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PRELIMINARY ECONOMIC ASSESSMENT OF THE LAC à L'ORIGNAL PHOSPHATE PROPERTY, SAGUENAY-LAC-SAINT-JEAN REGION, NORTHERN QUĖBEC

LONGITUDE 70° 34' 42" W AND LATITUDE 49° 04' 28" N
(UTM NAD83 Zone 19N 384,750 E, 5,436,930 N)

FOR
FIRST PHOSPHATE CORP.

NI 43-101 & 43-101F1
TECHNICAL REPORT

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1.0 SUMMARY

The purpose of this Technical Report is to provide an independent National Instrument (“NI”) 43-101 Technical Report and Preliminary Economic Assessment (the “Report”) on the Lac à l’Orignal Deposit (the “Deposit”) of the Lac à l’Orignal Property (the “Property” or the “Project”). The Property is located 84 km northeast of the City of Saguenay, Québec, Canada, and is owned 100% by First Phosphate Corp. (“First Phosphate” or the “Company”). This Report was prepared by P&E Mining Consultants Inc. (“P&E”) at the request of First Phosphate, a public company registered in British Columbia, Canada and is listed on the Canadian Securities Exchange (CSE Reserved: PHOS).

This Report provides a viable case for developing the Property by open pit mining for the primary production of a phosphate concentrate and secondary recovery of magnetite and ilmenite concentrates. First Phosphate is a mineral development company fully dedicated to extracting and purifying phosphate concentrate for use in the production of cathode active material for the Lithium Iron Phosphate (“LFP”) battery industry.

1.1 PROPERTY DESCRIPTION AND LOCATION

The Lac à l’Orignal Property consists of 1,445 CDC claims with a total area of 79,663 ha on NTS sheets 22D10, 22D14, 22D15, 22D16, 22E01, 22E02 and 22E03. All the Lac à l’Orignal Property claims are registered with the Ministry of Natural Resources and Forests. The claims are owned 100% by First Phosphate and are free of NSR royalties and all other forms of royalty.

1.2 ACCESS AND INFRASTRUCTURE

The Lac à l’Orignal region is easily accessible from the City of Saguenay by Provincial Road 172 to logging road chemin de la Zec Martin-Valin, which crosses the Property and is maintained year-round by logging companies. At km 81.5 on this road, a secondary logging trail goes northwest for 3.5 km to the Lac à l’Orignal Deposit area. Many secondary logging roads can be utilized to access various parts of the Property.

The Property is located within the unorganized territory of Mont-Valin with a population of five people. A small inn, Auberge 31, at km 31 of the main logging road, can accommodate workers. There are several logging camps and outfitters along the road to the Property.

The Saguenay-Lac-Saint-Jean region has a population of 280,000 inhabitants (2021). The region has an extensive industrial, agricultural, forestry and tourist industries with minor mining as well as a significant hydro-electric system (owned by Rio Tinto) to produce electricity for the aluminum production and transformation industries. The mining operations are mainly aggregate and dimensional stone quarries. The only metallic mine in the region is the Niobec Mine (niobium) operated by Magris Resources, which is located near Saguenay. The University of Québec in Chicoutimi houses a well-known geological department. The City of Saguenay can provide extensive contractor services and supplies within 100 km of the Project.

The main infrastructure at the site is the access roads. The Property is large enough to support mining operations, including infrastructure, processing facilities, and waste rock and tailings storage facilities. Water is abundant in the area of the Property. The nearest powerline is that from Outardes 4 to Saguenay, which crosses the Property in the southeast corner and the main access road 35 km to the south. The local distribution powerline terminates approximately 50 km south of the Property. The nearest all-season ports are located at the Cities of Saguenay, 80 km to the south-southwest, and Trois-Rivieres, 340 km to the south-southwest.

1.3 HISTORY

The Lac à l'Orignal region has a long history of mineral exploration work since the 1940s and government geoscientific surveys since the 1960s. In 1943, Waddington explored for magnetite deposits on behalf of the Québec Government on the western part of the Lac à l'Orignal Property near Lake Onatchiway. Waddington concluded that there were no important magnetite deposits in the area. In 1977, Shell Resources compiled all the metal occurrences in the Eastern Grenville Province and recommended follow-up work, mainly for zinc deposits.

In 1998, prospector Léopold Tremblay discovered the Lac à l'Orignal Showing, with samples that returned assays of up to >7% P_2O_5. Later that year, Léopold Tremblay and Charles Boivin discovered the nearby Mirepoix phosphate-titanium showing. Following an evaluation by IOS Services Géoscientifiques, the Property was optioned by Les Ressources d'Arianne ("Arianne") in 1999.

In 2000, Arianne completed three drill holes totalling 150 m, which were designed to determine the thickness of the mineralized horizon at Mirepoix. The main intersections returned 4.04% P_2O_5 and 4.89% TiO_2 over 19 m, 3.40% P_2O_5 and 4.72% TiO_2 over 8 m, 5.86% P_2O_5 and 10.23% TiO_2 over 4 m, 3.16% P_2O_5 and 5.96% TiO_2 over 26 m, 3.75% P_2O_5 and 5.32% TiO_2 over 13 m.

In the fall of 2000 and the spring of 2001, Arianne excavated 45 trenches on various mineralized horizons and completed 11 drill holes totalling 290 m. The drilling intersected two oxide-bearing gabbronorite units. The four best intersections of the first unit returned 2.74% P_2O_5 and 4.14% TiO_2 over 24.98 m, 3.41% P_2O_5 and 6.21% TiO_2 over 11.10 m, 2.95% P_2O_5 and 4.31% TiO_2 over 25.13 m, and 3.64% P_2O_5 and 4.34% TiO_2 over 23.10 m.

A ground magnetic survey was carried over the claims in January 2001. During the fall of 2001, four areas were mechanically stripped to better understand the attitude of the mineralization and 13 drill holes were completed for a total of 470.8 m. The two best drill hole intersections were 3.39% P_2O_5 and 4.42% TiO_2 over 15.0 m and 2.44% P_2O_5 and 5.29% TiO_2 over 14.0 m.

In 2011, Glen Eagle Resources ("Glen Eagle") confirmed the historical assay results by Tremblay and acquired the Lac à l'Orignal Showing claims. In 2012, a surface prospecting and trenching program by Glen Eagle discovered the Lac Vanel occurrence, approximately 2 km north of the Lac à l'Orignal occurrence, with grades up to slightly >5% P_2O_5. Following this discovery, Glen Eagle completed a 3-phase drilling program in 2012. 43 drill holes totalling 4,611.5 m allowed the definition of a phosphate mineral (apatite) deposit within a ferrous-gabbro host unit measuring more than 1 km long and approximately 50 m to 70 m thick. In 2014, Glen Eagle completed a second drill program consisting of 19 new drill holes and deepening of 11 drill holes from the 2012 drill program. The total amount of drilling in the 2014 program was 3,330 m. Glen Eagle also excavated 21 trenches at Lac à l'Orignal for channel sampling.

In 2015, Glen Eagle commissioned a high-resolution helicopter-borne magnetic survey by PROSPECTAIR. A total of 2,126 line-km were flown over the Lac à l'Orignal and Itouk Properties. In 2017, a field visit on the Itouk Lake area revealed the presence of apatite-bearing ferrogabbro (also referred to as oxide gabbro) containing up to 10% apatite (GM 70336).

In 2020, prospectors discovered the Mirepoix phosphate showing a few km to the north-northeast of the Lac à l'Orignal Showing. A channel sample returned 8% P_2O_5 over 2 m. Another phosphate occurrence was discovered to the north of Lake Luc, where 2% P_2O_5 over 2 m was obtained for a channel sample. Glen Eagle acquired the Mirepoix area claims in April 2022.

Geoscientific work by Québec government agencies included undertaking regional geologic mapping, airborne magnetic and radiometric, and lake-bottom sediment geochemistry surveys. Twelve Fe-Ti-P showings were reported from the mapping, of which 10 returned 2.85% to 7.39% P_2O_5 in oxide-bearing mafic rocks.

The reader is cautioned preceding historical assays have not been verified, since the original source data are not available to the Authors.

1.4 GEOLOGICAL SETTING AND MINERALIZATION

The Lac à l'Orignal Property region is underlain by anorthosites that are part of the regional Proterozoic Lac-Saint-Jean Anorthosite ("LSJA") Complex. The LSJA occurs in the central part of the Grenville Province. The anorthosite plutons of the LSJA Complex are composed mainly of plagioclase and variable, however, much smaller amounts of pyroxene and olivine. Apart from anorthosite, the LSJA Complex contains minor leuconorite, leucotroctolite, norite, olivine-bearing gabbro, gabbro, pyroxenite, peridotite, dunite, nelsonite (magnetite, ilmenite and apatite), magnetitite, and rare charnockite-mangerite units.

Lac à l'Orignal, Lac Vanel (2 km north of Lac à l'Orignal), and Mirepoix (6 km northeast) are the three main phosphate showings on the Property. All three showings have been drilled, and a phosphate deposit has been defined at Lac à l'Orignal. The Lac à l'Orignal Deposit is hosted in an oxide (magnetite and ilmenite) gabbro unit at least 1 km long and up to 70 m thick. X-Ray power diffraction analyses and thin section petrographic studies confirm that Deposit area rock samples contain plagioclase, orthopyroxene, clinopyroxene, ilmenite, magnetite, apatite, and biotite. The mafic silicate phases occur as intercumulus phases. Apatite, ilmenite and magnetite are ubiquitous accessory minerals and may reach major proportions of the rocks. Apatite is the principal phosphate-bearing mineral of the Lac à l'Orignal Deposit.

1.5 DEPOSIT TYPE

Lac à l'Orignal is a Proterozoic-age anorthosite-hosted magmatic phosphate deposit. Anorthosites are plagioclase-enriched intrusive rocks, which may ultimately be derived from basalt magma produced in the mantle.

1.6 EXPLORATION AND DRILLING

The most recent exploration activities on the Lac à l'Orignal Property are the diamond drilling programs completed by Glen Eagle in 2012 and 2014.

In 2012, a surface prospecting and trenching program discovered the Lac Vanel occurrence, approximately 2 km north of the Lac à l'Orignal occurrence, with grades up to slightly >5% P_2O_5. Following this discovery, Glen Eagle completed a 3-phase drilling program in 2012. A total of 43 drill holes totalling 4,611.5 m allowed the definition of a phosphate mineral (apatite) deposit within an oxide gabbro host unit measuring more than 1 km long and approximately 50 m to 70 m thick. The best assay intersection intervals were 4.7% P_2O_5 over 70.5 m in drill hole LO-12-03, 5.4% P_2O_5 in drill hole LO-12-08, 5.3% P_2O_5 over 64.5 m in drill hole LO-12-12, 5.7% P_2O_5 in drill hole LO-12-13, and 5.7% P_2O_5 over 61 in drill hole LO-12-25 at Lac à l'Orignal, and 3.6% P_2O_5 in drill hole LO-12-22 at Lac Vanel.

In 2014, Glen Eagle completed a second drill program consisting of 19 new drill holes and deepening of 11 drill holes from the 2102 drill program. The total amount of drilling in the 2014 program was 3,330 m. The best assay intersection intervals were 5.54% P_2O_5 over 99 m in drill hole LO-14-21, 5.61% P_2O_5 in drill hole LO-14-23, 5.83% P_2O_5 in drill hole LO-14-24, and 5.53% P_2O_5 over 69 m in drill hole LO-14-26 at Lac à l'Orignal. In addition to the drilling, 21 trenches were excavated for channel sampling and assay. The best trench mineralized intervals were 4.38% P_2O_5 over 12.0 m and 5.86% P_2O_5 over 7.5 m in R-2, 4.84% P_2O_5 over 9 m in R-4, and 5.02% P_2O_5 over 7.5 m in R-5. The Lac à l'Orignal Deposit remains open to expansion by drilling down-dip and possibly along strike to the west.

A high-resolution helicopter-borne magnetic survey was completed in 2015. This survey mapped out the extents of the oxide gabbro host of the phosphate mineralization in the Lac à l'Orignal Deposit area.

1.7 SAMPLE PREPARATION, ANALYSES AND DATA VERIFICATION

The Lac à l'Orignal Property was visited on July 7 and July 8, 2022, by Mr. Antoine Yassa, P.Geo., a Qualified Person under the regulations of NI 43-101, to complete an independent site visit and a data verification sampling program. In the opinion of the Authors, the sample preparation, analytical procedures, security and QA/QC program meet industry standards, and the data are of good quality and satisfactory for use in the Mineral Resource Estimate reported in this Report. Furthermore, independent due diligence sampling shows acceptable correlation with the original assays, and it is the Authors' opinion that the Company's original results are suitable for use in the current Mineral Resource Estimate.

1.8 MINERAL PROCESSING AND METALLURGICAL TESTING

Tests on the recovery and concentration of the valuable minerals in a representative Lac à l'Orignal composite sample were conducted in 2022 and 2022 by SGS Canada at the Québec City laboratory. The primary target mineral was apatite which was determined by SGS to be 13.4 weight % and assaying 5.55% P_2O_5. Other potential mineral components that were identified and could be converted into marketable products were magnetite and ilmenite which were present at 12% and 7%, respectively.

The concentration processes were developed in the SGS laboratory which began with a moderate grind followed by the removal of magnetite with the use of a low intensity magnetic separator (“LIMS”). The LIMS tails were subsequently subjected to special reagent conditioning and flotation processes that resulted in the production of a high-grade apatite concentrate. A concluding test involved the production of an apatite concentrate in a 6-stage locked cycle test. The concentrate assayed 40.3% P_2O_5, close to the pure mineral composition of 41.7% P_2O_5. The metallurgical recovery of the apatite was high at 91%.

Mineralogical studies (by SGS and Queen’s University) indicated that the Lac à l’Orignal apatite is a high purity fluorapatite which is very low in heavy metals as well as low in chloride content. These chemical characteristics are favourable for the production of high purity phosphoric acid for conversion to a variety of valuable products including a key component of lithium iron phosphorous (“LFP”) batteries.

Supplementary beneficiation tests were performed on the LIMS magnetite concentrate to reduce sulphur content to meet iron industry specifications. The apatite flotation tails were also subject to flotation, high intensity magnetic separation (“HIMS”), and gravity separation techniques in an attempt to produce a market-acceptable ilmenite concentrate. Addition test development may be needed to produce readily saleable magnetite and ilmenite concentrates.

1.9 MINERAL RESOURCE ESTIMATE

The Lac à l’Orignal Deposit database compiled by the Authors consists of 63 drill holes and 17 surface channel samples totalling 7,984 m and 149.5 m, respectively. A total of 49 drill holes (6,393 m) and five channel samples (27 m) intersected the mineralized wireframes used for the Mineral Resource Estimate. The database contained 2,880 assays for percent P_2O_5.

The P_2O_5 cut-off value is calculated with parameters below:

US$:CAD$ Exchange Rate	0.80
P_2O_5 Price	US$200/t (approximate two-year trailing average)
P_2O_5 Process Recovery	75%
Processing Cost	CAD$9.00/t
G&A	CAD$3.25/t
Mining Cost	CAD$2.50/t
Pit Slope	45°

Accordingly, the P_2O_5 cut-off of potential open pit mining is calculated to be = 2.5%.

The Mineral Resource Estimate, at 2.5% P_2O_5 cut-off, is reported with an effective date of July 25, 2023, and is presented in Table 1.1. The Authors consider that the mineralization at the Lac à l’Orignal Deposit is potentially amenable to open pit economic extraction.

TABLE 1.1
PIT-CONSTRAINED MINERAL RESOURCE ESTIMATE (1-4) AT 2.5% P_2O_5 CUT-OFF

Class-ification	Tonnes (Mt)	P_2O_5 (%)	Contained P_2O_5 (kt)	Fe_2O_3 (%)	Contained Fe_2O_3 (Mt)	TiO_2 (%)	Contained TiO_2 (Mt)
Indicated	15.8	5.18	821	23.90	3.8	4.23	0.67
Inferred	33.2	5.06	1,682	22.55	7.5	4.16	1.38

Note: *P_2O_5 = phosphorus pentoxide, Fe_2O_3 = iron oxide/ferric oxide, TiO_2 = titanium dioxide.*
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 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.

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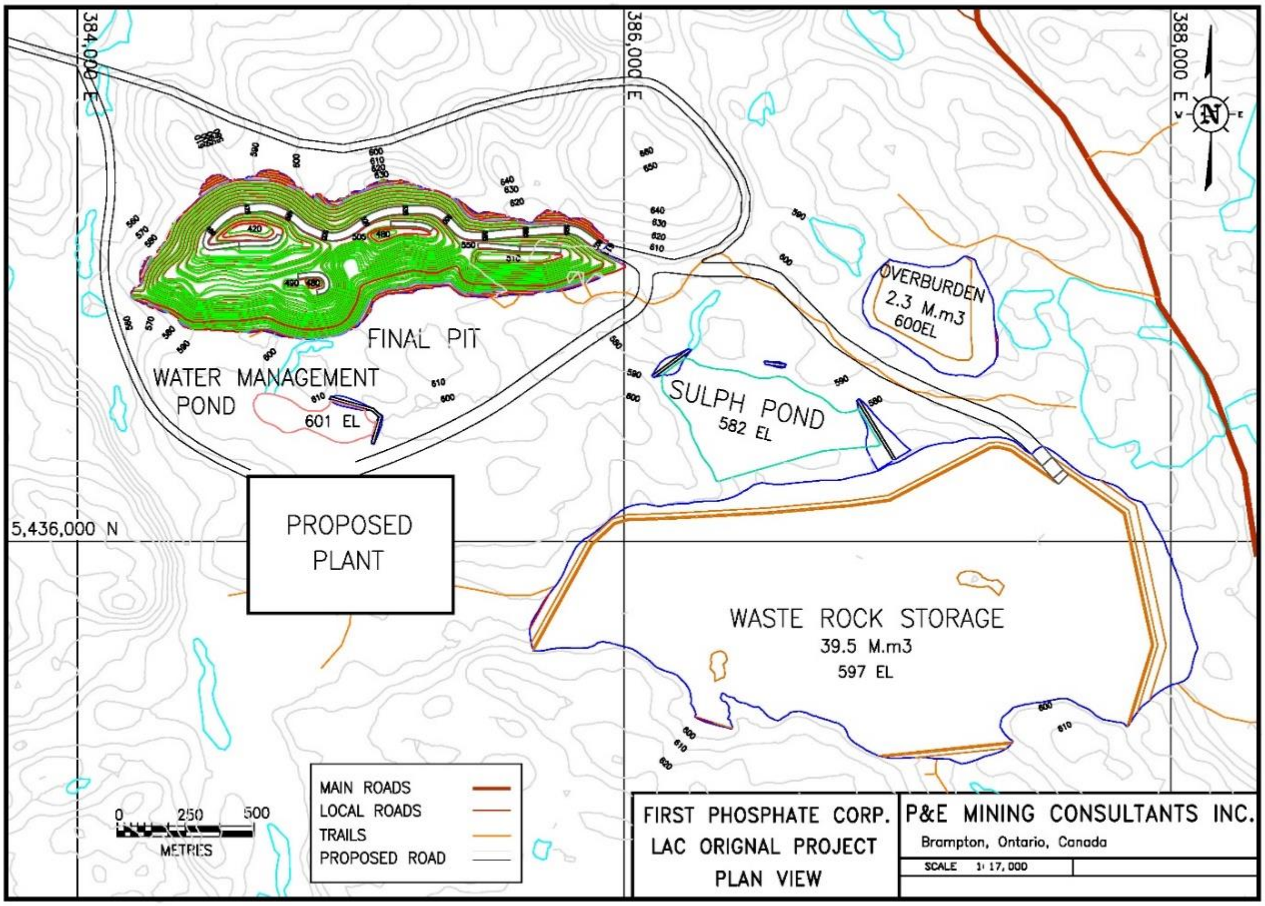
1.10 MINING METHODS

The Lac à l'Orignal Project is a relatively shallow phosphate deposit that lends itself to conventional open pit mining methods. This PEA mine plan entails developing a single open pit to support a phosphate concentrating operation. No underground mining is planned.

The PEA mine production plan utilizes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them to be categorized as Mineral Reserves. There is no certainty that the Inferred Mineral Resources will be upgraded to a higher Mineral Resource category in the future.

Figure 1.1 provides a general overview of the Project site, showing the location of the open pit, and proposed overburden and waste rock storage facilities. The process plant site will be located south of the open pit.

FIGURE 1.1 GENERAL MINE AREA LAYOUT



A series of Lerches-Grossman pit optimizations were completed using the NPV Scheduler™ Datamine software. An optimal shell is selected as the basis for the operational pit design. For optimization, the base case phosphate concentrate price was US$332/t. No revenue was attributed to iron or titanium in optimization. The optimization included Indicated and Inferred Mineral Resources.

The optimization results indicated that beyond a Revenue Factor of 70%, the process plant feed tonnage increases very gradually. This is due to the optimized shells nearing the economic limit of the defined block model mineralized zone along the north side. Further expansion of the Mineral Resource block model to the north may allow the pit to advance further north, adding more mineable tonnage at higher strip ratios.

No pit slope geotechnical site investigations or hydrogeological studies have been completed for this PEA. These field investigations will be undertaken at the next stage of study. Knight Piésold Ltd ("KP") completed a preliminary evaluation of achievable slope angles, which were used for the mine design.

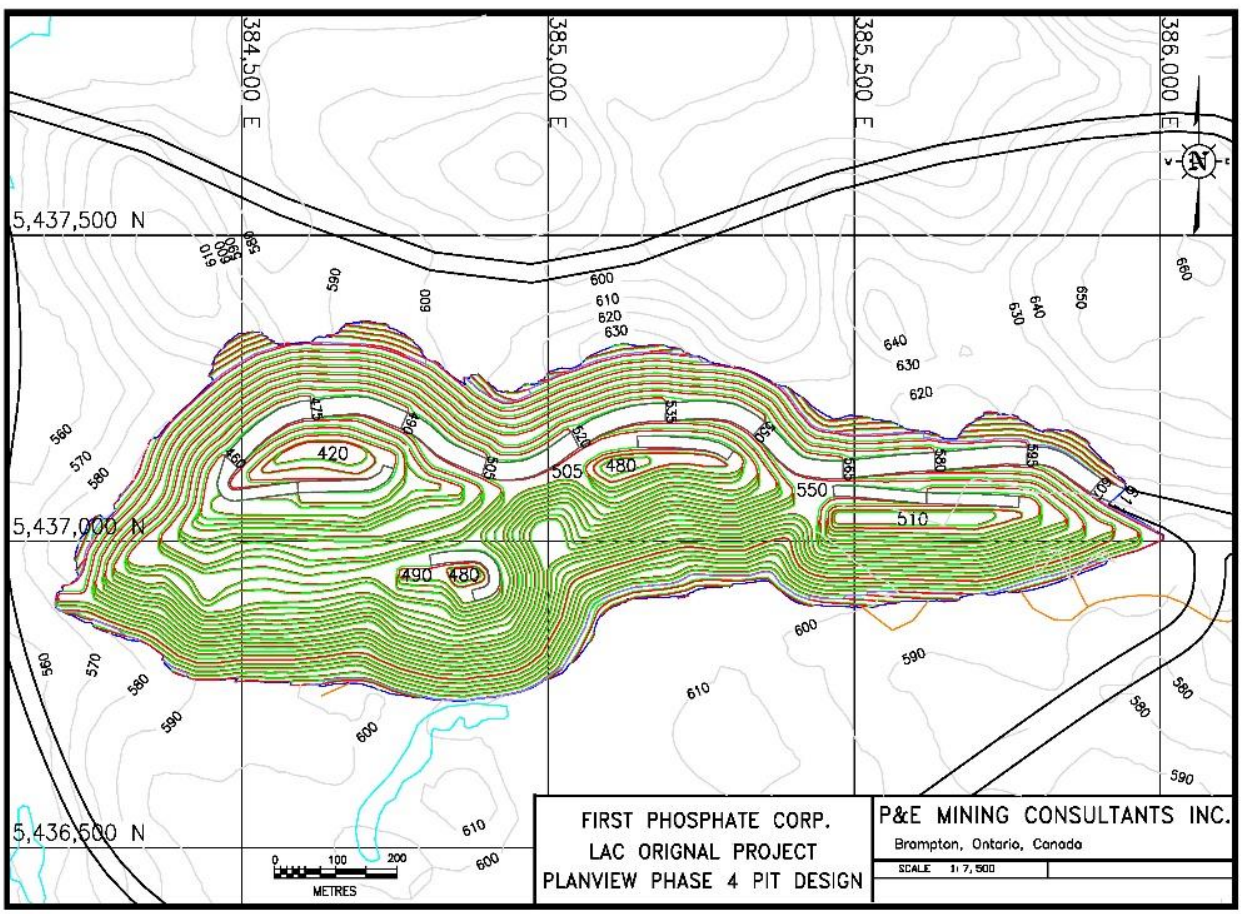
The design of the open pit layout initially selected the east side pit exit point, and then added benches (15 m triple bench (3 x 5 m) with 8 m berm), ramps, and haul roads (30 m wide). The inter-ramp angle was 51 degrees along the north side of the pit. The south wall followed the deposit footwall, at approximately 35 degrees.

Once the final open pit design was completed, a series of four pit phases were designed for production scheduling purposes. The open pit phase tonnages are shown in Table 1.2 and are diluted tonnes and grades. The final open pit design is shown in Figure 1.2.

TABLE 1.2
OPEN PIT PHASE TONNAGES

Material	Total	Phase 1	Phase 2	Phase 3	Phase 4
Total Material (Mt)	**145.70**	34.73	34.67	62.86	13.44
Overburden (Mt)	**3.48**	1.47	0.46	1.11	0.44
Waste Rock (Mt)	**88.18**	15.43	16.74	45.62	10.39
Process Plant Feed (Mt)	**54.04**	17.84	17.47	16.13	2.60
P_20_5 (%)	**4.91**	4.82	4.79	5.10	5.13
Fe_2O_3 (%)	**22.62**	22.18	22.53	23.22	22.63
TiO_2 (%)	**4.14**	3.93	4.19	4.32	4.02
Strip Ratio	**1.70**	0.95	0.98	2.90	4.16

FIGURE 1.2 FINAL OPEN PIT DESIGN



The PEA assumes that 2% of the planned mining tonnage will not be recovered during mining (i.e., feed loss). The results of the dilution analysis estimate dilution to be approximately 5%. Since the mineralized zone is large and extensive, one would predict edge dilution to be relatively low.

The total quantity of feed material sent to the process plant is estimated at 54.04 Mt. The overall strip ratio is 1.7:1. Approximately 66% of the 54.04 Mt feed tonnes consist of Inferred Mineral Resources.

The mine production schedule consists of one year of pre-production and 14.2 years of mine production. The target processing rate is approximately 3.8 Mtpa, or 10,500 tpd. To meet the process plant needs, the annual mining rates of feed and waste rock combined will peak at approximately 14 Mtpa (38,000 tpd) in Years 8 to 11.

It is assumed that the Lac à l'Orignal mine will be an owner operated open pit mine except for blasting operations. The owner's mining team would undertake all drilling, loading, hauling, and mine site maintenance activities. The owner will also be responsible for technical services, such as mine planning, grade control, geotechnical, and surveying services. It is assumed that an explosive supplier would be contracted for explosive delivery, blasthole charging, and blast control. It is assumed that most of the materials mined will require drilling and blasting. Overburden would be free digging and not require blasting.

It is anticipated that the mining operations would be conducted 24 hours per day and 7 days per week throughout the entire year. It is expected that diesel-powered hydraulic excavators (10 m^3 bucket size) and front-end loaders (11 m^3 bucket size) will be used to excavate the blasted rock. The anticipated truck size capacity is 90 t. The primary mining equipment will be supported by a fleet of equipment consisting of dozers, road graders, water trucks, maintenance vehicles, and service vehicles.

The mining operations personnel will average approximately 99 people, including operators, maintenance, supervision, and technical staff over the LOM.

Mined waste rock will be placed in a single storage facility located southeast of the open pit. A smaller overburden storage facility will also be located east of the open pit exit ramp location. Some of the waste rock will be used in the construction of the two tailings facilities as needed for dam fill or foundation grading purposes.

The Lac à l'Orignal open pit operation will require mine offices, maintenance facilities, warehousing, lube and fueling station, and cold storage areas. These will be located in the general vicinity of the process plant area.

1.11 RECOVERY METHODS

A flowsheet composed of conventional processes with minor unique aspects is outlined to process the Lac à l'Orignal mineralized material to produce a high-quality apatite (phosphate) concentrate, and secondary concentrates consisting of magnetite (iron) and ilmenite (titanium). The principal process stages will include jaw and gyratory crushing, semi-autogenous ("SAG") and ball mill grinding, various intensities of magnetic separation, strong and moderate strength flotation, regrinding of rougher flotation concentrates, multiple cleaner flotation steps, concentrate thickening, pressure filtration and drying of concentrate products. Specialized techniques include high density slurry conditioning of reagents in preparation for apatite flotation, and for ilmenite concentration, gravity separation and high intensity magnetic separation. De-sliming, a common process step in industrial minerals processing such for phosphate resources, is not expected to be required.

There will be three distinct circuits in the process plant: iron (magnetite) concentration circuit by magnetic separation, regrinding and flotation removal of impurities; phosphate flotation regrinding and upgrading circuit; and ilmenite concentration circuit by magnetic separation, regrinding and gravity methods. All three circuits will have dedicated slurry thickening, drying and load-out facilities.

Iron minerals, principally magnetite, will be removed from a primary grind product by low intensity magnetic separators ("LIMS"), a reliable wet process. The magnetite concentrate will be upgraded by regrinding and removal of sulphides by froth flotation. The concentrate will be dewatered by thickening and filtration, and dried to less than 2% moisture. Depending on the market destination (e.g., iron making), the concentrate may be converted by pelletization or briquetting followed by sintering off site by a third party.

Primary apatite recovery and concentration will be performed by an alkaline, fatty acid flotation strategy. The apatite rougher concentrate will be reground and subject to multi-stage cleaning in either conventional flotation cells or column cells. The concentrate will be dewatered and dried before bulk transport to a phosphoric acid production facility in the Saguenay region or beyond.

Ilmenite will be recovered and concentrated from apatite circuit tails by a variety of means, which subject to test confirmation, will include magnetic separation, regrinding and gravity methods.

Two distinct tailings streams are expected: (i) a moderate tonnage of sulphide-rich tailings from the iron circuit; and (ii) a larger tonnage of environmentally inert tailings from the ilmenite circuit.

1.12 PROJECT INFRASTRUCTURE

Infrastructure at the Lac à l'Orignal Project consists of a nearby powerline and well-maintained access roads. The site is currently accessible from the City of Saguenay, 84 km south-southwest, by Highway 172 to logging road, chemin de la Zec Martin-Valin, which crosses the Property and is maintained year-round by logging companies. At km 81.5 on this road, a secondary logging trail goes northwest for 3.5 km to the Lac à l'Orignal Deposit area. Many secondary logging roads can be utilized to access various parts of the Property. Upon upgrading the 3.5 km secondary logging trail, site access will be sufficient for the transportation of major equipment including mills, crusher, process equipment and tankage, piping and electrical as well as all consumables and mine manpower.

Major planned infrastructure for the Lac à l'Orignal Project includes an open pit mine, process plant and laboratory with main substation and electrical power distribution, a tailings management facility ("TMF") and waste rock storage facilities. The Company will not be supplying on-site housing and employees and contractors will commute from Saguenay and other nearby towns.

A dedicated 56 kV feeder line from a Hydro Québec 735 kV line located approximately 20 km south from the proposed process plant site will be constructed to supply all power requirements. The total connected electrical power for the process plant is estimated at 35 MW. A diesel generator at the process plant will be used for emergency power generation.

The process plant throughput is currently envisioned to be 10,500 tpd from the open pit mine over a planned 14.2-year mine life, generating a total of 42.6 Mt of tailings. The bulk, Non-Potentially Acid Generating ("Non-PAG") phosphate tailings (40.5 Mt) will be stored in the Tailings Management Facility ("TMF"). The Potentially Acid Generating ("PAG") sulphide tailings (2.1 Mt) will be stored separately in the Sulphide Tailings Management Facility ("STMF").

The designs for the TMF, STMF, and site water management measures were developed based on input from the Authors, past studies for the Project, industry accepted best practices, previous experience on similar projects, and the anticipated site conditions.

The TMF and STMF will provide permanent storage of tailings solids with the primary goal of protecting the environment during operations and post closure. The two types of tailings will be stored separately to minimize environmental impact and to minimize closure requirements. The phosphate tailings will be stored in a filtered tailings stack and the sulphide tailings will be stored in a thickened slurry tailings impoundment.

The TMF is located approximately 6 km northwest of the open pit and the STMF is located immediately east of the plant site location. The locations of the facilities were selected by the Authors and First Phosphate.

The phosphate tailings will be pumped conventionally (approximately 40% solids by mass) to the TMF via slurry pipeline. The tailings will then be filtered and transported by truck to the TMF, where they will be placed and compacted into the stack. The filtered tailings will be spread by a CAT D8 sized dozer and compacted with a 10-t compactor in 300 mm thick lifts. A geosynthetic lining system will be installed on the prepared foundation to prevent seepage into the underlying foundation. The geosynthetic lining system will include a 300 mm thick bedding layer to provide a suitable subgrade for the geosynthetics. The bedding layer will be covered by non-woven geotextile and 80 mil (2.0 mm) HDPE (textured both sides) geomembrane. A 300 mm thick underdrain layer will be installed over the geomembrane to convey collected seepage from the tailings to seepage collection sumps, or collection ditches, and on to the water management pond ("WMP"). Bedding and underdrain materials for the geosynthetic lining system will likely consist of processed waste rock. The geosynthetic lining system and underdrain layer will be extended periodically during operations as the TMF footprint is expanded.

Sulphide tailings will be pumped as a thickened slurry (typically 50% to 60% solids content by mass) from the process plant site to the STMF via pipeline. Tailings will be deposited from multiple spigot locations along the embankment crests, waste rock storage area ("WRSA") bench, and natural topography to allow for even filling of the basin in order to minimize the volumes of water required to maintain a wet cover during operations. A geosynthetic lining system consisting of 2.0 mm (80 mil) HDPE geomembrane underlain by 12 oz/yd^2 non-woven geotextile will be installed along the upstream faces of the perimeter embankments and WRSA, and in the basin.

The site water management measures were designed to collect runoff from the site infrastructure areas and route the collected water to sediment basins for temporary storage and sediment control. Following settling/clarification, collected runoff will either be transferred to the WMP as process water, or released to the environment if the water quality is acceptable. Runoff from storms greater than the environmental design storm ("EDS") will report directly to the environment over suitably designed and constructed spillways.

1.13 MARKET STUDIES AND CONTRACTS

The Authors followed the approximate June 30, 2023, 18-month trailing average P_2O_5 grade adjusted phosphate price and CAD$:US$ exchange rate along with the Consensus Economics Inc. long term magnetite (iron) and ilmenite price projections. The commodity prices and FX are listed in Table 1.3.

TABLE 1.3
PRODUCT PRICE ASSUMPTIONS AND FX (US$)

Commodity	Phosphate[1] ($/t)	Magnetite[2] ($/t)	Ilmenite[3] ($/t)	CAD$:US$
Price	367	95	250	1.32

***Notes**: [1] 40% P_2O_5, [2] 69% Fe, [3] 39% TiO_2*

The global phosphates market is anticipated to reach a valuation of US$16.8 billion in 2023, driven by increasing demand for specialty phosphates. The trend is expected to create new opportunities for the market, leading to a projected compound annual growth rate of 2.4% between 2023 and 2033, and reaching a total valuation of approximately US$21.4 billion by 2033.

The future of the global magnetite market looks promising with opportunities in the iron and steel and medication industries. The global magnetite market is expected to reach an estimated US$132.7 billion by 2027 with a projected compound annual growth rate of 2.9% from 2021 to 2027.

The global ilmenite market is anticipated to rise at a considerable rate between 2023 and 2030. The market is growing at a steady rate and with the rising adoption of strategies by key players and prices are expected to rise.

There are no existing contracts in place related to the Lac à l'Orignal Property. There is a memorandum of understanding ("MOU") in place with Prayon SA of Belgium to cover part of its needs, which amount to about 400,000 tonnes of annual phosphate concentrate offtake as well as the idea/concept of a long-term purified phosphoric acid toll processing agreement.

Based on SGS Canada ("SGS") testwork to date, the three concentrates to be produced will be very low in deleterious elements. For concentrate sales to a domestic buyer, the concentrates will be delivered overland direct by truck from the process plant to the all-season port of Saguenay. All shipment costs beyond Saguenay are free on board ("FOB").

1.14 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL IMPACT

The construction, the operation and the closure of a mine is subjected to several laws and regulations at the federal, provincial, and municipal levels. The Project meets the criteria for triggering an Environmental Impact Assessment under the Impact Assessment Act (IAA, 2019) at the federal level and under the Environmental Quality Act (Q2) at the provincial level. These assessments are multi-step processes which may take up to five years aimed at obtaining authorization from government authorities.

Environmental baseline studies have not been started yet, however, are planned in the coming years. The Project is on the limit of the ZEC Onatchiway ("ZEC"), a Controlled Exploitation Zone used for recreational fishing and hunting of wildlife. It is expected that most of the lakes contain trout and other species common to the types of water bodies found in the region and the wildlife found in the ZEC are typically wild hare, various grouse species, moose, bear, and white-tailed deer. Desktop studies have suggested that the Project area as being frequented by woodland caribou and Bicknell's Thrush.

The Property area has been intensely logged and much of the vegetation consists of mainly black spruce and balsam fir. Small bogs are also present. Large areas of the Property were burned by a forest fire in 1996.

The Project is located on the ancestral lands of the Pessamit Nation while the transport route to Saguenay passes through the lands of the Mashteuiatsh, Pessamit and Essipit. First Phosphate has been actively reaching out to the stakeholder communities, the Pessamit Nation, the Mashteuiatsh Pessamit, and the Saguenay-Lac-Saint-Jean community to build collaborative relationships with local and regional partners.

The Saguenay region's economy is driven by extensive industrial, agricultural, forestry, and tourist industries. There is an abundance of qualified and skilled local workers in the area. The hydro-electric system is well established and can easily support all these industries. The mine site is accessible from Saguenay by means of Highway 172. In Saguenay, the all-season deep-water port facilities would enable transport by waterways.

1.15 CAPITAL AND OPERATING COSTS

All costs are presented in Q2 2023 Canadian dollars. No provision has been included in the cost estimates to offset future escalation. The total initial capital cost of the Lac à l'Orignal Project is estimated at $550M. Sustaining capital costs incurred during the 14.2 production years are estimated to total $139M. Total operating costs over the life-of-mine ("LOM") are estimated at $1,644M which average $30.43/t processed.

Initial capital costs are for construction of a 3.8 Mtpa process plant and tailings facility, and to set up an open pit mining site with the necessary infrastructure and pre-production activities, including port infrastructure. The capital cost estimates are summarized in Table 1.4.

TABLE 1.4
CAPITAL COST ESTIMATE

Item	Initial ($M)	Sustaining ($M)	Total ($M)
Open Pit Mining Equipment and Pre-stripping	29.6	46.5	76.1
Process Plant	214.8	5.5	220.3
Tailings Management Facilities	41.6	56.8	98.3
Indirects, EPCM and Owner's Costs	110.4	0.0	110.4
Site and Port Infrastructure	61.7	0.0	61.7
Contingency (20%)	91.6	21.7	113.4
Reclamation/Closure Minus Salvage Value	0.0	8.3	8.3
Total[1]	**549.8**	**138.7**	**688.5**

[1] *Totals may not sum due to rounding.*

Operating costs are estimated to average $30.43/t processed over the LOM as presented in Table 1.5. Open pit mining costs are for 14.2 years of production. The operating costs have been estimated from first principles and consumable quotes, with factoring and estimates from the Authors' experience at other similar mines.

TABLE 1.5
OPERATING COST ESTIMATE

Item	Unit	Unit Cost ($/t)	LOM Total ($M)
Open Pit Mining all Material	$/t mined	2.77	
Open Pit Mining and Stockpile Re-handling	$/t mined	2.89	
Open Pit Mining	$/t processed	7.48	404.1
Process Plant	$/t processed	12.60	680.9
General and Administration	$/t processed	1.67	90.0
Tailings Management	$/t processed	1.85	99.7
Concentrate Handling and Transport	$/t processed	6.83	369.7
Total[1]	**$/t processed**	**30.43**	**1,644.4**

[1] *Totals may not sum due to rounding.*

1.16 ECONOMIC ANALYSIS

Cautionary Statement - The reader is advised that this PEA Technical Report is intended to provide only an initial, high-level review of the Project potential and design options. The PEA mine plan and economic model include numerous assumptions and the use of Inferred Mineral Resources. Inferred Mineral Resources are considered to be too speculative to be used in an economic analysis except as allowed by NI 43-101 in PEA studies. There is no guarantee the Project economics described herein will be achieved.

Under baseline scenarios (5% discount rate, payable commodities using prices of US$367/t phosphate (40% P_2O_5), US$95/t magnetite (69% Fe) and US$250/t ilmenite (40% TiO_2), OPEX and CAPEX as set out above), the after-tax NPV of the Project is estimated at $511M ($795M pre-tax), with an after-tax IRR of 17% (22% pre-tax). This results in an after-tax payback period of approximately 4.9 years. Applicable taxes have been calculated on taxable income at rates of Canadian Federal at 15% and Québec Provincial at 11.5%.

A summary of the key economic parameters and results is presented in Table 1.6.

TABLE 1.6
PEA SUMMARY PARAMETERS AND RESULTS

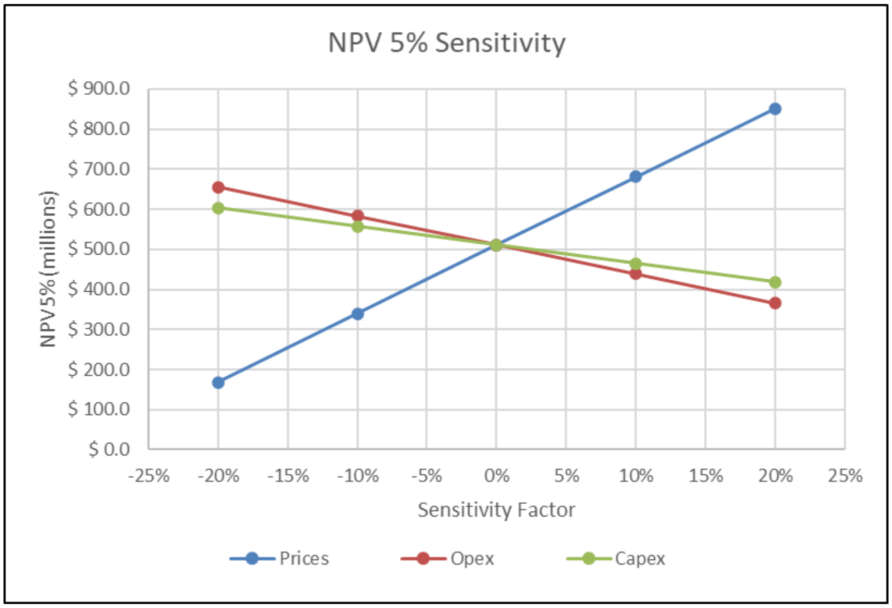
Parameter	Amount[1]
Phosphate Price (40% P_2O_5) US$/t	367
Magnetite Price (69% Fe) US$/t	95
Ilmenite Price (39% TiO_2) US$/t	250
Exchange Rate CAD$:US$	1.32
Production Profile	
Tonnes Processed (Mt)	54.04
Average Process Plant Feed Grade (%P_2O_5)	4.91
Average Process Plant Feed Grade (%Fe_2O_3)	22.62
Average Process Plant Feed Grade (%TiO_2)	4.14
Mine Life (years)	14.2
Daily Process Plant Throughput (tpd)	10,500
P_2O_5 Process Plant Recovery (%)	91.0
Fe_2O_3 Process Plant Recovery (%)	32.0
TiO_2 Process Plant Recovery (%)	24.0
Phosphate Concentrate (Mt)	6.04
Magnetite Concentrate (Mt)	3.97
Ilmenite Concentrate (Mt)	1.38
Revenue ($ M)	3,860
Operating Costs	
Unit Average LOM Operating Cost ($ per tonne processed)	30.43
Open Pit Mining Costs ($ per tonne processed)	7.48
Processing Costs ($ per tonne processed)	12.60
G&A ($ per tonne processed)	1.67

TABLE 1.6 **PEA SUMMARY PARAMETERS AND RESULTS**	
Parameter	**Amount**[1]
Tailings Management Costs ($ per tonne processed)	1.85
Concentrate Handling and Transport ($ per tonne processed)	6.83
Total LOM Operating Cost ($ M)	1,644.4
Capital Requirements	
Pre-Production Capital Cost ($ M)	549.8
LOM Sustaining Capital Cost ($ M)	138.7
Project Economics	
Taxes ($ M)	478.0
Pre-Tax	
NPV (5% Discount Rate) ($ M)	795.3
IRR (%)	21.7
Payback (years)	4.2
Cumulative Undiscounted Cash Flow ($ M)	1,527.2
After-Tax	
NPV (5% Discount Rate) ($ M)	510.8
IRR (%)	17.2
Payback (years)	4.9
Cumulative Discounted Cash Flow ($ M)	1,049.2

[1] *Totals may not sum due to rounding.*

The Project NPV is most sensitive to changes in commodity prices, followed by OPEX, then CAPEX, as shown in Figure 1.3.

FIGURE 1.3 PROJECT AFTER-TAX NPV SENSITIVITY



It is the opinion of the Authors that the Lac à l'Orignal Project has potential to be economically viable. Therefore, it is recommended to upgrade the Inferred Mineral Resources and advance the Project to the next phase of study.

1.17 ADJACENT PROPERTIES

There are very few properties in the vicinity of the Lac à l'Orignal Property and most of them are explored for iron and titanium. In the southeast corner of the Property, there are nine claims enclosed within the Lac à l'Orignal claim block. That property is being explored by another company for rare earth elements ("REE") within silicified paragneiss. The Lac a Paul Phosphate Project is located 90 km north of Lac à l'Orignal. Lac a Paul is a Feasibility Study-level project owned by Arianne Phosphate Inc (Cegertec Worley Parsons *et al.*, 2013). The only metallic mine in the Lac à l'Orignal Property region is the Niobec niobium mine operated by Magris Resources located 80 km south-southwest of Lac à l'Orignal.

1.18 PROJECT RISKS AND OPPORTUNITIES

Risks and opportunities have been identified for the Project. The most significant potential risk for impact on the Project is lower commodity prices. Advanced studies are required to improve the confidence in the operating and capital cost estimates. Further metallurgical testing is required to optimize recoveries, process plant design and Project revenue.

Opportunities consist of a Mineral Resource that is open down dip and possibly along strike to the west. The Property contains at least two other showings that remain relatively unexplored. The potential conversion of the high-grade apatite concentrate to purified phosphoric acid may result in application to high value phosphorous products such as automobile batteries.

1.19 CONCLUSIONS

The Lac à l'Orignal Phosphate Property contains a significant P_2O_5 Mineral Resource that is associated with a well-defined oxide gabbro intrusion associated with a large anorthosite intrusive complex. The Property has potential for delineation of additional Mineral Resources associated with extension of known anorthosite-associated magmatic mineralization zones and for discovery of new magmatic mineralization zones.

The Authors conclude that the Lac à l'Orignal Project has economic potential as an open pit mining and mineralized material processing operation to produce a high-quality apatite (phosphate) concentrate, and secondary concentrates consisting of magnetite (iron) and ilmenite (titanium). This conclusion would need to be confirmed in a subsequent and more detailed Pre-Feasibility Study supported by additional Mineral Resource drilling and metallurgical tests.

The Authors note that this PEA is preliminary in nature, and its Mineral Resources include Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves, and there is no certainty that the preliminary assessment will be realized. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

1.20 RECOMMENDATIONS

Based on the current Mineral Resource Estimate, the Authors recommend that First Phosphate advance exploration and development studies at Lac à l'Orignal in two phases. Phase 1 includes step-out and in-fill drilling, and exploration work resulting in an Updated Mineral Resource Estimate. Phase 2 includes additional metallurgical testwork, environmental base line studies, and geotechnical and hydrology studies resulting in a Pre-Feasibility Study. The costs of the recommended Phase 1 and Phase 2 programs are estimated to total $4.3M and $2.3M, respectively. The budget of the recommended work program would be $6.6M and is presented in Table 1.7. The Phase 2 work program is contingent upon the results of the Phase 1 exploration program.

TABLE 1.7
RECOMMENDED WORK PROGRAM BUDGET

Program	Description	Budget ($)
Exploration		
Step-out and Exploration Drilling	3,000 m at $275/m (includes staff and assays)	825,000
Surface Exploration Programs	Helicopter-borne magnetic	100,000
Environmental Studies	Aquatic, terrestrial, hydrology	100,000
In-fill Drilling	9,000 m at $275/m	2,475,000
Updated Mineral Resource Estimate		200,000
Contingency (15%)		555,000
Subtotal Phase 1		**4,255,000**
PFS Work		
Metallurgical Drilling	400 m at $300/m (HQ)	120,000
Metallurgical Testwork		200,000
Environmental Studies		100,000
Geotechnical and Hydrology Studies		400,000
Stakeholder Consultation		100,000
Pre-Feasibility Study		1,200,000
Contingency (15%)		318,000
Subtotal Phase 2		**2,318,000**
Total		**6,573,000**

2.0 INTRODUCTION AND TERMS OF REFERENCE

2.1 TERMS OF REFERENCE

The following Technical Report was prepared to provide a National Instrument ("NI") 43-101 Technical Report and Preliminary Economic Assessment of phosphate, magnetite and ilmenite mineralization contained on the Lac à l'Orignal Property, Québec, Canada, owned by First Phosphate Corporation ("First Phosphate").

This Technical Report (the "Report") was prepared by P&E Mining Consultants Inc. ("P&E") for First Phosphate Corporation (CSE Reserved: PHOS), a public company registered in British Columbia and planning to list on the Canadian Securities Exchange. First Phosphate has its head office at:

Suite 3606
833 Seymour Street
Vancouver, British Columbia
V6B 0G4

This Report has an effective date of July 25, 2023.

The purpose of the Report is to provide an independent, NI 43-101 Technical Report and Preliminary Economic Assessment of the Lac à l'Orignal phosphate, magnetite, ilmenite deposit (the "Deposit") on the Lac à l'Orignal Property. This Technical Report is prepared in accordance with the requirements of NI 43-101F1 of the Ontario Securities Commission ("OSC") and the Canadian Securities Administrators ("CSA"). The Mineral Resources Estimates described in Section 14 of this Report 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.

2.2 SITE VISIT

Mr. Antoine Yassa, P.Geo. of P&E, an independent Qualified Person under the regulations of NI 43-101 conducted a site visit to the Property on July 7 and July 8, 2022. At that time, an independent verification sampling program was completed by Mr. Yassa, the results of which are presented in Section 12 of this Report.

2.3 SOURCES OF INFORMATION

In addition, and subsequent to the site visit, the authors (the "Authors") of this Report held discussions with technical personnel from the Company regarding all pertinent aspects of the Project and completed a review of all available literature and documented results concerning the Property. The reader is referred to those data sources, which are listed in the References section (Section 27) of this Report, for further detail.

This Report is based, in part, on internal Company technical reports, and maps, published government reports, Company letters, memoranda, public disclosure and public information as listed in the Section 27 of this Report. Sections from reports authored by other consultants have been directly quoted or summarized in this Report and are indicated where appropriate.

Sections 4 to 10 and 23 of this Report were prepared by William Stone, Ph.D., P.Geo., of P&E, under the supervision of Antoine Yassa, P.Geo., of P&E, who acting as a Qualified Person as defined by NI 43-101, takes responsibility for those sections of the Report as outlined in the "Certificate of Author" in Section 28. Sections 11 and 12 of this Report were prepared by Jarita Barry, P.Geo., of P&E, under the supervision of Antoine Yassa, P.Geo., who acting as a Qualified Person as defined by NI 43-101, takes responsibility for those sections of this Report as outlined in the "Certificate of Author" in Section 28. Section 14 of this report was prepared by Yungang Wu, P.Geo., and Eugene Puritch, P.Eng., FEC, CET, of P&E, under the supervision of Antoine Yassa, P.Geo., who acting as a Qualified Person as defined by NI 43-101, takes responsibility for those sections of this Report as outlined in Table 2.1 below and in the "Certificate of Author" in Section 28.

TABLE 2.1
QUALIFIED PERSON RESPONSIBLE FOR THIS TECHNICAL REPORT

Qualified Person	Contracted By	Report Sections
Antoine Yassa, P.Geo.	P&E Mining Consultants	Author 4-12, 14, 23 Co-Author 1, 25-27
Danielle Demers, P.Eng.	Knight Piésold Ltd.	Co-Author 1, 16, 25-27
Jessica Breault, P.Eng.	Knight Piésold Ltd.	Co-Author 1, 18, 21, 25-27
Ann Lamontagne, P.Eng.	Lamont Inc.	Author 20 Co-Author 1, 25-27
Ken Kuchling, P.Eng.	P&E Mining Consultants	Author 15 Co-Author 1, 16, 21, 25-27
D. Grant Feasby, P.Eng.	P&E Mining Consultants	Author 13, 17 Co-Author 1, 21, 25-27
Andrew Bradfield, P.Eng.	P&E Mining Consultants	Author 22, 24 Co-Author 1, 21, 25-27
Eugene Puritch, P.Eng.,	P&E Mining Consultants	Author 2, 3, 19 Co-Author 1, 18, 25-27

The Authors understand that this Report will support the public disclosure requirements of First Phosphate and will be filed on SEDAR as required under NI 43-101 disclosure regulations.

2.2 UNITS AND CURRENCY

In this Report, all currency amounts are stated in Canadian dollars ("$") unless otherwise stated. At the time of this Report, the 24-month trailing average exchange rate between the US dollar and the Canadian dollar is 1 US$ = 1.32 CAD$ or 1 CAD$ = 0.76 US$.

Commodity prices are typically expressed in US dollars ("US$") and will be noted where appropriate. Quantities are generally stated in Système International d'Unités ("SI") metric units including metric tons ("tonnes", "t") and kilograms ("kg") for weight, kilometres ("km") or metres ("m") for distance, hectares ("ha") for area, grams ("g") and grams per tonne ("g/t") for metal grades. Phosphate, magnetite and ilmenite values are reported in percentage ("%") and parts per billion ("ppb"). Precious metal grades may also be reported in parts per million ("ppm") or parts per billion ("ppb"). Quantities of precious metals may also be reported in troy ounces ("oz"), and quantities of base metals in avoirdupois pounds ("lb"). Abbreviations and terminology are summarized in Tables 2.2 and 2.3.

Grid coordinates for maps are given as longitude and latitude coordinates or UTM NAD83 Zone 19N coordinates, unless specified otherwise.

TABLE 2.2
TERMINOLOGY AND ABBREVIATIONS

Abbreviation	Meaning
$	dollar(s)
°	degree(s)
°C	degrees Celsius
<	less than
>	greater than
%	percent
µm	micrometre(s) or micron(s)
3-D	three-dimensional
ABA	acid base accounting
Actlabs	Activation Laboratories Ltd. (Actlabs)
AGAT	AGAT Laboratories
Ai	Abrasion Index
Al	aluminum
AMCG	anorthosite-mangerite-charnockite-granite
AP	acid potential
APGN	Agreement-in-Principle of General Nature
Arianne	Les Ressources d'Arianne
As	arsenic
Authors, the	the Qualified Person(s) who are the Author(s) of this Technical Report
BWI	bond ball mill work index
°C	degree Celsius
$CaCO_3$	calcium carbonate
CAD$	Canadian dollar
CAGR	compound annual growth rate
CaO	calcium oxide
CAPEX	capital expenses
Cd	cadmium
CDA	Canadian Dam Association
CEAA	Canadian Environmental Assessment Act
CIM	Canadian Institute of Mining, Metallurgy, and Petroleum
cm	centimetre(s)
Company, the	First Phosphate Corp., the company that this Technical Report is

Table 2.2 Terminology and Abbreviations	
Abbreviation	**Meaning**
	written for
conc.	concentrate
CoV	coefficient of variation
CSA	Canadian Securities Administrators
Cu	copper
CV_{AVE}	average coefficient of variation
deg	degree
Deposit, the	Lac à l'Orignal Deposit
dm	decimetre
dmt	dry metric tonnes
$M	dollars, millions
E	east
EDS	Environmental Design Storm
El.	elevation
EPCM	engineering, procurement, and construction management
EQA	Environment Quality Act
Fe	iron
Fe_2O_3	iron oxide/ferric oxide
$FeTiO_3$	iron titanium oxide
First Phosphate	First Phosphate Corp.
FOB	free on board
FW	footwall
FX	foreign exchange market
g	gram
g/t	grams per tonne
G&A	general and administration
GET	ground-engaging tools
Glen Eagle	Glen Eagle Resources Inc.
GPS	global positioning system
GPT Transaction	going public transaction
H:V	horizontal to vertical ratio
ha	hectare(s)
HDPE	high-density polyethylene
HIMS	high intensity magnetic separation
HW	hanging wall
IAA	Impact Assessment Act
ICP	inductively coupled plasma
ICP-OES	inductively coupled plasma - optical emission spectrometry
ID	identification
ID^2	inverse distance squared
IDF	Inflow Design Flood

Table 2.2 **Terminology and Abbreviations**	
Abbreviation	**Meaning**
IRR	internal rate of return
ISO	International Organization for Standardization
ISO/IEC	International Organization for Standardization/International Electrotechnical Commission
k	thousand(s)
kg	kilograms(s)
km	kilometre(s)
km^2	square kilometre(s)
KP	Knight Piésold Ltd
kt	thousands of tonnes, kilotonnes
kV	kilovolt(s)
kW	kilowatt(s)
kWh	kilowatt hour
kWh/t	kilowatt hour per tonne
L	litre(s)
La	lanthanum
LFP	lithium iron phosphate
Li	lithium
LiDAR	Light Detection and Ranging
LIMS	low intensity magnetic separation
LOI	loss on ignition
LOM	life-of-mine
LSJA	Lac-Saint-Jean Anorthositic
LSJAS	Lac-Saint-Jean Anorthositic Suite
M	million(s)
m	metre(s)
m^3	cubic metre(s)
Ma	millions of years
MCC	Motor Control Centre
MDMER	Metal and Diamond Mining Effluent Regulations
Mg	magnesium
mm	millimetre(s)
MOU	memorandum of understanding
MRBoréal	Multi-Ressources Boréal
MRC	Municipalité Régional de Comité
MRNF	Québec’s Ministère des Ressources naturelles et des Forêts (Ministry of Natural Resources and Forests, Québec)
Mt	mega tonne or million tonnes
Mtpa	mega tonne or million tonnes per annum or per year
MW	megawatt(s)
MWh	megawatt(s) hour(s)

TABLE 2.2
TERMINOLOGY AND ABBREVIATIONS

Abbreviation	Meaning
N	north
NAD	North American Datum
Na_2CO_3	sodium carbonate
Nb	niobium
NI	National Instrument
Ni	nickel
NMC	nickel manganese cobalt
NN	Nearest Neighbour
Non-PAG	non-potentially acid generating
NP	neutralization potential
NPP	net neutralization potential
NPV	net present value
NSR	net smelter return
NTS	national topographic system
OSC	Ontario Securities Commission
OPEX	operating expenses
oz	ounce(s)
P	phosphate
P_2O_5	phosphorus pentoxide
P_{80}	80% percent passing
PAG	potentially acid generating
PAS	Pipmuacan Anorthositic Suite
P&E	P&E Mining Consultants Inc.
PEA	Preliminary Economic Assessment
P.Eng.	Professional Engineer
P.Geo.	Professional Geoscientist
PMF	Probable Maximum Flood
PPA	purified phosphoric acid
Project, the	Lac à l'Orignal Project that is the subject of this Technical Report
Property, the	Lac à l'Orignal Property that is the subject of this Technical Report
Q1, Q2, Q3, Q4	first quarter, second quarter, third quarter, fourth quarter
QA	quality assurance
QA/QC	quality assurance/quality control
QC	quality control
QMS	quality management system
R^2	coefficient of determination
REE	rare earth element
Report, the	this Technical Report
RF	Revenue Factor
RM	reference materials
ROM	run-of-mine

TABLE 2.2
TERMINOLOGY AND ABBREVIATIONS

Abbreviation	Meaning
S	south
S	sulphur
SABC	SAG and ball mill combination
SAG	semi-autogenous
SEDAR	System for Electronic Document Analysis and Retrieval
SEM	scanning electron microscopy
SGS	SGS Canada, part of SGS S.A.
Si	silicon
SiO_2	silicon dioxide, silica
SMC	SAG mill comminution
STMF	sulphide tailings management facility
t	metric tonne(s)
t/m^3	tonnes per cubic metre
Technical Report	this NI 43-101 Technical Report
Ti	titanium
TiO_2	titanium dioxide
Th	thorium
TMF	tailings management facility
tpd	tonnes per day
U	uranium
US$	United States dollar(s)
UTM	Universal Transverse Mercator grid system
vs	versus
W	west
WMP	water management pond
WRA	whole rock analyses
WRSA	waste rock storage area
Wt % or wt%	weight percent
XRF	X-ray fluorescence
yd^2	square yard(s)
ZEC	Controlled Exploitation Zone
ZDCP	Deformation Zone of Chute-des-Passes
ZDP	Deformation Zone de Pipmuacan
ZDSF	Deformation Zone of Saint-Fulgence

TABLE 2.3
UNIT MEASUREMENT ABBREVIATIONS

Abbreviation	Meaning	Abbreviation	Meaning
µm	microns, micrometre	m^3/s	cubic metre per second
$	dollar	m^3/y	cubic metre per year
$/t	dollar per metric tonne	mØ	metre diameter
%	percent sign	m/h	metre per hour
% w/w	percent solid by weight	m/s	metre per second
¢/kWh	cent per kilowatt hour	Mt	million tonnes
°	degree	Mtpy	million tonnes per year
°C	degree Celsius	min	minute
cm	centimetre	min/h	minute per hour
d	day	mL	millilitre
ft	feet	mm	millimetre
GWh	gigawatt hours	MV	medium voltage
g/t	grams per tonne	MVA	mega volt-ampere
h	hour	MW	megawatts
ha	hectare	oz	ounce (troy)
hp	horsepower	Pa	Pascal
k	kilo, thousands	pH	measure of acidity
kg	kilogram	ppb	part per billion
kg/t	kilogram per metric tonne	ppm	part per million
km	kilometre	s	second
kPa	kilopascal	t or tonne	metric tonne
kV	kilovolt	tpd	metric tonne per day
kW	kilowatt	t/h	metric tonne per hour
kWh	kilowatt-hour	t/h/m	metric tonne per hour per metre
kWh/t	kilowatt-hour per metric tonne	$t/h/m^2$	metric tonne per hour per square metre
L	litre	t/m	metric tonne per month
L/s	litres per second	t/m^2	metric tonne per square metre
lb	pound(s)	t/m^3	metric tonne per cubic metre
M	million	T	short ton
m	metre	tpy	metric tonnes per year
m^2	square metre	V	volt
m^3	cubic metre	W	Watt
m^3/d	cubic metre per day	wt%	weight percent
m^3/h	cubic metre per hour	yr	year

3.0 RELIANCE ON OTHER EXPERTS

The Authors of this Report have assumed, and relied on the fact, that all the information and existing technical documents listed in the References section of this Report are accurate and complete in all material aspects. Whereas the Authors have carefully reviewed all the available information presented, its accuracy and completeness cannot be guaranteed. The Authors reserve the right, however, will not be obligated to, revise the Report and conclusions if additional information becomes known subsequent to the effective date of this 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 Province of Québec's Ministère des Ressources naturelles et des Forêts ("MRNF"; the Ministry of Natural Resources and Forests) on-line claim management system at https://gestim.mines.gouv.qc.ca/. The Authors have relied on this public information, and tenure information from First Phosphate and has not undertaken an independent detailed legal verification of title and ownership of the Lac à l'Orignal Property. 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, however, have relied on, and considers that it has a reasonable basis to rely on First Phosphate to have conducted the proper legal due diligence.

Select technical data, as noted in the Report, were provided by First Phosphate and the Authors have relied on the integrity of such data.

A draft copy of this Report has been reviewed for factual errors by First Phosphate and the Authors have relied on First Phosphate's 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 date of this Report.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 LOCATION

The Lac à l'Orignal Property is located 84 km north-northeast of the City of Saguenay, Québec (Figure 4.1). The Property is centered approximately on the Lac à l'Orignal Deposit at longitude 70° 34' 41" W and latitude 49° 04' 28" N (UTM NAD83 Zone 19N coordinates: 384,750 m E and
5,436,930 m N). The Property is located on NTS sheets 22D10, 22D14, 22D15, 22D16, 22E01, 22E02 and 22E03.

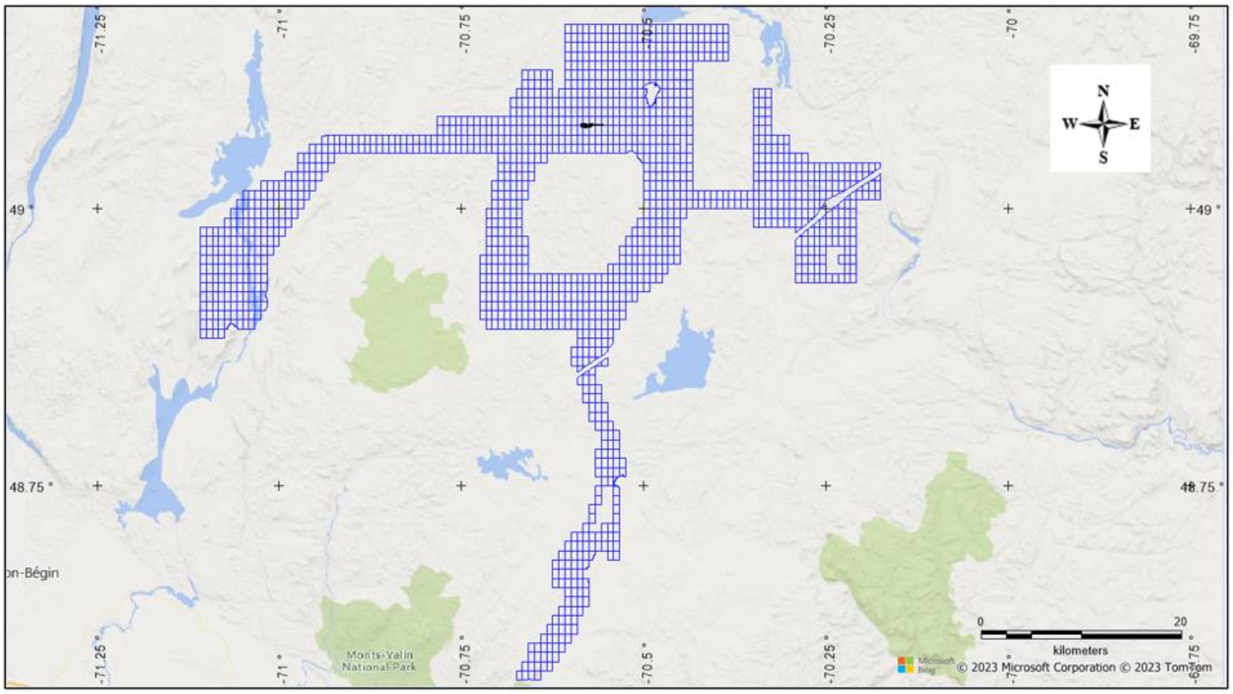
FIGURE 4.1 LAC À L'ORIGNAL PROPERTY LOCATION, QUÉBEC

Source: *Laverdière (2014)*

4.2 PROPERTY DESCRIPTION AND TENURE

The Lac à l'Orignal Property consists of 1,445 CDC claims with a total area of 79,663.23 ha on NTS sheets 22D10, 22D14, 22D15, 22D16, 22E01, 22E02 and 22E03 (Figure 4.2). All the claims of the Lac à l'Orignal Property are registered with the Ministry of Natural Resources and Forests ("MRNF"). A list of all the claims is presented in Appendix H of this Report.

FIGURE 4.2 LAC À L'ORIGNAL PROPERTY CLAIMS



Source: *P&E (August 2023)*
Note: *Claims information effective August 7, 2023*

First Phosphate holds 100% interest in the 1,445 claims that constitute the Property. Gilles Laverdière, consulting geologist for First Phosphate, owned 22 map-staked claims on behalf of First Phosphate, which have subsequently been transferred to First Phosphate.

In addition, First Phosphate signed option agreements with two separate parties in June 2022. On June 17, 2022, First Phosphate signed the first option agreement with Glen Eagle Resources Inc. ("Glen Eagle"), whereby First Phosphate can acquire a 100% interest in 108 claims comprising the Lac à l'Orignal Deposit, by:

(a) Paying Glen Eagle a total of $1,491,000 as follows:
   (i) $191,000 on June 17, 2022;
   (ii) $300,000 on or before July 7, 2022;
   (iii) $500,000 on or before the fourth month anniversary of June 17, 2022; and
   (iv) $500,000 on or before the eighth month anniversary of the June 17, 2022.

(b) Allotting and issuing to Glen Eagle, as fully paid and non-assessable, a total of 6,000,000 Shares on or before the sixth month anniversary of June 17, 2022.

The current Mineral Resource described in Section 14 of this Report are covered by claims in the centre of the Glen Eagle Option; specifically mining claims 2309155, 2309156, 2309157, 2309158, 2309159, 2309166, 2309167, 2309168, 2309169 and 2309170. These 10 mining claims are in good standing as of the effective date of this Report (see Appendix H).

Also on June 17, 2022, First Phosphate entered into the second option Agreement with two individuals ("Dallaire Option"). First Phosphate can acquire 100% interest in the 11 claims of the Lac à l'Orignal Property area by paying to the Optionor a total of $90,000 as follows:

(i) $10,000 in cash to the individuals on June 17, 2022; and
(ii) $80,000 to the individuals on or before the ninth month anniversary of June 17, 2022.

In the event that it executed a Going Public Transaction ("GPT Transaction"), First Phosphate was entitled to elect to make the payment described in (a)(ii), through the issuance of Shares at a price equal to the GPT Transaction deemed Share price. However, on September 14, 2022, First Phosphate announced the completion of its primary phosphate land acquisition strategy, having fully purchased under full title all existing claims that it had under option from the third parties, including an additional seven claims of the Hamann Block. All the acquired claims are free and clear of any NSR royalties and all other forms of royalty.

Additional First Phosphate properties are present in the Saguenay-Lac-Saint-Jean region (i.e., Fleury, Yves, Gouin, Catherine, Begin, Sault, Perron, Antoine, Alex, Brochet and Lamarche). However, only the Lac à l'Orignal Property is covered by this Report.

4.3 STATUS OF EXPLORATION EXPENDITURES

As of the effective date of this Report, the accumulated total exploration expenditures incurred in 2022 on the Lac à l'Orignal Property were $211,950.40. Of this total, $67,331.34 was spent on field geological reconnaissance, grab sampling and channel sampling at the Lac à l'Orignal Deposit and surrounding areas in August 2022 and $144,631.44 was spent on data interpretation and geological modelling of the Deposit from May to September 2022. These data gathering, interpretation and modelling exploration activities are described in more detail in Sections 9 and 14 of this Report.

4.4 MINING RIGHTS IN THE PROVINCE OF QUÉBEC

In the Province of Québec, mining is principally regulated by the provincial government. MRNF is the provincial agency entrusted with the management of mineral substances in Québec. The ownership and granting of mining titles for mineral substances are primarily governed by the Mining Act and related regulations. In Québec, land surface rights are distinct property from mining rights. Rights in or over mineral substances in Québec form part of the domain of the State (the public domain), subject to limited exceptions for privately owned mineral substances. Mining titles for mineral substances within the public domain are granted and managed by MRNF. The granting of mining rights for privately owned mineral substances is a matter of private negotiations, although certain aspects of the exploration for and mining of such mineral substances are governed by the Mining Act.

4.4.1 The Claim

A claim is the only exploration title for mineral substances (other than surface mineral substances, petroleum, natural gas and brine) currently issued in Québec. A claim gives its holder the exclusive right to explore for such mineral substances on the land subject to the claim, however, does not entitle its holder to extract mineral substances, except for sampling and only in limited quantities. In order to mine mineral substances, the holder of a claim must obtain a mining lease. The electronic map designation is the most common method of acquiring new claims from MRNF, whereby an applicant makes an online selection of available pre-mapped claims. In rare territories, claims can be obtained by staking.

4.4.2 The Mining Lease

Mining leases are extraction (production) mining titles that give their holder the exclusive right to mine mineral substances (other than surface mineral substances, petroleum, natural gas and brine). A mining lease is granted to the holder of one or several claims upon proof of the existence of indicators of the presence of a workable deposit on the area covered by such claims and compliance with other requirements prescribed by the Mining Act. A mining lease has an initial term of 20 years, however, may be renewed for three additional periods of 10 years each. Under certain conditions, a mining lease may be renewed beyond the three statutory renewal periods.

4.4.3 The Mining Concession

Mining concessions are extraction (production) mining titles that give their holder the exclusive right to mine mineral substances (other than surface mineral substances, petroleum, natural gas and brine).

Mining concessions were issued prior to January 1, 1966. After that date, grants of mining concessions were replaced by grants of mining leases. Although similar in certain respects to mining leases, mining concessions granted broader surface and mining rights and are not limited in time. A grantee must commence mining operations within five years from December 10, 2013. As is the case for a holder of a mining lease, a grantee may be required by the government, on reasonable grounds, to maximize the economic spinoffs within Québec of mining the mineral resources authorized under the concession. The grantee must also, within three years of commencing mining operations and every 20 years thereafter, send the Minister a scoping and market study as regards processing in Québec.

4.5 ENVIRONMENTAL AND PERMITTING

The Authors are not aware of any foreseeable problems relating to: access, weather, surface rights for mining operations, the availability and sources of electricity and water, mining personnel, potential tailings storage areas, potential waste disposal areas, environmental

liabilities,
and potential processing plant sites.

A regular permit provided by the Québec Ministry of Natural Resources and Forests is required for trenching and drilling works (autorisation pour la coupe de bois aux fins de réaliser certaines activités minières en vertu de l'article 213 de la Loi sur les mines (chapitre M-13.1)). First Phosphate has applied for a drilling permit for the Lac à l'Orignal Property. In a Company press release dated October 26, 2022, First Phosphate announced that it had received a drilling permit for its Lac à l'Orignal Property. The Lac à l'Orignal drilling permit consists of up to 150 drill holes for a total of up to 25,000 m of drilling.

All the claims of the Lac à l'Orignal Property are under the Agreement-in-Principle of General Nature ("APGN") with the First Nations of Nitassinan of Betsiamites, Mashteuiatsh and Essipit. First Phosphate must request authorization from community councils prior to proceeding with exploration work, logging, blasting and bulk sampling, authorization of which is embedded within the government permit.

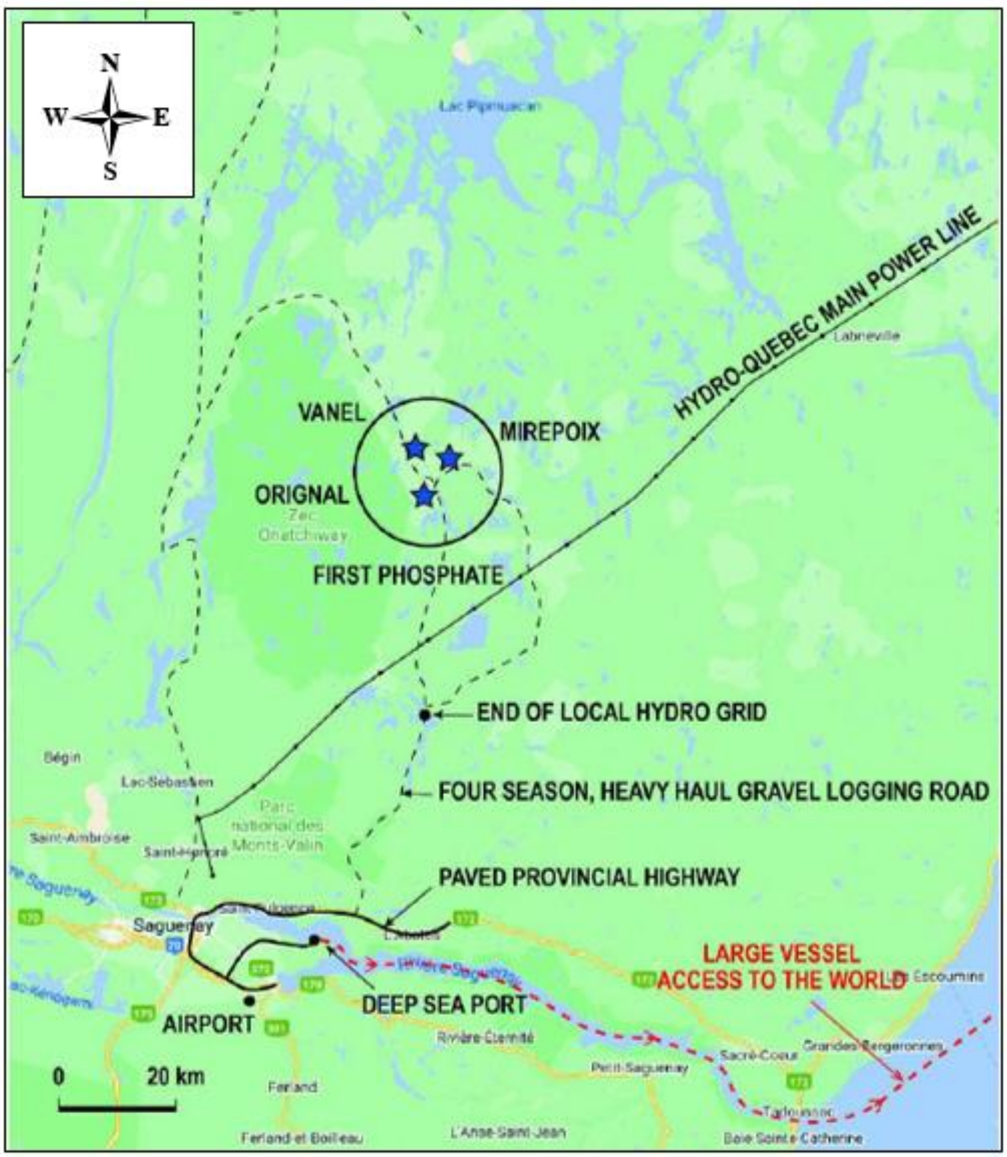
To the extent known, the Authors are not aware of any significant factors or risks that may affect access, title or right or ability to perform work on the Lac à l'Orignal Property.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESS

The Lac à l'Orignal region is easily accessible from the City of Saguenay, 84 km south-southwest, by Highway 172 to logging road, chemin de la Zec Martin-Valin, which crosses the Property and is maintained year-round by logging companies (Figure 5.1). At km 81.5 on this road, a secondary logging trail goes northwest for 3.5 km to the Lac à l'Orignal Deposit area. Many secondary logging roads can be utilized to access various parts of the Property.

FIGURE 5.1 LAC À L'ORIGNAL PROPERTY AREA ACCESS AND INFRASTRUCTURE SETTING



Source: *First Phosphate Corporate Presentation (October 3, 2022).*

The Property is located within the unorganized territory of Mont-Valin with a population of five people. A small inn, Auberge 31, at km 31 of the main logging road, can accommodate workers. There are several logging camps and outfitters along the road to the Property.

5.2 CLIMATE

The Saguenay region has a humid continental-type climate that is milder than that of the surrounding Canadian Shield and similar to that of the St. Lawrence Lowlands. Located just above the 49th parallel, the region has a very low average temperature (2.3°C), which results from significant temperature variations involving very cold winters (average −21.1°C in January) and relatively cool summers (24.1°C on average in July).

The weather statistics presented in Table 5.1 represent the average value of the various meteorological parameters for each month of the year for a 30-year period ending in 2010 taken from the Environment Canada website for Jonquière meteorological station.

TABLE 5.1
MONTHLY WEATHER STATISTICS FOR THE CITY OF SAGUENAY

Parameter	Month											
	J	F	M	A	M	J	J	A	S	O	N	D
Average Maximum ^{o}C	-9	-7	0	8	16	22	24	22	17	10	1	-6
Average Minimum ^{o}C	-21	-19	-11	-2	3	9	12	11	5	0	-5	-16
Rainfall (mm)	4	4	12	31	77	89	114	100	99	67	35	8
Snowfall (cm)	67	56	48	23	4	0	0	0	1	11	49	86

5.3 INFRASTRUCTURE

The Saguenay-Lac-Saint-Jean region has a population of 280,000 inhabitants (2021) and has extensive industrial, agricultural, forestry and tourist industries. It also has a significant hydro-electric system (owned by Rio Tinto) to produce electricity for the aluminum production and transformation industries. The University of Québec at Chicoutimi in the City of Saguenay houses a well-known geological department. The nearby mining operations are mainly aggregate and dimensional stone quarries. The only metallic mine is the Niobec niobium mine operated by Magris Resources. The City of Saguenay also has deep-water all-season port facilities that are linked by the Saguenay River to the St. Lawrence River at the Town of Tadoussac and, ultimately, the Atlantic Ocean. The Company recently signed a Memorandum of Understanding with the Port of Saguenay to secure access and development space at the port facilities. Furthermore, the port of Bécancour is located 260 km south-southeast of the City Saguenay and is accessible by Highway Road 172 west to Highway 169, and then south along Highway 155 to the City of Trois-Rivieres.

The main infrastructure at the Lac à l'Orignal Property are the access roads, which are generally in good condition. The Property is large enough to support mining operations, infrastructure, processing facilities, and waste rock and tailings storage facilities. Water is abundant in the Property area. The nearest powerline is that from Outardes 4 to Saguenay, which crosses the Property in the southeast corner and the main access road 35 km south. The local electrical distribution powerline terminates approximately 50 km south of the Property.

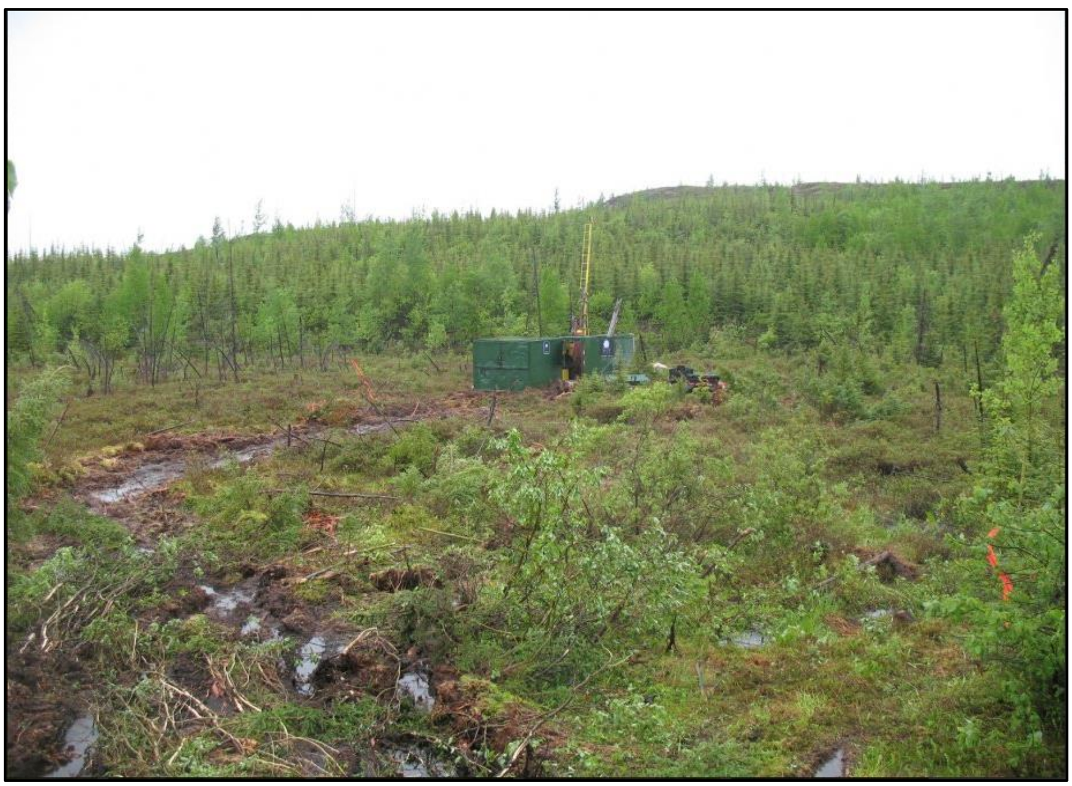
5.4 PHYSIOGRAPHY

The Lac à l'Orignal region is covered by forest and lakes. The topography is undulating, with some local significant hills. The elevation ranges from 502 to 762 m above mean sea level.

There are numerous lakes on the Property that, for the most part, drain into the Rivière aux Sables, which transects the Property. On the west side, lakes drain into the Shipshaw River. Both rivers are tributaries of the Saguenay River. The east side of the Property drains into the Portneuf River, a tributary of the St. Lawrence River.

The Property area has been intensely logged and much of the vegetation consists of mainly black spruce and balsam fir. Other areas contain undetermined hardwood. White cedar is common along the shores of lakes and rivers. Small bogs are also present. Large areas of the Property were burned by a forest fire in 1996. Figure 5.2 is a photograph representative of the topography and vegetation found on the Property.

FIGURE 5.2 LAC À L'ORIGNAL PROPERTY PHYSIOGRAPHY



Source: *Glen Eagle website www.gleneagleresources.ca (August 2022)*

6.0 HISTORY

The Lac à l'Orignal region has a long history of mineral exploration work since the 1940s and government geoscientific surveys since the 1960s. The results of this work and the surveys are summarized below.

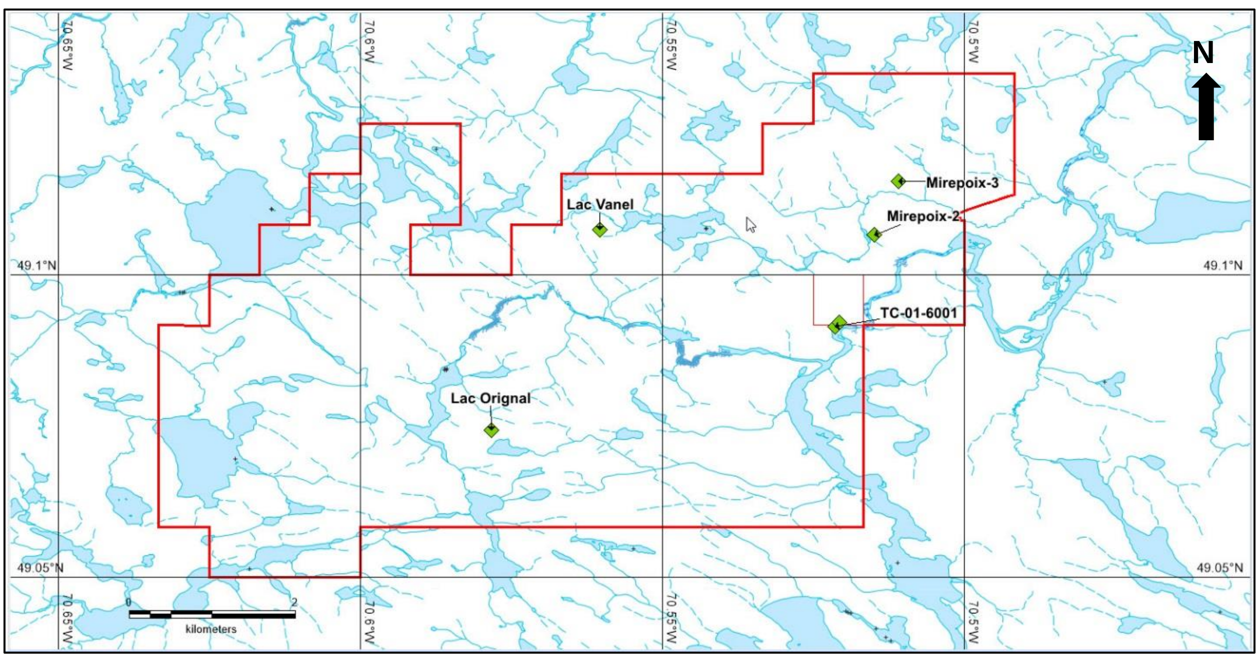
6.1 MINERAL EXPLORATION HISTORY

6.1.1 Exploration 1940 to 2013

In 1943, Waddington explored for magnetite deposits on behalf of the Québec Government on the western part of the Lac à l'Orignal Property near Lake Onatchiway. Waddington concluded that there were no important magnetite deposits (GM 07937). In 1977, Shell Resources compiled all the metal occurrences in the Eastern Grenville Province and recommended follow-up work, mainly for zinc deposits (GM 39070).

In 1998, Léopold Tremblay (a prospector from Chicoutimi) discovered the Lac à l'Orignal Showing (Figure 6.1), samples of which returned assays of up to >7% P_2O_5. Later in 1998, Léopold Tremblay and Charles Boivin discovered the Mirepoix phosphate-titanium showing, 6 km northeast of the Lac à l'Orignal Showing. Following an evaluation by IOS Services Géoscientifiques, Tremblay's claims were optioned by Les Ressources d'Arianne ("Arianne") in 1999.

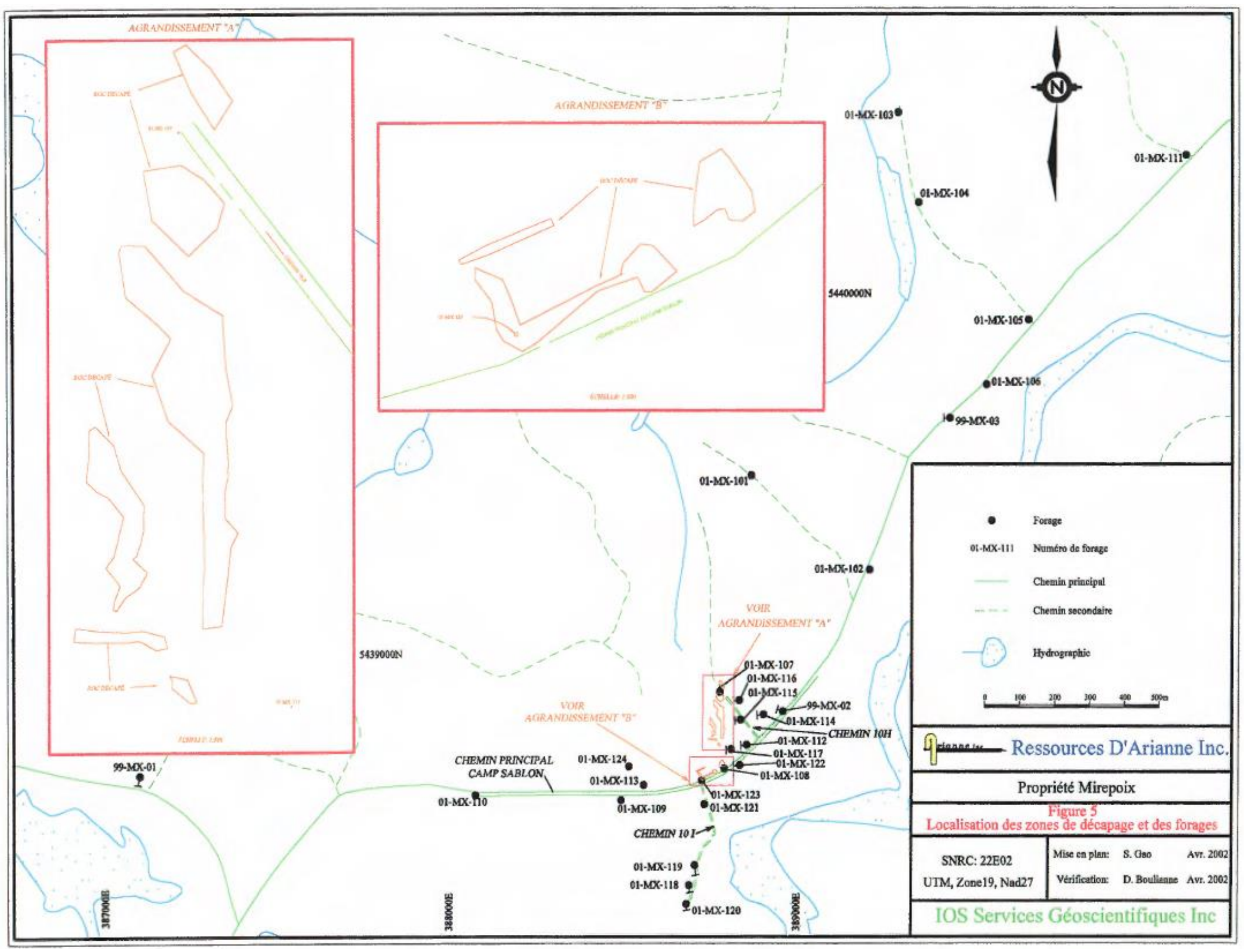
FIGURE 6.1 PHOSPHATE SHOWINGS ON THE LAC À L'ORIGNAL OPTION



Source: *modified by P&E (August 2022) after SIGEOM online database (www.sigeom.mines.gouv.qc.ca)*

Arianne completed exploration programs between 2000 and 2013. In 2000, Arianne completed three drill holes totalling 150 m (TF00-1 to TF00-3), which were designed to determine the thickness of the mineralized horizon at Mirepoix (GM 58770) (Figure 6.2 and Table 6.1). The main intersections returned 4.04% P_2O_5 and 4.89% TiO_2 over 19 m, 3.40% P_2O_5 and 4.72% TiO_2 over 8 m, 5.86% P_2O_5 and 10.23% TiO_2 over 4 m, 3.16% P_2O_5 and 5.96% TiO_2 over 26 m, and 3.75% P_2O_5 and 5.32% TiO_2 over 13 m (Table 6.2). As a result, a follow-up field mapping program was completed (GM 58231). Subsequent metallurgical tests determined that it was possible to produce an apatite concentrate of excellent quality (GM 58772). Grinding tests of the phosphate mineralization determined that the apatite could be liberated with a 0.25 mm spacing in a disc pulverizer (GM 58774).

