



**TECHNICAL REPORT ON THE  
SUN DOG PROPERTY  
NORTHWESTERN SASKATCHEWAN, CANADA**

Prepared on behalf of Standard Uranium Ltd.

**Mineral Dispositions:** MC00011058, MC00011059, MC00014130, MC00014140, MC00014143,  
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*Table 1: Common Terminology used in current Technical Report.*

<b>Abbreviation or Acronym</b>	<b>Unit or Description</b>
$\mu\text{m}$	microns
$m$	metre
$m^2$	metre squared (or square metres)
$m^3$	metre cubed (or cubic metres)
$Ma$	million years ago
<i>MD&amp;A</i>	management discussion & analysis (part of a public company's annual report)
<i>MIMMM</i>	Member of the Institution of Materials, Minerals and Mining
$mm$	millimetre
<i>NI 43-101</i>	(Canadian) National Instrument 43-101
<i>NN</i>	nearest neighbour (geostatistical method)
<i>NSR</i>	net smelter return (royalty)
<i>NTS</i>	National Topographic System (maps, of Canada)
<i>NW</i>	northwest (compass point)
<i>OK</i>	ordinary kriging (geostatistical method)
$oz$	troy ounce
<i>oz/ton (or tonne)</i>	troy ounce per short ton (or metric ton)
$\%$	percent
<i>P<sub>80</sub> (or any other subscript)</i>	% of material (indicated by the number) passing a specified mesh size
<i>P.Geo.</i>	Registered Professional Geoscientist
<i>ppb</i>	parts per billion
<i>ppm</i>	parts per million
<i>QA/QC</i>	quality assurance/quality control
<i>QP</i>	Qualified Person (as defined by Canadian National Instrument 43-101)
<i>RQD</i>	rock quality designation
<i>SDMR</i>	Saskatchewan Department of Mineral Resources
<i>SG</i>	specific gravity
<i>SGS</i>	Saskatchewan Geological Survey
<i>SMDC</i>	Saskatchewan Mining Development Corporation
<i>SME</i>	Saskatchewan Ministry of Environment
<i>SMU</i>	selective mining unit
<i>SRC</i>	Saskatchewan Research Council
<i>SW</i>	southwest (compass point)
$t$	metric ton (or tonne)
$t/m^3$	metric tons per cubic metre
<i>tpd</i>	tonnes per day
<i>TSL</i>	TSL Laboratories of Saskatoon, Saskatoon
<i>TSX-V</i>	Venture Exchange of the Toronto Stock Exchange
<i>\$CDN</i>	Canadian dollar (ISO Currency code)
<i>\$USD</i>	United States dollar (ISO Currency code)
<i>UTM</i>	Universal Transverse Mercator (co-ordinate system)
<i>VLF</i>	very low frequency (geophysical survey method)

<i>VLF-EM</i>	Very low frequency electro-magnetic (geophysical survey method)
<i>VTEM</i>	versatile time domain electromagnetic (geophysical survey method)
<i>W</i>	west (compass point)
<i>xx°xx'xx'</i>	degrees, minutes and seconds or arch (xx denotes the attributed value)
<i>Zn</i>	Zinc
<i>U</i>	Uranium
<i>K</i>	Potassium
<i>Th</i>	Thorium
<i>U<sub>3</sub>O<sub>8</sub></i>	Triuranium Octoxide
<i>Pb</i>	Lead
<i>B</i>	Boron
<i>As</i>	Arsenic
<i>Cu</i>	Copper
<i>Mo</i>	Molybdenum
<i>V</i>	Vanadium
<i>Co</i>	Cobalt
<i>Ni</i>	Nickel
<i>Ag</i>	Silver
<i>Bi</i>	Bismuth

## 1 SUMMARY

This technical report is prepared on behalf of Standard Uranium Ltd. (“Standard Uranium” or the “Company”) on its 100%-owned 19,603-hectare Sun Dog Property (the “Property” or “Project”), northern Saskatchewan. The report summarizes historic exploration on and near the Sun Dog Property in addition to recent diamond drilling activities and geophysical surveys completed by Standard Uranium Ltd. in the winter of 2022 and 2023. During the inaugural winter 2022 drill program, a total of four diamond drill holes comprising 1,242.3 m were completed within the Johnston Bay, Java, and Haven target areas on mineral disposition MC00014130. Ground gravity and airborne magnetic geophysical surveys were completed prior to 2022 drilling over mineral dispositions MC00014130, MC00014143, and MC00014335 by MWH Geo-Surveys Ltd. Ground gravity data was collected from a total of 3,388 digital gravity meter stations and approximately 572-line kilometres of unmanned aerial vehicle (UAV) magnetics were completed at a line spacing of 50 m over 30 km<sup>2</sup> in the survey areas. In the winter of 2023, Standard Uranium completed an additional 1,227.1 m of diamond drilling within the Johnston Bay, Java, Haven, Walli, and Stewart Island areas on mineral disposition MC00014130. This report further provides author reviews and recommendations based on historic work and recent programs completed by the Company to date.

The Property is situated on the Crackingstone Peninsula, approximately 32 kilometres (km) southwest of Uranium City, Saskatchewan, Canada, and contains the past-producing Gunnar uranium mine. The Property is approximately 820 km north-northwest of Saskatoon, the largest city in Saskatchewan. The Property consists of one block of contiguous mineral dispositions (“claims” or “tenures”), totalling seven claims, in addition to one isolated claim. The Property occupies portions of 1:50,000 scale National Topographic System (NTS) index map sheets 74N/06 and 74N/07. All claims are currently in good standing and are 100% owned by Standard Uranium (Saskatchewan) Ltd., a wholly owned subsidiary of Standard Uranium Ltd. The claims that constitute the Property are listed in the online Mineral Administration Registry Saskatchewan (MARS) as being in good standing, and details are presented in Section 4.

The Project straddles the northwestern edge of the Athabasca Basin and predominantly contains Paleoproterozoic rocks of the Beaverlodge Domain, a portion of the Rae Subprovince in Saskatchewan. The northwest portion of the Project runs adjacent to the NE-SW trending Black Bay fault, which denotes the lithostructural contact between the Beaverlodge and Zemplak Domains.

Sun Dog hosts a variety of rock types, ranging from Archean basement granites and orthogneisses to the metasedimentary, mafic volcanic, and mixed supracrustal rocks of the Paleoproterozoic Murmac Bay Group. The southern claims of the Project are overlain by variably altered quartz arenites of the Paleo- to Mesoproterozoic Athabasca Supergroup.

The target areas at the Sun Dog project have several attributes that are favourable for the formation of high-grade unconformity-related uranium mineralization. Key geological factors include uranium-enriched bedrock, reactivated and graphitized structures, Athabasca Supergroup sandstone cover, and favourable basement rock competency contrasts. Uranium mineralization on the Project is largely comprised of uranium oxides (e.g., uraninite) with subordinate uranium silicates (e.g., coffinite, uranophane) and secondary uranyl (oxy)hydroxides (e.g., Curite). Further studies on the composition of mineralized samples are warranted to confirm different uranium species on the Project.

The main objective of the 2022-2023 exploration programs was to drill test high-priority target areas identified through compilation of known high-grade surficial and drill hole uranium mineralization and existing lakebed radiometric and low-resistivity anomalies with new high-resolution ground gravity and UAV magnetic surveys. Several kilometres of graphitic conductors coincident with cross-cutting faults and geophysical anomalies remain untested on the Project, and by adding additional layers of modern exploration techniques, Standard Uranium has defined several target areas prospective for high-grade uranium mineralization. Historical maps, geophysical surveys, and diamond drill hole data were used in tandem with the winter 2022 high resolution ground gravity and UAV magnetic surveys to prioritize drill targets for the inaugural drill programs. Drill holes were designed to test conductive corridors derived by various geophysical survey interpretations coincident with gravity lows from the 2022 ground gravity survey, indicating zones of potential hydrothermal alteration of bedrock. Field staff recorded detailed drill core observations into the Company's core logging database and collected systematic core samples to achieve a better understanding of the complex geology on the Sun Dog Property. Drill core observations and interpretations in addition to modern whole rock geochemical analyses will aid in prioritizing drill targets for future exploration programs on the Project.

The completed winter 2022 and 2023 drill holes intersected prospective semi-brittle to brittle deformation zones and hydrothermal alteration within both Athabasca Supergroup sandstones and Murmac Bay Group basement rocks. Favorable basement rock types were observed across both Johnston Bay targets, resembling those which host other uranium deposits within the Athabasca Basin region, including stacked lenses of variably strained graphitic metapelite and altered feldspar-rich rocks. Variably altered granitoid orthogneiss lithologies were intersected in the Java target area, akin to the rock types which host Beaverlodge-style basement-hosted uranium deposits such as the historic Gunnar and Ace-Fay-Verna mines. Drill hole SD-22-001 returned anomalous uranium of 15.1 ppm U within a 0.5 metre sample, in addition to the presence of boron-rich dravitic clays throughout the drill hole. Elevated uranium geochemistry in basement rocks is highlighted in drill holes SD-22-002 and SD-22-003 in the Johnston Bay target area, returning 94.8 ppm U and 71.4 ppm U, respectively, within separate 0.5 metre samples. In the Johnston Bay target area, drill hole SD-23-006 intersected multiple metre-scale reactivated shear zones hosting moderate to strong graphite, as well as dravitic clay proximal to structural contacts at 208.80 m and 219.65 m in pelitic gneiss. SD-23-010 on Stewart Island intersected fracture-controlled dravite associated with several quartz-hematite breccias in basement rock and contains locally strong bleaching and fracture-controlled clay alteration in the Athabasca sandstone. Quartz-hematite breccias and graphitic shear zones through deformed metapelite, as well as dravite-clay-chlorite alteration throughout several of these structural zones was intersected in drill holes SD-23-011 and SD-23-012, both of which tested the Walli showing surface mineralization for the first time. SD-23-013, testing for a basement root of the off-scale surface mineralization at the Haven discovery, returned uranium assays of 0.042 wt.%  $U_3O_8$  from 79.0 to 79.5 m, 0.021 wt.%  $U_3O_8$  from 79.5 to 80.0 m and 0.050 wt.%  $U_3O_8$  from 82.5 to 83.5 m. Additionally, SD-23-013 hosts a hematite-limonite oxidation front at 33.5 m below the unconformity and several additional intervals of quartz-hematite breccias.

The results from the winter 2022 and 2023 diamond drill programs highlight the potential for the Sun Dog Property to host significant basement-hosted unconformity-related uranium mineralization. These factors, along with the presence of numerous radioactive occurrences in both basement rocks and Athabasca Basin cover rocks, indicate excellent potential for economic uranium mineralization within the Sun Dog Project area.

Based on the evaluation of the available historical and recent information, the authors believe that the project warrants additional investigation and exploration that includes follow-up drilling at the Walli showing and the Haven Discovery, in addition to drilling mainland targets that remain untested to date. The mineralization, structure, and alteration intersected with drilling to date are strong indicators of a nearby uranium deposit.

## 2 INTRODUCTION

Sean Hillacre, P.Ge., and Darren Slugoski, P.Ge. (collectively the “authors”) have been retained by Standard Uranium Ltd. to jointly prepare a Technical Report on the Sun Dog Property, located in northwestern Saskatchewan, Canada. The first author is a full-time employee of the Company with title of Vice President of Exploration. The second author is independent of Standard Uranium, having never been an employee of the Company, and has never billed the Company for consulting services.

This report was commissioned by Standard Uranium to comply with regulatory disclosure and reporting requirements outlined by Canadian National Instrument 43-101 – Standards of Disclosure for Mineral Projects (“NI 43-101”), and the rules and policies of the TSX Venture Exchange.

The Sun Dog Property referred to in this report consists of nine mineral claims owned 100% by Standard Uranium (Saskatchewan) Ltd., a wholly owned subsidiary of Standard Uranium. Complete Property details are presented in Section 4.

The purpose of this report is to summarize the current knowledge of the Property’s geology, mineralization, historical investigations, recent exploration efforts, and to assess and plan potential future exploration activities on the Property.

Information, conclusions, and recommendations contained within this report are based upon recent field observations, drilling, and published or unpublished data (see Section 27: References). Details on historic exploration including disposition ownership, drilling, and geophysical surveys are provided in Section 6. Details of recent exploration are provided in Section 9. These include the results of high-resolution ground gravity and airborne UAV magnetic surveys completed by MWH Geo-Surveys Ltd., and the inaugural winter 2022 and 2023 drill programs carried out by Standard Uranium Ltd.

The authors visited the Property together on September 20<sup>th</sup> to 21<sup>st</sup>, 2022, via float plane from Ft. McMurray, Alberta. The authors conducted a brief airborne visual survey of the Property to examine aspects of the terrain and vegetative cover and to examine rock outcrop. The authors then travelled by boat from Stewart Island to Johnston Island to visit several known radioactive surface showings and mineralized outcrops. The authors visited the Standard Uranium core storage area on Stewart Island to examine drill core from the winter 2022 drill program.

## 2.1 Issuer

This Technical Report has been prepared at the request of Standard Uranium by a team consisting of Axiom Exploration Group LTD. (Axiom) and Standard Uranium LTD. (Standard Uranium). Standard Uranium is incorporated in British Columbia (B.C.), Canada. The Company's corporate head office is at 907 – 1030 West Georgia Street, Vancouver, BC V6E 2Y3.

The Company is listed on the Venture Exchange of the Toronto Stock Exchange (TSX-V), the US OTC Markets Group (OTCQB) and Frankfurt Stock Exchange (FWB). The trading symbols are STND, STTDF, and 9SU, respectively.

The Company is a Canadian junior mineral exploration and project generator company focused primarily on uranium exploration in Saskatchewan. In total, the Company has interests in six properties located in or proximal to the Athabasca Basin northern Saskatchewan:

- The flagship Davidson River property is situated in the heart of the Patterson Lake uranium district, southwestern Athabasca Basin, and contains several kilometres of untested geophysical conductors, which, along with other geophysical features, comprise multiple high priority drill target areas. The Company has completed 16,561 metres of diamond drilling in 39 drill holes on the 30,737-hectare Davidson River property since 2020, which has further refined the exploration strategy for high-grade basement-hosted uranium mineralization on the property.
- The Sun Dog property lies along the northwestern edge of the Athabasca Basin, proximal to Uranium City and south of the historic Gunnar uranium mines in the Beaverlodge district. Several high priority target zones have been identified on the 19,603-hectare property focusing on unconformity-related mineralization systems. Both historic drilling and recent

sampling programs have uncovered multiple zones of uranium mineralization at, and near surface within the Athabasca sandstones known as the Skye, Java, Johnston-Bay, and Haven target areas.

- The Atlantic property, which consists of 6 mineral claims totalling 2,176 hectares. The property covers 6.5 km of an 18 km long, east-west trending conductive exploration trend. Additionally, depth to the sub-Athabasca nonconformity is known to be between 230 and 485 metres from the surface.
- The Canary property comprises 2 mineral dispositions totalling 7,303 hectares. The project was acquired via staking in July 2020, and Standard Uranium holds a 100%-interest in the property.
- The Ascent project straddles the northeastern boundary of the Athabasca Basin and consists of a single mineral disposition totalling 3,737 hectares. As the property lies on the edge of the Basin, depth to the sub-Athabasca unconformity is known to be approximately 50 metres from surface at maximum, while the eastern portion of the project contains no Athabasca sandstone cover.
- The Rocas property comprises 3,152 hectares in three 100%-owned mineral dispositions in the southeastern Athabasca Basin. The Rocas Project is situated 75 kilometres southwest of the Key Lake Mine and Mill facilities along Highway 914, and approximately 72 kilometres south of the present-day margin of the Athabasca Basin. The project contains strong NE-SW magnetic low trend coincident with historical anomalous uranium outcrop samples up to 0.50 wt. %  $U_3O_8$ .

### **3 RELIANCE ON OTHER EXPERTS**

The authors have reviewed the available data and have visited the Sun Dog Project. Judgements about the general reliability of the underlying data that is assumed to be both accurate and valid based on the professional status of the reports' authors and the nature of their reports.

The authors are not qualified to conduct legal due diligence or environmental liability assessments. The statements in this report regarding ownership of the Property which are made in Sections 1, 2, and 4.2 are made in reliance on information accessed as of the date of this Report, available through the Saskatchewan Government interactive mineral claim map system titled "Mineral Disposition Map", at the following link:

<https://mars.isc.ca/MARSWeb/publicmap/FeatureAvailabilitySearch.aspx>

### **4 PROPERTY DESCRIPTION AND LOCATION**

#### **4.1 Location**

The Sun Dog Property is situated in northwestern Saskatchewan, approximately 32 kilometres (km) southwest of Uranium City, and approximately 820 km north-northwest of Saskatoon, the largest city in Saskatchewan (Figure 1). The Property is centred at roughly 617,450 m E, 6,582,900 m N, Universal Transverse Mercator (UTM) projected coordinate system using North American Datum 1983 (NAD83), Zone 12N, and occupies portions of 1:50,000 scale National Topographic System (NTS) index map sheets 74N/06 and 74N/07 (Figure 2).

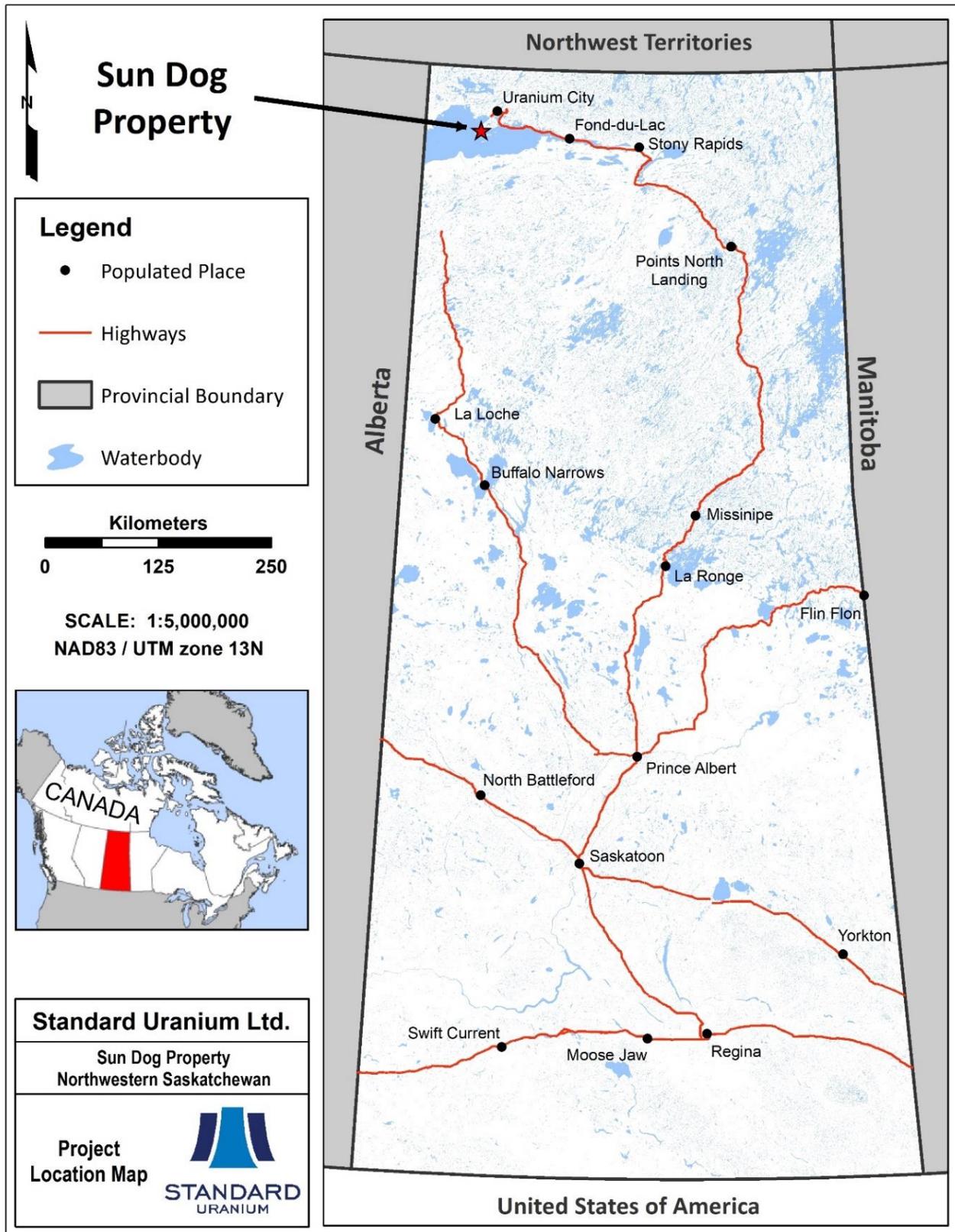


Figure 1. Sun Dog Project Location Map

## 4.2 Mineral Tenure

The Sun Dog Property consists of nine mineral dispositions totalling 19,603-hectares (ha) (Figure 2). The tenures are held 100% by Standard Uranium (Saskatchewan) Ltd., a wholly owned subsidiary of Standard Uranium Ltd., and are currently in good standing as of the effective date of this report (Table 2). The claims that constitute the Property are listed in the online Mineral Administration Registry Saskatchewan (MARS) as being in good standing between May 8<sup>th</sup>, 2025, and December 23<sup>rd</sup>, 2030 (Table 2).

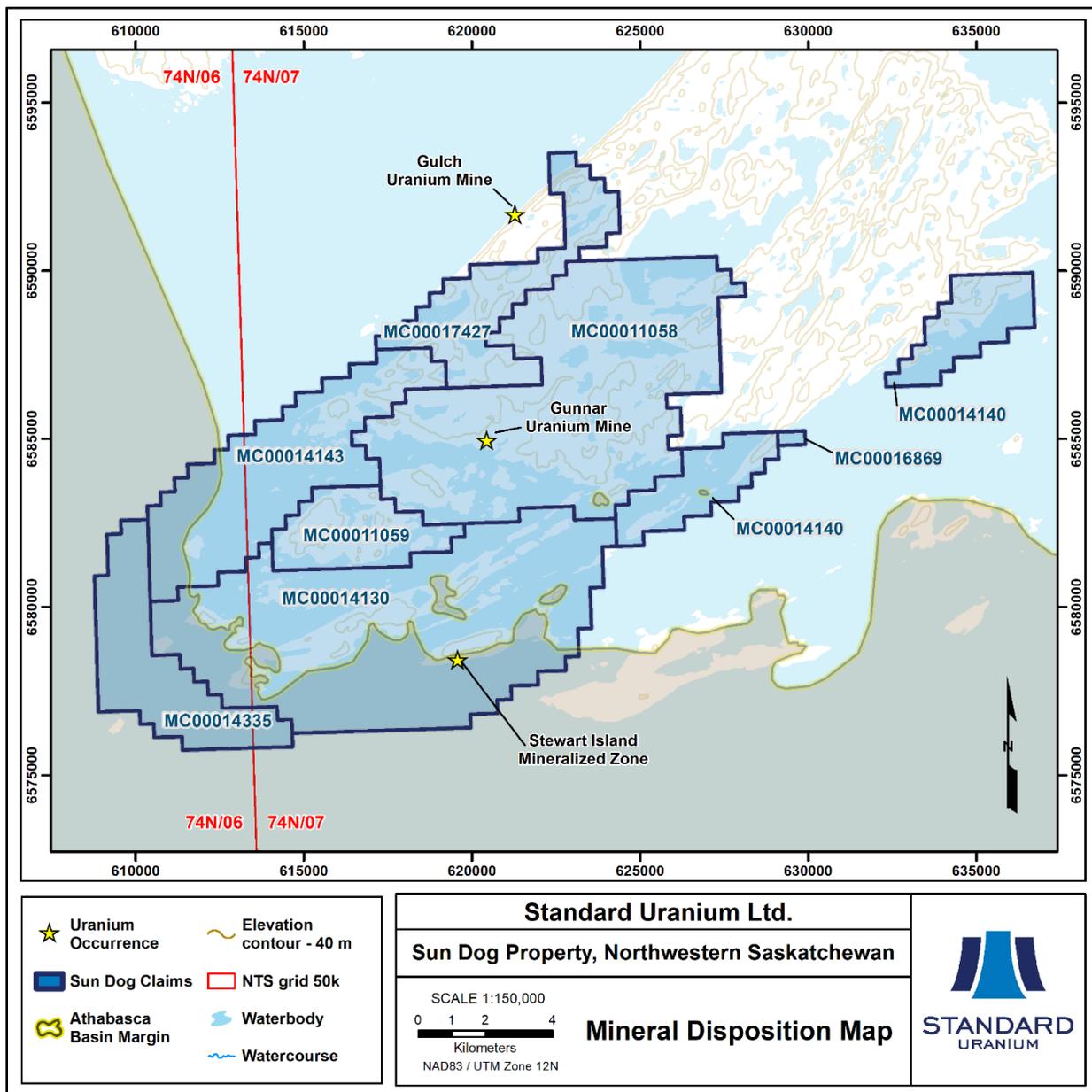


Figure 2. Sun Dog Mineral Disposition Map

*Table 2. Sun Dog Mineral Dispositions*

Disposition	Area (ha)	Tenure Owner	Effective Date	Good Standing Date
MC00016869	32	Standard Uranium (Saskatchewan) Ltd.	2023-02-07	2025-05-08
MC00016868	760	Standard Uranium (Saskatchewan) Ltd.	2023-02-07	2025-05-08
MC00011058	5,492	Standard Uranium (Saskatchewan) Ltd.	2018-05-08	2029-08-06
MC00011059	982	Standard Uranium (Saskatchewan) Ltd.	2018-05-08	2029-08-06
MC00014130	5,960	Standard Uranium (Saskatchewan) Ltd.	2020-06-25	2030-09-23
MC00014140	757	Standard Uranium (Saskatchewan) Ltd.	2020-07-02	2030-09-30
MC00014143	2,580	Standard Uranium (Saskatchewan) Ltd.	2020-07-09	2030-10-07
MC00014335	1,539	Standard Uranium (Saskatchewan) Ltd.	2020-09-24	2030-12-23
MC00017427	1,502	Standard Uranium (Saskatchewan) Ltd.	2023-07-18	2025-10-16

All mineral resource rights in the Province of Saskatchewan are governed by The Crown Minerals Act (Saskatchewan) and The Mineral Tenure Registry Regulations (Saskatchewan), which are administered by the Saskatchewan Ministry of Energy and Resources. Mineral rights are owned by the Crown and are distinct from surface rights. The mineral tenures that constitute the Property do not grant Standard Uranium surface rights.

### 4.3 Environmental Liabilities

The authors are not aware of any environmental liabilities with the Property.

### 4.4 Annual Expenditures

In Saskatchewan, a mineral claim can be held for the first two years without any exploration expenditure requirements. Subsequently, the claim holder is required to spend a certain amount of dollars/hectare on exploration activities on each disposition to maintain the claim, and any excess expenditures may be carried forward to keep claims in good standing. Contiguous claims can be grouped to a maximum size of 18,000 ha, allowing for costs to be applied across the claim group.

The mineral dispositions are defined by the Mineral Tenure Registry Regulations (2012). Assessment expenditures required to maintain claims in good standing in Saskatchewan for claims held under 10 years is currently CDN \$15/ha (with a minimum of \$240/claim per assessment work period), and CDN \$25/ha (with a minimum of \$400/claim per assessment work period) for claims held for more than 10 years.

Records of work expenditures and a geological report must be submitted to Saskatchewan’s

Ministry of Energy and Resources through the online Mineral Administration Registry Saskatchewan (“MARS”). This work assessment report must be received by the Ministry of Economy within 90 days after the end of the work period for it to be applied to that work period.

To maintain the Property claims at their current sizes, a total of at least CDN \$294,058.86 must be spent for each of the second to tenth anniversary years; and at least CDN \$490,098.10 must be spent for each year thereafter.

#### 4.5 Required Permits

Mining and mineral exploration activities in Saskatchewan are regulated under *The Mineral Industry Environmental Protection Regulations, 1996*. Surface disturbance permits are required to conduct mineral exploration activities on the Property. These permits are obtained through the Saskatchewan Ministry of Environment and Resources. Depending on the nature of the activities being undertaken, additional permits may also be required. Such activities may include but are not limited to road construction, temporary camps, water use, timber harvesting, and drilling on land or ice. Regulatory bodies including the Saskatchewan Water Security Agency, and the Department of Fisheries and Oceans Canada may need to be contacted, as is outlined in the Mineral Exploration Guidelines for Saskatchewan, developed by the Saskatchewan Mineral Exploration and Government Advisory Committee (SMEGAC). An updated version published by SMEGAC in 2016 is available online on the Saskatchewan Mining Association’s (SMA) website:

[http://saskmining.ca/ckfinder/userfiles/files/BMP%20August%202016\\_Draft.pdf](http://saskmining.ca/ckfinder/userfiles/files/BMP%20August%202016_Draft.pdf)

Presently, mineral exploration permits may take up to four months to obtain from the regulators, depending on the level of disturbance proposed and the extend of the Duty to Consult (DTC) necessary based on the project location. Fees are associated with some of the permits including timber harvesting and temporary work camps. As of the effective date of this technical report, Standard Uranium Ltd. holds a mineral exploration permit for diamond drilling on land and on ice on the Sun Dog Property which expires on June 30<sup>th</sup>, 2024.

#### 4.6 Other Significant Factors and Risks

Standard Uranium has obtained permits for continued drilling as proposed in Section 26. The authors are not aware of any other significant factors or risks that may affect title, access, or the

right and ability to perform work on the Property.

## **5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY**

### **5.1 Accessibility**

The Property is accessible in summer via helicopter, float plane, or boat, and in winter via the Shasko Bay to Fond-du-Lac section of the seasonal Athabasca Ice Road (Figure 1). The Property straddles the northern shore of Lake Athabasca, which is sizeable enough to safely land float planes. Uranium City airport is approximately 30 km from the Project, which is an unmanned airport equipped with an airstrip off Ace Lake. The Stony Rapids, SK, air base is roughly 180 km east of the Property and can be reached within approximately an hour by air. Fort McMurray airport is approximately 330 km southwest of the Property and can be reached in two hours by air.

### **5.2 Topography, Elevation, and Vegetation**

The topography of northern Saskatchewan is characterized by northeast-trending glacial geomorphological features such as low hills, ridges, drumlins, and eskers, with lakes and muskeg common in low-lying areas. The topography of the Sun Dog Property area is defined by islands with ridged to hummocky crystalline bedrock forming broad, steeply sloping terrain and discontinuous veneers of sandy to organic till within intervening valleys. Elevations on the Property range from approximately 215 - 300 m above sea level (asl). Lake Athabasca borders much of the Property with minor lakes and tributaries established on individual islands.

The Property is covered by Boreal Forest common to the Canadian Shield. The most common trees are trembling aspen and balsam poplar with white spruce, balsam fir, and black spruce. Poorly drained fens and bogs are covered with low, open stands of tamarack and black spruce.

### **5.3 Climate**

The Sun Dog Property is situated within the Tazin Lake Upland ecoregions of Saskatchewan, straddling the boundary between the Taiga Shield and the Boreal Shield ecozones of Canada. The climate for the region is classified as continental subarctic (Peel et. al., 2007). Winters are described as long (seven months), dry, and cold with a mean temperature of -21.5° Celsius (°C). Ice generally forms on lakes in late October and ice break-up typically occurs in mid May. Summers are short and cool, characterized by a mean temperature of +11°C with the highest temperatures often

recorded in late July. Forest fires are infrequent in the area, and average annual precipitation is 200 to 375 millimetres (mm).

#### 5.4 Infrastructure and Local Resources

Services and supplies are primarily obtained through the villages of Uranium City (population 91 from 2021 census) and Fond-du-Lac (population 926 from 2021 census), which receive resources and fuel from Stony Rapids via the ice road in winter and barge in summer.

The Indianhead Fishing Lodge (621,939m E, 6,580,055m N, NAD83 Zone 12N) was used as the primary camp for 2022 and 2023 exploration activities, accessible via a southern offshoot of the Beaverlodge Lake overland portage section of the ice road, approximately 20 km southwest of Uranium City.

The historic Gunnar Uranium Mine is located within the Property on mineral claim MC00011058 (Figure 2), approximately 25 km south of Uranium City, and is currently undergoing reclamation through Project CLEANS (Cleanup of Abandoned Northern Sites) which is managed by the Saskatchewan Research Council (SRC). The mine was operational from 1955 to 1963 and officially closed in 1964 with very little decommissioning. Due to the remote and isolated location of the site, numerous buildings (both industrial and residential) and facilities were developed. SRC began demolition work at the site in fall 2010, which was completed in 2012. Demolition activities included asbestos abatement of the buildings, followed by demolition of all residential and production structures, cleaning up site debris, and constructing a barrier around the open pit. Ongoing activities will include disposing of demolition materials, installing coverings on all, or a portion of, the exposed mill tailings and waste rock, re-vegetation and water treatment, and monitoring during and after rehabilitation.

The Property contains sufficient space of an open pit or underground mining operation, including space for waste rock piles and tailings facilities. Water is readily available from Lake Athabasca. A surface lease would be required from the Provincial Government in advance of any construction of permanent surface facilities on the Project. The nearest existing power would need to be extended from Uranium City or generated on site.

## 6 HISTORY AND PREVIOUS INVESTIGATIONS

### 6.1 Historic Ownership and Exploration

The following section is summarized from historical reports including Cochrane (1967,1968), Andrews and Roy (1977), Jiricka (1980, 1981), Schimann (2008), and Daubeny (2010).

The mineral claims that now comprise Standard Uranium's Sun Dog Project have changed ownership several times and have seen a plethora of different uranium exploration efforts and methods since the late 1940s. The bulk of uranium exploration on the Project and surrounding area was completed after the discovery of the Gunnar deposit in 1952 and up until 1981 by prospectors and companies including Scurry-Rainbow Oil Co., Norex Uranium Ltd., Eldorado Nuclear Ltd., and SMDC. Methods of exploration included prospecting, ground magnetometer surveys, geological mapping, drilling, geochemical lake- and stream water sampling, and airborne electromagnetic surveys.

The Gunnar discovery sparked a staking rush in the area, and further exploration to the southwest of the mine on Mitchell Island, across St. Mary's Channel. A shear zone related radioactive showing was discovered off the eastern end of Mitchell Island, however, four drill holes around the showing showed that the shear was not mineralized at depth. Anuwon Mines Ltd. outlined two additional zones of radioactivity on Mitchell Island, which they followed up with 673 m of diamond drilling in eight holes. Fault and shear zones were intersected, however no significant uranium mineralization was discovered. Noranda Holdings Ltd. and St. Mary's Uranium Ltd. then carried out a prospecting program east of Anuwon's claims on Mitchell Island, discovering only a few insignificant anomalies.

Approximately six kilometres due south of the Gunnar mine site, radioactivity was first discovered on Stewart Island in 1953 by J.A. Fraser. In 1955, prospectors Oak, Anren, MacKinnon, and Daigle discovered a series of highly radioactive magnetite-bearing boulders and radioactivity in sandstone outcrop along the south shore of Stewart Island. Prospecting during this period led to the discovery of pitchblende mineralization in sandstone at three locations on Stewart Island: Far East, Main, and West zones. In 1956, Star Uranium staked 12 claims at the eastern end of Stewart Island, on which geological mapping and 609.6 m of diamond drilling in four holes discovered nothing of significance. A legal dispute then stifled serious exploration on Stewart Island until 1959.

