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FISSION URANIUM CORP.

TECHNICAL REPORT ON THE PATTERSON LAKE SOUTH PROPERTY, NORTHERN SASKATCHEWAN, CANADA

NI 43-101 Report

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1 SUMMARY

EXECUTIVE SUMMARY

Roscoe Postle Associates Inc. (RPA) was retained by Fission Uranium Corp. (Fission Uranium) to prepare an independent Technical Report on the Patterson Lake South Property (the PLS Property or the Property), located in northern Saskatchewan, Canada. The purpose of this report is to support the disclosure of the initial Mineral Resource estimate for the Triple R deposit. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects. RPA visited the Property from March 17 to 19 and from September 7 to 9, 2014.

The Property consists of 17 contiguous mineral claims totalling 31,039 ha located approximately 550 km north-northwest of the city of Prince Albert and approximately 150 km north of the community of La Loche, Saskatchewan. The Property is accessible by vehicle along all-weather Highway 955 which bisects the Property in a north-south direction.

In March 2013, Fission Energy Corp. (Fission Energy) entered into an agreement whereby Denison Mines Corp. (Denison) acquired all of the issued and outstanding shares of Fission Energy. Pursuant to this agreement, Fission Energy spun out certain of its assets, including its 50% interest in the Property, into a new publicly traded company, Fission Uranium. Subsequently, Fission Uranium acquired its joint venture partner, Alpha Minerals Inc., and now holds a 100% interest in the Property.

Currently, the major asset associated with the Property is the high grade Triple R uranium deposit at the resource development stage.

RPA estimated Mineral Resources for the Triple R deposit using drill hole data available as of January 5, 2015 (Table 1-1). No Mineral Reserves have been estimated at the project.

TABLE 1-1 MINERAL RESOURCE SUMMARY
Fission Uranium Corp. – Patterson Lake South Property

	Tonnes	% U₃O₈	g/t Au	Pounds U₃O₈	Ounces Au
Indicated	2,291,000	1.58	0.51	79,610,000	38,000
Inferred	901,000	1.30	0.56	25,884,000	16,000

Notes:

1. CIM definitions were followed for Mineral Resources.
2. Mineral Resources are reported within a preliminary optimized open pit shell at a cut-off grade of 0.1% U₃O₈. The cut-off grade is based on a long-term price of US\$50 per lb U₃O₈.
3. A minimum mining width of 2.0 m was used.
4. Bulk density ranged between 2.25 t/m³ and 2.39 t/m³ depending on mineralized domain.
5. Numbers may not add due to rounding.

RPA is not aware of any known environmental, permitting, legal, title, taxation, socioeconomic, marketing, political, or other relevant factors that could materially affect the current resource estimate.

CONCLUSIONS

Fission Uranium has discovered a large, high grade uranium deposit on its 100% owned PLS Property located on the southwest margin of the Athabasca Basin. The discovery hole, PLS12-022, was drilled in 2012 intersecting the R00E zone. Additional drilling continued to intersect mineralization and the Triple R deposit is now known to be a large, shallow, basement hosted, structurally controlled, high grade uranium deposit. The deposit consists of the R00E zone on the western side and the much larger R780E zone further on strike to the east. The R00E and R780E zones have an overall strike length of approximately 1.2 km, with the R00E measuring approximately 125 m in strike length and the R780E zones measuring approximately 900 m in strike length. A 225 m gap separates the R00E zone to the west and the R780E zones to the east, though sporadic, narrow, weakly mineralized intervals from drill holes within this gap suggest the potential for further significant mineralization in this area. The R780E zones are located beneath Patterson Lake which is approximately six metres deep in the area of the deposit. The entire Triple R deposit is covered by approximately 50 m of glacial till overburden.

Drilling has outlined mineralization with three-dimensional continuity, and size and grades that can potentially be extracted economically. Fission Uranium's protocols for drilling, sampling, analysis, security, and database management meet industry standard practices. The drill hole database was verified by RPA and is suitable for Mineral Resource estimation work.

RPA estimated Mineral Resources for the Triple R deposit using drill hole data available as of January 5, 2015. At a cut-off grade of 0.1% U_3O_8 , Indicated Mineral Resources are estimated to total 2,291,000 tonnes at an average grade of 1.58% U_3O_8 containing 79,610,000 pounds of U_3O_8 . Inferred Mineral Resources are estimated to total 901,000 tonnes at an average grade of 1.30% U_3O_8 containing 25,884,000 pounds of U_3O_8 . Estimated block model grades are based on chemical assays only. Gold grades were also estimated and average 0.51 g/t for the Indicated Resources and 0.56 g/t for the Inferred Resources. All Mineral Resources are reported within a preliminary optimized open pit shell generated in Whittle software. A relatively minor amount of mineralization was not captured by the Whittle shell. No Mineral Reserves have been estimated at the project.

Most of the preliminary open pit shell used to report resources is located beneath Patterson Lake. RPA is of the opinion that the value of the deposit could potentially support capital costs associated with the required dewatering.

Unlike most deposits in the Athabasca Basin, Triple R high grade uranium mineralization has a relatively low density. Triple R high grade mineralization is often associated with carbon which may account for the lower than expected density values. RPA recommends that additional density data be collected and analyzed for high grade mineralization.

Metallurgical test work managed by Mineral Services Canada Inc. (MSC) indicated that, under a typical grinding and leaching process parameters, 98.4% of the total uranium in a master composite sample was leached in six hours. Additional tests, using individual composites and similar parameters, returned recovery results ranging between 98.5% and 99.4% for four of five composites. One composite showed a 95% recovery, which was attributed to the presence of organic carbon (either as graphite or more likely as carbonaceous matter) that encloses and locks uranium bearing minerals that are finer than the +250 μm grinding size.

The Triple R deposit is open in several directions. There is excellent potential to expand the resource with step-out drilling. There are, in addition to the Triple R deposit, other targets on the property to be drill tested. The work program recommended in Table 1-2 is warranted.

RECOMMENDATIONS

The PLS Property hosts a significant uranium deposit and merits considerable exploration and development work. The primary objectives are to expand the Triple R resource and explore elsewhere on the Property. RPA concurs with Fission’s planned work program and budget of C\$15 million (Table 1-2) for 2015. Work will include:

- 18,000 m of step-out angle drilling in both the along-strike and up- and down-dip directions;
- 12,000 m of drilling for a property-wide exploration;
- a Preliminary Economic Assessment;
- additional metallurgical test work; and
- various social and environmental baseline studies.

TABLE 1-2 PROPOSED PHASE 1 BUDGET
Fission Uranium Corp. - Patterson Lake South Property

<u>Item</u>	<u>C\$ M</u>
Drilling (~30,000 m)	12.3
Interpretation, Resource Update, etc.	1.0
Geotechnical and Engineering Studies	0.2
Metallurgical and Mill Design Studies	0.2
Permitting and Environmental Work	0.2
Operating Costs/Office	1.0
Infrastructure Studies	0.1
Total	15.0

The recommended Phase 2 budget of C\$20 million would be contingent on Phase 1 results. Work would include additional drilling, metallurgical test work, geotechnical drilling, and a Preliminary Feasibility Study.

TECHNICAL SUMMARY

PROPERTY DESCRIPTION

The Patterson Lake South property (the Property or PLS Property) consists of 17 contiguous mineral claims covering an area of 31,039 ha located in northwestern Saskatchewan, approximately 550 km northwest of the city of Prince Albert. It is centered at approximately 57°37’ N Latitude and 109° 22’ W Longitude within 1:50,000 scale NTS map sheets 74F/11

(Forrest Lake) and 74F/11 (Wenger Lake). The Property straddles all-weather gravel Highway 955 which leads northward to the past-producing Cluff Lake mine. The Triple R deposit is located on claim S-111376.

The Patterson Lake South claims were ground staked and are considered to be legacy claims. As of the effective date of this report, all claims are in good standing and are registered in the name of Fission Uranium. Assessment credits are available for multiple annual renewals.

EXISTING INFRASTRUCTURE

With the exception of an all-weather gravel road which traverses the Property, there is no permanent infrastructure on the Property.

HISTORY

The Property was geologically mapped as part of a larger area by the Geological Survey of Canada in 1961.

In 1969, Wainoco Oil and Chemicals Ltd. completed photogeologic mapping and airborne radiometric and magnetic surveys. No interesting structures or anomalies were detected.

Canadian Occidental Petroleum Ltd. (CanOxy) completed extensive exploration on and around the Property from 1977 to 1981 including an airborne electromagnetic (EM) survey; ground EM and magnetic, geological, geochemical, alphameter (radon), and radiometric surveys; and diamond drilling.

In 1977, CanOxy discovered a very strong six station alphameter (radon) anomaly with dimensions of 1.2 km by 1.7 km on current claim S-111375. This anomaly coincides with high uranium in soil values and anomalous scintillometer (radiometric) values. It was suggested that this alphameter anomaly was responding to radioactive exotic boulders within the till of the Cree Lake Moraine, however, no follow-up work was done.

CanOxy's ground EM survey delineated the Patterson Lake Conductor Corridor that cuts across the middle of Patterson Lake on claim S-111376, and extends onto claim S-111375.

Several disrupted conductors and inferred cross cutting features were identified as priority 1, 2, and 3 drill targets on claim S-111376.

CanOxy drill tested an airborne EM conductor on the west shore of Patterson Lake within claim S-111376. Drill hole CLU-12-79 intersected a 6.1 m wide sulphide-graphite “conductor” that contained anomalous uranium, copper, and nickel concentrations. Strong hematite and chlorite alteration was observed in the regolith and basement rock, and two curious spikes in radioactivity were detected in the fresh basement.

GEOLOGY AND MINERALIZATION

The east-west elongate Athabasca Basin lies astride two subdivisions of the Western Churchill Province, the Rae Subprovince on the west and the Hearne Subprovince to the east. These are separated by the northeast trending Snowbird Tectonic Zone, which beneath the Athabasca Basin is called the Virgin River-Black Lake shear zone. In the western Athabasca Basin, where the Property is located, lithologies belonging to the Lloyd Domain of the Talston Magmatic Zone (TMZ) underlie the Athabasca Basin. The TMZ is dominated by a variety of plutonic rocks and an older basement complex. The basement complex varies widely in composition from amphibolites to granitic gneisses to high grade pelitic gneisses.

The PLS Property lies within the northeastern limits of the Cretaceous Mannville Group which covers a large portion of western Saskatchewan. The Mannville Group consists of interbedded non-marine sands and shales overlain by a thin, non-marine calcareous member which is overlain by marine shales, glauconitic sands, and non-marine salt-and-pepper sands. The marine sequence is overlain by a paralic and non-marine sequence having a diachronous contact with the marine sequence.

Pleistocene overburden covers the entire PLS Property with thicknesses ranging from six metres to 100 m. Drumlins and glacial striations in the area show a general ice direction of southwest.

Drilling to date indicates that the Athabasca Group is not present on the Property; although it may be possible that “islands” of Athabasca sandstone exist within the northeast extent of the Property. Regolith underlies and is distributed approximately parallel to the Pleistocene overburden and Cretaceous sediments.

The Precambrian basement rocks below sedimentary or regolith stratigraphy on the Property have been classified into two distinctly different units. Firstly, the younger Western Granites (Clearwater Domain) are located in the west and northwest areas of the Property. This unit is non-foliated, even and medium grained, and has low gravity and featureless magnetic responses with no linear conductors. The Western Granites are good source rocks for the uranium, and are believed to have an intrusive igneous origin. The second basement unit was classified as the Eastern Metamorphics (Western Granulite Domain), which are older and cover most of the PLS Property. This unit comprises an assemblage of cataclastically deformed and retrogressively metamorphosed gneisses and granulite facies described in three major groups: granitic and granodioritic gneiss; quartz-sericite, chlorite gneiss; and garnetiferous pyroxene granulites.

Uranium mineralization at the PLS Property is hosted primarily within metasedimentary basement lithologies and, to a much lesser extent, within overlying sandstone currently thought to be Devonian in age. Additional work is recommended to determine the age of the overlying sandstone, and if indeed Devonian, work is required to determine why these rocks are mineralized.

Mineralization within the sandstone typically occurs as fine grained disseminations, sooty blebs, and rarely semi-massive uranium mineralization. Uranium concentrations within the Sandstone are generally low to moderate but grades greater than 1.0% U_3O_8 have been intersected. Mineralized sandstone is typically strongly clay and chlorite altered, though locally can be pervasively hematite stained a deep red. Relative to basement hosted mineralization, only a very small amount of mineralized sandstone has been intersected on the Property to date.

Basement hosted mineralization at the Property occurs in a wide variety of styles, the most common of which occurs within the graphitic pelitic gneiss and appears to be fine grained disseminated and fracture filling uranium minerals with a strong association with hydrocarbon/carbonaceous matter. Uranium minerals, where visible, appear to be concordant with the regional foliation and dominant structural trends identified through oriented core and fence drilling. Typically, mineralization within the graphitic pelitic gneiss is associated with pervasive, strong, grey-green chlorite and clay alteration. The pervasive clay and chlorite alteration eliminates the primary mineralogy of the host rock with only a weakly defined remnant texture remaining. Locally, intense rusty limonite-hematite alteration in the

pelitic gneisses strongly correlates with high grade uranium mineralization and a “rotten”, wormy texture. Subordinate styles of uranium mineralization within the graphitic pelitic gneiss which are often associated with very high grade uranium include: semi-massive and hydrocarbon rich; intensely clay altered (kaolinite) with uranium-hydrocarbon buttons; and massive metallic mineralization. These zones of very high grade mineralization generally occur along the contact of the graphitic pelitic gneiss and silicified south side semi-pelite and comprise a high grade mineralized spine. This spine may represent a zone of intense structural disruption which has been completely overprinted by alteration and mineralization. However, drill holes which undercut the strongly mineralized spine have failed to show signs of significant structural damage. Particularly well mineralized drill holes are often associated with thin swarms of dravite-filled breccia.

Uranium mineralization within the north and south semi-pelites which bound the graphitic pelite generally occurs as fine grained disseminations and is almost always associated with pervasive whitish-green clay and chlorite alteration with local pervasive hematite.

MINERAL RESOURCES

A set of cross-sections and level plans were interpreted to construct three-dimensional wireframe models for a number of mineralized zones at a minimum grade of 0.05% U_3O_8 . Wireframes of the High Grade domain were created at a minimum grade of approximately 5% U_3O_8 . The High Grade domain consists of several lenses within the Main Zone, the largest continuous zone within the R780E area. Prior to compositing to two metre lengths, high U_3O_8 assays were cut to 55% in the High Grade domain, to 10% U_3O_8 in all other domains, and to 7% U_3O_8 outside the wireframes, designated as Low Grade Halo.

Block model grades were interpolated by inverse distance cubed. Density values were estimated from more than 2,000 measurements to be 2.25 t/m³ for the R00E Zone, 2.32 t/m³ for the Main Zone and other zones in the R780E area, 2.35 t/m³ for the High Grade domain, and 2.39 t/m³ for the Low Grade Halo. Classification into the Indicated and Inferred categories was guided by the drill hole spacing and the continuity of the mineralized zones.

2 INTRODUCTION

Roscoe Postle Associates Inc. (RPA) was retained by Fission Uranium Corp. (Fission Uranium) to prepare an independent Technical Report on the Patterson Lake South Property (the PLS Property or the Property), located in northern Saskatchewan, Canada. The purpose of this report is to support the disclosure of the initial Mineral Resource estimate for the Triple R deposit on the Property. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects.

Fission Uranium is a Canadian uranium exploration company which resulted from the spin-out to the shareholders of Fission Energy Corp. (Fission Energy) after Fission Energy was acquired by Denison Mines Corp. (Denison) in February 2013. In December 2013, Fission Uranium consolidated 100% ownership in the Property by acquiring all the outstanding shares of Alpha Minerals Inc., its joint venture partner on the Property. Fission Uranium is primarily engaged in the acquisition, evaluation, and development of uranium properties with a view to commercial production. Currently, the Property is Fission Uranium's sole uranium asset. Fission Uranium is a reporting issuer in British Columbia, Alberta, Saskatchewan, Ontario, and New Brunswick. The Company's head office is located at 700 – 1620 Dickson Ave., Kelowna, BC, V1Y 9Y2 and it is listed on the Toronto Stock Exchange under the symbol FCU and on the U.S. OTCQX under the symbol FCUUF.

Currently, the major asset associated with the Property is the high grade Triple R uranium deposit, which is at the resource development stage.

SOURCES OF INFORMATION

Site visits were carried out by David A. Ross, M.Sc., P.Geo., Principal Geologist with RPA, from March 17 to 19 and from September 7 to 9, 2014. Mr. Ross examined core from several drill holes (PLS13-64, PLS13-75, PLS14-129, PLS14-183, PLS14-186), visited active drill sites, and reviewed logging and sampling methods. Discussions have been held with:

- Ross McElroy, P.Geol., President and COO, Fission Uranium;
- Kanan Sarioglu, Project Geoscientist, Mineral Services Canada Inc.;
- Sam Hartmann, B.Sc., P.Geo., Project Manager, Fission Uranium;
- Raymond Ashley, P.Geoph., VP Exploration, Fission Uranium;
- J. Andrew Jeffrey, Consultant;

- Grant Lockhart, B.Sc., B.A.Sc., Project Manager, Fission Uranium;
- Tony Gonzales, B.Sc.(Spec), Project Manager, Fission Uranium;
- Caroline Harke: M.Sc.(Geol), Consultant;
- Richard Elkington, Operations Manager, Fission Uranium, and
- Bob Hemmerling, Office Manager, Fission Uranium.

Fission Uranium contracts Mineral Services Canada Inc. (MSC) to assist in various aspects of the exploration and drilling. Several MSC reports were used and referenced in this Technical Report. MSC is part of the MS Group, a consulting company and laboratory that specializes in providing expert services to the exploration and mining industry. The MS Group operates out of offices in Vancouver, Canada, and Cape Town, South Africa.

Mr. Ross prepared all sections of this report and is the Independent Qualified Person (QP) for this report. The documentation reviewed, and other sources of information, are listed at the end of this report in Section 27 References.

LIST OF ABBREVIATIONS

Units of measurement used in this report conform to the metric system. All currency in this report is Canadian dollars (C\$) unless otherwise noted.

a	annum	kWh	kilowatt-hour
A	ampere	L	litre
bbl	barrels	lb	pound
btu	British thermal units	L/s	litres per second
°C	degree Celsius	m	metre
C\$	Canadian dollars	M	mega (million); molar
cal	calorie	m ²	square metre
cfm	cubic feet per minute	m ³	cubic metre
cm	centimetre	μ	micron
cm ²	square centimetre	MASL	metres above sea level
cpm	counts per minute	μg	microgram
cps	counts per second	m ³ /h	cubic metres per hour
dia	diameter	mi	mile
dmt	dry metric tonne	min	minute
dwt	dead-weight ton	μm	micrometre
°F	degree Fahrenheit	mm	millimetre
ft	foot	mph	miles per hour
ft ²	square foot	mV	millivolts
ft ³	cubic foot	MVA	megavolt-amperes
ft/s	foot per second	MW	megawatt
g	gram	MWh	megawatt-hour
G	giga (billion)	oz	Troy ounce (31.1035g)
Gal	Imperial gallon	oz/st, opt	ounce per short ton
g/L	gram per litre	pCi	picocuries
Gpm	Imperial gallons per minute	ppb	part per billion
g/t	gram per tonne	ppm	part per million
gr/ft ³	grain per cubic foot	psia	pound per square inch absolute
gr/m ³	grain per cubic metre	psig	pound per square inch gauge
ha	hectare	RL	relative elevation
hp	horsepower	s	second
hr	hour	st	short ton
Hz	hertz	stpa	short ton per year
in.	inch	stpd	short ton per day
in ²	square inch	t	metric tonne
J	joule	tpa	metric tonne per year
k	kilo (thousand)	tpd	metric tonne per day
kcal	kilocalorie	US\$	United States dollar
kg	kilogram	USg	United States gallon
km	kilometre	USgpm	US gallon per minute
km ²	square kilometre	V	volt
km/h	kilometre per hour	W	watt
kPa	kilopascal	wmt	wet metric tonne
kVA	kilovolt-amperes	wt%	weight percent
kW	kilowatt	yd ³	cubic yard
		yr	year

3 RELIANCE ON OTHER EXPERTS

This report has been prepared by Roscoe Postle Associates Inc. (RPA) for Fission Uranium Corp. (Fission Uranium). The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to RPA at the time of preparation of this report,
- Assumptions, conditions, and qualifications as set forth in this report, and
- Data, reports, and other information supplied by Fission Uranium and other third party sources.

For the purpose of this report, RPA has relied on ownership information provided by Fission Uranium. RPA has not researched property title or mineral rights for the Patterson Lake South Property and expresses no opinion as to the ownership status of the Property. RPA did review the status of the mineral claims on the web site of the Saskatchewan Ministry of Economy (<http://economy.gov.sk.ca/mining>). The information for the mineral claims constituting the Property are as noted in Section 4 of this report as of January 14, 2015, the date of RPA's review.

Except for the purposes legislated under provincial securities laws, any use of this report by any third party is at that party's sole risk.

4 PROPERTY DESCRIPTION AND LOCATION

The PLS Property consists of 17 contiguous mineral claims in northern Saskatchewan, located approximately 550 km north-northwest of the city of Prince Albert and 150 km north of the community of La Loche (Figure 4-1). The Property is accessible by vehicle along all-weather gravel Highway 955, which bisects the Property in a north-south direction.

The Universal Transverse Mercator (UTM) co-ordinates for the approximate centre of the Property are 600,000mE, 6,387,500mN (NAD83 UTM Zone 12N). The geographic co-ordinates for the approximate centre of the Property are 57°37' N latitude and 109° 22' W longitude. The Property is located within 1:50,000 scale NTS map sheets 74F/11 (Forrest Lake) and 74F/12 (Wenger Lake). It is irregularly shaped and extends for approximately 29 km in the east-west direction and for approximately 19 km in the north-south direction. The approximate centre of Triple R deposit is located at UTM coordinates 598,000mE, 6,390,000mN (NAD83 UTM Zone 12N).

LAND TENURE

The PLS Property consists of 17 contiguous mineral claims covering an area of 31,039 ha (Figure 4-2). The Triple R deposit is located on claim S-111376. Table 4-1 lists the relevant tenure information for the Property.

TABLE 4-1 LAND TENURE
Fission Uranium Corp. – Patterson Lake South Property

Claim	Effective Date	Anniversary Date	Good Standing Date	Area (ha)	Status
S-110707	28-Mar-07	27-Mar-15	25-Jun-36	812	Active
S-110955	31-May-07	30-May-15	28-Aug-36	1,327	Active
S-111375	13-Jun-08	12-Jun-15	10-Sep-36	2,493	Active
S-111376	13-Jun-08	12-Jun-15	10-Sep-36	3,310	Active
S-111377	13-Jun-08	12-Jun-15	10-Sep-36	1,645	Active
S-111783	30-Apr-10	29-Apr-15	28-Jul-36	1,004	Active
S-112217	13-Dec-11	12-Dec-15	12-Mar-22	1,202	Active
S-112218	13-Dec-11	12-Dec-15	12-Mar-22	1,299	Active
S-112219	13-Dec-11	12-Dec-15	12-Mar-22	987	Active
S-112220	13-Dec-11	12-Dec-15	12-Mar-22	1,218	Active
S-112221	13-Dec-11	12-Dec-15	12-Mar-23	2,621	Active
S-112222	13-Dec-11	12-Dec-15	12-Mar-22	846	Active
S-112282	22-Jun-11	21-Jun-15	19-Sep-35	3,789	Active
S-112283	22-Jun-11	21-Jun-15	19-Sep-23	1,003	Active
S-112284	22-Jun-11	21-Jun-15	19-Sep-35	2,021	Active
S-112285	22-Jun-11	21-Jun-15	19-Sep-22	5,404	Active
S-112370	23-Nov-11	22-Nov-15	20-Feb-36	58	Active

The mineral claims constituting the Property were ground staked and are therefore designated as non-conforming legacy claims. As of December 6, 2012, the Property and component claims locations were defined as electronic mineral claim parcels within the Mineral Administration Registry of Saskatchewan (MARS). As of the effective date of this report, the mineral claims are all in good standing and are all registered in the name of Fission Uranium. As of December 31, 2014, assessment credits totalling \$9,242,900 were available for claim renewal. Assessment credits totalling \$465,585 are required to renew the Property claims upon their respective annual anniversary dates. In the absence of sufficient assessment credits, there is a provision in Saskatchewan to keep the claims in good standing by making a deficiency payment or a deficiency deposit.

On March 7, 2013, Fission Energy announced that it had entered into an agreement (the Agreement) with Denison whereby Denison agreed to acquire all the issued and outstanding shares of Fission Energy. Under this Agreement, Fission Energy spun out certain of its assets, including its 50% interest in the PLS Property, into a newly formed, publicly traded company, Fission Uranium by way of a court-approved plan of arrangement.

Pursuant to the Agreement, Denison acquired a portfolio of uranium exploration projects including Fission Energy's 60% interest in the Waterbury Lake uranium project, as well as Fission Energy's exploration interests in all other properties in the eastern part of the Athabasca Basin, its interests in two joint ventures in Namibia, plus its assets in Quebec and Nunavut. Fission Uranium's assets consisted of the remaining assets of Fission Energy including the 50% interest in the PLS Property.

Subsequently, Fission Uranium acquired its joint venture partner, Alpha Minerals Inc., and now holds a 100% interest in the PLS Property.

MINERAL RIGHTS

In Canada, natural resources fall under provincial jurisdiction. In the Province of Saskatchewan, the management of mineral resources and the granting of exploration and mining rights for mineral substances and their use are regulated by the Crown Minerals Act and The Mineral Tenure Registry Regulations, 2012, that are administered by the Saskatchewan Ministry of the Economy. Mineral rights are owned by the Crown and are distinct from surface rights.

In Saskatchewan, a mineral claim does not grant the holder the right to mine minerals. A Saskatchewan mineral claim in good standing can be converted to a lease upon application. Leases have a term of 10 years and are renewable. A lease proffers the holder with the exclusive right to explore for, mine, work, recover, procure, remove, carry away, and dispose of any Crown minerals within the lease lands which are nonetheless owned by the Province. Surface facilities and mine workings are therefore located on Provincial lands and the right to use and occupy lands is acquired under a surface lease from the Province of Saskatchewan. A surface lease carries a maximum term of 33 years, and may be extended as necessary, to allow the lessee to develop and operate the mine and plant and thereafter to carry out the reclamation of the lands involved.

Fission Uranium does not currently have surface rights associated with the Property.

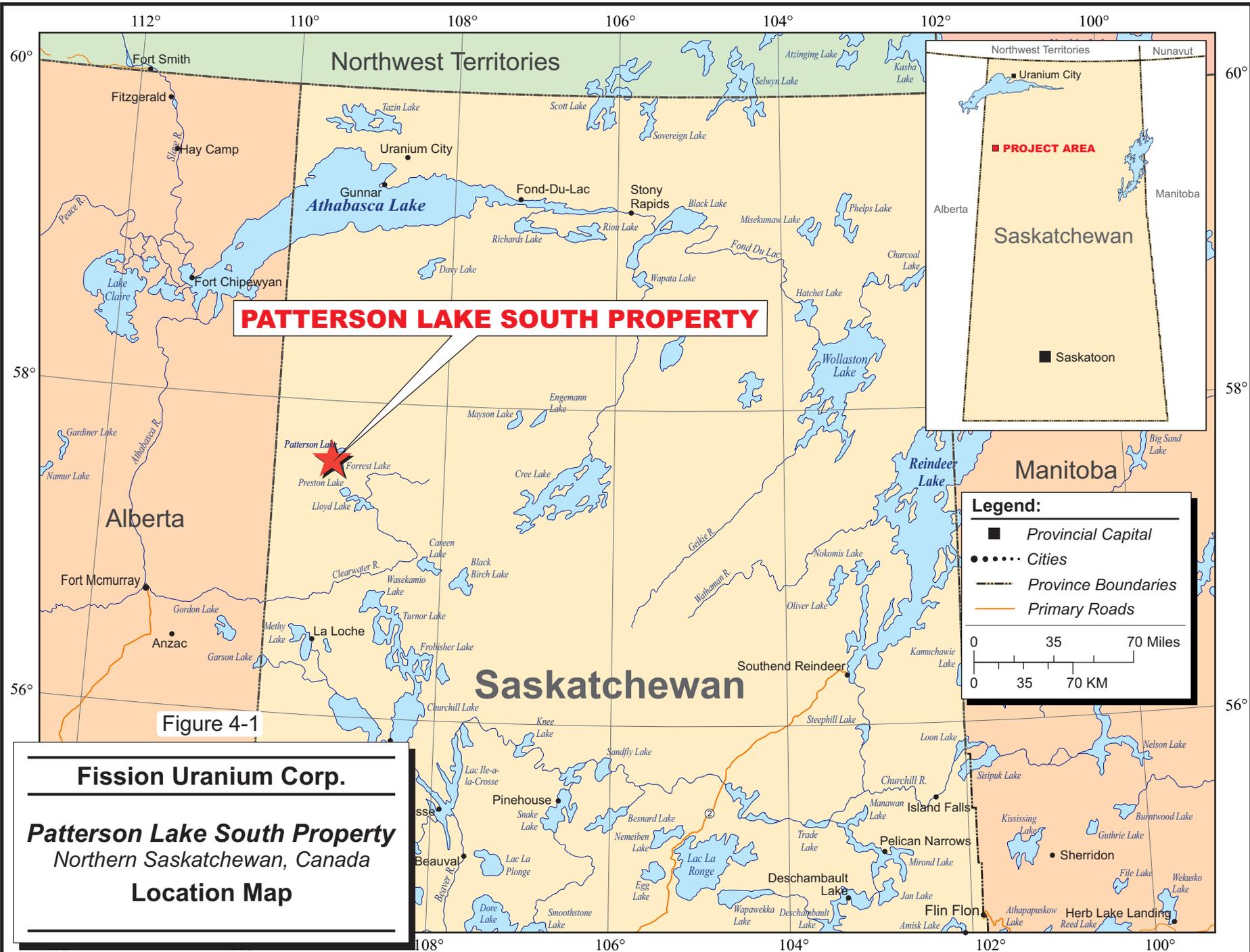
ROYALTIES AND OTHER ENCUMBRANCES

RPA is not aware of any royalties due, back-in rights, or other encumbrances by virtue of any underlying agreements.

PERMITTING

RPA is not aware of any environmental liabilities associated with the Property.

RPA understands that Fission Uranium has all the required permits to conduct the proposed work on the Property. RPA is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the Property.



PATTERSON LAKE SOUTH PROPERTY

Legend:

- Provincial Capital
- Cities
- Province Boundaries
- Primary Roads

0 35 70 Miles
0 35 70 KM

Fission Uranium Corp.

Patterson Lake South Property
Northern Saskatchewan, Canada

Location Map

4-5

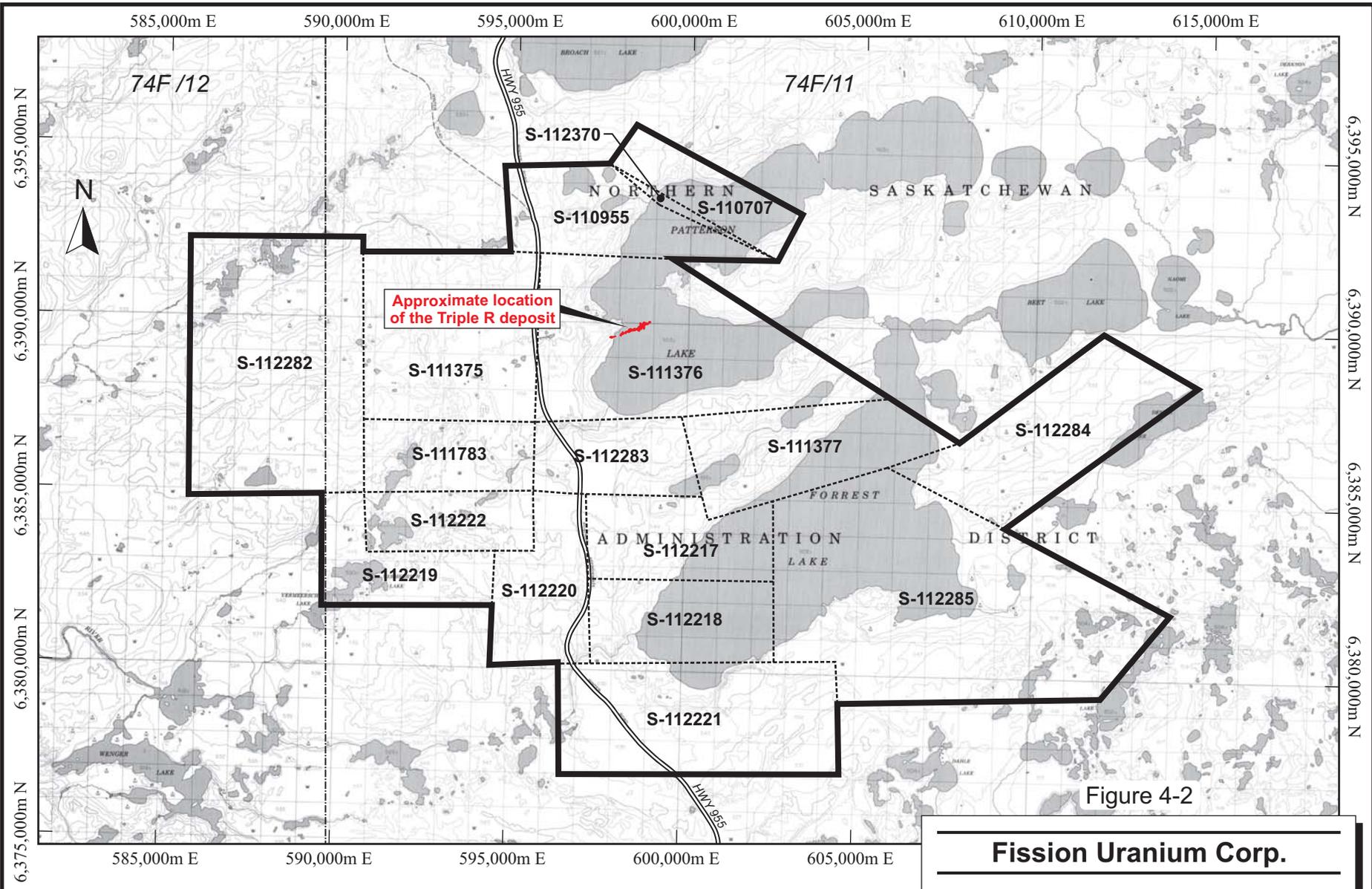


Figure 4-2

Fission Uranium Corp.

Patterson Lake South Property
Northern Saskatchewan, Canada
Claim Map



Contour Interval:
10 metres

NTS: 74F/11 & 74F/12
NAD83, Zone 12

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

ACCESSIBILITY

The PLS Property is located approximately 550 km north-northwest of the city of Prince Albert, Saskatchewan. Prince Albert is serviced by multiple flights daily from Saskatoon. The Property can be reached by driving northward along paved Highway 155 for a distance of approximately 300 km to the community of La Loche. At La Loche, the all-weather gravel Highway 955 (Cluff Lake Mine Road) heads northwards and enters the Property at the 144 km marker. Highway 955 bisects the Property in a north-south direction. Two four-wheel drive roads branch off from Highway 955 allowing access to the east and west halves of the Property.

CLIMATE

The PLS Property is located within the Mid-Boreal Upland Ecozone of the Boreal Shield Ecozone (Marshall and Schutt, 1999). The summers are short and cool and the winters are long and cold. The ground is snow covered for six to eight months of the year. The ecozone is classified as having a sub-humid high boreal ecoclimate. Table 5-1 illustrates the climatic data for the two most proximal Environment Canada weather stations.

