

**TECHNICAL REPORT**

**On the**

**Fire Eye Uranium Property  
Northern Mining District, NTS Map 064E14 and 064E15  
Saskatchewan, Canada**

**Prepared for:**

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## 1.0 SUMMARY

This report was commissioned by Vortex Energy Corp. (the “Company”) with Kristian Whitehead, P.Geol. (the “Author”) retained to prepare an independent Technical Report on the Fire Eye Uranium Property (the “Property”). The report is intended to provide a summary of material scientific and technical information concerning the Property and, in so doing, fulfill the Standards of Disclosure for Mineral Projects according to Canadian National Instrument 43-101 (“NI 43-101”). This report is also being prepared to support a non-offering prospectus and listing of the Company’s shares on the Canadian Securities Exchange (CSE).

The Property comprises of one unsurveyed mineral disposition MC00015792 covering a total area of 4,496.66 hectares. Through an option agreement dated March 10, 2022 between the Company and Geomap Exploration Inc., the Company has an option to acquire a 100% interest in the Property by making cash payments of \$230,000, issuing 400,000 shares and \$360,000 exploration work commitments.

The Property is centered on Universal Transverse Mercator (“UTM”) coordinate system, Zone 13N, at 6,412,407 meters Northing and 620,817 meters Easting; or at 102° 57’ 54.3” West Longitude and 57° 50’ 14.1” North Latitude. The western boundary of the Property is located approximately 50 km east of Highway #905 on NTS map sheets of 064E14 & 064E15.

The Property is located approximately 400 kilometers north of the town of La Ronge in the Northern Mining District, Saskatchewan, Canada. The Property is located 50 km to the east of the Provincial Highway #905. Access to the Property is by helicopter or fixed wing aircraft from Wollaston Lake. There are regularly scheduled commercial flights from Saskatoon to La Ronge and Points North, where both float planes and helicopters are available for charter.

Property topography is generally low-lying with occasional ridges and elevations ranging from 420 to 470 meters. Lakes, swamps, and glacial overburden (glacial outwash and esker material) overlie much of the Property. Property topography would not pose any serious problems for the construction of exploration or exploitation infrastructure. La Ronge, Prince Albert, and Saskatoon are the regional exploration supply centers. The climate of the region is considered sub-arctic with hot summers and very cold winters. Line-cutting, geophysics, and diamond drilling operations can be conducted year-round, but extreme cold in January and February can make work difficult.

Exploration history of the Property area dates back to 1930s’ with preliminary work of Geological Survey of Canada. In 1968, the first major uranium discovery in the Athabasca Basin was made at Rabbit Lake after which several other deposits were discovered. Three documented uranium occurrences were identified on the Property and documented in the Saskatchewan Mineral Deposit Index (“SMDI”) which includes: SMDI 0606 – Woodward Lake; SMDI 1710 – Middle Lake Uraniferous Pegmatite Anomalies 1, 2, 3, 4, and 5; and SMDI 1832 Fire Eye Lake. Historical data compilation maps of lake sediments and eU indicate that the western part of the Property is relatively more favourable for uranium exploration than the eastern part.

Geologically, the Property is part of the eastern Athabasca Basin within the Wollaston Domain Supergroup, a sequence that is considered to be 3-4 km thick. Four main lithostratigraphic units have been distinguished. The coarse clastic basal unit (Quartzite Unit) comprises mature quartzitic to arkosic metasediments, basal quartz conglomerate, and semipelitic to pelitic muscovite and biotite schists. It is underlain in some places by a sequence of immature meta-arkoses. The second unit is dominantly pelitic and typically graphitic. It contains interlayers of quartzitic psammites, calc-silicates, and locally marbles. The Lower pelitic unit lies directly on the Archean basement throughout most of the Wollaston and Mudjatik domains. It is considered to be the most favourable horizon for the location of uranium deposits. The pelitic unit is succeeded by a thick and extensive, monotonous sequence of calcareous and non-calcareous meta-arkoses, interlayered with subordinate calc-silicate, carbonate, and pelitic-semipelitic metasediments. Finally, the stratigraphic column ends with an upper amphibolite-quartzite unit characterized by these two rock types with interlayered calcareous sediments and graphitic pelites (Sibbald, 1985).

Locally, the Property area is underlain by the Middle Lake granite portion of the Archean Johnson River Inlier. Unit Wfn consists of a sheared granite which contains local inclusions of pelitic schist, amphibole, and/or metadiorite. Middle Lake Pegmatite Anomalies area is underlain by basal Wollaston Domain pelitic to semipelitic biotite gneiss with intercalated quartzite (Pgp Unit). These supracrustal rocks have been intruded by a series of pegmatite and aplite dykes. Fire Eye Lake Uranium Occurrence is in an area underlain by Archean Johnson River Inlier cream to white quartz monzonite to granite.

Two types of deposits have provided uranium ore for current and historic mining operations in the Athabasca basin and are considered suitable models for exploration work on the Property. Monometallic deposits are generally basement hosted veins, breccias fillings and replacements of uraninite associated with fault zones. Polymetallic deposits are commonly sub horizontal, semi-massive replacements of uraninite forming lenses just above or straddling the unconformity, and are associated with variable amounts of uranium, nickel, cobalt and arsenic and traces of gold, platinum-group elements, copper, rare-earth elements and iron

The most recent exploration work on the Property was carried out in March 2022 which included a high-resolution helicopter-borne magnetic survey and its interpretation. The survey consisted of 1,039 line-km over a single block with nominal traverse and control line spacing were 50m and 400 m, respectively. The geophysical survey data interpretation indicated that the survey area is divided into three major magnetic regions that are distinguished based on the strength of magnetic responses. The pelitic, psammopelitic gneisses (*Wpsn*) of Wollaston Group, REGION [A], are categorized by HIGH magnetic responses with numerous subtle, northeasterly trending linear anomalies. In contrast, Megacrystic granitoids (*Pgp*) of the Peter Lake Complex in the middle of the survey area, REGION [B], is mainly categorized by LOW magnetic responses with several high northeasterly magnetic features superimposed on them. REGION [C] on the east side of the Property is mainly categorized by HIGH magnetic responses of the pelitic, psammopelitic gneisses (*Wpsn*) of the Wollaston Group with numerous subtle, northeasterly trending linear features.

The Author visited the Property on March 24, 2022 to verify historical and current exploration work, to examine mineralized outcrops, to collect necessary geological data, to take

infrastructure, and other technical observations and to assess the potential of the Property for discovery of copper and other mineralization. One grab sample was also collected during his property visit from a pegmatite rock outcrop. The sample was prepared at ALS Canada Ltd. (“ALS”) and was analyzed at its location in North Vancouver. The sample results returned low values of uranium and thorium.

Based on the Property geology, recent exploration data and historical work, six areas of interest (“AOI”) with high uranium concentrations have been selected and sequentially prioritized as potential targets from this geologically complicated and geophysically favourable area:

- Areas of T-01, T-02, T-03, and T-04 are categorized as highly prioritized AOI along or in the vicinity of the geological contact that defines the boundary between Magnetic LOWs and Magnetic HIGHS in REGIONS [A] and [B]. T-01 on the east side of Fire Eye Lake has given higher target priority since it seems to have relatively higher concentration of Uranium.
- Area of T-05 is categorized as moderately prioritized AOI along or in the vicinity of the geological feature that probably defines a boundary between the Peter Lake Granitoids and metasedimentary rocks of the Wollaston Group within REGION [B].
- Area of T-06 is categorized as low prioritized AOI. In the southeastern part of the Property (REGION [C]), T-06 shows relatively lower concentration of Uranium; however, it is coincident with anomalously magnetic features, strongly sheared Iron-bearing metasediments, in the vicinity of Woodward Lake. Although it shows relatively moderate radiometric responses in terms of the concentration of Uranium, no significant radioactive minerals were reported in this area.

It is concluded that the Property is a property of merit with good potential to host a significant uranium mineralization because:

- The Property hosts Archean- and Proterozoic-age metamorphic rocks of the Wollaston Super Group rocks;
- Historical exploration shows that structurally controlled basement hosted uranium mineralization on the Property;
- Three SMDI uranium showings occur on the Property; and
- Six AOI with high uranium concentrations have been selected and sequentially prioritized as potential targets.

No Mineral Resource or Reserve, as currently defined by Canadian Institute of Mining, Metallurgy and Petroleum (C.I.M.) terminology, has been outlined on the Property.

The Property is a grassroots exploration property and has merit to justify a two-phase exploration program, where the second phase is contingent upon the results of the first phase.

Phase 1 work should be a ground follow up of the three historical SMDI uranium occurrences on the Property, as well as the six AOI interpreted as a results of 2022 geophysical survey and historical data interpretation. The work will include prospecting, geological mapping, and sampling. The areas with less rock outcrops can be covered with soil sampling work. The estimated Phase 1 program cost is \$261,635 and it will take 6-8 weeks' time to complete during the summer months.

If results from the first phase are positive, then a Phase 2 drilling program would be warranted to check the most promising targets identified because of prospecting, geochemical surveys, geological mapping, and sampling work in Phase 1. The scope of work for drilling and location of drill holes would be determined based on the findings of Phase 1 investigations. Initially a 1,000 meters core drilling program is recommended.



## **2.0 INTRODUCTION**

### **2.1 Purpose of Report**

This report was commissioned by Vortex Energy Corp. (the “Company”) with Kristian Whitehead, P.Geo (the “Author”) retained to prepare an independent Technical Report on the Fire Eye Uranium Property (“Property”). The report is intended to provide a summary of material scientific and technical information concerning the Property and, in so doing, fulfill the Standards of Disclosure for Mineral Projects according to Canadian National Instrument 43-101 (“NI 43-101”). This report is also being prepared to support a non-offering prospectus and listing of the Company’s shares on the Canadian Securities Exchange (CSE).

### **2.2 Sources of Information**

The present report is based on published assessment reports available from the Mineral Administration Registry (“MARS”) Saskatchewan, the Saskatchewan Mineral Deposit Index (SMDI), and available information at the Saskatchewan Mineral Exploration and Mining Online Database, the Geological Survey of Canada (“GSC”), various researchers, websites, and personal observations. All consulted sources are listed in the References section. The sources of the maps are noted on the figures.

The Author carried out a visit of the Property on March 24, 2022. The scope of the Property inspection was to verify historical and current exploration work and to take geological, infrastructure, and other technical observations on the Property. The geological work performed to verify the existing data consisted of surface grab sampling and visiting reported approachable historical exploration work areas.

The Author has also reviewed the land tenure on the MARS. The Author reserves the right but will not be obliged to revise the report and conclusions if additional information becomes known after the date of this report.

## **3.0 RELIANCE ON OTHER EXPERTS**

This report is based upon personal examination by the Author and review of available reports on the Property.

The information, opinions and conclusions contained herein are based on:

- information available to the Author at the time of preparation of this report;
- assumptions, conditions, and qualifications as set forth in this report; and
- data, reports, and other information supplied by the Company and other third-party sources.

For the purpose of the report the Author has reviewed and relied on ownership and information relating to an option agreement dated March 10, 2022 between the Company and Geomap

Exploration Inc. (the "Option Agreement") provided by the Company which to the knowledge of the Author is correct. A limited search of tenure data on the MARS Saskatchewan website on May 02, 2022, conforms to the data supplied by the Company. However, the limited research by the Author does not express a legal opinion as to the ownership status of the Property. This disclaimer applies to ownership information relating to the Property.

As of the date of this report, the Author is not aware of any material fact or material change with respect to the subject matter of this technical report that is not presented herein, or which the omission to disclose could make this report misleading.

#### 4.0 PROPERTY DESCRIPTION AND LOCATION

The Property consists of a large mineral claim (Disposition) MC0001579 which covers about 4,497 hectares land of Wollaston Supergroup metasediments in the Wollaston Domain of northern Saskatchewan, Canada, an area known for uranium and base metal deposits. The Property is centered on UTM coordinate system, Zone 13N, at 6,412,407 meters Northing and 620,817 meters Easting; or at 102° 57' 54.3" West Longitude and 57° 50' 14.1" North Latitude. The western boundary of the Property is located approximately 50 km east of Highway #905 on NTS map sheets of 064E14 & 064E15.

The Property is currently owned 100% by Afzaal Pirzada of Geomap Exploration Inc. (the "Vendor") and it was optioned by the Company pursuant to the Option Agreement, where the Company has an option to acquire a 100% interest in the Property by making cash payments of \$230,000, issuing 400,000 shares and \$360,000 exploration work commitments as per the following schedule:

- a) paying Vendor an aggregate of \$230,000 in cash as follows:
  - (i) \$75,000 within 5 (five) calendar days after March 10, 2022 (the "Effective Date");
  - (ii) \$75,000 on or before the date that is 10 (ten) calendar days after the condition precedent provided for in Section **Error! Reference source not found.** of the Option Agreement is completed by the Vendor;
  - (iii) \$30,000 on or before the date that is one (1) calendar year after the Effective Date; and
  - (iv) \$50,000 on or before the date that is two (2) calendar years after the Effective Date;
  
- b) issuing Vendor an aggregate 400,000 shares as follows:
  - (i) 100,000 shares on or before the date that is 10 (ten) calendar days after the condition precedent provided for in Section **Error! Reference source not found.** of the Option Agreement is completed by the Vendor;
  - (ii) 150,000 shares on or before the date that is one (1) calendar year after the date the common shares of the Company are listed on the CSE (the "Listing Date"); and
  - (iii) 150,000 shares on or before the date that is two (2) calendar years after the Listing Date;
  
- c) incurring aggregate expenditures of \$360,000 as follows:

- (i) \$110,000 of expenditures on or before the date that is one (1) calendar year after the Effective Date; and
- (ii) \$250,000 of expenditures on or before the date that is two (2) calendar years after the Effective Date.

There is a 3% Net Smelters Royalty on the Property payable to the Vendor.

**Table 1: Mineral disposition details**

Disposition Details		Assigned Owner(s)	
Disposition #:	MC00015792	Afzaal Pirzada	100.000%
Type:	Mineral Claim	<b>Name Change History</b>	
Issued Date:	1/10/2022	No Name Change History	
Effective Date:	1/10/2022	<b>Transfer History</b>	
Next Review Date:	1/10/2023	No Transfer History	
Good Standing To:	4/9/2024	<b>Notice of Dispute Records</b>	
Staking Date:		No Notice of Dispute Records	
<b>Validation Summary</b>		<b>Builders' Lien</b>	
Total Area:	4496.661 Ha	No Builder Lien	
In Good Standing:	Yes	<b>Work Credit History</b>	
<b>Assessment Work</b>		No Work Credit History	
Effective Date:	1/10/2022	<b>Map</b>	
Date of First Lease:	N/A		
Applied Work Reqs for Claim Year Ending:	1/10/2022	<b>Legal Land Description</b>	
Relief from Expenditure Requirements:	No		
Total Available Expenditures:	\$0.00		
Work Requirements:	\$0.00		
Work Waiting Approval by Branch:	No		
<b>Sub No.</b>	<b>Decided On</b>	<b>Amt. Approved</b>	<b>Status</b>

To conduct mineral exploration activities on Crown land within Saskatchewan, surface disturbance permits are required from the Ministry of Environment before any work can be started. The permits vary depending on the program and may include, but are not limited to: Forest Product, Aquatic Habitat Protection, Work Authorization and/or Temporary Work Camp permits. To obtain the appropriate permits an application must be submitted to a Ministry of Environment Ecological Protection Specialist. Verification from the Heritage Resources Branch and a map from the Conservation Data Centre must accompany the application. Drilling programs will normally also require Term Right to Use Water licences obtained through the Saskatchewan Watershed Authority and a Notification Form may be required to be completed and submitted to the Department of Fisheries and Oceans Canada. The Property claim is in good standing until April 09, 2024.