In 1957, prospecting at the western end of neighboring Johnston Island led to the discovery of the Walli showing (Figure 3), hosted in mylonitized and hematized quartzite outcrop. Back on Stewart Island in the same year, J.T. Meagher carried out a ground magnetometer survey, however no definitive relationship between the uranium mineralization and magnetic anomalies was noted.

In the winter of 1959-1960, the Stewart Island claims were acquired by Canadian Pipelines Ltd. (Scurry-Rainbow Oil Co.). Scurry-Rainbow completed the first diamond drill program on the Stewart Island showing, drilling vertical holes in a scattered reconnaissance pattern. Out of the 25 drill holes totalling 1,507.8 m, a small flat-lying lens of sandstone-hosted mineralization was defined, with the best drill hole, S-3, intersecting 0.63%  $U_3O_8$  over 1.83 m. The “Stewart Island Deposit” (Figure 3) is similar in area to the surface showing and has a vertical extent of approximately 4.5 m.

After Scurry-Rainbow allowed their option on the property to lapse in 1960, Norex Uranium Ltd. acquired the Stewart Island property in 1964 and staked an additional 21 mineral claims in 1968 around Mineral Lease 5032, which they purchased a year prior in 1967. Norex began exploration programs consisting of detailed geological mapping and prospecting, ground radiometric surveying, VLF-EM and magnetometer surveys, and approximately 2,175 m of diamond drilling in 67 holes. Prospecting led to the discovery of a new sandstone-hosted uranium showing to the east of the Main zone showing. EM surveys and submarine probing of the lake to the south of the Main zone were also carried out, in addition to drilling which revealed more mineralization hosted in a medium-grained hematite-altered sandstone containing clay chips. Significant uranium mineralization was intersected in several drill holes in the Main zone, (0.405%  $U_3O_8$  over 4.6 m in hole N-1; 0.764%  $U_3O_8$  over 6.7 m in hole N-2; 0.382%  $U_3O_8$  over 2.4 m in N-4; 0.353%  $U_3O_8$  over 5.2 m in N-5; and 0.416%  $U_3O_8$  over 7.8 m in N-6) (Cochrane, 1967, 1968). Norex expanded the indicated Stewart Island Uranium Deposit resource to 2,325 tonnes of sandstone-hosted ore with an average grade of 0.476%  $U_3O_8$  (Andrews and Roy, 1977).

Subsequent drilling by Eldorado Nuclear Ltd. encountered several radioactive intersections of grades and thickness akin to those reported in earlier drilling by Scurry-Rainbow. In the West showing area, drill hole 532-26-24 intersected low-grade mineralization near surface and slightly higher grades at depth.

In 1977-1978, exploration focus shifted towards Johnston Island by Goldak Exploration Technology Ltd. and Saskatchewan Mining Development Corporation (SMDC), with areas of anomalous radioactivity discovered through prospecting and underwater seismic and radiometric surveying within St. Mary's Channel and near Johnston Point. Radioactivity up to 13,400 counts per second (cps) was discovered within bedrock north of Johnston Point in 1978.

SMDC completed a diamond drill program in 1977-1978 comprising 1,637 m in 55 drill holes to test the radioactive JNW-1 occurrence on Johnston Island (Figure 3), underwater radioactive anomalies within St. Mary's Channel, and the possible southwest extension of the Mitchell Island fault. Minor radioactivity was discovered below the Johnston Island showing, however testing the underwater anomalies proved unsuccessful.

SMDC continued drilling in 1979, completing 1,577 m within 16 drill holes. Radioactivity up to 1,220 cps was intersected in hole A9-1, yielding 650 ppm U over 0.6 m.

In 1980, SMDC continued drilling and targeted unconformity-related uranium mineralization akin to that discovered at Key Lake. SMDC completed an additional 2,254 m within 13 drill holes, with intersections of radioactivity and weak mineralization in holes LA0-1, LA0-3, and LA0-9, which all lie in the vicinity of mineralized hole A9-1 from the 1979 drill program. The best mineralized interval returned 1,046 ppm uranium over 1.0 m within a massive chloritized metapelite unit in hole LA0-1.

SMDC's 1981 drill program comprised 3,163.4 m within 15 drill holes focused mainly offshore of Johnston Island and Barritt Point (J-Bay Target area, Figure 3), in addition to two holes targeting the St. Mary's Channel fault. Significant radioactivity was intersected within five of the 1981 drill holes, LA1-5 (205 ppm U over 1.0 m), LA1-11 (55 ppm U over 1.0 m; 60 ppm U over 1.0 m), LA1-12 (68 ppm U over 1.0 m; 40 ppm U over 1.0 m), LA1-14 (61 ppm U over 2.0 m), and LA1-15 (614 ppm U over 1.0 m; 384 ppm U over 1.9 m; 101 ppm U over 1.0 m) (Jiricka, 1981).

SMDC defined the "Halifax-Welsh Mineralized Zone" north of Johnston Point (Java Target area, Figure 3) through intersection of notable mineralization (maximum of 1,092 ppm U in LA0-3) within five drill holes completed between 1979-1981.

The Lake Athabasca claims that now comprise Sun Dog saw little to no work until they were

acquired by CanAlaska Uranium Ltd. in 2004-2005, consisting of 13 contiguous dispositions totalling 57,922 hectares (Daubeny, 2010).

In 2005, CanAlaska contracted Geotech Ltd. and Fugro Airborne Services to conduct VTEM and MEGATEM® airborne EM and mag surveys, respectively.

In 2006, CanAlaska completed a 3D resistivity and max-min survey around Mahood Island, a bathymetric and acoustic subsurface profile survey, and an airborne VTEM and magnetic survey.

In 2007, CanAlaska contracted a three-grid pole-pole DC resistivity survey and contracted Titan Drilling Ltd. to complete a 7 hole, 1,525 m drill program. Elevated radioactivity was intersected during their 2007 drill program in holes LAA002 (3,300 cps at 3.7 m) and LAA003 (900 cps at 7.9 m).

CanAlaska's 2008 winter drill program on the Lake Athabasca property was designed to test numerous geophysical anomalies determined by IP and resistivity coupled with a previously flown VTEM and aided by 2D seismic and bathymetry programmes conducted during the summer of 2007. The drilling consisted of 8 drill holes numbered LAA008 through LAA015 for a total of 1,513 meters. These included 6 drill holes on the ice of Lake Athabasca (LAA008, LAA011 through LAA015), and 2 drill holes (LAA009 and LAA010) on the shoreline of Hilyard Island, one of which was abandoned (LAA-009) when the drill rods became stuck in a fault zone and could not be recovered. The 2008 drill program failed to intersect any elevated radioactivity; however, several hydrothermal alteration and structural zones associated with intense hematization were intersected. CanAlaska eventually allowed their Lake Athabasca claims around Johnston and Stewart Islands to lapse in mid-2017.

Standard Uranium consolidated the Sun Dog Project through acquiring the first two dispositions (MC00011058 and MC00011059) in 2018, followed by staking additional contiguous claims in 2020 for a total land package of 17,309.2 hectares. Three additional mineral claims were staked in 2023, bringing the total area of the project to 19,603.9 hectares. During a prospecting and ground-truth sampling program in fall 2020, the Standard Uranium team discovered a new surface showing of uranium mineralization on Johnston Island between the historical JSW-1 and Walli occurrences, called the Haven discovery (Figure 3). The brecciated Haven outcrop contains elevated radioactivity greater than 65,000 cps within brecciated and hematized quartzite.

The Company has completed the work detailed in this report herein, comprised of a ground gravity survey and drone magnetics survey across Stewart, Johnston, and Halifax Islands, as well as an inaugural four-hole, 1,242.3 m drill program in the winter of 2022. Two additional claims were staked in February 2023, increasing the land package to 18,101 hectares. The Company followed up the 2022 program with an additional 1,227.1 m of diamond drilling in winter 2023.

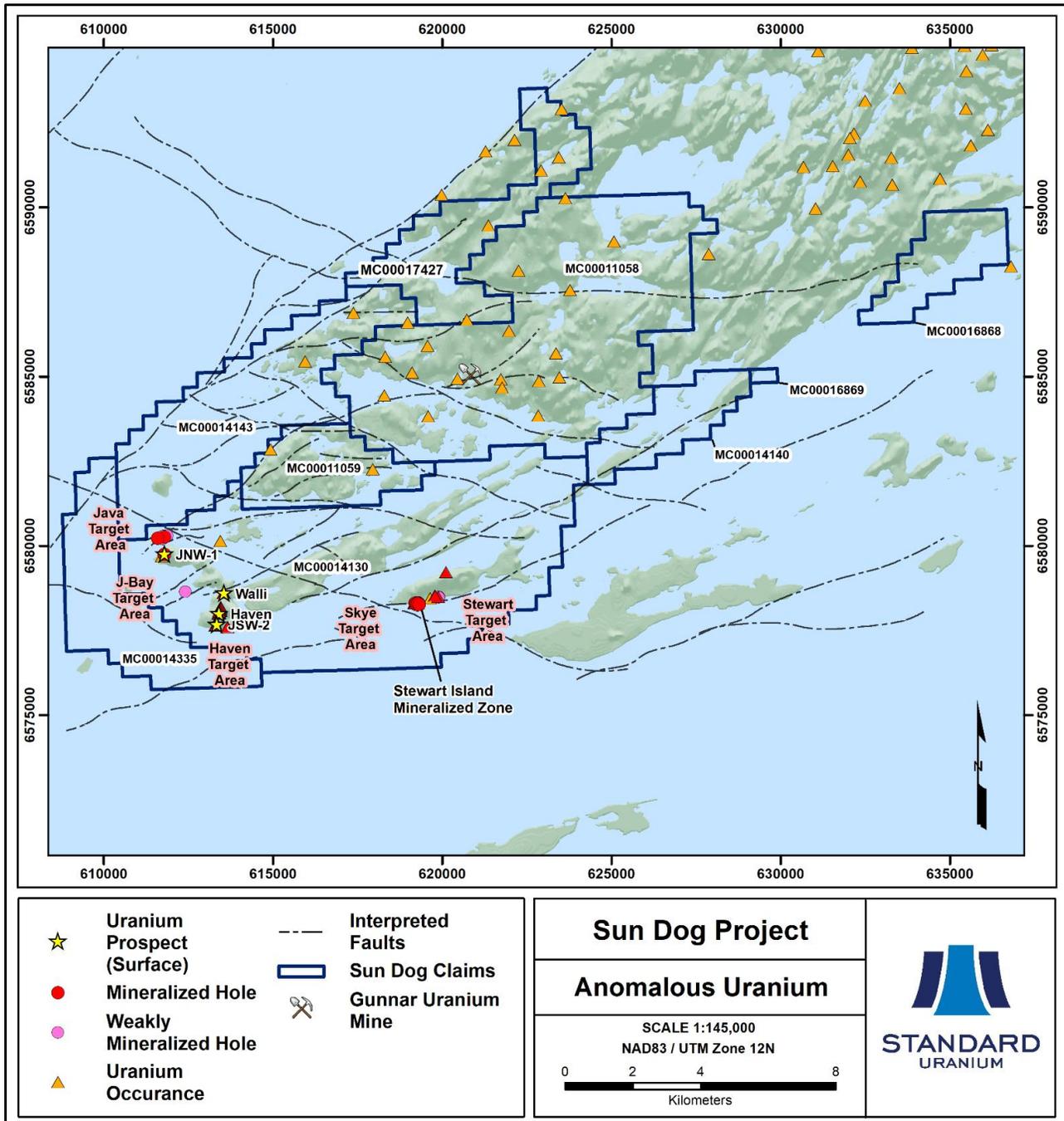


Figure 3. Anomalous Uranium within the Sun Dog Claims and Surrounding Area

## 6.2 Standard Uranium Previous Work

Standard Uranium contracted Dahrouge Geological Consulting Ltd. (“Dahrouge”) to provide a two-person field crew to prospect and ground-truth target areas on the Property from September 18 to 25, 2020. Crews operated out of Indianhead Fishing Lodge located on Stewart Island. Planned objectives were to investigate target areas of previously known mineralization, locate mineralized uranium boulders, resample historic drill core, and prospect the Stewart and Johnston Islands with a handheld RS-125 scintillometer. Access to the areas of interest on the Property was provided via boat from Indianhead Fishing Lodge.

A series of traverses over historic uranium showings and trenches at target zones JNW-1/JSW-2, Walli, and the Stewart Island deposit were made using RS-125 scintillometers. Background values, as counts per second (cps) were acquired at the beginning of a traverse and updated as necessary throughout the day. Typical background cps values ranged between 20 and 900 cps with mineralized outcrop cps values ranging from 1,500 to >65,535 cps. Near the contact of Murmac Bay Group quartzite and Athabasca conglomerate on Johnston Island, crews discovered a new 30 m long radioactive trend on the south-western area of the island with outcrop cps values ranging from 14,000 to >65,535 cps, later renamed the “Haven” prospect. Boulders with above-background cps were further investigated and possibly sampled, if a more detailed test with the RS-125 indicated U content above a given threshold.

During the field program, crews collected 56 outcrop grab samples, 6 boulder samples, and 14 historic core samples from the Property. These were primarily collected from mineralized target areas and from historic CanAlaska drill holes (LAA001 & LAA012) with uranium mineralization and anomalous gold zones. Samples were collected in the field and returned to base camp at the end of each day. These samples were then returned to the Dahrouge office, where each sample underwent quality control where the marked sample ID on the sample bag matched the sample ID tag previously inserted in the field. The samples were then inserted into pails and shipped to SRC Geoanalytical Laboratories for analysis.

All outcrop/grab samples were Athabasca sandstone and Murmac Bay quartzite, which displayed mineralized cps (>300 cps) and visible evidence of uraninite mineralization. Historic drill core samples were metasedimentary and granitic gneiss, containing uranium mineralization and/or

anomalous gold. Preliminary examination suggests that uranium mineralization is commonly found in quartz arenite of the Athabasca sandstone as veins and stringers associated with hydrothermal oxidation fronts. The highest sample cps and uranium content (from scintillometer readings) ranged from 9,000 cps (2.66 wt.%  $U_3O_8$ ) to 22,000 cps (3.58 wt.%  $U_3O_8$ ) in samples 146105 and 146141, respectively. Additionally, values of  $>1.0$  wt.%  $U_3O_8$  were returned in sample 146103, sample 146109, and sample 146137.

In the winter of 2022, Standard Uranium performed a high-resolution ground gravity survey and drone magnetics survey across Stewart, Johnston, and Halifax Islands, as well as an inaugural four-hole 1,242.3 m drill program. Two drill holes were completed in the Johnston Bay (“J-Bay”) target area, which contained the highest priority drill targets based on previous reconnaissance work on the Property. The remaining two holes were completed within the Haven and Java target areas. The purpose of these holes was to test the Java, Haven, and Johnston Bay drill areas for high-grade unconformity-related uranium mineralization, identified based on new high-resolution ground gravity and UAV magnetic surveys, lakebed radiometric and low-resistivity anomalies, and several kilometres of graphitic conductors coincident with cross-cutting faults and historical surface and drillhole intersections of high-grade uranium mineralization. No anomalous radioactivity (defined as greater than 300 cps as measured with hand-held RS-121 or RS-125 scintillometers) was recorded in any of the drill holes, however, a maximum of 300 cps was intersected in drill hole SD-22-003 from 164.5 to 165.0 m; geochemical analysis returned values of 71.4 ppm uranium and moderately anomalous metal concentrations including 22.4 ppm copper, 10.1 ppm lead (sum), 18.0 ppm zinc, 31.4 ppm nickel and 19.0 ppb gold.

From September 19<sup>th</sup> to 24<sup>th</sup>, 2022, Standard Uranium executed a field mapping and prospecting program to ground-truth sample waypoints and radiometric results of the 2020 sampling program in addition to prospecting and collecting bedrock geology data observed on Johnston and Stewart Islands. Numerous mineralized boulders and several new mineralized bedrock locations, including the expansion of Johnston Island’s Haven-Walli target areas were discovered. The expanded surface expression of mineralization on south Johnston Island (Haven-Walli target areas) displayed scintillometer readings  $>10,000$  cps and locally off-scale ( $>65,535$  cps) and the historical mineralized surface occurrences on Stewart Island were confirmed with scintillometer measurements ranging from  $>500$  cps to  $>10,000$  cps, and locally off-scale. The newly discovered

shear zone on the northwest edge of Stewart Island had a peak scintillometer reading of 580 cps. Radioactivity measurements were collected with hand-held RS-121 or RS-125 scintillometers. Additionally, spectroscopy results via a Portable Infrared Mineral Analyzer (PIMA) returned high dravite concentrations in two surficial outcrop grab samples associated with faults and veins intersecting sandstone outcrop at waypoints SH-0018 and SH-0049.

From January 21<sup>st</sup> to April 3<sup>rd</sup>, 2023, Standard Uranium completed a 1,227.1 m diamond drilling program on the Sun Dog Property. Ten drill holes were completed, which were designed to follow up on the results of the winter 2022 drill program, test the historical drill hole results and perched uranium mineralization present at surface in rock outcrop, and test several gravity-low and resistivity anomalies coinciding with breaks or flexures in electromagnetic (EM) conductors under Athabasca sandstone cover. One hole was completed in the Johnston Bay target area (SD-23-006), one hole was completed adjacent to the Stewart Island mineralized zone (SD-23-010), two holes were completed at the Walli showing (SD-23-011, SD-23-012), and the final hole was completed to test the Haven discovery (SD-23-013). Anomalous radioactivity of up to 1,300 cps on a 32GR slim gamma probe was intersected in SD-23-013 from 79.0 to 80.0 m (1,000 cps on handheld RS-125), as well as 505 cps (320 cps on handheld RS-125) from 83.0 to 83.5 m, associated with a 10.25 m wide oxidized fault breccia hosting clay-dravite alteration. Significant structure and oxidation front alteration (hematite-limonite) was also intersected from the top of hole to 33.5 m. Geochemical analysis returned values of 0.042 wt.%, 0.021 wt.%, and 0.005 wt.% U<sub>3</sub>O<sub>8</sub> (total digestion, U assay) and weak to strongly anomalous metal concentrations including boron, zinc, arsenic, bismuth, cobalt, copper, and nickel with weak to strongly anomalous <sup>208</sup>Pb/<sup>206</sup>Pb ratios.

## 7 GEOLOGICAL SETTING AND MINERALIZATION

### 7.1 Regional Geology

Standard Uranium's Sun Dog Property is situated in the Western Churchill Structural Province of the Canadian Shield, which is divided into the Hearne Subprovince to the east, and the Rae Subprovince to the west, separated by a 1.9 billion year (Ga) old crustal-scale structural discontinuity termed the Snowbird Tectonic Zone ("SBTZ" Figure 4A). The Taltson and Trans-Hudson Orogenies are marginal to the Subprovinces with the Taltson to the northwest and Trans-Hudson to the southeast of Rae craton (Dieng et al., 2014). The Sun Dog Property lies within the southwestern interior of the Beaverlodge Domain and bounds the eastern portion of the Zemplak

domain (Kennicott et al., 2015; Figure 4A), which are structurally dominated by the northeast to southwest trending Black Bay and St. Louis Fault systems (Ashton et al., 2000; Ashton, 2008). The Beaverlodge Domain hosts Archean to Paleoproterozoic rocks within the southwest segment of the Rae Subprovince and have undergone numerous metamorphic and deformational events while the overlying Athabasca Supergroup remains unmetamorphosed (Kennicott et al., 2015; Ashton et al., 2000).

Exemplary summaries have been completed for the geology in the area by Ashton et al. (2000), in “Summary of Investigations 2000, Volume 2, Saskatchewan Geological Survey” and by K.E. Ashton (2008) in “Geological Compilation of the Uranium City Area, Beaverlodge and Zemplak Domains (parts of NTS 74N/06 and 74N/07) south sheet” and used for the geological description below.

The crystalline basement in the Project area contains Archean-age granitoids and plutons of the Arrowsmith Orogen that are unconformably overlain by the Murmac Bay Group. The 2,330 to 1,930 million year (Ma) old Murmac Bay Group comprises a metasedimentary package primarily comprised of psammitic to pelitic gneissic rocks with intercalated quartzite, mafic volcanics, calc-silicate, dolostone, gabbroic to komatiitic intrusive rocks, and an interlayered banded iron formation. Murmac Bay rocks have endured at least three metamorphic phases ranging from lower to upper-amphibolite facies with local advancements to granulite facies. Evidence indicates early metamorphism was a product of a widespread thermotectonic event, while later metamorphism resulted from coinciding deformational events. Geochronological work completed at Donaldson Lake estimates the age of the third metamorphic phase to be 1,800 Ma. Historically, the crystalline basement rocks of the Murmac Bay Group were suggested to be a part of the Tazin Group sedimentary package, and later renamed to the ‘Fay Mine Complex’ based on the work completed by Eldorado Nuclear Ltd. within their Ace-Fay-Verna mines property. However, recent mapping suggests that the rocks, and their metamorphic history, are correlative with the 2,330 to 1,930 million year (Ma) old rocks present within the Paleoproterozoic Murmac Bay Group of the Beaverlodge Domain.

The Murmac Bay Group was sequentially superimposed by the Taltson Magmatic Suite (1.97 to 1.92 Ga), which was later unconformably overlain by the arkosic to conglomeratic rocks of the

Thluicho Lake Group (1.92 to 1.82 Ga) (Ashton, 2008; Ashton and Hartlaub, 2008). The siliciclastic red-bed sequences of the mid to late Paleoproterozoic Martin Group (1,820 Ma) were unconformably deposited on the Thluicho Lake and Murmac Bay Groups. The Martin Group is characterized by sandstones, siltstones, and conglomerates, along with mafic and lamprophyre dykes. The sequence is not well exposed, but limited observation shows truncation by the Black Bay Fault to the west and that the rocks are relatively unmetamorphosed or folded.

The Beaverlodge Domain rocks in the Project area were subject to significant brittle-ductile to brittle deformational events that produced widespread folding, faulting, shearing, fracturing, brecciation, and cataclasis. The major crustal-scale structures in the Project area comprise the northeast to southwest trending Black Bay Fault (“BB” Figure 4A) and St. Louis Fault systems. Evidence of at least four major deformational events have been suggested. The D<sub>1</sub> deformational event is related to the Taltson Orogen resulting in a regional east-south-east oriented foliation and mylonitic fabrics, which are overprinted by tight to isoclinal folds attributed to D<sub>2</sub> deformation. The D<sub>3</sub> deformational event contributed to regional dextral shearing and significant cataclasis, in addition to regional folding with z-folds commonly observed in Crackingstone Peninsula rocks. Brittle-ductile deformational features tend to be northeast-striking and are suggested to be associated with deformation along the Snowbird Tectonic Zone, while brittle deformation is considered a product of the Slave Indenter (D<sub>3</sub>-D<sub>4</sub>) (Ashton and Hartlaub, 2008). The most recent deformational event, D<sub>4</sub>, a product of the Trans-Hudson Orogeny and presumably the Slave Indenter, resulted in north- to northeast-striking regional folding and the deposition of the Martin Group (Ashton et al., 2000; Ashton and Hartlaub, 2008).

The Athabasca Basin is an erosional remnant of a large Paleoproterozoic to Mesoproterozoic sedimentary basin, which spans most of northern Saskatchewan and into northern Alberta (Figure 4). The basin comprises a series of mainly continental, unmetamorphosed siliclastic rocks, predominantly sandstone, of the Athabasca Supergroup (Bosman and Ramaekers, 2015). They were deposited approximately 1,710 to 1,500 Ma, superimposing the Martin Group and locally unconformably overlying the Murmac Bay Group. The Athabasca Supergroup siliclastic rocks consist of unmetamorphosed, flat-lying quartz-rich sandstone to polymictic conglomerates of the Manitou Falls Group (Bosman and Ramaekers, 2015).

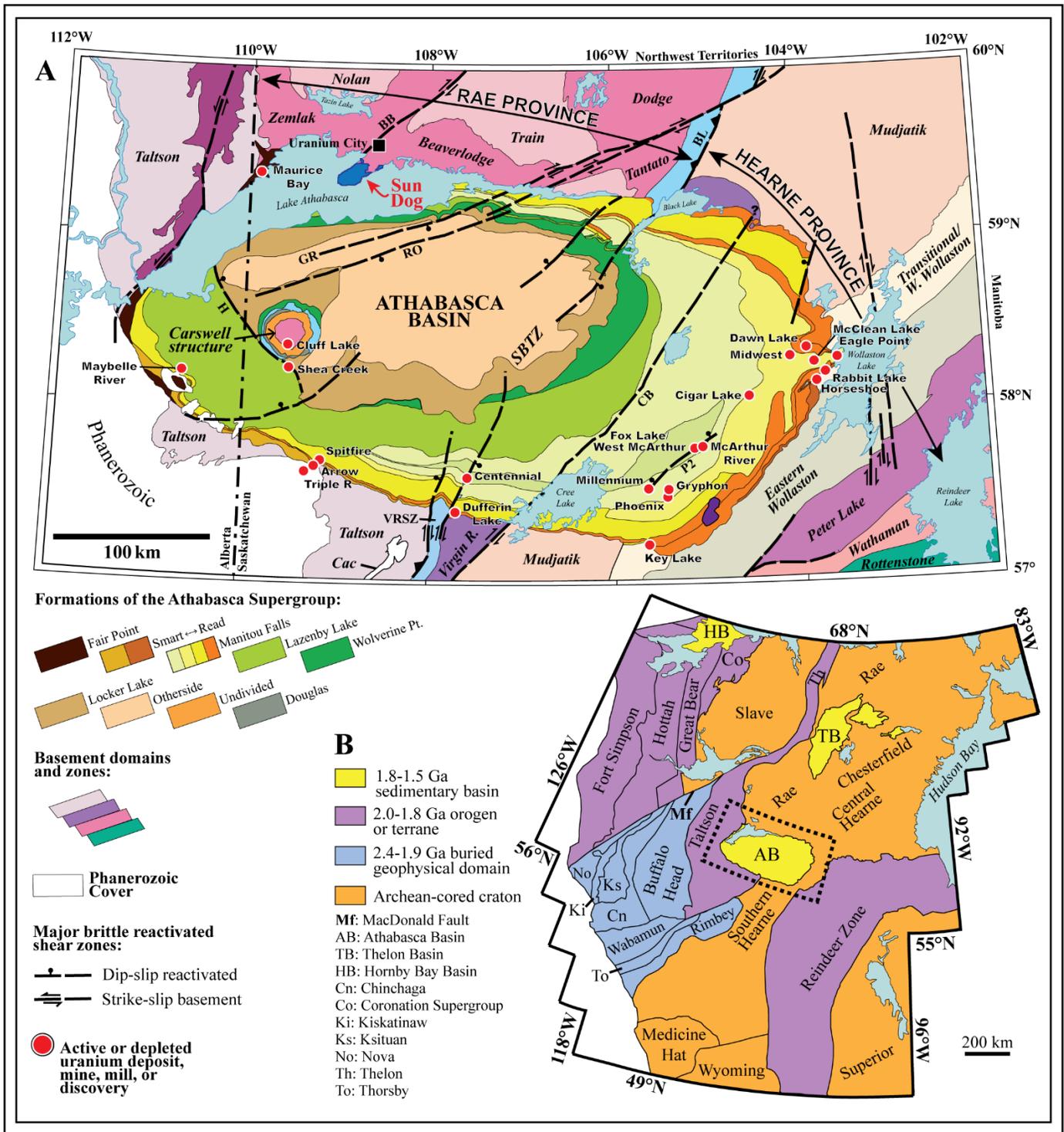


Figure 4. A) Lithostructural domains of the Churchill structural province and regional Athabasca Basin geology in northern Saskatchewan and Alberta. The Sun Dog Project is shown in blue. B) Cratonic map of western Laurentia showing Fig. 3A (dashed box) in context of continent-scale tectonics. (Modified from Hillacre et al., 2021)

## 7.2 Property Geology

The Sun Dog Property is located on the Crackingstone Peninsula within the Rae Subprovince, and predominantly contains Paleoproterozoic crystalline basement rocks of the Beaverlodge Domain. The northwest portion of claim blocks MC00014335, MC00014143, and MC00017427 run adjacent to the NE-SW striking Black Bay Fault (Figure 5), which represents the lithostructural contact between the Beaverlodge and Zemplak domains, and thus these claims may contain several lithologies more commonly associated with the Zemplak Domain.

The oldest rocks on the Project include heavily mylonitized 3.0 to 2.3 Ga Archean basement granites and mixed orthogneisses, which comprise the core of the Crackingstone Peninsula. Protracted semi-continuous deformation (D<sub>1</sub>-D<sub>4</sub>) through general E-W shortening created multiple generations of folds (F<sub>1</sub>-F<sub>4</sub>), widespread ductile shear zones (D<sub>1</sub>-D<sub>3</sub> related), and significant brittle-ductile and brittle faults (D<sub>4</sub> related) which impart a strong regional structural grain and control on uranium mineralization in the Beaverlodge Uranium District.

Folded 2.33 to 1.93 Ga Murmac Bay Group rocks flank the eastern and southern edges of the Crackingstone Peninsula, comprising repeating layers of quartzite, gabbro-ultramafic rocks, mafic volcanics, psammopelitic to pelitic metasediments, and mixed supracrustal rocks.

Moderate to steeply dipping (45 to 60°) Murmac Bay Group rocks comprise the basement intersections of Standard Uranium drill holes SD-22-001 through -003, including quartzite, silicified quartzofeldspathic gneisses, psammitic to pelitic gneiss, mafic volcanics, and banded iron formation. Granitic to granodioritic orthogneiss and pink coarse-grained granites comprise the basement intersection of SD-22-004. Several instances of structurally reactivated graphite- and sulphide-bearing Murmac Bay lithologies are present at Sun Dog and are interpreted to represent the electromagnetic (EM) conductors on the Project. The numerous northeast and southwest trending islands and channels (Nunim Channel, Tipinuwak Channel, Elliot Bay, Grouse Bay, etc.) that comprise the peninsula are interpreted to be the structural expression of splays and offshoots of the Back Bay Fault, the most prominent structural feature on the Property. Major splays include the Jug Bay Fault, Zeemel Fault (closely associated with the historic Gunnar Mine), Hill Creek Fault, and Elliot Point Faults. These trends are crosscut by a northwest-striking fault system, most notably the St. Mary's Channel Fault and Heatherington Fault. Strong evidence for reused and

brittle reactivated structures is recorded in the rocks on the Project, creating ideal conduits for uranium-bearing hydrothermal fluids in pull-aparts and dilational jogs along dextral shear and fault zones. Several instances of uranium mineralization associated with these structures have been recorded (See Section 7.3).

The bedrock geology of the Sun Dog Property is separated into two major groups by the northern margin of the Athabasca Basin, which trends erratically through Nisewuk, Grouse, Stewart, Johnston, and Halifax Islands along the southernmost point of the Crackingstone Peninsula (Figure 5). This unconformable contact displays windows of the Murmac Bay Group quartzite/quartzofeldspathic gneisses overlain by 1.71 to 1.50 Ga Athabasca Supergroup sandstones, breccias, and basal conglomerates, which outcrop intermittently on the abovementioned islands and are occasionally stratigraphically reversed. To the south of the Athabasca Basin unconformity margin (Figure 5), Athabasca Supergroup sandstones (Manitou Falls Dunlop, Bird Formation, and basal conglomerates) overlie crystalline basement lithologies, ranging in thickness from several metres to 84 metres in drill hole sections. Alteration types observed in the Murmac Bay Group rocks on the Property include clay alteration, chloritization, silicification, and widespread hematization.

Hematization is by far the most pervasive alteration phase, affecting both basement rocks and overlying Athabasca sandstones. Hematite is associated with pre-Athabasca weathering in the Murmac Bay Group rocks and associated with diagenetic and epigenetic processes in the Athabasca Supergroup rocks. Hematized fault zones and metre-scale quartz-hematite breccias are commonly observed in basement rocks on the Project.

Chloritization is largely restricted to the basement rocks on the Project, present as pale to dark green replacements of ferromagnesian minerals and fracture linings. Chloritization is more prominent in weakly foliated metapelites and units exhibiting weaker hematization.

Silicification is locally very apparent, with pervasive silica flooding in both Athabasca and Murmac Bay Group lithologies proximal to the unconformity and with intensely silicified orthogneisses in the basement. Silicification is also prominent in the form of hydrothermal quartz veins, druzy vugs, stockworks, and metre-scale breccia/dilation zones in the basement rocks.

Clay alteration is dominated by illite and chloritic-clay mixtures, with local kaolinite and boron-

rich dravitic clay. Clay alteration is most apparent along the Athabasca-Murmac unconformity and in highly strained metapelite units. Kaolinite and dravitic clays are more commonly hosted within structures rather than concentrated along the unconformity contact.

Detailed descriptions of the lithologies intersected during the 2022 and 2023 drill programs are included in Section 10 of this report.

