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TECHNICAL REPORT AND INITIAL MINERAL RESOURCE ESTIMATE OF THE PRAIRIE LAKE RARE EARTH ELEMENT, NIOBIUM AND PHOSPHATE PROPERTY, THUNDER BAY MINING DIVISION ONTARIO, CANADA

LATITUDE 49° 02' N, LONGITUDE 86° 43' W
NAD83 ZONE 16N 520,620 m E, 5,431,440 m N

FOR
NUINSCO RESOURCES LIMITED

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

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1.0 SUMMARY

The following report was prepared by P&E Mining Consultants Inc. ("P&E") to provide a National Instrument ("NI") 43-101 Technical Report and Initial Mineral Resource Estimate for phosphate, niobium and rare earth element ("REE") mineralization contained on the Prairie Lake Property ("Prairie Lake Project", "the Project" or "the Property") in northwestern Ontario, Canada. The Property centre is located at approximately Latitude 49° 02' N and Longitude 86° 43' W, or at UTM NAD83 Zone 16N, 520,620 m E and 5,431,440 m N, approximately 25 km inland from the north shore of Lake Superior.

This Technical Report was prepared by P&E at the request of Mr. Paul Jones, C.E.O, of Nuinsco Resources Limited ("Nuinsco"). Nuinsco is a Canadian-based publicly-held junior exploration company headquartered in Toronto, Ontario.

1.1 PROPERTY DESCRIPTION, LOCATION, ACCESS AND PHYSIOGRAPHY

The Prairie Lake Property is located approximately 44 km northwest of the Town of Marathon and 38 km northeast of the Town of Terrace Bay, in the Thunder Bay Mining Division of northwestern Ontario. Both towns are located on the north shore of Lake Superior and serviced by the Canadian Pacific Railway and the Trans-Canada Highway. A system of maintained logging roads and rehabilitated logging skid trails from the Trans-Canada Highway provides access to the Property.

The Property consists of 46 mineral claims (nine pre-conversion claims), owned 100% by Nuinsco, totalling 630 ha that covers the Prairie Lake Carbonatite Complex. Nuinsco purchased eight of the claims from Stares Contracting Corporation ("Stares Contracting") in 2001 and staked the ninth claim also in 2001. In January 2012, Nuinsco purchased a Production Royalty on the Property from Stares Contracting for 3,157,894 common shares of Nuinsco. All the claims are in good standing as of the effective date of this Technical Report.

1.2 HISTORY

Historical exploration on the Prairie Lake Property focused on uranium, niobium, phosphorus (apatite) and wollastonite and, to a minor extent, tantalum and rare earth elements ("REE"). Historical mineral exploration programs on the Property were completed by Newmont Mining Corporation of Canada (1968-1974), New Insco Mines Limited (1975 to 1978), and Nuinsco (1983). Nuinsco eventually allowed the Property to lapse until 2001, when the Company re-acquired the Property from Stares Contracting.

1.3 GEOLOGY, MINERALIZATION, DEPOSIT TYPE

The Prairie Lake Property is located within the Archean Superior Province. The Prairie Lake Carbonatite Complex ("PLCC") was emplaced into Archean biotite-quartz-feldspar paragneiss country rocks within the Trans-Superior Tectonic Zone ("TSTZ"), which hosts additional alkalic complexes in the area. The PLCC is an oval, subvertical, cylindrical intrusion composed of an ijolite core surrounded by a rim of mixed carbonate, silicocarbonate and other calcite rocks. Contact between the ijolite and carbonatite rock types is irregular with complexly interfingered bands. A significant band of carbonate rock wraps inwards from the northwestern periphery of the intrusion towards the centre of the PLCC. The two principle lithologies within the Prairie Lake Carbonatite Complex, ijolite and carbonatite, are intruded by numerous subordinate dykes and sills.

The main mineralized zones in the PLCC are the SW Area, Jim's Showing, East Area and the Northeast Area. The SW Area Zone is the largest mineralized zone, measuring approximately 1 km long, between 100 m and 750 m wide and up to at least 500 m deep. The most significant valuable products from carbonatite-alkalic intrusions are phosphorus (from apatite), magnetite, niobium (from pyrochlore), zirconia and rare earth elements (REE") (from monazite and bastnäsite). The highest concentrations of apatite within the PLCC occur in intervals of phoscorite rock types. Tantalum, niobium and uranium mineralization is widespread throughout the intrusion. The PLCC is unique in North America in its high wollastonite content.

The PLCC is an example of a carbonatite-alkalic intrusion. These intrusions of magmatic carbonates and associated alkaline igneous rocks typically occur in alkaline igneous provinces.

1.4 EXPLORATION AND DRILLING

A trenching program during 2002-2003 on the Property was followed-up by grid sampling and drill programs in 2007, 2008 and 2010, and additional trenching in 2010. Drill core re-sampling and assay programs were completed in 2019 and 2021.

Grab samples from the trenching program were analysed for uranium, niobium, tantalum ± phosphorus and REE with assay values of up to 488 g/t tantalum pentoxide ("Ta_2O_5") and 1.044% niobium pentoxide ("Nb_2O_5") reported. The 870 rock-chip grid-sampling program in 2007 returned maximum values of 19.9% P_2O_5, 0.628% Nb_2O_5, 0.104% U_3O_8 and 619 g/t Ta_2O_5, with average values of 2.35% P_2O_5, 0.052% Nb_2O_5, 0.002% U_3O_8 and 15 g/t Ta_2O_5. This sampling program delineated a wide band in the southwest quadrant of the carbonatite anomalous in uranium, niobium, tantalum and phosphorus. The anomalous zone is coincidental with an area highlighted previously by radiometric surveying in 1976.

The 2007 drill program focussed on the Jim's Showing area and the High Grade, P31 and P10 Zones of the SW Area. Values of up to 0.206% triuranium octoxide ("U_3O_8"), 1.008% Nb_2O_5, 579 g/t Ta_2O_5, 18.05% phosphorus pentoxide ("P_2O_5") and 6,675 g/t for the combined REE yttrium ("Y"), lanthanum ("La"), cerium ("Ce"), neodymium ("Nd"), and samarium ("Sm") were reported. Deeper drilling during the 2008 drill program confirmed that carbonatite continues to depths of at least 500 metres. Individual assays from the 2008 program returned values of up to 0.863% Nb_2O_5, 12.63% P_2O_5 and 8,061 g/t combined REE.

In late-fall 2010, seven diamond drill holes were completed on the Prairie Lake Property. A total of 4,004 metres of NQ-sized (48 mm) drill holes were completed, with holes ranging from 527 metres to 605 metres in length. All holes were drilled in the SW Area of the Property. Samples from the 2010 drill program returned individual assays of up to 23.08% P_2O_5, 0.953% Nb_2O_5 and 0.910% REE. Results included a continuously sampled interval in drill hole NP1001 of 3.415% P_2O_5, 0.118% Nb_2O_5 and 1,016.2 g/t combined REE over 246.5 metres (from 49.0 metres to

292.5 metres), and 3.74% P_2O_5, 0.106% Nb_2O_5 and 1,908 g/t REE over 195.5 metres (from 4.5 metres to 200.0 metres) in drill hole NP1007.

In 2010, Nuinsco completed trenching on the Property totalling 2,068 m in length. Four trenches, known as Dragonfly, Wollastonite-Trailside, Grouse and Raspberry Hill, were excavated in the southwest, southeast, and northeast quadrants of the Property. A total of 1,042 samples were collected over 1,565 metres of trench length. The results from the channel sampling of the trenches included individual analyses up to 13.67% P_2O_5, 0.423% Nb_2O_5 and 1.098% REE (Y, La, Ce, Nd, Sm).

In 2018, Nuinsco started the process of cutting drill core for a re-sampling/infill sampling program of the core from the 2006, 2007 and 2010 diamond drilling programs. In 2019, the first results for the additional sampling were announced for drill holes NP0702 and NP0714. The sampling significantly extended the known niobium (Nb), tantalum (Ta), and phosphorus (P) intercepts in these drill holes and added assays for rare earth elements (REE), including lanthanum (La), cerium (Ce), samarium (Sm), neodymium (Nd) and yttrium (Y).

During 2019, Nuinsco also announced results for new REE analyses of core from drill holes NP1006 and NP1007 from the 2010 drilling program. The Company identified up to 15 metres widths in drill core of high-grade REE domains in iron-rich carbonatite (ferrocarbonatite). These domains were assumed to be late-stage intrusions into the PLCC, and their presence suggest that additional, similar intrusions are possible on the Prairie Lake Property. Furthermore, drill holes NP1006 and NP1007 were reported to contain ancylite, a strontium-rich REE-carbonate mineral with high contents (typically >50%) of REE oxides. The ancylite mineralization is accompanied by burbankite (another REE-carbonate mineral) and strontianite ($SrCO_3$).

Throughout 2021, Nuinsco completed a substantial program of drill hole re-sampling that produced many significant continuous intersections of 100 m or more containing phosphorus, niobium, tantalum and REE mineralization. Fourteen drill holes in total were resampled. Resampling of diamond core in SW Area drill hole NP1003 returned a mineralized interval of 602.24 m from 2.76 m downhole (approximately 525 m vertically below surface), which is the longest intersection recognized to date. Generally, the mineralization commences at or near surface and the intersections remain open to expansion by drilling at depth.

1.5 MINERAL PROCESSING AND METALLURGICAL TESTING

Historically, gravity concentration tests were completed in 2008 by Kennecott in Thunder Bay and gravity and flotation tests in 2009 to 2011 by COREM in Quebec City. Detailed mineralogical analyses were performed in 2011 and 2014 at the Department of Earth Sciences at Carleton University in Ottawa, Ontario and more recently, in 2021 by a consulting mineralogist in Ottawa.

Apatite is the principal mineral of interest and mineralogical analyses indicated presence in both carbonatites and ijolites of the Prairie Lake Intrusive Complex. The apatite occurs in grain sizes of 0.1 mm to 1.0 mm with a median grain size of 0.1 mm to 0.2 mm and limited intergrowth with other minerals, which suggests that achieving a high-grade apatite concentrate with high recoveries is a reasonable possibility. Electron-microprobe analyses ("EMP") confirmed a formula of $Ca_{10}P_6O_{24}F_2$, or fluorapatite (other variations of apatite include substitution of Cl and OH for F).

In the 124 samples tested, the Prairie Lake apatite has a total mean REO (REE_2O_3, rare earth oxide) concentration of 15,400 g/t or 1.54%. The REOs measured included Y, La, Ce, Pr, Nd and Sm. Of particular interest is Nd, with a mean concentration of 2,800 g/t (0.28%). Other REEs of interest are Pr and Sm, the contents of which range from below detection to 2,400 g/t (0.24%). The mean P_2O_5 content of the samples slightly exceeded 41%. The current Indicated Mineral Resource grade of 3.71% P_2O_5 corresponds to a model apatite abundance of approximately 9%.

The pyrochlore group of minerals present at Prairie Lake includes pyrochlore, betafite and minor amounts of zirconolite. The niobium, and tantalum-containing minerals, are present in approximately 1% of the total mineralization. EMP analyses indicated a mean Nb_2O_5 content of 39% in pyrochlore and 33% in betafite. The REE content of these minerals was measured to be higher than in the apatite, but given the lower total modal content, the REE content associated with niobium may be of less economic interest. The pyrochlore mineral group grains analysed also contained uranium: up to 18% in betafite and 13%, in pyrochlore. A small amount of thorium (~0.5%) was also measured. The grain size of pyrochlore is smaller than the apatite, and typically was shown to be intergrown with apatite, biotite and (or) magnetite. Fine grinding of feed to the niobium concentration process may be required for metallurgical recovery.

Samples from ten pits on the Prairie Lake Mineral Resource area were subject to dense media and magnetic separation testing in 2008. Ten samples were obtained, combined and processed at the Kennecott, Thunder Bay sample preparation and DMS separation plant. The density separation cut-off target had been set at 2.95 g/cc and was applied to the Prairie Lake samples. The crushed feed sample was screened to reject the +4 mm and -0.3 mm fractions. Following DMS processing, the heavies (or "sinks") were dried and passed over a LIMS (Eriez RE-10) magnetic separator drum. The following observations can be made:

- The DMS doubled the concentration of both phosphorus and niobium;
- The DMS floats indicated a possible loss of 26% to 29% to of phosphorus and niobium to tailings;
- LIMS action slightly increased the concentration of P in non mags and again doubled the niobium concentration in the magnetics concentrate. However, LIMS can be assessed as ineffective (recovery was very low);
- The weathered samples could be considered non-representative; and
- Further gravity and magnetic separation tests on fresh samples may be justified.

Between 2009 and 2014, a substantial amount of metallurgical testing was conducted at the COREM laboratories in Quebec City. The test programs were initiated on the following basis:

- Recovery of apatite and pyrochlore in separate mineral concentrates would be a primary objective;
- Gravity and magnetic separation methods could upgrade the concentrations of the mineralized feed;

- Flotation would be used to selectively concentrate the apatite;
- A secondary flotation circuit supplemented with gravity methods would be used to concentrate niobium and associated tantalum; and
- It was anticipated that most of the REE would be locked in the apatite. Release of these REEs would be achieved by a hydrometallurgical process that would be developed later.

A 1.1 tonne drill core sample was received by COREM, subsampled, crushed, analysed and subjected to mineralogical examinations. The sample contained 3.18% P_2O_5 and 0.13% Nb_2O_5 and had a density of 2.99 g/cc. Both the P_2O_5 and the Nb_2O_5 concentrated somewhat in the fines of the crushed samples. SEM analyses at COREM determined that the apatite contained 43% P_2O_5, 54% CaO and 4.6% F, which confirms the fluoro-apatite composition. The pyrochlore contained 50% Nb_2O_5, 11% CaO, 6.5% TiO_2 and 6% U_3O_8. The high titanium content could affect niobium-tantalum pyrometallurgy and the uranium, which should report to a slag and could be an environmental issue. The liberation size for apatite was determined by COREM to be 150 µm, whereas the liberation size of the pyrochlore was significantly smaller at 38 µm. Consequently, the initial steps of COREM test program followed a gravity pre-concentration program after a moderate grind. The gravity concentrate was subject to rougher and cleaner froth flotation of the apatite. The apatite tails were reground, followed by gravity (shaking table) concentration of the heavy minerals, which was subject to flotation concentration of the pyrochlore. The most important results and recommendations from the COREM testwork were:

1. Preconcentration by gravity methods increases both P_2O_5 and Nb_2O_5 grade by 40% and 20% respectively, both at 80% recovery;
2. Coarse grinding is required for apatite and fine for pyrochlore;
3. The best apatite rougher performance was 17% P_2O_5 grade at 71% recovery; the best cleaning result was 31% P_2O_5 at 42% recovery;
4. Additional test development is needed to enhance apatite recovery and reject calcite/dolomite inclusion in the concentrates;
5. With additional grinding, gravity concentration of pyrochlore in apatite tails, and flotation, the best grade was only 1.1% Nb_2O_5 at approximated 80% recovery of the 70% recovery remaining from previous process steps (apatite and magnetic separation) for 56% recovery; and
6. Additional testwork is needed to improve Nb_2O_5 grades and recoveries.

Although the current Prairie Lake Mineral Resource is low-grade in Nb_2O_5 content in comparison to other Canadian deposits, the high REE content of the apatite and pyrochlore and the attractive mineralogical deportment of the apatite suggests economic potential for the Prairie Lake Mineral Resources.

1.6 MINERAL RESOURCE ESTIMATES

At a cut-off of C$30/t NSR, the pit-constrained initial Mineral Resource Estimate ("MRE") for the Prairie Lake Property consists of a 15.6 million tonne Indicated Mineral Resource grading 1.67 kg/t TREO, 0.16% Nb_2O_5 and 3.71% P_2O_5, and a large 871.8 million tonne Inferred Mineral Resource grading 2.01 kg/t TREO, 0.10% Nb_2O_5 and 3.39% P_2O_5, in accordance with National Instrument 43-101 (Table 1.1). The MRE also includes niobium and phosphate as oxides which, along with the TREO, are anticipated to be key drivers of a Preliminary Economic Assessment on the Prairie Lake Project that will commence shortly.

The Mineral Resource Estimates are sensitive to the selection of a reporting NSR cut-off value, as demonstrated in Table 1.2 for pit constrained Mineral Resources. At a cut-off of $C50/t NSR, the pit- constrained Mineral Resources consist of a 14.5 Mt Indicated Mineral Resource grading 1.73 kg/t TREO, 0.17% Nb_2O_5 and 3.75% P_2O_5, and an 815.1 Mt Inferred Mineral Resource grading 2.06 kg/t TREO, 0.10 Nb_2O_5 and 3.43% P_2O_5.

The MRE for the Prairie Lake Project is based on 73 inclined diamond drill holes completed between 1969 and 2010 totalling 12,180 metres. Additionally, 2,068 metres of surface trenching are included in the Mineral Resource Estimate. A total of 5,409 drill core samples and 1,042 channel samples are incorporated into the MRE, excluding QA/QC samples. A length of 1.5 metres was utilized for composites, which were grade capped as follows: 1,850 g/t Nd_2O_3, 250 g/t Pr_6O_{11}, no cap Sc_2O_3, 1% Nb_2O_5, 14% P_2O_5, 3,700 g/t CeO_2, 1,700 g/t La_2O_3, 520 g/t Sm_2O_3, no cap Ta_2O_5 and 570 g/t Y_2O_3. Grade interpolation was undertaken with the ID^2 method on 10 m x 10 m x 10 m blocks. Indicated Mineral Resources were classified within a 55 m x 55 m x 40 m search ellipse and three drill holes, whereas Inferred Mineral Resources were classified in two passes with a 110 m x 110 m x 80 m search ellipse with two drill holes, and subsequently a 220 m x 220 m x 160 m search ellipse with one drill hole.

The Prairie Lake MRE was completed in accordance with National Instrument 43-101 ("NI 43-101") standards of disclosure and the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) and Best Practices Guidelines (2019). The Project benefits from location in a politically stable jurisdiction and nearby available rail, road, shipping and power infrastructure; and is ideally placed in North America with respect to current supply chain concerns for critical minerals.

TABLE 1.1
PIT-CONSTRAINED MINERAL RESOURCE ESTIMATE (1-6)

Classification	Cut-off (NSR C$/t)	Tonnes (M)	Rare Earth Oxides									Niobium	Phosphate
			Nd_2O_3 (g/t)	Pr_6O_{11} (g/t)	Sc_2O_3 (g/t)	CeO_2 (g/t)	La_2O_3 (g/t)	Sm_2O_3 (g/t)	Ta_2O_5 (g/t)	Y_2O_3 (g/t)	TREO* (kg/t)	Nb_2O_5 (%)	P_2O_5 (%)
Indicated	30	15.6	344	96	15	754	300	58	28	100	1.67	0.16	3.71
Inferred	30	871.8	409	82	18	905	388	79	17	127	2.01	0.10	3.39

* *TREO = Total Rare Earth Oxides: neodymium, Nd_2O_3; praseodymium, Pr_6O_{11}; scandium, Sc_2O_3; Cerium, CeO_2; lanthanum, La_2O_3; samarium, Sm_2O_3; tantalum, Ta_2O_5; yttrium, Y_2O_3.*

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. *US$ Metal prices used were $80,000/t Nd_2O_3, $80,000/t Pr_6O_{11}, $1,500,000/t Sc_2O_3, $50,000/t Nb_2O_5, $250/t P_2O_5, $1,350/t CeO_2, $1,350/t La_2O_3, $3,500/t Sm_2O_3, nil$/t Ta_2O_5 and $13,000/t Y_2O_3, 0.78 FX all with combined process recoveries and payables of 50% except P_2O_5 at 75%.*
6. *The constraining pit optimization parameters were C$2.50/t mining cost for all material, C$25/t process cost, C$5/t G&A cost and 45º pit slopes with a C$30/t NSR cut-off.*

TABLE 1.2
MINERAL RESOURCE ESTIMATE SENSITIVITY TO NSR CUT-OFF

Classification	Cut-off (NSR C$/t)	Tonnes (M)	Nd_2O_3 (g/t)	Pr_6O_{11} (g/t)	Sc_2O_3 (g/t)	CeO_2 (g/t)	La_2O_3 (g/t)	Sm_2O_3 (g/t)	Ta_2O_5 (g/t)	Y_2O_3 (g/t)	TREO* (kg/t)	Nb_2O_5 (%)	P_2O_5 (%)
Indicated	50	14.5	358	100	16	787	306	60	28	101	1.73	0.17	3.75
	40	15.2	349	98	15	766	302	59	28	101	1.69	0.17	3.73
	30	15.6	344	96	15	754	300	58	28	100	1.67	0.16	3.71
	20	15.7	343	96	15	751	300	58	27	100	1.66	0.16	3.70
	10	15.7	343	96	15	751	300	58	27	100	1.66	0.16	3.70
Inferred	50	815.1	419	83	19	930	394	81	17	127	2.06	0.10	3.43
	40	860.1	412	82	19	911	389	80	17	128	2.02	0.10	3.40
	30	871.8	409	82	18	905	388	79	17	127	2.01	0.10	3.39
	20	873.4	409	82	18	904	387	79	17	127	2.01	0.10	3.38
	10	873.5	409	82	18	904	387	79	17	127	2.01	0.10	3.38

* *TREO = Total Rare Earth Oxides: neodymium, Nd_2O_3; praseodymium, Pr_6O_{11}; scandium, Sc_2O_3; Cerium, CeO_2; lanthanum, La_2O_3; samarium, Sm_2O_3; tantalum, Ta_2O_5; yttrium, Y_2O_3.*

1.7 ENVIRONMENTAL STUDIES, PERMITS AND SOCIAL OR COMMUNITY IMPACTS

The Prairie Lake Project as currently envisaged would be a large-scale mining and mineral processing operation. Approximately 60,000 tpd of mined rock is being considered and sourced from a large open pit. This tonnage would be subject to a complex series of mineral processing steps in a process plant and two concentrates would be produced: 1) approximately 2,500 tpd of a REE-rich phosphate concentrate; and 2) over 200 tpd of a niobium-tantalum concentrate. These concentrates would be dried on-site and processed off-site, possibly internationally, to produce fertilizer and food-grade phosphate, a rare-earth bulk oxide (REO) concentrate, and a ferro-niobium/tantalum product.

Significant site physical impacts and alterations can be anticipated: an open pit, a mine equipment storage and repair shop, a mineral processing complex, concentrate storage and shipping depot, tailings and waste rock storage facilities, and associated infrastructure. The primary mining areas are likely to be the SW Zone and Jim's Showing Zone. A power line would connect to Ontario Power Generation lines south near Lake Superior. The access road would be upgraded and a rail-shipment depot at the Canadian Pacific line near Terrace Bay developed. Tailings storage would be a conventional wet slurry disposal system with engineered embankments for long-term containment. Dry-stack tailings would be considered, but this option is costly and may not provide significant environmental benefit.

The Prairie Lake mining methods and processing techniques can be considered low risk from an environmental perspective. Conventional ANFO blasting agent will be prepared on-site. Mine water, containing small amounts of nitrate, will be utilized in the process plant. The process plant chemicals are expected to be low toxicity materials. Considering the detailed understanding of the mineral content of waste rock and tailings, both are not anticipated to be either metal leaching or acid generating. A low-level of uranium is present in the mineralized zones, primarily associated with the niobium minerals. Proven and acceptable methods have been applied to manage the uranium-based radioactivity at the Niobec Mine, Quebec and would be adapted in the Project development.

Nuinsco will commit to consultation and engagement with local First Nations, Métis Nation of Ontario, provincial and federal agencies, the regional public and other stakeholders, during all stages of the Prairie Lake Project development. Nuinsco recognises the importance of full and open discussion of all aspects of the Project and related concerns that individuals or communities may have about the Project. The Project is located within the geographic territory of the Robinson Superior Treaty. The identity and inclusion of the First Nations to be consulted with is to be confirmed, such that Memorandums of Understanding, consultation protocols and confidentiality agreements can be developed. Provincial agency consultations will be commenced through the available one-window coordination process that is overseen by the Ministry of Northern Development, Mines, Natural Resources and Forestry ("NDMNRF").

1.8 CONCLUSIONS AND RECOMMENDATIONS

The Prairie Lake Property contains significant phosphorus, niobium and REE Mineral Resources that are associated with carbonatite phases in the Prairie Lake Carbonatite Complex intrusion. The Property has potential for delineation of additional multi-commodity Mineral Resources associated with carbonatite and other alkaline-affinity units within the intrusion and fenite altered adjacent, surrounding country rock. In addition, current Inferred Mineral Resources should be infill drilled and advanced to Indicated Mineral Resources, starting at priority areas.

An initial drill program is proposed that would consist of approximately 32 drill holes totalling 12,000 m of infill drilling at Main/SW Zone and nine drill holes totalling 2,500 m of infill drilling at Jim's Showing. In addition to drilling, follow-up mineral processing and metallurgical testwork, initial geotechnical and geomechanical work, and environmental baseline studies and consultations should be carried out, all leading up to completion of a Preliminary Economic Assessment of the Prairie Lake Phosphorus, Niobium and REE Project. The recommended metallurgical testwork includes a preliminary hydrometallury program to extract REE from the apatite. The recommended environmental work includes environmental assessment processes, property baseline and special studies, and community engagement consultations.

Furthermore, P&E recommends that Nuinsco utilize appropriate, field-inserted CRMs to monitor the range of elements of interest in future drilling and sampling programs. It is also recommended that a mix of targeted and randomly selected duplicate samples be inserted into the sample stream in future sampling programs.

Independent verification sampling of the Prairie Lake Project data undertaken by P&E from 2009 to 2022, has resulted in the identification of a consistent bias between Nuinsco's primary lab (Actlabs) results and P&E's verification samples analyzed by SGS. Elements displaying a bias include Ce, La, Nb, Nd, Sm and Ta and, considering that both the original and check assays have been analyzed by Lithium Borate fusion method with ICP-MS finish, the disclosed between-lab biases warrant further investigation. A lack of appropriate field-inserted CRMs for the majority of elements of interest, also means that there has not been any external monitoring of accuracy for the majority of analyses undertaken at Actlabs. Verification sampling does confirm strong correlation to the original samples. However, verification samples consistently return significantly higher-grade results for certain elements. Nuinsco-reported mineralization has therefore been verified as a result of verification sampling, but it is possible that some element grades have been under-reported by the primary lab, which has the potential to impact Project outcomes. The authors of this Technical Report recommend that Nuinsco request Actlabs to investigate the potential cause of the between-lab bias and make any necessary adjustments depending on the investigation outcome. It is also recommended that at least 5% of samples analyzed at Actlabs be analyzed at a reputable umpire laboratory, but to await Actlabs' investigation results before initiating the umpire-assaying program.

A budget of $C6.2M is proposed to complete the recommended work program (Table 1.3).

TABLE 1.3
PROPOSED BUDGET FOR PRAIRIE LAKE PROPERTY INFILL AND REGIONAL DRILLING PROGRAMS

Items	Units	Cost / Unit	Estimated Cost (C$)
Main/SW Area			
Diamond Drilling (32 holes)	12,000 m	$150/m	1,800,000
Drilling Supervision/Geologists	100 days, 3 geologists	$500-$1,000/day	225,000
Technicians	100 days, 2 technicians	$300-$500/day	80,000
Accommodations and Meals			100,000
Analyses	8,000 samples	$120/sample	960,000
Travel			50,000
Supplies			25,000
Jim's Showing Area			
Diamond Drilling (9 holes)	2,500 m	$150/m	375,000
Drilling Supervision / Geologists	35 days, 2 geologists	$500-1,000/day	52,500
Technicians	35 days, 1 technician	$400/day	14,000
Accommodations and Meals			25,000
Analyses	1,500 samples	$120/sample	180,000
Travel			20,000
Supplies			25,000
General			
Mineral Processing and Metallurgy			220,000
Geotechnical and Geomechanical Work			100,000
Environmental Baseline and Assessment Studies			1,000,000
Consultations			150,000
Preliminary Economic Assessment			350,000
Sub-total			**5,601,500**
10% Contingency			560,000
Total			**6,161,500**

2.0 INTRODUCTION AND TERMS OF REFERENCE

2.1 TERMS OF REFERENCE

The following report was prepared to provide a National Instrument ("NI") 43-101 Technical Report and initial Mineral Resource Estimate for the rare earth element ("REE"), niobium and phosphate mineralization contained in the Prairie Lake Property ("the Property" or "the Project"), Thunder Bay Mining Division, northwestern Ontario. The Property is owned 100% by Nuinsco Resources Limited ("Nuinsco"). The present 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 Resources in the estimate are considered 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 was prepared at the request of Mr. Paul Jones, CEO of Nuinsco, an Ontario registered corporation trading under the symbol "NWI" on the CSE. Nuinsco's corporate address is:

Suite 4100,
66 Wellington St. W.
Toronto, ON
Canada, M5K 1B7

This Technical Report is considered current as of May 31, 2022.

The Prairie Lake Property consists of 46 mineral claims, covers an area of 630 ha and is owned 100% by Nuinsco. The Property is approximately centred at 49°02'N and 86°43'W (NAD83 Zone 16N UTM 520,620 m E and 5,431,440 m N), 25 km north of Lake Superior's northern shore and approximately 44 km northwest of the Town of Marathon.

The Prairie Lake Deposit can be classified as a carbonatite-alkalic intrusion enriched in phosphorus, niobium, tantalum, uranium and rare earth elements (including lanthanum, cerium, samarium, neodymium and yttrium). The Prairie Lake Carbonatite Complex was emplaced into fractured and faulted continental shield within the Trans-Superior Tectonic Zone ("TSTZ"). The highest concentrations of apatite (phosphorus) within the Prairie Lake Carbonatite Complex ("PLCC") occur in intervals of phoscorite (niobium) rock types. Tantalum, niobium, and uranium are widely distributed throughout the PLCC.

The authors of this Technical Report understand that it will be utilized to support the public disclosure of the Nuinsco Mineral Resource Estimate made on June 02, 2022. This Technical Report will be filed on SEDAR as required under NI 43-101 disclosure regulations.

Nuinsco 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. Nuinsco has also accepted that P&E's

Principals and Associates are members of professional bodies that are appropriate and relevant for the preparation of this Technical Report.

2.2 SITE VISITS

Site visits to the Prairie Lake Property were conducted on December 2, 2009 by Antoine Yassa, P.Geo., and by Eugene Puritch, P. Eng., FEC, CET, on June 2, 2011 and November 5, 2021, both of P&E. Mr. Yassa and Mr. Puritch are both Qualified Persons under the regulations of NI 43-101, who have provided specific input to this Technical Report.

2.3 SOURCES OF INFORMATION

In addition to the site visit, the authors of this Technical Report held discussions with technical personnel from the Company regarding all pertinent aspects of the Project and carried out a review of available literature and documented results concerning the Property. The reader is referred to those data sources, which are outlined in the References section of this Technical Report, for further details.

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 the "References", Section 27, at the conclusion of this Technical Report. Sections from reports authored by other consultants have been directly quoted or summarized in this Technical Report, and are so indicated where appropriate.

Table 2.1 presents the authors and co-authors of each section of this Technical Report, who in acting as independent Qualified Persons as defined by NI 43-101, take responsibility for those sections of this Technical Report as outlined in the "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.	2-10, 23 and Co-author 1, 25-26
Mr. Yungang Wu, P.Geo.	P&E Mining Consultants Inc.	Co-author 1, 14, 25-26
Ms. Jarita Barry, P.Geo.	P&E Mining Consultants Inc.	11 and Co-author 1, 12, 25-26
Mr. Antoine Yassa, P.Geo.	P&E Mining Consultants Inc.	Co-author 1, 12, 14, 25-26
Mr. D. Grant Feasby, P.Eng.	P&E Mining Consultants Inc.	13, 20 and Co-Author 1, 25-26
Mr. Eugene Puritch, P.Eng., FEC, CET	P&E Mining Consultants Inc.	Co-author 1, 12, 14, 25-26

2.4 UNITS AND CURRENCY

Metal values are reported in percentage ("%") and grams per tonne ("g/t"). A conversion factor of 0.907 has been used in this Report to convert short tons to metric tonnes ("t"). Costs are reported in Canadian Dollars ("C$") unless otherwise stated. Grid coordinates are given in the UTM NAD 83 (Zone 16N) and latitude and longitude. Maps are either in UTM coordinates or latitude and longitude coordinates.

2.5 GLOSSARY OF TERMS

Table 2.2 summarizes the terminology and abbreviations used in this Technical Report.

TABLE 2.2
TERMINOLOGY AND ABBREVIATIONS

Abbreviation	Meaning
$	dollars
±	plus or minus
+	plus
-	minus
%	percent
°	degrees
°C	degrees Celsius
<	less than
>	greater than
Σ	sum
µm	micrometre or micron
3-D	three-dimensional
Actlabs	Activation Laboratories Ltd.
AES	atomic emission spectroscopy
AGAT	AGAT Laboratories
ANFO	ammonium nitrate – fuel oil
BCMC	boundary cell mining claims
BN	Biigtigong Nishnaabeg (First Nation)
C$	Canadian dollar(s)
CaO	calcium oxide
CCRMP	the Government of Canada's Canadian Certified Reference Materials Project
Ce	cerium
CEA	Canadian Environmental Assessment Act
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
cm	centimetre
Code, the	the Mine Rehabilitation Code of Ontario (Schedule 1 of O Reg. 240/00 (as amended)
Company, the	Nuinsco Resources Limited, the company that the report is written for
CoV	coefficient of variation

TABLE 2.2
TERMINOLOGY AND ABBREVIATIONS

Abbreviation	Meaning
CRM or standard	certified reference material
CSA	Canadian Securities Administrators
CV_{AVE}	average coefficients of variation
DMS	dense media separation
DNC	delayed neutron counting
$M	dollars, millions
E	east
EA	Environmental Assessment
ECA	Environmental Compliance Approval
EM	electromagnetic
EMP	electron-microprobe
ET	exploration target
FUS-MS	fusion-mass spectrometry
g	gram
g/cm^3	grams per cubic centimetre
g/t	grams per tonne
GPS	global positioning system
ha	hectares
IAA	Federal Impact Assessment Act, 2019
ICP	inductively coupled plasma
ID	identity
ID^2	Inverse Distance Squared
IMC	International Minerals and Chemical Corporation (Canada) Limited
ISO	International Organization for Standardization
ISO/IEC	International Organization for Standardization and International Electrotechnical Commission
k	thousand(s)
kg	kilograms
kg/t	kilograms per tonne
km	kilometres
km^2	square kilometres
kV	kilovolts
La	lanthanum
Laframboise	Laframboise Drilling Incorporated
LiDAR	Light Detection and Ranging
LIMS	low intensity magnetic separation
M	millions
m	metre(s)
m^2	metres squared or square metres
m^3	metres cubed or cubic metres
Ma	million years
mm	millimetres

Table 2.2 Terminology and Abbreviations	
Abbreviation	**Meaning**
MNDM or MNDMNRF	Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry
MRE	Mineral Resource Estimate
MS	mass spectrometry
Mt	million tonnes or mega tonnes
N	north
NAD	North American Datum
Nb	niobium
Nb_2O_5	niobium pentoxide
Nd	neodymium
NDMNRF	Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry
NE	northeast
New Insco	New Insco Mines Limited
Newmont	Newmont Mining Corporation of Canada
NI	National Instrument (43-101)
NN	Nearest Neighbour
NSR	net smelter return
nT	nano-tesla
NTS	national topographic system
Nuinsco	Nuinsco Resources Limited
NW	northwest
OSC	Ontario Securities Commission
P	phosphorus
P_2O_5	phosphorus pentoxide
P&E	P&E Mining Consultants Inc.
P.Eng.	Professional Engineer
P.Geo.	Professional Geoscientist
Plato	Plato Gold Corp.
PLCC	Prairie Lake Carbonatite Complex
ppm	parts per million
PP-XRF	pressed pellet x-ray fluorescence
Project, the	the Prairie Lake Project that is the subject of this Technical Report
Property, the	the Prairie Lake Property that is the subject of this Technical Report
QA	quality assurance
QA/QC	quality assurance/quality control
QC	quality control
QEMSCAN	Quantitative Evaluation of Materials by Scanning Electron Microscopy
QMS	quality management system
R^2	coefficients of determination
Rb	rubidium
REE	rare earth elements

Table 2.2 Terminology and Abbreviations	
Abbreviation	**Meaning**
REO	rare earth oxide
S	south
SCMC	single cell mining claims
SE	southeast
SEDAR	System for Electronic Document Analysis and Retrieval
SEM	scanning electron microscopy
SGS	SGS Mineral Services
Sm	samarium
Sr	strontium
standard or CRM	certified reference material
Stares Contracting	Stares Contracting Corporation
SW	southwest
t	tonnes (metric)
t/m^3	tonnes per cubic metre
tpd	tonnes per day
Ta	tantalum
Technical Report	NI 43-101 Technical Report
Ta_2O_5	tantalum pentoxide
TREO	total rare earth oxides
TSTZ	Trans-Superior Tectonic Zone
U	uranium
U_3O_8	triuranium octoxide
US$	United States (of America) dollar(s)
UTM	Universal Transverse Mercator grid system
W	west
XRF	X-ray fluorescence
Y	yttrium

3.0 RELIANCE ON OTHER EXPERTS

The authors of this Technical Report have 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. Whereas the authors have carefully reviewed all the available information presented to us, its accuracy and completeness cannot be guaranteed. The Technical Report authors reserves the right, but will not be obligated to revise the Technical Report and conclusions if additional information becomes known to us subsequent to the date of this Technical Report.

Copies of the tenure documents, operating licenses, permits, and work contracts were not reviewed. Information relating to tenure was reviewed by means of the public information available through the Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry ("MNDM" or "MNDMNRF") website at: https://www.mndm.gov.on.ca/en/mines-and-minerals/land-tenure-and-geoscience-resources. The Technical Report authors have relied on this public information, and tenure information from Nuinsco and has not undertaken an independent detailed legal verification of title and ownership of the Prairie Lake Property ownership. 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 Nuinsco to have conducted the proper legal due diligence.

Select technical data, as noted in the Technical Report, were provided by Nuinsco and the Technical Report authors have relied on the integrity of such data.

A draft copy of this Technical Report has been reviewed for factual errors by Nuinsco and the Technical Report authors have relied on their knowledge of the Property in this regard. All 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

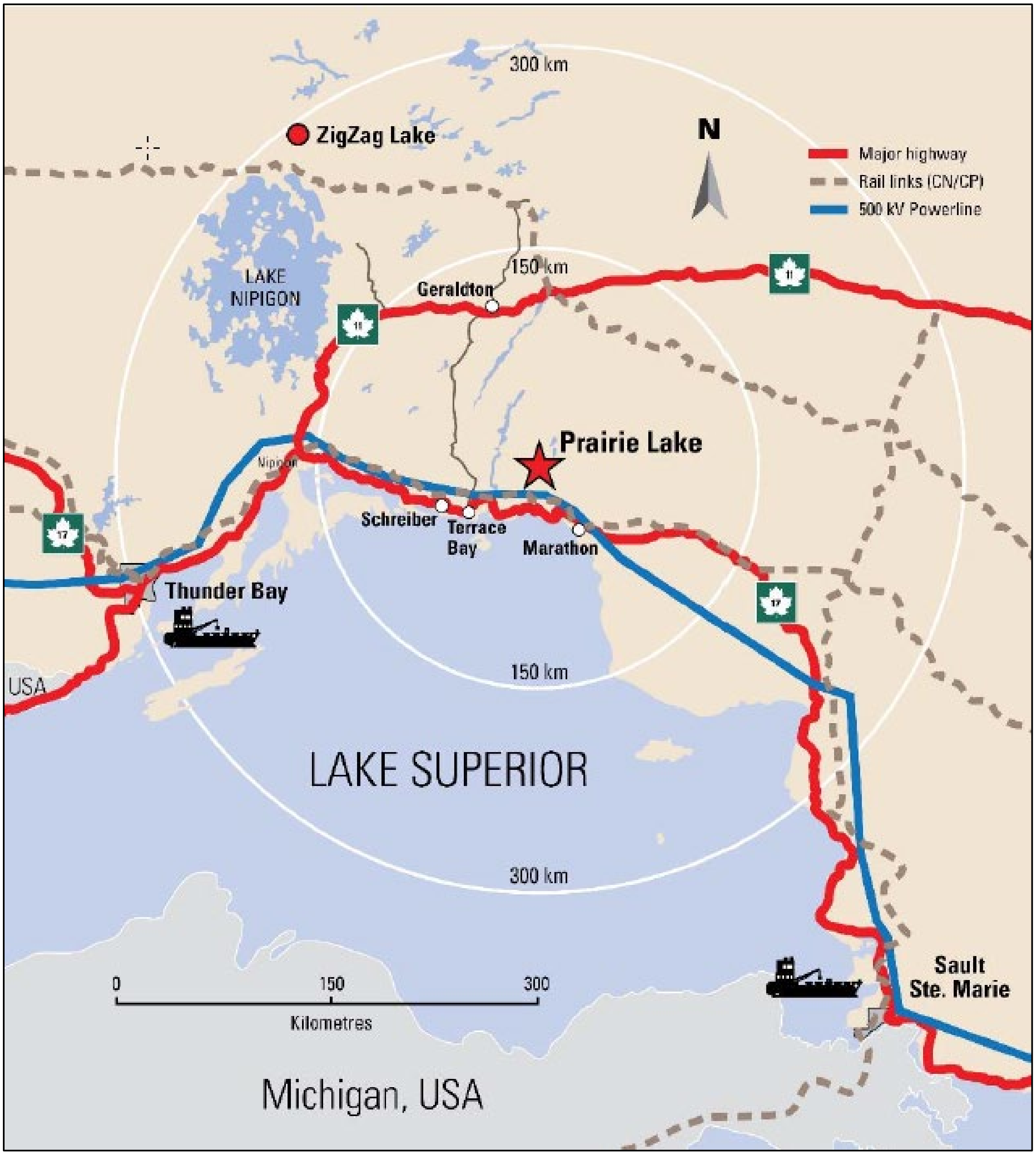
The Prairie Lake Property ("the Property" or "the Project") is located approximately 25 km north of Lake Superior's northern shore and approximately 44 km northwest of the Town of Marathon and 38 km northeast of the Town of Terrace Bay (Figure 4.1), within the Thunder Bay Mining Division of northwestern Ontario. The centre of the Property is at approximately Latitude 49° 02' N and Longitude 86° 43' W or, at UTM NAD83 Zone 16N, 520,620 m E and 5,431,440 m N. The Property area is covered by the Killala Lake Area claim map G-0596 and is in NTS map sheet 042E02.

4.2 LAND TENURE

The Prairie Lake Property consists of forty-six unpatented mineral claims (nine pre-conversion claims), covering an area of approximately 630 ha (Figure 4.2 and Table 4.1). Nuinsco owns 100% of all claims comprising the Prairie Lake Property. Of the 46 mining claims, 19 are Single Cell Mining Claims ("SCMC") and 27 are Boundary Cell Mining Claims ("BCMC"). The SCMC and BCMC are currently all in good standing until June 2024. The Mineral Resource Estimate stated in Section 14 of this Technical Report is on 16 of the mining claims: 173023, 205329, 247077, 257968, 330356, 123298, 236648, 187414, 170464, 180709, 170465, 291350, 216573, 161756, 236648, and 283073. The Property boundaries have not been legally surveyed.

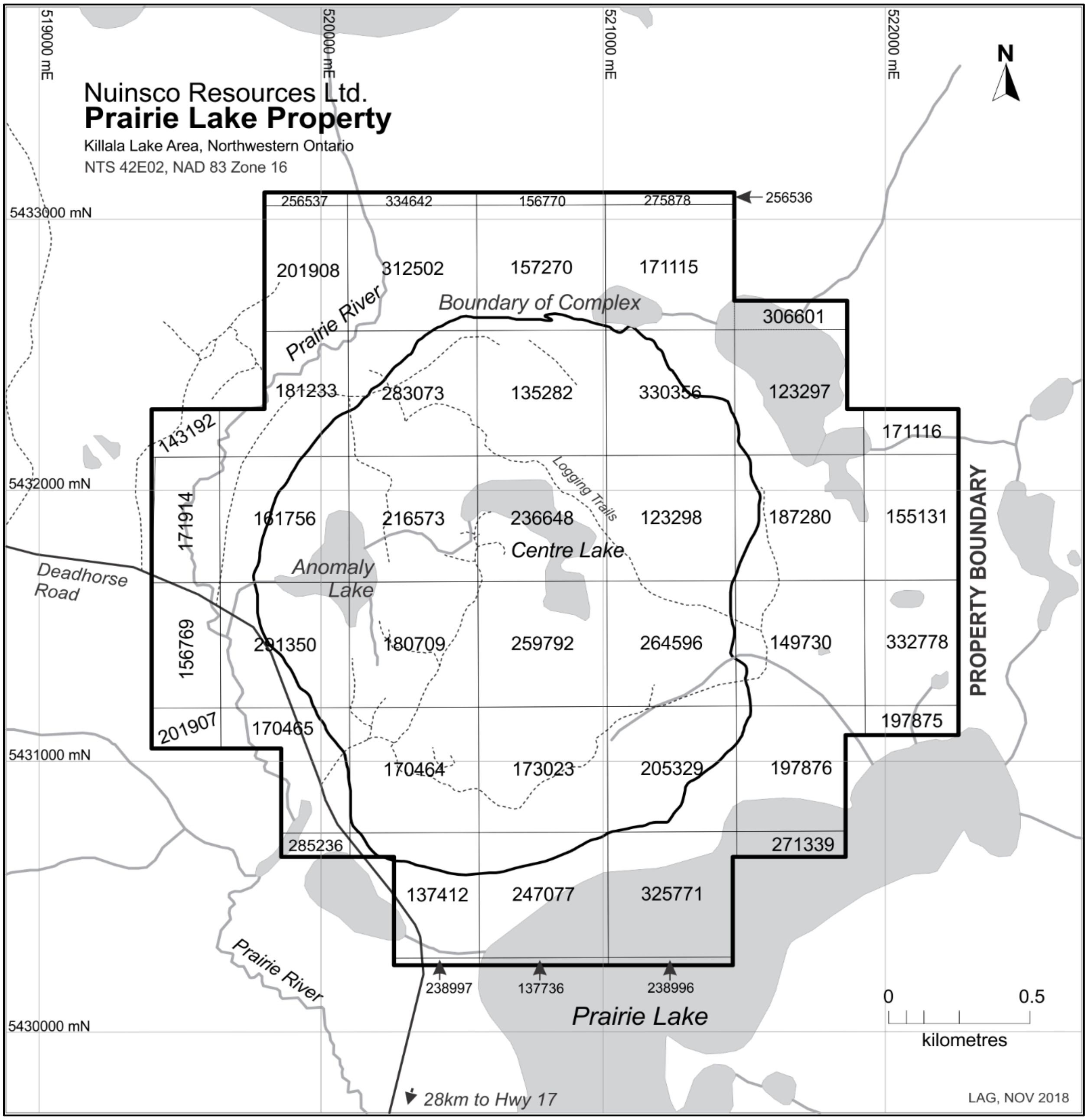
In an agreement dated June 4 2001, Nuinsco purchased eight of the claims (pre-conversion) from Stares Contracting Corporation ("Stares Contracting") of Thunder Bay, Ontario. Nuinsco staked the ninth claim in 2001 (TB 1220460) to complete the land package. As part of the original agreement, there was a Production Royalty payable to Stares Contracting calculated as 2% of the Net Smelter Return ("NSR"). Nuinsco retained the right to purchase half of the NSR royalty (1%) from the Stares Contracting for $1,000,000 in cash or cash equivalent in free-trading shares of Nuinsco. In January 2012, Nuinsco purchased the entirety of the royalty for 3,157,894 common shares of Nuinsco.

FIGURE 4.1 REGIONAL LOCATION MAP



***Source:** Nuinsco (press release dated June 15, 2022)*

FIGURE 4.2 PRAIRIE LAKE PROPERTY CLAIM MAP



Source: *Nuinsco (2018)*

TABLE 4.1
PRAIRIE LAKE PROPERTY MINING CLAIMS [1]

Claim No.	Owner (100%)	Type 2	Area (ha)	Issue Date	Due Date	Status	Work Required (C$)	Exploration Reserves (C$)
123297	Nuinsco	BCMC	19.451	04/10/2018	06/13/2024	Active	200	11,930
123298	Nuinsco	SCMC	21.2	04/10/2018	06/13/2024	Active	400	50,000
135282	Nuinsco	SCMC	21.2	04/10/2018	06/13/2024	Active	400	0
137412	Nuinsco	BCMC	15.351	04/10/2018	06/04/2024	Active	200	0
137736	Nuinsco	BCMC	1.275	04/10/2018	06/04/2024	Active	200	0
143192	Nuinsco	BCMC	4.274	04/10/2018	06/04/2024	Active	200	0
149730	Nuinsco	SCMC	21.2	04/10/2018	06/04/2024	Active	400	0
155131	Nuinsco	BCMC	15.467	04/10/2018	06/04/2024	Active	200	0
156769	Nuinsco	BCMC	11.318	04/10/2018	06/04/2024	Active	200	0
156770	Nuinsco	BCMC	2.101	04/10/2018	06/04/2024	Active	200	0
157270	Nuinsco	SCMC	21.2	04/10/2018	06/04/2024	Active	400	23,859
161756	Nuinsco	SCMC	21.2	04/10/2018	06/13/2024	Active	400	150,000
170464	Nuinsco	SCMC	21.2	04/10/2018	06/04/2024	Active	400	150,000
170465	Nuinsco	BCMC	14.481	04/10/2018	06/04/2024	Active	200	61,211
171115	Nuinsco	BCMC	21.168	04/10/2018	06/04/2024	Active	200	0
171116	Nuinsco	BCMC	5.607	04/10/2018	06/04/2024	Active	200	0
171914	Nuinsco	BCMC	11.241	04/10/2018	06/04/2024	Active	200	0
173023	Nuinsco	SCMC	21.2	04/10/2018	06/04/2024	Active	400	150,000
180709	Nuinsco	SCMC	21.2	04/10/2018	06/04/2024	Active	400	185,611
181233	Nuinsco	BCMC	16.593	04/10/2018	06/13/2024	Active	200	0
187280	Nuinsco	SCMC	21.2	04/10/2018	06/13/2024	Active	400	0
197875	Nuinsco	BCMC	3.6177	04/10/2018	06/04/2024	Active	200	0
197876	Nuinsco	BCMC	18.685	04/10/2018	06/04/2024	Active	200	0
201907	Nuinsco	BCMC	3.673	04/10/2018	06/04/2024	Active	200	0
201908	Nuinsco	BCMC	13.716	04/10/2018	06/04/2024	Active	200	0
205329	Nuinsco	SCMC	21.2	04/10/2018	06/04/2024	Active	400	50,000
216573	Nuinsco	SCMC	21.2	04/10/2018	06/13/2024	Active	400	168,610
236648	Nuinsco	SCMC	21.2	04/10/2018	06/13/2024	Active	400	101,401
238996	Nuinsco	BCMC	1.305	04/10/2018	06/04/2024	Active	200	0
238997	Nuinsco	BCMC	0.800	04/10/2018	06/04/2024	Active	200	0
247077	Nuinsco	SCMC	21.2	04/10/2018	06/04/2024	Active	400	26,301
256536	Nuinsco	BCMC	0.004	04/10/2018	06/04/2024	Active	200	0
256537	Nuinsco	BCMC	1.444	04/10/2018	06/04/2024	Active	200	0
259792	Nuinsco	SCMC	21.2	04/10/2018	06/04/2024	Active	400	150,000
264596	Nuinsco	SCMC	21.2	04/10/2018	06/04/2024	Active	400	91,696
271339	Nuinsco	BCMC	3.646	04/10/2018	06/04/2024	Active	200	0

TABLE 4.1 PRAIRIE LAKE PROPERTY MINING CLAIMS [1]								
Claim No.	**Owner (100%)**	**Type 2**	**Area (ha)**	**Issue Date**	**Due Date**	**Status**	**Work Required (C$)**	**Explor-ation Reserves (C$)**
275878	Nuinsco	BCMC	2.022	04/10/2018	06/04/2024	Active	200	0
283073	Nuinsco	SCMC	21.2	04/10/2018	06/13/2024	Active	400	0
285236	Nuinsco	BCMC	2.148	04/10/2018	06/04/2024	Active	200	0
291350	Nuinsco	SCMC	21.2	04/10/2018	06/04/2024	Active	400	200,000
306601	Nuinsco	BCMC	4.238	04/10/2018	06/04/2024	Active	200	0
312502	Nuinsco	SCMC	21.2	04/10/2018	06/04/2024	Active	400	0
325771	Nuinsco	BCMC	20.620	04/10/2018	06/04/2024	Active	200	0
330356	Nuinsco	SCMC	21.2	04/10/2018	06/13/2024	Active	400	0
332778	Nuinsco	BCMC	15.382	04/10/2018	06/04/2024	Active	200	0
334642	Nuinsco	BCMC	2.178	04/10/2018	06/04/2024	Active	200	0
Total			**634.6**				**13,000**	**1,570,619**

[1] ***Source:*** *MLAS website https://www.mndm.gov.on.ca/en/mines-and-minerals/land-tenure-and-geoscience-resource, accessed May 27, 2022.*
[2] *SCMC = Single Cell Mining Claim; BCMC = Boundary Cell Mining Claim.*

4.3 ONTARIO MINERAL TENURE

In April 2018, all mining claims in Ontario were subject to a conversion (modification in shape, size, and assignment of a new identification number) to accommodate the change to a map cell-based staking system in the province. Prior to conversion, the Property consisted of a total of nine mining claims (38 claim units). Post-conversion, the Property consists of 46 mining claims and covers an area of approximately 630 ha. Of the 46 converted claims, 19 are classified as Single Cell Mining Claims ("SCMC"), meaning that the claim holder holds the entirety of the mining cell. The remaining 27 converted claims are classified as Boundary Cell Mining Claims ("BCMC"), meaning that the claim is a partial cell shared with another property owner. If at any time the other claim holder were to abandon or forfeit their portion of any of the shared cells, the BCMC would be converted to SCMC and the balance of the map cell would become part of Nuinsco's Property.

