probable Reserves	245,574,000	28.19

After application of a dilution factor, which Bechtel has found reasonable, together with estimated plant losses, the mineable reserves become:



245,574,000 long tons at an overall percentage concentrate weight recovery of 25.08% iron.

Table 12 – Reserve estimations from Steep Rock, Bechtel and another alternative method (Thompson, 2008).

	Steep Rock	Bechtel (Steep rock Method)	Bechtel (Alt. Method)
>20% Wt. Rec	216,784,546	216,043,639	214,071,518
<20% - >15% Rec.	28,789,546	29,069,545	27,555,078
<15% Rec	10,049,168	9,685,000	7,377,594
Waste	104,066,800	104,253,600	101,254,498
Overburden	26,277,513	25,985,411	25,554,862
Total in Envelope	385,967,573	185,037,195	375,813,550
>15% W.R	245,574,092	245,113,184	241,626,596
<15% W.R	114,115,968	113,938,600	108,632,092
>10% W.R	253,623,260	254,798,184	249,004,190

Table 13– Reserves from sections 1160 – 1200 estimated by Steep Rock and Bechtel using the same method (Thompson, 2008).

	Steep Rock	Bechtel (Steep Rock Method)
>20% Wt. Rec	17,569,000	17,467,271
<20% - >15% Rec.	2,670,000	2,846,362
<15% Rec	417,000	410,834
Waste	9,209,000	9,586,000
TOTAL	29,865,000	30,310,467

Table 14– Reserves from sections 1200 – 1240 estimated by Steep Rock and Bechtel using the same method (Thompson, 2008).

Steep Rock	Bechtel (Steep Rock Method)
12,022,000	11,718,000



Details of the calculation procedures used by Algoma and Steep Rock were discussed by representatives of both organizations and the methods used were in standard industry practice at the time for evaluation purposes.

Basic assay and Davis Tube procedures examined by Bechtel's metallurgical staff were deemed correct and appropriate. Algoma's responsibility was for sample preparation and compositing together the determinations transferred to geological sections and used for Steep Rock's block calculations. Steep Rock calculated weighted averages from various drill holes to take into account their individual areas of influence. A limited check was performed on certain blocks using an alternative grade block calculation, showing no significant differences existed. In all calculations Steep Rocks distances of projection to the midpoint towards adjacent sections were used to derive block volumes, and the tonnage factors given in the 1977 Steep Rock mining report.

6.3 Capital and Operating Cost Estimate

A capital and operating cost estimate along with an engineering report was completed in 1977 by Canadian Bechtel Limited for Steep Rock Iron Mines Limited on the outlined 245M long ton (248.9M tonne) Bending Lake magnetite deposit. Costs are reported in fourth quarter 1977 Canadian dollars (CAD\$) using an exchange rate of CAD\$1 = US\$0.90 where applicable. Canadian Bechtel Limited estimated total capital expenditures of \$181.3M, of which \$159.6M are project infrastructure costs and \$21.7M are Owner's costs (Connor, 1977). The capital expenditures cover the initial mine infrastructure over the start up period from 1977 to 1981 (Connor, 1977). The operating cost estimate by Connor (1977) covers mining, crushing, concentration, pipeline transportation, pelletizing and railcar loading costs. Operating costs for the first full year of operation in 1981 were estimated to be CAD\$45.5M which covers mining, concentration and pipelining, pelletizing and load out costs (Connor, 1977). This estimate assumes a production rate of 2.5M long tons (2.54M tonnes) per year of pellets, corresponding to an operating cost of \$18.18/long ton of pellets, loaded into railcars in Atikokan (Connor, 1977). The average unit operation cost over the life of the mine was estimated to be \$18.59/long ton, and varied annually with the grade of the ore, the tons of ore and waste handled and the depth of the ore recovered (Connor, 1977). This estimate is not 43-101 compliant and should not be relied upon as it neither reflects the current market conditions with respect to infrastructure, equipment, labour, maintenance and shipping costs, nor a current long term market price for iron ore.



7 Geological Setting and Mineralization

The following geological setting sections, 7.1 Regional Geology, 7.2 Wabigoon Sub-Province Geology and 7.3 Bending Lake Property Geology has been taken from Thompson, 2008, with the exception of section 7.2.2 Wabigoon Sub-Province Geology 2008 to Present.

7.1 Regional Geology

The Bending Lake Property is located within the western region of the Wabigoon Subprovince of the Archaean Superior Province, a 150 kilometre-wide volcano-plutonic domain that has an exposed strike extent of 900 km and extends an unknown distance beneath Palaeozoic strata at either end (Beakhouse et al., 1995) (Figure 5). The following geological descriptions have been taken from Thompson, 2008.

Greenstone belts are volcanic supracrustal sequences (a volcano-plutonic domain, one of the 4 types of lithotectonic domains within the Superior Province) that are intruded by syn-volcanic to post-tectonic granitoid plutons; the proportion of different supracrustal rock types varies from belt to belt. The magmatic components of the greenstone belts include ultramafic to felsic varieties within tholeiitic calc-alkalic and alkalic affinities. Ultramafic and mafic varieties are predominantly effusive whereas pyroclastic deposits are well represented among the more felsic varieties. The sedimentary component of greenstone belts includes both clastic and chemical deposits. Plutonic rocks in these domains include synvolcanic tonalitic, quartz dioritic and granodioritic plutons, the emplacement of which is thought to have deformed the greenstone belts into arcuate forms. Metamorphic grade is generally greenschist or sub-greenschist grade except for narrow belts or the margins of larger belts which commonly display mineral assemblages typical of low pressure amphibolite grade (Percival and Easton, 2007a and 2007b).

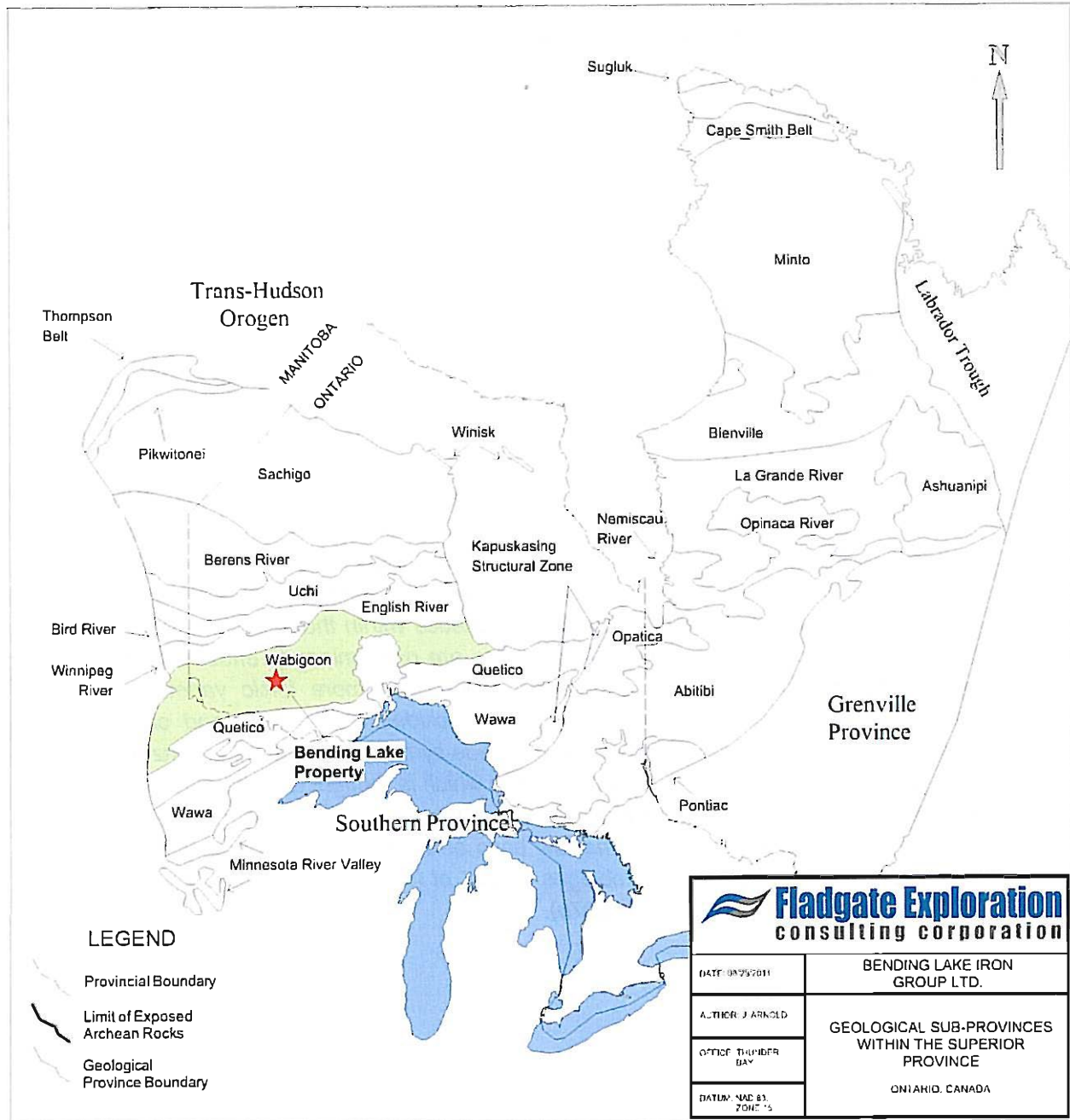


Figure 5 –Geologic Sub-Provinces of the Superior Province

7.2 Wabigoon Sub-Province Geology

7.2.1 Wabigoon Sub-Province Geology Pre-2008

The Ontario Geological Survey have completed numerous geological mapping programs in the Wabigoon Sub-Province, however the Bending Lake area (southeast quarter of N.T.S. map-area 52-F-8) has never been systematically mapped. The



Manitou Lake-Stormy Lake region to the west and northwest was mapped at a scale of 1 mile to 1 inch by J. E. Thompson in 1932 with results published as Map 42C in the Ontario Annual Report of Mines for 1933. The geology of the Bending Lake area as shown on a 1:253,440 scale regional compilation map published by the OGS in 1981 (Map 2443 "Kenora-Fort Frances") relied on reconnaissance geological data as well as data from mineral exploration programs, and in other areas where there was no data, bedrock geology was interpreted extensively based on geophysics (Figure 6). OGS Open File Report 5659 includes geological coverage of Kawashegamuk Lake area in the northwest quadrant of N.T.S. map-area 52-F-8, to the north of Bending Lake (OGS maps P2569, P2570, and P3100).

Detailed mapping conducted by the OGS in the Kawashegamuk Lake, Boyer Lake, and Manitou Lakes area to the north, northeast, northwest, west, and southwest of the Bending Lake claim block has established four stratigraphic groups of supracrustal rocks. In order of stratigraphic succession these are the Wapageisi Lake Group, the Stormy Lake Group, the Kawashegamuk Lake Group, and the Boyer Lake Group.

The Wapageisi Lake Group is comprised of rocks of tholeiitic affinity consisting of pillowed mafic flows, intruded in places by related gabbroic sills, overlain by a differentiated sequence of intermediate to felsic flows and pyroclastic rocks. The sedimentary Stormy Lake Group unconformably overlies the Wapageisi Lake Group. It has been described as a "Timiskaming" type sequence with coarse, fluvialite, clastic rocks predominating over finer grained sediments. In the Manitou Lakes area, the basal part of the Stormy Lake Group is composed of polymictic conglomerates with clasts of mafic volcanics, felsic volcanics, granitic rocks, and clasts of chemical sediments including magnetite, hematite, and chert. The conglomeratic rocks are probably transitional into finer grained sandstones and turbiditic siltstones in the Stormy Lake area, which in turn may be transitional into more distal, fine-grained, turbiditic sediments containing abundant interbedded magnetite ironstone in the Bending Lake area. The magnetite is transitionally hosted from fine cherts to greywacke/siltstone within the first 15 metres of the contact to the north.

The Boyer Lake Group is younger than the Wapageisi Lake Group, and in areas of detailed mapping it is in fault contact with the Stormy Lake Group. It is also of tholeiitic affinity and consists of a thick sequence of mafic flows and pillow lavas, intruded by gabbroic sills. The Kawashegamuk Lake Group is a sequence of calc-alkaline metavolcanic rocks outcropping to the northeast of Kawashegamuk Lake, and probably extends down the northeast side of Bending Lake. It is conformably overlain by the Boyer Lake Group and the contact marks a transition from calc-alkaline to tholeiitic volcanism. The basal mafic volcanics of the Kawashegamuk Lake Group are intruded by the Revel Batholith, and overlying felsic pyroclastic rocks contain minor interbeds of clastic and chemical sedimentary rocks.

The supracrustal rocks of the Wapageisi Lake Group, Stormy Lake Group, Kawashegamuk Lake Group, and Boyer Lake Group are intruded by irregular bodies and small stocks of granitic rocks ranging in composition from quartz monzonite, to



granodiorite, through trondhjemite, quartz diorite, and granite, and in places are intruded by subvolcanic felsic sills and dykes ranging in composition from feldspar porphyry to quartz porphyry to fine-grained felsites.

7.2.2 Wabigoon Sub-Province Geology 2008 to Present

Between 2008 and 2010 the Ontario Geological Survey conducted a mapping program in conjunction with FedNor, the Northern Ontario Heritage Fund Corporation, the Ontario Geological Survey and the Township of Atikokan as part of the Atikokan Mineral Development Initiative. The project was created by the Township of Atikokan and managed by the Ontario Prospectors Association. The project is intended to provide a synthesis of the mineral resource potential in the vicinity of Atikokan and to market this potential to the mineral exploration industry. The initiative was composed of two parts, the first a surface geological mapping program intended to outline areas of bedrock geology with high mineral potential and the second, an airborne magnetic and electromagnetic geophysical survey which will be flown over the project area to make hardcopy and digital data of available to prospectors and mineral exploration companies (Stone, 2011).

In the Bending Lake Property area three maps have been published by D. Stone of the Ontario Geological survey (P.2515, P.2623 and P.2624). All three maps were published in the spring of 2011 at a scale of 1:20,000 and include a standardized lithologic legend, structural geology data, geochronological sample locations with age dates and Mineral Deposits Inventory occurrence locations where available.

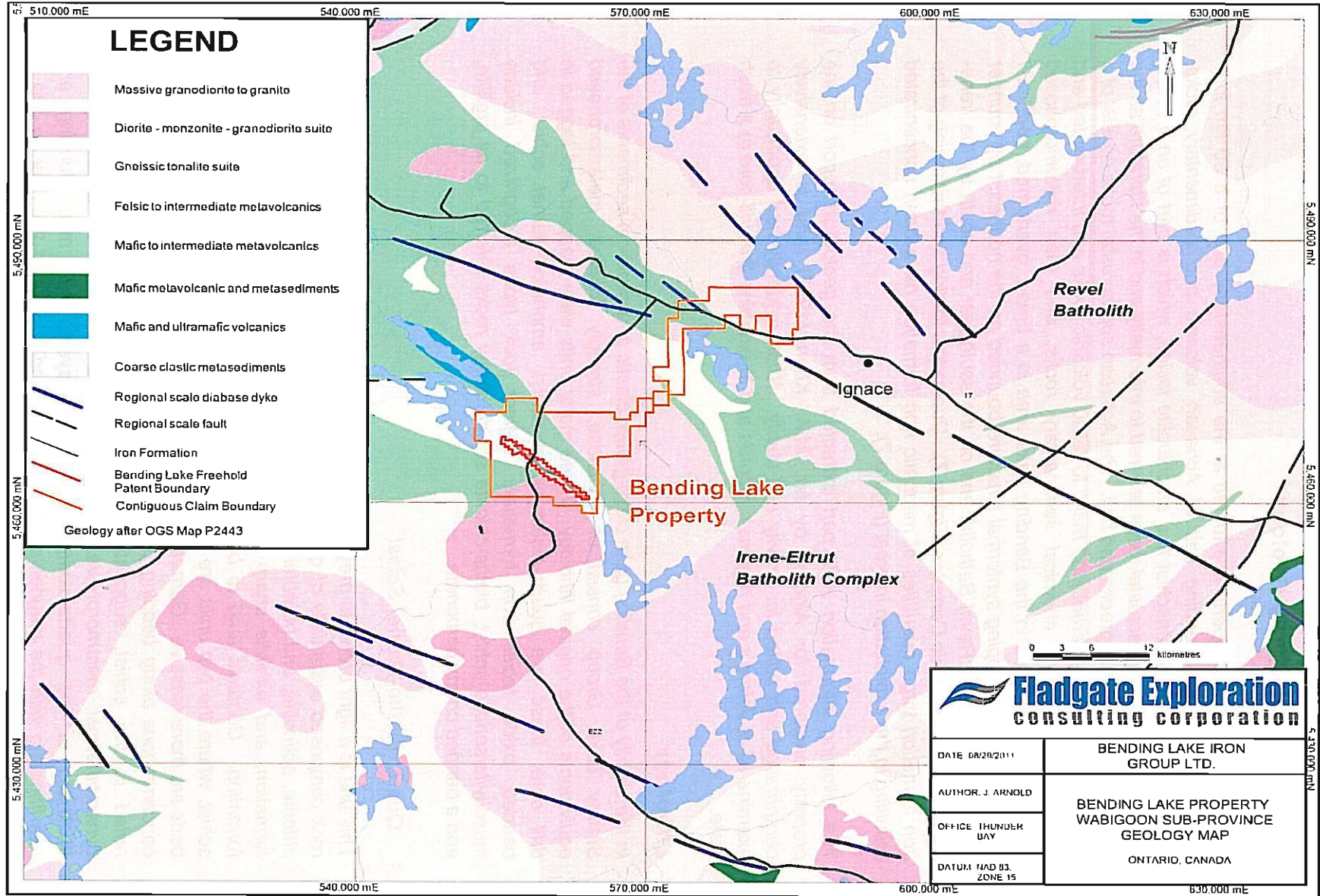


Figure 6 – Geology of the Wabigoon Sub-Province, Bending Lake Property Area



7.3 Bending Lake Property Geology

The Bending Lake property is situated at the southeasterly end of a 30 km long northwest-southeast trending belt of Achaean volcanic and sedimentary rocks, metamorphosed to greenschist and amphibolite facies, which is part of an arcuate, 70 km long belt of supracrustal rocks referred to informally and in the literature as the Manitou-Stormy Lakes greenstone belt. The Achaean supracrustal rocks consist of a thick succession of differentiated mafic to felsic volcanic rocks and interbedded and overlying clastic and chemical sedimentary rocks, and their metamorphosed equivalents, preserved in the Bending Lake area in a broad, overturned, northeast facing, southwest dipping synformal structure bounded on the northeast by younger granitic rocks of the Revel Batholith and on the southwest and south by the Irene-Eltrut Lakes Batholithic Complex (Figure 7). Due to this folding and thickening of the iron formation large quantities of magnetic iron formation have been concentrated resulting in the exploitation interest (Figure 7).

The following information is in part extracted from the geological report on the property prepared for Algoma by Mr. M.A. Khan (1977), and is extensively paraphrased and edited for brevity and clarity. Khan evidently had opportunity to examine all of Jalore's and Algoma's records and to examine the drill core in a fresh state.

7.3.1 Lithology

In the vicinity of the Bending Lake claim group, clastic and chemical sediments of the Stormy Lake Group consist of schistose, strongly foliated, metamorphosed equivalents of the original lithology. Three major units were mapped and logged in drill core; these are quartz-biotite-garnet schist, amphibole-garnet schist, and banded, oxide facies iron formation. Minor rock types recognized include muscovite/sericite schist, biotite-chlorite schist, slaty rocks referred to as argillite, and a banded cherty carbonate.

7.3.1.1 Quartz-Biotite-Garnet Schist

This unit is a light brown to grey, fine- to medium-grained, strongly foliated, siliceous rock composed essentially of quartz and biotite, with up to 15% garnet, and minor chlorite, actinolite, and hornblende. The unit is interbedded with the magnetite iron formation, and exhibits sharp to gradational contacts with the intercalated iron formation. Contacts tend to be gradual with disseminations of magnetite in the schist, where the two units are thinly laminated, and contacts are sharp where the beds are more massive. Garnets are widely distributed in the unit and in places form concentrations along bedding planes. Oval quartz 'eyes' up to 6 mm long were noted in the schist, suggesting augen, or growth of porphyroblasts during dynamothermal metamorphism. Khan observed considerable variation in the thickness of the quartz-biotite-garnet schist layers, with much lensing and interfingering with the magnetite iron formation, and suggested this may be due to tight folding.

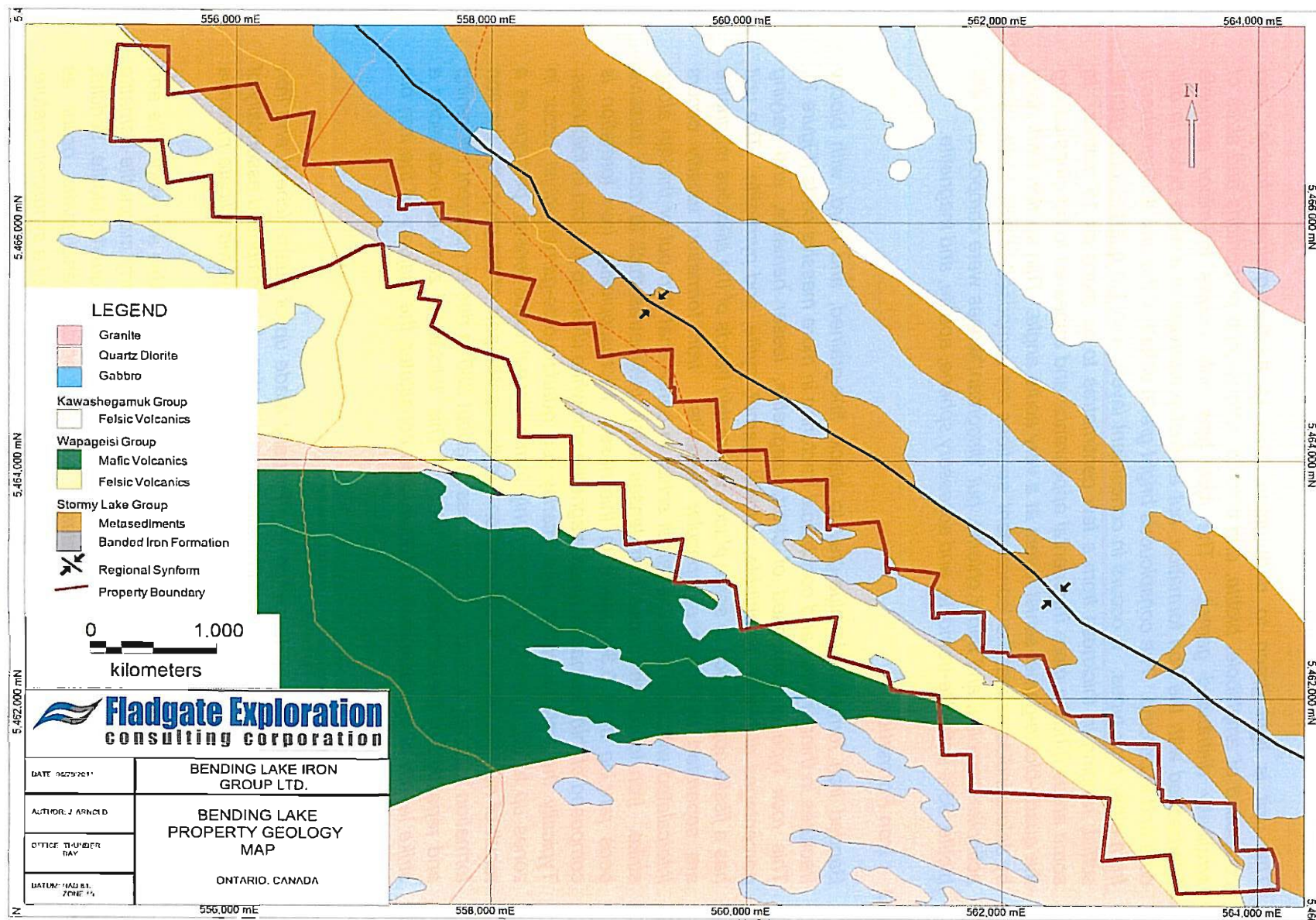


Figure 7 – Bending Lake Property Geology

7.3.1.2 Amphibole-Garnet Schist

This unit is light green to dark green, fine- to medium-grained, 'friable', and composed of amphibole, biotite, and chlorite, with varying proportions and sizes of erratically distributed garnet. The rock type only occurs in minor amounts interbedded with the iron formation, but extensive intervals of it were noted in drill core and in outcrop. The conspicuous bright green colour of the unit distinguishes it from other rock types. It occurs in concordant layers with the quartz-biotite-garnet schist, ranging in thickness from a few centimetres to as much as 15 metres. In some areas it had a more fragmental appearance and appeared to be cross-cutting the quartz-biotite-garnet schist layers at a very acute angle. Thin section work done by Jalore indicates that the 'concordant' sections are composed of 60% biotite, 37% actinolite-tremolite, and minor chlorite, but 'discordant' zones were composed of 4% biotite, 95% actinolite-tremolite, and accessory sphene, apatite, and magnetite.

7.3.1.3 Iron Formation

Banded iron formation is blue-grey to black, fine-grained, and hard, with blocky fractures in thinner beds and conchoidal fracturing in more massive beds (Figure 7). This rock type is composed of chert, magnetite, lesser hematite, and varying percentages of biotite, amphibole, chlorite, garnet, pyrite, and pyrrhotite. The unit has a fissile appearance in some places where thin bands of the siliceous magnetite are separated by layers of specular hematite. Iron formation usually occurs intercalated with quartz-biotite-garnet schist in bands that thin out or thicken along strike. Iron formation ranges from lenses a few millimetres thick to more massive beds ranging from 0.3-1 metre in thickness. Microscopically, iron formation is composed of thin laminae of black magnetite and white chert up to 1 cm in thickness. Typically the iron formation and interlayered quartz-biotite-garnet schist occur in zones up to 60 m thick, and commonly forms discontinuous lenses, perhaps as a result of non-deposition or deformation. In the central part of the property, the iron formation reaches a maximum thickness of about 330 m due to apparent thickening and repetition of the formation by folding. This 'thickened' zone extends along a strike length of approximately 1,150 m, and constitutes the majority of the iron ore deposit.

7.3.2 Mineralogy

The Bending Lake iron formation is principally made up of quartz (chert) and iron oxides with varying amounts of iron-aluminum silicates. It is composed essentially of chert (including quartz), magnetite, specular hematite and layered silicate minerals such as biotite, amphibole and chlorite.

The iron formation is fine grained and well banded. Iron oxides are magnetite and minor specular hematite. The ore may be referred to as cherty magnetite-hematite or Algoma type. Gangue minerals in the iron formation are quartz, biotite, sericite, muscovite, chlorite and carbonates. Garnets, epidote and pyrite occur as replacement minerals. Sulphide mineralization appears to be of a syngenetic nature. Two types of sulphides have been identified in both drill core and outcrop; pyrite and

pyrrhotite. Pyrite occurs mostly as minor disseminations in the iron formation and in the surrounding sediments. Pyrrhotite generally occurs as narrow, massive veins in the iron formation and sediments. These massive sections appear to be associated with quartz stringers and vary in width from a fraction of an inch to a couple of feet.

Petrographic work completed by Algoma/Steep Rock in 1977, indicates that the iron formation is highly metamorphosed or quartzose. More microscopic work is required to define the nature of the ferromagnesian minerals, metamorphism and mineral replacement and the nature and size of the iron forming minerals.

7.3.3 Structure

Achaean metavolcanic and metasedimentary rocks in the Bending Lake area are folded about a broad, overturned, northeast facing, southwest dipping synformal structure bounded on the northeast by younger granitic rocks of the Revel Batholith and on the southwest and south by the Irene-Eltrut Lakes Batholithic Complex (Figure 7). Locally, this is referred to as the Bending Lake syncline, but to the northwest in the vicinity of Stormy Lake it trends westward and is referred to in the literature as the Kamanatogama syncline. The Mosher Bay-Washeibemaga Lake Fault is an east-west structure along which the Boyer Lake Group and Stormy Lake Group is in fault contact. It is interpreted as a hinge fault, with increasing displacement westward. It has not been recognized to the east of the northern bay of Stormy Lake.

In the vicinity of the Bending Lake claims, the metasedimentary rocks of the Stormy Lake Group occur in the overturned, northeast-facing, southwest-dipping southeast limb of the Bending Lake syncline. The syncline plunges 15°-20° in a southeasterly direction. The rocks strike, on average, N52°W, and dip, on average, 50°-55°SW, with dips ranging from 40°-60°SW. Ground magnetic and dip needle surveys, as well as the distribution of magnetite ironstone intervals in drill holes suggest that in the central part of the property, in the area of the planned open pit, the iron formation is thickened and repeated across the nose of adjoining isoclinal folds (Figure 8). To the northwest and southeast, ground geophysics and drill hole intercepts indicate that the formation "thins" along strike, where the folding is less complex.

7.3.4 Geophysics

Due to the scarcity of outcrop on parts of the Bending Lake Property, ground magnetic surveys, either as dip needle surveys or magnetometer surveys, have played an essential role in the exploration of the property. In 1954, a grid was established on the claims by the Jalore Mining Company, with a surveyed baseline oriented N52°W, and cross lines cut at 90° to the baseline at 400' and 800' spacing. A dip needle survey was carried out over the grid-area during January and February, and May and June of 1955, and the survey credibly outlined the subcropping zones of magnetite iron formation. In 1963, the Jalore Mining Company carried out a ground magnetic survey over the pre-existing grid utilizing a McPhar M500 flux gate magnetometer, which measures the vertical component of the earth's magnetic field.

During 1976 the Algoma Steel Corporation, Limited cleared and re-chained the original Jalore grid, established a new baseline, and cut cross lines at 200' intervals. The grid was extended to the northwest and southeast. Algoma performed ground magnetic surveying over the enlarged grid-area utilizing a McPhar M700 flux gate magnetometer that measures the vertical component of the earth's magnetic field. The ground magnetic surveys were effective in outlining the subcropping zones and down-dip extensions of the magnetite-bearing iron formation and were invaluable in siting drill hole locations.

In 1980, an airborne electromagnetic and total field magnetic survey was flown by Kenting Earth Sciences Limited over the Manitou-Stormy Lakes area for the OGS, utilizing a Scintrex/Kenting Tridem system and a Gulf MK V flux gate magnetometer; compiled survey data was published at a scale of 1:20,000. OGS Map M80476 of this survey covers the Bending Lake area. Most of the southwest arm of Bending Lake was covered, but survey coverage extended just to the east of the east end of Staurolite Lake, so the survey covered only the southeastern portion of the claim block.

In 2001 an airborne electromagnetic and total field magnetic survey was again flown over the Manitou-Stormy Lakes area for the OGS by Fugro Airborne Surveys, utilizing a Scintrex CS-2 Cesium vapour magnetometer and GEOTEM III and MEGATEM electromagnetic survey systems. Portions of maps M82170, M82171, M82175, and M82176 cover the claims with most of the property covered on maps M82170, M82171, and M82176.

7.4 Petrographic Study (Chloride-Garnet Schist)

At the suggestion of Behre, Dolbear & Associates, Bending Lake performed a petrographic study of samples selected from the quartz-biotite schist and amphibole-chlorite schist units. Sections 7.3.1.1 and 7.3.1.2 are taken from Thompson, 2008, and describe the units respectively. The amphibole-chlorite schist unit was characterized by Jalore Mining as containing 37% actinolite-tremolite in the concordant zones, and up to 95% actinolite-tremolite in the discordant units. In April, 2009, A. Raoul, P.Geol. and Bending Lake geologist, completed a petrographic study of thirty selected samples of the two units to determine the amount of hornblende present that could represent an asbestiform hazard. Raoul reports that the most hazardous asbestiform mineral, serpentine, in the form of chrysotile, was not present in any of the thirty samples selected. Eight of the thirty samples contained hornblende which poses a low health risk as it rarely occurs in a fibrous form. Only one of the samples analyzed showed significant, up to 8% actinolite-tremolite series amphibole in the form of fibrous needles (Raoul, 2009). Based on the results of the study Bending Lake suggests the previous Amphibole-Garnet Schist unit be re-named as the Chloride-Garnet Schist unit. An independent review of the observations is required to confirm the results.

