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#### TECHNICAL REPORT AND INITIAL MINERAL RESOURCE ESTIMATE OF THE HIGH LAKE - WEST HAWK LAKE GOLD PROJECT, KENORA MINING DIVISION, ONTARIO AND FALCON LAKE AREA, MANITOBA

#### UTM NAD83 ZONE 15 349,000 m E AND 5,505,800 m N LONGITUDE 95°05'40" LATITUDE 49°42'36"

#### AND

#### UTM NAD83 ZONE 15 338,000 m E AND 5,512,000 m N LONGITUDE 95°14'34" LATITUDE 49°44'19"

FOR MCFARLANE LAKE MINING INCORPORATED

#### NI 43-101 & 43-101F1 TECHNICAL REPORT

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P&E Mining Consultants Inc. Report 442

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#### 1.0 SUMMARY

#### 1.1 INTRODUCTION AND TERMS OF REFERENCE

P&E Mining Consultants Inc. ("P&E") has been retained by McFarlane Lake Mining Incorporated ("McFarlane" or the "Company") to complete this independent initial Mineral Resource Estimate ("MRE") and Technical Report on the High Lake - West Hawk Lake Project (the "Project") in the Kenora Mining District, Ontario and the neighbouring Falcon Lake Area, Manitoba. The initial MRE is of the High Lake Property, located 10 km east of the West Hawk Lake Property, with the Trans-Canada Highway passing between them. These two properties could potentially be developed together with multiple mines and a single processing facility, and are therefore both covered in this Technical Report.

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This Technical Report is prepared in accordance with the requirements of National Instrument 43-101 ("NI 43-101") and in compliance with Form NI 43-101F1 of the Ontario Securities Commission ("OSC") and the Canadian Securities Administrators ("CSA"). The Mineral Resource Estimate is considered to be compliant with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM"), CIM Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions. This Technical Report is considered current as of the effective date of April 14, 2023.

#### **1.2 PROJECT DESCRIPTION, LOCATION AND SETTING**

The High Lake Property is located immediately east of the Ontario-Manitoba border in northwestern Ontario, 45 km west of the City of Kenora. It lies immediately south the Trans-Canada Highway. The West Hawk Property is located 5 km west of the Ontario-Manitoba border, in southwestern Manitoba, 53 km west of the City of Kenora and 130 km east of the City of Winnipeg. It lies immediately north of the Trans-Canada Highway, within the Whiteshell Provincial Park. The High Lake Property consists of 20 Mining Leases and 15 mining claims and the West Hawk Lake Property consists of a single Mining Lease, totalling 886.5 ha.

The High Lake Property consists of 20 patented mining leases with surface and mining rights and 15 mining claims, totalling 567.8 ha. The leases are 100% owned and registered to McFarlane Lake Mining Incorporated. A previous owner, International Millenium Mining Corp. retains an interest in the mining leases as the original payor of the 2% NSR royalty to Celynn Alcock. The mining claims were staked or purchased in 2022. The mining leases have all been surveyed and have four different anniversary dates. The earliest expiry date is December 31, 2026 and the mining leases are all in good standing as of the effective date of this Technical Report. The leases have all been renewed for a second 21-year term. They are renewable for a third 21-year term by demonstrating that exploration and (or) development work has been completed on the mining leases and by paying the regulatory renewal fees.

The West Hawk Lake Property is 100% owned and registered in the name of McFarlane. The Property consists of a single Mineral Lease issued by the Manitoba Innovation, Energy and Mines Branch, totalling 319 ha. The mining lease, ML-18, was issued for a 21-year period on April 1, 1992. This lease is in good standing as of the effective date of this Technical Report and is valid until April 01, 2034, subject to annual payments. It is renewable for an additional 21-year period, providing expenditures totalling \$1,250 per ha have been incurred during the lease period. ML-18 is currently in its second lease period.

# 1.3 HISTORY

# **1.3.1** High Lake Property

Prior to the 1950s, the claims that make up the High Lake Property were held sporadically by various prospectors. During the 1950s, three prospectors held groups of claims that include the current High Lake leased claims. Most of these were owned by C. A. Alcock or in partnerships with other prospectors, including J. Duncan, A. Duncan, and R. Longe. Between 1963 and 1965, the 20 claims that made up the High Lake Property were converted into mining leases. The ownership of these leases was acquired over the years by the family of C. A. Alcock, and ultimately by Celynn Alcock, daughter of C.A. Alcock. International Millennium Mining Corp. ("IMMC") acquired an option to purchase the mining leases in 2006 and completed the terms of the option agreement in June of 2009 (fully exercised, subject to a 2% NSR royalty). In 2010, the mining leases were acquired by Canadian Star.

Historical exploration and development work completed on the High Lake Property includes ground geophysics (magnetics and VLF-EM), drilling, geological mapping, mineral prospecting, geochemical surveys (conventional soil and MMI soil sampling), and historical mineral resource estimates. There has been no historical production on the High Lake Property.

McFarlane entered into an Option to Purchase Agreement (dated February 23, 2021) and an Amending Agreement (dated September 14, 2021) for the purchase of 100% of the High Lake Property and West Hawk Lake Property from Canadian Star Minerals Ltd. (along with the McMillan Property, Ontario). The Acquisition was completed pursuant to a definitive agreement dated December 30, 2021.

# **1.3.2** West Hawk Lake Property

Prior to 1950, the claims that now make up the West Hawk ML-18 mining lease were held by various individuals and companies. In 1950, the current Property was acquired by Homestake Explorations Limited ("Homestake"). In 1990, Homestake merged with Queenston Gold Mines Limited to form Queenston Mining Inc. ("Queenston") which became the new, underlying owners of the Property. Between 1950 and 2005, the Property was optioned to several small mining companies which completed exploration and development programs. In 2005, the optionee, Whiteshell Ventures Ltd., failed to meet the required terms of their option agreement and the Property reverted 100% back to Queenston. In September 2009, Canadian Star Minerals Limited signed a letter of intent with Queenston to acquire an interest in the Property and completed an option agreement effective February 1, 2011. Canadian Star signed a purchase agreement with Osisko Mining Ltd. (who acquired Queenston in 2012) to purchase the ML-18 Mining Lease

outright. On May 15, 2014, ML-18 was transferred from Osisko Mining Ltd. to Canadian Star Mineral Ltd.

The historical exploration and development work completed on the West Hawk Lake Property includes mineral prospecting, shaft sinking and underground level excavation, drilling, trenching, sampling for metallurgical test work, ground geophysics (magnetics and VLF-EM), and historical mineral resource estimates. There has been minor historical production on the West Hawk Lake Property.

McFarlane entered into an Option to Purchase Agreement (dated February 23, 2021) and an Amending Agreement (dated September 14, 2021) for the purchase of 100% of the West Hawk Lake Property, along with the High Lake Property (and McMillan Property, Ontario), from Canadian Star Minerals Ltd. The Acquisition was completed pursuant to a definitive agreement dated December 30, 2021

### 1.4 GEOLOGICAL SETTING AND MINERALIZATION

The High Lake and the West Hawk Lake Properties occur in the Lake of the Woods Greenstone Belt, near the western end of the Wabigoon Subprovince, a 900 km long east-west trending structural zone that is part of the Superior Province in the Canadian Shield. The Lake of the Woods Greenstone Belt is one of a series of six interconnected greenstone belts that make up the western part of the Wabigoon Subprovince in northwestern Ontario. The greenstone belts, 3.0 to 2.7 billion years ("Ga") in age, are composed of 60 to 80% ultramafic to felsic metavolcanic rocks and 20 to 40% clastic and chemical metasedimentary rocks. Many elliptical-shape granitoid batholiths considered to be derived from the same parent magmas as the volcanic rocks (3.0 to 2.7 Ga) are enclosed within the greenstone belts. All of these rocks have been extensively deformed and intruded locally by syntectonic and post-tectonic plutons, dykes and small ultramafic to felsic plutons.

The Lake of the Woods Greenstone Belt is intruded locally by composite granitoid plutons, some of which are considered syn-volcanic. The High Lake Intrusive Complex, on the High Lake Property, and the Falcon Lake Igneous Complex, on the West Hawk Lake Property, appear to be important features with control on the gold mineralization in these areas.

Several styles of gold mineralization occur on the High Lake Property. The most important of the known styles of mineralization consists of gold associated with quartz veining and silicified sheared zones that are spatially related to the contact between quartz-feldspar porphyry sills or dykes and mafic to intermediate volcanic rocks. The volcanic rocks occur as large rafts or roof pendants within the quartz-feldspar porphyry body. Pyrite, chalcopyrite, tourmaline, sericite, chlorite and carbonate are typically associated with the gold. Zones of this style are the Purdex A, B and C Zones and the Electrum Prospect P, R and W Zones.

Two styles of gold mineralization occur on the West Hawk Property. The host rock for the first style is a concentrically banded breccia pipe. Gold occurs in siliceous bands, small quartz veinlets, and local sericitic patches. Associated mineralization includes pyrite, galena, sphalerite, chalcopyrite and pyrrhotite and minor arsenopyrite and tetrahedrite. Examples of this style of gold mineralization are the Sunbeam and Moonbeam Prospects.

The second style of gold mineralization consists of narrow shear zones that occur within all rock types, but particularly near the contacts of the various phases of the intrusive complex. Gold is generally associated with narrow quartz veining and gashes within en-echelon lenses and wider bodies of biotite schist. It also occurs along joint surfaces within and adjacent to these shears. Examples of this mineralization style are the Waverly Veins and the Sundog Zone.

# 1.5 EXPLORATION AND DRILLING

Exploration and drilling on the High Lake and West Hawk Lake Properties by McFarlane includes induced polarization ("IP") geophysical surveys and diamond drilling programs. Surface induced polarization (IP) geophysical surveys were completed on the West Hawk Lake and High Lake Properties in 2022 and 2023, in order to detect chargeability targets suitable for drill testing. The IP surveys were completed along three line-cut grids; two on the High Lake Property and one on the West Hawk Lake Property.

An IP survey was completed on the High Lake Property during January and February 2023. The objective of the survey was to detect chargeability and resistivity anomalies for follow-up drilling. The IP survey was completed on two cut-line grids. The east grid consists of eight cut lines plus one base line for a total of 5,875 m. The east grid covers the area of the priority Purdex Zone and the Purdex East and Conglomerate targets. The west IP survey grid on the High Lake Property consists of 18 cut-lines plus two base lines for a total of 15,225 m. The west grid covers an area where three additional priority targets have been identified: A-D Extension, Porphyry and Gap. Overall, Purdex East is the highest priority gold target, whereas Porphyry is a potential copper-gold target.

An IP survey was completed on the West Hawk Lake Property in January and February 2022. The objective of the IP survey was to detect chargeability and resistivity anomalies for drill testing. The IP survey was completed on 18 cut grid-lines for a total of 17,500 m. The IP survey detected strong chargeability anomalies flanked by or co-incident with resistivity anomalies over significant strike lengths. These prospective anomalies suggest presence of sulphides within silicified zones. In total, 52 anomalies were identified and compiled for follow-up work, particularly drilling. Additionally, the IP survey displayed resistivity and chargeability towards the eastern portion of grid. These findings are supported by historical drilling within the anomalous trends, which has confirmed the presence of sulphides, silicification, and quartz veins in sheared quartz monzonite. Previously, the eastern portion of this Property has been overlooked.

McFarlane completed drill programs on the West Hawk Lake and High Lake Properties in 2022 and 2023. A total 13,594.5 m were completed in 61 diamond drill holes. On the High Lake Property, 46 drill holes totalling 10,443 m were completed. The purpose of this drilling was to support the current Mineral Resource Estimate of the Purdex Zone. This drilling intersected multiple high-grade gold mineralized intervals with visible gold at the Purdex Zone.

On the West Hawk Lake Property, 15 drill holes were completed totalling 3151.1 m. The drill holes were designed to confirm and expand the mineralized zones delineated in historical drilling and detected in IP geophysical surveys. This drilling intersected multiple high-grade gold mineralized intervals at the historical Waverly and Sunbeam Zones.

#### **1.6 SAMPLING AND DATA VERIFICATION**

McFarlane implemented a robust quality assurance/quality control ("QA/QC") program from the commencement of the 2022-2023 drilling programs at the High Lake and West Hawk Lake Properties. In the opinion of the Technical Report Authors (the "Authors"), McFarlane's sample preparation, analytical procedures, security and QA/QC program meet industry standards, and that the data are of good quality and satisfactory for use in the Mineral Resource Estimate reported in this Technical Report.

Mr. David Burga, P.Geo., of P&E and a Qualified Person in terms of NI 43-101, visited the High Lake and West Hawk Lake Properties on May 1 and 2, 2023, to complete an independent site visit and data verification sampling programs. The site visits included an inspection of the two properties, offices, drill sites, drill collars, drill core storage facilities, drill core receiving area, and tours of major centres and nearby communities most likely to be affected by any potential mining operation. The Authors consider that there is good correlation between the gold assay values in McFarlane's database and the independent verification samples collected by Mr. Burga. In the Author's opinion, the data are of good quality and appropriate for use in the current MRE.

### 1.7 MINERAL PROCESSING AND METALLURGICAL TESTWORK

From the historical work in 1983 and 2009 at SGS Lakefield, the High Lake Mineral Resource appears to be readily amenable to gravity concentration. Subject to confirmatory tests on representative samples, gold recovery by targeted grind sizing and gravity concentration, in the order of 85% to 90%, could report to a gravity concentrate. This concentrate could be subject to direct smelting on-site or for sale.

Gravity tails are expected to contain a significant concentration of gold that could be extracted by a conventional cyanide leach process. However, cyanidation is a costly process and introduces other environmental management processes and its inclusion should be considered only if physical processes (e.g., gravity plus flotation) are ineffective in achieving gold recoveries >90%.

#### **1.8 MINERAL RESOURCE ESTIMATE**

The initial MRE for the Purdex Zone of the High Lake Deposit was independently prepared by P&E in accordance with NI 43-101, with an effective date of April 14, 2023. This initial MRE consists of 152 kt grading 9.38 g/t Au for 45.8 koz Au in Indicated Mineral Resources and 287 kt grading 10.43 g/t Au for 96.2 koz Au in Inferred Mineral Resources, at a 2.6 g/t Au cut-off (Table 1.1).

TABLE 1.1PURDEX ZONE MINERAL RESOURCE ESTIMATEAT 2.6 G/T AU CUT-OFF (1-7)				
Classification	Tonnes (kt)	Au (g/t)	Au (koz)	
Indicated	152	9.38	45.8	
Inferred	287	10.43	96.2	

#### Notes:

- 1. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- 2. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
- 3. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could potentially be upgraded to an Indicated Mineral Resource with continued exploration.
- 4. The Mineral Resources were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.
- 5. *Metal prices used were US\$1,800/oz Au and 0.77 CDN\$/US\$ FX with process recoveries of 95% Au. A CDN\$40/t process cost and CDN\$15/t G&A cost were used.*
- 6. The underground mining cost was CDN\$130/t. The underground Mineral Resource grade blocks were quantified above the 2.6 g/t Au cut-off within the constraining mineralized wireframes. Underground Mineral Resources selected exhibited continuity and reasonable potential for extraction by the long hole underground mining method.
- 7. Grade estimation was undertaken with the Inverse Distance Cubed method on 1.0 m capped composites.

Μ	Table 1.2         Mineral Resource Sensitivity to Au Cut-off Grade						
<b>A</b>		Indicated			Inferred		
Au Cut-off (g/t)	Tonnes (kt)	Au Grade (g/t)	Au (oz)	Tonnes	Au Grade (g/t)	Au (oz)	
3.0	139,747	9.95	44,705	260,540	10.98	91,975	
2.9	142,155	9.83	44,927	265,418	10.84	92,502	
2.8	145,051	9.69	45,189	270,031	10.70	92,894	
2.7	148,441	9.53	45,482	274,556	10.57	93,303	
2.6	151,851	9.38	45,794	287,373	10.43	96,165	
2.5	155,726	9.21	46,112	285,116	10.27	94,142	
2.4	159,140	9.06	46,355	289,847	10.15	94,586	
2.3	162,621	8.92	46,637	295,015	10.01	94,944	
2.2	166,374	8.77	46,911	300,930	9.86	95,397	
2.1	170,427	8.61	47,177	307,287	9.70	95,831	
2.0	174,316	8.47	47,469	313,324	9.55	96,203	

The Mineral Resources are not sensitive to gold cut-off grade (Table 1.2).

Most of the estimated Mineral Resource tonnage related to the High Lake Deposit is contained in three stacked zones (Zone A, B and C) within a 75 m-wide corridor, which starts at surface and covers an area 420 m vertical by 220 m along strike. The true thickness of the High Lake Zones varies from 1.2 to 9.0 m.

These Mineral Resources are not Mineral Reserves as they do not demonstrate economic viability. The quantity and grade of reported Inferred Mineral Resources are uncertain in nature and there has been insufficient exploration to define these Mineral Resources as Indicated of Measured. However, it is reasonably expected that most of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

The Mineral Resources of the Purdex Zone extend to surface and there may be an opportunity to mine these early in a development project via a small open pit. The Authors reviewed two potentially viable pit options and subsets of the Mineral Resources (Table 1.3).

TABLE 1.3POTENTIAL SUBSETS OF OPEN PIT MINERAL RESOURCES AT 1.0 G/T AU					
Pit	Classification	Tonnes (kt)	Au Grade (g/t)	Au (koz)	
Pit 1	Indicated	22	6.36	4.5	
	Inferred	3	5.25	0.5	
Pit 2	Indicated	45	4.47	6.5	
	Inferred	7	3.65	0.8	

The Authors are not aware of any factors or issues that materially affect the MRE, other than the normal risks faced by Ontario and Manitoba mining projects in terms of environmental, permitting, taxation, socio-economic, marketing, and political factors, and the additional risks regarding Inferred Mineral Resources.

## **1.9 CONCLUSIONS AND RECOMMENDATIONS**

The High Lake-West Hawk Lake Project Properties contain notable gold Mineral Resources associated with faults and shear zones cutting volcanic and plutonic rocks. The High Lake Property has potential for delineation of additional Mineral Resources associated with extension of the known structurally-controlled lode/orogenic gold deposits and porphyry intrusion related deposits and for discovery of new mineralized zones.

Additional exploration and development expenditures are warranted at the High Lake-West Hawk Lake Project to improve the viability of the Project and advance it towards a Preliminary Economic Assessment. The recommendations of the Authors of this Technical Report include in fill and stepout drilling to increase the Mineral Resource base of the Project and exploration drilling to discover new mineralized zones with potential for future Mineral Resource modelling.

The Authors recommend additional drilling on the High Lake Property to convert Inferred to Indicated Mineral Resources, to expand the current Mineral Resource, and add new Mineral Resources. Inferred Mineral Resources at the Purdex Zone should be infill-drilled and converted to Indicated Mineral Resources. The current Mineral Resources at the Purdex Zone are open to expansion by drilling along strike and down-dip. IP geophysical features of interest on the High Lake Property and the West Hawk Lake Property should be drill tested for gold-related sulphide mineralization and potential for future Mineral Resource estimation. In addition, initial metallurgical testwork should be completed on representative material from the Purdex Zone.

For the High Lake Property, the Authors recommend completion of a 10,000 m drill program to test the Purdex Zone to the east and at depth (Purdex East). The results of the 2023 IP geophysical survey indicate increasing chargeability along strike to the east. This area has yet to be drilled. Additional priority targets at Conglomerate, A-D Extension, Porphyry and Gap areas should be prospected and drill tested. Additional IP surveying, prospecting and soil sampling should be considered over areas of the property that have not been previously surveyed.

In order to derive a more precise indication of what gold recovery can be anticipated from the High Lake Mineral Resource, the following tests are recommended: 1) assembly of representative composite sample from drill core; 2) full analysis of the composite sample for precious metals, base metals, whole-rock composition; 3) mineralogical studies to characterize gold deportment; 4) conduct gravity separation testing, 5) investigate the concentration by froth flotation from gravity tails; and 6) cyanide leach of bulk gravity concentrate products and tailings.

For the West Hawk Lake Property, the Authors recommend completion of an 8,000 m drill program to delineate potential Mineral Resources in the Waverly Raise and Sunbeam Zones. Additional IP geophysical surveying and mineral prospecting should be considered on the Property.

On a priority/funding basis, the High Lake Property should take priority for future development over the West Hawk Lake property. Based on existing information, it appears to have greater widths of gold mineralization than West Hawk Lake with grades comparable to West Hawk Lake, thus having the potential to add gold ounces quicker than West Hawk Lake.

The cost to complete the recommended program is estimated to be C6.6M (Table 1.4). The recommended program should be completed in the next 6 to 12 months.

TABLE 1.4 Recommended Program and Budget for the High Lake and West Hawk Lake Properties						
Property	Work	Units	Unit Cost (C\$)	Estimated Cost (C\$)		
	Core Drilling	10,000	200	2,000,000		
	Logging, Sampling, Supervision	1	400,000	400,000		
	Core Assay Costs	1,000	65	65,000		
	Prospecting, Sampling, Assays	4	15,000	60,000		
	IP Surveying, Line-cutting, Reporting	1	100,000	100,000		
	Soil Sampling, Assays	4	25,000	100,000		
	Field Costs (consumables, internet, phone, storage)	2	10,000	20,000		
High Lake	Drafting & Plotting	6	10,000	60,000		
	Transportation (vehicle, fuel, mileage)	6	5,000	30,000		
	Accommodation & Meals	2,000	150	300,000		
	Reporting & Supervision	6	10,000	60,000		
	Metallurgical Testwork	1	125,000	125,000		
	Subtotal		·	3,320,000		
	Contingency (10%)			332,000		
	Total High Lake Property			3,652,000		
	Core Drilling	8,000	200	1,600,000		
	Logging, Sampling, Supervision	1	320,000	320,000		
	Assay Costs	1,350	65	88,000		
	Prospecting, Sampling, Assays	4	15,000	60,000		
	IP Surveying, Line-cutting, Reporting	1	100,000	100,000		
	Soil Sampling, Assays	4	25,000	100,000		
West Hawk	Field Costs (consumables, internet, phone, storage)	2	10,000	20,000		
Lake	Drafting & Plotting	6	10,000	60,000		
	Transportation (vehicle, fuel, mileage)	6	10,000	60,000		
	Accommodation & Meals	1,600	150	240,000		
	Reporting & Supervision	6	10,000	60,000		
	Subtotal			2,708,000		
	Contingency (10%)			271,000		
	Total West Hawk Lake Property			2,979,000		
	× v					
Total High L	ake and West Hawk Lake Property			6,631,000		

#### 2.0 INTRODUCTION AND TERMS OF REFERENCE

#### 2.1 TERMS OF REFERENCE

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McFarlane is a public (reporting issuer) company listed on the NEO exchange (NEO: MLM), incorporated under the laws of the Province of Ontario. This Technical Report was completed at the request of Mr. Mark Trevisiol, President & CEO of the Company. McFarlane's head office address is located at 15 Kincora Court, Sudbury, Ontario P3E 2B9.

This Technical Report is prepared in accordance with the requirements of National Instrument 43-101 ("NI 43-101") and in compliance with Form NI 43-101F1 of the Ontario Securities Commission ("OSC") and the Canadian Securities Administrators ("CSA"). The Mineral Resource Estimates are considered to be compliant with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM"), CIM Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions. This Technical Report is considered current as of the effective date of April 14, 2023.

#### 2.2 SITE VISIT

Mr. David Burga, P.Geo., of P&E, a Qualified Person under the terms of NI 43-101, conducted a site visit to the High Lake and West Hawk Lake Properties on May 1 and 2, 2023. The site visits included an inspection of the two properties, offices, drill sites, drill collars, drill core storage facilities, drill core receiving area, and tours of major centres and surrounding towns most likely to be affected by any potential mining operation. The findings are summarized in Section 12 of this Technical Report.

#### 2.3 SOURCES OF INFORMATION

This Technical Report is based, in part, on internal company technical reports, and maps, published government reports, company letters, memoranda, public disclosure and public information as listed in the References section (Section 27) of this Technical Report. This Technical Report is also supplemented by published and available reports provided by the Ontario Geological Survey and the Manitoba Geological Survey. The reader is referred to those data sources, which are listed in the References section (Section 27) of this Technical Report, for further detail.

The Authors and co-Authors of each section of this Technical Report are presented in Table 2.1. In acting as independent Qualified Persons as defined by NI 43-101, they take responsibility for those sections of this Technical Report as outlined in their "Certificate of Author" included in Section 28 of this Technical Report.

Table 2.1           Qualified Persons Responsible for This Technical Report				
Qualified Person	Contracted by	Sections of Technical Report		
Mr. William Stone, Ph.D., P.Geo.	P&E Mining Consultants Inc.	2-9, 15-16, 18-19, 21-24 and Co-author 1, 25-27		
Mr. Charles Spath, P.Geo.	P&E Mining Consultants Inc.	Co-author 1, 14, 25-27		
Mr. Antoine Yassa, P.Geo.	P&E Mining Consultants Inc.	. Co-author 1, 14, 25-27		
Ms. Jarita Barry, P.Geo.	P&E Mining Consultants Inc.	11 and Co-author 1, 12, 25-27		
Mr. David Burga, P.Geo.	P&E Mining Consultants Inc.	10 and Co-author 1, 12, 25-27		
Mr. D. Grant Feasby, P.Eng.	P&E Mining Consultants Inc.	13 and Co-author 1, 25-27		
Mr. Eugene Puritch, P.Eng., FEC, CET	P&E Mining Consultants Inc.	Co-author 1, 14, 25-27		

# 2.4 UNITS AND CURRENCY

In this Technical Report, all currency amounts are stated in Canadian dollars ("\$") unless otherwise stated. At the time of this Technical Report the 24-month trailing average exchange rate between the US dollar and the Canadian dollar is 1 US = 1.30 CDN \$ or 1 CDN \$ = 0.77 US \$.

Commodity prices are typically expressed in US dollars ("US\$") and will be so noted where appropriate. Quantities are generally stated in Système International d'Unités ("SI") metric units including metric tons ("tonnes", "t") and kilograms ("kg") for weight, kilometres ("km") or metres ("m") for distance, hectares ("ha") for area, grams ("g") and grams per tonne ("g/t") for metal grades. Platinum group metal ("PGM"), gold and silver grades may also be reported in parts per million ("ppm") or parts per billion ("ppb"). Copper metal values are reported in percentage ("%") and parts per billion ("ppb"). Quantities of PGM, gold and silver may also be reported in troy ounces ("oz"), and quantities of copper in avoirdupois pounds ("lb"). Abbreviations and terminology are summarized in Table 2.2, unit measurements are listed in Table 2.3.

Grid coordinates for maps are given in the UTM NAD 83 Zone15N coordinate system or as latitude and longitude coordinates.

TABLE 2.2           Terminology and Abbreviations				
Abbreviation Meaning				
\$ dollar(s)				
0	degree(s)			
°C	C degrees Celsius			
<	less than			

TABLE 2.2         TERMINOLOGY AND ABBREVIATIONS							
Abbreviation	Meaning						
>	greater than						
%	percent						
3-D	three-dimensional						
Actlabs	Activation Laboratories Ltd.						
Ag	silver						
amsl	above mean sea level						
As	arsenic						
asl	above sea level						
Au	gold						
Authors, the	Authors or this Technical Report						
°C	degree Celsius						
C\$	Canadian Dollar						
CIM	Canadian Institute of Mining, Metallurgy, and Petroleum						
cm	centimetre(s)						
Company, the	the McFarlane Lake Mining Incorporated that the report is written for						
CoV	coefficient of variation						
CPR	Canadian Pacific Railway						
CRM	certified reference material						
CSA	Canadian Securities Administrators						
CSM	Canadian Star Minerals Ltd.						
Cu	copper						
\$M	dollars, millions						
Effective Date, the	February 23, 2021, the Effective Date of the Option to Purchase Agreement						
EM	electromagnetic						
Extension Right, the	the eight-month extension period that is part of the Option Term agreement						
Extension Payments	payment agreements that are part of the Option to Purchase Agreement between Canadian Star Minerals Ltd. and McFarlane						
FLIC	Falcon Lake Igneous Complex						
ft	foot						
Ga	Giga annum or billions of years						
g	gram						
g/t	grams per tonne						
GPS	global positioning system						
GRG	gravity recoverable gold						
ha	hectare(s)						
HLGS	High Lake Granodiorite Stock						
Homestake	Homestake Explorations Limited						
ICP	inductively coupled plasma						
ID	identification						
ID <sup>3</sup>	inverse distance cubed						

TABLE 2.2         TERMINOLOGY AND ABBREVIATIONS								
Abbreviation	Meaning							
IMMC	International Millennium Mining Corp.							
IP	induced polarization							
ISO	International Organization for Standardization							
ISO/IEC	International Organization for Standardization/ International Electrotechnical Commission							
JVX	JVX Ltd							
k	thousand(s)							
kg	kilograms(s)							
km	kilometre(s)							
koz	thousands of ounces							
kt	thousands of tonnes							
level	mine working level referring to the nominal elevation (m RL), e.g. 4285 level (mine workings at 4285 m RL)							
М	million(s)							
m	metre(s)							
m <sup>3</sup>	cubic metre(s)							
Ma	millions of years							
McFarlane or the Company	McFarlane Lake Mining Incorporated							
ML	mining lease							
MLAS	Ontario Mining Lands Administration System							
mm	millimetre							
MMI	mobile metals ions							
Мо	molybdenite							
MOU	Memorandum of Understanding							
MRE	Mineral Resource Estimate							
Mt	mega tonne or million tonnes							
N	north							
NAD	North American Datum							
Ni	nickel							
NI	National Instrument							
NN	nearest neighbour							
NSR	net smelter return							
OAM	Orphaned and Abandoned Mines							
Option Payments	option payments that are part of the Option to Purchase Agreement between Canadian Star Minerals Ltd. and McFarlane							
Option, the	Canadian Star Minerals Ltd. granted McFarlane an exclusive option to purchase 100% interest in three properties							
Option Term	specific terms of the option agreement between Canadian Star Minerals Ltd. and McFarlane							
OSC	Ontario Securities Commission							
Osisko	Osisko Mining Corporation							

	TABLE 2.2						
	TERMINOLOGY AND ABBREVIATIONS						
Abbreviation	Meaning						
OZ	ounce						
oz/t	ounces per tonne						
P <sub>80</sub>	80% percent passing						
P&E	P&E Mining Consultants Inc.						
Pb	lead						
P.Eng.	Professional Engineer						
P.Geo.	Professional Geoscientist						
Project, the	High Lake - West Hawk Lake Project						
Droparty the	the High Lake-West Hawk Lake Purdex Properties that are the subject						
Property, the	of this Technical Report						
QA/QC quality assurance/quality control							
QC	quality control						
Queenston	Queenston Mining Inc.						
SEDAR	System for Electronic Document Analysis and Retrieval						
SGS	SGS Mineral Services, Lakefield, SGS Lakefield						
SIP	spectral induced polarization						
Sunbeam Kirkland	Sunbeam Kirkland Gold Mines Limited						
t	metric tonne(s)						
t/m <sup>3</sup>	tonnes per cubic metre						
TCPL	TransCanada Pipeline Limited						
Technical Report	this NI 43-101 Technical Report						
Trans-Canada	Trans-Canada Highway						
US\$	United States dollar(s)						
UTM	Universal Transverse Mercator grid system						
VLF	very low frequency						
VLF-EM	very low frequency- electromagnetic						
wt %	weight percent						
Zn	zinc						

TABLE 2.3         Unit Measurement Abbreviations									
Abbreviation	Meaning	Abbreviation	Meaning						
μm	microns, micrometre	$m^3/s$	cubic metre per second						
\$	dollar	m <sup>3</sup> /y	cubic metre per year						
\$/t	dollar per metric tonne	mØ	metre diameter						
%	percent sign	m/h	metre per hour						
% w/w	percent solid by weight	m/s	metre per second						
¢/kWh	cent per kilowatt hour	Mt	million tonnes						
0	degree	Mtpy	million tonnes per year						
°C	degree celsius	min	minute						

	TABLE 2.3         UNIT MEASUREMENT ABBREVIATIONS									
Abbreviation	Meaning	Abbreviation	Meaning							
cm	centimetre	min/h	minute per hour							
d	day	mL	millilitre							
ft	feet	mm	millimetre							
GWh	Gigawatt hours	MV	medium voltage							
g/t	grams per tonne	MVA	mega volt-ampere							
h	hour	MW	megawatts							
ha	hectare	OZ	ounce (troy)							
hp	horsepower	Ра	Pascal							
k	kilo, thousands	pН	Measure of acidity							
kg	kilogram	ppb	part per billion							
kg/t	kilogram per metric tonne	ppm	part per million							
km	kilometre	S	second							
kPa	kilopascal	t or tonne	metric tonne							
kV	kilovolt	tpd	metric tonne per day							
kW	kilowatt	t/h	metric tonne per hour							
kWh	kilowatt-hour	t/h/m	metric tonne per hour per metre							
kWh/t	kilowatt-hour per metric tonne	t/h/m <sup>2</sup>	metric tonne per hour per square metre							
L	litre	t/m	metric tonne per month							
L/s	litres per second	t/m <sup>2</sup>	metric tonne per square metre							
lb	pound(s)	t/m <sup>3</sup>	metric tonne per cubic metre							
Μ	million	Т	short ton							
m	metre	tpy	metric tonnes per year							
m <sup>2</sup>	square metre	V	volt							
m <sup>3</sup>	cubic metre	W	Watt							
m <sup>3</sup> /d	cubic metre per day	wt%	weight percent							
m <sup>3</sup> /h	cubic metre per hour	yr	year							

#### **3.0 RELIANCE ON OTHER EXPERTS**

The Authors have assumed that all the information and technical documents listed in the References section (Section 27) of this Technical Report are accurate and complete in all material aspects. Although the Authors have carefully reviewed all the available information presented, they cannot guarantee its accuracy and completeness. The Authors reserve the right, but will not be obligated to revise the Technical Report and conclusions, if additional information becomes known to them subsequent to the effective date of this Technical Report.

The Authors have reviewed and interpreted the historical documentation of data and observations of past activities by previous claim holders and exploration personnel who operated in the vicinity of the High Lake-West Hawk Lake Project area. The majority of this information is located within internal reports and memorandums of historical claim holders for this Property. The information concerning Adjacent Properties in Section 23 of this Technical Report is in the form of published NI 43-101 Technical Reports. The list of information used to complete this Technical Report is located herein under Section 27 References.