FIGURE 6.2 MIREPOIX HISTORICAL DRILL HOLE LOCATIONS



Source: *GM 60177*

TABLE 6.1
MIREPOIX SHOWING HISTORICAL DRILLING

Drill Hole ID	Year	Easting	Northing	Company	Azimuth (deg)	Dip (deg)	Length (m)	Report
TF00-1	2000	387,166	5,438,861	Chimitec Ltd	190	60	49.87	GM 58770
TF00-2	2000	389,040	5,439,114	Chimitec Ltd	290	70	50.25	GM 58770
TF00-3	2000	389,505	5,439,852	Chimitec Ltd	270	70	50.04	GM 58770
01-MX-101	2001	388,934	5,439,693	Chimitec Ltd, IOS Services Geoscientific Inc, Arianne Resources Inc.	999	90	27.25	GM 58771
01-MX-102	2001	389,275	5,439,429	Chimitec Ltd, IOS Services Geoscientific Inc, Arianne Resources Inc.	360	90	27.44	GM 58771
01-MX-103	2001	389,355	5,440,699	Chimitec Ltd, IOS Services Geoscientific Inc, Arianne Resources Inc.	360	90	25.88	GM 58771
01-MX-104	2001	389,415	5,440,450	Chimitec Ltd, IOS Services Geoscientific Inc, Arianne Resources Inc.	360	90	28.75	GM 58771
01-MX-105	2001	389,731	5,440,125	Chimitec Ltd, IOS Services Geoscientific Inc, Arianne Resources Inc.	360	90	25.81	GM 58771
01-MX-106	2001	389,610	5,439,945	Chimitec Ltd, IOS Services Geoscientific Inc, Arianne Resources Inc.	360	90	25.85	GM 58771
01-MX-107	2001	388,846	5,439,092	Chimitec Ltd, IOS Services Geoscientific Inc, Arianne Resources Inc.	360	90	25.50	GM 58771
01-MX-108	2001	388,859	5,438,879	Chimitec Ltd, IOS Services Geoscientific Inc, Arianne Resources Inc.	360	90	31.22	GM 58771
01-MX-109	2001	388,562	5,438,790	Chimitec Ltd, IOS Services Geoscientific Inc, Arianne Resources Inc.	360	90	32.21	GM 58771
01-MX-110	2001	388,138	5,438,812	Chimitec Ltd, IOS Services Geoscientific Inc, Arianne Resources Inc.	360	90	25.00	GM 58771
01-MX-111	2001	390,182	5,440,581	Chimitec Ltd, IOS Services Geoscientific Inc, Arianne Resources Inc.	999	90	15.10	GM 58771
01-MX-112	2001	388,926	5,438,929	Chimitec Ltd, Arianne Resources Inc.	265	65	34.75	GM 60177
01-MX-113	2001	388,623	5,438,824	Chimitec Ltd, Arianne Resources Inc.	360	90	41.45	GM 60177

Table 6.1
Mirepoix Showing Historical Drilling

Drill Hole ID	Year	Easting	Northing	Company	Azimuth (deg)	Dip (deg)	Length (m)	Report
01-MX-114	2001	388,794	5,439,012	Chimitec Ltd, Arianne Resources Inc.	265	65	37.80	GM 60177
01-MX-115	2001	388,906	5,439,003	Chimitec Ltd, Arianne Resources Inc.	265	65	37.80	GM 60177
01-MX-116	2001	388,905	5,439,061	Chimitec Ltd, Arianne Resources Inc.	265	65	35.05	GM 60177
01-MX-117	2001	388,879	5,438,924	Chimitec Ltd, Arianne Resources Inc.	265	65	32.00	GM 60177
01-MX-118	2001	388,752	5,438,541	Chimitec Ltd, Arianne Resources Inc.	170	55	34.75	GM 60177
01-MX-119	2001	388,770	5,438,597	Chimitec Ltd, Arianne Resources Inc.	170	55	49.38	GM 60177
01-MX-120	2001	388,750	5,438,492	Chimitec Ltd, Arianne Resources Inc.	170	55	30.48	GM 60177
01-MX-121	2001	388,799	5,438,773	Chimitec Ltd, Arianne Resources Inc.	360	90	30.05	GM 60177
01-MX-122	2001	388,904	5,438,873	Chimitec Ltd, Arianne Resources Inc.	265	65	39.62	GM 60177
01-MX-123	2001	388,795	5,438,837	Chimitec Ltd, Arianne Resources Inc.	360	90	32.31	GM 60177
01-MX-124	2001	388,582	5,438,875	Chimitec Ltd, Arianne Resources Inc.	360	90	35.36	GM 60177

Source: *SIGEOM online database www.sigeom.mines.gouv.qc.ca (August 15, 2022)*

TABLE 6.2
2001 MIREPOIX DRILL PROGRAM SELECTED MINERALIZED INTERSECTIONS

Drill Hole ID	From (m)	To (m)	Length (m)	TiO_2 (%)	P_2O_5 (%)	Source Report
01-MX-102	2.46	7.47	5.01	2.81	1.98	GM 58771
01-MX-102	8.45	27.44	18.99	4.60	3.03	GM 58771
01-MX-102	2.46	27.44	24.98	4.14	2.74	GM 58771
01-MX-104	3.40	8.22	4.82	4.18	2.83	GM 58771
01-MX-104	8.22	14.50	6.28	7.76	3.86	GM 58771
01-MX-104	3.40	14.50	11.10	6.21	3.41	GM 58771
01-MX-105	0.68	13.39	12.71	5.06	3.47	GM 58771
01-MX-105	13.95	16.43	2.48	3.62	2.45	GM 58771
01-MX-105	16.43	20.33	3.90	4.99	3.26	GM 58771
01-MX-105	20.33	25.81	5.48	2.80	2.06	GM 58771
01-MX-105	0.68	25.81	25.13	4.31	2.95	GM 58771
01-MX-106	2.75	25.85	23.10	4.34	3.64	GM 58771
01-MX-107	0.18	0.66	0.48	22.79	0.12	GM 58771
01-MX-108	2.03	9.89	7.86	7.91	1.57	GM 58771
01-MX-108	11.87	17.72	5.85	8.15	4.36	GM 58771
01-MX-108	11.87	20.99	9.12	12.31	2.98	GM 58771
01-MX-108	22.99	30.35	7.36	8.46	0.42	GM 58771
01-MX-108	2.03	31.22	29.19	8.11	1.56	GM 58771
01-MX-109	4.20	14.15	9.95	17.42	0.76	GM 58771
01-MX-109	7.00	14.15	7.15	19.98	0.39	GM 58771
01-MX-109	14.15	20.10	5.95	7.76	0.52	GM 58771
01-MX-109	4.20	20.10	15.9	13.80	0.67	GM 58771
01-MX-112	31.34	37.80	6.46	13.91	1.53	GM 60177
01-MX-113	13.50	16.50	3.00	4.17	3.95	GM 60177
01-MX-113	16.50	20.37	3.87	14.62	1.53	GM 60177
01-MX-113	13.50	20.37	6.87	10.06	2.59	GM 60177
01-MX-114	5.50	20.50	15.00	4.42	3.39	GM 60177
01-MX-115	1.22	6.50	5.28	3.04	2.54	GM 60177
01-MX-113	16.22	19.45	3.23	13.9	0.59	GM 60177
01-MX-116	12.67	13.82	1.15	11.8	0.63	GM 60177
01-MX-113	19.00	24.00	5.00	8.59	0.61	GM 60177
01-MX-113	12.67	24.00	11.33	5.13	0.42	GM 60177
01-MX-117	4.57	7.60	3.03	13.93	1.23	GM 60177
01-MX-113	19.48	20.48	1.00	6.21	0.72	GM 60177
01-MX-118	2.74	17.50	14.76	18.09	0.22	GM 60177
01-MX-119	27.00	28.00	1.00	4.76	3.66	GM 60177
01-MX-113	42.34	45.84	3.50	4.83	4.15	GM 60177

TABLE 6.2 2001 MIREPOIX DRILL PROGRAM SELECTED MINERALIZED INTERSECTIONS						
Drill Hole ID	**From (m)**	**To (m)**	**Length (m)**	**TiO_2 (%)**	**P_2O_5 (%)**	**Source Report**
01-MX-122	22.00	25.00	3.00	4.88	1.71	GM 60177
01-MX-113	23.00	24.00	1.00	8.09	1.39	GM 60177
01-MX-113	29.00	36.00	7.00	7.68	3.53	GM 60177
01-MX-113	35.00	36.00	1.00	26.11	0.65	GM 60177
01-MX-113	22.00	36.00	14.00	5.29	2.44	GM 60177
01-MX-123	0.00	4.00	4.00	28.42	0.53	GM 60177

Sources: *GM 58771 (2001) and GM 60177 (2003)*
Note: *TiO_2 = titanium dioxide, P_2O_5 = phosphorus pentoxide.*

During the fall of 2000 and the spring of 2001, 45 trenches were excavated by Arianne on various mineralized horizons and 11 drill holes (01-MX-101 to 01-MX-111) totalling 290 m were completed (GM 58771) (see Figure 6.1 and Table 6.1). The drilling intersected two oxide-bearing gabbronorite units. The best intersections of the first unit returned 2.74% P_2O_5 and 4.14% TiO_2 over 24.98 m, 3.41% P_2O_5 and 6.21% TiO_2 over 11.10 m, 2.95% P_2O_5 and 4.31% TiO_2 over 25.13 m, and 3.64% P_2O_5 and 4.34% TiO_2 over 23.10 m (see Table 6.2). In the second gabbronorite unit, the best intersections were 8.11% TiO_2 over 29.19 m and 13.80% TiO_2 over 15.90 m.

A ground magnetic survey was carried over the claims in January 2001 (GM 58773). During the fall of 2001, four areas were mechanically stripped to better understand the attitude of the mineralization and 13 drill holes (01-MX-112 to 01-MX-124) were completed for a total of 470.8 m (GM 60177) (Figure 6.2 and Table 6.1). The best intersections of this drill program were 3.39% P_2O_5 and 4.42% TiO_2 over 15.0 m and 2.44% P_2O_5 and 5.29% TiO_2 over 14.0 m (see Table 6.2).

In 2012, Arianne flew an airborne magnetic survey over the Mirepoix claims (GM 66603). Finally, in 2013, Arianne collected 22 samples on the northeast part of the claims, of which three returned grades of 2.55%, 3.35% and 5.07% P_2O_5 associated with 3.68%, 6.08% and 7.63% TiO_2, respectively.

In 2013, Ressources Jourdan conducted a geological reconnaissance survey and took 89 samples, of which 56 were assayed (GM 68316). Samples taken on the Willie Phosphate Showing, approximately 30 km west of the Lac à l'Orignal Showing, returned values between 4.0% and 6.6% P_2O_5. A magnetic survey completed at the same time indicated that the lithological unit from which the Willie sample was taken was 2,800 m long and 450 m wide.

6.1.2 Glen Eagle Resources 2011 to 2022

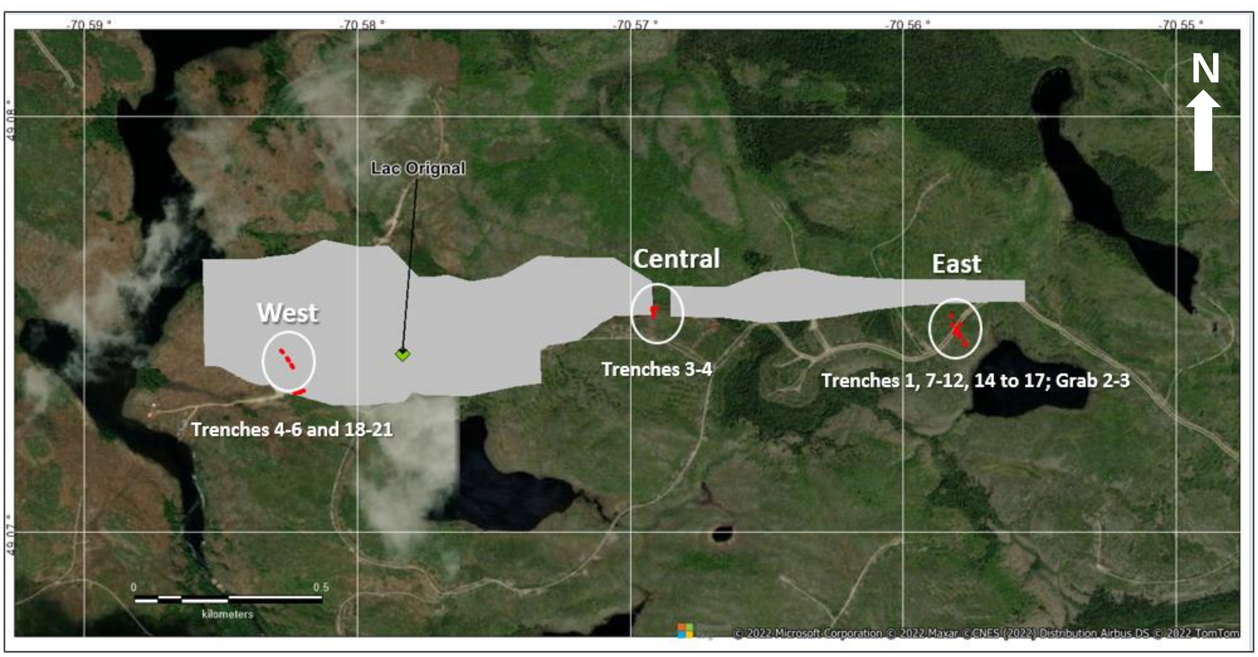
In 2011, Glen Eagle confirmed the historical assay results by Tremblay and acquired the Lac à l'Orignal Showing claims.

In 2012, a surface prospecting program discovered the Lac Vanel occurrence, approximately 2 km north of the Lac à l'Orignal Showing, with grades of up to slightly >5% P_2O_5. Following this discovery, Glen Eagle completed a three-phase drilling program in 2012 at the Lac à l'Orignal and Lac Vanel Showings. A total of 43 drill holes totalling 4,611.5 m allowed the definition of a phosphate mineral (apatite) deposit within a ferrous-gabbro host unit measuring more than 1 km long and approximately 50 m to 70 m thick. This unit strikes east-west and dips approximately 30° north. The 2012 drilling program is described in more detail in Section 10 of this Report.

In 2014, Glen Eagle completed a second drill program consisting of 19 new drill holes and deepening of 11 drill holes from the 2012 drill program. The total amount of drilling in the 2014 program was 3,330 m (GM 69925). The 2014 drilling program is described in more detail in Section 10 of this Report. In addition to the drilling, Glen Eagle excavated 21 trenches on the Lac à l'Orignal Showing area for channel sampling.

In late-2014, 21 trenches were excavated and channel-sampled by Glen Eagle in the Lac à l'Orignal Showing area. The locations of the trenches/channels are presented in Figure 6.3. Trench/channel orientations and lengths are given in Table 6.3 and assay results are summarized in Table 6.4. The best mineralized intervals were 4.38% P_2O_5 over 12.0 m and 5.86% P_2O_5 over 7.5 m in R-2, 4.84% P_2O_5 over 9 m in R-4, and 5.02% P_2O_5 over 7.5 m in R-5. The trench/channel results in the West and Central sectors of the Lac à l'Orignal Showing area (Figure 6.3) are incorporated into the current Mineral Resource Estimate presented in Section 14 of this Report.

FIGURE 6.3 LAC À L'ORIGNAL 2014 TRENCH/CHANNEL LOCATIONS



Source: *P&E (September 2022)*
Note: *Lac à l'Orignal phosphate mineralized wireframes = grey.*

Table 6.3 **2014 Trench Channel Location, Length and Orientation Information**						
Trench / Channel	**Easting**	**Northing**	**Elevation (masl)**	**Length (m)**	**Azimuth (deg)**	**Dip (deg)**
R1-A	386,208	5,436,939	599.3	1.5	40.0	0.0
R1-B	386,209	5,436,944	599.1	1.5	40.0	0.0
R1-C	386,213	5,436,949	599.5	1.5	40.0	0.0
R1-D	386,215	5,436,951	599.2	1.5	40.0	0.0
R1-E	386,223	5,436,960	597.3	1.5	40.0	0.0
R-2	385,402	5,437,000	610.4	21.0	0.0	0.0
R-3	385,404	5,437,021	606.9	10.0	90.0	0.0
R-4, R-5, R-6[1]	385,418	5,437,100	616.6	55.5	330.0	0.0
R-7 to R-12[2]	386,236	5,436,910	597.2	43.5	147.0	0.0
R-14	387,208	5,436,950	580.0	1.5	330.0	0.0
R-15	386,206	5,436,956	600.2	1.5	330.0	0.0
R-16	386,201	5,436,964	600.1	1.5	360.0	0.0
R-17	386,201	5,436,982	598.7	1.5	360.0	0.0
R-18	384,463	5,436,820	602.1	1.5	250.0	0.0
R-19	384,455	5,436,817	600.7	1.5	250.0	0.0
R-20	384,449	5,436,816	600.1	1.5	250.0	0.0
R-21	384,440	5,436,814	598.9	1.5	250.0	0.0

Source: *Gilles Laverdière (August 2022)*
[1] Channels 4 to 6 listed together as sampling was done discontinuously along the same line.
[2] Channels 7 to 12 listed together as sampling was done discontinuously along the same line.

Table 6.4 **2014 Trench Channel Assays and Intersections**							
Trench / Channel	**Sample**	**From (m)**	**To (m)**	**Length (m)**	**P_2O_5 (%)**	**Interval P_2O_5 (%)**	**Interval (m)**
R1-A	E5198567	0.00	1.50	1.50	3.85		
R1-B	E5198568	0.00	1.50	1.50	4.01		
R1-C	E5198569	0.00	1.50	1.50	4.15		
R1-D	E5198570	0.00	1.50	1.50	3.58		
R1-E	E5198571	0.00	1.50	1.50	1.47		
R-2	E5198510	0.00	1.50	1.50	3.67	4.38	12.00
R-2	E5198511	1.50	3.00	1.50	3.91		
R-2	E5198512	3.00	4.50	1.50	4.02		
R-2	E5198513	4.50	6.00	1.50	3.76		
R-2	E5198514	6.00	7.50	1.50	4.04		

TABLE 6.4
2014 TRENCH CHANNEL ASSAYS AND INTERSECTIONS

Trench / Channel	Sample	From (m)	To (m)	Length (m)	P_2O_5 (%)	Interval P_2O_5 (%)	Interval (m)
R-2	E5198515	7.50	9.00	1.50	4.53		
R-2	E5198516	9.00	10.50	1.50	5.40		
R-2	E5198517	10.50	12.00	1.50	5.69		
R-2	E5198518	12.00	13.50	1.50			
R-2	E5198519	13.50	15.00	1.50	5.99		
R-2	E5198520	15.00	16.50	1.50	6.37		
R-2	E5198521	16.50	18.00	1.50	6.36	5.86	7.50
R-2	E5198522	18.00	19.50	1.50	5.73		
R-2	E5198523	19.50	21.00	1.50	4.87		
R-3A	E5198524	1.50	3.00	1.50	5.75	5.50	3.00
R-3A	E5198525	3.00	4.50	1.50	5.24		
R-3B	E5198526	7.00	8.50	1.50	2.15	1.49	3.00
R-3B	E5198527	8.50	10.00	1.50	0.83		
R-4	E5198528	0.00	1.50	1.50	4.71		
R-4	E5198529	1.50	3.00	1.50	4.93		
R-4	E5198530	3.00	4.50	1.50	4.80	4.84	9.00
R-4	E5198531	4.50	6.00	1.50	4.78		
R-4	E5198532	6.00	7.50	1.50	4.77		
R-4	E5198533	7.50	9.00	1.50	5.03		
R-5	E5198534	22.50	24.00	1.50	3.96		
R-5	E5198535	24.00	25.50	1.50	4.48		
R-5	E5198536	25.50	27.00	1.50	5.60	5.02	7.50
R-5	E5198537	27.00	28.50	1.50	5.38		
R-5	E5198538	28.50	30.00	1.50	5.67		
R-6	E5198539	50.00	51.50	1.50	4.69		
R-6	E5198540	51.50	53.00	1.50	4.89	4.86	5.50
R-6	E5198541	53.00	54.50	1.50	4.80		
R-6	E5198542	54.50	55.50	1.00	5.18		
R-7	E5198543	0.00	1.50	1.50	3.40		
R-8	E5198544	5.00	6.50	1.50	3.88	3.88	3.00
R-8	E5198545	6.50	8.00	1.50	3.77		

Table 6.4 **2014 Trench Channel Assays and Intersections**							
Trench / Channel	**Sample**	**From (m)**	**To (m)**	**Length (m)**	**P_2O_5 (%)**	**Interval P_2O_5 (%)**	**Interval (m)**
R-9	E5198546	11.00	12.50	1.50	3.61	3.62	3.00
R-9	E5198547	12.50	14.00	1.50	3.62		
R-10	E5198548	17.50	19.00	1.50	3.42		
R-11	E5198549	36.00	37.50	1.50	3.39		
R-12	E5198550	42.00	43.50	1.50	3.41		
R-14	E5198553	8.00	9.50	1.50	3.59		
R-15	E5198554	14.50	16.00	1.50	3.70		
R-16	E5198555	21.00	22.50	1.50	3.32		
R-17	E5198556	39.00	40.50	1.50	7.10		
R-18	E5198563	0.00	1.50	1.50	4.12		
R-19	E5198564	0.00	1.50	1.50	6.00		
R-20	E5198565	0.00	1.50	1.50	4.25		
R-21	E5198566	0.00	1.50	1.50	0.41		

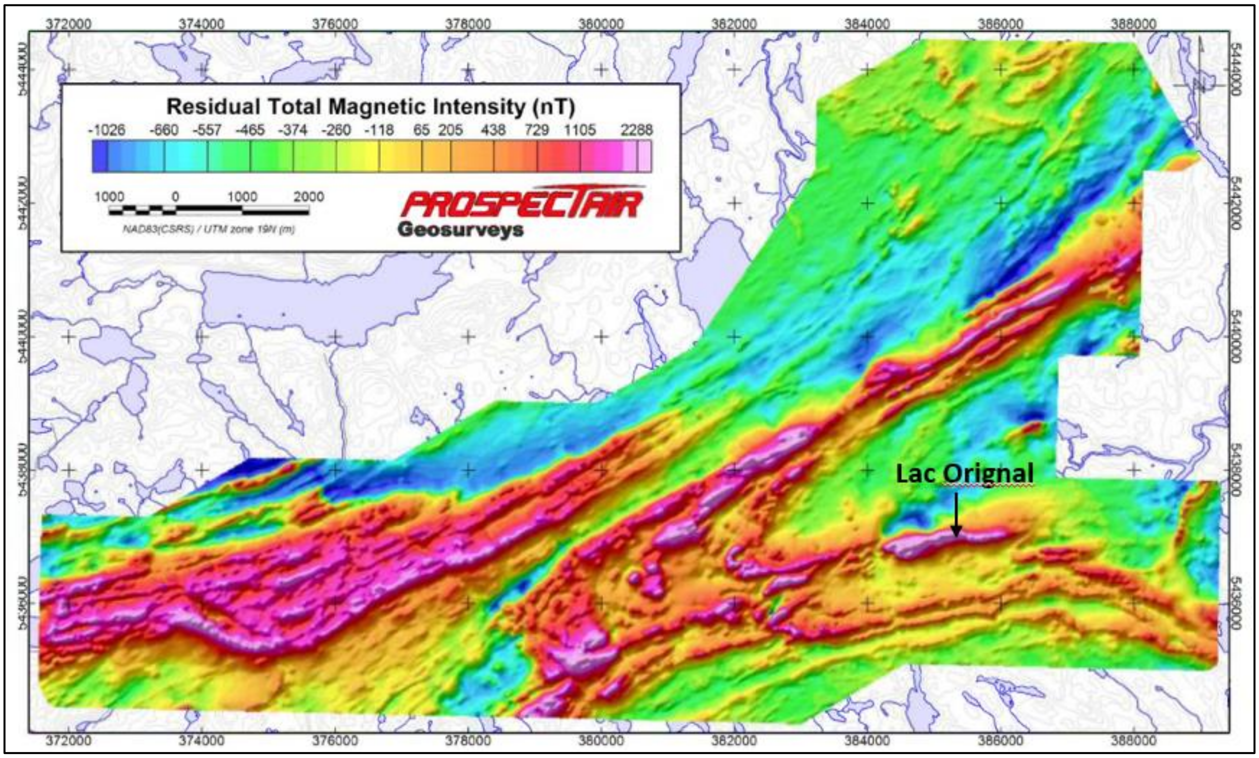
Source: *Gilles Laverdière (August 2022)*
Note: *P_2O_5 = phosphorus pentoxide.*

In 2015, Glen Eagle commissioned a high-resolution helicopter-borne magnetic survey by PROSPECTAIR (GM 69003). A total of 2,126 line-km was flown on a line spacing of 75 m over the Lac à l'Orignal and Itouk South and North Properties (Figure 6.4). The oxide gabbro host unit of the Lac à l'Orignal Showing is clearly evident on a Total Magnetic Intensity Image (Figure 6.5).

FIGURE 6.4 2015 HELICOPTER-BORNE MAGNETIC SURVEY

Source: *GM 69003 (2012)*
Note: *Map grid coordinates are NAD83 datum, UTM projection Zone 19N.*

FIGURE 6.5 2015 LAC À L'ORIGNAL TOTAL MAGNETIC INTENSITY IMAGE



Source: *GM 69003 (2012)*
Note: *Map grid coordinates are NAD83 datum, UTM projection Zone 19N.*

In 2017, a field visit on the Itouk Lake area revealed the presence of apatite-bearing ferrogabbro containing up to 10% apatite (GM 70336).

In 2020, a group of prospectors discovered an additional phosphate showing in the Mirepoix area to the north-northeast of Lac à l'Orignal (GM 72578). A channel sample returned 8% P_2O_5 over 2 m in nelsonite. Another phosphate occurrence was discovered to the north of Lake Luc, where 2% P_2O_5 over 2 m was obtained for a channel sample. Glen Eagle acquired the Mirepoix area claims in April 2022.

6.2 GEOSCIENTIFIC WORK BY THE QUÉBEC GOVERNMENT (1965 TO 2020)

The area was first mapped as part of the Grenville Project from 1965 to 1967, at a scale of 1:253,440 (DP 126 and RG 161). In 1986, a lake-bottom sediment sampling program covering the Saguenay-Lac-Saint-Jean area was completed and the samples were analyzed for Co, Cu, Fe, Mn, Mo, Pb, Ni, U and Zn (DP 86-34). No anomalies were found on the Lac à l'Orignal Property, however, Fe and Zn anomalies were discovered nearby.

The most recent geological report covering the Lac à l'Orignal Property was published in 2003 under the direction of Claude Hébert (RG 2002-13 and RG 2009-01), in which Fe-Ti-P were first reported on the Property and throughout the area. 12 mineralized showings were listed, of which 10 returned 2.85 to 7.39% P_2O_5 in oxide-bearing mafic rocks, whereas the two other showings returned high values of Fe and Ti. In 2010, the Property area was subject to a new lake-bottom sediment sampling program and the samples were analyzed for Cu, La, Li, Nb, Ni and U (PRO 2011-01). No distinct anomalies were identified. An airborne magnetic survey was flown in 2015 (DP 2015-04). In 2020, the Québec Government commissioned an airborne magnetic and radiometric survey encompassing the south part of the Property (DP 2021-04).

The reader is cautioned that the preceding historical assays have not been verified, due to the original source data are not available to the Authors.

6.3 HISTORICAL RESOURCE ESTIMATES

No historical resource estimates have been undertaken for the Lac à l'Orignal Property.

6.4 MINERAL RESOURCE ESTIMATES

No prior Mineral Resource Estimates have been undertaken for the Lac à l'Orignal Property.

6.5 PAST PRODUCTION

The Lac à l'Orignal Deposit has never been mined.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

The information in this section of the Report is summarized largely from RP200901 and Laverdière (2016).

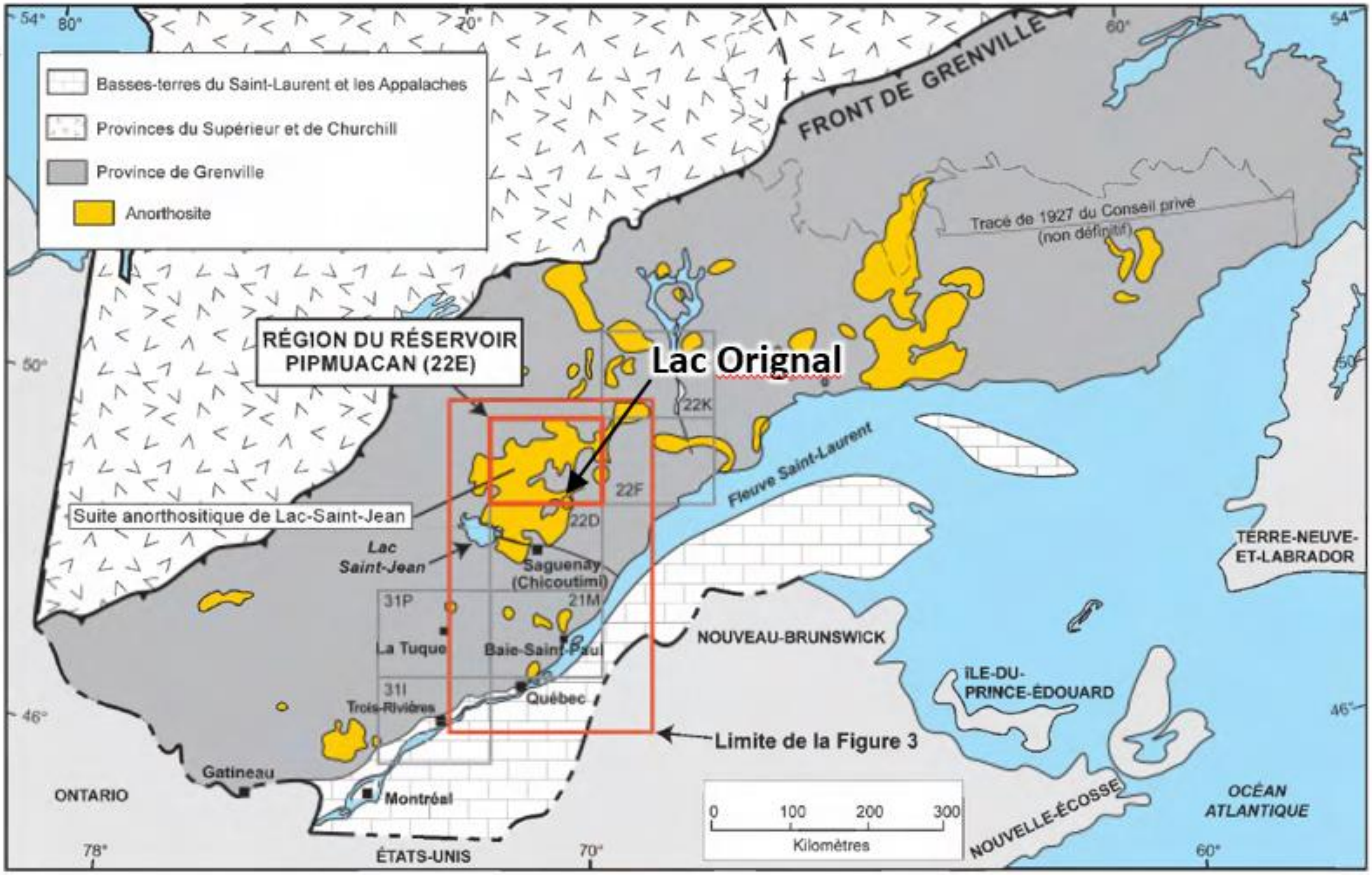
7.1 REGIONAL GEOLOGY

Geologically, the Lac à l'Orignal region is situated in the Pipmuacan Reservoir region of the Mesoproterozoic Grenville Province (Higgins and Breemen, 1992) (Figure 7.1). Many geological units have been defined here (Figure 7.2). Three of these units correspond to anorthosite-mangerite-charnockite-granite ("AMCG") suites. The AMCG suite rocks host the apatite mineralization at the Lac à l'Orignal Property (Figure 7.3). The AMCG suites are the Lac-Saint-Jean Anorthositic Suite ("LSJAS"; 1160 Ma to 1135 Ma), the Pipmuacan Anorthositic Suite (1082 Ma to 1045 Ma), and the Valin Anorthositic Suite (1016 Ma to 1008 Ma; Figures 7.2 and 7.3).

Three major northeast to southwest-trending deformation zones affect the region. These deformation zones form km-wide corridors and have been traced for several tens of km along strike (Figures 7.2 and 7.3). The Deformation Zone of Saint-Fulgence ("ZDSF") consists of several thrust faults that trend along the southeastern edge of LSJAS (Hébert *et al.,* 1998; Hébert and Lacoste, 1998a, 1998b; Daigneault *et al.*, 1999; Figure 7.3). The Deformation Zone of Chute-des-Passes ("ZDCP") corresponds to a thrust fault that trends along the northwest edge of the LSJAS (Hebert and Beaumier, 2000b). The Deformation Zone de Pipmuacan ("ZDP") is a strike-slip, generally dextral fault (Hébert 1991, 1999; Figure 7.3). North-northeast trending, sinistral strike-slip faults intersect these three deformation zones. Lastly, a series of late, northwest-trending normal faults, limited to the south-west corner of the region, are associated with formation of the Graben du Saguenay (Figure 7.3).

The region has mineralized occurrences of apatite, iron, titanium, vanadium and nickel-copper sulphide mineralization associated with the AMCG suites. In the supracrustal Sequence of Saint-Onge (Figure 7.2), there is a significant wollastonite deposit and some small zinc showings. Anorthositic rocks and some granitic intrusions could be exploited as architectural stone. Finally, dolomitic marbles and an amazonite pegmatite dyke also provide potential as decorative stone.

FIGURE 7.1 LAC À L'ORIGNAL REGIONAL GEOLOGICAL SETTING



Source: *Hébert et al. (2009)*
Note: *The Lac à l'Orignal Property is located in the Pipmuacan Reservoir Region (22E).*

FIGURE 7.2 LAC À L'ORIGNAL – GEOCHRONOLOGICAL AND STRUCTURAL SETTING

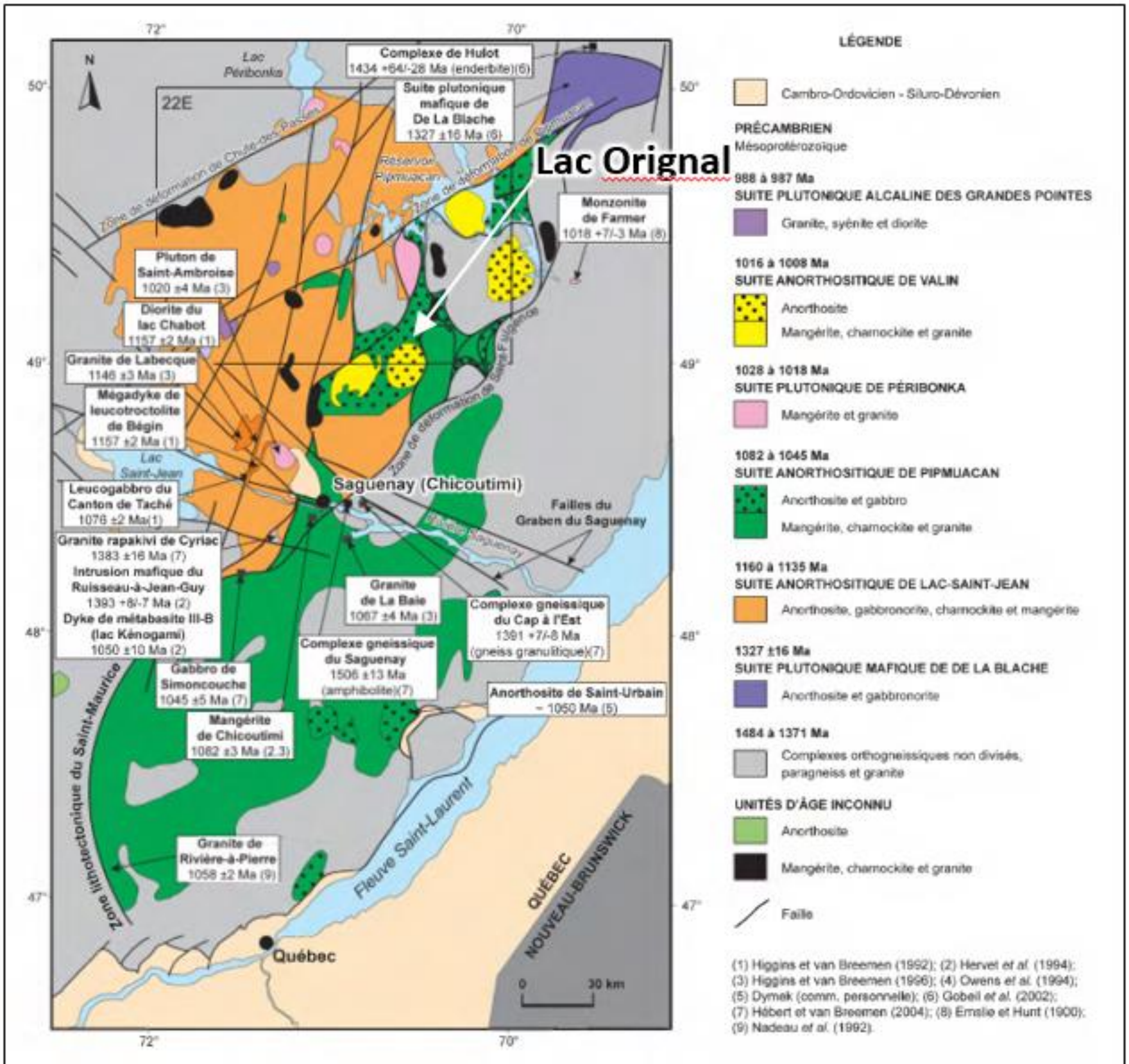


FIGURE 3 – Distribution des principaux ensembles géologiques de la partie centrale de la Province de Grenville. Localisation approximative des échantillons utilisés pour la datation des unités régionales.

Source: *Hébert et al. (2009)*

FIGURE 7.3 LAC À L'ORIGNAL AREA LOCAL GEOLOGY

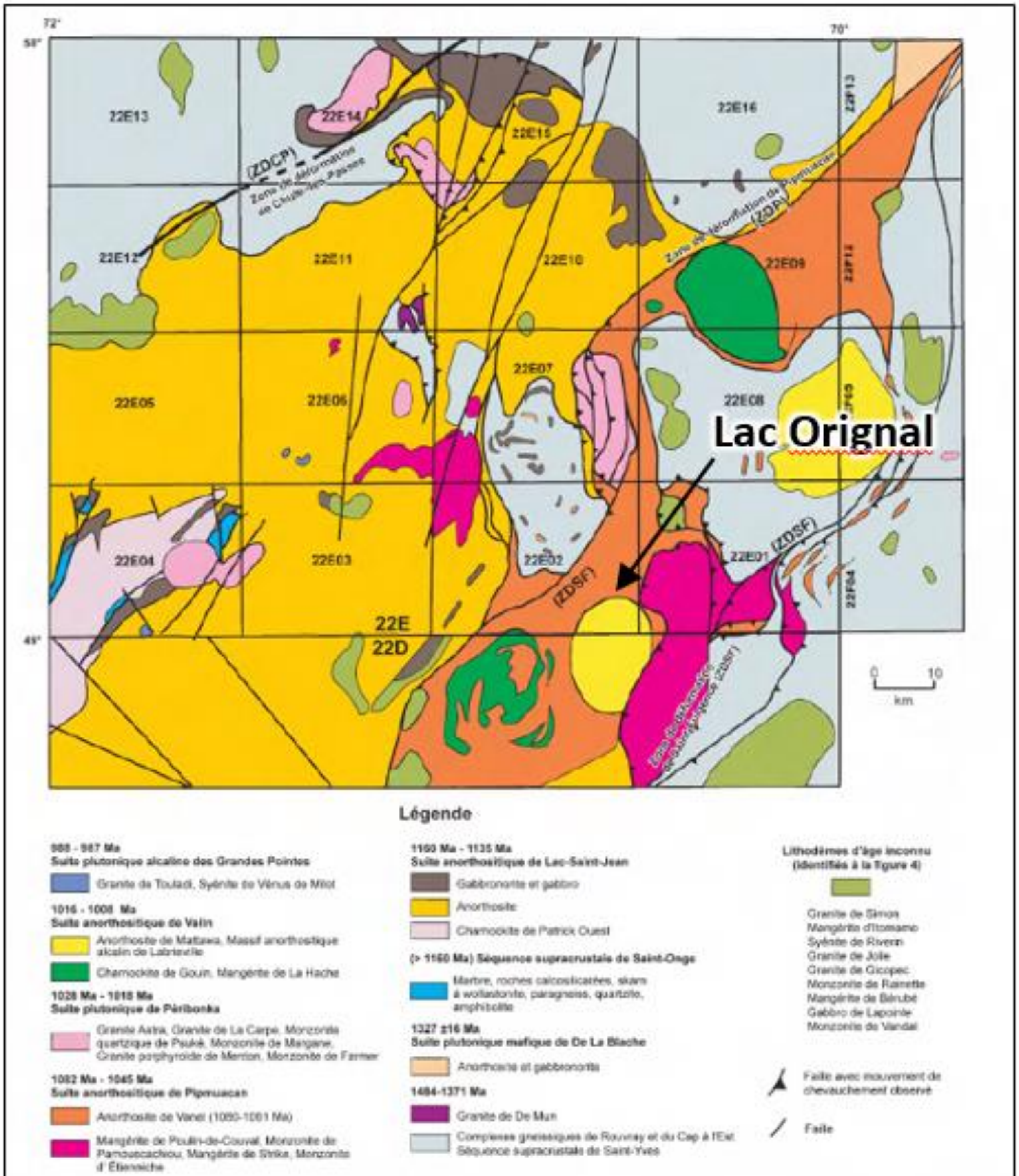


FIGURE 2 – Carte géologique simplifiée de la région du réservoir Pipmuacan (22E) et d'une partie des feuillets limitrophes 22D et 22F. Les levés géologiques réalisés à l'échelle du 1/63 360 ou du 1/50 000 sont : **1)** Hébert et Cadieux (2003), feuillets 22E01 et 22E02; **2)** Hébert et Cadieux (non publié), feuillets 22E03 et 22E06; **3)** Gervais (1993), feuillet 22E04; **4)** Kehlenbeck (1970, 1977), feuillet 22E07; **5)** Anderson (1962, 1963a), feuillet 22E08; **6)** Lacasse (1962), Hocq (1978) et Hébert et Cadieux (non publié), feuillet 22E/09; **7)** Hébert (2001), feuillet 22E10; **8)** Hébert (2002), feuillet 22E/11; **9)** Hébert et Cadieux (non publié), feuillet 22E12 et partie ouest de 22E14; **10)** Hébert et Beaumier (2000b), partie est du feuillet 22E14 et **11)** Hébert et Beaumier (2000a), feuillet 22E15.

Source: *Hébert et al. (2009)*

7.2 LOCAL GEOLOGY

Anorthosites in the Lac à l'Orignal region are part of the Proterozoic Lac-Saint-Jean Anorthosite ("LSJA") Complex (see Figure 7.3).

7.2.1 The Lac-Saint-Jean Anorthositic Suite

The Lac-Saint-Jean Anorthositic Suite ("LSJAS") constitutes the main intrusive body of the Lac à l'Orignal Property. It is found on the western part of the Lac à l'Orignal Property with interbedded granite and oxide-bearing gabbronorite.

The LSJAS has been divided into two major lithofacies. The first lithofacies is represented by mafic to ultramafic rocks and constitutes the bulk of the LSJAS. The second, much less important lithofacies, corresponds to intermediate to felsic rocks. The lithologies that constitute the mafic and ultramafic rocks are mainly anorthosite and minor amounts of leuconorite, norite, troctolite, gabbronorite, olivine gabbro, gabbro, pyroxenite, peridotite, dunite, magnetitite and nelsonite (rock type dominated by ilmenite and apatite), and rare charnockite–mangerite units (Hébert *et al.*, 2005). The anorthosite plutons are composed mainly of plagioclase with variable amounts of pyroxene and olivine, which makes it difficult to delineate the borders of the individual plutons in the field (Higgins *et al.,* 2002).

The LSJAS had formerly been mapped to be more extensive. However, its area has been substantially reduced due to new geochronological data, which have made it possible to define two new anorthositic suites that are distinct and younger than the LSJAS: 1) the Pipmuacan Anorthositic Suite (1082 Ma to 1045 Ma); and 2) the Valin Anorthositic Suite (1016 Ma to 1008 Ma).

7.2.2 The Pipmuacan Anorthositic Suite

Isotopic dating has defined an AMCG-type (anorthosite-mangerite-charnokite-granite) magmatic event that occurred approximately 50 Ma following the emplacement of the LSJAS, which is the Pipmuacan Anorthositic Suite ("PAS"), emplaced between 1080 Ma and 1059 Ma. The PAS unit covers >50% of the Lac à l'Orignal Property and occupies its core.

The PAS contains five units: the Vanel Anorthosite, Poulin-de-Courval Mangerite**,** Strike Mangerite, Pamouscachiou Monzonite, and the Étienniche Monzonite. The Vanel Anorthosite and the Poulin-de-Courval Mangerite of the PAS are described below.

7.2.1.1 The Vanel Anorthosite Suite

The Vanel Anorthosite Suite is comprised of anorthosite, leuconorite and norite, which are distinguished from the LSJAS rocks by the pink colour of plagioclase and a much more common coronitic texture. The composition of plagioclase is generally labradorite. There is also plagioclase of andesine composition in apatite-enriched anorthosites. The composition of this plagioclase allows assignment of these lenses to the Vanel Anorthosite Suite.

The Vanel Anorthosite Suite has been subdivided into two major units. One consists almost exclusively of pink plagioclase anorthosite and leuconorite. In places, textures indicative of coalescing mixtures of anorthosite and leuconorite magmas are observed. The second unit has been divided into several facies. The main facies consist of leuconorite, anorthosite, leucotroctolite, norite and gabbronorite, with coronitic texture and pink plagioclase. There are also sections of rocks of intermediate, mafic and ultramafic composition that are enriched in Fe, Ti, P. The other facies are gneissic leuconorite and norite, norite, diorite and some leuconorite, olivine ferrogabbro, gabbronorite with Fe, Ti, P oxides, which are restricted and appear to form subordinate lenses inside the main facies.

7.2.1.2 The Poulin-de-Courval Mangerite

The Poulin-de-Courval Mangerite outcrops in the eastern part of the Lac à l'Orignal Property and extends south into the neighbouring area, where an age of 1068±3 Ma has been determined. This intrusion consists of mangerite, charnockite and granite. Mangerite and charnockite are green and pink, respectively. They are composed of feldspar with a rapakivic texture, which imparts an eye-like appearance when deformed. The granite is pink, fine-grained, and devoid of orthopyroxene.

7.2.3 Valin Anorthositic Suite

This AMCG suite consists of four units found in the southeastern part of the region: 1) the Mattawa Anorthosite; 2) the alkaline anorthositic Massif of Labrieville; 3) La Hache Mangerite; and 4) Gouin Charnockite. These intrusions were emplaced between 1016 Ma and 1008 Ma.

The Mattawa Anorthosite is located to the south of the Lac à l'Orignal Property. An age of 1016±2 Ma was obtained from a gabbronorite sample assigned from its peripheral zone. This circular-shaped pluton is associated with a prominent negative magnetic anomaly.

The core of the Mattawa Anorthosite consists of megaporphyritic and porphyroclastic anorthosite with pink plagioclase and rare leuconorite. The plagioclase of the anorthosite and leuconorite is antiperthitic and generally whitish, however, locally reddish on altered surfaces. On a fresh surface, the colour of the phenocrysts varies from mauve to gray or green, however, always have a pinkish tint. These crystals lie on top of each other or are set in a pink mesostasis composed of medium- to fine-grained granoblastic plagioclase. Ferromagnesian minerals are very rare and consist of pyroxene and biotite. Clusters and lenses of disseminated hemo-ilmenite, cm to dm in size, are also observed locally.

In the anorthosite, the primary bedding is not very well defined. However, there is a primary mineral foliation forming a concentric pattern with an outward dip, which suggests diapiric emplacement. The Mattawa Anorthosite also contains gabbronorite which occurs as conformable horizons along the edge of the pluton or as sills or dykes outside the main body.

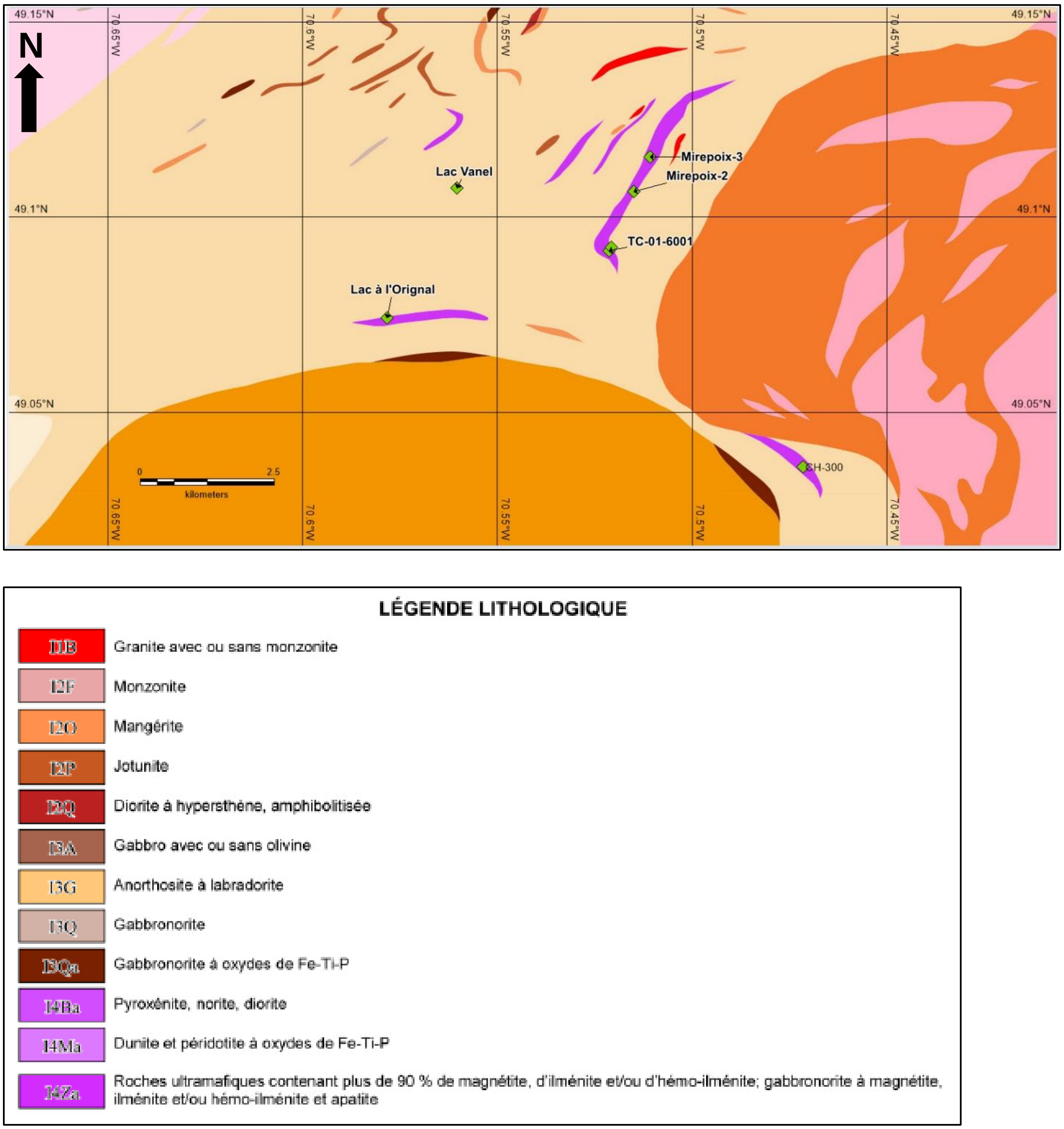
Gabbronorite horizons are dm wide and long, however, more rarely extend for up to a km. They show primary bedding in places and cooling fractures. The gabbronorite is almost always enriched in hemo-ilmenite, magnetite and apatite and massive layers of nelsonite are also present.

The large lenses of massive hemo-ilmenite at Lac à l'Orignal, a few km north of the Mattawa Pluton and within the Vanel Anorthosite, associated with horizons of ultramafic rocks and gabbronorite, are considered to be related to the Mattawa Anorthosite.

7.3 PROPERTY AND DEPOSIT GEOLOGY

A geological map of the Lac à l'Orignal Deposit area is shown in Figure 7.4.

FIGURE 7.4 LAC À L'ORIGNAL AREA GEOLOGY



Sources: *SIGEOM online database www.sigeom.mines.gouv.qc.ca (August 2022); Legend: RP 2009-01*

7.3.1 Lac Vanel Anorthosite (I3G)

Grey-pink colored rock is generally non-magnetic (local slight magnetism), massive with medium and coarse grains. The rock contains 85% to 90% plagioclase, 5% to 10% biotite, and trace to 5% iron oxides (Figures 7.5 and 7.6).

FIGURE 7.5 LAC VANEL ANORTHOSITE (LOWER TWO ROWS OF CORE)

Source: *GM 69925 (2016)*

FIGURE 7.6 LAC VANEL ANORTHOSITE (FRESH CUT)

Source: *GM 69925 (2016)*

7.3.2 Gabbroic Anorthosite (I3H)

This unit closely resembles anorthositic gabbro. However, the gabbroic anorthosite contains less ferromagnesian and iron oxide minerals. Virtually no apatite is observed and the rock very closely resembles an anorthosite. This unit is relatively minor in occurrence. Generally, the description was either an anorthosite (thus >90% plagioclase) or an anorthositic gabbro (Figures 7.7 and 7.8).

FIGURE 7.7 GABBROIC ANORTHOSITE WITH LITTLE APATITE

Source: *GM 69925 (2016)*

FIGURE 7.8 GABBROIC ANORTHOSITE (FRESH CUT)

Source: *GM 69925 (2016)*

The following photograph (Figure 7.9) represents a weakly deformed and metamorphosed gabbroic anorthosite, since the plagioclase grains are coarse and retain their mauve-coloured tint. Green pyroxenes are also present, and the rock is non-magnetic.

FIGURE 7.9 ANORTHOSITE/LEUCOGABBRO WITH PRESERVED PYROXENE

Source: *GM 69925 (2016)*
Description: *The photograph is of the 6 m to 9 m interval of drill hole LO-12-28.*

7.3.3 Anorthositic Gabbro (I3I)

This lithology is common in the Lac à l'Orignal area. Although the rock has been named anorthositic gabbro (I3I), fresh surfaces show that it may actually be gabbro (Figures 7.10 and 7.11). Generally, the I3I is a homogeneous, massive and magnetic rock with granoblastic texture, and it can have shear fabric. The percentage of ferromagnesian silicate minerals in the rock is low, however, 10% to 15% iron oxides and 3% to 8% apatite (weighted averages) are present.

FIGURE 7.10 ANORTHOSITIC GABBRO WITH APATITE

Source: *GM 69925 (2016)*

FIGURE 7.11 ANORTHOSITIC GABBRO (FRESH CUT)

Source: *GM 69925 (2016)*

7.3.4 Ferrogabbro with Apatite (I3A; AP; Mg)

Ferrogabbro is a gabbro rich in oxides and ferromagnesian minerals relative to plagioclase (melanogabbro) (Figures 7.12 and 7.13). This rock is a strongly magnetic and very dense. It consists of 35% plagioclase, 25% iron oxides, 20% biotite, 8% to 15% apatite, and 5%

amphibole. Granoblastic, protoclastic and coronitic textures are common around the edges of oxides and amphiboles (metamorphosed pyroxenes). This rock type is the main host of the apatite mineralization at Lac à l'Orignal.

FIGURE 7.12 APATITE RICH FERROGABBRO (WET AND DRY)

Source: *GM 69925 (2016)*
Note: *Ferrogabbro (also referred to as oxide gabbro) is the main host rock type of the Lac à l'Orignal phosphate mineralization.*

FIGURE 7.13 FRESHLY CUT FERROGABBRO (LOW PERCENTAGE OF PLAGIOCLASE)

Source: *GM 69925 (2016)*
Note: *This is the main host rock type of the Lac à l'Orignal phosphate mineralization.*

7.3.5 Syenite (I2D)/Monzonite (I2F)

The syenite is a homogeneous, massive and very weakly magnetic rock. The dark red grains are potassium feldspar (Figures 7.14 and 7.15) and the whitish ones are plagioclase. The presence of quartz seems unlikely, however, previous geologists labelled this lithology monzonite.

FIGURE 7.14 SYENITE / MONZONITE (WET)

Source: *GM 69925 (2016)*

FIGURE 7.15 SYENITE / MONZONITE (FRESH CUT)

Source: *GM 69925 (2016)*

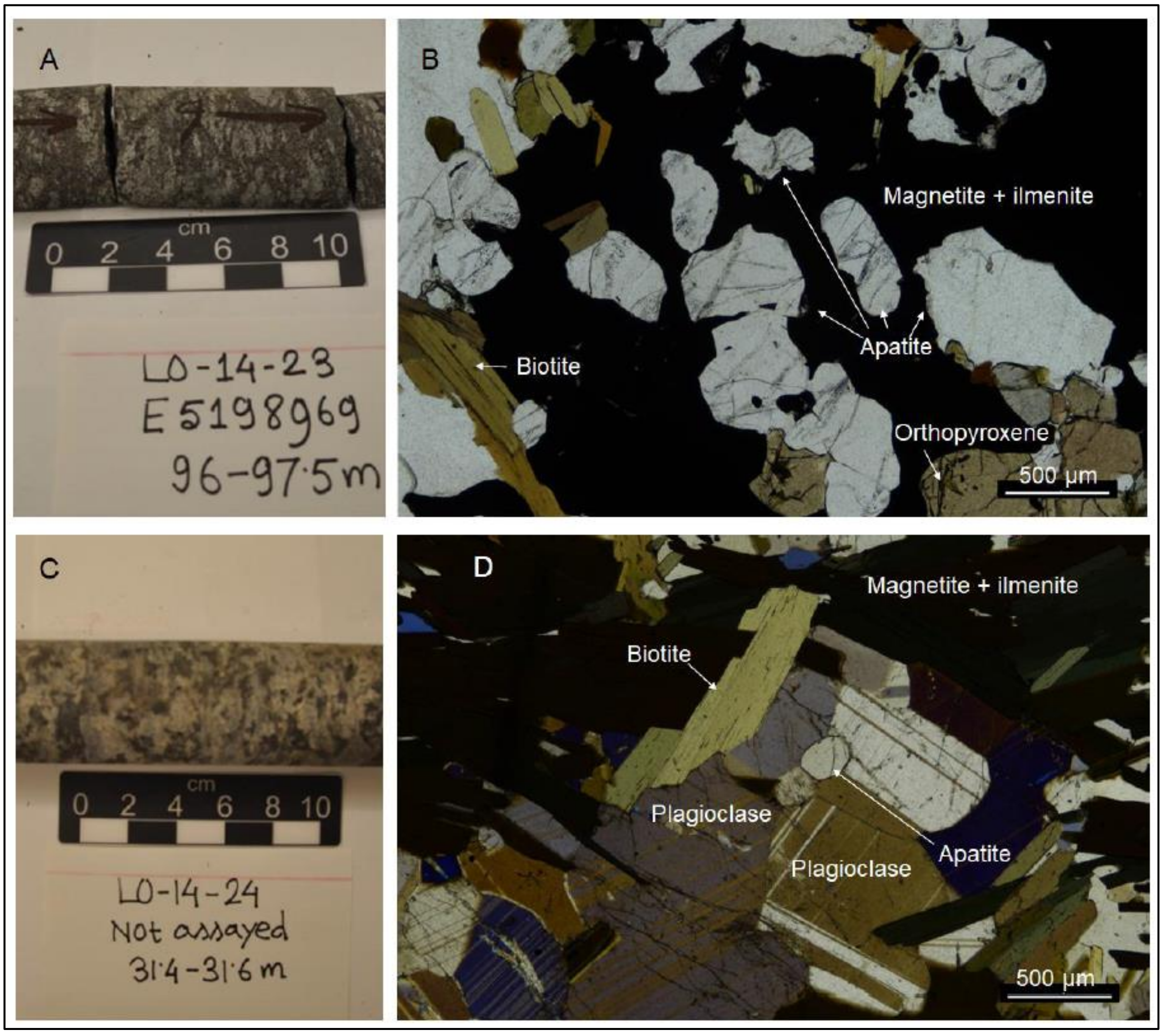
7.4 MINERALIZATION

Phosphate and Fe-Ti mineralization in the Lac à l'Orignal region is restricted to the AMCG suites and associated mainly with anorthositic rocks. Mineralization in the Pipmuacan Anorthositic Suite ("PAS") occurs in the Vanel Anorthosites, particularly along fault or shear zones. Three main types of mineralization have been recognized: 1) Fe-Ti (massive magnetitite) mineralization; 2) Fe-Ti-P mineralization (nelsonite or disseminated oxides); and 3) disseminated apatite (phosphate) mineralization. The Fe-Ti-P and P mineralization is restricted to andesine anorthosites. This type of anorthosite was recognized initially in the LSJAS. Previously, these rocks were considered to be labradorite anorthosites. The recognition of anorthosite, leuconorite and andesine apatite-enriched norite containing 5% to 8% P_2O_5, in the absence of iron and (or) titanium oxides, constituted an important discovery.

The two main mineralized showings on the Lac à l'Orignal Property are the Lac à l'Orignal Showing itself and the Lac Vanel Showing (see Figure 7.4). At the Lac à l'Orignal Showing, phosphate mineralization is located in an oxide gabbro (ultramafic rock I4Za) unit >1 km long and approximately 50 m to 70 m thick. This unit strikes east-west and dips approximately 30° north. The Lac Vanel Showing is situated approximately 2 km north of the Lac à l'Orignal Showing. The mineralization of the Mirepoix Showing is associated with a late-phase of the Mattawa Anorthosite that intruded along fault planes within the Vanel Anorthosite.

The X-ray powder diffraction analysis and petrographic thin section studies of 35 drill core samples from four drill holes (LO-14-02, LO-14-022, LO-14-23 and LO-14-24) from Lac à l'Orignal indicates that these rocks contain mainly plagioclase, orthopyroxene, clinopyroxene, ilmenite, magnetite, apatite, and biotite (Banerjee, 2022) (Figure 7.16). The relative proportion of these minerals varies from one sample to another, such that the host rocks of the apatite mineralization can be gabbro, pyroxenite, norite, nelsonite or anorthosite.

FIGURE 7.16 LAC À L'ORIGNAL APATITE MINERALIZATION



Source: *Banerjee (2022)*
Description: *Core photograph and photomicrographs of representative samples from Lac à l'Orignal.*

(A) *Core photograph showing plagioclase and mafic + oxide mineral-rich zones.*

(B) *Photomicrograph (plane polarized light) from a part of the core (displayed in A) showing distributions of apatite, orthopyroxene, magnetite, ilmenite, and biotite.*

(C) *Core photograph showing dominance of plagioclase over mafic and oxide minerals.*

(D) *Photomicrograph (crossed polarized light) from a part of the core (displayed in C) showing distributions of subhedral plagioclase along with apatite, magnetite, ilmenite, and biotite.*

8.0 DEPOSIT TYPES

Globally, there are two main types of phosphate mineral deposits: 1) igneous rock hosted; and 2) sedimentary rock hosted (Pufahl and Groat, 2017). There are two types of igneous rock hosted phosphate mineral deposits: 1) igneous carbonatite hosted; and 2) igneous massif-type anorthosite hosted. Lac à l'Orignal is an anorthosite massif-hosted phosphate (apatite) mineral deposit. The characteristics of igneous versus sedimentary phosphate mineral deposits are summarized in Table 8.1.

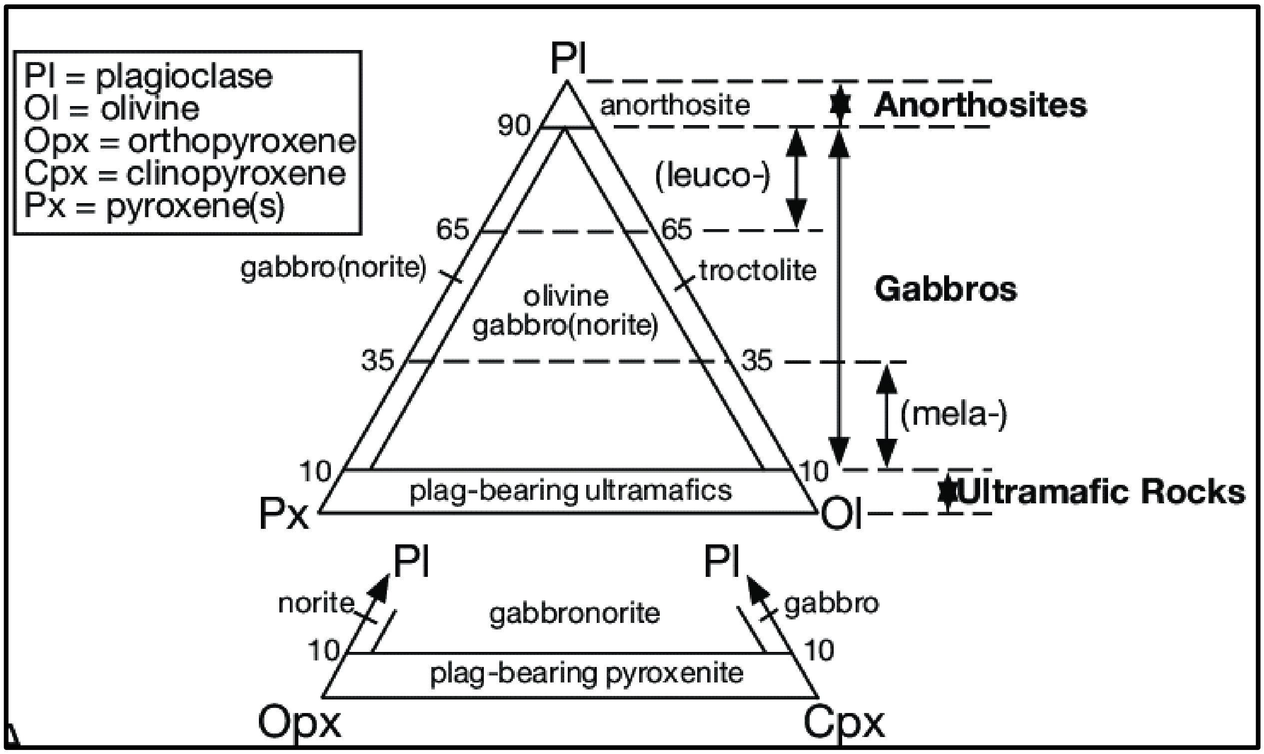
Anorthosites are plutonic igneous rocks that contain 90% to 100% plagioclase and 0% to 10% mafic silicate and (or) oxide minerals (Figure 8.1). The most common mafic minerals present are pyroxene (orthopyroxene and clinopyroxene), olivine, Fe-Ti oxide minerals (e.g., magnetite, ilmenite) and apatite. Plagioclase-rich rocks that contain <90% plagioclase are leucotroctolites, leuconorites, leucogabbros, leucogabbros and leucogabbronorites, depending on the phase and amount of mafic silicate minerals. These rock types are also associated with anorthosite plutons. Apatite and Fe-Ti oxide mineralization commonly occurs within the anorthosite phase or in associated gabbro.

TABLE 8.1
COMPARISON OF IGNEOUS AND SEDIMENTARY HOSTED TYPE OF PHOSPHATE MINERAL DEPOSITS

Characteristic	Igneous Massif-Type Anorthosite	Igneous Carbonatite	Sedimentary
Host Rock	massif-type anorthosite	carbonatite	upwelling -related sedimentary rocks
Distribution	1% of global deposits	5% of global deposits	95% of global deposits
Shape of Deposits	sheets and lenses	veins and lenses	bedded (stratiform)
Rare Earth Elements	low	high	variable
Deleterious Trace Elements	low	low	high
Organic Matter	none	none	high
Phosphate Mineralogy	apatite	apatite	carbonate fluorapatite
Associated Minerals	pyroxene, plagioclase, ilmenite, magnetite	calcite, dolomite, magnetite	quartz, clay minerals, calcite, dolomite
P_2O_5 Content	~5 to 15 wt%	~5 to 15 wt%	~8 to 35 wt%
Source	mantle/crust (~30 to 50 km depth)	mantle (>50 km depth)	upwelling-related organic matter
Mineralization Process	high-temperature crystallization in magma	high-temperature crystallization in magma	phosphate precipitation in accumulating sediment

Source: *First Phosphate Corporate Presentation (October 3, 2022), after Dr. Sandeep Banerjee, Postdoctoral Fellow/Researcher, Queen's University*

FIGURE 8.1 TERNARY DIAGRAM OF GABBROIC ROCKS



Source: *from Banerjee (2022), after Scoates and Mitchell (2000).*

Proterozoic anorthosites form complexes/massifs/batholiths that range in areal extent from tens to 20,000 km^2 and were emplaced in intracratonic settings. The parental magmas of anorthosites are considered to form in the mantle (Ashwal, 1993; Charlier *et al.*, 2010) or in the lower crust (Bédard, 2001). The most generally accepted model involves formation of a basalt magma in the upper mantle, which intrudes the lower crust and fractionates large amounts of mafic minerals that settle in the magma chamber. The co-crystallizing plagioclase crystals float in the residual magma, which ascends farther into the crust and crystallizes as anorthosite complexes (Figure 8.2). Assimilation of crustal material may also drive large amounts of plagioclase crystallization and magma ascent (Emslie *et al.*, 1994).

FIGURE 8.2 GENERALLY ACCEPTED MODEL FOR ANORTHOSITE ORIGIN

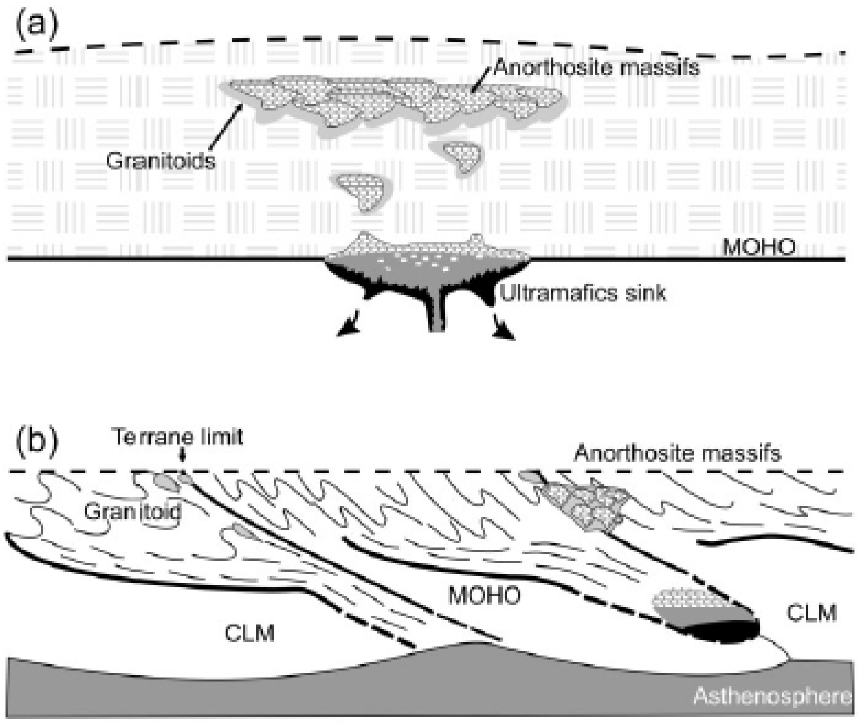


Fig. 1. Proposed models for massif-type anorthosite genesis. (a) Anorogenic two-stage model of Ashwal (1993). Mantle-derived mafic melts pond at the crust–mantle boundary (Moho), where mafic silicates crystallize and sink. Residual melts become enriched in Al and Fe/Mg. Plagioclase is buoyant in these dense melts, producing anorthositic cumulates at the top of the magma chamber. The plagioclase-rich mush is gravitationally unstable, rises through the crust, dragging aggregates of high-alumina orthopyroxene megacrysts in sub-ophitic assemblage with plagioclase. The mush coalesces as plutons at mid-crustal levels. Heat from the crystallizing mantle-derived magma causes crustal anatexis to form granitoid magmas. (b) Post-collisional crustal tongue melting model of Duchesne *et al.* (1999). Collisional stacking of terranes produces: (1) underthrust lower crust tongues; (2) granitic liquids by anatexis of mid-crustal material. These intrude at higher levels along terrane boundaries, as a result of delamination along zones of weakness. Some 10 Myr later the rise in temperature melts a crustal tongue of suitable composition and a deep-seated magma chamber develops in which plagioclase floats to accumulate at the roof. Resultant anorthosite diapirs rise through the crust, channelled by zones of weakness, and coalesce higher up at mid-crustal levels; the mafic cumulates, left behind, become indistinguishable from the mantle. A Moho offset represents the only evidence of the former magma chamber. CLM, continental lithospheric mantle.

Source: *Charlier et al. (2010)*

An opposite model is proposed by Arndt (2013). In his model, anorthosite complexes form when basalt magma differentiates in crustal magma chambers to form lower-density plagioclase and higher density residual liquid. Plagioclase and minor pyroxene crystallized in-situ on the floor of the magma chamber to produce the anorthosite complex, and the residual liquid migrated downwards, eventually to solidify as dense Fe-rich cumulates (Figures 8.3 and 8.4).

FIGURE 8.3 ANORTHOSITE COMPLEX DEVELOPMENT MODEL

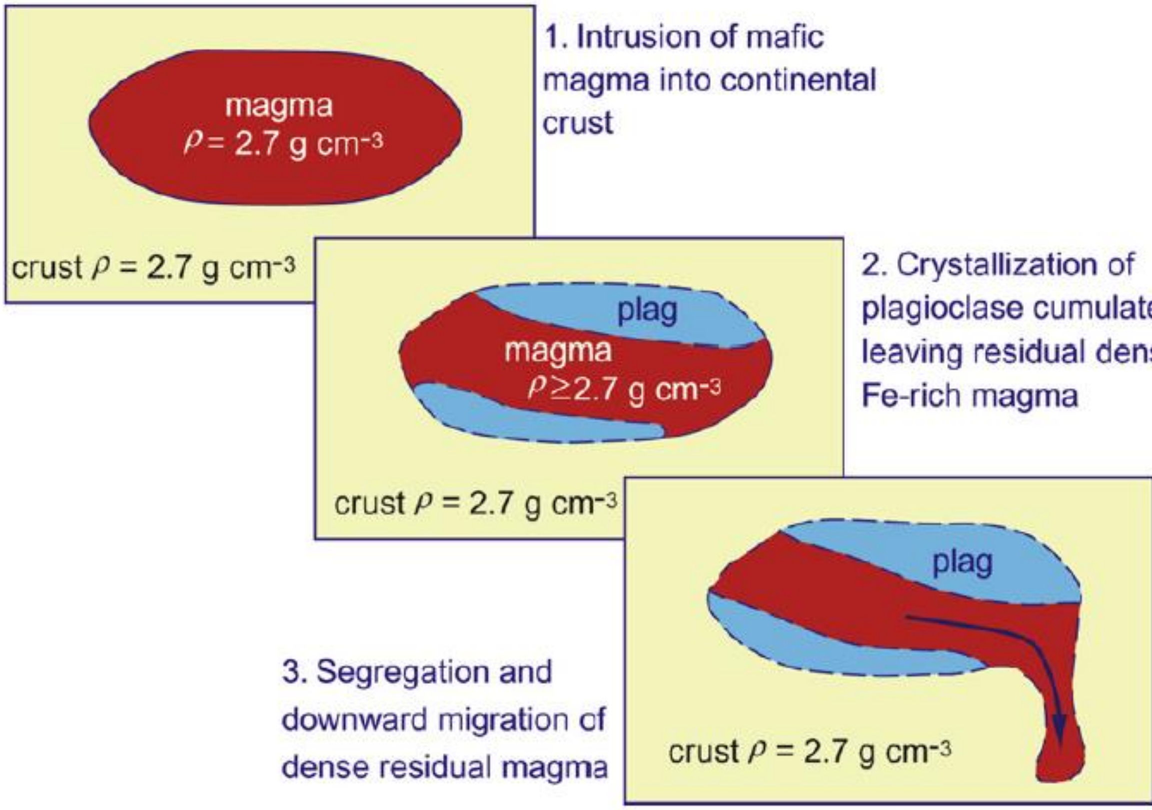


Figure 3. Sketches of three phases in the development of an anorthosite complex.

Source: *Arndt (2013)*

FIGURE 8.4 MAGMATIC DIFFERENTIATION MODEL FOR ANORTHOSITE

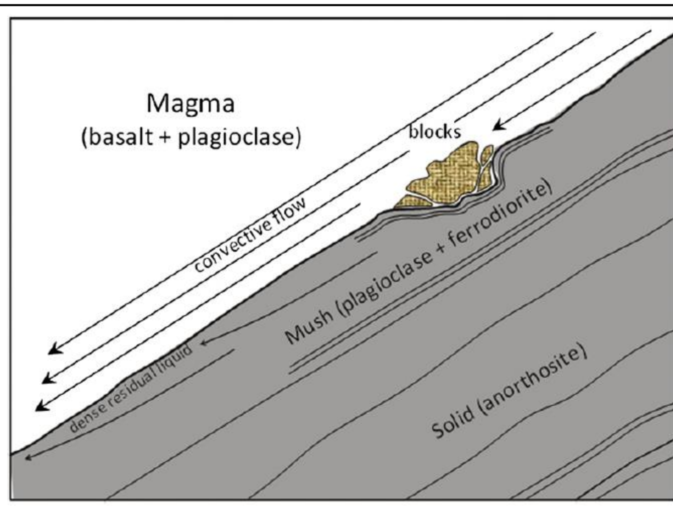


Figure 2. Sketch of the sloping margin of an anorthosite complex illustrating growth of plagioclase and minor mafic minerals in the layered series and flow of residual magma downwards past the margin (from Scoates et al., 2010).

Source: *Arndt (2013)*

9.0 COMPANY EXPLORATION

First Phosphate engaged Magnor Exploration Inc. (La Baie, Québec) in 2022 to conduct general geological reconnaissance and sampling of the various apatite occurrences in the Mirepoix and Périgny areas of the Lac à l'Orignal Project and surrounding areas (Figure 9.1). The field work took place between August 16 and August 31, 2022. The field crew consisted of one senior geologist and one technician. A total of 89 grab and channel samples were taken during this program and were sent on September 9, 2022 to ActLabs in Ancaster, Ontario, for assaying. The assay results for the Lac à l'Orignal Property samples were phosphate values ranging from 5.78% to 7.22% P_2O_5 with up to 9.5% TiO_2 (Table 9.1).

TABLE 9.1
HIGHLIGHT ASSAY RESULTS FROM THE SUMMER 2022 GEOLOGICAL GRAB SAMPLING PROGRAM

Location	Sample	Easting	Northing	P_2O_5 (%)	TiO_2 (%)	Fe_2O_3 (%)
Mirepoix-2	G184587	389,433	5,440,410	7.22	6.17	33.28
Mirepoix-2	G184588	389,432	5,440,411	6.10	5.95	30.62
Mirepoix-2	G184586	389,417	5,440,441	5.91	6.40	32.38
Périgny	G184508	409,763	5,430,557	5.79	9.54	38.73
Périgny	G184511	409,810	5,430,557	5.78	5.06	27.27

Source: *First Phosphate press release dated January 24, 2023*
Note: *Périgny is the block of claims that composes the eastern part of the Lac Orignal Property (see Figure 9.1)*

Oxide-apatite gabbronorite was found on the southeastern branch of the Lac à l'Orignal Property along the road that leads to Lac à l'Orignal. Values of up to 3.0% P_2O_5 were obtained using a portable XRF analyzer. XRF analyzers determine the chemistry of a sample by measuring the fluorescent (or secondary) X-ray emitted from a sample when it is excited by a primary X-ray source. ***It should be noted that the results only provide an indication of the amount phosphate present. Certified assaying of the drill core samples is still required to accurately determine the amount of phosphate mineralization.***

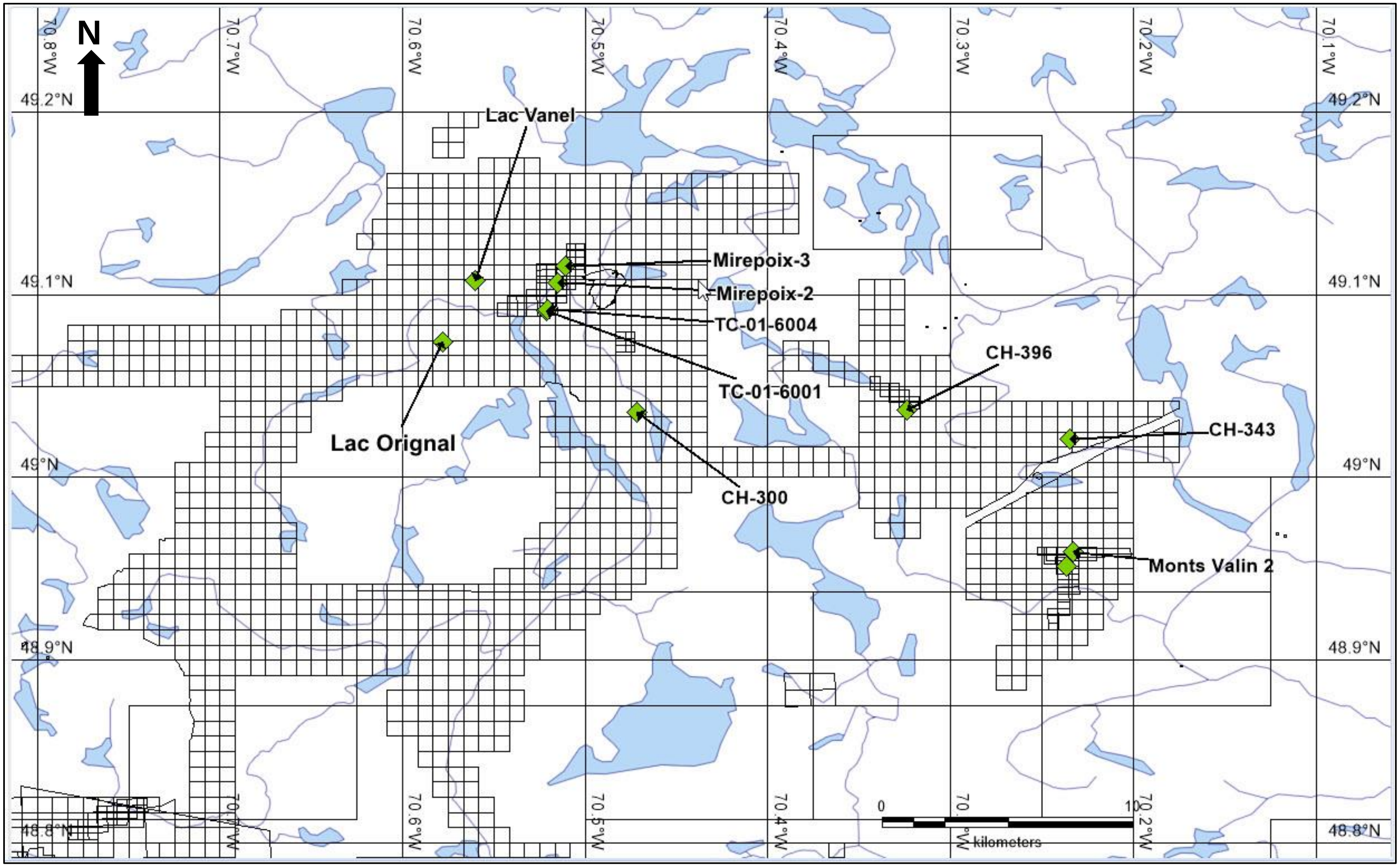
In the Lac Abondance area, magnetitite was identified at showing CH-300, which was discovered in 2001 (Figure 9.1). XRF measurements gave 43% Fe_2O_3, 6.5% TiO_2 and 3.8% P_2O_5. Mangerite with up to 35% combined biotite and magnetite was found in the area of showing CH-396. This showing was found in 2000, when a sample of nelsonite (composed mainly of ilmenite and apatite) returned 5.54% P_2O_5. Showing CH-343 lies within metre-thick layers of nelsonite that strike 110° and dip 50°. Showing CH-387 was not found.

In the Mirepoix area, massive magnetite with 15 to 20% apatite was found at the TC-01-6001 and TC-01-6004 showings (Figure 9.1). Oxide-bearing mangerite is found at the Mirepoix 2 and 3 showings. Metre-thick layers of nelsonite with up to 40% apatite are found within the country rock. These units strike north to northwest and dip shallowly.

Additionally in 2022, the Company also partnered on a research initiative with the Pufahl Research Group at Queen`s University in Kingston, ON. The primary goal of the partnership is to determine the detailed mineralogy and geochemistry of the phosphate mineralization at Lac Original.

The final report dated March 13, 2023 has been received by the Company (Banerjee, 2023). The report concludes that although the apatite precipitated throughout the crystallization history of the magma, the highest phosphatic mineralization formed as apatite-magnetite-ilmenite cumulate layers that precipitated early to mid-way through the fractional crystallization process.

FIGURE 9.1 LAC À L'ORIGNAL PROPERTY 2022 EXPLORATION LOCATIONS

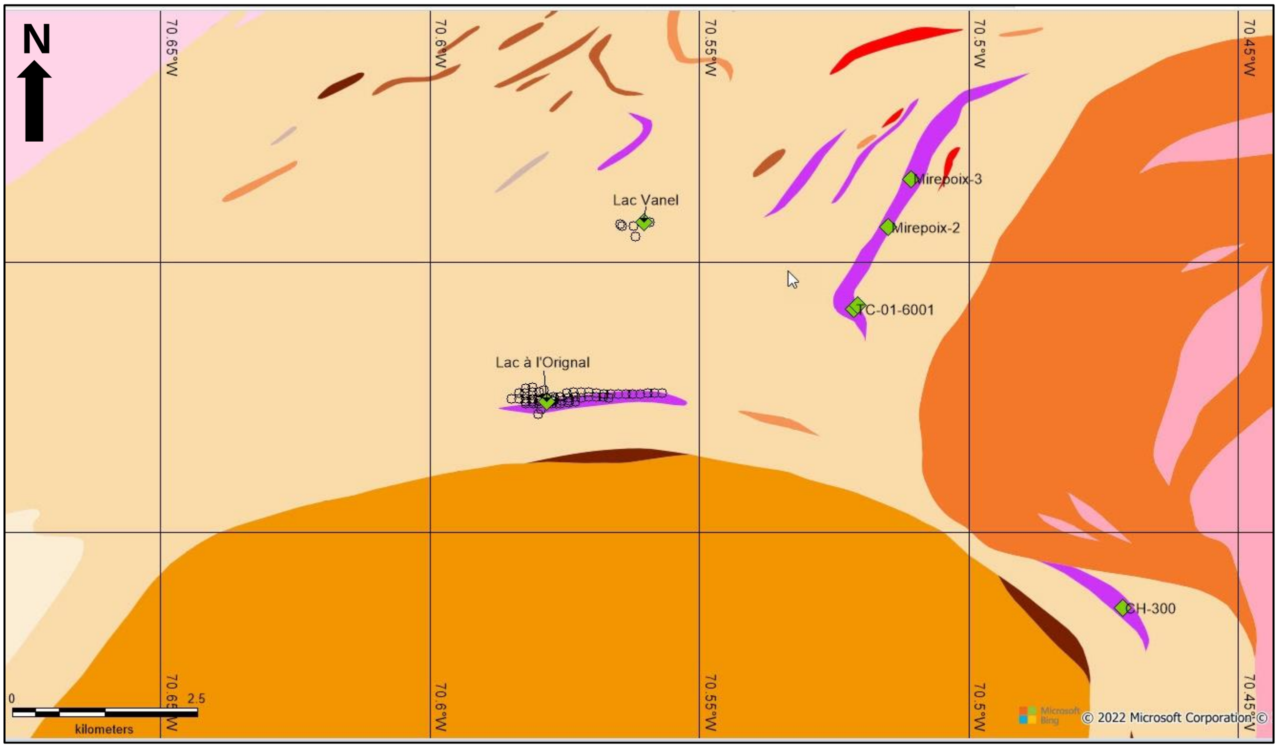


Source: *SIGEOM (September 2022)*
Note: *The CH-396 – CH-343 – Monts Valin 2 localities are in the Périgny claim block*

10.0 DRILLING

Drilling programs on the Lac à l'Orignal Property have not been undertaken by First Phosphate. The most recent drilling programs there were completed by Glen Eagle Resources in 2012 at the Lac à l'Orignal and Lac Vanel Showings and in 2014 at Lac à l'Orignal (Figure 10.1). These two drill programs are summarized below from Québec government assessment reports GM 58770 and GM 58771.

FIGURE 10.1 LAC À L'ORIGNAL 2012 AND 2014 DRILL HOLE LOCATIONS PLAN VIEW



Source: *modified by P&E (August 2022) after SIGEOM online database (sigeom.mines.gouv.qc.ca) (August 2022)*

10.1 2012 DRILLING PROGRAM

Glen Eagle carried out a 3-phase drilling program on the Property in 2012. The first phase was completed in February 2012 and consisted of six drill holes totalling 704 m. Five drill holes were completed on the Lac à l'Orignal Showing and one drill hole on the Lac Vanel Showing. The drilling of the Lac à l'Orignal Showing intersected Fe-Ti-P mineralization, whereas that at the Lac Vanel Showing missed the intended target.