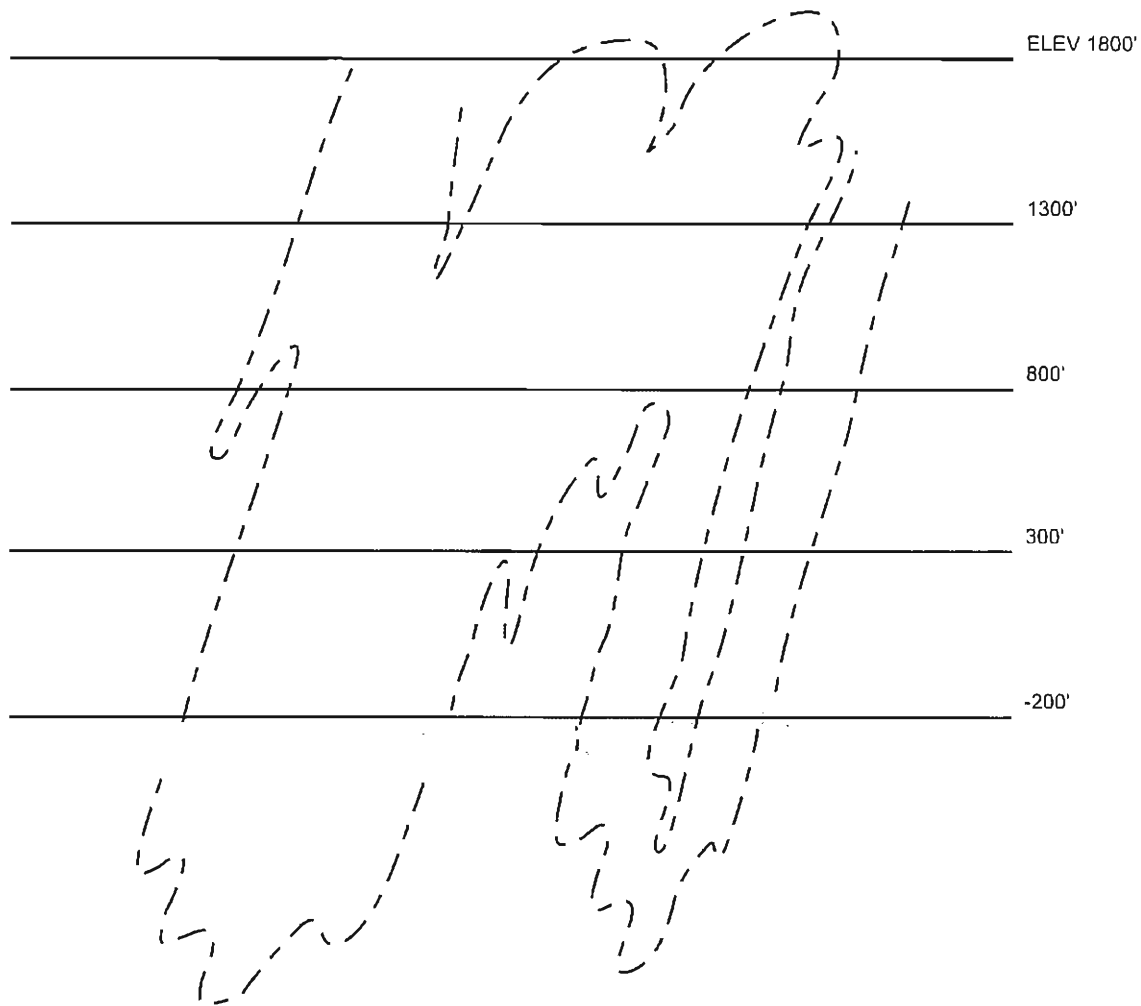


Figure 8 – Schematic cross section of fold thickened iron formation

7.5 Mineralization

For the purposes of resource reporting the Main Zone described in Section 7.5 has been subdivided into Zone 101, Zone 201 and Zone 301. Descriptions of these three zones are found in Section 14, Mineral Resource Estimates. The following mineralization descriptions have been taken from Thompson, 2008.

Most of the ore potential on this property occurs in the wide, folded section where there is an apparent thickening of the formation caused by tight isoclinal folding and a repetition of the iron bearing beds. Extending northwest and southeast from this central zone, the iron formation resumes its normal attitude and is present as a single, relatively structurally simple formation. An open pit mining operation has been proposed centred on the wide, folded section and extending for a limited distance northwest and southeast along the narrow, normal structure, for a total strike length of about 9200 feet.

Geological mapping and magnetometer surveys were carried out over this potential mining area at 200 foot cross-section intervals and sections were drilled at 500 foot intervals. In the central, wide part containing 90% of the total potential ore reserves, several holes were drilled on each section (at approximately 350 foot vertical intervals) to a maximum depth of about 1100 feet to further define the configuration of the structure in the vertical plane.

7.6 Main Zone

The Main Zone of the Bending Lake iron formation is located approximately in the middle of the property, extending between sections 228+00E and 320+00E. The total strike length of this zone is 9200 feet. However, most of the potential ore is contained in the central, wide section between cross-sections 250+00E and 288+00E, a distance of 3800 feet.

The exaggerated width of the iron formation in this zone, as explained above, is due to the tightly folded system of syncline-anticlinal structures plunging 15-20° in a south-easterly direction.

This zone has been outlined on the basis of diamond drilling, surface geology and magnetometer surveys. A total of 40,342 feet were drilled on this zone in 57 holes. This drilling provided cross sections at 500 foot intervals except in the narrow, southeast limb where the spacing was extended to 800 feet. The wide, central part was drilled to a maximum depth of 1100 feet below the surface with holes spaced at vertical intervals of approximately 350 feet.

Most of the exploratory work performed to date by Jalore and Algoma has been on the Main Zone. This work has been extensive and sufficient to project the iron mineralization vertically and horizontally with a reasonable degree of confidence.

7.7 Southeast Zone

This is a southeast extension of the Main Zone of the Bending Lake iron formation, located along the south shoreline of the west bay of Bending Lake. The iron formation extends between sections 324+00E and 398+00E, a strike length of 7,400 feet. The width of this zone, however, changes along the strike from a width of 150 feet to a maximum width of 500 feet. The zone has been interpreted on the basis of two drill intersections, approximately 3,600 feet apart, and ground magnetics. The magnetics in the area are consistent in their expression of the iron formation. However, closer drill intersections are required to establish the potential of this zone.

7.8 Northwest Zone

This zone is part of the northwest extension of the main iron formation horizon, which extends between Staurolite Lake and Herman Lake, a distance of approximately 3.2 kilometres (2 miles). The Northwest Zone, however, is considered as that part

between sections 234+00E and 210+00E, a distance of 2400 feet. This zone has been outlined solely on the basis of magnetic and surface geology. No drilling has been performed on this zone. The interpreted average width of this zone is about 200 feet and the grade of the material is unknown. More adequate work is required to evaluate the potential of this zone.

The iron formation, however, extends past section 210+00E and has been traced on the ground magnetic and geology. The magnetic and surface examination of the outcrops revealed that the iron formation in this area can very narrow (less than 15 metres or 50 feet) and broken into lenses, however the width of the iron formation where it crosses Highway 622 is approximately 50 metres (164 feet). Further exploration is warranted on this area to properly evaluate the potential of this zone.

7.9 Resource Domains

The Main Zone of the Bending Lake Iron formation has been domained into three separate zones, based on lithologic and geochemical constraints, for the purpose of this resource estimate. The three domains have been simplified as sheet-like tabular bodies although it is understood they are part of a plunging, inclined fold system.

7.9.1 Zone 101 & 201

Zone 101 is the thickest magnetite banded iron formation unit on the property. Zone 201 is interpreted as a thinner, folded limb of Zone 101. Thus these zones are similarly composed of predominantly chert-rich magnetite iron formation. Magnetite content of this zone is consistently higher than the footwall, Zones 301. Zone 101 is part of an anticlinal fold structure, forming the upper part of a larger z-fold.

7.9.2 Zone 301

Zone 301 is a poorly defined domain in the footwall of Zone 201, the wireframe solid is an inferred interpretation due to a lack of drill hole data compared to zones 101 and 201. Zone 301 is predominantly composed of Chloride-Garnet Schist and generally has a lower overall magnetite tenor than zones 101 and 201.

8 Deposit Types

The following deposit type descriptions have been taken from Thompson, 2008.

The iron formation at Bending Lake is "Algoma" type iron formation, characterized by its depositional association with fine-grained sediments in a geologic setting in proximity to a volcanic centre in an Achaean greenstone belt, and its typical banded appearance, produced by microscopic to macroscopic alternations of thinly laminated chert and magnetite-hematite layers and beds. Algoma type iron formation may consist of interbedded sulphide, oxide, carbonate and silicate iron mineral assemblages including pyrite, pyrrhotite, magnetite, hematite, iron carbonates, iron

silicates, and manganese rich facies. Algoma type iron ore deposits typically consist of oxide and carbonate iron formation facies in zones that grade 20%-40% iron.

Algoma type iron formations are considered to have been formed by the deposition of colloidal size particles of silica and iron, which were expelled from submarine hydrothermal vents in metal-charged hydrothermal fluids into varied, diverse, basinal settings associated with volcanic arcs, rifts, and deep seated faults. Associated sediments may include tuffs, volcanic rocks, and clastic and pelagic sediments. The proportion of associated volcanic and sedimentary rocks varies greatly in different greenstone belts as well as in deposits within the same greenstone belt. Even in deformed and metamorphosed deposits, primary sedimentary textures such as compaction and desiccation features, slumps, and compositional layering may be well preserved. Studies suggest that sulphide facies iron formation was deposited in close proximity to the highest temperature zones of the hydrothermal systems, whereas oxide facies iron formation consisting predominantly of magnetite and hematite, was deposited in an intermediate temperature regime, further from, or in lower temperature zones of the hydrothermal centres. Sulphide facies may be enriched in Cu, Zn, Pb, Sn, and Au; whereas oxide and carbonate facies iron formation may be enriched in rare earth elements. The concentrations of rare earth elements in the Bending Lake iron deposit are unknown.

Economically exploitable Algoma type iron ore deposits range in size from 100 to 1,000 million tonnes, but may be smaller, and mostly consist of oxide facies magnetite and hematite, in zones ranging in thickness from 30 m to 100 m or more, and having strike lengths of several kilometres. The economics of a deposit may be greatly improved by metamorphism, resulting in recrystallization and enlargement of the iron oxide mineral grains, creating a deposit with more favourable metallurgical characteristics for concentration and beneficiation. Folding may be critically important in producing deposits with good mining geometries, and may produce local thickening of the iron formation, forming zones of mineralization wide enough for open pit mining. The iron formation on the Bending Lake Property is folded, producing apparent thickening of the zone to widths as great as 335 m along a strike length of about 2,800 m. Rocks at bending lake are metamorphosed to mid greenschist to lower amphibolites facies with localized mid amphibolites facies regimes in small zones near granitic contacts, folds and shears.

9 Exploration

Since first acquiring the property in 2004, Bending Lake has completed prospecting, line cutting, geological mapping and created a digital database of all historic data available in the claims area. Excerpts of sections 10.1, 10.2 and 10.4 are taken from a Bending Lake assessment report by A. Raoul, P.Geol. entitled "Line Cutting, Mapping and Drill Report on the Northwest and Southeast Iron Zones: Bending Lake Property" and submitted to the MNDMF on August 31, 2011.

9.1 Line Cutting Program 2008-2009

In the fall of 2008 and spring of 2009, Bending Lake re-claimed the historic grid cut by Jalore Mining in 1954 and re-established and extended by Algoma Steel in 1976. The grid was re-established for control purposes to increase confidence in the current database.

The initial grid reclamation was in the potential open pit area where Algoma's original base-line was visible and several pickets were available for reference. The baseline was slashed out from L217+50E to L324+00E at 310° and picketed at 30 metre (100 ft) intervals in the fall of 2008. Wing-lines were re-established at 75 metre (250 ft) intervals.

Bending Lake extended their grid, continuing the 10+00 (N BL) north base-line, 304.8 metres (1000 ft) north of the original base-line, to the west from L216+00E to L146+00E with 60 metre (200 ft) wing-line spacing. To avoid water obstacles and maintain grid integrity the 10+00 north base-line was adjusted 60 metres (200 ft) south and continued to the west at L146+00E to L120+00E, approximately 381 metres (1250 ft) west of Highway 622. Wing-lines were spaced every 76 metres (250 ft) and extended to a maximum 304.8 metres (1000 ft) north and 182 metres (600 ft) south of the base-line where possible, commonly being truncated by water bodies (lakes, rivers or swamps).

9.2 Prospecting Program 2008-2009

Prospecting by Bending Lake in the fall of 2008 and the summer of 2009 sampled seven known base metal showings and identified twenty-five new precious and base metal showings on the property. Highlights from this program are taken from Raoul, 2011 and include:

- Zone 1: 0.10% Zn with anomalous Cu, Ni over 3.80 metres and 142 ppb Au over 0.51 metres in a garnet-chlorite altered basalt
- Zone 3: 0.12% Zn over 1.32 metres in quartz stockworks in a chlorite altered basalt
- Zone 6: 0.25% combined Zn and Pb over 0.88 metres in a silica altered basalt
- Zone 10: 1.01% Cu and Zn with anomalous Pt over 1.05 metres in a silica altered gabbro, anomalous Cu, Pb, Zn and Pt was observed over 2.10 metres
- Zone 11: 0.11% Ni in a foliated gabbro
- Zone 15: anomalous Cu and Mo over 2.01 metres in a foliated basalt
- Zone 18: 212 ppb Au and anomalous Cu in a foliated basalt

9.3 Core Re-Logging Program 2008

Between May and October of 2008 Fladgate Exploration Consulting Corporation ("Fladgate") catalogued and generated a core library of all historic core that could be recovered on the property. This program was necessary because none of the historic drill data by either Jalore or Algoma was available to Bending Lake. The drill core recovered from storage facilities on site was transported to Bending Lake Iron Group's facilities in Thunder Bay, Ontario for logging and permanent storage. This work was completed to generate a drill hole database acceptable for a current NI 43-101 compliant resource estimation. This program was supervised by Michael Thompson, P.Geo., a Qualified Person under NI 43-101.

The Bending Lake Property has undergone three drill programs by two owners between 1954 and 1977 totaling 13,175 metres (45,039 ft) of diamond drilling in fifty-six (56) holes, seven of which are

BQ size, the remainder are AQ size. A total of forty-nine (49) diamond drill holes comprising approximately 10,187 metres were recovered from the property and approximately 2,988 metres of drill core could not be located. Fladgate presumes this core was removed for either metallurgical sampling or display purposes as it was commonly associated with mineralized intervals.

During the re-logging and sampling program a total of 2,915 core samples were taken; 97 blank samples and 97 iron standards were inserted for QA/QC purposes. Samples were quarter split and sampled at three metre intervals over the entire length of recovered core, as outlined in Section 12, Sampling Method and Approach. The spatial distribution of recovered drill holes used to create the database is shown in Figure 9. A summary of all drill core recovered during the program and intervals that have been included in this resource estimate are presented in table 15.

Jalore Mining Company Limited completed two of the historic drill programs, the first between 1954 and 1955, and the second in 1964. Of the 1,763.90 metres (5,787 ft) drilled in seven BX size holes from the 1954-55 program, Fladgate was able to recover approximately 1,159.11 metres from all seven holes. Of the 3,007.15 metres (9,866 ft) drilled in sixteen AX size holes from the 1964 program, Fladgate was able to recover approximately 2,588.10 metres from fifteen holes.

Algoma Steel Corporation Limited completed the third, two phase drill program in 1976-1977. Of the 4,387.67 metres (14,395.20 ft) drilled in eighteen holes (twelve AQ size holes and six hole extensions) from the phase 1 program, Fladgate was able to recover approximately 3,450.35 metres from fourteen holes. Of the 3,626.97 metres (11,899.50 ft) drilled in fifteen AQ size holes from the phase 2 program, Fladgate was able to recover approximately 2,989.42 metres from thirteen holes.

In the summer of 2008 an eight (8) hole diamond drill program was also initiated on the property, described in Section 11, Drilling. This program was designed to both confirm historic drill hole results by twinning holes in the main zone and to in-fill sections with low data density. A total of CAD\$296,267 was spent on diamond drilling and CAD\$100,895 to log core and prepare a digital database of both historic and current drilling for a total 2008 expenditure of CAD\$397,192 on the property.

9.4 Geological Mapping 2009-2010

Detailed geological mapping of the property was completed in the summer of 2009 and again in 2010 by Bending Lake geologists, confirming lithologic continuity across the property and historic drill collar locations, increasing the confidence level of the historic drill hole database.

Reconnaissance geological mapping at a scale of 1:5000 was completed in 2009 on the Southeast Iron Zone. The map area extended approximately 20 kilometres east of the potential open pit (L324+00E) to the Turtle River Park boundary. Three outcrop areas of magnetite-bearing iron formation were identified and produced one target zone that is being evaluated for its iron ore potential.

Geological mapping at a scale of 1:1000 was completed in the summer of 2010 on the Northwest Iron Zone. The map area extended approximately 3 kilometres west from L132+50E (Highway 622) to L232+50E. Eleven outcrop areas of magnetite-bearing iron formation were identified and produced five separate target zones that are being evaluated for their iron ore potential.

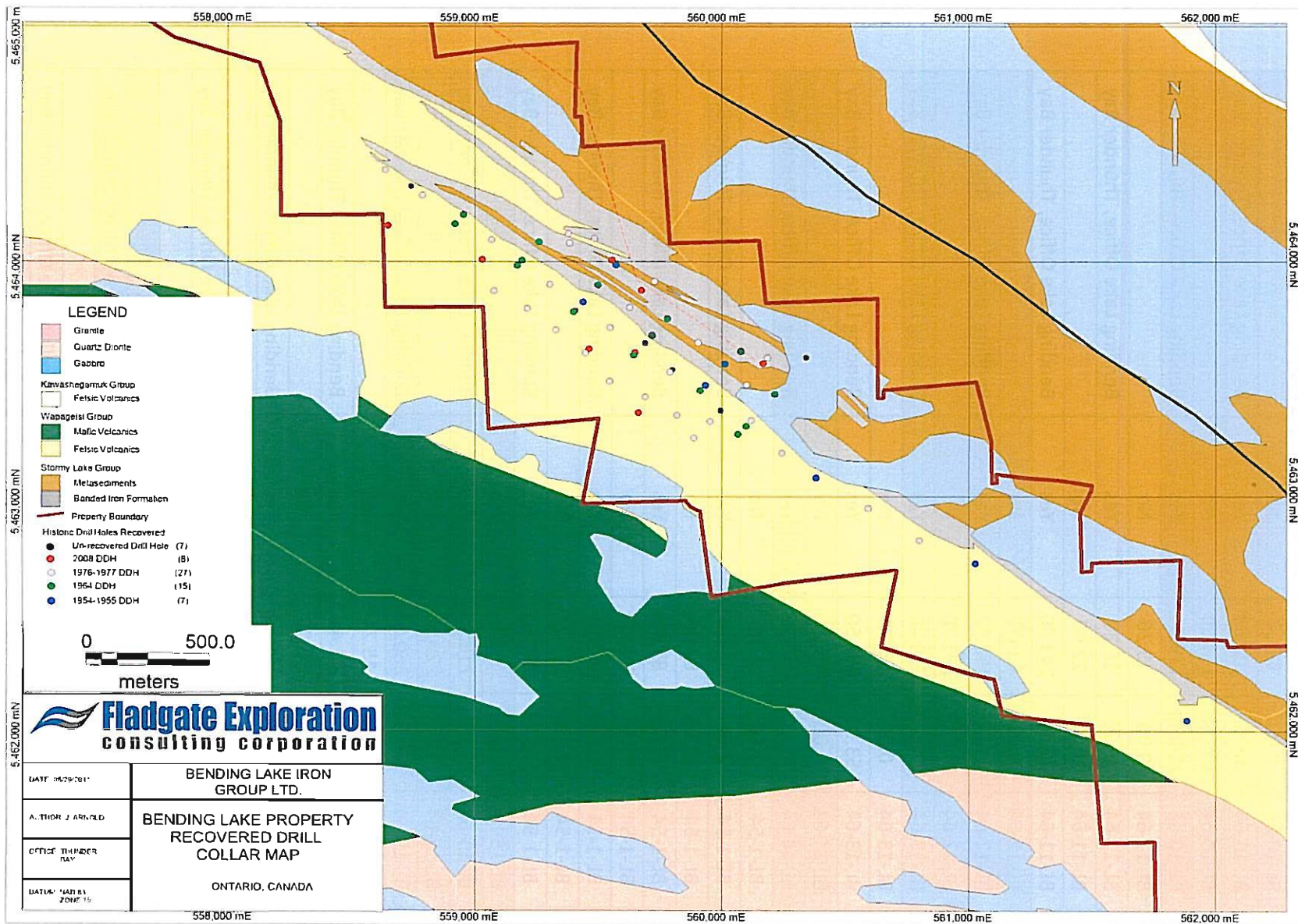


Figure 9 – Thematic Plan Map of Historic Drill Holes Recovered on the Property

Table 15 –Historic drill core recovery table

Hole-ID	From	To	Core Recovered	Storage Location
BL-10-64	0.00	38.10	No	
BL-10-64	38.10	106.68	Yes	Bending Lake Office, Thunder Bay
BL-10-64	106.68	114.30	No	
BL-10-64	114.30	129.54	Yes	Bending Lake Office, Thunder Bay
BL-11-64	0.00	15.20	No	
BL-11-64	15.20	16.20	Yes	Bending Lake Office, Thunder Bay
BL-11-64	16.20	22.90	No	
BL-11-64	22.90	243.80	Yes	Bending Lake Office, Thunder Bay
BL-12-64	0.00	61.00	No	
BL-12-64	61.00	198.12	Yes	Bending Lake Office, Thunder Bay
BL-12-64	198.12	205.70	No	
BL-12-64	205.70	213.40	Yes	Bending Lake Office, Thunder Bay
BL-13-64	0.00	53.30	No	
BL-13-64	53.30	251.50	Yes	Bending Lake Office, Thunder Bay
BL-14-64	0.00	15.24	No	
BL-14-64	15.24	259.99	Yes	Bending Lake Office, Thunder Bay
BL-1-54	0.00	2.41	No	
BL-1-54	2.41	11.66	Yes	Bending Lake Office, Thunder Bay
BL-1-54	11.66	67.06	No	
BL-1-54	67.06	85.80	Yes	Bending Lake Office, Thunder Bay
BL-1-54	85.80	103.63	No	
BL-1-54	103.63	161.11	Yes	Bending Lake Office, Thunder Bay
BL-1-54	161.11	173.74	No	
BL-1-54	173.74	190.50	Yes	Bending Lake Office, Thunder Bay
BL-15-64	0.00	1.83	No	
BL-15-64	1.83	213.36	Yes	Bending Lake Office, Thunder Bay
BL-15-64	213.36	220.98	No	
BL-15-64	220.98	260.60	Yes	Bending Lake Office, Thunder Bay
BL-16-64	0.00	15.24	No	
BL-16-64	15.24	91.44	Yes	Bending Lake Office, Thunder Bay
BL-16-64	91.44	99.06	No	
BL-16-64	99.06	198.12	Yes	Bending Lake Office, Thunder Bay
BL-16-64	198.12	205.40	No	
BL-16-64	205.40	301.75	Yes	Bending Lake Office, Thunder Bay
BL-16-64	301.75	304.80	No	
BL-17-64	0.00	4.27	No	
BL-17-64	4.27	178.31	Yes	Bending Lake Office, Thunder Bay
BL-18-64	0.00	6.40	No	
BL-18-64	6.40	22.86	Yes	Bending Lake Office, Thunder Bay
BL-18-64	22.86	30.80	No	

Hole-ID	From	To	Core Recovered	Storage Location
BL-18-64	30.80	169.01	Yes	Bending Lake Office, Thunder Bay
BL-19-64	0.00	5.18	No	
BL-19-64	5.18	164.29	Yes	Bending Lake Office, Thunder Bay
BL-20-64	0.00	28.65	No	
BL-20-64	28.65	210.63	Yes	Bending Lake Office, Thunder Bay
BL-20-64	210.63	213.36	No	
BL-21-64	0.00	7.62	No	
BL-21-64	7.62	15.24	Yes	Bending Lake Office, Thunder Bay
BL-21-64	15.24	22.86	No	
BL-21-64	22.86	120.40	Yes	Bending Lake Office, Thunder Bay
BL-21-64	120.40	121.92	Yes	Bending Lake Office, Thunder Bay
BL-22-64	0.00	20.73	No	
BL-22-64	20.73	152.40	Yes	Bending Lake Office, Thunder Bay
BL-23-76	0.00	213.40	Yes	Bending Lake Office, Thunder Bay
BL-23-76	213.40	221.00	No	
BL-23-76	221.00	464.80	Yes	Bending Lake Office, Thunder Bay
BL-23-76	464.80	472.40	No	
BL-23-76	472.40	548.60	Yes	Bending Lake Office, Thunder Bay
BL-24-76	0.00	38.10	No	
BL-24-76	38.10	243.84	Yes	Bending Lake Office, Thunder Bay
BL-2-54	0.00	15.24	No	
BL-2-54	15.24	21.34	Yes	Bending Lake Office, Thunder Bay
BL-2-54	21.34	39.62	No	
BL-2-54	39.62	88.39	Yes	Bending Lake Office, Thunder Bay
BL-2-54	88.39	94.49	No	
BL-2-54	94.49	124.97	Yes	Bending Lake Office, Thunder Bay
BL-2-54	124.97	143.26	No	
BL-2-54	143.26	161.54	Yes	Bending Lake Office, Thunder Bay
BL-2-54	161.54	167.64	No	
BL-2-54	167.64	207.52	Yes	Bending Lake Office, Thunder Bay
BL-2-54	207.52	219.46	No	
BL-2-54	219.46	228.60	Yes	Bending Lake Office, Thunder Bay
BL-2-54	228.60	237.74	No	
BL-2-54	237.74	246.89	Yes	Bending Lake Office, Thunder Bay
BL-25-76	0.00	3.70	No	
BL-25-76	3.70	515.72	Yes	Bending Lake Office, Thunder Bay
BL-26-76	0.00	16.80	No	
BL-26-76	16.80	152.40	Yes	Bending Lake Office, Thunder Bay
BL-26-76	152.40	160.00	No	
BL-26-76	160.00	480.10	Yes	Bending Lake Office, Thunder Bay

Hole-ID	From	To	Core Recovered	Storage Location
BL-26-76	480.10	487.70	No	
BL-27-76	0.00	11.10	No	
BL-27-76	11.10	22.86	Yes	Bending Lake Office, Thunder Bay
BL-27-76	236.22	243.80	No	
BL-27-76	243.80	282.00	Yes	Bending Lake Office, Thunder Bay
BL-30-76	0.00	4.87	No	
BL-30-76	4.87	182.88	Yes	Bending Lake Office, Thunder Bay
BL-30-76	182.88	190.50	No	
BL-30-76	190.50	287.43	Yes	Bending Lake Office, Thunder Bay
BL-31-76	0.00	28.31	No	
BL-31-76	28.31	361.19	Yes	Bending Lake Office, Thunder Bay
BL-32-76	0.00	12.19	No	
BL-32-76	12.19	129.54	Yes	Bending Lake Office, Thunder Bay
BL-32-76	129.54	137.16	No	
BL-32-76	137.16	167.64	Yes	Bending Lake Office, Thunder Bay
BL-32-76	167.64	175.26	No	
BL-32-76	175.26	243.84	Yes	Bending Lake Office, Thunder Bay
BL-33-76	0.00	25.30	No	
BL-33-76	25.30	121.92	Yes	Bending Lake Office, Thunder Bay
BL-33-76	121.92	128.02	No	
BL-33-76	128.02	137.16	Yes	Bending Lake Office, Thunder Bay
BL-33-76	137.16	160.02	No	
BL-33-76	160.02	403.86	Yes	Bending Lake Office, Thunder Bay
BL-34-76	0.00	10.36	No	
BL-34-76	10.36	213.36	Yes	Bending Lake Office, Thunder Bay
BL-3-54	0.00	29.43	Yes	Bending Lake Office, Thunder Bay
BL-3-54	29.43	39.62	No	
BL-3-54	39.62	206.05	Yes	Bending Lake Office, Thunder Bay
BL-35-76	3.66	33.53	Yes	Bending Lake Office, Thunder Bay
BL-36-76	0.00	2.74	No	
BL-36-76	2.74	60.96	Yes	Bending Lake Office, Thunder Bay
BL-37-76	0.00	7.62	No	
BL-37-76	7.62	121.92	Yes	Bending Lake Office, Thunder Bay
BL-38-76	0.00	15.24	No	
BL-38-76	15.24	129.54	Yes	Bending Lake Office, Thunder Bay
BL-41-77	0.00	13.70	No	
BL-41-77	13.70	137.20	Yes	Bending Lake Office, Thunder Bay
BL-41-77	137.20	144.78	No	
BL-41-77	144.78	167.64	Yes	Bending Lake Office, Thunder Bay
BL-41-77	167.64	182.88	No	

Hole-ID	From	To	Core Recovered	Storage Location
BL-41-77	182.88	213.40	Yes	Bending Lake Office, Thunder Bay
BL-42-77	0.00	76.20	Yes	Bending Lake Office, Thunder Bay
BL-42-77	76.20	114.30	No	
BL-42-77	114.30	252.50	Yes	Bending Lake Office, Thunder Bay
BL-42-77	252.50	259.08	No	
BL-42-77	259.08	396.24	Yes	Bending Lake Office, Thunder Bay
BL-42-77	396.24	403.86	No	
BL-42-77	403.86	480.10	Yes	Bending Lake Office, Thunder Bay
BL-42-77	480.10	487.68	No	
BL-42-77	487.68	495.30	Yes	Bending Lake Office, Thunder Bay
BL-43-77	0.00	3.05	Yes	Bending Lake Office, Thunder Bay
BL-43-77	3.05	4.60	No	
BL-43-77	4.60	22.90	Yes	Bending Lake Office, Thunder Bay
BL-43-77	22.90	76.20	No	
BL-43-77	76.20	146.30	Yes	Bending Lake Office, Thunder Bay
BL-43-77	146.30	152.40	No	
BL-44-77	0.00	15.20	No	
BL-44-77	15.20	22.90	Yes	Bending Lake Office, Thunder Bay
BL-44-77	22.90	60.96	No	
BL-44-77	60.96	76.20	Yes	Bending Lake Office, Thunder Bay
BL-44-77	76.20	99.01	No	
BL-44-77	99.01	128.30	Yes	Bending Lake Office, Thunder Bay
BL-44-77	128.30	129.54	No	
BL-44-77	129.54	167.60	Yes	Bending Lake Office, Thunder Bay
BL-44-77	167.60	198.12	No	
BL-44-77	198.12	205.74	Yes	Bending Lake Office, Thunder Bay
BL-44-77	205.74	228.60	No	
BL-44-77	228.60	236.22	Yes	Bending Lake Office, Thunder Bay
BL-44-77	236.22	246.88	No	
BL-44-77	246.88	312.42	Yes	Bending Lake Office, Thunder Bay
BL-44-77	312.42	350.52	No	
BL-44-77	350.52	358.14	Yes	Bending Lake Office, Thunder Bay
BL-44-77	358.14	388.60	No	
BL-44-77	388.60	449.60	Yes	Bending Lake Office, Thunder Bay
BL-44-77	449.60	457.20	No	
BL-44-77	457.20	472.44	Yes	Bending Lake Office, Thunder Bay
BL-4-55	0.00	53.34	No	
BL-4-55	53.34	131.06	Yes	Bending Lake Office, Thunder Bay
BL-4-55	131.06	167.64	No	
BL-4-55	167.64	202.69	Yes	Bending Lake Office, Thunder Bay