(Source: <https://www.saskatchewan.ca/business/agriculture-natural-resources-and-industry/mineral-exploration-and-mining/mining-permits>)

No work permits for the Property have been applied for. The Author is not aware of any environmental or regulatory problems that would adversely affect mineral exploration and development within the area of the Property. The political uncertainty inherent in consultations with First Nations and other local groups regarding access and work programs may be considered a significant risk. There are no known environmental liabilities.

Mining claims in Saskatchewan do not include surface rights. The surface rights on the Property are owned by Crown where a permit is required to carry out intrusive exploration work such as line-cutting, trenching and drilling.

Figure 1: Property Location

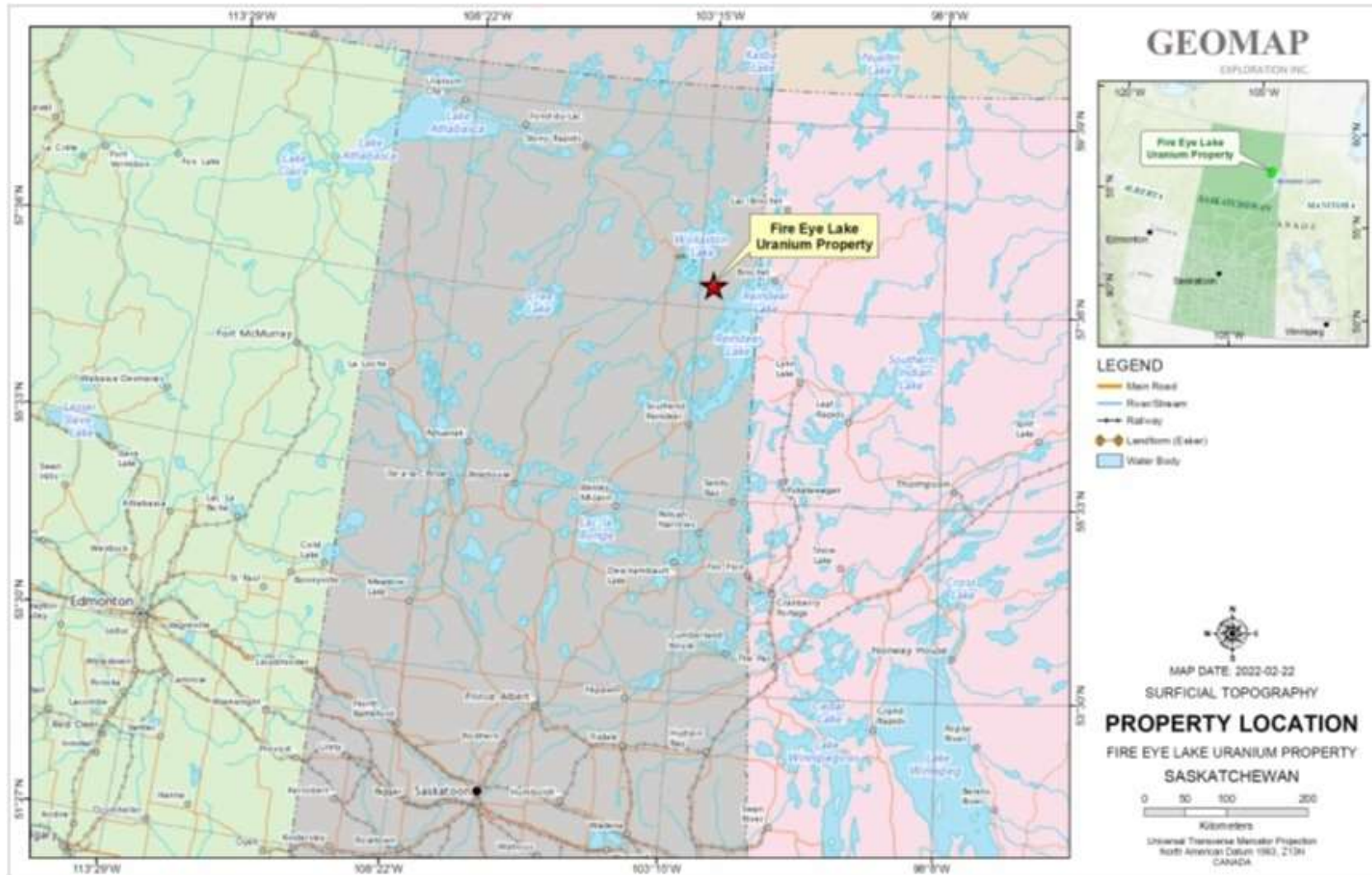


Figure 2: Property Claims Map

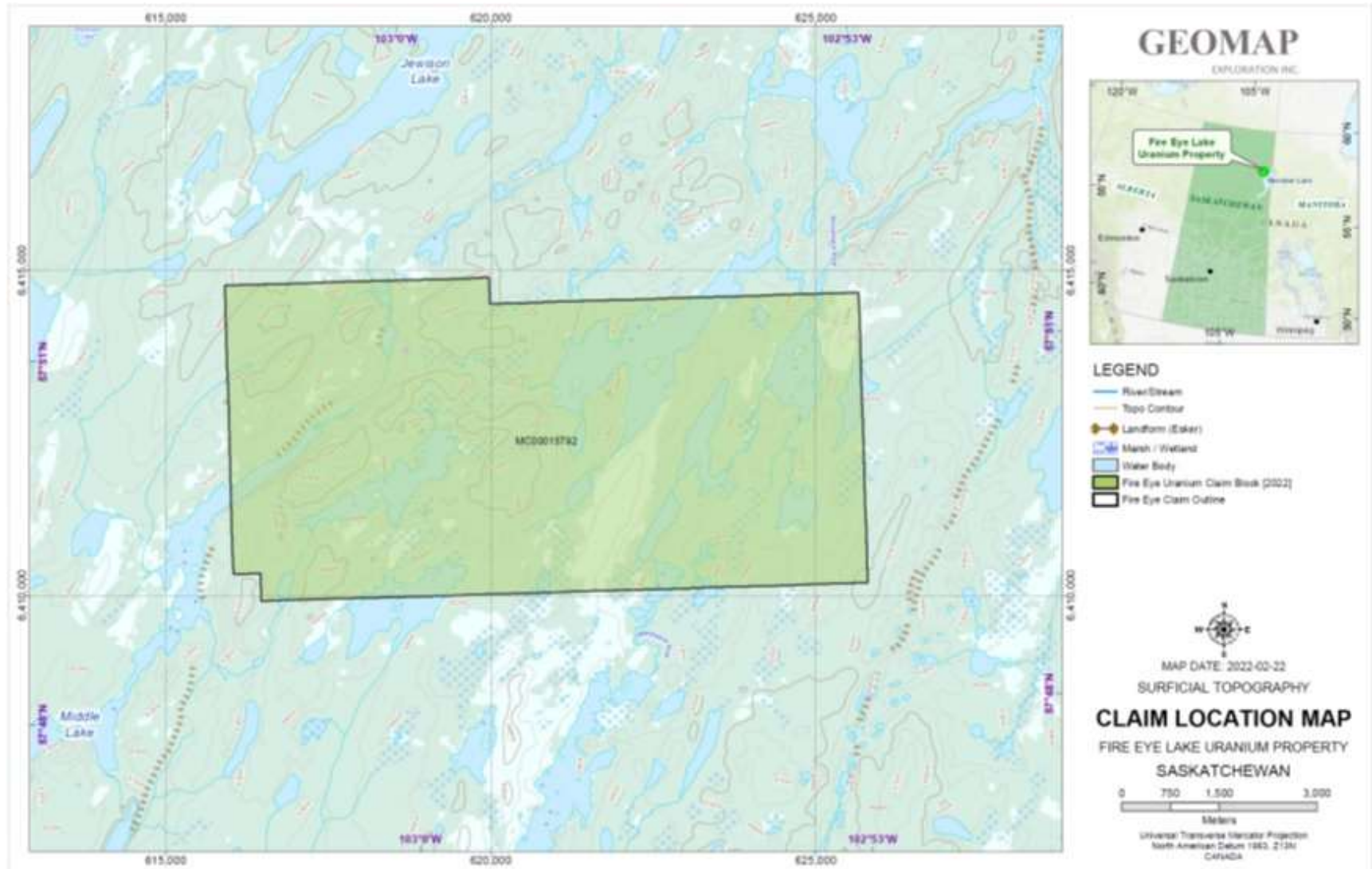
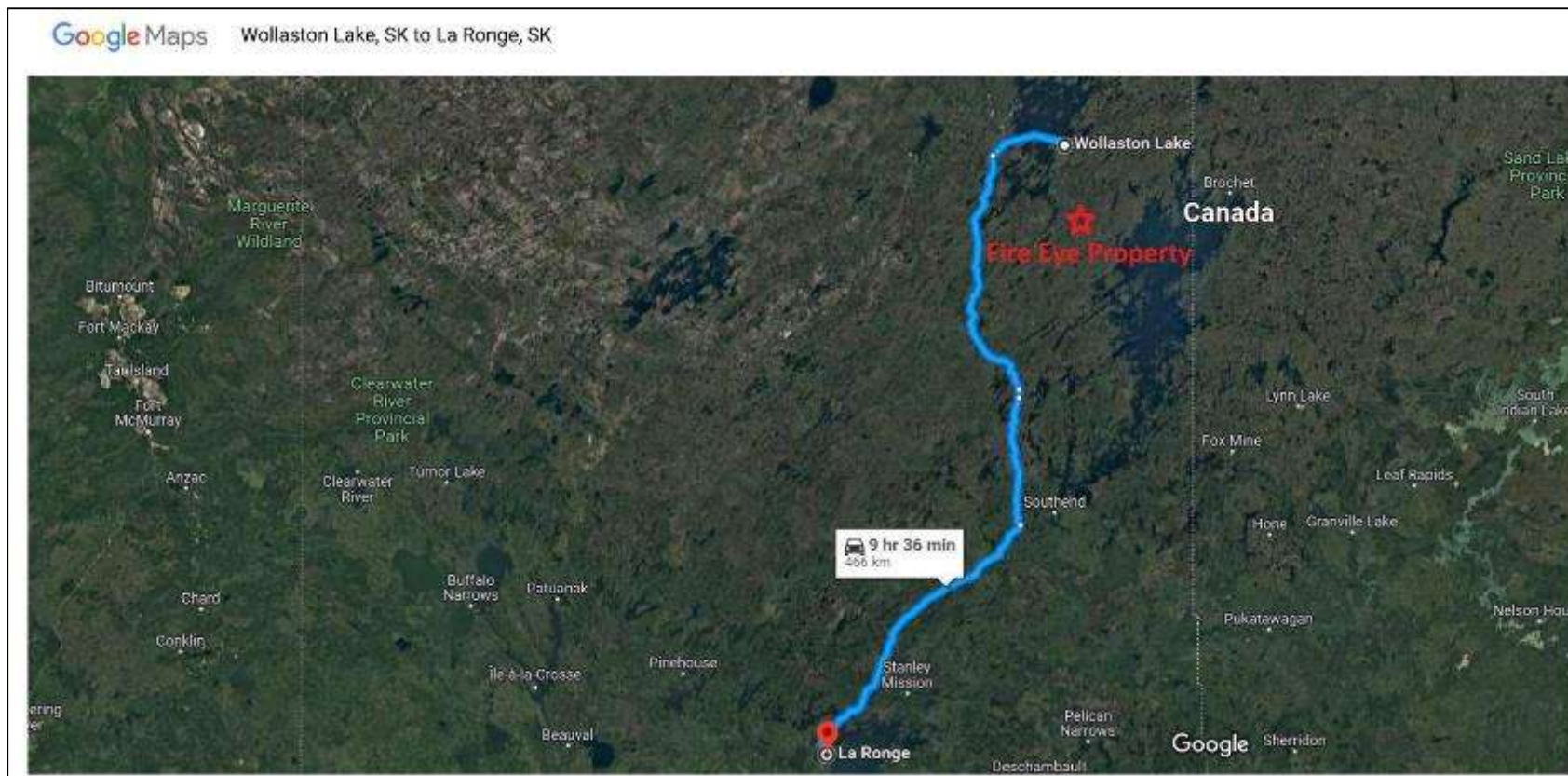


Figure 3: Property Location and Access



## 5.0 ACCESS, CLIMATE, PHYSIOGRAPHY, LOCAL RESOURCES, AND INFRASTRUCTURE

### 5.1 Access

Access to the Property is by helicopter, fixed wing aircraft, and/or maintained gravel Provincial Highway #905, which is about 50 km to the west of the Property. The Highway runs from the town of La Ronge, located approximately 400 km south of the Property, to the settlement of Wollaston Lake, situated north-northwest (Figure 3). There are regularly scheduled commercial flights from Saskatoon to La Ronge, where both float planes and helicopters are regularly available for charter. Air service is also provided to and from Wollaston Lake to Points North Landing, a service center for nearby uranium mines.

The Property is approximately 75 km from KM 147 Lamp Lighters Lodge in Courtenay Lake, Saskatchewan where 2022 survey crew was staying, and the project was accessed by using a helicopter. The Author accessed the Property from Wollaston Lake by using a helicopter.

**Photo 1: Ice Road & Wollaston Lake community (March 2022 Property visit Photo)**

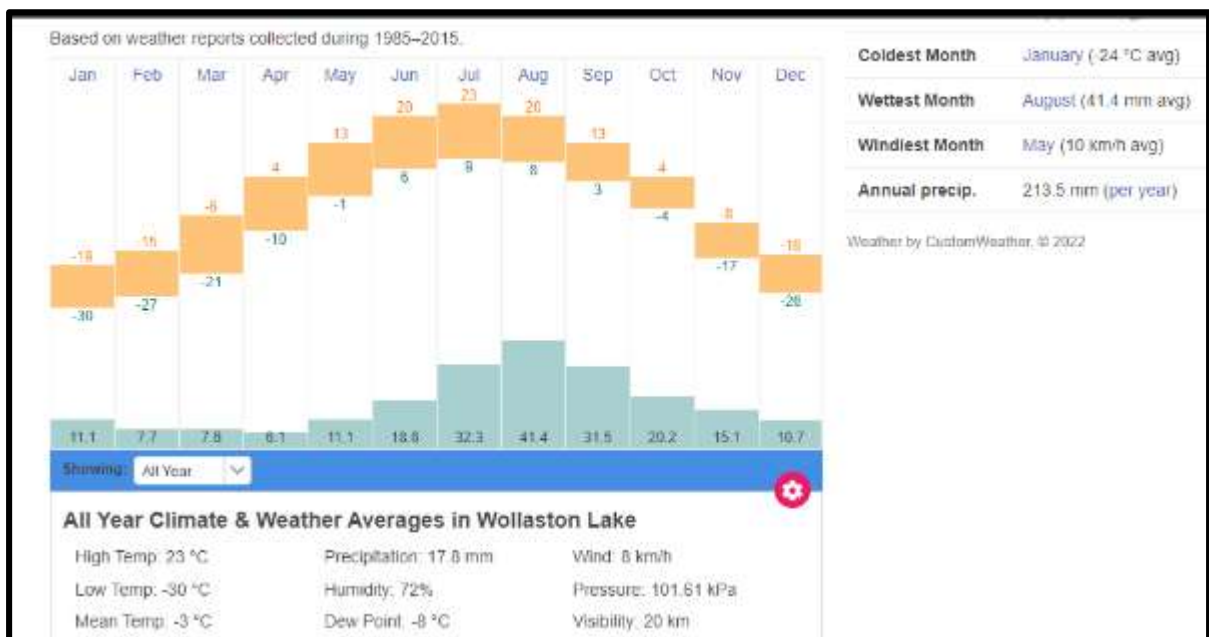




## 5.2 Climate

The climate of the region is considered sub-arctic with annual mean temperatures at Wollaston Lake of -3°C, annual maximums to 23°C, and annual minimums to -30°C. The annual mean precipitation at Wollaston Lake is 213.5 mm, with the highest amounts (41.4 mm) in August. The mean annual snowfall is 170 mm, falling on an average of 75 days of the year. Field prospecting, geological mapping and sampling work can be carried out during summer months from June-October, however, line-cutting, geophysics, and diamond drilling operations can be conducted year-round, but extreme cold in January and February can make work difficult.