The second and third phases of drilling were planned to sample the oxide gabbro on a 100 m x 100 m grid. The second phase was completed in June 2012 and consisted of 17 drill holes totalling 1,827 m. 12 drill holes were completed on the Lac à l'Orignal Showing and five drill holes were completed on the Lac Vanel Showing. The third phase of drilling was completed on the Lac à l'Orignal Showing in November and December 2012 and consisted of 20 drill holes totalling 2,080 m. Overall, 43 drill holes were completed totalling 4,611 m (Table 10.1) (Figures 10.2 and 10.3).

TABLE 10.1
2012 DRILL HOLE COLLAR INFORMATION AND DRILL HOLE LENGTHS

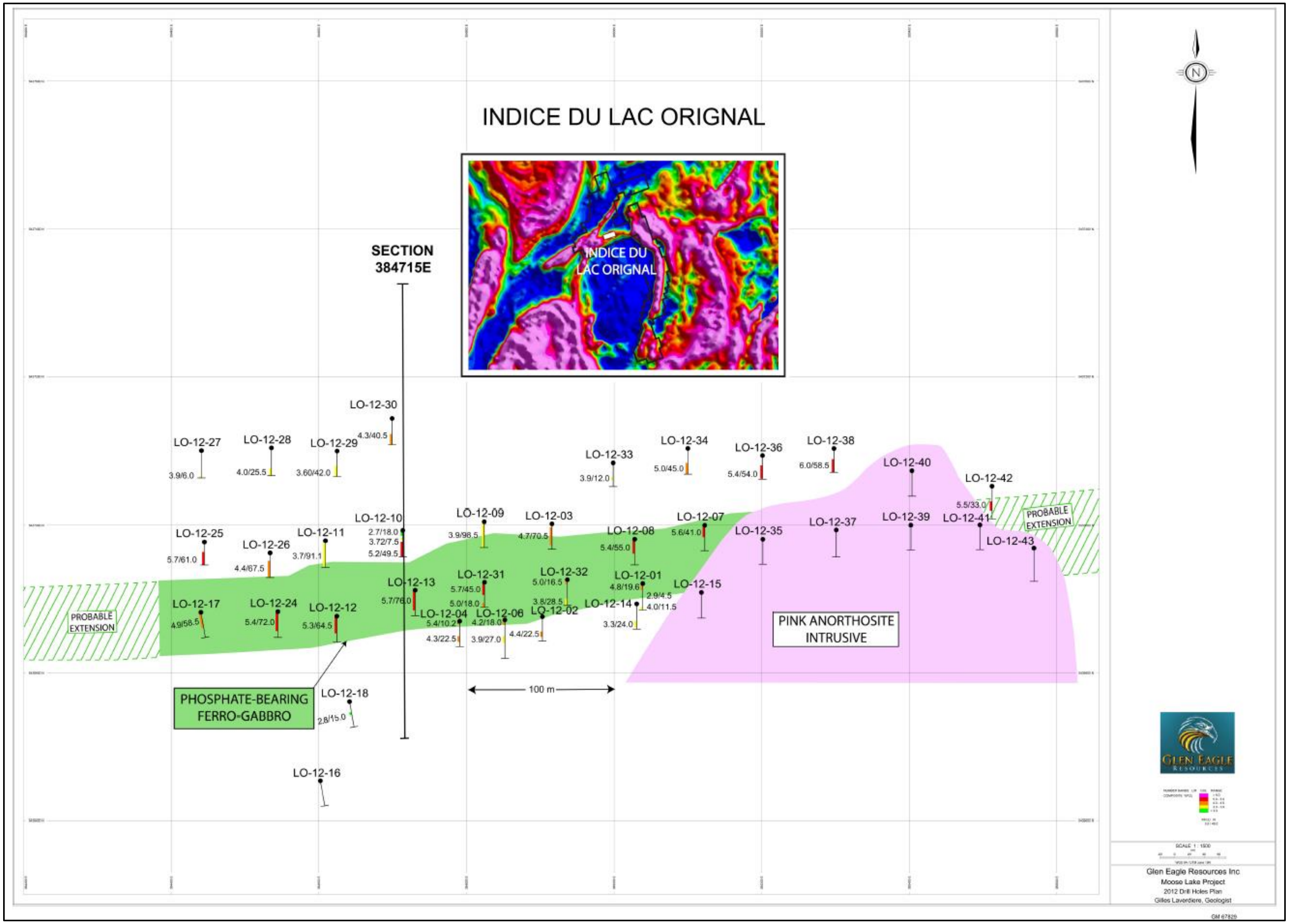
Drill Hole ID	Easting	Northing	Elevation (masl)*	Azimuth (deg)	Dip (deg)	Length (m)
LO-12-01	385,039	5,436,921	614.4	180	-70	100.00
LO-12-02	384,903	5,436,876	612.8	180	-70	100.44
LO-12-03	384,916	5,437,002	615.5	180	-70	100.00
LO-12-04	384,791	5,436,870	611.3	180	-70	100.60
LO-12-05	385,997	5,440,295	585.0	230	-51	150.00
LO-12-06	384,852	5,436,872	613.1	180	-70	153.00
LO-12-07	385,123	5,437,000	611.9	180	-70	101.00
LO-12-08	385,028	5,436,981	612.0	180	-70	102.00
LO-12-09**	384,824	5,437,005	618.3	180	-70	102.00
LO-12-10**	384,714	5,436,993	618.7	180	-70	105.00
LO-12-11**	384,609	5,436,979	623.9	180	-70	102.00
LO-12-12	384,625	5,436,877	610.1	180	-70	102.00
LO-12-13	384,731	5,436,912	614.8	180	-70	101.30
LO-12-14	385,031	5,436,893	614.4	180	-70	100.00
LO-12-15	385,118	5,436,909	615.0	180	-70	103.00
LO-12-16	384,602	5,436,654	603.8	170	-70	100.30
LO-12-17	384,440	5,436,882	601.9	170	-70	100.00
LO-12-18	384,642	5,436,761	607.7	170	-70	102.00
LO-12-19	385,804	5,440,557	552.1	150	-50	102.00
LO-12-20	385,985	5,440,513	561.5	360	-50	102.00
LO-12-21	385,819	5,440,505	552.8	340	-70	150.60
LO-12-22	386,123	5,440,580	558.3	340	-50	150.00
LO-12-23	386,207	5,440,583	556.4	190	-80	102.00
LO-12-24	384,545	5,436,883	610.4	180	-70	102.00
LO-12-25**	384,445	5,436,977	611.8	180	-70	102.00
LO-12-26**	384,534	5,436,963	618.8	180	-70	99.00
LO-12-27**	384,441	5,437,100	618.5	180	-70	102.00
LO-12-28**	384,536	5,437,103	609.5	180	-70	102.00
LO-12-29**	384,625	5,437,099	615.1	180	-70	102.00
LO-12-30**	384,699	5,437,143	592.5	180	-70	102.00
LO-12-31	384,825	5,436,923	613.2	180	-70	102.00
LO-12-32	384,937	5,436,926	612.9	180	-70	108.00
LO-12-33	384,999	5,437,083	618.4	180	-70	102.00
LO-12-34	385,100	5,437,103	628.1	180	-70	102.00
LO-12-35	385,202	5,436,981	611.6	180	-70	102.00

TABLE 10.1
2012 DRILL HOLE COLLAR INFORMATION AND DRILL HOLE LENGTHS

Drill Hole ID	Easting	Northing	Elevation (masl)*	Azimuth (deg)	Dip (deg)	Length (m)
LO-12-36	385,201	5,437,093	619.7	180	-70	96.00
LO-12-37	385,301	5,436,994	610.4	180	-70	102.00
LO-12-38	385,298	5,437,103	616.4	180	-70	102.00
LO-12-39	385,402	5,437,000	610.4	180	-70	100.00
LO-12-40	385,404	5,437,073	609.3	180	-70	102.00
LO-12-41	385,496	5,437,000	600.2	180	-70	99.00
LO-12-42	385,512	5,437,052	604.4	180	-70	126.00
LO-12-43	385,569	5,436,969	598.7	180	-70	126.00
Total						**4,611.24**

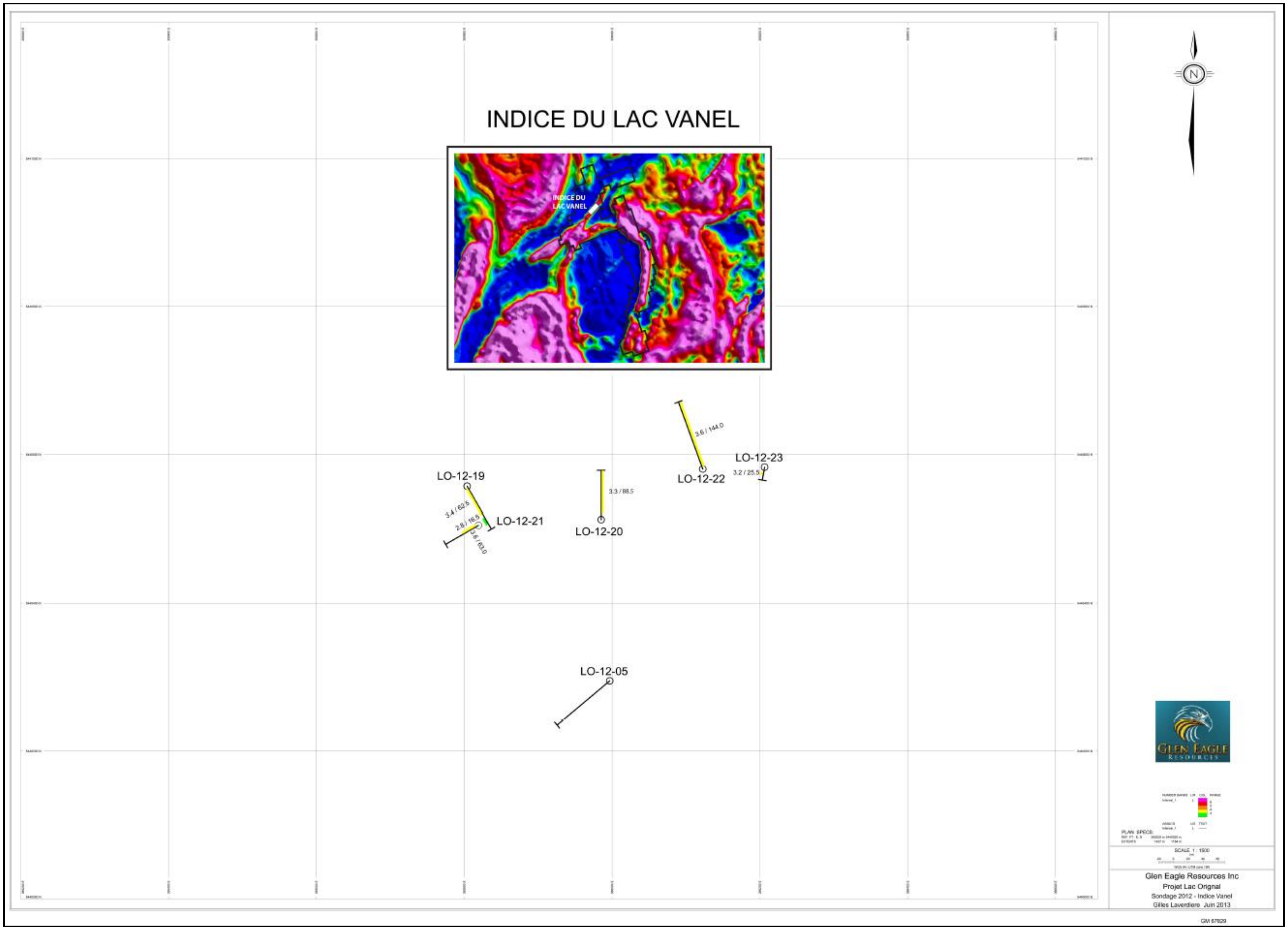
Source: *GM 67829 (2013)*
Notes: ** Elevations adjusted to LiDAR surface*
*** Drill holes extended in 2014*
A few 2012 drill holes were not surveyed. Location by hand-held GPS.

FIGURE 10.2 LAC À L'ORIGNAL 2012 DRILL HOLE COLLAR LOCATION PLAN VIEW



***Source**: GM 67829 (2013)* ***Note:** The inset map is an airborne magnetic survey image*

Figure 10.3 Lac Vanel 2012 Drill Hole Collar Location Plan View



***Source**: GM 67829 (2013)* ***Note:** The inset map is an airborne magnetic survey image*

Mineralized drill core intersections are listed in Table 10.2. The best assay intersection intervals were 4.7% P_2O_5 over 70.5 m in drill hole LO-12-03, 5.4% P_2O_5 in drill hole LO-12-08, 5.3% P_2O_5 over 64.5 m in drill hole LO-12-12, 5.7% P_2O_5 in drill hole LO-12-13, and 5.7% P_2O_5 over 61 m in drill hole LO-12-25 at Lac à l'Orignal, and 3.6% P_2O_5 in drill hole LO-12-22 at Lac Vanel. The phosphate mineralization remained open to the west and at depth (Figure 10.4, Table 10.2). The drilling program appears to have tested the limits of the Lac à l'Orignal Deposit along strike to the east, as grade and thickness of the mineralization decreased in drill holes LO-14-16 to LO-14-20. Assays of the Lac Vanel mineralized drill core returned grades of generally <4% P_2O_5 (Table 10.2), which were not considered to be of potential economic interest at the time.

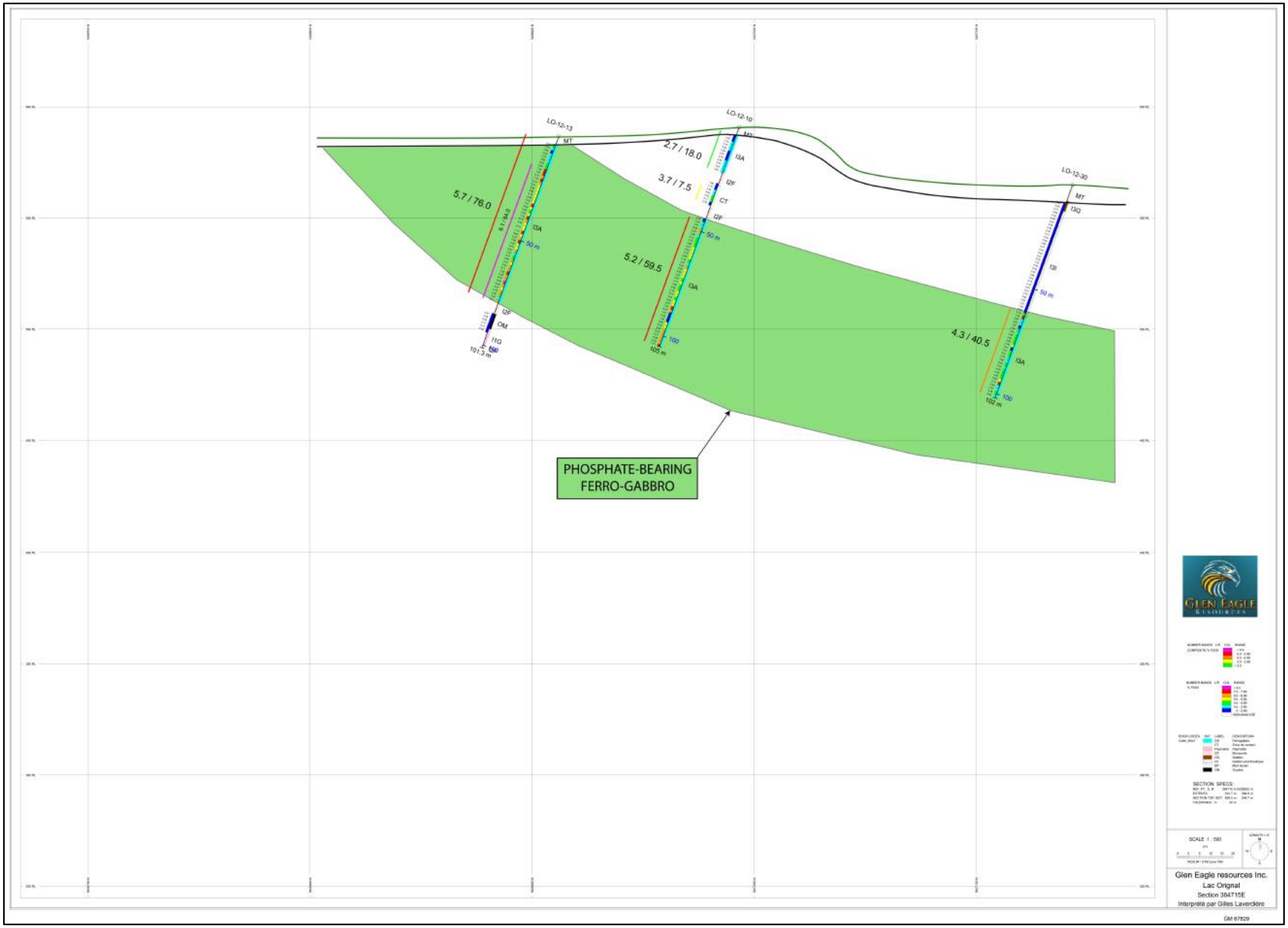
TABLE 10.2
2012 MINERALIZED DRILL CORE ASSAY INTERVALS

Drill Hole ID	Showing	From (m)	To (m)	Length (m)	P_2O_5 (%)
LO-12-01	Lac à l'Orignal	5.4	25.0	19.6	4.87
		48.0	52.5	4.5	2.89
		88.5	100.0	11.5	4.00
LO-12-02		61.0	83.5	22.5	4.38
LO-12-03		13.5	84.0	70.5	4.66
including		40.5	63.0	22.5	5.84
including		66.0	76.5	10.5	5.95
LO-12-04		0.3	10.5	10.2	5.40
		58.0	80.5	22.5	4.27
LO-12-06		1.5	19.5	18.0	4.15
LO-12-07		6.0	47.0	41.0	5.58
including		6.0	35.0	29.0	6.02
LO-12-08		3.5	57.5	54.0	5.47
including		3.5	50.0	46.5	5.56
LO-12-09		3.5	102.0	98.5	3.84
including		8.0	35.0	27.0	2.91
including		39.5	51.5	12.0	3.44
including		56.0	102.0	46.0	5.11
LO-12-10		4.0	22.0	18.0	2.74
		30.0	36.0	6.0	3.96
		45.5	105.0	59.5	5.08
LO-12-11		10.9	102.0	91.1	3.77
including		10.9	46.9	36.0	2.87
including		54.4	102,0	64.5	4.71
LO-12-12		4.0	68.5	64.5	5.28
including		35.5	67.0	31.5	6.10
LO-12-13		16.0	80.0	64.0	6.05
LO-12-14		67.5	91.5	24.0	3.27
LO-12-17		3.6	62.1	58.5	4.94

Table 10.2 2012 Mineralized Drill Core Assay Intervals					
Drill Hole ID	**Showing**	**From (m)**	**To (m)**	**Length (m)**	**P_2O_5 (%)**
including		45.6	60.6	15.0	6.09
LO-12-18		42.0	57.0	15.0	2.80
LO-12-19	Lac Vanel	4.0	19.0	15.0	3.41
		20.5	66.5	46.0	3.73
		74.0	90.5	16.5	2.75
LO-12-20		13.5	102.0	88.5	3.30
including		87.0	100.5	13.5	4.28
LO-12-21		7.0	70.0	63.0	3.68
including		7.0	40.0	33.0	3.95
LO-12-22		4.5	148.5	144.0	3.64
including		55.5	129.0	73.5	4.19
LO-12-23		39.0	64.5	25.5	3.16
		87.0	102.0	15.0	3.72
LO-12-24	Lac à l’Orignal	4.5	76.5	72.0	5.35
including		52.5	75.0	22.5	6.02
LO-12-25		41.0	102.0	61.0	5.70
LO-12-26		31.5	99.0	67.5	4.44
including		60.0	99.0	39.0	5.15
LO-12-27		96.0	102.0	6.0	3.89
LO-12-28		76.5	102.0	25.5	3.96
LO-12-29		60.0	102.0	42.0	3.60
LO-12-30		61.5	102.0	40.5	4.26
LO-12-31		6.0	51.0	45.0	5.65
		84.0	102.0	18.0	4.95
LO-12-32		1.5	18.0	16.5	4.99
		75.0	103.5	28.5	3.79
LO-12-33		60.0	72.0	12.0	3.91
LO-12-34		57.0	102.0	45.0	5.00
LO-12-35		6.0	30.0	26.0	4.62
LO-12-36		39.0	93.0	54.0	5.38
LO-12-38		43.5	102.0	58.5	5.95
LO-12-42		60.0	93.0	33.0	5.45

Source: *GM 67829 (2013)*
Note: *P_2O_5 = phosphorus pentoxide.*

FIGURE 10.4 LAC À L'ORIGNAL 2012 VERTICAL CROSS-SECTIONAL PROJECTION 341,715 E



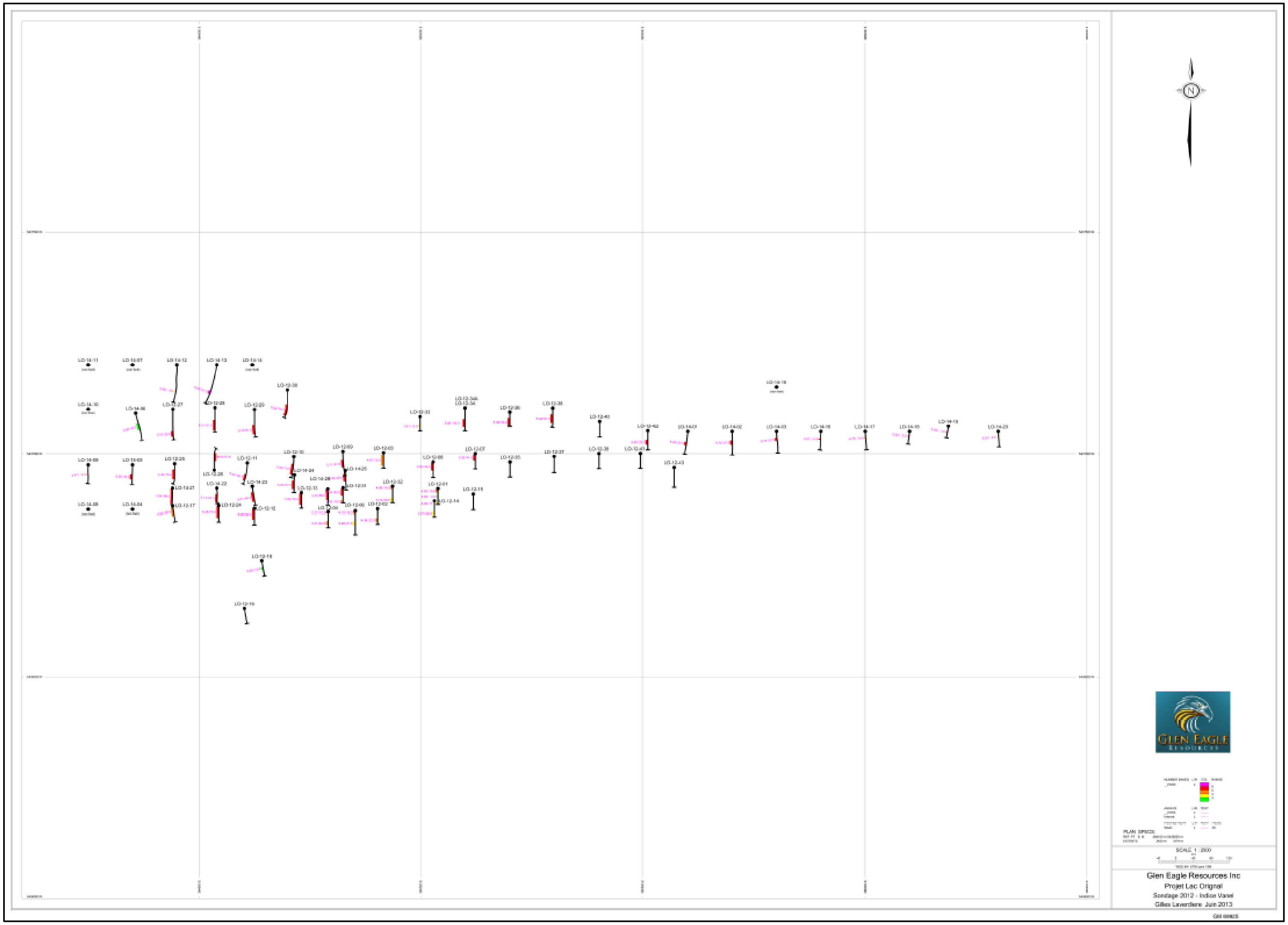
***Source**: GM 67829 (2013)*

10.2 2014 DRILLING PROGRAM

In November and December 2014, a second drilling program on Lac à l'Orignal was completed with two objectives: 1) deepening selected 2012 drill holes that had proved to be too short (see Figure 10.4); and 2) extending the known mineralization towards the east and west. Ten 2012 drill holes were deepened for a total of 585 m, specifically drill holes LO-12-09 to LO-12-11, LO-12-25 to LO-12-30, and LO-12-38. Due to broken casing, drill hole LO-12-34 was re-drilled as LO-12-34A to a depth of 150 m. 19 new drill holes were completed during this program for a total length of 2,595 m. In summary, a total of 3,330 m of drilling was completed in 2014 (Figure 10.5) (Table 10.3).

The drill core mineralized intervals are presented in Table 10.4. The best assay intersection intervals were 5.54% P_2O_5 over 99 m in drill hole LO-14-21, 5.61% P_2O_5 in drill hole LO-14-23, 5.83% P_2O_5 in drill hole LO-14-24, and 5.53% P_2O_5 over 69 m in drill hole LO-14-26 at Lac à l'Orignal. Cross-sectional projections of the drilling results are presented in Figures 10.6 to 10.9. Cross-sectional projection 384,725 m E shows 2012 drill holes deepened to penetrate the basal contact of the mineralized oxide gabbro host unit (Figure 10.6). On cross-sectional projection 384,835 m E (Figure 10.7), two of the four drill holes appear to intersect a second mineralized zone in the footwall to the main mineralized zone. Cross-sectional projections 386,300 m E and 384,250 m E show that the 2014 drilling program appears to have tested the east and west lateral limits, respectively, of the Lac à l'Orignal Deposit, as thickness of the mineralization decreased in drill holes LO-14-20 and LO-14-09 (Figures 10.7 and 10.9).

FIGURE 10.5 LAC À L'ORIGNAL 2014 DRILL HOLE LOCATION PLAN VIEW



***Source**: GM 69925 (2016)*

TABLE 10.3
2014 DRILL HOLE COLLAR INFORMATION AND DRILL HOLE LENGTHS

Drill Hole ID	Easting	Northing	Elevation (masl)*	Azimuth (deg)	Dip (deg)	Length (m)
LO-12-09 ext	384,824	5,437,005	618.3	180	-70	60
LO-12-10 ext	384,714	5,436,993	618.7	180	-70	39
LO-12-11 ext	384,609	5,436,979	623.9	180	-70	48
LO-12-25 ext	384,445	5,436,977	611.8	180	-70	60
LO-12-26 ext	384,534	5,436,963	618.8	0	-70	51
LO-12-27 ext	384,441	5,437,100	618.5	180	-70	84
LO-12-28 ext	384,536	5,437,103	609.5	180	-70	45
LO-12-29 ext	384,625	5,437,099	615.1	180	-70	81
LO-12-30 ext	384,699	5,437,143	592.5	180	-70	78
LO-12-34A ext	385,100	5,437,103	628.0	180	-70	150
LO-12-38 ext	385,298	5,437,103	616.4	180	-70	39
LO-14-01**	385,600	5,437,050	608.0	180	-70	150
LO-14-02**	385,700	5,437,050	601.3	180	-70	150
LO-14-03**	385,800	5,437,050	598.8	180	-70	150
LO-14-04**	Planned, however, not drilled					
LO-14-05**	384,350	5,436,975	602.1	180	-70	132
LO-14-06**	384,357	5,437,091	605.8	180	-70	177
LO-14-07**	Planned, however, not drilled					
LO-14-08**	Planned, however, not drilled					
LO-14-09**	384,250	5,436,975	599.8	180	-70	132
LO-14-10**	Planned, however, not drilled					
LO-14-11**	Planned, however, not drilled					
LO-14-12**	384,450	5,437,200	596.1	180	-70	249
LO-14-13**	384,540	5,437,200	592.2	180	-70	249
LO-14-14**	Planned, however, not drilled					
LO-14-15**	Planned, however, not drilled					
LO-14-16**	385,900	5,437,050	602.9	180	-70	114
LO-14-17**	386,000	5,437,050	610.3	180	-70	126
LO-14-18**	386,100	5,437,050	613.4	180	-70	84
LO-14-19**	386,188	5,437,062	615.3	180	-70	75
LO-14-20**	386,300	5,437,050	602.8	180	-70	102
LO-14-21**	384,440	5,436,922	607.4	180	-70	108
LO-14-22**	384,540	5,436,922	620.6	180	-70	108
LO-14-23**	384,620	5,436,926	618.9	180	-70	126
LO-14-24**	384,715	5,436,952	617.1	180	-70	126
LO-14-25**	384,830	5,436,962	615.3	180	-70	132
LO-14-26**	384,790	5,436,920	614.7	180	-70	105
Total						**3,330**

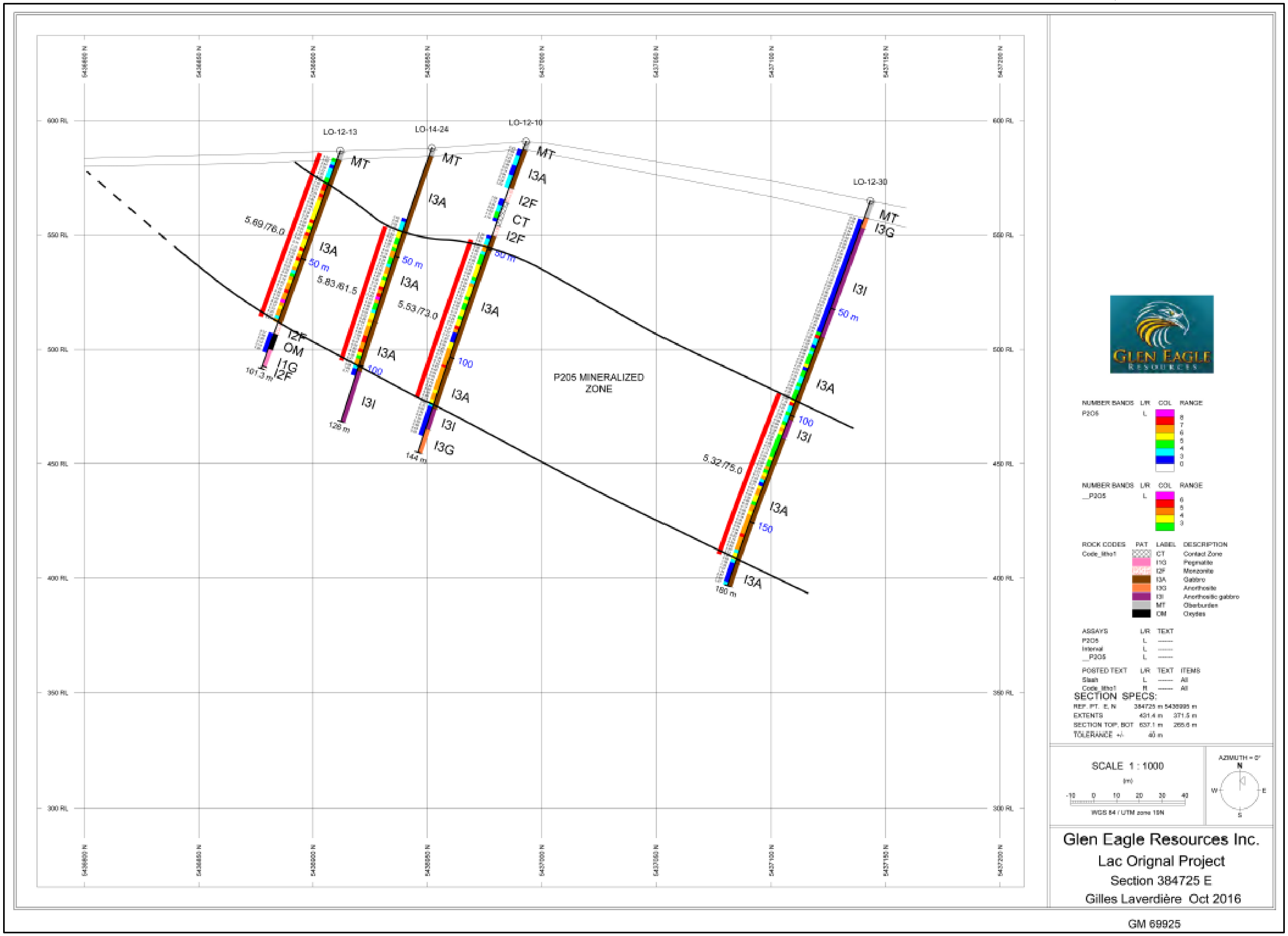
Source: *GM 69925 (2016)*
Notes: *Ext = 2012 drill hole extended in 2014, * Elevations adjusted to LiDAR surface, ** Drill holes not surveyed.*

TABLE 10.4
2014 PROGRAM DRILL HOLE ASSAY MINERALIZED INTERVALS

Drill Holes ID	From (m)	To (m)	Length (m)	P_2O_5 (%)
LO-12-09	56.0	103.5	47.5	5.11
LO-12-10	48.5	121.5	73.0	5.47
LO-12-11	78.4	124.5	46.1	5.44
LO-12-25	41.0	117.0	76.0	5.46
LO-12-26	31.5	115.5	84.0	4.45
LO-12-27	133.5	166.5	33.0	5.10
LO-12-28	102.0	147.0	45.0	5.39
LO-12-29	103.5	165.0	61.5	5.74
LO-12-30	93.0	168.0	75.0	5.32
LO-12-34A	57.0	102.0	45.0	4.79
LO-12-38	43.5	105.0	61.5	5.94
LO-14-01	70.5	93.0	22.5	5.44
LO-14-02	58.5	85.5	27.5	5.78
LO-14-03	43.5	66.0	22.5	5.79
LO-14-05	63.0	96.0	33.0	5.26
LO-14-06	63.0	106.5	43.5	2.85
LO-14-06	130.5	144.0	13.5	3.93
LO-14-09	64.5	69.0	4.5	4.47
LO-14-12	171.0	180.0	9.0	3.89
LO-14-13	165.0	186.0	21.0	6.69
LO-14-16	43.5	49.5	6.0	5.51
LO-14-17	39.0	45.0	6.0	4.73
LO-14-18	30.0	33.0	3.0	5.22
LO-14-19	38.0	41.0	3.0	5.55
LO-14-20	33.0	37.5	4.5	3.53
LO-14-21	3.0	102.0	99.0	5.54
LO-14-22	39.0	100.5	61.5	5.11
LO-14-23	37.5	102.0	64.5	5.61
LO-14-24	39.0	100.5	61.5	5.83
LO-14-25	22.5	70.5	48.0	4.62
LO-14-26	3.0	72.0	69.0	5.53

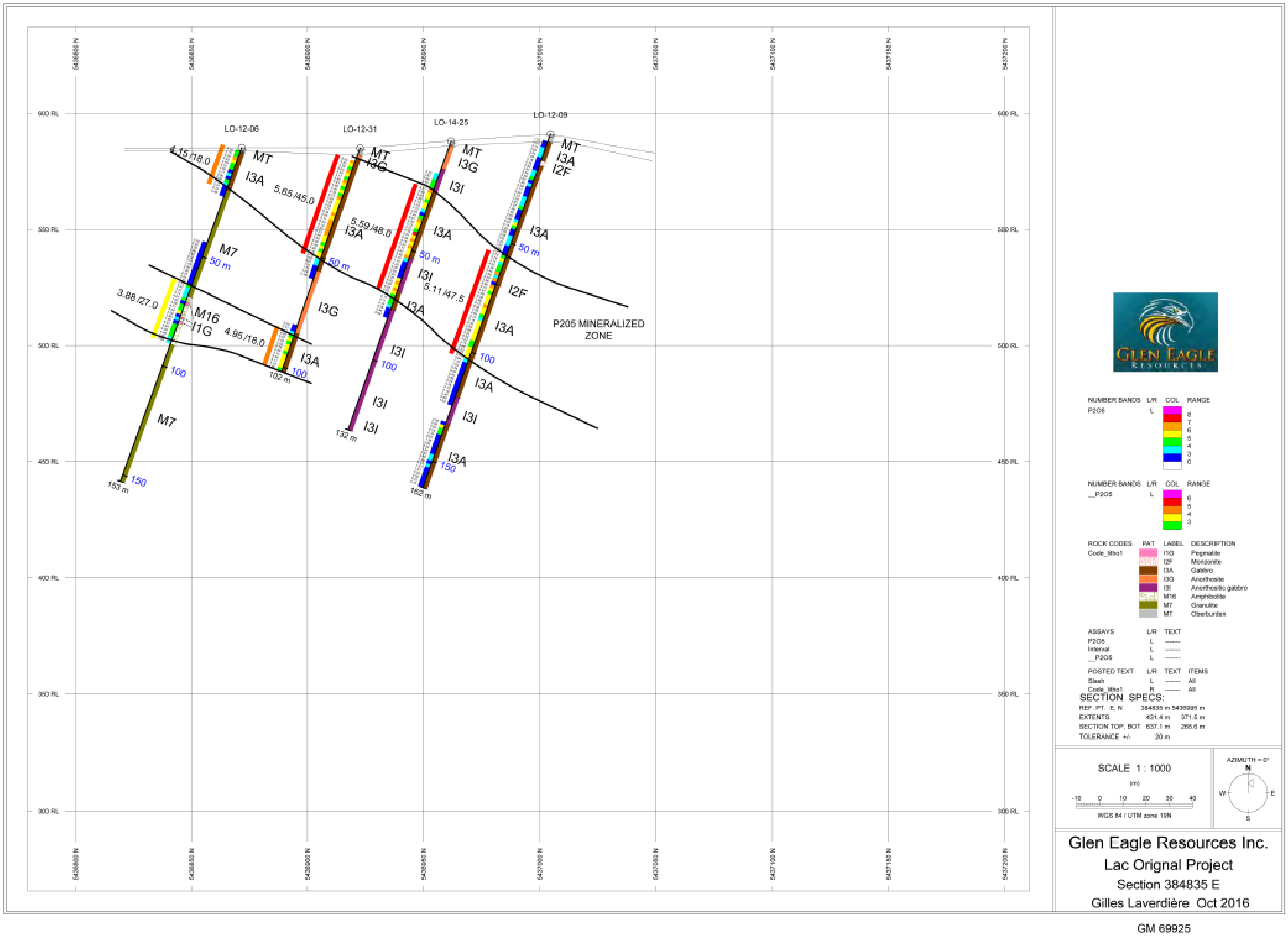
Source: *GM 69925 (2016)*
Note: *P_2O_5 = phosphorus pentoxide.*

FIGURE 10.6 LAC À L'ORIGNAL 2014 DRILL HOLE VERTICAL CROSS-SECTIONAL PROJECTION 384,725 M E



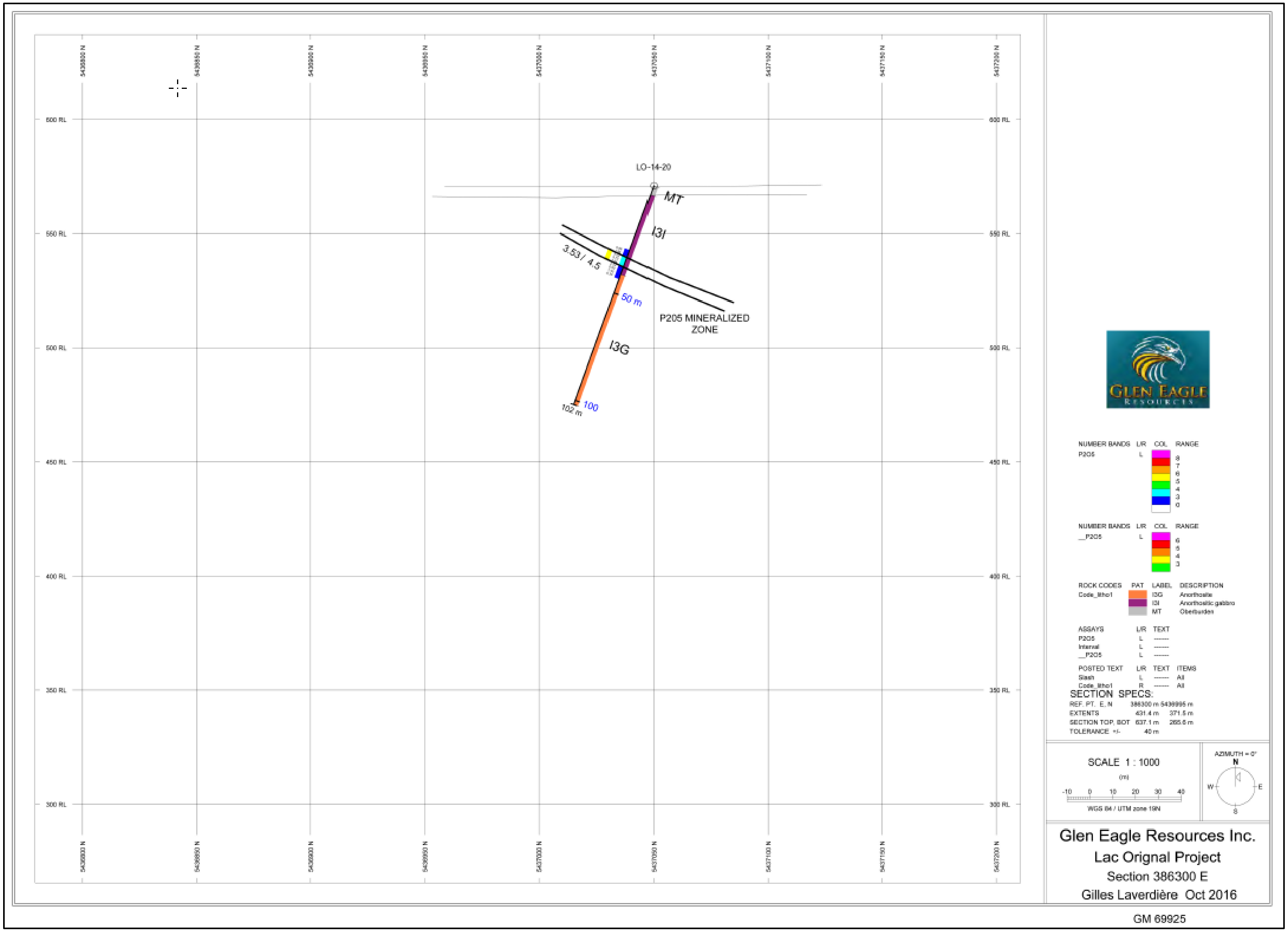
Source: *GM 69925 (2016)*

FIGURE 10.7 LAC À L'ORIGNAL 2014 DRILL HOLE VERTICAL CROSS-SECTIONAL PROJECTION 384,835 M E



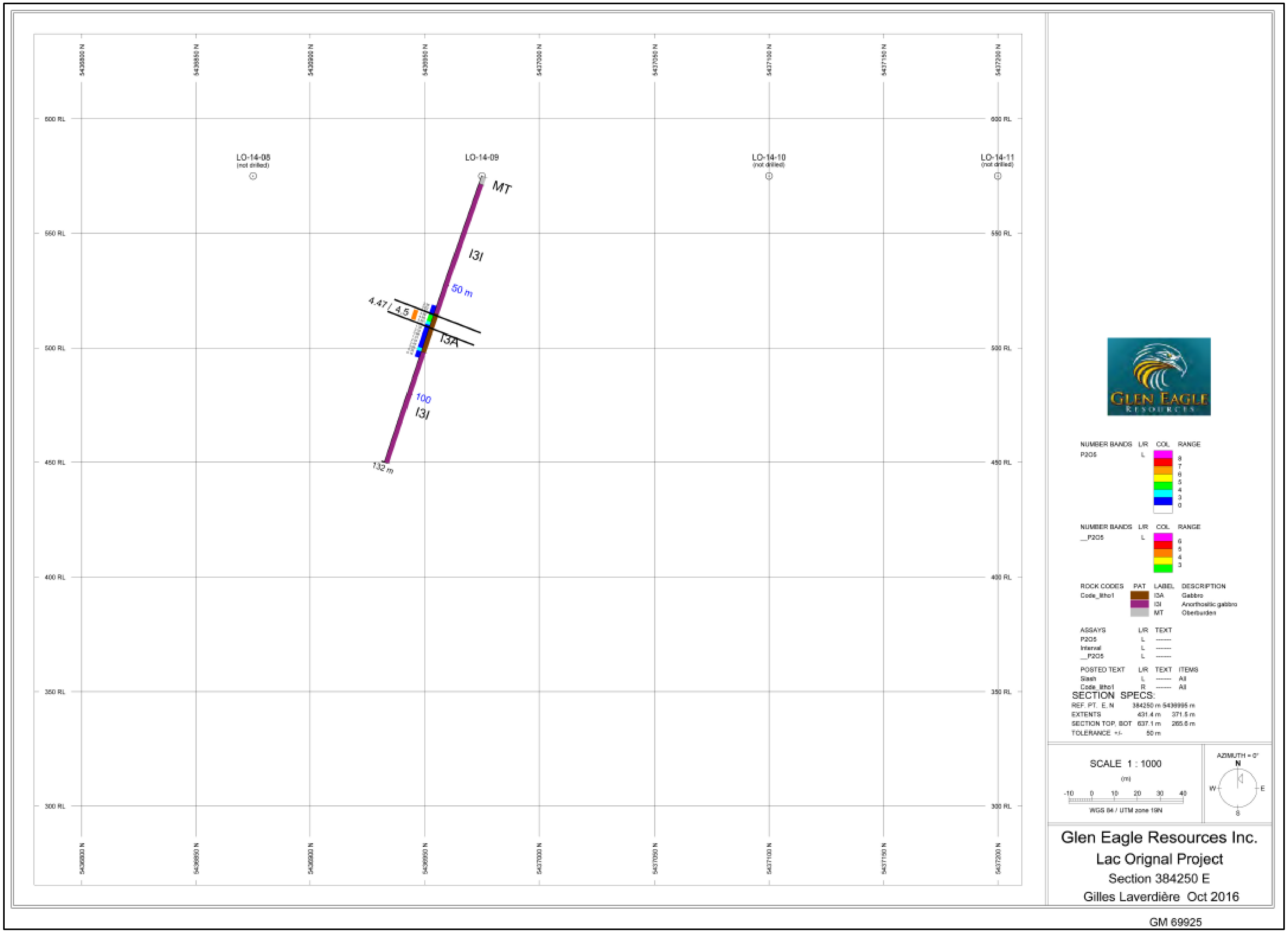
Source: *GM 69925 (2016)*

FIGURE 10.8 LAC À L'ORIGNAL 2014 DRILL HOLE VERTICAL CROSS-SECTIONAL PROJECTION 386,300 M E



***Source**: GM 69925 (2016)*

FIGURE 10.9 LAC À L'ORIGNAL 2014 DRILL HOLE VERTICAL CROSS-SECTIONAL PROJECTION 384,250 M E



***Source**: GM 69925 (2016)*

11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

The following section discusses drill core sampling carried out by Glen Eagle at the Lac à l'Orignal Property from 2012 and 2014. It does not include review of the "R-series" outcrop trench and channel sampling undertaken at the Lac à l'Orignal Project, which is also included in the Mineral Resource Estimate database.

11.1 SAMPLE PREPARATION AND SECURITY

The drill core is placed in labelled drill core boxes by the drilling contractor with metreage blocks inserted in the trays at the end of each run. The lids are placed on and subsequently fastened to the drill core boxes.

The drill core is transferred from the drill rig site to the drill core logging, sampling and storage facilities of Multi-Ressources Boréal ("MRBoréal") of Chicoutimi, Québec, a consulting firm contracted to oversee the 2012 and 2014 drilling programs. The MRBoréal geo-technician aligns the drill core pieces, assesses and measures drill core recoveries and photographs the drill core.

Bulk density measurements were not taken by Glen Eagle (previous operator). However, the Authors took nine independent verification samples (described in Section 12 of this Report) for multiple analyses, including density determination by the wet and dry water immersion method.

The geologist logs a description of the drill core into an excel spreadsheet, detailing lithology, mineralization, alteration and structure, and also determines sample intervals for the drill core samples. Sampling was generally undertaken at 1.5 m intervals. Homemade Reference Materials ("RM") and blanks are inserted into the drill core sampling stream at a rate of 1 in 20 samples for RM and 1 in 40 for blanks.

A geo-technician splits the drill core in half, using a hydraulic splitter. The half-drill core samples are placed and sealed in plastic bags along with a unique sample tag ID. The smaller sample bags are subsequently placed in larger rice bags, which are tied closed with zip lock ties and labelled. MRBoréal used commercial transport to deliver the samples to the AGAT Laboratories ("AGAT") preparation facility in Sudbury, Ontario, before being sent for geochemical analysis by AGAT in Mississauga, Ontario. The drill core and samples are under MRBoréal personnel supervision from the time of pick-up of the drill core at the drill rig site until delivery to the commercial transport. All drill core and sample splits were kept in a secure storage facility in Chicoutimi. Assay data are reported electronically from AGAT to Glen Eagle.

The 2012 drill core was stored in a facility that was later sold, after which time everything was unfortunately levelled, and all drill core was lost. The 2014 remaining half-drill core pieces were returned to the drill core box for archival purposes and the drill core boxes were later cross-piled in a secure yard in Saguenay City, Québec, and partially used for a bulk sample and mineralogical studies.

11.2 SAMPLE PREPARATION AND ANALYSES

Samples received at the AGAT preparation facility in Sudbury were carefully assessed and processed through the Sample Preparation Department. Each sample was first weighed and then the entire sample crushed to 75% passing 2 mm, before being split by riffle or rotary sample divider to 250 g and pulverized to 85% passing 75 µm. The samples were analyzed for all oxides, including P_2O_5, by Lithium Borate Fusion – Summation of Oxides method with ICP-OES finish (AGAT Code 201076). This method has assay range limits of 0.005% to 100% P_2O_5.

AGAT is an independent lab that has developed and implemented a Quality Management System ("QMS") at each of its locations, designed to ensure the production of consistently reliable data. The QMS 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.

11.3 QUALITY ASSURANCE/QUALITY CONTROL REVIEW

11.3.1 2012 and 2014 Quality Assurance/Quality Control

The quality assurance/quality control ("QA/QC") procedures employed by Glen Eagle during the 2012 and 2014 drilling programs at Lac à l'Orignal included the insertion of homemade reference material ("RM") and blanks into the drill hole sample stream.

11.3.1.1 Performance of Homemade Reference Materials

Due to the absence of commercially available reference material certified for P_2O_5, Glen Eagle prepared two reference materials of differing P_2O_5 grades to monitor the accuracy of drill core sample analyses at the primary lab. The Company collected two mineralized field samples from the Property, weighing approximately 15 kg each, and sent the two samples to AGAT in Mississauga, Ontario, where two RMs were prepared (one low-grade and one high-grade). When received by AGAT, the 15 kg samples were crushed to 90% passing 2 mm, and then pulverized to 85% passing 200 mesh (75 µm). A series of major element analyses (Lithium Borate Fusion - Summation of Oxides with an ICP-OES finish) were carried out on a total of 30 representative sub-samples split from each bulk sample, with 10 sub-samples each analyzed over a period of three days. Individually packaged RMs were prepared for use by the Company, in order to mitigate the settling of heavy minerals (such as magnetite and ilmenite), by placing 100 g of representative pulverized sub-samples into sealed bags. Results from the analyses undertaken at AGAT are presented in Table 11.1.

Table 11.1 Homemade Reference Material Analytical Results at AGAT					
STD-Low (N=30)			**STD-High (N=30)**		
Sample ID	**Sample Description**	**P_2O_5 (%)**	**Sample ID**	**Sample Description**	**P_2O_5 (%)**
2768457	RM No. 1 - day 1-1	5.14	2768489	RM No. 2 - day 1-1	3.83
2768458	RM No. 1 - day 1-2	5.26	2768490	RMNo. 2 - day 1-2	3.29
2768459	RM No. 1 - day 1-3	4.55	2768491	RM No. 2 - day 1-3	3.69
2768460	RM No. 1 - day 1-4	5.00	2768493	RM No. 2 - day 1-4	3.61
2768461	RM No. 1 - day 1-5	4.72	2768494	RM No. 2 - day 1-5	3.64
2768462	RM No. 1 - day 1-6	5.32	2768495	RM No. 2 - day 1-6	3.66
2768463	RM No. 1 - day 1-7	5.09	2768496	RM No. 2 - day 1-7	3.39
2768464	RM No. 1 - day 1-8	5.37	2768497	RM No. 2 - day 1-8	3.58
2768465	RM No. 1 - day 1-9	5.77	2768498	RM No. 2 - day 1-9	3.70
2768466	RM No. 1 - day 1-10	4.93	2768500	RM No. 2 - day 1-10	3.56
2768467	RM No. 1 - day 2-1	5.22	2768501	RM No. 2 - day 2-1	3.31
2768468	RM No. 1 - day 2-2	4.97	2768502	RM No. 2 - day 2-2	3.68
2768469	RM No. 1 - day 2-3	5.10	2768503	RM No. 2 - day 2-3	3.72
2768470	RM No. 1 - day 2-4	4.96	2768504	RM No. 2 - day 2-4	3.31
2768471	RM No. 1 - day 2-5	5.14	2768505	RM No. 2 - day 2-5	3.80
2768472	RM No. 1 - day 2-6	4.92	2768506	RM No. 2 - day 2-6	3.53
2768473	RM No. 1 - day 2-7	4.88	2768508	RM No. 2 - day 2-7	3.72
2768474	RM No. 1 - day 2-8	4.99	2768509	RM No. 2 - day 2-8	3.45
2768476	RM No. 1 - day 2-9	5.40	2768510	RM No. 2 - day 2-9	3.39
2768477	RM No. 1 - day 2-10	5.13	2768511	RM No. 2 - day 2-10	3.95
2768478	RM No. 1 - day 3-1	4.49	2768512	RM No. 2 - day 3-1	3.75
2768479	RM No. 1 - day 3-2	4.44	2768513	RM No. 2 - day 3-2	3.82
2768480	RM No. 1 - day 3-3	4.94	2768514	RM No. 2 - day 3-3	3.44
2768481	RM No. 1 - day 3-4	4.64	2768515	RM No. 2 - day 3-4	3.56

Table 11.1
Homemade Reference Material Analytical Results at AGAT

STD-Low (N=30)			STD-High (N=30)		
Sample ID	**Sample Description**	**P_2O_5 (%)**	**Sample ID**	**Sample Description**	**P_2O_5 (%)**
2768482	RM No. 1 - day 3-5	4.72	2768516	RM No. 2 - day 3-5	3.38
2768484	RM No. 1 - day 3-6	4.20	2768517	RM No. 2 - day 3-6	3.55
2768485	RM No. 1 - day 3-7	4.76	2768518	RM No. 2 - day 3-7	3.58
2768486	RM No. 1 - day 3-8	4.85	2768519	RM No. 2 - day 3-8	3.78
2768487	RM No. 1 - day 3-9	4.72	2768520	RM No. 2 - day 3-9	3.54
2768488	RM No. 1 - day 3-10	5.15	2768522	RM No. 2 - day 3-10	3.55
Mean		**4.96**	**Mean**		**3.59**
Std Dev		**0.32**	**Std Dev**		**0.17**

Note: *P_2O_5 = phosphorus pentoxide, RM = Reference Material, Std Dev = standard deviation, N = number of data points.*

Company personnel routinely inserted one of the two homemade RMs into the drill core sample stream at a rate of approximately one in 40 samples. Criteria for assessing RM performance are based as follows. Data falling within ±2 standard deviations from the calculated mean value pass. Data falling outside ±3 standard deviations from the calculated mean value, or two consecutive data points falling between ±2 and ±3 standard deviations on the same side of the mean, fail.

Performance of both RMs was generally satisfactory, with only three failures observed for the STD-LOW RM (results are presented in Figures 11.1 and 11.2). No issues are evident for the STD-HIGH RM. However, a positive bias of 6.9% is observed in the data for the lower-grade STD-LOW RM. Taking into consideration that characterization studies of the RMs were undertaken at a single laboratory only, which is also the Company's primary laboratory for the 2012 and 2014 drill core sample analyses, further round-robin characterization of the RMs and check analyses of drill core sample results are warranted.

The Authors consider that the RM data demonstrate acceptable accuracy in the 2012 and 2014 Lac à l'Orignal data.

FIGURE 11.1 REFERENCE MATERIAL RESULTS FOR RM-LOW: P_2O_5

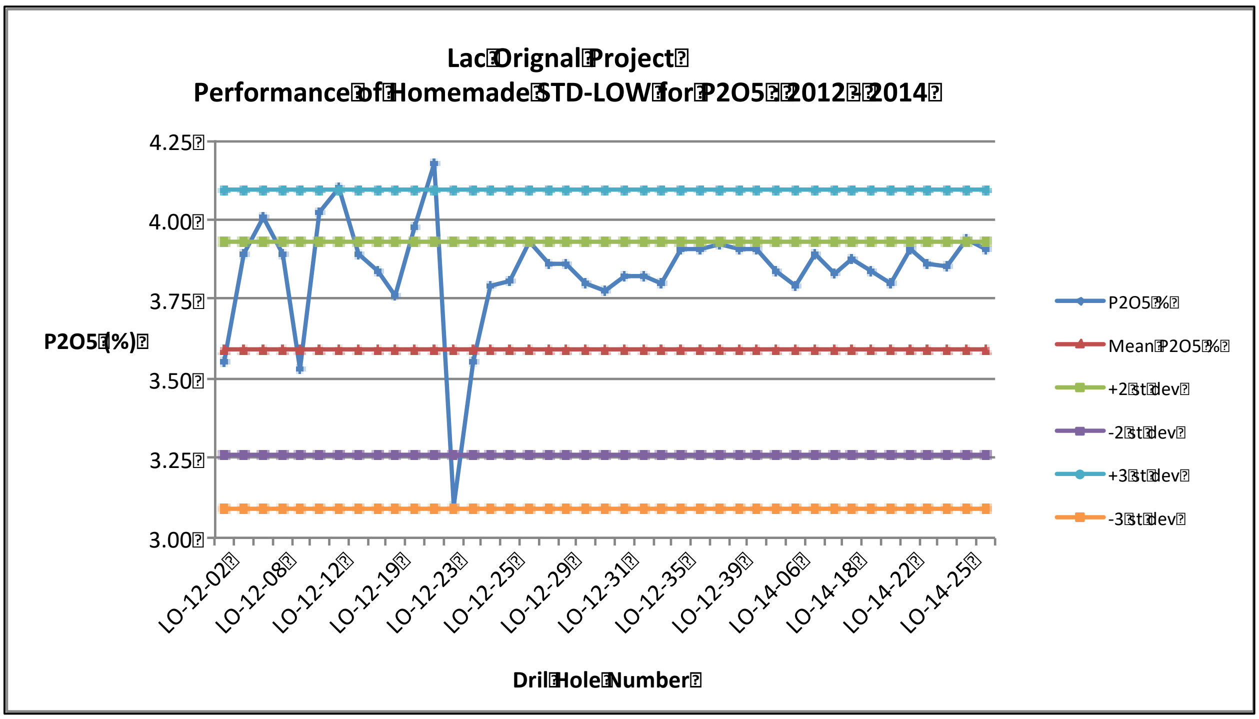
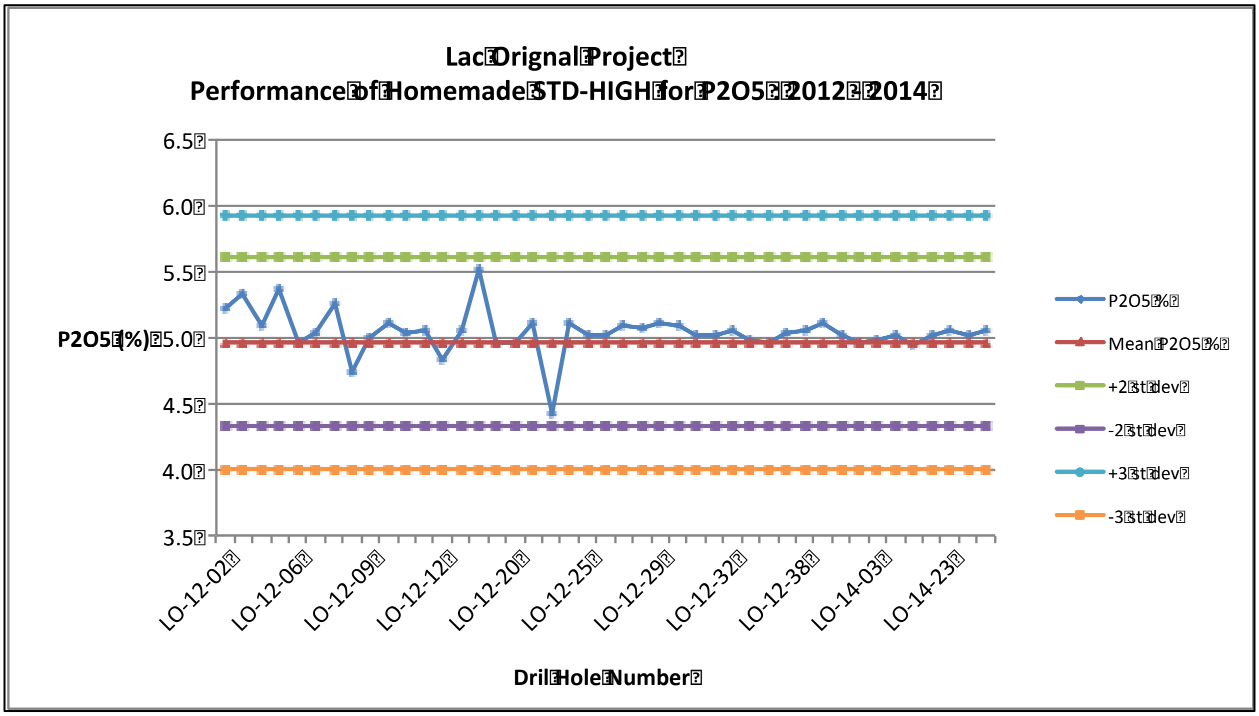


FIGURE 11.2 REFERENCE MATERIAL RESULTS FOR RM-HIGH: P_2O_5



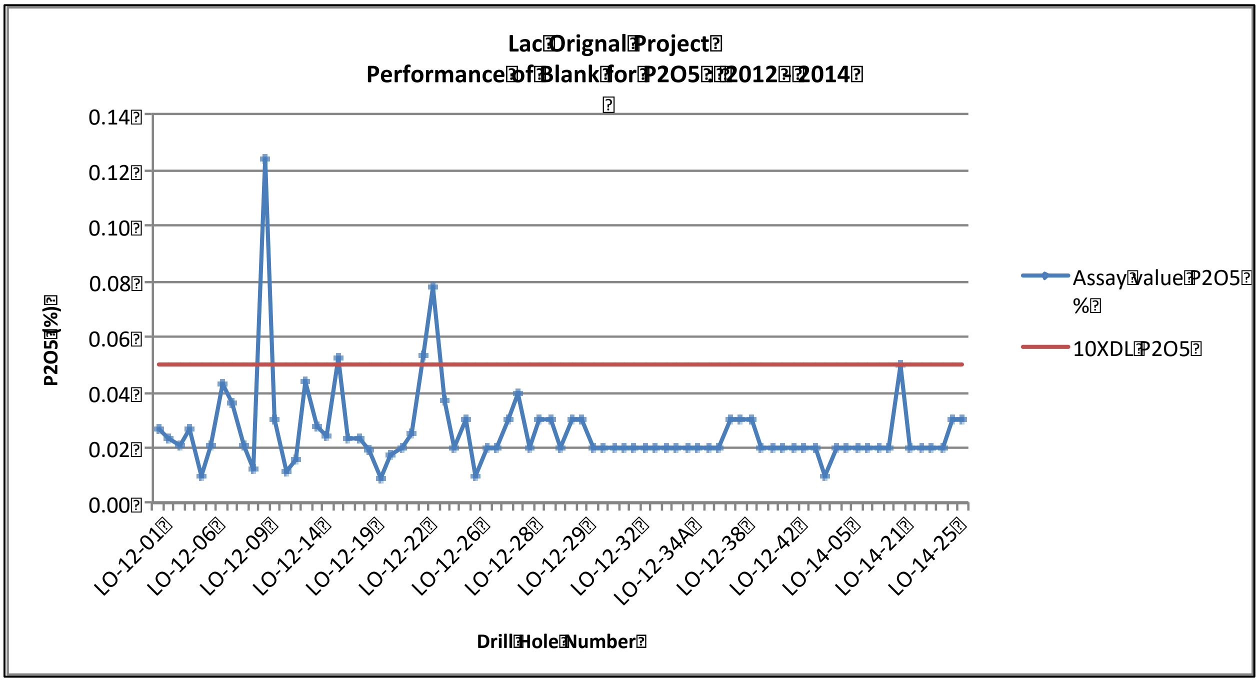
11.3.1.2 Performance of Blank Material

Glen Eagle utilized an ornamental marble stone purchased from Canadian Tire as a blank material for the Project in 2012 and 2014. Blanks were routinely inserted into the drill core sample stream at a rate of approximately one every 40 samples.

All blank data for P_2O_5 were reviewed by the Authors. If the assayed value in the certificate was indicated as being less than detection limit, the value was assigned the value of one-half the detection limit for data treatment purposes. An upper tolerance limit of ten times the detection limit was set. There were 76 AGAT data points to examine.

Results for the blank data are presented in Figure 11.3. The majority of data plots at or below the set tolerance limits and the Authors do not consider contamination to be an issue in the 2012 and 2014 drill hole sample data.

FIGURE 11.3 RESULTS FOR BLANK MATERIAL: P_2O_5



11.3.1.3 Performance of Laboratory Pulp Duplicates

Field duplicates were not inserted into the sample stream by Glen Eagle during the 2012 and 2014 drilling campaigns at the Property. However, laboratory duplicate data for P_2O_5 were reviewed by the Authors for the 2012 and 2014 sampling. The data were scatter graphed and the coefficient of determination ("R^2") and average coefficient of variation ("CV_{AVE}") were used to estimate precision (Figures 11.4 and 11.5). Duplicate samples with combined means of <15 times the detection limit, where higher grade variations nearer to the detection limit are more likely to occur, were included in the CV_{AVE} data, as there was only one data point that plotted above the acceptable range and its influence was considered negligible (Figure 11.5). The resultant R^2 value for P_2O_5 was estimated at 0.993 (Figure 11.4) and the CV_{AVE} at 4.9% (Figure 11.5). The Authors consider that the AGAT lab pulp duplicate data show acceptable precision at pulp level.

FIGURE 11.4 SCATTER PLOT OF AGAT LAB PULP DUPLICATES: P_2O_5

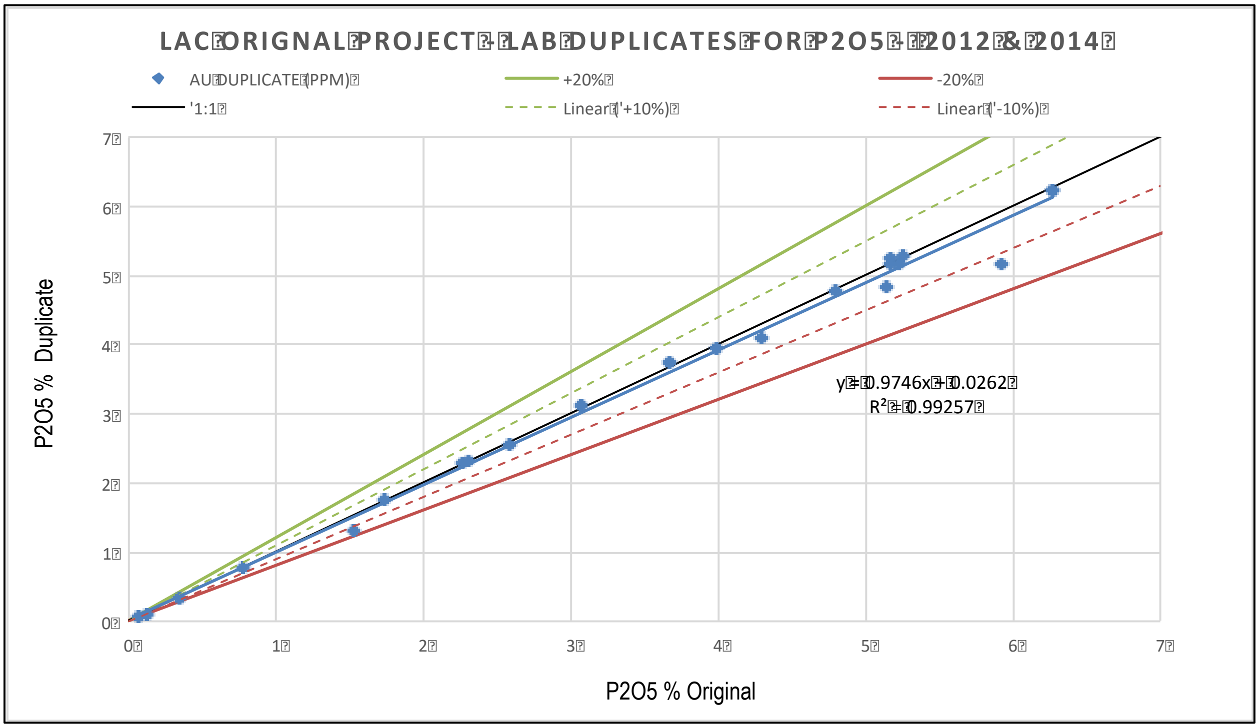
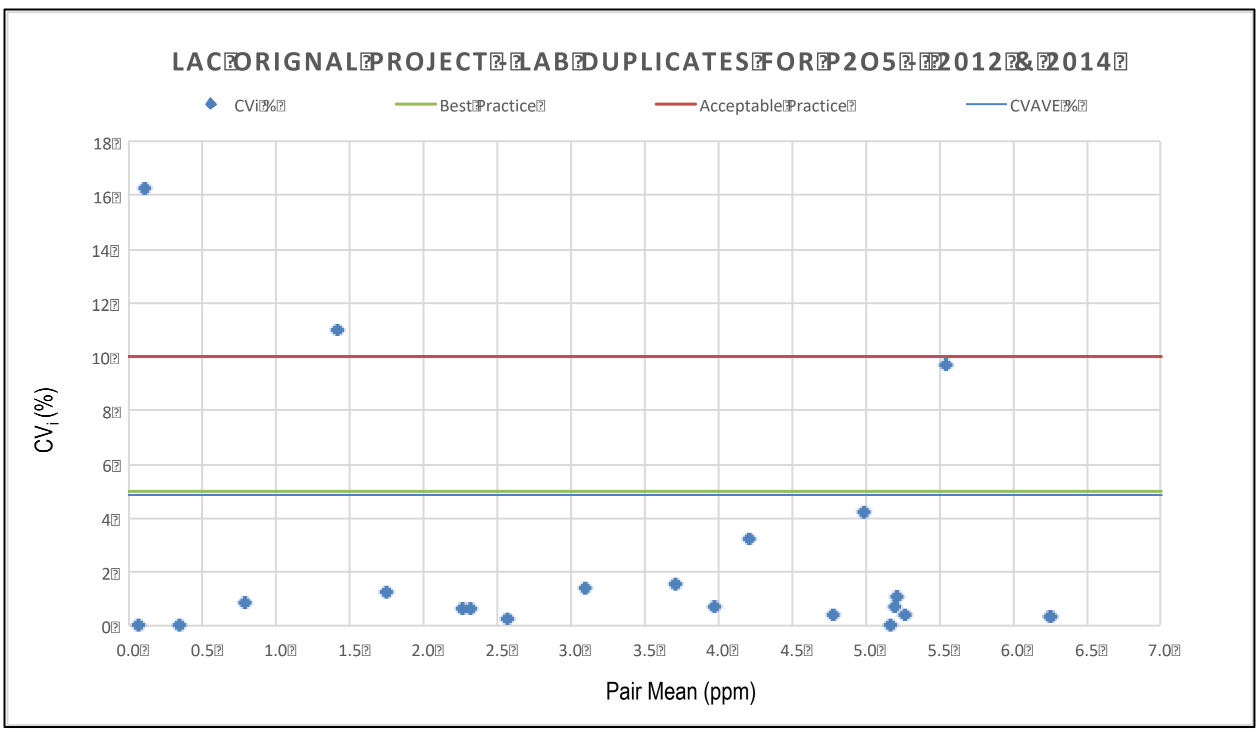


FIGURE 11.5 AVERAGE COEFFICIENT OF VARIATION OF AGAT LAB PULP DUPLICATES: P_2O_5



11.4 CONCLUSION

The Authors recommend the following be undertaken during future sampling at Lac à l'Orignal:

1. Round-robin characterization of the RMs at multiple reputable laboratories to obtain more robust performance data;

2. The routine and systematic insertion of field and coarse reject duplicates into the sampling stream; and

3. Check analyses of 5% to 10% of drill core samples taken at the Project, past and future, ensuring to include adequate QC samples to monitor umpire laboratory performance.

Included within the current Mineral Resource data are 54 trench and channel samples (R-Series data) taken from outcrops at the Property. The Authors have not reviewed the sample preparation, security and analytical procedures for these data. However, the Authors consider that the four assays included in the constrained Mineral Resource data (0.2% of the overall constrained data) to be of little or no material impact to the data.

In the opinion of the Authors, sample preparation, security and analytical procedures for the 2012 to 2014 drilling and re-assaying programs at the Lac à l'Orignal Project 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 Authors consider the data to be of good quality and satisfactory for use in the current Mineral Resource Estimate.

12.0 DATA VERIFICATION

12.1 DRILL HOLE, TRENCH AND CHANNEL DATABASE VERIFICATION

12.1.1 Assay Verification

Verification of drill hole, trench and channel assay data entry was performed by the Authors on 2,025 assay intervals for P_2O_5. Data from drill holes completed in 2012 and 2014, and all 54 trench and channel samples were verified. The 2,025 verified intervals were checked against original digital assay laboratory certificates provided directly to the Authors by AGAT. The checked assays represent 33.2% of the entire database of 3,216 samples, and 68.8% of the constrained data of 1,656 samples.

Errors were observed in 19 database samples and are summarized as follows:

- Duplicate samples were noted in drill holes LO-12-10 and LO-12-12 (sample number E5198701);
- The grades of eight samples in drill hole LO-14-25 (from 54 m to 66 m) were entered incorrectly and disagreed with AGAT lab certificate values and drill log data for this hole; and
- Discrepancies were noted between AGAT certificate and database values in ten trench/channel samples (trench/channel data affected: R1-A, R1-B, R1-C, R1-D, R1-E, R-2, R-18, R-19, R-20 and R-21).

All errors were reported to First Phosphate and subsequently corrected in the database. The Authors do not consider the discrepancies to have a significant impact on the data.

12.1.2 Drill Hole Data Verification

The Authors randomly selected six out of a total of 61 of the 2012 and 2014 drill holes included in the database (representing 11.3% of all data and 13% of the constrained data) for checking against the original "From-To" intervals, lithology descriptions, and down-hole deviation measurements in the original drill logs. No errors were observed in the data.

The Authors 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 intervals and coordinate fields. A few minor errors were identified and corrected in the database.

12.2 2022 P&E SITE VISIT AND INDEPENDENT SAMPLING

The Lac à l'Orignal Project was visited by Mr. Antoine Yassa, P.Geo., on July 7 and 8, 2022, for the purpose of completing a site visit that included viewing drilling sites and outcrops, GPS collar location verifications, discussions, and due diligence sampling.

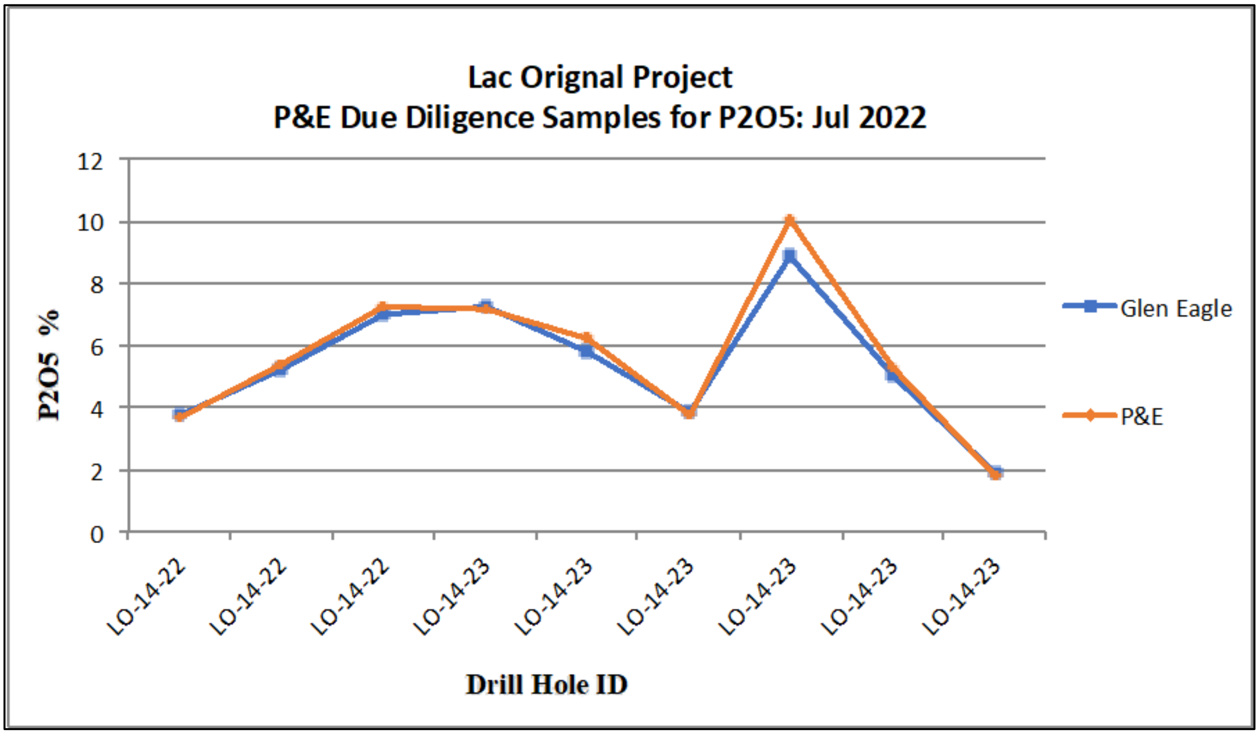
Mr. Yassa collected nine samples from three diamond drill holes during the July 7 and 8, 2022, site visit. All samples were selected from holes drilled in 2014. No drill core from the 2012 drilling program was available for verification sampling, due to the sale of the drill core storage facility and subsequent demolishing of the facility.

A range of high, medium, and low-grade samples were selected from the stored drill core. Samples were collected by taking a quarter of the previously split NQ drill core with the other quarter drill core remaining in the drill core box. Individual samples were placed in plastic bags with a uniquely numbered tag, after which all samples were collectively placed in a larger bag and shipped by DICOM directly to Actlabs in Ancaster, Ontario for analysis. In addition, a bulk sample of over 250 kg was also collected and delivered for metallurgical testing at SGS, Québec City.

Requested analyses for the due diligence samples included bulk density by the wet immersion method, followed by sample preparation and whole-rock analysis (Actlabs code 4B) for Lithium Borate Fusion / ICP-OES. Actlabs is an independent laboratory. 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.

Results of the Lac à l'Orignal site visit due diligence samples are presented in Figure 12.1.

FIGURE 12.1 P&E SITE VISIT RESULTS FOR P_2O_5



12.3 CONCLUSION

The Authors consider that there is good correlation between the P_2O_5 assay values in First Phosphate's database and the independent verification samples collected and analyzed at Actlabs. The Authors also consider that sufficient verification of the Project data has been undertaken and that the supplied data are of good quality and suitable for use in the current Mineral Resource Estimate.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

This Report section is a summary of 2022 and 2023 test results of laboratory investigations conducted by SGS Canada in the Québec City facilities.

13.1 TEST SAMPLE CHARACTERIZATION

A 250 kg lot of drill core representing 75 Lac à l'Orignal drill cores was forwarded on July 20, 2022 to the SGS Québec City laboratory. The samples were combined and crushed to a nominal size of 32 mm. A 30 kg sample was drawn off for SMC (SAG mill simulation) and Ai (abrasion index) tests. The remaining material was crushed to pass 6 Mesh (3.35 mm) and a 10 kg sample was taken as a cut-out for a Bond Work Index test. The remaining material was crushed to pass 10 Mesh (2 mm). Samples were cut for mineralogical and chemical analyses.

13.1.1 Chemical Analyses

Whole Rock Analyses ("WRA"), ICP, sulphide sulphur, and Satmangan analyses of the Lac à l'Orignal bulk sample are shown in Table 13.1.

TABLE 13.1
LAC À L'ORIGNAL COMPOSITE CHEMICAL ANALYSES

Major Constituents		ICP Scan		Rare Earth Elements	
Analyte	(%)	Analyte	(g/t)	Analyte	(g/t)
SiO_2	34.5	As	< 30	Dy	9.2
Al_2O_3	11.6	Ag	< 2	Er	3.6
Fe_2O_3	22.6	Ba	616	Eu	5.1
MgO	5.98	Be	< 0.2	Ce	109
CaO	11.5	Bi	< 20	Gd	17.2
Na_2O	2.18	Cd	< 2	Ge	< 2
K_2O	0.6	Co	93	Hg	0.3
TiO_2	4.01	Cu	26	Ho	1.6
P_2O_5	5.55	Li	< 10	La	48.3
MnO	0.19	Ni	46	Lu	0.3
Cr_2O_3	< 0.01	Mo	< 5	Nb	0.4
V_2O_5	0.06	Pb	< 20	Nd	92.1
Cl	0.01	Sb	< 30	Pr	18.4
F	0.42	Se	< 30	Rb	3
S^{2-}	0.46	Sn	< 20	Sm	19.7
Mag Fe	8.1	Sr	938	Tb	1.9
SAT (Fe_3O_4)	11.1	Tl	< 30	Th	0.6
		Y	39.1	Tm	< 0.4
		Zn	231	U	0.3
				Yb	2
				Zr	3.8

Source: *SGS Project Report, 19297-1 Final Report (March 13, 2023)*

Critical analytical results were the P_2O_5 (phosphate) content of 5.55%, the very low critical heavy metals, and a very low loss on ignition (LOI – 0.13%, LOI datum is absent from Table

13.1). The low LOI indicates the absence of carbonates which typically co-responds to flotation with phosphate minerals such as apatite. SAT represents a Satmagan analysis which provides a determination of magnetite content.

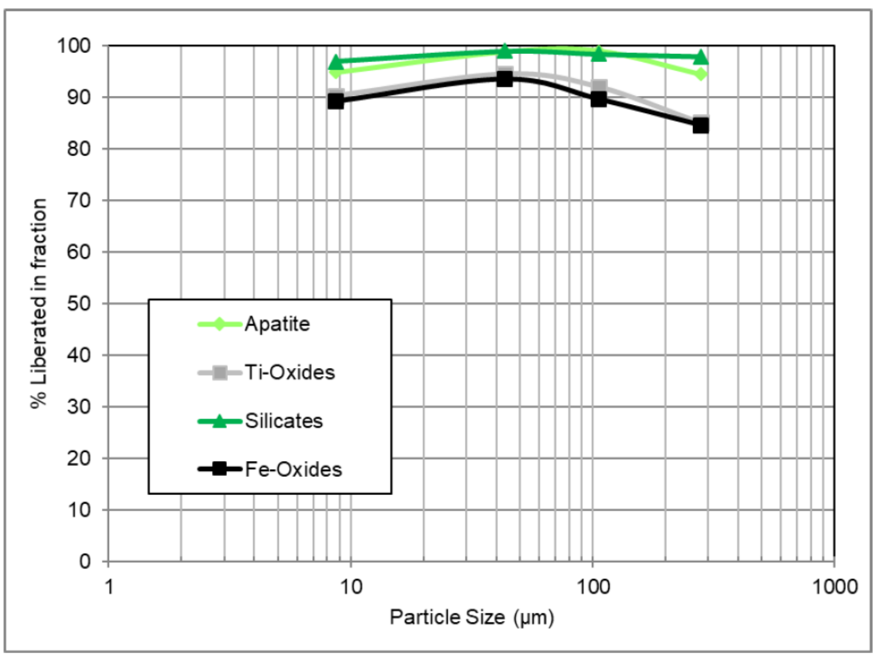
13.1.2 SGS Mineralogical Analyses

QEMSCAN analyses indicated that apatite was highly liberated in a sample stage ground to a P_{80} of 150 µm with a pure, free or liberated status of 96% in the following mineral matrix:

Mineral	Mass %
plagioclase	34.6
amphibole/pyroxene	24.4
apatite	13.4
iron oxides	11.8
ilmenite	7.4
micas	3.7
pyrite	1.7
other	3.0

Ilmenite and iron oxides (mainly magnetite) were observed to be less than 90% liberated at the P_{80} 150 µm grind size. A mineral release association in shown in Figure 13.1.

FIGURE 13.1 KEY MINERAL RELEASE CURVE



***Source**: SGS Report (March 13, 2023)*

The liberation data indicated that the apatite minerals were substantially liberated and the production of a clean concentrate was conceivable. However, the ilmenite and magnetite mineralization would require additional grinding and dedicated process strategies to produce high quality concentrates. Also, SEM (scanning electron microscope) examinations by SGS indicated some close association of ilmenite with iron oxides as well as the presences of titanomagnetite.

13.1.3 Queen's University Mineralogical Investigations

The Pufahl Research Group at the Queen's University Geology Department Facility for Isotope Research completed a detailed mineralogical study on representative drill core samples of the Lac à l'Orignal Phosphate Mineral Resource and of a concentrate produced in metallurgical tests at SGS's Québec City Laboratories.

The key findings and conclusions of this research were:

- The host-rock of First Phosphate's Lac à l'Orignal Deposit is a gabbronorite composed of plagioclase, orthopyroxene, clinopyroxene, biotite, fluorapatite, ilmenite, and magnetite. Fluorapatite is the primary phosphorous mineralizaton of economic interest. Magnetite and ilmenite are potential secondary commodities for conversion into iron and titanium products;

- Paragenetic relationships indicated that apatite precipitated throughout the crystallization history of the magma. However, the highest quality phosphatic mineralizaton was interpreted to have formed as apatite-magnetite-ilmenite cumulate layers that precipitated early to mid-way through the fractional crystallization process;

- The P_2O_5 concentration in the apatite is 41.7 ±0.26 wt%, which is slightly higher than values (40.5-41.2 wt%) in concentrates produced in SGS testwork;

- Other elements such as Si, Fe, Al, Mg, As, Cd, U and Th in the apatite concentrate were measured to be below deleterious threshold concentrations required for phosphorous to be used in the making of LFP (lithium-iron-phosphorous) batteries. These low levels of impurities would also support the potential use for gypsum wall board or hemihydrate that would be produced in the production of phosphoric acid, the primary chemical for the inclusion of phosphorous in the making of LFP batteries or for the production of high-quality fertilizers; and

- The halogen concentrations of the fluorapatite are variable with fluoride below levels of concern for the production of most phosphorous products. Chloride contents were measured to approach ideal values.

13.1.4 Conclusions of Mineralogical Studies

The detailed mineralogical studies by SGS and Queen's concluded that:

- The Lac à l'Orignal apatite mineralization is high purity and is readily liberated by moderate grinding (e.g., P_{80} 120 µm);

- The apatite impurities are low enough to meet tight specifications for LFP battery manufacture and for high-quality fertilizer production;

- The Deposit was classified by Queen's as a promising, viable source of P for the LFP battery market. The P_2O_5 and CaO concentrations and CaO/P_2O_5 ratios are better than required for phosphoric acid production; and

- The potential was identified for the production of separate magnetite and ilmenite concentrates that could be converted into iron and titanium products. The production of these concentrates would require specific procedures that would include medium to fine grinding (e.g., P_{80} 74 µm) to achieve mineral liberation and the application of concentration processes to reject sulphides and silicates.

13.2 COMMINUTION TEST RESULTS

SMC (SAG Mill Comminution, Abrasion Index ("Ai")) and Ball Mill Work Index ("BWI") were performed on the composite sample returning values of 50.3 (Axb), 0.291 g and 15.1 kWh/t, respectively. These values are in medium ranges for comparative materials.

13.3 MINERAL PROCESSING TESTS

13.3.1 Magnetic Separation Tests

The first step in the SGS mineral beneficiation program was the removal of magnetite employing a Low Intensity Magnetic Separator ("LIMS"). The LIMS concentrate was subsequently subject to regrind and Davis Tube separation procedures to magnetically upgrade the LIMS concentrate. While the Davis Tube process produced a concentrate approaching 69% to 70% iron and met the 4% SiO_2 (0.8% SiO_2) limit for a saleable iron concentrate, the 0.05% sulphur limit was exceeded (2% S). A sulphide flotation step was added and a concentrate containing 98% Fe_2O_3 and 0.11% sulphur was achieved.

13.3.2 Apatite Recovery by Flotation

A series of batch flotation tests were performed on LIMS "magnetic separation" tails. Rougher flotation was followed by regrinding of the rougher concentrate and multiple stages of cleaning. Desliming, a common process in industrial mineral processing, was determined to be unnecessary. Multi-stage high density conditioning, specific for the types of reagents used in phosphate mineral concentration, was applied. Multiple conditions and reagent schemes were tested with the final highly successful test using a combination of those listed in Table 13.2.

TABLE 13.2 APATITE FLOTATION CONDITIONS, REAGENTS		
Reagent/Condition Type	**Condition/Reagent**	**Notes**
Grinds – P_{80}	120/60	regrind rougher conc.
pH	10	
Soda Ash	0.5 kg/t	pH adjuster
Caustic Starch	0.63 kg/t	depressant
Fatty Acid	0.6 kg/t	collector
Sodium Silicate	0.35 kg/t	depressant
Caustic Soda	0.35 kg/t	saponify fatty acid

The final apatite flotation test was a 6-cycle locked-cycle test which produced an apatite concentrate containing 40.3% P_2O_5 at 91.0% recovery. The "mass pull" was 12.8%.

