TECHNICAL REPORT

ON THE

Patterson Lake, Patterson Lake South and Clearwater West Properties

Northern Saskatchewan

NTS 74-F-05, 06, 11, 12, 13 and 14
Latitude 57°40' N, Longitude 109°24' W

for

Fission Uranium Corp.
Suite 700 - 1620 Dickson Avenue
Kelowna, British Columbia, Canada V1Y 9Y2

and

Fission Energy Corp.
Suite 700 - 1620 Dickson Avenue
Kelowna, British Columbia, Canada V1Y 9Y2

BY:

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March 18, 2013

GeoVector Management Inc.

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1 SUMMARY

This report summarizes exploration work performed on the Patterson Lake ("PL"), Patterson Lake South ("PLS") and Clearwater West ("CW") Properties (collectively the "Property") in northern Saskatchewan. Fission Energy Corp. ("Fission") commissioned the independent National Instrument 43-101 ("NI 43-101") Technical Report, which will be filed with an application by Fission Uranium Corp. for their listing on the Toronto Stock Exchange (TSX) Venture Exchange. The effective date of this report is March 16th, 2013.

On January 16th, 2013, Fission Energy Corp. ("Fission") announced the signing of a Binding Letter of Intent (the "Binding LOI") pursuant to which Denison Mines Corp. ("Denison") will acquire a portfolio of uranium exploration projects including Fission's 60% interest in the Waterbury Lake uranium project, as well as Fission'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 (together, the "Assets"). Under the terms of the Binding LOI, Denison has agreed to offer shareholders of Fission 0.355 shares of Denison for each share of Fission held, conditional upon, among other things, certain assets of Fission being spun out to a new company ("Fission Uranium Corp.") to be held pro rata by current Fission shareholders (collectively, the "Transaction"). Fission Uranium Corp. assets will include, among others, a 50% interest in the PLS Property and a 100% interest in the PL Property and the CW located in the western Athabasca Basin. The Transaction values the Assets at approximately $70 million based on the closing price of Denison as of January 15, 2013. Upon completion of the Transaction, shareholders of Fission will own approximately 11% of Denison.

On March 7th, 2013, Fission announced a definitive Arrangement Agreement (the "Agreement"), which replaces the Binding LOI, previously announced on January 16, 2013, pursuant to which Denison has agreed to acquire all of the issued and outstanding shares of Fission with Fission spinning out certain assets into a newly-formed publicly traded company, Fission Uranium Corp. by way of a court-approved plan of Arrangement (the "Arrangement").

The Property is located in the western side of the Proterozoic Athabasca Basin in northern Saskatchewan, Canada. The Property lies approximately 550 km north-northwest of the city of Prince Albert and approximately 150 km north of the town of La Loche. On a 1:50,000 NTS map sheet the property can be found in blocks 74F/05, 06, 11, 12, 13 and 14.

The Property comprises 30 claims totalling 70,282.39 hectares. The CW property comprises three contiguous claims covering 11,835.39 hectares. The CW property was acquired by Fission on December 11, 2012 and is 100% owned by Fission. The PL property comprises 10 contiguous claims totalling 27,408 ha. Fission currently holds a 100% interest in the PL property. The PLS property comprises 17 contiguous claims totalling 31,039 ha. The PLS mineral dispositions are registered to Fission (50%) and ESO Uranium Corp. (now Alpha Minerals Inc.) (50%) in a joint venture agreement.

The Property area may be accessed year round along the gravel Cluff Lake Mine Road (Highway 955) which runs north-south through the Property. Several 4-wheel drive trails/skidder trails provide additional access to the northeast and southwest corners of the Property and principle areas of drilling. In addition, due to the large amount of lakes and streams, helicopter or fixed-wing aircraft provide convenient access. Recent exploration projects have been based out of the Big Bear Lodge, which caters to sport hunting and fishing industry, located within claim S-107435. At present there are no other facilities or infrastructure on the Property.

Food, fuel and supplies are available at Prince Albert or Meadow Lake; food, fuel, and limited supplies are available at La Loche and Buffalo Narrows located about 100 km further to the south. Fort McMurray, located 175 km to the west of the property, is approximately one hour by helicopter or fixed-wing flight. Fixed wing aircrafts 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.

The western portions of the Athabasca Basin were initially explored in the 1960's as exploration activities expanded outward from the established Beaverlodge uranium district. Subsequent detailed geological exploration led to the discovery of sandstone-hosted unconformity deposit in 1970. Exploration continued, and by the end of 1995, additional basement-hosted unconformity related deposits had been delineated on the Cluff Lake mine site approximately 80 km north of the Property. Production from the Cluff Lake deposits commenced in 1980 and had both open pit and underground mines. It ceased uranium production at the end of 2002 when the ore reserves were depleted. Total production from the Cluff Lake mine site amounted to 64.2 million lbs U_3O_8 at an average grade of 0.92% U_3O_8, with the largest producer being the Dominique-Peter underground operation, which produced 24.2 million lbs U_3O_8.

Despite its proximity to Cluff Lake, systematic exploration on the Shea Creek property, located approximately 50 km north of the Property and 20 km south of Cluff Lake, did not commence until 1990. Drilling completed on the Shea Creek property carried out during the period from 1992 to the end of 2009 led to Mineral Resource estimates for the Kianna, Anne and Colette Deposits. The May 2010 Shea Creek Mineral Resource Estimate at a cut-off grade of 0.30% U3O8 results in 1,872,600 tonnes at an average grade of 1.540% U3O8, yielding 63,572,000 lbs U3O8 in the Indicated Mineral Resource category and 1,068,900 tonnes at an average grade of 1.041% U3O8, yields 24,525,000 lbs U3O8 in the Inferred Mineral Resource category.

The information concerning The Cluff Lake and Shea Creek deposits is not necessarily indicative of the nature of the mineralization on the Property. The relevance of the Cluff Lake and Shea Creek information is simply to demonstrate that there are significant resources of uranium in the Southwest part of the Athabasca Basin.

Historical assessment report research for the PL, PLS and CW property areas revealed a 1.2 x 1.6 km area on the PLS property with high radon and radiometric values from Canadian Occidental Petroleum in 1977. Further research revealed favourable geophysical and geological setting for basement hosted uranium deposits.

Pleistocene overburden covers the entire PL, PLS and CW properties with thicknesses ranging from 50 to 100 metres. Drumlins and glacial striations in the area show a general ice direction of southwest. The PL Property is underlain by rocks of the Athabasca basin which overlie basement rocks of the Clearwater Domain of the Rae Province, Northern Saskatchewan. The lithological units recognized in the Clearwater Domain include equigranular granite, porphyritic granite and felsic gneisses. The Clearwater Domain is bordered by the Firebag Domain to the West and the Lloyd Domain to the east. In the western parts of the PL property, diamond drilling did not intersect any Athabasca Sandstone, and the basement depths are approximately 97 and 128 metres respectively. In the eastern parts of the PL property, drilling intersected significant intervals of Athabasca Sandstone and the basement depth is between 294 and 382 metres. This represents an approximate elevation change in basement rocks of 200 metres within 4 kilometres.

Below the overburden, the PLS property is underlain by rocks of the Phanerozoic Mannville Group comprised of shale, mudstone, sandstone and coal. The eastern limit of the Mannville Group strikes northwest and perpendicular to the Patterson Lake conductor corridor. Although, rare occurrences of Manville group sediments exist as “islands” further to the east. Drilling to date supports that the Athabasca Group is not present on the PLS property; although it may be possible that “islands” of Athabasca sandstone may 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. The 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.

Uranium mineralization identified to date on the Property is analogous with poly-metallic basement and unconformity-associated uranium deposits.

Over a two year period from 2007 and 2008, Fission completed exploration on the PL property including an Electret Ion Chamber (EIC) radon detection survey on the southern portion of the property, a MEGATEM® airborne electromagnetic and magnetic survey, and in total, nine NQ diameter diamond drill holes, totalling 2795.22 metres.

The 2008 drilling program on the PL property was successful in defining an anomalous drillhole, PT08-004A with respect to trace-element geochemistry, and clay content. Another interesting conclusion of the 2008 drilling program is the difference in basement elevation between the eastern and western drilling areas. The western drilling area consisting of holes PT08-007B and PT08-009A did not intersect any Athabasca Sandstone, and the basement depths are approximately 97 and 128 metres respectively. The eastern drilling area, consisting of holes PT08-001, PT08-002A, PT08-003 and PT08-004A, intersected significant intervals of Athabasca Sandstone, and the basement depth is between 294 and 382 metres. This represents an approximate elevation change of 200 metres within 4 kilometres.

In November 2007, a Megatem electromagnetic and magnetic survey of the northern portion of the PLS property was carried out by Fugro Airborne Surveys. In October 2008 work consisted of a preliminary radon in soil gas survey done concurrently with a radiometric and a Self Potential (SP) geophysical survey. The radon and radiometric surveys followed up on weak to moderate CanOxy alphameter (radon) anomalies, and the SP survey was located over selected shifts in airborne magnetics as determined from the 2007 Megatem project. Radon and radiometric values were generally low. Four negative SP anomalies were discovered with two of them associated with an airborne magnetic high spike.

In October 2009, a high resolution airborne magnetic geophysical survey was conducted across the PLS property. 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. The radiometric spectrometer survey outlined a radiometric anomaly 3.9 km long by 1.4 km wide area that later follow-up work in June 2011 would be found to be the result of a radioactive boulder field that contained uraniferous hotspots.

Exploration work completed in June 2011 on the PLS property comprised radon, radiometric, and boulder surveys. Radon anomalies were found to be coincident with historical EM conductors close to the west shore of Patterson Lake. A significant 4.9 by 0.9 km high grade uranium boulder field was discovered to within 2 km west of Highway 955, within the spatial extent of the 2009 airborne radiometric anomaly and the June 2011 radon and radiometric survey. Boulders in this field were found to be basement-hosted or massive uranium oxide, rounded to sub-angular, mostly soft and crumbly (possibly mineralized regolith excavated out by a glacier), and densely situated in some areas; all which suggested the possibility of a proximal up-ice bedrock source. A total of 66 radioactive boulder samples were recovered during the survey with 41 of those samples having off-scale radioactivity (>9999 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 40x30x15 cm. The boulders assayed from 3 ppm Uranium (U) to 39.6% U_3O_8 and averaged 12.4%. Only 16 of the boulders assayed < 1% U_3O_8.

A trenching program and boulder survey was carried out in October 2011 to confirm the recent glacial direction, and to collect additional uraniferous boulders. A total of 18 trenches were excavated, and 49 uraniferous boulders were recovered. Glacial direction was confirmed to be southwest at 245°. The 49 uranium oxide mineralized boulders were found within the limits of June boulder field with dimensions of about 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 25x30x40 cm. Radioactivity of these boulders ranged from 701 to >9999 cps (off-scale), and assays ranged from 0.07 to 31.4% U_3O_8 (average 11.9%). Only 9 of the boulders assayed < 1% U_3O_8.

From November to December 2011, Fission-ESO conducted a diamond drill program that comprised 838 metres in 7 drill holes. This program did not locate the bedrock source of the high grade uranium boulders discovered in June 2011. However, highly favorable geology, alteration, structure, and geochemical results were encountered in drilling.

Fission-ESO carried out an extensive Winter-Spring exploration program from February to April 2012. This program comprised 1,711.3 line-km of helicopter-borne VTEM and magnetic geophysical surveys, 53.45 line-km of DC resistivity survey, 14.35 line-km of SMLTEM, and 2,174.3 m in 16 holes of diamond drilling (PLS12-001 to PLS12-016). Geophysical surveys showed favourable resistivity low anomalies with offset EM conductors. Drill holes PLS12-013 to -016 encountered favourable geology, alteration, and weak to strong radioactivity associated with anomalous uranium geochemical results. Drill hole PLS-016 returned results that included a 0.6m interval assaying 0.085% U_3O_8 and narrow intercepts of 0.50m, 0.50m and 0.40m grading 0.06%, 0.102% and 0.058% U_3O_8, respectively.

Diamond drilling on the northern and central EM conductors within the main Patterson Lake conductor corridor showed:

- Strong hematite, chlorite, and bleaching alteration in favourable basement rocks was intersected in drill holes PLS12-001 to -003, -005, and -009;
- Thick intervals of conductive graphite and pyrite related to important structural zones was observed in drill holes PLS12-001 to -003, -005, and -009;
- Weak radioactivity was intersected in PLS12-001 to -003, and -005;
- Weakly anomalous U concentrations and associated “pathfinder elements” were encountered in PLS12-001 to -003, -005, and -009;

Diamond drilling on the southern EM conductor within the main Patterson Lake conductor corridor showed:

- Intervals of strong to extreme hematite, chlorite, clay, and bleaching alteration in favorable basement geology was intersected in drill holes PLS12-004, and -013 to -016;
- Thick intervals of graphite and pyrite was only intersected in PLS12-016, but important structure was observed in PLS12-013 to -016;
- Weak to strong radioactivity was intersected in PLS12-013 to -016;
- Weakly to strongly anomalous U concentrations and associated “pathfinder elements” were intersected in PLS12-004, and -013 to -016;
- The highest uranium concentration in drill core was 0.1% U_3O_8 over 0.5 m from 154.11 to 154.61 m in PLS12-016, and corresponds to a strongly clay (sudoite) altered graphitic pelite;

The Fall 2012 exploration program at the Patterson Lake South property consisted of airborne radiometric and magnetic geophysical surveys over the newly staked mineral claims, boulder prospecting, ground pole-dipole array DC resistivity and small moving loop surface transient electromagnetic (SMLTEM) geophysical surveys, dual rotary and diamond drilling.

The airborne radiometric and magnetic geophysical surveys showed:

- Numerous very strong uraniferous radiometric anomalies over and extending the existing area of the high grade uranium boulder field at PLS;

- Numerous weak to moderate uraniferous radiometric anomalies across the entire PLS property;
- Several broad areas with low to moderate magnetic susceptibility associated with EM conductors;
- Magnetic high domes with sharp boundaries associated with kinked and off-set EM conductors.

The boulder prospecting survey showed:

- The existing high grade uranium boulder field was expanded to an area of 1.0 by 7.35 km with the recovery of 40 additional mineralized boulders;
- The mineralized boulders returned assays from 9 ppm U to 40.0% U3O8;
- Boulder samples recovered from follow up on airborne radiometric anomalies southwest and down-ice from Forest Lake are not associated with uranium mineralized boulders, but are rather granitic boulders.

The ground DC resistivity and SMLTEM geophysical surveys showed:

- High priority drill targets were established where resistivity low offsets and "blow outs" along the conductor axis's were established;
- The ground SMLTEM survey located the conductor axis's more accurately than the airborne VTEM survey as proven by drill testing.
- Dual rotary drilling within and up ice from the PLS high grade uranium boulder field showed:
- No obvious radioactive till sheet was observed from the high grade uranium boulder field in the up-ice (northeast) direction;
- Favourable graphitic meta-sediments were intersected west of Highway 955 along the southernmost conductor of the Patterson Lake corridor.

Diamond drilling on the middle southern conductor within the Patterson Lake conductor corridor showed:

- **Discovery** drill hole PLS12-022 intersected 1.07% U_3O_8 from 70.5 to 79.0 m;
- Drill hole PLS12-024 with the best high grade intersection to date at 1.78% U_3O_8 from 65.0 to 83.0 m;

Drilling along the middle southernmost conductor (from PLS12-017 to -019) of the Patterson Lake corridor continued to intersect favourable geology, alteration, structure, and anomalous radioactivity to imply there is potential to discover high grade uranium mineralization west of PLS12-022 to -025.

Fission and Alpha began a 50 hole – 10,000m drill program in early January of 2013, which was still in progress at the effective date of this report, and no assays were available. Natural gamma radiation in drill core that is reported below were measured in counts per second (cps) using a hand held Exploranium GR-110G total count gamma-ray scintillometer. The scintillometer readings are not directly or uniformly related to uranium grades of the rock sample measured, and should be used only as a preliminary indication of the presence of radioactive materials. The degree of radioactivity within the mineralized intervals is highly variable and associated with visible pitchblende mineralization. All intersections are down-hole, core interval measurements and true thickness is yet to be determined.

Highlights to date:

- PLS13-027: 37.0m continuous mineralization; total intervals >9999 cps over 4.35m
- PLS13-026: 21.0m continuous mineralization; total intervals >9999 cps over 0.75m
- PLS 13-038: 57.5m of mineralization with 11.65m of "off-scale" (>9999cps) radioactivity
- PLS13-029: 34.0m interval of continuous mineralization including 1.88m of "off-scale" radioactivity (>9999 cps)
- PLS13-031: 26.0m interval of mineralization, including 1.54m "off-scale"
- PLS13-035: two 9.5m intervals of mineralization, including 0.85 "off-scale"
- PLS 0.37: 23.0m of mineralization, including narrow intervals "off-scale"
- PLS13-051: 53.0m interval of continuous mineralization including 11.5m of continuous "off-scale" radioactivity (>9999 cps)
- PLS13-053: 67.0m of basement mineralization in two zones separated by 3.5m of rock, total of *18.9m* of "off-scale" radioactivity (>9999 cps) - most "off-scale" radioactivity of any hole drill on the property to date

The following exploration work was recommended by Fission as follow up to the September to November 2012 exploration program at the Patterson Lake South property:

- Ground geophysics coverage further to the southwest of HWY 955, which should comprise 28.0 line-km of line-cutting, 24.6 line-km of DC resistivity, and 12.0 line-km of SMLTEM;

- A diamond drill program (50 holes – 10,000 m) should test the Patterson Lake Conductor corridor as shown in Figure 33. Step out drilling should be conducted from uranium mineralization intersected in drill holes PLS12-022 to -025. Exploration drilling on the east southernmost conductor in the Patterson Lake corridor;

- Appropriate reclamation of all drill pads and access based on future exploration requirements;

The estimated cost for this proposed Winter 2013 exploration program is $4.01 million.

Work recommended for the PL property includes more select ground geophysics including resistivity and EM), and possibly a gravity survey to fine tune drill targets. Within the next year, a drill program of up to 4000 meters should be conducted to test the best geophysical anomalies. The estimated cost for the proposed exploration program on the PL property is ~$1,500,000 including $400,000 for ground geophysical surveys.

For the CW Property a program comprising an airborne magnetic and EM survey and airborne radiometrics, followed by ground truthing, mapping and prospecting is recommended. The estimated cost for the proposed exploration program on the CW property is ~$500,000.

2 INTRODUCTION

This report summarizes exploration work performed on the Patterson Lake ("PL"), Patterson Lake South ("PLS") and Clearwater West ("CW") Properties (collectively the "Property") in northern Saskatchewan. Allan Armitage Ph.D., P.Geol., ("Armitage") of GeoVector Management Inc. ("GeoVector"), was contracted by Fission Energy Corp. ("Fission" or the Issuer) to prepare an independent National Instrument 43-101 ("NI 43-101") Technical Report to be filed with an application by Fission Uranium Corp. for a listing on the Toronto Stock Exchange (TSX) Venture Exchange. The effective date of this report is March 16th, 2013.

The Property comprises 30 claims totalling 70,282.39 hectares. The CW property comprises three contiguous claims covering 11,835.39 hectares. The CW property was acquired by Fission on December 11, 2012 and is 100% owned by Fission. The PL property comprises 10 contiguous claims totalling 27,408 ha. Fission currently holds a 100% interest in the PL property. The PLS property comprises 17 contiguous claims totalling 31,039 ha. The PLS mineral dispositions are registered to Fission (50%) and ESO Uranium Corp. (now Alpha Minerals Inc.) (50%) in a joint venture agreement. Fission is a 50% owner in the property with the remaining 50% owned by ESO (now Alpha).

Armitage is an independent Qualified Person, and is responsible for the preparation of this technical report. This report is based upon unpublished reports and property data provided by Fission, as supplemented by publicly-available government maps and publications. Parts of Sections 4 to 16 in this report have been copied or summarized from property reports which are referenced throughout the text. These sections have been updated to include information on the 2012 and 2013 drilling campaigns. The Property has been subject to numerous exploration programs conducted since 2005 by Fission and Alpha. Details of historical exploration activities on the property are outlined in many exploration reports by Fission and Alpha. References to these activities are provided in the historical sections below and summarized in a previous report on the property.

Information concerning the geology and exploration results for the Property that is reported here was collected, interpreted, or compiled directly by the Fission and Alpha geologists during ongoing exploration.

Armitage personally inspected the PLS property, including drill core, on January 31st – February 1st, 2013, accompanied by Garrett Ainsworth (Ainsworth). Ainsworth has extensive personal knowledge of the PLS property from his management of exploration programs since 2007. Due to seasonal weather conditions, parts of the property could not be accessed. A second property visit is planned within the next 4 months.

3 RELIANCE ON OTHER EXPERTS

Information concerning claim status, ownership, and assessment requirements which are presented in Section 4 below have been provided to the authors by Janet Stritychuk of JM STRITYCHUK & Associates Inc., by way of e-mail on January 26th, 2013, and have not been independently verified by the author. However, the Author has no reason to doubt that the title situation is other than what is presented here.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Property Location

The Property is located in the western side of the Proterozoic Athabasca Basin in northern Saskatchewan, Canada (Figure 1). The Property lies approximately 550 km north-northwest of the city of Prince Albert and approximately 150 km north of the town of La Loche. On a 1:50,000 NTS map sheet the property can be found in blocks 74F/05, 06, 11, 12, 13 and 14.

4.2 Property Description

The Property status is shown in Tables 1, 2 and 3 below and includes the dates in which the mineral claims were recorded and the Anniversary Date. The Anniversary Date is not an expiry date. A company has 90 days from a claim's Anniversary Date to file work and for the government to perform an auto renewal for an additional year should the claim have sufficient excess work credits.t. All claims are contiguous and groupings can be made on an annual basis if the claims are in good standing. There are no surface rights to any portions of the property.

As of December 6, 2012, the Property and component claims locations are defined as electronic mineral claims disposition parcels within the Mineral Admiration Registry of Saskatchewan (MARS), as per the Mineral Tenure Registry Regulations (formerly The Mineral Disposition Regulations, 1986). MARS is a web-based e-Tenure system for issuing and administering mineral permits, claims and leases.

MARS allows registered users to:

- Acquire mineral dispositions over the internet using a GIS map of Crown mineral ownership
- Transfer dispositions to other registered users
- Divide dispositions using GIS tools
- Submit records of work expenditures using a web form
- Search dispositions and obtain copies of search abstracts
- Group work expenditures among adjoining dispositions
- Convert dispositions from permits to claims
- Access an electronic re-opening board showing Crown minerals coming available for new acquisition

Prior to December 6, 2012, mineral dispositions were located in the field by corner and boundary claim posts which lie along blazed and cut boundary lines. The entire length of the Property boundary has not been surveyed. A legal survey is not required under the provisions of the Saskatchewan Mineral Disposition Regulations of 1986. The property location is defined on the government claim map.

The Clearwater West property comprises three contiguous claims covering 11,835.39 hectares (Figure 2; Table 1). The property was acquired by Fission on December 11, 2012 and is 100% owned by Fission.

The Patterson Lake property comprises 10 contiguous claims totalling 27,408 ha. (Figure 2; Table 2) Fission currently holds a 100% interest in the Patterson Lake project. Strathmore Minerals Corp. (Strathmore) originally acquired a 100% interest in 9 mineral claims totalling 25,316 ha in 2004. During

2007, Strathmore spun out all of their Canadian assets, including the aforementioned 9 mineral claims into a new company, Fission. Fission has since staked an additional claim (S-112223) totalling 2,092 ha.

The Patterson Lake South property comprises 17 contiguous claims totalling 31,039 ha. (Figure 2; Table 3). The PLS mineral dispositions are registered to Fission Energy Corp. (50%) and ESO Uranium Corp (now Alpha Minerals Inc.) (50%) in a joint venture agreement. Fission is a 50% owner in the property with the remaining 50% owned by ESO (now Alpha). ESO changed their name to Alpha Minerals on November 1, 2012; update of claim ownership is pending. Fission Energy Corp. is the operator of the PLS property from January 1, 2012 to December 31, 2013.

In late 2007, Fission Energy staked the first 2 claims totaling 3,354 ha as part of the PLS Property. On January 17, 2008 Fission and ESO Uranium Corp (ESO) entered into a 50:50 immediately vested joint venture exploration agreement whereby Fission contributed its 2 claims and ESO contributed its 2 claims (totaling 1,417 ha) for a total package of 4 claims totaling 4,771 ha. Under the agreement, both companies will participate equally in exploration and management expenditures and title to the claims is held equally in the name of Fission and ESO.

In April 2010, additional ground was staked to cover this area adding approximately 1,004 hectares (2,480 acres) to the Joint Venture claim block.

In 2012, an additional 11 claims were staked and two claims lapsed during the period bringing the PLS property total to 17 claims totalling 31,039 hectares.

In October 2012, ESO announced a share consolidation and name change to Alpha Minerals Inc. effective November 2nd, 2012.

On January 16th, 2013 (see Fission News Release, January 16, 2013), Fission announced the signing of a Binding Letter of Intent (the "Binding LOI") pursuant to which Denison Mines Corp. ("Denison") will acquire a portfolio of uranium exploration projects including Fission's 60% interest in the Waterbury Lake uranium project, as well as Fission'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 (together, the "Assets"). Under the terms of the Binding LOI, Denison has agreed to offer shareholders of Fission 0.355 shares of Denison for each share of Fission held, conditional upon, among other things, certain assets of Fission being spun out to a new company ("Fission Uranium Corp.") to be held pro rata by current Fission shareholders (collectively, the "Transaction"). Fission Uranium Corp. assets will include, among others, a 50% interest in the PLS Property and a 100% interest in the PL Property and the CW located in the western Athabasca Basin. The Transaction values the Assets at approximately $70 million based on the closing price of Denison as of January 15, 2013. Upon completion of the Transaction, shareholders of Fission will own approximately 11% of Denison.

On March 7th, 2013 (see Fission News Release, March 07, 2013), Fission announced a definitive Arrangement Agreement (the "Agreement"), which replaces the Binding LOI, previously announced on January 16, 2013, pursuant to which Denison has agreed to acquire all of the issued and outstanding shares of Fission with Fission spinning out certain assets into a newly-formed publicly traded company, Fission Uranium Corp. by way of a court-approved plan of Arrangement (the "Arrangement").

4.3 Arrangement Agreement Overview

The Arrangement will be carried out by way of a court-approved plan of arrangement pursuant to the ***Canada Business Corporations Act*** and must be approved by the Superior Court of British Columbia and the affirmative vote of Fission securityholders at a special meeting (the "Meeting") that is expected to be held on April 23, 2013. At the Meeting, the Arrangement will require approval of shareholders and optionholders of Fission holding at least 66 2/3% of the common shares, voting in person or by proxy and voting as a single class.

The consideration to be received by the shareholders of Fission consists of 0.355 of a common share of Denison (each, a "Denison Share"), a nominal cash payment of $0.0001 and 1 (one) common share of Spinco (a "Spinco Share") for each common share of Fission held (the "Consideration").

Upon completion of the Arrangement, the holders of Fission options will receive options to acquire Denison Shares and options to acquire Spinco Shares. The holders of Fission warrants are entitled to receive, upon exercise of their warrants, the number of Denison Shares and Spinco Shares which the warrantholders would have been entitled to receive as a result of the Arrangement, if immediately prior to the effective date, the warrantholders had exercised their warrants.

Pursuant to the terms of the Agreement, the Arrangement is also subject to applicable regulatory approvals and the satisfaction of certain closing conditions customary for transactions of this nature, the Agreement also provides for, among other things, customary board support and non-solicitation covenants from Fission subject to customary "fiduciary-out" provisions that entitle Fission to consider and accept a superior proposal and a 5-business day "right to match" in favour of Denison. The Agreement also provides for a payment of a break fee of 3.5 million to Denison and to Fission in certain specified circumstances.

The board of director of Fission (the "Fission Board") has determined that the proposed transaction is fair to the shareholders of Fission and it is in the best interest of the Company and recommends that the shareholders and optionholders of Fission vote in favour of the Arrangement Resolution. Dundee Securities Inc. provided a fairness opinion to the Fission Board that the Consideration is fair, from a financial point of view, to the shareholders of Fission. Certain of Fission directors, officers and major shareholders have entered into customary voting support agreements pursuant to which, among other things, they have agreed to vote their Fission shares in favour of the proposed Arrangement.

If it is approved by Fission securityholders, the Arrangement is expected to be completed in April 2013 and is subject to certain customary conditions, including receipt of all necessary court, regulatory and securityholder approvals. Upon completion of the proposed Arrangement, all of the members of the Fission Board will resign and Denison nominees will be appointed to the Fission Board.

The terms and conditions for the Arrangement will be summarized in the Management Information Circular to be mailed to Fission securityholders in March 2013. Copies of the Agreement, the Management Information Circular, and certain related documents and agreements will be filed with Canadian securities regulators and will be available on SEDAR at www.sedar.com under Fission's profile.

There are no known environmental liabilities associated with the Property and there are no other significant factors and risks that may affect access, title, or the right or ability to perform work on the property.

All the necessary permits for surface exploration on the property are in place and current. The environmental liabilities associated with these activities are consistent with low impact exploration activities. The mitigation measures associated with these impacts are accounted for within the current surface exploration permits and authorizations.

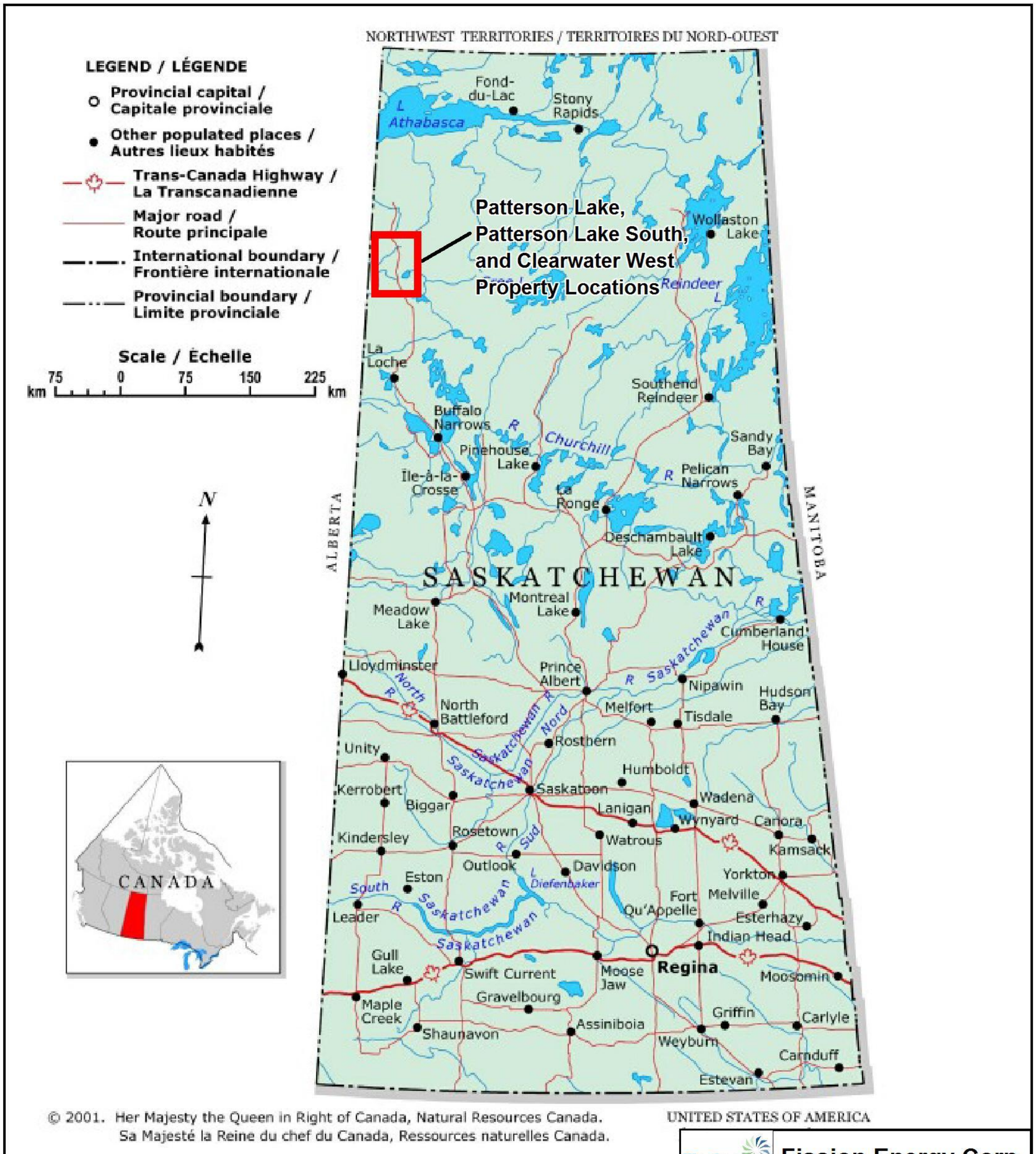
Exploration and mining in Saskatchewan is governed by the Mineral Disposition Regulations 1986, and administered by the Mines Branch of the Saskatchewan Ministry of Energy and Resources. There are two key land tenure milestones that must be met in order for commercial production to occur in Saskatchewan: (1) conversion of a mineral claim to mineral lease, and (2) granting of a Surface Lease to cover the specific surface area within a mineral lease where mining is to occur.

A mineral claim does not grant the holder the right to mine minerals except for exploration purposes. Subject to completing necessary expenditure requirements, mineral claims can be renewed for a maximum of twenty-one years. Beginning in the second year, and continuing to the tenth anniversary of staking a claim, the annual expenditure required to maintain claim ownership is twelve dollars per hectare.

A mineral claim in good standing can be converted to a mineral lease by applying to the mining recorder and have a completed boundary survey. In contrast to a mineral claim, the acquisition of a mineral lease grants the holder the exclusive right to explore for, mine, recover, and dispose of any minerals within the mineral lease. Mineral leases are valid for ten years and are renewable.

Land within the mineral lease, surface facilities and mine workings are considered to be located on Provincial lands and therefore owned by the Province. Hence, the right to use and occupy those lands is acquired under a surface lease from the Province of Saskatchewan. A surface lease is issued for a maximum of 33 years, and may be extended as necessary to allow the lessee to operate a mine and/or plant and undertake reclamation of disturbed ground.

Figure 1 Property Location Map.



Fission Energy Corp.

Patterson Lake, Patterson Lake South, and Clearwater West Property Location Map

Author: CH 15/02/2013

Figure 2　Disposition Location Map.

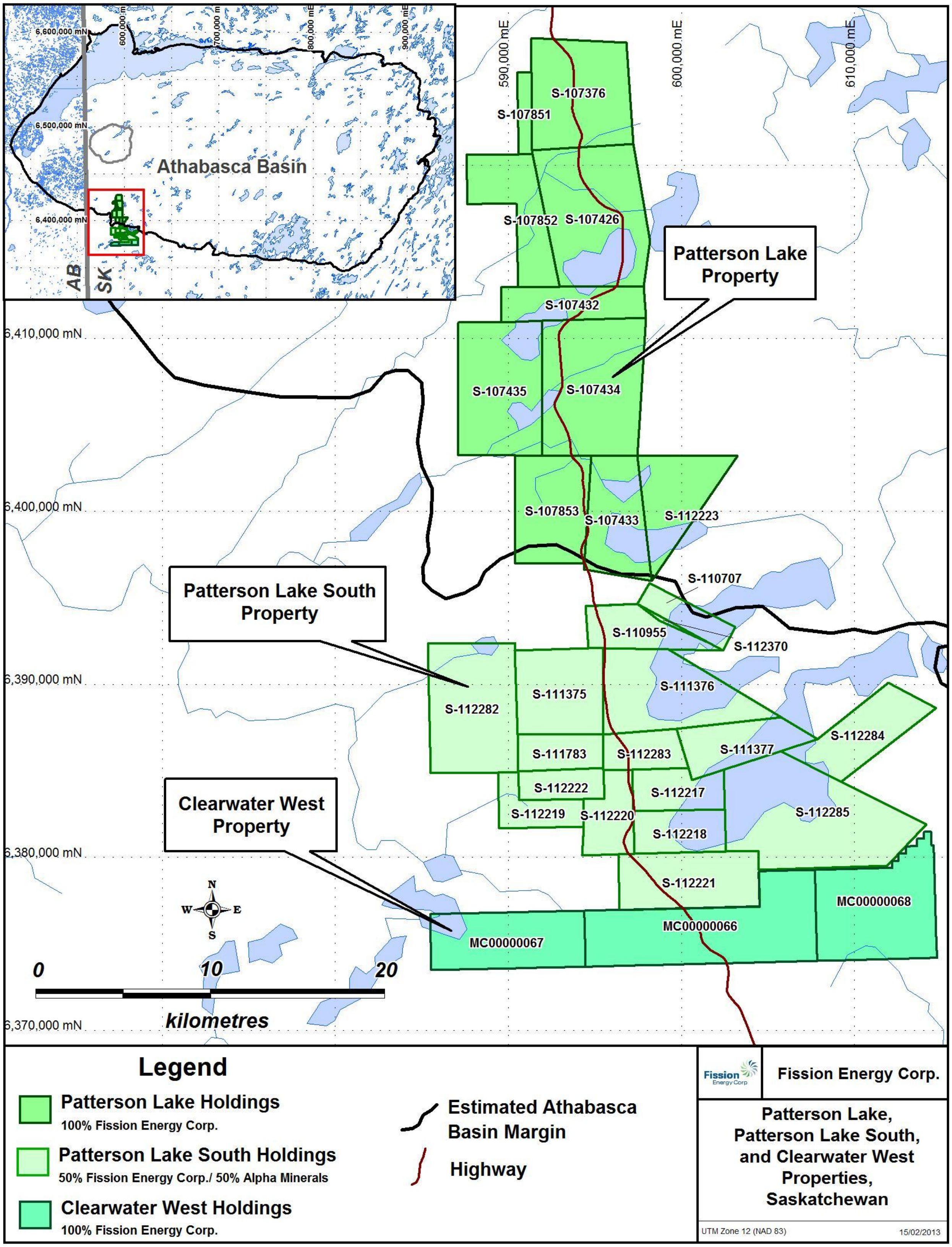


Table 1 Clearwater West Property Disposition Information.

Claim Number	NTS Sheet	Record Date	Anniversary Date	Size (ha)	Term Renewal Cost
MC00000066	074-F-06/11	18-Dec-12	18-Dec-13	4999.637	$0.00**
MC00000067	074-F-05/06/11/12	18-Dec-12	18-Dec-13	2891.508	$0.00**
MC00000068	074-F-06/11	18-Dec-12	18-Dec-13	3944.245	$0.00**
			Total:	11,835.39	

Table 2 Patterson Lake Property Disposition Information.

Claim Number	NTS Sheet	Record Date	Anniversary Date	Size (ha)	Term Renewal Cost
S-107376	74-F-14	21-Jul-04	20-Jul-13	3514	$42,168.00
S-107426	74-F-14	21-Jul-04	20-Jul-13	4571	$54,852.00
S-107851	74-F-14	26-Nov-04	28-Sep-13	377	$4,524.00
S-107432	74-F-14	29-Sep-04	20-Jul-13	1599	$19,188.00
S-107435	74-F-13/14	29-Sep-04	28-Sep-13	3758	$19,188.00
S-107852	74-F-13/14	26-Nov-04	28-Sep-13	2102	$25,224.00
S-107853	74-F-11/14	26-Nov-04	25-Nov-13	2608	$31,296.00
S-107433	74-F-11/14	21-Jul-04	25-Nov-13	2253	$27,036.00
S-107434	74-F-14	29-Sep-04	25-Nov-13	4534	$54,408.00
S-112223	74-F-11/14	18-Jan-12	17-Jan-14	2092	$25,104.00
			Total:	27,408	$328,896.00

** Work required after first term 2013 Anniversary Date

Table 3 Patterson Lake South Property Disposition Information.

Claim Number	NTS Sheet	Record Date	Anniversary Date	Size (ha)	Available Work Credits for next term renewal	Term Renewal Cost
S-110707	074F11	28-Mar-07	27-Mar-13	812	$40,435.41	$9,744.00
S-110955	074F11	31-May-07	30-May-13	1327	$63,547.40	$15,924.00
S-111375	074F11	13-Jun-08	12-Jun-13	2493	$152,437.24	$29,916.00
S-111376	074F11	13-Jun-08	12-Jun-13	3310	$336,612.58	$39,720.00
S-111377	074F11	13-Jun-08	12-Jun-13	1645	$94,209.10	$19,740.00
S-111783	074F11	30-Apr-10	29-Apr-13	1004	$48,585.23	$12,048.00
S-112217	074F11	13-Dec-11	12-Dec-13	1202	$141,465.31	$14,424.00
S-112218	074F11	13-Dec-11	12-Dec-13	1299	$152,932.05	$15,588.00
S-112219	074F11/12	13-Dec-11	12-Dec-13	987	$116,075.77	$11,844.00
S-112220	074F11	13-Dec-11	12-Dec-13	1218	$143,412.89	$14,616.00
S-112221	074F11	13-Dec-11	12-Dec-13	2621	$309,805.37	$31,452.00
S-112222	074F11	13-Dec-11	12-Dec-13	846	$99,493.53	$10,152.00
S-112282	074F11/12	22-Jun-11	21-Jun-13	3789	$180,480.47	$45,468.00

Claim Number	NTS Sheet	Record Date	Anniversary Date	Size (ha)	Available Work Credits for next term renewal	Term Renewal Cost
S-112283	074F11	22-Jun-11	21-Jun-13	1003	$101,235.59	$12,036.00
S-112284	074F11	22-Jun-11	21-Jun-13	2021	$100,107.91	$24,252.00
S-112285	074F11	22-Jun-11	21-Jun-13	5404	$637,367.23	$64,848.00
S-112370	074F11	23-Nov-11	22-Nov-13	58	$2,842.46	$696.00
17 Claims			Total	31,039	$2,721,045.54	$372,468.00

4.4 Other property interests

To the knowledge of the Author, there are no underlying interests, back-in rights, payments, or other agreements on the Property.

4.5 Environmental Liabilities

There are no mine workings, tailing ponds, waste deposits or other significant natural or man-made features on the claims and consequently the Property is not subject to any liabilities due to previous mining activities that may impact future development of the property.

4.6 Annual Expenditures

Annual expenditures of $12.00 per hectare are required for the 2nd through tenth years after staking of a claim to retain each disposition a rate which currently applies to the dispositions comprising the Property. This rate increases to $25.00 per hectare annually after 10 years. Required assessment work for each mineral disposition is listed in Tables 1, 2 and 3. Total annual assessment expenditure requirements for the entire Property are $701,364. Dispositions on the property have exploration credits that will maintain the individual properties in good standing to at least the dates listed in Tables 1, 2 and 3.