Figure 4: Wollaston Lake climate data



(Source: <https://www.timeanddate.com/weather/@6183870/climate>)

## 5.3 Physiography

Property topography is generally low-lying with occasional ridges and elevations ranging from 420 to 470 meters. Lakes, swamps, and glacial overburden (glacial outwash and esker material) overlie much of the Property. Vegetation consists of blue spruce, jack pine, tamaracks, with common scrubby underbrush of willows and alders. Low-lying areas are dominated by standing water and muskeg. Property topography would not pose any serious problems for the construction of exploration or exploitation infrastructure. La Ronge, Prince Albert, and Saskatoon are the regional exploration supply centers.

## 5.4 Local Resources and Infrastructure

La Ronge is the nearest town located approximately 400 km to the south of the Property. Several mining companies, government agencies, and airlines have offices in La Ronge, and the local Chamber of Commerce has many other retail and service businesses amongst its members. Access to Wollaston Lake is provided by Wollaston Lake Airport and Highway #905. The highway is on the west side of the lake and the community is on the east side. Access from Highway #905 is provided by an ice road in the winter and by the Wollaston Barge Ferry in the summer. There are several lakes within the Property area which can be a source of water for exploration activities. The Property size is large enough to carry out exploration and mining operations. A power line runs along Highway 905 which is located approximately 75 km to the west of the Property. KM 147 Lamp Lighters Lodge in Courtenay Lake is used as a base station for supporting exploration work for various mining companies in the area. Trained manpower, drilling contractors and geophysical survey services are available from La Ronge, Saskatoon or other jurisdictions in Canada.

## 6.0 HISTORY

### 6.1 Local History

In the 1930s, the Property area was partially mapped by the Geological Survey of Canada, with focus on gold and base metals. In the 1970s, the Saskatchewan Geological Survey mapped the area at 1:100,000 scale. In 1977, other mapping was carried out in the area by G. E. Ray at 1:100,000 scale, and between 1972 and 1977 by R. Munday also at 1:100,000 scale.

In 1968, the Rabbit Lake uranium deposit was discovered and exploration activity in the Property area was carried out. Exploration consisted mainly of airborne radiometric surveys, airborne electromagnetic and magnetic surveys, and ground prospecting.

The Key Lake uranium deposit was discovered in 1975 by tracing a prominent mineralized boulder train to source. After Key Lake, interest in the area was renewed and uranium occurrences of various sizes were discovered. Mineralization reported to the government was identified using an indexed numbering system, the SMDI, that is available online.

### 6.2 Property History

There are three uranium showings on the Property as listed in SMDI inventory (SMDI 0606, SMDI 1710, and SMDI 1832) which are summarized below.

#### **SMDI 0606 – WOODWARD LAKE**

The showing is located 2.2 miles (3.5 km) north-northeast of Woodward Lake. Geologically, the area northeast of Woodward Lake is underlain by the Middle Lake

granite portion of the Archean Johnson River Inlier. Unit Wfn consists of a sheared granite which contains local inclusions of pelitic schist, amphibole, and/or metadiorite. The granite is, locally overlain by basal Wollaston Group unit Wpsn of a series of fine- to medium-grained, graphitic, pelitic to semipelitic biotite gneiss with intercalated intervals of meta-arkose and meta quartzite. The showing was described by prospectors as outcrops of felsic and mafic metasediments and boulders of poorly mineralized (pyritic) gabbro.

The area of the showing was first covered by a permit held by Husky Oil Ltd. (“Husky”) in 1968. An airborne EM-INPUT and magnetic survey was completed by Questor International Surveys Ltd. on behalf of Husky, and an airborne spectrometer survey by Geo-X survey Ltd. on behalf of Husky was completed as well in 1969.

In 1970, Geoterrex Surveys Ltd. did an interpretive study of airborne magnetic data for Husky. Field work was carried out by Wollex Exploration Ltd. and Fisher & Associates Ltd (AF 64E05-0020). The field work included ground radiometric and geophysical follow-up, prospecting, and diamond drilling (Source: Assessment Report: 64E05-0020).

#### **SMDI 1710 – Middle Lake Uraniferous Pegmatite Anomalies 1, 3, 4, and 5**

The showing is in an area southeast of Jewison Lake and northeast of Middle Lake. The showing area is underlain by Archean Johnson River Inlier fine-grained granite which is unconformably overlain by basal Wollaston Domain pelitic to semi- pelitic biotite gneiss with intercalated quartzite. These supracrustal rocks have been intruded by a series of pegmatite and aplite dykes.

Eight airborne anomalies were located in the area. Three of the anomalies are in NTS area 64-E-14 and extend along a north-northeast-trending zone. The anomalies occur 0.4, 0.55 and 0.7 miles (0.6, 0.89 and 1.1 km) north-northeast of the northeast tip of Middle Lake. These anomalies are caused by weak uranium stain in quartzites and migmatized sediments as well as granite. The highest reading obtained was 1500 cps in a fracture trending 040°. Average readings are between 200 and 500 cps.

Ground checking of the anomalies led to the discovery of eight radioactive occurrences. Five of these are located within NTS area 64-E-14 and three are along strike and extend into NTS area 64-E-15. The anomalies are located along the same north-northeast-trending zone as the airborne anomalies. Anomalies 1, 2, 3, 4 and 5 are located 0, 0.55, 0.75, 1.0 and 1.3 miles (0, 0.89, 1.2, 1.6 and 2.1 km) north-northeast of the northeast tip of Middle Lake, respectively.

Anomaly No. 1 consists of weak uranium stain which returned a scintillometer reading of 300 cps.

Anomaly No. 3 consists of a 1000 ft (304.8 m) aplite dyke which cuts granite. The dyke returned an average reading of 600 cps.

Anomaly No. 4 consists of a 6 by 4-inch (15.2 by 10.2 cm) biotite pod hosted within a quartz vein and exhibiting uranium oxide stain. A reading of 5000 cps was returned but trenching failed to reveal any extensive mineralization.

Anomaly No. 5, consists of a 50 ft (15.2 m) long fracture, occurring in a 2 ft (0.6 m) wide quartz-feldspar-pegmatite sill within a narrow band of biotite hornblende gneiss. Readings of 500 to 6500 cps were returned along the fracture. Uranium staining is apparent, and trenching revealed more staining along a cross fracture.

In 1966, Falconbridge Permit No. 2 was covered by a reconnaissance geological survey and a geochemical sampling program. Results were inconclusive.

The area was known as Partridge Permit No. 1 in 1967. Only reconnaissance prospecting was done in 1967 and nothing encouraging was found in the showing area.

The area was subsequently acquired by Great Plains (Great Plains Permit No. 1) in 1968. Questor Surveys Ltd. was commissioned to complete airborne EM and Magnetic surveys. Most anomalies were believed to be due to formational conductivity and represent syngenetic sulphides and/or graphite. They were not considered significant.

Up until 1968, exploration activity was concentrated on locating base metal sulphide occurrences. In 1969, emphasis was placed on uranium exploration. Questor Surveys Ltd. flew a radiometric survey for Great Plains. This was followed by ground checking of anomalies. Most anomalies were caused by boulder trains, frost heaves, and/or outcrops of granite. This survey led to the delineation of the airborne anomalies, which in turn led to the discovery of the anomalies comprising the fractures.

Four diamond drill holes were completed in 1969 but failed to reveal significant uranium mineralization.

Great Plains Permit No. 1 was allowed to lapse but the Jewison Lake area was covered by CBS 2900. In 1970, work in this area of interest included prospecting, radon-222 water sampling and diamond drilling. Great Plains concluded that the uranium mineralization was uneconomic and recommended that the claim be allowed to lapse.

(Source:

<https://applications.saskatchewan.ca/Apps/ECONApps/dbsearch/MinDepositQuery/default.aspx?ID=1710>)

### **SMDI 1832 – Fire Eye Lake Uranium Occurrence**

The showing is located on the north shore of Fire Eye Lake and 1.12 miles (1.8 km) southeast of the Middle Lake Uranium Occurrences which constitute SMDI 1710.

The showing area is underlain by Archean Johnson River Inlier cream to white flasered quartz monzonite to granite. Locally, the Archean granites are unconformably overlain by a series of basal Wollaston Group graphitic pelitic to semipelitic biotite gneisses with significant intercalated meta-arkose, calc-silicate, impure marble, and metadiorite horizons.

The claims on which the showing was discovered are underlain by a large, northeast-trending, Archean granite ridge. High radioactivity (5 to 6 times normal background) was detected on the western side of this ridge. The radioactive zone was stripped and trenched - to expose two narrow (2 to 3 ft or 0.6 to 0.9 m wide), discontinuous zones which consisted of anomalous uranium mineralization within silicified metasediments along the west side of a granite ridge.

To the north, the zone of radioactive metasediments pinches out into granite. To the south, the zones are covered by thick overburden. Grab samples of the trenched material returned values of 0.27%, 0.34%, 0.08%, and 0.03% U<sub>3</sub>O<sub>8</sub>. The mineralization corresponds to conductive zones on EM. This suggested that the uranium may have been associated with graphite. No graphite, however, was noted.

The area was held as Great Plains Petroleum Permit No. 1. Considerable work including airborne and ground EM surveys, gravity surveys, geological mapping and diamond drilling was carried out on the permit prior to 1971 but the main target of the exploration was Pb-Zn mineralization; no mention was made of uranium. The permit was allowed to lapse in February 1971.

The area of the showing was staked as CBS 4813 on December 7 1976, by C.W.D. Investments. An exploration program comprising geological mapping and scintillometer surveys was initiated in 1977 and the anomalous uranium was noted (AF 64E13-0017). In 1978, an EM survey was carried out outlining anomalous zones (AF 64E14-0021). The mineralization appeared to correspond to conductors delineated during these surveys, and further work was recommended. The Property, however, was allowed to lapse July 1 1980.

On March 18 1981, the area was restaked as CBS 7241 by D. Carlson; no assessment work was reported, and the Property lapsed in October of 1983 (Source: Assessment Report 64E14-0017;-002).

### **6.3 Regional Data Compilation**

Maps compiled from historical lake sediments studies and equivalent uranium (eU) data available from the MARS Saskatchewan and the SMDI are presented in Figures 5 and 6. The map of lake sediments show that the western part of the Property is relatively more favourable for uranium exploration than the eastern part. Similarly the eU map also coincides with these observations.