Regarding Prairie Lake, there is an annual work requirement of $13,000 per year in order to keep the Property in good standing. Excessive work credits (total reserves) of $1,570,619 on the Property are sufficient to cover the annual work requirement for an additional 120 years beyond 2024 (see Table 4.1).

4.4 ENVIRONMENTAL AND PERMITTING

The author of this Technical Report section has not investigated any environment liabilities that may have arisen from previous work, and is not aware of any present environment related issues affecting the Property. Permits were not required for any of the drilling and trenching programs completed prior to 2013. In 2013 and 2018, Nuinsco obtained permits for pitting and trenching (>3 m^3 in 200 m radius) to excavate large tonnage (~20 tonnes) samples for metallurgical studies (permits PR-13-10357 and PR-18-000197 respectively). In March 2022, Nuinsco obtained a new permit (PR-21-000283) which allows for up to 12,000 metres of mechanized drilling plus pitting and trenching on the Property for a period of three years (to March 2025). Additional permitting and consultation will be required prior to any additional drilling (>12,000 metres) within that time period.

The Prairie Lake Property is located within the Robinson Superior Treaty area. The Biigtigong Nishnaabeg ("BN') First Nation is located approximately 50 kilometres in a straight line from the Property. The BN community is based on the Pic River 50 Reservation and in the community of Heron Bay, which are located on Highway 627 to the south of the Town of Marathon, along the shore of Lake Superior. The Property falls within the Aboriginal Title Claim Area of the BN. In 2003, BN brought legal action against Canada and Ontario claiming that they did not enter into or adhere to the Robinson Superior Treaty of 1850. Negotiations between BN, Ontario and Canada are ongoing.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESS

The Prairie Lake Property is located near the 28 km marker along Deadhorse Road, a well-maintained logging road that extends northwards from the Trans-Canada Highway (Highway 17) (Figure 5.1). The primary entrance to the Property is a steep, mud-packed logging trail off Deadhorse Road, at the southwestern boundary of the Property. Access across the Property is via old logging skid trails, many of which were rehabilitated during Nuinsco's 2002, 2003, and 2010 trenching programs and the 2007, 2008, and 2010 drilling programs, and are easily passable with all-terrain vehicles.

5.2 CLIMATE

Weather data collected at the Town of Terrace Bay, Ontario from 1981 to 2010, indicates that January is the coldest month of the year with an average daily temperature of -14.3º Celsius ("°C") and temperatures ranging from -45°C to 5°C. August is the warmest month with a daily average temperature of 15.4°C and temperatures ranging from -1°C to 34.0°C. Average annual precipitation is 596.1 mm of rainfall and 210.2 cm of snow.

5.3 INFRASTRUCTURE AND LOCAL COMMUNITIES

The Prairie Lake Property is situated approximately 44 km northwest of the Town of Marathon and 38 km northeast of the Town of Terrace Bay. According to the 2016 census, Terrace Bay and Marathon have populations of approximately 1,611 and 3,273, respectively. Both Terrace Bay and Marathon are serviced by the Canadian Pacific Railway. Marathon also has a municipal airport with helicopter services available. Accommodations are available in Marathon, Terrace Bay and in the Jackfish Lake Area, 20 km east of Terrace Bay on the Trans-Canada Highway. In addition, location of the Property on the north shore of Lake Superior places it close to, or in easily accessible reach of, a high-capacity (500 kV) electrical power transmission line and deep-water ports at Thunder Bay and Sault Ste. Marie (see Figure 4.1). These ports are able to handle ocean-going ships.

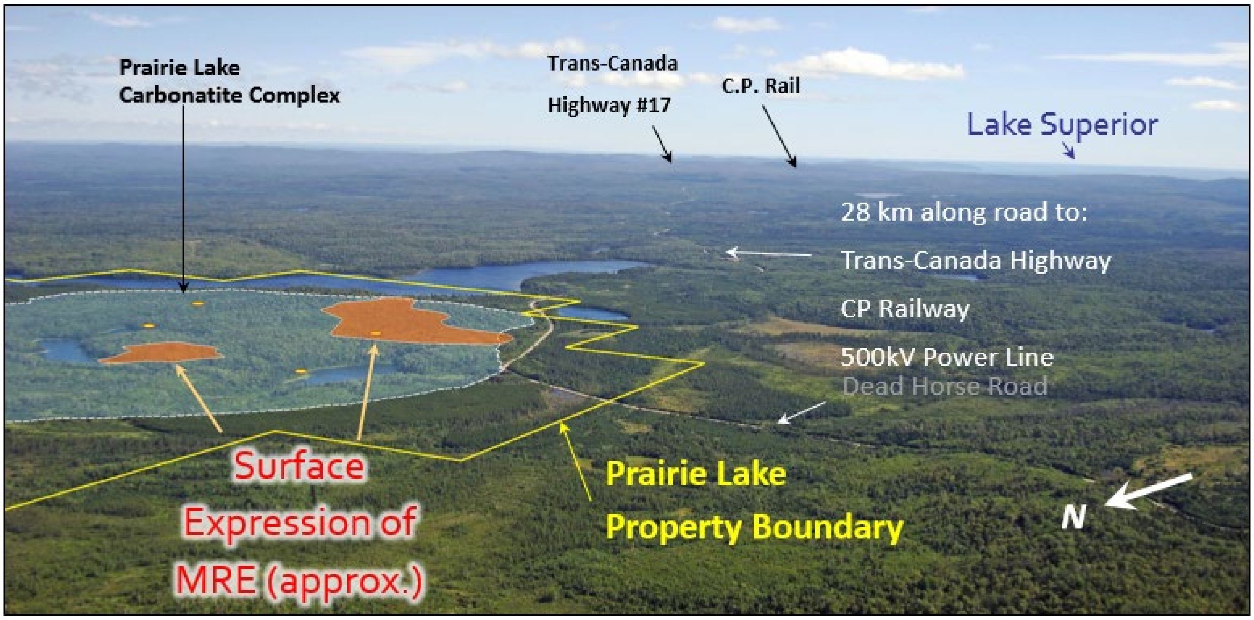
5.4 PHYSIOGRAPHY

The PLCC covers an area of approximately 2.8 km^2. The intrusion has a marked circular topographic expression and is surrounded on three sides by flats of deltaic-lacustrine origin and muskeg (Closs and Sado, 1982) (Figure 5.2). The western and southern contacts of the PLCC are defined by steep slopes, whereas the descent is more gradual at the northern and eastern contacts. There is up to 75 m of relief between the surface of nearby Prairie Lake and the highest point of the intrusion near the south-central carbonatite-ijolite contact. Elevations range from 305 m to 320 m on the surrounding plains to up to 390 m at the highest point on the intrusion. Two shallow lakes, Anomaly Lake and Centre Lake, are located in the northern half of the intrusion. Outcrops of the PLCC are small and widely scattered with a well-developed saprolitic layer and sandy glacial drift covering a large portion of the complex.

FIGURE 5.1 PRAIRIE LAKE PROPERTY ACCESS

Source: *Nuinsco (Corporate Presentation May 2021).*
Note: *TCH = Trans-Canada Highway; DHR = Dead Horse Road.*

FIGURE 5.2 PRAIRIE LAKE PROPERTY PHYSIOGRAPHY



Source: *Nuinsco (July 2022).*
Note: *View looking roughly south-southeast.*

The Property is situated within the Pic River Forest, an approximately 2,142 km^2 area subject to intermittent logging activities. The forest is a typical example of the Boreal Forest with coniferous (Black and White Spruce with less common Tamarack, Jack Pine and Balsam Fir) trees being dominant. Deciduous (White Birch and Poplar) species are intermixed with the coniferous species. Black bear and moose are common to the forest.

In the Prairie Lake area, underbrush is typically thick with lots of deadfall. Raspberry bushes are abundant. Sites disturbed by previous work programs were typically overgrown with vegetation within 1 to 2 years, in some cases making previous drill sites in flatter lying areas difficult to locate.

6.0 HISTORY

The resource estimates presented in this section are historical in nature, and as such, are based on prior data and reports prepared by previous operators. The historical resource estimates have not been verified by P&E and, therefore, cannot be treated as NI 43-101 defined Mineral Resource verified by a Qualified Person. The historical resource estimates should not be relied upon, and there can be no assurance that any of the historical resource estimates, in whole or in part, will ever become economically viable.

Previous exploration of the Prairie Lake Carbonatite Complex focused on uranium, niobium, phosphorus (apatite) and wollastonite, and to a smaller extent, tantalum and rare earth elements ("REE"). The primary exploration focus changed based on the economics of the time. Historical exploration programs on the Property were completed by Newmont Mining Corporation of Canada (1968-1974), New Insco Mines Limited (1975 to 1978) and Nuinsco (1983), as summarized below.

6.1 NEWMONT MINING CORPORATION OF CANADA 1968 TO 1974

Newmont Mining Corporation of Canada ("Newmont") was first to acquire the Prairie Lake Property in 1968, after prospectors identified several radioactive occurrences on the Property. Between 1968 and 1970 Newmont established a grid over the PLCC, conducted magnetic, radiometric and geochemical (soil geochemistry) surveys, and excavated several trenches. In 1969, Newmont completed 15 diamond drill holes totalling approximately 440 m, with a small, portable Winkie drill. The drilling focused on the Jim's Showing area near the centre of the PLCC and delineated approximately 98,900 t grading 0.12% U_3O_8 in an east-west trending zone 100 m long and averaging 7.0 m wide (J.A. Coope, Newmont, pers. comm. 1975 in Sage, 1987).

6.2 NEW INSCO MINES LIMITED 1975 TO 1978

In 1975, New Insco Mines Limited ("New Insco") optioned two claims covering Jim's Showing from Newmont. International Minerals and Chemical Corporation (Canada) Limited ("IMC") previously re-staked the balance of the Newmont's claims in 1974, after Newmont allowed all but the two Jim's Showing claims to lapse. IMC's primary focus was to evaluate the phosphate (apatite) potential of the intrusion, and proceeded with some preliminary mapping and sampling in 1974. During the winter of 1976, IMC drilled three reverse circulation drill holes (totalling 105 m) intersecting no significant apatite mineralization (Erdosh, 1976). Later that same year, IMC chose to option their 37 claims to New Insco.

In 1976, New Insco completed an intensive program of grid control (64 km), radiometric and magnetic surveys, trenching-pitting, mapping, prospecting, channel sampling, and auger (soil) sampling. The following year, the company drilled 15 diamond drill holes (totalling approximately 1570 m) around Jim's Showing and at several sites around the periphery of the complex. This program led to the enlargement of the historical resource at Jim's Showing to 181,000 tonnes grading 0.09% U_3O_8 and 0.25% Nb_2O_5 (Archibald, 1978). In 1978, New Insco completed additional magnetometer surveying, mapping, prospecting, trenching and outcrop sampling. Work was concentrated along the northern and western peripheries of the PLCC, although trenching and pitting was not exclusive to that area (Archibald, 1978). New zones of uranium, niobium and phosphorus mineralization in mixed carbonatites-ijolites were revealed to the north and east of Centre Lake.

In 1978, the Deadhorse Creek forest access road was extended to provide road access for logging activities in the Prairie Lake area. Multiple skid trails were established that branched off the main access road into the interior of the PLCC.

6.3 NUINSCO 1983

Nuinsco (name changed from New Insco in 1979) returned in 1983 to examine the potential of the PLCC for niobium, phosphorus and wollastonite mineralization by drilling 12 diamond drill holes totalling 1,715 m. At the P31 Zone, south of Anomaly Lake, three drill holes were completed and returned many intercepts of niobium with values between 0.5% and 0.7% Nb_2O_5 over intervals >10 m. Kretchmar (1983) inferred a lens at this site (no dimensions given) elongated in a northerly or northwesterly direction. Elsewhere, at widely separated sites, intervals of one to two metres grading 5% to 10% P_2O_5 were obtained and locally abundant wollastonite (30% to 75% in drill holes P34 and P36) was observed.

The Property was eventually allowed to lapse and saw no further activity until 2001, when Nuinsco re-acquired the Property through an option agreement with Stares Contracting.

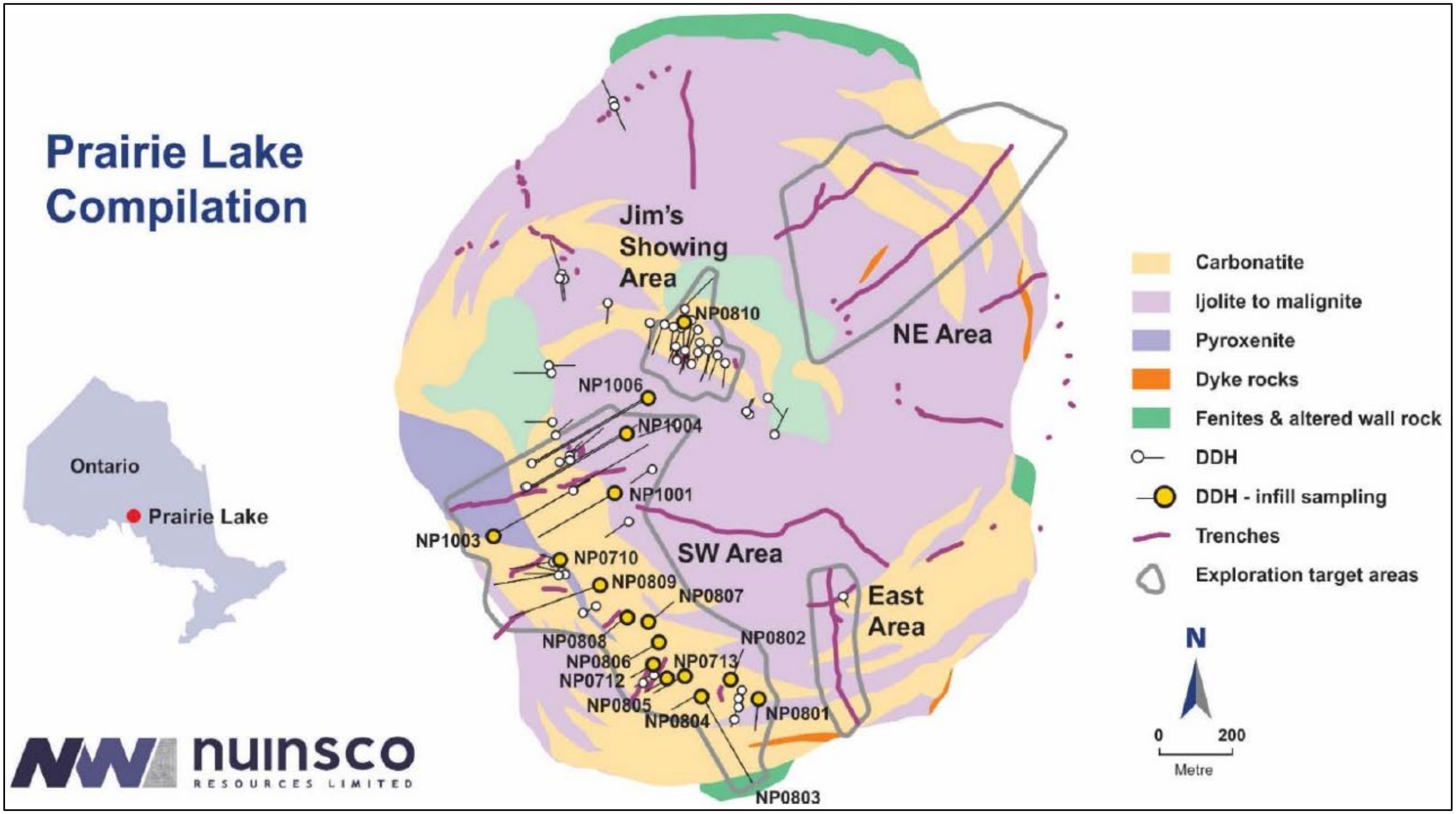
6.4 NUINSCO 2010 TO 2018

In 2010, a conceptual Exploration Target on the Prairie Lake Property was defined by P&E. The Exploration Target was updated by P&E in 2014 to include the 2010 drilling and trenching data and then again in 2018 for the Company's listing on the CSE (P&E, 2018). The Exploration Target covered the previously drill-tested and (or) trenched areas: Main/SW Area ("SW Area), Jim's Showing Area, East Area, and NE Area (Figure 6.1; Tables 6.1 and 6.2). Each of these Areas is summarized below. ***Note that the Exploration Target is superseded by the current Mineral Resource Estimates presented in Section 14 of this Technical Report.***

The SW Area (also known as the Main Area) is located in the southwest quadrant of the PLCC and is the largest of the four Exploration Target areas (Figure 6.1). The SW Area measures more than 1 km long and between 100 metres and 750 metres wide. It contained a conceptual Exploration Target of 435 Mt to 530 Mt of rock with grade ranges of 3.0% to 4.0% P_2O_5, 0.095% to 0.115% Nb_2O_5 and 1,360 g/t to 1,660 g/t ΣREE (Table 6.2) (P&E, 2018). ***This Exploration Target is superseded by the current Mineral Resource Estimates stated in Section 14 of this Technical Report.***

The Jim's Showing Area is located to the northeast of the SW Area, near centre of the PLCC (Figure 6.1). This Area measured 200 m by up to 300 m in size and contained a conceptual Exploration Target of 35 Mt to 45 Mt with grade ranges of 3.5% to 4.5% P_2O_5, 0.100% to 0.120% Nb_2O_5, and 1,400 g/t to 1,720 g/t ΣREE (Table 6.2) (P&E, 2018). ***This Exploration Target is superseded by the current Mineral Resource Estimates stated in Section 14 of this Technical Report.***

FIGURE 6.1 PLCC TARGET AREA LOCATIONS



Source: *Nuinsco (press release dated February 23, 2022)*

TABLE 6.1 DRILLING AND TRENCHING BY TARGET AREA [1]							
Work Type	**Work/ Length**	**SW Area**	**Jim's Showing Area**	**East Area**	**NE Area**	**Additional Areas**	**Total**
Historical Drill Holes (1969-1983)	Drill Holes	16	11	1	0	17	45
	Metres	1,351.70	938.4	34.1	0	1,528.50	3,852.70
Recent Drill holes (2007-2010)	Drill Holes	21	10	0	0	1	32
	Metres	6,632	1,692.40	0	0	101	8,425.40
Trenches (2010)	Trenching	1	0	2	0	0	5
	Metres	377.7	0	433.0	754.55	0	1,562.20

Source: *Nuinsco (press release dated February 23, 2022).*
[1] Trench lengths are calculated as cumulative length of samples taken along trench.

TABLE 6.2 PRAIRIE LAKE EXPLORATION TARGET (ET) [1]					
Commodity	**SW Area**	**Jim's Showing Area**	**East Area**	**NE Area**	**Total**
P_2O_5 (%)	3.0 – 4.0	3.5 – 4.5	2.5 – 3.0	2.5 – 3.5	3.0 – 4.0
Nb_2O_5 (%)	0.095 – 0.115	0.100 – 0.120	0.040 – 0.050	0.085 – 0.105	0.090 – 0.110
Ta_2O_5 (g/t)	18 – 25	25 – 30	5 – 7	10 – 12	18 – 21
U_3O_8 (%)	0.005 – 0.007	0.015 – 0.020	0.002 – 0.003	0.004 – 0.005	0.006 – 0.007
La (g/t)	275 – 340	295 – 360	305 – 370	200 – 250	280 – 340
Ce (g/t)	650 – 790	670 – 820	670 – 820	450 – 550	650 – 790
Sm (g/t)	55 – 70	55 – 70	55 – 70	50 – 60	55 – 70

TABLE 6.2
PRAIRIE LAKE EXPLORATION TARGET (ET) [1]

Commodity	SW Area	Jim's Showing Area	East Area	NE Area	Total
Nd (g/t)	295 – 360	290 – 360	320 – 390	235 – 290	300 – 360
Y (g/t)	85 – 100	90 – 110	80 – 100	135 – 170	85 – 100
La+Ce+Sm+Nd+Y (g/t)	1360 – 1660	1400 – 1720	1430 – 1750	1070 – 1320	1370 – 1660
m^3 (million)	140 – 175	12 – 14	13 – 16	2 – 3	170 – 210
Tonnes (millions)	435 – 530	35 – 45	40 – 50	7 – 8	515 – 630

Source: *P&E (2018).*
m^3 = metres cubed, m^3 (million) = millions of metres cubed.
[1] A full description of methodology utilized to estimate the Prairie Lake Project Exploration Target is contained in the Technical Report dated November 30, 2018 prepared by P&E Mining Consultants Inc. and filed on SEDAR.
The potential quantity and grade of the Exploration Target is conceptual in nature and, at that time. there had been insufficient drilling to define a Mineral Resource. ***The Exploration Target is superseded by the current Mineral Resource Estimates stated in Section 14 of this Technical Report.***

The East Area is located in the south-central part of the PLCC, east of the southern part of the SW Area (Figure 6.1). This Area measured 400 metres long and 100 metres wide in size and contained a conceptual Exploration Target of 40 Mt to 50 Mt with grade ranges of 2.5% to 3.0% P_2O_5, 0.040% to 0.050% Nb_2O_5 and 1,430 g/t to 1,750 g/t ΣREE (P&E, 2018). ***This Exploration Target is superseded by the current Mineral Resource Estimates stated in Section 14 of this Technical Report.***

The NE Area is located northeast of the Jim's Showing area, in the northeast quadrant of the PLCC (Figure 6.1). This Area measured approximately 850 metres by up to 400 metres in size and contained an Exploration Target of 7 Mt to 8 Mt with grade ranges of 2.5% to 3.5% P_2O_5, 0.085% to 0.105% Nb_2O_5, and 1,070 g/t to 1,320 g/t ΣREE (Table 6.2) (P&E, 2018). ***This Exploration Target is superseded by the current Mineral Resource Estimates stated in Section 14 of this Technical Report.*** (Note that the NE Area, unlike the other three areas, extends beyond the contact of the PLCC into the surrounding country rocks).

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

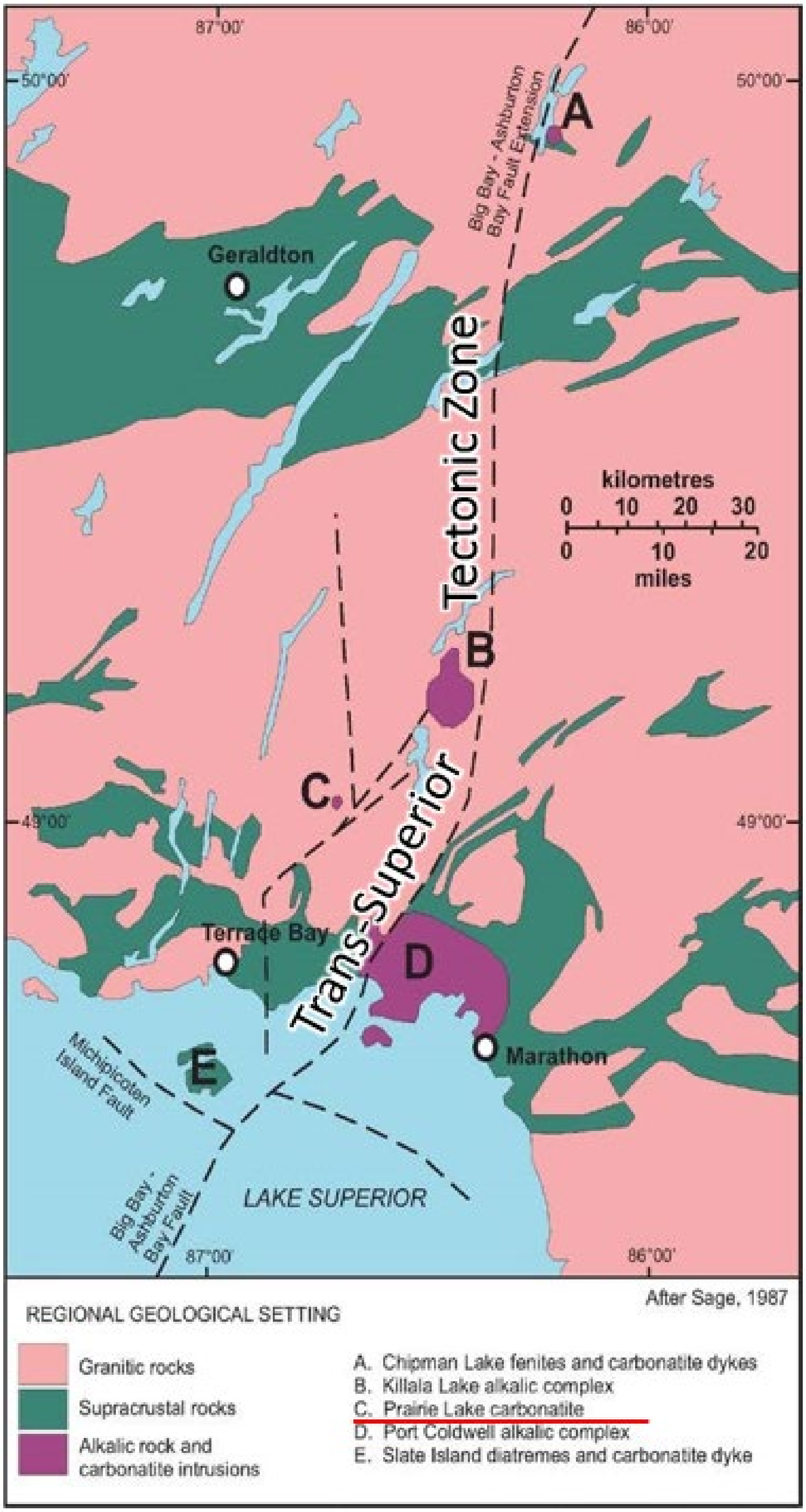
The PLCC intrudes Archean age rocks of the Superior Province near the boundary between the Wawa and Quetico Subprovinces. Recent isotopic studies (Wu et al, 2016) indicate that the various lithologies within the complex were emplaced synchronously at around 1160 Ma.

The Prairie Lake Carbonatite Complex was emplaced within the Trans-Superior Tectonic Zone ("TSTZ"), a north-northeast trending fault system that extends for >600 km northwards from Michigan, through and north of Lake Superior (Sage, 1987). Alkalic magmatism within the TSTZ (dated at between approximately 1,000 Ma and 1,200 Ma) was also responsible for the emplacement of the Port Coldwell Complex, Killalla Lake Alkalic Complex, and the Chipman Lake fenites and carbonatite dykes (Figure 7.1).

Lineaments can be traced between the various alkalic intrusions within the TSTZ (Sage, 1991), with a prominent lineament-deformation zone between the PLCC and the Killalla Lake Complex defining the boundary between the Wawa and Quetico Subprovinces (Williams, 1989). Mariano (1979) inferred that the age and spatial relationships between the alkalic intrusions located within the TSTZ indicate emplacement from a common, but differentiated magma that intruded along separate paths.

The Prairie Lake Carbonatite Complex displays a prominent circular magnetic response of approximately 1,400 nT above the background of 60,500 nT (Sage, 1987). Strong magnetic signatures are typical for alkalic complexes associated with the TSTZ.

FIGURE 7.1 PRAIRIE LAKE REGIONAL GEOLOGIC SETTING



Source: *Nuinsco (2010)*

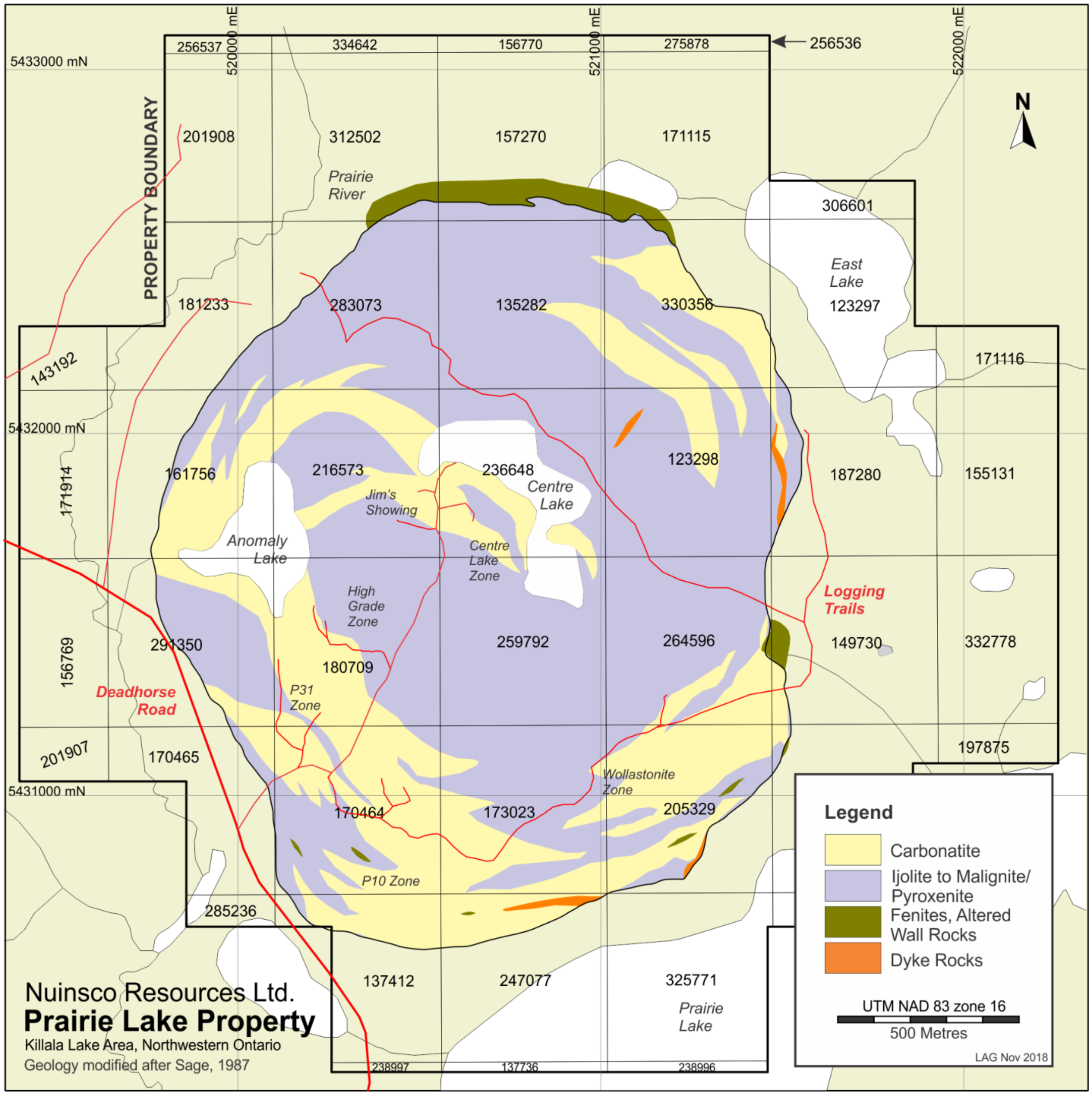
7.2 LOCAL AND PROPERTY GEOLOGY

The PLCC has a somewhat oval, subvertical cylindrical shape with an ijolite core surrounded by a rim of mixed carbonate, silicocarbonate and other calcitic rocks (Figure 7.2). The PLCC intrudes Archean biotite-quartz-feldspar paragneiss country rocks. Contact between the core ijolite (the dominant pyroxene-nepheline phase) and the rim carbonatite is irregular with complexly interfingered arcuate bands or domains. A significant finger or curved band of carbonate rock wraps inwards from the north-western periphery of the intrusion into Jim's Showing and Centre Lake area (centre of the PLCC intrusion).

Outcrops of country rock are scarce in the vicinity of the PLCC. Sage (1987) describes a pink, biotite-banded, paragneiss of arkosic composition outcropping to the east and southeast of Prairie Lake and weakly fenitized arkosic paragneiss or granodiorite gneiss along the southeast margin of the PLCC. Highly carbonatized rocks near the northern contact are interpreted by Sage (1987) to be altered gneisses derived from mafic metavolcanic rock.

Bedrock was typically encountered at depths to 3 m below surface in previous trenching (Jones, 2004). Ijolite units exposed along the southeastern edge of the PLCC during trenching, display a weathered granular cap of up to 2 m thick. Only the groundmass calcite cement appeared to have been lost from the granular surface layer (Jones, 2004).

FIGURE 7.2 PRAIRIE LAKE CARBONATITE COMPLEX



Source: *Nuinsco (2018)*

7.3 PRARIE LAKE CARBONATITE COMPLEX ROCK TYPES

The three principle lithologies within the PLCC, carbonatite, ijolite, and biotite-pyroxenite. All are texturally and mineralogically diverse and intruded by many subordinate dykes and sills. Many additional minor rock types are present too. Each of the PLCC rock types is described below.

7.3.1 Carbonatite

The Carbonatite typically consists of >50% carbonate minerals with subordinate apatite, biotite and phlogopite, amphibole, magnetite and olivine. Several carbonate species have been identified, mainly calcite and smaller amounts of ankerite and dolomite. Ankeritic carbonatite is brown weathering in drill core and rust coloured weathering in trenches (around the P31 Zone). Apatite may locally be a significant component of the rock, exceeding 25% over widths up to 20 cm.

Mariano (1979) described flow textures within the carbonatites that are defined by alignment of ovoid apatite grains and other silicate grains. Banding is common within domains exhibiting significant mineralogical variation, with the bands commonly steeply dipping with variable strike directions. Mitchell (2007) considered that the drill core examined from the 2007 drill program represents several distinct pulses of carbonatite with the mix of interfingered carbonatites having intruded earlier-formed ijolite, biotite pyroxenite and mafic syenites.

7.3.2 Phoscorite

Bands of >50% coarse grained cumulate apatite and magnetite crystals ± pyrrhotite within a carbonate matrix. The bands are typically only centimetres to decimetres wide, but occur within larger generally apatite- and magnetite-rich intervals up to 1 m wide.

7.3.3 Fenites

A few small exposures of weakly fenitized country rock (arkosic paragneiss or granodiorite gneisses) occur proximal to the periphery of the PLCC (Sage, 1987). Fenites are quartzo-feldspathic rocks that have been altered by alkali (sodium or potassium) metasomatism. They occur at the contact of carbonatite intrusive complexes and consist primarily of fine-grained alkalic feldspar, with some aegirine, subordinate alkali-hornblende, and accessory titanite and apatite. Fenites are marked by an absence of quartz, which is replaced by pyroxenes and amphiboles (as noted in the Prairie Lake fenite outcrops by Watkinson, 1976).

Brecciated fenites were encountered at the bottom of hole NP0803 (from 567 m to the end of hole at 590 m). They consist of fine-grained alkalic feldspar and dark blue to black fibrous amphibole plus rare quartz grains. The fenites were variably brecciated by coarse carbonate ± chlorite veins. Faint alkalic metasomatism was also noted further up-hole, where the carbonatite developed a faint to moderate pink colour, due to presence of alkali feldspar, and locally included small fenitized granitic clasts. The alteration started at approximately 300 m depth and intensified downhole.

7.3.4 Ijolite

Ijolite is a nepheline-pyroxene rock with accessory garnet and magnetite and locally abundant wollastonite. The general term ijolite is utilized for rocks of the mineralogically gradational urtitemelteigite series. Urtite or leucocratic ijolite is comprised of >70% nepheline, whereas melteigite or melanocratic ijolite contains <30% nepheline. The term mesocratic ijolite is employed for intermediate compositions. Sage (1987) infers that melanocratic melteigites are cumulate phases, whereas the relatively leucocratic urtites are late-stage, pegmatitic segregations within the ijolitic magma.

Coarse-grained pegmatitic ijolites may contain up to 30% wollastonite crystals with crystals exceeding 15 cm in length (Sage, 1987). A wollastonite-rich ijolite (>10% wollastonite) has been identified in outcrop at the 'Wollastonite Showing', to the south and west of Centre Lake. As with all other members of the ijolite series, contacts between the wollastonite-rich and wollastonite-poor varieties are gradational.

Orbicular ijolite, which to date has only been identified in rocks of ijolitic composition within the PLCC, consists of cumulates of orbicules up to 3 cm in diameter. The largest orbicules have medium-grained equigranular ijolite cores. The individual orbicules consist of a multitude of concentric rings composed of varying proportions of aegirine-augite, nepheline and melanite garnet. Apatite and biotite are also present, as is a white alteration mineral, possible melilite (Sage, 1987). The orbicular texture has been identified in loose frost-heaved blocks to the south of Centre Lake and in a single 16 cm wide mafic clast in drill core from the Jim's Showing area (NP0706, approximately 115 m depth).

7.3.5 Ijolite to Biotite-Pyroxenite Breccia

This unit is common throughout the carbonate zones and contains abundant sub-angular clasts of ijolitic and (or) biotite-pyroxenite composition. The "macroscopically modally and texturally diverse" mafic clasts are mixed throughout the carbonatite matrix and are considered to be derived from deeper levels of the PLCC (Mitchell, 2007).

7.3.6 Silicocarbonatite

This is an ijolitic rock containing abundant, but not more than 50%, carbonate minerals. This rock type was identified throughout the previous trenching program and recognized to be spatially related to carbonatite (Jones, 2004). It is characterized by an abundance of biotite, which produces a mica rich soil when the rock weathers. In drill core, it commonly exhibits a dark brown and white spotted salt and pepper texture.

7.3.7 Syenite

Malignite is a melanocratic nepheline-bearing syenite. Malignite contains >10% potassium feldspar or is otherwise classified as an ijolite.

7.3.8 Dyke Rocks

Dyke rocks cut the PLCC. Dyke textures and rock types are diabase, breccia dykes, and possibly lamproites, as observed during the trenching programs.

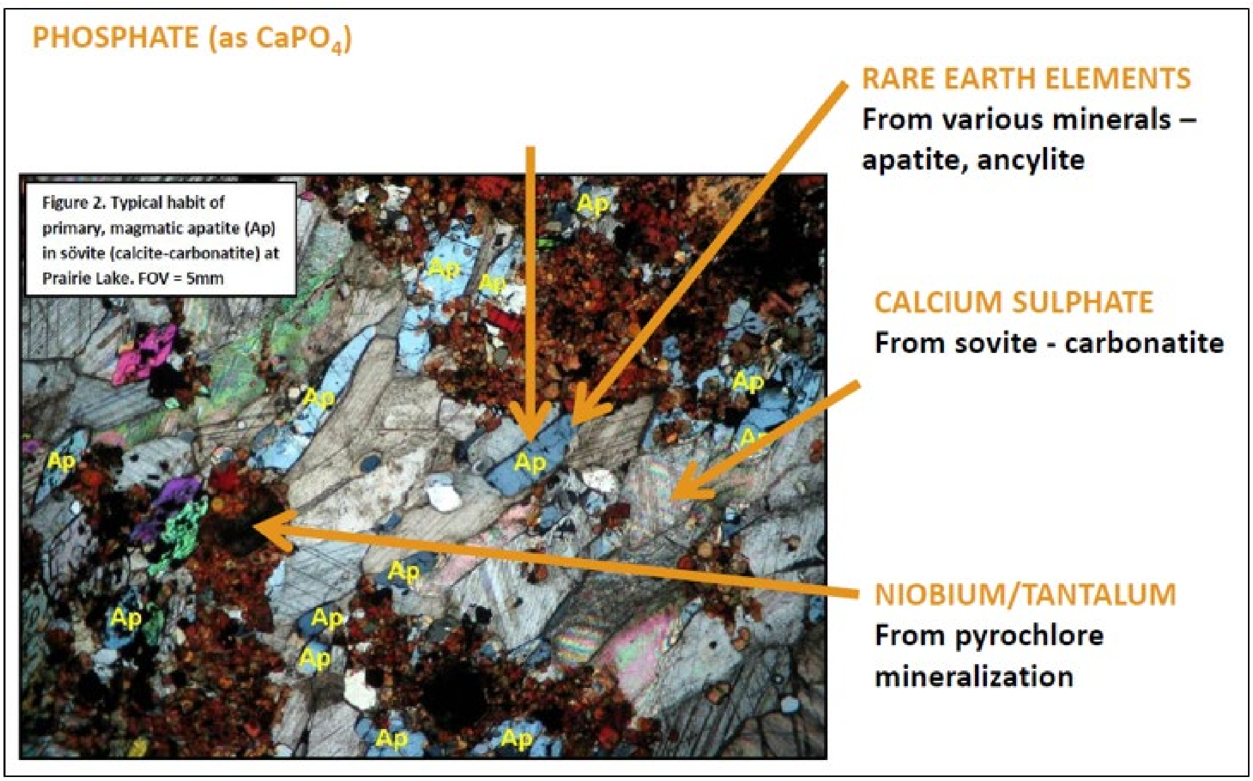
7.4 MINERALIZATION

Phosphorus, Nb-Ta and REE mineralization is hosted in the PLCC (Figure 7.3).

Apatite is the most common accessory mineral in carbonatites. Mining of carbonatite and associated rocks globally produces more phosphate than any other commodity. The apatite mineral group, which consists of up to 17 minerals, contains the bulk of REE in some carbonatites, most of the fluorine in early- and middle-stage carbonatites, and much of the strontium in late-stage carbonatites (Hogarth, 1989). The highest concentrations of apatite within the PLCC occur in intervals of phoscorites.

The distribution of tantalum, niobium and uranium mineralization is widespread throughout the PLCC. Mitchell (2007) noted that "zones of high radioactivity in drill core from the 2007 program were associated with mafic clasts or megaxenoliths of ijolitic rocks and not the calcite carbonatites". Whereas some individual mafic units are distinctly radioactive, others show no radioactivity above background. "The origin of the high radioactivity is undoubtedly associated with the presence of high concentrations of uranoan pyrochlore" (Mitchell, 2007).

FIGURE 7.3 PLCC PHOSPHATE, REE AND NB-TA MINERALIZATION IN PETROGRAPHIC THIN SECTION



Source: *Nuinsco (Prairie Lake Project Presentation May 2021)*
Note: *Ap = apatite.*

Pyrochlore mineralization occurs in all of the major lithologies within the PLCC. Watkinson (2003) identified high Ta-content pyrochlore in an olivine-magnetite-apatite cumulate at the P10 Zone (southern perimeter; refers to historic drill hole P10). Watkinson also recognized that the almost pure end-member pyrochlore ($(Na,Ca)_2Nb_2O_6(OH,F)$) was more typical for carbonate-rich rocks, whereas uranium-rich betafite ($(Ca,U)_2(Ti,Nb,Ta)_2O_6(OH)$) was found in pyroxene-rich cumulates and ijolites. Petrographic studies of grab samples from the 2002-2003 trenching programs identified 1% to 4% pyrochlore. Studies of pyrochlore grains in the calcite carbonatites indicate contents of 11% to 22% UO_2, with similar levels anticipated in the pyrochlores hosted by the ijolites (Mitchell, 2007). Elsewhere, rutile, perovskite and wohlerite were determined to be niobium-bearing phases; the rutile contains 4% to 6% and the wohlerite approximately 15% Nb_2O_5, respectively (Mariano, 1979).

The high wollastonite content of the PLCC is unique in North America (Sage quoted in Kretchmar, 1983). Wollastonite is a calcium inosilicate mineral ($CaSiO_3$) utilized primarily by the ceramics industry. Historical drilling at PLCC intersected 40% to 80% wollastonite. Wollastonite was noted in outcrop on the south-west shore of Centre Lake and possibly occurs in significant quantities near historical drill holes P35 and P36 (Kretchmar, 1983).

8.0 DEPOSIT TYPES

The Prairie Lake Carbonatite Complex is a carbonatite-alkalic intrusion. These intrusions of magmatic carbonates and associated alkaline igneous rocks typically occur in alkaline igneous provinces and are Proterozoic to Recent in age (Mitchell and Garson, 1981; Verplanck *et al.*, 2014, 2016; Wang *et al.*, 2020).

8.1 CARBONATITE ORIGIN

The evidence for the origin of carbonatite comes mainly from experimental petrology, as outlined by Wang *et al.* (2020). Experimental petrology studies show that carbonatite magmas form in enriched mantle related to mantle plume activities. However, the specific petrogenetic processes involved are controversial (Figure 8.1). Three main models have been proposed to explain carbonatite magma formation: 1) immiscible separation of primary carbonate-silicate magma under crustal or mantle pressure; 2) fractional crystallization of parental carbonatite-silicate magma; and 3) low-degree (generally <1%) partial melting of mantle material enriched in CO_2 and H_2O. In addition, a recent study based on the boron isotope compositions of global carbonatites suggests that although most may have originated in the upper mantle, young (<300 Ma) carbonatites near orogenic belts may contain at least some subducted/assimilated sedimentary material enriched in REE (Hulet *et al.*, 2016). However, it is generally agreed that alkali elements K and Na play a significant role in the formation of calcite/dolomite carbonatite and ferrocarbonatite intrusions, regardless of their formation mode.

FIGURE 8.1 CARBONATITE PETROGENESIS MODELS

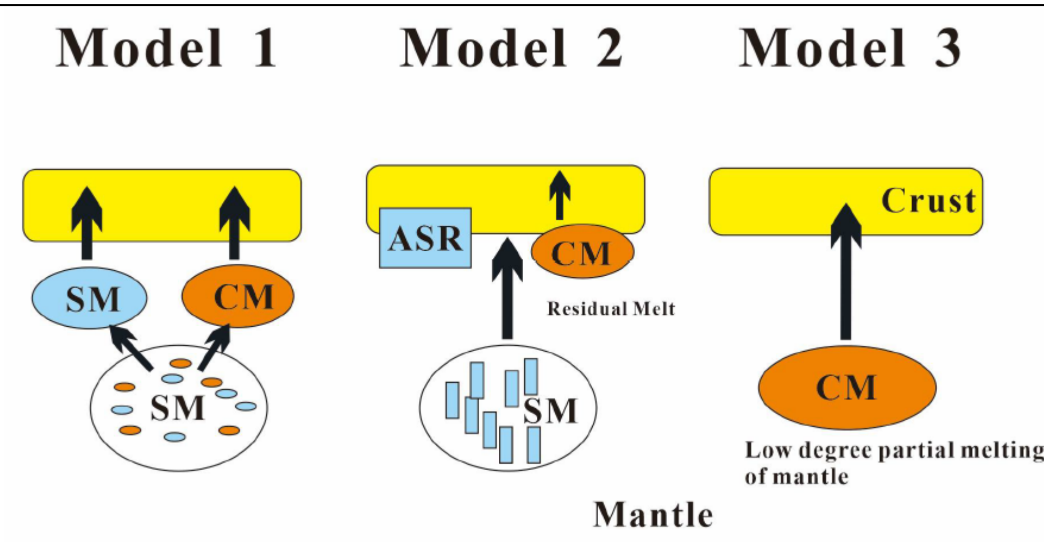


Figure 12. Lithogenesis of carbonatites. Model 1—immiscible separation of primary carbonate–silicate magma; Model 2—fractional crystallization of parental carbonate–silicate magma; Model 3—low-degree (generally < 1%) partial melting of the mantle rich in H_2O and CO_2; CM—carbonate melts; SM—silicate melts; ASR—alkaline silicate rocks (adapted from Ye et al. [87]).

Source: *Wang et al. (2020)*

8.2 CARBONATITE EMPLACEMENT

Carbonatites, ijolites and other alkalic rocks form plutonic complexes beneath alkaline (nephelinitic) volcanoes in continental rift settings (Figure 8.2). The carbonatites are emplaced in four phases that can generally be described as follows (Evans, 2001):

C1 (sovites): The earliest and dominant phase. It is generally emplaced into an envelope of explosively brecciated rocks. The C1 stage typically takes the form of a coarser-grained stock-like intrusion composed of calcite with smaller amounts of apatite, pyrochlore, magnetite, biotite, and aegirine-augite.

C2 (alvikite): The second phase of emplacement is defined by fine- to medium-grained carbonate and generally exhibits well-defined flow banding.

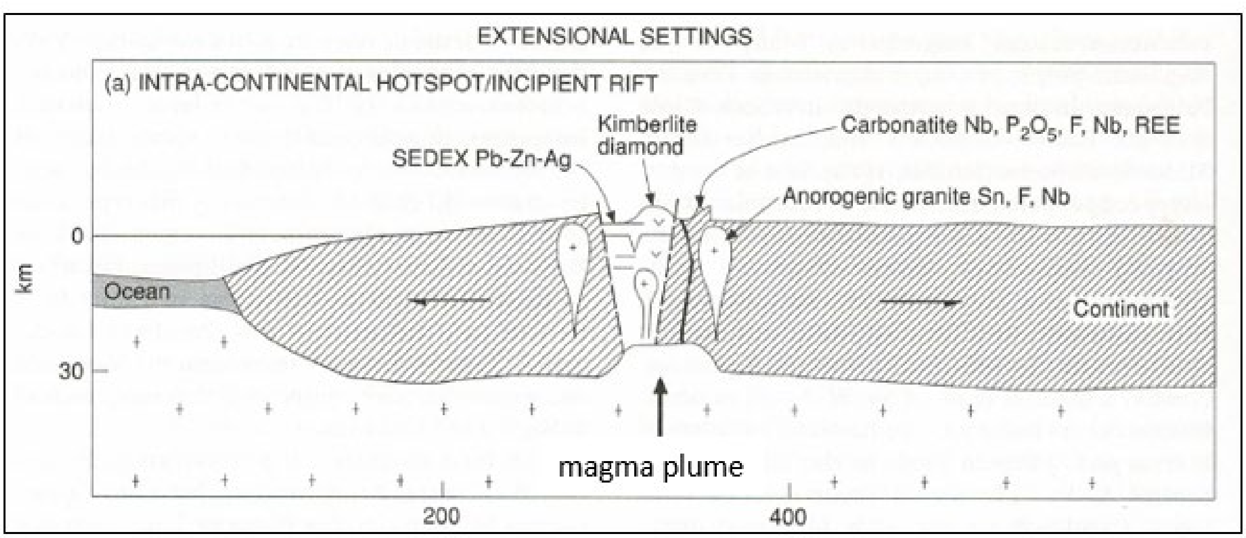
C3 (ferrocarbonatite): Defined by the presence of iron-bearing carbonate minerals, REE minerals and radioactive minerals. Both the C2 and C3 phases typically are in the form of cone sheets or dykes.

C4 (late-stage alvikites): A last phase of typically barren carbonate.

The complexes are surrounded by a zone of fenitization, which is generally associated with the intrusion of the C1 and C2 phase carbonatites.

The most significant elements of economic value mined from carbonatite-alkalic intrusions are phosphorus (from apatite), iron (from magnetite), niobium (from pyrochlore), zirconium (from zircon), and REE (from monazite and bastnäsite). In addition to phosphorus and minor by-products, the 2050 Ma Phalabora Complex (South Africa) has also been mined for copper (Pufahl and Groat, 2016).

FIGURE 8.2 CARBONATITE INTRUSION AND MINERAL DEPOSIT TYPES ASSOCIATED WITH EXTENSIONAL TECTONIC SETTING



Source: *Robb (2005), after Mitchell and Garson (1981).*

9.0 EXPLORATION

Exploration programs completed by Nuinsco on the Prairie Lake Property include trenching, grid sampling, drill core re-sampling, mineralogy and diamond drilling. The trenching, grid sampling and mineralogy programs are summarized below. The drill core re-sampling and drilling programs are summarized in Section 10 of this Technical Report.

9.1 2002 TO 2003 TRENCHING PROGRAMS

In 2002 and 2003, Nuinsco conducted a trenching program throughout the Property with collection of approximately 650 grab samples. A subset of 247 of those samples were analysed for U, Nb, Ta ± P_2O_5 and REE at ALS Chemex laboratories in Mississauga, Ontario and North Vancouver, British Colombia. Tantalum analyses of up to 488 g/t Ta_2O_5 and niobium values up to 1.044% Nb_2O_5 were reported. Microprobe studies conducted at Carleton University identified high-Ta pyrochlore within samples containing 8% to 14% Ta_2O_5.

An additional 38 large (approximately 30 kg) samples were collected in 2003 to produce magnetic and non-magnetic heavy mineral concentrates for analyses. The samples were processed through the Kennecott's Mineral Processing facility in Thunder Bay. The non-magnetic concentrates returned peak assay values for individual samples of 0.015% U_3O_8, 0.422% Nb_2O_5, 100.9 g/t Ta_2O_5, and 6.37% P_2O_5; and mean contents of 0.003% U_3O_8, 0.052% Nb_2O_5, 19.7 g/t Ta_2O_5 and 2.6% P_2O_5. The magnetic heavy mineral concentrates returned peak analyses for individual samples of 0.119% U_3O_8, 0.894% Nb_2O_5, 762 g/t Ta_2O_5 and 7.02% P_2O_5; with average analyses for individual samples of 0.013% U_3O_8, 0.215% Nb_2O_5, 93.7 g/t Ta_2O_5, and 2.02% P_2O_5 (Jones, 2003, 2004).

