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**NI 43-101 TECHNICAL REPORT
AND
MINERAL RESOURCE ESTIMATE
ON THE
LAST HOPE PROPERTY,
LYNN LAKE
NORTHERN MANITOBA, CANADA
Latitude 6,283,000 N, Longitude 387,000 E**

**FOR
55 NORTH MINING INC.**

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**P&E Mining Consultants Inc.
Report 387**

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1.0 SUMMARY

This Technical Report was prepared by P&E Mining Consultants Inc. (P&E) at the request of Mr. Bruce Reid, the president and CEO of 55 North Mining Inc. (The Company). 55 North Mining Inc. is a Canadian based reporting issuer. The purpose of this report is to provide an independent, NI 43-101 compliant, Technical Report and Mineral Resource Estimate (the Report) on the Last Hope Property in the Lynn Lake area, Manitoba, Canada (the Property).

The Property is located in northern Manitoba, 820 km northwest of Manitoba's capital city, Winnipeg. Access to the Property is via a 15 km all-weather gravel road to the former BT mine site from the town of Lynn Lake and then an 8 km winter road from the BT mine to the Property. The long mining history of northern Manitoba, in general, and of Lake Lynn in particular, is a testament to the abundance of material and human resources that are available in the region to support a mining operation. The Last Hope Property comprises 15 claims covering an area of 3,513 ha. The Company has an option agreement in place to acquire 100% of the Last Hope Property, subject to a 2% NSR royalty.

The fifteen Last Hope claims (3,513 ha) have an annual total of \$87,825 (\$25/ha) due at various anniversary dates throughout the year. All claims are in good standing as of the effective date of this Technical Report.

Geologically, the Last Hope Deposit is situated approximately 5 km south of the southern portion of the Lynn Lake Greenstone Belt within the Churchill Structural Province of the Canadian Shield. The main mineralized feature on the Property is the Madole Vein that outcrops for approximately 225 m and strikes northwest, dips 80 degrees southwest and fills a fracture in thinly bedded impure quartzite. It ranges in thickness from 0.3 to 1.2 m.

The Last Hope Deposit is considered to be a Proterozoic, mesothermal lode gold deposit.

Between May 2018 and March 2020, Quantec Geophysics acquired 78.15 km of DCIP data over 35 lines over the Project area.

Carlisle Goldfields completed a 27 drill hole program on the Property in 2012. A 2020 drill program began in October of 2020, however, results were not available at the effective date of this Technical Report.

Based on the results of the 2012 drill program and 204 historic drill holes, a Mineral Resource Estimate has been prepared and is presented in Table 1.1.

TABLE 1.1				
LAST HOPE PIT UNDERGROUND MINERAL RESOURCE ESTIMATE ⁽¹⁻⁵⁾				
Classification	Cut-off (g/t)	Tonnes (k)	Au (g/t)	Contained Au (koz)
Indicated	1.8	213	5.53	38.0
Inferred	1.8	1,107	5.17	184.1

- (1) *Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.*
- (2) *The Inferred Mineral Resource in this estimate has a lower level of confidence that 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 be upgraded to an Indicated Mineral Resource with continued exploration.*
- (3) *The Mineral Resources in this Technical Report were estimated using the inverse cubed grade interpolation method and the CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions adopted by CIM Council.*
- (4) *The gold price used was the December 31, 2020 approximate two year trailing average of US\$1,550/oz with a process recovery of 95% and 2% NSR Royalty. The US\$ exchange rate used was \$0.75.*
- (5) *Process costs used were C\$15/tonne and G&A was C\$5/tonne. Underground mining costs were C\$90/tonne.*
- (6) *The underground Mineral Resource grade blocks were quantified above the 1.8 g/t Au cut-off and had exhibited continuity and reasonable potential for extraction by cut and fill and long hole mining methods.*

The following two phase budget is specifically recommended:

Phase I: Advance an additional 19 drill holes, totalling 7,500 m, to investigate the limits of mineralization at a budgeted cost of \$1,725,900.

Phase II: Advance 13 drill holes totalling 6,200 m to investigate various IP targets on the remainder of the property at a budgeted cost of \$1,426,700

Total Phase I and II proposed budget \$3,152,600. See Section 26.1 for details.

2.0 INTRODUCTION AND TERMS OF REFERENCE

2.1 TERMS OF REFERENCE

The following Technical Report (the “Report”) prepared by P&E Mining Consultants Inc. (“P&E”) describes the existing gold mineralization on the Last Hope Gold Property near the town of Lynn Lake, Manitoba, Canada (the “Property”). This Technical Report has been prepared in compliance with the requirements of Canadian National Instrument (“NI”) 43-101, in force as of the effective date of this Technical Report.

This Technical Report was prepared at the request of Mr. Bruce Reid, the president and CEO of 55 North Mining Inc. (the “Company”) which is Canadian based and a reporting issuer with its corporate office at:

401 Bay Street, Suite 2702
Toronto, ON
Canada, M5H 2Y4

This Technical Report is considered effective as of November 12, 2020.

The Last Hope Property is located approximately 23 km southeast of the Town of Lynn Lake in northern Manitoba. The Property comprises 15 claims comprised in an area of 3,513 ha. In 2017, the Company agreed to make payments of \$3,260,000 and to incur \$1,000,000 of exploration expenditures. All claims and leases are in good standing as of the effective date of this Technical Report.

The purpose of this report is to provide an independent, NI 43-101 compliant, Technical Report on the Last Hope Gold Property. P&E understands that this Technical Report may be used to support the possible future public disclosure requirements of the Company and may be filed on SEDAR as required under NI 43-101 disclosure regulations.

The Company has accepted that the qualifications, expertise, experience, competence and professional reputation of P&E’s Principals and Associate Geologists and Engineers are appropriate and relevant for the preparation of this Technical Report. The Company has also accepted that P&E’s Principals are members of professional bodies that are appropriate and relevant for the preparation of this Technical Report.

2.2 SITE VISIT

Mr. David Burga, P. Geo., a Qualified Person under the terms of NI 43-101, conducted site visits of the Last Hope Property on November 20 to 22, 2013 and again recently on February 2 to 4, 2021. Mr. Burga has provided specific input to this Technical Report and his site visit is considered to be current as of the effective date of this Technical Report. A drill program commenced on October 26, 2020 with no assay results available at the effective date of this Technical Report and an updated site visit will be conducted when drilling is completed.

2.3 SOURCES OF INFORMATION

This Technical Report is based, in part, on internal Company technical reports, and maps, published government reports, Company letters and memoranda, and public information as listed in Section 27.0 at the conclusion of this Technical Report. Several sections from reports authored by other consultants have been directly quoted or summarized in this Technical Report, and are so indicated where appropriate.

2.4 UNITS AND CURRENCY

In this Technical Report, all currency amounts are stated in Canadian dollars (“CDN\$”) unless otherwise stated.

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”). A list of terms and abbreviations is given in Table 2.1.

Grid coordinates are given in the UTM NAD 83 (Zone 14N), latitude/longitude system or local mine grid; maps are either in UTM coordinate, latitude/longitude or local mine grid.

Abbreviation	Description
\$	dollars
±	plus or minus
+	plus
-	minus
%	percent
°	degree(s)
°C	degrees Celsius
<	less than
>	greater than
AA	atomic absorption (spectrometry)
Ag	silver
Au	gold
AuEq	gold equivalent
Black Hawk	Black Hawk Mining Inc.
Bulora	Bulora Corporation
Carlisle	Carlisle Goldfields Limited

TABLE 2.1
GLOSSARY OF TERMS AND ABBREVIATIONS

Abbreviation	Description
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
cm	centimetre
CND	Canadian
CND\$	Canadian dollar
The Company	55 North Mining Inc.
DCIP	direct current and induced polarization geophysical survey
DDH	diamond drill hole
E	east
EM	electromagnetic
FA	fire assay
FA/Grav	fire assay with a gravimetric finish
g Au/t	grams gold per tonne
g/t	grams per tonne
HLEM	horizontal loop electromagnetic (geophysics)
ICP	inductively coupled plasma
IP	induced polarization
JSZ	Johnson Shear Zone
km	kilometres
km ²	squared kilometres
LynnGold	LynnGold Resources Inc.
m	metres
m ³	cubic metres
Mg	magnesium
mL	metre level
µm	micrometres
mm	millimetres
Mt	million tonnes
N	north
NE	northeast
NI	National Instrument (43-101)
Noranda	Noranda Mines Ltd.
NSR	net smelter return
NSZ	North Shear Zone
NW	northwest
S	south
SE	southeast
SherrGold	SherrGold Inc.
Sherritt	Sherritt Gordon Limited
t	tonnes (metric)
t/m ³	tonnes per cubic metre
tpd	tonnes per day

TABLE 2.1
GLOSSARY OF TERMS AND ABBREVIATIONS

Abbreviation	Description
TSL	TSL Laboratories Inc.
US\$	United States dollars
W	west

3.0 RELIANCE ON OTHER EXPERTS

P&E has assumed, and relied on the fact, that all the information and existing technical documents listed in the References section of this Technical Report are accurate and complete in all material aspects. While P&E carefully reviewed all the available information presented, P&E cannot guarantee its accuracy and completeness. P&E reserves the right, but will not be obligated to revise this Technical Report and conclusions if additional information becomes known to P&E subsequent to the date of this Technical Report.

Although copies of the tenure documents, operating licenses, permits, and work contracts were reviewed, an independent verification of land title and tenure was not performed. P&E has not verified the legality of any underlying agreement(s) that may exist concerning the licenses or other agreement(s) between third parties and has relied on the Company's solicitor to have conducted the proper legal due diligence. Information on tenure was obtained from the Company and confirmed on the Manitoba government website:
(<https://web33.gov.mb.ca/mapgallery/mgm-md.html>)

A draft copy of this Technical Report has been reviewed for factual errors by the Company. Any statements 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 Last Hope Property is located approximately 23 km south-east of the Town of Lynn Lake in northern Manitoba, Canada (Figure 4.1). The Property is approximately centred at latitude 387,000 E and longitude 6,283,000 N and is located approximately 810 km northwest of Manitoba's capital and largest city, Winnipeg. The Last Hope Property is adjacent to Alamos Gold's Burnt Timber Property.

4.2 PROPERTY DESCRIPTION

The Last Hope Property comprises 15 non-surveyed claims comprised in an area of 3,513 ha (Figure 4.2). The Company has the option to earn a 100% interest in the claims comprising the Property which is held by Peter C. Dunlop.

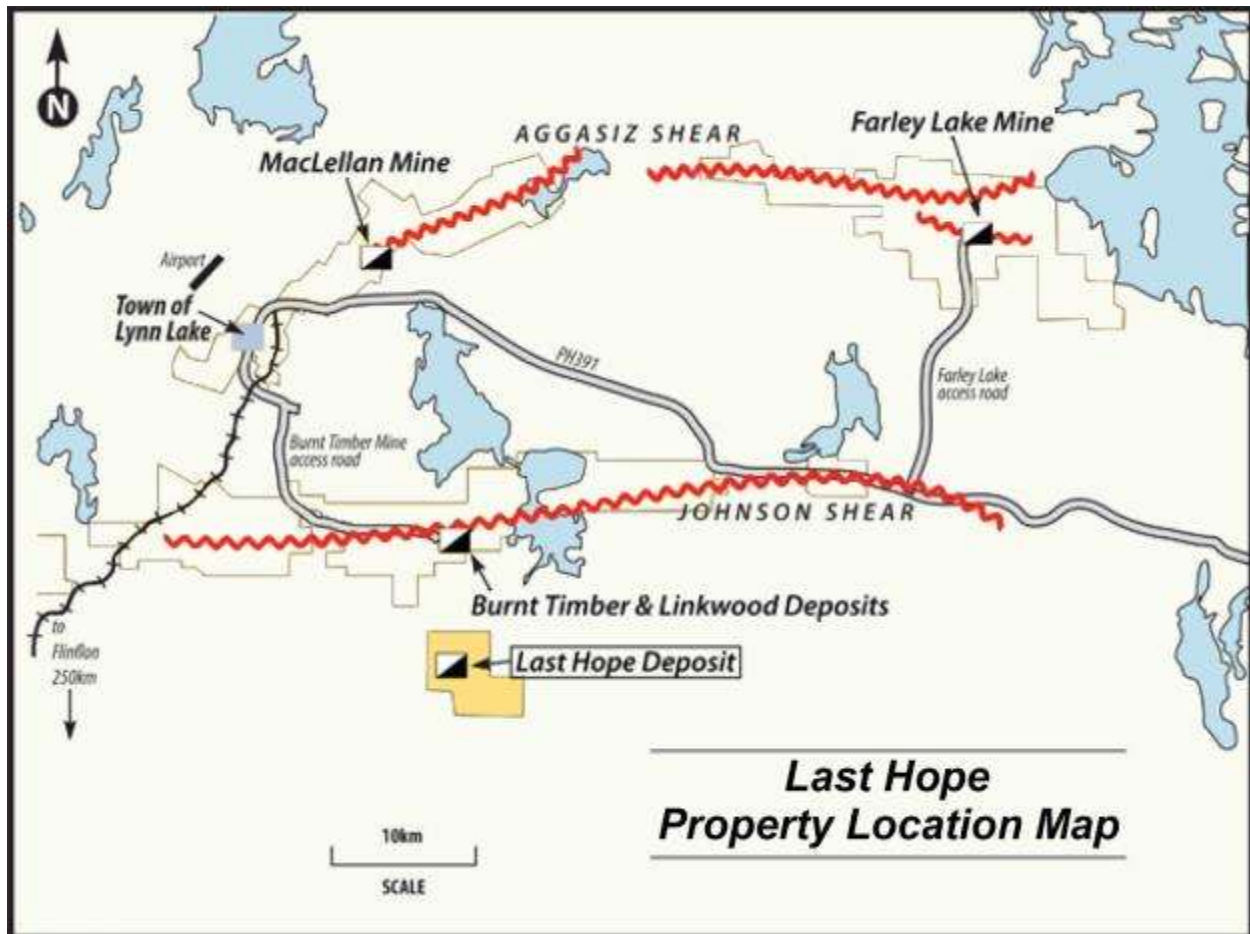
The Company has the option to earn a 100% interest in the claims comprising the property. The option was signed on September 5, 2017 and amended on November 4, 2019. In order to acquire 100% interest in the Last Hope Property, the Company agreed to pay the property owner, Peter C. Dunlop, \$65,000 and 1.5 million shares upon the Execution Date of the Option Agreement (Sept. 5, 2017) and on the first anniversary of the Execution Date, a further \$65,000 on the second and third anniversaries, \$100,000 on the fourth anniversary, and \$3,000,000 on the fifth anniversary of the Execution Date. The Company agreed to incur exploration expenditures of \$250,000 per year in the four years following the Execution Date, to an aggregate of \$1,000,000, with exploration expenditures in any year exceeding \$250,000 to be applied to the following years. The Company is up to date on all option payments up to and including that due on the third anniversary date (September 5, 2020), and has satisfied fully the exploration expense requirements, i.e. \$1,000,000 has already been spent.

All claims are in good standing as of the effective date of this Technical Report. The fifteen claims (3,513 ha) have an annual total of \$87,825 (\$25/ha) due at various anniversary dates throughout the year (Table 4.1). The Company had \$1,409,264.45 in assessment credits in July of 2012 which have been applied towards the amounts due.

Name	Number	Type	Area (ha)	Granted Date	Expiry Date	Annual Amount Due
Last Hope 14	P9479E	Claim	195	28/06/1988	27/08/2024	\$4,875
Last Hope 1	P8881E	Claim	256	27/01/1986	28/03/2029	\$6,400
Last Hope 4	W45575	Claim	256	19/07/1982	17/09/2024	\$6,400
Last Hope 2	P8880E	Claim	256	27/01/1986	28/03/2026	\$6,400
Last Hope 10	P6994E	Claim	256	21/12/1987	19/02/2025	\$6,400
Last Hope 8	W45579	Claim	256	16/07/1982	09/14/2024	\$6,400

TABLE 4.1 LAST HOPE PROPERTY CLAIMS						
Name	Number	Type	Area (ha)	Granted Date	Expiry Date	Annual Amount Due
Last Hope 5	W45576	Claim	256	16/07/1982	14/09/2024	\$6,400
Last Hope 5	CB9043	Claim	259	13/03/1978	12/05/2045	\$6,475
Last Hope 12	P9477E	Claim	256	28/06/1988	27/08/2024	\$6,400
Last Hope 11	P9478E	Claim	256	28/06/1988	27/08/2024	\$6,400
Last Hope 6	W45577	Claim	256	16/07/1982	14/09/2030	\$6,400
Last Hope 9	W45580	Claim	112	16/07/1982	14/09/2024	\$2,800
Last Hope 13	P9476E	Claim	131	28/06/1988	27/08/2024	\$3,275
Last Hope 3	P8879E	Claim	256	27/01/1986	28/03/2026	\$6,400
Last Hope 7	W45578	Claim	256	16/07/1982	14/09/2030	\$6,400
Total		15 Claims	3,513			\$87,825

FIGURE 4.1 LOCATION MAP OF THE LAST HOPE PROPERTY



Source: www.carlislegold.com

FIGURE 4.2 CLAIMS OF THE LAST HOPE PROPERTY



4.3 SURFACE RIGHTS AND PERMITS

Claims are crown grants and include surface access. All claims have been located by staking out on the ground as per The Mines and Minerals Act of Manitoba. Assessment work, in the amount of \$12.50/ha for each of the second to the 10th years, and \$25.00/ha for the 11th year and for each year thereafter, is required to be completed annually on claim licenses.

4.4 ROYALTIES

The option to acquire a 100% interest in the property is subject to a 2% royalty. The Company has the right, any time prior to the commencement of commercial production, to acquire up to half (1%) of the net smelter return royalty upon payment to Peter C. Dunlop of \$500,000 for each 0.5% of the royalty purchased.

4.5 ENVIRONMENTAL LIABILITY

There is no environmental liability known to P&E regarding the Last Hope Property.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESSIBILITY

The Last Hope Property is located approximately 23 km southeast of the mining town of Lynn Lake, Manitoba and is accessed by an all-weather gravel road, the Burnt Timber Mine road to the mine site (Figure 5.1) and subsequently an 8 km winter road from the BT min to the Property. Lynn Lake is an established mining community connected by an all-weather road, Highway 391, to Leaf Rapids (105 km east) and Thompson, Manitoba (315 km southeast). The Town has a population of approximately 500 residents according to a 2016 census. The Town has an airport which was serviced by seasonal scheduled air service until 2013. There is currently no commercial flight travel to Lynn Lake; only chartered service. A railway line is located at Lynn Lake, which extends south to The Pas, Manitoba, and from there, to the rest of Canada.