Hole-ID	From	To	Core Recovered	Storage Location
BL-45-77	0.00	5.21	No	
BL-45-77	5.21	512.06	Yes	Bending Lake Office, Thunder Bay
BL-46-77	0.00	22.86	No	
BL-46-77	22.86	310.90	Yes	Bending Lake Office, Thunder Bay
BL-47-77	0.00	23.16	No	
BL-47-77	23.16	226.80	Yes	Bending Lake Office, Thunder Bay
BL-47-77	226.80	228.60	No	
BL-47-77	228.60	304.60	Yes	Bending Lake Office, Thunder Bay
BL-48-77	0.00	30.48	No	
BL-48-77	30.48	83.82	Yes	Bending Lake Office, Thunder Bay
BL-48-77	83.82	91.44	No	
BL-48-77	91.44	182.88	Yes	Bending Lake Office, Thunder Bay
BL-48-77	182.88	213.36	No	
BL-48-77	213.36	361.19	Yes	Bending Lake Office, Thunder Bay
BL-49-77	0.00	61.00	Yes	Bending Lake Office, Thunder Bay
BL-49-77	61.00	68.58	No	
BL-49-77	68.58	167.64	Yes	Bending Lake Office, Thunder Bay
BL-51-77	0.00	17.68	No	
BL-51-77	17.68	160.02	Yes	Bending Lake Office, Thunder Bay
BL-53-77	0.00	7.62	No	
BL-53-77	7.62	38.10	Yes	Bending Lake Office, Thunder Bay
BL-53-77	38.10	45.72	No	
BL-53-77	45.72	124.97	Yes	Bending Lake Office, Thunder Bay
BL-54-77	0.00	7.62	No	
BL-54-77	7.62	166.12	Yes	Bending Lake Office, Thunder Bay
BL-5-55	0.00	27.43	No	
BL-5-55	27.43	201.17	Yes	Bending Lake Office, Thunder Bay
BL-5-55	201.17	240.79	No	
BL-5-55	240.79	245.36	Yes	Bending Lake Office, Thunder Bay
BL-55-77	0.00	9.14	No	
BL-55-77	9.14	38.10	Yes	Bending Lake Office, Thunder Bay
BL-55-77	38.10	53.34	No	
BL-55-77	53.34	60.96	Yes	Bending Lake Office, Thunder Bay
BL-55-77	60.96	68.58	No	
BL-55-77	68.58	121.92	Yes	Bending Lake Office, Thunder Bay
BL-55-77	121.92	129.54	No	
BL-55-77	129.54	132.59	Yes	Bending Lake Office, Thunder Bay
BL-6-54	0.00	36.58	No	
BL-6-54	36.58	82.02	Yes	Bending Lake Office, Thunder Bay
BL-6-54	82.02	83.54	No	

Hole-ID	From	To	Core Recovered	Storage Location
BL-6-54	83.54	265.18	Yes	Bending Lake Office, Thunder Bay
BL-7-55	0.00	32.31	No	
BL-7-55	32.31	213.36	Yes	Bending Lake Office, Thunder Bay
BL-8-64	0.00	15.20	No	
BL-8-64	15.20	68.60	Yes	Bending Lake Office, Thunder Bay
BL-8-64	68.60	76.20	No	
BL-8-64	76.20	129.50	Yes	Bending Lake Office, Thunder Bay
BL-9-64	0.00	30.48	No	
BL-9-64	30.48	38.10	Yes	Bending Lake Office, Thunder Bay
BL-9-64	38.10	53.34	No	
BL-9-64	53.34	115.82	Yes	Bending Lake Office, Thunder Bay
BL-9-64	115.82	129.54	No	
BL-9-64	129.54	216.41	Yes	Bending Lake Office, Thunder Bay

10 Drilling

10.1 2008 Drilling

In the summer of 2008, eight (8) BQ size diamond drill holes were drilled on the property for 2,357 metres (table 16). Holes were designed to duplicate historic holes and infill areas of the main zone to increase data confidence and density for resource estimation purposes. The core was logged by Fladgate concurrent with the historic re-logging program at Bending Lake's core logging facility on Hardisty Street, Thunder Bay, Ontario. Holes were sampled from top to bottom and 3 metre samples were taken where they did not overlap a lithologic contact. A total of 584 samples were taken; 18 blank samples and 17 iron standards were inserted for QA/QC purposes, the results of which are described in Section 14, Data Verification.

Twinned holes successfully infilled missing gaps in down hole columns and assisted in the investigation of both the collar locations and variance related to different sample support of the historic holes. Locations were confirmed as observed in figure 10 for holes BL-08-04 as compared to BL-16-64. Results of the hole twinning program are described in Section 14, Data Verification.

Table 16 – 2008 Diamond Drill Program Collars (NAD 83, Zone 15)

Hole-ID	UTM mE	UTM mN	Elevation (m)	Length (m)	Total	Twinned
BL-08-01	559461	5463630	428	464	123	BL-44-77
BL-08-02	559673	5463877	416	215	76	
BL-08-03	559028	5464008	420	200	43	
BL-08-04	559646	5463613	424	400	122	BL-16-64
BL-08-05	559555	5464005	413	214	54	BL-01-54
BL-08-06	560166	5463566	402	203	78	BL-38-76
BL-08-07	559660	5463357	429	428	62	

Hole-ID	UTM mE	UTM mN	Elevation (m)	Length (m)	Total	Twinned
BL-08-08	558646	5464154	426	233	26	

10.2 2011 Drilling

The data threshold for the current resource estimate was set as January 1st, 2011. Between March 24th and May 16th, 2011, Bending Lake completed eight diamond drill holes for a total of 2,311.2 metres of BQ-size drill core (Raoul, 2011). The 2011 drilling was logged by Bending Lake geologists and Satmagan analyses are pending. Collar locations are available however assays are pending and this data is not validated and has not been included in the current resource estimate (table 17). The 2011 drilling was completed to the northwest and southeast of Pit Shell 21, intended to drill delineate the iron formation along strike. One of the eight holes, BL-11-05 was drilled on the northwest edge of Pit Shell 21 and this hole will cause no change to the indicated mineral resource estimate and have little effect on the inferred mineral resource estimate.

Table 17 – 2011 Diamond Drill Program Collars (NAD 83, Zone 15)

Hole-ID	UTM_mE	UTM_mN	Azimuth	Dip	Length (m)
BL11-01	556752	5466055	040	-50	225
BL11-02	557210	5465670	040	-50	428
BL11-03	557727	5465445	040	-50	264
BL11-04	558139	5464894	040	-50	297
BL11-05	558477	5464450	040	-50	425
BL11-06	561185	5462442	040	-50	240
BL11-07	561427	5462274	040	-50	240.2
BL11-08	561687	5462158	040	-50	192

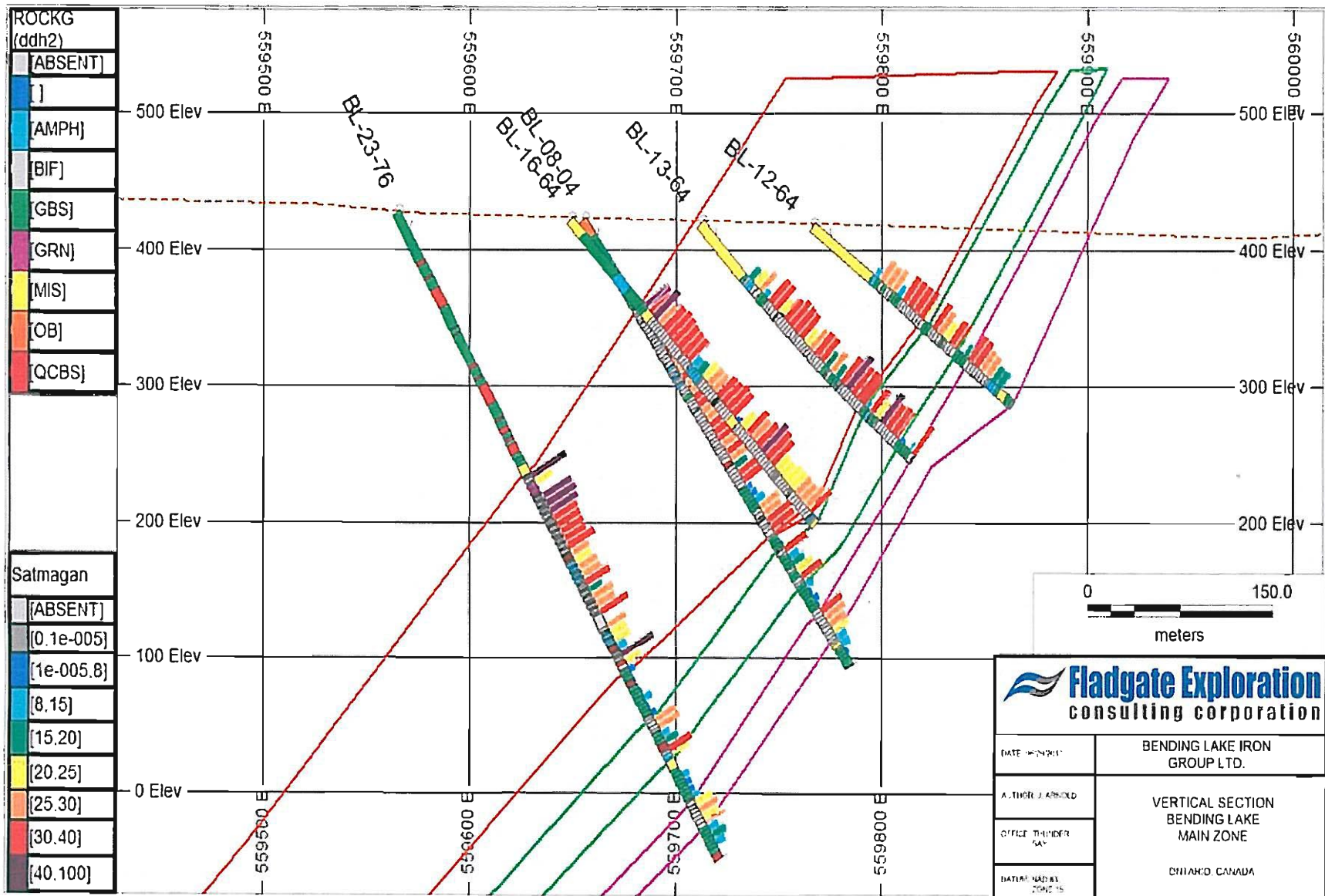


Figure 10 – Vertical Section of Bending Lake Main Zone

11 Sampling Method and Approach

A historic core re-logging program was initiated in the spring, and Bending Lake drilled eight new holes in the summer, of 2008 to create the current drill hole database used for this resource estimation. In total, Bending Lake took 3,499 samples amounting to 9,564.60 metres of core sampled, for an average sample length of 2.89 metres. A minimum of 2 shoulder samples were taken from each zone except where the zones were closely spaced, sampling was continuous into the next zone for both the historic logging and 2008 drill programs.

Sampling procedures were generally the same for the historic core and 2008 drill program; historic core was drilled and logged in feet and then converted to metres using a conversion factor of 1 foot = 0.3048 metres. In both cases the core was logged and contacts were marked using grease pencils. Samples were then marked on the core and measured using a standard sample length of 3.05 metres for historic core; 3.00 metre samples for the 2008 drilling program ensured sample intervals did not cross lithologic contacts.

Bending Lake's 2008 sampling methodology was outlined, implemented and supervised by Mr. Michael Thompson, P.Geo. and Qualified Person under NI 43-101. Standard QA/QC protocol based on CIM Industry best practices was adopted for sample preparation, analyses and security. A review of internal SGS lab procedures is outlined herein.

11.1 Historic Core Logging Program

The historic core was quarter split, using a wet diamond blade core saw. The core was aligned in the box to fit with the previous piece, and the same side of the quarter split was consistently placed in the sample bag. A total of 2,915 core samples were taken amounting to 8,037.82 metres of drill core; 97 blank samples and 97 iron standards were inserted for QA/QC discussed in Section 14, Data Verification.

11.2 2008 Drilling Program

The 2008 diamond drill core was halved and split using a wet diamond blade core saw. The core was aligned in the box so all pieces of core fit together at joints and breaks. The foliation/bedding angle was also aligned so that the sampled half was representative of the half left in the core tray, and the same half of core was consistently put in the sample bag. A total of 584 samples were taken amounting to 1,526.78 metres of drill core; 18 blank samples and 17 iron standards were inserted for QA/QC discussed in Section 14, Data Verification.

11.3 Sample Preparation

Drill core was sampled after the core was logged, consisting of descriptions of lithologic units, contact measurements taken down hole and potential ferrous zones outlined. Faulted sections of ground or broken core are also noted. Sample intervals were selected based on the rock type, deformation, alteration intensity, texture and mineralogy of the core. Considering that historical core was split prior to the 2008 re-sampling campaign, two core splitting methodologies were adopted:

1. The remaining half of the sample from historic core was quartered. One quarter was sent to the lab for assaying and the other quarter preserved in the core tray for future reference.
2. 2008 drill holes were halved. One half was sent to the lab for analysis while the other half was preserved for future reference.

For both cases, a standard table rock saw and diamond saw blade was utilized for splitting. Split core samples sent for analysis were labeled with a sample identifier and shipped to lab in security sealed rice bags. The samples are prepared by Fladgate personnel under the supervision of the qualified person at the Bending Lake core facility in Thunder Bay, Ontario.

As part of the QA/QC program designed by Fladgate, blank and standard reference samples were inserted into the sampling stream. Blanks and standards were inserted into the stream every 36 samples providing a ratio of 1:18, QA/QC samples to core samples. No crush duplicates were run.

11.3.1 Blanks

Silica powder was used as blank reference material obtained from ALS Chemex Laboratories in Thunder Bay. The blank was inserted into the sample stream to test for contamination and calibration accuracy and precision post primary crushing. Since the silica powder is not a certified reference material, QA/QC control was implemented by comparing the deviation of the assays from their own mean. The univariate statistics for 97 reference samples was generated for reactive QA/QC measures (Table 18).

Table 18 – Univariate Statistical Analysis of Blank Lab Results

Analysis	Mean	Min	Max	Stdev	COV
SG	2.67	2.52	2.7445	0.03	0.01
SiO2	71.82	68.5	73.8	1.09	0.02
Al2O3	14.15	13.5	15.3	0.28	0.02
Fe2O3	2.45	1.44	4.95	0.55	0.22
MgO	0.53	0.29	0.91	0.11	0.21
CaO	1.50	1.11	1.89	0.13	0.09
Na2O	3.36	1.9	3.91	0.35	0.10
K2O	5.06	4.54	6.24	0.30	0.06
TiO2	0.25	0.12	0.69	0.10	0.42
P2O5	0.09	0.04	0.3	0.04	0.49
MnO	0.03	0.01	0.06	0.01	0.38
Cr2O3	0.01	0.01	0.06	0.01	0.59
V2O5	0.01	0.01	0.01	0.00	0.00
LOI	0.35	-0.57	1	0.22	0.62
Sum	99.59	98	101.3	0.78	0.01
Sat	1.14	0	3.1	0.53	0.46
Fetotal	1.71	1.01	3.462	0.38	0.22

11.3.2 Standards

The certified reference material FER-2 was used as the Iron Ore standard to test the calibration of laboratory instruments. The standard was obtained from ALS Chemex Laboratories in Thunder Bay, Ontario.

Natural Resources Canada states, "FER-2 is from an iron-formation bed occurring in greywacke at the north pit of the Griffith Mine at Bruce Lake, Ontario. Magnetite makes up about 25% of the sample by volume. Amphibole and quartz are the major gangue constituents."

The 25% magnetite content is analogous to ore grade iron formation of the Bending Lake Iron Formation and was therefore deemed an appropriate standard. A breakdown of the constituents is given in table 19.

Table 19 – Expected value of constituents for certified reference material FER-2

Constituent	wt %
SiO ₂	49.21
TiO ₂	0.18
Al ₂ O ₃	5.16
Fe ₂ O ₃	22.5
FeO	15.24
MnO	0.12
MgO	2.1
CaO	2.17
Na ₂ O	0.51
K ₂ O	1.33
H ₂ O+	0.98
CO ₂	0.07
P ₂ O ₅	0.27
F	0.04
S	0.17

11.4 Analysis

All core samples were submitted to, and reported by SGS Laboratories, Box 4300, 185 Concession Street Lakefield, ON, Canada. The SGS Lakefield laboratory uses industry-standard methods and ISO/IEC 17025 quality assurance and quality control practices.

The SGS laboratory sample preparation process includes preparation steps for reduction up to the point where the sample has been reduced to a form suitable for geochemical analysis. First the whole rock is dried, crushed, split, pulverized and homogenized before the pulp is ready for analysis. The analysis phase includes drying, bulk specific gravity calculation, primary crushing to ¼", secondary crushing 1 kilogram to -10 mesh creating a 150 gram sample for Head Assay (S.G., Satmagan, WRA).

The Bending Lake iron ore samples were analyzed using X-RAY fluorescence and reported as the following suite of "oxides": Al₂O₃, CaO, Cr₂O₃, K₂O, MgO, MnO, Na₂O, P₂O₅, Fe₂O₃, SiO₂, TiO₂, LOI, V₂O₅, SUM, and Fetotal.

In addition to the whole rock analysis mentioned above, the Satmagan instrument was used to analyze the magnetite portion of the sample.

11.5 Security

All rock and drill core collected for sampling is securely stored in the Bending Lake head office in Thunder Bay, Ontario with restricted access. After splitting, samples are shipped directly to the analytical facility inside security sealed rice bags to ensure appropriate chain of custody during shipping from the storage facility to the laboratory. Sample reception confirmed the alphanumeric security seals with Fladgate and the samples became the custody of the lab for preparation and analysis.

12 Data Verification

Data verification performed by Fladgate comprised of digital database integrity checks including collar location checks, insertion of blanks and standards and twin hole comparisons. The database was originally generated in 2008 and underwent re-verification by the author in 2011 prior to use in the resource estimate.

12.1 Database Verification

The database was checked for overlaps and gaps in the interval tables. Some very small gaps and overlaps were found attributed to precision inconsistencies for conversion from feet to metres. These were corrected by rounding the intervals to three decimal places. This precision is more than adequate; there is no increment of uncertainty introduced by adjusting the intervals to this precision.

A 10% check of assays from results received directly from SGS was performed in 2011. Fladgate found no errors in the data; sample numbers and results corresponded to those in the digital database. A 10% percent check was also performed on sample tags, checking that the interval on the tag corresponded to interval in the database revealing no errors. In 2011, the core facility was revisited to perform a final spot check of stored drill core. Certain drill holes were selected from the database and checked for logging and sampling consistencies. No significant inconsistencies were observed.

12.2 Drill Hole Collar Check

During the 2011 site visit, Fladgate located both historical and 2008 drill hole collars using a hand held GPS accurate to +/- 3 metres. No significant location error was noted, however all holes should be surveyed using a differential GPS system with centimetre accuracy for future purposes. An illustrative comparison between digital database collar locations and those measured by Fladgate is given in Figure 11.

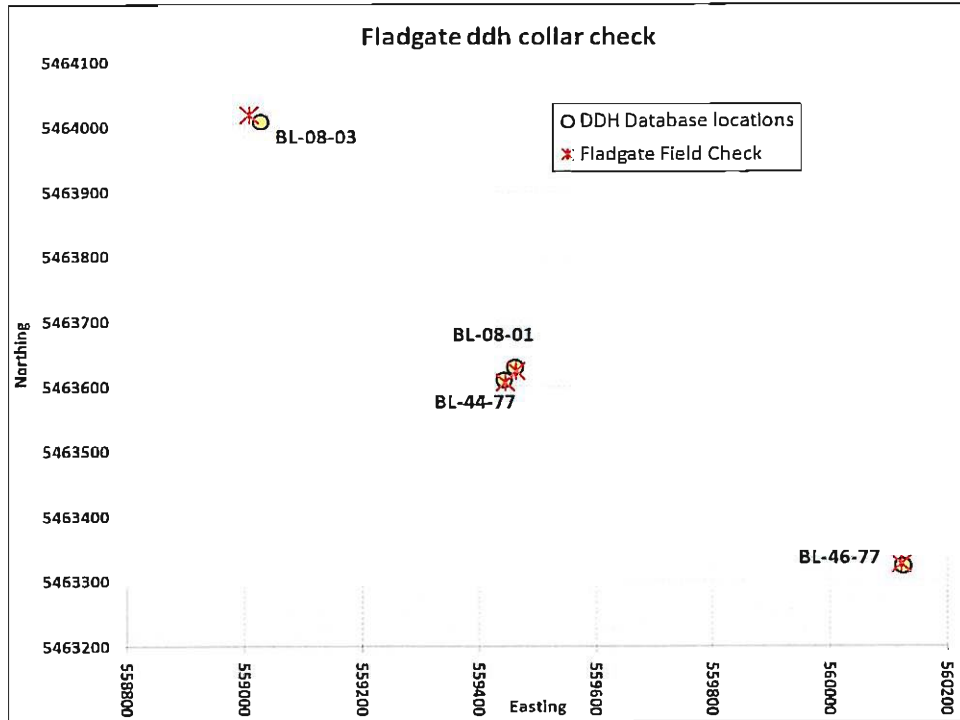


Figure 11 – Historic Collar Locations vs. Fladgate Field Checks

12.3 Blanks

As part of the 2008 re-sampling and diamond drilling campaign QA/QC protocol, Fladgate inserted 97 Silica powder samples obtained from ALS Chemex in Thunder Bay, Ontario to serve as blank material to test the for the presence of contamination during the laboratory analysis process. Silica powder may be deemed appropriate to test phases of the analysis process post primary crushing. However, the results of the blank control do not reflect contamination that may be introduced during the primary crushing process as the powder does not pass through the crusher.

Analysis of the blank control is also atypical as it is almost impossible to find a sample with zero percent Fe by weight percent. The blank control chart shown in figure 12 is assessed by evaluating the deviation of Fe from the mean of the blanks. Figure 12 shows four samples out of 97 falling above two standard deviations of the mean. Fladgate deems this frequency of failures acceptable for the current resource estimate.

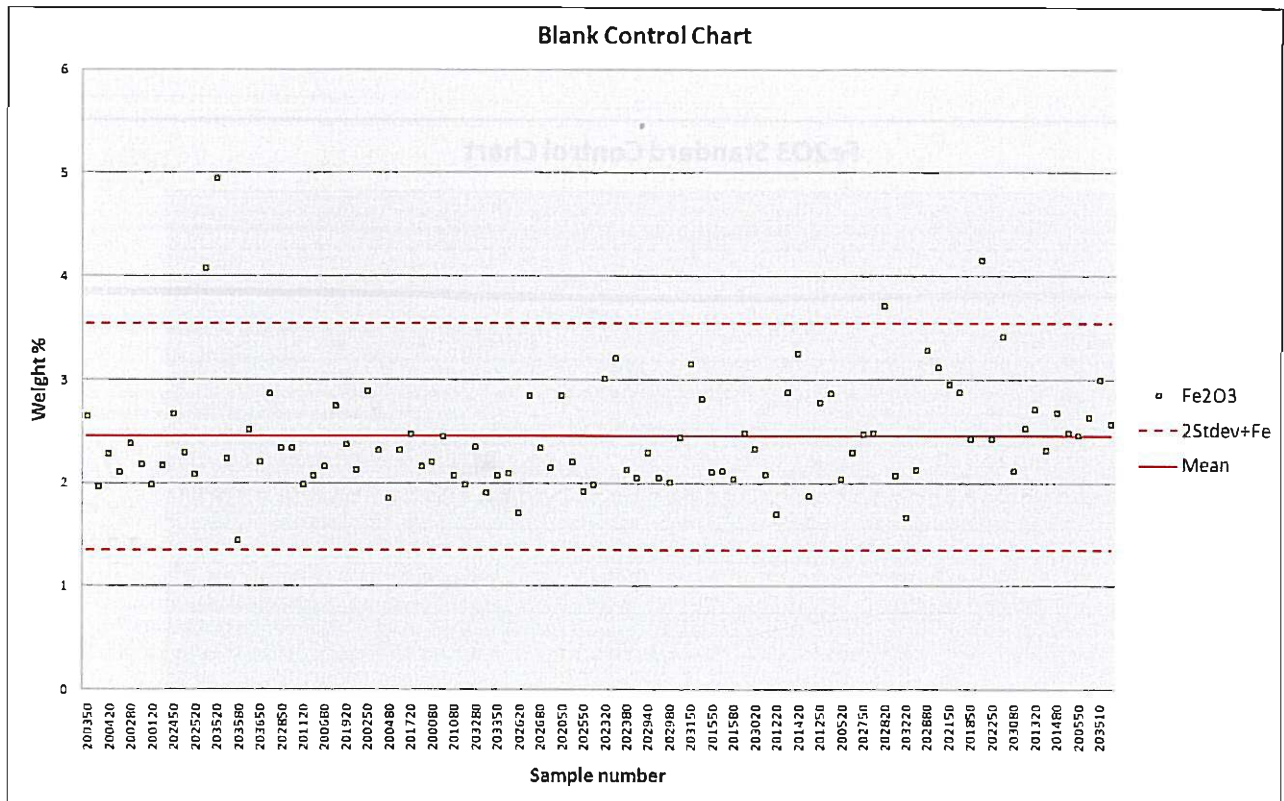


Figure 12 – Blank Quality Control Chart

12.4 Standards

Certified Iron Ore standards were inserted into the sample stream to test the accuracy and precision of the calibration of laboratory instruments. Control charts for Fe_2O_3 , Al_2O_3 , SiO_2 and Satmagan were plotted for ongoing quality assessment.

Of the five constituents chosen for QA/QC control, Fe_2O_3 exhibits the lowest variance and the least potential failures (Figure 13). Results outside of the two standard deviation window are shouldered on either side by samples that fall within the window suggesting minor instrument calibration errors.

There is evidence for disruption in the analysis process around the middle of the campaign shown by clusters of Al_2O_3 and SiO_2 results falling outside of the two standard deviations window (Figures 13 and 14).

Of all of the analyses pursued for QA/QC control, Satmagan was the most unstable (Figure 14). There is a strong suggestion for drift shown by the cyclic pattern on the control chart. The standard deviation is considerably higher than that of Fe_2O_3 which can potentially affect the variance of the reference distribution on which the resource estimate is based. An expected value of around 25% Fe is stated by Natural Resources Canada, yet the mean of the standards is almost 2% lower (23.21%).

Fladgate suggests that the reference material used in future sampling campaigns be tested by more than one lab to determine the true expected value of the Satmagan standard analysis and that an

appropriate calibration schedule be designed in conjunction with the laboratory to minimize potential analysis drift.