Although selected copies of the tenure documents, operating licenses, permits, and work contracts were reviewed, an independent verification of land title and tenure was not performed. The Authors have not reviewed or verified the legality of any underlying agreement(s) that exist concerning the claims, leases and licenses or other agreement(s) between third parties. Information on tenure and permits was obtained from McFarlane. Selected information was verified by the Authors.

Copies of the tenure documents, operating licenses, permits, and work contracts were not reviewed. Information relating to tenure was reviewed on April 14, 2023 by means of the public information available on the Ontario government website at: lioapplications.lrc.gov.on.ca/MLAS, and on the Manitoba government website at: https://web33.gov.mb.ca/mapgallery. The Authors of this Technical Report have relied on this public information and tenure information from McFarlane, and have not undertaken an independent detailed legal verification of title and ownership of the High Lake and West Hawk Lake Properties. The Authors have not verified the legality of any underlying agreement(s) that may exist concerning the licenses or other agreement(s) between third parties, but have relied on, and considers that it has a reasonable basis to rely on McFarlane to have conducted the proper legal due diligence.

Draft copies of this Technical Report have been reviewed for factual errors by McFarlane. Any changes made as a result of these reviews did not involve any alteration to the conclusions made. Hence, the statement and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the effective date of this Technical Report.

#### 4.0 PROPERTY DESCRIPTION AND LOCATION

#### 4.1 LOCATION

The High Lake Property is located immediately east of the Ontario-Manitoba border in northwestern Ontario. This Property is centered at 45 km west of the City of Kenora, at UTM NAD83 Zone 15N 349,000 m E and 5,508,500 m N and Longitude 95° 05'40" W and Latitude 49° 42' 36" N (Figures 4.1 and 4.2).

The West Hawk Property is located 5 km west of the Ontario-Manitoba border, near the community of Hawk Lake, in southwestern Manitoba, This Property is centered at 53 km west of the City of Kenora and 130 km east of the City of Winnipeg. It lies immediately north of the Trans-Canada Highway ("Trans-Canada"), also known as Highway 1 in Manitoba, within the Whiteshell Provincial Park. This Property is centered in UTM NAD 83 Zone 15N at approximately 338,000 m E and 5,512,000 m N, and Longitude 95°15' 00" W and Latitude 49°44'06" N (Figure 4.1 and 4.2).

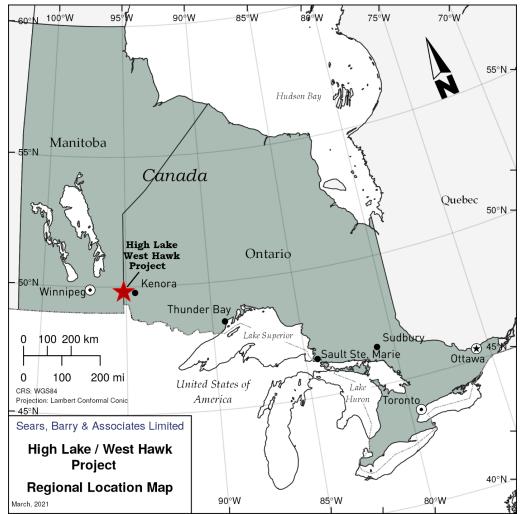
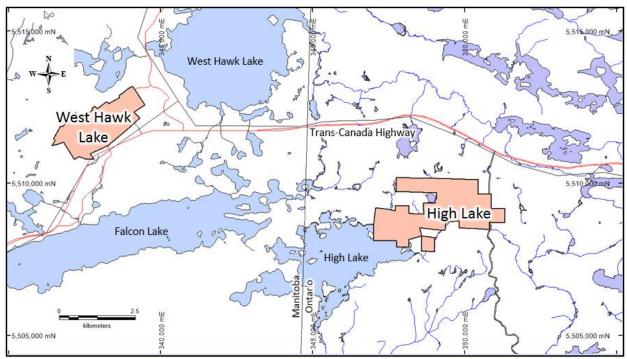


FIGURE 4.1 HIGH LAKE AND WEST HAWK LAKE PROJECT LOCATION

Source: Sears et al. (2021)





Source: P&E (April 2023)

#### 4.2 **PROPERTY DESCRIPTION AND TENURE**

The High Lake Property consists of 20 Mining Leases and 15 mining claims and the West Hawk Lake Property consists of a single Mining Lease, totalling approximately 886.5 ha (Figures 4.3 and 4.4; Table 4.1). The total annual rental fee for the mining leases on both Properties is \$4,848.62 (Table 4.2).

The High Lake Property consists of 20 patented mining leases with surface and mining rights and 15 mining claims for a total area of 567.8 ha (Figure 4.3 and Table 4.3). The leases are 100% owned and registered to McFarlane. A previous owner, International Millenium Mining Corp. retain an interest in the mining leases as the original payor of the 2% NSR royalty to Celynn Alcock. The mining claims were staked and purchased in 2022 (Table 4.4).

The mining leases have all been surveyed and have four different anniversary dates (Table 4.3). The earliest expiry date is December 31, 2026 and the mining leases are all in good standing as of the effective date of this Technical Report. The leases have all been renewed for a second 21-year term. They are renewable for a third 21-year term by demonstrating that exploration and (or) development work has been completed on the mining leases and by paying the regulatory renewal fees.

In addition to the mining leases, seven mining claims were purchased and seven more staked in August 2022 (Table 4.4). The seven purchased claims were acquired through private cash purchase from an individual who possessed the rights under the Ontario Mining Lands Administration System ("MLAS"). The seven staked mining claims were staked through the MLAS by McFarlane.

An additional wedge claim (750300) was staked in September 2022. All 15 of the mining claims are in good standing as of the effective date of this Technical Report.

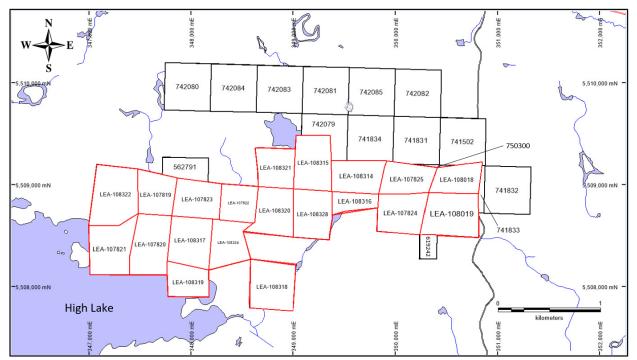
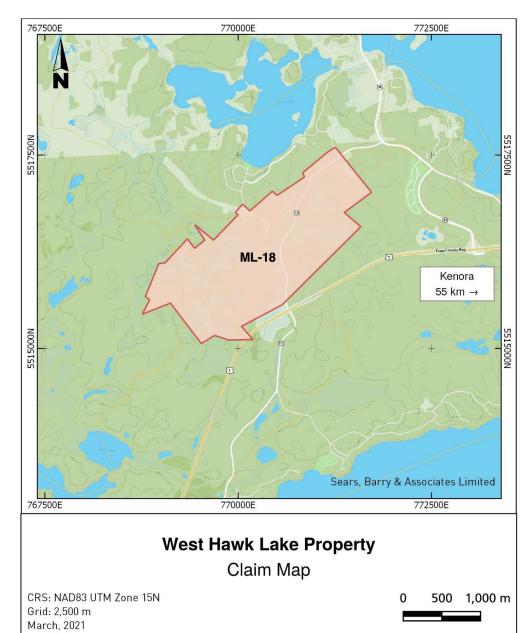


FIGURE 4.3 HIGH LAKE PROPERTY MINING LEASES AND MINING CLAIMS

*Source:* P&E (April 2023). *Note:* Mining leases outlined in *red*; mining claims outlined in *black*.



# FIGURE 4.4 WEST HAWK LAKE PROPERTY MINING LEASE

Source: Sears et al. (2021)

TABLE 4.1 High Lake-West Hawk Lake Project Land Holdings									
Property	Number of Mining Leases	Number of Mining Claims	Area (ha)						
High Lake	20	15	567.80						
West Hawk Lake	1		318.70						
Total			886.50						

TABLE 4.2 High Lake-West Hawk Lake Project Annual Lease Rent								
Property	Rent per Hectare (CDN\$)	Area (ha)	Annual Lease Rent (CDN\$)					
High Lake	3	341.5	1,024.46					
West Hawk Lake	12	318.7	3,824.16					
Total			4,848.62					

Table 4.3       High Lake Property Mining Leases											
Lease	Claim	Township	Parcel	Title Holder (100%)	Expiry Date	Area (ha)	Lease Term				
107822	K20694	Ewart	2402LK	McFarlane	31-Dec-26	12.3	21 years				
107823	K20695	Ewart	2403LK	McFarlane	31-Dec-26	16.2	21 years				
107819	K20696	Ewart	2404LK	McFarlane	31-Dec-26	13.6	21 years				
107820	K20697	Ewart	2405LK	McFarlane	31-Dec-26	19.9	21 years				
107821	K21479	Ewart	2406LK	McFarlane	31-Dec-26	21.0	21 years				
108321	K23980	Ewart	2426DKL	McFarlane	30-Sep-29	16.6	21 years				
108320	K24136	Ewart	2425DKL	McFarlane	30-Sep-29	19.3	21 years				
108328	K24137	Ewart	2424DKL	McFarlane	30-Sep-29	17.7	21 years				
108018	K25128	Ewart	2411LK	McFarlane	29-Feb-28	13.6	21 years				
108019	K25129	Ewart	2410LK	McFarlane	29-Feb-28	22.2	21 years				
107824	K25130	Ewart	2398LK	McFarlane	31-Dec-26	18.1	21 years				
107825	K25131	Ewart	2399LK	McFarlane	31-Dec-26	15.2	21 years				
108314	K25132	Ewart	2427DLK	McFarlane	30-Nov-29	17.0	21 years				
108316	K25133	Ewart	2428DKL	McFarlane	30-Nov-29	8.7	21 years				
108315	K25134	Ewart	2429DKL	McFarlane	30-Nov-29	18.3	21 years				
108318	K28661	Ewart	2421DKL	McFarlane	30-Sep-29	18.2	21 years				
108322	K28663	Ewart	2422DKL	McFarlane	30-Sep-29	24.8	21 years				
108317	K32306	Ewart	2420DLK	McFarlane	30-Sep-29	20.4	21 years				
108324	K32307	Ewart	2423DKL	McFarlane	30-Sep-29	16.2	21 years				
108319	K32574	Ewart	2419DKL	McFarlane	30-Sep-29	12.2	21 years				

*Source: lioapplications.lrc.gov.on.ca/MLAS Note: Land tenure record information effective April 14, 2023.* 

	Table 4.4         High Lake Property Mining Claims											
Claim	Township	Туре	Title Holder (100%)	Acquisition	Expiry Date	Status	Work Required (C\$)					
619242	Ewart	Single Cell Mining Claim	McFarlane	purchased	20230517*	Active	400					
562791	Ewart	Single Cell Mining Claim	McFarlane	purchased	20230426*	Active	400					
741834	Ewart	Single Cell Mining Claim	McFarlane	purchased	20240805	Active	400					
741831	Ewart	Single Cell Mining Claim	McFarlane	purchased	20240805	Active	400					
741502	Ewart	Single Cell Mining Claim	McFarlane	purchased	20240803	Active	400					
741833	Ewart	Single Cell Mining Claim	McFarlane	purchased	20240805	Active	400					
741832	Ewart	Single Cell Mining Claim	McFarlane	purchased	20240805	Active	400					
742079	Ewart	Single Cell Mining Claim	McFarlane	staked	20240811	Active	400					
742080	Ewart	Single Cell Mining Claim	McFarlane	staked	20240811	Active	400					
742084	Ewart	Single Cell Mining Claim	McFarlane	staked	20240811	Active	400					
742083	Ewart	Single Cell Mining Claim	McFarlane	staked	20240811	Active	400					
742081	Ewart	Single Cell Mining Claim	McFarlane	staked	20240811	Active	400					
742085	Ewart	Single Cell Mining Claim	McFarlane	staked	20240811	Active	400					
742082	Ewart	Single Cell Mining Claim	McFarlane	staked	20240811	Active	400					
750300	Ewart	Single Cell Mining Claim	McFarlane	staked	20240929	Active	400					

Source: lioapplications.lrc.gov.on.ca/MLAS.

Notes: Land tenure record information effective April 14, 2023.

\* Mining claims 619242 and 562791 are covered by a pending distribution of assessment credits from an IP survey completed in 2022 (McFarlane, April 2023). The current Mineral Resources are not covered by these claims. The West Hawk Lake Property is 100% owned and registered in the name of McFarlane. The Property consists of a single Mineral Lease issued by the Manitoba Innovation, Energy and Mines Branch. The mining lease, ML-18, was issued for a 21-year period on April 1, 1992. It is in good standing as of the effective date of this Technical Report and is valid until April 01, 2034, subject to annual payments. The lease is renewable for an additional 21-year period, provided that expenditures totalling \$1,250 per ha have been incurred during the lease period. ML-18 is currently in its second lease period.

# 4.3 ACQUISITION AGREEMENTS

This section is summarized largely from the Option to Purchase Agreement (dated February 23, 2021) and an Amending Agreement (dated September 14, 2021) for the Purchase from Canadian Star Minerals Ltd.

On February 23, 2021 (the "Effective Date"), McFarlane entered into an Option to Purchase Agreement with a private company called Canadian Star Minerals Ltd. ("CSM"). CSM granted McFarlane an exclusive option (the "Option") to acquire 100% interest in three properties. Two of these properties, High Lake and West Hawk Lake, are the subjects of this Technical Report (the third is the McMillan Mine Property, Ontario). The Option term (the "Option Term") commenced on the Effective Date (February 23, 2021) and expired on the date six months thereafter (August 31, 2021), subject to an eight-month extension period (the "Extension Right") at the option of the McFarlane. According to the Amending Agreement, the extension period expired at the end of the day April 30, 2022.

In order to keep the Option in good standing, McFarlane was to make the following payments to CSM:

- \$50,000 within three business days following the execution of the Agreement; and
- \$200,000 payable in four equal payments of \$50,000 on the first day of the second, third, fourth and fifth months of the Option Term (together with any Extension Payments, as defined below the "Option Payments").

In the event McFarlane exercises the Extension Right, they were required to pay CSM on the first day of each month of the Extension Period an additional \$50,000 for each month that the Option Term is extended up to a maximum of \$400,000 (the "Extension Payments").

In the event McFarlane exercises the Option and decides to purchase the Optioned Properties, McFarlane and CSM shall enter into a definitive purchase agreement, which shall provide that the purchase price of the Optioned Properties is an aggregate of \$5,500,000, composed of the following:

- The application of the any Option Payments (to a maximum of \$550,000) made by McFarlane;
- \$2,750,000 in cash;

- Securities of either McFarlane or another issuer, in either case in connection with a "going public" transaction of McFarlane, with a value of \$2,750,000 less any Option Payments (to a maximum of \$550,000) applied to the purchase price (the "Consideration Shares"); and
- In addition to the Consideration Shares, McFarlane shall cause 7,000,000 outstanding common shares in its capital currently held by certain officers or directors to be transferred to CSM upon closing of the Purchase Transaction.

During the Option Term, McFarlane was permitted to conduct due diligence regarding of the Optioned Properties, in order to make a determination whether to purchase the Optioned Properties. The Agreement provides that McFarlane is granted a licence to enter the Optioned Properties during the Option Term to make such tests and inspections as they deem necessary for due diligence review purposes.

The Acquisition was completed pursuant to a definitive agreement dated December 30, 2021. The purchase price of the Acquisition was \$5.5 million, paid to CSM as follows: 1) \$2.75 million in cash; 2) the issuance from treasury of 5,625,000 common shares (the "Common Shares") in McFarlane; and 3) the transfer of 7,000,0000 Common Shares from certain directors or officers of McFarlane. The \$500,000 in cash option payments paid to CSM prior to the completion of the Acquisition was credited to the purchase price and reduced the number of Common Shares issuable to the amount noted above.

# 4.4 ENVIRONMENTAL AND PERMITTING

#### 4.4.1 High Lake Property

There are no known environmental liabilities resulting from previous exploration activities on the High Lake Property. The High Lake claims cover land on the north and east sides of High Lake, which has recreational potential, but is presently undeveloped.

# 4.4.2 West Hawk Lake Property

There are no known environmental liabilities resulting from previous exploration activities on the West Hawk Lake Property. This Property lies within the Whiteshell Provincial Park of Manitoba. The terms of the Mineral Lease allow for exploration, development work and mining production. However, mineral processing must be carried out outside the Park boundary. Any potential mining production from the West Hawk Lake Property needs to be transported at least six km east to outside the Park boundary.

The West Hawk Property has two historical mine shafts (the Waverly and the Sunbeam) and one raise to surface (the Waverly Raise) on the West Hawk Property, and all have concrete caps. The concrete cap on the Waverly Shaft is relatively new. However, the concrete cap on the Sunbeam Shaft has a gap on one side, but it is fully fenced as required by the Manitoba Innovation, Energy and Mines Branch. These caps are expected to last for decades, but there is an obligation to

maintain them. The concrete cap on the Waverly Raise is cracked and that and the one on the Sunbeam Shaft are to be replaced with new ones.

The two shaft caps are to be replaced with new ones during the summer of 2023, according to a Scope of Works dated January 25, 2023 and provided by the Manitoba Department of Environment, Climate and Parks, under the Orphaned and Abandoned Mines ("OAM") Rehabilitation Program. The new caps will be of reinforced concrete complete and public safety warning signage and a ventilation pipe will be installed. In addition to the new caps, the Scope of Work includes collection and consolidation of waste rock and metal debris located at the site and disposal into the existing Sunbeam Shaft, installation of chain-link safety fencing around the shaft, re-vegetation of disturbed areas, and site restoration, including erosion control protection/re-vegetation of disturbed areas.

### 4.5 **PERMISSIONS AND PERMITS**

High Lake and West Hawk are considered to be exploration stage properties, such that the only permits required are those for drilling, mechanical overburden stripping and trenching of large areas.

On the High Lake Property, work permits are required for drilling or if extensive overburden stripping of outcrops is undertaken. TransCanada Pipeline Limited ("TCPL") maintains a gas pipeline, passing intermittently along the northern boundary of the High Lake Property. Movement of vehicles and heavy equipment across or along this pipeline requires permission from and supervision by the engineering department of TCPL. The Iskatewizaagegan First Nation Reserve is located three km south of the High Lake Property. The Ontario Ministry of Energy, Northern Development and Mines advise "...contact with Aboriginal (First Nation and Métis) communities should be made and maintained throughout the mining sequence, in order to ensure that Aboriginal rights and (or) treaty rights are not adversely affected."

McFarlane announced in the press release dated August 22, 2022, that it has been granted an exploration permit for the High Lake Property from the Ontario Ministry of Mines. The permit allows the Company to conduct an exploration program including line-cutting, geophysical survey, and an 8,000 to 10,000 m drilling campaign. Drilling can exceed the planned meterage providing exploration does not go outside of the area identified on the permit. Field preparations are planned to begin in September 2023 with drilling anticipated to follow in the fall to winter months.

On the West Hawk Lake Property, a drilling permit is required for exploratory drilling activities on mining lease areas, including the clearing for temporary access trails. Drilling permits can be obtained from the Mining Recorders Office of the Resource Division of the Manitoba Government. If more advanced exploration is planned, work permits for water usage and waste disposal, and an environmental impact study will be required. Federal government permits or approvals are not required for the Hawk Lake Property at this time.

#### 4.6 **RISKS TO ACCESS OR ABILITY TO PERFORM WORK**

Both the Ontario and the Manitoba governments express assurances that the mineral rights belong to the Crown. It is, however, a common course in mineral exploration to work with the recognized

First Nations groups that have territorial rights in the area. This could take several steps with the first being a Memorandum of Understanding ("MOU") between the Company and the respective First Nation groups. At later stages of development, this MOU potentially forms the foundation of a full Benefits Agreement with the parties.

In July 2010, Canadian Star encountered an issue on the High Lake Property with a local First Nations group that led to the suspension of the drilling and surface work program. An agreement in principle had been reached with the First Nation, but it was not accepted by several of the band members. As previously noted, having a signed agreement by the First Nation groups is a good first step for the local communities to be involved of the development of the property and to show the company is committed to working closely with them throughout the entire exploration and development process.

Its location within the boundaries of the Whiteshell Provincial Park means that special conditions apply to development of the West Hawk Property. The Mining Lease ML-18 states "Subject and pursuant to the Act and regulations, the Minister conveys to the lessee the exclusive right to the minerals that are the property of the Crown, together with the mineral access rights to explore for, develop, mine and produce the minerals that are found in place, on, in or under the land ...".

Any future mining operation on the Property will require mined production to be transported and processed at a facility outside of the boundary of Whiteshell Provincial Park. The closest park boundary is the Manitoba-Ontario border, a distance of 6 km east.

To the extent known, and apart from the aforementioned land encumbrances, the Author is not aware of any other significant factors or risks that may affect access, title or right or ability to perform work on the High Lake and West Hawk Lake Properties.

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

This Section of the Report is largely summarized from Sears et al. (2021).

#### 5.1 ACCESS

#### 5.1.1 High Lake Property

The High Lake Property is located 2 km south of the Trans-Canada Highway (Figure 5.1). Access to the High Lake Property is by means of the paved Shoal Lake Road, which departs southward from the Trans-Canada 45 km west of the City of Kenora and 2.5 km east of the Ontario-Manitoba border. The Shoal Lake Road passes through the eastern boundary of the Property. A dirt road extends westward from the Shoal Lake Road through the leased claims to High Lake from a point 3 km south of the Trans-Canada. This road is accessible by two-wheel-drive vehicles. Several TransCanada Pipeline Limited ("TCPL") access roads extend southward from the Trans-Canada to the northern boundary of the Property. Several logging roads and exploration trails from historical drilling and stripping provide local access to the High Lake Property.

### 5.1.2 West Hawk Lake Property

The West Hawk Lake Property is situated immediately north of the Trans-Canada Highway, six km west of the Manitoba border with Ontario (Figure 5.1). Access to the West Hawk Lake Property is via the Trans-Canada to Highway 64, located 3.7 km west of the Ontario-Manitoba border, then for 1 km north to the village of Hawk Lake, and west for 800 m to Highway 301.

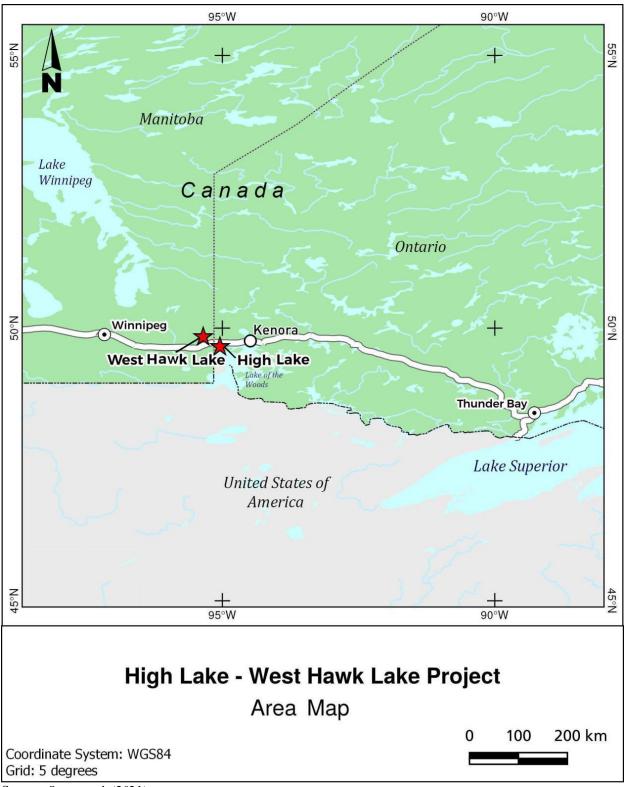
Highway 301, which links the communities of West Hawk Lake and Falcon Lake, bisects the eastern part of the Property. An all-weather gravel road extends northwest from Highway 301 through the central part of the Property area to cabins on Star Lake. Several passable, old gravel and mud roads lead to the historical Waverley and Sunbeam Shafts and to other parts of the Property. A power line transects the Property and a natural gas pipeline lies immediately adjacent and parallel to its southeast boundary. The main line of the Canadian Pacific Railway ("CPR") passes east-west approximately 9 km to the north. It is accessible via Manitoba highways 301 and 44.

#### 5.2 CLIMATE

The climate in the City of Kenora, Ontario area is humid continental. The average summer temperature ranges from 16.8° to 19.7° C and the average winter temperature ranges from -12.5° to -16.0°C. The extreme yearly maximum is 24.4°C and the extreme minimum is -20.5°C (Table 5.1). According to Environment Canada, the average annual precipitation is 715.1 mm, with 565.3 mm falling as rain and 164.1 cm falling as snow (Table 5.2).

The climate on the High Lake and West Hawk Lake Properties is suitable for year-round exploration and mining operations.

# FIGURE 5.1 PROPERTY ACCESS



Source: Sears et al. (2021)

TABLE 5.1         Temperature Statistics For Kenora, Ontario (°C)												
Month Jan Feb Mar Apr May June July Aug Sep Oct Nov De									Dec			
Average	-16.0	-12.5	-5.2	4.1	11.3	16.8	19.7	18.6	12.7	5.1	-4.2	- 13.1
Average High	-11.4	-7.6	-0.2	9.4	16.7	21.7	24.4	23.4	17.1	8.8	-0.9	-9.2
Average Low	-20.5	-17.4	-10.1	-1.3	5.8	11.8	14.9	13.9	8.3	1.4	-7.4	- 17.1

Source: Environment Canada (2010, 2012) as compiled on Wikipedia (April 2023)

	Table 5.2           Precipitation Statistics for Kenora, Ontario												
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Rain (mm)	0.7	3.00	8.5	22.4	77.4	118.6	103.4	84.2	84.6	49.4	12.0	1.1	565.3
Snow (cm)	28.4	18.6	21.1	14.6	3.5	0.1	0.0	0.0	0.8	14.2	32.2	30.6	164.1
Total (mm)	25.6	19.4	28.1	36.3	80.8	118.7	103.4	56.6	85.6	62.6	42.1	28.3	687.5

Source: Environment Canada (2010, 2012) as compiled on Wikipedia (April 2023)

#### 5.3 INFRASTRUCTURE

Electrical power lines pass north-south along the Shoal Lake Road in the eastern part of the High Lake Property. A major, high-voltage transmission line passes east-west on the north side of the Trans-Canada, approximately 2 km north of the High Lake Property. The West Hawk Property is also traversed by a high-voltage transmission line. The TCPL gas pipeline passes along the north High Lake claim boundary and along the south claim boundary of the West Hawk Property. There is an abundant supply of water from the many lakes in the area, which could be sourced for mining operations. The closest City is Kenora, located approximately 56 km to the east of the High Lake Property, along the Trans-Canada. Kenora offers accommodation, restaurants, general supplies, medical facilities, heavy equipment contractors, and a small regional airport. There is a potential supply of mining personnel from the surrounding towns and cities.

The City of Winnipeg, Manitoba is located approximately two hours drive to the west of the West Hawk Property, and Thunder Bay, Ontario is six hours drive to the east of the High Lake Property, also along the Trans-Canada. Both of these major centres have international airports and all of the necessary infrastructure to support exploration and mining development, including mining equipment and engineering companies and other skilled mining personnel. The Town of Red Lake, Ontario, three hours by paved highway northeast of Kenora, has two currently operating gold mines, and a long history of mining with necessary infrastructure and skilled labour. The High Lake Property is sufficient in size to host mining operations, which could include tailings storage, waste rock disposal, heap leach pad, and a potential processing plant. The West Hawk Lake Property, however, lies within the Whiteshell Provincial Park and mineralized material would be required to be transported off-site for processing. Historical shafts and raises on the West Hawk Lake Property are capped and fenced (Figures 5.2 to 5.4).





Source: Seal et al. (2021)

# FIGURE 5.3 CAPPED WAVERLY SHAFT, WEST HAWK LAKE PROPERTY



Source: Seal et al. (2021)

# FIGURE 5.4 CAPPED WAVERLY RAISE



Source: Seal et al. (2021)

### 5.4 PHYSIOGRAPHY

The two Properties are within the western edge of the Canadian Shield Physiographic Region, a region characterized by relatively low relief terrain. Topography at both the High Lake and West Hawk Lake Properties is generally flat to rolling and consists of local bedrock ledges and rounded ridges separated by relatively large swamps. Maximum relief is approximately 25 m with elevations ranging from 340 to 370 m above mean sea level ("amsl").

Overburden is typically shallow to moderate over most of the upland portion of the two Properties. The western portion of the High Lake Property drains towards the south and west into High Lake, into Shoal Lake and into Lake of the Woods. The extreme eastern end of the High Lake Property drains toward the east into Crowduck Lake, and into Lake of the Woods. The south part of the West Hawk Property drains into Falcon Lake, Shoal Lake and into Lake of the Woods. Lake of the Woods drains north into the Winnipeg River. The northern part of the West Hawk Property drains into West Hawk Lake and northward into the Winnipeg River system. Ultimately, the Winnipeg River flows north into Hudson Bay via Lake Winnipeg and Nelson River.

#### 6.0 HISTORY

The history of the High Lake and West Hawk Lake Properties begins in the early 1900s. The summaries below are taken largely from Sears *et al.* (2021).

### 6.1 HIGH LAKE PROPERTY HISTORY

#### 6.1.1 High Lake Property Ownership

Prior to the 1950s, the claims that make up the High Lake Property were held sporadically by various prospectors. During the 1950s, three prospectors held groups of claims that include the current High Lake leased claims. Most of these were wholly owned by C. A. Alcock or in partnerships with other prospectors, including J. Duncan, A. Duncan, and R. Longe. Between 1963 and 1965, the 20 claims that make up the High Lake Property were converted into mining leases. The ownership of these leases was acquired over the years by the family of C. A. Alcock, and ultimately by Celynn Alcock, daughter of C.A. Alcock. International Millennium Mining Corp. ("IMMC") acquired an option to purchase the mining leases in 2006 and completed the terms of the option agreement in June of 2009 (fully exercised, subject to a 2% NSR royalty). In 2010, the mining leases were acquired by Canadian Star Mineral Limited ("Canadian Star").

Other than the work completed by C. A. Alcock and his partners, the most advanced exploration activity in the area covered by the High Lake claims was completed by Calnor Resources, who held the western part of the claim group from 1983 to 1987, and Consolidated Jalna Resources, who held an option on seven claims in the eastern part of the current Property from 1982 to 1989.

### 6.1.2 High Lake Property Exploration

In 1936, an occurrence of electrum, a Au-Ag alloy, was discovered by C.A. Alcock and R.J. Young south of South Baubee Lake (now Electrum Lake). This discovery marked the beginning of a long exploration history in the area. The High Lake Property has been explored intermittently since the early 1950s. The following is a summary of the historical exploration completed over the years in the High Lake Property area.

- **1953:** San Antonio Gold Mine optioned claims that included the western part of the High Lake Property and completed geophysical surveys and 20 drill holes totalling 4,526 feet (1,379.5 m), 10 of which were on the current High Lake Property.
- **1956:** C. A. Alcock and A. Duncan completed four drill holes totalling 506 feet (154.2 m) in the Purdex Gold Zone in the eastern part of the Property. Assay results have not been located.
- **1956:** Green Bay Mining Company completed 6 drill holes totalling 2,155 feet (656.8 m) on a "porphyry" Cu-Au zone northeast of the east end of High Lake.

- **1958:** Purdex Minerals Limited completed geological mapping, trenching and 33 drill holes totalling 8,582 feet (2,615.8 m) near the Purdex Gold Zone, in the eastern part of the Property.
- **1959 to 1961:** Electrum Lake Gold Mines completed a drilling program on several zones in various parts of the High Lake Property including the A, B, C, D, W, P and R Zones in the Centre of the Property and the "Arsenic Pond" Zone east of the Shoal Lake Highway. The drilling program included completion of 71 drill holes totalling 12,962 ft (3,950.8 m).
- **1965 to 1967:** Steep Rock Iron Mines Ltd. held an option on claims in the northwestern part of the High Lake Property. Steep Rock completed geological mapping and 49.5-line km of induced polarization (IP) survey. The exploration target was a porphyry copper deposit.
- **1973:** Hanson Mines Ltd. completed four drill holes on the A & D Zones.
- **1982 to 1989:** Consolidated Jalna Resources Limited (formerly Jalna Resources Ltd.), completed geological mapping, drilling and a mineral resource estimate on the Purdex Gold Zone. The drilling included 12 drill holes totalling 5,491 ft (1,973.7 m).
- **1982 to 1984:** Barrier Reef Resources Ltd. completed geological mapping, soil sampling, ground magnetic and VLF/EM surveys. In 1984, the company assigned its rights to the Property to a subsidiary company named Francis Resources Ltd.
- **1983 to 1986:** Gladys Stevens completed geological mapping, geochemical, ground magnetic and electromagnetic surveys and drilling on several targets in the western part of the leased claims east of High Lake; only a portion of the results are available.
- **1985 to 1987:** Francis Resources Ltd. (Barrier Reef Resources Ltd. above) merged with Northcal Resources to form Calnor Resources Ltd.
- **1987 to 1988:** Calnor Resources Ltd completed 22 drill holes totalling 7,594 ft (2,314.7 m) in the western part of the current High Lake Property. In 1987, J.H. Reedman & Associates completed, on their behalf, a trenching and sampling program and mineral resource estimates on several zones located in the western part of the Property and on adjacent claims.
- **1990 to 1991:** R. J. Fairservice completed prospecting and rock sampling near the northeast end of Electrum Lake; grab samples assayed up to 5 oz/ton Au (171 g/t).
- 2007: IMMC acquired the Electrum Lake Property (staked claims adjacent to the north and east of the High Lake Property) from Cabo Mining Corp. and negotiated a purchase agreement for the High Lake Property. IMMC subsequently initiated a MMI soil sampling program over a portion of the eastern part of the Property. The data from the MMI survey was provided to Canadian Star Minerals Ltd., following that company's option of the properties.

• **2009 to 2010:** Canadian Star acquired the High Lake and the Electrum Lake Properties and initiated an exploration work program. Results from the work carried out on the High Lake Property are summarized below.