5.2 CLIMATE

Lynn Lake has an annual average temperature of -3.2°C. The warmest month, on average, is July with an average temperature of 16.2°C. The coldest month, on average, is January with an average winter temperature of -24.3°C. Annual precipitation is approximately 500 mm, the month with the most precipitation, on average, is July with 86.4 mm of precipitation. The month with the most snow is November with an average of 361 mm (Figure 5.1).

5.3 LOCAL RESOURCES

Northern Manitoba has a long mining history, however, the lack of active mining in Lynn Lake for over a decade means materials and human resources will need to be brought in from Thompson, Flin Flon and Winnipeg.

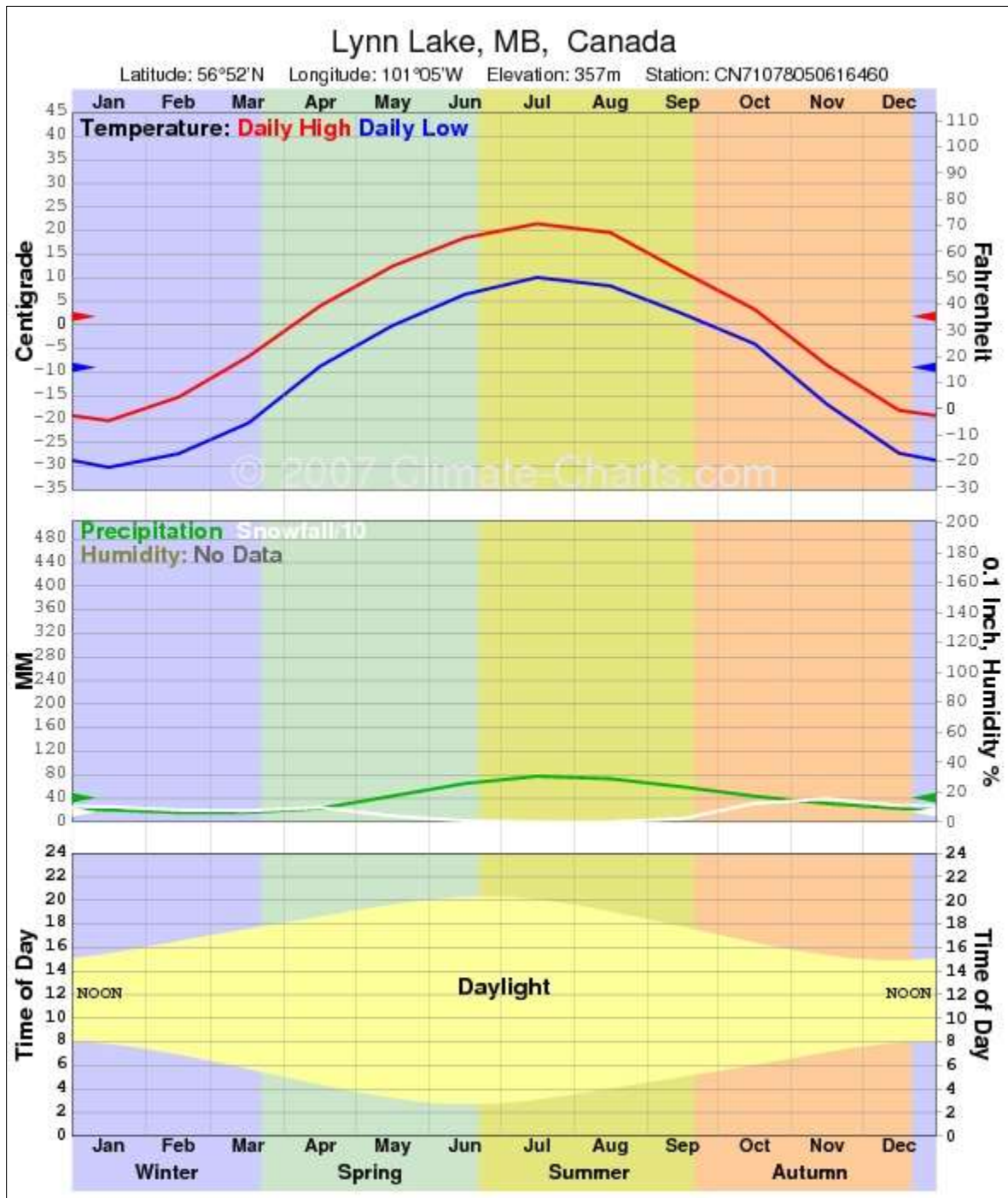
5.4 INFRASTRUCTURE

There is no infrastructure present on the Property.

5.5 PHYSIOGRAPHY

The vegetation in the Lynn Lake area is typical of northern Manitoba. Most of the area is covered by northern boreal forest, consisting chiefly of jack pine, black spruce and balsam with a few stands of birch and poplar. The Property has patches of northern boreal forest and relief that is low lying, consisting of scattered marsh or moss covered swampy areas.

FIGURE 5.1 CLIMATE CHART – LYNN LAKE, MANITOBA



Source: www.climate-charts.org

6.0 HISTORY

Gold was first discovered at Last Hope in 1937. A total of 204 diamond drill holes have been advanced on the Property with 189 of the holes drilled directly into the current Mineral Resource area. Core from most of the historical 204 diamond drill holes is available at the Property. A history of the Property is presented in Table 6.1.

TABLE 6.1		
HISTORICAL EXPLORATION ON THE LAST HOPE PROPERTY		
Year	Company	Exploration
1937	R. Madole	Last Hope area staked.
1939	Sherritt Gordon Mines Ltd.	59 hole drill program totalling 3,129 m.
1978	W.B. Dunlop Limited NPL	Last Hope area re-staked.
1986	Balcor Resources Corp.	Calculated an historic mineral resource on the property that predates NI 43-101. Identified two shallow plunging ore shoots within a steep, tabular quartz vein averaging 1.5 m in width.
2012	Carlisle Goldfields	27 hole DD program totalling 7,486 m.
2013	Carlisle Goldfields	Based on 2012 drilling and 204 historic drill holes, a NI 43-101 compliant resource estimate was prepared in April 2013 (at a 2.0 g/t cut-off: Indicated: 201,000 tonnes @ 5.75 g/t for 37,000 ozs, Inferred: 1,067,000 tonnes @ 5.29 g/t for 182,000 ozs.
2018- 2020	2552883 Ontario Inc.	78 line km of IP survey

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

The Last Hope Property is located within the Churchill Structural Province of the Canadian Shield, lying within the southern portion of the Lynn Lake Greenstone Belt (Figure 7.1). It consists of tholeiitic to calc-alkaline mafic volcanic and volcanoclastic rocks with minor rhyolite and dacite (Jones, et. al. 2005).

The Lynn Lake Greenstone Belt, comprised of the North and older South Belts, is part of a larger litho-structural unit which extends in a north-easterly direction from the La Ronge Greenstone Belt in Saskatchewan.

The rocks in the South Belt consist of lens-shaped volcanic and sedimentary units which have been interpreted as representing overlapping edifices with flanking aprons of volcanoclastic rocks (Gilbert et al. 1980). This linear feature has been termed the 'Johnson Trend'. The former Burnt Timber open pit deposit (Au) is contained within this trend.

Structurally, the most significant feature in the South Belt is the east-west trending Johnson Shear Zone ("JSZ"), a wide zone of intense brittle-ductile deformation, characterized by faulting, shearing, mylonization and associated silica and carbonate alteration and sporadic gold mineralization. The JSZ is host to at least 26 gold prospects and showings over a 44 km strike length.

The North Belt is a north-facing homocline and consists of rhyolite, overlain by andesite and basalt, sedimentary rocks and an upper basaltic unit. The upper basalts include high alumina and subordinate high magnesia tholeiites. Both the MacLellan Deposit (Au, Ag) and the Farley Lake Deposit (Au) are located within this belt occurring in a metalotect termed the 'Rainbow Trend' (Figure 7.2).

FIGURE 7.1 REGIONAL GEOLOGY MAP

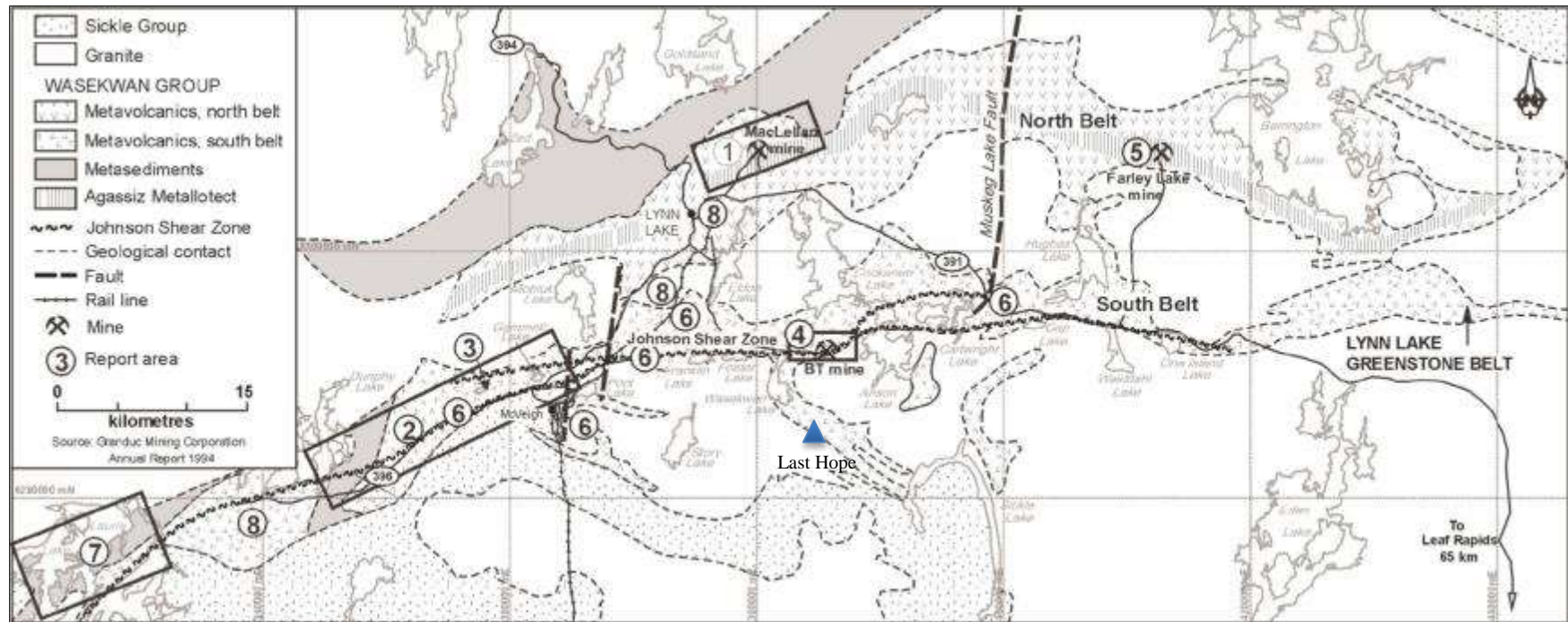
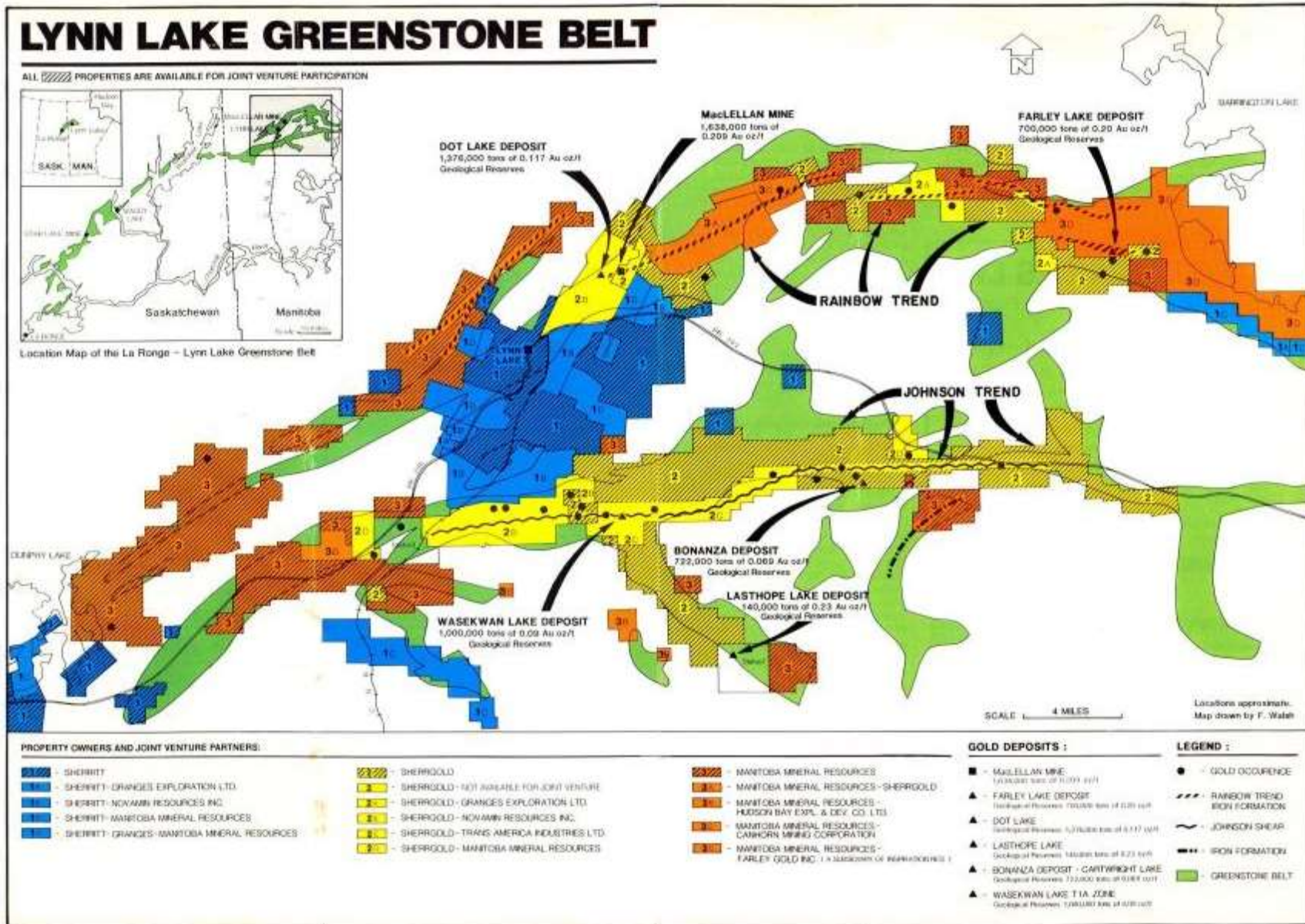


FIGURE 7.2 MINERAL TRENDS AND DEPOSITS OF THE LYNN LAKE GREENSTONE BELT



7.2 PROPERTY GEOLOGY

The Last Hope Property is underlain by a west-northwest-striking layered succession. From south to north, this succession is comprised of quartz-feldspar porphyry, mafic tuff, quartzite, mudstone, magnetite-bearing quartzite and feldspathic quartzite (Figure 7.3). The Deposit consists of two, shallow plunging ore shoots within a steep, tabular quartz vein that averages 1.5 m in width.

Two parallel quartz veins cut the quartzite, the South Vein and the Madole Vein, both hosting gold bearing sulphide mineralization while the North Vein is barren.

7.3 MINERALIZATION

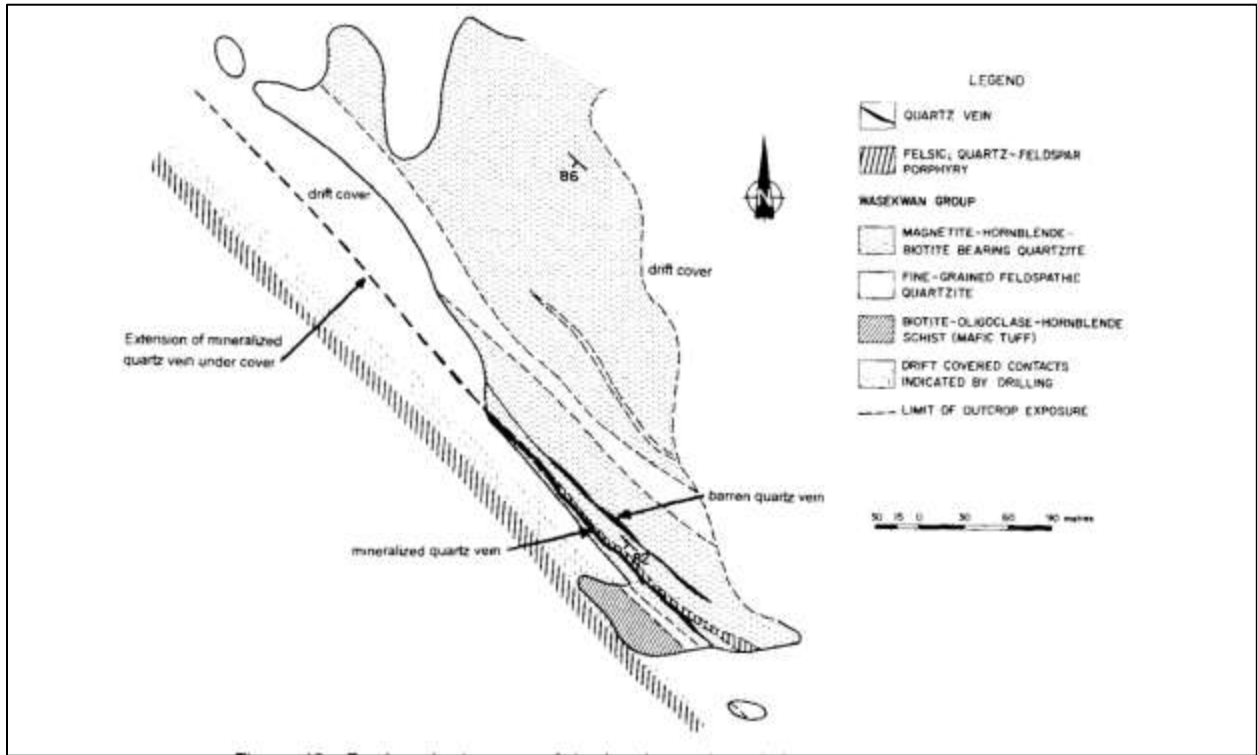
The Madole Vein outcrops for approximately 225 m and strikes northwest, dips 80 degrees southwest and fills a fracture in thinly bedded impure quartzite. The wall rocks around the veins are altered for approximately 2.5 cm. The north boundary of the vein is a felsite dyke and is schistose at the contact. The south boundary is a hornblende schist and cherty feldspathic quartzite. Minor amounts of chlorite are present.

