

**TECHNICAL REPORT**  
**on the**  
**RUSSELL LAKE PROPERTY**  
**Northern Saskatchewan, Canada**  
**National Instrument 43-101**

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## **1.0 SUMMARY**

This NI-43-101 Technical Report on the Russell Lake Property was prepared for Skyharbour Resources Ltd. (SRL) as an evaluation of the property for its uranium exploration potential and in support of the acquisition of the Russell Lake project from Rio Tinto Exploration Corporation (RTEC). The property comprises 73,294 ha in 26 mineral claims in northern Saskatchewan and lies approximately 55 km northeast and southwest of Cameco Corporation's Key Lake and McArthur River operations. The property is in good standing until 2024 to 2040, depending on the claim.

The project is currently owned 100% by RTEC; there are NSR Royalties on the property with several parties ranging from 2% to 6%. On May 19<sup>th</sup>, 2022, SRL and RTEC entered into a Option Agreement with Rio Tinto, whereby an initial 51% interest in the property may be earned by paying \$508,200 in cash, issuing 3,584,014 common shares to RETC, and funding \$5,717,250 in exploration, inclusive of a 10% management fee to Skyharbour, over a period of 3 years, of which a total of \$1,905,750 must be spent within eighteen months. A further 19% may be earned by paying \$1,588,125 in cash or issuing 2,226,096 shares and funding \$6,352,500 in exploration, inclusive of a 10% management fee to Skyharbour, over 2 years. Rio Tinto can then elect to continue in a joint venture or Skyharbour can obtain the remaining 30% by paying \$33,033,000 in cash or by issuing 42,598,565 shares or a combination thereof to prevent RTEC from owning over 19.9% of Skyharbour. RTEC will retain a 1% NSR. SRL will be manager and operator at all times.

The Russell Lake Property is accessible by float or ski equipped aircraft from La Ronge, Missinippe or Points North, and by all weather road to the south along the extension of Highway 914 which services the Key Lake uranium mill and McArthur River mine. Grid power is available from the power line servicing McArthur River and Key Lake, which runs through the western extent of the property. The climate is considered to be sub-arctic with warm summers and cold winters; thus, exploration activities can be generally carried out all year. The area has been glacially scoured, with esker complexes and drumlins occurring throughout the project. The elevation of the area is approximately 450 to 550 m above sea level. Immature to mature jackpine, spruce, birch and poplar interspersed with bog occurs through much of the area, with jackpine predominating over the sand plains.

The Russell Lake project has seen extensive exploration by numerous companies since 1969. The earliest exploration program in the area was undertaken by Calta Mines Ltd, but SMDC., Eldorado, Cameco, Uranerz, Areva and their predecessors, Asamera, Denison, PNC, Northern Continental and numerous others also worked the area over a 25 year period. This early work involved numerous airborne and ground geophysical surveys, ground geological, geochemical and prospecting surveys as well as overburden RC drilling and diamond drilling. Prospective areas were identified by Denison at Kowalchuk Lake (Little Man Lake Zone); by SMDC in 1981 at the Grayling Zone, with follow up by PNC and Northern Continental; and by PNC in the Christie Lake Area. Exploration on the Russell Lake project intensified after 2004, with extensive work completed by NCR and Roughrider Exploration (Hathor). Numerous geophysical surveys were conducted between 2004 to 2010 including: airborne GEOTEM, AirFTG, and TEMPEST EM;

2D Seismic; ground gravity; ground EM including UTEM 3, Fixed Loop and Moving Loop TEM; and pole-pole DC resistivity. Additional drilling was carried out in 2007 on the Grayling Zone (8 holes) and the South Russell (14 holes) area, followed by an additional twenty-seven drill holes in 2008 testing geophysical targets in the Blue Steel, Christie Lake, Fox Lake Trail, Grayling Zone, Grayling East, and Taylor Bay areas. Hathor Exploration acquired NCR in 2009, and subsequently flew a LiDAR survey over part of the property and completed TAMT, ground gravity surveys and diamond drilling on the Grayling West and East, Key Lake Trend (“KLT”), Christie Lake, M-Zone Extension and Fox Lake Trail areas. In 2012, Rio Tinto acquired Hathor Exploration, and proceeded to carry out surface biogeochemical and soil geochemical surveys; re-logging and re-sampling of core; airborne VTEMMax; ground gravity, resistivity, and DCIP; and diamond drilling in the Kowalchuck, Grayling, Grayling West and Fox Lake Trail areas.

Geologically, the Russell Lake Property is located approximately 25 km west of the eastern margin of the Athabasca Basin and lies mainly in the western Wollaston Domain, with small portions of the property within the Wollaston-Mudjatik Transition Zone (WMTZ) and the eastern Wollaston Domain. The property is unconformably overlain by 0 to 450 metres of Athabasca sandstone. The sub-Athabasca crystalline basement rocks on the property consist of Archean granitic gneisses overlain by metasedimentary gneisses (dominantly pelitic to semipelitic (+/- graphite) with subordinate psammitic, calc silicate, and quartzites), and various Hudsonian granites, pegmatites, and felsic intrusives. The dominant structural fabric is northeast trending, which is cut by several later east-west- and northeast-trending structures.

The main deposit type being explored for on the Russell Lake property is a polymetallic, unconformity-related, structurally-controlled deposit similar to those at Cameco Corporation's nearby McArthur River and Key Lake mines, and Denison's Mines Wheeler River property (i.e. the Phoenix and Gryphon Deposits). Skyharbour has yet to carry out any exploration on the property, but work by previous operators has identified several significant exploration targets on the property. The exploration programs that have been carried out to date appear to have been completed to very high technical and security standards, especially those since 2004.

Uranium mineralization has been discovered in several areas on and/or immediately adjacent to the property, which remain prospective for additional uranium mineralization. The main targets and/or mineralized areas include:

Grayling Zone – Drilling of the ~2,200 m long, 100 m thick sub-parallel Grayling conductor intersected an 800 m long zone of predominantly basement-hosted uranium mineralization with local perched sandstone- and unconformity-hosted mineralization along a graphitic thrust fault. The best hole, RL-85-07, intersected 3.45%  $U_3O_8$  over 0.3 m at 363.2 m depth, and 0.1%  $U_3O_8$  over 0.5 m at 366.4 m depth.

M-Zone Extension – Drilling at Denison's M-Zone along trend from the Grayling Zone intersected basement hosted uranium (up to 0.70%  $U_3O_8$  over 5.8 m at 374.0 m depth). Like the Grayling Zone, the mineralization is hosted by a graphitic thrust fault. The northeast extension of the M-Zone-Grayling corridor onto the property has seen limited drilling, but weak mineralization was intersected, including 0.7 m of 0.123%  $U_3O_8$  at 619.1 m depth in hole MZE-11-03.

Little Man Lake Zone – This is a 500.0 m long, 10.0-15.0 m thick, and 25.0-35.0 m wide zone of low grade (0.03% to 0.1%  $U_3O_8$  at approximately 300 m depth) uranium mineralization associated with an unconformity depression. The last drilling in this area was in 1989, prior to modern uranium exploration models.

Fox Lake Trail area – weak mineralization was intersected in a few holes, including 0.063%  $U_3O_8$  over 1.0 m at 525.5 m depth, and 0.054%  $U_3O_8$  over 0.3 m at 516.9 m depth. A prospective quartzite ridge runs through the area with anomalous geochemistry in faulted basement metasediments. Significant sandstone-hosted sulphides are also found in this area.

Christie Lake area – weak basement-hosted uranium mineralization was intersected with up to 0.157%  $U_3O_8$  over 0.4 m at 436.4 m depth. A prospective clay altered basement fault system runs throughout this area.

Untested Conductors - There are more than 35 km of untested conductors on the property underlain by rocks of low magnetic intensity, suggestive of prospective graphitic metasedimentary basement rocks.

Despite the extensive work on the project to date, the property is at a relatively early stage of exploration over much of its area. The Grayling and Fox Lake Trail areas have seen the most exploration, but given the overlying sandstone depth and generally small footprint of many Athabasca Basin uranium deposits these two areas still remain relatively untested.

The Russell Lake Project is an enticing project thanks to its large footprint, proximity to infrastructure, and prime location in the southeastern Athabasca Basin. The project is underlain by the highly prospective rocks of the Wollaston-Mudjatik Transition Zone, host to several nearby unconformity uranium deposits in the area. Uranium mineralization has been discovered in several areas, on and/or adjacent to the property. These areas remain prospective for uranium mineralization and include: the 2200 m long Grayling conductor host to the 800 m long Grayling Zone (up to 3.45%  $U_3O_8$  over 0.3 m); M-Zone Extension (up to 0.7 m of 0.123%  $U_3O_8$ ), 7 km along strike of Denison's M Zone); Little Man Lake Zone, a shallow low grade zone (0.03% to 0.1 %  $U_3O_8$ ) at 300 m depth; Fox Lake Trail area, where there is weak mineralization in a geologically prospective environment; the Christie Lake area (with up to 0.157%  $U_3O_8$  over 0.4 m) which has a prospective clay-altered basement fault system; and 35 km of untested conductors in magnetic lows. Significant exploration potential still exists at the Russell Lake project, despite its extensive exploration history over the last 40 years. Its proximity to several deposits off property (M-Zone, MAM zone, Maverick, Phoenix, Gryphon) also illustrates the regional potential of the area. It is ideally located in close proximity to regional infrastructure, making it considerably more cost effective to explore than other more remote projects in the Athabasca Basin.

There are no significant risks or uncertainties that would reasonably be expected to affect the information that has been collected to date on the property. Although the property is at an advanced stage of exploration, it is still unknown what kind of success any future exploration programs may encounter.

The merits of the Russell Lake Property are, in the opinion of the Author, sufficient to justify significant exploration expenditures on the property. Two phases of work consisting of drilling are recommended to fulfil the initial 3-year option period. The Phase One program should consist of extensive data review and compilation for the purposes of targeting, followed up by 12 to 15 diamond drill holes totaling 6,500 metres focused on the Fox Lake Trail, M-Zone Extension and Grayling target areas. The total estimated cost of this phase, occurring within the first 18-months of the initial option period, is \$2,000,000. The Phase Two program will also consist of diamond drilling (an additional 20 to 30 diamond drill holes totalling 13,000 metres), guided by additional data compilation and interpretation and the results of Phase One. The Phase Two program is estimated to cost \$4,000,000 and would be completed over the remaining 18 months of the initial option period.

## **2.0 INTRODUCTION**

This Russell Lake Technical Report was prepared for Skyharbour Resources Ltd. (SRL) to evaluate the uranium exploration potential of the approximately 73,294 ha Russell Lake Property. This report is intended to be a technical document in support of a Property Option Agreement dated May 18<sup>th</sup>, 2022 with Rio Tinto Exploration Canada Inc. (RTEC). The technical report has been written in compliance with National Instrument 43-101 following the guidelines specified by the instrument.

Michelle McKeough, M.Sc., P.Geo. (the Author) Vice President TerraLogic Exploration Inc. is the qualified person responsible for the content of this report. TerraLogic is a Cranbrook, British Columbia based firm that provides geoscientific consulting services to the mining industry. Ms. McKeough is an independent Qualified Person and responsible for the contents of this report.

The Russell Lake Technical Report is a compilation of publicly available assessment reports and unpublished reports; it has drawn significantly from NI 43-101 Compliant Reports by Billard (2016), and Liskowich (2018), and the latest Russell Lake Assessment Report by Hupaelo and Madden (2017). This data was supplemented by publicly available scientific and government publications. The Author, in compiling this Report, used sources of information from previous explorers which appear to have been completed in a manner consistent with normal exploration practices. The Author has no reason not to rely on such historic data and information as listed in supporting documents, which were used as background information and are referenced in respective sections herein. The Author visited the property on April 21<sup>st</sup>, 2022.

## **3.0 RELIANCE ON OTHER EXPERTS**

For the purpose of the Technical Report, the Author completed a tenure data search related to Section 4 "Property Description" on May 16<sup>th</sup>, 2022 utilizing and relying fully on the Government of Saskatchewan government, Mineral Administration Registry Saskatchewan website (MARS)

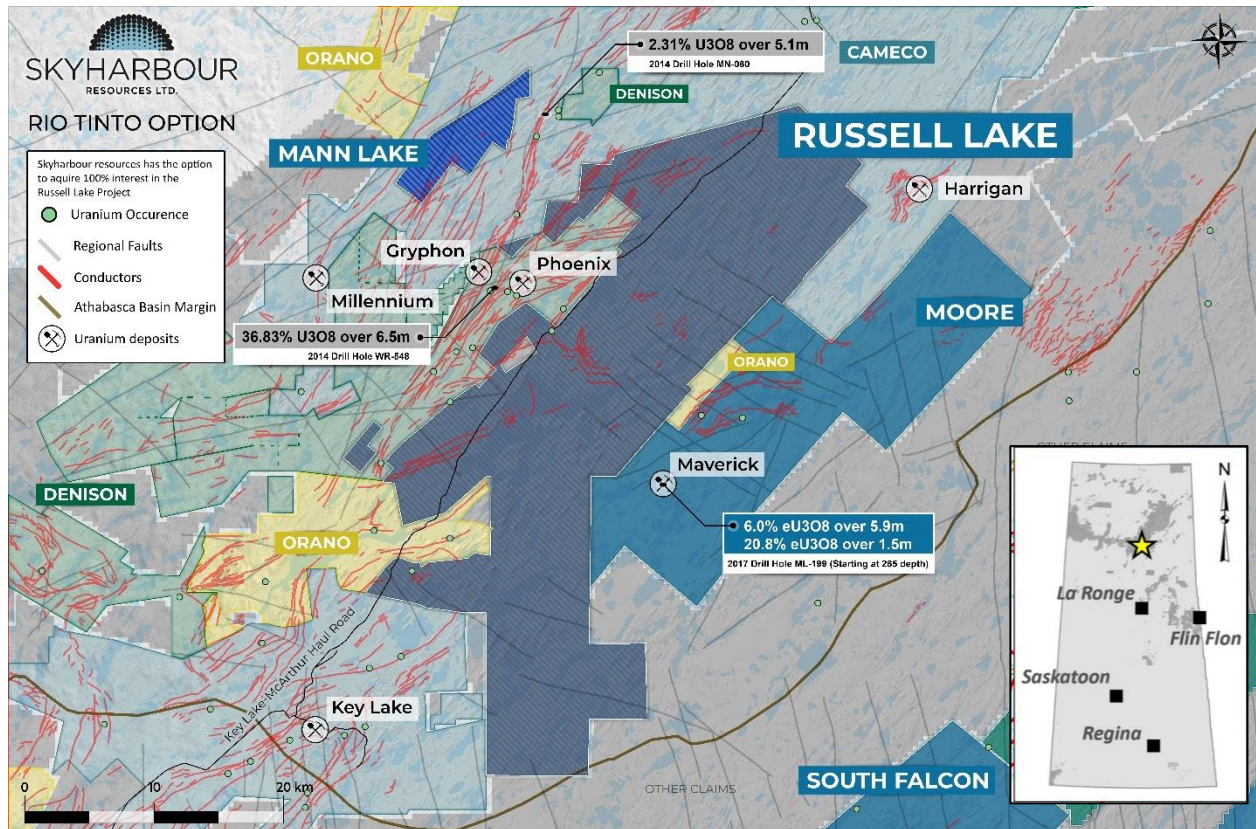
(<https://mars.isc.ca/MARSWeb/default.aspx>). However, the limited research by the Author does not express a legal opinion as to the ownership status of the mineral claims.