Figure 5: Lake sediments map

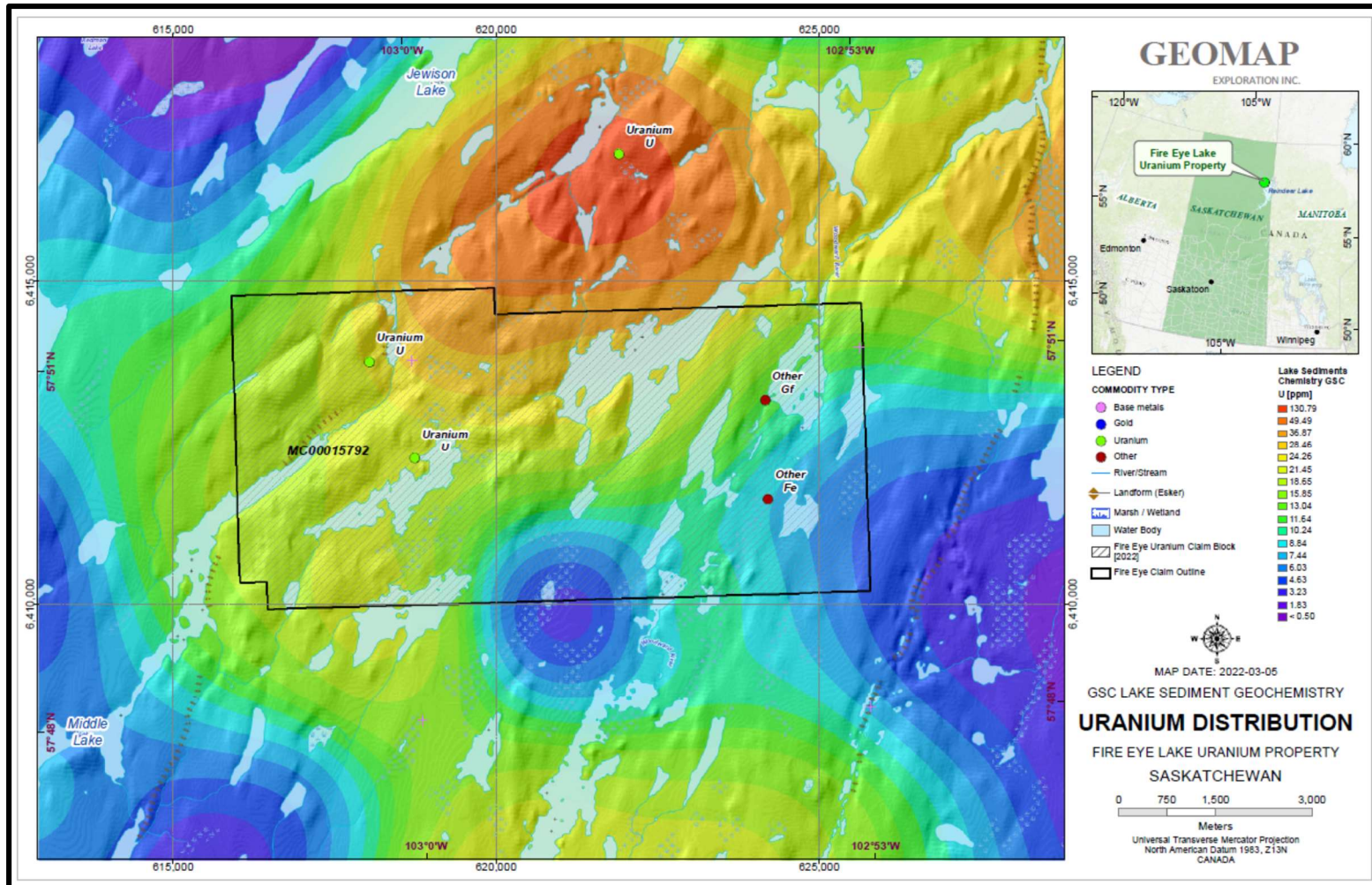
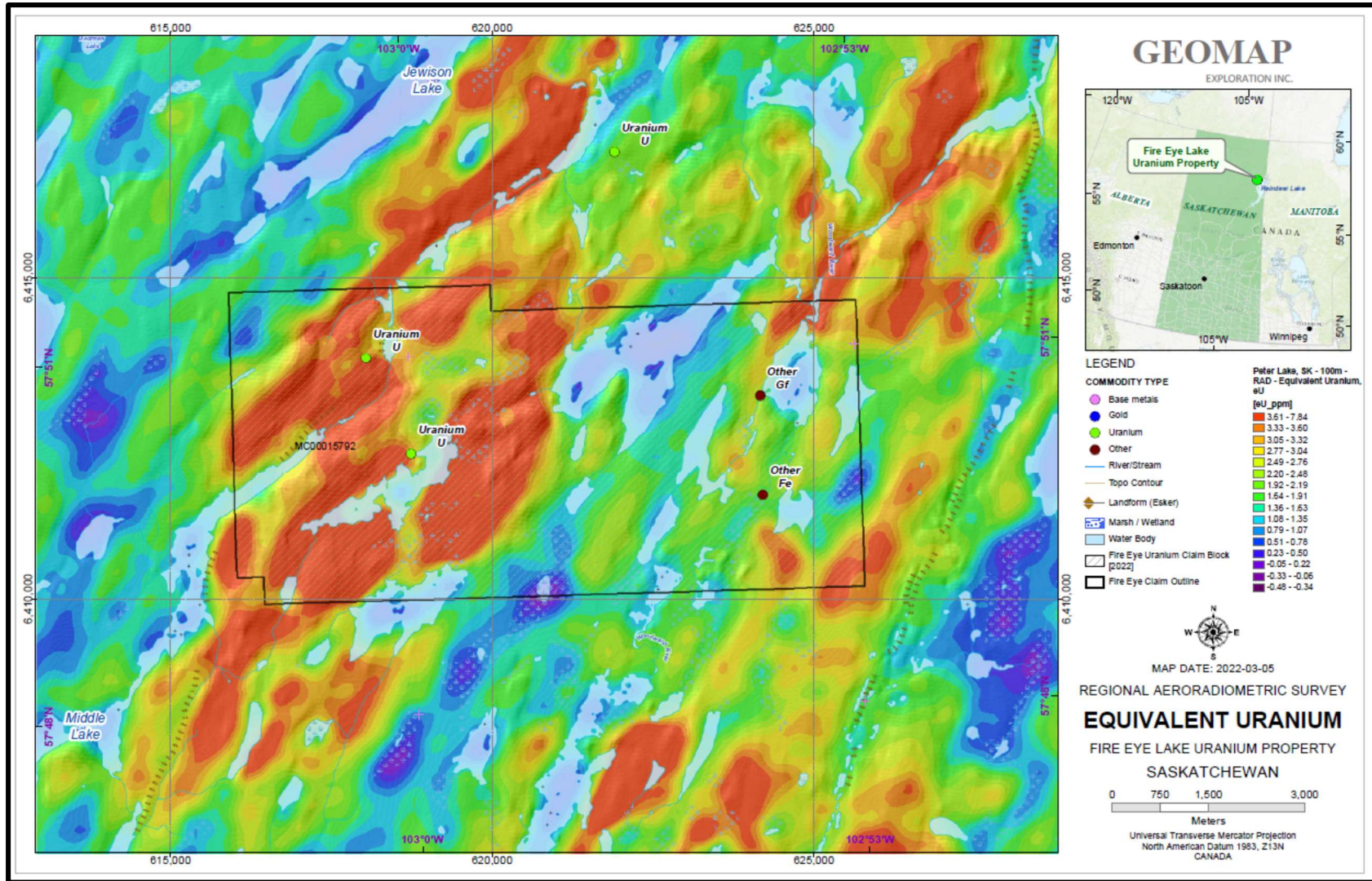


Figure 6: eU Map of the Property



## 7.0 GEOLOGICAL SETTING AND MINERALIZATION

### 7.1 Regional Geology

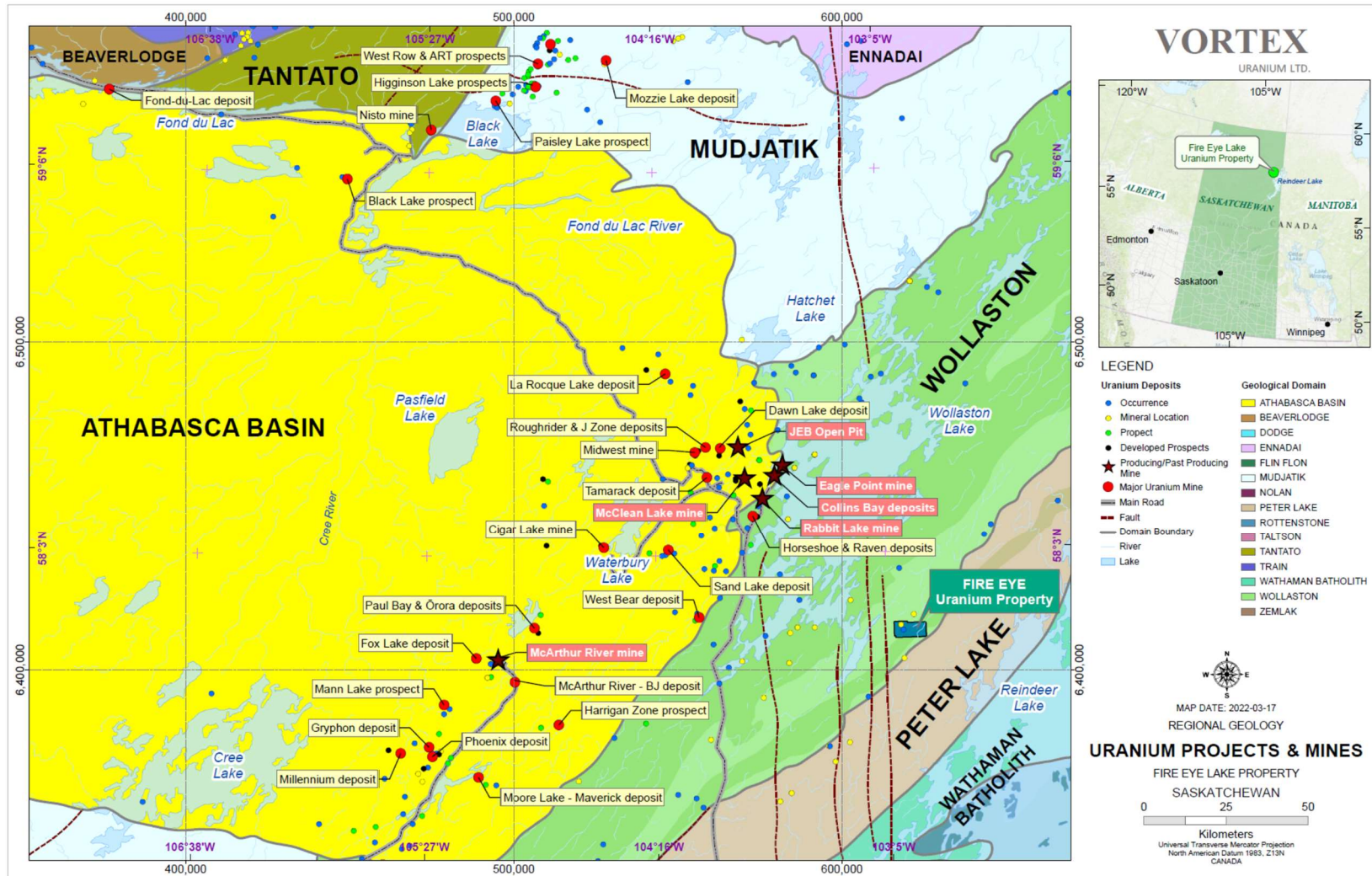
The Athabasca Basin is in northern Saskatchewan and Alberta. It consists of Paleo- to Mesoproterozoic siliciclastic rocks that unconformably overlie Archean to Paleoproterozoic basement rocks of the Canadian Shield (Jefferson et al., 2007). The Property is part of the eastern Athabasca Basin within the Wollaston Domain Supergroup.

The Wollaston Domain comprises an Apehian supracrustal succession, the Wollaston Group (Ray, 1977), a sequence that is considered to be 3-4 km thick. Within the Group, four main lithostratigraphic units have been distinguished. The coarse clastic basal unit (Quartzite Unit) comprises mature quartzitic to arkosic metasediments, basal quartz conglomerate, and semipelitic to pelitic muscovite and biotite schists. It is underlain in some places by a sequence of immature meta-arkoses. The second unit is dominantly pelitic and typically graphitic. It contains interlayers of quartzitic psammites, calc-silicates, and locally marbles. The Lower pelitic unit lies directly on the Archean basement throughout most of the Wollaston and Mudjatik domains. It is considered to be the most favourable horizon for the location of uranium deposits. The pelitic unit is succeeded by a thick and extensive, monotonous sequence of calcareous and non-calcareous meta-arkoses, interlayered with subordinate calc-silicate, carbonate, and pelitic-semipelitic metasediments. Finally, the stratigraphic column ends with an upper amphibolite-quartzite unit characterized by these two rock types with interlayered calcareous sediments and graphitic pelites. This unit (the "Hidden Bay Assemblage") is only reported in the Wollaston Lake area (Sibbald 1983).

During the Hudsonian orogeny, the Wollaston Group underwent polyphase deformation and low- to intermediate-pressure, upper amphibolite facies metamorphism. Three main deformational events have been recognized. Folding during the second event produced northeast-southeast-elongated domes and basins. Hudsonian magmatic activity is marked by concordant and discordant granitic to pegmatitic lenses, veins, and bodies of quartzofeldspathic composition. Rb - Sr whole-rock and U - Pb zircon methods give ages of 2636 Ma, 2594 Ma, and 2494 Ma for rocks from the granitic domes, whereas younger granitic intrusions of the Wollaston Domain yield an Rb-Sr age of 1765 Ma. The Hudsonian orogeny was followed by a long period of erosion and intense lateritic weathering, as indicated by the presence of a regional altered zone (the "Regolith"), which is well preserved everywhere under the Athabasca Group (MacDonald 1983). Development of the Regolith was initiated at least 1633 Ma ago.



Figure 7: Regional Geological Map with Uranium Projects & Mines



## 7.2 Property Geology

The area northeast of Woodward Lake is underlain by the Middle Lake granite portion of the Archean Johnson River Inlier. Unit Wfn consists of a sheared granite which contains local inclusions of pelitic schist, amphibole, and/or metadiorite. The granite is, locally overlain by basal Wollaston Group unit Wpsn of a series of fine- to medium-grained, graphitic, pelitic to semipelitic biotite gneiss with intercalated intervals of meta-arkose and meta quartzite. The showing was described by prospectors as outcrops of felsic and mafic metasediments and boulders of poorly mineralized (pyritic) gabbro.

SMDI 0606 – Woodward Lake showing area is underlain by the Middle Lake granite portion of the Archean Johnson River Inlier. Unit Wfn consists of a sheared granite which contains local inclusions of pelitic schist, amphibole, and/or metadiorite. The granite is, locally overlain by basal Wollaston Group unit Wpsn of a series of fine- to medium-grained, graphitic, pelitic to semipelitic biotite gneiss with intercalated intervals of meta-arkose and meta quartzite. The showing was described by prospectors as outcrops of felsic and mafic metasediments and boulders of poorly mineralized (pyritic) gabbro.

SMDI 1710 – Middle Lake Uraniferous Pegmatite Anomalies 1, 3, 4, and 5 showing area is underlain by basal Wollaston Domain pelitic to semipelitic biotite gneiss with intercalated quartzite (Pgp Unit on Figure 8). These supracrustal rocks have been intruded by a series of pegmatite and aplite dykes.

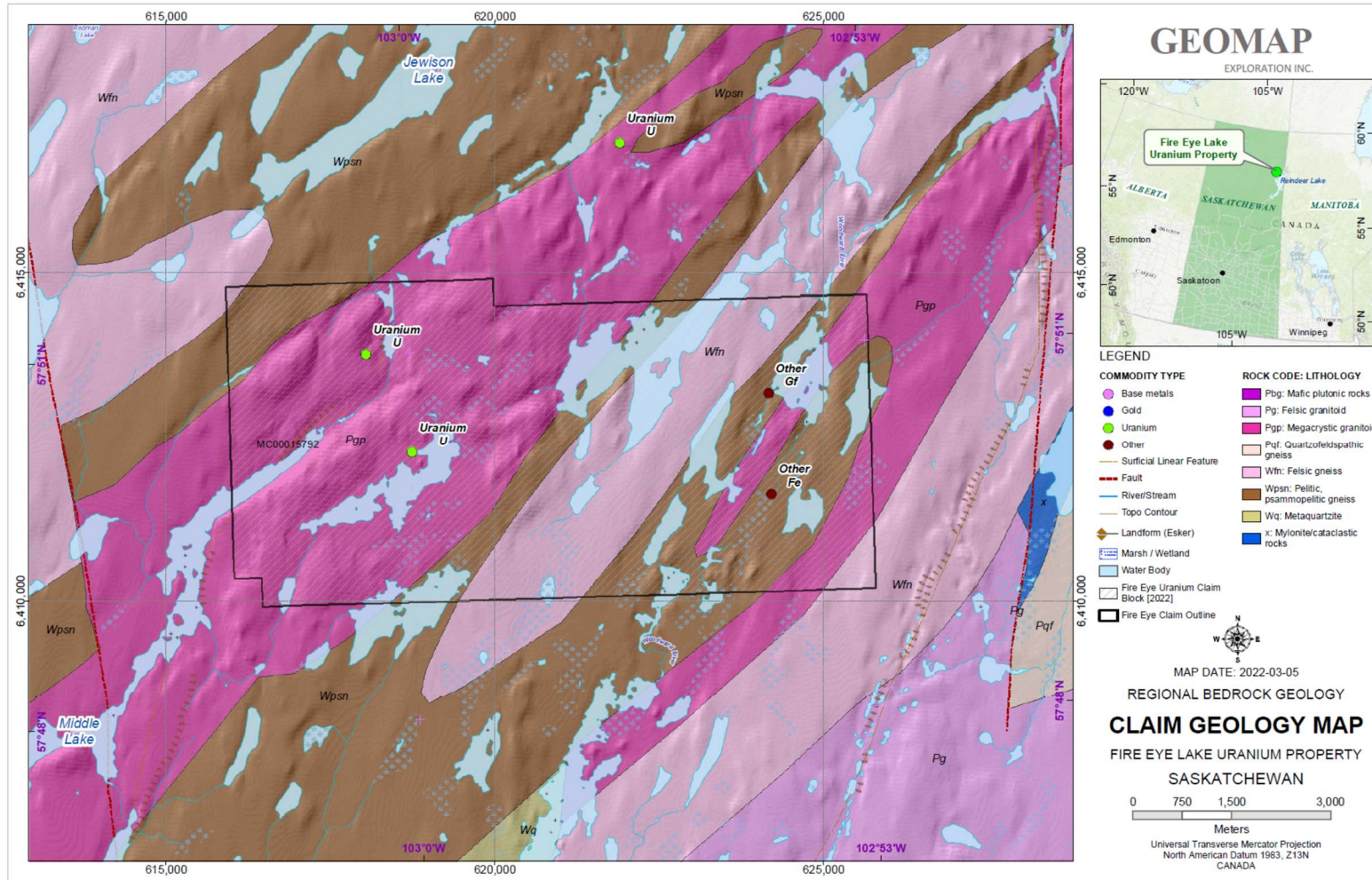
SMDI 1832 – Fire Eye Lake Uranium Occurrence is in an area underlain by Archean Johnson River Inlier cream to white quartz monzonite to granite. Locally, the Archean granites are unconformably overlain by a series of basal Wollaston Group graphitic pelitic to semipelitic biotite gneisses with significant intercalated meta-arkose, calc-silicate, impure marble, and metadiorite horizons.