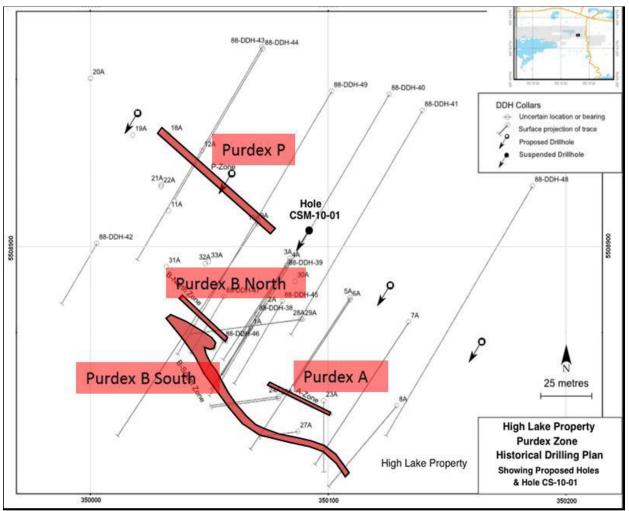
Prior to Canadian Star's involvement with the High Lake Property, an MMI soil geochemical survey was completed by the previous owners, IMMC, over a portion of the High Lake and adjacent Electrum Lake Properties. This survey was commissioned by IMMC in 2007 and completed in the summer of 2008. An interpretation of the data was completed and a report prepared on behalf of Canadian Star in August of 2009 (Barry, 2009). The MMI survey involved collection of 1,488 samples. However, only 153 of samples were on the High Lake Property. The High Lake sampling covered the mining claim over the Purdex Zone and a single anomalous soil sample appears to be coincident with this Zone.

In the fall of 2009, several grab-samples were collected by representatives of Canadian Star from a surface exposure of the Purdex Gold Zone, the most advanced gold prospect on the High Lake Property. A sample of this material weighing 1.33 kg was submitted to SGS Mineral Services in Lakefield, Ontario for preliminary testing of the amenability to recover gold by gravity methods. The results of this "single gravity concentration test" indicated that 89% of the gold was recovered using a "single, low mass yield Knelson gravity test..." The head grade of the sample was calculated at 14.8 g/t Au. Further testing was recommended. The report, SGS Minerals Services, Project 12399-00, cautions that "The findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample "provided by the client" (SGS Report, 2010). Sears *et al.* (2021) cautioned that these results are preliminary in nature and may or may not be representative of the actual gold recovery from the Purdex Gold Zone or any other gold bearing zones on the High Lake Property and therefore should not be relied upon.

In July, 2010 Canadian Star initiated an exploration program designed to confirm gold mineralization and partially evaluate the size potential of the Purdex Gold Zone. Only a single drill hole was collared and it was abandoned prior to reaching targeted depth, due to opposition by members of the local First Nation community.

This drill hole, CSM-10-01, was collared at UTM (NAD 83 Zone 15) 350,132 m E and 5,508,881 m N. It was oriented 210° and drilled at an angle of -54° in order to intersect the Purdex Gold Zone down-dip from a surface trench exposure (Figure 6.1). The drill hole intersected Quartz-Feldspar Porphyry from 0 to 62 m, which was locally weakly silicified, carbonated and contained minor epidote alteration, quartz stringers, and minor sulphides. Twelve one-metre samples were marked for sampling. However, no samples were taken or sent for analysis at that time, due to the abrupt termination of the program and the fact that the targeted zone had not been reached. The CSM-10-01 drill core is stored in a secure location.





Source: Sears et al. (2021)

## 6.1.3 High Lake Property Historical Mineral Resources

Several historical mineral resource estimates have been produced by previous explorers for the Purdex Zone and the Electrum Zones on the eastern and western parts, respectively, of the High Lake Property (Table 6.1). The Author was unable to verify these historical mineral resource estimates as the supporting data are incomplete, not all were prepared by an independent party, and they predate the implementation of NI 43-101.

### 6.1.3.1 Purdex Gold Zone Historical Mineral Resources

In 1988, G.M. Leary, M.Sc., P.Eng. estimated, on behalf of Consolidated Jalna Resources Limited, that the Purdex Gold Zone contained "drill indicated reserves" of approximately 91,000 tons grading 0.26 oz/ton Au (82,550 t grading 8.91 g/t Au). Following the completion of 12 additional drill holes totalling 5,491 ft (1,673.7 m) for a total of 45 drill holes by Consolidated Jalna in 1989, Leary reported a very preliminary estimate of 250,000 tons of material grading from 0.25 to 0.30 oz/ton Au (226,800 t grading between 8.57 and 10.28 g/t Au).

**Source:** In 1988 and 1989, G.M. Leary, M.Sc., P.Eng. estimated, on behalf of Consolidated Jalna Resources Limited, that the Purdex Gold Zone contained "drill indicated reserves". *Leary, G.M., 1989 Drill Program on the Purdex Property, Kenora Mining Division, Ontario for Consolidated Jalna Resources Limited* (Leary, 1989). The report by Leary in 1989 includes the mineral estimates for 1988 and 1989.

**Relevance and Reliability of these Historical Mineral Estimates:** The Author was unable to verify these historical mineral estimates as the supporting data are incomplete, not all were prepared by an independent party, and they predate the requirements set forth in the NI 43-101. The historical estimates are relevant in that they provide a robust framework on which to base a work program to define a NI 43-101 compliant Mineral Resource. The issuer is not treating the historical estimates as current Mineral Resources or Mineral Reserves.

**Key Assumptions, Parameters and Methods used to Prepare the Historical Estimate:** The 1988 estimate was based upon information from 33 drill holes totalling 8,582 ft (2,616 m) completed by Purdex Minerals in 1958. The 1989 estimate is based on a total of 45 drill holes totalling 14,073 ft (4,289 m). The 45 drill holes included the original 33 drill holes and an additional 12 drill holes totalling 5,491 ft (1,674 m) completed by Consolidated Jalna in 1988. The mineralization occurred in 6 lenses: Purdex A, Purdex B (4 Shoots) and Purdex P zones. Both mineral resource estimates used a cut-off grade of 0.1 oz/ton Au (3.43 g/t Au) along with a tonnage factor of 12 cubic feet per ton and a bulk density of 2.67 t/m<sup>3</sup>. The 1988 estimate used a minimum true thickness of 5 ft (1.52 m) and depths of from 160 to 350 ft (48.8 to 106.7 m). The 1989 mineral resource estimate used a minimum true thickness of 4 ft (1.22 m) and depths of 180 ft (54.9 m) for the Purdex A and B Zones and 600 ft (182.9 m) for the Purdex P Zones.

**Categories Used:** The 1988 and 1989 mineral resource estimates used a category that is inconsistent with those set forth by NI 43-101 Standards of Disclosure for Mineral Projects. The current categories and standards are defined by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), where they are outlined in a document entitled CIM Definition Standards for Mineral Resources and Mineral Reserves (CIM, 2014). The gold mineralization outlined in the 1988-1989 estimate (Leary, 1989) was classified as "drill indicated reserves", as it was based on the results from drilling and in this case minor trench sampling, but no underground sampling. All of the mineralization was not broken down into "Proven and Probable Reserves, "Measured and Indicated Resources" and "Inferred Resources", as set forth by the CIM 2014 Definition Standards.

DISCLAIMER: The Author has not done sufficient work to classify the historical mineral resource estimate of the Purdex Gold Zone as a current Mineral Resource or Mineral Reserve. The issuer is not treating the historical mineral resource estimate as a current Mineral Resource Estimate or Mineral Reserve Estimate.

Table 6.1           Historical Mineral Resources at the High Lake Property						
Zone	Year	Company	Width (m)	Au (g/t)	Tonnes (t)	Au (oz)
Purdex	1989	Consolidated Jalna Resources Ltd.	2.19	9.43*	227,000	68,822
Electrum P	1987	Calnor Resources Ltd.	3.95	9.94	9,000	2,876
Electrum R	1987	Calnor Resources Ltd.	3.60	15.77	23,000	11,661
Electrum W	1987	Calnor Resources Ltd.	2.90	5.49	11,000	1,942
Total				9.83**	270,000	85,301

Source: Sears et al. (2021)

Notes: \*from 8.57 to 10.28 g/t Au; \*\*from 9.10 to 10.54 g/t Au.

#### 6.1.3.2 Electrum Zones

In 1987, J.H. Reedman, B.Sc., M.Phil., M.I.M.M., C.Eng., on behalf of Calnor Resources Ltd. estimated "drill indicated reserves" on six separate gold mineralized zones (Reedman, 1987). Three of these zones – the Electrum "P", "R", and "W" Zones, are located on the High Lake Property. These three zones were estimated to contain approximately 47,000 tons of "drill indicated reserves" grading 0.35 oz/ton Au (43,000 t grading 11.92 g/t Au).

**Source:** In 1987 Reedman estimated on behalf of Calnor Resources that the Electrum Zone contained "drill indicated reserves". Reedman, J. H., 1987: Report on Trenching, Sampling and Compilation of Drill Data at High Lake, Northwest, Ontario on behalf of Laramide Services Corporation on Mining Claims held by Calnor Resources (Reedman, 1987).

**Relevance and Reliability of the Historical Mineral Resource Estimate:** The Author was unable to verify these historical mineral resource estimates, as the supporting data is incomplete, not all were prepared by an independent party, and they predate the requirements set forth in the NI 43-101. The historical mineral resource estimate is relevant in that it provides a robust framework on which to base a work program to define a future NI 43-101 compliant Mineral Resource or Mineral Reserve. The issuer is not treating the historical mineral estimate as a current Mineral Resource or Mineral Reserve.

**Key Assumptions, Parameters and Methods used to Prepare the Historical Mineral Estimate:** The 1987 estimate was based upon data from drilling by Electrum Lake Gold Mines in 1960 and data from Calnor's 1986 drilling and 1987 trenching. There is no reference to any quality control measures for this work and the data used are assumed to have been from the Ontario Government Assessment Files.

The average width of the zones was 11.45 ft (3.49 m); assays were uncut (Table 6.1); the mineral resource estimates used a cut-off grade of 0.05 oz/ton Au (1.71 g/t Au), a tonnage factor of 11.5 cubic ft per ton, and a bulk density of 2.78 t/m<sup>3</sup>. The mineral resource estimates were made using the ORECALC module of the BORSURV software package. This software was one of the earliest computer-based programs in the industry and for its time was considered reasonably

accurate. The software generated tonnages and grade estimates using triangular blocks with corners defined by drill holes and surface trenches.

**Categories Used:** The 1987 mineral resource estimates used a category that is inconsistent with those set forth by NI 43-101 Standards of Disclosure for Mineral Projects. The current categories and standards are defined by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) where they are outlined in a document entitled CIM Definition Standards for Mineral Resources and Mineral Reserves (CIM, 2014). The gold mineralization outlined in the 1987 mineral estimates (Reedman, 1987) was classified as "drill indicated reserves", as it was based on the results from drilling and trench sampling, but no underground sampling. All of the mineralization was categorized as "reserves" as was customary at that time. The mineralization was not broken down into "Proven and Probable Reserves, "Measured and Indicated Resources" and "Inferred Resources" as currently set forth by the CIM 2014 Definition Standards.

DISCLAIMER: The Author has not done sufficient work to classify the historical mineral resource estimates on the Electrum Zones as a current Mineral Resource or Mineral Reserve. The issuer is not treating the historical mineral resource estimates as current Mineral Resources or Mineral Reserves.

## 6.1.4 High Lake Property Past Production

There is no previous production recorded on the High Lake Property.

### 6.2 WEST HAWK LAKE PROPERTY HISTORY

### 6.2.1 West Hawk Lake Property Ownership

Prior to 1950, the claims that now make up the West Hawk mining lease were held by various individuals and companies. In 1950, the current property was acquired by Homestake Explorations Limited. In 1990, Homestake Explorations Limited merged with Queenston Gold Mines Limited to form Queenston Mining Inc. ("Queenston") which became the new, underlying owners of the Property. Between 1950 and 2005, the Property was optioned to several small mining companies, who completed exploration and development programs. In 2005, the optionee, Whiteshell Ventures Ltd., failed to meet the required terms of their option agreement and the Property reverted 100% back to Queenston. In September 2009, Canadian Star Minerals Limited signed a letter of intent with Queenston to acquire an interest in the Property and completed an option agreement effective February 1, 2011. Canadian Star signed a purchase agreement with Osisko Mining Ltd. (who acquired Queenston in 2012) to purchase the ML-18 Mining Lease outright. On May 15, 2014, ML-18 was transferred from Osisko Mining Ltd. to Canadian Star Mineral Ltd.

### 6.2.2 West Hawk Lake Property Exploration

Gold was reportedly first discovered on an adjacent property north of the West Hawk claims by J. H. Hicks in 1910, with early exploration and development completed in that area by Pennica Reef Gold Mines Limited. This resulted in increased exploration activity in the surrounding area,

including the West Hawk Lake Property. The exploration history of the West Hawk Lake Property is summarized below:

- **1912 to 1928:** Gold was first discovered on the Sunbeam property by G.R. Thurber in 1912; prospecting, sampling and trenching was reported on the Sunbeam and surrounding claims over the next 16 years.
- **1928 to 1934:** A minor amount of shaft sinking was completed at Sunbeam and Waverly by individuals. b
- **1936 to 1940:** Sunbeam Kirkland Gold Mines Limited (Sunbeam Kirkland), Sunbeam Prospect completed surface trenching, 28 drill holes (1,525 m), sunk a 134 m shaft with work on 4 levels, and shipped a 4,257-ton bulk sample to the Kenricia Mill in the Kenora area (recovered 24.7 kg Au).
- **1941 to 1946:** Goldbeam Mines was formed, after reorganizing Sunbeam Kirkland, and completed 8,516 m of drilling on targets other than the Sunbeam, sunk a 152 m shaft, and drove 3 levels on the Waverly Prospect.
- **1950:** Homestake Explorations Limited acquired the Property.
- **1973:** Star Lake Gold Mines optioned the Property and completed geological mapping and a ground magnetometer survey.
- **1976:** Whiteshell Ventures acquired an option on the Property from a principal of Star Lake Gold Mines.
- **1980:** Whiteshell Ventures was acquired by Goldbeam Resources Limited:
  - **1980 to 1983:** Completed geological mapping, sampling and metallurgical testing; and
  - 1985 to 1986: Dewatered, surveyed, sampled and geologically mapped the Sunbeam and Waverly workings; completed 9 drill holes (437 m) from underground on the Waverly 150 level; completed a local magnetic and VLF-EM survey and 8 drill holes (639 m) from surface; completed limited leach testing on material from the Sunbeam and Waverly zones; a proposal was made to drive a ramp to the 475 foot (145 m) level and mine the Sunbeam pipe, but this was not completed.
- **1990:** Homestake Minerals Limited and Queenstake Gold Mines Limited merged to form Queenston Mining Inc. and became the new underlying owners of the Property.
- **2005 to 2009:** Whiteshell Ventures/Goldbeam Resources Limited failed to meet the terms of the option agreement and the title to the Property returned 100% to Queenston Mining Inc.; in 2009 an airborne geophysical survey was completed and the boundary of the Mining Lease was re-established.

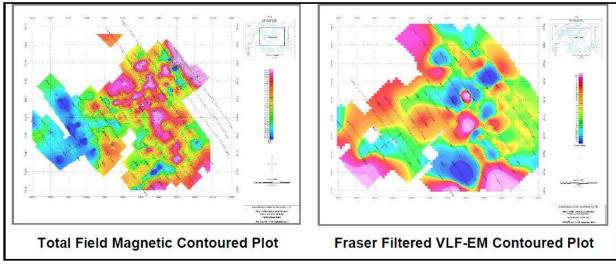
• **2011 to 2012:** Canadian Star optioned the Property from Queenston. In November 2012, Queenston was acquired by Osisko Mining Corporation (Osisko). Canadian Star completed a work program including geological mapping, ground geophysical surveys. In 2012, that company completed an 8-hole drilling program. The results from this work are described below.

Between August and October 2011, an exploration program was completed over the centre part of the West Hawk Property. The program was designed to locate previously identified gold occurrences and deposits as well as other potential host structures on the property and to determine if they could be detected with basic exploration techniques. The work included:

- Approximately 12 km of cut grid;
- Ground magnetic survey;
- VLF-EM survey;
- Geological mapping; and
- Completion of 8 drill holes to test several gold prospects.

**Ground Geophysical Surveys:** The geophysical surveys were completed by JVX Ltd, Toronto, Ontario in December 2012. Data were collected using an Overhauser GMS-19 Magnetometer/VLF instrument (GEM Systems) with built-in GPS station locator. A total of 8.4 km of magnetic data and 10.6 k of VLF-EM data was collected over a cut grid. (JVX, 2013). The Total Field magnetic data is presented in a contoured form and the "Fraser Filtered" VLF-EM data are presented as Figure 6.2.

### FIGURE 6.2 TOTAL FIELD MAGNETIC AND FRASER FILTERED VLF-EM CONTOURED PLOTS



Source: Sears et al. (2021)

**Geological Mapping:** A geological mapping survey was carried out by John C. Davies, Ph.D., of Saskatoon, Saskatchewan. This work utilized the cut grid for control augmented by the use of a GPS. A reconnaissance scale geological map of the area covered is presented as Figure 6.3. The mapping confirms a circular, multi-phased intrusive complex, centered by monzodiorite and

flanked by granodiorite, and then diorite. During the mapping program, 18 surface rock samples were collected and submitted to Accurassay Laboratory in Thunder Bay, Ontario for gold by Fire Assay methods and for 33 elements by an ICP method.

**Drilling Program:** Between October 10 and November 24, 2012, Canadian Star completed an eight-hole drill program totalling 982.5 m. This total excludes a 100 m hole that was abandoned due to encountering underground workings. The drilling was contracted to Cabo Drilling Corp. of Kirkland Lake, Ontario, and the work supervised by Chris North of Canadian Star. Drill core logging was completed by Dr. J. Davies and Brett Duncan. The drilling was designed to test the gold potential of several mineralized zones identified by historical surface exploration and underground development work. The locations of the drill holes are shown in Figures 6.4 and 6.5 and the drill hole collar information is presented in Table 6.2. Significant gold intersections are presented in Table 6.3. The drill results are summarized below.

Two drill holes were designed to test the Sunbeam and Sunbeam Extension breccia pipe zones. Hole CSM-WH-12-1A targeted an east-west shear structure associated with the breccia pipe. This drill hole had four intersected gold values >1 g/t Au. A sheared zone was intersected from 51.0 to 69.0 m that probably represents the Sunbeam or Sunbeam Extension Zone. Within this zone, a 0.95 m interval assayed 2.22 g/t Au from 55.85 to 56.80 m. Hole CSM-WH-12-02 was designed to test the northwest plunging breccia pipe. The hole appears to have been too far to the west and missed the pipe.

Drill hole CSM-WH-12-03 targeted a series of en-echelon shear structures historically referred to as the Letain Zone. This zone is part of the Waverly Shaft Prospect. The drill hole may have been collared too far to the southwest and failed to intersect any significant gold values. Holes CSM-WH-12-04 and CSM-WH-12-06 were designed to test this zone near the Waverly Shaft. Numerous sheared zones were intersected and some contained elevated gold values. The best intersection from these drill holes was 3.12 g/t Au over 1.0 m from 21.0 - 22.0 m in Hole CSM-WH-12-06.

Three drill holes were completed to test the Waverly Raise Prospect located approximately 200 m northwest of the Waverly Shaft. Drill hole CSM-WH-12-05 intersected 2.0 m that assayed 21.6 g/t Au from 57.65 to 59.65 m. Drill hole CSM-WH-12-07 contained a 1.0 m interval from 55.8 to 56.8 m that assayed 25.1 g/t Au. The drill log for CSM-WH-12-07 indicates that from 57.4 to 57.8 m, seven specks of visible gold were observed. However, this interval was not assayed. Drill hole CSM-WH-12-08, completed at a steeper angle than the other two drill holes, intersected of 7.14 g/t Au over 0.95 m from 101.6 to 102.55 m.

The relationship between sample length and true thickness is not known at this time. The drill holes were designed to cut across the projected surface orientations of the mineralized zones. However, there was insufficient information available to determine the true thicknesses. All sample lengths are drill lengths.

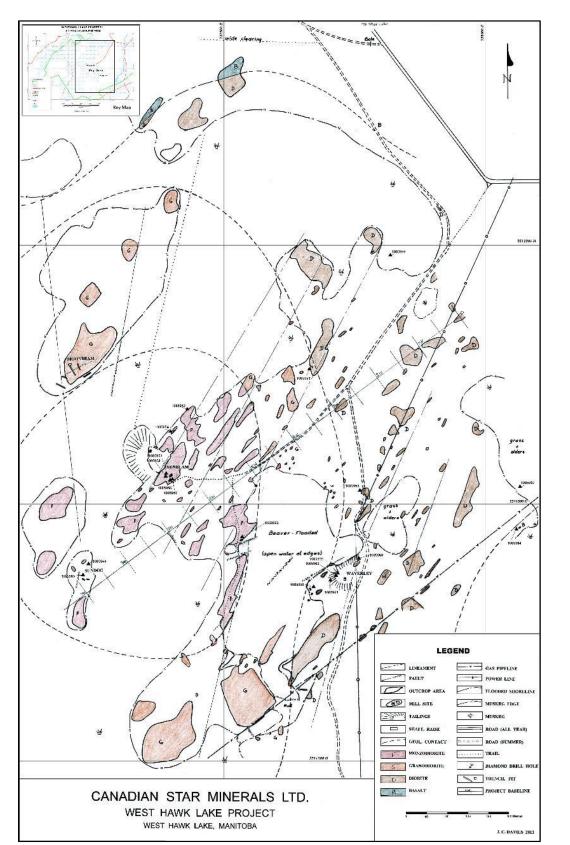
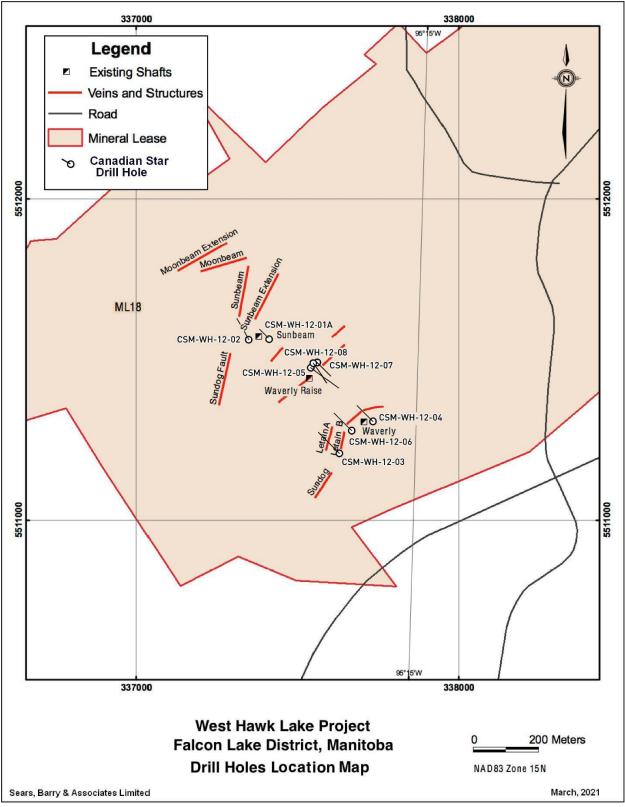


FIGURE 6.3 CANADIAN STAR OUTCROP MAP OF THE WEST HAWK LAKE PROPERTY

Source: Sears et al. (2021)

#### FIGURE 6.4 CANADIAN STAR MINERALS LTD. DRILL HOLE LOCATION MAP



Source: Sears et al. (2021).



# FIGURE 6.5 PHOTOGRAPH OF DRILL HOLE CSM-WH-12-08 COLLAR LOCATION

Source: Sears et al. (2021)

Table 6.2           Canadian Star 2012 Drill Hole Collars and Depths						
Drill Hole ID	Easting	Northing	Bearing (deg)	Inclination (deg)	Length (m)	
CSM-WH-12-01A	337,407	5,511,551	315	-45	147	
CSM-WH-12-02	337,382	5,511,568	330	-45	115	
CSM-WH-12-03	337,631	5,511,208	315	-45	130	
CSM-WH-12-04	337,743	5,511,351	315	-45	98	
CSM-WH-12-05	337,542	5,511,474	315	-45	151.5	
CSM-WH-12-06	337,703	5,511,329	315	-45	115	
CSM-WH-12-07	337,562	5,511,490	135	-45	91	
CSM-WH-12-08	337,550	5,511,488	145	-60	125	
Total					972.5	

Source: Sears et al. (2021)

TABLE 6.3SELECTED ASSAY INTERSECTIONS FROM THE WEST HAWK 2012DRILL PROGRAM					
Drill Hole ID	From (m)	To (m)	Width (m)	Au (g/t)	
CSM-WH-12-01A	55.85	56.80	0.95	2.22	
CSM-WH-12-02	no significant values				
CSM-WH-12-03	39.70	40.70	1.00	1.03	
CSM-WH-12-04	no significant values				
CSM-WH-12-05	57.65	59.65	2.00	31.60	
CSM-WH-12-06	21.00	22.00	1.00	3.12	
CSM-WH-12-07	55.80	56.80	1.00	25.10	
CSM-WH-12-08	101.60	102.55	0.95	7.14	

Source: Sears et al. (2021)

### 6.2.3 West Hawk Lake Property Historical Mineral Resources

In 1983, John D. Godfrey (Godfrey, 1983) on behalf of Goldbeam Resources Ltd., estimated approximately 504,000 tons of material in six separate zones grading 0.405 oz/ton Au (457,200 tonnes grading 13.90 g/t Au) on the West Hawk Property (Table 6.4).

**Source:** In 1983, Godfrey estimated on behalf of Goldbeam Resources Ltd. that the West Hawk Property hosted "ore reserves" in 6 separate zones. *Godfrey, J. D., P. Geo., 1983: Geology and Mineral Occurrences of the Whiteshell Mineral Claims, Star Lake, Manitoba; a consulting report for Goldbeam Resources Ltd.* (Godfrey, 1983). The estimates were mainly based on data available from various work programs and mineral resource estimates completed between 1935 and 1946 under the supervision of a respected mining geologist, J.F. Wright.

**Relevance and Reliability of the Historical Estimate:** The Author was unable to verify these historical mineral resource estimates as the supporting data are incomplete, not all were prepared by an independent party, and they predate the requirements set forth in the NI 43-101. To the Author's knowledge, there is no information on quality control nor any raw analytical data publicly available. The historical mineral resource estimate is relevant in that it provides a robust basis on which to plan a work program to define a NI 43-101 compliant Mineral Resource. The issuer is not treating the historical mineral resource estimate as a current Mineral Resource or Mineral Reserve.

**Key Assumptions, Parameters and Methods used to Prepare the Historical Estimate:** The mineralization occurs in six zones: 1) Sunbeam Zone, 2) Moonbeam Zone, 3-5) Waverly-Letain A, B & C Zones, and 6) the Sundog Zone. Most of the supporting data for the mineral resource estimates are not available. Based upon limited information found in various memos and progress reports submitted to Sunbeam Resources Ltd., it appears that the mineral resource estimates were based upon information from extensive sampling from underground development and diamond drilling. This information includes a 475 ft (145 m) shaft, 905 ft (275 m) of drifting on 4 levels and 92 drill holes from surface on the Sunbeam Zone; a 500 ft (152 m) shaft, 3300 ft (1,006 m) of drifting on 3 levels and 91 drill holes from surface on the Waverly/Letain A, B and C Zones; an unknown amount of drilling from surface on the Moonbeam Zone; and 16 drill holes from surface on the Sundog Zone. The tonnage estimates were made using 12 cubic feet per ton, a bulk density value of 2.67 t/m<sup>3</sup>, and grades were capped at 1.0 oz/ton Au (34.286 g/t Au).

**Categories Used:** The 1987 mineral estimate used a category that is inconsistent with those set forth by NI 43-101 Standards of Disclosure for Mineral Projects. The current categories and standards are defined by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) where they are outlined in a document entitled CIM Definition Standards for Mineral Resources and Mineral Reserves (CIM, 2014). The gold mineralization outlined in the 1983 estimate (Godfrey, 1983) was classified as "ore reserves", it was based on the results from drilling and extensive underground sampling. All of the mineralization was categorized as "reserves" as was customary at that time. The mineralization was not broken down into "Proven and Probable Reserves, "Measured and Indicated Resources" and "Inferred Resources" as currently set forth by the CIM 2014 Definition Standards.

Table 6.4           Historical Mineral Resources at the West Hawk Lake Property						
Zone	Year	Estimator	Width (m)	Au (g/t)	Tonnes (t)	Au (oz)
Sunbeam	1983	Goldbeam Resources Ltd.	n/a	9.19	99,800	29,847
Waverly Letain A	1983	Goldbeam Resources Ltd.	n/a	15.33	70,800	34,895
Waverly Letain B	1983	Goldbeam Resources Ltd.	n/a	10.39	99,800	33,338
Waverly Letain C	1983	Goldbeam Resources Ltd.	n/a	9.5	96,200	29,383
Moonbeam	1983	Goldbeam Resources Ltd.	n/a	7.54	18,000	4,363
Sundog	1983	Goldbeam Resources Ltd.	n/a	31.2	72,600	72,825
Total				13.90	457,200	204,292

Source: Sears et al. (2021)

Disclaimer: The Author has not done sufficient work to classify the historical mineral resource estimates on the West Hawk Lake Property as a current Mineral Resource or Mineral Reserve. The issuer is not treating the historical mineral resource estimate as a current Mineral Resource.

## 6.2.4 West Hawk Lake Property Past Production

In 1940, a bulk sample was taken from underground at the Sunbeam Deposit. A total of 4,693 tons (4,257 t) was shipped to the Kenricia Mill in the Kenora area, Ontario. The average grade recovered from the material processed was reported to be 0.17 oz/ton Au (5.82 g/t Au). This resulted in production of 797 troy ounces (24.7 kg) Au (Godfrey, 1983).

Disclaimer: The Author has not been able to verify the grade and tonnage quoted for the Sunbeam Bulk Sample and it should not be relied upon.

#### 7.0 GEOLOGICAL SETTING AND MINERALIZATION

This Section of the Report is largely summarized from Sears et al. (2021).

### 7.1 GEOLOGICAL SETTING

#### 7.1.1 Regional Geology

The High Lake and the West Hawk Lake Properties both lie within the Lake of the Woods Greenstone Belt, near the western end of the Wabigoon Subprovince, a 900 km long, east-west trending lithostructural zone that is part of the Superior Province of the Canadian Shield (Figure 7.1). The Lake of the Woods Greenstone Belt is one of a series of six interconnected greenstone belts that make up the western part of the Wabigoon Subprovince in northwestern Ontario (Blackburn *et al.*, 1991). The greenstone belts, aged from 3.0 to 2.71 Ga, are composed of 60 to 80% ultramafic to felsic metavolcanic rocks and 20 to 40% clastic and chemical metasedimentary rocks. Numerous elliptical-shaped granitic batholiths considered to be derived from the same parent magmas as the volcanic rocks (3.0 - 2.69 Ga) are enclosed within the greenstone belts. All of these rocks have been extensively deformed and intruded locally by syn-tectonic and post-tectonic plutons, dykes and small bodies of ultramafic to felsic composition.

The stratigraphy of the Lake of the Woods Greenstone Belt is described Blackburn *et al.* (1991). It consists of three general stratigraphic assemblages: 1) the Lower Keewatin Supergroup, consisting mainly of mainly volcanic rocks (mostly tholeiitic basalts) with minor intermediate to felsic rocks, which is further subdivided into five subgroups, one of which (the Cedar Island Group) occurs in the High Lake Property area and extends into Manitoba; 2) the Upper Keewatin Supergroup composed of tholeiitic basalts and submarine calc-alkaline felsic to intermediate and subaerial volcanic rocks, which in Ontario has been subdivided into eight groups, four of which extend into Manitoba; and 3) the Electrum Lake Supergroup, composed of fluvial sedimentary rocks, which have been divided into two groups, one of which occurs within the High Lake Property and extends to near the West Hawk Property in Manitoba.

The Lake of the Woods Greenstone Belt has been intruded locally by composite granitoid plutons, some of which are considered to be syn-volcanic. The High Lake Intrusive Complex, on the High Lake Property, and the Falcon Lake Igneous Complex, on the West Hawk Lake Property, appear to be important features related to gold mineralization in these areas.

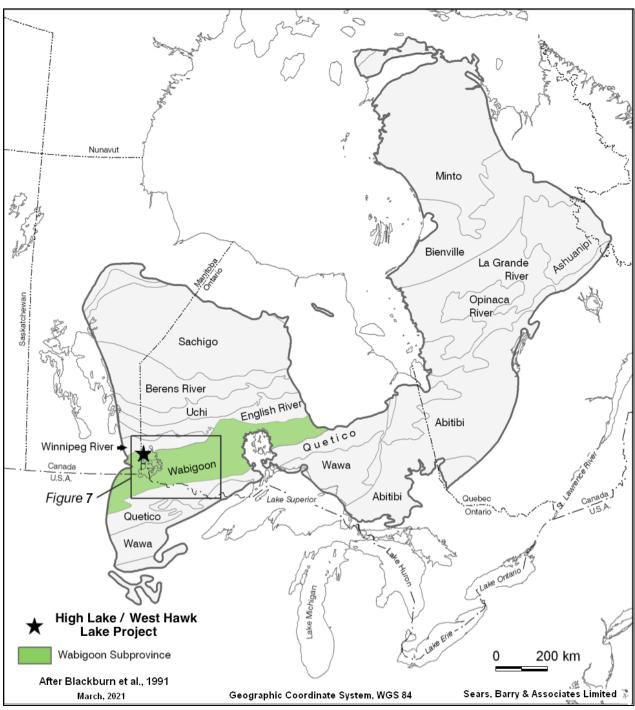


FIGURE 7.1 REGIONAL GEOLOGICAL SETTING

Source: Sears et al. (2021)

## 7.2 LOCAL GEOLOGY

Locally, the High Lake and West Hawk Lake Properties are underlain by composite intrusive bodies, namely the High Lake Intrusive Complex and the Falcon Lake Igneous Complex, and a

similar mafic to felsic volcanic and sedimentary sequence into which these bodies have been emplaced (Figure 7.2).