#### 4.0 PROPERTY DESCRIPTION AND LOCATION

##### 4.1 Property Location

The Russell Lake Property comprises 73,294 ha in the Northern Mining District of Saskatchewan, covering portions of NTS topographic sheets NTS 074H-3, 5, 6, 10, and 11 (Figure 1). The project lands cover 26 contiguous claims in a northeast trending area over 50 km long by 14 km wide, centred approximately around UTM NAD83 (Z13) 482,000mE, 6,368,000mN m N (Latitude 57° 26' N, Longitude 105° 18' W). The property lies midway between Cameco Corporation's Key Lake and McArthur River Operations, respectively. The extension of Highway 914, servicing Key Lake and McArthur River Operations follows the western edge of the property. The property occurs entirely within the Athabasca Basin of northern Saskatchewan. The city of Saskatoon is approximately 650 km to the south of the property.

Figure 1: Location Map





## 4.2 Property Description

The Russell Lake Property comprises twenty-six mineral claims totalling 73,294 ha that were acquired by ground staking between the years 1993 and 2004 (Figure 2, Table 1). All claims are in good standing at the time of writing until January 29, 2024 at a minimum. Adjoining properties are held by Skyharbour Resources, Denison Mines, Cameco Corporation, Orano Canada, JCU Canada-Denison Mines, ALX Resources, Purepoint Uranium, GT Uranium Energy, Matt Mason, and Tim Young. Claims that are held by Purepoint Uranium and ALX Resources, GT Uranium Energy, Matt Mason, and Tim Young have been staked under the current MARS system described herein.

Table 1: Mineral Disposition Summary

\*Data is current and taken from the MARS system as of May 29, 2022

Claim Number	Area (ha)	Effective Date	Expiry Date	Claim Number	Area (ha)	Effective Date	Expiry Date
S-105312	2100	9/16/1993	12/14/2038	S-107242	1938	2/9/2004	5/9/2033
S-105313	1456	9/16/1993	12/14/2037	S-107379	4924	4/19/2004	7/17/2024
S-106426	3555	4/3/2000	7/1/2028	S-107382	4965	4/19/2004	7/17/2024
S-106427	3600	4/3/2000	7/1/2028	S-107403	149	6/21/2004	9/18/2040
S-106846	5790	9/10/2002	12/8/2028	S-107404	1222	6/21/2004	9/18/2040
S-106847	4966	9/10/2002	12/8/2028	S-107405	1138	6/21/2004	9/18/2032
S-106848	4491	9/10/2002	12/8/2035	S-107406	1332	6/21/2004	9/18/2030
S-106849	5477	9/10/2002	12/8/2027	S-107407	26	6/21/2004	9/18/2035
S-106850	5603	9/10/2002	12/8/2027	S-107408	3105	6/21/2004	9/18/2027
S-107161	3258	4/22/2004	7/20/2026	S-107752	447	11/1/2004	1/29/2024
S-107162	4710	4/22/2004	7/20/2027	S-107754	1016	11/1/2004	1/29/2042
S-107176	4837	1/5/2004	4/4/2030	S-107863	161	11/26/2004	2/23/2032
S-107179	2513	12/22/2003	3/20/2024	S-107873	515	11/10/2004	2/7/2033

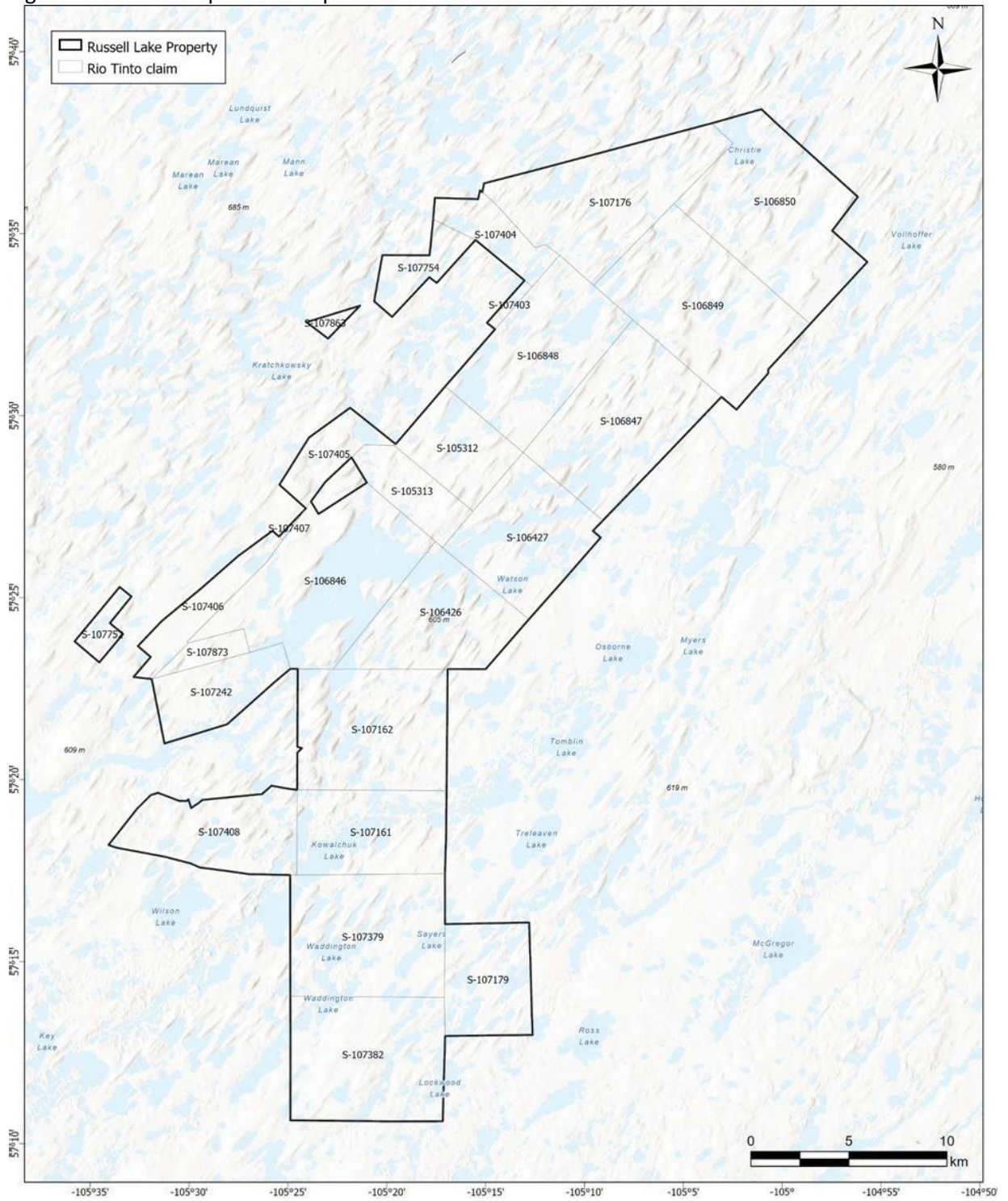
\*All dates d/m/year as per search-book output

The entire property is subject to a 2% NSR payable to Uranium Royalty Corp, with an additional 4% NSR payable to Japan Atomic Energy Agency on dispositions S-105312 and S-105313. North-Sask Ventures Ltd. holds an additional 1.5% NSR on S-107873.

On May 18<sup>th</sup>, 2022, Skyharbour entered into a Mineral Option Agreement with Rio Tinto, whereby SRL can earn an initial 51% in the property by paying \$508,200 in cash (paid), issuing 3,584,014 common shares (paid) and funding \$5,717,250 in exploration over a period of 3 years, of which a total of \$1,905,750 must be spent within eighteen months. Skyharbour will be operator and project manager for the duration of the agreement.

Skyharbour may acquire an additional 19% interest (to earn a total interest of 70%) in the properties by paying either \$1,524,600 in cash or issuing 2,226,096 shares, as well as funding \$6,352,500 in exploration over a period of 2 years. Rio Tinto can then elect to continue in a joint venture or Skyharbour can obtain the remaining 30% by paying \$33,033,000 in cash or by issuing 42,598,565 shares or a combination thereof to prevent RTEC from owning over 19.9% of Skyharbour. RTEC will retain a 1% NSR.

Figure 2: Mineral Disposition Map



All exploration expenditures are inclusive of a 10% management fee payable to Skyharbour, with the management fee considered a qualifying expenditure.

In order to conduct ground work at the property, the operator must be registered with the Saskatchewan government, comply with the Saskatchewan Environment Exploration Guidelines, and hold the appropriate Work Camp Permit, Forest Product Permit and Aquatic Habitat Protection Permit. The operator must also follow the Federal Department of Fisheries and Oceans' Guidelines for the Mineral Exploration Industry. The environmental liabilities associated with the activities to date are consistent with low impact exploration activities. The mitigation measures associated with these impacts are accounted for within the current surface exploration permits and authorizations available from the Crown.

The Government of Saskatchewan takes the lead on the Duty to Consult with the local Aboriginal communities during the permitting process. The proponent of the work is encouraged to engage with the communities as well, and company engagement is a standard operating procedure for companies working in this area. Skyharbour has historically taken part in such engagement in the past and continues to do so.

There are no current Environmental Mineral Exploration Permits for the property at this time, but the author does not anticipate any significant circumstances that would impede the acquisition of the required permits. There is an existing camp facility at McGowan Lake that has been permitted by RTEC under a long-term industrial land lease from the Government of Saskatchewan.

Exploration and mining tenure in Saskatchewan are governed by the Mineral Tenure Registry Regulations, and administered by the Mines Branch of the Saskatchewan Ministry of the Economy. The mineral claims on the Russell Lake property were acquired by ground staking prior to the implementation of the grid based Mineral Administration Registry Saskatchewan online staking system (MARS), but are now administered through the MARS system and subject to its regulations. A mineral claim does not grant the holder the right to mine minerals except for exploration purposes. Subject to completing necessary expenditure requirements, mineral claims can be maintained for a maximum of twenty-one years. Beginning in the second year and continuing to the tenth anniversary of staking a claim, the annual expenditure required to maintain claim ownership is \$15 per ha; after the 10<sup>th</sup> anniversary the annual expenditure required is \$25 per ha. In order to mine minerals, the mineral claim must be converted to a mineral lease by applying to the mining recorder. Surface rights for mining operations are Crown owned and require a surface lease from the Province of Saskatchewan. A surface lease is issued for a maximum of 33 years and may be extended as required.

## **5.0 ACCESSIBILITY, CLIMATE, INFRASTRUCTURE AND PHYSIOGRAPHY**

The Russell Lake Property is accessible by Highway 914 from southern Saskatchewan and by float or ski equipped aircraft in summer from La Ronge (260 km. south), Missinippe (200 km southeast) or Points

North (110 km northeast). These locations house the only commercial services readily available, with fuel, lodging, and aircraft services available. The property lies along the extension of all-weather Highway 914, which services the McArthur River mine from the Key Lake uranium mill and southern Saskatchewan. The property is serviced internally by a network of bush trails from the highway as well as by float plane, helicopter, snowmobile, and boat. Exploration crews are typically housed in an exploration camp on site at McGowan Lake. There are two nursing stations available at the nearby mine/mill facilities (Key Lake and McArthur River). The nearest hospital is at La Ronge, approximately 260 km to the southwest.

A ready supply of labour is available from communities throughout northern Saskatchewan. Mines in the region typically utilize a one-to-two-week rotational schedule to reduce the negative impacts of creating company town sites. Saskatchewan is the focus of Canada's uranium mining and exploration industry, and as such, is well positioned to supply whatever services the industry may require. The mineral extractive industry in Saskatchewan has a high level of acceptance and support throughout the provincial population, as well as by local indigenous peoples and municipal governments. The Saskatchewan government is actively supportive of the mining industry in the province of Saskatchewan.

The climate is sub-arctic with warm summers and cold winters. Summer temperatures may exceed 30° C occasionally but are typically in the low to mid 20's, while winter temperatures of 30° to -45° C are not unusual. During the period of freeze up, from December to April, accessibility in the area is enhanced by frozen muskeg and lakes. Break-up typically begins in April and ends approximately mid to late May. The operating season at the Russell Lake Property is close to year-round depending on the type of work that is proposed. While geological mapping, prospecting and geochemical sampling are only feasible when there is no snow cover, other operations such as geophysical surveys and diamond drilling can be completed in parts of the property during the freeze-up period stated above. Airborne geophysical surveys can be carried out without regard to season.

The project area is underlain by the Reindeer River-Wollaston Lake watershed which drains into the Churchill River to the southwest and ultimately to the northeast into Hudson Bay. The area is glacially scoured, with esker complexes and drumlins occurring throughout. Glacially transported and relatively locally derived boulders litter the landscape and outcrop is poorly exposed. The elevation of the area is approximately 450 to 550 m above sea level.

Immature to mature jackpine, spruce, birch and poplar interspersed with bog and lakes occurs through much of the area, with jackpine predominating over the sand plains. A significant part of the area has been affected by fire over the years, with varying ages of burn found throughout.

## **6.0 HISTORY**

The Russell Lake project has seen extensive exploration by several companies since 1969 throughout the area. The earliest exploration program in the area was undertaken by Calta Mines Ltd., but SMDC, Eldorado, Cameco, Uranerz, Areva and their predecessors, Asamera, Denison, PNC, Northern Continental and several others also worked the area over a 25-year period. This work included numerous airborne and

ground geophysical surveys, ground geological, geochemical and prospecting surveys, and overburden RC drilling and diamond drilling.

