

# First Phosphate Drills a 2 m Vein of Massive Apatite at Its Bégin-Lamarche Project in Saguenay-Lac-St-Jean, Quebec, Canada

written by Raj Shah | April 2, 2024

April 2, 2024 ([Source](#)) – First Phosphate Corp. (CSE: PHOS) (OTC: FRSPF) (FSE: KD0) (“**First Phosphate**” or the “**Company**”) is pleased to announce a second set of assay results from the ongoing 25,000 m drill program at its Bégin-Lamarche project in Saguenay-Lac-St-Jean, Quebec, Canada. In total 16,435 m of drilling have been completed to date and assays have now been returned for 5,642 m since drilling began in February 2024.

## Highlights:

- **Phosphate Mountain Zone:** Hole BL-24-82 intersected 2 m of massive apatite while other drill holes in this zone continued to yield core results of 30%+ apatite. Drill hole BL-24-48 intersected 15.01%  $P_2O_5$  (phosphate) over 7.65 m from a depth of 36.9 m including one assay of 31.24%  $P_2O_5$  over 1.1 m.
- **Northern Zone:** Drill hole BL-24-36 intersected 6.83%  $P_2O_5$  over 108.0 m starting at a depth of 234.0 m. Drill hole BL-24-44 intersected 7.48%  $P_2O_5$  over 90.6 m starting at a depth of 192.4 m.
- **Northwestern Zone:** Drill hole BL-24-49 intersected 8.65%  $P_2O_5$  over 33.0 m from a depth of 72.5 m.
- **Southern Zone:** Drill hole BL-24-43 intersected 5.41%

P<sub>2</sub>O<sub>5</sub> over 258.0 m from a depth of 111.0 m.

“Drilling at the Phosphate Mountain Zone continues to deliver phosphate strong mineralization,” said First Phosphate CEO, John Passalacqua. “The Mountain and Northern Zones show high-grade phosphate on surface while the Southern Zone shows large tonnage potential over a strike length of 1.5 km.”

### **Apatite versus Phosphate**

Apatite is very common as an accessory mineral in igneous and metamorphic rocks where it is the most common phosphate mineral form to be found. Occurrences are usually found as small grains which are often visible only in thin sections. The chemical formula of apatite is Ca<sub>5</sub>(P<sub>4</sub>)<sub>3</sub>(F,Cl,OH). The molecular weight of the phosphate molecule (P<sub>4</sub>) in apatite is 41.8%. Apatite is also found in clastic sedimentary rock as grains eroded out of the source rock over time. Phosphorite is a phosphate-rich sedimentary rock containing as much as 80% apatite which is present as cryptocrystalline masses. Economic quantities of apatite are also sometimes found in nepheline syenite or in carbonatites. Apatite was recently added to the Critical and Strategic Minerals List of Quebec, Canada. The European Union, South Korea, and the Province of Ontario are other jurisdictions that recognize phosphate as a critical and strategic mineral.

### **Phosphate Mountain Zone**

A total of 15 drill holes have been completed to date in the Phosphate Mountain Zone and continue to show high apatite-bearing peridotite visually containing from 30% to 80% apatite over widths of up to 87 m. Drill hole BL-24-82 intersected massive apatite over a length of 2.0 m (See Figure 1).