TABLE 5-1 CLIMATIC DATA - CLUFF LAKE AND FORT CHIPEWAYAN
Fission Uranium Corp. - Patterson Lake South Property

	Cluff Lake (SK) 58°22'N 109°31'W	Fort Chipewyan (AB) 58°46'N 111°07'W
Mean January temperature	-20.4°C	-21.9°C
Mean July temperature	16.9°C	14.1°C
Extreme maximum temperature	36.0°C	34.7°C
Extreme minimum temperature	-49.0°C	-50.0°C
Average annual precipitation	451.0 mm	365.7 mm
Average annual rainfall	N/A	250.4 mm
Average annual snowfall	162.8 cm	116.9 cm

Despite the harsh conditions, drilling and geophysical surveys can be performed year round. Geological and most geochemical surveys are restricted to the snow free months.

LOCAL RESOURCES

Various services are available at La Loche including temporary accommodations, fuel, and emergency medical services. A greater range of services is available at Prince Albert. Fixed wing aircraft are available for charter at Fort McMurray in Alberta, and Buffalo Narrows, La Loche, and La Ronge in Saskatchewan. Helicopters are available for charter at Fort McMurray and La Ronge.

INFRASTRUCTURE

With the exception of all-weather gravel Highway 955, there is no permanent infrastructure on the Property.

PHYSIOGRAPHY

The topography of northern Saskatchewan is characterized by low hills, ridges, drumlins, and eskers, with lakes and muskeg common in the low-lying areas. Outcrop of the underlying Athabasca sandstone and basement rocks is rare. Numerous lakes and ponds generally show a northeasterly elongation imparted by the most recent glaciation. Elevation varies between 500 MASL and 565 MASL.

Loamy, grey soils produce taller trees than in the Shield. Aspen, white spruce, jack pine, black spruce, and tamarack are common.

Wildlife consists of moose, woodland caribou, mule deer, white-tailed deer, elk, black bear, timber wolf, and beaver. Birds include white-throated sparrow, American redstart, bufflehead, ovenbird, and hermit thrush. Fish include northern pike, pickerel, whitefish, lake trout, rainbow trout, and perch.

The Property is at the resource development stage. RPA is of the opinion that, to the extent relevant to the mineral project, there is a sufficiency of surface rights and water.

6 HISTORY

PRIOR OWNERSHIP

All of the claims comprising the Property were ground staked from February 2007 to December 2011. Claim S-110707 was originally staked on behalf of ESO Uranium Corporation (ESO). Claim S-110955 was originally staked on behalf of Strathmore Minerals Corp (Strathmore) and transferred to Fission Energy in its plan of arrangement. In January 2008, Fission Energy and ESO entered into a 50/50 joint venture and contributed the claims existing at that time. As part of the agreement, Fission Energy contributed mineral claims S-110954 and S-110955 while ESO contributed S-110707 and S-110723. Mineral claims S-110954 and S-110723 were eventually allowed to lapse. Subsequently, additional staked claims, including S-111376 which is now known to host the Triple R deposit, were for the benefit of the joint venture.

Pursuant to an agreement with Denison in 2013, Fission Energy spun out some of its assets into a newly formed company, Fission Uranium, including a 50% interest in the Property. Fission Uranium subsequently acquired ESO's successor company, Alpha Minerals Inc., to hold a 100% interest in the Property.

EXPLORATION AND DEVELOPMENT HISTORY

The following description of historic exploration work conducted on the PLS Property and its immediate vicinity is taken from Armitage (2013).

The Property was geologically mapped as part of a larger area by W.F. Fahrig for the Geological Survey of Canada (GSC) in 1961 (Hill, 1977). Another geological mapping project completed in 1961 by L.P. Tremblay of the GSC covered the Property and Firebag River Area at a scale of four miles to the inch (Hill, 1977).

In 1969, photogeologic mapping and airborne radiometric and magnetic surveys were completed on the Property for Wainoco Oil and Chemicals Ltd. The surveys did not detect any notable structures or anomalies (Atamanik, Downes and van Tongeren, 1983).

Canadian Occidental Petroleum Ltd. (CanOxy) completed extensive exploration on and around the Property from 1977 to 1981. Exploration comprised an airborne Questor INPUT electromagnetic (EM) survey; ground HLEM and magnetic geophysical surveys, geological, geochemical, alphanometer (radon), and radiometric surveys; and diamond drilling.

In 1977, CanOxy discovered a very strong six station alphanometer (radon) anomaly with dimensions of 1.2 km by 1.7 km on what is now claim S-111375. This anomaly coincides with high uranium in soil values and anomalous scintillometer (radiometric) values. It was suggested that this alphanometer anomaly was responding to radioactive exotic boulders within the till of the Cree Lake Moraine, however, no follow-up work was done (Hill, 1977).

CanOxy's 1977 ground EM survey delineated the Patterson Lake Conductor Corridor that traverses the center of Patterson Lake on claim S-111376, and extends onto claim S-111375. Several disrupted conductors and inferred cross cutting features were identified as priority 1, 2, and 3 drill targets on claim S-111376.

CanOxy drill hole CLU-12-79 was positioned based on an airborne EM conductor, which was later refined by ground EM surveys. This drill hole is located on the northernmost conductor of the Patterson Lake conductor corridor, and is on the west shore of Patterson Lake within claim S-111376. Drill hole CLU-12-79 was highlighted by a 6.1 m wide sulphide-graphite "conductor" that contained anomalous uranium, copper, and nickel concentrations. Strong hematite and chlorite alteration was observed in the regolith and fresh basement rock, and two curious spikes in radioactivity occur in the fresh basement lithologies (Robertson, 1979).

HISTORICAL RESOURCE ESTIMATES

No resource estimates have been prepared by previous owners.

PAST PRODUCTION

There has been no production from the Property up to the effective date of the report.

7 GEOLOGICAL SETTING AND MINERALIZATION

REGIONAL GEOLOGY

The most significant uranium metallogenic district in Canada is the Athabasca Basin, which covers over 85,000 km² in northern Saskatchewan and northeastern Alberta (Figure 7-1). The basin itself is a relatively undeformed and unmetamorphosed clastic sequence of Mesoproterozoic rocks known as the Athabasca Group, lying unconformably on the deformed and metamorphosed rocks of the Western Churchill Province of the Archean Canadian Shield. The basement rocks consist of Archean orthogneisses, which are overlain by and structurally intercalated with the highly deformed supracrustal Paleoproterozoic Wollaston Group (Annesley et al., 2005).

The east-west elongate Athabasca Basin lies astride two subdivisions of the Western Churchill Province, the Rae Subprovince (Craton) on the west and the Hearne Subprovince (Craton) to the east. These are separated by the northeast trending Snowbird Tectonic Zone, which beneath the Athabasca Basin is called the Virgin River-Black Lake shear zone. In the western Athabasca Basin, where the Property is located, lithologies belonging to the Lloyd Domain of the Talston Magmatic Zone (TMZ) underlie the Athabasca Basin. The TMZ is dominated by a variety of plutonic rocks and an older basement complex (McNicoll et al., 2000). The basement complex varies widely in composition from amphibolites to granitic gneisses to high grade pelitic gneisses.

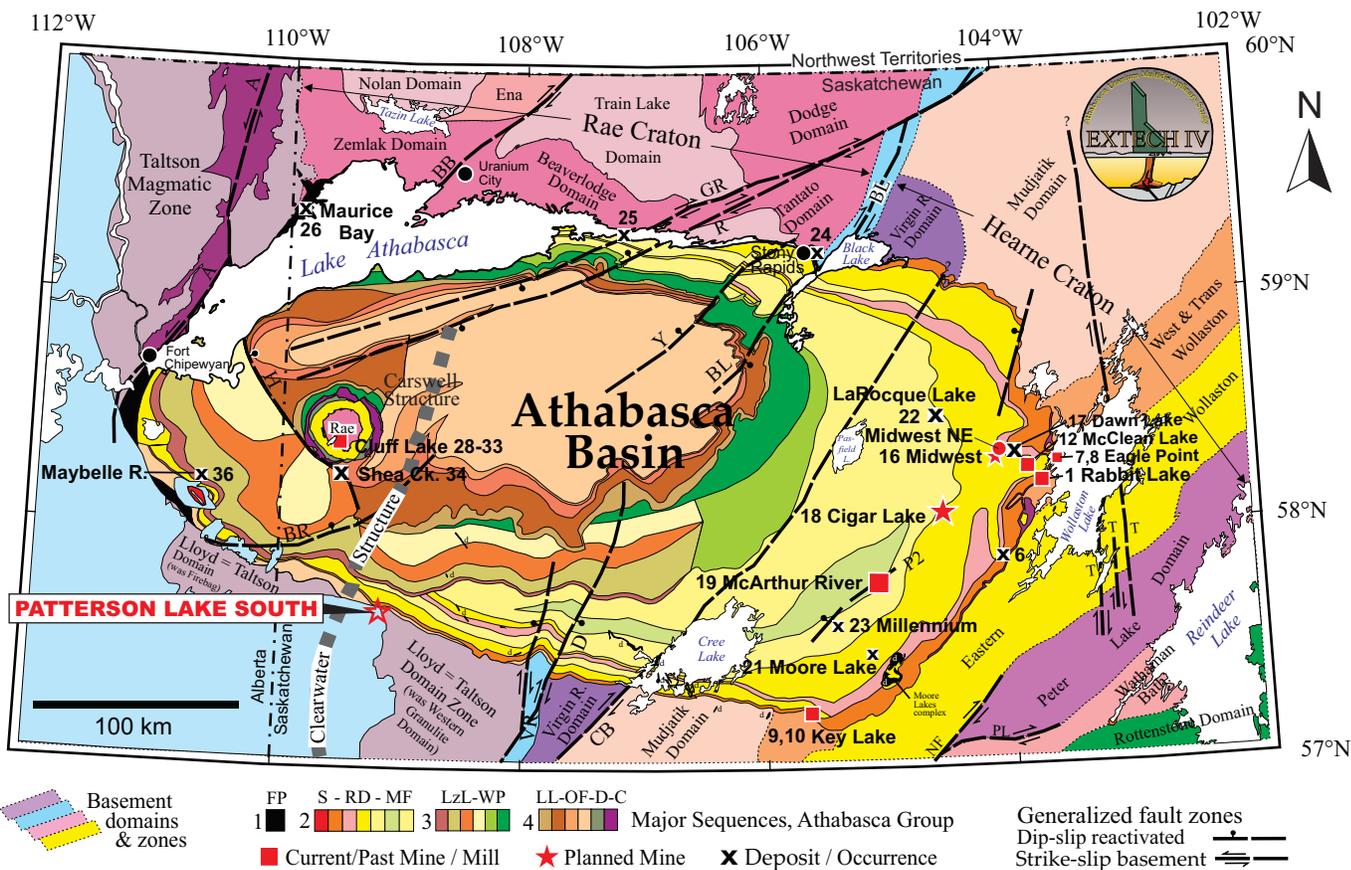


Figure 7-1

Fission Uranium Corp.
Patterson Lake South Property
 Northern Saskatchewan, Canada
Regional Geology and Uranium Deposits

Source:
 After GSC - Mineral Deposits of Canada,
 Unconformity Associated Uranium Deposits.

February 2015

LOCAL GEOLOGY

The following description of the local geology is taken from Armitage (2013).

The PLS Property lies within the northeastern limits of the Cretaceous Mannville Group which covers a large portion of western Saskatchewan (Figure 7-2). The Lexicon of Canadian Geologic Units describes the lithology of the Mannville Group as “interbedded non-marine sands and shales overlain by a thin, non-marine calcareous member which is overlain by marine shales, glauconitic sands and non-marine salt-and-pepper sands. The marine sequence is overlain by a paralic and non-marine sequence having a diachronous contact with the marine sequence.”

Regionally discontinuous Devonian La Loche Formation exists beneath the Cretaceous sediments. The Lexicon describes the lithology of the La Loche Formation as “regolithic, poorly sorted breccia; fine to coarse grained, white to medium brownish grey arkosic sandstones and conglomeratic sandstones, with thin interbeds of sandy mudstone toward the top; arkosic grit and edgewise conglomerates and silty grits with festoon bedding toward the top.” The La Loche Formation is thought to be a reworked regolith lying on the Precambrian surface.

The Mannville Group lies adjacent southwest of the Athabasca Group sandstone and conglomerate with lesser dolomite and shale. (Yeo et al, 2001). The Smart Quartz Arenite member of the Athabasca is in contact with the Lower Mannville member.

Basement rocks of the Rae Subprovince consist of the Clearwater Domain and the Western Granulite. Although not well defined due to limited exposure and mapping, the Clearwater Domain is recognized by the following three lithologic groups: equigranular granite, porphyritic granite, and felsic gneiss. The felsic gneisses resemble those of the Virgin River and Mudjatik Domains, and contrast sharply with the Western Granulite blue quartz gneisses (Lewry and Sibbald, 1977). The Clearwater Domain represents a mobile zone with middle amphibolite facies metamorphic conditions, where Hudsonian age tectonic and metamorphic events are probable. Three episodes of fold forming movements have been recognized in felsic gneisses of the Clearwater Domain (Lewry and Sibbald, 1980).

Western Granulite (East Lloyd) rocks comprise a sequence of layered granodioritic to dioritic gneisses, with subordinate anorthosites, anorthositic gabbros, granites, and minor quartzitic and pelitic paragneisses. Blue quartz commonly occurs in the gneisses. Metamorphic mineral paragenesis indicates a static pyroxene granulite facies metamorphism overprinted by a lower amphibolite facies event (Atamanik, Downes and van Tongeren, 1983).

PROPERTY GEOLOGY

The following description of the property geology is taken from Armitage (2013).

Pleistocene overburden covers the entire PLS Property with thicknesses ranging from six metres to 100 m. Drumlins and glacial striations in the area show a general ice direction of southwest. Below the overburden, the PLS Property is underlain by rocks of the Phanerozoic Mannville Group (Figure 7-3) comprised of shale, mudstone, sandstone, and coal (Gittings, 1980). The eastern limit of the Mannville Group strikes northwest and perpendicular to the Patterson Lake conductor corridor, although rare occurrences of Mannville group sediments exist as “islands” further to the east.

The Devonian La Loche Formation has only been observed in some drill holes. The La Loche Formation intervals were about four metres thick, and comprised fine grained light grey sandstone with some angular to sub-angular granules to pebbles of basement (quartzite and quartz-feldspar-biotite gneiss), occasional sand to gravel pitchblende clasts, and rare Athabasca sandstone cobbles.

Drilling to date indicates that the Athabasca Group is not present on the Property, although it may be possible that “islands” of Athabasca sandstone exist within the northeast extent of the Property. Regolith underlies and is distributed approximately parallel to the Pleistocene overburden and Cretaceous sediments. Where regolith is strongly developed, the upper 10 m is often strongly hematite stained. A highly altered “green zone” is below the hematized zone, which is mostly chlorite. Composition of the regolith comprises disaggregated quartz grains set in a pale green to red hematite stained, fine grained chlorite, clay mineral, sericite groundmass (Gittings, 1980).

On the Property, unexposed Precambrian Shield is present east of the Colorado and Mannville Groups. These Precambrian basement rocks represent the boundary zone

between the Clearwater Domain and East Lloyd Domain, which is thought to be north-northwest of the Patterson Lake conductor corridor.

SMDC interpreted the boundary zone between the Clearwater and Western Granulite (East Lloyd) Domains as trending north-northeasterly through Patterson Lake (Atamanik, Downes and van Tongeren, 1983). The geological boundary of the Clearwater Domain is open to interpretation, however, Wallis (1970) traced the western margin of this domain through the Carswell structure. The boundary zone between the Clearwater and Western Granulite Domains is analogous to other late-Hudsonian, early-Helikian fault zones such as the Black Lake fault and the Virgin River shear zone. This cataclastic zone may have remained active during and after deposition of the Athabasca Group (Wallis, 1982).

CanOxy classified the Precambrian basement rocks below sedimentary or regolith stratigraphy on the property into two distinctly different units. Firstly, the younger Western Granites (Clearwater Domain) are located in the west and northwest areas of the property. This unit is non-foliated, even and medium grained, and has low gravity and featureless magnetic responses with no linear conductors. The Western Granites are good source rocks for uranium, and are believed to have an intrusive igneous origin (Gittings, 1980).

The second basement unit was classified as the Eastern Metamorphics (Western Granulite Domain), which are older (possibly Archean) and cover most of the property. This unit comprises an assemblage of cataclastically deformed and retrogressively metamorphosed gneisses and granulite facies described in three major groups: granitic and granodioritic gneiss; quartz-sericite (muscovite) chlorite gneiss; and garnetiferous pyroxene granulites. Higher gravity and magnetic responses are associated with numerous linear conductors, which drilled as graphitic horizons with varying amounts of sulphides (Gittings, 1980).

Table 7-1 lists the geological formations in the area of the Property.

TABLE 7-1 GEOLOGICAL FORMATIONS
Fission Uranium Corp. - Patterson Lake South Property

Eon	Age			Unit Description
	Era	Period	Epoch	
Phanerozoic	Cenozoic	Quaternary	Pleistocene	Overburden ranging from clays to boulders Colorado Group: clay, mudstone, sandstone, coal Manville Formation: Shale, mudstone, sandstone, coal
	Mesozoic	Cretaceous	Early	
Precambrian	Helikian			Athabasca Formation: quartzose sandstone Regolith, western granite, acidic porphyry dykes Granitic and granodiorite gneiss, quartz-sericite-chlorite gneiss, garnetiferous pyroxene granulites
	Aphebian			
	Archean			

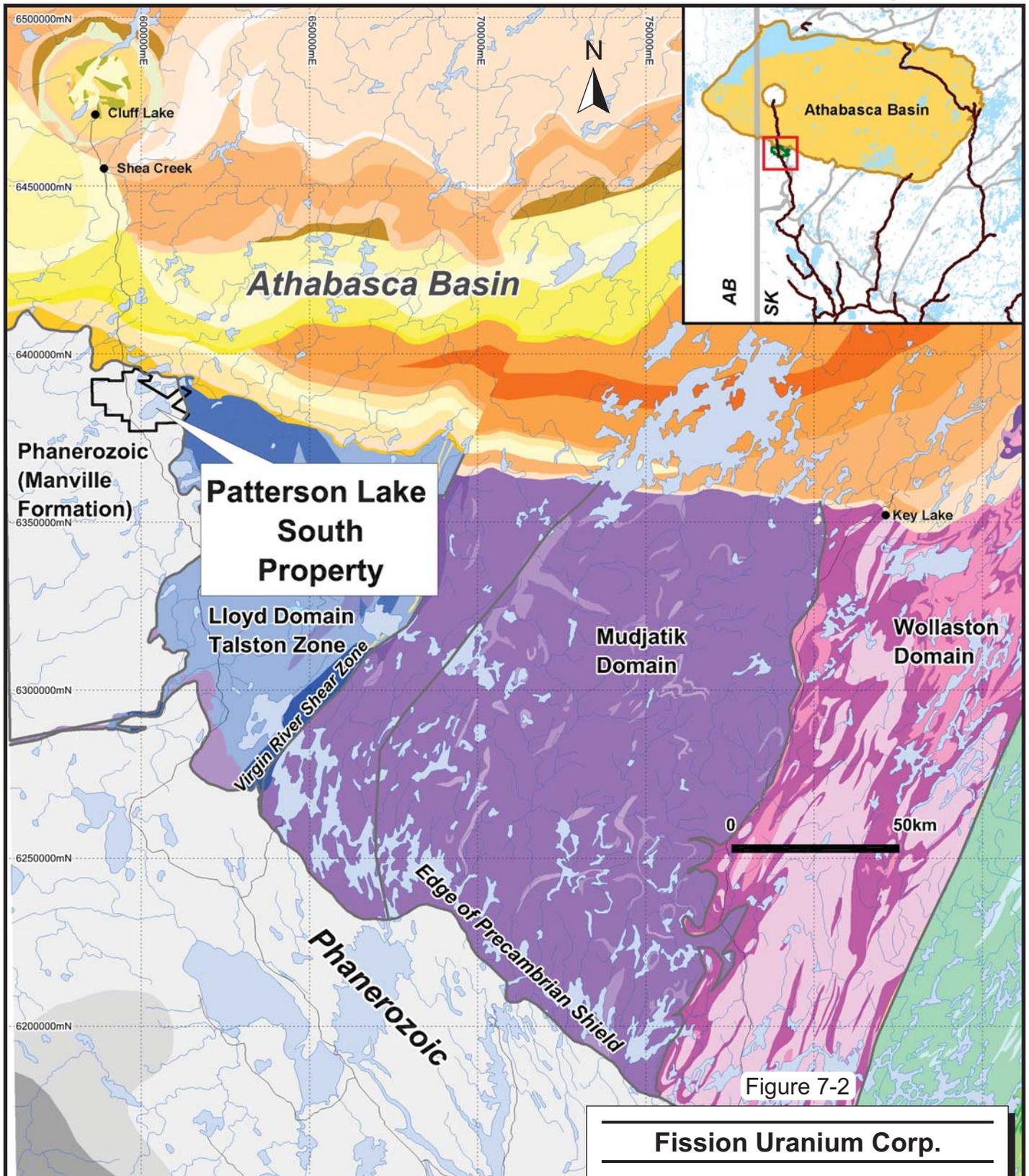
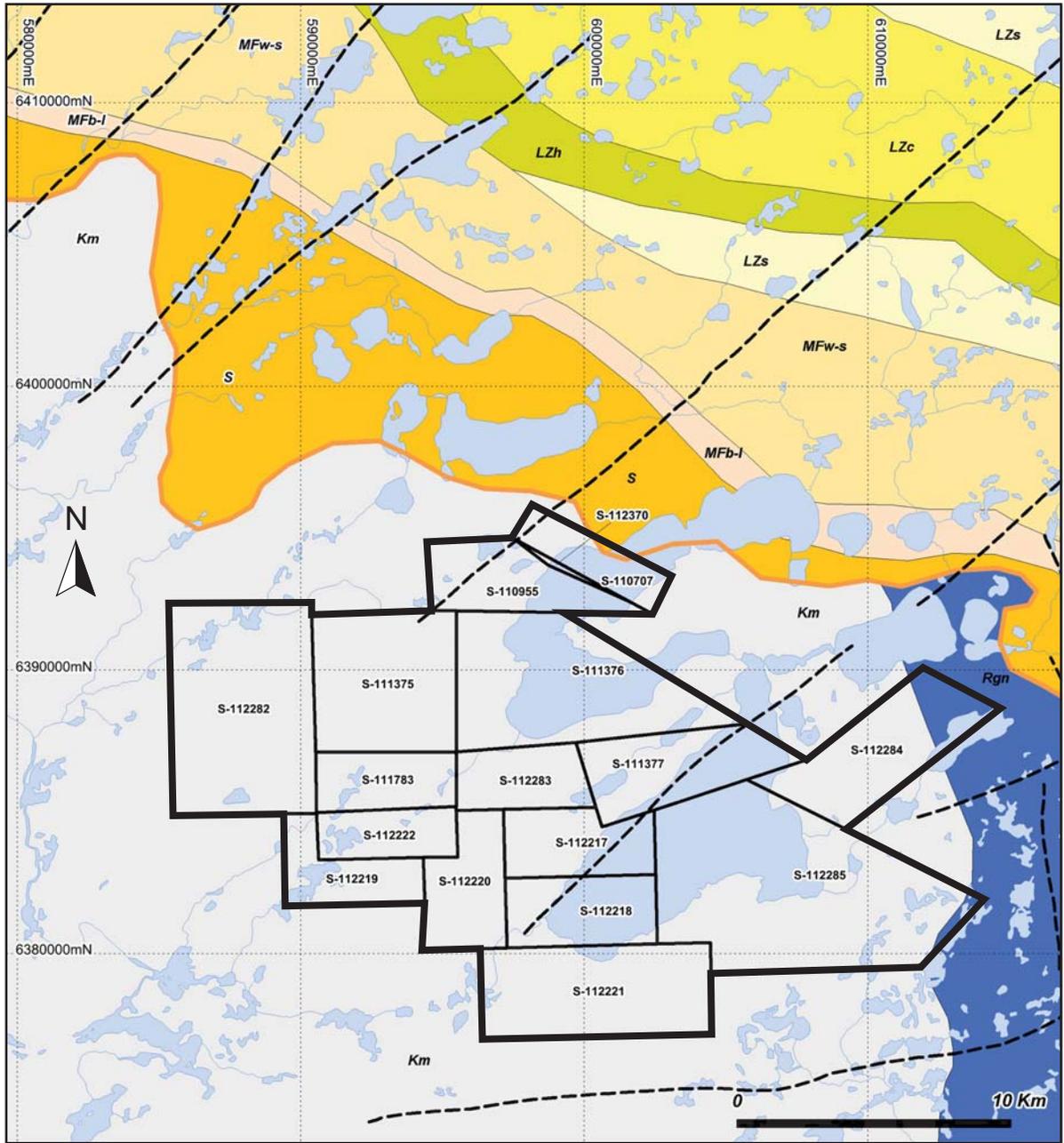


Figure 7-2

Fission Uranium Corp.

Patterson Lake South Property
Northern Saskatchewan, Canada

Local Geology



- Legend:**
- Phanerozoic**
- Km* Mannville Group
- Athabasca Group**
- LZs* Lazenby Lake: Quartzarenite with pebbly layers
 - LZc* Lazenby Lake: Quartzarenite > siltstone + mudstone
 - LZh* Lazenby Lake: Pebbly quartzarenite + conglomerate
 - MFw-s* Manitou Falls: Quartzarenite
 - MFb-l* Manitou Falls: Lower conglomeratic quartzarenite
 - S* Smart: Quartzarenite, local pebbly mudstone
- Archean Basement**
- Rgn* Granite - granodiorite gneiss
- Patterson Lake South Holdings
- Lake
- River
- Fault
- Estimated Athabasca Basin Margin

Figure 7-3

Fission Uranium Corp.

Patterson Lake South Property
Northern Saskatchewan, Canada

Property Geology

MINERALIZATION

Parts of the following description of the mineralization on the PLS Property is taken from Mineral Services Canada Inc. (2014a).

Uranium mineralization at the PLS Property is hosted primarily within metasedimentary basement lithologies and, to a much lesser extent, within overlying sandstone currently thought to be Devonian in age. Additional work is recommended to determine the age of the overlying sandstone, and if indeed Devonian, work is required to determine why these rocks are mineralized.

Mineralization within the sandstone typically occurs as fine grained disseminations, sooty blebs, and rarely semi-massive uranium mineralization. Uranium concentrations within the Sandstone are generally low to moderate but grades greater than 1.0% U_3O_8 have been intersected in particularly well mineralized drill holes. Mineralized sandstone is typically strongly clay and chlorite altered, though locally can be pervasively hematite stained a deep red. Relative to basement hosted mineralization, only a very small amount of mineralized sandstone has been intersected on the PLS Property to date.

Basement hosted mineralization at the PLS Property occurs in a wide variety of styles, the most common of which occurs within the graphitic pelitic gneiss and appears to be fine grained disseminated and fracture filling uranium minerals with a strong hydrocarbon/carbonaceous matter association. Uranium minerals, where visible, appear to be concordant with the regional foliation and dominant structural trends identified through oriented core and fence drilling (i.e., steeply dipping to the southeast). Typically, mineralization within the graphitic pelitic gneiss is associated with pervasive, strong, grey-green chlorite and clay alteration. The dominant clay species identified through PIMA analysis is magnesium-chlorite interpreted to be sudoite. The pervasive clay and chlorite alteration eliminates the primary mineralogy of the host rock with only a weakly defined remnant texture remaining. Locally, intense rusty limonite-hematite alteration in the pelitic gneisses strongly correlates with high grade uranium mineralization and a “rotten”, wormy texture.

Less common styles of uranium mineralization within the graphitic pelitic gneiss which are often associated with very high grade uranium include: semi-massive and hydrocarbon rich;

intensely clay altered (kaolinite) with uranium-hydrocarbon buttons; and massive metallic mineralization. These zones of very high grade mineralization generally occur along the contact of the graphitic pelitic gneiss and silicified south side semi-pelite and comprise a high grade mineralized spine. This spine may represent a zone of intense structural disruption which has been completely overprinted by alteration and mineralization. However, drill holes which undercut the strongly mineralized spine have failed to show signs of significant structural damage. Particularly well mineralized drill holes are often associated with thin swarms of dravite-filled breccia.

Uranium mineralization within the north and south semi-pelites which bound the graphitic pelite generally occurs as fine grained disseminations and is almost always associated with pervasive whitish-green clay and chlorite alteration with local pervasive hematite. The mineralized zones within the semi-pelites are interpreted to be stacked structures parallel to the regional strike and dip along the PLG-3B conductor.

Results of the detailed mineralogical work at the PLS Property indicate that the dominant uranium mineral present is uraninite, with subordinate amounts of coffinite, possible brannerite and U-Pb oxide/oxyhydroxide. Uranium minerals occur mainly as anhedral grains and polycrystalline aggregates with irregular terminations; irregularly developed veinlets, locally showing extremely complex intergrowths with silicates; micrometric inclusions and dendritic intergrowths with silicates; and very fine grained dissemination intercalated with clays. In the samples studied, U-minerals also occur as fine grained inclusions in carbonaceous matter (hydrocarbon).

DISTRIBUTION AND MORPHOLOGY

To date, uranium mineralization has been discovered in four target areas on the PLS Property; R600W, R00E, R780E, and R1620E (Figure 7-4). The R600W, R00E, and R780E mineralized zones all occur within a corridor of variably graphitic pelitic gneiss flanked to the north and south by semi-pelitic gneiss over a 1.7 km strike length of the PLG-3B EM conductor. The R1620E zone is currently intersected only by two drill holes and is located on the PLG-3C EM conductor which, based on geology, is considered to be the eastern extension of the PLG-3B EM conductor.

No significant uranium mineralization has been intersected in exploration drilling away from the PLG-3B and 3C conductors.

R00E ZONE

The R00E mineralized zone was the first mineralized zone discovered on the PLS Property and was intersected during the fall 2012 drill program. The sixth drill hole of the campaign, PLS12-022, was a vertical hole drilled from the western shore of Patterson Lake testing for the up-dip extension of the strong alteration and weak mineralization intersected in PLS12-016 (0.07% U_3O_8 over 1.0 m). PLS12-022 intersected a total of 12.5 m of uranium mineralization beginning at the top of bedrock (55.3 m) including a main zone averaging 1.1% U_3O_8 over 8.5 m from 70.5 m to 79.0 m.

The R00E zone is currently defined by 41 drill holes intersecting uranium mineralization over a combined grid east-west strike length of 125 m and a maximum grid north-south width of 47 m. Uranium mineralization at R00E trends north-easterly, in line with the corridor of variably graphitic pelitic gneiss.

At R00E, uranium mineralization is generally found within several metres of the top of bedrock which occurs at a depth of 50 m to 60 m vertically from surface. Several holes (e.g., PLS13-037, PLS13-039) drilled along the southern edge of the mineralization have intersected the down dip uraniferous root over 100 m below the top of bedrock. Uranium mineralization at R00E is hosted within the variably graphitic pelitic gneisses, northern semi-pelitic gneiss, and Devonian sandstone. No uranium mineralization has been intersected to date in the silicified semi-pelite (which bounds the graphitic pelite to the south) or in the southern semi-pelite.

As the R00E zone is interpreted to be roughly flat lying at the top of bedrock, vertical holes have dominantly been utilized to delineate mineralization. Vertical holes intersect the mineralized zone roughly perpendicular and therefore provide an approximate true thickness. Table 7-2 shows a selection of significant mineralized drill hole intersections at the R00E zone.

TABLE 7-2 ZONE R00E SIGNIFICANT INTERSECTIONS
Fission Uranium Corp. - Patterson Lake South Property

HoleID	Interval Length (m)	Average grade (% U ₃ O ₈)	Hole Dip
PLS12-024	18.0	1.8	-89°
PLS13-043	22.0	4.8	-89°
PLS13-049	18.5	1.9	-88°
PLS13-059	20.5	8.6	-73°
PLS13-079	17.5	6.0	-74°

Note: Average grades are based on uncut chemical assay values.

R780E ZONE

The R780E zone was discovered during the winter 2013 drill program with drill hole PLS13-038. PLS13-038 targeted an intense radon-in-water anomaly occurring along the PLG-3B conductor, approximately 390 m east of the PLS discovery hole. Drill hole PLS13-038 intersected a 34.0 m wide zone of very strong uranium mineralization, beginning at 87.0 m, averaging 4.9% U₃O₈.

The R780E zone is currently defined by 194 drill holes over a grid east-west strike length of 900 m and a maximum grid north-south width of 93 m. Similar to R00E, R780E mineralization trends approximately northeast, in line with the corridor of variably graphitic pelitic gneiss. Representative sections and plans from the R780E zone are provided in Section 14, Mineral Resources.

As with the R00E zone, R780E uranium mineralization has varying thickness, from tens of centimetres along the flanks to very wide intervals within the graphitic pelites, as seen in PLS14-187 which intersected high grade uranium mineralization over 100 m in vertical core length. In section view, R780E mineralization generally occurs as sub-vertically and southeast dipping zones, concordant with the regional dip. A very high grade spine of uranium mineralization occurs within the main zone and has been traced as a series of lenses across almost the entire strike length of the R780E zone. The high grade spine occurs along the contact between the variably graphitic pelitic gneiss and silicified semi-pelite.

At the western R780E zone, uranium mineralization extends to near the top of bedrock. Moving eastward, the top of mineralization appears to be plunging at approximately -7°. In general, the western R780E mineralization morphology is similar to the R00E, spatially

restricted to the northern semi-pelite, variably graphitic pelitic gneiss, and Devonian sandstone. Moving eastward through the R780E zone, mineralization has been intersected within the variably graphitic pelitic gneiss, northern semi-pelite and Devonian sandstone and, unlike the R00E zone, strong mineralization has been cored in the silicified semi-pelite and southern semi-pelite. Grid line 690E is the furthest point to the east that Devonian sandstone has been intersected along the PLG-3B EM conductor.

Initial drilling at the R780E zone consisted of all vertical holes for three main reasons: testing for subhorizontal mineralization similar to the R00E zone, limitations with the reverse circulation (RC) drill rig used to pre-case holes, and summer barge drilling where angled holes were not technically achievable. Many holes during the winter 2014 program and almost all holes from the summer 2014 drill program were angle holes, drilled south to north in order to intersect both contacts of the mineralized bodies. Table 7-3 shows a selection of significant drill hole intersections at the R780E zone.

TABLE 7-3 ZONE R780E SIGNIFICANT INTERSECTIONS
Fission Uranium Corp. - Patterson Lake South Property

Hole ID	Interval Length (m)	Average Grade (% U ₃ O ₈)	Hole Dip
PLS13-038	34.0	4.9	-89°
PLS13-053	49.5	6.3	-86°
PLS13-075	54.5	9.1	-88°
PLS14-129	38.0	13.7	-90°
PLS14-164	91.0	4.3	-90°
PLS14-187	102.5	6.0	-90°
PLS14-248	47.5	13.2	-70°

Note: Average grades are based on uncut chemical assay values.