At Kowalchuk Lake, Denison identified several EM anomalies and drilled over 13,000 m in forty-six holes. Sandstone dissolution near the unconformity, anomalous uranium and graphitic conductors in several holes were followed up on, leading to the discovery of the Little Man Lake Zone (SMDI 2429, Figure 2), a flat-lying, tabular, low-grade unconformity-hosted uranium mineralized body associated with an unconformity depression 10.0-15.0 m thick, 25.0-35.0 m across and defined along a strike length of 500.0 metres. The best hole was KW-12 (0.05 %  $U_3O_8$  over 4.8 m at 298.0 m depth, and 0.13 %  $U_3O_8$  over 1.3 m at 311.5 m depth).

Two sandstone boulders with anomalous uranium (15 and 200 ppm) were found in 1978 down-ice from the yet-to-be-discovered Grayling and M-Zone showings. In 1981, SMDC carried out ground EM and magnetic surveys which found the 100 m thick, 2200 m long Grayling conductor system. The Grayling conductor was subsequently tested by 5685.6 m of diamond drilling in fifteen holes (RL-84-04 to RL-88-17). Semi-friable structures in sandstone up to 100 m in thickness along with uranium, lead, copper, and boron enrichment and localized uranium mineralization (i.e., the Grayling Zone) were intersected. Thrust wedges of altered graphitic basement lying 6.1 to 20.4 m above the unconformity were also noted in RL-84-06A and RL-85-08. The predominantly basement-hosted Grayling Zone (SMDI 3564, 2151, and 3563, Figures 1, 2) is locally perched and intersected in the sandstone below the basement fault wedges. The best hole was RL-85-07, which intersected 3.45%  $U_3O_8$  over 0.3 m at 363.2 m and 0.1%  $U_3O_8$  over 0.5 m at 366.4 m. Drilling later extended the strike length of the Grayling Zone to approximately 800 m.

PNC completed additional geophysical surveys in the Grayling, Russell West, and MacDougall Lake areas and delineated two eastern extensions of the Grayling conductor system 3.1 km and 1.6 km long. Northern Continental Resources (NCR) acquired the project in 2000 and drilled several holes on section with historic drill holes along the Grayling conductor (Figure 2). Three holes intersected the thrust fault and conductor along with weak sandstone wedge-hosted mineralization, the best of which, RL-00-22A, intersected 0.104%  $U_3O_8$  over 2.7 m at 342.8 m. NCR targeted the eastern extension of the Grayling conductor trend, and all four holes hit prospective basement rocks, but failed to hit significant structure, alteration, and/or radioactivity.

PNC's "Area C Project" (Christie Lake Area) was tested by two drill holes. CC91-01 intersected faulted graphitic pelitic gneiss 30 m below the unconformity and was shut down in quartzite, while CC91-02 intersected sandstone and basement structures, weak alteration, and rare graphite. Follow-up drilling intersected trace graphite and significant sandstone structure in the area. Cameco restaked the ground in 1998 as the "Christie Lake" project. They completed extensive ground surveys and geochemistry but no drilling, and subsequently allowed the property to lapse.

### **Exploration 2004-2010**

After 2004, the property saw extensive work by NCR, Roughrider Exploration, and Hathor Exploration as the Russell Lake North and Russell Lake South Projects. Numerous geophysical surveys were carried out throughout the period 2004 to 2010 including: airborne GEOTEM (2,914 line-km), AirFTG (3,369 line-km), and TEMPEST EM (2,261 line km); 2D Seismic (150 line-km, 12 profiles); ground Gravity (11,760 stations); ground EM including UTEM 3 (91.6 km, 7 grids), Fixed Loop TEM (250.5 line-km, 10 grids) and Moving Loop TEM (8.4 line-km, 2 grids); and pole-pole DC Resistivity (149.5 line-km, 6 grids). In addition to the extensive geophysical work, the companies collected 610 lake sediment and 896 Radon samples.

Eight drill holes (totalling 3,554.5 m) were drilled in 2007 on the Grayling Zone area. Three of the holes intersected weak mineralization: RL-07-04 (0.06%  $U_3O_8$  over 1.8 m at 394.8 m and 0.04%  $U_3O_8$  over 0.2 m at 411.0 m); RL-07-05 (an extension of RL85-7, containing 0.03%  $U_3O_8$  over 1.0 m at 366.0 m, 0.07%  $U_3O_8$  over 0.3 m at 378.7 m, and 0.16%  $U_3O_8$  over 0.5 m at 389.1 m), and RL-07-06 (0.04%  $U_3O_8$  over 0.2 m at 377.6 m), confirming the presence of multiple stacked zones of basement-hosted mineralization at the Grayling Zone within the Wollaston Group metasediments.

Drilling took place on the South Russell property in the winter of 2007, with fourteen drill holes completed (7,348.5 m). Drilling intersected prospective Wollaston Group metasediments but did not intersect any significant structure, pathfinder, or clay geochemistry.

In 2008, NCR drilled twenty-seven drill holes (12,950.64 m total, Figures 1, 2) testing geophysical targets in the Blue Steel, Christie Lake, Fox Lake Trail, Grayling Zone, Grayling East, and Taylor Bay areas. Sandstone structures were intersected in the Blue Steel (BS-08-02), Christie Lake (CL-08-01), Fox Lake Tail (FLT-08-08) and Grayling East (RL-08-09 and RL-08-10) areas, while the Grayling Thrust fault (both its sandstone and basement extents) was intersected in RL-08-13, RL-08-14, RL-08-15, and RL-08-17. Holes CL-08-01 and FLT-08-08 intersected pervasive limonitization of the sandstone, along with strong bleaching in FLT-08-08. Only the Grayling East and Grayling holes encountered basement alteration (weak argillization), while seven holes intersected weak uranium mineralization (SMDI 3565, 3566), the best of which was RL-08-16, containing 0.048%  $U_3O_8$  over 0.9 m at 328.5 m and 0.033%  $U_3O_8$  over 2.8 m at 330.2 m in the sandstone.

### **Exploration 2010-2012**

Hathor Exploration acquired NCR in the fall of 2009 thereby gaining a 100% interest in the North and South Russell Lake properties, which they then combined to form the "Russell Lake Project". In 2010, Hathor flew a LiDAR survey over part of the Russell Lake project, and relogged the basement of 43 historic drill holes and the entirety of 3 drill holes (total of 5,358.25 m of relogging). They also took 765 geochemical and 315 PIMA samples. As part of this relogging project, they discovered weak basement-hosted mineralization in RL-08-09 (Grayling East area), and a hydrothermally-altered "old" fault zone with up to 32.0 ppm  $U_{total}$  over 1.0 m cut by younger fracture zones (up to 115.0 ppm  $U_{total}$  over 1.0 m locally and 0.063%  $U_3O_8$  over 1.0 m distally) in drill holes FLT-08-03 to FLT-08-06 in the Fox Lake Trail area.

The relogging program was followed by 45.8 line km (23 profiles) of TAMT on the M-Zone Extension and Fox Lake Trail areas in the fall of 2010. A 2.0 km long sandstone resistivity low was identified in the M-Zone Extension area, along with several other isolated sandstone and NE-trending basement resistivity lows and two NE-trending basement and sandstone resistivity highs (interpreted to be related to a basement quartzite ridge). Five drill holes (2,687 m total, CL-10-01 to CL-10-05) were subsequently drilled in the Christie Lake area (Figures 1, 2) and intersected Hudsonian partially melted granites/pegmatites and Archean granitoids. Strong alteration and structure were discovered in CL-10-03 and CL-10-04, with CL-10-03 (SMDI 5305) having weak basement-hosted uranium mineralization (0.157%  $U_3O_8$  over 0.4 m at 436.4 m) in hematized, brecciated Hudsonian granite.

Further ground gravity surveys (4,685 stations, 228.6 line km) were done in the Grayling West, Grayling East, and Key Lake Trend (“KLT”) areas in 2011, followed by twelve drill holes (6,778 m) in the Christie Lake (CL-11-08 to CL-11-10) and Fox Lake Trail (FLT-11-09 to FLT-11-17) areas. The 2011 Christie Lake drill holes intersected weakly fractured sandstone with discrete, isolated fault zones and variable bleaching, rare sooty pyrite, and siderite, and local desilicification. One hole, CL-11-09, was lost in the sandstone at 247.0 m, but the other two holes (CL-11-08 and CL-11-10) intersected partially melted Hudsonian and Archean granitic rocks in the basement (similar to 2010 drilling in the area). CL-11-08 hit anomalous uranium (202 ppm  $U_{total}$  over 0.2 m) at 406.6 m depth in a hematite breccia within Hudsonian granite above a 190.0 m long weak to moderately clay-altered basement fault system.

In the Fox Lake area, the holes hit mostly competent, weakly altered sandstone. Two basement domains were intersected in these Fox Lake holes, a “quartzite valley” and associated basement alteration zone, and a “graphite-quartzite” zone, however no significant basement faulting was intersected. Variable pervasive silicification of the sandstone was associated with the “quartzite valley” zone, with patchy weak silicification in the sandstone overlying the “graphite-quartzite” zone. One hole, FLT-11-14, intersected weak basement-hosted uranium mineralization (0.054%  $U_3O_8$  with 1450 ppm B over 0.3 m at 516.9 m).

Additional drilling (6 DDH, 3,741 m) on the M-Zone extension area in the fall of 2011 tested the northeast continuation of the Grayling/M-Zone conductors. All holes intersected prospective basement structure, with the strongest sandstone alteration, structure, and geochemical anomalies in MZE-11-02 and MZE-11-03; also, weak uranium mineralization was encountered in MZE-11-01A, MZE-11-03, and MZE-11-05 (SMDI 5540), with the best result grading 0.123%  $U_3O_8$  over 0.7 m at 619.1 m depth in drill hole MZE-11-03. TAMT surveying was also completed in the fall of 2011 (112 stations, 23.7 line km) on the Fox Lake Trail and Fox Lake Trail South grids. The TAMT surveys confirmed the presence of southeast dipping basement rocks, an association of resistivity lows with graphitic rocks with a quartzite ridge hanging wall to pelitic gneisses, and a sandstone resistivity high associated with silicified sandstone.

### **Exploration History – 2012 to 2017**

In 2012, Rio Tinto gained ownership of the Russell Lake project as part of their competitive acquisition of Hathor Exploration. That same year, they carried out surficial soil, tree needle, and tree core sampling in

the Kowalchuk lake area alongside a re-logging and re-sampling program of eight historical drill holes from the Kowalchuk Lake and Wilson Lake Dome areas. This work was followed up in 2013 by ground gravity (2,198 stations, 155.2 line km) in the Kowalchuk Lake area and an airborne VTEMMax survey over the Russell Lake and Kowalchuk Lake claims.

In 2014, Rio Tinto completed 60.8-line km of ground resistivity in the Grayling and Grayling West areas; these surveys detected resistivity low chimneys in the sandstone. Additional DCIP surveying (141-line km) in the Lima and Fox areas in 2015 identified similar resistivity low chimneys. Further re-logging of historical drill core from the Lima target area was done in 2015, and while no significant structure or alteration were noted, anomalous amounts of uranium and other pathfinder elements were detected.

Five holes were also drilled in the Kowalchuk lake area in the winter of 2014. They mainly intersected Upper Wollaston group metasediments and granites, with local elevated uranium (up to 206 ppm U over 16.39 m); the area was deemed to be of low prospectivity for uranium. Four more holes (2,390 m) were drilled at the Grayling zone in 2014 to test for extensions of the M-Zone Fault and the down-dip extent of the Grayling Zone. The Grayling structure was intersected in two holes, but there was no significant mineralization in either hole. However, 14GRA003 intersected a metalliferous graphitic basement fault with weakly elevated uranium, thought to be a possible extension of the M-Zone Extension fault.

Rio Tinto undertook a final drill program at the Fox Lake Trail area in 2017, and successfully intersected a silica ridge with unconformity displacement. They did indicate the possibility of prospective faulting along strike in dilational zones as evidenced by the presence of oblique and strike-slip displacement in thick faulted basement meta-sediments, but did not consider this portion of the quartzite ridge to be prospective. Anomalous clay mineralogy, sulphides, and pathfinder element enrichment were encountered in the footwall holes, and they suggested follow-up work to test the structures along strike. However, Hole 17FOX008 failed to intersect significant uranium, causing Rio Tinto to down-grade the prospectivity of the graphitic faulting intersected, as they felt there was a lack of uranium-bearing fluid flow in the area when the reduced sulphide-forming fluids were moving through the sandstone. Two additional holes (17FOX001A and 17FOX003A) drilled into the hanging wall contact of the quartzite failed to intersect the conductor, but did intersect silicified basement rocks (i.e. the quartzite ridge). Despite the presence of a uranium-bearing fracture in the basement of 17FOX001A, and significant sandstone-hosted sulfides, and brittle oblique-dextral faulting in both holes, Rio Tinto also determined the hanging wall contact of the quartzite to be not prospective for uranium mineralization. Additionally, the conductor and quartzite in the Fox area were deemed not prospective for uranium mineralization by Rio Tinto because of a lack of significant unconformity offset (i.e. no 100 m of fault controlled unconformity offset), despite the presence of other fault systems hosting uranium mineralization in the Athabasca Basin with little to no unconformity offset, including Maverick (Moore U Project of Skyharbour) and Cigar Lake (Cameco).



## 7.0 GEOLOGY

### 7.1 Regional Geology

The Russell Lake Property is located within the Athabasca Basin approximately 25 km west of its eastern margin and is predominantly within the Western Wollaston domain, with small portions of the Wollaston-Mudjatik Transition Zone (WMTZ) and the eastern Wollaston Domain underlying the westernmost and southeasternmost parts of the property, respectively. The Wollaston and Mudjatik domains together form the eastern portion of the sub-Athabasca basement complex. The ensuing text draws extensively from Armitage, 2012.