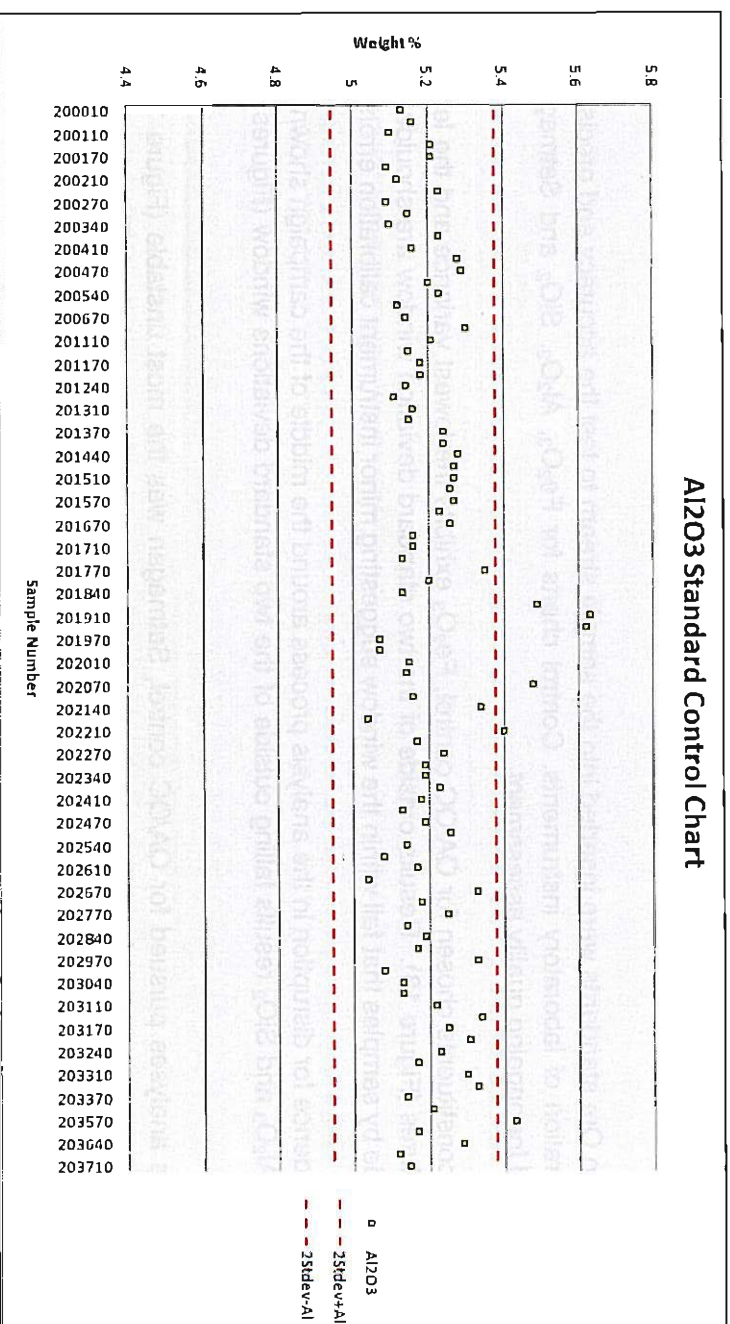
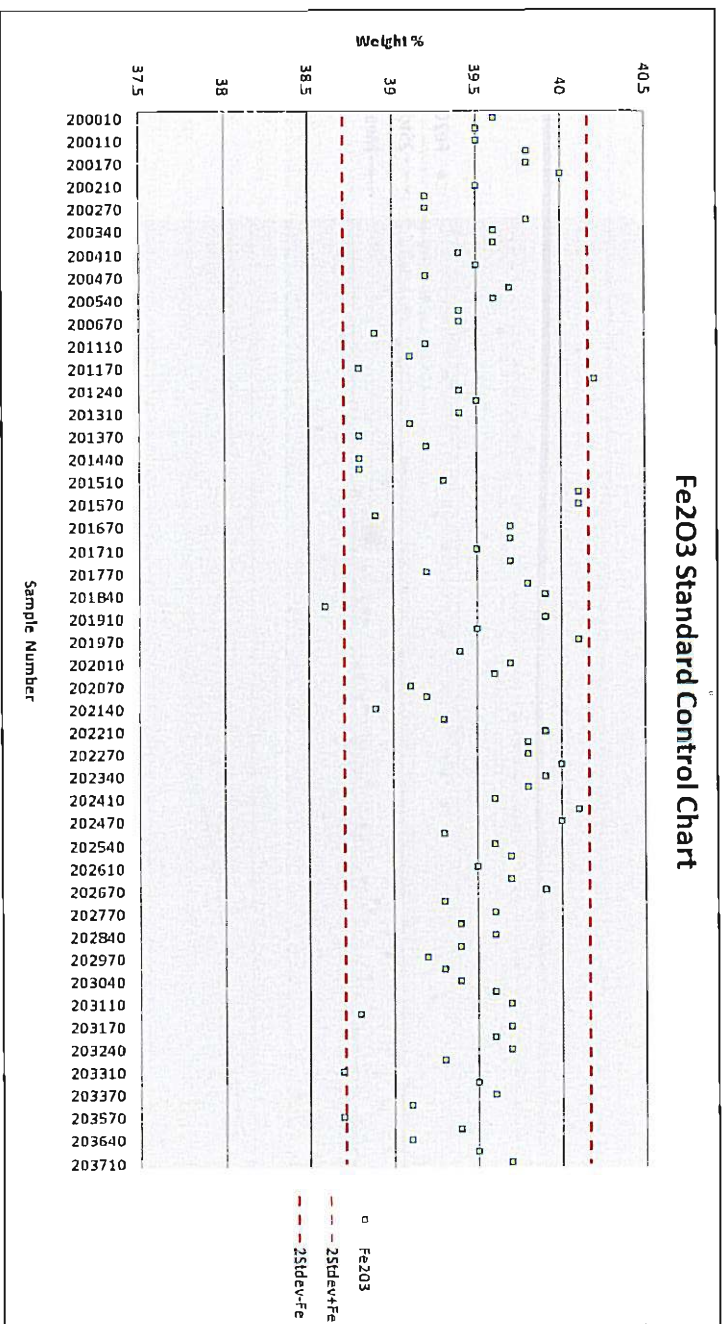


Figure 13 – Fe₂O₃ and Al₂O₃ Quality Control Charts

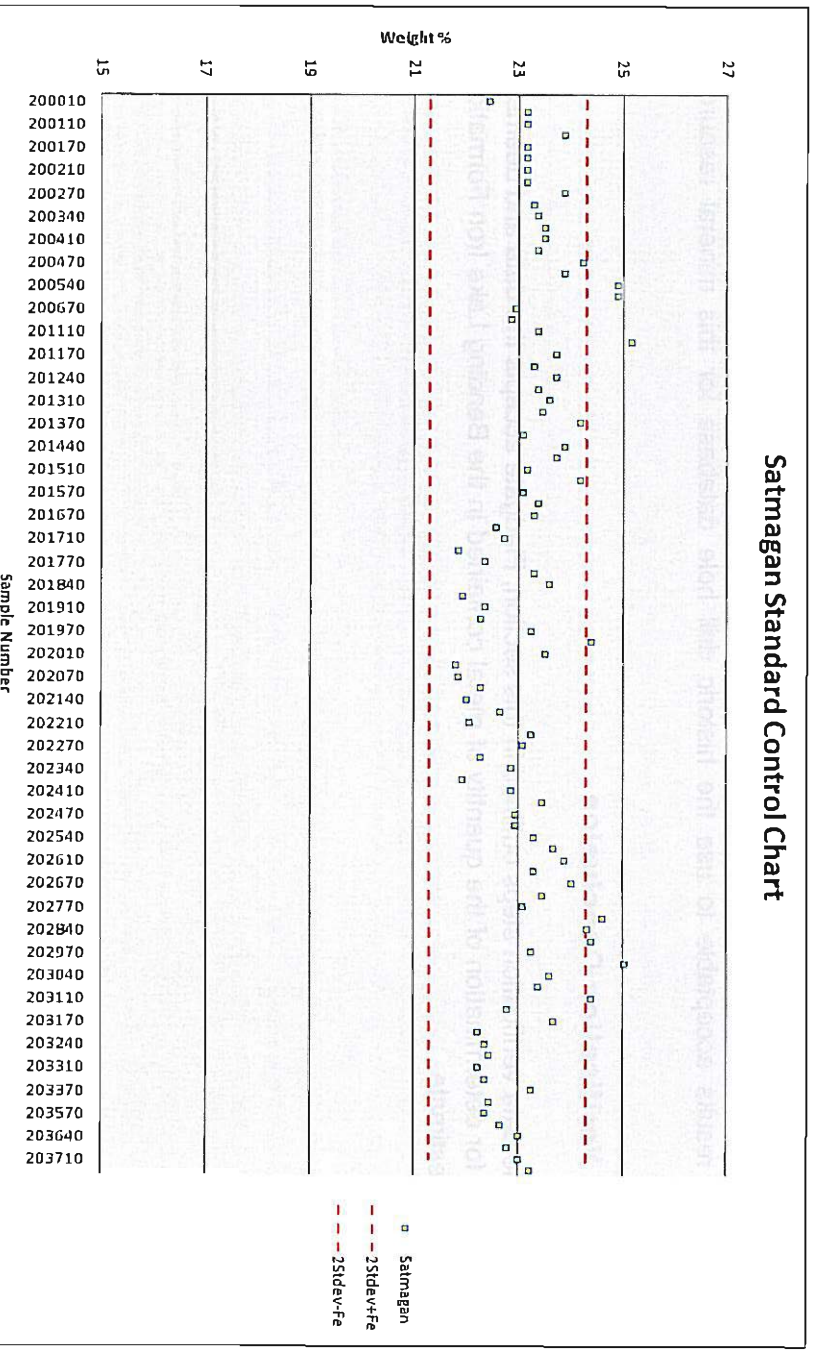
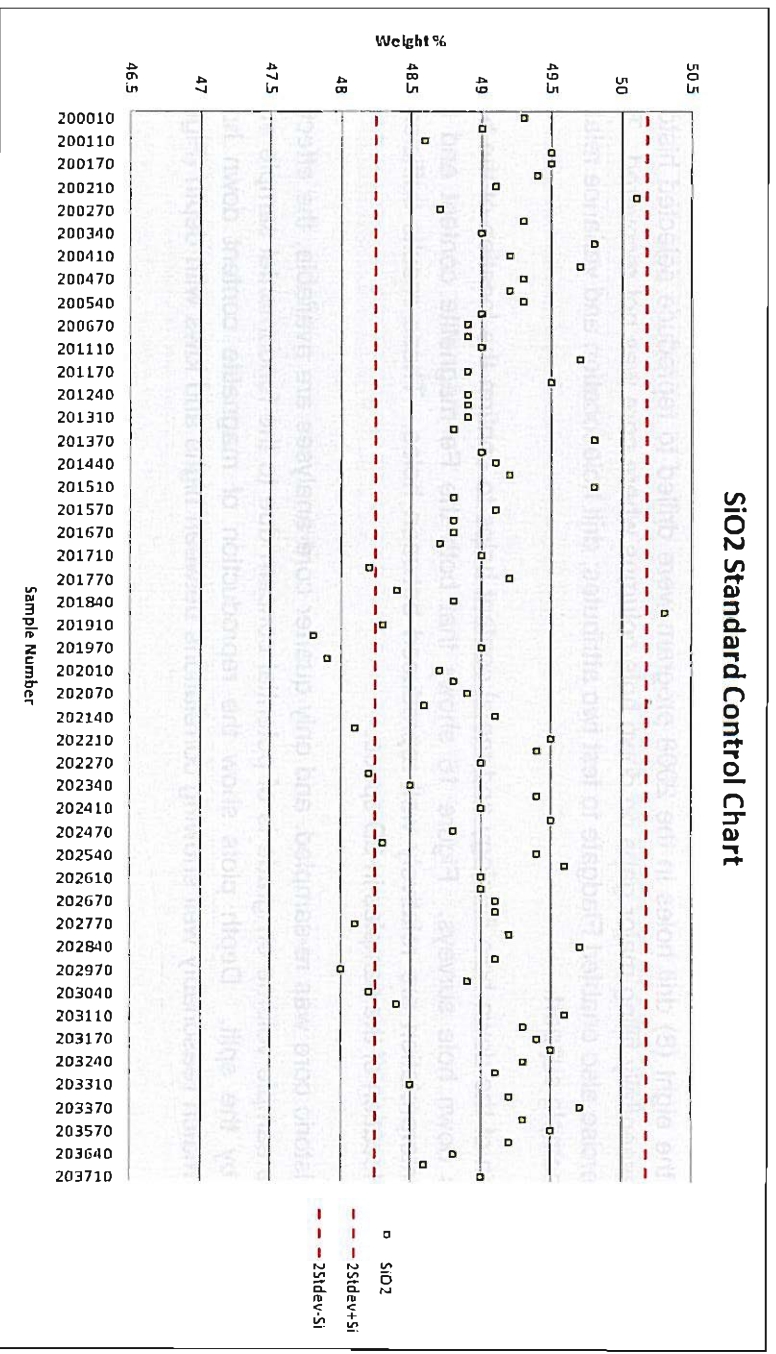


Figure 14 – SiO₂ and Satmagan Quality Control Charts

12.5 Twin hole comparison

Four (4) of the eight (8) drill holes in the 2008 program were drilled to reproduce selected historic drill holes, essentially filling major gaps on down hole columns where core was not recovered. The twinning exercise also enabled Fladgate to test two attributes; drill hole location and variance related to different sample support.

Reproduction of the down hole lithology and metal content helps to confirm the location of the hole and verifies down hole surveys. Figure 16 shows that both the Fe magnetite content and the geological interpretation are relatively well reproduced between holes. These results sufficiently confirm the location of the samples in 3D space.

Since the historic core was re-sampled, and only quarter core analyses are available, the effect of reducing the sample volume on grade is of potential concern due to the fundamental sample error introduced by the split. Depth plots show the reproduction of magnetite content down hole; histograms match reasonably well showing correlations between highs and lows with depth (Figure 16).

12.6 Drilling Campaign Comparison

By comparing the quantiles for populations by zone and by company responsible for drilling on the property, Fladgate was able to roughly assess the impacts of missing core and sample support issues introduced by quarter split sample volume. Q-Q plots generated, as shown in figures 17 and 18, suggest that neither missing core nor bias as a result of sample support is systematic. Fladgate deems the results acceptable to use the historic drill hole database for this mineral resource estimate.

12.7 Data Verification Conclusion

Based on the data verification steps outlined in this section, Fladgate accepts the data and deems it appropriate for determination of the quantity of metal contained in the Bending Lake Iron Formation as a global estimate.

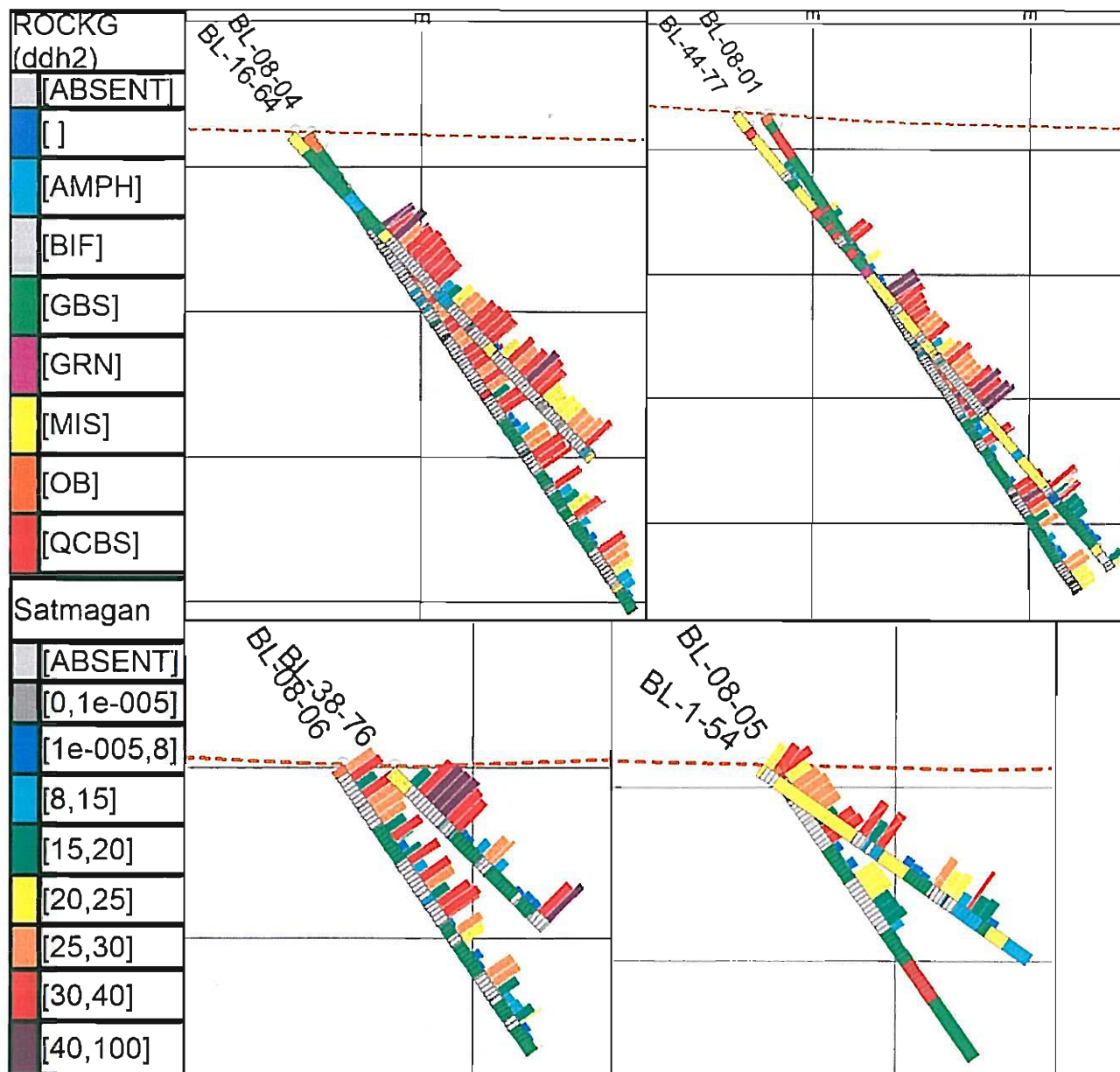


Figure 15 – Vertical Sections of Twin Hole Comparisons for 2008 drilling

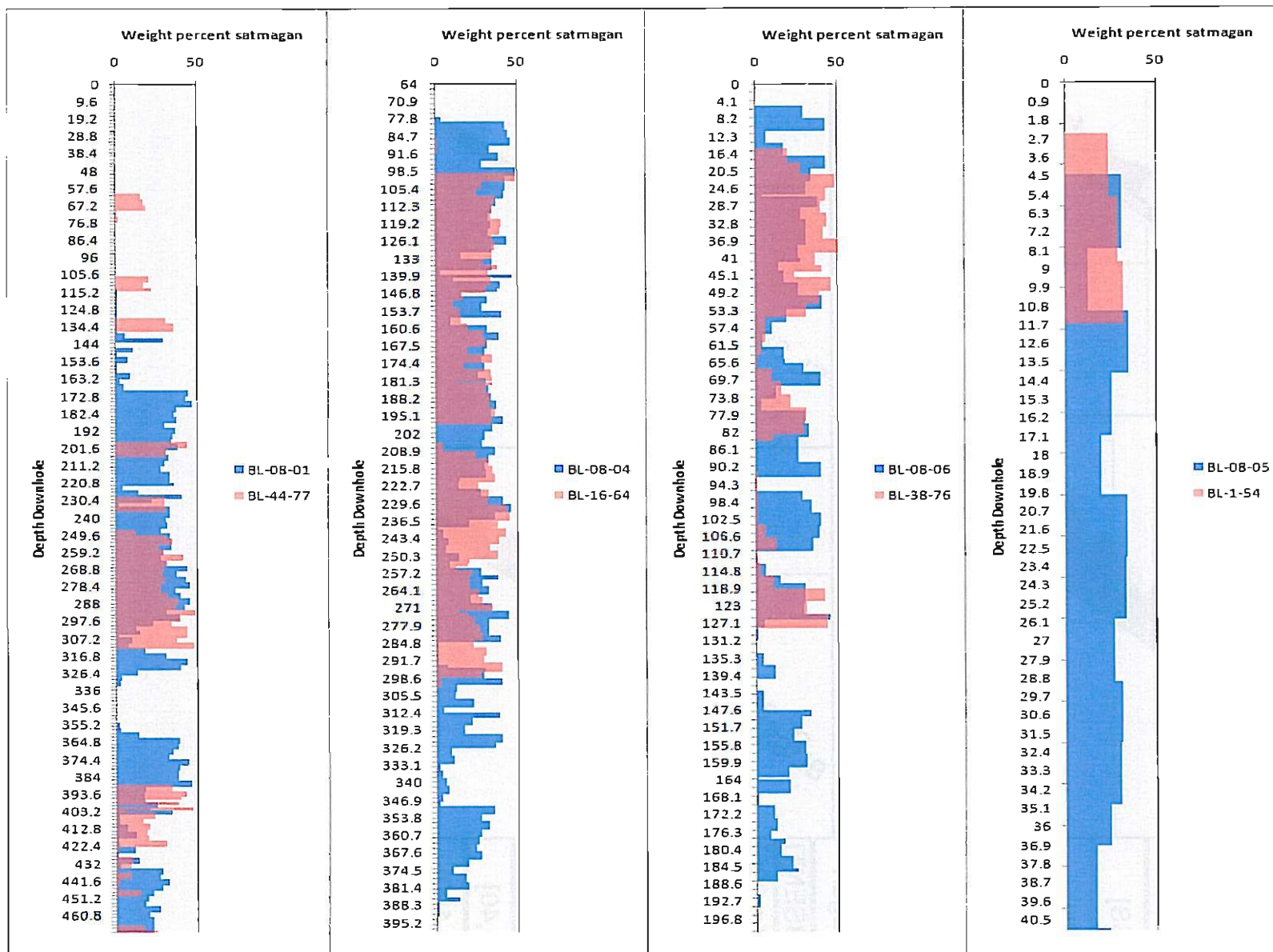
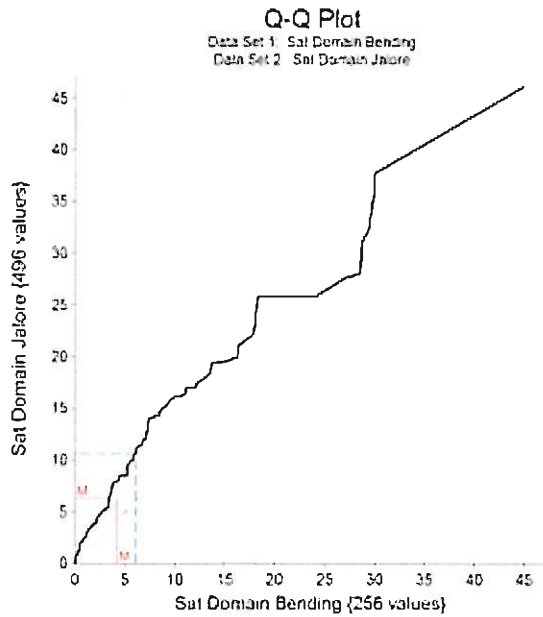
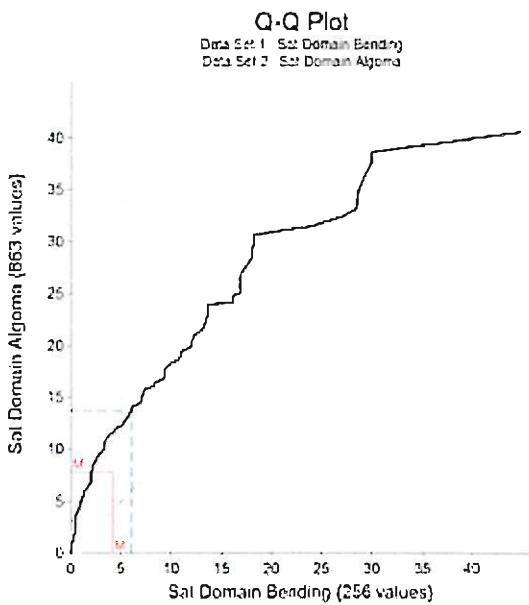


Figure 16 – Down hole Satmagan Correlation Plots

Zone 1



Zone 101

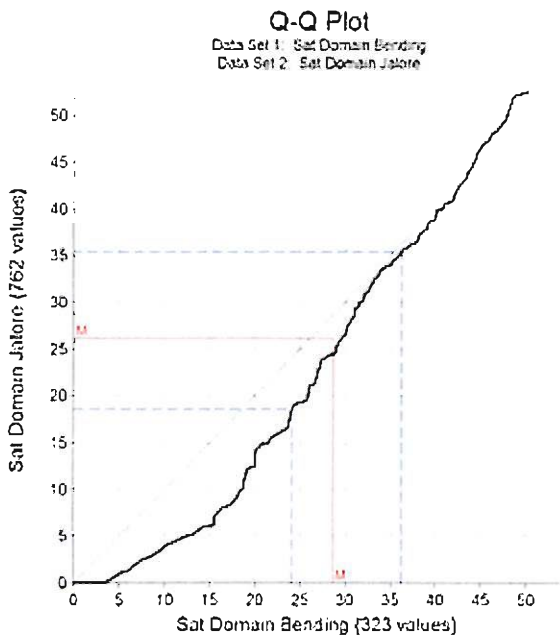
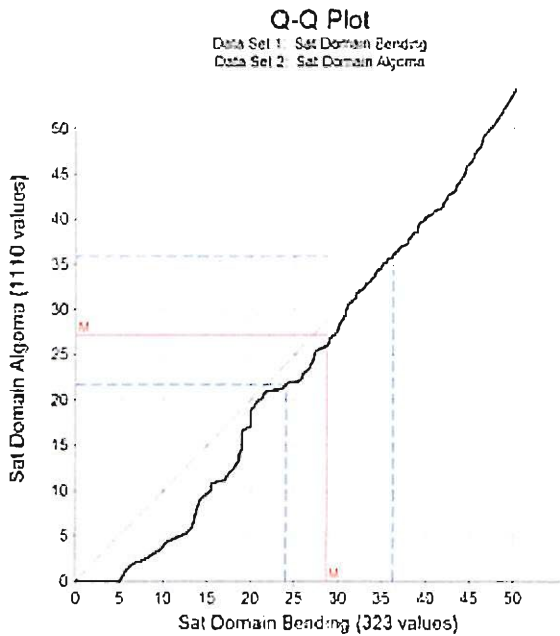
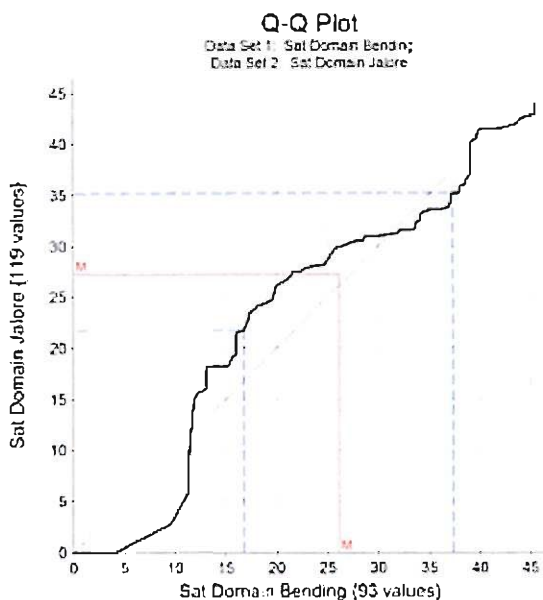
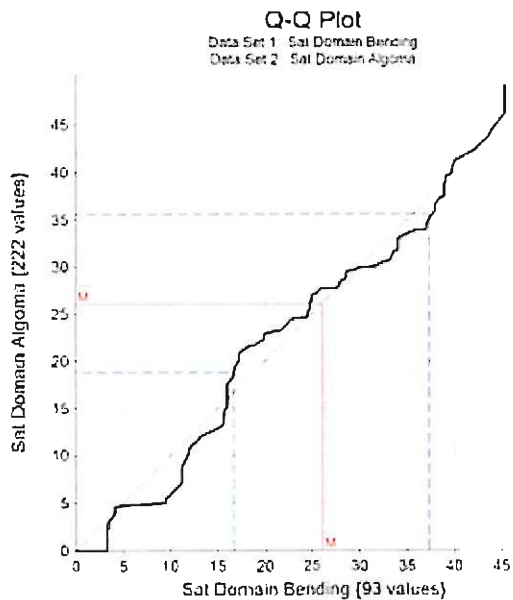


Figure 17 – Q-Q Plots of Zone 1 (waste) and Zone 101 (Main Zone) Showing Algoma and Jalore data versus 2008 Bending Lake data.

Zone 201



Zone 301

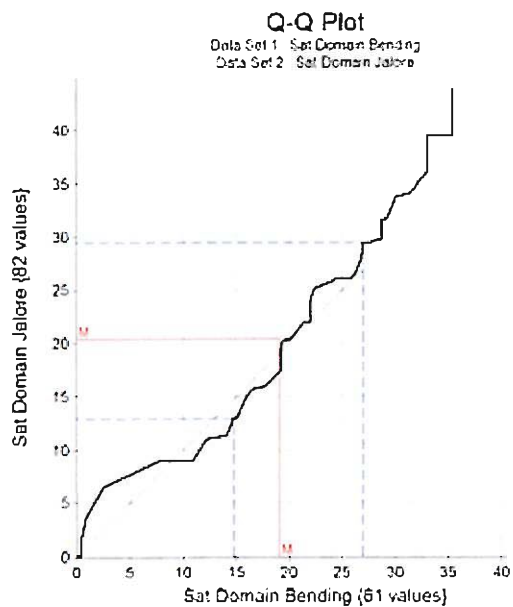
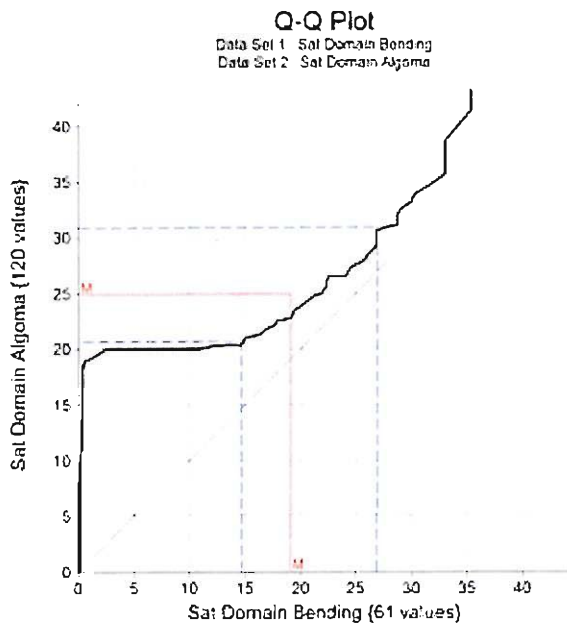


Figure 18 – Q-Q Plots of Zone 201 (waste) and Zone 301 (Main Zone) Showing Algoma and Jalore data versus 2008 Bending Lake data.

13 Mineral Processing and Metallurgical Testing

Bending Lake has not completed any updated metallurgical studies though they have engaged the University of Minnesota Minerals Research Laboratory to develop Phase I bench-scale and Phase II pilot-scale metallurgical testing with the end goal of creating the grinding and concentrating process flow sheet. This work is underway at the University of Minnesota Minerals Research Laboratory.

Historical studies completed by Lakefield Research and Ontario Research Foundation in the 1970's have been taken from Thompson, 2008.

There has been significant turnover of data on the current Bending Lake property which has lead to missing data sets and reports. As such, some of the previous mineral processing and metallurgical analysis testing and data have been lost. The known testing data sets that have been lost but referred to in previous reports are analyses conducted by Jalore, 1954 and 1964. Data is present for the 1976 and 1977 Steep Rock and 1977 Algoma Steel analyses. The following descriptions are taken from Thompson, 2008.

13.1 1954 Jalore Mining Company

Samples of split core were assayed and beneficiation tests were undertaken on composite samples. The data is not available to the Author.

13.2 1964 Jalore Mining Company

Samples of split core were tested for head and Davis tube analysis at the research laboratory of the Jones and Laughlin Steep Corporation. The results of which are not available to the Author.

13.3 1976 Steep Rock Mines Limited

In 1976 head analyses were performed upon six samples submitted for test work at the Lakefield Research of Canada Ltd. lab in Lakefield, Ontario. The aim of the research was to develop a detailed flow sheet for testing all samples, with phase one developing a flow sheet and phase two applying the flow sheet to provide data for a feasibility study by Canadian Bechtel Ltd. The analyses performed at Lakefield Labs are contained in the Steep Rock Iron Mines Ltd. progress report published in 1976.

Head analyses performed on 6 samples submitted for test work gave values of 23 – 36% soluble iron (Sol. Fe). The metallurgical testing results were obtained on 5 ore samples with samples 5 of the 6 ore samples containing 68 – 70% iron consisting of magnetite. With low proportions of Al_2O_3 , CaO, MgO, TiO_2 , MnO, As, P, S, Na_2O and K_2O . Results are summarized in table 20 and table 21.

Table 20 – Final Fe concentrates Weight %, Assay % (Soluble. Fe, Magnetic Fe, Na2O and K2O) and % Distribution of Soluble Fe and Magnetic Fe (Thompson, 2008).

Test No.	Sample No.	Final Fe Concentrates						
		Weight %	Assays %				% Distribution	
			Sol. Fe	Mag. Fe	Na ₂ O	K ₂ O	Sol. Fe	Mag. Fe
14 + 18	1	50.29	68.65	68.23	0.018	0.026	90.6	94.6
19	3	24.51	68.6	63	0.052	0.055	73.3	92.6
25	4	23.36	70.22	69.6	0.023	0.029	66.8	86.2
24	5	23.98	70.71	68.93	0.033	0.032	71	90.5
12+15+16	6	26.2	70.77	68.56	0.036	0.062	75.3	91.1

Table 21 – Davis Tube analyses performed on 5 head samples, with weight % concentrate, tailing and head, %Fe % Distribution, Davis tube and Satmagan (Tests on head sample after 32 minute grind) (Thompson, 2008).

Product	Weight %	% Fe	% Distribution	Davis Tube	Satmagan
<i>Head Sample 1</i>					
Concentrate	50.3	67	88.7	-	-
Tailing	49.7	8.7	11.3	-	-
Head	100	38	100	33.7	32.4
<i>Head Sample 3</i>					
Concentrate	24.8	69.2	74.8	-	-
Tailing	75.2	7.7	25.2	-	-
Head	100	22.9	100	17.2	16.3
<i>Head Sample 4</i>					
Concentrate	26.2	68.2	71.2	-	-
Tailing	73.8	9.8	28.8	-	-
Head	100	38	100	17.9	17.9
<i>Head Sample 5</i>					
Concentrate	27.7	70	83.6	-	-
Tailing	72.3	5.4	16.4	-	-
Head	100	38	100	19.4	18.2

Product	Weight %	% Fe	% Distribution	Davis Tube	Satmagan
Head Sample 6					
Concentrate	26.6	68.1	75.5	-	-
Tailing	73.4	8	24.5	-	-
Head	100	24	100	18.1	17.8

13.4 1977 Algoma Steel Corporation

Laboratory test-work on the Bending Lake ore led to the development of the plant flow sheet and proposal of a reagent balance. Results through testing suggested that alkali and silica levels in the flotation concentrate was controlled by a combination of pH control and collector addition to produce acceptable concentrate grades. Laboratory investigation was undertaken via Lakefield to produce iron concentrate of acceptable grade relative to Na₂O, K₂O and SiO₂ content.

Multiple stages of testing were undertaken in an attempt to reduce the alkali content of primary Fe concentrate. The conclusion of which was that silica flotation at natural pH followed by alkali flotation at acid pH would be easier to control, with results summarized in table 22.