4.7 Permits for exploration

Permits for timber removal, work authorization, work camp permits, shoreland alteration, and road construction are required for most exploration programs from the Saskatchewan Ministry of Environment and Saskatchewan Watershed Authority. Necessary permits include a Surface Exploration Permit, a Forest Product Permit, and an Aquatic Habitat Protection Permit. All drilling programs require a Term Water Rights license from the Saskatchewan Watershed Authority. If any exploration work crosses or includes work on water bodies, streams, and rivers, the Department of Fisheries and Oceans and the Coast Guard must be notified. Ice/snow bridges and clear-span bridges do not require approval from the Coast Guard. Permits may take up to three months to obtain from the regulators. Apart from camp permits, fees for these generally total less than $200 per exploration program annually. Camp permit fees are assessed on total man-day use per hectare, with a minimum camp size of one hectare assessed. These range from $750 per hectare for more than 500 man days to $175 per hectare for less than 100 man days.

Fission currently holds all necessary permits from the Saskatchewan Ministry of Environment and Saskatchewan Watershed Authority that are required to conduct exploration on the Property.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Property area may be accessed year round along the gravel Cluff Lake Mine Road (Highway 955) which runs north-south through the Property (Figure 2). Several 4-wheel drive trails/skidder trails provide additional access to the northeast and southwest corners of the Property and principle areas of drilling. In addition, due to the large amount of lakes and streams, helicopter or fixed-wing aircraft provide convenient access. Recent exploration projects have been based out of the Big Bear Lodge, which caters to sport hunting and fishing industry, located within claim S-107435. At present there are no other facilities or infrastructure on the Property.

Food, fuel and supplies are available at Prince Albert or Meadow Lake; food, fuel, and limited supplies are available at La Loche and Buffalo Narrows located about 100 km further to the south. Fort McMurray, located 175 km to the west of the property, is approximately one hour by helicopter or fixed-wing flight. Fixed wing aircrafts 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.

The topography of northern Saskatchewan is characterized by low hills, ridges, drumlins and eskers, with lakes and muskeg common in the low-lying areas. The geomorphology is dominated by glacial and periglacial sediments that were produced during several ice advances, and outcrop of the underlying Athabasca sandstone and basement rocks is rare. Numerous lakes and ponds generally show a north-easterly elongation imparted by the most recent glaciation.

The elevation of the Patterson Lake area is approximately 500 m above sea level (ASL). The area is covered by thinly wooded boreal forest. Vegetation consists of jack pine, black spruce and tamarack with willows and alders in the lower wet areas, while ground cover comprises primarily reindeer lichen and Labrador tea.

The Property is in a sub-arctic climate region. Winters are generally extremely cold and dry with temperatures regularly dropping below -30° C. Lake freezing commonly occurs in early November and ice break-up generally occurs in mid to late April. The cold temperatures allow for a sufficient ice thickness to support a drill rig generally from mid-January to mid-April. Temperatures in the summer can vary widely with yearly maxima of around 30° C often recorded in late July.

Early stage mineral exploration such as prospecting and geological mapping can be performed on the Property and may be done from early June to October. Diamond drilling can be performed year-round.

The Property has sufficient surface rights and area for the conduct of envisaged mining and mineral processing operations. There is an adequate availability of sources of power, water, mining personnel, potential tailings storage areas, potential waste disposal areas and potential processing plant sites on the Property.

6 HISTORY

6.1 Regional Exploration History

The western portions of the Athabasca Basin were initially explored in the 1960's as exploration activities expanded outward from the established Beaverlodge uranium district utilizing airborne radiometric (scintillometer) surveys (Palmer, 2010). In 1967, Mokta Ltd. (Amok Ltd.), owned by French companies Compagnie Francaise de Mokta (CFM), Pechiney-Ugine Kuhlman, and French state owned Commissariat a L'Energie Atomic (COGEMA), conducted airborne radiometric surveys in the local region which identified anomalies in the Carswell and Cluff Lake areas (Tona, 1985) approximately 80 km north of the Property. In 1968, follow-up ground surveys and prospecting discovered the "A" train of uranium-bearing sandstone boulders, which led to extensive claim staking in the area. Subsequent radiometric surveys and follow-up ground work between 1968 and 1970 identified additional boulder trains and prospects in the Cluff Lake area (Tona, 1985). Subsequent detailed geological exploration by Mokta, including diamond drilling, led to the discovery of the "D" sandstone-hosted unconformity deposit in 1970. Exploration continued, and by the end of 1995, seven additional basement-hosted unconformity related deposits had been delineated on the Cluff Lake mine site: OP and N discovered in 1970, the Claude Deposit in 1971, Dominique-Peter in 1981, Dominique- Janine in 1984, Dominique-Janine extension in 1988, and West Dominique-Janine in 1995 (Koning and Robbins, 2006).

Production from the Cluff Lake deposits commenced in 1980 and had both open pit and underground mines. It ceased uranium production at the end of 2002 when the ore reserves were depleted. It was originally scheduled to shut down in 2000, but additional higher ore grades in the underground mine allowed production to continue for an additional two years. Total production from the Cluff Lake mine site amounted to 64.2 million lbs U_3O_8 at an average grade of 0.92% U_3O_8, with the largest producer being the Dominique-Peter underground operation, which produced 24.2 million lbs U_3O_8 (Koning and Robbins, 2006). The formerly producing Cluff Lake properties are currently held and maintained by AREVA.

Despite its proximity to Cluff Lake (20km north), systematic exploration on the Shea Creek property, located approximately 50 km north of the Property, did not commence until 1990 (Palmer, 2010). That year, AMOK Limited ("AMOK") acquired one mineral permit which covered much of the Shea Creek area, and conducted an airborne GEOTEM electromagnetic and magnetic survey over the project area which identified the presence of conductive north-northwest trending zones within basement rocks underlying the Athabasca sandstone sequence. The airborne surveys were followed up in 1991 and 1992 with ground electromagnetic surveys on several northeast-oriented lines which verified the position and better outlined the conductors identified by the initial airborne survey. Based on these surveys, AMOK re-staked the area, reducing the mineral permit to twelve individual claims, most of which now comprise the Shea Creek property. AMOK drilled several of the ground EM conductors in 1992. They intersected narrow intervals of uranium mineralization in northern parts of the property located immediately beneath the sub-Athabasca unconformity, as well as promising alteration. In 1993, ownership of the property was transferred to COGEMA, who continued exploration by drilling to the north along the same conductive basement unit – now known as the Saskatoon Lake Conductor – which was associated with the initial mineralized intercept, and identifying significant uranium mineralization in 1994.

Between 1994 and the winter of 2004, COGEMA drilled more than 99,000 metres in 177 drill holes, which resulted in the identification of two deposits, Anne and Colette, distributed with other mineralized intercepts over a three-kilometre long strike of the Saskatoon Lake Conductor. During the period from 2001 to 2003, no drilling was carried out, but additional airborne and ground EM surveys were undertaken to further enhance targeting.

In March 2004, COGEMA (since June 6, 2006 named AREVA) and UEX signed an option agreement. Drilling recommenced funded by UEX and, between the fall of 2004 and the end of 2009, approximately 88,717.5 metres of drilling in 194 diamond drill holes was completed under management by AREVA. The drilling programs during that period resulted in the discovery and partial delineation of the Kianna Deposit between the Colette and Anne Deposits, and discovery of new areas of mineralization along the prospective corridor between Anne and Colette (e.g. Colette South mineralization, Kianna South). Exploration during this period also included MEGATEM® airborne electromagnetic and magnetic surveys and a FALCON® airborne gravity gradiometer survey flown over the property area, and ground-based geophysical surveys, which included a DC Resistivity survey in 2005 that outlined several significant untested, or poorly tested, resistivity lows that could potentially be associated with mineralization-related clay alteration.

Since 1999, directional drilling utilizing wedge cuts from a master (pilot) drill hole have been completed in areas where closely spaced drill holes are required to define mineralization. The directional drilling process reduces the overall quantity of coring required, and allows controlled drilling of deep targets. As is standard practice in uranium exploration, at the completion of each drill hole, downhole radiometric geophysical probing surveys are performed from the bottom of the hole up through the drill string. In total, 188,039 metres of drilling in 371 drill holes have been completed on the Shea Creek property since systematic exploration began in 1992.

Drilling completed on the Shea Creek property carried out during the period from 1992 to the end of 2009 led to Mineral Resource estimates for the Kianna, Anne and Colette Deposits (Palmer, 2010). The May 2010 Shea Creek Mineral Resource Estimate at a cut-off grade of 0.30% U3O8 results in 1,872,600 tonnes at an average grade of 1.540% U3O8, yielding 63,572,000 lbs U3O8 in the Indicated Mineral Resource category and 1,068,900 tonnes at an average grade of 1.041% U3O8, yields 24,525,000 lbs U3O8 in the Inferred Mineral Resource category.

The information concerning The Cluff Lake and Shea Creek deposits is not necessarily indicative of the nature of the mineralization on the Property. The relevance of the Cluff Lake and Shea Creek information is simply to demonstrate that there are significant resources of uranium in the Southwest part of the Athabasca Basin.

6.2 Patterson Lake Property

The exploration history of the Patterson Lake Property has been mainly that of a reconnaissance scale. A summary of the uranium exploration that has been conducted on or around the PL property is outlined in Table 4. The compilation is based on surveys that have intersected the Patterson Lake Property and therefore the coverage of the claims may not have been extensive in all cases.

The early exploration, during the years 1969-74, consisted mainly of airborne radiometric surveys and lake sediment sampling. From 1977 to 1982 a wider variety of exploration techniques were utilized mainly focussing on airborne/ground EM and magnetics along with lake water and sediment sampling. Three diamond drill holes were completed on the property during this period.

A second wave of exploration occurred between 1990 and 1998. More advanced geophysical exploration techniques came into common practice. Ground UTEM, TDEM and gravity surveys were the methods of choice. Most of these surveys covered areas peripheral to the PL property.

During 2005 and 2006 Strathmore Minerals Corporation conducted airborne geophysical surveys (AeroTEM III and MEGATEM) in addition to approximately 50 line kilometers of ground geophysics (Max-Min II and Resistivity) across the PL property (Smith and Dahrouge, 2006). This work is described in section 9 below.

During 2006 and 2008 Strathmore Minerals Corporation conducted ground radon exploration over 4 grids. Drilling was also conducted consisting of 5 holes, only three of which were successful in reaching their targeted depth. Thick overburden and mechanical breakdowns hampered the drilling production during this time (Smith and Dahrouge, 2007) (McCallum, 2008). Drilling completed on the PL property is described in the drilling section (Section 10) below.

Table 4 Patterson Lake Property Previous Exploration and Significant Results.

DISPOSITION	FILE NO.	DATE WORK	SUMMARY
Bow Valley Industries Ltd.			
S-107853, S-107433	74F11-NE-0001	1969	Airborne radiometric survey
Taneloy Mines Ltd.			
S-107851	74F14-NE-0001	1969	Airborne, radiometric, geological and geochemical surveys
Wainoco Oil and Chemicals Ltd.			
S-107433	74F11-0002	1969	Airborne radiometric and magnetic surveys
Uranez Exploration and Mining Ltd.			
S-107853, S-107433	74F-0001	1974	Airborne Spectrometer Survey
S-107853	74F-0005	1974	Airborne Spectrometer Survey, lake sediment sampling
S-107435	74F-0006	1974	Airborne Spectrometer Survey, lake sediment sampling
S-107433	74B-0007	1974	Quaternary geological study
Imperial Oil Ltd.			
S-107426	74F14-0005	1977	Prospecting, mapping, ground VLF-EM survey, lake water and sediment sampling
S-107852	74F14-0006	1978	Radiometric prospecting, soil sampling, Track Etch and gravity surveys
S-107852	74F14-0008	1979	Ground EM and magnetic surveys, 6 ddh (outside property)
Canadian Occidental Petroleum Ltd.			
S-107853, S-107433	74F11-0013	1979	16 ddh (2 on property), EM and magnetic surveys
S-107433	74F11-0011	1977	Alphameter and ground radiometric surveys, lake sediment and soil geochemistry
S-107853	74F11-0014	1980	Ground VLF-EM
Saskatchewan Mining Development Corporation / Hudson Bay Exploration and Development			
S-107435	74F14-0004	1977	Ground VLF-EM, lake sediment and till sampling,
S-107433	74F14-0003	1977	Airborne EM (Input) and magnetic survey
S-107435	74F09-0012	1978	Ground EM and magnetic surveys
S-107435	74F-0008	1978	Airborne EM and magnetic survey
S-107435	74F-0009	1978	Lake water and sediment sampling
S-107852	74F13-SE-0015	1978	Ground EM and magnetic survey, sampling (lake sediment and till)
S-107852	74F13-SE-0034	1979	Ground EM surveys (VLF, Turam, DeepEM)
S-107432	74F13-SE-0033	1979	Ground EM and magnetic surveys

DISPOSITION	FILE NO.	DATE WORK	SUMMARY
S-107435	74F13-0032	1979	Prospecting, sampling (lake and stream sediment and till), ground EM and radiometric
S-107853	74F14-0011	1980	Radiometric prospecting
S-107426	74F14-SW-0013	1980	Airborne EM and magnetic test survey
S-107852	74F14-SW-0014	1981	Ground DeepEM survey
S-107433	74F14-0012A	1981	Airborne EM (Input), reinterpretation of 74F14-0003
S-107852	74F13-0037	1982	Input EM, reinterpretations of 74F14-0003, 0011, 0012
Esso Resources Canada Ltd.			
S-107376, S-107852	74F14-0010	1981	10 ddh, (1 within property), ground deepEM
Amok Ltd.			
S-107426	74F14-0010	1990	Airborne EM and magnetic survey
S-107852	74F13-0039	1991	Ground UTEM, TDEM, VLF, gravity, magnetic surveys
Cogema Resources Inc.			
S-107852	74F-0004	1993	Ground UTEM, TDEM, VLF, gravity, magnetic surveys
S-107852	74F14-SW-0021	1995	Ground UTEM and TDEM survey
S-107435	74F14-SW-0022	1998	Ground TDEM survey

6.3 Patterson Lake South and Clearwater West Properties

The following is a description of historic exploration work conducted on the PLS and Clearwater West properties. The Clearwater West property is included in this section as no additional historic exploration work was performed on this group of claims other than that overlapping with the adjacent PLS property. There has been no historic drilling completed on the Clearwater West property.

The PLS 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) (Table 5). 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 4 miles to the inch (Hill, 1977).

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

Canadian Occidental Petroleum Ltd. (CanOxy) completed extensive exploration on and around the property from 1977 to 1981. Exploration comprised an airborne electromagnetic (EM) survey; ground EM and magnetic, geological, geochemistry, 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 by 1.7 km on the current Fission Energy Corp. and ESO Uranium Corp. joint venture (Fission-ESO) disposition 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 (Hill, 1977).

CanOxy's ground EM survey delineated the Patterson Lake Conductor Corridor that cuts across the middle of Patterson Lake on disposition S-111376, and extends onto disposition S-111375. Several disrupted conductors and inferred cross cutting features were identified as priority 1, 2 and 3 drill targets on disposition 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 northernmost conductor of the Patterson Lake conductor corridor, and is on the west shore of Patterson Lake within Fission-ESO disposition 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 (Robertson, 1979).

Saskatchewan Mining Development Corporation (SMDC) completed lake sediment sampling, reconnaissance prospecting, airborne Questor INPUT and magnetic surveys, MaxMin II survey, diamond drilling, and petrographic studies from 1977 to 1982. The location of this exploration work is adjacent to the northeast and east of the Fission-ESO property, and the diamond drilling was approximately 4.6 km northeast of the Fission-ESO Property; however, this historical work was conducted along the same conductor corridor that extends onto dispositions S-111376 and S-111375 (Atamanik & Downes & van Tongeren, 1983).

Lake sediment samples collected by SMDC from the Patterson Lake area did not contain any anomalous mineralization. Reconnaissance prospecting over their mineral claims did not uncover any uraniferous boulders. Questor aeromagnetic data confirmed obvious magnetic highs, and MaxMin II outlined six conductive zones (Atamanik & Downes & van Tongeren, 1983).

In 1980, SMDC carried out a five diamond drill hole program that targeted EM conductors. Although no graphite was encountered, drill hole PAT-04 intersected zones of uranium-enriched sandstone and regolith with up to 171 ppm U over 1 m. In 1982, SMDC carried out an eight-hole diamond drilling program. Drill hole PAT-13 intersected a uranium-enriched zone of clay-rich regolith with up to 131 ppm U over 1 m. Groundwater extracted from overburden in PAT-13 returned anomalous radon to 1044 cpm, and radium to 28 cpm (Atamanik & Downes & van Tongeren, 1983).

A petrographic study of pre-Helikian basement rocks from SMDC's drilling at Patterson Lake led to the recognition of favourable hydrothermal alteration. SMDC concluded that comprehensive exploration results established a favourable setting for the deposition of unconformity-type uranium deposits within their portion of the Patterson Lake conductor corridor (Atamanik & Downes & van Tongeren, 1983).

6.4 Historical Resource/Reserve Estimates

There is no historical resource or reserve estimates for uranium mineralization on the Property and no uranium mining, or any other forms of metallic mineral production have occurred on the Property.

Table 5 Patterson Lake South and Clearwater West Previous Exploration and Significant Results.

Year	Work Performed	Significant Results	Reference
1961	Geologically mapped as part of a larger area		W.F. Fahrig (Geological Survey of Canada)
	Geologically mapped as part of the firebag area (4 miles to 1 inch)		L.P. Tremblay (Geological Survey of Canada)
1969	Airborne radiometric and magnetic surveys		Geo-X Surveys Ltd. (Wainoco Oil & Chemicals Ltd.)
	Photogeologic mapping Geophotos Services Ltd		Geophotos Services Ltd. (Wainoco Oil & Chemicals Ltd.)
1977	Airborne electromagnetic survey		Questor Surveys Ltd. (CanOxy)
	Geological mapping, geochemical survey, and ground alphameter and radiometric surveys	33 single and multi-point alphameter anomalies, 5 largescale scintillometer survey anomalies.	J.R. Hill (CanOxy)
1978	Diamond drilling 3program	Completed 5 drill holes. Encountered graphitic shear zones containing abundant sulphides.	D.M. Robertson, 1978 (CanOxy)
1979	Diamond drilling program	Completed 16 drill holes. Encountered graphitic horizons. Maximum rock chip concentration was 5 ppm uranium. Drill hole CLU-12-79 encountered 6.1 m section of extensive graphite and pyrite with minor chalcopyrite which assayed at 2.5 ppm uranium, 600 ppm copper, 205 ppm nickel	D.M. Robertson, 1979 (CanOxy)
1980	Diamond drilling program	Completed 20 drill holes. Encountered faulted and fractured graphite horizons.	F.W. Gittings (CanOxy)
1981	Ground electromagnetic and magnetic surveys	Refined airborne EM conductors	J.E. Betz Limited (CanOxy)

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Bedrock Geology

Basement rocks that underlie the Athabasca Basin are considered to be part of the Rae (Western Craton) and Hearne Provinces of the Precambrian Churchill Structural Province of the Canadian Shield (Figure 3). The Athabasca Basin is divided by the large-scale northeast-southwest Snowbird Tectonic Zone, with the Rae Province to the west and the Hearne Province to the east. The Snowbird Tectonic Zone is locally referred to as the Virgin River Shear Zone at the south end of the Athabasca Basin, and the Black Lake Fault at the north.

The Athabasca Basin is a Helikian sequence of predominantly fluvial sandstones, with minor marine transgressions. The sandstone beds have a shallow dip, with generally gradational contacts between the formations. They rest unconformably on the basement rocks, and their thickness exceeds 1400 metres towards the centre of the basin. The sub-Athabasca Group topography is poorly defined over large portions of the basin.

The Athabasca Basin has been divided into several structural sub-basins and adjacent highs (Ramaekers, 1980, 2004). The most prominent sub-basins are the Jackfish in the northwest, the Mirror in the central region and the Cree in the east. The sub-basins are elongated to the northeast and probably formed by tectonic action in the area. The Jackfish and Mirror sub-basins are separated by the Barlett High, and in parts by the Patterson High (Ramaekers, 2004). The Dufferin High separates the Cree and Mirror sub-basins (Fig. 4).

7.1.1 Athabasca Basin

The Athabasca Basin covers approximately 85,000 square km of northern Saskatchewan and a small portion of eastern Alberta (Figure 3). Detrital zircon geochronology constrains the age of the basin to between 1,760 and 1,500 Ma (Helikian stage; Ramaekers et al., 2007). A maximum depth of 1,500 m has been established through diamond drilling, whereas seismic surveying indicates a maximum depth of approximately 1,700 m (Hobson and MacAuley, 1969). Based on isopachs and paleocurrent directions the Athabasca Basin is interpreted to have been filled over a 200 Ma period in four major depositional sequences which coalesced into a single basin (Ramaekers et al., 2007). The sediments are dominated by unmetamorphosed, variably hematized, siliciclastic, conglomeratic sandstone. A thin quartz pebble basal conglomerate is intermittently present along the lower margin of the basin. Around the Carswell meteorite impact structure in the western centre of the basin a sequence of dolostones and basement granitoids to granitoid gneisses are exposed.

The Manitou Falls (MF) Formation comprises a significant portion of the Athabasca sedimentary package and is present throughout the entire basin. Four distinct members make up the Manitou Falls Formation: the MFa, a sandy and conglomeratic quartz arenite; MFb, a quartz arenite with > 2 % conglomerate beds; MFc, a pebbly quartz arenite and MFd, a quartz arenite interbedded with numerous clay pebbles. The sediments are dominantly flat lying throughout the basin except near significant fault zones or the Carswell impact structure (Ramaekers et al., 2007). Faults are generally oriented north to northeast, roughly parallel to the underlying crystalline basement geology, suggesting reactivation from major basement structures.

The Athabasca Basin unconformably overlies northeast trending Archean to Paleoproterozoic crystalline basement rocks (Figure 3). Over a large scale the unconformity is relatively flat lying with a gentle dip towards the centre of the basin in the east and a steeper dip in the north, south and west portions of the basin.

7.1.2 Crystalline Basement

The Archean to Paleoproterozoic crystalline basement underlying the Athabasca Basin forms part of the Churchill craton and comprises three major lithotectonic zones; the Talston Magmatic Zone, the Rae Province and the Hearne Province (Figure 3). The basement underlying the Athabasca Basin is interpreted to consist dominantly of rocks of the Rae and Hearne provinces. In the east, Archean orthogneiss equivalents to orthogneiss in the Wollaston and Mudjatik domains, Wollaston Domain paragneiss and younger anatectic granite are commonly identified in drill core (Card, et al., 2007).

The Talston Magmatic Zone underlies the Athabasca Basin on the far west side. The Talston Magmatic Zone extends from northern Alberta to Great Slave Lake in the Northwest Territories and 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 gneiss to high-grade pelitic gneiss.

The Rae Province is comprised of five domains as well as a column of material comprising the core of the Carswell meteorite impact structure. The Zemlack Domain is dominantly comprised of highly deformed and metamorphosed magmatic gneisses. The Beaverlodge Domain consists mainly of greenschist to amphibolite facies supracrustal rocks with lesser meta-igneous rocks. The Uranium City ore deposits are found in the Beaverlodge Domain. The Tantato Domain is separated into two structural packages termed the lower and upper decks (Hanmer et al., 1994). The upper deck, in the south of the domain, is dominated by psammitic to pelitic migmatite with lesser mafic granulite (Hanmer, 1997). The lower deck is dominated by a tonalite batholith to the east and granitoid orthogneiss to the west (Hanmer, 1997; Williams et al., 2000). The Lloyd Domain consists dominantly of granodioritic orthogneiss with lesser psammo-pelite to pelite, intercalated psammite, quartzite, amphibolites and ultramafics (Lewry and Sibbald, 1977; Card, 2002). Rocks of the Clearwater Domain are largely unexposed but are presumed to be K-feldspar rich granite and granitoid gneiss based on drill core and limited exposure (Sibbald, 1974; Card, 2002). The Carswell impact structure is characterized by a core of granitoid gneiss, pelitic diatexite, pegmatite and mafic gneiss.

The Hearne Province is made up of the Wollaston, Mudjatik and Virgin River domains, including the prospective Mudjatik-Wollaston Transition zone. The Hearne and Rae provinces are separated by the northeast trending Virgin River shear zone. The Virgin River and Mudjatik domains comprise similar rock types but are separated based on differing structural styles (Wallis, 1970; Lewry and Sibbald, 1977). Linear structures are typical in the Virgin River Domain whereas dome and basin structures are more typical in the Mudjatik Domain. The rock types making up both domains are interbedded psammitic to pelitic gneisses and granitoid gneiss with lesser mafic granulite, quartzite, calc silicate and iron formation (Lewry and Sibbald, 1980). The Wollaston Domain is separated from the Mudjatik Domain based on an increased proportion of metasedimentary rocks (Yeo and Delaney, 2007) and a change from dome and basin style structures to linear style structures (Lewry and Sibbald, 1977). The rock types making up the Wollaston Domain are typically variably graphitic Paleoproterozoic metasedimentary gneiss and Archean granitoid gneiss.

Major fault zones in the basement are generally northeast to east trending and include the Snowbird tectonic zone, Grease River shear zone, Black Bay fault, Cable Bay shear zone, Beatty River shear zone and Tabbernor fault zone (Figure 3).

A paleoweathered zone exists at the basal unconformity between the Helikian sandstone and the crystalline basement. The zone extends from a few centimetres to over 220 m into the basement particularly in faulted zones (Macdonald, 1980). The paleoweathering displays a gradational sequence with depth of pervasive hematization to chloritization to fresh basement. A thin zone of late stage bleaching occurs locally directly below the unconformity.

7.1.3 Phanerozoic Mannville Group

The PLS and CW properties lie within the northeastern limits of the Cretaceous Mannville Group which covers a large portion of Western Saskatchewan (Figure 4). 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 Quartzarenite member of the Athabasca is in contact with the Lower Mannville member.

7.1.4 Quaternary Geology

The thickness of Quaternary sediments throughout the Athabasca Basin is highly variable, ranging from 0 m around Key Lake to over 100 m at McArthur River (Campbell, 2007). Bedrock is rarely exposed throughout the Athabasca Basin with Quaternary material covering almost the entire land surface. Drumlins, eskers and other glacial landforms dominate the landscape and generally show a north-easterly orientation.

Figure 3 **Regional geology of northern Saskatchewan (from Jefferson et al., 2007).**

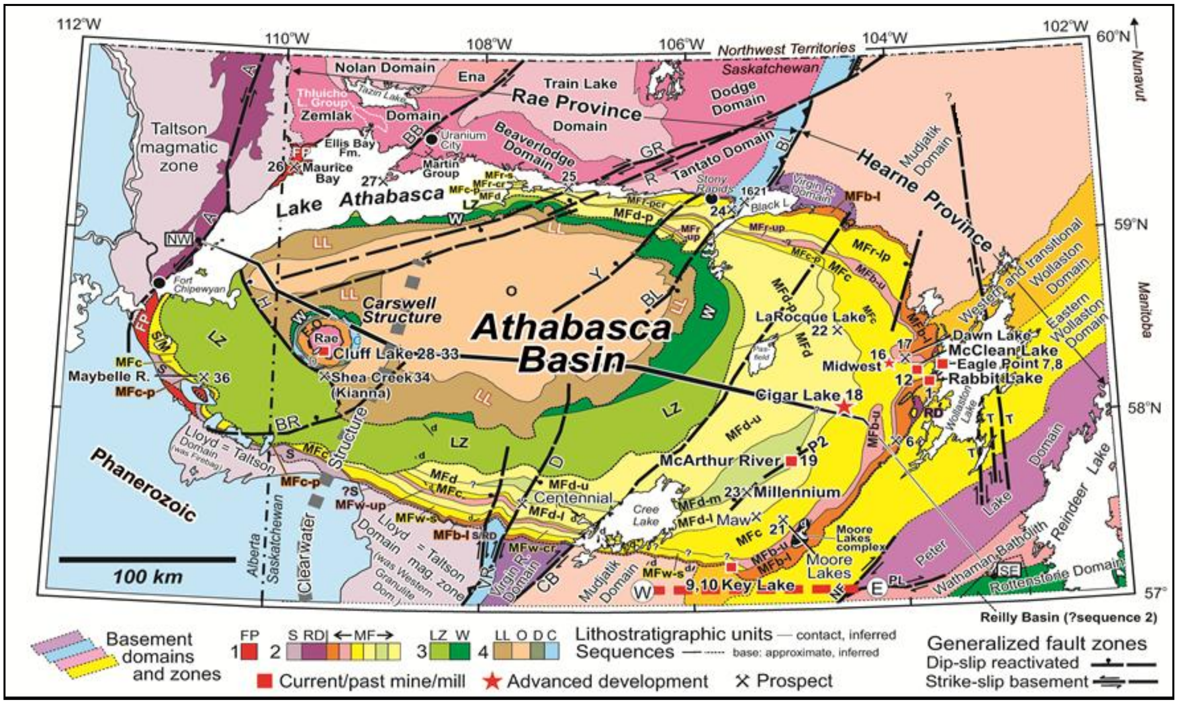


Figure 4 **Sub-Athabasca Basement Structure**

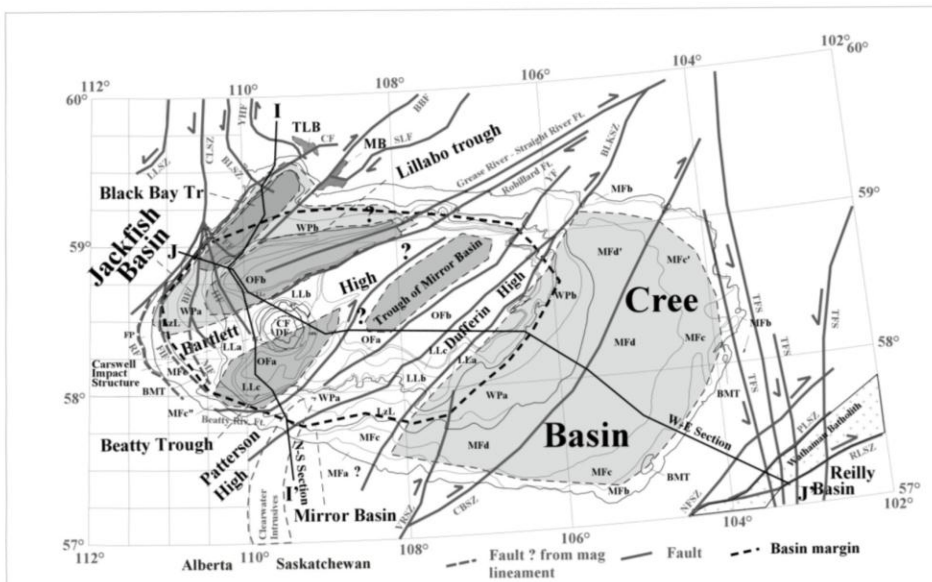


Figure 4.2 Major structural elements of the Athabasca Basin in Alberta and Saskatchewan. SHEAR ZONES (SZ): BLSZ, Bayonet Lake; BLKSZ, Black Lake; CBSZ, Cable Bay; CLSZ, Charles Lake; LLSZ, Leland Lake; NFSZ, Needle Falls; PLSZ, Parker Lake; RLSZ, Reilly Lake; VRSZ, Virgin River; FAULTS (F): BF, Bustard; BBF, Black Bay; CF, Charlot; FF, Fidler; FIF, Fletcher; HF, Harrison; MF, Maybelle; RF, Richardson; SLF, St.Louis; TFS, Tabbernor fault system; YHF, Yatsore-Hill Island; SUBBASINS (B): MB, Martin; TLB, Thluicho Lake. (Taken from Ramaekers, 2004)

FISSION ENERGY CORP.
DAHROUGE GEOLOGICAL CONSULTING LTD.
Edmonton, Alberta
PATTERSON LAKE PROPERTY, SASKATCHEWAN
Fig. 4.2
Sub-Athabasca Structure
NM 2006.02

7.2 Property Geology

7.2.1 Patterson Lake Property

The PL Property is underlain by rocks of the Athabasca basin (Figure 5, 6) which overlie basement rocks of the Clearwater Domain of the Rae Province, Northern Saskatchewan. The Clearwater Domain is bordered by the Firebag Domain to the West and the Lloyd Domain to the east.

The lithological units recognized in the Clearwater Domain are as follows: equigranular granite, porphyritic granite and felsic gneisses which are overlain by a younger metasedimentary unit (Tona et a, 1985). The domain is characterized by a prominent regional linear magnetic feature that is associated with a gravity low.

The Fair Point Formation is the basal formation for much of the western Athabasca Basin, filling much of the Jackfish Basin. The southeastern extent of the formation is bound by the Grease River Fault. The Fair Point Formation consists of conglomeratic quartz rich sandstone with abundant clay matrix (Ramaekers, 1979).

The Manitou Falls Formation lies unconformably on top of the crystalline basement for most of the Athabasca Basin, and the Fair Point Formation in the northwest. The Manitou Falls Formation consists of sandstones and sandstones with pebble beds and occasionally, thin, well laminated fine sand to mudstone beds.

The Lazenby Lake Formation is a sandy and pebbly unit that overlies the Manitou Falls Formation. It is restricted to the southwest portion of the Athabasca Basin.

The Wolverine Point Formation lies conformably above the Lazenby Lake Formation and unconformably above the Manitou Falls Formation. The Wolverine Point Formation is distinguished by the presence of mudstones and claystone interbedded within sandstone. Due to the friable nature of the claystone, the Wolverine Point Formation corresponds to topographic lows where it approaches the surface.

The Locker Lake Formation unconformably overlies the Wolverine Point Formation. It represents a period where coarser, pebbly material was re-introduced into the basin.

7.2.2 Patterson Lake South Property (Including the Clearwater West Property)

Pleistocene overburden covers the entire PLS property with thicknesses ranging from 50 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 5, 6) 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 Manville group sediments exist as “islands” further to the east.

The Devonian La Loche Formation has only been observed in six closely spaced drill holes on the property to date, which conforms to its highly discontinuous nature. The La Loche Formation intervals were about 4 m 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 supports that the Athabasca Group is not present on the property; although it may be possible that “islands” of Athabasca sandstone may 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.

The Saskatchewan Mining Development Corporation (SMDC) interpreted the boundary zone between the Clearwater and Western Granulite (East Lloyd) Domains as trending north-northeasterly through Patterson Lake (Atamanik & Downes & 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).

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 & 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 & 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 & van Tongeren, 1983).

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).

7.3 Mineralization

Mineralization on the PLS property was discovered during the 2012 Fall-Winter exploration program. Wide intersections of high-grade uranium mineralization encountered in the final four holes of the program (Discovery holes PLS12-022 through 025) including step-out hole PLS12-024 (2.49% U3O8 over 12.5 metres). At this stage of the project, little is known about the relevant geological controls of the mineralization or the, length, width, depth and continuity of mineralization. A description of the geology and mineralization, and results of drilling on the PLS property to date are described in detail in the drilling section (Section 10) below.

A 6.0m wide interval of high grade mineralization with massive visible pitchblende in veins (up to 21cm wide), blebs and flecks was intersected in the discovery drill hole PLS12-022, located approximately 3.8

km northeast of the high grade boulder field. Subsequently, step-out hole PLS12-024 intersected a 13.0m wide interval of strong mineralization, including intermittent intervals, totaling 2.14m of off-scale (>9999 cps) radioactivity. PLS12-025, collared 10m north of hole PLS12-024, intersected a 22.5m wide interval of strong mineralization including a narrow band of off-scale (>9999 cps) radioactivity. In each case, the mineralization occurs at shallow depth in basement rocks.

Composited drill hole mineralized intersections include (Down-hole measurements):

- Hole PLS12-024: 18.0m @ 1.78% U_3O_8 from 65.0m to 83.0m ▪including 12.5m @ 2.49% U_3O_8
    - including 3.5m @ 4.33% U_3O_8
    - including 0.50m @ 11.1% U_3O_8
- Hole PLS12-022: 8.5m @ 1.07% U_3O_8 from 70.5m to 79m ▪including 2.5m @ 2.63% U_3O_8
- Hole PLS12-025: 22.5m @ 0.4% U_3O_8 from 60.5m to 83.0m ▪including 4.03m @ 0.85% U_3O_8
- Hole PLS12-023: 9.5m @ 0.27% U_3O_8 from 66.5m to 76.0m

Figure 5 Property Regional Geology Map.

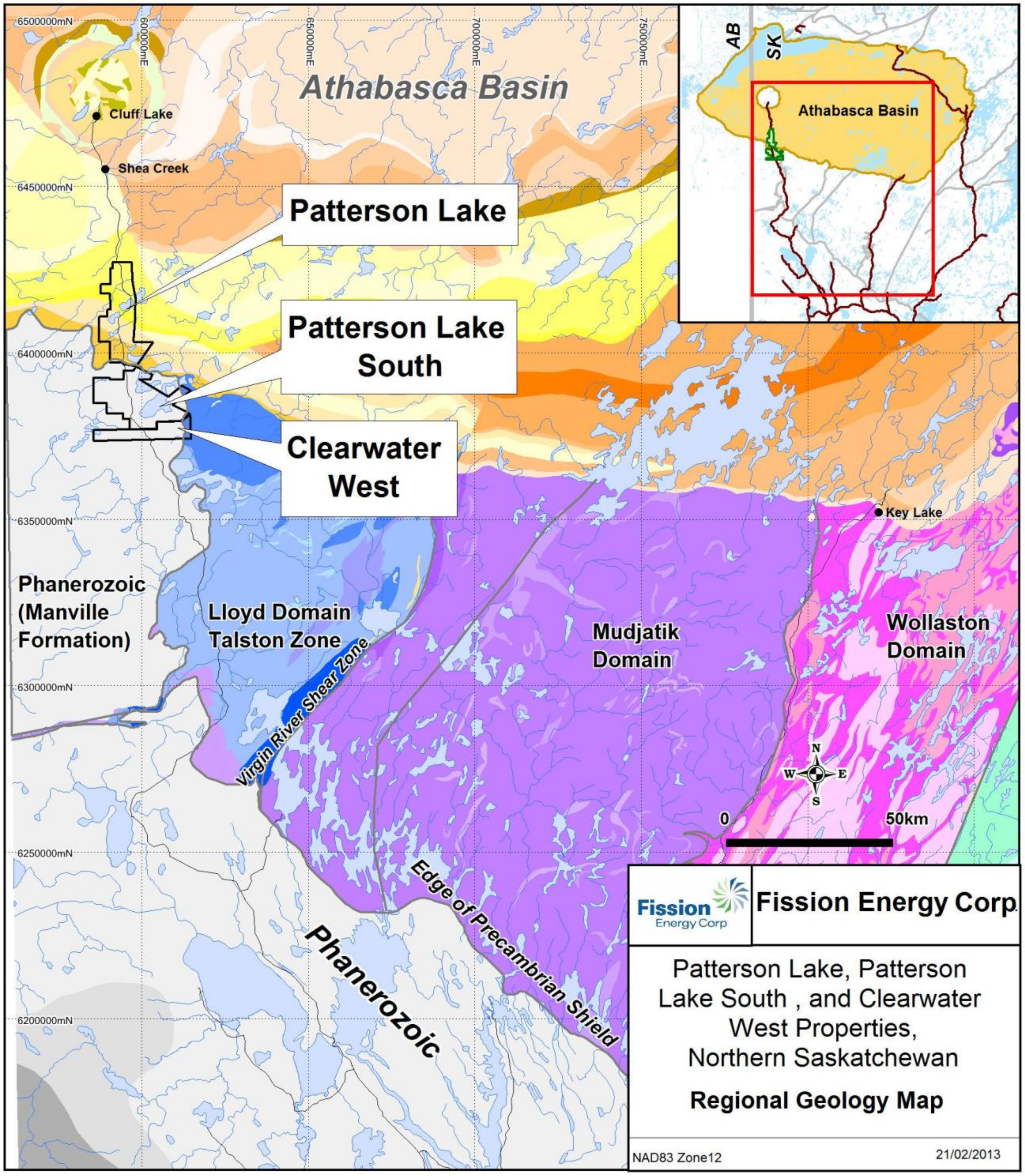
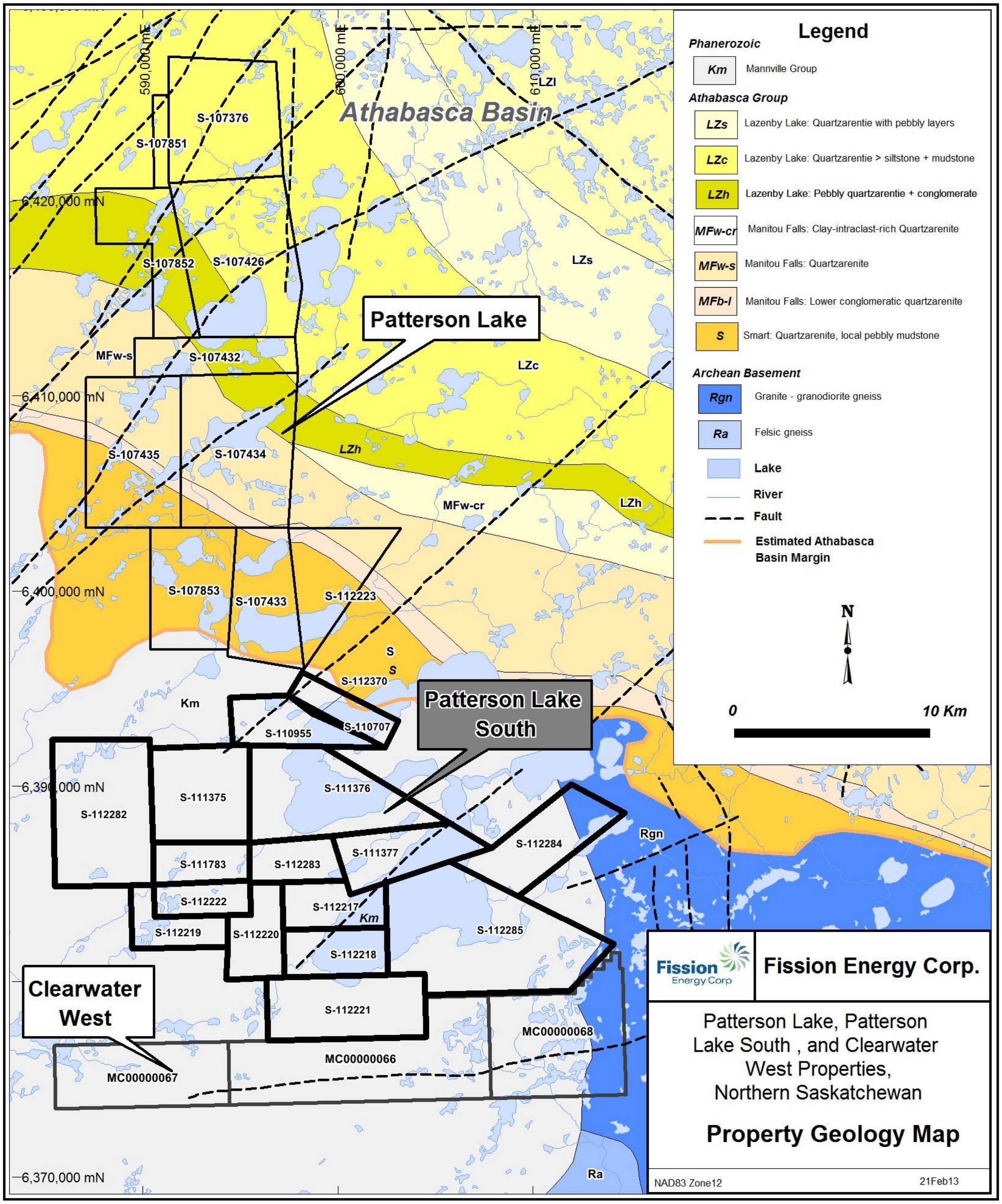


Figure 6 Property Geology Map.