R600W ZONE

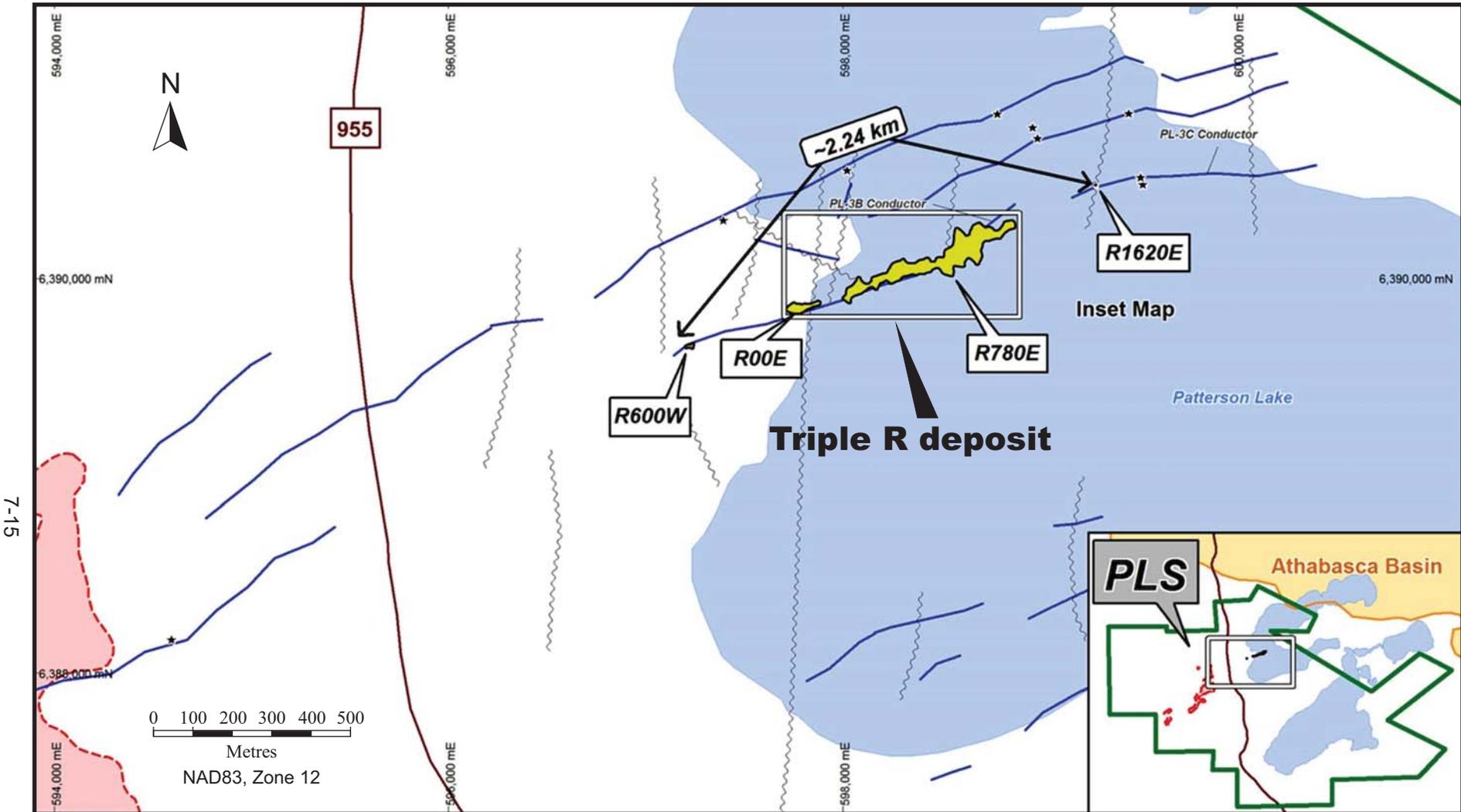
The R600W mineralized zone was discovered during the fall 2013 exploration drill program. The seventh drill hole of the program, PLS13-116, was an angle hole drilled to the north, targeting a radon-in-soil anomaly along the western end of the PLG-3B conductor. The drill hole intersected a thin zone of anomalous radioactivity hosted in the northern semi-pelite and a follow-up vertical hole was drilled targeting the graphitic pelitic corridor to the south. The follow-up hole, PLS13-118, intersected 6.5 m of uranium mineralization, beginning at 192.0 m and averaging 0.3% U₃O₈.

The R600W zone is currently defined by five drill holes with a total grid east-west strike length of 30 m and a maximum grid north-south width of 30 m. Similar to the R00E and R780E zones, mineralization trends northeasterly in line with the corridor of graphitic pelitic gneiss.

R1620E ZONE

The R1620E mineralized zone was discovered during the winter 2014 drill program. Hole PLS14-196 tested a moderate radon-in-water anomaly along the PLG-3C EM conductor, which is interpreted to be the extension of the PLG-3B EM conductor. PLS14-196 intersected 28.5 m of uranium mineralization beginning at a depth of 100.0 m down hole which averaged 0.2% U₃O₈.

The R1620E zone is currently defined by two drill holes. Uranium mineralization at the R1620E occurs in graphitic pelitic gneiss and appears associated with the graphitic pelitic gneiss – silicified semi-pelite contact. Additional drilling is recommended.



7-15

Legend

- Patterson Lake South Holdings
100% Fission Uranium Corp.
- Highway
- EM Conductors
- Interpreted Fault
- 2012 Outline of Mineralized Boulder Field
- Mineralized Outline Oct.27, 2014
- Composite Intervals >0.05% U3O8 / 0.5M
- 2014 Radioactive Intersection (Previously Reported)
- 2014 Summer Unmineralized Drill Hole

Figure 7-4

Fission Uranium Corp.

Patterson Lake South Property
Northern Saskatchewan, Canada

Location of Target Areas

8 DEPOSIT TYPES

The target mineralization on the PLS Property is an Athabasca unconformity-type uranium deposit, though the Triple R deposit is south of the perimeter of the Athabasca Basin and has no Athabasca Basin sandstone above it. Jefferson et al. (2007) offered the following definition for the geological environment of this type of mineralization:

Unconformity-associated uranium deposits are pods, veins, and semi-massive replacements consisting of mainly uraninite, close to basal unconformities, in particular those between Proterozoic conglomeratic sandstone basins and metamorphosed basement rocks. Prospective basins in Canada are filled by thin, relatively flat-lying, and apparently un-metamorphosed but pervasively altered, Proterozoic (~1.8 Ga to <1.55 Ga), mainly fluvial, redbed quartzose conglomerate, sandstone and mudstone. The basement gneiss was intensely weathered and deeply eroded with variably preserved thicknesses of reddened, clay-altered, hematitic regolith grading down through a green chloritic zone into fresh rock. The basement rocks typically comprise highly metamorphosed interleaved Archean to Paleoproterozoic granitoid and supracrustal gneiss including graphitic metapelite that hosts many of the uranium deposits. The bulk of the U-Pb isochron ages on uraninite are in the range of 1600 Ma to 1350 Ma. Mines comprise various proportions of two ore categories. Monometallic, generally basement-hosted uraninite fills veins, breccia fillings, and replacements in fault zones. Polymetallic, commonly subhorizontal, semi-massive replacement uraninite forms lenses just above or straddling the unconformity, with variable amounts of uranium, nickel, cobalt and arsenic; and traces of gold, platinum-group elements, copper, rare-earth elements and iron.

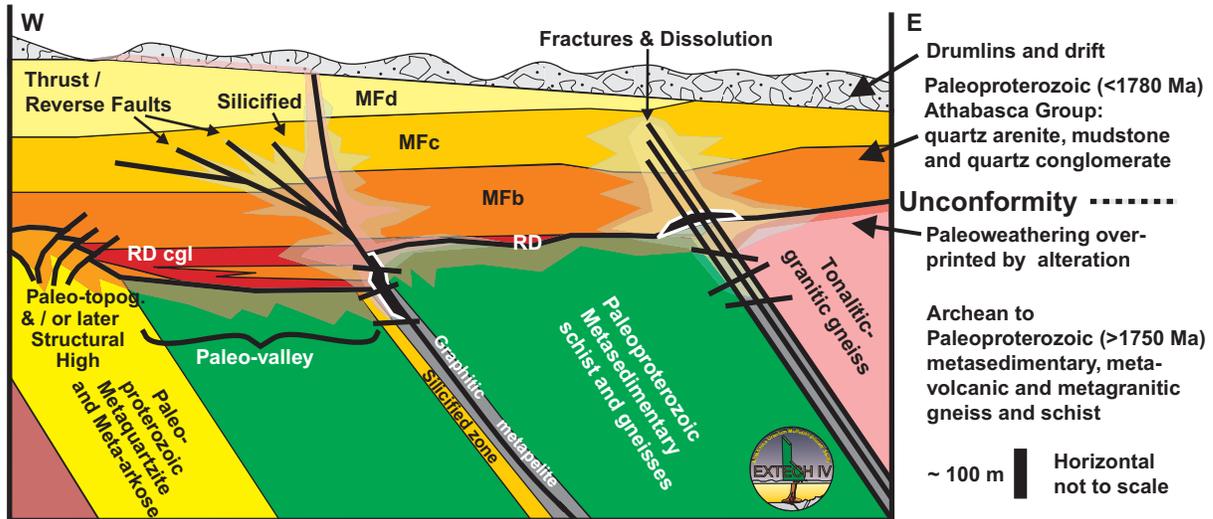
Fundamental aspects of the Athabasca unconformity-type uranium deposit model are reactivated basement faults and two distinct hydrothermal fluids. Typically rooted in basement graphitic-pelitic gneiss, brittle reactivated faults are manifest upward with brittle expression through the overlying sandstones and provide plumbing for the requisite mineralizing system. One of the necessary fluids is reducing, originates in the basement, and is channelled along basement faults.

Two end-members of the deposit model have been defined (Quirt, 2003). A sandstone-hosted egress-type (e.g., Midwest A) involved the mixing of oxidized, sandstone brine with relatively reduced fluids issuing from the basement into the sandstone. Basement-hosted,

ingress-type (e.g., Rabbit Lake) deposits formed by fluid-rock reactions between oxidizing sandstone brine entering basement fault zones and the wall rock. Both types of mineralization and associated host-rock alteration occurred at sites of basement-sandstone fluid interaction where a spatially stable redox gradient/front was present. Although either type of deposit can be high grade, with a few per cent to 20% U_3O_8 , they are not physically large. In plan view, the deposits can be 100 m to 150 m long and a few metres to 30 m wide and/or thick. Egress-type deposits tend to be polymetallic (U-Ni-Co-Cu-As) and typically follow the trace of the underlying graphitic pelites and associated faults, along the unconformity. Ingress-type, essentially monomineralic U deposits, can have more irregular geometry.

Unconformity-type uranium deposits are surrounded by extensive alteration envelopes. In the basement, they are relatively narrow but become broader where they extend upwards into the Athabasca group for tens to even 100 m or more above the unconformity. Hydrothermal alteration is variously marked by chloritization, tourmalinization (high boron, dravite), hematization (several episodes), illitization, silicification/de-silicification, and dolomitization (Hoeve, 1984).

Figure 8-1 illustrates various models for unconformity-type uranium deposits of the Athabasca Basin.



Mono-metallic: - basement hosted
 - uranium
 - lower total REEs; HREEs / LREEs >1

Poly-metallic: - 'sandstone' hosted
 - U, Ni, Co, Cu, As
 - high total REEs; HREEs / LREEs ~1

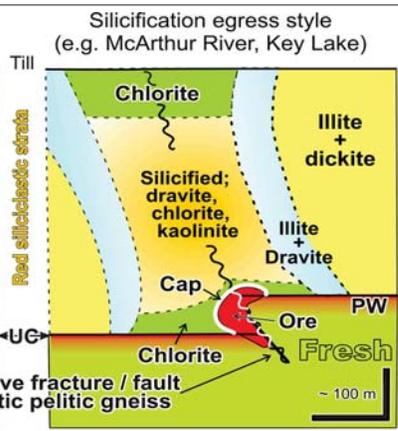
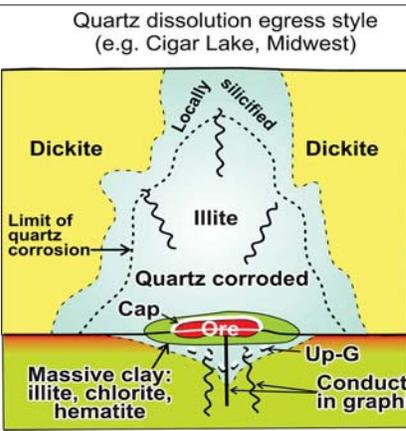
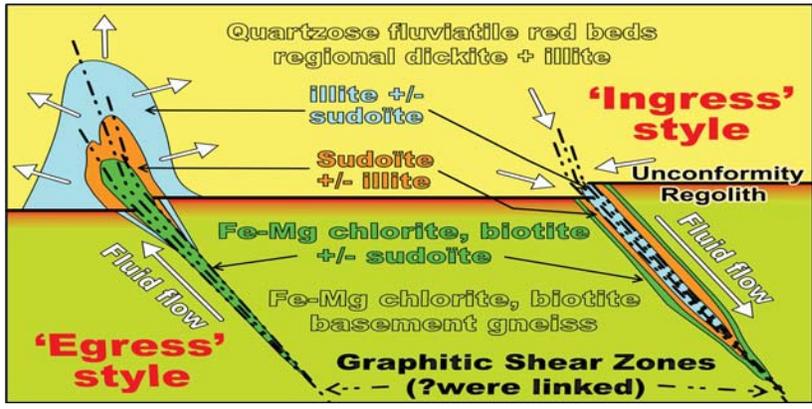


Figure 8-1

Fission Uranium Corp.
Patterson Lake South Property
 Northern Saskatchewan, Canada
Illustration of Various Models for Unconformity Type Deposits of the Athabasca Basin

9 EXPLORATION

With the exception of drilling, exploration work performed on the Property by Fission Energy, ESO, and their successor companies since 2007 is summarized in this section. Work completed on the Property and its immediate vicinity by other parties prior to 2007 is summarized in Section 6 of this report. Drilling completed on the Property since 2011 is summarized in Section 10 of this report.

RADON AND GROUND RADIOMETRIC SURVEYS

2008 RADON AND RADIOMETRIC SURVEYS

From early to mid-October 2008, a preliminary Electret Ion Chamber (EIC) radon detection survey consisting of 280 sample locations on the northernmost portion of the Property was completed by RadonEx Ltd. (RadonEx) of St. Lazare, Quebec. A radiometric gamma survey was done concurrently with the radon survey. Sample locations were spaced 200 m apart along four east-west running lines. Locations were 100 m apart along Highway 955 and both branching four-wheel drive roads. Up to five tightly spaced sample locations were completed for each CanOxy alphascan anomaly on the Property. Step-out and confirmation sample locations were completed as time allowed. Radon sampling was not conducted during or within 24 hours of a precipitation event.

Radon and radiometric values were generally low across the PLS Property (Armitage, 2013). Radon and radiometric values ranged from 0.07 pCi/m²/sec to 1.78 pCi/m²/sec and 15 cps to 114 cps, respectively. The average radon value was 0.42 pCi/m²/sec, and the average radiometric value was 58 cps. Most elevated radon and radiometric values coincide, which indicates that elevated radon values are likely related to a source within the first two feet of the overburden.

Figures 9-1A and 9-1B illustrate the results of the 2008 radon and radiometric surveys.

2011 RADON AND RADIOMETRIC SURVEYS

Throughout June 2011, a radon survey consisting of 462 sample locations on two grids was completed. A radiometric total count gamma-ray survey was carried out concurrently with the radon survey. Sample locations were spaced at 100 m intervals along north-south

oriented lines, which were spaced 200 m apart. Grids 1 and 2 are located west and east of Highway 955, respectively. Radon sampling was not conducted during or within 24 hours of a precipitation event.

Radon values show strong anomalies related to the historical CanOxy alphasimeter anomalies and the 2009 airborne radioactive hotspots on Grid 1. Strong radon anomalies are associated with historical CanOxy electromagnetic conductors on Grid 2. Radon values ranged from 0.05 pCi/m²/sec to 18.06 pCi/m²/sec, with an average value of 0.51 pCi/m²/sec. Radiometric values were generally low to moderately anomalous across the PLS Property, and ranged from 30 cps to 90 cps with an average radiometric value of 55 cps.

Most anomalous radon values on Grid 1 were associated with moderately elevated radiometric values, which typically indicate that the anomalous radon values are likely related to a source within the first metre of the overburden. However, this may not be the case where high grade uranium boulders or a source is present at greater depths. Anomalous radon values on Grid 2 are not associated with elevated radiometrics, which indicates a possible uranium mineralization at depth. Radon anomalies were found to be coincident with CanOxy EM conductors on Grid 2.

Three sample locations of interest are located in the northwest corner of Grid 1, away from the bulk of coincident radon and radiometric anomalies found in the south half of Grid 1. Samples PR11-043 and PR11-085 show anomalous radon values (1.58 pCi/m²/sec and 2.17 pCi/m²/sec, respectively) with average to weakly anomalous radiometric values (66 cps and 52 cps, respectively). Sample PR11-091 shows a strongly anomalous radon value (6.18 pCi/m²/sec) with a very low radiometric value (34 cps).

The southeast corner of Grid 2 shows radon and radiometric anomalies south of the EM conductors. There are five radiometrically anomalous sample locations (PR11-404 to 408) in a column with only one of these locations (PR11-407) having strongly anomalous radon values. East of this anomalous radiometric column, sample location PR11-420 shows anomalous radon (1.65 pCi/m²/sec) with a low radiometric value (50 cps) (Ainsworth, 2011b).

Figure 9-2A and 9-2B illustrate the results of the 2011 radon and radiometric surveys.

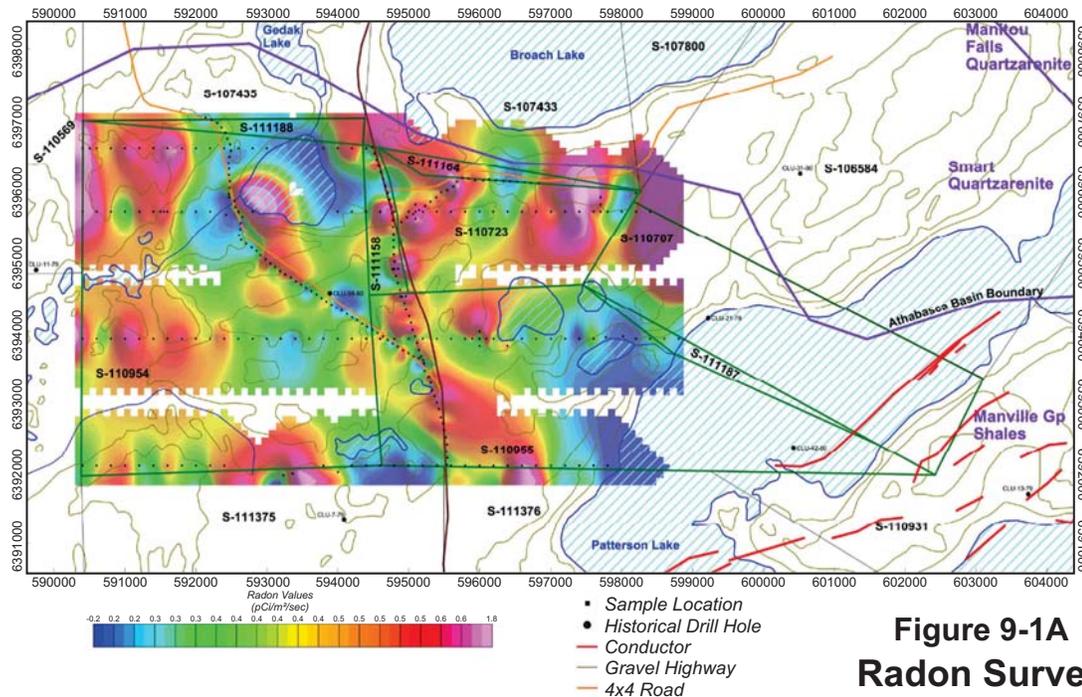


Figure 9-1A
Radon Survey

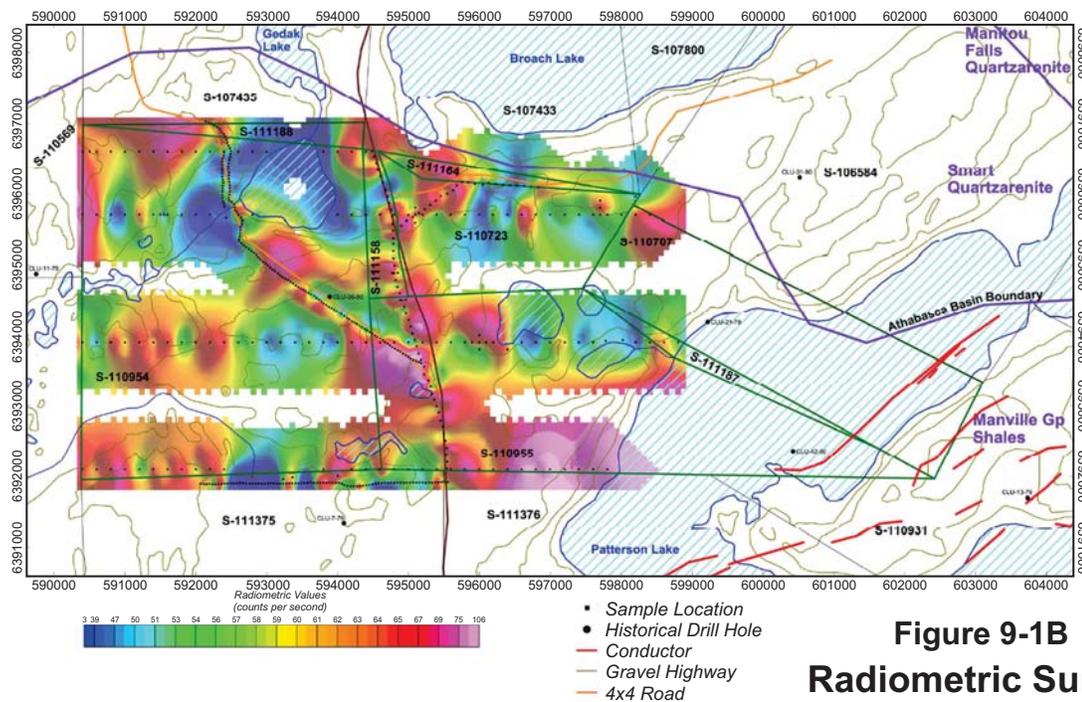
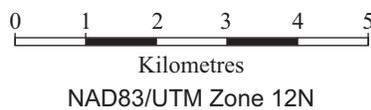
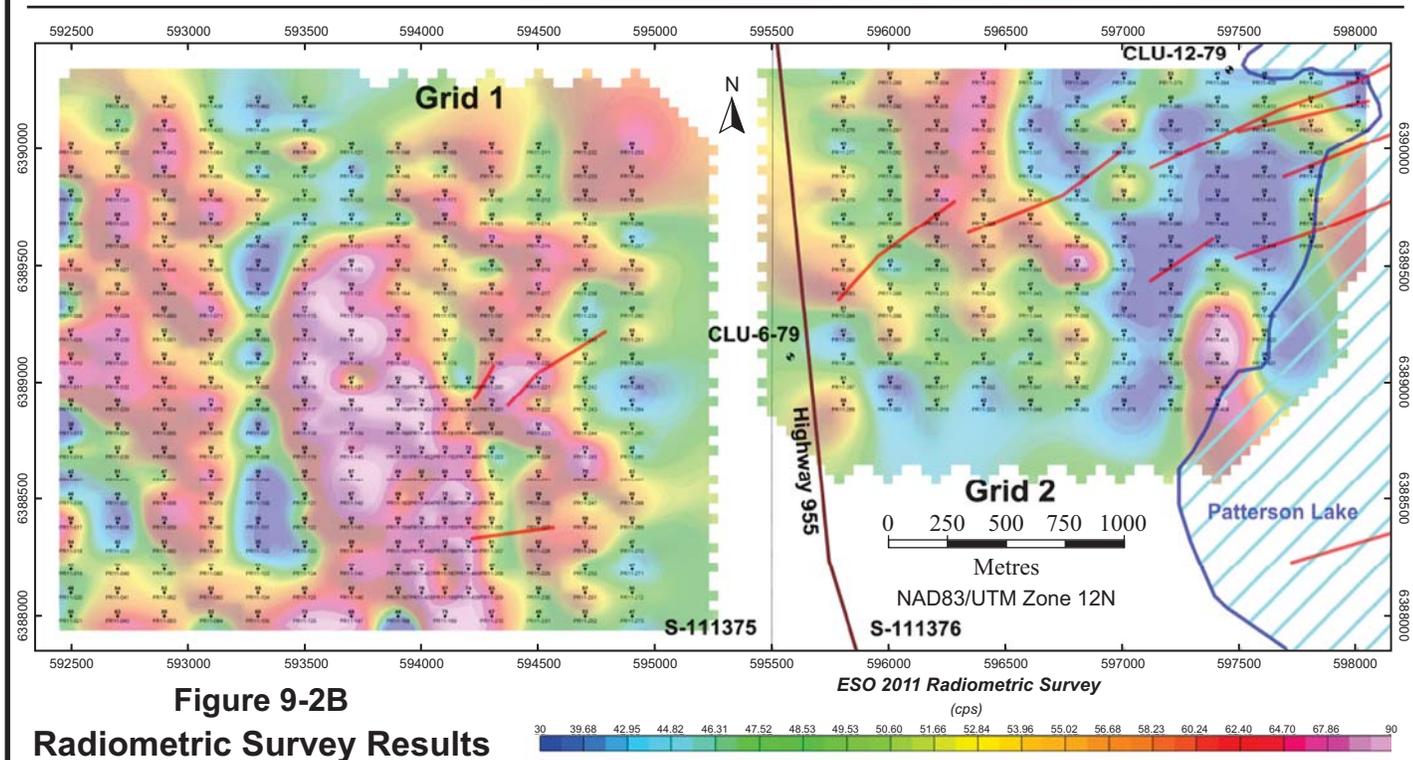
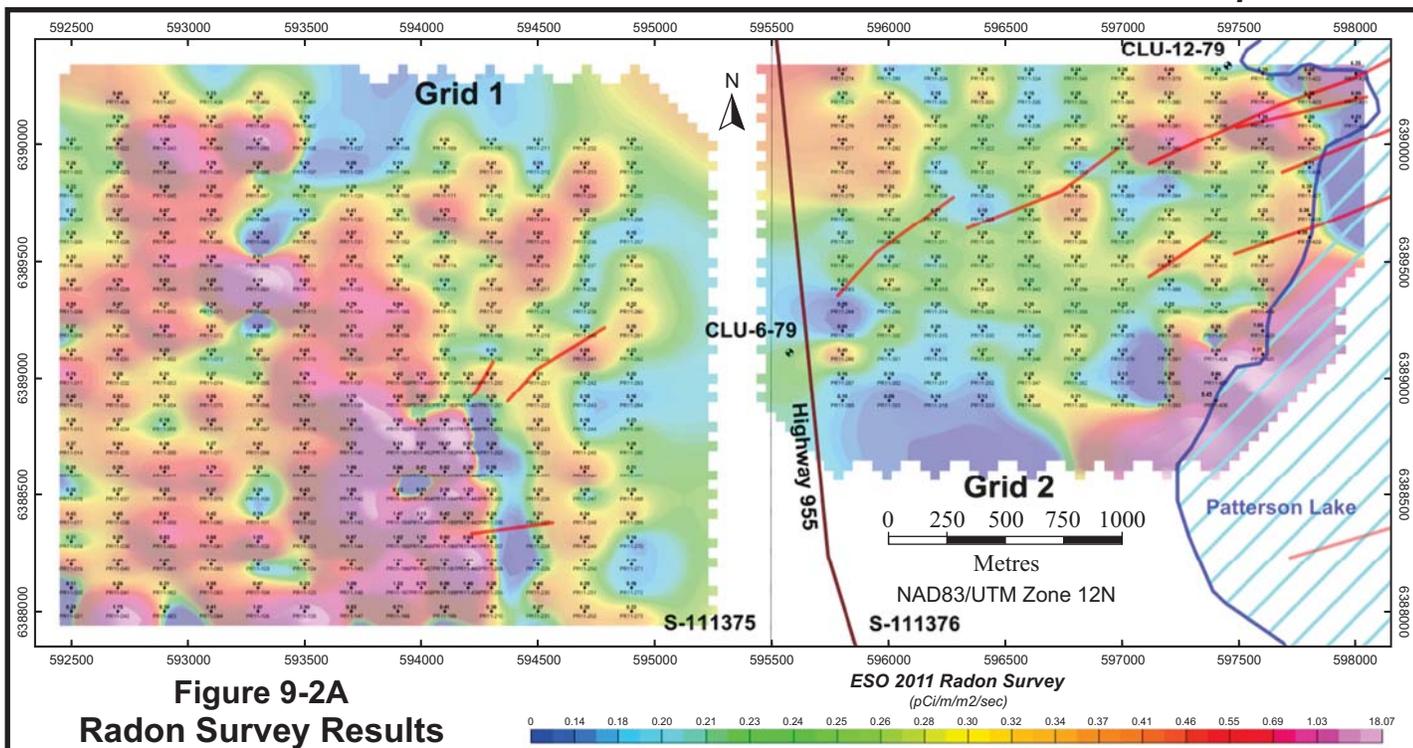


Figure 9-1B
Radiometric Survey



Fission Uranium Corp.
Patterson Lake South Property
Northern Saskatchewan, Canada
2008 Radon & Radiometric Surveys



- CanOxy (CLU) Drill Hole
- EM Conductor
- Gravel Highway

Fission Uranium Corp.
Patterson Lake South Property
 Northern Saskatchewan, Canada
2011 Radon & Radiometric
Survey Results

2013 RADON AND GROUND RADIOMETRIC SURVEYS

During January and February 2013, RadonEx conducted an EIC radon in lake water (radon-in-water) and radon in lake sediment (radon-in-sediment) survey on the Property (Charlton, Owen and Charlton, 2013). TDEM and VTEM conductors with coincident resistivity lows located along strike of the discovery hole PLS12-022 were targeted. Station spacing was 20 m on 60 m north-south oriented lines within four main areas across Patterson Lake. A total of 186 radon-in-water samples and 167 radon-in-sediment samples were collected.

In Areas 1 and 2, the western side of the survey, an east-west to east-northeast–west-southwest (ENE-WSW) trend appears in both sets of data. This is thought to indicate either the eastern extension of the glacially deposited mineralized boulder train or a fault that is controlling radon diffusion. In Areas 3 and 4, the eastern side of the survey, the correlation between sediment and water results is less evident and results in these areas were generally lower than in the western section of the lake.

Overall, the radon-in-sediment samples are considered complementary to the radon-in-water samples. The radon-in-water samples are considered to be more indicative of uranium. Radon-in-sediment anomalies may be more indicative of localized detrital concentrations of uranium in lake bottom depressions.

During April 2013, RadonEx conducted additional EIC radon-in-water and radon-in-sediment surveying on Patterson Lake (Charlton, Owen and Charlton, 2013b). Station spacing was generally 20 m and line spacing was generally 60 m. This survey was intended to infill areas from a previous radon-in-water and sediment survey, and to extend the coverage. A total of 151 sediment samples and 220 water samples were collected.

Most of the sediments collected were fine sand with small pebbles and small amounts of organic matter. Two areas were characterized by sediments with high iron content and pebbles with iron nodules, namely, the southwest portion of the survey area, where the highest concentration of anomalous radon readings is located, and the northeast portion of the survey area, where a few moderately anomalous readings were collected during the February 2013 radon survey. Iron enrichment in the northeast portion of the survey area is much less prominent than in the southwest portion of the grid.

A clear ENE-WSW trend in the radon-in-water results is coincident with the strong VTEM conductor and with the Triple R deposit. The trend also appears in the radon-in-sediment results to a lesser degree.

The water anomalies are often offset and tend to be more dispersed, and the sediment anomalies are more localized, suggesting that anomalies in water may be associated with either a localized sediment anomaly or anomalies, or an area of anomalous radon-in-sediment content. The dispersion patterns from sediment to water are not constant, perhaps as a result of either glacially deposited mineralized boulders, or localized, structurally controlled leakages between the test stations.

During August 2013, an EIC radon detection survey consisting of 434 sample locations was completed by RadonEx. A radiometric gamma survey was performed concurrently with the radon survey. Samples were located at 10 m intervals. Survey lines were from 100 m to 450 m in length and spaced from 10 m to 40 m.

The survey area extended approximately 700 m westward from discovery diamond drill hole PLS12-022 on the west shore of Patterson Lake, and was conducted to locate any additional mineralization down-ice and westward of the known mineralized zone.

Results suggested generally moderate variations in radon flux measurements across the survey area. Measurements appeared to increase towards the north end of the two north-reaching extension lines, however, further radon sampling would be required in order to substantiate these observations.

2014 RADON SURVEYS

From January to March 2014, RadonEx conducted additional EIC radon-in-water and radon-in-sediment surveying on the Property (Charlton, Owen and Charlton, 2014). The surveys covered four separate areas: three on Patterson Lake and one on nearby Forrest Lake. In total, the surveys consisted of 2,610 radon-in-water sample stations and 266 radon-in-sediment sample stations. Station spacing was generally 20 m and line spacing was generally 60 m, locally 30 m. The survey was intended to locate radon anomalous zones and trends along previously located geophysical conductor corridors interpreted from TDEM and VTEM surveys.

At Area A, covering the area of the mineralized zone and the primary conductive corridor, a series of discontinuous radon trends is evident and eleven radon-in-water anomalies and trends are chosen for potential drill testing. The top ten Area A radon-in-water results compare well with the R780E Zone radon-in-water results from 2013. A discordant set of radon anomalies is suggestive of east-southeast striking cross-faulting.

At Area B, in the northeastern section of Patterson Lake, two parallel radon trends are recognized, of which the north one is very strong and appears to correspond to a conductor axis. Radon trends are suggestive of north trending cross-faulting through the grid area.

The Area C radon coverage in the southwest part of Patterson Lake reveals two anomalous parallel radon trends, which partially correlate to conductors. Area C radon-in-water results compare very favourably with the 2013 R780E results. A north-trending fault is interpreted to displace and reorient the radon trends.

Area D is a large irregular grid covering northern parts of Forrest Lake. Water depths are much greater here, particularly in the D-2 area (>70 m), where the bottom is covered with a thick layer of organics. Radon signatures are masked and muted in this part of the lake and no radon targets are identified at D-2.

In the D-1 area to the northeast, where the lake is shallower, five extremely high radon-in-water anomalies were found, including some of the highest radon-in-water results yet recorded on the Property.

During August 2014, Remote Exploration Services (Pty) Ltd (RES) conducted a RadonX radon cup survey over the 600W Zone at PLS (RES, 2014). In total, 580 cups were deployed in a grid with 20 m line spacing and 10 m cup spacing along line. The total area of the grid was 0.11 km². The survey was conducted in order to compare and confirm results from 2013 RadonEx radon cup surveying over the same grid area.

The RadonX method is an on-land technique that involves deployment and burial of cartridges containing activated charcoal, onto which radon gas (emanating to surface from its source as a radioactive decay daughter product of uranium) is adsorbed over the course of up to 10 days. This large measurement duration serves to average out diurnal variations in the amount of radon gas released at surface due to varying air pressure, and greatly

increases the signal strength of the low abundances of radon that are typically recorded. A RadonX survey supplements airborne radiometric data by evaluating the radon flux in the ground air and in so doing allows for the delineation of buried uranium deposits or extensions of existing radiometric anomalies that may extend below cover.

Radon gas is absorbed onto activated charcoal contained within a cartridge fitted into the base of an inverted cup that is buried in the ground. Optimal burial duration is 10 days. After retrieval, gamma radiation from the daughter products of the adsorbed radon is measured using a field scintillometer. Background effects are reduced and corrected for through the use of a lead castle.

The survey results confirmed zones of anomalous and highly anomalous radon flux values (RnV) that in general are centred on or slightly to the north of the main ENE-WSW trending EM conductor that is associated with the mineralization. The orientation of this EM conductor parallels the interpreted strike of major fault structures in the area. Faults are known conduits for radon gas emanating from uranium mineralized bodies.

The western zone of anomalous RnV correlates with a delineated mineralized zone defined from drilling. Additionally, there is a northwest trend of slightly anomalous to anomalous RnV that intersects the north-northeast trend and could represent subordinate structures in this direction. Further assessment of the RnV anomalies in relation to drilling results and other geological and geophysical datasets is required to fully understand the relationship of RnV to defined mineralization.

During October 2014, RES conducted a radon cup survey over three separate areas east of Forrest Lake, approximately 10 km southeast of the Triple R deposit (RES, 2014b). In total, 867 cups were deployed. The grids consisted of 30 m line spacing and 20 m cup spacing along each line. The total area of the three grids encompassed 0.481 km².

The three grids targeted high priority conductors identified by airborne VTEM surveying and/or ground TDEM surveying, namely the PLV-68A conductor (Grid S1), the PLV-63D conductor (Grid S3), and the PLV-63C conductor (Grid S4). Areas and trends of anomalous radon flux measurements were observed on each of the three grids.