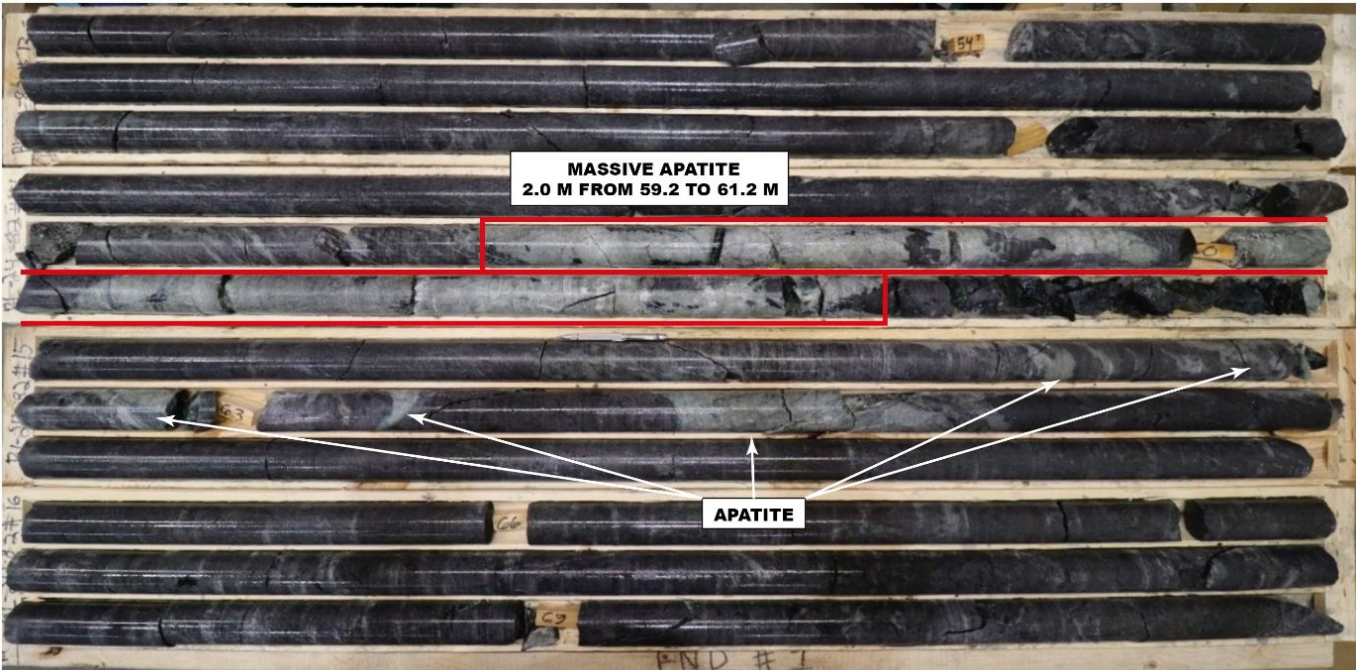
Drill hole BL-24-48 intersected 15.01% P<sub>2</sub>O<sub>5</sub> over 7.65 m from a

depth of 36.9 m including one assay of 31.24%  $P_2O_5$  over 1.1 m. Another high grade intersection yielded 13.98%  $P_2O_5$  over 8.25 m starting at a depth of 91.05 m (See Table 1). These two intersections are outside of the main mineralized zone, this hole was drilled at the opposite direction of the main zone, where up to 87 m of 30%+ apatite bearing peridotite was intersected.

**Table 1 – Drill Results for the Mountain Zone**

Hole	From (m)	To (m)	Length (m)	$P_2O_5$ (%)	$TiO_2$ (%)	$Fe_2O_3T$ (%)
BL-24-48	18.0	20.0	2.0	11.22	5.73	33.25
	32.0	39.65	7.65	15.01	2.59	19.17
	91.05	99.3	8.25	13.98	4.36	30.55

<sup>1</sup> Lengths are measured along the core. True widths are estimated to be between 80 and 90% of the core interval.



**Figure 1 – Massive Apatite Concentration Visible Over 2.0 m in Drill Hole BL-24-82**

To view an enhanced version of Figure 1, please visit:

[https://images.newsfilecorp.com/files/8917/203861\\_0ae54ecec4f37852\\_001full.jpg](https://images.newsfilecorp.com/files/8917/203861_0ae54ecec4f37852_001full.jpg)

## Northern Zone

Expanded drilling in the Northern Zone continues to confirm grades and widths intersected since the beginning of the current drilling program. Drill hole BL-24-36 intersected 6.83% P<sub>2</sub>O<sub>5</sub> over 108.0 m starting at a depth of 234.0 m. Drill hole BL-24-44 intersected 7.48% P<sub>2</sub>O<sub>5</sub> over 90.6 m starting at a depth of 192.4 m (See Table 2). The 2024 results to date indicate that there are 4 mineralized phosphate layers ranging from 60 m to 100 m in thickness within a 500 m thick mineralized envelope starting at surface and continuing to a depth of 300 m.

