First Phosphate Reports Published University Research Note Relating to Igneous Rock Phosphate Ore Bodies around the World

Saguenay, Quebec--(Newsfile Corp. - October 2, 2024) - First Phosphate Corp. (CSE: PHOS) (OTC: FRSPF) (FSE: KD0) ("First Phosphate" or the "Company") is pleased to announce that a peer-reviewed research note has been published by Queen's University ("Queen's") and Université de Québec à Chicoutimi ("UQAC") entitled:

Igneous Rock Phosphate: ore grades, concentrates and mining operations around the world

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https://firstphosphate.com/phosphate-industry/quebecanorthosite

The study is divided into two main sections and compares igneous phosphate ore bodies around the world, including the Company's Bégin-Lamarche property, as to their ore grades, beneficiated phosphate concentrate levels and mining operations where applicable.

1. **Comparisons of global igneous ore grades and beneficiated igneous ore**

Only a small portion of the worldwide phosphate ore (~10%; Pufahl and Groat, 2017) is supplied from igneous rock from Russia, South Africa, Brazil, and Finland. These igneous phosphate deposits are mostly from the Khibiny Alkalic Igneous Complex (Notholt, 1979) and the Kovdor Phoscorite-Carbonatite Complex (Ivanyuk et al., 2016) from the Kola Peninsula in Russia, the Siilinjärvi Carbonatite Complex in Finland (Decrée et al., 2020), the Phalaborwa (Palabora) Igneous Complex in South Africa (Gómez-Arias et al.2022), and the Alto Paranaíba Alkaline Province in Brazil (Silva et al., 2023) (Fig. 1). These igneous deposits are from silica-undersaturated alkali intrusions and carbonatites.

The average P_2O_5 contents of phosphate ore from igneous rocks from major deposits in the four major countries (Russia, Finland, South Africa, and Brazil) exhibit significant variations (4.0-17.2 wt.%; Table A2).

The igneous phosphate ore found at First Phosphate's Bégin-Lamarche property in Quebec, Canada is mostly from nelsonite and oxide-apatite-mafic- ultramafic rocks in massif anorthosite from the Grenville Province (geological province). The P_2O_5 of the ultramafic rock ranges from 2.6 to 15.0 wt.%. The average P_2O_5 grading of the phosphate is 6.01%. Testing suggests that the phosphate ore from this deposit could produce a high-quality phosphate concentrate with a P_2O_5 content of ~40.9 wt.% (Table 1), which is above the global average P_2O_5 of marketable phosphate concentrates produced from igneous ore from other countries (36.9 wt.%; Table 1).

	Average P_2O_5 (wt.%)		References
Igneous ore	**Ore-grade**	**Concentrate (after beneficiation)**	
Russia	10.1	38.7	Steiner et al., 2015
Finland	4.0	36.0	Geissler et al., 2018; O'Brien et al., 2015
S. Africa	7.0	37.3	Steiner et al., 2015
Brazil	11.1	35.4	Steiner et al., 2015
Global average	***8.1***	***36.9***	
Sedimentary ore			
Morocco	26.4	31.5	Steiner et al., 2015
US	11.8	29.2	Steiner et al., 2015
Jordan	25.5	29.7	Steiner et al., 2015
China	21.6	28.1	Steiner et al., 2015
Global average	***21.3***	***29.6***	
Bégin-Lamarche area, Canada	6.01	40.9*	

Table 1. Average P2O5 contents of phosphate ore and concentrates from igneous and sedimentary phosphate rocks from various countries around the world.

To view an enhanced version of this graphic, please visit:
https://images.newsfilecorp.com/files/8917/225249_table1.jpg

* Prepared and analyzed by SGS-Canada.