Table 22 – Effect of pH regulation on Alkali and Silica flotation. (Note: SiO₂ is equivalent to 73.0% minus % Sol. Fe). Extracted from Algoma Steel Corp. Progress Report-4 (Thompson, 2008).

Test No.	Conditions			Fe Concentrate						
	MG98A lb/t	Acid/Base lb/t	pH	Weight%	Assay %					Distribution
					Sol Fe	K ₂ O	Na ₂ O	SiO ₂	SiO ₂ Alkali	Sol Fe
50	0.12	10 HF	5	68.7	69.9	0.01	0.01	3.1	163	75.6
				78.1	69.1	0.02	0.01	3.9	133	85
54	0.06	2HF	2	90.8	65.8	0.03	0.02	7.9	169	93.7
		10H ₂ SO ₄								
56	0.06	3H ₂ SO ₄	5	72.8	70.7	0.02	0.01	1.9	59	80.5
				80.8	69.8	0.03	0.02	3	61	88.1
57	0.06	Neutral	7.8	66.4	71.7	0.02	0.01	1.3	50	74.5

				76.3	71	0.04	0.02	2	32	84.8
58	0.06	1 NaOH	11	82.6	70.5	0.07	0.03	2.5	25	90.9

Grinding requirements were also studied, the results showing that 50 to 60% weight % of the feed was sufficiently liberated so that no regrind of the flotation feed (pilot plant filter cake) was required to produce a high-grade iron product (>69.5% magnetic Fe) (Table 22).

Table 23 – Effect of primary grind on the flotation feed, 41 and 43 denote tests conducted, the raw data of which can be found in the Algoma Steel, Laboratory Flotation work. Extracted from Algoma Steel Corp. Progress Report-4 (Thompson, 2008).

Test No.	Primary Grind kWh/ton	MG98A lb/t	pH	Regrind kWh/ton	Product	Weight %	Assay % Mag Fe	% Distr. Mag Fe
41	0	0.08	8	50	Fe Conc.	56.4	69.7	67.9
					Regrind	23.8	60.6	24.9
					Mag. Conc			
43	10	0.07	8	50	Fe Conc.	61.9	69.7	70.7
					Regrind Mag.	23.3	61.8	23.6
					Conc			

The overall results of 16 tests suggest that an additional 3 -5 % Fe recovery could be achieved through regrinding the combined rougher and scavenger froth products with an additional 10 – 15 kWh/ton flotation feet. Grinding the flotation feed had a greater effect on Na₂O rejection than K₂O rejection from the primary Fe concentrate, which showed that the K₂O and Na₂O were present in more than one mineral, and the liberation size of the major Na₂O bearing mineral was smaller than the liberation size of the K₂O bearing mineral, and/or that the Na₂O bearing mineral was more easily floated than the K₂O bearing mineral. The alkali concentration of the primary Fe concentrate was proportional to the weight recovery of the primary Fe concentrate. Results are summarized in Table 24.

Table 24 – Relationship between weight % recovery of primary Fe concentrate and Alkali concentration, and effect of Grind size on Alkali concentration on Primary Fe Concentrate. Extracted from Algoma Steel Corp. Progress Report-4 (Thompson, 2008).

Sample	Treatment	Primary Fe Concentrate				
		Weight %	Assays		Surface Area	SiO ₂
			K ₂ O	Na ₂ O	cm ² /g	Alkali
1	Grind	45	0.01	0.006	1200	60-90
		60	0.014	0.009	1400	60-90
1	No Grind	45	0.014	0.026	750	90-140
		60	0.021	0.046	900	90-140

Sample	Treatment	Primary Fe Concentrate				
		Weight %	Assays		Surface Area cm ² /g	SiO ₂ Alkali
			K ₂ O	Na ₂ O		
2	Grind	45	0.008	0.008	1400	50-70
		60	0.012	0.012	1400	50-70
2	No Grind	45	0.013	0.023	800	50-70
		60	0.016	0.055	950	50-70

The addition of Hydrofluoric (HF) acid to scavenger flotation improved the SiO₂/alkali ratio of the primary Fe concentrate supposedly by depressing quartz flotation and encouraging feldspar flotation. The Na₂O bearing mineral(s) were sensitive to H₂SO₄ depression. K₂O analyses of concentrates were not affected by H₂SO₄ addition.

13.5 1977 Steep Rock Mines Limited

In 1977 Lakefield Research Labs worked with Canadian Bechtel Ltd. on a program of pilot plant test work on samples from the Bending Lake Deposit. A proposal of test work, including investigations into a fully autogenous and semi-autogenous grinding circuit, screen size in the primary circuit, effect of pebble removal, secondary circuit pebble and ball milling and final screen size, was conducted at the time. Head samples were taken from ore samples and Davis Tube tests were conducted. Samples 1, 2, 3 and 4 weighed approximately 300 pounds each, samples were jaw, cone and roll crushed to minus 10 mesh and sampled for head analyses and Davis tube test work. Composite samples of circuit problems were taken on an hourly basis during the sample period with sampling conducted with individual sample cutters of 400 ml capacity. Samples were accumulated for the duration of the sample period and were filtered and dried. Pulp density samples were taken every 30 or 60 minutes in the grinding and magnetic circuits. Results are summarized in Table 25.

Table 25 – Davis Tube analyses performed on 5 head samples, with weight % concentrate, tailing and head, %Fe % Distribution, Davis tube and Satmagan (Tests on head sample after 32 minute grind) (Thompson, 2008).

Sample No.	Grind		Conc. Wt%	Concentrate				Conc. % Dist. A.S.Fe	Tailing %A.S.Fe	Calc. Head % Mag. Fe
	Min.	%-400 M		A.S.	Na2O	K2O	S			
1	8	69.8	38.8	57.5	0.188	0.2	-	81.7	8.2	22.3
	16	88.6	34.4	64.8	0.089	0.075	-	81.6	7.7	22.3
	32	95.2	32.5	68	0.039	0.043	0.07	81	7.7	22.1
2	8	73.2	30.2	57.5	0.174	0.189	-	72.1	9.6	17.4
	16	85	27	69.2	0.096	0.098	-	70.8	9.6	17.1
	32	94.8	24.7	68.6	0.049	0.049	0.053	70.3	9.5	16.9

Sample No.	Grind		Conc. Wt%	Concentrate				Conc. % Dist. A.S.Fe	Tailing %A.S.Fe	Calc. Head % Mag. Fe
3	8	64.6	18.9	59.8	0.201	0.115	-	65.7	7.3	11.3
	16	80.6	17	66.2	0.116	0.064	-	65.4	7.2	11.317.0
	32	69.2	26.8	63.5	0.077	0.13	-	75.6	7.5	
4	8	69.2	26.8	63.5	0.077	0.13	-	75.6	7.5	17
	16	82.8	24.9	68.3	0.033	0.051	-	75.6	7.3	17
	32	93	24	69.9	0.033	0.051	0.27	74.6	7.5	16.8

Pilot plant tests were conducted in a series of 6 -8 hour test runs to establish fully autogenous and semi-autogenous primary grinding conditions, final screen sizes before secondary grinding, and to investigate the effect of pebble removal.

Lakefield Research calculated the work indices using the relationship established by F.C. Bond in his 'Third Theory of Communion'. The 80 % passing sizes for the Cascade mill feed were estimated to be 152,400 micrometres for the combined samples 2 and 4 and 136,500 micrometers for sample 1 and sample 1 and 3 combined. The 80% passing sizes of the cascade mill circuit products were calculated from the K80 determined graphically for the circuit products. These K80's were calculated including and excluding pebbles. The work index was then calculated:

$$\text{Work Index} = \frac{E}{10 \left(\frac{1}{\sqrt{P}} - \frac{1}{\sqrt{F}} \right)}$$

Equation 1 - E = Grinding energy (kWh/short ton) consumed in grinding material from F and P. P = Size modulus, K90, of product (size of aperture in micrometers which will allow 80% material to pass), P = size modulus, K80 of feed to mill (size of aperture in micrometers which will allow 80% material to pass.)

Metallurgical Balances were calculated using the two-product formula for each magnetic separation on screening separation:

$$C = F \frac{f - t}{c - t}$$

Equation 2 - Formula used to calculate metallurgical balances, C = concentrate weight percent, F = feed weight (assumed 100%), f = feed assay (% Sol Fe, or percent passing a certain screen size)

13.6 2008 Bending Lake Iron Group Limited

SGS Lakefield Research Limited has been retained to perform metallurgical and grade analysis of the samples taken from the historic and current drill core. As of the

effective date of this report the analysis has not commenced. The analyses have been proposed to occur in three stages.

13.6.1 Priority One Analysis

It is assumed that each sample weighs approximately 10 to 15kg. If the sample weight exceeds 15kg, additional sample preparation cost will apply. The received drill cores (¼ AQ and ½ BQ) will be dried and submitted for bulk density. Then the drill cores will be crushed to nominal 1/4" (6.3mm). Approximately 1kg will be riffled out and crushed to minus 10mesh (2mm). From the minus 10 mesh (2mm) fraction, a 150g head sample will be riffled out. The head sample will be then pulverized at 200mesh (75µm) submitted for specific gravity (S.G.), whole-rock analysis* by XRF, and Satmagan determination.

*The X-ray whole-rock analysis (WRA) suite includes SiO₂, Al₂O₃, Fe₂O₃, MgO, CaO, Na₂O, K₂O, TiO₂, P₂O₅, MnO, Cr₂O₃, V₂O₅, LOI and Sum at 0.01% detection limit. (SGS Proposal 2008).

13.6.2 Priority Two Analysis

Samples that meet the criteria of 14% magnetic iron value will be submitted for Priority Two Analysis, which includes Davis Tube test and particle size analysis (PSA) down to 500mesh (25µm). The minus 200mesh (75µm) head sample will be pulverized down further to minus 325mesh (45µm) and submitted to Davis Tube testing. The magnetic concentrate and nonmagnetic tailings will be dried and weighed.

13.6.3 Priority Three Analysis

Priority Three Analyses will be performed on 18 representative samples. The selected samples will be submitted for ICP-Scan, which includes the elements listed in Table 26, as well as Carbon, total Sulphur, and Mercury (Hg).

Table 26 – Detection limits and elements analyzed using ICP (Thompson, 2008).

Element	Limit (g/t)	Element	Limit (g/t)	Element	Limit (g/t)
Ag	2	Cu	0.5	Pb	20
Al	2	Fe	4	Sb	10
As	30	K	20	Se	30
Ba	0.2	Li	5	Sn	20
Be	0.03	Mg	2	Sr	0.03
Bi	20	Mn	0.3	Ti	0.4
Ca	20	Mo	5	Tl	30
Cd	2	Na	10	V	2
Co	4	Ni	20	Y	0.2
Cr	4	P	30	Zn	2

14 Mineral Resource Estimates

The mineral resource estimation stated herein represents a first time disclosure of a NI 43-101 compliant mineral resource estimate for the Bending Lake property. The resource estimate was completed by Sean Horan of Fladgate Exploration Consulting Corporation and procedures were independently reviewed by Robert Cameron, a qualified person as defined by the NI 43-101 instrument.

The assumptions and statement of metal content outlined in this section are subject to projected market conditions. The availability of consumers and the consumer's desired product composition are of critical importance to the feasibility of the economic parameters used. Estimation parameters have been determined from univariate and bivariate spatial analysis of the data set. The effectiveness of each parameter is directly related to the quality of the database which contributes towards uncertainty in the estimate. Categorization, discussed in more detail in section 17.8, will attempt to compartmentalize this uncertainty.

The database was reviewed by Fladgate checking for interval errors and spot checks were performed from lab certificates from the SGS laboratory. No significant errors were found; minor interval errors were identified and corrected. Fladgate is comfortable with the database and despite some missing core, deems the database appropriate for resource estimation purposes.

Datamine Studio 3, Snowden Supervisor and GSLIB software packages were used for modeling and geostatistics.

14.1 Database Description

The data inventory available to Fladgate comprised of 49 historical drill holes and 8 infill and confirmation drill holes drilled by Bending Lake Iron Group during a 2008 drilling campaign. In total 57 drill holes were drilled amounting to 14,313 metres (Table 27). As described in section 16.2, the mineralization was divided into four domains, zones 1, 101, 201 and 301. Zone 1 is waste material, Zone 101 formerly called the 'Main Zone' is the thickest and highest grade zone, Zone 201 represents the footwall domain and zone 301 is a poorly defined domain within the footwall of Zone 201.

Of the 14,313 metres of core re-sampled during the 2008 re-sampling program, approximately 11% totalling 1,621 metres of core could not be located resulting in gaps in the resource database. The extent of the gaps is summarised below in Table 27. Much of the gaps were infilled by the 2008 drilling campaign specifically designed to target areas with missing intervals. Also, some of the missing samples outlined in table 28 are close to surface and most likely represent overburden.

Fladgate examined the univariate statistics of each geological domain and has concluded that there is no evident portion of any population missing. Moreover, there is a great likelihood that any core missing may have been used for metallurgical testing or display purposes. Ore grade iron formation would have been used and the remaining samples, if not still representative of the missing material, would lend towards a conservative estimate. However, this is speculative and warrants future infill drilling to further confirm the integrity of the historical data.

Table 27 – Breakdown of the resource database

BHID	COMPANY	Length Drilled	Year	Grid Line	BHID	COMPANY	Length Drilled	Year	Grid Line
BL-08-01	BLIOG	464	2008	265	BL-31-76	Algoma	361	1976	275
BL-08-02	BLIOG	215	2008	265	BL-32-76	Algoma	244	1976	265
BL-08-03	BLIOG	200	2008	245	BL-33-76	Algoma	404	1976	284
BL-08-04	BLIOG	400	2008	260	BL-34-76	Algoma	213	1976	316
BL-08-05	BLIOG	203	2008	270	BL-3-54	Jalore	206	1954	324
BL-08-06	BLIOG	203	2008	284	BL-35-76	Algoma	22	1976	255
BL-08-07	BLIOG	428	2008	280	BL-36-76	Algoma	61	1976	255
BL-08-08	BLIOG	233	2008	265	BL-37-76	Algoma	122	1976	255
BL-10-64	Jalore	130	1964	280	BL-38-76	Algoma	130	1976	255
BL-11-64	Jalore	244	1964	260	BL-41-77	Algoma	213	1977	275
BL-12-64	Jalore	213	1964	270	BL-42-77	Algoma	495	1977	275
BL-13-64	Jalore	252	1964	270	BL-43-77	Algoma	152	1977	265
BL-14-64	Jalore	260	1964	250	BL-44-77	Algoma	480	1977	265
BL-1-54	Jalore	191	1954	260	BL-4-55	Jalore	203	1955	280
BL-15-64	Jalore	261	1964	250	BL-45-77	Algoma	512	1977	284
BL-16-64	Jalore	305	1964	270	BL-46-77	Algoma	311	1977	288
BL-17-64	Jalore	178	1964	250	BL-47-77	Algoma	305	1977	255
BL-18-64	Jalore	169	1964	288	BL-48-77	Algoma	361	1977	294
BL-19-64	Jalore	164	1964	240	BL-49-77	Algoma	168	1977	245
BL-20-64	Jalore	213	1964	288	BL-51-77	Algoma	160	1977	308
BL-21-64	Jalore	122	1964	240	BL-53-77	Algoma	127	1977	234
BL-22-64	Jalore	152	1964	288	BL-54-77	Algoma	166	1977	316
BL-23-76	Algoma	549	1976	270	BL-5-55	Jalore	245	1955	280
BL-24-76	Algoma	194	1976	265	BL-55-77	Algoma	133	1977	228
BL-2-54	Jalore	248	1954	260	BL-6-54	Jalore	265	1955	300
BL-25-76	Algoma	516	1976	260	BL-7-55	Jalore	144	1955	360
BL-26-76	Algoma	488	1976	280	BL-8-64	Jalore	130	1964	280
BL-27-76	Algoma	282	1976	255	BL-9-64	Jalore	216	1964	260
BL-30-76	Algoma	287	1976	275	TOTAL		14313		

Table 28 – Summary of missing core/unsampled core

Zone	Length of missing core	Total Length of core	Percentage Missing
1	972	6708	14%
101	556	5855	10%
201	85	1090	8%
301	8	660	1%
Grand Total	1621	14313	11%

The master assay table database consists of analyses for SG, BD, SiO₂, Fe₂O₃, Al₂O₃, MgO, CaO, Na₂O, TiO₂, P₂O₅, MnO, Cr₂O₃, V₂O₅, LOI, Sum, Sat and Fetotal. SG, BD, SiO₂, Al₂O₃, MgO, CaO, P₂O₅, MnO, LOI, Sat and Fetotal were selected for generation of the resource model. The excluded oxides were grouped into a field “Other” and modeled as a separate entity. Each analysis mentioned

above was considered during the domaining process. Apparent geochemical distinctions can be made between the zones and is summarized in Table 29.

Table 29 – Summary of Geochemical characteristics of each zone (Low, Moderate and High Classes are relative to Bending Lake Sample Population)

Zone	Fe ₂ O ₃	Al ₂ O ₃
1	Low	High
101	High	Low
201	High	Low
301	Moderate	Moderate

14.2 Geological Domains

The Bending Lake Iron Ore deposit was constrained to banded iron formation wireframe envelopes using conventional sectional and plan view interpretations of the lithology, snapping to drill hole intercepts and stitching the sectional interpretations together to form a closed solid. The zonation of the deposit promotes stationarity of each domain and decreases the degree of statistical heterogeneity. An effort was made to separate out geologically distinct regions of the deposit, however, Fladgate is aware of some unavoidable geological inconsistencies such as folding, within each domain as a result of the current data set.

The domain was divided into four domains, zones 1, 101, 201 and 301. The zones were simplified down to sheet-like bodies although it is understood that the domains are part of a plunging, inclined fold system (Figure 19 and 20); Zone 101 is the thickest magnetite banded iron formation unit on the property. Zone 101 is part of an anticlinal fold structure, forming the upper part of a larger z-fold. The hinge zone was not geologically modelled as the 150 metre drill spacing doesn't give adequate resolution to determine the exact location of the hinge. The included meta-sedimentary material in the hinge was treated as internal dilution. Zone 201, the footwall domain, is believed to be the lower limb of the z-fold as the zone exhibits the same geochemical characteristics as Zone 101. Lastly, Zone 301 is a poorly defined domain in the footwall of Zone 201, the wireframe solid is an inferred interpretation due to a lack of drill hole data compared to zones 101 and 201. All the solids were projected above the surface into the "air" to ensure the entire domain was represented in the resource estimation. The portion of the domain in the "air" was clipped to the surface elevation during optimization.

Fladgate believes that the larger scale features are sufficiently constrained to provide licit continuity analysis when the influence of each drill hole is constrained. Variograms for the major and semi-major directions of continuity are not compromised based on the geological domain interpretations. The interpretations should, however, be revisited once more drill data becomes available.

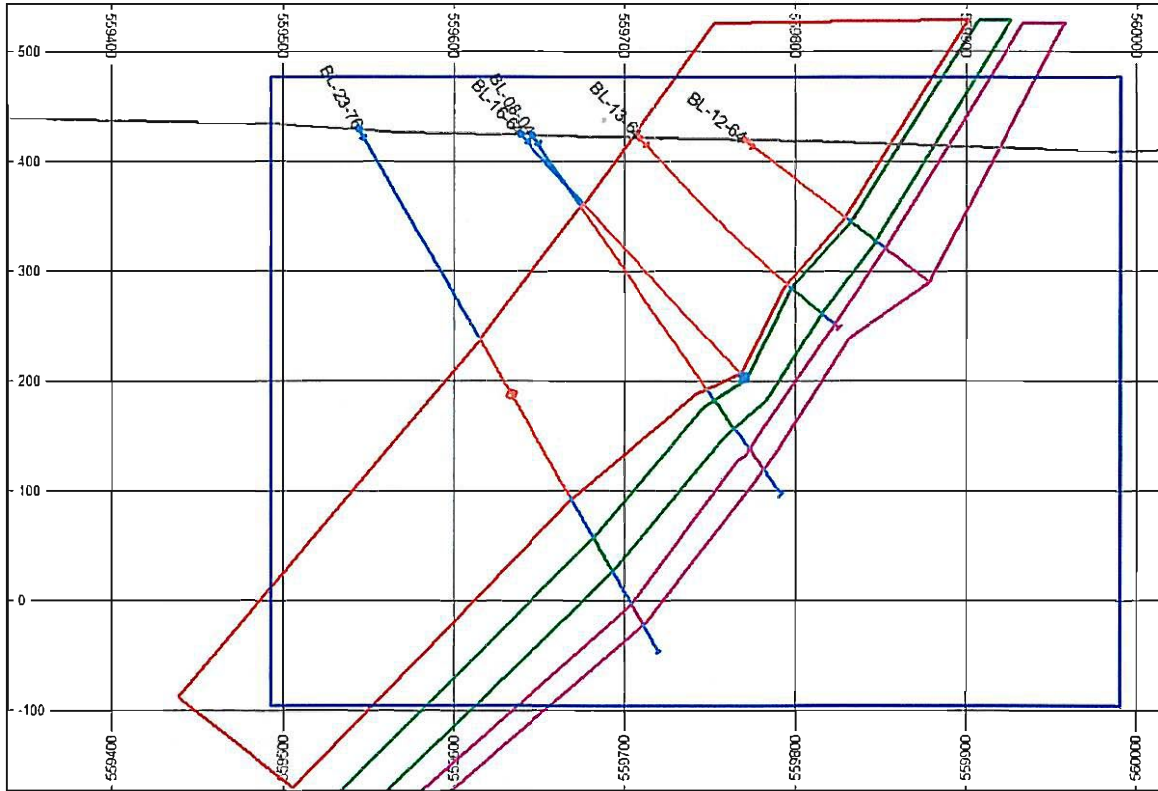


Figure 19 – Typical cross-section through the Bending Lake wireframe domains.

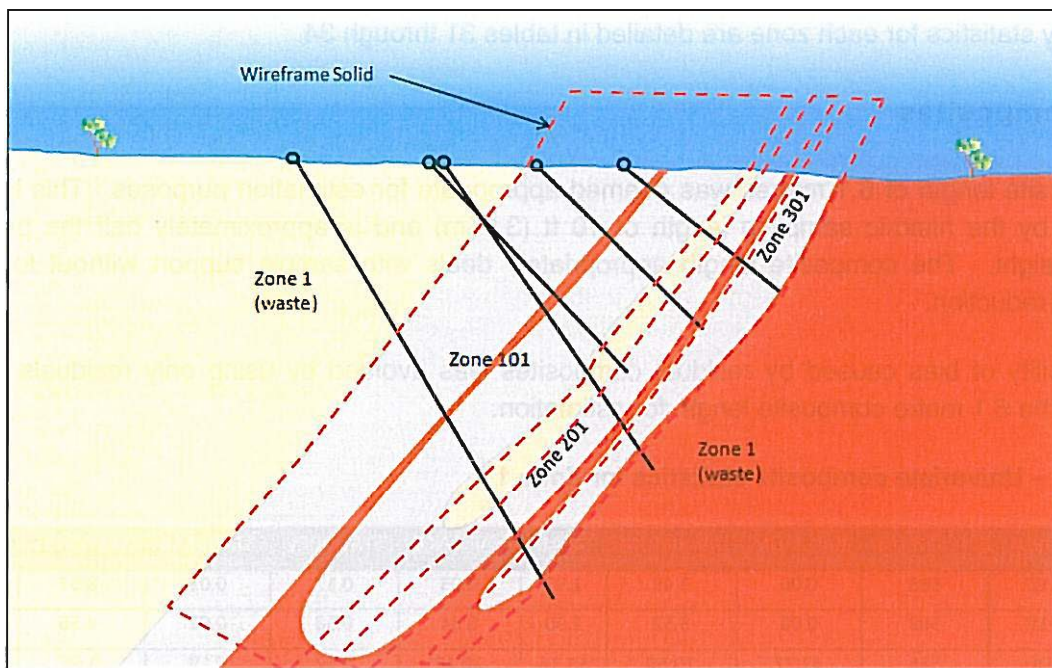


Figure 20 – Stylized cross-section through the Bending Lake domains showing the conceptual geological model. The red dashed lines represent the approximate boundaries of the wireframe solids used.

14.3 Summary Statistics

The univariate statistics of each variable was analysed to check the integrity of the input data and to test for the presence of erroneous lab results or outliers. No significant outliers were found. Cross plots of Fe₂O₃ and SG revealed some erroneous specific gravity results. These results were removed from the exploratory data analysis reference distribution. A summary of the quantity of results removed is given in table 30.

Table 30 – Summary of SG results removed from resource data

Zone	Number of SG's	Number of SG's removed	Percent removed
1	588	22	4%
101	887	89	10%
201	184	9	5%
301	116	5	4%

Generally the Bending Lake iron formation exhibits a considerably low percentage of deleterious elements in the composites with the exception of P₂O₅. The phosphorus content is relatively high although test work done in Lakefield in 1977 suggests that the majority of Phosphorus is removed during beneficiation. Sulphide content of the ore has not been evaluated however Bending Lake geologists suggest that the system is low sulphide and that only trace amounts of sulphur are present.

Summary statistics for each zone are detailed in tables 31 through 34.

14.4 Composites

A composite length of 6.1 metres was deemed appropriate for estimation purposes. This length is divisible by the historic sampling length of 10 ft (3.05m) and is approximately half the proposed bench height. The composite length appropriately deals with sample support without too much variance reduction.

A possibility of bias caused by residual composites was avoided by using only residuals 50% or more of the 6.1 metre composite length for estimation.

Table 31 – Univariate composite statistics for Zone 1

ZONE	FIELD	NSAMPLES	MINIMUM	MAXIMUM	MEAN	VARIANCE	STANDDEV	STANDERR	SKEWNESS	KURTOSIS
1	BD	588	0.00	3.49	2.97	0.03	0.17	0.01	-8.37	142.85
1	SG	588	0.00	3.52	2.90	0.34	0.58	0.02	-4.56	19.82
1	SiO ₂	588	42.77	70.50	55.16	20.40	4.52	0.19	0.66	0.94
1	Al ₂ O ₃	588	2.52	19.80	13.38	5.97	2.44	0.10	-0.86	0.99
1	Fe ₂ O ₃	588	1.77	49.14	18.85	54.68	7.39	0.30	0.62	0.69
1	MgO	588	0.50	16.44	3.47	2.38	1.54	0.06	3.25	21.99

ZONE	FIELD	NSAMPLES	MINIMUM	MAXIMUM	MEAN	VARIANCE	STANDDEV	STANDERR	SKEWNESS	KURTOSIS
1	CaO	588	1.28	8.82	2.84	1.11	1.05	0.04	2.30	7.55
1	Na ₂ O	588	0.33	5.34	1.99	0.36	0.60	0.02	1.80	7.32
1	K ₂ O	588	0.42	3.54	2.18	0.22	0.47	0.02	0.08	0.44
1	TiO ₂	588	0.13	0.92	0.62	0.02	0.15	0.01	-0.26	-0.01
1	P ₂ O ₅	588	0.08	0.49	0.18	0.00	0.04	0.00	1.50	5.76
1	MnO	588	0.02	0.23	0.13	0.00	0.04	0.00	0.19	-0.75
1	Cr ₂ O ₃	588	0.01	0.26	0.03	0.00	0.02	0.00	4.79	38.96
1	V ₂ O ₅	588	0.01	0.05	0.03	0.00	0.01	0.00	0.03	-0.33
1	LOI	588	-1.07	7.59	0.83	0.60	0.78	0.03	3.20	18.57
1	Sum	588	98.10	101.30	99.69	0.33	0.58	0.02	0.02	-0.15
1	Sat	588	0.00	38.15	8.37	70.04	8.37	0.35	1.10	0.59
1	Fetotal	588	1.24	34.37	13.19	26.75	5.17	0.21	0.62	0.69
1	SG_C	566	2.69	3.52	3.01	0.01	0.12	0.01	0.35	0.81
1	OTHER	588	1.07	8.14	4.85	0.69	0.83	0.03	-0.01	2.80

Table 32 – Univariate composite statistics for Zone 101

ZONE	FIELD	NSAMPLES	MINIMUM	MAXIMUM	MEAN	VARIANCE	STANDDEV	STANDERR	SKEWNESS	KURTOSIS
101	BD	887	1.51	3.90	3.25	0.05	0.22	0.01	-2.78	17.75
101	SG	887	0.00	3.68	2.98	0.95	0.97	0.03	-2.62	5.18
101	SiO ₂	887	22.12	71.28	46.63	16.26	4.03	0.14	1.17	6.33
101	Al ₂ O ₃	887	1.50	16.25	6.67	7.15	2.67	0.09	0.84	0.62
101	Fe ₂ O ₃	887	1.79	70.22	37.81	88.63	9.41	0.32	-0.77	0.65
101	MgO	887	0.50	13.72	2.69	1.86	1.36	0.05	3.38	17.58
101	CaO	887	0.91	7.79	2.24	1.18	1.08	0.04	2.00	4.27
101	Na ₂ O	887	0.14	5.65	1.23	0.41	0.64	0.02	1.86	7.16
101	K ₂ O	887	0.30	4.20	1.77	0.24	0.49	0.02	0.16	0.92
101	TiO ₂	887	0.07	0.87	0.31	0.02	0.14	0.00	1.04	1.08
101	P ₂ O ₅	887	0.07	0.46	0.24	0.00	0.05	0.00	0.30	0.58
101	MnO	887	0.02	0.19	0.08	0.00	0.02	0.00	1.09	2.24
101	Cr ₂ O ₃	887	0.01	0.22	0.02	0.00	0.02	0.00	4.47	30.46
101	V ₂ O ₅	887	0.01	0.06	0.01	0.00	0.01	0.00	0.97	2.25
101	LOI	887	-1.94	6.30	0.10	0.56	0.75	0.03	2.14	9.90
101	Sum	887	98.29	101.13	99.79	0.27	0.52	0.02	-0.11	-0.21
101	Sat	887	0.10	52.22	29.60	83.94	9.16	0.31	-0.82	0.92
101	Fetotal	887	1.25	49.11	26.44	43.36	6.58	0.22	-0.77	0.65
101	SG_C	798	2.68	3.68	3.30	0.03	0.16	0.01	-0.52	0.47
101	OTHER	887	0.82	8.71	3.34	1.25	1.12	0.04	0.66	1.10

Table 33 – Univariate composite statistics for Zone 201

ZONE	FIELD	NSAMPLES	MINIMUM	MAXIMUM	MEAN	VARIANCE	STANDDEV	STANDERR	SKEWNESS	KURTOSIS
201	BD	184	1.59	3.54	3.20	0.04	0.19	0.01	-4.24	31.78
201	SG	184	0.00	3.52	3.14	0.30	0.55	0.04	-4.75	22.95
201	SiO ₂	184	41.35	57.70	47.96	7.02	2.65	0.20	0.55	0.39
201	Al ₂ O ₃	184	4.06	15.10	7.99	5.14	2.27	0.17	0.75	-0.05
201	Fe ₂ O ₃	184	14.40	47.50	34.81	42.06	6.49	0.48	-0.56	-0.05
201	MgO	184	1.44	12.49	2.81	1.19	1.09	0.08	5.18	38.84
201	CaO	184	1.26	4.78	2.15	0.32	0.57	0.04	1.29	2.31
201	Na ₂ O	184	0.49	3.60	1.44	0.16	0.40	0.03	0.76	3.83
201	K ₂ O	184	0.63	3.15	1.73	0.19	0.44	0.03	0.11	-0.12
201	TiO ₂	184	0.17	0.80	0.37	0.01	0.12	0.01	0.82	0.49
201	P ₂ O ₅	184	0.12	0.33	0.23	0.00	0.04	0.00	-0.30	-0.64
201	MnO	184	0.05	0.18	0.09	0.00	0.02	0.00	0.91	0.99
201	Cr ₂ O ₃	184	0.01	0.11	0.02	0.00	0.01	0.00	3.18	15.41
201	V ₂ O ₅	184	0.01	0.04	0.02	0.00	0.01	0.00	0.51	0.25
201	LOI	184	-1.62	3.48	-0.02	0.34	0.59	0.04	1.46	6.75
201	Sum	184	98.40	101.10	99.60	0.30	0.55	0.04	0.15	-0.28
201	Sat	184	3.00	44.25	27.60	66.78	8.17	0.60	-0.48	-0.14
201	Fetotal	184	10.07	33.22	24.35	20.58	4.54	0.33	-0.56	-0.05
201	SG_C	175	2.80	3.52	3.25	0.02	0.13	0.01	-0.59	0.59
201	OTHER	184	1.62	6.77	3.58	0.66	0.81	0.06	0.20	0.61

Table 34 – Univariate composite statistics for Zone 301

ZONE	FIELD	NSAMPLES	MINIMUM	MAXIMUM	MEAN	VARIANCE	STANDDEV	STANDERR	SKEWNESS	KURTOSIS
301	BD	116	2.71	3.50	3.10	0.02	0.14	0.01	-0.36	1.06
301	SG	116	0.00	3.45	3.01	0.36	0.60	0.06	-4.50	19.57
301	SiO ₂	116	40.80	70.68	51.04	15.91	3.99	0.37	2.44	9.90
301	Al ₂ O ₃	116	4.34	16.90	9.85	4.75	2.18	0.20	0.43	0.88
301	Fe ₂ O ₃	116	2.86	45.60	28.70	60.58	7.78	0.72	-1.01	2.08
301	MgO	116	1.10	5.75	2.98	0.57	0.75	0.07	0.90	1.31
301	CaO	116	1.13	4.99	2.38	0.48	0.69	0.06	1.02	1.66
301	Na ₂ O	116	1.10	3.19	1.66	0.13	0.36	0.03	1.32	3.71
301	K ₂ O	116	0.66	2.92	1.99	0.14	0.37	0.03	-0.48	0.86
301	TiO ₂	116	0.18	0.90	0.45	0.01	0.11	0.01	0.99	3.03
301	P ₂ O ₅	116	0.10	0.32	0.22	0.00	0.04	0.00	-0.33	0.12
301	MnO	116	0.04	0.21	0.10	0.00	0.02	0.00	1.56	6.63
301	Cr ₂ O ₃	116	0.01	0.06	0.02	0.00	0.01	0.00	1.19	1.81
301	V ₂ O ₅	116	0.01	0.04	0.02	0.00	0.01	0.00	0.10	0.22
301	LOI	116	-0.73	3.79	0.36	0.47	0.69	0.06	2.10	7.31
301	Sum	116	98.12	101.00	99.77	0.26	0.51	0.05	-0.46	0.81
301	Sat	116	0.00	43.30	23.35	74.21	8.61	0.80	-0.85	0.99

ZONE	FIELD	NSAMPLES	MINIMUM	MAXIMUM	MEAN	VARIANCE	STANDDEV	STANDERR	SKEWNESS	KURTOSIS
301	Fetotal	116	2.00	31.89	20.08	29.64	5.44	0.51	-1.01	2.08
301	SG_C	111	2.67	3.45	3.13	0.02	0.13	0.01	-1.30	3.62
301	OTHER	116	2.26	6.01	4.14	0.51	0.71	0.07	0.14	0.10

14.5 Variography

Experimental variograms were calculated by domain, variable and orthogonal direction. Variogram models were fit using a GSLIB semi-automatic fitting program, fixing the sill variance to one and allowing the program to select the optimum nugget effect and structures. Four nested spherical structures were chosen to better fit the variogram's structural complexity. More often than not, the third and fourth structure is not used; however, allowance for 4 nested structures in the semi-automated fitting program allows flexibility and automation during the exploratory process. Angular rotations were fixed to allow the geological assumption of continuity to take precedence.