9.2 2007 GRID SAMPLING PROGRAM

In 2007, Nuinsco completed an 870 rock-chip grid-sampling program along a 50 metre to 100 metre line-spaced grid. Samples were analyzed by Actlabs in Ancaster, Ontario and returned maximum values of 19.9% P_2O_5, 0.628% Nb_2O_5, 0.104% U_3O_8 and 619 g/t Ta_2O_5, with average values of 2.35% P_2O_5, 0.052% Nb_2O_5, 0.002% U_3O_8 and 15 g/t Ta_2O_5. The sampling program delineated a wide band anomalous in uranium, niobium, tantalum and phosphorus in the southwest quadrant of the carbonatite intrusion. The anomalous zone is coincidental with an area highlighted previously by radiometric surveying in 1976.

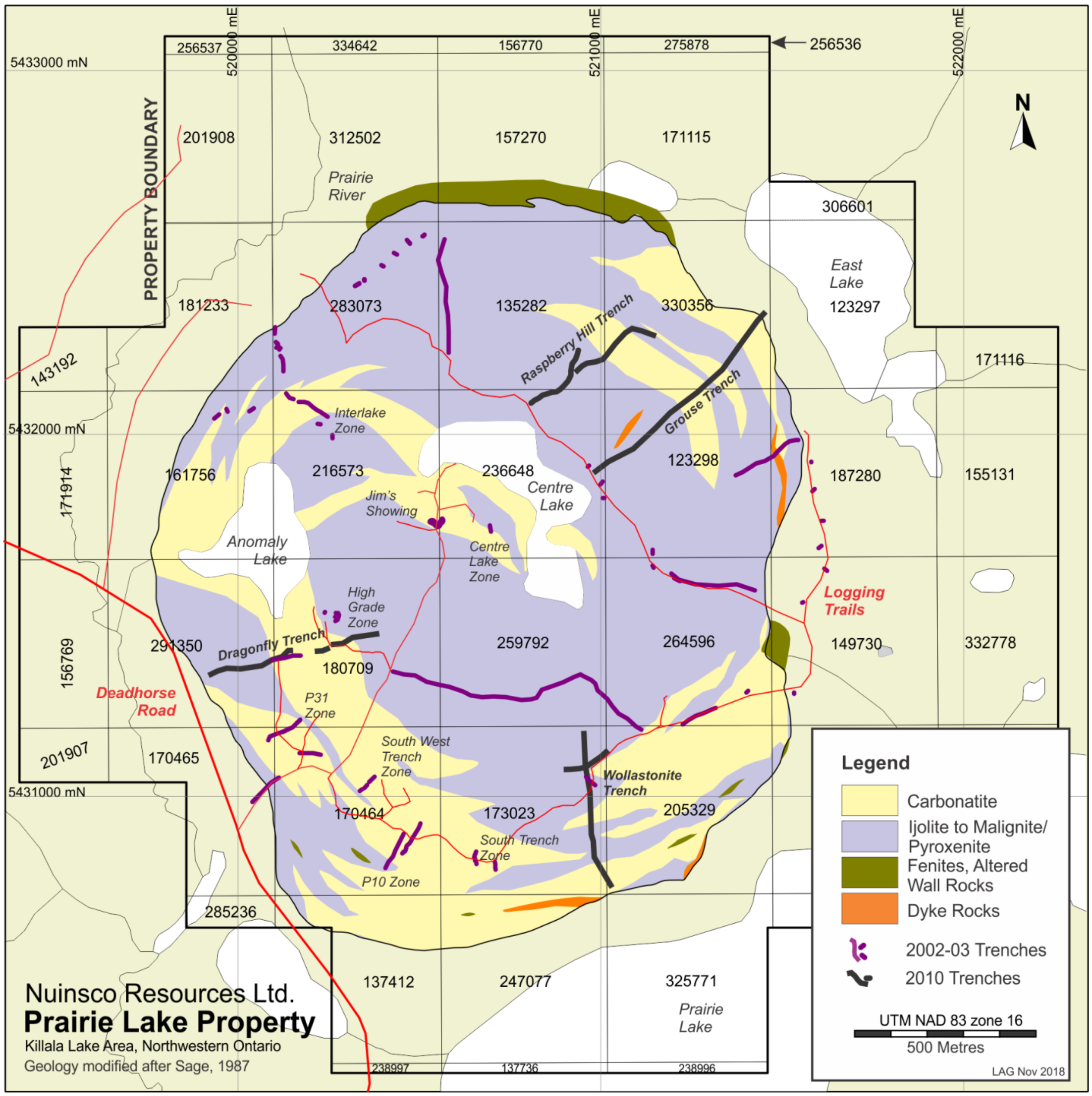
9.3 2008 DENSE MEDIA SAMPLING

Ten 35 kg to 50 kg saprolite and bedrock samples were collected for Dense Media Separation ("DMS") testing in 2008. Details of the procedure and results are discussed in Section 13 of this Technical Report.

9.4 2010 TRENCHING PROGRAM

In 2010, Nuinsco completed trenching on the Property totalling 2,068 m in length. The four trenches, known as Dragonfly, Wollastonite-Trailside, Grouse, and Raspberry Hill, were excavated in the southwest, southeast and northeast quadrants of the Property (Figures 9.1 and 9.2; Table 9.1). A channel sample was sawn whenever the excavations reached competent bedrock. When bedrock could not be reached, due to a deeper weathering profile, the loose saprolitic material was sampled instead. The trenches and sample locations were surveyed using a Trimble ProXRT differential GPS system.

FIGURE 9.1 TRENCHING MAP OF THE PRAIRIE LAKE CARBONATITE COMPLEX



Source: Nuinsco (2018)

FIGURE 9.2 PLCC EXPLORATION TRENCHING IN CARBONATITE

Source: *Nuinsco (Prairie Lake Project Presentation May 2021).*
Note: *Weathering profile on carbonatite - typically 1 m to 3 m thick.*

TABLE 9.1
2010 TRENCH LOCATIONS

Trench	Quadrant	Approximate Orientation	Claim Number(s)*	Trench Length (m)	Sample Length (m)
Dragonfly	SW	E-W	TB 1218306, TB 1218307	505	377.7
Wollastonite/ Trailside	SE	N-S/E-W	TB 1218304	534.5	433
Grouse	NE	NE-SW	TB 1218301, TB 1218304-305, TB1220460	685	436.5
Raspberry Hill	NE	NE-SW	TB 1218301, TB1220460	343.5	318.05
Total				**2,068**	**1,565.25**

* *Pre-conversion claim numbers.*

A total of 1,042 samples were collected over 1,565 m of trench length. The results from the channel sampling of the trenches included individual analyses up to 13.67% P_2O_5, 0.423% Nb_2O_5 and 1.098% REE (Y, La, Ce, Nd, Sm) (Giroux, 2009). The intervals provided in Table 9.2 below represent continuously sampled trench sections.

TABLE 9.2 2010 TRENCHING RESULTS								
Trench	**From (m)**	**To (m)**	**Interval (m)**	**P_2O_5 (%)**	**Nb_2O_5 (%)**	**Ta_2O_5 (g/t)**	**U_3O_8 (g/t)**	**ΣREE * (g/t)**
Grouse	0.1	19.5	19.4	3.883	0.146	8.2	19.3	2,072.4
	24.9	80.5	55.6	3.166	0.156	9.1	29.4	1,963.5
	82.8	83.85	1.05	4.130	0.058	2.0	49.6	4,930.0
	84.6	103	18.4	2.590	0.071	6.0	25.4	2,919.8
Includes	*86*	*89*	*3*	*6.140*	*0.028*	*1.8*	*49.4*	*10,820.5*
	105.5	145	39.5	3.425	0.198	12.8	34.8	2,404.2
	166.2	181.5	15.3	2.417	0.100	6.1	22.6	1,510.3
	183.5	188	4.5	1.770	0.059	8.8	6.1	852.1
	191.5	308.2	116.7	3.154	0.100	3.5	48.9	2,389.4
	308.2	*408*	*99.8*	sampling gap, cedar swamp				
	408	*417*	*9*	3.172	0.071	9.3	28.4	1,450.0
	426	*498*	*72*	3.608	0.092	8.6	78.0	1,818.4
	498	*613*	*115*	sampling gap, swamp, steep hill and glacial sand deposit				
	613	679	66	3.357	0.105	6.1	46.6	1,331.6
	679	*685*	*6*	metasedimentary rocks				
Dragonfly	0	96	96	5.040	0.067	14.5	44.2	1,711.2
	96	102	6	sampling gap, clay and pebble deposits				
	102	107.2	5.2	3.515	0.129	10.8	33.0	1,662.3
	111	136.5	25.5	2.552	0.144	7.2	50.4	1,225.6
	138	175.5	37.5	3.454	0.117	7.6	65.6	1,234.7
	175.5	240	64.5	sampling gap, ravine				
	240	286.5	46.5	3.028	0.157	23.7	56.4	1,761.9
	286.5	320	33.5	sampling gap, trail and steep hill				

TABLE 9.2
2010 TRENCHING RESULTS

Trench	From (m)	To (m)	Interval (m)	P_2O_5 (%)	Nb_2O_5 (%)	Ta_2O_5 (g/t)	U_3O_8 (g/t)	ΣREE * (g/t)
	320	392	72	3.032	0.083	14.3	41.3	2,067.5
	392	402	10	sampling gap, mud and clay deposits				
	402	414	12	1.745	0.079	4.2	13.2	713.2
	416	466.5	50.5	2.020	0.104	8.6	14.1	832.9
	472.5	505	32.5	2.514	0.076	16.7	19.1	1,126.6
Raspberry Hill	0	21	21	2.428	0.166	6.6	20.4	1,452.5
	21	38	17	sampling gap, clay and pebble deposits				
	38	48	10	2.710	0.268	8.7	22.0	1,938.9
	48	52.5	4.5	sampling gap, clay and pebble deposits				
	52.5	63.3	10.8	3.103	0.146	3.9	16.5	1,917.3
	64.5	90.75	26.25	2.402	0.103	8.2	14.7	1,877.7
	90.75	93.5	2.75	sampling gap, clay deposit				
	93.5	343.5	250	3.087	0.117	6.8	33.8	1,806.7
Trailside	0	71.5	71.5	1.768	0.049	12.9	23.5	879.0
Wollastonite	0	169.5	169.5	4.352	0.082	9.6	28.9	1,568.8
	169.5	250.0	80.5	sampling gap, swamp				
	250	313.0	63.0	2.794	0.044	13.0	26.1	1,171.4
	313	319.0	6.0	sampling gap, trailway				
	319	332.5	13.5	2.888	0.044	11.5	23.7	1,240.2
	332.5	344.5	12.0	Sampling gap, clay deposit				
	344.5	407.5	63.0	3.135	0.032	8.8	19.9	1,289.2
	410.5	463.0	52.5	1.673	0.062	12.4	29.9	998.4

** ΣREE = Y + La + Ce + Nd + Sm*

9.5 RARE EARTH ELEMENT MINERALOGICAL STUDIES

During the second half of 2021, Nuinsco commissioned a mineralogical study of rock samples from the PLCC to develop a more thorough understanding of the mineralogy and to determine the location within the contained minerals of elements of economic interest (Nuinsco press release dated March 17, 2022). The work involved petrographic examination of the rock samples followed by scanning electron microscope study to confirm identification and produce semi-quantitative data on the approximately 30 mineral species present in the rock. Subsequently, an electron microprobe study was employed to produce quantitative data on contents of REEs, niobium, and tantalum. Finally, a laser-ablation ICP-MS study further refined REE and trace element profiles of carbonate minerals. The results of the study will be utilized to inform and advance metallurgical studies, leading to refined and optimized processing development for exploiting minerals of economic interest.

The mineralogical studies identified a suite of REE-bearing minerals, such as apatite, monazite, bastnaesite, carbocernaite/burbankite, and ancylite, and niobium-bearing pyrochlore at Prairie Lake. In particular, the study confirmed presence of highly LREE-enriched apatite (Table 9.3).

TABLE 9.3
LREE IN APATITE FROM THE PRAIRIE LAKE CARBONATITE COMPLEX

Rock Type	Description	ΣLREE (g/t)	Nd (g/t)
Ijolite	#0709@15.8 m, (n=9): HGZ	24,955	4,887
Sovite	#P4@9.45 m, (n=3): JSZ	20,425	4,544
Sovite	#0713@92 m, (n=12): P10	17,183	3,944
n/a	#1003@493 m, (n=9): HGZ	9,759	2,657

Source: *Nuinsco (press release dated March 17, 2022).*
Abbreviations: *ΣLREE = sum total light rare earth elements or La + Ce + Pr + Nd + Sm; g/t = grams per tonne; HGZ = High Grade Zone; JSZ = Jim's Showing Zone; P10 = P10 Zone; n/a = not available.*

Generally, in carbonatites, the bulk of REE are typically contained within apatite group minerals (Hogarth, 1989).

10.0 DRILLING

10.1 2007 DIAMOND DRILL PROGRAM

In the spring of 2007, Nuinsco contracted Laframboise Drilling Incorporated ("Laframboise") of Hilliardton, Ontario, for a 15-hole diamond drill program on the Prairie Lake Property. Fifteen NQ-sized (48 mm) drill holes totalling 1,878.4 m were completed, which ranged from 50 metres to 278 metres in length. The drill program focused on the Jim's Showing area and the High Grade, P31 and P10 Zones (Figure 10.1 and Table 10.1). Collar locations were surveyed using handheld GPS units.

Two diamond drills and drilling equipment were mobilized from the northeastern Ontario area to the Property on May 14, 2007. Both drills were set-up the following day, with drilling commencing on the first two drill holes (NP0701 and NP0702) at Jim's Showing on May 16. The final drill hole was completed on June 2, with dismantling and demobilization the following day. Core logging and sampling was completed by Project Geologist Laura Giroux, M.Sc. and Senior Geologist Chris Wagg, P. Geo by the end of July.

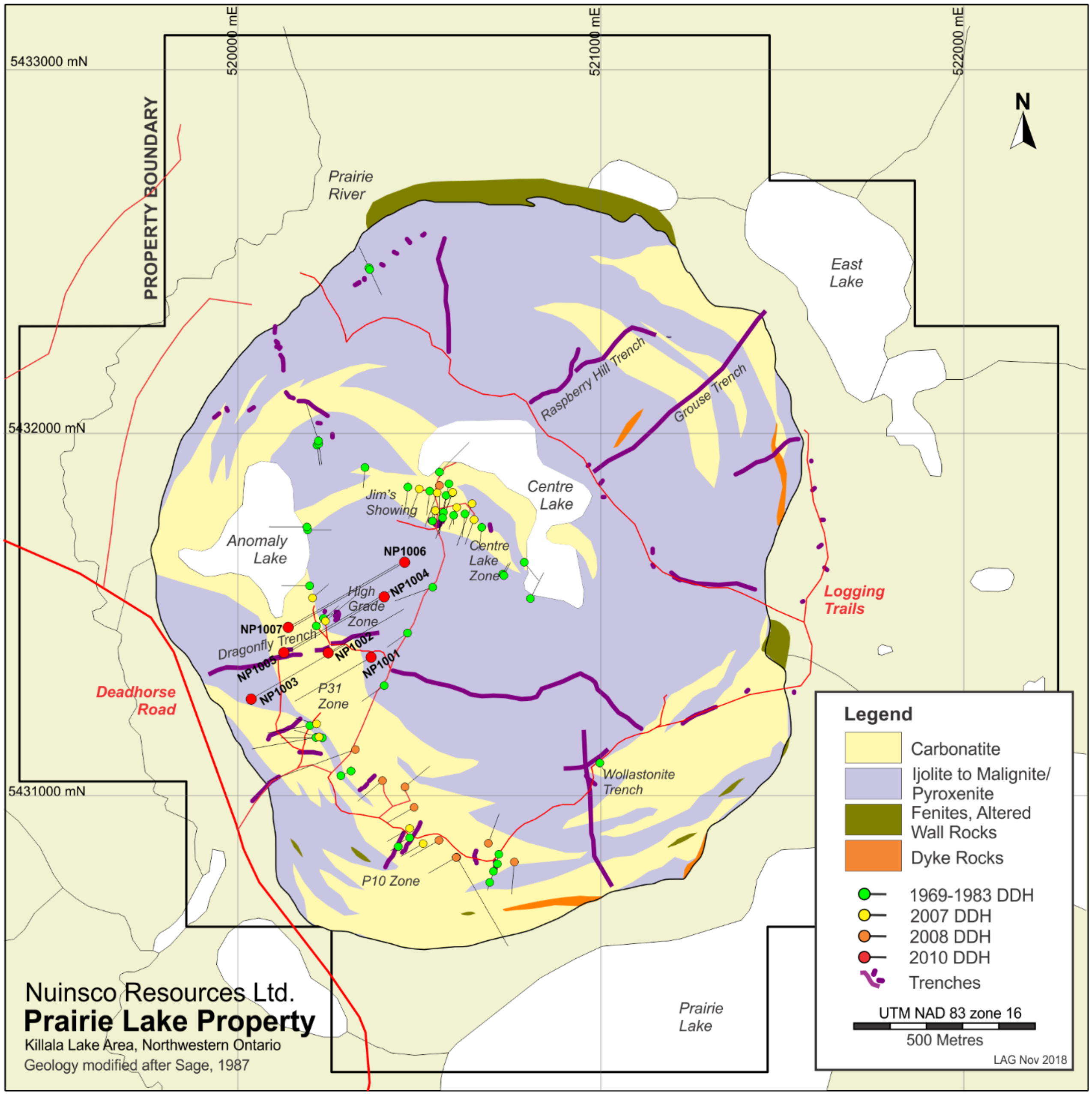
Drill holes were surveyed by the drill contractor using a Reflex EZ-Shot instrument. Azimuth data proved to be unreliable for many of the holes, due to a high abundance of magnetite. Azimuth data were corrected for the 6° west magnetic declination.

A total of 720 drill core samples were collected from the 15 drill holes representing approximately 841 metres core length. Anomalous uranium, niobium and tantalum values were encountered in all drill holes. The weighted averages for the best intersection(s) in each drill hole are presented in Table 10.2 below.

The range of values returned for individual samples was:

- U_3O_8: 0% to 0.206% (melano-ijolite in drill hole NP0701 at 63.5 metres to 64.5 metres);
- Nb_2O_5: 0% to 1.008% (phoscorite in drill hole NP0711 at 97.5 metres to 98.5 metres);
- Ta_2O_5: 0.1 g/t (lower detection limit) to 579 g/t (biotite-pyroxenite breccia in drill hole NP0711 at 23.75 metres to 24.75 metres);
- P_2O_5: 0.03% to 18.05% (melano-ijolite in drill hole NP0709 at 49.0 metres to 50.0 metres); and
- REE: The highest combined REEs (Y + La + Ce + Nd + Sm) was 6,675 g/t within the melano-Ijolite (in drill hole NP0709 at 49.0 metres to 50.0 metres). This same interval returned the highest P_2O_5 analysis.

FIGURE 10.1 LOCATION OF DRILL HOLES FROM THE 2007, 2008 AND 2010 PROGRAMS AND HISTORICAL DRILL HOLES



Source: *Nuinsco (2018)*

Table 10.1 **2007 Drill Collar Locations**										
Drill Hole ID	**UTM NAD 83 Zone 16N**		**Elev. (m)**	**Length (m)**	**Dip (Deg)**	**Azimuth (Deg)**	**Date Started**	**Date Completed**	**Claim Number***
	Easting	**Northing**							
NP0701	520,603	5,431,800	340.4	90.4	-45	200	16-May-07	17-May-07	TB 1218306
NP0702	520,546	5,431,837	327.5	143	-45	200	16-May-07	17-May-07	TB 1218306
NP0703	520,585	5,431,838	334.2	173	-45	200	18-May-07	21-May-07	TB 1218306
NP0704	520,641	5,431,797	353.6	176	-45	200	17-May-07	19-May-07	TB 1218304
NP0705	520,495	5,431,846	331.8	122	-45	200	19-May-07	20-May-07	TB 1218306
NP0706	520,585	5,431,832	334.2	278	-60	200	22-May-07	26-May-07	TB 1218306
NP0707	520,641	5,431,771	357	101	-45	200	20-May-07	22-May-07	TB 1218304
NP0708	520,202	5,431,552	327	101	-55	50	27-May-07	29-May-07	TB 1218307
NP0709	520,236	5,431,552	331	175	-45	50	24-May-07	26-May-07	TB 1218306
NP0710	520,213	5,431,205	336	104	-55	285	27-May-07	29-May-07	TB 1218307
NP0711	520,220	5,431,166	341	101	-45	285	29-May-07	30-May-07	TB 1218307
NP0712	520,471	5,430,916	371	101	-45	240	1-June-07	2-June-07	TB 1218306
NP0713	520,508	5,430,873	360	101	-45	240	2-June-07	2-June-07	TB 1218306
NP0714	520,547	5,431,782	326	62	-45	145	1-June-07	2-June-07	TB 1218306
NP0715	520,547	5,431,782	326	50	-45	190	31-May-07	1-June-07	TB 1218306

* *Pre-conversion claim numbers*

Table 10.2 **Significant Drill Hole Results from the 2007 Drill Program**											
Drill Hole ID	**From (m)**	**To (m)**	**Interval (m)**	**Nb (g/t)**	**Nb_2O_5 (%)**	**Ta (g/t)**	**Ta_2O_5 (g/t)**	**U (g/t)**	**U_3O_8 (%)**	**P_2O_5 (%)**	**REE* (g/t)**
NP0701	58.60	72.10	13.50	1,744	0.249	89	109	1,062	0.125	9.03	3103
NP0702	69.25	85.00	15.75	1,892	0.271	39	48	100	0.012	2.8	
NP0703	145.72	151.00	5.28	1,731	0.248	123	150	1,013	0.119	9.05	
NP0704	15.35	39.70	24.35	1,283	0.184	22	27	56	0.007	3.93	
	140.00	149.00	9.00	1,500	0.215	86	105	598	0.07	4.77	
NP0705	110.25	117.50	7.25	765	0.109	29	36	11	0.001	2.14	
NP0706	7.50	38.93	31.43	1,667	0.238	23	28	50	0.006	4.48	
NP0707	54.00	56.00	2.00	640	0.091	50	62	566	0.067	6.89	
NP0708	24.00	30.00	6.00	761	0.109	38	47	278	0.033	7.98	
NP0709	13.20	57.50	44.30	1,307	0.187	54	65	109	0.013	5.06	2,355
	16.00	21.00	5.00	1,029	0.147	68	83	427	0.05	8.29	3,856
	49.00	50.00	1.00	5,340	0.76	143	88	281	0.033	18.05	6,675
	49.00	57.50	8.50	2,239	0.32	72	175	142	0.017	9.18	3,616
NP0710	17.22	21.80	4.58	4,957	0.709	39	47	81	0.01	5.76	
	32.80	36.62	3.82	4,190	0.599	49	60	82	0.01	4.68	
	70.40	75.00	4.60	2,447	0.35	40	49	54	0.006	3.3	
NP0711	2.70	101.00	98.30	837	0.12	48	58	89	0.011	4.1	1,376
	21.85	28.20	6.35	2,544	0.364	334	408	387	0.046	4.21	916
	23.75	24.75	1.00	2,570	0.37	474	579	440	0.052	4.41	834.9
	96.70	101.00	4.30	3,965	0.567	33	40	27	0.003	4.26	912
	97.50	98.50	1.00	7,050	1.009	57.2	70	31.7	0.004	6.12	1,187
NP0712	10.95	27.33	16.38	1,368	0.196	81	99	185	0.022	4.66	
	22.70	27.33	4.63	1,689	0.242	116	142	267	0.031	6.21	
NP0713	88.60	90.55	1.95	1,245	0.178	56	68	99	0.012	3.08	949

TABLE 10.2 SIGNIFICANT DRILL HOLE RESULTS FROM THE 2007 DRILL PROGRAM											
Drill Hole ID	**From (m)**	**To (m)**	**Interval (m)**	**Nb (g/t)**	**Nb_2O_5 (%)**	**Ta (g/t)**	**Ta_2O_5 (g/t)**	**U (g/t)**	**U_3O_8 (%)**	**P_2O_5 (%)**	**REE* (g/t)**
NP0714	32.55	50.00	17.45	1,929	0.276	99	121	965	0.114	8.54	
	37.50	50.00	12.50	1,881	0.269	104	127	1,054	0.124	9.03	
NP0715	21.97	35.00	13.03	1,747	0.25	112	137	883	0.104	7.59	

* *REE includes Y + La + Ce + Nd + Sm*

Consulting petrologist, Dr. R.H. Mitchell, FRSC, examined the drill core during the program, and recommended that Nuinsco complete definition drilling in the western half of the PLCC and drill several inclined holes from the country rocks through the contact. Mitchell (2007) also recommended completing several deeper drill holes (approximately 500 metres in length) within the Carbonatite to evaluate mineralization at depths previously untested. The greatest vertical depth previously drilled from surface at Prairie Lake was 238 metres in a 275 metre-long inclined drill hole.

10.2 2008 DIAMOND DRILL PROGRAM

In follow-up to the 2007 drill program, Nuinsco contracted Laframboise to drill an additional 10 diamond drill holes on the Prairie Lake Property. This program was completed during the summer of 2008 and 2,543 metres of NQ-sized (48 mm) core were drilled, with holes ranging from 125 metres to 590 metres in length.

The drilling included two deep inclined holes 575 metres to 590 metres in length, which were drilled in the southwest quadrant of the PLCC. The two holes were drilled outwards, towards and perpendicular to, the contact between the intrusion and the country rocks. A third deep inclined hole, approximately 500 metres in length, was drilled in the Jim's Showing area. Additionally, seven short holes (approximately 125 metres) were drilled in the southwest quadrant of the intrusion. The GPS surveyed locations of the drill collars are presented in Table 10.3.

Laframboise's drilling equipment was mobilized from the Armstrong area to the Property starting on July 8, 2008. Drilling commenced on July 11 with hole NP0801 and was completed on July 29 with hole NP0810. Logging of the core was completed by Project Geologist Laura Giroux, M.Sc. and Senior Geologist Chris Wagg, P. Geo. by mid-September.

Samples from the 2008 program returned individual assays up to 0.862% Nb_2O_5, 12.63% P_2O_5, and 8,061 g/t (0.8%) combined REE (Y+La+Ce+Nd+Sm). At Jim's Showing, drill hole NP0810, which was sampled continuously from 125 metres to 497 metres, averaged 3.96% P_2O_5, 0.082% Nb_2O_5, 0.005% U_3O_8, 24.8 g/t Ta_2O_5 and 2001 g/t combined REE over 372 metres. The weighted averages for the best intersection(s) in each drill hole are presented in Table 10.4.

The deeper drilling completed during the 2008 program confirmed that the carbonatite continues to vertical depths of at least 500 metres. In one of the deep drill holes (NP0803), the contact between the intrusion and the fenitized country wall rock was intersected at approximately 567 metres downhole (490 metres vertical depth). The fenites encountered were comprised predominantly of fine-grained alkalic feldspar and dark blue to black fibrous amphibole plus rare quartz grains. The fenites were variably brecciated by coarse carbonate ± chlorite veins. Weak alkalic metasomatism was also noted much farther up-hole, where the carbonatite developed a faint to moderate pink colour, due to presence of alkali feldspar and locally included small fenitized granitic clasts. The alteration started at approximately 300 m and intensified downhole (Giroux, 2009).

Table 10.3 2008 Drill Collar Locations									
Drill Hole ID	**UTM NAD 83 Zone 16N**		**Elev. (m)**	**Length (m)**	**Dip (Deg)**	**Azimuth (Deg)**	**Date Started**	**Date Completed**	**Claim Number***
	Easting	**Northing**							
NP0801	520,761	5,430,826	350	125	-45	185	11-Jul-08	12-Jul-08	TB 1218304
NP0802	520,685	5,430,870	353	125	-45	20	12-Jul-08	13-Jul-08	TB 1218304
NP0803	520,597	5,430,831	358	590	-60	150	13-Jul-08	18-Jul-08	TB 1218306, TB 1218304, TB 1218308
NP0804	520,597	5,430,831	358	125	-45	240	18-Jul-08	18-Jul-08	TB 1218306
NP0805	520,547	5,430,882	368	131	-45	240	19-Jul-08	19-Jul-08	TB 1218306
NP0806	520,481	5,430,975	371	125	-45	240	19-Jul-08	20-Jul-08	TB 1218306
NP0807	520,455	5,431,029	373	125	-45	50	20-Jul-08	20-Jul-08	TB 1218306
NP0808	520,396	5,431,051	362	125	-45	230	21-Jul-08	21-Jul-08	TB 1218306
NP0809	520,317	5,431,138	360	575	-60	250	21-Jul-08	25-Jul-08	TB 1218306, TB 1218307, TB 1218302
NP0810	520,547	5,431,861	323	497	-75	180	26-Jul-08	29-Jul-08	TB 1218306

* *Pre-conversion claim numbers*

Table 10.4 **Significant Drill Hole Results from the 2008 Drill Program**											
Drill Hole ID	**From (m)**	**To (m)**	**Interval (m)**	**Nb (g/t)**	**Nb_2O_5 (%)**	**Ta (g/t)**	**Ta_2O_5 (g/t)**	**U (g/t)**	**U_3O_8 (%)**	**P_2O_5 (%)**	**REE* (g/t)**
NP0801	27.00	89.00	62.00	1,420	0.203	15	18.3	33.7	0.004	1.56	1,236
	28.36	42.00	13.64	2,634	0.377	13.3	16.2	13.2	0.002	1.58	2,335
NP0802	29.19	32.13	2.94	2,173	0.311	15.3	18.7	9.2	0.001	2.07	947
	41.00	79.50	38.50	1,065	0.152	20.8	25.4	28.6	0.003	5.04	1,636
	41.00	56.00	15.00	2,017	0.289	24.6	30	28.6	0.003	3.98	1,477
	89.00	91.80	2.80	279	0.040	20.2	24.7	29.5	0.003	9.93	2,879
	98.00	101.00	3.00	323	0.046	13.3	16.2	16.3	0.002	6.76	1,830
	109.50	116.00	6.50	558	0.080	15.5	18.9	17	0.002	2.56	1,908
NP0803	8.11	9.13	1.02	1,570	0.225	16.4	20	5.8	0.001	1.93	1,070
	17.00	22.72	5.72	553	0.079	11.53	14.1	13.26	0.002	2.83	903
	35.12	36.40	1.28	727	0.104	13.5	16.5	8.9	0.001	2.45	682
	43.25	47.75	4.50	473	0.068	12.5	15.3	58.4	0.007	3.91	1,575
	58.50	64.00	5.50	80	0.011	0.94	1.1	15.6	0.002	3.07	1,400
	74.00	97.00	23.00	497	0.071	6.2	7.6	72.1	0.009	3.53	1,302
	161.00	186.50	25.50	632	0.090	14.4	17.6	53.9	0.006	3.23	1,346
	211.11	219.80	8.69	592	0.085	7.8	9.5	14.4	0.002	1.91	1,055
	243.70	265.00	12.42	482	0.069	7.8	9.5	14.9	0.002	2.5	1,058
	318.55	331.65	13.10	247	0.035	7.3	8.9	17.6	0.002	3.41	1,331
	342.00	393.93	51.93	265	0.038	5.4	6.6	38.9	0.005	3.37	1,352
	413.50	502.18	66.07	357	0.051	8.2	10	44.7	0.005	3.75	1,470

Table 10.4 Significant Drill Hole Results from the 2008 Drill Program											
Drill Hole ID	**From (m)**	**To (m)**	**Interval (m)**	**Nb (g/t)**	**Nb_2O_5 (%)**	**Ta (g/t)**	**Ta_2O_5 (g/t)**	**U (g/t)**	**U_3O_8 (%)**	**P_2O_5 (%)**	**REE* (g/t)**
	515.65	536.60	20.95	537	0.077	6.2	7.6	27.2	0.003	3.48	1,295
	565.50	590.00	24.50	406	0.058	4.9	6	15.4	0.002	2.3	1,119
NP0804	18.40	38.95	20.55	1,197	0.171	16.8	20.5	33.6	0.004	3.25	1,249
	91.23	101.00	9.77	1,568	0.224	22.9	28	45.6	0.005	3.4	1,362
NP0805	5.30	22.50	17.20	1,230	0.176	25.8	31.5	41.1	0.005	3.31	1,794
	53.00	87.50	34.50	1,846	0.264	18.9	23.1	96.8	0.011	3.78	1,226
	97.20	116.00	18.80	973	0.139	23.4	28.6	82.2	0.01	3.97	1,573
	126.94	131.00	4.06	363	0.052	22.8	27.8	47.7	0.006	3.34	1,562
NP0806	36.00	80.00	44.00	93.4	0.013	8.8	10.7	17.4	0.002	5.38	2,240
	96.00	125.00	29.00	157	0.022	8.9	10.9	16.7	0.002	5.89	2,258
NP0807	9.96	15.10	5.14	97	0.014	11.4	13.9	3.9	0	8.64	1,795
	21.73	38.50	16.77	2,272	0.325	13.9	17	30.2	0.004	4.28	1,217
	30.50	31.40	0.90	6,030	0.863	30.9	37.7	39.4	0.005	7.28	1,434
	87.64	98.00	10.36	700	0.100	6.4	7.8	19.9	0.002	2.68	1,313
	110.00	125.00	15.00	354	0.051	8.2	10	25.2	0.003	3.04	1,412
NP0808	6.30	27.27	20.97	714	0.102	31.4	38.3	55.5	0.007	4.27	1,817
	44.00	48.06	4.06	957	0.137	35.7	43.6	59	0.007	4.56	2,136
	59.00	65.00	6.00	110	0.016	4.6	5.6	16.7	0.002	4.71	2,236
	75.00	88.12	13.12	746	0.107	21.3	26	21.5	0.003	2.66	1,349
	103.18	116.67	13.49	662	0.095	31.4	28.3	17.7	0.002	4.87	2,105
NP0809	17.05	43.27	26.22	598	0.086	21.6	26.4	64.6	0.008	3.83	1,477

Table 10.4 **Significant Drill Hole Results from the 2008 Drill Program**											
Drill Hole ID	**From (m)**	**To (m)**	**Interval (m)**	**Nb (g/t)**	**Nb_2O_5 (%)**	**Ta (g/t)**	**Ta_2O_5 (g/t)**	**U (g/t)**	**U_3O_8 (%)**	**P_2O_5 (%)**	**REE* (g/t)**
	49.62	69.00	19.38	649	0.093	31.3	38.2	91.4	0.011	3.64	1,221
	108.59	119.00	10.41	418	0.060	10.4	12.7	19.8	0.002	2.16	920
	132.88	176.00	43.12	1,072	0.153	25.7	31.4	53.5	0.006	2.8	1,388
	205.00	257.00	52.00	763	0.109	43.5	53.1	102.5	0.012	3.94	1,610
	285.87	350.00	64.13	516	0.074	19.1	23.3	23.9	0.003	3.54	1,645
	443.00	525.58	82.32	724	0.104	26.3	32.1	43	0.005	3.16	1,452
NP0810	125.00	497.00	372.00	573	0.082	20.3	24.8	41.6	0.005	3.96	2,001

* *REE includes Y + La + Ce + Nd + Sm*

10.3 2010 DIAMOND DRILL PROGRAM

In late fall 2010, Nuinsco contracted Laframboise Drilling to completed seven diamond drill holes on the Property. A total of 4,004 metres of NQ-sized (48 mm) core was drilled, with holes ranging from 527 metres to 605 metres in length. All holes were drilled in the southwest quadrant of the Property, with the objective of expanding the Main/SW Target Zone. The GPS surveyed location of the drill collars are presented in Table 10.5.

Drilling commenced on November 9, 2010 and was completed by December 21, 2010. Logging and sampling were completed by January 25, 2011. Drill core logging was completed by Project Geologist Laura Giroux, M.Sc., P.Geo., with help from Nuinsco's Manager of Canadian Exploration Chris Wagg, P.Geo.

Samples from the 2010 drill program returned individual assays of up to 23.08% P_2O_5, 0.953% Nb_2O_5 and 0.910% REEs. Results included a continuously sampled interval in drill hole NP1001 of 3.415 P_2O_5, 0.118% Nb_2O_5 and 1,016.2 g/t combined REE over 246.5 metres from 49.0 metres to 292.5 metres, and 3.74% P_2O_5, 0.106% Nb_2O_5 and 1,908 g/t REE over 195.5 metres from 4.5 metres to 200.0 metres in drill hole NP1007 (Giroux, 2012). The weighted averages for the best intersection(s) in each drill hole are presented in Table 10.6.

Table 10.5 **2010 Drill Collar Locations**									
Drill Hole ID	**UTM NAD 83 Zone 16N**		**Elev. (m)**	**Length (m)**	**Dip (Deg)**	**Azimuth (Deg)**	**Date Started**	**Date Completed**	**Claim Number***
	Easting	**Northing**							
NP1001	520,364	5,431,386	345	575	-65	240	2010-Nov-9	2010-Nov-13	TB 1218306
NP1002	520,246	5,431,398	323	500	-62	60	2010-Nov-14	2010-Nov-16	TB 1218306
NP1003	520,034	5,431,271	352	605	-60	60	2010-Dec-17	2010-Dec-21	TB 1218307
NP1004	520,400	5,431,552	350	599	-55	240	2010-Nov-17	2010-Nov-21	TB 1218306
NP1005	520,124	5,431,399	339	599	-55	60	2010-Dec-7	2010-Dec-12	TB 1218307
NP1006	520,456	5,431,647	352	599	-54	240	2010-Nov-22	2010-Nov-27	TB 1218306
NP1007	520,136	5,431,468	334	527	-50	60	2010-Dec-12	2010-Dec-17	TB 1218307

* *Pre-conversion claim numbers*

Table 10.6 **Significant Drill Hole Results from the 2010 Drill Program**								
Drill Hole ID	**From (m)**	**To (m)**	**Interval (m)**	**P_2O_5 (%)**	**Nb_2O_5 (%)**	**Ta (g/t)**	**U (g/t)**	**REE * (g/t)**
NP1001	49	295.5	246.5	3.41	0.118	4.6	60.2	1,016.2
	314	324.5	10.5	2.31	0.127	4.3	108.6	885.5
	356	393.3	37.3	3.20	0.089	3.4	41.7	894.4
	404	479.5	75.5	3.57	0.109	5.6	40.7	1,052.1
	485.5	491.45	5.95	3.32	0.143	12.0	47.5	998.6
	496.3	575.0	78.7	3.13	0.119	11.6	30.2	938.7
NP1002	1.12	185.00	183.88	3.49	0.109	6.0	42.7	1,351
	200	230	30	3.39	0.083	11.6	27.4	1,441

TABLE 10.6
SIGNIFICANT DRILL HOLE RESULTS FROM THE 2010 DRILL PROGRAM

Drill Hole ID	From (m)	To (m)	Interval (m)	P_2O_5 (%)	Nb_2O_5 (%)	Ta (g/t)	U (g/t)	REE * (g/t)
NP1003	2.76	40.45	37.69	3.18	0.175	14.2	60.6	1,754
	93.2	147.5	54.3	4.63	0.141	21.0	86.4	1,679
	181.7	274.8	93.1	3.05	0.141	12.3	41.2	1,421
	299	397.5	98.5	3.33	0.127	14.8	37.2	1,231
	410.6	601	190.4	3.36	0.106	7.8	34.0	1,444
NP1004	157.24	169.4	12.16	5.40	0.053	9.2	28.0	1,925
	176	193.6	17.6	5.17	0.049	8.9	25.3	1,728
	218	225.5	7.5	10.13	0.073	20.0	43.9	2,982
	284	289.9	5.9	7.04	0.069	17.7	37.5	2,815
	305	599	294	3.138	0.121	11.9	42.9	1,672
NP1005	0	259.9	259.9	2.84	0.138	12.2	45.9	1,593
	323.8	362	38.2	5.02	0.053	9.5	23.9	1,616
including	336.27	336.71	0.44	23.08	0.024	7.8	41.6	5,618
NP1006	154.3	193.05	38.75	4.32	0.074	3.6	23.2	3,780
	255.45	290	34.55	3.02	0.050	11.5	19.7	1,200
	302	599	297	3.92	0.072	7.1	33.1	1,549
NP1007	4.5	200	195.5	3.74	0.106	19.3	47.4	1,908
	211.15	214.5	3.35	5.21	0.062	21.6	70.9	1,614.2
	255.5	282.5	27	3.68	0.039	8.6	15.4	1,286.6
	427.16	429.06	1.9	0.08	0.040	0.2	32.5	8,715

***** *REEs = Y + La + Ce + Nd + Sm*

10.4 MINERALIZATION AND APPARENT THICKNESS

Drill holes completed on the Jim's Showing Zone suggests that zones of uranium and niobium mineralization are sub-vertical to vertical, and therefore approximately parallel to geological contacts. Insufficient information is available to confirm whether the same is true for the Main and SW Zones, where geological contacts are also near vertical. Drill holes completed at the Jim's Showing Zone during the 2007 and 2008 work programs were inclined at -45°, -60° and -75°.

10.5 DRILL CORE RE-SAMPLING PROGRAMS

Drill core re-sampling programs were carried out in 2019 and 2021. Results from each of these programs is summarized below.

10.5.1 2019 Core Re-sampling Program

On June 10, 2019, Nuinsco announced results of new REE analyses for core from drill holes NP1006 and NP1007 from the 2010 drilling program. The Company identified up to 15 metre widths in drill core of high-grade REE domains in iron-rich carbonatite (ferrocarbonatite). These domains were assumed to be late-stage intrusions into the PLCC, and their presence might be an indication that additional, similar intrusions are possible on the Prairie Lake Property. Additionally, drill holes NP1006 and NP1007 were reported to contain ancylite, a strontium-rich REE-carbonate mineral with high contents (typically >50%) of REE oxides. The ancylite mineralization is accompanied by burbankite (another REE-carbonate mineral) and strontianite ($SrCO_3$).

In a press release dated June 19, 2019, Nuinsco announced results of additional sampling of holes NP0702 and NP0714, which significantly extended the known niobium (Nb), tantalum (Ta), phosphorus (P) intercepts in these holes and added assays for rare earth elements (REE), including lanthanum (La), cerium (Ce), samarium (Sm), neodymium (Nd) and yttrium (Y). A total of 21 samples were taken from two drill holes NP0702 and NP0714. In drill hole NP0702, a 5.5 metre section was sampled down to the end of the hole at 143 metres. In drill hole NP0714, two intervals totalling 31.75 metres were sampled (Table 10.7).

When combined with previously reported sampling, these new assay results extend the intersection in drill hole NP0714 to 0.207% Nb_2O_5 and 5.26% P_2O_5 with 43 g/t Ta over 45.9 metres, between 4.1 metres and 50.0 metres, from the 17.45-metre length reported in 2008 (see Table 10.2).

TABLE 10.7 2019 DRILL CORE RE-SAMPLING RESULTS												
Drill Hole ID	**From (m)**	**To (m)**	**Width (m)**	**Nb_2O_5 (%)**	**P_2O_5 (%)**	**Ta (g/t)**	**Y (g/t)**	**La (g/t)**	**Ce (g/t)**	**Nd (g/t)**	**Sm (g/t)**	**ΣREE (g/t)**
NP0702	137.5	143	5.5	0.042	0.26	9.3	45	41	100	66	15	267
NP0714	4.10	8.45	4.35	0.139	3.75	6.4	92	361	812	377	62	1,704
NP0714	10.95	31.5	27.4	0.164	3.25	11.5	88	407	931	443	65	1,934

Source: *Nuinsco (press release dated June 19, 2019).*
Notes: *ΣREE = Sum of Y, La, Ce, Nd, Sm; Y - yttrium, La - lanthanum, Ce - cerium, Nd - neodymium, Sm – samarium; P_2O_5 - phosphate, Nb_2O_5 – niobium oxide, Ta - tantalum, 1 g/t = 1 ppm.*

10.5.2 2021 Core Re-sampling Program

Throughout 2021, Nuinsco completed a substantial program of drill hole sampling that produced a number of significant continuous intersections of 100 metres or more containing REE, niobium, tantalum and phosphate mineralization. This mineralization commences at or near surface and remains open to expansion by drilling at depth.

10.5.2.1 Drill Hole NP0713

A total of 58 diamond drill core samples were collected from drill hole NP0713, a 101-metre long, diamond drill hole (Nuinsco press release dated July 15, 2021). A 72-metre section was sampled from 2 metres depth down to 74 metres. Drill hole NP0713 is one of ten holes from the southeast half of the SW Area target, from which samples were submitted in 2021 (Figure 10.2). Additional sampling, primarily from the northwest half of the SW target area was completed later in 2021.

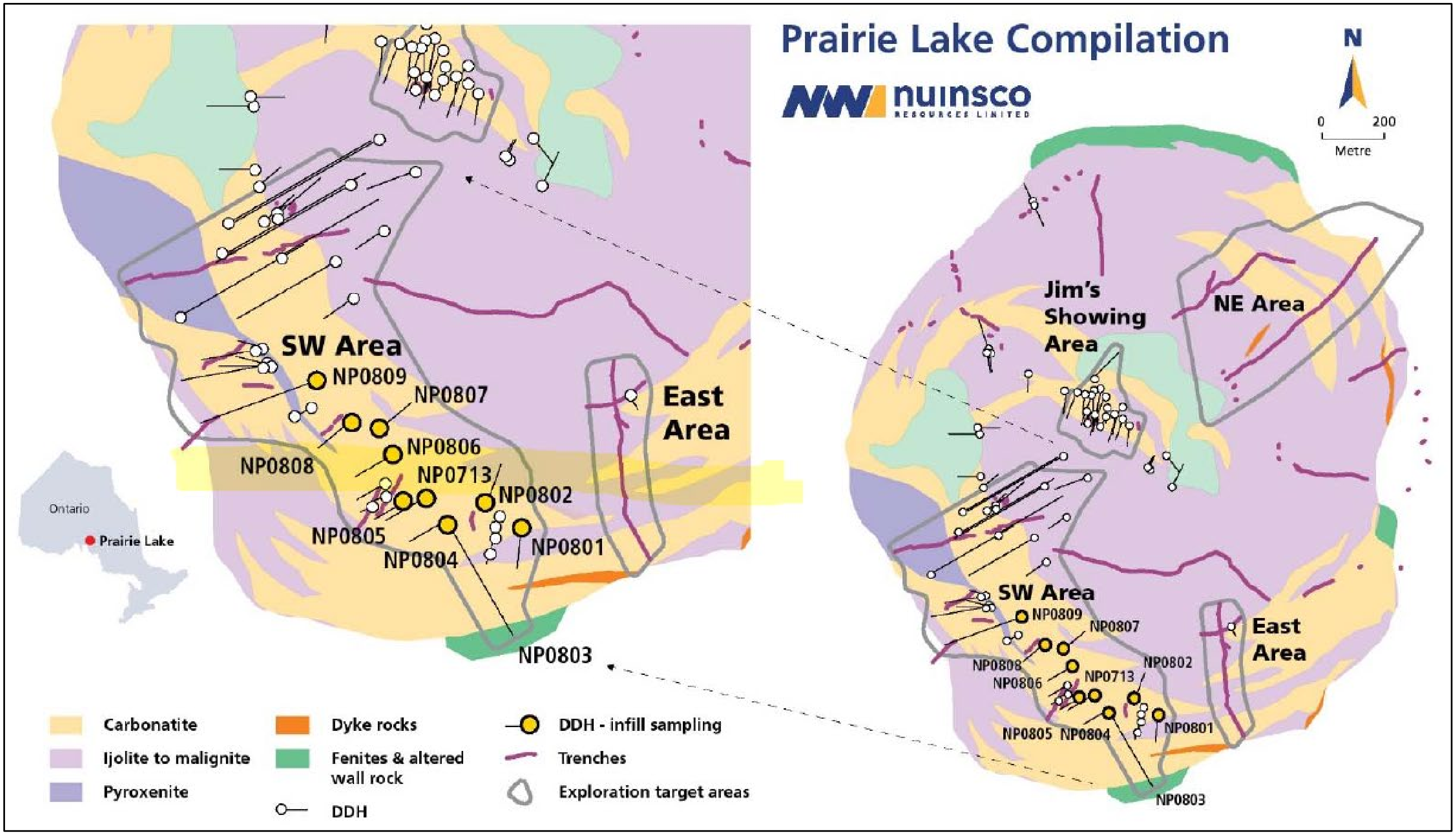
When combined with previously reported sampling (see press release dated January 7, 2008), the new results extend the intersection in drill hole NP0713 by 72 metres (from 2.0 metres to 101.0 metres) to 0.131% Nb_2O_5 and 2.83% P_2O_5 with 0.0015% (15 g/t) Ta_2O_5 and 1,261 g/t ΣREE over 99.0 metres.

10.5.2.2 Drill Hole NP0809

A total of 98 drill core samples were collected from drill hole NP0809, a 525.58-metre long, diamond drill hole. A continuous interval of 347 metres was analyzed from 3 metres to 350 metres downhole (approximately 200-metres vertically) (Table 10.8). Drill hole NP0809 is one of ten holes from the southeast half of the SW Area target from which samples were submitted for analyses (see Figure 10.2). Additional sampling, primarily from the northwest half of the SW Area target, was completed later that summer (see below).

When combined with previously reported sampling (see Table 10.3), the re-sampling results extended the continuous intersection in drill hole NP0809 to 347 metres of 0.109% Nb_2O_5 and 3.18% P_2O_5 with 0.003% (30 g/t) Ta_2O_5, and 1,411 g/t ΣREE.

FIGURE 10.2 COLLAR LOCATIONS OF RESAMPLED DRILL HOLES



Source: *Nuinsco (press release dated July 15, 2021).*

TABLE 10.8
2021 DRILL HOLE NP0809 RE-SAMPLING ASSAY RESULTS

Drill Hole ID	From (m)	To (m)	Width (m)	P_2O_5 (%)	Nb_2O_5 (%)	Ta_2O_5 (%)	Y (g/t)	La (g/t)	Ce (g/t)	Nd (g/t)	Sm (g/t)	ΣREE (g/t)[1]
New intersections from current sampling program												
NP0809	3	17.05	14.05	3.35	0.121	0.002	68	262	594	299	52	1,275
	69	108.59	39.59	3.27	0.082	0.004	67	277	611	311	54	1,320
	119	132.88	13.88	1.94	0.176	0.005	61	243	582	295	53	1,233
	176	205	29	3.04	0.165	0.003	80	340	774	360	60	1,614
	257	285.87	28.87	2.25	0.139	0.004	55	255	571	272	47	1,200
Combined extended intersection incorporating all sampling												
NP0809	3	350	347	3.18	0.109	0.003	77	289	686	303	57	1,411

Source: *Nuinsco (press release dated July 29, 2021).*

[1] ΣREE = sum of Y, La, Ce, Nd, Sm.

Notes: *Y = yttrium, La = lanthanum, Ce = Cerium, Nd = neodymium, Sm = samarium, P_2O_5 = phosphate, Nb_2O_5 = niobium oxide, Ta_2O_5 = tantalum oxide; 1 g/t = 1 ppm.*

10.5.2.3 Drill Holes NP0801 and NP0802

Additional sampling of diamond drill core from drill holes NP0801 and NP0802 (see Figure 10.2), produced continuous mineralized intersections of 122.7 m (NP0801: 2.3 metres to 125 metres) and 111.2 metres (NP0802: 4.8 metres to 116 metres) of Nb, Ta, P_2O_5 and REE, including La, Ce, Sm, Nd, and Y (Table 10.9).

A total of 86 diamond drill core samples were collected from drill holes NP0801 and NP0802. When combined with previous sampling, the new results extend the continuous intersection in drill hole NP0801 to 112.7 metres of 0.196% Nb_2O_5 and 2.19% P_2O_5 with 0.0027% (27 g/t) Ta_2O_5 and 1,211 g/t ΣREE and, in hole NP0802, to 111.2 metres of 0.159% Nb_2O_5 and 4.62% P_2O_5 with 0.0029% (29 g/t) Ta_2O_5 and 1,679 g/t ΣREE.

10.5.2.4 Drill Holes NP0804 and NP0805

Sampling of diamond drill core from drill holes NP0804 and NP0805 (see Figure 10.2), produced continuous mineralized intersections of 123.2 m (NP0804: 1.8 metres to 125 metres) and 125.7 metres (NP0805: 5.3 metres to 131 metres) of Nb, Ta, P_2O_5, and REE, including La, Ce, Sm, Nd and Y (Table 10.10). Eighteen drill-holes have been sampled to date, focussing on drill-holes collared to intercept the Southwest (SW) Area. This mineralized zone measures 1-km in length and between 150 metres and 750 metres wide at surface.