The Athabasca Basin is of Helikian (Mesoproterozoic) age and occurs within the southwestern part of the Churchill Structural Province of the Canadian Shield. The 100,000 square km basin is filled with unmetamorphosed sediments of the Athabasca Supergroup, predominantly variably hematized and conglomeritic quartz arenite with subordinate mudstones, siltstones, and rare tuffs and phosphatic hardgrounds. In the western part of the basin around the Carswell meteorite impact structure, a sequence of dolostones and basement granitoids to granitoid gneisses are exposed. Diamond drilling to date has established the current maximum depth of the Athabasca Basin to be approximately, though the basin is generally considered to have been much thicker in the past. The basin is interpreted to have been filled over a 200 Ma period in four major depositional sequences which coalesced into a single basin (Ramaekers et al., 2007). The Athabasca Basin unconformably overlies the predominantly northeast-trending Archean to Paleoproterozoic crystalline basement rocks of the Churchill Structural Province (Figure 4). The unconformity is relatively flat lying, with a gentle dip towards the centre of the basin in the east and a steeper dip to the center in the north, south and west portions of the basin.

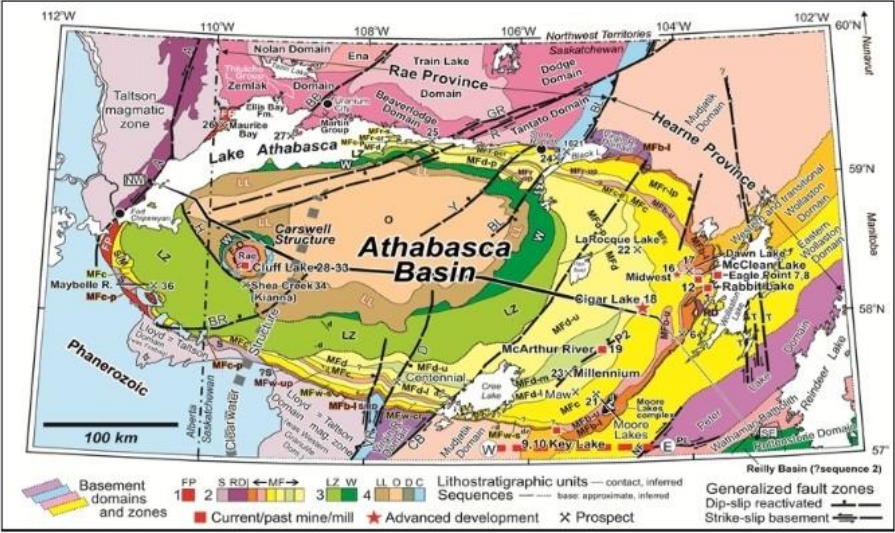
The Archean to Paleoproterozoic basement underlying the Athabasca Basin forms part of the Churchill Structural Province that was strongly deformed and metamorphosed during the Hudsonian Orogeny (Lewry and Sibbald, 1977, 1980; Annesley, et.al., 1997, 1999, 2005). The Churchill Craton is comprised of three major lithotectonic zones: the Talston Magmatic Zone, the Rae Craton and the Hearne Province. The basement underlying the Athabasca Basin is primarily the Rae and Hearne Provinces. The Talston Magmatic Zone underlies the Athabasca Basin on its far west side extending from northern Alberta to Great Slave Lake in the Northwest Territories and is dominated by a variety of plutonic rocks and older basement.

The Rae Province is made up of five separate domains (Zemlack, Beaverlodge, Tantano, Lloyd, and Clearwater Domains), as well as a column of material forming the core of the Carswell meteorite impact structure. The Zemlack Domain is dominantly consists of highly deformed and metamorphosed migmatitic gneisses, while the Beaverlodge Domain contains greenschist to amphibolite facies supracrustal rocks and meta-igneous rocks. The Tantato Domain is separated into two structural packages termed the lower and upper decks. The upper deck to the south, is dominated by psammitic to pelitic migmatite with lesser mafic granulite, whilst the lower deck is comprised of a tonalite batholith

to the east and granitoid orthogneiss to the west. The Lloyd Domain consists mainly of granodioritic orthogneiss with lesser metasedimentary rocks, amphibolites and ultramafics (Lewry and Sibbald, 1977; Card, 2002). Rocks of the Clearwater Domain are largely unexposed but based on drill core and limited exposure, are presumed to be K-feldspar rich granite and granitoid gneiss (Sibbald, 1974; Card, 2002). The Carswell impact structure is characterized by a core of granitoid gneiss, pelitic diatexite, pegmatite and mafic gneiss.

The Hearne Province is made up of the Wollaston, Mudjatik and Virgin River domains, including the Mudjatik-Wollaston Transition zone (WMTZ), and is separated from the Rae province by the northeast trending Virgin River shear zone. The Virgin River and Mudjatik domains are lithologically similar, made up of interbedded psammitic to pelitic gneisses and granitoid gneiss with lesser mafic granulite, quartzite, calc-silicate and iron formation and are separated based on differing structural styles. Linear structures dominate the Virgin River Domain while dome and basin structures dominate the Mudjatik Domain. However, Card (2012) proposed that the distinction between the two domains be largely abandoned. The Wollaston Domain is separated from the Mudjatik Domain based on an increased proportion of metasedimentary rocks (Yeo and Delaney, 2007) and a change from dome and basin structures to linear structures (Lewry and Sibbald, 1977). The Wollaston Domain is made up of variably graphitic Paleoproterozoic metasedimentary gneisses and Archean granitoid gneiss, with lesser amounts of granitoid and gabbroic intrusive bodies.

Figure 3: Regional Geology, Athabasca Basin and Environs (Jefferson et al 2007)



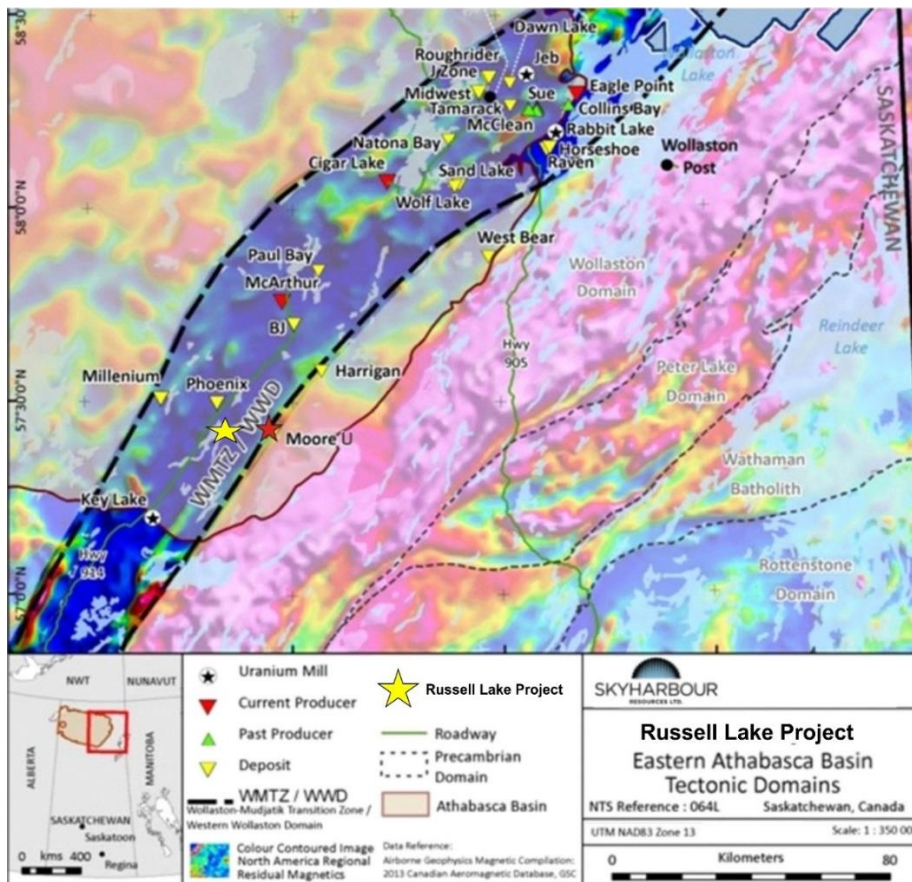
Major fault/shear zones in the sub-Athabasca basement are generally northeast to east-trending and include the Snowbird Tectonic Zone, Grease River Shear Zone, Black Bay Fault, Cable Shear Zone, Beatty River Shear Zone and Tabbernor Fault Zone. Faulting causes offsets in all lithologies regardless of age. Both normal and reverse faults occur within the Wollaston and Athabasca Groups. The most

recognizable faults have a north-northeast trend and belong to the Tabbernor fault system. Northeast-trending faults are common, but these are typically more difficult to recognize because of their coincidence with the regional foliation and glacial trends.

## 7.2 Property Geology

The Russell Lake property is primarily situated within the Western Wollaston Domain (WWD), which is host to some of the world’s largest high-grade uranium deposits (e.g., McArthur River, Cigar Lake, and Key Lake deposits). The property is also underlain by Wollaston-Mudjatik Transition Zone (WMTZ) and the eastern Wollaston Domain in the westernmost and southeasternmost parts of the property, respectively.

Figure 4: Eastern Athabasca Basin Tectonic Domains



Airborne geophysical surveys and drilling data indicate that the basement rocks consist of basal northeast to east-trending, linear to arcuate to domal Archean granites and orthogneisses with mantled metasedimentary gneisses (predominantly pelitic to semipelitic (+/- graphite), with minor calcareous to non-calcareous psammitic to arkosic, calc-silicate, amphibolitic and quartzite/quartz-rich units) of the Wollaston Supergroup. Partially melted Hudsonian granites and gneisses also often inter-finger or occur

as massive bodies within both the Archean and Wollaston basement assemblages. The basement rocks are interpreted to be dipping southeast to south based on oriented drill core and geological cross-sections. The flat-lying to very gently-dipping Mesoproterozoic Athabasca Group sandstones and conglomerates of the Manitou Falls A (also known as the Read Formation), B, C, and D formations (MFa, MFb, MFc, and MFd) unconformably overly the basement assemblages. Sandstone cover ranges from 0 m in the southeast to approximately 450 metres depth in the northwest of the property. The basal Mfa/Read Formation directly overlies the basement assemblages where sandstone is present but has been observed to pinch out along significant basement topographic highs (i.e., along quartzite ridges also to the northwest). Basal brick-red diagenetic mudstones, rounded conglomerates, and sub-rounded to angular fanglomerates tend to occupy the lowermost 30 m of the Mfa/Read. The sheet-like, thick, conglomeratic MFb originates within 2.5 to 6.0 km of the southeastern most Russell Lake property boundary. The granular to pebbly MFc is recognized in the central to northeast part of the property, while the upper clay intraclast-rich MFd is only present in the northwest part of the property. The dip of the sandstones generally mimics the outline of the basin edge, i.e., sandstones are dipping north in the south and central parts of the property and dipping west in the central to north parts of the property. A generalized stratigraphy for the Russell Lake Property is illustrated in Table 2 below.

Table 2: Generalized Stratigraphy of the Russell Lake Project

**QUATERNARY**

- Overburden

~~~~~Unconformity~~~~~

- **HELIKIAN:**Athabasca Sandstone, (Manitou Falls D, C, B and A)

~~~~~Unconformity~~~~~

**HUDSONIAN:**

- granite and pegmatite sills/dykes
- exo-skarn calc-silicate

~~~~~Unconformity~~~~~

**APHEBIAN (WOLLASTON):**

- arkosic and quartz-rich arkosic gneisses; minor semipelitic gneiss and quartzite; rare calc-silicates; +/- sillimanite, garnet and/or cordierite
- predominantly semipelitic, psammitic, and arkosic gneisses; +/- garnet and/or cordierite
- psammitic, semipelitic, and pelitic gneisses, minor quartzite and garnetite; commonly containing cordierite and potash feldspar porphyroblasts with sieve textures; locally graphitic; +/- garnet, cordierite, and/or sillimanite

~~~~~Unconformity~~~~~

**ARCHEAN:**

- granites and granitoid orthogneisses

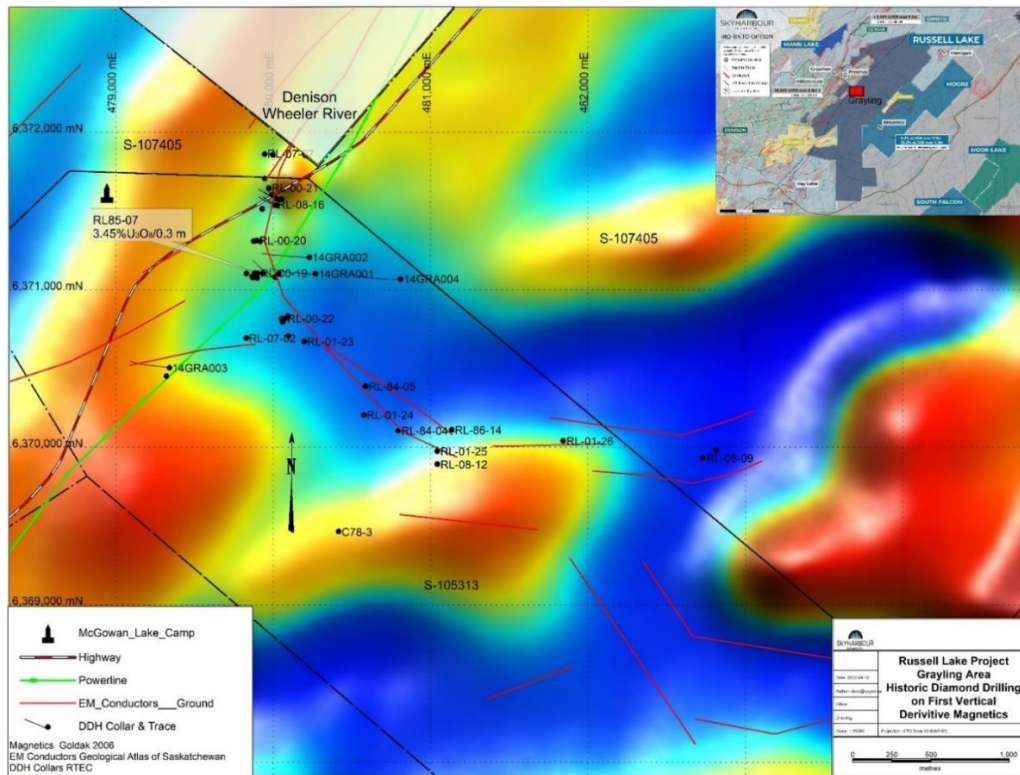
The Russell Lake property is cut by several east-west- and northeast-striking, aeromagnetic-interpreted fault systems, either in conjunction with or independent of EM conductors. Post-tectonic northwest-striking fault systems are interpreted from aeromagnetic surveys where northeast trending magnetic lineaments are broken and offset. A northwest-trending, magnetic-high anomaly north of the Grayling Zone and continuous onto the adjacent Wheeler River property was drill-identified by Denison Mines in 2006 as a Mackenzie diabase dyke within the Athabasca Supergroup sandstone.