AIRBORNE SURVEYS

2007 MEGATEM SURVEY

During November 2007, prior to the execution of the PLS joint venture between Fission Energy and ESO Uranium, Fission and ESO completed a fixed wing combined electromagnetic (MEGATEM) and magnetic airborne survey over their respective mineral claims: For Fission Uranium, claims S-110954 and S-110955 and for ESO, claims S-110707 and S-110723. The results of the survey were of very low resolution (Armitage, 2013).

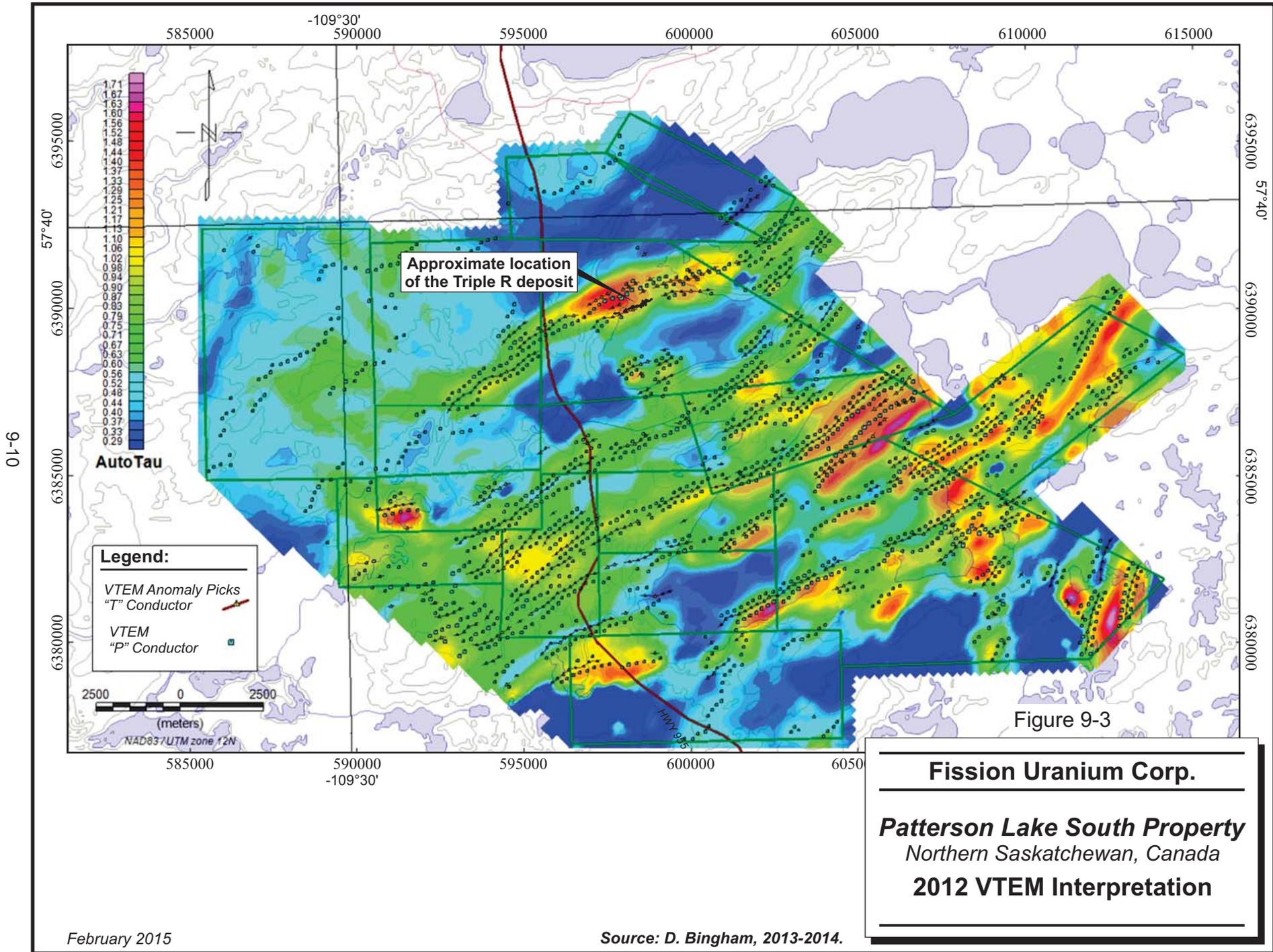
2009 SPECIAL PROJECTS SURVEY

In mid-October 2009, Special Projects Inc. (SPI) completed a combined fixed wing LiDAR, radiometric and high resolution airborne magnetic geophysical survey over the northern portion of the Property totalling approximately 3,342 line-km. Flight lines were oriented at 135° and were spaced at 50 m intervals. The aeromagnetic survey successfully delineated different basement lithologies. A structural interpretation was completed which identified the traces of surface and basement faults, shear zones, and areas of structural complexity (McElroy and Jeffrey, 2010). The airborne radiometric spectrometer survey outlined a number of uraniferous hot-spots within a 3.9 km long by 1.4 km wide area, which was subsequently found to be the result of a radioactive boulder field that contained boulders composed of massive or semi massive uranium oxide minerals. This radioactive area extended south of claim S-111375, which led to the staking of claim S-111783 in April 2010.

2012 GEOTECH SURVEY

In mid-February 2012, Geotech Ltd. completed a detailed, combined helicopter-borne versatile time-domain electromagnetic (VTEMplus) survey with Z and X component measurements and a horizontal magnetic gradiometer survey over the entirety of the Property. Flight lines totalling 1,711.3 line-km and oriented at 135° were flown at 200 m line spacing.

The survey was instrumental in defining conductive packages over the Property. In many cases, the relative shallow depth provided sufficient resolution from the airborne data to establish drill targets. However, the complex nature and sometimes flat lying conductor geometry could not be adequately resolved without ground geophysical follow-up in some cases (Armitage, 2013). Figure 9-3 illustrates the results of the survey.



2012 SPECIAL PROJECTS SURVEY

From mid- to late September 2012, SPI completed a combined fixed wing LiDAR, radiometric, and magnetic survey over the southern portion of the Property totalling 5,611.5 line-km of which 5,147.3 line-km were flown within the Property boundary. The flight lines were oriented at 126° and were spaced at 50 m intervals.

The data was merged with the previous 2009 SPI high resolution survey to create a seamless magnetic grid over the Property area.

From the analysis of the field data, it was apparent that the geological setting of the Property area is complicated and that there are numerous lineaments related to contacts and structures between basement units.

The Property area has several predominant trends. The survey area is divided into three magnetic zones: a central zone (A) of relatively low magnetism characterized as predominantly northeast magnetic trends (conforming to the general domain orientation of the Athabasca Basin), a western zone (B) of relatively high magnetism with predominant northwest magnetic trends, and an eastern zone (C) of low magnetism with predominant north northeast trends (Bingham, 2012).

Figure 9-4 illustrates the results of the merged, processed magnetic data and the three magnetic zones as interpreted by Bingham (2012)

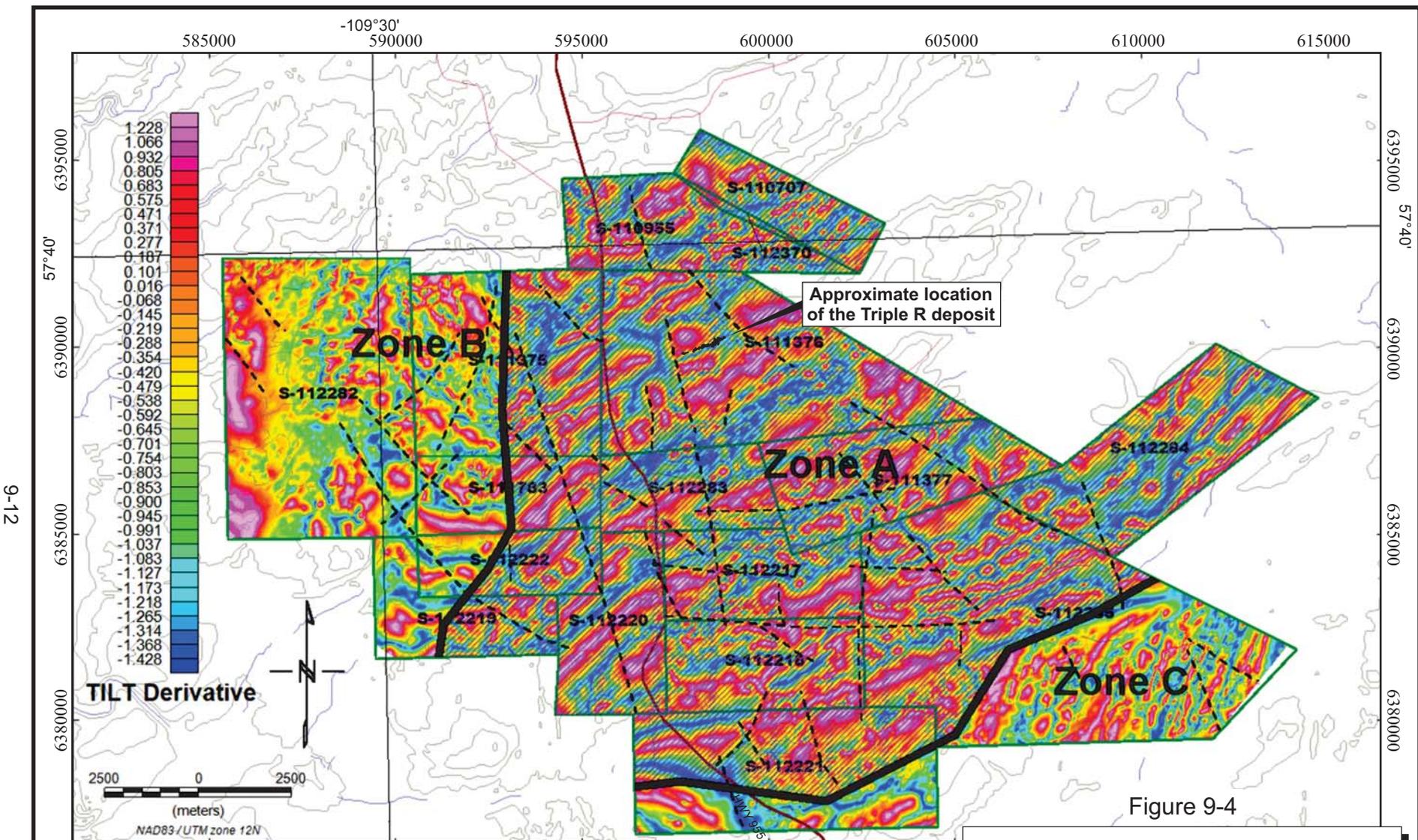


Figure 9-4

Fission Uranium Corp.
Patterson Lake South Property
Northern Saskatchewan, Canada
Interpreted Major Structures
and Tilt Derivative Magnetics

TRENCHING AND BOULDER SURVEYS

Several trenching and boulder surveys have been carried out on the Property since 2011. Results are compiled in Figure 9-5.

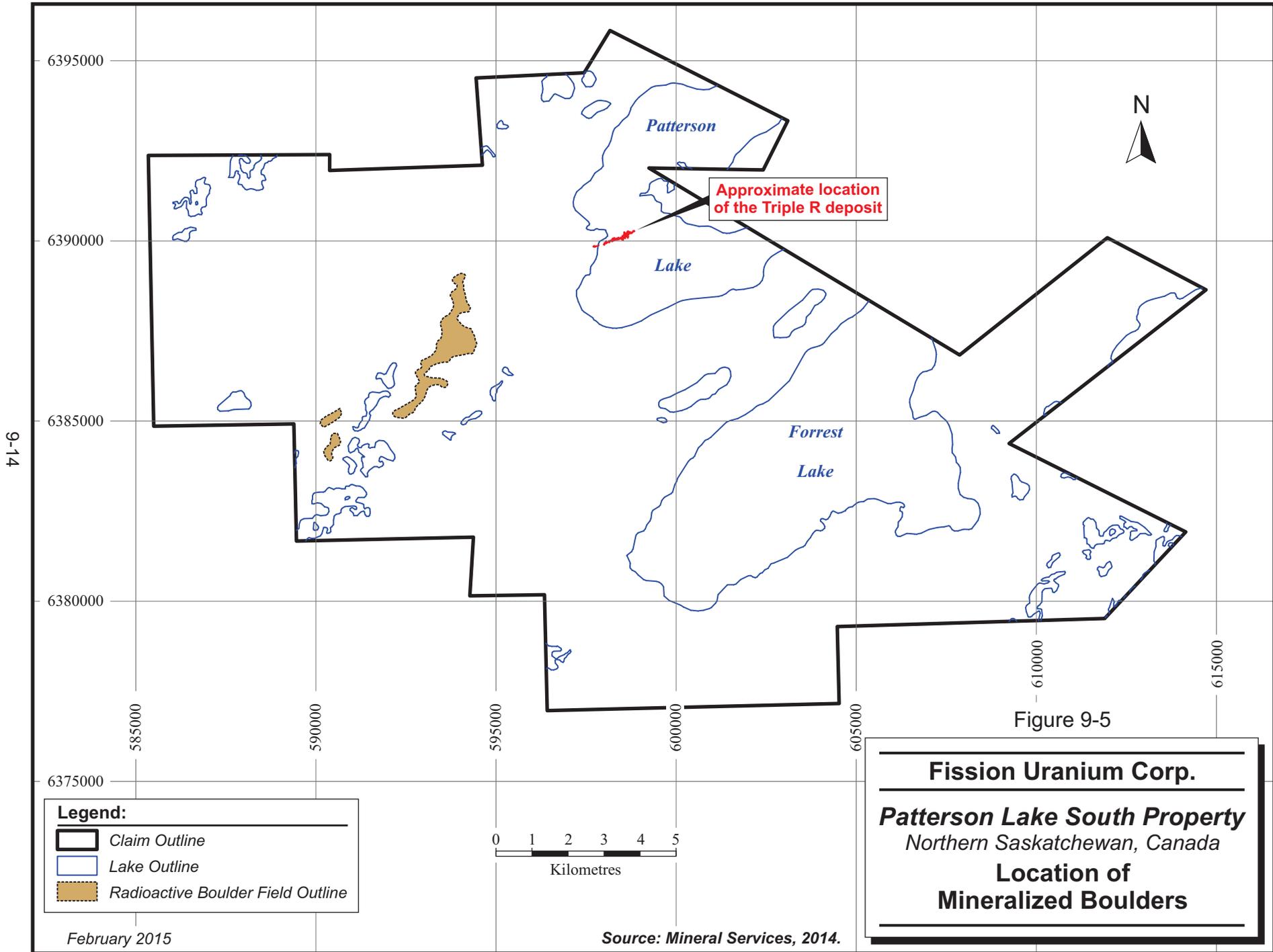
JUNE 2011 BOULDER PROSPECTING

In June 2011, 89 radioactive hotspots from the 2009 airborne radiometric survey were investigated on the ground. The radioactive hotspots were spread out over an area of approximately 3.9 km long by up to 1.4 km wide that trended north-northeast to south-southwest.

A total of 66 radioactive boulder samples (PB11-01 to PB11-66) were recovered during the survey with 41 of those samples having off-scale radioactivity (>9,999 cps). Fifty-seven of the boulder samples were composed of massive or semi-massive uranium oxide minerals, or were basement rocks that contained blebs and/or finely disseminated uranium oxide minerals. The boulder samples ranged from gravel sized to greater than 40 cm x 30 cm x 15 cm. The boulders assayed from 3 ppm U to 39.6% U₃O₈, and formed a boulder field with an area of 4.9 km long by up to 860 m wide, representing a very significant discovery.

Eight soil samples were also taken (PS11-01 to PS11-08), with only one of these samples having off-scale radioactivity.

Based on this small sample set, the strong pathfinder elements for the high grade uranium oxide include Au, B, Co, Cr, Cu, Li, Mo, Pb, Sb, Sr, Th, W, Zr, and most rare earth elements (REE). Oddly, Ni was not found to be a strong pathfinder element (Ainsworth, 2011b).



OCTOBER 2011 TRENCHING AND BOULDER PROSPECTING

From mid- to late October 2011, a program consisting of trenching and boulder prospecting was completed on mineral claims S-111375, S-111376, and S-111783.

The trenches were situated so as to best assess the uraniferous boulder field that was discovered in June 2011. The uraniferous boulders lie between two major terminal moraines of the Cree Lake Moraine. The trenches were located on three lines traversing the terrain in the up-ice direction. These trenches cover the region from the westernmost moraine to the northeast where surficial material bearing uraniferous boulders is overlain by non-radioactive overburden. The trenches were located on the ground using a handheld Garmin GPS unit.

A total of 18 trenches were excavated (PT11-01 to 18). Trenches PT11-01 and PT11-02 were 10 m in length located within claim S-111783. Trenches PT11-03 to PT11-16 were 10 m to 20 m in length located within S-111375. Two pit-like trenches (PT11-17 and 18) were three metre in diameter located within S-111376. The trenches were spaced not closer than 100 m unless conditions in the field warranted changes. Trenches were excavated using a Case 9080B excavator, operated by Methy Construction of La Loche, Saskatchewan.

A total of 25 soil samples and 21 boulder samples were recovered from the trenches. Soil and boulder samples were submitted to Saskatchewan Research Council Geoanalytical Laboratories (SRC) in Saskatoon, Saskatchewan, for analysis. Soil and boulder samples were analyzed for 63 element by Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES). In addition, boulder samples were analyzed for uranium by fluorimetry (partial digestion), U_3O_8 (wt %), and boron. Fire assay was used for gold.

The magnetic susceptibility of the materials was measured by holding an Exploranium KT-9 Kappameter in the no pin configuration against the wall of the trench. In general, the magnetic susceptibility of the surficial materials is much lower, less than 0.5×10^{-3} SI units, than in rock.

An Exploranium GR-110 scintillometer was held against the wall of the trench for approximately 30 s and the highest reading obtained was recorded. If a strongly radioactive area was found near the profile, the profile readings were located away from that area or otherwise recorded in the notes. In general, the radioactivity reflects the stratigraphy more

strongly than the magnetic susceptibility, however, this may be a result of the values occurring over a wider range.

A total of 25 soil samples were recovered from trenches PT11-01 to PT11-16. Maximum radiometric values of the in-situ soil samples ranged from 80 cps to 2418 cps. Uranium in soil values ranged from below detection limits (< 2 ppm U) to 336 ppm. All samples identified as non-radioactive assayed below detection limits, and all soils identified as radioactive assayed above detection limits, indicating a correlation between radioactivity and uranium values.

Eight boulders were found in trench PT11-08, three were found in trench PT11-06, two were found in each of trenches PT11-03, PT11-05, PT11-10 and PT11-11, and one was found in each of trenches PT11-12 and PT11-14. A total of 21 uraniferous boulders were recovered from the trenches (Ainsworth and Thomas, 2012).

In mid- to late October 2011, the boulder survey consisted of prospecting with an Exploranium GR-110 handheld scintillometer while trenches were being excavated or backfilled, and while traversing between trenches. The survey resulted in the discovery of many uraniferous boulders. Where radiometric readings were elevated, hand-dug test pits were excavated until a uranium mineralized boulder was found or no obvious radioactive source was located.

Forty-nine of the boulder samples (PB11-67 to PB11-115) were recovered within claims S-111375 and S-111783. All 49 uranium oxide mineralized boulders were found within the limits of the June 2011 boulder field over an area of approximately 4.9 km long by up to 0.9 km wide. These were composed of massive or semi-massive uranium oxide minerals, or were basement rocks that contained blebs and/or finely disseminated uranium oxide minerals. The boulder samples ranged from gravel sized up to 25 cm x 30 cm x 40 cm. Radioactivity of these boulders ranged from 701 cps to >9,999 cps (off-scale), and assays ranged from 0.07% U₃O₈ to 31.4% U₃O₈ (Ainsworth and Thomas, 2012).

OCTOBER 2012 BOULDER PROSPECTING

From early to mid-October 2012, radioactive hotspots in two separate areas identified by the September 2012 SPI airborne survey were investigated on the ground. The first area (within mineral claims S-111375, S-111783, S-112219, S-112222, and S-112282) was located

down-ice from Patterson Lake, and the second area (within and outside mineral claim S-112220) was located down-ice from Forest Lake. A total of 48 radioactive boulders were recovered.

Boulder surveying in the Patterson Lake area recovered 40 radioactive boulders with 17 of those samples having off-scale radioactivity (>9,999 cps). Thirty-six of these 40 boulder samples were composed of massive or semi-massive uranium oxide minerals, or were basement rocks that contained visible blebs and/or finely disseminated uranium oxide minerals. The boulder samples ranged from gravel sized to 30 cm in the longest dimension, and assayed from 9 ppm U to 40.0% U₃O₈. These additional boulder samples increased the size of the Patterson Lake boulder field to approximately 7.35 km long by up to 1.0 km wide.

The strong pathfinder elements for the high grade uranium oxide are consistent with previous surveys, namely: Au, B, Co, Cr, Cu, Li, Mo, Pb, Sb, Sr, Th, W, Zr, and most REE.

Boulder prospecting in the Forest Lake area recovered eight radioactive boulders with radioactivity ranging from 139 cps to 1,060 cps. No visible uranium mineralization was observed in any of the basement boulders that comprised lithologies of quartz-feldspar gneiss, schist, and quartz-feldspar-mafic granite and pegmatite. These boulders ranged from cobble sized to over 80 cm in the longest dimension. The boulders assayed from 6 ppm U to 84 ppm U (Ainsworth, 2012b).

GROUND GEOPHYSICAL SURVEYS

2008 SELF-POTENTIAL SURVEY

In early October 2008, a preliminary self-potential (SP) survey consisting of three lines totalling 8.7 km was completed. SP stations were spaced at 20 m intervals along the lines. Negative values represent most SP anomalies. Lithologic conditions targeted in this survey were clay altered zones, which are conductive and exhibit a negative SP anomaly.

The SP survey values ranged from -339 mV to +124 mV. Four anomalies were delineated (Ainsworth and Beckett, 2008). Figure 9-6 illustrates the results of the survey.

2011 AND 2012 DC RESISTIVITY, HLEM AND SQUID-EM SURVEYS

Geophysics carried out during November and December of 2011, and February through April of 2012 consisted of DC Resistivity, MaxMin HLEM, and very Small Moving Loop SQUID-EM (SQUID-EM) surveys. The ground geophysics carried out on the PLS Main Grid area as a follow-up from a radioactive uraniferous boulder field located five kilometres to the southwest that was discovered in June 2011. Survey totals were 30.58 km of MaxMin HLEM, 83.60 km of resistivity, and 14.40 km of SQUID-EM.

Although the MaxMin HLEM survey did locate conductor axes, there was noticeable difficulty in resolving conductivities and even some masking of conductors by high quadrature responses believed to be caused by conductive Cretaceous sediments. The SQUID-EM survey conducted at much lower frequencies was successful at resolving basement conductor positions, apparent dips, and conductivities.

The DC Resistivity was successful in defining a number of potential targets based on conductivity, changes in the width of conductive packages, and more subtle features indicating possible cross structures. The Resistivity and VTEM were initially used for drill targeting with a limited amount of ground SQUID-EM used to follow up some VTEM targets (Bingham, 2012).

2012 AND 2013 RESISTIVITY AND SQUID-EM SURVEYS

Geophysics carried out during 2012 and 2013 consisted of DC Resistivity, SQUID-EM surveys on the PLS West Grid area, and SQUID-EM surveys and Small Moving Loop Transient EM survey coverage on the PLS Main Grid area. Survey totals were 24.6 line km of Resistivity and 30.9 line km of EM surveys.

The extended resistivity data of both the PLS Main grid and PLS West grid appeared to be more effective to map the expected conductive Cretaceous sediments in this area. The deeper basement portions of the 3D resistivity volume below 470 m and resistivity values above 250 ohm-m were masked out to produce the images shown in Figure 9-7.

Three conductors were outlined with the ground SQUID-EM survey on the PLS West grid. The south conductor is the most prospective due to strike length, conductivity, and an association with an enhanced basement resistivity low in the vicinity of the conductor on lines 2400E and 2600E. Line 2400E shows a marked increase in amplitude and conductivity. The

west end of the central conductor may have a structural association. The north conductor is of low priority mostly due to its apparent shallow dip.

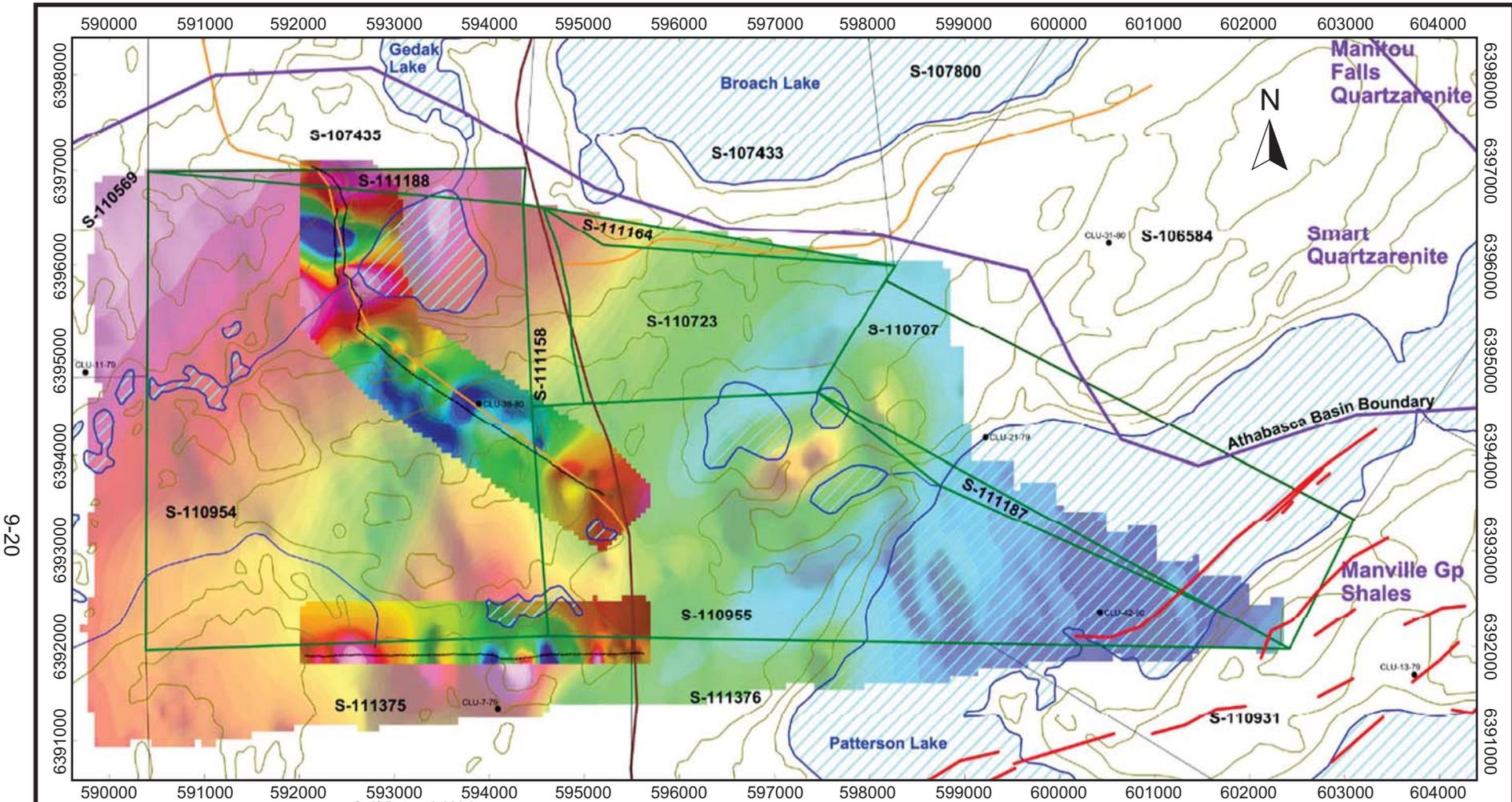
On the PLS Main grid, the SQUID-EM surveys in-filled and located the south (mineralized), central, and north conductors along the main conductor trends. The amplitude of the south (mineralized) “B” conductor is very weak and flat lying on lines 7200E and 7400E. The south (mineralized) “B” conductor is interpreted as much deeper and weaker on the east extent (Lines 7000, 7200, and 7400) (Bingham, 2013).

Figure 9-7 illustrates the resistivity mapping of the Cretaceous tills and basement and also shows the location of the basement conductors.

2013 AND 2014 RESISTIVITY AND SQUID-EM SURVEYS

Geophysics carried out during late 2013 and early 2014 consisted of DC Resistivity and very Small Moving Loop SQUID-EM surveys conducted by Discovery Int’l Geophysics Inc. (Discovery). During the periods of July to August 2013 and September to October 2013, pole-dipole resistivity surveys were done over the Verm and Far East grids. During December 2013, pole-dipole resistivity surveys were carried out over the Area B and Forrest Lake grids. During December 2013 to February 2014, Discovery carried out HT SQUID Small Moving Loop TEM surveys over the Area B, Far East, Forrest Lake, and Verm grids. A total of 93.9 km of pole-dipole DC resistivity and 43.7 km of Small Moving Loop EM surveys were conducted.

The 2013-2014 geophysical surveys were successful in defining priority ground targets based on a combination of resistivity and EM surveys over priority areas based on previous VTEM surveys. Additional follow-up work is recommended.



9-20

Figure 9-6

Fission Uranium Corp.
Patterson Lake South Property
Northern Saskatchewan, Canada
Self Potential Survey
(Overlying Airborne RMI)

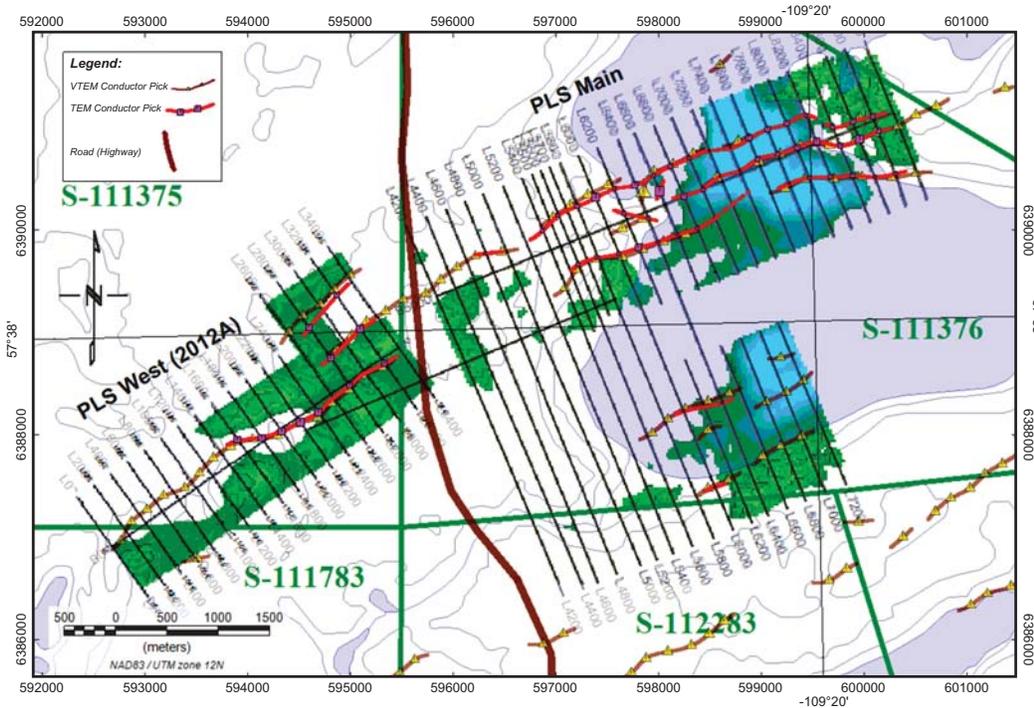


Figure 9-7A
Resistivity Mapping of Cretaceous (Conductive) Till

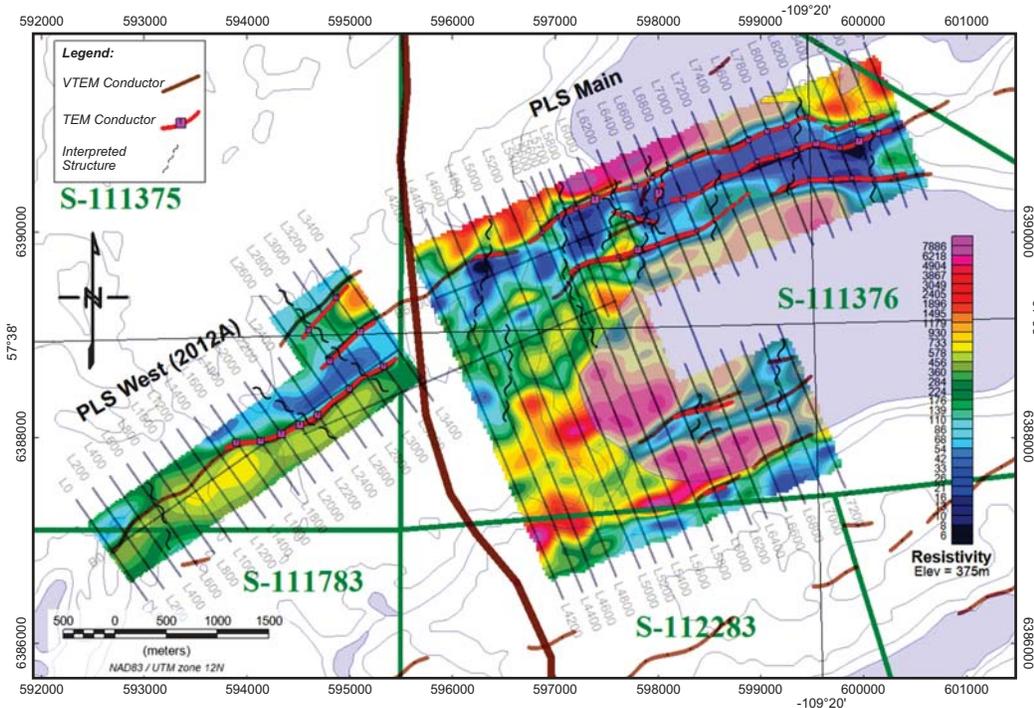


Figure 9-7B
Conductor Interpretation with Basement Resistivity

Fission Uranium Corp.
Patterson Lake South Property
 Northern Saskatchewan, Canada
Resistivity Mapping of Cretaceous Till and Conductor Interpretation with Basement Resistivity

10 DRILLING

As of the effective date of this report, Fission Uranium and its predecessor companies have completed 94,326.41 m of drilling on the PLS Property. Table 10-1 lists the holes by drilling program. Figure 10-1 illustrates the collar locations of the drill holes.

TABLE 10-1 DIAMOND DRILLING PROGRAMS
Fission Uranium Corp. - Patterson Lake South Property

Drilling Program	Type	Number of Holes	Holes	Metres Drilled
Nov-Dec 2011	Diamond Drilling	7	PDD11-01 - PDD11-07	837.7
Feb-Apr 2012	Diamond Drilling	16	PLS12-001 - PLS12-016	2179.4
Oct-Nov 2012	Diamond Drilling	9	PLS12-017 - PLS12-025	1658.5
Oct-Nov 2012	Dual Rotary	12	PLSDR12-001 - PLSDR12-012	1547.9
Jan-Apr 2013	Diamond Drilling	46	PLS13-026 - PLS13-071	9942.1
Jul-Nov 2013	Diamond Drilling	53	PLS13-072 - PLS13-124	15,564.0
Jan-Apr 2014	Diamond Drilling	92	PLS14-125 - PLS14-216	34,252.1
Jul-Sep 2014	Diamond Drilling	82	PLS14-217 - PLS14-298	28,344.6
Total		317		94,326.41

DIAMOND DRILLING

Since November 2011, 305 diamond drill holes have been completed. The initial drill program in 2011 was contracted to Aggressive Drilling Ltd. from Saskatoon, Saskatchewan, that used a skid-mounted Boart Longyear LF-70 drill. From February 2012 to April 2013, the drilling has been contracted to Hardrock Diamond Drilling Ltd. from Penticton, British Columbia, which used Atlas Copco CS-10 and CS-1000 skid-mounted drills. From July 2013 onwards, drilling was carried out by Bryson Drilling Ltd. from Archerwill, Saskatchewan, using Zinex Mining Corp A5 diamond drills.