Table 10.9 **2021 Drill Holes NP0801 and NP0802 Re-sampling Assay Results**													
Drill Hole ID	**From (m)**	**To (m)**	**Width (m)**	**Rock Type [1]**	**P_2O_5 (%)**	**Nb_2O_5 (%)**	**Ta_2O_5 (%)**	**Y (g/t)**	**La (g/t)**	**Ce (g/t)**	**Nd (g/t)**	**Sm (g/t)**	**ΣREE (g/t) [2]**
New intersections													
NNP0801	2.3	27	24.7	CRBT/IJ-PYX BX	2.83	0.22	0.0040	65	262	633	310	52	1,322
	89	125	36	CRBT/IJ-PYX BX	2.83	0.168	0.0032	59	233	516	243	42	1,093
NP0802	4.8	29.2	24.39	CRBT/IJ-PYX BX	3.09	0.24	0.0044	74	304	726	343	58	1,504
	32.13	41	8.87	CRBT/IJ-PYX BX	2.89	0.274	0.0021	68	234	575	290	51	1,218
	78.6	87.4	8.78	MEL-IJ	6.47	0.054	0.0026	137	367	803	401	74	1,782
	91.6	96.1	4.53	MEL-IJ	9.16	0.027	0.0017	140	562	1174	566	95	2,537
	100.5	109	8.83	MEL-IJ	2.34	0.145	0.0046	90	286	657	322	59	1,413
Combined extended intersection													
NP0801	2.3	125	122.7		2.19	0.196	0.0027	54	251	603	258	45	1,211
NP0802	4.8	116	111.2		4.62	0.159	0.0029	103	349	797	361	68	1,679

Source: *Nuinsco (press release dated August 11, 2021).*

[1] *Principal Rock Type: CRBT = carbonatite; U-PYX Bx = breccia with CRBT matrix and ijorite or pyroxenite clasts: MEL-IJ = melano-ijolite.*

[2] *ΣREE = sum of Y, La, Ce, Nd, Sm*

Notes: *Y = yttrium, La = lanthanum, Ce = cerium, Nd = neodymium, Sm = samarium, P_2O_5 = phosphate, Nb_2O_5 = niobium oxide, Ta_2O_5 = tantalum oxide, 1 g/t = 1 ppm*

Table 10.10
2021 Drill Holes NP0804 and NP0805 Re-sampling Assay Results

Drill Hole ID	From (m)	To (m)	Width (m)	Rock Type [1]	P_2O_5 (%)	Nb_2O_5 (%)	Ta_2O_5 (%)	Y (g/t)	La (g/t)	Ce (g/t)	Nd (g/t)	Sm (g/t)	ΣREE (g/t) [2]
New intersections													
NP0804	1.8	18.5	16.7	PYX	1.89	0.147	0.0027	39	175	418	197	34	863
	38.95	91.2	52.28	CRBT/PYX	2.84	0.121	0.0024	58	259	573	267	44	1,202
	101	125	24	CRBT/PYX	1.93	0.116	0.0024	47	228	501	227	38	1,040
NP0805	22.5	53	30.5	CRBT/PYX	2.29	0.139	0.0020	62	228	530	258	45	1,124
	87.5	97.2	9.7	CRBT/PYX	2.40	0.152	0.0017	52	194	468	228	39	981
	116	127	10.94	CRBT/PYX	4.64	0.087	0.0053	106	403	964	489	84	2,046
Combined extended intersections													
NP0804	1.8	125	123.2		2.65	0.140	0.0024	56	245	557	244	42	1,145
NP0805	5.3	131	125.7		3.34	0.172	0.0027	77	279	682	299	56	1,394

Source: *Nuinsco (press release dated August 26, 2021).*

[1] *Principal Rock Type: CRBT = carbonatite; PYX = pyroxenite.*

[2] *ΣREE = sum of Y, La, Ce, Nd, Sm.*

Notes: *Y = yttrium, La = lanthanum, Ce = cerium, Nd = neodymium, Sm = samarium, P_2O_5 = phosphate, Nb_2O_5 = niobium oxide, Ta_2O_5 = tantalum oxide; 1 g/t = 1 ppm.*

10.5.2.5 Drill Hole NP0806

Sampling of diamond drill core from hole NP0806 (see Figure 10.2) produced continuous mineralized intersections of 118.6 metres (from 6.4 metres to 125 metres) of Nb, Ta, P_2O_5 and REE, including La, Ce, Sm, Nd and Y. The analytical results are presented in Table 10.11.

10.5.2.6 Drill Hole NP0807

Sampling of diamond drill core from drill hole NP0807 (see Figure 10.2), produced a 122.7 metre intersection (from 2.3 metres to 125 metres) of continuous mineralization of Nb, Ta, P_2O_5, and REE, including La, Ce, Sm, Nd, and Y. The analytical results are given in Table 10.12.

10.5.2.7 Drill Hole NP0808

Sampling of diamond drill core from drill hole NP0808 (see Figure 10.2) identified a 118.7 metre, long intersection of continuous mineralization (from 6.3 metres to 125.0 metres downhole) of Nb, Ta, P_2O_5 and REE, including La, Ce, Sm, Nd and Y. The analytical results are listed in Table 10.13.

TABLE 10.11 2021 DRILL HOLES NP0806 RE-SAMPLING ASSAY RESULTS													
Drill Hole ID	**From (m)**	**To (m)**	**Width (m)**	**Rock Type [1]**	**P_2O_5 (%)**	**Nb_2O_5 (%)**	**Ta_2O_5 (%)**	**Y (g/t)**	**La (g/t)**	**Ce (g/t)**	**Nd (g/t)**	**Sm (g/t)**	**ΣREE (g/t) [2]**
New intersections													
NP0806	6.4	36	29.6	CRBT/PYX	3.34	0.100	0.0045	85	325	802	422	73	1,707
	80	96	16	CRBT/PYX	4.14	0.034	0.0014	91	352	796	404	90	1,713
Combined extended intersection													
NP0806	6.4	125	118.6		4.83	0.040	0.0020	117	384	970	476	93	2,040

Source: *Nuinsco (press release dated August 26, 2021).*
[1] *Principal Rock Type: CRBT = carbonatite; PYX = pyroxenite.*
[2] *ΣREE = sum of Y, La, Ce, Nd, Sm.*
Notes: *Y = yttrium, La = lanthanum, Ce = cerium, Nd = neodymium, Sm = samarium,* P_2O_5 *= phosphate,* Nb_2O_5 *= niobium oxide,* Ta_2O_5 *= tantalum oxide; 1 g/t = 1 ppm.*

TABLE 10.12 2021 DRILL HOLE NP0807 RE-SAMPLING ASSAY RESULTS													
Drill Hole ID	**From (m)**	**To (m)**	**Width (m)**	**Rock Type [1]**	**P_2O_5 (%)**	**Nb_2O_5 (%)**	**Ta_2O_5 (%)**	**Y (g/t)**	**La (g/t)**	**Ce (g/t)**	**Nd (g/t)**	**Sm (g/t)**	**ΣREE (g/t) [2]**
NP0807	2.3	9.88	7.58	SILCARB	4.60	0.028	0.004	111	407	1057	614	111	2,300
	15.1	21.7	6.63	PYX	1.80	0.179	0.003	47	159	374	181	33	794
	38.5	87.6	49.14	CRBT/PYX	2.64	0.154	0.002	70	194	470	242	45	1,022
	98	110	12	PYX/CRBT	2.17	0.120	0.003	75	208	487	254	49	1,073
Combined extended intersection													
NP0807	2.3	125	122.7		3.20	0.145	0.0018	81	233	576	281	54	1,225

Source: *Nuinsco (press release dated September 9, 2021).*
[1] *Principal Rock Type: SILCARB = silicocarbonatite, CRBT = carbonatite; PYX = pyroxenite.*
[2] *ΣREE = sum of Y, La, Ce, Nd, Sm.*
Notes: *Y = yttrium, La = lanthanum, Ce = cerium, Nd = neodymium, Sm = samarium,* P_2O_5 *= phosphate,* Nb_2O_5 *= niobium oxide,* Ta_2O_5 *= tantalum oxide; 1 g/t = 1 ppm.*

TABLE 10.13
2021 DRILL HOLE NP0803 RE-SAMPLING ASSAY RESULTS

Drill Hole ID	From (m)	To (m)	Width (m)	Rock Type [1]	P_2O_5 (%)	Nb_2O_5 (%)	Ta_2O_5 (%)	Y (g/t)	La (g/t)	Ce (g/t)	Nd (g/t)	Sm (g/t)	ΣREE (g/t) [2]
New intersections													
NP0803	27.27	44	16.73	CRBT	4.25	0.053	0.003	113	404	979	534	95	2,125
	48.06	59	10.94	CRBT	4.92	0.023	0.002	118	415	1015	566	103	2,217
	65	75	10	CRBT	3.2	0.055	0.002	88	312	671	330	59	1,460
	88.2	103.18	14.98	PYX	1.25	0.086	0.005	44	203	475	246	46	1,014
	116.7	125	8.33	CRBT	3.25	0.025	0.002	72	294	613	290	49	1,317
Combined extended intersection													
NP0803	6.3	125	118.7		3.70	0.073	0.0031	94	345	832	397	75	1,743

Source: *Nuinsco (press release dated September 16, 2021).*
[1] Principal Rock Type: CRBT = carbonatite; PYX = pyroxenite.
[2] ΣREE = sum of Y, La, Ce, Nd, Sm
Notes: *Y = yttrium, La = lanthanum, Ce = cerium, Nd = neodymium, Sm = samarium, P_2O_5 = phosphate, Nb_2O_5 = niobium oxide, Ta_2O_5 = tantalum oxide; 1 g/t = 1 ppm*

10.5.2.8 Drill Hole NP0803

Sampling of diamond drill core from drill hole NP0803 (see Figure 10.2) identified a 183.1 metre intersection of continuous mineralization (from 3.4 metres to 186.5 metres downhole) of Nb, Ta, P_2O_5 and REE, including La, Ce, Sm, Nd, and Y. The analytical results are listed in Table 10.14.

10.5.2.9 Drill Holes NP1001 and NP1004

Sampling of diamond drill core from drill holes NP1001 and NP1004 (see Figure 10.2), identified 290.5 metres and 174.7 metres, respectively, of continuous mineralization of Nb, Ta, P_2O_5 and REE, including La, Ce, Sm, Nd, Pr, Sc, and Y. The analytical results are presented in Table 10.15.

10.5.2.10 Drill Hole NP1003

Re-sampling and assaying of diamond drill core in SW Area drill hole NP1003 (see Figure 10.2) revealed 602.4 metres (from 2.76 metres downhole) of continuous Nb, Ta, P_2O_5 and REE mineralization, including La, Ce, Sm, Nd, Pr, Sc, and Y. Analytical results are given in Table 10.16. At approximately 525 metres vertically below surface, this is the longest mineralized intersection recognized to date at Prairie Lake.

Table 10.14 **2021 Drill Hole NP0803 Re-sampling Assay Results**													
Drill Hole ID	**From (m)**	**To (m)**	**Width (m)**	**Rock Type [1]**	**P_2O_5 (%)**	**Nb_2O_5 (%)**	**Ta_2O_5 (%)**	**Y (g/t)**	**La (g/t)**	**Ce (g/t)**	**Nd (g/t)**	**Sm (g/t)**	**ΣREE (g/t) [2]**
New Intersections:													
NP0803	3.4	17.0	13.6	CRBT, PYX	2.62	0.133	0.0049	58	265	590	273	46	1,231
	22.72	43.25	20.53	CRBT, PYX	2.48	0.188	0.0022	58	260	583	277	47	1,225
	47.75	58.50	10.75	CRBT, PYX	2.33	0.177	0.0016	64	230	467	211	36	1,009
	64	74	10	CRBT, PYX	3.22	0.103	0.0010	67	250	500	226	38	1,081
	97	161	64	CRBT, SILICARB	3.23	0.128	0.0030	63	278	597	277	47	1,261
Combined extended intersection:													
NP0803	3.4	186.5			3.08	0.113	0.0022	68	274	596	264	46	1,248

Source: *Nuinsco (press release dated October 13, 2021).*
[1] Principal Rock Type: CRBT = carbonatite; PYX = pyroxenite, SILICARB = silicocarbonatite.
[2] ΣREE = sum of Y, La, Ce, Nd, Sm.
Notes: *Y = yttrium, La = lanthanum, Ce = cerium, Nd = neodymium, Sm = Samarium, P_2O_5 = phosphate, Nb_2O_5 = niobium oxide, Ta_2O_5 = tantalum oxide; 1 g/t = 1 ppm.*

TABLE 10.15 2021 DRILL HOLE NP1001 AND NP1004 RE-SAMPLING ASSAY RESULTS															
Drill Hole ID	**From (m)**	**To (m)**	**Width (m)**	**Rock Type [1]**	**P_2O_5 (%)**	**Nb_2O_5 (%)**	**Ta_2O_5 (%)**	**Sc (g/t)**	**Y (g/t)**	**La (g/t)**	**Ce (g/t)**	**Pr (g/t)**	**Nd (g/t)**	**Sm (g/t)**	**ΣREE (g/t) [2]**
New intersections:															
NP1001	5	49	44	IJ	5.30	0.085	0.004	10	118	358	786	104	418	72	1,866
NP1004	20	42.2	22.2	IJ	3.06	0.052	0.002	4	168	249	530	66	274	58	1,350
	43.7	157	113.5	IJ	3.39	0.053	0.002	3	162	275	580	75	306	60	1,461
	169.4	176	6.6	IJ	3.95	0.053	0.003	6	104	321	655	83	322	53	1,543
Combined extended intersections															
NP1001	5	296	290.5	IJ/CRBT	3.69	0.113	0.001	7	84	301	665	80	316	55	1,506
NP1004	18.9	194	193.6	IJ	3.68	0.053	0.002	3	164	288	610	78	318	62	1,523

Source: *Nuinsco (press release dated November 18, 2021).*

[1] Principal Rock Type: CRBT = carbonatite; IJ = ijorite.

[2] ΣREE = sum of Sc, Y, La, Ce, Pr, Nd, Sm.

Notes: *Y = yttrium, La = lanthanum, Ce = cerium, Nd = neodymium, Sm = samarium, P_2O_5 = phosphate, Nb_2O_5 = niobium oxide, Ta_2O_5 = tantalum oxide; 1 g/t = 1 ppm.*

Table 10.16 2021 Drill Hole NP1003 Re-sampling Assay Results															
Drill Hole ID	**From (m)**	**To (m)**	**Width (m)**	**Rock Type [1]**	**P_2O_5 (%)**	**Nb_2O_5 (%)**	**Ta_2O_5 (%)**	**Sc (g/t)**	**Y (g/t)**	**La (g/t)**	**Ce (g/t)**	**Pr (g/t)**	**Nd (g/t)**	**Sm (g/t)**	**ΣREE (g/t) [2]**
New intersections:															
NP1003	40.45	93.2	52.75	CRBT/PYX	2.37	0.091	0.0026	22	63	390	896	107	411	63	1,952
	147.5	181.7	34.2	PYX	1.63	0.197	0.0015	39	52	489	1,188	143	533	76	2,520
	260.25	266	5.75	PYX	1.23	0.231	0.0018	33	53	341	808	103	395	60	1,794
	274.8	299	24.2	PYX	2.37	0.179	0.0032	25	45	242	570	71	277	46	1,276
	397.5	410.6	13.1	PYX	1.98	0.115	0.0012	36	46	142	343	48	209	42	866
	601	605	4	IJ	1.48	0.028	0.0016	2	123	120	277	38	169	40	769
Combined extended intersection															
NP1003	2.76	605	602.4		3.15	0.131	0.0017	15	71	304	731	90	352	59	1,621

Source: *Nuinsco (press release dated November 29, 2021).*

[1] Principal Rock Type: CRBT = carbonatite, PYX = pyroxenite, IJ = ijorite.

[2] ΣREE = sum of Sc, Y, La, Ce, Pr, Nd, Sm.

Notes: *Y = yttrium, La = lanthanum, Ce = cerium, Nd = neodymium, Sm = samarium, P_2O_5 = phosphate, Nb_2O_5 = niobium oxide, Ta_2O_5 = tantalum oxide, Sc = scandium, Pr = praseodymium; 1 g/t = 1 ppm.*

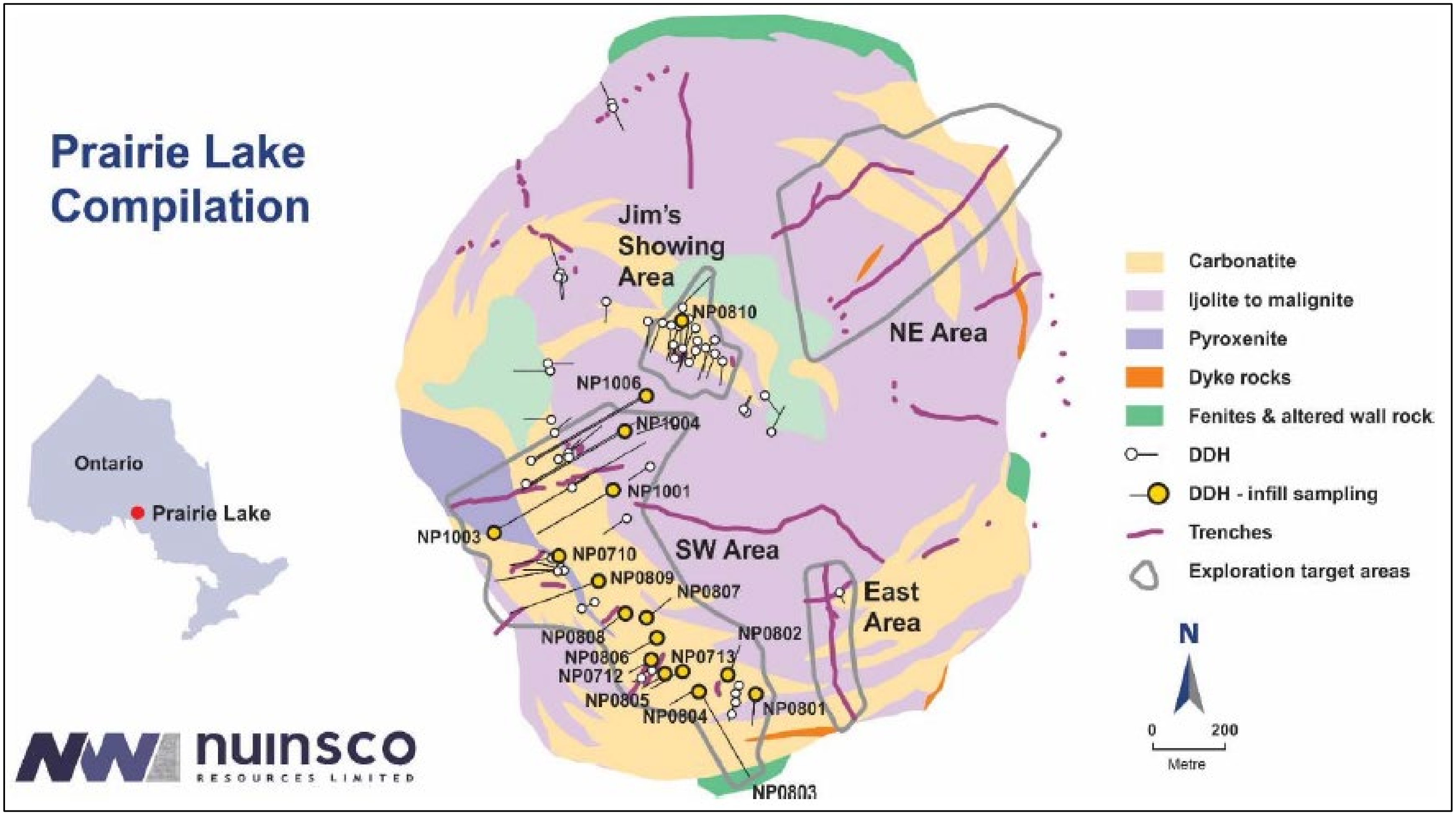
The mineralization of contained within the PLCC occurs at surface and extends to unknown depths below the deepest drilling completed (approximately 525 metres vertically). There is no indication that mineralization diminishes with depth and the intersections from the Program reported to date occur in a domain that presently extends 1,000 metres, oriented southeast-northwest, in the SW Area (Figure 10.3).

10.5.2.11 Drill Hole NP0810

Drill hole NP0810 was completed to test Jim's Showing, located approximately 500 metres north of the centre of the SW Area, near the centre of the PLCC (see Figure 10.3). Sampling of diamond drill core from drill hole NP0810 revealed a 495 metre intersection (from 2 metres to 497 metres downhole) of Nb, Ta, P_2O_5 and REE, including La, Ce, Sm, Nd, Pr, Y and Sc mineralization. The analytical results are given in Table 10.17.

These analytical results from Jim's Showing, in addition to those from the SW Area, demonstrate the widespread nature of REE, Nb and P_2O_5 mineralization hosted in the rocks within the PLCC.

FIGURE 10.3 RESAMPLED DRILL HOLE COLLAR LOCATION IN THE JIM'S SHOWING AREA



Source: *Nuinsco (press release dated November 24, 2021).*

Table 10.17 2021 Drill Hole NP0810 Re-sampling Assay Results															
Drill Hole ID	**From (m)**	**To (m)**	**Width (m)**	**Rock Type [1]**	**P_2O_5 (%)**	**Nb_2O_5 (%)**	**Ta_2O_5 (%)**	**Sc (g/t)**	**Y (g/t)**	**La (g/t)**	**Ce (g/t)**	**Pr (g/t)**	**Nd (g/t)**	**Sm (g/t)**	**ΣREE (g/t) [2]**
New intersection															
NP0810	2	125	123	CRBT	3.04	0.116	0.0026	4	88	375	765	92	349	57	1,731
Combined extended intersection															
NP0810	2	497	495		3.72	0.091	0.0025	5	119	404	921	117	396	74	2,036

Source: *Nuinsco (press release dated November 24, 2021).*

[1] Principal Rock Type: CRBT = carbonatite.

[2] ΣREE = sum of Sc, Y, La, Ce, Pr, Nd, Sm.

Notes: *Y = yttrium, La = lanthanum, Ce = cerium, Nd = neodymium, Sm = samarium, P_2O_5 = phosphate, Nb_2O_5 = niobium oxide, Ta_2O_5 = tantalum oxide, Sc = scandium, Pr = praseodymium; 1 g/t = 1 ppm.*

11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

The following section of this Technical Report discusses sampling completed by Nuinsco at the Prairie Lake Property during its 2007, 2008 and 2010 diamond drilling programs, and the 2018 and 2021 infill drill core sampling program.

11.1 2007 TO 2010 SAMPLE PREPARATION, ANALYSES AND SECURITY

On receiving the drill core from the drill contractor, the drill core was first scanned for radioactivity using an Exploranium model GR-110 Scintillometer or Radiation Solutions Inc. RS-120 Scintillometer, and any elevated counts were recorded on the drill core. All drill core was then photographed. The geologist marked the sample intervals on the drill core as it was logged. Where possible, a standard sample length of 1.5 metres was utilized, being careful not to cross lithological contacts. A minimum sample interval of 0.2 metres and a maximum interval of 3.0 metres were utilized. Sampling was based primarily on the presence of carbonatite and (or) elevated scintillometer readings and (or) abundance of apatite ($(Ca_5(PO_4)_3(Cl/F/OH))$).

The drill core was then cut lengthwise with a saw by technicians contracted through Richards Exploration Inc. of the Town of Terrace Bay, Ontario. Technicians placed the cut samples into bags labelled with the sample ID assigned by the geologist, with the corresponding sample tag provided by the analytical lab. Samples were then placed in numerical sequence into larger rice bags and prepared for shipment to the analytical laboratory. In some cases, the drill core was cut and washed prior to logging. Samples were later measured out and prepared by the geologist while logging the drill core, rather than by the technicians.

For the 2007 and 2008 drilling program, logging and sampling was completed outdoors at Jackfish Lake Motel Efficiency Cottages, 20 km east of Terrace Bay. For the duration of the two drilling programs, the drill core was logged and stored in an area off-limits to motel guests. Nuinsco has since moved all the drill core from both the 2007 and 2008 drill programs to a more permanent, secure storage facility owned by Nuinsco in Nestor Falls, Ontario.

For the 2010 program, a building was rented in Terrace Bay for the duration of the program. Drill core was stored inside of the building and subsequently shipped to Nestor Falls, Ontario for permanent storage.

It is the author's opinion that the core logging procedures employed are thorough and provide sufficient geotechnical and geological information. There are no apparent drilling or recovery factors that would materially impact the accuracy and reliability of the drilling results.

All drill core analyses from the 2007, 2008 and 2010 drilling programs were completed by Activation Laboratories Ltd. ("Actlabs"). During the 2007 program, drill core was sent by Nuinsco personnel via Greyhound Canada to Actlabs' facility in Ancaster, Ontario. During the 2008 and 2010 programs, the drill core was delivered by Nuinsco personnel directly to Actlabs' facility in Thunder Bay, Ontario.

Actlabs is independent of Nuinsco. 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.

A total of 3,553 drill core samples were submitted to Actlabs. All of these samples were analyzed for uranium by the delayed neutron counting ("DNC") method, which has a lower detection limit of 0.1 g/t.

Samples were also analyzed for the 4Litho multi-element package. The 4Litho package includes digestion of the samples by lithium metaborate/tetraborate digestion (HF-HNO_3-$HClO_4$-HCl), followed by determination by inductively coupled plasma ("ICP") or mass spectrometry ("MS"). The oxides and trace elements included are listed below:

- Major element oxides: SiO_2, Al_2O_3, Fe_2O_3, MnO, MgO, CaO, Na_2O, K_2O, TiO_2, P_2O_5;
- Trace elements: Ag, As, Ba, Be, Bi, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Ga, Gd, Ge, Hf, Hg, Ho, In, La, Lu, Mo, Nb, Nd, Ni, Pb, Pr, Rb, Sb, Sc, Sm, Sn, Sr, Ta, Tb, Th, Tl, Tm, U, V, W, Y, Yb, Zn, Zr.

Niobium was analyzed first by FUS-MS, with an upper detection limit of 1,000 g/t. In 2007 and 2008, samples falling above the upper detection limit were subsequently re-analyzed by pressed pellet wavelength dispersive x-ray fluorescence ("PP-XRF"). In 2010, all samples were analyzed by Code 8 niobium-zirconium (Nb_2O_5 and ZrO_2), which involves a lithium metaborate/tetraborate digestion (HF-HNO_3-$HClO_4$-HCl), followed by X-ray fluorescence ("XRF") analysis with a lower detection limit of 0.003%.

In 2007, only 244 of the 720 samples submitted were analyzed for the complete 4Litho package, whereas the remaining 476 samples were analyzed only for P_2O_5, Ta and Nb utilizing the same methods as the 4Litho analytical package.

It is this Technical Report author's opinion that sample preparation, security and analytical procedures for the Prairie Lake Project drilling and sampling were adequate for the purposes of the Mineral Resource Estimate reported in Section 14 of this Technical Report.

11.2 2018 AND 2021 SAMPLE PREPARATION, ANALYSES AND SECURITY

Nuinsco's infill sampling program involved the sampling of diamond drill core not previously sampled during the 2007, 2008, and 2010 drilling programs. Since program completion, diamond drill core has been stored in a gated facility owned by Nuinsco in the Town of Nestor Falls, Ontario.

The majority of the infill sampling was completed from June to October 2021. One batch of samples from two drill holes (NP0702 and NP0714) was collected and submitted earlier in June 2018, when Nuinsco's geologists were on-site to arrange for the drill core to be cut in advance of sampling. Cutting of the drill core was completed in advance, on-site by a local contractor during the summer of 2018.

In most cases, samples were transported by Nuinsco personnel to the Gardewine North shipping company facility in the Town of Fort Frances, Ontario and shipped directly to Actlabs in Thunder Bay, Ontario. In some cases, the samples were delivered directly to Actlabs by Nuinsco personnel.

Samples were stored either within the gated portion of the Property or within a locked storage container prior to shipment.

The purpose of the infill sampling program was to sample gaps in the previous sampling of the drill core. Samples were measured, marked out, and bagged by the company geologist. Samples ranged from 0.23 metres to 2.50 metres in length, with an average length of 1.37 metres. Sample length was determined both by lithology/mineralogy and by the width of the historical sampling gap. Samples were placed in clear polybags with the sample tag and bags were sealed with zip-ties.

Quality control ("QC") samples, including certified reference material and blanks, were randomly introduced into the sampling stream.

11.3 QUALITY ASSURANCE/QUALITY CONTROL REVIEW

11.3.1 2007 to 2010 Quality Assurance/Quality Control

For the 2007 and 2008 programs, typically one to two uranium certified reference materials were added to the sampling sequence for each drill hole exhibiting elevated scintillometer readings. The uranium certified reference material (CANMET CUP-1) was purchased from CANMET labs in Ottawa, Ontario and is certified for uranium only.

For the 2010 trenching and drilling programs, niobium certified reference materials (CRM) were also added to the sampling sequence. Either a uranium or niobium CRM was randomly inserted into the sampling sequence at a rate of approximately 1 in every 10 drill core samples. The niobium CRM (CANMET OKA-1) was purchased from CANMET labs and is certified for niobium.

Blank samples were also used and typically inserted every 10-20 samples. The blank material was dolomitic limestone sourced from Victory Nickel's Minago Project near Grand Rapids, Manitoba. Drill core from the limestone cap overlying their nickel deposit was drilled and cut in 2007, specifically to be used as blank material by Victory Nickel.

A total of 87 blank samples and 22 uranium standard samples were included with the drill core samples submitted to Actlabs in 2007 and 2008. For the 2010 drilling program a total of 99 blank samples, 75 uranium CRM, and 85 niobium CRM were submitted.

11.3.1.1 Performance of Certified Reference Materials

The CUP-1 certified reference material was certified for uranium only at a mean value of 1,280 g/t U. For the 2007 and 2008 samples, there were 22 data points for this CRM and all passed the QC, remaining within ± two standard deviations from the mean. It is to be noted, however, that there was a high bias demonstrated with all points falling above the mean. For the 2010 drilling program, there were 75 uranium CRM insertions. All uranium CRM fell within two standard deviations of the mean certified value of 1,280 g/t U for the CUP-1 CRM.

For the 2010 drilling program, there were also 85 niobium CRM submitted. The OKA-1 CRM standard was certified for niobium at a mean value of 3,700 g/t Nb. Of the 85 niobium CRM insertions analysed, 79 passed the QC, remaining within ± two standard deviations from the mean. The remaining six samples returned unacceptably low analyses. A subset of samples was re-analyzed from the batches containing the low analyses. The re-analyses generally plotted within 5% of the original analyses, indicating that the original analyses were acceptable.

This Technical Report author considers that the standard data demonstrates acceptable accuracy in the 2007 to 2010 Prairie Lake data.

11.3.1.2 Performance of Blank Material

There were 87 blank samples inserted into the sample stream during the 2007 and 2008 drill program. Almost all of the values were greater than three times detection limit for uranium, with a high value of 36 g/t U (0.0036%). The mean value of the blanks was 0.00028% U. In spite of the values being greater than three times detection limit, they were so low that no action was required.

For the 2010 drill core samples, there were 99 blank samples inserted into the sample stream. As in the previous programs, almost all values for uranium were greater than the three times detection limit for uranium (0.1 g/t for the DNC method). The mean value of the blanks was 1.1 g/t (0.00011%) U, with a highest value of 14.8 g/t (0.00148%) U. The values were so low that no action was required. The mean niobium (XRF) value for the blank samples was 0.005% Nb_2O_5, which is less than three times the lower detection limit of 0.003% for niobium (Nb_2O_5). A high value of 0.02% Nb_2O_5 for one sample initiated a partial re-analysis of the batch containing the sample and it was determined that there were no significant issues with the result.

This Technical Report author does not consider contamination to be an issue for the 2007 to 2010 U drill data and the 2010 Nb_2O_5 drill data.

11.3.2 2018 and 2021 Quality Assurance/Quality Control

QC samples were randomly introduced into the sampling stream at a rate of approximately 1 in 20, including blanks and certified reference material (“CRM” or “standard”).

11.3.2.1 Performance of Certified Reference Materials

A single niobium mineralized CRM, the OKA-1 CRMs, obtained from the Government of Canada’s Canadian Certified Reference Materials Project (CCRMP), was used to monitor Nb_2O_5. No other CRM were inserted into the sample stream by Nuinsco and the Company relied on the lab’s own QC protocol to monitor accuracy for all other elements.

There were 22 data points to assess for the OKA-1 CRM and all data fell within ±2 standard deviations from the certified mean value, with the majority of data points falling above the mean.

The Technical Report author also examined Actlabs' data for Ce, La, Nb, Nd, Sc, Sm, Ta, U, Y, Nb_2O_5, P_2O_5 and Ta_2O_5 and considers the infill sampling program laboratory CRM data demonstrate acceptable accuracy for all elements.

11.3.2.2 Performance of Blank Material

Non-certified, locally sourced clean white marble pebbles, obtained from a building supply company, were used to monitor contamination in the Company's infill sampling program. There were 30 data points to examine. All blank data for Ce, La, Nb, Nd, Sc, Sm, Ta, U, Y, Nb_2O_5, P_2O_5 and Ta_2O_5 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. The vast majority of data plots at or below ten times the detection limit for all elements. Data plotting above ten times the detection limit fell only marginally above this level and the author of this Technical Report section does not consider contamination to be an issue to the infill sampling program data.

The author also examined the lab blank data for Ce, La, Nb, Nd, Sc, Sm, Ta, U, Y, Nb_2O_5, P_2O_5 and Ta_2O_5 and all lab blank data falls below or very close to lower detection limit levels.

11.3.2.3 Performance of Laboratory Duplicates

Field duplicates were not inserted into the sample stream by Nuinsco and laboratory duplicate data for Ce, La, Nb, Nd, Sc, Sm, Ta, U, Y, Nb_2O_5, P_2O_5 and Ta_2O_5 were reviewed by the author for the 2018 and 2021 infill sampling. The data were scatter graphed and the coefficients of determination ("R^2") and average coefficients of variation ("CV_{AVE}") were used to estimate precision. Duplicate samples with combined means of <15 times the detection limit were excluded from the CV_{AVE} data, to eliminate the level of influence of the data nearer the detection limit where higher grade variations are more likely to occur. Removing low-grade outliers was not possible for the Ta_2O_5 dataset, as all of the data would need to be excluded. The author instead included all samples to at least have some guidance of precision for this element. A summary of precision analysis is given in Table 11.1. Excluding the unreliable Ta_2O_5 data and taking test methods into consideration, data show acceptable precision and improvement from preparation to pulp level.

The author of this Technical Report sections recommends that future drilling and sampling programs include the insertion of duplicate samples.

TABLE 11.1
DUPLICATE PERFORMANCE (OUTLIERS REMOVED FROM CVAVE* DATA)

Element	Ce		La		Nb		Nb_2O_5		Nd		P_2O_5	
Unit	(g/t)		(g/t)		(g/t)		(%)		(g/t)		(%)	
Analysis	FUS-MS		FUS-MS		FUS-MS		FUS-XRF		FUS-MS		FUS-ICP	
Detection Level	0.1		0.1		1		0.003		0.1		0.01	
Precision Technique	R^2	CV_{ave}	R^2	CV_{ave}	R^2	CV_{ave}	R^2	CV_{ave}	R^2	CV_{ave}	R^2	CV_{ave}
Lab Prep Duplicates	0.998	27.0	0.998	27.0	0.921	32.8	0.998	2.6	0.997	27.0	0.999	2.7
Lab Prep Duplicates	0.997	6.9	0.997	3.8	0.913	14.8	0.999	2.2	0.995	3.9	0.999	1.2

Element	Sc		Sm		Ta		Ta_2O_5		U		Y	
Unit	(g/t)		(g/t)		(g/t)		(%)		(g/t)		(g/t)	
Analysis	FUS-ICP		FUS-MS		FUS-MS		FUS-XRF		FUS-MS		FUS-ICP	
Detection Level	1		0.1		0.1		0.003		0.1		1	
Precision Technique	R^2	CV_{ave}	R^2	CV_{ave}	R^2	CV_{ave}	R^2	CV_{ave}	R^2	CV_{ave}	R^2	CV_{ave}
Lab Prep Duplicates	0.996	2.5	0.995	26.9	0.928	32.5	0.594	35.0*	0.991	26.9	1	1.5
Lab Prep Duplicates	0.999	1.9	0.993	3.8	0.933	15.4	0.372	31.1*	0.998	4.3	0.999	1.6

Notes: *No outliers removed; all data below 15 x LDL.*
** CV_{AVE} = average coefficients of variation.*

11.4 CONCLUSION

It is this Technical Report author's opinion that sample preparation, security and analytical procedures for the Prairie Lake Project drilling and infill sampling programs were adequate and examination of QA/QC results for all recent sampling indicates no significant issues with accuracy, contamination or precision in the data. The author considers the data to be of good quality and satisfactory for use in the current Mineral Resource Estimate.

The author of this Technical Report further recommends that Nuinsco use appropriate field-inserted CRMs to monitor a range of elements of interest in future drilling and sampling programs. It is also recommended that a mix of targeted and randomly selected duplicate samples be inserted into the sample stream of future sampling programs.

12.0 DATA VERIFICATION

12.1 DRILL HOLE DATABASE

Verification of drill hole assay data entry was performed by P&E on 4,592 assay intervals for P_2O_5, Nb_2O_5, Ta_2O_5, U_3O_8, La, Ce, Sm, Nd and Y, and for U, Ta and Nb in the more recent 2021 data. No data entry errors were observed. The 4,592 verified intervals were checked against original digital assay lab certificates from Actlabs, Ancaster, Ontario. The checked assays represented 85% of the drill hole data and 71% of the entire database, which also includes 1,042 trench samples.

12.2 2009 AND 2011 P&E SITE VISITS AND INDEPENDENT SAMPLING

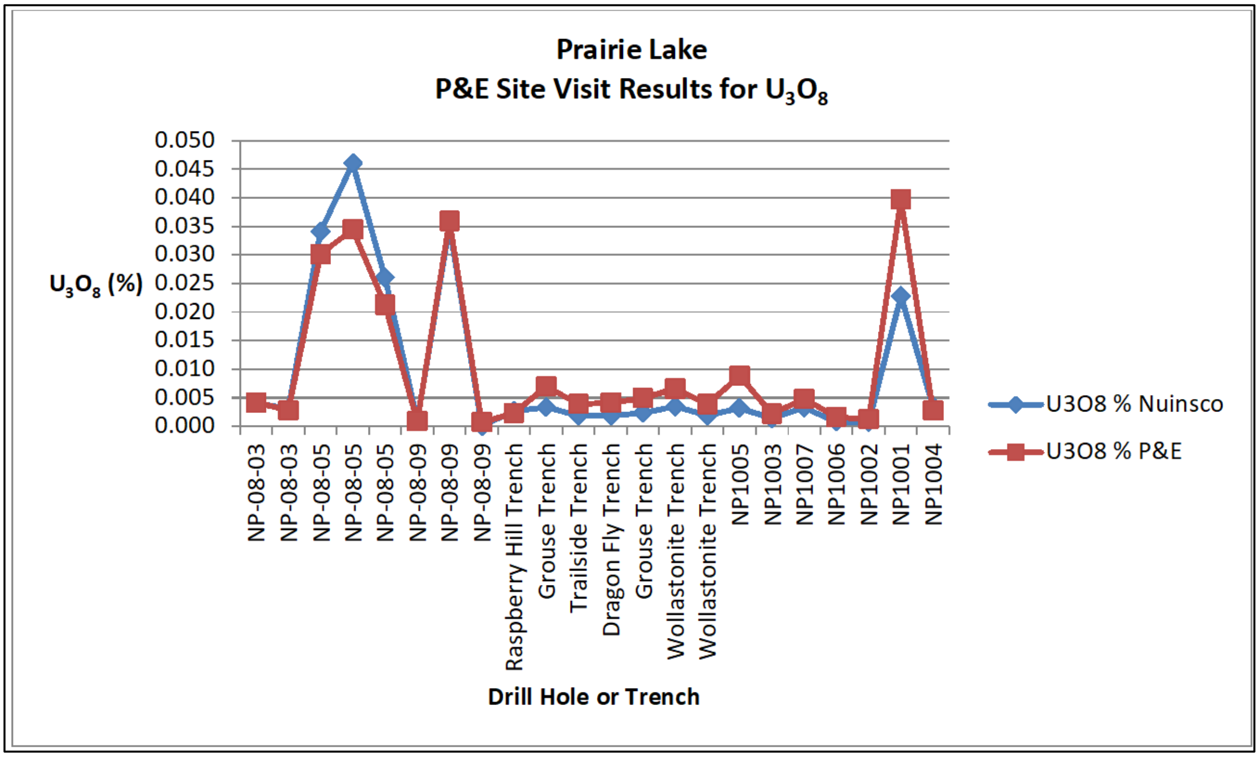
The Prairie Lake Deposit was visited by Antoine Yassa, P.Geo. on Dec 2, 2009 and Eugene Puritch, P. Eng., FEC, CET on June 2, 2011 and on November 5, 2021. Twenty-two samples were collected from ten diamond drill holes by taking ¼ splits of the remaining half drill core and from five trenches by sampling from bags of broken rock. The samples were bagged and brought by Mr. Yassa and Mr. Puritch to SGS Mineral Services ("SGS") in Toronto and AGAT Laboratories ("AGAT"), Mississauga, respectively, for analysis.

AGAT is an independent lab that developed and implemented at each of its locations a Quality Management System (QMS) designed to ensure the production of consistently reliable data. The system covers all laboratory activities and takes into consideration the requirements of ISO standards. AGAT maintains ISO registrations and accreditations. ISO registration and accreditation provide independent verification that a QMS is in operation at the location in question. AGAT Laboratories is certified to ISO 9001:2015 standards and is accredited, for specific tests, to ISO/IEC 17025:2017 standards.

SGS Minerals is an independent laboratory operating more than 2,600 offices and labs throughout the world. Sample processing services at SGS are ISO/IEC 17025:2017 accredited by the Standards Council of Canada. Quality Assurance procedures include standard operating procedures for all aspects of the processing and also include protocols for training and monitoring of staff. ONLINE LIMS is utilized for detailed worksheets, batch and sample tracking including weights and labeling for all the products from each sample.

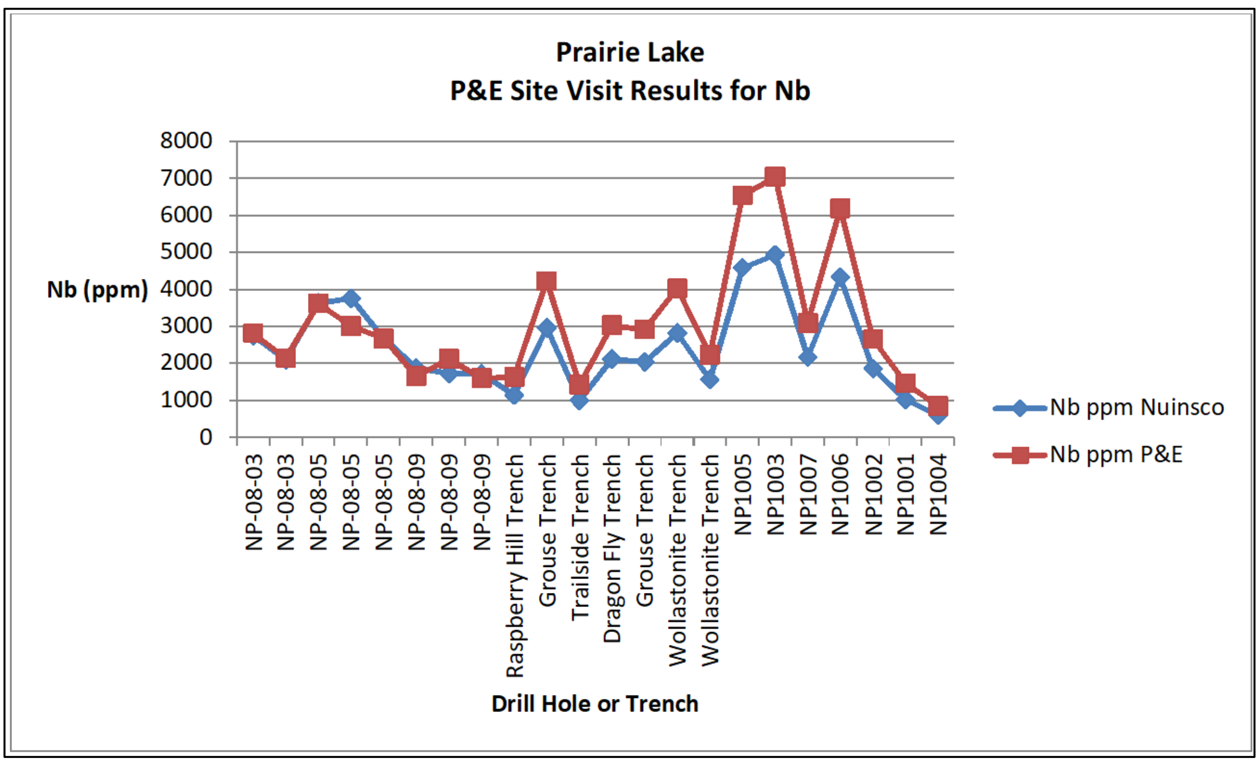
At no time prior to sampling were any employees or officers of Nuinsco informed as to the location of the samples to be chosen. The samples were analyzed for U_3O_8, Ta, Nb, and P_2O_5. A comparison of the P&E independent sample verification results versus the original assay results can be seen in Figures 12.1, 12.2, 12.3 and 12.4.

FIGURE 12.1 P&E SITE VISIT RESULTS FOR U_3O_8



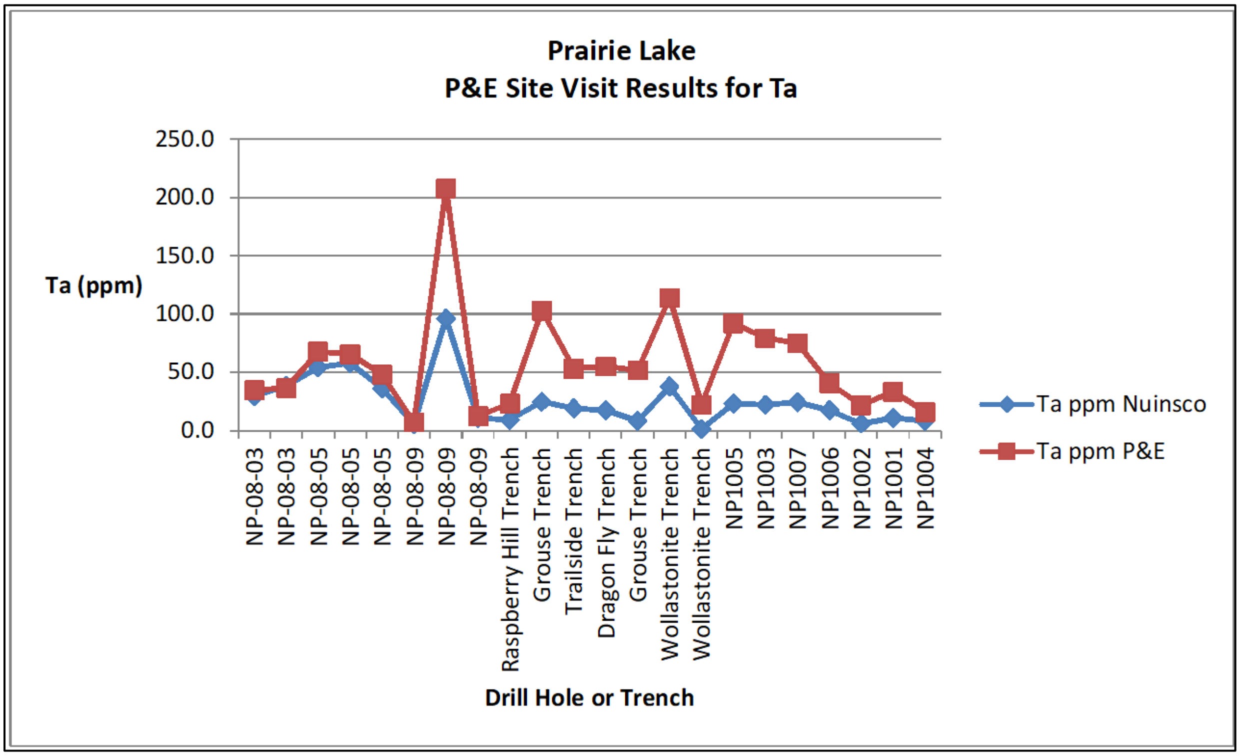
Source: *P&E (2018)*

FIGURE 12.2 P&E SITE VISIT RESULTS FOR NB



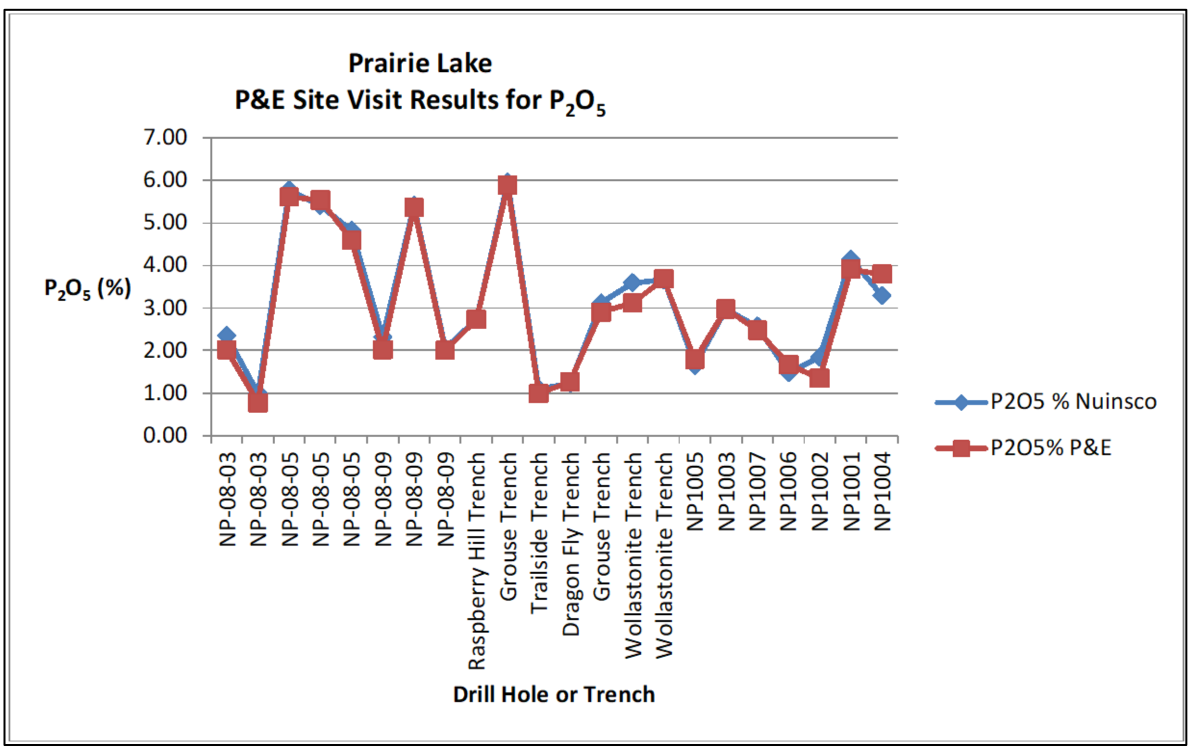
Source: *P&E (2018)*

FIGURE 12.3 P&E SITE VISIT RESULTS FOR TA



Source: *P&E (2018)*

FIGURE 12.4 P&E SITE VISIT RESULTS FOR P_2O_5



Source: *P&E (2018)*

12.3 2022 VERIFICATION SAMPLING

In January of 2022, P&E undertook verification sampling of a select subset of Nuinsco's 2021 infill sampling data. P&E selected a total of 38 samples from six Project drill holes (see Table 12.1) utilizing the following criteria:

- Selection was made by examining the various grade ranges included in the infill sampling resource data for the major elements;
- Any combination of at least three target elements in a single sample, returning values within the ranges of interest were deemed potential verification material; and
- Final selection was then made based on the reject and pulp sample availability and combined representation of a range of low-, average- and high-grades.

Final sample selection was communicated to Nuinsco, who then instructed Actlabs to transfer the prepared pulp and reject samples to SGS in Mississauga for comparative geochemical analysis.

TABLE 12.1
DUE DILIGENCE SELECTION FOR RE-ASSAYING

Batch ID	Sample ID (From)	Sample ID (To)	Count	Drill Hole ID
A21-09222	878563	878569	7	NP0809
A21-09806	878667	878672	6	NP0803
A21-12237	878673	878678	6	NP0801
A21-12237	878735	878742	8	NP0802
A21-13068	774526	774531	6	NP0807
A21-16104	774896	774900	5	NP0810
Total			**38**	

The pulp samples were analyzed for a multi-element array at SGS (including Ce, La, Nb, Nd, Sc, Sm, Ta, U and Y) by Sodium Peroxide fusion with an ICP-AES or ICP-MS finish. Samples were also analyzed for bulk density by the pycnometer method.

SGS Minerals is an independent laboratory operating more than 2,600 offices and labs throughout the world. Sample processing services at SGS are ISO/IEC 17025:2017 accredited by the Standards Council of Canada. Quality Assurance procedures include standard operating procedures for all aspects of the processing and also include protocols for training and monitoring of staff. ONLINE LIMS is used for detailed worksheets, batch and sample tracking including weights and labeling for all the products from each sample.