Variograms for Zone 101 exhibit good stability in the strike direction (major axis) and across strike direction (vertical axis). The down dip direction (semi-major axis) is unstable due to a lack of sufficient fence drilling on sections.

Variograms for zones 1, 201 and 301 are generally less stable than Zone 101 due to less emphasis placed on these zones during exploration drill targeting and sampling.

Variogram parameters are given in tables 35 through 38.

For Zone 101, the Satmagan analysis exhibits a significantly higher nugget variance than the Fe_2O_3 variogram. The standard deviation of the Satmagan standards is an order higher than the Fe_2O_3 standard deviation. Evidence for drift is observed in the QA/QC control charts, which is probably being reproduced in the variance of the reference distribution. Fladgate believes that for further development and upgrading of the resource estimate investigation into this issue is essential.

Table 35 – Variogram parameters Zone 1

ASSAY	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	MgO	CaO	P ₂ O ₅	MnO	LOI	Sat	Fetotal	SG	Other
DOMAIN	1	1	1	1	1	1	1	1	1	1	1	1
VNUM	1	2	3	4	5	6	7	8	9	10	11	12
ANGLE1	35	35	35	35	35	35	35	35	35	35	35	35
ANGLE2	-50	-50	-50	-50	-50	-50	-50	-50	-50	-50	-50	-50
ANGLE3	0	0	0	0	0	0	0	0	0	0	0	0
VAXIS1	3	3	3	3	3	3	3	3	3	3	3	3
VAXIS2	1	1	1	1	1	1	1	1	1	1	1	1
VAXIS3	3	3	3	3	3	3	3	3	3	3	3	3
NUGGET	0.11	0.30	0.00	0.01	0.00	0.26	0.16	0.00	0.28	0.00	0.23	0.13
ST1	1	1	1	1	1	1	1	1	1	1	1	1
ST1PAR1	206.93	151.75	192.21	227.43	226.99	133.26	235.67	185.24	147.19	158.41	179.12	8.00
ST1PAR2	12.05	42.17	12.96	0.87	0.77	35.23	58.01	10.86	46.84	13.25	23.40	16.91
ST1PAR3	33.40	151.75	192.21	3586.40	901.52	33.31	58.16	4432.70	13.90	13.52	217.92	3.19
ST1PAR4	0.20	0.64	0.59	0.31	0.48	0.65	0.39	0.45	0.59	0.59	0.50	0.43
ST2	1	1	1	1	1	1	1	1	1	1	1	1
ST2PAR1	213.44	774.09	257.51	248.62	229.20	969.17	656.96	188.42	522.92	262.35	183.30	78.79
ST2PAR2	20.73	43.11	60.69	66.43	5.30	27592.00	64.93	11.53	47.84	60.96	5955.00	67.70
ST2PAR3	747.59	205.71	200.39	46342.00	42937.00	54148.00	43505.00	9159.10	114.67	201.73	217.93	83.59
ST2PAR4	0.19	0.03	0.35	0.31	0.04	0.08	0.32	0.13	0.11	0.34	0.15	0.15
ST3	1	1	1	1	1	1	1	1	1	1	1	1
ST3PAR1	620.78	777.22	781.47	1780.50	229.29	969.66	658.31	192.03	523.54	775.88	199.97	116.07
ST3PAR2	168.88	24196.00	26515.00	84.61	103.61	28147.00	65.03	54.05	26686.00	13431.00	11806.00	90.94
ST3PAR3	748.41	50800.00	86341.01	49461.00	48064.00	55418.00	43518.00	16133.00	57571.00	47973.00	220.65	60056.00
ST3PAR4	0.39	0.03	0.06	0.22	0.40	0.00	0.10	0.19	0.02	0.01	0.05	0.10
ST4	1	1	1	1	1	1	1	1	1	1	1	1
ST4PAR1	626.10	783.13	784.15	2788.50	1234.40	972.62	659.08	1220.60	526.31	777.63	704.46	610.85
ST4PAR2	170.64	24350.00	26580.00	806.65	103.86	28546.00	66.65	55.19	26984.00	15911.00	38583.00	107.24
ST4PAR3	748.46	51606.00	92948.01	53872.00	48316.00	56601.00	43746.00	17795.00	65620.00	53715.00	60712.00	78437.01
ST4PAR4	0.11	0.00	0.01	0.15	0.09	0.01	0.04	0.24	0.00	0.06	0.06	0.19

Table 36 – Variogram parameters Zone 101

ASSAY	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	MgO	CaO	P ₂ O ₅	MnO	LOI	Sat	Fetotal	SG	Other
DOMAIN	101	101	101	101	101	101	101	101	101	101	101	101
VNUM	13	14	15	16	17	18	19	20	21	22	23	24
ANGLE1	35	35	35	35	35	35	35	35	35	35	35	35
ANGLE2	-50	-50	-50	-50	-50	-50	-50	-50	-50	-50	-50	-50
ANGLE3	0	0	0	0	0	0	0	0	0	0	0	0
VAXIS1	3	3	3	3	3	3	3	3	3	3	3	3
VAXIS2	1	1	1	1	1	1	1	1	1	1	1	1
VAXIS3	3	3	3	3	3	3	3	3	3	3	3	3
NUGGET	0.00	0.24	0.28	0.13	0.18	0.03	0.14	0.00	0.46	0.26	0.23	0.36
ST1	1	1	1	1	1	1	1	1	1	1	1	1
ST1PAR1	73.60	168.12	118.40	37.88	55.59	21.04	115.75	173.73	58.26	108.10	100.51	250.86
ST1PAR2	11.73	22.62	21.31	10.87	22.13	13.31	2.41	0.22	37.20	17.62	15.71	18.97
ST1PAR3	5.24	12.98	90.55	78.28	115.71	8.46	20.01	0.07	51.27	77.65	41.60	20.99
ST1PAR4	0.44	0.39	0.36	0.17	0.78	0.21	0.19	0.37	0.22	0.27	0.24	0.31
ST2	1	1	1	1	1	1	1	1	1	1	1	1
ST2PAR1	655.93	695.85	178.96	43.20	156.44	24.79	226.37	181.92	259.83	125.60	159.17	252.95
ST2PAR2	59.25	58.97	50.70	25.83	24.92	14.35	32.66	2.82	37.60	29.65	51.63	53.87
ST2PAR3	417.82	558.58	24784.00	88.89	138.80	10.34	26.97	22.93	53.05	78.10	37205.00	4402.60
ST2PAR4	0.55	0.22	0.07	0.17	0.02	0.04	0.60	0.16	0.22	0.10	0.24	0.06
ST3	1	1	1	1	1	1	1	1	1	1	1	1
ST3PAR1	671.61	707.99	671.38	174.88	1298.20	258.88	752.05	191.19	539.23	221.60	765.66	621.06
ST3PAR2	8390.50	62.01	50.79	26.13	15512.00	51.67	4016.70	31.08	45.88	50.40	52.30	53.93
ST3PAR3	417.82	559.63	28614.00	95.41	65572.00	230.26	299.98	25.21	20344.00	16625.00	37376.00	4457.90
ST3PAR4	0.01	0.06	0.21	0.51	0.01	0.70	0.02	0.45	0.09	0.10	0.27	0.16
ST4	1	1	1	1	1	1	1	1	1	1	1	1
ST4PAR1	689.23	729.77	672.90	177.51	1304.10	502.68	754.08	1103.60	595.95	706.59	766.26	626.19
ST4PAR2	9482.90	11554.00	52.35	26.48	17055.00	52.99	5582.80	31.93	47.14	51.69	52.97	54.85
ST4PAR3	418.07	559.63	28844.00	136.95	69164.00	742.41	302.47	28.07	20714.00	16764.00	37710.00	4462.40
ST4PAR4	0.00	0.09	0.09	0.03	0.01	0.04	0.06	0.02	0.01	0.26	0.03	0.11

Table 37 – Variogram parameters Zone 201

ASSAY	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	MgO	CaO	P ₂ O ₅	MnO	LOI	Sat	Fetotal	SG	Other
DOMAIN	201	201	201	201	201	201	201	201	201	201	201	201
VNUM	25	26	27	28	29	30	31	32	33	34	35	36
ANGLE1	35	35	35	35	35	35	35	35	35	35	35	35
ANGLE2	-50	-50	-50	-50	-50	-50	-50	-50	-50	-50	-50	-50
ANGLE3	0	0	0	0	0	0	0	0	0	0	0	0
VAXIS1	3	3	3	3	3	3	3	3	3	3	3	3
VAXIS2	1	1	1	1	1	1	1	1	1	1	1	1
VAXIS3	3	3	3	3	3	3	3	3	3	3	3	3
NUGGET	0.22	0.23	0.31	0.00	0.00	0.22	0.15	0.00	0.21	0.40	0.37	0.55
ST1	1	1	1	1	1	1	1	1	1	1	1	1
ST1PAR1	209.04	2.45	134.20	251.49	265.17	42.84	10.87	201.61	62.07	154.86	30.96	4.40
ST1PAR2	1.40	1.80	48.37	1.04	0.58	9.14	6.47	1.82	9.25	85.90	56.55	1.59
ST1PAR3	14.22	5.69	0.82	320.83	492.53	60.85	3.94	47.43	8.31	0.92	0.71	22.39
ST1PAR4	0.28	0.30	0.28	0.52	0.05	0.03	0.23	0.53	0.51	0.20	0.10	0.06
ST2	1	1	1	1	1	1	1	1	1	1	1	1
ST2PAR1	240.00	95.31	136.01	252.85	265.59	91.20	95.50	214.45	108.17	171.79	201.07	11.06
ST2PAR2	47.32	63.94	48.48	1.90	9.52	31.89	14.58	34.18	9.60	196.39	91.29	58.71
ST2PAR3	18.95	11.10	36.38	901.63	544.81	106.43	4.47	73.67	8.65	8.49	18.66	39.77
ST2PAR4	0.25	0.13	0.11	0.34	0.86	0.15	0.55	0.35	0.01	0.08	0.04	0.24
ST3	1	1	1	1	1	1	1	1	1	1	1	1
ST3PAR1	273.24	130.59	162.98	252.87	265.62	247.06	96.63	789.91	165.47	176.91	207.51	25.75
ST3PAR2	49.27	64.04	50.12	3.29	11.06	31.98	33.64	34.33	43.11	201.25	91.90	61.19
ST3PAR3	18.95	11.18	36.53	1292.20	1920.60	131.98	49.23	73.81	9.81	8.49	18.87	40.04
ST3PAR4	0.25	0.33	0.29	0.02	0.09	0.54	0.04	0.11	0.21	0.17	0.49	0.15
ST4	1	1	1	1	1	1	1	1	1	1	1	1
ST4PAR1	333.07	159.27	315.33	56828.00	270.98	831.68	43660.00	800.67	70945.00	177.35	311.36	53.00
ST4PAR2	52.11	66.03	53.28	5.17	12.09	32.90	35.95	36.08	43.15	203.78	94.82	15917.00
ST4PAR3	22.56	12.12	39.43	2691.30	2343.90	313.20	51.14	74.05	9.95	9.51	19.40	34200.00
ST4PAR4	0.00	0.01	0.01	0.12	0.00	0.06	0.04	0.01	0.06	0.15	0.01	0.00

Table 38 – Variogram parameters Zone 301

ASSAY	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	MgO	CaO	P ₂ O ₅	MnO	LOI	Sat	Fetotal	SG	Other
DOMAIN	301	301	301	301	301	301	301	301	301	301	301	301
VNUM	37	38	39	40	41	42	43	44	45	46	47	48
ANGLE1	35	35	35	35	35	35	35	35	35	35	35	35
ANGLE2	-50	-50	-50	-50	-50	-50	-50	-50	-50	-50	-50	-50
ANGLE3	0	0	0	0	0	0	0	0	0	0	0	0
VAXIS1	3	3	3	3	3	3	3	3	3	3	3	3
VAXIS2	1	1	1	1	1	1	1	1	1	1	1	1
VAXIS3	3	3	3	3	3	3	3	3	3	3	3	3
NUGGET	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
ST1	1	1	1	1	1	1	1	1	1	1	1	1
ST1PAR1	261.91	298.68	268.65	235.21	233.68	324.28	262.14	107.46	248.29	269.12	40.67	260.49
ST1PAR2	99.97	28.98	25.93	12.79	12.18	35.58	20.83	25.04	24.80	28.94	18.50	25.76
ST1PAR3	5658.00	59.30	76.10	1519.90	490.74	10.53	1257.40	5042.00	312.25	20.81	2685.40	441.80
ST1PAR4	0.00	0.00	0.46	0.00	0.00	0.00	0.01	0.53	0.02	0.58	0.20	0.17
ST2	1	1	1	1	1	1	1	1	1	1	1	1
ST2PAR1	262.12	301.32	269.49	235.42	234.35	327.76	262.28	148.27	248.62	269.32	66.05	261.17
ST2PAR2	102.66	29.15	27.55	12.83	12.24	36.56	20.96	22689.00	25.35	30.66	59.80	26.28
ST2PAR3	9731.30	59.91	77.84	2700.50	914.04	10.84	5125.40	38075.00	587.27	21.01	27175.00	664.60
ST2PAR4	0.68	0.52	0.24	0.69	0.88	0.88	0.70	0.01	0.47	0.11	0.36	0.71
ST3	1	1	1	1	1	1	1	1	1	1	1	1
ST3PAR1	262.23	301.48	269.55	235.54	234.70	328.66	262.37	160.26	248.65	269.37	77.66	262.32
ST3PAR2	103.36	29.15	28800.00	12.83	12.24	37.92	65.94	29686.00	25.56	28165.00	7870.40	11879.00
ST3PAR3	9790.90	63.87	44131.00	2971.30	979.33	10.85	10176.00	38353.00	929.30	46066.00	32347.00	22905.00
ST3PAR4	0.22	0.38	0.17	0.21	0.02	0.00	0.17	0.15	0.30	0.02	0.22	0.00
ST4	1	1	1	1	1	1	1	1	1	1	1	1
ST4PAR1	263.07	303.24	270.89	240.74	242.33	329.06	262.68	166.62	251.68	269.50	226.01	262.34
ST4PAR2	104.97	29.18	29030.00	13.42	12.40	27188.00	67.29	30332.00	30144.00	32213.00	8373.20	23289.00
ST4PAR3	9869.40	524.91	45885.00	3864.50	1172.60	40698.00	10251.00	42712.00	35368.00	47893.00	34170.00	41907.00
ST4PAR4	0.00	0.00	0.04	0.00	0.00	0.02	0.01	0.21	0.11	0.19	0.12	0.02

14.6 Block Modeling

The wireframe zones mentioned above were filled with 25X12X12 metric blocks rotated by 38 degrees to better match the strike of the zone. Sub-blocking was used to provide a better tonnage representation of each zone.

Ordinary kriging was used to interpolate grades into blocks using multiple search passes to ensure that sufficient blocks were populated with grade. A block model for sample spacing was then generated using GSLIB and transferred to the Datamine Studio 3 block model. A sample spacing model was created to limit the influence of samples, discarding any block grades beyond 300m spacing. Fladgate contends that beyond the 300 metre threshold, with the quality of data available, there is a low probability that the local estimate will be representative.

The variance reduction caused by upscaling of the variance from points to blocks was effectively dealt with using 4X4X4 discretization points. Search ellipse parameters are outlined in table 39.

Table 39 – Search Ellipse parameters for Mineralized Zones

SDESC	Search Volume 1	Search Volume 2	Search Volume 3	Search Volume 4
ZONE	1	101	201	301
SDIST1	800	800	800	400
SDIST2	600	400	400	400
SDIST3	50	50	50	50
SANGLE1	35	35	35	35
SANGLE2	-50	-50	-50	-50
SANGLE3	0	0	0	0
SAXIS1	3	3	3	3
SAXIS2	1	1	1	1
SAXIS3	3	3	3	3
MINNUM1	4	4	4	4
MAXNUM1	40	40	40	40
Search Pass 2				
Expansion Factor	1	1	1	1
MINNUM2	2	2	2	2
MAXNUM2	40	40	40	40
Search Pass 3				
Expansion Factor	2	2	2	2
MINNUM3	2	2	2	2
MAXNUM3	40	40	40	40
MAXKEY	3	3	3	3

14.7 Estimation Validation

The block model was validated using the following techniques:

- Visual inspection of the model
- Swath plots of Satmagan estimates versus composites
- Nearest neighbour estimate and global mean comparison
- Compositional statistics comparison

The model cells validated have been constrained to a maximum of 300 metre sample spacing. Blocks informed by more than 300 metre spaced sampling are considered outside of the resource model.

14.7.1 Visual Inspection of the Model

Stepping through the vertical sections of the model allows the resource modeller to visually assess the integrity of the local estimate. Figure 21 shows a typical vertical section of the main part of the Bending Lake deposit. Down hole grades are relatively well reproduced by the estimation with a level of smoothness introduced by the block kriging technique. The smoothness observed is acceptable at this stage of the project as the current drill hole spacing cannot provide a better local estimate.

Figures 21 and 22 show typical sections through the deposit illustrating the reproduction of composite grades.

14.7.2 Swath Plots

Both the block model and the composites were assigned a vertical section number based on local rotated block model coordinates (Figures 23 and 24). The average Satmagan grade for each section was plotted on a line chart (Figure 25 to 28). The swath plot provides a good indication of reproduction of local estimates and the presence of any conditional bias.

By principle, the model chart should show peaks and troughs in grade at corresponding composite locations with the grade of the model tending towards the global mean, the degree of convergence depending on the smoothness of the estimate. Fladgate is satisfied with the results of the trend analysis.

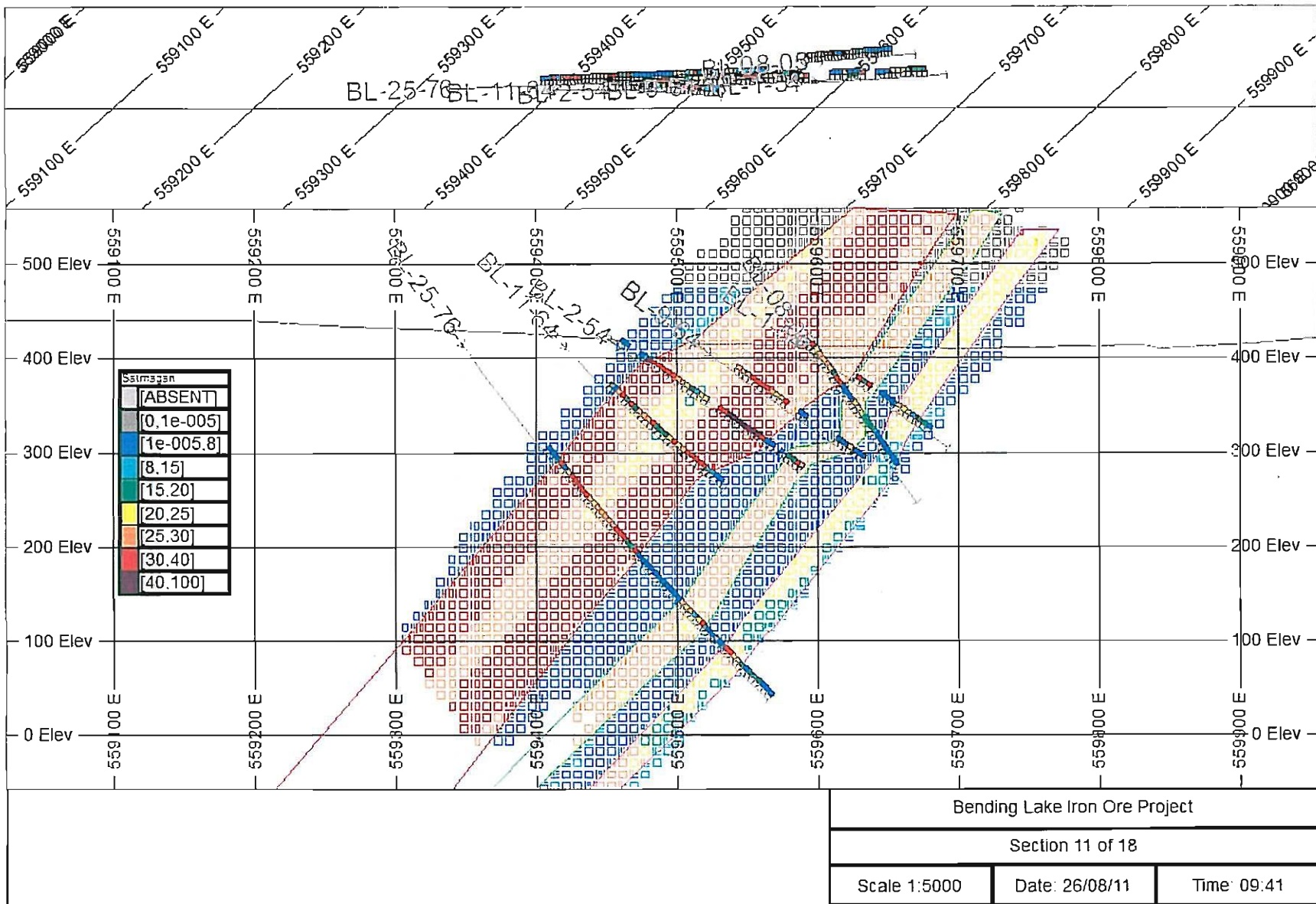


Figure 21 – Cross-section through the main part of the deposit. Satmag is displayed on down hole columns and block model.

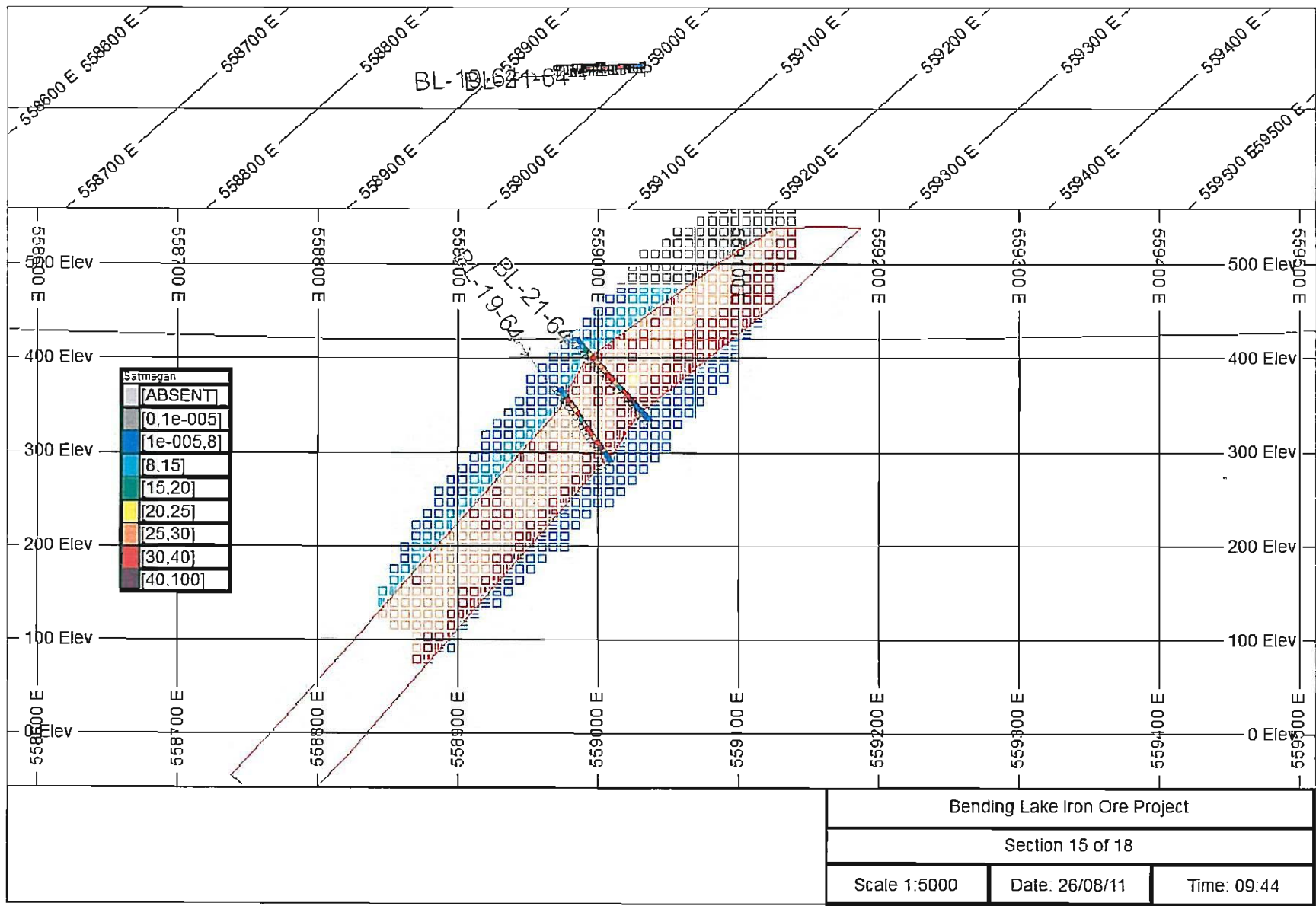


Figure 22 – Cross-section through the South West part of the deposit. Satmag is displayed on down hole columns and block model.