Unless the hole was pre-cased using an RC drill, the usual procedure was to drill through the overburden with HQ (60.3 mm diameter) equipment and sink HW (117.65 mm) casing until the rods became stuck or bedrock is reached. If the HQ rods became stuck, the hole was deepened using NQ (47.6 mm diameter) equipment until competent bedrock was reached at which time NW (91.95 mm) casing was reamed into bedrock.

Until the summer of 2014, all holes located over the lake were drilled vertically. Holes drilled during the 2011 and winter 2012 drilling programs were tested for dip deviation with acid tests. The fall 2012 drilling program holes were either acid tested or surveyed with a Reflex EZ-Shot instrument. Upon completion, all holes drilled in 2013 were surveyed using an Icefields gyro survey tool. The Icefields gyro was replaced in 2014 by a Stockholm Precision Tools north seeking gyro. From the summer 2013 drill program onwards, drill holes were also surveyed while drilling was underway using a Reflex EZ-Shot at 50 m intervals.

All holes were systematically probed within the rods using a Mount Sopris 500 m (4MXA-1000) or 1,000 m (4MXC-1000) winch, Matrix logging console, and either a 2PGA-1000 or 2GHF-1000 total gamma count probe upon completion of the hole. Handheld Exploranium GR-110 total count gamma-ray scintillometers were used to measure the radioactivity of the return water and core until the winter 2014 program, after which Radiation Solutions RS-121 total count gamma-ray scintillometers were used.

The collars of the 2011 and winter 2012 program holes were located using a handheld Garmin GPSMAP 60CSx instrument. During the winter 2013 program, drilled holes were located using a Trimble GeoXH handheld GPS instrument and a Trimble 5800 base station for differential correction. From the summer 2013 drill program onwards, all holes were located using a Trimble R10 GNSS real time kinematic (RTK) system. All drill hole positions from the 2012 fall program onwards were surveyed again upon completion of the hole to account for moving of the drill, due to the either ground conditions or drilling difficulty. All roads and traverses travelled were located with a handheld Garmin GPSMAP 60CSx or Trimble instrument noted above.

Initially, the core from the first drilling programs was stored at the Big Bear Lodge on Grygar Lake, but since August 2013, all the core has been stored at a purpose-built storage facility located west of Patterson Lake (595930E, 6389030N; NAD 83, Zone 12N).

DUAL ROTARY DRILLING

From October to November 2012, twelve 4.5 in. (11.43 cm) diameter dual rotary drill holes totalling 1,541.0 m were completed by J.R. Drilling Ltd. of Cranbrook, British Columbia, using a Foremost DR-12 drill. The drilling was meant to penetrate the glacial sediments overlying bedrock so that the specific (and more radioactive) till sheet hosting uranium mineralized

boulders could be traced back to bedrock source by gamma probing the overburden. Additionally, some rotary drill hole collars were planned to also test bedrock VTEM and time-domain EM (TDEM) conductors by drilling approximately 20 m into solid bedrock. The overburden and basement material was collected on site in sampling buckets at one metre intervals. Each bucket was measured using an Exploranium GR-110G total count gamma-ray scintillometer, and a one to three kilogram sub-sample was removed for logging.

Each drill hole was logged using a Mount Sopris 2PGA-1000 gamma probe. Additionally, holes PLSDR12-001 and PLS12-009 through PLSDR12-012 were surveyed using a custom downhole spectrometer probe, built and operated by Special Projects Inc. A Trimble GeoXH handheld GPS instrument and a Trimble 5800 base station for differential corrections were utilized to locate all dual rotary drill hole locations. All roads and traverses travelled were located with a handheld Garmin GPSMAP 60CSx instrument.

According to Ainsworth (2012b), accurate and precise sample collection for geochemical analysis was challenging due to several factors. Sample volume returned through the cyclone was at times overwhelming, and was further complicated by the large influx of groundwater. The drilling itself introduced sample bias especially in terms of size fraction and relative abundance. It was found that fine materials were prone to be either washed or blown away. Since the maximum size of returned samples was approximately two centimetres to three centimetres, it can be presumed that material larger than small pebbles was either pushed out of the way or crushed by the advancing drill bit and casing.

The current working depth of each rotary hole was determined by marking the casing every metre. The inaccuracies of this method were confirmed by comparing the determined final depth to the gamma probe wire line measured final depth; discrepancies of several metres were common.

Caving of material around the casing and subsequent transport to surface introduced sample contamination, especially in thick sand units beneath the water table.

REVERSE CIRCULATION DRILLING

In January 2013, the process of pre-drilling the casings of most holes was initiated. Northspan Explorations Ltd. (Northspan) was contracted to set the casing to a targeted depth

of one metre to two metres above bedrock. Northspan used either a Hornet XL or Attacus RC drill to sink the HW (117.65 mm) casing. No samples were recovered during the RC drilling. A Trimble GeoXH handheld GPS instrument and Trimble 5800 base station for differential corrections were utilized to locate all drill collar locations during the winter 2013 program. From the summer 2013 drill program onwards, all holes were located using a Trimble R10 GNSS real time kinematic (RTK) system. All roads and traverses travelled were located with a handheld Garmin GPSMAP 60CSx instrument.

DRILL CORE SAMPLING

Core recovery is generally very good to excellent, allowing for representative samples to be taken and accurate analyses to be performed.

The drill core was placed sequentially in wooden core boxes at the drill by the drillers. Twice daily, the core boxes were transported by Fission Uranium personnel to Fission Uranium's core logging and sampling facility where depth markers were checked and the core was carefully reconstructed. The core was logged geotechnically on a run by run basis including the number of naturally occurring fractures, core recovery, rock quality designation (RQD), and range of radiometric counts per second. The core was scanned using an Exploranium GR-110G total count gamma-ray scintillometer until the winter 2014 program, after which Radiation Solutions RS-121 scintillometers were used.

The core was descriptively logged utilizing a Panasonic Tough Book laptop computer by a Fission Uranium geologist paying particular attention to major and minor lithologies, alteration, structure, and mineralization. Logging and sampling information was entered into a spreadsheet based template which was integrated into the project digital database.

All drill core was photographed wet with a digital camera, before splitting.

Fission Uranium's sampling protocol calls for representative samples to be taken of both sandstone and basement lithologies. At least one representative sample of sandstone (Devonian or Athabasca) was taken when intersected. In thicker zones of sandstone (>5 m), representative samples were taken at 2.5 m intervals. Representative samples of basement lithologies consisting of 50 cm of split core (halved) were taken every 10 m within the basement, starting immediately in bedrock.

In addition to the representative samples, point samples were taken in both sandstone and basement lithologies.

All sandstone and basement intervals with handheld scintillometer readings greater than 300 cps, or containing significant faults and associated alteration, were continuously sampled with a series of 50 cm split core samples. In areas of strong to intense alteration, evenly spaced 50 cm split core samples were taken from the start of the alteration. The spacing of the samples varied with the width of the alteration zone as follows: one metre spacing for alteration zones less than or equal to five metres long, two metre spacing for alteration zones between five metres and 30 m long and, five metre spacing for alteration zones more than 30 m long.

Samples for density measurements were taken in both sandstone and basement lithologies. Because of the limited thickness of sandstone intersected on the Property, Sarioglu (2014) recommended that a least one sandstone sample be taken for density measurement per hole, where possible. Density samples in mineralized sandstone giving handheld scintillometer readings greater than 300 cps were taken at 2.5 m intervals. No density samples were taken in barren sandstone from the 2014 summer drill program. Basement samples for density were taken at 20 m intervals until the winter 2014 drill program, after which no barren basement density samples were taken.

Core marked for sampling was split in half using a manual core splitter. Half the core was returned to the core box and the other half was placed in plastic sample bags and secured with an impulse sealer.

Split core samples were tracked using three part ticket booklets. One tag was stapled into the core box at the start of the appropriate sample interval, one tag was placed into the sample bag, and the final tag was retained in the sample booklet for future reference. For each sample, the date, drill hole number, project name, and sample interval depths were noted in the sample booklet. The data were transcribed to an Excel spreadsheet and stored on the Fission Uranium data server. Sample summary files were checked for accuracy against the original sample booklets after the completion of each drill program. The digital sample files also contain alteration and lithology information.

Core trays were marked with aluminum tags. All core from holes drilled on the Property is stored on core racks at Fission Uranium's core logging facility.

The plastic sample bags were put into five-gallon sample pails and sealed and were held in a secure area until they were ready for transportation. The samples were picked up on site by Marsh Expediting and transported by road to La Ronge before transshipment to SRC in Saskatoon. SRC operates in accordance with ISO/IEC 170:2005 (CAAN-P-4E) General Requirements of Mineral Testing and Calibration Laboratories) and is also compliant with CAN-P-1579, Guidelines for Mineral Analysis Testing Laboratories.

At SRC, sandstone and basement samples were prepared in separate areas of the laboratory to minimize the potential for contamination. Sample preparation in the laboratory involved drying the samples and sorting them according to radioactivity before jaw crushing.

In RPA's opinion, the logging and sampling procedures meet or exceed industry standards and are adequate for the purpose of Mineral Resource estimation.

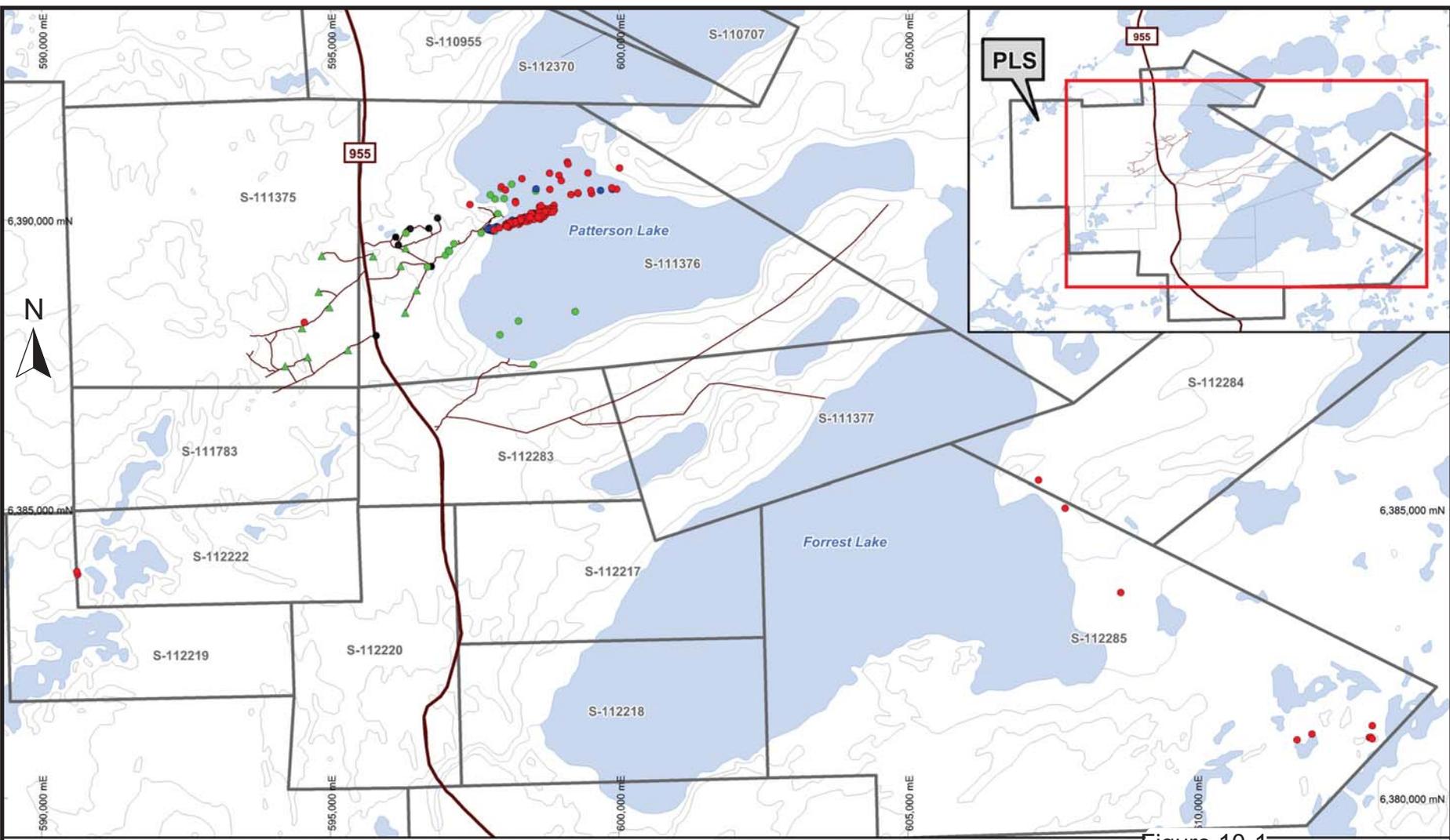
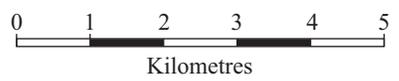


Figure 10-1

Legend:

	Claim Boundary		Water Course		2014 Diamond Drill Hole Location
	Claim Number		Topographic Contour		2013 Diamond Drill Hole Location
	Water Body		Highway		2012 Diamond Drill Hole Location
			Access Trail		2012 Rotosonic Drill Hole Location
					2011 Diamond Drill Hole Location



Fission Uranium Corp.
Patterson Lake South Property
 Northern Saskatchewan, Canada
Drill Hole Location Plan

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

SAMPLE PREPARATION AND ANALYSIS

DRILL CORE GEOCHEMICAL ANALYSIS

All geochemistry core samples were analyzed by the ICP1 package offered by SRC, which includes 62 elements determined ICP-OES. All samples were also analyzed for boron until the end of the winter 2012 drill program and uranium by fluorimetry (partial digestion). Uranium by fluorimetry was replaced at SRC in late 2012 by ICP-MS analysis which has not been undertaken on Fission Uranium's samples beyond the winter 2013 drill program.

For partial digestion analysis, samples were crushed to 60% -2 mm and a 100 g to 200 g sub-sample was split out using a riffler. The sub-sample pulverized to 90% -106 μm using a standard puck and ring grinding mill. The sample was then transferred to a plastic snap top vial. An aliquot of pulp was digested in a mixture of $\text{HNO}_3:\text{HCl}$ in a hot water bath for an hour before being diluted by 15 ml of de-ionized water. The samples were then analyzed using a Perkin Elmer ICP-OES instrument (models DV4300 or DV5300). For total digestion analysis, an aliquot of pulp was digested to dryness in a hot block digester system using a mixture of concentrated $\text{HF}:\text{HNO}_3:\text{HClO}_4$. The residue was then dissolved in 15 ml of dilute HNO_3 and analyzed using the same instrument(s) as above.

Select samples with low concentrations of uranium (<100 ppm) identified by the partial and/or total ICP-OES analysis were also analyzed by fluorimetry (2012) and ICP-MS (winter 2013). After being analyzed by ICP-OES, an aliquot of digested solution was pipetted into a 90% Pt - 10% Rh dish and evaporated. A NaF/LiF pellet was placed on the dish and fused on a special propane rotary burner then cooled to room temperature. The uranium concentration of the sample was then read using a Spectrofluorimeter. Uranium by fluorimetry has a detection limit of 0.1 ppm (total) or 0.02 ppm (partial). In the fall of 2012 uranium analysis by fluorimetry was replaced at SRC with uranium by ICP-MS. For ICP-MS partial digestions an aliquot of sample pulp is digested in a mixture of concentrated nitric hydrochloric acid ($\text{HNO}_3:\text{HCl}$) in a test tube in a hot water bath, then diluted using deionized water. Samples were analyzed using a Perkin Elmer Elan DRC II instrument.

For boron analysis, an aliquot of pulp was fused in a mixture of $\text{NaO}_2/\text{NaCO}_3$ in a muffle oven. The fused melt was dissolved in de-ionized water and analyzed by ICP-OES.

DRILL CORE ASSAY

Drill core samples from mineralized zones were sent to SRC for uranium assay. The laboratory offers an ISO/IEC 17025:2005 accredited method for the determination of U_3O_8 in geological samples. The detection limit is 0.001% U_3O_8 . Samples were crushed to 60% -2 mm and a 100 g to 200 g sub-sample was split out using a riffle splitter. The sub-sample was pulverized to 90% -106 μm using a standard puck and ring grinding mill. An aliquot of pulp was digested in a concentrated mixture of $\text{HNO}_3:\text{HCl}$ in a hot water bath for an hour before being diluted by de-ionized water. Samples were then analyzed by a Perkin Elmer ICP-OES instrument (models DV4300 or DV5300).

In addition to uranium assaying, some samples from mineralized zones were also assayed by SRC for gold and platinum group elements (Pt, Pd). Samples were first dried at 80°C overnight, then jaw crushed to 60% -2 mm, and a 100 g to -200 g sub-sample was split out using a riffle splitter. The sub-sample was pulverized to 90% -106 μm using a puck and ring grinding mill. An aliquot of sample pulp was mixed with fire assay flux in a clay crucible and a silver inquart was added prior to fusion. The mixture was fused at 1,200°C for 90 minutes. After the mixture had fused, the slag was poured into a form which was cooled. The lead bead was recovered and chipped until only the precious metal bead remains. The bead was then parted in diluted HNO_3 . The precious metals were dissolved in aqua regia and then diluted for analysis by ICP-OES and/or Atomic Absorption Spectrometry (AAS). The analysis has a detection limit of 2 ppb for all three elements. SRC participates in CANMET (CCRMP/PTP-MAL) proficiency testing for elements assayed using this method.

DRILL CORE PIMA ANALYSIS

Core chip samples for clay analysis were sent to Rekasa Rocks Inc, a private facility in Saskatoon, for analysis on a PIMA spectrometer using short wave infrared spectroscopy. Samples were air or oven dried prior to analysis in order to remove any excess moisture. Reflective spectra for the various clay minerals present in the sample were compared to the spectral results from Athabasca samples for which the clay mineral proportions have been determined in order to obtain a semi-quantitative clay estimate for each sample.

DRILL CORE PETROGRAPHIC ANALYSIS

Samples collected for petrography were sent to Vancouver Petrographics Ltd, Langley, British Columbia, for the preparation of thin sections and polished slabs. Petrographic analysis was performed in the office of Mineral Services Canada Inc. (MSC) using a Nikon Eclipse E400 microscope equipped with transmitted and reflected light.

DRILL CORE BULK DENSITY ANALYSIS

Drill core samples collected for bulk density measurements were sent to SRC. Samples were first weighed as received and then submerged in de-ionized water and re-weighed. The samples were then dried until a constant weight was obtained. The sample was then coated with an impermeable layer of wax and weighed again while submersed in de-ionized water. Weights were entered into a database and the bulk density of each sample was calculated. Water temperature at the time of weighing was also recorded and used in the bulk density calculation.

QUALITY ASSURANCE AND QUALITY CONTROL

Quality assurance/quality control (QA/QC) programs provide confidence in the geochemical results and help ensure that the database is reliable to estimate Mineral Resources. Fission Uranium's program includes the following components (Sarioglu, 2013):

- 1) Determination of precision – achieved by regular insertion of duplicates for each stage of the process where a sample is taken or split;
- 2) Determination of accuracy – achieved by regular insertion of standards or materials of known composition;
- 3) Checks for contamination – by insertion of blanks.

Results from the QA/QC program are reviewed on an ongoing basis as received from the laboratory and a formal report is compiled by MSC at the end of each drill campaign.

PROTOCOLS FOR DUPLICATES

Three types of duplicate samples are submitted:

- a) **Field duplicates:** These are quarter core duplicates split in Fission Uranium's core facility. The field duplicate contains all levels of error: core splitting, sample size

reduction, sub-sampling of the pulp, and the analytical error. One duplicate is to be inserted for every 20 regular samples. For mineralized drill holes, at least two field duplicate samples should be taken, one from the mineralized zone and one from unmineralized basement. In thicker mineralized zones (> 20 m), a field duplicate should be taken every 20 samples. For each drill hole, the field duplicates should be retained and inserted into the batch at the end of the hole and assigned sample numbers following on from the last sample in the hole.

- b) **Preparation duplicates:** These are sample splits taken after the coarse crush but before pulverizing. A preparation duplicate should be inserted for each field duplicate submitted. The preparation duplicates are taken by the laboratory. To facilitate this, during sampling, an empty sample bag with a Fission Uranium sample tag is inserted into the batch after each field duplicate with instructions for the laboratory to prepare and insert a preparation duplicate of the previous sample.
- c) **Pulp duplicate:** This is a split of the pulp material that is weighed and analyzed separately. Similar to the preparation duplicate, the pulp duplicates are inserted for each field duplicate by inserting an empty bag with a Fission Uranium sample tag and instructions for the laboratory to prepare and insert a duplicate of the pulp from the previous sample.

PROTOCOLS FOR STANDARDS AND BLANKS

Certified reference materials (CRM) were obtained from Canadian Centre for Mineral and Energy Technology (CANMET). These include UTS-3 (0.051 % U_3O_8), DH-1A (0.262% U_3O_8), and BL-5 (7.09% U_3O_8) which represent low, medium and high grade references, respectively. Blank material was sourced from the remaining half split core of previously analyzed samples that returned uranium concentrations below detection limits for the 2013 program and massive quartz veins intersected on the Property for the 2014 program.

One blank was inserted for each drill hole that intersects mineralization. Blank reference samples were not submitted for holes that did not intersect mineralization.

One of each reference sample type was inserted into the sample batch for each drill hole that intersected mineralization. CRM containers were shaken prior to use to ensure homogeneity and 15 g of material was required per sample. Samples were taken with clearly marked plastic spoons to avoid cross contamination between containers. For holes that did not intersect mineralization, only the low grade reference sample was inserted.

QA/QC RESULTS

Results from the QA/QC program are documented in various reports by MSC. RPA relied on these reports in addition to independent verifications and review of QA/QC data. In

summary, results indicated that the resource database is suitable to estimate Mineral Resources for the Triple R deposit.

Tables 11-1 and 11-2 summarize the different types of QA/QC samples and sample counts. Prior to the winter 2012 drill program, the only QA/QC procedures implemented on samples from the PLS Property were those performed internally by SRC as discussed below.

TABLE 11-1 SUMMARY OF QA/QC SOURCE AND TYPE BY YEAR
Fission Uranium Corp. - Patterson Lake South Property

	2011 Fall	2012 Winter	2012 Fall	2013 Winter	2013 Summer	2014 Winter	2014 Summer
Blanks (pulp)	N	N	N	Y	N	N	N
Blanks (rock)	N	N	N	N	Y	Y	Y
Fission CRMs	N	N	N	Y	N	N	N
CANMET CRMs	N	N	N	N	Y	Y	Y
Field Duplicate, Prep & Pulp Duplicates							
Partial and total (ppm) duplicates (1/4 split)	N	Y	Y	Y	Y	Y	N
Partial and total (ppm) duplicates (1/2 split)	N	N	N	N	N	Y	Y
U ₃ O ₈ wt.% duplicates (1/4 split)	N	N	Y	Y	Y	Y	N
U ₃ O ₈ wt.% duplicates (1/2 split)	N	N	N	N	N	Y	Y
SRC CRMs for U ₃ O ₈	N	Y	Y	Y	Y	Y	Y
SRC CRMs for Au	N	Y	Y	Y	N	N	N
SRC ICP repeats	Y	Y	Y	Y	Y	Y	Y
SRC U ₃ O ₈ wt.% repeats	N	N	Y	Y	Y	Y	Y
SRC Au repeats	N	Y	Y	Y	Y	Y	Y

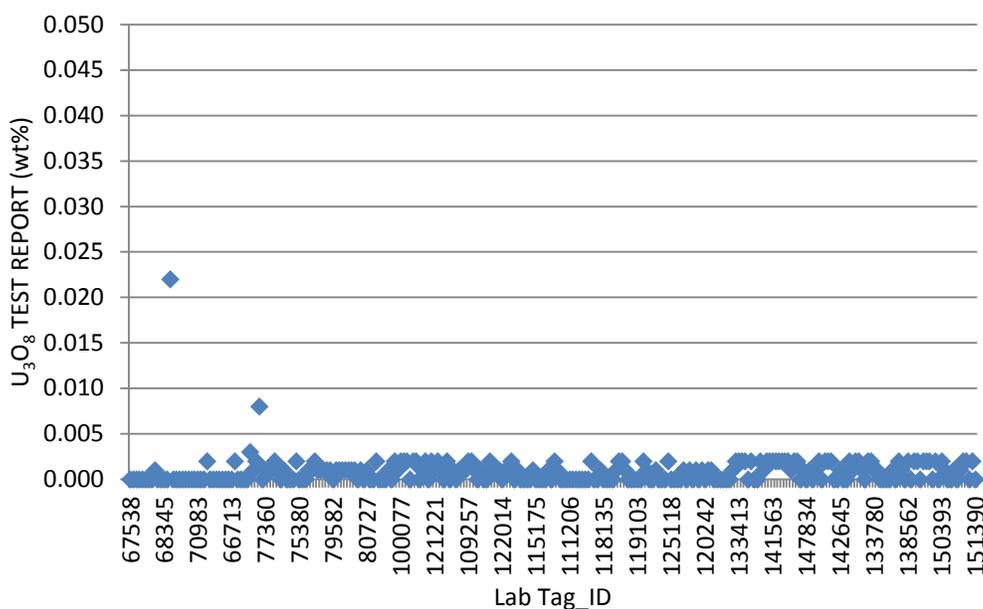
TABLE 11-2 SUMMARY OF QA/QC SAMPLING INSERTIONS BY YEAR
Fission Uranium Corp. - Patterson Lake South Property

	Fall 2011	Winter 2012	Fall 2012	Winter 2013	Summer 2013	Winter 2014	Summer 2014	Total
Drill Holes	7	16	9	46	53	92	82	305
Total Original	49	530	518	4,791	9,058	26,732	17,045	58,723
Blanks	0	0	0	39	49	114	74	276
Field Duplicates	0	54	42	151	425	1,269	789	2,730
Coarse Reject Duplicates	0	54	42	151	425	1,269	789	2,730
Pulp Duplicates	0	54	42	151	425	1,269	789	2,730
Fission CRMs	0	0	0	119	151	273	203	746
SRC CRMs	3	48	133	672	1,503	3,953	2,469	8,781
SRC Repeats	2	30	69	545	1,472	3,970	4,348	10,436
Total QA/QC	5	240	328	1,828	4,450	12,117	9,461	28,429

Note: Counts are for the entire PLS Property.

Figure 11-1 plots the results of 276 blank samples sorted by increasing sample analysis date. A failure criterion for blank samples is met when a sample returns >0.005% U₃O₈, which is a concentration five times greater than the detection limit of the instrument (0.00% U₃O₈). Two sample failures occurred with a maximum of 0.022% U₃O₈. Fission Uranium chose not to take corrective steps after reviewing the grades, failure rate, and other QA/QC results from these two batches.

FIGURE 11-1 BLANK RESULTS



A total of 746 CRM samples were submitted by Fission Uranium for analysis at SRC. Figures 11-2 to 11-4 plot results for the summer 2013 to summer 2014 sorted for the low, medium, and high grade CRMs respectively. Failure criteria for CRM samples are met when either (a) two consecutive samples return values outside two standard deviations from the mean, on the same side of the mean, or (b) any sample returns a value outside three standard deviations from the mean.

Figure 11-2 plots results of 229 low grade CRM and shows no failures.

Figure 11-3 plots results for 200 medium grade CRMs and shows an even spread above and below the expected value during the summer 2013 drill program, while later samples plot below the expected value for the 2014 drill programs.

Three samples returned values outside of three standard deviations from the mean. Four consecutive medium grade CRMs from the summer 2013 program returned values outside of two standard deviations from the mean on the same side of the mean, suggesting a possible sample bias. Three of the failed medium grade CRMs were re-analyzed by SRC and the results were all below the expected value again. Four consecutive samples plot outside two standard deviations and three samples outside three standard deviations. Three of the failed medium grade standards were re-analyzed by SRC and the results were all below the expected value again.

Figure 11-4 plots results for 202 high grade CRMs and indicates two samples consecutive samples outside two standard deviations and one sample outside three standard deviations.

Although ten CRM samples failed the QA/QC criteria, the overall results, methods, and follow-up work by Fission Uranium are acceptable. RPA recommends that the lower than expected results from CRM DH-1A be investigated and explained.

FIGURE 11-2 CRM – UTS-3 (LOW GRADE STANDARD)

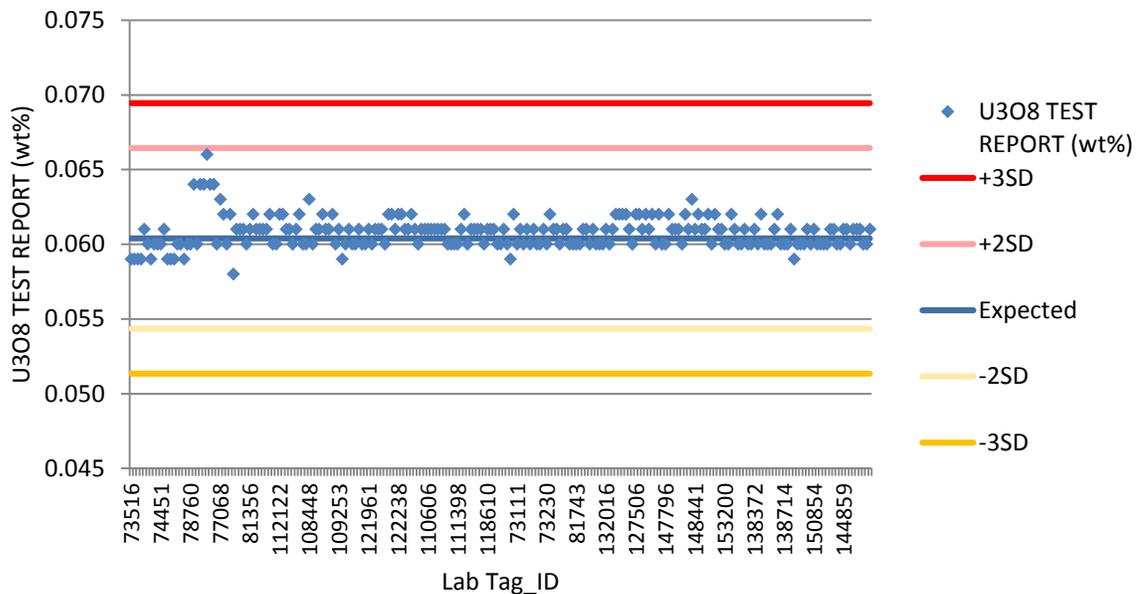


FIGURE 11-3 CRM – DH-1A (MEDIUM GRADE STANDARD)

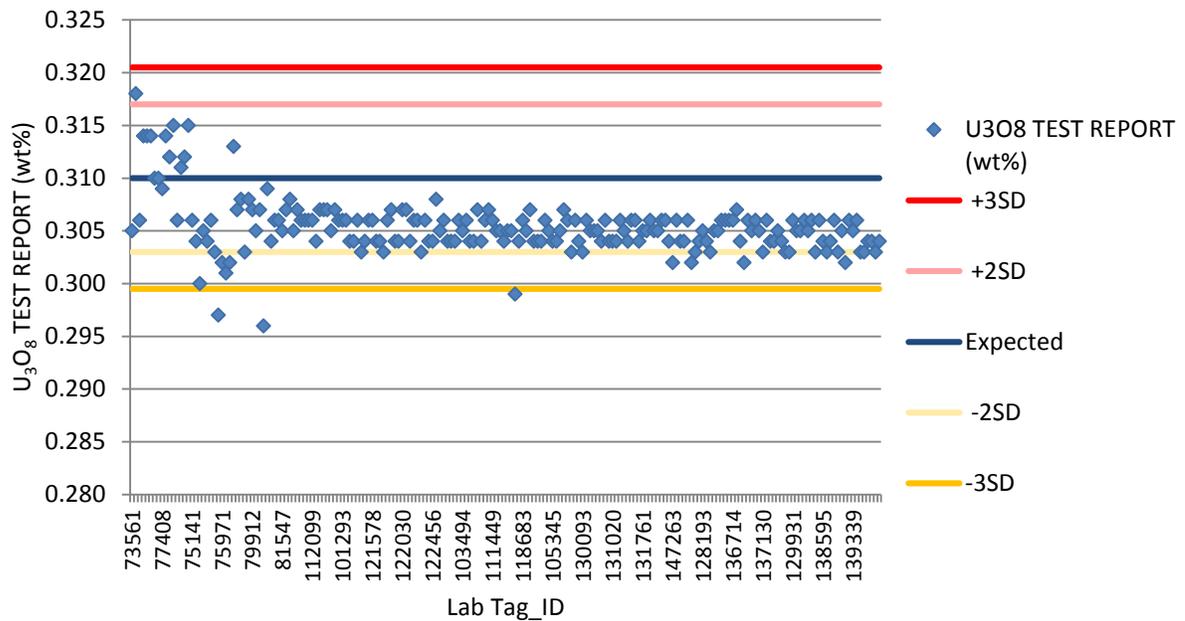
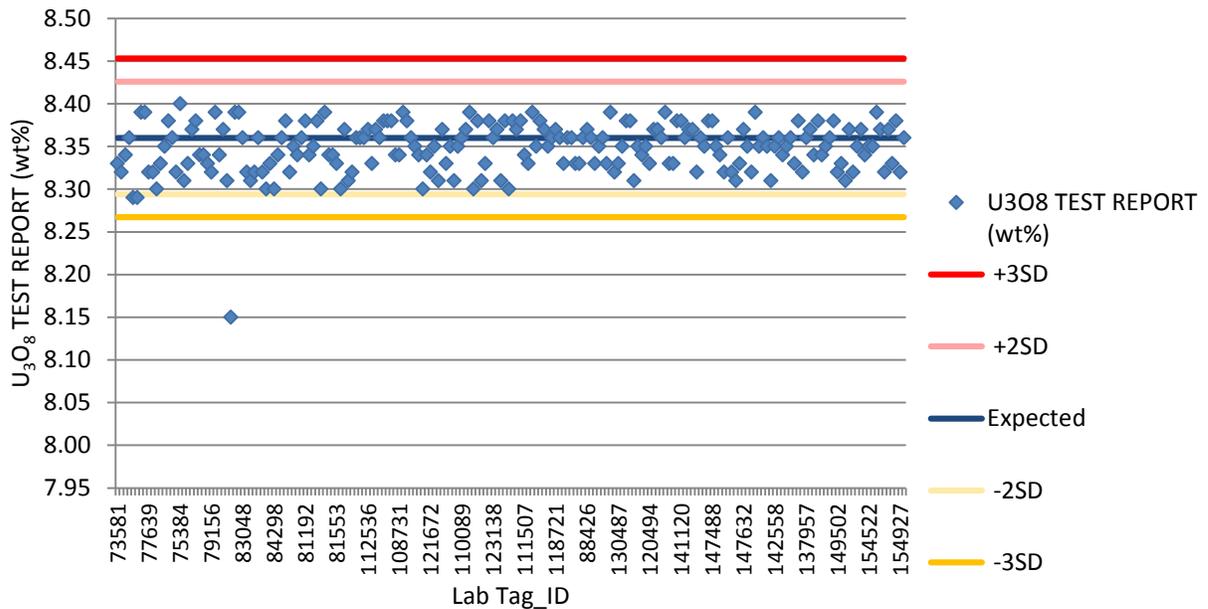


FIGURE 11-4 CRM – BL-5 (HIGH GRADE STANDARD)



Figures 11-5 to 11-7 plots results from the field, reject, and pulp duplicate programs. Fission Uranium’s protocols call for reject and pulp duplicates to be taken from the field duplicate; therefore reject and pulp results are plotted against the field duplicate results for Figures 11-6 and 11-7. Results are as expected, with better repeatability for the pulps and coarse rejects.