The Madole Vein is 0.3 to 1.2 m wide and can be divided into two units:

- A southern white massive quartz unit; and
- A northern grey aphanitic, siliceous unit with disseminated grains and stringers of pyrite and trace chalcopyrite.

The average sulphide content of the south vein is 5% (local variation up to 15%). Mineralization appeared to be localized on a major fault. The best gold values were found in the highly altered, quartz-pyrite rich footwall.

FIGURE 7.3 LAST HOPE PROPERTY GEOLOGY



Source: Richardson and Ostry (1996)

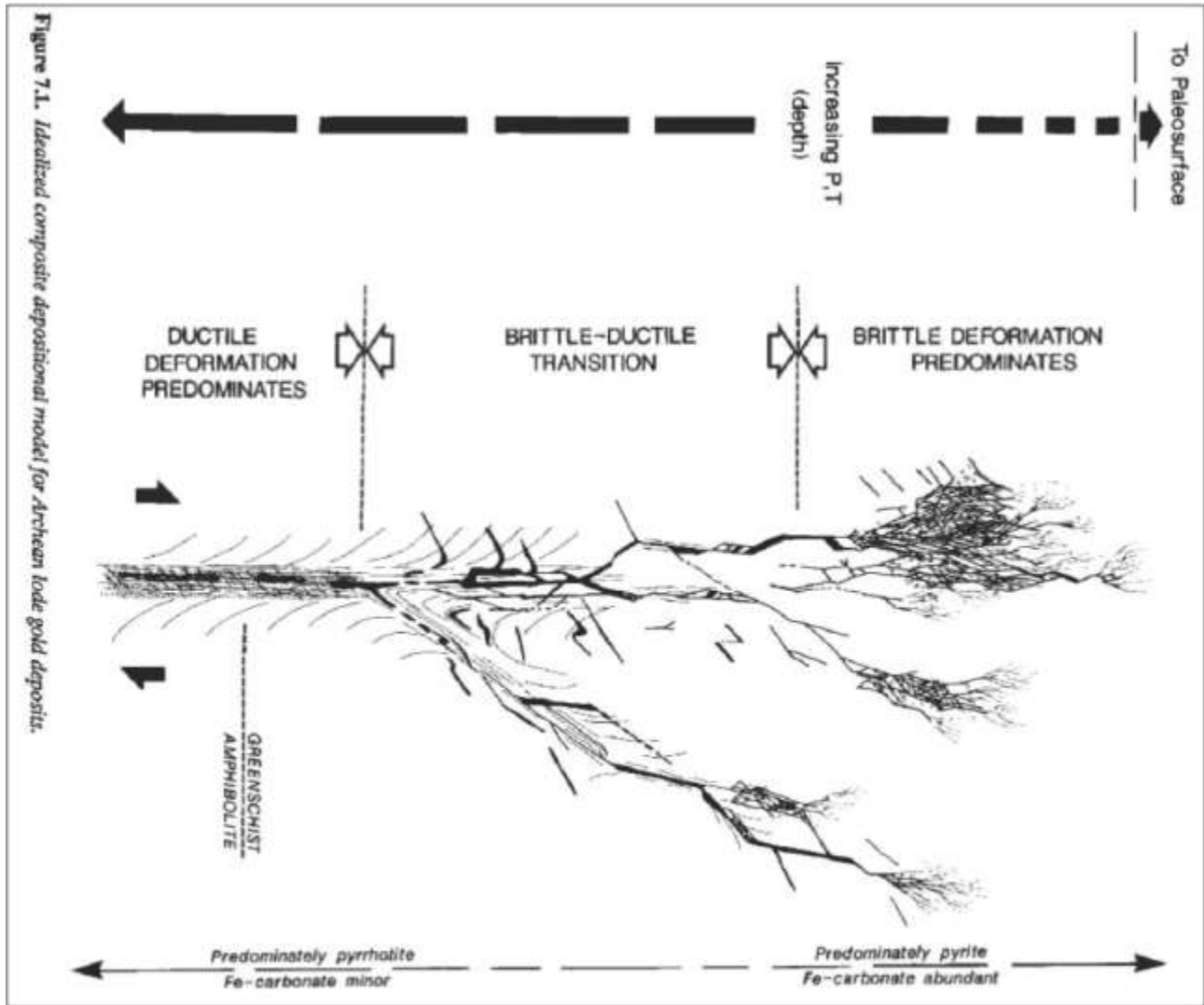
8.0 DEPOSIT TYPES

The Last Hope Deposit can be classified as a mesothermal lode gold deposit in a Proterozoic setting (Figure 8.1).

Mesothermal lode gold deposits typically occur in metamorphosed, supracrustal rocks, most commonly in tholeiitic basalts and komatiites but also in felsic volcanic rocks. Discrete veins occur in deformation zones in greenschist metamorphic domains where brittle or brittle-ductile fracturing is dominant. Veins are emplaced in cross-cutting or layer-parallel shear zones, extensional zones and more rarely in saddle reefs (Klien and Day, 1994).

Gold is associated with disseminated sulphide minerals. Gold-bearing sulphide minerals are controlled by minor fractures, and occur in irregular patches in quartz, in the wall rock adjacent to the vein, or as disseminations or replacements in zones of highly altered and deformed rocks. Ore bodies tend to be tabular or rod-shaped formed by persistent or discontinuous veins and irregular bodies of gold bearing quartz. Quartz veins are typically surrounded by haloes of silicification and carbonate minerals.

FIGURE 8.1 IDEALIZED COMPOSITE DEPOSITIONAL MODEL FOR MESOTHERMAL LODE GOLD DEPOSITS



Source: Colvine, A.C. et al. (1988)

9.0 EXPLORATION

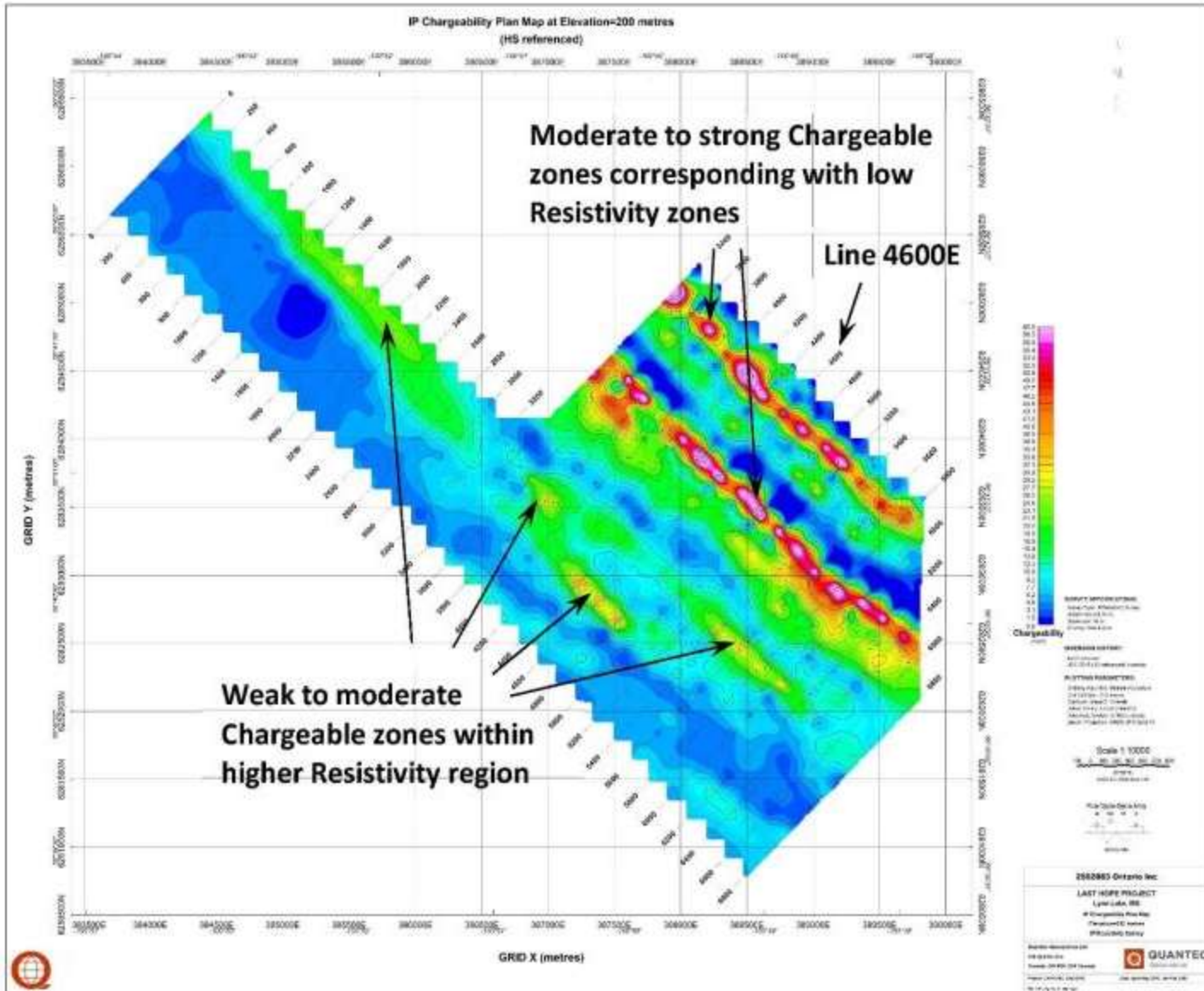
During the period of April 7 to May 22, 2018 and January to March 2020 Quantec Geoscience Ltd. acquired 78.15 line-km of direct current and induced polarization (“DCIP”) data on 35 lines over the Last Hope Project area.

The data are of high quality and accurately represent the DC resistivity and chargeability response of the subsurface in the survey area. The results have delineated zones of low to moderate resistivity corresponding with zones of moderate to strong chargeability as well as additional zones of moderate to weak chargeability within higher resistivity regions.

The time domain DCIP surveys conducted at the Last Hope Project were completed successfully without incident. The surveys provided 78.15 line-km of survey coverage over 35 lines spanning a strike length of 3.4 km. Apparent resistivity ranging from 1 Ohm-m to 100,000 Ohm-m and total chargeability ranging from 0 to 80 mV/V have been detected.

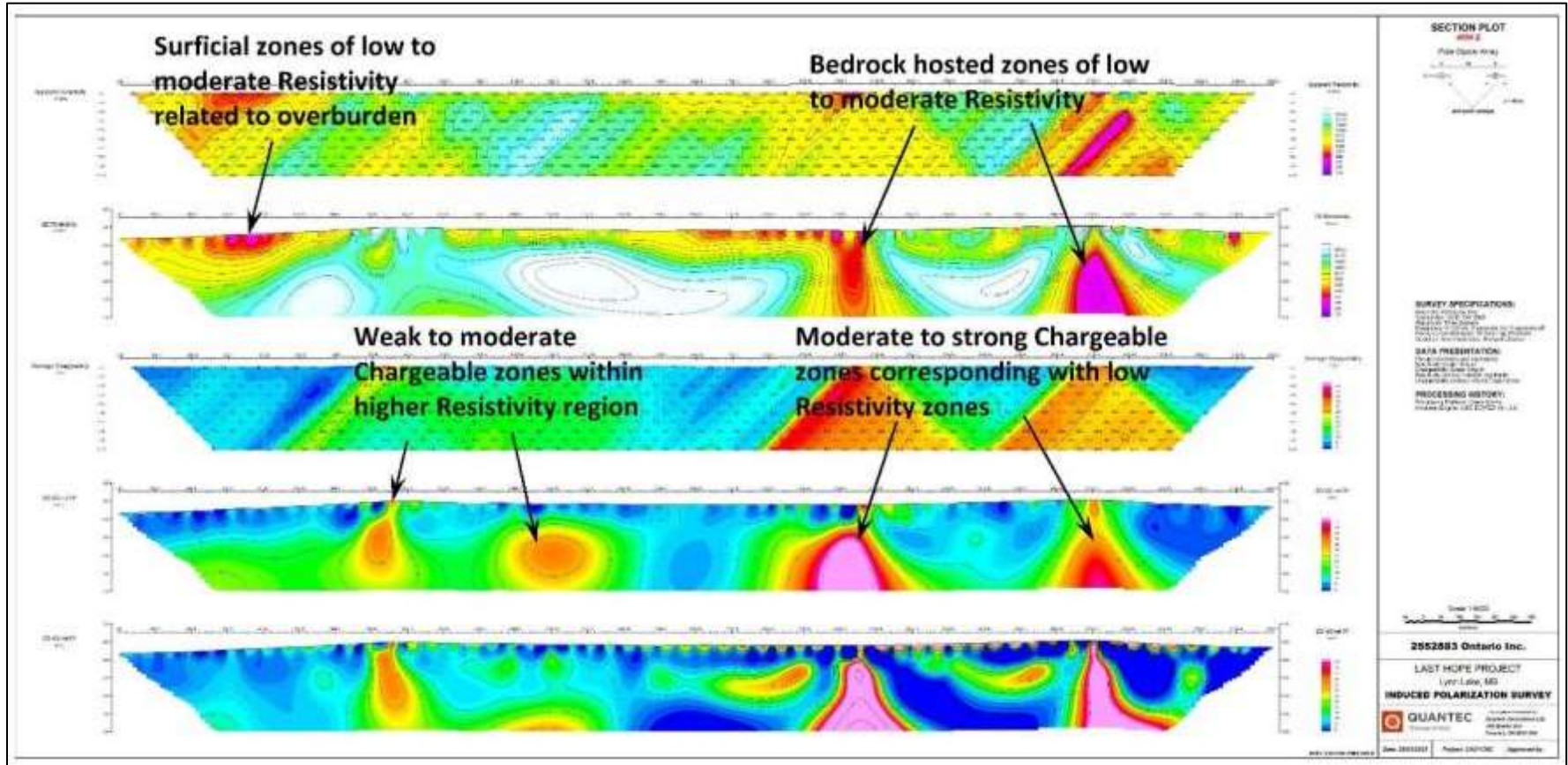
Two prominent zones of low to moderate resistivity crosscut from southeast to northwest across the northeast region of the Last Hope grid as shown in Figure 9.1. Zones of moderate to strong chargeability correspond with the lower resistivity zones, Figure 9.1. The zones remain open at both limits of the coverage. Weak to moderate chargeable zones, which similarly form southeast to northwest lineaments, are evident within the higher resistivity southwest region of the grid. Figure 9.2 shows the different IP results for section line 4,600 E, which is indicated in Figure 9.1.

FIGURE 9.1 LAST HOPE GRID DC REFERENCED CHARGEABILITY PLAN MAP AT 200 M EL



Source: 55 North Mining Inc.

FIGURE 9.2 LAST HOPE INDUCED POLARIZATION SURVEY – SECTION LINE 4,600E



Source: 55 North Mining Inc.

10.0 DRILLING

A 27 hole diamond drill program was conducted on the Last Hope Deposit by Carlisle Goldfields in 2012, totalling 7,486.24 m. Drill hole collar information is presented in Table 10.1. Select significant intersections and higher-grade sub-intervals are presented in Table 10.2.

The DO series of drill holes were advanced on the Mineral Resource area. The LH series of holes were exploration holes and did not yield any significant results.

Drill hole locations are presented in Figure 10.1 and cross section is presented in Figure 10.2.

TABLE 10.1						
2011 DRILL PROGRAM AZIMUTH DATA – LAST HOPE DEPOSIT						
Drill Hole ID	Eastings*	Northings*	Elevation (m)	Dip (°)	Azimuth (°)	Length (m)
DO12-01	387,168	6,282,913	1,120	-64	46	167.6
DO12-02	387,149	6,282,931	1,120	-53	45	152.4
DO12-03	387,301	6,282,664	1,117	-71	48	325.5
DO12-04	387,416	6,282,581	1,120	-57	47	179.8
DO12-05	387,130	6,282,874	1,115	-63	45	279.8
DO12-06	387,411	6,282,480	1,113	-63	45	319.4
DO12-07	387,470	6,282,412	1,109	-60	45	350.0
DO12-08	387,130	6,282,874	1,115	-72	47	371.9
DO12-09	387,354	6,282,550	1,121	-65	45	327.1
DO12-10	387,350	6,282,643	1,121	-68	43	225.6
DO12-11	387,430	6,282,457	1,112	-70	47	410.2
DO12-12	387,444	6,282,566	1,118	-58	44	160.9
DO12-13	387,501	6,282,281	1,103	-61	40	447.4
DO12-14	387,171	6,283,074	1,119	-63	231	203.6
DO12-15	387,482	6,282,463	1,113	-66	51	285.9
LH12-01	387,245	6,282,654	1,120	-65	47	195.1
LH12-02	387,273	6,282,679	1,113	-45	47	162.9
LH12-03	387,333	6,282,652	1,126	-45	47	122.8
LH12-04	387,333	6,282,652	1,126	-64	45	160.8
LH12-05	387,188	6,282,601	1,113	-65	47	320.0
LH12-06	387,293	6,282,616	1,124	-62	47	212.0
LH12-07	387,296	6,282,538	1,119	-55	47	315.0
LH12-08	387,188	6,282,601	1,113	-72	47	430.0
LH12-09	387,255	6,282,540	1,115	-62	47	350.0
LH12-10	387,255	6,282,540	1,115	-68	47	385.0
LH12-12	387,054	6,282,763	1,119	-73	47	410.0
LH12-16	387,154	6,282,733	1,119	-64	47	215.0
Total						7,486.24