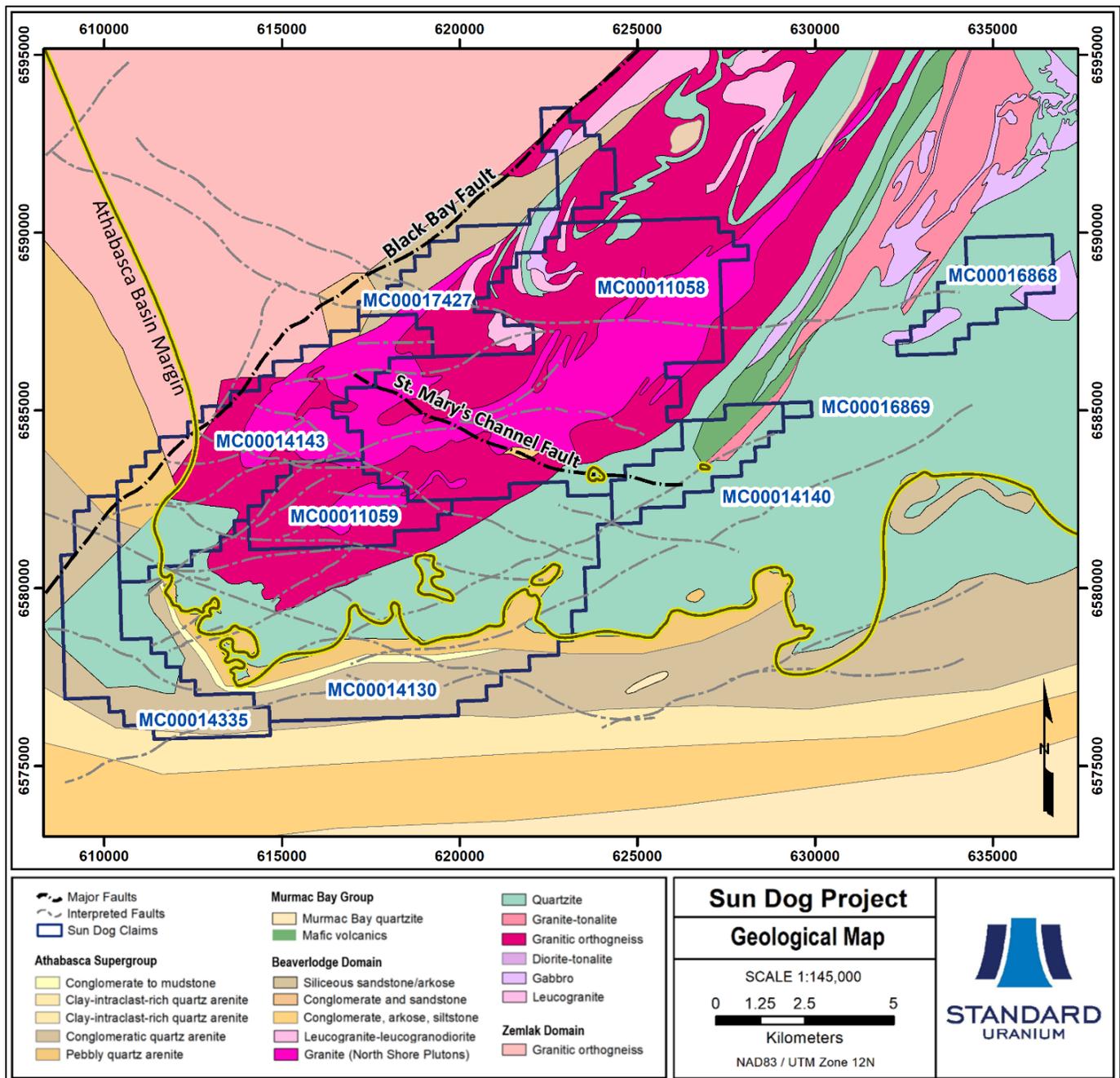


Figure 5. Simplified Geology of the Sun Dog Property Area

### 7.3 Uranium Mineralization

Occurrences of uranium mineralization are abundant in the Uranium City area and have been explored and documented since the 1940s. Exploration for uranium in the Project area began with surface prospecting in 1944, with more than one thousand occurrences of pitchblende mineralization being documented within the first year. A few years later, between 1948 and 1958, a significant exploration boom in the area led to the discovery of the Gunnar uranium mine on the Crackingstone Peninsula in 1952. Radioactive boulders were mapped on the southern shore of the Peninsula and led to the discovery of the future mine, which contained an average grade of 0.18%  $U_3O_8$ . Production at Gunnar commenced in 1955 and continued until 1964 when the orebody was depleted, producing approximately 19.25 million pounds (8,731.65 tonnes) of  $U_3O_8$ . Uranium mineralization at Gunnar was comprised of pitchblende and secondary U-oxides in a steeply dipping pipe-shaped orebody within albitized and carbonatized granite.

The Gunnar deposit lies within the Sun Dog Project and was one of the two largest uranium deposits in the Beaverlodge District which centered around Uranium City. The Beaverlodge District historically produced 70.25 million pounds of  $U_3O_8$  from ore grades averaging 0.23%  $U_3O_8$  prior to 1982 (Trueman, 2006). The other major deposit in the district was the Eldorado Beaverlodge (Ace-Fay-Verna) mine which, along with several satellite deposits of similar mineralogy, produced approximately 51 million pounds of  $U_3O_8$  (Trueman, 2006). These deposits are type localities of Beaverlodge-style uranium deposits which are structurally controlled in veins and breccia-fills within dominantly metapelitic basement rocks.

Beaverlodge-style deposits are somewhat in contrast with higher-grade Athabasca-style uranium deposits, which are termed unconformity-related deposits. Unconformity-related deposits are typically much higher grade than Beaverlodge-style deposits, and often comprise “perched” uranium mineralization within the Athabasca Supergroup sandstones, mineralization at the Athabasca-basement unconformity contact, and within the basement rocks proximal to and within reactivated graphitic faults and shear zones. Uranium mineralization on the Sun Dog Project is present as both types, within the Athabasca Supergroup sandstones and Murmac Bay Group basement rocks. In general, unconformity-related mineralization targets are concentrated within the southern Project claims along the Athabasca Basin margin, whereas Beaverlodge-style targets lie within the northern claims proximal to the Gunnar deposit and around Mitchell Island in the

center claim block.

Overall, Beaverlodge-style basement hosted uranium occurrences on the Project consist of vein- and fracture-hosted uraninite and/or other uranium oxides  $\pm$  base metals and/or calcite, with associated hematite-limonite alteration. Sampling of this style of mineralization on Mitchell Island by CanAlaska returned 1.44%  $U_3O_8$  in sample PD041 (Daubeny, 2010). The Saskatchewan Mineral Deposit Index (SMDI) has documented numerous uranium showings of this type across the Project (Figure 3), which are commonly associated with “Gunnar Mine style” carbonate-hematite alteration.

The Stewart Island “Main zone” deposit is the most significant unconformity-related uranium discovery on the Project to date, comprised of perched mineralization within Athabasca sandstones unconformably overlying Murmac Bay quartzite and metapelites. Uranium mineralization occurs in the Main zone as blebs, fracture coatings, and interstitial cement with related iron-oxide alteration products including hematite, limonite, and goethite, in addition to calcite, secondary quartz, and minor enrichments in Pb, Mo, Ni, Cu, Co, Cr, Sr, Ba, and Zr. A bleached alteration halo surrounds the sandstone-hosted deposit, comprised dominantly of illite and kaolinite clays.

Directly north of the Main zone is an east-southeast trending scarp that represents the surface expression fault offset or paleo-topographic high in the unconformity. This feature runs the length of Stewart Island and in the vicinity of the deposits places the basement quartzite structurally above the adjacent sandstone hosted mineralisation (Daubeny, 2010). Surface mapping and prospecting has identified several radiometric anomalies along this countenance over a 1.5 km strike length to the east of the deposit and a somewhat lesser distance to the west. The area of this scarp remains prospective for the discovery of additional uranium mineralization (Daubeny, 2010).

The three deposits adjacent to the Main zone are mineralogically similar and collectively the SMDI and Skerl (1969) list these occurrences as containing “Reserves” of 2,561 tons grading 0.47%  $U_3O_8$ ; 88% of which is hosted in the Main Zone (Daubeny, 2010). The reserves listed above fall under the National Instrument 43-101 definition of a “historic estimate” meaning that the calculations were prepared prior to the February 1<sup>st</sup>, 2001, implementation of NI 43-101 and therefore do not conform to NI 43-101 standards.

Anomalous radioactivity accompanied by silicification and dravite hosted in locally vuggy and

brecciated sandstone is located near the south-west shoreline of Grouse Island. The alteration and mineralization are present approximately 200 m above the Athabasca Supergroup unconformity and appears to represent a ‘perched’ sandstone style of mineralization. Alternatively, two drill holes targeting the area of this mineralization and completed by CanAlaska during the winter of 2007 intersected illite-dominated clay alteration ( $\pm$  dravite and chlorite) throughout their respective sections (Daubeny, 2010).

The Johnston Island uranium showings (JNW-1, Walli, Haven, JSW-2; Figure 3) comprise additional Athabasca Supergroup hosted mineralisation on the Sun Dog Project. Mineralization occurs in small lenses and pods and along fractures with various other uranium oxides as well as base metals, base metal oxides, native copper, and specular hematite. The Johnston Island showings have been correlated with an underwater radiometric anomaly that extends approximately 1 km to the northwest of the Island and collectively these showings have been tested by approximately 35 historic diamond drill holes. The Haven showing was discovered in fall 2020 by Standard Uranium, with sandstone samples returning grades up to 0.702%  $U_3O_8$ . Athabasca sandstone outcrop in the Haven area contains visible uranium oxide (uraninite) mineralization as well as yellow and orange secondary uranium oxy-hydroxides.

The first drill hole at the Haven discovery, SD-23-013, intersected elevated radioactivity at depth in addition to prospective semi-brittle to brittle deformation zones and hydrothermal alteration within both Athabasca Supergroup sandstones and Murmac Bay Group basement rocks. Uranium assays from drill hole SD-23-013 include 0.042 wt.%  $U_3O_8$  from 79.0 to 79.5 m, 0.021 wt.%  $U_3O_8$  from 79.5 to 80.0 m and 0.050 wt.%  $U_3O_8$  from 82.5 to 83.5 m.

## 8 DEPOSIT TYPES AND MODEL

Two distinct types of uranium deposits have been documented and described in the Project area – High-grade Athabasca-style unconformity-related deposits, and lower-grade Beaverlodge-style structurally controlled deposits. Although indications of both styles of uranium mineralization have been found on the Project, Standard Uranium’s main target of exploration on the Sun Dog Property is high-grade unconformity-related uranium mineralization. Exploration efforts focus on several high-priority target areas along several kilometres of untested graphitic conductors, which are coincident with cross-cutting faults and historical intersections of high-grade uranium

mineralization.

Canada was the world's largest uranium producer for several years, accounting for approximately 22% of world output, but in 2009 was overtaken by Kazakhstan (World Nuclear Association, 2022). A significant portion of the world's uranium production comes from the Athabasca Basin high-grade deposits, namely the McArthur River and Cigar Lake mines in northern Saskatchewan. Canada plays a significant role in meeting future world demand for uranium, with known resources of 606,600 tonnes of  $U_3O_8$  (514,400tU) in addition to continued exploration (World Nuclear Association, 2022).

Unconformity-related uranium deposits have been well described in the literature, notably by Jefferson et al. (2007). Unconformity-related uranium deposits in the Saskatchewan comprise massive pods, veins, and/or disseminations of uraninite spatially associated with the unconformable contact between the Paleoproterozoic to Mesoproterozoic ( $\leq 1.74$  to  $\leq 1.5$  Ga) siliciclastic Athabasca Basin and metamorphic basement rocks. The underlying crystalline basement rock comprise tectonically interleaved metasedimentary and Archean to Proterozoic granitoid rocks. Structurally controlled uraninite  $\pm$  polymetallic minerals have been discovered at, above, and/or below the unconformity surface (Figure 6). Two major, long-lived hydrothermal ore-forming events are recorded taking place at 1600 to 1500 Ma and 1460 to 1350 Ma, with subsequent remobilization and recrystallization events at approximately 1176 Ma, 900 Ma, and 300 Ma. Beaverlodge-type epigenetic vein uranium  $\pm$  polymetallic mineral deposits predate the Athabasca unconformity-related deposits; however, it is theorized that they developed through similar processes at the unconformity of the Martin Group and/or Murmac Bay Group.

Unconformity-related uranium deposits are broadly divided into two sub-types – monometallic and polymetallic (Figure 6). Monometallic uranium mineralization is partially to completely basement-hosted, occurring in veins, breccia matrices, and as mineral replacements in reactivated fault zones. Trace metals can be present in addition to uranium in monometallic deposits. Polymetallic mineralization occurs at or near the unconformity contact as semi-massive, sub-horizontal replacement bodies, with variable amounts of other metals including nickel, cobalt, lead and arsenic, and trace gold, platinum, copper, iron, and rare earth elements. In polymetallic-type deposits, a zone of high-grade mineralization is typically enveloped by a zone of lower grade

mineralization. McArthur River, Eagle Point, and Arrow are examples of monometallic type uranium deposits, while Cigar Lake, Key Lake, and McClean Lake are examples polymetallic type uranium deposits.

Uranium oxide as uraninite ( $UO_2$ ), commonly in its amorphous form pitchblende, is the sole commodity in the monometallic sub-type and principal commodity in the polymetallic sub-type. Uraninite is commonly structurally hosted in these deposits, filling extensional features in reactivated graphitic fault zones, in addition to replacing rock matrix in sandstones. Some of the known deposits in the Athabasca Basin include both sub-types and transitional types, with monometallic deposits tending to be basement-hosted, and polymetallic deposits typically hosted within the basal siliciclastic strata and paleoweathered basement at the unconformity contact (Figure 6).

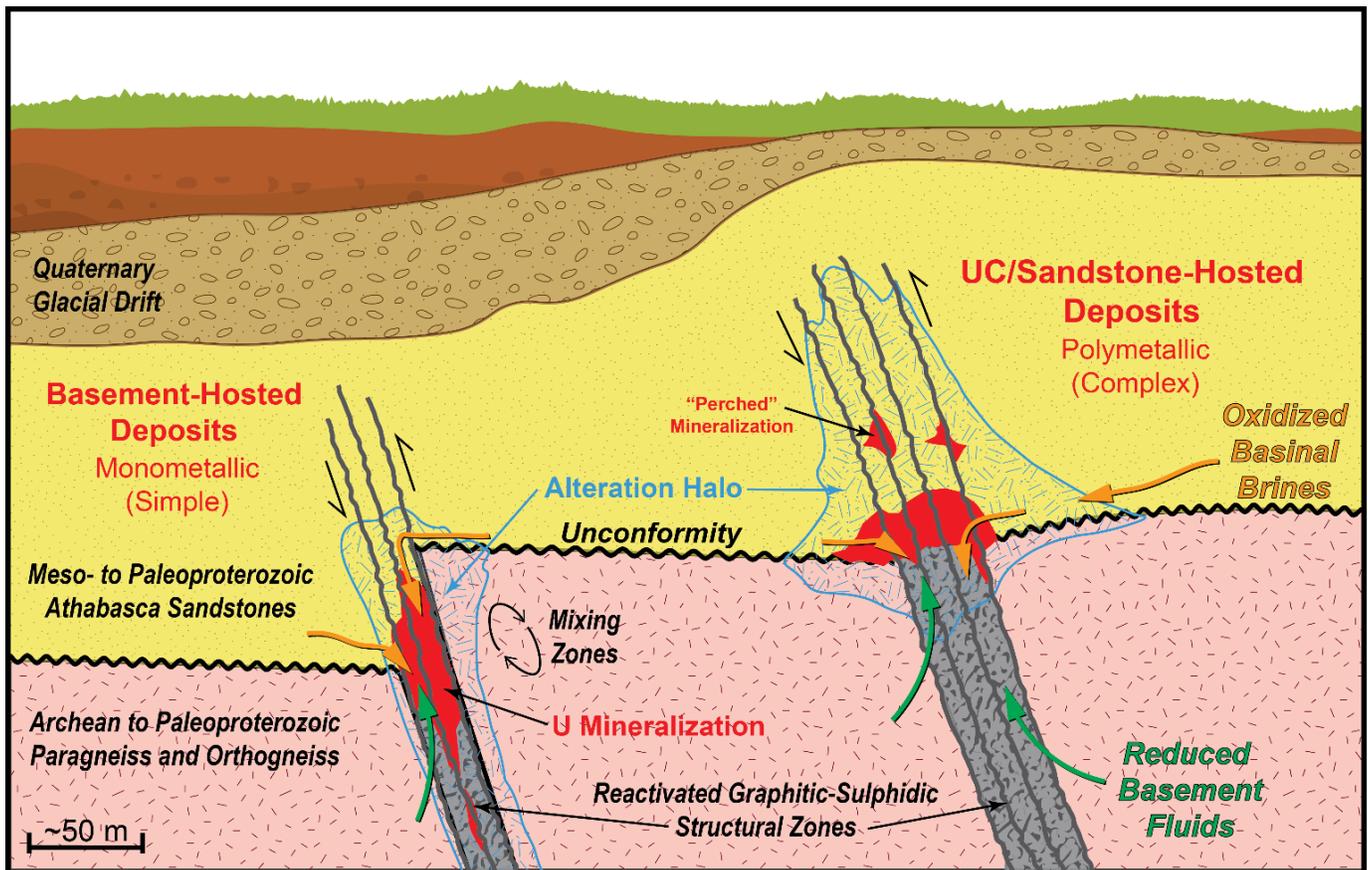


Figure 6. Schematic cross-section of unconformity-related uranium deposit sub-types

Although classified as one deposit type, unconformity-related uranium deposits in the basin exhibit two end-member fluid flow and alteration patterns relating to fault zone structural geometry and the influence of the flat-lying topography of the unconformity surface affecting hydrothermal fluid movement through the subsurface. Relatively low-temperature (~200°C) oxidized uranium-bearing hydrothermal fluids mixing with reduced basement-derived fluids results in precipitation of uraninite and associated alteration halos of chlorite, illite, dravite, and/or silicification (Jefferson et al., 2007). Alteration halos can be generally classified as either ‘egress’ or ‘ingress’ type (Figure 7). Egress type alteration occurs at or above the unconformity as a plume shape or flattened elongate bell shape that tapers upwards, which typically extend hundreds of metres outwards from sandstone-hosted mineralization e.g., Cigar Lake deposit. Egress type alteration results from hydrothermal fluid flow out of the basement, focussed along structures. Ingress type alteration is typically much more discrete and occurs dominantly as halos within the basement rock along structural conduits and results from basinal fluid flow into the basement along the structure e.g., Arrow deposit.

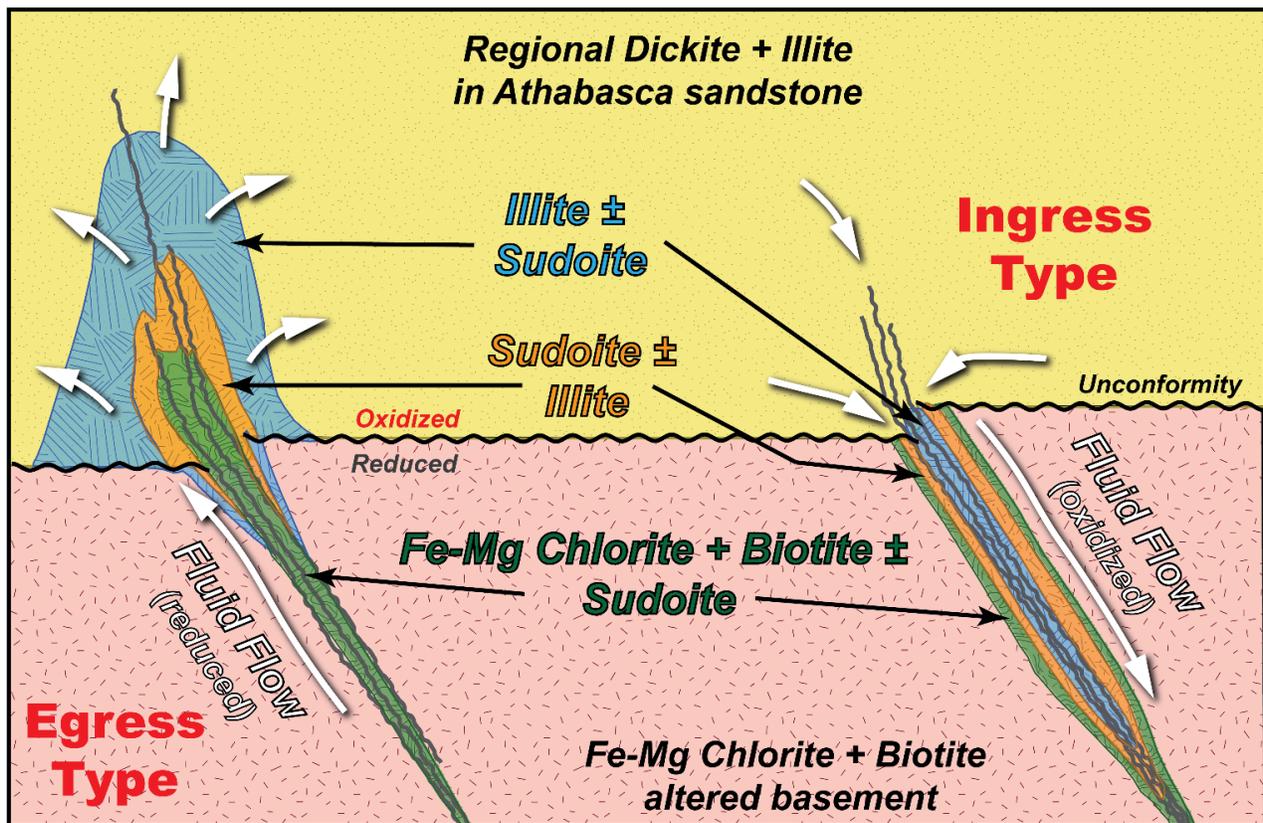


Figure 7. Schematic cross-section of egress and ingress type unconformity-related uranium deposits and associated alteration phases (after Quirt, 2003).

## 9 EXPLORATION

From February 5<sup>th</sup> to April 2<sup>nd</sup>, 2022, Standard Uranium completed two geophysical surveys (airborne magnetics and ground gravity) and a 1,242.3 m diamond drilling program on the Sun Dog Property. Four drill holes were completed, all of which were designed to test inferred projections of major structures, geochemical anomalies, and priority geophysical targets along the interpreted and previously defined Johnston Bay, Haven, and Java conductive trends.

The geophysics crew (MWH Geo-Surveys Ltd.) mobilized to site on February 5<sup>th</sup>, 2022, followed by the drill crews (Base Diamond Drilling Ltd.) on February 24<sup>th</sup>, 2022, and lastly, the geological crews (Standard Uranium Ltd.) on March 1st, 2022. Geophysical surveying commenced on February 6<sup>th</sup> and drilling began on March 8<sup>th</sup>. The work completed by Standard Uranium detailed in this report was completed on March 30<sup>th</sup>, 2022.

Standard Uranium completed 1,227.1 m of diamond drilling comprising ten drill holes from January 21<sup>st</sup> to April 3<sup>rd</sup>, 2023, following up on the results of the winter 2022 drill program and testing new target areas for the first time. The winter 2023 drill holes were designed to test the Java, Johnston Bay, Walli, Haven, and Stewart drill areas for uranium mineralization, identified based on the high-resolution ground gravity and UAV magnetic surveys completed in 2022, lakebed radiometric and low-resistivity anomalies, and graphitic conductors coincident with cross-cutting faults and historical surface and drillhole intersections of high-grade uranium mineralization.

### 9.1 Procedures and Parameters

The operations base camp for all exploration activities undertaken by the Company (Indianhead Fishing Lodge) is located on Stewart Island, situated at approximately 621,971 E and 6,580,056 N (NAD 83, UTM Zone 12N). The camp consists of several modular accommodation facilities including laundry and bathroom facilities, two main cabins, four smaller 2-person cabins, a recreation facility, administration and first aid facilities, and a kitchen/dining building.

#### 9.1.1 2022 Ground Geophysical Survey

Beginning February 6<sup>th</sup> and concluding March 6<sup>th</sup>, 2022, MWH Geo-Surveys Ltd. carried out a ground gravity survey in the area near Stewart Island, SK, Canada at the request of Standard Uranium Ltd. Positional surveying for the gravity survey was done by a Global Navigation Survey

System. A total of 3,388 unique gravity stations and 155 repeats with a station spacing of 50 to 100 m (Figure 8) were collected over the duration of the project. Access to gravity sites was by snowmobile and on foot.

LaCoste & Romberg digital gravity meters were used on the project. The meters are electronically nulled and are equipped with highly accurate electronic levels, featuring one micro-gal resolution. Data is sent via a Bluetooth wireless link to a hand-held field PC running proprietary *GControl* gravity data logging software. *GControl* collects a gravity reading sample every 2 seconds and subsequently averages the collected samples to mitigate the effects of high frequency noise caused by wind and ground motion. All gravity readings were taken within loops to and from a temporary gravity base. The absolute gravity value of the temporary base was assigned a value of 980000.000 due to the absence of local control.

A Spectra SP 90 dual frequency, multi-constellation GNSS receiver was used as the RTK/PPK GNSS base on the project. The GNSS rovers were Spectra Precision SP80 model receivers. The GNSS receivers track positional satellites in the GPS (US), Glonass (Russian), GALILEO (European) and BeiDou (Chinese) satellite networks. The high number of traced satellites yields high accuracy results in difficult multipath environments (under tree canopy).

Coordinates of the principle positional control site were determined by processing static data from the SP90 using CSRS-PPP. CSRS-PPP is an online application for global navigation satellite systems (GNSS) data post-processing. It uses precise satellite orbit, clock and bias corrections derived from a global network of receivers to determine accurate user positions anywhere on the globe, regardless of proximity to reference stations. This yields accurate absolute positioning in the absence of local control.

All gravity stations were located using RTK methodology with fixed (99.9% ambiguity resolution) solutions using Ranger3 controllers running Spectra 'SurveyPro' software. Repeat positions were collected during gravity repeat measurements to check solutions with other RTK positions.

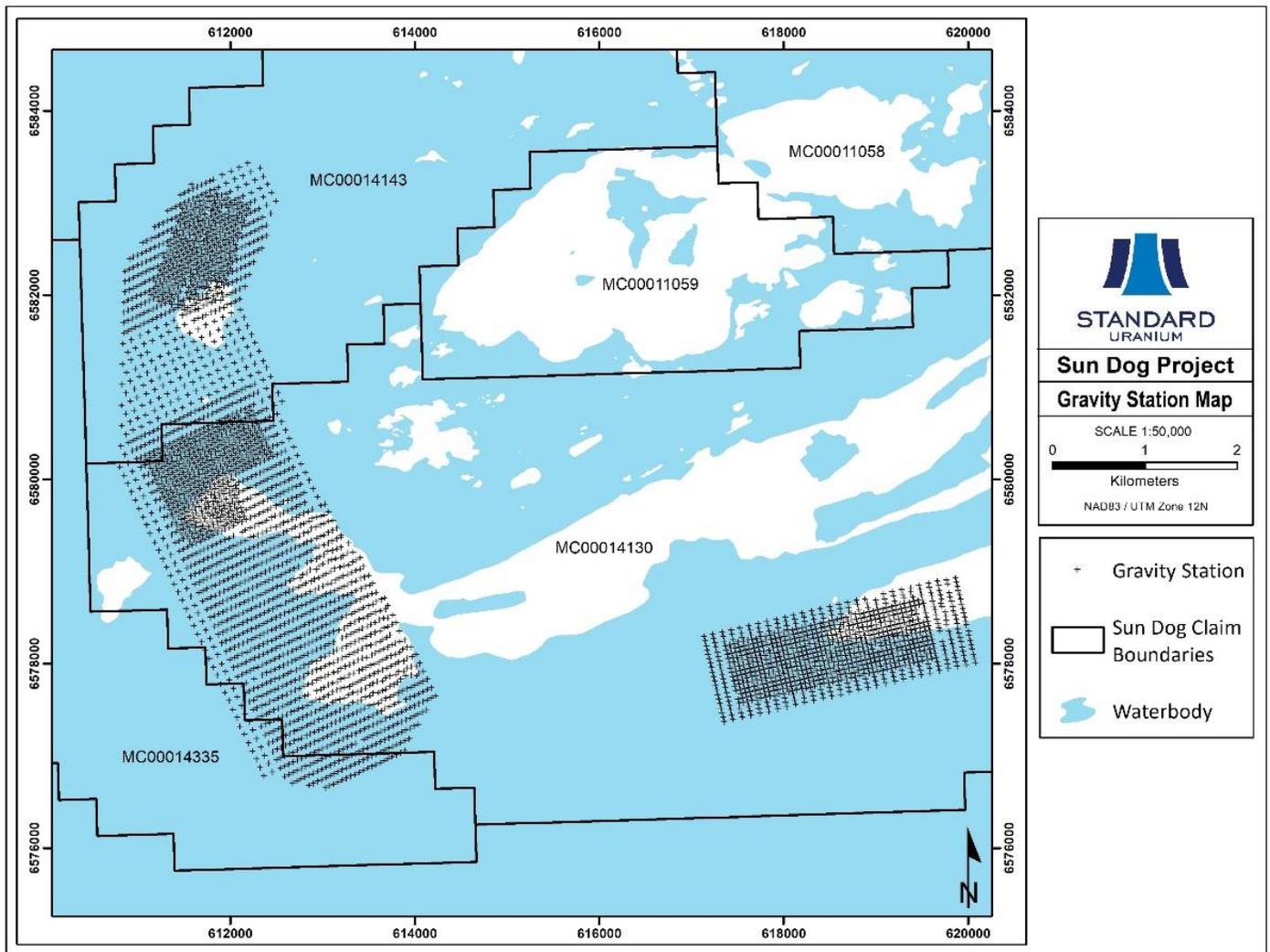


Figure 8. 2022 Ground Gravity Stations

### 9.1.2 2022 Airborne Geophysical Survey

Beginning March 12<sup>th</sup> and concluding March 22<sup>nd</sup>, 2022, MWH Geo-Surveys Ltd. carried out a UAV magnetic survey in the area near Steward Island, SK, Canada at the request of Standard Uranium Ltd. The survey covered 29 km<sup>2</sup>.

A total of approximately 572-line kilometers of UAV magnetics were flown at a line spacing of 50 m over an area of approximately 30 km<sup>2</sup> (Figure 9). Flightlines were flown bearing either southeast or northwest at an elevation of approximately 48 meters above ground level (AGL). Access to all flight staging sites was by truck.

The UAV mag system uses a Geometrics MagArrow Cesium Magnetometer flown under a D-RTK DJI Matrice 600 Pro hexacopter. The MagArrow sensor takes 1000 readings per second and is flown at a maximum speed of 8m/second. The sensor is suspended on a 2.5m lanyard to remove it from the electromagnetic noise of the UAV. Data is down sampled after collection to 10Hz. The MagArrow readings are diurnally corrected via a Geometrics G858 base mag, cycling at 10 readings per second. Flight lines were flown bearing either southeast or northwest at an elevation of approximately 48 meters above ground level (AGL) with a tolerance of  $\pm 2$  meters.

A portable generator was used to run the navigational planning and control software on a field PC and to charge the flight batteries.

Base and aerial magnetic data was downloaded and diurnally corrected each day. Geophysics-Minerals (GM) received and processed a combined total of approximately 572 Line-Kilometers of data, after final edits, approximately 562 Line-Kilometers of data were delivered. The processing results were used to map the Total Magnetic Intensity (TMI) field and calculate the Reduced to Pole (RTP).

Flightlines were flown bearing either northwest or southeast. The purpose of the editing was to isolate the points along flightlines and remove points associated with five occurrences:

- 1) "Transit" lines which connect the ends of flightlines with takeoff and landing locations.
- 2) "Loops" which connect ends of adjacent flightlines.
- 3) "Hovers" which occur at takeoff and landing where there is little or no lateral travel.
- 4) "Re-flights" when a line is re-flown and duplication is acquired, only one flight must be selected.
- 5) "Spikes" when a single reading is anomalously much greater or lower than adjacent points. A point was rejected if its value was 5 nT greater or less than the average value of its four adjacent points; that is the two points recorded approximately 0.2 seconds (approximately 1.4 meters) before and after it.

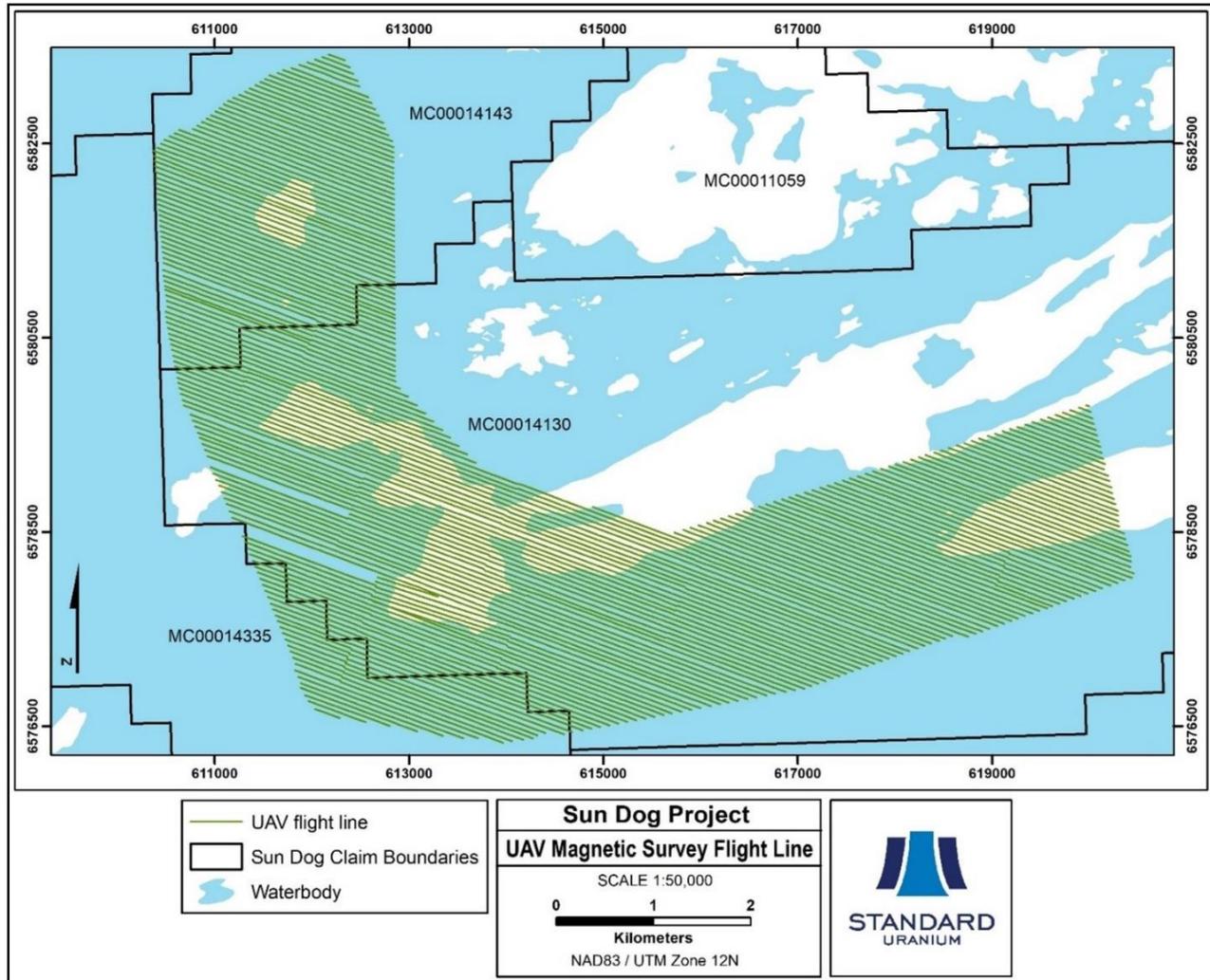


Figure 9. 2022 UAV Magnetic Survey Flight Lines

## 9.2 Results

### 9.2.1 Ground Gravity Survey

MWH Geo-Surveys Ltd. carried out a ground-based gravity survey on Sun Dog mineral claims MC00014143, MC00014130, and MC00014335, covering areas near Stewart Island, Johnston Island, and Halifax Island at the request of Standard Uranium Ltd. beginning February 6<sup>th</sup> and concluding March 6<sup>th</sup>, 2022. MWH Geo-Surveys delivered residual ground gravity maps and associated data tables, on two separate ground geophysical survey grids, based on a total of 3,388 unique gravity stations with a station spacing of 50 to 100 m. The winter 2022 ground gravity survey identified several variations in residual gravity and outlined multiple gravity low areas on

and around Stewart and Johnston Islands (blue areas on Figure 10 and Figure 11).