FIGURE 11-5 FIELD DUPLICATE RESULTS

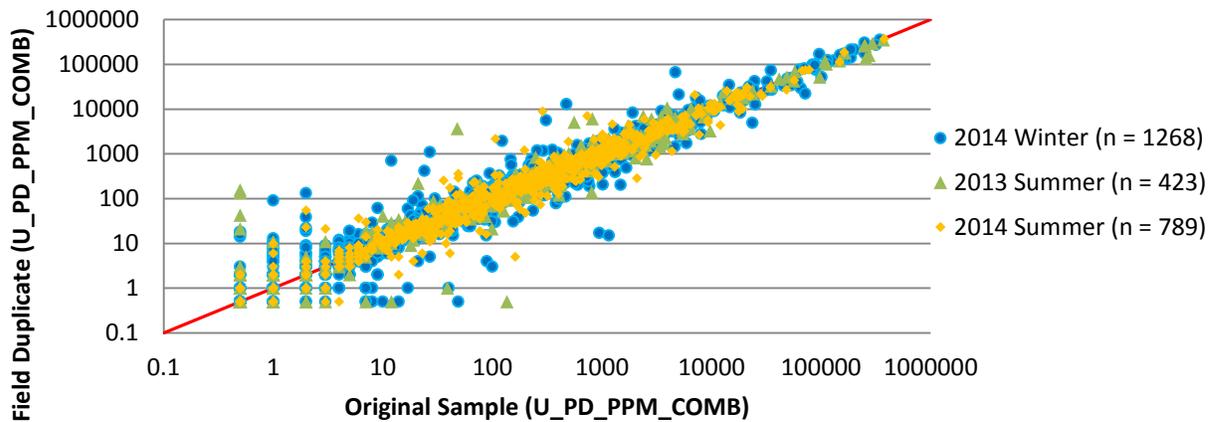


FIGURE 11-6 COARSE REJECT DUPLICATE RESULTS

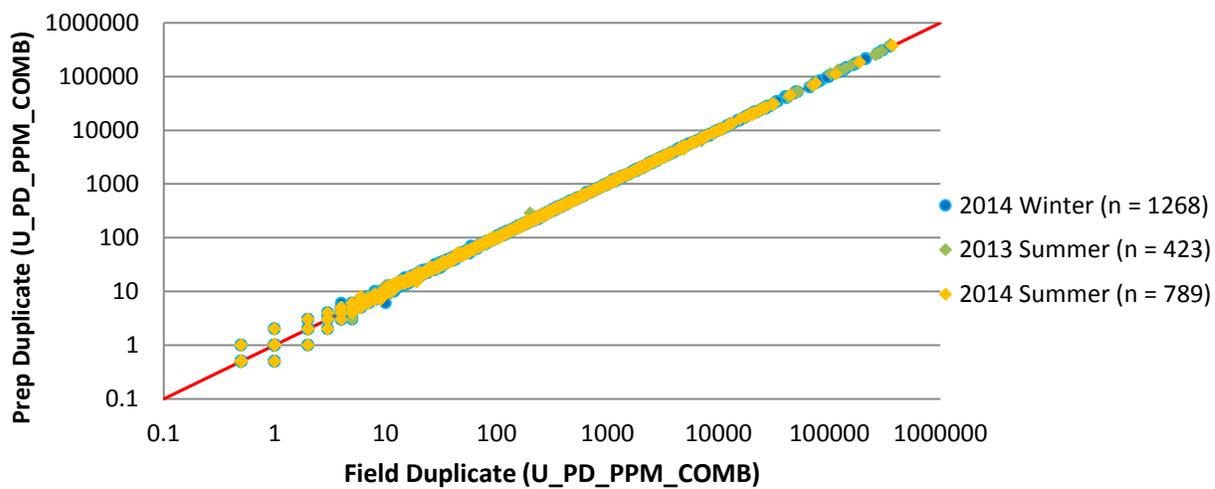
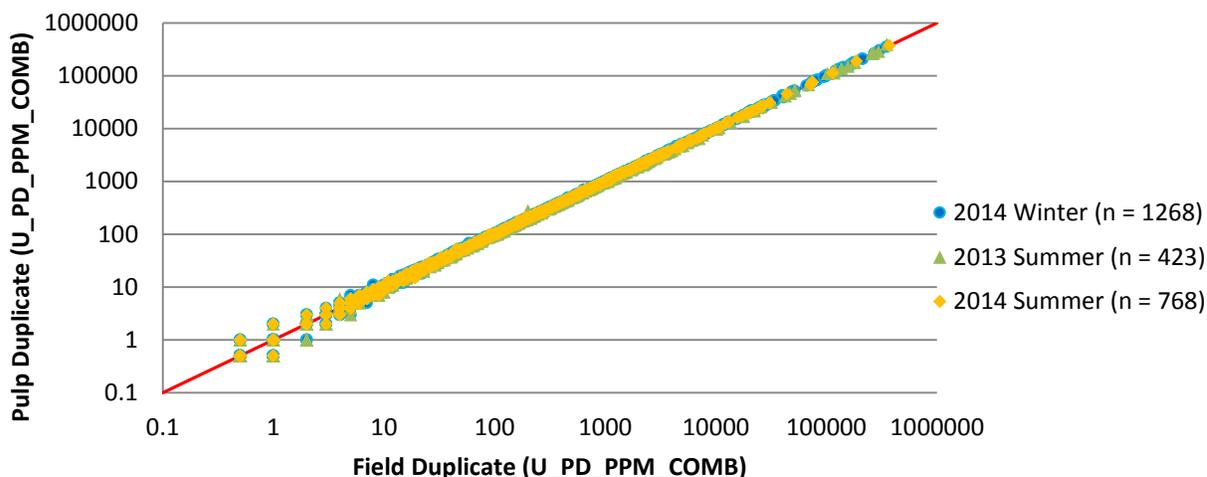


FIGURE 11-7 PULP DUPLICATE RESULTS



ENHANCEMENTS TO THE QA/QC PROGRAM

In addition to the QA/QC described above, it is a good practice to analyze approximately 5% to 10% of the samples at an external laboratory to act as an independent auditor and negate any potential biases within a given laboratory. RPA agrees with MSC’s recommendation of sending duplicates of samples analyzed to date by SRC to another “umpire” laboratory prior to any feasibility studies for the PLS Property. Care should be taken to ensure that the duplicate samples cover the range of grades present at PLS.

Based on the data validation and the results of the standard, blank, and duplicate analyses, RPA is of the opinion that the assay database is of sufficient quality for Mineral Resource estimation.

SRC INTERNAL QA/QC PROGRAM

Quality control was maintained by all instruments at SRC being calibrated with certified materials. Quality control samples were prepared and analyzed with each batch of samples. Within each batch of 40 samples, one to two quality control samples were inserted. Five U₃O₈ reference standards are used: BLA2, BL3, BL4A, BL5, and SRCUO2 which have concentrations of 0.502%, 1.21% U₃O₈, 0.148% U₃O₈, 8.36% U₃O₈, and 1.58% U₃O₈, respectively. Four gold standards were also used by SRC for the project: OXG83, OXL75, OXL78, and SJ10, which have gold concentrations of 1,002 ppb, 5,876 ppb, 5,876 ppb, and 2,643 ppb, respectively. With the exception of SRCUO2, all reference materials are certified and provided by CANMET. One in every 40 samples was analyzed in duplicate. All quality

control results must be within specified limits otherwise corrective action was taken. If for any reason there was a failure in an analysis, the subgroup affected was reanalyzed.

SRC has developed and implemented a laboratory management system which operates in accordance with ISO/IEC 17025:2005 (CAN-P-4E), General Requirements for the Competence of Mineral Testing and Calibration laboratories. The laboratory also participates in a Certified Interlaboratory Testing Program (CCRMP/PTP-MAL) for gold using lead fusion fire assay with an AAS finish. All processes performed at the laboratory are subject to a strict audit program, which is performed by approved trained quality professionals.

Both Fission Uranium and RPA are independent of SRC.

SECURITY AND CONFIDENTIALITY

Drill core was delivered directly to Fission Uranium's core handling facility. After logging, splitting, and bagging, core samples for analysis were stored in a secured shipping container at the same facility. The samples were picked up on site by Marsh Expediting and transported by road to La Ronge before transshipment to SRC in Saskatoon. The shipping container was kept locked or under direct supervision of the Fission Uranium staff. A sample transmittal form was prepared that identified each batch of samples.

SRC considers customer confidentiality and security of utmost importance and takes appropriate steps to protect the integrity of sample processing at all stages from sample storage and handling to transmission of results. All electronic information is password protected and backed up on a daily basis. Electronic results are transmitted with additional security features. Access to SRC's premises is restricted by an electronic security system. The facilities at the main laboratory are regularly patrolled by security guards 24 hours a day.

After the analyses described above are completed, analytical data are securely sent using electronic transmission of the results, by SRC to Fission Uranium. The electronic results are secured using WINZIP encryption and password protection. These results are provided as a series of Adobe PDF files containing the official analytical results and a Microsoft Excel spreadsheet file containing only the analytical results.

In RPA's opinion, the sample security and shipping procedures meet or exceed industry standards, and the QA/QC program as designed and implemented by Fission Uranium is adequate and the assay results within the database are suitable for use in a Mineral Resource estimate.

12 DATA VERIFICATION

RPA reviewed and verified the resource database used to estimate the Mineral Resources for the Triple R deposit. The verification included a review of the QA/QC methods and results, verifying assay certificates against the database assay table, standard database validation tests, and two site visits including drill core review. The review of the QA/QC program and results is presented in Section 11, Sample Preparation, Analyses and Security.

RPA considers the resource database reliable and appropriate to prepare a Mineral Resource estimate.

SITE VISIT AND CORE REVIEW

RPA visited the property twice during active drilling campaigns, once during a winter drill program and again during a summer drill program. During the March 2014 visit, RPA visited several ice-based drills and reviewed all core handling, logging, sampling, and storage procedures. During the September 2014 visit, RPA visited barge-based drills and again reviewed all aspects of the drill campaign, from core handling through to sample shipment.

RPA examined core from several drill holes and compared observations with assay results and descriptive log records made by Fission Uranium geologists. As part of the review, RPA verified the occurrences of mineralization visually and by way of a handheld scintillometer. Holes reviewed included but were not limited to: PLS13-64, PLS13-75, PLS14-129, PLS14-183, and PLS14-186. There are no known outcrops of significance on the property to visit.

DATABASE VALIDATION

RPA performed the following digital queries. No significant issues were identified.

- Header table: searched for incorrect or duplicate collar coordinates and duplicate hole IDs.
- Survey table: searched for duplicate entries, survey points past the specified maximum depth in the collar table, and abnormal dips and azimuths.

- Core recovery table: searched for core recoveries greater than 100% or less than 80%, overlapping intervals, missing collar data, negative widths, and data points past the specified maximum depth in the collar table. Of the 25,238 core recovery intervals, 293 have recovery values which exceed 105% and should therefore be investigated as these may represent transcription error.
- Lithology, Scintillometer, and Probe tables: searched for duplicate entries, intervals past the specified maximum depth in the collar table, overlapping intervals, negative widths, missing collar data, missing intervals, and incorrect logging codes.
- Geochemical and assay table: searched for duplicate entries, sample intervals past the specified maximum depth, negative widths, overlapping intervals, sampling widths exceeding tolerance levels, missing collar data, missing intervals, and duplicated sample IDs.

INDEPENDENT VERIFICATION OF ASSAY TABLE

The geochemical table contains 54,962 records. RPA verified approximately 2,200 records representing 4% of the data for gold and uranium values against 20 different laboratory certificates received directly from SRC. No discrepancies were found.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

The following summary of mineralogy and metallurgical test work commissioned by Fission Uranium in 2013 is taken from Mineral Services Canada Inc. (2014b).

In 2013, MSC was tasked by Fission Uranium with managing a metallurgy and mineralogy study of the Triple R uranium mineralization. The objectives of this study were (1) to investigate the metallurgical characteristics of the uranium mineralization and their relationships with mineralization and gangue mineralogy and (2) to assess how these characteristics and relationships vary spatially and between different rock types.

The metallurgical study analytical work was performed by the SRC Mining and Minerals Division and the mineralogical study analytical work was undertaken by SGS Canada (SGS). Forty-one individual assay reject samples from the Triple R deposit with confirmed mineralization were selected and submitted to SRC and SGS for analysis. Sample selection was based on uranium content, lithology, and location within the deposit, to obtain a spatially representative coverage of samples with varying uranium content. The individual assay reject samples were homogenized into five composite samples that represent specific lithologies from spatially distinct portions of the deposit.

The objective of the metallurgical test program was to develop a uranium leaching process with optimum leaching efficiency. This program was developed using a master composite sample that was prepared using all five sub-composite samples. Based on this preliminary test work, grinding and leaching process parameters were recommended as follows:

- a grinding size of P85 = 250 μm ;
- a leaching temperature of 45°C - 55°C (under atmospheric pressure);
- free acid levels of 25 g/L;
- a final oxidation and reduction potential (ORP) of 450 mV, and
- a leaching time of six hours.

Under these conditions, 98.4% of the total uranium in the master composite sample was leached in six hours under atmospheric pressure. The flexibility of the developed leaching process to handle variation of the mineralization was then assessed through variability tests using the five individual composites:

- Composites 1, 2, 3, and 5 returned leaching efficiencies ranging from 98.5% to 99.4%.
- The leaching efficiency of Composite 4 (95.0%) is significantly lower than the other samples.
- A significant amount of gold was found remaining in the uranium leaching tails. Gold recovery tests were recommended to evaluate the recoverability of the gold. This test work has been carried out and the results have been provided to Fission Uranium (SRC, 2014).

The objective of the mineralogy test work was to determine the mineralogical characteristics of the samples through a combination of analytical methods. The results show that:

- Although discrepancies occur between the results obtained with different analytical methods, the composites are made up of varying amounts of quartz, chlorite, kaolinite, illite, and muscovite. Carbonate minerals, Ti-oxides, feldspars, and pyrite are present in lesser amounts in all samples. Graphite is detected in some composite samples. Uranium occurs in all the composites as uraninite/uranophane, with lesser coffinite, brannerite, and U-Pb minerals. Fourmarierite, metaschoepite, umohoite, vandendriesscheite, and other (U, Pb)-oxides also possibly occur.
- The grain size of the U-minerals (defined as the 50% passing value) varies from 33 μm in Composite 2 to 63 μm in Composite 5.
- Free and liberated U-minerals (particles in which U-minerals comprise $\geq 80\%$ of the total particle area) account for 49% to 60% of all U-minerals in Composites 1, 3, 4, and 5. The lower abundance of free and liberated U-minerals in Composite 2 (23%) is likely due to the finer grain size of the U-minerals in this sample. Non-liberated U-minerals typically occur as complex intergrowths with silicates, carbonates, or “soft” silicates (clays/chlorite/micas).
- The relative abundance of exposed U-minerals (i.e., unlocked U-minerals, strictly surrounded by $<100\%$ gangue minerals) is similar in Composites 1, 3, 4, and 5 (98.2% to 98.9%) and is lower in Composite 2 (97.0%).
- All five composite samples contain carbon. In Composites 2 and 5, the total carbon values are low and most of the carbon is accounted for by the presence of graphite and/or carbonate. In Composites 1, 3, and 4, graphite and carbonate only account for part of the total carbon, implying that carbonaceous matter (bitumen) is present. Estimates indicate carbonaceous matter contents of approximately 1% in Composites 1 and 3, and 2.5% in Composite 4. The results from the metallurgical and

mineralogical tests show that there is a good correlation between the uranium recovery and the abundance of exposed U-minerals for Composites 1, 2, 3, and 5. This suggests that unless fully locked, the U-minerals will be recovered by leaching. Finer U-mineral grain size, decreased liberation, and decreased exposure do not appear to have had a significant adverse effect upon uranium recovery in Composite 2 (98.5%).

The lower uranium recovery (95.0%) in Composite 4 is attributed to the presence of organic carbon (either as graphite or more likely as carbonaceous matter) that encloses and locks U-minerals (identified as vandendriesscheite) that are finer than the +250 µm grinding size. This was confirmed by additional testing on concentrated uranium leach tails. The possible higher abundance of brannerite, $(U,Ca,Ce)(Ti,Fe)_2O_6$, which is highly refractory and difficult to leach, could also be a contributing factor to the lower overall leaching efficiency of Composite 4.

Variation in the metallurgical and mineralogical characteristics of the uranium mineralization with lithology was also investigated. Pelitic composites are characterized by higher uranium grades, higher carbonaceous matter content, and similar or lower uranium recovery efficiencies than the semi-pelitic and quartzitic composites. This is likely related to the presence of a carbonaceous uranium mineralization horizon in the pelitic unit. Carbonaceous mineralization also occurs in the quartzitic unit, but only within local fractures. No carbonaceous mineralization has been observed to date in semi-pelites. The composites used in this study have a maximum total organic carbon (graphite and carbonaceous matter) content of 4.3%. In view of its potential importance both in terms of uranium grade and leaching efficiency, additional work is recommended to further investigate the effect of organic carbon on uranium leaching and to better evaluate the spatial and genetic relationship between organic carbon and uranium mineralization in the Triple R deposit.

It is not possible to comment in a meaningful way on the spatial variations of the metallurgical and mineralogical characteristics of the uranium mineralization as only three composites are of the same (pelitic) lithology. No systematic variation is observed in these three samples in terms of uranium grade, recovery, liberation, exposure, or mineralogy. The gold grade, quartz, and U-mineral contents and the grain size of the U-minerals vary slightly along strike of the deposit, but further study is required to confirm and interpret these observations.

Additional metallurgical test work is recommended.

14 MINERAL RESOURCE ESTIMATE

RPA estimated Mineral Resources for the Triple R deposit using drill hole data available as of January 5, 2015 (Table 14-1). Estimated block model grades are based on chemical assays only. Gold grades were also estimated and average 0.51 g/t for the Indicated Resources and 0.56 g/t for the Inferred Resources. All Mineral Resources are reported within a preliminary optimized open pit shell generated in Whittle software. A relatively minor amount of mineralization was not captured by the Whittle shell. No Mineral Reserves have been estimated at the project.

TABLE 14-1 MINERAL RESOURCE SUMMARY
Fission Uranium Corp. – Patterson Lake South Property

	Tonnes	% U₃O₈	g/t Au	Pounds U₃O₈	Ounces Au
Indicated	2,291,000	1.58	0.51	79,610,000	38,000
Inferred	901,000	1.30	0.56	25,884,000	16,000

Notes:

1. CIM definitions were followed for Mineral Resources.
2. Mineral Resources are reported within a preliminary optimized open pit shell at a cut-off grade of 0.1% U₃O₈. The cut-off grade is based on a long-term price of US\$50 per lb U₃O₈.
3. A minimum mining width of 2.0 m was used.
4. Bulk density ranged between 2.25 t/m³ and 2.39 t/m³ depending on mineralized domain.
5. Numbers may not add due to rounding.

RPA is not aware of any known environmental, permitting, legal, title, taxation, socioeconomic, marketing, political, or other relevant factors that could materially affect the current resource estimate.

RESOURCE DATABASE

The resource estimate was prepared using drill hole data available to January 5, 2015. This includes holes up to and including PLS14-298 for a total of 317 drill holes. Of these, 232 holes representing 75,914.55 m of drilling are located within the area of the mineral resources (Table 14-2). The wireframe models representing the mineralized zones are intersected by 224 holes.

Fission Uranium maintains a complete set of drill hole plus other exploration data for the entire Property in Dassault Systèmes GEOVIA GEMS Version 6.5 software (GEMS). RPA

exported only those data used to estimate resources and built a new GEMS project. Table 14-2 lists the records for drill hole data in or near the Triple R deposit.

TABLE 14-2 GEMS DATABASE RECORD COUNT
Fission Uranium Corp. - Patterson Lake South Property

Table Name	Number of Records*
Hole-ID	232
Survey	9,170
U ₃ O ₈ Chemical Assays	54,962
Lithology	4,334
Scintillometer	22,508
Density	10,096
Full width mineralized intersections	1,119
Composites	28,902
5 m level composites	15,013

* In the area of the Triple R deposit only.

Section 12, Data Verification, describes the verification steps made by RPA. In summary, no discrepancies were identified and RPA is of the opinion that the GEMS drill hole database is valid and suitable to estimate Mineral Resources for the Triple R deposit.

GEOLOGICAL INTERPRETATION AND 3D SOLIDS

Wireframe models of mineralized zones were used to constrain the block model grade interpolation process. RPA interpreted and constructed wireframe models using a nominal cut-off grade of 0.05% U₃O₈ and minimum core length of two metres. Wireframes of the High Grade domain were created at a minimum grade of approximately 5% U₃O₈. The interpretation for most zones was guided by preliminary grade-shell wireframes created in Leapfrog modelling software.

RPA built the wireframe models using 3D polylines on east looking vertical sections spaced 15 m apart. Infill polylines were added to accommodate for irregular geometries. Polylines were “snapped” to assay intervals along the drill hole traces such that the sectional interpretations “wobbled” in 3D space. Polylines were joined together in 3D using tie lines and the continuity was checked using a longitudinal section and level plans.

As discussed in Section 10, most drill holes were oriented vertically, which produces challenges when interpreting steeply dipping mineralization. To the extent possible, RPA used information available from the angle holes to locate the hanging wall and footwall contacts of the mineralized zones and to interpret their true thickness. The sectional outlines of the mineralized zones based on angle holes was commonly extrapolated or interpolated to sections with vertical drilling only. This resulted in relatively regular outlines of the mineralized domains in plan view. RPA recommends that predominantly angle holes be drilled as part of any follow-up infill drill campaigns.

In total, RPA interpreted, built, and used 21 wireframe models of the mineralization, also known as domains (Table 14-3 and Figures 14-1 and 14-2). Wireframes were assigned to zones as identified by Fission Uranium disclosures. The R00E zone is located at the western end and the much larger R780E zone is located along strike to the east. The R00E and R780E zones have an overall strike length of approximately 1.2 km, with the R00E measuring approximately 125 m in strike length and the R780E zones measuring approximately 900 m in strike length. A 225 m gap separates the R00E zone to the west and the R780E zones to the east. Mineralization remains open along strike both to the western and eastern extents, and at depth.

The R780E zones are located beneath Patterson Lake, which is approximately six metres deep in the area of the deposit. The entire Triple R deposit is covered by approximately 50 m of overburden. The deposit extends from immediately beneath the overburden to a maximum depth of 330 m below the topographic surface.

TABLE 14-3 SUMMARY OF WIREFRAME MODELS
Fission Uranium Corp. - Patterson Lake South Property

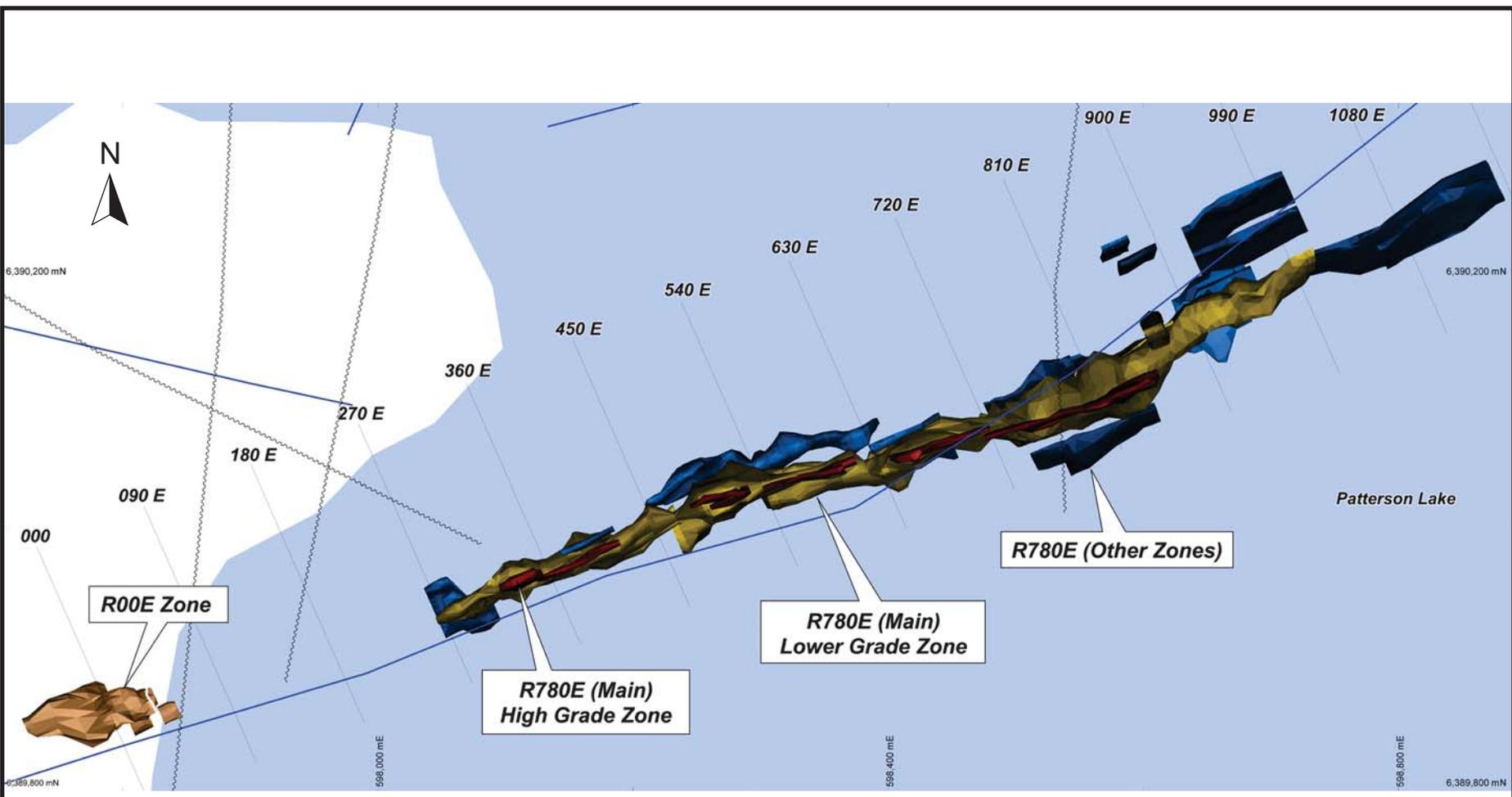
Zone	Wireframe Name	GEMS Block Code	Wireframe Volume (m³)
R00E	R00_1	601	57,228
	R00_2	602	4,003
R780E (Main)	MZ	101	985,259
R780E (High grade)	HG	1001	57,104
R780E (Other Zones)	FW_1	201	14,926
	FW_2	202	3,726
	FW_3	203	49,063
	FW_4	204	25,589
	FW_5	205	38,184
	FW_6	206	6,544
	LZ_1	301	11,769
	LZ_2	302	19,417

Zone	Wireframe Name	GEMS Block Code	Wireframe Volume (m ³)
	LZ_3	303	33,013
	LZ_4	304	6,376
	LZ_5	305	61,444
	LZ_6	306	13,979
	LZ_7	307	2,426
	LZ_8	308	30,438
	EAST_1	401	74,072
	EAST_2	402	22,865
	HW_1	501	63,375

The High Grade (HG) domain consists of seven lenses within the R780E Main Zone (MZ), the largest continuous domain within the R780E area. Collectively, these two domains make up more than 80% of the contained pounds of U₃O₈ in the Mineral Resource. Both domains are elongated in the grid east-west direction and dip steeply to the south. The MZ measures approximately 740 m along strike. Both the down dip and true thickness of the MZ vary due to the irregular shape of the mineralization, however, in general, the down dip measurement ranges between 50 m and 80 m, and the true thickness is in most places between 20 m and 30 m but can be as little as two metres to a maximum of 45 m.

The HG domain alone contains more than half the contained pounds of U₃O₈ classified as Indicated Resources. It was modelled as seven steeply dipping wireframe solids located entirely within the R780E MZ. They span over 500 m of strike length, measure between 10 m and 40 m down dip, and generally range between three metres and ten metres thick.

A number of other wireframe solids make up a smaller portion of the Mineral Resource. Most of the secondary domains are oriented similarly to the Main Zone, that is, elongated east-west, dipping steeply to the south. Some, including R00E, were modelled with a horizontal orientation. Additional drilling is recommended to better define the geometry of mineralization.



Legend:

- R00E Zone
- R780E (Main) Lower Grade Zone
- R780E (Main) High Grade Zone
- R780E (Other Zones)
- EM Conductor
- Interpreted Fault

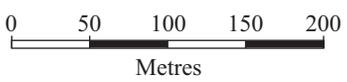


Figure 14-1

Fission Uranium Corp.

Patterson Lake South Property
Northern Saskatchewan, Canada

**Wireframe Solids
Plan View**

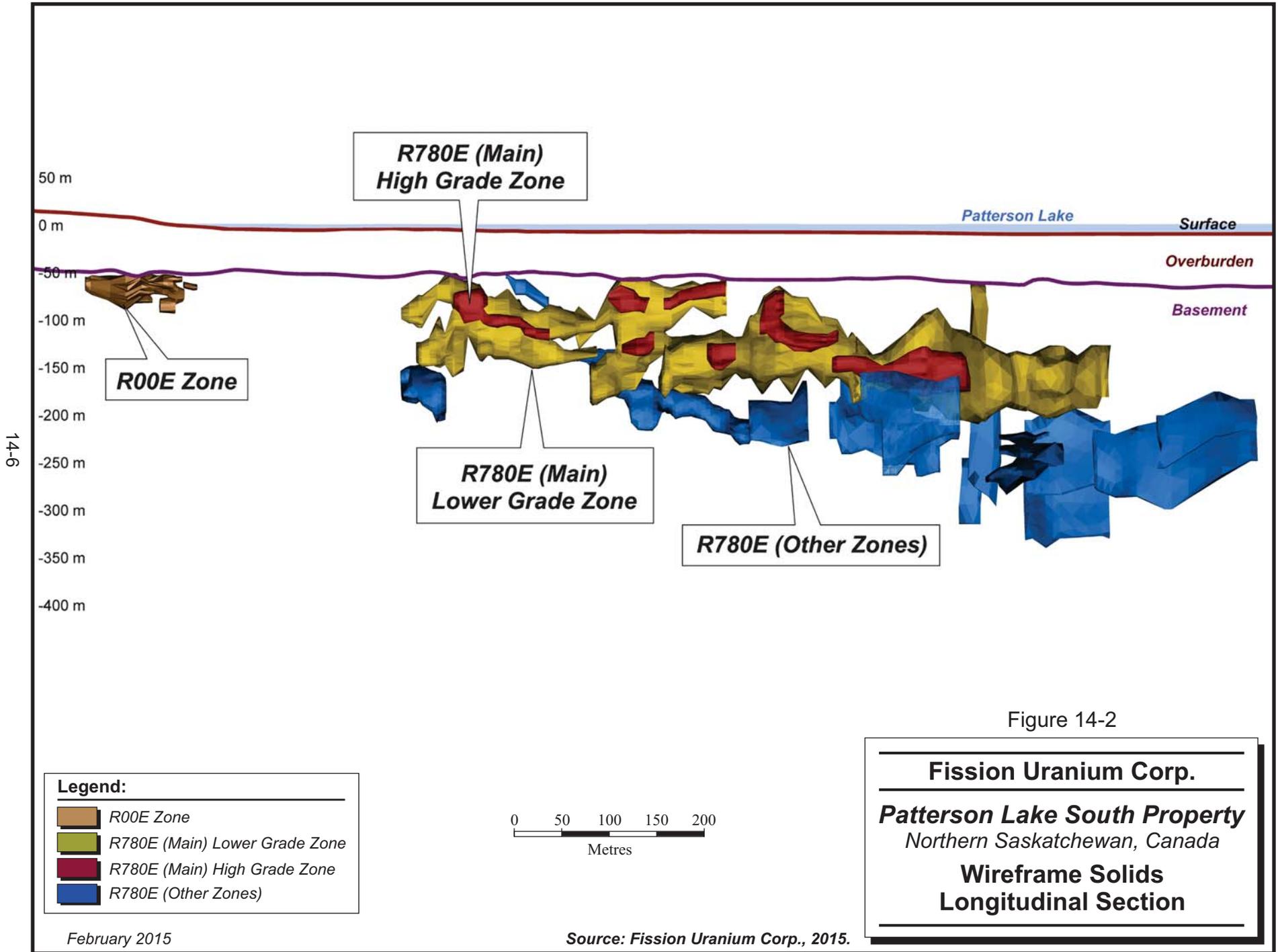


Figure 14-2

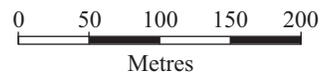
Fission Uranium Corp.

Patterson Lake South Property
Northern Saskatchewan, Canada

Wireframe Solids
Longitudinal Section

Legend:

-  R00E Zone
-  R780E (Main) Lower Grade Zone
-  R780E (Main) High Grade Zone
-  R780E (Other Zones)



STATISTICAL ANALYSIS

Assay values located inside the wireframe models were tagged with domain identifiers and exported for statistical analysis. Results were used to help verify the modelling process. Basic statistics by domain are summarized in Table 14-4.

TABLE 14-4 STATISTICS OF RESOURCE ASSAY VALUES BY DOMAIN
Fission Uranium Corp. - Patterson Lake South Property

	MZ	HG	FW_1	FW_2	FW_3
No. of Cases	12,746	826	79	21	75
Minimum (%U ₃ O ₈)	0.00	0.01	0.00	0.01	0.00
Maximum (%U ₃ O ₈)	43.50	65.70	6.96	0.90	2.08
Median (%U ₃ O ₈)	0.10	12.40	0.13	0.17	0.12
Mean (%U ₃ O ₈)	0.63	16.77	0.56	0.23	0.28
Wt. Mean (%U ₃ O ₈)	0.64	16.88	0.55	0.23	0.28
Std. Dev. (%U ₃ O ₈)	2.14	14.38	1.02	0.23	0.45
Coeff. of Variation	3.37	0.86	1.83	0.98	1.56
	FW_4	FW_5	FW_6	LZ_1	LZ_2
No. of Cases	59	385	112	150	214
Minimum (%U ₃ O ₈)	0.00	0.00	0.00	0.00	0.00
Maximum (%U ₃ O ₈)	3.84	22.10	44.90	24.70	39.40
Median (%U ₃ O ₈)	0.15	0.06	0.28	0.22	0.08
Mean (%U ₃ O ₈)	0.30	0.84	2.19	2.33	1.85
Wt. Mean (%U ₃ O ₈)	0.30	0.84	2.19	2.33	1.86
Std. Dev. (%U ₃ O ₈)	0.53	2.40	6.23	4.61	4.86
Coeff. of Variation	1.79	2.85	2.85	1.98	2.63
	LZ_3	LZ_5	LZ_5	LZ_7	LZ_8
No. of Cases	212	49	459	62	446
Minimum (%U ₃ O ₈)	0.00	0.00	0.00	0.00	0.00
Maximum (%U ₃ O ₈)	43.70	2.48	7.59	1.43	13.90
Median (%U ₃ O ₈)	0.28	0.09	0.11	0.08	0.10
Mean (%U ₃ O ₈)	1.60	0.26	0.35	0.26	0.36
Wt. Mean (%U ₃ O ₈)	1.60	0.26	0.35	0.26	0.36
Std. Dev. (%U ₃ O ₈)	5.14	0.46	0.79	0.38	0.99
Coeff. of Variation	3.22	1.77	2.26	1.47	2.74
	EAST_1	EAST_2	HW_1	R00_1	R00_2
No. of Cases	279	122	321	830	48
Minimum (%U ₃ O ₈)	0.00	0.01	0.00	0.00	0.03
Maximum (%U ₃ O ₈)	20.80	2.03	2.63	48.80	35.10
Median (%U ₃ O ₈)	0.14	0.10	0.07	0.25	0.63
Mean (%U ₃ O ₈)	1.14	0.22	0.18	1.64	5.52
Wt. Mean (%U ₃ O ₈)	1.14	0.22	0.18	1.63	5.52
Std. Dev. (%U ₃ O ₈)	3.04	0.32	0.32	4.62	8.95
Coeff. of Variation	2.66	1.43	1.78	2.82	1.62

CUTTING HIGH GRADE VALUES

Where the assay distribution is skewed positively or approaches log-normal, erratic high grade assay values can have a disproportionate effect on the average grade of a deposit. One method of treating these outliers in order to reduce their influence on the average grade is to cut or cap them at a specific grade level. In the absence of production data to calibrate the cutting level, inspection of the assay distribution can be used to estimate a “first pass” cutting level.