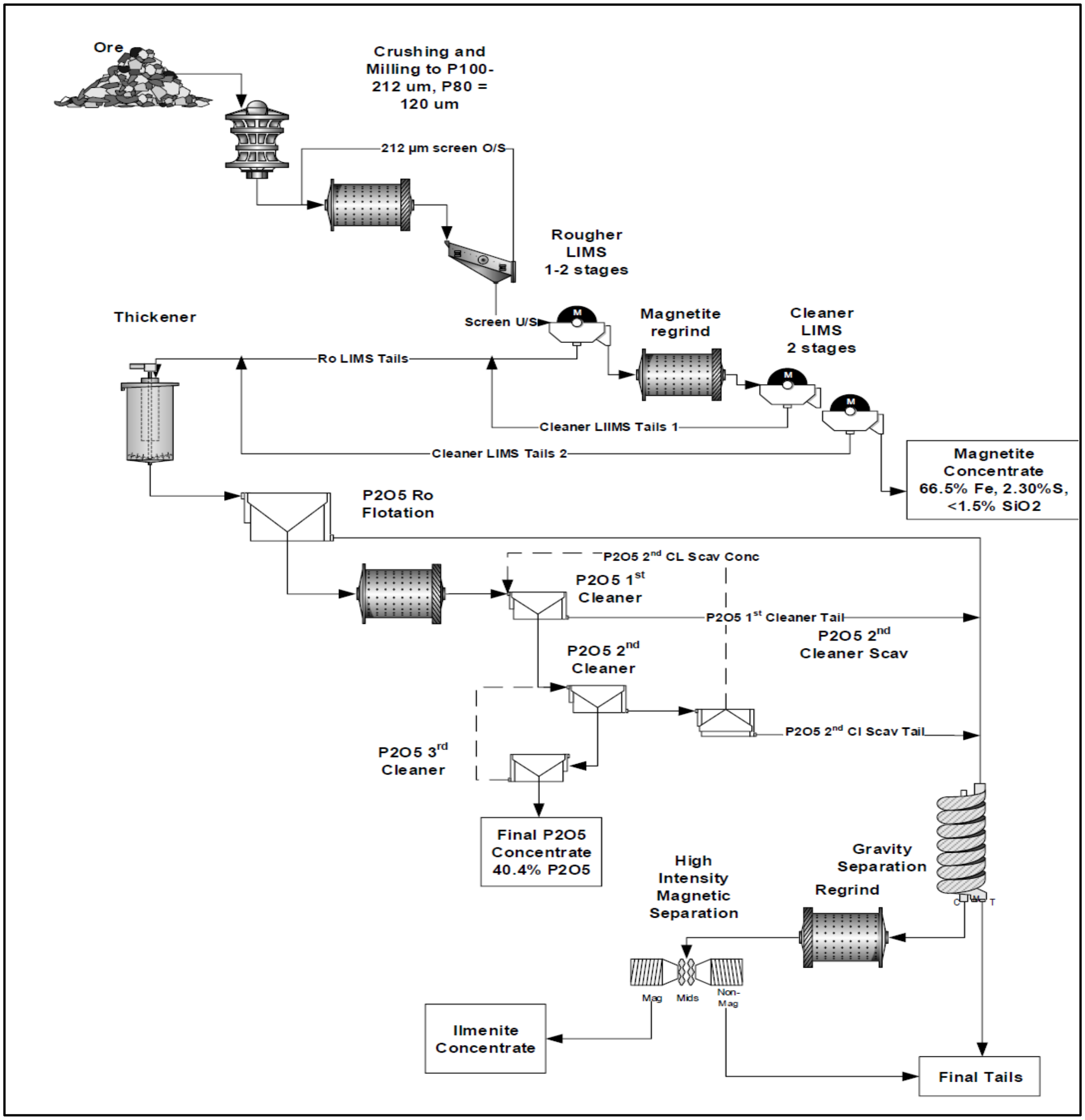
13.3.3 Ilmenite Recovery

Various tests were performed by SGS to concentrate ilmenite from the apatite tails. These tests included flotation, high intensity magnetic separation ("HIMS") and gravity separation using a Wilfley (shaking) Table. The best results were achieved with a combination of Wilfley Table and HIMS producing a concentrate assaying 39.3% TiO_2 at 23.8% recovery.

13.4 OVERALL BENEFICIATION FLOWSHEET

The conceived processes represented by the SGS testwork are shown in Figure 13.2. The apatite concentration steps represent fairly robust processes. Additional test development may be needed to produce saleable magnetite and ilmenite concentrates. A list and distribution of products representing the SGS test results on the 5.55% P_2O_5 composite sample is shown in Table 13.3.

FIGURE 13.2 PRELIMINARY PROCESS FLOWSHEET



Source: *SGS 1939701 Report (March 2023)*

Table 13.3 **Product Distribution Derived From Tests at SGS**										
Test Item	**Wt%**	**Assay**					**Distribution**			
		P_2O_5	**Fe_2O_3**	**Fe**	**TiO_2**	**S**	**P_2O_5**	**Fe**	**TiO_2**	**S**
Feed*	100	5.55	22.6	15.8	4.01	0.46	100	100	100	100
Feed calc'd		5.55	23.4	16.4	4.08	0.46				
Magnetics Conc.	13.9	0.94	88.0	61.5	2.02	2.09	2.36	52.1	6.9	62.9
Fe Conc.	*(9.9)***	*(0.07)*	*(98.2)*	*(68.7)*	*(0.62)*	*(0.11)*	*(1.64)*	*(34.4)*	*(1.5)*	*(9.9)*
Fe-S Tails	*(4.0)***	*(3.4)*	*(52.3)*	*(41.4)*	*(5.48)*	*(6.07)*	*(0.72)*	*(17.7)*	*(5.4)*	*(53)*
Apatite Conc.	12.5	40.2	0.85	0.59	0.25	0.05	90.55	0.45	0.77	1.4
Ilmenite Conc	2.4	0.07	56.6	38.6	39.7	0.63	0.01	5.6	23.4	3.3
Apatite + TiO_2 Tails	71.2	0.55	13.8	9.64	3.95	0.21	7.06	41.8	69.0	32.4

**Direct assay; **Fe Conc and Fe-S tails are created by S removal from magnetics conc.*

13.5 TEST WORK SUMMARY

Mineralogical examinations at SGS and Queen's University indicated that the apatite present in the Lac à l'Orignal composite sample is a high purity fluorapatite which can be readily liberated from a silicate-magnetite-ilmenite mineral matrix. The apatite purity was identified as suitable for the production of high purity phosphoric acid and as a source of phosphorous for LFP EV batteries. The apatite content in the sample was 13.4% weight (5.55% P_2O_5). Magnetite and ilmenite content (11.8 and 7.4% weight respectively) were identified as potential recoverable and saleable byproducts.

Following the removal of the magnetite by magnetic separation the apatite response to 2-stage grinding and fatty-acid flotation in an alkaline condition was very good. Based on bench-scale test results on the 5.55% P_2O_5 composite sample, the following grade-recovery response of apatite was achieved:

Apatite: 40.2% P_2O_5 grade and 90.6% recovery, 12.5% weight of process feed (mass pull).

The magnetite content of the composite sample was effectively removed by LIMS separation. Following a regrind of the magnetite concentrate a reasonable grade of magnetite (61.5% Fe) was obtained. However, the sulphur content exceeded common specifications at 2% S. Subsequent sulphide flotation, reduced the sulphur content to 0.11% S, slightly above a common specification for iron making and for producing other iron products. The iron content was raised to 68.7% Fe (98.2% Fe_2O_3) following sulphide removal by flotation. Based on the bench-scale test results the magnetite concentrate response was:

Magnetite: 68.7% Fe, 34.4% recovery of iron, 9.9% weight of process feed (mass pull).

Preliminary test results indicated that the potential existed for the production of a marketable ilmenite ($FeTiO_3$) concentrate. A concentrate containing 39.7% TiO_2 was produced in the limited test program. This value represents an approximately 75% ilmenite purity. Based on the preliminary test results the ilmenite concentration response could be identified as:

Ilmenite: 39.7% TiO_2, 23.4% recovery in 2.4% weight of process feed (mass pull).

13.6 RECOMMENDATIONS

Addition tests are recommended to:

- Confirm grades and recoveries of apatite from fresh samples in further bench-scale and pilot-scale testing. A bulk concentrate is expected to be needed to confirm suitability for LFP production. A variation in feed grade and mineralization (e.g., mica content) could be evaluated;

- Complete tests on upgrading the purity and recovery of a magnetite concentrate, targeting the specifications for ferrous sulphate production (e.g., for LFP batteries) and for iron-making. The consideration of the need to pelletize and sinter a fine magnetite concentrate for iron-making could be evaluated; and

- Conduct tests on improving grades and recovery of ilmenite. Consider chemical conversion of an ilmenite concentrate into ferrous sulphate and titanium oxide products.

It is understood by the Authors that test procedures to address the recommendations above are currently being developed by SGS.

14.0 MINERAL RESOURCE ESTIMATE

14.1 INTRODUCTION

The purpose of this Report section is to summarize the Initial Mineral Resource Estimate for the Lac à l'Orignal Project in Québec of First Phosphate Corp. 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 to a Mineral Reserve. Confidence in the estimate of an 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 First Phosphate Corp., and was undertaken by Yungang Wu, P.Geo., and Eugene Puritch, P.Eng., FEC, CET of P&E Mining Consultants Inc. of Brampton, Ontario. This Mineral Resource Estimate was supervised, reviewed and accepted by Antoine Yassa, P.Geo., of P&E, an independent Qualified Person in terms of NI 43-101. Mr. Yassa is considered to be the "Author" of this Report section. The effective date of this Mineral Resource Estimate is October 3, 2022.

14.2 DATABASE

All drilling/channel and assay data were provided in the form of Excel data files by First Phosphate. The GEOVIA GEMS™ V6.8.4 database for this Mineral Resource Estimate, compiled by the Authors, consisted of 63 drill holes and 17 surface channel samples totalling 7,984 m and 149.5 m, respectively. A total of 49 drill holes (6,393 m) and five channel samples (27 m) intersected the mineralization wireframes used for the Mineral Resource Estimate. Six drill holes in the database completed more than 3 km north of the Mineral Resource area were not utilized in this Mineral Resource Estimate. A drill hole plan is shown in Appendix A.

The drill hole and channel sample database contained P_2O_5, Fe_2O_3 and TiO_2 assays. The basic statistics for all raw assays in the Mineral Resource Estimate area are presented in Table 14.1.

Table 14.1 Assay Database Summary				
Variable	**P_2O_5 (%)**	**Fe_2O_3 (%)**	**TiO_2 (%)**	**Sample Length (m)**
Number of Samples	2,880	2,880	2,880	2,880
Minimum Value	0.01	0.00	0.00	0.50
Maximum Value	17.80	68.60	10.90	3.00
Mean	3.45	17.47	3.18	1.48
Median	3.85	17.00	3.29	1.50
Variance	5.34	97.36	3.40	0.02
Standard Deviation	2.31	9.87	1.84	0.12
Coefficient of Variation	0.67	0.56	0.58	0.08

Note: *P_2O_5 - Phosphorus pentoxide, Fe_2O_3 = iron oxide, TiO_2 = titanium dioxide.*

All drill hole survey and assay values are expressed in metric units. The coordinates are in the UTM system NAD 83, Zone 19N.

14.3 DATA VERIFICATION

Mineral Resource database checks were completed according to the verification procedures and protocols described in Sections 11 and 12 of this Report. The Authors are of the opinion that the supplied database is suitable for Mineral Resource estimation.

14.4 WIREFRAME INTERPRETATION

The Lac à l'Orignal Deposit mineralized wireframe boundaries were determined from lithology, structure, and grade boundary interpretation from visual inspection of drill hole vertical cross-sections. Three mineralized wireframes were developed and referred to as Main, HW (hanging wall) and FW (footwall) Zones. The mineralized wireframes were constructed on 100 m spaced vertical cross-sections with computer screen digitizing polylines on drill hole vertical cross-sections in GEMS™ by the Authors. The mineralized wireframe outlines were influenced by the selection of mineralized material above 2.5% P_2O_5 that demonstrated a lithological and structural zonal continuity along strike and down-dip. In some cases, mineralization $<2.5\%$ P_2O_5 was included for the purpose of maintaining zone continuity. On each vertical cross-section, polyline interpretations were digitized from drill hole to drill hole, however, not typically extended more than 100 m into untested territory. Minimum constrained width for interpretation was 3 m of drill core length.

The resulting Main Mineral Resource mineralized wireframe is 2,230 m long, 50 m to 445 m thick (true thickness is 2.97 m to 99.5 m), strikes east-west, and dips 25° to 30° north. The mineralized wireframes were utilized as constraining boundaries during Mineral Resource estimation for purposes of rock coding, statistical analysis and compositing limits. The 3-D mineralized wireframes are presented in Appendix B.

The topographic and overburden surfaces were created using LiDAR results from the Québec government website (www.diffusion.mffp.gouv.qc.ca) and drill hole logs. All mineralized wireframes were truncated at the top of the bedrock surface.

14.5 ROCK CODE DETERMINATION

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

TABLE 14.2
ROCK CODES USED FOR THE MINERAL RESOURCE ESTIMATE

Wireframe	Rock Code	Wireframe Volume (m^3)
Main	100	17,786,392
FW	200	1,238,570
HW	300	1,034,941
Air	0	
OVB	10	
Waste	99	

14.6 MINERALIZED WIREFRAME CONSTRAINED ASSAYS

Mineralized wireframe constrained assays were back coded in the assay database with rock codes that were derived from intersections of the mineralized wireframes and drill holes. The basic statistics of the mineralized wireframe constrained assays are presented in Table 14.3.

TABLE 14.3
MINERALIZED WIREFRAME CONSTRAINED ASSAY SUMMARY

Variable	P_2O_5 (%)	Fe_2O_3 (%)	TiO_2 (%)	Sample Length (m)
Number of Samples	1,667	1,667	1,667	1,667
Minimum Value	0.08	0.00	0.00	0.60
Maximum Value	17.80	48.40	8.45	2.50
Mean	5.01	22.53	4.14	1.48
Median	5.03	22.40	4.25	1.50
Variance	2.01	58.03	1.83	0.01
Standard Deviation	1.42	7.62	1.35	0.11
Coefficient of Variation	0.28	0.34	0.33	0.07

Note: *P_2O_5 - Phosphorus pentoxide, Fe_2O_3 = iron oxide, TiO_2 = titanium dioxide.*

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/channel sample intervals that fell within the constraints of the above-described Mineral Resource mineralized wireframes. The composites were calculated for P_2O_5, Fe_2O_3 and TiO_2 over 1.5 m lengths starting at the first point of intersection between the assay data drill hole/channel sample and the hanging wall of the 3-D mineralized wireframe constraint. The compositing process was halted on exit from the footwall of the mineralized wireframe constraint. Explicit missing samples (intervals without results like lost core or poor recovery) were treated as nulls based on the nature of mineralization, whereas implicit missing samples (unsampled intervals) were assigned a background value of 0.01%. If the last composite interval was <0.50 m, the composite length was adjusted to make all composite intervals of the mineralized wireframe intercept equal. The resulting composite length ranged from 1.44 m to 1.52 m. This process would not introduce any short sample bias into 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 Comp	P_2O_5 Cap	Fe_2O_3 Comp	Fe_2O_3 Cap	TiO_2 Comp	TiO_2 Cap	Length (m)
Number of Composites	1,652	1,652	1,631	1,631	1,631	1,631	1,652
Minimum Value	0.08	0.08	2.28	2.28	0.21	0.21	1.44
Maximum Value	17.80	10.00	48.33	40.00	8.44	7.10	1.52
Mean	5.00	5.00	22.79	22.78	4.19	4.19	1.50
Median	5.03	5.03	22.40	22.40	4.26	4.26	1.50
Geometric Mean	4.74	4.73	21.47	21.46	3.95	3.95	1.50
Variance	1.94	1.81	52.84	52.61	1.65	1.64	0.00
Standard Deviation	1.39	1.34	7.27	7.25	1.28	1.28	0.01
Coefficient of Variation	0.28	0.27	0.32	0.32	0.31	0.31	0.01

Note: *P_2O_5 - phosphorus pentoxide, Fe_2O_3 = iron oxide, TiO_2 = titanium dioxide, Comp = composite, Cap = capped composite.*

14.8 GRADE CAPPING

Grade capping was investigated on the 1.5 m composite values in the database within the constraining mineralized wireframes to ensure that the possible influence of erratic high-grade values did not bias the database and subsequent grade interpolation. Log-normal histograms and log-probability plots were generated for each mineralized wireframe and the resulting selected graphs are exhibited in Appendix C. The capped composite statistics are summarized in Table 14.4. The grade capping values are detailed in Table 14.5. The capped composites were utilized to develop variograms and for block model grade interpolation.

Table 14.5 Grade Capping Values									
Mineral	**Wireframe**	**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**
P_2O_5	Main	1,449	10	4	5.16	5.15	0.26	0.25	99.7
P_2O_5	FW	110	No cap	0	4.03	4.03	0.24	0.24	100
P_2O_5	HW	93	8	1	3.73	3.71	0.36	0.34	98.9
Fe_2O_3	Main	1,428	40	1	23.40	23.39	0.32	0.31	99.9
Fe_2O_3	FW	110	No cap	0	20.99	20.99	0.16	0.16	100
Fe_2O_3	HW	93	24	1	15.52	15.49	0.26	0.25	98.9
TiO_2	Main	1,428	7.1	1	4.23	4.23	0.31	0.31	99.9
TiO_2	FW	110	No cap	0	4.50	4.50	0.19	0.19	100
TiO_2	HW	93	No cap	0	3.26	3.26	0.32	0.32	100

Note: *CoV = Coefficient of Variation*

14.9 VARIOGRAPHY

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

Continuity ellipses based on the observed ranges were subsequently generated and utilized as the basis for grade 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 bulk density block model was derived from nine samples taken by the Authors that were analyzed by Activation Laboratories in Ancaster, ON, using the water immersion method. The average bulk density was 3.04 t/m^3.

14.11 BLOCK MODELLING

The Lac à l'Orignal block model was constructed using GEOVIA GEMS™ V6.8.4 modelling software. The block model origin and block size are presented in Table 14.6. The block model consists of separate model attributes for estimated P_2O_5, Fe_2O_3 and TiO_2 grade, rock type (mineralized wireframes), volume percent, bulk density, and classification.

TABLE 14.6
BLOCK MODEL DEFINITION

Direction	Origin	No. of Blocks	Block Size (m)
X	383,950	540	5
Y	5,436,600	200	5
Z	680	64	5
Rotation	no rotation		

All blocks in the rock type block model were initialled with a waste rock code of 99, corresponding to the surrounding country rocks. The mineralized wireframes were used to code all blocks within the rock type block model that contain ≥1% volume within the mineralized wireframe. These blocks were assigned the rock type codes presented in Table 14.2. The overburden and topographic surfaces were subsequently utilized to assign rock codes 10 and 0, corresponding to overburden and air respectively, to all blocks ≥50% above those 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 mineralized wireframes. As a result, the mineralized wireframe boundary was properly represented by the volume percent model ability to measure individual infinitely variable block inclusion percentages within that mineralized wireframe. The minimum percentage of the mineralized block was set to 1%.

The P_2O_5, Fe_2O_3 and TiO_2 grade blocks were interpolated with Inverse Distance Squared ("ID^2"). Nearest Neighbour ("NN") was utilized for validation. Multiple passes were executed for the grade interpolation to progressively capture the sample points to avoid over-smoothing and preserve local grade variability. Search ranges and directions were based on the variograms. Grade blocks were interpolated using the parameters in Table 14.7.

TABLE 14.7
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
I	60	30	15	3	7	12
II	100	50	20	3	4	12
III	400	200	80	3	1	12

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

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

14.12 MINERAL RESOURCE CLASSIFICATION

It is the Authors' opinion that the drilling, assaying and exploration work on the Lac à l'Orignal Project support this Mineral Resource Estimate and are sufficient to indicate a reasonable potential for economic extraction, and thus it is qualified as a Mineral Resource under the CIM definition standards. The Mineral Resource is classified as Indicated and Inferred, based on the geological interpretation, variogram performance and drill hole spacing. The Indicated Mineral Resource is classified for the blocks interpolated with the Pass I and II, which used at least four composites from a minimum of two holes; and Inferred Mineral Resource is classified for all remaining grade populated blocks within the mineralized wireframes. The classifications were adjusted manually to reasonably reflect the distribution of each classification. Selected classification block cross-sections and plans are attached in Appendix F.

14.13 P_2O_5 CUT-OFF CALCULATION

The Lac à l'Orignal Mineral Resource Estimate was derived from applying P_2O_5 percent 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 cut-off value that determines the open pit mining potentially economic portions of the constrained mineralization. An optimized pit shell is presented in Appendix G.

The P_2O_5 cut-off value is calculated with parameters below:

CAD$:US$ Exchange Rate	0.80
P_2O_5 Price	US$200/t (approximate two-year trailing average)
P_2O_5 Process Recovery	75%
Processing Cost	CAD$9.00/t
G&A	CAD$3.25/t
Mining Cost	CAD$2.50/t
Pit Slope	45°

The P_2O_5 cut-off for potential open pit mining is calculated at 2.5%.

14.14 MINERAL RESOURCE ESTIMATE

The resulting pit-constrained Mineral Resource Estimate at the effective date of this Report is tabulated in Table 14.8. The Authors are of the opinion that the mineralization of the Lac à l'Orignal Project is potentially amenable to open pit economic extraction.

TABLE 14.8
PIT-CONSTRAINED MINERAL RESOURCE ESTIMATE (1-4) AT 2.5% P_2O_5 CUT-OFF

Class-ification	Tonnes (Mt)	P_2O_5 (%)	Contained P_2O_5 (kt)	Fe_2O_3 (%)	Contained Fe_2O_3 (Mt)	TiO_2 (%)	Contained TiO_2 (Mt)
Indicated	15.8	5.18	821	23.90	3.8	4.23	0.67
Inferred	33.2	5.06	1,682	22.55	7.5	4.16	1.38

Note: *P_2O_5 = phosphorus pentoxide, Fe_2O_3 = iron oxide, TiO_2 = titanium dioxide.*

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 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.

The optimized pit-constrained Mineral Resource Estimate is sensitive to the selection of a reporting P_2O_5 cut-off value that is demonstrated in Table 14.9.

Classification	Cut-off P_2O_5 (%)	Tonnes (M)	P_2O_5 (%)	Contained P_2O_5 (kt)	Fe_2O_3 (%)	TiO_2 (%)
Indicated	5.0	9.5	5.67	538	23.91	4.19
	4.5	12.9	5.43	703	24.41	4.31
	4.0	14.8	5.29	783	24.24	4.28
	3.5	15.6	5.21	812	24.03	4.26
	3.0	15.8	5.19	819	23.93	4.24
	2.5	**15.8**	**5.18**	**821**	**23.90**	**4.23**
	2.0	15.9	5.18	821	23.88	4.23
Inferred	5.0	18.9	5.62	1,061	23.28	4.22
	4.5	25.3	5.41	1,370	23.53	4.28
	4.0	29.5	5.25	1,546	23.20	4.24
	3.5	32.2	5.12	1,647	22.77	4.19
	3.0	33.0	5.07	1,676	22.60	4.17
	2.5	**33.2**	**5.06**	**1,682**	**22.55**	**4.16**
	2.0	33.3	5.05	1,684	22.52	4.16

Table 14.9
Pit-Constrained Mineral Resource Estimate Sensitivity to P_2O_5 Cut-off

Note: *P_2O_5 = phosphorus pentoxide, Fe_2O_3 = iron oxide, TiO_2 = titanium dioxide.*

14.15 CONFIRMATION OF ESTIMATE

The block model was validated using a number of industry standard methods, including visual and statistical methods, as follows:

- Visual examination of composites and block grades on successive plans and cross-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 grade estimation;
  - Number of drill holes used for grade estimation;
  - Number of passes used for grade estimation;
  - Mean value of the composites used;
  - Mean distance to sample used;
  - Actual distance to closest point; and
  - Grade of true closest point.
- A comparison of P_2O_5 mean composite grades with the block model for the Main wireframe is presented in Table 14.10.

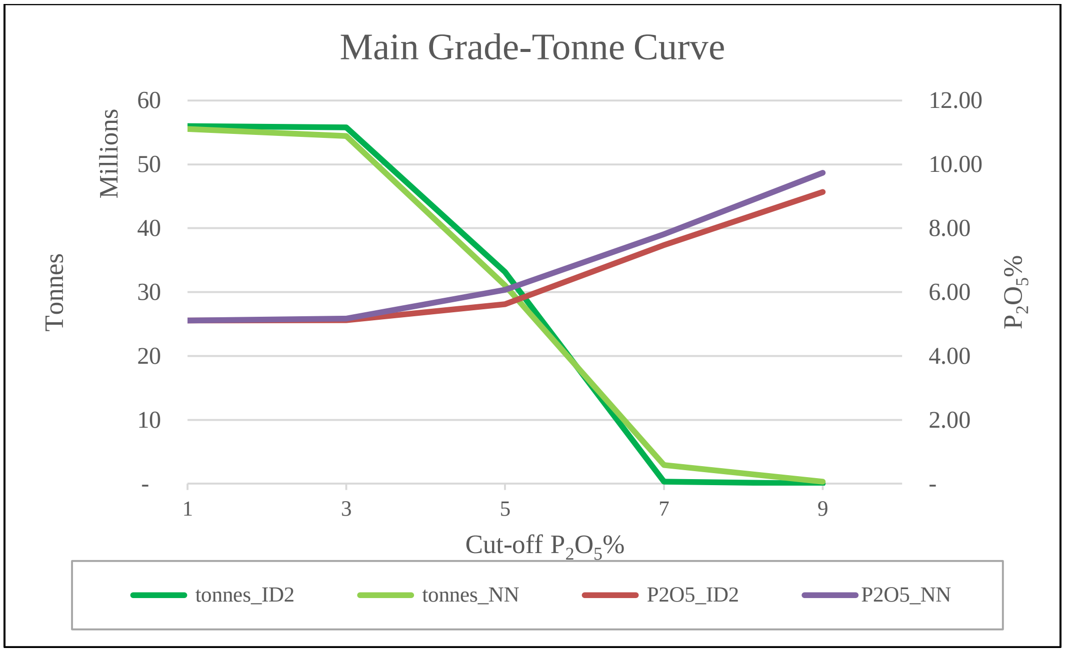
TABLE 14.10 AVERAGE P_2O_5 GRADE COMPOSITE COMPARISON WITH BLOCK MODEL FOR THE MAIN WIREFRAME	
Data Type	**P_2O_5 (%)**
Composites	5.16
Capped Composites	5.15
Block Model ID^2	5.10
Block Model NN	5.07

Notes: *P_2O_5 = phosphorus pentoxide.*
ID^2 = block model grades were interpolated using 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 estimation. 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 model.

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

FIGURE 14.1 GRADE-TONNAGE CURVE OF MAIN WIREFRAME ID^2 VERSUS NN INTERPOLATION



P_2O_5 local trends of the Main wireframe 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 agreed well.

FIGURE 14.2 MAIN WIREFRAME P_2O_5 GRADE SWATH PLOT EASTING

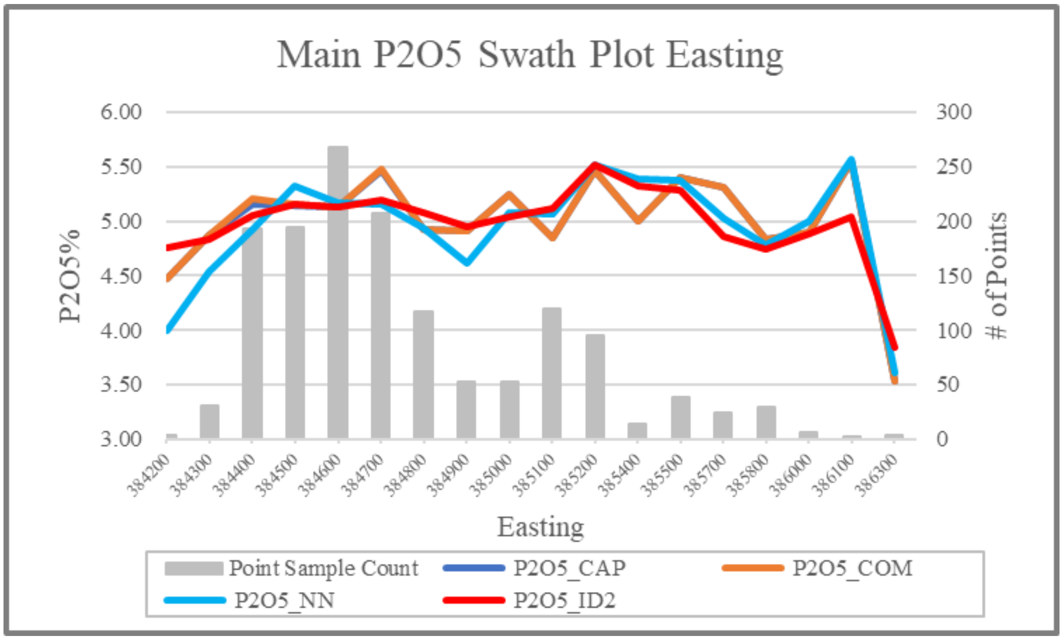


FIGURE 14.3 MAIN WIREFRAME P_2O_5 GRADE SWATH PLOT NORTHING

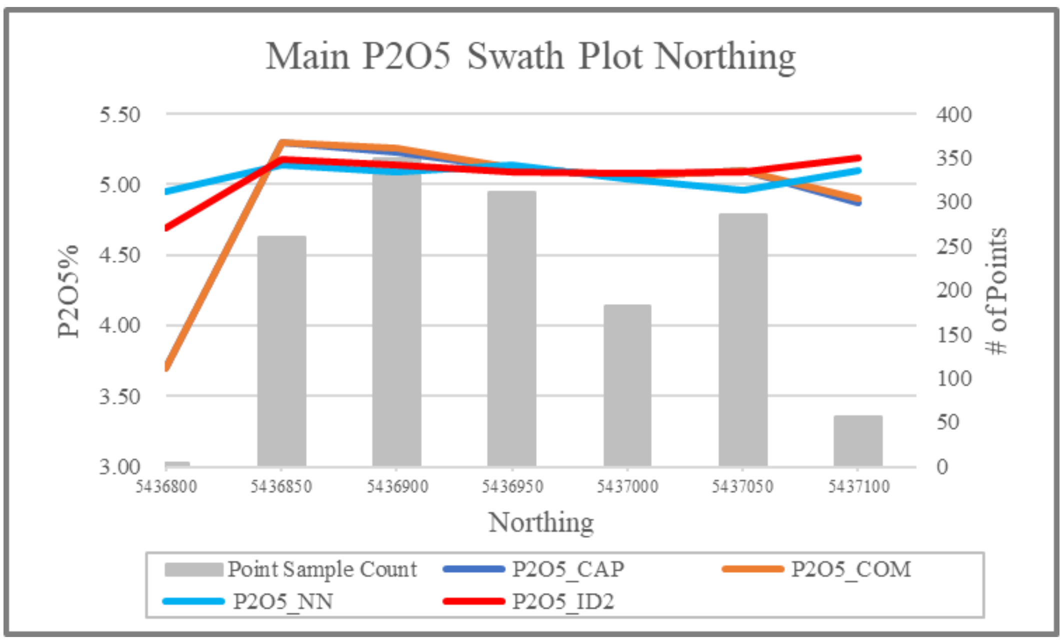
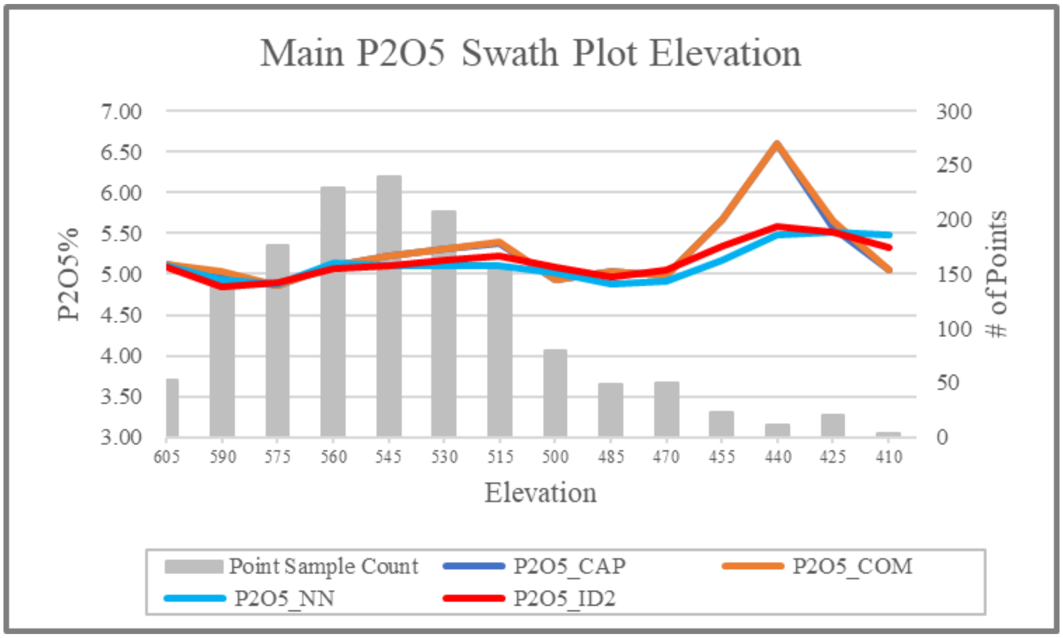


FIGURE 14.4 MAIN WIREFRAME P_2O_5 GRADE SWATH PLOT ELEVATION



15.0 MINERAL RESERVE ESTIMATES

This section is not applicable to this Report.

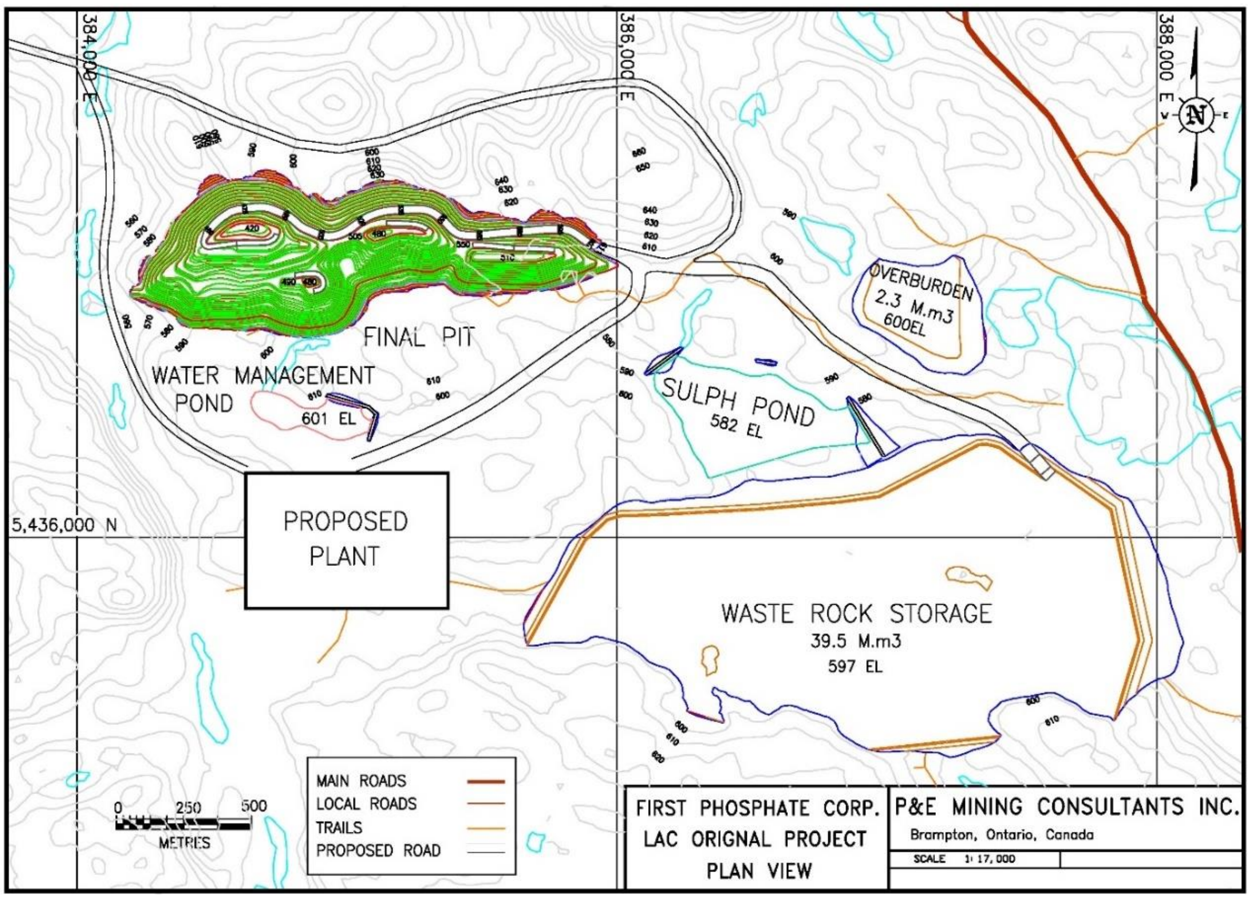
16.0 MINING METHODS

The Lac à l'Orignal Project consists of a relatively shallow phosphate deposit that lends itself to conventional open pit mining methods. Accordingly, this PEA mine plan entails developing a single open pit to support a phosphate concentrating operation. Iron and titanium minerals will also be potentially recovered in the processing operation. No underground mining is required in the PEA mine plan.

The PEA mine production plan utilizes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them to be categorized as Mineral Reserves. There is no certainty that the Inferred Mineral Resources will be upgraded to a higher Mineral Resource category in the future.

Figure 16.1 provides a general overview of the Project site, showing the location of the open pit, and proposed overburden and waste rock storage facilities. The process plant site will be located to the south of the open pit.

FIGURE 16.1 GENERAL MINE LAYOUT



The design of the open pit and the preparation of the mine production schedule requires several technical steps. These are:

- Complete Lerches-Grossman pit optimizations to select the optimal shell to be used for open pit design.

- Design an operational pit (with ramps and catch benches) based on the optimal pit shell.

- Develop a life-of-mine mine production schedule, supplying 3.83 million tonnes per annum "Mtpa" (10,500 tonnes per day) of phosphate feed to the process plant.

16.1 PIT OPTIMIZATIONS

A series of Lerches-Grossman pit optimizations were completed using the NPV Scheduler™ Datamine software. The pit optimization analysis produces a series of nested pit shells, each containing mineralized material that is economically mineable according to a given set of physical and economic criteria. An optimal shell is then selected as the basis for the operational pit design.

The pit optimizations were run using the parameters shown in Table 16.1. The base case phosphate concentrate price was US$332/tonne. No revenue was attributed to iron or titanium in the pit optimization. The analysis included Indicated and Inferred Mineral Resources.

The south side pit wall slope angle was specified at 46° maximum; however, the main south pit wall will follow the mineralized zone footwall, resulting in a wall angle closer to 35°.

TABLE 16.1
PIT OPTIMIZATION PARAMETERS

Parameter	Unit	Value
Resource Classification Used	all	Ind & Inf
Production Rate	t/day	10,500
	tpa	3,832,500
Mining Costs		
Mining cost - feed	$/t mined	2.80
Mining cost - waste rock	$/t mined	2.50
Mining cost - overburden	$/t mined	2.00
Plant Costs		
Processing cost (beneficiation)	$/t processed	15.16
G&A Cost ($8M year)	$/t processed	2.09
Total Processing + G&A	**$ t processed**	**17.24**
Concentrate Costs (Deductions)		
Transport to Port	$/t conc	29.00
Port Charges and Ship Loading	$/t conc	15.00
Phosphate Price Model		
Exchange Rate (FX)	CAD$:US$	0.77
Phosphate Price Input	US$/dmt	332.50
Phosphate Price	CAD$/dmt	431.82
(-) Concentrate Costs	CAD$/dmt	-44.00

Table 16.1 **Pit Optimization Parameters**		
Parameter	**Unit**	**Value**
Phosphate Net Price	CAD$/dmt	387.82
Concentrate Grade	% P_2O_5	40
P_2O_5 Recovery	%	91.0
Cut-off Grade (% P_2O_5)	% P_2O_5	1.95
Pit Slopes (Optimization Slopes)		**Maximum**
North Wall (270 - 90°) – Hanging Wall	deg	46
South Wall (90 - 270°) - Footwall	deg	46
Overburden (if any)	deg	32

The results of optimization are shown graphically in Figures 16.2 and Figure 16.3. The 100% Revenue Factor ("RF") corresponds to the base case phosphate price of US$332/tonne.

Figure 16.2 indicates that beyond a Revenue Factor of 70%, the process plant feed tonnage increases very gradually. This is due to the optimized shells are nearing the economic limit of the block-model-defined mineralized zone along the north side. Further expansion of the Mineral Resource block model to the north may allow the pit to advance further north, adding more mineable tonnage at higher waste strip ratios.

Figure 16.3 shows that the NPV of the Deposit also starts to level off above a RF of 65%. The 72% RF shell was selected as the basis for the open pit design.

Figure 16.2 Optimization Result - Tonnage Versus Revenue Factor

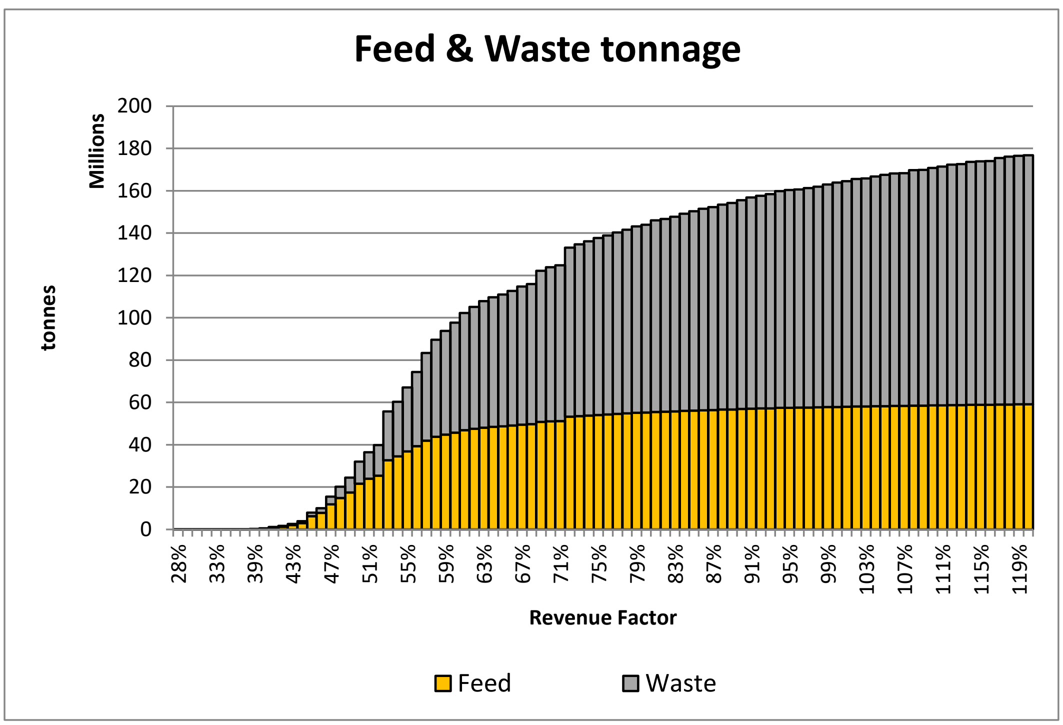
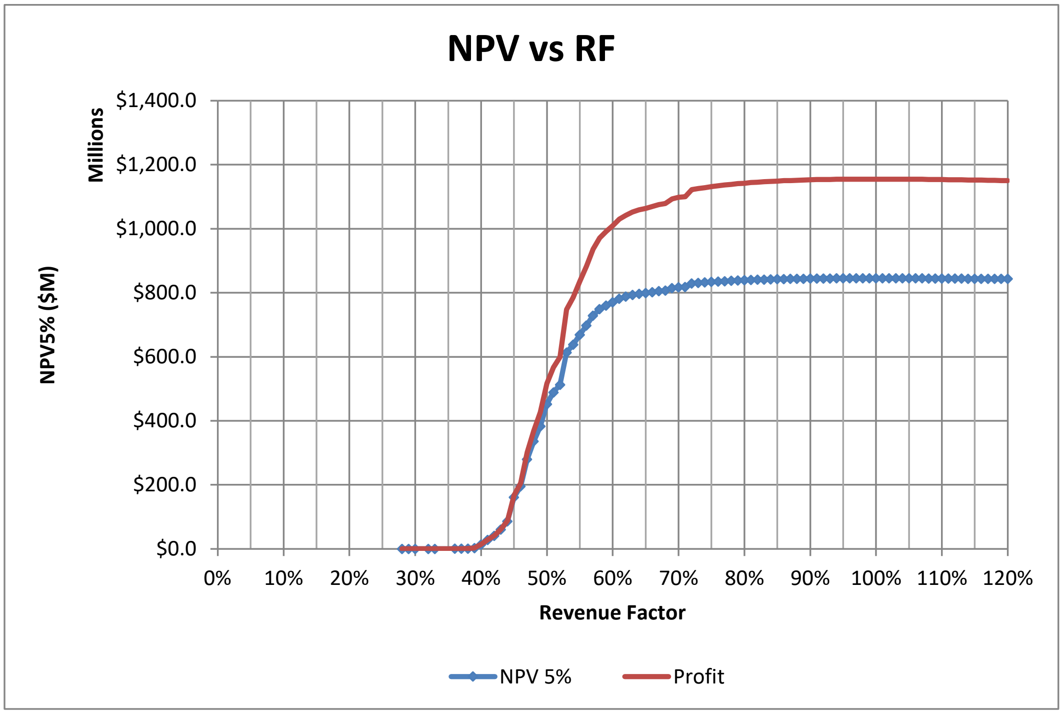


FIGURE 16.3 OPTIMIZATION RESULT - NPV VERSUS REVENUE FACTOR



Figures 16.4 and 16.5 provide a plan view and vertical cross-section for several optimization shells, illustrating the impact of increasing RF (i.e., commodity price) on the pit size. The labels "72%-$239/t" indicate that the RF% and the corresponding P_2O_5 price used to define that shell. The 72% shell (green) was selected as the basis for the open pit design.

The vertical cross-section in Figure 16.5 also shows the Mineral Resource model blocks with grades exceeding 1.95% P_2O_5 and illustrates that the north wall (right side) is constrained by the Mineral Resource block model. This vertical cross-section also illustrates how the south wall of the pit (left side) is following the mineralized zone footwall. The north pit wall (right side) is steepened to the maximum slope angle.

FIGURE 16.4 OPTIMIZATION RESULT - PLAN VIEW

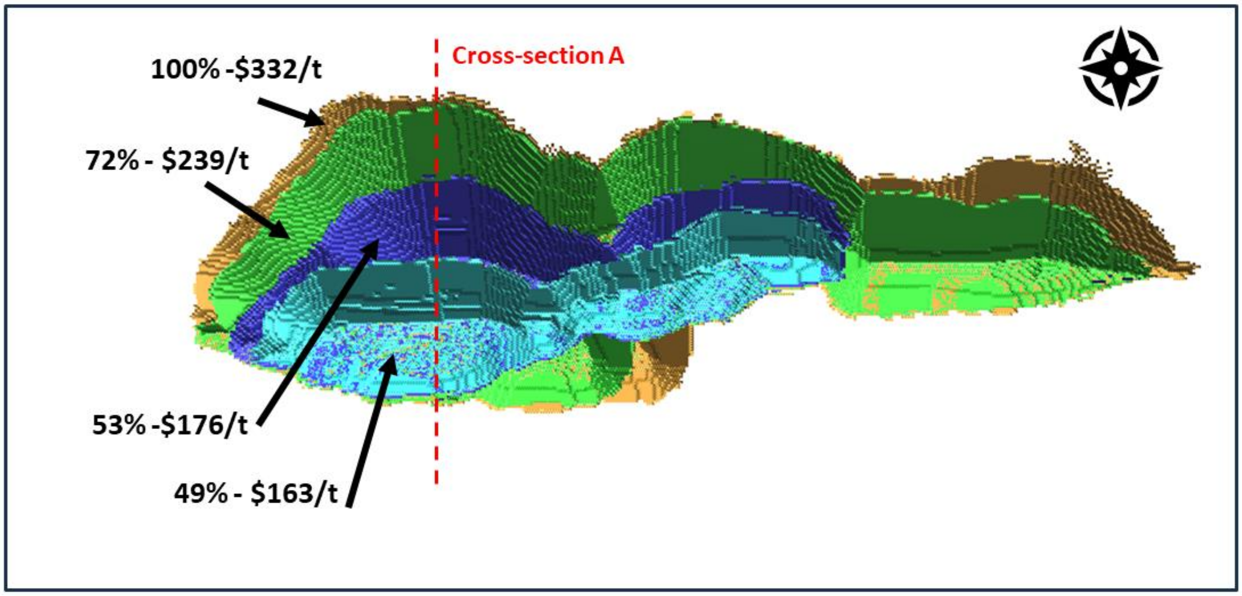
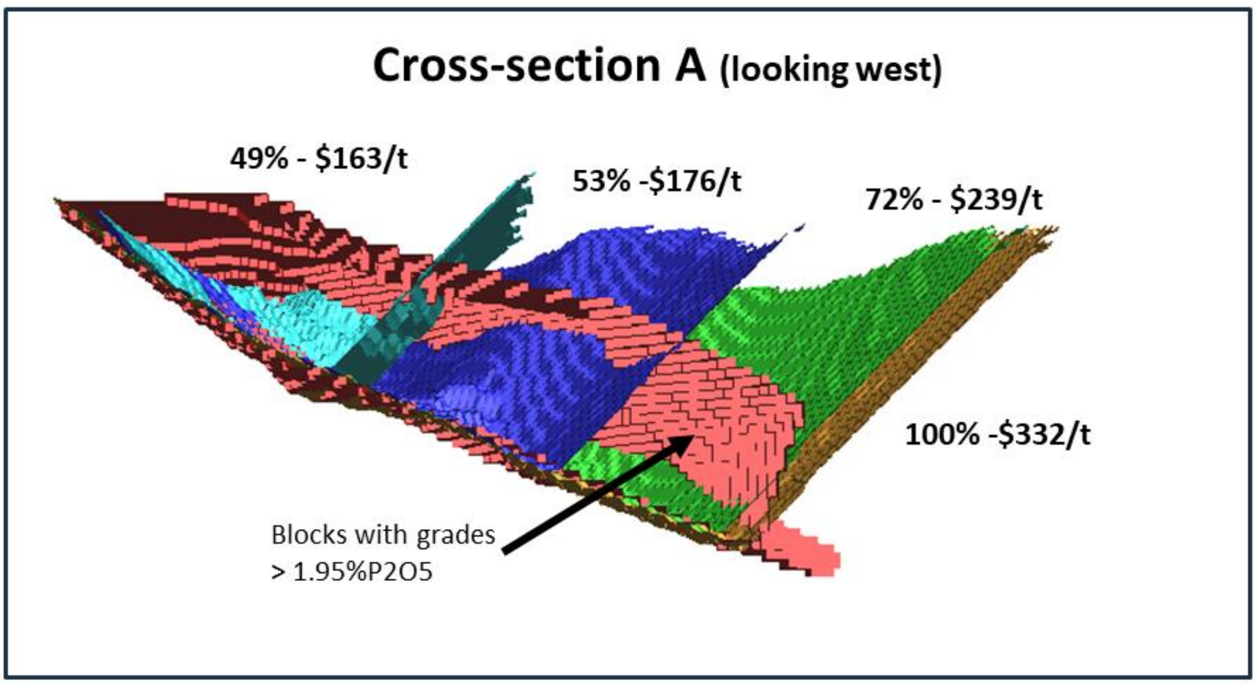


FIGURE 16.5 OPTIMIZATION RESULT – VERTICAL CROSS-SECTION A



16.2 MINE DESIGN

Once the pit optimization step was completed, the open pit design was developed using the 72% optimized shell as a template. Benches and access ramps were added to the design.

16.2.1 Geotechnical Studies

No pit slope geotechnical site investigations have been completed for this PEA. Pit slopes used for mine design are based on a preliminary evaluation completed by Knight Piésold Ltd ("KP"). KP relied on local geology descriptions and drill core photos in their initial characterization of the rock mass. KP's findings are documented in a May 18, 2023 letter titled "Geomechanical Design Input to Preliminary Economic Assessment".

16.2.2 Hydrogeological Studies

No hydrogeological studies have been completed for this PEA to evaluate the groundwater conditions at site. This field work will be undertaken at the next stage of study.

16.2.3 Pit Layouts

The design of the open pit layout initially selected the preferred exit point along the pit perimeter, and then benches, ramps, and haul roads were incorporated according to the parameters shown in Table 16.2.

TABLE 16.2
PIT DESIGN PARAMETERS

Parameter	Units/Type	All Pit Walls
Mining Height	m	5
Benching	No.	3*
Final Bench Height	m	15
Bench Face Angle	deg	75
Berm Width	m	8
Inter-Ramp Angle	deg	51
Haul Road Width (10% gradient)	Double lane m	30
	Single lane m	18

*Note: *Triple benching applies to the North wall. The South wall will be single benches since it follows the mineralized zone footwall and results in a shallower inter-ramp angle.*

Once the final pit design was completed, a series of pit phases were designed for production scheduling purposes. The phases are used to distribute waste tonnages over time and to allow mining to start in an area near surface and with limited waste rock to strip. The pit phase layouts are shown in Figures 16.6 to 16.9. Table 16.3 summarizes the tonnages within the individual phases.

TABLE 16.3 PIT PHASE TONNAGES					
Material	**Total**	**Phase 1**	**Phase 2**	**Phase 3**	**Phase 4**
Total Material (Mt)	**145.70**	34.73	34.67	62.86	13.44
Overburden (Mt)	**3.48**	1.47	0.46	1.11	0.44
Waste Rock (Mt)	**88.18**	15.43	16.74	45.62	10.39
Feed (Mt)	**54.04**	17.84	17.47	16.13	2.60
P_2O_5 (%)	**4.91**	4.82	4.79	5.10	5.13
Fe_2O_3 (%)	**22.62**	22.18	22.53	23.22	22.63
TiO_2 (%)	**4.14**	3.93	4.19	4.32	4.02
Strip Ratio	**1.70**	0.95	0.98	2.90	4.16

FIGURE 16.6 PHASE 1 OPEN PIT DESIGN

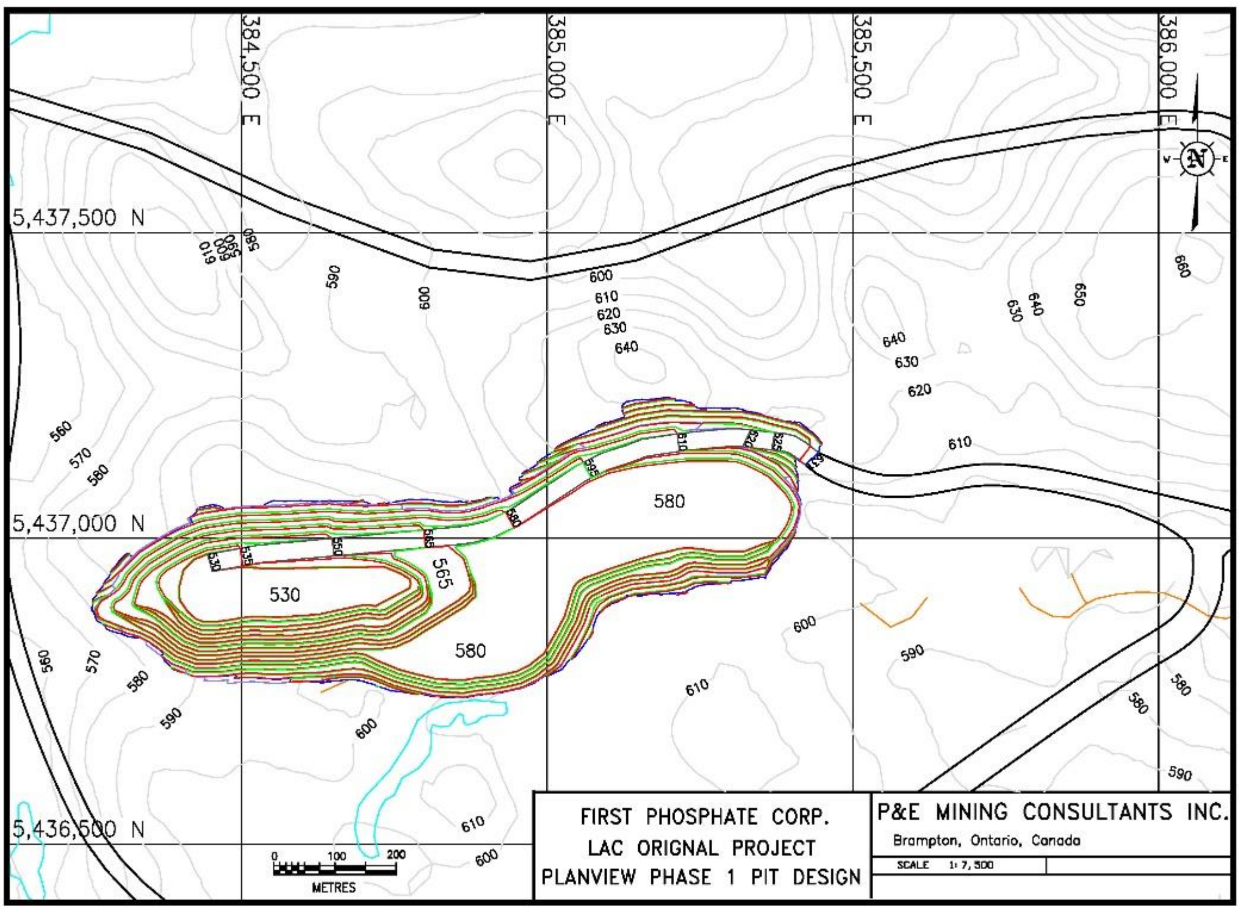


FIGURE 16.7 PHASE 2 OPEN PIT DESIGN

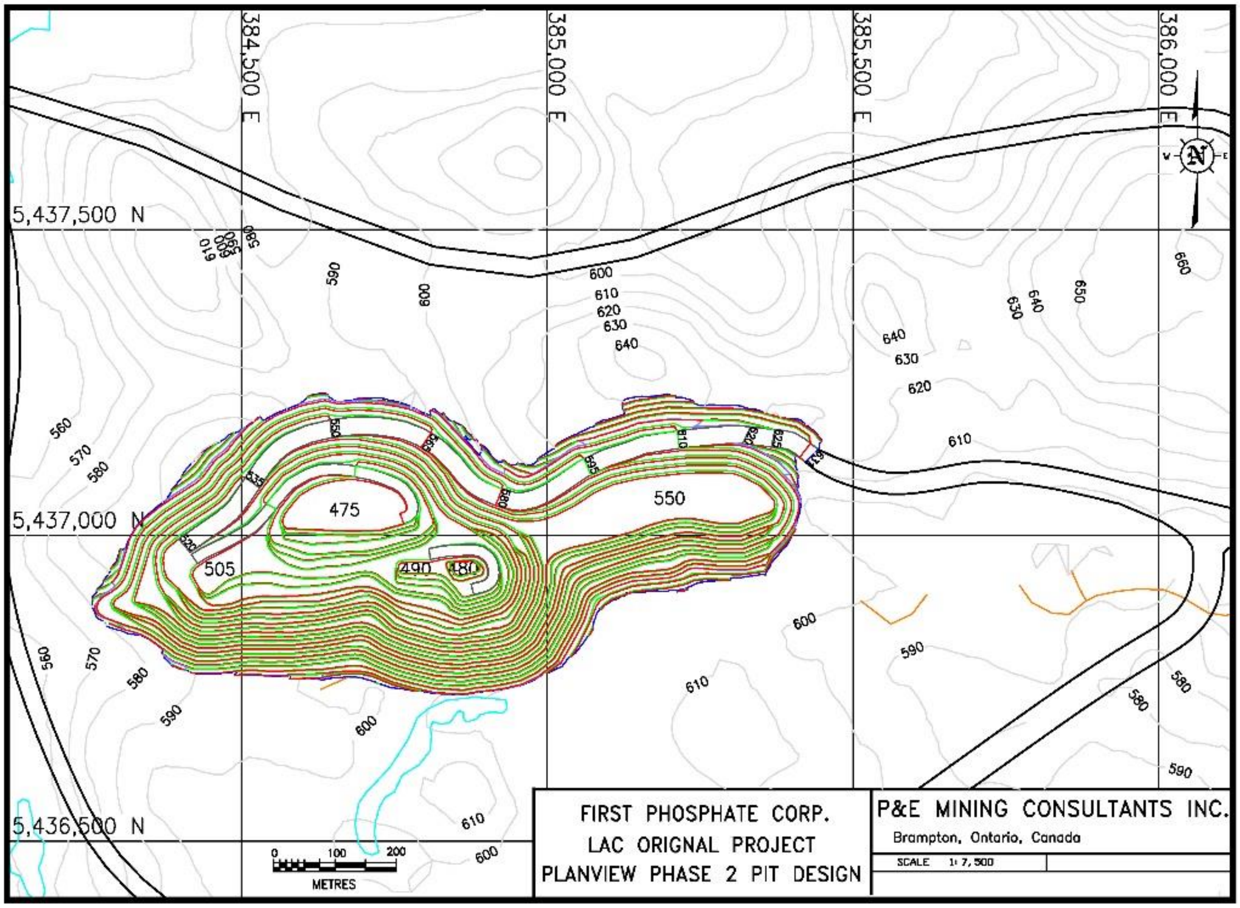


FIGURE 16.8 PHASE 3 OPEN PIT DESIGN

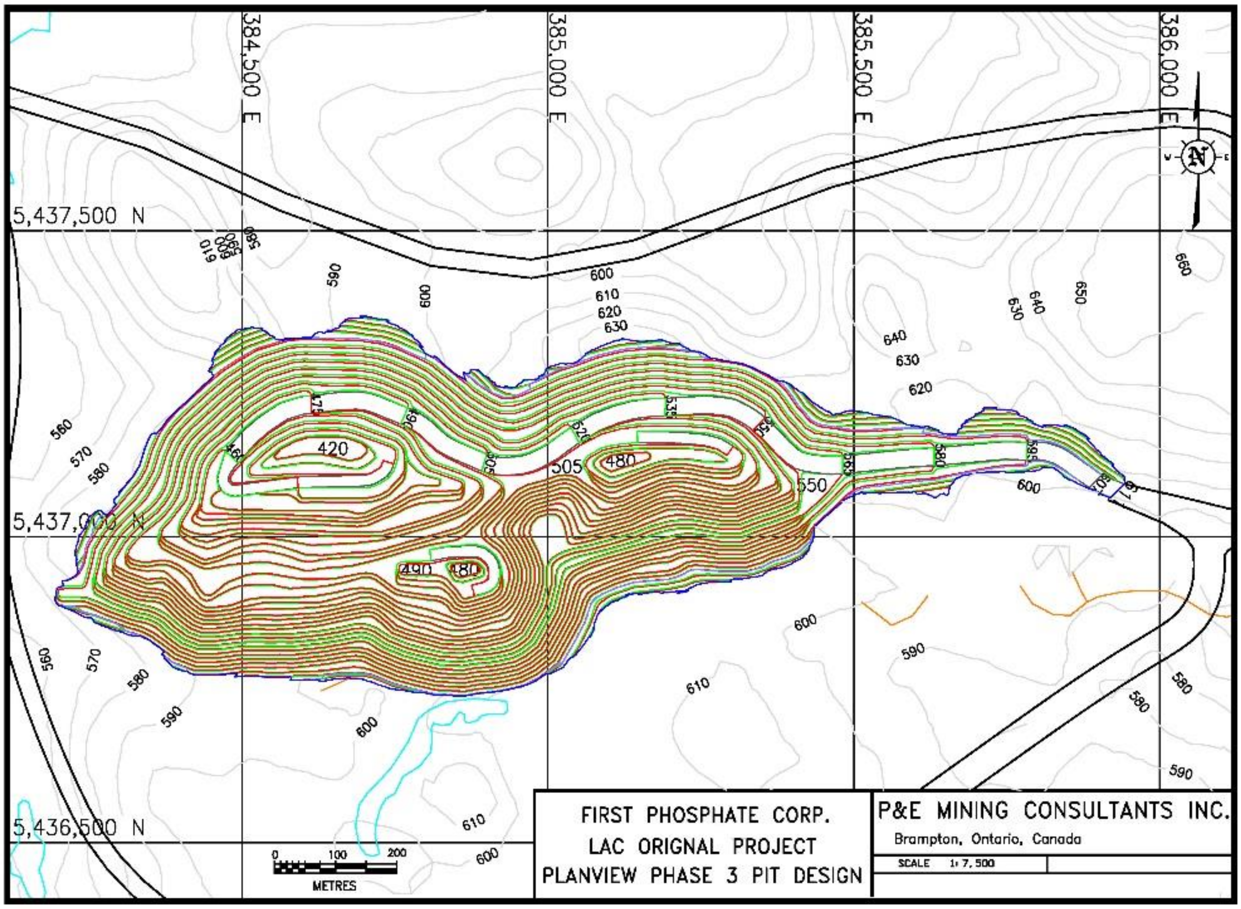
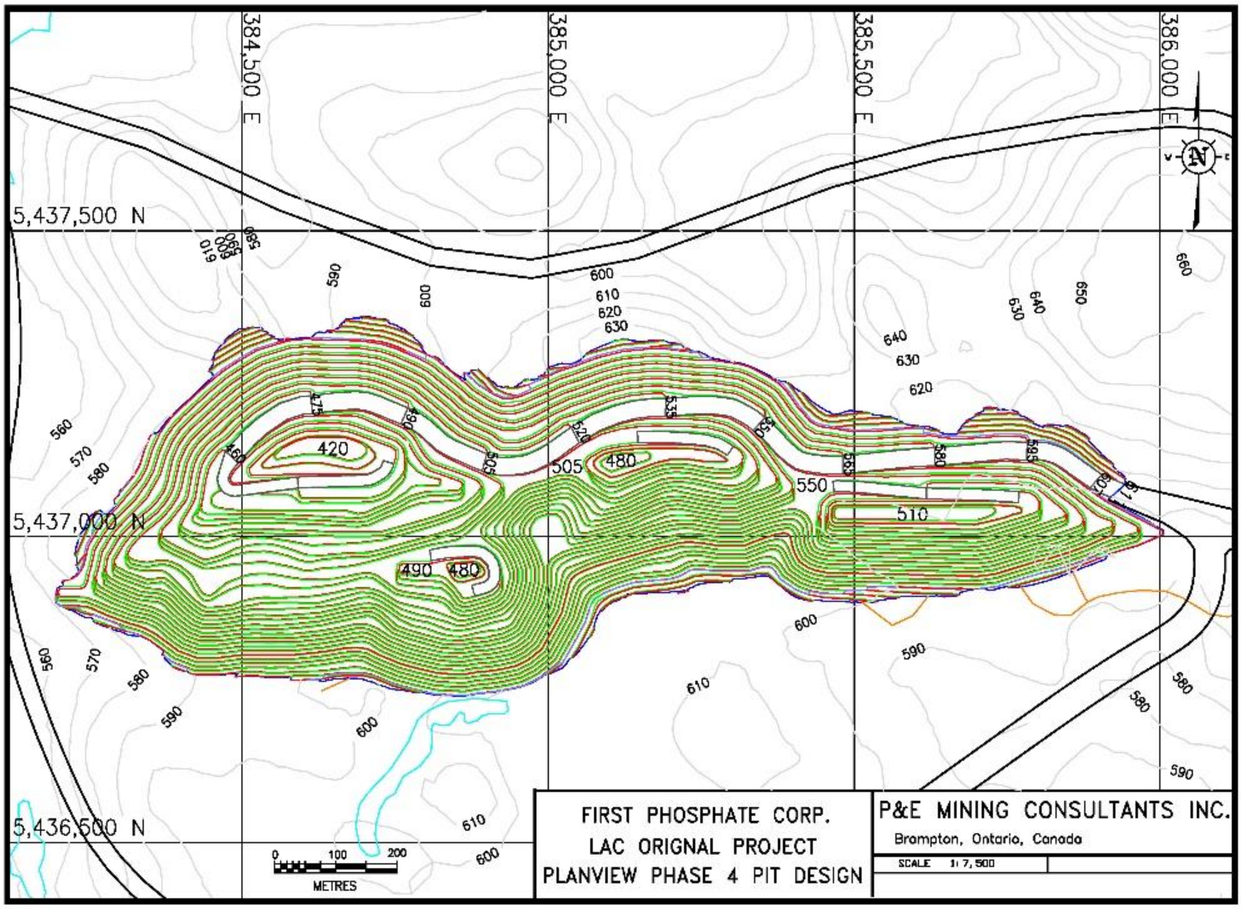


FIGURE 16.9 PHASE 4 (FINAL) OPEN PIT DESIGN



16.2.4 Dilution and Losses

Some loss of plant feed tonnage will occur during mining. The PEA assumes that 2% of the feed tonnage will be lost.

It is also recognized that waste rock and low-grade material surrounding the mineralized zones would be mixed with the plant feed during mining, thereby creating dilution.

To estimate the amount of dilution, a 2 m thick low grade "halo" was assumed around the outside perimeter of the mineralized zone. This "halo" was modelled on several of the pit benches. The volume of this halo relative to the volume of the mineralized zone subsequently determines the percent dilution. This is averaged over several benches in the pit to derive the overall average dilution percentage.

The results of the analysis estimate mining dilution to be 4% to 5%. Since the mineralized zone is fairly large and extensive, one would predict dilution to be relatively low.

A 3-D solid was created for the low grade "halo" and the diluting grades were estimated within the solid. These grades are applied as diluting grades, summarized in Table 16.4.

TABLE 16.4 DILUTION AND LOSS PARAMETERS				
Feed Loss	**Dilution**	**Diluting Grades**		
		P_2O_5 %	**Fe_2O_3 %**	**TiO_2 %**
2%	5%	1.7 %	17.3%	3.0 %

16.3 PLANT FEED SUMMARY

After the open pit design was completed, the dilution and feed loss factors were applied to the tonnage above the 1.95% P_2O_5 cut-off grade contained within the pit. These tonnages were previously summarized in Table 16.3. The diluted tonnages are used as the planning basis for the PEA production schedule.

The total quantity of feed material sent to the process plant is 54.04 Mt. The overall strip ratio is 1.7:1.

Table 16.5 presents the total PEA production plan tonnage classified as Indicated and Inferred Mineral Resources. There are no Measured Resources. Approximately 66% of the 54.04 Mt feed tonnes consist of Inferred Mineral Resources.

TABLE 16.5 MINE PLAN TONNAGE BY MINERAL RESOURCE CLASSIFICATION				
Classification	**Tonnage (kt)**	**P_2O_5 (%)**	**Fe_2O_3 (%)**	**TiO_2 (%)**
Indicated	18,554	4.96	22.69	4.14
Inferred	35,485	4.89	22.59	4.13

16.4 PRODUCTION SCHEDULE

The mine production schedule consists of one year of pre-production and 14.2 years of mine production.

The target processing rate is approximately 3.8 Mtpa, or approximately 10,500 t/day. To meet the process plant needs, the annual mining rates of feed and waste rock combined will peak at approximately 14 Mtpa (38,000 t/day) in Years 8 to 11. In these years, the pit is being rapidly expanded into Phase 3 to the north and requires significant waste stripping to expose process plant feed.

Table 16.6 presents the life-of-mine production schedule.

TABLE 16.6
ANNUAL MINE PRODUCTION SCHEDULE SUMMARY

Schedule	Production Type	Total	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14
Total	Total Material (Mt)	**145.70**	6.00	8.00	8.00	8.00	8.00	8.00	10.00	10.00	14.00	14.00	14.00	14.00	8.00	8.00	7.70
	Overburden (Mt)	**3.48**	1.10	0.27	0.09	0.00	0.46	0.00	0.30	0.30	0.48	0.03	0.00	0.00	0.41	0.03	0.00
	Waste Rock (Mt)	**88.18**	4.17	4.75	3.74	2.58	4.28	4.60	6.19	5.89	9.95	10.34	10.30	8.44	3.74	5.13	4.10
	Strip Ratio	**1.7**	7.2	1.7	0.9	0.5	1.5	1.4	1.8	1.6	2.9	2.9	2.8	1.5	1.1	1.8	1.1
	Total Feed (Mt)	**54.04**	0.73	2.97	4.17	5.42	3.26	3.40	3.51	3.81	3.57	3.63	3.70	5.56	3.85	2.84	3.60
	P_2O_5 (%)	**4.91**	4.15	4.63	4.66	4.85	5.13	4.88	4.73	4.62	4.88	4.90	4.95	5.14	4.86	5.31	5.36
	Fe_2O_3 (%)	**22.62**	17.79	19.54	20.27	23.49	24.64	22.45	21.01	22.64	23.13	23.76	22.57	22.08	24.37	24.95	23.04
	TiO_2 (%)	**4.14**	3.39	3.52	3.65	4.07	4.30	4.14	3.90	4.22	4.32	4.45	4.21	4.11	4.47	4.57	4.20
Phase 1	Total Material (Mt)	**34.73**	6.00	8.00	8.00	8.00	3.39	1.34									
	Overburden (Mt)	**1.47**	1.10	0.27	0.09	0.00											
	Waste Rock (Mt)	**15.43**	4.17	4.75	3.74	2.58	0.14	0.04									
	Total Feed (Mt)	**17.84**	0.73	2.97	4.17	5.42	3.25	1.30									
	P_2O_5 (%)	**4.82**	4.15	4.63	4.66	4.85	5.13	5.18	-	-	-	-	-	-	-	-	-
	Fe_2O_3 (%)	**22.18**	17.79	19.54	20.27	23.49	24.68	25.07	-	-	-	-	-	-	-	-	-
	TiO_2 (%)	**3.93**	3.39	3.52	3.65	4.07	4.31	4.57	-	-	-	-	-	-	-	-	-
Phase 2	Total Material (Mt)	**34.67**					4.61	6.66	7.98	6.12	4.38	3.87	1.05				
	Overburden (Mt)	**0.46**					0.46										
	Waste Rock (Mt)	**16.74**					4.13	4.56	4.47	2.31	0.81	0.43	0.02				
	Total Feed (Mt)	**17.47**					0.01	2.10	3.51	3.81	3.57	3.43	1.03				
	P_2O_5 (%)	**4.79**	-	-	-	-	3.32	4.70	4.73	4.62	4.88	4.93	5.15	-	-	-	-
	Fe_2O_3 (%)	**22.53**	-	-	-	-	14.22	20.83	21.01	22.64	23.15	23.96	24.00	-	-	-	-
	TiO_2 (%)	**4.19**	-	-	-	-	2.89	3.87	3.90	4.22	4.32	4.48	4.41	-	-	-	-

Table 16.6 **Annual Mine Production Schedule Summary**																	
Schedule	**Production Type**	**Total**	**Year -1**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**Year 11**	**Year 12**	**Year 13**	**Year 14**
Phase 3	Total Material (Mt)	**62.86**							2.02	3.88	9.62	10.13	12.95	14.00	6.03	3.00	1.22
	Overburden (Mt)	**1.11**							0.30	0.30	0.48	0.03					
	Waste Rock (Mt)	**45.62**							1.72	3.57	9.14	9.90	10.28	8.44	2.18	0.35	0.04
	Total Feed (Mt)	**16.13**								0.00	0.00	0.20	2.67	5.56	3.85	2.66	1.18
	P_2O_5 (%)	**5.10**	-	-	-	-	-	-	-	3.96	5.45	4.42	4.88	5.14	4.86	5.35	5.79
	Fe_2O_3 (%)	**23.22**	-	-	-	-	-	-	-	0.97	8.19	20.37	22.02	22.08	24.37	25.04	24.06
	TiO_2 (%)	**4.32**	-	-	-	-	-	-	-	0.17	1.49	3.93	4.14	4.11	4.47	4.60	4.62
Phase 4	Total Material (Mt)	**13.44**													1.96	5.00	6.47
	Overburden (Mt)	**0.44**													0.41	0.03	
	Waste Rock (Mt)	**10.39**													1.55	4.78	4.06
	Total Feed (Mt)	**2.60**													0.00	0.18	2.42
	P_2O_5 (%)	**5.13**	-	-	-	-	-	-	-	-	-	-	-	-	4.68	4.78	5.15
	Fe_2O_3 (%)	**22.63**	-	-	-	-	-	-	-	-	-	-	-	-	25.49	23.69	22.54
	TiO_2 (%)	**4.02**	-	-	-	-	-	-	-	-	-	-	-	-	4.75	4.19	4.00

Note: *The potential process plant feed tonnages utilized in the PEA contain both Indicated and Inferred Mineral Resources. The reader is cautioned that Inferred Mineral Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves, and there is no certainty that value from such Mineral Resources will be realized either in whole or in part.*

16.5 OPEN PIT MINING PRACTICES

It is assumed that the Lac à l'Orignal mine will be an owner operated open pit mine, except for blasting operations. While contract mining may be an option, this was not considered in this PEA.

The owner's mining team would undertake all drilling (blasting would be contracted), loading, hauling, and mine site maintenance activities. The owner will also be responsible for technical services, such as mine planning, grade control, geotechnical, and surveying services. It is assumed that an explosive supplier would be contracted for explosive delivery, blasthole charging, and blast control.

It is anticipated that the mining operations would be conducted 24 hours per day and 7 days per week throughout the entire year.

It is assumed that most of the materials mined will require drilling and blasting. Overburden would be free digging and not require blasting.

16.5.1 Equipment Fleet and Personnel

It is expected that diesel-powered hydraulic excavators (10 m^3 bucket size) and front-end loaders (11 m^3 bucket size) will be used to excavate the blasted rock. The anticipated truck size capacity is 90 t.

The primary mining equipment will be supported by a fleet of equipment consisting of dozers, road graders, watering trucks, maintenance vehicles, and service vehicles.

As the open pit deepens, it will likely experience groundwater seepage. No quantitative information was available to adequately predict the expected water inflow into the pits, however, it is expected to be minimal. Table 16.7 summarizes the expected mining equipment fleet for the years early in the mine life (Years 1 to 5).

The mining personnel will average approximately 99 people, including operators, maintenance, supervision, and technical staff over the LOM. The workforce breakdown by role is presented in Table 16.8.

TABLE 16.7
MINE EQUIPMENT FLEET, YEARS -1 TO 5 EXAMPLE

Item	Year					
	-1	1	2	3	4	5
Sandvik Drill DR410i	1	1	1	1	1	1
Stemming Truck 15 t	1	1	1	1	1	1
Hydraulic Excavator 10 m^3	1	1	1	1	1	1
Wheel Loader 11 m^3	1	1	1	1	1	1
Haul Truck 90 t	5	5	4	4	5	5

TABLE 16.7
MINE EQUIPMENT FLEET, YEARS -1 TO 5 EXAMPLE

Item	Year					
	-1	**1**	**2**	**3**	**4**	**5**
Personnel Van		1	1	1	1	1
Crane, Grove 40T	1	1	1	1	1	1
Dozer D8	2	3	3	3	3	3
Mechanic & Welding Truck		1	1	1	1	1
Excavator 4 m^3		1	1	1	1	1
Fuel & Lube Truck		2	2	2	2	2
Grader (GD655)	2	2	2	2	2	2
Flat Deck w Hiab		1	1	1	1	1
Lighting Plant		4	4	4	4	4
Tire Manipulator		1	1	1	1	1
Truck & Trailer, 200T		1	1	1	1	1
Pickup Truck	6	6	6	6	6	6
Pit Water Pumps	2	2	2	2	2	2
Forklift	1	1	1	1	1	1
Wheel Loader 4 m^3		1	1	1	1	1
Water Truck (HM400)		1	1	1	1	1

TABLE 16.8
MINE PERSONNEL

Category	Number
Driller	4
Truck Drivers	24
Excavator Operators	4
Wheel Loader Operators	1
HD Mechanic	15
Pit Services	2
Grader Operator	4
Dozer Operator	8
Water/Sand Truck Operator	2
Utility Operators	4
Mine Superintendent	1
Mine Foremen	4
Mine Clerk	1
Equipment Trainer	1
Maintenance Gen Foreman	1

TABLE 16.8 MINE PERSONNEL	
Category	**Number**
Maintenance Foreman	2
Maintenance Clerk	1
Planner	1
Welder	2
Gas Mechanic	1
Fuel and Lube Person	4
Tireman	1
Partsman	1
Laborer	2
Chief Mine Engineer	1
Senior Pit Engineer	1
Geologist	2
Surveyor	1
Survey Technician	1
Mine Technician	1
Grade Control Technician	1
Total	**99**

16.5.2 Waste Rock Storage Facilities

The open pit will require the development of storage facilities for both overburden and waste rock.

The waste rock will be placed in a single storage facility located southeast of the open pit, as shown in Figure 16.1. A smaller overburden storage facility will also be located east of the open pit exit ramp location.

Some of the waste material may be used in the construction of the two tailings storage facilities as needed for dam fill or foundation grading purposes. At this PEA stage, the waste storage facilities are not designed in detail. Potential locations are identified, and field reconnaissance and geotechnical investigations will be undertaken at the next stage of study to confirm suitability and design specifications.

16.5.3 Mine Support Facilities

The Lac à l'Orignal open pit operation will require mine offices, maintenance facilities, warehousing, lube and fuelling station, and cold storage areas. These will be located in the general vicinity of the process plant area.

17.0 RECOVERY METHODS

A summary of available metallurgical testwork on the Lac à l'Orignal Mineral Resource has been presented in Section 13 of this Report. While that extent of test process data is minimal for the production of apatite (phosphate), as well as magnetite (iron) and ilmenite (titanium) concentrates, it can be assumed that a process flowsheet will represent elements of conventional processing technology for what is commonly termed industrial minerals processing.

It is important to emphasize that a proposed Lac à l'Orignal flowsheet would be unique and not a replica of any other known mineral processes. Implementation of the flowsheet on an industrial scale will require the inclusion and adjustment of basic principles, however, with the capacity to be flexible and innovative to contend with Mineral Resource variability and to meet rigorous product specifications.

The principal process stages will include crushing, grinding, various intensities of magnetic separation, strong and moderate strength flotation, regrinding of rougher concentrates in variable ways, multiple cleaner flotation steps, concentrate thickening, pressure filtration and drying of concentrate products. Specialized techniques will include high density slurry conditioning of reagents, gravity separation and high intensity magnetic separation. De-sliming, a common process step in industrial minerals processing, is not expected to be included.

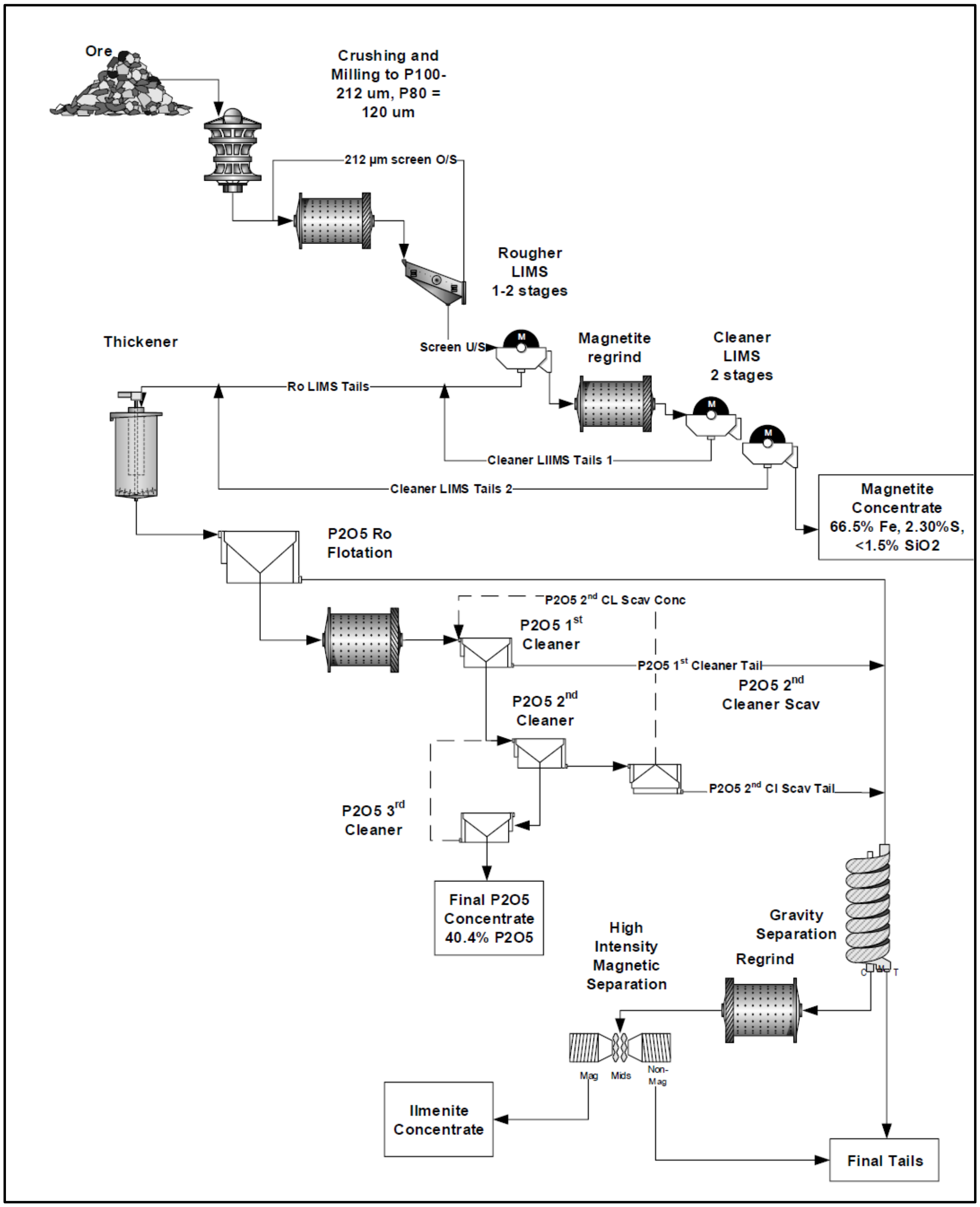
The conceptual flowsheet was presented in Figure 13.2 and is repeated below as Figure 17.1. The flowsheet confirmation can be anticipated following receipt of the results of additional bench-scale testing and pilot-scale tests, on fresh and variable mineralization. The validation of process fundamentals and equipment selection can provide the assurance to be able to make the necessary adjustments to consistently meet customer acceptance of the mineral products.

The principal mineral product is a high-grade apatite concentrate that will be suitable for purified phosphoric acid ("PPA") which can contribute to EV LFP battery manufacture as well as other high value phosphorous products. The conversion of the apatite to provide phosphorous compounds for these products will be undertaken off-site by buyers of the apatite product or in First Phosphate partnership with other organizations.

Preliminary testwork has indicated that there are two potentially valuable by-products: one a high purity magnetite; and another, a moderate grade ilmenite. While the details of the process steps required to produce marketable products have yet to be refined and confirmed, there is reasonable potential for economic processes and benefits.

The conceptual process plant is outlined in this Report section, sized for a nominal capacity of processing an average of 10,500 tpd of mineralized material over 365 days/year, with a surge capability of 12,000 tpd or more.

FIGURE 17.1 LAC À L'ORIGNAL PROCESS PLANT FLOWSHEET
(duplicate of Figure 13.2)



Source: *SGS 1939701 Report (March 2023)*

17.1 MINERALIZED PROCESS PLANT FEED HANDLING

Mineralized material will originate from open pit mining. Run-of-mine ("ROM") mineralized material will be delivered, depending on the type of crusher that is selected, to either to a temporary stockpile or directly to the primary crusher. A grizzly above a small bin in advance of a large jaw crusher will have 500 mm square openings. The jaw crusher size could be as wide as 1,400 mm and powered with a 200 kW drive to produce a -125 mm (5 inch) product. A moderately-sized gyratory crusher will not require a grizzly and can directly receive ROM material from mine trucks. A gyratory crusher would produce a 150 mm (6 inch) product and would require a 400 kW drive. A major advantage of a gyratory crusher is its capacity to receive full truck loads of large-sized ROM rocks without the need for size scalping. Crusher discharge would be transferred to a 15,000 t capacity covered stockpile, from which material would be drawn by at least three feeders to a grinding feed conveyor equipped with a belt weightometer. The stockpile would be manipulated with a propane-fuelled front-end loader to reduce stockpile segregation by size and to compensate for freezing. Dust management at the crusher as well as inside the covered stockpile will be important.

The crushing facility would operate 60 to 75% of available time. Major downtime is essential in open pit mining which has to accommodate haulage interruption for blasting.

17.2 GRINDING

There are multiple grinding steps to be considered in the overall Lac à l'Orignal process. For process concept consideration, the primary grinding step is suggested to be conventional SAG and ball mill combination ("SABC"). SAG feed is normally automatically conveyor-weighed and grab-sampled for moisture content. With a target primary grind size P_{80} of 120 µm, a SAG size of approximately 9 m diameter by 4 m long and a ball mill of 6 m by 9 m long would be suitable. Based on the Authors' experience, and the medium grind parameters obtained in initial testwork (ref. Section 13.2 of this Report) steel ball consumption could be in the order of 2.5-3.5 kg/t and grinding energy draw in the range of 20-25 kWh/t.

The SAG mill could be equipped with a pebble circuit where +20 mm pebbles screened from SAG discharge are recycled to the SAG mill feed. Pebble return is expected to be low, at less than 5% of feed. At this low rate, a pebble crusher (short head cone crusher) is optional, and could be installed later to increase the grinding circuit capacity. A ball mill will be in closed circuit with two banks of cyclones in a combined array (one operating, one standby) with cyclone overflow sent to magnetic separation following automatic two-stage slurry sampling for mineral and metal content.

17.3 MAGNETITE SEPARATION

Magnetite is an important mineral in the Lac à l'Orignal matrix and can be readily isolated by magnetic separation. As indicated by the tested composite sample, the magnetite content is approximately 12%, and its removal can have a significant, positive influence of downstream process steps.

17.3.1 Magnetic Separation of Magnetite

Low intensity magnetic separator ("LIMS") wet, drum magnetic separators will be used to remove the magnetite. These devices are commonly used in iron ore processing to separate ferromagnetic minerals such as magnetite from gangue minerals. A 3-stage magnetic separation process, operating at a magnetic intensity of 1,000 Gauss (0.1 Tesla) will be applied which will concentrate and remove the free magnetite fragments. The first-stage magnetics concentrate will be reground to a P_{80} of approximately 40 µm in a moderately sized ball mill and will be subjected to two stages of magnetics cleaning as shown in Figure 17.1.

17.3.2 Sulphide Flotation

The final magnetics concentrate will be subject to residual sulphur removal by froth flotation, with the sulphides selectively and aggressively activated at neutral pH by copper sulphate, aerofloat and a xanthate. Reagent conditioning and float times will be short. Preliminary testing had moderate success in producing a concentrate containing 69% Fe at 66% Fe recovery. The sulphur content was slightly above the 0.05% S objective for high-value iron products. The sulphur concentrate and a portion of the magnetic separation tails will be combined in a separate tailings stream for wet disposal in order to mitigate the potential for acid rock drainage. Sulphide conditioning and flotation equipment will be compact tank cells with a maximum 15 minutes retention time.

The concentrate will be thickened and pressure filtered to a moisture content of less than 12% (to be confirmed in future tests). The moist concentrate will be dried to less than 2% moisture in a Holoflite-type heated screw dryer and accumulated for shipment in a dedicated warehouse-type facility.

17.3.2.1 Magnetite Product Handling and Destinations

The magnetite product will be fine-grained and is anticipated to potentially be a free-flowing powder. The material rheology is yet to be determined. Bulk shipment may be prohibitive due to anticipated powder characteristics, however, “Big Bag” containment and shipping is a potential option. Potential destinations for the magnetite concentrate could be iron-making, chemical conversion or as a heavy media separation agent. For iron-making, pelletization or briquetting followed by sintering may be required. For heavy media separation or other applications particle size separation may be needed. Conversion of the magnetite concentrate will be done off-site by others.

17.3.2.2 Additional Magnetite Concentration Process Development

At the time of preparation of this Report, tests were being initiated to determine methods to improve the grade and recovery of magnetite. The tests, using fresh feed material, include improvements in magnetic separation, flotation and the application of hydro-separation on various grind sizes.