## 7.3 Mineralization

Mineralization on the Property consists of anomalous uranium and a suite of associated elements including copper, nickel, thorium, and lead. Mineralization appears to be structurally controlled by shearing and occurs in a generally north-south trend through the center of the Property. Host rocks are generally pelitic gneisses containing graphite and pegmatite intrusions.

Gneisses can be strongly silicified and contain calc-silicates. Alteration products include hematite and chlorite on fracture surfaces. Sulfide mineralization occurs as disseminations and stringers and includes pyrite and minor pyrrhotite.

Figure 8: Property Geology



## 8.0 DEPOSIT TYPES

The Athabasca Basin is home to the largest reserves of uranium on the planet. Covering about 100,000 square kilometers of the Canadian Shield in Northern Saskatchewan and Alberta, the basin's surface is made up of about 100 to 1,000 meters of sandstone with high-grade uranium deposits located under the sandstone layer. The Athabasca Basin is known not just for the quality of its uranium but also the quantity, with 10 of the 15 highest-grade uranium deposits in the world located within the basin. Some of the key deposits within the Athabasca Basin include the Key Lake, Phoenix, McArthur River and Cigar Lake deposits, each containing between 15 and 20 percent uranium.

(Source: <https://sightlineu3o8.com/2019/04/uranium-exploration-in-canada-the-athabasca-basin/>)

Two types of deposits have provided uranium ore for current and historic mining operations in the Athabasca basin. Monometallic deposits are generally basement hosted veins, breccias fillings and replacements of uraninite associated with fault zones. Polymetallic deposits are commonly sub horizontal, semi-massive replacements of uraninite forming lenses just above or straddling the unconformity, and are associated with variable amounts of uranium, nickel, cobalt and arsenic and traces of gold, platinum-group elements, copper, rare-earth elements and iron (Jefferson et al., 2007).

Fundamental aspects of the Athabasca unconformity-type uranium deposits are reactivated basement faults and the action of oxidizing and reducing hydrothermal fluids. Brittle reactivated faults typically rooted in the basement graphitic-pelitic gneiss, are manifest upward, with brittle expression, through the overlying sandstones. These faults provide conduits for the mineralizing fluid system. The reducing fluids originated in the basement and were channeled along basement faults. The oxidizing fluid originated within the Athabasca sediments and circulated within the inherent basin porosity. Circumstances which allowed these two fluids to mix and precipitate uranium arose in suitable structural environments and areas of fluid focus at or near the basal Athabasca-basement unconformity. Mineralization may also occur in "perched" locations within sandstone fault structures, well above the unconformity (Jefferson et al., 2007).

Two endmembers of the unconformity deposit model (Figure 10) have been defined, a sandstone-hosted egress-type model involved the mixing of oxidized, sandstone brine with relatively reduced fluids issuing from the basement into the sandstone. Basement-hosted ingress-type deposits (e.g. Rabbit Lake) formed by fluid-rock interactions in which oxidizing sandstone brines entered basement fault zones and the local adjacent wall rocks (Jefferson et al., 2007). The Fire Eye Uranium deposit model is targeted to falls in the second category "basement hosted ingress type".

Exploration criteria for unconformity related uranium deposits includes study of aquifers along the unconformity, mapping brittle reactivated faults, crosscutting local structures and alteration (e.g. silicification, clay minerals, and dissolution) which were found to be the dominant controlling factors of the uranium enriched fluid flow at the deposit sites. These studies can be done using various exploration tools in a phased exploration work program which can include: ground prospecting; sampling and mapping; geochemical surveys; ground geophysical and radiometric surveys; trenching and channel sampling; and diamond core drilling.

Uranium mineralization in the basement hosted deposits occurs in a variety of styles including (1) massive replacement, (2) fracture filling veins, (3) fine-grain aggregates associated with “mini” roll fronts, and (4) disseminated grains. Massive replacement uraninite is associated with chlorite whereas fracture filled uraninite is associated with euhedral quartz-carbonate veins. These two styles of uranium mineralization constitute the majority of the ore whereas fine-grain aggregate and disseminated uraninites are minor components of the ore. The Millennium uranium deposit is a recent discovery in the basement hosted uranium deposits, located 35 km north of the Key Lake mine, occurs between two subparallel reverse faults. The Millennium deposit is hosted in a package of pelitic-psammopelitic gneisses/schists, with minor intercalated calc-silicates, amphibolites, and pegmatites in the hanging wall of a major reverse fault. The pelitic-psammopelitic units that hosts “main zone” of uranium mineralization is situated between a faulted graphitic-cordierite pelite known as the “marker unit” and the reverse fault (Fayek M., et.al, 2010). The Property has geological similarities with Millennium deposit as it is underlain by Unit Wfn consists of a sheared granite which contains local inclusions of pelitic schist, amphibole, and/or metadiorite. The granite is, locally overlain by basal Wollaston Group unit Wpsn of a series of fine- to medium-grained, graphitic, pelitic to semipelitic biotite gneiss with intercalated intervals of meta-arkose and meta quartzite. Detailed structural studies need to be carried out to understand basement reactivated faults within the six AOI interpreted as a results 2022 airborne geophysical survey data which is described in Section 9.2 of this report.

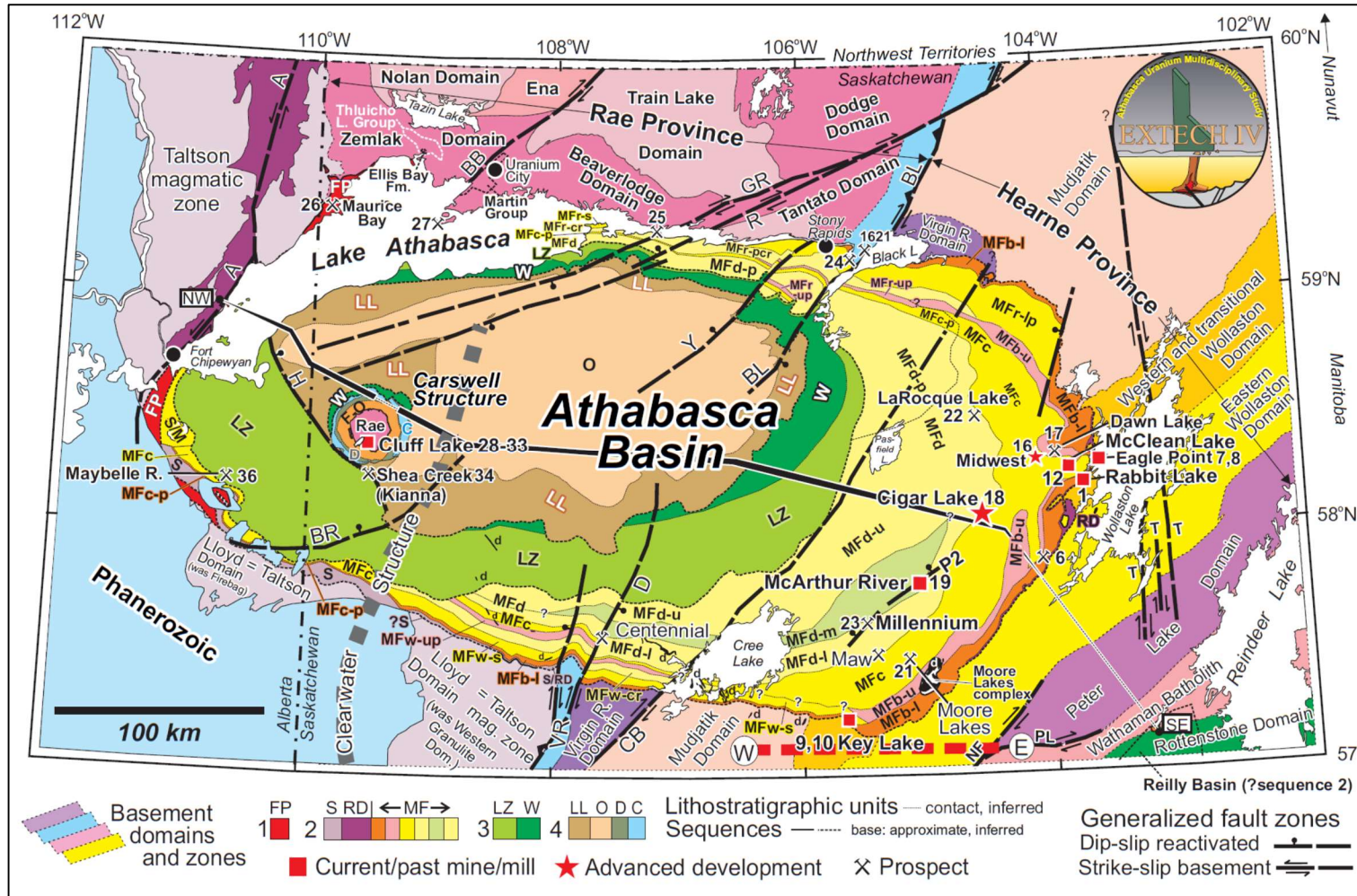
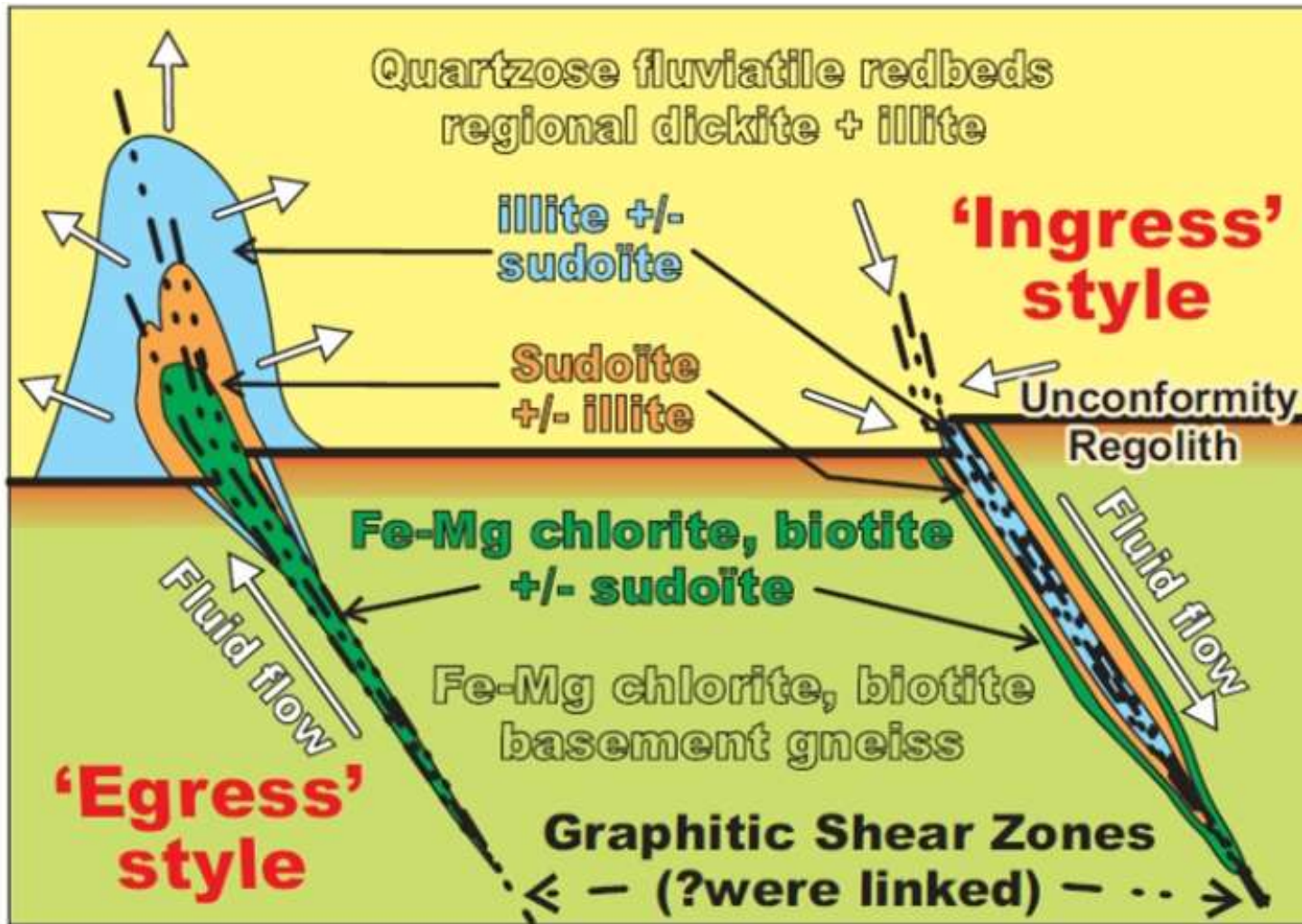


Figure 9: Geological setting and unconformity associated uranium occurrences of the Athabasca Basin (Jefferson et al., 2007).

Figure 10: Diagrammatic explanation of 'egress'- versus 'ingress'-style alteration zones for unconformity-associated uranium deposits ((Jefferson et al., 2007)



## 9.0 EXPLORATION

On March 14, 2022, Géo Solutions Données GDS/Geo Data Solutions GDS Inc. (“GDS”) was contracted by Geomap Exploration Inc. to complete a high-resolution helicopter-borne magnetic survey on the Property. The geophysical survey data interpretation was carried out by Shahab Tavakoli, P.Geol. of Vancouver, BC. This section provides details of the survey and its results.

### 9.1 2022 Airborne Geophysical Survey

The airborne geophysical survey contract entailed GDS to carry out a high-resolution helicopter-borne magnetic survey on the Property. The survey was flown from March 25-27, 2022. The contract required the execution and compilation of digitally recorded high sensitivity helicopter-borne magnetic survey consisting of 1,039 line-km over a single block with nominal traverse and control line spacing were 50 m and 400 m, respectively. A predetermined flight surface (known as drape) having a rate of climb and descent of 20% was used as a guide for the pilot. As a result, the pilot maintained an average ground clearance of 37 m for the helicopter. Determined from the fourth difference of the lagged and corrected airborne magnetic data, the noise level for the measured total magnetic field was well within the accepted limits. GPS results proved to be of high quality. The flight path was surveyed accurately according to the digital elevation model available. The speed checks showed no abnormal jumps in the data.