**Table 2 – Drill Results for the Northern Zone**

Hole	From (m)	To (m)	Length (m)	P <sub>2</sub> O <sub>5</sub> (%)	TiO <sub>2</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> T (%)
BL-24-36	1.6	54.0	52.4	8.62	5.15	26.58
	135.0	195.0	60.0	7.93	3.27	19.80
	234.0	342.0	108.0	6.83	4.33	28.34
BL-24-39	3.6	9.0	5.4	9.72	5.94	37.83
	102.0	150.0	48.0	5.51	2.20	16.64
BL-24-44	45.0	72.0	27.0	6.16	3.22	19.41
	93.0	135.0	42.0	6.72	4.01	25.16
	192.4	283.0	90.6	7.48	3.38	23.64
<i>including</i>	192.4	231.0	38.6	8.76	4.36	28.10
<i>including</i>	255.0	283.0	28.0	9.31	3.14	24.88

<sup>1</sup> Lengths are measured along the core. True widths are estimated to be between 75% and 90% of the core interval.

## Northwestern Zone

Drill hole BL-24-49 intersected 8.65% P<sub>2</sub>O<sub>5</sub> over 33.0 m from a depth of 72.5 m including a section of 11.48% P<sub>2</sub>O<sub>5</sub> over 9.5 m where higher apatite was encountered (See Table 3).

**Table 3 – Drill Results for the Northwestern Zone**

Hole	From (m)	To (m)	Length <sup>1</sup> (m)	P <sub>2</sub> O <sub>5</sub> (%)	TiO <sub>2</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> T (%)
BL-24-49	72.5	105.5	33.0	8.65	3.77	24.05
<i>including</i>	96.0	105.5	9.5	11.48	3.79	26.74

<sup>1</sup> Lengths are measured along the core. True widths are estimated to be between 80% and 90% of the core interval.

## Southern Zone

Results from the Southern Zone continue to yield large intersections of over 100 m of phosphate mineralization. Drill hole BL-24-43 intersected 5.41% P<sub>2</sub>O<sub>5</sub> over 258.0 m starting at a depth of 111.0 m (See Table 4). Drill hole-24-43 also confirmed the presence of higher grade phosphate at depth where two intersections returned 7.65% P<sub>2</sub>O<sub>5</sub> over 24.0 m and 8.06% P<sub>2</sub>O<sub>5</sub> over 25.0 m.

**Table 4 – Drill Results for the Southern Zone**

Hole	From (m)	To (m)	Length <sup>1</sup> (m)	P <sub>2</sub> O <sub>5</sub> (%)	TiO <sub>2</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> T (%)
BL-24-37	84.0	126.0	42.0	6.03	4.47	28.57
BL-24-43	111.0	369.0	258.0	5.41	4.33	22.19
<i>including</i>	306.0	330.0	24.0	7.65	6.71	32.75
<i>including</i>	341.0	366.0	25.0	8.06	5.03	28.08
BL-24-47	153.0	304.0	151.0	3.89	3.36	19.51

Hole	From (m)	To (m)	Length <sup>1</sup> (m)	P <sub>2</sub> O <sub>5</sub> (%)	TiO <sub>2</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> T (%)
<i>including</i>	153.0	237.0	84.0	4.22	3.52	19.81
<i>including</i>	252.0	304.0	52.0	4.29	3.77	22.23

<sup>1</sup> Lengths are measured along the core. True width is estimated to be between 60 and 90% of the core interval

The technical parameters of the drill holes being released in this press release are shown in Table 5 below and their location is shown in Figure 2 below. Previously released results for drill holes from the current 2024 drill program are presented in Table 6.