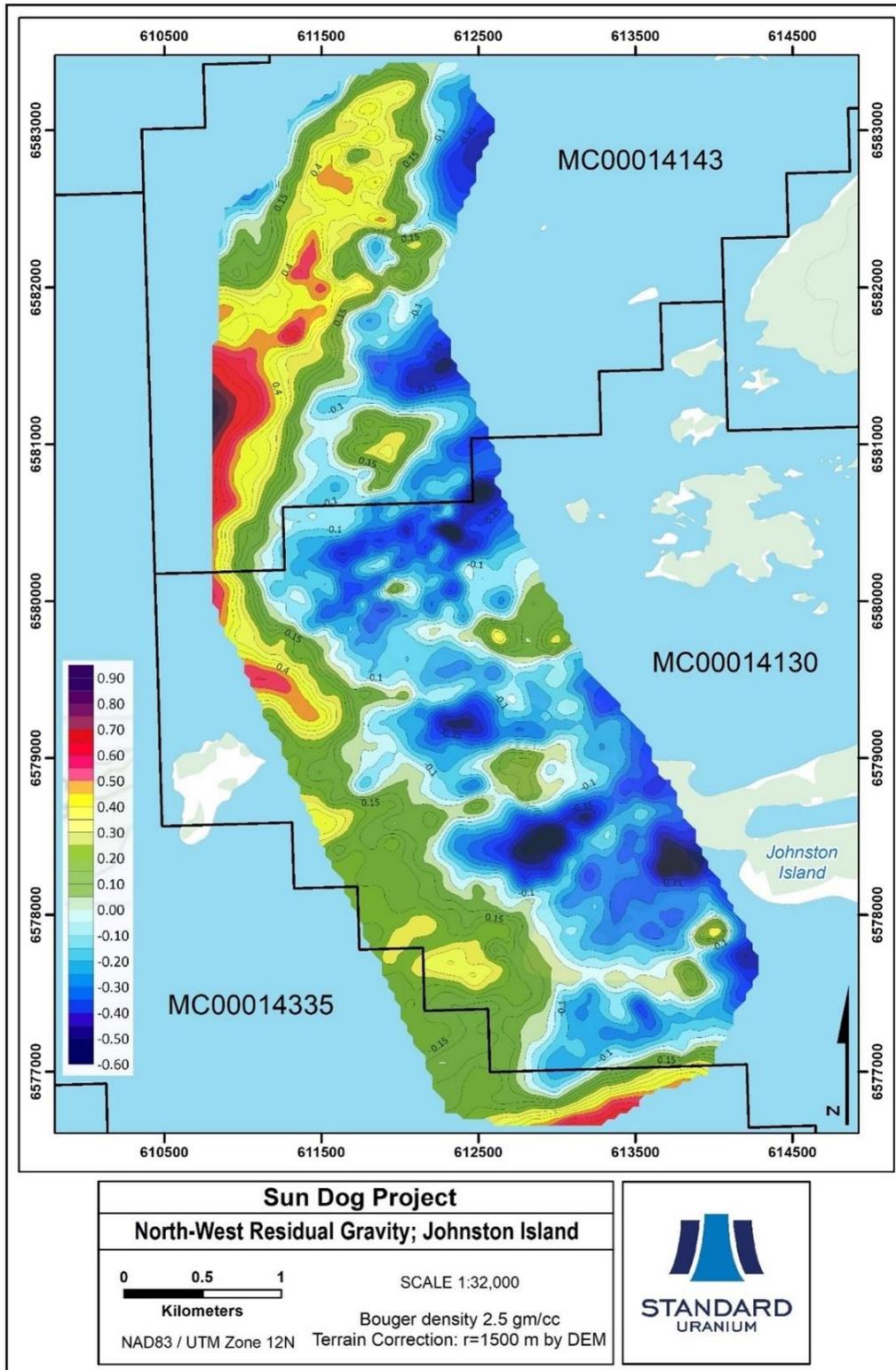


Figure 10. 2022 Residual Gravity Northwest Grid; Johnston Island

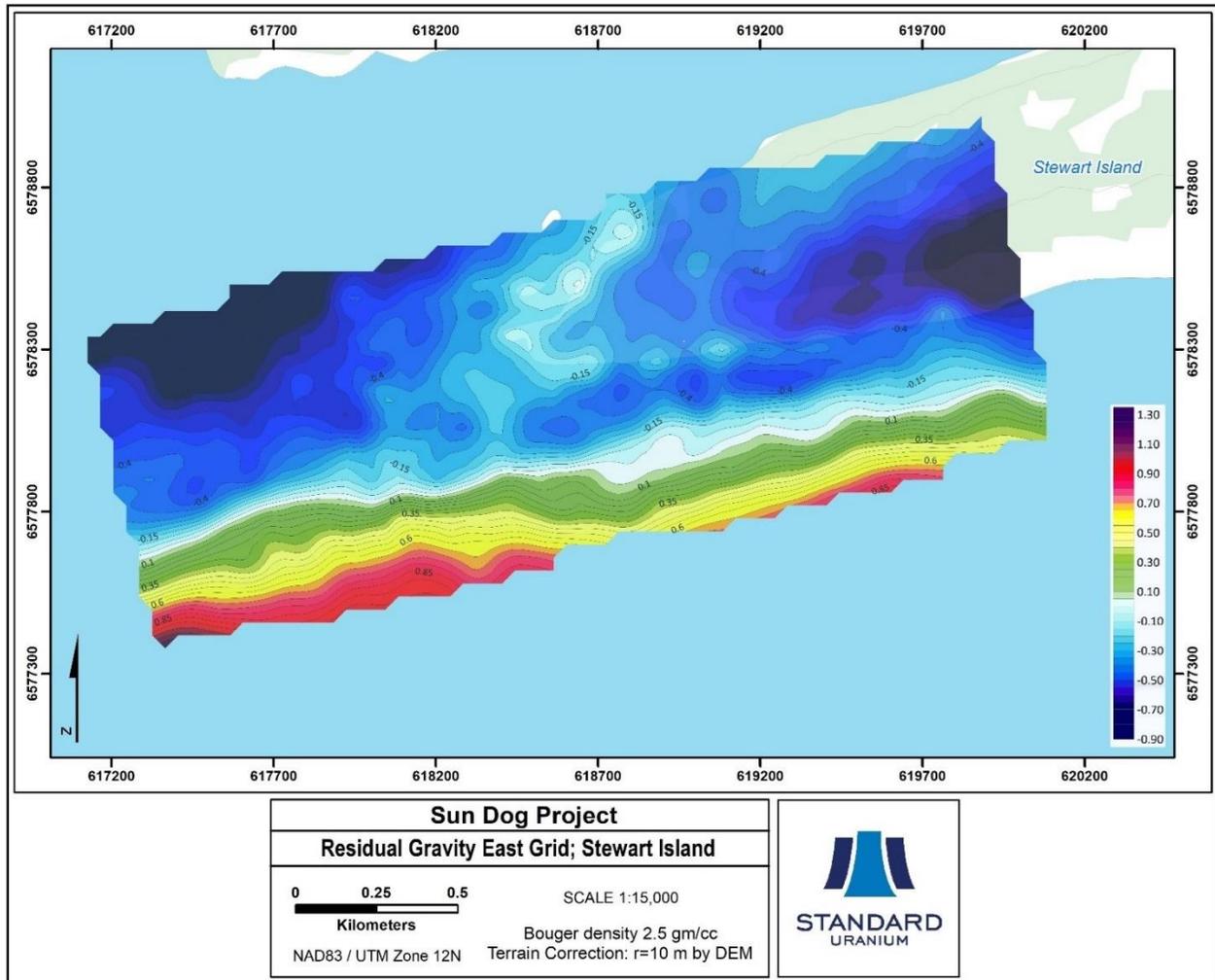


Figure 11. 2022 Residual Gravity East Grid; Stewart Island

### 9.2.2 UAV Magnetics Survey

MWH Geo-Surveys Ltd. carried out a UAV magnetic survey on Sun Dog mineral claims MC00014143, MC00014130, and MC00014335 at the request of Standard Uranium Ltd. beginning March 12<sup>th</sup> and concluding March 22<sup>nd</sup>, 2022. A total of approximately 572-line kilometers of UAV magnetics were flown at a line spacing of 50 m over an area of approximately 30 km<sup>2</sup>. MWH delivered high resolution images mapping the Total Magnetic Intensity (TMI; Figure 12), Reduced to Pole (RTP; Figure 13), and Reduced to Pole First Vertical Derivative (1VD; Figure 14).

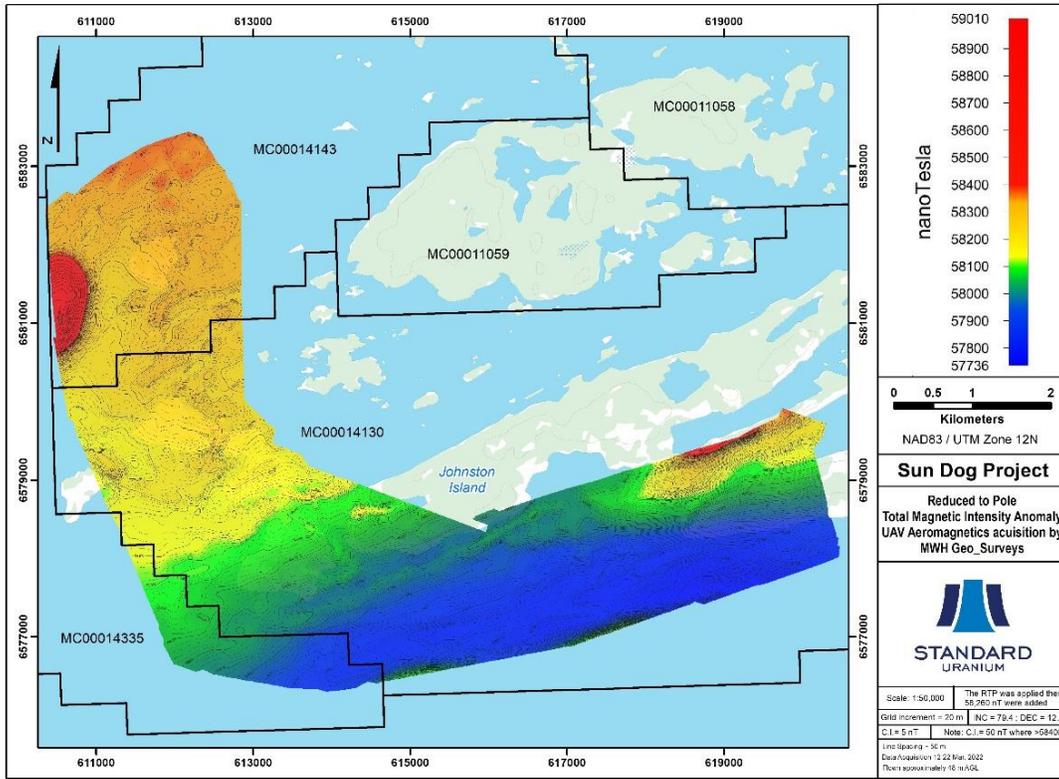


Figure 12. 2022 Total Magnetic Intensity Anomaly

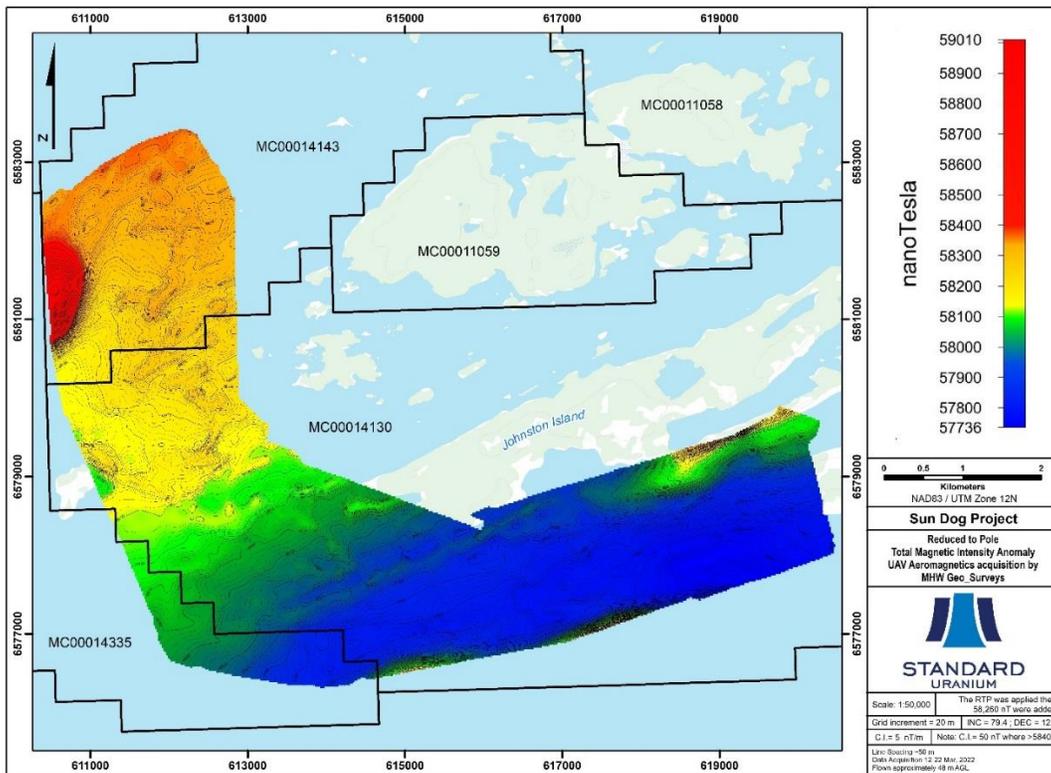


Figure 13. 2022 Reduced to Pole Magnetic Intensity Anomaly

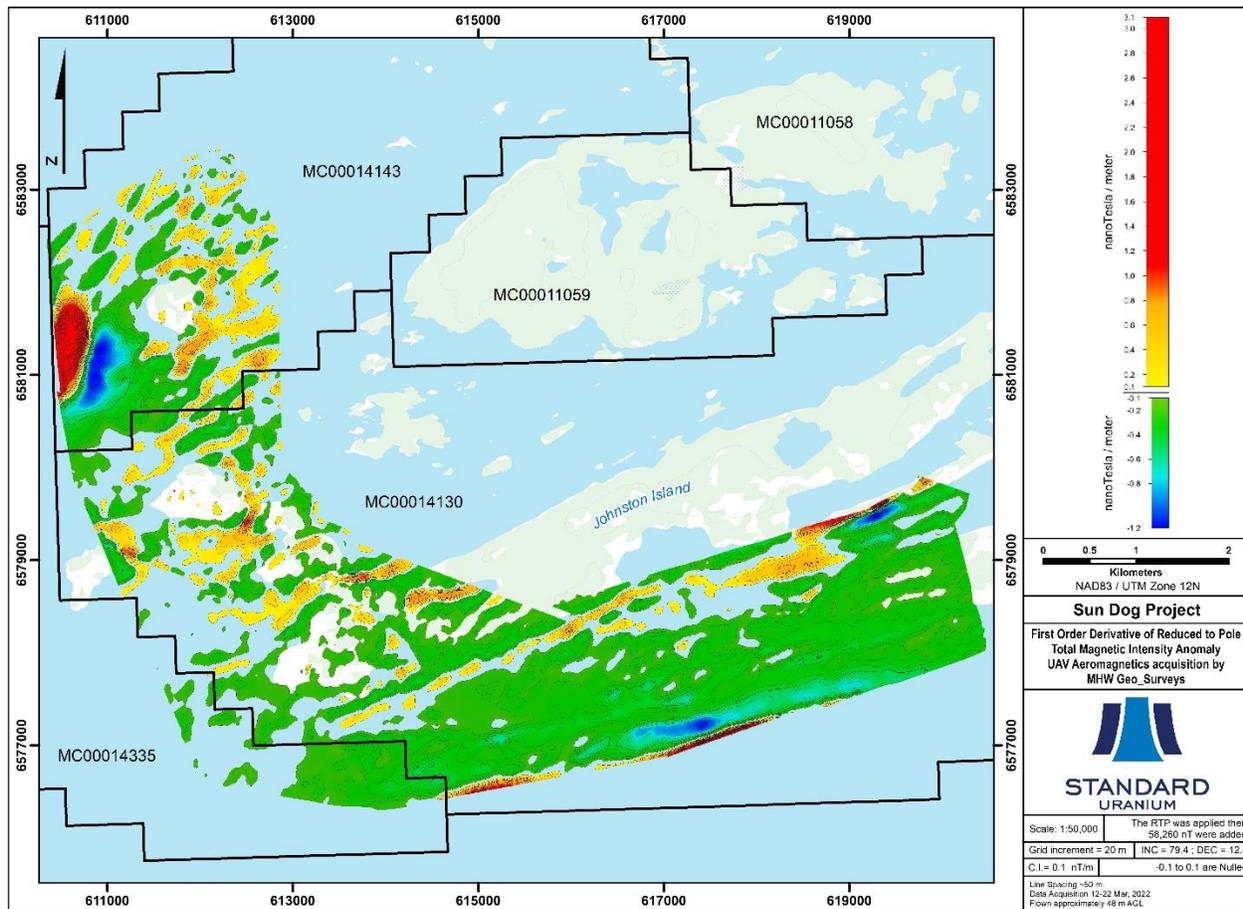


Figure 14. 2022 Reduced to Pole 1<sup>st</sup> Vertical Derivative Magnetic Intensity Anomaly

## 10 DRILLING

### 10.1 Drilling Methods and Procedures

All diamond drilling activities were performed by Base Diamond Drilling Ltd. (“Base”). Geological services were performed by Standard Uranium Ltd.

Drill hole collars were aligned using a Reflex North Finder Azimuth Pointing System (APS) and drill hole deviation was monitored using an EZ-Shot Single Shot survey tool, manufactured by Reflex. Deviation surveys were completed for each drill hole at 30 m intervals as drilling progressed. EZ-Shot tests were corrected for a magnetic declination of 12.56° East based on the approximate drilling location. All holes were cemented where appropriate with all possible casing removed (Table 4). Drilling was completed using one skid mounted A5 diamond drill rig and was

moved into place using a skidder or cat dozer.

All the drill hole collar locations were picketed and flagged as per Saskatchewan Ministry of Environment regulations. Final drill hole collar easting, northing, and elevation coordinates were acquired using a high-precision TopCon GR-5 RTK differential GPS by Standard Uranium personnel. Final coordinates were derived from the DGPS tool.

All drill core from the 2022 and 2023 drilling programs is stored in wooden boxes racked at the Sun Dog core storage site at approximately 621701 E, 6579247 N (NAD 83, UTM Zone 12N). Embossed aluminium labels were attached to each box identifying the hole, box number, and drill core depth as per Saskatchewan mineral exploration guidelines. The company name (Standard Uranium Ltd.) was also attached to the first and last boxes of each drill hole.

All drill core was logged using a Microsoft Access database at the core facility at Indianhead Fishing Lodge. Drill hole collar information, downhole surveys, lithology, structure, alteration, mineralization, radioactivity, geotechnical information, and sample information were recorded for each drill hole by geological staff.

Upon completion of drilling, each hole was radiometrically logged at the drill site using Mount Sopris Instruments 32GR slim gamma probe within the steel drill rods. Radioactivity was measured in drill core by Standard geological staff using hand-held RS-121 model scintillometers and RS-125 model spectrometers manufactured by Radiation Solutions Inc.

## 10.2 Drilling Summary and Interpretation

As of the effective date of this report, Standard Uranium has completed 2,469.4 m of diamond drilling on the Sun Dog Project, comprising fourteen drill holes (Figure 15). Drill hole collar information is presented in Table 3, and a summary of down hole drill results is presented in Table 4. Current drilling has been focused at high-priority targets in the Java, Johnston Bay, Walli, and Haven target areas around Johnston Island (Figure 16 & Figure 17), in addition to the Skye and Stewart Island target areas (Figure 18).

Drill plans focused on testing target areas for high-grade unconformity-related uranium mineralization, with targets identified based on new high-resolution ground gravity and UAV magnetic surveys, lakebed radiometric and low-resistivity anomalies, and several kilometres of

graphitic conductors coincident with cross-cutting faults and historical surface and drillhole intersections of high-grade uranium mineralization. Summaries of each drill hole with descriptive details from the geological logs are presented below in Section 10.2.1, along with schematic cross-sections of select drill holes. In the following drill hole summaries, depth, thickness, and interval refer to down hole depths and all cps readings are from handheld RS-125 scintillometers. True thicknesses of any uranium mineralization intersections have currently not been calculated. Core photographs from selected 2022-2023 drill holes are presented in Section 10.2.2, highlighting radioactivity, major structures, and notable alteration zones intersected by the Company to date.

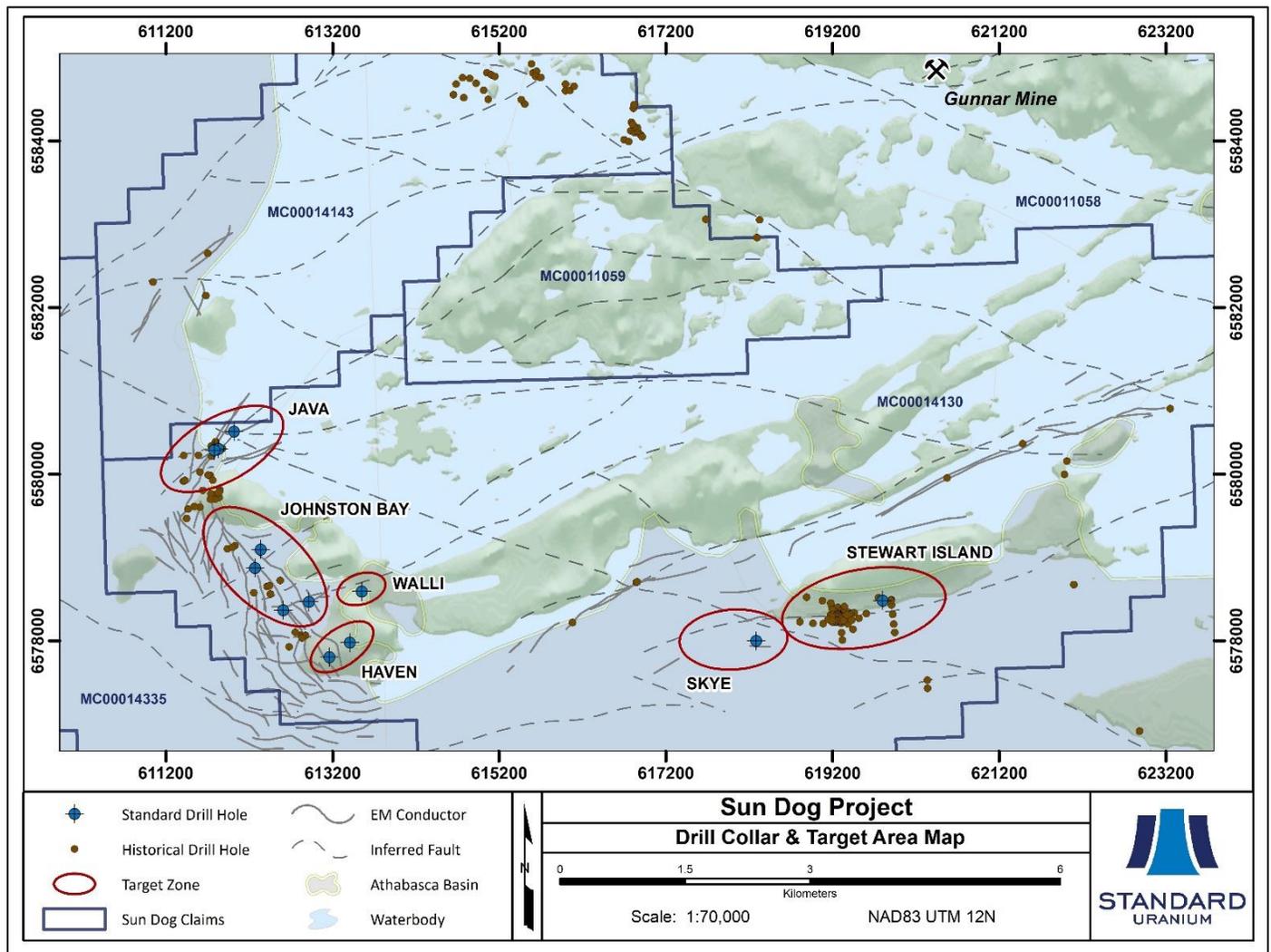


Figure 15. Historical and Standard Uranium 2022-2023 Drill Holes on the Sun Dog Project

*Table 3. Sun Dog Winter 2022-2023 Drill Program Collar Information. Coordinates are Presented in NAD83 UTM Zone 12N; EOH = End of Hole.*

DDH	Target Area	Start Date	End Date	Disposition	Easting	Northing	Elevation	Azimuth	Dip°	Casing Depth	EOH
							(m)			(m)	(m)
SD-22-001	Haven	2022-03-08	2022-03-17	MC00014130	613163.79	6577801.96	234.28	059.1	-70.9	0	395
SD-22-002	J-Bay	2022-03-17	2022-03-20	MC00014130	612915.35	6578466.81	211.4	051	-69.2	21	327
SD-22-003	J-Bay	2022-03-20	2022-03-24	MC00014130	612339.66	6579092.31	209.94	044	-69.0	33	279
SD-22-004	Java	2022-03-24	2022-03-30	MC00014130	612019.74	6580510.82	208.99	138.7	-68.5	54	241.3
SD-23-005	Java	2023-03-03	2023-03-18	MC00014130	611832.00	6580303.20	214.00	010	-70.0	33	37.80
SD-23-005A	Java	2023-03-08	2023-03-12	MC00014130	611832.00	6580303.20	214.00	010	-70.0	30	34.00
SD-23-006	J-Bay	2023-03-08	2023-03-15	MC00014130	612607.78	6578363.15	214.00	010	-70.1	33	415.85
SD-23-007	Skye	2023-03-12	2023-03-18	MC00014130	618283.00	6577997.80	214.00	354.8	-69.8	33	60.75
SD-23-008	Java	2023-03-15	2023-03-17	MC00014130	611780.29	6580283.60	214.00	000	-90.0	33	36.00
SD-23-009	J-Bay	2023-03-19	2023-03-24	MC00014130	612271.50	6578872.70	214.00	014.9	-69.9	24	30.00
SD-23-010	Stewart	2023-03-18	2023-03-24	MC00014130	619799.21	6578479.78	215.96	339.6	-51.6	6	186.00
SD-23-011	Walli	2023-03-19	2023-03-24	MC00014130	613550.05	6578589.77	222.28	000.5	-55.0	3	143.50
SD-23-012	Walli	2023-03-24	2023-03-28	MC00014130	613550.05	6578589.77	222.28	330.3	-51.6	3	129.70
SD-23-013	Haven	2023-03-24	2023-03-30	MC00014130	613409.78	6577975.79	249.57	342.2	-51.6	3	153.50

*Table 4. Summary of Winter 2022-2023 Down Hole Gamma Probe Results*

DDH	Target Area	Peak Probe Radioactivity (cps)	Depth of Peak (m)	Probe Peak Lithology	Drill Steel Remaining in Hole (m)	Cement Depths (m)
SD-22-001	Haven	58	87.8	Athabasca Sandstone	0	92 to 122
SD-22-002	J-Bay	154	267.6	Pelitic Gneiss	0	40 to 70
SD-22-003	J-Bay	257	165.0	Pelitic Gneiss	0	80 to 110
SD-22-004	Java	77	62.6	Granodioritic Gneiss	0	45 to 75
SD-23-005	Java	N/A	N/A	N/A	39	-
SD-23-005A	Java	N/A	N/A	N/A	30	-
SD-23-006	J-Bay	77	404.5	Pelitic Gneiss	24	130 to 160
SD-23-007	Skye	N/A	N/A	N/A	21	-
SD-23-008	Java	N/A	N/A	N/A	0	-
SD-23-009	J-Bay	N/A	N/A	N/A	0	-
SD-23-010	Stewart	41	14.6	Athabasca Sandstone	0	63 to 93
SD-23-011	Walli	30	112.8	Pelitic Gneiss	0	11 to 41
SD-23-012	Walli	222.5	22.5	Pelitic Gneiss	0	11 to 41
SD-23-013	Haven	1,297	79.4	Fault Breccia	0	0.5 to 30.5, 65 to 95

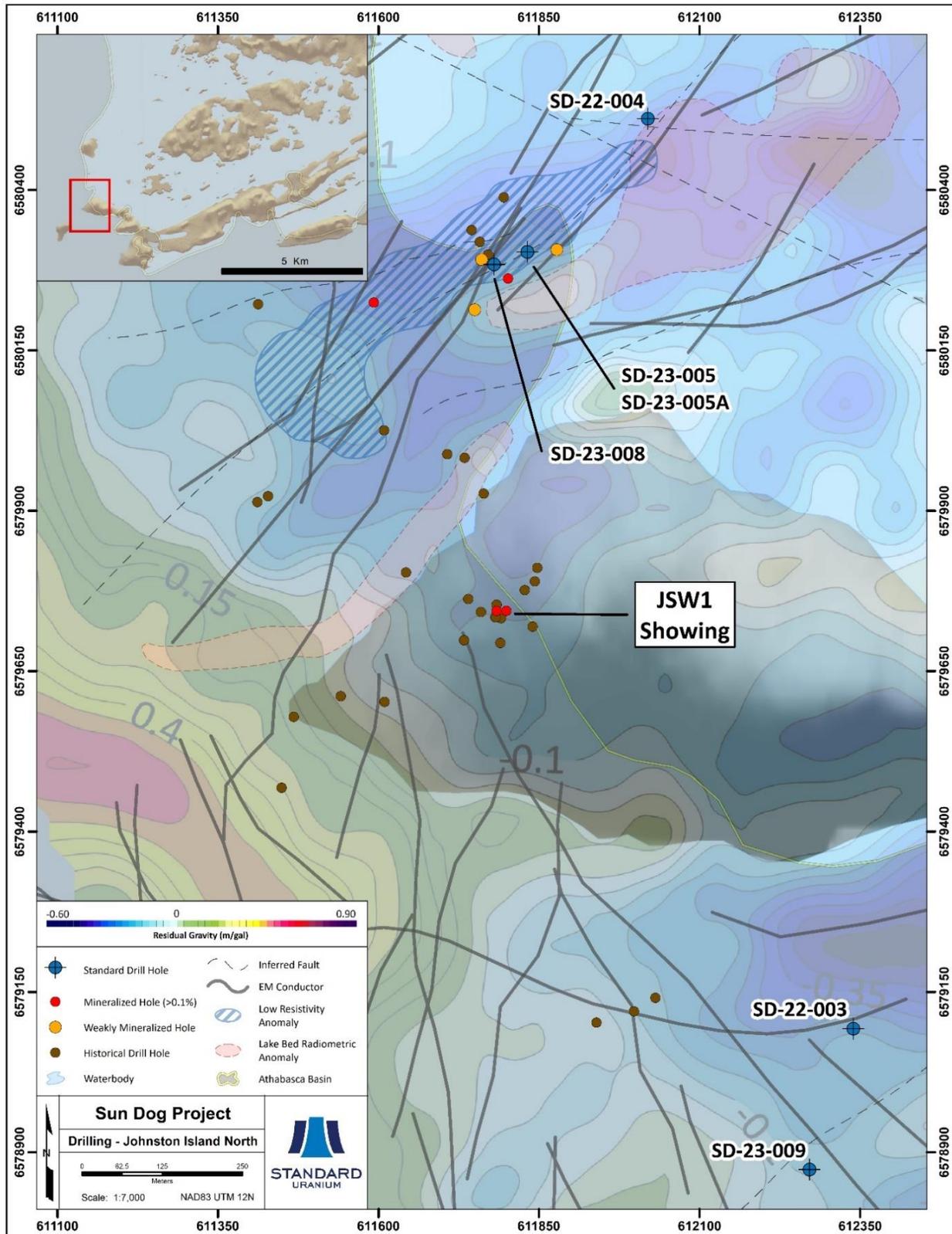


Figure 16. Sun Dog Project Drill Holes at North Johnston Island Target Areas in Context of Uranium Mineralization and 2022 Ground Gravity

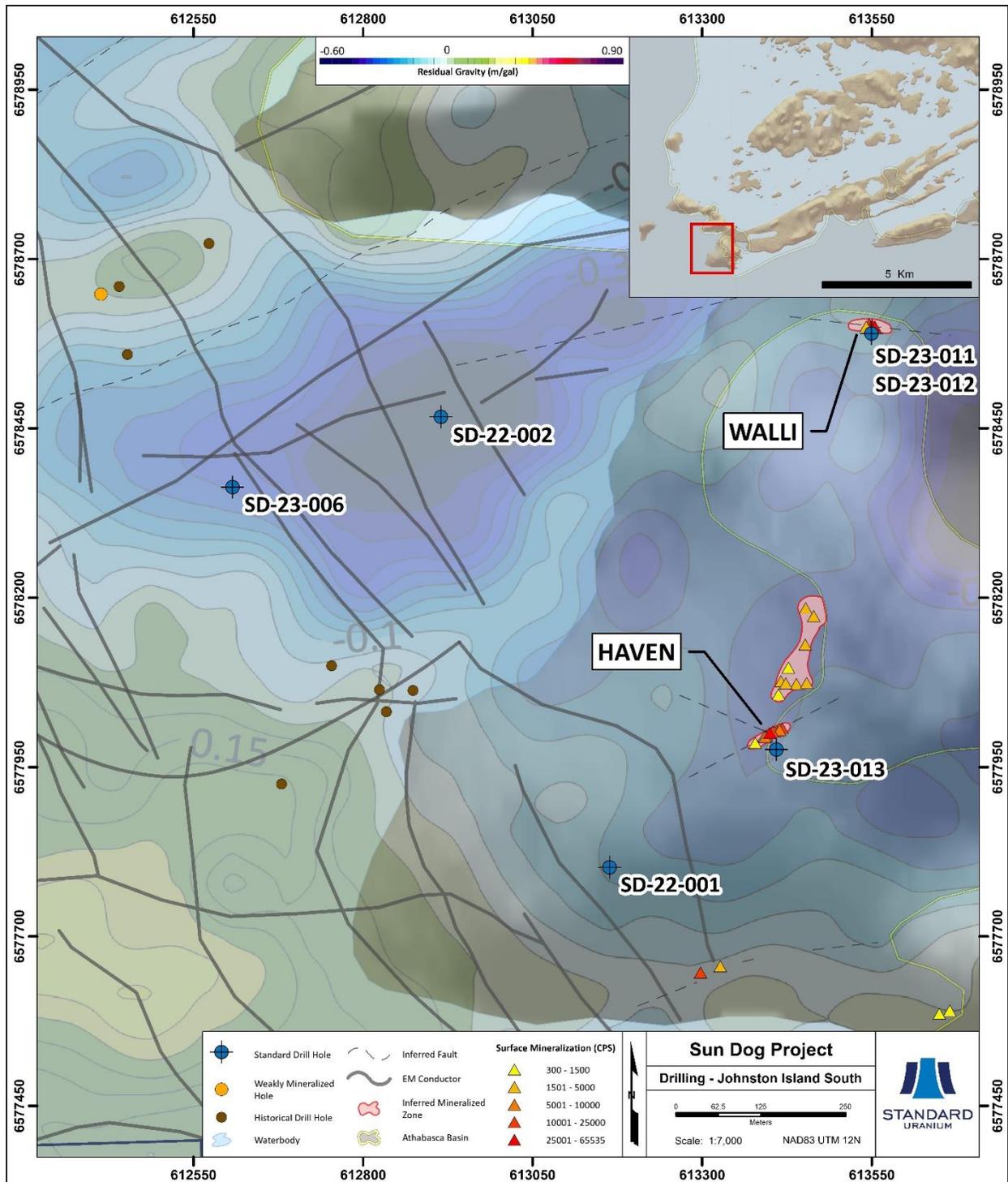


Figure 17. Sun Dog Project Drill Holes at South Johnston Island in Context of Uranium Mineralization and 2022 Ground Gravity

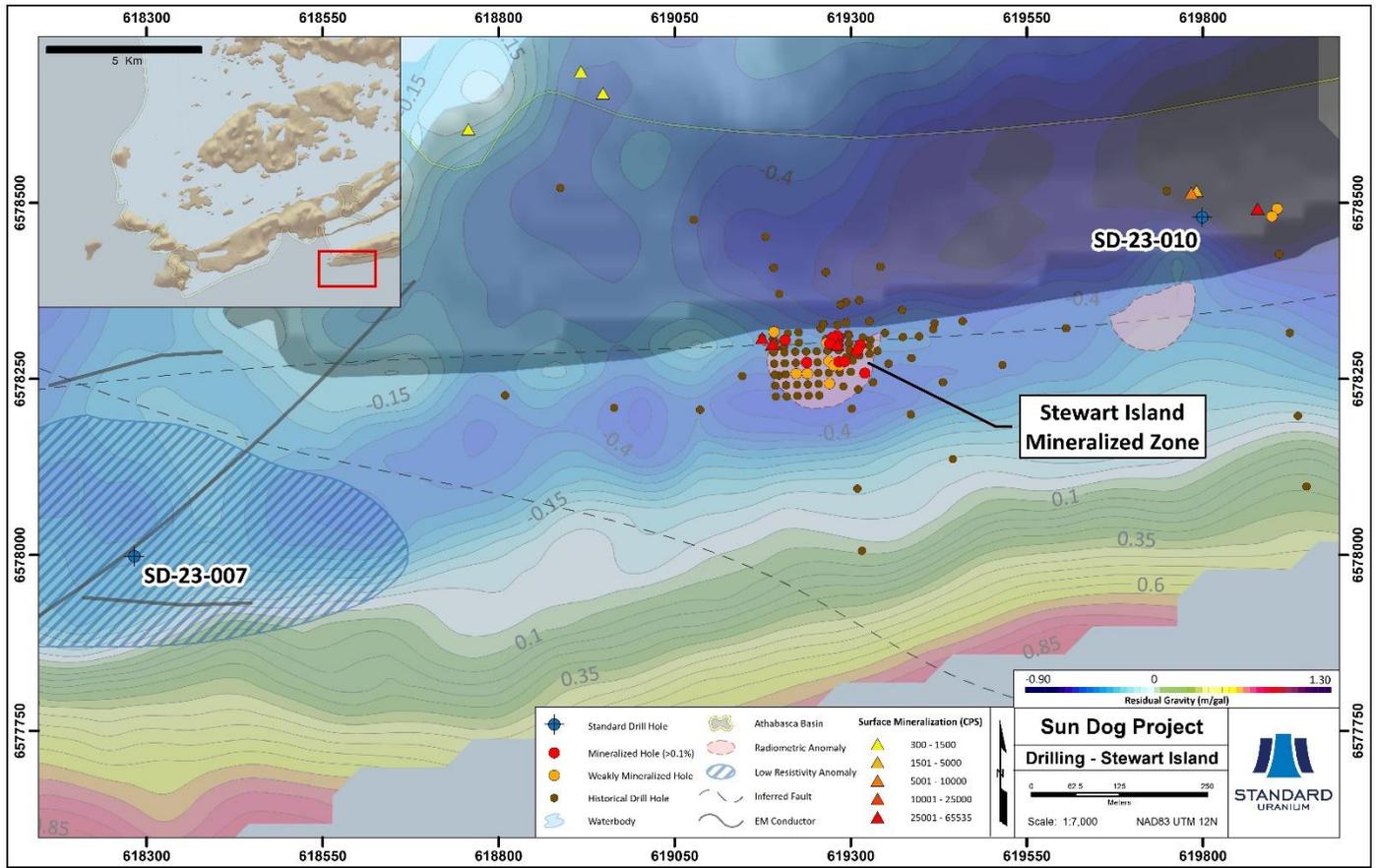


Figure 18. Sun Dog Project Drill Holes at the Skye and Stewart Island Target Areas in Context of Uranium Mineralization and 2022 Ground Gravity

### 10.2.1 Winter 2022-2023 Drill Hole Geological Summaries and Cross-Sections

#### **SD-22-001** (613164 E, 6577802 N)

SD-22-001 was collared on Johnston Island's Barritt Point, approximately 325 m southwest of the Haven Prospect surface mineralization (0.7% U<sub>3</sub>O<sub>8</sub>), and 215 m northwest of the JSW-2 Prospect (5,000 cps). The hole was designed to test for unconformity mineralization and a down-dip basement root of this surficial sandstone-hosted mineralization (Figure 19). Additionally, the hole tested one of several interpreted EM conductors striking NW to SE between the planned collar and the Haven prospect.