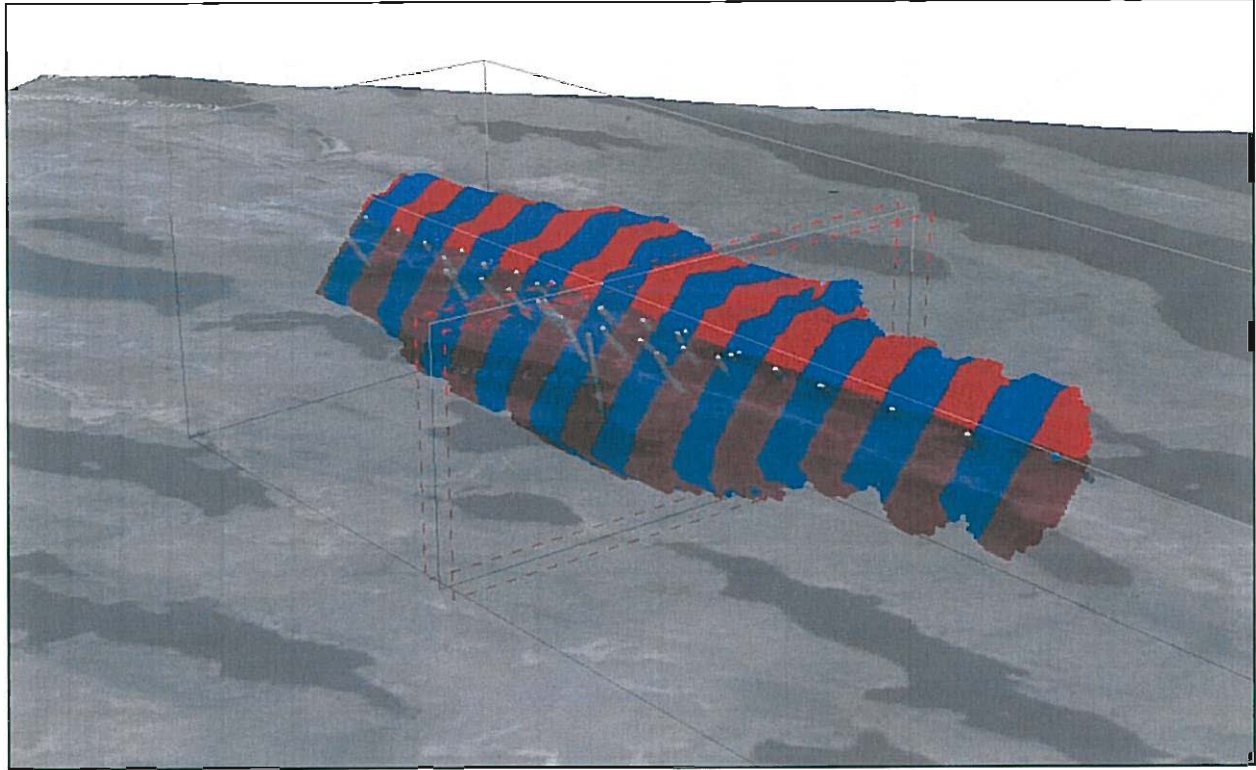


Figure 23 – Block model divided into vertical sections for trend analysis

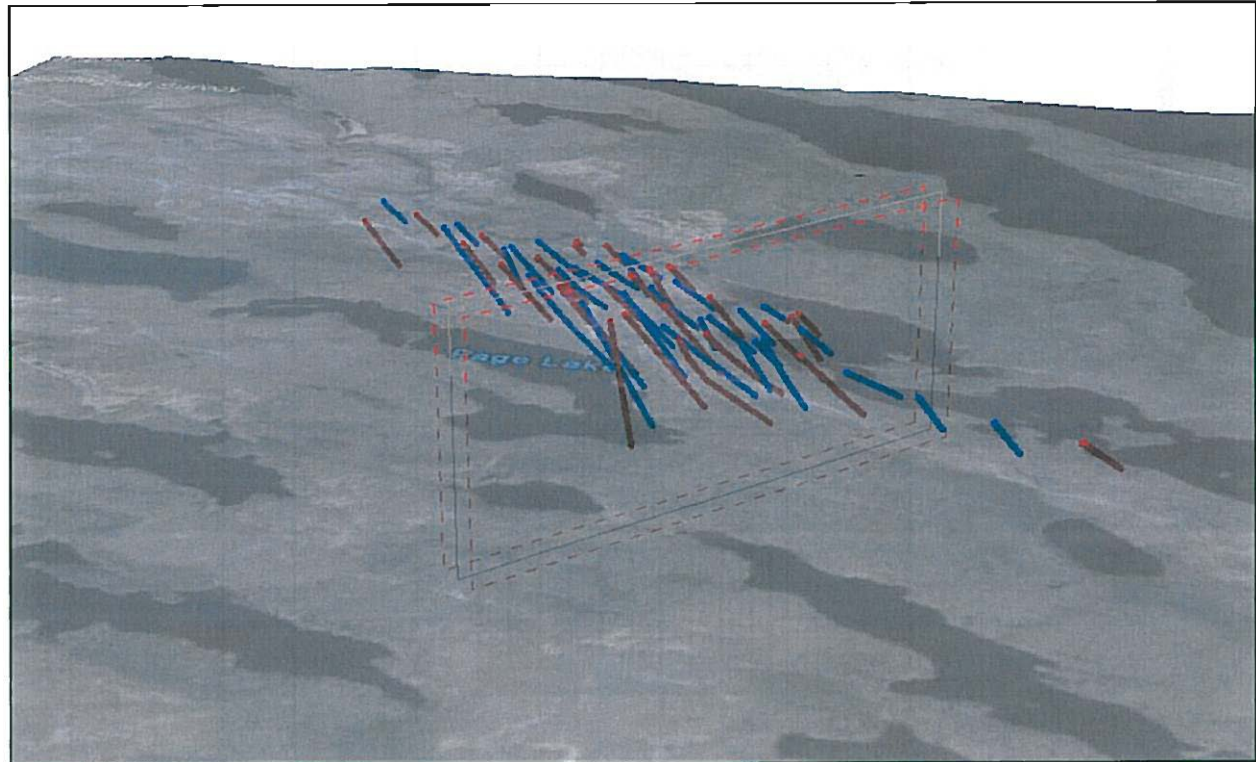


Figure 24 – DDH divided into vertical sections for trend analysis

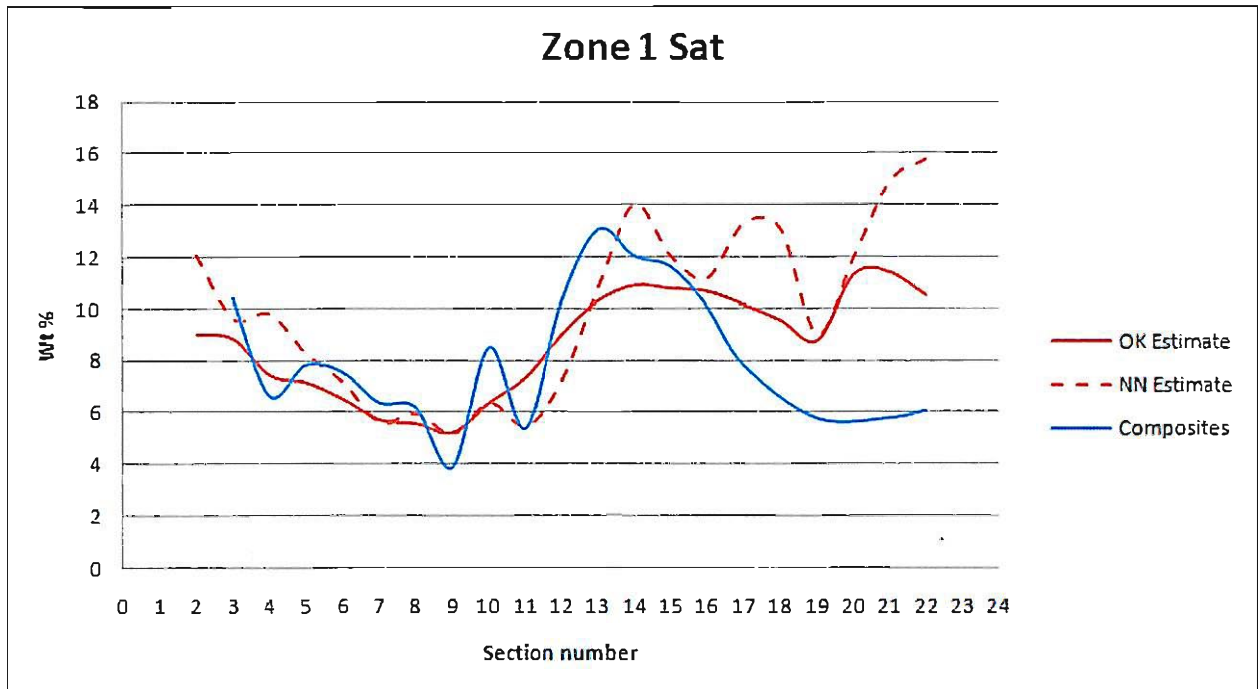


Figure 25 – Zone 1 Satmagan Swath Plot

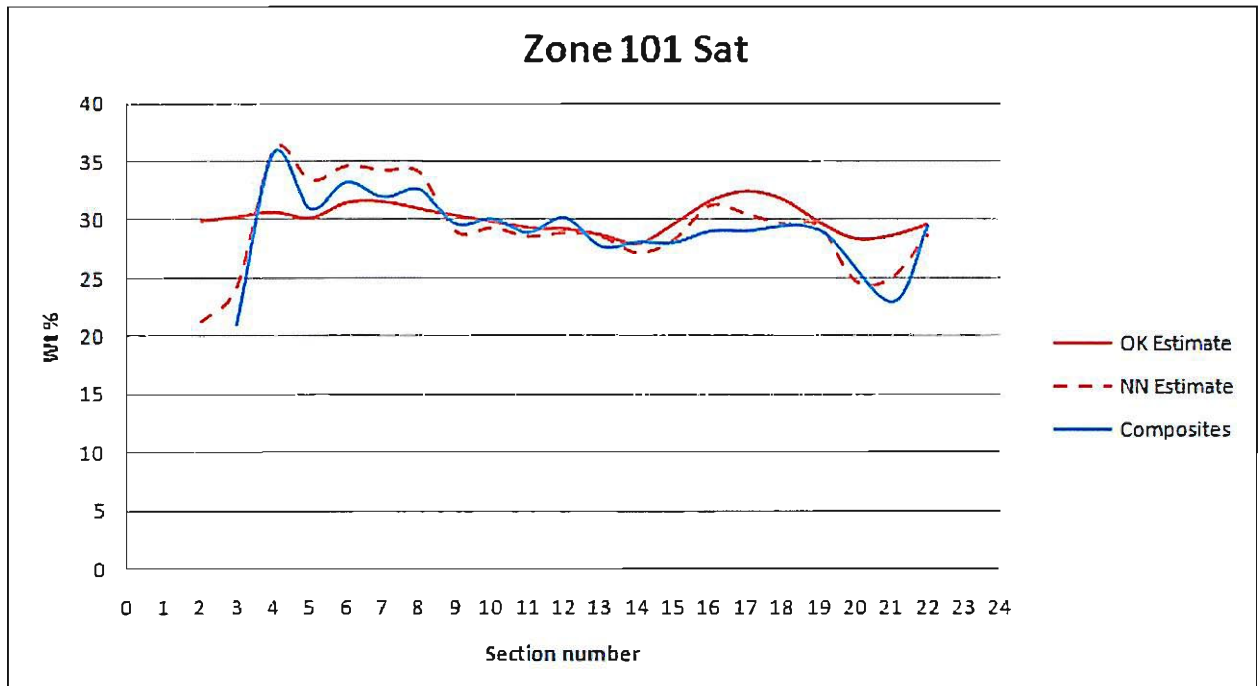


Figure 26 – Zone 101 Satmagan Swath Plot

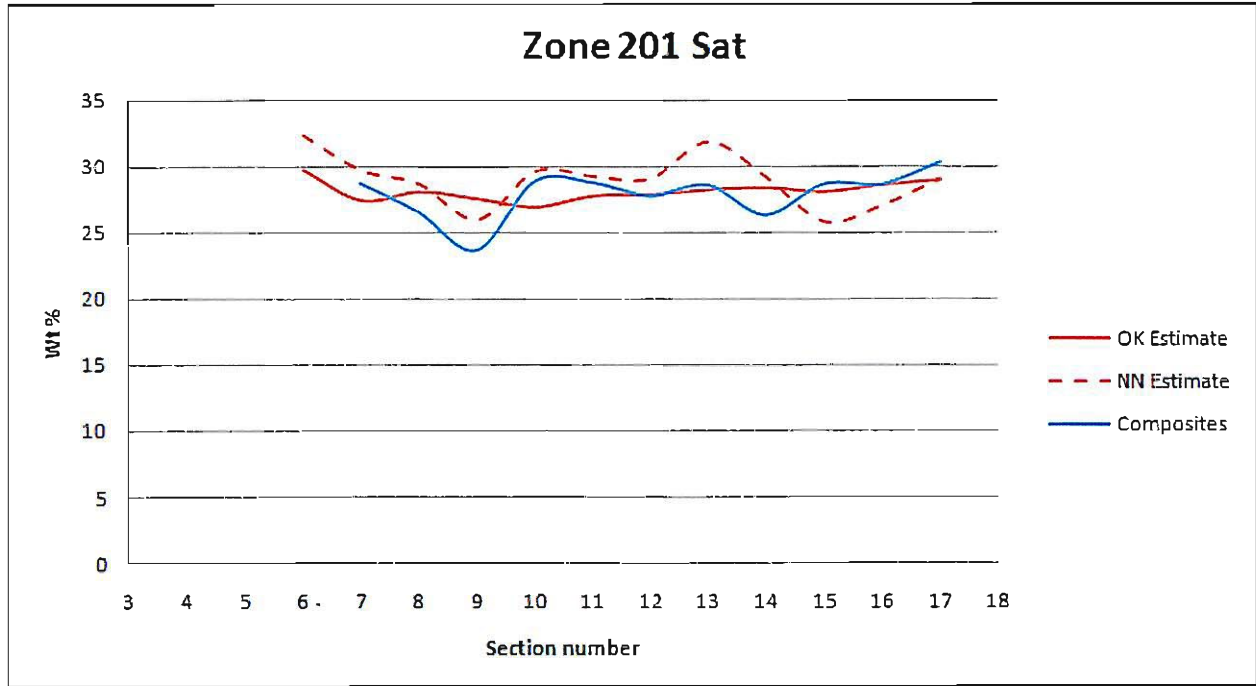


Figure 27 – Zone 201 Satmagan Swath Plot

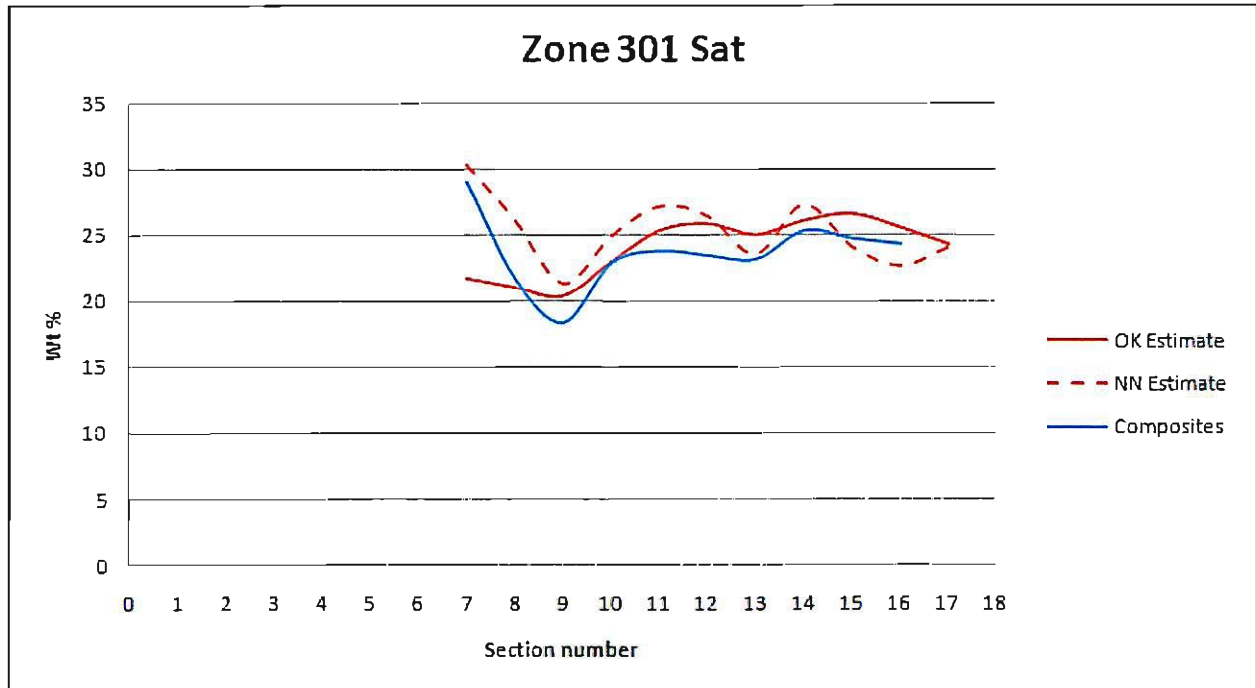


Figure 28 – Zone 301 Satmagan Swath Plot

14.8 Nearest Neighbour and Global Mean Comparison

Reproduction of the global composite mean is a useful validation indicator granted that composites are not overly clustered. The nearest neighbour estimate, on the other hand, provides a mean which is weighted by the influence of each sample. Since both the nearest neighbour and kriged estimates are constrained by a drill hole spacing threshold, the mean of the two are representative of the same volume (table 40).

Table 40 – Block Model, nearest neighbour and global mean comparisons

	ZONE 1			ZONE 101			ZONE 201			ZONE 301		
	OK	NN	COMP	OK	NN	COMP	OK	NN	COMP	OK	NN	COMP
SiO ₂	55.22	55.07	55.16	46.44	46.49	46.63	47.82	47.40	47.96	50.77	50.48	51.04
Al ₂ O ₃	13.35	13.19	13.38	6.56	6.58	6.67	7.93	7.47	7.99	9.59	9.37	9.85
Fe ₂ O ₃	18.89	19.37	18.85	38.30	38.10	37.81	35.08	36.15	34.81	29.18	30.33	28.70
MgO	3.44	3.33	3.47	2.65	2.65	2.69	2.75	2.72	2.81	2.88	2.80	2.98
CaO	2.81	2.75	2.84	2.23	2.26	2.24	2.11	2.11	2.15	2.33	2.23	2.38
P ₂ O ₅	0.19	0.19	0.18	0.24	0.24	0.24	0.24	0.23	0.23	0.22	0.22	0.22
MnO	0.13	0.12	0.13	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.10
LOI	0.82	0.79	0.83	0.09	0.12	0.10	-0.03	-0.07	-0.02	0.35	0.26	0.36
Sat	8.34	8.95	8.37	30.03	29.83	29.60	28.04	28.72	27.60	24.16	25.02	23.35
Fetot	13.25	13.55	13.19	26.78	26.64	26.44	24.54	25.28	24.35	20.35	21.21	20.08
SG_C	3.02	3.02	3.01	3.31	3.31	3.30	3.26	3.27	3.25	3.14	3.16	3.13
OTHER	4.88	4.82	4.85	3.30	3.31	3.34	3.60	3.49	3.58	4.06	3.99	4.14
SUM	99.54	99.44	99.69	99.64	99.58	99.79	99.35	99.35	99.60	99.24	99.54	99.77

14.8.1 Compositional Statistics Comparison

The suite of oxide analyses provided by the lab contains a compositional constraint that can be used for model validation. Since the whole rock is analyzed, the sum of the analyses should add up to 100. By interpolating the constituents into the block model, the modeller can check the estimation by evaluating the resulting summation. A Gaussian distribution around a mean close to 100 suggests effective implementation of estimation parameters (Figures 29 and 30).

However, the analyses of most economic importance, Satmagan and SG, are not part of the compositional constraint. The best approach for these two analyses is to check the reproduction of the correlation coefficients. The shapes of the bivariate scatter will not be well reproduced using linear geostatistical techniques; however, the correlation coefficient should be reproduced within a reasonable range (Table 41).

Fladgate is satisfied with the results of the compositional statistics comparison.

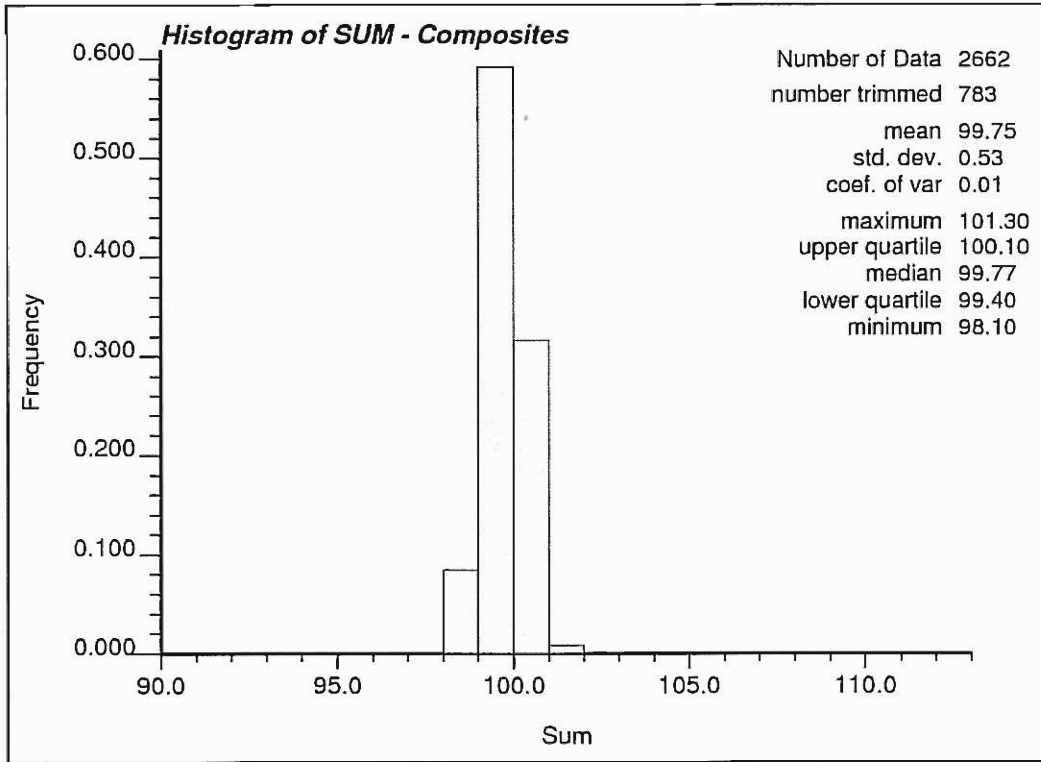


Figure 29 – Histogram of summations of composite constituents

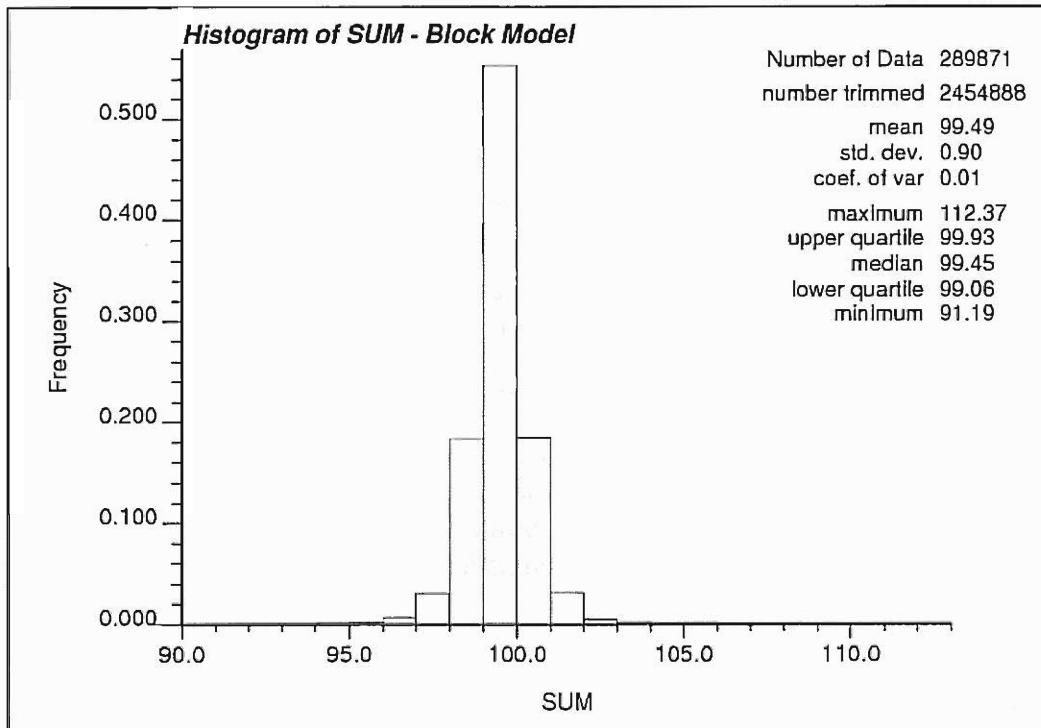


Figure 30 – Histogram of summations of block model constituents

Table 41 – Correlation matrices for SiO₂, Sat and SG

Composites				Blocks			
Zone 1				Zone 1			
	SiO ₂	Sat	SG		SiO ₂	Sat	SG_C
SiO ₂	1.00	-0.54	-0.83	SiO ₂	1.00	-0.66	-0.79
Sat	-0.54	1.00	0.62	Sat	-0.66	1.00	0.74
SG	-0.83	0.62	1.00	SG_C	-0.79	0.74	1.00
Zone 101				Zone 101			
	SiO ₂	Sat	SG		SiO ₂	SG_C	Sat
SiO ₂	1.00	-0.73	-0.92	SiO ₂	1.00	-0.87	-0.74
Sat	-0.73	1.00	0.76	SG_C	-0.87	1.00	0.79
SG	-0.92	0.76	1.00	Sat	-0.74	0.79	1.00
Zone 201				Zone 201			
	SiO ₂	Sat	SG		SiO ₂	SG_C	Sat
SiO ₂	1.00	-0.61	-0.82	SiO ₂	1.00	-0.83	-0.79
Sat	-0.61	1.00	0.40	SG_C	-0.83	1.00	0.76
SG	-0.82	0.40	1.00	Sat	-0.79	0.76	1.00
Zone 301				Zone 301			
	SiO ₂	Sat	SG		SiO ₂	Sat	SG_C
SiO ₂	1.00	-0.79	-0.63	SiO ₂	1.00	-0.85	-0.93
Sat	-0.79	1.00	0.78	Sat	-0.85	1.00	0.92
SG	-0.63	0.78	1.00	SG_C	-0.93	0.92	1.00

14.9 Classification

14.9.1 CIM Definitions

The CIM definitions for Mineral Resources states:

Mineral Resource

Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource.

A Mineral Resource is a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known,

estimated or interpreted from specific geological evidence and knowledge.

The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of technical, economic, legal, environmental, socio-economic and governmental factors. The phrase „reasonable prospects for economic extraction“ implies a judgement by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. A Mineral Resource is an inventory of mineralization that under realistically assumed and justifiable technical and economic conditions might become economically extractable. These assumptions must be presented explicitly in both public and technical reports.

Inferred Mineral Resource

An “Inferred Mineral Resource” is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies. CIM Definitions Standards November 27, 2010 Page 5.

Indicated Mineral Resource

An “Indicated Mineral Resource” is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Preliminary Feasibility Study which can serve as the basis for major development decisions.

Measured Mineral Resource

A “Measured Mineral Resource” is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.

Mineralization or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such that the tonnage and grade of the mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit.

14.9.2 Preliminary Open Pit Optimization

Rene Gharapetian, P.Eng. was consulted by Fladgate to complete a preliminary pit optimization in order to generate nested pit shells for resource reporting purpose.

Whittle software was used for pit optimization to define the optimal economic boundaries of the provided block model for the Bending Lake deposit.

The orebody block model and the area topography wireframe were provided by Fladgate and were imported into GEMS software. The block model provided for optimization did not contain resource categories.

The selected pit shell, as a result of the pit optimization, was used by Fladgate to report the resources.

Sensitivity analysis on any of the parameters was not carried out for this project.

14.9.2.1 Optimization Parameters

The optimization parameters were provided by Bending Lake. The product price, processing recovery and costs, general administration cost, royalty, and the total product cost were used with no adjustments.

The following parameters were either adjusted or added compared to the provided information:

- The overall pit slope angle was adjusted from the provided inter-ramp angle of 45° to 42°, provisionally allowing for in-pit ramping system.
- A 5% mining dilution and 5% mining loss was added to the parameters.
- The provided base waste rock mining cost of \$1.50/t was increased to \$1.65/t allowing for longer haul distances to waste dump.

- The incremental cost per bench of \$0.04/t per 12m bench was provided and was used. However, this item needs to be adjusted in the next phase of the study based on the current consumables prices and costs such as; diesel, lubricant, spare parts, drilling accessory, explosives, etc.

It must be noted that the provided parameters were not independently verified.

The mining cost and the incremental cost adjustment factor appeared to be within the lower end of the possible mining cost range.

The overall slope angle is an industry average that is used for the preliminary optimization and in the next stages this must be supported by geotechnical studies and with an engineered pit design to define the pit slope angle in various pit walls.

The optimization parameters are presented in Table 42.

Table 42 – Pit Optimization Parameters

Item	Value
Overall Slope Angle	42 deg.
MINING (base cost)	
Ore	\$1.85/t
Waste	\$1.65/ t
Cost Adjustment Factor	\$0.04/t per 12m bench
PROCESSING	
Ave. Plant Feed Rate	7.2Mtpa
Ave. Conc. Production Rate	2Mtpa
Processing Cost	\$3.82/t ore
Process Recovery	90%
Weight Recovery	29%
Concentrate Grade	70% Fe
Plant Feed Grade	23% Fe
Pelletizing Cost	\$3.20/t ore
Total Product Cost	\$50/t product
OTHER	
General & Administration	\$2.60/t ore
Royalty	\$0.92/t ore
Product Price (FOB)	\$185/t pellet

14.9.2.2 Optimization Result

The generated nested pit shells as a result of the preliminary pit optimization are presented in Table 43 and Figure 31.

The pit shell number 21 at a revenue factor 0.9, instead of pit shell at revenue factor 1.0, is selected for resource reporting purpose for the following reasons:

- Uncertainties regarding the deposit in depth due to low data density down dip,
- Larger pit shell contains an additional 57% waste tonnage compared to Shell 21 requiring a larger waste dump, increasing the waste haulage costs. This could be in excess to the cost adjustment assumption in the optimization parameters, presented in Table 41.
- Higher strip ratio compared to Shell 21. The provided cost calculation by Bending Lake assumes a stripping ratio of 0.75. Higher stripping ratio may result in a different cost structure that could affect the overall result.

Table 43 –Summary of the Pit Optimization

Pit Shell	Revenue Factor	Cash flow CAD\$M	Above CoG to Plant		Total Waste Mt	Total Rock Mt	Mine Life (year)	SR
			Mt	Fe ₃ O ₄ %				
1	0.50	0	0	39.2	0	0	0	0.28
2	0.52	2	0.2	36.9	0	0.2	0	0.12
3	0.54	5	0.5	36.1	0.1	0.5	0.1	0.11
4	0.56	27	2.5	34.7	0.3	2.8	0.4	0.1
5	0.58	57	5.7	33.9	0.6	6.3	0.8	0.1
6	0.60	92	9.7	33.3	1.1	10.9	1.4	0.12
7	0.62	120	13.1	32.8	1.6	14.8	1.8	0.13
8	0.64	186	22	31.8	3.1	25.1	3.1	0.14
9	0.66	249	31.3	31.1	4.4	35.6	4.3	0.14
10	0.68	367	50	30.3	8.4	58.4	6.9	0.17
11	0.70	462	66.3	30	15.2	81.5	9.2	0.23
12	0.72	548	83	29.5	20.4	103.3	11.5	0.25
13	0.74	699	114.5	28.9	32.8	147.3	15.9	0.29
14	0.76	842	145.9	28.6	53	198.8	20.3	0.36
15	0.78	953	173.1	28.5	72.8	245.9	24	0.42
16	0.80	1,046	198.4	28.2	90.9	289.3	27.6	0.46
17	0.82	1,132	224.3	28.1	111.3	335.6	31.2	0.5
18	0.84	1,246	261.4	28	150.8	412.1	36.3	0.58
19	0.86	1,318	287.7	27.9	186.9	474.5	40	0.65
20	0.88	1,368	309.4	27.9	213.9	523.3	43	0.69
21	0.90	1,426	337.6	27.9	260.3	597.8	46.9	0.77
22	0.92	1,464	363	27.8	296	659	50.4	0.82
23	0.94	1,481	376.3	27.8	320.2	696.5	52.3	0.85
24	0.96	1,491	388.4	27.7	344.8	733.2	53.9	0.89
25	0.98	1,498	400.5	27.7	364.8	765.3	55.6	0.91
26	1.00	1,502	422.6	27.6	408.3	831	58.7	0.97

* Presented Fe₃O₄ grade is diluted by 5%

The calculated marginal Cut-off Grade (CoG) for iron grade in the optimization process is 16.94% Fe₃O₄. It is suggested to report the resources at 17% Fe₃O₄ CoG at this stage.

The selected pit shell 21 is presented in Figure 32 in 12m contour intervals. The overall pit shell dimension is 3.2km by 0.9km with a maximum slope height of 350m (southwest wall). The pit bottom is on 70m elevation and the pit shell day light elevation is 418m at both pit ends (northwest and southeast), 406m in the northeast and 418m in the southwest walls.