8 DEPOSIT TYPES

Uranium mineralization on the Property is analogous with poly-metallic basement unconformity-associated uranium deposits, as detailed below.

Proterozoic unconformity-associated uranium deposits host over 33 % of the world's known uranium resources. The Athabasca Basin of Saskatchewan, Canada, is renowned for its high-grade deposits and currently supplies approximately 20% of the world's uranium. Other notable unconformity associated uranium districts occur in the Thelon Basin (Nunavut, Canada) and the Alligator River District (Northern Territory, Australia). These unconformity-associated deposits differ from the Athabasca Basin deposits in that they contain lower grade ore and are entirely basement hosted. The average grade of the top 30 deposits in the Athabasca Basin is 1.97 wt% U_3O_8, four times the average grade of the Australian unconformity-associated uranium deposits (Jefferson et al., 2007).

Unconformity-associated uranium deposits in the Athabasca Basin are characterized by elongate, pod shaped uranium mineralization at the unconformity between the Proterozoic fluvial, conglomeratic sedimentary basin and favourable graphitic metasedimentary basement rocks. The sedimentary strata are relatively flat lying and unmetamorphosed while the basement rocks often show signs of multiple stages of deformation. A clay rich paleoregolith occurs at the surface of the metamorphic rocks. The paleoweathering profile commonly consists of a red hematite rich zone which grades with depth into a greenish chloritic zone and then into fresh rock which can be hydrothermally altered. Later diagenetic bleaching is often observed directly below the unconformity within mineralization districts (Jefferson et al., 2007). In zones of intense uranium mineralization, the extreme alteration completely overprints the regional paleoweathering profile. The basement lithologies are dominated by Archean granitic gneiss and Paleoproterozoic metasedimentary gneiss. The latter is the common basement host of uranium deposits.

Two end member models of unconformity associated uranium deposits have been identified; mono-metallic and poly-metallic (Figure 7). Mono-metallic deposits occur dominantly as basement hosted uranium mineralization within fault zones or veins below chloritic or silicified Athabasca sediments. The MacArthur River deposit is a typical example of a mono-metallic uranium deposit. Poly-metallic deposits dominantly straddle the unconformity as subhorizontal clay bounded lenses below quartz corroded sediments. Poly-metallic deposits include Midwest Lake (Denison/Areva) and Cigar Lake (Cameco).

The uranium mineralization of poly-metallic deposits is commonly associated with variable amounts of nickel, gold, cobalt and arsenic. High-grade uranium ore (> 1.00 wt% U_3O_8) in poly-metallic deposits is mantled by a medium to low grade zone (< 1.00 wt% U_3O_8). These deposits have mineralized roots extending downwards into major graphitic basement structures and upwards into the sandstone column. Typically poly-metallic deposits are associated with plume shaped halos of illite-kaolinite-chlorite alteration in the sediments. This surrounds the major ore controlling structures and can extend for several hundred metres above the deposit (Figure 8). Poly-metallic deposits are hosted by sandstone and conglomerate and occur within 25 to 50 m of the unconformity (Jefferson et al., 2007).

Figure 7 Schematic diagram showing the end member models of mono-metallic (left, e.g. McArthur River) and poly-metallic (right, e.g. Midwest) unconformity associated uranium deposits (from Jefferson et al., 2007).

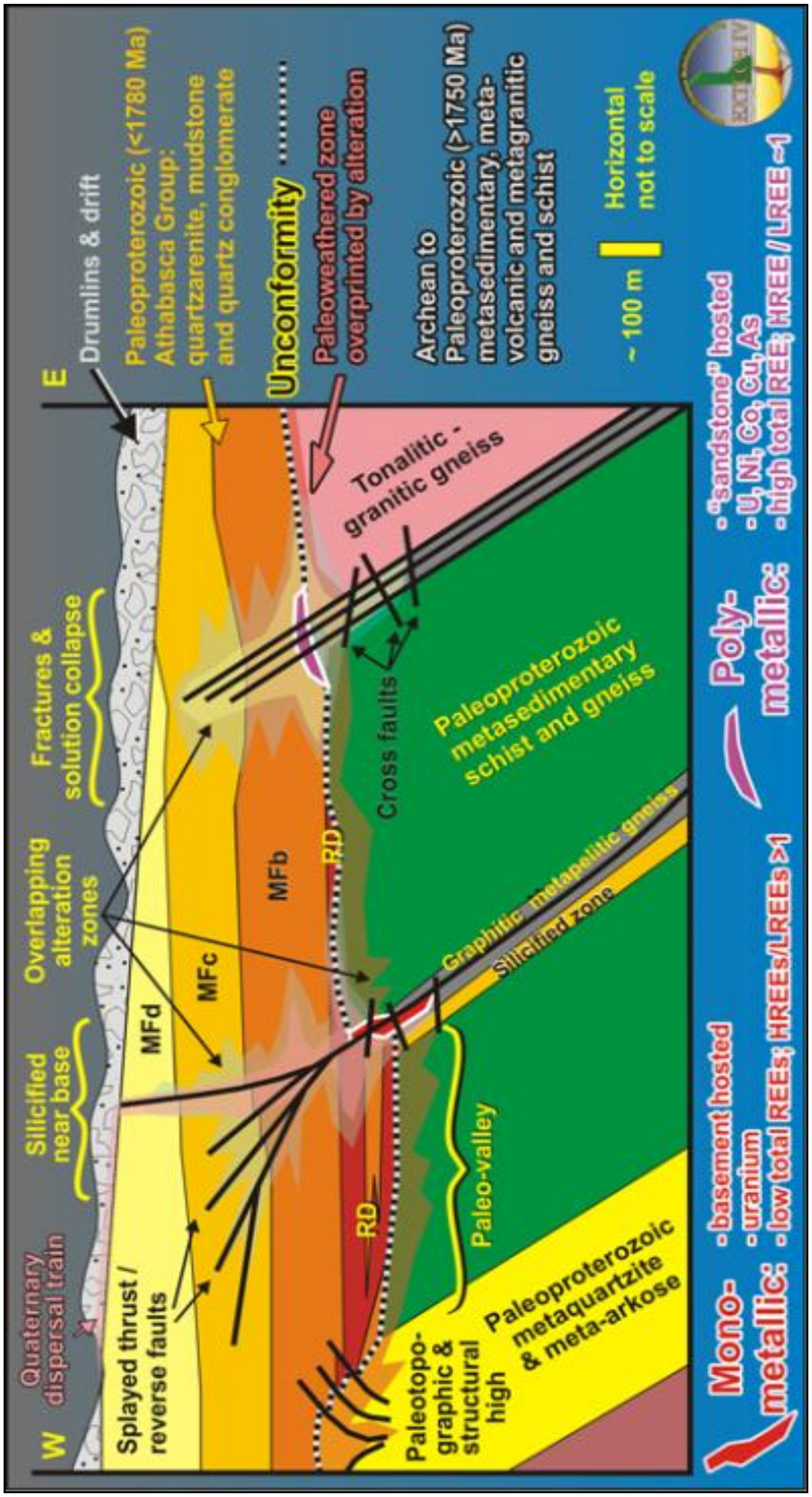
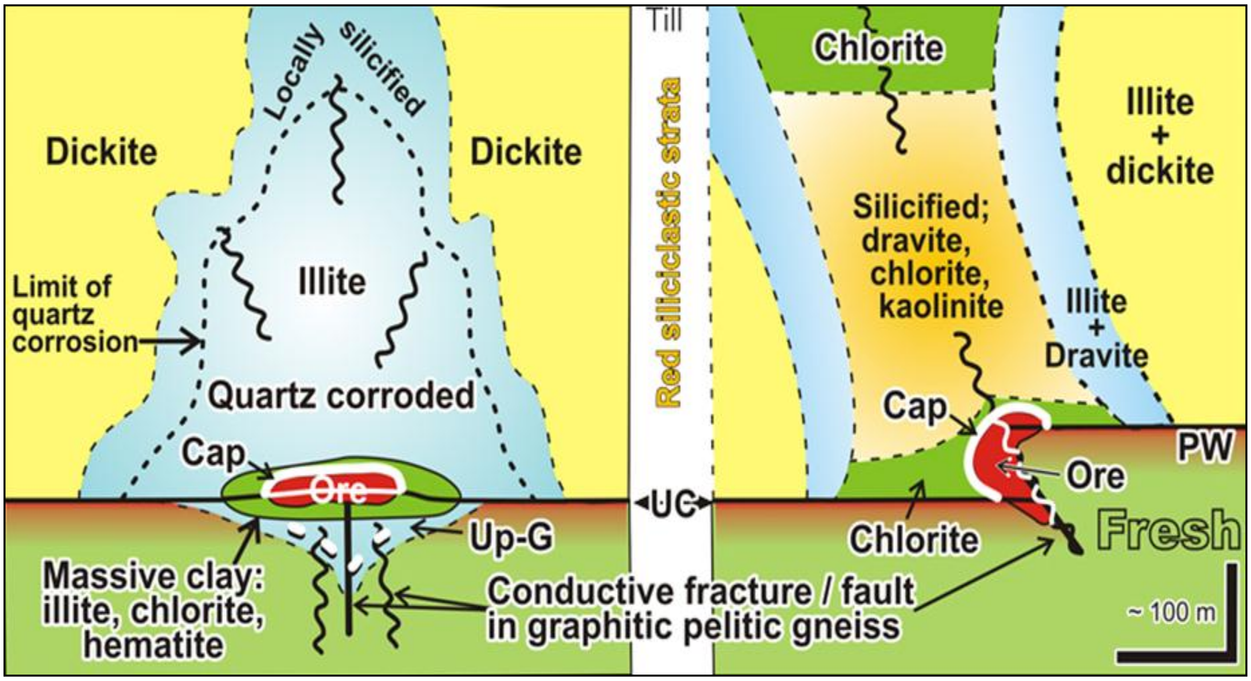


Figure 8 End-member diagram showing the different alteration halos and clay mineralogy associated with quartz corroded and silicified unconformity hosted uranium deposits. Left: quartz corrosion (dissolution) and illite alteration overprinting regional dickite alteration as seen at Midwest and Cigar Lake. Right: silicification and chlorite-kaolinite rich halos overprinting regional illite and dickite alteration as seen at McArthur River (from Jefferson et al., 2007).



9 EXPLORATION

The following is a description of surface exploration work completed on the Property to date. This includes work completed by Fission on the PL property in 2008 (McCallum, 2008) and work completed on the PLS property by Fission and ESO (Alpha) from 2008 to 2013 (Ainsworth, 2012a,b) on the PLS property. There has been no work on the CW property by either company to date. Drilling completed on the Property is described below (see section 10.0).

9.1 Patterson Lake Property

9.1.1 2005 – 2006 Exploration

Between October 17 and 22, 2005, all of Mineral Claims S 107433, S 107426, S 107376, S 107434, S 107435, S 107432, S 107853, S 107852, S 107851 were explored for uranium by Dahrouge Geological Consulting Ltd. on behalf of Strathmore Minerals Corporation (Smith and Dahrouge, 2006). A reconnaissance helicopter AeroTEM III (time domain electromagnetic) and Magnetic Survey was carried out by Aeroquest Limited. A total of 970 line kilometres were flown at a line spacing of 300 m. No test lines were flown.

Based on the responses of the Aeroquest survey, mineral claims S-107851, S-107376 and portions of S-107852 and S-107426 were re-surveyed by Fugro Airborne Surveys using a fix-winged MEGATEM (time domain electromagnetic) and magnetometer system. The survey was completed between May 24 and 28, 2006. A total of 298 line km of survey was flown over these northern claims. Prior to the survey, 4 test lines, running east-west totaling 32 km, were flown south of the survey area to confirm the viability of the technique for the property.
Based on magnetic and EM responses interpreted from the Aeroquest survey, three grids were emplaced to confirm and further delineate and test the extent of conductors. During the spring of 2006 a ground Max-Min II and Resistivity survey was completed on these grids within claims S -107432, S-107434 and S-107435. Approximately, 50 line km of flagging, line cutting and chaining was needed prior to surveying. Grid PLK02 was done to investigate the high/low magnetic contact in S-107434. Grid PLK04 was done to partially delineate the conductive response in the northwest corner of S-107435; and grid PLK01 was done to test the southeasterly extent this conductor axis. Grid PLK03 was laid out but only 2.8 km was linecut before that grid was cancelled for various logistical reasons. Also, line PLK01-000 was extended further northeast than then the proposed grid lines in order to intersect a road for better access.

The October 2005 AeroTEM Magnetic survey revealed several circular shaped magnetic highs within the PL property. These anomalies have been initially interpreted to be possible kimberlites. In total, eleven circular magnetic anomalies have been identified; four within claim S-107435, four within claim S-107434 and three within claim S-107433. Between March 13 - 21, 2006 a short followup ground magnetic survey was completed over three of these potential kimberlites to confirm and further delineate their structure. The three targets were chosen for their strength and size of anomaly, road access and overall potential. The Pk001 models very well as a large pipe-like body at 100 m depth. The other two bodies, PK002 and Pk003, closer resemble a vertical prism rather than a pipe. In addition, PK004 has been previously drilled with no diamond potential found.

Several diamond bearing kimberlite pipes have been discovered in Saskatchewan in recent years adding to the potential for other key discoveries. In addition, kimberlites are rarely isolated and usually found in clusters as is the case of the Patterson Lake magnetic anomalies. Exploration followup of these potential diamond bearing targets is highly recommended.

The Max-Min survey was indeterminate due to noise saturation from the thick and/or conductive overburden and is not further discussed.

The Resistivity survey was successful in further delineating a northwest-southeast trending conductive zone. This conductor trends roughly parallel with another conductor to the northwest and may be a faulted extension of that conductor. This would make it a prime target and host environment for further and more advanced uranium exploration. An extension of this conductor to the southeast is suggested by an increase in conductivity along the same trend inferred from grid PLK01. In addition, several new conductors to the southwest and northeast were defined on PLK04 as well. On grid PLK02, a weak conductive response is seen when crossing the magnetic high-low boundary.

A diamond drilling program was planed to further test the potential of these conductors for hosting unconformity type uranium mineralization.

9.1.2 2008 EIC Radon Survey

From October 24th to October 31st, 2008, RadonEx Ltd of St. Lazare, QC supplied a crew of 4 people to complete an Electret Ion Chamber (EIC) radon detection survey in an area of the southeast portion of the property. In total, 275 collection points were recorded on claim S-107434 (Figure 9).

The purpose of the survey was to follow up and confirm the anomalous area found by the 2007 radon-cup survey (Smith and Dahrouge, 2007). The grid is oriented with 22 lines trending 059°. Lines are spaced 50 metres apart and sample spacing is also 50 metres. The crews were based out of the Big Bear Lodge and used 4x4 trucks for daily transport to and from the work site.

The element radon is a radioactive daughter product of uranium decay. Radon then migrates away from the site of its uranium parent by diffusion and advection along joints, faults and other permeable pathways. If the uranium source is below the water table, offset and dilution in moving groundwater disperses the radon plume. Ultimately radon entrained in groundwater escapes to the phreatic zone where it joins the flux of soil gas to the surface.

The detection of the radon that escapes into the atmosphere acts as an indirect guide towards the location of possible concentrations of uranium below the surface.

Each EIC Radon detection unit is placed on the ground beneath the organic layer. The units are left to collect data for several hours, and then collected, and brought back to camp for testing and digitizing.

RadonEx Ltd. utilizes several permutations of the E-PERM System as developed by Rad Elec Inc. of Frederick, Maryland. The E-PERM system is currently the most used and accurate EPA-listed technology in the radon monitoring industry. RadonEx Ltd. has collaborated extensively with Rad Elec Inc. in adapting E-PERM technology to field conditions for uranium exploration.

The E-PERM System is based on the electret ion chamber (EIC) - a passive integrating ionization monitor consisting of a stable electret mounted inside a small chamber made of electrically conducting plastic. The electret is a round charged Teflon disc, which can be screwed tightly into the chamber with the charged surface exposed within the chamber. The electret serves both as a source of the electrostatic field and as a sensor. Radon gas passively diffuses into the chamber through filtered inlets. The alpha particles emitted by the decay process ionize air molecules. Ions produced inside the chamber collect onto the electret, causing a reduction in the surface charge on the electret. The reduction in charge is a function of the total ionization occurring during a specific monitoring period and the specific chamber volume. This change in electret voltage is measured using the SPER-1 Electret Voltage Reader.

The electret voltage reader is an electric-field sensor with a special receptacle into which the electret is placed. When the shutter is opened the sensor reads the voltage on the electret surface without touching it. Pre- and post-measurement readings of electret voltages provide an absolute number for quantitative determination of ion collection by the electret due to the presence of radon in the chamber.

For the radon flux monitoring (RFM) technique, the E-PERM H electret ion chamber has been modified to feature a large, round 180 cm2, electrically conducting diffusion window on the flat surface. The electret is threaded into the top of the hemispheric side with the exposed charged surface facing the interior of the chamber. The chamber is vented by four filtered vents so that it will not accumulate radon, such that when the chamber is placed on a radon-emanating surface, the radon enters through the diffusion window, collects in the chamber, and exits through the vents. Such chambers are referred to as radon flux monitors (RFMs).

The semi-equilibrium radon concentration, which develops inside the chamber, is representative of the flux from the surface. Flux emanation from the ground is not disturbed because of the established equilibrium between the radon from the ground and radon from outside air through the vents. A measure of the semi-equilibrium radon concentration is a measure of the radon flux. The voltage discharge rate of the electret is, in turn, a measure of the radon flux. The discharge rate of the electret is the voltage drop divided by the exposure time in hours.

The results of the sampling are visually displayed in Figure 10. Sample point A213, with a Gross Flux value of 8.9 pCi/m2/sec is clearly an outlier (Figure 11).

The northern two-thirds of the grid are anomalous compared to the southern portion of the grid. The cause of the outlier cannot be determined at this time, however it has remained in the dataset so that it can be later verified with follow-up work. It is surrounded by relatively low Gross Flux values, suggesting that the anomaly is not robust.

The northern anomalous region of the grid corresponds with the higher readings from the 2007 Radon-cup survey (Figure 12). This correlation would suggest that the two techniques of radon detection in the Patterson Lake Project area are viable means for determining anomalous concentrations of radon in the sub-surface. Further orientation work is needed, however to correlate these anomalies to buried unconformity-style uranium deposits.

Between November 28th and December 4th, 2007, Fugro Airborne Surveys conducted a MEGATEM® electromagnetic and magnetic survey of the Patterson Lake Area on behalf of Fission. Using Stony Rapids, Saskatchewan as the base of operations, a total of 652.32 line kilometres of data was collected on the Patterson Lake Property. The survey consisted of 42 flight lines flown along a heading of 085º and a spacing of 300 meters. The purpose of the MEGATEM electromagnetic survey is to map broad areas of conductivity related to the nature of the underlying basement geological lithologies. The structural features of the basement rocks can be determined though analysis of the magnetic data.

An interpretation of the results was completed by B. Sharp, M.Sc of Fugro Airborne Surveys (Figure 13). Area 3 from the interpretation report appears to be the best conductive target on the Patterson Lake Property, due to its moderate response and definitive conductive axis. The lower magnetic response also suggests a structurally affected corridor in the area. The coincident moderate conductive response and the magnetic low make this a high priority target, as it may represent hydrothermally altered event within a faulted corridor.

Figure 9 Patterson Lake Property 2008 RadonEx Sample Locations.

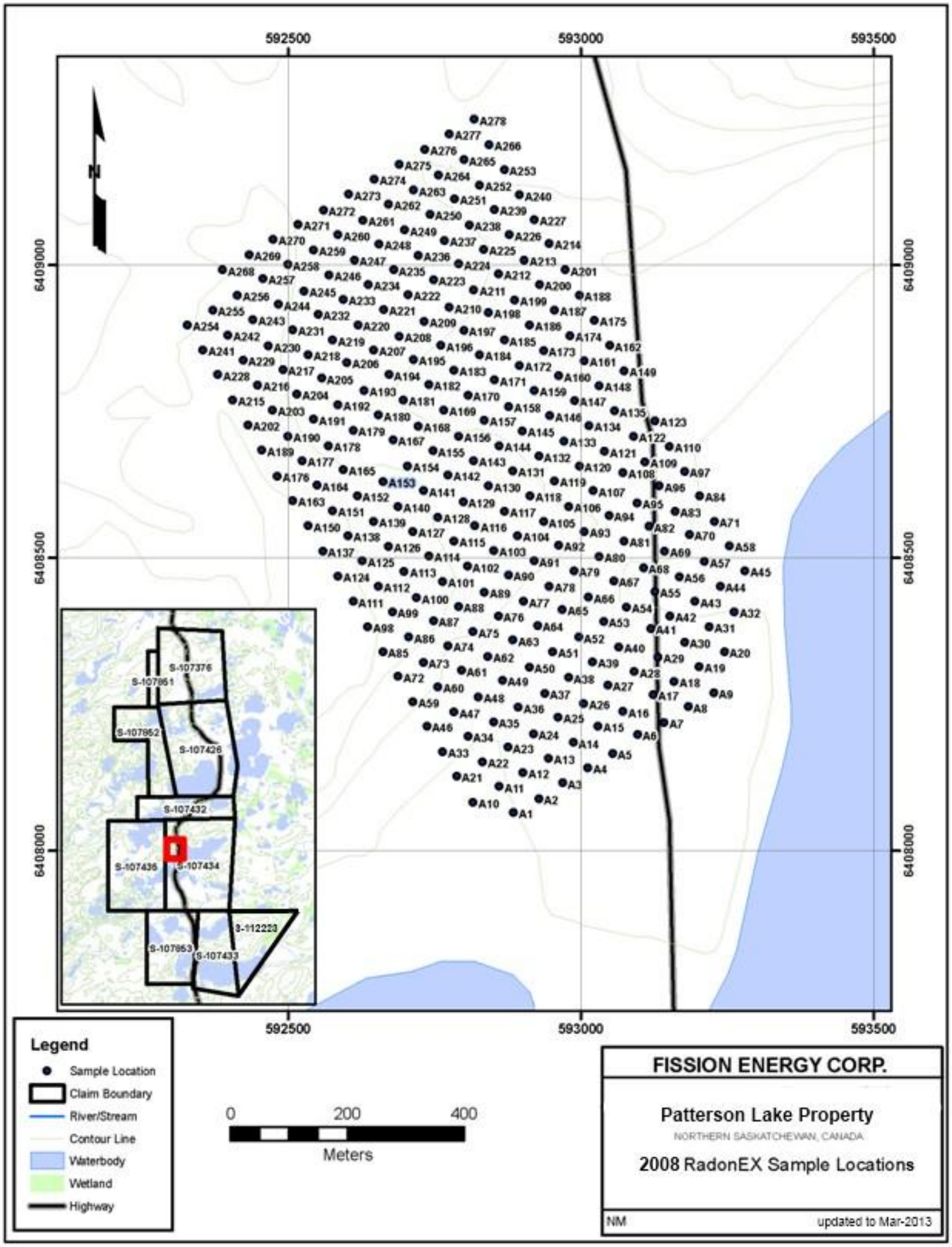


Figure 10 Patterson Lake Property 2008 RadonEx Sample Results.

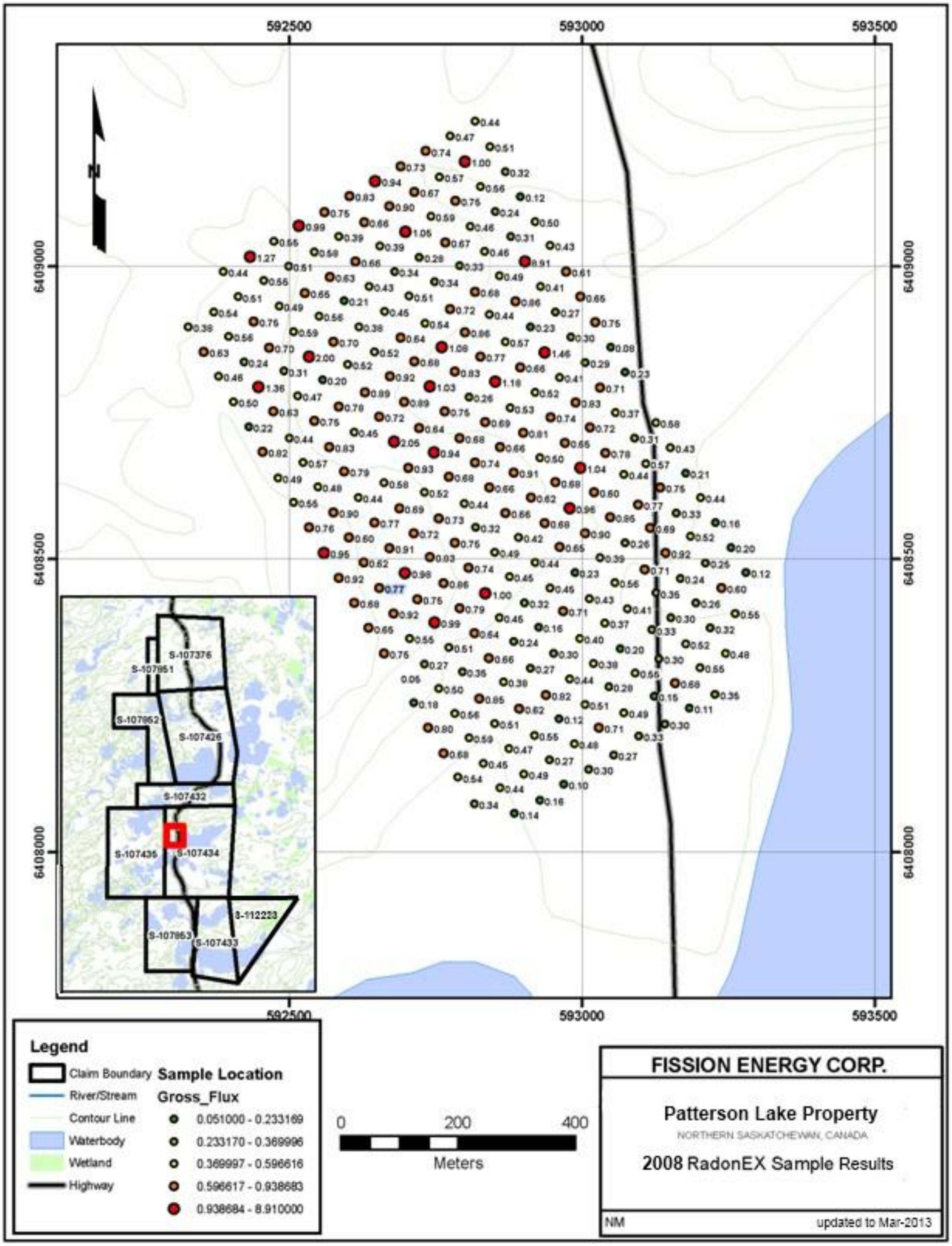


Figure 11 Patterson Lake Property 2007 Radon Cup Sample Results.

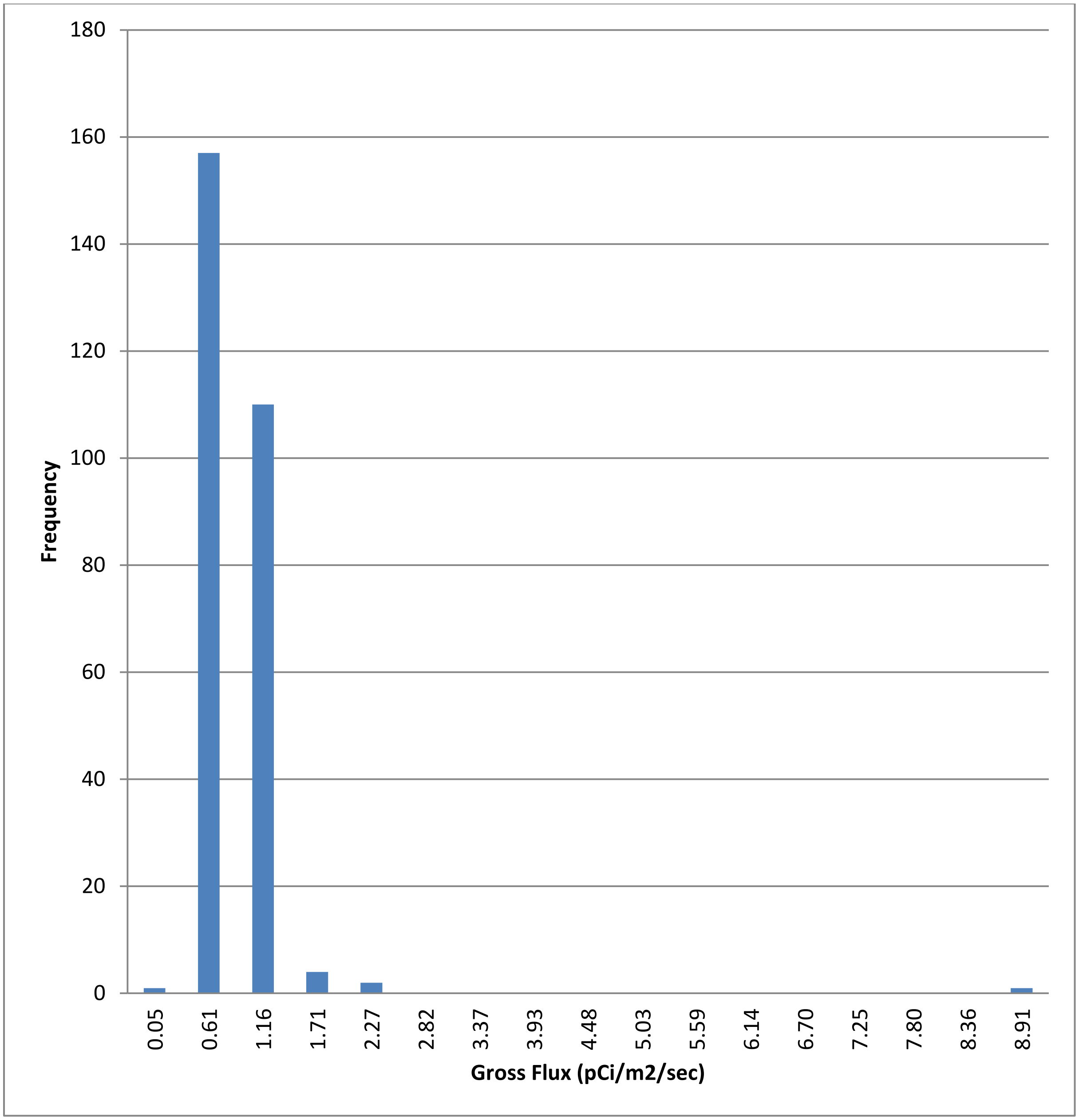


Figure 12 Patterson Lake Property 2008 RadonEx Sample Results Compared with 2007 Radon Cup Sample Results.

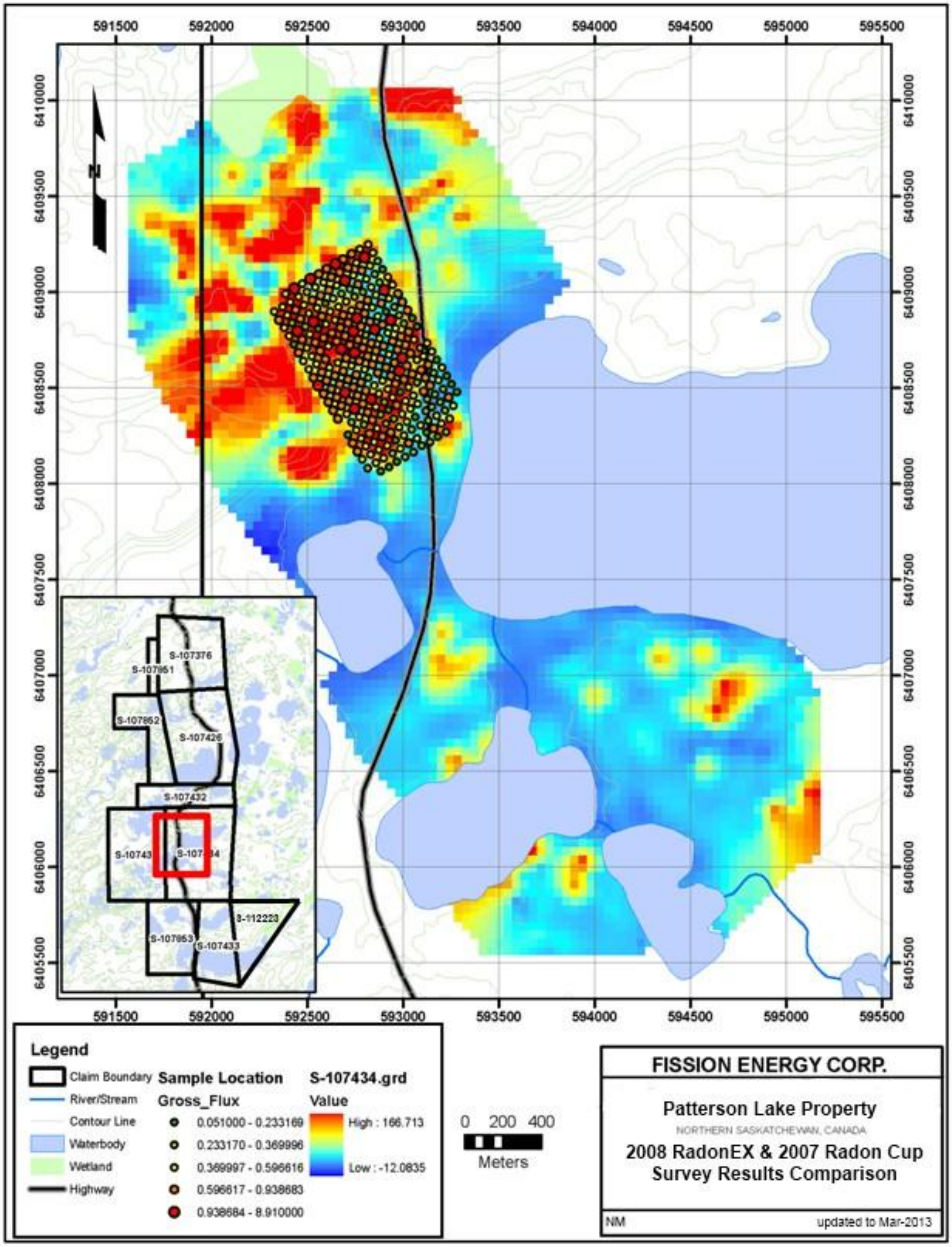
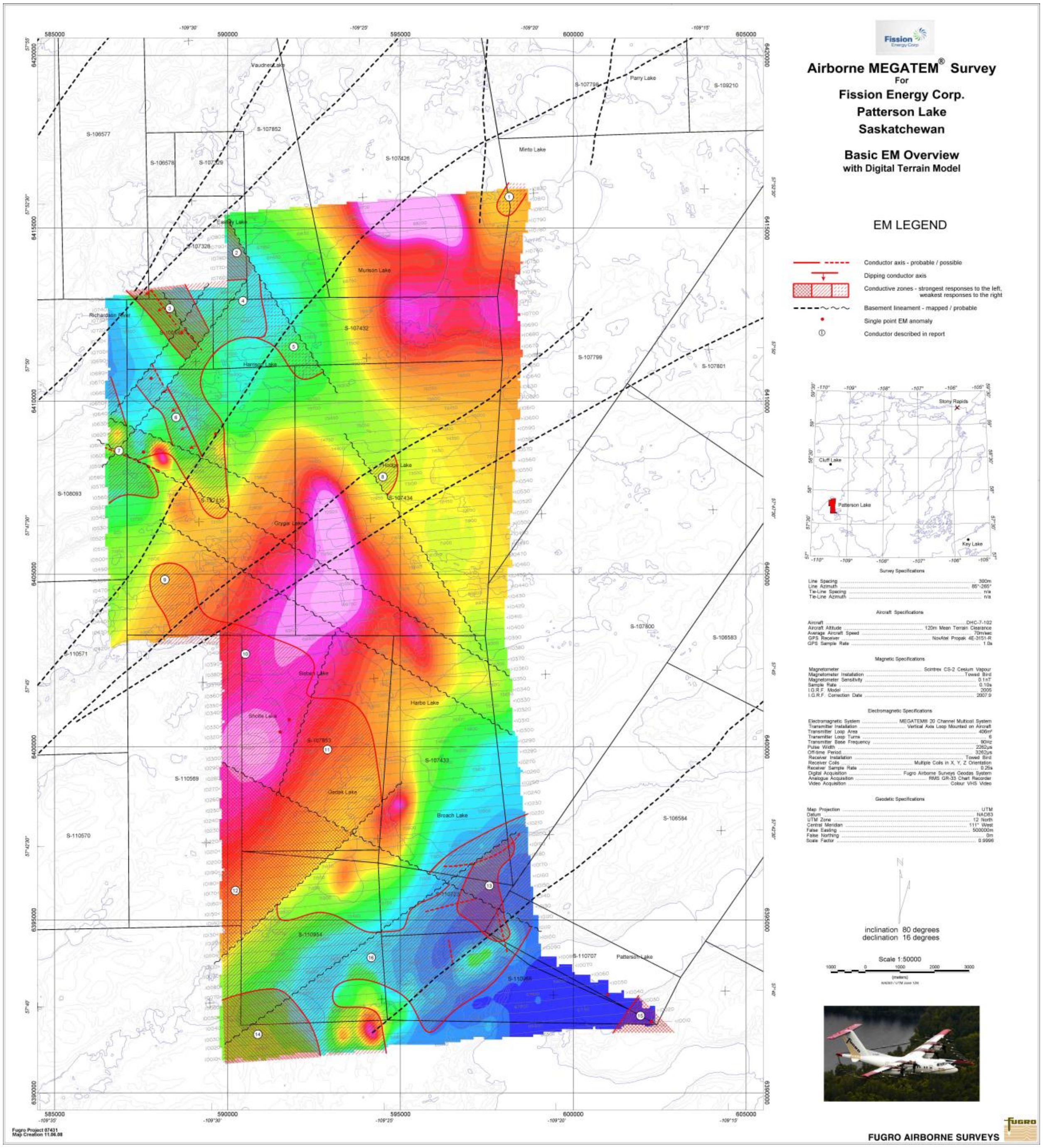


Figure 13 **Patterson Lake Property - An interpretation of the results of the Airborne Electromagnetic/Magnetic Survey. Interpretation completed by B. Sharp, M.Sc of Fugro Airborne Surveys.**



9.2 Patterson Lake South Property

In November 2007, a Megatem electromagnetic and magnetic survey of the northern portion of the property was carried out by Fugro Airborne Surveys under the Fission and ESO (Fission-ESO) joint venture. This survey was completed north of current dispositions S-111375 and S-111376, and results were of fairly low resolution.

Mineral dispositions S-111375, S-111376, and S-111377 were staked in June 2008 to include CanOxy's alphameter anomalies and EM conductors (southwest end of Patterson Lake conductor corridor).

Exploration by Fission-ESO on the PLS property in October 2008 consisted of a preliminary radon in soil gas survey done concurrently with a radiometric and a Self Potential (SP) geophysical survey. Again, this work was done on the northern portion of the property, north of dispositions S-111375 and S-111376. The radon and radiometric surveys followed up on weak to moderate CanOxy alphameter (radon) anomalies, and the SP survey was located over selected shifts in airborne magnetics as determined from the 2007 Megatem project. Radon and radiometric values were generally low. Four negative SP anomalies were discovered with two of them associated with an airborne magnetic high spike (Ainsworth & Beckett, 2008).

In October 2009, a high resolution airborne magnetic geophysical survey was conducted across the property by Fission-ESO. 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 (Ashley, 2010; McElroy & Jeffrey, 2010). The radiometric spectrometer survey outlined a radiometric anomaly 3.9 km long by 1.4 km wide area that later follow-up work in June 2011 would be found to be the result of a radioactive boulder field that contained uraniferous hotspots. This radioactive area extended south of disposition S-111375 which lead to the staking of disposition S-111783 in April 2010.

Exploration work completed in June 2011 by Fission-ESO comprised radon, radiometric, and boulder surveys on dispositions S-111375, S-111376, and S-111783. Radon and radiometric surveys confirmed CanOxy's 1977 alphameter (radon) anomaly west of highway 955. Radon anomalies were found to be coincident with historical EM conductors close to the west shore of Patterson Lake. A significant 4.9 by 0.9 km high grade uranium boulder field was discovered to within 2 km west of Highway 955, within the spatial extent of the 2009 airborne radiometric anomaly and the June 2011 radon and radiometric survey. Boulders in this field were found to be basement-hosted or massive uranium oxide, rounded to sub-angular, mostly soft and crumbly (possibly mineralized regolith excavated out by a glacier), and densely situated in some areas; all which suggested the possibility of a proximal up-ice bedrock source. A total of 66 radioactive boulder samples were recovered during the survey with 41 of those samples having off-scale radioactivity (>9999 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 40x30x15 cm. The boulders assayed from 3 ppm Uranium (U) to 39.6% U_3O_8 and averaged 12.4%. Only 16 of the boulders assayed < 1% U_3O_8. (Ainsworth, 2011).