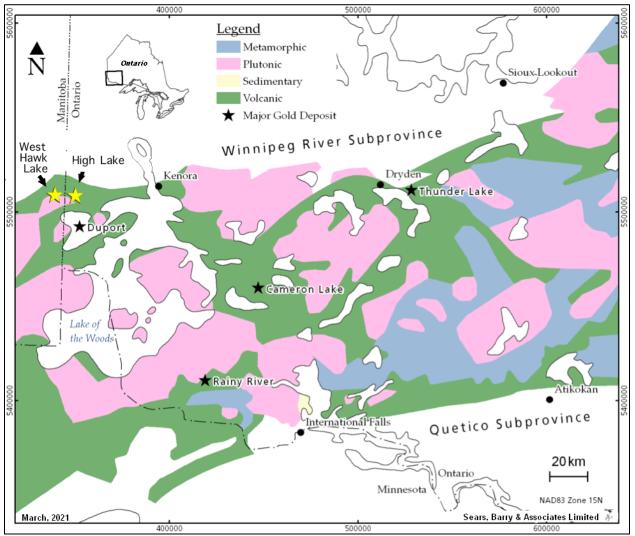


FIGURE 7.2 GEOLOGICAL SETTING OF THE HIGH LAKE-WEST HAWK LAKE AREA

Source: Sears et al. (2021)

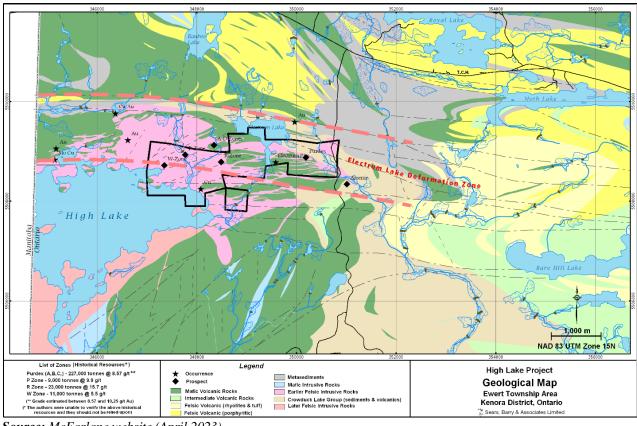
# 7.3 HIGH LAKE PROPERTY GEOLOGY

The geology of the High Lake Property area is shown on Figure 7.3. The High Lake claims cover part of the contact zone between mafic to felsic metavolcanic and related metasedimentary rocks (High Lake Formation of the Upper Keewatin Supergroup) and metasedimentary rocks of the Electrum Lake Supergroup with the High Lake Granodiorite Stock ("HLGS"). The HLGS consists of an early synvolcanic phase dated at 2,727 Ma years, and a late tectonic phase dated at 2,711 Ma years (Blackburn *et al.*, 1991).

In general, the western part of the Property is underlain dominantly by the High Lake intrusive body (granodiorite and quartz-feldspar porphyry) with 10% to 20% inclusions, large rafts and roof

pendants of volcanic rock. The eastern part of the Property is underlain by a complex sequence of mafic to intermediate metavolcanic rocks, metasedimentary rocks (argillite, shale), and approximately 10 to 20% felsic dykes and sills. The centre of the Property is underlain by intercalated zones of felsic intrusive rocks and mafic to intermediate metavolcanic rock (approximately 50/50).

The High Lake Property lies within an area bounded by two, major east-west trending fault structures. Movement along these boundary faults appears to have created oblique northeast and northwest trending secondary structures that are associated with the gold mineralization.



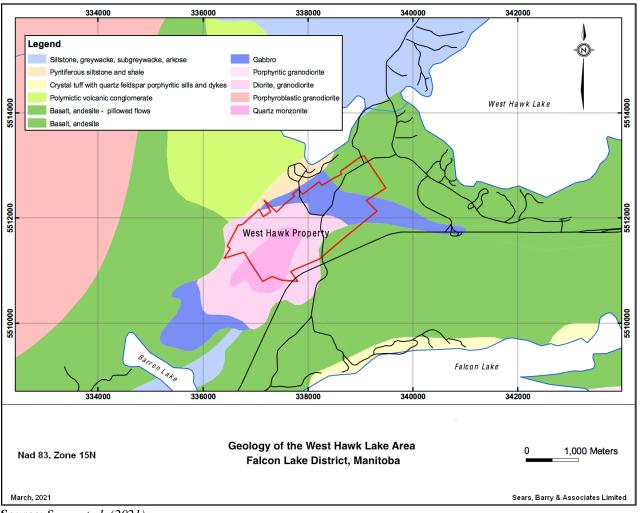
# FIGURE 7.3 HIGH LAKE AREA GEOLOGY

*Source:* McFarlane website (April 2023) *Note:* Property boundary shown as it was in 2021.

# 7.4 WEST HAWK LAKE PROPERTY GEOLOGY

The general geology of the West Hawk Lake Property area is shown in Figure 7.4. The principal geological unit is the Falcon Lake Igneous Complex ("FLIC"), a 5 km by 2 km elliptical shaped composite intrusion emplaced near the contact between meta-volcanic and meta-sedimentary rocks. These rocks form an anticlinal structure in this area. The FLIC is reported to have been emplaced as a result of at least six intrusive events. Rock types range from gabbro in the outer rim to quartz monzonite in the inner core.

# FIGURE 7.4 WEST HAWK LAKE PROPERTY GEOLOGY



Source: Sears et al. (2021)

### 7.5 MINERALIZATION

### 7.5.1 High Lake Mineralization

Several different styles of gold mineralization occur on the High Lake Property. The most important style consists of gold associated with quartz veins and silicified sheared zones spatially related to the contact between quartz-feldspar porphyry sills or dykes and mafic to intermediate volcanic rocks. The volcanic rocks sometimes occur as large rafts or roof pendants within the quartz-feldspar porphyry body. Pyrite and chalcopyrite are typically associated with the gold, as is tourmaline, sericite, chlorite and carbonate. This style of gold mineralization occurs at: 1) Purdex A, B and P Zones; and 2) Electrum Prospect (Figures 7.5 and 7.6). The Electrum Prospect consists of six zones, of which the P, R and W Zones are on the High Lake Property. These Zones have documented historical mineral resources as presented in Section 6 of this Technical Report.

On leased claim K32307 in the western part of the Property, at least one gold occurrence is reported to be associated with sheared zones with no reference to quartz veining. The common associated metallic minerals in this prospect are pyrite, chalcopyrite and molybdenite. One of the more intriguing occurrences on the High Lake Property lies within leased claims K32306 and K32307. The mineralization in that location is described as 'porphyry' type (Davies, 1965; Colvine *et al.*, 1979). This occurrence has not been examined by the Author, and therefore its character and potential cannot be addressed at this time. This, along with some of the other known prospects that are on the High Lake Property are shown in Figure 7.5 and summarized in Table 7.1.

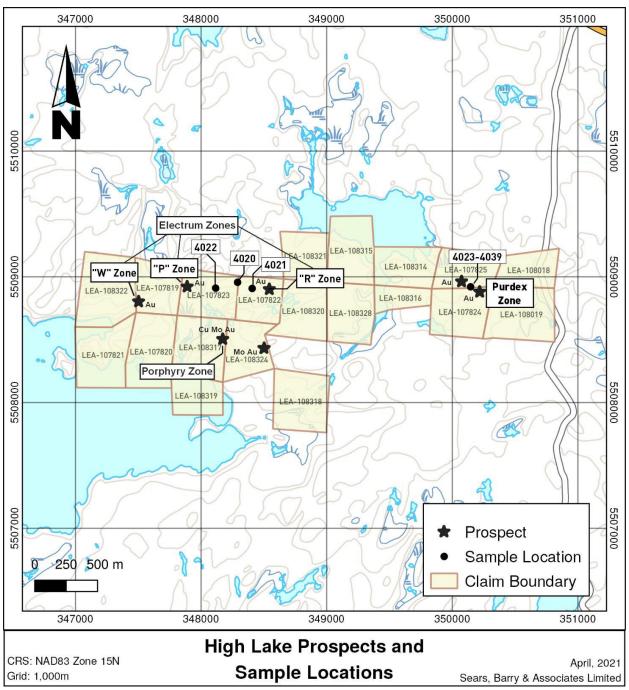


FIGURE 7.5 HIGH LAKE PROPERTY GOLD MINERALIZATION

*Source:* Sears et al. (2021) *Note:* Property boundary shown as it was in 2021.



# FIGURE 7.6 THE PURDEX ZONE TRENCH AT HIGH LAKE PROPERTY

Source: McFarlane press release (October 20, 2022). Notes: A 10-m panel sample from the trench averaged 9.84 g/t Au. Backpack (lower right) for scale.

TABLE 7.1High Lake Property Prospects			
Zone	Туре	Description	
Purdex Gold Zone	Au	Au occurs with pyrite, chalcopyrite & arsenopyrite in quartz veins and silicified zones with sericite in sheared zones at or near contact between volcanics and quartz-feldspar porphyritic intrusive rocks; 6 lenses identified over strike length of 150 m. Tested with 46 holes by MLM in 2022-2023 with numerous significant intersections including 24.96 g/t Au over 14.9 m in drill hole MLHL-22-06. Additional targets indicated east and west of zone by IP survey completed in 2023.	

Table 7.1         High Lake Property Prospects				
Zone	Туре	Description		
Electrum Zones	Au	Gold occurs with quartz veining in shear zones in volcanic rocks and at contact between volcanics and quartz-feldspar porphyritic intrusive rocks; 7 zones identified, 3 of which are on the High Lake Property (Electrum P, R and W Zones). IP survey completed in 2023 indicates untested extensions to the zones.		
Porphyry Zone	Cu-Au	Surface sampling traced a mineralized zone for a length of 600 m and width of 76 m (open); grades estimated to be from 0.10% to 1.35% Cu and 0.343 g/t to 1.71 g/t Au. IP survey completed in 2023 outlines potential drill targets.		
Contact Zone	Cu-Au	Drill hole (SA-21) completed in 1953 intersected 12.1 m assaying 1.04% Cu and 0.343 g/t to Au; not followed-up		
Alcock Zone	Mo-Au	Surface trench reported to assay 2.4 g/t Au over a length of 6.7 m with visible molybdenite and chalcopyrite; two drill holes in the same area in 1963 assayed 0.28% Mo over 3.65 m and 0.34% Mo over 1.83 m; gold assays were not reported		
Sylvanite Zone	Au	Trench completed pre-1945 is reported to assay 5.14 g/t Au over 8.5 m; drill hole intersection of 4.11 g/t over 1.52 m		

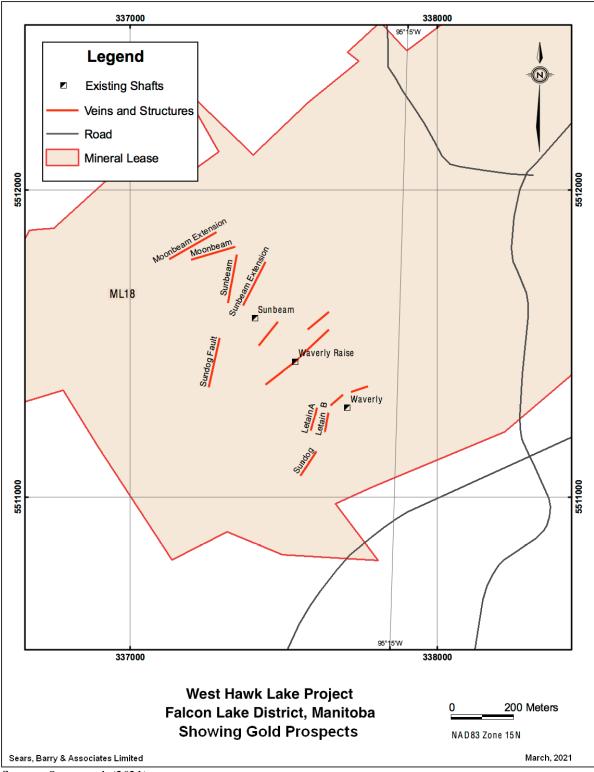
Source: Modified after Sears et al. (2021)

## 7.5.2 West Hawk Lake Mineralization

Two styles of gold mineralization occur on the West Hawk Mining Lease: 1) gold in siliceous bands, small quartz veinlets, and with local sericitic patches hosted in a concentrically banded pipe-like structure, referred to as a "breccia pipe". The associated minerals are pyrite, galena, sphalerite, chalcopyrite, pyrrhotite and minor arsenopyrite and tetrahedrite. This style of gold mineralization occurs at the Sunbeam and Moonbeam Zones (Figures 7.7 and 7.8); and 2) gold in narrow shear zones narrow shear zones that occur in all rock types, but particularly near the contacts of the various phases of the intrusive complex. Gold is generally associated with narrow quartz veining and gashes within en-echelon lenses and wider bodies of biotite schist. Gold also occurs along joint surfaces within and adjacent to the shears. Common accessory minerals are pyrite, galena, sphalerite and arsenopyrite. This style of gold mineralization is prevalent at the Waverly and Sundog Zones (Figure 7.7).

The Sunbeam, Moonbeam, Waverly and Sundog Zones each have historical mineral resources, as presented above in Section 6 of this Report. In addition to these four mineralized zones, there are numerous other mineral occurrences located on the West Hawk Property (Table 7.2).

#### FIGURE 7.7 WEST HAWK LAKE PROPERTY GOLD MINERALIZATION



Source: Sears et al. (2021)



FIGURE 7.8 SUNBEAM ZONE BRECCIA PIPE CONTACT, WEST HAWK LAKE PROPERTY

*Source: McFarlane press release (May 25, 2022)* 

TABLE 7.2West Hawk Lake Property Prospects				
Zone	Туре	Description		
Waverly Raise	Au	Raise installed in 1945 and 1946 in a mineralized shear zone from a northwest cross-cut driven from the 450 level of the Waverly shaft. Size potential unknown; Raise surfaces on the north side of a swampy area that separates the Waverly and Sunbeam Deposits. Drill tested with 3 drill holes by CSM in 2012 with best result from CSM-WH-12-05, which assayed 24.68 g/t Au over 2.6 m. MLM completed 3 holes in 2022 with best result in MLWH-22-01 of 22.17 g/t Au over 1.27 m.		
Breccia Zone	Au	A breccia pipe located beneath a swamp between the Sunbeam and Moonbeam pipes (Godfrey, 1983). Pipes of this type (on the property) are known to range from 20 to 150 ft (6.1 to 45.7 m) across and are considered to have excellent down-dip potential. MLM completed one hole in 2022 testing the down plunge projection of the pipe, intersecting two zones of 3.81 g/t Au over 4.0 m and 7.85 g/t Au over 2.0 m.		
Other Shear Zones	Au	Fingler (1988) and Davies (2011) refer to several zones that occur to the west of the Waverly veins (Letain Zones A, B & C). The size potential of these zones is not known, and their orientation and structural controls are not well understood. These include the Moonbeam Extension, Sundog Fault, and the Sunbeam Extension		
Gold Coin	Au	Davies (2011) reports "A pit approximately 2 m long was located within diorite at Grid 200N and about 065 W. Rock is poorly exposed, but apparently a shear zone with some disseminated pyrite was probed. Fingler (1991, p. 78-79) reported chlorite alteration and gold associated with pyrite and arsenopyrite."		

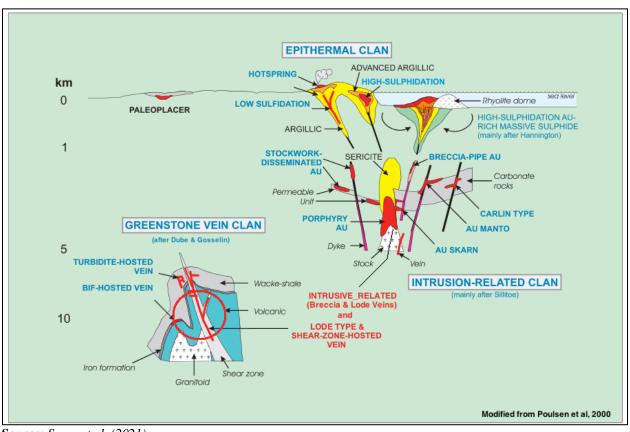
Source: Modified after Sears et al. (2021)

#### 8.0 **DEPOSIT TYPES**

Three primary mineral deposit types have been discovered to date on the High Lake and West Hawk Lake Project Properties:

- Archean age, structurally-hosted, lode or orogenic gold deposits (Hodgson, 1993; Poulsen *et al.*, 2000). Deposits of this type range in size from small, sub-economic lenses containing 10s of thousands of tonnes to >100 Mt of mineralized material grading from 5 to 15 g/t Au. This type of deposit is best represented by the gold deposits of the Timmins, Kirkland Lake and Red Lake mining camps. The key features that are common in this type of deposit are a spatial association with a regional- scale structure, such as the Porcupine-Destor Fault Zone (or Break) in the Timmins area or the Kirkland Lake - Larder Lake Fault Zone (or Break) in the Kirkland Lake Area, proximity of younger quartz (feldspar) porphyry intrusions and intense alteration of the host rocks to carbonate-sericite-silica. There can be a spatial association with ultramafic rocks;
- 2) Quartz-sericite schist with Au ± pyrite ± chalcopyrite ± Mo. Deposits of this type are typically large tonnage and lower grade than most lode gold deposits (Poulsen, 1996). They are generally hosted in shear zones and commonly are associated with felsic intrusions. The host rocks are typically sedimentary or volcaniclastic. One of the best examples of this deposit type is the Hemlo Gold deposit near Marathon, Ontario, which contained 84 Mt of Mineral Resources grading 7.7 g/t Au (Bodycomb, 2000); and
- 3) Porphyry-related Cu + Au ± Mo deposits. The quartz porphyritic rocks and their contact aureoles also have potential for hosting large tonnage, bulk mineable gold mineralization associated with quartz-carbonate stockwork and vein zones. Porphyry type deposits are common in other parts of the world and are not unknown in Archean greenstone belts (Colvine *et al.*, 1979, 1981). A prospect on the High Lake Property (north of the northeast end of High Lake) has historically been described as a porphyry deposit (Davies, 1965). In addition, the gold mineralization associated with "breccia pipes" on the West Hawk Lake Property (the Sunbeam and Moonbeam deposits) might be related to an unexposed intrusive body, which may be part of a larger porphyry intrusion-related mineralizing system.

The key features of these three gold deposit types are summarized in Figure 8.1. Exploration techniques employed for these types of deposits are geological mapping, magnetic and Induced Polarization (IP) geophysical surveys, soil geochemical surveys, and diamond drilling.



### FIGURE 8.1 DEPOSITIONAL MODELS FOR CANADIAN GOLD DEPOSITS

*Source: Sears et al.* (2021)

### 9.0 EXPLORATION

Exploration on the High Lake and West Hawk Lake Properties by McFarlane includes induced polarization ("IP") geophysical surveys and diamond drilling programs. The IP geophysical survey programs on each of these two Properties are summarized below. The drilling programs are summarized in Section 10 of this Technical Report.

### 9.1 IP GEOPHYSICAL SURVEYS

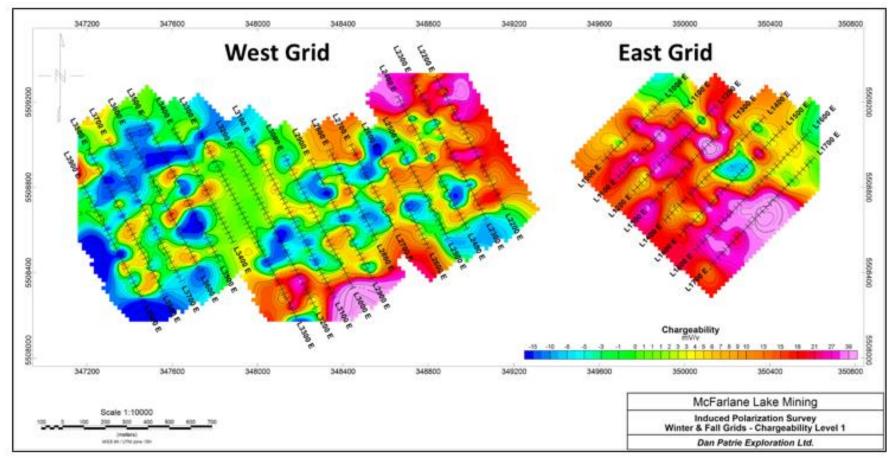
Surface induced polarization (IP) geophysical surveys were completed on the High Lake and West Hawk Lake Properties in 2022 and 2023, in order to detect chargeability targets suitable for drill testing. The IP survey was completed along three line-cut grids; two on the High Lake Property and one on the West Hawk Lake Property. The following report sub-sections contain information summarized from the McFarlane press release dated March 21, 2022 and copies of reports provided by McFarlane, particularly Kusins (2023).

### 9.1.1 IP Surveys on the High Lake Property

An IP survey was completed on the High Lake Property during January and early February 2023. The survey was performed and interpreted by Dan Patrie Exploration Limited of Massey, Ontario. The objective of the survey was to detect chargeability and resistivity anomalies for follow-up drilling.

The IP survey was completed on two cut line grids (Figure 9.1). The east grid (aka fall grid) consists of eight cut lines plus one base line for a total of 5,875 m, of which 5,175 m were surveyed by IP. The east grid covers the area of the Purdex Zone. In addition to the latter, two more priority targets have been identified here: Purdex East and Conglomerate (Figure 9.2).

The west IP survey grid (aka winter grid) consists of 18 cut-lines plus two base lines for a total of 15,225 m, of which 13,525 m were surveyed by IP. The west grid covers the area of the mineral prospects in the west part of the High Lake Property, where three additional priority targets have been identified: A-D Extension, Porphyry and Gap (Figure 9.2). Overall, Purdex East is the highest priority gold target, whereas Porphyry is a potential copper-gold target.



### FIGURE 9.1 IP GEOPHYSICAL SURVEYED CUT-LINE GRIDS

*Source: McFarlane* (*December* 2022)

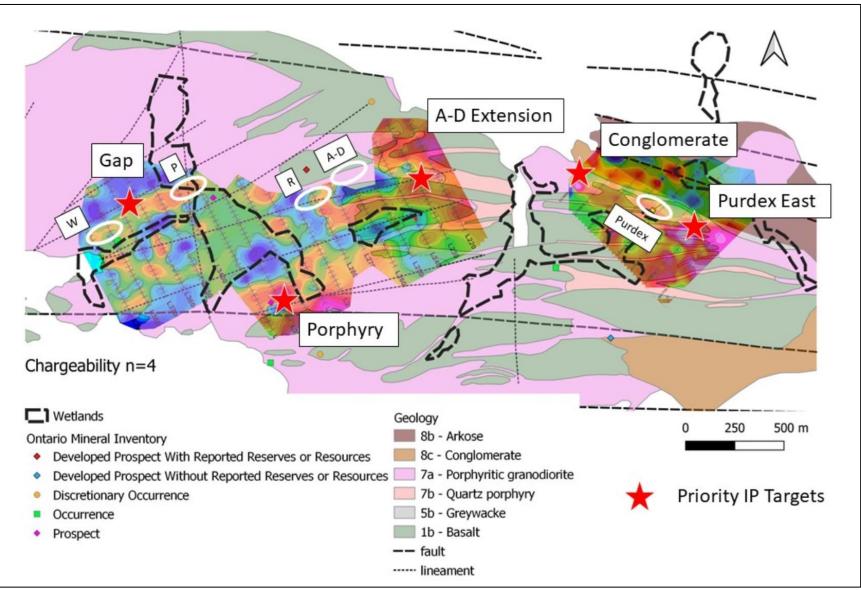


FIGURE 9.2 IP GEOPHYSICAL SURVEY CHARGEABILITY RESULTS AND TARGETS

*Source: McFarlane website (May 23, 2023)* 

## 9.1.2 IP Surveys on the West Hawk Lake Property

A Surface Spectral Induced Polarization (SIP)/Resistivity survey was completed on the West Hawk Lake Property from January 16 to February 7, 2022, The work was done and interpreted by Golden Mallard Corp. of Kanata, Ontario (Golden Mallard, 2022). The objective of the IP survey was to detect chargeability and resistivity anomalies that may warrant further investigation and drilling.

The SIP/Resistivity survey was conducted on 18 cut grid-lines (L0W, L100W, L200W, L300W, L350W, L400W, L450W, L500W, L550W, L600W, L650W, L700W, L750W, L800W, L850W, L900W, L1000W and L1100W) for a total of 17,500 m (Figure 9.3). The Electrical SIP/Resistivity method was employed and the Pole-Dipole (Radial Detection) array measurement configuration used.

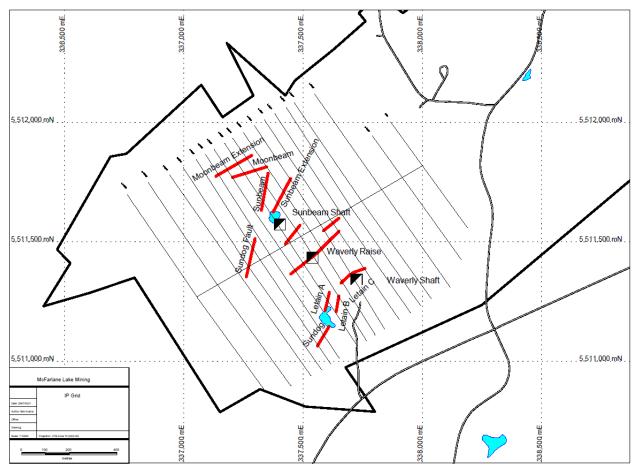


FIGURE 9.3 IP CUT-LINE GRID ON THE WEST HAWK LAKE PROPERTY

*Source: McFarlane* (*April 2023*) *Notes: Approximately 17.7 km of this line grid were IP surveyed.* 

Results of the IP survey suggest potential mineralization from the indication of strong chargeability anomalies flanked by or co-incident with resistivity anomalies over significant strike lengths. These prospective anomalies suggest presence of sulphides within silicified zones. In total,

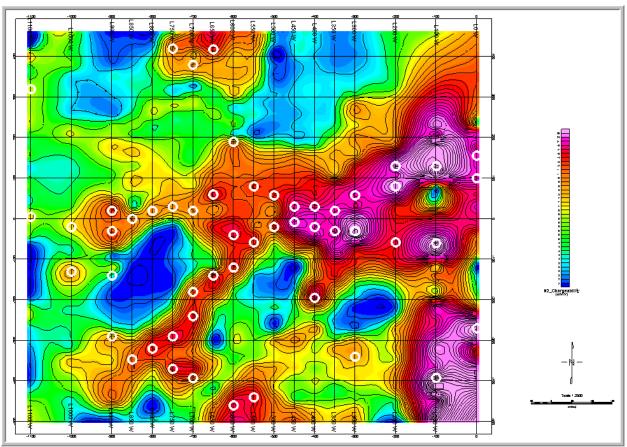
TABLE 9.1           Approximate Anomaly Centres and IP Geophysical Responses					
Line	X_Local	Y_Local	Chargeability	Resistivity	Priority
LOW	0	270S	strong	relatively low	1
LOW	0	100N	strong	high	1
LOW	0	156N	strong	relatively low	1
L100W	100	392S	strong	relatively low	1
L100W	100	60S	strong	relatively low	1
L100W	100	130N	strong	relatively low	1
L200W	200	58S	moderate	high	2
L200W	200	80N	strong	high	1
L200W	200	130N	strong	high	1
L300W	300	340S	weak	relatively low	3
L300W	300	30S	strong	high	1
L300W	300	58N	strong	relatively low	1
L350W	350	30S	strong	relatively low	1
L350W	350	20N	strong	relatively low	1
L400W	400	195S	moderate	high	2
L400W	400	20S	strong	relatively low	1
L400W	400	30N	strong	high	1
L450W	450	8S	strong	relatively low	1
L450W	450	30N	moderate	relatively low	2
L500W	500	20S	moderate	relatively low	2
L500W	500	58N	moderate	high	2
L550W	550	440S	moderate	high	2
L550W	550	58S	moderate	relatively low	2
L550W	550	80N	moderate	high	2
L600W	600	460S	moderate	high	2
L600W	600	120S	moderate	relatively low	2
L600W	600	40S	moderate	high	2
L600W	600	190N	strong	relatively low	1
L650W	650	140S	strong	relatively low	1
L650W	650	60N	moderate	very high	2
L650W	650	418N	moderate	high	2
L700W	700	393S	moderate	high	2
L700W	700	240S	moderate	relatively low	2
L700W	700	180S	strong	high	1
L700W	700	20N	weak	relatively low	3

52 anomalies were identified and compiled for follow-up work, particularly drilling (Table 9.1; Figures 9.4 and 9.5).

TABLE 9.1           Approximate Anomaly Centres and IP Geophysical Responses						
Line	X_Local	Y_Local	Chargeability	Resistivity	Priority	
L700W	700	380N	moderate	relatively low	2	
L750W	750	370S	moderate	very high	2	
L750W	750	290S	moderate	high	2	
L750W	750	30N	moderate	relatively low	2	
L750W	750	420N	moderate	high	1	
L800W	800	320S	moderate	high	2	
L800W	800	20N	moderate	relatively low	2	
L850W	850	347S	moderate	relatively low	2	
L850W	850	0N	moderate	high	2	
L900W	900	290S	moderate	relatively low	2	
L900W	900	140S	strong	relatively low	1	
L900W	900	30S	moderate	relatively low	2	
L900W	900	20N	moderate	relatively low	2	
L1000W	1000	130S	weak	relatively low	3	
L1000W	1000	20S	weak	relatively low	3	
L1100W	1100	320N	weak	relatively low	3	
L1100W	1100	5N	weak	relatively low	3	

Source: Golden Mallard (2022)

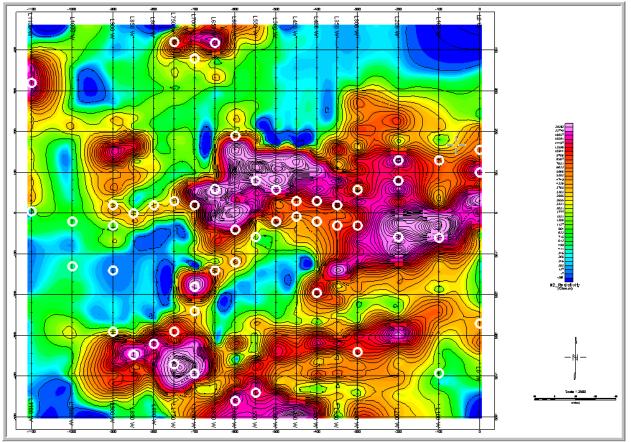
The IP survey displayed resistivity and chargeability towards the eastern portion of the grid (Figure 9.6) and remains open to the east for further expansion by additional surveying. These findings are supported by historical drilling within the anomalous trends that have confirmed presence of sulphides, silicification, and quartz veins in sheared quartz monzonite. Previously, the eastern portion of this Property had been overlooked.



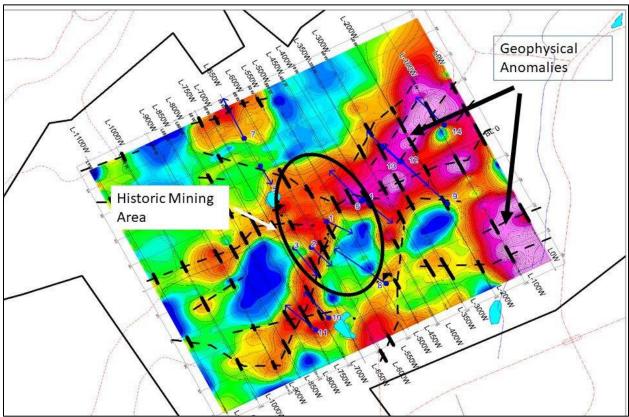
# FIGURE 9.4 CHARGEABILITY PLAN MAP WITH ANOMALY CENTRES

Source: Golden Mallard (2022)

# FIGURE 9.5 RESISTIVITY PLAN MAP WITH ANOMALY CENTRES



Source: Golden Mallard (2022)



# FIGURE 9.6 CHARGEABILITY IMAGE FROM THE WEST HAWK LAKE IP SURVEY

Source: McFarlane press release (March 21, 2022)

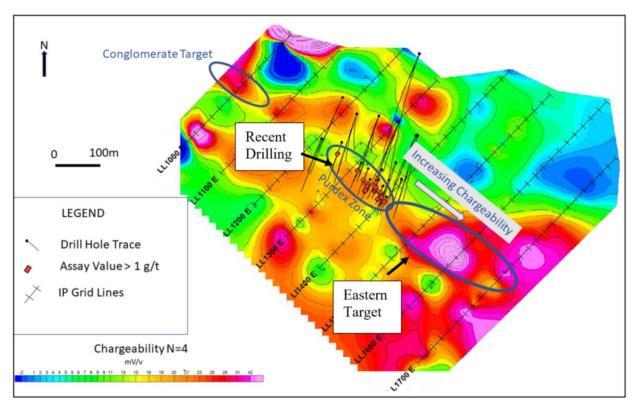
## 10.0 DRILLING

Drilling on the High Lake Property prior to 2022 is deemed historical, and therefore is summarized in Section 6 of this Technical Report. McFarlane's 2022-2023 drilling programs at High Lake and at West Hawk Lake are summarized below. McFarlane completed 61 drill holes for a total of 13,594.5 m on the two Properties.

#### 10.1 2022-2023 DRILLING PROGRAM ON THE HIGH LAKE PROPERTY

McFarlane completed 46 drill holes totalling 10,443 m on the High Lake Property in late-2022 through early-2023. The initial drill holes were designed to test targets generated from the results of historical drilling and the IP geophysical surveys. Drill collar locations are shown in Figure 10.1 and details listed in Table 10.1. A cross-sectional projection of the drill hole results is presented in Figure 10.2 and a longitudinal projection in Figure 10.3.