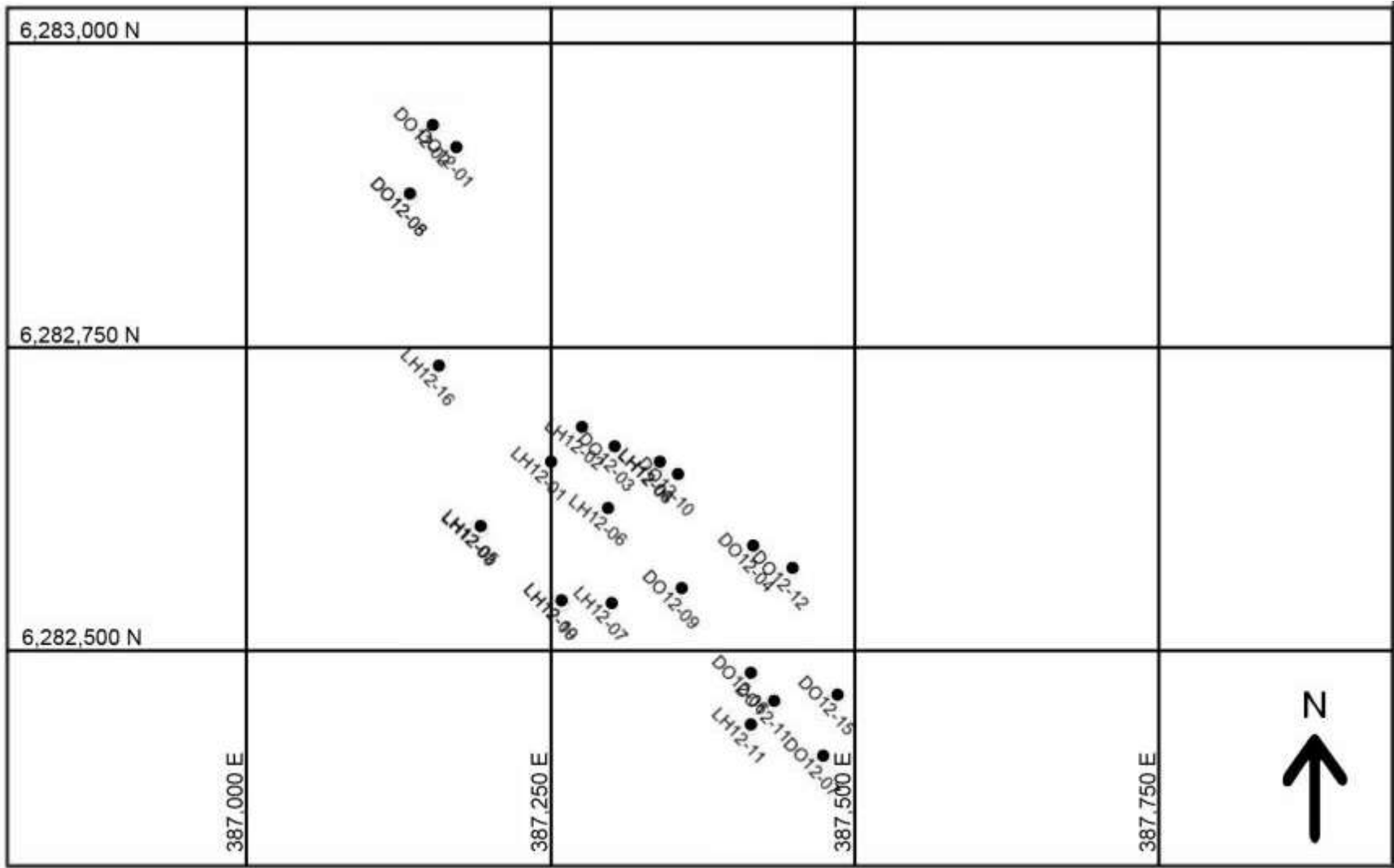
*Note: * coordinates are in UTM NAD 83 Zone 14N*

TABLE 10.2
2012 DRILL PROGRAM SIGNIFICANT INTERSECTIONS

Drill Hole ID	From (m)	To (m)	Length (m)*	Au (g/t)
DO12-01	83	91	8	2.8
including	88	91	3	6.0
DO12-02	95.2	102.0	6.8	5.1
including	98	101	3	9.8
DO12-03	289.8	298.0	8.2	2.1
DO12-05	207	221	14	3.3
including	208	213	5	7.2
DO12-06	279.0	283.6	4.6	2.8
DO12-10	193	199	6	4.9
DO12-11	357.0	363.5	6.5	8.1
including	362.0	363.5	1.5	26.8

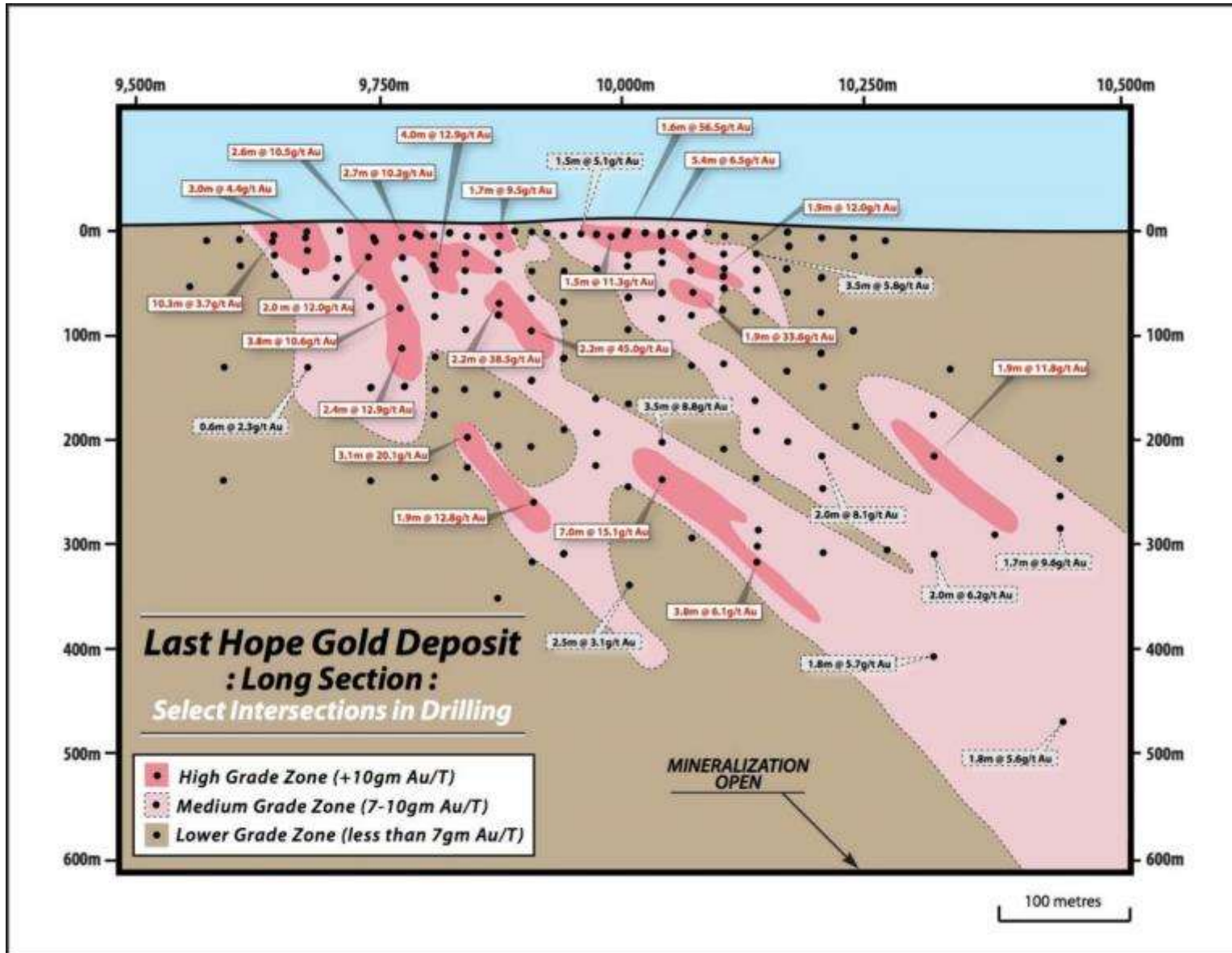
*Note * True Widths are not known.*

FIGURE 10.1 LAST HOPE DEPOSIT AREA 2012 DRILL HOLE LOCATIONS



Source: 55 North Mining Inc.

FIGURE 10.2 TYPICAL CROSS SECTION



Source: www.carlislegold.com

10.1 2020 DRILLING

A diamond drill program consisting of a nominal 13,000 metres in 32 holes is currently planned for the Last Hope Property. The drill holes will be advanced to various lengths and at various orientations to satisfy the desired target objectives. The program will be divided into two phases as detailed below. This program commenced on October 26, 2020. Assay results were not available as of the effective date of this Technical Report.

The initial phase of the diamond drill program will address upgrading and expanding the existing Mineral Resource (Technical Report and Resource Estimate on the Lynn lake Property, 2017). A total of 19 drill holes of the 32 hole program will be advanced for this.

A phase of the diamond drill program is designed to address a number of geophysical targets as determined by the recently completed Induced Polarization (IP) survey. In addition, there are several historic geochemical anomalies resulting from surveys undertaken in 1987 and 1988 which are coincident with the IP anomalies which also require investigation. A total of 13 drill holes of the 32 hole total will be dedicated to this phase.

11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

The following section applies to a review of the sampling work done by Carlisle Goldfields the former Property owner. All samples were shipped to TSL Laboratories in Saskatoon, Saskatchewan.

11.1 CHECK ASSAY QUALITY ASSURANCE/QUALITY CONTROL

TSL is an ISO 9001:2000 and ISO 17025 accredited laboratory, for analysis. TSL protocols include fire assay for Au and Ag with an inductively coupled plasma (“ICP”) finish on a crushed and pulverized sub-sample. The minimum and upper detection limits for Au are 5-1000 ppb under this protocol, and 0.2-50 ppb for Ag. Above the upper detection limit, a gravimetric method is used for Au and Ag value determination.

11.2 SAMPLE PREPARATION

Samples are received by the laboratory where they are sorted and dried prior to preparation. Core and rock samples are crushed using a primary jaw crusher to a minimum 70% passing -10 mesh. A finer crush is subsequently performed through a rolls crusher, obtaining a crushed reject at a minimum 95% passing -10 mesh. Equipment is cleaned between each sample with compressed air and brushes. In order to verify compliance with laboratory quality control (“QC”) specifications, the laboratory performs a screen test at a minimum of: the start of each batch; a change in operator; a change in machine or environmental conditions; or, if the nature of the sample appears different. All screen data are recorded in a QC book which is available for examination by the client.

A representative split sample is obtained by passing the entire reject sample through a riffle splitter and by alternating catch pans before taking the final split. The pulp size is 250 g. The remaining reject material is returned to a labelled bag and stored. The sub-sample thus obtained is pulverized to a minimum 95% passing -150 mesh. Checks on screens are performed at a minimum of: the start of each batch, a change in operator, a change in machine or environmental conditions, or if the nature of the sample appears different. All screen data are recorded in a QC book which is open for examination by the client. Pulverizers are cleaned with silica sand as required, or between each sample if requested.

11.3 ANALYTICAL PROCEDURE

Gold is analyzed by fire assay (“FA”) with a gravimetric finish (“FA/Grav”) on a 30 g aliquot. Samples that are analyzed by screen metallics are reported on separate certificates (referenced to original certificate on the cover page).

The detection limit for gold using fire assay with atomic absorption (“AA”) finish is 5 ppb. The detection limit for gold by FA/Grav is 0.10 g/t (100 ppb).

If a request is made for screen metallics due to the presence of visible gold, they are performed on the total sample including the reject material. The sample is screened at 150 mesh, following

which the entire sample plus fraction (+150 mesh) is assayed using FA/Grav and the minus fraction (-150 mesh) is assayed using FA/Grav (1 assay ton or 2 assay ton charge) in duplicate. Duplicate minus fractions are averaged before being entered into the calculation. Results are reported for the plus and minus fractions as well as the weighted average for the sample.

For the base metal procedure for silver, a 1 g sample is digested with 3:1 HCl / HNO₃ acid then diluted. The solution is analyzed by AA spectrometry. The silver detection limit is 0.2 g/t.

11.4 QUALITY CONTROL AT TSL

TSL uses both certified reference material and in-house standards that have been assayed by external round robin runs at several participating laboratories. Standards are inserted approximately every 20 samples, as well as two pulp duplicates and one geological blank in every batch with FA/AA work. Three pulp duplicates are run for FA/Grav work. Results from all internal QC samples, and repeats, were reported to the client.

P&E considers the utilized sample preparation, security and analytical procedures to be adequate.

11.5 2020/2021 SAMPLE PREPARATION PROCEDURES

Drill core is delivered daily from the drill sites to the core shack by helicopter. Core is logged, cut and sampled by the project geologist, Peter Karlse, P.Geol. or a geological technician and reviewed by Peter Karlse. In the mineralized zone, only vein material and approximately 1 m of material on either side of the vein is sampled. Continuous sampling is used for exploration holes.

Every Friday samples are shipped to TSL Laboratories in Saskatoon via Manitoulin Transport.

12.0 DATA VERIFICATION

The following section applies to the data verification of work done by the Company.

12.1 P&E SITE VISIT AND INDEPENDENT SAMPLING

The Last Hope Property was visited by Mr. David Burga, P. Geo., from November 20 to 22, 2012 at which time he collected ten samples by quarter sawing the half core remaining in the core box. Samples were selected through a range of grades from high to low. At no time were any officers or employees of the Company advised as to the identification of samples to be selected.

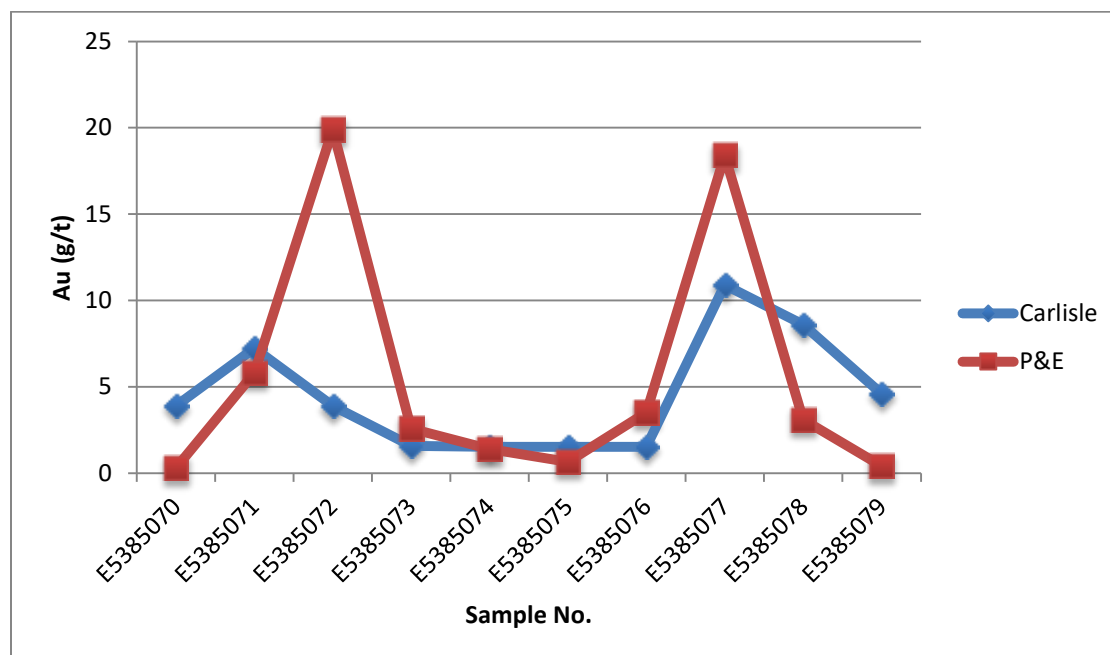
During the site visit, samples were tagged with unique sample numbers and bagged. Mr. Burga brought the samples back to P&E's office in Brampton, Ontario, where they were couriered to AGAT Laboratories in Mississauga.

AGAT is accredited by the Standards Council of Canada and conforms to the requirements of CAN-P-1579: Requirements for the Accreditation of Mineral Analysis Testing Laboratories. The latest certificate for proficiency testing was issued in June 2012.

Gold was analyzed using lead collection fire assay with a gravimetric finish. A graph of gold values for samples taken during the site visit versus the original sample values can be seen in Figure 12.1.

Considering the site visit samples were quarter core (for the new drilling) and therefore weighed less than the original half core, (i.e. difference in sample volume) and considering the fact that core duplicates can't be expected to have excellent precision due to inherent geologic variability, the comparison between the original results and the P&E results demonstrates that the tenor for gold are similar.

FIGURE 12.1 P&E SITE VISIT SAMPLING RESULTS FOR GOLD



12.2 QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

12.2.1 Performance of Certified Reference Materials - 2013

The Company used five different certified reference materials prepared by CDN Resource Laboratories Ltd in BC. The reference materials were certified for gold, and grades ranged from a low of 0.74 g/t Au to a high of 9.50 g/t Au. One reference material, CDN-GS-5J was also certified for silver. CDN-GS-5J was certified for 72.5 g/t Ag.

For the CDN-CM-13 standard with a grade of 0.740 g/t Au there were 67 data points. 66 data points analyzed at TSL Laboratories fell within +/- two standard deviations from the mean.

The CDN-GS-4B reference material, with a grade of 3.77 g/t Au had 56 data points. 55 data points analyzed at TSL Laboratories fell within +/- two standard deviations from the mean. One sample, 675900 had a result of 8.98 g/t Au. The Company verified that there was a manual error entering the samples into the submission booklet and that a sample of CDN-GS-10D was submitted in error. This coincides with the result of sample 675860, which returned 3.7 g/t Au when it should have run 9.50 g/t Au.

The CDN-GS-5J reference material, with a grade of 4.90 g/t Au and 72.5 g/t Ag, had a total of 68 data points. 67 data points analyzed at TSL Laboratories fell within +/- two standard deviations from the mean.

Standard CDN-GS-4D, with a grade of 3.81 g/t Au had a total of 13 data points. 10 data points analyzed at TSL Laboratories fell within +/- two standard deviations. Sample 678100 from TSL report S48816 and sample 677760 from TSL report S48810 were over two standard deviations

from the mean. Sample 677520 from TSL report S48818 was below two standard deviations from the mean. No further action was taken since the rest of the standards from each of the reports passed.

Standard CDN-GS-10D, with a grade of 9.50 g/t Au had a total of 67 data points. 66 data points analyzed at TSL Laboratories fell within +/- two standard deviations from the mean. One sample, 675860 had a result of 3.7 g/t Au. The Company verified that there was a manual error entering the samples into the submission booklet and that a sample of CDN-GS-4B was submitted in error. This coincides with the result of sample 675900, which returned 8.98 g/t Au although it should have only run 3.77 g/t Au.

12.2.2 Performance of Blank Material

The blank material inserted by the Company to monitor contamination consisted of granitic material prepared by CDN Resource Labs. There were 135 blank assays. All blanks came back at the detection limit of 0.03 g/t Au. The results of the blank material demonstrate that contamination at the analytical level was not an issue.

It is P&E's opinion that the data are of excellent quality and appropriate for use in a Mineral Resource Estimate.