Review of the resource assay histograms within the wireframe domains (Figures 14-3 to 14-5) and a visual inspection of high grade values on vertical sections suggest cutting erratic values to 55% in the HG domain, to 10% U₃O₈ in all other domains defined by wireframe solids, and to 7% U₃O₈ outside the wireframes, designated as Low Grade Halo.

For the MZ domain, by cutting 116 high values to 10% U₃O₈, the average grade was reduced from 0.64% U₃O₈ to 0.56% U₃O₈ and the coefficient of variation was reduced from 3.37 to 2.54. For the HG domain, by cutting 12 high values to 55% U₃O₈, the average grade was reduced from 16.88% U₃O₈ to 16.80% U₃O₈ and coefficient of variation was reduced from 0.86 to 0.85.

FIGURE 14-3 HISTOGRAM OF RESOURCE ASSAYS IN HIGH GRADE DOMAIN

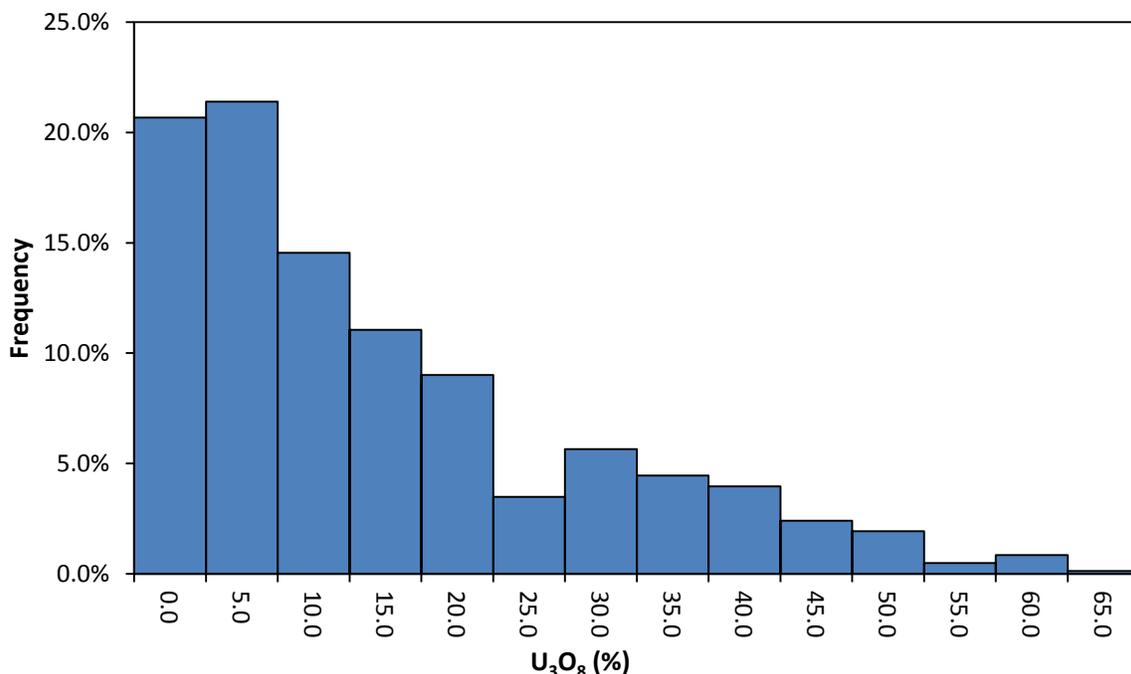


FIGURE 14-4 HISTOGRAM OF RESOURCE ASSAYS IN MAIN ZONE DOMAIN

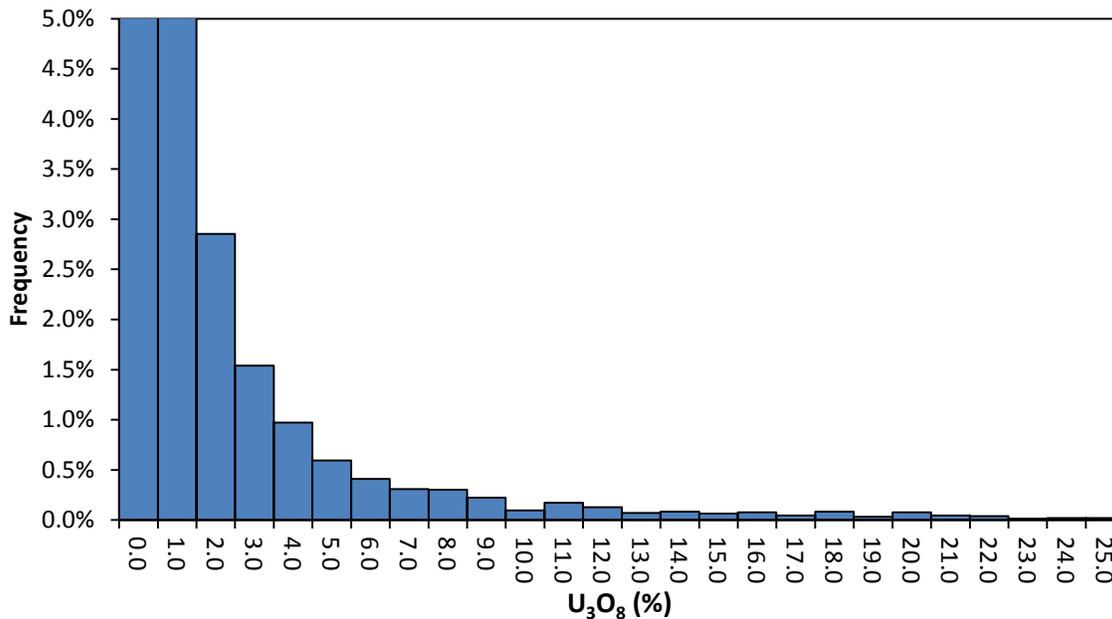


FIGURE 14-5 HISTOGRAM OF RESOURCE ASSAYS IN LOW GRADE HALO

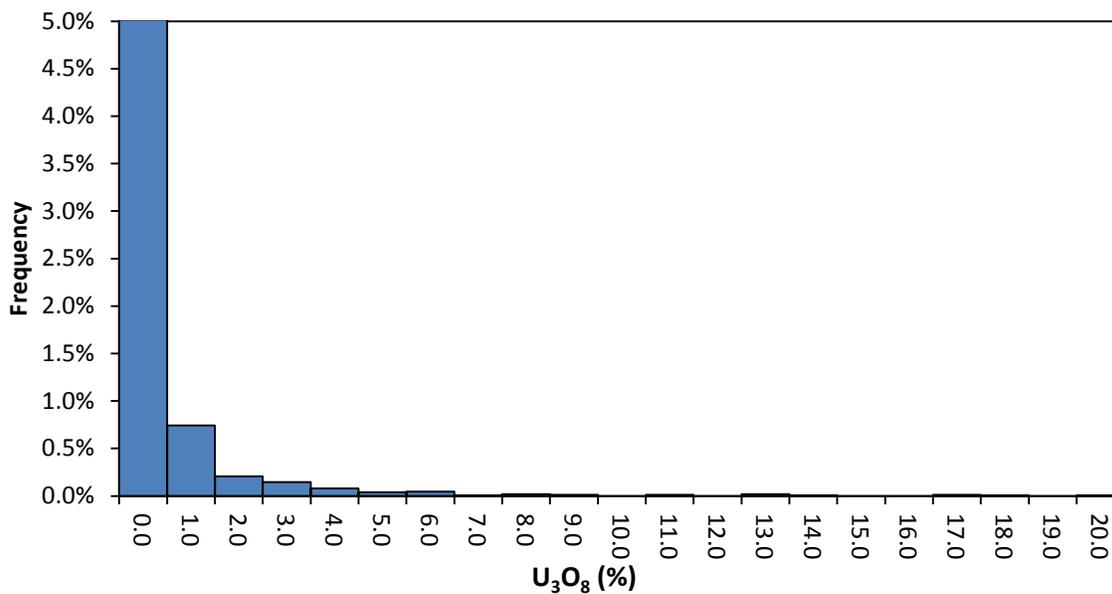


TABLE 14-5 STATISTICS OF RESOURCE CUT ASSAY VALUES BY DOMAIN
Fission Uranium Corp. - Patterson Lake South Property

	MZ	HG	FW_5	FW_6
No. of Cases	12,746	826	385	112
Minimum (%U ₃ O ₈)	0.00	0.01	0.00	0.00
Maximum (%U ₃ O ₈)	10.00	55.00	10.00	10.00
No. Assays Cut	116	12	6	5
Median (%U ₃ O ₈)	0.10	12.40	0.06	0.28
Mean (%U ₃ O ₈)	0.56	16.69	0.76	1.40
Wt. Mean (%U ₃ O ₈)	0.56	16.80	0.76	1.40
Std. Dev. (%U ₃ O ₈)	1.43	14.15	1.84	2.51
Coeff. of Variation	2.54	0.85	2.43	1.79
	LZ_1	LZ_2	LZ_3	LZ_8
No. of Cases	150	214	212	446
Minimum (%U ₃ O ₈)	0.00	0.00	0.00	0.00
Maximum (%U ₃ O ₈)	10.00	10.00	10.00	10.00
No. Assays Cut	10	8	7	2
Median (%U ₃ O ₈)	0.22	0.08	0.28	0.10
Mean (%U ₃ O ₈)	1.85	1.39	1.02	0.35
Wt. Mean (%U ₃ O ₈)	1.85	1.40	1.02	0.35
Std. Dev. (%U ₃ O ₈)	3.00	2.65	1.98	0.87
Coeff. of Variation	1.62	1.90	1.95	2.47
	EAST_1	R00_1	R00_2	
No. of Cases	279	830	48	
Minimum (%U ₃ O ₈)	0.00	0.00	0.03	
Maximum (%U ₃ O ₈)	10.00	10.00	10.00	
No. Assays Cut	9	34	9	
Median (%U ₃ O ₈)	0.14	0.25	0.63	
Mean (%U ₃ O ₈)	0.97	1.19	3.34	
Wt. Mean (%U ₃ O ₈)	0.97	1.18	3.34	
Std. Dev. (%U ₃ O ₈)	2.16	2.32	4.07	
Coeff. of Variation	2.23	1.95	1.22	

COMPOSITING

Sample lengths range from 25 cm to 3.0 m within the wireframe models, however, 99% of the samples were taken at 0.5 m intervals. Given this distribution, and considering the width of the mineralization, RPA chose to composite to two metre lengths. Assays within the wireframe domains were composited starting at the first mineralized wireframe boundary from the collar and resetting at each new wireframe boundary. Assays were cut prior to compositing. Composites less than 0.5 m, located at the bottom of the mineralized intercept, were removed from the database.

Table 14-6 shows the composite statistics by domain.

TABLE 14-6 DESCRIPTIVE STATISTICS OF COMPOSITE VALUES BY DOMAIN
Fission Uranium Corp. - Patterson Lake South Property

	MZ	HG	FW_1	FW_2	FW_3
No. of Cases	3,324	225	21	5	20
Minimum (%U ₃ O ₈)	0.00	0.17	0.01	0.10	0.01
Maximum (%U ₃ O ₈)	10.00	53.17	2.34	0.35	0.94
Median (%U ₃ O ₈)	0.14	13.69	0.36	0.25	0.15
Mean (%U ₃ O ₈)	0.55	16.74	0.55	0.24	0.27
Std. Dev. (%U ₃ O ₈)	1.10	11.66	0.57	0.12	0.28
Coeff. of Variation	1.99	0.70	1.04	0.50	1.03
	FW_4	FW_5	FW_6	LZ_1	LZ_2
No. of Cases	16	105	30	41	62
Minimum (%U ₃ O ₈)	0.02	0.00	0.00	0.01	0.00
Maximum (%U ₃ O ₈)	1.18	8.43	8.57	6.77	7.76
Median (%U ₃ O ₈)	0.23	0.11	0.59	1.11	0.27
Mean (%U ₃ O ₈)	0.30	0.72	1.32	1.78	1.25
Std. Dev. (%U ₃ O ₈)	0.28	1.43	1.92	2.12	1.82
Coeff. of Variation	0.95	2.00	1.46	1.19	1.46
	LZ_3	LZ_4	LZ_5	LZ_7	LZ_8
No. of Cases	63	13	117	17	121
Minimum (%U ₃ O ₈)	0.00	0.06	0.00	0.00	0.00
Maximum (%U ₃ O ₈)	10.00	0.51	3.14	0.64	3.92
Median (%U ₃ O ₈)	0.33	0.18	0.16	0.19	0.13
Mean (%U ₃ O ₈)	0.88	0.20	0.35	0.23	0.33
Std. Dev. (%U ₃ O ₈)	1.54	0.13	0.51	0.19	0.53
Coeff. of Variation	1.75	0.65	1.44	0.82	1.61
	EAST_1	EAST_2	HW_1	R00_1	R00_2
No. of Cases	72	33	83	213	12
Minimum (%U ₃ O ₈)	0.00	0.01	0.00	0.02	0.13
Maximum (%U ₃ O ₈)	9.04	0.88	1.19	10.00	9.31
Median (%U ₃ O ₈)	0.20	0.14	0.10	0.34	0.95
Mean (%U ₃ O ₈)	0.97	0.22	0.18	1.16	3.31
Std. Dev. (%U ₃ O ₈)	1.84	0.21	0.21	2.01	3.68
Coeff. of Variation	1.90	0.97	1.18	1.73	1.11

CONTINUITY ANALYSIS

RPA generated downhole, omni-directional, and directional variograms using the two-metre composite U₃O₈ values located within the mineralized wireframes. The downhole variogram suggests a relative nugget effect of approximately 20% (Figure 14-6). Long range directional variograms were focused in the plane of mineralization, which most commonly strikes east-west and dips steeply to the south. To improve the variogram for the MZ, only composite

values ranging between 0.05% U₃O₈ and 8% U₃O₈ were used (Figure 14-7). Most ranges were interpreted to be 15 m. Ranges for the HG domain also varied between 10 m and 20 m (Figure 14-8).

RPA also visually reviewed and contoured the drill hole results to identify trends of high grade mineralization. Several shallow to moderately eastward plunging higher grade zones were identified and these were mostly modelled as part of the HG domain within the MZ.

FIGURE 14-6 DOWNHOLE VARIOGRAM

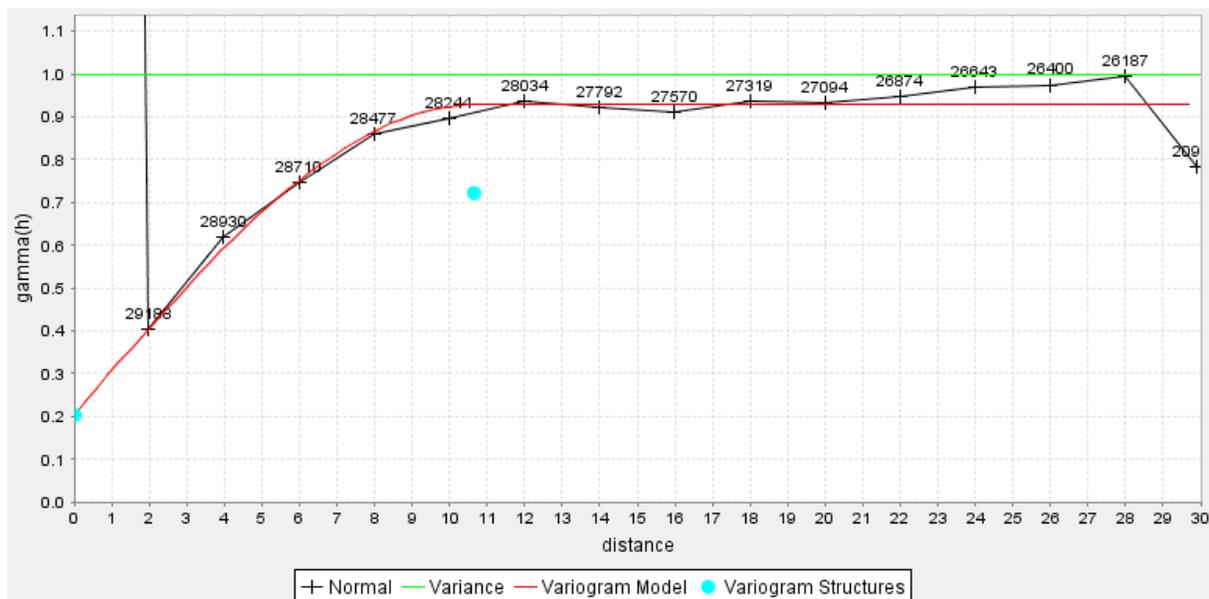


FIGURE 14-7 DIRECTIONAL VARIOGRAMS FOR MZ

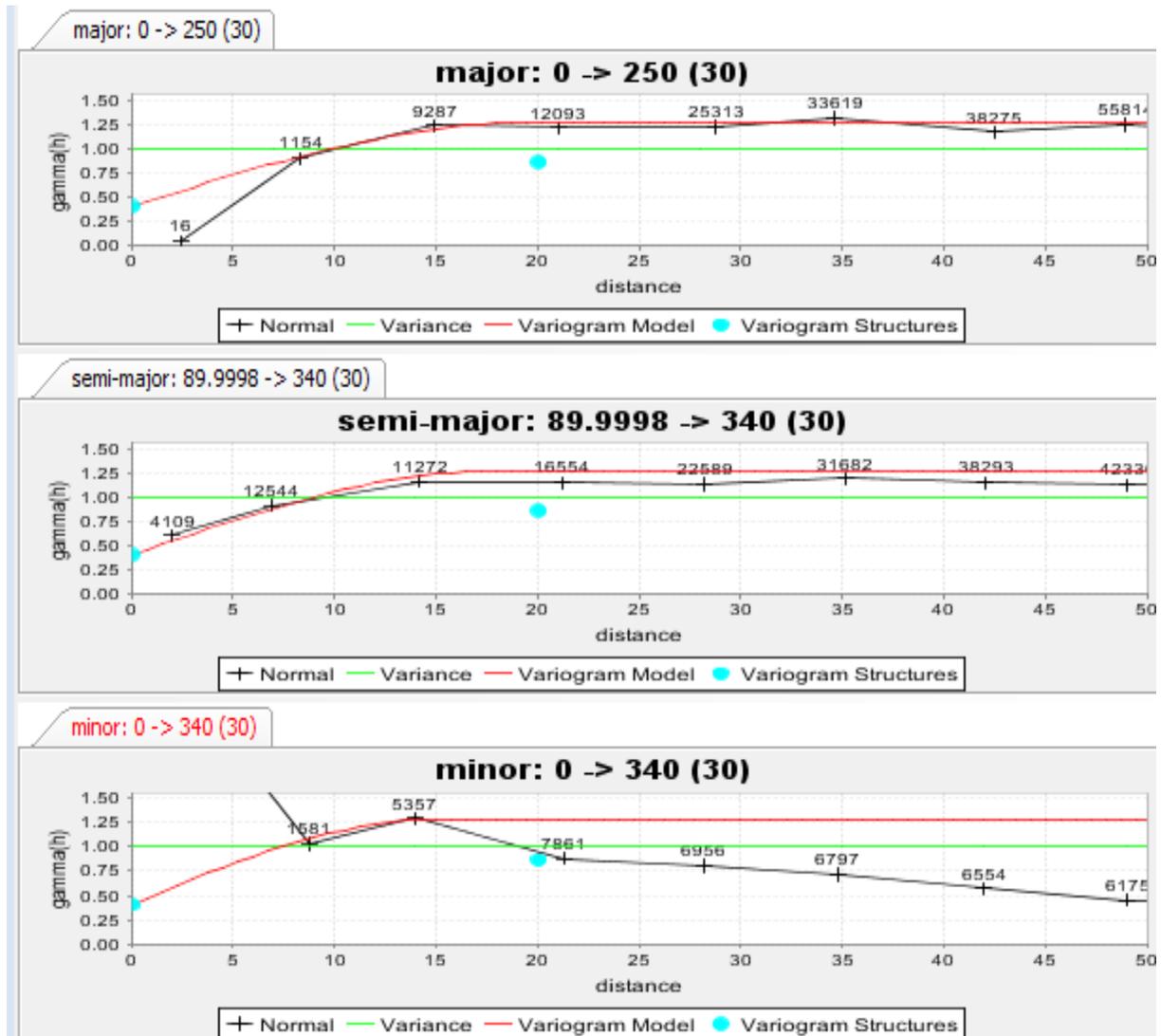
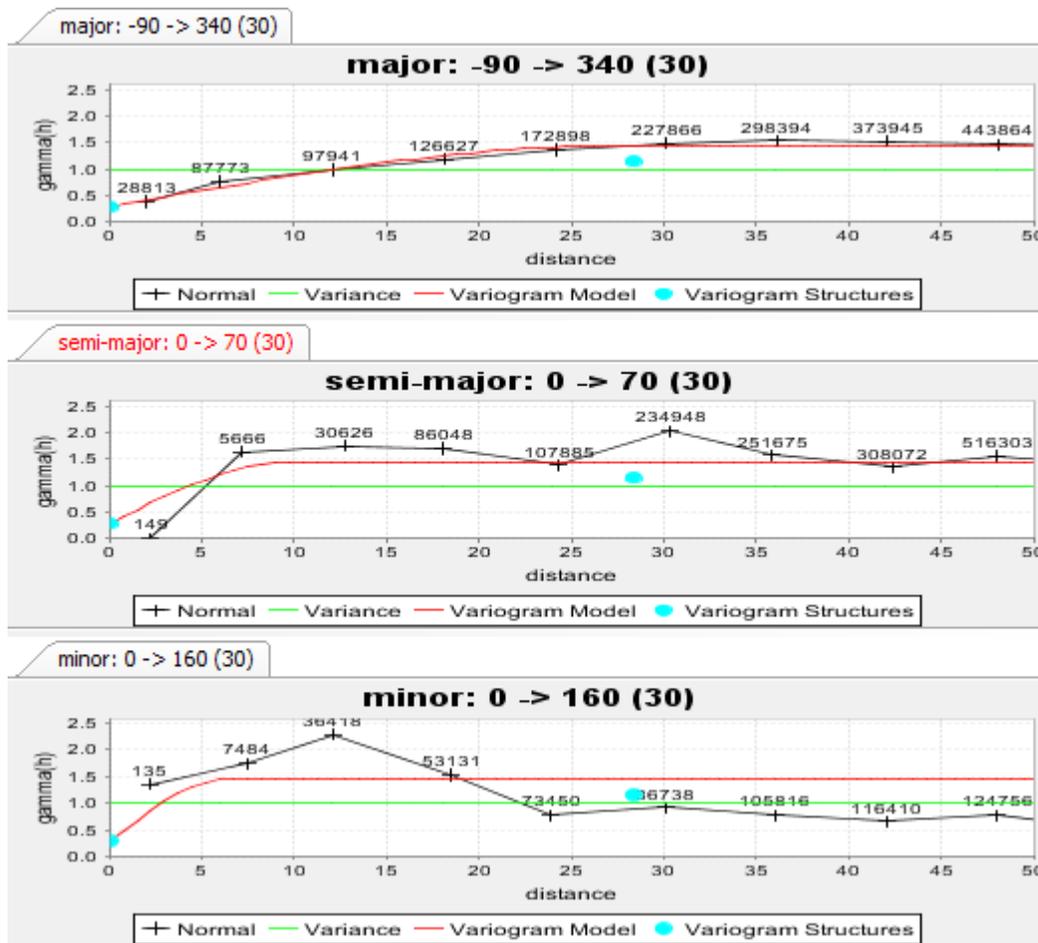


FIGURE 14-8 DIRECTIONAL VARIOGRAMS FOR HIGH GRADE DOMAIN



INTERPOLATION PARAMETERS

Grade interpolations for U₃O₈ and gold were made using inverse distance cubed (ID³) with a minimum of two to a maximum of seven composites per block estimate. The search ellipse varied slightly by domain (Table 14-7). Hard boundaries were used to limit the use of composites between domains. Most search ellipses are 50 m by 50 m by 10 m for a 5:5:1 anisotropic ratio. Since the Low Grade Halo domain is unconstrained, RPA limited the search ellipse to 10 m by 10 m by 5 m which is equivalent to two blocks. Figures 14-9 to 14-12 illustrate the results.

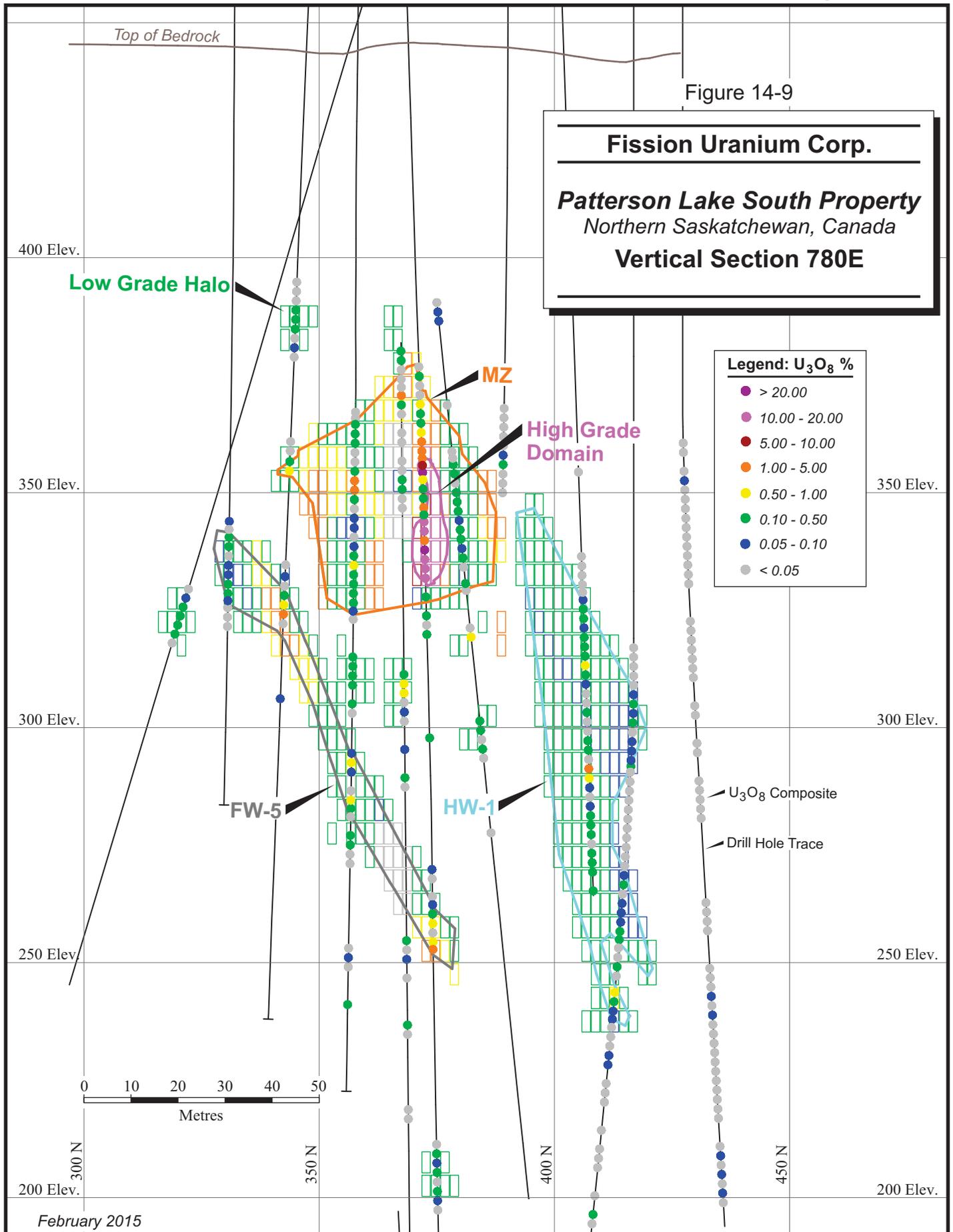
TABLE 14-7 BLOCK ESTIMATE SEARCH STRATEGY BY DOMAIN
Fission Uranium Corp. - Patterson Lake South Property

Domain	Rotation Type	Rotation (degrees)	X (m)	Y (m)	Z (m)
HG	ZYZ	none	50	10	50
MZ	ZYZ	none	50	10	50
EAST_1	ZXZ	0,-20,0	50	10	50
EAST_2	ZXZ	none	50	10	50
FW_1	ZXZ	0,-20,0	50	10	50
FW_2	ZXZ	0,-20,0	50	10	50
FW_3	ZXZ	0,-20,0	50	10	50
FW_4	ZXZ	0,-20,0	50	10	50
FW_5	ZXZ	0,-20,0	50	10	50
FW_6	ZXZ	0,-20,0	50	10	50
HW_1	ZXZ	0,-20,0	50	10	50
LZ_1	ZYZ	none	50	50	10
LZ_2	ZXZ	0,-20,0	50	50	10
LZ_3	ZXZ	0,-20,0	50	10	50
LZ_4	ZXZ	0,-20,0	50	10	50
LZ_5	ZXZ	0,-20,0	50	10	50
LZ_6	ZXZ	0,-20,0	50	10	50
LZ_7	ZXZ	none	50	10	50
LZ_8	ZXZ	0,-20,0	50	10	50
R00_1	ZYZ	none	50	50	10
R00_2	ZYZ	none	50	50	10
HALO	ZYZ	none	10	4	10

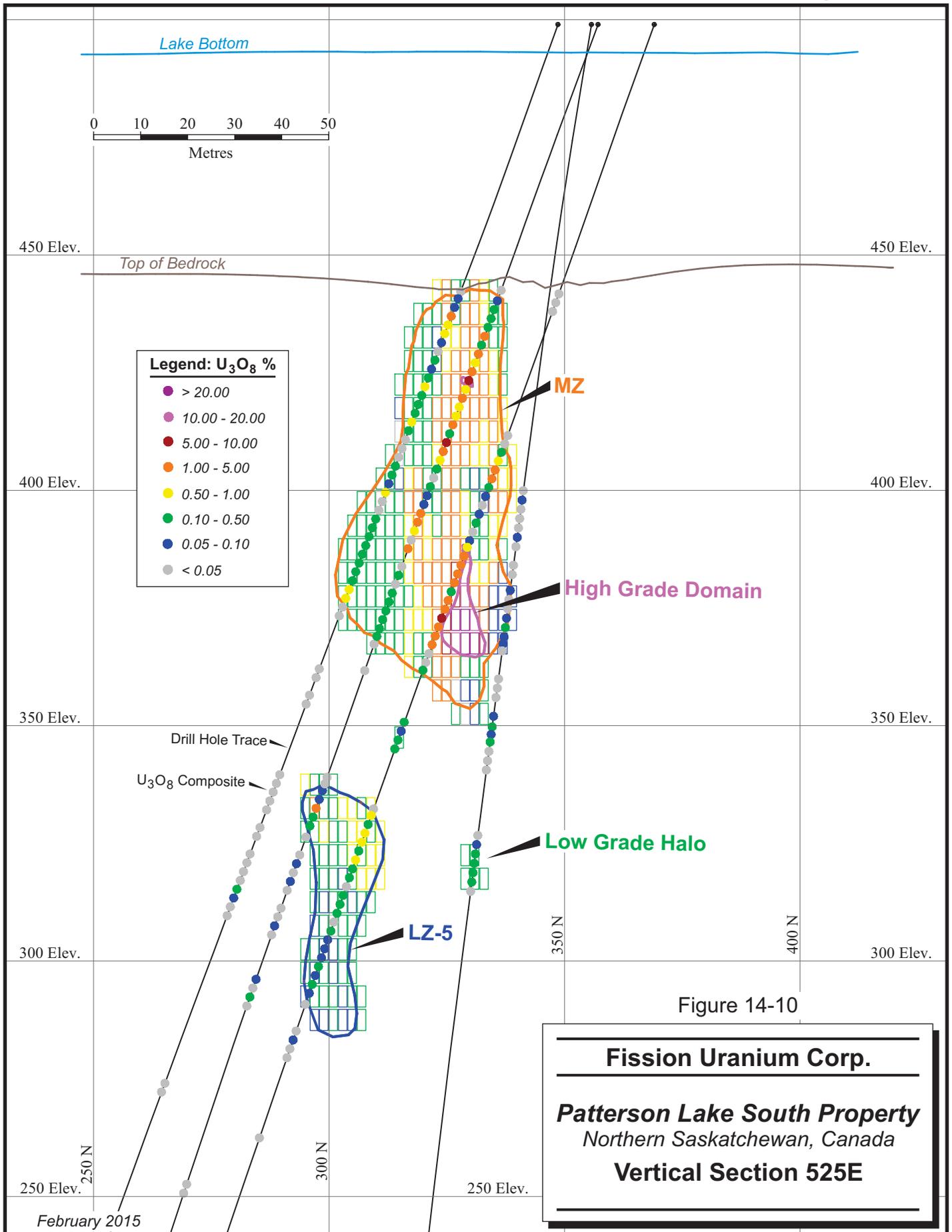
Note: GEMS ZYZ rotation nomenclature is used above. Positive rotation around the X axis is from Y towards Z, around the Y axis is from Z toward X, and around the Z axis is from X toward Y. Rotations are with respect to the rotated model.