# FIGURE 10.1 HIGH LAKE DRILL HOLE COLLAR LOCATIONS ON IP CHARGEABILITY PLAN



Source: McFarlane (April 2023)

Table 10.1           Collar Location Details for the 2022-23 High Lake Drilling Program						
Drill Hole ID	Easting*	Northing*	Elevation (m asl)**	Azimuth (deg)	Dip (deg)	Length (m)
MLHL-22-01	350,094	5,508,911	371	207	-45	99
MLHL-22-02	350,095	5,508,913	372	207	-70	153
MLHL-22-03	350,131	5,509,015	372	206	-45	228
MLHL-22-04	350,131	5,509,015	373	203	-58	279
MLHL-22-05	350,132	5,509,016	373	202	-67	327
MLHL-22-06	350,132	5,509,016	373	202	-74	351
MLHL-22-08	350,176	5,509,167	368	201	-55	102
MLHL-22-10	350,137	5,508,891	373	200	-49	99
MLHL-22-11	350,138	5,508,892	373	200	-73	147
MLHL-22-12	350,169	5,508,986	371	202	-50	252
MLHL-22-13	350,169	5,508,987	372	202	-59	300
MLHL-22-14	350,169	5,508,987	371	207	-71	357
MLHL-22-16	350,049	5,508,927	370	203	-49	99
MLHL-22-17	350,049	5,508,927	370	206	-71	129
MLHL-22-18	350,088	5,509,029	366	199	-49	225
MLHL-22-19	350,088	5,509,030	366	203	-61	282
MLHL-22-20	350,088	5,509,030	367	204	-70	399
MLHL-22-21	350,088	5,509,031	367	205	-79	429
MLHL-22-22	350,006	5,508,972	372	200	-45	123
MLHL-22-23	350,007	5,508,972	372	201	-69	186
MLHL-22-24	350,039	5,509,034	368	200	-53	252
MLHL-22-25	350,039	5,509,034	368	201	-64	303
MLHL-22-26	350,039	5,509,035	369	199	-72	351
MLHL-22-27	350,039	5,509,035	369	190	-78	399
MLHL-22-28	350,087	5,508,891	372	198	-45	63
MLHL-22-29	350,064	5,508,914	369	205	-45	87
MLHL-22-30	350,065	5,508,915	370	201	-71	120
MLHL-22-31	350,109	5,508,890	373	203	-45	87
MLHL-22-32	350,110	5,508,891	373	203	-69	120
MLHL-22-33	349,962	5,508,979	374	201	-44	171
MLHL-22-34	349,962	5,508,980	374	206	-68	210
MLHL-22-35	350,008	5,509,070	366	205	-54	303
MLHL-22-36	350,008	5,509,071	366	204	-68	351
MLHL-23-07	350,125	5,508,927	371	199	-55	210
MLHL-23-08A	350,177	5,509,166	368	199	-59	495
MLHL-23-09	350,176	5,509,166	367	206	-68	549
MLHL-23-37	350,097	5,508,876	373	204	-45	60

TABLE 10.1           Collar Location Details for the 2022-23 High Lake Drilling Program							
Drill Hole ID	Easting*	Northing*	Elevation (m asl)**	Azimuth (deg)	Dip (deg)	Length (m)	
MLHL-23-38	350,097	5,508,877	373	207	-71	81	
MLHL-23-39	350,106	5,508,877	374	200	-44	63	
MLHL-23-40	350,069	5,508,891	369	204	-45	69	
MLHL-23-41	350,104	5,508,852	368	200	-45	60	
MLHL-23-42	350,172	5,508,986	370	196	-44	255	
MLHL-23-43	350,172	5,508,986	369	194	-54	282	
MLHL-23-44	350,173	5,508,988	369	193	-67	360	
MLHL-23-45	350,132	5,509,018	373	199	-71	354	
MLHL-23-46	350,124	5,508,929	371	200	-59	222	

*Notes:* \*NAD83 Zone 15N projection coordinates \*\*metres above sea level

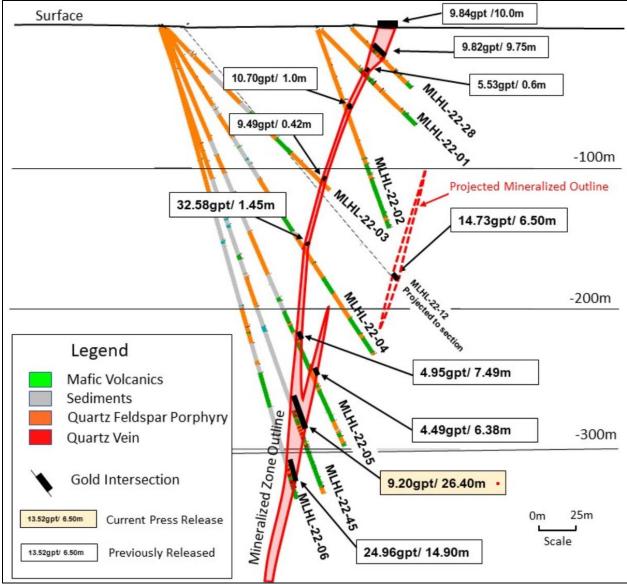
The Purdex Zone was selected as a drill target, because it had the most historical drilling available and historical mineral resources (see Section 6).

Selected highlights of the drilling results for the Purdex Zone are:

- Drilling intersected 24.96 g/t Au over 14.90 m in drill hole MLHL-22-06 from 325.56 to 340.46 m. This intersection includes 43.22 g/t of Au over 7.99 m and 53.87 g/t of Au over 3.15 m. Visible gold was observed in these higher-grade intervals. Drill hole MLHL-22-04 intersected 32.58 g/t Au over 1.45 m higher on the same section within the Purdex A Zone;
- Drill hole MLHL-22-05 intersected two mineralized intervals. The first interval graded 4.95 g/t Au over 7.49 m from 242.51 m downhole, including 11.18 g/t Au over 1.94 m from 242.51 m downhole. The second interval graded 4.49 g/t Au over 6.38 m from 267.45 m downhole;
- Drill hole MLHL-22-17 intersected 148.37 g/t gold over 1.3 m from 113.20 m downhole, including 538.00 g/t Au over 0.3 m. Visible gold was observed in this interval. This drill hole also includes a second mineralized intersection of 3.89 g/t Au over 4.6 m from 56.00 m downhole. Drill hole MLHL-22-25, approximately 100 m vertically below MLM-22-17, intersected 6.85 g/t Au over 2.97 m, including 27.50 g/t Au over 0.60 m;
- Drill hole MLHL-22-23 intersected 21.67 g/t Au over 1.75 m from 171.05 m and 13.30 g/t Au over 0.70 m from 74.85 m downhole within the Purdex A Zone. Drill hole MLHL-22-28 intersected 9.82 g/t gold over 9.75 m, including 117 g/t gold over 0.55 m, 17.6 g/t gold over 0.49 m and 12.0 g/t gold over 1.00 m, and 15.35 g/t Au over 5.38 m from 29.62 m downhole;

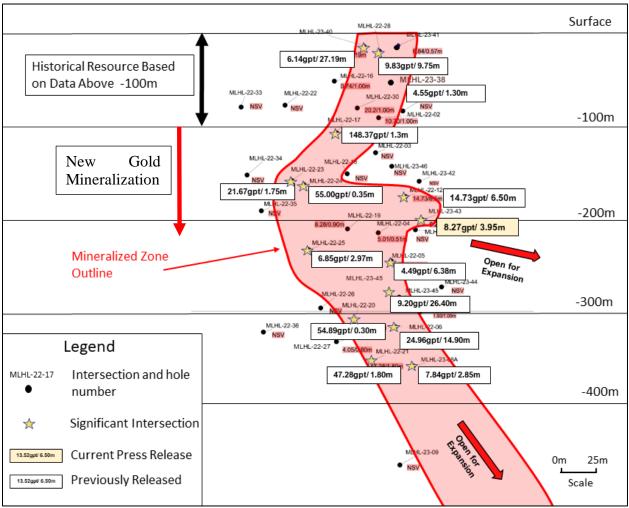
- Drill hole MLHL-22-40 had a near-surface intersection of 6.14 g/t Au over 24.55 m from 14.61 m downhole, including 24.55 g/t Au over 5.33 m. Visible gold was observed in this interval. McFarlane also intersected high-grade gold at ~300 and ~350 m below surface, specifically 54.90 g/t Au over 0.30 m and 47.28 g/t gold over 1.80 m in drill holes MLHL-22-20 and MLHL-22-21, respectively. Drill hole MLHL-22-21 also includes an intersection interval grading 105.00 g/t Au over 0.8 m; and
- Drill hole MLHL-23-43 intersected 8.27 g/t Au over 3.95 m from 251.4 m downhole and 21.10 g/t Au over 0.33 m from 248.7 m downhole. The depth of the intersections was 201 m and 198 m below surface, respectively. This mineralized zone remains open to expansion by drilling farther to the east and at depth.

# FIGURE 10.2 CROSS SECTIONAL PROJECTION OF THE HIGH LAKE DRILL RESULTS AT PURDEX ZONE



Source: McFarlane press release (March 6, 2023)

# FIGURE 10.3 LONGITUDINAL PROJECTION OF HIGH LAKE DRILL HOLE RESULTS AT PURDEX ZONE



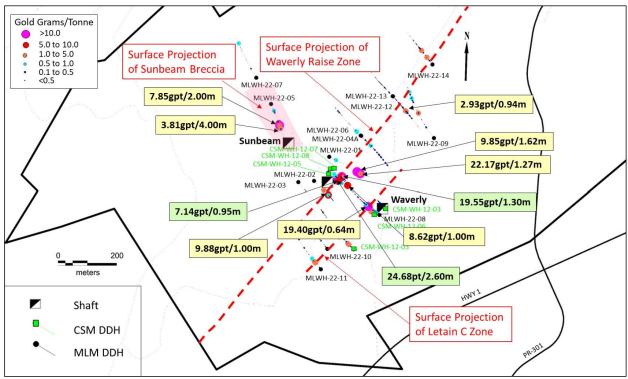
Source: McFarlane press release (April 11, 2023)

Drilling has outlined a steeply dipping en echelon quartz-tourmaline vein system occurring within a structural zone at or about the contact between quartz-feldspar porphyry and mafic volcanics (Figure 10.2). The porphyry and mafic rocks are highly sheared and display evidence of silicification or sericitization. The veins are generally mineralized with up to 1% pyrite, pyrrhotite and chalcopyrite and smaller amounts of sphalerite and arsenopyrite. Gold occurs within the quartz-tourmaline veins and the adjacent sheared and altered host lithologies.

# 10.2 2022 DRILLING PROGRAM ON THE WEST HAWK LAKE PROPERTY

McFarlane completed 15 drill holes totalling 3,151.5 m on the West Hawk Lake Property in February and March 2022. The initial drill holes were designed to test targets generated from the results of historical drilling and the IP geophysical surveys. The drill hole collar locations are shown in Figure 10.4 and the details listed in Table 10.2. Vertical cross-section projection and longitudinal projection view of the drill results are shown in Figures 10.5 and 10.6.

# FIGURE 10.4 SELECT 2022 DRILLING HIGHLIGHTS - WEST HAWK LAKE

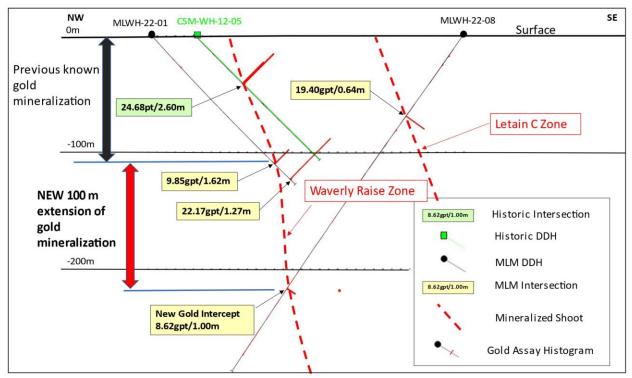


Source: www.macfarlanelakemining.com (June 2023)

Table 10.2           Collar Location Details for the 2022 West Hawk Lake Drill Holes						
Drill Hole ID	Easting*	Northing*	Elevation (masl)**	Azimuth (deg)	Dip (deg)	Length (m)
MLWH-22-01	337,546	5,511,531	354.2	115.7	-45.9	181.0
MLWH-22-02	337,494	5,511,446	351.0	133.6	-44.0	133.6
MLWH-22-03	337,439	5,511,442	352.1	140.0	-43.2	240.0
MLWH-22-04	337,658	5,511,604	355.3	135.0	-45.0	37.5
MLWH-22-04A	337,656	5,511,605	355.3	135.0	-45.3	200.0
MLWH-22-05	337,343	5,511,715	350.1	126.0	-45.0	202.4
MLWH-22-06	337,656	5,511,605	355.3	314.3	-44.3	200.0
MLWH-22-07	337,292	5,511,808	351.2	135.0	-60.0	200.0
MLWH-22-08	337,721	5,511,328	353.1	145.0	-55.0	350.0
MLWH-22-09	337,913	5,511,596	356.0	323.4	-60.9	401.0
MLWH-22-10	337,539	5,511,209	353.9	322.6	-43.2	200.0
MLWH-22-11	337,517	5,511,138	357.3	320.9	-45.1	200.0
MLWH-22-12	337,769	5,511,742	357.5	138.5	-43.9	206.0
MLWH-22-13	337,768	5,511,743	356.8	316.9	-43.7	200.0
MLWH-22-14	337,908	5,511,845	352.4	322.2	-44.6	200.0

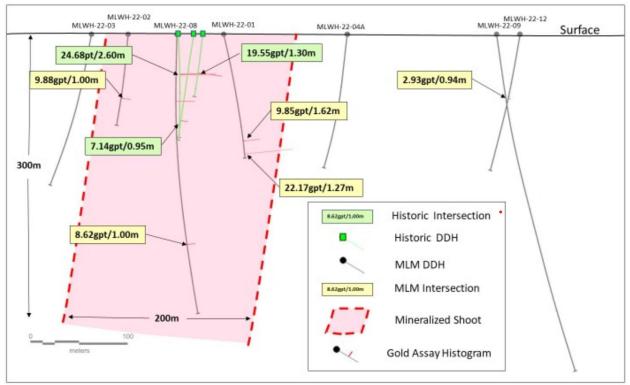
Notes: \*NAD83 Zone 15N projection coordinates. \*\*metres above sea level

## FIGURE 10.5 DRILL HOLE VERTICAL CROSS-SECTIONAL PROJECTION FOR WEST HAWK LAKE



Source: McFarlane press release (May 25, 2022)

FIGURE 10.6 DRILL HOLE VERTICAL LONGITUDINAL PROJECTION FOR WEST HAWK LAKE



Source: McFarlane press release (May 25, 2022)

The initial drill holes intersected the Waverly Zone and expanded it laterally. The lower intersection in drill hole MLWH-22-08 expanded the Waverly Zone an additional 100 m below previous intersections reported by McFarlane and in historical drilling. The upper intersection encountered the Letain C Zone in proximity to the Waverly Zone.

Selected highlights of the drilling results for the Waverly Zone are:

- Drill hole MLWH-22-01 intersected 22.17 g/t Au over 1.27 m, including 49.4 g/t Au over 0.55 m, and 9.85 g/t Au over 1.62 m;
- Drill hole MLWH-22-02 intersected 9.88 g/t Au over 1.0 m; and
- Drill hole MLWH-22-08 intersected 19.40 g/t Au over 0.64 m and 8.62 g/t Au over 1.00 m.

Drill hole MLWH-22-05 tested the depth extent of the Sunbeam Deposit. This drill hole intersected the continuation of the mineralization below the mine working on the 425-foot level at the historical Sunbeam Mine. Brecciated and altered quartz monzonite was intersected from 99.40 to 127.81 m with anomalous gold values reported for much of the interval. The two best mineralized intervals were 3.81 g/t Au over 4.00 m from 100.50 m downhole and 7.85 g/t Au over 2.00 m from 109.40 downhole, including 11.30 g/t Au over 1.00 m. This shallow plunging, elliptical pipe structure has been recognized on surface, developed on four underground levels, and remains open for expansion by drilling at depth.

## 11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

The High Lake Property has been explored by numerous companies since the early 1950s. The historical data, however, is incomplete and not entirely independently prepared and, as such, has not been included in the current Mineral Resource Estimate for the High Lake Property (see Section 14 of this Technical Report). Therefore, this report section reviews only the recent sample preparation, analyses, and security measures undertaken during drilling at the High Lake Property by McFarlane between 2022 and 2023.

Similarly, the West Hawk Lake Property has been explored throughout the decades since the early 1900s, with a minor amount of shaft sinking completed in the 1920s, followed by surface trenching and drilling in the 1930s. This section also examines the recent sample preparation, analyses, and security measures undertaken during drilling at the West Hawk Lake Property by McFarlane in 2022.

# **11.1 SAMPLE PREPARATION AND SECURITY**

Closed drill core boxes are securely transported from Platinum Diamond Drilling's drill site to a nearby drill core-logging facility, where they are received by a geologist and (or) geological technician from Bayside Geoscience Inc., of Thunder Bay. The drill core boxes are arranged in sequential order, opened, measured and labelled. All lithologies and mineralized sections are described, measured and marked for sampling with assay tags placed at the end of each sample. Samples are oriented in the drill core box with respect to downhole drill core orientation, prior to being marked for cutting. Sample intervals generally range from about 0.30 to 1.50 m, with the most common sample length being 1.0 m. Certified reference material ("CRM") samples and blanks are routinely inserted into the sample stream every 10 samples. A technician saws the required selected interval in half lengthwise along the drill core axis and one-half of the sawn sample interval is placed in a plastic sample bag, with another portion of the assay tag, and the bag is then sealed with a plastic tie. The remaining one-half drill core interval is left in the drill core box as a permanent record and stored securely in a locked drill core storage facility. Several sample bags are placed in woven 'rice' bags clearly marked with a shipping label, prior to being sealed and stored in batches for periodic shipment to the Actlabs facility in Thunder Bay, Ontario, for processing.

# **11.2 SAMPLE ANALYSIS**

Upon receipt at the Actlabs preparation facility in Thunder Bay, samples are crushed to a nominal -2 mm, mechanically split to obtain a representative sample, and then pulverized to at least 95% -105  $\mu$ m. Pulverized samples were then analyzed for gold by 30 g fire assay with AA-finish. Samples grading >5 g/t Au were re-assayed for gold with a gravimetric finish, whereas those >10 g/t Au were re-assayed utilizing the pulp metallic method.

Actlabs is independent of McFarlane and the Actlabs' Quality System is accredited to international quality standards through ISO/IEC 17025:2017 and ISO 9001:2015. The accreditation program includes ongoing audits, which verify the QA system and all applicable registered test methods. Actlabs is also accredited by Health Canada.

# **11.3 BULK DENSITY**

The site visit QP, Mr. David Burga, P.Geo., collected 13 validation samples during the May 2023 site visit to the Property and the samples were tested for bulk density by Actlabs, Ancaster, Ontario. The average bulk density of the 12 samples was 2.7 t/m<sup>3</sup> and this value was utilized for all Resource Estimate blocks.

# 11.4 2022 TO 2023 HIGH LAKE QUALITY ASSURANCE/QUALITY CONTROL REVIEW

McFarlane implemented and monitored a thorough quality assurance/quality control ("QA/QC" or "QC") program for the diamond drilling undertaken at the High Lake Project in the 2022 to 2023 period. QC protocol included the insertion of QC material into every batch sent for analysis, including certified reference material ("CRMs"), blanks, and coarse replicate duplicates. CRMs and blanks are routinely inserted into the sample stream every 10 samples. In addition, coarse replicate duplicates were collected approximately every 60 samples.

# **11.4.1 Performance of Certified Reference Materials**

CRMs were inserted into the analysis stream approximately every 20 samples. Four CRMs were used during the 2022 to 2023 drill program to monitor gold performance: OREAS 233, OREAS 238, OREAS 238B and OREAS 240 CRMs. All four CRMs were purchased from OREAS North America Inc., of Sudbury, Ontario.

Criteria for assessing CRM performance are based as follows. Data falling within  $\pm 2$  standard deviations from the accepted mean value pass. Data falling outside  $\pm 3$  standard deviations from the accepted mean value, or two consecutive data points falling between  $\pm 2$  and  $\pm 3$  standard deviations on the same side of the mean, fail. All failures are followed-up by Company personnel and significant failures trigger affected sample re-runs.

There were a total of 49 OREAS 233, 41 OREAS 238, 11 OREAS 283B and 26 OREAS 240 CRMs to assess. CRM data were plotted on performance charts (Figures 11.1 to 11.4) and performance was considered to be excellent, with a single failure only noted for the OREAS 233 CRM (Figure 11.1). The Author considers CRM performance to demonstrate acceptable accuracy within the 2022 to 2023 High Lake Project data.

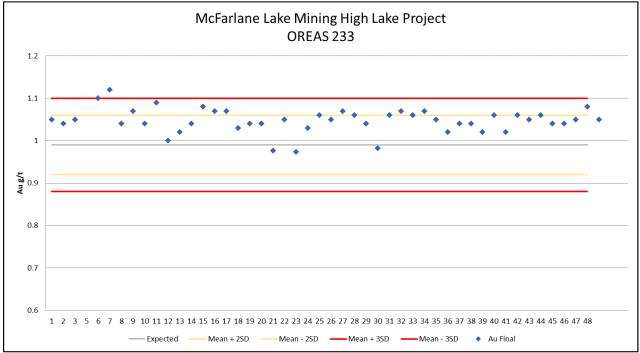
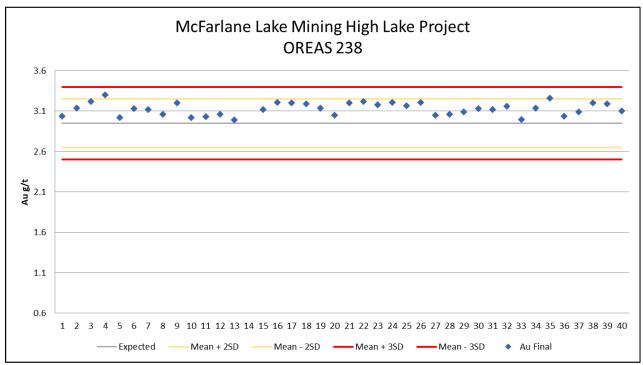


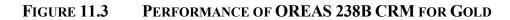
FIGURE 11.1 PERFORMANCE OF OREAS 233 CRM FOR GOLD

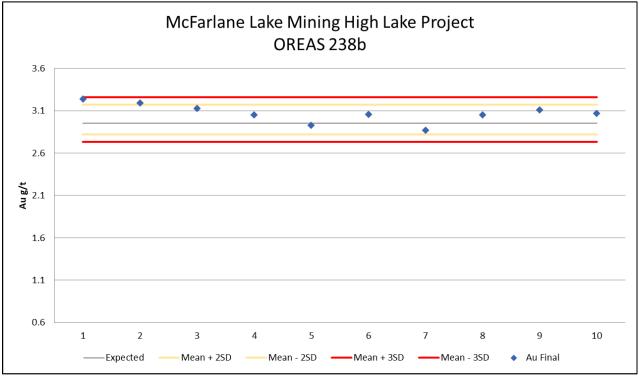
Source: McFarlane (2023)





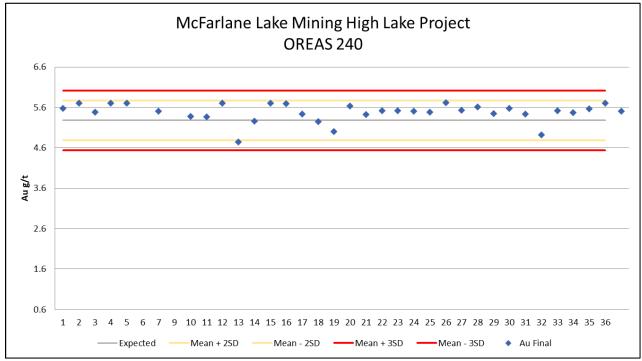
Source: McFarlane (2023)





Source: McFarlane (2023)

# FIGURE 11.4 PERFORMANCE OF OREAS 240 CRM FOR GOLD



Source: McFarlane (2023)

P&E Mining Consultants Inc. McFarlane Lake Mining, High Lake Project, Report No. 442

# **11.4.2 Performance of Blanks**

Blank samples were inserted into the analysis stream approximately every 20 samples. All blank data for gold were reviewed by the Author. If the assayed value in the certificate was indicated as being less than detection limit, the value was assigned the value of one-half the detection limit for data treatment purposes. An upper tolerance limit of five times the detection limit was set. There were 132 data points to examine. The vast majority of data plots at or below the set tolerance limit (Figure 11.5) and the Author does not consider that the two very minor outliers material impact the integrity of the data.

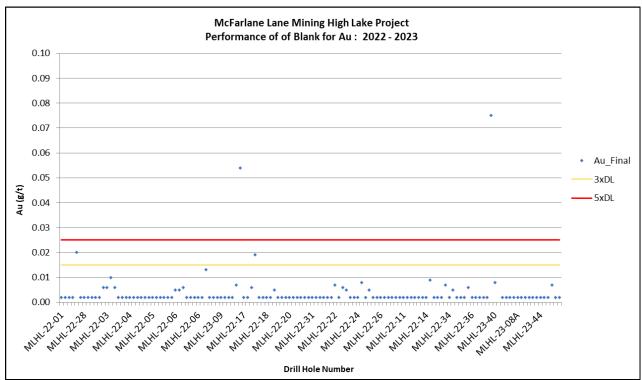
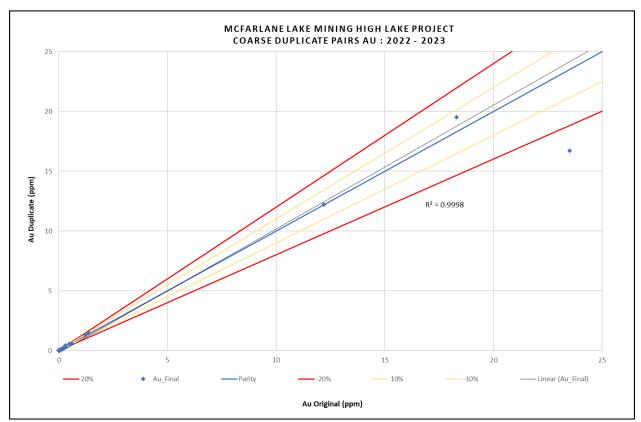


FIGURE 11.5 PERFORMANCE OF BLANKS FOR GOLD

# **11.4.3 Performance of Reject Duplicates**

Coarse reject duplicate data for gold were examined for the 2022 to 2023 drill program at High Lake. There were 43 duplicate pairs in the dataset. Data were scatter graphed (Figure 11.6) and found to have acceptable precision at the coarse reject level for gold, with an R-squared value close to 1 and most data plotting close to the 1:1 line.

Source: McFarlane (2023)



# FIGURE 11.6 SCATTER PERFORMANCE OF REJECT DUPLICATES

# 11.5 2022 WEST HAWK LAKE QUALITY ASSURANCE/QUALITY CONTROL REVIEW

McFarlane implemented and monitored a thorough quality assurance/quality control ("QA/QC" or "QC") program for the diamond drilling undertaken at the West Hawk Lake Project in 2022. QC protocol included the insertion of QC material into every batch sent for analysis, including CRMs, blanks, and coarse replicate duplicates. CRMs and blanks are routinely inserted into the sample stream every 10 samples. In addition, coarse replicate duplicates were collected approximately every 60 samples.

# **11.5.1 Performance of Certified Reference Materials**

CRMs were inserted into the analysis stream every 19 samples. Three CRMs were used during the 2022 drill program to monitor gold performance: OREAS 233, OREAS 238 and OREAS 240. All three CRMs were purchased from OREAS North America Inc., of Sudbury, Ontario.

Criteria for assessing CRM performance are as described above in section 11.4.1 of this Technical Report. All failures are followed-up by Company personnel and significant failures trigger affected sample re-runs.

Source: McFarlane Lake (2023)

There were a total of 23 OREAS 233, 20 OREAS 238 and 21 OREAS 240 CRMs to assess. CRM data were plotted on performance charts (Figures 11.7 to 11.9) and performance was considered to be excellent with a single failure noted for the OREAS 233 CRM (Figure 11.7). The Author considers CRM performance to demonstrate accuracy within the 2022 West Hawk Lake Project data.

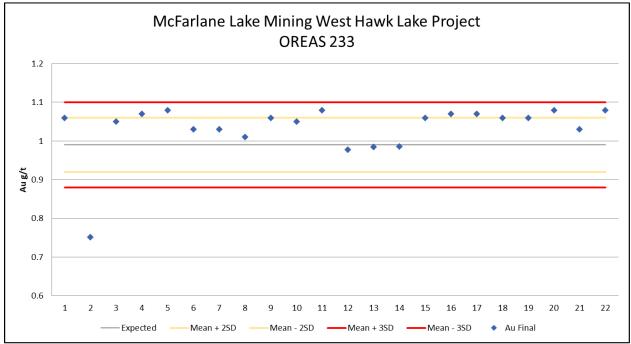
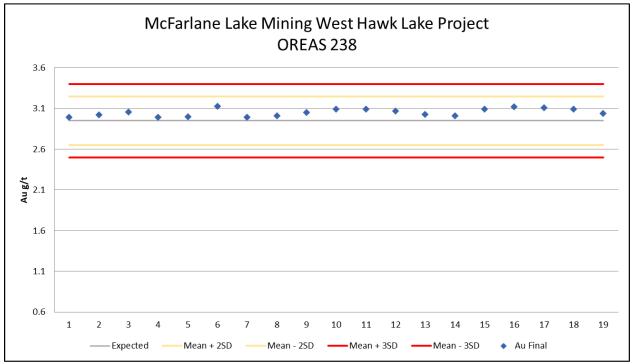


FIGURE 11.7 PERFORMANCE OF OREAS 233 CRM FOR GOLD

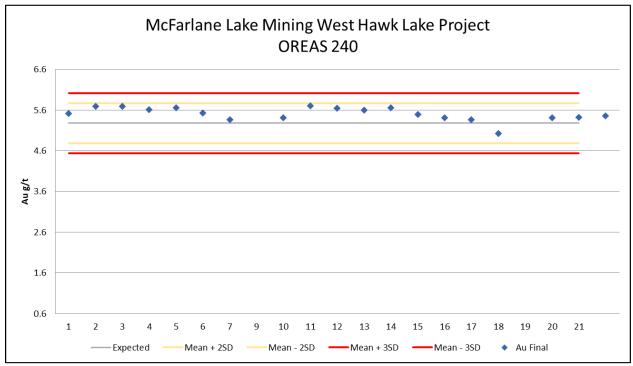
Source: McFarlane (2023)





Source: McFarlane (2023)

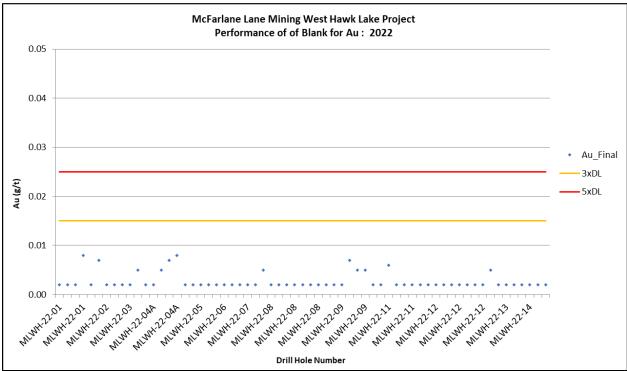




Source: McFarlane (2023)

# 11.5.2 Performance of Blanks

CRMs were inserted into the analysis stream every 18 samples. All blank data for gold were reviewed by the Author. If the assayed value in the certificate was indicated as being less than detection limit, the value was assigned the value of one-half the detection limit for data treatment purposes. An upper tolerance limit of five times the detection limit was set. There were 63 data points to examine. All data plots below the set tolerance limit (Figure 11.10) and the Author considers the data to show no evidence of contamination.



# FIGURE 11.10 PERFORMANCE OF BLANKS FOR GOLD

*Source: McFarlane* (2023)

# 11.5.3 Performance of Reject Duplicates

Coarse reject duplicate data for gold were examined for the 2022 drill program at West Hawk Lake. There were 16 duplicate pairs in the dataset. Data were scatter graphed (Figure 11.11) and found to show considerable variation, with an R-squared value of 0.345. There is still very little duplicate data in the West Hawk Lake dataset and the Author recommends continued monitoring in this fashion for future drilling at the Project, with an increased rate of insertion for coarse reject duplicates and an effort to include a higher percentage of medium- to higher-grade samples. It is also recommended to assess the laboratory pulp duplicate data.

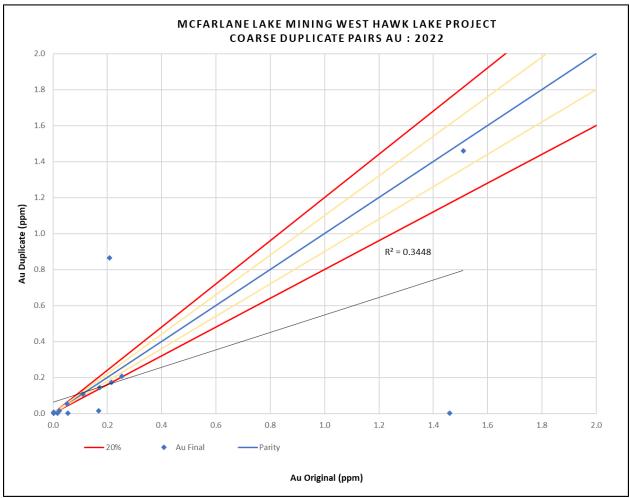


FIGURE 11.11 SCATTER PERFORMANCE OF REJECT DUPLICATES

Source: McFarlane (2023)

# 11.6 CONCLUSION

It is the Author's opinion that sample preparation, security and analytical procedures for the High Lake and West Hawk Lake Projects 2022 to 2023 drill programs were adequate and that the data are of good quality and satisfactory for use in the current Mineral Resource Estimate.

#### 12.0 DATA VERIFICATION

# **12.1 P&E DATA VERIFICATION**

## 12.1.1 2023 Assay Verification

The Authors of this Technical Report conducted verification of the High Lake Project drill hole assay database for gold by comparison of the database entries with assay certificates. Assay certificates were provided to the Authors directly from Activation Laboratories Ltd. ("Actlabs"), in .xls (Microsoft Excel spreadsheet file) and .pdf (Portable Document Format file) format. Assay data from the 2022 to 2023 drilling undertaken at the High Lake Project were verified, with approximately 99% (2,328 out of a total of 2,360 entries) of the available data verified. Very few minor discrepancies were encountered during the verification process, which the Authors do not consider to be of material impact to the Mineral Resource data.