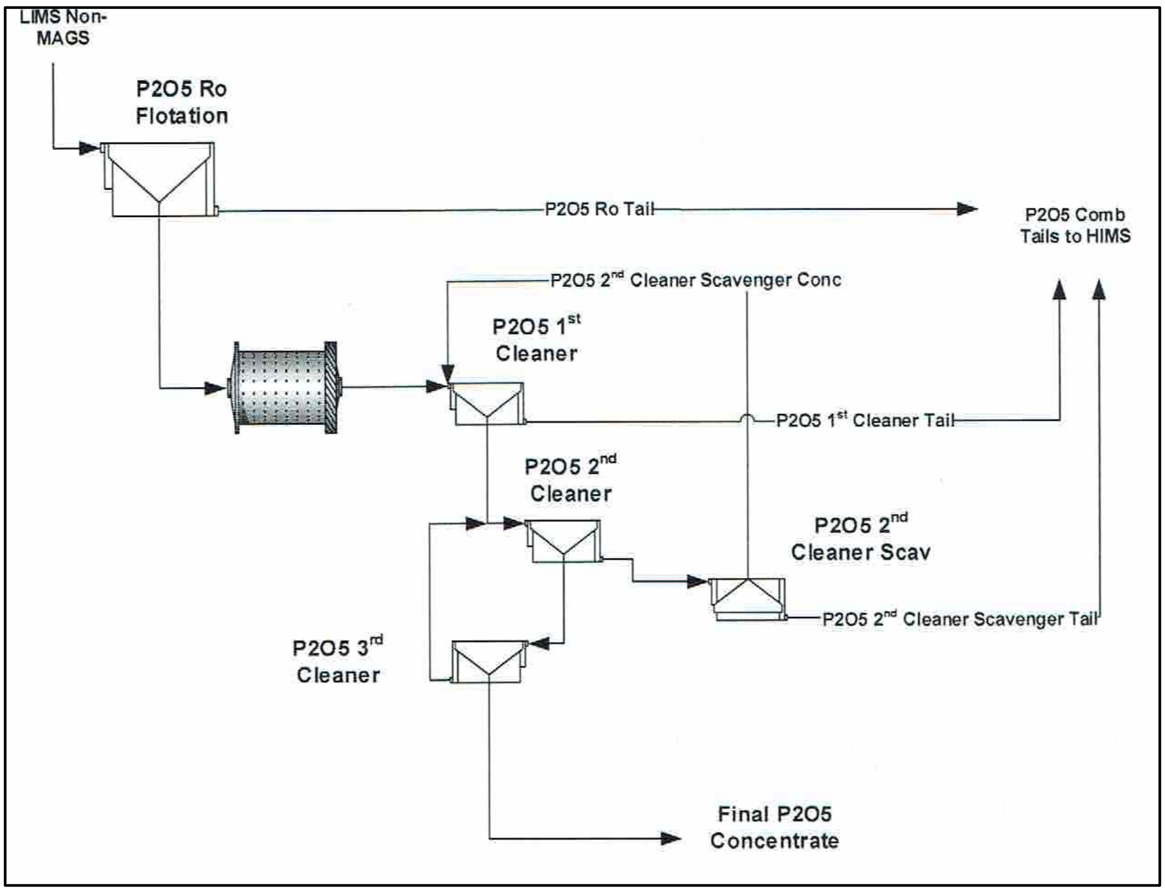
17.4 APATITE RECOVERY AND CONCENTRATION BY FLOTATION

The apatite recovery and concentration section of the overall flowsheet is shown in Figure 17.2. The key parameters for apatite (represented as P_2O_5) flotation are reagents selection conditioning, slurry density and sequences, flotation conditions, and timing and regrinding of a rougher concentrate. A saponified (caustic soda) fatty acid is the main flotation collector and the pH is maintained in mild alkalinity by soda ash (Na_2CO_3). Sodium silicate and starches will serve as silicate mineral depressants. The flotation feed will be conditioned at high percent solids

(65% for at least 10 minutes following fatty acid and caustic soda addition). Rougher flotation is expected to be rapid (retention time 3 to 5 minutes) and could be performed by traditional tank-type flotation cells. Regrinding of the rougher concentrate to 50 µm could be performed by a ball mill with steel grinding media, or a tower mill with ceramic grinding media. The latter type of mill is preferred to prevent iron-smearing of apatite mineral surfaces and minimizing the potential lessening of flotation response.

Cleaner flotation of the rougher apatite concentrate will include additional reagent conditioning and the anticipated rapid flotation response. Conventional flotation cells could be used, however, the use of column flotation cells may be preferred. This is due to the space-saving nature of column cells, the inherent quiet froth conditions and the capability to wash mineral impurities out of the froth.

FIGURE 17.2 APATITE RECOVERY AND CONCENTRATION



Source: *SGS 1939701 Report (March 2023)*

The final apatite (P_2O_5) concentrate will be thickened, filtered and dried. Since fatty acid generated froths tend to be sticky and stable, froth degradation chemicals and/or physical methods will be applied to froth destruction in the apatite thickener. The filtration of thickener underflow will be performed by parallel plate and frame pressure filters, the design of which will be determined by future pilot-scale test results. The filter cake will be dried by an electricity-driven flash dryer.

The use and destiny of the apatite concentrate thickener overflow and filtrate, which will contain residue of various reagents, is to be determined. Recycling will be maximized however, not at a detriment to flotation response in magnetite and apatite circuits.

Subject to rheology test results, the dried apatite concentrate is expected to be bulk transported from the mine site to the Saguenay Port.

17.5 ILMENITE RECOVERY AND CONCENTRATION

As indicated in Figure 17.1, ilmenite can form the third marketable concentrate to be produced from the Lac à l'Orignal Mineral Resource. The various test results indicated that gravity separation using a Wilfley (shaking) Table followed by regrinding and high intensity magnetic separation ("HIMS") could produce a concentrate assaying 39.3% TiO_2 at 23.8% recovery. Regrinding of a gravity concentrate in a small ball mill is expected to improve HIMS response.

At the time of preparation of this Report, tests were being initiated to determine methods to improve the grade and recovery of ilmenite. Also, tests were underway to determine the chemical conversion of the ilmenite concentrate into ferrous sulphate and titanium oxide.

Thickening and filtration of the ilmenite concentrate would be performed by a conventional thickener and a single installation of a plate and frame pressure filter. The destination and use of the ilmenite concentrate will determine whether the ilmenite concentrate will be dried at the mine site. A moist concentrate could be transported to Saguenay in bags or containers.

17.6 INFORMATION REQUIREMENTS FOR PLANT DESIGN

The currently-available process information provides a great deal of basic information: mineralogy, grind parameters and concentration fundamentals for the generation of three products – apatite (assayed as P_2O_5), magnetite (Fe_3O_4) and ilmenite ($FeTiO_3$). A flowsheet outline and selection of fundamental processes and equipment has been possible.

Addition information is required to be able to:

- Integrate the processes;
- Complete the development of magnetite and ilmenite concentration methodology;
- Assure compliance with product market specifications for all three concentrates;
- Determine responses to variation in feed grade and mineral composition;
- Assess the impact of the use of site water and of water recycling;
- Test the use of alternative grinding, flotation and dewatering equipment; and
- Measure settling, filtration and dry powder characteristics of the three concentrates.

The sources of this required information are both bench- and pilot-scale tests. Advanced exploration activity may be required to access fresh mineralized material.

18.0 PROJECT INFRASTRUCTURE

Infrastructure at the Lac à l'Orignal Project consists of a nearby electrical powerline and well-maintained access roads. The site is currently accessible from the City of Saguenay, 84 km south-southwest, by Highway 172 to logging road, chemin de la Zec Martin-Valin, which crosses the Property and is maintained year-round by logging companies. At km 81.5 on this road, a secondary logging trail goes northwest for 3.5 km to the Lac à l'Orignal Deposit area. Many secondary logging roads can be utilized to access various parts of the Property. Upon upgrading the 3.5 km secondary logging trail, site access will be sufficient for the transportation of major equipment including mills, crusher, process equipment and tankage, piping and electrical as well as all consumables and mine manpower.

A 735 kV transmission line is located approximately 20 km south from the proposed process plant site. The line is controlled and maintained by Hydro Québec and is considered the optimum electrical power source for the Project.

18.1 PLANNED INFRASTRUCTURE

Major planned infrastructure for the Lac à l'Orignal Project includes:

- An open pit mine;
- Process plant and laboratory with main substation and electrical power distribution;
- Tailings management facility ("TMF");
- Sulphide tailings management facility ("STMF"); and
- Waste rock storage facilities.

Infrastructure to be installed by the Company:

- Main access road and gatehouse;
- Administration building for senior management, general and administration staff, technical staff, safety and training staff;
- Mechanical parts warehouse;
- Process plant supplies warehouse;
- Maintenance building with overhead crane for mining equipment;
- Explosives magazine;
- Personnel change room facility with showers;
- Water and sewage treatment plants;
- Diesel fuel tank farm and fuelling station; and
- Port infrastructure for concentrate storage and handling.

Buildings will be supplied by well water for showers, toilets, etc. whereas drinking water will be bottled. The Company will not be supplying on-site housing and employees and contractors will commute from Saguenay and other nearby towns. The open pit blasting contractor will supply a bulk explosives facility.

The overall site layout is shown in Figure 18.1 with associated mining and waste rock storage locations, process plant location and TMF.

18.2 ELECTRICAL POWER DISTRIBUTION

A dedicated 56 kV feeder line from the Hydro Québec 735 kV line located approximately 20 km south from the proposed process plant site will be constructed to supply all power requirements. The total connected electrical power for the process plant is estimated at 35 MW. A diesel generator at the process plant will be used for emergency power generation.

18.3 TAILINGS, WASTE ROCK AND WATER MANAGEMENT

18.3.1 Introduction

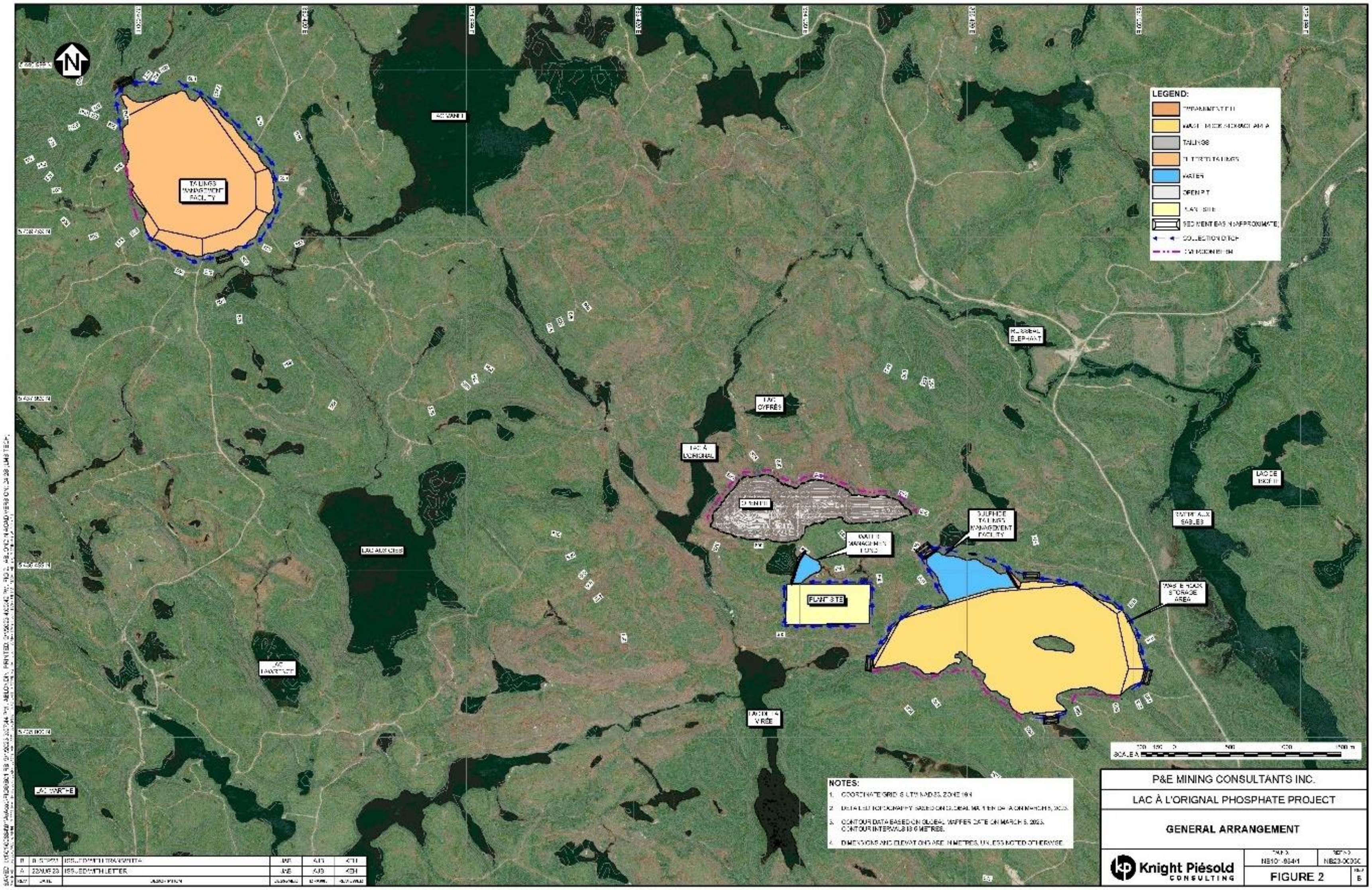
The Project will include an open pit, waste rock storage area ("WRSA"), mineralized material stockpiles, process plant site, tailings management facilities ("TMF"), and a water management pond ("WMP"). Knight Piésold Ltd. ("KP") provided tailings and water management layouts, as well as waste rock management and infrastructure design support for this PEA (Figure 18.1).

The process plant throughput is currently envisioned to be 10,500 tpd from the open pit mine over a planned 14.2-year mine life, generating a total of 42.6 Mt of tailings. The bulk, Non-Potentially Acid Generating ("Non-PAG") phosphate tailings (40.5 Mt) will be stored in the TMF. The Potentially Acid Generating ("PAG") sulphide tailings (2.1 Mt) will be stored separately in the Sulphide Tailings Management Facility ("STMF").

This Report Section provides a summary of the tailings and water management concepts for the Project, as well as high-level waste rock storage recommendations. The following is included:

- Summary of site conditions;
- Design basis and criteria;
- TMF, STMF, and WMP concept summaries;
- High-level recommendations for WRSA construction;
- Schedule of estimated materials, quantities, and costs; and
- Recommendations and potential opportunities during future studies.

FIGURE 18.1 TAILINGS, WASTE ROCK AND WATER MANAGEMENT PLAN



Source: *Knight Piésold (2023)*

18.3.2 Site Conditions

18.3.2.1 Topography

The topography in the area is undulating, with elevations ranging from 502 to 762 m above mean sea level. The area is covered by many lakes and forests, consisting mainly of black spruce and balsam fir, with white cedar along the shores of lakes and rivers (P&E, 2022).

18.3.2.2 Climate

The region has a relatively mild, humid continental-type climate, similar to the St. Lawrence Lowlands, with an average annual precipitation (rain and snow) of 640 mm. The average annual temperature is 2.3 °C, with an average minimum of -21.1 °C in January and an average high of 24.1 °C in July (P&E, 2022).

18.3.2.3 Surficial Geology

Surficial geology maps for the area indicate the Project location is generally comprised of exposed bedrock with pockets of varying types of glacial till (MRNF, 2023).

18.3.3 Design Basis

The design basis for the TMF, STMF, and site water management measures were developed based on input from the Authors, past studies for the Project, industry accepted best practices, previous experience on similar projects, and the anticipated site conditions. Key criteria used to develop the TMF, STMF, and water management arrangements are summarized below:

TMF - The TMF is sized for the storage of 40.5 Mt of phosphate tailings. Conventional tailings will be transported to the TMF by pipeline and filtered at the TMF site. The average placed and compacted dry density of the filtered tailings is assumed to be 1.5 t/m^3 for the duration of the Project. It is also assumed that the phosphate tailings will be suitable for filtering, and this should be verified with testing during future levels of study.

While not necessarily intended for filtered TMFs, the Canadian Dam Association ("CDA") 2019 guidelines for dam classification were considered for recommended design criteria. Given the low height, remote location, condition of the placed and compacted tailings, and lack of impounded water it is unlikely that hypothetical failure of the TMF would result in population risk, loss of life, or damage to third party infrastructure. The TMF is assumed to have a Low dam classification (CDA, 2019).

STMF -The STMF is sized to store 2.1 Mt of sulphide tailings. Sulphide tailings will be deposited as a thickened slurry into the STMF from an overland pipeline and discharged into the basin from spigots installed around the perimeter of the facility. The sulphide tailings are expected to be PAG and will be stored under a water cover. The average settled dry density of the sulphide tailings is assumed to be 1.4 t/m^3 for the duration of the Project.

The STMF embankment concepts were developed to meet national standards and guidelines for the design of tailings facilities, such as (CDA, 2019) and the Mining Association of Canada (MAC, 2021). The embankments include for adequate freeboard to provide ongoing tailings storage, operational water management, temporary storage of the Environmental Design Storm (“EDS”), and conveyance up to and including the Inflow Design Flood (“IDF”), plus an allowance for dry freeboard to account for wave run-up.

The STMF is assumed to have a dam classification of High (CDA, 2019). The EDS for the STMF corresponds to a 1 in 100-year, 24 hour duration, rainfall event and 30 day snowmelt. The IDF was selected as ⅓ between the 1 in 1,000-year, 24 hour duration storm event and the Probable Maximum Flood (“PMF”).

WMP - The WMP will receive contact water from all site facilities, including supernatant water from the STMF. The collected water will be used as make-up water for the process plant. It is assumed that all water entering the WMP is suitable for re-use in processing. Any excess water will be treated and discharged to the environment.

Surface Water Management Systems - Collection ditches, diversion berms, and sediment basins will be constructed to collect and temporarily contain all surface runoff from Project infrastructure. Following settling/clarification, the collected runoff will either be transferred to the WMP or released to the environment if the water quality is acceptable. Runoff from storms greater than the EDS will report directly to the environment over spillways sized to pass the IDF. The EDS for the ditches corresponds to a 1 in 50-year, 24 hour duration storm event. The EDS for the sediment basins corresponds to a 1 in 10-year, 24 hour duration storm event. The IDF for the sediment basins corresponds to a 1 in 200-year, 24 hour rainfall event.

WRSA - The WRSA will primarily provide storage for non-PAG waste rock. A portion of the waste rock produced from the Project is expected to be PAG. PAG rock will be selectively stored and encapsulated within the WRSA to impede oxidation.

18.3.4 Tailings Storage Concept Summary

The TMF and STMF will provide permanent storage of tailings solids with the primary goal of protecting the environment during operations and post closure. The two types of tailings will be stored separately to minimize environmental impact and to minimize closure requirements. The phosphate tailings will be stored in a filtered tailings stack and the sulphide tailings will be stored in a thickened slurry tailings impoundment.

The TMF is located approximately 6 km northwest of the open pit and the STMF is located immediately east of the plant site location (Figure 18.1). The locations of the facilities were selected by the Authors and First Phosphate. The construction, tailings management, water management, instrumentation, and closure concepts for both facilities are summarized in the sections below.

18.3.4.1 Phosphate Tailings

The location of the TMF was selected based on a high level options assessment which considered topography, sufficient offset from local water bodies, and proximity to known residential or recreational properties. The site was selected for optimum storage of slurry tailings and this location was carried forward with the change to filtered tailings storage (Figure 18.2). A detailed options assessment should be undertaken as part of future levels of study.

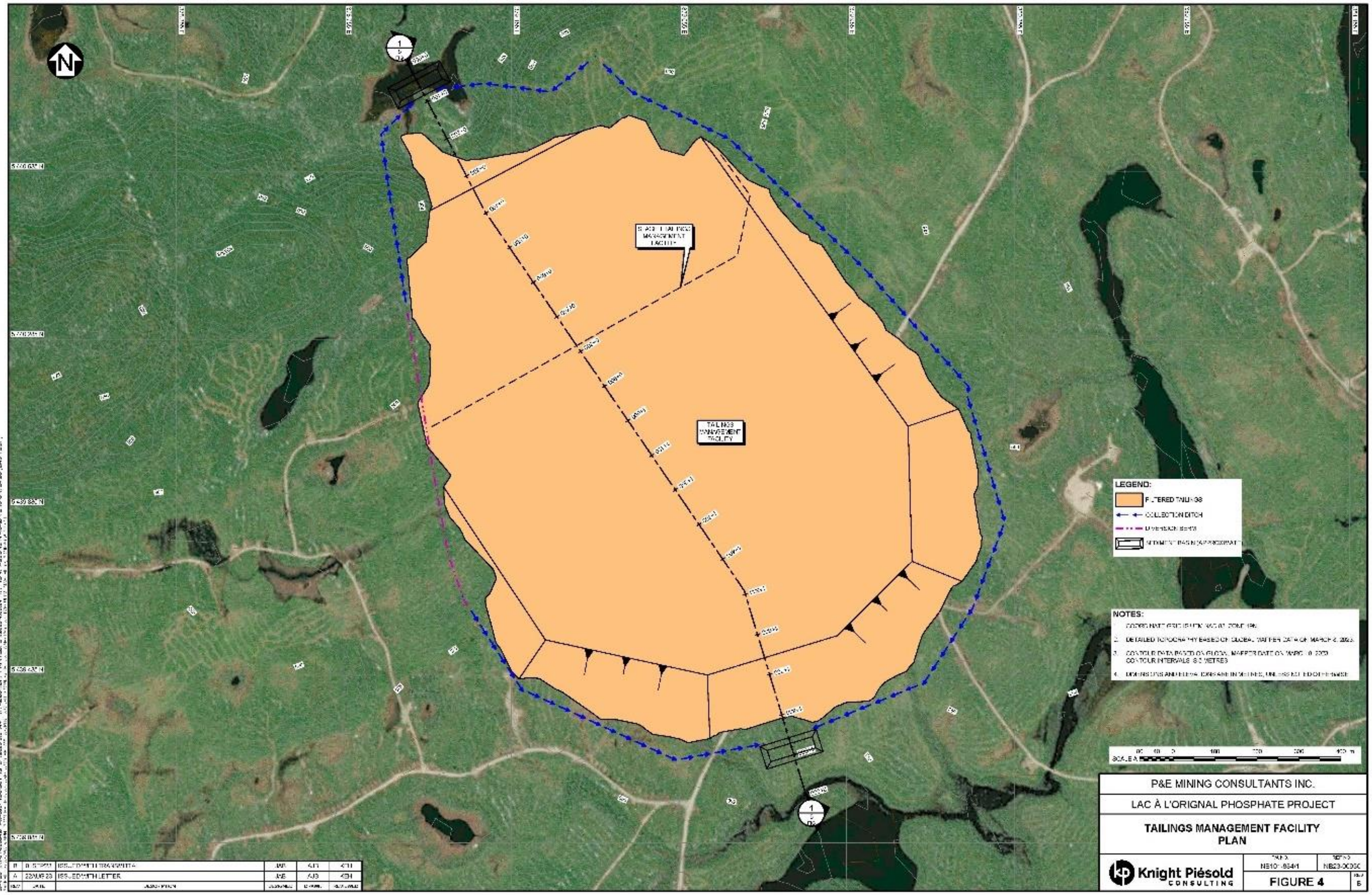
TMF Construction

Vegetation, topsoil, and unsuitable materials will be removed from the TMF footprint to prepare the area for construction and phosphate tailings placement. A geosynthetic lining system will be installed on the prepared foundation to prevent seepage into the underlying foundation. The geosynthetic lining system will include a 300 mm thick bedding layer to provide a suitable subgrade for the geosynthetics. The bedding layer will be covered by non-woven geotextile and 80 mil (2.0 mm) HDPE (textured both sides) geomembrane. A 300 mm thick underdrain layer will be installed over the geomembrane to convey collected seepage from the tailings to seepage collection sumps, or collection ditches, and on to the WMP. Bedding and underdrain materials for the geosynthetic lining system will likely consist of processed waste rock. The geosynthetic lining system and underdrain layer will be extended periodically during operations as the TMF footprint is expanded.

The cross-section (Figure 18.3) for the TMF, from downstream to upstream, includes a 1 m wide waste rock/rockfill zone (shell zone) and a 1 m wide filter zone. Non-PAG waste rock from open pit development will be used to construct the shell and filter zones. Processing will likely be required to meet the specifications for the filter zone.

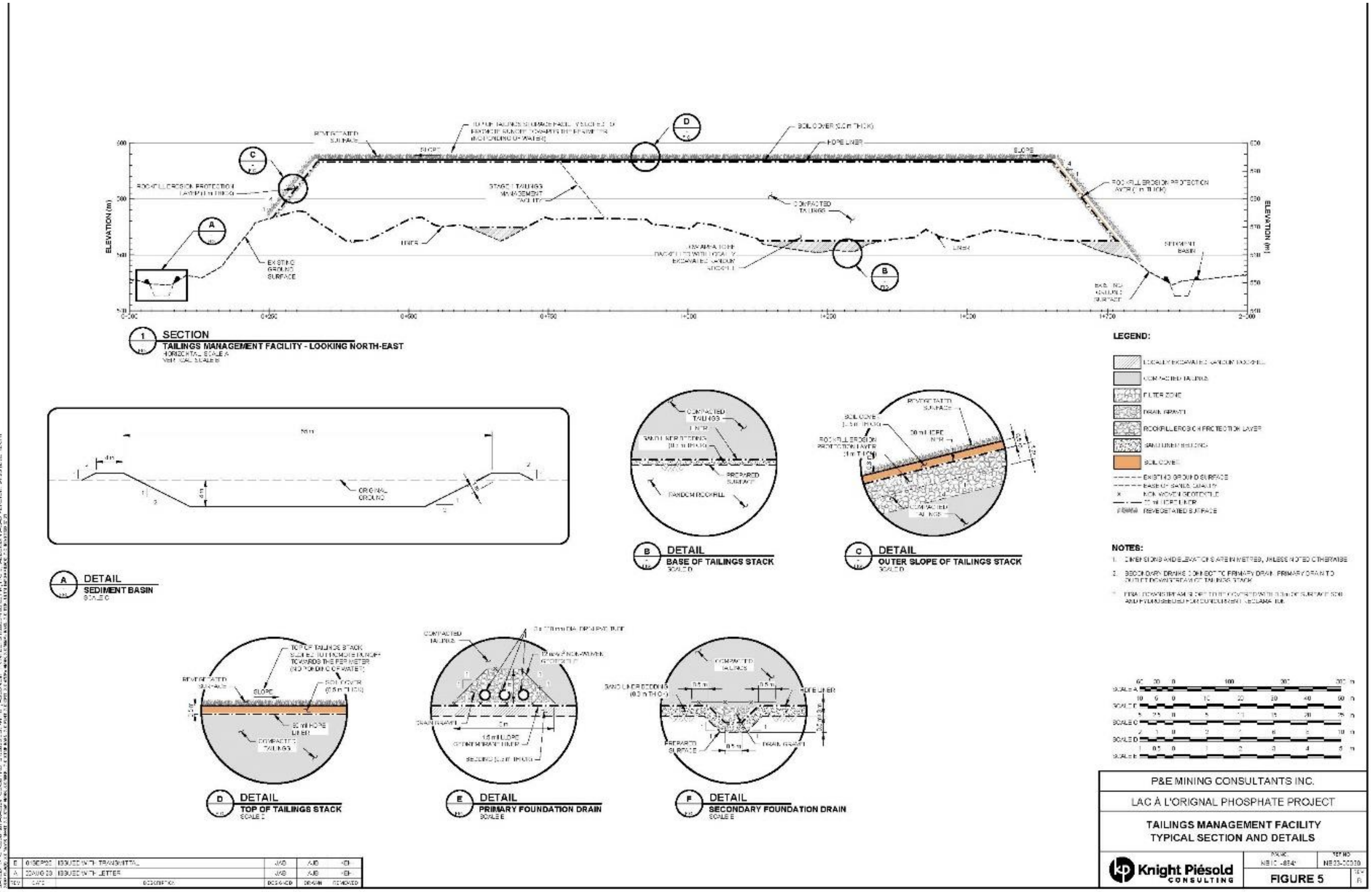
Waste rock and filter zone material will be placed and compacted at the same time to maintain the same elevation along the TMF crests. During the winter months, snow will be removed from select interim surfaces and temporarily stored upstream of the WMP. Snow will be left on inactive surfaces to reduce the potential for dusting. The overall outer slope angle of the TMF will be 4H:1V. The TMF will be constructed to El. 594 m (approximately 44 m in height).

FIGURE 18.2 PHOSPHATE TAILINGS MANAGEMENT FACILITY PLAN VIEW



Source: *Knight Piésold (2023)*

FIGURE 18.3 PHOSPHATE TAILINGS CONSTRUCTION TYPICAL CROSS-SECTION



Source: *Knight Piésold (2023)*

Phosphate Tailings Transport and Placement

The phosphate tailings will be pumped conventionally (approximately 40% solids by mass) to the TMF via a slurry pipeline. The tailings will then be filtered and transported by truck to the TMF, where they will be placed and compacted into the stack. The filtered tailings will be spread by a CAT D8 sized dozer and compacted with a 10-t compactor in 300 mm thick lifts.

TMF Water Management

The water management measures for the TMF are briefly described below. The approximate locations for the water management measures are shown on Figure 18.1.

Reclaim Water - The water removed from the tailings during the filtration process will be pumped back to the WMP.

Seepage Control - The bedrock foundation will minimize seepage through the liner reporting to the environment. Primary foundation drains will be strategically placed below the tailings on top of the liner to collect and convey water to the sediment basins. Secondary foundation drains will be strategically placed directly on the bedrock to collect and convey any seepage to sediment basins.

Stormwater Management - One sediment basin, one diversion berm, and three collection ditches will be constructed in Year -1 as part of Stage 1 construction. A second sediment basin and an additional two collection ditches will be constructed in Year 2.

Snow Management - A lined Snow Management Area is included in the concept to stockpile snow removed from the TMF surface over each winter. The Snow Management Area is located upstream of the WMP and melt water will be directed to the WMP.

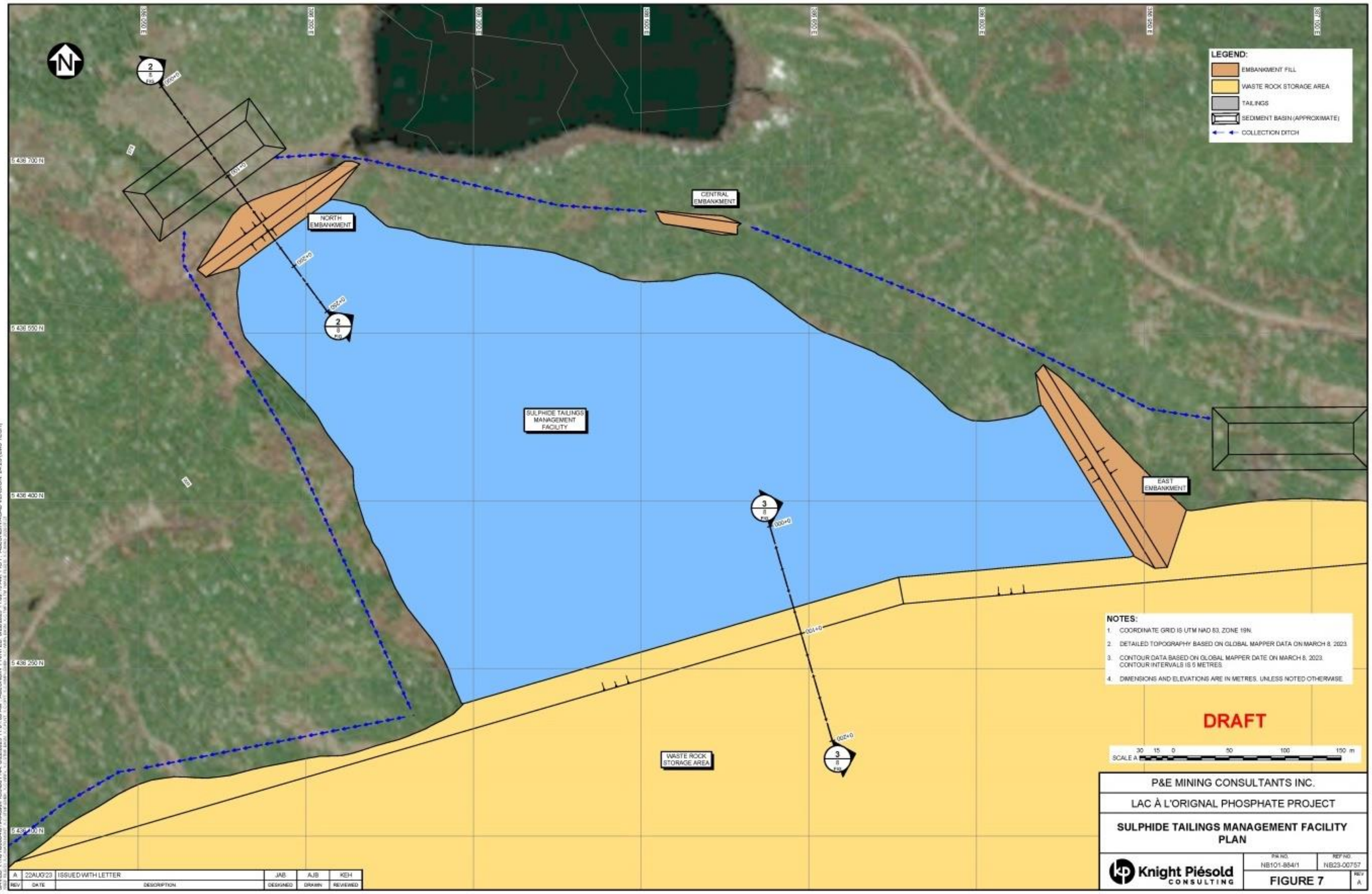
TMF Instrumentation

Vibrating wire piezometers will be installed within the tailings and underdrain. The piezometers will be used to monitor pore pressures within the tailings and underdrain. Automatic data loggers will be installed to allow for real time monitoring of the pore pressure conditions and alert the onsite tailings management team to changing conditions.

18.3.4.2 Sulphide Tailings

The location of the STMF was selected based on proximity to the process plant site and topography to provide for the required PAG tailings storage volume and sufficient water cover (Figure 18.4). The STMF will be constructed in stages to reduce initial capital expenditures.

FIGURE 18.4 SULPHIDE TAILINGS PLAN VIEW



Source: *Knight Piésold (2023)*

Embankment Staging

The STMF will be constructed as a single cell valley impoundment abutting the north side of the WRSA. The impoundment will be formed through the construction of three dams (North, Central, and East Embankments) with natural topography providing containment along the West and Northeast sides of the basin. The WRSA will provide containment along the south side of the basin.

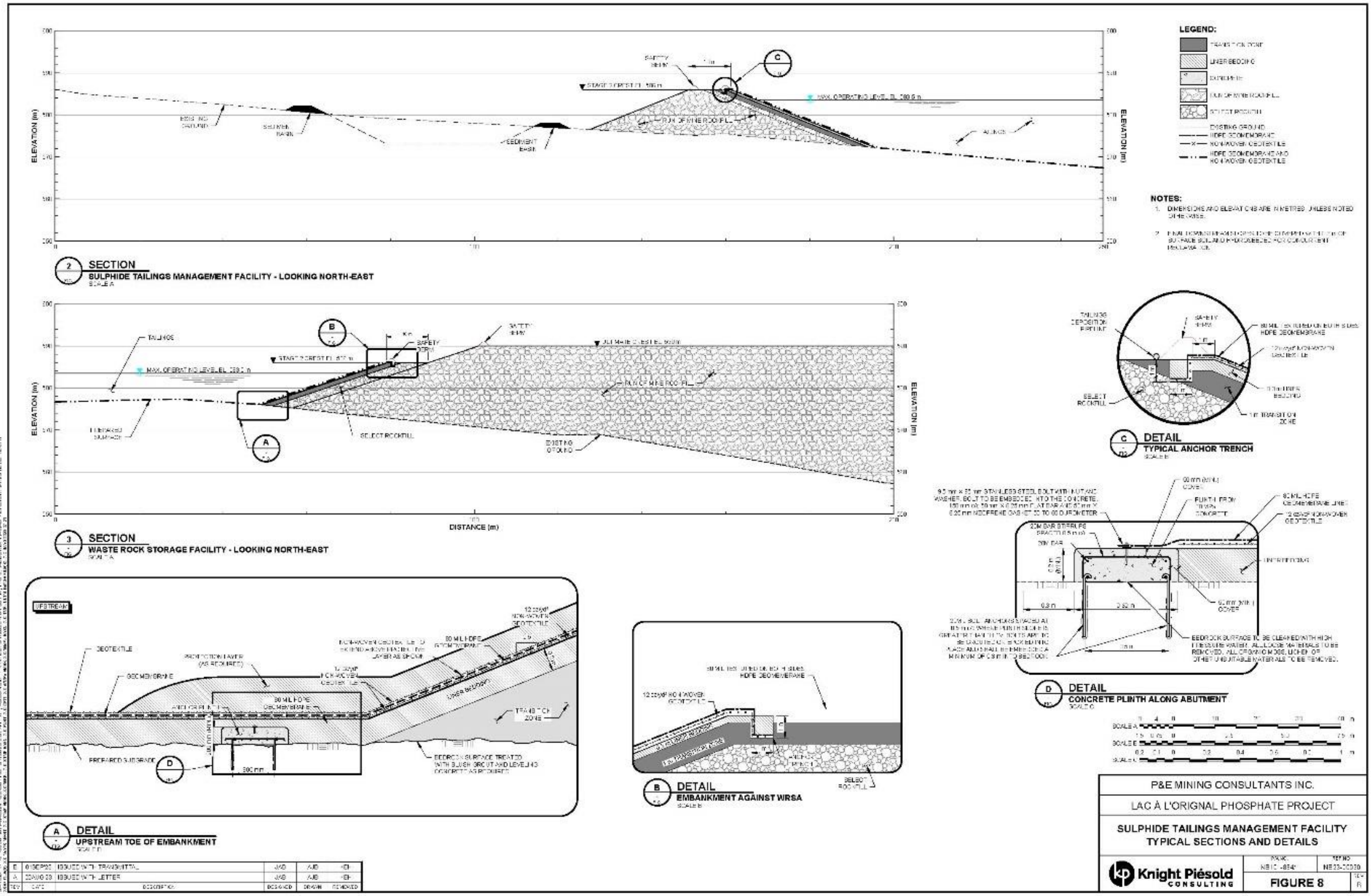
The STMF development will include an initial starter embankment (Stage 1) followed by a downstream raise. A bench will be required for liner connection between the stages. The Stage 1 embankment was sized for approximately two years of tailings storage plus capacity for operational water management, the water cover, and wet and dry freeboard allowances. The Stage 1 facility includes the North Embankment and selective construction along the northern extent of the WRSA. The Central and East Embankments will be required in subsequent construction stages. The North Embankment will also be raised in Year 2 to its ultimate crest elevation to provide a total storage capacity of 2.1 Mt of tailings plus water cover, operational water management provisions, and freeboard.

Embankment Section

The STMF embankments will be constructed using non-PAG waste rock from mine development. The zoned embankment will be constructed with filter graded materials consisting of an upstream liner bedding (processed waste rock), followed by a transition zone (crushed waste rock), and a downstream Run-of-Mine ("ROM") rockfill zone. Select materials will be processed, as required, to produce bedding and transition zones with specific grain size distributions.

The embankments will be constructed on the prepared foundation with organics and unsuitable materials removed from the embankment footprint. The embankment will be constructed with a 2.5H:1V upstream and downstream slope and a 10 m wide crest. The typical section for the STMF embankment is shown in Figure 18.5.

FIGURE 18.5 SULPHIDE TAILINGS CONSTRUCTION TYPICAL CROSS-SECTION



Source: *Knight Piésold (2023)*

Sulphide Tailings Transport and Deposition

Sulphide tailings will be pumped as a thickened slurry (typically 50% to 60% solids content by mass) from the process plant site to the STMF via pipeline. Tailings will be deposited from multiple spigot locations along the embankment crests, WRSA bench, and natural topography to allow for even filling of the basin in order to minimize the volumes of water required to maintain a wet cover during operations.

Geosynthetic Lining System

A geosynthetic lining system consisting of 2.0 mm (80 mil) HDPE geomembrane underlain by 12 oz/yd^2 non-woven geotextile will be installed along the upstream faces of the perimeter embankments and WSRA, and in the basin. The geomembrane will be tied into anchor trenches along the embankment crests, WRSA, and natural topography. Benches will likely be required to facilitate staged liner installation and welding. The toe of the geomembrane will be placed in key-in trenches excavated into the existing foundation soils along the upstream toe of the embankments (where applicable). Areas with exposed or near surface bedrock, or with steep topography, will require the installation of a concrete plinth to anchor the lining system at the upstream toe of the embankments. Typical details for the geosynthetic lining system are included in Figure 18.5.

STMF Water Management

The STMF will require an approximately 1 m deep operating pond to prevent the onset of Acid Rock Drainage within the tailings. Meteoric water and supernatant inflows to the STMF basin will be temporarily stored and reclaimed to the WMP via a floating pump barge located at the east side of the basin.

Adequate freeboard for temporary storage of the EDS is included in the STMF staging plan. The STMF will be equipped with an overflow spillway to accommodate flows above the EDS and up to the IDF.

Pump and pipeline systems for tailings delivery/deposition, and water reclaim will manage supernatant inflows and meteoric water within the STMF.

STMF Instrumentation

Instrumentation consisting of monitoring wells, vibrating wire piezometers, survey monuments, and slope inclinometers will be installed within the foundation and embankment fill materials as required. The instrumentation will be monitored to verify embankment performance. Automatic data loggers will be installed to allow for real time monitoring of the pore pressure conditions and phreatic levels to alert the onsite tailings management team to changing conditions.

18.3.5 Site Water Management

The site water management measures were designed to collect runoff from the site infrastructure areas and route the collected water to sediment basins for temporary storage and sediment control. Following settling/clarification, collected runoff will either be transferred to the WMP as process water, or released to the environment if the water quality is acceptable. Runoff from storms greater than the EDS will report directly to the environment over suitably designed and constructed spillways.

The water management measures consist of diversion berms, collection ditches, sediment basins, and excavated sumps. All water retaining structures will be constructed with non-PAG materials and the sediment basins will include geosynthetic lining systems to minimize seepage. Appropriate bedding and transition layers are also included in the sediment basin configurations. The ditches were sized to be 1.3 m in depth with a 2 m base width and 2H:1V side slopes. The sediment basins were sized to be 5 m in depth, 55 m in length, and 140 m in width with 2H:1V side slopes. The proposed water management measures are shown on the general arrangement in Figure 18.1. The following summarizes the water management details for each of the key areas around the Project site:

Open Pit - A diversion berm will be constructed along the north side of the open pit. A sediment basin will be constructed near the rim of the open pit to collect pit dewatering water and local runoff. It is assumed that water in the open pit will be pumped into the sediment basin.

WSRA - A series of collection ditches will be installed around the perimeter of the WRSA and the collected water will flow into sediment basins. The southern portion of the perimeter will include diversion berms at high points along the existing topography. Sediment basins will be constructed as cut-fill balances in existing ground to provide adequate storage.

Process Plant Site - A collection ditch installed around the process plant site will drain water directly into the WMP.

TMF Perimeter - A series of collection ditches, diversion berms, and sediment basins will collect runoff and seepage from the TMF slopes, TMF crest, and underdrain system. The retained runoff will be temporarily stored to remove sediment and then pumped to the WMP, or directly discharged to the environment.

STMF Perimeter - A series of collection ditches and sediment basins will collect runoff from the downstream slopes of the STMF embankments. The retained runoff will be temporarily stored to remove sediment then be pumped to the WMP.

WMP - The WMP will be constructed immediately north of the process plant site. The WMP will provide temporary storage of contact water from the TMF, STMF, WRSA, and open pit during normal operations and temporarily store stormwater following storm events. In addition, the WMP will temporarily store water from sediment basins, if required.

A floating pump and pipeline will be installed at the WMP. The collected water will be pumped to the process plant site for re-use in the process or to the water treatment plant for treatment and discharge. A spillway will be installed to safely pass flows from the IDF.

18.3.5.1 Water Balance

An annual site wide water balance under median hydrological conditions was developed using a spreadsheet approach and based on the PEA level layout and process assumptions. The water balance took the average annual precipitation conditions into consideration, as recorded by Government Canada (P&E, 2022). Catchment area interpretations and runoff coefficients for the catchment areas were developed by KP.

The water balance indicates that there will be a net surplus of water. The net surplus increases to approximately 339 m^3/hr (3 million m^3/year) at the end of the mine life. This water will be treated at the site water treatment plant and released to the environment.

A monthly water balance is recommended during future, more detailed levels of study, to better estimate the water management requirements. This water balance should analyze median and extreme wet/dry hydrologic scenarios.

18.3.6 Waste Rock Storage Area

The WRSA is located approximately 1 km east of the process plant site (Figure 18.1) and was sized by P&E to store 75 Mt of waste rock (34 Mm^3 at an assumed placed density of 2.2 t/m^3). The WRSA will be comprised primarily of non-PAG material. PAG material will be selectively placed and encapsulated within the WRSA to impede oxidation. It is understood that planning of the WRSA considered the following:

- Minimal surficial and environmental impacts;
- Minimal visual impacts;
- Close proximity to the open pit to minimize haul distances; and
- Cost effective, safe, and secure WRSA rehabilitation measures at the end of the mine life, in accordance with best available practices.

The following recommendations are provided to advance the design and construction/operating procedures for the WRSA:

- Stability analyses should be completed once the lift heights and slope angles are established;

- Waste rock placed adjacent to an open pit shall have a minimum setback of 100 m from the ultimate edge of the pit;

- The WRSA footprint should be cleared, and surficial organic materials removed prior to waste rock placement. This is especially important in areas close to the ultimate WRSA toes; and

- The inter-bench slopes should have a maximum angle of 2H:1V during operations in order to complete progressive reclamation activities during operations.

18.3.7 Material, Quantities, and Cost Estimates

Material and quantity estimates were developed for the starter and ultimate TMF and STMF arrangements, as well as the ultimate arrangement for the site wide water management measures. The quantities include foundation preparation, embankment construction, geosynthetics and liner tie-in items, embankment instrumentation, collection ditches, diversion berms, and sediment basins. Unit rates were used to estimate the capital costs of the facilities. The material and quantity estimates were generally determined based on neat lines from the figures.

The following assumptions were used in developing the PEA level cost estimates:

The waste and water management costs were developed based on the current understanding of the site conditions. Limited geotechnical information was available for concept development and quantity estimates.

Suitable construction materials for the TMF, STMF, and WMP will be sourced from open pit development. Processing will be required to meet the specification for specialized rockfill zones.

The cost estimates are at a conceptual level of detail (+/-50%). Contingency costs are additional. The capital cost estimates are provided in 2023 $CAD. The cost to construct the facilities over one pre-production year and 14 years of operations are estimated as follows:

- TMF initial capital is $35.2M;
- TMF sustaining capital is $45.6M;
- STMF initial capital is $5.5M;
- STMF sustaining capital is $11.1M;
- Water management structures initial capital is $8.8M; and
- Water management structures sustaining capital is $2.3M.

18.3.8 Recommendations/Opportunities

Key items recommended for further advancement and optimization of tailings and site water management during the next level of design are summarized as follows:

- Complete tailings testing to confirm index, strength, permeability, and filterability properties;

- A detailed options assessment should be completed to determine the preferred waste management strategy, including tailings storage, method and location. This assessment should include considering the potential to encapsulate the sulphide tailings within the NAG tailings of the TMF and the potential for co-disposal with the waste rock;

- Complete geotechnical/hydrogeological site investigations to characterize foundations of the TMF, STMF, WMP, and WRSA;

- Complete geochemical characterization test work on the tailings and supernatant water to confirm the geochemical properties and treatment requirements, including the minimum required depth of water cover to prevent onset of ARD for the sulphide tailings;

- Complete geochemical characterization test work on the waste rock to confirm the geochemical properties and estimate tonnages of PAG and non-PAG rock. Conduct studies to determine the best location for the storage of PAG waste rock (encapsulated within the WRSA or TMF/STMF);

- Perform stability analyses to refine and optimize stack geometries and embankment sections. The analyses should consider the potential for liquefication and/or strength loss in the foundation and in the filtered tailings mass during a large magnitude earthquake;

- Perform seepage analysis to refine and optimize lining requirements and evaluate potential basin lining alternatives;

- Collect site specific meteorological and hydrological data. This data will be used to refine seasonal runoff values, design storm estimates, and minimum freeboard requirements;

- Confirm the catchment areas contributing runoff to the plant site and open pit, and the amount of groundwater inflow to the open pit;

- Complete a monthly site wide water balance; and

- Develop a predictive water quality model, in conjunction with the water balance, to review the requirements for water treatment and/or discharge.

19.0 MARKET STUDIES AND CONTRACTS

19.1 PRODUCT PRICES AND FOREIGN EXCHANGE

The Authors followed the approximate June 30, 2023, 18-month trailing average P_2O_5 grade-adjusted phosphate price and CAD$:US$ exchange rate, along with the Consensus Economics Inc. long-term magnetite (iron) and ilmenite price projections. The commodity prices and FX are listed in Table 19.1.

TABLE 19.1
PRODUCT PRICE ASSUMPTIONS AND FX (US$)

Commodity:	Phosphate[1] ($/t)	Magnetite[2] ($/t)	Ilmenite[3] ($/t)	CAD$:US$
Price	367	95	250	1.32

***Notes**: [1] 40% P_2O_5, [2] 69% Fe, [3] 39% TiO_2*

19.1.1 Phosphate Demand Outlook

The global phosphates market is anticipated to reach a valuation of US$16.8 billion in 2023, driven by increasing demand for specialty phosphates. The trend is expected to create new opportunities for the market, leading to a projected compound annual growth rate ("CAGR") of 2.4% between 2023 and 2033, and reaching a total valuation of approximately US$21.4 billion by 2033.

One of the primary factors driving the growth of the phosphates market is worldwide agricultural expansion. Phosphates play a crucial role in promoting plant growth, improving crop productivity, and enhancing soil fertility. The demand for food is increasing, as the global population continues to grow, leading to the need for higher agricultural yields. Phosphates are essential components of fertilizers and soil amendments used to replenish phosphorous levels in the soil. The increasing adoption of modern farming techniques and the focus on sustainable agriculture are further driving the demand for phosphates.

A major trend in the world of batteries and electric vehicles is the move towards lithium-iron phosphate ("LFP") batteries. Not only do they cost less than rival nickel manganese cobalt ("NMC") batteries, however, they last approximately twice as long and are much safer (almost zero risk of fire). This explains why LFP battery sales are surging globally and now account for close to 30% market share.

19.1.2 Magnetite Demand Outlook

The future of the global magnetite market looks promising with opportunities in the iron and steel and medication industries. The global magnetite market is expected to reach an estimated US$132.7 billion by 2027 with a projected CAGR of 2.9% from 2021 to 2027.

Magnetite has diverse range of usage, which makes it a key element in various industries, for instance, it is used to make steel, bolts, household gadgets, décor, equipment, flyovers, industrial facilities, automotive, heavy machinery, industrial machinery, infrastructure development, shipbuilding, railways, railway lines, and other items. Powdered iron uses include magnets, high-frequency cores, auto parts, and use as a catalyst. Radioactive iron (iron 59) is often used in medicine as well as in neurochemical and metallurgical research as a tracer component. Paints, dyes and pigments, polymers, personal care products, and paper and textile industries all use iron blue. Black iron oxide is a pigment that is also used in polishing compounds, medicines, and magnetic inks, which is another factor contributing to revenue growth of the future magnetite market.

19.1.3 Ilmenite Demand Outlook

The global ilmenite market is anticipated to rise at a considerable rate between 2023 and 2030. The market is growing at a steady rate and with the rising adoption of strategies by key players, and prices are expected to rise.

The growing demand for paints and coatings is expected to drive the growth of the ilmenite market. The growing demand for paper and plastic is also anticipated to help the growth of the global ilmenite market. The multiple uses of the mineral are likely to support the growth of the global ilmenite market.

19.2 CONTRACTS

There are no existing contracts in place related to the Lac à l'Orignal Property. There is an MOU in place with Prayon SA of Belgium to cover part of its needs, which amount to about 400,000 tonnes of annual phosphate concentrate offtake as well as the idea/concept of a long-term purified phosphoric acid toll processing agreement.

19.3 PENALTIES

Based on SGS testwork to date, the three concentrates to be produced will be very low in deleterious elements.

19.4 LOGISTICS COSTS

For concentrate sales to a domestic buyer, the concentrates will be delivered overland direct by truck from the process plant to the all-season port of Saguenay. All shipment costs beyond Saguenay are FOB.

For deliveries to concentrate consumers from Saguenay, there are three possible shipment modes:

1. Seaborne vessel transport to international consumers;
2. Great Lakes vessels to inland North American consumers; or
3. Rail transport to inland North American consumers.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL IMPACT

20.1 REGULATORY CONTEXT AND PERMITTING

The construction, the operation and the closure of a mine is subjected to a number of laws and regulations at three different levels: federal, provincial and municipal. The following sections give an overview of the regulatory environment and social aspects for the Lac à l'Orignal Project.

20.1.1 Provincial Legislation and Regulations

As per article 22 of the *Regulation respecting the environmental impact assessment and review of certain projects* (chapter Q-2, r.23.1), the opening and operation of a metal mine that has a production capacity of 2,000 tonnes or more per day triggers the environmental impact assessment and review procedure under section 31.1 of the *Environment Quality Act (q-2)* (EQA). The article 31.1 of the EQA will issue a ministerial decree. A number of authorizations are then required to build and operate the mine.

First Phosphate plans to operate an open pit with a mineralized production of more than 2,000 tpd. The Project will therefore trigger the provincial impact assessment process.

The Environmental Assessment begins as soon as exploration activities take place at a site. Indeed, from the moment exploration activities are initiated, the company must begin identifying and building relationships with stakeholders. They must first approach stakeholders within the closest proximity such as the Band Council of the First Nation community where exploration activities are carried out, and the mayor of the closest municipality. If there are any dwellings such as camps, cottages, or houses, the company should maintain an open channel of communication and inform land users about any work planned close to where their usual activities are practiced. Moreover, the Mining Act regulates the communication activities required during exploration work. Once exploration activities are sufficiently advanced to publish a Mineral Resource Estimate, the company should continue to inform stakeholders about its activities and ensure that stakeholder concerns are considered, where appropriate.

The *Mining Act* (m-13.1) provides the framework for the mining lease, the closure plan, and the financial guarantee. A mining lease is required to extract ore. To obtain the mining lease, a closure plan must have been submitted to the Ministry of Natural Resources and Forests and been approved.

20.1.2 Federal Legislation and Regulations

The Impact Assessment Act (IAA 2019) outlines the process and timeline for implementing an Impact Assessment as well as establishing the scope and factors to consider. An emphasis has been placed on the rights of Indigenous peoples, sustainability, and cumulative effects. Under the *Impact Assessment Act*, only projects designated by the *Regulations Designating Physical Activities (DORS/2019-285)* are subjected to the environmental assessment procedure. The

Physical Activities Regulation, also referred to as The Project List, identifies the major sectors and types of activities which would be subject to the Impact Assessment Act.

First Phosphate plans to operate an open pit with mineralized production of more than 5,000 tpd. Thus, an environmental assessment under the IAA 2019 is required for a project that involves the construction, operation, decommissioning and abandonment of a new metal mine, other than a rare earth element mine, placer mine or uranium mine with production capacity of 5,000 tpd or more. The federal process is a 5-step process which starts with an initial project description and ends with a decision from the federal authorities. The entire process may take up to several years and should be started as soon as enough information on the project is available.

Under the Fisheries Act, the Metal and Diamond Mining Effluent Regulations ("MDMER") provide the framework for mining activities with regard to the protection of fish and fish habitat. The MDMER sets criteria for mining effluents.

Other regulations apply to mining activities and should be considered throughout the process. For example, the project should comply with the Migratory Birds Convention Act, the Explosives Act, the Species at Risk Act, etc.

20.1.3 Permit Status

First Phosphate has obtained the necessary permits to pursue drilling at the Lac à l'Orignal Property.

20.2 ENVIRONMENTAL STUDIES

The Project includes an open pit located north of the Lac Françoise and east of the Lac à l'Orignal. The open pit would be approximately 1.8 km long by 0.3 km wide. The waste rock storage pile would contain 39.5 Mm^3 of rock, and the overburden pile would contain 2.3 Mm^3 of materials. The phosphate tailings would be pumped approximately 5 km northwest of the open pit and subsequently filtered. The phosphate tailings will be desulphurized, and the sulphide concentrate would be stored in a facility equipped with a water cover and would be sited close to the process plant.

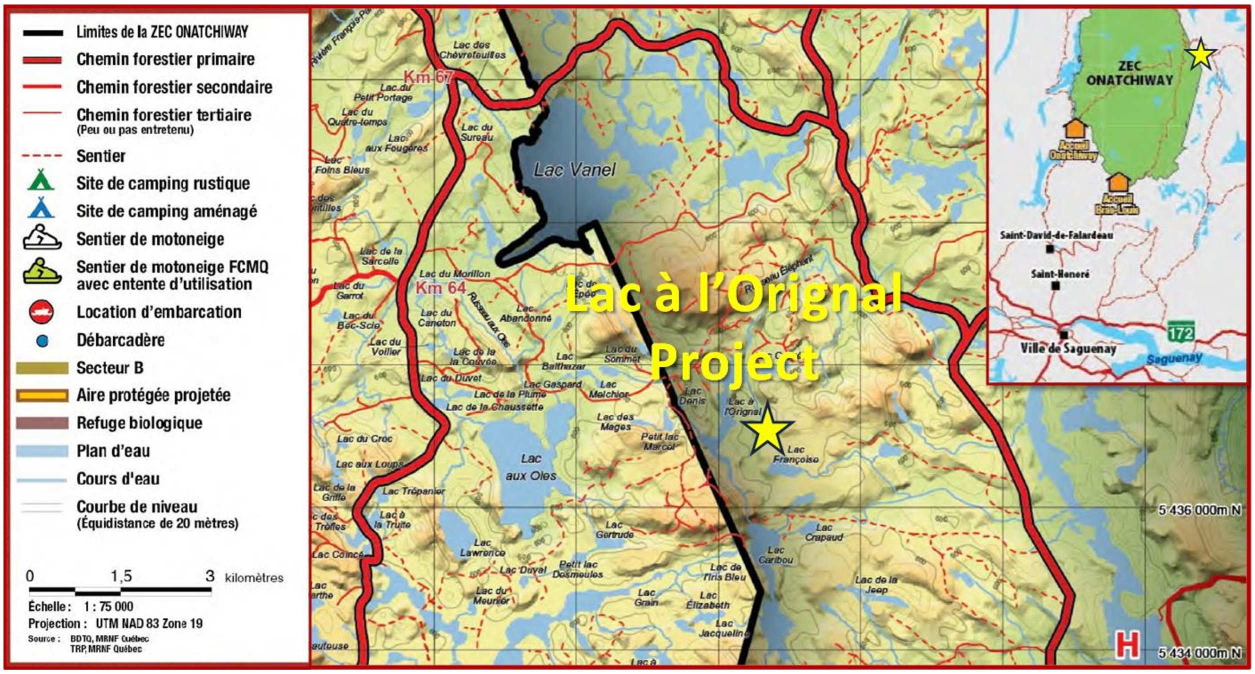
No environmental studies in the field have been undertaken to date. Fieldwork, however, are planned over the next several months in order to acquire data on fauna and flora. Hydrology and hydrogeology studies are also planned, as well as baseline studies for water quality, air quality, sound/noise, soils and sediments. These studies are required to establish initial conditions allowing the evaluation of the impact of the Project as it is developed, operated and closed out.

Some information is nonetheless available by means of public sources. This information is presented in the following sections.

20.2.1 Physical Environment

The Project is located 84 km north-northeast of the Saguenay River. All infrastructures, except the phosphate tailings storage stack, would be approximately 8 to 9 km east of the ZEC Onatchiway, a Controlled Exploitation Zone (Figure 20.1). A ZEC is the French acronym for a Controlled Exploitation Zone meaning that it is a zone used for recreational hunting of wildlife controlled by means of hunting permits. The phosphate tailings storage stack is located in the ZEC.

FIGURE 20.1 LOCATION OF THE LAC À L'ORIGNAL PROJECT ON THE ZEC ONATCHIWAY



Source: *https://zeconatchiwayest.reseauzec.com/wp-content/uploads/gestionnaire/5/514/2_documents_0.pdf*

20.2.2 Topography

The Lac à l'Orignal Property is defined as being forested with numerous lakes and watercourses dispersed in a very hilly region. Elevation varies between 502 m and 762 m above sea level. The site is located about 40 km north of Les Monts Valins, a mountainous massif of the Laurentians chain. Composed of a dozen peaks that overlook the Saguenay–Lac-Saint-Jean, its highest point is Pic Dubuc du Mont Valin, which rises to 984 m above sea level. The massif covers an area of 6,900 km^2 which is protected over 153,60 km^2 by the Monts-Valin National Park. The rest of the area is mainly encompassed by the unorganized territory of Mont-Valin. These mountains mark the northern limit of the Saguenay Graben.

20.2.3 Climate

The climate in the Saguenay region is a humid continental-type. Weather data collected at Lac Vanel, on the Project site, shows the average annual temperature, as based on data collected from 1971 to 2000, is -0.2°C, while average precipitation for the same period was 1,113 mm.

20.2.4 Hydrology

The watershed where the main infrastructures (open pit and process plant) are located flows towards the northeast to Lac Brazza which become Rivières aux Sables, a tributary of the Saguenay River. The phosphate tailings stack location drains towards Lac aux Oies, Lac Vanel, Lac Maria Chapdelaine to finally also reach Rivières aux Sables.

The pit will be between Lac à l'Orignal and Lac Françoise. Lac Françoise could be affected by the operation. It may have to be drained or protected by a dike. The sulphide pond will be in proximity of a small pond, close to a small creek. The waste rock storage will be south-east of the open pit. It will be built in the location of a small creek which flows into Lac Brazza and Rivière aux Sables.

20.3 BIOLOGICAL ENVIRONMENT

20.3.1 Fish and Fish Habitat

No inventories were conducted on site. The Project is located in a region well known for fishery activities. It is expected that most of the lakes will contain trout and other species common to the types of water bodies found in the region. It is also expected that the water bodies which would find themselves down gradient of the tailings and waste rock are fish habitat.

20.3.2 Vegetation and Wetlands

The Property area has been intensely logged and much of the vegetation consists of mainly black spruce and balsam fir. Other areas contain undetermined hardwood. White cedar is common along the shores of lakes and rivers. Small bogs are also present. Large areas of the Property were burned by a forest fire in 1996. Figure 20.2 is a photograph representative of the topography and vegetation found on the Property close to Lac à l'Orignal. No inventories have been done to date. Inventories are planned in the coming months.

FIGURE 20.2 VEGETATION IN THE SOUTH PART OF LAC À L'ORIGNAL

Source: *https://www.arcgis.com/home/webmap/viewer.html*

20.3.3 Wildlife

The Project is on the limit of the ZEC Onatchiway. The wildlife for which hunting permits are issued in the ZEC are typically wild hare, various grouse species, moose, bear, and white-tailed deer.

The Project is also located in the distribution of the woodland caribou. The woodland caribou is on the list of endangered species. The Project is located in the southern zone of the provincial recovery plan[1].

20.3.4 Endangered Wildlife

A list of endangered wildlife potentially found on the site will be prepared in the coming months in order to coincide with planning inventories of the biological environment. Desktop studies have suggested that the Project area as being frequented by woodland caribou and Bicknell's Thrush. Mitigation measures will be included in the Project development.

20.3.5 Social Environment

The Project is found in the municipality of Mont-Valin within the MRC (Municipalité Régional de Comité) of Le Fjord-du-Saguenay. The municipality of Mont-Valin has a population of five

1 Plan de rétablissement du caribou forestier au Québec – 2013-2023, Équipe de rétablissement du caribou forestier, mai 2013, 128 pages

residents while the MRC of Le-Fjord-du-Saguenay has a population of 23,467 residents. The largest proportion of residents live in the Towns of Saint-Honoré, Saint-Ambroise, Saint-David-de-Falardeau, and Saint-Fulgence. These towns are located near the Rivière Saguenay and the Lac Saint-Jean, at the opposite end of the MRC from Mont-Valin and the Project. The nearest town is Saint-David-de-Falardeau, approximately 65 km distant.

The Project is located on the ancestral lands of the Pessamit (formerly known as the Betsiamites Innu) Nation while the transport route to Saguenay passes through the lands of the Mashteuiatsh, Pessamit and Essipit. It is therefore required that a consultation of the communities be requested for activities such as exploration work, blasting, etc. The communities are between 125 and 150 km away from the Project site, as shown in Figure 20.3.

FIGURE 20.3 LOCATION OF THE FIRST NATION COMMUNITIES

Source: *adapted from Google Earth (2023)*

The Innu communities are self-managed (no central Innu government) and differ in terms of location, population, and socioeconomic development.

Mashteuiatsh is located approximately 6 km from the city of Roberval and has a little over 2,000 residents. Multiple community services are offered to residents such as a health center, a library, and a museum. The economic activities include commerce and services, forestry, and tourism.

The Innu Essipit community is near the town of Les Escoumins and has a population of just under 300 residents. The community provides services such as a health center and a community center. They promote socioeconomic development by means of partnership, or co-enterprises, in fishing, renewable energy, outfitters, etc.

The Pessamit Innu (formerly Betsiamites) community is located on the Saint-Lawrence River approximately 50 km from Baie-Comeau. The reserve has a population of just under 3,000 residents. Residents benefit from services such as a health center, a community center, a library, etc. On a socioeconomic level, the community has their own society to promote economic development, The Société de développement économique de Betsiamites. Through this society, they run a logging and forestry enterprise, a resort, an outfitter, and are looking into renewable energy and mining projects. They have also signed an agreement with Hydro-Québec concerning hydroelectric projects.

The Saguenay region's economy is driven by extensive industrial, agricultural, forestry, and tourist industries. The local university, The University of Québec at Chicoutimi, has a geology department known for its good reputation. There is an abundance of qualified and skilled local workers in the area.

The hydro-electric system is well established and can easily support all these industries. The power line extends to 35 km from the Project site. There is abundant water available on site for the Project's needs. In Saguenay, the deep-water port facilities would enable easy transport of the product to a multitude of locations by waterways.

The site is easily accessible from Saguenay by means of Highway 172 which leads to Chemin de la Zec Martin-Valin, a logging road. Secondary logging roads, maintained by logging companies, can be used to access various areas of the Project site.

A portion of the Project is found within the ZEC Onatchiway, a Controlled Exploitation Zone, where activities such as camping, hiking, snow-mobiling, fishing and hunting are practiced.

20.4 SOCIAL CONTEXT AND STAKEHOLDER ENGAGEMENT

The Project is located on the ancestral territory (Nitassinan) of the Pessamit Nation. Transport routes could pass through the ancestral territory of the Mashteuiatsh Pessamit. Several meetings have been held between First Phosphate and the Mashteuistsh and an agreement is in development.

First Phosphate has been actively reaching out to communities in order to build collaborative partnerships. The Company is working with local indigenous companies such as Groupe Conseil Nutshimit Nippour and First Nations Drilling.

The Project is also in proximity of the Saguenay-Lac-Saint-Jean community. First Phosphate and The Regional Economic Benefits Maximization Committee of Saguenay-Lac-Saint-Jean have signed a collaborative agreement. The agreement aims to help First Phosphate by enabling easier access to the local workforce while benefitting the region of Saguenay-Lac-Saint-Jean by encouraging positive economic impacts.

Information sessions have been held in collaboration with local mayors in the Towns of St-Fulgence, Begin, and Lamarche.

Furthermore, the Company works with many local and regional partners such as Agrinova, a research college associated with the local Collège d'Alma, and Port Saguenay, the local port with deep-water all-season marine facilities.

20.5 WASTE ROCK AND TAILINGS CHARACTERIZATION

Acid base accounting ("ABA") was done on seven samples taken from the 2014 drilling campaign at the Lac à l'Orignal site. The samples were collected by First Phosphate in the drill core shack located closed to the Project. Samples were taken close to the surface at a depth between 10 and 22 m. Most of the samples were taken in the footprint of the proposed open pit. The results are shown in Table 20.1 and are compared with the provincial and federal criteria. According with federal criteria, none of the seven samples would be considered as potentially acid generating. However, as compared to the provincial criteria, samples 14-02, 14-22 and 14-01 would be classified as potentially acid generating based on the low neutralization potential (below 20 kg $CaCO_3$/t). Kinetic tests would be required to confirm the potential of those samples to produce acidity.

TABLE 20.1
RESULTS OF ACID BASE ACCOUNTING ON SAMPLES OF WASTE ROCK

Test Element	**Core 14-23 12 m**	**Core 14-13 10 m**	**Core 14-02 10 m**	**Core 14-12 10 m 10**	**Core 14-22 22 m**	**Core 14-01 10 m**	**Core 14-06 9 m**
Rock type	Gabbro	Anorthosite	Gabbro Anorthositique	Gabbro Anorthositique	Anorthosite	Gabbro Anorthositique	Gabbro Anorthositique
Initial pH	9.09	9.28	9.12	9.00	8.90	9.16	9.20
%S	0.057	0.082	0.074	0.030	0.139	0.30	0.022
%C	0.045	0.307	0.052	0.037	0.076	0.118	0.029
NP (kg $CaCO_3$/t)	69.6	35.5	17.1	7.5	15.0	18.9	7.6
AP (kg $CaCO_3$/t)	1.78	2.56	2.31	0.94	4.34	7.19	0.69
NNP	68	33	15	6.6	11	12	6.9
NP/AP	39.1	13.9	7.4	8.0	3.5	2.6	11.0
PAG (Price Criteria)	No	No	No	No	No	No	No
PAG (Québec Criteria)	No	No	Yes	No	Yes	Yes	No

Note: *NP: Neutralisation potential, AP: Acid potential, NNP: Net neutralization potential (NP-AP).*

A testwork program was undertaken on a composite of half drill cores for metallurgical purposes. Tailings were produced and tested according with the Modified Acid Base Accounting Method. Results are presented in Table 20.2. The tailings are unlikely to become acid generating under the federal criteria, however, are classified as potentially acidic under the provincial criteria.

TABLE 20.2
RESULTS OF ACID BASE ACCOUNTING ON A SAMPLE OF COMBINED TAILINGS

Test Elements	Combined Tailings
Paste pH	8.6
%S	0.246
%C	0.085
NP (kg $CaCO_3$/t)	16.3
AP (kg $CaCO_3$/t)	5.31
NNP	11
NP/AP	3,07
PAG (Price Criteria)	No
PAG (Québec Criteria)	Yes

During the next drilling campaign, samples of mineralization and waste rock will be collected in order to perform the tests required to characterize the different lithologies of the waste rock storage facilities and the tailings storage facilities. Static tests and kinetic tests will be performed, and the results will help to develop a water management strategy, and to determine the possibility of using waste rock as a construction material for dykes and roads. The characterization will also be required to choose the best method for reclaiming the site at the end of the mine life.

20.6 SITE SELECTION FOR THE MINING WASTES

The locations of infrastructure were mainly chosen for reasons of technical and economic feasibility within the framework of this PEA. For the subsequent steps of the Project, fieldwork and meetings with stakeholders will be planned. Following these meeting, preoccupations mentioned by stakeholders will be taken into consideration in determining the best layout for building the tailings stockpile and tailings management facilities. Social and environmental criteria will be considered, and a study of alternative locations will be developed and presented to stakeholders and authorities. These site selection studies should be completed as soon as possible. Some examples of criteria to be considered are presented below:

- Proximity of the process plant;
- Distance from cottages or hunting camps (dwellings);
- Quality of the ground (overburden, rock, sediment);
- Presence of wetlands;
- Presence of fish habitat;

- Expansion capacity;
- Water bodies; and
- Endangered species.

20.7 MINE CLOSURE AND RECLAMATION PLAN

Progressive reclamation would be encouraged during the mining operation and will involve activities to reclaim, where possible, some parts of the waste rock storage facilities and the tailings management facilities, exhausted borrow pits, etc.

Rehabilitation works, after mining operations, will have to be performed in accordance with the approved plan. Finally, monitoring would ensure that rehabilitation has been done successfully. Once all these steps are completed to the satisfaction of the MRNF, the land could be returned to the Crown.

21.0 CAPITAL AND OPERATING COSTS

The estimated capital and operating costs related to the construction and operation of the mining and processing facilities are provided in this section. All costs are presented in Q2 2023 Canadian dollars. No provision has been included in the cost estimates to offset future escalation. Typical PEA costing accuracy is in the range of +/-35%.

The total initial capital cost of the Lac à l'Orignal Project is estimated at $550M. Sustaining capital costs incurred during the 14.2 production years are estimated to total $139M. Total operating costs over the life-of-mine ("LOM") are estimated at $1,644M which average $30.43/t processed.

21.1 INITIAL CAPITAL COST ESTIMATES

Initial capital costs are for construction of a 3.8 Mtpa process plant and tailings facility, and to set up an open pit mining site with the necessary infrastructure and pre-production activities, including port infrastructure. The capital cost estimates are summarized in Table 21.1.

TABLE 21.1
CAPITAL COST ESTIMATE

Item	Initial ($M)	Sustaining ($M)	Total ($M)
Open Pit Mining Equipment and Pre-stripping	29.6	46.5	76.1
Process Plant	214.8	5.5	220.3
Tailings Management Facilities	41.6	56.8	98.3
Indirects, EPCM and Owner's Costs	110.4	0.0	110.4
Site and Port Infrastructure	61.7	0.0	61.7
Contingency (20%)	91.6	21.7	113.4
Reclamation/Closure Minus Salvage Value	0.0	8.3	8.3
Total[1]	**549.8**	**138.7**	**688.5**

[1] Totals may not sum due to rounding.

21.1.1 Open Pit Mining Equipment and Pre-Stripping

Major pieces of open pit mining equipment are planned to be leased over successive five-year periods at a 9% interest rate, and minor equipment will be purchased. Major equipment is comprised of excavators, haul trucks, rotary drills, wheel loaders, track dozers, graders and water trucks. A 10% down payment cost is planned for all leased equipment, and equipment that is leased at the beginning of the two-year pre-production period will be subject to a lease payment in the second year of pre-production. Minor open pit mining equipment consists of support equipment such as maintenance equipment, smaller excavators and wheel loaders, pick-up trucks and lighting plants. The cost for leases and purchases of open pit mining equipment during the pre-production period is estimated at $14.3M.

A total of 6.0 Mt of waste rock, overburden and process plant stockpile feed are planned to be mined at the open pit during the second year of pre-production. At a unit cost of $2.50/t material, open pit pre-stripping costs are estimated at $15.0M.

A further $0.3M is estimated for equipping the open pit technical offices and purchasing radios, computers and survey equipment.

The total initial capital cost for open pit mining equipment and pre-stripping is estimated at $29.6M.

21.1.2 Process Plant

For the process plant described in Section 17 of this Report, a summary of the preliminary estimated capital costs are shown in Table 21.2.

TABLE 21.2
PROCESS PLANT CAPITAL COST ESTIMATE

Description	Cost ($M)
General Plant	19.4
Crusher Area	19.8
Coarse Stockpile and Reclaim	10.2
Grinding and Classification	48.6
Magnetic Separation	10.7
Magnetite Upgrade	6.5
Phosphate Flotation	22.7
Ilmenite Processing	10.0
Phosphate Concentrate Thickening, Filtration and Drying	16.6
Reagent Area	7.5
Phosphate Concentrate Handling	16.1
Tailings Handling Area	12.1
Magnetite and Ilmenite Thickening, Filtration and Drying	8.5
Magnetite and Ilmenite Concentrate Handling	6.0
Total[1]	**214.8**

Note: *[1] Totals may not sum due to rounding.*

Major mechanical equipment costs are based on previous budget quotations provided by major vendors and factored accordingly for the design throughput of 10,500 tpd. Details of specific process design criteria are provided in Sections 13 and 17 of this Report. In addition, minor mechanical equipment costs are based on a database and familiarity with costs of the equipment. Bulk materials costs such as bins, tanks, structures are based on some built-up rates and factored costs and allowances.

Direct construction costs are based on factoring and direct input of costs where applicable. This includes process area, site development, concrete and steel work, mechanical, piping, Motor Control Centre ("MCC") electrical and instrumentation.

21.1.3 Tailings Management Facilities

Material and quantity estimates were developed for the starter and ultimate TMF and STMF arrangements, as well as the ultimate arrangement for the site wide water management measures. The quantities include foundation preparation, embankment construction, geosynthetics and liner tie-in items, embankment instrumentation, collection ditches, diversion berms, and sediment basins. The unit rates to estimate the capital costs of the facilities have been based on the Authors' experience at similar sites. The material and quantity estimates were generally determined based on neat lines from the figures.

The following key assumptions were used in developing the PEA level cost estimates:

- The waste and water costs were developed based on the current understanding of the site conditions. Limited geotechnical information was available for concept development and quantity estimates;
- Suitable construction materials for the TMF, STMF, and WMP will be sourced from open pit development. Processing will be required to meet the specification for specialized rockfill zones; and
- The cost estimates are at a conceptual level of detail (+/-50%).

The estimated capital costs are $36.1M for initial TMF construction to provide adequate storage capacity for the first two years of production, construct a filtering plant and purchase equipment to haul, spread and compact the dry stack tailings. $5.5M was estimated for initial sulphide tailings storage management. Total capital costs for tailings management are estimated at $41.6M.

21.1.4 Construction Indirects, EPCM and Owner's Costs

A 25% factor was applied to all initial capital costs before contingency to calculate indirect construction costs that totalled $86.9M. A further $2.0M was estimated for first fills, start-up and commissioning of the process plant. Engineering, procurement, and construction management ("EPCM") has been estimated as 5.4% of the direct process plant costs, equivalent to $12.0M.

Owner's costs include administrative staff during the two-year pre-production period. Also included are general offices expenses, environmental and community expenses, insurance, generator costs until grid electrical power is connected, transportation to site, lodging, and maintenance costs. The initial capital cost for Owner's costs is estimated at $9.5M.

Initial capital costs for construction indirect costs, EPCM and Owner's costs are estimated at $110.4M.

21.1.5 Site and Port Infrastructure

Site and port infrastructure is estimated at a total cost of $61.7M.

Site infrastructure includes items such as a gatehouse to the mine site, administration offices with first aid and safety offices, a warehouse, the process plant assay laboratory, diesel fuel storage with a distribution station, a change house, a mine equipment maintenance shop, mobile equipment for the process plant, fresh water/fire water/potable water systems, and electrical distribution systems at the process plant/admin site. The initial capital cost for site infrastructure is estimated at $10.4M.

Site development is estimated to cost $24.8M and includes items such as:

- Construction of the main access road to the Property and to the process plant site;
- Process plant and open pit area clearing, grubbing, topsoil removal and site preparation;
- Construction contractor lay-down pad preparation;
- Construction of initial haul roads; and
- Site preparation of the TMF, waste rock storage and overburden storage facilities.

A system for process plant water management including pipelines will be installed at an estimated cost of $3.3M. A site water management system including surface structures and a water treatment plant is estimated to cost $6.5M.

A 735 kV transmission line is located approximately 20 km south from the proposed process plant site. The line is controlled and maintained by Hydro Québec and is considered the optimum electrical power source for the Project. Approximately 25 km of new powerline is required, along with electrical distribution equipment. The cost to install and supply adequate power to the Lac à l'Orignal Project site is estimated at $12.8M.

Port infrastructure is comprised of individual storage barns and equipment for phosphate, magnetite and ilmenite, with conveyors and material handling systems, including electrical power distribution, at an estimated cost of $3.9M.

21.1.6 Contingency

A contingency of 20% has been applied to all capital costs. On initial CAPEX the contingency is estimated at $91.6M.

21.2 SUSTAINING CAPITAL COSTS

Sustaining capital costs are estimated at $138.7M and are described below.

21.2.1 Open Pit Mining Equipment

Lease payments on major equipment over the mine life are estimated at $43.2M. Major equipment replacement down payments are estimated at $2.1M. Replacement of support equipment is estimated at $1.2M over the LOM. Total sustaining costs for open pit mine equipment are estimated at $46.5M.

21.2.2 Process Plant

Sustaining process plant costs are estimated at $0.5M/yr during 11 years and total $5.5M over the LOM.

21.2.3 Tailings Management Facilities

Stage 2 construction of the TMF is scheduled in production year two ($45.7M) and for the sulphide tailings facility is scheduled in year three ($11.1M). Stage 2 provides LOM capacities and the total sustaining cost is estimated at $56.8M.

21.2.4 Reclamation, Closure Costs and Salvage Value

The Project involves the development of an open pit mine, a process plant, tailings and water management infrastructure including collection ditches, settling ponds, water treatment system, and ancillary infrastructure. The five main closure activities include decontamination and decommissioning; asset removal; demolition and disposal; rehabilitation; and monitoring and reporting. Progressive reclamation will be carried out when possible over the LOM. Reclamation and closure costs are estimated at $20.0M.

A 5% salvage value of $11.7M has been estimated for site infrastructure equipment, process plant equipment, and infrastructure at the port that could potentially be sold at the end of the mine life. The net sustaining capital cost for closure and salvage is estimated at $8.3M.

21.2.5 Sustaining Cost Contingency

A contingency of 20% has been applied to all sustaining capital costs and is estimated at $21.7M.

21.3 OPERATING COST ESTIMATES

Operating costs are estimated to average $30.43/t processed over the LOM as presented in Table 21.3. Open pit mining costs are for 14.2 years of production. The operating costs have been estimated from first principles and consumable quotes, with factoring and estimates from the Authors’ experience at other similar mines.

TABLE 21.3 OPERATING COST ESTIMATE			
Item	**Unit**	**Unit Cost ($/t)**	**LOM Total ($M)**
Open Pit Mining all Material	$/t mined	2.77	
Open Pit Mining and Stockpile Re-handling	$/t mined	2.89	
Open Pit Mining	$/t processed	7.48	404.1
Process Plant	$/t processed	12.60	680.9
General and Administration	$/t processed	1.67	90.0
Tailings Management	$/t processed	1.85	99.7
Concentrate Handling and Transport	$/t processed	6.83	369.7
Total[1]	**$/t processed**	**30.43**	**1,644.4**

[1] Totals may not sum due to rounding.

21.3.1 Open Pit Mining

A breakdown of LOM average open pit mining unit operating costs by activity and by element is presented in Table 21.4. LOM total costs are also shown.

Mine operating costs are derived from a combination of first principle calculations with an in-house equipment database for all major and supporting equipment operating parameters, and include fuel, consumables, labour ratios, and general parts costs. The average open pit mine operating cost is estimated at $2.89/t mined over the 14.2 production years including stockpile re-handling.

Annual mineralized material tonnes, waste tonnes and loading and hauling hours are calculated based on the capacities of the loading and hauling fleet. These tonnes and hours provide the basis for drilling, blasting, and support fleet inputs. Based on the tonnes scheduled, a requirement for production drilling hours is calculated based on blast hole size and pattern, bench height, material density and drill penetration rate.

An estimate for blasting supplies, initiation systems and blasting accessories is provided on a per hole basis. Drilling and blasting inputs (pattern area, powder factor, etc.) have been included.

Fleet requirements for loading, hauling and support are derived from the loading and hauling operating hours. Operating hours for a support fleet of dozers, front-end loaders, graders, service and welding trucks, etc., are estimated to derive the support fleet requirements.

The diesel fuel price assumed is $1.00/L.

All equipment costs are based on estimated fuel consumption rates, consumables costs, ground-engaging tools (“GET”) estimate, and general parts and preventative maintenance costs on a per-hour or per-metre interval basis.

Operating labour man-hours are categorized for the different labour categories such as operators, mechanics, electricians, etc. The mining cost also includes all mine salaried staff, technical consumables and software.

TABLE 21.4
OPEN PIT MINING OPERATING COST ESTIMATE

Item	Unit Cost ($/t material)	LOM Total ($M)
By Activity		
Drilling	0.23	31.4
Blasting	0.53	74.7
Loading	0.32	45.2
Hauling	0.96	134.4
Services/Roads/Waste Storage	0.58	81.3
General/Supervision/Technical	0.27	37.1
Total[1]	**2.89**	**404.1**
By Element		
Operating Labour	0.59	82.6
Maintenance Labour	0.34	47.1
Supervision and Technical	0.25	34.4
Non-Energy Consumables and Parts	0.98	137.7
Fuel	0.49	68.7
Electric Power	0.02	3.0
Leases and Outside Services	0.22	30.6
Total [1]	**2.89**	**404.1**

[1] Totals may not sum due to rounding.

The average open pit mining operating cost equates to $7.48/t processed over the LOM.

21.3.2 Process Plant

Process plant operating costs are based on preliminary process design criteria including manpower requirements, estimated connected power, maintenance and operating consumables including reagents. Operating labour rates, wear components, reagent costing, power and diesel rates were obtained from suppliers and local vendors. Power costs are estimated at $0.055/kWh with diesel costs estimated at $1.00/L. Total process plant connected power is estimated at 35 MW with operating costs estimated to average $12.60/t processed over the LOM. The process plant operating cost estimates are summarized in Table 21.5.

TABLE 21.5 PROCESS PLANT OPERATING COSTS			
Item	**Annual Cost ($M)**	**Unit Cost ($/t Processed)**	**% of Total**
Labour	9.2	2.41	19
Power and Fuel	19.0	4.98	40
Grinding Media	10.7	2.80	22
Mill Liners	1.1	0.27	2
Reagents	7.9	2.06	16
Supplies and Mobile Equipment	0.3	0.08	1
Total[1]	**48.2**	**12.60**	**100**

[1] Totals may not sum due to rounding.

The process plant labour positions and rates are based on local manpower rates for similar operations within the area. Rates address senior process management, operating personal, and specific support personal including maintenance (mechanical, electrical, instrumentation) and assay laboratory. An average wage burden rate of 37% for each position was applied accordingly.

To accommodate a 24-hour operation, the number of process-related hourly employees and staff totals 95. Process plant operations employees are estimated at 59 and maintenance employees are estimated at 36.

Reagent costs are based on quotations from local suppliers in Canada and include caustic starch, soda ash, sodium silicate, caustic soda, fatty acids, collectors, frothers and flocculants. Reagent consumption is based on Project testwork from the recent SGS testing campaign.

Grinding media and wear components costs including mills and crushers are supplied by local Canadian vendors. Consumptions are calculated on an annual basis and unit costs are based on 3.8 Mtpa process plant feed rate.

Power to the Project site is assumed to be supplied by a dedicated 56 kV feeder line from a Hydro Québec 735 kV transmission line located 20 km from the proposed process plant site. Electricity consumption for the process plant is estimated at 345,000 MWh per year at an estimated cost of $0.055/kWh.

21.3.3 General and Administration

General and Administration (“G&A”) costs are estimated at $6.0M annually, as summarized in Table 21.6. This equated to an average G&A unit operating cost of $1.67/t processed over the LOM. Administrative staff is estimated at 39 people.

TABLE 21.6 GENERAL AND ADMINISTRATION COSTS		
Item	**Number**	**Annual Cost ($)**
General Manager	1	274,000
Public Relation / Sustainability	1	109,600
Administration Manager	1	205,500
Human Resources	1	137,000
Community Relations	1	109,600
Safety & Security Officer	1	137,000
Warehouse Supervisor	1	109,600
Warehouse Staff	2	164,400
Purchasing	2	191,800
Logistics and Concentrate Sales	2	191,800
Security	12	986,400
Nurse	2	191,800
Receptionist	1	68,500
Environmental Officer	1	109,600
Accountants	2	191,800
IT	2	164,400
Clerks/Staff	6	493,200
General Office Expenses	Lump sum	300,000
Insurance	Lump sum	500,000
Software, Computers, Safety Supplies	Lump sum	200,000
Community Service Programs	Lump sum	200,000
Environmental and Permit Expenses	Lump sum	300,000
Consultants	Lump sum	100,000
Allowance	10%	564,000
Total[1]		**6,000,000**

[1] Totals may not sum due to rounding.

21.4 SITE PERSONNEL

Average site employees are estimated at 233 Company personnel, consisting of 99 open pit mining, 95 process plant and 39 G&A. Maintenance personnel are included in the mining and process plant numbers.

22.0 ECONOMIC ANALYSIS

Cautionary Statement - The reader is advised that this PEA Technical Report is intended to provide only an initial, high-level review of the Project potential and design options. The PEA mine plan and economic model include numerous assumptions and the use of Inferred Mineral Resources. Inferred Mineral Resources are considered to be too speculative to be used in an economic analysis except as allowed by NI 43-101 in PEA studies. There is no guarantee the Project economics described herein will be achieved.

Economic analysis for the Lac à l'Orignal Project has been undertaken for the purposes of evaluating potential financial viability of the Project. NPV and IRR estimates are calculated based on a series of inputs: costs (described in Section 21) and revenues (detailed in this section). Revenues are derived from estimated process recoveries and offtaker payables.

Sensitivity analysis has been completed for after-tax NPV and IRR on a ±20% range of values for commodity prices, and OPEX and CAPEX costs. Sensitivity to discount rate has been performed on the assumed value of 5%. All costs and revenues in the financial analysis are in Q2 2023 Canadian dollars, with no provision for escalation or inflation. Commodity prices are quoted in US dollars.

Under baseline scenarios (5% discount rate, payable commodities using prices of US$367/t phosphate (40% P_2O_5), US$95/t magnetite (69% Fe) and US$250/t ilmenite (40% TiO_2), OPEX and CAPEX as set out in Section 21), the after-tax NPV of the Project is estimated at $511M ($795M pre-tax), with an after-tax IRR of 17% (22% pre-tax). This results in an after-tax payback period of approximately 4.9 years.

22.1 PARAMETERS

The revenue, and therefore profit and NPV, of the Project are influenced by the parameters detailed below in Sections 22.1.1 to 22.1.5. Cost estimates are detailed in Section 21.

22.1.1 Commodity Prices

The phosphate price of US$367/t is based on an approximate 18-month trailing average P_2O_5 grade-adjusted price as of June 30, 2023, and the payable metals projected at US$95/t magnetite and US$250/t ilmenite are from a Consensus Economics Inc. long-term forecasted average by various banks and investment firms.

22.1.2 Discount Rate

A 5% discount rate was selected for the Project. Mining legislation in the stable jurisdiction of Québec, Canada, is well understood. Existing infrastructure includes nearby electrical power lines and water sources. A skilled labour pool, mining equipment sales and parts distribution, and well-established mining contractors are available at reasonable distances nearby.

22.1.3 Costing

Mining is based on conventional open pit methods with predictable costs for consumables, equipment, and labour. Process plant costing has been performed from first principles in combination with factors derived from the Authors' experience in similar settings, and the current Canadian labour market.

22.1.4 Other Inputs

The economic analysis is valid for the LOM production schedule presented in Section 16. The schedule includes a reasonable ramp-up of the process plant in Year 1 with Q1 at 75%, Q2 at 90%, Q3 and Q4 at 100% for an average of 91% for the year.

Mineralized material is to be treated in an on-site processing plant to produce a saleable phosphate concentrate, with lesser amounts of magnetite and ilmenite concentrate, to be transported off-site and delivered to the all-season port of Saguenay where product control will be assumed by an offtaker. The process plant production rate is set at 3.8 Mtpa, which is an average 10,500 tpd throughput rate for 365 days per year of processing. Open pit production of mineralized material is higher than process plant throughput, and therefore a stockpiling strategy is used to limit low-grade material sent to the process plant and provide a buffer for potential short-term impacts on production. A mineralized stockpile of approximately 2.0 Mt is built up during open pit mining which is drawn down during the last three years of the mine life.

There is a provision for salvage value of the process plant and open pit mining equipment at the end of production.

22.1.5 Royalty and Taxes

The Project is not subject to royalties.

Applicable taxes have been calculated on taxable income at rates of Canadian Federal at 15% and Québec Provincial at 11.5%.

22.2 SIMPLIFIED FINANCIAL MODEL

Table 22.1 summarizes the NPV, IRR and payback period of the Project under baseline inputs.

TABLE 22.1
PAYBACK PERIOD, NPV AND IRR FOR BASELINE FINANCIAL MODEL

Item	Payback Period (years)	NPV ($M) (5% discount rate)	IRR [1] (%)
Pre-Tax	4.2	795	21.7
After-Tax	4.9	511	17.2

Note: *1. IRR value was calculated using Microsoft Excel's IRR function.*

A summary of the key economic parameters and results is presented in Table 22.2.