The hole was collared from surface at an orientation of 059.1° / -70.9° in the Haven drill area and was terminated at a depth of 395 m. Silicified Athabasca sandstone characterized by purple-red diagenetic hematite banding and local bleached siltstone was intersected from the top of hole to a gradual unconformity contact at 94.0 m. Basal conglomeratic to brecciated textures made contact identification difficult to distinguish.

Crystalline basement rocks consist of basal quartzite, psammopelitic to pelitic gneiss, and mafic volcanic flows of the Murmac Bay group. Quartzite with lenses of silicified psammopelitic to pelitic gneiss with moderate to strong hematite mineral replacement and trace clay lined fractures is present to 168.9 m. Followed by a fine grained, poorly foliated to massive mafic volcanic suite characterized by pervasive silicification and cross-cutting white quartz veins extending down to 195.5 m. Poor- to moderately foliated psammitic gneiss with brittle crackle breccia overprint and sporadic white quartz veining is present to 273.2 m, followed by massive pseudo-quartzite associated with strong pervasive silicification and anatexis 284.9 m. A blue-green to black silicified mafic volcanic unit (>80% quartz) with locally moderate strain shear and cross-cutting white quartz veins extends to 306.3 m, followed by a paragenesis package of highly silicified semi-pelitic to hematized pelitic gneiss to 336.7 m. High strain, white to grey, pervasively silicified gneiss with ductile, near vertical foliation fabrics and local brittle fracture zones continues to the end of hole depth at 395 m. Strongly hematized interval of pelitic composition was intersected from 340.7 to 352.4 m. Radioactivity ranged from 50 to 120 cps, with no significant mineralization or scintillometer peaks intersected.

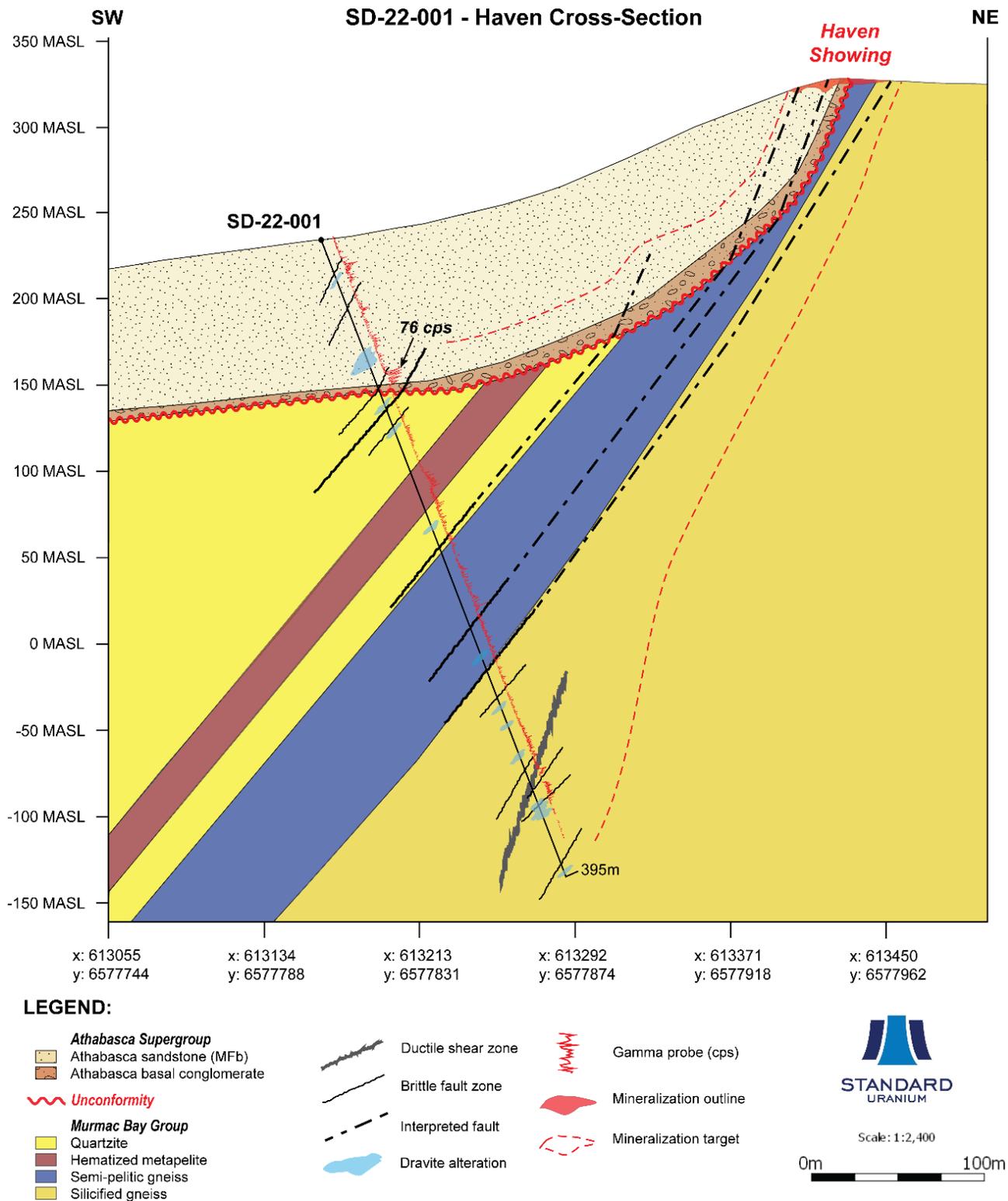


Figure 19. Schematic cross-section highlighting geology, structure, and alteration in drill hole SD-22-001, relative to mapped surface mineralization at the Haven showing

**SD-22-002** (612915 E, 6578466.81 N)

SD-22-002 was designed to test the intersection of interpreted EM conductor breaks and crosscutting structures, which overlie a large gravity low bullseye in Johnston Bay. The interpreted EM conductors are oriented west-southwest, and the SD-22-003 collar lies approximately 650 m along conductor strike from the 1957 Walli Prospect radioactive zone.

The hole was collared from the ice surface at an orientation of 051°/-69.2° in the J-Bay drill area, and was terminated at a depth of 327 m. Athabasca sandstone characterized by purple diagenetic hematite banding and floating pebble clasts was intersected from the top of hole to 68.9 m, followed by Athabasca conglomeratic sandstone to the unconformity at 104.7 m.

Crystalline basement rocks consist of psammopelitic to pelitic gneiss, mafic volcanic flows, and banded iron formation of the Murmac Bay group. Red-green hematite and chlorite replacement is present below the unconformity within a pelitic gneiss to 164.9 m. High strain, ductile shear fabrics occur throughout unit with argillized feldspar minerals proximal to the unconformity to 116.8 m. Downhole, dark-green to black, massive to migmatized mafic volcanic flows extend to a gradual lithological change into graphite-rich metapelite at 173.5 m. Structurally controlled, moderate to locally strong remobilized graphite within shear and migmatite zones were intersected from 173.5 to 186.6, 202.2 to 203.5, and 211.6 to 216 m, commonly associated with wispy hematite veins. Graphite alteration within metapelite unit is reduced downhole, transitioning to mineral-controlled chlorite and hematite around 216 m. Foliation fabrics exhibit high strain gradient, shear to proto-mylonitic structures above a hydraulic breccia transition zone with underlying banded iron formation to 236.15 m. Well foliated, alternating red-black banded iron formation with magnetite was intersected from 236.15 to 244 m. Lower contact exhibits partial melting of pelitic gneiss with overprinting hydrothermal hematite and chlorite structures to 246.4 m. Below, hematite-rich pervasively silicified gneiss with local intervals of quartzite and a pelitic unit from 266.9 to 268.6 m, extend to the end of hole at 321 m. Elevated radioactivity (max 280 cps) was intersected within homogenous mafic volcanic flow associated with weak disseminated graphite from 169.5 to 170 m.

**SD-22-003** (612340 E, 6579092 N)

SD-22-003 was collared along the southern margin of a large gravity low bullseye in northern Johnston Bay, targeting the confluence of several east-west trending conductors which lie on the northern and southern margins of the gravity low. The collar is approximately 450 m north of LAI-005, which was drilled in 1981 and intersected an interval of 620 cps at 149 m depth within a graphite-chlorite metapelite.

The hole was collared from the ice surface at an orientation of 044°/-69° in the J-Bay drill area and was terminated at a depth of 279 m (Figure 20). Athabasca sandstone characterized by purple diagenetic hematite banding and floating pebble clasts was intersected from the top of hole to 53.4 m, followed by Athabasca conglomeratic sandstone to the unconformity at 82.95 m.

Crystalline basement rocks consist of psammopelitic to pelitic gneiss, altered mafic volcanic flows, and banded iron formation of the Murmac Bay group. Red-green hematite and chlorite replacement is present below the unconformity within a basalt protolith mafic volcanic flow to 134.25 m. Downhole, black, sheared to locally to migmatized graphitic metapelite extends to 168.2 m. Shear zones associated with moderate to strong remobilized graphite, white quartz veins, and elevated radioactivity are common throughout unit. A weakly mineralized (max 300 cps) shear foliation parallel fracture associated with hydrothermal hematite was intersected at 164.6 m. Mafic volcanic flows characterized by hematite overprint and local fracture hosted graphite occur from 150.8 to 155.9, 159.3 to 163.2, and 168.2 to 188.3 m. A gradual lithological contact within a hydraulic hematite breccia zone lies below 188.3 m, into a well foliated, red to black, banded iron formation to 192.2 m. Below, highly strained, ductile deformation of a pelitic gneiss with cross-cutting quartz veins and clay-sudoite mineral replacement transitions to strong hydrothermal hematite overprint, ending at 201.2 m. Fine to coarse, moderately foliated, pervasively silicified gneiss with abundant hematite veins/fractures and frequent druzy quartz extends to the end of hole at 279 m.

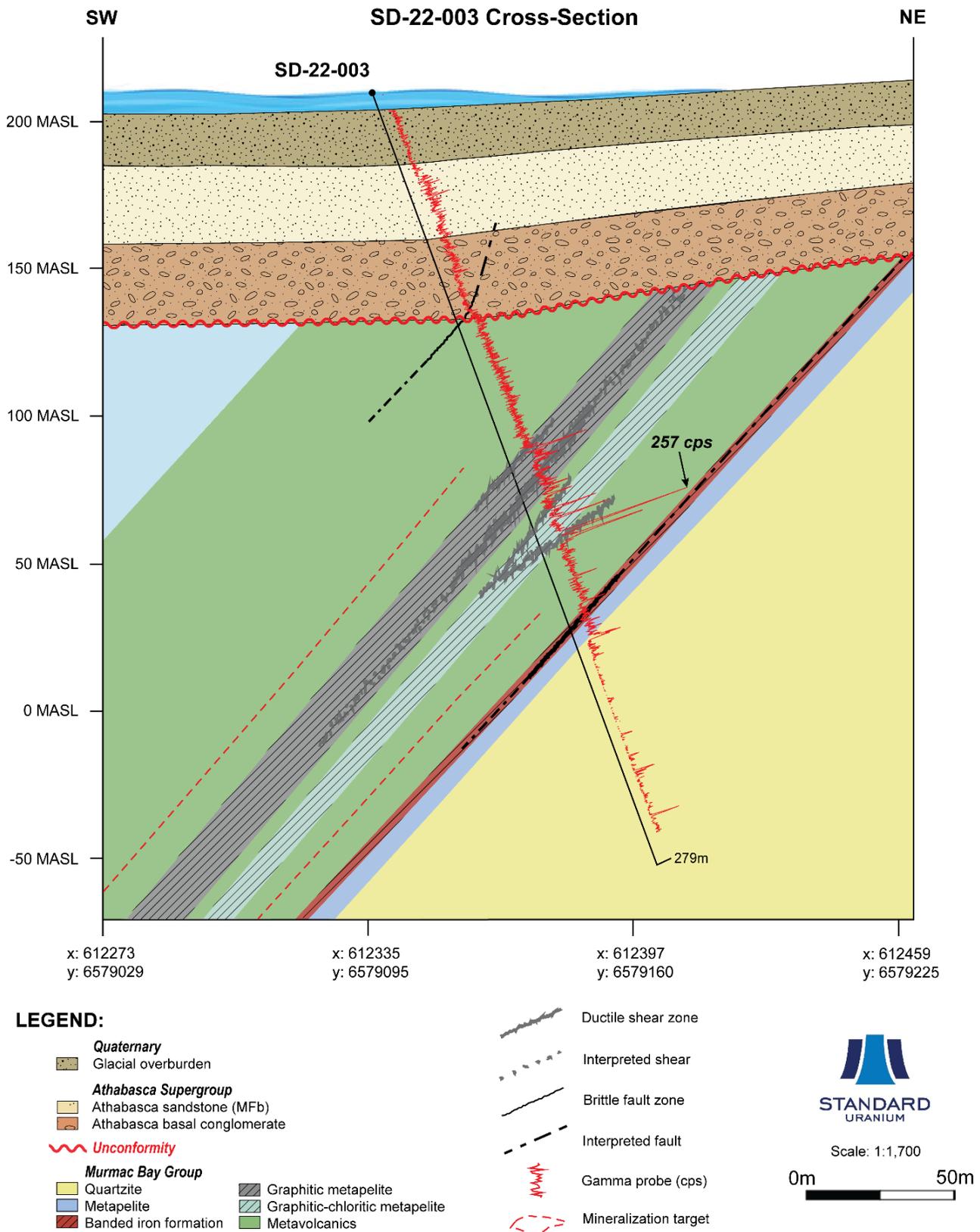


Figure 20. Schematic cross-section highlighting geology, structure, and alteration in drill hole SD-22-003 within the Johnston-Bay target area

**SD-22-004** (612020 E, 6580511 N)

SD-22-004 was designed to target the convergence of lakebed radiometric anomalies, resistivity anomalies, gravity lows, and proximal historic mineralization. The 2022 UAV-assisted magnetic survey also suggests a NE-trending magnetic feature is present that parallels the previously defined conductors in the area. The collar is situated approximately 250 m northwest of historic mineralization in LAI-15.

The hole was collared from the ice surface at an orientation of 138.7°/-68.5° in the Java drill area and was terminated at a depth of 241.3 m. Loose unconsolidated Athabasca sandstone was intersected from 45 to 46.1 m, preceded by 25 m of lake water and 20 m of unconsolidated lake sediment, with no recovery. An indistinct and crumbly lower unconformity is noted at 46.1 m, as the contact with competent, though rubbly, granodioritic gneiss.

Basement lithologies consist of granodioritic gneiss with varying degrees of alteration. From 46.1 to 92.1 m, weakly paleoweathered granodiorite gneiss was intersected, displaying frequent chloritized open and healed fractures accompanied by light grey clay coatings, as well as a quartz and chlorite-veined fracture zone from 66.1 to 88.9 m. From 92.1 to 161 m, weakly argillized granodioritic gneiss was intersected. The interval exhibits light shearing as foliation-parallel fault gouge and protocataclases (mm to cm-scale). Argillization fluctuates in intensity from trace to locally weak in association with chloritic fracture zones. Common cm-scale pink druzy quartz vein fill is noted. From 161 to 241.3 m, weakly albitized granodioritic gneiss was intersected, comprising frequent chloritized open and healed fractures accompanied by light grey clay coatings between 169.1 and 193.9 m and 202 to 222.7 m. From 210.3 to 212 m, a shallow 5-15° TCA pink quartz vein was intersected with crackle brecciated damage zones for 80 cm above and below the vein itself. 10 cm of pink quartz vein as the main structure was observed from 211.15 to 211.25 m. Black chlorite and reddish pink carbonate are observed on the quartz vein margins. A calc-silicate intrusive/ fenitic alteration obliquely crossing foliation at 15° TCA was intersected from 238.9 to 239.35 m. The zone effervesces strongly and contains a mix of massive dark black to greenish-grey minerals. Gradational and undulating/embayed upper and lower contacts are noted. Due to ice shifting on the drill pad, the hole was terminated at a depth of 241.3 m.

**SD-23-005** (611832.0 E, 6580303.2 N)

SD-23-005 is positioned between historical holes LAO-1 and LAI-15 on the Java trend. The drillhole was designed to test the strike extent of the interpreted Mitchel Island Fault and associated basement mineralization intersected at depth in both proximal holes. The drillhole was also designed to target an airborne VTEM conductor at 120.0 m, a TURAM conductor at 135.0 m, and a strong VLEM response at 155.0 m.

The hole was collared from the ice surface at an orientation of 010°/-70° in the Java drill area and was abandoned at a depth of 37.8 m due to shifting ice conditions. Unconsolidated lakebed cobbles at 32.85 m consisted of pelitic gneiss. Athabasca conglomerate characterized by sub-angular to sub-rounded clasts in a purple-red sandy matrix with local reddish-orange siltstone beds continue from 32.85 m to end of hole at 37.80 m. No anomalous radioactivity was intersected, counts range from 55 to 130 cps.

**SD-23-005A** (612915.00 E, 6578466.81 N)

SD-23-005A is positioned between historical holes LAO-1 and LAI-15 on the Java trend. The drillhole was designed to test the strike extent of the interpreted Mitchel Island Fault and associated basement mineralization intersected at depth in both proximal holes. The drillhole was also designed to target an airborne VTEM conductor at 120.0 m, a TURAM conductor at 135.0 m, and a strong VLEM response at 155.0 m.

The hole was collared from the ice surface at an orientation of 010°/-70° in the Java drill area and was abandoned at a depth of 34.0 m due to shifting ice conditions. No core was recovered.

**SD-23-006** (612607.78 E, 6578363.15 N)

SD-23-006 was designed to test the confluence of EM conductors within a gravity low gradient. The drillhole is positioned 343.0 m SE of mineralized drill hole LAI-05 along the same TURAM conductor. Geophysical targets include the following conductors: ELFAST at 128.0 m, HLEM at 142.0 m, TURAM at 181.0 m, and Airborne EM at 241.0 m.

The hole was collared from the ice surface at an orientation of 010°/-70.1° in the J-Bay drill area and was terminated at a depth of 416.1 m. Unconsolidated Lake sediments are present but were not

recovered from the lakebed at ~9.6 m to a depth of 33.45 m. Athabasca sandstone characterized by purple diagenetic hematite banding and floating pebble clasts was intersected to 110.95 m, followed by Athabasca conglomeratic sandstone to the unconformity at 129.80 m. Possible fracture-controlled dravite-clay alteration was noted in the sandstone between 63.15 and 63.20 m. Within the sedimentary rocks, a few m-scale fracture zones were encountered, as well as a possible fault zone from 121.45 to 122.75 m. The fault zone is characterized by centimetre (cm)- to decimetre (dm)-scale sporadic sections of chloritic clay, possible cataclasite, with cm-scale weakly brecciated sections close to contacts. A fault damage zone extends on either side of the fault from 117.50 to 124.80 m.

Crystalline basement rocks consist of pelitic to semi-pelitic gneiss interfingering with mafic volcanic flows of the Murmac Bay group. Red-green hematite-chlorite paleoweathering is present below the unconformity to a depth of 202.20 m. Beneath the paleoweathered zone the pelitic gneiss displays moderate to strong foliation, with local high strain fabrics and migmatitic textures. The mafic volcanic flows are typically dark green-grey, massive, and fine-grained with patchy chlorite alteration. Pervasively silicified gneiss was encountered from a depth of 407.95 m to the end of hole at 415.85 m.

Numerous m-scale shear zones with local brittle reactivation were intersected within the units of pelitic gneiss. Shear zones from 250.45 to 257.70 m, 357.65 to 364.45 m, and 387.60 to 401.55 m are moderately to strongly graphitic and contain weak to locally moderate foliation-controlled pyrite. The shear zones are typically associated with moderate to strong chaotic quartz veining and brecciated quartz. Brittle reactivation is present in the form of local mm-scale to cm-scale fault gouge and cataclasite, as well as cm- to dm-scale sections of rubble. No anomalous radioactivity intersected. Radiometry ranges from 40 to 150 cps.

**SD-23-007** (618283.0 E, 6577997.8 N)

SD-23-007 is positioned approximately 1 km west of the Stewart Island mineralized zone in the Skye target area, and was designed to target a resistivity low, a gravity low bullseye, and test for mineralized basement roots west along strike from the perched Stewart Island mineralization.

The hole was collared from the ice surface at an orientation of 355°/-70° in the Skye drill area and was abandoned at a depth of 60.0 m due to shifting ice conditions. The Manitou Falls Formation

Dunlop Member (MFd) with local desilicification zones and rare dravite-clay lined fractures was intersected from 32.45 to 60.75 m. No anomalous radioactivity was intersected. Radiometry ranges from 45 to 90 cps.

**SD-23-008** (611780.29 E, 6580283.60 N)

SD-23-008 is positioned 26.0 m up-dip to the east of historic mineralized hole LAO-1 on the Java trend. The drillhole was designed to test for unconformity-style mineralization up-dip of the mineralized fault intersected in LAO-1. An Airborne EM target is present at 51.0 m.

The hole was collared vertically from the ice surface in the Java drill area and was abandoned at a depth of 36.0 m due to shifting ice conditions. Lake water and unconsolidated sediments are present to a depth of 33.80 m, with one 5.0 cm pebble of silicified gneiss recovered. Beneath the sediments, bedrock consisting of Athabasca conglomerate, characterized by sub-angular to sub-rounded clasts in a reddish-purple sandy matrix, was intersected to the end of hole. No anomalous radioactivity was intersected. Radiometry ranges from 60 to 85 cps.

**SD-23-009** (612271.5 E, 6578872.7 N)

SD-23-009 is positioned 266.0 m NNE along conductor strike of mineralized drill hole LAI-05 in the J-Bay North target area. The drillhole was designed to transect the saddle of two gravity lows and positioned to intersect an interpreted fault. A TURAM conductor target is present at 150.0 m.

The drill hole was collared on the ice surface at an orientation of 014.9°/-69.9° and was abandoned at 30.0 m due to shifting ice conditions. Core recovery began at 24.25 m, intersecting reddish-purple, planar-bedded, medium to coarse grained, moderately sorted sandstone with trace limonite lining fractures at high angle to core axis (TCA) of the MFa formation. No anomalous radioactivity was intersected. Radiometry ranges from 60 to 90 cps.

**SD-23-010** (619799.21 E, 6578479.78 N)

SD-23-010 was designed to test the extent of a mineralized fault northeast of the Stewart Island mineralized zone. The hole was collared from surface at an orientation of 340°/-51.6° and was terminated at a depth of 186.0 m.

The hole consists of Paleoproterozoic Athabasca Supergroup sandstones including bleached and

strongly silicified MFd formation and MFa formation consisting of medium- to coarse-grained quartz arenite with local conglomerate beds. Basement rocks consist of alternating massive to brecciated bluish-grey quartzite and mylonitic banded iron formation (BIF) of the Murmac Bay Group. The transition between brecciation and shearing is generally a function of the higher competency of the quartzite versus the iron formation. Hydrothermal brecciation is present locally in the iron formation. Shear foliation in the banded iron formation is 50° TCA in the upper basement and shallows to 90° TCA in the lower basement.

Trace bluish-white clays, potentially dravite, line fractures in the basement quartzite and BIF. Strong, pervasive bleaching is present in the finer-grained zones of the Athabasca Sandstone, MFd formation, and into the MFa. Brittle fracture zones, and hematite-quartz healed breccias are present throughout the basement quartzite with shear banding present in the interbedded banded iron formation. No anomalous radioactivity intersected. Radiometry ranges from 40 to 100 cps.

**SD-23-011** (613550.05 E, 6578589.77 N)

SD-23-011 was designed to test for the basal extent of off-scale radioactivity and structure recorded during the Company's 2022 fall prospecting survey of the Walli showing. The drillhole is located ~30 m south-east of the surface mineralization and targeted the mineralized fault at depth.

The hole was collared from surface at an orientation of 000°/-51.6° in the Walli showing area and was terminated at a depth of 143.5 m. Silicified Athabasca sandstone defined by poorly preserved diagenetic hematite beds, moderate fracture- and mineral-controlled limonite and hydrothermal hematite was intersected from surface to the unconformity at 10.9 m.

Crystalline basement rocks consist of psammopelitic to pelitic gneiss, mafic volcanic flows, quartzite, and banded iron formation of the Murmac Bay Group. A well-foliated, semi-pelitic to psammopelitic gneiss with infrequent dm-scale pegmatitic sweats and a paleoweathering profile defined by moderate to strong hematization was intersected to 31.75 m. Below, a dm-scale marker unit of banded iron formation was intersected to 33.0 m. Downhole, moderate to strong hematized and chloritized semi-pelitic gneiss and massive to locally foliated mafic volcanic flows alternate to 62.1 m, where a moderately hematite altered quartzite unit extends to 93.2 m. A metasedimentary package of semi-pelitic to pelitic gneiss characterized by moderate to strong hematite and chlorite replacement is present to 119.1 m. Trace to weakly hematized quartzite continues to the end of

hole depth at 143.5 m. Potential trace dravite alteration was noted from 25.50 to 30.75 m and from 103.5 to 114.8 m, the first interval being associated with structure and the second being mineral- and fracture-controlled.

A fracture zone is present from 5.2 to 8.2 m in the sandstone, characterized by moderate to locally strong limonite- and hematite-lined fractures. In the basement, sporadic fracture zones were intersected from 12.35 to 13.85 m, 31.05 to 31.70 m, and 76.0 to 77.0 m. The majority of fractures are parallel to foliation and locally cross-cut foliation. Fracture planes are commonly hematite-, specular hematite-, chlorite-, clay-, and druzy quartz-lined. A hematized crackle breccia with chloritic-clays and potential dravite infilling microfractures including druzy quartz and specular hematite within sporadic vugs was intersected from 28.44 to 30.76 m. Brittle-reactivated shear zones are present from 31.7 to 42.0 m, 49.1 to 51.0 m, and 93.05 to 103.0 m, with moderate strain fabrics including sporadic crenulation commonly overprinted by fracturing and intermittent dm- to m-scale brecciation. The broader strain zones have intermittent intervals of well-foliated rock alternating with higher strained intervals. No anomalous radioactivity was intersected. Radiometry ranges from 50 to 115 cps.

**SD-23-012** (613550.05 E, 6578589.77 N)

SD-23-012 was designed to test the basal extent of off-scale radioactivity and structure recorded during our 2022 fall prospecting survey of the Walli showing and is a direct follow-up on the structure and alteration intersected in SD-23-011.

The hole was collared from surface at an orientation of  $330^{\circ}/-51.6^{\circ}$  in the Walli showing area and was terminated at a depth of 129.7 m. Silicified Athabasca sandstone defined by poorly preserved diagenetic hematite beds, moderate fracture- and mineral-controlled limonite and weak hydrothermal hematite was intersected from surface to the unconformity at 10.55 m.

Crystalline basement rocks consist of pelitic gneiss, mafic volcanic flows, quartzite, and banded iron formation of the Murmac Bay Group. A well-foliated, pelitic gneiss with infrequent dm-scale pegmatitic sweats and a paleoweathering profile defined by moderate to strong hematization and silicification was intersected to 28.0 m. Banded iron formation was intersected below from 28.0 to 32.0 m. Downhole, moderate to strong hematized and chloritized pelitic gneiss and aphanitic to locally foliated mafic volcanic flows alternate to 60.35 m, where a weak to moderately hematite

altered quartzite unit was intersected to 84.5 m. A strongly foliated and silicified pelitic gneiss with intercalated intervals of quartzite is present to 120.8 m, defined by moderate to strong hematite and chlorite replacement. Trace to weakly hematized quartzite continues to the end of hole depth at 129.7 m.

Several shear zones were intersected from 28.0 to 32.3 m, 58.5 to 60.4 m, 96.25 to 97.3 m, and 107.75 to 111.75 m. Strain zones typically display weak shearing of mineral bands and are commonly altered by moderate to strong hematite and/or chlorite with associated foliation-parallel fracturing. The shallowest and deepest shear zones are brittle reactivated and overprinted by brecciation and sporadic cataclasis. Damage zones are present marginal to specific shear zones from 94.5 to 96.25 m, 97.3 to 101.0 m, and from 103.7 to 107.1 m, characterized by moderately altered rock, minor faulting, fracturing, intermittent cm- to dm-scale brecciation, and semi-healed cataclasis. From 63.4 to 69.2 m, a fault zone consisting of intermittent sub-metre- to metre-scale brecciation, sporadic cm- to dm-scale cataclasites, and frequent fracturing is present. The final structure intersected in SD-23-012 is a fracture zone from 117.5 to 119.2 m, dominated by foliation parallel fractures cross-cutting sub-metre-scale shallow fractures sub-parallel to the core axis, commonly lined with hematite and chloritic clays. No anomalous radioactivity was intersected. Radiometry ranges from 40 to 120 cps.

**SD-23-013** (613409.78 E, 6577975.79 N)

SD-23-013 was designed to test for the basal extent of off-scale radioactivity and structure recorded during the Company's 2022 fall prospecting survey of the Haven discovery mineralized fault (Figure 21).

The hole was collared from surface at an orientation of  $342.2^{\circ}/-51.6^{\circ}$  in the Haven discovery area and was terminated at a depth of 153.5 m.

Crystalline basement rocks consist of interlayered metasedimentary units (quartzite, pelitic gneiss, and silicified gneiss) underlain by pegmatite of the Murmac Bay Group. Bluish grey, brecciated to massive quartzite is present from 0.55 m to 41.5 m. This unit is overprinted by widespread oxidation front alteration characterized by abundant limonite- and hematite-lined fractures. Multiple fluid flow events are indicated by the presence of reactivated fractures, coliform banding, and structural features, and the diversity of clays that are represented throughout the unit. Several

vugs lined with druzy to crystalline quartz, mica, gypsum, and local siderite are interspersed throughout brecciated zones. Minor dravite alteration is present lining fractures and proximal to vugs in structural zones. The quartzite is underlain by a package of foliated pelitic to semi-pelitic gneiss from 41.5 to 54.05 m.