12.2.3 QA/QC Procedures – 2020/2021

Certified blanks and standards have been obtained by CDN Laboratories. Three different standards are inserted into the sample stream. Every 10th sample is a standard, (alternating between high, medium and low grade standards), every 20th sample is a field duplicate, and every 30th sample is a blank. The database has not been reviewed at the time of this Technical Report.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

No mineral processing or metallurgical studies have been carried out by the Company with respect to the Last Hope Property.

14.0 MINERAL RESOURCE ESTIMATES

14.1 INTRODUCTION

The Mineral Resource Estimate presented herein is reported in accordance with the Canadian Securities Administrators' National Instrument 43-101 and has been performed in conformity with generally accepted CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines. Reported Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the Mineral Resource will be converted into a Mineral Reserve. 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 be upgraded to an Indicated Mineral Resource with continued exploration.

Peter Karelse, P.Geo., former Vice-President of Exploration for the Company, developed the drilling database and 3-D geological wireframe models (domain, topography and overburden) for the Last Hope Property from a GEMS project database. P&E undertook the review, modification and acceptance of the 3-D geological wireframes and subsequent development of the Mineral Resource Estimate block model. This Mineral Resource Estimate was prepared by Yungang Wu, P.Geo. and Eugene Puritch, P.Eng., FEC, CET of P&E, Brampton Ontario. The effective date of this Mineral Resource Estimate is February 2, 2021.

14.2 DATABASE

All drilling data were provided by Peter Karelse P.Geo., in the form of a Gemcom database as a Microsoft Access mdb file. The Gemcom database consisted of a total of 219 diamond drill holes, of which 15 holes were drilled in 2012 and 204 drill holes were historic. A total of 163 drill holes intersected the wireframes with potentially economic gold mineralization and were utilized for this Mineral Resource Estimation. A drill hole plan is shown in Appendix A.

The database for the Last Hope Property contained 8,009 Au assays. P&E validated the database by checking for duplicate entries, interval, length or distance values less than or equal to zero, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate collar locations, and missing interval and coordinate fields. No significant errors were discovered in the drill hole database. All drill hole survey and assay values are expressed in metric units, while grid coordinates are in the NAD 83 UTM system, zone 14N.

14.3 DATA VERIFICATION

Au assays from the 2012 drilling program were validated by P&E against original laboratory certificates of analysis from TSL Laboratories of Saskatoon, Saskatchewan.

As shown in Table 14.1, 97.4% of the Au assays from 2012 drilling have been verified by P&E with electronically issued original certificates from TSL Laboratories. Some minor errors were discovered and corrected in the database. The verification of historical Au Assays and 66 Au

Assays from 2012 was not performed during the course of this study due to laboratory certificates not being available to P&E.

TABLE 14.1					
AU ASSAY VERIFICATION OF LAST HOPE DATABASE					
Data Source	No. of Samples	No. of Constrained Samples	Total Checked Data	% of Total Assays Checked	% of Total Constrained Assays Checked
2012 Drilling	2,583	102	2,517	97.4%	100%
Historical	5,426	891	0	0%	0%
Total	8,009	993	2,517	31.4%	10.3%

14.4 DOMAIN INTERPRETATION

The geological interpretation of gold mineralization for the Last Hope Property was conducted by Company geologist Peter Karelse P.Ge., as well as 3D wireframe construction. The domain outlines were determined by the selection of mineralized material above 1.8 g/t Au that demonstrated lithological and structural zonal continuity along strike and down dip. In some cases mineralization below 1.8 g/t Au was included for the purpose of maintaining zonal continuity and thickness. The wireframes have been reviewed, modified and accepted by the authors of this report. In P&E's opinion, the wireframes are suitable for the Mineral Resource estimation. A total of two mineralized domains were generated and employed for statistical analysis, grade interpolation, rock coding and Mineral Resource reporting purposes. Wireframes of the mineralized domains are displayed in Appendix B.

Topographic and overburden surfaces were created by Peter Karelse, P.Ge.

14.5 ROCK CODE DETERMINATION

All mineralized domain solids were assigned rock codes respectively for purpose of Mineral Resource estimation. The domain geometric volume and rock codes applied for the modeling are presented in Table 14.2.

TABLE 14.2		
GEOMETRIC VOLUME AND ROCK CODE DESCRIPTION FOR THE LAST HOPE PROPERTY		
Domains	Rock Codes	Volume (m³)
A	100	816,516
B	200	115,160
Air	0	
OVB	10	
Waste	99	

14.6 GRADE CAPPING

Grade capping was investigated on the Au assays within the constraining domains to ensure that the possible influence of erratic high values did not bias the database. Au assay Log-normal histograms were generated and resulting graphs are exhibited in Appendix C. Table 14.3 details the grade capping values. The capped Au assays were utilized for the compositing.

Domains	Total No. of Assays	Capping Value Au (g/t)	Number Capped	Raw Coefficient of Variation	Capped Coefficient of Variation	Capping Percentile
A	955	40	20	2.78	1.88	97.9%
B	72	No Cap	0	1.95	1.95	100.0%

14.7 COMPOSITING

In order to regularize the assay sample lengths for grade interpolation, assay compositing to one metre in length was carried out down hole within the constraints of the above mentioned domains. The composites were calculated for Au over 1.0 metre lengths starting at the first point of intersection between drill hole and hanging wall of the 3-D zonal constraint. The compositing process was halted upon exiting from the footwall of the aforementioned constraint. Un-assayed intervals and below detection limit assays were set to 0.001 g/t Au. Any composites that were less than 0.25 metres in length were discarded so as not to introduce any short sample bias in the interpolation process.

14.8 VARIOGRAPHY

The variography investigation was attempted on the constrained composites of all domains of the Last Hope Property. Reasonable variograms were developed along strike and down dip for the combination of the domains. It was not possible to generate reasonable across dip variograms due to the low data populations of the narrow veins. The variogram ranges were used as the spherical search ellipse parameters for grade interpolation. The variograms are demonstrated in Appendix D.

14.9 BULK DENSITY

A total of 47 core samples were taken by the Company and analyzed at TSL Laboratories. The average bulk density of 2.76 t/m³ was applied to this Mineral Resource Estimate. P&E suggests that systematic bulk density testing program should be undertaken in future drilling programs.

14.10 BLOCK MODELING

The Last Hope Mineral Resource block model was constructed using Gemcom modeling software. The block model is oriented with the X axis at 137.5° azimuth (rotated 47.5° clockwise) parallel to the trend of the mineralization domain. The block model parameters are summarized in Table 14.4.

TABLE 14.4			
LAST HOPE BLOCK MODEL DEFINITION			
Direction	Origin	No. of Blocks	Block Size (m)
X	386,486	340	5
Y	6,282,882	224	5
Z	1,140	110	5
Rotation	-47.5°(Clockwise)		

Block models for rock type, density, volume percent, Au, and class were created. All blocks in the rock type block model were initially assigned a waste rock code of 99, corresponding to country rocks. The mineralized domains were used to select all blocks within the rock type block model that contained, by volume, 1% or greater. These blocks were assigned their appropriate individual rock codes as indicated in Table 14.2. The overburden surface and topographic surface were subsequently utilized to assign rock code 10 for overburden and 0 for air to all blocks 50% or greater above the surfaces.

A volume percent block model was set up to accurately represent the volume and subsequent tonnage that was occupied by each block inside the constraining domain. As a result, the domain boundary was properly represented by the percent model ability to measure individual infinitely variable block inclusion percentages within that domain.

The bulk density model was initialized to 2.76 t/m³ for all Au mineralized blocks.

Inverse Distance Cubed (1/d³) grade interpolation was utilized for grade interpolation based on the Au composites which were extracted from the drill hole database into XYZ point files. Grade blocks were interpolated using the following parameters in Table 14.5.

TABLE 14.5							
BLOCK MODEL INTERPOLATION PARAMETERS							
Pass	Strike Range (m)	Dip Range (m)	Across Dip Range (m)	Max No. per Hole	Min No. Sample	Max No. Sample	% of Interpolated Blocks
1	25	20	10	3	4	20	15.2%
2	50	40	20	3	1	20	63.4%
3	100	80	40	3	1	20	16.6%
4	125	100	50	3	1	20	2.0%

The search ellipsoid orientation was aligned with the trend of the domains. Over 95% of Au Mineralized blocks were interpolated with the first three passes. The resulting Au grade blocks are presented on the block model cross-sections and plans in Appendix E.

14.11 MINERAL RESOURCE CLASSIFICATION

In P&E's opinion, the drilling, assaying and exploration work supporting this Mineral Resource Estimate are sufficient to indicate reasonable potential for economic extraction and thus qualify it as a Mineral Resource under CIM definition standards. Based on the semi-variogram performance and density of the drilling data, the Indicated Mineral Resource classification was justified for blocks interpolated by pass one (Table 14.5) which was using at least four composites from a minimum of two drill holes within a spacing of 25 m on strike, 20 m down dip and 10 m across dip. Inferred Mineral Resources were classified by passes 2 to 4 on all remaining grade populated blocks. The classifications of some blocks have been manually adjusted to represent the Mineral Resource classification more reasonably. Classification block cross-sections and plans are attached in Appendix F.

14.12 MINERAL RESOURCE ESTIMATE

The Mineral Resource Estimate was derived from applying an Au cut-off grade to the block model and reporting the resulting tonnes and grade for potentially mineable areas. The following calculation demonstrates the rationale supporting the Au cut-off grade that determines underground potentially economic portions of the constrained mineralization.

Underground Au Cut-off Grade Calculation CDN\$

Au Price	US\$1,550/oz (approx two year trailing avg. price at Dec. 31/20)
\$US/\$CDN Exchange Rate	0.75
Au Recovery	95%
Royalty	2%
Mining Cost	\$90/tonne mined
Process Cost (1,000 tpd)	\$15/tonne processed
General & Administration	\$5/tonne processed

Therefore, the Au cut-off grade for the underground Mineral Resource Estimate is calculated as follows:

$$\text{Operating costs per processed tonne} = (\$90 + \$15 + \$5) = \$110/\text{tonne}$$

$$[(\$110) / ((\$1,550/\text{oz} / 31.1035 / 0.75 \times 93\% \text{ Recovery \& Royalty}))] = 1.8 \text{ g/t.}$$

The Mineral Resource Estimate for the Last Hope Property is summarized in the Table 14.6.

TABLE 14.6			
MINERAL RESOURCE ESTIMATE AT 1.8 G/T AU CUT-OFF ⁽¹⁻⁵⁾			
Classification	Tonnes (k)	Au g/t	Au oz (k)
Indicated	213	5.53	38.0
Inferred	1,107	5.17	184.1

- 1) *Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.*
- 2) *The Inferred Mineral Resource in this estimate has a lower level of confidence that 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 be upgraded to an Indicated Mineral Resource with continued exploration.*
- 3) *The Mineral Resources in this Technical Report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.*
- 4) *The Mineral Resource Estimate is based on 219 drill holes of which 15 holes were drilled in 2012 and 204 holes were historical diamond drill holes. The core from this historical drilling remains intact at the Property and was partially re-assayed in 2012.*
- 5) *The underground Mineral Resource grade blocks were quantified above the 1.8 g/t Au cut-off and had exhibited continuity and reasonable potential for extraction by cut and fill and longhole mining methods.*

The Au cut-off sensitivities to the Mineral Resource Estimate are demonstrated in Table 14.7.

TABLE 14.7				
MINERAL RESOURCE ESTIMATE SENSITIVITY				
Category	Cut-off Au (g/t)	Tonnes	Au (g/t)	Au (oz)
Indicated	5.0	85,422	9.07	24,922
	4.5	98,884	8.48	26,960
	4.0	113,377	7.93	28,924
	3.5	131,547	7.36	31,108
	3.0	154,060	6.75	33,458
	2.8	164,300	6.51	34,409
	2.6	172,029	6.34	35,077
	2.4	180,717	6.16	35,780
	2.2	190,608	5.96	36,510
	2.0	201,445	5.75	37,242
	1.8	213,352	5.53	37,966
Inferred	5.0	402,657	7.96	103,055
	4.5	552,402	7.10	126,014
	4.0	711,350	6.45	147,477
	3.5	801,836	6.14	158,361
	3.0	872,977	5.91	165,812
	2.8	914,920	5.77	169,694
	2.6	971,184	5.59	174,596

TABLE 14.7				
MINERAL RESOURCE ESTIMATE SENSITIVITY				
Category	Cut-off Au (g/t)	Tonnes	Au (g/t)	Au (oz)
	2.4	1,002,087	5.50	177,081
	2.2	1,034,244	5.40	179,467
	2.0	1,067,488	5.29	181,712
	1.8	1,106,787	5.17	184,120

14.13 CONFIRMATION OF MINERAL RESOURCE ESTIMATE

The block model was validated using a number of industry standard methods including visual and statistical methods.

Visual examination of composite and block grades on plans and sections on-screen and review of estimation parameters including:

- Number of composites used for estimation;
- Number of holes used for estimation;
- Distance to the nearest composite;
- Number of interpolation passes used to estimate grade.
- Average value for composites used, Table 14.8 details average Au composite used for grade interpolation compared to the block average Au grade for each grade interpolation pass.

TABLE 14.8		
COMPARISON OF AVERAGE OF AU COMPOSITES WITH AVERAGE AU GRADE OF BLOCKS FOR EACH PASS		
Pass	Average of Composites Au (g/t)	Average of Grade Blocks Au (g/t)
I	3.4	3.4
II	3.0	3.0
III	3.4	3.6
IV	2.6	2.8
Overall	3.1	3.2

As shown in Table 14.9, the block model average grade is slightly higher than the composite average grades. This appears to be a spatial effect of grade contributing disproportionately to the average grade.

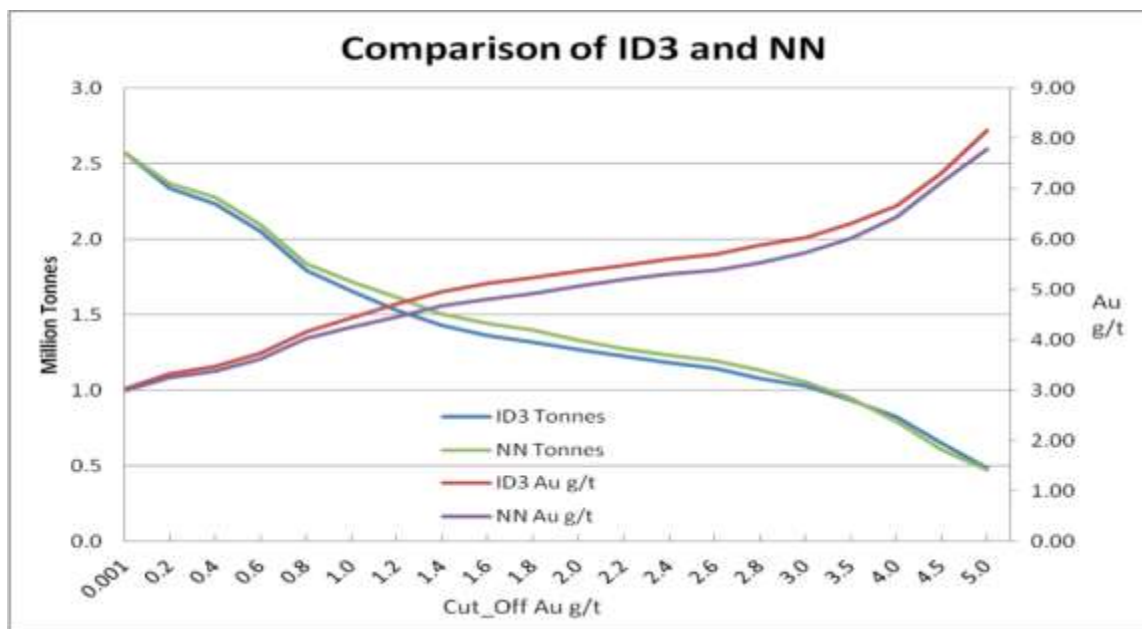
A volumetric comparison was performed with the block model volume of the model blocks versus the geometric calculated volume of the domain solids, as detailed below:

- Block Model Volume = 932,648 m³
- Geometric Domain Volume = 931, 676 m³
- Difference = 0.10%

Comparison of grade models interpolated with Inverse Distance Cubed (1/d³) and Nearest Neighbour (NN) at cut-off of 2.0 g/t Au. As shown in Table 14.9 and Figure 14.1, the 1/d³ method resulted in higher average grade and lower tonnes than NN did, however, the contained gold amount is similar between the methods.

TABLE 14.9 COMPARISON OF MINERAL RESOURCE ESTIMATE AT CUT-OFF 2.0 G/T AU INTERPOLATED WITH 1/D ³ AND NN METHOD		
Interpolation Method	1/d ³	NN
Average Grade Au g/t	5.37	5.07
Tonnes (000s)	1,269	1,332
Contained oz of Au (000s)	219	217

FIGURE 14.1 COMPARISON OF MINERAL RESOURCE ESTIMATE AT AU CUT-OFF GRADE BETWEEN 1/D³ AND NN METHOD



15.0 MINERAL RESERVE ESTIMATES

No Mineral Reserve Estimate was produced by 55 North Mining Inc.

16.0 MINING METHODS

This section is not applicable to this Technical Report.

17.0 RECOVERY METHODS

This section is not applicable to this Technical Report.

18.0 PROJECT INFRASTRUCTURE

This section is not applicable to this Technical Report.

19.0 MARKET STUDIES AND CONTRACTS

This section is not applicable to this Technical Report.

20.0 ENVIRONMENTAL STUDIES, PERMITS, AND SOCIAL OR COMMUNITY IMPACTS

This section is not applicable to this Technical Report.

21.0 CAPITAL AND OPERATING COSTS

This section is not applicable to this Technical Report.

22.0 ECONOMIC ANALYSIS

This section is not applicable to this Technical Report.

23.0 ADJACENT PROPERTIES

The Last Hope property is south of Alamos Gold's Lynn Lake Gold Project, that comprises what was formerly known as the MacLellan, Farley Lake and BT deposits under Carlisle Goldfields. The main areas of the Lynn Lake Project are now referred to as the MacLellan Property and the Gordon Property. The following information is summarized from the 2018 Feasibility Study prepared by Ausenco (Staples, P., et al., 2018).

The MacLellan Deposit is stratabound between a sequence of east-west trending clastic and chemical sedimentary rocks interlayered with picritic flows and tuffs. This section is encompassed by volcanoclastic rocks to the north and south and felsic volcanics further to the south. Metamorphic grade is amphibolite. Minor felsic volcanics are located to the south of the mine area and gabbroic intrusions occur locally. The entire LLGP is bounded by granitic intrusions to the north and south.