### 7.3 Mineralization

Uranium mineralization has been discovered in several areas, on and/or immediately adjacent to the Russell Lake property. The main targets and mineralized areas are discussed and illustrated below.

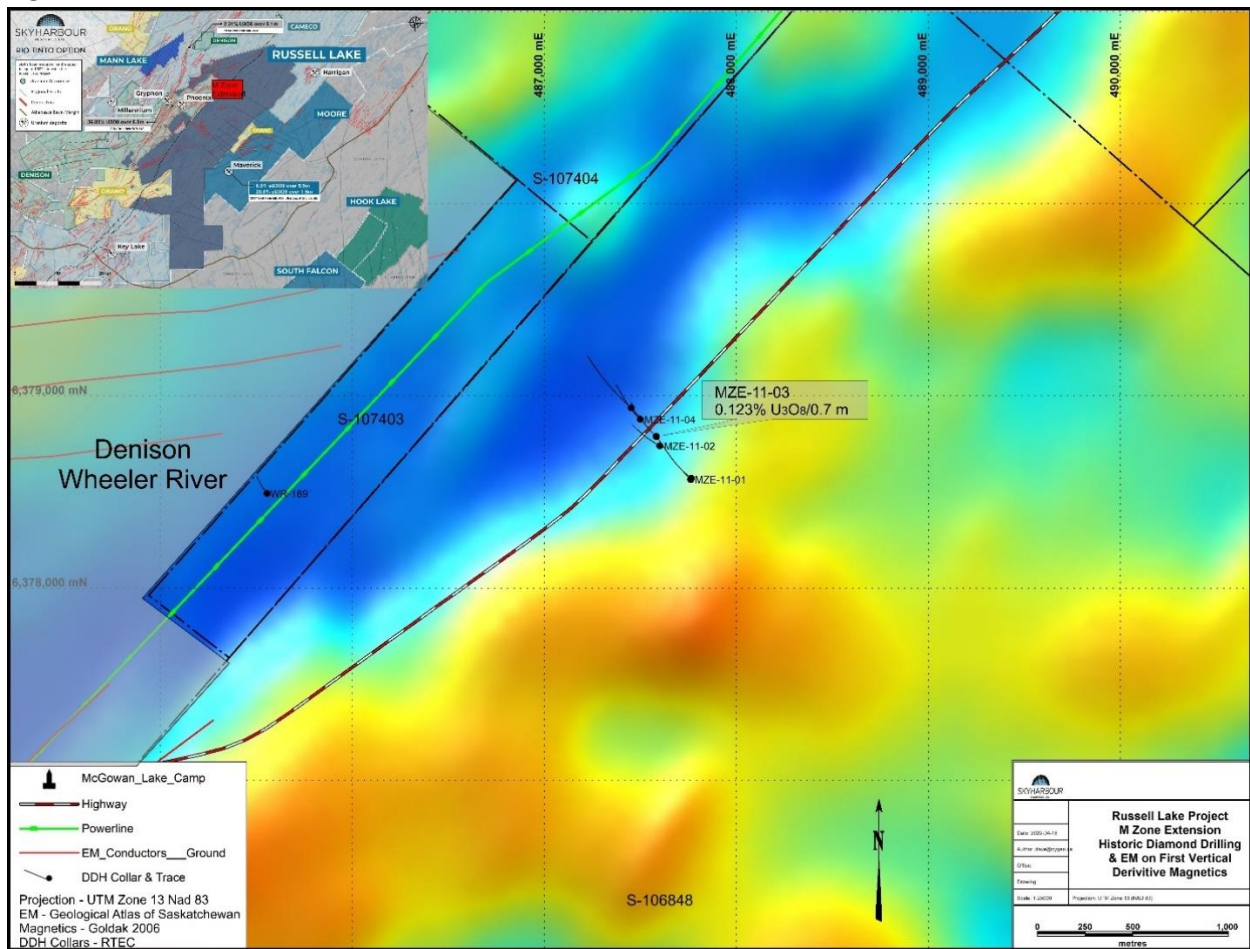
The Grayling Zone is an 800 metres long zone of basement-hosted uranium mineralization located along 2200 metres long and up to 100 metres thick series of sub-parallel conductors. The mineralization is predominately basement-hosted, with localized perched sandstone-hosted and unconformity-hosted mineralization along a graphitic thrust fault. There are multiple stacked zones of basement-hosted mineralization at the Grayling Zone within the Wollaston Group metasediments. Semi-friable structures in sandstone up to 100 m in thickness along with uranium, lead, copper, boron enrichment and uranium mineralization are associated with the Grayling Zone. The best hole was RL-85-07 which intersected 3.45%  $U_3O_8$  over 0.3 m at 363.2 m, and 0.1%  $U_3O_8$  over 0.5 metres at 366.4 m. Other notable holes included: RL-00-22A (0.104%  $U_3O_8$  over 2.7 metres at 342.8 metres); RL-07-04 (0.06%  $U_3O_8$  over 1.8 metres at 394.8 metres and 0.04%  $U_3O_8$  over 0.2 metres at 411.0 metres); RL-07-05 (an extension of RL85-7, containing 0.03%  $U_3O_8$  over 1.0 metres at 366.0 metres, 0.07%  $U_3O_8$  over 0.3 metres at 378.7 metres, and 0.16%  $U_3O_8$  over 0.5 metres at 389.1 metres); RL-07-06 (0.04%  $U_3O_8$  over 0.2 metres at 377.6 metres); and RL-08-16 (0.048%  $U_3O_8$  over 0.9 metres at 328.5 metres and 0.033%  $U_3O_8$  over 2.8 metres at 330.2 metres in the sandstone).

Figure 5: Grayling Zone



The M-Zone Extension lies approximately 7 km along strike to the northeast of Denison Mines M-Zone. Drilling at Denison’s M-Zone along trend from the Grayling Zone intersected basement hosted uranium (up to 0.70%  $U_3O_8$  over 5.8 metres at 374.0 metres). Like the Grayling Zone, the mineralization is hosted by a graphitic thrust fault. A 2.0 km long sandstone resistivity low was identified in the M-Zone Extension area, along with several other isolated sandstone resistivity lows. Later drilling verified the presence of significant basement structure, along with significant sandstone alteration, structure, and geochemistry in several holes. Weak uranium mineralization was also identified in MZE-11-01A, MZE-11-03, and MZE-11-05, with the best result grading 0.123%  $U_3O_8$  over 0.7 metres at 619.1 metres depth in MZE-11-03. The extension of the M-Zone corridor onto the property has seen limited drilling, but the overall structural, lithological, and geochemical attributes make the M-Zone Extension a significant exploration target.

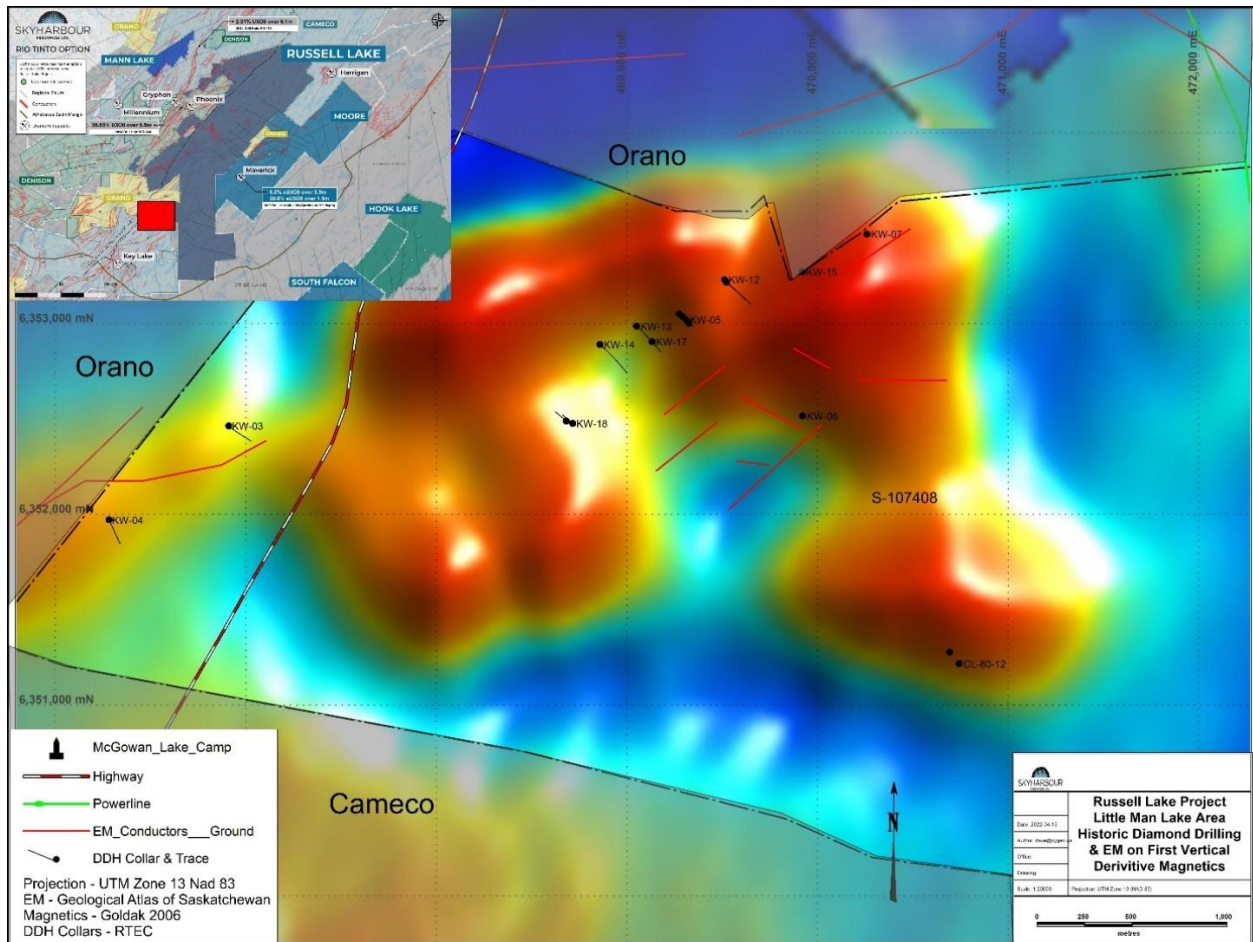
Figure 6: M Zone Extension



At Kowalchuk Lake, Denison identified several EM anomalies and drilled over 13,000 metres in forty-six holes. Following up on sandstone dissolution near the unconformity, anomalous uranium, and graphitic

conductors in several holes led to the discovery of the Little Man Lake Zone, a flat-lying, tabular, low grade unconformity-hosted uranium mineralized body associated with an unconformity depression. The Little Man Lake Zone is 10.0-15.0 metres thick, 25.0-35.0 metres across and defined along a strike length of 500.0 metres. The best hole was KW-12, which intersected 0.05 %  $U_3O_8$  over 4.8 metres at 298.0 metres depth, and 0.13 %  $U_3O_8$  over 1.3 metres at 311.5 metres depth. The last drilling in this area was in 1989, prior to modern uranium exploration models; the geological understanding of Athabasca Uranium deposits has seen substantial evolution over this time frame, and therefore this area should be re-examined.

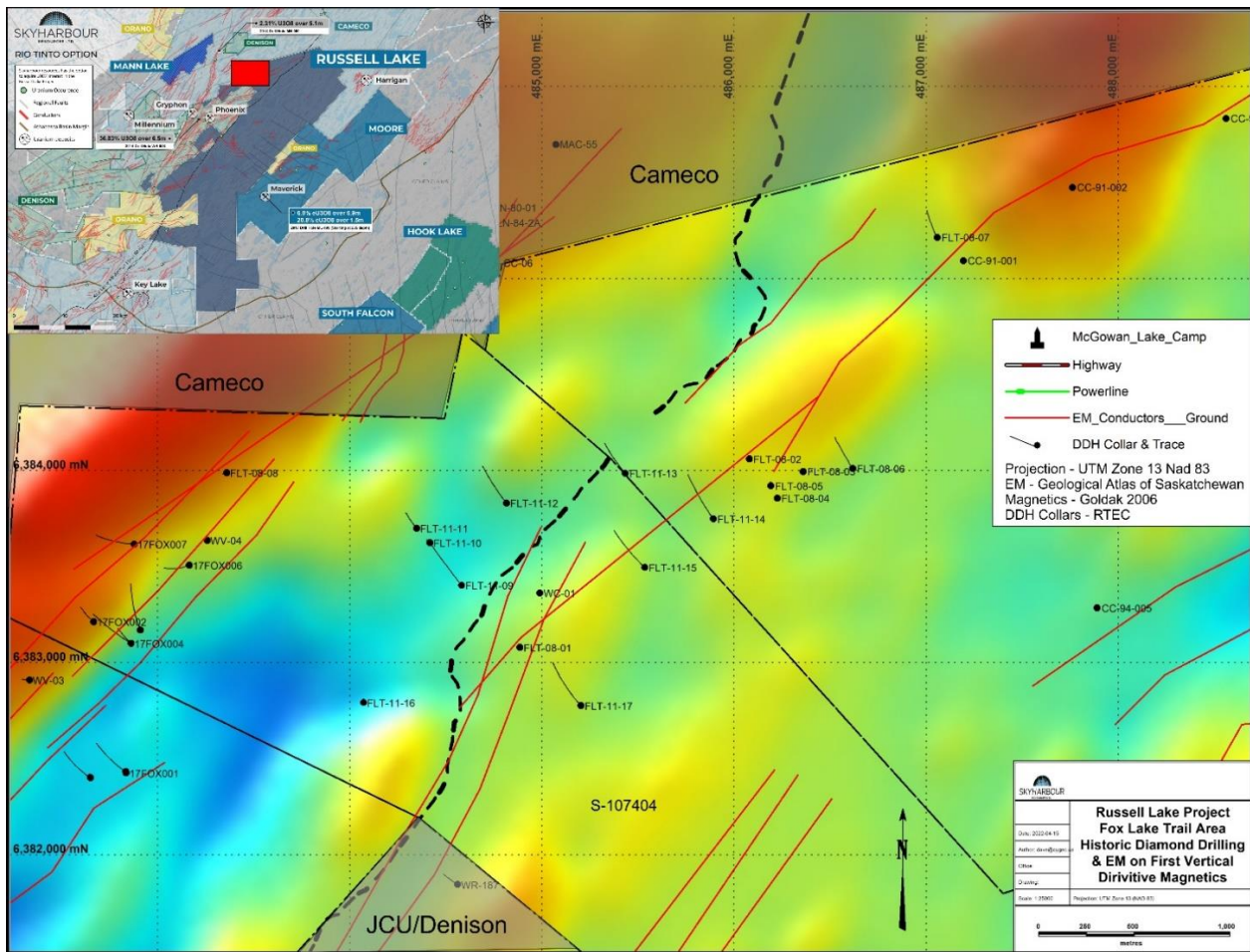
Figure 7: Little Man Lake



The Fox Lake Trail area is underlain by southeast dipping basement rocks and graphitic conductors within an area of relatively low area magnetics accompanied by several significant resistivity lows. Diamond drilling has identified two basement domains, a “quartzite valley” and associated basement alteration zone, and a “graphite-quartzite” zone. Variable pervasive silicification of the sandstone was associated with the “quartzite valley” zone, and patchy weak silicification was intersected in the sandstone overlying

the “graphite-quartzite” zone. A prospective quartzite ridge runs through the area and is associated with anomalous uranium and pathfinder geochemistry in faulted basement metasediments. Significant sandstone-hosted sulphides are also present in this area. Anomalous clay mineralogy, sulphides, and pathfinder element enrichment were encountered in the footwall holes, and follow-up work was recommended by Rio Tinto to test the structures along strike. Weak basement hosted mineralization was intersected in a few holes drilled in the footwall of the quartzite ridge, including 0.063% U<sub>3</sub>O<sub>8</sub> over 1.0 metres in FLT-08-06 at 525.5 metres depth; 0.065% U<sub>3</sub>O<sub>8</sub> over 0.3 metres at 506.7 metres depth in FLT-08-05; 0.054% U<sub>3</sub>O<sub>8</sub> over 0.3 metres at 516.9 metres depth in FLT-11-14; and 0.014% U<sub>3</sub>O<sub>8</sub> over 1.0 metres in FLT-08-04.