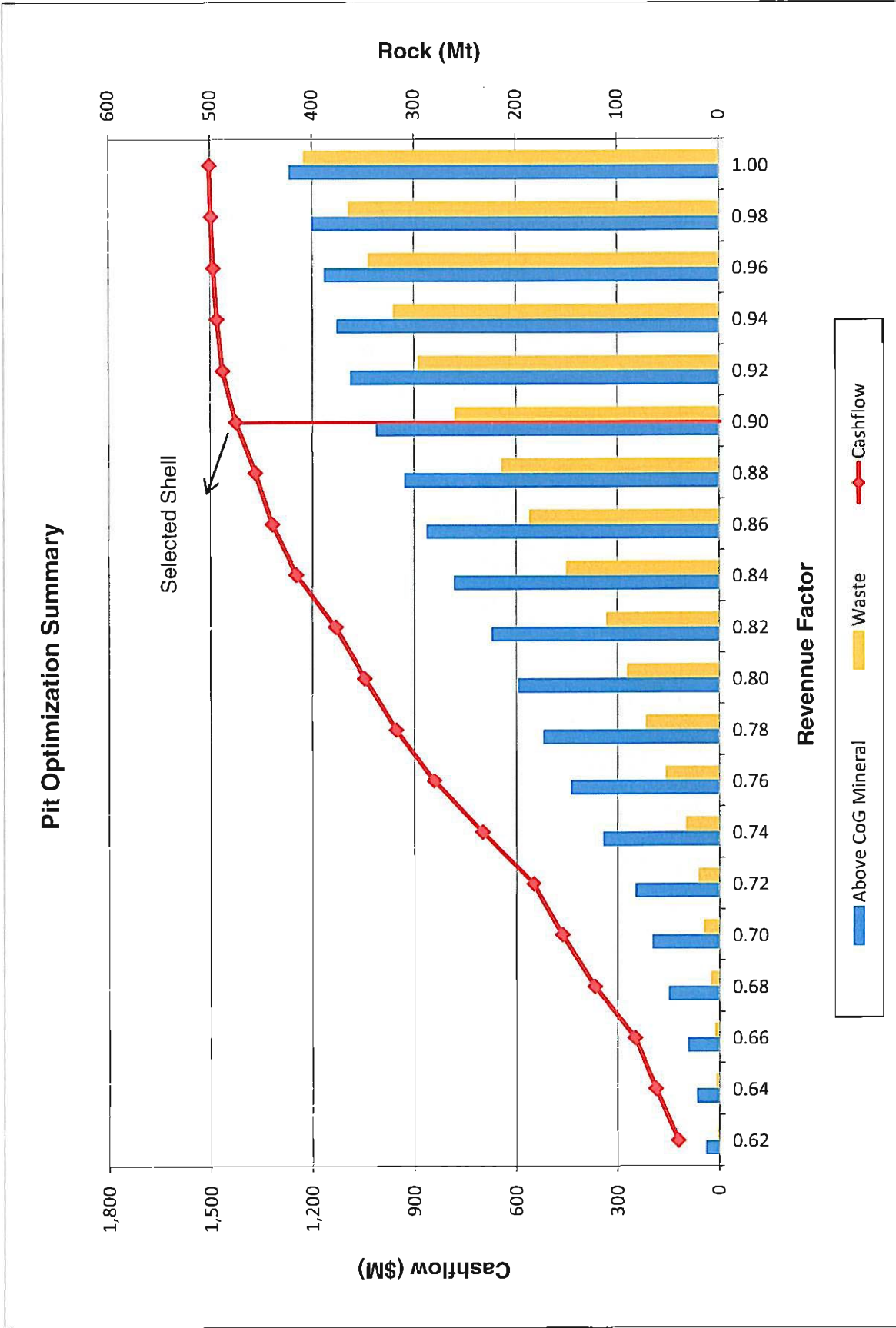


Figure 31 – Summary of the Pit Optimization

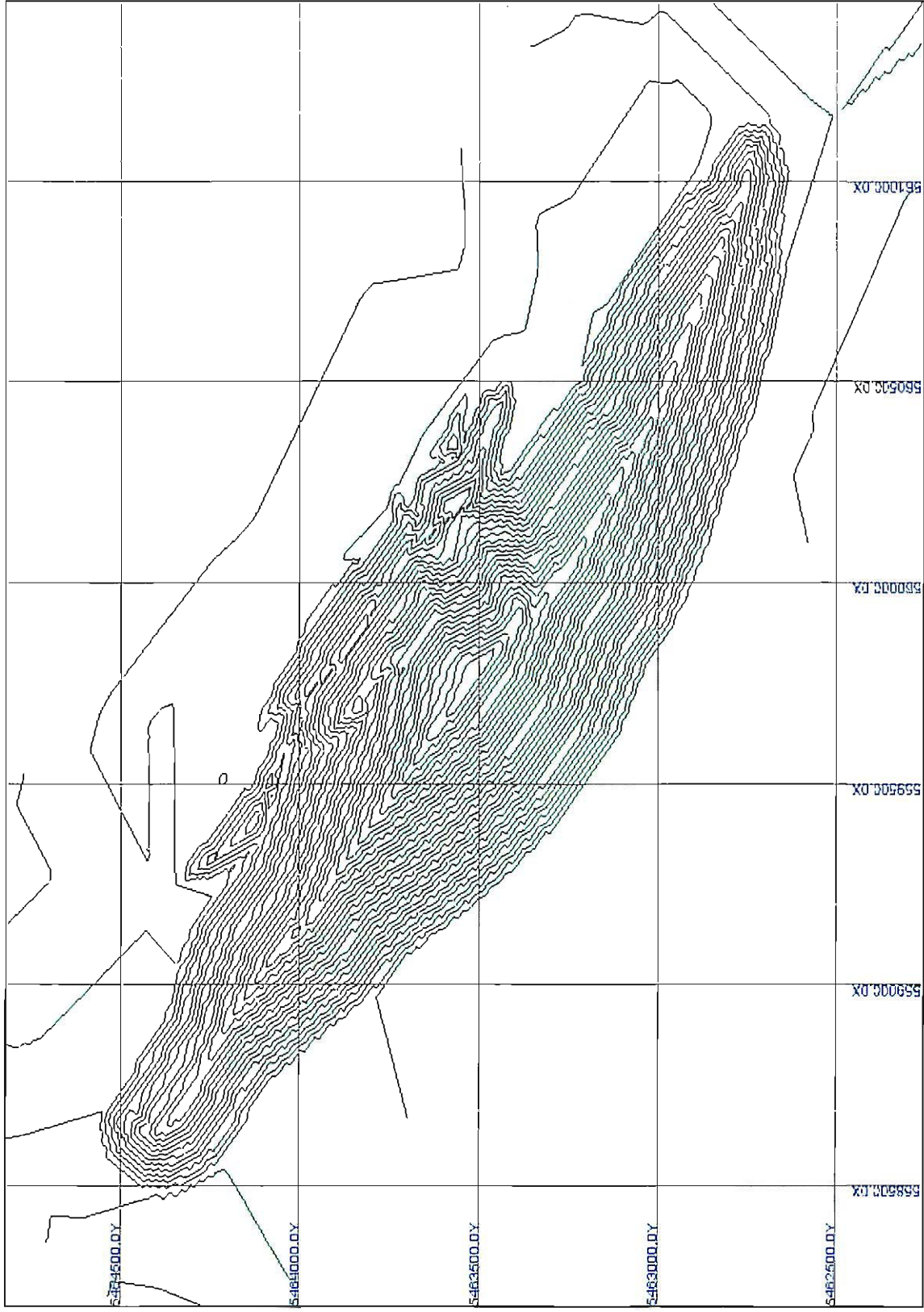


Figure 32 – Pit Shell 21 at 12m contour intervals

14.9.3 Classification of the Bending Lake Iron Ore Deposit

A number of qualitative factors contribute to the classification of the resource estimate stated herein:

- Sample spacing
- Vintage of drilling
- Quality of lab results
- Validation

The Bending Lake sampling grid has been designed based on 150m grid spacing with an average of three holes per grid line. While the drill hole layout provides reasonable confidence in the along strike direction, the down dip direction is poorly defined. Variogram stability is significantly weaker in the down dip direction; uncertainty in this direction is far greater. With the lack of down dip data in mind, Fladgate evaluated pit optimization iterations based on revenue factors and selected the optimum pit shell with the most reasonably informed pit bottom.

The majority of the drill holes belong to drilling campaigns conducted between the 1950's and 1980's. Fladgate Exploration was commissioned in 2008 to re-log and re-sample these drill holes and did so with relative success with the exception of minor missing intervals which have been excluded from the database.

There is evidence for an issue related to the Satmagan analysis. The variogram for Zone 101 Satmagan shows a higher nugget effect than the Fe₂O₃ analysis. Fladgate is concerned about this issue in an estimation/geostatistical context but believes that the issue is not material to the resource estimate. Based on experience gained during the 2008 QA/QC program, it is evident that there is room for improvement in QA/QC scrutinising and interaction with the lab. However, based on the general homogeneity exhibited by the deposit, classification of the deposit is not heavily reliant on the quality of the QA/QC program. In general, deviations do not lead to extraneous estimates.

The estimates validate well, especially for the most well informed domain, Zone 101. Besides for some smoothing (inherent to kriging), the composite statistics are effectively reproduced.

The final classification of the Bending Lake resource estimate is based on a combination of qualitative and quantitative criteria which contribute towards the quality of the global and local estimate. Globally, the estimate is a good representation of the quantity of metal contained and the blocks falling within the optimized pit shell exceed the minimum criteria, as defined by CIM definitions, for inferred category. In the central thickened part of Zone 101, the drill density is significantly tighter than the surrounding resource areas (figure 33). In this region, there is better down dip continuity confirmation and as seen on swath plots, better local estimates. For this reason, Fladgate formulated minimum criteria for classification of blocks as indicated category. All blocks falling inside of the pit shell, not categorized as indicated are deemed inferred resources. The criteria for indicated resource classification selected by Fladgate are as follows:

1. A minimum of three drill holes per section
2. Drilling spaced approximately 150m or less apart
3. Visual inspection of prospective indicated regions
4. Consideration for qualitative parameters affecting the estimation of each zone
5. Blocks falling within Zone 101

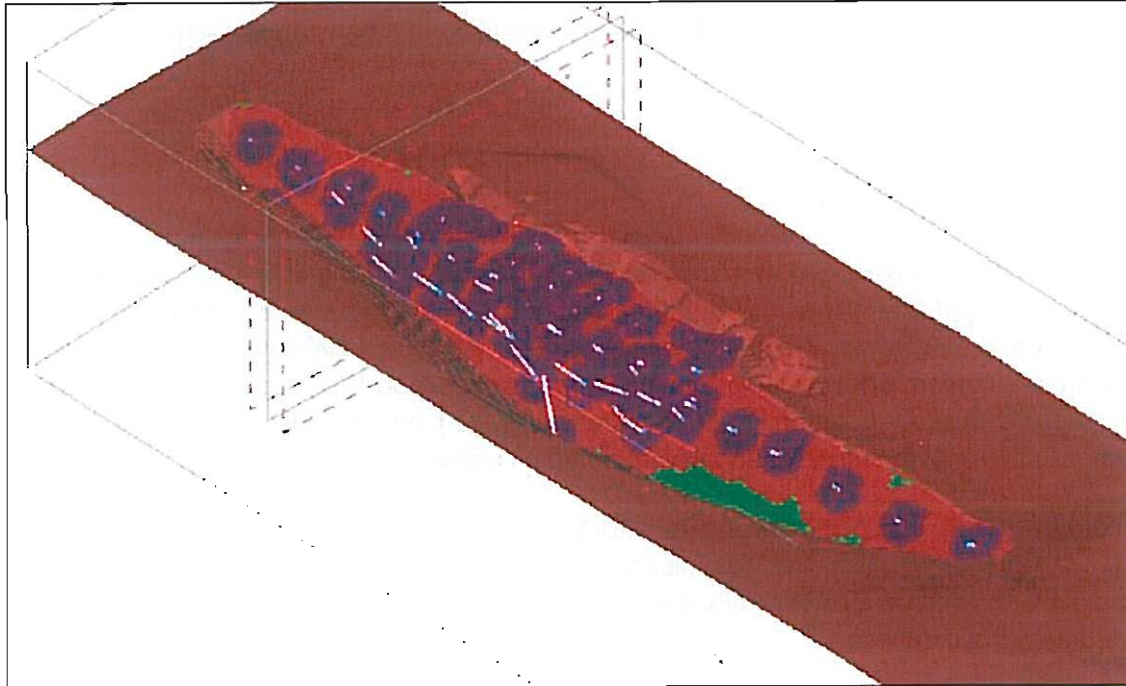


Figure 33 – Drill hole spacing block model. Purple blocks are flagged by the 75m ellipse while red blocks are flagged by the 150m ellipse and green blocks are flagged by the 225m ellipse.

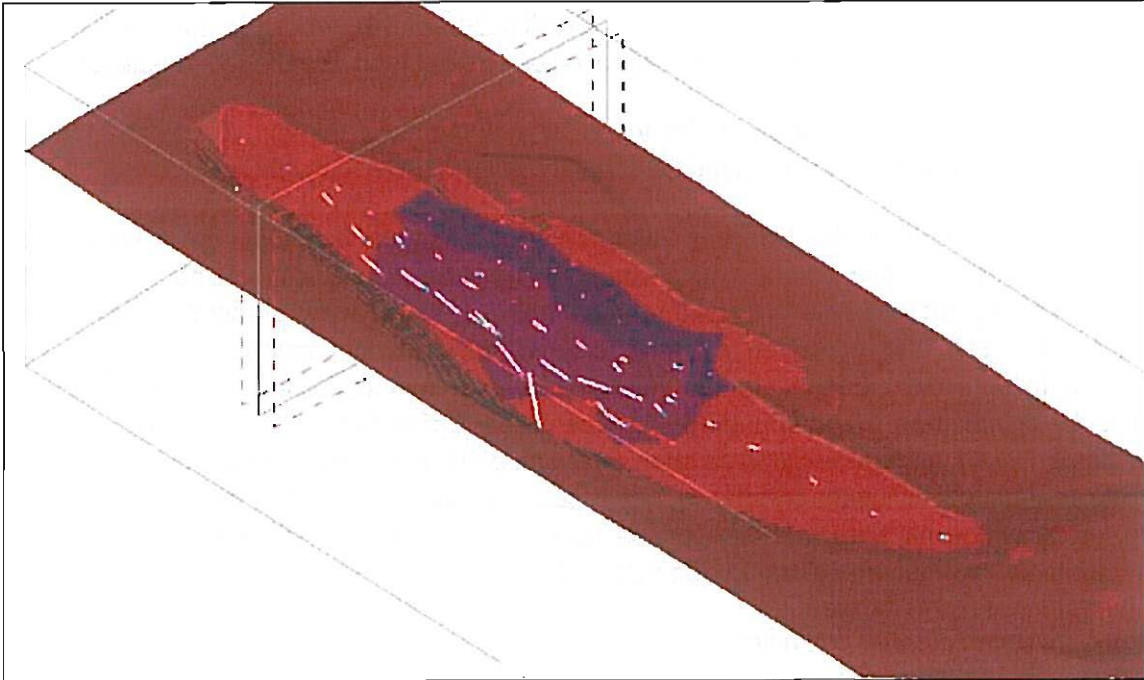


Figure 34 – Classification of the Bending Lake Iron Formation. Purple is indicated and red is inferred.

14.10 Resource Statement

The inferred mineral resources for the Bending Lake Iron Ore Project are shown below in Table 44.

Table 44 – In-Situ Resource table for the Bending Lake Iron Ore Project

Indicated Category													
Domain	TONNES (M)	VOLUME (M)	SiO2	Al2O3	Fe2O3	MgO	CaO	P2O5	MnO	LOI	OTHER	SG	Sat
[ABSENT]	-	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-	-
101	185.2	56.2	46.69	6.69	37.68	2.72	2.23	0.25	0.08	0.07	3.39	3.30	29.59
201	-	-	-	-	-	-	-	-	-	-	-	-	-
301	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	185.2	56.2	46.69	6.69	37.68	2.72	2.23	0.25	0.08	0.07	3.39	3.30	29.59
Inferred Category													
Domain	TONNES (M)	VOLUME (M)	SiO2	Al2O3	Fe2O3	MgO	CaO	P2O5	MnO	LOI	OTHER	SG	Sat
ABSENT	-	-	-	-	-	-	-	-	-	-	-	-	-
1	0.5	0.2	51.19	10.52	27.15	3.01	2.35	0.22	0.10	0.39	4.45	3.14	19.22
101	124.8	37.5	46.03	6.40	39.28	2.52	2.20	0.23	0.08	0.07	3.14	3.33	31.02
201	20.1	6.2	47.97	8.02	34.76	2.81	2.10	0.23	0.09	0.01	3.63	3.25	27.91
301	6.0	1.9	49.75	9.00	31.33	2.80	2.31	0.22	0.09	0.17	3.85	3.17	26.33
Total	151.4	45.7	46.45	6.73	38.32	2.57	2.19	0.23	0.08	0.06	3.24	3.31	30.38

Notes:

1. The mineral resource estimate is entirely classified as inferred mineral resources.
2. CIM Definition Standards were followed for mineral resources.
3. The mineral resource has been estimated at a pit discard cut-off grade of approximately 17% magnetite ore (Satmagan), using a preliminary Whittle pit shell to constrain the resource estimate and other assumed pit parameters.
4. The mineral resource has been estimated using a 29% weight recovery, 90% process recovery, and \$185/t of product.
5. Specific Gravity (bulk density) was interpolated into model cells.
6. Ordinary kriging was used to inform block grades inside of wireframe solids representing geological domains.
7. Mineral resources that are not mineral reserves do not have demonstrated economic viability.
8. Numbers may not add due to rounding.

15 Adjacent Properties

There are no adjacent properties to the Bending Lake Property.

A rich iron mining heritage exists approximately 80 kilometres south of the property near the town of Atikokan, Ontario. Descriptions of iron ore production below are taken from the Ontario Government MDI database found on their website, www.mndmf.gov.on.ca.

Iron ore potential in the Atikokan area was first observed by William McInnis in 1897. Exploration and mine development first began around Steep Rock Lake in 1930. In 1932 an exploration adit was sunk on the south side of Steep Rock Lake and high grade hematite was discovered. In 1940 Midwest Iron Mining Corporation purchased the Steep Rock Lake ground from a prospector named Tom Rawn. In March of 1940 Mr. Rawn created Rawn Iron Mines Ltd. and disappeared near Sapawe just four months later, on July 23, 1940. His remains were never discovered.

Steep Rock Mines produced 71.7M tonnes (79M tons) of 56.5% iron from three zones, Hogarth, Errington and Roberts, between 1944 and 1979. Rawn Iron Mines produced 6.1M tonnes (6.7M tons) of 12% iron ore for 780,000 tons of concentrate between 1958 and 1965 from the Canadian Charleson Mine. Pre-development reserves were estimated at 41.7M tonnes (46M tons) of 16% Fe for 6.97M tonnes (7.68M tons) iron ore. Caland mining company shipped 39.6M tonnes (43.6M tons) of iron ore between 1960 and 1979; in 1965 the built a processing and pelletizing plant. Caland produced from seven separate zones, Centre, Steep Rock C, Extension, Island, Lime Bay, North Mink and South Mink Zones.

Iron ore exploration commenced in 1900, approximately 20 kilometres east of Atikokan, near Sapawe, Ontario. By 1912 a total of five exploration shafts and 82,263.5 tonnes (90,680 tons) of 59.8% Fe, 0.11% P, 8.86% SiO₂ and 2.01% S had been mined from the Atikokan Iron Mine. C.M. Wild reported 1.5M tonnes (1.7M tons) of 53.7% Fe, 0.13% P, 12.15% SiO₂ and 3.96% S in 1913. In 1972 iron ore reserves were estimated at 21.8M tonnes (24M tons) of 35% Fe and 0.40% Cu at the Atikokan Iron Mine.

16 Other Relevant Data and Information

Fladgate is not aware of any other relevant data or information that is pertinent to this report and which is not disclosed within this report. All available and relevant technical reports and data relating to the Bending Lake Property have been this report. The author is not aware of any information not used for this report the omission of which could make this report erroneous or misleading.

17 Interpretations and Conclusions

Based on a review of exploration work, previous and current, as well as historic pre-feasibility and feasibility studies, Fladgate has prepared this first time disclosure of an NI 43-101 compliant resource estimate for Bending Lake.

Bending Lake recovered all available historic drill core on the property to log and re-sample. A total of forty-nine (49) diamond drill holes comprising approximately 10,187 metres was logged and

sampled. Approximately 11% of the historic drill core could not be recovered. Numerous intervals of iron formation were among the missing core. In 2008 a total of eight (8) BQ-size diamond drill holes were completed for 2,357 metres; four of which twinned historic holes to replace gaps in the core and were useful for confirming collar location, down hole lithology and investigating variance related to different sample supports.

Database validation and a 10% assay check show no major errors in the database. QA/QC standards control charts for the 2008 re-sampling and drilling campaign have revealed that there is an apparent drift of assay results from the Satmagan instrument. However, Fladgate does not believe that lab error discussed herein will have any material impact on the resource estimate. Fladgate deems the integrity of the database, in light of the QA/QC results, appropriate for resource estimation purposes.

A geologic model was interpreted from the current database; lithologic contacts were confirmed by plotting iron and aluminium content. Although it is understood that the iron formation consists of a plunging, inclined fold system, three domains were used, simplified to sheet-like tabular bodies (zones 101, 201 and 301). Variograms for the major and semi-major directions of continuity are not compromised based on the geological domain interpretations. The variography suggest the current data density provides reasonable confidence along strike; variogram stability in the down dip direction is poorly defined due to low data density.

The Bending Lake resource is classified based on a combination of qualitative and quantitative criteria relating to:

- Sample spacing
- Vintage of drilling
- Quality of lab results
- Validation

To increase data confidence of the Bending Lake resource additional drilling will be required. The objectives of this drilling will be to fill in gaps in the data, increase variogram stability and add detail to the geological model. Drill programs will require QA/QC monitoring to decrease lab error such as instrument calibration which will lead to increased data confidence. Drilling fences and testing the +300 metre vertical depth below the potential open pit is also necessary to bolster variogram stability in the dip direction and to define the bottom of the proposed open pit resource which remains open to depth.

Fladgate believes that the ongoing efforts at Bending Lake should concentrate on upgrading the resource categories and advancing the overall project by producing the following NI 43-101 compliant studies: preliminary economic assessment, prefeasibility study and finally a feasibility study.

18 Recommendations

On the basis of the current inferred resource estimate, and to further exploration and development on the Bending Lake Property, Fladgate recommends that Bending Lake complete the following:

- implement an auditable and secure commercial core logging software program
- in addition to the currently planned along strike drilling, drill fences on section to define the down dip extensions of the ore body and pit bottom
- continual lab monitoring and QA/QC checks
- check Satmagan analysis for blanks and standards and that a calibration schedule be designed in conjunction with the lab

Fladgate recommends Bending Lake drill approximately 10,000 metres of BQ-size diamond drill holes. The purpose of this drilling would be two fold, serving to upgrade the current resource envelope and to support potentially economic resource blocks currently falling outside of the reported pit shell. Fladgate estimates 10,000 metres of drilling is necessary for in-fill definition drilling and to expand the down-dip continuity of the ore body to the proposed pit bottom, testing greater than 300 metres vertical depth below surface. Fladgate estimates a budget of approximately CAD\$2.3M to complete the estimated 10,000 metres of diamond drilling and to update the resource estimate (table 45).

Table 45 – Budget for proposed exploration, Bending Lake Property

Budget Item	Total (CAD\$)	Comments
Commercial Core Logging Software	\$10,000	e.g. GEMS Logger or DH Logger
Diamond Drilling (10,000 metres)	\$1,750,000	BQ-Size Diamond Drill Holes
Resource Upgrade	\$120,000	Upgrade current resource
Subtotal	\$2,030,000	
Contingency (15%)	\$304,500.00	
TOTAL CAD\$	\$2,334,500	

In addition to these recommendations, Fladgate suggests Bending Lake complete an independent audit of the internal petrography report prepared by Raoul (2009) to confirm the results of this work. Modernize the positive capital and operating cost estimates completed by Canadian Bechtel in 1977 using current economic parameters and update the metallurgical testing on the deposit. An updated resource estimate should also be completed incorporating the 2011 diamond drilling and the additional drilling recommended by Fladgate.

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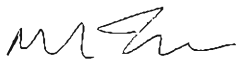
20 Date

This Report, titled "Independent Technical Report, Bending Lake Property, Kenora Mining District, Ontario, Canada", effective September 13th, was prepared and signed by the following author:



Jason P. Arnold, P.Geo., H.B.Sc., (APGO 1662)
November 24th, 2011
Thunder Bay, Ontario, Canada

This Report, titled "Independent Technical Report, Bending Lake Property, Kenora Mining District, Ontario, Canada", effective September 13th, was prepared and signed by the following author:



Michael Thompson, P.Geo., B.Sc., (APGO 1521)
November 24th, 2011
Thunder Bay, Ontario, Canada

This Report, titled "Independent Technical Report, Bending Lake Property, Kenora Mining District, Ontario, Canada", effective September 13th, was prepared and signed by the following author:



Sean Horan, H.B.Sc.
November 24th, 2011
Thunder Bay, Ontario, Canada

This Report, titled "Independent Technical Report, Bending Lake Property, Kenora Mining District, Ontario, Canada", effective September 13th, was prepared and signed by the following author:

("Signed") Rene Gharapetian

Rene Gharapetian, P.Eng., B.Sc., (APEO 100055424)
November 24th, 2011
Thunder Bay, Ontario, Canada

21 Appendix I Certificate of the Author

CERTIFICATE OF THE AUTHOR

Jason Arnold

195 Park Avenue
Thunder Bay, Ontario
Canada, P7B 1B9
Telephone: 807.345.5380
Email: jason.arnold@fladgateexploration.com

I, Jason Arnold, do hereby certify that:

- I am a Senior Geologist with the geological consulting firm of Fladgate Exploration Consulting Corporation.
- I am a member in good standing of the Association of Professional Geoscientists of Ontario (APGO 1662).
- I am a graduate of the University of Ottawa, Ontario, Canada, H.B.Sc. Earth Science, 2000.
- I have practiced geology continuously since 2000.
- I have performed geological mapping, core logging, database and QA/QC management, ore definition modeling and technical reporting.
- I am a qualified person under the definition for 'qualified persons' as set out by NI 43-101.

My previous involvement with the property that forms the subject of this Technical Report is none.

I last visited the Bending Lake Property, at Bending Lake, Ontario, Canada on June 1st, 2011.

I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Reports, the omission to disclose which makes the Technical Report misleading.

I am independent of the parties involved in the transaction for which this report is required, other than providing consulting services, as per Section 1.4 of NI 43-101.

I have read National Instrument 43-101, companion policy NI 43-101CP and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

I am responsible for Sections 1.0-13.0 and 18.0-20.0; I have reviewed Sections 14.0-17.0 of the Technical Report titled 'NI 43-101 INDEPENDENT TECHNICAL REPORT, RESOURCE ESTIMATE, BENDING LAKE PROPERTY' dated September 13th, 2011.

I consent to the filing of this Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their website accessible by the public.

Dated this November 24th, 2011.

Jason Arnold, P. Geo., B.Sc. (APGO 1662)



CERTIFICATE OF THE AUTHOR

Michael Thompson

195 Park Avenue
Thunder Bay, Ontario
Canada, P7B 1B9
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I, Michael Thompson, do hereby certify that:

- I am a principal geologist with the consulting firm of Fladgate Exploration Consulting Corporation.
- I am a member in good standing of the Association of Professional Geoscientists of Ontario (APGO 1521).
- I am a graduate of the University of Toronto, Ontario, Canada, B.Sc. Geology, 1997.
- I have practiced geology continuously since 1997.
- I have designed and implemented research projects, grassroots, advanced and mine exploration programs in precious, base metal and industrial mineral programs in North and South America.
- I am a qualified person under the definition for 'qualified persons' as set out by NI 43-101.

My previous involvement with the property that forms the subject of this Technical Report was the preparation of an NI 43-101 Independent Technical Report for Bending Lake entitled "Independent Technical Report, Bending Lake Property, Kenora Mining District, Ontario, Canada", effective November 1st, 2008.

I last visited the Bending Lake Property, at Bending Lake, Ontario, Canada on September 18th, 2008.

I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Reports, the omission to disclose which makes the Technical Report misleading.

I am independent of the parties involved in the transaction for which this report is required, other than providing consulting services, as per Section 1.4 of NI 43-101.

I have read National Instrument 43-101, companion policy NI 43-101CP and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

I am responsible for Sections 6.0-8.0, excluding Sections 6.3, 7.2.2, 7.4 and 7.9 of the Technical Report titled 'NI 43-101 INDEPENDENT TECHNICAL REPORT, RESOURCE ESTIMATE, BENDING LAKE PROPERTY' dated September 13th, 2011.

I consent to the filing of this Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their website accessible by the public.

Dated this November 24th, 2011.



Michael Thompson, P.Ge., B.Sc. (APGO 1521)

CERTIFICATE OF THE AUTHOR

Sean Horan

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I, Sean Horan, do hereby certify that:

- I am a resource modeler for the geological consulting firm of Fladgate Exploration Consulting Corporation.
- I have applied for membership to the Association of Professional Geoscientists of Ontario (APGO 11099).
- I am a graduate of Rhodes University, Grahamstown, South Africa. H.B.Sc. Geology, 2004.
- I have practiced geology continuously since 2005.
- I have performed geological mapping, core logging, underground beat, database management, ore definition modeling and resource modeling.
- I am not a qualified person under the definition for 'qualified persons' as set out by NI 43-101.

My previous involvement with the property that forms the subject of this Technical Report is none.

I last visited the Bending Lake Property, at Bending Lake, Ontario, Canada on June 1st, 2011.

I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Reports, the omission to disclose which makes the Technical Report misleading.

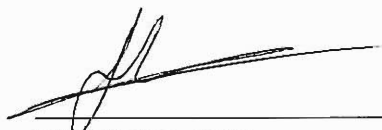
I am independent of the parties involved in the transaction for which this report is required, other than providing consulting services, as per Section 1.4 of NI 43-101.

I have read National Instrument 43-101, companion policy NI 43-101CP and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

I am responsible for Sections 14.0-17.0, excluding Section 17.9.2 of the Technical Report titled 'NI 43-101 INDEPENDENT TECHNICAL REPORT, RESOURCE ESTIMATE, BENDING LAKE PROPERTY' dated September 13th, 2011.

I consent to the filing of this Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their website accessible by the public.

Dated this November 24th, 2011.



Sean Horan, B.Sc.

CERTIFICATE OF THE AUTHOR

Rene Gharapetian

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I, Rene Gharapetian, do hereby certify that:

- I am an independent contractor requested by the geological consulting firm of Fladgate Exploration Consulting Corporation to complete an open pit optimization on the Bending Lake Resource.
- I am a member in good standing of the Professional Engineers of Ontario (APEO 100055424).
- I am a graduate of the University of Tehran, Tehran, Iran. B.Sc. Mining Engineering, 1990.
- I have practiced geological engineering continuously since 1990.
- My expertise is in pit optimization, mine design, scheduling, fleet estimation and mining cost estimation.
- I am a qualified person under the definition for 'qualified persons' as set out by NI 43-101.

My previous involvement with the property that forms the subject of this Technical Report is none.

I have not visited the Bending Lake properties and have relied on Fladgate QP, who has visited the site, to flag and report any material issues.

I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Reports, the omission to disclose which makes the Technical Report misleading.

I am independent of the parties involved in the transaction for which this report is required, other than providing consulting services, as per Section 1.4 of NI 43-101.

I have read the National Instrument 43-101, companion policy NI 43-101CP and Form 43-101F1, and the Preliminary Pit Optimization section has been prepared in compliance with that instrument and form.

I am responsible for Section 17.9.2 of the Technical Report titled 'NI 43-101 INDEPENDENT TECHNICAL REPORT, RESOURCE ESTIMATE, BENDING LAKE PROPERTY' dated September 13th, 2011.

I consent to the filing of this Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their website accessible by the public.

Dated this November 24th, 2011.

("Signed") Rene Gharapetian

Rene Gharapetian, P.Eng., B.Sc., (APEO 100055424)