#### **12.1.2 Drill Hole Data Verification**

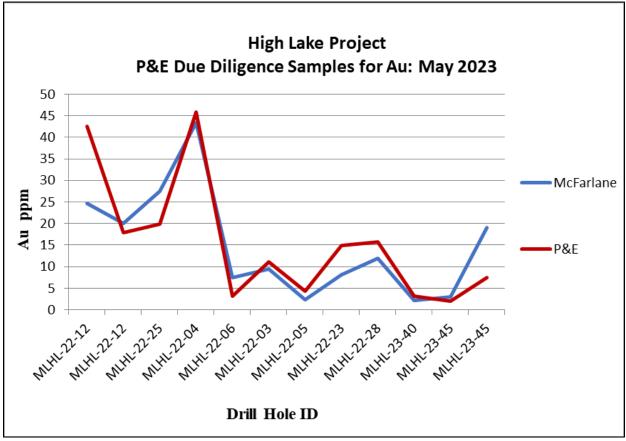
As described in Section 14 of this Technical Report, the Authors also validated the Mineral Resource database in GEMS<sup>TM</sup> by checking for inconsistencies in analytical units, duplicate entries, interval, length or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate collar locations, survey and missing interval and coordinate fields. Some minor errors were identified and corrected in the database.

# 12.2 P&E SITE VISIT AND INDEPENDENT SAMPLING

The High Lake and West Hawk Lake Projects were visited by Mr. David Burga, P.Geo., of P&E, May 1 and 2, 2023, for the purpose of completing site visits that included drilling sites, outcrops, GPS location verifications, discussions and due diligence drill core sampling. Mr. Burga collected 12 samples from ten High Lake Project diamond drill holes and seven samples from four West Hawk Lake Project diamond drill holes. All samples were selected from holes drilled in 2022 and 2023. A range of high, medium and low-grade samples were selected from the stored drill core. Samples were collected by taking a half drill core, due to the lack of splitting facilities with no drill core remaining in the drill core box. Individual samples were placed in plastic bags with a uniquely numbered tag, after which all samples were collectively placed in a larger bag and delivered by Mr. Burga to the Actlabs in Ancaster, Ontario for analysis. Samples at Actlabs were first analyzed for gold by fire assay with AA finish and samples returning grades >5 g/t Au were further analyzed by fire assay with gravimetric finish. Bulk density determinations were measured on all drill core samples by water displacement method.

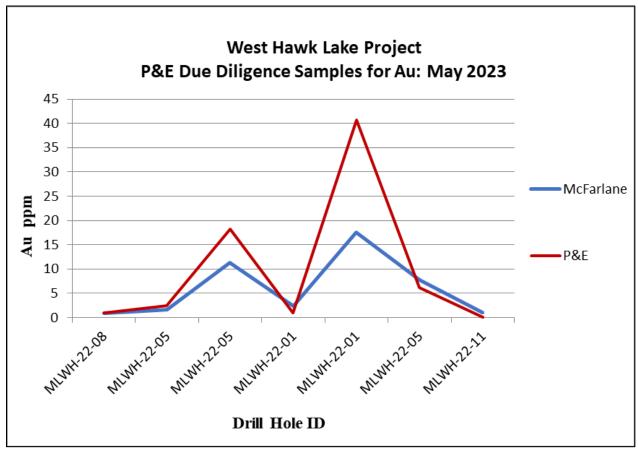
The Actlabs' Quality System is accredited to international quality standards through ISO/IEC 17025:2017 and ISO 9001:2015. The accreditation program includes ongoing audits, which verify the QA system and all applicable registered test methods. Actlabs is also accredited by Health Canada. Actlabs is independent of McFarlane. Results of the High Lake and West Hawk Lake site visit verification samples for gold are presented in Figures 12.1 and 12.2.

FIGURE 12.1 RESULTS OF HIGH LAKE PROJECT MAY 2023 AU VERIFICATION SAMPLING



Source: P&E (2023)

FIGURE 12.2 RESULTS OF WEST HAWK LAKE PROJECT MAY 2023 AU VERIFICATION SAMPLING



*Source: P&E* (2023)

#### 12.3 CONCLUSION

Verification of the High Lake Project data used for the current Mineral Resource Estimate, has been undertaken by the Authors, including a site visit, due diligence sampling, verification of drilling assay data from electronic assay files, and assessment of the available QA/QC data. Additionally, drilling data from the West Hawk Lake Project have been verified via a site visit, due diligence sampling, and assessment of the available QA/QC data. The Authors of this Technical Report section consider that there is good correlation between Au assay values in McFarlane's database and the independent verification samples collected by the site visit Author and analyzed at Actlabs. The Authors of this Technical Report section are satisfied that sufficient verification of the drill hole data has been undertaken and that the supplied data are of good quality and suitable for use in the current Mineral Resource Estimate for the High Lake Property.

## 13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

There has been no previous production recorded for the High Lake Deposit. Also, there appears to be no definitive metallurgical testwork on samples representing the current High Lake Mineral Resource. However, simple tests completed on the Electrum and Purdex Zones indicate that gravity concentration would be an important component of a gold extraction process for this high-grade gold mineralization.

Acknowledging that the current Mineral Resource may be comparatively small, but high grade, an on-site concentration process (e.g., gravity-froth flotation) and sale of a concentrate, or the transport of the mineralization to a custom process plant may influence future metallurgical testing considerations.

# 13.1 HISTORICAL METALLURGICAL TESTWORK

# 13.1.1 1983 Amalgamation-Cyanidation Test

In May 1983, a 7.5 kg "box" of samples, representing the High Lake Electrum Zone was received by Lakefield Research (now SGS Lakefield or "SGS") for the testing of a combination of gravity and cyanide leach recovery and extraction of gold. A 1-kg portion of the sample was ground to 74% -200 mesh (75  $\mu$ m) assayed and subject to mercury amalgamation and cyanide leaching. The sample analyses results were:

Au g/t	22.1
Ag g/t	6.2
Cu %	0.001
Pb %	0.004
Zn %	0.004
Ni %	0.004
As %	0.61

The gold content was high (0.71 oz/t), silver was low and base metal content insignificant. The arsenic content may be considered important in potential association with gold and the content of a potential concentrate offered for sale.

The amalgamation step extracted 39% of the gold; a subsequent strong cyanide (500 mg/L) leaching step extracted an additional 46.1%, for a total extraction of 85.1%. The cyanide tails contained 3.08 g/t Au.

The use of amalgamation to simulate gravity recovery, although indicative, is no longer considered appropriate or accurate and the result of this single test can be considered approximate.

# 13.1.2 SGS Gravity Test 2009

In late-2009, grab samples were collected from the surface exposure of the High Lake Purdy Zone. A 1.33 kg sample was submitted to SGS for a single gravity concentration test.

The sample was crushed and ground to a  $P_{80}$  of 73  $\mu$ m. The gravity concentration test was 2-stage: Nelson centrifugal concentrator followed by a Mozley Table. The results are shown in Table 13.1.

Table 13.1         SGS Gravity Concentration, Purdy Grab Sample						
Sample TypeWeight (g)Weight (%)Au (g/t)S (%)Au Distribution (%)						
Mozley Conc	0.65	0.06	24,348 (783 oz/t)		80.1	
Mozley Tails	68.7	5.17	25.5		8.8	
Knelson Tails	1,259	94.78	1.71	< 0.05	10.9	
Head (calc'd)	1,328	100	14.8		100	

Gravity concentration is a potential first step in concentrating gold. However, the potential that the sample was not representative should be considered, and that the gravity tailings could be expected to contain a significant amount of gold.

# 13.1.3 Recommended Follow-up Testing

In order to derive a more precise indication of what gold recovery can be expected from the High Lake Mineral Resource, the following tests could be considered:

- Assemble a representative composite sample of drill core;
- Fully analyse the composite sample: precious metals, base metals, whole-rock analysis, minor elements, trace elements;
- Mineralogically characterization of the gold deportment;
- Conduct full (GRG) gravity testing;
- Investigate the concentration by froth flotation of gold from gravity tails; and
- Cyanide leach bulk gravity concentration products and tailings.

# **13.2 SUMMARY AND RECOMMENDATIONS**

From the historical work in 1983 and 2009 at SGS Lakefield, the High Lake Mineral Resource appears to be readily amenable to gravity concentration. Subject to confirmatory tests on representative samples, gold recovery by targeted grind sizing and gravity concentration, in the order of 85% to 90%, could report to a gravity concentrate. This concentrate could be subject to direct smelting on-site or for sale. Gravity tails are expected to contain a significant concentration of gold that could be extracted by a conventional cyanide leach process. However, cyanidation is a costly process and its inclusion should be considered only if physical processes (e.g., gravity plus flotation) are ineffective in achieving gold recoveries >90%.

#### 14.0 MINERAL RESOURCE ESTIMATES

# 14.1 INTRODUCTION

The purpose of this Technical Report section is to update the Mineral Resource Estimate for the High Lake Property. No past National Instrument43-101-compliant Mineral Resource Estimate exists for the project. The Mineral Resources Estimate presented herein is reported in accordance with the Canadian Securities Administrators' National Instrument 43-101 and were estimated in conformity with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") "Estimation of Mineral Resource and Mineral Reserves Best Practice Guidelines" (November 2019) and reported using the definitions set out in the 2014 CIM Definition Standards on Mineral Resources and Mineral Resources that are not converted to Mineral Reserves do not have demonstrated economic viability. Confidence in the estimate of Inferred Mineral Resource is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Mineral Resources may be affected by further infill and exploration drilling that may result in increases or decreases in subsequent Mineral Resource Estimates.

This current Mineral Resource Estimate was based on information and data supplied by McFarlane and was undertaken by Antoine Yassa, P.Geo., Eugene Puritch, P.Eng. FEC, CET, and Charles Spath, P.Geo. (the Authors) of P&E Mining Consultants Inc. of Brampton, Ontario, all independent Qualified Persons in terms of NI 43-101. The effective date of this Mineral Resource Estimate is April 14, 2023.

#### **14.2 DATABASE**

All drilling and assay data were provided by McFarlane in the form of Excel data files. The GEOVIA GEMS<sup>TM</sup> V6.8.4 database compiled by P&E for this Mineral Resource Estimate consisted of 46 surface drill holes, totalling 10,443 m, of which 1,946 m were assayed and utilized for this Mineral Resource Estimate. A total of 34 drill holes intersected the mineralized wireframes used for the Mineral Resource Estimate. Surface drill hole plans are shown in Appendix A.

TABLE 14.1High Lake Assay Database Summary					
VariableAu (g/t)Length (m)					
Number of Samples	2,360	1,946			
Minimum Value*	0.00	0.27			
Maximum Value*	557.00	1.54			
Mean*	1.28	0.82			
Median*	0.02	0.91			
Variance	185.50	0.06			

The drill hole database contains 2,360 Au assays. The basic gold raw assay statistics are presented in Table 14.1.

TABLE 14.1 High Lake Assay Database Summary					
VariableAu (g/t)Length (m)					
Standard Deviation	13.62	0.25			
Coefficient of Variation	10.63	0.30			
Skewness	30.89	-0.36			
Kurtosis	1,192.64	-0.47			

*Note:* \* *Au units are g/t and length units are metres.* 

All drill hole survey and assay values are expressed in metric units, with grid coordinates reported using the NAD 83 Zone 15N UTM system.

# **14.3 DATA VERIFICATION**

Verification of the Au assay database for the 2022-2023 drilling was performed by the Authors against laboratory certificates obtained independently from Actlabs, Ancaster and AGAT Laboratories, Mississauga. No errors were observed in the assay database.

P&E validated the Mineral Resource database in GEMS<sup>™</sup> by checking for inconsistencies in analytical units, duplicate entries, interval, length or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate collar locations, survey and missing interval and coordinate fields. Some minor errors were identified and corrected in the database. The Authors of this Technical Report section are of the opinion that the supplied database is suitable for Mineral Resource estimation.

# 14.4 DOMAIN INTERPRETATION

The geological interpretation of gold mineralization for the High Lake Property was conducted by the Authors and included 3-D wireframe construction. Domain boundaries were explicitly modelled with The GEOVIA GEMS<sup>TM</sup> V6.8.4 software and were determined from grade boundary interpretation constrained by lithological and structural controls determined from visual inspection of drill hole cross-sections and level plans. The domain outlines were determined by the selection of above 0.5 g/t Au within 60 m of surface and 2.0 g/t Au for deeper mineralized material that demonstrated lithological and structural continuity along strike and down dip. Minimum constrained drill core length for interpretation was approximately 2.0 metres. In some cases, mineralization below 0.5 or 2.0 g/t Au was included for the purpose of maintaining zonal continuity and minimum width. Three mineralized domains were generated and utilized for statistical analysis, grade interpolation, rock coding and Mineral Resource reporting purposes. Mineralized domain wireframes are displayed in Appendix B.

The topographic and overburden surfaces were constructed by the authors of this Technical Report from overburden thickness in drillhole data. The mineralization domains were interpreted and clipped to the bedrock surface.

# 14.5 ROCK CODE DETERMINATION

TABLE 14.2ROCK CODES AND VOLUMES OFMINERALIZATION				
DomainRock CodeVolume (m³)				
Zone A	100	121,980		
Zone B	200	82,812		
Zone C	300	25,031		

A unique rock code was assigned to each mineralization domain for the Mineral Resource Estimate as presented in Table 14.2.

# 14.6 WIREFRAME CONSTRAINED ASSAYS

Mineral Resource wireframe constrained assays were back coded in the assay database with model rock codes derived from intersections of the mineralization solids and drill holes. The basic statistics of mineralization wireframe constrained assays are presented in Table 14.3.

TABLE 14.3BASIC STATISTICS OF CONSTRAINED ASSAYS				
Variable	Au (g/t)	Length (m)		
Number of Samples	284	185		
Minimum Value*	0.002	0.001		
Maximum Value*	557.00	1.97		
Mean*	9.85	0.63		
Median*	1.32	0.65		
Variance	1,451.01	0.11		
Standard Deviation	38.02	0.33		
Coefficient of Variation	3.86	0.53		
Skewness	11.14	-0.18		
Kurtosis	152.43	0.13		

*Note:* \* *Au units are g/t and length units are metres.* 

#### 14.7 COMPOSITING

In order to regularize the assay sampling intervals for grade interpolation, a 1.0 m compositing length was selected for the drill hole intervals that fell within the constraints of the above-noted Mineral Resource wireframes. The composites were calculated for gold over 1.0 m lengths,

starting at the first point of intersection between assay data hole and hanging wall of the 3-D zonal constraint. The compositing process was halted on exit from the footwall of the 3-D wireframe constraint. Un-assayed intervals were omitted from the composite calculation. If the last composite interval in a drill hole was <0.33 m, the composite length for that drill hole interval was added to the previous interval. This process would not introduce any short sample bias in the grade interpolation process. The composite statistics are summarized in Table 14.4.

TABLE 14.4           BASIC STATISTICS OF COMPOSITES AND CAPPED COMPOSITES					
VariableAu CompAu Cap CompLength (m)					
Number of Samples	191	191	191		
Minimum Value *	0.007	0.007	0.33		
Maximum Value *	190.89	35.00	1.30		
Mean *	8.98	6.23	0.95		
Median *	2.76	2.76	1.00		
Variance	465.25	82.60	0.03		
Standard Deviation	21.51	9.06	0.16		
Coefficient of Variation	2.40	1.46	0.17		
Skewness	5.09	2.10	-2.31		
Kurtosis	32.13	3.58	5.54		

*Note:* \* *Au units are g/t and length units are metres.* 

# **14.8 GRADE CAPPING**

Grade capping was performed on the 1.0 m composite values in the database within each constraining domain to control the possible bias resulting from erratic high-grade composite values in the database. Log-normal histograms and log-probability plots for gold composites were generated for each mineralization domain. Selected histograms and log-probability plots are presented in Appendix C. The grade capping values for gold are detailed in Table 14.5. The capped composites were utilized to develop variograms and for block model grade interpolation.

TABLE 14.5 GOLD GRADE CAPPING VALUES								
Domains	Total No. of Composites	Capping Value Au (g/t)	No. of Capped Composites	Mean of Uncapped Composites	Mean of Capped Composites	CoV of Uncapped Composites	CoV of Capped Composites	Capping Percentile
Zone A	100	35	4	8.05	6.31	2.00	1.43	96%
Zone B	78	35	4	9.02	5.53	2.85	1.61	95%
Zone C	13	35	1	15.82	9.74	1.93	1.10	93%

**Note:** CoV = coefficient of variation.

# **14.9 VARIOGRAPHY**

A variography analysis was attempted for Zone A and Zone B domains using the gold capped composites within the mineralized domains as a guide to determining a grade interpolation search distance and ellipse orientation strategy. Selected variograms are presented in Appendix D.

Continuity ellipses based on the observed ranges were subsequently generated and utilized as the basis for global estimation search ranges, distance weighting calculations and Mineral Resource classification criteria. At a local scale, the variable anisotropy tool in Leapfrog Edge<sup>TM</sup> was utilized to match irregularity of vein domains during block model interpolation.

# 14.10 BULK DENSITY

Mr. David Burga, P.Geo., collected 13 validation samples during the site visit May 1 and 2, 2023 and the samples were tested for bulk density by Actlabs, Ancaster, Ontario. The average bulk density of the 12 samples was  $2.7 \text{ t/m}^3$  and this value was utilized for all Mineral Resource Estimate blocks.

# 14.11 BLOCK MODELLING

The High Lake block model was constructed using Leapfrog EDGE<sup>™</sup> 2023.1.1 modelling software. The block model origin and block size are presented in Table 14.6. The block model consists of separate model attributes for estimated gold grade, rock type (mineralized domains), and classification.

Table 14.6         High Lake Block Model Definition						
Direction	Origin	No. of Blocks	Block Size (m)			
Х	349,940	462	0.5			
Y	5,508,880	270	0.5			
Z	390	887	0.5			
Rotation	18 ° (clockwise)					

*Note:* Origin for a block model in Leapfrog  $EDGE^{TM}$  represents the coordinate of the outer edge of the block model with minimum X and Y, and maximum Z.

All blocks in the rock type model were initially assigned a waste rock code of 99, corresponding to the surrounding country rocks. The mineralized domains were used to code the rock type block model where the individual block was coded if the centroid falls within the volume. These blocks were assigned rock codes as presented in Table 14.2. The block model was evaluated for gold. All block grades were estimated from composite samples captured within the respective domains. Following contact analysis, all domain contacts were treated as hard boundaries. The overburden and topographic surfaces were subsequently utilized to assign rock codes 98 and 0, corresponding to overburden and air, respectively, to all blocks 50% or greater above the respective surfaces.

The gold grades were interpolated into the blocks using Inverse Distance weighting to the third power ("ID<sup>3</sup>"). Nearest Neighbour ("NN") was run for validation purposes. Multiple passes were executed for the grade interpolation to progressively capture the sample points, to avoid over-smoothing and preserve local grade variability. Grade blocks were interpolated using the parameters in Table 14.7.

Table 14.7           High Lake Block Model Grade Interpolation Parameters							
Pass	No. of Composites			Search Range (m)			
	Min	Max	Max per Hole	Major	Semi-Major	Minor	
Ι	3	20	2	35	35	10	
II	1	20	2	300	300	100	

Selected vertical cross-sections and plans of gold grade blocks are presented in Appendix E.

# 14.12 MINERAL RESOURCE CLASSIFICATION

In the opinion of the Authors of this section of the Technical Report, all the drilling, assaying and exploration work on the High Lake Project supports this Mineral Resource Estimate and is based on spatial continuity of the mineralization within a potentially mineable shape are sufficient to indicate a reasonable potential for economic extraction, thus qualifying it as a Mineral Resource under the 2014 CIM Definition Standards. The Mineral Resource was classified as Indicated and Inferred based on the geological interpretation, variogram performance and drill hole spacing.

Indicated Mineral Resources were classified for the blocks interpolated with the Pass I in Table 14.8, which used at least two drill holes within 35 m. Inferred Mineral Resources were classified for the blocks interpolated with the Pass II in Table 14.8, which used at least one drill hole within 300 m. The classifications were manually adjusted on a longitudinal projection to reasonably reflect the distribution of each classification. Selected classification block vertical cross-sections and plans are presented in Appendix F.

# 14.13 AU CUT-OFF CALCULATION

The High Lake Mineral Resource Estimate was derived from applying Au cut-off values to the block models and reporting the resulting tonnes and grades for potentially mineable areas. The following parameters were used to calculate the Au cut-off values that determine underground mining potentially economic portions of the constrained mineralization:

- Au price: US\$1,800/oz (approx. long-term Consensus Economics forecast Apr 30/23);
- Currency exchange rate: CDN\$/US\$=0.77;
- Au process recovery: 95%;
- Underground mining cost: CDN\$130/t;
- Processing cost: CDN\$40/t; and
- G&A: CDN\$15/t.

The Au cut-off grade for the underground Mineral Resource Estimate is 2.6 g/t Au.

#### 14.14 MINERAL RESOURCE ESTIMATE

The Mineral Resource Estimate is reported with an effective date of April 14, 2023 and is tabulated in Table 14.8. The Authors of this Technical Report section consider the mineralization of the High Lake Property to be potentially amenable to near surface and underground mining methods.

TABLE 14.8           HIGH LAKE MINERAL RESOURCE ESTIMATE (1-7)					
Underground Mineral Resource @ 2.6 g/t Au Cut-off					
Classification	Tonnes (kt)	Au (g/t)	Au (koz)		
Indicated	151.9	9.38	45.8		
Inferred	287.4	10.43	96.2		

Notes:

- 1. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- 2. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
- 3. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could potentially be upgraded to an Indicated Mineral Resource with continued exploration.
- 4. The Mineral Resources were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.
- 5. *Metal prices used were US\$1,800/oz Au and 0.77 CDN\$/US\$ FX with process recoveries of 95% Au. A CDN\$40/t process cost and CDN\$15/t G&A cost were used.*
- 6. The underground mining cost was CDN\$130/t. The underground Mineral Resource grade blocks were quantified above the 2.6 g/t Au cut-off within the constraining mineralized wireframes. Underground Mineral Resources selected exhibited continuity and reasonable potential for extraction by the long hole underground mining method.
- 7. Grade estimation was undertaken with the Inverse Distance Cubed method on 1.0 m capped composites.

# 14.15 MINERAL RESOURCE SENSITIVITIES

Mineral Resources are not sensitive to the selection of a reporting Au cut-offs, as demonstrated in Table 14.9.

Table 14.9         Sensitivity of Mineral Resource Estimate						
Classification	Ι	ndicated		Inferred		
Au Cut-off (g/t)	Tonnes (kt)	Au (g/t)	Au (koz)	Tonnes (k)	Au (g/t)	Au (koz)
3.0	139.7	9.95	44.7	260.5	10.98	92.0
2.9	142.2	9.83	44.9	265.4	10.84	92.5
2.8	145.1	9.69	45.2	270.0	10.7	92.9
2.7	148.4	9.53	45.5	274.6	10.57	93.3
2.6	151.9	9.38	45.8	287.4	10.43	96.2
2.5	155.7	9.21	46.1	285.1	10.27	94.1
2.4	159.1	9.06	46.4	289.8	10.15	94.6
2.3	162.6	8.92	46.6	295.0	10.01	94.9
2.2	166.4	8.77	46.9	300.9	9.86	95.4
2.1	170.4	8.61	47.2	307.3	9.7	95.8
2.0	174.3	8.47	47.5	313.3	9.55	96.2

The mineralized domains extend to surface and there may be an opportunity to mine these Mineral Resources early in a development project through an open pit. The Authors have reviewed two potentially feasible pit options (Appendix G) and subsets of the Mineral Resource that could be exploited through these options, which are outlined in Table 14.10 below.

TABLE 14.10 Open Pit Sensitivity of Mineral Resource Estimate Subsets at 1.0 g/t Cut-off						
Classification	Indicated Inferred			d		
Pit Type	Tonnes (kt)	Au (g/t)	Au (koz)	Tonnes (kt)	Au (g/t)	Au (koz)
Pit No. 1	22	6.36	4.5	3	5.25	0.5
Pit No. 2	45	4.47	6.5	7	3.65	0.8

# 14.16 MODEL VALIDATION

The block model was validated using a number of industry standard methods including visual and statistical methods. Visual examination of composites and block grades on successive plans and sections were performed on-screen to confirm that the block models correctly reflect the distribution of composite grades. The review of estimation parameters included:

- Number of composites used for estimation;
- Number of drill holes used for estimation;
- Mean distance to sample used;

- Number of passes used to estimate grade;
- Actual distance to closest point;
- Grade of true closest point; and,
- Mean value of the composites used.

The Inverse Distance Cubed (ID3) estimate was compared to a Nearest-Neighbour (NN) estimate along with composites. A comparison of mean composite grades with the block model at zero cut-off grade is presented in Table 14.11.

TABLE 14.11Average Grade Comparison of Composites with Block Model	
Data Type	Au (g/t)
Composites	8.98
Capped composites	6.23
Block model interpolated with ID3	7.57
Block model interpolated with NN	7.04

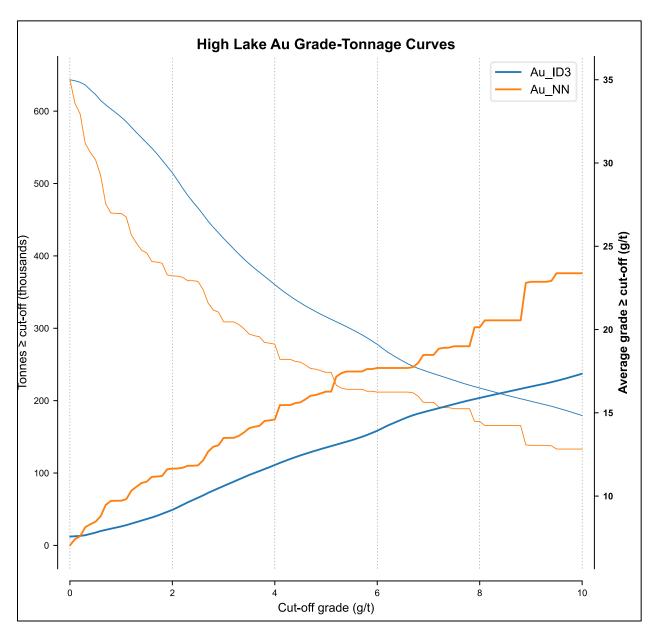
*Notes:*  $ID^3 = Au$  interpolated with Inverse Distance Cubed. NN = Au interpolated using Nearest Neighbour.

The comparison shows the average grade of block model was higher than that of the capped composites used for the grade estimation. This is most likely due to the block modeling process interpolating a larger number of high-grade blocks for Zone C comparatively far fewer high-grade composites in Zone C. The block model values will be more representative than the composites due to 3-D spatial distribution characteristics of the block models.

A volumetric comparison was performed with the block model volume versus the geometric calculated volume of the domain solids and the differences are shown in Table 14.12.

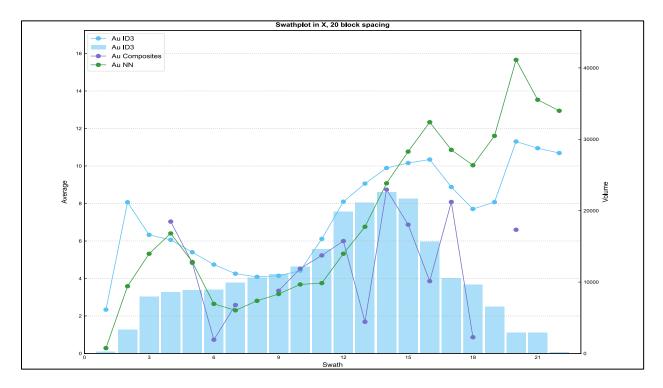
TABLE 14.12 Volume Comparison of Block Model with Geometric Solids	
Item	Volume
Geometric Volume of Wireframes	229,820 m <sup>3</sup>
Block Model Volume	229,778 m <sup>3</sup>
Difference %	0.02%

A comparison of the Au grade-tonnage curves (Figure 14.1) interpolated with ID<sup>3</sup> and NN on a global mineralization basis.



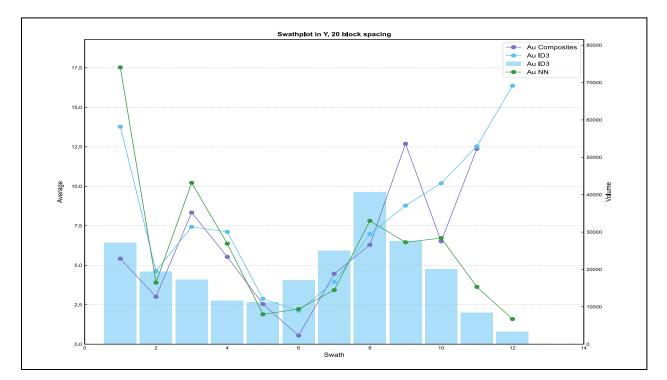
# FIGURE 14.1 AU GRADE–TONNAGE CURVE OF HIGH LAKE

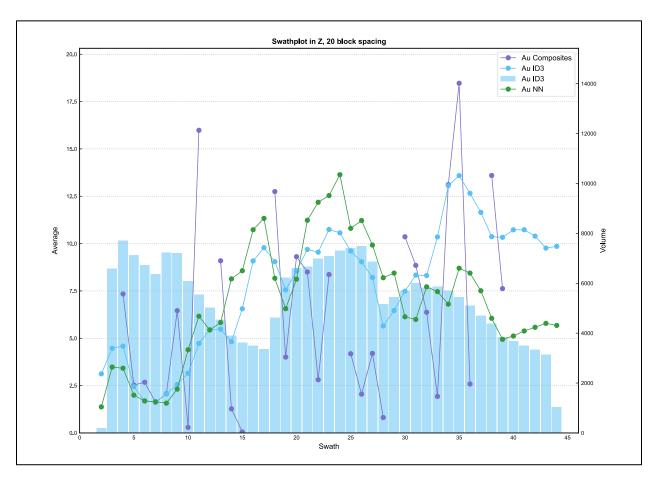
Local trends of gold were evaluated by comparing the ID3 and NN estimate against the composites. The special swath plots of all domains are shown in Figure 14.2, 14.3, and 14.4.



# FIGURE 14.2 AU GRADE SWATH PLOTS EASTING







# FIGURE 14.4 AU GRADE SWATH PLOTS ELEVATION

# **15.0 MINERAL RESERVE ESTIMATES**

# **16.0 MINING METHODS**

# **17.0 RECOVERY METHODS**

# **18.0 PROJECT INFRASTRUCTURE**

# **19.0 MARKET STUDIES AND CONTRACTS**

# 20.0 ENVIRONMENTAL STUDIES, PERMITS, AND SOCIAL OR COMMUNITY IMPACTS

# 21.0 CAPITAL AND OPERATING COSTS

# 22.0 ECONOMIC ANALYSIS

## 23.0 ADJACENT PROPERTIES

There are three properties located nearby that host mineralization in a similar geological environment as that which hosts the High Lake and West Hawk gold deposits. These are the Duport, Evanlode Molybdenite Zone and Mikado Gold deposits.

## 23.1 DUPORT GOLD DEPOSIT

The Duport Gold Deposit is a lode gold deposit located 15 km southeast of the High Lake Property, in Ontario. The Mineral Resources were estimated in 2005 on behalf of Halo Resources Ltd. and the Technical Report is filed on SEDAR (Clow and Valliant, 2006). The Mineral Resource Estimate used the contour method and it was NI 43-101 compliant at the time. Using a 6.9 g/t Au cutoff and a minimum mining width of 1.5 m, the deposit was estimated to contain 424,000 t grading 13.40 g/t Au for 182,000 contained ounces of gold in Indicated Mineral Resources and 387,000 t grading 10.69 g/t Au for 131,000 contained ounces of Au in Inferred Mineral Resources. The Mineral Resources were estimated assuming an average gold price of US\$400/oz and a US\$/CDN\$ exchange rate of 1.25.

Disclaimer: The Author has not verified this information and the information is not necessarily indicative of the mineralization on the High Lake and West Hawk Lake Properties.

## 23.2 MIKADO GOLD PROSPECT

The Mikado Gold Prospect, also a lode gold deposit, is located in the same general area as the Duport Deposit, 15 km southeast of the High Lake Property. This Prospect (also referred to as the Cedar Island, Cedar or the Kenora Prospectors and Miners Prospect), is reported at a 3.0 g/t Au cut-off to have 430,000 t grading 7.56 g/t Au in Indicated Mineral Resources and 1,438,000 t grading 6.76 g/t Au in Inferred Mineral Resources (Giroux & Leonard, 2010). The Mineral Resource was calculated using a block modelling technique and was deemed conformable with the standards of disclosure required under NI 43-101 at that time. The Mineral Resource Estimate was made on behalf of Everton Resources (now Molecule Holdings Inc.) and the Technical Report is filed on SEDAR. The Mineral Resource estimation used blocks measuring 10 m along strike, 2.5 m across strike and 5 m vertical, which were generated from 1.5 m composited sampling in Leapfrog software. The Mineral Resource Estimate did not include economic parameters.

Disclaimer: The Author has not verified this information and the information is not necessarily indicative of the mineralization on the High Lake and West Hawk Lake Properties.

# **23.3 EVANLODE MOLYBDENITE ZONE**

The Evanlode Molybdenite Zone consists of Mo-Au mineralization hosted within a sheared porphyry intrusion environment. This zone is located approximately 400 m from the west end of the High Lake Property. This prospect is reported in a 1962 company prospectus to contain 126,000 tons (114,000 t) of "drill indicated ore" at a grade of 0.68% Mo and 625,000 tons (567,000 t) of "possible ore" of unreported grade (Brown, 1962). The historical estimates were based on at least 82 drill holes totalling 19,485 ft (5,939 m) and a bulk sample. The above

categories are inconsistent with categories set forth by NI 43-101 Standards of Disclosure for Mineral Projects and are therefore non-compliant. The parameters used in the historical estimates are not known. The mineralization estimated is reported to be in a zone measuring 1,200 ft (366 m) long by 4.7 ft (1.43 m) wide and having an average depth of 508 ft (155 m).

This historical estimate is relevant to the High Lake Property, because it represents a different style of mineralization that could occur in the area. The mineralization is also reported to contain 0.015 oz/ton Au (0.51 g/t Au), (Davies, 1965).

Disclaimer: The Author has not verified this information and the information is not necessarily indicative of the mineralization on the High Lake and West Hawk Lake Properties.