Comparison between P&E's verification results versus Nuinsco's infill reject and pulp samples are presented in Figures 12.5 through 12.12.

FIGURE 12.5 INFILL SAMPLING PROGRAM VERIFICATION RESULTS FOR CE

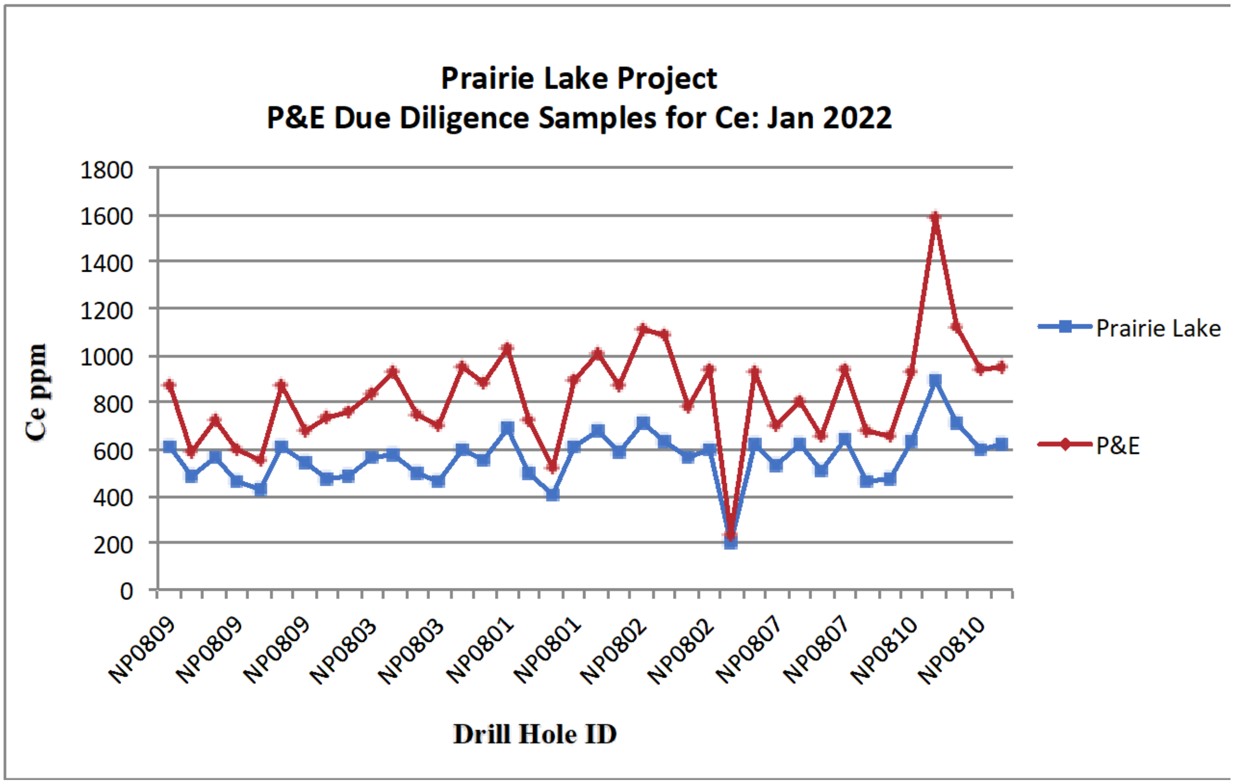


FIGURE 12.6 INFILL SAMPLING PROGRAM VERIFICATION RESULTS FOR LA

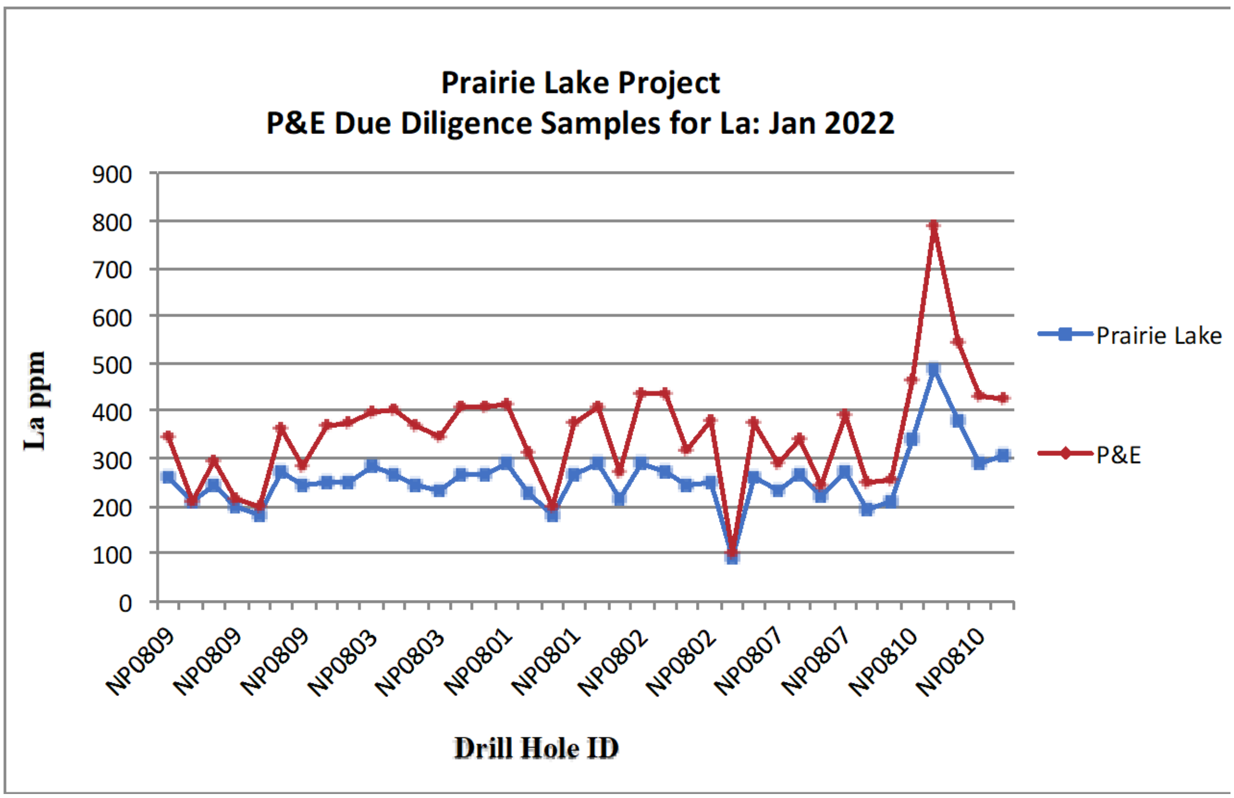


FIGURE 12.7 INFILL SAMPLING PROGRAM VERIFICATION RESULTS FOR NB

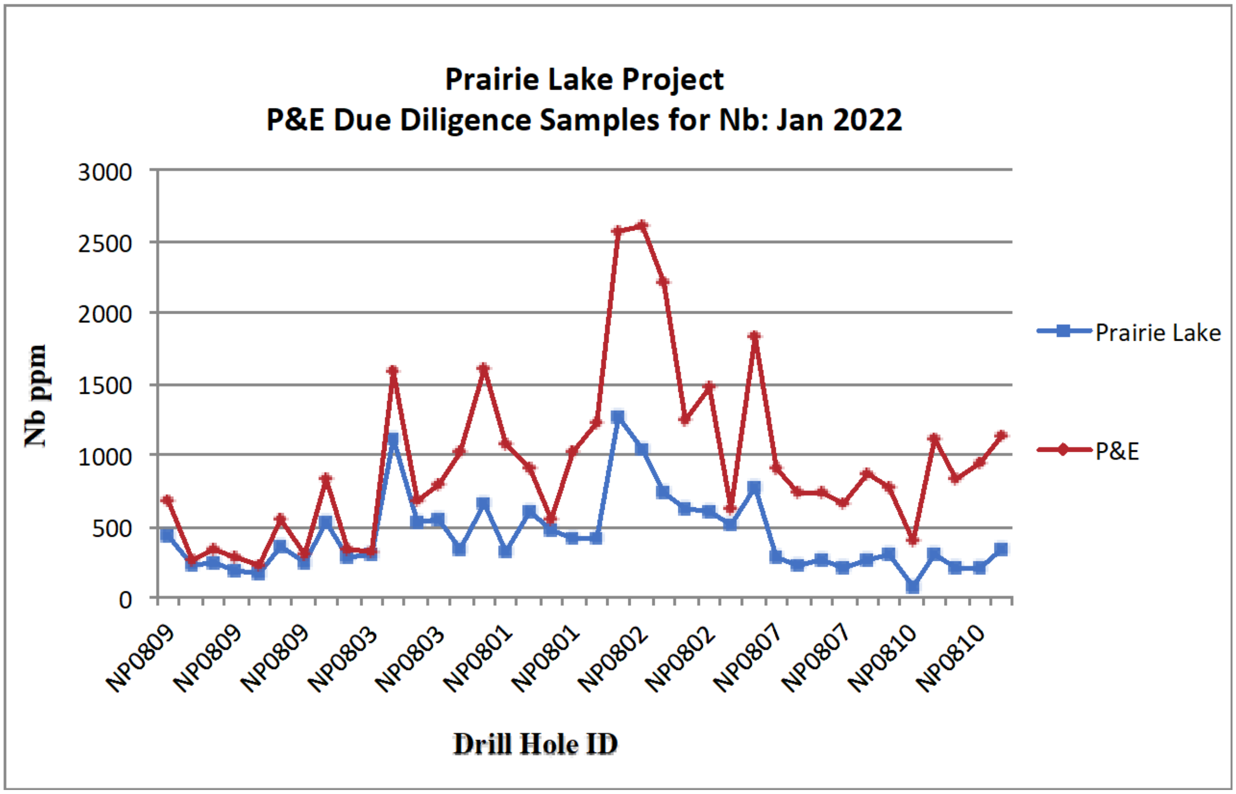


FIGURE 12.8 INFILL SAMPLING PROGRAM VERIFICATION RESULTS FOR ND

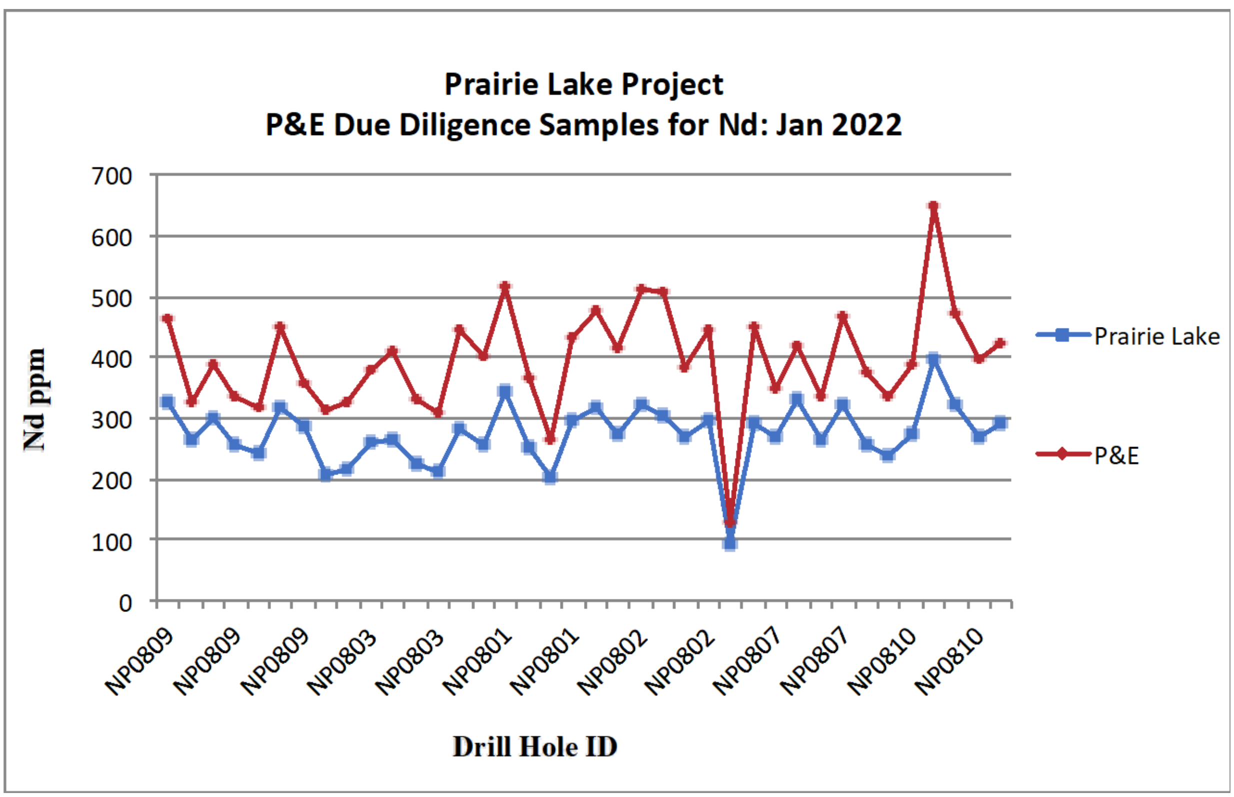


FIGURE 12.9 INFILL SAMPLING PROGRAM VERIFICATION RESULTS FOR SM

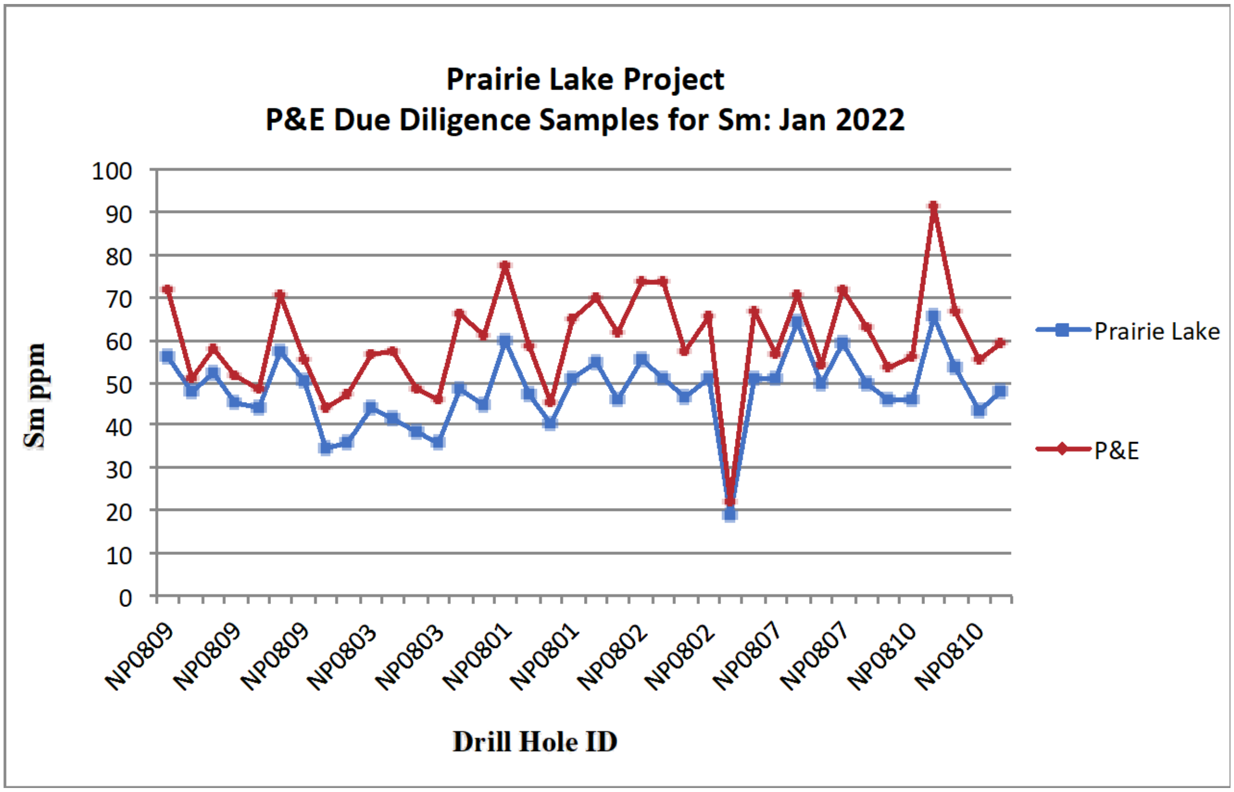


FIGURE 12.10 INFILL SAMPLING PROGRAM VERIFICATION RESULTS FOR TA

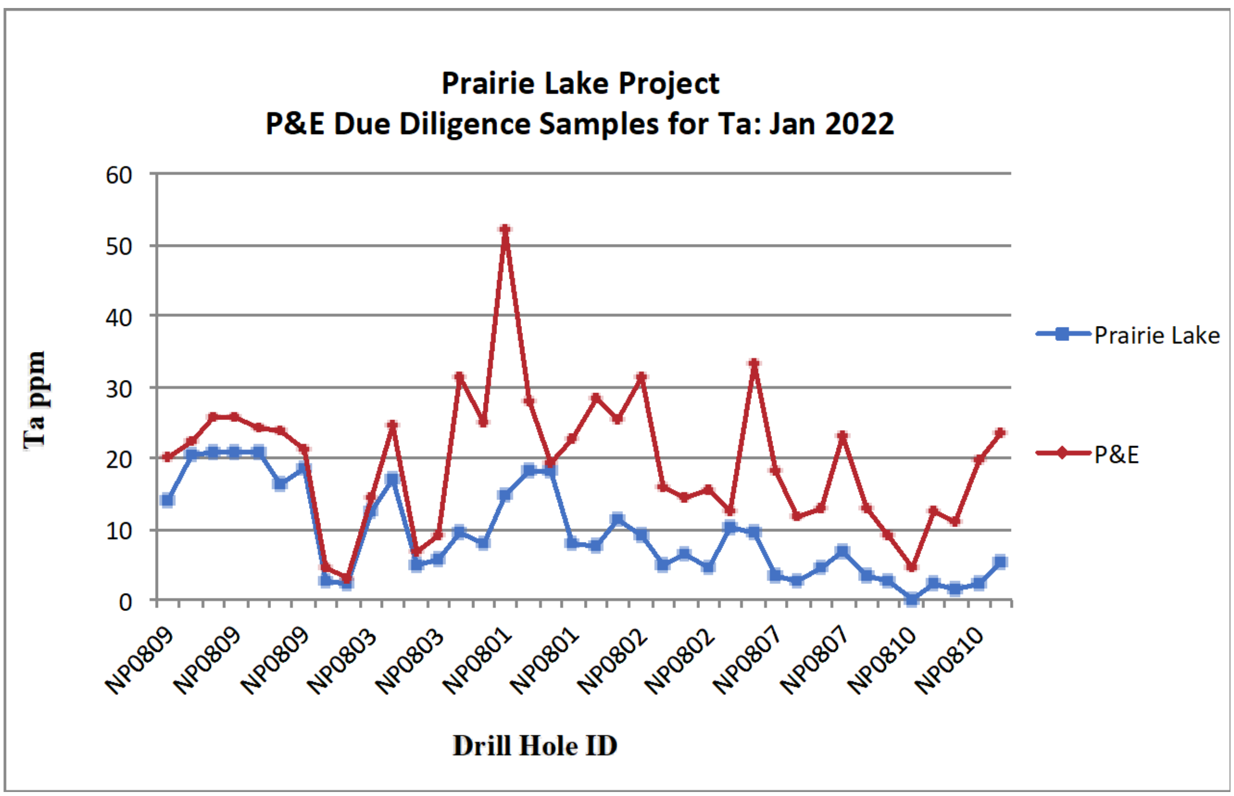


FIGURE 12.11 INFILL SAMPLING PROGRAM VERIFICATION RESULTS FOR U

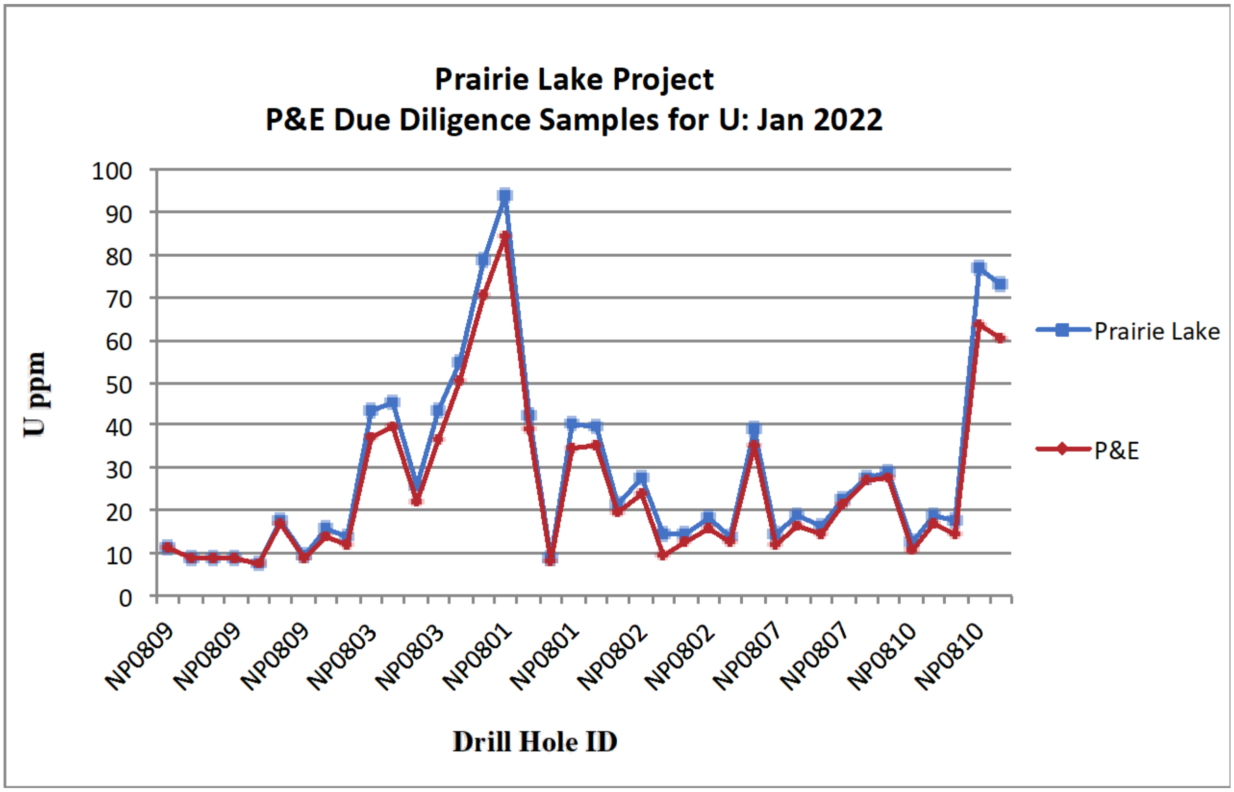
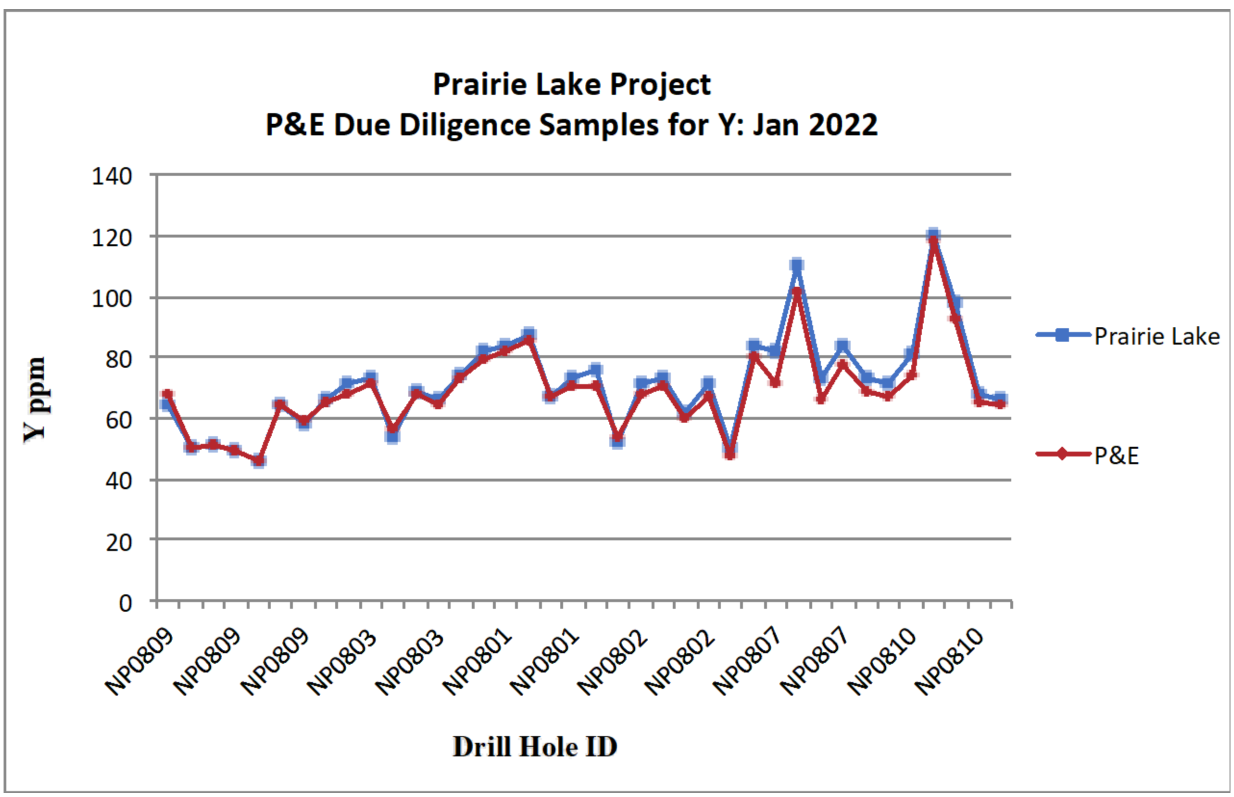


FIGURE 12.12 INFILL SAMPLING PROGRAM VERIFICATION RESULTS FOR Y



12.4 CONCLUSION

The majority of P&E's verification samples return higher grades than Nuinsco's original samples; however, they still demonstrate very good correlation between all assay values in Nuinsco's database and the independent verification samples collected by P&E and analyzed at SGS and AGAT. It is this Technical Report author's opinion that the data are of good quality and appropriate for use in the current Mineral Resource Estimate.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The following section is historical information based on 2008 gravity concentration tests by Kennecott in Thunder Bay and on 2009 to 2011 tests by COREM in Quebec City. Detailed mineralogical analyses were performed by the Department of Earth Sciences at Carleton University in 2011 and 2013 and by a consulting mineralogist in Ottawa in 2021.

13.1 MINERALOGY

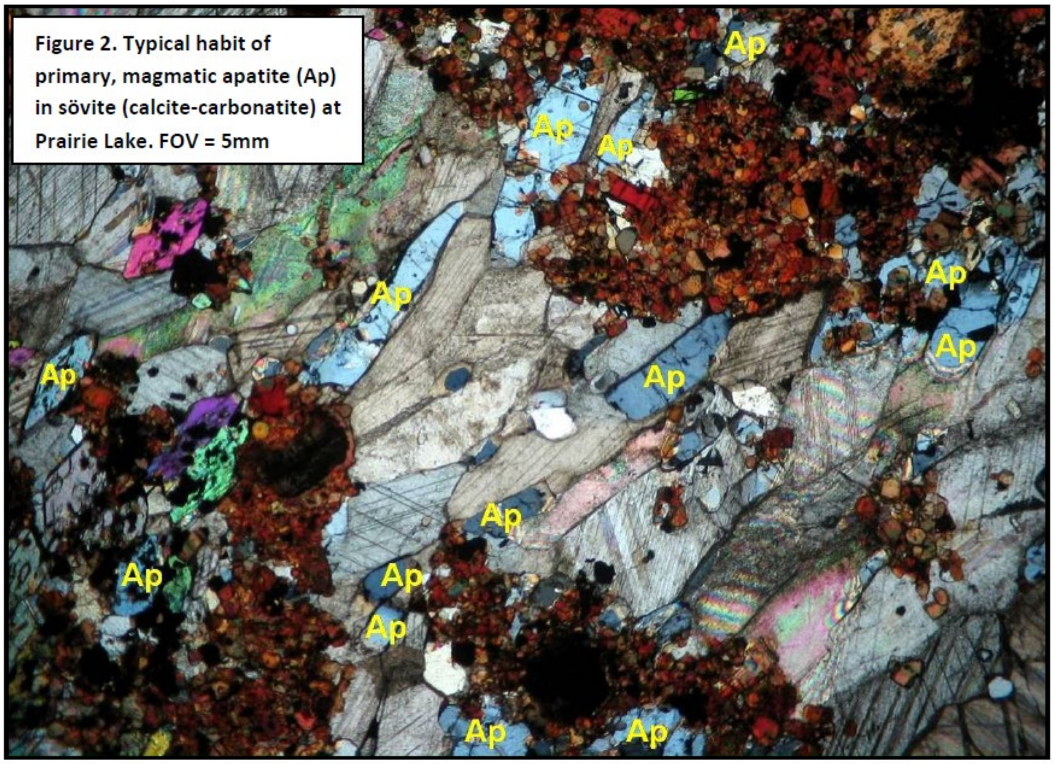
13.1.1 Apatite

Apatite is the principal mineral of interest and mineralogical analyses indicated its significant presence in both carbonatites and ijolites of the current Prairie Lake Mineral Resource. The apatite occurs in grain sizes of 0.1 mm to 1.0 mm with a median grain size of 0.1 mm to 0.2 mm or 70 to 140 Mesh. This grain size range implies that apatite concentration processes could take place at a relatively coarse grain size.

Electron-microprobe (EMP) analyses confirmed a formula of $Ca_{10}P_6O_{24}F_2$, or fluorapatite (other variations of apatite include substitution of Cl and OH for F). In the 124 samples tested, the Prairie Lake apatite has a total mean REO (REE_2O_3, rare earth oxide) concentration of 15,400 g/t or 1.54%. The REOs measured included Y, La, Ce, Pr, Nd and Sm. Of particular interest is Nd, with a mean concentration of 2,800 g/t (0.28%). Other REEs of significant economic interest are Pr and Sm, which ranged from below detection up to 2,400 g/t (0.24%). The mean P_2O_5 content of the samples slightly exceeded 41%. With an Indicated Mineral Resource grade of 3.71% P_2O_5, the apatite abundance is approximately 9%.

Typical deportment of apatite in petrographic thin-section is shown in Figure 13.1. The apatite grains shown in this petrographic thin section are roughly 0.1 mm to 0.2 mm across and intermixing with other minerals is limited, which suggests that achieving a high-grade apatite concentrate with high recoveries is reasonably possible.

FIGURE 13.1 PRAIRIE LAKE APATITE DEPORTMENT



Source: *Taylor (2013)*
Note: *FOV = Field of View*

13.1.2 Niobium and the Pyrochlore Group of Minerals

The pyrochlore group of minerals present at Prairie Lake includes pyrochlore and betafite and minor amounts of zirconolite. The niobium (and tantalum-containing minerals) are present in approximately 1% of the total mineralization. EMP analyses indicated a mean Nb_2O_5 content of 39% in 8 pyrochlore grains and 33% in 46 betafite grains. The REE content of these minerals was measured to be higher than in the apatite, but given the lower total modal content, the REE content associated with niobium may be of less economic interest. The pyrochlore mineral group grains analysed also contained uranium: up to 18% in betafite and 13%, in pyrochlore. A small amount of thorium (~0.5%) was also measured.

The pyrochlore grain size was observed to be smaller than the apatite, and typically was shown to be intergrown with apatite, biotite and (or) magnetite. Fine grinding of feed to the niobium concentration process may be required for metallurgical recovery.

13.1.3 Gangue Mineralization

The major gangue minerals include calcite, silicates (micas, olivine, nepheline), magnetite, and some sulphides. The magnetite could be removed from either feed or concentrates with low intensity magnetic separation (LIMS). The minerals of interest, apatite and pyrochlore, are denser minerals than most of the gangue (density 3.2 and 4.7 g/cc, respectively, versus 2.7 g/cc of calcite) and may be subject to preliminary concentration using gravity methods.

13.2 MINERAL PROCESSING TESTS

13.2.1 Dense Media, Magnetic Separation Tests

Samples from ten trenches on the Prairie Lake Mineral Resource were subject to dense media and magnetic separation testing in 2008. An example sample location is shown in Figure 13.2, which is a weathered carbonatite location.

FIGURE 13.2 EXAMPLE PRAIRIE LAKE SAMPLING LOCATION

Source: *Memo, Nuinsco Resources, Prairie Lake -2008 DMS Tests,*

Ten samples were obtained, combined and processed at the Kennecott, Thunder Bay sample preparation and DMS separation plant that had been set-up for diamond resource testing. The density separation cut-off target had been set at density of 2.95 g/cc and was applied to the Prairie Lake samples.

The crushed feed sample was screened to reject the +4 mm and -0.3 mm fractions. Following DMS processing, the heavies (or "sinks") were dried and passed over a LIMS (Eriez RE-10) magnetic separator drum. The results for the 10 samples are summarized in Table 13.1.

TABLE 13.1 DMS AND MAGNETIC SEPARATION TEST RESULTS, 2008						
Item	**Head Sample**	**Screened Fraction**	**DMS Sinks**	**Non-Mags**	**Mags**	**DMS Floats**
Weight (kg)	420.2	344.7	118.6	115.7	2.9	226.2
Distribution (%)	100.0	82.0	28.2	27.5	0.7	53.8
P_2O_5 (%)		4.23	9.28	9.44	2.83	1.58
Nb_2O_5 (%)		0.15	0.30	0.29	0.58	0.067

Note: *Mags = magnetics.*

The following observations can be made:

- The DMS doubled the concentration of both phosphorus and niobium;
- The DMS floats indicated a possible loss of 26 to 29% to of phosphorus and niobium to tailings;
- LIMS action slightly increased the concentration of P in non mags and again doubled the niobium concentration in the magnetics concentrate. However, LIMS can be assessed as ineffective (recovery was very low);
- The weathered samples could be considered non-representative; and
- Further gravity and magnetic separation tests on fresh samples may be justified.

13.2.2 Gravity and Flotation Testing

Between 2009 and 2014, a substantial amount of metallurgical testing was conducted at the COREM laboratories in Quebec City. The test programs were initiated on the following basis:

- Recovery of apatite and pyrochlore in separate mineral concentrates would be a primary objective;
- Gravity and magnetic separation methods could upgrade the concentrations of the mineralized feed;
- Flotation would be used to selectively concentrate the apatite;
- A secondary flotation circuit supplemented with gravity methods would be used to concentrate niobium and associated tantalum; and
- It was anticipated that most of the REE would be locked in the apatite. Release of these REEs would be achieved by a hydrometallurgical process that would be developed later.

A 1.1 tonne drill core sample was received by COREM, subsampled, crushed, analysed and subject to mineralogical examinations.

The sample contained 3.18% P_2O_5 and 0.13% Nb_2O_5 and had a density of 2.99 g/cc. Both the P_2O_5 and the Nb_2O_5 concentrated somewhat in the fines of the crushed samples. The CaO content, averaging 38%, was not observed to concentrate in fines, which is unusual given that calcite is the softest mineral in the Mineral Resource. The mineral content of the sample was determined to be as shown in Table 13.2.

TABLE 13.2
MINERAL COMPOSITION OF PRAIRIE LAKE SAMPLE TESTED AT COREM

Mineral	Modal (%)	Comment
Apatite	5.6	
Calcite	56.0	
Dolomite	6.9	
Micas	14.3	mainly biotite
Magnetite	9.3	
Quartz	5.5	
Rutile	1.4	
Pyrochlore minerals	<1	pyrochlore, betafite

SEM analyses at COREM determined that the apatite contained 43% P_2O_5, 54% CaO and 4.6% F, which confirms a fluoro-apatite composition. The pyrochlore contained 50% Nd_2O_5, 11% CaO, 6.5% TiO_2 and 6% U_3O_8. The high titanium content could affect niobium-tantalum pyrometallurgy and the uranium, which should report to a slag and could be an environmental issue.

The liberation size for apatite was determined by COREM to be 150 µm, whereas the liberation size of the pyrochlore was significantly smaller at 38 µm.

Consequently, the initial steps of COREM test program followed a gravity pre-concentration program after a moderate grind. The gravity concentrate was subject to rougher and cleaner froth flotation of the apatite. The apatite tails were reground, followed by gravity (shaking table) concentration of the heavy minerals, which was subject to flotation concentration of the pyrochlore.

Whereas COREM tested many variations of the flowsheet described above, the most important results and recommendations were:

1. Preconcentration by gravity methods increases both P_2O_5 and Nb_2O_5 grade by 40% and 20% respectively, both at 80% recovery;

2. Coarse grinding is required for apatite and fine for pyrochlore;

3. The best apatite rougher performance was 17% P_2O_5 grade at 71% recovery; the best cleaning result was 31% P_2O_5 at 42% recovery;

4. Additional test development is needed to enhance apatite recovery and reject calcite/dolomite inclusion in the concentrates;

5. With additional grinding, gravity concentration of pyrochlore in apatite tails, and flotation, the best grade was only 1.1% Nb_2O_5 at approximated 80% recovery of the 70% recovery remaining from previous process steps (apatite and magnetic separation) for 56% recovery; and

6. Additional testwork is needed to improve Nb_2O_5 grades and recoveries.

The author of this Technical Report section has reviewed the mineralogical studies and the metallurgical testwork, and recognizes that the current Prairie Lake Mineral Resource is low grade in Nb_2O_5 content in comparison to other Canadian deposits (e.g., Solbec and Niobec). However, the high REE content of both the apatite and the pyrochlore and the attractive mineralogical deportment of the apatite suggest economic potential for the Prairie Lake Mineral Resources.

A renewed test program could be initiated that would include the following components:

- Mineralogical analyses – composite and test products; QEMSCAN and Electron Microprobe Analyses;

- Grindability and stage grinding testing;

- Heavy liquid and DMS tests – targeting carbonate rejection;

- LIMS (remove magnetite) and gravity concentration niobium and rejection of carbonate;

- Phosphate concentration by flotation – include desliming, thick reagent conditioning and carbonate rejection strategies;

- Pyrochlore concentration by flotation;

- Detailed analyses including REEs, radioactive elements; and

- Conceptual strategies for extraction of REEs from an apatite concentrate.

This test program is currently under development.

14.0 MINERAL RESOURCE ESTIMATES

14.1 INTRODUCTION

The purpose of this Technical Report section is to summarize the initial Mineral Resource Estimate for the Prairie Lake Project in Ontario, owned 100% by Nuinsco. The Mineral Resource Estimate presented herein is reported in accordance with the Canadian Securities Administrators' National Instrument 43-101 (2014) and has been estimated in conformity with the generally accepted CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines (2019).

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. 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 Mineral Resource Estimate was based on information and data supplied by Nuinsco, and was undertaken by Yungang Wu, P.Geo., Antoine Yassa, P.Geo., and Eugene Puritch, P.Eng., FEC, CET 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 May 31, 2022.

14.2 DATABASE

All drilling/channel and assay data were provided in the form of Excel data files by Nuinsco. The GEOVIA GEMS™ V6.8.4 database for this Mineral Resource Estimate, compiled by P&E, consisted of 73 drill holes and five surface trenches totalling 12,180 m and 2,068 m, respectively. A total of 50 drill holes and five trenches intersected the wireframed mineralized domains utilized for the Mineral Resource Estimate. Twenty-one drill holes completed from 1969 to 1977 had no P_2O_5 assays and were not included in this study. A drill hole plan is shown in Appendix A.

Since previous Technical Report dated November 30, 2018, a total of 1,098 additional samples have been taken from the 2007 to 2010 drill holes. The drill hole and channel database contained assays for P_2O_5, Ta_2O_5, Nb_2O_5, U_3O_8, Y, La, Ce, Pr, Nd, Sm, Sc, and other minor elements/compounds of non-economic importance. The basic statistics of all raw assays for the elements/compounds of economic interest are presented in Table 14.1.

Table 14.1 Assay Database Summary												
Data Type	**Variable**	**P_2O_5 (%)**	**U_3O_8 (%)**	**Nb_2O_5 (%)**	**Ta_2O_5 (g/t)**	**La (g/t)**	**Ce (g/t)**	**Pr (g/t)**	**Nd (g/t)**	**Sm (g/t)**	**Sc (g/t)**	**Y (g/t)**
Drill Hole	Number of samples	5,323	3,638	5,341	4,594	3,069	4,110	1,041	4,110	4,110	1,041	4,220
	Minimum Value	0.00	0.00	0.00	0.06	6.10	11.80	9.90	5.50	1.00	0.50	1.00
	Maximum Value	23.08	0.21	1.88	578.80	2,000.00	4,160.00	341.00	2,380.00	590.00	59.00	887.00
	Mean	3.57	0.01	0.12	18.94	327.37	722.63	78.74	339.19	61.45	10.92	94.22
	Median	3.34	0.00	0.08	11.11	294.00	650.50	72.20	303.00	54.80	6.00	79.00
	Variance	4.04	0.00	0.01	865.69	36,742.56	169,203.98	1,512.56	38,029.20	1,526.55	115.46	3,800.01
	Standard Deviation	2.01	0.02	0.12	29.42	191.68	411.34	38.89	195.01	39.07	10.75	61.64
	Coefficient of Variation	0.56	2.15	0.98	1.55	0.59	0.57	0.49	0.57	0.64	0.98	0.65
Trench	Number of Samples	1,042	1,042	1,042	1,042	1,042	1,042	-	1,042	1,042	-	1,042
	Minimum Value	0.16	0.00	0.01	0.06	18.30	43.40	-	25.00	4.20	-	3.00
	Maximum Value	13.67	0.03	0.42	65.70	2,400.00	5,380.00	-	2,600.00	481.00	-	540.00
	Mean	3.18	0.00	0.10	9.62	339.96	744.88	-	364.19	64.64	-	119.28
	Median	2.93	0.00	0.08	8.67	307.50	672.00	-	328.50	59.35	-	103.00
	Variance	2.89	0.00	0.00	63.55	39,593.86	191,951.45	-	46,328.37	1,249.44	-	4,689.61
	Standard Deviation	1.70	0.00	0.06	7.97	198.98	438.12	-	215.24	35.35	-	68.48
	Coefficient of Variation	0.53	0.93	0.65	0.83	0.59	0.59	-	0.59	0.55	-	0.57

Note: *P_2O_5 = phosphorus oxide, U_3O_8 = uranium oxide, Nb_2O_5 = niobium Oxide, Ta_2O_5 = tantalum oxide, La = lanthanum, Ce = cerium, Pr = praseodymium, Nd =neodymium, Sm = samarium, Sc = scandium and Y = yttrium.*

All drill hole survey and assay values are expressed in metric units. The coordinates are in the UTM NAD83 Zone 16N system.

14.3 DATA VERIFICATION

During preparation of the 2018 Technical Report, verification of assay data entry was performed on 3,551 assay intervals for P_2O_5, Nb_2O_5, Ta_2O_5, U_3O_8, La, Ce, Sm, Nd and Y against original digital assay lab certificates from Actlabs, Ancaster, Ontario by P&E. No data entry errors were observed.

In 2022, verification of drill hole assay data entry was performed by P&E on 4,592 assay intervals for P_2O_5, Nb_2O_5, Ta_2O_5, U_3O_8, La, Ce, Sm, Nd and Y, and for U, Ta and Nb in the more recent 2021 data. No data entry errors were observed. The checked assays represented 85% of the drill hole data and 71% of the entire database, which also includes 1,042 trench samples. In addition to verification of the infill program against lab certificates, a subset of those samples was selected for check assaying to validate the assaying program at the SGS lab in Vancouver.

The authors of this Technical Report section also validated the Mineral Resource database 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. No errors were identified. The authors of this Technical Report section are of the opinion that the supplied database is suitable for Mineral Resource estimation.

14.4 MINERALIZED DOMAIN INTERPRETATION

The Prairie Lake Deposit mineralized domain boundaries were determined from lithology, structure, and grade boundary interpretation from visual inspection of drill hole cross-sections. Three domains were developed and are referred to as Main Domain, East Domain and NE Domain.

The Main Domain (which encompasses the two domains referred to previously as Jim's Showing and the SW Zone or SW Area) was constructed based on 50 drill holes and a trench, whereas East and NE Domains were based on trenches only extended 50 m down from the surface. The Main Domain was created with computer screen digitizing polylines on drill hole cross-sections in GEMS™ by the authors of this Technical Report section. The Domain outlines were influenced by the selection of mineralized material >1% P_2O_5 that demonstrated lithological and structural zonal continuity along strike and down-dip. In some cases, mineralization <1% P_2O_5 was included for the purpose of maintaining zonal continuity. On each cross-section, polyline interpretations were digitized from drill hole to drill hole, but typically extended not more than 75 metres into undrilled territory. Minimum constrained true width for interpretation was 10 metres. The interpreted polylines from each cross-section were 'wireframed' into 3-D domains.

The resulting Mineral Resource wireframed mineralized domains were utilized as constraining boundaries during Mineral Resource estimation, for rock coding, statistical analysis and compositing limits. The 3-D domain is presented in Appendix B.

The topographic and overburden surfaces were created using LiDAR and drill hole logs. All mineralization domain wireframes were clipped to the overburden surface.

14.5 ROCK CODE DETERMINATION

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

TABLE 14.2
ROCK CODES USED FOR THE MINERAL RESOURCE ESTIMATE

Domain	Rock Code	Volume (m^3)
Main	100	384,250,899
East	200	2,219,549
NE	300	13,937,177
Air	0	
OVB	10	
Waste	99	

14.6 WIREFRME CONSTRAINED ASSAYS

Wireframe constrained assays were back coded in the assay database with rock codes that were derived from intersections of the wireframed mineralized domains and drill holes/trenches. Approximately 99% of drill hole assays and 100% of trench assays occur inside the wireframed mineralized domains. The basic statistics of the Main Domain wireframe constrained drill hole assays are presented in Table 14.3.

TABLE 14.3
MAIN DOMAIN CONSTRAINED DRILL HOLE ASSAY SUMMARY

Variable	P_2O_5 (%)	U_3O_8 (%)	Nb_2O_5 (%)	Ta_2O_5 (g/t)	La (g/t)	Ce (g/t)	Pr (g/t)	Nd (g/t)	Sm (g/t)	Sc (g/t)	Y (g/t)
Number of Samples	5,283	3,582	5,285	4,590	3,067	4,106	1,039	4,106	4,106	1,039	4,216
Minimum Value	0.00	0.00	0.00	0.06	6.10	11.80	9.90	5.50	1.00	0.50	1.00
Maximum Value	23.08	0.21	1.88	578.80	2,000.00	4,160.00	341.00	2,380.00	590.00	59.00	887.00
Mean	3.58	0.01	0.12	18.95	327.49	722.95	78.78	339.35	61.48	10.92	94.27
Median	3.35	0.00	0.08	11.17	294.00	651.00	72.20	303.00	54.85	6.00	79.00
Variance	4.04	0.00	0.01	866.26	36,745.51	169,241.93	1,513.67	38,034.99	1,526.91	115.65	3,800.57
Standard Deviation	2.01	0.02	0.12	29.43	191.69	411.39	38.91	195.03	39.08	10.75	61.65
Coefficient of Variation	0.56	2.14	0.98	1.55	0.59	0.57	0.49	0.57	0.64	0.98	0.65

Note: *P_2O_5 =phosphorus oxide, U_3O_8 = uranium oxide, Nb_2O_5 = niobium oxide, Ta_2O_5 = tantalum oxide, La = lanthanum, Ce = cerium, Pr = praseodymium, Nd = neodymium, Sm = samarium, Sc = scandium and Y = yttrium.*

14.7 COMPOSITING

In order to regularize the assay sampling intervals for grade interpolation, a 1.5 m compositing length was selected for the drill hole/trench intervals that fell within the constraints of the above-noted Mineral Resource wireframed mineralized domains. The 1.5 m length composites were calculated for P_2O_5, Ta_2O_5, Nb_2O_5, U_3O_8, Y, La, Ce, Pr, Nd, Sm and Sc 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 upon exit from the footwall of the aforenoted constraint. Un-assayed composite intervals were treated as nulls, based on the nature of the mineralization. If the last composite interval was <0.5 m, the composite length was adjusted to make all composite intervals of the domain intercept equal. The resulting composite length ranged from 1.48 metres to 1.53 metres. This process would not introduce any short sample bias in the grade interpolation process. The constrained composite data were extracted to a point file for a grade capping analysis. The composite statistics are summarized in Table 14.4.

TABLE 14.4 **COMPOSITE SUMMARY**											
Variable	**P_2O_5 (%)**	**U_3O_8 (%)**	**Nb_2O_5 (%)**	**Ta_2O_5 (g/t)**	**La (g/t)**	**Ce (g/t)**	**Pr (g/t)**	**Nd (g/t)**	**Sm (g/t)**	**Sc (g/t)**	**Y (g/t)**
Number of Samples	6,092	5,159	6,087	5,114	3,812	4,728	994	4,728	4,728	994	4,830
Minimum Value	0.00	0.00	0.00	0.06	27.88	66.75	10.32	39.29	5.90	0.50	7.59
Maximum Value	15.09	0.19	1.73	505.31	2,225.26	5,111.64	318.52	2,581.28	557.50	57.91	837.64
Mean	3.52	0.01	0.12	16.09	331.58	728.96	79.12	345.34	62.21	10.94	100.17
Median	3.31	0.00	0.09	10.57	298.00	657.37	72.67	308.33	55.79	6.91	83.67
Variance	3.16	0.00	0.01	503.00	32,006.56	151,537.44	1,393.38	33,958.89	1,231.38	109.7	3,554.10
Standard Deviation	1.78	0.01	0.10	22.43	178.90	389.28	37.33	184.28	35.09	10.47	59.62
Coefficient of Variation	0.51	2.05	0.87	1.39	0.54	0.53	0.47	0.53	0.56	0.96	0.60

TABLE 14.5 **CAPPED COMPOSITE SUMMARY**											
Variable	**P_2O_5 (%)**	**U_3O_8 (%)**	**Nb_2O_5 (%)**	**Ta_2O_5 (g/t)**	**La (g/t)**	**Ce (g/t)**	**Pr (g/t)**	**Nd (g/t)**	**Sm (g/t)**	**Sc (g/t)**	**Y (g/t)**
Number of Samples	6,092	5,159	6,087	5,114	3,812	4,728	994	4,728	4,728	994	4,830
Minimum Value	0.00	0.00	0.00	0.06	27.88	66.75	10.32	39.29	5.90	0.50	7.59
Maximum Value	14.00	0.19	1.00	190.00	1,450.00	3,000.00	205	1,600.00	450.00	57.91	450.00
Mean	3.52	0.01	0.12	15.92	331.04	727.66	78.81	344.71	62.09	10.94	99.94
Median	3.31	0.00	0.09	10.57	298.00	657.37	72.67	308.33	55.79	6.91	83.67
Variance	3.16	0.00	0.01	399.06	30,686.68	145,292.08	1,290.71	32,336.38	1,168.67	109.7	3,335.00
Standard Deviation	1.78	0.01	0.10	19.98	175.18	381.17	35.93	179.82	34.19	10.47	57.75
Coefficient of Variation	0.50	2.05	0.86	1.26	0.53	0.52	0.46	0.52	0.55	0.96	0.58

14.8 GRADE CAPPING

Grade capping was investigated on the 1.5 m composite values in the database within the constraining domain, to ensure that the possible influence of erratic high-grade values did not bias the database. Log-normal histograms and log-probability plots were generated for each mineralized domain and the selected resulting graphs are exhibited in Appendix C. The capped composite statistics are summarized in Table 14.5. The grade capping values are detailed in Table 14.6. The capped composites were utilized to develop variograms and for block model grade interpolation.