**Table 2: The nominal spacing and survey directions details**

Area	Traverse Line			Tie Line			Total
	Azimuth	Line-km	Spacing	Azimuth	Line-km	Spacing	
Fire Eye Lake	N358°E	917 km	50 m	N88°E	122 km	400 m	1039 km

The magnetometer used for heliborne survey was a cesium G-822 sensor measuring the Earth's total magnetic field intensity (“TMI”) in nanotesla (nT). GDS established its base of operations at Km 147 Lamp Lighters Lodge in Courtenay Lake (Figure 11), located 75 km southwest of the survey area, and a magnetic base station was set up in a magnetic noise-free location, away from magnetic objects, vehicles, and DC electrical power lines. A GEM Overhauser ground magnetometer with a combined GPS system was used as a ground base station recorded the total intensity of the Earth's magnetic field with a resolution of 0.01 nT.

The airborne magnetic data were corrected for diurnal drift and system parallax (lag). After all known systematic error corrections have been made, standard tie-line levelling



and micro-levelling procedures were also applied to perform final leveling of the data. To produce the Residual Magnetic Intensity (“RMI”) and its derivatives, the International Geomagnetic Reference Field was removed from the levelled data by calculating a channel from the year 2020 model with a constant survey date and a constant elevation. The grid of the RMI and its First and Second Vertical Derivatives were calculated by using the minimum curvature algorithm of Geosoft Montaj and gridded with a cell size of 12.5 m, equivalent to one quarter of the line spacing. Computation of the First Vertical Derivative (“FVD”) removes long - wavelength features of the magnetic field and significantly improves the resolution of closely spaced and superposed anomalies. The grid of the FVD was computed from the gridded RMI data using a fast Fourier transform.

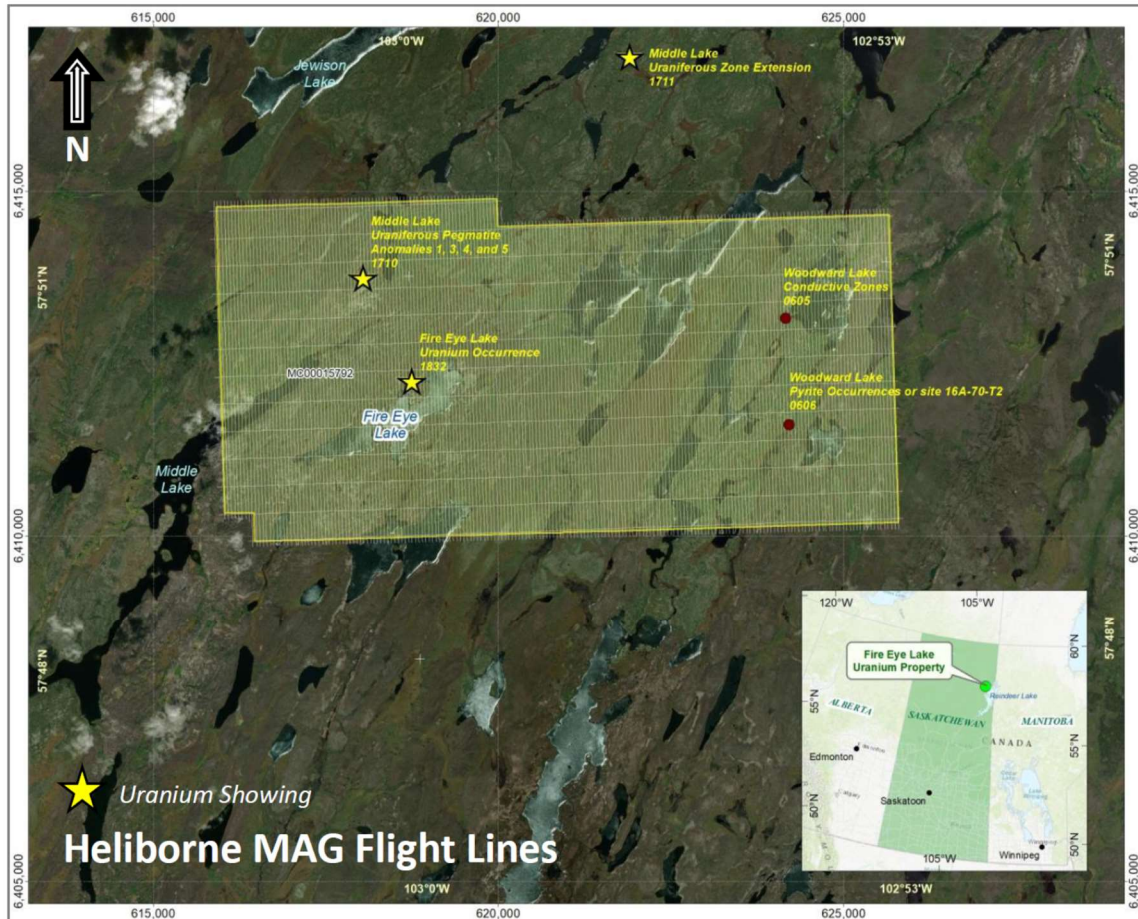
The geophysical database derived from the heliborne survey comprises of a geodatabase including:

- I. Residual total magnetic intensity measurements in nT.
- II. FVD of the residual total magnetic field measurements (FVD) in nT/m.
- III. Second Vertical Derivative of the residual total magnetic field measurements (SVD) in nT/m<sup>2</sup>.
- IV. Digital Terrain Model derived from the laser altimeter values and GPS elevation data in m.

**Figure 11: Survey area and base of operations**



**Figure 12: Location of magnetic geophysical survey flight lines**



## 9.2 Geophysical Survey Data Processing and Results

The magnetic data were transformed with the inclination angle of 78.6 degrees and the declination angle of 6.5 degrees. A simple reduction to the pole (“RTP”) transformation is a processing step which allows for easier interpretation of magnetic data. The major effect of the RTP is to relocate anomaly maxima over the causative bodies. Each RMI grid shows variable amplitudes which is an indication of susceptibility contrast of the different rock types across the survey area. In areas where the RMI shows a significant magnetic HIGH, the area could be underlain with mafic or ultramafic rocks rich in magnetite or pyrrhotite. The RMI map of the study area (TMI) illustrates the anomalies of high and low magnetic intensity values of -17.51nT to +1896.7nT with prevailing NE-SW trend which is dominated by the Wollaston Group trend (Figure 13).

The Figure 13 interpretation map vividly shows that the survey area is divided into three major magnetic regions that are distinguished based on the strength of magnetic responses. The pelitic, psammopelitic gneisses (*Wpsn*) of Wollaston Group, REGION [A], are categorized by HIGH magnetic responses with numerous subtle, northeasterly trending linear anomalies. Those linear magnetic anomalies seem to be associated with strongly foliated and lineated marginal assemblage transitional to the Peter Lake

megacrystic granitoids (*Pgp*). Middle Lake uraniumiferous pegmatite-hosted occurrence (SMDI 1710) in this transitional area is basically underlain by the Peter Lake fine-grained granitoids which seem to be unconformably overlain by the Wollaston Domain pelitic to semipelitic biotite gneisses with intercalated quartzite intruded by a series of graphite-bearing pegmatite and aplite dykes.

In contrast, Megacrystic granitoids (*Pgp*) of the Peter Lake Complex in the middle of the survey area, **REGION [B]**, are mainly categorized by LOW magnetic responses with several high northeasterly magnetic features superimposed on them. Those high-amplitude linear anomalies could be aeromagnetic expression of the pelitic, psammopelitic gneisses (*Wpsn*) and felsic gneisses (*Wfn*) of the Wollaston Group.

Those linear high magnetic anomalies seem to be associated with strongly foliated and lineated graphite bearing pelitic to semi-pelitic rocks of the Wollaston Group interbedded with the Peter Lake megacrystic granitoids (*Pgp*). Fire Eye Lake showing, a sedimentary-hosted uranium occurrence on the north shore of Fire Eye Lake, is basically underlain by the Peter Lake granites or granitoids of Archean age. Locally, the Archean granites are unconformably overlain by a series of basal Wollaston Group graphitic pelitic to semipelitic biotite gneisses. Northerly trending faults and fractures that offset metasediments are clearly associated with low magnetic responses in this area.

**REGION [C]** on the east side of the Property is mainly categorized by HIGH magnetic responses of the pelitic, psammopelitic gneisses (*Wpsn*) of the Wollaston Group with numerous subtle, northeasterly trending linear features. Those linear magnetic responses are associated with strongly foliated and lineated pelitic rocks rich in magnetite and pyrrhotite interlayered with the Peter Lake megacrystic granitoids (*Pgp*).

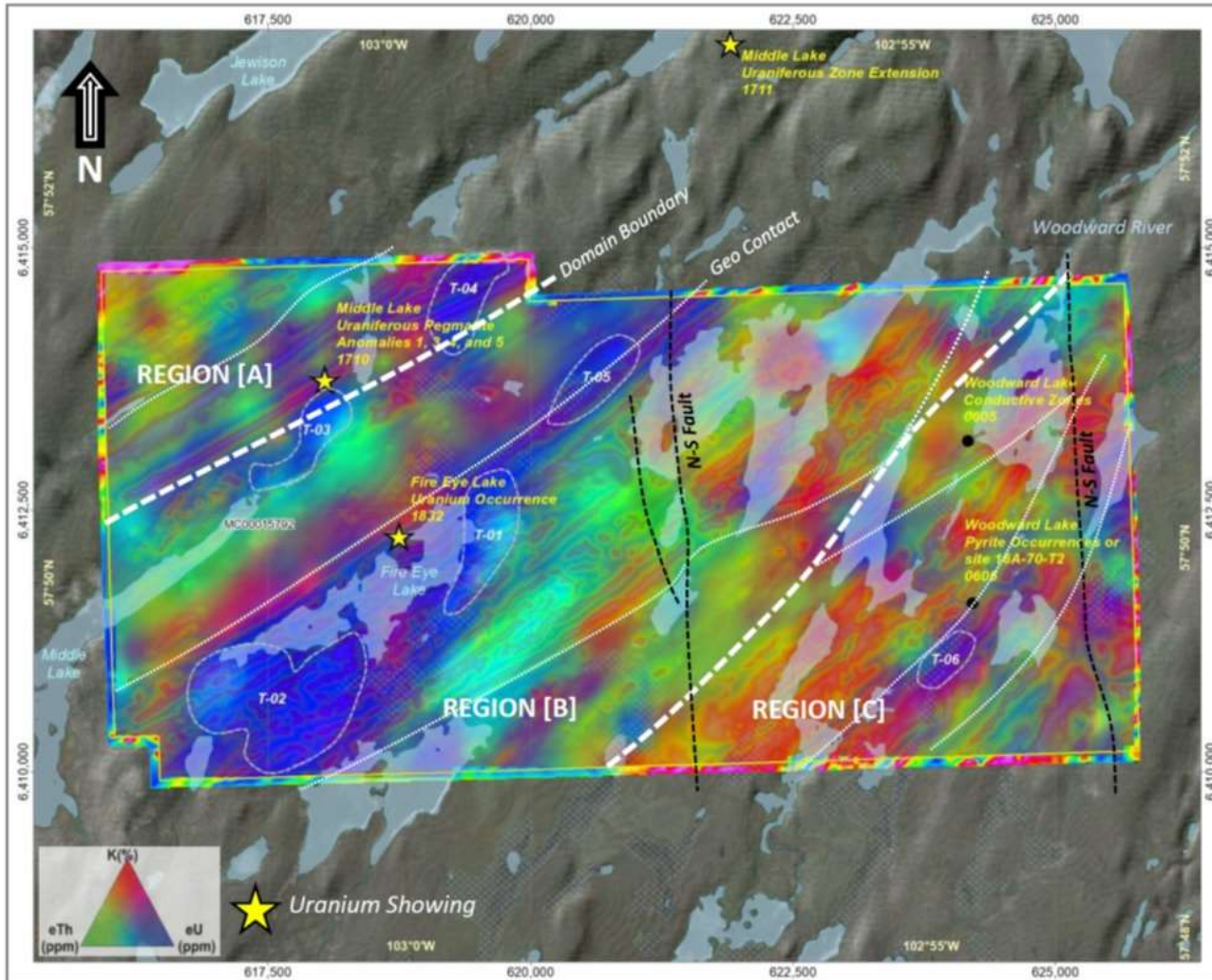
To facilitate the visual correlation of residual magnetic anomalies with geological features, the map shown in Figure 13 represents aeromagnetic anomalies displayed on the regional surface geology. The most obvious correlation is between sandy psammitic meta-arkosic gneiss (*Wpsn*) of the Wollaston Group and high magnetic responses. Sharp spikes in the magnetic field in this geological group is most likely associated with graphite-bearing pelitic rocks (*Wfn & Wpsn*). High graphite content is one of the characteristics of intense-shearing zones; graphite probably gets concentrated as they developed along such shear zones (Annesley & Madore, 1988).

The superimposition of current MAG-TDR anomalies on regional radiometric characteristics reflects six areas of high uranium concentrations or AOI within REGION [B]. The result clearly indicates zones of relatively high concentration of Uranium that are spatially coincident with existing uranium occurrences and the boundaries between the Wollaston Group and the Peter Lake Complex where anomalous magnetic and radioactive features present (Tavakoli, 2022).

Six AOI with high uranium concentrations have been selected and sequentially prioritized as potential targets from this geologically complicated and geophysically favourable area:

- Areas of T-01, T-02, T-03, and T-04 are categorized as highly prioritized AOI along or in the vicinity of the geological contact that defines the boundary between Magnetic LOWs and Magnetic HIGHs in REGIONS [A] and [B]. T-01 on the east side of Fire Eye Lake has given higher target priority since it seems to have relatively higher concentration of Uranium.
- Area of T-05 *is* categorized as moderately prioritized AOI along or in the vicinity of the geological feature that probably defines a boundary between the Peter Lake Granitoids and metasedimentary rocks of the Wollaston Group within REGION [B].
- Area of T-06 *is* categorized as low prioritized AOI. In the southeastern part of the Property (REGION [C]), T-06 shows relatively lower concentration of Uranium; however, it is coincident with anomalously magnetic features, strongly sheared Iron-bearing metasediments, in the vicinity of Woodward Lake. Although it shows relatively moderate radiometric responses in terms of the concentration of Uranium, no significant radioactive minerals were reported in this area.

Figure 13: Superimposition of 2022 survey MAG-TDR anomalies on historical radioelement map (K= Red, eTh=Green, eU= Blue), Dark blue AOI within target area B



***Geophysical Survey Recommendations***

- I. Since the interpretation of this geophysical survey was done in the absence of the most recent detailed local geology, further ground truthing of the magnetic anomalies and radiometric responses is recommended to be followed up on to determine if those anomalies are related to mineralization, fault zones, structural contacts, or overburden response.
- II. Future positive assay results from the surface soil/rock sampling program in the survey area will warrant further detailed ground geophysical work to be expanded and completed in the areas of higher uranium enrichment.
- III. Some areas of highest priority be tested by high resolution ground EM and Gamma-Ray Spectrometry to validate airborne magnetic anomalies and radiometric responses to define the geometric parameters of the target features to further delineate targets in depth throughout the Property.
- IV. An advanced level interpretation of the magnetic and EM data including 2D/3D inversion modelling of MAG and EM data may be warranted to integrate with detailed geology and petrophysical properties to investigate the vertical extend of magnetic and EM anomalies in areas of high uranium concentration.

**10.0 DRILLING**

No drilling has been done on the Property by the Company.