**Table 5 – Parameters for the Current Drill Holes Being Released**

Hole_ID	Easting	Northing	Azimuth	Dip	Depth	Zone
BL-24-36	326782	5403122	330	-55	345	Northern
BL-24-37	325786	5402454	0	-90	180	Southern
BL-24-39	326517	5403403	330	-45	210	Northern
BL-24-43	325689	5402279	125	-45	396	Southern
BL-24-44	326604	5403239	330	-45	291	Northern
BL-24-47	325689	5402279	125	-60	327	Southern
BL-24-48	326814	5403914	330	-45	201	Mountain
BL-24-49	326308	5403322	305	-45	297.9	NW

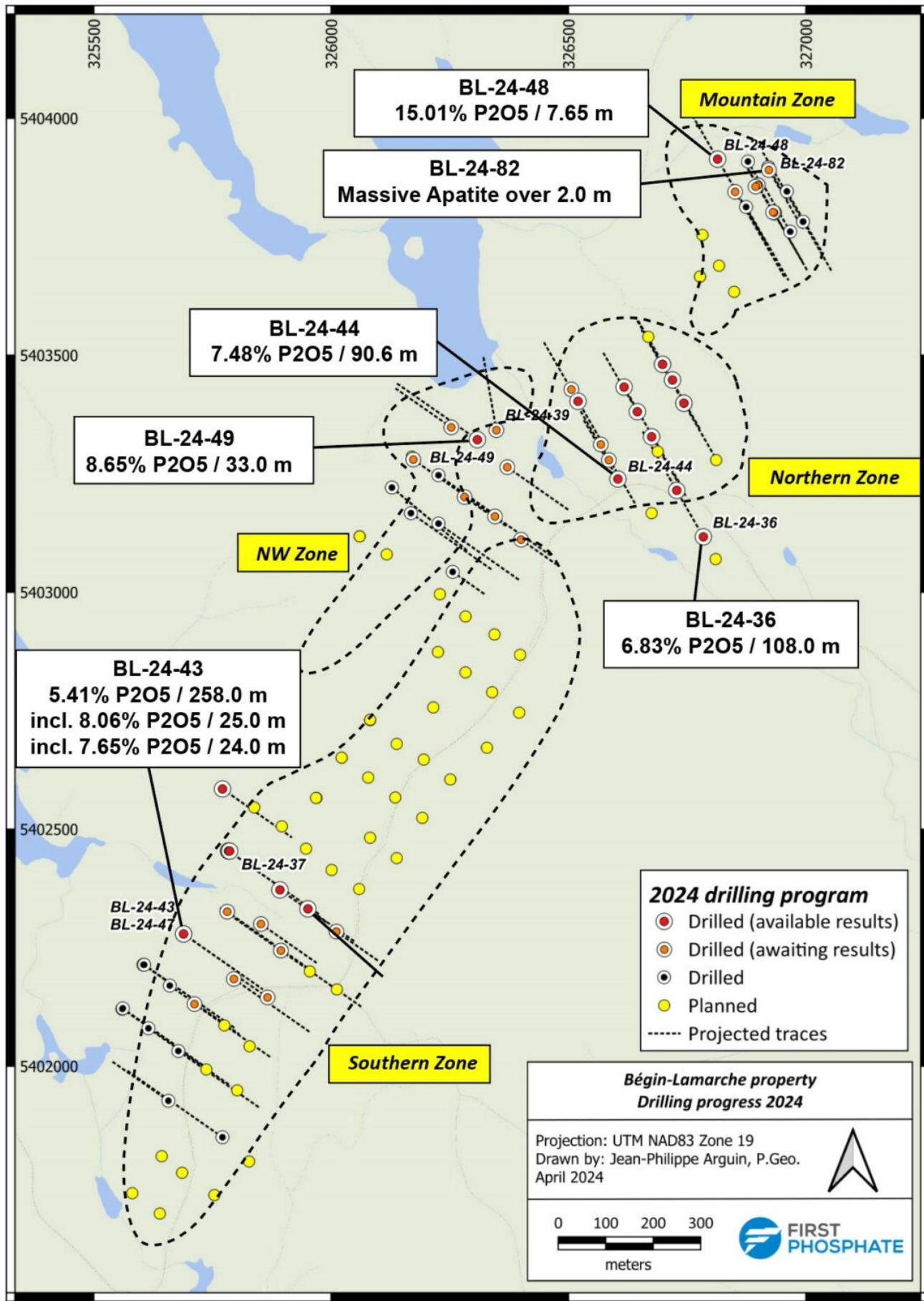
**Table 6 – Results Previously Released for the 2024 Drill Campaign**