Table 14.6 Grade Capping Values									
Domain	**Element**	**Total No. of Composites**	**Capping Value**	**No. of Capped Composites**	**Mean of Composites**	**Mean of Capped Composites**	**CoV of Composites**	**CoV of Capped Composites**	**Capping Percentile**
Main	P_2O_5 (%)	5,289	14	1	3.58	3.58	0.51	0.51	99.98
	Nb_2O_5 (%)	5,284	1	1	0.12	0.12	0.88	0.87	99.98
	Ta_2O_5 (g/t)	4,311	190	4	17.53	17.32	1.37	1.23	99.9
	U_3O_8 (%)	4,356	no cap	0	0.006	0.006	2.05	2.05	100.0
	La (g/t)	3,009	1450	6	326.69	326.60	0.53	0.53	99.8
	Ce (g/t)	3,925	3000	1	722.52	722.46	0.53	0.53	99.98
	Sm (g/t)	3,925	450	1	61.43	61.41	0.58	0.57	99.98
	Nd (g/t)	3,925	1600	4	340.86	340.68	0.53	0.53	99.9
	Sc (g/t)	994	no cap	0	10.94	10.94	0.96	0.96	100.0
	Pr (g/t)	994	205	5	79.12	78.81	0.47	0.46	99.5
	Y (g/t)	4,027	450	5	94.81	84.55	0.60	0.58	99.9
East	P_2O_5 (%)	294	no cap	0	3.14	3.14	0.62	0.62	100.0
	Nb_2O_5 (%)	294	no cap	0	0.06	0.06	0.68	0.68	100.0
	Ta_2O_5 (g/t)	294	26	1	10.88	10.82	0.52	0.50	99.7
	U_3O_8 (%)	294	no cap	0	0.003	0.003	0.49	0.49	100.0
	La (g/t)	294	705	1	241.05	240.60	0.51	0.51	99.7
	Ce (g/t)	294	1200	2	537.83	534.01	0.48	0.45	99.3
	Sm (g/t)	294	110	1	57.43	57.17	0.34	0.32	99.7
	Nd (g/t)	294	560	2	279.60	277.23	0.43	0.39	99.3
	Y (g/t)	294	no cap	0	156.64	156.64	0.48	0.48	100.0
NE	P_2O_5 (%)	509	no cap	0	3.10	3.10	0.36	0.36	100.0
	Nb_2O_5 (%)	509	no cap	0	0.12	0.12	0.55	0.55	100.0

TABLE 14.6
GRADE CAPPING VALUES

Domain	Element	Total No. of Composites	Capping Value	No. of Capped Composites	Mean of Composites	Mean of Capped Composites	CoV of Composites	CoV of Capped Composites	Capping Percentile
	Ta_2O_5 (g/t)	509	32	1	6.95	6.93	0.81	0.80	99.8
	U_3O_8 (%)	509	no cap	0	0.004	0.004	0.88	0.88	100.0
	La (g/t)	509	1210	2	412.74	409.52	0.49	0.44	99.6
	Ce (g/t)	509	2420	3	889.02	879.63	0.49	0.43	99.4
	Sm (g/t)	509	240	3	70.92	70.20	0.52	0.45	99.4
	Nd (g/t)	509	1510	2	417.91	414.81	0.52	0.47	99.6
	Y (g/t)	509	340	1	109.94	109.80	0.44	0.44	99.8

Note: *P_2O_5 = phosphorus oxide, U_3O_8 = uranium oxide, Nb_2O_5 = niobium oxide, Ta_2O_5 = tantalum oxide, La = lanthanum, Ce = cerium, Pr = praseodymium, Nd = neodymium, Sm = samarium, Sc = scandium and Y = yttrium, CoV = Coefficient of Variation.*

14.9 VARIOGRAPHY

A variography analysis was undertaken as a guide to determining a grade interpolation search strategy. Directional variograms were attempted using the P_2O_5 composites for the Main Domain. Selected variograms are attached in Appendix D.

Continuity ellipses based on the observed ranges were subsequently generated and utilized as the basis for estimation search ranges, distance weighting calculations and Mineral Resource classification criteria.

14.10 BULK DENSITY

The bulk density data used for the creation of the density block model was derived from twenty-two samples taken by the authors of this Technical Report that were analyzed by SGS Canada Inc. and AGAT Laboratories. The average bulk density utilized was 3.04 t/m^3.

14.11 BLOCK MODELLING

The Prairie Lake block model was constructed using GEOVIA GEMS™ V6.8.4 modelling software. The block model origin and block size are presented in Table 14.7. The block model consists of separate model attributes for estimated grades, rock type (wireframed mineralized domains), volume percent, bulk density, NSR value, and classification.

TABLE 14.7
BLOCK MODEL DEFINITION

Direction	Origin	No. of Blocks	Block Size (m)
X	520,167.679	276	10
Y	5,429,665.679	264	10
Z	400	72	10
Rotation	30° (counter-clockwise)		

All blocks in the rock type block model were initially assigned a waste rock code of 99, corresponding to the surrounding country rocks. The wireframed mineralized domain was utilized to code all blocks within the rock type block model that contain 1% or greater volume within the domain. These blocks were assigned rock type codes as presented in Table 14.2. The overburden and topographic surfaces were subsequently utilized to assign rock codes 10 and 0, corresponding overburden and air, respectively, 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 wireframed mineralized domain. As a result, the domain boundary was properly represented by the volume percent model ability to measure individual infinitely variable block inclusion percentages within that domain. The minimum percentage of the mineralized block was set to 1%.

The grade blocks were interpolated with Inverse Distance Squared ("ID^2"). Nearest Neighbour ("NN") grade interpolation was utilized for validation. Multiple passes were executed for the grade interpolation to progressively capture the sample points, in order to avoid over-smoothing and preserve local grade variability. Search ranges and directions were based on the variograms. Grade blocks were interpolated utilizing the parameters in Table 14.8. Based on the P_2O_5 runs, 82% of mineralized domain blocks were interpolated for this Mineral Resource Estimate. Due to the spacing to the data points, 18% of the domain constrained blocks were not interpolated.

TABLE 14.8
PRAIRIE LAKE BLOCK MODEL INTERPOLATION PARAMETERS

Pass	Major Range (m)	Semi-major Range (m)	Minor Range (m)	Max No. of Samples per Hole	Min No. of Samples	Max No. of Samples	% of interpolated blocks (based on P_2O_5)
I	55	55	40	5	11	20	1%
II	110	110	80	5	6	20	18%
III	220	220	160	5	2	20	63%

Selected cross-sections and plans of the P_2O_5 and TREO grade blocks are presented in Appendix E to Appendix F.

The NSR values of blocks were calculated with the following formula:

NSR = (Nb_2O_5 x 320.51) + (La x 0.001) + (Ce x 0.001) + (Sm x 0.003) + (Pr x 0.062) + (Nd x 0.06) + (Sc x 1.475) + (Y x 0.011) + (P_2O_5 x 2.404)

Total Rear Earth Oxide (TREO) values of blocks were calculated with the following formula:

TREO = ((Nd x 1.1664) + (Pr x 1.2082) + (Sc x 1.5338) + (Ce x 1.2284) + (La x 1.1728) + (Sm x 1.1596) + (Y x 1.2699))/1000

The average bulk density of 3.04 t/m^3 was applied to the mineralization blocks.

14.12 MINERAL RESOURCE CLASSIFICATION

In the opinion of the authors of this Technical Report section, all the drilling, assaying and exploration work on the Prairie Lake Project support this Mineral Resource Estimate and are sufficient to indicate a reasonable potential for economic extraction, and thus qualify it as a Mineral Resource under the CIM definition standards (2014) and Best Practices Guidelines (2019). The Mineral Resource was classified as Indicated and Inferred based on the geological interpretation, variogram performance, drill hole spacing and P_2O_5 grade interpolation runs. The Indicated Mineral Resource was classified for the blocks interpolated with the Pass I, which utilized at least six composites from a minimum of two holes; and Inferred Mineral Resources were categorized for all remaining grade populated blocks within the wireframed mineralized domain. The classifications have been adjusted manually to reasonably reflect the distribution of each category. Selected classification block cross-sections and plans are attached in Appendix G.

14.13 NSR CUT-OFF CALCULATION

The Prairie Lake Mineral Resource Estimate was derived from applying Net Smelter Return ("NSR") 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 NSR values that determine the open pit mining potentially economic portions of the constrained mineralization. Optimized pit shell is presented in Appendix H.

NSR Cut-off Value Calculation

USD:CD Exchange Rate	0.78
Nd_2O_3 Price	US$80/kg
Pr_6O_{11} Price	US$80/kg
Sc_2O_3 Price	US$1,500/kg
Nb_2O_5 Price	US$50/kg
P_2O_5 Price	US$250/t
CeO_2 Price	US$1.35/kg
La_2O_3 Price	US$1.35/kg
Sm_2O_3 Price	US$3.50/kg
Ta_2O_5 Price	Nil/t
Y_2O_3 Price	US$13/kg
P_2O_5 Process Recovery	75%
Other Process Recovery	50%
Processing Cost	C$25/t
G&A	C$5/t
Pit Optimization Mining Cost	C$2.50/t
Pit Slope	45°

The NSR Cut-off of potential open pit mining was calculated as = C$30/t.

14.14 MINERAL RESOURCE ESTIMATE

The resulting Mineral Resource Estimate as of the effective date of this Technical Report is tabulated in Table 14.9. The authors of this Technical Report section consider that the mineralization of the Prairie Lake Project is potentially amenable to open pit economic extraction.

Mineral Resource Estimates are sensitive to the selection of a reporting NSR cut-off value and are demonstrated in Table 14.10.

TABLE 14.9
PIT CONSTRAINED MINERAL RESOURCE ESTIMATE (1-4)
AT C$30/T NSR CUT-OFF

Class-ification	Tonnes	Rare Earth Oxides									Niobium	Phosphate
		Nd_2O_3	Pr_6O_{11}	Sc_2O_3	CeO_2	La_2O_3	Sm_2O_3	Ta_2O_5	Y_2O_3	TREO	Nb_2O_5	P_2O_5
	(M)	(g/t)	(g/t)	(g/t)	(g/t)	(g/t)	(g/t)	(g/t)	(g/t)	(Kg/t)	(%)	(%)
Indicated	15.6	344	96	15	754	300	58	28	100	1.67	0.16	3.71
Inferred	871.8	409	82	18	905	388	79	17	127	2.01	0.10	3.39

Note: *TREO = Total Rare Earth Oxides: neodymium = Nd_2O_3; praseodymium = Pr_6O_{11}; scandium = Sc_2O_3; Cerium = CeO_2; lanthanum = La_2O_3; samarium = Sm_2O_3; tantalum = Ta_2O_5; yttrium = Y_2O_3*

1. *Mineral Resources which 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 be upgraded to an Indicated Mineral Resource with continued exploration.*
4. *The Mineral Resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions (2014) and Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.*

TABLE 14.10
MINERAL RESOURCE ESTIMATE SENSITIVITY TO NSR CUT-OFF

Classification	Cut-off (C$/t NSR)	Tonnes (M)	Nd_2O_3 (g/t)	Pr_6O_{11} (g/t)	Sc_2O_3 (g/t)	CeO_2 (g/t)	La_2O_3 (g/t)	Sm_2O_3 (g/t)	Ta_2O_5 (g/t)	Y_2O_3 (g/t)	TREO* (kg/t)	Nb_2O_5 (%)	P_2O_5 (%)
Indicated	50	14.5	358	100	16	787	306	60	28	101	1.73	0.17	3.75
	40	15.2	349	98	15	766	302	59	28	101	1.69	0.17	3.73
	30	15.6	344	96	15	754	300	58	28	100	1.67	0.16	3.71
	20	15.7	343	96	15	751	300	58	27	100	1.66	0.16	3.70
	10	15.7	343	96	15	751	300	58	27	100	1.66	0.16	3.70
Inferred	50	815.1	419	83	19	930	394	81	17	127	2.06	0.10	3.43
	40	860.1	412	82	19	911	389	80	17	128	2.02	0.10	3.40
	30	871.8	409	82	18	905	388	79	17	127	2.01	0.10	3.39
	20	873.4	409	82	18	904	387	79	17	127	2.01	0.10	3.38
	10	873.5	409	82	18	904	387	79	17	127	2.01	0.10	3.38

14.15 CONFIRMATION OF ESTIMATE

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

- A comparison of P_2O_5 mean grades of composites with the block model for the Main Domain is presented in Table 14.11.

TABLE 14.11
AVERAGE P_2O_5 GRADE COMPARISON OF COMPOSITES WITH BLOCK MODEL FOR THE MAIN DOMAIN

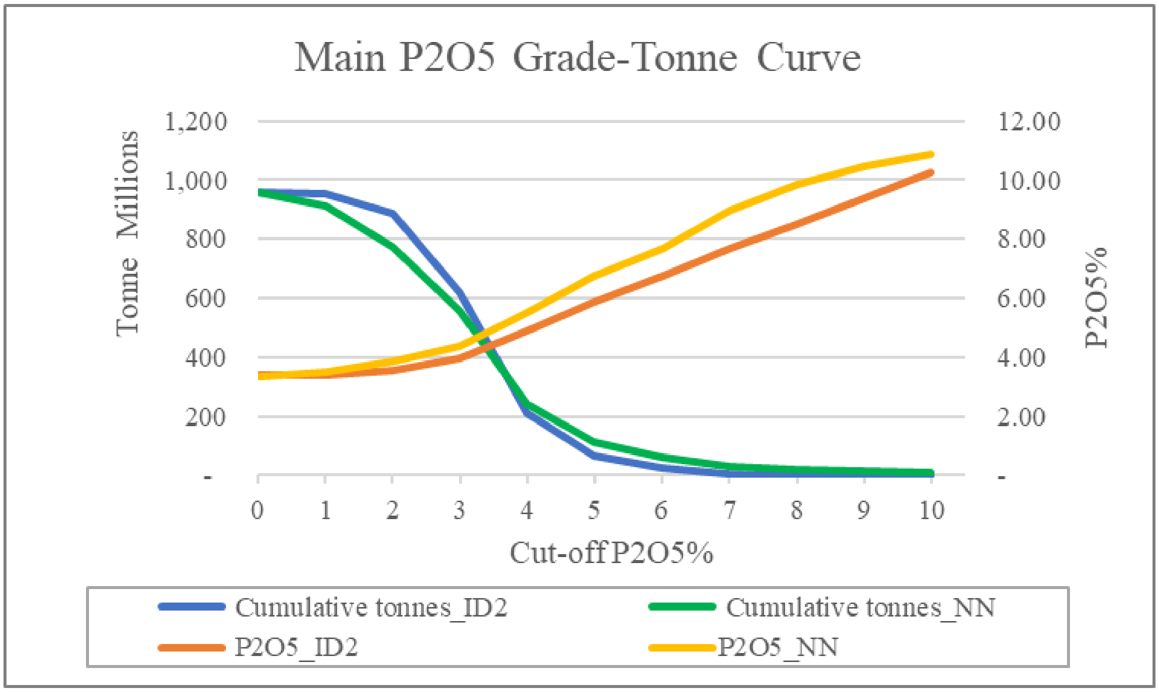
Data Type	P_2O_5 (%)
Composites	3.58
Capped Composites	3.58
Block Model ID^2	3.41
Block Model NN	3.37

Notes: *ID2= block model grades were interpolated with Inverse Distance Squared*
NN= *block model grades were interpolated using Nearest Neighbour.*

The comparisons above show the average grades of P_2O_5 block models were slightly lower than that of composites used for the grade estimations. These were most likely due to the smoothing by the grade interpolation process. The block model values will be more representative than the composites, due to 3-D spatial distribution characteristics of the block models.

- A comparison of the grade-tonnage curve of the P_2O_5 grade model of the Main Domain interpolated with Inverse Distance Squared (“ID^2”) and Nearest Neighbour (“NN”) on a global resource basis are presented in Figure 14.1.

FIGURE 14.1 **P_2O_5 GRADE-TONNAGE CURVE OF MAIN DOMAIN FOR ID^2 AND NN INTERPOLATION**



- P_2O_5 local trends of the Main Domain were evaluated by comparing the ID^2 and NN estimates against the composites. As shown in Figures 14.2 to 14.4, grade interpolations with ID^2 and NN agree well.

FIGURE 14.2 MAIN DOMAIN P_2O_5 GRADE SWATH EASTING PLOT

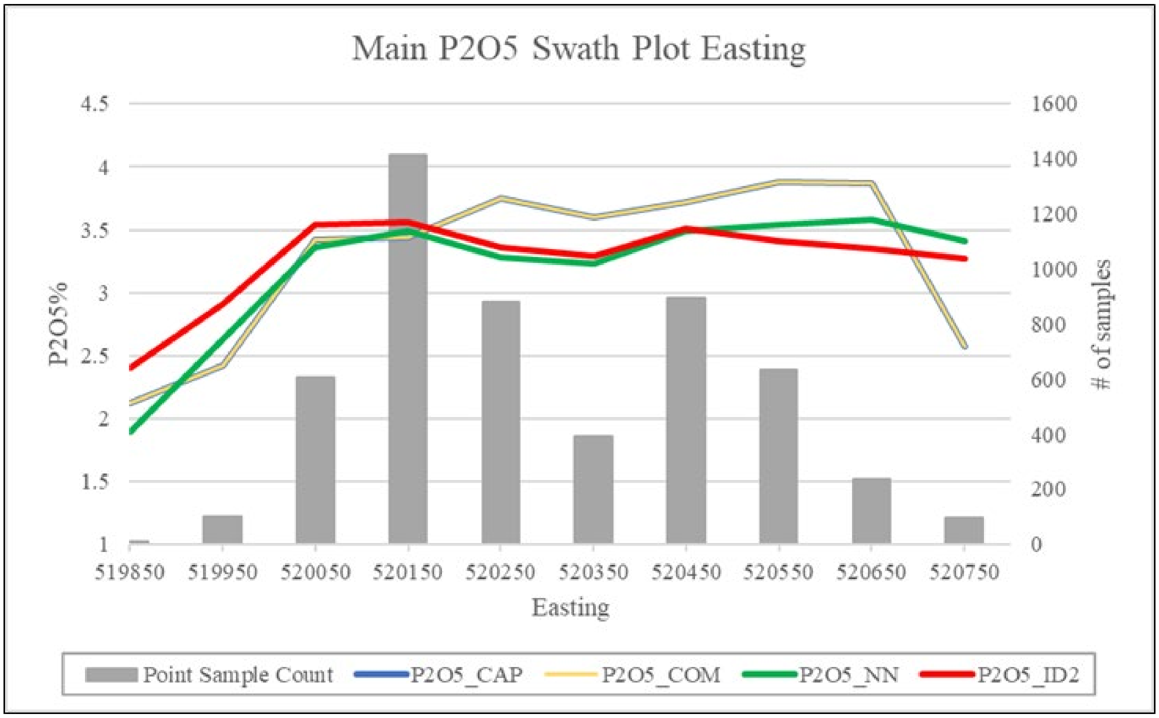


FIGURE 14.3 MAIN DOMAIN P_2O_5 GRADE SWATH NORTHING PLOT

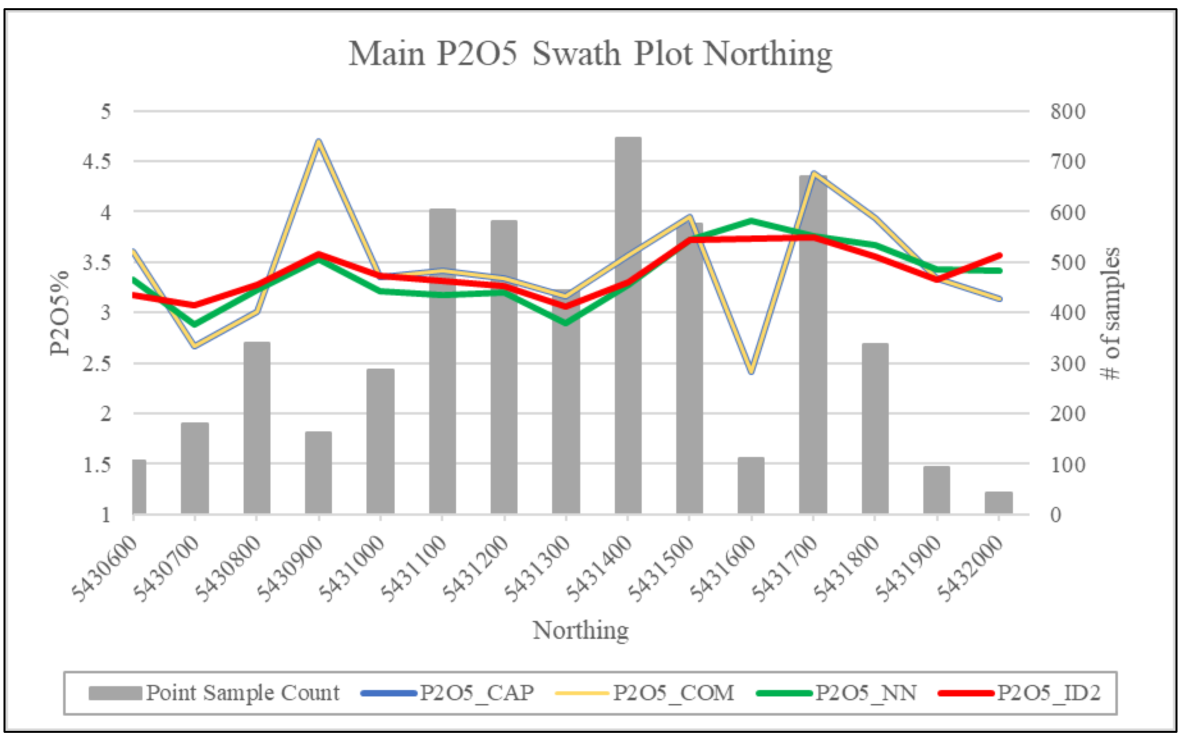
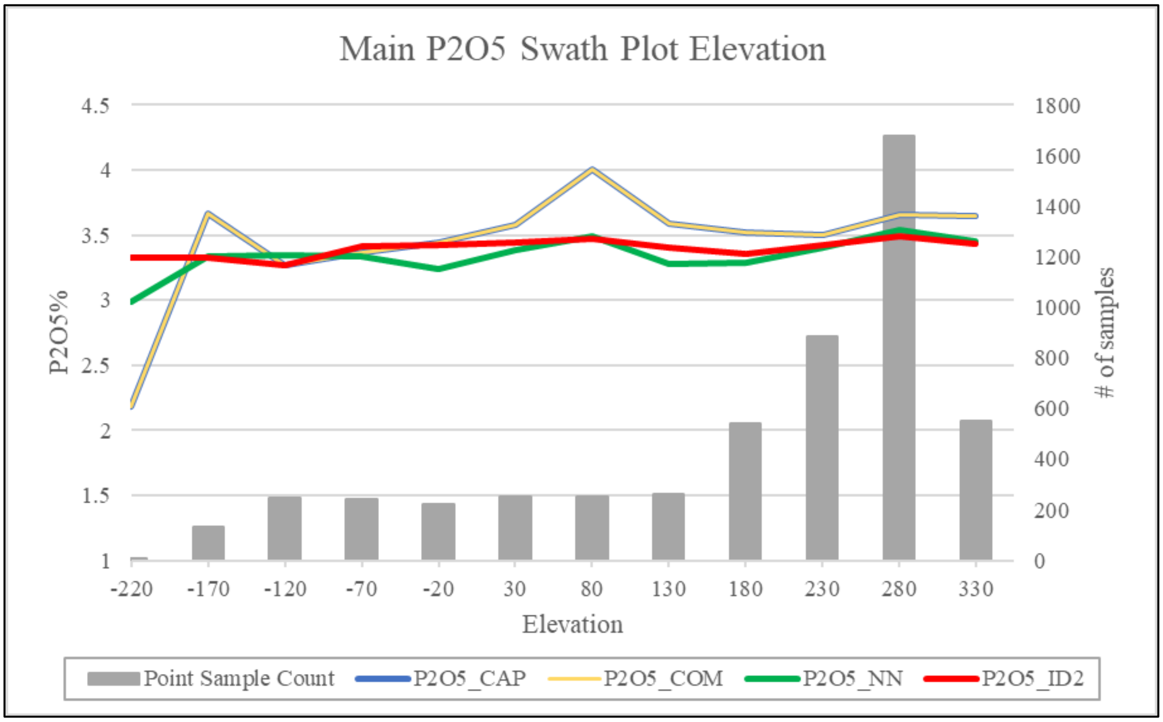


FIGURE 14.4 MAIN DOMAIN P_2O_5 GRADE SWATH ELEVATION PLOT



15.0 MINERAL RESERVE ESTIMATES

This section is not applicable to this Technical Report.

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

20.1 PROJECT DESCRIPTION AND FOOTPRINT

The Prairie Lake Carbonatite Complex presents an oval surface impression measuring 1.2 km by 1.7 km just north of Prairie Lake, as shown in Figure 20.1. The Complex is 23 km north of Trans-Canada Highway 17, which passes along the north shore of Lake Superior, and is equidistant from the communities of Terrace Bay and Marathon (40 km). Current access to the Prairie Lake Property is readily achieved via the well-maintained Deadhorse logging road (lower left satellite picture).

FIGURE 20.1 PRAIRIE LAKE CARBONATITE ALKALIC COMPLEX

Sources: *Google Earth/Maxar Technologies 2022; Prairie Lake Technical Report, November 2018*

The Prairie Lake Project as currently envisaged would be a large-scale mining and mineral processing operation. Approximately 60,000 tpd of mined rock is being considered and sourced from an open pit. This tonnage would be subject to a complex series of mineral processing steps in a process plant and two concentrates would be produced: 1) approximately 2,500 tpd of a REE-rich phosphate concentrate; and 2) over 200 tpd of a niobium-tantalum concentrate. These concentrates would be dried on-site and processed off-site, possibly internationally, to produce fertilizer and food-grade phosphate, a rare-earth bulk oxide (REO) concentrate, and a ferro-niobium/tantalum product.

Significant site physical impacts and alterations can be anticipated: an open pit, a mine equipment storage and repair shop, a mineral processing complex, concentrate storage and shipping depot, tailings and waste rock storage facilities, and associated infrastructure. The primary mining zones are likely to be the SW Zone, approximately one-quarter of the SW sector (Figure 20.1), and Jim's Showing Zone, a smaller central zone. A power line would connect to Ontario Power Generation lines south near Lake Superior. The access road would be upgraded and a rail-shipment depot at the Canadian Pacific line developed. Tailings storage would be a conventional wet slurry disposal system with engineered embankments for long-term containment. Dry-stack tailings would be considered, but this option is costly and may not provide significant environmental benefit.

The Prairie Lake mining methods and processing techniques can be considered low risk from an environmental perspective. Conventional ANFO (ammonium nitrate – fuel oil) blasting agent will be prepared on-site. Mine water, containing small amounts of nitrate, will be utilized in the milling process. The process plant chemicals are expected to be low toxicity materials (to be confirmed with standard biological tests of tailings effluent). Considering the detailed understanding of the mineral content of waste rock and tailings, both are not anticipated to be either metal leaching or acid generating. A low-level of uranium is present in the Mineral Resource, primarily associated with the niobium minerals. This is a common occurrence, associated with the niobium mineral, pyrochlore (e.g., Niobec in the Saguenay region of Quebec, and Niobay resource south of Moosonee in the James Bay lowlands). Proven and acceptable methods have been applied to manage the uranium-based radioactivity at the Niobec mine and would be adapted in the Project development.

The author of this Technical Report section understands that there are no significant environmental liabilities that have resulted from mineral exploration that had commenced in 1968. The exploration appears to have included only diamond drilling and trenching. The Prairie Lake Carbonatite Complex area has been extensively logged, such that forest cover is intermittent and second growth.

20.2 REGULATORY FRAMEWORK

The construction, operation, and closure of the Prairie Lake Project will require both federal and provincial regulatory approvals and compliance. The Project appears to fall under the applicable Physical Activities Regulations (SOR/2019-285) of the Federal Impact Assessment Act, 2019 ("IAA"). The daily tonnage processes will exceed the 600 tpd threshold, and there is a likelihood that some fish habitat will be disturbed. Other "triggers" for the Canadian Environmental Assessment Act ("CEA") could be Migratory Birds Conservation (unlikely), Species at Risk (possible), and concerns raised by local persons and (or) First Nations.

A requirement for a federal-mandated, detailed Environmental Assessment ("EA") is therefore likely. Except for the approval of an EA, the number of federal permits is limited and includes the application of Explosives Act and Transportation Act for railways and ports.

There are no specific provincial EA requirements for mining projects in Ontario. However, some of the activities related to project development, including some ancillary infrastructure components, may require approval under one or more provincial Class EAs related to provincial permitting or approval activities.

There are a significant number of Provincial Permits and requirements, and Environmental Compliance Approval (ECA), including the following examples:

- Permit to take water;
- Hazardous waste management;

- Industrial sewage approval;
- Air and noise ECA;
- Permit to mine; and importantly,
- Mine Closure Plan.

20.3 CONSULTATIONS

Nuinsco will commit to engagement and consultation with local First Nations, Métis Nation of Ontario, provincial and federal agencies, the regional public and other stakeholders, during all stages of the Prairie Lake Project development. Nuinsco recognises the importance of full and open discussion of all aspects of the Project and related concerns that individuals or communities may have about the Project.

The Project is located within the geographic territory of the Robinson Superior Treaty. The identity and inclusion of the First Nations to be consulted with is to be confirmed, such that Memorandums of Understanding, consultation protocols, and confidentiality agreements can be developed. Provincial agency consultations will be commenced through the available one-window coordination process that is overseen by the Ministry of Northern Development, Mines, Natural Resources and Forestry ("NDMNRF").

20.4 SOCIAL ENVIRONMENT

The Project is located 40 km from the communities of Marathon and Terrace Bay. Project-related and beneficial economic interests are likely to emerge, such as housing, material supply, transportation, medical services, etc. Although an on-site camp is likely to be in-place during construction, most of operations workers and support staff would probably be based in Marathon and Terrace Bay.

20.5 BASELINE STUDIES

The following baseline studies would be required to support an Environmental Assessment, Project Development and Consultations:

- Traditional and on-going exploitation of the Project area for food gathering and recreation;

- Surface water quality, sediment analyses, benthics identification close to the proposed Project locations and at an off-site reference location;

- Hydrology – assessments would be made to determine the hydraulic characteristics of the overburden and rock at the proposed open pit mine locations. Groundwater quality is expected to be assessed by sampling and analyzing water in existing drill holes;

- Aquatic life outline – fish communities and habitat;

- Archeological assessment – mine-affected locations, roads and power-line corridors. This aspect is not expected to be extensive;
- Meteorology and air quality – relevant information may be available from the currently proposed mine development at Marathon (Marathon Palladium and Copper Project);
- Soils – the soil cover in the area is mainly glacial till. The soils survey should include the availability and suitability of aggregate resources for road and tailings embankment construction;
- Vegetative communities of the Project area, including the influences of forestry activity, an evaluation of vegetation to be removed for the Project; and
- Wildlife surveys including a Species at Risk Assessment.

Baseline studies should be initiated at an early time. Some of these studies (e.g., wildlife) should cover summer and winter seasons.

20.6 OTHER STUDIES AND EVALUATIONS

An Assimilative Capacity Study is expected to be required to support the Industrial Sewage Works Environmental Compliance Approval application. A Permit to Take Water would require an evaluation of the potential services and the integration thereof into the Project water balance.

Geochemical characterizations of waste rock and low-grade mineralized materials are needed. It is anticipated that the bulk of these materials would not be potentially acid generating, and that the majority of these materials present a low-risk for metal leaching. Both static and kinetic testing will be required to confirm the geochemical characteristics.

The Prairie Lake Mineral Resource contains above background uranium-based radioactivity. Commonly, the presence of such radioactive substances can generate significant concerns by the public. Such concerns can have a substantial and negative influence on Project acceptance. Credible, detailed and transparent studies should be considered to ensure that no significant risk from the mineral-sourced radioactivity would impact the natural environment, workers, and the public during Project development, operations and closure. National experts on the risks of predicted low-levels of radioactivity and the experience of other similar mining operations are expected to be engaged.

20.7 MINE CLOSURE PLAN

A Closure Plan will be prepared for submission to the NDMNRF in accordance with Ontario Regulation 240/00: Mine Development and Closure Under Part VII of the Act ("O. Reg. 240/00"). Closure of the Project would be completed in accordance with O. Reg. 240/00, with the fundamental considerations being to ensure physical and chemical stability of the Property, in order to ensure safety, human health, and to protect the environment. Rehabilitation of the Property would meet the requirements of the Mine Rehabilitation Code of Ontario (Schedule 1 of O Reg. 240/00 (as amended)) (the "Code")).

The estimated closure costs to rehabilitate the site in accordance with the Code are uncertain, but should be <$5M. Progressive rehabilitation would be completed throughout the life of the Project whenever feasible. The progressive rehabilitation is expected to focus on mined-out pit, waste rock storage, and tailings management facilities.

21.0 CAPITAL AND OPERATING COSTS

This section is not applicable to this Technical Report.

22.0 ECONOMIC ANALYSIS

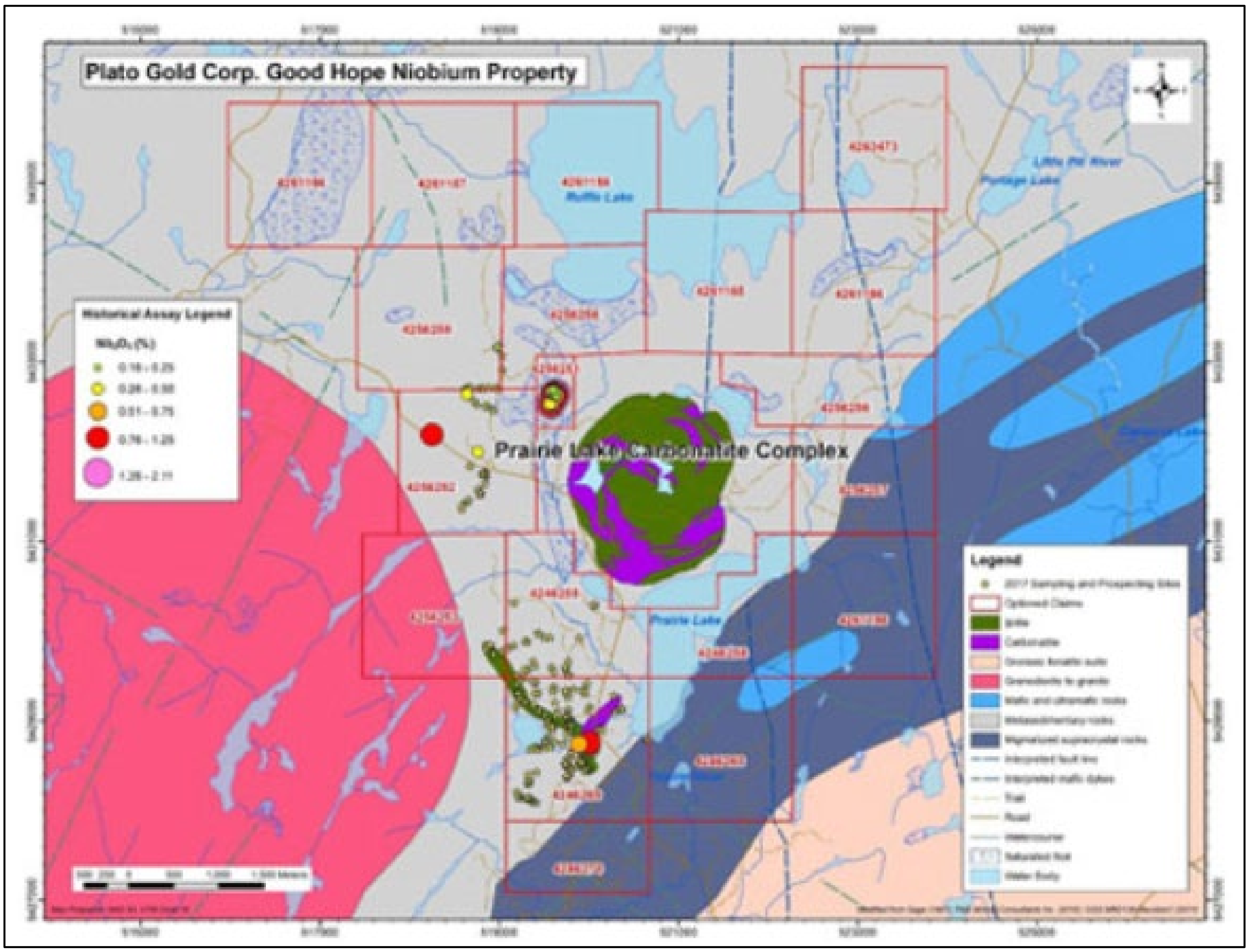
This section is not applicable to this Technical Report.

23.0 ADJACENT PROPERTIES

Nuinsco’s Prairie Lake Property is surrounded by claims held by Plato Gold Corp. (“Plato”) based in Toronto, Ontario. The property, known as the Good Hope Property, is at an early exploration phase. In 2010, a sample assaying 1.63% Nb_2O_5 was collected from a site located on the west side of Prairie River and approximately 200 m northwest of Nuinsco’s Property boundary.

In 2018, Plato drilled 5,000 metres targeting niobium-bearing carbonatite dykes in the area immediately to the northwest of Nuinsco’s Property (Figure 23.1). The mineralized zone drilled consisted of variably fenitized alkalic rocks, ranging from syenite to alkali feldspar granite, brecciated by later carbonatite dykes and cross-cutting carbonatite veins. The drilling program intersected 0.95% Nb_2O_5 over 1.1 metres within an intersection of 0.190% Nb_2O_5 and 2.04% P_2O_5 over 93.08 metres (drill hole PGH-18-06; 354.18 metres to 447.26 metres).

FIGURE 23.1 GOOD HOPE PROPERTY



Source: *Plato (website www.platogold.com June 2022)*

24.0 OTHER RELEVANT DATA AND INFORMATION

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

25.0 INTERPRETATION AND CONCLUSIONS

The Prairie Lake Carbonatite Complex is a Proterozoic age carbonatite-alkalic intrusion. The intrusion has a somewhat oval, subvertical, cylindrical shape with a prominent circular topographic expression. The entire 2.8 km^2 (at surface) Prairie Lake Carbonatite Complex is contained within Nuinsco's 100% owned Prairie Lake Property.

The Prairie Lake Carbonatite Complex intrudes Archean biotite-quartz-feldspar paragneiss country rocks and consists of a dominant pyroxene-nepheline bearing ijolite rocks intermixed with irregular and complexly interfingered arcuate bands of carbonatite. Mineralization occurs at surface with carbonatite rock units continuing to depths of at least 500 m, with similar grades of mineralization to those at and near surface.

Drilling in 2007 indicated potential for domains of elevated grade. Hole NP0709, drilled outside the Main/SW Zone and Jim's Showing target areas, intersected 18.05% P_2O_5, 0.76% Nb_2O_5 and 175 g/t Ta_2O_5 over 1 metre (drill hole NP0709; 49 metres to 50 metres downhole). Hole NP0711, drilled within the Main/SW Zone target area, intersected 6.12% P_2O_5, 1.01% Nb_2O_5 and 70 g/t Ta_2O_5 over 1 metre (drill hole NP0711; 97.5 metres to 98.5 metres downhole) and 4.41% P_2O_5, 0.37% Nb_2O_5 and 579 g/t Ta_2O_5 over 1 metre (drill hole NP0711; 23.75 metres to 24.75 metres downhole). Drilling completed in 2008 intersected 3.16% P_2O_5, 0.104% Nb_2O_5 and 32 g/t Ta_2O_5 over 82.32 metres (drill hole NP0809; 443 metres to 525.58 metres) and 3.96% P_2O_5, 0.082% Nb_2O_5 and 25 g/t Ta_2O_5 over 372 metres (drill hole NP0810; 125 metres to 497 metres downhole).

In late fall 2010, seven diamond drill holes were completed on the Property. A total of 4,004 metres of NQ-sized (48 mm) core was drilled, with holes ranging from 527 metres to 605 metres in length. All holes were drilled to expand the Main/SW Area Target Zone defined originally in 2010 as an Exploration Target. Samples from the 2010 drill program returned individual assays of up to 23.08% P_2O_5, 0.953% Nb_2O_5, and 0.910% REEs. Results included a continuously sampled interval of 3.415% P_2O_5, 0.118% Nb_2O_5 and 1,016.2 g/t combined REE over 246.5 metres from 49.0 metres to 292.5 metres downhole in drill hole NP1001, and 3.74% P_2O_5, 0.106% Nb_2O_5 and 1,908 g/t REE over 195.5 metres from 4.5 metres to 200.0 metres downhole in drill hole NP1007.

In 2010, Nuinsco completed trenching on the Property totalling 2,068 m in length. The trenches, known as Dragonfly, Wollastonite-Trailside, Grouse, and Raspberry Hill, were excavated in the southwest, southeast and northeast quadrants of the Property. A total of 1,042 samples were collected over 1,565 metres of trench length. The results from the channel sampling of the trenches included individual analyses up to 13.67% P_2O_5, 0.423% Nb_2O_5, and 1.098% REE (Y, La, Ce, Nd, Sm).

During 2019, Nuinsco announced results for new REE analyses of core from drill holes NP1006 and NP1007 from the 2010 drilling program. The Company identified up to 15 m widths in drill core of high-grade REE domains in iron-rich carbonatite. These domains were assumed to be late-stage intrusions of the PLCC, and their presence suggest that additional, similar intrusions possibly present on the Prairie Lake Property. Furthermore, drill holes NP1006 and NP1007 were reported to contain ancylite, a strontium-rich REE-carbonate mineral with typically >50% REE oxides. The ancylite mineralization is accompanied by burbankite (another REE-carbonate mineral) and strontianite ($SrCO_3$). The results of additional sampling of drill holes NP0702 and NP0714 significantly extended the known niobium (Nb), tantalum (Ta), phosphorus (P) intercepts in these holes and added assays for rare earth elements (REE), including lanthanum (La), cerium (Ce), samarium (Sm), neodymium (Nd) and yttrium (Y).

Throughout 2021, Nuinsco completed a substantial program of drill hole re-sampling that produced many significant continuous intersections of 100 metres or more containing phosphorus, niobium, tantalum and REE mineralization. Fourteen drill holes in total were resampled from the SW Area. Re-sampling of diamond drill core in SW Area drill hole NP1003 returned a mineralized interval of 602.24 metres from 2.76 metres downhole (approximately525 metres vertically below surface), which is the longest intersection identified to date. This mineralization commences at or near surface and, in general, it remains open to expansion by drilling at depth.

A substantial amount of mineralogical studies and metallurgical testwork dating from 2008 to 2014 has been undertaken on material from the Prairie Lake Project. The target minerals are primarily apatite (phosphorus and REEs) and pyrochlore (niobium). In mineral processing testwork of trench samples, dense media separation ("DMS") and magnetic separation (LIMS) achieved the following results:

- DMS doubled the concentration of both phosphorus and niobium;
- DMS floats indicated a possible loss of 26% to 29% of phosphorus and niobium to tailings;
- LIMS action slightly increased the concentration of P in non-mags and again doubled the niobium concentration in the magnetics concentrate, but recovery was very low;
- The weathered samples could be considered non-representative; and
- Further gravity and magnetic separation tests on fresh samples may be justified.

Metallurgical testing was conducted at the COREM laboratories in Quebec City. The test programs were initiated on the following basis:

- Recovery of apatite and pyrochlore in separate mineral concentrates would be a primary objective;
- Gravity and magnetic separation methods could upgrade the concentrations of the mineralized feed;
- Flotation would be used to selectively concentrate the apatite;
- A secondary flotation circuit supplemented with gravity methods would be utilized to concentrate niobium and associated tantalum; and
- It was anticipated that most of the REE would be locked in the apatite. Release of these REEs would be achieved by a hydrometallurgical process that would be developed later.

A 1.1 tonne drill core sample was received by COREM, subsampled, crushed, analysed and subject to mineralogical examinations. The sample contained 3.18% P_2O_5 and 0.13% Nb_2O_5 and had a density of 2.99 g/cc. Both the P_2O_5 and the Nb_2O_5 concentrated somewhat in the fines of the crushed samples. SEM analyses at COREM determined that the apatite contained 43% P_2O_5, 54% CaO and 4.6% F. The pyrochlore contained 50% Nd_2O_5, 11% CaO, 6.5% TiO_2 and 6% U_3O_8. The high titanium content could affect niobium-tantalum pyrometallurgy and the uranium, which should report to a slag and could be an environmental issue. The liberation size for apatite was determined by COREM to be 150 µm, whereas the liberation size of the pyrochlore was significantly smaller at 38 µm.

Consequently, the initial steps of COREM test program followed a gravity pre-concentration program after a moderate grind. The gravity concentrate was subject to rougher and cleaner froth flotation of the apatite. The apatite tails were reground, followed by gravity (shaking table) concentration of the heavy minerals, which was subject to flotation concentration of the pyrochlore. The most important COREM testwork results and recommendations were:

1. Pre-concentration by gravity methods increases both P_2O_5 and Nb_2O_5 grade by 40% and 20% respectively, both at 80% recovery;

2. Coarse grinding is required for apatite and fine grinding for pyrochlore;

3. The best apatite rougher performance was 17% P_2O_5 grade at 71% recovery; the best cleaning result was 31% P_2O_5 at 42% recovery;

4. Additional test development is required to enhance apatite recovery and reject calcite/dolomite inclusion in the concentrates;

5. With additional grinding, gravity concentration of pyrochlore in apatite tails, and flotation, the best grade was only 1.1% Nb_2O_5 at approximated 80% recovery of the 70% recovery remaining from previous process steps (apatite and magnetic separation) for 56% recovery; and

6. Additional testwork is required to improve Nb_2O_5 grades and recoveries.

Although the Nb_2O_5 grade of the Prairie Lake Deposit is low compared to other Canadian deposits, the high REE content of both the apatite and the pyrochlore and the attractive mineralogical deportment of the apatite suggest economic potential for the current Prairie Lake Mineral Resources.

At a cut-off of C$30/t NSR, the pit-constrained initial Mineral Resource Estimate ("MRE") for the Prairie Lake Property consists of a 15.6 million tonnes of Indicated Mineral Resource grading 1.67 kg/t TREO, 0.16% Nb_2O_5 and 3.71% P_2O_5, and a large 871.8 million tonnes of Inferred Mineral Resource grading 2.01 kg/t TREO, 0.10% Nb_2O_5 and 3.39% P_2O_5, in accordance with National Instrument 43-101. The MRE also includes niobium and phosphate as oxides which, along with the TREO, are anticipated to be key drivers of a Preliminary Economic Assessment on the Prairie Lake Project that is anticipated to commence soon.

The Mineral Resource Estimates are sensitive to the selection of a reporting NSR cut-off value. At a cut-off of $C50/t NSR, the pit-constrained Mineral Resources consist of a 14.5 Mt Indicated Mineral Resource grading 1.73 kg/t TREO, 0.17% Nb_2O_5 and 3.75% P_2O_5, and an 815.1 Mt Inferred Mineral Resource grading 2.06 kg/t TREO, 0.10 Nb_2O_5 and 3.43% P_2O_5.

The MRE for Prairie Lake is based on 73 inclined diamond drill holes completed between 1969 and 2010 totalling 12,180 metres. Additionally, 2,068 metres of surface trenching are included in the Mineral Resource Estimate. A total of 5,409 drill core samples and 1,042 channel samples are incorporated into the MRE, excluding QA/QC samples. A length of 1.5 metres was utilized for composites, which were capped as follows: 1,850 g/t Nd_2O_3, 250 g/t Pr_6O_{11}, no cap Sc_2O_3, 1% Nb_2O_5, 14% P_2O_5, 3,700 g/t CeO_2, 1,700 g/t La_2O_3, 520 g/t Sm_2O_3, no cap Ta_2O_5 and 570 g/t Y_2O_3. Grade interpolation was undertaken with the ID2 method on 10 m x 10 m x 10 m blocks. Indicated Mineral Resources were classified within a 55 m x 55 m x 40 m search ellipse and three drill holes, whereas Inferred Mineral Resources were classified in two passes with a 110 m x 110 m x 80 m search ellipse with two drill holes, and subsequently a 220 m x 220 m x 160 m search ellipse with one drill hole.

The Mineral Resource in this Technical Report were estimated using 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. 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. The Inferred Mineral Resource component of this estimate has a lower level of confidence than that applied to the Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that a majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with infill drilling.

The Prairie Lake Phosphorus, Niobium and REE Project benefits from location in a politically stable jurisdiction and nearby available rail, road, shipping and power infrastructure; and is ideally placed in North America with respect to current supply chain concerns for critical minerals. Nuinsco should initiate baseline environmental studies and commence community consultations with First Nation and other stakeholders and discussions with pertinent government agencies.

26.0 RECOMMENDATIONS

The Prairie Lake Property contains significant phosphorus, niobium and REE Mineral Resources that are associated with carbonatite phases in the Prairie Lake Carbonatite Complex intrusion. The Property has potential for delineation of additional multi-commodity Mineral Resources associated with carbonatite and other alkaline-affinity units within the intrusion and fenite altered adjacent, surrounding country rock. In addition, Inferred Mineral Resources should be infill drilled to Indicated Mineral Resources, starting at priority areas.

An initial drill program is proposed that would consist of approximately 32 drill holes totalling 12,000 m of infill drilling at Main/SW Zone and nine drill holes totalling 2,500 m of infill drilling at Jim's Showing. In addition to drilling, follow-up mineral processing and metallurgical testwork, initial geotechnical and geomechanical work, and environmental work and community consultations should be carried out, all leading up to completion of a Preliminary Economic Assessment of the Prairie Lake Phosphorus, Niobium and REE Project. The recommended metallurgical testwork should include a preliminary hydrometallury program to extract REE from the apatite. The recommended environmental work should include environmental assessment processes, property baseline and special studies, and community engagement consultations.

Furthermore, P&E recommends that Nuinsco utilize appropriate, field-inserted CRMs to monitor the range of elements of interest in future drilling and sampling programs. It is also recommended that a mix of targeted and randomly selected duplicate samples be inserted into the sample stream in future sampling programs.

Independent verification sampling of the Prairie Lake Project data undertaken by P&E from 2009 to 2022, has resulted in the identification of a consistent bias between Nuinsco's primary lab (Actlabs) results and P&E's verification samples analyzed by SGS. Elements displaying a bias include Ce, La, Nb, Nd, Sm and Ta and, considering that both the original and check assays have been analyzed by Lithium Borate fusion method with ICP-MS finish, the disclosed between-lab biases warrant further investigation. A lack of appropriate field-inserted CRMs for the majority of elements of interest, also means that there has not been any external monitoring of accuracy for the majority of analyses undertaken at Actlabs. Verification sampling does confirm strong correlation to the original samples. However, verification samples consistently return significantly higher-grade results for certain elements. Nuinsco-reported mineralization has therefore been verified as a result of verification sampling, but it is possible that some element grades have been under-reported by the primary lab, which has the potential to impact Project outcomes. The authors of this Technical Report recommend that Nuinsco request Actlabs to investigate the potential cause of the between-lab bias and make any necessary adjustments depending on the investigation outcome. It is also recommended that at least 5% of samples analyzed at Actlabs be analyzed at a reputable umpire laboratory, but to await Actlabs' investigation results before initiating the umpire-assaying program.

A budget of $C6.2M is proposed to complete the recommended work program (Table 26.1).

Table 26.1 Proposed Budget for Prairie Lake Property Infill and Regional Drilling Programs			
Items	**Units**	**Cost/Unit**	**Estimated Cost (C$)**
Main/SW Area			
Diamond Drilling (32 holes)	12,000 m	$150/m	1,800,000
Drilling Supervision/Geologists	100 days, 3 geologists	$500- $1,000/day	225,000
Technicians	100 days, 2 technicians	$300- $500/day	80,000
Accommodations and Meals			100,000
Analyses	8,000 samples	$120/sample	960,000
Travel			50,000
Supplies			25,000
Jim's Showing Area			
Diamond Drilling (9 holes)	2,500 m	$150/m	375,000
Drilling Supervision / Geologists	35 days, 2 geologists	$500- 1,000/day	52,500
Technicians	35 days, 1 technician	$400/day	14,000
Accommodations and Meals			25,000
Analyses	1,500 samples	$120/sample	180,000
Travel			20,000
Supplies			25,000
General			
Mineral Processing and Metallurgy			220,000
Geotechnical and Geomechanical Work			100,000
Environmental Baseline and Assessment Studies			1,000,000
Community Consultations			150,000
Preliminary Economic Assessment			350,000
Sub-total			**5,601,500**
10% Contingency			560,000
Total			**$6,161,500**

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Watkinson, D.H. 2003. Memos, Data and Verbal Communication Regarding Petrographic, SEM and Electron Microprobe Determinations from Prairie Lake Complex Samples. Carleton University.

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Wu, F., Mitchell, R.H., Li, Q., Zhang, C., and Yang, Y., 2016. Emplacement age and isotopic composition of the Prairie Lake carbonatite complex, Northwestern Ontario, Canada. Geology Magazine, Cambridge University Press, 20 pages.