The Gordon Property is hosted within the Agassiz Metallotect or Rainbow Trend of the north belt. The Rainbow Trend is a tectostratigraphic assemblage of ultramafic flows (picrites), banded oxide-facies iron formation, associated exhalative and clastic sedimentary rocks, and volcanic flows. This Trend represents a relatively narrow, strike-continuous stratigraphic- structural unit that occurs over a 70 km strike length from west of the shear hosted MacLellan Deposit through the Gordon Property to southwest of Barrington Lake. This trend hosts all known gold mineralization in the north belt.

The Gordon Property is composed of pillowed basalts, dacitic flows, siliceous sediments (argillites, greywackes, etc.), intermediate tuffaceous sediment and banded iron formation (BIF) which have been extensively folded into an east-west striking and steeply north-dipping sequence.

The Open Pit Mineral Resource Estimate is based on data available from 1,945 drill holes drilled from both surface and underground, comprising 287,647 m of non-zero assayed gold intervals.

Separate block models were constructed for both the MacLellan Deposit and the Gordon Deposit and the Mineral Resource Estimate is constrained by mineralized shapes, based on a 0.50 g/t Au cut-off grade. The MacLellan Deposit and Gordon Deposit block models have been depleted for historic underground and open pit mining, respectively.

The Open Pit Mineral Resource Estimate is based on data available from 1,945 drill holes drilled from both surface and underground, comprising 287,647 m of non-zero assayed gold intervals. The Mineral Resource Estimate is presented in Table 23.1.

Separate block models were constructed for both the MacLellan Deposit and the Gordon Deposit and the Mineral Resource Estimate is constrained by mineralized shapes, based on a 0.50 g/t Au cut-off grade. The MacLellan Deposit and Gordon Deposit block models have been depleted for historic underground and open pit mining, respectively.

TABLE 23.1					
LYNN LAKE GOLD PROJECT MINERAL RESOURCE ESTIMATE ⁽¹⁻⁸⁾					
Classification	Tonnes (k)	Au Grade (g/t)	Ag Grade (g/t)	Au (koz)	Ag (koz)
Measured	2,119	1.86	5.31	127	362
Indicated	3,848	2.27	4.34	281	537
Total M+I	5,967	2.12	4.69	407	900
Inferred	1,481	1.66	1.69	79	80

Notes:

- 1) *The Mineral Resources are reported at an assumed gold price of US \$1,400/ounce, and an assumed silver price of US \$22.00/ounce;*
- 2) *The Mineral Resource Estimate was completed by Mr. Jeffrey Volk, CPG, FAusIMM, Director of Reserves and Resources for Alamos Gold Inc.;*
- 3) *Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources estimated will be converted into Mineral Reserves;*
- 4) *Open pit Mineral Resources are stated as contained within potentially economically open pit above a 0.42 g/t AuEq cut-off for MacLellan and 0.62 g/t Au for Gordon, and includes external dilution at zero grade outside the 0.50 g/t Au solid;*
- 5) *Mineral Resources for the MacLellan Underground are stated above a 2.0 g/t Au cut-off. MacLellan Underground block grades are undiluted;*
- 6) *Totals may not add due to rounding;*
- 7) *Contained Au and Ag ounces are in-situ and do not include metallurgical recovery losses; and*
- 8) *Mineral Resources are exclusive of Mineral Reserves.*

The estimates of the Mineral Reserves were carried out based on the detailed open pit limit designs for the Gordon and MacLellan deposits and using the Measured and Indicated Mineral Resources of the block models of the two deposits. The estimates were carried out using cut-off grades of 0.69 Au g/t for Gordon and 0.47 equivalent Au g/t for MacLellan, calculated on the basis of the design parameters of the Project, which include a gold price of US \$1,250/Au oz and an USD/CAD exchange rate of 0.75. The current geological model estimation methodology inherently introduces dilution in the estimate of the block gold grades of 13% and 15%, at zero grade, for MacLellan and Gordon respectively. Q'Pit is of the opinion that no additional dilution and mining recovery factors are applicable.

The Mineral Reserves for the LLGP are listed in Table 23.2 with the Au and Ag grade estimates based on the diluted grades of the block model.

TABLE 23.2
LYNN LAKE GOLD PROJECT MINERAL RESERVE ESTIMATE ⁽¹⁻⁶⁾

Area	Classification	Tonnage (Mt)	Au Grade (g/t)	Ag (g/t)	Au (koz)	Ag (koz)
Gordon	Proven	2.31	2.82	n/a	210	n/a
	Probable	6.41	2.27	n/a	468	n/a
	Total Proven + Probable	8.72	2.42	n/a	678	n/a
MacLellan	Proven	9.55	1.91	5.01	586	1,539
	Probable	8.53	1.32	3.79	361	1,039
	Total Proven + Probable	18.08	1.63	4.43	947	2,578
Lynn Lake Gold Project	Proven	11.86	2.09	4.03	796	1,539
	Probable	14.94	1.73	2.16	829	1,039
Total Proven and Probable		26.80	1.89	1.69	79	80

Notes:

- 1) Mineral Reserves reported are in agreement with the CIM Definition Standards for Mineral Resources and Mineral Reserves
- 2) The Mineral Reserve is estimated using metal prices of US \$1,250/Au oz and US \$15.00/Ag oz.
- 3) Totals may not add up due to rounding.
- 4) The estimates were carried out using cut-off grades of 0.69 Au g/t for Gordon and 0.47 Equivalent Au g/t for MacLellan and a metallurgical Au recovery of 89-94% for Gordon and 91-92% for MacLellan.
- 5) The design parameters applicable are detailed in Section 15 of this report.
- 6) The estimate of the Mineral Reserves was carried out under the supervision of Efthymios Koniaris, PhD., P.Eng., of Q'Pit Inc.

24.0 OTHER RELEVANT DATA AND INFORMATION

There are no other data considered relevant to the Property that have not been included in this Technical Report.

25.0 INTERPRETATION AND CONCLUSIONS

The authors offer the following conclusions:

- The Last Hope Deposit lies in the highly altered, quartz-pyrite rich footwall of a major fault.
- The gold mineralization occurs in thin northwest striking quartz veins. Mineralization appeared to be localized on a major fault. The best gold values were found in the highly altered, quartz-pyrite rich footwall.
- There is potential for expanding known mineralized areas on the Property. Mineralized zones remain open to the northwest and southeast.

26.0 RECOMMENDATIONS

The Last Hope Property has potential to define additional Mineral Resources and to upgrade the category of the Mineral Resources from the Inferred to the Indicated classification. In addition, recently completed Induced Polarization survey of 78.15 line kilometres provided indications of potential additional mineralization in several areas. To address both objectives a two phased drill program is envisaged.

The following items are specifically recommended:

Phase 1: Advance an additional 19 drill holes, totalling 7,500 m, to investigate the limits of mineralization.

Phase 2: Advance 13 drill holes totalling 6,200 m to investigate various IP targets on the remainder of the property.

26.1 PROPOSED 2020 BUDGET

To carry out the above recommendations, the following budget in Table 26.1 is proposed:

TABLE 26.1 PROPOSED BUDGET				
Proposed Work	Qty	Units	Unit Cost	Total Cost \$
Phase I Mineral Resource Drilling				
- Drilling (All Inclusive)	7,500	m	\$200	\$1,500,000
- Assaying	1,000	ea	\$30	\$30,000
- Supervision	3	month	\$13,000	\$39,000
- Subtotal				\$1,569,000
- Contingency (10%)				\$156,900
Phase I Proposed Budget				\$1,725,900
Phase II Exploration Drilling				
- Drilling (All Inclusive)	6,200	m	\$200	\$1,240,000
- Assaying	600	ea	\$30	\$18,000
- Supervision	3	month	\$13,000	\$39,000
- Subtotal				\$1,297,000
- Contingency (10%)				\$129,700
Phase II Proposed Budget				1,426,700
Total Phase I & II Proposed Budget				\$3,152,600

27.0 REFERENCES

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- Staples, P., MacLean, E., Volk, J., Toscano, P., Cobbina, A., Besseman, K., Castro, L., Couto, R., Koniaris, E., Mathers, K., NI 43-101 Technical Report Feasibility Study for the Lynn Lake Gold Project, Manitoba, Canada, Prepared for Alamos Gold Inc.

Taylor, C.F. (1989): Report on the Geology, Exploration Results and Potential of the Wasekwan Property, Wasekwan Lake Area, Lynn Lake, Manitoba, N.T.S. 64C/14 & 15 Prepared for Trans America Industries Ltd.

28.0 CERTIFICATES

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 “NI 43-101 Technical Report and Mineral Resource Estimate on the Last Hope Property, Lynn Lake, Northern Manitoba, Canada” (the “Technical Report”), with an effective date of February 2, 2021.
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.B.M.& S. and Inco Ltd., 1978-1980
- Open Pit Mine Engineer – Cassiar Asbestos/Brinco Ltd., 1981-1983
- Pit Engineer/Drill & Blast Supervisor – Detour Lake Mine, 1984-1986
- Self-Employed Mining Consultant – Timmins Area, 1987-1988
- Mine Designer/Resource Estimator – Dynatec/CMD/Bharti, 1989-1995
- Self-Employed Mining Consultant/Resource-Reserve Estimator, 1995-2004
- President – P&E Mining Consultants 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, 25 and 26 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 prior involvement with the Project that is the subject of this Technical Report. I was a “Qualified Person” for a Technical Report titled “Technical Report and Resource Estimate on the Last Hope Property, Lynn Lake, Northern Manitoba, Canada” with an effective date of March 7, 2013.
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: February 2, 2021

Signed Date: February 19, 2021

{SIGNED AND SEALED}

[Eugene Puritch]

Eugene Puritch, P.Eng., FEC, CET

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 “NI 43-101 Technical Report and Mineral Resource Estimate on the Last Hope Property, Lynn Lake, Northern Manitoba, Canada” (the “Technical Report”), with an effective date of February 2, 2021.
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:

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

4. I have visited the Property that is the subject of this Technical Report on November 20 to 22, 2012.
5. I am responsible for authoring Sections 2 to 13 and 15 to 24 and co-authoring Sections 1, 25 and 26 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 prior involvement with the Project that is the subject of this Technical Report. I was a “Qualified Person” for a Technical Report titled “Technical Report and Resource Estimate on the Last Hope Property, Lynn Lake, Northern Manitoba, Canada” with an effective date of March 7, 2013.
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: February 2, 2021

Signed Date: February 19, 2021

{SIGNED AND SEALED}

[David Burga]

David Burga, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

YUNGANG WU, P.GEO.

I, Yungang Wu, P. Geo., residing at 3246 Preserve Drive, Oakville, Ontario, L6M 0X3, do hereby certify that:

1. I am an independent consulting geologist contracted by P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled “NI 43-101 Technical Report and Mineral Resource Estimate on the Last Hope Property, Lynn Lake, Northern Manitoba, Canada” (the “Technical Report”), with an effective date of February 2, 2021.
3. I am a graduate of Jilin University, China, with a Master’s degree in Mineral Deposits (1992). I have worked as a geologist for 25 plus years since graduating. I am a geological consultant and a registered practising member of the Association of Professional Geoscientists of Ontario (Registration No. 1681).

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 as follows:

- Geologist –Geology and Mineral Bureau, Liaoning Province, China 1992-1993
- Senior Geologist – Committee of Mineral Resources and Reserves of Liaoning, China 1993-1998
- VP – Institute of Mineral Resources and Land Planning, Liaoning, China 1998-2001
- Project Geologist–Exploration Division, De Beers Canada 2003-2009
- Mine Geologist – Victor Diamond Mine, De Beers Canada 2009-2011
- Resource Geologist– Coffey Mining Canada 2011-2012
- Consulting Geologist 2012-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, 25 and 26 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 prior involvement with the Project that is the subject of this Technical Report. I was a “Qualified Person” for a Technical Report titled “Technical Report and Resource Estimate on the Last Hope Property, Lynn Lake, Northern Manitoba, Canada” with an effective date of March 7, 2013.
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: February 2, 2021

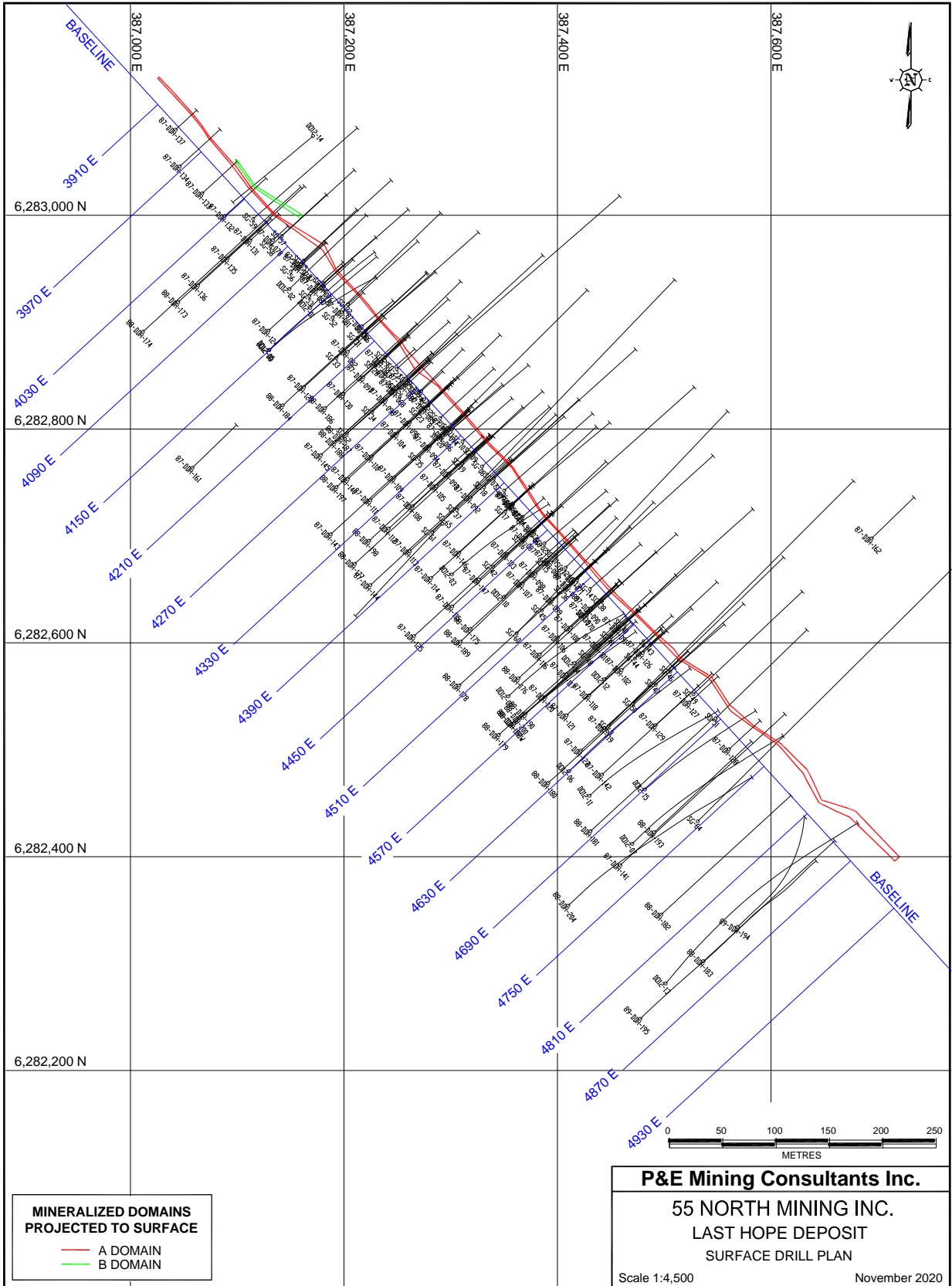
Signed Date: February 19, 2021

{SIGNED AND SEALED}

[Yungang Wu]

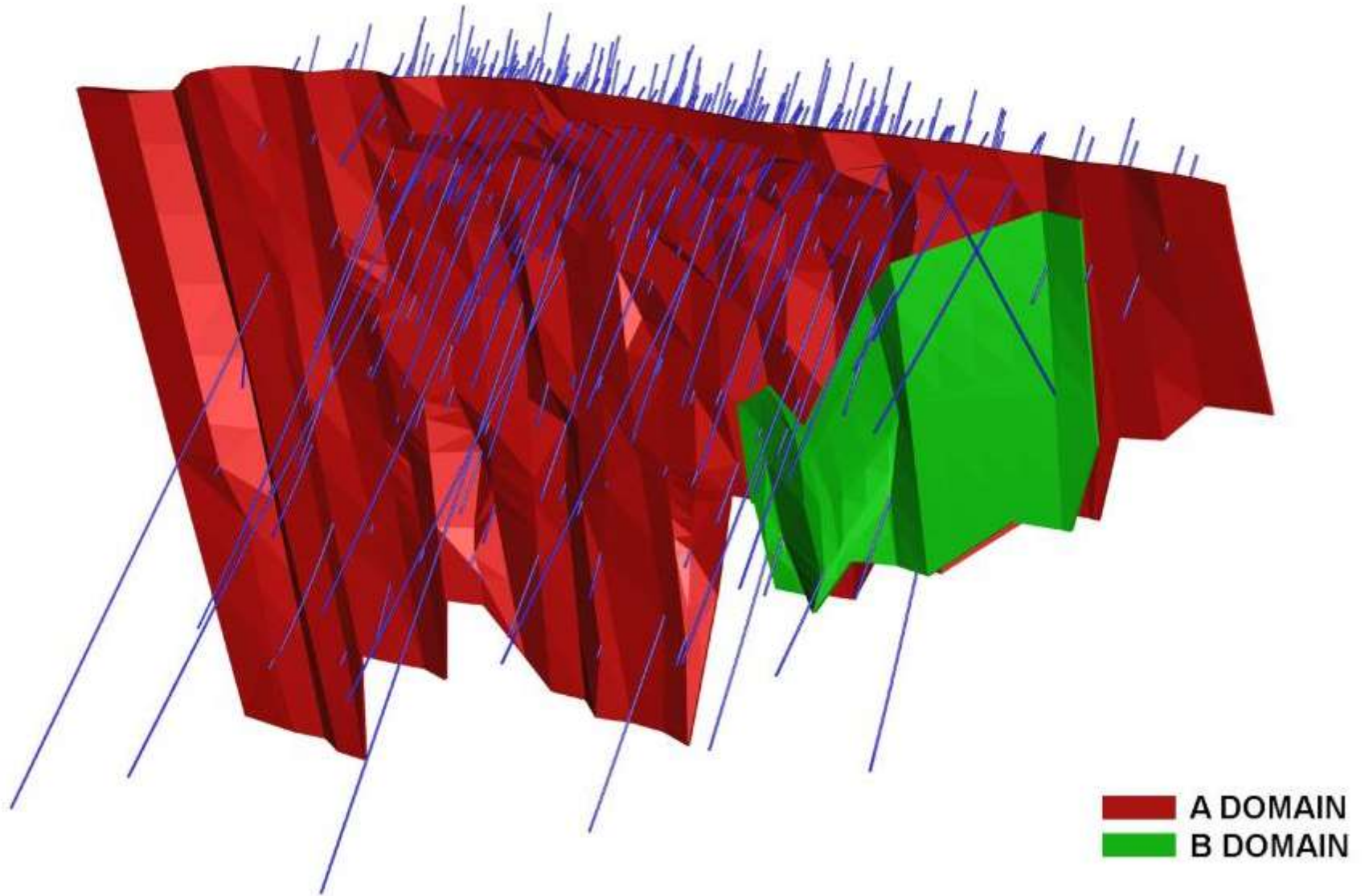
Yungang Wu, P.Geo.