Figure 8: Fox Lake Trail

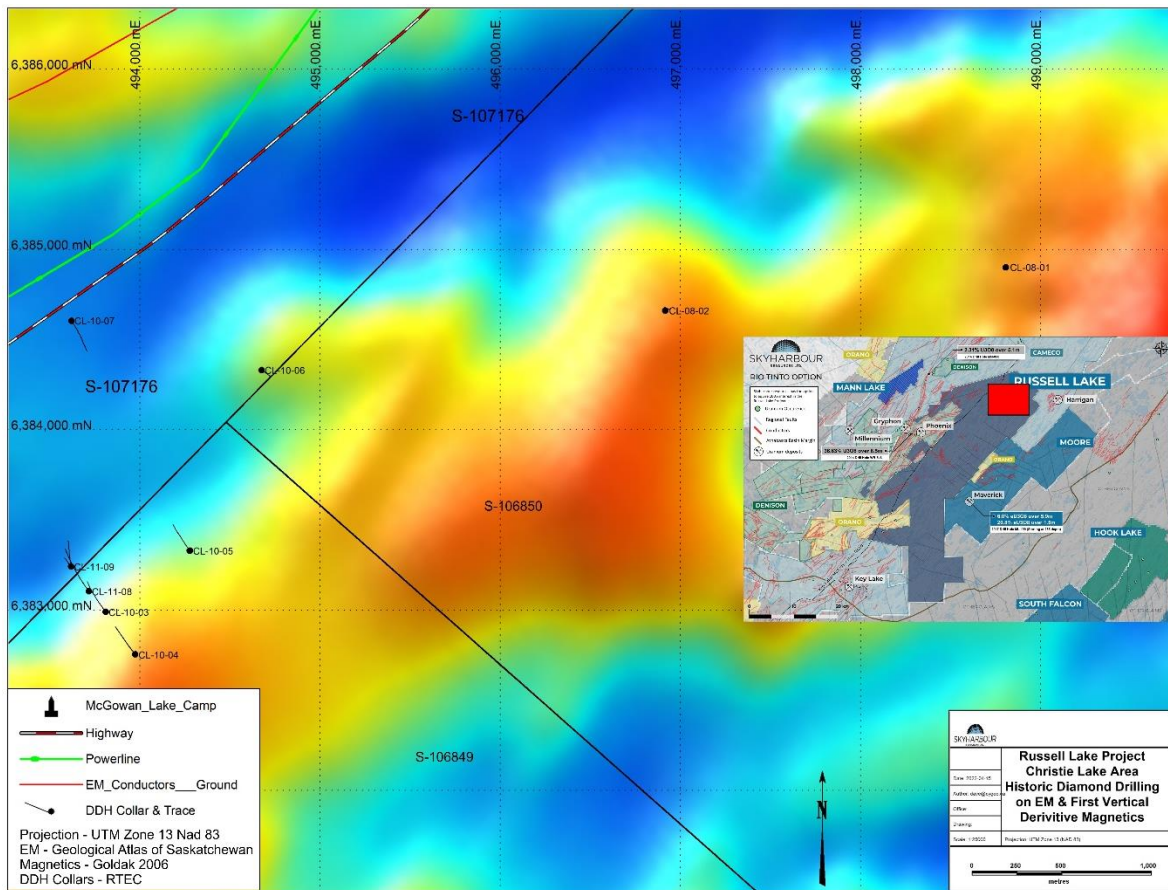


The Christie Lake area lies within a prominent magnetic low and interpreted structural corridor which appears to be along strike of the M-Zone and M-Zone Extension targets. The area has seen relatively few holes over the years. Drilling on the property confirmed the presence of graphitic and non-graphitic pelitic



gneiss in several holes, in addition to localized quartzite ridges and a variety of Hudsonian and Archean granitoids. Localized faulting accompanied by clay alteration was found in the basement of a few holes in this area. Significant sandstone fault zones and variable bleaching accompanied by sooty pyrite and siderite, and local desilicification were also intersected in several holes. The best result to date from the Christie Lake area was from CL-10-03, where weak, basement-hosted uranium mineralization in a hematitized breccia was intersected, returning 0.157% U<sub>3</sub>O<sub>8</sub> over 0.4 metres at 436.4 metres depth.

Figure 9: Christie Lake Area



In addition to the aforementioned areas, there are more than 35 km of untested conductors on the property underlain by rocks of low magnetic intensity, suggestive of prospective graphitic and/or sulphide-bearing meta-pelitic basement gneisses.

## 8.0 DEPOSIT TYPES

Portions of the following discussion is taken from publicly available documents disclosed by the operator of the properties described herein, notably Cameco Corporation and Denison Mines through their NI 43-101 Technical Reports available on SEDAR and referenced in the ensuing text and Section 26.2 of this report entitled "Industry References". The Author has not been able to verify the information that has been provided with respect to any of the deposits described herein. This information is not necessarily indicative of any mineralization that may occur on the Russell Lake Property.

The main deposit type being targeted is an unconformity-related, structurally-controlled deposit similar to those found at Cameco Corporation's nearby McArthur River, Cigar Lake and Key Lake Deposits and those at Denison Mines nearby Wheeler River Project (Gryphon and Phoenix Deposits). Although uranium is the primary exploration focus, it should be noted that precious and base metals may also be related to the same structural and hydrothermal features associated with uranium deposition; therefore, the presence of other mineralized deposits should not be discounted.

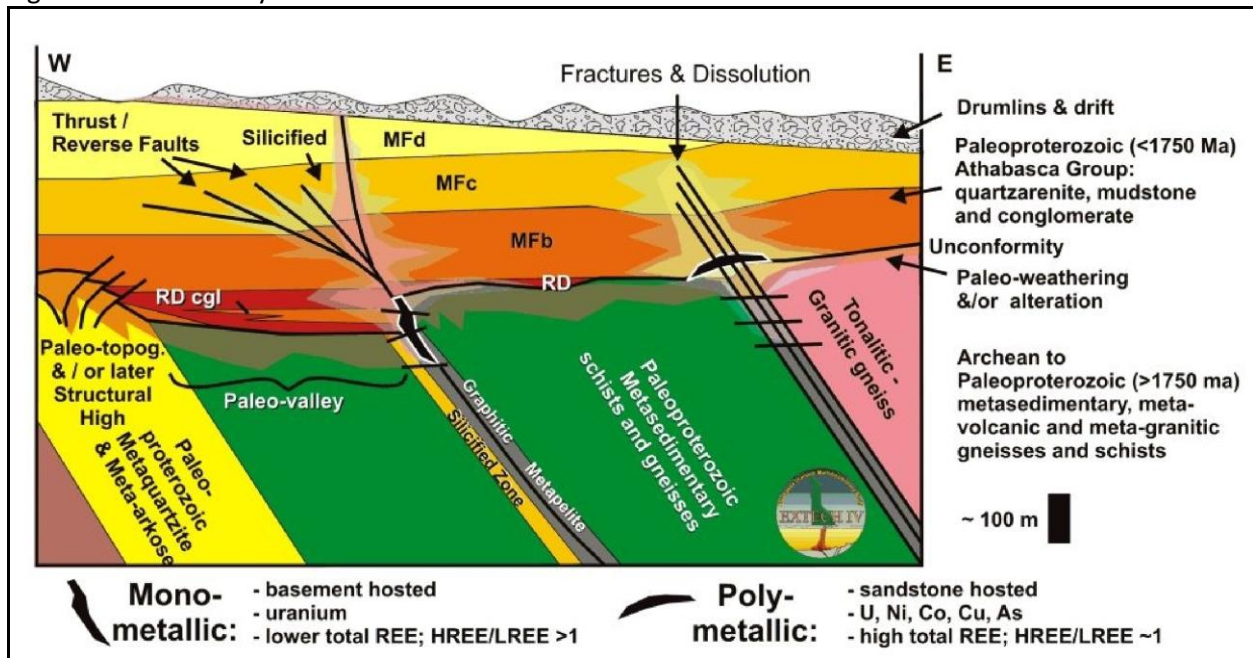
The Athabasca Basin hosts the world's largest and richest known uranium deposits, several of which are located near the Russell Lake Property, including Cameco's McArthur River and Cigar Lake Deposits and Denison's Wheeler River Phoenix and Gryphon deposits. McArthur River (as of December 31, 2021) has a proven reserve of 2,139,600 tonnes grading 6.97%  $U_3O_8$  and a probable reserve of 328,900 tonnes grading 5.13%  $U_3O_8$ , for a total of 393.9 million lbs  $U_3O_8$  proven and probable reserves. Cigar Lake (as of December 31, 2021) has proven reserves of 271,000 tonnes grading 15.90%  $U_3O_8$  and probable reserves of 177,500 tonnes grading 14.67%  $U_3O_8$ , for total reserves of 152.4 million lbs  $U_3O_8$ . <https://www.cameco.com/businesses/uranium-operations/canada/mcarthur-river-key-lake/reserves-and-resources> Denison's Wheeler River project has two deposits, with the Phoenix deposit containing total probable mineral resources of 141,000 tonnes grading 19.1%  $U_3O_8$  for 59,700,000 lbs  $U_3O_8$ ) and the Gryphon deposit containing total probable mineral resources of 1,257,000 tonnes grading 1.8%  $U_3O_8$  (total of 49,700,000 lbs  $U_3O_8$ ). <https://denisonmines.com/site/assets/files/5694/2018-10-30-dml-43-101-pfs-report.pdf>

These deposits are typically located at/near the sub-Athabasca unconformity, and can be hosted by both the Athabasca Group sandstones above the unconformity and in the Paleoproterozoic metamorphic supracrustal rocks and intrusives of the Archean Hearne Craton basement. Surficial indicators such as radioactive boulders, geochemical anomalies, and geophysical signatures were responsible for the initial discoveries of uranium deposits in the Athabasca Basin in the 1960s and 1970s. With the discovery of these early deposits, an exploration model based on targeting electromagnetic conductors related to graphitic metasedimentary rocks and structural complexity was developed.

The uranium zones are structurally controlled both with relation to the sub-Athabasca unconformity and the basement fault and fracture-zones. Unconformity-related uranium deposits in the Athabasca

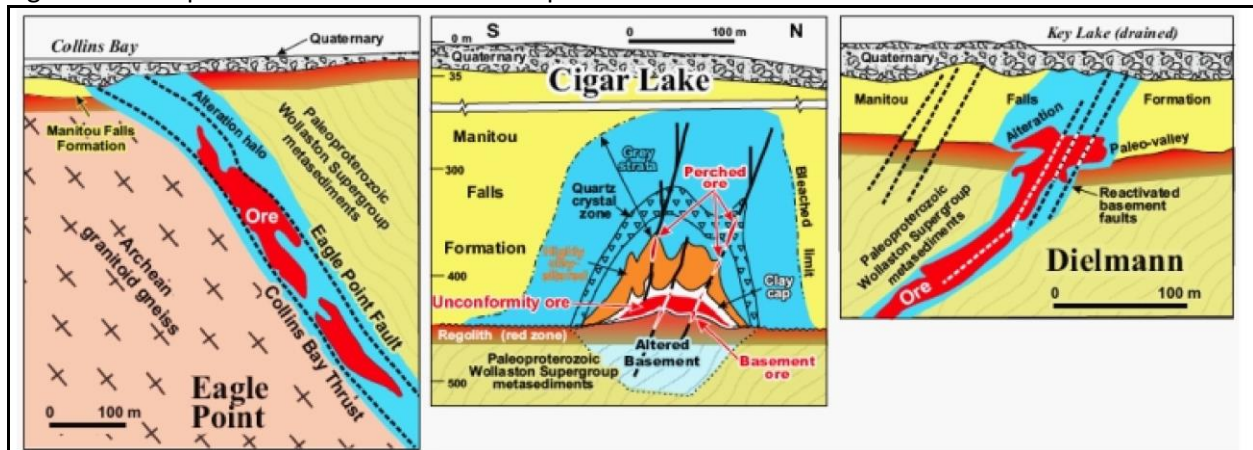
Basin unconformity can be characterized as polymetallic (U-Ni-Co-Cu, Pb, Zn and Mo) or monometallic (U-only; see Figure 19, Jefferson et al., 2007). Examples of polymetallic deposits include the Key Lake, Cigar Lake, Collins Bay A, Collins Bay B, McClean, Midwest, Sue, and Cluff Lake deposits (Figure 20). Monometallic deposits are completely or partially basement-hosted deposits localized in and/or adjacent to faults in graphitic gneisses and calc-silicate units. Monometallic deposits contain traces of metals besides uranium and include completely basement-hosted deposits developed for up to 500 m below the unconformity or deposits that may extend from the unconformity downward along faults such as the McArthur River and Eagle Point deposits (Jefferson et al., 2007).