TABLE 22.2
PEA SUMMARY PARAMETERS AND RESULTS

Parameter	Amount[1]
Phosphate Price (40% P_2O_5) US$/t	367
Magnetite Price (69% Fe) US$/t	95
Ilmenite Price (39% TiO_2) US$/t	250
Exchange Rate CAD$:US$	1.32
Production Profile	
Tonnes Processed (Mt)	54.04
Average Process Plant Feed Grade (%P_2O_5)	4.91
Average Process Plant Feed Grade (%Fe_2O_3)	22.62
Average Process Plant Feed Grade (%TiO_2)	4.14
Mine Life (years)	14.2
Daily Process Plant Throughput (tpd)	10,500
P_2O_5 Process Plant Recovery (%)	91.0
Fe_2O_3 Process Plant Recovery (%)	32.0
TiO_2 Process Plant Recovery (%)	24.0
Phosphate Concentrate (Mt)	6.04
Magnetite Concentrate (Mt)	3.97
Ilmenite Concentrate (Mt)	1.38
Revenue ($ M)	3,860
Operating Costs	
Unit Average LOM Operating Cost ($ per tonne processed)	30.43
Open Pit Mining Costs ($ per tonne processed)	7.48
Processing Costs ($ per tonne processed)	12.60
G&A ($ per tonne processed)	1.67
Tailings Management Costs ($ per tonne processed)	1.85
Concentrate Handling and Transport ($ per tonne processed)	6.83
Total LOM Operating Cost ($ M)	1,644.4
Capital Requirements	
Pre-Production Capital Cost ($ M)	549.8
LOM Sustaining Capital Cost ($ M)	138.7
Project Economics	
Taxes ($ M)	478.0
Pre-Tax	
NPV (5% Discount Rate) ($ M)	795.3
IRR (%)	21.7
Payback (years)	4.2

TABLE 22.2 PEA SUMMARY PARAMETERS AND RESULTS	
Parameter	**Amount[1]**
Cumulative Undiscounted Cash Flow ($ M)	1,527.2
After-Tax	
NPV (5% Discount Rate) ($ M)	510.8
IRR (%)	17.2
Payback (years)	4.9
Cumulative Discounted Cash Flow ($ M)	1,049.2

[1] Totals may not sum due to rounding.

A simplified financial model for the Project, using baseline inputs, is presented in Table 22.3.

TABLE 22.3
FINANCIAL MODEL SUMMARY (CAD$M)

Item	Total	Year																	
		-2	**-1**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
P_2O_5 Revenue	**2,912.1**	-	-	176.9	200.0	216.7	208.4	201.6	197.9	194.8	201.8	203.2	206.0	229.9	205.3	212.7	222.8	34.2	0.0
Fe Revenue	**495.7**	-	-	27.4	31.9	37.0	37.5	34.8	33.2	35.3	35.5	36.5	34.9	34.5	37.7	37.5	35.9	6.1	0.0
TiO_2 Revenue	**452.4**	-	-	24.8	28.5	31.8	32.9	31.9	30.4	32.6	33.2	34.2	32.5	31.8	34.6	34.6	32.9	5.7	0.0
Revenue	**3,860.1**	**-**	**-**	**229.1**	**260.4**	**285.5**	**278.8**	**268.3**	**261.5**	**262.6**	**270.5**	**273.9**	**273.5**	**296.2**	**277.5**	**284.8**	**291.6**	**46.0**	**0.0**
(-) Operating Cost	**1,644.4**	-	-	103.2	110.7	112.9	113.5	112.2	114.6	116.2	123.0	123.5	125.3	126.1	113.9	114.7	113.5	21.1	0.0
(-) Capital Spending	**680.3**	166.7	383.1	6.7	61.4	20.0	7.8	1.3	4.2	5.4	5.8	5.3	5.8	2.6	2.0	1.0	1.0	0.0	0.0
(-) Closure/ Salvage	**8.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.3
Pre-Tax Cash Flow	**1,527.2**	**(166.7)**	**(383.1)**	**119.2**	**88.3**	**152.6**	**157.5**	**154.7**	**142.7**	**141.1**	**141.8**	**145.0**	**142.3**	**167.5**	**161.6**	**169.0**	**177.1**	**24.9**	**(8.3)**
(-) Income Tax	**478.0**	0.0	0.0	(4.4)	(14.8)	(26.7)	(29.2)	(30.5)	(30.9)	(33.2)	(35.5)	(37.9)	(38.5)	(46.4)	(45.4)	(48.2)	(51.3)	(5.2)	0.0
After-Tax Cash Flow	**1,049.2**	**(166.7)**	**(383.1)**	**114.8**	**73.5**	**125.9**	**128.3**	**124.2**	**111.8**	**107.8**	**106.3**	**107.1**	**103.8**	**121.1**	**116.2**	**120.9**	**125.8**	**19.7**	**(8.3)**
Cumulative After-Tax Cash Flow	**-**	(166.7)	(549.8)	(435.0)	(361.5)	(235.6)	(107.3)	16.9	128.7	236.5	342.8	449.9	553.7	674.9	791.1	911.9	1,037.7	1,057.5	1,049.2
Discounted After-Tax Cash Flow (5%)	**510.8**	**(158.8)**	**(347.4)**	**99.1**	**60.5**	**98.7**	**95.7**	**88.3**	**75.7**	**69.5**	**65.2**	**62.6**	**57.8**	**64.2**	**58.7**	**58.1**	**57.6**	**8.6**	**(3.4)**
Discounted Cumulative After-Tax Cash Flow	**-**	(158.8)	(506.2)	(407.1)	(346.6)	(248.0)	(152.2)	(64.0)	11.7	81.2	146.5	209.1	266.9	331.1	389.8	448.0	505.6	514.2	510.8

22.3 SENSITIVITY

After-tax Project sensitivity has been analyzed on both an NPV and IRR basis for the impact of changes to metal prices, OPEX and CAPEX for a variance of ±20% from the baseline costs stated in Section 21. The Project NPV sensitivity to discount rate was also analyzed for 0, 5, 8 and 10% discount rates. IRR is insensitive to discount rate and has not been analyzed as a result.

Variance in OPEX and CAPEX can be the result of changes in the Canadian labour market, increase in raw materials costs, changes in mining or processing parameters, changes in scale or design, changes in technology, general inflation, and other sources. Commodity price variance can be the result of changes in banking policies, market trends, general supply and demand pressures, and other sources. Variance in discount rate can be the result of market trends, changes in perceived risk, banking policies, corporate financing structure, and other sources.

The Project IRR is most sensitive to changes in commodity prices, then CAPEX and OPEX. When comparing the impacts of the same factors the Project NPV remains most sensitive to changes in commodity prices, followed by OPEX, then CAPEX. Figures 22.1 and 22.2 show the Project NPV and IRR sensitivity graphs, respectively. Table 22.4 presents the Project NPV sensitivity to discount rate.

TABLE 22.4
PROJECT SENSITIVITY TO DISCOUNT RATE

Discount Rate (%)	After-Tax NPV ($M)
0	1,049.2
5	510.8
8	314.3
10	216.5

FIGURE 22.1 PROJECT AFTER-TAX NPV SENSITIVITY

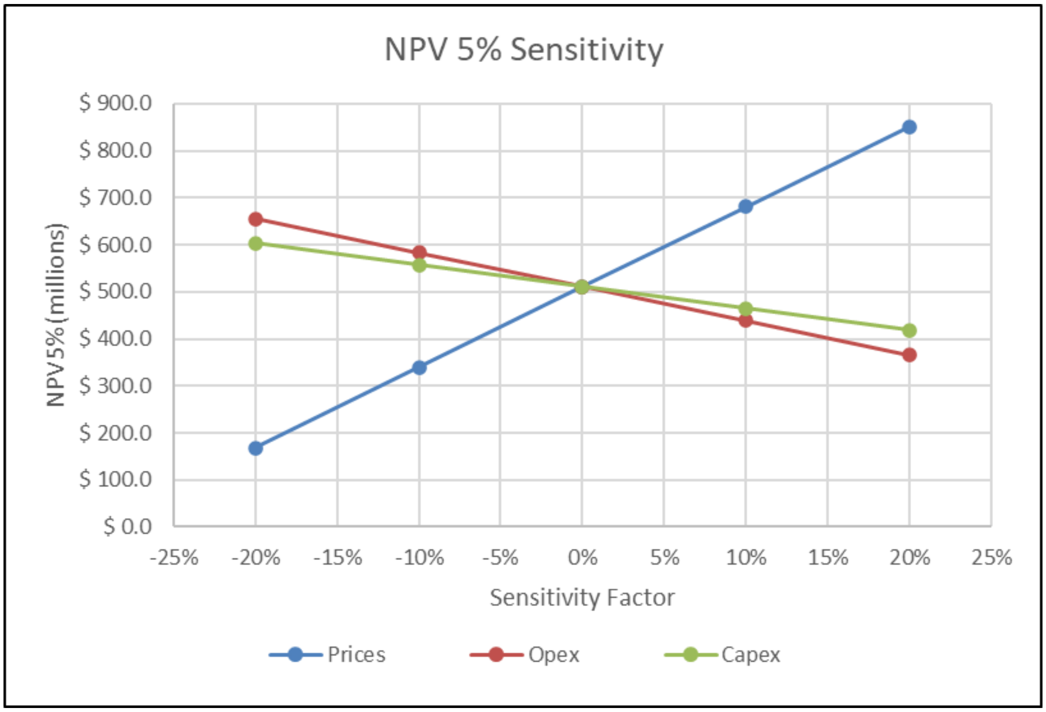
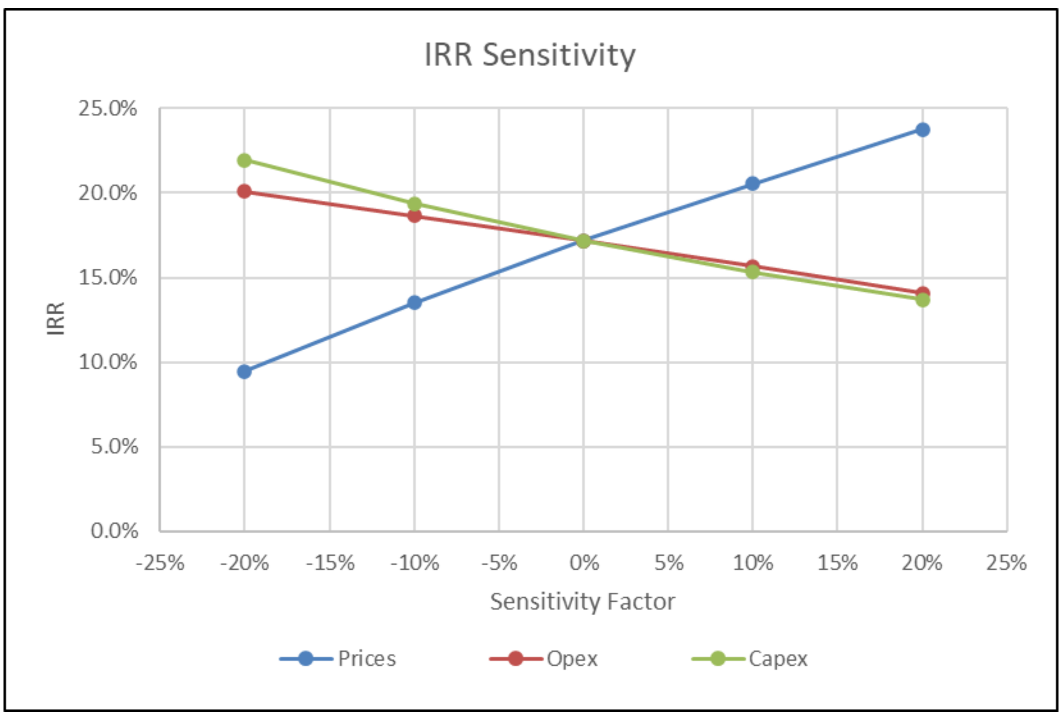


FIGURE 22.2 PROJECT AFTER-TAX IRR SENSITIVITY



22.4 SUMMARY

The Project is most sensitive to items directly affecting the commodity prices, followed by OPEX, then CAPEX.

It is the opinion of the Authors that the Lac à l'Orignal Project has potential to be financially viable. Therefore, it is recommended to advance the Project to the next phase of study.

23.0 ADJACENT PROPERTIES

There are very few properties in the vicinity of the Lac à l'Orignal Property and most of them are explored for iron and titanium potential and, to a less extent, for base metals. Most of those properties are owned by individual prospectors or businessmen.

In the southeast corner of the Property, there are nine claims enclosed within the Lac à l'Orignal claim block. That property is explored by another company for REE within silicified paragneiss.

The Lac a Paul Phosphate Project is located 90 km north of Lac à l'Orignal. Lac a Paul is a Feasibility Study-level project owned by Arianne Phosphate Inc (Cegertec Worley Parsons *et al.*, 2013). The phosphate zones are hosted in the same anorthosite complex as Lac à l'Orignal.

The only metallic mine in the Lac à l'Orignal Property region is the Niobec niobium mine operated by Magris Resources. The Niobec Mine is located 80 km south-southwest of Lac à l'Orignal,
in Saint-Honoré, Québec, just north of Saguenay.

The reader is cautioned that the information above has not been verified by the Authors and is not necessarily indicative of the mineralization on the Property that is the subject of this Report.

24.0 OTHER RELEVANT DATA AND INFORMATION

24.1 PROJECT RISKS AND OPPORTUNITIES

Risks and opportunities have been identified for the Project. The anticipated impact on the Project is listed in brackets after each item, using low-medium-high categories.

24.1.1 Risks

Lower commodity prices and market access for the products would decrease the Project economics. Financial viability of the Project is sensitive to the commodity prices and market access. (high)

Since this study is at a PEA level of engineering and costing, and relies in part on factored costs, it is possible that operating and capital costs could increase at more detailed levels of study. Mining contractors should be asked to provide bids for inclusion in future engineering studies. (medium)

A 5% discount rate may be low given the recent increase in interest rates. (medium)

The proposed Lac à l'Orignal process plant flowsheet would be unique and not a replica of any other known mineral processes. Implementation of the flowsheet on an industrial scale will require confirmation in bench- and pilot-scale tests. (medium)

Addition test development may be needed to produce readily saleable magnetite and ilmenite concentrates. The proposed magnetite concentrate would need to be pelletized and sintered if purposed to feed the iron-making industry. An ilmenite concentrate may also need to be upgraded off-site by others to provide feed for conversion to TiO_2. (medium)

Approximately 68% of the total tonnage in the current Mineral Resource Estimate is in the Inferred Mineral Resource classification. The Inferred Resource is based on limited information and although it is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated or Measured Mineral Resources with infill drilling, that upgrade is not guaranteed. 34% of the tonnage in the mine plan is in the Indicated Mineral Resource classification. (low)

More detailed open pit slope geotechnical studies could impact favorably or negatively on the pit designs. Flattening of slopes could have a significant impact on the mined open pit waste quantity. (low)

24.1.2 Opportunities

The Lac à l'Orignal phosphate deposit remains open to expansion by drilling down-dip and possibly along strike to the west. Not all areas on the Property have been explored, and there are two other showings that have been drilled, however, phosphate deposits have not been defined. (high)

A high-grade apatite concentrate, the principal product, would be converted to purified phosphoric acid in the Project region or by a purchaser at a remote location. The acid could be feed material for fertilizers, and depending on acid quality may be suitable for higher value products such as lithium iron phosphorous ("LFP") battery manufacture and other high value phosphorous products. (high)

Given the high demand currently trending world-wide for EV batteries and phosphoric acid for LFP batteries, a Canadian source of high purity phosphoric acid would be regarded as a highly desirable product. (high)

25.0 INTERPRETATION AND CONCLUSIONS

The Lac à l'Orignal Property, Québec, consists of 1,445 CDC claims with a total area of 79,663 ha. All the claims are registered with the Ministry of Natural Resources and Forests ("MRNF"), owned 100% by First Phosphate, and free of NSR royalties and all other forms of royalty.

The Property benefits from road access and close proximity to electrical grid power and the City of Saguenay. The Saguenay-Lac-Saint-Jean region has a population of 280,000 inhabitants (2021). The region has an extensive industrial, agricultural, forestry and tourist industries, including a significant hydro-power dam system. All-season port facilities are available within 100 km at the City of Saguenay and 340 km at the City of Trois Rivieres on the St. Lawrence River.

Lac à l'Orignal is a Proterozoic-age anorthosite-hosted magmatic phosphate deposit. The Property region is underlain by anorthosites that are part of the regional Proterozoic Lac-Saint-Jean Anorthosite ("LSJA") Complex. The LSJA occurs in the central part of the Grenville Province. The anorthosite plutons of the LSJA Complex are composed mainly of plagioclase and variable, however, much smaller amounts of pyroxene and olivine. Apart from anorthosite, the LSJA Complex contains minor leuconorite, leucotroctolite, norite, olivine-bearing gabbro, gabbro, pyroxenite, peridotite, dunite, nelsonite (magnetite, ilmenite and apatite), magnetitite, and rare charnockite-mangerite units.

Lac à l'Orignal, Lac Vanel (2 km north of Lac à l'Orignal), and Mirepoix (6 km northeast) are the three main phosphate showings on the Property. All three showings have been drilled and a phosphate deposit been defined only at Lac à l'Orignal. The Lac à l'Orignal Deposit is hosted in an oxide (magnetite and ilmenite) gabbro unit at least 1 km long and up to 70 m thick. The Deposit area rock samples consist of plagioclase, orthopyroxene, clinopyroxene, ilmenite, magnetite, apatite, and biotite. The mafic silicate phases occur as intercumulus phases. Apatite, ilmenite and magnetite are ubiquitous accessory minerals and may reach major proportions of the rocks. Apatite is the principal phosphate-bearing mineral at Lac à l'Orignal.

The most recent diamond drilling and surface trenching programs were completed by Glen Eagle (previous operator) on the Property in 2012 and 2014. In 2012, a surface prospecting and trenching program discovered the Lac Vanel occurrence, approximately 2 km north of the Lac à l'Orignal occurrence, with grades of up to slightly >5% P_2O_5. Following this discovery, Glen Eagle completed 43 drill holes totalling 4,611.5 m, which defined a phosphate mineral (apatite) deposit within a km-long oxide gabbro host unit. The best assay intersection intervals were 4.7% P_2O_5 over 70.5 m in drill hole LO-12-03, 5.4% P_2O_5 in drill hole LO-12-08, 5.3% P_2O_5 over 64.5 m in drill hole LO-12-12, 5.7% P_2O_5 in drill hole LO-12-13, and 5.7% P_2O_5 over 61 in drill hole LO-12-25 at Lac à l'Orignal, and 3.6% P_2O_5 in drill hole LO-12-22 at Lac Vanel.

In 2014, Glen Eagle completed a second drill program consisting of 19 new drill holes and deepening of 11 drill holes from the 2012 drill program. The total amount of drilling in the 2014 program was 3,330 m. The best assay intersection intervals were 5.54% P_2O_5 over 99 m in drill hole LO-14-21, 5.61% P_2O_5 in drill hole LO-14-23, 5.83% P_2O_5 in drill hole LO-14-24, and 5.53% P_2O_5 over 69 m in drill hole LO-14-26 at Lac à l'Orignal. In addition, 21 trenches were excavated on the Lac à l'Orignal Showing area bedrock for channel sampling and assay. The best mineralized intervals were 4.38% P_2O_5 over 12.0 m and 5.86% P_2O_5 over 7.5 m in trench R-2, 4.84% P_2O_5 over 9 m in trench R-4, and 5.02% P_2O_5 over 7.5 m in R-5. The Lac à l'Orignal Deposit remains open to expansion by drilling down-dip and possibly along strike to the west. Due to its strong magnetic character, the host oxide gabbro is readily detectable in magnetic geophysical surveys.

The Property was visited by Mr. Antoine Yassa, P.Geo., and a Qualified Person under the regulations of NI 43-101, on July 7 and July 8, 2022, to complete an independent site visit and a data verification sampling program. In the Authors' opinion, the sample preparation, analytical procedures, security and QA/QC program meet industry standards, and the data are of good quality and satisfactory for use in the Mineral Resource Estimate reported in this Report. It is recommended that the Company continue with the current QC protocol, which includes the insertion of appropriate reference materials, blanks and duplicates. Furthermore, independent due diligence sampling shows acceptable correlation with the original assays and it is the Authors' opinion that the Company's original results are suitable for use in the current Mineral Resource Estimate.

The results of chemical analyses of a drill core composite, of mineralogical examinations, and of the magnetic separation and preliminary flotation tests, indicate that the apatite mineral content has the potential to be concentrated as a high-grade product and at high recovery. In testing by SGS, flotation steps produced concentrate grades of 36.6% P_2O_5 at 93.4% and 37.4% P_2O_5 at 92.2% recoveries, respectively, which suggests potential for significant improvement of apatite grade by rejection of silicates and of ilmenite. An apatite grade of at least 38% P_2O_5 at over 90% recovery can be reasonably anticipated. There is also potential for recovering two additional mineral products:1) a magnetite concentrate; and 2) an ilmenite concentrate. A magnetite concentrate can be achieved by magnetic separation plus a potential grinding and classification to meet market requirements, such as heavy media separation. At least 50% of the magnetite should be recoverable and saleable. Most of the ilmenite mineralization will report to the apatite rougher and to cleaner tails. Ilmenite could be concentrated with a combination of high intensity magnetic separation, gravity and (or) froth flotation techniques. Approximately 70% recovery of high-grade ilmenite concentrate (47% TiO_2) could be anticipated.

The database compiled by the Authors consisted of 63 drill holes and 17 surface channels totalling 7,984 m and 149.5 m, respectively. A total of 49 drill holes (6,393 m) and five channels (27 m) intersected the mineralization wireframes used for the Mineral Resource Estimate. The database contained 2,880 assays for percent P_2O_5.

The Mineral Resource Estimate is reported with an effective date of July 25, 2023. The Lac à l'Orignal Deposit is estimated to have a pit-constrained (estimated at 2.5% P_2O_5 cut-off) Indicated Mineral Resource of 15.8 Mt at grades of 5.18% P_2O_5, 23.90% Fe_2O_3 and 4.23% TiO_2, and an Inferred pit-constrained Mineral Resource of 33.2 Mt at grades of 5.06% P_2O_5, 22.55% Fe_2O_3 and 4.16% TiO_2. The Indicated Mineral Resources contain 821 kt of P_2O_5, 3.8 Mt Fe_2O_3 and 0.67 Mt TiO_2, and Inferred Mineral Resources contain 1,682 kt of P_2O_5, 7.5 Mt Fe_2O_3 and 1.38 Mt TiO_2. The Authors consider that the mineralization at the Lac à l'Orignal Deposit is potentially amenable to open pit economic extraction.

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 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 the majority of the Inferred Mineral Resources could be converted to Indicated Mineral Resources with continued exploration.

The Lac à l'Orignal Deposit is to be mined by conventional open pit mining methods in a single open pit. The Project is planned to produce at a nominal production rate of 10,500 tpd, 3.83 Mtpa for approximately 14.2 years. LOM mineralized production will consist of 54.0 Mt at average grades of 4.91 P_2O_5, 22.62% Fe_2O_3 and 4.14% TiO_2. Overburden material of 3.5 Mt and waste rock will total 88.2 Mt over the LOM, for an overall strip ratio of 1.7:1. Mining dilution is estimated at 5% and mining losses are estimated at 2%. To meet the process plant needs, the annual mining rates of feed and waste rock combined will peak at approximately 14 Mtpa (38,000 tpd) in Years 8 to 11. The open pit will be mined in a series of four phases, or pushbacks. The Lac à l'Orignal mine will be an owner operated open pit mine, except for blasting operations. It is anticipated that the mining operations would be conducted 24 hours per day and 7 days per week throughout the entire year. It is expected that diesel-powered hydraulic excavators (10 m^3 bucket size) and front-end loaders (11 m^3 bucket size) will be used to excavate the blasted rock. The anticipated truck size capacity is 90 t. The mining personnel will average approximately 99 people, including operators, maintenance, supervision, and technical staff.

Conventional processes with minor unique aspects will produce high-quality apatite (phosphate), magnetite (iron) and ilmenite (titanium) concentrates. The principal process stages will include jaw and gyratory crushing, SAG and ball mill grinding, various intensities of magnetic separation, strong and moderate strength flotation, regrinding of rougher flotation concentrates, multiple cleaner flotation steps, concentrate thickening, pressure filtration and drying of concentrate products. Specialized techniques include high density slurry conditioning of reagents in preparation for apatite flotation, and for ilmenite concentration, gravity separation and high intensity magnetic separation. The concentrates will be transported in bulk to an offtaker. Desliming, a common process step in industrial minerals processing such for phosphates, is not expected to be required. Two distinct tailings streams are expected: (i) a moderate tonnage of sulphide-rich tailings from the iron circuit; and (ii) a larger tonnage of environmentally inert tailings from the ilmenite circuit.

Employees and contractors will commute from nearby communities. First Phosphate will construct infrastructure for staff offices, warehousing, change rooms, lunch rooms, diesel fuel tank farm and fueling station, maintenance building, explosives magazines, and water and sewage treatment. The Project will include an open pit, waste rock storage facilities, mineralized material stockpiles, process plant site, tailings management facilities, and a water management pond. A dedicated 56 kV feeder line from the Hydro Québec 735 kV line located approximately 20 km south from the proposed process plant site will be constructed to supply all power requirements.

The Project is located on the ancestral lands of the Pessamit Nation while the transport route to Saguenay passes through the lands of the Mashteuiatsh, Pessamit and Essipit. The Project is on the limit of the ZEC Onatchiway, a Controlled Exploitation Zone used for recreational fishing and hunting of wildlife. The construction, operation and closure of a mine is subject to several laws and regulations at the federal, provincial, and municipal levels. The Project meets the criteria for triggering an Environmental Impact Assessment under the Impact Assessment Act (IAA, 2019) at the federal level and under the Environmental Quality Act (Q2) at the provincial level. These assessments are multi-step processes which may take up to five years aimed at obtaining authorization from government authorities. Environmental baseline studies have not been started yet, however, are planned in the coming years.

All costs are presented in Q2 2023 Canadian dollars. No provision has been included in the cost estimates to offset future escalation. Open pit mining costs have been estimated to average $2.89/t mined, and $7.48/t processed, including stockpile re-handling, over the production years. Process costs ($12.60/t processed), site G&A ($1.67/t processed), tailings management ($1.85/t processed) and concentrate handling/transport ($6.83/t processed) contribute to a total LOM average cost estimated at $30.43/t processed. LOM total operating costs are estimated at $1,644M.

Initial capital costs to construct and commission the process plant, pre-strip the open pit to enable production, and install surface infrastructure, including port infrastructure, are estimated at $550M and include a 20% contingency. Sustaining capital costs during the production years are estimated at $139M. The LOM total capital cost of the Project is estimated at $689M.

Under baseline scenarios (5% discount rate, payable commodities using prices of US$367/t phosphate (40% P_2O_5), US$95/t magnetite (69% Fe) and US$250/t ilmenite (40% TiO_2), OPEX and CAPEX as set out above), the after-tax NPV of the Project is estimated at $511M ($795M pre-tax), with an after-tax IRR of 17% (22% pre-tax). This results in an after-tax payback period of approximately 4.9 years. Federal and provincial income tax is levied at applicable rates on net taxable income. Project economics are more sensitive to items directly affecting the commodity prices, followed by OPEX, then CAPEX.

It is the opinion of the Authors that the Lac à l'Orignal Project has potential to be financially viable. Therefore, it is recommended to advance the Project to the next phase of study.

26.0 RECOMMENDATIONS

Additional exploration and study expenditures are warranted for the Lac à l'Orignal Project to advance it to a Pre-Feasibility Study. The Authors recommend that First Phosphate undertake a two-phase exploration and development program, as follows:

Phase 1 step-out drilling and exploration work is recommended by the Authors to expand the current Mineral Resources (3,000 m), including drilling the mineralized zones at Lac Vanel and Mirepoix for Mineral Resource estimation. In-fill drilling would involve upgrading the current Inferred Mineral Resources to Indicated Mineral Resources and potentially upgrading Indicated Mineral Resources to Measured Mineral Resources (9,000 m). A systematic bulk density measurement program is recommended to better define mineralized and waste rock bulk densities.

Helicopter-borne high-resolution magnetic surveys have reliably mapped the favourable oxide gabbro host unit of the Lac à l'Orignal Deposit. Coverage should be expanded eastward to include the Mirepoix Showings area. Ground magnetic and perhaps gravity surveys may be appropriate where more detailed coverage is required.

Permitting and baseline environmental studies and community consultation activities should continue. Phase 1 would culminate with an updated Mineral Resource Estimate.

Phase 2 is recommended by the Authors to include additional drilling to obtain samples for metallurgical testwork on fresh mineralized material to refine magnetite, ilmenite and phosphoric acid production parameters.

The Authors recommend that environmental baseline studies continue on the Lac à l'Orignal Property and stakeholder engagement and consultations be carried out. The baseline studies should focus on aquatic, terrestrial and hydrological monitoring and documentation. A formal community, government, and stakeholder consultation plan should be developed and implemented, and all activities documented.

A drill program with packer testing should be completed for geotechnical and hydrology studies on the Deposit. The objective of Phase 2 is to conduct a Pre-Feasibility Study on the Project.

The costs to complete the Phase 1 and Phase 2 programs are estimated to be $4.3M and $2.3M, respectively (Table 26.1), at a total cost of $6.6M. The Phase 2 Program is contingent upon the results of the Phase 1 Exploration Program.

Table 26.1 Recommended Work Program Budget		
Program	**Description**	**Budget ($)**
Exploration		
Step-out and Exploration Drilling	3,000 m at $275/m (includes staff and assays)	825,000
Surface Exploration Programs	Helicopter-borne magnetic	100,000
Environmental Studies	Aquatic, terrestrial, hydrology	100,000
In-fill Drilling	9,000 m at $275/m	2,475,000
Updated Mineral Resource Estimate		200,000
Contingency (15%)		555,000
Subtotal Phase 1		**4,255,000**
PFS Work		
Metallurgical Drilling	400 m at $300/m (HQ)	120,000
Metallurgical Testwork		200,000
Environmental Studies		100,000
Geotechnical and Hydrology Studies		400,000
Stakeholder Consultation		100,000
Pre-Feasibility Study		1,200,000
Contingency (15%)		318,000
Subtotal Phase 2		**2,318,000**
Total		**6,573,000**

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28.0 CERTIFICATES

CERTIFICATE OF QUALIFIED PERSON

ANTOINE R. YASSA, P.GEO.

I, Antoine R. Yassa, P.Geo. residing at 3602 Rang des Cavaliers, Rouyn-Noranda, Quebec, Canada, 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 "Preliminary Economic Assessment of the Lac à l'Orignal Phosphate Property, Saguenay-Lac-Saint-Jean Region, Northern Quėbec", (The "Technical Report") with an effective date of July 25, 2023.
3. I am a graduate of Ottawa University at Ottawa, Ontario with a B. Sc (HONS) in Geological Sciences (1977) with continuous experience as a geologist since 1979. I am a geological consultant currently licensed by the Order of Geologists of Québec (License No 224) and by the Association of Professional Geoscientist of Ontario (License No 1890);

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

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

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 July 7 and 8, 2022.
5. I am responsible for authoring Sections 4-12, 14, 23 and co-authoring Sections 1, 25-27 of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
7. I have had prior involvement with the Project that is the subject of this Technical Report. I was a "Qualified Person" for a Technical Report titled "Technical Report and Initial Mineral Resource Estimate of the Lac à l'Orignal Phosphate Property, Saguenay-Lac-Saint-Jean Region, Northern Quėbec", with an effective date of October 3, 2022.
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: July 25, 2023
Signing Date: September 11, 2023

{SIGNED AND SEALED}
[Antoine R. Yassa]

____
Antoine R. Yassa, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

ANDREW BRADFIELD, P. ENG.

I, Andrew Bradfield, P. Eng., residing at 5 Patrick Drive, Erin, Ontario, Canada, N0B 1T0, do hereby certify that:

1. I am an independent mining engineer contracted by P&E Mining Consultants.
2. This certificate applies to the Technical Report titled "Preliminary Economic Assessment of the Lac à l'Orignal Phosphate Property, Saguenay-Lac-Saint-Jean Region, Northern Quėbec", (The "Technical Report") with an effective date of July 25, 2023.
3. I am a graduate of Queen's University, with an honours B.Sc. degree in Mining Engineering in 1982. I have practiced my profession continuously since 1982. I am a Professional Engineer of Ontario (License No.4894507). I am also a member of the National CIM.

   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 1982. My summarized career experience is as follows:
   - Various Engineering Positions – Palabora Mining Company, 1982-1986
   - Mines Project Engineer – Falconbridge Limited, 1986-1987
   - Senior Mining Engineer – William Hill Mining Consultants Limited, 1987-1990
   - Independent Mining Engineer, 1990-1991
   - GM Toronto – Bharti Engineering Associates Inc, 1991-1996
   - VP Technical Services, GM of Australian Operations – William Resources Inc, 1996-1999
   - Independent Mining Engineer, 1999-2001
   - Principal Mining Engineer – SRK Consulting, 2001-2003
   - COO – China Diamond Corp, 2003-2006
   - VP Operations – TVI Pacific Inc, 2006-2008
   - COO – Avion Gold Corporation, 2008-2012
   - Independent Mining Engineer, 2012-Present
4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for authoring Sections 22, 24 and co-authoring Sections 1, 21, 25-27 of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
7. I have had no prior involvement with the Property that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: July 25, 2023
Signing Date: September 11, 2023

{SIGNED AND SEALED}
[Andrew Bradfield]

Andrew Bradfield, 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, Canada, 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 "Preliminary Economic Assessment of the Lac à l'Orignal Phosphate Property, Saguenay-Lac-Saint-Jean Region, Northern Quėbec", (The "Technical Report") with an effective date of July 25, 2023.
3. I am a graduate of The Haileybury School of Mines, with a Technologist Diploma in Mining, as well as obtaining an additional year of undergraduate education in Mine Engineering at Queen's University. In addition, I have also met the Professional Engineers of Ontario Academic Requirement Committee's Examination requirement for a Bachelor's degree in Engineering Equivalency. I am a mining consultant currently licensed by the: Professional Engineers and Geoscientists New Brunswick (License No. 4778); Professional Engineers, Geoscientists Newfoundland and Labrador (License No. 5998); Association of Professional Engineers and Geoscientists Saskatchewan (License No. 16216); Ontario Association of Certified Engineering Technicians and Technologists (License No. 45252); Professional Engineers of Ontario (License No. 100014010); Association of Professional Engineers and Geoscientists of British Columbia (License No. 42912); and Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (No. L3877). I am also a member of the National Canadian Institute of Mining and Metallurgy.

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

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

   - Mining Technologist - H.B.M.& S. and Inco Ltd., 1978-1980
   - Open Pit Mine Engineer – Cassiar Asbestos/Brinco Ltd., 1981-1983
   - Pit Engineer/Drill & Blast Supervisor – Detour Lake Mine, 1984-1986
   - Self-Employed Mining Consultant – Timmins Area, 1987-1988
   - Mine Designer/Resource Estimator – Dynatec/CMD/Bharti, 1989-1995
   - Self-Employed Mining Consultant/Resource-Reserve Estimator, 1995-2004
   - President – P&E Mining Consultants Inc, 2004-Present

4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for authoring Sections 2, 3, 19 and co-authoring Sections 1, 18, 25-27 of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have had no prior involvement with the Project that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: July 25, 2023
Signing Date: September 11, 2023

{SIGNED AND SEALED}
[Eugene Puritch]

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Eugene Puritch, P.Eng., FEC, CET

CERTIFICATE OF QUALIFIED PERSON

D. GRANT FEASBY, P. ENG.

I, D. Grant Feasby, P. Eng., residing at 12,209 Hwy 38, Tichborne, Ontario, Canada 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 "Preliminary Economic Assessment of the Lac à l'Orignal Phosphate Property, Saguenay-Lac-Saint-Jean Region, Northern Quėbec", (The "Technical Report") with an effective date of July 25, 2023.
3. I graduated from Queens University in Kingston Ontario, in 1964 with a Bachelor of Applied Science in Metallurgical Engineering, and a Master of Applied Science in Metallurgical Engineering in 1966. I am a Professional Engineer registered with Professional Engineers Ontario. I have worked as a metallurgical engineer for over 50 years since my graduation from university.

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

   My relevant experience for the purpose of the Technical Report has been acquired by the following activities:
   - Metallurgist, Base Metal Processing Plant.
   - Research Engineer and Lab Manager, Industrial Minerals Laboratories in USA and Canada.
   - Research Engineer, Metallurgist and Plant Manager in the Canadian Uranium Industry.
   - Manager of Canadian National Programs on Uranium and Acid Generating Mine Tailings.
   - Director, Environment, Canadian Mineral Research Laboratory.
   - Senior Technical Manager, for large gold and bauxite mining operations in South America.
   - Expert Independent Consultant associated with several companies, including P&E Mining Consultants, on mineral processing, environmental management, and mineral-based radiation assessment.
4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for authoring Sections 13, 17 and co-authoring Sections 1, 21, 25-27 of this Technical Report.
6. I am independent of the issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
7. I have had no prior involvement with the Project that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 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: July 25, 2023
Signing Date: September 11, 2023

{SIGNED AND SEALED}
[D. Grant Feasby]

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D. Grant Feasby, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

KENNETH KUCHLING, P.ENG.

I, Kenneth Kuchling, P. Eng., residing at 33 University Ave., Toronto, Ontario, Canada, M5J 2S7, do hereby certify that:

1. I am a senior mining consultant with KJ Kuchling Consulting Ltd. located at #1903-33 University Ave, Toronto, Ontario, Canada contracted as a senior mining associate by P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled "Preliminary Economic Assessment of the Lac à l'Orignal Phosphate Property, Saguenay-Lac-Saint-Jean Region, Northern Quėbec", (The "Technical Report") with an effective date of July 25, 2023.
3. I am a graduate of McGill University with a Bachelor's degree in Mining Engineering (1980) and a graduate from the University of British Columbia with a Master of Engineering degree in Mining Engineering (1984). I have practiced my profession continuously as a mining engineer since my graduation from university in 1980 and with P&E Mining Consultants Inc. since 2011. I am a professional engineer in good standing currently licensed by the Professional Engineers of Ontario (PEO) in Canada (no. 100173556).

   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:

   - Associate Mining Engineer, P&E Mining Consultants Inc. 2011 – Present
   - Mining Consultant, KJ Kuchling Consulting Ltd. 2000 – Present
   - Senior Mining Engineer, Diavik Diamond Mines Inc., 1997 – 2000
   - Senior Mining Consultant, KJ Kuchling Consulting Ltd., 1995 – 1997
   - Senior Geotechnical Engineer, Terracon Geotechnique Ltd., 1989 - 1995
   - Chief Mine Engineer, Mosaic, Esterhazy K1 Operation. 1985 – 1989
   - Mining Engineering, Syncrude Canada Ltd. 1980 – 1983
4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for authoring Section 15 and co-authoring Sections 1, 16, 21, 25-27 of this Technical Report.
6. I am independent of the issuer applying the test in Section 1.5 of NI 43-101.
7. I have had no prior involvement with the Project that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: July 25, 2023
Signing Date: September 11, 2023

{SIGNED AND SEALED}
[Kenneth Kuchling]

____
Kenneth Kuchling, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

JESSICA BREAULT, P.ENG.

I, Jessica Breault, P.Eng., do hereby certify that:

1) This certificate applies to the Technical Report titled "Preliminary Economic Assessment of the Lac à l'Orignal Phosphate Property, Saguenay-Lac-Saint-Jean Region, Northern Quėbec", (The "Technical Report") with an effective date of July 25, 2023.
2) I am employed as a Geological Engineer of Knight Piésold Ltd. with a business address at 200 - 1164 Devonshire Avenue, North Bay, Ontario, P1B 6X7, Canada.
3) I am a graduate of Queen's University, with a B.Sc. degree in Geological Engineering in 2012. I have practiced my profession continuously since 2012. My experience includes tailings and water management in Canada, the United States and worldwide.
4) I am a registered Professional Engineer in good standing with Professional Engineers Ontario (License No. 100186209) and in the province of Quebec (License No. 6048199).
5) 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.
6) I have not visited the Property that is the subject of this Technical Report.
7) I am responsible for co-authoring Sections 1, 18, 21, 25-27 of this Technical Report.
8) 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.
9) I have had no prior involvement with the Property that is the subject of this Technical Report.
10) As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
11) I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.

Effective Date: July 25, 2023
Signing Date: September 11, 2023

{SIGNED AND SEALED}
[Jessica Breault]

____
Jessica Breault, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

DANIELLE DEMERS, P.ENG.

I, Danielle Demers, P.Eng., do hereby certify that:

1) This certificate applies to the Technical Report titled "Preliminary Economic Assessment of the Lac à l'Orignal Phosphate Property, Saguenay-Lac-Saint-Jean Region, Northern Quėbec", (The "Technical Report") with an effective date of July 25, 2023.
2) I am employed as a Project Engineer of Knight Piésold Ltd. with a business address at 200 - 1164 Devonshire Avenue, North Bay, Ontario, P1B 6X7, Canada.
3) I am a graduate of Queen's University, with a B.Sc. degree in Geological Engineering in 2012. I have practiced my profession continuously since 2012. My experience includes open pit and underground rock mechanics in Canada, the United States and worldwide.
4) I am a registered Professional Engineer in good standing with Ordre des ingénieurs du Québec (License No. 5085353) and Professional Engineers Ontario (License No. 100186335).
5) 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.
6) I have not visited the Property that is the subject of this Technical Report.
7) I am responsible for co-authoring Sections 1, 16, 25-27 of this Technical Report.
8) 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.
9) I have had no prior involvement with the Property that is the subject of this Technical Report.
10) As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
11) I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.

Effective Date: July 25, 2023
Signing Date: September 11, 2023

{SIGNED AND SEALED}
[Danielle Demers]

____

Danielle Demers, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

ANN LAMONTAGNE, P.ENG.

I, Ann Lamontagne, P.Eng., do hereby certify that:

1. I am employed as an Engineer with Lamont Inc., with an office address of 2200 chemin de la Sagamité, Québec, Canada, G2N 0B7.
2. This certificate applies to the Technical Report titled "Preliminary Economic Assessment of the Lac à l'Orignal Phosphate Property, Saguenay-Lac-Saint-Jean Region, Northern Quėbec", (The "Technical Report") with an effective date of July 25, 2023.
3. I graduated from Laval University, Québec City, QC, with a B.Ing. in civil engineering (1990), a M.Sc. in civil engineering (1992) and a Ph.D degree in mining engineering (2001). I am a registered member of the Ordre des Ingénieurs du Québec (OIQ #104345). I have practiced my profession for 33 years since my graduation.

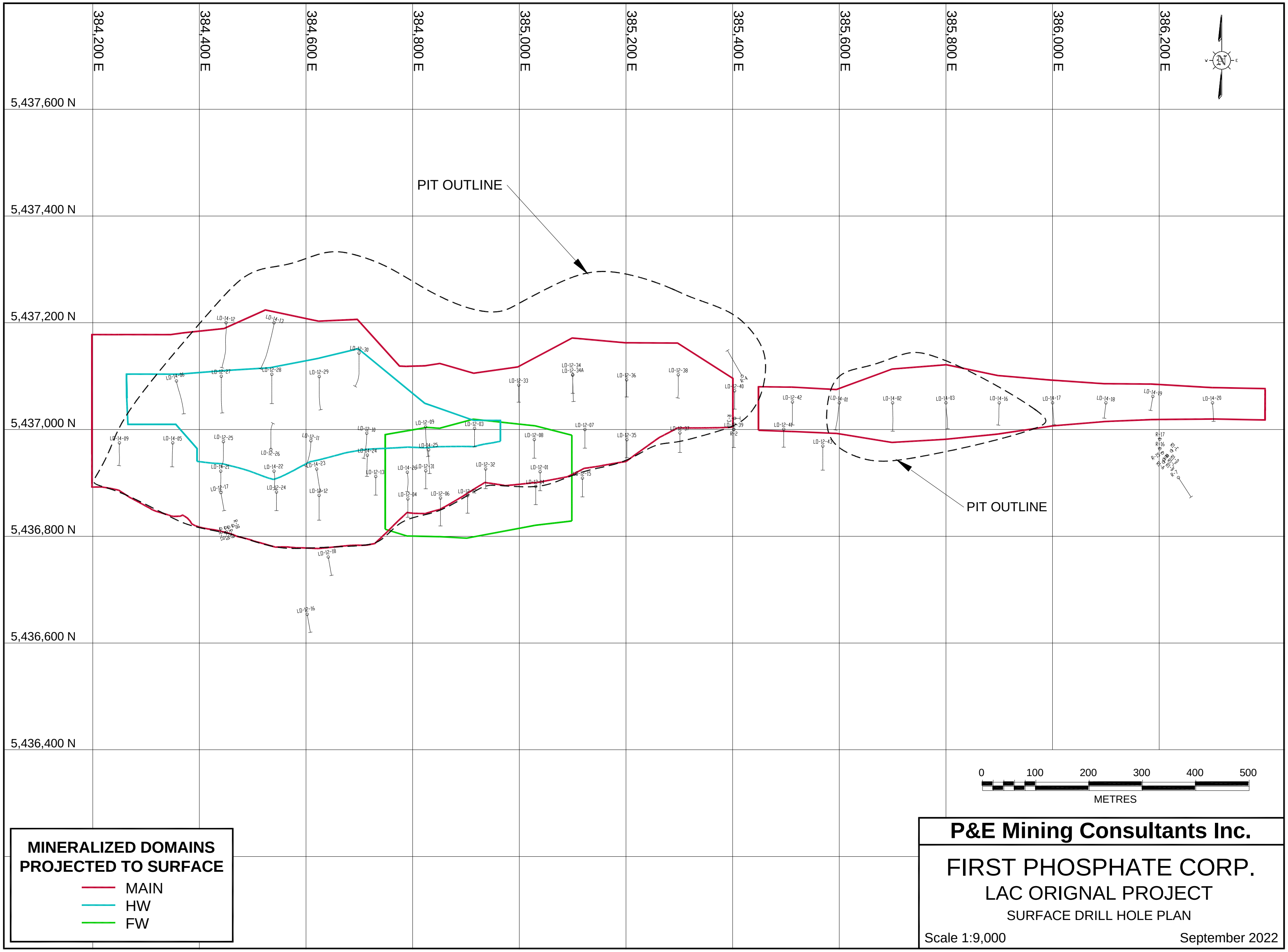
   I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for authoring Section 20 and co-authoring Sections 1, 25-27 of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
7. I have had no prior involvement with the Project that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: July 25, 2023
Signing Date: September 11, 2023

{SIGNED AND SEALED}
[Ann Lamontagne]

____
Ann Lamontagne, Ph.D., P.Eng.

APPENDIX A SURFACE DRILL HOLE PLAN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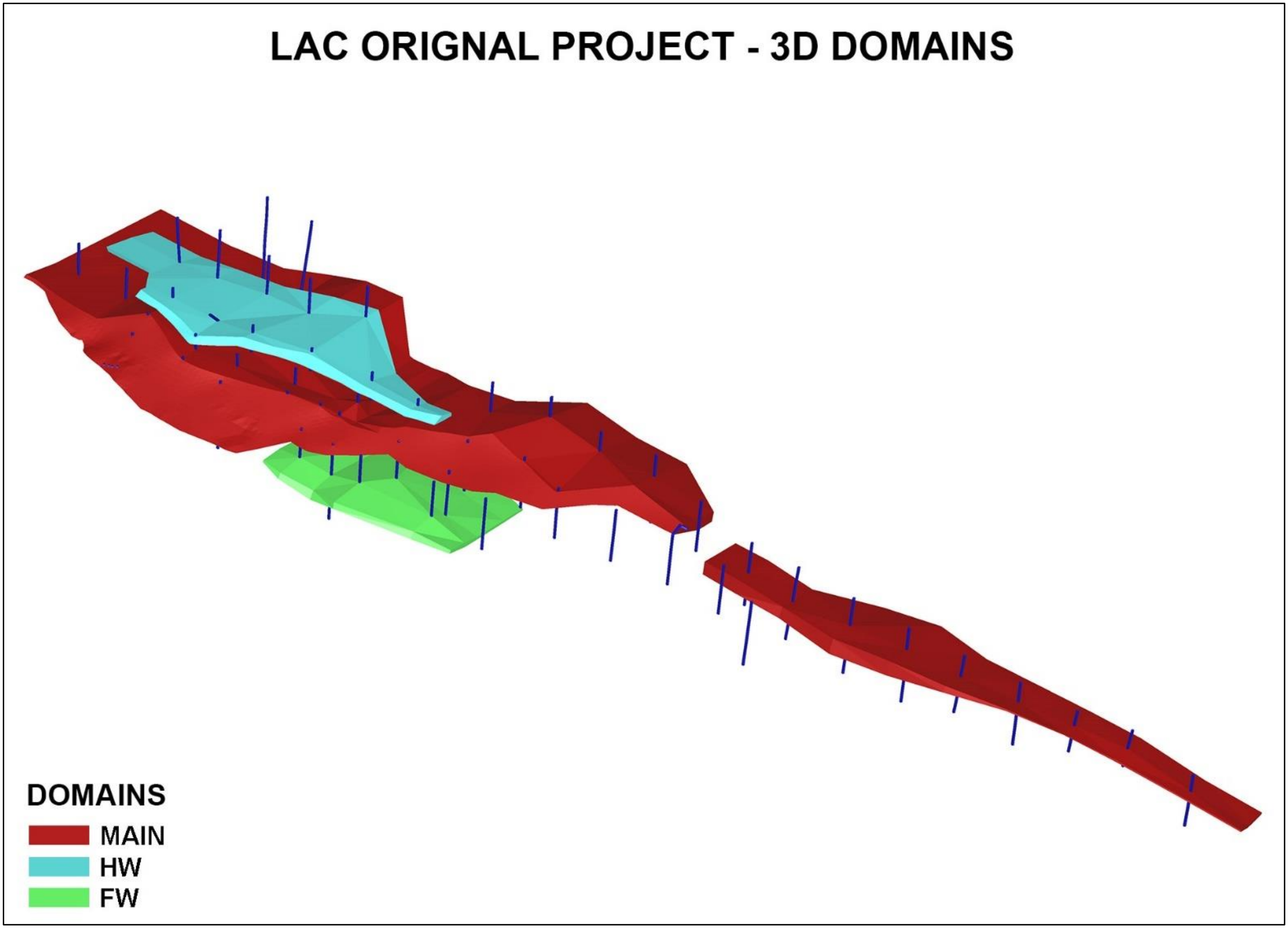
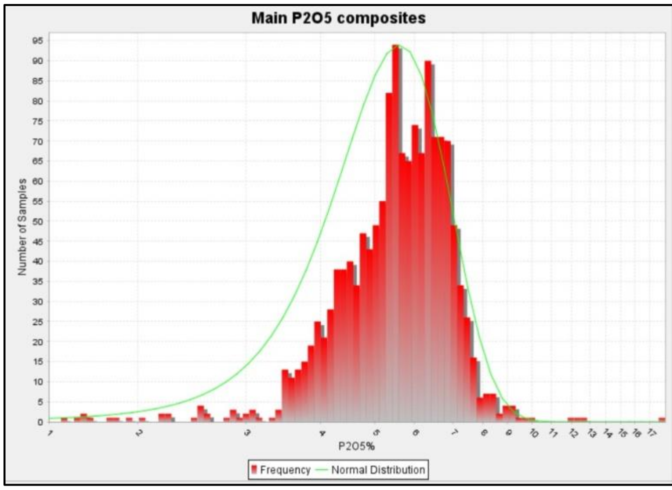
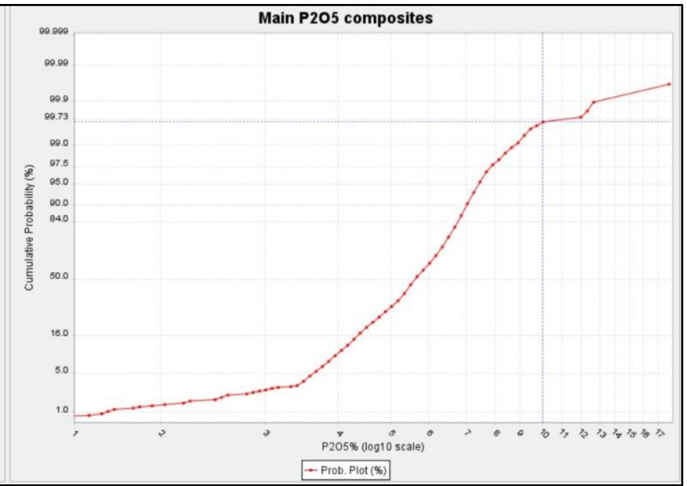
5,437,600 N
5,437,400 N
5,437,200 N
5,437,000 N
5,436,800 N
5,436,600 N
5,436,400 N
PIT OUTLINE
PIT OUTLINE
MINERALIZED DOMAINS PROJECTED TO SURFACE
MAIN
HW
FW
0
100
200
300
400
500
METRES
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
SURFACE DRILL HOLE PLAN
Scale 1:9,000
September 2022

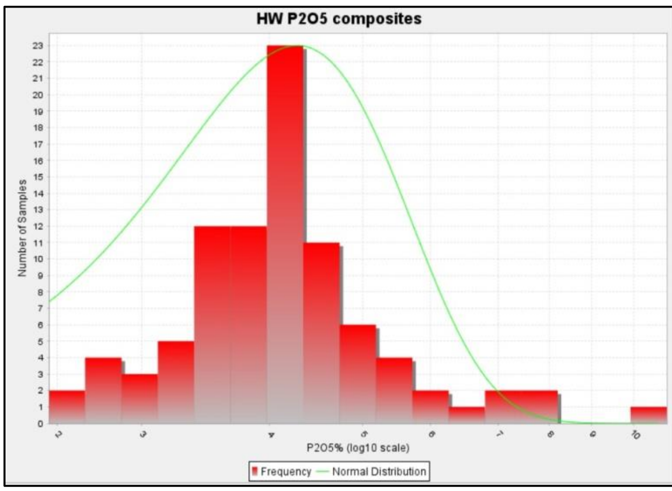
APPENDIX B 3-D WIREFRAMES

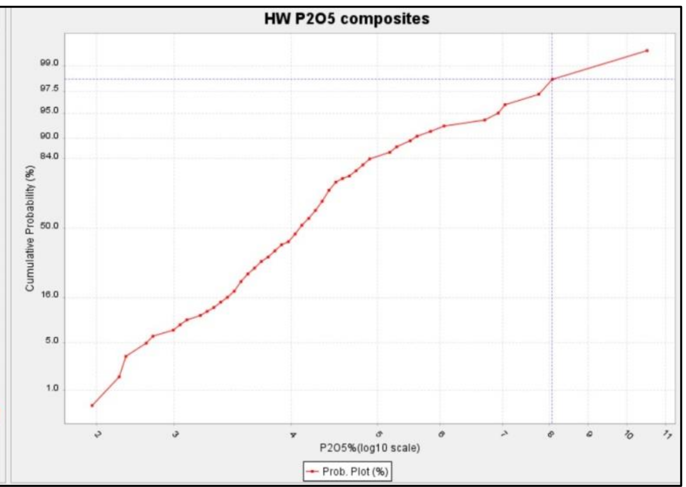

LAC ORIGNAL PROJECT - 3D DOMAINS
DOMAINS
MAIN
HW
FW

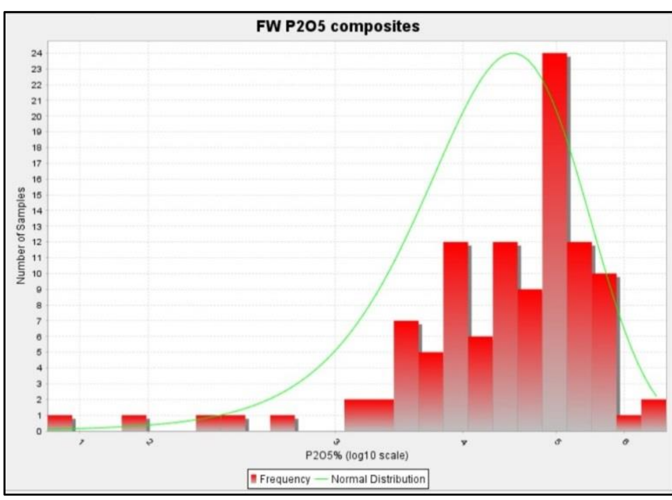
APPENDIX C LOG NORMAL HISTOGRAMS

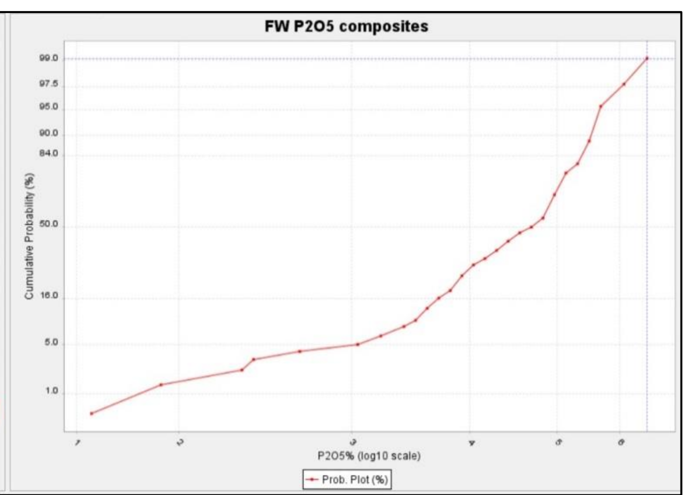


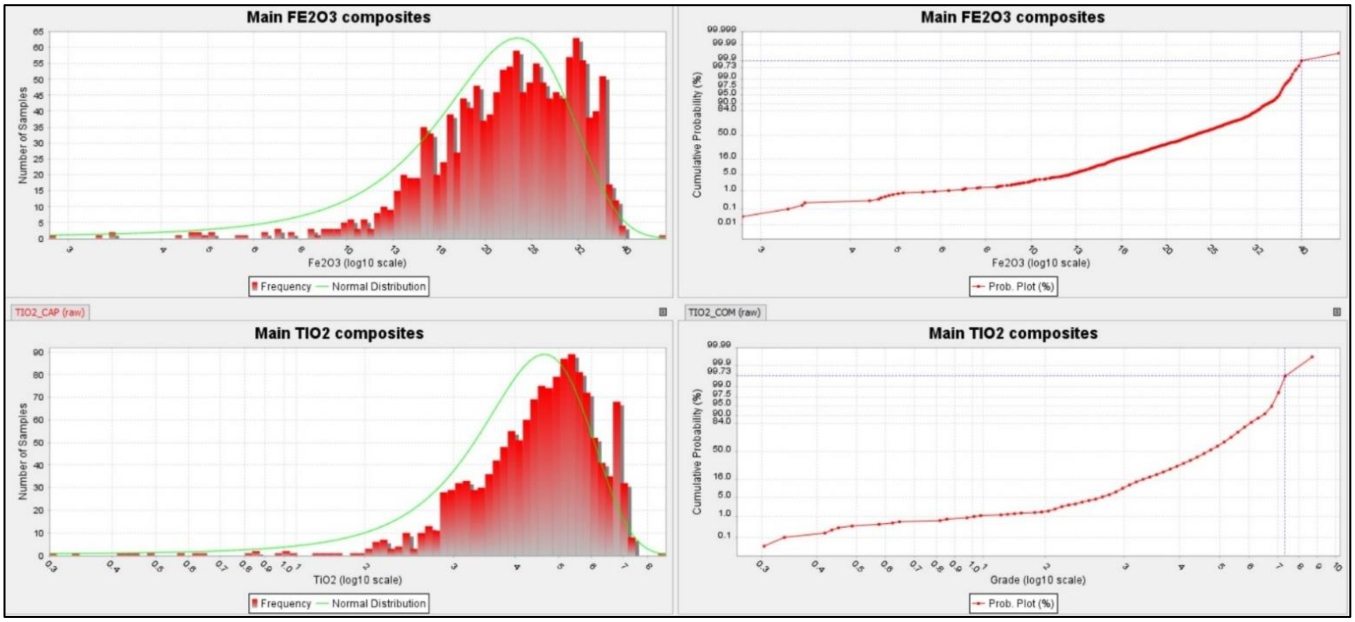


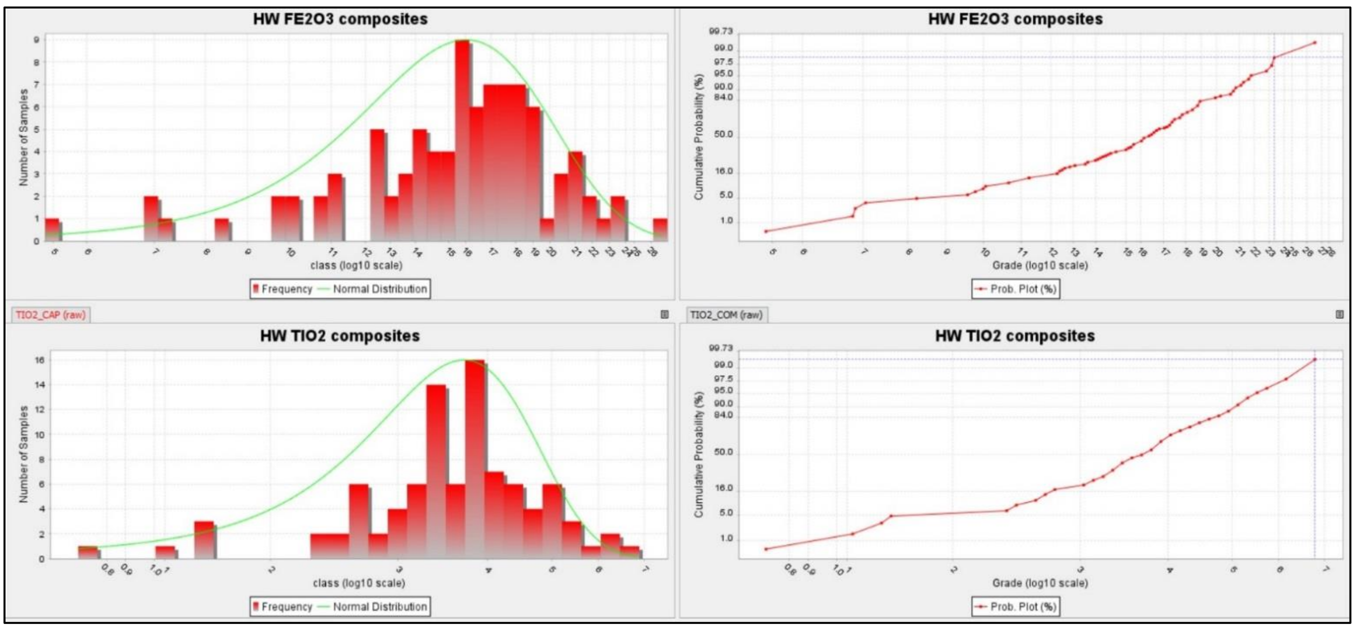


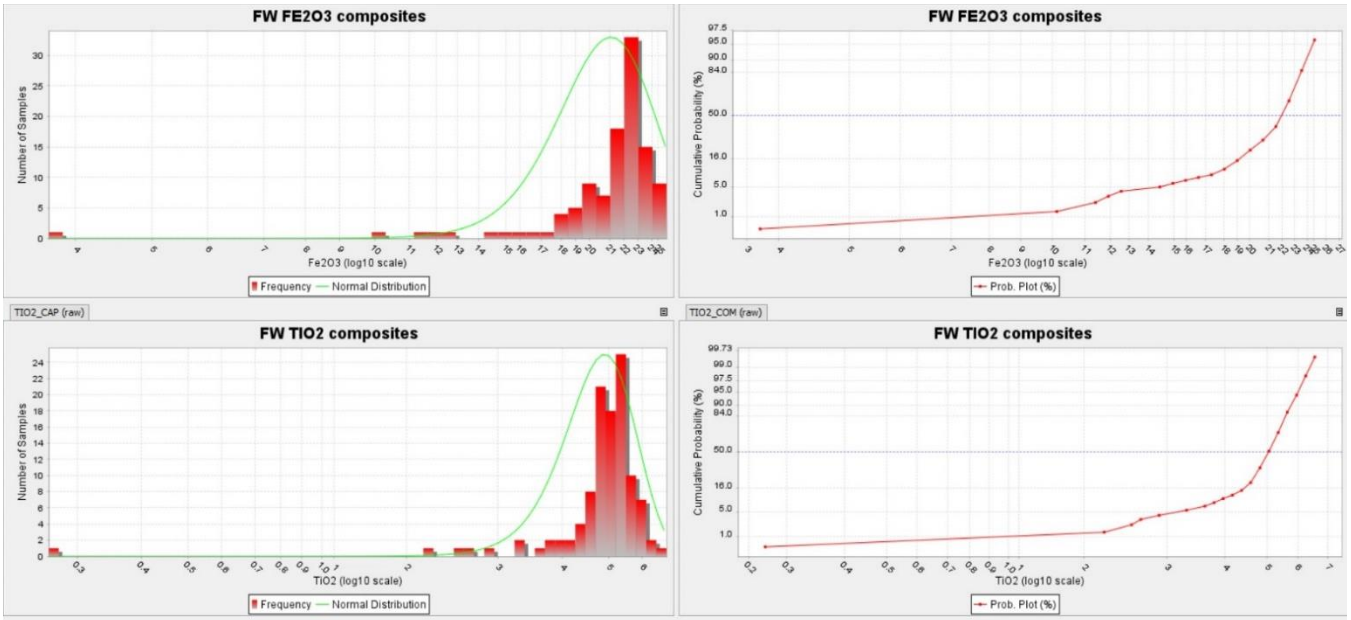




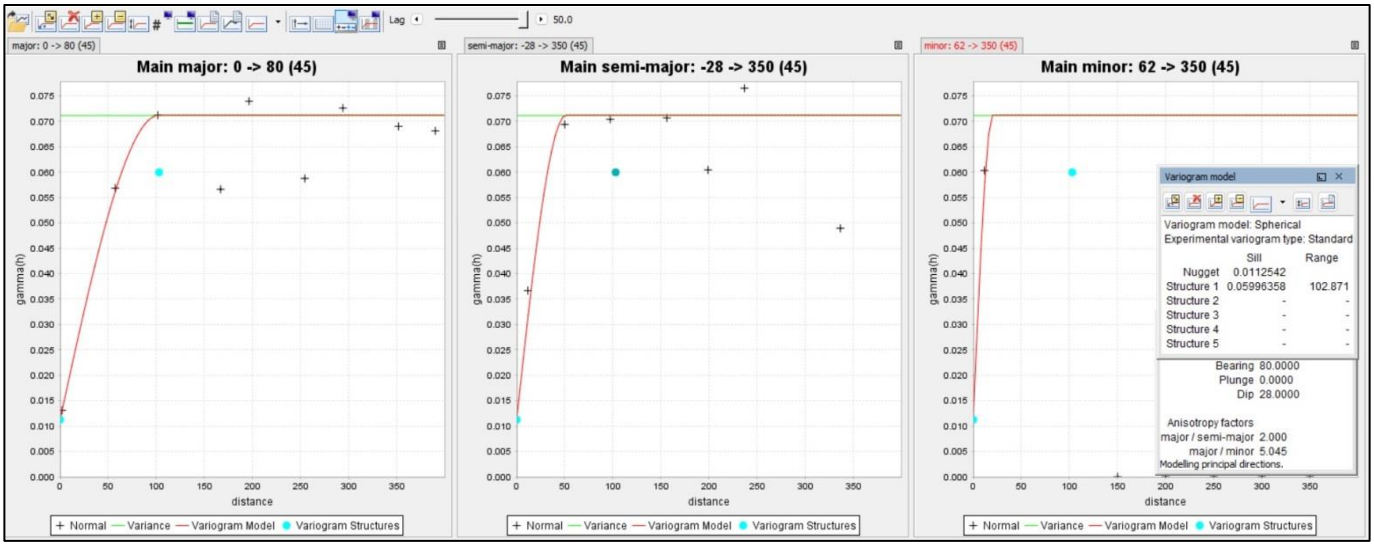



Main FE2O3 composites
Number of Samples
Fe2O3 (log10 scale)
Frequency
Normal Distribution
Main FE2O3 composites
Cumulative Probability (%)
Fe2O3 (log10 scale)
Prob. Plot (%)
TIO2_CAP (raw)
Main TIO2 composites
Number of Samples
TiO2 (log10 scale)
Frequency
Normal Distribution
TIO2_COM (raw)
Main TIO2 composites
Cumulative Probability (%)
Grade (log10 scale)
Prob. Plot (%)

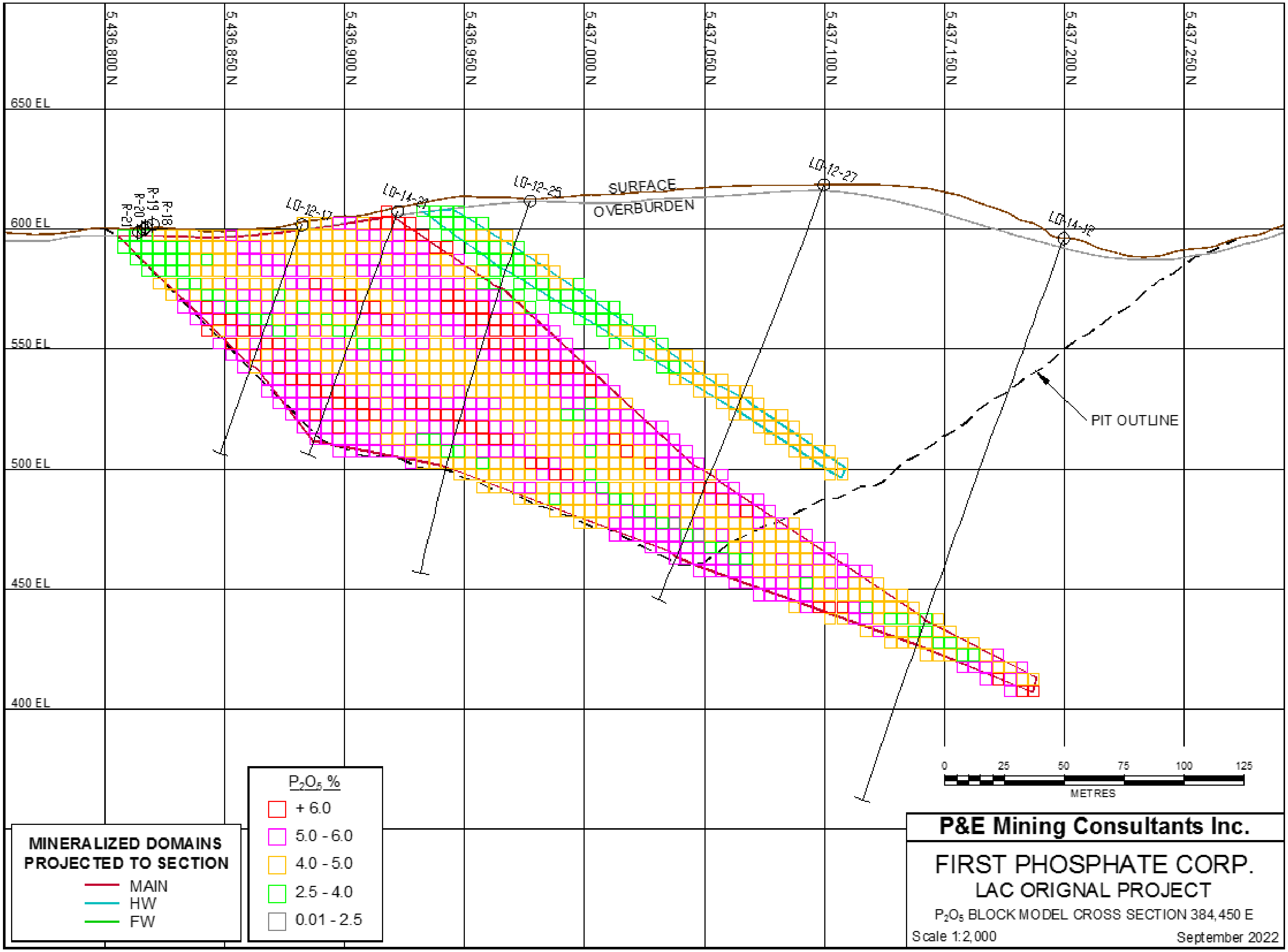

HW FE2O3 composites
Number of Samples
class (log10 scale)
Frequency
Normal Distribution
HW FE2O3 composites
Cumulative Probability (%)
Grade (log10 scale)
Prob. Plot (%)
TIO2_CAP (raw)
HW TIO2 composites
Number of Samples
class (log10 scale)
Frequency
Normal Distribution
TIO2_COM (raw)
HW TIO2 composites
Cumulative Probability (%)
Grade (log10 scale)
Prob. Plot (%)


FW FE2O3 composites
Number of Samples
Fe2O3 (log10 scale)
Frequency
Normal Distribution
FW FE2O3 composites
Cumulative Probability (%)
Fe2O3 (log10 scale)
Prob. Plot (%)
TIO2_CAP (raw)
FW TIO2 composites
Number of Samples
TiO2 (log10 scale)
Frequency
Normal Distribution
TIO2_COM (raw)
FW TIO2 composites
Cumulative Probability (%)
TiO2 (log10 scale)
Prob. Plot (%)

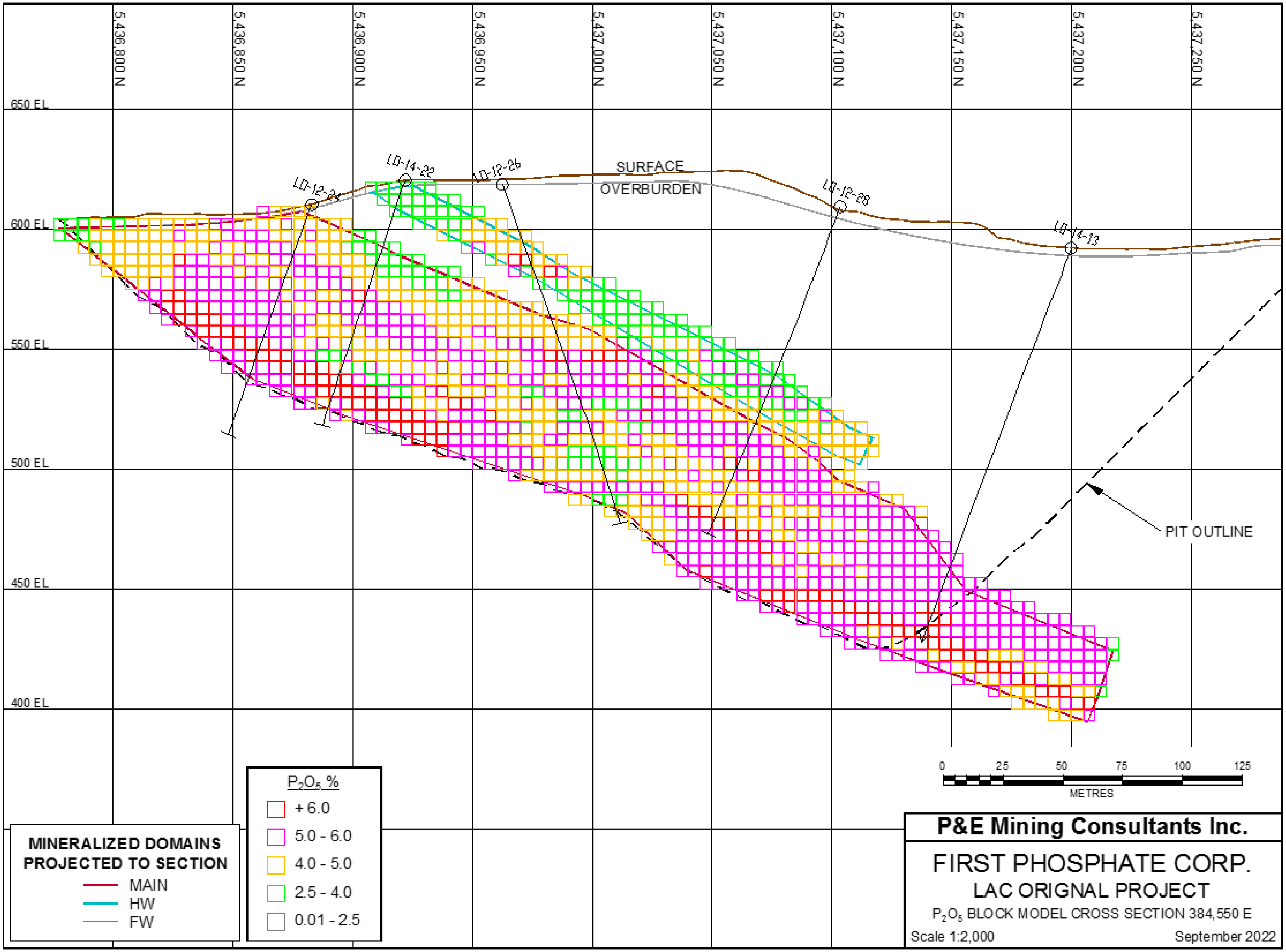
APPENDIX D VARIOGRAMS



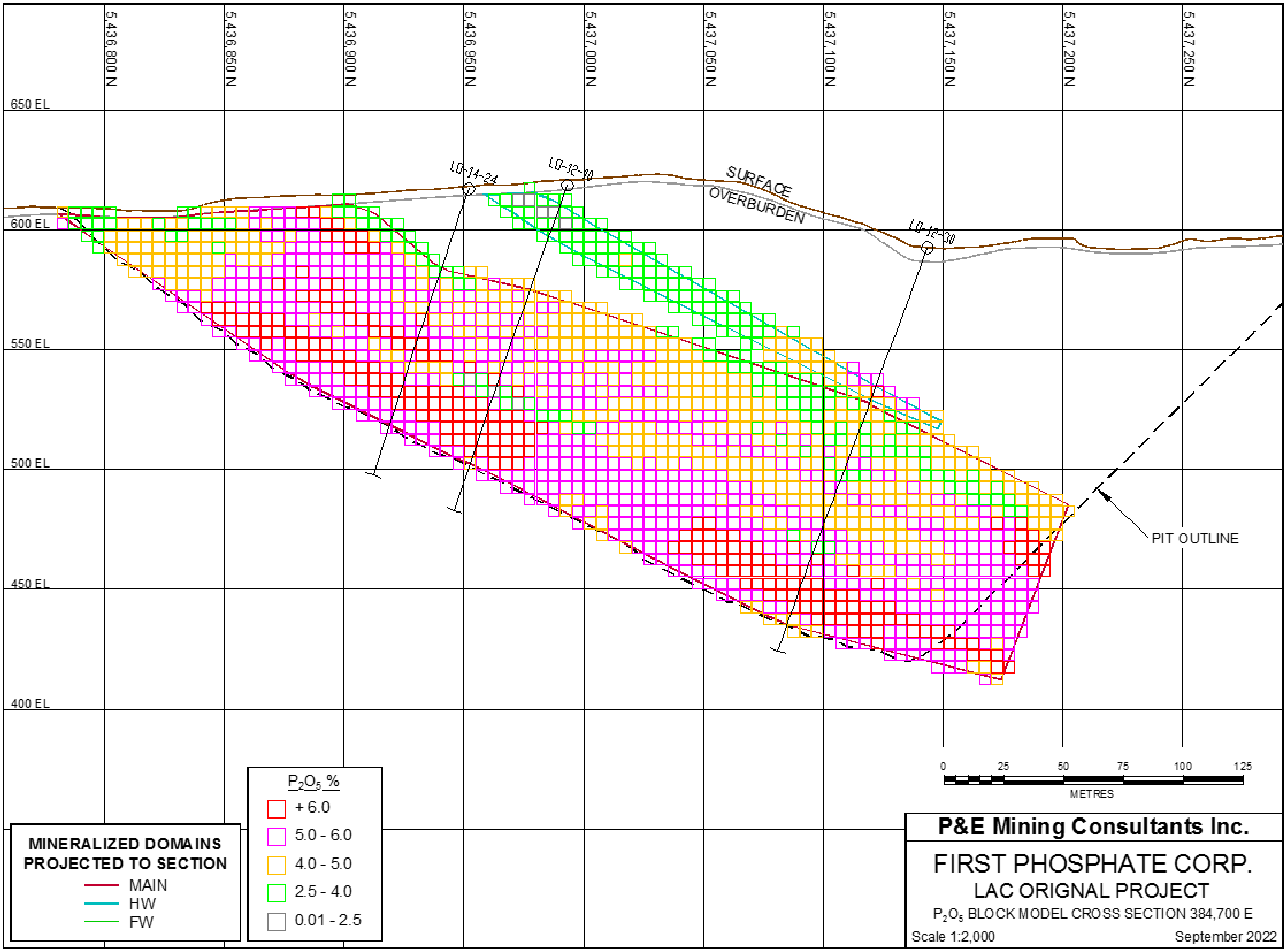
APPENDIX E P_2O_5 BLOCK MODEL CROSS-SECTIONS AND PLANS



5,436,800 N
5,436,850 N
5,436,900 N
5,436,950 N
5,437,000 N
5,437,050 N
5,437,100 N
5,437,150 N
5,437,200 N
5,437,250 N
650 EL
600 EL
550 EL
500 EL
450 EL
400 EL
SURFACE
OVERBURDEN
PIT OUTLINE
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
HW
FW
P_2O_5 %
+ 6.0
5.0 - 6.0
4.0 - 5.0
2.5 - 4.0
0.01 - 2.5
0 25 50 75 100 125
METRES
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
P_2O_5 BLOCK MODEL CROSS SECTION 384,450 E
Scale 1:2,000
September 2022



5,436,800 N
5,436,850 N
5,436,900 N
5,436,950 N
5,437,000 N
5,437,050 N
5,437,100 N
5,437,150 N
5,437,200 N
5,437,250 N
650 EL
600 EL
550 EL
500 EL
450 EL
400 EL
LD-14-22
LD-12-26
LD-12-24
LD-12-28
LD-14-13
SURFACE
OVERBURDEN
PIT OUTLINE
0 25 50 75 100 125
METRES
MINERALIZED DOMAINS
PROJECTED TO SECTION
MAIN
HW
FW
P_2O_5 %
+ 6.0
5.0 - 6.0
4.0 - 5.0
2.5 - 4.0
0.01 - 2.5
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
P_2O_5 BLOCK MODEL CROSS SECTION 384,550 E
Scale 1:2,000
September 2022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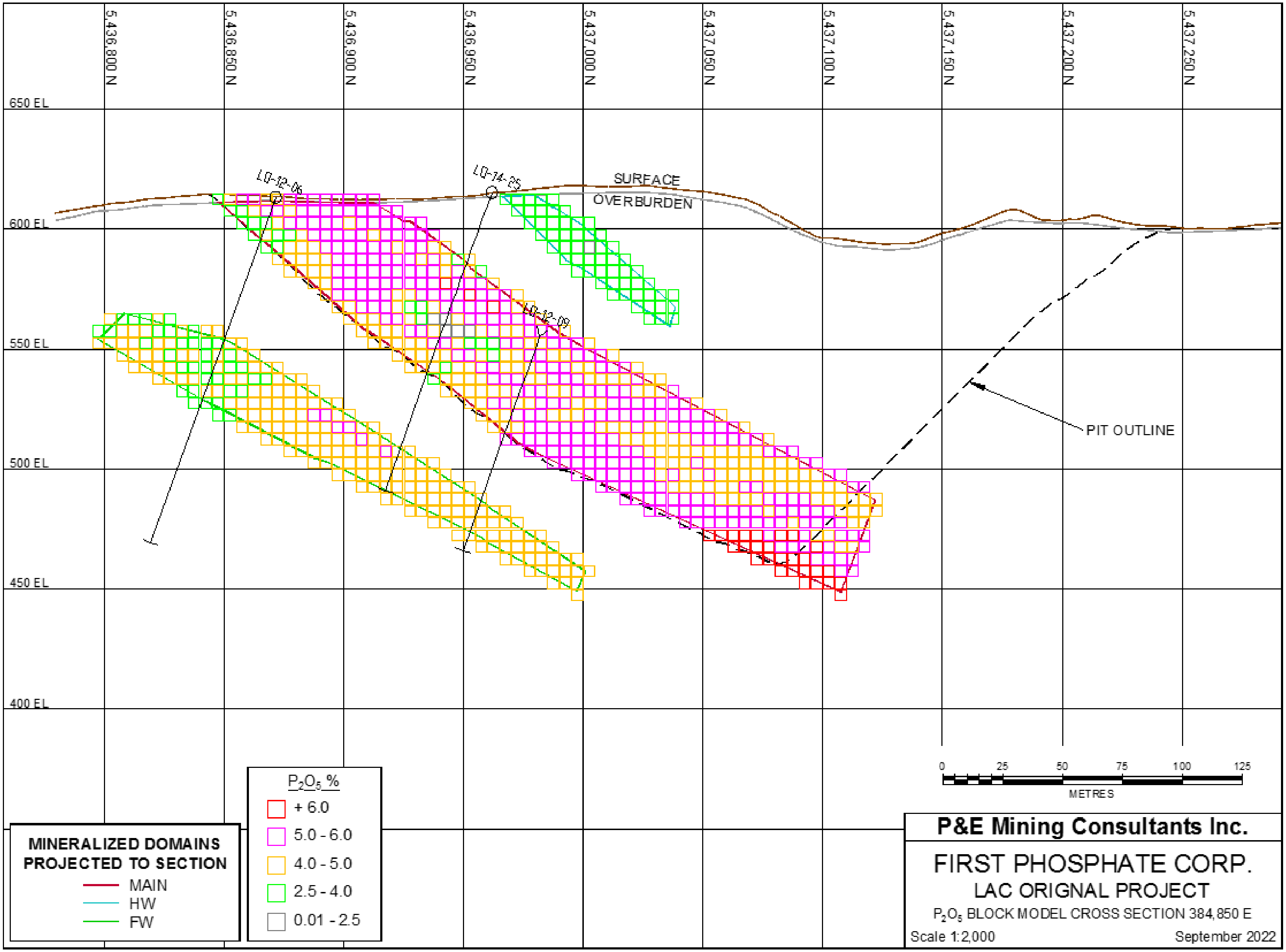
5,436,850 N
5,436,900 N
5,436,950 N
5,437,000 N
5,437,050 N
5,437,100 N
5,437,150 N
5,437,200 N
5,437,250 N
650 EL
600 EL
550 EL
500 EL
450 EL
400 EL
SURFACE
OVERBURDEN
PIT OUTLINE
0 25 50 75 100 125
METRES
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
HW
FW
P2O5 %
+ 6.0
5.0 - 6.0
4.0 - 5.0
2.5 - 4.0
0.01 - 2.5
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
P2O5 BLOCK MODEL CROSS SECTION 384,700 E
Scale 1:2,000
September 2022