## 24.0 OTHER RELEVANT DATA AND INFORMATION

To the best of this Technical Report authors' knowledge, there are no other relevant data, additional information, or explanation necessary to make the Report understandable and not misleading.

## 25.0 INTERPRETATION AND CONCLUSIONS

McFarlane's High Lake-West Hawk Lake Gold Project consists of the High Lake Property, northwestern Ontario and the West Hawk Lake Property, 10 km west, in southeastern Manitoba. The High Lake Property is located immediately east of the Ontario-Manitoba border in northwestern Ontario, 45 km west of the City of Kenora. It lies immediately south of the Trans-Canada Highway. The West Hawk Lake Property is located 5 km west of the Ontario-Manitoba border, 53 km west of the City of Kenora and 130 km east of the City of Winnipeg. It lies immediately north of the Trans-Canada Highway, within the Whiteshell Provincial Park.

The High Lake Property consists of 20 mining leases and 15 mining claims, totalling 567 ha. The mining leases have surface and mining rights. The leases are 100% owned and registered to McFarlane. A previous owner, International Millenium Mining Corp. retain an interest in the mining leases as the original payor of the 2% NSR royalty to Celynn Alcock. The mining claims were staked and purchased in 2022. All of the mining leases and mining claims are in good standing as of the effective date of this Technical Report.

The West Hawk Lake Property is 100% owned and registered in the name of McFarlane. The Property consists of a single Mineral Lease issued by the Manitoba Innovation, Energy and Mines Branch, totalling 319 ha. The mining lease, ML-18, was issued for a 21-year period on April 1, 1992. This lease is in good standing as of the effective date of this Technical Report and is valid until April 01, 2034, subject to annual payments.

The High Lake and the West Hawk Lake Properties occur in the Archean Lake of the Woods Greenstone Belt, near the western end of the Wabigoon Subprovince (3.0 to 2.7 Ga), in the western part of the Superior Province in the Canadian Shield. The greenstone belt consists of ultramafic to felsic metavolcanic rocks and clastic and chemical metasedimentary rocks. These rocks are intruded by many elliptical-shape granitoid batholiths. The High Lake Intrusive Complex, on the High Lake Property, and the Falcon Lake Igneous Complex, on the West Hawk Lake Property, appear to be important features that controlled gold mineralization in these areas.

Several styles of gold mineralization occur on the High Lake Property. The most important of the known styles of mineralization consists of gold associated with quartz veining and silicified sheared zones that are spatially related to the contact between quartz-feldspar porphyry sills or dykes and mafic to intermediate volcanic rocks. The volcanic rocks occur as large rafts or roof pendants within the quartz-feldspar porphyry body. Pyrite, chalcopyrite, tourmaline, sericite, chlorite and carbonate are typically associated with the gold. Zones of this style are the Purdex A, B and P Zones and the Electrum Prospect P, R and W Zones.

Two styles of gold mineralization occur on the West Hawk Property. The host rock for the first style is a concentrically banded breccia pipe. Gold occurs in siliceous bands, small quartz veinlets, and local sericitic patches. Associated mineralization includes pyrite, galena, sphalerite, chalcopyrite and pyrrhotite and minor arsenopyrite and tetrahedrite. Examples of this style of gold mineralization are the Sunbeam and Moonbeam Prospects. The second style of gold mineralization consists of narrow shear zones that occur within all rock types, but particularly near the contacts of the various phases of the intrusive complex. Gold is generally associated with narrow quartz veining and gashes within en-echelon lenses and wider bodies of biotite schist. It also occurs along

joint surfaces within and adjacent to these shears. Examples of this mineralization style are the Waverly Veins and the Sundog Zone.

McFarlane completed exploration and drilling programs on the West Hawk Lake and High Lake Properties in 2022 and 2023. The exploration programs included IP geophysical surveys, which detected anomalies of interest for follow-up drill testing. A total 13,594.5 m were completed in 61 diamond drill holes on the two properties in late-2022 to early-2023.

On the High Lake Property, 46 drill holes totalling 10,443 m were completed. The purpose of this drilling was to support the current Mineral Resource Estimate of the Purdex Zone. This drilling intersected multiple high-grade gold mineralized intervals with visible gold at the Purdex Zone.

On the West Hawk Lake Property, 15 drill holes were completed totalling 3,152 m. The drill holes were designed to confirm and expand the mineralized zones delineated in historical drilling and test the IP anomalies for the presence of gold mineralization. This drilling intersected multiple high-grade gold mineralized intervals at the historical Waverly and Sunbeam Zones.

McFarlane implemented a robust quality assurance/quality control ("QA/QC") program from the commencement of the 2022-2023 drilling programs at the High Lake and West Hawk Lake Properties. In the opinion of the Authors, McFarlane's sample preparation, analytical procedures, security and QA/QC program meet industry standards, and that the data are of good quality and satisfactory for use in the Mineral Resource Estimate reported in this Technical Report.

The High Lake and West Hawk Lake Properties were visited by Mr. David Burga, P.Geo., of P&E and a Qualified Person under the regulations of NI 43-101, on May 1 and 2, 2023 to complete an independent site visit and data verification sampling programs. In the opinion of the Technical Report Authors, McFarlane's sample preparation, analytical procedures, security and QA/QC program meet industry standards, and that the data are of good quality and satisfactory for use in the Mineral Resource Estimate reported in this Technical Report. Furthermore, the results of the independent due diligence sampling show good correlation with the gold assay values in McFarlane's database. In the Authors opinion, the data are of good quality and appropriate for use in the current Mineral Resource Estimate.

All drilling and assay data provided by McFarlane to the Authors were in the form of Excel data files. The GEOVIA GEMS<sup>TM</sup> V6.8.4 database compiled by the Authors for this Mineral Resource Estimate consisted of the 46 surface drill holes totalling 10,443 m completed on the High Lake Property, of which 1,946 m were assayed and utilized for this Mineral Resource Estimate. A total of 34 drill holes intersected the mineralized wireframes used for the Mineral Resource Estimate.

The initial MRE for the Purdex Zone of the High Lake Deposit was independently prepared by the Authors in accordance with NI 43-101. This initial MRE consists of 152 kt grading 9.38 g/t Au for 45.8 koz Au in Indicated Mineral Resources and 287 kt grading 10.43 g/t Au for 96.2 koz Au in Inferred Mineral Resources, at a 2.6 g/t Au cut-off. The Mineral Resources are sensitive to gold cut-off grade.

Most of the MRE tonnage within the Purdex Zone is contained in three stacked zones (Zones, A, B and C) within a 75 m-wide corridor, which starts at surface and measures 220 m along strike by 420 m vertical in size. The true thickness of the High Lake Zones varies from 1.2 to 9.0 m.

The Mineral Resources of the Purdex Zone extend to surface and there may be an opportunity to mine these early in a development project via an open pit. The Authors reviewed two potentially viable pit options and subsets of the Mineral Resources that could be exploited via these options.

These Mineral Resources are not Mineral Reserves as they do not demonstrate economic viability. The quantity and grade of reported Inferred Mineral Resources are uncertain in nature and there has been insufficient exploration to define these Mineral Resources as Indicated of Measured. However, it is reasonably expected that most of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

The Authors are not aware of any factors or issues that materially affect the Mineral Resource Estimate, other than the normal risks faced by mining projects in Ontario, in terms of environmental, permitting, taxation, socio-economic, marketing, and political factors, and the additional risks regarding Inferred Mineral Resources.

## 26.0 RECOMMENDATIONS

Additional exploration and development expenditures are warranted at the High Lake-West Hawk Lake Project to improve the viability of the Project and advance it towards a Preliminary Economic Assessment. The recommendations of the Authors of this Technical Report include in-fill and step-out drilling to increase the Mineral Resource base of the Project, and exploration drilling to discover of new mineralized zones with potential for future Mineral Resource modelling.

The Authors recommend additional drilling on the High Lake Property to convert Inferred to Indicated Mineral Resources, to expand the current Mineral Resource, and add new Mineral Resources. Inferred Mineral Resources at the Purdex Zone should be infill-drilled to convert to Indicated Mineral Resources. The current Mineral Resources at the Purdex Zone are open to expansion by drilling along strike and down-dip. IP geophysical features of interest on the High Lake Property and the West Hawk Lake Property should be drill tested for gold-related sulphide mineralization and potential for future Mineral Resource estimation. In addition, an initial metallurgical study should be completed on representative material from the Purdex Zone.

For the High Lake Property, the Authors recommend completion of a 10,000 m drill program to test the Purdex Zone to the east and at depth (Purdex East). The results of the 2023 IP geophysical survey indicate increasing chargeability along strike to the east. This area has yet to be drilled. Additional priority targets at Conglomerate, A-D Extension, Porphyry and Gap areas should be prospected and drill tested. Additional IP surveying, prospecting and soil sampling should be considered over areas of the property that have not been previously surveyed.

In order to derive a more precise indication of what gold recovery can be expected from the High Lake Mineral Resource, the following tests are recommended: 1) assembly of representative composite sample from drill core; 2) full analysis of the composite sample for precious metals, base metals, whole-rock composition; 3) mineralogical studies to characterize gold deportment; 4) conduct gravity separation testing, 5) investigate the concentration by froth flotation from gravity tails; and 6) cyanide leach of bulk gravity concentrate products and tailings.

For the West Hawk Lake Property, the Authors recommend completion of an 8,000 m drill program to delineate potential Mineral Resources in the Waverly Raise and Sunbeam Zones. Additional IP geophysical surveying and mineral prospecting should be considered on the Property.

The cost to complete the recommended program is estimated to be CDN\$6.6M (Table 26.1). The recommended program should be completed in the next 6 to 12 months.

TABLE 26.1Recommended Program and Budget for the High LakeAnd West Hawk Lake Properties				
Property	Work	Units	Unit Cost (C\$)	Estimated Cost (C\$)
	Core Drilling	10,000	200	2,000,000
	Logging, Sampling, Supervision	1	400,000	400,000
	Core Assay Costs	1,000	65	65,000
	Prospecting, Sampling, Assays	4	15,000	60,000
	IP Surveying, Line-cutting, Reporting	1	100,000	100,000
	Soil Sampling, Assays	4	25,000	100,000
	Field Costs (consumables, internet, phone, storage)	2	10,000	20,000
High Lake	Drafting & Plotting	6	10,000	60,000
	Transportation (vehicle, fuel, mileage)	6	5,000	30,000
	Accommodation & Meals	2,000	150	300,000
	Reporting & Supervision	6	10,000	60,000
	Metallurgical Testwork	1	125,000	125,000
	Subtotal		,	3,320,000
	Contingency (10%)			332,000
	Total High Lake Property			3,652,000
				, ,
	Core Drilling	8,000	200	1,600,000
	Logging, Sampling, Supervision	1	320,000	320,000
	Assay Costs	1,350	65	88,000
	Prospecting, Sampling, Assays	4	15,000	60,000
	IP Surveying, Line-cutting, Reporting	1	100,000	100,000
	Soil Sampling, Assays	4	25,000	100,000
West Hawk	Field Costs (consumables, internet, phone, storage)	2	10,000	20,000
Lake	Drafting & Plotting	6	10,000	60,000
	Transportation (vehicle, fuel, mileage)	6	10,000	60,000
	Accommodation & Meals	1,600	150	240,000
	Reporting & Supervision	6	10,000	60,000
	Subtotal		,	2,708,000
	Contingency (10%)			271,000
	Total West Hawk Lake Property			2,979,000
	······································			, , , , , , , , , , , , , , , , , , , ,
Total High L	ake and West Hawk Lake Property			6,631,000

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#### **28.0 CERTIFICATES**

# **CERTIFICATE OF QUALIFIED PERSON**

## WILLIAM STONE, PH.D., P.GEO.

I, William Stone, Ph.D., P.Geo, residing at 4361 Latimer Crescent, Burlington, Ontario, do hereby certify that:

- 1. I am an independent geological consultant working for P&E Mining Consultants Inc.
- 2. This certificate applies to the Technical Report titled "Technical Report and Initial Mineral Resource Estimate of the High Lake West Hawk Lake Gold Project, Kenora Mining Division, Ontario and Falcon Lake Area, Manitoba", (The "Technical Report") with an effective date of April 14, 2023.
- 3. I am a graduate of Dalhousie University with a Bachelor of Science (Honours) degree in Geology (1983). In addition, I have a Master of Science in Geology (1985) and a Ph.D. in Geology (1988) from the University of Western Ontario. I have worked as a geologist for a total of 35 years since obtaining my M.Sc. degree. I am a geological consultant currently licensed by the Professional Geoscientists of Ontario (License No 1569).

I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report is:

/1 y 101	evant experience for the purpose of the reenfiled Report is.	
•	Contract Senior Geologist, LAC Minerals Exploration Ltd.	1985-1988
٠	Post-Doctoral Fellow, McMaster University	1988-1992
٠	Contract Senior Geologist, Outokumpu Mines and Metals Ltd.	1993-1996
٠	Senior Research Geologist, WMC Resources Ltd.	1996-2001
٠	Senior Lecturer, University of Western Australia	2001-2003
٠	Principal Geologist, Geoinformatics Exploration Ltd.	2003-2004
٠	Vice President Exploration, Nevada Star Resources Inc.	2005-2006
٠	Vice President Exploration, Goldbrook Ventures Inc.	2006-2008
٠	Vice President Exploration, North American Palladium Ltd.	2008-2009
٠	Vice President Exploration, Magma Metals Ltd.	2010-2011
٠	President & COO, Pacific North West Capital Corp.	2011-2014
٠	Consulting Geologist	2013-2017
٠	Senior Project Geologist, Anglo American	2017-2019
•	Consulting Geoscientist	2020-Present

- 4. I have not visited the Property that is the subject of this Technical Report.
- 5. I am responsible for authoring Sections 2 to 9, 15, 16, 18, 19, 21 to 24, and co-authoring Sections 1, and 25 to 27 of this Technical Report.
- 6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
- 7. I have had no prior involvement with the Property that is the subject of this Technical Report.
- 8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
- 9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: April 14, 2023 Signed Date: July 4, 2023 *{SIGNED AND SEALED} [William Stone]* 

William E. Stone, Ph.D., P.Geo.

# CERTIFICATE OF QUALIFIED PERSON CHARLES SPATH, M.SC., P.GEO.

I, Charles Spath, M.Sc., B.Sc., P.Geo., residing at 120 Longbranch Ave, Etobicoke, Ontario do hereby certify that:

- 1. I am an independent geological consultant working for P&E Mining Consultants Inc.
- 2. This certificate applies to the Technical Report titled "Technical Report and Initial Mineral Resource Estimate of the High Lake West Hawk Lake Gold Project, Kenora Mining Division, Ontario and Falcon Lake Area, Manitoba", (The "Technical Report") with an effective date of April 14, 2023.
- 3. I am a graduate of State University of New York at Oswego with a Bachelor of Science (Honours) degree in Geology (2013). In addition, I have a Masters of Science in Geology (2016). I have worked as a geologist for a total of 10 years since obtaining my BS.c degree. I am a geological consultant currently licensed by the Professional Geoscientists of Ontario (License No 3421).

I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report is:

٠	Exploration Geologist, Cleveland-Cliffs	2013-2014
٠	Mine Geologist, Vale Canada	2015-2016
٠	Exploration Geologist, Ivanhoe Mines	2016-2017
٠	Mine Geologist, Newmont Mining	2017-2018
٠	Project Exploration Geologist, Hecla Mining Company	2018-2022
٠	Consulting Geologist	2022-Present

- 4. I have not visited the Property that is the subject of this Technical Report.
- 5. I am responsible for co-authoring Sections 1, 14, and 25 to 27 of this Technical Report.
- 6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
- 7. I have had no prior involvement with the Property that is the subject of this Technical Report.
- 8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
- 9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: April 14, 2023 Signed Date: July 4, 2023

{SIGNED AND SEALED} [Charles Spath]

Charles Spath, P.Geo.

## **CERTIFICATE OF QUALIFIED PERSON**

## ANTOINE R. YASSA, P.GEO.

I, Antoine R. Yassa, P.Geo. residing at 3602 Rang des Cavaliers, Rouyn-Noranda, Quebec, J0Z 1Y2, do hereby certify that:

- 1. I am an independent geological consultant contracted by P&E Mining Consultants Inc.
- 2. This certificate applies to the Technical Report titled "Technical Report and Initial Mineral Resource Estimate of the High Lake West Hawk Lake Gold Project, Kenora Mining Division, Ontario and Falcon Lake Area, Manitoba", (The "Technical Report") with an effective date of April 14, 2023.
- 3. I am a graduate of Ottawa University at Ottawa, Ontario with a B. Sc (HONS) in Geological Sciences (1977) with continuous experience as a geologist since 1979. I am a geological consultant currently licensed by the Order of Geologists of Québec (License No 224) and by the Association of Professional Geoscientist of Ontario (License No 1890);

I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report is:

2		
٠	Minex Geologist (Val d'Or), 3-D Modeling (Timmins), Placer Dome	1993-1995
٠	Database Manager, Senior Geologist, West Africa, PDX,	1996-1998
٠	Senior Geologist, Database Manager, McWatters Mine	1998-2000
٠	Database Manager, Gemcom modeling and Resources Evaluation (Kiena Mine)	2001-2003
٠	Database Manager and Resources Evaluation at Julietta Mine, Bema Gold Corp.	2003-2006
٠	Consulting Geologist	2006-present
		-

- 4. I have not visited the Property that is the subject of this Technical Report.
- 5. I am responsible for co-authoring Sections 1, 14, and 25 to 27 of this Technical Report.
- 6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
- 7. I have had no prior involvement with the Project that is the subject of this Technical Report.
- 8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
- 9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: April 14, 2023 Signed Date: July 4, 2023

#### {SIGNED AND SEALED} [Antoine R. Yassa]

Antoine R. Yassa, P.Geo.

## **CERTIFICATE OF QUALIFIED PERSON**

# JARITA BARRY, P.GEO.

I, Jarita Barry, P.Geo., residing at 9052 Mortlake-Ararat Road, Ararat, Victoria, Australia, 3377, do hereby certify that:

- 1. I am an independent geological consultant contracted by P&E Mining Consultants Inc.
- 2. This certificate applies to the Technical Report titled "Technical Report and Initial Mineral Resource Estimate of the High Lake West Hawk Lake Gold Project, Kenora Mining Division, Ontario and Falcon Lake Area, Manitoba", (The "Technical Report") with an effective date of April 14, 2023.
- 3. I am a graduate of RMIT University of Melbourne, Victoria, Australia, with a B.Sc. in Applied Geology. I have worked as a geologist for over 17 years since obtaining my B.Sc. degree. I am a geological consultant currently licensed by Engineers and Geoscientists British Columbia (License No. 40875) and Professional Engineers and Geoscientists Newfoundland & Labrador (License No. 08399). I am also a member of the Australasian Institute of Mining and Metallurgy of Australia (Member No. 305397);

I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report is:

٠	Geologist, Foran Mining Corp.	2004
٠	Geologist, Aurelian Resources Inc.	2004
٠	Geologist, Linear Gold Corp.	2005-2006
٠	Geologist, Búscore Consulting	2006-2007
٠	Consulting Geologist (AusIMM)	2008-2014
٠	Consulting Geologist, P.Geo. (EGBC/AusIMM)	2014-Present

4. I have not visited the Property that is the subject of this Technical Report.

- 5. I am responsible for authoring Section 11, and co-authoring Sections 1, 12, and 25 to 27 of this Technical Report.
- 6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
- 7. I have had no prior involvement with the Project that is the subject of this Technical Report.
- 8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
- 9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: April 14, 2023 Signed Date: July 4, 2023

#### {SIGNED AND SEALED} [Jarita Barry]

Jarita Barry, P.Geo.

# CERTIFICATE OF QUALIFIED PERSON DAVID BURGA, P.GEO.

I, David Burga, P. Geo., residing at 3884 Freeman Terrace, Mississauga, Ontario, do hereby certify that:

- 1. I am an independent geological consultant contracted by P & E Mining Consultants Inc.
- 2. This certificate applies to the Technical Report titled "Technical Report and Initial Mineral Resource Estimate of the High Lake West Hawk Lake Gold Project, Kenora Mining Division, Ontario and Falcon Lake Area, Manitoba", (The "Technical Report") with an effective date of April 14, 2023.
- 3. I am a graduate of the University of Toronto with a Bachelor of Science degree in Geological Sciences (1997). I have worked as a geologist for over 20 years since obtaining my B.Sc. degree. I am a geological consultant currently licensed by the Association of Professional Geoscientists of Ontario (License No 1836).

I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report is:

2		
٠	Exploration Geologist, Cameco Gold	1997-1998
٠	Field Geophysicist, Quantec Geoscience	1998-1999
٠	Geological Consultant, Andeburg Consulting Ltd.	1999-2003
٠	Geologist, Aeon Egmond Ltd.	2003-2005
٠	Project Manager, Jacques Whitford	2005-2008
٠	Exploration Manager – Chile, Red Metal Resources	2008-2009
٠	Consulting Geologist	2009-Present

- 4. I have visited the Properties that are the subject of this Technical Report on May 1 and 2, 2023.
- 5. I am responsible for authoring Section 10, and co-authoring Sections 1, 12, and 25 to 27 of this Technical Report.
- 6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
- 7. I have had no prior involvement with the Property that is the subject of this Technical Report.
- 8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
- 9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: April 14, 2023 Signed Date: July 4, 2023

{SIGNED AND SEALED} [David Burga]

David Burga, P.Geo.

## **CERTIFICATE OF QUALIFIED PERSON**

# D. GRANT FEASBY, P. ENG.

- I, D. Grant Feasby, P. Eng., residing at 12,209 Hwy 38, Tichborne, Ontario, K0H 2V0, do hereby certify that:
- I am currently the Owner and President of: FEAS - Feasby Environmental Advantage Services 38 Gwynne Ave, Ottawa, K1Y1W9
- 2. This certificate applies to the Technical Report titled "Technical Report and Initial Mineral Resource Estimate of the High Lake West Hawk Lake Gold Project, Kenora Mining Division, Ontario and Falcon Lake Area, Manitoba", (The "Technical Report") with an effective date of April 14, 2023.
- 3. I graduated from Queens University in Kingston Ontario, in 1964 with a Bachelor of Applied Science in Metallurgical Engineering, and a Master of Applied Science in Metallurgical Engineering in 1966. I am a Professional Engineer registered with Professional Engineers Ontario. I have worked as a metallurgical engineer for over 50 years since my graduation from university.

I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report has been acquired by the following activities:

- Metallurgist, Base Metal Processing Plant.
- Research Engineer and Lab Manager, Industrial Minerals Laboratories in USA and Canada.
- Research Engineer, Metallurgist and Plant Manager in the Canadian Uranium Industry.
- Manager of Canadian National Programs on Uranium and Acid Generating Mine Tailings.
- Director, Environment, Canadian Mineral Research Laboratory.
- Senior Technical Manager, for large gold and bauxite mining operations in South America.
- Expert Independent Consultant associated with several companies, including P&E Mining Consultants, on mineral processing, environmental management, and mineral-based radiation assessment.
- 4. I have not visited the Property that is the subject of this Technical Report.
- 5. I am responsible for authoring Section 13, and co-authoring Sections 1, and 25 to 27 of this Technical Report.
- 6. I am independent of the issuer applying the test in Section 1.5 of NI 43-101.
- 7. I have had no prior involvement with the Project that is the subject of this Technical Report.
- 8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
- 9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: April 14, 2023 Signed Date: July 4, 2023

{SIGNED AND SEALED} [D. Grant Feasby]

D. Grant Feasby, P.Eng.

## **CERTIFICATE OF QUALIFIED PERSON**

# EUGENE PURITCH, P. ENG., FEC, CET

I, Eugene J. Puritch, P. Eng., FEC, CET, residing at 44 Turtlecreek Blvd., Brampton, Ontario, L6W 3X7, do hereby certify that:

- 1. I am an independent mining consultant and President of P&E Mining Consultants Inc.
- 2. This certificate applies to the Technical Report titled "Technical Report and Initial Mineral Resource Estimate of the High Lake West Hawk Lake Gold Project, Kenora Mining Division, Ontario and Falcon Lake Area, Manitoba", (The "Technical Report") with an effective date of April 14, 2023.
- 3. I am a graduate of The Haileybury School of Mines, with a Technologist Diploma in Mining, as well as obtaining an additional year of undergraduate education in Mine Engineering at Queen's University. In addition, I have also met the Professional Engineers of Ontario Academic Requirement Committee's Examination requirement for a Bachelor's degree in Engineering Equivalency. I am a mining consultant currently licensed by the: Professional Engineers and Geoscientists New Brunswick (License No. 4778); Professional Engineers, Geoscientists Newfoundland and Labrador (License No. 5998); Association of Professional Engineers and Geoscientists Saskatchewan (License No. 16216); Ontario Association of Certified Engineering Technicians and Technologists (License No. 45252); Professional Engineers of Ontario (License No. 100014010); Association of Professional Engineers and Geoscientists of British Columbia (License No. 42912); and Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (No. L3877). I am also a member of the National Canadian Institute of Mining and Metallurgy.

I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.

I have practiced my profession continuously since 1978. My summarized career experience is as follows:

Mining Technologist - H.E	B.M.& S. and Inco Ltd.,	1978-1980
6 6	Cassiar Asbestos/Brinco Ltd.,	1981-1983
1 0	Supervisor – Detour Lake Mine,	1984-1986
Self-Employed Mining Co	nsultant – Timmins Area,	1987-1988
• Mine Designer/Resource E	stimator – Dynatec/CMD/Bharti,	1989-1995
Self-Employed Mining Co	nsultant/Resource-Reserve Estimator,	1995-2004
• President – P&E Mining C	onsultants Inc,	2004-Present

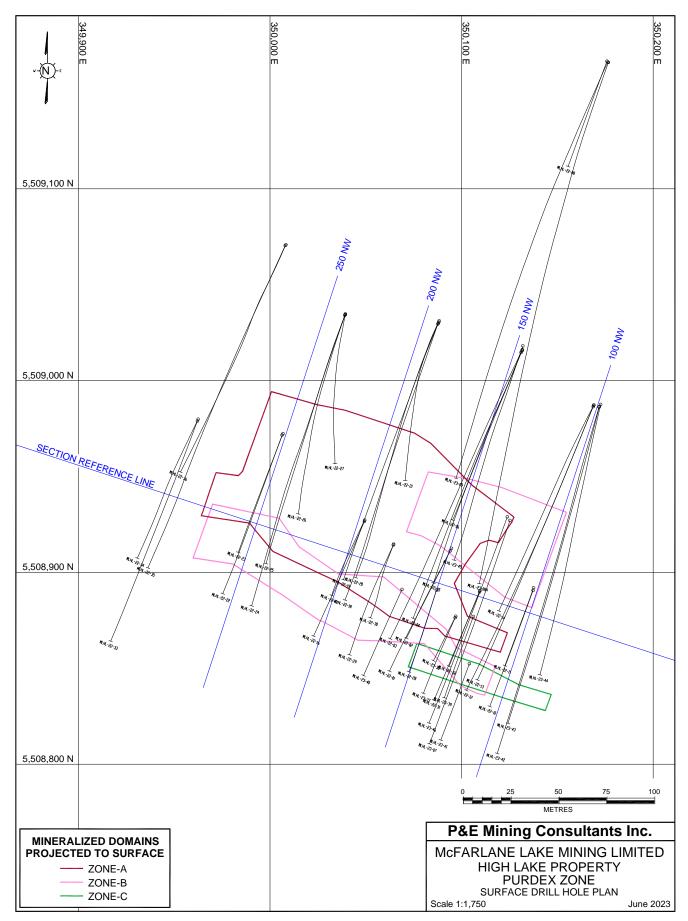
- 4. I have not visited the Property that is the subject of this Technical Report.
- 5. I am responsible for co-authoring Sections 1, 14, and 25 to 27 of this Technical Report.
- 6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
- 7. I have had no prior involvement with the Project that is the subject of this Technical Report.
- 8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
- 9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: April 14, 2023 Signed Date: July 4, 2023

#### {SIGNED AND SEALED} [Eugene Puritch]

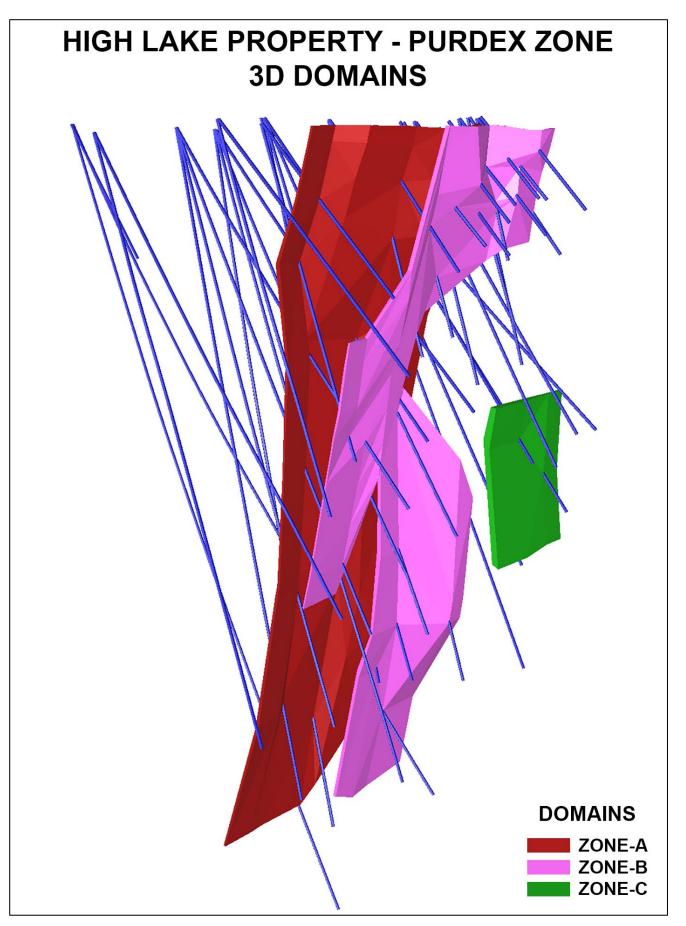
Eugene Puritch, P.Eng., FEC, CET

# APPENDIX A SURFACE DRILL HOLE PLAN



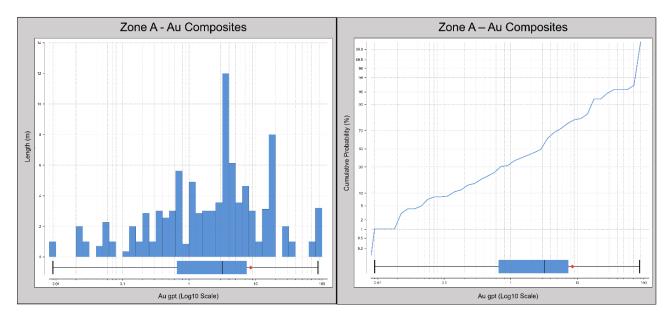
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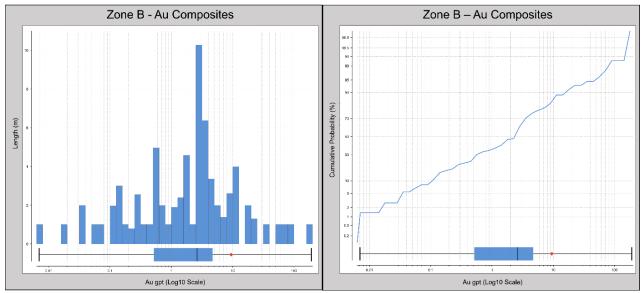
# APPENDIX B 3-D DOMAINS

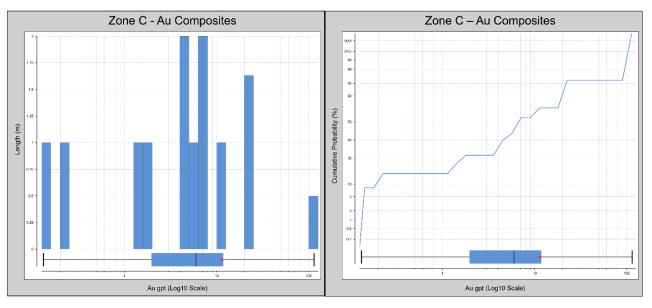


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# APPENDIX C LOG NORMAL HISTOGRAMS