**11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY**

The Author visited the Property on March 24, 2022. One grab sample was also collected during his property visit (Table 3) from a pegmatite rock outcrop. The sample was collected in the field by placing over 1kg of material in a heavy grade plastic sample bag with the sample number written with permanent marker. The sample was recorded as to location (UTM -NAD 83), sample type (grab), exposure type (outcrop), lithology, colour, texture, and grain size. Sample location was determined by hand-held GPS set to report locations in UTM coordinates using the North American Datum established in 1983 (NAD 83) Zone 13N. The sample was delivered securely by the Author to the ALS Laboratories in North Vancouver, British Columbia, British Columbia. ALS Laboratories are independent group of laboratories accredited under both [ISO 17025 with CAN-P-1579](#) for specific registered tests. The sample was prepared at ALS Canada Ltd. ("ALS") and was analyzed at its location in North Vancouver. ALS is qualified and experienced in handling NORM samples in every area with active uranium exploration and mining, with added lab certification in certain jurisdictions. The sample was prepared and assayed using ALS labs package MEMS61U which includes full 48 element suite from ALS package ME-MS61™,

optimized for U with specific certified reference materials for superior quality control (0.25g sample) as illustrated in the table below.

<b>SAMPLE PREPARATION</b>	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-21	Sample logging – ClientBarCode
CRU-QC	Crushing QC Test
CRU-31	Fine crushing – 70% <2mm
SPL-21	Split sample – riffle splitter
PUL-31	Pulverize up to 250g 85% <75 um

<b>ANALYTICAL PROCEDURES</b>		
ALS CODE	DESCRIPTION	INSTRUMENT
ME-MS61U	4A Multi-element ICP-MS + Uranium	

The sample results (Table 4) show low values of uranium and thorium. The analytical results provided by laboratories did not identify any significant analytical issues. For the present study, the sample preparation, security, and analytical procedures used by the laboratory are considered adequate and the data is valid and of sufficient quality.

Photo 2: Fire Eye Lake Uranium Occurrence Sample Location Picture, March 24, 2022

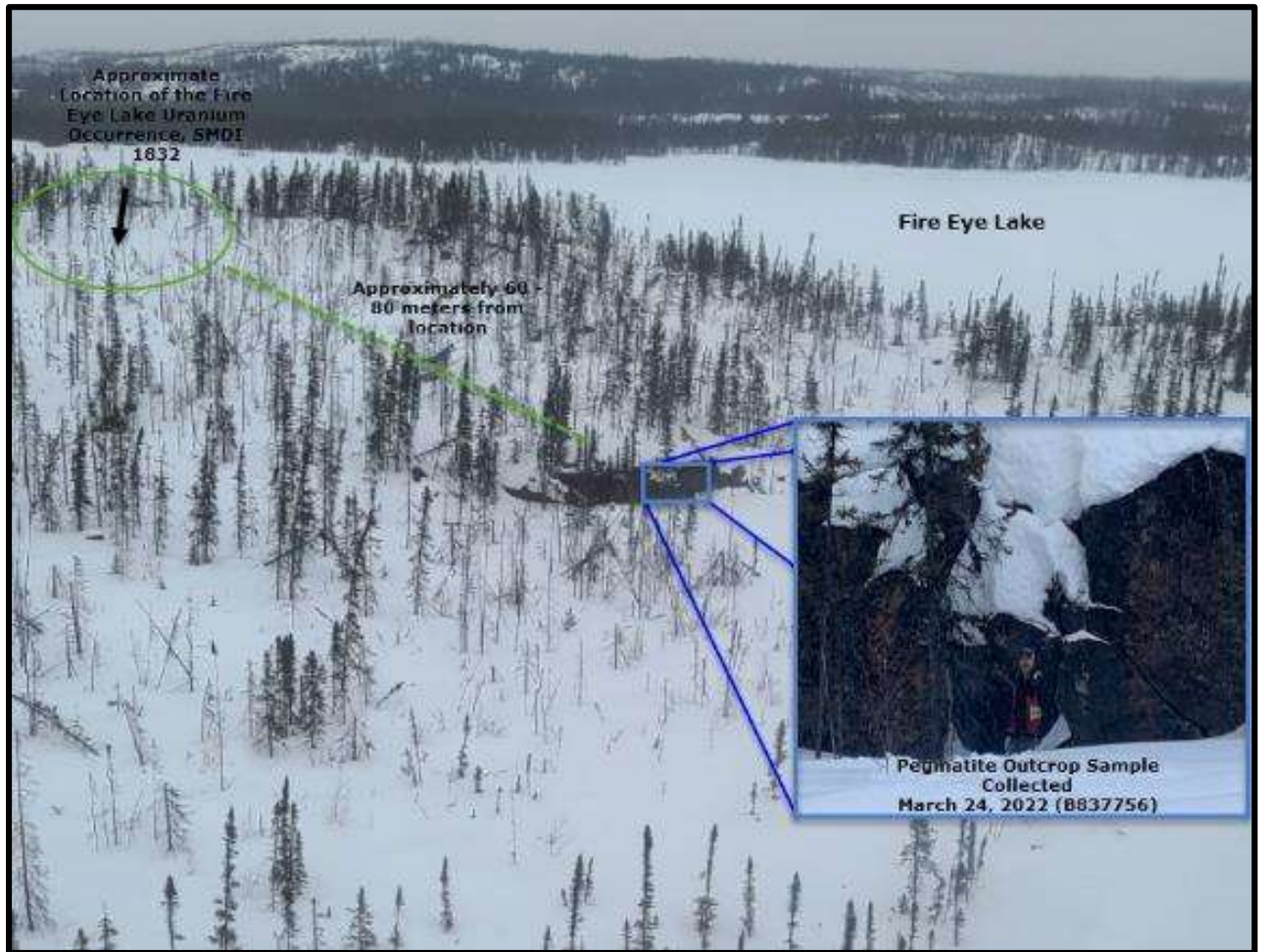


Table 3: Fire Eye Rock Sample detail

Sample ID	Nad83_Z13 Northing	Nad83_Z13 Easting	Elev (m)	Date	Description
B837756	618747	6142051	442	24-Mar-22	Sample of Pegmatite collected from large 30 meter wide by ~ 5 meter high exposure. Sample contains interlocking amorphous crystals of quartz and plagioclase feldspar (~80%). Interstitially within the felsic minerals mafic minerals such as biotite, hornblende and potentially augite complete the ground mass (~20%). trace amounts of pyrite and bornite are observed within the margins of the mafic minerals predominantly.



**Table 4 : Sample assay results**

	ME-MS61U								
SAMPLE	Ag	Ba	Cu	Fe	Ga	La	Li	Mn	Nb
DESCRIPTION	ppm	ppm	ppm	%	Ppm	ppm	ppm	ppm	ppm
B837756	0.03	1270	5.5	3.12	25.8	27.4	61.5	581	38.5
	ME-MS61U								
SAMPLE	Ni	Pb	Rb	Ta	Th	U	V	Y	Zr
DESCRIPTION	ppm	ppm	ppm	ppm	Ppm	ppm	ppm	ppm	ppm
B837756	7.4	40.5	282	1.6	7.04	2.4	49	33	226

## 12.0 DATA VERIFICATION

The Author visited the Property on March 24, 2022, to verify historical and current exploration work, to examine mineralized outcrops, to collect necessary geological data, to take infrastructure, and other technical observations and to assess the potential of the Property for discovery of copper and other mineralization. During the visit of the Property, GPS coordinates using NAD 83 datum to mark sample locations and rock outcrops. Majority of the Property area was covered with snow during the Property visit, and only a few outcrops were visible which limited the field observations of the historical mineralization reported on the Property. The Author collected one sample from, as well as, inspected a pegmatite outcrop about 60 meters away from the historical Fire Eye Lake uranium showing confirming local geology.

On May 02, 2022, the Author carried out a review of claim status using the Government of Saskatchewan Mining and Petroleum GeoAtlas website. However, the limited research by the Author does not express a legal opinion as to the ownership status of the Property.

The Author reviewed assay certificates and report maps to check for transposition errors. In the opinion of the Author, the data presented is of adequate quality for use in the subject report.

Historical grades and assay data are taken from the MARS Saskatchewan, the SMDI and available information at the Saskatchewan Mineral Exploration and Mining Online Database, the GSC which are deemed reliable. Historical geological descriptions taken from different sources were prepared and approved by the professional geologists or engineers and verified by the Author during the Property visit and in preparation of this report. Overall, the Author is of the opinion that the data verification process demonstrated the validity of the data and considers the Property database to be valid and of sufficient quality.

**Photo 3: Exposed outcrop on the Property**



## **13.0 MINERAL PROCESSING AND METALLURGICAL TESTING**

No metallurgical testing was done on the Property by the Company.

## **14.0 MINERAL RESOURCE ESTIMATES**

No mineral resource estimates were done on the Property by the Company

***Items 15 to 22 are not applicable at this time.***

## **23.0 ADJACENT PROPERTIES**

The following information is taken from the publicly available sources which are identified in the text and in Section 27. The Author has not been able to independently verify the information contained. The information is not necessarily indicative of the mineralization on the Property, which is the subject of this technical report.

The Property is in an active and historical mining and mineral exploration region where many operators carried out exploration and development work.

### **23.1 Appia Rare Earth and Uranium Corporation**

Appia Uranium and Rare Earth Corporation holds the Eastside property located about 10 km to the west and northwest of the Property. Eastside is located 85 km east of Cameco's Rabbit Lake uranium mill and Eagle Point mine.

#### **Exploration Work**

November 2017: Appia covers 1,178 line kilometers of Eastside property with an airborne High Resolution Aeromagnetic Gradiometer, Radiometric and Digital Matrix VLF-EM survey. The survey confirmed the presence of a historic radiometric anomaly that led to the discovery of uranium-rich boulders and outcrops, but also identified more radiometric anomalies that have never been explored. The magnetic results of the survey showed known mineralization occurs along a regional "bend", as well as correlating with magnetic gradients. Numerous magnetic features are offset and are interpreted as fault zones (see: News Release for November 13, 2017).

#### **Geology**

- The property is located within the Archean-aged Peter Lake Domain. The Peter Lake Domain is a fertile source for platinum group elements, gold and copper mineralization, however many surface uranium occurrences have also been identified within the Domain.

- Rock types identified on the property include, in geochronological order from youngest to oldest; granitic rocks of Paleoproterozoic intrusive Wathaman Batholith, neo -Archean gabbroic to dioritic to ultramafic rocks (hornblende-rich varieties very common), and Archean granodioritic to tonalitic migmatitic gneiss interbedded with a variety of other granitoid rocks and gneisses. Pegmatite partial melts are common in all rock types.
- The presence of very mafic-rich to gabbroic rock units is a common feature in some Athabasca high-grade uranium deposits, including Fission's Triple R deposits and NexGen's Arrow deposits. Kivalliq's Lac 50 uranium deposit in Nunavut is entirely hosted within metamorphosed basalts (i.e. mafic-rich rock types).
- The property boundary is approximately 85 km E of the current day Athabasca Basin margin. The uranium deposit model for the Eastside property is near-surface, pegmatite-hosted high-grade uranium (+/- structural controls). Athabasca Basin cover is not necessary for this uranium deposit model.

### **Mineralization**

Airborne radiometric surveys led to the discovery of radioactive boulders, till, and outcrop in the property area. Ground prospecting and sampling of boulders and outcrops returned a range of 2 to 7,575 ppm uranium, producing an average grade of 360 ppm uranium. Twelve samples contained greater than 1,000 ppm uranium.

Three outcrop samples along a 1.7 km geological strike returned 2,538 ppm, 6,650 ppm and 7,575 ppm uranium. Five boulders of similar lithological provenance to the outcrops, and located down-ice from the outcrops, returned greater than 1,000 ppm uranium.

The boulders with highest uranium occurrences are derived from hornblende-bearing pegmatites within hornblende-rich felsic gneisses.

(Source: <https://www.appiareu.com/projects/athabasca-basin-properties/eastside/#5>)

### **23.2 Skyharbour Yurichson Property**

The Yurichson Project consists of 11 claims totaling 55,934 ha in the Wollaston Domain of northern Saskatchewan, Canada. This contiguous set of claims covers an extensive package of Wollaston Supergroup metasediments in an area known for its base metal potential. The northeastern half of the project falls within the Courtenay Lake-Cairns Lake fold belt, which contains numerous Pb-Zn-Ag showings while the remainder is along trend to the north-northeast of the Janice Lake Cu deposit and numerous other base metal showings in the "Wollaston Copperbelt". Access to the area is enhanced by Highway #905 which transects the property near Courtney Lake. A planned all-weather road between Highway #905 and the communities of Wollaston Lake and Hatchet Lake is proposed adjacent to the northeastern section of the claims. It is unknown when the project will be completed but once in place it will significantly improve logistics for the project. Grid

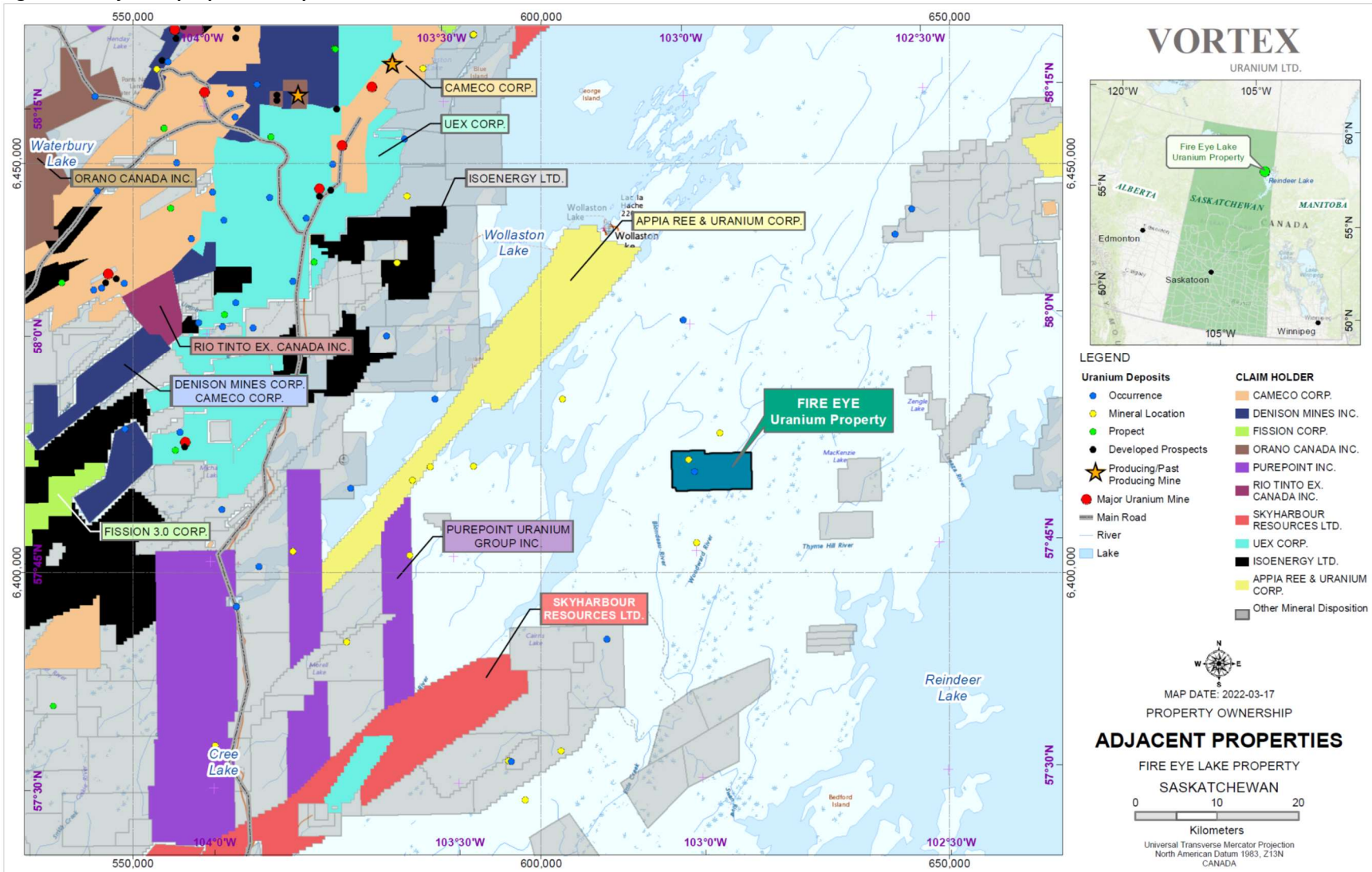
power is used to service a motel, restaurant and gas bar is located at km 147 of Highway #905, a few km north of Courtenay Lake.