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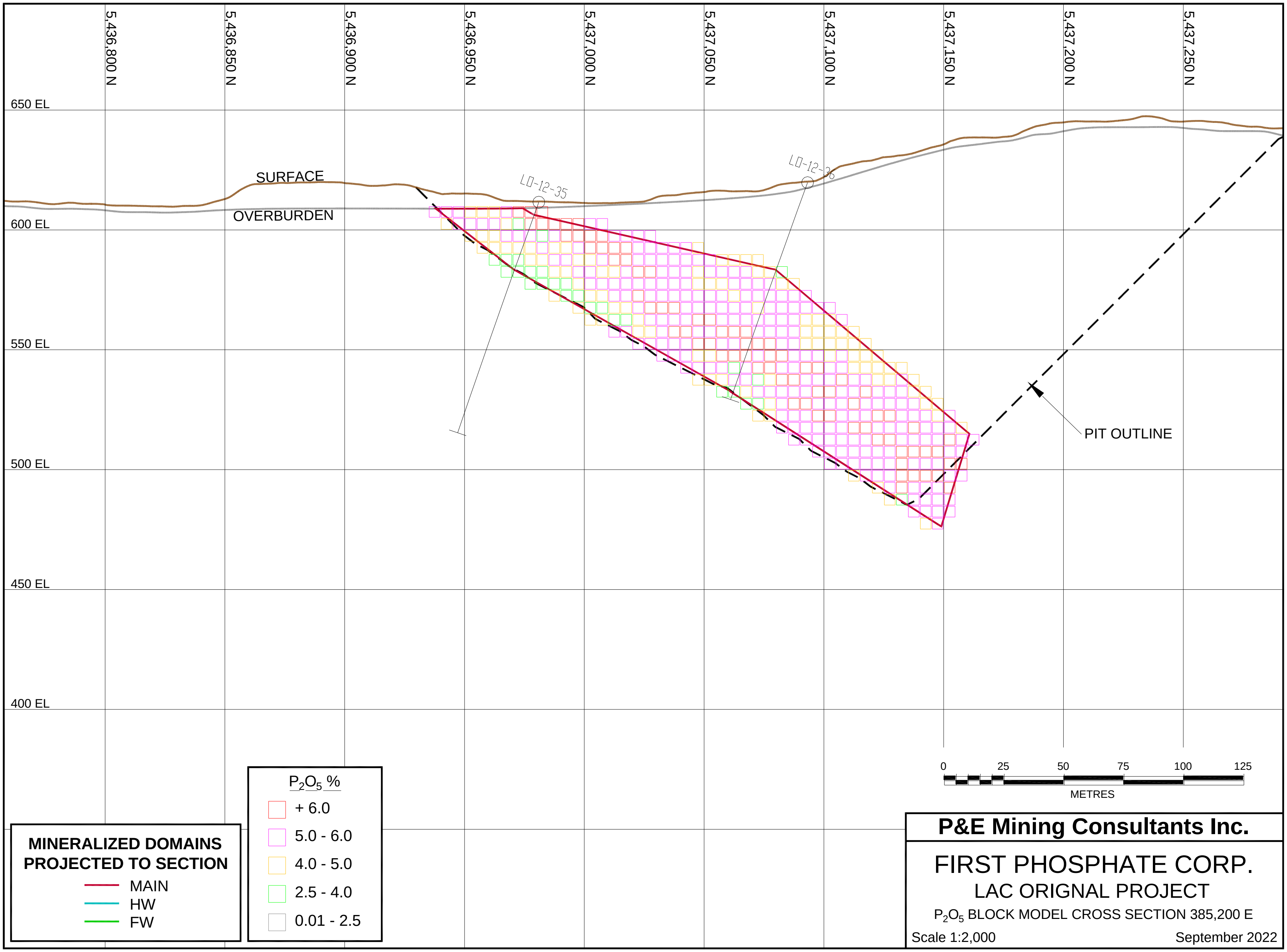
5,436,850 N
5,436,900 N
5,436,950 N
5,437,000 N
5,437,050 N
5,437,100 N
5,437,150 N
5,437,200 N
5,437,250 N
650 EL
600 EL
550 EL
500 EL
450 EL
400 EL
LO-12-06
LO-14-25
LO-12-09
SURFACE
OVERBURDEN
PIT OUTLINE
0 25 50 75 100 125
METRES
P2O5 %
+ 6.0
5.0 - 6.0
4.0 - 5.0
2.5 - 4.0
0.01 - 2.5
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
HW
FW
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
P2O5 BLOCK MODEL CROSS SECTION 384,850 E
Scale 1:2,000
September 2022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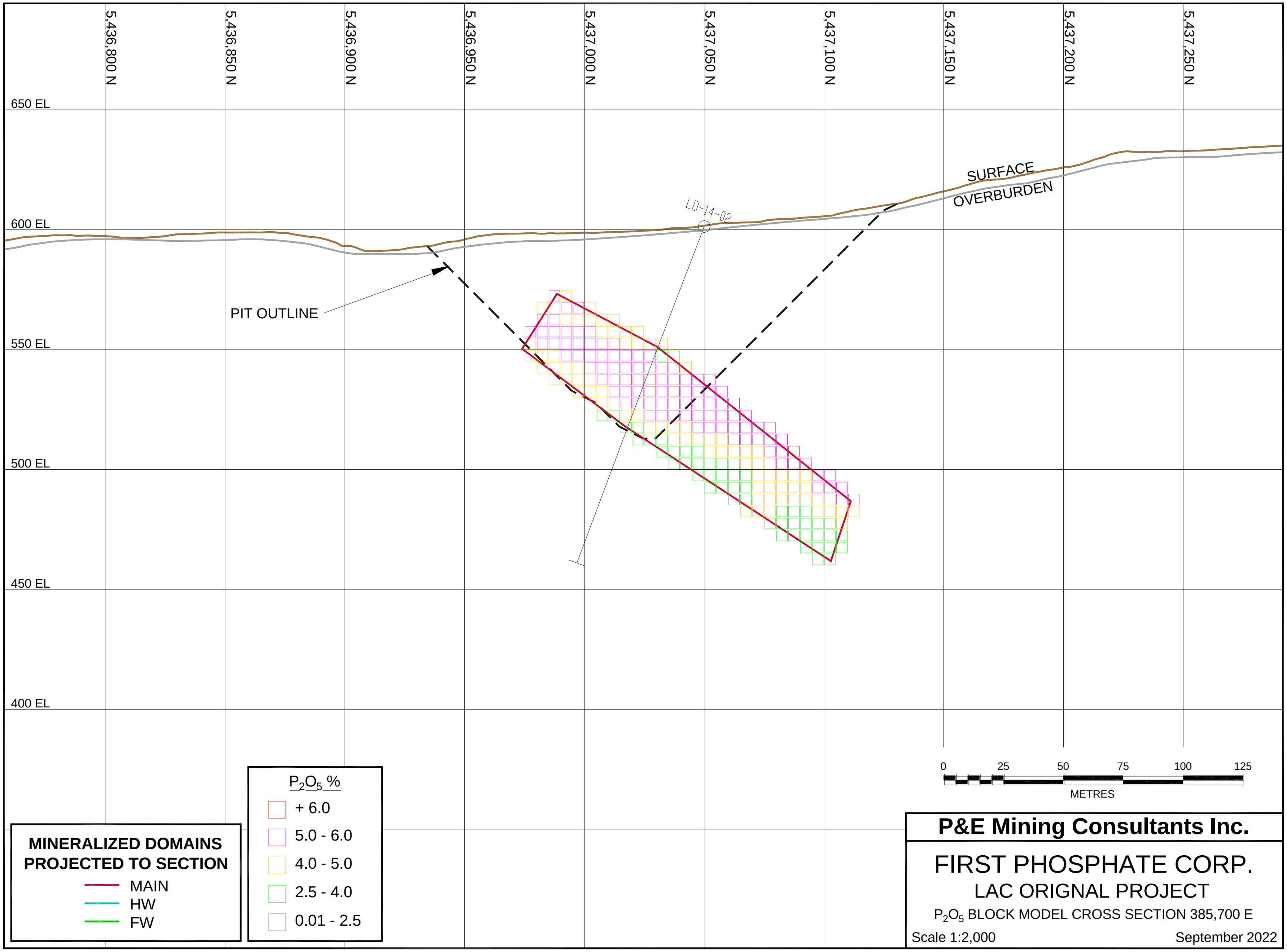
5,436,850 N
5,436,900 N
5,436,950 N
5,437,000 N
5,437,050 N
5,437,100 N
5,437,150 N
5,437,200 N
5,437,250 N
650 EL
600 EL
550 EL
500 EL
450 EL
400 EL
SURFACE
OVERBURDEN
LO-12-35
LO-12-36
PIT OUTLINE
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
HW
FW
P_2O_5 %
+ 6.0
5.0 - 6.0
4.0 - 5.0
2.5 - 4.0
0.01 - 2.5
0
25
50
75
100
125
METRES
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
P_2O_5 BLOCK MODEL CROSS SECTION 385,200 E
Scale 1:2,000
September 2022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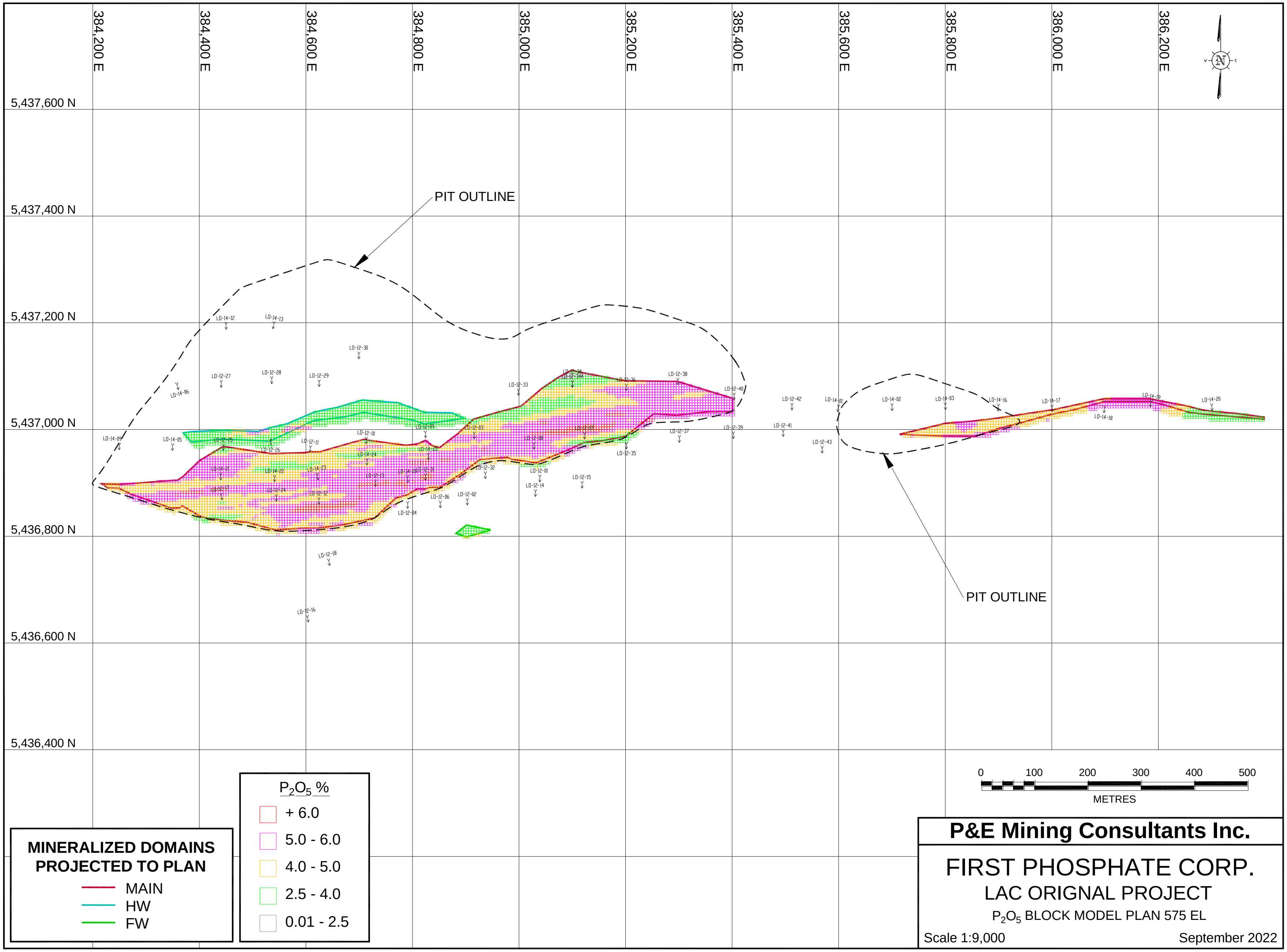
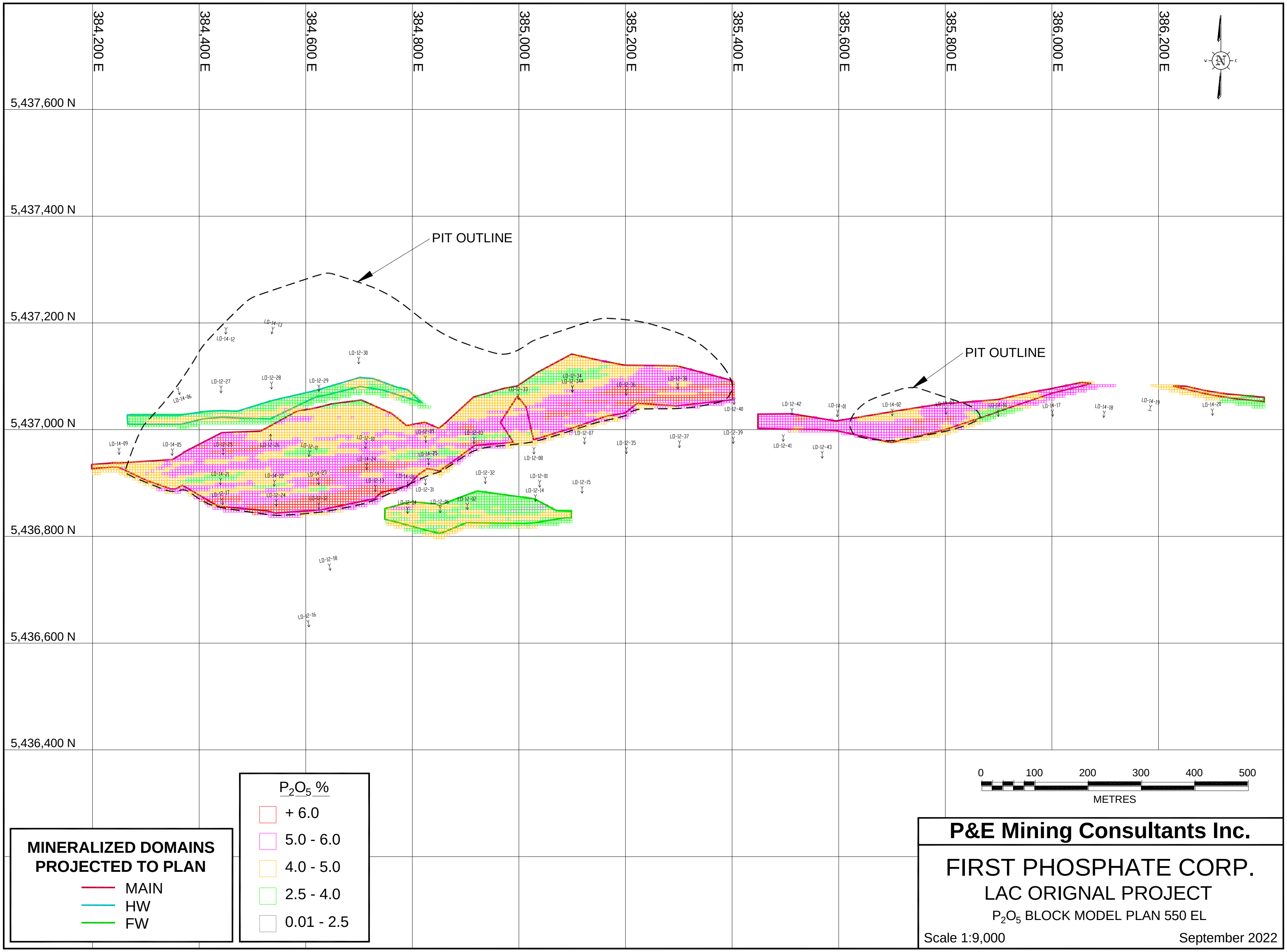
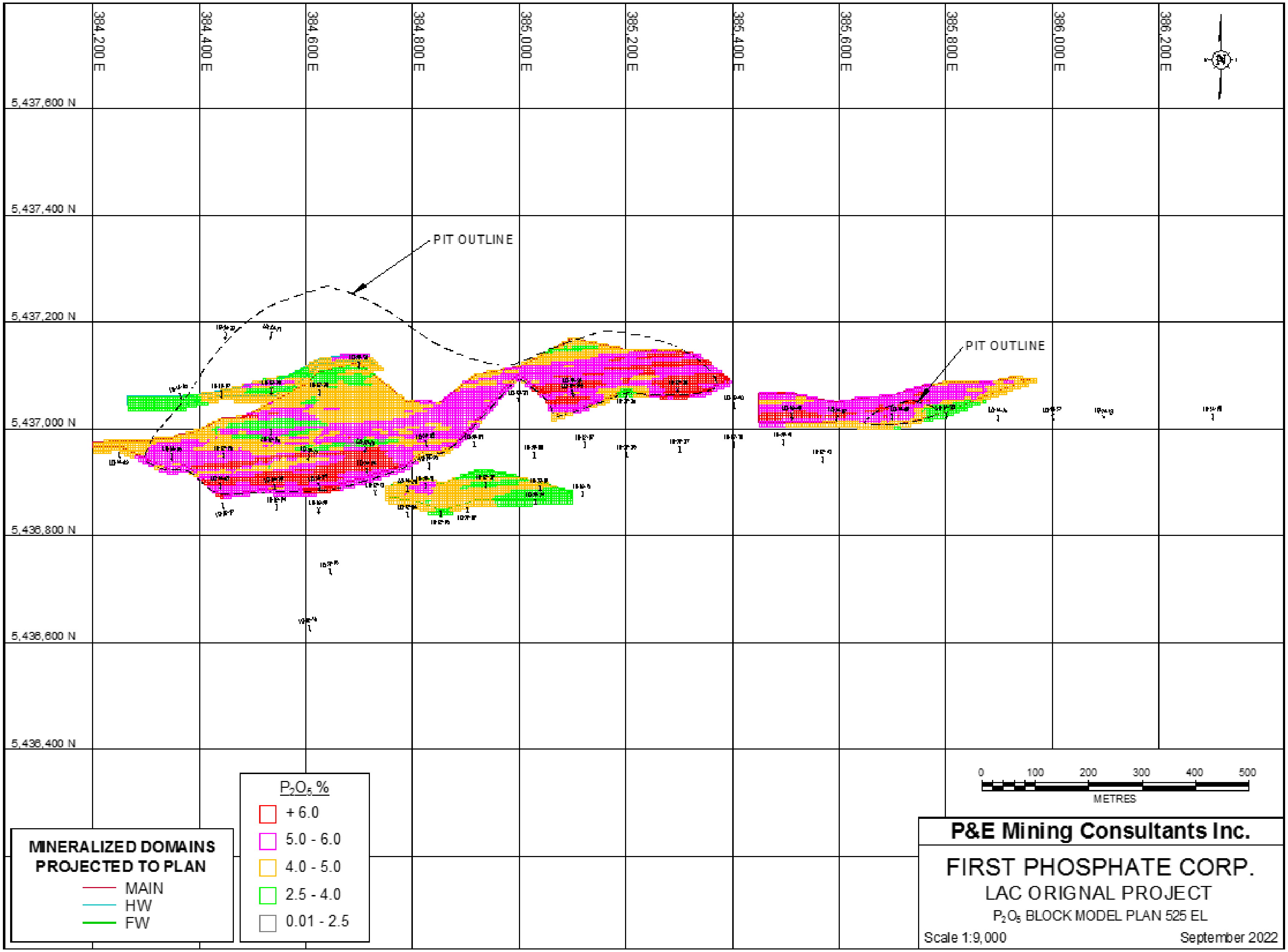
5,436,850 N
5,436,900 N
5,436,950 N
5,437,000 N
5,437,050 N
5,437,100 N
5,437,150 N
5,437,200 N
5,437,250 N
650 EL
600 EL
550 EL
500 EL
450 EL
400 EL
SURFACE
OVERBURDEN
LO-14-02
PIT OUTLINE
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
HW
FW
P_2O_5 %
+ 6.0
5.0 - 6.0
4.0 - 5.0
2.5 - 4.0
0.01 - 2.5
0
25
50
75
100
125
METRES
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
P_2O_5 BLOCK MODEL CROSS SECTION 385,700 E
Scale 1:2,000
September 2022


384,200 E
384,400 E
384,600 E
384,800 E
385,000 E
385,200 E
385,400 E
385,600 E
385,800 E
386,000 E
386,200 E
5,437,600 N
5,437,400 N
5,437,200 N
5,437,000 N
5,436,800 N
5,436,600 N
5,436,400 N
PIT OUTLINE
PIT OUTLINE
0 100 200 300 400 500
METRES
MINERALIZED DOMAINS PROJECTED TO PLAN
MAIN
HW
FW
P2O5 %
+ 6.0
5.0 - 6.0
4.0 - 5.0
2.5 - 4.0
0.01 - 2.5
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
P2O5 BLOCK MODEL PLAN 575 EL
Scale 1:9,000
September 2022


384,200 E
384,400 E
384,600 E
384,800 E
385,000 E
385,200 E
385,400 E
385,600 E
385,800 E
386,000 E
386,200 E
5,437,600 N
5,437,400 N
5,437,200 N
5,437,000 N
5,436,800 N
5,436,600 N
5,436,400 N
PIT OUTLINE
PIT OUTLINE
MINERALIZED DOMAINS PROJECTED TO PLAN
MAIN
HW
FW
P2O5 %
+ 6.0
5.0 - 6.0
4.0 - 5.0
2.5 - 4.0
0.01 - 2.5
0
100
200
300
400
500
METRES
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
P2O5 BLOCK MODEL PLAN 550 EL
Scale 1:9,000
September 2022


384,200 E
384,400 E
384,600 E
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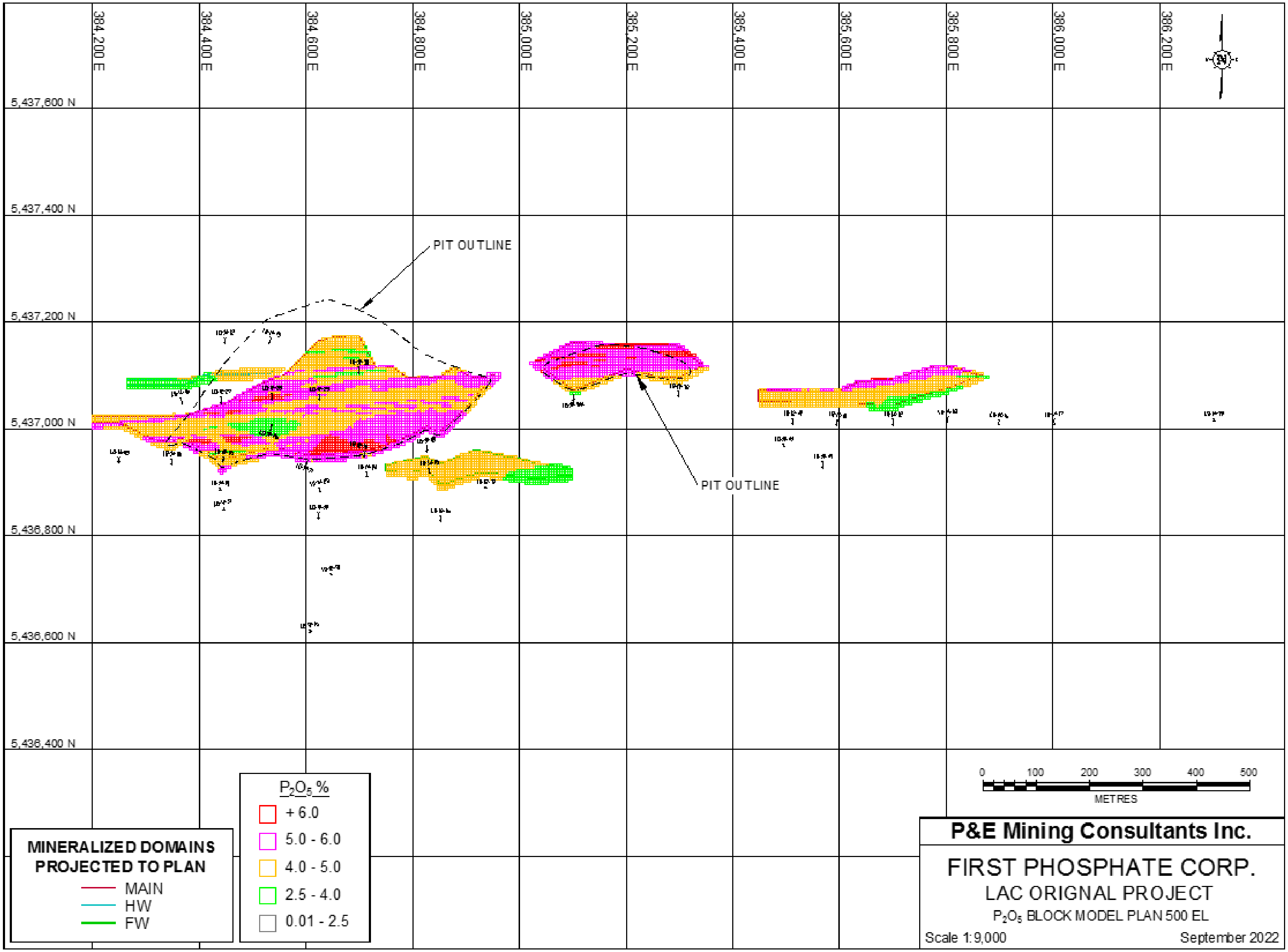
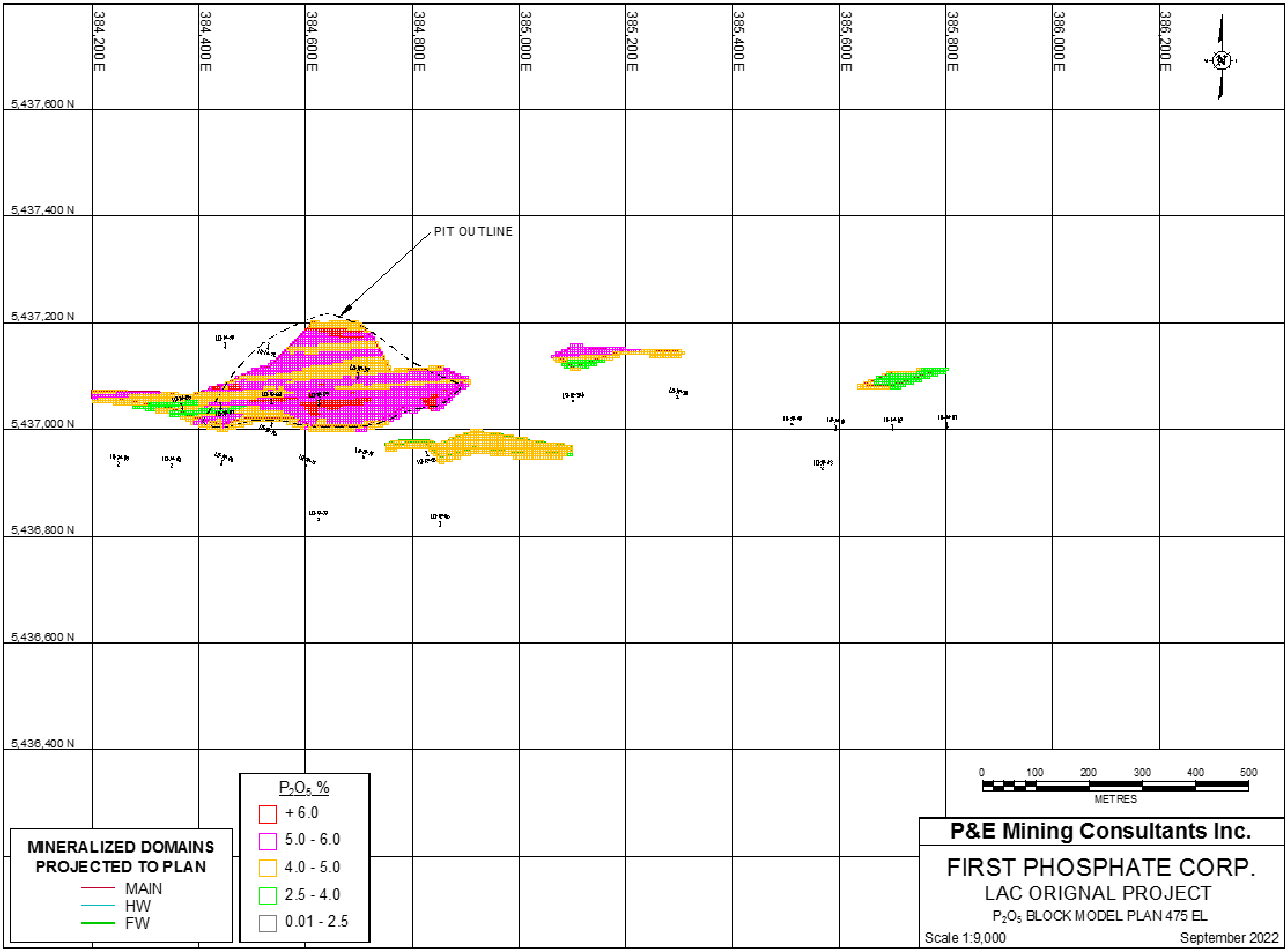
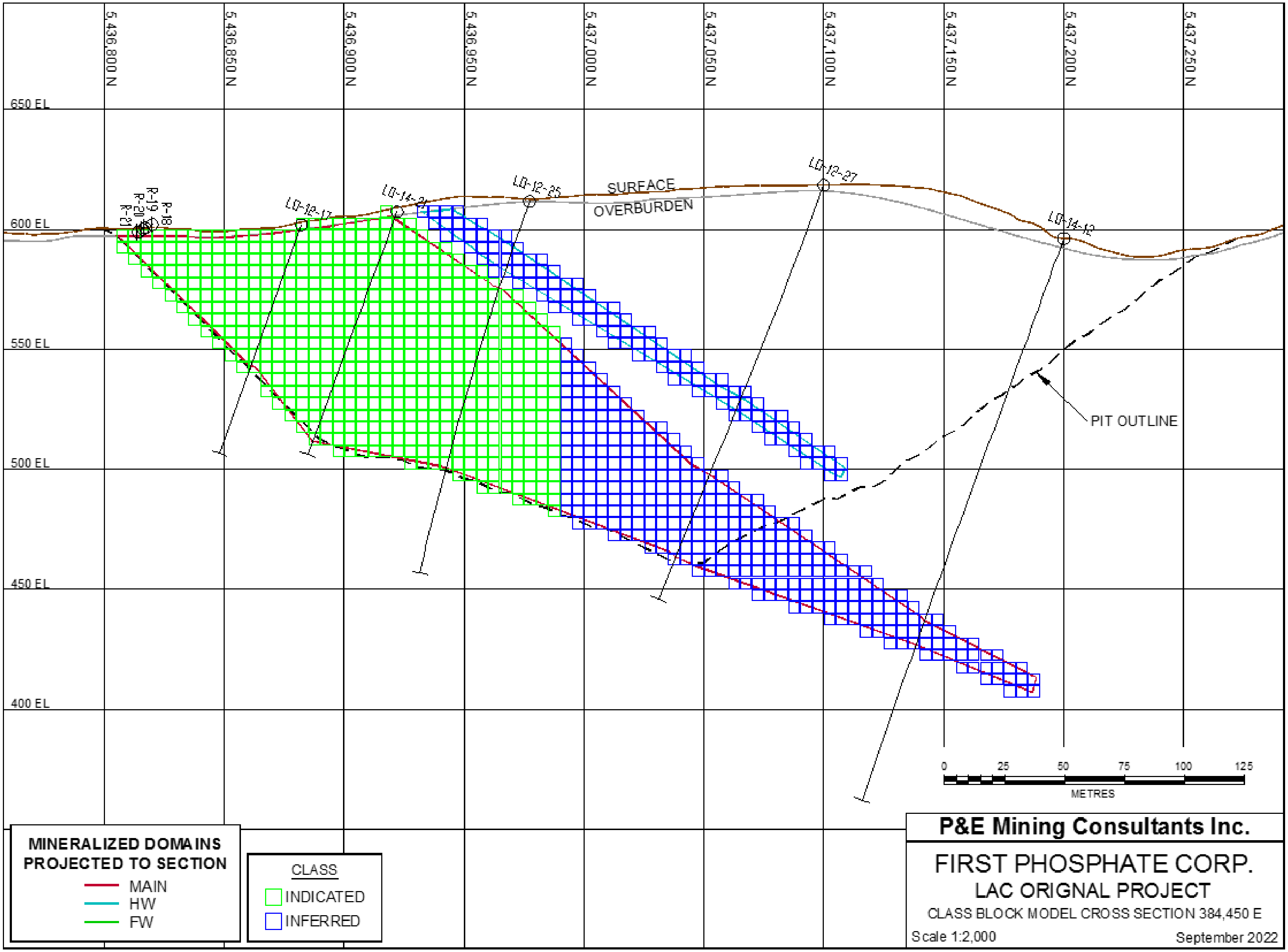
385,000 E
385,200 E
385,400 E
385,600 E
385,800 E
386,000 E
386,200 E
5,437,600 N
5,437,400 N
5,437,200 N
5,437,000 N
5,436,800 N
5,436,600 N
5,436,400 N
PIT OUTLINE
PIT OUTLINE
MINERALIZED DOMAINS PROJECTED TO PLAN
MAIN
HW
FW
P_2O_5 %
+ 6.0
5.0 - 6.0
4.0 - 5.0
2.5 - 4.0
0.01 - 2.5
0
100
200
300
400
500
METRES
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
P_2O_5 BLOCK MODEL PLAN 525 EL
Scale 1:9,000
September 2022


384,200 E
384,400 E
384,600 E
384,800 E
385,000 E
385,200 E
385,400 E
385,600 E
385,800 E
386,000 E
386,200 E
5,437,600 N
5,437,400 N
5,437,200 N
5,437,000 N
5,436,800 N
5,436,600 N
5,436,400 N
PIT OUTLINE
PIT OUTLINE
MINERALIZED DOMAINS PROJECTED TO PLAN
MAIN
HW
FW
P_2O_5 %
+ 6.0
5.0 - 6.0
4.0 - 5.0
2.5 - 4.0
0.01 - 2.5
0
100
200
300
400
500
METRES
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
P_2O_5 BLOCK MODEL PLAN 500 EL
Scale 1:9,000
September 2022



384,200 E
384,400 E
384,600 E
384,800 E
385,000 E
385,200 E
385,400 E
385,600 E
385,800 E
386,000 E
386,200 E
N
5,437,600 N
5,437,400 N
5,437,200 N
5,437,000 N
5,436,800 N
5,436,600 N
5,436,400 N
PIT OUTLINE
0 100 200 300 400 500
METRES
MINERALIZED DOMAINS PROJECTED TO PLAN
MAIN
HW
FW
P_2O_5 %
+ 6.0
5.0 - 6.0
4.0 - 5.0
2.5 - 4.0
0.01 - 2.5
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
P_2O_5 BLOCK MODEL PLAN 475 EL
Scale 1:9,000
September 2022

APPENDIX F CLASSIFICATION BLOCK MODEL CROSS-SECTIONS AND PLANS



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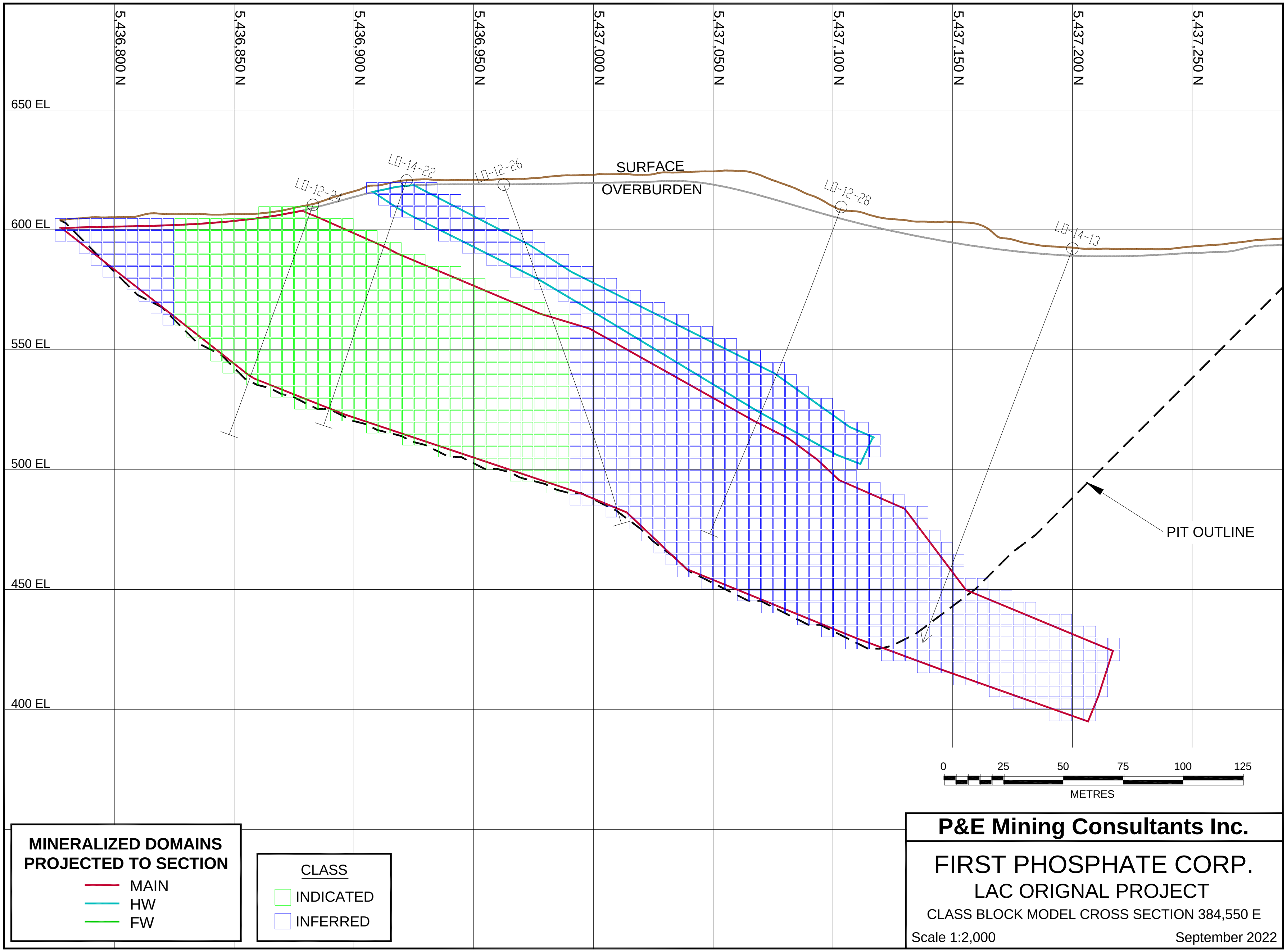
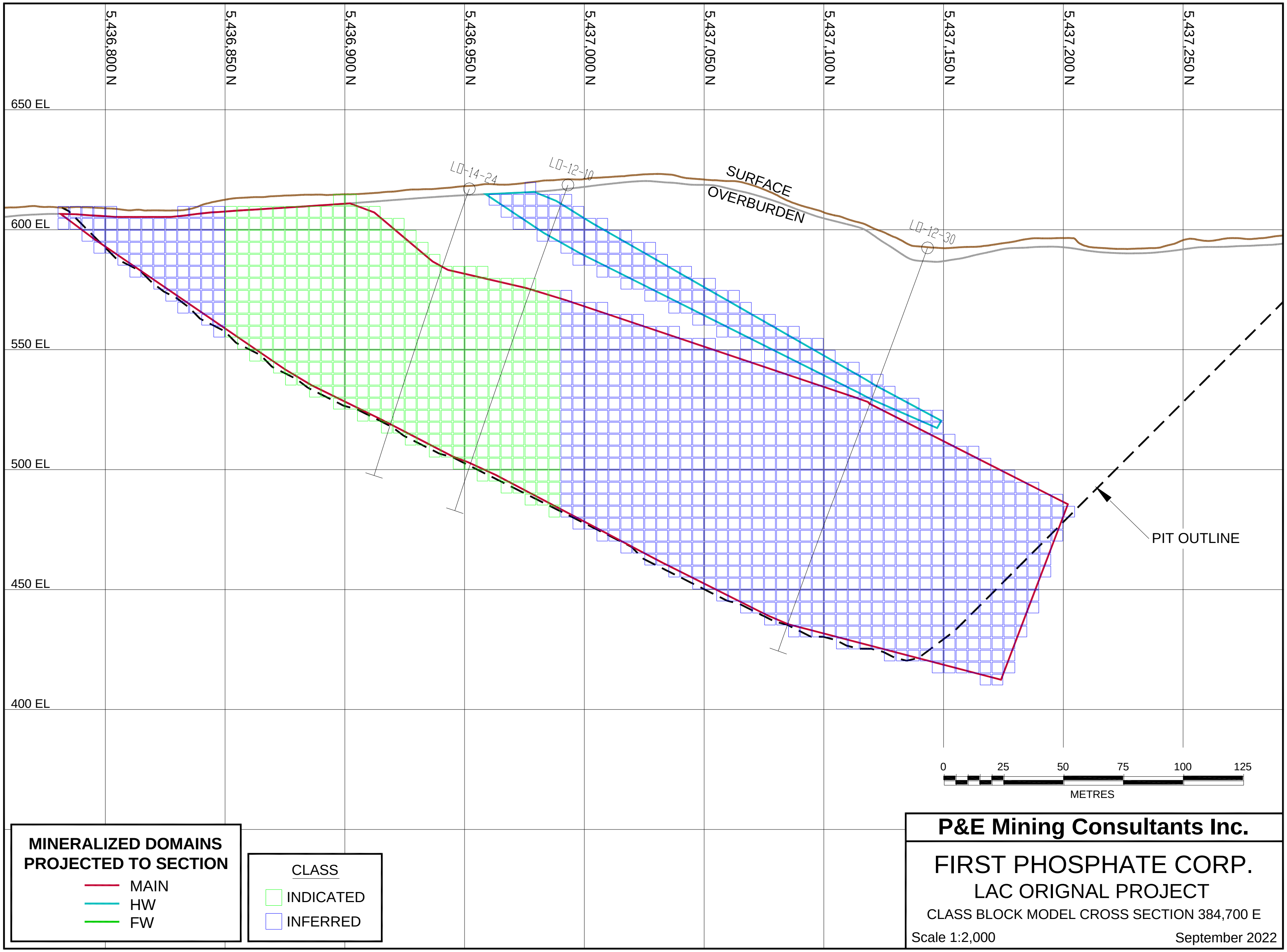
5,436,850 N
5,436,900 N
5,436,950 N
5,437,000 N
5,437,050 N
5,437,100 N
5,437,150 N
5,437,200 N
5,437,250 N
650 EL
600 EL
550 EL
500 EL
450 EL
400 EL
SURFACE
OVERBURDEN
PIT OUTLINE
0 25 50 75 100 125
METRES
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
HW
FW
CLASS
INDICATED
INFERRED
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
CLASS BLOCK MODEL CROSS SECTION 384,450 E
Scale 1:2,000
September 2022



5,436,800 N
5,436,850 N
5,436,900 N
5,436,950 N
5,437,000 N
5,437,050 N
5,437,100 N
5,437,150 N
5,437,200 N
5,437,250 N
650 EL
600 EL
550 EL
500 EL
450 EL
400 EL
SURFACE
OVERBURDEN
LO-14-22
LO-12-26
LO-12-24
LO-12-28
LO-14-13
PIT OUTLINE
0
25
50
75
100
125
METRES
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
HW
FW
CLASS
INDICATED
INFERRED
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
CLASS BLOCK MODEL CROSS SECTION 384,550 E
Scale 1:2,000
September 2022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5,436,900 N
5,436,950 N
5,437,000 N
5,437,050 N
5,437,100 N
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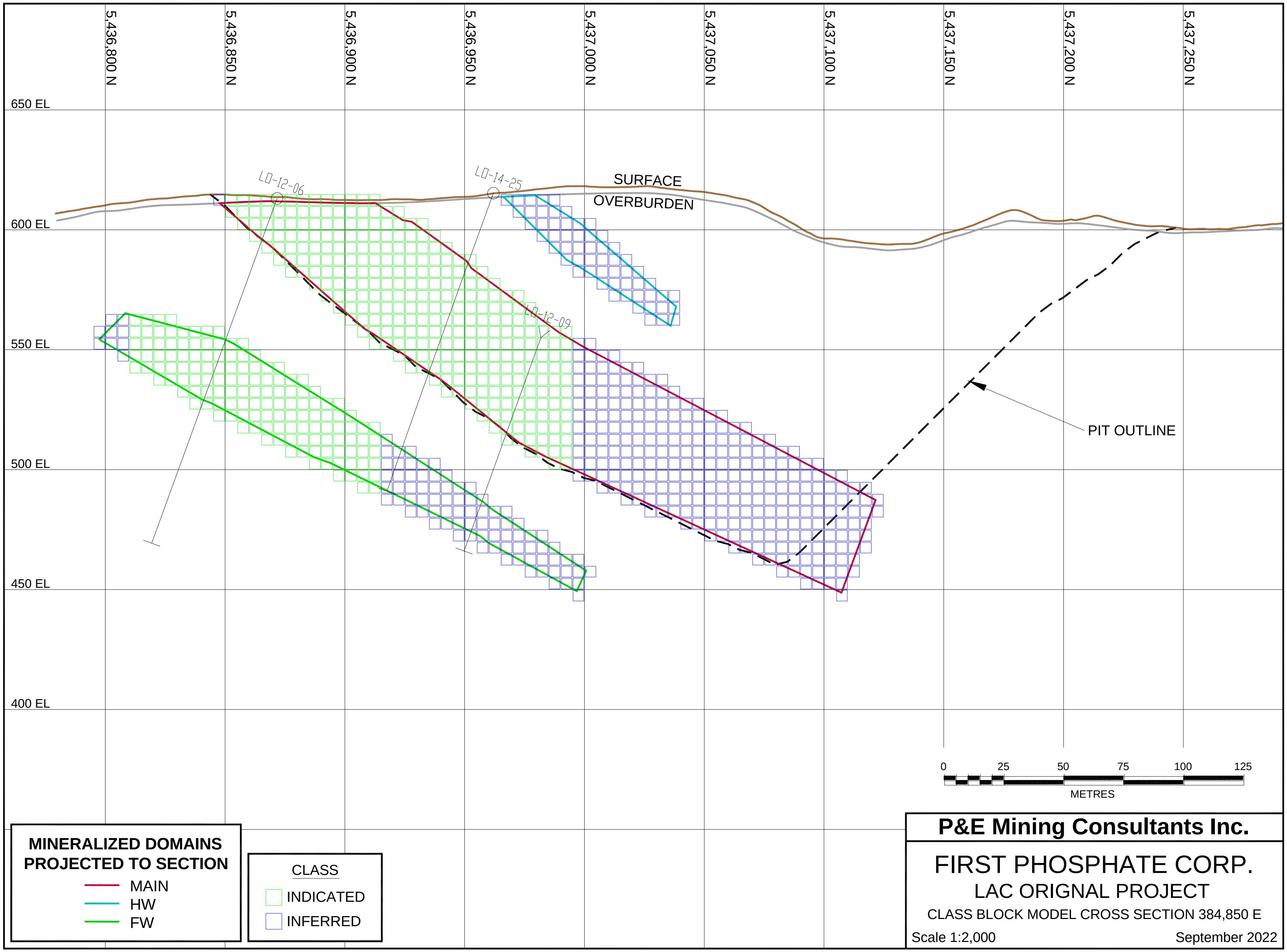
5,437,200 N
5,437,250 N
650 EL
600 EL
550 EL
500 EL
450 EL
400 EL
LO-14-24
LO-12-10
LO-12-30
SURFACE
OVERBURDEN
PIT OUTLINE
0
25
50
75
100
125
METRES
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
HW
FW
CLASS
INDICATED
INFERRED
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
CLASS BLOCK MODEL CROSS SECTION 384,700 E
Scale 1:2,000
September 2022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5,436,850 N
5,436,900 N
5,436,950 N
5,437,000 N
5,437,050 N
5,437,100 N
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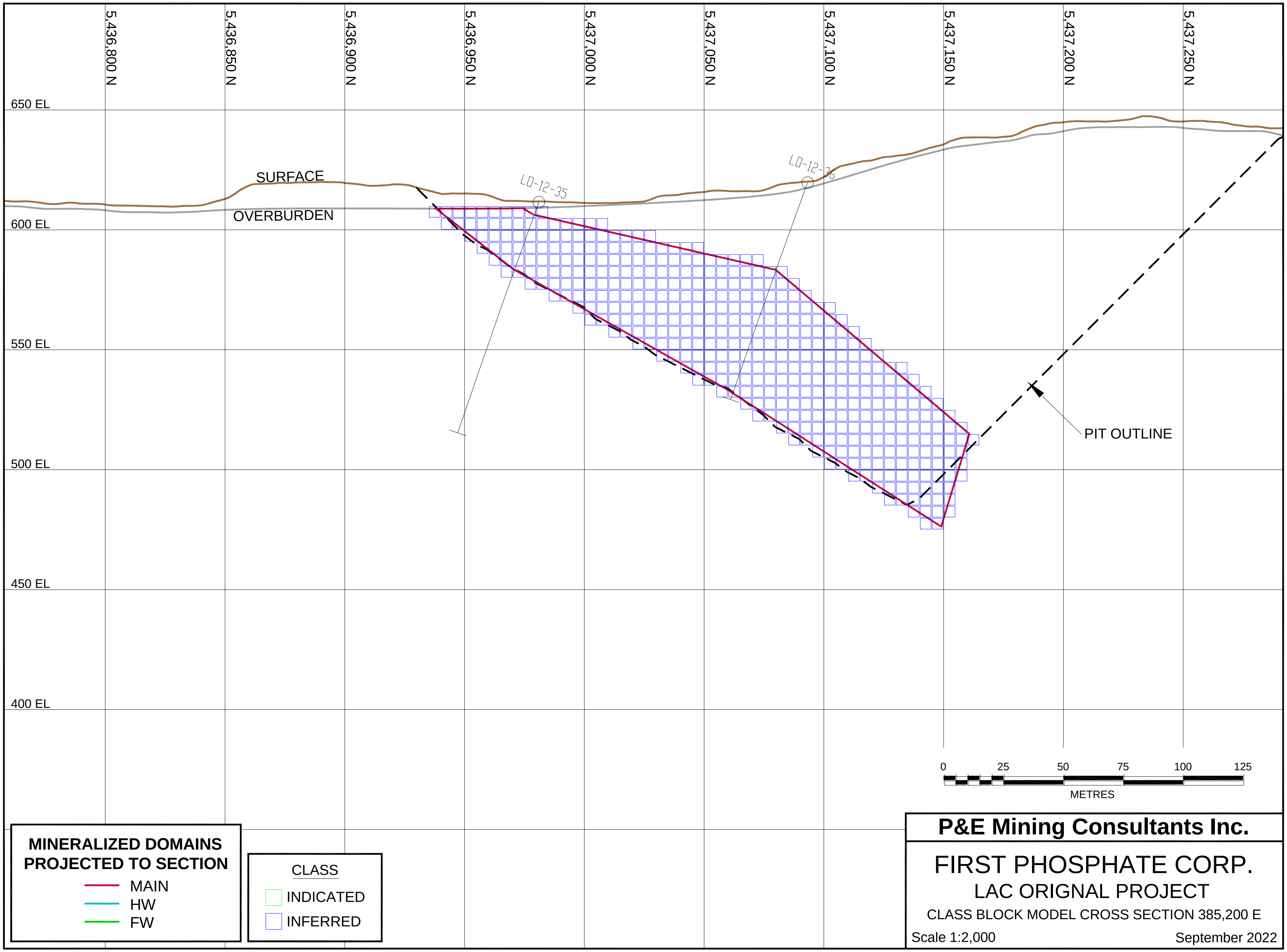
5,437,200 N
5,437,250 N
650 EL
600 EL
550 EL
500 EL
450 EL
400 EL
LO-12-06
LO-14-25
LO-12-09
SURFACE
OVERBURDEN
PIT OUTLINE
0
25
50
75
100
125
METRES
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
HW
FW
CLASS
INDICATED
INFERRED
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
CLASS BLOCK MODEL CROSS SECTION 384,850 E
Scale 1:2,000
September 2022


5,436,800 N
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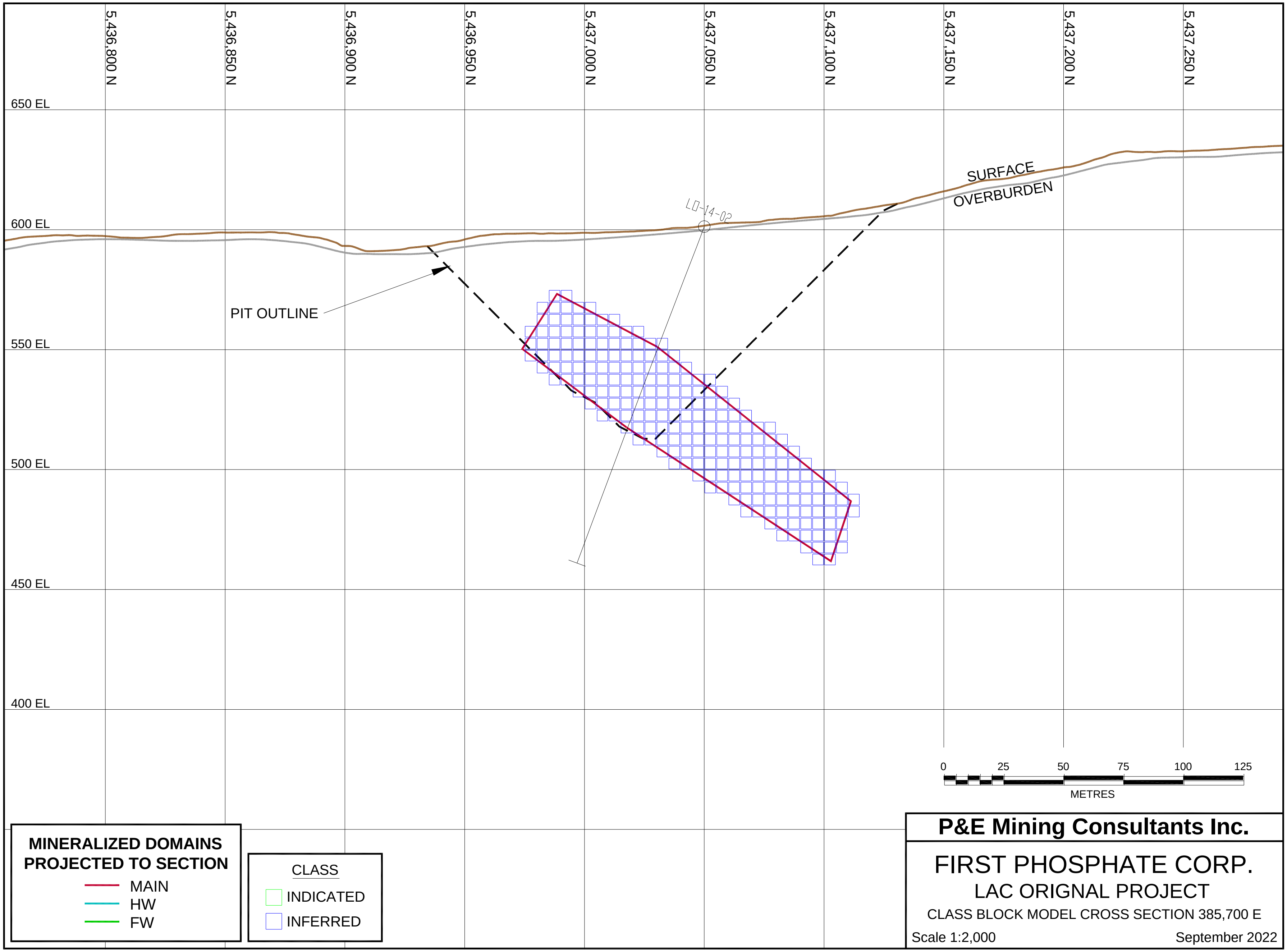
5,436,900 N
5,436,950 N
5,437,000 N
5,437,050 N
5,437,100 N
5,437,150 N
5,437,200 N
5,437,250 N
650 EL
600 EL
550 EL
500 EL
450 EL
400 EL
SURFACE
OVERBURDEN
LO-12-35
LO-12-36
PIT OUTLINE
0
25
50
75
100
125
METRES
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
HW
FW
CLASS
INDICATED
INFERRED
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
CLASS BLOCK MODEL CROSS SECTION 385,200 E
Scale 1:2,000
September 2022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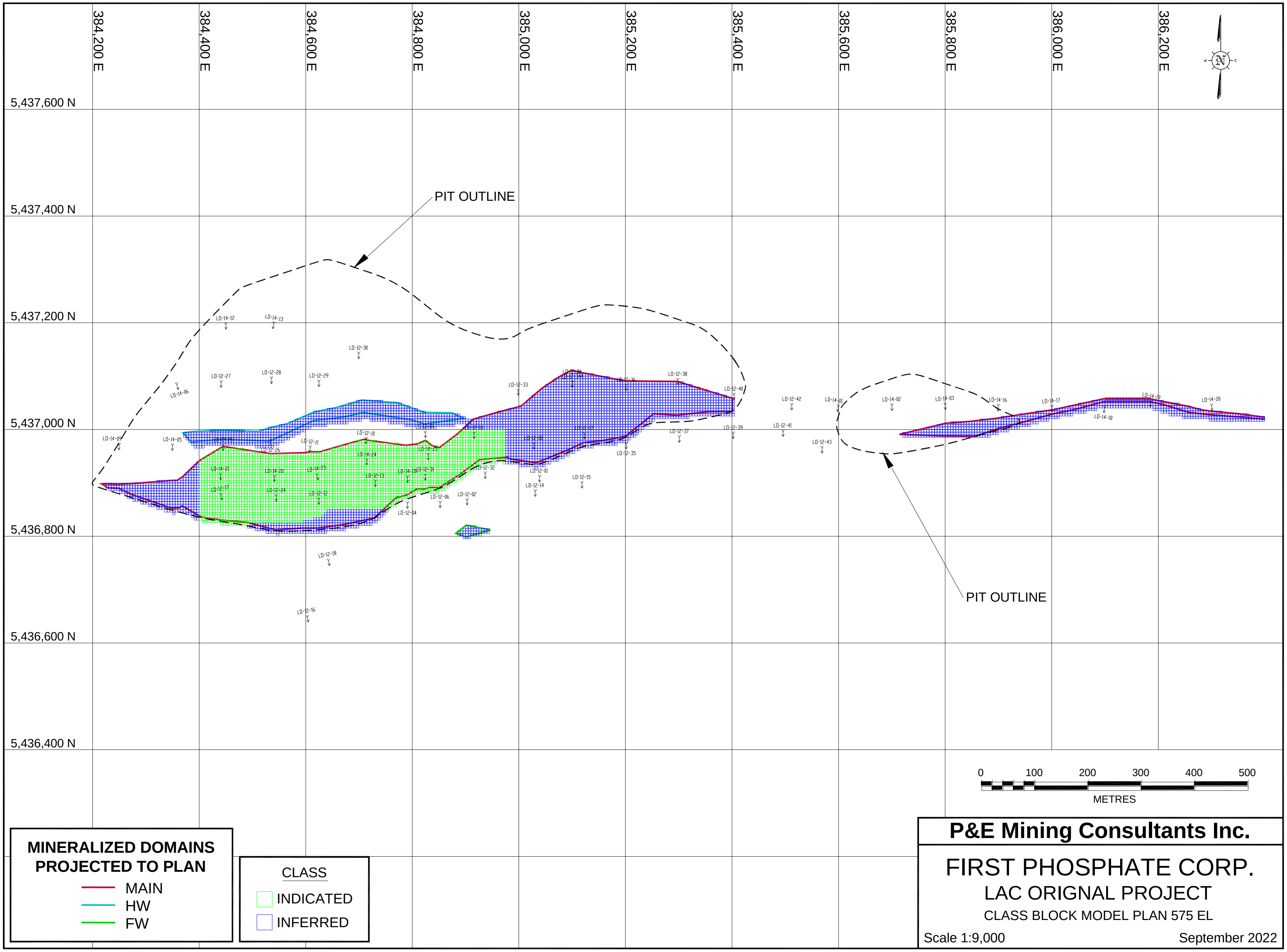
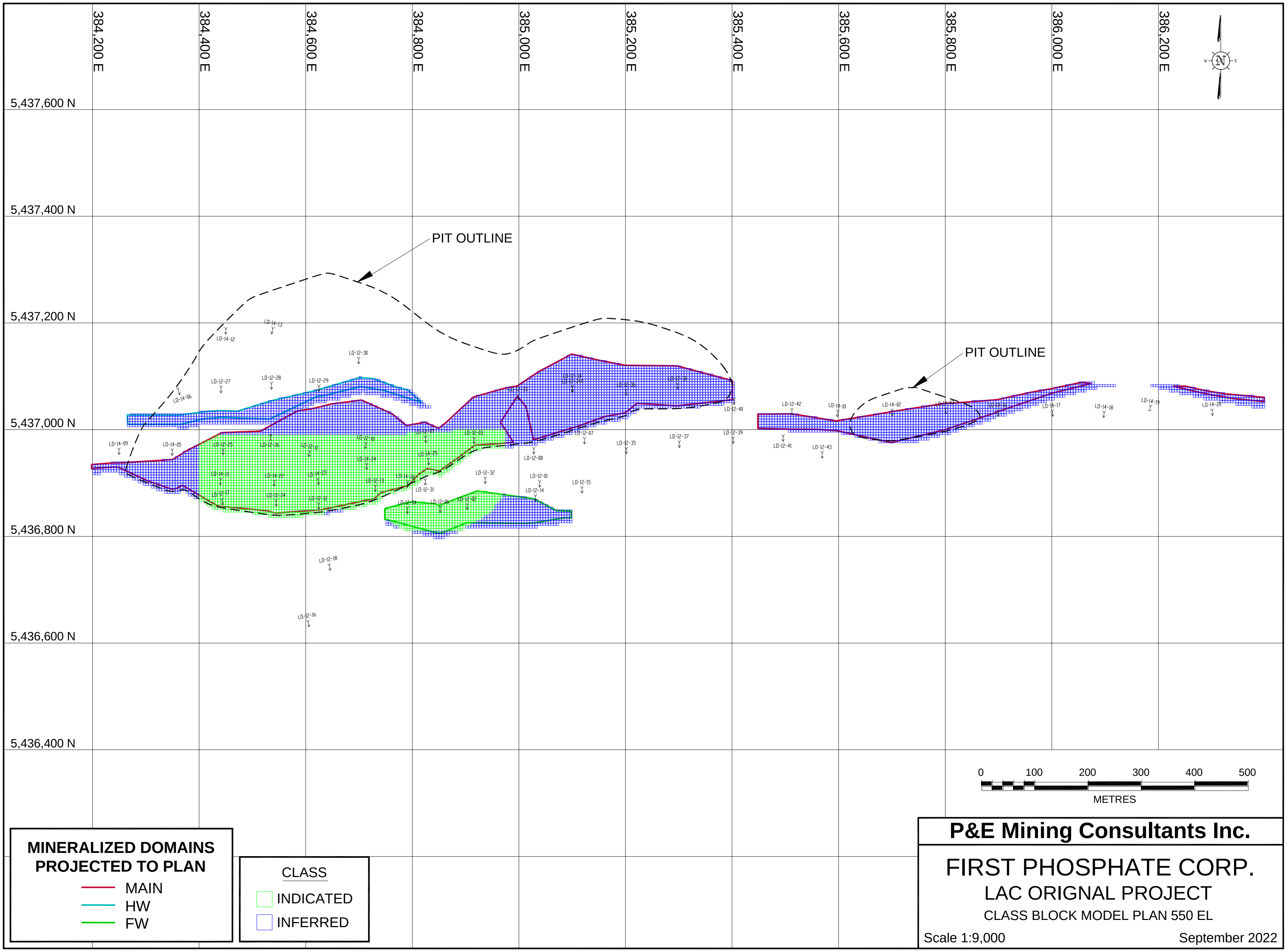
5,436,850 N
5,436,900 N
5,436,950 N
5,437,000 N
5,437,050 N
5,437,100 N
5,437,150 N
5,437,200 N
5,437,250 N
650 EL
600 EL
550 EL
500 EL
450 EL
400 EL
SURFACE
OVERBURDEN
LO-14-02
PIT OUTLINE
0
25
50
75
100
125
METRES
MINERALIZED DOMAINS PROJECTED TO SECTION
MAIN
HW
FW
CLASS
INDICATED
INFERRED
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
CLASS BLOCK MODEL CROSS SECTION 385,700 E
Scale 1:2,000
September 2022


384,200 E
384,400 E
384,600 E
384,800 E
385,000 E
385,200 E
385,400 E
385,600 E
385,800 E
386,000 E
386,200 E
5,437,600 N
5,437,400 N
5,437,200 N
5,437,000 N
5,436,800 N
5,436,600 N
5,436,400 N
PIT OUTLINE
PIT OUTLINE
0 100 200 300 400 500
METRES
MINERALIZED DOMAINS PROJECTED TO PLAN
MAIN
HW
FW
CLASS
INDICATED
INFERRED
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
CLASS BLOCK MODEL PLAN 575 EL
Scale 1:9,000
September 2022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PIT OUTLINE
PIT OUTLINE
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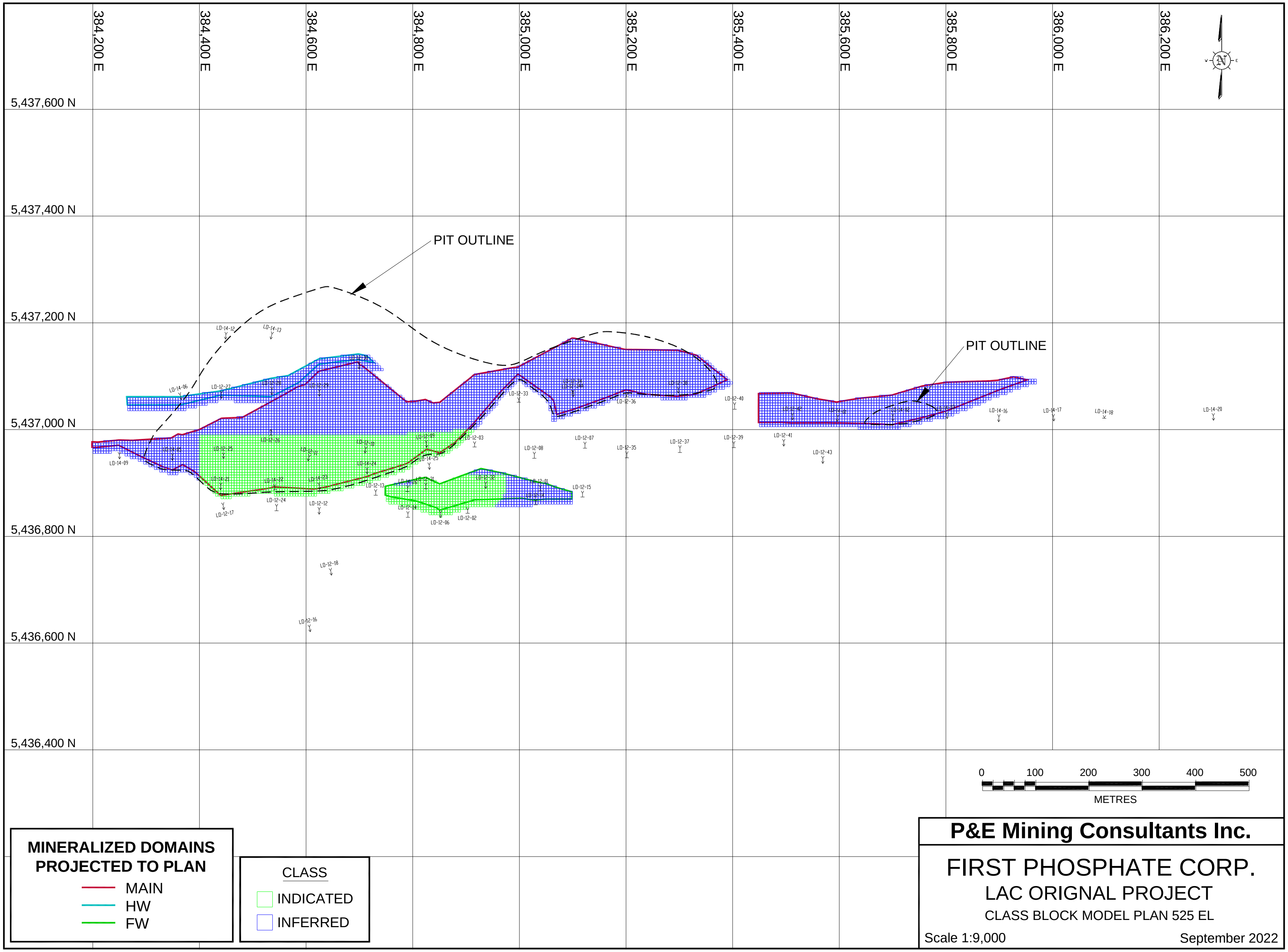
METRES
MINERALIZED DOMAINS PROJECTED TO PLAN
MAIN
HW
FW
CLASS
INDICATED
INFERRED
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
CLASS BLOCK MODEL PLAN 550 EL
Scale 1:9,000
September 2022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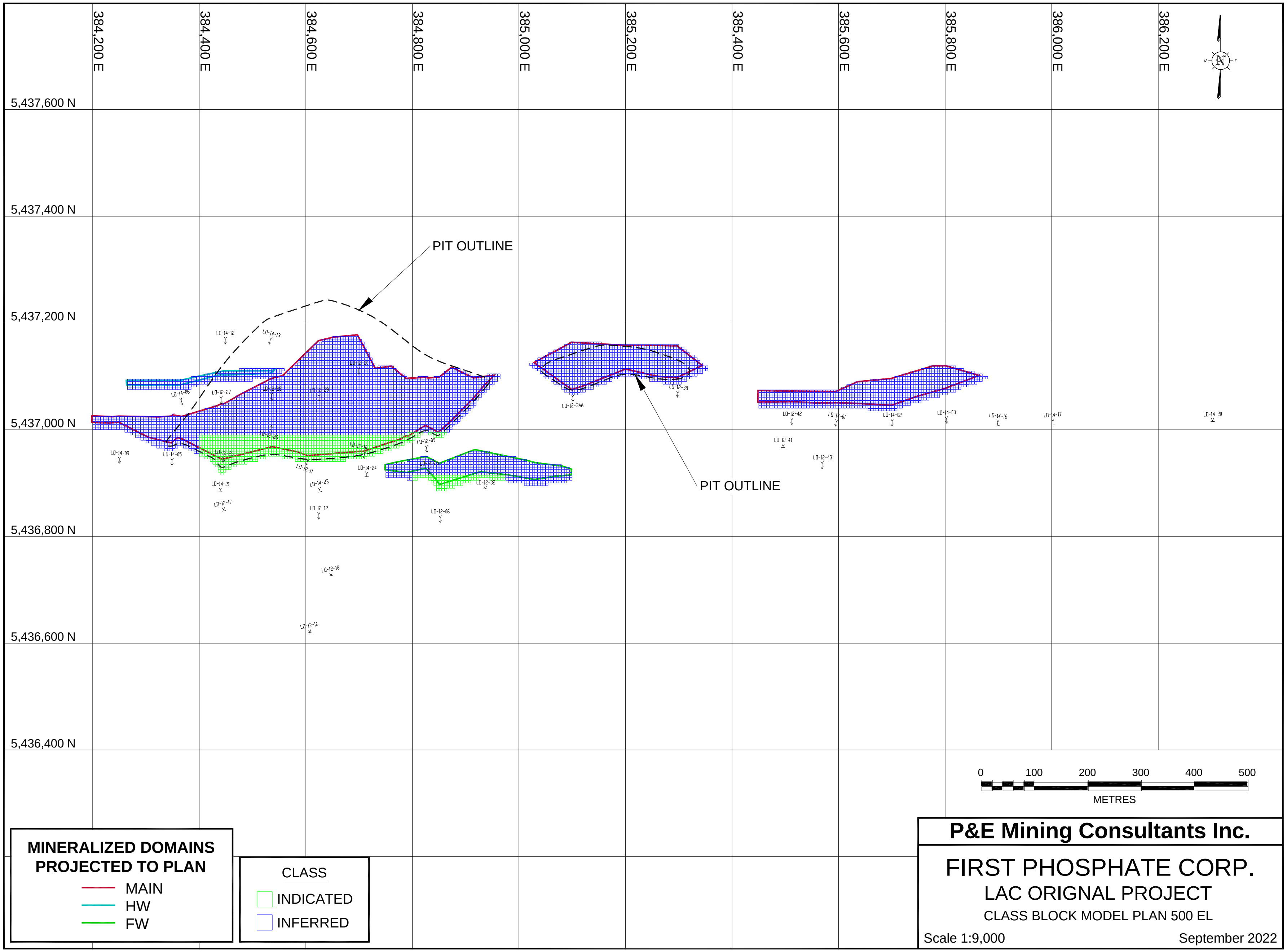
5,436,600 N
5,436,400 N
PIT OUTLINE
PIT OUTLINE
0 100 200 300 400 500
METRES
MINERALIZED DOMAINS PROJECTED TO PLAN
MAIN
HW
FW
CLASS
INDICATED
INFERRED
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
CLASS BLOCK MODEL PLAN 525 EL
Scale 1:9,000
September 2022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385,400 E
385,600 E
385,800 E
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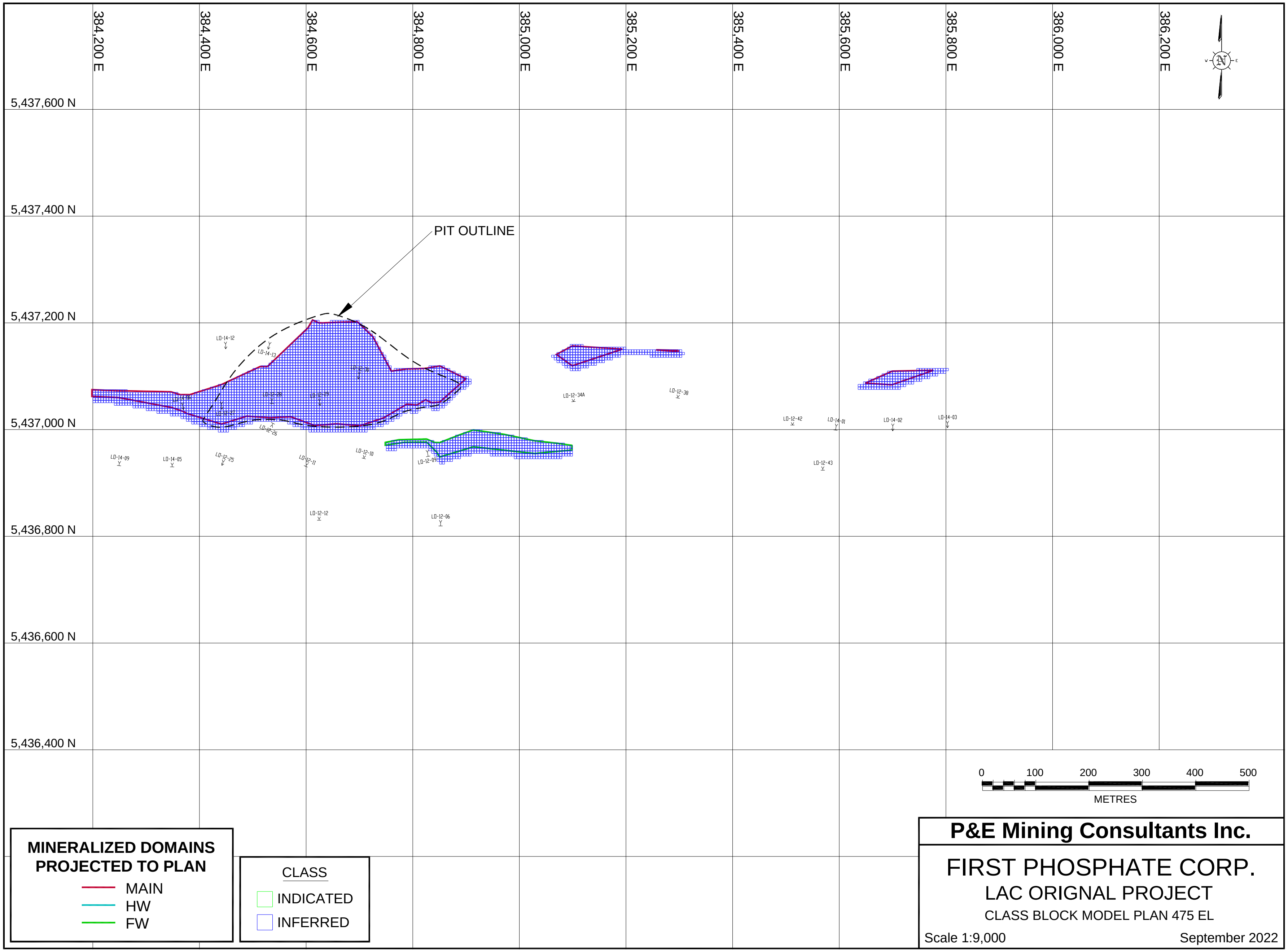
5,437,600 N
5,437,400 N
5,437,200 N
5,437,000 N
5,436,800 N
5,436,600 N
5,436,400 N
PIT OUTLINE
PIT OUTLINE
0
100
200
300
400
500
METRES
MINERALIZED DOMAINS
PROJECTED TO PLAN
MAIN
HW
FW
CLASS
INDICATED
INFERRED
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
CLASS BLOCK MODEL PLAN 500 EL
Scale 1:9,000
September 2022



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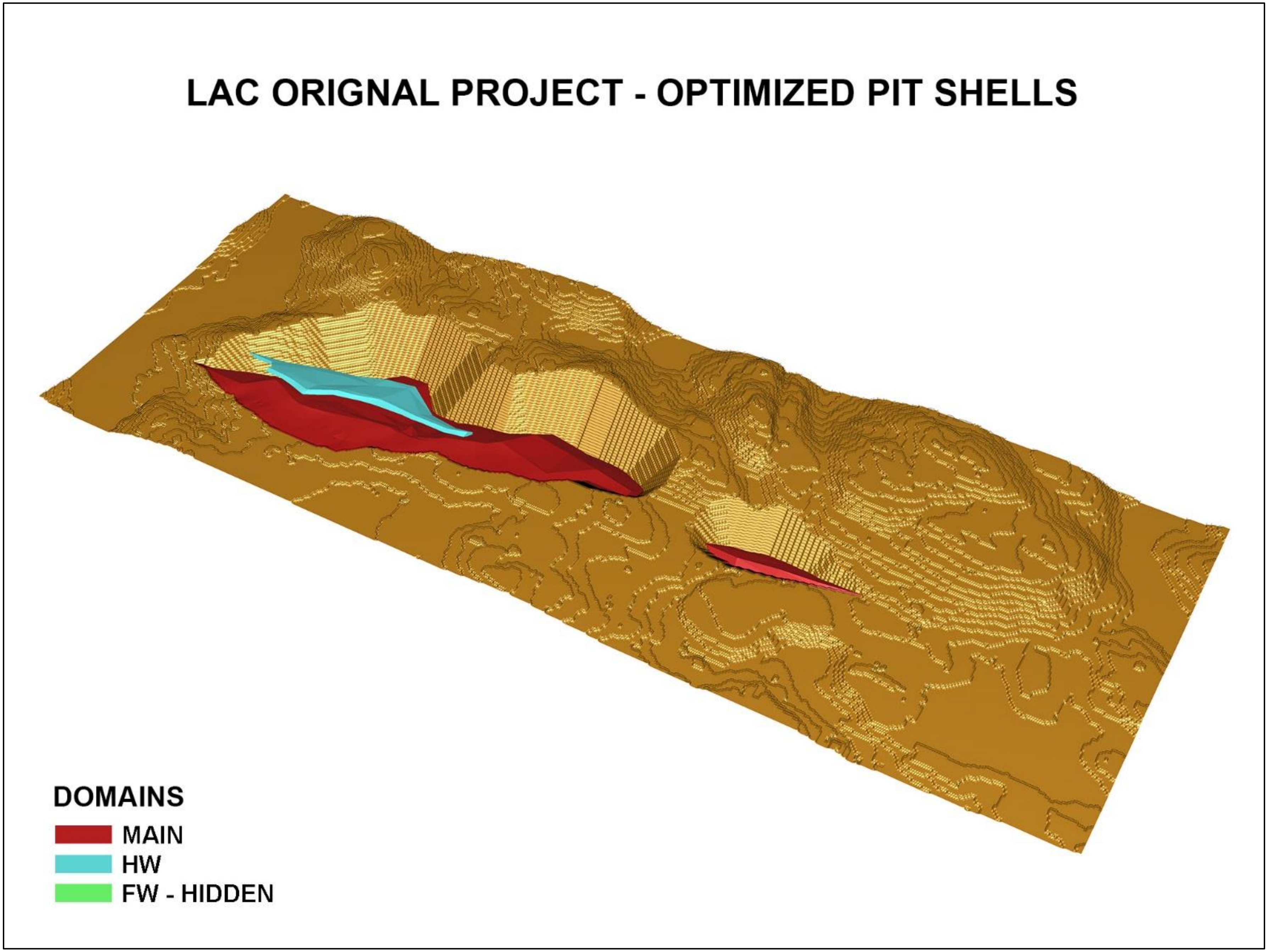
384,400 E
384,600 E
384,800 E
385,000 E
385,200 E
385,400 E
385,600 E
385,800 E
386,000 E
386,200 E
5,437,600 N
5,437,400 N
5,437,200 N
5,437,000 N
5,436,800 N
5,436,600 N
5,436,400 N
PIT OUTLINE
0
100
200
300
400
500
METRES
MINERALIZED DOMAINS
PROJECTED TO PLAN
MAIN
HW
FW
CLASS
INDICATED
INFERRED
P&E Mining Consultants Inc.
FIRST PHOSPHATE CORP.
LAC ORIGNAL PROJECT
CLASS BLOCK MODEL PLAN 475 EL
Scale 1:9,000
September 2022

APPENDIX G OPTIMIZED PIT SHELL


LAC ORIGNAL PROJECT - OPTIMIZED PIT SHELLS
DOMAINS
MAIN
HW
FW - HIDDEN

APPENDIX H LAND TENURE RECORDS

TABLE APPENDIX H.1 LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]					
Claim ID	**Registration**	**Expiry Date**	**Ownership (100%)**	**Status**	**Area (ha)**
2349530	20120606	20250605	First Phosphate Corp.	Active	56.39
2349531	20120606	20250605	First Phosphate Corp.	Active	56.39
2349532	20120606	20250605	First Phosphate Corp.	Active	56.39
2349533	20120606	20250605	First Phosphate Corp.	Active	56.39
2349534	20120606	20250605	First Phosphate Corp.	Active	56.39
2349535	20120606	20250605	First Phosphate Corp.	Active	56.38
2349536	20120606	20250605	First Phosphate Corp.	Active	56.38
2349537	20120606	20250605	First Phosphate Corp.	Active	56.38
2349540	20120606	20250605	First Phosphate Corp.	Active	56.37
2349541	20120606	20250605	First Phosphate Corp.	Active	56.36
2349542	20120606	20250605	First Phosphate Corp.	Active	56.35
2349543	20120606	20250605	First Phosphate Corp.	Active	56.35
2366534	20121011	20251010	First Phosphate Corp.	Active	56.42
2366535	20121011	20251010	First Phosphate Corp.	Active	56.42
2366536	20121011	20251010	First Phosphate Corp.	Active	56.42
2352612	20120626	20250625	First Phosphate Corp.	Active	56.40
2352613	20120626	20250625	First Phosphate Corp.	Active	56.40
2354998	20120712	20250711	First Phosphate Corp.	Active	56.41
2354999	20120712	20250711	First Phosphate Corp.	Active	56.41
2355000	20120712	20250711	First Phosphate Corp.	Active	56.41
2355010	20120712	20250711	First Phosphate Corp.	Active	56.40
2355011	20120712	20250711	First Phosphate Corp.	Active	56.40
2355012	20120712	20250711	First Phosphate Corp.	Active	56.40
2355013	20120712	20250711	First Phosphate Corp.	Active	56.39
2353450	20120629	20250628	First Phosphate Corp.	Active	56.41
2353451	20120629	20250628	First Phosphate Corp.	Active	56.41
2353452	20120629	20250628	First Phosphate Corp.	Active	56.40
2353453	20120629	20250628	First Phosphate Corp.	Active	56.40
2353454	20120629	20250628	First Phosphate Corp.	Active	56.40
2353455	20120629	20250628	First Phosphate Corp.	Active	56.39
2353459	20120629	20250628	First Phosphate Corp.	Active	56.37
2353460	20120629	20250628	First Phosphate Corp.	Active	56.37

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2353461	20120629	20250628	First Phosphate Corp.	Active	56.36
2353462	20120629	20250628	First Phosphate Corp.	Active	56.36
2309041	20110822	20240821	First Phosphate Corp.	Active	56.41
2309042	20110822	20240821	First Phosphate Corp.	Active	56.41
2309043	20110822	20240821	First Phosphate Corp.	Active	56.41
2309044	20110822	20240821	First Phosphate Corp.	Active	56.41
2309045	20110822	20240821	First Phosphate Corp.	Active	56.41
2309046	20110822	20240821	First Phosphate Corp.	Active	56.41
2309047	20110822	20240821	First Phosphate Corp.	Active	56.41
2309048	20110822	20240821	First Phosphate Corp.	Active	56.41
2309049	20110822	20240821	First Phosphate Corp.	Active	56.41
2309052	20110822	20240821	First Phosphate Corp.	Active	56.36
2309155	20110822	20240821	First Phosphate Corp.	Active	56.40
2309156	20110822	20240821	First Phosphate Corp.	Active	56.40
2309157	20110822	20240821	First Phosphate Corp.	Active	56.40
2309158	20110822	20240821	First Phosphate Corp.	Active	56.40
2309159	20110822	20240821	First Phosphate Corp.	Active	56.40
2309160	20110822	20240821	First Phosphate Corp.	Active	56.40
2309161	20110822	20240821	First Phosphate Corp.	Active	56.40
2309162	20110822	20240821	First Phosphate Corp.	Active	56.40
2309163	20110822	20240821	First Phosphate Corp.	Active	56.40
2309165	20110822	20240821	First Phosphate Corp.	Active	56.39
2309166	20110822	20240821	First Phosphate Corp.	Active	56.39
2309167	20110822	20240821	First Phosphate Corp.	Active	56.39
2309168	20110822	20240821	First Phosphate Corp.	Active	56.39
2309169	20110822	20240821	First Phosphate Corp.	Active	56.39
2309170	20110822	20240821	First Phosphate Corp.	Active	56.39
2309171	20110822	20240821	First Phosphate Corp.	Active	56.39
2309172	20110822	20240821	First Phosphate Corp.	Active	56.38
2309173	20110822	20240821	First Phosphate Corp.	Active	56.38
2309174	20110822	20240821	First Phosphate Corp.	Active	56.38
2309175	20110822	20240821	First Phosphate Corp.	Active	56.38
2309176	20110822	20240821	First Phosphate Corp.	Active	56.38
2309177	20110822	20240821	First Phosphate Corp.	Active	56.38
2309178	20110822	20240821	First Phosphate Corp.	Active	56.38
2309179	20110822	20240821	First Phosphate Corp.	Active	56.38
2309180	20110822	20240821	First Phosphate Corp.	Active	56.38
2309181	20110822	20240821	First Phosphate Corp.	Active	56.37
2309184	20110822	20240821	First Phosphate Corp.	Active	56.37

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [(1,2)]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2309185	20110822	20240821	First Phosphate Corp.	Active	56.37
2309186	20110822	20240821	First Phosphate Corp.	Active	56.37
2309187	20110822	20240821	First Phosphate Corp.	Active	56.37
2309188	20110822	20240821	First Phosphate Corp.	Active	56.37
2309189	20110822	20240821	First Phosphate Corp.	Active	56.36
2309190	20110822	20240821	First Phosphate Corp.	Active	56.36
2309191	20110822	20240821	First Phosphate Corp.	Active	56.36
2309210	20110823	20240822	First Phosphate Corp.	Active	56.39
2309211	20110823	20240822	First Phosphate Corp.	Active	56.39
2309212	20110823	20240822	First Phosphate Corp.	Active	56.39
2572764	20200717	20250716	First Phosphate Corp.	Active	56.37
2590040	20201130	20251129	First Phosphate Corp.	Active	56.52
2606344	20210419	20240418	First Phosphate Corp.	Active	56.73
2658052	20220727	20250726	First Phosphate Corp.	Active	56.86
2658053	20220727	20250726	First Phosphate Corp.	Active	56.86
2658054	20220727	20250726	First Phosphate Corp.	Active	56.86
2658055	20220727	20250726	First Phosphate Corp.	Active	56.85
2658056	20220727	20250726	First Phosphate Corp.	Active	56.85
2658057	20220727	20250726	First Phosphate Corp.	Active	56.85
2658058	20220727	20250726	First Phosphate Corp.	Active	56.85
2658059	20220727	20250726	First Phosphate Corp.	Active	56.85
2658060	20220727	20250726	First Phosphate Corp.	Active	56.84
2658061	20220727	20250726	First Phosphate Corp.	Active	56.84
2658062	20220727	20250726	First Phosphate Corp.	Active	56.84
2658063	20220727	20250726	First Phosphate Corp.	Active	56.84
2658064	20220727	20250726	First Phosphate Corp.	Active	56.84
2658065	20220727	20250726	First Phosphate Corp.	Active	56.83
2658066	20220727	20250726	First Phosphate Corp.	Active	56.83
2658067	20220727	20250726	First Phosphate Corp.	Active	56.83
2658068	20220727	20250726	First Phosphate Corp.	Active	56.83
2658069	20220727	20250726	First Phosphate Corp.	Active	56.83
2658070	20220727	20250726	First Phosphate Corp.	Active	56.82
2658071	20220727	20250726	First Phosphate Corp.	Active	56.82
2658072	20220727	20250726	First Phosphate Corp.	Active	56.82
2658073	20220727	20250726	First Phosphate Corp.	Active	56.82
2658074	20220727	20250726	First Phosphate Corp.	Active	56.82
2658075	20220727	20250726	First Phosphate Corp.	Active	56.81
2658076	20220727	20250726	First Phosphate Corp.	Active	56.81
2658077	20220727	20250726	First Phosphate Corp.	Active	56.81

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2658078	20220727	20250726	First Phosphate Corp.	Active	56.81
2658079	20220727	20250726	First Phosphate Corp.	Active	56.81
2658080	20220727	20250726	First Phosphate Corp.	Active	56.81
2658081	20220727	20250726	First Phosphate Corp.	Active	56.80
2658082	20220727	20250726	First Phosphate Corp.	Active	56.80
2658083	20220727	20250726	First Phosphate Corp.	Active	56.80
2658084	20220727	20250726	First Phosphate Corp.	Active	56.79
2658085	20220727	20250726	First Phosphate Corp.	Active	56.79
2658086	20220727	20250726	First Phosphate Corp.	Active	56.78
2658087	20220727	20250726	First Phosphate Corp.	Active	56.78
2658088	20220727	20250726	First Phosphate Corp.	Active	56.77
2658181	20220727	20250726	First Phosphate Corp.	Active	56.76
2658182	20220727	20250726	First Phosphate Corp.	Active	56.76
2658183	20220727	20250726	First Phosphate Corp.	Active	56.75
2658184	20220727	20250726	First Phosphate Corp.	Active	56.74
2658185	20220727	20250726	First Phosphate Corp.	Active	56.74
2658186	20220727	20250726	First Phosphate Corp.	Active	56.74
2658187	20220727	20250726	First Phosphate Corp.	Active	56.73
2658188	20220727	20250726	First Phosphate Corp.	Active	56.72
2651127	20220531	20250530	First Phosphate Corp.	Active	56.55
2651128	20220531	20250530	First Phosphate Corp.	Active	56.55
2651129	20220531	20250530	First Phosphate Corp.	Active	56.54
2651130	20220531	20250530	First Phosphate Corp.	Active	56.54
2651131	20220531	20250530	First Phosphate Corp.	Active	56.53
2651132	20220531	20250530	First Phosphate Corp.	Active	56.53
2651133	20220531	20250530	First Phosphate Corp.	Active	56.53
2651134	20220531	20250530	First Phosphate Corp.	Active	56.53
2651135	20220531	20250530	First Phosphate Corp.	Active	56.60
2651136	20220531	20250530	First Phosphate Corp.	Active	56.60
2651137	20220531	20250530	First Phosphate Corp.	Active	56.60
2651138	20220531	20250530	First Phosphate Corp.	Active	56.60
2651139	20220531	20250530	First Phosphate Corp.	Active	56.60
2651140	20220531	20250530	First Phosphate Corp.	Active	56.59
2651141	20220531	20250530	First Phosphate Corp.	Active	56.59
2651142	20220531	20250530	First Phosphate Corp.	Active	56.59
2651143	20220531	20250530	First Phosphate Corp.	Active	56.59
2651144	20220531	20250530	First Phosphate Corp.	Active	56.59
2651145	20220531	20250530	First Phosphate Corp.	Active	56.59
2651146	20220531	20250530	First Phosphate Corp.	Active	56.59

TABLE APPENDIX H.1 LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]					
Claim ID	**Registration**	**Expiry Date**	**Ownership (100%)**	**Status**	**Area (ha)**
2651147	20220531	20250530	First Phosphate Corp.	Active	56.59
2651148	20220531	20250530	First Phosphate Corp.	Active	56.59
2651149	20220531	20250530	First Phosphate Corp.	Active	56.59
2651150	20220531	20250530	First Phosphate Corp.	Active	56.59
2651151	20220531	20250530	First Phosphate Corp.	Active	56.59
2651152	20220531	20250530	First Phosphate Corp.	Active	56.58
2651153	20220531	20250530	First Phosphate Corp.	Active	56.58
2651154	20220531	20250530	First Phosphate Corp.	Active	56.58
2651155	20220531	20250530	First Phosphate Corp.	Active	56.58
2651156	20220531	20250530	First Phosphate Corp.	Active	56.58
2651157	20220531	20250530	First Phosphate Corp.	Active	56.58
2651158	20220531	20250530	First Phosphate Corp.	Active	56.58
2651159	20220531	20250530	First Phosphate Corp.	Active	56.58
2651160	20220531	20250530	First Phosphate Corp.	Active	56.58
2651161	20220531	20250530	First Phosphate Corp.	Active	56.58
2651162	20220531	20250530	First Phosphate Corp.	Active	56.58
2651163	20220531	20250530	First Phosphate Corp.	Active	56.57
2651164	20220531	20250530	First Phosphate Corp.	Active	56.57
2651165	20220531	20250530	First Phosphate Corp.	Active	56.57
2651166	20220531	20250530	First Phosphate Corp.	Active	56.57
2651167	20220531	20250530	First Phosphate Corp.	Active	56.57
2651168	20220531	20250530	First Phosphate Corp.	Active	56.56
2651169	20220531	20250530	First Phosphate Corp.	Active	56.56
2651170	20220531	20250530	First Phosphate Corp.	Active	56.56
2651171	20220531	20250530	First Phosphate Corp.	Active	56.56
2651172	20220531	20250530	First Phosphate Corp.	Active	56.56
2651173	20220531	20250530	First Phosphate Corp.	Active	56.55
2651174	20220531	20250530	First Phosphate Corp.	Active	56.54
2651175	20220531	20250530	First Phosphate Corp.	Active	56.49
2651176	20220531	20250530	First Phosphate Corp.	Active	56.48
2651177	20220531	20250530	First Phosphate Corp.	Active	56.48
2651178	20220531	20250530	First Phosphate Corp.	Active	56.45
2651179	20220531	20250530	First Phosphate Corp.	Active	56.45
2651180	20220531	20250530	First Phosphate Corp.	Active	56.45
2651181	20220531	20250530	First Phosphate Corp.	Active	56.44
2651182	20220531	20250530	First Phosphate Corp.	Active	56.43
2651183	20220531	20250530	First Phosphate Corp.	Active	56.42
2651184	20220531	20250530	First Phosphate Corp.	Active	56.42
2651185	20220531	20250530	First Phosphate Corp.	Active	56.42