Figure 14-9

Fission Uranium Corp.
Patterson Lake South Property
 Northern Saskatchewan, Canada
Vertical Section 780E



February 2015



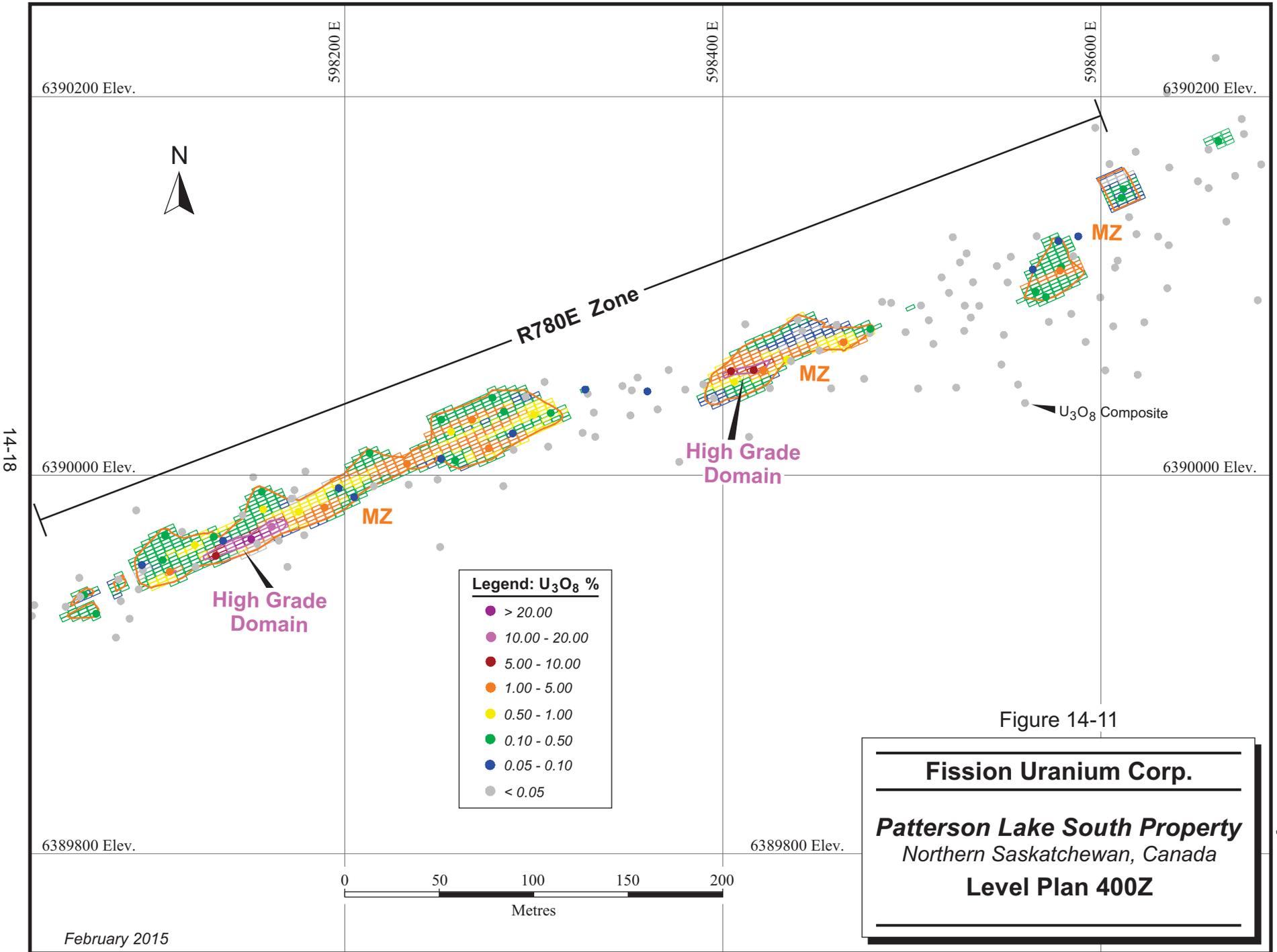
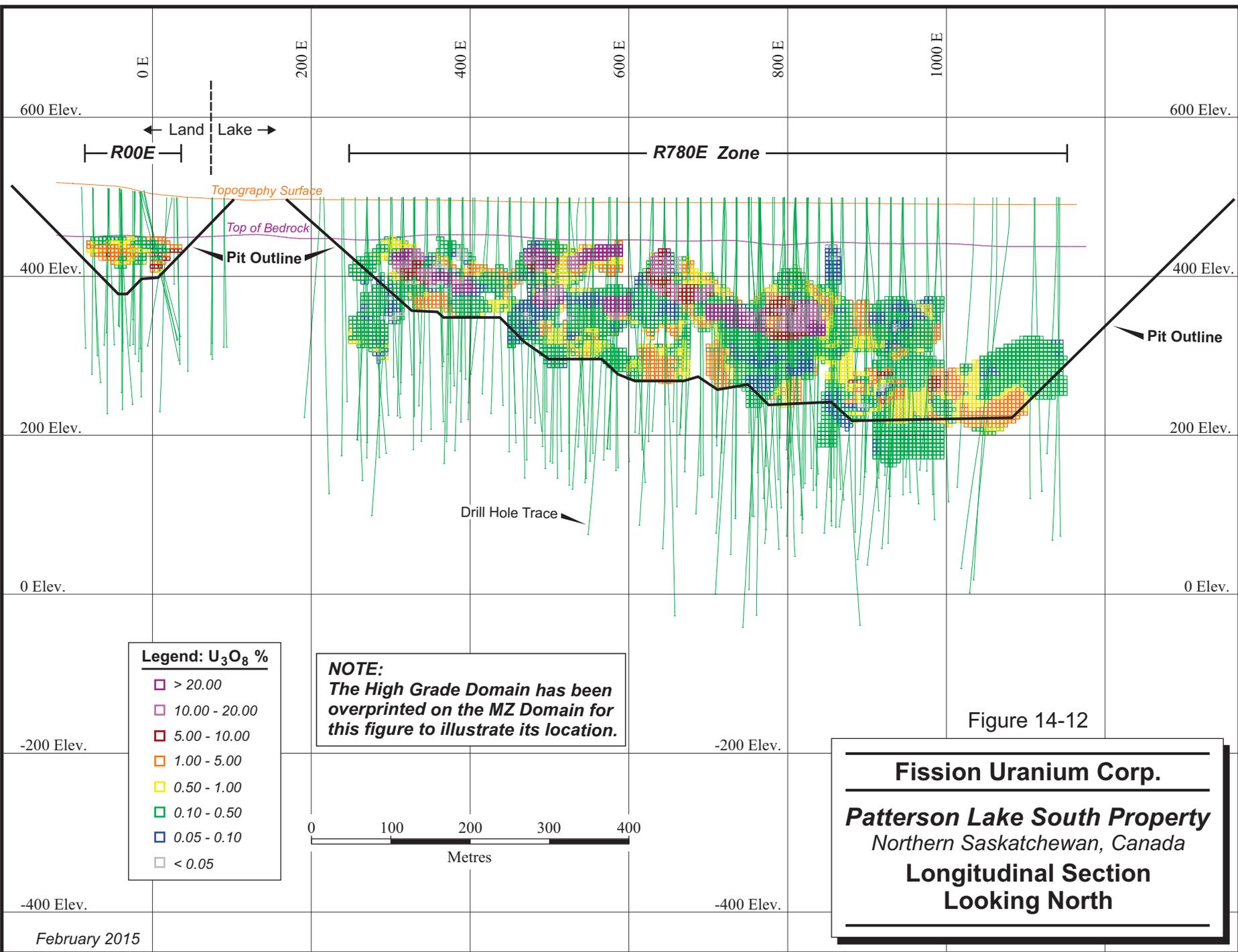


Figure 14-11

Fission Uranium Corp.
Patterson Lake South Property
Northern Saskatchewan, Canada
Level Plan 400Z

14-19



DENSITY

Bulk density is used to convert volume to tonnage and, in some cases, weight block grade estimates. For example, high grade uranium deposits of the Athabasca Basin have bulk densities that commonly vary with grade due to the very high density of pitchblende/uraninite compared to host lithologies. Bulk density also varies with clay alteration and in situ rock porosity. When modelling high grade uranium deposits, it is common to estimate bulk density values throughout the deposit and to weight grades by density, since small volumes of high grade material contain large quantities of uranium oxide.

RPA carried out correlation analyses of the bulk density measurements against uranium grades (Figures 14-13 and 14-14). Unlike most deposits in the Athabasca Basin, the high grade uranium mineralization at the Triple R deposit has relatively low density values. Uranium grade ranges of 20% U_3O_8 to 60% U_3O_8 within the basin more commonly exhibit density values ranging from 3.0 g/cm³ to 6.0 g/cm³. Triple R high grade mineralization is often associated with carbon which may account for the lower than expected density values. RPA recommends that additional density data be collected and analyzed for high grade mineralization.

Given the relationships between grade, density, and rock types; RPA chose to assign bulk densities by domain. The Triple R resource database includes more than 10,096 density measurements. RPA flagged measurements by grade and domain, and created a sub-set of more than 2,000 representative measurements. From the sub-set, RPA chose the following density values: 2.25 t/m³ for the R00E Zone, 2.32 t/m³ for the MZ and other zones in the R780E area, 2.35 t/m³ for the HG domain, and 2.39 t/m³ for the Low Grade Halo.

FIGURE 14-13 LOGARITHMIC PLOT OF BULK DENSITY VERSUS URANIUM GRADE

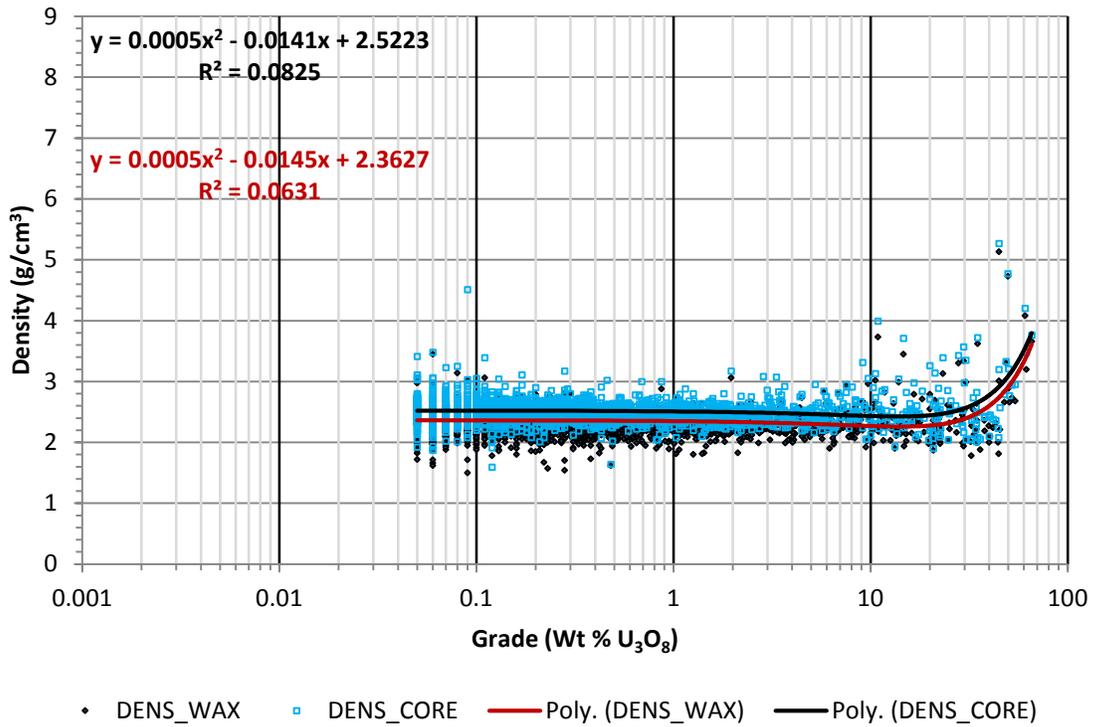
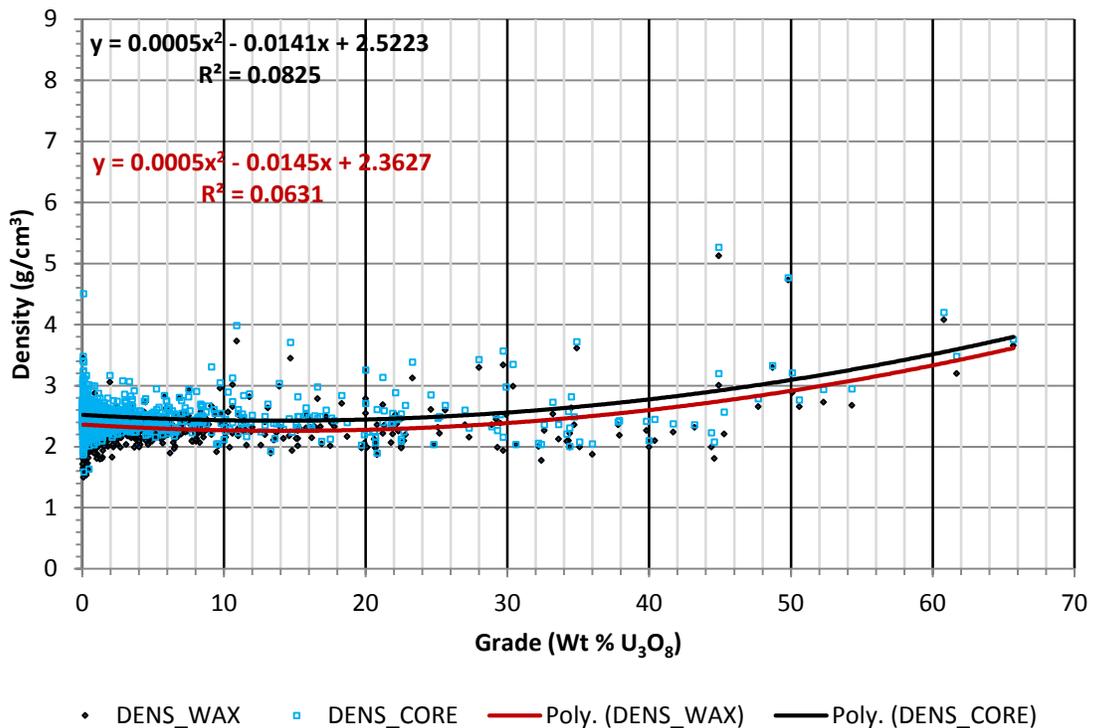


FIGURE 14-14 LINEAR PLOT OF BULK DENSITY VERSUS URANIUM GRADE



BLOCK MODEL

The GEMS block model is rotated 23.8° and is made up of 317 columns, 380 rows, and 108 levels for a total of 13,009,680 blocks. The model origin (lower-left corner at highest elevation) is at UTM coordinates 597,768.8 mE, 6,389,371.7 mN and 540 m elevation. Each block is two metres wide, five metres high, and five metres along strike. A partial block model is used to manage blocks partially filled by mineralized rock types, including blocks along the edges of the deposit. A partial model has parallel block models containing the percentage of mineralized rock types contained within each block. The block model contains the following information:

- domain identifiers with rock type;
- estimated grades of U₃O₈ and gold;
- the percentage volume of each block within the mineralization wireframe models;
- tonnage factors, in tonnes per cubic metre;
- the distance to the closest composite used to interpolate the block grade; and
- the resource classification of each block.

CUT-OFF GRADE AND PRELIMINARY OPEN PIT SHELL

To fulfill the NI 43-101 requirement of “reasonable prospects for eventual economic extraction”, RPA prepared a preliminary open pit shell to constrain the block model for resource reporting purposes. The preliminary pit shell was generated using Whittle software.

The assumptions used in the Whittle pit shell analysis are listed in Table 14-8.

**TABLE 14-8 PIT SHELL OPTIMIZATION FACTORS
Fission Uranium Corp. - Patterson Lake South Property**

Parameter	Value
Pit Slope	45°
Process Recovery	95%
Price	50\$/lb U ₃ O ₈
Mining Cost	\$3 per tonne mined
Processing Cost	\$62.51 per tonne milled
Tailings cost	0.98 per tonne milled
Shipping cost	0.65 \$/lb U ₃ O ₈
Contingencies	3.77 \$/lb U ₃ O ₈
Royalty	9.10 \$/lb U ₃ O ₈
G&A	\$7.00 per tonne milled

Parameter	Value
Density overburden	2.0 t/m ³
Density waste	2.65 t/m ³
Density mineralization	2.25 to 2.39 t/m ³
Block Size	5 x 2 x 5 m

The Whittle analysis gave a pit discard cut-off grade of 0.1% U₃O₈, which was used as a cut-off grade to report Mineral Resources.

Most of the preliminary open pit shell used to report resources is located beneath Patterson Lake. RPA is of the opinion that the value of the deposit could potentially support capital costs associated with the required dewatering.

CLASSIFICATION

Definitions for resource categories used in this report are consistent with those defined by CIM (2014) and adopted by NI 43-101. In the CIM classification, a Mineral Resource is defined as “a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction”. Mineral Resources are classified into Measured, Indicated, and Inferred categories. A Mineral Reserve is defined as the “economically mineable part of a Measured and/or Indicated Mineral Resource” demonstrated by studies at Pre-Feasibility or Feasibility level as appropriate. Mineral Reserves are classified into Proven and Probable categories. No Mineral Reserves have been estimated for the Property.

Mineral Resources were classified as Indicated or Inferred based on drill hole spacing and the apparent continuity of mineralization (Figure 14-15). Most of the MZ domain was classified as Indicated owing to the closely spaced drilling throughout the length of the zone. In these areas of Indicated, drill hole sections are spaced 15 m apart along strike and vertical holes are spaced approximately 10 m along each section. Angle holes are spaced between 15 m and 45 m, averaging 30 m, in the along strike direction. Only two isolated extremities were classified as Inferred. Four of the seven High Grade lenses were classified entirely as Indicated. Two were classified entirely as Inferred, and easternmost lens was classified partly as Indicated and partly as Inferred. Almost the entire R00E Zone was classified as Indicated. All material outside the wireframes, within the Low Grade Halo domain, was classified as Inferred.

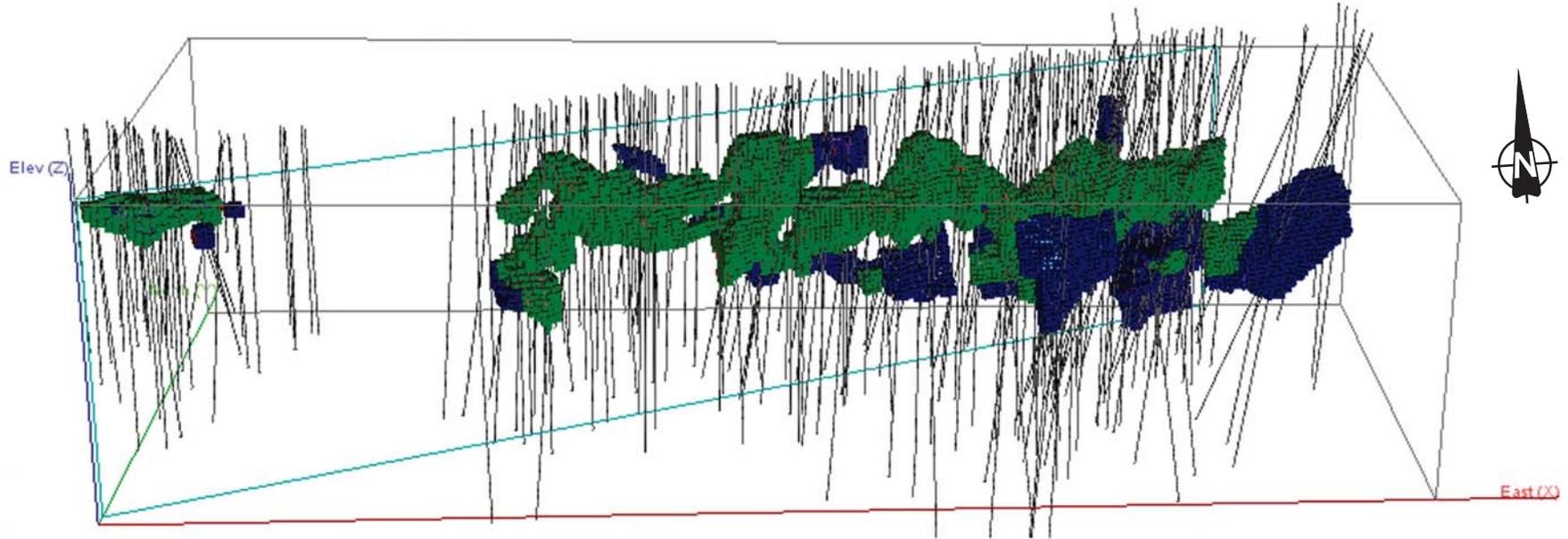


Figure 14-15

Classification:	
	Indicated
	Inferred

February 2015

Fission Uranium Corp.
Patterson Lake South Property
Northern Saskatchewan, Canada
**3D View of the Mineralized
Resource Classification**

MINERAL RESOURCE REPORTING

At a cut-off grade of 0.1% U₃O₈, Indicated Mineral Resources are estimated to total 2,291,000 tonnes at an average grade of 1.58% U₃O₈ containing 79,610,000 pounds of U₃O₈. Inferred Mineral Resources are estimated to total 901,000 tonnes at an average grade of 1.30% U₃O₈ containing 25,884,000 pounds of U₃O₈. Gold grades were also estimated and average 0.51 g/t for the Indicated Resources and 0.56 g/t for the Inferred Resources. All Mineral Resources are reported within a preliminary optimized open pit shell generated in Whittle software. A relatively minor amount of mineralization was not captured by the Whittle shell. No Mineral Reserves have been estimated at the project.

Table 14-9 reports Mineral Resources by Zone and Sub-Zone. The Zones are those areas traditionally referred to by Fission Uranium in press releases and on its website and are generally defined by differences in location with respect to local grid easting. The Sub-Zones refer to the different types of interpreted wireframes and can also be referred to as domains. The High Grade domain consists of several lenses within the Main Zone. The Main Zone is the largest zone at both R00E and R780E. Other Zones refer to smaller mineralized zones adjacent to the Main Zone. The Low Grade Halo is material that falls outside the interpreted wireframe models.

TABLE 14-9 TONNAGE AND GRADE BY ZONE AND SUB-ZONE – JANUARY 5, 2015
Fission Uranium Corp. - Patterson Lake South Property

Category	Zone	Sub-Zone	Tonnes	Grade		Contained Metal	
				% U ₃ O ₈	g/t Au	Pounds U ₃ O ₈	Ounces Au
Indicated	R00E	Main Zone	126,000	1.15	0.15	3,180,000	1,000
Indicated	R780E	Main Zone	1,898,000	0.69	0.39	28,763,000	24,000
		High Grade	110,000	18.21	2.77	44,297,000	10,000
		Other Zones	157,000	0.97	0.67	3,369,000	3,000
Total Indicated			2,291,000	1.58	0.51	79,610,000	38,000
Inferred	R00E	Main Zone	8,000	3.57	0.59	669,000	
Inferred	R780E	Main Zone	23,000	1.26	0.89	648,000	1,000
		High Grade	24,000	26.35	3.77	13,860,000	3,000
		Other Zones	585,000	0.68	0.56	8,797,000	11,000
		Low Grade Halo	260,000	0.33	0.22	1,910,000	2,000
Total Inferred			901,000	1.30	0.56	25,884,000	16,000

Notes:

1. CIM definitions were followed for Mineral Resources.

2. Mineral Resources are reported within a preliminary optimized open pit shell at a cut-off grade of 0.1% U₃O₈. The cut-off grade is based on a long-term price US\$50 per lb U₃O₈.
3. A minimum mining width of 2.0 m was used.
4. Bulk density ranged between 2.25 t/m³ and 2.39 t/m³ depending on mineralized domain.
5. Numbers may not add due to rounding.

Table 14-10 reports Mineral Resources at different cut-off grades and demonstrates that the Triple R deposit is relatively insensitive to cut-off grade up to 0.8% U₃O₈.

TABLE 14-10 TONNAGE AND GRADE BY CUT-OFF – JANUARY 5, 2015
Fission Uranium Corp. - Patterson Lake South Property

Class/Cut-Off % U ₃ O ₈	Tonnes	Grade		Contained Metal	
		% U ₃ O ₈	g/t Au	Pounds U ₃ O ₈	Ounces Au
Indicated					
0.8	771,000	4.02	1.09	68,325,000	27,000
0.2	1,821,000	1.94	0.61	78,064,000	36,000
0.1	2,291,000	1.58	0.51	79,610,000	38,000
0.05	2,495,000	1.45	0.47	79,947,000	38,000
Inferred					
0.8	209,000	4.57	1.53	21,109,000	10,000
0.2	657,000	1.74	0.72	25,118,000	15,000
0.1	901,000	1.30	0.56	25,884,000	16,000
0.05	1,186,000	1.01	0.44	26,331,000	17,000

Notes:

1. CIM definitions were followed for Mineral Resources.
2. Mineral Resources are reported within a preliminary optimized open pit shell at a cut-off grade of 0.1% U₃O₈. The cut-off grade is based on a long-term price US\$50 per lb U₃O₈.
3. A minimum mining width of 2.0 m was used.
4. Bulk density ranged between 2.25 t/m³ and 2.39 t/m³ depending on mineralized domain.
5. Numbers may not add due to rounding.

MINERAL RESOURCE VALIDATION

RPA validated the block model by visual inspection, volumetric comparison, swath plots, and block grade estimation using an alternative method. Visual comparison on vertical sections and plan views, and a series of swath plots found good overall correlation between the block grade estimates and supporting composite grades.

The estimated total volume of the wireframe models is 1,580,800 m³, while the volume of the block model at a zero grade cut-off is 1,579,700 m³. Results are listed by domain in Table 14-11.

TABLE 14-11 VOLUME COMPARISON
Fission Uranium Corp. - Patterson Lake South Property

Domain	Volume Wireframes (m³ x 1,000)	Volume Blocks (m³ x 1,000)	Difference
HG	57.1	57.1	0%
MZ	985.3	984.6	0%
EAST_1	74.1	73.9	0%
EAST_2	22.9	22.9	0%
FW_1	14.9	14.8	-1%
FW_2	3.7	3.7	0%
FW_3	49.1	49.1	0%
FW_4	25.6	25.6	0%
FW_5	38.2	38.4	1%
FW_6	6.5	6.7	3%
HW_1	63.4	63.7	1%
LZ_1	11.8	11.8	1%
LZ_2	19.4	19.2	-1%
LZ_3	33.0	32.9	0%
LZ_4	6.4	6.4	0%
LZ_5	61.4	61.3	0%
LZ_6	14.0	13.7	-2%
LZ_7	2.4	2.4	-1%
LZ_8	30.4	30.3	0%
R00E	61.2	61.1	0%
Total	1,580.8	1,579.7	0%

15 MINERAL RESERVE ESTIMATE

There is no current Mineral Reserve estimate on the PLS Property. .

16 MINING METHODS

This section is not applicable.

17 RECOVERY METHODS

This section is not applicable.

18 PROJECT INFRASTRUCTURE

This section is not applicable.

19 MARKET STUDIES AND CONTRACTS

This section is not applicable.

20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

This section is not applicable.

21 CAPITAL AND OPERATING COSTS

This section is not applicable.

22 ECONOMIC ANALYSIS

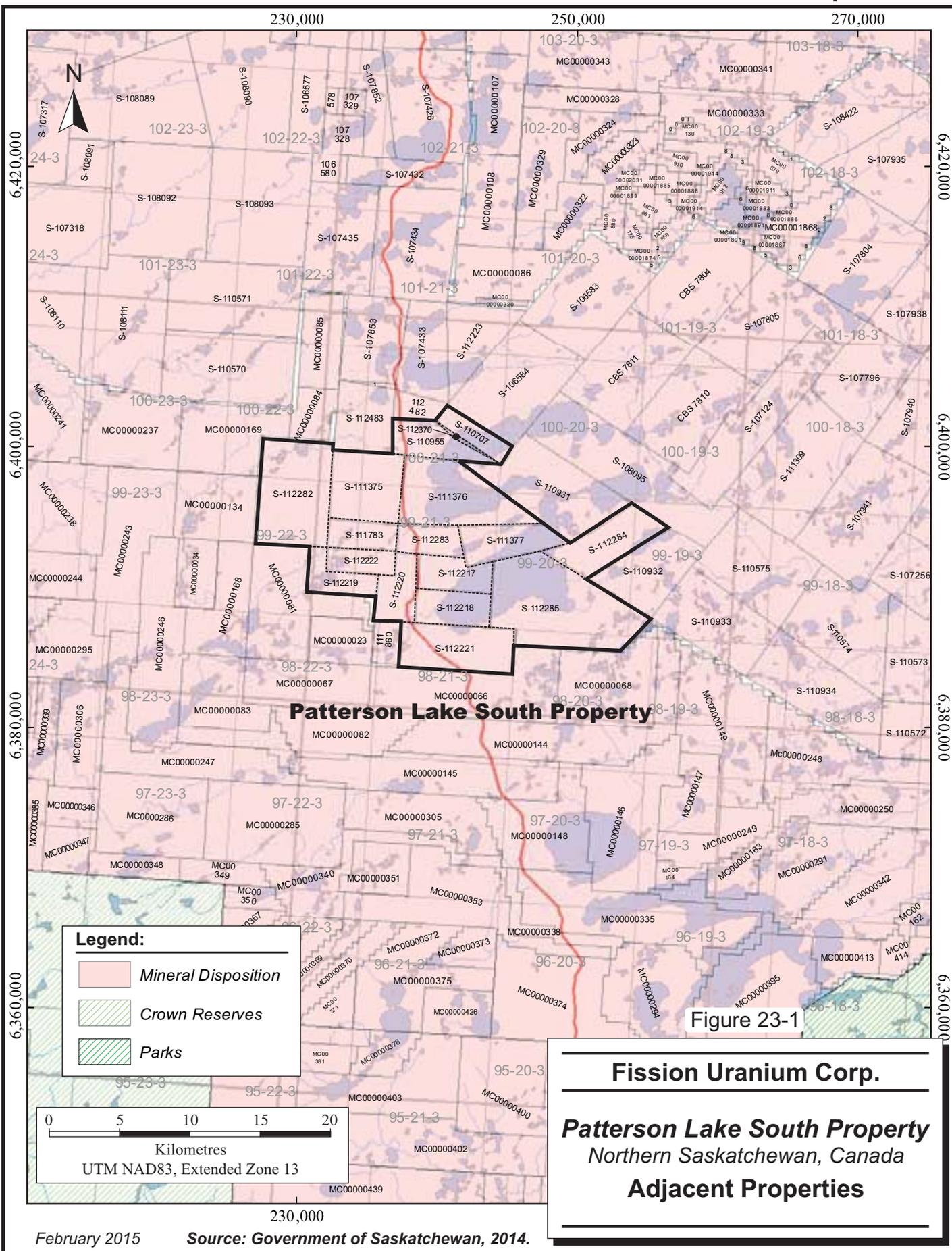
This section is not applicable.

23 ADJACENT PROPERTIES

The PLS Property is contiguous with claims held by various companies and individuals. As of the effective date of this report, the Property is contiguous with claims registered in the names of NexGen Energy Ltd. (NexGen) to the east, Fission 3.0 Corp. to the south, Forum Uranium Corp. to the southwest, Dale Resources to the southwest and west, T. Young to the northwest, Canalaska Uranium Ltd. to the north, and a consortium consisting of Areva Resources Canada (39.50%), Cameco Corp. (39.50%), and Purepoint Uranium Group Inc. to the north and northeast (Figure 23-1).

NexGen has had some success with their exploration program, however, none of the contiguous claims are known to host a deposit as significant the Triple R deposit.

RPA has not relied upon information from the adjacent properties in the writing of this report.



24 OTHER RELEVANT DATA AND INFORMATION

No additional information or explanation is necessary to make this Technical Report understandable and not misleading.

25 INTERPRETATION AND CONCLUSIONS

Fission Uranium has discovered a large, high grade uranium deposit on its 100% owned PLS Property located on the southwest margin of the Athabasca Basin. The discovery hole, PLS12-022, was drilled in 2012 intersecting the R00E zone. Additional drilling continued to intersect mineralization and the Triple R deposit is now known to be a large, shallow, basement hosted, structurally controlled, high grade uranium deposit. The deposit consists of the R00E zone on the western side and the much larger R780E zone further on strike to the east. The R00E and R780E zones have an overall strike length of approximately 1.2 km, with the R00E measuring approximately 125 m in strike length and the R780E zones measuring approximately 900 m in strike length. A 225 m gap separates the R00E zone to the west and the R780E zones to the east, though sporadic, narrow, weakly mineralized intervals from drill holes within this gap suggest the potential for further significant mineralization in this area. The R780E zones are located beneath Patterson Lake which is approximately six metres deep in the area of the deposit. The entire Triple R deposit is covered by approximately 50 m of glacial till overburden.

Drilling has outlined mineralization with three-dimensional continuity, and size and grades that can potentially be extracted economically. Fission Uranium's protocols for drilling, sampling, analysis, security, and database management meet industry standard practices. The drill hole database was verified by RPA and is suitable for Mineral Resource estimation work.

RPA estimated Mineral Resources for the Triple R deposit using drill hole data available as of January 5, 2015. At a cut-off grade of 0.1% U_3O_8 , Indicated Mineral Resources are estimated to total 2,291,000 tonnes at an average grade of 1.58% U_3O_8 containing 79,610,000 pounds of U_3O_8 . Inferred Mineral Resources are estimated to total 901,000 tonnes at an average grade of 1.30% U_3O_8 containing 25,884,000 pounds of U_3O_8 . Estimated block model grades are based on chemical assays only. Gold grades were also estimated and average 0.51 g/t for the Indicated Resources and 0.56 g/t for the Inferred Resources. All Mineral Resources are reported within a preliminary optimized open pit shell generated in Whittle software. A relatively minor amount of mineralization was not captured by the Whittle shell. No Mineral Reserves have been estimated at the project.

Most of the preliminary open pit shell used to report resources is located beneath Patterson Lake. RPA is of the opinion that the value of the deposit could potentially support capital costs associated with the required dewatering.

Unlike most deposits in the Athabasca Basin, Triple R high grade uranium mineralization has a relatively low density. Triple R high grade mineralization is often associated with carbon which may account for the lower than expected density values. RPA recommends that additional density data be collected and analyzed for high grade mineralization.

Metallurgical test work managed by MSC indicated that, under a typical grinding and leaching process parameters, 98.4% of the total uranium in a master composite sample was leached in six hours. Additional tests, using individual composites and similar parameters, returned recovery results ranging between 98.5% and 99.4% for four of five composites. One composite showed a 95% recovery, which was attributed to the presence of organic carbon (either as graphite or more likely as carbonaceous matter) that encloses and locks uranium bearing minerals that are finer than the +250 μm grinding size.

The Triple R deposit is open in several directions. There is excellent potential to expand the resource with step-out drilling. There are, in addition to the Triple R deposit, other targets on the property to be drill tested. The work program recommended in Section 26 is warranted.

26 RECOMMENDATIONS

The PLS Property hosts a significant uranium deposit and merits considerable exploration and development work. The primary objectives are to expand the Triple R resource and explore elsewhere on the Property. RPA concurs with Fission’s planned work program and budget of \$15 million (Table 26-1) for 2015. Work will include:

- 18,000 m of step-out angle drilling in both the along-strike and up- and down-dip directions;
- 12,000 m of drilling for a property-wide exploration;
- a Preliminary Economic Assessment;
- additional metallurgical test work; and
- various social and environmental baseline studies.

TABLE 26-1 PROPOSED PHASE 1 BUDGET
Fission Uranium Corp. - Patterson Lake South Property

Item	\$ M
Drilling (~30,000 m)	12.3
Interpretation, Resource Update, etc.	1.0
Geotechnical and Engineering Studies	0.2
Metallurgical and Mill Design Studies	0.2
Permitting and Environmental Work	0.2
Operating Costs/Office	1.0
Infrastructure Studies	0.1
Total	15.0

The recommended Phase 2 budget of \$20 million would be contingent on Phase 1 results. Work would include additional drilling, metallurgical test work, geotechnical drilling, and a Preliminary Feasibility Study.

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28 DATE AND SIGNATURE PAGE

This report titled “Technical Report on the Patterson Lake South Property, Northern Saskatchewan, Canada” and dated February 12, 2015, was prepared and signed by the following author:

(Signed & Sealed) “*David A. Ross*”

Dated at Toronto, ON
February 12, 2015

David A. Ross, M.Sc., P.Geo.
Principal Geologist

29 CERTIFICATE OF QUALIFIED PERSON

DAVID A. ROSS

I, David A. Ross, M.Sc., P.Geo., as the author of this report entitled "Technical Report on the Patterson Lake South Property, Northern Saskatchewan, Canada" prepared for Fission Uranium Corp. and dated February 12, 2015, do hereby certify that:

1. I am Principal Geologist with Roscoe Postle Associates Inc. of Suite 501, 55 University Ave Toronto, ON M5J 2H7.
2. I am a graduate of Carleton University, Ottawa, Canada in 1993 with a Bachelor of Science degree in Geology and Queen's University, Kingston, Canada in 1999 with a Master of Science degree in Mineral Exploration.
3. I am registered as a Professional Geoscientist in the Province of Ontario (Reg.#1192) and the Province of Saskatchewan (Reg.#31868). I have worked as a geologist for more than 20 years since my graduation. My relevant experience for the purpose of the Technical Report is:
 - Mineral Resource estimation work and reporting on numerous mining and exploration projects around the world.
 - Exploration geologist on a variety of gold, base metal, and uranium projects in Canada, Indonesia, Chile, and Mongolia.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Patterson Lake South Project from March 17 to 19 and from September 7 to 9, 2014.
6. I am responsible for all sections of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the Property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated 12th day of February, 2015.

(Signed & Sealed) “David A. Ross”

David A. Ross, M.Sc., P.Geo.