Hole_ID	From (m)	To (m)	Length (m)	P <sub>2</sub> O <sub>5</sub> (%)	TiO <sub>2</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> T (%)
BL-24-22	10.55	47.65	37.10	5.82	4.41	23.88
	96.00	117.00	21.00	4.36	3.17	18.60
	156.00	174.00	18.00	3.06	2.99	18.88
	195.00	259.50	64.50	5.80	2.94	21.04
BL-24-23	21.00	175.10	154.10	7.02	4.40	27.34
	188.30	194.00	5.70	12.49	6.30	35.91
BL-24-24	61.30	190.90	129.60	5.22	3.63	22.32
	230.00	249.20	19.20	5.12	3.38	24.85
	284.70	310.40	25.70	3.73	2.74	17.17
BL-24-25	74.20	117.00	42.80	9.89	3.54	28.65
BL-24-26	6.90	96.00	89.10	9.44	3.92	27.59
BL-24-27	6.60	13.40	7.80	9.43	6.12	36.18
	138.00	189.00	51.00	4.41	3.05	20.62
	242.55	258.00	15.45	7.80	3.73	25.56
BL-24-28	56.10	65.10	9.00	4.91	3.80	23.32
	73.25	152.20	78.95	5.48	4.07	24.68
	203.00	214.00	11.00	2.87	3.63	19.37
	231.00	244.10	13.10	4.50	2.54	18.42
	273.00	285.00	12.00	3.07	2.04	14.88
BL-24-29	99.00	276.00	177.00	4.46	3.63	22.85
<i>including</i>	<i>99.00</i>	<i>138.00</i>	<i>39.00</i>	<i>4.04</i>	<i>2.65</i>	<i>20.26</i>
<i>including</i>	<i>150.00</i>	<i>165.00</i>	<i>15.00</i>	<i>2.95</i>	<i>3.57</i>	<i>21.26</i>
<i>including</i>	<i>174.00</i>	<i>195.00</i>	<i>21.00</i>	<i>5.75</i>	<i>4.79</i>	<i>30.21</i>
<i>including</i>	<i>205.80</i>	<i>276.00</i>	<i>70.20</i>	<i>6.06</i>	<i>3.90</i>	<i>25.01</i>
BL-24-30	33.00	78.65	45.65	4.28	2.97	19.83
	239.00	250.00	11.00	4.12	3.19	21.06

Hole_ID	From (m)	To (m)	Length (m)	P <sub>2</sub> O <sub>5</sub> (%)	TiO <sub>2</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> T (%)
BL-24-31	4.85	52.90	48.05	10.47	4.97	30.13
	66.00	90.00	24.00	4.55	2.33	13.03
	119.85	213.80	93.95	7.16	3.49	18.76
<i>including</i>	<i>195.00</i>	<i>213.80</i>	<i>18.80</i>	<i>12.29</i>	<i>5.39</i>	<i>31.76</i>
BL-24-32	37.05	39.80	2.75	11.46	5.60	30.99
	44.00	48.00	4.00	10.39	5.24	26.86
	55.50	58.35	2.85	5.08	2.23	17.25
	63.70	70.00	6.30	15.31	4.04	33.51
	94.00	110.70	16.70	9.51	3.90	24.84
	159.00	228.00	69.00	5.51	3.82	24.60
<i>including</i>	<i>159.00</i>	<i>181.10</i>	<i>22.10</i>	<i>8.38</i>	<i>5.23</i>	<i>33.27</i>
BL-24-33	3.80	110.00	106.20	5.00	3.70	21.19
	126.00	145.50	19.45	5.80	3.33	17.07
BL-24-34	9.00	24.00	15.00	2.92	2.33	19.39
	93.00	192.00	99.00	6.34	2.74	20.09
<i>including</i>	<i>93.00</i>	<i>135.00</i>	<i>42.00</i>	<i>5.27</i>	<i>3.14</i>	<i>20.45</i>
<i>including</i>	<i>144.00</i>	<i>192.00</i>	<i>48.00</i>	<i>8.27</i>	<i>2.86</i>	<i>22.96</i>
BL-24-35	12.00	44.00	32.00	3.79	3.58	24.52
	108.20	140.60	32.40	5.03	3.28	30.46
	165.10	187.50	22.40	7.82	4.44	30.57
	196.40	201.70	5.30	5.52	2.55	5.36
	212.50	253.70	41.20	6.25	3.44	19.55