From 54.05 to 103.7 m, there is a return to brecciated to massive quartzite comprised of >90% bluish grey to grey, very fine recrystallized quartz. A series of dm-scale hematite  $\pm$  coliform quartz  $\pm$  chlorite chaotic breccias indicating multi-generational oxidized fluid migration, is present throughout the unit. A mineralized fault breccia from 79.23 to 79.75 m with visible 1-4 mm grains of uraninite was measured up to 1,000 cps on a handheld RS-125 scintillometer. Further mineralization peaking at 320 cps is present in a subordinate breccia zone at 83.4 m. Frequent intercalated pelitic lenses below 98.0 m mark a gradual transition to pelitic gneiss at 103.7 m. Well-foliated to sheared and brecciated pelitic gneiss continues to 126.47 m marked by a sharp increase in quartz content and loss of strain features. This is underlain at 143.4 m by milky white quartz, muscovite, k-felspar (replaced by hematite and chlorite), and plagioclase pegmatite which is present to the end of hole.

A fracture zone is present from 0.55 to 25.15 m in the quartzite characterized by moderate limonite/oxidized fractures and local dravite-lined fractures. This transitions into a rubbly fault zone which continues to 33.4 m in the oxidized front of the upper quartzite. Dm-scale breccias are prevalent throughout the drillhole however there is a prominent hematite matrix-supported mosaic fault breccia zone from 74.75 to 85.0 m with uraninite and quartz infill from 79.23 to 79.75 m. Ductile deformation is present in the pelitic units with a shear zone from 115.60 to 119.05 m overprinted by a fault breccia zone from 119.05 to 124.80 m.

Elevated radioactivity with a peak of 1,000 cps (1,300 cps via 32GR slim gamma probe; Figure 21) was intersected intermittently between 79.0 and 83.5 m, totalling 1.5 m of composite mineralization.

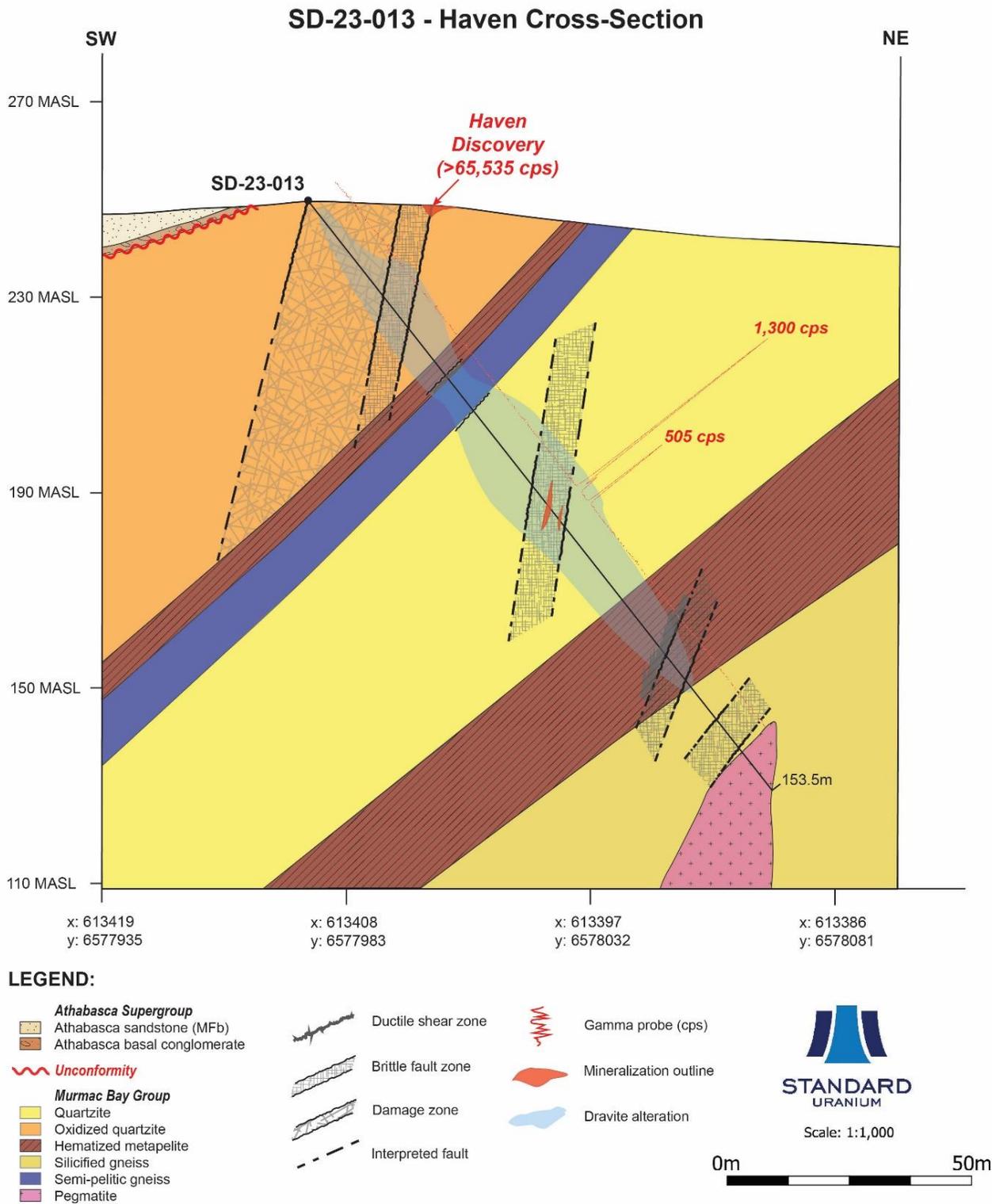


Figure 21. Schematic cross-section of drill hole SD-23-013 at the Haven discovery showing generalized geology, alteration, structure, and downhole 32GR gamma probe peaks from elevated radioactivity

### 10.2.2 Winter 2022-2023 Drill Hole Core Photo Highlights

Figure 22 through Figure 26 highlight radioactivity, major structures, and notable alteration zones intersected during the 2022 and 2023 drill programs completed by the Company.



Figure 22. A) Metre-scale hydrothermal quartz-hematite breccias intersected in SD-22-001 basement rocks indicating repeated deformation and strong fluid flow in the Haven area. B) Hydraulic breccia containing white clay, dravite, and hematized drusy quartz in SD-22-001; 50-80 cps.

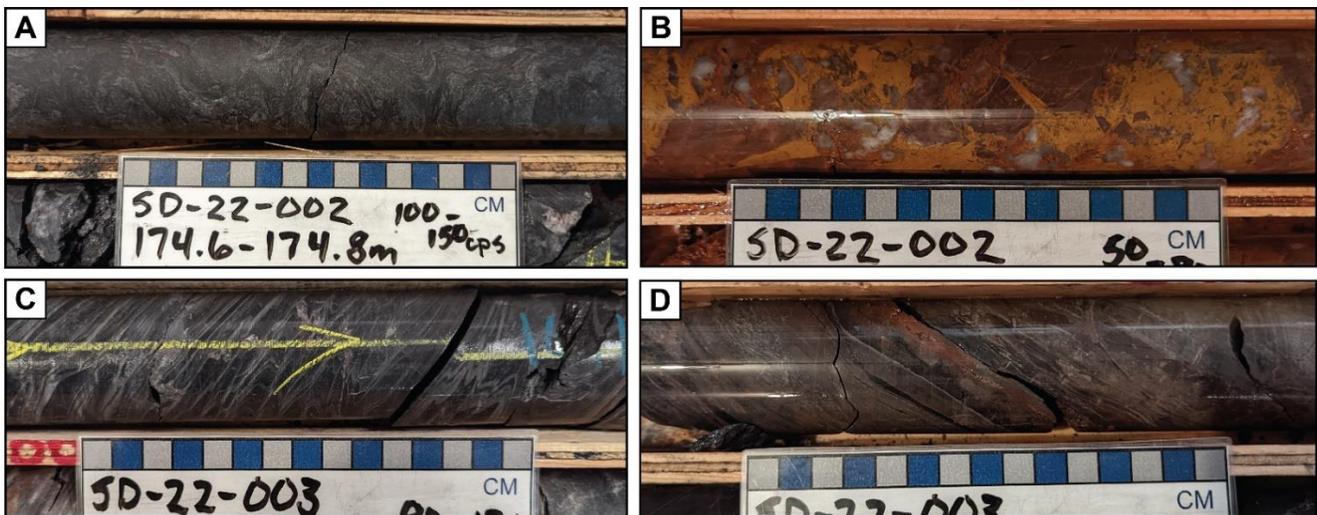


Figure 23. A) Deformed strongly graphitic pelitic gneiss in the basement of SD-22-002; up to 150 cps. B) Strongly limonite-hematite altered hydrothermal breccia in SD-22-002 at 273.5 m; up to 80 cps. C) Highly strained and folded graphitic metapelite in SD-22-003 at 163.5 m; up to 120 cps. D) Structurally controlled elevated radioactivity up to 300 cps within a graphite-hematite fracture network cross-cutting graphitic metapelite in SD-22-003.



Figure 24. A) Brittle fault zone overprinting moderately clay-chlorite altered orthogneiss from 84.0 to 88.5 m in SD-22-004; up to 140 cps. B) Semi-brittle fault intersected from 146.8 to 150.5 m in SD-22-004 overprinting moderately altered orthogneiss; up to 140 cps.

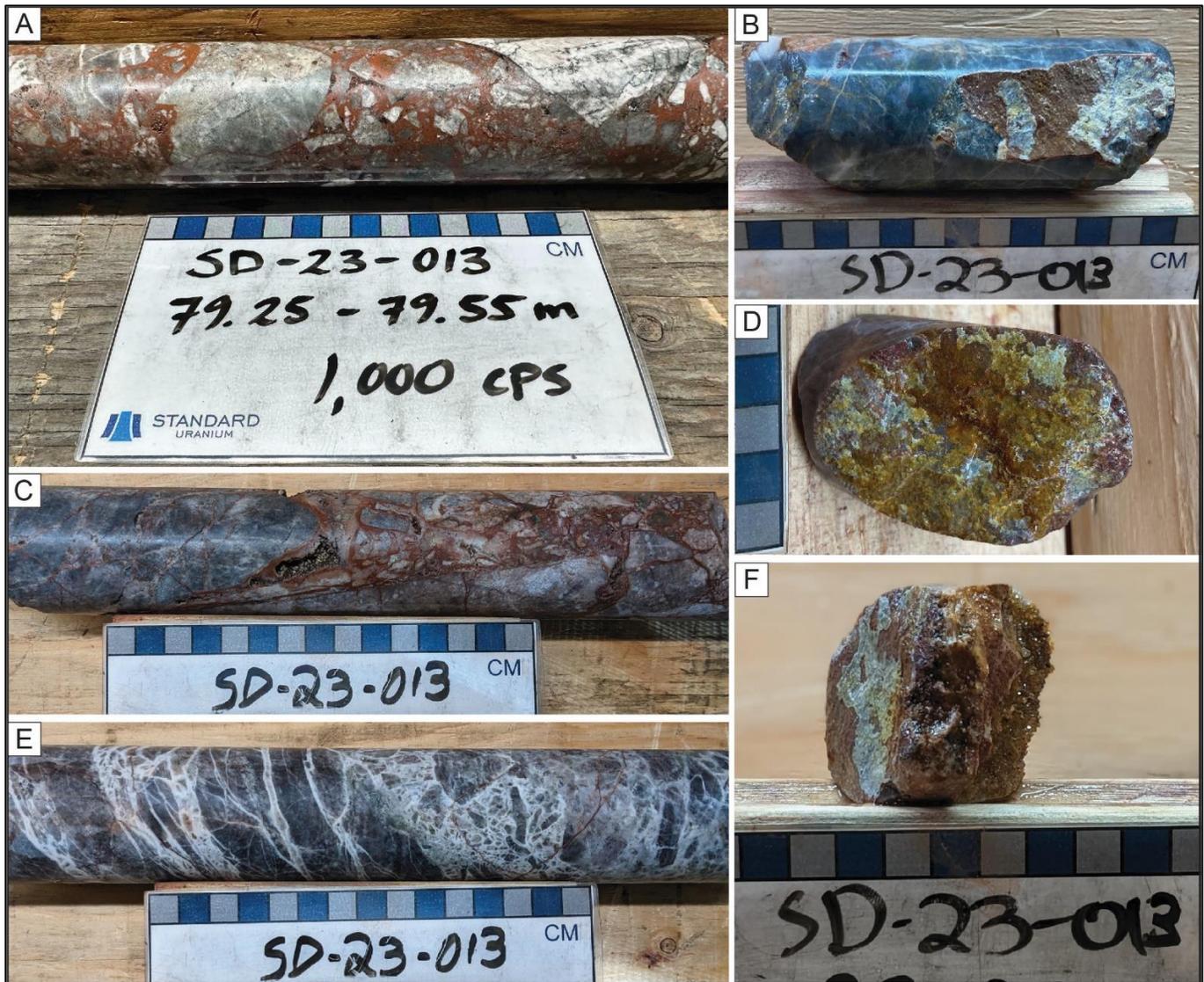


Figure 25. Core photos from drill hole SD-23-013 at the Haven discovery, highlighting significant alteration and structure associated with elevated radioactivity. All drill core is NQ diameter (47.6mm). A) Oxidized fault breccia hosting elevated radioactivity up to 1,000 cps (1,300 cps on gamma probe). B) Hematized fracture coated with dravite-clay alteration; Up to 100 cps, 31.05m. C) Strongly hematite-altered fault breccia with druse quartz-siderite vugs; Up to 100 cps, 76.25m. D) Oxidized fracture surface lined with dravite-clay alteration; Up to 85 cps, 19.75m. E) Quartz-clay ± dravite-healed mosaic breccia; Up to 80 cps, 54.3m. F) Druse quartz fracture with dravite and hematite-limonite alteration; Up to 85 cps, 22.86m.



Figure 26. Core photos from the Drill holes SD-23-011 and SD-23-012 at the Walli showing highlighting significant alteration and structural zones. All drill core is NQ diameter (47.6mm). A) Chlorite-clay-dravite alteration within an oxidized fault zone from 26.4 to 30.7m; Up to 95 cps. B) Quartz-hematite fault breccia with clay-lined fractures; Up to 95 cps, 62.3m. C) Moderately clay-altered quartz-hematite breccia with drusy quartz vugs; Up to 80 cps, 94.6m. D) Chlorite-clay-dravite alteration within a fault breccia; Up to 95 cps, 26.55m. E) Brittle-reactivated, highly deformed pelitic gneiss; Up to 100 cps, 58.6m. F) Quartz-hematite breccia; Up to 90 cps, 109.1m.

### 10.2.3 Geochemical Summary and Interpretation

Background and context for statistical geochemical analysis of the drilling results to date is outlined in this Section. Geochemical assay results from the winter 2022 and 2023 drill programs were compiled, and statistical calculations based on regional open access geochemical data were completed to establish baseline values for the elemental composition of the rocks on the Sun Dog property and quantify anomalous results for each element or oxide. These concentrations are referred to as either weakly anomalous, moderately anomalous, or highly anomalous, with the corresponding benchmark values for each uranium pathfinder element, isotope, or ratio listed in Table 5 and Table 6 below for Athabasca sandstone and basement rocks, respectively.

*Table 5. Uranium Pathfinder Benchmarks for Athabasca Sandstone*

<b>Pathfinder</b>	<b>Weakly anomalous</b>	<b>Moderately anomalous</b>	<b>Strongly anomalous</b>
Boron	≥ 100 ppm	≥ 500 ppm	≥ 1000 ppm
Uranium	≥ 1 ppm	≥ 10 ppm	≥ 100 ppm
Arsenic	≥ 1 ppm	≥ 10 ppm	≥ 50 ppm
Copper	≥ 1 ppm	≥ 10 ppm	≥ 50 ppm
Total Lead	≥ 1 ppm	≥ 10 ppm	≥ 100 ppm
<sup>208</sup> Pb/ <sup>206</sup> Pb	≤1.5	≤1.0	≤0.5
Molybdenum	≥ 0.1 ppm	≥ 1 ppm	≥ 10 ppm
Vanadium	≥ 10 ppm	≥ 50 ppm	≥ 100 ppm
Cobalt	≥ 1 ppm	≥ 10 ppm	≥ 50 ppm
Nickel	≥ 10 ppm	≥ 50 ppm	≥ 100 ppm
Silver	≥ 0.1 ppm	≥ 1 ppm	≥ 10 ppm
Bismuth	≥ 0.1 ppm	≥ 1 ppm	≥ 10 ppm

*Table 6. Uranium Pathfinder Benchmarks for Basement Rocks*

<b>Pathfinder</b>	<b>Weakly anomalous</b>	<b>Moderately anomalous</b>	<b>Strongly anomalous</b>
Boron	≥ 100 ppm	≥ 500 ppm	≥ 1000 ppm
Uranium	≥ 10 ppm	≥ 50 ppm	≥ 100 ppm
Arsenic	≥ 10 ppm	≥ 50 ppm	≥ 100 ppm
Copper	≥ 10 ppm	≥ 50 ppm	≥ 100 ppm
Total Lead	≥ 10 ppm	≥ 50 ppm	≥ 100 ppm
<sup>208</sup> Pb/ <sup>206</sup> Pb	≤1	≤0.5	≤0.25
Zinc	≥ 1 ppm	≥ 10 ppm	≥ 50 ppm
Molybdenum	≥ 1 ppm	≥ 10 ppm	≥ 50 ppm
Cobalt	≥ 1 ppm	≥ 10 ppm	≥ 50 ppm
Nickel	≥ 1 ppm	≥ 10 ppm	≥ 50 ppm
Silver	≥ 0.1 ppm	≥ 1 ppm	≥ 10 ppm
Bismuth	≥ 0.1 ppm	≥ 1 ppm	≥ 10 ppm
IA Value	≥ 0.9	≥ 0.95	≥ 0.98

The elemental concentrations of all pathfinder elements are recorded in parts-per-million (ppm), apart from Fe<sub>2</sub>O<sub>3</sub>, which is recorded in weight-percent (wt. %), and gold by fire assay, which is in parts-per-billion (ppb). Lead isotope ratios and IA values are unitless.

The Ishikawa AI (AI value) is a ratio of the elements gained during chlorite and sericite alteration (MgO + K<sub>2</sub>O) to the elements lost and gained (Na<sub>2</sub>O + CaO + MgO + K<sub>2</sub>O). The index varies from 20 to 60 for unaltered lithologies and 50 and 100 for hydrothermally altered lithologies, with an AI of 100 representing complete replacement of feldspars and glass by sericite and/or chlorite. (Large et al., 2001).

Basement samples were analyzed via fire assay for gold, and a sample collected from a silicocarbonatite intrusive was analyzed via MS fusion for rare earth elements. No anomalous REE values were returned, and the highest fire assay result was 453 ppb (0.453 g/t) Au in drill hole SD-22-002 from 268 to 268.5 m.

A visual summary of uranium geochemistry results and spectroscopy results from the 2022 and 2023 drill programs completed by the Company is provided in Section 10.2.4 as strip logs for each drill hole, relating uranium anomalism and clay types to lithology and major structures.

From the winter 2022 program, drill hole SD-22-001 returned the highest value for uranium in the sandstone with 5.85 ppm U proximal to the unconformity, above a breccia zone containing large basement rip-up clasts. No elevated uranium was intersected in the sandstone from other drill holes. A maximum of 300 cps was intersected in drill hole SD-22-003 from 164.5 to 165.0 m; geochemical analysis returned values of 71.4 parts per million (ppm) uranium and moderately anomalous metal concentrations including 22.4 ppm copper, 10.1 ppm lead (sum), 18.0 ppm zinc, 31.4 ppm nickel and 19.0 parts per billion (ppb) gold. Drill SD-22-003 returned the highest uranium value of 94.8 ppm in a brecciated zone with intense hematite replacement and local friable gouge associated with cataclasite. Elevated uranium is present in drill holes SD-22-001, -002, and -003 and is generally related to graphitic structures and/or hydrothermal breccias with pervasive hematite alteration.

From the winter 2023 program, drill hole SD-23-012 returned the highest value for partial digest uranium in the Athabasca sandstone with 2.31 ppm in silicified Athabasca sandstone (MFd) within a dm-scale quartz-hematite breccia from 9.25 to 9.40 m. Elevated partial digest uranium was also intersected in drill hole SD-23-006, returning 1.32 ppm U in Athabasca sandstone (MFb) with hydrothermal hematite healed fractures, local druzy quartz veins, and sooty pyrite fractures. Anomalous radioactivity up to 1,300 cps on the 32GR gamma probe was measured in drill hole SD-23-013 from 79.0 to 80.0 m (1,000 cps on handheld RS-125), as well as 505 cps (320 cps on handheld RS-125) from 83.0 to 83.5 m, associated with a 10.25 m wide oxidized fault breccia hosting clay-dravite alteration. Significant structure and oxidation front alteration (hematite-limonite) was also intersected from the top of hole to 33.5 m. Drill hole SD-23-013 returned the highest uranium value of 0.042 wt.%  $U_3O_8$  over 0.5 m (360 ppm U, partial digest) in the aforementioned oxidized fault breccia. Within the same structure, 0.021 wt.%  $U_3O_8$  over 0.5 m (136 ppm U, partial digest), and 0.005 wt.%  $U_3O_8$  over 1.0 m (35.2 ppm and 33.2 ppm U, partial digest) was intersected, in addition to weak to strongly anomalous metal concentrations including boron, zinc, arsenic, bismuth, cobalt, copper, and nickel with weak to strongly anomalous  $^{208}Pb/^{206}Pb$  ratios.

No elevated uranium was intersected in the basement rock from other winter 2023 drill holes. In the sandstone and basement, elevated uranium exceeds thorium values by a factor of 2 in multiple intervals supporting a hydrothermal input for uranium emplacement in the intersected units.

Elevated boron is present in SD-23-013 proximal to uranium mineralization, however, is not as enriched as observed in other holes with weakly anomalous uranium. This may potentially indicate that boron is being dispersed farther than other, redox sensitive pathfinder elements. In the mineralized drill hole (SD-23-013), there is a good correlation between anomalous  $^{208}\text{Pb}/^{206}\text{Pb}$  ratios, boron, and uranium in the basement highlighting the continuing utility of these values for exploration vectoring (Figure 27 & Figure 28).

There is a notable correlation between anomalous  $^{208}\text{Pb}/^{206}\text{Pb}$  ratios and uranium in the basement, as demonstrated in Figure 27 and Figure 28. These trends may help plan target depths in future drill holes and refine priority areas. As outlined in this report, the various lead isotope values will continue to be used with other vectoring parameters, including alteration, structure, clay mineralogy, and geochemical anomalies. Boron anomalies have a relatively weak spatial association with lead and tend to be higher in the drill hole than combined uranium and lead anomalies. This may indicate that boron may be dispersing further than lead in any alteration halo.

A summary of the highest uranium geochemistry results for each drill hole is presented in Table 7, highlighting the most significant interval(s) with U values in ppm (ICP-MS) and general descriptions of the associated rock types and structures.

*Table 7. Summary of Winter 2022-2023 Uranium Geochemistry Results*

Hole	From (m)	To (m)	Interval (m)	U (ppm)
SD-22-001	83	88	5	5.85
	88	93	5	4.1
	93	94	1	3.05
	150.4	150.5	0.5	15.1*

\*From within hydrothermal hematite-altered semi-pelitic gneiss. Associated with a highly anomalous  $^{208}\text{Pb}/^{206}\text{Pb}$  ratio of 0.09.

Hole	From (m)	To (m)	Interval (m)	U (ppm)
SD-22-002	169.5	170	0.5	40.2
	267.5	267.6	0.1	51.4
	268	268.5	0.5	94.8*

\*From within an intensely hematite-altered cataclasite. Associated with an anomalous <sup>208</sup>Pb/<sup>206</sup>Pb ratio of 0.48. Moderately anomalous boron (556 ppm) was also returned, as well as elevated Pb, V, Co, and Ni.

Hole	From (m)	To (m)	Interval (m)	U (ppm)
SD-22-003	164	164.5	0.5	54.9
	164.5	165	0.5	71.4*
	165	165.5	0.5	9.2
	166.5	167	0.5	70.4**

\*Associated with a 300 cps scintillometer peak within graphite-chlorite shear zone with a local uranium-mineralized fracture. 22.4 ppm copper, 506 ppm vanadium, and a moderately anomalous <sup>208</sup>Pb/<sup>206</sup>Pb ratio of 0.35.

\*\*From within a graphite-chlorite shear zone, and associated with elevated Mo, Co, S, and V.

Hole	From (m)	To (m)	Interval (m)	U (ppm)
SD-22-004	211	211.5	0.5	12.7*
	238.8	239.3	0.5	3.03

\*Within a crackle brecciated damage zone surrounding a 10 cm pink quartz vein. Anomalous V and Co also returned.

Hole	From (m)	To (m)	Interval (m)	U (ppm, partial)
SD-23-006	50.0	60.0	10.0	1.32

In Athabasca Sandstone (MFb), with hydrothermal hematite healed fractures, local drusy quartz veins, and sooty pyrite fractures. Also associated with Moderately anomalous V (10.60 ppm, partial), weakly anomalous pathfinder elements As (2.90 ppm, partial), Pb (1.33 ppm, partial), Zn (1.90 ppm, partial), Mo (0.22 ppm, partial), Ni (5.68 ppm, partial), and Li (38 ppm).

Hole	From (m)	To (m)	Interval (m)	U (ppm, partial)
SD-23-012	5.0	9.5	4.5	2.31

In silicified Athabasca Sandstone (MFd) with a dm-scale quartz-hematite breccia from 9.25 to 9.40 m. Moderately anomalous <sup>208</sup>Pb/<sup>206</sup>Pb value of 0.78, moderately anomalous pathfinder elements Bi (1.74 ppm, partial), Li (50 ppm), and B (656 ppm). Weakly anomalous As (2.31 ppm, partial), Pb (1.75 ppm, partial), Zn (1.10 ppm, partial), Mo (0.14 ppm, partial), Ni (4.38 ppm, partial), and V (3.80 ppm, partial).

Hole	From (m)	To (m)	Interval (m)	U (ppm, partial)	U <sub>3</sub> O <sub>8</sub> assay (wt. %)
SD-23-013	79.0	79.5	0.5	360.0*	0.042
	79.5	80.0	0.5	136.0*	0.021
	82.5	83.0	0.5	35.2**	0.005
	83.0	83.5	0.5	33.2**	0.005

\*Associated with a 1,000 cps scintillometer peak within a 10.25 m wide oxidized fault breccia hosting clay-dravite alteration and visible uranium mineralization. Pathfinder elements returned weak to moderately anomalous values for B (110 - 158 ppm), As (31.6 - 62.0 ppm, partial), Bi (0.59 ppm, partial), Zn (2.5 ppm, partial), Ni (45.0 - 65.0 ppm, partial), Co (2.0 ppm, partial) and a strongly anomalous <sup>208</sup>Pb/<sup>206</sup>Pb value of 0.12.

\*\* A continuation of the oxidized fault breccia mentioned above having a max scintillometer reading of 320 cps. Geochemical analyses returned B (176 ppm), Bi (0.83 - 1.76 ppm, partial), Co (2.21 - 3.74 ppm, partial), Cu (9.09 ppm, partial), Zn (3.00 ppm, partial), Ni (15.40 - 22.70 ppm, partial), and a moderately anomalous <sup>208</sup>Pb/<sup>206</sup>Pb value of 0.30 - 0.37.

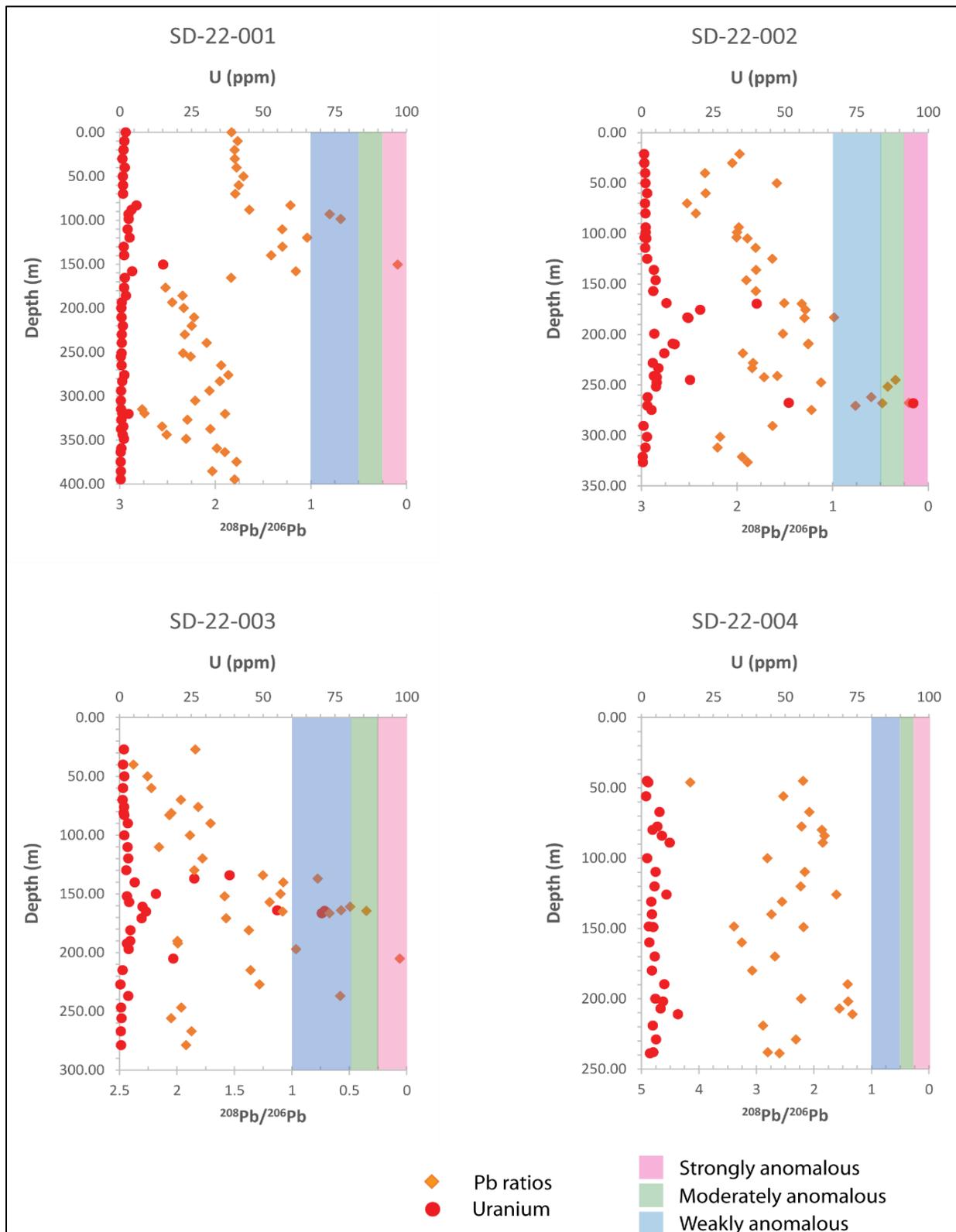


Figure 27. Combined downhole uranium and  $^{208}\text{Pb}/^{206}\text{Pb}$  data from 2022 drill holes

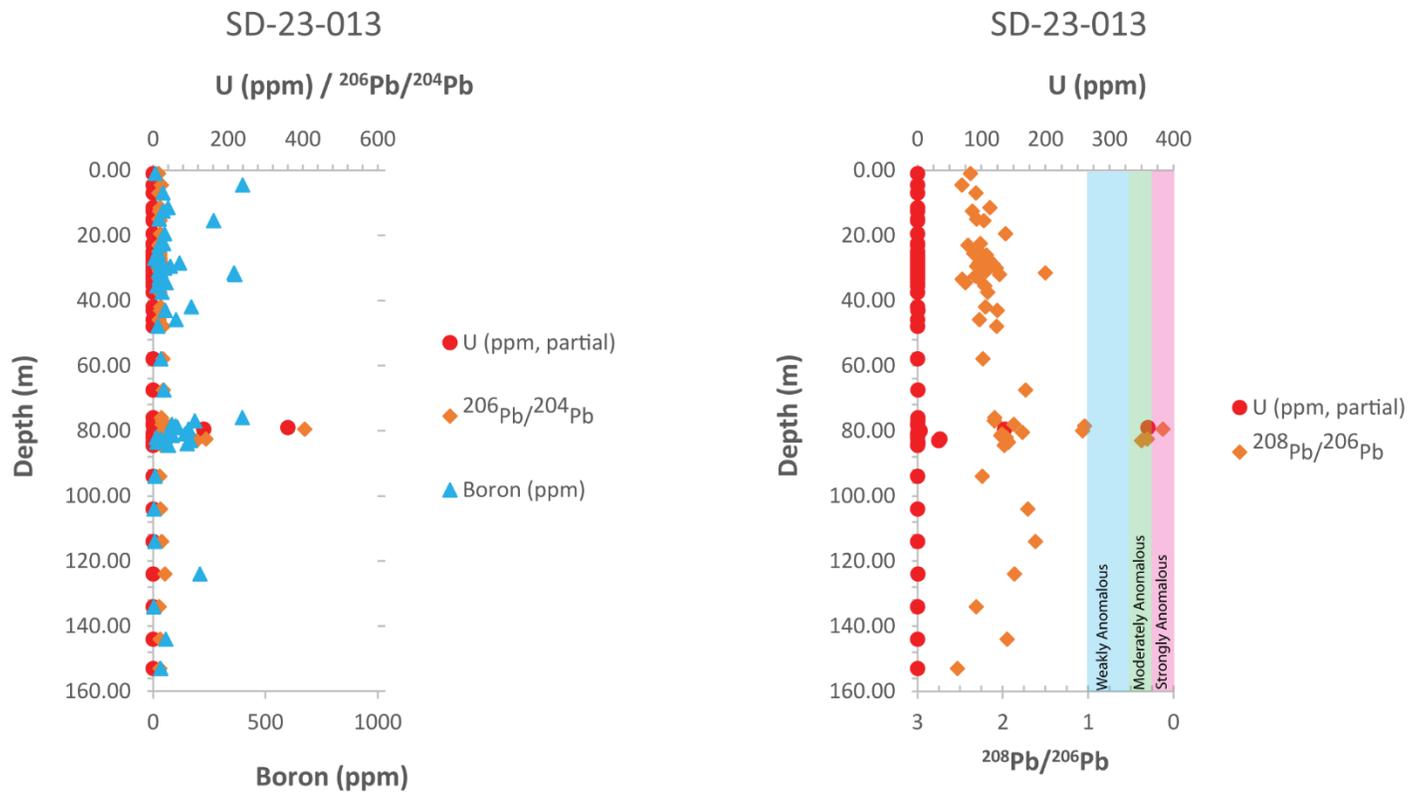


Figure 28. Downhole uranium, boron, and lead isotope values for mineralized drill hole SD-23-013

#### 10.2.4 Winter 2022-2023 Drill Hole Geology-Geochemistry Strip Logs

The following strip logs highlight the spectroscopy (PIMA) results and uranium geochemistry results of the 2022 and 2023 drill holes and relate the results to the structural and geological logs and gamma probe profiles for each drill hole. Lithology and structure codes used in Figure 29 through Figure 41 are defined below in Table 8.