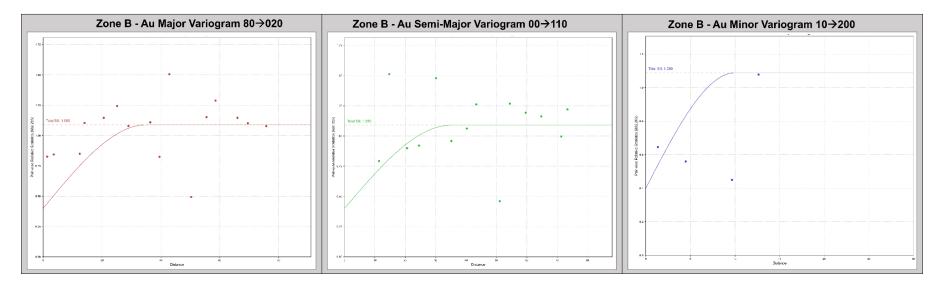


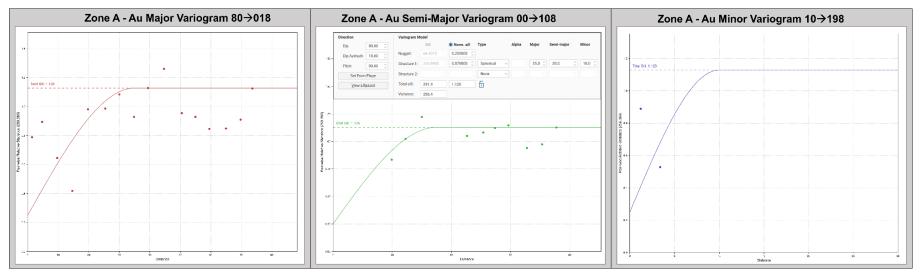


P&E Mining Consultants Inc. Company Name, Project Name, Report No. 442

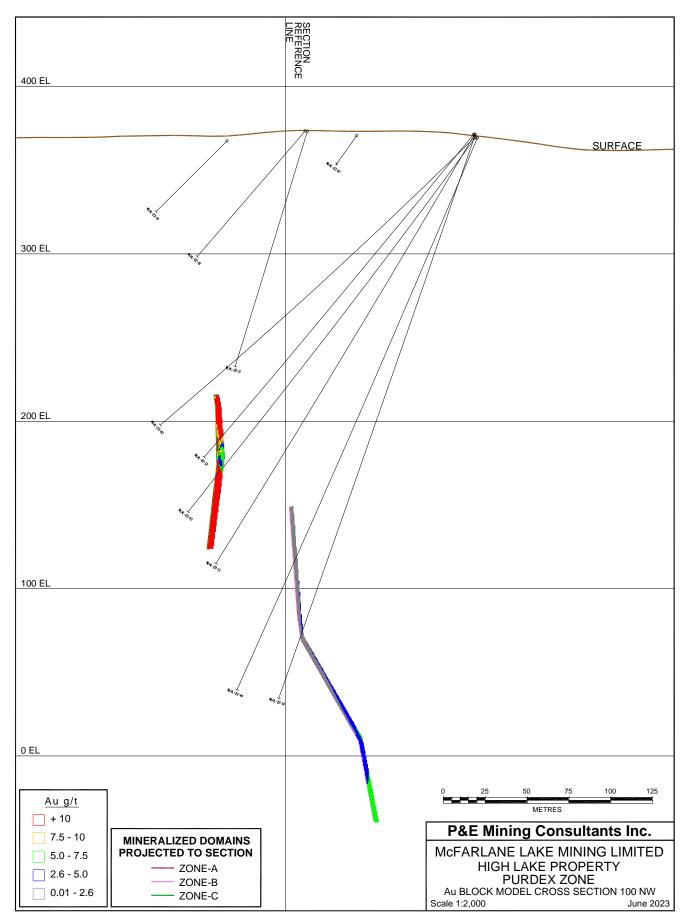
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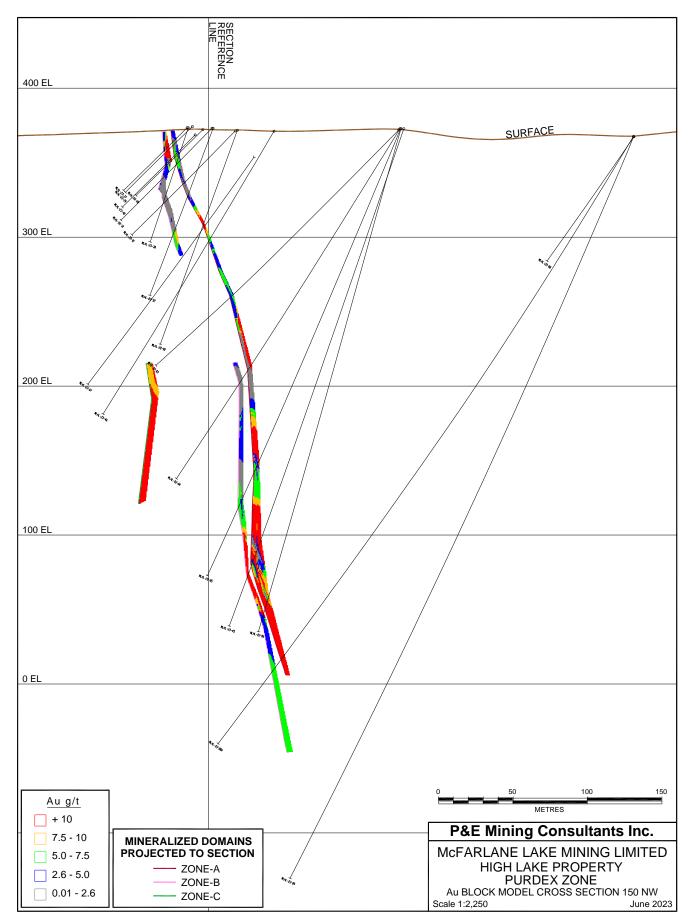
# APPENDIX D VARIOGRAMS

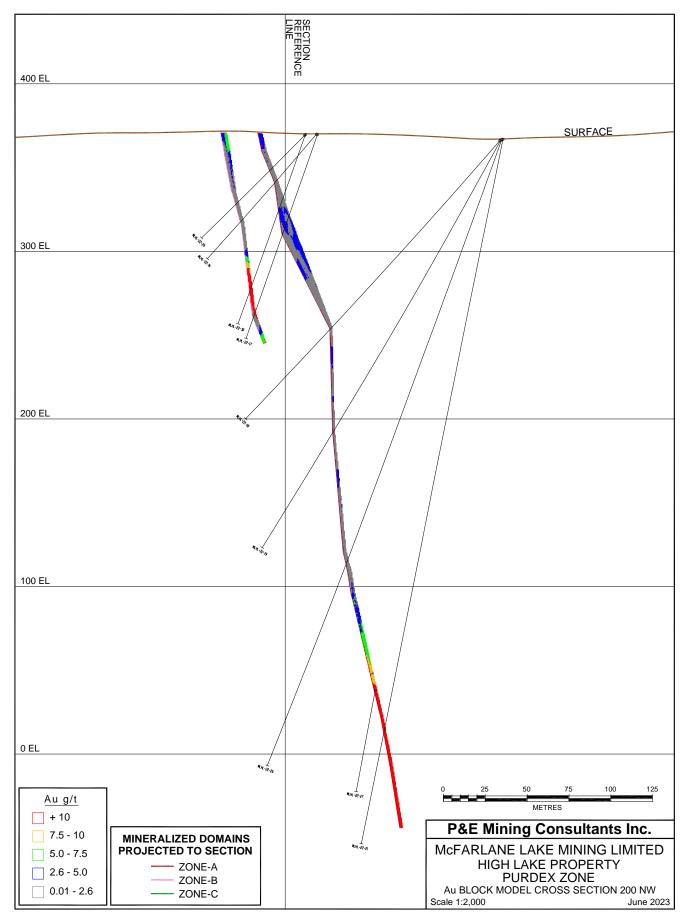




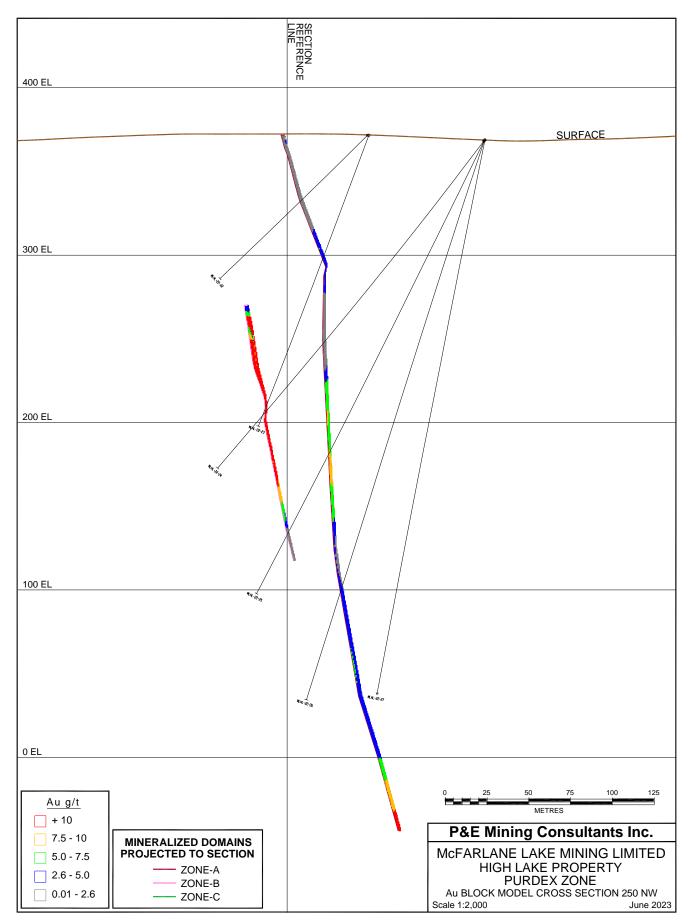
#### APPENDIX E AU BLOCK MODEL CROSS SECTIONS AND PLANS



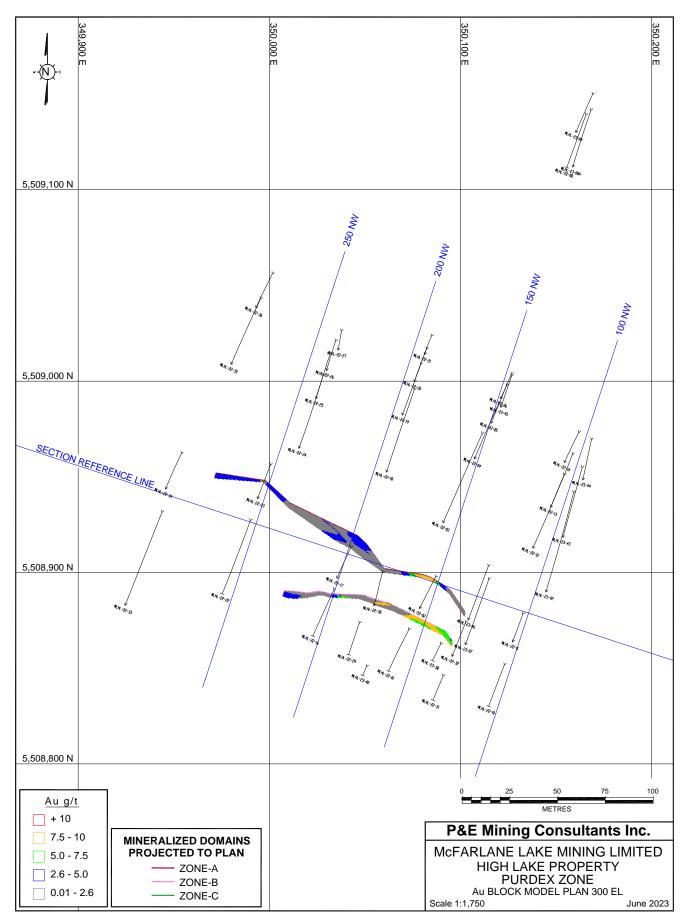


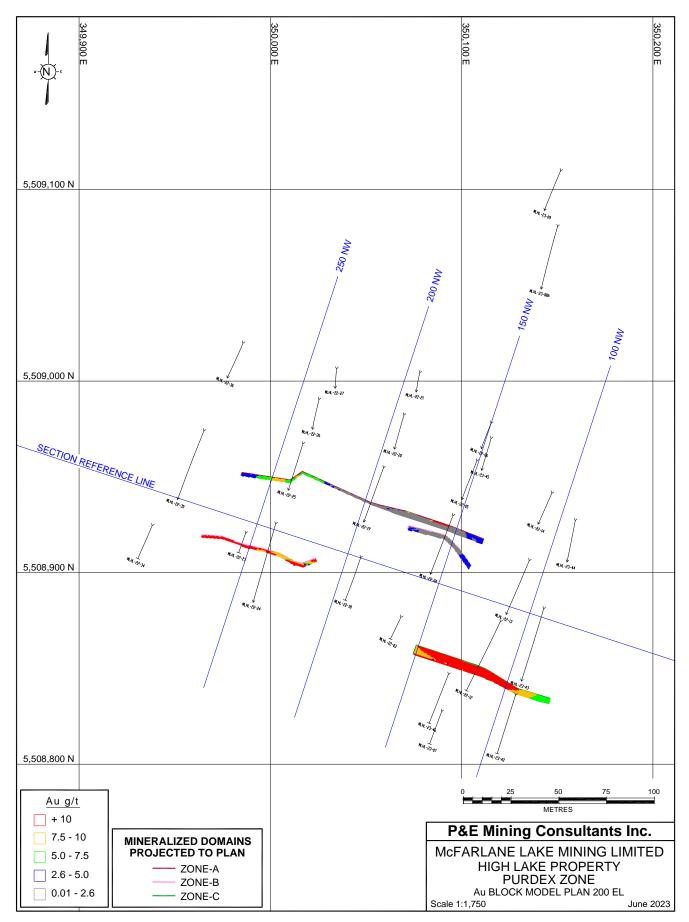


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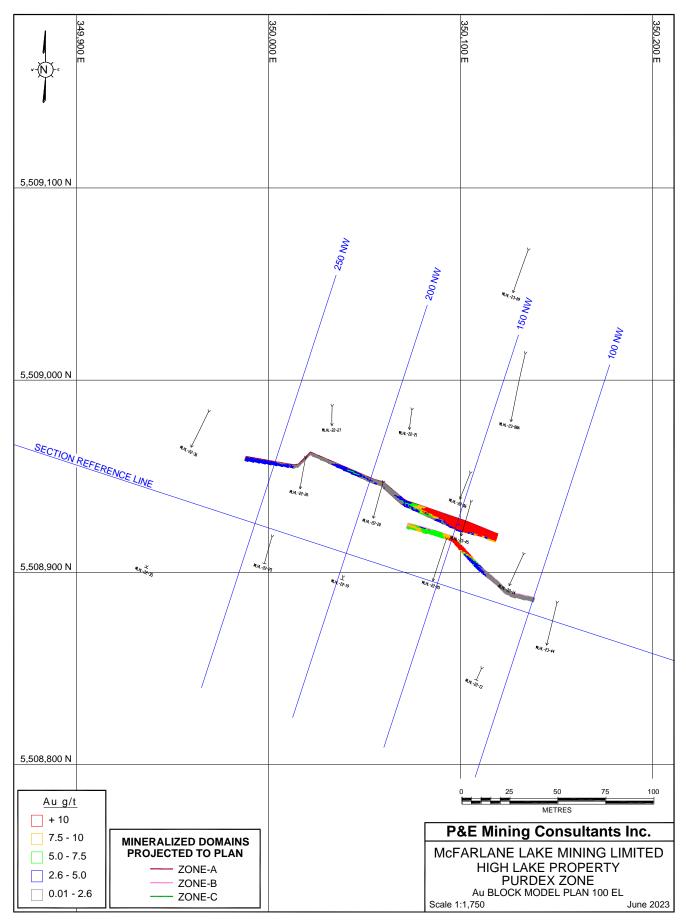


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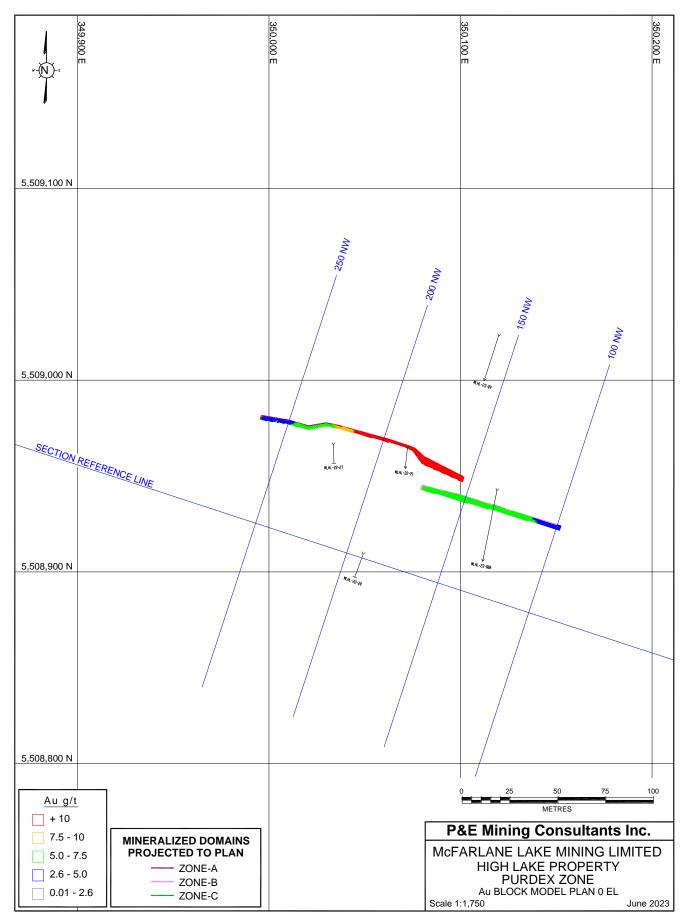




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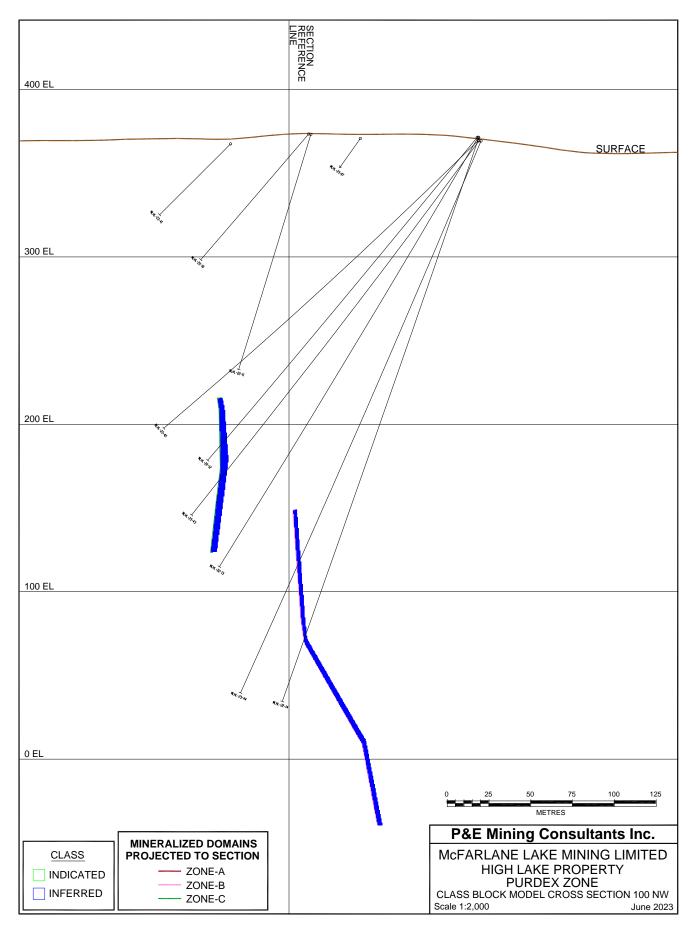


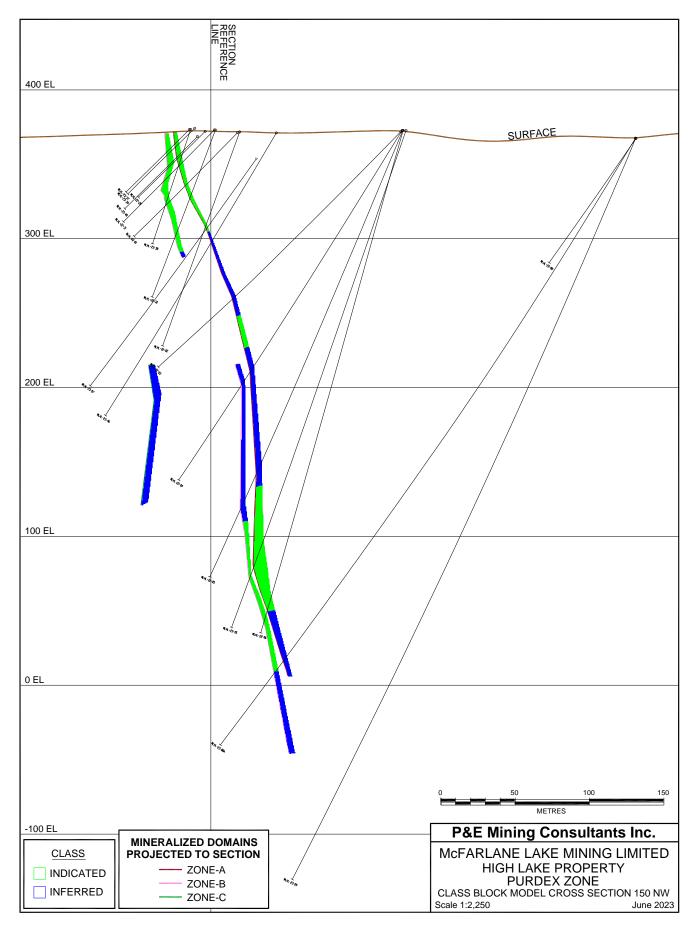
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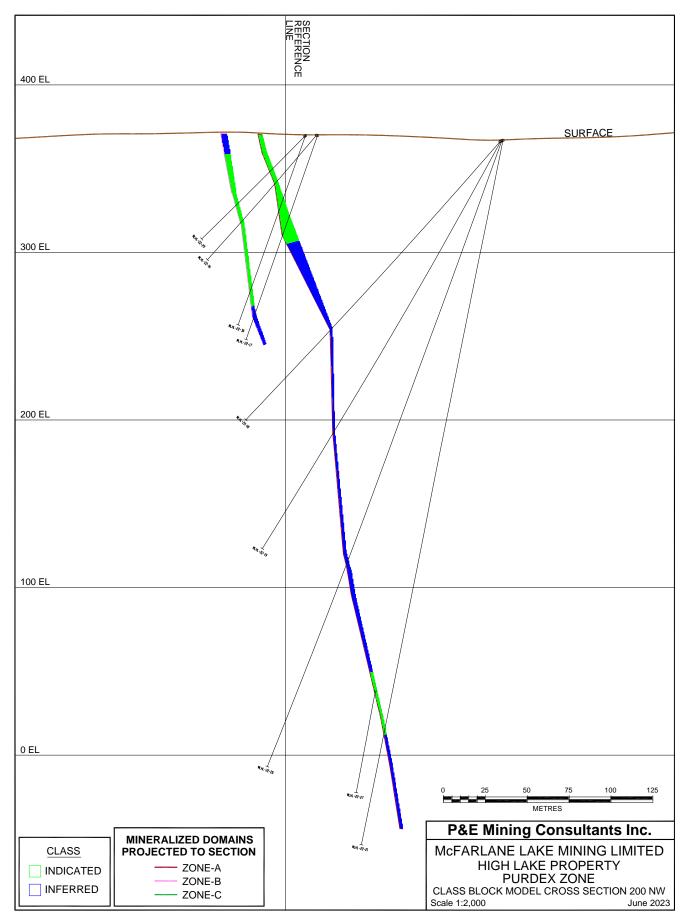


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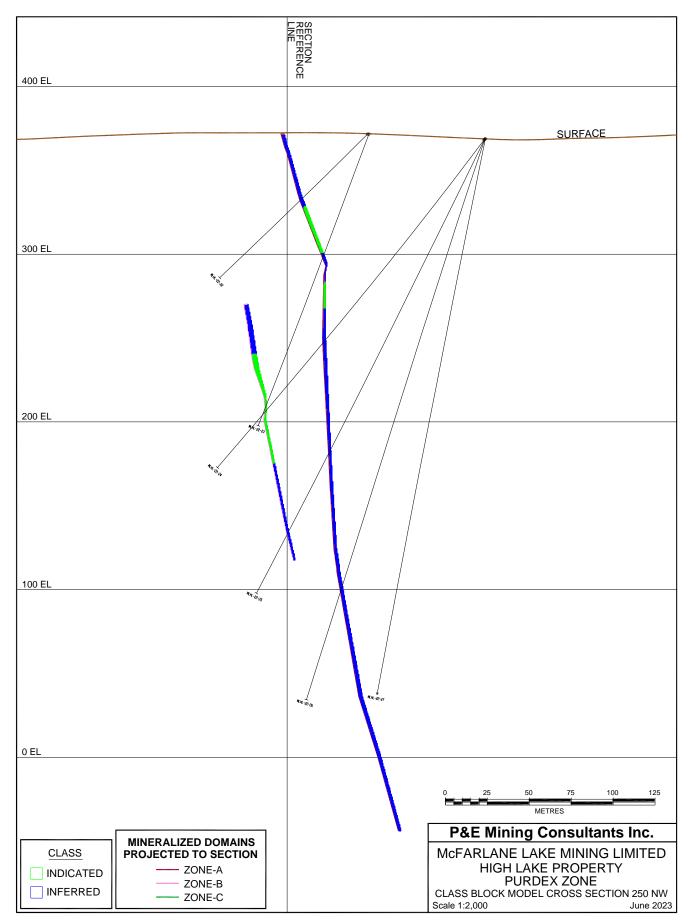
#### APPENDIX F CLASSIFICATION BLOCK MODEL CROSS SECTIONS AND PLANS



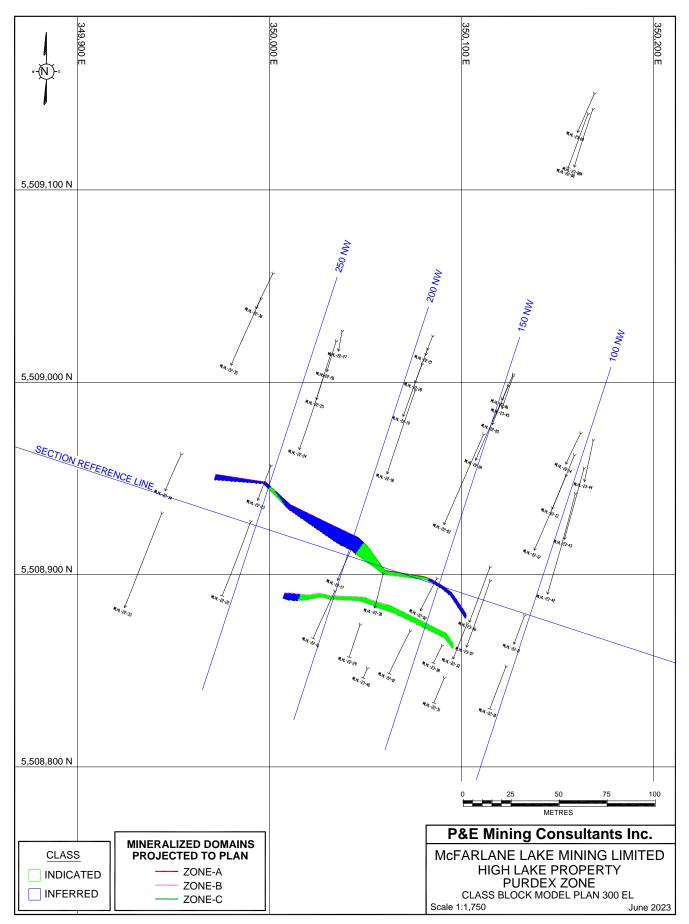




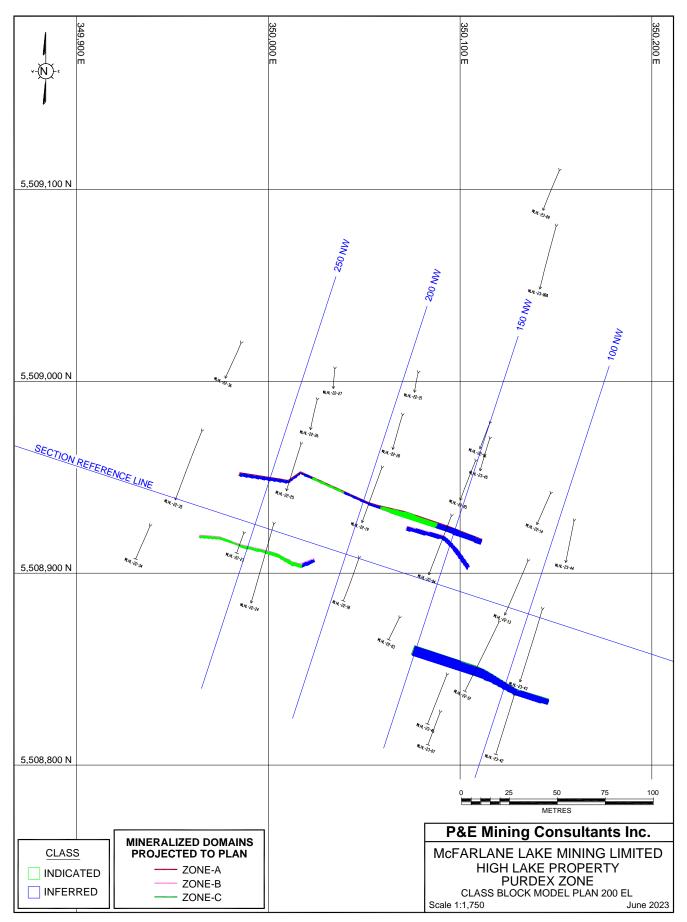
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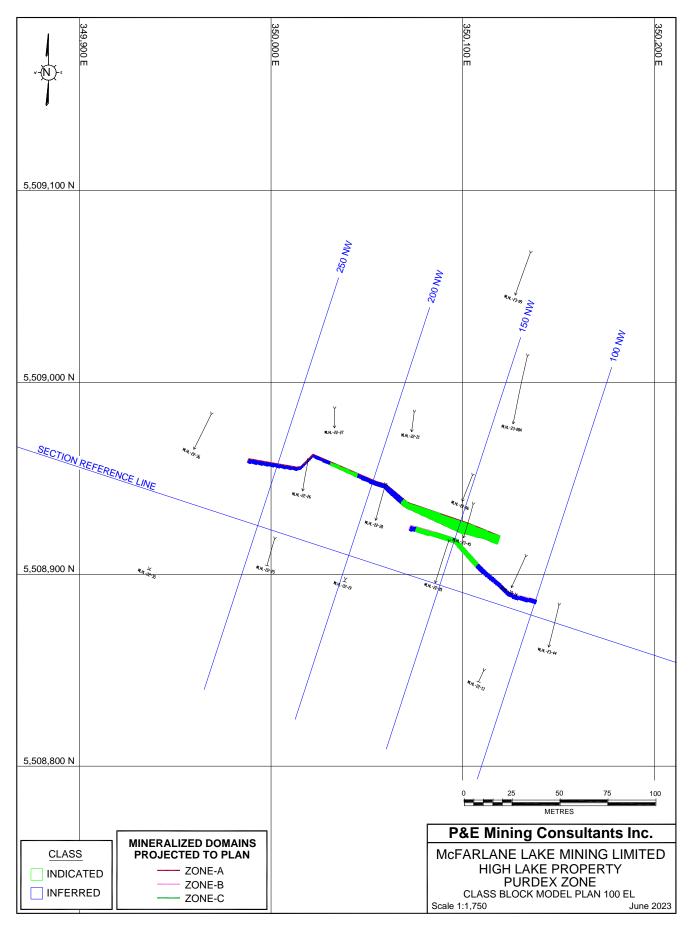
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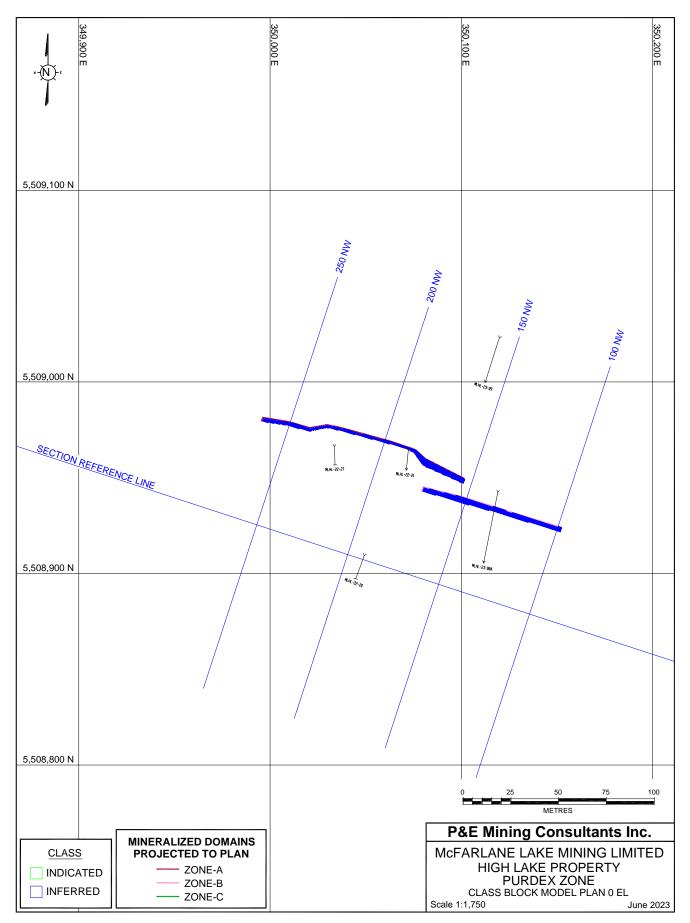
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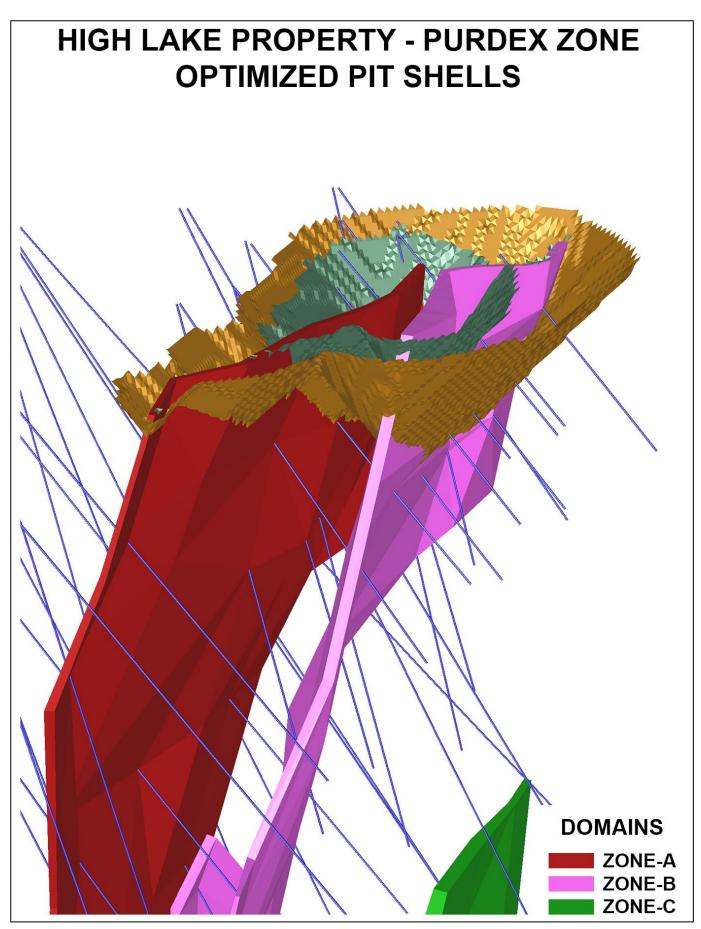


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## APPENDIX G OPTIMIZED PIT SHELL



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