Rio Tinto has entered into a \$30 million, seven-year, option agreement with Forum Energy Metals Corp. to acquire an 80% stake in their Janice Lake property which is on strike to the southwest of Yurchison.

- At the Yurchison Lake Project, prospecting near old trenches returned significant uranium (0.09% to 0.30% U<sub>3</sub>O<sub>8</sub>) and molybdenum (2,500 ppm to 6,400 ppm) mineralization in both outcrop and float samples.
- Two holes drilled beneath the historic trenches returned highly anomalous molybdenum values up to 3,750 ppm and anomalous uranium values up to 240 ppm.
- The property boasts strong discovery potential for both basements hosted uranium mineralization as well as copper, zinc and molybdenum mineralization.
- In November 2021, Skyharbour signed an option agreement with Medaro Mining Corp, which provides Medaro an earn-in option to acquire an initial 70% interest and up to a 100% interest in the Yurchison Uranium Property.

(see Medaro news release November 22, 2021: <https://medaromining.com/medaro-expands-cleantech-portfolio-diversity-with-saskatchewan-uranium-asset/>)

Figure 14: Adjacent properties map



## 24.0 OTHER RELEVANT DATA AND INFORMATION

### 24.1 Environmental Concerns

There is no historical production from the Property, and the Author is not aware of any environmental liabilities which have accrued from historical exploration activity.

## 25.0 INTERPRETATION AND CONCLUSIONS

Geologically, the Property is part of the eastern Athabasca Basin within the Wollaston Domain Supergroup, a sequence that is considered to be 3-4 km thick. Four main lithostratigraphic units have been distinguished. The coarse clastic basal unit (Quartzite Unit) comprises mature quartzitic to arkosic metasediments, basal quartz conglomerate, and semipelitic to pelitic muscovite and biotite schists. It is underlain in some places by a sequence of immature meta-arkoses. The second unit is dominantly pelitic and typically graphitic. It contains interlayers of quartzitic psammites, calc-silicates, and locally marbles. The Lower pelitic unit lies directly on the Archean basement throughout most of the Wollaston and Mudjatik domains. It is considered to be the most favourable horizon for the location of uranium deposits. The pelitic unit is succeeded by a thick and extensive, monotonous sequence of calcareous and non-calcareous meta-arkoses, interlayered with subordinate calc-silicate, carbonate, and pelitic-semipelitic metasediments. Finally, the stratigraphic column ends with an upper amphibolite-quartzite unit characterized by these two rock types with interlayered calcareous sediments and graphitic pelites. This unit (Hidden Bay assemblage) is only reported in the Wollaston Lake area (Sibbald 1985).

The Property area is underlain by the Middle Lake granite portion of the Archean Johnson River Inlier. Unit Wfn consists of a sheared granite which contains local inclusions of pelitic schist, amphibole, and/or metadiorite. Middle Lake Pegmatite Anomalies area is underlain by basal Wollaston Domain pelitic to semipelitic biotite gneiss with intercalated quartzite (Pgp Unit). These supracrustal rocks have been intruded by a series of pegmatite and aplite dykes. Fire Eye Lake Uranium Occurrence is in an area underlain by Archean Johnson River Inlier cream to white quartz monzonite to granite.

Two types of the unconformity related deposit subtypes have been defined for the Athabasca Basin, a sandstone-hosted egress-type model involved the mixing of oxidized, sandstone brine with relatively reduced fluids issuing from the basement into the sandstone; and basement-hosted ingress-type deposits (e.g. Rabbit Lake) formed by fluid-rock interactions in which oxidizing sandstone brines entered basement fault zones and the local adjacent wall rocks. The Fire Eye Uranium deposit model is targeted to falls in "basement hosted ingress type" deposit category. Mineralization consists of anomalous uranium and a suite of associated elements including copper, nickel, thorium, and lead.

Two types of deposits have provided uranium ore for current and historic mining operations in the Athabasca basin and are considered suitable models for exploration

work on the Property. Monometallic deposits are generally basement hosted veins, breccias fillings and replacements of uraninite associated with fault zones. Polymetallic deposits are commonly sub horizontal, semi-massive replacements of uraninite forming lenses just above or straddling the unconformity, and are associated with variable amounts of uranium, nickel, cobalt and arsenic and traces of gold, platinum-group elements, copper, rare-earth elements and iron

The most recent exploration work on the Property was carried out in March 2022 which included a high-resolution helicopter-borne magnetic survey and its interpretation. The contract required the execution and compilation of digitally recorded high sensitivity helicopter-borne magnetic survey consisting of 1,039 line-km over a single block with nominal traverse and control line spacing were 50m and 400 m, respectively. The geophysical survey data interpretation indicated that the survey area is divided into three major magnetic regions that are distinguished based on the strength of magnetic responses. The pelitic, psammopelitic gneisses (*Wpsn*) of Wollaston Group, REGION [A], are categorized by HIGH magnetic responses with numerous subtle, northeasterly trending linear anomalies. In contrast, Megacrystic granitoids (*Pgp*) of the Peter Lake Complex in the middle of the survey area, REGION [B], are mainly categorized by LOW magnetic responses with several high northeasterly magnetic features superimposed on them. REGION [C] on the east side of the Property is mainly categorized by HIGH magnetic responses of the pelitic, psammopelitic gneisses (*Wpsn*) of the Wollaston Group with numerous subtle, northeasterly trending linear features.

Based on the Property geology, recent survey data and historical work, six AOI with high uranium concentrations have been selected and sequentially prioritized as potential targets from this geologically complicated and geophysically favourable area:

- Areas of T-01, T-02, T-03, and T-04 are categorized as highly prioritized AOI along or in the vicinity of the geological contact that defines the boundary between Magnetic LOWs and Magnetic HIGHs in REGIONS [A] and [B]. T-01 on the east side of Fire Eye Lake has given higher target priority since it seems to have relatively higher concentration of Uranium.
- Area of T-05 is categorized as moderately prioritized AOI along or in the vicinity of the geological feature that probably defines a boundary between the Peter Lake Granitoids and metasedimentary rocks of the Wollaston Group within REGION [B].
- Area of T-06 is categorized as low prioritized AOI. In the southeastern part of the Property (REGION [C]), T-06 shows relatively lower concentration of Uranium; however, it is coincident with anomalously magnetic features, strongly sheared Iron-bearing metasediments, in the vicinity of Woodward Lake. Although it shows relatively moderate radiometric responses in terms of the concentration of Uranium, no significant radioactive minerals were reported in this area.



It is concluded that the Property is a property of merit with good potential to host a significant uranium mineralization because:

- The Property hosts Archean- and Proterozoic-age metamorphic rocks of the Wollaston Super Group rocks;
- Historical exploration shows that structurally controlled basement hosted uranium mineralization on the Property;
- Three SMDI uranium showings occur on the Property; and
- Six AOI with high uranium concentrations have been selected and sequentially prioritized as potential targets from this geologically complicated and geophysically favourable area.

Political uncertainty with local groups can be considered a significant risk. While both the Company and the Vendor intend to work closely with all local groups, such as First Nations, opposition could delay exploration and development of the Property. The exploration permits for setting up a camp and carrying out drilling can be delayed if the community requires discussions on potential benefits or impacts of the exploration work. Continued dialogue with local groups will mitigate this risk.

The First Nation and Metis consultation process is summarized in a Policy Framework document (June 10, 2010) of the Government of Saskatchewan. The issuance of mineral dispositions under The Crown Minerals Act is not subject to this policy. This policy will apply where the Government is contemplating surface land use decisions related to mineral exploration and development that may have an impact on Treaty and Aboriginal rights and traditional uses. The consultation process has been categorized into five levels (Level 1 to 5) depending on potential impact on Aboriginal Rights and Traditional Uses.

The Author believes the present study has met its original objectives.

## **26.0 RECOMMENDATIONS**

In the opinion of the Author, the character of the Property is enough to merit the following two-phase work program, where the second phase is contingent upon the results of the first phase.

### ***Phase 1 –***

Phase 1 work should be a ground follow up of the three historical SMDI uranium occurrences on the Property, as well as the six AOI interpreted as a results of 2022 geophysical survey and historical data interpretation. The work will include prospecting, geological mapping, and sampling. The areas with less rock outcrops can be covered with soil sampling work. The estimated Phase 1 program cost is \$261,635 and it will take 6-8 weeks' time to complete during the summer months from June to September.

***Phase 2: Diamond Drilling***

If results from the first phase are positive, then a Phase 2 drilling program would be warranted to check the most promising targets identified because of geophysical and geochemical surveys, geological mapping, and sampling work in Phase 1. The scope of work for drilling and location of drill holes would be determined based on the findings of Phase 1 investigations. Initially a 1,000 meters core drilling program is recommended (Table 6).

## 26.1 Budget

Table 5: Phase 1 budget

Item	Unit	Rate (\$)	Number of Units	Total (\$)
Project preparation	Day	\$800	3	\$2,400
Mob/Demob (incl freight, transportation and wages)	Lump Sum	\$5,000	1	\$5,000
First Nations Consultation	Lump Sum	\$5,000	1	\$5,000
<b>Field Crew:</b>		-	-	
Prospectors / Soil and rock Samplers (2-person Crew)	Day	\$1,000	18	\$18,000
Project Geologist	Day	\$750	18	\$13,500
<b>Field Costs:</b>				
Food & Accommodation	Day	\$1,000	18	\$18,000
Communications		\$100	18	\$1,800
Shipping	Lump Sum	\$1,000	1	\$1,000
Supplies	Lump Sum	\$2,000	1	\$2,000
Helicopter with fuel	hrs	\$2,500	50	\$125,000
Vehicle Rental with fuel	Day	\$250	18	\$4,500
Other Rentals (Scintillometers)		\$300	18	\$5,400
<b>Assays &amp; Analyses:</b>		-	-	
Rock/Soil Samples	Sample	\$85	200	\$17,000
<b>Report:</b>				
Data compilation	Day	\$750	10	\$7,500
GIS work	Day	\$750	5	\$3,750
Report Cost	Day	\$800	10	\$8,000
Sub Total				\$237,850
Contingency (10%)	Lump Sum	10000	1	\$23,785
<b>Total Phase 1 Budget</b>				<b>\$261,635</b>

Table 6 : Phase 2 Budget

Item	Unit	Unit Rate (\$)	Number of Units	Totals (CAN \$)
Project Management	Day	\$800	1	\$800
Mobe/Demobe (incl freight, transportation and wages)	Lump Sum	\$25,000	1	\$25,000
First Nations Consultation	Lump Sum	\$10,000	1	\$10,000
<b>Field Crew:</b>		-	-	-
Project Geologist	Day	\$750	21	\$15,750
Core logging and sampling geologist	Day	\$750	21	\$15,750
Core Sampling	Day	\$500	10	\$5,000
<b>Field Costs:</b>				
Communications	Day	\$75	21	\$1,575
Shipping	Lump Sum	\$5,000	1	\$5,000
Supplies	Day	\$250	21	\$5,250
Food and accommodation (For 8 persons crew)	Day	\$1,600	21	\$33,600
Vehicle Rental x 3	Day	\$600	21	\$12,600
Vehicle Gas	Day	\$300	21	\$6,300
Other Rentals	Day	\$250	21	\$5,250
Downhole geophysics	Lump Sum	\$2,500	1	\$2,500
<b>Assays &amp; Analyses:</b>		-	-	
Core samples	Sample	\$70	500	\$35,000
<b>Contracts:</b>				
Permitting	Lump Sum	\$5,000	1	\$5,000
Core drilling	m	\$150	1,000	\$150,000
Helicopter cost with fuel	Hrs	\$2,500	100	\$250,000
Data compilation and interpretation	Day	\$750	20	\$15,000
Report	Day	\$750	14	\$10,500
Sub Total				\$609,875
Contingency (10%)				\$60,988
<b>Total Phase 2 Budget</b>				<b>\$670,863</b>

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## **28.0 SIGNATURE PAGE**

The effective date of this Technical Report, titled “Technical Report on the Fire Eye Uranium Property, Northern Mining District, NTS Map 064E14 and 064E15, Saskatchewan, Canada”, is May 12<sup>th</sup>, 2022.

*signed "Kristian Whitehead"*

Kristian Whitehead, P.Geol

Dated this 12<sup>th</sup> day of May 2022

## 29.0 CERTIFICATE OF AUTHOR

I, Kristian Whitehead, P.Geo., do hereby certify that:

1. I am a professional geoscientist residing at 2763 Panorama Drive, North Vancouver, British Columbia, Canada, V7G 1V7;
2. I have authored the report entitled, “Technical Report on the Fire Eye Uranium Property, Northern Mining District, NTS Map 064E14 and 064E15, Saskatchewan, Canada”, dated May 12, 2022.
3. I have a Bachelor of Science degree in Earth and Ocean Science from the University of Victoria, 2005. I fulfilled APEGBC requirements in Earth and Ocean Science at the University of British Columbia, 2006. I am a Licensed Professional Geoscientist with the Association of Professional Engineers and Geoscientist of British Columbia, License # 34243. I have experience in exploration and mining operations Canada and am a “qualified person” for the purposes of NI 43-101;
4. I have been continuously engaged in the mineral industry since 2004 working for junior exploration companies and as an independent geologist and have over 17 years of experience in mineral exploration for precious and base metals, including lithium, niobium, rare earths and uranium;
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 professional associations and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purpose of NI 43-101;
6. I conducted a personal site visit of the Property for one day on March 24, 2022, which consisted of a physical review of the Property’s attributes which included a collection of exposed rock sample for the purposes historical data verification;
7. I am responsible for all items of this technical report;
8. I am an independent of the Company, independent of the Property and independent of Vendor using the definition in Section 1.5 of NI 43-101.
9. I have had no prior involvement with the Property that is the subject of this report;



10. I have read NI 43-101 and this technical report, and confirm this technical report has been prepared in compliance with the NI 43-101 and Form 43-101F1 guidelines;
11. 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.

Signed and Dated at Vancouver, British Columbia, on the 12<sup>th</sup> day of May 2022.

*signed "Kristian Whitehead"*

Kristian Whitehead, P.Geol

Dated this 12<sup>th</sup> day of May 2022