A trenching program and boulder survey was carried out in October 2011 by Fission-ESO to confirm the recent glacial direction, and to collect additional uraniferous boulders. A total of 18 trenches were excavated, and 49 uraniferous boulders were recovered. Glacial direction was confirmed to be southwest at 245°. The 49 uranium oxide mineralized boulders were found within the limits of June boulder field with dimensions of about 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 25x30x40 cm. Radioactivity of these boulders ranged from 701 to >9999 cps (off-scale), and assays ranged from 0.07 to 31.4% U_3O_8 (average 11.9%). Only 9 of the boulders assayed < 1% U_3O_8. (Ainsworth & Thomas, 2012).

From November to December 2011, Fission-ESO conducted a diamond drill program that comprised 838 metres in 7 drill holes within mineral disposition S-111376. This program did not locate the bedrock source of the high grade uranium boulders discovered in June 2011. However, highly favorable geology, alteration, structure, and geochemical results were encountered in drilling (Ainsworth & Ainsworth, June 2012).

Claim staking of dispositions S-112282, S-112283, S-112284, and S-112285 was completed in June 2011. Additional staking of S-112370, S-112217, S-112218, S-112219, S-112220, S-112221, and S-112222 was carried out in November and December 2011.

Fission-ESO carried out an extensive Winter-Spring exploration program from February to April 2012. This program comprised 1,711.3 line-km of helicopter-borne VTEM and magnetic geophysical surveys, 53.45 line-km of DC resistivity survey, 14.35 line-km of SMLTEM, and 2,174.3 m in 16 holes of diamond drilling (PLS12-001 to PLS12-016). Geophysical surveys showed favourable resistivity low anomalies with offset EM conductors. Drill holes PLS12-013 to -016 encountered favourable geology, alteration, and weak to strong radioactivity associated with anomalous uranium geochemical results. Drill hole PLS12-016 intersected about 140 m of sudoite altered metasediments with several discrete moderately-to-strongly radioactive intervals that assayed approximately 200 to 350 ppm U over 3 to 8 metres in width.

The Fall 2012 exploration program at the Patterson Lake South property consisted of airborne radiometric and magnetic geophysical surveys over the newly staked mineral claims, boulder prospecting, ground pole-dipole array DC resistivity and small moving loop surface transient electromagnetic (SMLTEM) geophysical surveys, dual rotary and diamond drilling.

9.2.1 Winter-Spring 2012 Airborne VTEM and Magnetic Geophysical Survey

Geotech Ltd. carried out simultaneous helicopter-borne VTEM and magnetic geophysical surveys from February 10^{th} to 18^{th}, 2012. A total of 1,711.3 line-kms of geophysical data was acquired during the survey, which covered the entire property (Figure 14).

The VTEM survey consisted of helicopter borne EM using the versatile time-domain electromagnetic (VTEMplus) system with Z and X component measurements and horizontal magnetic gradiometer using two cesium magnetometers (Bingham, 2012).

The VTEM system is an in-loop EM system with a waveform and sampling windows comparable to ground Geonics TDEM systems.

To assess the conductivity of the responses, an AUTOTAU calculation was performed. The AUTOTAU calculation was performed using the Maxwell software (EMIT). The AUTOTAU is based on the decay of the VTEM Z response. This does not locate conductors but is rather a reflection of the conductivity along strike as the peaks of the calculated AutoTau will likely be located on the anomaly shoulders, not at the anomaly position. For VTEM anomaly interpretation, VTEM anomalies are classified according to two main types:

- P-Type anomaly: is a peak response. There are several scenarios that generate this type of response. This is generally a flat lying or layered response. This also occurs when the target is at great depth (>> 200m?). The P-type response can also be observed over complex multiple conductors. In general, the P-type response does not resolve vertical to sub-vertical conductors and as such these anomalies do not produce a well resolved drill target.
- T-type anomaly is a trough response flanked by two peak responses. This is a classical response to a sub-vertical conductor with the higher peak indicating the dip direction. In many cases the T-type response resolves and locates a conductor well enough to enable the establishment of a reliable drill target, usually for targets of less than 200m in depth.

All of the line profiles were interpreted for P-type and T-type anomalies. The locations of the P-type anomalies are plotted as inverted yellow filled triangles. The T-type anomalies are plotted as cyan filled circles on the accompanying figures. The figures in the report are for visual reference only. The VTEM Interpretation consists of located P- Type and T-Type conductors. In general, the P-type response does not resolve vertical to sub-vertical conductors to enable either a good interpretation or establishment of a reliable drill target. In many cases the T-type response resolves and locates a conductor well enough to enable the establishment of a reliable drill target.

Another important consideration is the conductivity. This is accomplished with the AutoTau calculation. The AUTOTAU calculation was performed using the Maxwell software (EMIT) and exported to Geosoft where spurious calculations were manually deleted and the results were gridded for display. VTEM Channels 18 through 24 (2-5 ms) were used for the AUTOTAU calculation. Some important factors to keep in mind when examining the AutoTau maps are:

- The AutoTau calculation is a representation of the conductivity. It is a 1D calculation and does not separate conductor conductance from the background conductance.
- The AutoTau parameter does not locate the conductors and the AutoTau peaks are located on the shoulders of the conductor, not at the conductor location.
- In complex areas, it may not be possible to isolate the source of the conductive anomaly.
- Horizontally oriented conductivity will generate a much higher amplitude anomaly than vertically oriented conductors.
- Very deep / weak responses will generate noisy and possible unreliable conductivity values.

For the target areas picked, a smoothed Tau was extracted from a nearby P-type shoulder anomaly. Based on the values of Tau for the Athabasca basin graphitic type conductors, a conductivity rating scheme (very similar to the Geonics EM37/PROTEM system) is as follows:

- Good Conductivity Tau >1.0ms
- Moderate Conductivity Tau is between 1.0ms and 0.5ms
- Poor Conductivity Tau is less than 0.5 ms

The VTEM survey was instrumental in defining conductive packages over the entire project area. 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 has and will necessitate follow up with ground EM systems as the in-loop geometry of the VTEM system does not adequately resolve complex conductors. A number of VTEM anomalies were observed in the calculated AutoTau map (Figure 15). In particular a significant bright electromagnetic anomaly was observed on the PLS Main grid in the vicinity of the PLS Main grid lines 5800E through 6600E (Figure 16).

Figure 14 PLS Property 2012 Airborne VTEM and Magnetic Geophysical Survey Coverage.

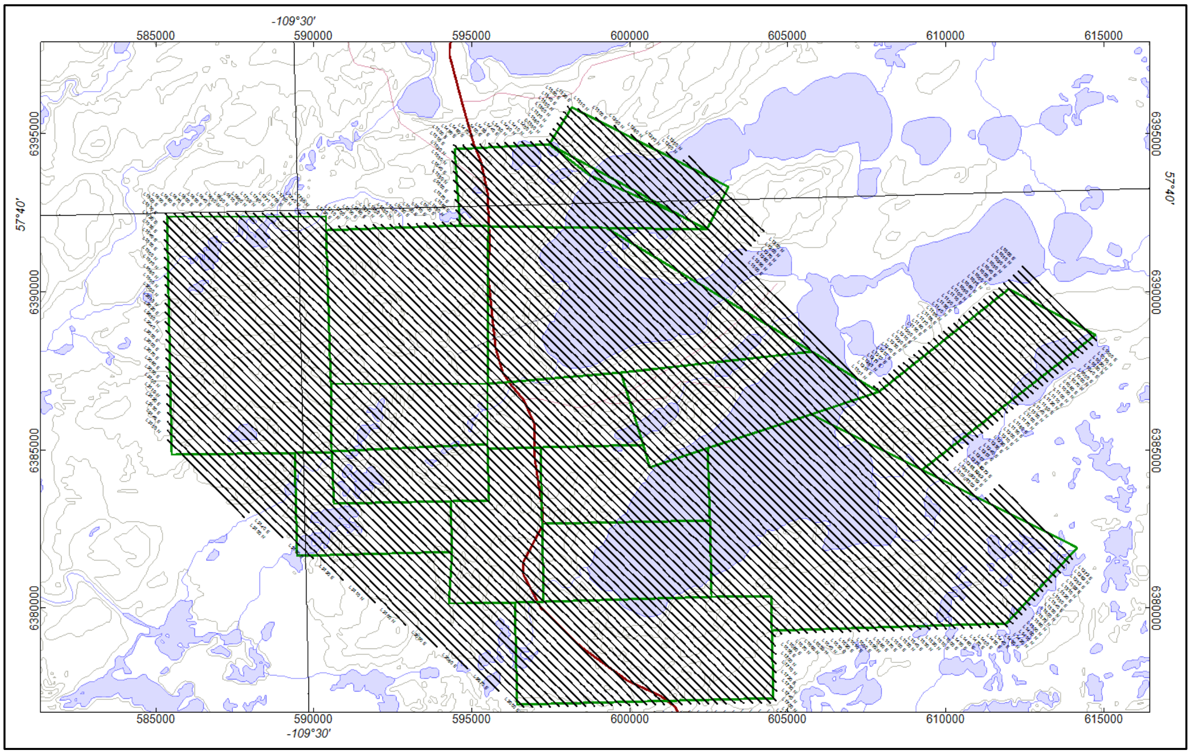


Figure 15 PLS Property 2012 VTEM Interpretation Picks with AutoTau.

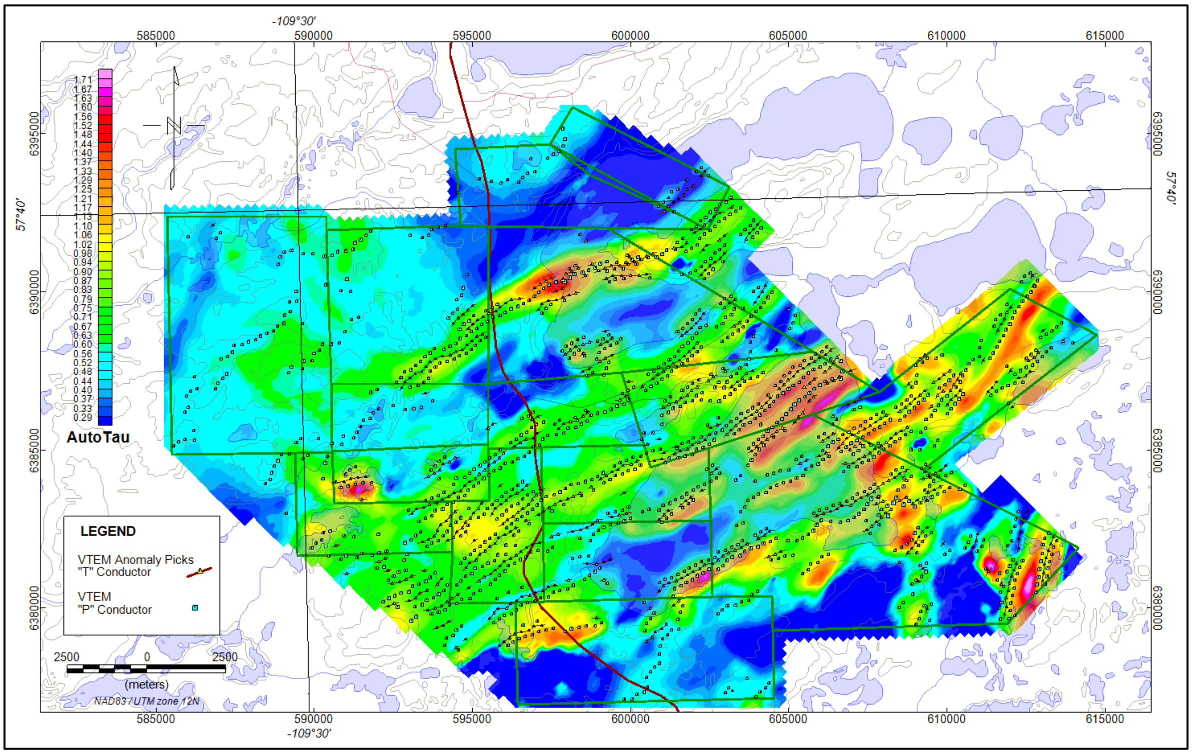
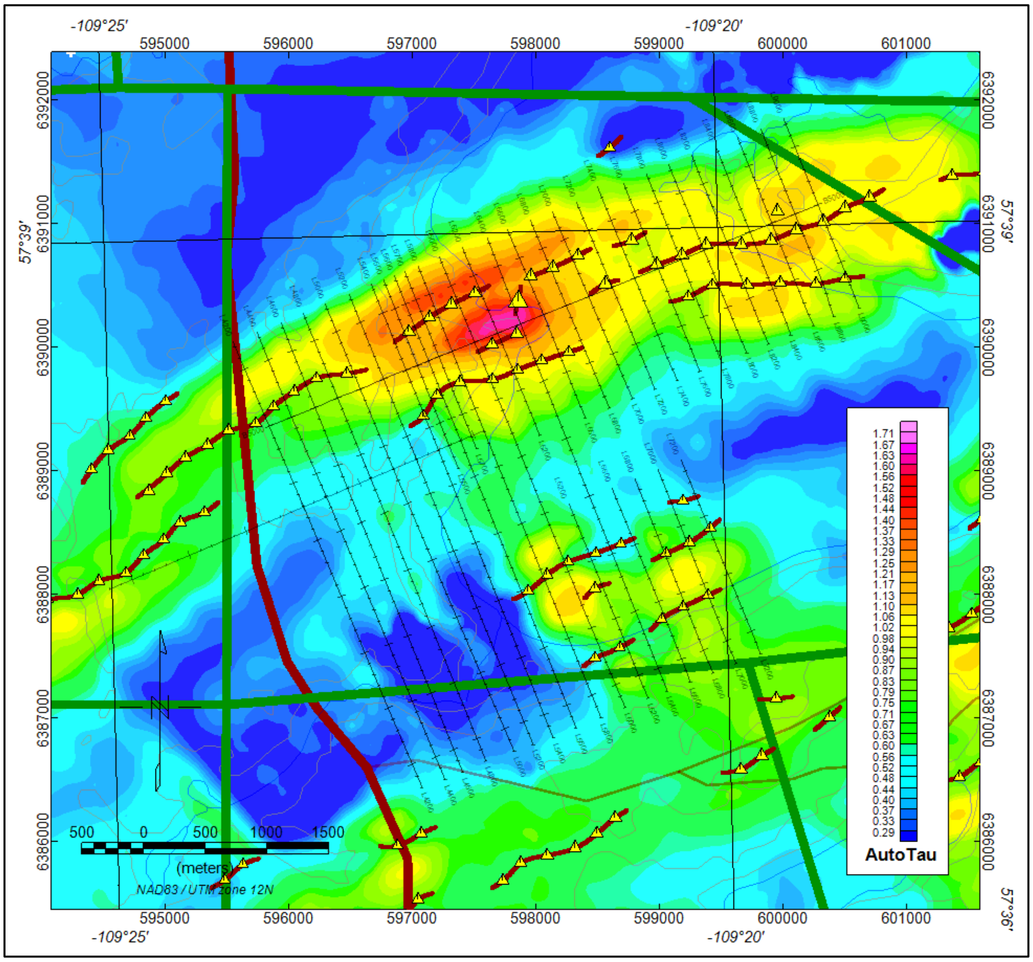


Figure 16 PLS Property VTEM Interpretation on the PLS Main Grid (See Figure 17 below).



9.2.2 2012 Ground DC Resistivity and SMLTEM Geophysical Surveys

Patterson Geophysics Inc. carried out ground DC resistivity and SMLTEM geophysical surveys from February 17th to April 23rd, 2012. In total, 53.45 line-kms of pole-dipole array D.C. resistivity, and 14.35 line-kms of small moving loop surface transient electromagnetic (SMLTEM) coverage were completed during the surveys (Figure 17 and 18).

DC Resistivity surveys are done by injecting a current (I) into the ground. The current is measured at the transmitter and usually consists of a modified square wave. For this survey, a modified pulse was used to try to reduce long transients due to the long infinite wire used for the potential readings (1 sec on, 1 sec off, 1 sec on reversed & 1 sec off). The receiver voltage (V) measurements are taken in line at an ‘a’ spacing at ‘n a’ distances from the current source. The resistance (R) at this point can be calculated using the measured current (I) & voltage (V) with ohm’s law ($V = I \cdot R$). The array geometry is used to calculate an apparent resistivity at depth. The apparent resistivity is plotted as pseudo-section, with each successive n layer plotted deeper.

The common exploration arrays are the Dipole-Dipole (DPDP), Pole-Dipole (PLDP) and Pole-Pole (PLPL) arrays.

Pole-Dipole Array: The pole-dipole is an asymmetrical array with the plot point defined as the mid-point between the Current and leading Potential electrodes. The Pole Dipole Array is maintains good signal strength and has been used for depth of up to 400m. The pole-dipole array shows a theoretical depth penetration equivalent to ~0.43 times the largest separation measured.

An enhanced pole-dipole array was used for this survey with an 'a-spacing' of 50m and n values from 0.5 to 8. For this survey, the approximate depth of investigation is equal to 0.43*50*8 or 175 meters.

The resistivity data is pre-processed with X2IPI software to remove Current and Potential electrode noise from the data. The data is filtered along the electrode paths allowing for efficient and smart removal of this type of noise. All resistivity profiles were filtered with X2IPI to remove Current and Potential Electrode effects as in the accompanying Figure. The measured data is shown in the upper left window. The processed data is shown in the upper right window. The filter is set to remove a minimal amount of noise arising from electrode (contact) effects and retain the geological information. The pole-dipole array is particularly susceptible to this type of noise. The removed values are low in amplitude and are oriented along the current and potential electrode directions. The 2D filtered sections are collated into a RES3DINV ".dat" format for final processing.

Data Inversion is important for Resistivity arrays. The inversion compensates for and removes geometrical effects such as "pant-leg" type responses and enables a more direct geological correlation of the resistivity data and the geology. The inversion process is also important for distinguishing the source of any anomalies (i.e. deep or shallow). RES2DINV and RES3DINV are Windows based computer programs which will automatically determine a resistivity model for the subsurface using the data obtained from electrical imaging surveys. The data must be collected with a system where the electrodes are arranged along a line with a constant spacing between adjacent electrodes.

To overcome some of the pitfalls in 2D inversions and to map large areas, multiple 2D profiles are inverted with the RES3DINV algorithms. The inversion settings changed from the defaults used in the RES3DINV inversion are as follows:

- The thickness of the first layer is set to ½ of the smallest electrode spacing.
- The factor to increase thickness layer with depth is 1.10.
- In this case, the vertical to horizontal flatness filter ratio = 0.5 (to sharpen horizontal features).
- An extra damping factor for first layer is set to 5.0.

The topography is extracted from NASA's SRTM (Shuttle Radar Topography Mission) data using GPS data collected during the survey. The SRTM data is available in a 90m grid almost worldwide and is freely available from NASA via the internet.

The data is inverted in local co-ordinates in RES3DINV. The inverted data is warped into UTM co-ordinates using the handheld GPS data collected during the survey. The solid 3D block was created and displayed in GEOSOFT. Areas outside of the measured data are masked out of the final resistivity volume. Slices and plans of the resistivity can be extracted from the 3D volume to present in 2D maps.

Attempts to map the expected conductive cretaceous sediments in this area with the resistivity proved confusing. The resistivity of the overburden is highly variable and basement contacts were difficult to observe in the sections. It is suspected the cretaceous material is non-uniform and consists of many small to large outliers.

To aid in selecting targets, a basement level of resistivity was used for interpretation purposes. The level slice at 350 masl was used for this purpose (Figure 19). Compared to deeper resistivity volumes in the Athabasca basin the area is quite conductive and a logarithmically spaced color bar from 1 to 10,000 ohm-m was used to display the data.

Figure 17 PLS Property - Main Grid Location.

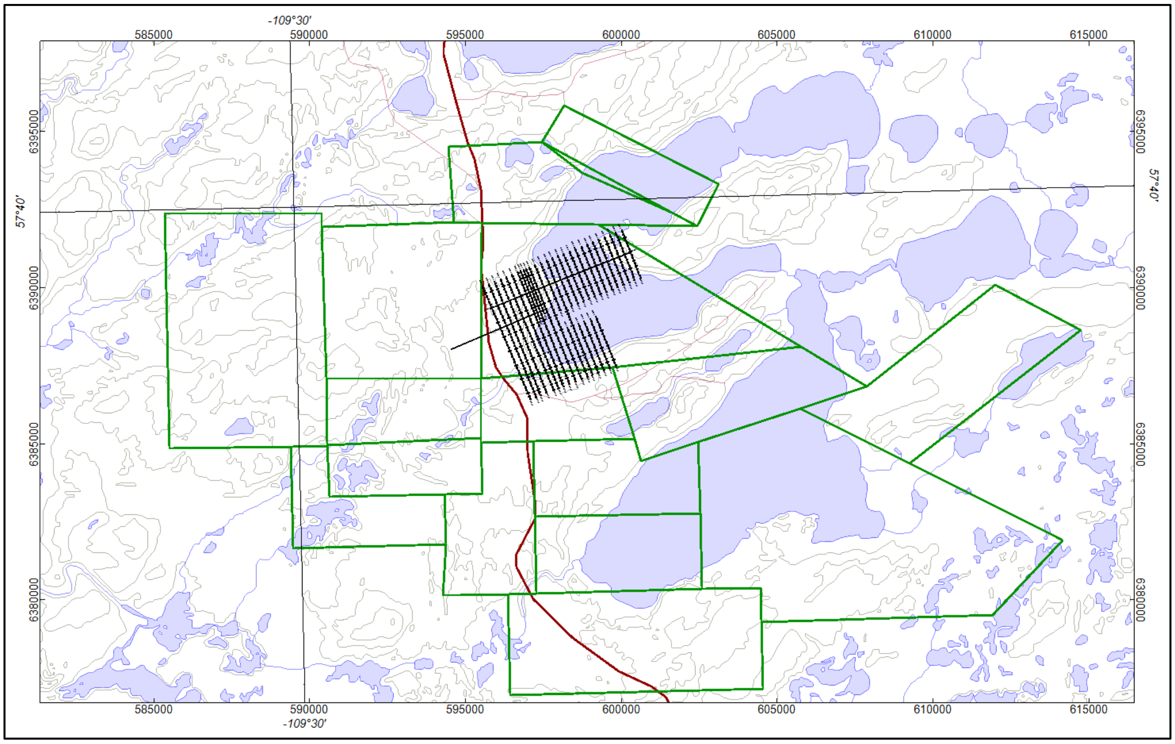


Figure 18 PLS 2012 Main Grid Ground DC Resistivity Coverage.

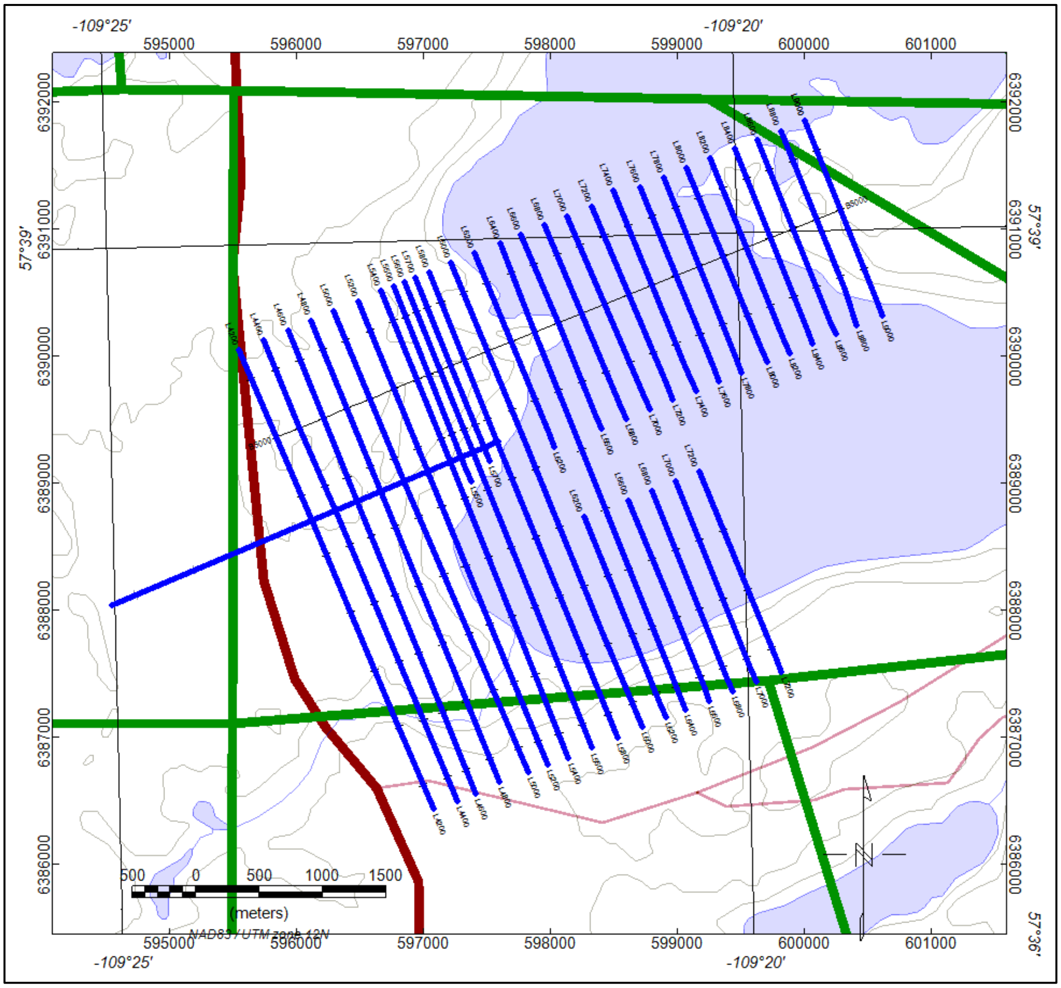
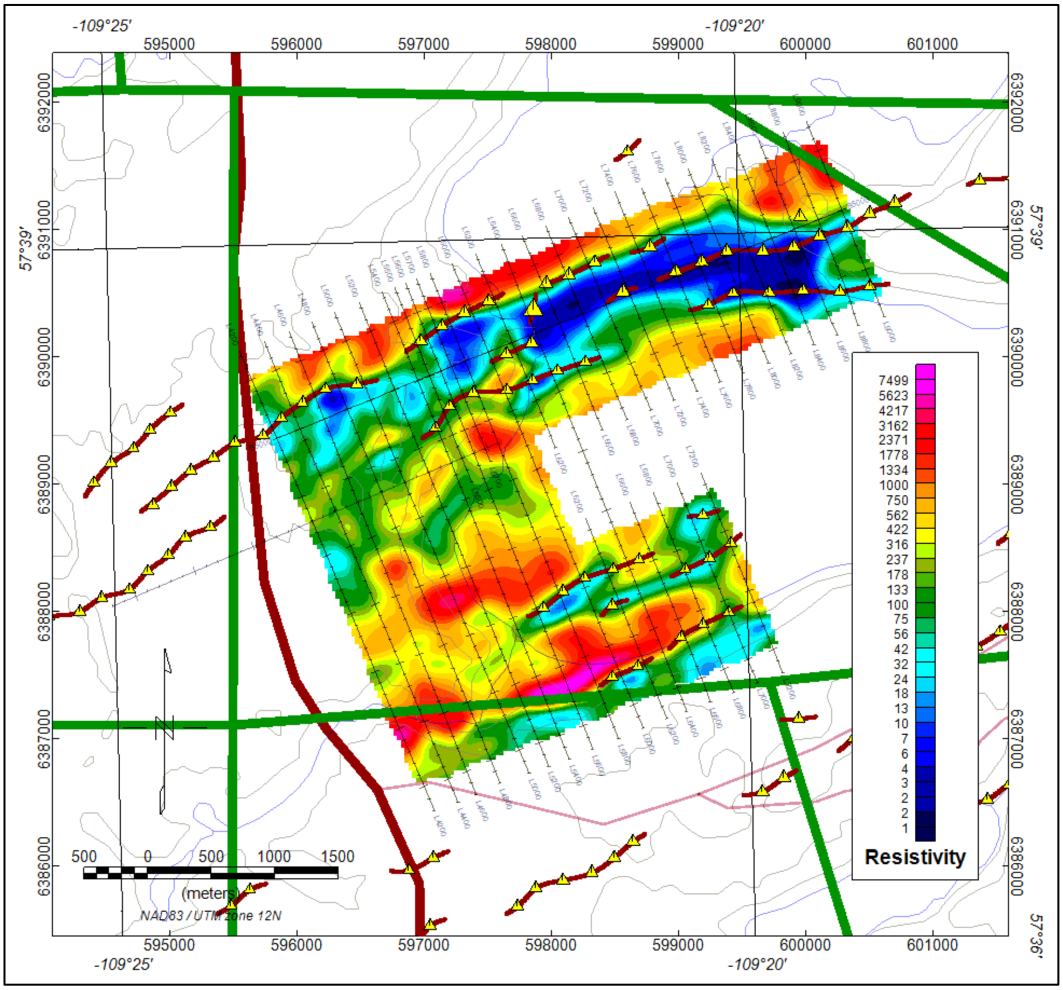


Figure 19 PLS 2012 Basement Resistivity for Elevation = 350 masl.



9.2.3 Winter-Spring 2012 Squid-EM Survey

A total of 14.35 line-kilometres of small moving loop surface transient electromagnetic (SMLTEM) survey coverage were completed along six (6) profiles situated on Fission‟s Patterson Lake South JV Project (Patterson Lake 2011-2012 Grid: L4800E, L6000E, L6200E, L6400E, L6600E, and L7600E, Figure 20).

One receiver was employed for this survey using an Electromagnetic Imaging Technology (EMIT) SMARTemV digital EM receiver, together with an Outer Rim Exploration (ORE) LANDTEM SQUID (Superconducting QUantum Interference Detector) high-temperature 3D magnetometer. For all six profiles the digital EM receiver and SQUID sensor were deployed 200 metres grid south of the transmit loop centres to acquire moving loop data.

The primary transient magnetic field for the SMLTEM SQUID survey was generated using a Geonics TEM57 transmitter, and an EMIT SMARTem transmitter controller. The loops consisted of a custom made, Geonics eight-turn, 84 m cable which was deployed as 20m × 20m square transmit loops, centred on the station pickets and rotated such that the loop sides were orientated 45° with respect to the survey lines. Synchronization between the SMARTem transmitter controller and the SMARTem receiver was maintained during the course of the survey by internal quartz crystal clocks.

The conventional sensor type used in TEM surveys is a coil. It measures the time derivative of the magnetic field resulting from electric currents induced in the ground. With a square transmitter waveform, this conventional measurement of dB/dt is an approximation of "impulse response". The equipment used for TEM electromagnetic surveys is normally the Geonics (PROTEM) or the EMIT (SMARTEM) Induction Coil Receiver combined with an EM37 transmitter. The EM-37 electromagnetic system consists of a transmitter loop and receiver configuration. The output current transmitted into the transmitter loop wire is a pulsed square waveform with a controlled ramp shutoff at a controlled base frequency (usually 30 Hz).

A B-field (SQUID) sensor can also be used in place of the Induction Coil receiver. This enables the collection of higher quality data at lower frequencies with the benefit of the B-field. By measuring TEM responses with a B-field sensor such as a Fluxgate Magnetometer or SQUID Magnetometer, one measures the time-integral of impulse response which is called "step response". The time-integral is an important "filter" and attenuates decays which are rapid (from weaker or unconfined conductors) in preference to decays which are slow (from strong conductors).

As a result of the preferential attenuation of fast decays in a B-field TEM survey, it is easier to observe the response of a good conductor in the presence of a weaker conductor such as a host, overburden or less conductive bedrock feature. The response of a good conductor is observed in a B-field TEM survey earlier in time than it is in an equivalent dB/dt survey which means that it is more likely to be above the noise floor of the TEM system.

The TEM signal is sensed at the receiver location by a coil or sensor that measures the transient response during the off time. For each component, the transient response is sampled and the data is digitally recorded within the receiver unit. All the TEM data is normally reduced to the form of nV/Am and a current of 1 ampere. B-Field data is reduced to the form of pT and a current of 1 ampere.

For moving loop surveys focused at the proper depth of basement conductors, filtering of the data is not often used, as the responses are very clear with a good signal to noise ratio.

Model studies have suggested that characteristic peaks (or troughs) of complex conductors in close proximity may be displaced from the actual conductor location. Some further modeling shows the peak displacements are also affected by the conductor dips, conductivity, transmitter-receiver spacing and the direction of the survey. These effects are reduced for smaller transmitter loops.

The overall shape and character of the conductor response appear independent of the direction of the survey, but the peak displacements are not. This suggests it is useful to generate models for each profile to determine the actual conductor locations. The procedure for interpreting EM data is to create relatively simple models with an inductive plate-modeling algorithm (Maxwell from EMIT - ElectroMagnetic Imaging Technology at www.electromag.com.au).to determine dips, positions and relative conductivity of complex conductors. This helps to compensate for any geometric effects of complex conductor systems.

Simple or complex conductors are based on the width of the anomalous troughs. A single conductor appears as a well-defined narrow anomaly. A complex conductor (either wide or multiple) appears as a much wider anomaly, which may be skewed depending on the conductivity differences within a wide conductor or among multiple conductors. The amplitude of the anomaly shoulders determines the dips of the conductors in the same manner as HLEM data. The layered (or background response) is simulated by a horizontal sheet. For moving loop surveys, a sheet encompassing the entire array is attached to the transmitter loop. For fixed loop surveys a large sheet (~10x loop size) is placed centered under each transmitter loop.

The data may be further complicated by areas of conductive background (conductive blocks). For moving loop surveys, these conductive blocks are simulated similarly as a layered background using a flat sheet offset to the side of the profile. A reliable technique is not available to simulate conductive blocks for the fixed loop methodology. The elevated background due to the conductive blocks is not immediately apparent until conductor models are examined.

The entire modeling process consists of a controlled inversion process with the Maxwell software. Sometimes many iterative steps use a previous model to determine a better model. Quite often only a single component and a narrow range of channels can be used to determine an inverted model for the late time responses.

EM-37 time constants can be measured by determining the slope of the late time decay. The direct measurement of the Tau time constant may not be possible for complex and near conductors due to shape interference and mutual inductive effects. The advent of newer SQUID B-Field measurements changes the measurement of a Tau constant considerably. Instead, the time constant Tau is based on the inverted model conductance with units of Siemens. This is a more accurate reflectance of a conductor's properties, as the interpreted model does not contain any influence of the background and helps resolve complex conductors.

The SQUID EM survey was performed in a Slingram configuration with the receiver placed at an offset of 200m and 800m from the centre of a 7-turn 20m x 20m custom Geonics transmitter loop. Table 6 and Figure 21 show the fitted interpretation based on the late time channels 1 to 18 of the Z component.

Figure 20 PLS Main Grid – 2012 SQUID-EM Coverage.

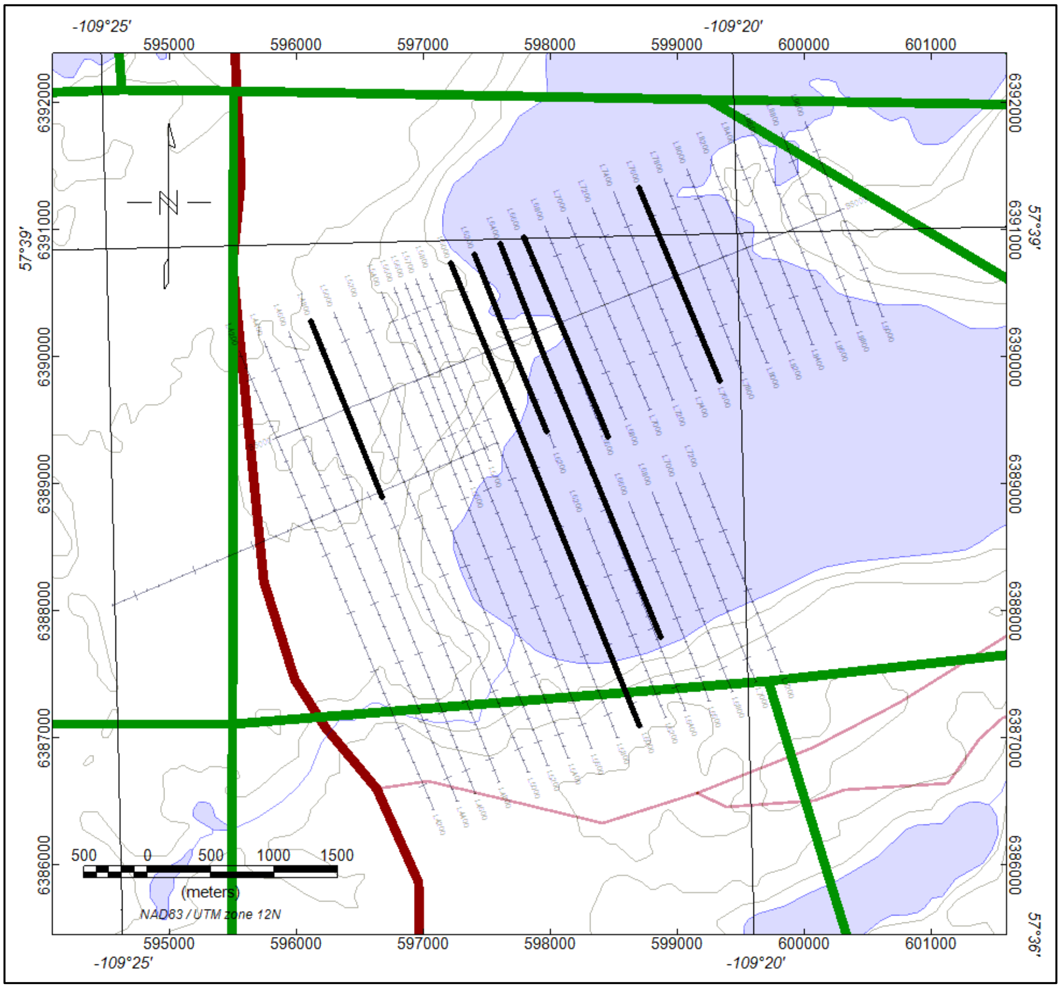
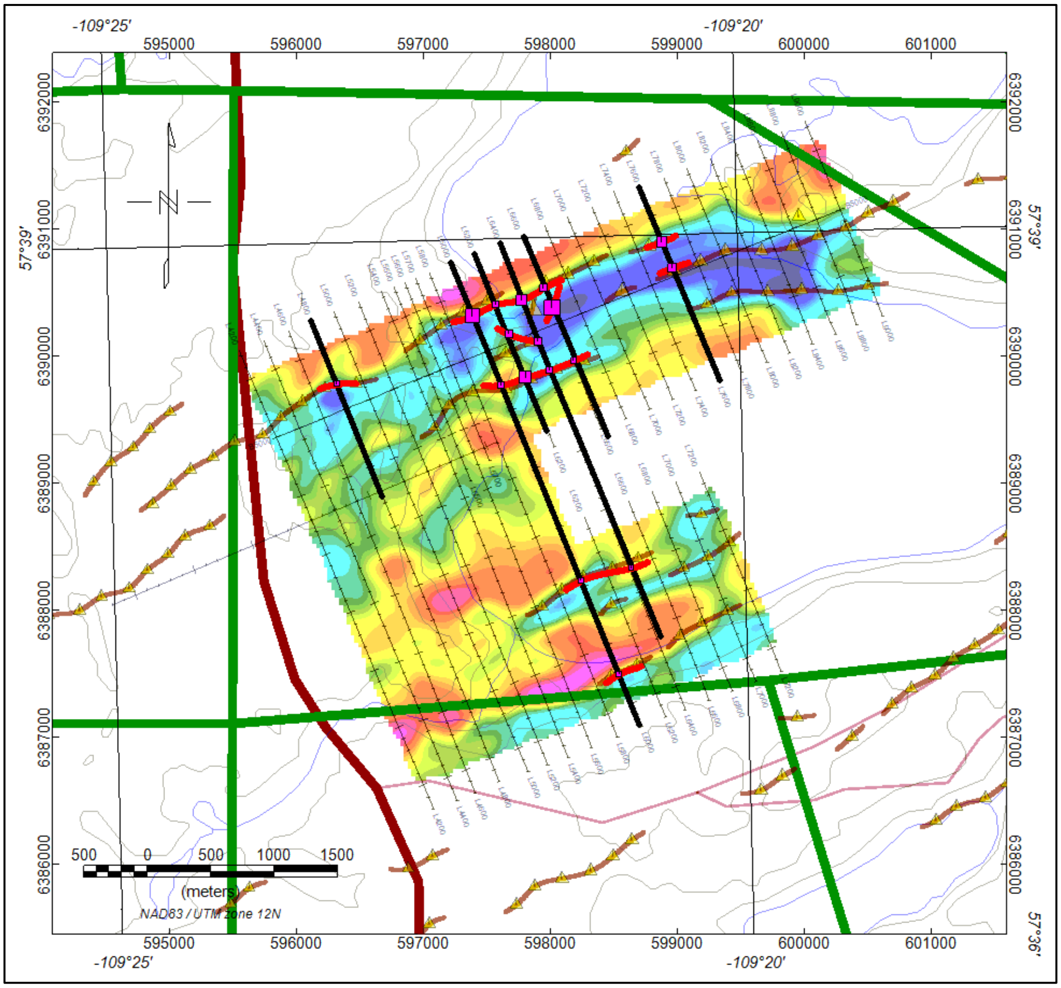


Table 6 PLS 2012 Main Grid TEM Conductor Summary.

Plate Name	Line	Sta	x	y	Depth	Dip	Conductivity-Thickness
A48	4800	5205	596314	6389777	-85	39	21.6
A60	5995	5300	597383	6390313	-80	69	292.3
B60	6000	4708	597612	6389768	-80	132	60.1
F60	6000	3046	598239	6388231	-65	59	26.4
G60	6000	2246	598540	6387495	-75	113	17.7
B62	6200	4693	597801	6389828	-86	137	215.6
A62	6200	5314	597565	6390403	-70	47	72.7
C62	6210	5061	597671	6390170	-80	127	101.6
G64	6400	2990	598635	6388330	-80	60	13.0
A64	6400	5273	597770	6390439	-76	48	193.5
C64	6400	4922	597900	6390112	-91	127	101.6
B64	6400	4676	597994	6389886	-94	70	48.3
A66	6600	5296	597944	6390533	-76	37	102.3
D66	6600	5127	598009	6390378	-76	90	350.1
B66	6600	4676	598179	6389961	-84	25	30.1
76A	7600	5283	598875	6390896	-77	60	171.3
76E	7600	5062	598959	6390693	-90	63	112.5

Figure 21 PLS 2012 TEM Conductor Locations.