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 Prairie Lake Rare Earth Element, Niobium and Phosphate Property, Thunder Bay Mining Division, Ontario, Canada", (The "Technical Report") with an effective date of May 31, 2022.
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:

• Contract Senior Geologist, LAC Minerals Exploration Ltd.	1985-1988
• Post-Doctoral Fellow, McMaster University	1988-1992
• Contract Senior Geologist, Outokumpu Mines and Metals Ltd.	1993-1996
• Senior Research Geologist, WMC Resources Ltd.	1996-2001
• Senior Lecturer, University of Western Australia	2001-2003
• Principal Geologist, Geoinformatics Exploration Ltd.	2003-2004
• Vice President Exploration, Nevada Star Resources Inc.	2005-2006
• Vice President Exploration, Goldbrook Ventures Inc.	2006-2008
• Vice President Exploration, North American Palladium Ltd.	2008-2009
• Vice President Exploration, Magma Metals Ltd.	2010-2011
• President & COO, Pacific North West Capital Corp.	2011-2014
• Consulting Geologist	2013-2017
• 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 10, and 23, 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 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: May 31, 2022
Signed Date: July 15, 2022
{SIGNED AND SEALED}
[William Stone]

____
William E. Stone, Ph.D., 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 "Technical Report and Initial Mineral Resource Estimate of the Prairie Lake Rare Earth Element, Niobium and Phosphate Property, Thunder Bay Mining Division, Ontario, Canada", (The "Technical Report") with an effective date of May 31, 2022.
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. 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 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: May 31, 2022
Signed Date: July 15, 2022

{SIGNED AND SEALED}
[Yungang Wu]

____

Yungang Wu, 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 Prairie Lake Rare Earth Element, Niobium and Phosphate Property, Thunder Bay Mining Division, Ontario, Canada", (The "Technical Report") with an effective date of May 31, 2022.
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:

• Geologist, Foran Mining Corp.	2004
• Geologist, Aurelian Resources Inc.	2004
• Geologist, Linear Gold Corp.	2005-2006
• Geologist, Búscore Consulting	2006-2007
• Consulting Geologist (AusIMM)	2008-2014
• 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, 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 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: May 31, 2022

Signed Date: July 15, 2022

{SIGNED AND SEALED}
[Jarita Barry]

____

Jarita Barry, 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 Prairie Lake Rare Earth Element, Niobium and Phosphate Property, Thunder Bay Mining Division, Ontario, Canada", (The "Technical Report") with an effective date of May 31, 2022.
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:

   - Minex Geologist (Val d'Or), 3-D Modeling (Timmins), Placer Dome 1993-1995
   - Database Manager, Senior Geologist, West Africa, PDX, 1996-1998
   - Senior Geologist, Database Manager, McWatters Mine 1998-2000
   - Database Manager, Gemcom modeling and Resources Evaluation (Kiena Mine) 2001-2003
   - Database Manager and Resources Evaluation at Julietta Mine, Bema Gold Corp. 2003-2006
   - Consulting Geologist 2006-present
4. I have visited the Property that is the subject of this Technical Report on December 2, 2009.
5. I am responsible for co-authoring Sections 1, 12, 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. I am independent of the Vendor and the Property.
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 on the Prairie Lake Property, Thunder Bay Mining Division, Ontario, Canada", with an effective date of November 30, 2018.
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: May 31, 2022
Signed Date: July 15, 2022

{SIGNED AND SEALED}
[Antoine R. Yassa]

____
Antoine R. Yassa, 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:

1. 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 Prairie Lake Rare Earth Element, Niobium and Phosphate Property, Thunder Bay Mining Division, Ontario, Canada", (The "Technical Report") with an effective date of May 31, 2022.
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 Sections 13 and 20, 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 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: May 31, 2022
Signed Date: July 15, 2022

{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 Prairie Lake Rare Earth Element, Niobium and Phosphate Property, Thunder Bay Mining Division, Ontario, Canada", (The "Technical Report") with an effective date of May 31, 2022.
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

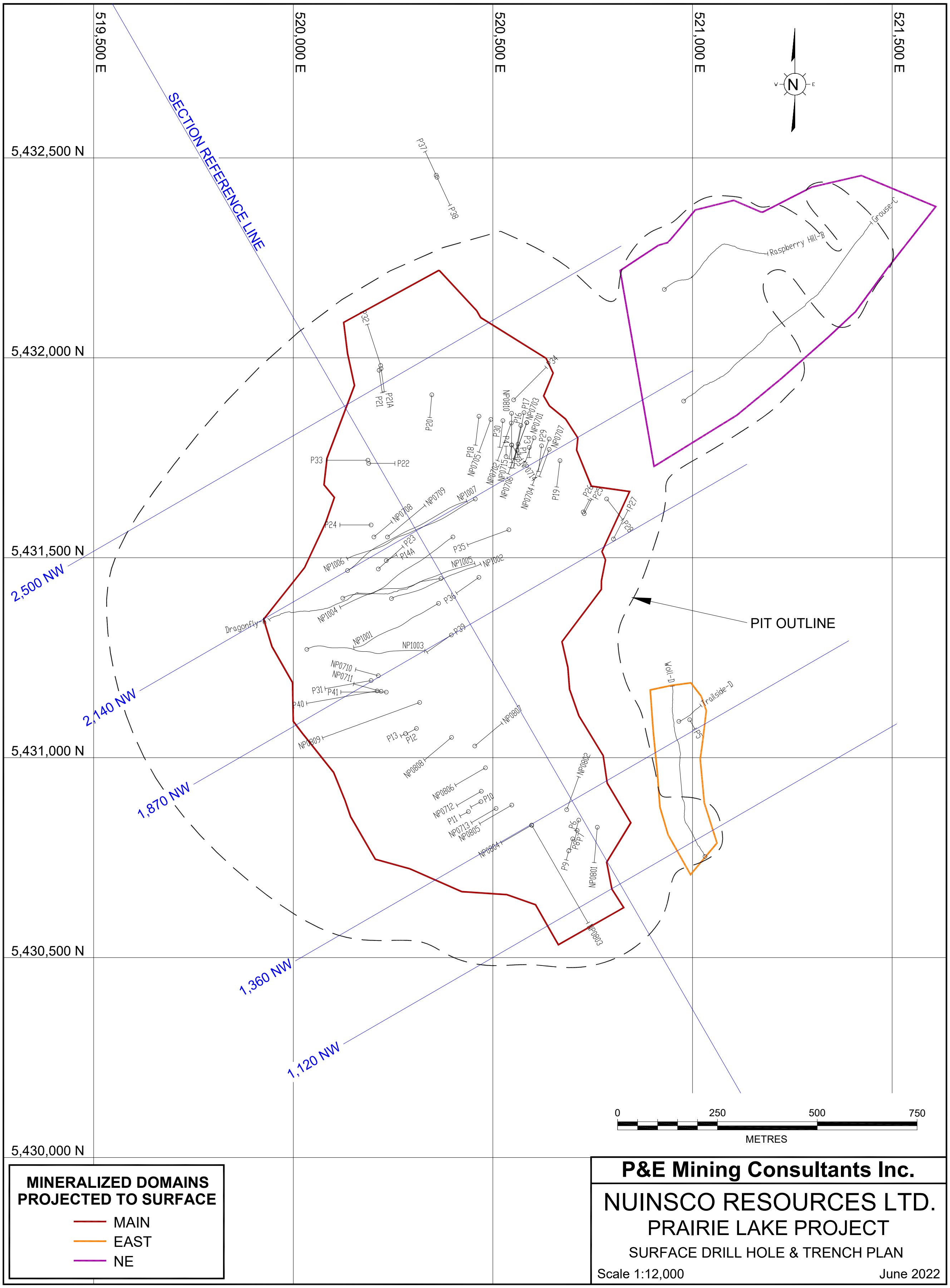
4. I have visited the Property that is the subject of this Technical Report on June 2, 2011 and November 5, 2021.
5. I am responsible for co-authoring Sections 1, 12, 14, 25, and 26 of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have had 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 on the Prairie Lake Property, Thunder Bay Mining Division, Ontario, Canada", with an effective date of November 30, 2018.
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: May 31, 2022
Signed Date: July 15, 2022

{SIGNED AND SEALED}
[Eugene Puritch]

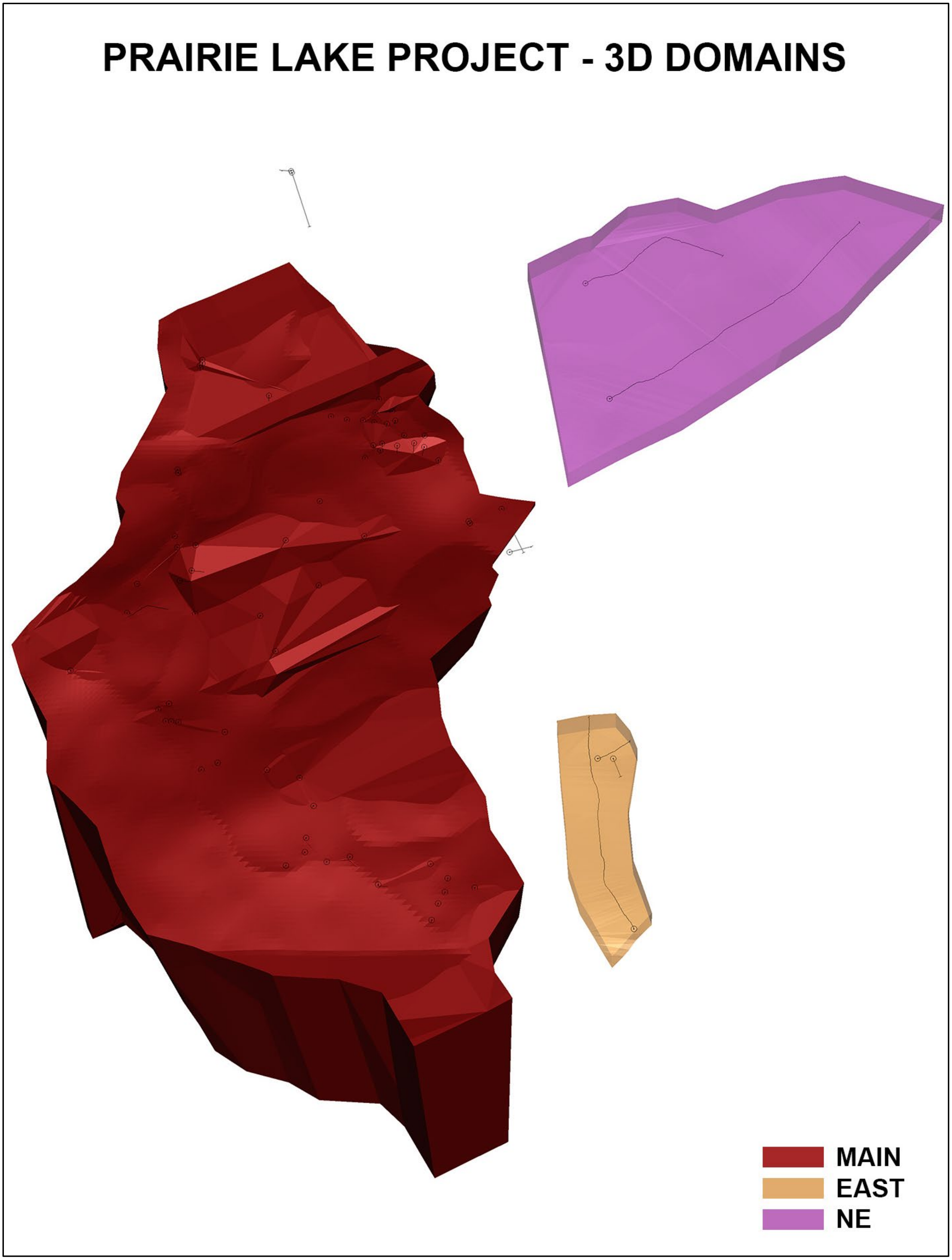
____
Eugene Puritch, P.Eng., FEC, CET

APPENDIX A DRILL HOLE PLAN

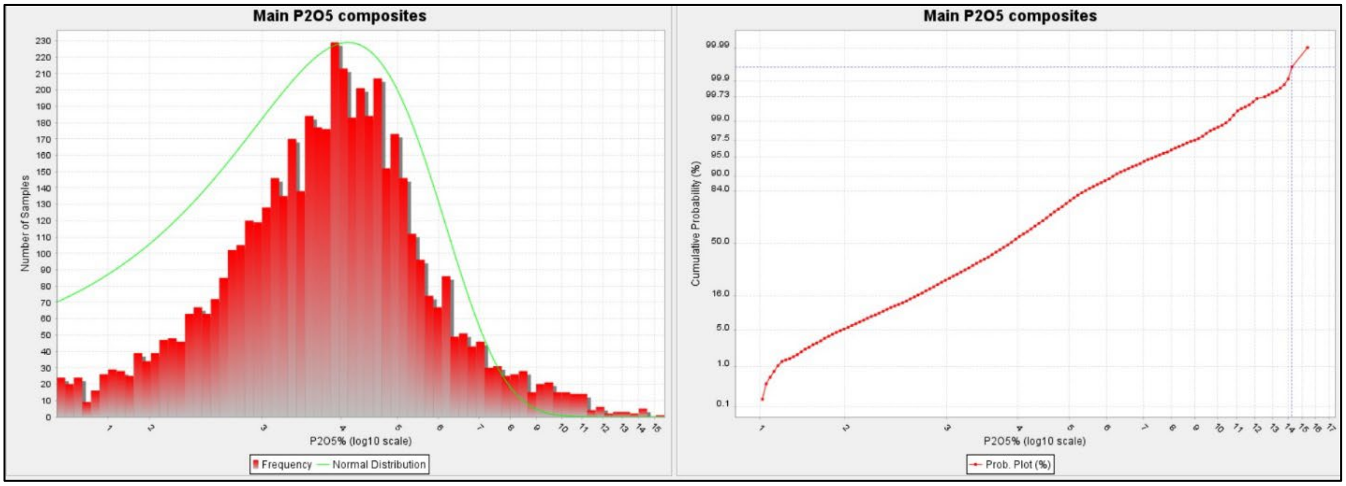


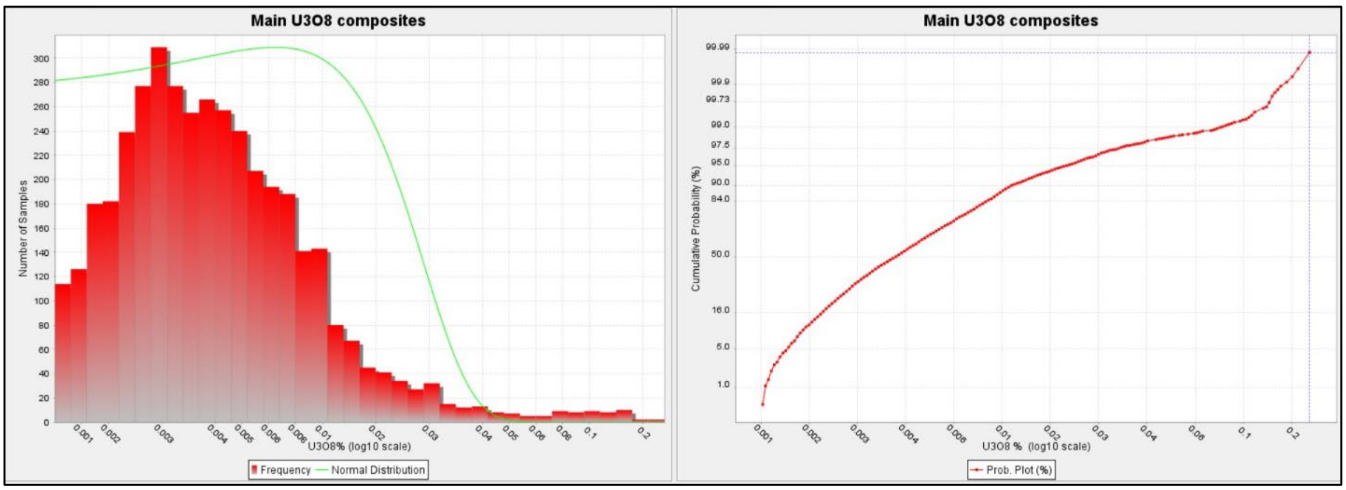
519,500 E
520,000 E
520,500 E
521,000 E
521,500 E
5,432,500 N
5,432,000 N
5,431,500 N
5,431,000 N
5,430,500 N
5,430,000 N
N
SECTION REFERENCE LINE
2,500 NW
2,140 NW
1,870 NW
1,360 NW
1,120 NW
PIT OUTLINE
Dragonfly
Raspberry Hill-B
Grouse-C
Wolf-D
Trailside-D
0
250
500
750
METRES
MINERALIZED DOMAINS PROJECTED TO SURFACE
MAIN
EAST
NE
P&E Mining Consultants Inc.
NUINSCO RESOURCES LTD.
PRAIRIE LAKE PROJECT
SURFACE DRILL HOLE & TRENCH PLAN
Scale 1:12,000
June 2022

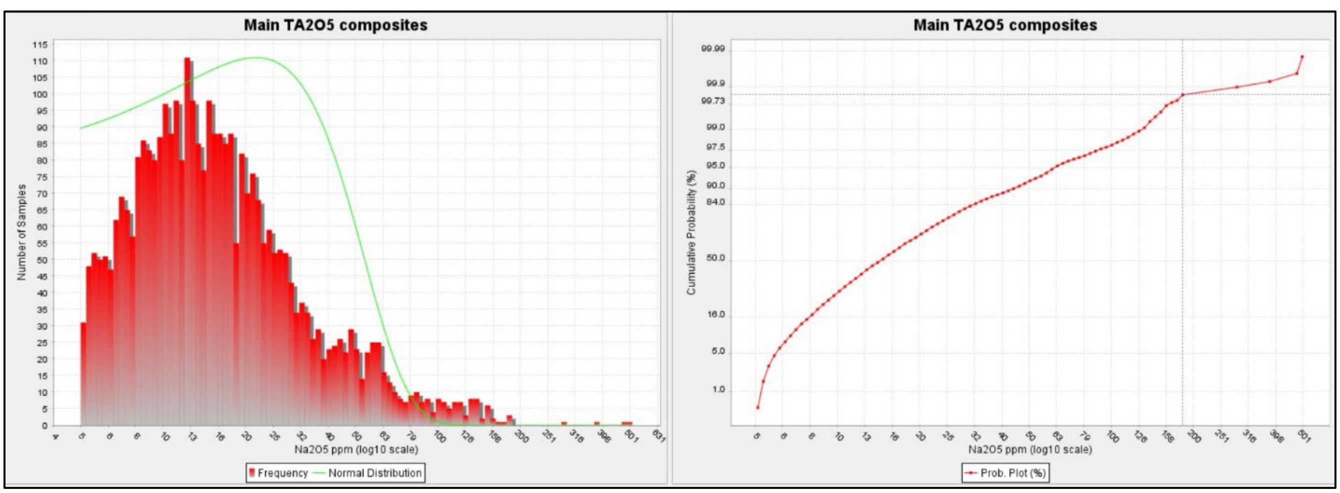
APPENDIX B 3-D DOMAINS

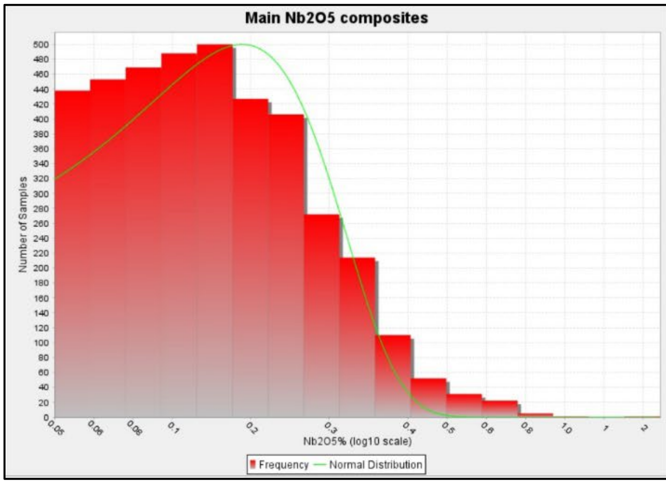

PRAIRIE LAKE PROJECT - 3D DOMAINS
MAIN
EAST
NE

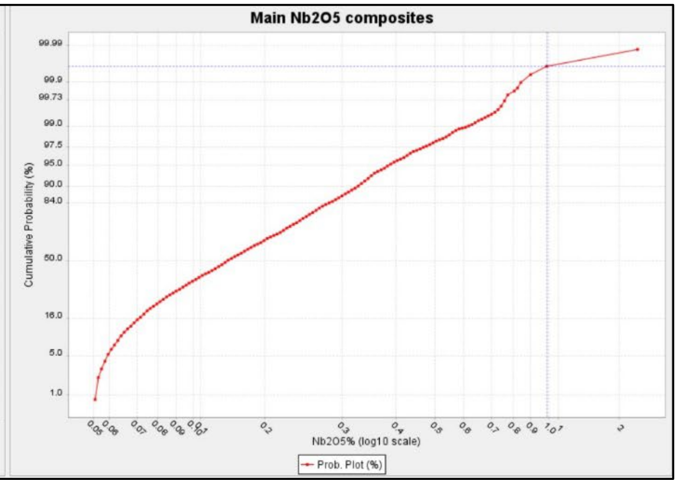
APPENDIX C LOG NORMAL HISTOGRAMS AND PROBABILITY PLOTS

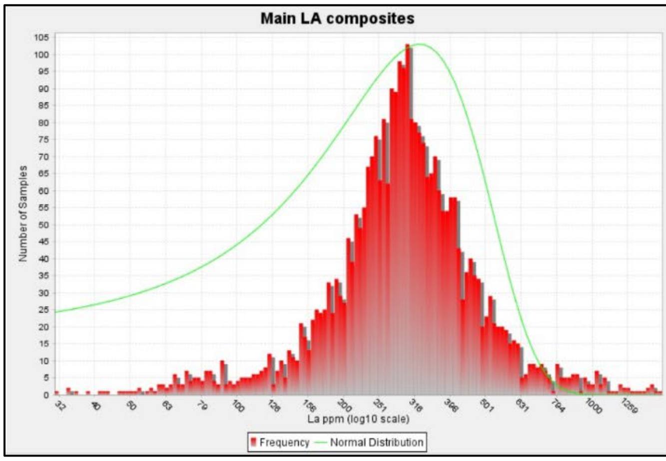

Main P2O5 composites
Number of Samples
P2O5% (log10 scale)
Frequency
Normal Distribution
Main P2O5 composites
Cumulative Probability (%)
P2O5% (log10 scale)
Prob. Plot (%)

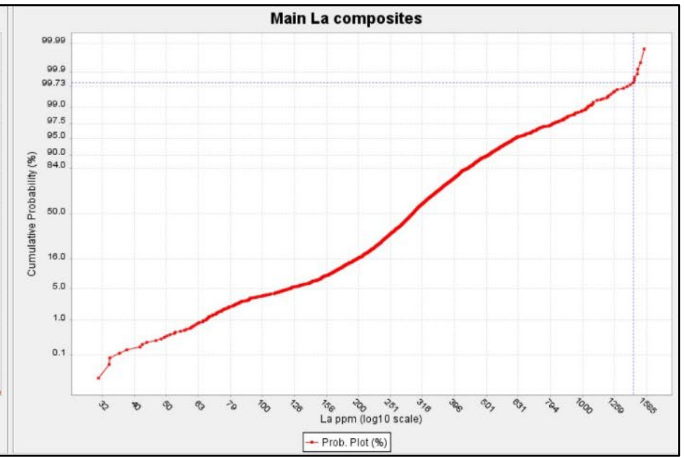

Main U3O8 composites
Number of Samples
U3O8% (log10 scale)
Frequency
Normal Distribution
Main U3O8 composites
Cumulative Probability (%)
U3O8 % (log10 scale)
Prob. Plot (%)

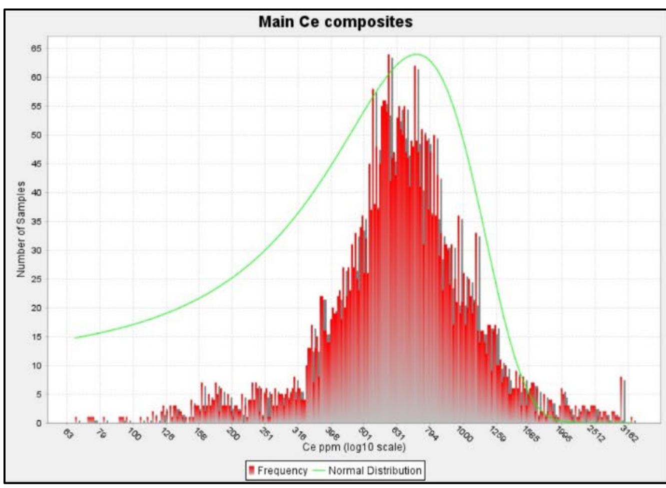

Main TA2O5 composites
Number of Samples
Na2O5 ppm (log10 scale)
Frequency
Normal Distribution
Main TA2O5 composites
Cumulative Probability (%)
Na2O5 ppm (log10 scale)
Prob. Plot (%)

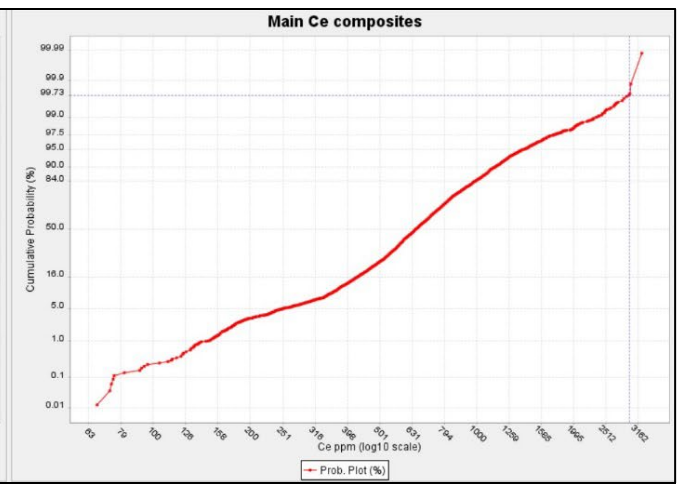

Main Nb2O5 composites
Number of Samples
Nb2O5% (log10 scale)
Frequency
Normal Distribution

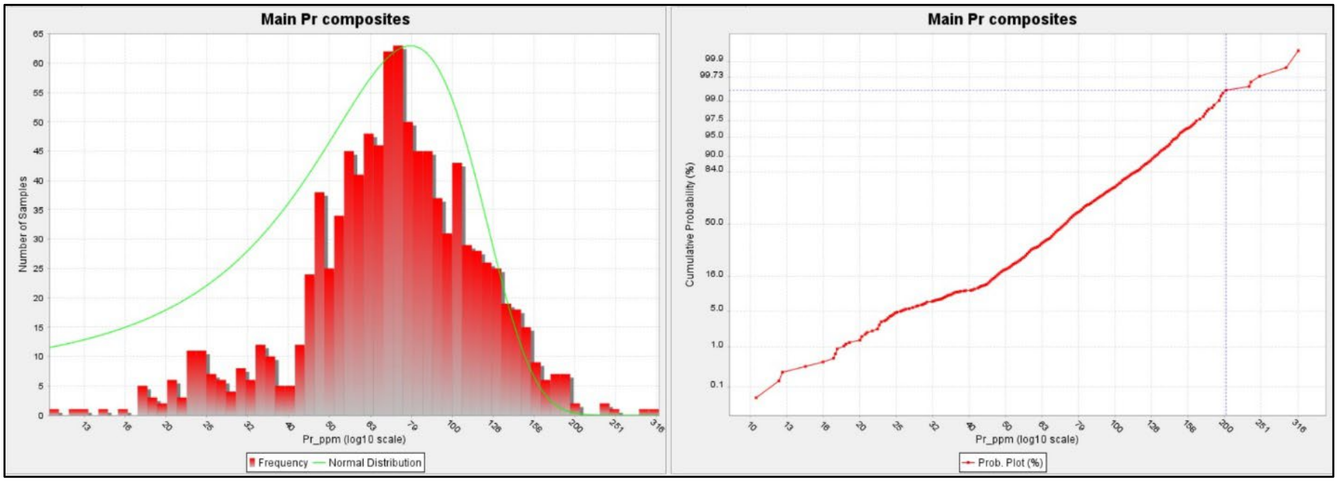

Main Nb2O5 composites
Cumulative Probability (%)
Nb2O5% (log10 scale)
Prob. Plot (%)

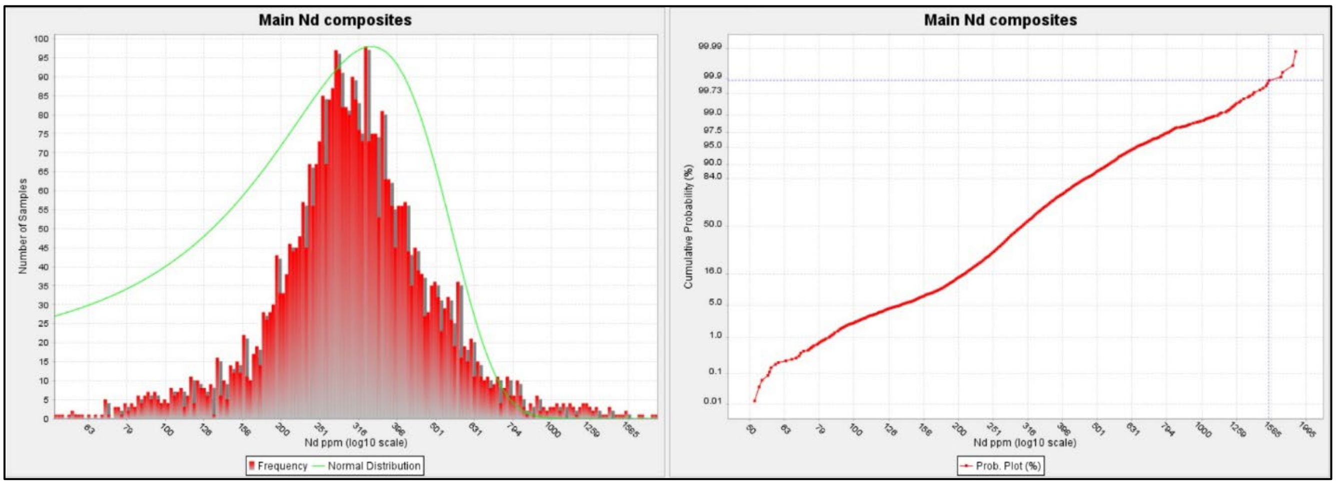

Main LA composites
Number of Samples
La ppm (log10 scale)
Frequency
Normal Distribution

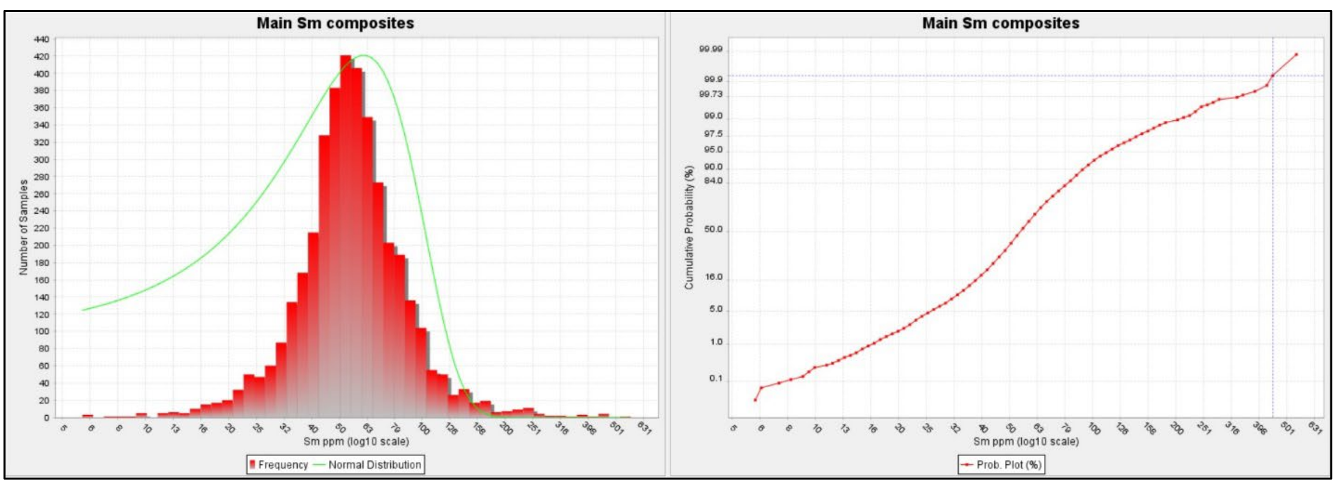

Main La composites
Cumulative Probability (%)
La ppm (log10 scale)
Prob. Plot (%)

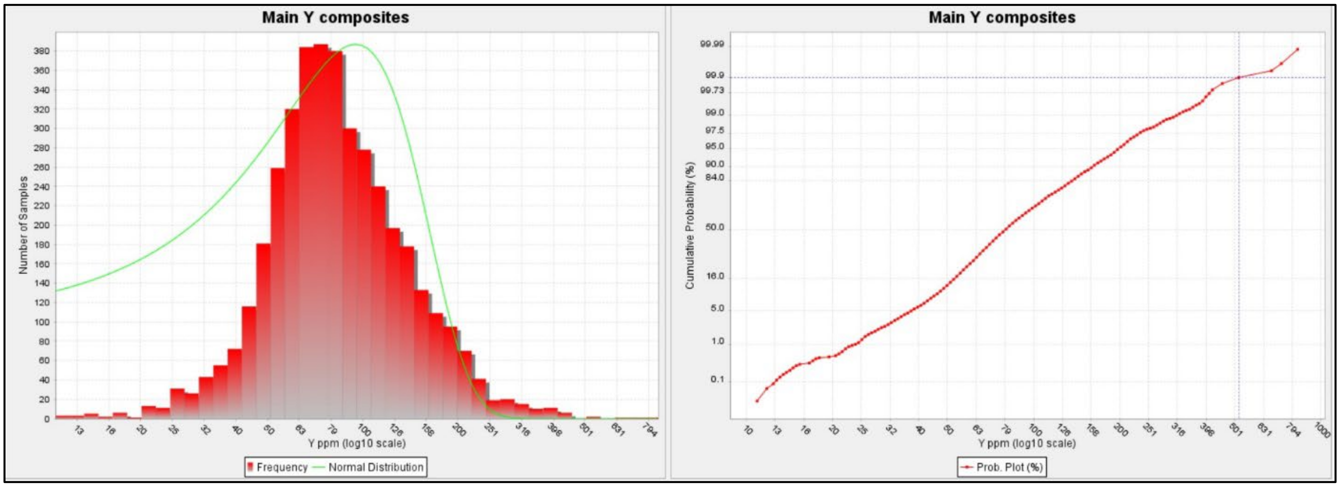

Main Ce composites
Number of Samples
Ce ppm (log10 scale)
Frequency
Normal Distribution

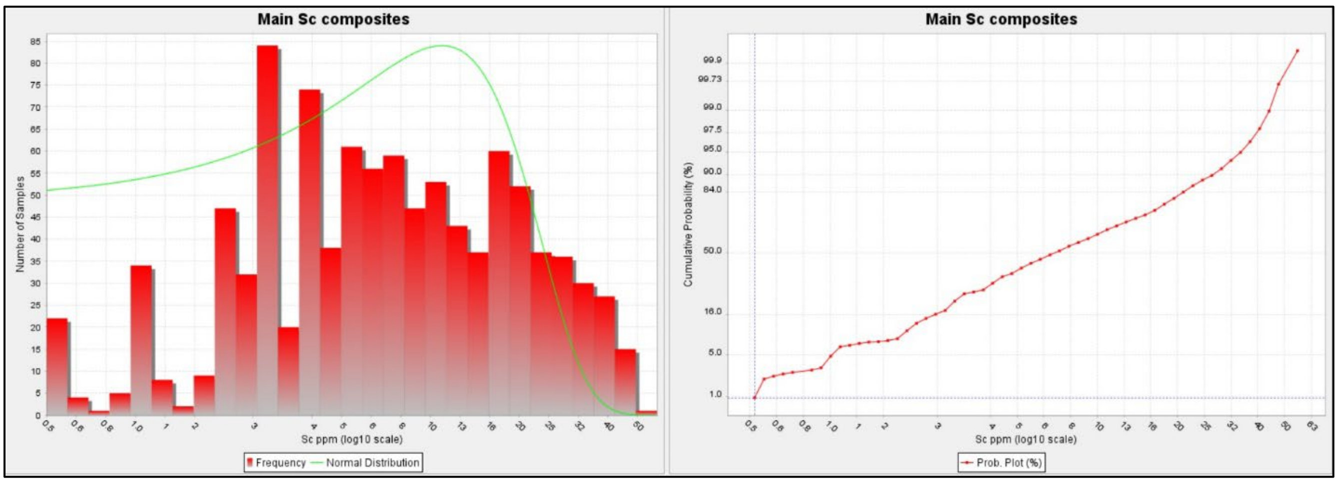

Main Ce composites
Cumulative Probability (%)
Ce ppm (log10 scale)
Prob. Plot (%)


Main Pr composites
Number of Samples
Pr_ppm (log10 scale)
Frequency
Normal Distribution
Main Pr composites
Cumulative Probability (%)
Pr_ppm (log10 scale)
Prob. Plot (%)

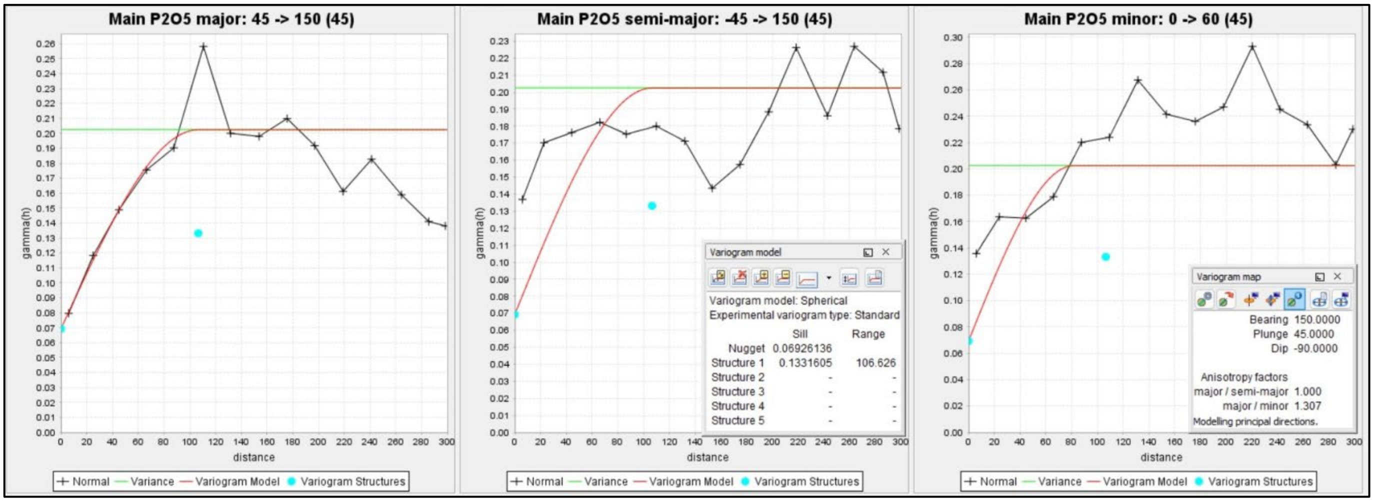

Main Nd composites
Number of Samples
Nd ppm (log10 scale)
Frequency
Normal Distribution
Main Nd composites
Cumulative Probability (%)
Nd ppm (log10 scale)
Prob. Plot (%)


Main Sm composites
Number of Samples
Sm ppm (log10 scale)
Frequency
Normal Distribution
Main Sm composites
Cumulative Probability (%)
Sm ppm (log10 scale)
Prob. Plot (%)


Main Y composites
Number of Samples
Y ppm (log10 scale)
Frequency
Normal Distribution
Main Y composites
Cumulative Probability (%)
Y ppm (log10 scale)
Prob. Plot (%)

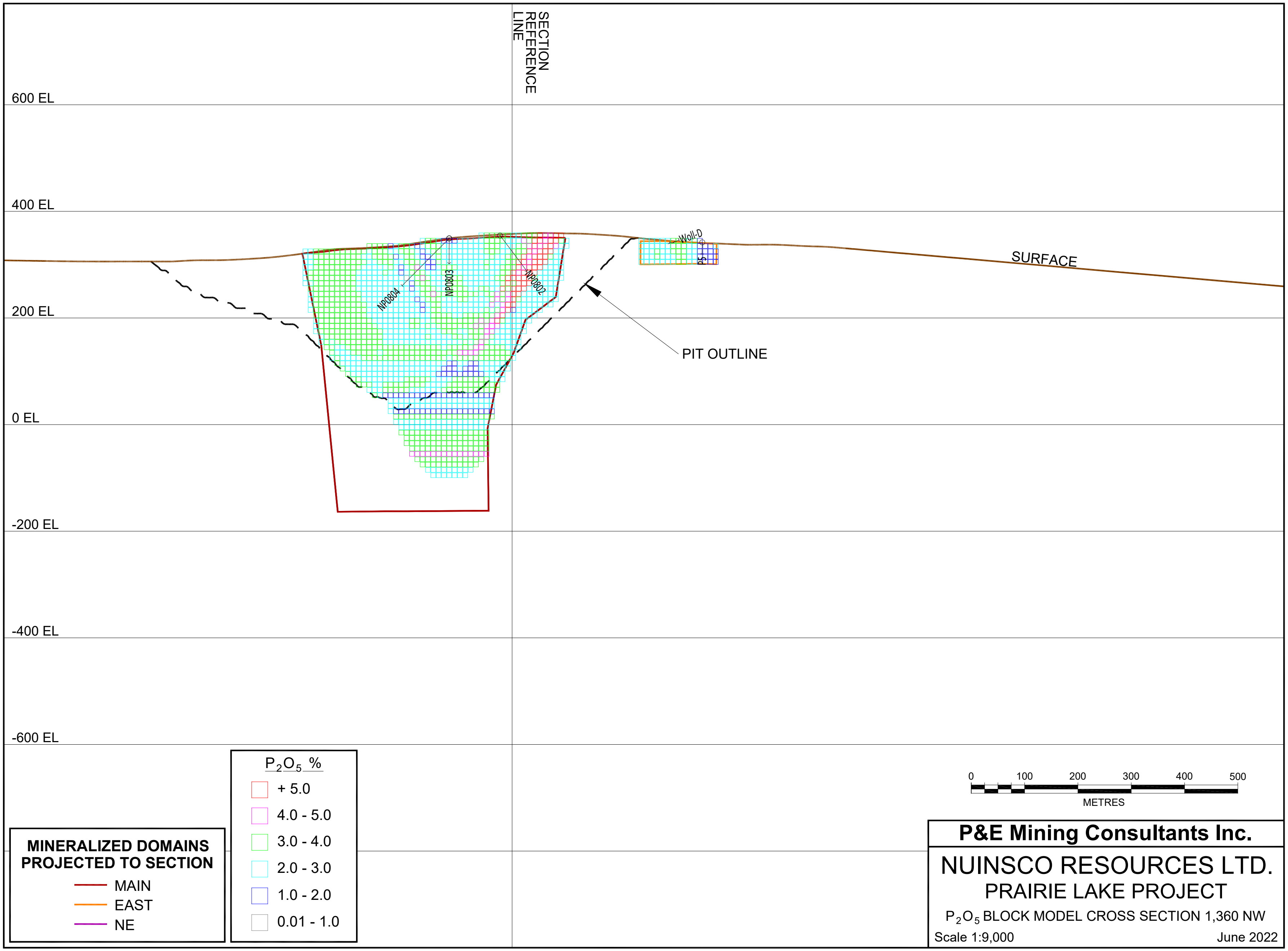

Main Sc composites
Number of Samples
Sc ppm (log10 scale)
Frequency
Normal Distribution
Main Sc composites
Cumulative Probability (%)
Sc ppm (log10 scale)
Prob. Plot (%)

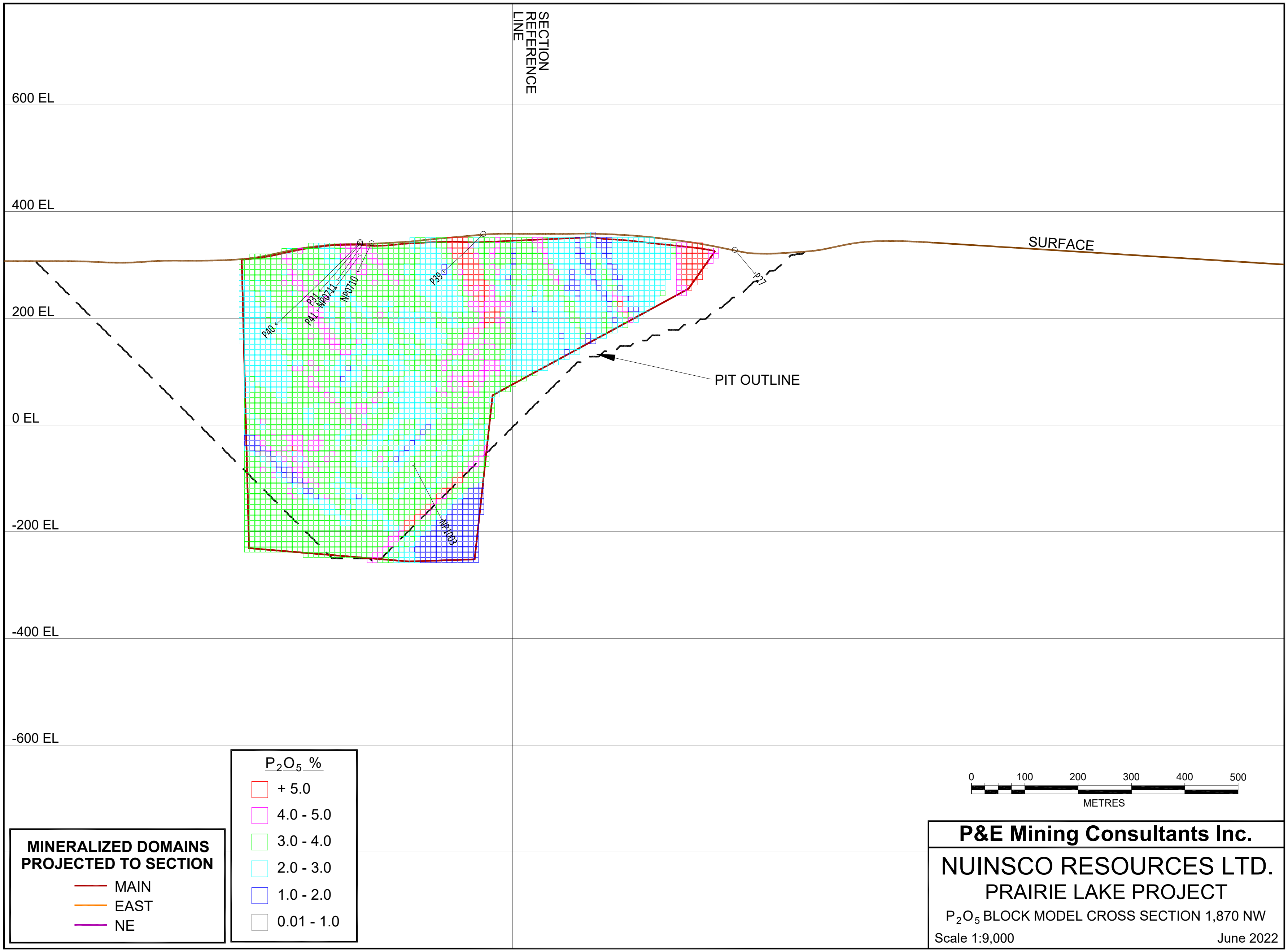
APPENDIX D VARIOGRAMS

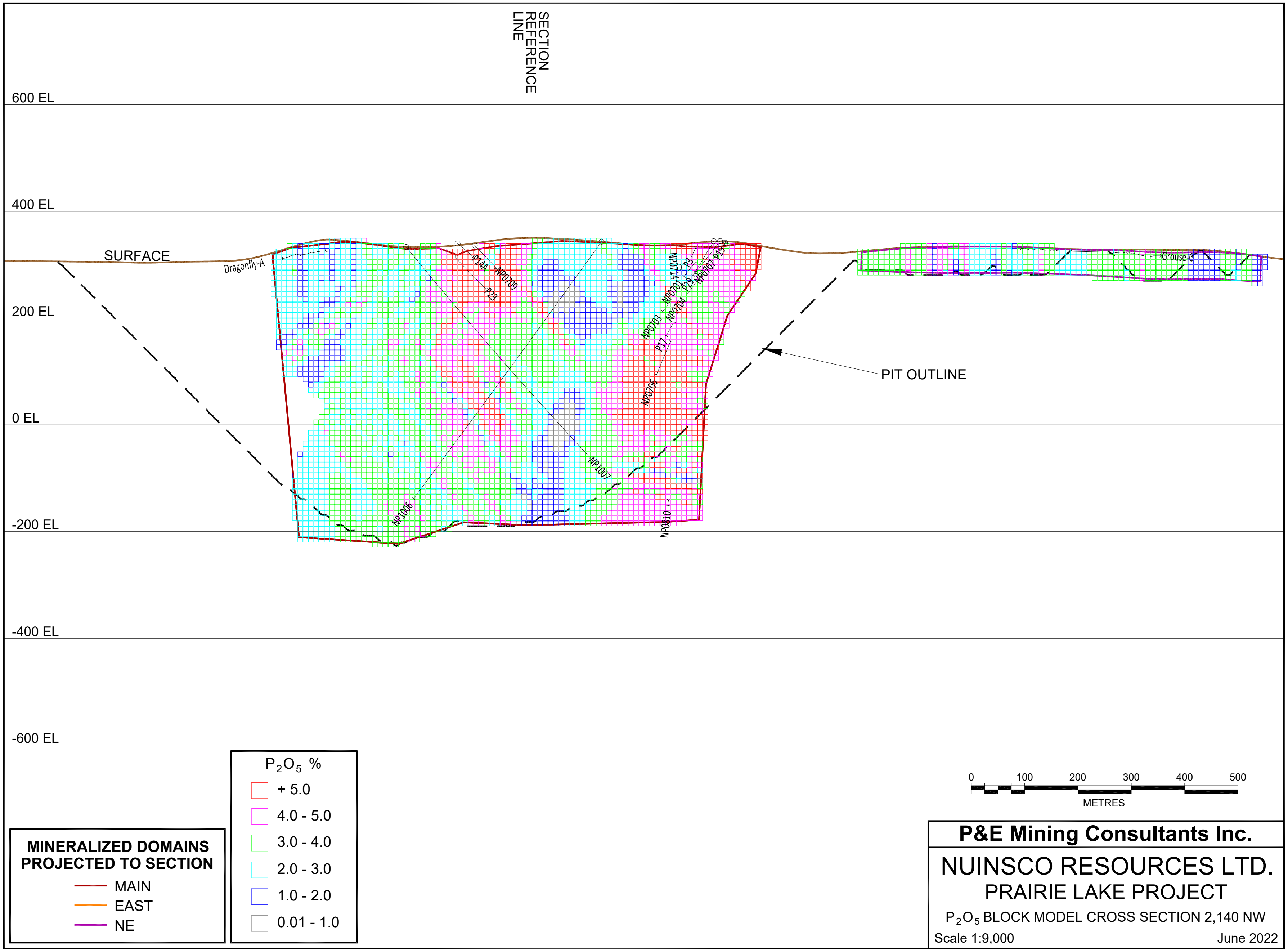


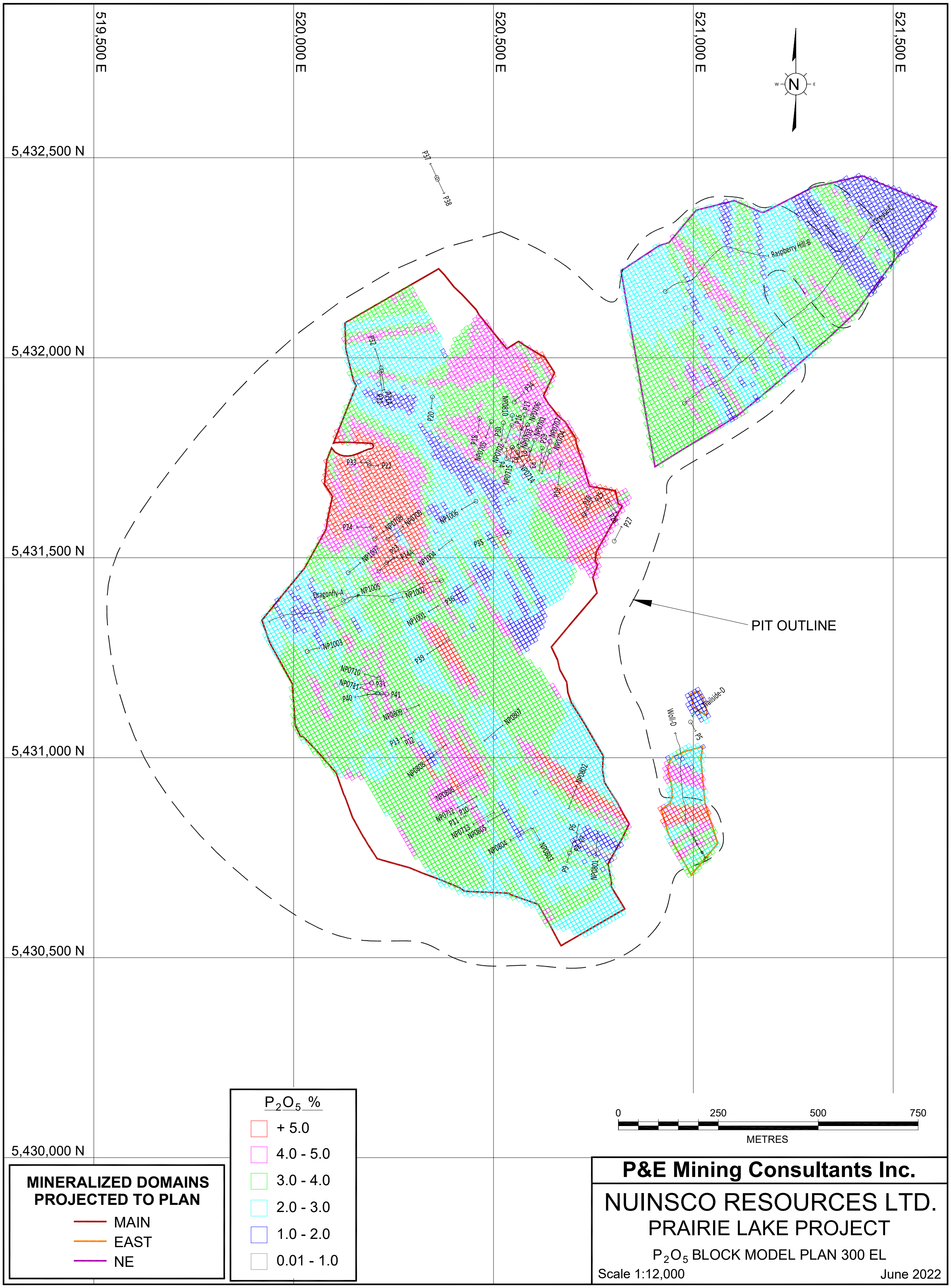
Main P2O5 major: 45 -> 150 (45)
Main P2O5 semi-major: -45 -> 150 (45)
Main P2O5 minor: 0 -> 60 (45)
gamma(h)
distance
Variogram model
Variogram model: Spherical
Experimental variogram type: Standard
Sill Range
Nugget 0.06926136
Structure 1 0.1331605 106.626
Structure 2 - -
Structure 3 - -
Structure 4 - -
Structure 5 - -
Variogram map
Bearing 150.0000
Plunge 45.0000
Dip -90.0000
Anisotropy factors
major / semi-major 1.000
major / minor 1.307
Modelling principal directions.
Normal
Variance
Variogram Model
Variogram Structures