APPENDIX A SURFACE DRILL HOLE PLAN

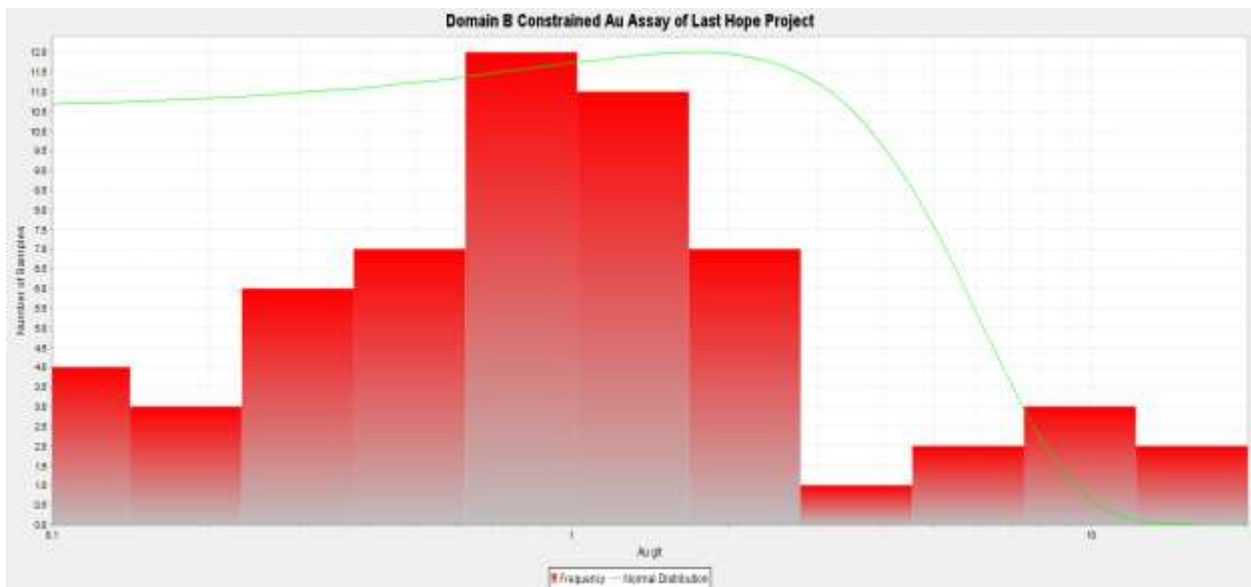
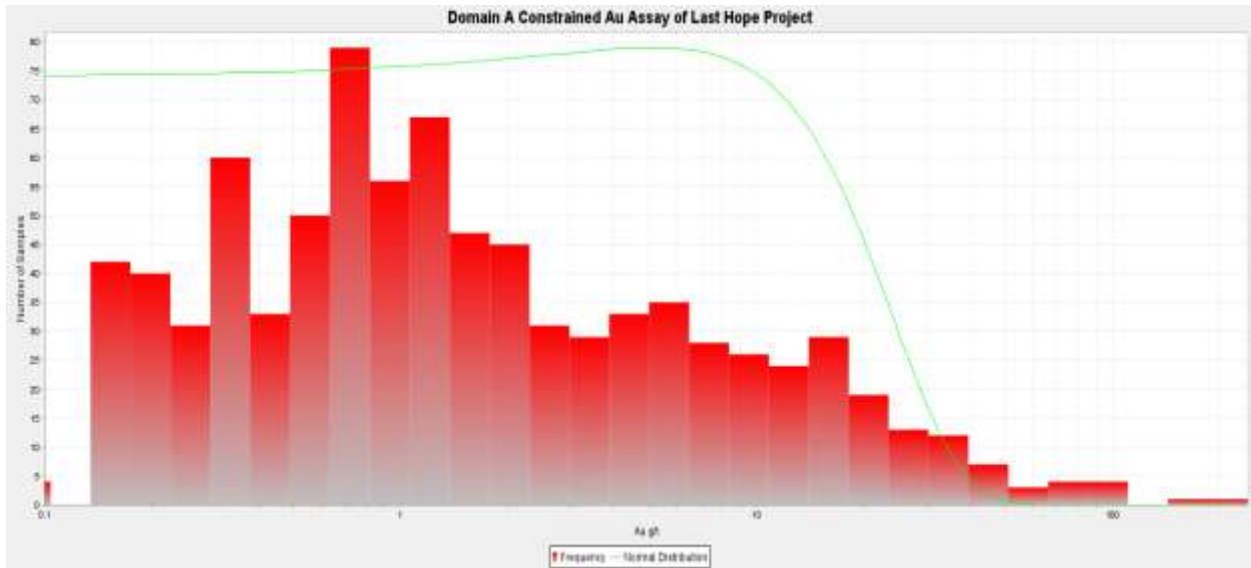