9.2.4 Winter – Spring 2012 Discussion and Conclusions

Exploration at the PLS Property has been an ongoing process with drilling and geophysics (& processing) occurring concurrently. Geophysical survey parameters and survey coverage's have been adjusted on the fly for both targeting and economy as results dictated.

In the Athabasca Basin with competent sandstone cover, mineralization is typically accompanied by a conductor and an alteration halo observed as a resistivity low in the lower sandstone. In the absence of the sandstone layer (as in much of this project area), the alteration is expected to take on a different character consisting of a widening and /or increase in intensity of the basement resistivity.

The VTEM survey was instrumental in defining conductive packages over the entire project area. In many cases, the relatively shallow depth provided sufficient resolution from the airborne data to establish drill targets. However, the complex nature and sometimes flat-lying conductor geometry necessitates follow-up with ground EM systems as the in-loop geometry of the VTEM system does not adequately resolve complex conductors.

The DC Resistivity has been 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 and confirm some of the VTEM picks.

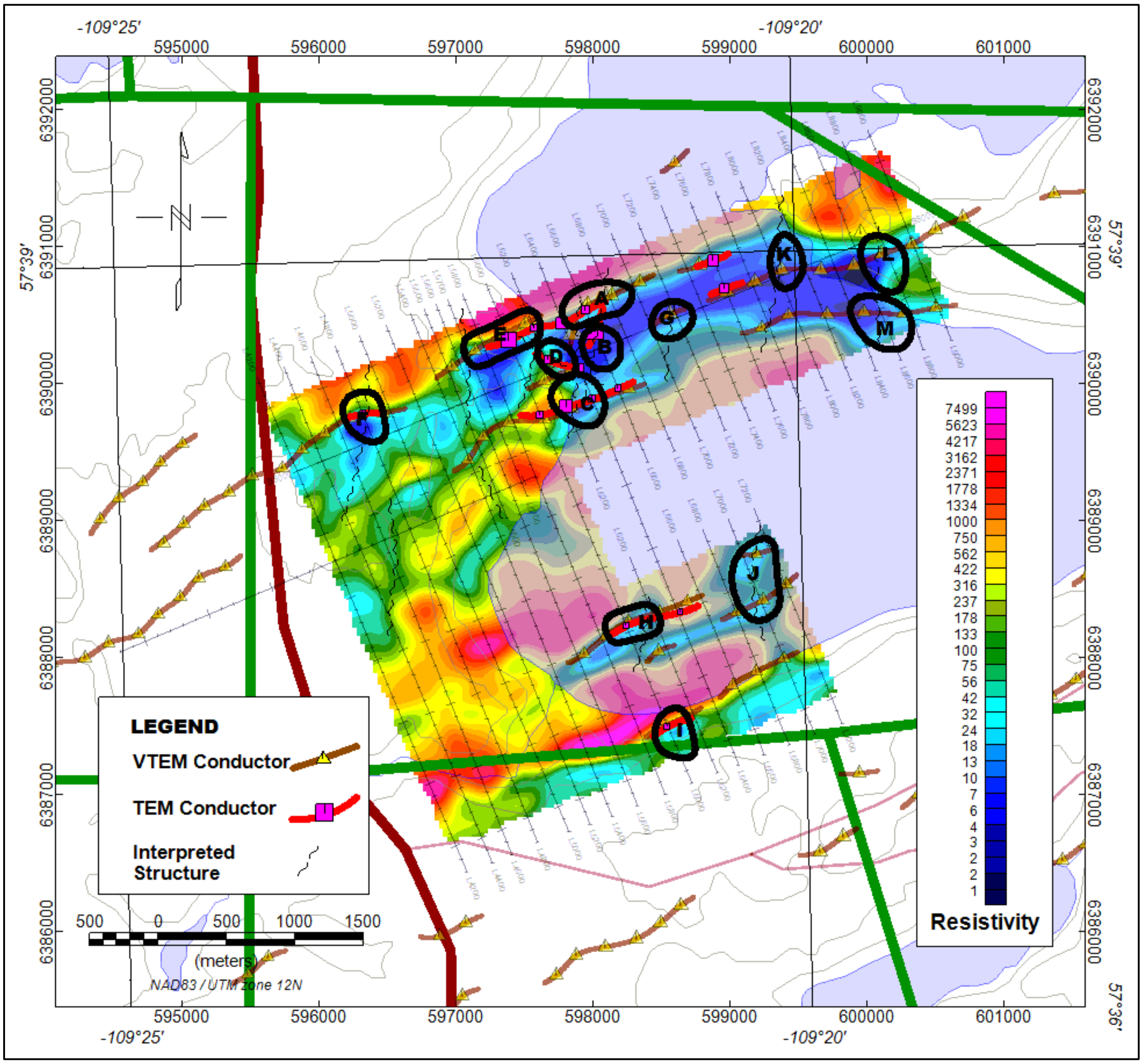
Based on the available geophysics data a number of targets can be selected on the PLS Main Grid for review and possible follow up (Figure 22):

List of Targets

- ***Target area A*** – PLS-A Conductor in the vicinity of cross structure indicated by a widening of the intense resistivity low. This area is also in a part of a VTEM conductive 'bright spot'. This conductor has a dip to the south.
- ***Target area B*** – EM cross conductor D in the vicinity of cross structure indicated by a widening of the intense resistivity low. This area is also in a part of a VTEM and EM conductive 'bright spot'. This conductor is sub-vertical.
- ***Target area C*** – PLS-B Conductor in the vicinity of cross structure indicated by a widening of the intense resistivity low. This conductor has a dip to the north.
- ***Target area D*** – PLS-C Conductor in the vicinity of cross structure indicated by a widening of the intense resistivity low. This conductor has a dip to the north. The direction indicated by this conductor/structure is to the NW as opposed to the NNE direction indicated by many of the resistivity inferred structures.
- ***Target area E*** – PLS-A conductor in the vicinity of structures near lines 5700E & 6200E as well as an EM conductivity high on line 6000E. This conductor has a dip to the south.
- ***Target area F*** – PLS-A conductor with an increase in the intensity of the resistivity low and an inferred resistivity cross structure. The conductor has a dip to the south.
- ***Target area G*** – VTEM conductor with inferred resistivity cross structure.
- ***Target area H*** – PLS-F conductor in the vicinity of increased resistivity low and probable cross structure. The conductor has a dip to the south.
- ***Target area I*** – PLS-G conductor on a slightly more intense resistivity low.
- ***Target area J*** – weaker VTEM conductors on a possible resistivity cross structure.

- ***Target area K*** – VTEM conductor along a resistivity inferred cross structure.
- ***Target area L*** – a VTEM conductor with an increased resistivity low and inferred resistivity cross structure.
- ***Target area M*** – a VTEM conductor with an inferred resistivity cross structure.

Figure 22 PLS 2012 Main Grid Geophysical Target Interpretation. Black Circles Identify Target Areas for Review and Follow Up.



9.2.5 Fall 2012 Ground Dc Resistivity and SMLTEM Geophysical Surveys

Discovery Geophysics Inc. carried out a ground DC resistivity geophysical survey from September 14th to 30th, 2012. In total, 24.6 line-km of pole-dipole array D.C. resistivity coverage was completed. Patterson Geophysics Inc. carried out a small moving loop surface transient electromagnetic (SMLTEM) from October 11th to 28th, 2012. In total, 12.0 line-km of coverage were completed during this survey.

The results and subsequent interpretation of the results of the survey were not available at the time of the completion of this report.

9.2.6 Fall 2012 Airborne Radiometric and Magnetic Geophysical Survey

Special Projects Inc. carried out simultaneous fixed wing radiometric and magnetic geophysical surveys from September 14th to 26th, 2012. A total of 5,787 line-kms of geophysical data was acquired during the surveys.

The results and subsequent interpretation of the results of the survey were not available at the time of the completion of this report.

9.2.7 Fall 2012 Boulder Prospecting

The boulder survey comprised traversing to radioactive hotspots with uraniferous signatures as identified from the September 2012 airborne radiometric survey. This survey was carried out from October 2nd to 15th, 2012. Radiometric readings in counts per second (cps) were observed with hand-held scintillometers while traversing and at the airborne radioactive hotspots. Where radiometric readings were elevated at the ground surface hand dug test pits were excavated until a uranium-mineralized boulder was found or no obvious radioactive source was located. Boulder prospecting was carried out with hand-held Exploranium GR-110G total count gamma-ray scintillometers.

A total of 48 radioactive boulder samples were recovered from two different areas as shown on Figure 23. Boulder prospecting in the first area (within mineral dispositions S-111375, S-111783, S-112219, S-112222, and S-112282) was southwest or down-ice from Patterson Lake, and the second area (within and outside mineral disposition S-112220) was southwest or down-ice from Forest Lake.

Boulder surveying in the Patterson Lake area recovered 40 radioactive boulders (PB12-117 to -156) with 17 of those samples having off-scale radioactivity (>9999 cps). All boulders were documented with location, size of the boulder, peak radioactivity measured in counts per second (cps). In addition all boulder samples were sent for geochemical analysis at SRC Labs. Unfortunately, boulder sample PB12-155 was lost during processing, and therefore no geochemical analysis was recorded and thus only its radioactivity data of 4207 cps is recorded. 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 Uranium (U) to 40.0% Uranium Oxide (U_3O_8) (Table 7; Figure 24). These additional boulder samples increased the size of the Patterson Lake boulder field to about 7.35 km long by up to 1.0 km wide, which represents the largest uranium boulder field in the Athabasca Basin.

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

Boulder prospecting in the Forest Lake area recovered 8 radioactive boulders (FB12-001 to -008) with radioactivity ranging from 139 to 1060 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 boulder samples ranged from cobble-sized to over 80 cm in the longest dimension. These 8 boulders were sent to SRC for geochemical analysis. The boulders returned uranium values of 6 to 84 ppm U.

Figure 23 PLS 2012 Boulder In-Situ Radiometric Results.

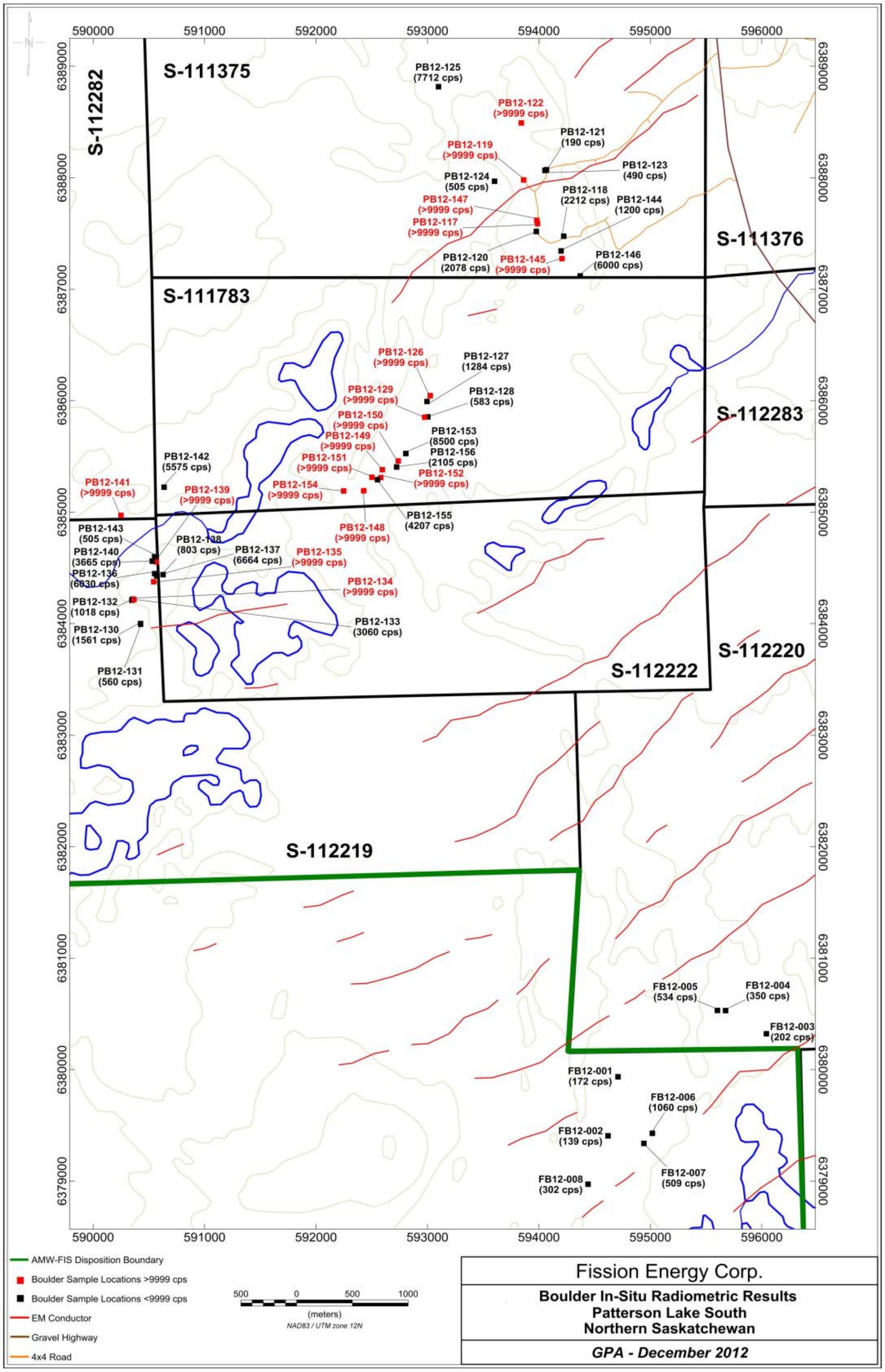
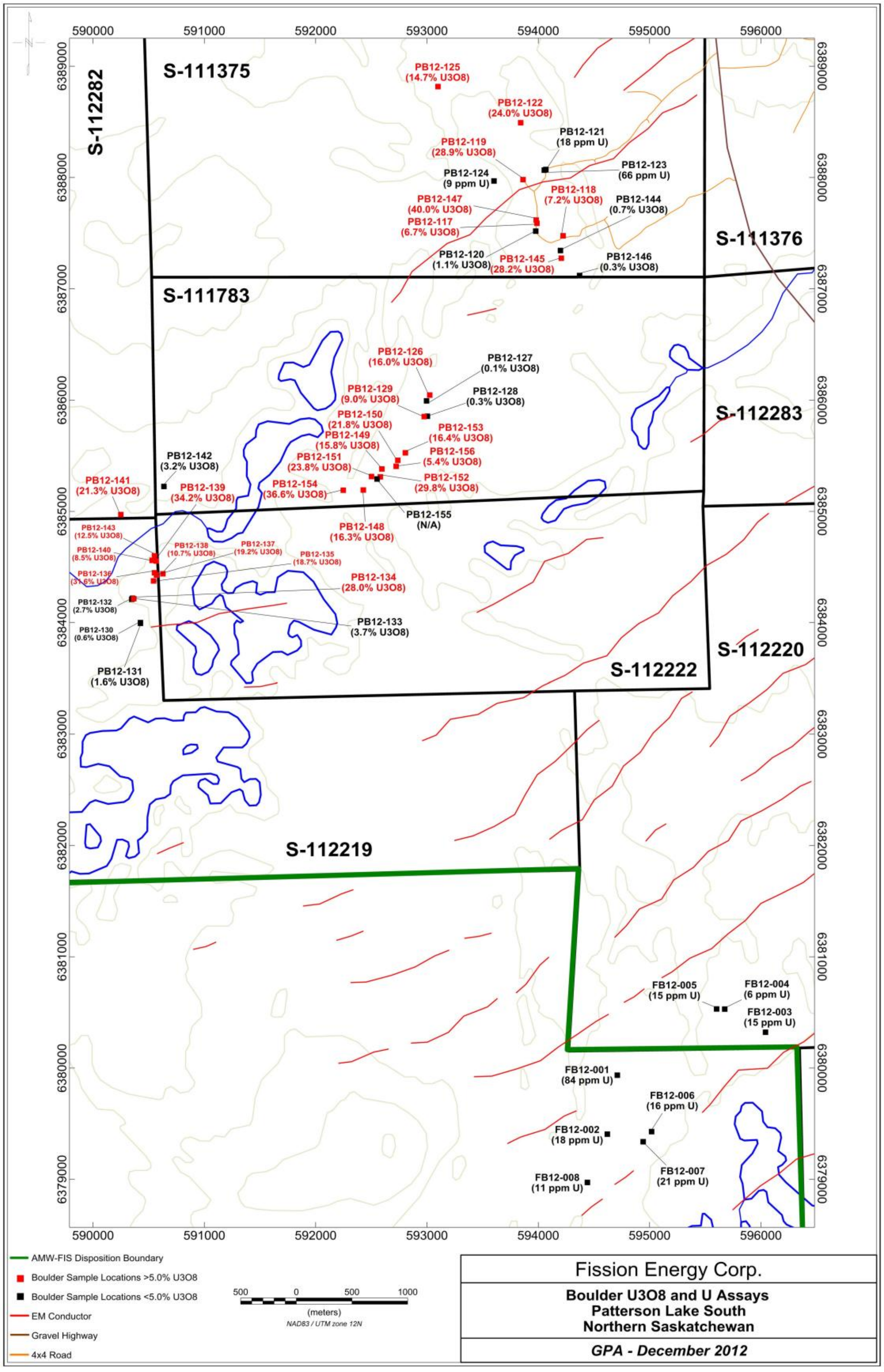


Table 7 Representative Geochemical Data for the 2012 PLS Boulder Samples.

Sample			U_3O_8	U	B	Co	Cu	Mo	Ni	Pb	Th	Zr
Location	Tag #	Date	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
PB12-117	51901	October 3, 2012	6.72	58500	276	6	33	10	62	2170	31	115
PB12-118	51902	October 3, 2012	7.2	61700	16	1	83	18	16	9760	32	33
PB12-119	51903	October 3, 2012	28.9	247000	22	5	72	54	47	23700	231	19
PB12-120	51904	October 4, 2012	1.08	9220	160	<1	50	9	20	489	14	147
PB12-121	51905	October 4, 2012		18	73	30	7	<1	49	30	1	114
PB12-122	51906	October 5, 2012	24	201000	29	<1	47	138	42	14800	141	163
PB12-123	51907	October 6, 2012		66	26	21	172	3	56	142	1460	249
PB12-124	51908	October 6, 2012		9	33	3	22	<1	8	31	383	332
PB12-125	51909	October 6, 2012	14.7	127000	19	3	74	39	29	16800	164	15
PB12-126	51910	October 11, 2012	16	135000	36	5	206	16	29	6190	127	10
PB12-127	51911	October 11, 2012	0.142	1200	138	1	218	38	11	216	17	188
PB12-128	51912	October 11, 2012	0.273	2300	341	2	32	10	81	187	9	1730
PB12-129	51913	October 11, 2012	8.95	75500	39	2	646	19	19	7730	101	3
PB12-130	51914	October 12, 2012	0.569	4610	177	2	62	2	64	911	20	310
PB12-131	51915	October 12, 2012	1.57	13200	207	2	19	6	43	995	6	104
PB12-132	51916	October 12, 2012	2.71	23000	66	2	203	8	10	1590	<1	39
PB12-133	51917	October 12, 2012	3.71	31500	62	8	245	4	26	2700	8	60
PB12-134	51918	October 12, 2012	28	249000	15	5	157	193	47	12200	261	<1
PB12-135	51919	October 12, 2012	18.7	157000	22	4	502	16	29	13000	155	165
PB12-136	51920	October 12, 2012	31.6	269000	36	4	201	76	44	10800	284	<1
PB12-137	51921	October 12, 2012	19.2	168000	40	3	994	36	34	17700	243	33
PB12-138	51922	October 13, 2012	10.7	94800	30	<1	52	35	19	9720	<1	63
PB12-139	51923	October 13, 2012	34.2	298000	41	9	317	30	61	6650	294	134
PB12-140	51924	October 13, 2012	8.49	71700	12	2	50	208	20	11100	73	31
PB12-141	51925	October 13, 2012	21.3	185000	16	7	154	122	35	11700	171	69
PB12-142	51926	October 13, 2012	3.15	26500	75	16	182	35	123	3340	12	44
PB12-143	51927	October 13, 2012	N/A	106000	11	<1	798	8	29	9080	502	6
PB12-144	51928	October 14, 2012	0.743	6190	434	12	322	15	45	2390	3	17
PB12-145	51929	October 14, 2012	28.2	255000	34	6	87	48	47	27400	268	<1
PB12-146	51930	October 14, 2012	0.27	2380	303	4	227	11	45	845	10	221
PB12-147	51931	October 14, 2012	40	348000	39	<1	59	87	60	17500	151	3
PB12-148	51932	October 15, 2012	16.3	143000	59	4	1080	14	39	9200	146	18
PB12-149	51933	October 15, 2012	15.8	137000	22	5	1370	52	30	11000	140	6
PB12-150	51934	October 15, 2012	21.8	188000	21	2	87	4	39	11600	219	<1
PB12-151	51935	October 15, 2012	23.8	205000	38	7	1100	13	56	8920	274	530
PB12-152	51936	October 15, 2012	29.8	249000	66	5	303	50	51	5090	262	19
PB12-153	51937	October 15, 2012	16.4	151000	20	6	59	12	51	22500	182	2
PB12-154	51938	October 15, 2012	36.6	298000	29	1	102	107	39	25400	175	<1

Sample			U_3O_8	U	B	Co	Cu	Mo	Ni	Pb	Th	Zr
PB12-155	51939	October 15, 2012	-	-	-	-	-	-	-	-	-	-
PB12-156	51940	October 15, 2012	N/A	45400	76	15	668	9	49	3020	<1	101
FB12-001	51951	October 3, 2012	-	84	7	5	<1	3	8	156	1190	2320
FB12-002	51952	October 3, 2012	-	18	21	10	12	4	29	29	140	169
FB12-003	51953	October 9, 2012	-	15	19	1	6	<1	3	25	51	84
FB12-004	51954	October 9, 2012	-	6	11	15	13	1	17	23	55	138
FB12-005	51955	October 9, 2012	-	15	6	3	4	<1	6	45	33	143
FB12-006	51956	October 9, 2012	-	16	8	9	3	<1	6	32	139	465
FB12-007	51957	October 9, 2012	-	21	6	12	8	<1	7	25	102	1080
FB12-008	51958	October 9, 2012	-	11	32	9	2	34	18	32	117	97

Figure 24 PLS 2012 Boulder In-Situ U and U_3O_8 Results.



10 DRILLING

The following is a description of drilling completed on the Property to date. This includes drilling completed by Fission on the PL property in 2008 (McCallum, 2008) and drilling completed by Fission and ESO (Alpha) in 2012 (Ainsworth, 2012a, b) and 2013 on the PLS property. All drill results reported are down-hole measurements. No drilling has been completed on the CW property. To the Authors knowledge, there are no known drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the results.

10.1 Patterson Lake Property

Between February 6th and April 15th, 2008 Fission contracted Peak Drilling Ltd. of Courtenay, BC to conduct drilling operations over the PL Property. In total, nine drill holes were attempted, totalling 2,795.22 meters (Figure 25; Table 8) (McCallum, 2008). All holes were drilled vertically. As they were reconnaissance scale holes, no downhole deviation surveys were performed and only minor deviation from vertical is assumed. Six of the nine holes were completed to the target depth successfully. Three of the nine holes had to be abandoned due to difficult overburden drilling conditions and thicknesses. As experienced in the 2006 and 2007 exploration programs, the overburden depths in the project area resulted in several failed attempts at targets, and some holes had to be abandoned completely. A downhole gamma survey was completed on three holes. Technical problems with the tool prevented the survey of the remaining 3 successfully drilled holes.

Drillhole PT08-001 and PT08-002A were targeted based on the anomalous portions of the 2007 radon cup and RadonEx grids, along the magnetic low zone north of Hodge Lake. PT08-003 was targeted in the southeast-northwest trending linear magnetic low zone south of Hodge Lake.

PT08-004A targeted a weak conductive feature (target 5 from the Airborne geophysical interpretation) and associated structure to the east of Harrison Lake.

PT08-005 targeted the moderate conductive area (target 4 from the Airborne geophysical interpretation) and associated structure. This hole ended in 81 metres of overburden to the north of Harrison Lake.

PT08-006, PT08-007B and PT08-008A targeted the moderate, steeply dipping conductor (target 6 from the Airborne geophysical interpretation) to the west of Harrison Lake

PT08-009A targeted the strong circular magnetic feature to the west of Harrison Lake, and attempted to define the basement lithology that produced the magnetic anomaly.

10.1.1 Methodology

All 2008 holes were drilled by Peak Drilling Ltd. with a Discovery EF-50 drill-rig on skids, rated at drilling up to 1500 metres depth. The thick accumulations of Quaternary and Cretaceous sediments were first tri-coned, followed by reaming NW-sized casing. All core-drilling was completed with NQ2-sized rods.

An attempt was made to survey all holes for radioactivity with a Mount Sopris 2PGA-1000 poly-gamma downhole probe, 1000m 4MXA winch, 5MXA Matrix Logging console, and a field-duty laptop. Due to mechanical issues, only three of the holes were probed.

All holes were scanned for radioactive zones with a hand-held GR-110 gamma-ray scintollometer.

Figure 25 Patterson Lake Property Drill Summary Map.

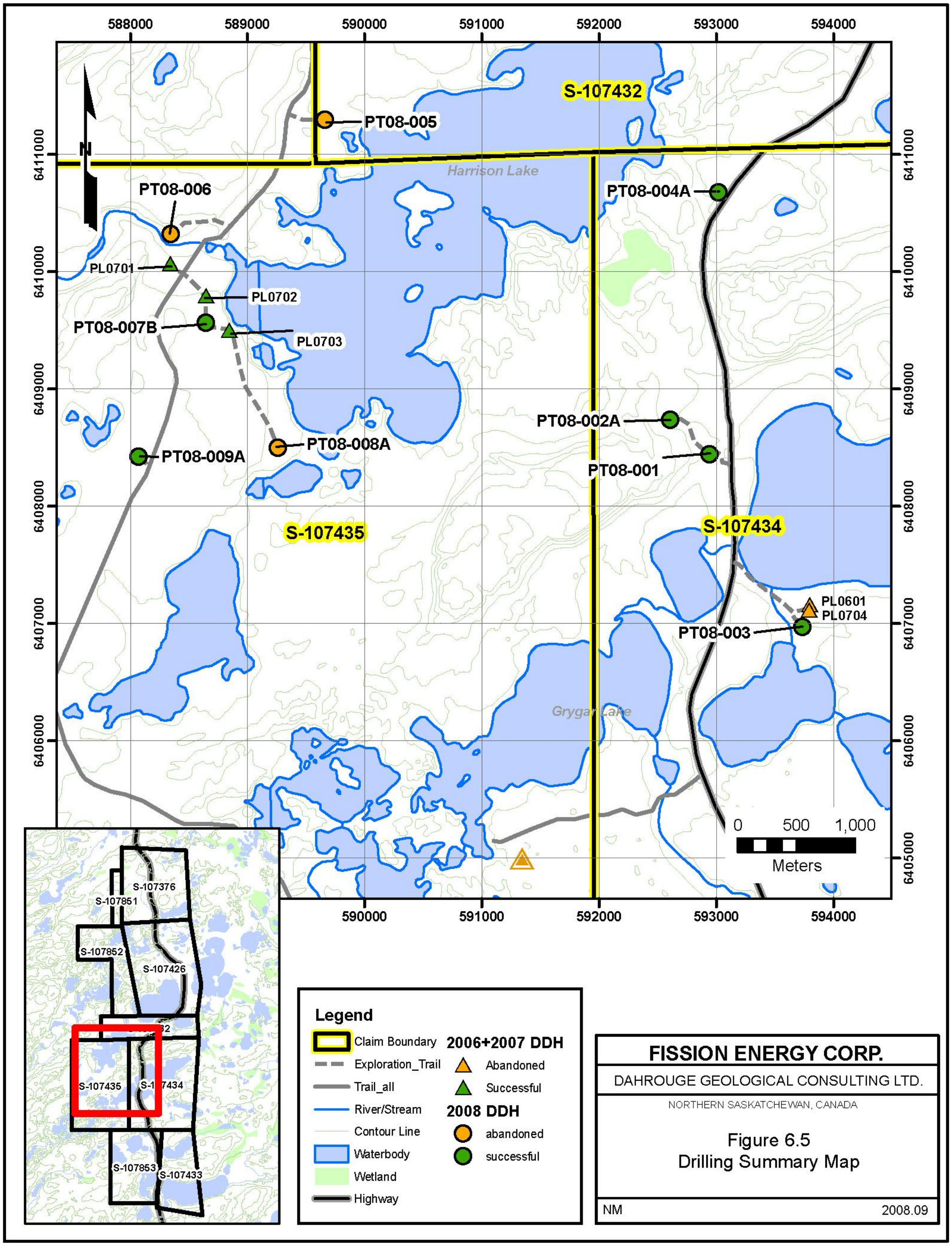


Table 8 PL and PLS Property Drill Hole Summary.

Hole ID	Easting (NAD83, Zn12)	Northing (NAD83, Zn12)	Elevation (m)	Az.	Dip	Overburden Depth (m)	End of Hole (m)
Patterson Lake							
PT08-001	592945	6408443	538	0	-90	43.04	320
PT08-002	592610	6408736	545	0	-90	42	42
PT08-002A	592610	6408736	545	0	-90	73	391
PT08-003	593739	6406967	528	0	-90	32	455
PT08-004	593023	6410676	540	0	-90	30	45
PT08-004A	593023	6410676	540	0	-90	29.6	521
PT08-005	589665	6411297	530	0	-90	81	81
PT08-006	588346	6410323	528	0	-90	100	100
PT08-007	588643	6409566	540	0	-90	97.5	97.5
PT08-007A	588646	6409565	540	0	-90	27	27
PT08-007B	588646	6409565	540	0	-90	97	240.8
PT08-008	589264	6408495	535	0	-90	100	100
PT08-008A	589264	6408495	535	0	-90	125.9	125.9
PT08-009	588072	6408418	534	0	-90	57	57
PT08-009A	588072	6408418	534	0	-90	128	192
				Total:			**2,795.20**
Patterson Lake South (Winter-Spring 2012)							
PLS12-001	598140	6390623	502.8	0	-90	66.1	123.4
PLS12-002	597852	6390639	502.8	0	-90	49.1	133.2
PLS12-003	597961	6390552	502.8	0	-90	59.8	114.9
PLS12-004	597844	6389813	502.8	0	-90	51.8	142.3
PLS12-005	598558	6390507	502.8	0	-90	53.8	124.1
PLS12-006	597935	6388015	502.8	0	-90	58.1	123.1
PLS12-007	598258	6388254	502.8	0	-90	51	105.8
PLS12-008	599235	6388412	502.8	0	-90	47.9	96.6
PLS12-009	598009	6390378	502.8	0	-90	75.2	151.5
PLS12-010	597770	6390439	502.8	0	-90	N/A	50.9
PLS12-011	598516	6387500	517	0	-90	57	87.5
PLS12-012	596310	6389774	540	0	-90	80	130.2
PLS12-013	597059	6389473	549	0	-90	93.7	192
PLS12-014	597047	6389481	551	0	-90	99.5	185
PLS12-015	597141	6389595	545	0	-90	96.2	189.2
PLS12-016	597799	6389635	505	0	-90	57.1	224.6
				Total:			**2,174.30**
Patterson Lake South (Fall 2012)							
PLS12-017	596681	6389194	554	0	-90	75.3	200.3
PLS12-018	596990	6389394	548	0	-90	90.3	178.9
PLS12-019	597064	6389461	547	0	-90	86.1	203.3

Hole ID	Easting (NAD83, Zn12)	Northing (NAD83, Zn12)	Elevation (m)	Az.	Dip	Overburden Depth (m)	End of Hole (m)
PLS12-020	597613	6389779	517	0	-90	58.1	136.3
PLS12-021	597898	6390113	505	0	-90	49.7	151.5
PLS12-022	597794	6389843	505	0	-90	55.3	212.5
PLS12-023	597789	6389853	506	0	-90	53.8	197.2
PLS12-024	597784	6389845	506	0	-90	56.2	191.1
PLS12-025	597778	6389853	507	0	-90	56.5	161.6
				Total:			**1,632.70**
PLSDR12-001	594218	6387472	554	0	-90	112	129
PLSDR12-002	594610	6387633	551	0	-90	112	134
PLSDR12-003	595304	6387756	550	0	-90	49	133
PLSDR12-004	595739	6389379	555	0	-90	85	130
PLSDR12-005	596496	6388791	549	0	-90	54	123
PLSDR12-006	596295	6388400	552	0	-90	73	128
PLSDR12-007	596306	6389515	552	0	-90	103	128
PLSDR12-008	596217	6389212	555	0	-90	77	117
PLSDR12-009	594855	6389385	549	0	-90	95	117
PLSDR12-010	594797	6388762	549	0	-90	74	120
PLSDR12-011	594985	6388496	551	0	-90	46	131
PLSDR12-012	594508	6388133	553	0	-90	60	139
				Total:			**1,529.00**

10.1.2 Sampling for Lithogeochemical Analysis

Analytical analysis that was conducted on the drill core consisted of systematic composite sampling throughout the sandstone column, targeted and detailed sampling within areas of alteration and/or radiometric anomalies, and systematic shortwave infrared spectral analysis (PIMA). Details of this type of sampling are provided below.

10.1.3 Systematic Sampling

Chip samples are taken every 1.5 metres, using 10 metre sample intervals in the sandstone column. This is continued from the top of the sandstone to 20 metres above the sub- Athabasca unconformity. Chip samples consist of 5 centimetre long intervals of whole-core.

From 20 metres to 5 metres above the unconformity, the sample interval changes from 10 metres to 5 metres. Chip samples are taken every 1.5 metres.

From 5 metres to 3 metres above the unconformity, the sample interval changes to 1 metre, and the chip samples are taken every 15 centimetres.

From 3 metres to the sub-Athabasca unconformity, 50 centimetre long split core samples are taken. From the unconformity to 3 metres below, 50 centimetre long split core samples are taken.

In hole PT08-009A, a systematic sampling of the entire basement was developed by taking 10 centimetre long split-core samples every 1 metre, with a sample interval of 5 metres.

10.1.4 Selective Sampling

Selective samples were taken in the basement rocks, where interesting features exist with respect to lithology, structures or alteration. These samples are typically split core, and are 0.5 to 1 metres long.

10.1.5 Sampling for PIMA clay analysis

Samples are collected every 5 metres within the Sandstone and Basement. Samples consist of approximately 5 centimetre long whole-core pieces that are dried in the open air before being sent for analysis.

PIMA Sampling technique (From Ken Wasyliuk, Northwind Resources Ltd.)

The reflectance spectra were acquired using an Integrated Spectronics PIMA II spectrometer. The PIMA II spectrometer is a non-destructive technique, which acquires reflectance data within the near-infrared part of the electromagnetic spectrum (1,300 to 2,500 nm), with a sampling interval of 2 nm. Each spectrum is comprised of 601 channels of data and the spectral resolution ranges from 6 to 10 nm. An internal halogen light acts as the source for the reflectance measurements with the sample held over the sample window.

Identification of minerals from reflectance spectra is based on comparison of the general characteristics of the spectra with reference spectra and the wavelength location of diagnostic absorption peaks. Only a limited number of reflectance visible minerals are expected within the Athabasca Group, including: illite, kaolinite, dickite, chlorite, and dravite. Identification and relative proportions of these minerals (and sub species) are derived using a combination of commercial and non-commercial software and algorithms.

10.1.6 Results & Discussion

The locations of the 2008 drillholes are outlined in Figure 11; along with the previously drilled 2006 to 2007 drillholes.

All holes display a background of approximately 10-60 counts per wecond (CPS). All holes display a distinct peak of over 200 cps approximately 20 metres above the sub-Athabasca unconformity. Due to the consistency of this feature, it is likely a lithological feature. The geologic logs note a transition into a pebbly conglomerate unit corresponding with increased radioactivityThe background readings of the basement within holes PT08-003 and 004A are approximately 100 to 200 CPS, whereas the background within PT08-002A is approximately 300 CPS.

Drillhole PT08-002A displays an anomalous peak of 1,060 CPS at 301 meters depth. Nothing is mentioned in the geologic logs with respect to favourable alterations or structures at this depth; however the intensity of the radiometric anomaly would suggest the possibility for nearby uranium accumulations. The lithogeochemical analysis did not detect any anomalous concentrations of uranium at this depth interval. Only values of less than 1 ppm were detected. It is assumed that the anomalous rock was not recovered during the drilling process.

In order to assess the trace element content within the sandstone column, several elements that have found to be associated with unconformity-style uranium deposits include nickel, uranium, vanadium, copper, lead, arsenic and boron. These elements were look at in holes PT08-001 through PT08-004A.

Hole PT08-001 does not display any anomalous trace element concentrations.

PT08-002A shows anomalous lead concentrations of up to 18.4 ppm (partial dilution) between 295 and 300.5 metres depth. All trace elements display a weak anomaly at 304 metres depth. This trace element enrichment occurs at the 1060 CPS downhole radioactive spike.

PT08-003 displays an anomalous lead anomaly of 23.8 ppm between 242 and 252 metres depth, within the sandstone.

PT08-004A displays several anomalous lead values between 270 metres and the base of the sandstone. The highest lead value was 54.8 ppm (partial dilution) between 373 and 374 metres depth.

Hole PT08-004A displays elevated Boron content in a large portion of the sandstone, including a very high anomaly of 2617 ppm at 362.5 metres depth. Spouck et al, 1983 found anomalous boron values are characteristic of the Key Lake, Midwest Lake and Eagle Point uranium deposits within the Athabasca Basin.

Other means of determining alteration within the sandstone has been described by Spouck et al, 1983. In this study, ratios of K2O/Al2O3 and MgO/Al2O3 were compared, and used to delineate illite-kaolinite ratios and chlorite contents at or near known uranium deposits. In general, high ratios of MgO/Al2O3 indicate the presence of chlorite within the sandstone column, and high ratios of K2O/Al2O3 indicate the presence of illite clays.

Drillhole PT08-001 displays low levels of K2O/Al2O3, suggesting the dominance of kaolinite. PT08-002A shows an increased K2O/Al2O3 values between 96 and 136 metres depth. PT08-003 shows a similar elevation in K2O/Al2O3 between 32 and 62 metres depth. PT08-004A shows an elevated K2O/Al2O3 between 70 and 140 metres depth. It is probable that given the similar thicknesses and depths, this elevated illite is due to lithological differences, rather than changes in the rock due to significant alteration close to a uranium deposit.

The MgO/Al2O3 values for all of the tested holes appear to be similar, with the exception of hole PT08-004A that has much higher magnesium content throughout most of the hole. This could be due to the presence of chlorite alteration within the majority of the sandstone.

Most holes show similar illite and kaolinite proportions within much of the sandstone. Holes PT08-002A, 003, and 004A display a distinct increase in the proportional amounts of illite and chlorite. The depth at which this feature occurs is similar to the increased illite concentrations derived from the K2O/Al2O3 ratios in each of the holes. This feature is again attributed to a different lithology. Hole PT08-004A displays a considerable increase in dravite proportion compared to the other holes. The higher dravite content is consistent with the anomalous boron content found in that hole.

10.1.7 Conclusions

The 2008 drilling program was successful in defining an anomalous drillhole, PT08-004A with respect to trace-element geochemistry, and clay content.

Another interesting conclusion of the 2008 drilling program is the difference in basement elevation between the eastern and western drilling areas. The western drilling area consisting of holes PT08-007B and PT08-009A did not intersect any Athabasca Sandstone, and the basement depths are approximately 97 and 128 metres respectively. The eastern drilling area, consisting of holes PT08-001, PT08-002A, PT08-003 and PT08-004A, intersected significant intervals of Athabasca Sandstone, and the basement depth is between 294 and 382 metres. This represents an approximate elevation change of 200 metres within 4 kilometres. Uranium mineralization within the Athabasca Basin is often associated with reactivated basement structural features, often with significant displacement of the unconformity. As such drill holes that target the location of this off-set between these eastern and western drilling areas in order to locate a possible faulted area to explain this basement elevation change. A ground gravity or resistivity surveys which are both useful to help delineate structural and alteration features should be conducted in this area in order to define the locations of the inferred fault area.

10.2 Patterson Lake South Property 2012 Winter – Spring Drill Program

Drilling during the 2012 Winter-Spring exploration program on the PLS property comprised 2,174.3 metres in 16 holes (PLS12-001 to PLS12-016) completed from February 29th to April 20th, 2012 (Figure 26, Table 8). Drilling in the overburden began with HQ and was cased with HW until the rods became stuck or bedrock was reached. If the HQ/HW became stuck NQ was drilled with NW casing until competent bedrock was encountered. Once in competent bedrock NQ coring without NW casing was utilized. Field preparation for the drill program took place from February 22nd to 28th, 2012. All exploration work was conducted within mineral disposition S-111376.