Table 8. Lithology and Structure Code Legend for Strip Logs

Lithology Code	Description
WATR	Ice, Lake, etc.
OVBN	Glacial Overburden
DMT	Diamictite
CRET	Cretaceous Sedimentary rocks
DEVO	Devonian Sedimentary rocks
WINP	Devonian Winnipegosis Formation
MELA	Devonian Meadow Lake Formation

LALO	Devonian La Loche Formation
ASST	Athabasca Sandstone
ACON	Athabasca Conglomerate
UC	Unconformity
PSGN	Psammitic Gneiss
SPGN	Semi Pelitic Gneiss
PLGN	Pelitic Gneiss
F DYKE	Felsic Dyke
M DYKE	Mafic Dyke
PEGM	Pegmatite
GDIO	Granodiorite
GBDO	Gabbro/Diorite
TNLT	Tonalite
GRNT	Garnetite
VNQZ	Vein Quartz
SIGN	Pervasively silicified gneiss
GOGN	Garnetiferous Orthogneiss
GRTD	Granitoid Orthogneiss
AMPH	Amphibolite
PYRX	Pyroxenite
SYEN	Syenite
ANOR	Anorthosite
CARB	Carbonatite (>50% Ca minerals)
<b>Structure Code</b>	<b>Description</b>
CTA	Cataclasite
FBX	Fault Breccia
FGZ	Fault Gouge
FLZ	Fault Zone
FRZ	Fracture Zone
DMZ	Fault Damage Zone
MYZ	Mylonite
SHZ	Shear Zone

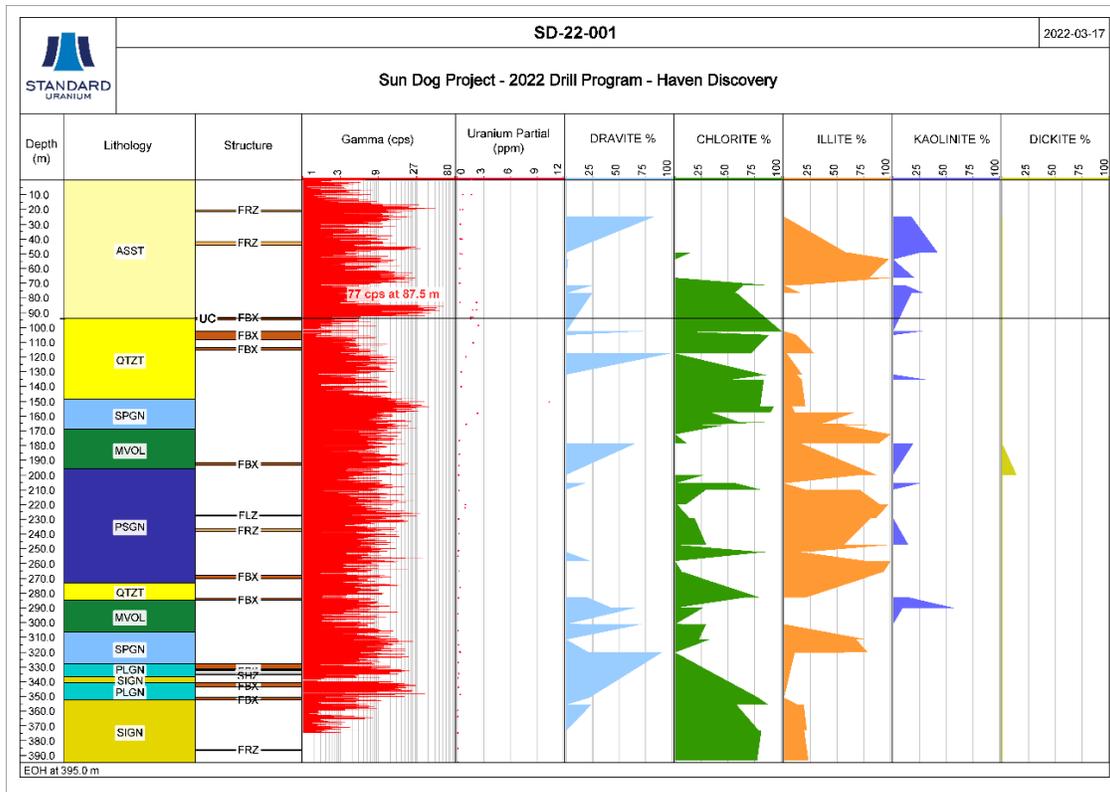


Figure 29. Drill Hole SD-22-001 Strip Log Highlighting PIMA and Uranium Results

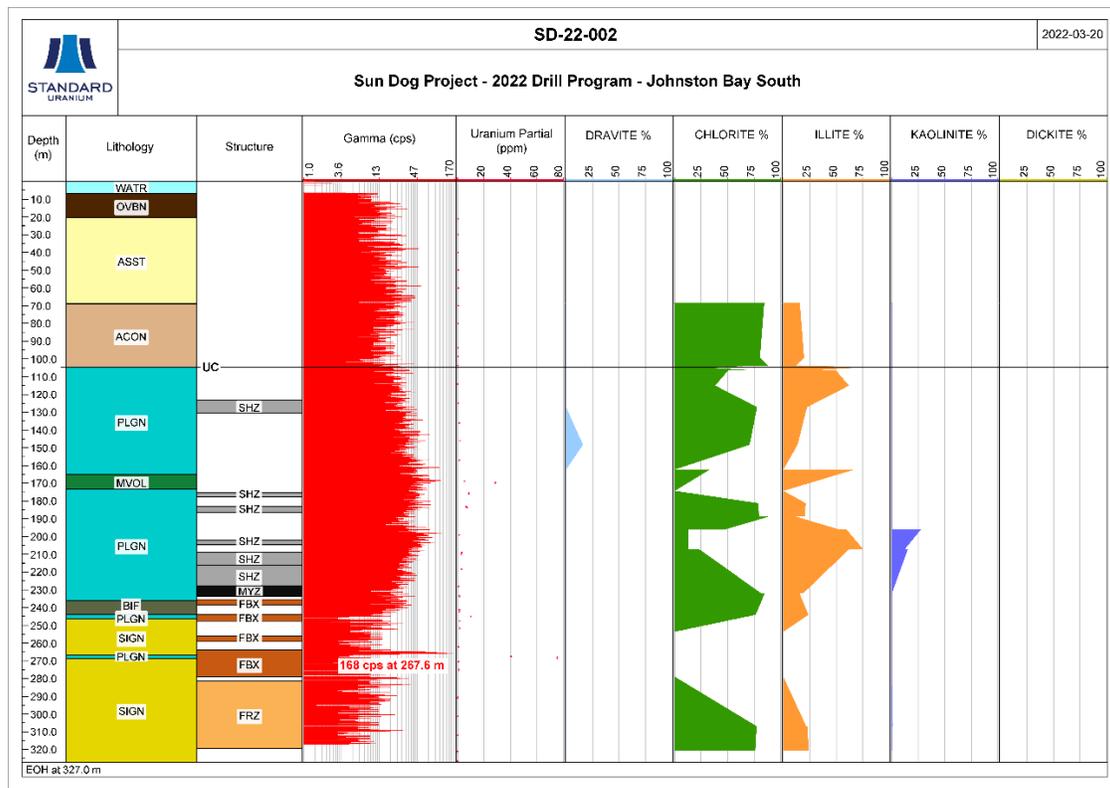


Figure 30. Drill Hole SD-22-002 Strip Log Highlighting PIMA and Uranium Results

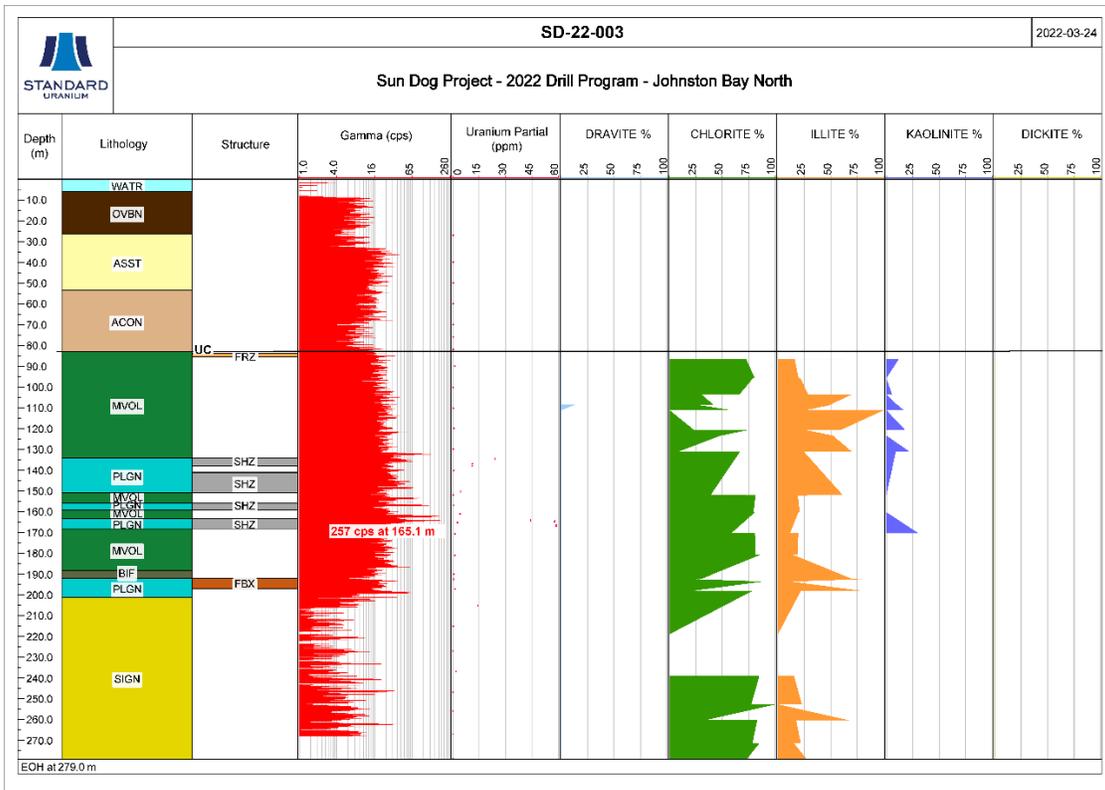


Figure 31. Drill Hole SD-22-003 Strip Log Highlighting PIMA and Uranium Results

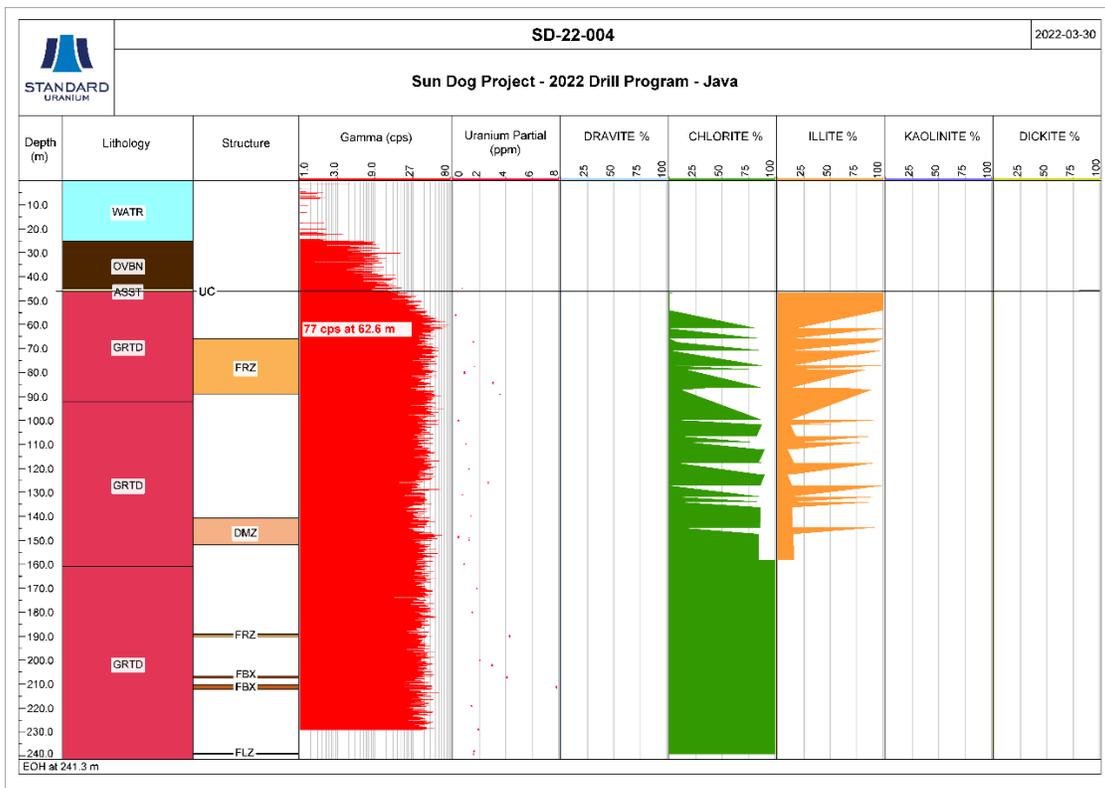


Figure 32. Drill Hole SD-22-004 Strip Log Highlighting PIMA and Uranium Results





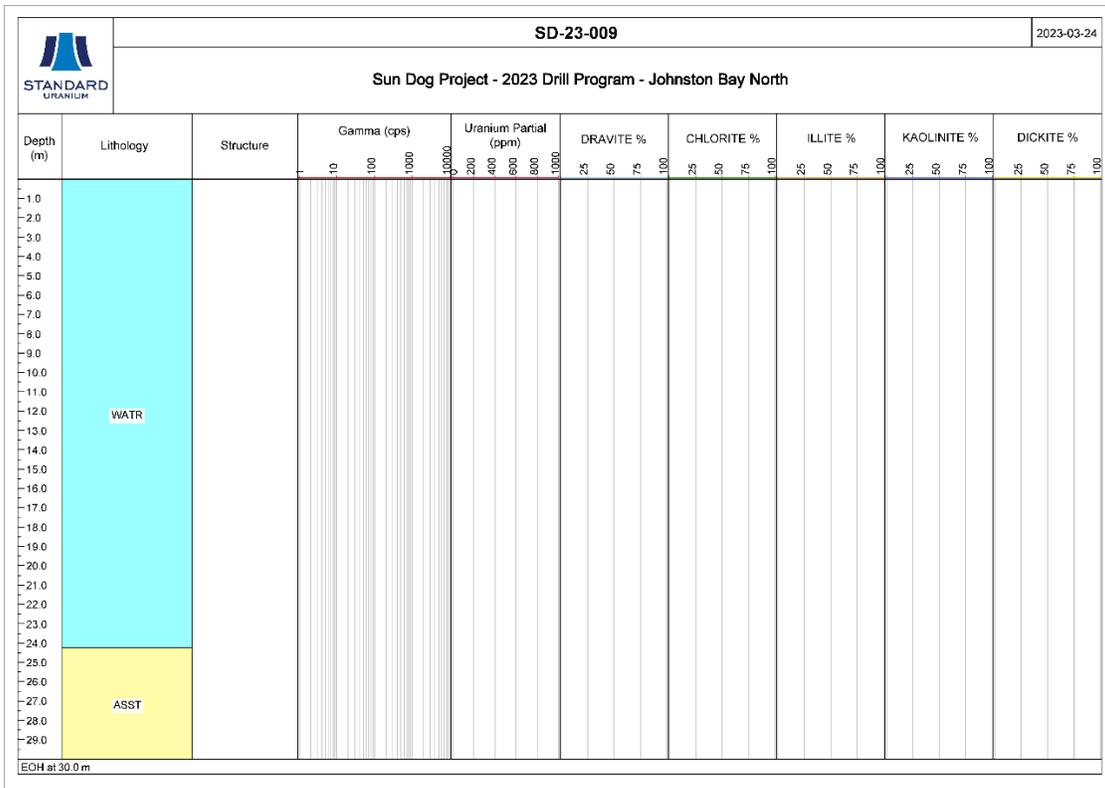


Figure 37. Drill Hole SD-23-009 Strip Log Highlighting PIMA and Uranium Results

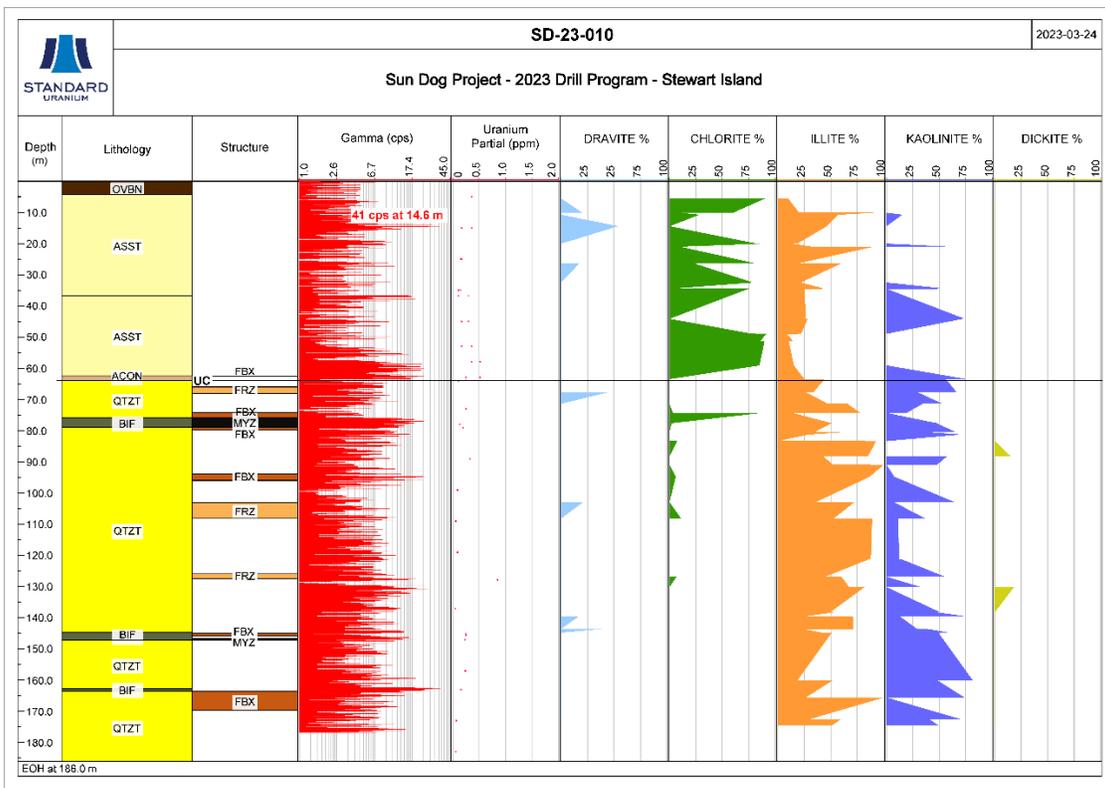


Figure 38. Drill Hole SD-23-010 Strip Log Highlighting PIMA and Uranium Results



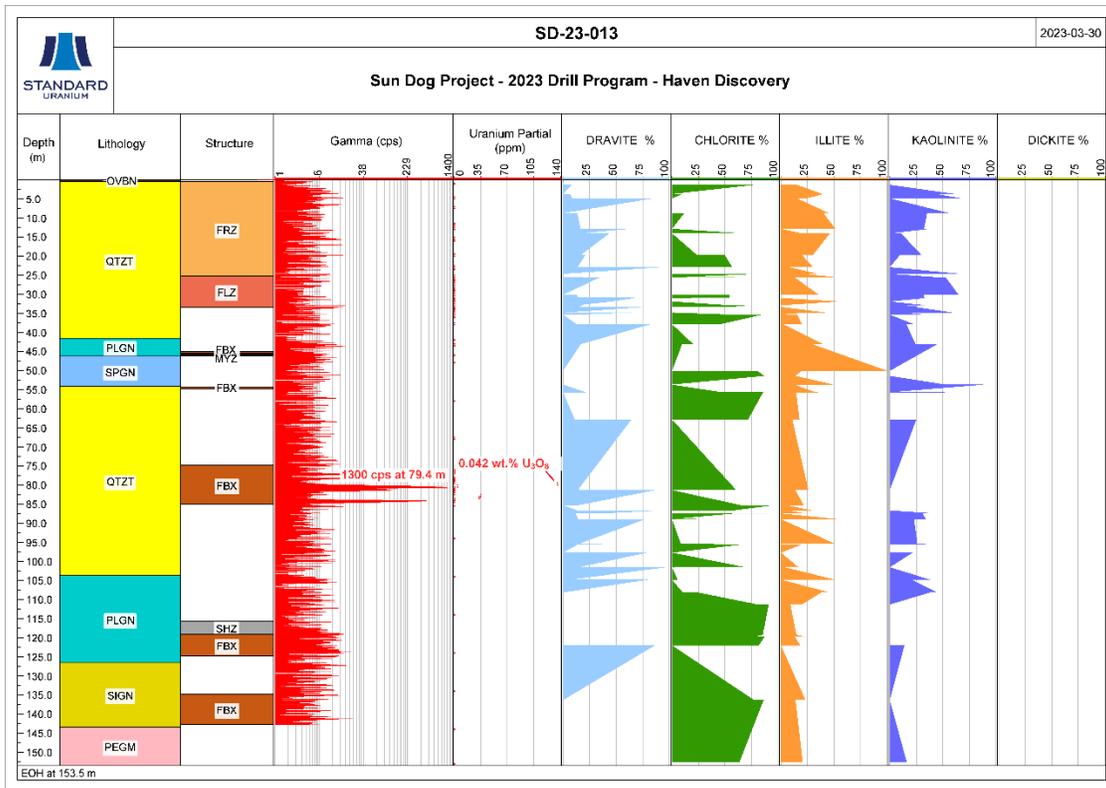


Figure 41. Drill Hole SD-23-013 Strip Log Highlighting PIMA and Uranium Results

## 11 SAMPLE PREPARATION, ANALYSES, AND SECURITY

### 11.1 Drill Core Whole-Rock Geochemistry Samples

Systematic representative and feature-based drill core samples were collected from all drill holes for whole-rock geochemical analysis and clay species typecasting. Three different types of samples were collected for geochemical analysis: Composite samples (1) in sedimentary rock units and point (2) and interval split core samples (3) in basement rocks. Blanks, standard reference materials, and duplicates (4) were inserted into the sample stream at regular intervals in accordance with Standard Uranium’s quality assurance/quality control (QA/QC) protocols (Section 11.2).

1. Composite Samples – small (centimetre-scale) chip/disc samples were collected throughout the Athabasca sedimentary rocks as composite samples of variable interval lengths, typically ranging from 1.0 m to 10.0 m. Sample lengths may be larger or smaller due to core loss.

2. Point Samples – half core over 10.0 cm was removed at systematic 10.0 m intervals within non-mineralized basement rock. Samples were adjusted based on lithologies and structural features.
3. Split Core Samples – split core samples were collected for analysis of anomalous radioactivity and other features of interest, with variable interval lengths of up to 3.0 m.
4. QA/QC Samples – Blank materials consisting of quartz fragments were inserted into the sample stream by field geologists at regular intervals (every 20 basement samples). Standard reference materials and duplicate/repeat samples were inserted into the sample stream by SRC in accordance with Standard's QA/QC protocols.

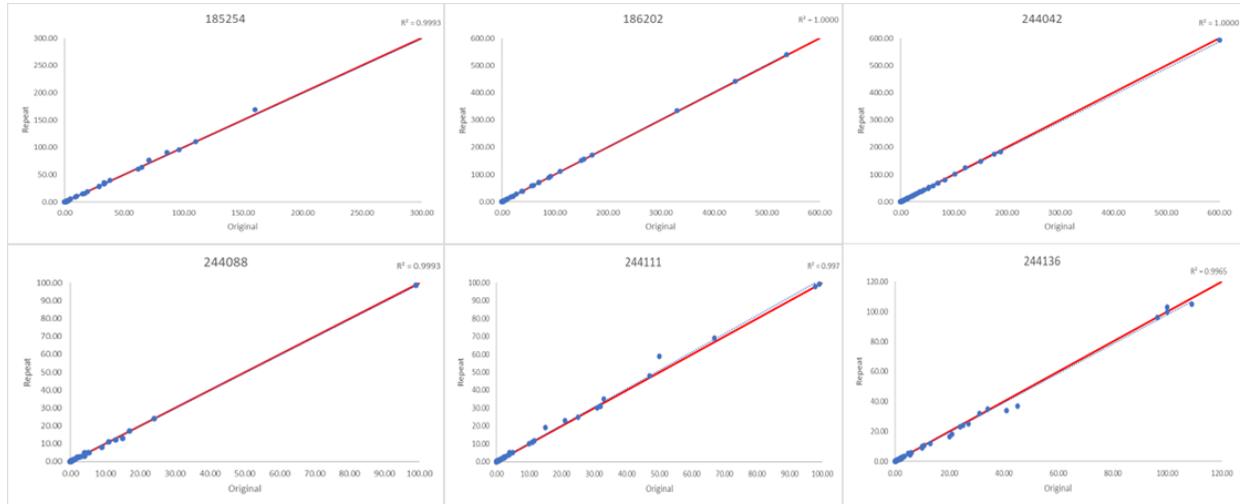
During the 2022 and 2023 drill programs, a total of 59 sedimentary rock and 296 basement rock samples were collected and analyzed. All geochemical samples were submitted to Saskatchewan Research Council Geoanalytical Laboratories (SRC) for preparation and analysis. Drill core samples were analyzed for multi-element, boron, silica, rare earth element (REE), and uranium analysis that included Inductively Coupled Plasma Mass Spectroscopy (ICP-MS) using both partial and total digestion methods. Additional sample suites were selected based on features within the rock, including REE and fire assay (FA). Total digestions are performed on an aliquot of sample pulp. The aliquot is digested to dryness in a Teflon tube within a hot block digestion system using a mixture of concentrated HF:HNO<sub>3</sub>:HClO<sub>4</sub>. The residue is dissolved in dilute HNO<sub>3</sub>. Partial digestions are performed on an aliquot of sample pulp. The aliquot is digested in a mixture of concentrated nitric: hydrochloric acid (HNO<sub>3</sub>:HCl) in a test tube in a hot water bath, then diluted using deionized water.

SRC Geoanalytical Laboratories, located in Saskatoon, SK is an ISO/IEC 17025 and Standards Council of Canada certified analytical laboratory. SRC is an independent laboratory with no association or affiliation with the Company. Detailed information pertaining to SRC sample preparation methods and analytical details can be obtained from the SRC website at [www.src.sk.ca](http://www.src.sk.ca).

The authors are of the opinion that the sample preparation, security, and analytical procedures are adequate for the stage of exploration.

## 11.2 QA/QC

SRC inserted standard reference materials into the sample stream and completed systematic duplicate analyses at regular intervals. In addition to SRC laboratory standards, internal blank standards comprised of quartz crystals were inserted at systematic intervals throughout the samples stream, in addition to field duplicate analysis. QA/QC checks show duplicate analyses do not trend significantly from original values (Figure 42).



*Figure 42. Sample scatter plots for select duplicate analyses. All data lies on or proximal to the 1:1 control line (red), allowing for confidence in the lab precision of analyses. No concentration-related problems appear to be affecting the duplicate data.*

Uranium assay duplicates of sample 185254 returned the same value of 0.042 wt. %  $U_3O_8$  (Figure 42).

Internal blank material generally falls within an acceptable range for a natural material. Slightly elevated boron and chromium values are attributed to either boron fluid inclusions in the quartz or fine-grained boron minerals within the quartz. The absence of other elevated elements suggests these values result from heterogeneity in the blank material rather than contamination from sampling and analysis. Internal blank with sample number 244060 from SRC group G-2023-744 returned a S value of 98 ppm. No other elements are significantly elevated. This value is  $2\sigma$  higher than the average S value of any other blank run and may indicate contamination from sample 244059 which returned 21,900 ppm S. Samples 244056 to 244058 all run  $>5,000$  ppm S and could have contributed to the added presence of sulfur which may have been introduced prior to crushing

the quartz blanks. Elevated sulfur does not continue past the quartz blank in the same stream, and the blank is not in a mineralized sequence. No further intervention is required, however, blanks, field duplicates, and lab duplicates will continue to be closely monitored.

Field duplicates were added to the sampling procedure for the winter 2023 field program to monitor sample homogeneity. The coefficient of determination (r squared or RSQ Value; Table 9) is a measure of the variance between elements of each sample suite. An RSQ value of 1.00 indicates that values between the sample and field duplicate for each element analyzed have very little variance and suggest a very homogeneous sample. Sample 244074, which was taken in a quartz-healed fault breccia zone reflects the inherent homogeneity that breccias have with a lower RSQ value.

*Table 9. R-squared values of 2023 winter field duplicate internal standards. A value of 1.00 indicates no variance between sample and duplicate (a perfectly homogenous rock).*

<b>Group #</b>	<b>Description</b>
G-2023-744	244024
G-2023-744	244025
<b>RSQ Value</b>	<b>0.998646435</b>
G-2023-744	244049
G-2023-744	244050
<b>RSQ Value</b>	<b>0.998472069</b>
G-2023-744	244074
G-2023-744	244075
<b>RSQ Value</b>	<b>0.770287921</b>
G-2023-744	186174
G-2023-744	186175
<b>RSQ Value</b>	<b>0.96184511</b>
G-2023-744	186199
G-2023-744	186200
<b>RSQ Value</b>	<b>0.910451078</b>
G-2023-745	244124
G-2023-745	244125
<b>RSQ Value</b>	<b>0.989041286</b>
G-2023-745	244099
G-2023-745	244100
<b>RSQ Value</b>	<b>0.920995849</b>

### 11.3 Clay Species Type (PIMA) Samples

Representative ~1.0 cm thick chip samples of drill core were collected in the basement and Athabasca sandstones, specifically along fractures or in structural zones. Zones of increased clay alteration were targeted for sampling, to analyze for short wave infrared spectroscopy via a Portable Infrared Mineral Analyzer (PIMA).

A total of 550 PIMA analyses were returned from 286 spectral samples collected during the 2022 and 2023 drill programs. All clay species samples were sent to Rekasa Rocks Inc. in Saskatoon, SK for analysis. Each individual sample may be tested for different features such as the matrix, fractures, etc. These additional tests are differentiated by a 1 cm depth increase within Standard Uranium's database, resulting in 550 individual PIMA results. The results of the PIMA analyses are summarized and related to lithology, major structures, and uranium analyses in Section 10.2.4.

## 12 DATA VERIFICATION

### 12.1 Site Visit Validation

The authors visited the Property together from September 20<sup>th</sup> to 21<sup>st</sup>, 2022 via float plane from Fort McMurray, Alberta. The authors conducted a brief airborne visual survey of the Property and examined aspects of the mainland and island terrain, outcrop, and vegetative cover.

The terrain on the Project is rocky and forested with several instances of bare outcrop amongst forest with a thin cover of soil. Trees are largely mature, with patches of relatively new growth populated by smaller spruce trees. Several outcrops were visited on Stewart and Johnston Islands by boat, including those with documented radioactive showings including the Haven, JNW-1, Walli, and JSW-2 showings on Johnston Island and the Stewart Island deposit showings (Figure 43).

The authors then examined diamond drill core at the Stewart Island core storage area from Standard Uranium's winter 2022 drill program (Figure 43). Discussions between the authors and Standard Uranium geologists on site were had over the drill core, pointing out specific units and features of interest including sheared graphitic metapelites, structurally controlled clay-dravite alteration, and intersections of elevated radioactivity. The Project's exploration procedures and protocols were found to meet industry-standard practices.



*Figure 43. A) Drill hole verification of Historic drill hole #7, B) The authors measuring radioactivity using RS-125 scintillometers on Stewart Island, C) The authors measuring radioactivity using RS-125 scintillometers at the JNW-1 deposit on Johnston Island, D) The Core Yard at the Sun Dog Project on Stewart Island*

## 12.2 2021 Database Verification

QP Slugoski requested original assay certificates from SRC (the responsible laboratory), for both the channel sample and drillhole assays from the Company's 2021 exploration campaign. Files were received either as Adobe portable document format ('.pdf') files and ascii, comma-delimited text (.csv) files. Original assay certificates were compared to the Company's master database. No significant errors, omissions or inconsistencies were observed.

During his review, the compiled assay data were compared with the assay certificates to ensure that the data were correct. Assay certificates for the historical drilling conducted in 1987 and 1988 were not available for review.

### 12.3 2022 Drill Collar Verification

QPs Slugoski and Hillacre undertook a site visit at the Sun Dog Property on September 20 and 21, 2022. The QPs were able to visually inspect and verify the collar position of drill hole SD-22-001. Drill holes SD-22-002 to SD-22-004 were located on Lake Athabasca therefore could not be verified visually.

### 12.4 2022-2023 Database Verification

QP Slugoski requested original assay certificates from SRC (the responsible laboratory), for both the channel sample and drillhole assays from the Company's 2022-2023 exploration campaigns. Files were received either as Adobe portable document format (.pdf) files and ascii, comma-delimited text (.csv) files. Original assay certificates were compared to the Company's master database. No significant errors, omissions or inconsistencies were observed.

### 12.5 2023 Drill Collar Verification

QP Hillacre was on site during the winter 2023 drilling program from February 27 to March 01 and from March 26 to April 01, 2023. QP Hillacre visually inspected and verified drill holes SD-23-005 to SD-23-013 by visiting all completed drill pads and active drill sites prior to ice breakup.

### 12.6 Qualified Persons' Opinion

In the opinion of QP Slugoski, Standard Uranium's drillhole database found no errors or omissions, which validates the Company's database for the purposes of generating subsequent drill targets. Verification of the Sun Dog project data, used for generating exploration targets, has been undertaken by the authors, including verification of historical and recent 2022 and 2023 drilling data from hard-copy reports, containing drill hole logs, assay certificates, cross-sections and maps, and lab-direct assay certificates, as well as an independent site visit to the Property.

## 13 MINERAL PROCESSING AND METALLURGICAL TESTING

No mineral processing or metallurgical testing has been completed on the Property by Standard Uranium Ltd. or its affiliates.

## 14 MINERAL RESOURCE ESTIMATES

No mineral resource estimation has been completed on the Property by Standard Uranium or its affiliates; however, a “historic estimate” of the Stewart Island deposit, comprised of the “Far East, West, and Main” zones has been listed by the SMDI and Skerl (1969) as containing “Reserves” of 2,561 tons (2,325 tonnes) grading 0.476%  $U_3O_8$ ; 88% of which is hosted in the Main Zone (Andrews and Roy, 1977; Daubeny, 2010).

Canadian Pipelines Ltd. (Scurry-Rainbow Oil Co.) acquired the Stewart Island claims in 1959-1960 and completed the first drill program on the Stewart Island showing, drilling 1,507.8 m in 25 drill holes. Norex Uranium Ltd. then acquired the property in 1964 and drilled an additional 2,175 m in 67 drill holes. Subsequent drilling by Eldorado Nuclear Ltd. encountered several radioactive intersections of grades and thickness akin to those reported in earlier drilling by Scurry-Rainbow. Drill hole intersections and grades are outlined above in Section 6.1. The mineralization and mineralogy of the Stewart Island deposit are described above in Section 7.3.

The “Reserves” described above fall under the National Instrument 43-101 definition of a “historic estimate” meaning that the calculations were prepared prior to the February 1<sup>st</sup>, 2001, implementation of NI 43-101 and therefore do not conform to NI 43-101 standards. No NI 43-101 compliant resource estimates exist to date on the Property.