Results for the earlier 4,274 m drill program conducted in 2023 can be found in the June 5, 2023 press release available at: <https://firstphosphate.com/begin-lamarche-2023>





## **Figure 2 – Drilling Progress at Bégin-Lamarche for the 2024 Drill Program**

To view an enhanced version of Figure 2, please visit:

[https://images.newsfilecorp.com/files/8917/203861\\_0ae54ecec4f37852\\_002full.jpg](https://images.newsfilecorp.com/files/8917/203861_0ae54ecec4f37852_002full.jpg)

### **Quality Assurance / Quality Control**

The sampling of, and assay data from, the drill core is monitored through the Company's implementation of a quality assurance – quality control (QA-QC) program designed to the CIM Mineral Exploration Best Practices Guidelines.

A formal chain-of-custody procedure was adopted for security of samples until their delivery at the laboratory. Drill core (NQ size) is logged and samples are selected by Laurentia Exploration Inc. geologists and sawn in half with a diamond saw at the project site. Half of the core is retained at the site for reference purposes. Sample intervals may vary from 0.5 to 3 metres in length depending on the geological observations. A blank and a standard are inserted at the beginning of each sample batch, usually one complete hole, and a blank and a standard are then inserted alternatively each 10 samples. Half-core samples are packaged and sent by ground transportation in sealed rice bags to an independent laboratory, Activation Laboratories Ltd. of Ancaster, Ontario (ISO/IEC 17025:2005 with CAN-P-1579). The core samples are crushed up to 80% passing 2mm (10 mesh), riffle split 250 g and pulverized (mild steel) to 95% passing -200 mesh. Each sample is analyzed for whole rock analysis (code 4B) for 10 major oxides and 7 trace elements by lithium metaborate/tetraborate fusion of 3g of material and analyze by ICP-OES. The laboratory has its own QA/QC protocols.

### **Qualified Person**

The scientific and technical disclosure for First Phosphate included in this news release has been reviewed and approved by Gilles Laverdière, P.Geo. Mr. Laverdière is Chief Geologist of First Phosphate and a Qualified Person under National Instrument 43-101 – *Standards of Disclosure of Mineral Projects* (“NI 43-101”).

### **About First Phosphate Corp.**

First Phosphate is a mineral development company fully dedicated to extracting and purifying phosphate for the production of cathode active material for the Lithium Iron Phosphate (“LFP”) battery industry. First Phosphate is committed to producing at high purity level, at full ESG standard and with low anticipated carbon footprint. First Phosphate plans to vertically integrate from mine source directly into the supply chains of major North American LFP battery producers that require battery grade LFP cathode active material emanating from a consistent and secure supply source. First Phosphate holds over 1,500 sq. km of royalty-free district-scale land claims in the Saguenay-Lac-St-Jean Region of Quebec, Canada that it is actively developing. First Phosphate properties consist of rare anorthosite igneous phosphate rock that generally yields high purity phosphate material devoid of high concentrations of harmful elements.