APPENDIX B 3-D DOMAINS

LAST HOPE DEPOSIT - 3D DOMAINS

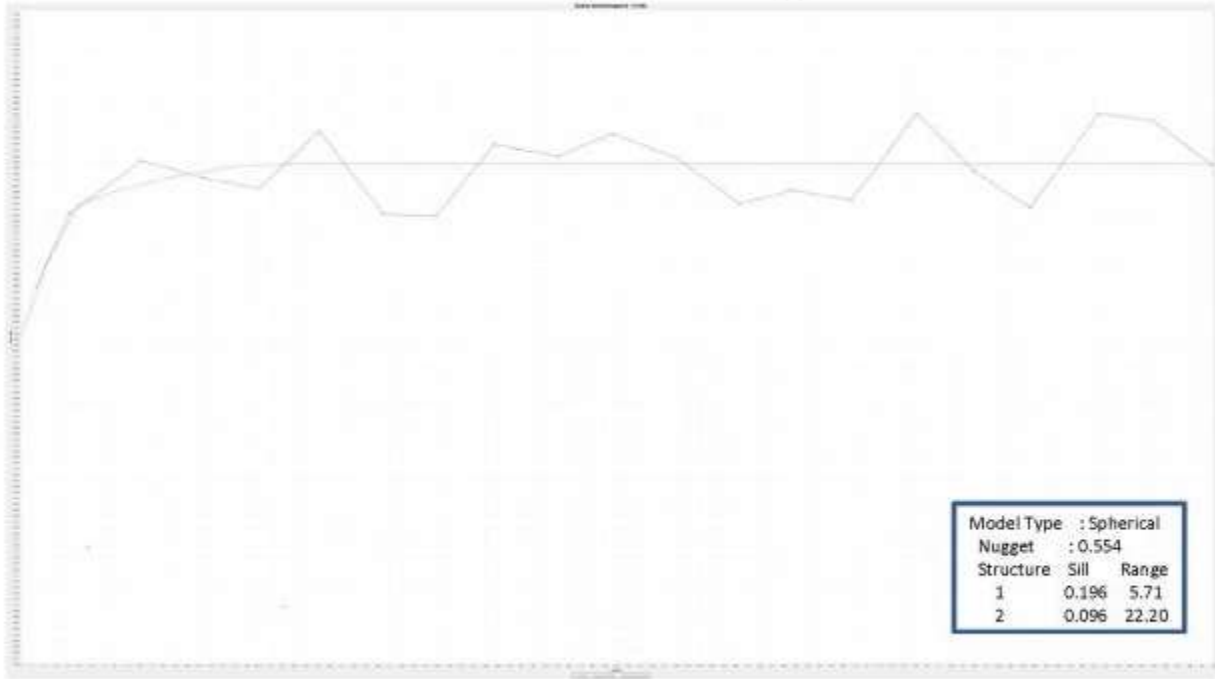


APPENDIX C LOG NORMAL HISTOGRAMS

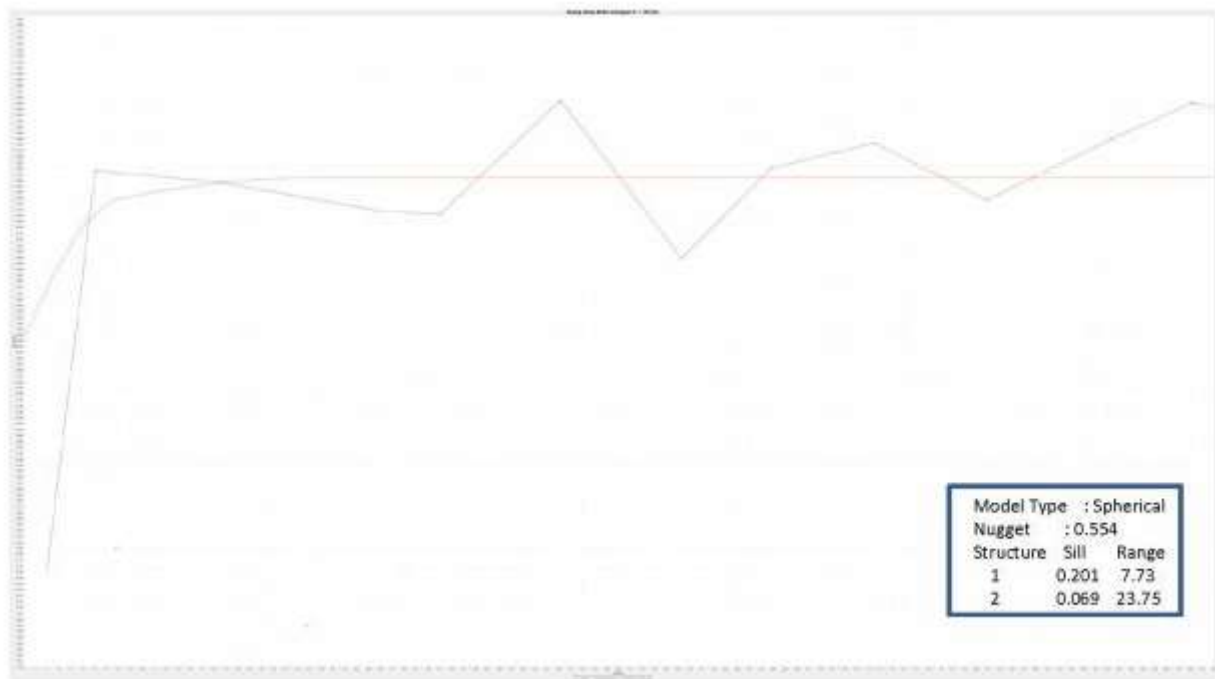


APPENDIX D VARIOGRAMS

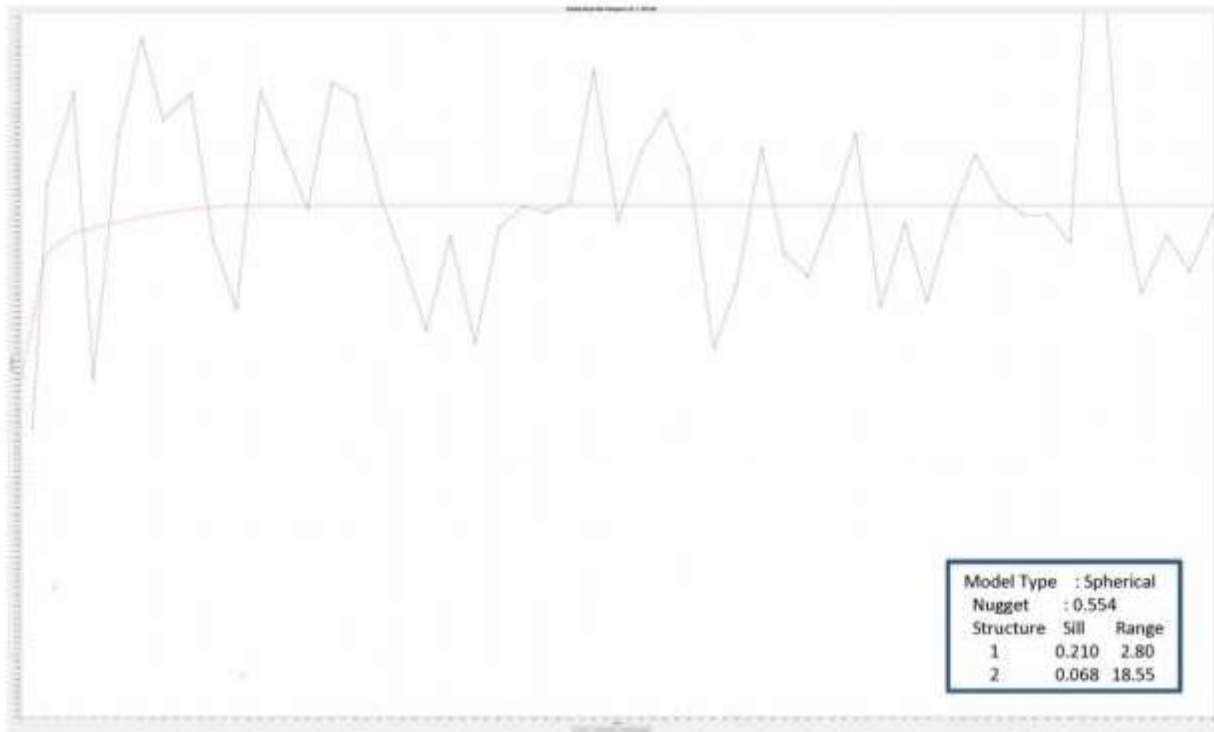
Last Hope OmniVariogram



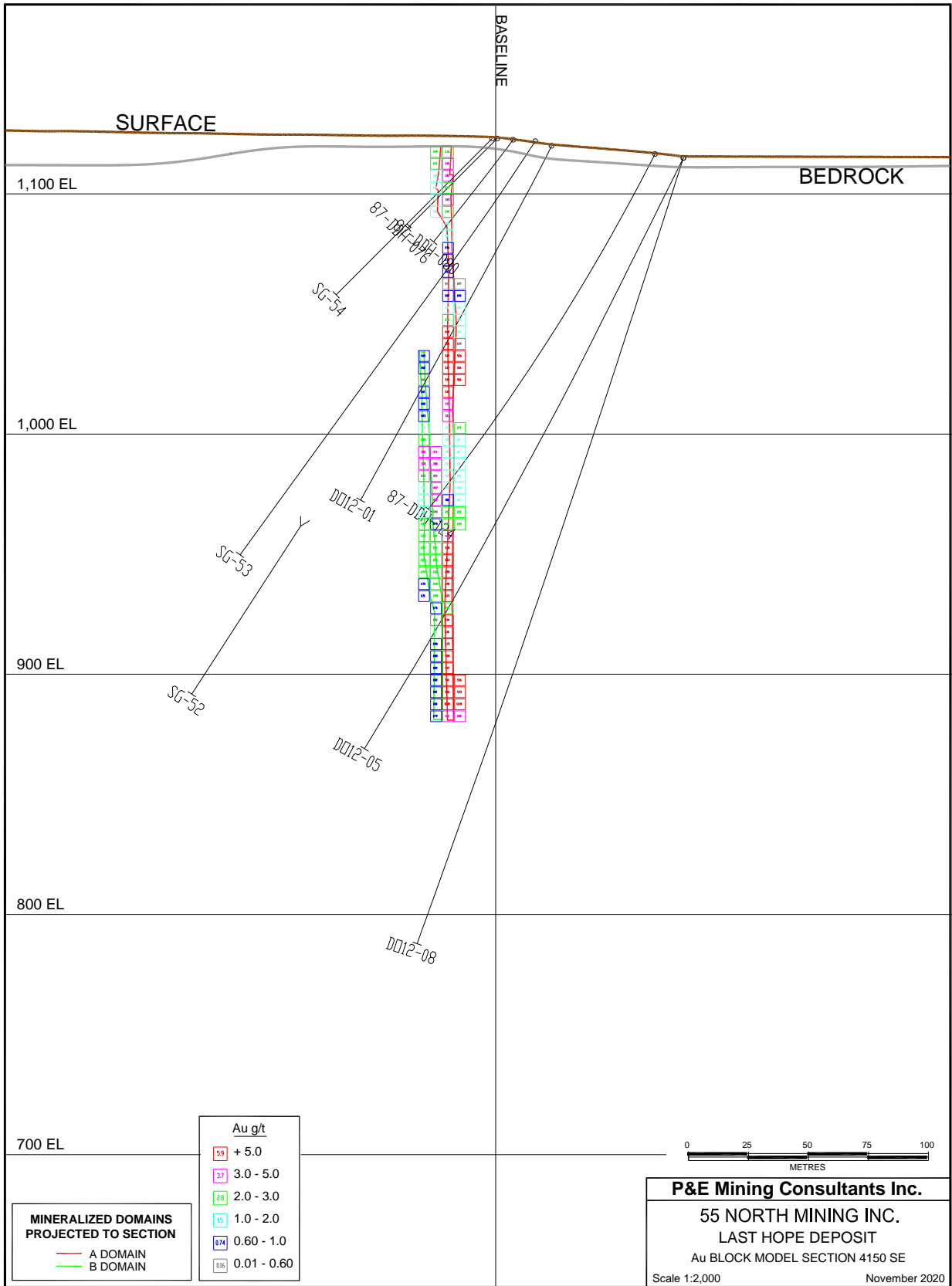
Last Hope Along Strike Variogram

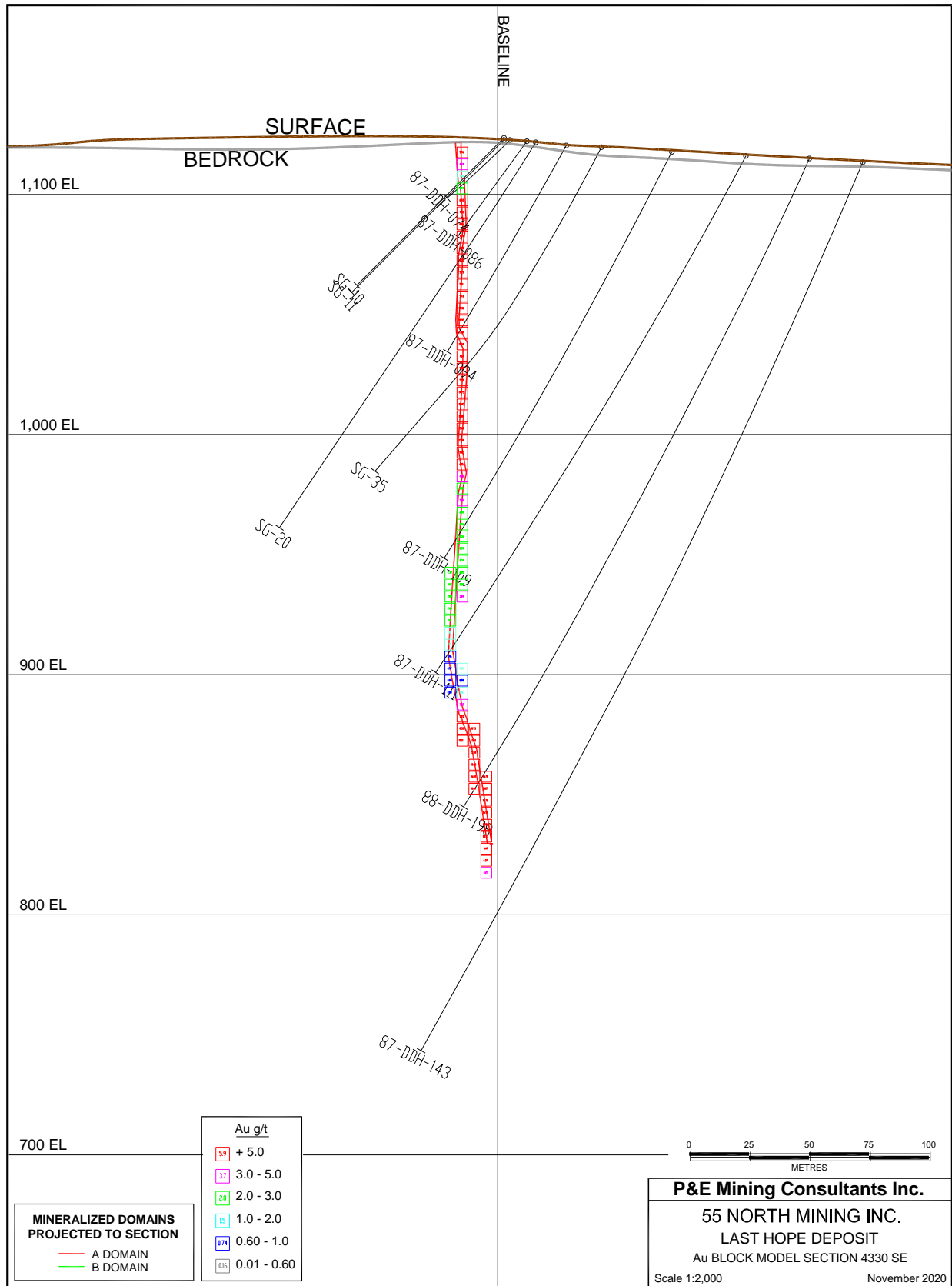


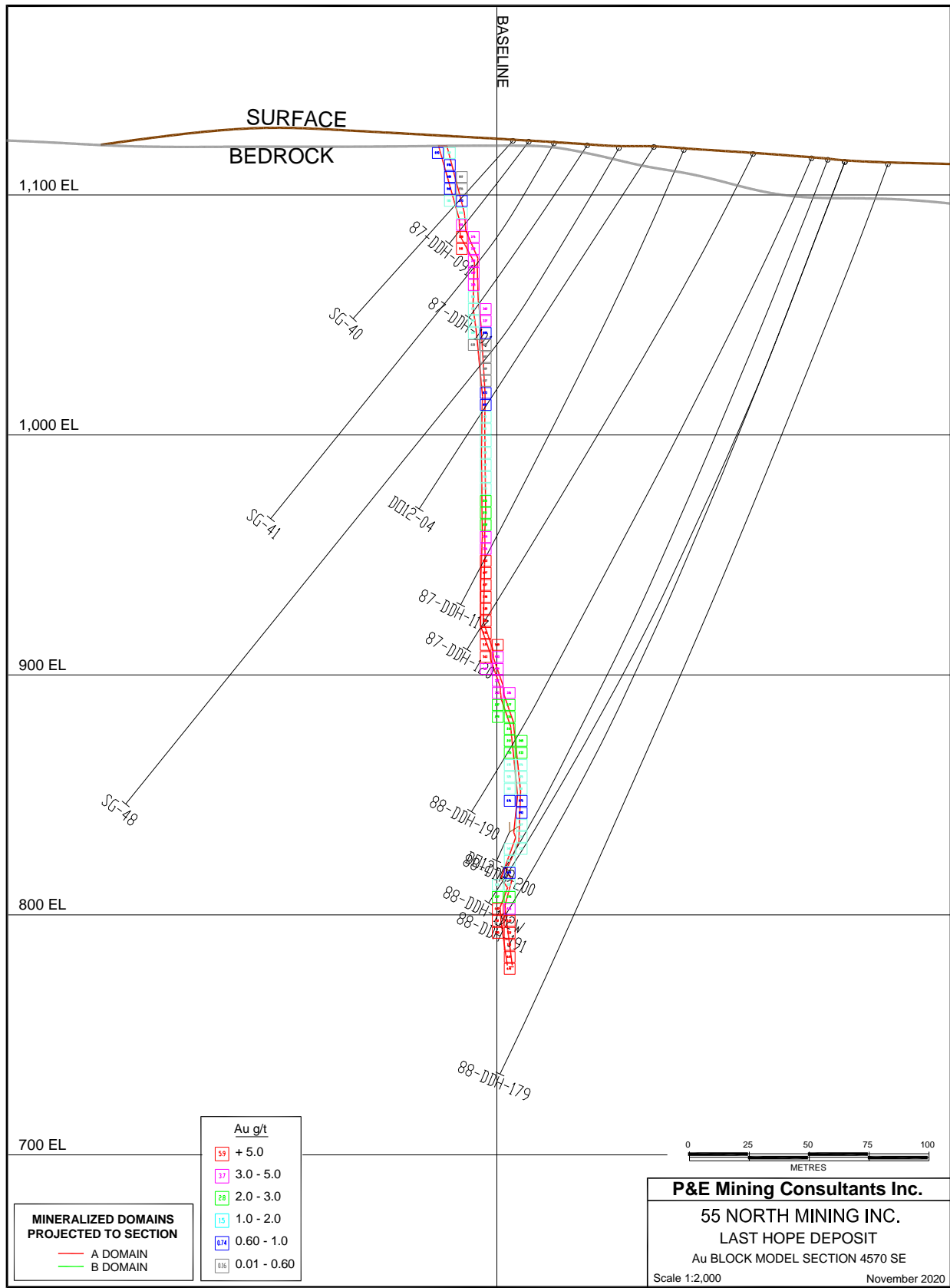
Last Hope Down Dip Variogram

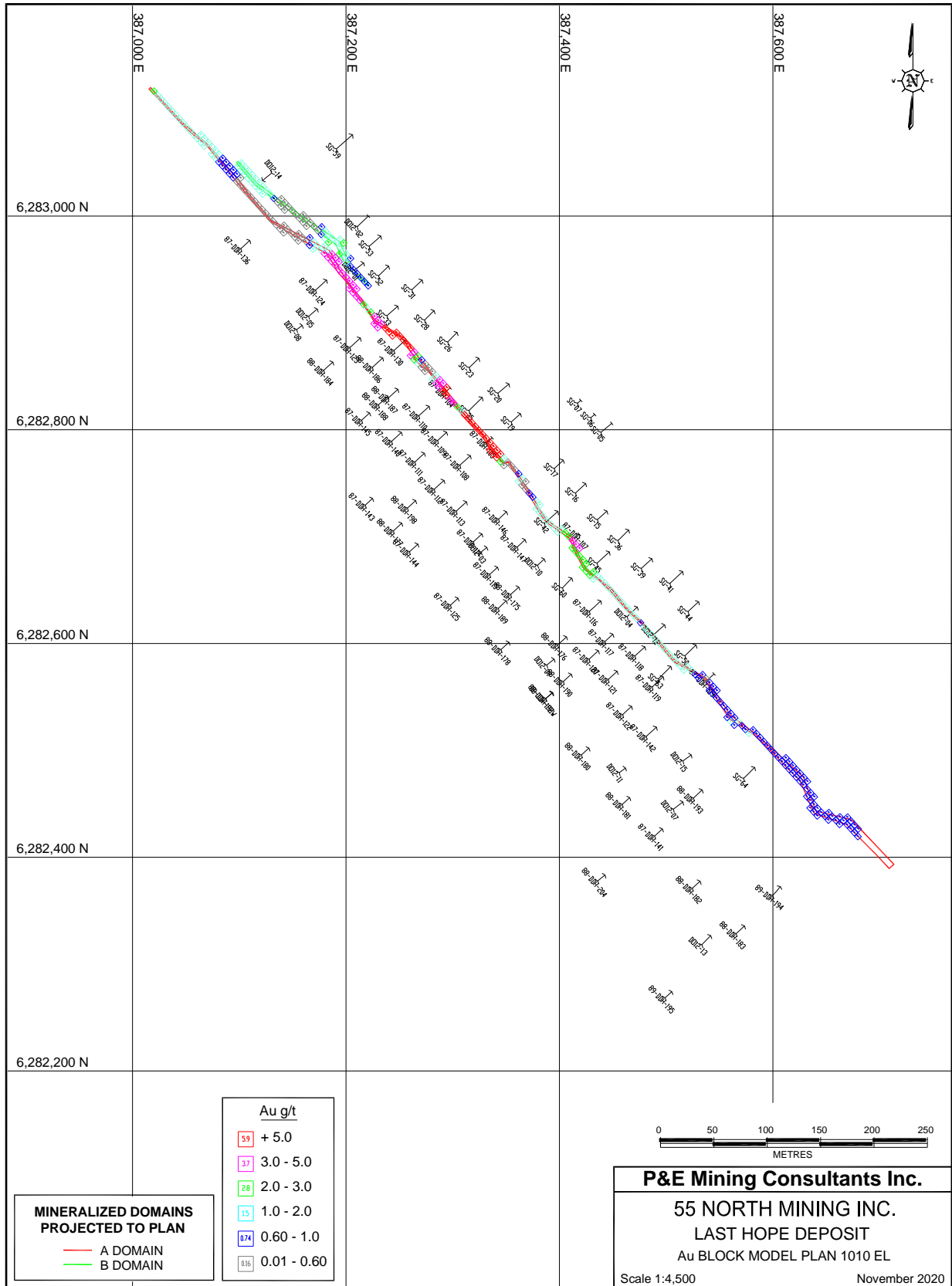


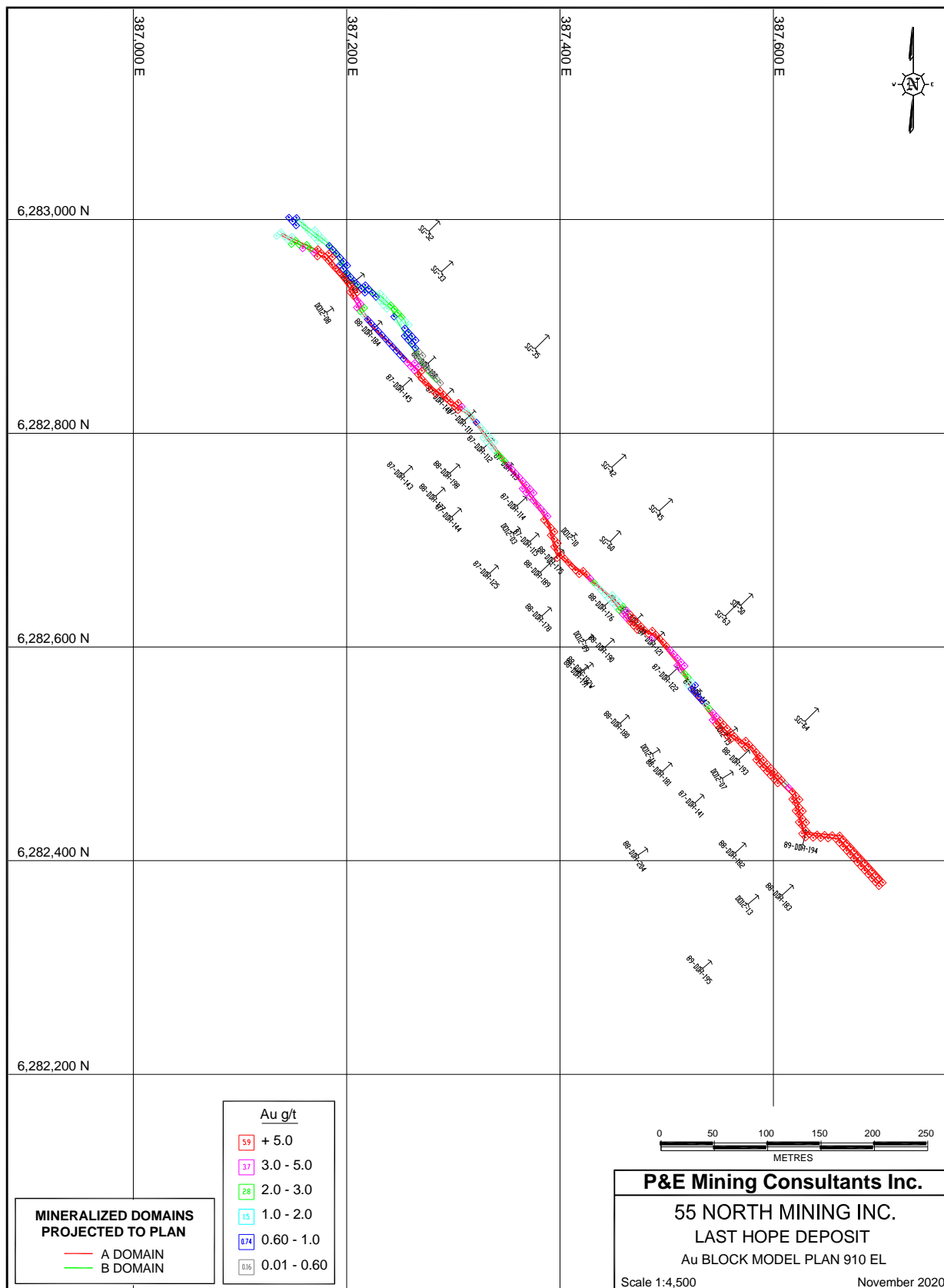
APPENDIX E Au BLOCK MODEL CROSS SECTIONS AND PLANS

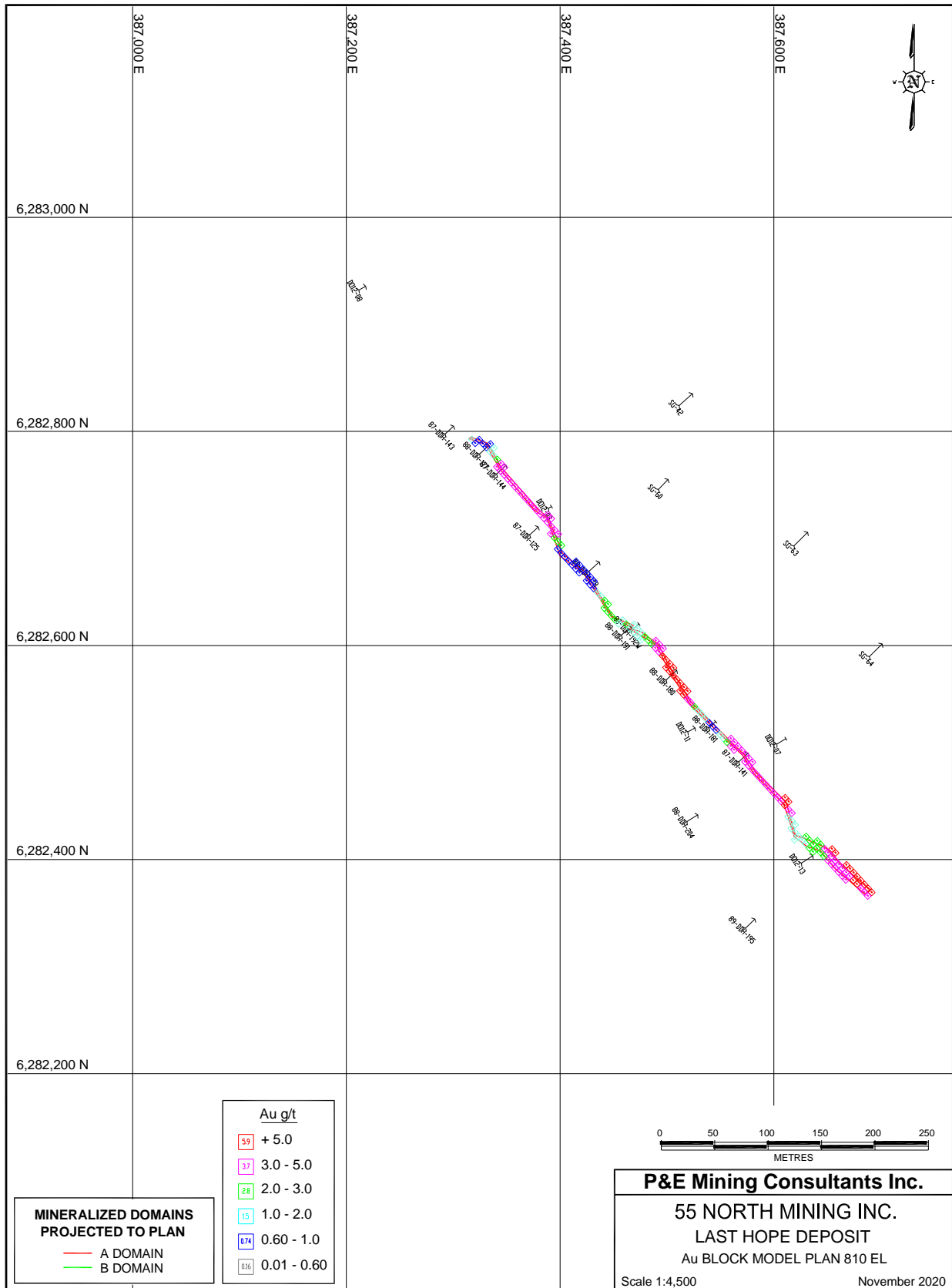












APPENDIX F CLASSIFICATION BLOCK MODEL CROSS SECTIONS AND PLANS