Country	Company	Deposit	Avg. ore-grade P_2O_5 (wt.%)	Host rock	Geological province	References
Russia						
	PhosAgro					
		Kukisvumchorr	14.1	apatite-nepheline-syenite	Khibiny Alkaline Igneous Complex	PhosAgro annual report, 2022; 2019
		Yukspor	13.8	apatite-nepheline-syenite	Khibiny Alkaline Igneous Complex	PhosAgro annual report, 2022; 2019
		Apatitovy Cirque	13.7	apatite-nepheline-syenite	Khibiny Alkaline Igneous Complex	PhosAgro annual report, 2022; 2019
		Rasvumchorr Plateau	10.7	apatite-nepheline-syenite	Khibiny Alkaline Igneous Complex	PhosAgro annual report, 2022; 2019
		Kozelva	17.2	apatite-nepheline-syenite	Khibiny Alkaline Igneous Complex	PhosAgro annual report, 2022; 2019
		Njorkpakk	14.1	apatite-nepheline-syenite	Khibiny Alkaline Igneous Complex	PhosAgro annual report, 2022; 2019
	Acron					
		Olenly Ruchey	14.9	apatite-nepheline-syenite	Khibiny Alkaline Igneous Complex	International economic and energy consulting report, 2011
	Eurochem					
		Kovdorskiy Mine	6.8	phoscorite–carbonatite pipe	Kovdor Ultramafic Alkaline Complex	Dickson, 2015; Ivanyuk et al., 2016
Finland						
	Yara					
		Sokli	4.0	glimmerite-carbonatite	Sokli Carbonatite Complex	Decrée et al., 2020; O'Brien et al., 2015
South Africa						
	Foskor+Palabora Mining Company	Phalaborwa	6.1	pyroxenite, carbonatite, and phoscorite	Phalaborwa (Palabora) Igneous Complex	Roux et al. ,1989; University of Cape Town
Brazil						
	Mosaic	Tapira	7.6	carbonatite	Alto Paranaíba Alkaline Province	Silva et al., 2023
	Mosaic	Araxá	11.8	carbonatite	Alto Paranaíba Alkaline Province	Silva et al., 2023
	Mosaic	Catalão I	11.1	carbonatite	Alto Paranaíba Alkaline Province	Silva et al., 2023
	CMOC/Mosaic	Catalão II	12.2	carbonatite	Alto Paranaíba Alkaline Province	Silva et al., 2023
	Eurochem	Salitre	8.6	carbonatite	Alto Paranaíba Alkaline Province	Silva et al., 2023
	Mosaic	Cajati	5.1	carbonatite	Jacupiranga Alkaline Complex	Silva et al., 2023
	Fosnor Galvani	Anglco dos Dias	5.7	carbonatite	Anglco dos Dias Carbonatite Complex	Silva et al., 2023

Table 2. Average P2O5 contents of igneous phosphate ore from major deposits from four major countries including companies operating the mines, host rocks, and geological provinces

To view an enhanced version of this graphic, please visit:
https://images.newsfilecorp.com/files/8917/225249_table2.jpg

2. Comparisons of global igneous phosphate rock mining operations

Depth of ore body, distributions of ore and waste rocks, and grades of ore are the principal factors for selecting open-pit or underground mining operations. Both open-pit and underground mining operations exist for igneous phosphate ore excavation (Geissler et al., 2015). The open-pit mining operations are, however, becoming the primary method of mining over time (Geissler et al., 2015). One of the major Russian igneous phosphate producers, PhosAgro, operates both open-pit and underground mines in the

Khibiny Alkaline Igneous Complex, Russia. In the case of the Koashvinsky open-pit mine, the quarry excavation depth reaches up to 960 m, including the upland part, and up to 580 m in a closed contour (Iliashenko, 2022). Another major igneous phosphate producer in Russia, EuroChem, excavated to a depth of 414 m until 2015 at their Kovdorskiy open-pit mine in the Kovdor Ultramafic Alkaline Complex and has a plan to excavate to a depth of 874 m before starting an eventual underground mining operation (Dickson, 2015).