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### ***Forward-Looking Information and Cautionary Statements***

*This news release contains certain statements and information that may be considered “forward-looking statements” and “forward-looking information” within the meaning of applicable securities laws. In some cases, but not necessarily in all cases, forward-looking statements and forward-looking information can be identified by the use of forward-looking terminology such as “plans”, “targets”, “expects” or “does not expect”, “is expected”, “an opportunity exists”, “is positioned”, “estimates”, “intends”, “assumes”, “anticipates” or “does not anticipate” or “believes”, or variations of such words and phrases or statements that certain actions, events or results “may”, “could”, “would”, “might”, “will” or “will be taken”, “occur” or “be achieved” and other similar expressions. In addition, statements in this news release that are not historical facts are forward-looking statements, including, among other things, the Company’s planned exploration and production activities, the properties and composition of any extracted phosphate, the Company’s plans for vertical integration into North American supply chains, statements relating to the Company’s planned exploration activities, including its drill target strategy and next steps for the Bégin-Lamarche Property; and the Company’s interpretations and expectations about the results on the Bégin-Lamarche Property.*

*These statements and other forward-looking information are based on assumptions and estimates that the Company believes are appropriate and reasonable in the circumstances, including, without limitation, expectations of the Company’s long term*

*business outcomes given its short operating history; expectations regarding revenue, expenses and operations; the Company having sufficient working capital and ability to secure additional funding necessary for the exploration of the Company's property interests; expectations regarding the potential mineralization, geological merit and economic feasibility of the Company's projects; expectations regarding drill programs and the potential impacts successful drill programs could have on the life of the mine and the Company; mineral exploration and exploration program cost estimates; expectations regarding any environmental issues that may affect planned or future exploration programs and the potential impact of complying with existing and proposed environmental laws and regulations; receipt and timing of exploration and exploitation permits and other third-party approvals; government regulation of mineral exploration and development operations; expectations regarding any social or local community issues that may affect planned or future exploration and development programs; expectations surrounding global economic trends and technological advancements; and key personnel continuing their employment with the Company.*

*There can be no assurance that such statements will prove to be accurate, and actual results and future events could differ materially from those anticipated in such statements. Important factors that could cause actual results to differ materially from the Company's expectations include: limited operating history; high risk of business failure; no profits or significant revenues; limited resources; negative cash flow from operations and dependence on third-party financing; the uncertainty of additional funding; no dividends; risks related to possible fluctuations in revenues and results; insurance and uninsured risks; litigation; reliance on management and key personnel; conflicts of interest; access to supplies and*

materials; dangers of mineral exploration and related liability and damages; risks relating to health and safety; government regulation and legal uncertainties; the company's exploration and development properties may not be successful and are highly speculative in nature; dependence on outside parties; title to some of the Company's mineral properties may be challenged or defective; Aboriginal title and land claims; obtaining and renewing licenses and permits; environmental and other regulatory risks may adversely affect the company; risks relating to climate change; risks related to infrastructure; land reclamation requirements may be burdensome; current global financial conditions; fluctuation in commodity prices; dilution; future sales by existing shareholders could cause the Company's share price to fall; fluctuation and volatility in stock exchange prices; and risks related to market demands. There can be no assurance that any opportunity will be successful, commercially viable, completed on time or on budget, or will generate any meaningful revenues, savings or earnings, as the case may be, for the Company. In addition, the Company will incur costs in pursuing any particular opportunity, which may be significant.

These factors and assumptions are not intended to represent a complete list of the factors and assumptions that could affect the Company and, though they should be considered carefully, should be considered in conjunction with the risk factors described in the Company's other documents filed with the Canadian securities authorities, including without limitation the "Risk Factors" section of the Company's Annual Information Form dated November 29, 2023 which is available on SEDAR at [www.sedarplus.ca](http://www.sedarplus.ca). Although the Company has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in the forward-looking information or information, there may be other

*factors that cause actions, events or results not to be as anticipated, estimated or intended. The Company does not undertake to update any forward-looking information, except in accordance with applicable securities laws.*