Figure 10: Structurally Hosted Athabasca Basin Uranium Model



(from Jefferson et al., 2007)

Figure 11: Comparison of Athabasca Basin Deposits



(from Jefferson et al., 2007: Eagle Point – Basement Hosted Mineralization; Cigar Lake– Sandstone Hosted Mineralization; Key Lake Deilmann– Sandstone and Basement Hosted Mineralization)

## 9.0 EXPLORATION PROGRAM

Skyharbour has yet to explore the Russell Lake Project, although significant amounts of historical work have been done on the project for over 40 years as detailed in Section 6.0. The last exploration that was undertaken was in 2017 by RTEC. A review of their procedures by the Author, has concluded that RTEC carried out a technically competent drilling program using current industry standard methods. The Author also conducted a field visit to the Russell Lake Property on April 21<sup>st</sup>, 2022, for data verification as detailed in Section 12- Data Verification.

## 10.0 DRILLING

The project is in the planning stages of exploration, and as such, Skyharbour has yet to carry out a drilling program on the property. The last drilling on the project was undertaken in 2017 by RTEC. A review of their procedures by the Author has concluded that RTEC carried out a technically sound drilling program using current industry standard methods.

## 11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

The ensuing text generally describes the industry standard procedures employed by SRL for their diamond drilling programs. Similar procedures have been employed for uranium drilling programs in the Athabasca Basin for at least the past 30 years, including by RTEC and many of their predecessors.

The on-site geologist logs the core from each hole geologically and marks the samples to be taken. Once the sample intervals are determined, an exclusive sample number is assigned to each interval. Since 2018, Skyharbour has utilized three-part pre-printed sample tags from the SRC with bar codes for scanning at the lab. This number and interval are annotated with indelible marker on the wooden core boxes and recorded. All selected sample intervals are split longitudinally using a mechanical splitter at the core logging facility. One half of the core is placed and sealed in a new plastic sample bag along with a printed sample tag corresponding to the sample number written on the core box. One part of the corresponding tag is stapled in the core box where the sample was taken and the third tag is kept by Skyharbour. The other half of the core is re-assembled in the core box and stored in a covered storage rack for future reference.

The mechanical splitter and sample collection pans are cleaned thoroughly with a brush between each sample. The individual sample bags are sealed into either rice bags, or plastic and/or metal pails (metal pails are used for uranium mineralized samples) and stored in a secure location on-site. Sample pails are then transported to the analytical laboratories of the Saskatchewan Research Council (SRC) in Saskatoon, Saskatchewan under the direct supervision of Skyharbour personnel.

Skyharbour employs an internal quality control system in its current drilling operations and will do so at the Russell Lake Project. Skyharbour's system involves the insertion of one blank in every 20 samples of the sample stream and one standard for every 40 samples. SRC also employs a QA/QC program on all of its analysis. The QA/QC standards used by the SRC consist of a minimum of two standards and one check analysis with every batch of 40 samples. QC results are included with every report generated by the SRC.

All analyses are conducted by the SRC, a Standards Council of Canada (CCRMP) certified analytical laboratory. The SRC is certified and operates in accordance with ISO/IEC17025:2005 (CAN-P-4E), General Requirements for the Competence of Mineral Testing and Calibration Laboratories. SRC has specialized in the field of uranium research and analysis for over 40 years and is Canada's only Canadian Nuclear Safety Commission (CNSC) licensed laboratory for the analysis of high-grade Uranium samples. SRC's sample processing and analytical procedures for  $U_3O_8$  have evolved over the past 20 years, with general improvements and technical adjustments made to their procedures and equipment.

In addition to split core samples for uranium assay, two other types of samples will be collected:

- Sandstone Composite - several representative (6 to 7 chips, 1-2 cm, each) chips of sandstone are taken throughout each 10-metre interval of sandstone core and sent for geochemical analysis.
- SWIR Samples - a representative chip of core from each 10 m interval in the sandstone and selected basement is collected for SWIR (Short Wave Infra Red) spectroscopy.

The geochemical samples sent to SRC are subjected to a variety of digestion methods and subsequently analysed using SRC's 60 element ICP package (including U<sub>3</sub>O<sub>8</sub>, major oxides and the major trace elements Cu, Ni, Pb, Co, Zn, As). Low levels of uranium (< 100 ppm) are determined by fluorimetry after partial (HNO<sub>3</sub>-HCl) and total (HF-HNO<sub>3</sub>-HClO<sub>4</sub>) digestion and boron is determined by ICP analysis after Na<sub>2</sub>O fusion. Levels of uranium >100 ppm will be analyzed by ICP after total and partial digestion, while uranium assays are obtained by ICP after Aqua Regia digestion.

The SWIR samples are collected in the field by the field staff and are sent to Rekasa Rocks of Saskatoon for processing. Rekasa analyzes the samples using an Integrated Spectronics PIMA II short wave infrared (1.3 - 2.5 µm) spectrometer. Once the representative spectra are collected, the results are processed through Integrated Spectronics Pimaview 3.1 software and proportionate mixtures of clay species (and sub-species) are determined, utilizing Rekasa's uranium-specific spectral library. Since spectral data is qualitative rather than quantitative and is used as a rough exploration guide, no formal QA/QC standards are employed but Rekasa does complete lab repeats and visually reviews each spectrum for its overall quality.

## **12.0 DATA VERIFICATION**

The Author, Michelle McKeough, M.Sc., P.Geol., travelled to the Russell Lake Project by road on April 21<sup>st</sup>, 2022. Arrival was at approximately 10 am MST at the core storage area at the McGowan Lake camp for a site visit of roughly 2 hours duration.

A total of 6 samples from RTEC's 2017 drilling program were collected for comparison purposes with the previous results from the 2017 drilling program (Table 3). Due to significant snow cover, only select holes in the core storage area were accessible. Equipment limitations precluded quarter-splitting of the core, therefore sampling consisted of collecting alternate representative pieces of broken core in the box and emplacing them in labelled and secure sample bags. The resulting samples were submitted to the SRC in Saskatoon for their standard ICPMS1 (sandstone) and ICPMS2 (basement) packages as described in section 10.1.

The results, as summarized in Table 3, show that the check assay samples vs original assay samples returned very strong co-relation with U, Ni, Co, Cu, As, and V, showing little variation. The small variance between samples is to be expected, because an exact match of the specific lithologies in the 2017 and 2022 samples would not be possible. It should be noted that specific values for elemental analysis between the two-sample series could either be higher or lower than the original result, indicating that no specific bias exists for the respective samples.

Table 3: Analytical Results for Verification of Selected Pathfinder Elements

| Sample        | Hole ID  | From (m) | To (m) | Description  | U (ppm)     | Ni (ppm)   | Co (ppm)    | Cu (ppm)   | As (ppm)    | V (ppm)     |
|---------------|----------|----------|--------|--------------|-------------|------------|-------------|------------|-------------|-------------|
| 40204671      | 17FOX002 | 354.0    | 356.7  | Rio Tinto    | 1.0         | 0.9        | 0.30        | 2.3        | 0.45        | 7.6         |
| <b>RL2201</b> |          |          |        | <b>Check</b> | <b>0.79</b> | <b>0.9</b> | <b>0.25</b> | <b>2.4</b> | <b>0.7</b>  | <b>7.7</b>  |
| 40204672      | 17FOX002 | 356.7    | 357.7  | Rio Tinto    | 1.07        | 0.9        | 0.40        | 2.3        | 0.53        | 8.3         |
| <b>RL2202</b> |          |          |        | <b>Check</b> | <b>1.03</b> | <b>1.1</b> | <b>0.31</b> | <b>1.8</b> | <b>0.77</b> | <b>7.9</b>  |
| 40204700      | 17FOX002 | 436.6    | 437.1  | Rio Tinto    | 0.88        | 1.9        | 0.34        | 1.7        | 0.34        | 9.6         |
| <b>RL2203</b> |          |          |        | <b>Check</b> | <b>0.82</b> | <b>2.2</b> | <b>0.12</b> | <b>1.0</b> | <b>0.54</b> | <b>9.2</b>  |
| 40204697      | 17FOX002 | 434.6    | 435.6  | Rio Tinto    | 1.68        | 1.4        | 0.30        | 2.9        | 0.25        | 13.8        |
| <b>RL2204</b> |          |          |        | <b>Check</b> | <b>1.61</b> | <b>1.5</b> | <b>0.18</b> | <b>1.4</b> | <b>0.41</b> | <b>13.8</b> |
| 40203693      | 17FOX008 | 164.0    | 165.5  | Rio Tinto    | 1.31        | 1.1        | 0.15        | 2.0        | 0.66        | 5.2         |
| <b>RL2205</b> |          |          |        | <b>Check</b> | <b>1.99</b> | <b>1.4</b> | <b>0.15</b> | <b>1.5</b> | <b>0.84</b> | <b>4.8</b>  |
| 40203692      | 17FOX008 | 163.0    | 164.0  | Rio Tinto    | 1.47        | 0.7        | 0.10        | 1.5        | 0.46        | 3.2         |
| <b>RL2206</b> |          |          |        | <b>Check</b> | <b>1.74</b> | <b>1.2</b> | <b>0.12</b> | <b>1.0</b> | <b>0.58</b> | <b>3.1</b>  |

### 13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The project is at an early stage of exploration; therefore, no metallurgical studies have been carried out.

### 14.0 MINERAL RESOURCE ESTIMATES

The project is at an early stage of exploration; therefore, no mineral estimation studies have been completed.

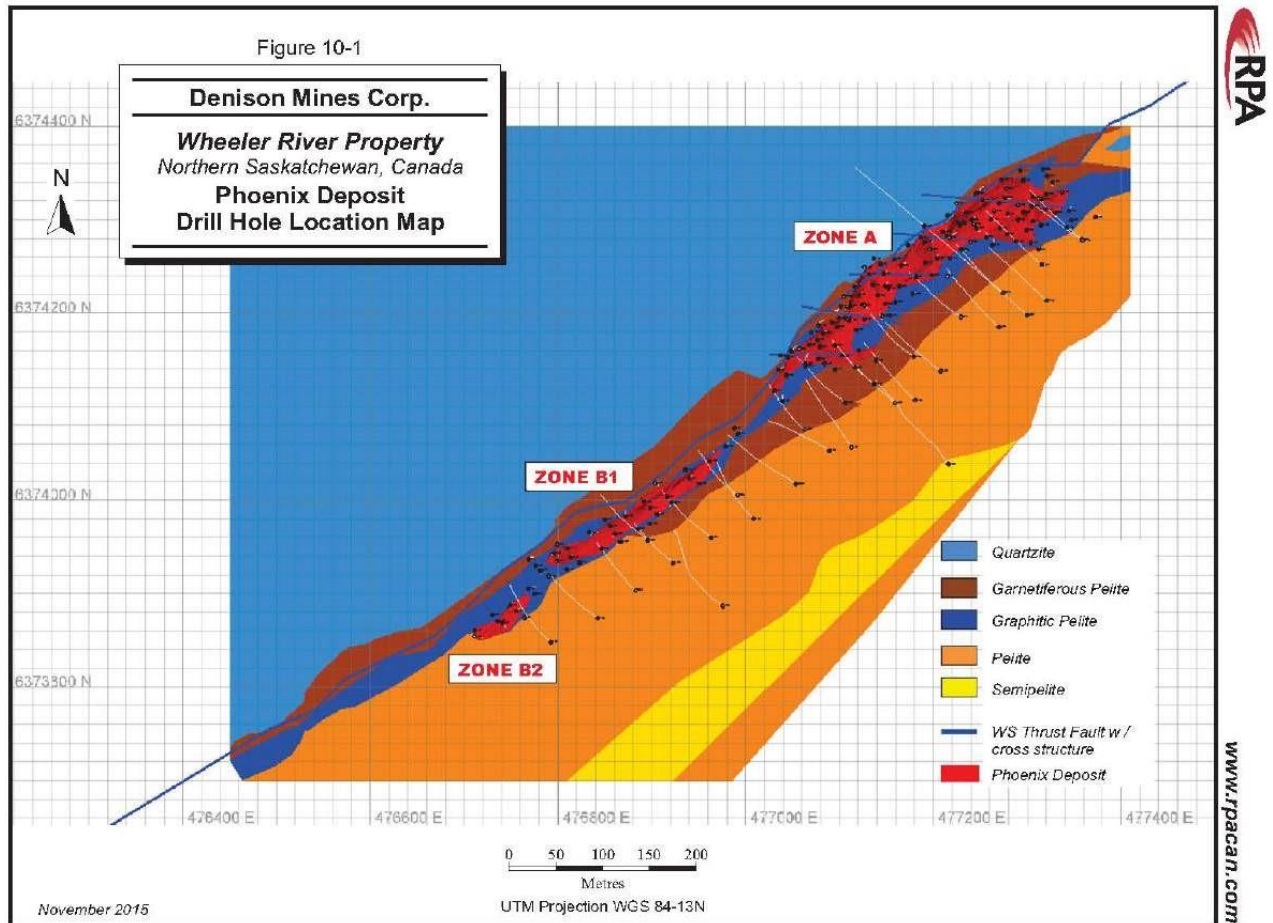
### 15.0 ADJACENT PROPERTIES

The most notable adjacent property in the area is the Wheeler River Project immediately to the west of the Russell Lake property. Two significant uranium deposits were discovered in the past decade on this project, the Gryphon and Phoenix Deposits; the Phoenix Deposit, located on a parallel conductive corridor approximately 1 to 4 km northwest of the Grayling Zone, is the most significant. The ensuing discussion of the Phoenix deposit draws largely from a Prefeasibility Report by Rosco Postle and Associates for Denison in 2018 (Liskowitch, 2018).