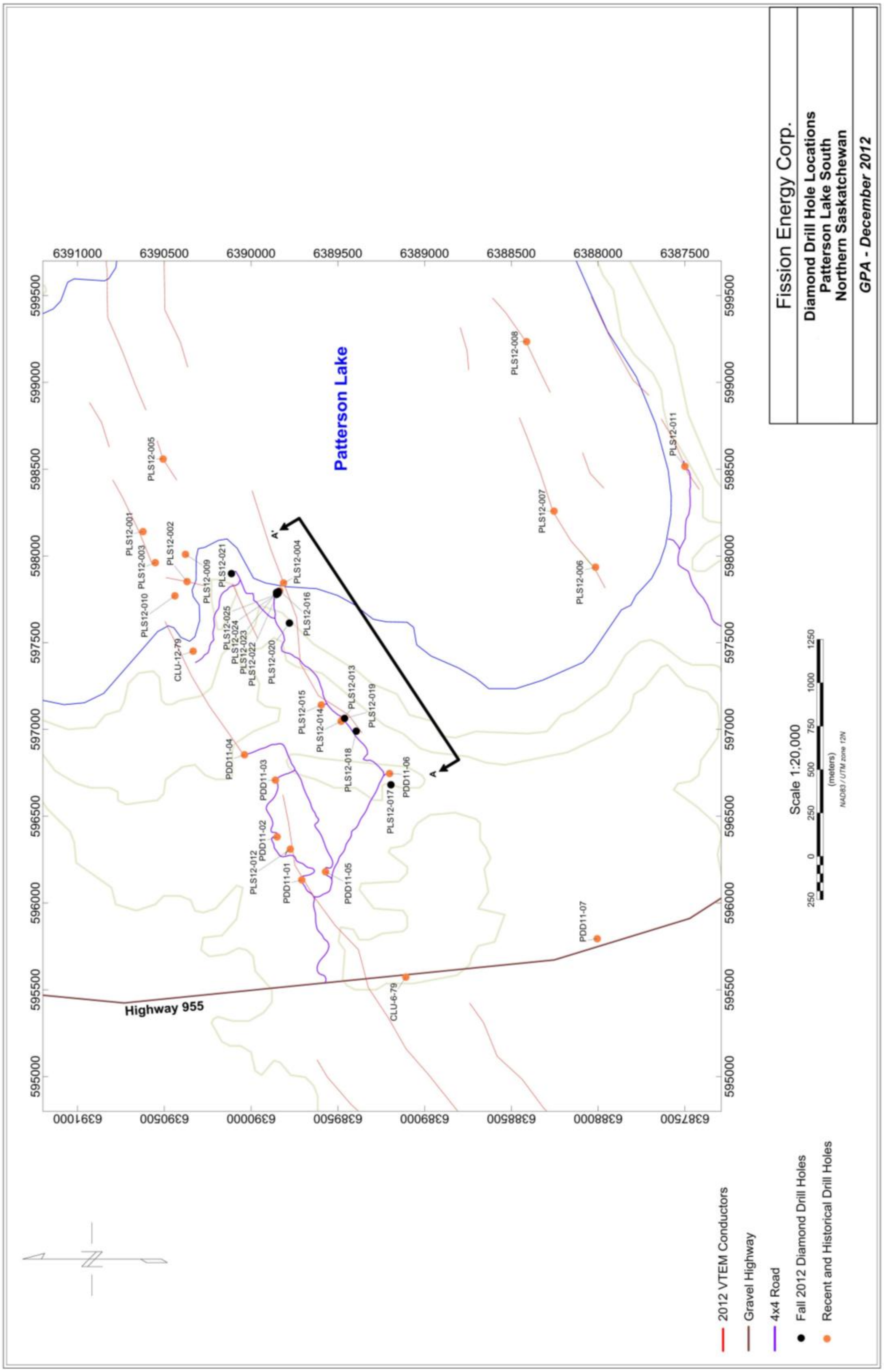
Geological logging and sampling was completed shortly after the drill contractor began to demobilize. Hardrock Diamond Drilling Ltd. of Penticton, British Columbia was the contractor, and utilized a CS10 Atlas Copco diamond drill rig for this program. All drill site preparation, road access, and reclamation was performed by the drill contractor's Komastu D65. The drill crew worked two 12-hour shifts per day. All holes were tested for dip deviations using acid tests. The core was logged by Garrett Ainsworth, Project Manager with Fission Energy Corp.

The core is located at the Big Bear Camp on Grygar Lake, Northern Saskatchewan. The purpose of the drill program was to test electromagnetic conductors that were identified by airborne VTEM and ground SMLTEM surveys that were completed by Fission-ESO in February 2012, and concurrent to the diamond drilling, respectively.

Down-hole gamma probing was conducted within the drill rods upon reaching the target depth. A Mt. Sopris winch, console, and 2PGA-1000 total gamma count probe was utilized to measure radioactivity in the overburden and bedrock. Hand held Exploranium GR-110 total count gamma-ray scintillometers were used to measure the radioactivity of the return water, and the drill core.

A Garmin GPSmap 60CSx® was utilized to locate all drill hole locations, as well as roads and traverses travelled. The UTM Co-ordinate system was used with map datum NAD83 in zone 12N.

Figure 26 PLS 2012 Diamond Drill Hole Locations on Claim S-111376.



10.2.1 Diamond Drill Hole Results

DDH PLS12-001

Drill hole PLS12-001 was ice-based on Patterson Lake, and targeted the northernmost conductor within the Patterson Lake Corridor. This conductor appears to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. The axis of this conductor divides very strong high and low resistivity anomalies.

PLS12-001 was cased through 8.6 m of ice and water, and 57.6 m of overburden that comprised coarse sand with trace to some gravel, cobbles, and boulders of Athabasca sandstone and lesser basement.

The overburden was underlain by Lloyd Domain lithologies that included quartz-feldspar-chlorite +/- muscovite gneiss and granofel, graphitic semi-pelitic, and mafic granofel from 66.2 m to the hole completion depth of 124.4 m.

Weak to strong hematite alteration was observed from 66.2 to 94.5 m. Weak to moderate chlorite alteration was noted from 66.2 to 94.5 m, and sporadically at depth. Weak spotty and patchy clay alteration was observed from 97.7 to 108.8 m. The graphitic interval was encountered from 101.4 to 121.9 m as finely disseminated grains, laminations, and fracture coatings, averaging approximately 8% and reaching concentrations in excess of 10% in isolated areas. This graphitic interval was also associated with 5 to 10% pyrite as finely disseminated, veins, and rarely semi-massive to massive.

Gamma probe results showed weakly anomalous radioactivity above 50 cps (up to 141 cps) between 58.7 and 62.4 m in the overburden. Radioactivity in the basement was not anomalous, and reached a maximum peak of 294 cps at 105.25 m.

Geochemical results from PLS12-001 returned background to weakly anomalous concentrations of U from 2 to 33 ppm. Concentrations of pathfinder elements range from background to moderately anomalous, and include maximum values of 135 ppm Co, 304 ppm Cu, 56 ppm Mo, 494 ppm Ni, 43 ppm Pb, 624 ppm B. No PIMA samples were recovered.

DDH PLS12-002

Drill hole PLS12-002 was ice-based on Patterson Lake, and targeted a strongly deflected section of the northernmost conductor within the Patterson Lake Corridor. This drill hole is also located on the shoulder of a strong magnetic high, and the axis of this conductor is well within a very strong low resistivity anomaly.

PLS12-002 was cased through 1.0 m of ice and water, and 48.1 m of overburden that comprised coarse sand with trace to some gravel, cobbles, and boulders of Athabasca sandstone and lesser basement.

The overburden was underlain by Lloyd Domain lithologies that included quartz-feldspar-chlorite-biotite-muscovite +/- garnet granofel, and quartz-feldspar-muscovite (graphite) gneiss from 49.1 m to the hole completion depth of 133.2 m.

Weak to strong bleaching, chlorite, and clay alteration was observed from 49.1 to 57.8 m; and sporadic weak to moderate chlorite alteration was noted from 57.8 to 106.3 m. Pervasive and spotty, weak to strong hematite alteration was observed from 61.0 to 94.7 m. The graphitic interval was encountered from 94.7 to 133.2 m as finely disseminated grains, laminations, and fracture coatings, averaging approximately 15%. This graphitic interval was also associated with 10 to 60% pyrite as finely disseminated, veins, blebs, and fracture coatings.

Gamma probe results showed weakly anomalous radioactivity above 50 cps (up to 93 cps) between 40.8 and 47.3 m in the overburden. Radioactivity in the basement was not anomalous with the exception of a sharp weakly anomalous maximum peak of 519 cps at 62.1 m.

Geochemical results from PLS12-002 returned background to weakly anomalous concentrations of U from 4 to 59 ppm. Concentrations of pathfinder elements range from background to strongly anomalous, and include maximum values of 346 ppm Co, 1220 ppm Cu, 129 ppm Mo, 499 ppm Ni, 80 ppm Pb, and 187 ppm B. Three samples returned moderately anomalous Au concentrations between 109 and 233 ppb. No PIMA samples were recovered.

DDH PLS12-003

Drill hole PLS12-003 was ice-based on Patterson Lake, and targeted the northernmost conductor within the Patterson Lake Corridor between drill holes PLS12-001 and -002. This conductor appears to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. The axis of this conductor divides very strong high and low resistivity anomalies.

PLS12-003 was cased through 7.7 m of ice and water, and 52.1 m of overburden that comprised coarse sand with trace gravel, cobbles, and boulders of Athabasca sandstone and lesser basement.

The overburden was underlain by Lloyd Domain lithologies that included quartz-feldspar-muscovite +/- chlorite gneiss, pegmatite, graphitic semi-pelitic and quartz-feldspar gneiss, graphitic cataclasite, and quartz-feldspar-garnet-biotite-muscovite granofel from 59.8 m to the hole completion depth of 114.9 m.

Weak to strong hematite alteration was observed from 59.8 to 81.3 m. Weak to moderate chlorite alteration was noted from 66.7 to 114.9 m. Weak to strong pervasive clay alteration was observed from 60.9 to 68.8 m. The graphitic interval was encountered from 81.3 to 109.4 m as finely disseminated grains, laminations, and fracture coatings, ranging from approximately 1 to 45% and reaching concentrations in excess of 45% in isolated areas. This graphitic interval was associated with trace to 20% pyrite as finely disseminated, veins, and fracture coatings.

Gamma probe results showed a weakly anomalous radioactive sharp peak of 59 cps at 59.3 m in the overburden. Radioactivity in the basement was not anomalous, and reached a maximum peak of 383 cps at 73.5 m.

Geochemical results from PLS12-003 returned background to weakly anomalous concentrations of U from 5 to 33 ppm. Concentrations of pathfinder elements range from background to moderately anomalous, and include maximum values of 46 ppm Co, 187 ppm Cu, 153 ppm Mo, 195 ppm Ni, 74 ppm Pb, and 688 ppm B. No PIMA samples were recovered.

DDH PLS12-004

Drill hole PLS12-004 was ice-based on Patterson Lake, and targeted the southernmost conductor within the Patterson Lake Corridor. This conductor appears to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. The axis of this conductor cuts through a very strong low resistivity anomaly.

PLS12-004 was cased through 1.2 m of ice and water, and 46.6 m of overburden that comprised bouldery coarse sand with abundant gravel, and cobbles of Athabasca sandstone and lesser basement. This overburden unit contained a 2.8 m thick seam of polymictic clay lodgement till.

The overburden was underlain by light grey sandstone comprised of coarse sub-angular quartz grains that enclose mafic minerals from 47.8 to 51.8 m. Rare light pink, sub-angular cobble-sized Athabasca sandstone fragments were incorporated into the light grey sandstone that is believed to be the La Loche Formation from the Devonian age.

The light grey sandstone was underlain by Lloyd Domain lithologies that included quartz-feldspar-biotite gneiss, fine-grained mafic gneiss, and quartzitic gneiss from 51.8 m to the hole completion depth of 142.3 m.

Weak to strong chlorite alteration was observed from 51.8 to 142.3 m. Weak to strong hematite alteration was also noted as intermittent within this interval. Dominant weak to moderate bleaching was observed as spots and bands from 119.9 to 142.3 m. Weak to moderate pervasive clay alteration was observed occasionally over intervals less than 3.5 m throughout the basement rocks. No graphite or sulphides were intersected; however, it was determined later that the drilled VTEM conductor axis was about 30 m south of the MLTDEM conductor axis.

Gamma probe results showed two very weakly anomalous radioactive sharp peaks of 61 and 51 cps at 43.1 and 44.1 m, respectively, in the overburden. Radioactivity in the light grey sandstone was weakly anomalous as it was dominantly greater than 100 cps, with maximum peaks up to 145 cps. Radioactivity in the basement was not anomalous, and reached a maximum peak of 493 cps at 84.1 m.

Geochemical results from PLS12-004 returned background to weakly anomalous concentrations of U from < 2 to 42 ppm. Concentrations of pathfinder elements range from background to moderately anomalous, and include maximum values of 48 ppm Co, 35 ppm Cu, 4 ppm Mo, 176 ppm Ni, 16 ppm Pb, and 201 ppm B.

PIMA II sampling of the Lloyd Domain basement assemblage is dominated by illite with secondary sudoite (Mg-Chlorite) at 67.0 m. Two samples at 134.6 and 138.7 m are dominated by sudoite (Mg +/- Fe-Chlorite) with secondary illite.

DDH PLS12-005

Drill hole PLS12-005 was ice-based on Patterson Lake, and targeted the middle conductor within the Patterson Lake Corridor. This conductor appears to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. This conductor is well within a very strong low resistivity anomaly.

PLS12-005 was cased through 4.5 m of ice and water, and 49.4 m of overburden that comprised bouldery coarse sand with some gravel and cobbles of Athabasca sandstone and rare basement.

The overburden was underlain by Lloyd Domain lithologies that included pyroxene-biotite-garnet-muscovite-quartz-feldspar gneiss and granofel, quartz-feldspar-pyroxene-biotite-muscovite +/- garnet gneiss, pelitic gneiss, graphitic semi-pelitic gneiss, and graphitic cataclasite from 53.9 m to the hole completion depth of 124.1 m.

Weak to strong chlorite alteration was observed from 53.9 to 110.2 m, and intermittently with less intensity from 110.2 to 124.1 m. Weak to moderate hematite alteration as bands, spots, veins, and fracture coatings was intermittent throughout the basement. Clay alteration was only identified as clay gouge within fractures, shears, or faults. Graphitic intervals were encountered from 93.6 to 94.9 m and from 110.2 to 120.9 m as finely disseminated grains, laminations, bandings, and fracture coatings, ranging from approximately 5 to 40%. The graphitic interval from 110.2 to 120.9 m was associated with 2 to 25% pyrite as finely disseminated, veins, and blebs.

Gamma probe results showed very weakly anomalous radioactivity above 50 cps (up to 62 cps) between 48.3 and 52.7 m in the overburden. Radioactivity in the basement was not anomalous with the exception of a sharp weakly anomalous maximum peak of 647 cps at 106.2 m.

Geochemical results from PLS12-005 returned background to weakly anomalous concentrations of U from 2 to 75 ppm. Concentrations of pathfinder elements range from background to moderately anomalous, and include maximum values of 103 ppm Co, 394 ppm Cu, 158 ppm Mo, 195 ppm Ni, 69 ppm Pb, and 638 ppm B. No PIMA samples were recovered.

DDH PLS12-006

Drill hole PLS12-006 was ice-based on Patterson Lake, and targeted a cluster of relatively short conductors located in the southwest bay of Patterson Lake. These conductors appear to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. The axis of the conductor targeted by this drill hole divides very strong high and low resistivity anomalies.

PLS12-006 was cased through 3.1 m of ice and water, and 57.9 m of overburden that comprised bouldery coarse sand with some gravel and cobbles of Athabasca sandstone and rare basement.

The overburden was underlain by Lloyd Domain lithologies that included quartzite gneiss, pyroxene-biotite-quartz +/- feldspar gneiss, quartz-feldspar-biotite gneiss, and diabase from 61.0 m to the hole completion depth of 123.1 m.

Moderate chlorite alteration was observed from 63.0 to 65.2 m, and weak chlorite alteration from 98.7 to 123.1 m. Weak hematite alteration was observed from 65.2 to 98.7 m, and weak to moderate hematite alteration from 102.6 to 123.1 m. No graphite or sulphides were intersected; however, it was determined later that the drilled VTEM conductor axis was about 30 m south of the MLTDEM conductor axis.

Gamma probe results showed very weakly anomalous radioactivity above 50 cps (up to 78 cps) between 58.3 and 61.0 m in the overburden. Radioactivity in the basement was not anomalous, and reached a maximum peak of 333 cps at 117.1 m.

Geochemical results from PLS12-006 returned background to very weakly anomalous concentrations of U from <2 to 16 ppm. Pathfinder elements are at background concentrations, and include maximum values of 19 ppm Co, 37 ppm Cu, 5 ppm Mo, 60 ppm Ni, and 22 ppm Pb. However, a maximum concentration of 220 ppm B is moderately anomalous. No PIMA samples were recovered.

DDH PLS12-007

Drill hole PLS12-007 was ice-based on Patterson Lake, and targeted a cluster of relatively short conductors located in the southwest bay of Patterson Lake. These conductors appear to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. The axis of the conductor targeted by this drill hole divides very strong high and low resistivity anomalies.

PLS12-007 was cased through 4.6 m of ice and water, 35.0 m of overburden that comprised coarse sand with trace to some gravel and cobbles of Athabasca sandstone and rare basement, and 11.1 m of brown clay lodgement till.

The overburden was underlain by Lloyd Domain lithologies that included fine grained mafic gneiss, pyroxene-biotite-feldspar-quartz gneiss, and quartzite gneiss from 50.7 m to the hole completion depth of 105.8 m.

Weak to moderate chlorite alteration was observed from 50.7 to 72.2 m, and from 81.0 to 105.8 m. Weak hematite alteration was observed from 72.2 to 81.1 m, and weak to moderate hematite alteration from 87.7 to 103.3 m. No graphite or sulphides were intersected; however, it was determined later that the drilled VTEM conductor axis was about 30 m south of the MLTDEM conductor axis.

Gamma probe results showed weakly anomalous radioactivity above 50 cps (up to 141 cps) between 47.2 and 49.0 m in the overburden. Radioactivity in the basement was not anomalous, and reached a maximum peak of 192 cps at 93.1 m.

Geochemical results from PLS12-007 returned mostly non-detectable concentrations of U from <2 to 2 ppm. Pathfinder elements are at background concentrations, and include maximum values of 15 ppm Co, 28 ppm Cu, 4 ppm Mo, 84 ppm Ni, 28 ppm Pb, and 69 ppm B. No PIMA samples were recovered.

DDH PLS12-008

Drill hole PLS12-008 was ice-based on Patterson Lake, and targeted a cluster of relatively short conductors located in the southwest bay of Patterson Lake. These conductors appear to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. The axis of the conductor targeted by this drill hole is within a low resistivity anomaly.

PLS12-008 was cased through 22.8 m of ice and water, 26.5 m of overburden that comprised coarse sand with trace gravel, cobbles, and boulders of Athabasca sandstone and rare basement.

The overburden was underlain by Lloyd Domain lithologies that included regolith altered gneiss, quartz-feldspar-garnet-muscovite gneiss, graphitic semi-pelitic gneiss, psammitic gneiss, strongly chloritized diabase, biotite-pyroxene-quartz-feldspar +/- sericite gneiss and granofel, and quartz-K-feldspar pegmatite from 49.3 m to the hole completion depth of 96.6 m.

Weak to strong chlorite alteration was observed from 49.3 to 96.6 m. Moderate hematite alteration was observed from 49.3 to 50.2 m, and intermittently weak hematite alteration from 56.3 to 85.1 m. Weak to extreme bleaching was observed from 49.3 to 53.4 m, and intermittently weak to moderate bleaching from 56.3 to 91.8 m. Trace amounts of finely disseminated graphite was intersected from 49.3 to 50.2 m, and the bulk of graphite was encountered from 51.9 to 56.3 m as finely disseminated and laminated ranging from 5 to 60%. No associated sulphides were observed.

Gamma probe results showed weakly to moderately anomalous radioactivity above 50 cps (up to 67 and 197 cps) from 42.3 to 44.8 m, and from 45.4 to 49.3 m, respectively, in the overburden. Radioactivity in the basement was not anomalous, and reached a maximum peak of 388 cps at 84.3 m.

Geochemical results from PLS12-008 returned non-detectable to weakly anomalous concentrations of U from < 2 to 35 ppm. Concentrations of pathfinder elements range from background to moderately anomalous, and include maximum values of 167 ppm Co, 127 ppm Cu, 19 ppm Mo, 268 ppm Ni, 36 ppm Pb, and 155 ppm B.

PIMA II sampling of the Lloyd Domain basement assemblage is dominated by illite with secondary kaolinite from 49.5 and 53.0 m. Kaolinite dominates with secondary illite from 54.0 and 55.3 m. No PIMA samples were recovered below 55.3 m.

DDH PLS12-009

Drill hole PLS12-009 was ice-based on Patterson Lake, and targeted a strongly deflected section of the northernmost conductor within the Patterson Lake Corridor. This drill hole is also located on the shoulder of a strong magnetic high, and the axis of this conductor is well within a very strong low resistivity anomaly.

PLS12-009 was cased through 1.4 m of ice and water, and 73.8 m of overburden that comprised coarse sand with trace to some gravel, cobbles, and boulders of Athabasca sandstone and lesser basement with alternating coarse sand lenses. This overburden thickness was unexpected as nearby drill hole PLS12-002 only intersected 48.1 m of overburden. The gamma probe results for PLS12-009 suggest that the overburden thickness is 44.2 m, which likely reflects the overburden's true thickness. Although the driller's did not report any core loss in the bedrock; it appears that there was core loss from 44.2 to 73.8 m.

The overburden was underlain by Lloyd Domain lithologies that included quartz-feldspar-garnet-muscovite gneiss, graphitic pelite gneiss, quartzite granofel, and quartz-feldspar-muscovite (graphite) gneiss and granofel, and pyroxene-biotite-garnet-muscovite-feldspar from 75.2 m to the hole completion depth of 151.5 m.

Weak to moderate chlorite, hematite, and bleaching alteration was rare, and was observed to be continuous for lengths of less than 4 m long. The graphitic interval was encountered from 77.7 to 123.8 m as finely disseminated grains, laminations, and fracture coatings, ranging from approximately 2 to 50%. This graphitic interval was also associated with trace to 40% pyrite as finely disseminated, veins, and blebs. Trace amounts of finely disseminated pyrite was also observed from 144.9 m to the end of the hole at 151.5 m.

Gamma probe results showed a very weakly anomalous radioactive sharp peak of 62 cps at 23.9 m in the overburden. Radioactivity in the basement was not anomalous, and reached a maximum peak of 305 cps at 86.8 m.

Geochemical results from PLS12-009 returned background to weakly anomalous concentrations of U from 4 to 21 ppm. Concentrations of pathfinder elements range from background to strongly anomalous, and include maximum values of 105 ppm Co, 1690 ppm Cu, 127 ppm Mo, 551 ppm Ni, 41 ppm Pb, and 111 ppm B. Three samples returned moderately anomalous Au concentrations between 109 and 233 ppb. No PIMA samples were recovered.

DDH PLS12-010

Drill hole PLS12-010 was ice-based on Patterson Lake, and targeted the northernmost conductor within the Patterson Lake Corridor. This conductor appears to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. The axis of this conductor divides very strong high and low resistivity anomalies.

PLS12-010 was cased through 6.5 m of ice and water, and 44.4 m of overburden that comprised bouldery coarse sand with some gravel and cobbles of Athabasca sandstone and lesser basement. Unfortunately, this drill hole was terminated at 50.9 m in the overburden due to deteriorating ice conditions.

DDH PLS12-011

Drill hole PLS12-011 was land-based, and targeted a short conductor located about 110 m south of the southwest bay of Patterson Lake. This conductor appears to be broken up with subtle flexures based on the VTEM and MLTDEM data interpretations. The axis of the conductor targeted by this drill hole divides high and low resistivity anomalies.

PLS12-011 was cased through 38.9 m of overburden that comprised bouldery coarse sand with trace to some gravel and cobbles of Athabasca sandstone and lesser basement, and 15.7 m of clay lodgement till. The overburden was underlain by dark grey Cretaceous mudstone from 54.6 to 57.0 m.

The mudstone was underlain by Lloyd Domain lithologies that included regolithic granofel, alternating quartz-feldspar-pyroxene-garnet-biotite granofel and mafic gneiss/granofel, and semi-pelitic gneiss from 57.0 m to the hole completion depth of 87.5 m.

Weak to moderate chlorite alteration was observed from 57.0 to 76.2 m. Intermittent weak to moderate hematite and bleaching alteration was observed from 77.7 to 83.0 m. Weak to strong clay alteration was often pervasive from 63.1 to 68.9 m. No graphite or sulphides were intersected, and the geophysical conductor was not explained at this location.

Gamma probe results showed very weakly anomalous radioactivity above 50 cps (up to 58 cps) between 50.4 and 51.7 m in the overburden. Radioactivity in the basement was not anomalous, and reached a maximum peak of 173 cps at 83.7 m.

Geochemical results from PLS12-011 returned background concentrations of U from 3 to 7 ppm. Pathfinder elements are at background to weakly anomalous concentrations, and include maximum values of 4 ppm Co, 37 ppm Cu, 4 ppm Mo, 119 ppm Ni, 12 ppm Pb, and 129 ppm B.

PIMA II sampling of the Lloyd Domain basement assemblage is dominated by illite with secondary kaolinite and trace chlorite at 59.6 m. Kaolinite dominates with secondary illite and trace dravite from 64.1 to 68.8 m. No PIMA samples were recovered below 68.8 m.

DDH PLS12-012

Drill hole PLS12-012 was land-based, and targeted the northernmost conductor within the Patterson Lake Corridor. This conductor appears to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. The axis of this conductor divides very strong high and low resistivity anomalies, and the drill hole is located on the shoulder of a magnetic high dome.

PLS12-012 was cased through 80.0 m of overburden that comprised coarse sand with abundant gravel, cobbles, and boulders of Athabasca sandstone and lesser basement. A well sorted coarse sand unit was intersected from 60.1 to 69.2 m.

The overburden was underlain by Lloyd Domain lithologies that included quartz-feldspar-pyroxene-biotite gneiss, and graphitic semi-pelitic gneiss from 80.0 m to the hole completion depth of 130.2 m.

Intermittent weak to moderate chlorite, hematite, and bleaching alteration was observed from 80.0 to 130.2 m. The graphitic interval was encountered from 117.9 to 120.5 m as finely disseminated grains and laminations comprising approximately 35% of the unit. This graphitic interval was also associated with trace pyrite as finely disseminated.

Gamma probe results showed background radioactivity below 50 cps in the overburden. Radioactivity in the basement was not anomalous, and reached a maximum peak of 144 cps at 112.3 m.

Geochemical results from PLS12-012 returned background concentrations of U from 2 to 11 ppm. Pathfinder elements are at background to weakly anomalous concentrations, and include maximum values of 34 ppm Co, 55 ppm Cu, 20 ppm Mo, 63 ppm Ni, and 14 ppm Pb. However, a maximum concentration of 142 ppm B is weakly anomalous. No PIMA samples were recovered.

DDH PLS12-013

Drill hole PLS12-013 was land-based, and targeted the southernmost conductor within the Patterson Lake Corridor. This conductor appears to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. The axis of this conductor cuts through a small low resistivity anomaly.

PLS12-013 was cased through 93.7 m of overburden that comprised coarse sand with abundant gravel, cobbles, and boulders of Athabasca sandstone and lesser basement. A brown lodgment till was intersected from 63.1 to 69.2 m. A dark grey clay was encountered from 90.5 to 91.8 m, which was underlain by a reddish brown clay containing gravel of basement and Athabasca sandstone.

The overburden was underlain by Lloyd Domain lithologies that included regolithic gneiss, gneiss with extreme chlorite alteration and moderate radioactivity, and alternating quartz-feldspar-biotite +/- pyroxene gneiss with pyroxene-biotite-feldspar-quartz gneiss from 93.7 m to the hole completion depth of 192.2 m.

Moderate to extreme chlorite alteration was observed from 93.7 to 136.8 m. Intermittent weak to strong chlorite alteration was intersected from 148.4 to 191.3 m. Weak to moderate bleaching was observed from 101.1 to 192.2 m. Weak to moderate hematite alteration was intersected from 159.2 to 192.2 m. Intermittent weak to extreme clay alteration was often pervasive from 93.7 to 124.8 m. No graphite or sulphides were intersected, and the geophysical conductor was not explained at this location. It is surmised that the graphitic conductor may have been consumed or altered by hydrothermal fluids.

Gamma probe results showed weakly to moderately anomalous radioactivity above 50 cps (up to 110 cps) from 63.9 to 65.5 m, 77.1 to 84.4, and 87.6 to 93.7 m in the overburden. Radioactivity in the basement showed a moderately anomalous zone from 98.2 to 117.2 m that averaged 982 cps with a maximum peak of 1982 cps.

Geochemical results from PLS12-013 returned background to moderately anomalous concentrations of U from <2 to 287 ppm. Pathfinder elements are at background to weakly anomalous concentrations, and include maximum values of 69 ppm Co, 54 ppm Cu, 13 ppm Mo, 164 ppm Ni, 15 ppm Pb, and 142 ppm B. Values for Cu and Mo seem to be oddly low considering the moderately anomalous U.

PIMA II sampling of the Lloyd Domain basement assemblage is dominated by kaolinite with secondary illite and trace chlorite and dravite from 94.0 to 103.7 m. No PIMA samples were recovered below 103.7 m.

DDH PLS12-014

Drill hole PLS12-014 was land-based, and was located 20 m to the northwest of PLS12-013 to test the predicted conductor down dip for radioactivity. The targeted southernmost conductor of the Patterson conductor corridor appears to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. The axis of this conductor cuts through a small low resistivity anomaly.

PLS12-014 was cased through 99.5 m of overburden that comprised coarse sand with abundant gravel, cobbles, and boulders of Athabasca sandstone and no basement. A brown lodgment till was intersected from 50.9 to 78.3 m.

The overburden was underlain by Lloyd Domain lithologies that included regolithic quartz-feldspar gneiss, quartz-feldspar-biotite +/- pyroxene gneiss, pyroxene-biotite-feldspar-quartz gneiss, and graphitic pelitic gneiss from 99.5 m to the hole completion depth of 185.0 m.

Weak to extreme chlorite alteration was observed from 99.5 to 185.0 m. Weak to moderate bleaching was observed from 99.5 to 149.2 m, and intermittently from 165.4 to 183.7 m. Weak hematite alteration was intersected from 181.8 to 185.0 m. Intermittent moderate to extreme clay alteration was observed coincident with the graphitic units. No sulphides were intersected.

Gamma probe results showed weakly to moderately anomalous radioactivity above 50 cps (up to 349 cps) from 42.6 to 44.3 m, 54.3 to 60.3 m, 62.3 to 69.3 m, and 79.1 to 99.5 m in the overburden. Radioactivity in the basement showed seven sharp gamma peaks over 500 cps with a maximum peak of 907 cps.

Geochemical results from PLS12-014 returned background to weakly anomalous concentrations of U from <2 to 78 ppm. Pathfinder elements are at background to weakly anomalous concentrations, and include maximum values of 25 ppm Co, 21 ppm Cu, 4 ppm Mo, 147 ppm Ni, 25 ppm Pb, and 133 ppm B. Values for Cu and Mo seem to be oddly low considering the weakly anomalous U.

PIMA II sampling of the Lloyd Domain basement assemblage is dominated by kaolinite with secondary illite in two samples from 101.5 and 108.6 m. No PIMA samples were recovered below 108.6 m.

DDH PLS12-015

Drill hole PLS12-015 was land-based, and was located 150 m to the northeast of PLS12-013 along the southernmost conductor of the Patterson conductor corridor. The conductor targeted at PLS12-015 appears to have a prominent cross cutting structure as interpreted from the MLTDEM and DC resistivity data.

PLS12-015 was cased through 38.7 m of overburden that comprised coarse sand with some gravel, cobbles, and boulders of Athabasca sandstone and lesser basement. This is underlain by 32.9 m of dark brown to dark grey clay lodgement till. The overburden was underlain by dark grey Cretaceous mudstone from 71.6 to 96.2 m.

The mudstone was underlain by Lloyd Domain lithologies that included regolithic quartz-feldspar gneiss, quartz-feldspar-biotite gneiss, pelitic gneiss, quartzite gneiss and granofel, and pyroxene-biotite +/- feldspar +/- quartz gneiss and granofel from 96.2 m to the hole completion depth of 189.3 m.

Weak to extreme chlorite alteration was observed from 96.6 to 189.3 m. Weak to moderate bleaching was encountered from 96.6 to 121.1 m, and from 154.2 to 177.4 m. Weak hematite alteration was intersected from 112.3 to 123.9 m, 170.7 to 177.4 m, and 181.3 to 182.3 m. Weak to strong clay alteration was observed from 100.9 to 121.1 m. Moderate clay alteration was associated with pelitic gneiss at 128.4 to 129.8 m, 133.7 to 134.1 m, and 143.1 to 143.3 m. No sulphides were intersected.

The predicted cross cutting structure from geophysical data at PLS12-015 was confirmed by evidence of faulting observed in the drill core from 99.7 to 108.0 m, and 139.9 to 142.4 m.

Gamma probe results were not anomalous within the coarse sand with some gravel, cobbles, and boulders. The clay lodgement till showed numerous intervals of weakly anomalous radioactivity above 50 cps (up to 63 cps). An interval from 70.1 to 71.2 m with moderate radioactivity (up to 272 cps) within the clay lodgement till was associated with a K-feldspar granite boulder (likely from the Clearwater Domain) as confirmed by recovered drill core. A curious moderately radioactive (up to 1259 cps) interval occurs within the Cretaceous mudstone. Radioactivity in the basement showed a moderately anomalous zone from 103.5 to 115.4 m that averaged 789 cps with a maximum peak of 1483 cps. Further down hole, radioactivity in the basement showed four sharp gamma peaks over 500 cps with a maximum peak of 817 cps. Lastly, a strongly radioactive interval from 153.0 to 154.1 m associated with a void (no drill core recovered) averaged 1545 cps with a maximum peak of 3234 cps

Geochemical results from PLS12-015 returned background to moderately anomalous concentrations of U from 2 to 156 ppm. Pathfinder elements are at background to weakly anomalous concentrations, and include maximum values of 67 ppm Co, 37 ppm Cu, 14 ppm Mo, 216 ppm Ni, 11 ppm Pb, and 216 ppm B. Values for Cu, Mo, and Pb seem to be oddly low considering the moderately anomalous U.

PIMA II sampling of the Lloyd Domain basement assemblage is dominated by illite with secondary kaolinite and minor chlorite at 96.4, 97.0, 100.0, 108.0, and 112.0 m. Kaolinite dominates with minor chlorite and trace dravite at 140.0 m. No PIMA samples were recovered below 140.0 m.

DDH PLS12-016

Drill hole PLS12-016 was land-based on the shore of Patterson Lake, and was located 823 m to the northeast of PLS12-013 along the southernmost conductor of the Patterson conductor corridor. The conductor targeted at PLS12-016 appears to have a prominent cross cutting structure as interpreted from the DC resistivity data.

PLS12-016 was cased through 53.2 m of overburden that comprised coarse sand with trace gravel, cobbles, and boulders of Athabasca sandstone and rare basement. The overburden was underlain by coarse grained light grey sandstone (likely Devonian La Loche Formation) containing sub-angular clasts up to pebble-size of quartz and lithics from 53.2 to 57.1 m.

The sandstone was underlain by Lloyd Domain lithologies that included quartzite gneiss, quartz-feldspar-biotite gneiss, quartzite granofel with a purple hue, and alternating graphitic psammitic and pelitic gneiss from 57.1 m to the hole completion depth of 224.6 m. Of note, quartz grains with a purple hue were found to grade down the hole to quartz grains with a blue hue within the meta-sediments.

Weak to strong chlorite alteration was observed from 57.1 to 121.7 m, weak to moderate chlorite alteration from 121.9 to 155.4 m and 156.0 to 160.6 m, intermittent weak chlorite alteration from 171.7 to 177.7 m, and weak to moderate chlorite alteration from 180.3 to 224.6 m. Intermittent weak to moderate bleaching was observed from 57.1 to 90.7 m, intermittent weak to strong bleaching from 105.1 to 180.3 m, and intermittent weak to moderate bleaching from 187.9 to 207.4 m. Weak to extreme hematite alteration was intersected from 58.0 to 75.9 m, intermittent weak to strong hematite alteration from 80.9 to 105.1 m, and moderate hematite alteration from 117.6 to 121.7 m. Weak to strong clay alteration was observed from 88.6 to 155.4 m, and intermittent weak to moderate clay alteration was associated with graphitic psammitic and pelitic gneiss from 156.0 to 224.6 m.

The graphitic interval was encountered within the meta-sediments from 101.6 to 224.6 m as finely disseminated grains, laminations, and fracture coatings, ranging from approximately trace to 60%. The graphitic interval was often associated with trace to 10% pyrite as finely disseminated, veins, and blebs. Pyrite content was estimated down the hole as follows: trace from 105.1 to 149.8 m, 3 to 10% from 149.8 to 158.1 m, trace from 158.1 to 167.9 m, 2 to 5% from 167.9 to 174.7 m, and trace to 3% from 174.7 to 224.6 m.

The predicted cross cutting structure from geophysical data at PLS12-016 was confirmed by evidence of faulting observed in the drill core from 113.7 to 117.6 m.

Gamma probe results were weakly anomalous within the overburden from 49.6 to 50.5 m (up to 55 cps), and from 52.1 to 53.2 m (up to 105 cps). A curious moderately radioactive (up to 1061 cps) interval occurs within the Devonian sandstone. Moderate radioactivity in the basement was observed as eight gamma peaks from 57.8 to 108.6 m that had maximum values ranging from 521 to 1234 cps; and four gamma peaks from 149.1 to 190.1 m with maximum values from 858 to 1069 cps. Strongly radioactive intervals in PLS12-016 included 136.2 to 138.2 m averaging 1862 cps (maximum peak of 4197 cps), 151.5 to 156.0 m averaging 2516 cps (maximum peak of 6032 cps), and 177.2 to 182.0 m averaging 1397 cps (maximum peak of 3721 cps).

Geochemical results from PLS12-016 returned background to strongly anomalous concentrations of U from 3 ppm to 0.1% U3O8. Pathfinder elements are at background to strongly anomalous concentrations, and include maximum values of 193 ppm Co, 1470 ppm Cu, 192 ppm Mo, 532 ppm Ni, 124 ppm Pb, and 621 ppm B. Three samples returned moderately anomalous Au concentrations between 129 and 134 ppb.

PIMA II sampling of the Lloyd Domain basement assemblage is dominated by illite with secondary kaolinite and minor chlorite at 72.9 m. Samples recovered approximately 5 m apart from 81.7 to 224.6 m showed Sudoite (Mg+/-Fe Chlorite) as the dominate clay member (66.7 to 90.7%), with secondary illite and minor kaolinite. However, two samples recovered from 147.0 and 170.0 m are dominated by illite with secondary or minor chlorite and kaolinite.

10.3 Patterson Lake South Property 2012 Fall Drill Program

10.3.1 2012 Fall Dual Rotary Drill Hole Results

During the Fall 2012 drilling program a Foremost DR-12 dual rotary drill owned and operated by J.R. Drilling Ltd. was contracted to penetrate the glacial sediments overlying bedrock; it was proposed that the specific (and more radioactive) till sheet hosting the 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 TDEM conductors by drilling approximately 20 meters into solid bedrock. The DR-12 rotary drill was very effective at overburden drilling; drilling rates and mobilization times were impressive while the large diameter cased hole allowed for safe down-hole probing. Twelve rotary holes totalling 1,541 meters were drilled on the Patterson Lake South Property between October 20th and November 13th, 2012 (Figure 27, Table 8).

The overburden and basement material was collected on site in sampling buckets at 1 meter intervals; each bucket was measured using an Exploranium GR-110G total count gamma-ray scintillometer, and a 1-3 kilogram subsample was removed for logging at Big Bear Camp and geochemical analysis where appropriate. The document “Recommendations for geochemical sampling of rotary drill holes at Patterson Lake South” by Mineral Services Consultants was used as a guideline for sampling protocols. Assays are still pending at this point, as is a microscopic analysis of select sedimentary samples by Roger Thomas.

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 2-3 cm 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.

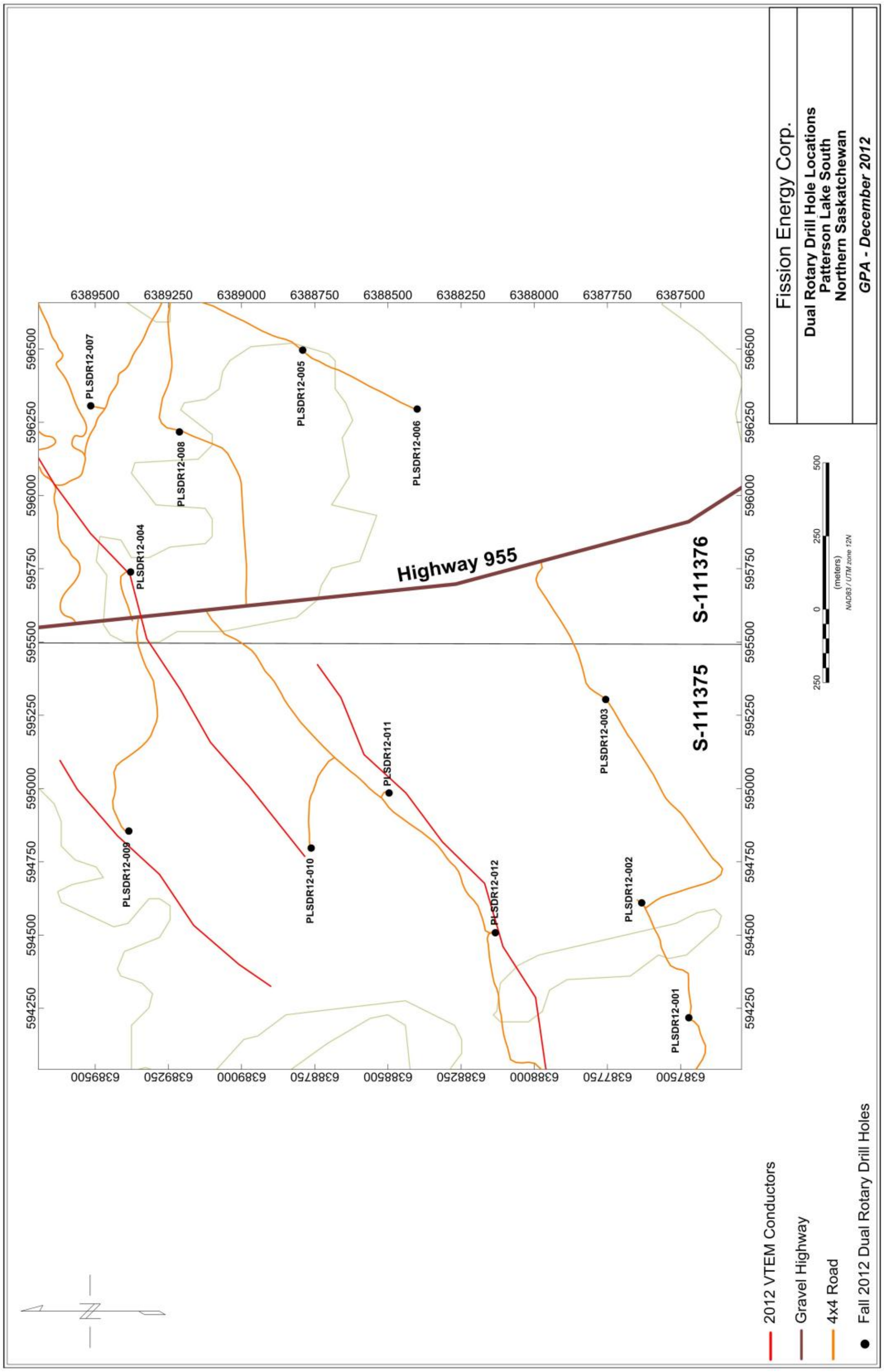
The current working depth of each rotary hole was determined by marking the casing every meter; the inaccuracies of this method were confirmed by comparing the determined final depth to the gamma probe wire line measured final depth; discrepancies of several meters were common. For the drill hole descriptions below the final depths were verified by the gamma probe, and may differ from those given in the logs. The depths of all lithological contacts will not be corrected from the field logs.