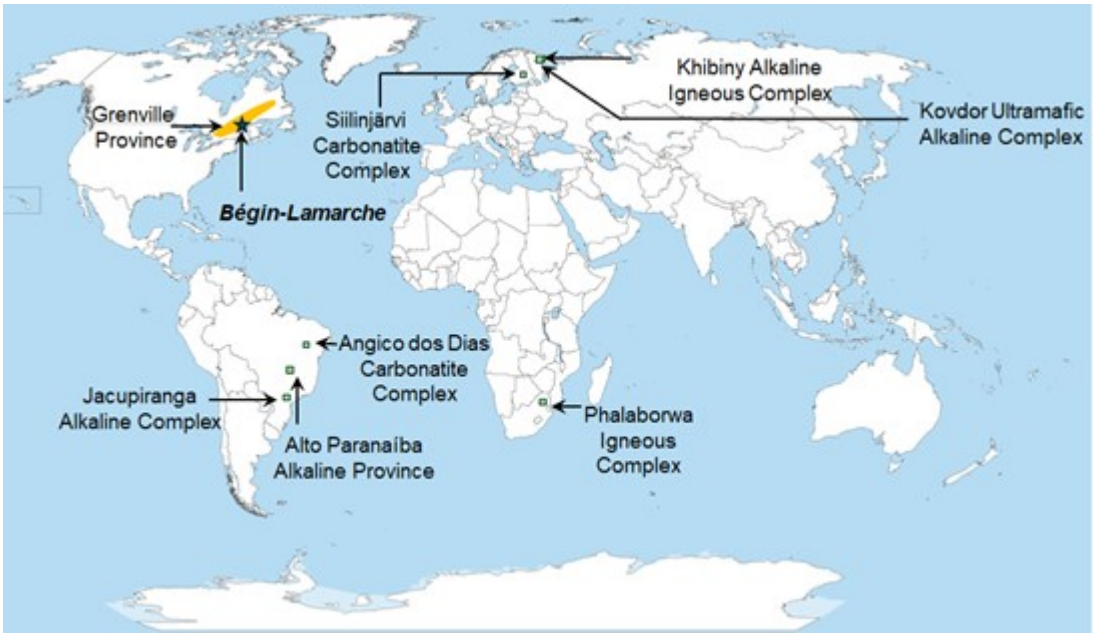

Figure 1. Major igneous complexes supplying igneous phosphate ore worldwide. First Phosphate's Bégin-Lamarche property in the Grenville Province of Canada is also shown.

To view an enhanced version of this graphic, please visit:
https://images.newsfilecorp.com/files/8917/225249_fb97f42324482828_003full.jpg

First Phosphate Corp. completed a total of 25,929 m of drilling since February 2024 in three areas of its Bégin-Lamarche property (Mountain zone, Northern zone, and Southern zone). All analyses for the drilling program have been received. Initial results show that one drill hole (BL-24-56) in the Mountain zone intersects a phosphate layer at a depth of 6.5 m from the surface and continues over 92.5 m down the depth with an average P_2O_5 content of 11.8 wt.%. This layer continues toward the south end of the Mountain zone through to the Northern zone. Multiple phosphate layers were also identified in the Northern zone. The overall strike length of the Northern and Mountain zones is nearly 600 m (First Phosphate press release, April 23, 2024). The presence of the phosphate layer close to the surface (~6.5 m below the surface) in the BL-24-56 drill hole suggests that the area close to this drill hole in the Mountain zone could be a prospective location for starting open-pit mining operation at the Bégin-Lamarche property. This needs to be justified with subsequent proper mine planning study.

Details on First Phosphate's assets in the Saguenay-Lac-St-Jean region of Quebec, can be found at: https://firstphosphate.com/projects/begin-lamarche

Details on First Phosphate's pilot plant for the purification of Quebec igneous anorthosite can be found at: https://firstphosphate.com/projects/pilot-plant

Details on First Phosphate's pilot plant for the manufacture of PPA from Quebec igneous phosphate can be found at: https://firstphosphate.com/projects/ppa-production

Details on First Phosphate's strategy for the creation of a fully integrated LFP battery supply chain in North America based on establishing an LFP battery valley in the Saguenay-Lac-St-Jean region of Quebec can be found at: https://firstphosphate.com/lfp-battery-strategy

First Phosphate believes that Quebec igneous anorthosite phosphate rock is an untapped source of high purity phosphate which can potentially be mined and transformed into large quantities of PPA to service North America's need for LFP batteries.

Restricted Share Units ("RSUs") and Shares For Debt ("SFD")

The Company has also granted 358,000 RSUs of the Company ("RSUs") to eligible consultants of the Company. The RSUs vest in 2 tranches (50% on November 30, 2024 and 50% on February 28, 2025). The Company has settled $25,000 of debt for accrued amounts owing to an arm's length service provider through the issuance of 83,334 Common Shares at the deemed price of $0.30 per Common Share. All securities issued are subject to a hold period of four months plus one day from the date of issuance.

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 (CSE: PHOS) (OTC: FRSPF) (FSE: KD0) is a mineral development company fully dedicated to extracting and purifying phosphate for the production of cathode active material for the LFP battery industry. First Phosphate is committed to producing at high purity level, in responsible manner 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, the Company's belief that Quebec's igneous anorthosite phosphate rock is an untapped source of high-purity phosphate that can potentially be extracted and processed into large quantities of PPA to meet North America's LFP CAM production needs to achieve electrification goals, the Company's ability to prepare and the timing of the preparation of an NI 43-101 compliant resource estimate and technical report on the Company property, mining planning study, and the results of such report, the quality of resources from the Company properties and the accuracy of the preliminary indications of the drilling program on the future operations on the property and related environmental benefits from the Company's proposed processing methods.

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, as well as the Company's ability to prepare an NI 43-101 compliant resource estimate and technical report, and mining planning study, on the timeline provided and that the results will be consistent with the preliminary results as disclosed.

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 flowfrom 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 and United States 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. 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.