The Phoenix uranium deposit was discovered in 2008 and can be classified as an unconformity-related deposit. The deposit straddles the sub-Athabasca unconformity approximately 400 m below surface and consists of three zones (A, B, and C) over a strike length of 1.1 km. The deposit consists of an exceptionally high-grade core surrounded by a lower grade shell. The deposit is interpreted to be structurally controlled by the WS shear, a prominent basement thrust fault occurring in the footwall of a graphitic-pelite and the hanging wall of a garnetiferous pelite and quartzite unit. Mineralization within the Phoenix deposit lenses

is dominated by massive to semi-massive uraninite associated with an alteration assemblage of hematite, dravitic tourmaline, illite, and chlorite. Secondary uranium minerals (including uranophane) and sulphides are trace in quantity. The deposit contains an indicated mineral resource of 166,000 Tonnes grading 19.1%  $U_3O_8$  for a total of 70.2 million lbs  $U_3O_8$ . Denison is currently conducting studies related to in-situ recovery of the uranium at Phoenix as outlined in the PEA. To date Denison's tests of the technology have been highly successful and testing efforts continue at this time (Denison NR October 28, 2021).

The Author has not been able to verify the information that has been provided with respect to the Phoenix deposit. This information is not necessarily indicative of any mineralization that may occur on the Russell Lake Property. It should be noted that the Phoenix deposit is proximal to the Russell Lake Project and it is situated on a separate unrelated conductive corridor. There is no direct linkage, and none should be construed between the deposit outside of its immediate proximity to the Russell Lake Project lands.





## **16.0 OTHER RELEVANT DATA AND INFORMATION**

There is no other relevant data or information available necessary to make the technical report understandable and not misleading. To the Authors' knowledge, there are no significant risks or uncertainties that could reasonably be expected to affect the exploration potential of the Russell Lake Property. There are no significant risks or uncertainties that would reasonably be expected to affect the information that has been collected to date on the property. The property is a relatively early stage of exploration and therefore it is unknown what kind of success any future exploration programs may have.

## **17.0 INTERPRETATIONS AND CONCLUSIONS**

The Russell Lake and C-Blocks Project, under option to Skyharbour from Rio Tinto, is an enticing project thanks to its large footprint, proximity to infrastructure, and prime location in the southeastern Athabasca Basin (Figure 1). The bulk of the claims are in good standing until well after 2024. The project is underlain by the highly prospective Paleoproterozoic meta-sediments, (+/- graphitic pelitic gneisses) and Hudsonian and Archean intrusive rocks of the Western Wollaston Domain and Wollaston-Mudjatik Transition Zone, host to several nearby unconformity uranium deposits (including Phoenix, Gryphon, McArthur River, Cigar Lake, and Key Lake). The project has seen extensive work in the past, but exploration was largely focused on limited areas of the property.

Uranium mineralization has been discovered in several areas on and/or immediately adjacent to the property. These areas remain prospective for uranium mineralization. The main targets and mineralized areas include:

- **Grayling Zone** – Drilling of the ~2,200 metres long, 100 metres thick sub-parallel Grayling conductor intersected an 800 metres long zone of basement-hosted uranium mineralization with localized perched and unconformity-hosted associated mineralization along a graphitic thrust fault. The best hole, RL-85-07, intersected 3.45%  $U_3O_8$ , over 0.3 metres at 363.2 metres depth and 0.1%  $U_3O_8$  over 0.5 m at 366.4 metres depth.
- **M-Zone Extension**– Drilling at Denison's M-Zone along trend from the Grayling Zone intersected basement hosted uranium (up to 0.70%  $U_3O_8$  over 5.8 metres at 374.0 metres). Like the Grayling Zone, the mineralization is hosted by a graphitic thrust fault. The northeast extension of the M-Zone-Grayling corridor onto the property has seen limited drilling, but weak mineralization was intersected, including 0.7 m of 0.123%  $U_3O_8$  at 619.1 m depth in MZE-11-03.
- **Little Man Lake Zone** – is 500.0 metres long, 10.0-15.0 metres thick, 25.0-35.0 metres wide zone of low grade (0.03% to 0.1 %  $U_3O_8$  at approximately 300 metres depth) uranium mineralization associated with an unconformity depression. The mineralization straddles the unconformity and is open along strike. The last drilling in this area was in 1989, prior to the development of modern uranium exploration models.

- **Fox Lake Trail area** – weak mineralization was intersected in a few holes, including 0.063% U<sub>3</sub>O<sub>8</sub> over 1.0 metres at 525.5 metres depth in FLT-08-06, and 0.054% U<sub>3</sub>O<sub>8</sub> over 0.3 metres at 516.9 m depth in drillhole FLT-11-04. A prospective quartzite ridge runs through the area with anomalous geochemistry in faulted basement metasediments. Significant sandstone-hosted sulphides are also found in this area.
- **Christie Lake area** – weak basement-hosted uranium mineralization was intersected with up to 0.157% U<sub>3</sub>O<sub>8</sub> over 0.4 m at 436.4 m depth in drill hole CL-10-03. A prospective clay altered basement fault system runs throughout this area.
- **Untested Conductors** - There are more than 35 km of untested conductors on the property underlain by rocks of low magnetic intensity, suggestive of prospective meta-pelitic basement rocks.

Significant exploration potential still exists at the Russell Lake project, despite its extensive exploration history over the last 40 years. There are numerous undertested/untested conductors on the property and the depth to the unconformity is relatively shallow. Prospective, relatively untested, basement rocks underlie the entire project and the project hosts known uranium mineralization including at the Little Man Lake and Grayling Zones. Its proximity to several deposits off property (M-Zone, MAM zone, Maverick, Phoenix, Gryphon) also illustrates the regional potential of the area. It is ideally located in close proximity to infrastructure, making it considerably more cost effective to explore than other more remote projects in the Athabasca Basin. Given that much of the work on a large portion of the Russell Lake project (including the Grayling and Little Man Lake uranium zones) was completed prior to recent increases in our understanding of unconformity uranium deposits, re-examination of the previous work and the use of new and innovative exploration techniques may lead to additional discoveries on the project.

There are no significant risks or uncertainties that would reasonably be expected to affect the information that has been collected to date on the property. Although the property is at an advanced stage of exploration it is still unknown what kind of success any future exploration programs may encounter.

## **18.0 RECOMMENDATIONS**

The merits of the Russell Lake Property are, in the opinion of the author, sufficient to justify additional significant exploration expenditures on the property. In this light, the following exploration programs are warranted as illustrated in Table 4 and 5 and in the ensuing text. The budget has been derived by utilizing the exploration costs that are the current industry norm expected in this part of the Athabasca Basin. The programs will entail two phases of work, both consisting of diamond drilling, as sufficient geophysics has been completed on the property for the time being.

The Phase One program will consist of an initial full data review for selection of diamond drilling targets, followed up by approximately 6,500 metres of diamond drilling in 12 to 15 holes. At this time, specific drill

targets have not been identified. Based on this evaluation performed by the Author, the most likely targets to be tested by this initial drilling program are the Grayling, M-Zone Extension, Fox Lake Trail and Christie Lake areas. The budgetary requirements for the Phase One exploration program are listed in the following Table 4 with a total estimated cost of \$2,000,000.

The Phase Two budget has been derived by utilizing the same parameters as Phase One. Additional targets are expected to be developed as further data review and compilation occur, in addition to the receipt of results from the Phase One program. Revisions to the Phase Two budget are to be expected once the final costs of Phase One are known, but the total cost will remain at \$4,000,000. Using the current parameters this is adequate for a 13,000 metres program consisting of 15 to 30 drill holes.

Table 4 Phase One Exploration Budget

| <b>Phase One</b>                          |               |             |                    |
|---|---------------|-------------|--------------------|
| <b>Activity</b>                           | <b>Amount</b> | <b>Cost</b> | <b>Total</b>       |
| <b>Data Compilation and Review (days)</b> | 100           | \$1,000     | \$100,000          |
| <b>Geological Supervision (days)</b>      | 200           | \$500       | \$100,000          |
| <b>Geotechnician (days)</b>               | 100           | \$350       | \$35,000           |
| <b>Camp costs (days)</b>                  | 100           | \$1,500     | \$150,000          |
| <b>Transportation (estimate)</b>          |               | \$66,182    | \$66,182           |
| <b>Diamond Drilling (metres)</b>          | 6500          | \$190       | \$1,235,000        |
| <b>Analysis (estimate)</b>                | 2200          | \$60        | \$132,000          |
| <b>Sub-Total</b>                          |               |             | \$1,818,182        |
| <b>Overhead</b>                           | 10%           |             | \$181,818          |
| <b>Total</b>                              |               |             | <b>\$2,000,000</b> |

Table 5 Phase Two Exploration Budget

| <b>Phase Two</b>                          |               |             |                    |
|---|---------------|-------------|--------------------|
| <b>Activity</b>                           | <b>Amount</b> | <b>Cost</b> | <b>Total</b>       |
| <b>Data Compilation and Review (days)</b> | 200           | \$1,000     | \$200,000          |
| <b>Geological Supervision (days)</b>      | 400           | \$500       | \$200,000          |
| <b>Geotechnician (days)</b>               | 200           | \$350       | \$70,000           |
| <b>Camp costs (days)</b>                  | 200           | \$1,500     | \$300,000          |
| <b>Transportation (estimate)</b>          | 1             | \$132,364   | \$132,364          |
| <b>Diamond Drilling (metres)</b>          | 13000         | \$190       | \$2,470,000        |
| <b>Analysis (estimate)</b>                | 4400          | \$60        | \$264,000          |
| <b>Sub-Total</b>                          |               |             | \$3,636,364        |
| <b>Overhead</b>                           | 10%           |             | \$363,636          |
| <b>Total</b>                              |               |             | <b>\$4,000,000</b> |

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## 20.0 Glossary and Abbreviations

|   |  |
|---|--|
| <b>\$</b> - Dollar amount (Canadian Currency) | <b>Cu</b> - copper   |
| <b>%</b> - Percent                            | <b>Co.</b> - cobalt  |
| <b>#</b> - Number                             | <b>Corp.</b> - Corporation   |
| <b>'</b> - Minutes                            | <b>DC</b> - direct current   |
| <b>"</b> - Seconds                            | <b>Denison Mines</b> - Denison Mines Corporation                       |
| <b>°</b> - Degrees                            | <b>E</b> - East  |
| <b>°C</b> - degrees Celsius                   | <b>EM</b> - Electromagnetic  |
| <b>&gt;</b> - greater than                    | <b>et al.</b> - and others   |
| <b>&lt;</b> - less than                       | <b>e%U<sub>3</sub>O<sub>8</sub></b> - equivalent percent uranium oxide |
| <b>Ag</b> - Silver                            | <b>ft</b> - feet   |
| <b>B</b> - boron                              | <b>Fugro</b> - Fugro Airborne Surveys Corp.                            |
| <b>B.C.</b> - British Columbia                | <b>g</b> - gram  |
| <b>Cameco</b> - Cameco Corporation            | <b>GA</b> - Giga-annum (1 billion years)                               |
| <b>CDN\$</b> - Canadian dollar                | <b>GPS</b> - Global Positioning System                                 |
| <b>cm</b> - centimetres                       | <b>GSC</b> - Geological Survey of Canada                               |



**GRAV** - Gravimetric Analysis  
**ha** - hectares (10,000 square metres)  
**Hathor** - Hathor Exploration Ltd.  
**HLEM** - Horizontal Loop Electromagnetics  
**Hz** - Hertz  
**Hwy** - highway  
**in** - inch  
**Inc.** - Incorporated  
**IP** - Induced Polarization  
**ISO** - International Standards Organization  
**ISR** - In Situ Recovery  
**JNR** - JNR Resources Inc.  
**K** - thousand  
**kg** - kilogram  
**km** - kilometers  
**km<sup>2</sup>** - kilometers squared  
**lbs** - pounds  
**line-km** - line kilometres  
**Ltd.** - Limited  
**LOI** - Letter of Intent  
**m** - metres  
**MA** - mega-annum (1 million years)  
**Mag** - Magnetism  
**MARS** - Mineral Administration Regulations  
Saskatchewan  
**m/d** - man-day  
**Mo** - molybdenum  
**Mt** - million tonnes  
**N** - North  
**NCR** - Northern Continental Resources Inc.  
**NW** - North-West  
**NE** - North-East  
**NAD** - North American Datum  
**NI** - National Instrument  
**Ni** - nickel  
**NTS** - National Topographic System  
**Orano** - Orano Canada Inc.  
**Pb** - Lead  
**ppb** - parts per billion  
**ppm** - parts per million

**P.Geo.** - Professional Geoscientist  
**QA/QC** - Quality Assurance and Quality Control  
**QC** - Quality Control  
**QT** - Qualifying Transaction  
**QP** - Qualified person  
**Rad** - Radiometric  
**Rio Tinto** - Rio Tinto Exploration Corporation  
**RTEC** - Rio Tinto Exploration Corporation  
**S** - South  
**SE** - South-East  
**SW** - South-West  
**Sk.** - Saskatchewan  
**SDMR** - Saskatchewan Department of Mineral Resources  
**SEDAR** - System for Electronic Document Analysis and Retrieval  
**Skyharbour** - Skyharbour Resources Ltd  
**SIR** - Saskatchewan Industry and Resources  
**SMDC** - Saskatchewan Mining Development Corporation  
**SMDI** - Saskatchewan Mineral Deposit Index  
**SRL** - Skyharbour Resources Ltd  
**t** - short tons (imperial)  
**T** - tonnes (metric)  
**the Author** - Michelle McKeough, P.Geo  
**the Report** –NI 43-101 Technical Report  
**TAMT** - Transient Audio Magnetotellurics  
**U** - uranium  
**% U** - percent uranium ( $\% U \times 1.179 = \% U_3O_8$ )  
**U<sub>3</sub>O<sub>8</sub>** - uranium oxide (yellowcake)  
**U<sub>3</sub>O<sub>8</sub>** - percent uranium oxide ( $\%U_3O_8 \times 0.848 = \% U$ )  
**UTM** - Universal Transverse Mercator  
**VLF** - Very Low Frequency  
**W** - West  
**WMTZ** - Wollaston-Mudjatik Transition Zone  
**wt. %** - weight percentage  
**Zn** – Zinc

**SIGNATURE PAGE**

**NAME OF REPORT:**

**TECHNICAL REPORT on the RUSSELL LAKE PROPERTY  
Northern Saskatchewan, Canada, National Instrument 43-101**

**COMMISSIONED BY:**

**Skyharbour Resources Inc.**

**AUTHORED BY:**

**Michelle McKeough, MSc., P.Ge**

**SIGNED:**

A handwritten signature in black ink, appearing to read "Michelle McKeough". The signature is fluid and cursive, with the first name "Michelle" and last name "McKeough" clearly distinguishable.

**Michelle McKeough, MSc., P.Ge**

**June 6<sup>th</sup>, 2022**