Caving of material around the casing and subsequent transport to surface introduced sample contamination especially in thick sand units beneath the water table. This issue could be controlled by constant monitoring of the sample return and communication with the drilling crew.

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 down hole spectrometer probe, built and operated by Special Projects Inc.. The dual rotary drill hole summary is shown in Table 5, dual rotary drill hole locations are shown in Figure 8.

A Trimble GPS unit was utilized to locate all dual rotary drill hole locations. All roads and traverses travelled were located with a Garmin GPSmap 60CSx®. The UTM Co-ordinate system was used with map datum NAD83 in zone 12N.

Figure 27 PLS 2012 Dual Rotary Drill Hole Locations Within Claims S-111375 and 111376 (Ainsworth, 2012).



PLSDR12-001

Rotary hole PLSDR12-001 was collared within the boundaries of the boulder field; it was surveyed using the single gamma probe. The entire length of casing was left in the ground for probing with the down hole spectrometer at a later point during the program.

Glaciofluvial sands with rare pebbles were the dominant lithologies down to 53 meters, with the interval from 33 meters to 45.5 meters described as clayey sand. A lodgement till was described as clay with gravel and pebbles from 53 to 63 meters. Cretaceous mudstone then overlies the bedrock from 63 to 111.5 meters. It consisted of fine mud with sand lenses. The bedrock contact at 118 meters was gradational over a 6.5 meter paleo-regolith that marked the lower contact of the surficial sediments at 111.5 meters. This paleo-regolith could represent strongly altered basement; it was dark red/brownish in color and had a talcy/greasy feel. Competent bedrock at 118 meters was green/grey and appeared to be of pelitic origin. Bedrock samples were returned as fine powder when dry, or liquid when wet. Rare chips up to 1 centimeter were used to determine rock type.

The gamma probe measured counts in the 15-20 cps range for most of the glaciofluvial sequences with exception of the following intervals: 0-4 meters (spikes up to 80 cps) and 32-42 meters (gradual increase and then spike to 80 cps). Interpretation of these results and the follow-up spectrometer readings are still in progress; however the anomaly between 0 and 4 meters is certainly related to mineralized boulders near the surface.

The bedrock contact is easy to determine from the gamma log by the sudden spike to approximately 100 cps. It should also be considered that the drilling crew does not case competent bedrock, instead drills “open hole”. The lack of casing may potentially result in higher gamma probe readings.

The hole was completed at a depth of 131.1 meters.

PLSDR12-002

PLSDR12-002 was collared up-ice of hole PLSDR12-001. It encountered glaciofluvial sands down to 82 meters. The interval between 33 and 35 meters was described as a possible till, with small angular pebbles in a medium to light sand matrix. At a depth of 82 meters the clay content increased, but was thought to be too coarse to constitute Cretaceous material; in hindsight it may have been contaminated Cretaceous or lodgement till. These samples were very wet due to groundwater.

Bedrock was intercepted at 112 meters and was described as light grey to greenish/brownish, and possible pelitic. The color became green dominated at 122 meters with the last 2 meters of material less altered but more potassic in appearance indicating a possible lithological change to a granitoid. Anhedral blue quartz crystals were common throughout in basement.

The hole was completed at a depth of 134.0 meters.

PLSDR12-003

PLSDR12-003 was collared up-ice of hole PLSDR12-002. It intercepted glaciofluvial sands down to 49 meters. The interval between 34 and 39 meters was described as a possible till, but could also represent a coarser glaciofluvial sequence. Between 39 and 49 meters the material was described as dark sand with varying amount of fines, becoming waterlogged at 48 meters and possibly grading into the Cretaceous at that point. Quartzite pebbles up to 2 centimeters were noted. The lodgement till and Cretaceous mudstone units begin at 49 meters and extend to the bedrock contact at 120 meters. The contact separating the two units was unclear. Coal fragments were noted at a depth of 77 to 78 meters.

Bedrock was encountered at 120 meters and appeared similar as previous; it was described as grey to green pelitic material with very little chips collected.

Gamma probing of this hole was only successful down to a depth of 104.2 meters due damaged casing at that point.

The hole was completed at 133.0 meters.

PLSDR12-004

PLSDR12-004 was collared on a VTEM conductor east of Hwy 955. It intersected the typical glaciofluvial package consisting of varying sands and small pebbles down to 78 meters. The interval between 3 and 5 meters was interpreted as a possible till, as indicated by the elevated percentage of basement derived clasts. However, all material over 1 centimeter in diameter was found to be sandstone. Fine 2-5 millimeter coal fragments were noted between 34 and 43 meters; some of this organic material was retained by Roger Thomas. On average, the glaciofluvial materials underlying the coarser till were found to be both finer and darker than the sediments above. Lodgement till consisting of sand and clay with both angular sandstone and basement derived clasts began at a depth of 78 meters to 85 meters, overlying the Cretaceous mudstone. The mudstone was described as black, clayey and cohesive mud. Granules up to 2 millimetres were noted.

The lower contact of the Cretaceous and subsequent bedrock contact occurred at 104 meters. The interval between 104 and 107 meters was described as a regolith, with a possible pelitic protolith. It was pale red to brown, very fine and with moderate hematite and clay alteration. Mica flakes, potassium feldspar and quartz granules were noted, with approximately 95 % of material being very fine.

The interval between 107 and 126.2 meters constituted of competent bedrock, described as fine olive green to grey pelitic rock. Material over 2 millimeters in size were nearly entirely anhedral quartz grains.

The hole was completed at 126.2 meters.

PLSDR12-005

PLSDR12-005 was collared to the east of Hwy 955. It intersected glaciofluvial sands and possibly aeolian sands with rare garnets down to 42 meters. Lodgement till extended from the overlying glaciofluvial sands down to a depth of 54 meters. It is described as clay rich sandy till with 30% angular mafic basement derived small pebbles up to 15 millimeters. The unit becomes waterlogged at 44 meters, with the last 6 meters described as becoming enriched in sand with pebbles decreasing; the lower contact to the Cretaceous mudstone was unclear.

Cretaceous mudstone was dark, fine and silty with regular sand lenses. 1-2 millimeter coal fragments were common. Material below 69 meters was collected as fluid suspended. The lower contact of the Cretaceous and subsequent bedrock contact occurred at 110 meters.

Bedrock was described as pelitic based on its grey to green color; no size fraction above 2 millimeters was returned by the drill, and the material was generally waterlogged.

The hole was completed at 126.3 meters.

PLSDR12-006

PLSDR12-006 targeted a resistivity low to the east of Hwy 955. It encountered the typical glaciofluvial sequence consisting of medium sand down to a depth of 32 meters. The interval between 32 and 34 meters was described as a sandy till, with 30% of pebbles comprised of basement. One small pebble consisted of semi-massive pyrite and lesser quartz. Between 34 and 64 meters a clayey and cohesive lodgement till was described; it consisted of short sandy and clayey intervals. This may also represent a lower glaciofluvial sequence and overlies the clay lodgment till which extends to a depth of 73 meters. It was described as sandy till with varying pebbles composed of both basement and sandstone.

Cretaceous mudstone was intersected at a depth of 73 to 109 meters. It was found to be the typical dark grey to black mudstone with silty and sandy inclusions. Fine coal fragments were present, but rare. Of note is the interval between 102 and 103 meters which was black and viscous, with the appearance of crude oil. It consisted of very fine black silt in suspended solution. Small associated pebbles were found to be laminated with what was interpreted to be pyrobitumen crystals.

Bedrock was encountered at 109 meters; talcy olive green to grey appearance concludes pelitic rock. Material was very wet, and only quartz grains were larger than 2 millimeters. The last 2 meters returned granule sized pelitic chips.

The hole was completed at 132.3 meters.

PLSDR12-007

PLSDR12-007 encountered glaciofluvial sands down to 29 meters. General roundness and fineness of material may also suggest aeolian origin. This unit was underlain by a lodgement till; the designation is based on sample fabric; angular small pebbles in a sand and clay matrix. Alternatively, the angular clasts may represent larger boulders broken by the drill; in that case this could be a coarser glaciofluvial sub-unit. A second glaciofluvial unit between 53 and 95 meters is described as homogenous sand with lesser granule fraction; coal fragments were found throughout.

Clay lodgement till extends to a depth of 103 meters and is generally dark in color; some granules appear to be of Devonian origin and comprise of calcite cemented quartz crystals also associated with pyrobitumen crystals. The Cretaceous mudstone was well defined over a thickness of 5 meters, from 103 to 108 meters depth. It was described as coal and clay rich, with the interval of 104 to 105 meters comprised of up to 30% coal. The coarse fraction was minute and consisted of quartz grains with a bluish hue.

Dry bedrock was encountered at 108 meters and described as pelitic based on its dark grey to olive green color; no size fraction above 2 millimeters was returned by the drill.

The hole was completed at 126.5 meters.

PLSDR12-008

PLSDR12-008 encountered glaciofluvial sands down to 48 meters; it includes an interval between 26 and 29 meters that is possibly aeolian. Rare Devonian sandstone pebbles were noted between 6 and 7 meters depth. Coal fragments were present at 35 meters and below. A dark lodgement till underlies the previous unit and extends down to 64 meters. The interval of 48 to 49 meters is similar to the interval of 102 to 103 meters in hole PLSDR12-006 in its black and fine grained texture.

Cretaceous mudstone was intersected at a depth of 64 meters and extended to a depth of 77 meters. The Cretaceous was described as dark very fine silt with rare coal fragments. Materials recovered past 77 meters consist of sands and most likely represent caved in material. Enormous groundwater influx lead to the abandonment of this hole at 117 meters. No bedrock material could be positively identified, and the gamma probe could only reach a depth of 86 meters due to damaged casing.

PLSDR12-009

PLSDR12-009 targeted a VTEM and TDEM conductor; it encountered glaciofluvial and aeolian sands down to 40 meters. Very fine bits of organic materials were noted throughout, but were too fine to sample. A lodgement till was interpreted to represent the interval between 40 and 46 meters based on the angular basement derived pebbles; fines were absent, and possibly washed away. Underlying this till is a second glaciofluvial sequence that extends down to 67 meters and is similar to the first glaciofluvial unit. The lower contact at 67 meters represents the start of the lodgement till unit. It is described as a sandy till becoming increasingly clay rich with depth and small pebbles throughout.

The Cretaceous underlies the lodgement till from 72 to 95 meters. This mudstone is variably dry to very wet with a significant sand lens from 82 to 85 meters. The quartz crystals representing the coarse fraction are translucent, and the sand is not yellow and oxidized as in the above glaciofluvial units.

Bedrock was encountered at 95 meters; it was interpreted to be pelitic as indicated by incompetent grey to green fragments and lesser quarts grain with associated hematite staining. Some bedrock samples were not collected due to enormous groundwater pressures.

The hole was completed at 120.4 meters.

PLSDR12-010

PLSDR12-010 targeted a VTEM and TDEM conductor and resistivity low. It encountered glaciofluvial and lesser aeolian sands to a depth of 48 meters. Fine organic fragments were noted from 33 meters and lower. A possible lodgement till between 28 and 33 meters was identified based on its angular coarser fraction. The log notes that this could also represent a glaciofluvial unit with the fines washed away.

A grey clayey and sandy lodgment till underlies the glaciofluvial sediments. The larger clasts are mainly composed of sandstone, with basement derived material representing the granule fraction. The lower contact was distinguished by the disappearance of the coarser fraction. Cretaceous mudstone underlies the till from 74 to 105 meters and is described as a nearly pure clay unit with lesser sands and silts. No coal or organics were noted, and samples ranged from very wet to dry.

Bedrock was encountered at 105 meters and described as pelitic due to the grey and green color associated with incompetence and moderate clay alteration. At 108 meters depth there appears to be a lithological change to a granitoid, possibly of the Clearwater Domain. It is described as red, with abundant feldspar, quartz and plagioclase. Retained sample fragments were in the 1-3 millimeter size range. This hole produced in excess of 200 liters per minute of water in the bedrock.

The hole was completed at 120.7 meters.

PLSDR12-011

PLSDR12-011 also targeted a VTEM and TDEM conductor and resistivity low. Yellow glaciofluvial sands were reported to a depth of 30 meters. A lodgment till from 30 to 46 meters was described as gravelly with a clay and sand rich matrix. Another suggestion would be to identify this unit as glaciofluvial as well.

This drill hole is lacking the usual lodgement till and Cretaceous mudstone units. Instead a glaciolacustrine sand unit underlies the glaciofluvial sediments and extends down to bedrock. It is described as fine sand with varying but low clay fraction. The sub-interval between 87 and 92 meters is more granule dominant with lesser sand.

Bedrock was encountered at 106 meters and described as green to grey pelitic rock with moderate clay and hematite alteration. Anhedral quartz grains with a bluish hue were common; this drill hole produced a large volume of water.

The hole was completed at 132.3 meters.

PLSDR12-012

PLSDR12-012 also targeted a VTEM and TDEM conductor. Yellow glaciofluvial and aeolian sands were reported to a depth of 36 meters. A lodgment till from 36 to 60 meters was described as gravelly with a clay and sand rich matrix. Another suggestion would be to identify this unit as glaciofluvial as well.

This drill hole is also lacking the usual lodgement till and Cretaceous mudstone units. Instead a glaciolacustrine sand unit underlies the glaciofluvial sediments and extends down to bedrock. It is described as a well sorted fine sand with varying but low clay fraction. The sub-interval between 109 and 110 meters is granule rich; fine coal fragments are reported within this glaciolacustrine unit.

The first bedrock unit was encountered at 115 meters and described as a grey to green graphitic pelitic rock with moderate clay and chlorite alteration. A lithological change at 131 meters to a granitoid was evident by a drastic color change to dark red and represents either a granitoid or hematite altered pelite.

The hole was completed at 138.7 meters and all casing was left in the ground.

10.3.2 2012 Fall Diamond Drill Program

Drilling comprised 1,631.6 m in 9 holes (PLS12-017 to PLS12-025) completed from October 12th to November 12th, 2012 (Figure 26, Table 8). Drilling in the overburden began with HQ and was cased with HW until the rods became stuck or bedrock was reached. If the HQ/HW became stuck NQ was drilled with NW casing until competent bedrock was encountered. Once in competent bedrock NQ coring without NW casing was utilized. Field preparation for the drill program took place from October 2nd to 12th, 2012. All diamond drilling was conducted within mineral disposition S-111376.

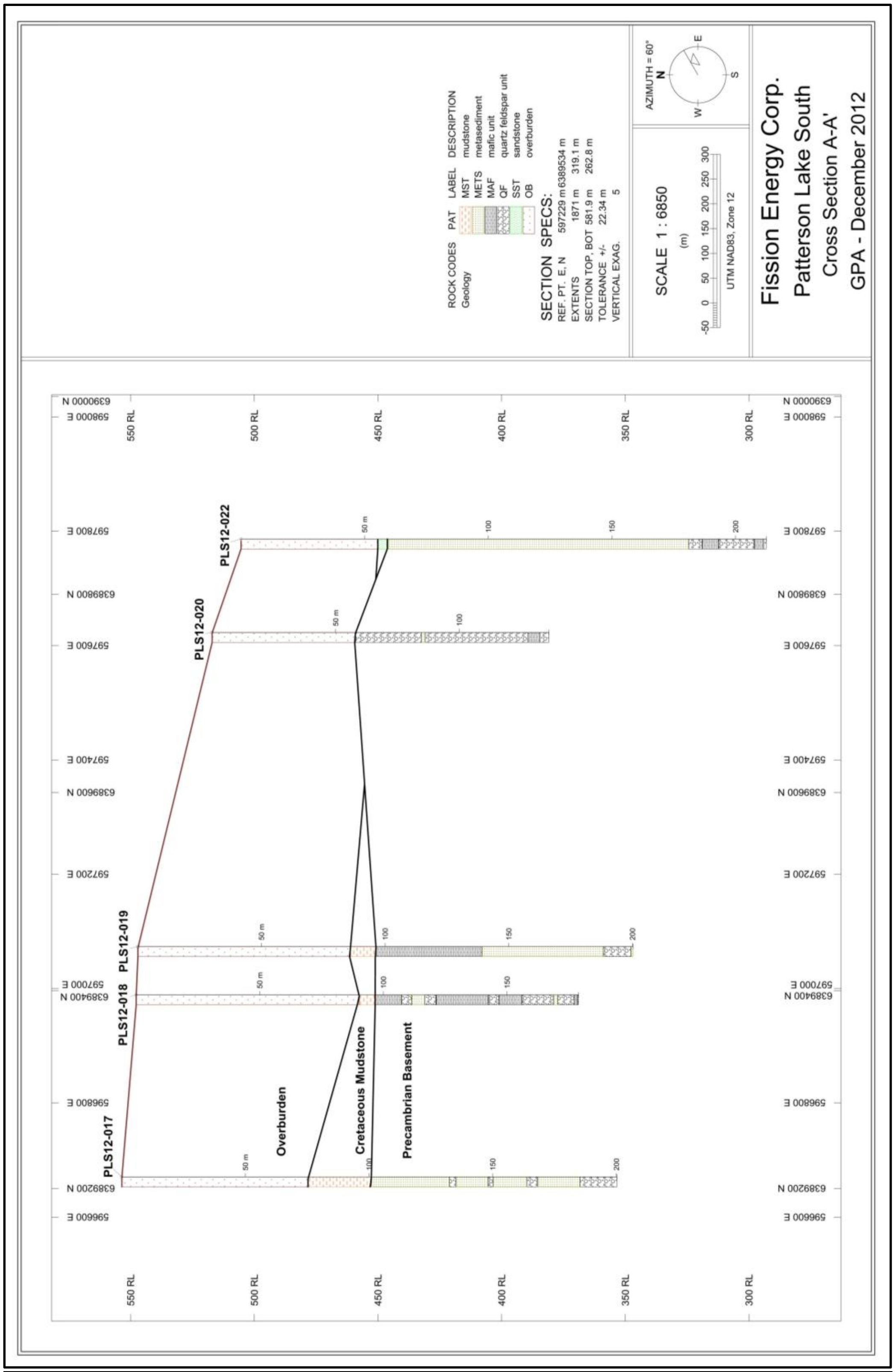
Geological logging and sampling was completed shortly after the drill contractor began to demobilize. Hardrock Diamond Drilling Ltd. of Penticton, British Columbia was the contractor, and utilized a CS10 Atlas Copco diamond drill rig for this program. All drill site preparation, road access, and reclamation was performed by the drill contractor's D6 CAT Bulldozer. The drill crew worked two 12-hour shifts per day. All holes were tested for dip deviations using acid tests or the Reflex© single shot survey tool. The core was logged by Garrett Ainsworth, Project Manager with Fission Energy Corp.

The core is located at the Big Bear Camp on Grygar Lake, Northern Saskatchewan. The purpose of the drill program was to follow up on radioactive intersections from drill holes PLS12-013 to -016 along the southernmost EM conductor of the Patterson Lake corridor. Also, drill targets have been developed with electromagnetic (EM) conductors that were identified by airborne VTEM and ground SMLTEM surveys that were completed by Fission-Alpha in February 2012.

Down-hole gamma probing with conducted within the drill rods upon reaching the target depth. A Mt. Sopris winch, console, and 2PGA-1000 total gamma count probe was utilized to measure radioactivity in the overburden and bedrock. A 2GHF-1000 down-hole probe was utilized in drill holes that intersected visible uranium mineralization. Hand held Exploranium GR-110 total count gamma-ray scintillometers were used to measure the radioactivity of the return water, and the drill core. Diamond drill hole locations are shown in Figure 26, and a representative cross section A-A' is shown in Figure 28.

A Trimble GPS unit was utilized to locate all diamond drill hole locations. All roads and traverses travelled were located with a Garmin GPSmap 60CSx®. The UTM Co-ordinate system was used with map datum NAD83 in zone 12N.

Figure 28 PLS 2012 Drill Hole Cross Section A-A' (See Figure 26) (Ainsworth, 2012).



DDH PLS12-017

Drill hole PLS12-017 is located about 340 m southwest and along strike from the middle southernmost conductor within the Patterson Lake Corridor. Drill holes from the Winter 2012 program intersected anomalous uranium concentrations associated with this conductor, which appears to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. PLS12-017 is located in the center of a resistivity low anomaly.

PLS12-017 was cased through 75.3 m of overburden that comprised coarse sand with some gravel, cobbles, and boulders of Athabasca sandstone and lesser basement. The overburden contained rare intermittent sections of dark grey clay lodgement till. The overburden was underlain by dark grey Cretaceous mudstone from 75.3 to 101.0 m.

The mudstone was underlain by Lloyd Domain lithologies that included strongly altered gneiss, pelitic gneiss, and quartz-feldspar-biotite granofel and gneiss from 101.0 m to the hole completion depth of 200.3 m.

Moderate to strong chlorite alteration was observed from 101.0 to 122.0 m; and weak to moderate chlorite alteration from 122.0 to 163.8 m. Strong bleaching was encountered from 101.0 to 104.5 m; and occasional intermittent bleached intervals were present from 104.5 to 182.3 m. Weak hematite alteration as irregular micro-stringers was observed from 134.4 to 135.1 m. Strong to extreme clay alteration was observed from 101.1 to 133.8 m; and weak to moderate clay alteration was present from 133.8 to 182.3 m. No graphite or sulphides were intersected. The resistivity low anomaly was explained by the presence of abundant clay alteration.

Gamma probe results were not anomalous within the coarse sand with some gravel, cobbles, and boulders. The clay lodgement till showed background radioactivity up to 47 cps. The Cretaceous mudstone showed background radioactivity up to 85 cps. Radioactivity in the basement was not anomalous with the exception of a two relatively sharp very weakly anomalous maximum peaks of 369 cps at 130.5 m, and 335 cps at 187.2 m.

Geochemical results from PLS12-017 returned background to very weakly anomalous concentrations of U from <2 to 27 ppm. Pathfinder elements are at background to weakly anomalous concentrations, and include maximum values of 40 ppm Co, 156 ppm Cu, 12 ppm Mo, 144 ppm Ni, 24 ppm Pb, and 174 ppm B.

PIMA II sampling of the Lloyd Domain basement assemblage is dominated by kaolinite with secondary illite, and minor to trace chlorite and dravite from 101.0 to 166.0 m. Chlorite (rarely FeMg-rich) dominates with secondary illite, and minor kaolinite from 166.0 189.0 m.

DDH PLS12-018

Drill hole PLS12-018 is located at the west end of the middle southernmost conductor within the Patterson Lake Corridor. Drill holes from the Winter 2012 program intersected anomalous uranium concentrations associated with this conductor, which appears to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. PLS12-018 is located within a resistivity low anomaly.

PLS12-018 was cased through 90.3 m of overburden that comprised coarse sand with some gravel, cobbles, and boulders of Athabasca sandstone and lesser basement. Dark grey clay lodgement till with Athabasca sandstone and basement boulders was observed in the overburden from 47.4 to 63.8 m. The overburden was underlain by dark grey Cretaceous mudstone from 90.3 to 96.6 m.

The mudstone was underlain by Lloyd Domain lithologies that included mafic gneiss, quartz-feldspar-biotite gneiss and granofel, altered gneiss, and pelitic gneiss from 96.6 m to the hole completion depth of 178.9 m.

Strong chlorite alteration was observed from 96.6 to 126.5 m; and weak to moderate chlorite alteration from 126.5 to 178.4 m. No bleaching was observed. Moderate hematite alteration was observed from 109.3 to 111.0 m, and 126.5 to 126.7 m; and weak to strong hematite alteration was present from 165.3 to 178.4 m. Weak to strong clay alteration was observed from 96.6 to 111.5 m; while extreme clay alteration was present from 111.5 to 115.1 m; and weak to moderate clay alteration was present from 115.1 to 170.5 m. Trace pyrite was observed from 165.3 to 168.8 m, and 172.8 to 178.4 m as blebs and irregular micro-stringers. The resistivity low anomaly was explained by the presence of abundant clay alteration.

Gamma probe results were not anomalous within the coarse sand with some gravel, cobbles, and boulders. Background radioactivity in the clay lodgement till was up to 47 cps. The Cretaceous mudstone showed background radioactivity up to 85 cps. Radioactivity in the basement was not anomalous with the exception of a two relatively sharp very weakly anomalous maximum peaks of 369 cps at 130.5 m, and 335 cps at 187.2 m.

Geochemical results from PLS12-018 returned background to very weakly anomalous concentrations of U from 3 to 72 ppm. Pathfinder elements are at background to moderately anomalous concentrations, and include maximum values of 123 ppm Co, 80 ppm Cu, 4 ppm Mo, 446 ppm Ni, 20 ppm Pb, and 273 ppm B.

PIMA II sampling of the Lloyd Domain basement assemblage is dominated by kaolinite with secondary illite, and minor chlorite from 98.0 to 110.0 m. From 110.0 to 133.0 m illite dominates with secondary kaolinite, minor chlorite, and trace dravite. From 133.0 to 152.0 m kaolinite dominates with secondary chlorite, and minor illite. From 152.0 to 175.0 m chlorite dominates with secondary illite, and minor kaolinite from 169.0 189.0 m.

<u>DDH PLS12-019</u>

Drill hole PLS12-019 was a 10 m step out to the southeast of PLS12-013, which intersected 115 ppm U over 24.35 m. PLS12-019 is also on the middle southernmost conductor within the Patterson Lake Corridor. This conductor appears to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. The axis of this conductor cuts through a small low resistivity anomaly.

PLS12-019 was cased through 86.1 m of overburden that comprised coarse sand with some gravel, cobbles, and boulders of Athabasca sandstone and lesser basement. Dark grey clay lodgement till with Athabasca sandstone and basement boulders was observed in the overburden from 53.7 to 69.2 m. The overburden was underlain by dark grey Cretaceous mudstone from 86.1 to 96.4 m.

The mudstone was underlain by Lloyd Domain lithologies that included paragneiss (mafic gneiss?), graphitic pelitic gneiss and granofel, altered gneiss, quartzite gneiss and granofel from 96.4 m to the hole completion depth of 203.3 m.

Moderate chlorite alteration was observed from 96.4 to 203.3 m. No bleaching was observed. Weak to moderate hematite alteration was observed from 96.4 to 152.5 m, and 167.1 to 203.3 m. Moderate to strong clay alteration was observed from 96.4 to 162.8 m; and moderate clay alteration was present from 167.1 to 188.3 m, and 197.0 to 203.3 m. Trace to 5% pyrite was observed from 119.0 to 188.3 m, and 197.0 to 203.3 m as finely disseminated and fracture coatings. The resistivity low anomaly was explained with the presence of abundant clay alteration.

Gamma probe results were not anomalous within the coarse sand with some gravel, cobbles, and boulders. Background radioactivity in the clay lodgement till was up to 65 cps. The Cretaceous mudstone showed moderately anomalous radioactivity up to 452 cps. Radioactivity in the basement showed several moderately anomalous zones from 169.5 to 170.1 m averaging 867 cps (max peak of 1511 cps); from 173.6 to 176.3 m averaging 669 cps (max peak of 873 cps); from 182.2 to 184.9 averaging 799 cps (max peak of 1008 cps); and from 183.5 to 184.5 m averaging 559 cps (max peak of 629 cps).

Geochemical results from PLS12-019 returned background to moderately anomalous concentrations of U from <2 to 317 ppm. Pathfinder elements are at background to moderately anomalous concentrations, and include maximum values of 99 ppm Co, 169 ppm Cu, 15 ppm Mo, 260 ppm Ni, 40 ppm Pb, and 104 ppm B.

PIMA II sampling of the Lloyd Domain basement assemblage is variably dominated by illite, kaolinite, and chlorite with trace dravite from 97.9 to 139 m. From 139 to 149 m illite strongly dominates with trace chlorite. From 149 to 202 m chlorite (biotite) dominates with variable trace to secondary illite and kaolinite.

DDH PLS12-020

Drill hole PLS12-020 is located on the middle southernmost conductor within the Patterson Lake Corridor. Drill holes from the winter 2012 program intersected anomalous uranium concentrations associated with this conductor, which appears to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. PLS12-020 is located within a resistivity high anomaly.

PLS12-020 was cased through 54.8 m of overburden that comprised coarse sand with abundant gravel, cobbles, and boulders of Athabasca sandstone and no basement. Clay Lodgment till was cased from 54.8 to 58.1 m.

The overburden was underlain by Lloyd Domain lithologies that included fresh quartz-feldspar-biotite gneiss, pelitic gneiss, paragneiss, and quartzite gneiss from 58.1 m to the hole completion depth of 136.3 m.

Moderate chlorite alteration was observed from 84.7 to 86.2 m; and weak to moderate chlorite alteration was present from 127.8 to 136.3 m. No bleaching alteration was observed. Weak hematite alteration was intersected from 58.1 to 136.3 m as patchy and fracture coatings. Weak to strong clay alteration was observed from 58.1 to 132.6 m. No sulphides were intersected.

Gamma probe results showed background radioactivity in the overburden. Radioactivity in the basement was not anomalous, and reached a maximum peak of 218 cps at 84.5 m.

Geochemical results from PLS12-020 returned background concentrations of U from <2 to 18 ppm. Pathfinder elements are at background to weakly anomalous concentrations, and include maximum values of 11 ppm Co, 11 ppm Cu, 3 ppm Mo, 175 ppm Ni, 18 ppm Pb, and 212 ppm B.

PIMA II sampling of the Lloyd Domain basement assemblage is dominated by illite with minor to secondary chlorite (Fe+Mg-rich) from 60.0 to 82.0 m. From 82.0 to 110.0 m chlorite (Fe+Mg-rich) dominated with minor illite. No PIMA samples were recovered below 110.0 m.

DDH PLS12-021

Drill hole PLS12-021 is located on the central conductor within the Patterson Lake Corridor, and is 440 m northeast of PLS12-020. This section of the central conductor has a strong conductance, and appears to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. PLS12-021 is located within a strong resistivity low anomaly.

PLS12-021 was cased through 49.7 m of overburden that comprised coarse sand with abundant gravel, cobbles, and boulders of Athabasca sandstone and no basement.

The overburden was underlain by Lloyd Domain lithologies that included graphitic paragneiss, graphitic pelitic gneiss and granofel, and graphitic semi-pelitic gneiss from 49.7 m to the hole completion depth of 151.5 m.

Weak to moderate chlorite alteration was observed from 49.7 to 151.5 m. No bleaching alteration was observed. Weak to moderate hematite alteration was intersected from 49.7 to 103.1 m. Moderate clay alteration was observed from 49.7 to 75.9 m, and 103.1 to 127.0 m. Finely disseminated pyrite from trace to 5% was intersected from 57.0 to 84.4 m, and 103.1 to 151.5 m.

Gamma probe results showed very weak radioactivity in the overburden from 45.4 to 49.7 m with a maximum peak of 51 cps. Radioactivity in the basement was not anomalous, and reached a maximum peak of 348 cps at 92.1 m.

Geochemical results from PLS12-021 returned background to very weakly anomalous concentrations of U from <2 to 26 ppm. Pathfinder elements are at background to strongly anomalous concentrations, and include maximum values of 229 ppm Co, 543 ppm Cu, 93 ppm Mo, 1840 ppm Ni, 38 ppm Pb, and 140 ppm B.

PIMA II sampling of the Lloyd Domain basement assemblage is dominated by chlorite with minor to secondary illite and kaolinite from 49.0 to 104.0 m; including trace dravite at 97.0 m. From 104.0 to 147.0 m chlorite (Fe+Mg-rich) dominated with minor illite, and trace kaolinite.

DDH PLS12-022 (DISCOVERY HOLE)

Drill hole PLS12-022 was a 10 m step out to the northwest of PLS12-016, which intersected 208 ppm U over 3.31 m, and 224 ppm U over 7.59 m. PLS12-022 also targeted the middle southernmost conductor within the Patterson Lake Corridor. This conductor appears to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. The axis of this conductor cuts through a resistivity low anomaly.

PLS12-022 was cased through 55.3 m of overburden that comprised coarse sand with trace gravel, cobbles, and boulders of Athabasca sandstone and rare basement. The overburden was underlain by greywacke sandstone (likely Devonian La Loche Formation) containing sub-angular clasts up to pebble-size of basement (quartzite and quartz-biotite), and sub-angular clasts up to gravel-size of massive pitchblende from 55.3 to 59.5 m.

The sandstone was underlain by Lloyd Domain lithologies that included alternating psammitic and pelitic gneiss with uranium mineralization, graphitic cataclasite, alternating graphitic psammitic and pelitic gneiss, semi-pelitic gneiss, mafic gneiss, and quartz-feldspar gneiss from 59.5 m to the hole completion depth of 212.5 m. Of note, quartz grains within the uranium mineralized meta-sediments had a purple hue that graded to a blue to smoky hue within the graphitic meta-sediments.

Moderate chlorite alteration was observed from 67.0 to 146.3 m, and weak chlorite alteration from 159.0 to 211.3 m. Weak bleaching was observed from 78.5 to 81.2 m, and weak bleaching with rare strong bleached intervals up to 0.6 m from 103.3 to 166.2 m. Weak to moderate hematite alteration was intersected from 59.5 to 99.8 m. Weak to strong clay alteration was observed from 59.5 to 193.2 m.

The graphitic interval was encountered within the meta-sediments from 88.3 to 177.9 m as finely disseminated grains, laminations, and fracture coatings, ranging from approximately trace to greater than 20%. The graphitic interval was often associated with trace to 30% pyrite as finely disseminated, veins, and blebs. Pyrite content was estimated down the hole as follows: trace to 30% from 95.4 to 143.1 m, and trace from 147.4 to 159.9 m.

The predicted cross cutting structure from geophysical data at PLS12-022 was confirmed by evidence of faulting observed in the drill core from 166.2 to 172.8 m.

Gamma probe results were moderately anomalous within the overburden which is likely an artifact of radioactive drill return fluids migrating up the outside of the casing. The Devonian sandstone unit was strongly radioactive from 57.3 to 59.5 m with a maximum peak of 3455 cps. Strong radioactivity in the basement was observed in multiple intervals. The two most prominent intervals of strong radioactivity included 59.5 to 80.9 m averaging 14,039 cps (maximum peak of 59,577 cps), and 88.0 to 103.6 m averaging 822 cps (maximum peak of 2104 cps). Only the single gamma probe (2PGA-1000) was utilized on PLS12-022, and it was apparent that from approximately 71.0 to 77.0 m that the probe was over saturated at 60,000 cps.

Geochemical results from PLS12-022 returned the following high grade uranium interval (Down-hole measurements):

- **8.5 m @ 1.07% U3O8 from 70.5 to 79 m**
    - **including 2.5 m @ 2.63% U3O8 from 74.0 to 76.5 m**

Pathfinder elements are at background to strongly anomalous concentrations, and include maximum values of 157 ppm Co, 2210 ppm Cu, 802 ppm Mo, 463 ppm Ni, 1500 ppm Pb, and 1040 ppm B.

PIMA II sampling of the Lloyd Domain basement assemblage is dominated by chlorite (Fe+Mg-rich) with minor illite, and rare secondary kaolinite from 60.0 to 210.0 m. Discrete zones dominated by illite with minor to trace chlorite are at 180.0, and from 195.0 to 200.0 m.

DDH PLS12-023

Drill hole PLS12-023 was a 10 m step out to the northwest of discovery drill hole PLS12-022. PLS12-023 also targeted the middle southernmost conductor within the Patterson Lake Corridor. This conductor appears to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. The axis of this conductor cuts through a resistivity low anomaly.

PLS12-023 was cased through 53.8 m of overburden that comprised coarse sand with trace gravel, cobbles, and boulders of Athabasca sandstone and rare basement. The overburden was underlain by greywacke sandstone (likely Devonian La Loche Formation) containing sub-angular clasts up to pebble-size of basement (quartzite and quartz-biotite), and sub-angular clasts up to gravel-size of massive pitchblende from 53.8 to 60.6 m.

The sandstone was underlain by Lloyd Domain lithologies that included alternating psammitic and pelitic gneiss with uranium mineralization, graphitic cataclasite, alternating graphitic psammitic and pelitic gneiss, semi-pelitic gneiss and granofel, pegmatite, mafic gneiss, and quartz-feldspar gneiss from 60.6 m to the hole completion depth of 197.2 m. Of note, quartz grains within the uranium mineralized meta-sediments had a purple hue that graded to a blue to smoky hue within the graphitic meta-sediments.

Weak to moderate chlorite alteration was observed from 66.5 to 109.4 m; and from 127.9 to 196.9 m. Weak to extreme bleaching was observed from 60.6 to 87.1 m, and intermittent weak to moderate bleaching was present from 99.9 to 181.8 m. Occasional intermittent weak hematite alteration was observed throughout. Weak to strong clay alteration was observed from 60.6 to 87.2 m, and intermittent weak to strong clay alteration was from 95.4 to 196.9 m.

The graphitic interval was encountered within the meta-sediments from 87.1 to 149.9 m as finely disseminated grains, laminations, and fracture coatings, ranging from approximately trace to greater than 20%. The graphitic interval was occasionally associated with trace to 10% pyrite as finely disseminated, veins, and blebs. Pyrite content was estimated down the hole as follows: trace from 116.5 to 124.6 m, and 10% from 139.5 to 141.0 m.

The predicted cross cutting structure from geophysical data at PLS12-023 was confirmed by evidence of faulting observed in the drill core from 73.2 to 75.3 m, 77.0 to 78.6 m, and 123.0 to 125.6 m.

Gamma probe results were moderately anomalous within the overburden which is likely an artifact of radioactive drill return fluids migrating up the outside of the casing. The Devonian sandstone unit was strongly radioactive from 58.9 to 60.6 m with a maximum peak of 3677 cps. Strong radioactivity in the basement was observed in multiple intervals. The two most prominent intervals of strong radioactivity included 60.6 to 79.3 m averaging 8748 cps (maximum peak of 32,261 cps), and 84.4 to 95.5 m averaging 1094 cps (maximum peak of 5504 cps). These down hole gamma probe results are from the single gamma 2PGA-1000 probe.

Geochemical results from PLS12-023 returned the following high grade uranium interval (Down-hole measurements):

- **9.5m @ 0.27% U3O8 from 66.5 to 76.0 m**

Pathfinder elements are at background to strongly anomalous concentrations, and include maximum values of 351 ppm Co, 1930 ppm Cu, 420 ppm Mo, 486 ppm Ni, 471 ppm Pb, and 3210 ppm B.

PIMA II sampling of the Lloyd Domain basement assemblage is dominated by chlorite (Fe+Mg-rich) with minor illite, and rare trace to minor kaolinite from 60.0 to 195.0 m. Discrete carbonate zones were noted at 60.0 to 65.0 m, and 90.0 m. A discrete zone dominated by illite is present at 190.0 m.

DDH PLS12-024

Drill hole PLS12-024 was a 10 m step out to the southwest of from the middle of PLS12-022 and -023. PLS12-024 also targeted the middle southernmost conductor within the Patterson Lake Corridor. This conductor appears to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. The axis of this conductor cuts through a resistivity low anomaly.

PLS12-024 was cased through 56.2 m of overburden that comprised coarse sand with trace gravel, cobbles, and boulders of Athabasca sandstone and rare basement. The overburden was underlain by greywacke sandstone (likely Devonian La Loche Formation) containing sub-angular clasts up to pebble-size of basement (quartzite and quartz-biotite), and sub-angular clasts up to gravel-size of massive pitchblende from 56.2 to 60.3 m.

The sandstone was underlain by Lloyd Domain lithologies that included alternating psammitic and pelitic gneiss with uranium mineralization, graphitic cataclasite, alternating graphitic psammitic and pelitic gneiss and granofel, and graphitic quartz-feldspar gneiss from 60.3 m to the hole completion depth of 191.1 m. Of note, quartz grains within the uranium mineralized meta-sediments had a purple hue that graded to a blue to smoky hue within the graphitic meta-sediments.

Weak to moderate chlorite alteration was observed from 62.3 to 191.1 m. Weak bleaching was observed from 61.2 to 64.5 m, and from 175.5 to 183.3 m. Occasional intermittent weak to moderate hematite alteration was observed from 81.2 to 169.2 m. Weak to strong clay alteration was observed from 56.2 to 191.1 m.

The graphitic interval was encountered within the meta-sediments from 115.5 to 191.1 m as finely disseminated grains, laminations, and fracture coatings, ranging from approximately trace to greater than 20%. The graphitic interval was occasionally associated with trace to 5% pyrite as finely disseminated, veins, and blebs. Pyrite content was estimated down the hole as follows: 1 to 5% from 101.0 to 104.8 m, and trace to 5% from 115.5 to 169.2 m.

No fault zones greater than 1 m were observed in PLS12-024.

Gamma probe results were moderately anomalous within the overburden which is likely an artifact of radioactive drill return fluids migrating up the outside of the casing. The Devonian sandstone unit was strongly radioactive from 58.8 to 60.3 m with a maximum peak of 12,749 cps. Strong radioactivity in the basement was observed in multiple intervals. The most prominent interval of strong radioactivity included 64.6 to 83.2 m averaging 17,379 cps (maximum peak of 60,544 cps). Only the triple gamma 2GHF-1000 probe was utilized in PLS12-024, which is shielded and gives a lower radioactivity reading than the single gamma 2PGA-1000 probe.

Geochemical results from PLS12-024 returned the following high grade uranium interval (Down-hole measurements):

- **18.0 m @ 1.78% U3O8 from 65.0 to 83.0 m**
    - **including 12.5 m @ 2.49% U3O8 from 65.5 to 78.0 m**
    - **including 3.5 m @ 4.33% U3O8 from 66.5 to 70.0 m**
    - **including 0.50 m @ 11.1% U3O8 from 69.5 to 70.0 m**

Pathfinder elements are at background to strongly anomalous concentrations, and include maximum values of 189 ppm Co, 1100 ppm Cu, 3960 ppm Mo, 842 ppm Ni, 2140 ppm Pb, and 1560 ppm B.