## 15 TO 22 - NOT APPLICABLE (EARLY-STAGE PROPERTY)

The Sun Dog Project is an early-stage exploration property. Sections 15 through 22, as defined by NI 43-101, are not relevant to this report and have been omitted.

## 23 ADJACENT PROPERTIES

All the information in this section was obtained from the websites and public disclosures of current owners/operators of adjacent properties. Various companies and individuals hold claims either adjacent to or near to the Property and are actively exploring for uranium, rare earth element, or precious metal mineralization. Most of these properties are still at an early stage of exploration (Figure 44), whereas some have mineral resources in other commodities. Adjacent properties with significant exploration are discussed below, beginning with those that have mineral resource and reserve estimates, followed by those at an earlier stage of exploration.

### 23.1 Adjacent Properties with Mineral Resource Estimates

There are no properties adjacent to the Sun Dog project with uranium resource estimates. The only adjacent property with a compliant mineral resource estimate (“MRE”) is the Goldfields project.

The Goldfields Gold Project (“Goldfields”), 100% owned by Fortune Bay Corporation (“Fortune Bay”), is situated approximately 5 km northeast of the Sun Dog Project and lies north of the Athabasca Basin margin (Figure 44). Goldfields hosts the Box and Athona gold deposits, both of which have mineral resource estimates prepared in accordance with the Canadian Securities Administrators’ National Instrument 43-101. Fortune Bay has published a Goldfields project NI 43-101 technical report on preliminary economic assessment with an effective date of October 31, 2022.

The effective date of the updated mineral resource statement is September 01, 2022 (Ausenco Engineering Canada Inc., 2022). The updated Goldfields MRE prepared by SRK with an effective date of September 1, 2022, uses a cut-off grade of 0.3 g/t Au constrained within a conceptual open-pit shell and a Au price of USD \$1,800/oz. The Box gold deposit has an Indicated mineral resource of 729,700 oz Au at a grade of 1.44 g/t Au and Inferred mineral resource of 112,800 oz Au at 1.08 g/t Au. The Athona gold deposit has Indicated mineral resources of 250,200 oz Au at a grade of 1.06 g/t Au and Inferred mineral resources of 98,000 oz Au at a grade of 0.80 g/t Au (Ausenco Engineering Canada Inc., 2022).

### 23.2 Adjacent Properties at Early Stage of Exploration

In addition to the Goldfields project, Fortune Bay Corporation also holds 100% interest in two uranium projects adjacent to Sun Dog – The Murmac and Strike uranium projects (Figure 44). The following project descriptions are summarized from the Fortune Bay Corporation website at <https://fortunebaycorp.com/>.

The 100% owned Murmac Uranium Project has been confirmed to have potential for high-grade unconformity-related, basement-hosted uranium deposits in a setting similar to other discoveries on the margin of the Athabasca Basin (Fortune Bay). The Project includes 15 mineral claims covering an area of approximately 8,900 ha (including 5 claims comprising 3,250 ha staked in 2023) and is located 15 km south of Uranium City.

In 2022, Fortune Bay augmented the historical exploration datasets (captured from assessment reports) with high-quality VTEM and ground gravity survey and completed a maiden drill program of 15 holes (3,168 m). Anomalous uranium (>100 ppm U) was intersected in six of the holes, up to a maximum individual assay of 0.18% U<sub>3</sub>O<sub>8</sub>. Shallow, elevated uranium in drill core is associated with “pathfinder” elements (typical of high-grade Athabasca deposits) and is hosted in prospective highly graphitic units with favorable brittle structures and alteration.

The 100% owned Strike Uranium Project covers an area of approximately 10,000 ha and is located 25 km west of Uranium City and the Company’s flagship Goldfields Project in northern Saskatchewan, and 15 km southeast from Camsell Portage.

Other early-stage exploration companies with properties adjacent to Sun Dog include F3 Uranium Corp., 92 Energy Ltd., and Atha Energy Corp. (Figure 44).

F3 Uranium Corp.’s non-contiguous Midas project is located north of Sun Dog and straddles the regional Black Bay fault/shear zone, which is associated with several historic uranium deposits of the Beaverlodge area. F3 Uranium completed an airborne magnetic and radiometric survey in 2013 on the project and a prospective survey in 2017 (<https://f3uranium.com/projects/athabasca-basin/beaverlodge-area-projects/midas/>).

92 Energy Ltd.’s Powerline project lies north of Sun Dog, sharing claim borders with Atha Energy Corp. (Figure 44). Neither company has released any pertinent information on these projects as of the effective date of this report.

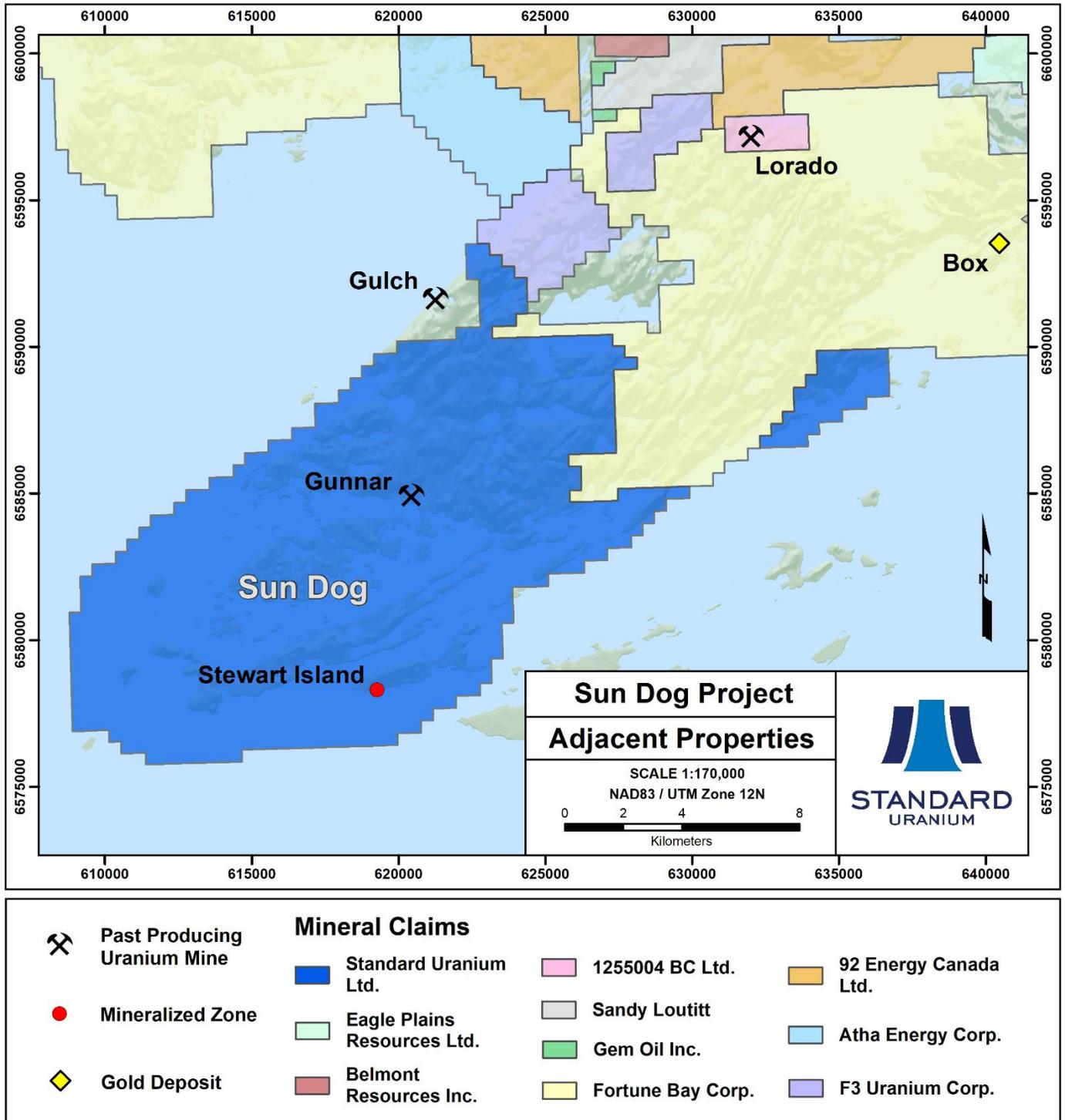


Figure 44. Adjacent Properties

## 24 OTHER RELEVANT DATA AND INFORMATION

A summary of expenditures for all exploration activities completed by Standard Uranium in 2022 and 2023 is included in Table 10 below.

*Table 10. Summary of 2022 and 2023 Sun Dog Project Expenditures*

<b>Expenditure Category</b>	<b>Amount (\$CDN)</b>	
Diamond Drilling	\$	1,708,298.29
Ground Geophysics	\$	252,816.00
Airborne Geophysics	\$	69,034.50
Geophysical Interpretation	\$	9,304.00
Spectroscopy	\$	4,520.25
Geochemistry	\$	56,077.46
Medical	\$	60,256.38
Ice road/Drill pads	\$	424,027.98
Camp/Meals/Fuel	\$	769,756.40
Downhole Tool Rental	\$	38,548.82
Aircraft	\$	28,095.29
Consultants	\$	32,103.73
First Nations Engagement/Consultation	\$	11,780.00
<b>TOTAL</b>	<b>\$</b>	<b>3,464,619.09</b>

## 25 INTERPRETATION AND CONCLUSIONS

Running in tandem with the start of Standard's winter 2022 drill program, high-resolution ground gravity and magnetic surveys were completed over the Skye, Haven, Walli, and Java target areas on the Project, further refining high-priority uranium drill targets across Property. Several gravity-low anomalies have been identified and coincide with breaks or flexures in electromagnetic conductors under Athabasca sandstone cover, defining multiple unconformity-related uranium targets. Gravity low anomalies are interpreted to potentially represent zones of strong alteration in bedrock, specifically clay alteration, commonly associated with the footprint of high-grade uranium deposits.

The 2022 and 2023 diamond drill programs described in this report were successful in building on the geological understanding and interpretation on the Sun Dog Project, which in turn will aid in planning and prioritization of additional exploration targets for follow-up drill programs. The goal

of the 2022 and 2023 drill programs was to drill test graphitic conductors coincident with interpreted cross-cutting faults and historical intersections of high-grade uranium mineralization, as well as to test the down-dip extensions of structures hosting mineralization at surface, with the aim of discovering high-grade basement “roots” of the mineralizing systems underlying the Athabasca sandstones.

The winter 2022 and 2023 diamond drill programs showed:

1. The presence of hydrothermally altered Athabasca sandstone with illite and dravite clay occurrences which are strongly associated with high-grade uranium mineralization in Athabasca Basin uranium deposits.
2. The basement geology of the Sun Dog Property exhibits many of the same rock types and hydrothermal alteration products that have been encountered along the uranium-fertile eastern Athabasca Basin (e.g., variably altered graphitic pelitic gneiss, and structurally controlled illite-dravite and hematite alteration).
3. The basement rocks at Sun Dog have undergone varying degrees of ductile and brittle deformation resulting in mylonitic rocks, some of which exhibit hydrothermal clay-chlorite alteration and contain graphite and sulphide mineralization. Structural controls on mineralization have been recorded and measured in mineralized outcrop locations (e.g., Haven discovery) to aid in drill targeting.
4. Significant potential for the Sun Dog Property to host uranium mineralization along the unconformity contact between Athabasca sandstone and underlying crystalline basement rocks and within basement structural zones of reactivation and crosscutting structures.
5. Elevated radioactivity over a total of 1.5 metres up to 1,300 counts per second (cps)\* intersected in drill hole SD-23-013 at the Haven discovery. Assay highlights include 0.042 wt.%  $U_3O_8$  from 79.0 to 79.5 m and 0.021 wt.% from 79.5 to 80.0 m.
6. Oriented structural measurements from each target area have confirmed multiple relationships exist between regional foliation and local ductile/brittle reactivation. In Johnston Bay, relevant structures exhibiting brittle reactivation generally parallel foliation (Figure 45), while to the northeast at the Walli showing, breccias parallel foliation and fault

gouges sharply crosscut the host rock's foliation (Figure 46). In mineralized drill hole SD-23-013 at the Haven discovery, faults and breccias strike oblique to the main foliation (ENE strike), while cataclasites crosscut foliation, striking NNE (Figure 47). On Stewart Island, foliation and fractures mirror those intersected in proximal historic drillholes, displaying an ENE strike and SSE dipping foliation (Figure 48).

7. Intersections of significant structure and alteration in drill holes SD-23-011 and SD-23-012 at the Walli showing, including dravite-clay alteration halo associated with oxidized fault breccia and shear zones. Collared proximal to surficial uranium mineralization, this supports the utility of dravite as a vectoring tool.
8. Quartz-hematite breccias and dravite alteration in drill hole SD-23-010 on Stewart Island proximal to a zone of perched uranium mineralization.
9. Several characteristics of a uranium-bearing mineralized system in previously untested target areas, significantly extending the known footprint of dravite and clay alteration associated with uranium mineralization in the Haven and Walli target areas.
10. Multi-faceted lead isotope analysis has shown that Pb isotope ratios may be helpful as an additional vectoring tool, particularly within basement rocks. A strong correlation between lead isotopes and uranium is apparent in basement lithologies, which will be integrated into future drill hole targeting.
11. Geochemically, the Haven and Johnston-Bay target areas are a priority for follow-up programs based on dravite content, significant boron, and moderately anomalous uranium. There is not enough data to discredit the Java target area; however, the initial drill results do not display any meaningful geochemical anomalies.
12. The Sun Dog Property contains numerous priority exploration targets that warrant additional follow-up within the Java, Johnston Bay, and Haven target areas, in addition to new regional exploration along Stewart Island, Grouse Island, and Halifax Island.

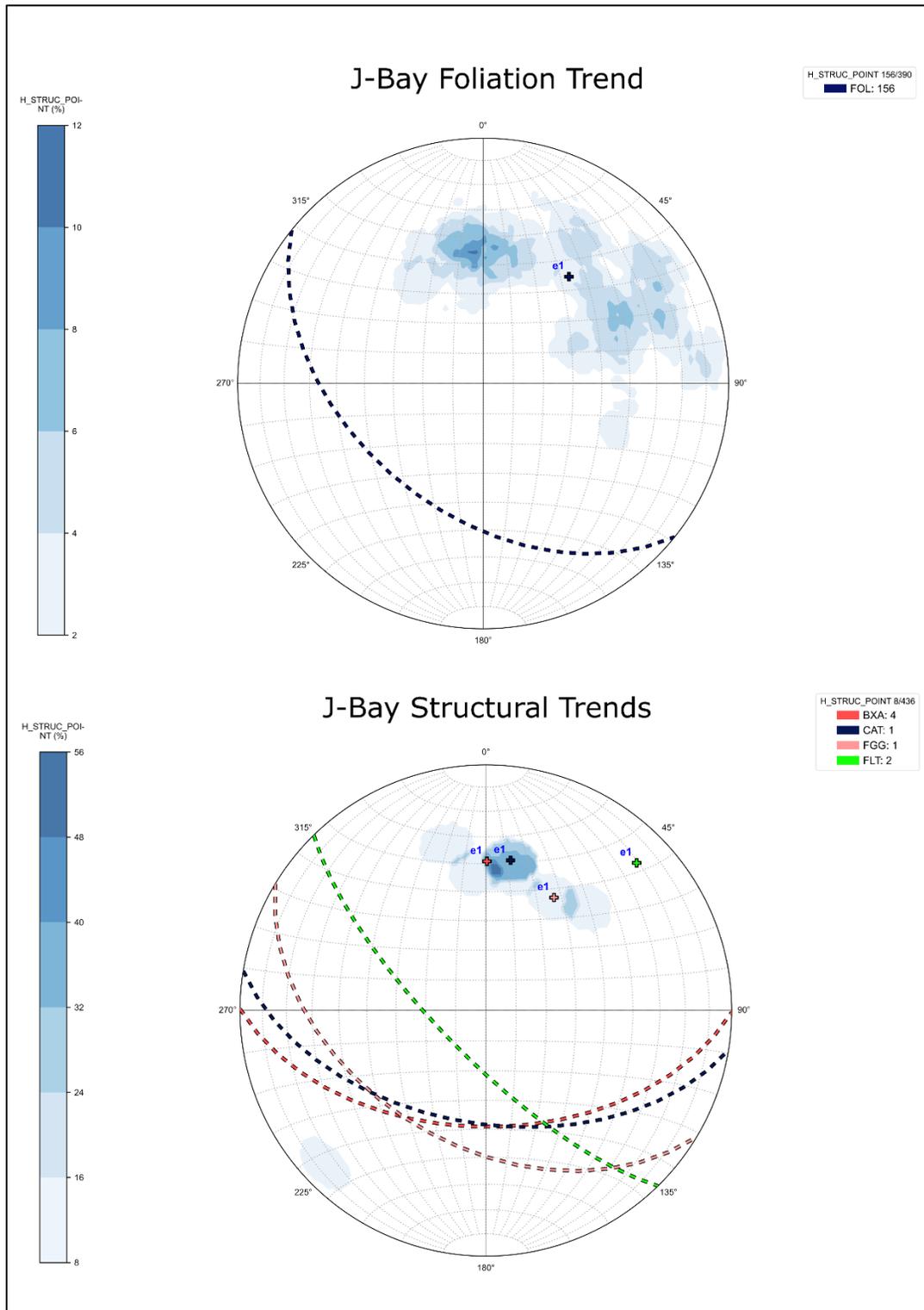


Figure 45. Schmidt equal-area stereonets with statistical mean trends of foliation and structural orientations along the J-Bay target area. Foliation and steep faulting are generally SE striking and SW dipping, while other main structural features display a more east-west trend and SSW dip

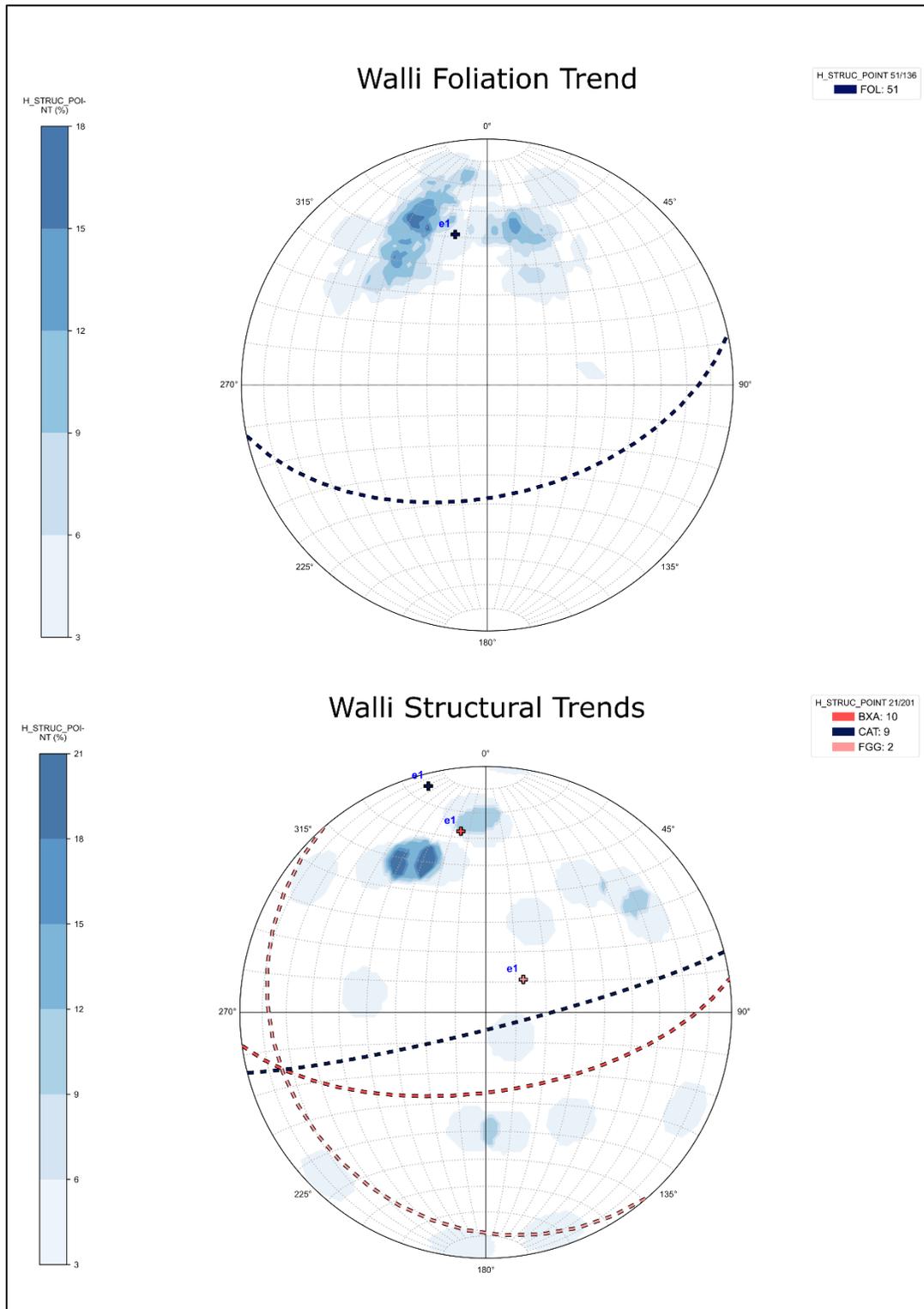


Figure 46. Schmidt equal-area stereonets with statistical mean trends of foliation and structural orientations along the Walli showing. Foliation, cataclasites, and breccias are trending ENE with a moderate SSE dip, while graphitic fault gouges crosscut the foliation, striking to the SE with a shallow SW dip

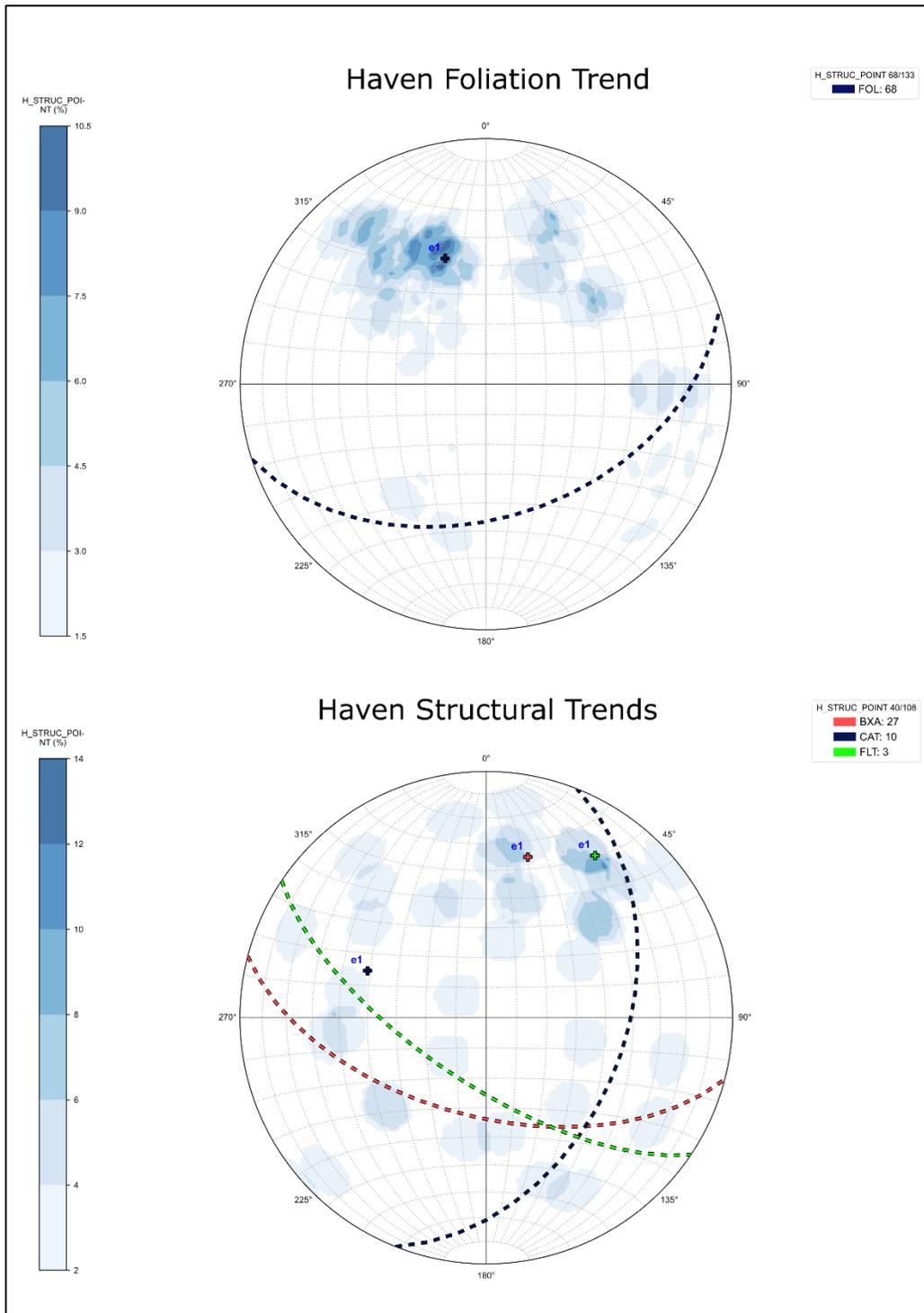


Figure 47. Schmidt equal-area stereonets with statistical mean trends of foliation and structural orientations along the Haven discovery. Foliation displays a ENE strike and moderate SSE dip, which is crosscut sharply by cataclasites which strike NNE and dip moderately to the ESE. Breccias and faults trend oblique to foliation by roughly 50°, striking SE and dipping to the SW

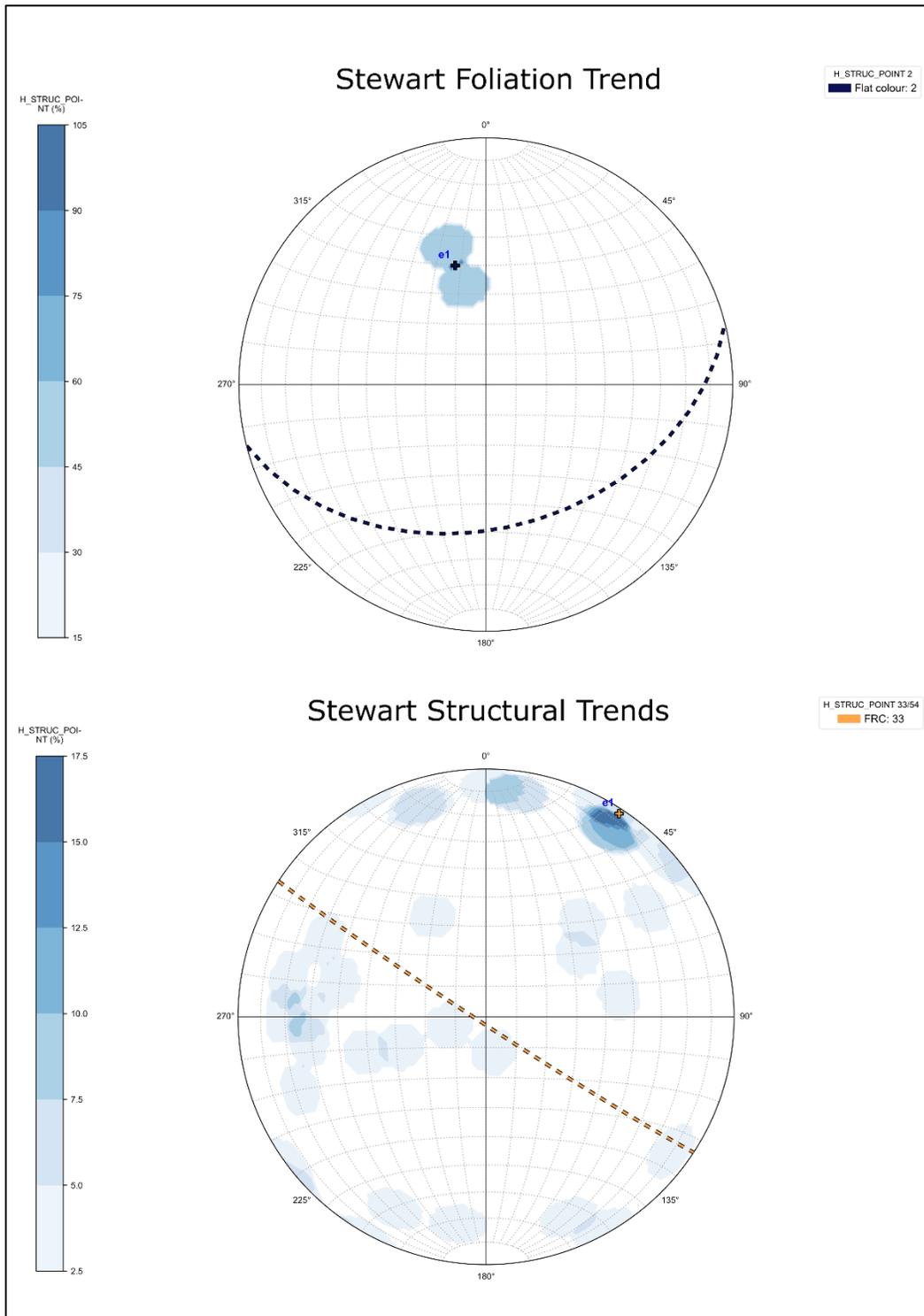


Figure 48. Schmidt equal-area stereonets with statistical mean trends of foliation and structural orientations along the Stewart target area. Foliation is striking ENE and dipping moderately to the SSE. Fractures generally crosscut the foliation, striking SE and dipping steeply to the SW

Further exploration work on the Sun Dog Property is required to confirm the occurrence of economically viable uranium mineralization and to validate previous published work of other companies. Diamond drilling will be used to confirm the interpreted presence of significant alteration zones associated with graphitic-sulphidic conductive units which are favorable hosts of uranium mineralization in this region.

## **26 RECOMMENDATIONS**

Recommendations for continued exploration on the Sun Dog Property are as follows:

1. Follow-up diamond drill programs to expand knowledge of the property-wide geology and further evaluate the potential of economically viable uranium mineralization. Additional surface or airborne geophysical surveys are not recommended at this time. The results summarised above provide sufficient targeting vectors to refine future drill programs, and several areas of follow-up have already been identified.
2. Drill programs should comprise a minimum of 3,000 – 4,000 m to allow sufficient investigation, focusing on fertile conductor trends and gravity-lows. It is recommended that angled holes are drilled to intersect stratigraphy as orthogonal as possible, and to allow for structural analysis based on oriented drill core measurements.
3. Detailed geological and geochemical surface mapping is recommended between drill programs to expand on the property geology and help vector favourable rock types and structures associated with uranium mineralization. Additional surface showings may also be identified through this work.
4. Additional processing of the 2022 ground gravity data, including inversion and production of a 3D density model may be beneficial in refining drill targets. Specific gravity testing of lithologies may also aid in the analysis of the gravity results and the rock properties.

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## 28 DATE AND SIGNATURE PAGE

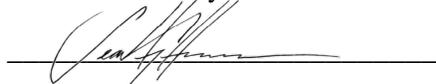
This report entitled “**Technical Report on the Sun Dog Property, Northwestern Saskatchewan, Canada**” and with an effective date of June 30<sup>th</sup>, 2023, was prepared on behalf of Standard Uranium Ltd. and is signed and sealed by the authors, Sean Hillacre, P.Geo., and Darren Slugoski, P.Geo. on June 30<sup>th</sup>, 2023.

### Sean Hillacre

I, Sean Hillacre, P.Geo., of 2702 Preston Avenue, Saskatoon, SK, Canada, S7J 2G6 do hereby certify that:

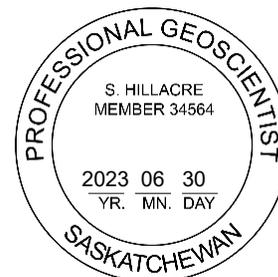
1. I am the current VP Exploration of Standard Uranium Ltd. of 1220 – 606 Spadina Crescent E, Saskatoon, SK, Canada, S7K 3H1 and have held that position since July 2020.
2. I am a graduate of the University of Saskatchewan, Saskatoon, Saskatchewan, Canada with a High Honours Undergraduate Degree and a Master’s Degree in Geological Sciences.
3. I am registered as a Professional Geoscientist in the Province of Saskatchewan (APEGS Reg. #34564) and a professional member in good standing. I have worked as a geologist in the natural resources industry since 2014.
4. That I have read National Instrument 43-101 and Form 43-101F1 and consider myself a “qualified person” for the purpose of the Instrument.
5. That I have been involved with the Sun Dog Project since joining Standard Uranium in 2020 and have spent significant time at the Project and planned the 2022 and 2023 programs.
6. That I am responsible for the co-preparation of the technical report entitled “TECHNICAL REPORT ON THE SUN DOG PROPERTY NORTHWESTERN SASKATCHEWAN, CANADA”, prepared for Standard Uranium Ltd. and signed June 30<sup>th</sup>, 2023.
7. I am not independent of the report issuer.
8. At the effective date of the technical report, to the best of my knowledge, information, and belief, the report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated this 30<sup>th</sup> day of June 2023



Signed and sealed “Sean Hillacre”

Sean Hillacre, M.Sc., P.Geo.



**Darren Slugoski**

I, Darren Slugoski, P.Geo., of 101 - 3239 Faithfull Avenue, Saskatoon, SK, Canada, S7K 8H4 do hereby certify that:

9. I am the current Exploration Manager of Axiom Group of Companies Ltd. of 101 - 3239 Faithfull Avenue, Saskatoon, SK, Canada, S7K 8H4 and have held that position since July 2020.
10. I am a graduate of the University of Saskatchewan, Saskatoon, Saskatchewan, Canada with an Honours Degree in Geological Sciences.
11. I am registered as a Professional Geoscientist in the Province of Saskatchewan (APEGS Reg. #24793) and a member in good standing. I have worked as a geologist in the natural resources industry since 2011.
12. That I have read National Instrument 43-101 and Form 43-101F1 and consider myself a “qualified person” for the purpose of the Instrument.
13. That I have been involved with the Sun Dog Project since September 2022 and was at the project for 2 days between September 20<sup>th</sup> and 21<sup>st</sup>, 2022.
14. For this report, I have relied on project files and information provided by Standard Uranium Ltd.
15. That I am responsible for the co-preparation of the technical report entitled “TECHNICAL REPORT ON THE SUN DOG PROPERTY NORTHWESTERN SASKATCHEWAN, CANADA”, prepared for Standard Uranium Ltd. and signed June 30<sup>th</sup>, 2023.
16. I am independent of the report issuer.

My relevant experience for the purpose of the assessment report is:

- Participation in; review of and reporting on numerous mining and exploration projects for the purposes of mineral exploration, resource development, environmental regulatory compliance, quality control and due diligence.
  - Previous roles as a senior geologist and project geologist on numerous uranium exploration projects in Canada.
17. At the effective date of the technical report, to the best of my knowledge, information, and belief, the report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated this 30<sup>th</sup> day of June 2023

DS  
 (Signed & Sealed) “Darren Slugoski”

Darren Slugoski, P.Geo.