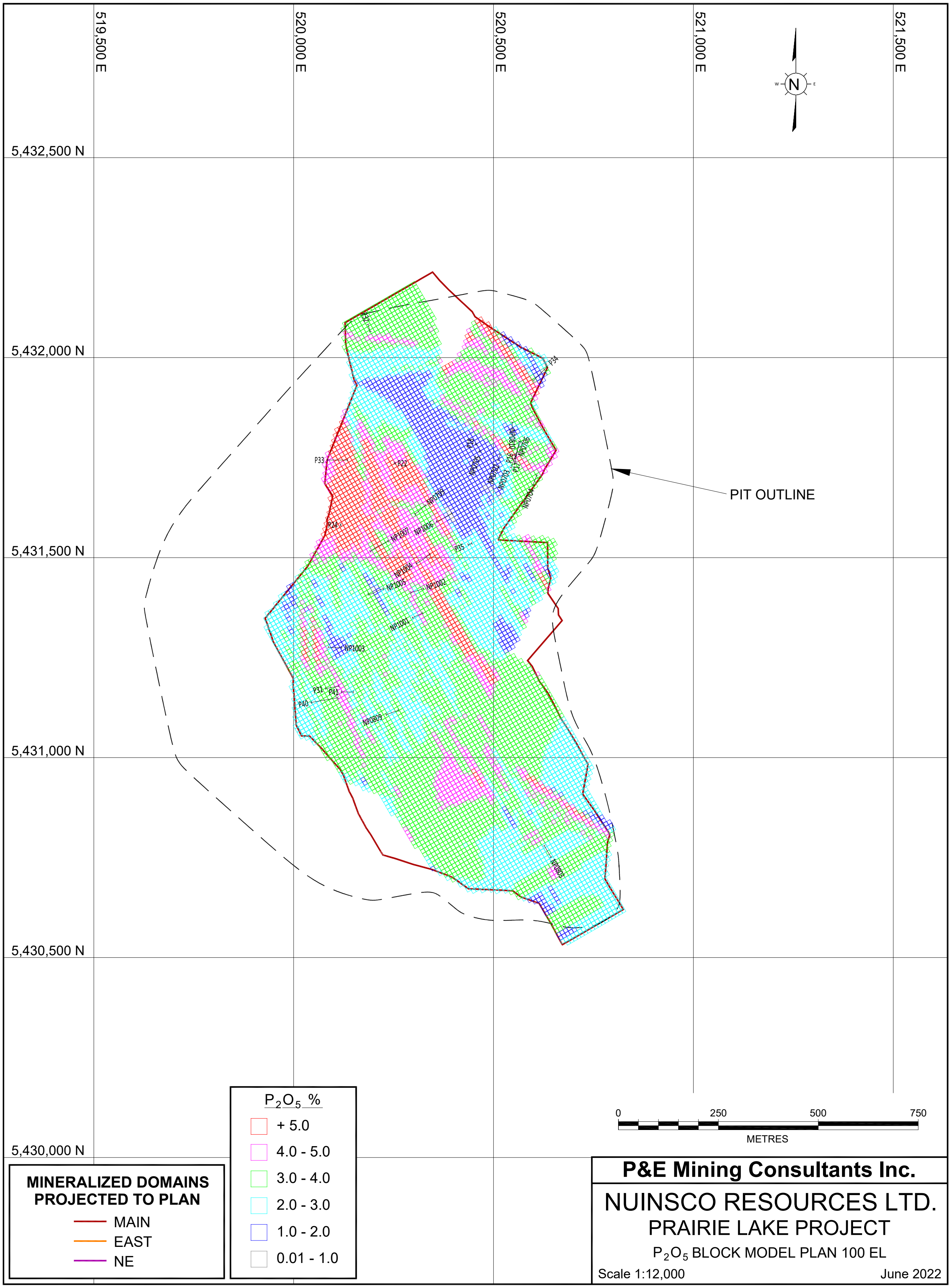
APPENDIX E P$_2$O$_5$ BLOCK MODEL CROSS SECTIONS AND PLANS


SECTION REFERENCE LINE
600 EL
400 EL
200 EL
0 EL
-200 EL
-400 EL
-600 EL
SURFACE
PIT OUTLINE
NP0804
NP0803
NP0802
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
EAST
NE
P_2O_5 %
+ 5.0
4.0 - 5.0
3.0 - 4.0
2.0 - 3.0
1.0 - 2.0
0.01 - 1.0
0
100
200
300
400
500
METRES
P&E Mining Consultants Inc.
NUINSCO RESOURCES LTD.
PRAIRIE LAKE PROJECT
P_2O_5 BLOCK MODEL CROSS SECTION 1,360 NW
Scale 1:9,000
June 2022

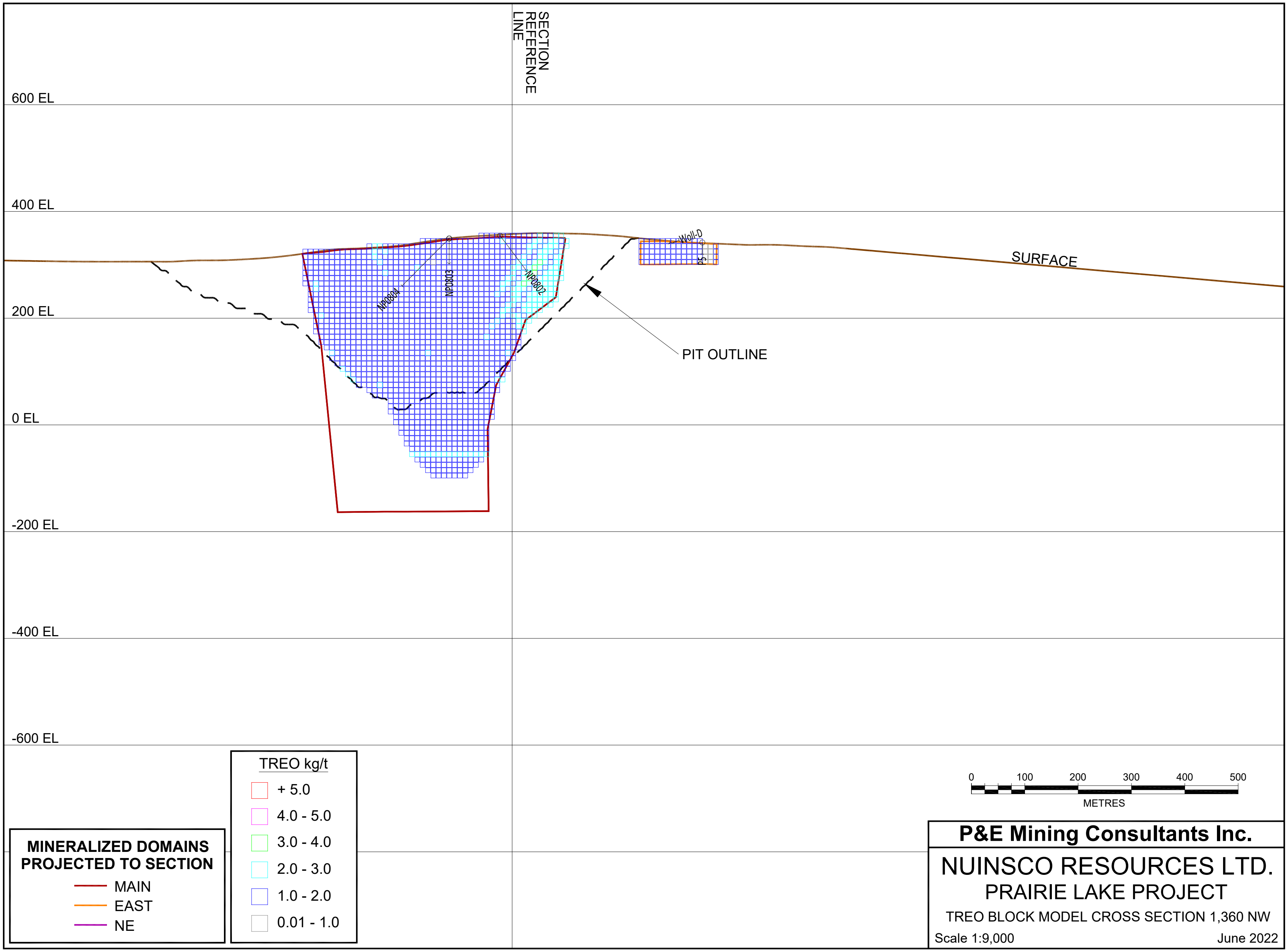

SECTION REFERENCE LINE
600 EL
400 EL
200 EL
0 EL
-200 EL
-400 EL
-600 EL
SURFACE
PIT OUTLINE
P40
P31
P41
NP0711
NP0710
P39
P77
NP1003
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
EAST
NE
P2O5 %
+ 5.0
4.0 - 5.0
3.0 - 4.0
2.0 - 3.0
1.0 - 2.0
0.01 - 1.0
0
100
200
300
400
500
METRES
P&E Mining Consultants Inc.
NUINSCO RESOURCES LTD.
PRAIRIE LAKE PROJECT
P2O5 BLOCK MODEL CROSS SECTION 1,870 NW
Scale 1:9,000
June 2022

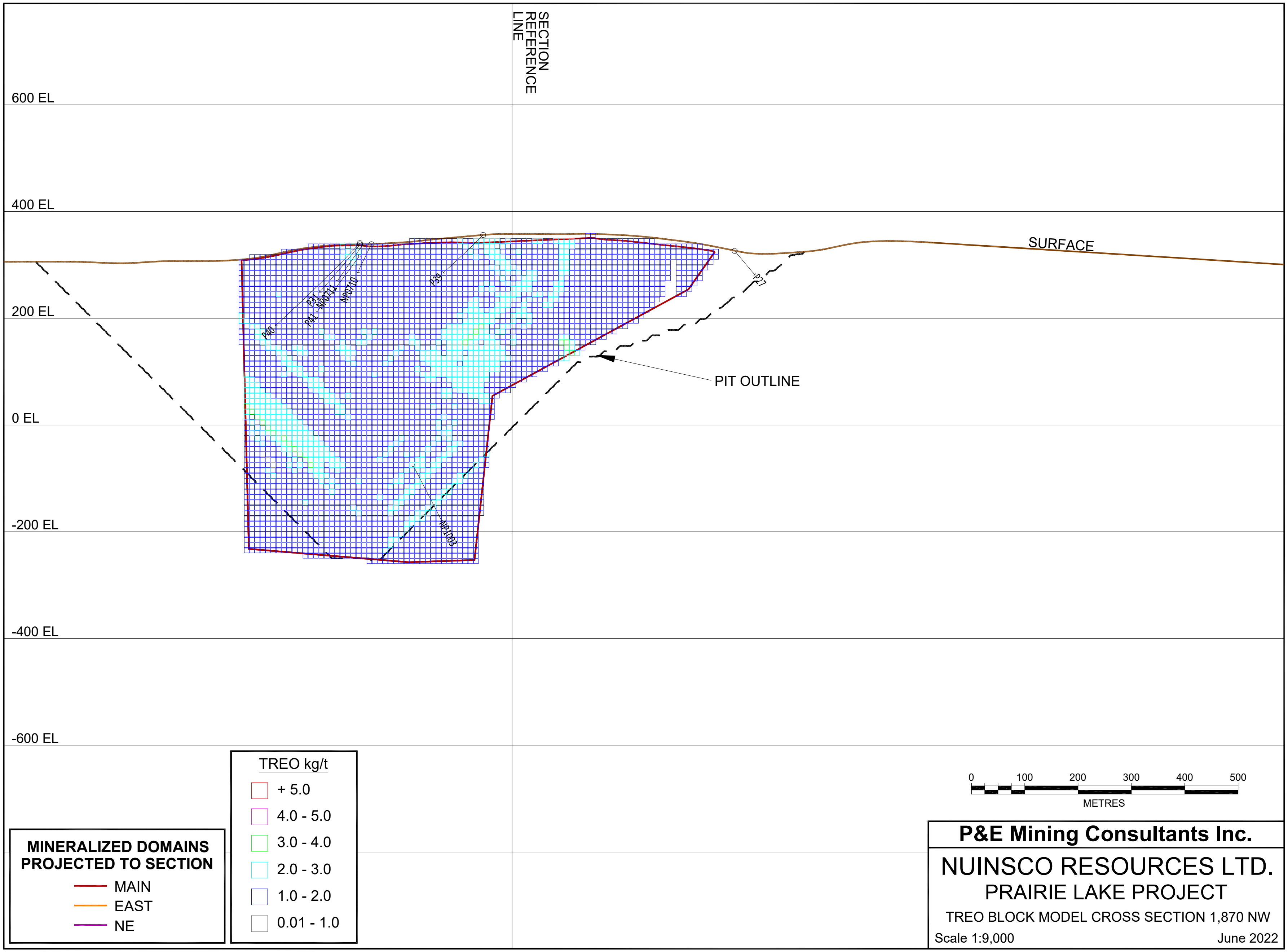

SECTION REFERENCE LINE
600 EL
400 EL
200 EL
0 EL
-200 EL
-400 EL
-600 EL
SURFACE
Dragonfly-A
Grouse-C
PIT OUTLINE
NP1006
NP1007
NP0810
NP0706
NP0703
NP0704
NP0705
NP0714
NP0707
P14A
P23
P17
P3
P29
P_2O_5 %
+ 5.0
4.0 - 5.0
3.0 - 4.0
2.0 - 3.0
1.0 - 2.0
0.01 - 1.0
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
EAST
NE
0
100
200
300
400
500
METRES
P&E Mining Consultants Inc.
NUINSCO RESOURCES LTD.
PRAIRIE LAKE PROJECT
P_2O_5 BLOCK MODEL CROSS SECTION 2,140 NW
Scale 1:9,000
June 2022

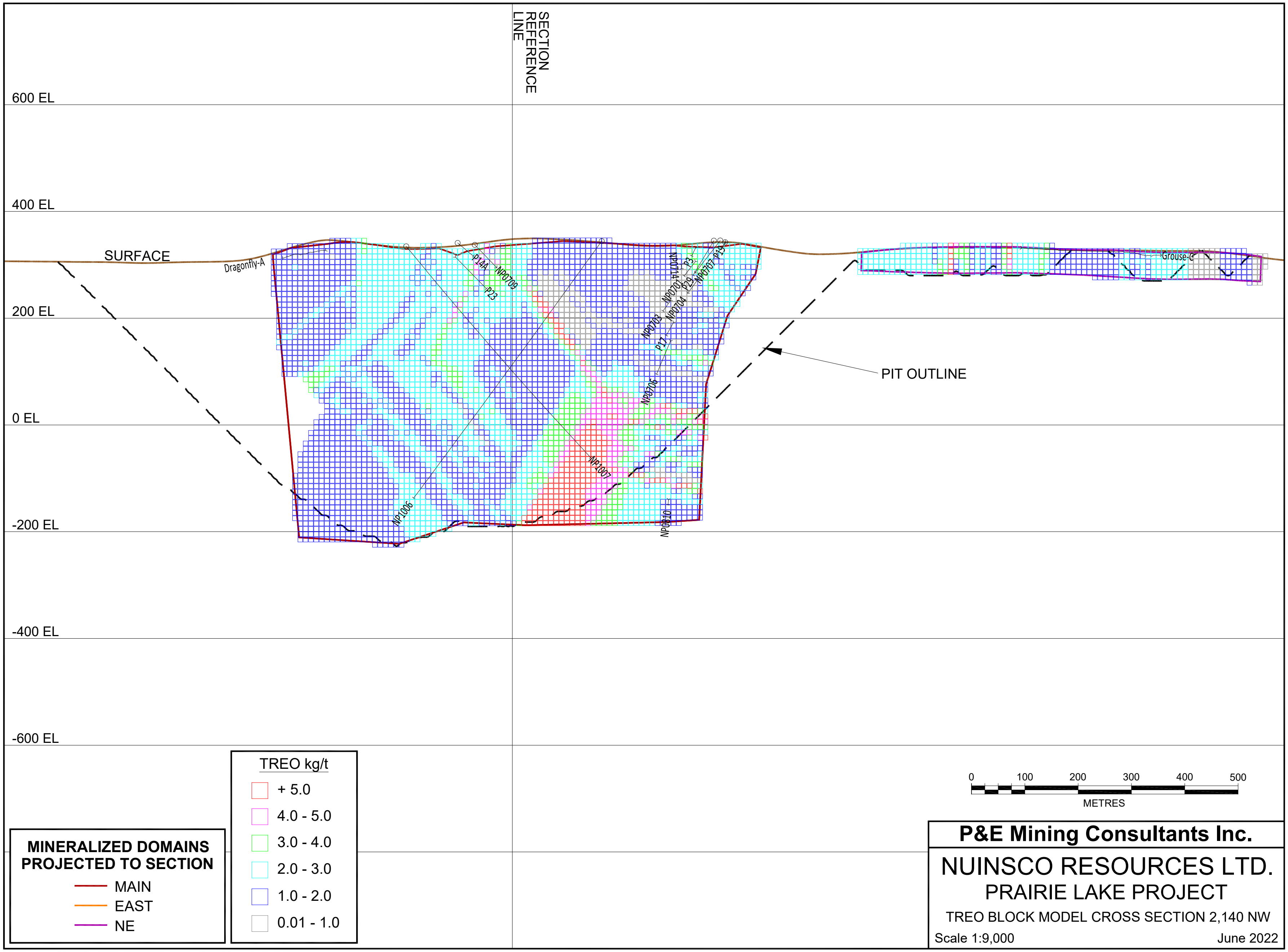

519,500 E
520,000 E
520,500 E
521,000 E
521,500 E
N
5,432,500 N
5,432,000 N
5,431,500 N
5,431,000 N
5,430,500 N
5,430,000 N
PIT OUTLINE
Raspberry Hill-B
Dragonfly-A
MINERALIZED DOMAINS PROJECTED TO PLAN
MAIN
EAST
NE
P_2O_5 %
+ 5.0
4.0 - 5.0
3.0 - 4.0
2.0 - 3.0
1.0 - 2.0
0.01 - 1.0
0
250
500
750
METRES
P&E Mining Consultants Inc.
NUINSCO RESOURCES LTD.
PRAIRIE LAKE PROJECT
P_2O_5 BLOCK MODEL PLAN 300 EL
Scale 1:12,000
June 2022

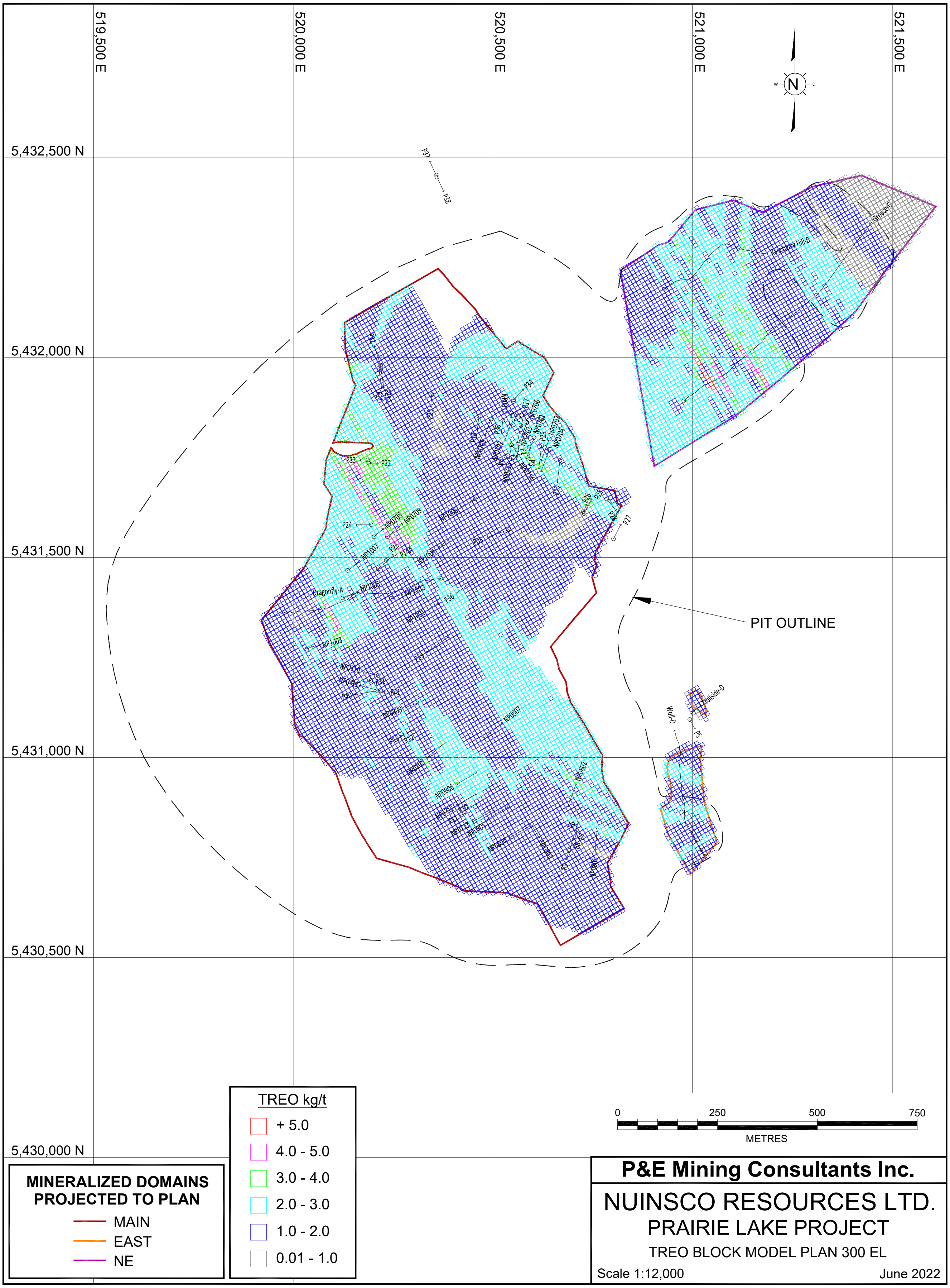

519,500 E
520,000 E
520,500 E
521,000 E
521,500 E
N
5,432,500 N
5,432,000 N
5,431,500 N
5,431,000 N
5,430,500 N
5,430,000 N
PIT OUTLINE
MINERALIZED DOMAINS PROJECTED TO PLAN
MAIN
EAST
NE
P_2O_5 %
+ 5.0
4.0 - 5.0
3.0 - 4.0
2.0 - 3.0
1.0 - 2.0
0.01 - 1.0
0
250
500
750
METRES
P&E Mining Consultants Inc.
NUINSCO RESOURCES LTD.
PRAIRIE LAKE PROJECT
P_2O_5 BLOCK MODEL PLAN 100 EL
Scale 1:12,000
June 2022

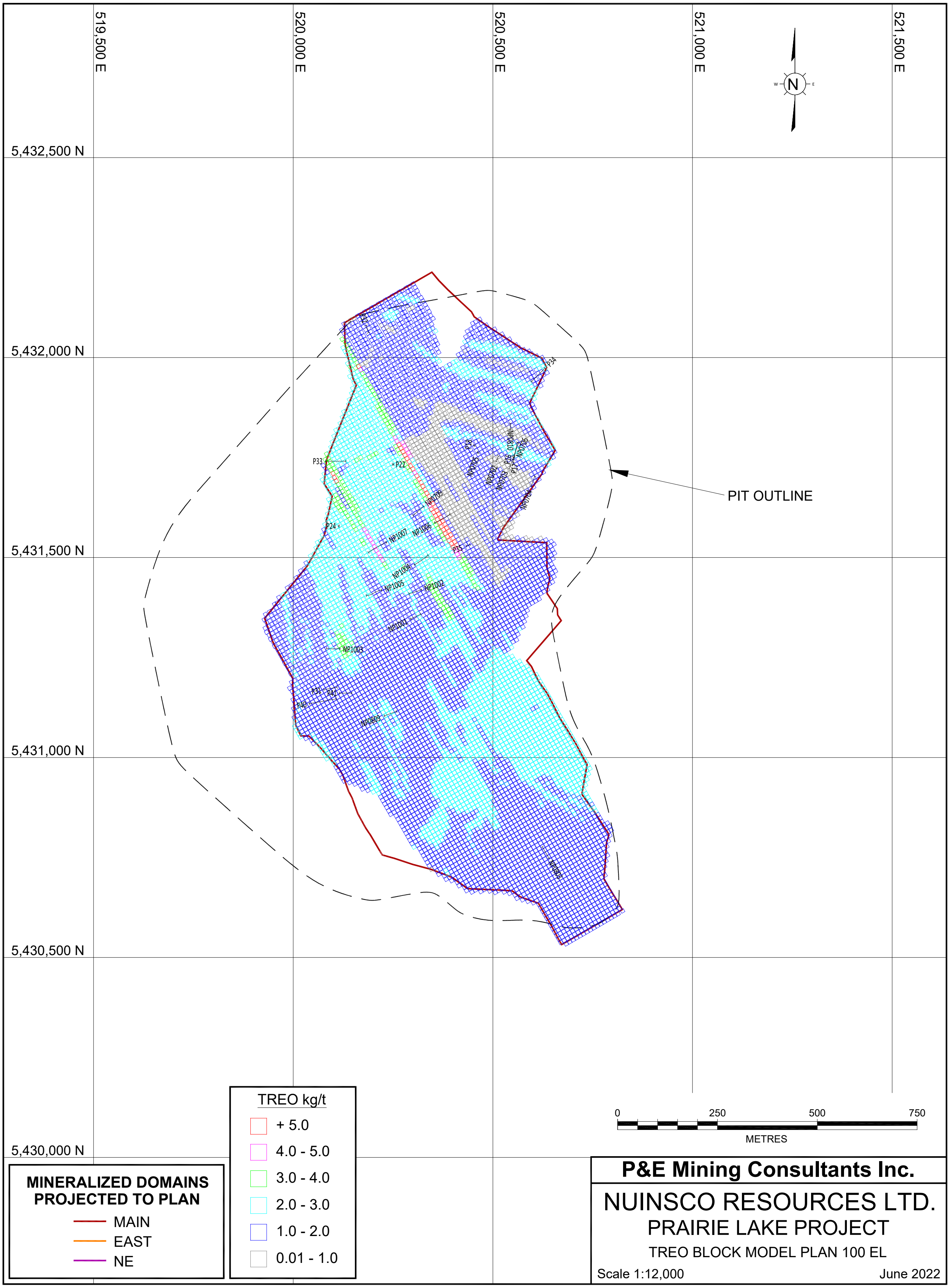
APPENDIX F TREO BLOCK MODEL CROSS SECTIONS AND PLANS


SECTION REFERENCE LINE
600 EL
400 EL
200 EL
0 EL
-200 EL
-400 EL
-600 EL
SURFACE
PIT OUTLINE
NP0804
NP0803
NP0802
TREO kg/t
+ 5.0
4.0 - 5.0
3.0 - 4.0
2.0 - 3.0
1.0 - 2.0
0.01 - 1.0
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
EAST
NE
0
100
200
300
400
500
METRES
P&E Mining Consultants Inc.
NUINSCO RESOURCES LTD.
PRAIRIE LAKE PROJECT
TREO BLOCK MODEL CROSS SECTION 1,360 NW
Scale 1:9,000
June 2022


SECTION REFERENCE LINE
600 EL
400 EL
200 EL
0 EL
-200 EL
-400 EL
-600 EL
SURFACE
PIT OUTLINE
P40
P31
P44
NP0714
NP0710
P39
P27
NP1003
TREO kg/t
+ 5.0
4.0 - 5.0
3.0 - 4.0
2.0 - 3.0
1.0 - 2.0
0.01 - 1.0
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
EAST
NE
0 100 200 300 400 500
METRES
P&E Mining Consultants Inc.
NUINSCO RESOURCES LTD.
PRAIRIE LAKE PROJECT
TREO BLOCK MODEL CROSS SECTION 1,870 NW
Scale 1:9,000
June 2022

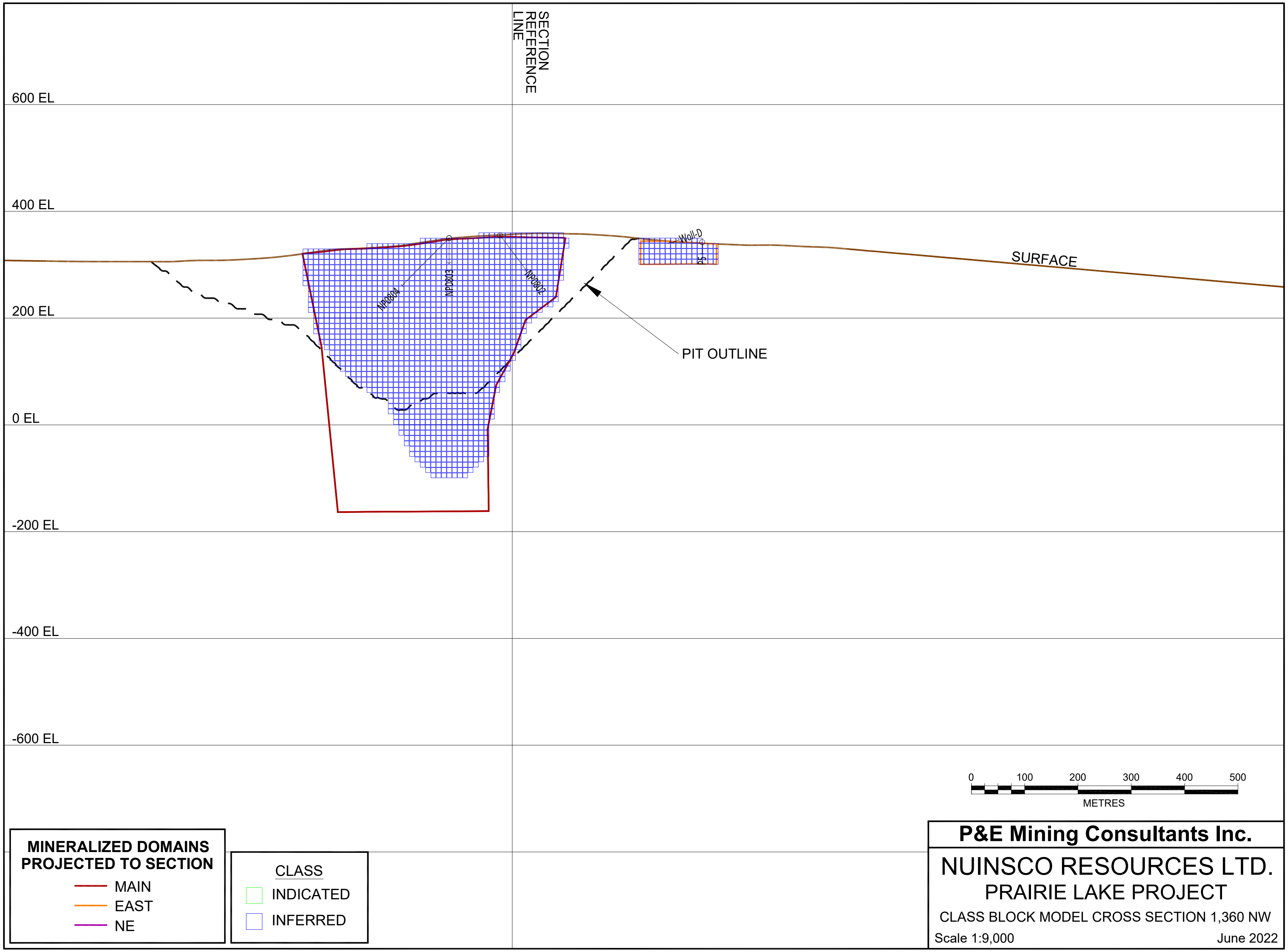

SECTION REFERENCE LINE
600 EL
400 EL
200 EL
0 EL
-200 EL
-400 EL
-600 EL
SURFACE
Dragonfly-A
Grouse-C
PIT OUTLINE
TREO kg/t
+ 5.0
4.0 - 5.0
3.0 - 4.0
2.0 - 3.0
1.0 - 2.0
0.01 - 1.0
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
EAST
NE
0
100
200
300
400
500
METRES
P&E Mining Consultants Inc.
NUINSCO RESOURCES LTD.
PRAIRIE LAKE PROJECT
TREO BLOCK MODEL CROSS SECTION 2,140 NW
Scale 1:9,000
June 2022

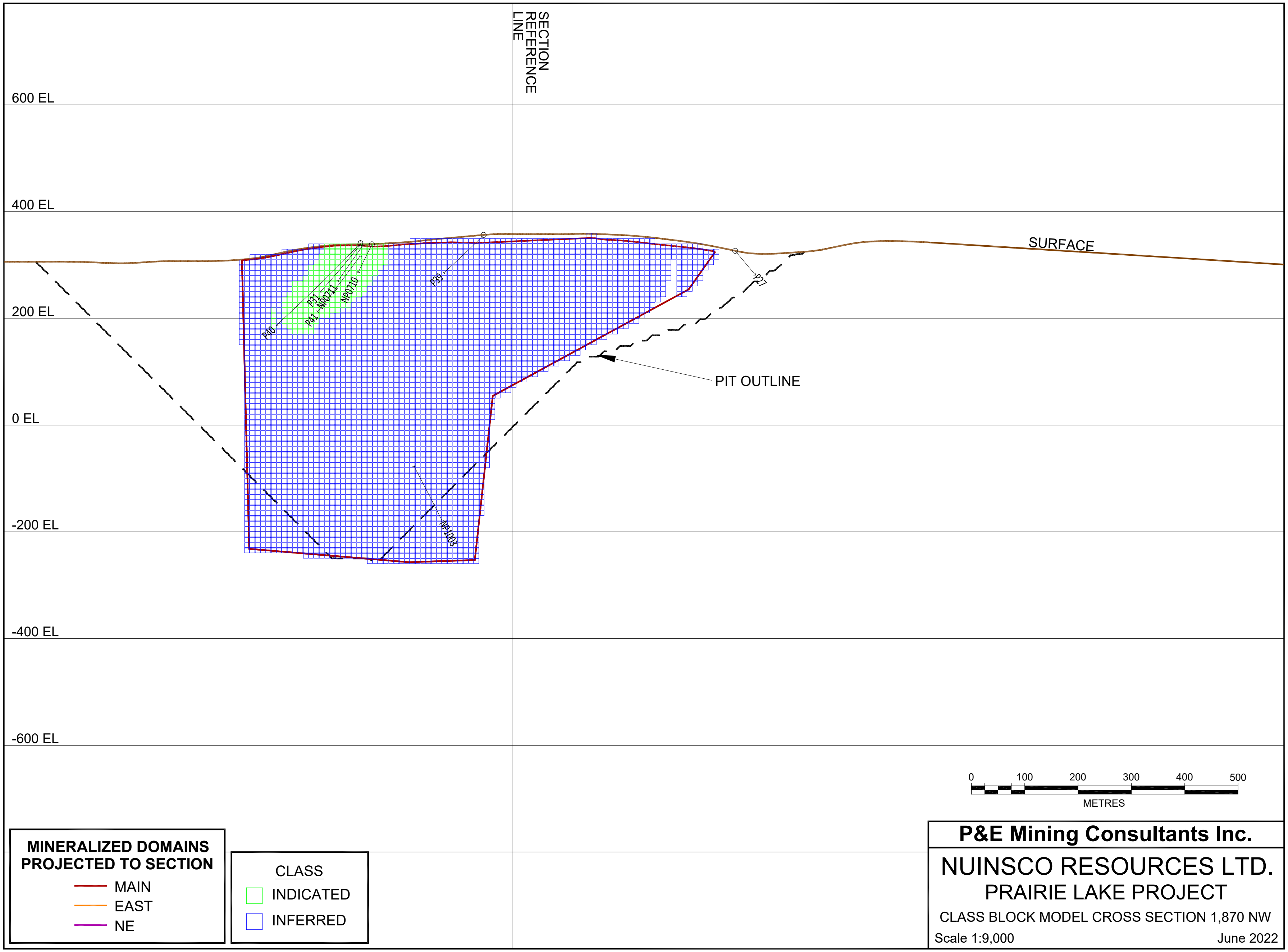

519,500 E
520,000 E
520,500 E
521,000 E
521,500 E
5,432,500 N
5,432,000 N
5,431,500 N
5,431,000 N
5,430,500 N
5,430,000 N
N
PIT OUTLINE
0
250
500
750
METRES
MINERALIZED DOMAINS PROJECTED TO PLAN
MAIN
EAST
NE
TREO kg/t
+ 5.0
4.0 - 5.0
3.0 - 4.0
2.0 - 3.0
1.0 - 2.0
0.01 - 1.0
P&E Mining Consultants Inc.
NUINSCO RESOURCES LTD.
PRAIRIE LAKE PROJECT
TREO BLOCK MODEL PLAN 300 EL
Scale 1:12,000
June 2022

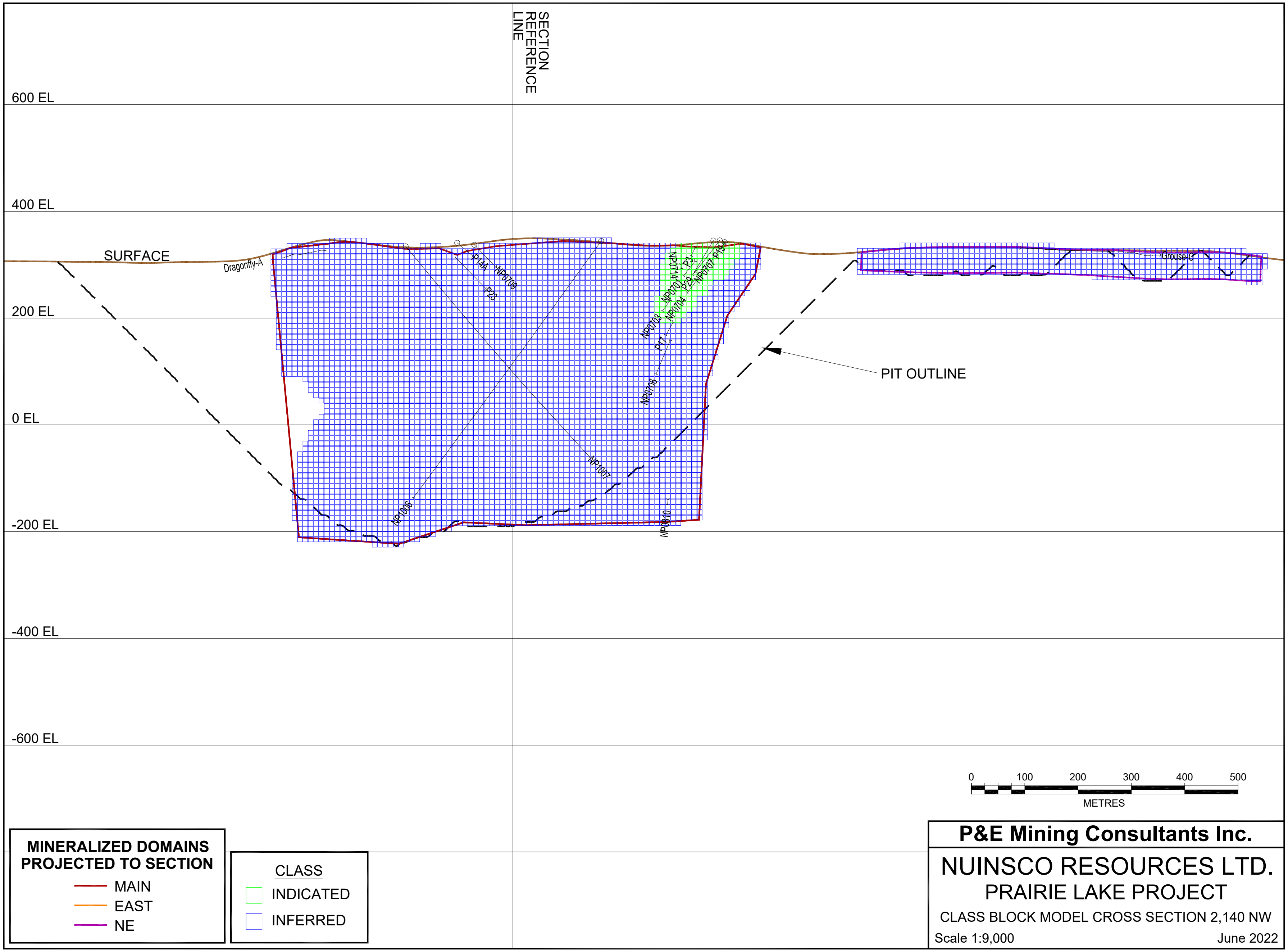


519,500 E
520,000 E
520,500 E
521,000 E
521,500 E
5,432,500 N
5,432,000 N
5,431,500 N
5,431,000 N
5,430,500 N
5,430,000 N
N
PIT OUTLINE
MINERALIZED DOMAINS PROJECTED TO PLAN
MAIN
EAST
NE
TREO kg/t
+ 5.0
4.0 - 5.0
3.0 - 4.0
2.0 - 3.0
1.0 - 2.0
0.01 - 1.0
0
250
500
750
METRES
P&E Mining Consultants Inc.
NUINSCO RESOURCES LTD.
PRAIRIE LAKE PROJECT
TREO BLOCK MODEL PLAN 100 EL
Scale 1:12,000
June 2022

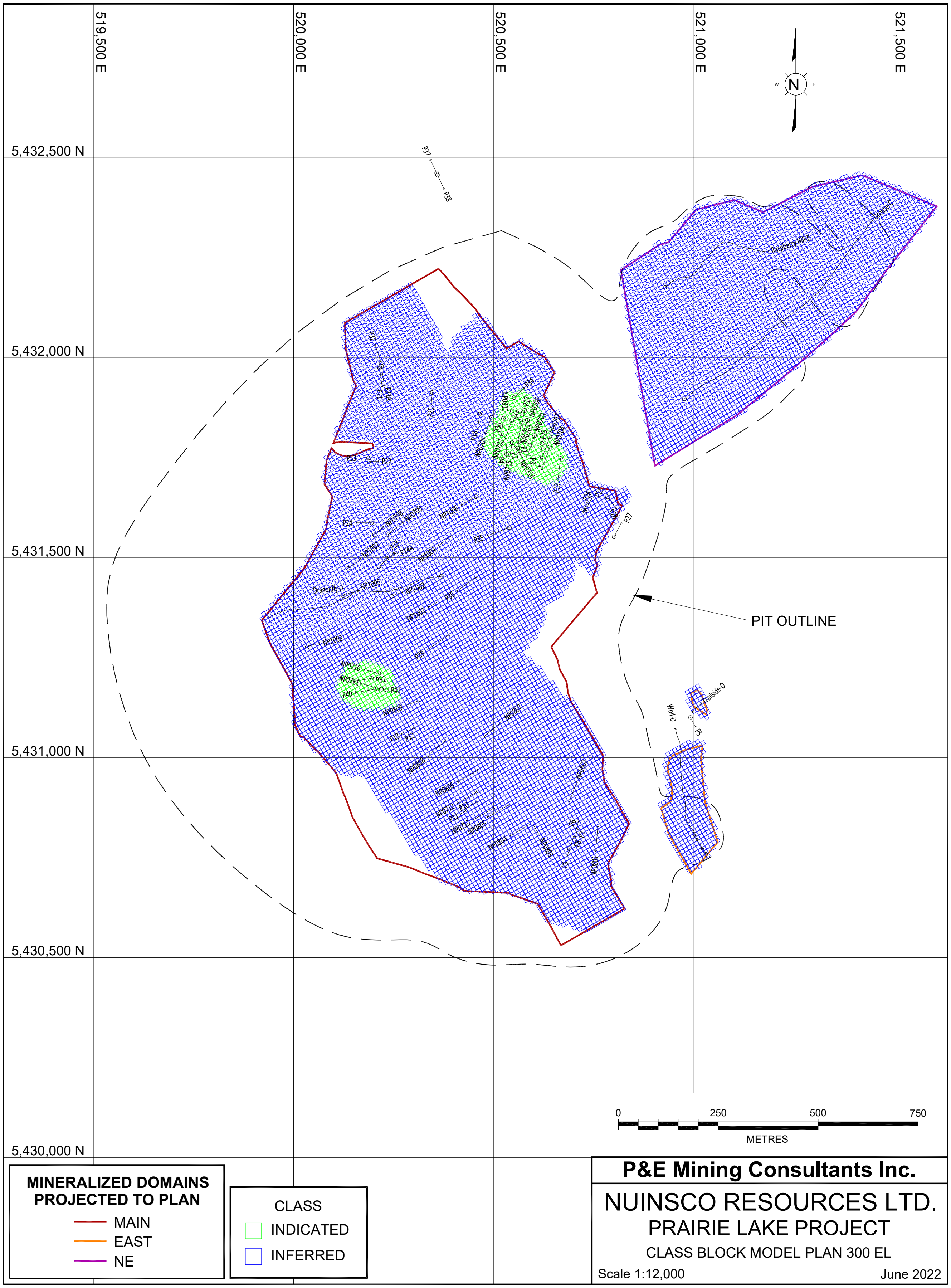
APPENDIX G CLASSIFICATION BLOCK MODEL CROSS SECTIONS AND PLANS


SECTION REFERENCE LINE
600 EL
400 EL
200 EL
0 EL
-200 EL
-400 EL
-600 EL
SURFACE
PIT OUTLINE
0 100 200 300 400 500
METRES
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
EAST
NE
CLASS
INDICATED
INFERRED
P&E Mining Consultants Inc.
NUINSCO RESOURCES LTD.
PRAIRIE LAKE PROJECT
CLASS BLOCK MODEL CROSS SECTION 1,360 NW
Scale 1:9,000
June 2022

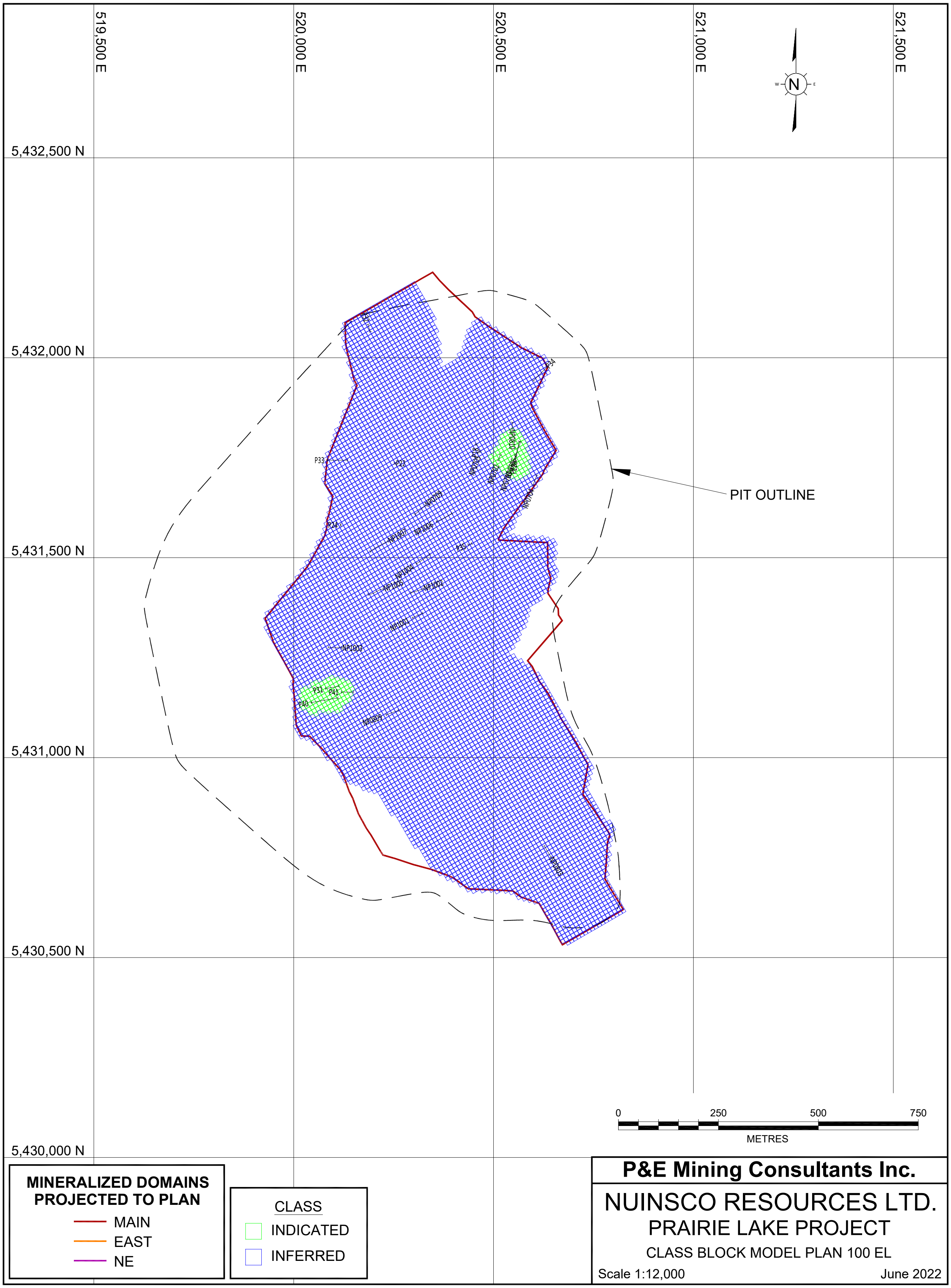

SECTION REFERENCE LINE
600 EL
400 EL
200 EL
0 EL
-200 EL
-400 EL
-600 EL
SURFACE
PIT OUTLINE
P40
P31
P41
NP0711
NP0710
P39
P27
NP1003
0
100
200
300
400
500
METRES
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
EAST
NE
CLASS
INDICATED
INFERRED
P&E Mining Consultants Inc.
NUINSCO RESOURCES LTD.
PRAIRIE LAKE PROJECT
CLASS BLOCK MODEL CROSS SECTION 1,870 NW
Scale 1:9,000
June 2022



SECTION REFERENCE LINE
600 EL
400 EL
200 EL
0 EL
-200 EL
-400 EL
-600 EL
SURFACE
PIT OUTLINE
0
100
200
300
400
500
METRES
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
EAST
NE
CLASS
INDICATED
INFERRED
P&E Mining Consultants Inc.
NUINSCO RESOURCES LTD.
PRAIRIE LAKE PROJECT
CLASS BLOCK MODEL CROSS SECTION 2,140 NW
Scale 1:9,000
June 2022



519,500 E
520,000 E
520,500 E
521,000 E
521,500 E
5,432,500 N
5,432,000 N
5,431,500 N
5,431,000 N
5,430,500 N
5,430,000 N
N
PIT OUTLINE
0
250
500
750
METRES
MINERALIZED DOMAINS PROJECTED TO PLAN
MAIN
EAST
NE
CLASS
INDICATED
INFERRED
P&E Mining Consultants Inc.
NUINSCO RESOURCES LTD.
PRAIRIE LAKE PROJECT
CLASS BLOCK MODEL PLAN 300 EL
Scale 1:12,000
June 2022


519,500 E
520,000 E
520,500 E
521,000 E
521,500 E
N
5,432,500 N
5,432,000 N
5,431,500 N
5,431,000 N
5,430,500 N
5,430,000 N
PIT OUTLINE
0
250
500
750
METRES
MINERALIZED DOMAINS PROJECTED TO PLAN
MAIN
EAST
NE
CLASS
INDICATED
INFERRED
P&E Mining Consultants Inc.
NUINSCO RESOURCES LTD.
PRAIRIE LAKE PROJECT
CLASS BLOCK MODEL PLAN 100 EL
Scale 1:12,000
June 2022

APPENDIX H OPTIMIZED PIT SHELL

PRAIRIE LAKE PROJECT - OPTIMIZED PIT SHELL