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2651186	20220531	20250530	First Phosphate Corp.	Active	56.42
2651187	20220531	20250530	First Phosphate Corp.	Active	56.41
2651188	20220531	20250530	First Phosphate Corp.	Active	56.41
2651189	20220531	20250530	First Phosphate Corp.	Active	56.4
2651190	20220531	20250530	First Phosphate Corp.	Active	56.4
2651191	20220531	20250530	First Phosphate Corp.	Active	56.4
2651192	20220531	20250530	First Phosphate Corp.	Active	56.39
2651193	20220531	20250530	First Phosphate Corp.	Active	56.39
2651194	20220531	20250530	First Phosphate Corp.	Active	56.39
2651195	20220531	20250530	First Phosphate Corp.	Active	56.38
2651196	20220531	20250530	First Phosphate Corp.	Active	56.38
2651197	20220531	20250530	First Phosphate Corp.	Active	56.38
2651198	20220531	20250530	First Phosphate Corp.	Active	56.37
2651199	20220531	20250530	First Phosphate Corp.	Active	56.37
2651200	20220531	20250530	First Phosphate Corp.	Active	56.37
2651201	20220531	20250530	First Phosphate Corp.	Active	56.37
2651202	20220531	20250530	First Phosphate Corp.	Active	56.36
2651203	20220531	20250530	First Phosphate Corp.	Active	56.35
2651204	20220531	20250530	First Phosphate Corp.	Active	56.35
2651205	20220531	20250530	First Phosphate Corp.	Active	56.34
2651206	20220531	20250530	First Phosphate Corp.	Active	56.33
2651207	20220531	20250530	First Phosphate Corp.	Active	56.32
2651208	20220531	20250530	First Phosphate Corp.	Active	56.32
2651209	20220531	20250530	First Phosphate Corp.	Active	56.32
2651210	20220531	20250530	First Phosphate Corp.	Active	56.32
2651211	20220531	20250530	First Phosphate Corp.	Active	56.43
2651212	20220531	20250530	First Phosphate Corp.	Active	56.42
2651213	20220531	20250530	First Phosphate Corp.	Active	56.41
2651214	20220531	20250530	First Phosphate Corp.	Active	56.4
2651215	20220531	20250530	First Phosphate Corp.	Active	56.4
2651216	20220531	20250530	First Phosphate Corp.	Active	56.4
2651217	20220531	20250530	First Phosphate Corp.	Active	56.32
2651218	20220531	20250530	First Phosphate Corp.	Active	56.32
2651219	20220531	20250530	First Phosphate Corp.	Active	56.32
2651220	20220531	20250530	First Phosphate Corp.	Active	56.32
2651221	20220531	20250530	First Phosphate Corp.	Active	56.32
2651222	20220531	20250530	First Phosphate Corp.	Active	56.32
2651223	20220531	20250530	First Phosphate Corp.	Active	56.32
2651224	20220531	20250530	First Phosphate Corp.	Active	56.32

TABLE APPENDIX H.1 LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]					
Claim ID	**Registration**	**Expiry Date**	**Ownership (100%)**	**Status**	**Area (ha)**
2651225	20220531	20250530	First Phosphate Corp.	Active	56.32
2651226	20220531	20250530	First Phosphate Corp.	Active	56.32
2651227	20220531	20250530	First Phosphate Corp.	Active	56.32
2651228	20220531	20250530	First Phosphate Corp.	Active	56.32
2660512	20220817	20250816	First Phosphate Corp.	Active	56.75
2651644	20220601	20250531	First Phosphate Corp.	Active	56.6
2651645	20220601	20250531	First Phosphate Corp.	Active	56.6
2651646	20220601	20250531	First Phosphate Corp.	Active	56.6
2651647	20220601	20250531	First Phosphate Corp.	Active	56.6
2651648	20220601	20250531	First Phosphate Corp.	Active	56.6
2651649	20220601	20250531	First Phosphate Corp.	Active	56.6
2651650	20220601	20250531	First Phosphate Corp.	Active	56.6
2651651	20220601	20250531	First Phosphate Corp.	Active	56.59
2651652	20220601	20250531	First Phosphate Corp.	Active	56.59
2651653	20220601	20250531	First Phosphate Corp.	Active	56.59
2651654	20220601	20250531	First Phosphate Corp.	Active	56.58
2651655	20220601	20250531	First Phosphate Corp.	Active	56.58
2651656	20220601	20250531	First Phosphate Corp.	Active	56.58
2651657	20220601	20250531	First Phosphate Corp.	Active	56.58
2651658	20220601	20250531	First Phosphate Corp.	Active	56.58
2651659	20220601	20250531	First Phosphate Corp.	Active	56.58
2651660	20220601	20250531	First Phosphate Corp.	Active	56.57
2651661	20220601	20250531	First Phosphate Corp.	Active	56.57
2651662	20220601	20250531	First Phosphate Corp.	Active	56.57
2651663	20220601	20250531	First Phosphate Corp.	Active	56.56
2651664	20220601	20250531	First Phosphate Corp.	Active	56.56
2651665	20220601	20250531	First Phosphate Corp.	Active	56.56
2651666	20220601	20250531	First Phosphate Corp.	Active	56.55
2651667	20220601	20250531	First Phosphate Corp.	Active	56.55
2651668	20220601	20250531	First Phosphate Corp.	Active	56.55
2651669	20220601	20250531	First Phosphate Corp.	Active	56.54
2651670	20220601	20250531	First Phosphate Corp.	Active	56.54
2651671	20220601	20250531	First Phosphate Corp.	Active	56.53
2651672	20220601	20250531	First Phosphate Corp.	Active	56.52
2651673	20220601	20250531	First Phosphate Corp.	Active	56.51
2651674	20220601	20250531	First Phosphate Corp.	Active	56.51
2651675	20220601	20250531	First Phosphate Corp.	Active	56.51
2651676	20220601	20250531	First Phosphate Corp.	Active	56.51
2651677	20220601	20250531	First Phosphate Corp.	Active	56.5

Table Appendix H.1 Lac à l'Orignal Property CDC Claims Information [1,2]					
Claim ID	**Registration**	**Expiry Date**	**Ownership (100%)**	**Status**	**Area (ha)**
2651678	20220601	20250531	First Phosphate Corp.	Active	56.5
2651679	20220601	20250531	First Phosphate Corp.	Active	56.5
2651680	20220601	20250531	First Phosphate Corp.	Active	56.5
2651681	20220601	20250531	First Phosphate Corp.	Active	56.49
2651682	20220601	20250531	First Phosphate Corp.	Active	56.49
2651683	20220601	20250531	First Phosphate Corp.	Active	56.49
2651684	20220601	20250531	First Phosphate Corp.	Active	56.46
2651685	20220601	20250531	First Phosphate Corp.	Active	56.46
2651686	20220601	20250531	First Phosphate Corp.	Active	56.46
2651687	20220601	20250531	First Phosphate Corp.	Active	56.46
2651688	20220601	20250531	First Phosphate Corp.	Active	56.42
2651689	20220601	20250531	First Phosphate Corp.	Active	56.41
2651690	20220601	20250531	First Phosphate Corp.	Active	56.41
2651691	20220601	20250531	First Phosphate Corp.	Active	56.4
2651692	20220601	20250531	First Phosphate Corp.	Active	56.4
2651693	20220601	20250531	First Phosphate Corp.	Active	56.4
2651694	20220601	20250531	First Phosphate Corp.	Active	56.39
2651695	20220601	20250531	First Phosphate Corp.	Active	56.39
2651696	20220601	20250531	First Phosphate Corp.	Active	56.39
2651697	20220601	20250531	First Phosphate Corp.	Active	56.38
2651698	20220601	20250531	First Phosphate Corp.	Active	56.38
2651699	20220601	20250531	First Phosphate Corp.	Active	56.38
2651700	20220601	20250531	First Phosphate Corp.	Active	56.37
2651701	20220601	20250531	First Phosphate Corp.	Active	56.36
2651702	20220601	20250531	First Phosphate Corp.	Active	56.36
2651703	20220601	20250531	First Phosphate Corp.	Active	56.36
2651704	20220601	20250531	First Phosphate Corp.	Active	56.33
2651705	20220601	20250531	First Phosphate Corp.	Active	56.33
2651706	20220601	20250531	First Phosphate Corp.	Active	56.32
2651707	20220601	20250531	First Phosphate Corp.	Active	56.32
2651708	20220601	20250531	First Phosphate Corp.	Active	56.31
2651709	20220601	20250531	First Phosphate Corp.	Active	56.31
2651710	20220601	20250531	First Phosphate Corp.	Active	56.31
2651711	20220601	20250531	First Phosphate Corp.	Active	56.31
2651712	20220601	20250531	First Phosphate Corp.	Active	56.31
2651713	20220601	20250531	First Phosphate Corp.	Active	56.31
2651714	20220601	20250531	First Phosphate Corp.	Active	56.3
2651715	20220601	20250531	First Phosphate Corp.	Active	56.3
2651716	20220601	20250531	First Phosphate Corp.	Active	56.3

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2651717	20220601	20250531	First Phosphate Corp.	Active	56.3
2651718	20220601	20250531	First Phosphate Corp.	Active	56.3
2651719	20220601	20250531	First Phosphate Corp.	Active	56.32
2651720	20220601	20250531	First Phosphate Corp.	Active	56.31
2651721	20220601	20250531	First Phosphate Corp.	Active	56.31
2651722	20220601	20250531	First Phosphate Corp.	Active	56.31
2651723	20220601	20250531	First Phosphate Corp.	Active	56.31
2651724	20220601	20250531	First Phosphate Corp.	Active	56.31
2651725	20220601	20250531	First Phosphate Corp.	Active	56.31
2651726	20220601	20250531	First Phosphate Corp.	Active	56.31
2651727	20220601	20250531	First Phosphate Corp.	Active	56.31
2651728	20220601	20250531	First Phosphate Corp.	Active	56.31
2651729	20220601	20250531	First Phosphate Corp.	Active	56.31
2651730	20220601	20250531	First Phosphate Corp.	Active	56.31
2651731	20220601	20250531	First Phosphate Corp.	Active	56.31
2651732	20220601	20250531	First Phosphate Corp.	Active	56.31
2651733	20220601	20250531	First Phosphate Corp.	Active	56.3
2651734	20220601	20250531	First Phosphate Corp.	Active	56.3
2651735	20220601	20250531	First Phosphate Corp.	Active	56.3
2651736	20220601	20250531	First Phosphate Corp.	Active	56.3
2651737	20220601	20250531	First Phosphate Corp.	Active	56.3
2651738	20220601	20250531	First Phosphate Corp.	Active	56.3
2651739	20220601	20250531	First Phosphate Corp.	Active	56.3
2651740	20220601	20250531	First Phosphate Corp.	Active	56.3
2651741	20220601	20250531	First Phosphate Corp.	Active	56.3
2651742	20220601	20250531	First Phosphate Corp.	Active	56.3
2651743	20220601	20250531	First Phosphate Corp.	Active	56.3
2651744	20220601	20250531	First Phosphate Corp.	Active	56.3
2651745	20220601	20250531	First Phosphate Corp.	Active	56.3
2652079	20220603	20250602	First Phosphate Corp.	Active	56.57
2652080	20220603	20250602	First Phosphate Corp.	Active	56.57
2652081	20220603	20250602	First Phosphate Corp.	Active	56.57
2652082	20220603	20250602	First Phosphate Corp.	Active	56.57
2652083	20220603	20250602	First Phosphate Corp.	Active	56.57
2652084	20220603	20250602	First Phosphate Corp.	Active	56.57
2652085	20220603	20250602	First Phosphate Corp.	Active	56.57
2652086	20220603	20250602	First Phosphate Corp.	Active	56.56
2652087	20220603	20250602	First Phosphate Corp.	Active	56.56
2652088	20220603	20250602	First Phosphate Corp.	Active	56.56

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2652089	20220603	20250602	First Phosphate Corp.	Active	56.56
2652090	20220603	20250602	First Phosphate Corp.	Active	56.56
2652091	20220603	20250602	First Phosphate Corp.	Active	56.56
2652092	20220603	20250602	First Phosphate Corp.	Active	56.56
2652093	20220603	20250602	First Phosphate Corp.	Active	56.55
2652094	20220603	20250602	First Phosphate Corp.	Active	56.55
2652095	20220603	20250602	First Phosphate Corp.	Active	56.55
2652096	20220603	20250602	First Phosphate Corp.	Active	56.54
2652097	20220603	20250602	First Phosphate Corp.	Active	56.54
2652098	20220603	20250602	First Phosphate Corp.	Active	56.54
2652099	20220603	20250602	First Phosphate Corp.	Active	56.53
2652100	20220603	20250602	First Phosphate Corp.	Active	56.53
2652101	20220603	20250602	First Phosphate Corp.	Active	56.53
2652102	20220603	20250602	First Phosphate Corp.	Active	56.52
2652103	20220603	20250602	First Phosphate Corp.	Active	56.52
2652104	20220603	20250602	First Phosphate Corp.	Active	56.52
2652105	20220603	20250602	First Phosphate Corp.	Active	56.46
2652106	20220603	20250602	First Phosphate Corp.	Active	56.46
2652107	20220603	20250602	First Phosphate Corp.	Active	56.45
2652108	20220603	20250602	First Phosphate Corp.	Active	56.45
2652109	20220603	20250602	First Phosphate Corp.	Active	56.44
2652110	20220603	20250602	First Phosphate Corp.	Active	56.44
2652111	20220603	20250602	First Phosphate Corp.	Active	56.43
2652112	20220603	20250602	First Phosphate Corp.	Active	56.43
2652113	20220603	20250602	First Phosphate Corp.	Active	56.42
2652114	20220603	20250602	First Phosphate Corp.	Active	56.42
2652115	20220603	20250602	First Phosphate Corp.	Active	56.41
2652116	20220603	20250602	First Phosphate Corp.	Active	56.41
2652117	20220603	20250602	First Phosphate Corp.	Active	56.4
2652118	20220603	20250602	First Phosphate Corp.	Active	56.4
2652119	20220603	20250602	First Phosphate Corp.	Active	56.39
2652120	20220603	20250602	First Phosphate Corp.	Active	56.39
2652121	20220603	20250602	First Phosphate Corp.	Active	56.38
2652122	20220603	20250602	First Phosphate Corp.	Active	56.38
2652123	20220603	20250602	First Phosphate Corp.	Active	56.37
2652124	20220603	20250602	First Phosphate Corp.	Active	56.37
2652125	20220603	20250602	First Phosphate Corp.	Active	56.36
2652126	20220603	20250602	First Phosphate Corp.	Active	56.35
2652127	20220603	20250602	First Phosphate Corp.	Active	56.34

TABLE APPENDIX H.1 LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]					
Claim ID	**Registration**	**Expiry Date**	**Ownership (100%)**	**Status**	**Area (ha)**
2652128	20220603	20250602	First Phosphate Corp.	Active	56.34
2652129	20220603	20250602	First Phosphate Corp.	Active	56.43
2652130	20220603	20250602	First Phosphate Corp.	Active	56.43
2652131	20220603	20250602	First Phosphate Corp.	Active	56.43
2652132	20220603	20250602	First Phosphate Corp.	Active	56.43
2652133	20220603	20250602	First Phosphate Corp.	Active	56.43
2652134	20220603	20250602	First Phosphate Corp.	Active	56.43
2652135	20220603	20250602	First Phosphate Corp.	Active	56.43
2652136	20220603	20250602	First Phosphate Corp.	Active	56.43
2652137	20220603	20250602	First Phosphate Corp.	Active	56.43
2652138	20220603	20250602	First Phosphate Corp.	Active	56.42
2652139	20220603	20250602	First Phosphate Corp.	Active	56.42
2652140	20220603	20250602	First Phosphate Corp.	Active	56.42
2652141	20220603	20250602	First Phosphate Corp.	Active	56.42
2652142	20220603	20250602	First Phosphate Corp.	Active	56.42
2652143	20220603	20250602	First Phosphate Corp.	Active	56.42
2652144	20220603	20250602	First Phosphate Corp.	Active	56.42
2652145	20220603	20250602	First Phosphate Corp.	Active	56.42
2652146	20220603	20250602	First Phosphate Corp.	Active	56.42
2660148	20220812	20250811	First Phosphate Corp.	Active	56.96
2660149	20220812	20250811	First Phosphate Corp.	Active	56.95
2660150	20220812	20250811	First Phosphate Corp.	Active	56.94
2660151	20220812	20250811	First Phosphate Corp.	Active	56.93
2660152	20220812	20250811	First Phosphate Corp.	Active	56.93
2660153	20220812	20250811	First Phosphate Corp.	Active	56.92
2660154	20220812	20250811	First Phosphate Corp.	Active	56.91
2660155	20220812	20250811	First Phosphate Corp.	Active	56.9
2660156	20220812	20250811	First Phosphate Corp.	Active	56.89
2660157	20220812	20250811	First Phosphate Corp.	Active	56.83
2660158	20220812	20250811	First Phosphate Corp.	Active	56.83
2660159	20220812	20250811	First Phosphate Corp.	Active	56.82
2660160	20220812	20250811	First Phosphate Corp.	Active	56.82
2660161	20220812	20250811	First Phosphate Corp.	Active	56.82
2660162	20220812	20250811	First Phosphate Corp.	Active	56.82
2660163	20220812	20250811	First Phosphate Corp.	Active	56.81
2660164	20220812	20250811	First Phosphate Corp.	Active	56.81
2660165	20220812	20250811	First Phosphate Corp.	Active	56.8
2660166	20220812	20250811	First Phosphate Corp.	Active	56.8
2660167	20220812	20250811	First Phosphate Corp.	Active	56.79

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION (1,2)

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2660168	20220812	20250811	First Phosphate Corp.	Active	56.73
2660169	20220812	20250811	First Phosphate Corp.	Active	56.72
2772444	20230613	20260612	First Phosphate Corp.	Active	56.39
2660452	20220816	20250815	First Phosphate Corp.	Active	56.74
2660453	20220816	20250815	First Phosphate Corp.	Active	56.73
2645445	20220413	20250412	First Phosphate Corp.	Active	56.72
2772445	20230613	20260612	First Phosphate Corp.	Active	56.39
2772446	20230613	20260612	First Phosphate Corp.	Active	56.39
2772447	20230613	20260612	First Phosphate Corp.	Active	56.39
2772448	20230613	20260612	First Phosphate Corp.	Active	56.38
2772449	20230613	20260612	First Phosphate Corp.	Active	56.38
2772450	20230613	20260612	First Phosphate Corp.	Active	56.38
2772451	20230613	20260612	First Phosphate Corp.	Active	56.38
2772452	20230613	20260612	First Phosphate Corp.	Active	56.38
2772453	20230613	20260612	First Phosphate Corp.	Active	56.38
2772454	20230613	20260612	First Phosphate Corp.	Active	56.38
2772455	20230613	20260612	First Phosphate Corp.	Active	56.37
2772456	20230613	20260612	First Phosphate Corp.	Active	56.37
2772457	20230613	20260612	First Phosphate Corp.	Active	56.37
2772458	20230613	20260612	First Phosphate Corp.	Active	56.37
2772459	20230613	20260612	First Phosphate Corp.	Active	56.37
2772460	20230613	20260612	First Phosphate Corp.	Active	56.37
2772461	20230613	20260612	First Phosphate Corp.	Active	56.36
2772462	20230613	20260612	First Phosphate Corp.	Active	56.36
2772463	20230613	20260612	First Phosphate Corp.	Active	56.36
2772464	20230613	20260612	First Phosphate Corp.	Active	56.36
2772465	20230613	20260612	First Phosphate Corp.	Active	56.36
2772466	20230613	20260612	First Phosphate Corp.	Active	56.35
2772467	20230613	20260612	First Phosphate Corp.	Active	56.35
2772468	20230613	20260612	First Phosphate Corp.	Active	56.35
2772469	20230613	20260612	First Phosphate Corp.	Active	56.35
2772470	20230613	20260612	First Phosphate Corp.	Active	56.35
2659534	20220803	20250802	First Phosphate Corp.	Active	56.62
2659535	20220803	20250802	First Phosphate Corp.	Active	56.62
2659536	20220803	20250802	First Phosphate Corp.	Active	56.62
2659537	20220803	20250802	First Phosphate Corp.	Active	56.61
2659538	20220803	20250802	First Phosphate Corp.	Active	56.61
2659539	20220803	20250802	First Phosphate Corp.	Active	56.61
2659540	20220803	20250802	First Phosphate Corp.	Active	56.61

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2659541	20220803	20250802	First Phosphate Corp.	Active	56.6
2659542	20220803	20250802	First Phosphate Corp.	Active	56.6
2659543	20220803	20250802	First Phosphate Corp.	Active	56.6
2659544	20220803	20250802	First Phosphate Corp.	Active	56.6
2659545	20220803	20250802	First Phosphate Corp.	Active	56.59
2659546	20220803	20250802	First Phosphate Corp.	Active	56.59
2659547	20220803	20250802	First Phosphate Corp.	Active	56.59
2650684	20220530	20250529	First Phosphate Corp.	Active	56.55
2650685	20220530	20250529	First Phosphate Corp.	Active	56.55
2650686	20220530	20250529	First Phosphate Corp.	Active	56.54
2650687	20220530	20250529	First Phosphate Corp.	Active	56.54
2650688	20220530	20250529	First Phosphate Corp.	Active	56.54
2650689	20220530	20250529	First Phosphate Corp.	Active	56.53
2650690	20220530	20250529	First Phosphate Corp.	Active	56.58
2650691	20220530	20250529	First Phosphate Corp.	Active	56.58
2650692	20220530	20250529	First Phosphate Corp.	Active	56.58
2650693	20220530	20250529	First Phosphate Corp.	Active	56.57
2650694	20220530	20250529	First Phosphate Corp.	Active	56.57
2650695	20220530	20250529	First Phosphate Corp.	Active	56.57
2650696	20220530	20250529	First Phosphate Corp.	Active	56.57
2650697	20220530	20250529	First Phosphate Corp.	Active	56.57
2650698	20220530	20250529	First Phosphate Corp.	Active	56.57
2650699	20220530	20250529	First Phosphate Corp.	Active	56.57
2650700	20220530	20250529	First Phosphate Corp.	Active	56.57
2650701	20220530	20250529	First Phosphate Corp.	Active	56.56
2650702	20220530	20250529	First Phosphate Corp.	Active	56.56
2650703	20220530	20250529	First Phosphate Corp.	Active	56.56
2650704	20220530	20250529	First Phosphate Corp.	Active	56.56
2650705	20220530	20250529	First Phosphate Corp.	Active	56.55
2650706	20220530	20250529	First Phosphate Corp.	Active	56.55
2650707	20220530	20250529	First Phosphate Corp.	Active	56.55
2650708	20220530	20250529	First Phosphate Corp.	Active	56.55
2650709	20220530	20250529	First Phosphate Corp.	Active	56.55
2650710	20220530	20250529	First Phosphate Corp.	Active	56.55
2650711	20220530	20250529	First Phosphate Corp.	Active	56.54
2650712	20220530	20250529	First Phosphate Corp.	Active	56.54
2650713	20220530	20250529	First Phosphate Corp.	Active	56.54
2650714	20220530	20250529	First Phosphate Corp.	Active	56.54
2650715	20220530	20250529	First Phosphate Corp.	Active	56.54

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2650716	20220530	20250529	First Phosphate Corp.	Active	56.54
2650717	20220530	20250529	First Phosphate Corp.	Active	56.54
2650718	20220530	20250529	First Phosphate Corp.	Active	56.53
2650719	20220530	20250529	First Phosphate Corp.	Active	56.53
2650720	20220530	20250529	First Phosphate Corp.	Active	56.53
2650721	20220530	20250529	First Phosphate Corp.	Active	56.53
2650722	20220530	20250529	First Phosphate Corp.	Active	56.52
2650723	20220530	20250529	First Phosphate Corp.	Active	56.52
2650724	20220530	20250529	First Phosphate Corp.	Active	56.52
2650725	20220530	20250529	First Phosphate Corp.	Active	56.52
2650726	20220530	20250529	First Phosphate Corp.	Active	56.51
2650727	20220530	20250529	First Phosphate Corp.	Active	56.51
2650728	20220530	20250529	First Phosphate Corp.	Active	56.5
2650729	20220530	20250529	First Phosphate Corp.	Active	56.5
2650730	20220530	20250529	First Phosphate Corp.	Active	56.55
2650731	20220530	20250529	First Phosphate Corp.	Active	56.55
2650732	20220530	20250529	First Phosphate Corp.	Active	56.55
2650733	20220530	20250529	First Phosphate Corp.	Active	56.54
2650734	20220530	20250529	First Phosphate Corp.	Active	56.54
2650735	20220530	20250529	First Phosphate Corp.	Active	56.54
2650736	20220530	20250529	First Phosphate Corp.	Active	56.53
2650737	20220530	20250529	First Phosphate Corp.	Active	56.53
2650738	20220530	20250529	First Phosphate Corp.	Active	56.53
2650739	20220530	20250529	First Phosphate Corp.	Active	56.53
2650740	20220530	20250529	First Phosphate Corp.	Active	56.52
2650741	20220530	20250529	First Phosphate Corp.	Active	56.52
2650742	20220530	20250529	First Phosphate Corp.	Active	56.52
2650743	20220530	20250529	First Phosphate Corp.	Active	56.52
2650744	20220530	20250529	First Phosphate Corp.	Active	56.52
2650745	20220530	20250529	First Phosphate Corp.	Active	56.51
2650746	20220530	20250529	First Phosphate Corp.	Active	56.51
2650747	20220530	20250529	First Phosphate Corp.	Active	56.51
2650748	20220530	20250529	First Phosphate Corp.	Active	56.51
2650749	20220530	20250529	First Phosphate Corp.	Active	56.51
2650750	20220530	20250529	First Phosphate Corp.	Active	56.5
2650751	20220530	20250529	First Phosphate Corp.	Active	56.5
2650752	20220530	20250529	First Phosphate Corp.	Active	56.5
2650753	20220530	20250529	First Phosphate Corp.	Active	56.5
2650754	20220530	20250529	First Phosphate Corp.	Active	56.49

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2650755	20220530	20250529	First Phosphate Corp.	Active	56.49
2650756	20220530	20250529	First Phosphate Corp.	Active	56.49
2650757	20220530	20250529	First Phosphate Corp.	Active	56.49
2650758	20220530	20250529	First Phosphate Corp.	Active	56.49
2650759	20220530	20250529	First Phosphate Corp.	Active	56.49
2650760	20220530	20250529	First Phosphate Corp.	Active	56.49
2650761	20220530	20250529	First Phosphate Corp.	Active	56.49
2650762	20220530	20250529	First Phosphate Corp.	Active	56.49
2650763	20220530	20250529	First Phosphate Corp.	Active	56.48
2650764	20220530	20250529	First Phosphate Corp.	Active	56.48
2650765	20220530	20250529	First Phosphate Corp.	Active	56.48
2650766	20220530	20250529	First Phosphate Corp.	Active	56.48
2650767	20220530	20250529	First Phosphate Corp.	Active	56.48
2650768	20220530	20250529	First Phosphate Corp.	Active	56.48
2650769	20220530	20250529	First Phosphate Corp.	Active	56.48
2650770	20220530	20250529	First Phosphate Corp.	Active	56.48
2650771	20220530	20250529	First Phosphate Corp.	Active	56.48
2650772	20220530	20250529	First Phosphate Corp.	Active	56.47
2650773	20220530	20250529	First Phosphate Corp.	Active	56.47
2650774	20220530	20250529	First Phosphate Corp.	Active	56.47
2650775	20220530	20250529	First Phosphate Corp.	Active	56.47
2650776	20220530	20250529	First Phosphate Corp.	Active	56.47
2650777	20220530	20250529	First Phosphate Corp.	Active	56.47
2650778	20220530	20250529	First Phosphate Corp.	Active	56.47
2650779	20220530	20250529	First Phosphate Corp.	Active	56.47
2650780	20220530	20250529	First Phosphate Corp.	Active	56.46
2650781	20220530	20250529	First Phosphate Corp.	Active	56.46
2650782	20220530	20250529	First Phosphate Corp.	Active	56.46
2650783	20220530	20250529	First Phosphate Corp.	Active	56.43
2650784	20220530	20250529	First Phosphate Corp.	Active	56.43
2650785	20220530	20250529	First Phosphate Corp.	Active	56.43
2650786	20220530	20250529	First Phosphate Corp.	Active	56.43
2650787	20220530	20250529	First Phosphate Corp.	Active	56.43
2650788	20220530	20250529	First Phosphate Corp.	Active	56.43
2650789	20220530	20250529	First Phosphate Corp.	Active	56.43
2650790	20220530	20250529	First Phosphate Corp.	Active	56.43
2650791	20220530	20250529	First Phosphate Corp.	Active	56.43
2650792	20220530	20250529	First Phosphate Corp.	Active	56.43
2650793	20220530	20250529	First Phosphate Corp.	Active	56.43

TABLE APPENDIX H.1 LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]					
Claim ID	**Registration**	**Expiry Date**	**Ownership (100%)**	**Status**	**Area (ha)**
2650794	20220530	20250529	First Phosphate Corp.	Active	56.43
2650795	20220530	20250529	First Phosphate Corp.	Active	56.43
2650796	20220530	20250529	First Phosphate Corp.	Active	56.43
2650797	20220530	20250529	First Phosphate Corp.	Active	56.42
2650798	20220530	20250529	First Phosphate Corp.	Active	56.41
2650799	20220530	20250529	First Phosphate Corp.	Active	56.41
2650800	20220530	20250529	First Phosphate Corp.	Active	56.41
2650801	20220530	20250529	First Phosphate Corp.	Active	56.41
2650802	20220530	20250529	First Phosphate Corp.	Active	56.4
2650803	20220530	20250529	First Phosphate Corp.	Active	56.39
2650804	20220530	20250529	First Phosphate Corp.	Active	56.38
2650805	20220530	20250529	First Phosphate Corp.	Active	56.48
2650806	20220530	20250529	First Phosphate Corp.	Active	56.48
2650807	20220530	20250529	First Phosphate Corp.	Active	56.48
2650808	20220530	20250529	First Phosphate Corp.	Active	56.48
2650809	20220530	20250529	First Phosphate Corp.	Active	56.47
2650810	20220530	20250529	First Phosphate Corp.	Active	56.47
2650811	20220530	20250529	First Phosphate Corp.	Active	56.47
2650812	20220530	20250529	First Phosphate Corp.	Active	56.47
2650813	20220530	20250529	First Phosphate Corp.	Active	56.47
2650814	20220530	20250529	First Phosphate Corp.	Active	56.46
2650815	20220530	20250529	First Phosphate Corp.	Active	56.46
2650816	20220530	20250529	First Phosphate Corp.	Active	56.46
2650817	20220530	20250529	First Phosphate Corp.	Active	56.45
2650818	20220530	20250529	First Phosphate Corp.	Active	56.45
2650819	20220530	20250529	First Phosphate Corp.	Active	56.45
2650820	20220530	20250529	First Phosphate Corp.	Active	56.45
2650821	20220530	20250529	First Phosphate Corp.	Active	56.44
2650822	20220530	20250529	First Phosphate Corp.	Active	56.44
2650823	20220530	20250529	First Phosphate Corp.	Active	56.44
2650837	20220530	20250529	First Phosphate Corp.	Active	56.43
2650904	20220530	20250529	First Phosphate Corp.	Active	56.42
2650905	20220530	20250529	First Phosphate Corp.	Active	56.35
2650906	20220530	20250529	First Phosphate Corp.	Active	56.34
2650907	20220530	20250529	First Phosphate Corp.	Active	56.34
2650908	20220530	20250529	First Phosphate Corp.	Active	56.34
2650909	20220530	20250529	First Phosphate Corp.	Active	56.34
2650910	20220530	20250529	First Phosphate Corp.	Active	56.34
2650911	20220530	20250529	First Phosphate Corp.	Active	56.33

Table Appendix H.1 Lac à l'Orignal Property CDC Claims Information [1,2]					
Claim ID	**Registration**	**Expiry Date**	**Ownership (100%)**	**Status**	**Area (ha)**
2650912	20220530	20250529	First Phosphate Corp.	Active	56.33
2650913	20220530	20250529	First Phosphate Corp.	Active	56.33
2650914	20220530	20250529	First Phosphate Corp.	Active	56.33
2650915	20220530	20250529	First Phosphate Corp.	Active	56.33
2650916	20220530	20250529	First Phosphate Corp.	Active	56.33
2650917	20220530	20250529	First Phosphate Corp.	Active	56.33
2650918	20220530	20250529	First Phosphate Corp.	Active	56.33
2650919	20220530	20250529	First Phosphate Corp.	Active	56.33
2650920	20220530	20250529	First Phosphate Corp.	Active	56.33
2650921	20220530	20250529	First Phosphate Corp.	Active	56.33
2650922	20220530	20250529	First Phosphate Corp.	Active	56.33
2650923	20220530	20250529	First Phosphate Corp.	Active	56.33
2651921	20220602	20250601	First Phosphate Corp.	Active	56.6
2651922	20220602	20250601	First Phosphate Corp.	Active	56.6
2651923	20220602	20250601	First Phosphate Corp.	Active	56.6
2651924	20220602	20250601	First Phosphate Corp.	Active	56.6
2651925	20220602	20250601	First Phosphate Corp.	Active	56.6
2651926	20220602	20250601	First Phosphate Corp.	Active	56.6
2651927	20220602	20250601	First Phosphate Corp.	Active	56.59
2651928	20220602	20250601	First Phosphate Corp.	Active	56.59
2651929	20220602	20250601	First Phosphate Corp.	Active	56.59
2651930	20220602	20250601	First Phosphate Corp.	Active	56.59
2651931	20220602	20250601	First Phosphate Corp.	Active	56.59
2651932	20220602	20250601	First Phosphate Corp.	Active	56.58
2651933	20220602	20250601	First Phosphate Corp.	Active	56.58
2651934	20220602	20250601	First Phosphate Corp.	Active	56.58
2651935	20220602	20250601	First Phosphate Corp.	Active	56.58
2651936	20220602	20250601	First Phosphate Corp.	Active	56.57
2651937	20220602	20250601	First Phosphate Corp.	Active	56.57
2651938	20220602	20250601	First Phosphate Corp.	Active	56.57
2651939	20220602	20250601	First Phosphate Corp.	Active	56.57
2651940	20220602	20250601	First Phosphate Corp.	Active	56.57
2651941	20220602	20250601	First Phosphate Corp.	Active	56.57
2651942	20220602	20250601	First Phosphate Corp.	Active	56.57
2651943	20220602	20250601	First Phosphate Corp.	Active	56.56
2651944	20220602	20250601	First Phosphate Corp.	Active	56.56
2651945	20220602	20250601	First Phosphate Corp.	Active	56.56
2651946	20220602	20250601	First Phosphate Corp.	Active	56.56
2651947	20220602	20250601	First Phosphate Corp.	Active	56.56

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2651948	20220602	20250601	First Phosphate Corp.	Active	56.55
2651949	20220602	20250601	First Phosphate Corp.	Active	56.52
2651950	20220602	20250601	First Phosphate Corp.	Active	56.51
2651951	20220602	20250601	First Phosphate Corp.	Active	56.51
2651952	20220602	20250601	First Phosphate Corp.	Active	56.5
2651953	20220602	20250601	First Phosphate Corp.	Active	56.5
2651954	20220602	20250601	First Phosphate Corp.	Active	56.5
2651955	20220602	20250601	First Phosphate Corp.	Active	56.49
2651956	20220602	20250601	First Phosphate Corp.	Active	56.56
2651957	20220602	20250601	First Phosphate Corp.	Active	56.54
2651958	20220602	20250601	First Phosphate Corp.	Active	56.53
2651959	20220602	20250601	First Phosphate Corp.	Active	56.36
2651960	20220602	20250601	First Phosphate Corp.	Active	56.35
2651961	20220602	20250601	First Phosphate Corp.	Active	56.34
2651962	20220602	20250601	First Phosphate Corp.	Active	56.34
2651963	20220602	20250601	First Phosphate Corp.	Active	56.33
2651964	20220602	20250601	First Phosphate Corp.	Active	56.33
2651965	20220602	20250601	First Phosphate Corp.	Active	56.33
2651966	20220602	20250601	First Phosphate Corp.	Active	56.33
2651967	20220602	20250601	First Phosphate Corp.	Active	56.33
2651968	20220602	20250601	First Phosphate Corp.	Active	56.32
2651969	20220602	20250601	First Phosphate Corp.	Active	56.32
2651970	20220602	20250601	First Phosphate Corp.	Active	56.32
2651971	20220602	20250601	First Phosphate Corp.	Active	56.32
2651972	20220602	20250601	First Phosphate Corp.	Active	56.32
2651973	20220602	20250601	First Phosphate Corp.	Active	56.32
2651974	20220602	20250601	First Phosphate Corp.	Active	56.32
2651975	20220602	20250601	First Phosphate Corp.	Active	56.32
2651976	20220602	20250601	First Phosphate Corp.	Active	56.32
2651977	20220602	20250601	First Phosphate Corp.	Active	56.32
2651978	20220602	20250601	First Phosphate Corp.	Active	56.32
2651979	20220602	20250601	First Phosphate Corp.	Active	56.31
2651980	20220602	20250601	First Phosphate Corp.	Active	56.31
2651981	20220602	20250601	First Phosphate Corp.	Active	56.31
2651982	20220602	20250601	First Phosphate Corp.	Active	56.31
2651983	20220602	20250601	First Phosphate Corp.	Active	56.31
2651984	20220602	20250601	First Phosphate Corp.	Active	56.31
2651985	20220602	20250601	First Phosphate Corp.	Active	56.31
2651986	20220602	20250601	First Phosphate Corp.	Active	56.31

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [(1,2)]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2651987	20220602	20250601	First Phosphate Corp.	Active	56.3
2651988	20220602	20250601	First Phosphate Corp.	Active	56.3
2651989	20220602	20250601	First Phosphate Corp.	Active	56.3
2651990	20220602	20250601	First Phosphate Corp.	Active	56.3
2651991	20220602	20250601	First Phosphate Corp.	Active	56.3
2651992	20220602	20250601	First Phosphate Corp.	Active	56.3
2651993	20220602	20250601	First Phosphate Corp.	Active	56.3
2651994	20220602	20250601	First Phosphate Corp.	Active	56.3
2651995	20220602	20250601	First Phosphate Corp.	Active	56.3
2651996	20220602	20250601	First Phosphate Corp.	Active	56.49
2651997	20220602	20250601	First Phosphate Corp.	Active	56.49
2651998	20220602	20250601	First Phosphate Corp.	Active	56.49
2651999	20220602	20250601	First Phosphate Corp.	Active	56.49
2652000	20220602	20250601	First Phosphate Corp.	Active	56.48
2652001	20220602	20250601	First Phosphate Corp.	Active	56.48
2652002	20220602	20250601	First Phosphate Corp.	Active	56.48
2652003	20220602	20250601	First Phosphate Corp.	Active	56.47
2652004	20220602	20250601	First Phosphate Corp.	Active	56.47
2652005	20220602	20250601	First Phosphate Corp.	Active	56.47
2652006	20220602	20250601	First Phosphate Corp.	Active	56.47
2652007	20220602	20250601	First Phosphate Corp.	Active	56.46
2652008	20220602	20250601	First Phosphate Corp.	Active	56.46
2652009	20220602	20250601	First Phosphate Corp.	Active	56.46
2652010	20220602	20250601	First Phosphate Corp.	Active	56.45
2652011	20220602	20250601	First Phosphate Corp.	Active	56.45
2652012	20220602	20250601	First Phosphate Corp.	Active	56.45
2652013	20220602	20250601	First Phosphate Corp.	Active	56.44
2652014	20220602	20250601	First Phosphate Corp.	Active	56.44
2652015	20220602	20250601	First Phosphate Corp.	Active	56.44
2652016	20220602	20250601	First Phosphate Corp.	Active	56.43
2652017	20220602	20250601	First Phosphate Corp.	Active	56.43
2652018	20220602	20250601	First Phosphate Corp.	Active	56.43
2652019	20220602	20250601	First Phosphate Corp.	Active	56.43
2652020	20220602	20250601	First Phosphate Corp.	Active	56.43
2652021	20220602	20250601	First Phosphate Corp.	Active	56.43
2652022	20220602	20250601	First Phosphate Corp.	Active	56.43
2652023	20220602	20250601	First Phosphate Corp.	Active	56.43
2652024	20220602	20250601	First Phosphate Corp.	Active	56.43
2652025	20220602	20250601	First Phosphate Corp.	Active	56.43

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2652026	20220602	20250601	First Phosphate Corp.	Active	56.42
2652027	20220602	20250601	First Phosphate Corp.	Active	56.42
2652028	20220602	20250601	First Phosphate Corp.	Active	56.42
2652029	20220602	20250601	First Phosphate Corp.	Active	56.42
2652030	20220602	20250601	First Phosphate Corp.	Active	56.42
2652031	20220602	20250601	First Phosphate Corp.	Active	56.42
2652032	20220602	20250601	First Phosphate Corp.	Active	56.42
2652033	20220602	20250601	First Phosphate Corp.	Active	56.42
2652034	20220602	20250601	First Phosphate Corp.	Active	56.42
2652240	20220604	20250603	First Phosphate Corp.	Active	56.61
2652241	20220604	20250603	First Phosphate Corp.	Active	56.61
2652242	20220604	20250603	First Phosphate Corp.	Active	56.61
2652243	20220604	20250603	First Phosphate Corp.	Active	56.61
2652244	20220604	20250603	First Phosphate Corp.	Active	56.61
2652245	20220604	20250603	First Phosphate Corp.	Active	56.6
2652246	20220604	20250603	First Phosphate Corp.	Active	56.6
2652247	20220604	20250603	First Phosphate Corp.	Active	56.6
2652248	20220604	20250603	First Phosphate Corp.	Active	56.6
2652249	20220604	20250603	First Phosphate Corp.	Active	56.6
2652250	20220604	20250603	First Phosphate Corp.	Active	56.6
2652251	20220604	20250603	First Phosphate Corp.	Active	56.6
2652252	20220604	20250603	First Phosphate Corp.	Active	56.6
2652253	20220604	20250603	First Phosphate Corp.	Active	56.6
2652254	20220604	20250603	First Phosphate Corp.	Active	56.6
2652255	20220604	20250603	First Phosphate Corp.	Active	56.6
2652256	20220604	20250603	First Phosphate Corp.	Active	56.59
2652257	20220604	20250603	First Phosphate Corp.	Active	56.59
2652258	20220604	20250603	First Phosphate Corp.	Active	56.59
2652259	20220604	20250603	First Phosphate Corp.	Active	56.59
2652260	20220604	20250603	First Phosphate Corp.	Active	56.59
2652261	20220604	20250603	First Phosphate Corp.	Active	56.59
2652262	20220604	20250603	First Phosphate Corp.	Active	56.59
2652263	20220604	20250603	First Phosphate Corp.	Active	56.59
2652264	20220604	20250603	First Phosphate Corp.	Active	56.59
2652265	20220604	20250603	First Phosphate Corp.	Active	56.59
2652266	20220604	20250603	First Phosphate Corp.	Active	56.59
2652267	20220604	20250603	First Phosphate Corp.	Active	56.59
2652268	20220604	20250603	First Phosphate Corp.	Active	56.59
2652269	20220604	20250603	First Phosphate Corp.	Active	56.58

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION (1,2)

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2652270	20220604	20250603	First Phosphate Corp.	Active	56.58
2652271	20220604	20250603	First Phosphate Corp.	Active	56.58
2652272	20220604	20250603	First Phosphate Corp.	Active	56.58
2652273	20220604	20250603	First Phosphate Corp.	Active	56.58
2652274	20220604	20250603	First Phosphate Corp.	Active	56.58
2652275	20220604	20250603	First Phosphate Corp.	Active	56.58
2652276	20220604	20250603	First Phosphate Corp.	Active	56.59
2652277	20220604	20250603	First Phosphate Corp.	Active	56.58
2652278	20220604	20250603	First Phosphate Corp.	Active	56.58
2652279	20220604	20250603	First Phosphate Corp.	Active	56.57
2652280	20220604	20250603	First Phosphate Corp.	Active	56.57
2652281	20220604	20250603	First Phosphate Corp.	Active	56.57
2652282	20220604	20250603	First Phosphate Corp.	Active	56.57
2652283	20220604	20250603	First Phosphate Corp.	Active	56.57
2652284	20220604	20250603	First Phosphate Corp.	Active	56.57
2652285	20220604	20250603	First Phosphate Corp.	Active	56.57
2652286	20220604	20250603	First Phosphate Corp.	Active	56.56
2652287	20220604	20250603	First Phosphate Corp.	Active	56.56
2652288	20220604	20250603	First Phosphate Corp.	Active	56.56
2652289	20220604	20250603	First Phosphate Corp.	Active	56.56
2652290	20220604	20250603	First Phosphate Corp.	Active	56.56
2652291	20220604	20250603	First Phosphate Corp.	Active	56.56
2652292	20220604	20250603	First Phosphate Corp.	Active	56.56
2652293	20220604	20250603	First Phosphate Corp.	Active	56.56
2652294	20220604	20250603	First Phosphate Corp.	Active	56.56
2652295	20220604	20250603	First Phosphate Corp.	Active	56.56
2652296	20220604	20250603	First Phosphate Corp.	Active	56.56
2652297	20220604	20250603	First Phosphate Corp.	Active	56.56
2652298	20220604	20250603	First Phosphate Corp.	Active	56.55
2652299	20220604	20250603	First Phosphate Corp.	Active	56.55
2652300	20220604	20250603	First Phosphate Corp.	Active	56.55
2652301	20220604	20250603	First Phosphate Corp.	Active	56.54
2652302	20220604	20250603	First Phosphate Corp.	Active	56.54
2652303	20220604	20250603	First Phosphate Corp.	Active	56.54
2652304	20220604	20250603	First Phosphate Corp.	Active	56.53
2652305	20220604	20250603	First Phosphate Corp.	Active	56.53
2652306	20220604	20250603	First Phosphate Corp.	Active	56.53
2652307	20220604	20250603	First Phosphate Corp.	Active	56.52
2652308	20220604	20250603	First Phosphate Corp.	Active	56.52

TABLE APPENDIX H.1 LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]					
Claim ID	**Registration**	**Expiry Date**	**Ownership (100%)**	**Status**	**Area (ha)**
2652309	20220604	20250603	First Phosphate Corp.	Active	56.52
2652310	20220604	20250603	First Phosphate Corp.	Active	56.51
2652311	20220604	20250603	First Phosphate Corp.	Active	56.51
2652312	20220604	20250603	First Phosphate Corp.	Active	56.5
2652313	20220604	20250603	First Phosphate Corp.	Active	56.5
2652314	20220604	20250603	First Phosphate Corp.	Active	56.49
2652315	20220604	20250603	First Phosphate Corp.	Active	56.49
2652316	20220604	20250603	First Phosphate Corp.	Active	56.55
2652317	20220604	20250603	First Phosphate Corp.	Active	56.55
2652318	20220604	20250603	First Phosphate Corp.	Active	56.55
2652319	20220604	20250603	First Phosphate Corp.	Active	56.55
2652320	20220604	20250603	First Phosphate Corp.	Active	56.55
2652321	20220604	20250603	First Phosphate Corp.	Active	56.55
2652322	20220604	20250603	First Phosphate Corp.	Active	56.55
2652323	20220604	20250603	First Phosphate Corp.	Active	56.54
2652324	20220604	20250603	First Phosphate Corp.	Active	56.54
2652325	20220604	20250603	First Phosphate Corp.	Active	56.54
2652326	20220604	20250603	First Phosphate Corp.	Active	56.54
2652327	20220604	20250603	First Phosphate Corp.	Active	56.53
2652328	20220604	20250603	First Phosphate Corp.	Active	56.53
2652329	20220604	20250603	First Phosphate Corp.	Active	56.53
2652330	20220604	20250603	First Phosphate Corp.	Active	56.53
2652331	20220604	20250603	First Phosphate Corp.	Active	56.53
2652332	20220604	20250603	First Phosphate Corp.	Active	56.52
2652333	20220604	20250603	First Phosphate Corp.	Active	56.52
2652334	20220604	20250603	First Phosphate Corp.	Active	56.52
2652335	20220604	20250603	First Phosphate Corp.	Active	56.52
2652336	20220604	20250603	First Phosphate Corp.	Active	56.51
2652337	20220604	20250603	First Phosphate Corp.	Active	56.51
2652338	20220604	20250603	First Phosphate Corp.	Active	56.51
2652339	20220604	20250603	First Phosphate Corp.	Active	56.51
2652340	20220604	20250603	First Phosphate Corp.	Active	56.51
2652341	20220604	20250603	First Phosphate Corp.	Active	56.5
2652342	20220604	20250603	First Phosphate Corp.	Active	56.5
2652343	20220604	20250603	First Phosphate Corp.	Active	56.5
2652344	20220604	20250603	First Phosphate Corp.	Active	56.5
2652345	20220604	20250603	First Phosphate Corp.	Active	56.5
2652346	20220604	20250603	First Phosphate Corp.	Active	56.49
2652347	20220604	20250603	First Phosphate Corp.	Active	56.49

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2652348	20220604	20250603	First Phosphate Corp.	Active	56.49
2652349	20220604	20250603	First Phosphate Corp.	Active	56.49
2652350	20220604	20250603	First Phosphate Corp.	Active	56.48
2652351	20220604	20250603	First Phosphate Corp.	Active	56.48
2652352	20220604	20250603	First Phosphate Corp.	Active	56.47
2652353	20220604	20250603	First Phosphate Corp.	Active	56.42
2652354	20220604	20250603	First Phosphate Corp.	Active	56.41
2652355	20220604	20250603	First Phosphate Corp.	Active	56.4
2652356	20220604	20250603	First Phosphate Corp.	Active	56.4
2652357	20220604	20250603	First Phosphate Corp.	Active	56.39
2652358	20220604	20250603	First Phosphate Corp.	Active	56.39
2652359	20220604	20250603	First Phosphate Corp.	Active	56.38
2652360	20220604	20250603	First Phosphate Corp.	Active	56.38
2652361	20220604	20250603	First Phosphate Corp.	Active	56.37
2652362	20220604	20250603	First Phosphate Corp.	Active	56.37
2652363	20220604	20250603	First Phosphate Corp.	Active	56.36
2652364	20220604	20250603	First Phosphate Corp.	Active	56.36
2652365	20220604	20250603	First Phosphate Corp.	Active	56.35
2652366	20220604	20250603	First Phosphate Corp.	Active	56.35
2652367	20220604	20250603	First Phosphate Corp.	Active	56.34
2652368	20220604	20250603	First Phosphate Corp.	Active	56.34
2652369	20220604	20250603	First Phosphate Corp.	Active	56.34
2652370	20220604	20250603	First Phosphate Corp.	Active	56.33
2652371	20220604	20250603	First Phosphate Corp.	Active	56.48
2652372	20220604	20250603	First Phosphate Corp.	Active	56.47
2652373	20220604	20250603	First Phosphate Corp.	Active	56.46
2652374	20220604	20250603	First Phosphate Corp.	Active	56.46
2652375	20220604	20250603	First Phosphate Corp.	Active	56.46
2652376	20220604	20250603	First Phosphate Corp.	Active	56.45
2652377	20220604	20250603	First Phosphate Corp.	Active	56.45
2652378	20220604	20250603	First Phosphate Corp.	Active	56.44
2652379	20220604	20250603	First Phosphate Corp.	Active	56.44
2652380	20220604	20250603	First Phosphate Corp.	Active	56.44
2652381	20220604	20250603	First Phosphate Corp.	Active	56.43
2652382	20220604	20250603	First Phosphate Corp.	Active	56.43
2652383	20220604	20250603	First Phosphate Corp.	Active	56.43
2661415	20220829	20250828	First Phosphate Corp.	Active	52.33
2661416	20220829	20250828	First Phosphate Corp.	Active	46.99
2661417	20220829	20250828	First Phosphate Corp.	Active	53.54

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION (1,2)

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2661430	20220829	20250828	First Phosphate Corp.	Active	56.38
2661431	20220829	20250828	First Phosphate Corp.	Active	51.52
2653072	20220614	20250613	First Phosphate Corp.	Active	22.03
2653073	20220614	20250613	First Phosphate Corp.	Active	20.86
2653074	20220614	20250613	First Phosphate Corp.	Active	0.31
2653075	20220614	20250613	First Phosphate Corp.	Active	36.74
2653076	20220614	20250613	First Phosphate Corp.	Active	50.44
2653077	20220614	20250613	First Phosphate Corp.	Active	56.29
2653078	20220614	20250613	First Phosphate Corp.	Active	39.51
2653079	20220614	20250613	First Phosphate Corp.	Active	45.67
2657241	20220720	20250719	First Phosphate Corp.	Active	31.99
2657242	20220720	20250719	First Phosphate Corp.	Active	7.66
2657243	20220720	20250719	First Phosphate Corp.	Active	0.25
2657244	20220720	20250719	First Phosphate Corp.	Active	11.31
2657245	20220720	20250719	First Phosphate Corp.	Active	0.59
2657246	20220720	20250719	First Phosphate Corp.	Active	26.5
2657247	20220720	20250719	First Phosphate Corp.	Active	2.71
2657248	20220720	20250719	First Phosphate Corp.	Active	19.53
2657249	20220720	20250719	First Phosphate Corp.	Active	28.52
2657250	20220720	20250719	First Phosphate Corp.	Active	0.25
2657251	20220720	20250719	First Phosphate Corp.	Active	5.58
2657252	20220720	20250719	First Phosphate Corp.	Active	13.89
2680280	20221019	20251018	First Phosphate Corp.	Active	56.93
2680281	20221019	20251018	First Phosphate Corp.	Active	54.82
2680282	20221019	20251018	First Phosphate Corp.	Active	54.76
2680283	20221019	20251018	First Phosphate Corp.	Active	49.2
2680284	20221019	20251018	First Phosphate Corp.	Active	43.53
2680285	20221019	20251018	First Phosphate Corp.	Active	54.17
2680286	20221019	20251018	First Phosphate Corp.	Active	32.89
2680287	20221019	20251018	First Phosphate Corp.	Active	37.17
2680288	20221019	20251018	First Phosphate Corp.	Active	56.16
2680289	20221019	20251018	First Phosphate Corp.	Active	39.11
2680290	20221019	20251018	First Phosphate Corp.	Active	47.24
2650530	20220530	20250529	First Phosphate Corp.	Active	56.46
2650531	20220530	20250529	First Phosphate Corp.	Active	56.46
2650532	20220530	20250529	First Phosphate Corp.	Active	56.46
2650533	20220530	20250529	First Phosphate Corp.	Active	56.46
2650534	20220530	20250529	First Phosphate Corp.	Active	56.46
2650535	20220530	20250529	First Phosphate Corp.	Active	56.46

Table Appendix H.1 Lac à l'Orignal Property CDC Claims Information [1,2]					
Claim ID	**Registration**	**Expiry Date**	**Ownership (100%)**	**Status**	**Area (ha)**
2650536	20220530	20250529	First Phosphate Corp.	Active	56.46
2650537	20220530	20250529	First Phosphate Corp.	Active	56.46
2650538	20220530	20250529	First Phosphate Corp.	Active	56.45
2650539	20220530	20250529	First Phosphate Corp.	Active	56.45
2650540	20220530	20250529	First Phosphate Corp.	Active	56.45
2650541	20220530	20250529	First Phosphate Corp.	Active	56.45
2650542	20220530	20250529	First Phosphate Corp.	Active	56.45
2650543	20220530	20250529	First Phosphate Corp.	Active	56.45
2650544	20220530	20250529	First Phosphate Corp.	Active	56.45
2650545	20220530	20250529	First Phosphate Corp.	Active	56.45
2650546	20220530	20250529	First Phosphate Corp.	Active	56.45
2650547	20220530	20250529	First Phosphate Corp.	Active	56.45
2650548	20220530	20250529	First Phosphate Corp.	Active	56.45
2650549	20220530	20250529	First Phosphate Corp.	Active	56.44
2650550	20220530	20250529	First Phosphate Corp.	Active	56.44
2650551	20220530	20250529	First Phosphate Corp.	Active	56.44
2650552	20220530	20250529	First Phosphate Corp.	Active	56.44
2650553	20220530	20250529	First Phosphate Corp.	Active	56.44
2650554	20220530	20250529	First Phosphate Corp.	Active	56.44
2650555	20220530	20250529	First Phosphate Corp.	Active	56.44
2650556	20220530	20250529	First Phosphate Corp.	Active	56.44
2650557	20220530	20250529	First Phosphate Corp.	Active	56.44
2650558	20220530	20250529	First Phosphate Corp.	Active	56.44
2650559	20220530	20250529	First Phosphate Corp.	Active	56.44
2650560	20220530	20250529	First Phosphate Corp.	Active	56.44
2650561	20220530	20250529	First Phosphate Corp.	Active	56.44
2650562	20220530	20250529	First Phosphate Corp.	Active	56.43
2650563	20220530	20250529	First Phosphate Corp.	Active	56.43
2650564	20220530	20250529	First Phosphate Corp.	Active	56.43
2650565	20220530	20250529	First Phosphate Corp.	Active	56.43
2650566	20220530	20250529	First Phosphate Corp.	Active	56.43
2650567	20220530	20250529	First Phosphate Corp.	Active	56.43
2650568	20220530	20250529	First Phosphate Corp.	Active	56.43
2650569	20220530	20250529	First Phosphate Corp.	Active	56.43
2650570	20220530	20250529	First Phosphate Corp.	Active	56.43
2650571	20220530	20250529	First Phosphate Corp.	Active	56.43
2650572	20220530	20250529	First Phosphate Corp.	Active	56.42
2650573	20220530	20250529	First Phosphate Corp.	Active	56.42
2650574	20220530	20250529	First Phosphate Corp.	Active	56.42

Table Appendix H.1 **Lac à l'Orignal Property CDC Claims Information** [1,2]					
Claim ID	**Registration**	**Expiry Date**	**Ownership (100%)**	**Status**	**Area (ha)**
2650575	20220530	20250529	First Phosphate Corp.	Active	56.42
2650576	20220530	20250529	First Phosphate Corp.	Active	56.42
2650577	20220530	20250529	First Phosphate Corp.	Active	56.42
2650578	20220530	20250529	First Phosphate Corp.	Active	56.41
2650579	20220530	20250529	First Phosphate Corp.	Active	56.41
2650580	20220530	20250529	First Phosphate Corp.	Active	56.41
2650581	20220530	20250529	First Phosphate Corp.	Active	56.41
2650582	20220530	20250529	First Phosphate Corp.	Active	56.41
2650583	20220530	20250529	First Phosphate Corp.	Active	56.41
2650584	20220530	20250529	First Phosphate Corp.	Active	56.41
2650585	20220530	20250529	First Phosphate Corp.	Active	56.4
2650586	20220530	20250529	First Phosphate Corp.	Active	56.4
2650587	20220530	20250529	First Phosphate Corp.	Active	56.4
2650588	20220530	20250529	First Phosphate Corp.	Active	56.4
2650589	20220530	20250529	First Phosphate Corp.	Active	56.4
2650590	20220530	20250529	First Phosphate Corp.	Active	56.39
2650591	20220530	20250529	First Phosphate Corp.	Active	56.39
2650592	20220530	20250529	First Phosphate Corp.	Active	56.38
2650593	20220530	20250529	First Phosphate Corp.	Active	56.38
2650594	20220530	20250529	First Phosphate Corp.	Active	56.37
2650595	20220530	20250529	First Phosphate Corp.	Active	56.37
2650596	20220530	20250529	First Phosphate Corp.	Active	56.36
2650597	20220530	20250529	First Phosphate Corp.	Active	56.36
2650598	20220530	20250529	First Phosphate Corp.	Active	56.35
2650599	20220530	20250529	First Phosphate Corp.	Active	56.35
2650600	20220530	20250529	First Phosphate Corp.	Active	56.35
2650601	20220530	20250529	First Phosphate Corp.	Active	56.35
2650602	20220530	20250529	First Phosphate Corp.	Active	56.34
2650603	20220530	20250529	First Phosphate Corp.	Active	56.34
2650604	20220530	20250529	First Phosphate Corp.	Active	56.48
2650605	20220530	20250529	First Phosphate Corp.	Active	56.48
2650606	20220530	20250529	First Phosphate Corp.	Active	56.48
2650607	20220530	20250529	First Phosphate Corp.	Active	56.48
2650608	20220530	20250529	First Phosphate Corp.	Active	56.47
2650609	20220530	20250529	First Phosphate Corp.	Active	56.47
2650610	20220530	20250529	First Phosphate Corp.	Active	56.47
2650611	20220530	20250529	First Phosphate Corp.	Active	56.47
2650612	20220530	20250529	First Phosphate Corp.	Active	56.47
2650613	20220530	20250529	First Phosphate Corp.	Active	56.47

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2650614	20220530	20250529	First Phosphate Corp.	Active	56.47
2650615	20220530	20250529	First Phosphate Corp.	Active	56.46
2650616	20220530	20250529	First Phosphate Corp.	Active	56.46
2650617	20220530	20250529	First Phosphate Corp.	Active	56.46
2650618	20220530	20250529	First Phosphate Corp.	Active	56.46
2650619	20220530	20250529	First Phosphate Corp.	Active	56.46
2650620	20220530	20250529	First Phosphate Corp.	Active	56.45
2650621	20220530	20250529	First Phosphate Corp.	Active	56.45
2650622	20220530	20250529	First Phosphate Corp.	Active	56.45
2650623	20220530	20250529	First Phosphate Corp.	Active	56.45
2650624	20220530	20250529	First Phosphate Corp.	Active	56.45
2650625	20220530	20250529	First Phosphate Corp.	Active	56.44
2650626	20220530	20250529	First Phosphate Corp.	Active	56.44
2650627	20220530	20250529	First Phosphate Corp.	Active	56.44
2650628	20220530	20250529	First Phosphate Corp.	Active	56.44
2650629	20220530	20250529	First Phosphate Corp.	Active	56.44
2650630	20220530	20250529	First Phosphate Corp.	Active	56.44
2650631	20220530	20250529	First Phosphate Corp.	Active	56.43
2650632	20220530	20250529	First Phosphate Corp.	Active	56.43
2650633	20220530	20250529	First Phosphate Corp.	Active	56.43
2650634	20220530	20250529	First Phosphate Corp.	Active	56.43
2650635	20220530	20250529	First Phosphate Corp.	Active	56.43
2650636	20220530	20250529	First Phosphate Corp.	Active	56.42
2650637	20220530	20250529	First Phosphate Corp.	Active	56.42
2650638	20220530	20250529	First Phosphate Corp.	Active	56.35
2650639	20220530	20250529	First Phosphate Corp.	Active	56.34
2650640	20220530	20250529	First Phosphate Corp.	Active	56.33
2650641	20220530	20250529	First Phosphate Corp.	Active	56.33
2650642	20220530	20250529	First Phosphate Corp.	Active	56.43
2650643	20220530	20250529	First Phosphate Corp.	Active	56.43
2650644	20220530	20250529	First Phosphate Corp.	Active	56.43
2650645	20220530	20250529	First Phosphate Corp.	Active	56.43
2650646	20220530	20250529	First Phosphate Corp.	Active	56.43
2650647	20220530	20250529	First Phosphate Corp.	Active	56.42
2650648	20220530	20250529	First Phosphate Corp.	Active	56.42
2650649	20220530	20250529	First Phosphate Corp.	Active	56.42
2650650	20220530	20250529	First Phosphate Corp.	Active	56.42
2650651	20220530	20250529	First Phosphate Corp.	Active	56.42
2650652	20220530	20250529	First Phosphate Corp.	Active	56.42

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2650653	20220530	20250529	First Phosphate Corp.	Active	56.42
2650654	20220530	20250529	First Phosphate Corp.	Active	56.42
2650655	20220530	20250529	First Phosphate Corp.	Active	56.42
2650656	20220530	20250529	First Phosphate Corp.	Active	56.42
2650657	20220530	20250529	First Phosphate Corp.	Active	56.42
2650658	20220530	20250529	First Phosphate Corp.	Active	56.41
2650659	20220530	20250529	First Phosphate Corp.	Active	56.41
2650660	20220530	20250529	First Phosphate Corp.	Active	56.41
2650661	20220530	20250529	First Phosphate Corp.	Active	56.41
2650662	20220530	20250529	First Phosphate Corp.	Active	56.41
2650663	20220530	20250529	First Phosphate Corp.	Active	56.41
2650664	20220530	20250529	First Phosphate Corp.	Active	56.41
2650665	20220530	20250529	First Phosphate Corp.	Active	56.41
2650666	20220530	20250529	First Phosphate Corp.	Active	56.41
2650667	20220530	20250529	First Phosphate Corp.	Active	56.41
2650668	20220530	20250529	First Phosphate Corp.	Active	56.41
2650669	20220530	20250529	First Phosphate Corp.	Active	56.41
2650670	20220530	20250529	First Phosphate Corp.	Active	56.41
2650671	20220530	20250529	First Phosphate Corp.	Active	56.41
2650672	20220530	20250529	First Phosphate Corp.	Active	56.41
2650673	20220530	20250529	First Phosphate Corp.	Active	56.4
2650674	20220530	20250529	First Phosphate Corp.	Active	56.4
2650675	20220530	20250529	First Phosphate Corp.	Active	56.4
2650676	20220530	20250529	First Phosphate Corp.	Active	56.4
2650677	20220530	20250529	First Phosphate Corp.	Active	56.4
2650678	20220530	20250529	First Phosphate Corp.	Active	56.4
2650679	20220530	20250529	First Phosphate Corp.	Active	56.4
2650680	20220530	20250529	First Phosphate Corp.	Active	56.4
2650681	20220530	20250529	First Phosphate Corp.	Active	56.4
2650824	20220530	20250529	First Phosphate Corp.	Active	56.53
2650825	20220530	20250529	First Phosphate Corp.	Active	56.53
2650826	20220530	20250529	First Phosphate Corp.	Active	56.52
2650827	20220530	20250529	First Phosphate Corp.	Active	56.51
2650828	20220530	20250529	First Phosphate Corp.	Active	56.53
2650829	20220530	20250529	First Phosphate Corp.	Active	56.52
2650830	20220530	20250529	First Phosphate Corp.	Active	56.51
2650831	20220530	20250529	First Phosphate Corp.	Active	56.5
2650832	20220530	20250529	First Phosphate Corp.	Active	56.5
2650833	20220530	20250529	First Phosphate Corp.	Active	56.5

TABLE APPENDIX H.1 **LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION (1,2)**					
Claim ID	**Registration**	**Expiry Date**	**Ownership (100%)**	**Status**	**Area (ha)**
2650834	20220530	20250529	First Phosphate Corp.	Active	56.5
2650835	20220530	20250529	First Phosphate Corp.	Active	56.49
2650836	20220530	20250529	First Phosphate Corp.	Active	56.49
2650838	20220530	20250529	First Phosphate Corp.	Active	56.49
2650839	20220530	20250529	First Phosphate Corp.	Active	56.49
2650840	20220530	20250529	First Phosphate Corp.	Active	56.49
2650841	20220530	20250529	First Phosphate Corp.	Active	56.49
2650842	20220530	20250529	First Phosphate Corp.	Active	56.49
2650843	20220530	20250529	First Phosphate Corp.	Active	56.49
2650844	20220530	20250529	First Phosphate Corp.	Active	56.48
2650845	20220530	20250529	First Phosphate Corp.	Active	56.48
2650846	20220530	20250529	First Phosphate Corp.	Active	56.48
2650847	20220530	20250529	First Phosphate Corp.	Active	56.48
2650848	20220530	20250529	First Phosphate Corp.	Active	56.47
2650849	20220530	20250529	First Phosphate Corp.	Active	56.47
2650850	20220530	20250529	First Phosphate Corp.	Active	56.47
2650851	20220530	20250529	First Phosphate Corp.	Active	56.47
2650852	20220530	20250529	First Phosphate Corp.	Active	56.47
2650853	20220530	20250529	First Phosphate Corp.	Active	56.47
2650854	20220530	20250529	First Phosphate Corp.	Active	56.47
2650855	20220530	20250529	First Phosphate Corp.	Active	56.47
2650856	20220530	20250529	First Phosphate Corp.	Active	56.47
2650857	20220530	20250529	First Phosphate Corp.	Active	56.47
2650858	20220530	20250529	First Phosphate Corp.	Active	56.47
2650859	20220530	20250529	First Phosphate Corp.	Active	56.47
2650860	20220530	20250529	First Phosphate Corp.	Active	56.47
2650861	20220530	20250529	First Phosphate Corp.	Active	56.47
2650862	20220530	20250529	First Phosphate Corp.	Active	56.47
2650863	20220530	20250529	First Phosphate Corp.	Active	56.47
2650864	20220530	20250529	First Phosphate Corp.	Active	56.47
2650865	20220530	20250529	First Phosphate Corp.	Active	56.47
2650866	20220530	20250529	First Phosphate Corp.	Active	56.46
2650867	20220530	20250529	First Phosphate Corp.	Active	56.46
2650868	20220530	20250529	First Phosphate Corp.	Active	56.46
2650869	20220530	20250529	First Phosphate Corp.	Active	56.46
2650870	20220530	20250529	First Phosphate Corp.	Active	56.46
2650871	20220530	20250529	First Phosphate Corp.	Active	56.46
2650872	20220530	20250529	First Phosphate Corp.	Active	56.46
2650873	20220530	20250529	First Phosphate Corp.	Active	56.45

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2650874	20220530	20250529	First Phosphate Corp.	Active	56.44
2650875	20220530	20250529	First Phosphate Corp.	Active	56.43
2650876	20220530	20250529	First Phosphate Corp.	Active	56.43
2650877	20220530	20250529	First Phosphate Corp.	Active	56.42
2650878	20220530	20250529	First Phosphate Corp.	Active	56.42
2650879	20220530	20250529	First Phosphate Corp.	Active	56.41
2650880	20220530	20250529	First Phosphate Corp.	Active	56.41
2650881	20220530	20250529	First Phosphate Corp.	Active	56.35
2650882	20220530	20250529	First Phosphate Corp.	Active	56.34
2650883	20220530	20250529	First Phosphate Corp.	Active	56.33
2650884	20220530	20250529	First Phosphate Corp.	Active	56.43
2650885	20220530	20250529	First Phosphate Corp.	Active	56.43
2650886	20220530	20250529	First Phosphate Corp.	Active	56.43
2650887	20220530	20250529	First Phosphate Corp.	Active	56.43
2650888	20220530	20250529	First Phosphate Corp.	Active	56.42
2650889	20220530	20250529	First Phosphate Corp.	Active	56.42
2650890	20220530	20250529	First Phosphate Corp.	Active	56.42
2650891	20220530	20250529	First Phosphate Corp.	Active	56.42
2650892	20220530	20250529	First Phosphate Corp.	Active	56.42
2650893	20220530	20250529	First Phosphate Corp.	Active	56.42
2650894	20220530	20250529	First Phosphate Corp.	Active	56.4
2650895	20220530	20250529	First Phosphate Corp.	Active	56.4
2650896	20220530	20250529	First Phosphate Corp.	Active	56.4
2650897	20220530	20250529	First Phosphate Corp.	Active	56.39
2650898	20220530	20250529	First Phosphate Corp.	Active	56.39
2650899	20220530	20250529	First Phosphate Corp.	Active	56.35
2650900	20220530	20250529	First Phosphate Corp.	Active	56.35
2650901	20220530	20250529	First Phosphate Corp.	Active	56.34
2650902	20220530	20250529	First Phosphate Corp.	Active	56.34
2650903	20220530	20250529	First Phosphate Corp.	Active	56.34
2654339	20220621	20250620	First Phosphate Corp.	Active	31.11
2654340	20220621	20250620	First Phosphate Corp.	Active	19.29
2654341	20220621	20250620	First Phosphate Corp.	Active	48.5
2654348	20220621	20250620	First Phosphate Corp.	Active	52.45
2648650	20220513	20250512	First Phosphate Corp.	Active	31.71
2643857	20220401	20250331	First Phosphate Corp.	Active	56.38
2643858	20220401	20250331	First Phosphate Corp.	Active	56.38
2643859	20220401	20250331	First Phosphate Corp.	Active	56.37
2643860	20220401	20250331	First Phosphate Corp.	Active	56.37

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION (1,2)

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2654264	20220621	20250620	First Phosphate Corp.	Active	47.91
2654265	20220621	20250620	First Phosphate Corp.	Active	54.82
2654266	20220621	20250620	First Phosphate Corp.	Active	35.99
2654267	20220621	20250620	First Phosphate Corp.	Active	44.7
2654268	20220621	20250620	First Phosphate Corp.	Active	49.11
2654269	20220621	20250620	First Phosphate Corp.	Active	52.56
2654322	20220621	20250620	First Phosphate Corp.	Active	44.67
2654323	20220621	20250620	First Phosphate Corp.	Active	56.44
2654324	20220621	20250620	First Phosphate Corp.	Active	32.99
2654325	20220621	20250620	First Phosphate Corp.	Active	17.14
2654326	20220621	20250620	First Phosphate Corp.	Active	4.64
2654327	20220621	20250620	First Phosphate Corp.	Active	40.76
2654328	20220621	20250620	First Phosphate Corp.	Active	56.12
2654329	20220621	20250620	First Phosphate Corp.	Active	8.15
2654330	20220621	20250620	First Phosphate Corp.	Active	11.27
2654331	20220621	20250620	First Phosphate Corp.	Active	31.38
2654332	20220621	20250620	First Phosphate Corp.	Active	19.18
2654333	20220621	20250620	First Phosphate Corp.	Active	38.46
2691822	20221123	20251122	First Phosphate Corp.	Active	15.57
2691823	20221123	20251122	First Phosphate Corp.	Active	1.09
2691828	20221123	20251122	First Phosphate Corp.	Active	0.67
2691829	20221123	20251122	First Phosphate Corp.	Active	26.64
2691830	20221123	20251122	First Phosphate Corp.	Active	18.38
2691831	20221123	20251122	First Phosphate Corp.	Active	3.91
2691832	20221123	20251122	First Phosphate Corp.	Active	12.04
2691833	20221123	20251122	First Phosphate Corp.	Active	8.19
2656021	20220706	20250705	First Phosphate Corp.	Active	43.8
2656022	20220706	20250705	First Phosphate Corp.	Active	56.6
2656023	20220706	20250705	First Phosphate Corp.	Active	53.66
2656024	20220706	20250705	First Phosphate Corp.	Active	48.08
2656025	20220706	20250705	First Phosphate Corp.	Active	55.74
2656026	20220706	20250705	First Phosphate Corp.	Active	9.45
2656027	20220706	20250705	First Phosphate Corp.	Active	1.43
2656028	20220706	20250705	First Phosphate Corp.	Active	0.22
2656029	20220706	20250705	First Phosphate Corp.	Active	39.73
2656030	20220706	20250705	First Phosphate Corp.	Active	56.45
2656031	20220706	20250705	First Phosphate Corp.	Active	14.2
2656032	20220706	20250705	First Phosphate Corp.	Active	44.78
2656036	20220706	20250705	First Phosphate Corp.	Active	51.24

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION (1,2)

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2656037	20220706	20250705	First Phosphate Corp.	Active	54.01
2656038	20220706	20250705	First Phosphate Corp.	Active	34.15
2656039	20220706	20250705	First Phosphate Corp.	Active	33.64
2656040	20220706	20250705	First Phosphate Corp.	Active	54.55
2656041	20220706	20250705	First Phosphate Corp.	Active	56.6
2656042	20220706	20250705	First Phosphate Corp.	Active	55.52
2648074	20220504	20250503	First Phosphate Corp.	Active	55.18
2629652	20211212	20241211	First Phosphate Corp.	Active	56.45
2629653	20211212	20241211	First Phosphate Corp.	Active	56.45
2629654	20211212	20241211	First Phosphate Corp.	Active	56.45
2629655	20211212	20241211	First Phosphate Corp.	Active	56.45
2629656	20211212	20241211	First Phosphate Corp.	Active	56.45
2629657	20211212	20241211	First Phosphate Corp.	Active	56.44
2629658	20211212	20241211	First Phosphate Corp.	Active	56.44
2629659	20211212	20241211	First Phosphate Corp.	Active	56.44
2629660	20211212	20241211	First Phosphate Corp.	Active	56.44
2629661	20211212	20241211	First Phosphate Corp.	Active	56.44
2629662	20211212	20241211	First Phosphate Corp.	Active	56.44
2657838	20220725	20250724	First Phosphate Corp.	Active	56.74
2642680	20220322	20250321	First Phosphate Corp.	Active	56.37
2642681	20220322	20250321	First Phosphate Corp.	Active	56.37
2642682	20220322	20250321	First Phosphate Corp.	Active	56.37
2642683	20220322	20250321	First Phosphate Corp.	Active	56.37
2642684	20220322	20250321	First Phosphate Corp.	Active	56.36
2642685	20220322	20250321	First Phosphate Corp.	Active	56.36
2642686	20220322	20250321	First Phosphate Corp.	Active	56.36
2642687	20220322	20250321	First Phosphate Corp.	Active	56.36
2642688	20220322	20250321	First Phosphate Corp.	Active	56.36
2642689	20220322	20250321	First Phosphate Corp.	Active	56.36
2642690	20220322	20250321	First Phosphate Corp.	Active	56.35
2642691	20220322	20250321	First Phosphate Corp.	Active	56.35
2642692	20220322	20250321	First Phosphate Corp.	Active	56.35
2642693	20220322	20250321	First Phosphate Corp.	Active	56.35
2652405	20220605	20250604	First Phosphate Corp.	Active	56.62
2652406	20220605	20250604	First Phosphate Corp.	Active	56.62
2652407	20220605	20250604	First Phosphate Corp.	Active	56.62
2652408	20220605	20250604	First Phosphate Corp.	Active	56.62
2652409	20220605	20250604	First Phosphate Corp.	Active	56.61
2652410	20220605	20250604	First Phosphate Corp.	Active	56.58

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2652411	20220605	20250604	First Phosphate Corp.	Active	56.58
2652412	20220605	20250604	First Phosphate Corp.	Active	56.58
2652413	20220605	20250604	First Phosphate Corp.	Active	56.58
2652414	20220605	20250604	First Phosphate Corp.	Active	56.58
2652415	20220605	20250604	First Phosphate Corp.	Active	56.57
2652416	20220605	20250604	First Phosphate Corp.	Active	56.57
2652417	20220605	20250604	First Phosphate Corp.	Active	56.57
2652418	20220605	20250604	First Phosphate Corp.	Active	56.57
2652419	20220605	20250604	First Phosphate Corp.	Active	56.57
2652420	20220605	20250604	First Phosphate Corp.	Active	56.57
2652421	20220605	20250604	First Phosphate Corp.	Active	56.56
2652422	20220605	20250604	First Phosphate Corp.	Active	56.56
2652423	20220605	20250604	First Phosphate Corp.	Active	56.56
2652424	20220605	20250604	First Phosphate Corp.	Active	56.56
2652425	20220605	20250604	First Phosphate Corp.	Active	56.56
2652426	20220605	20250604	First Phosphate Corp.	Active	56.55
2652427	20220605	20250604	First Phosphate Corp.	Active	56.55
2652428	20220605	20250604	First Phosphate Corp.	Active	56.55
2652429	20220605	20250604	First Phosphate Corp.	Active	56.55
2652430	20220605	20250604	First Phosphate Corp.	Active	56.55
2652431	20220605	20250604	First Phosphate Corp.	Active	56.55
2652432	20220605	20250604	First Phosphate Corp.	Active	56.55
2652433	20220605	20250604	First Phosphate Corp.	Active	56.55
2652434	20220605	20250604	First Phosphate Corp.	Active	56.55
2652435	20220605	20250604	First Phosphate Corp.	Active	56.55
2652436	20220605	20250604	First Phosphate Corp.	Active	56.55
2652437	20220605	20250604	First Phosphate Corp.	Active	56.55
2652438	20220605	20250604	First Phosphate Corp.	Active	56.54
2652439	20220605	20250604	First Phosphate Corp.	Active	56.53
2652440	20220605	20250604	First Phosphate Corp.	Active	56.52
2652441	20220605	20250604	First Phosphate Corp.	Active	56.5
2652442	20220605	20250604	First Phosphate Corp.	Active	56.55
2652443	20220605	20250604	First Phosphate Corp.	Active	56.55
2652444	20220605	20250604	First Phosphate Corp.	Active	56.55
2652445	20220605	20250604	First Phosphate Corp.	Active	56.54
2652446	20220605	20250604	First Phosphate Corp.	Active	56.54
2652447	20220605	20250604	First Phosphate Corp.	Active	56.54
2652448	20220605	20250604	First Phosphate Corp.	Active	56.53
2652449	20220605	20250604	First Phosphate Corp.	Active	56.53

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2652450	20220605	20250604	First Phosphate Corp.	Active	56.52
2652451	20220605	20250604	First Phosphate Corp.	Active	56.52
2652452	20220605	20250604	First Phosphate Corp.	Active	56.52
2652453	20220605	20250604	First Phosphate Corp.	Active	56.51
2652454	20220605	20250604	First Phosphate Corp.	Active	56.51
2652455	20220605	20250604	First Phosphate Corp.	Active	56.51
2652456	20220605	20250604	First Phosphate Corp.	Active	56.51
2652457	20220605	20250604	First Phosphate Corp.	Active	56.5
2652458	20220605	20250604	First Phosphate Corp.	Active	56.5
2652459	20220605	20250604	First Phosphate Corp.	Active	56.49
2652460	20220605	20250604	First Phosphate Corp.	Active	56.48
2652461	20220605	20250604	First Phosphate Corp.	Active	56.47
2652462	20220605	20250604	First Phosphate Corp.	Active	56.44
2652463	20220605	20250604	First Phosphate Corp.	Active	56.42
2652464	20220605	20250604	First Phosphate Corp.	Active	56.42
2652465	20220605	20250604	First Phosphate Corp.	Active	56.42
2652466	20220605	20250604	First Phosphate Corp.	Active	56.42
2652467	20220605	20250604	First Phosphate Corp.	Active	56.42
2652468	20220605	20250604	First Phosphate Corp.	Active	56.42
2652469	20220605	20250604	First Phosphate Corp.	Active	56.42
2652470	20220605	20250604	First Phosphate Corp.	Active	56.42
2660075	20220812	20250811	First Phosphate Corp.	Active	56.96
2660076	20220812	20250811	First Phosphate Corp.	Active	56.95
2660077	20220812	20250811	First Phosphate Corp.	Active	56.95
2660078	20220812	20250811	First Phosphate Corp.	Active	56.95
2660079	20220812	20250811	First Phosphate Corp.	Active	56.95
2660080	20220812	20250811	First Phosphate Corp.	Active	56.94
2660081	20220812	20250811	First Phosphate Corp.	Active	56.94
2660082	20220812	20250811	First Phosphate Corp.	Active	56.94
2660083	20220812	20250811	First Phosphate Corp.	Active	56.94
2660084	20220812	20250811	First Phosphate Corp.	Active	56.93
2660085	20220812	20250811	First Phosphate Corp.	Active	56.93
2660086	20220812	20250811	First Phosphate Corp.	Active	56.93
2660087	20220812	20250811	First Phosphate Corp.	Active	56.93
2660088	20220812	20250811	First Phosphate Corp.	Active	56.92
2660089	20220812	20250811	First Phosphate Corp.	Active	56.92
2660090	20220812	20250811	First Phosphate Corp.	Active	56.92
2660091	20220812	20250811	First Phosphate Corp.	Active	56.92
2660092	20220812	20250811	First Phosphate Corp.	Active	56.91

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2660093	20220812	20250811	First Phosphate Corp.	Active	56.91
2660094	20220812	20250811	First Phosphate Corp.	Active	56.91
2660095	20220812	20250811	First Phosphate Corp.	Active	56.91
2660096	20220812	20250811	First Phosphate Corp.	Active	56.9
2660097	20220812	20250811	First Phosphate Corp.	Active	56.9
2660098	20220812	20250811	First Phosphate Corp.	Active	56.9
2660099	20220812	20250811	First Phosphate Corp.	Active	56.89
2660100	20220812	20250811	First Phosphate Corp.	Active	56.89
2660101	20220812	20250811	First Phosphate Corp.	Active	56.89
2660102	20220812	20250811	First Phosphate Corp.	Active	56.88
2660103	20220812	20250811	First Phosphate Corp.	Active	56.88
2660104	20220812	20250811	First Phosphate Corp.	Active	56.88
2660105	20220812	20250811	First Phosphate Corp.	Active	56.88
2660106	20220812	20250811	First Phosphate Corp.	Active	56.87
2660107	20220812	20250811	First Phosphate Corp.	Active	56.87
2660108	20220812	20250811	First Phosphate Corp.	Active	56.87
2660109	20220812	20250811	First Phosphate Corp.	Active	56.87
2660110	20220812	20250811	First Phosphate Corp.	Active	56.86
2660111	20220812	20250811	First Phosphate Corp.	Active	56.86
2660112	20220812	20250811	First Phosphate Corp.	Active	56.71
2660113	20220812	20250811	First Phosphate Corp.	Active	56.71
2660114	20220812	20250811	First Phosphate Corp.	Active	56.71
2660115	20220812	20250811	First Phosphate Corp.	Active	56.7
2660116	20220812	20250811	First Phosphate Corp.	Active	56.7
2660117	20220812	20250811	First Phosphate Corp.	Active	56.7
2660118	20220812	20250811	First Phosphate Corp.	Active	56.69
2660119	20220812	20250811	First Phosphate Corp.	Active	56.69
2660120	20220812	20250811	First Phosphate Corp.	Active	56.69
2660121	20220812	20250811	First Phosphate Corp.	Active	56.68
2660122	20220812	20250811	First Phosphate Corp.	Active	56.68
2660123	20220812	20250811	First Phosphate Corp.	Active	56.68
2660124	20220812	20250811	First Phosphate Corp.	Active	56.67
2660125	20220812	20250811	First Phosphate Corp.	Active	56.67
2660126	20220812	20250811	First Phosphate Corp.	Active	56.67
2660127	20220812	20250811	First Phosphate Corp.	Active	56.67
2660128	20220812	20250811	First Phosphate Corp.	Active	56.67
2660129	20220812	20250811	First Phosphate Corp.	Active	56.66
2660130	20220812	20250811	First Phosphate Corp.	Active	56.66
2660131	20220812	20250811	First Phosphate Corp.	Active	56.66

Table Appendix H.1 Lac à l'Orignal Property CDC Claims Information [1,2]					
Claim ID	**Registration**	**Expiry Date**	**Ownership (100%)**	**Status**	**Area (ha)**
2660132	20220812	20250811	First Phosphate Corp.	Active	56.64
2660133	20220812	20250811	First Phosphate Corp.	Active	56.64
2660134	20220812	20250811	First Phosphate Corp.	Active	56.63
2660135	20220812	20250811	First Phosphate Corp.	Active	56.63
2660136	20220812	20250811	First Phosphate Corp.	Active	56.63
2660137	20220812	20250811	First Phosphate Corp.	Active	56.63
2660138	20220812	20250811	First Phosphate Corp.	Active	56.62
2660139	20220812	20250811	First Phosphate Corp.	Active	56.62
2660140	20220812	20250811	First Phosphate Corp.	Active	56.61
2660141	20220812	20250811	First Phosphate Corp.	Active	56.61
2645539	20220417	20250416	First Phosphate Corp.	Active	56.75
2651757	20220601	20250531	First Phosphate Corp.	Active	56.55
2651758	20220601	20250531	First Phosphate Corp.	Active	56.55
2651759	20220601	20250531	First Phosphate Corp.	Active	56.55
2651760	20220601	20250531	First Phosphate Corp.	Active	56.55
2651761	20220601	20250531	First Phosphate Corp.	Active	56.54
2651762	20220601	20250531	First Phosphate Corp.	Active	56.54
2651763	20220601	20250531	First Phosphate Corp.	Active	56.54
2651764	20220601	20250531	First Phosphate Corp.	Active	56.54
2651765	20220601	20250531	First Phosphate Corp.	Active	56.53
2651766	20220601	20250531	First Phosphate Corp.	Active	56.53
2651767	20220601	20250531	First Phosphate Corp.	Active	56.53
2651768	20220601	20250531	First Phosphate Corp.	Active	56.53
2651769	20220601	20250531	First Phosphate Corp.	Active	56.53
2651770	20220601	20250531	First Phosphate Corp.	Active	56.52
2651771	20220601	20250531	First Phosphate Corp.	Active	56.52
2651772	20220601	20250531	First Phosphate Corp.	Active	56.52
2651773	20220601	20250531	First Phosphate Corp.	Active	56.52
2651774	20220601	20250531	First Phosphate Corp.	Active	56.52
2651775	20220601	20250531	First Phosphate Corp.	Active	56.52
2651776	20220601	20250531	First Phosphate Corp.	Active	56.52
2651777	20220601	20250531	First Phosphate Corp.	Active	56.52
2651778	20220601	20250531	First Phosphate Corp.	Active	56.52
2651779	20220601	20250531	First Phosphate Corp.	Active	56.52
2651780	20220601	20250531	First Phosphate Corp.	Active	56.51
2651781	20220601	20250531	First Phosphate Corp.	Active	56.51
2651782	20220601	20250531	First Phosphate Corp.	Active	56.51
2651783	20220601	20250531	First Phosphate Corp.	Active	56.51
2651784	20220601	20250531	First Phosphate Corp.	Active	56.51

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION [1,2]

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2651785	20220601	20250531	First Phosphate Corp.	Active	56.51
2651786	20220601	20250531	First Phosphate Corp.	Active	56.51
2651787	20220601	20250531	First Phosphate Corp.	Active	56.51
2651788	20220601	20250531	First Phosphate Corp.	Active	56.51
2651789	20220601	20250531	First Phosphate Corp.	Active	56.5
2651790	20220601	20250531	First Phosphate Corp.	Active	56.5
2651791	20220601	20250531	First Phosphate Corp.	Active	56.5
2651792	20220601	20250531	First Phosphate Corp.	Active	56.5
2651793	20220601	20250531	First Phosphate Corp.	Active	56.5
2651794	20220601	20250531	First Phosphate Corp.	Active	56.5
2651795	20220601	20250531	First Phosphate Corp.	Active	56.5
2651796	20220601	20250531	First Phosphate Corp.	Active	56.5
2651797	20220601	20250531	First Phosphate Corp.	Active	56.48
2651798	20220601	20250531	First Phosphate Corp.	Active	56.48
2651799	20220601	20250531	First Phosphate Corp.	Active	56.47
2651800	20220601	20250531	First Phosphate Corp.	Active	56.47
2651801	20220601	20250531	First Phosphate Corp.	Active	56.46
2651802	20220601	20250531	First Phosphate Corp.	Active	56.46
2651803	20220601	20250531	First Phosphate Corp.	Active	56.46
2651804	20220601	20250531	First Phosphate Corp.	Active	56.45
2651805	20220601	20250531	First Phosphate Corp.	Active	56.45
2651806	20220601	20250531	First Phosphate Corp.	Active	56.44
2651807	20220601	20250531	First Phosphate Corp.	Active	56.44
2651808	20220601	20250531	First Phosphate Corp.	Active	56.43
2651809	20220601	20250531	First Phosphate Corp.	Active	56.43
2651810	20220601	20250531	First Phosphate Corp.	Active	56.49
2651811	20220601	20250531	First Phosphate Corp.	Active	56.49
2651812	20220601	20250531	First Phosphate Corp.	Active	56.49
2651813	20220601	20250531	First Phosphate Corp.	Active	56.49
2651814	20220601	20250531	First Phosphate Corp.	Active	56.49
2651815	20220601	20250531	First Phosphate Corp.	Active	56.49
2651816	20220601	20250531	First Phosphate Corp.	Active	56.49
2651817	20220601	20250531	First Phosphate Corp.	Active	56.48
2651818	20220601	20250531	First Phosphate Corp.	Active	56.48
2651819	20220601	20250531	First Phosphate Corp.	Active	56.48
2651820	20220601	20250531	First Phosphate Corp.	Active	56.48
2651821	20220601	20250531	First Phosphate Corp.	Active	56.48
2651822	20220601	20250531	First Phosphate Corp.	Active	56.48
2651823	20220601	20250531	First Phosphate Corp.	Active	56.47

TABLE APPENDIX H.1
LAC À L'ORIGNAL PROPERTY CDC CLAIMS INFORMATION (1,2)

Claim ID	Registration	Expiry Date	Ownership (100%)	Status	Area (ha)
2651824	20220601	20250531	First Phosphate Corp.	Active	56.47
2651825	20220601	20250531	First Phosphate Corp.	Active	56.47
2643561	20220328	20250327	First Phosphate Corp.	Active	56.35
2643562	20220328	20250327	First Phosphate Corp.	Active	56.34
2643563	20220328	20250327	First Phosphate Corp.	Active	56.38
2643564	20220328	20250327	First Phosphate Corp.	Active	56.38
2643565	20220328	20250327	First Phosphate Corp.	Active	56.34
2643566	20220328	20250327	First Phosphate Corp.	Active	56.34
2643567	20220328	20250327	First Phosphate Corp.	Active	56.34
Total Claims					**1,445**
Total Area					**79,663.23**

[1] ***Source:*** *GESTIM website https://gestim.mines.gouv.qc.ca/ftp//cartes/carte_quebec_eng.asp*
[2] *Land tenure information effective August 7, 2023.*