PIMA II sampling of the Lloyd Domain basement assemblage is dominated by chlorite (Fe+Mg-rich) with minor illite, and trace to minor kaolinite from 62.0 to 192.0 m. A discrete zone dominated by illite with trace chlorite is present at 187.0 m.

<u>DDH PLS12-025</u>

Drill hole PLS12-025 was a 10 m step out to the northwest of PLS12-024. PLS12-025 also targeted the middle southernmost conductor within the Patterson Lake Corridor. This conductor appears to be broken up and have several flexures based on the VTEM and MLTDEM data interpretations. The axis of this conductor cuts through a resistivity low anomaly.

PLS12-025 was cased through 56.5 m of overburden that comprised coarse sand with trace gravel, cobbles, and boulders of Athabasca sandstone and rare basement. The overburden was underlain by greywacke sandstone (likely Devonian La Loche Formation) containing sub-angular clasts up to pebble-size of basement (quartzite and quartz-biotite), and sub-angular clasts up to gravel-size of massive pitchblende from 56.5 to 62.4 m.

The sandstone was underlain by Lloyd Domain lithologies that included alternating psammitic and pelitic gneiss with uranium mineralization, graphitic cataclasite, alternating graphitic psammitic and pelitic gneiss, semi-pelitic gneiss, mafic granofel and gneiss, and quartz-feldspar gneiss from 62.4 m to the hole completion depth of 161.6 m. Of note, quartz grains within the uranium mineralized meta-sediments had a purple hue that graded to a blue to smoky hue within the graphitic meta-sediments.

Weak to strong chlorite alteration was observed from 65.0 to 108.8 m, and weak to moderate chlorite alteration was present from 123.7 to 161.6 m. Rare intermittent weak to strong bleaching was intersected from 82.7 to 148.4 m. Occasional intermittent weak to moderate hematite alteration was observed from 62.4 to 149.4 m. Weak to extreme clay alteration was present from 62.4 to 110.2 m.

The graphitic interval was encountered within the meta-sediments from 98.5 to 108.8 m as finely disseminated grains, laminations, and fracture coatings, ranging from approximately trace to greater than 20%. No sulphides were identified.

No fault zones greater than 1 m were observed in PLS12-025.

Gamma probe results were moderately anomalous within the overburden which is likely an artifact of radioactive drill return fluids migrating up the outside of the casing. The Devonian sandstone unit was strongly radioactive from 60.6 to 62.4 m with a maximum peak of 2260 cps. Strong radioactivity in the basement was observed in two intervals. The most prominent interval of strong radioactivity included 62.4 to 83.3 m averaging 8247 cps (maximum peak of 54,399 cps). Only the triple gamma 2GHF-1000 probe was utilized in PLS12-025, which is shielded and gives a lower radioactivity reading than the single gamma 2PGA-1000 probe.

Geochemical results from PLS12-025 returned the following high grade uranium interval (Down-hole measurements):

- **22.5 m @ 0.4% U3O8 from 60.5 to 83.0 m**
    - **including 4.03 m @ 0.85% U3O8 from 77.5 to 81.53 m**

Pathfinder elements are at background to strongly anomalous concentrations, and include maximum values of 195 ppm Co, 1960 ppm Cu, 3100 ppm Mo, 482 ppm Ni, 346 ppm Pb, and 1480 ppm B.

PIMA II sampling of the Lloyd Domain basement assemblage is dominated by chlorite (Fe+Mg-rich) with minor illite and kaolinite from 63.0 to 158.0 m. A discrete zone dominated by kaolinite with trace chlorite is present at 68.0 m. Several discrete zones dominated by illite with trace chlorite are present at 78.0, 108.0, 133.0, and 153.0 m.

10.4 2013 Winter-Spring Drill Program on the PLS Property

Fission and Alpha began an 8,000 metre drill program in early January of 2013. The current drill program is utilizing two diamond drill core rigs. Multiple close spaced drill holes will test outwards from known locations of mineralization to establish the width and strike of the newly discovered zone. Much of the drilling is from lake ice and will look for extensions of the 2012 discovery. All holes will be radiometrically surveyed using either a Mount Sporis 2PGA-1000 Natural Gamma probe or a Mount Sopris 2GHF-1000 Triple Gamma probe, which allows for accurate measurements in high grade mineralized zones. The Triple Gamma probe is preferred in zones of high grade mineralization.

The following is a description of the preliminary significant results from the winter drill program. The information has been extracted from news releases issued from February 7th through March 13th, 2013. All results to date are based on radioactive readings. There are no uranium assays available as of yet from the 2013 Winter drill program. However due to the materiality of the most recent drilling, it was considered appropriate to release this information immediately. The program is ongoing. Updated maps highlighting the location of drill holes containing significant radioactivity are found below (Figures 29-31).

Natural gamma radiation in drill core that is reported in these news release were measured in counts per second (cps) using a hand held Exploranium GR-110G total count gamma-ray scintillometer. The Author cautions that scintillometer readings are not directly or uniformly related to uranium grades of the rock sample measured, and should be used only as a preliminary indication of the presence of radioactive materials. The degree of radioactivity within the mineralized intervals is highly variable and associated with visible pitchblende mineralization. All intersections are down-hole, core interval measurements and true thickness is yet to be determined.

10.4.1 February 7th, 2013

On February 7th, 2013 Fission and its Joint Venture partner Alpha announced the results of the first two holes of the Winter 2013 exploration program at the PLS property. Both holes were drilled at a 15m step-out to the west of hole PLS12-024 (12.5m @ 2.49% U3O8: see news release dated Nov. 12, 2012).

- PLS13-027 - 37.0m continuous mineralization; total intervals >9999 cps - 4.35m
- PLS13-026 - 21.0m continuous mineralization; total intervals >9999 cps - 0.75m

<u>Results include:</u>

Hole PLS13-027: 37.0m wide interval of well-developed mineralization (60.5 - 97.5m) including intermittent intervals totaling 4.35m of radioactivity >9999cps. PLS13-027 was drilled 15m grid west of hole PLS12-024 and 10m grid south of PLS13-026.

Hole PLS13-026: 21.0m wide interval of strong mineralization (63.0 - 84.0m) including intermittent intervals totaling 0.75m of radioactivity >9999cps. PLS13-026 was drilled 15m grid west of PLS12-024.

As was the case with previous drill results from the fall 2012 program (holes PLS12-022, 023, 024 and 025), the mineralization occurs at shallow depth in basement rocks. The strongly radioactive intervals occur within a broader region of moderate radioactivity that extend above the Archean basement into the overlying sandstone and extends downward into the basement.

A thin layer of sandstone (possibly Devonian age) is present immediately above the unconformity in both holes. Mineralization extends up into this horizon. Both holes are comprised of alternating pelite and graphitic pelite basement lithology with weak to strong clay and chlorite alteration. Narrow pegmatite intrusions are common throughout. Some strongly mineralized zones are characterized with intense hematite and chlorite alteration.

Figure 29 2013 Winter Drill Program Update.

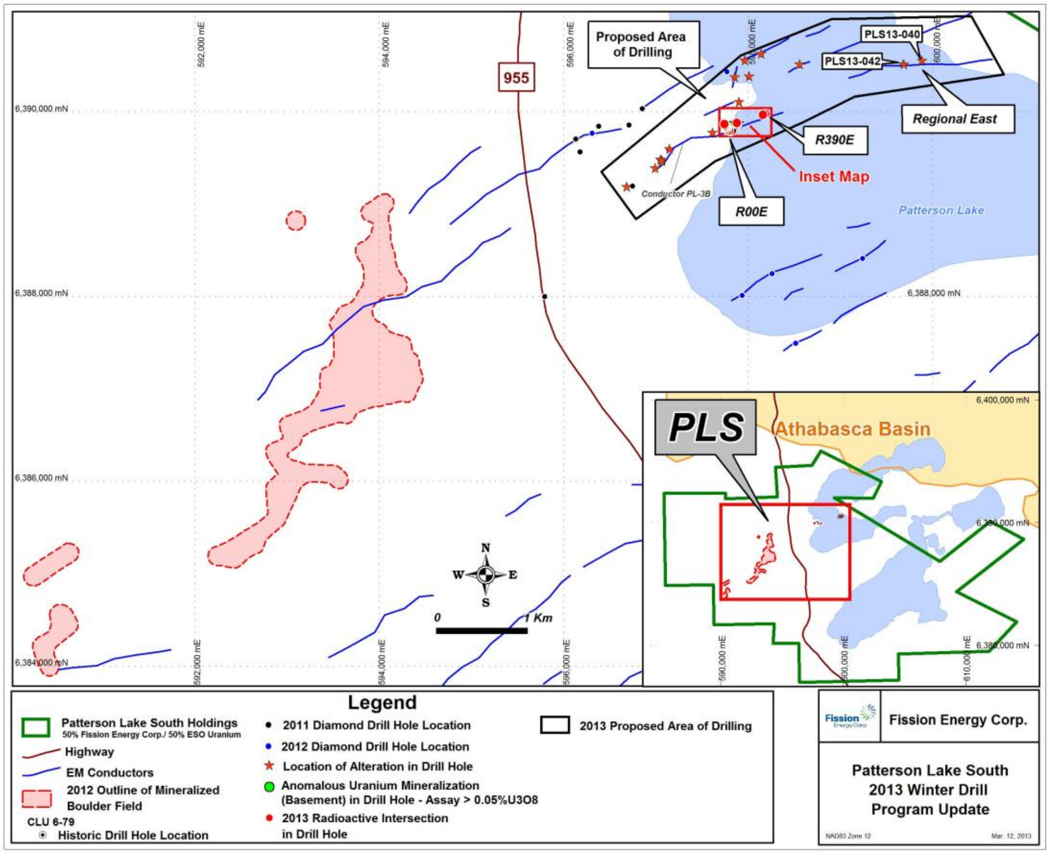


Figure 30 2013 Winter Drill Program Update Inset Map.

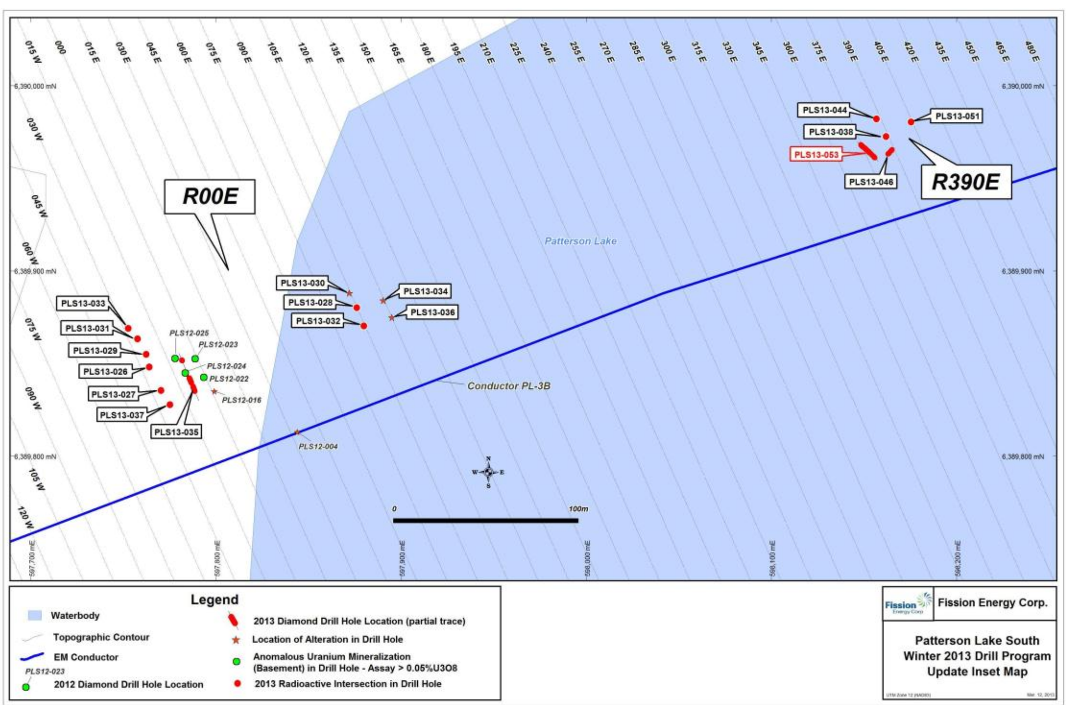
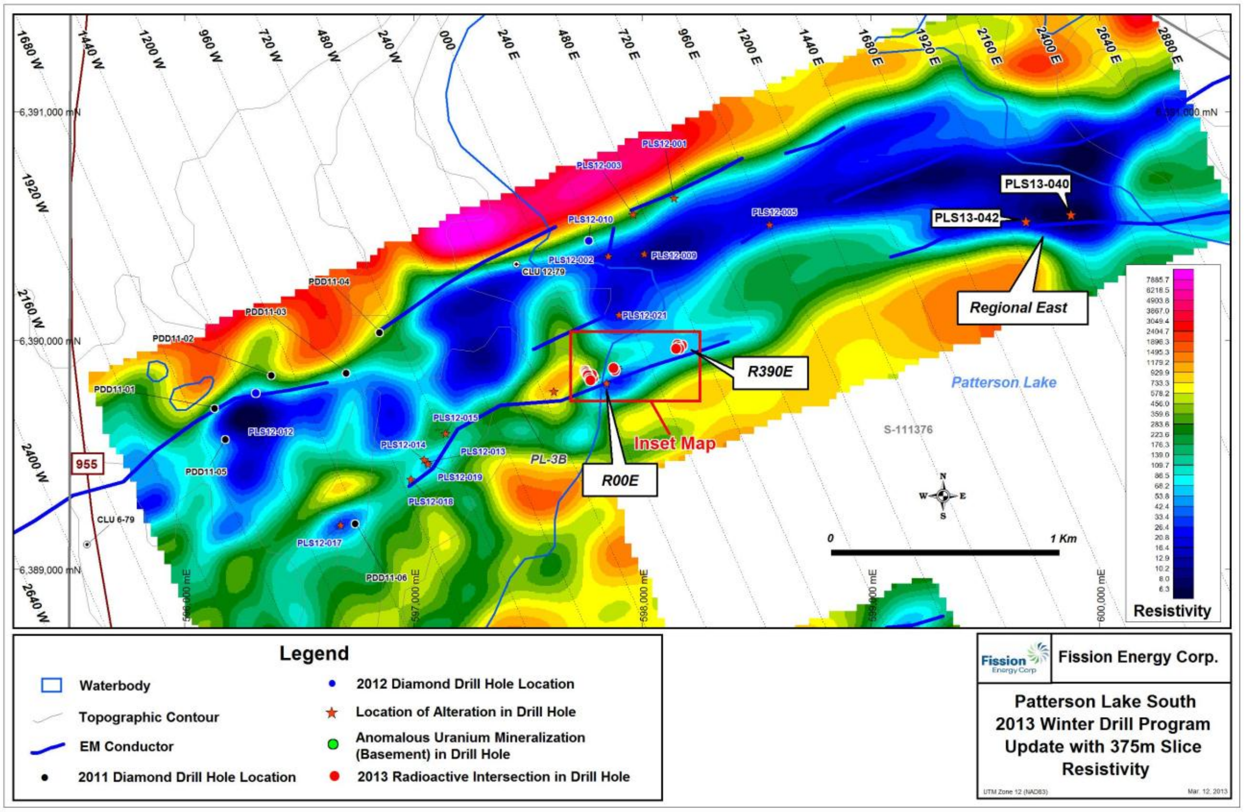


Figure 31 2013 Winter Drill Program Update with 375 Slice Resistivity.



10.4.2 February 19th, 2013

On February 19th, 2013 Fission and its Joint Venture partner Alpha announced the results of hole PLS13-038.

PLS13-038 Highlights:

- A 385m east step out on strike with mineralization previously released on Lines L00W. L015W, L025W.
- Two main wide broad zones of mineralization (Upper and Lower Zone), as measured with a GR-110 hand-held scintillometer;
- Upper Zone (86.5m -- 144.0m) - A 57.5m wide zone characterized by variable radioactivity from weak to very strong throughout. Within the Upper Zone is a continuous 11.9m wide interval (94.9m -- 106.8m) of very strong mineralization which includes 10.6m of off-scale radioactivity.
- Lower Zone (165.0m -- 180.5m) -- A 15.5m wide zone characterized by intermittent weak to locally moderate mineralized zones and barren intervals.

Hole PLS13-038 was collared as a vertical hole and was completed at a depth of 221.6m. The collar is located 385m grid east of PLS12-022 (8.5m @ 1.07% U3O8; see news release December 5, 2012) and thus represents a new discovery area for PLS on trend with strike of the known mineralization (holes PLS12-022 to 025 and PLS13-026, 027), and with a similar nature of mineralization occurring approximately 20m north of the EM conductor axis. The relevant geological features of the hole are as follows: At 48.8m depth, a thin (1.9m wide) cap of probable Devonian Sandstone was encountered which overlies the semi-pelite gneiss hanging wall that constrains an intercalated package of pelite graphitic pelite gneiss. Occasional pegmatite injections were observed throughout the pelite, graphitic pelite, and semi-pelite units. In general, the strong mineralization is associated with flecks, blebs, clots, and veins of pitchblende. Of note, wormhole style mineralization was observed for the first time. Moderate to strong clay, chlorite, and hematite alteration were observed throughout the mineralization.

The drill hole location was based on anomalous results of a recently completed radon in water anomaly, of which the survey results are note as follows. RadonEx Exploration Management of Montreal were contracted to conduct a 191 station Lake Water and Sediment Radon survey over Patterson Lake, on strike to the east of the mineralization encountered in drilling last November 2012. Station spacing was generally 20m on 60m lines. Of note, 3 broad anomalous area were identified, with values up to 11.4 pCi/L; A)90m x 70m (L165E -- L255E) and B) 240m x 140m (L300E 0 L540E). Drill hole PLS13-038 was targeted to test this area. A 3rd anomaly is located approximately 2.2km east of discovery hole PLS13-022 and will be followed up by drilling.

10.4.3 February 25th, 2013

On February 25th, 2013 Fission and its Joint Venture partner Alpha announced results from a further 10 holes completed in the Winter 2013 exploration program at the PLS.

In close spaced delineation drilling, an additional 5 holes have been completed in the area west of the November 2012 discovery on Line 000. All 5 of the holes are mineralized. As well, 5 close-spaced holes were drilled from 90 to 105m east of Line 000. Results show well developed alteration in all 5 holes and weak mineralization in 2 holes on Line 090E (PLS13-028 and 032).

Drilling Highlights include:

- Expansion of the flat-lying, shallow depth on L025W to ~50 m width, north-south. The zone remains open in all directions.
    - PLS13-029 (L025W): 34.0m interval of continuous mineralization; including discrete intervals totaling of 1.88m of "off-scale" radioactivity (>9999 cps)
    - PLS13-031 (L025W): 26.0m interval of continuous mineralization; including discrete intervals totaling 1.54m of "off-scale" radioactivity (>9999 cps)
    - PLS13-035 (L010W): Two intervals of continuous mineralization of 9.5m wide each; including discrete intervals totaling 0.85m of "off-scale" radioactivity (>9999 cps)
    - PLS13-037 (L025W): 23.0m of intermittent mineralization; a deeper zone (103.0 -- 126.0m), including narrow intervals of "off-scale" radioactivity (>9999 cps)
- Alteration and associated weak mineralization on 100m east on-trend step-out shows potential to host high grade mineralization within favorable lithology along strike to the east.
- 4 Holes have been selected for pre-collaring along line 385 where the large high grade intersection of uranium was reported on in the previous news release (Feb 19th 2013).

Discovery Area

The area refers to the region of mineralization where initial discovery holes (PLS12-022, 023, 024 and 025) were drilled, as well as the recently announced 2013 holes PLS13-026 and 027 (see news release Feb 07, 2013) and is so far delineated over land near the western shore of Patterson Lake. A total of 5 additional close spaced step-out holes were drilled in the area; 4 holes on line 025W and 1 hole on line 010W (PLS13-035). All 5 holes intersected mineralization at a shallow depth in the Archean basement. Mineralization generally develops within chlorite and hematite altered basement rocks and is characterized by pitchblende in the form of flecks, blebs, clots and veins. Basement lithology is generally metapelites (+/- graphite), and occasional metasemipelites, often with narrow intervals of pegmatite. The discovery area is open in all directions and additional drilling is required to continue to delineate the mineralized area.

Line 025W

With an additional 4 holes PLS13-029, 031, 033 and 037), drilling on line 025W has successfully delineated a width of ~50m. The zone is still open both to the north and south on this line.

As was the case with previous drill results from the fall 2012 program, and the 2 recently announced holes (PLS13-026 and 027) the main mineralized horizon appears to be generally flat lying, with the upper level top of the mineralized zone occurring at or near the top of the Archean basement rocks, either within or immediately below a thin veneer or Devonian sandstone (see cross-section L025W). Additionally, the southern-most hole, PLS13-037, has a deeper zone of intermittent strong mineralization (103.0 -- 126.0m), including narrow intervals of "off-scale >9999 cps" radioactivity.

Line 010W

One additional hole (PLS13-035), was collared 10m south of PLS12-024 and drilled at an angle of -70 (azimuth 337). Mineralization was encountered in 2 well developed mineralized intervals: an upper zone (62.0 -- 71.5m) and a lower zone (78.0 -- 87.5m). The upper zone begins in the basal part of the Devonian sandstone horizon.

Eastern Extension

A total of 5 holes (PLS13---28, 030, 032, 034 and 036) were drilled in this area, approximately 90m -- 105m east along trend of the lakeshore zone. While no high-grade mineralization was observed in drill-core, prospective basement lithology and alteration was encountered in all 5 holes and two of the holes (PLS13-028 and 032) were weakly mineralized over narrow intervals. In addition, downhole triple gamma probe results from PLS13-028 indicate that a 0.5m wide high-grade interval (48.26m -- 48.76m) was intersected downhole and was not recovered in drill-core.

Line090E

Three vertical holes were drilled at 10m collar spacing (PLS13-028, 030 and 032). Weak mineralization was encountered in holes PLS13-028 and 032, in narrow intervals immediately below the Devonian sandstone horizon (4.0m and 2.5m wide respectively). Basement lithology is comprised dominantly of pelitic sequences (+/- graphite), with localized chlorite and hematite alteration. Intermittent occurrences of sulphides were observed throughout the pelitic lithology.

L105E

Two vertical holes were drilled at 10m collar spacing (PLS13-034 and 036), located 15m east of holes on L090E. Although no mineralization was encountered in either hole, weak to moderate hematite and chlorite alteration was present throughout the basement rocks. Basement rocks are comprised dominantly by pelitic gneiss. In the case of PLS13-036, intermittent intervals graphite are present, as well as abundant sulphides from 107.0-117.5m and 121.1-135.2m.

10.4.4 March 11th, 2013

On March 11th, 2013 Fission and its Joint Venture partner Alpha announced results from 5 additional drilling holes, including 3 holes from the recently named R390E zone (PLS13-044, 046 and 051), located approximately 390m east of the PLS12-022 discovery area at the Patterson Lake South (PLS) property, referred to as R00E. As Operator, Fission has chosen to name the new zones of mineralization 'R00E' and 'R390E'.

PLS13-051 Drilling Highlights include:

- 53.0m interval of continuous mineralization including 11.5m of continuous "off-scale" radioactivity (>9999 cps)
    - the sum of discrete intervals of "off-scale" radioactivity total 13.89m
    - >26% of the interval measure "off-scale".
- Located 15m grid east of PLS13-038 (see news release dated Feb. 19, 2013) in which mineralization was found over 57.5m. 11.65m of which was "off-scale".

In additional delineation drilling in the R390E area, PLS13-044 drilled 10m north of PLS13-038 intersected a total 34.0m of mineralization in four discrete zones of weak to moderate and locally strong mineralization including a narrow (0.1m) interval of "off-scale" radioactivity totaling 3.0m.

R390E Zone:

The R390E zone refers to the zone of mineralization located ~390m on-strike to the east of R00E, and first encountered in PLS13-038 (see news release Feb 19, 2013). R390E has now been delineated with 4 drill holes (PLS13-038, 044, 046 and 051) and is open in all directions. Based on various geophysical interpretations including airborne and ground EM and ground resistivity surveys, the general target area is on strike of the western mineralization located ~390m to the west. As is the case with the R00E zone, R390E mineralization is spatially located proximal to the north of the PL-3B basement EM conductor and situated within a well-defined resistivity low corridor. R390E was targeted to test a coincidental radon in water and sediment anomaly along this trend, as mentioned in the Feb 19, 2013 news release. Drillhole interpretation thus far defines the area of mineralization to be associated with a steeply dipping pelitic (+/- graphitic) lithology sandwiched between a semipelitic gneiss to the north and a quartz-feldspar gneiss to the south, where the mineralization is focused primarily near the contact between the pelitic gneiss and quartz-feldspar gneiss.

Line 405E

Hole PLS13-051 was a vertical hole collared 15m east of hole PLS13-038. A thin interval of Devonian sandstone was encountered from 48.2m - 51.6m, with basement quartz-feldspar gneiss encountered directly below. A 4m interval of weak mineralization was intersected from 76.0 - 80.0m with maximum radioactivity of 1600 cps. The main mineralized horizon was encountered from 95.0m - 148.0m and is associated with the transition from quartz-feldspar gneiss above to pelitic gneiss below. The main interval is characterized by moderate to strong radioactivity throughout, with multiple discrete intervals of intense "off-scale" radioactivity, measuring 13.89m of off-scale radioactivity throughout. An 11.5m interval (107.0 - 118.5m) measured continuous off-scale mineralization. Uranium mineralization occurs as flecks, blebs, clots, veins, semi-massive and wormhole style.

Line 390E

Holes PLS13-044 and 046 were both vertical holes drilled 10m north of PLS13-038 and 10m south respectively. In both holes, a thin layer of Devonian sandstone was encountered above the basement lithology. Mineralization was encountered in both holes, with hole 044 having much better defined mineralization than 046. The main mineralization in hole 044 was intersected over a moderate to locally strong 12m wide interval from 77.0m - 89.0m, which included a 0.1m interval of 'off-scale" radioactivity. Hole 046 drilled 10m to the south of hole 38 was weakly mineralized over several narrow intervals.

Regional Drill Holes:

Drill holes PLS13-040 and 042 were both targeted on an EM conductor and coincident intense resistivity low located ~2.0km to 2.2km to the east of R00E.

Hole PLS13-040, a vertical hole, was drilled approximately 2.2km to the east along strike of R00E. Bedrock was encountered at 54.5m and consisted of primarily semipelitic and pelitic gneiss (locally graphitic from 86.9 - 97.3m) to 109.5m. A possible mafic rock was encountered from 109.5m to the end of hole (182.0m). Significant clay alteration was present over several intervals from 54.5m to 109.5m, including an interval of sulphide (pyrite) mineralization from 89.0 - 97.3m. No anomalous radioactivity was encountered.

Hole PLS13-042 a vertical hole was drilled approximately 2.0km east of R00E. Bedrock was encountered at 45.0m and consists of alternating sequences of semipelitic and pelitic gneiss (locally graphitic) to the end of hole at 203.4m. Moderate to strong chlorite alteration is present from the top of the basement to 121.2m. From 121.2m to 200.0m, alternating sequences of moderate to strong chlorite alteration and sulphide mineralization are present throughout. No anomalous radioactivity was encountered.

10.4.5 March 11th, 2013

On March 11th, 2013 Fission and its Joint Venture partner Alpha announced the most recent drill results from delineation drilling in the recently discovered R390E zone. (See news release dated March 11, 2013). At 18.9m of off-scale (>9999 cps) mineralization, PLS13-053 represents the largest accumulation of discrete off-scale mineralized intervals in any drill hole on PLS property to date.

PLS13-053 Drilling Highlights include:

- 15m step out west of PLS13-038 extends strike length of R390E zone to 30m
- 67.0m of basement mineralization in two zones, separated by only 3.5m of barren rock
- Upper zone (66.0m -- 116.5m) with 17.4m total off-scale radioactivity in several discrete intervals including 8.9m of continuous off-scale (>9999 cps) (95.5m -- 104.4m)
- Lower zone (120.0m -- 136.5m) with 1.5m of off-scale in two discrete (>9999 cps) intervals

R390E Zone:

Drill hole PLS013-053 was collared as a vertical hole, but deviated slightly to a dip of -89.26° to the SE. The hole was drilled to a depth of 282.5m. The hole is collared 15m grid west of PLS13-038. Two main zones of mineralization were intersected (50.5m and 16.5m width respectively), separated by 3.5m of unmineralized rock. The upper zone (66.0m -- 116.5m) is weak to moderate to strongly mineralized throughout. A total of 17.4m of off-scale radioactivity (>9999 cps) was intersected throughout, with the largest discrete interval measuring 8.9m (95.5m to 104.4m). The lower zone (120.0m to 136.5m), similar to the upper zone, is characterized by weak to moderate to strong mineralization throughout. A total of 1.5m of off-scale radioactivity (>9999 cps) was intersected in 2 discrete intervals. Several additional narrow intervals of weak mineralization were present from 145.0m to 219.5m. A thin cap of Devonian sandstone was encountered from 49.4m to 51.4m, overlying a quartzitic gneiss to a depth of 57.5m. The quartzitic gneiss was underlain by intensely altered graphitic pelitic gneiss hosting multiple discrete graphitic shear zones. The hole was terminated at a depth of 282.6m in barren unaltered semi-pelitic gneiss. Moderate to strong clay alteration is present from 51.4m to 159.3m, flanked above and below by weak to moderate clay and chlorite alteration.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

The following is a description of sample preparation, analysis and security for the Property. It is in the opinion of the Author that adequate sample preparation, analysis and security for the Property are being implemented.

11.1 Sample Preparation

The field program is supervised on-site by an experienced geologist with the role of Project Manager. The Project Manager oversees all quality control aspects from logging, to sampling to shipment of the samples. Drill core was split once geological logging, sample mark up and photographing were completed. All drill core samples were marked out and split at the Fission splitting shack by Fission employees, put into 5-gallon sample pails and sealed and transported to La Ronge, Saskatchewan only prior to shipment. The samples were then transported by Marsh Expediting.directly to the Saskatchewan Research Council Geoanalytical Laboratories (“SRC”) (an SCC ISO/IEC 17025: 2005 Accredited Facility) located in Saskatoon Saskatchewan by SRC is independent of Fission.

Samples were prepared for analysis by SRC upon arrival. Beyond the marking, splitting and bagging conducted at the project site, Fission employees were not involved in sample preparation. No special security measures are enforced during the transport of core samples apart from those set out by Transport Canada regarding the transport of dangerous goods.

Sample data were recorded in typical three tag sample booklets provided by Alltech Mining Solutions. 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 excel spread sheet and stored on the Fission 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.

All geochemical, assay and bulk density samples were split using a manual core splitter over the intervals noted in the sample booklet. Half of the core was placed in a plastic sample bag with the sample tag and taped closed with fibre tape. The other half of the core was returned to the core box in its original orientation for future reference. After the completion of each sample, the core splitter, catchment trays and table were cleaned of any dust or rock debris to avoid contamination. Samples were placed in sequentially numbered 5 gallon plastic pails. Higher grade samples were generally packed into the centre of each pail and surrounded by lower grade or unmineralized core in order to shield the radioactivity emitted.

All drill core samples were evenly and symmetrically split in half in order to try and obtain the most representative sample possible. Mineralized core samples which occur in drill runs with less than 80% core recovery are flagged for review prior to the resource estimation process. Core photos of the flagged samples are examined and individual samples showing a significant amount of core loss within the interval are removed from the resource estimate in order to avoid including samples which may have assay grades artificially increased through the removal of lower-grade matrix material. Recovery through the mineralized zone is generally good however and assay samples are assumed to adequately represent in situ uranium content.

All geochemical, assay and bulk density core samples were submitted to SRC. Samples are first dried and then sorted according to matrix (sandstone / basement) and then radioactivity level. Red line and ‘1 dot’ samples are sent to the geoanalytical laboratory for processing while samples ‘2 dot’ or higher (> 2,000 cps) are sent to a secure radioactive sample facility for preparation.

SRC is licensed by the Canadian Nuclear Safety Commission (CNSC) to safely receive process and archive radioactive samples. The facility is ISO/IEC 17025:2005 accredited by the Standards Council of Canada. Core sample residues are retained at the SRC sample storage facility after being analysed. Samples taken for short wave infrared spectroscopy” (SWIR) analysis using a Portable Infrared Mineral Analyser (PIMA) analyzer for clay analysis were sent to Ken Wasyliuk of Northwind Resources Ltd. (Northwind) of Saskatoon, an independent geological consultant with significant SWIR analytical experience

A series of blank and reference pulp samples were included with the samples from each drill hole for ICP-OES and uranium assay analysis. Duplicate samples of Athabasca, mineralized and basement rocks were also submitted as part of the project’s quality assurance / quality control (QA/QC) program (see Section 12.2 below). Results obtained for the QA/QC samples are compared with the original sample results to monitor data quality (Section 12.3).

11.2 Drill Core Geochemistry Analysis

All geochemistry core samples have been analysed by the ICP1 package offered by SRC, which includes 62 elements determined by Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES), as shown in Tables 5 and 6. Boron analysis and uranium by fluorimetry (partial digestion) have also been conducted on all samples.

For partial digestion analysis, rock samples are crushed to 60 % at -2 mm and a 100-200 g sub sample is split out using a riffler. The sub sample is further crushed to 90 % at -106 microns using a standard puck and ring grinding mill. The sample is then transferred to a plastic snap top vial. An aliquot of pulp is digested in a mixture of HNO_3:HCl in a hot water bath for an hour before being diluted by 15 ml of deionised water. The samples are then analysed using a Perkin Elmer ICP-OES instrument (models DV4300 or DV5300). For total digestion analysis an aliquot of pulp is digested to dryness in a hot block digester system using a mixture of concentrated HF:HNO_3:$HClO_4$. The residue is then dissolved in 15 ml of dilute HNO_3 and analysed using the same instrument(s) as above.

Samples with low concentrations of uranium (<100 ppm) identified by the partial and/or total ICP analysis are also analysed by fluorimetry. After being analysed by ICP-OES an aliquot of digested solution is pipetted into a 90 % Pt 10 % Rh dish and evaporated. A NaF/LiF pellet is placed on the dish and fused on a special propane rotary burner then cooled to room temperature. The uranium concentration of the sample is then read using a Spectrofluorimeter. Uranium by fluorimetry has a detection limit of 0.1 ppm (total) or 0.02 ppm (partial).

For boron analysis an aliquot of pulp is fused in a mixture of NaO2/NaCO3 in a muffle oven. The fused melt is dissolved in de-ionized water and analysed by ICP-OES.

11.3 Drill Core Assay Analysis

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 wt% in geological samples. The detection limit is 0.001 wt% U_3O_8. Rock samples are crushed to 60 % at -2 mm and a 100-200 g sub sample is split out using a riffler. The sub sample is further crushed to 90% at -106 microns using a standard puck and ring grinding mill. An aliquot of pulp is digested in a concentrated mixture of HNO3:HCl in a hot water bath for an hour before being diluted by deionised water. Samples are then analysed by a Perkin Elmer ICP-OES instrument (models DV4300 or DV5300).

From 2009 onwards, in addition to uranium assay, mineralized zones were also assayed by SRC for gold, and during the winter 2010 drill program platinum group elements as well (Pt, Pd). Rock samples are first dried at 80°C overnight then jaw crushed to 60 % -2 mm and a 100-200 g subsample is split out using a riffler. The sub sample is pulverized to 90 % -106 microns using a puck and ring grinding mill. An aliquot of sample pulp is mixed with fire assay flux in a clay crucible and a silver inquart is added prior to fusion. The mixture is fused at 1,200°C for 90 minutes. After the mixture has fused, the slag is poured into a form which is cooled. The lead bead is recovered and chipped until only the precious metal bead remains. The bead is then parted in diluted HNO3. The precious metals are 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.

11.4 Drill Core PIMA Analysis

Core chip samples for clay analysis were sent to Northwind, a private facility in Saskatoon, for analysis on a PIMA spectrometer using short wave infrared spectroscopy. Samples are 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 are 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.

11.5 Drill Core Petrographic Analysis

Samples collected for petrography were sent to Vancouver Petrographics Ltd for the preparation of thin sections and polished slabs. Petrographic analysis was performed in the office of MSC using a Nikon Eclipse E400 microscope equipped with transmitted and reflected light. The results of the petrographic analysis are documented in MSC10/014R and MSC10/045R.

11.6 Drill Core Bulk Density Analysis

Drill core samples collected for bulk density measurements were sent to SRC. Samples are first weighed as they are received and then submerged in deionised water and re-weighed. The samples are then dried until a constant weight is obtained. The sample is then coated with an impermeable layer of wax and weighed again while submersed in deionized water. Weights are entered into a database and the bulk density of each sample is calculated. Water temperature at the time of weighing is also recorded and used in the bulk density calculation. The detection limit for bulk density measurements by this method is 0.01 g/cm3.

11.7 Down Hole Surveys

There is no verification or repeat logging of down hole orientation surveys. Gamma probe surveys are recorded while going down-hole and up-hole resulting in two survey files for each hole. The overall gamma probe up and down results can be compared to ensure that no spurious readings were recorded.

11.8 QA/QC of Geochemistry and Assay Samples

In-house SRC QA/QC procedures involve inserting one to two quality control samples of known value with each new batch of 40 geochemical samples. Four reference standards are used by SRC on the Project; BLA2, BL3, BL4A and BL5 which have concentrations of 0.502, 1.21, 0.148 and 8.36 wt% U_3O_8, respectively. All of the reference materials used by SRC on the Project are certified and provided by CANMET Mining and Mineral Services.

An internal QA/QC program was designed by Fission to independently provide confidence in the core sample geochemical results provided by the SRC. Since the U_3O_8 assay values returned from SRC may be used in resource estimation the data requires a high degree of accuracy and precision. The internal QA/QC sampling program determines analytical precision through the insertion of sample duplicates, accuracy through the insertion of materials of "known" composition (reference material) and checks for contamination by insertion of blanks. Blanks, reference standards and duplicates are inserted into the sample sequence as they were collected in the field as follows:

- Field duplicates: these were taken by splitting a geochemistry or assay sample in half (i.e. quartering) in the field. For Athabasca composite samples, each subsample was split and each half put in separate bags, one original and one duplicate. One field duplicate was inserted for every 20 composite samples and for every 20 point samples. For each drill hole, at least one field duplicate of an Athabasca composite sample and one field duplicate of a basement point sample were taken. For mineralized drill holes, at least two field duplicate point samples were taken, one from the mineralized zone and one from unmineralized "background" basement.

- Prep and pulp duplicates: these were taken by the laboratory (SRC) for each field duplicate submitted. Prep duplicates were split from the initial -2 mm crushed sample and pulp duplicates were split off the -106 micron pulp material (i.e. post-grinding). All duplicates are weighed and analysed separately. Empty sample bags marked with sequential Fission Energy sample numbers and tags were included in sample shipments to facilitate the duplicate sampling by SRC.

- Blank samples: Twenty pulps from the winter 2010 drill program were requested from SRC for use as blanks. These samples were selected to satisfy the criteria of having "U; ICP ICP1 Total" < 2 ppm and "U; Fl. ICP1 Partial" < 1 ppm. One blank pulp was inserted for each drill hole that intersected mineralization and from which samples were sent for U_3O_8 assay. The blanks were re-packaged, assigned a new sample number and inserted in sequence within the mineralized interval. The entire blank pulp sample was submitted for analysis. Blank samples were analysed by ICP-OES (ICP1 package) and assayed for U_3O_8 wt% and Au by fire assay. Blank samples were not inserted with samples from unmineralized holes.

Reference samples: As an interim measure to generate reference standards for U_3O_8 assays, reference pulps of point samples taken during the winter 2010-2011 programs and previously assayed for U_3O_8 were requested from SRC. Low grade, medium grade and high-grade reference samples were selected with assay values falling in the ranges of 0.03-0.05 wt% U_3O_8, 0.1-0.2 wt% U_3O_8 and 1-5 wt% U_3O_8, respectively. One entire pulp sample of each reference sample type was inserted into the sample batch for each drill hole that intersected mineralization (i.e. for which samples were submitted for U_3O_8 assay). As with the blanks, these samples were re-packaged and assigned a new sample number in sequence with the sample numbers for the drill hole, and were inserted within the mineralized interval. Reference samples were analysed using the ICP1 package, U_3O_8 assay and Au fire assay. For holes that did not intersect mineralization, only the low grade reference sample was inserted. These samples were only analysed by the ICP1 package.

12 DATA VERIFICATION

All geological data has been reviewed and verified by the Author as being accurate to the extent possible and to the extent possible all geologic information was reviewed and confirmed. The Author did not conduct check sampling of the core. The Author did visually inspect the core and the majority of the significant uranium intercepts. The Author also inspected the majority of the significant uranium intercepts with a hand held Exploranium GR-110G total count gamma-ray scintillometer and confirmed the presence of uranium mineralization. The Author cautions that scintillometer readings are not directly or uniformly related to uranium grades of the rock sample measured, and should be used only as a preliminary indication of the presence of radioactive materials. The Author feels that the samples taken by Fission provide adequate and good verification of the data and the Author believes the work to have been done within the guidelines of NI 43-101. As the drill program on the PLS property and the majority of the sample data is pending, the results of the QA/QC program were not available at the time of this report.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

No mineral processing or metallurgical testing studies have been completed on the mineralization on the Property.

14 MINERAL RESOURCE ESTIMATE

There are no historical and no current N.I. 43-101 compliant mineral resource or reserve estimates completed for this report.

15 ADJACENT PROPERTIES

There is no information on properties adjacent to the Property necessary to make the technical report understandable and not misleading.

16 OTHER RELEVANT DATA AND INFORMATION

All relevant data and information regarding the Property is included in other sections of this Technical Report. There is no other relevant data or information available that is necessary to make the technical report understandable and not misleading.

17 INTERPRETATION AND CONCLUSIONS

The following information describes the interpretation and conclusions for the exploration completed on the property to date. To the Authors knowledge, there are no significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information. To the Author’s knowledge, there are no reasonably foreseeable risks and uncertainties to the projects economic viability or continued viability.

17.1 Patterson Lake Property

The 2008 drilling program was successful in defining an anomalous drillhole, PT08-004A with respect to trace-element geochemistry, and clay content.

Another interesting conclusion of the 2008 drilling program is the difference in basement elevation between the eastern and western drilling areas. The western drilling area consisting of holes PT08-007B and PT08-009A did not intersect any Athabasca Sandstone, and the basement depths are approximately 97 and 128 metres respectively. The eastern drilling area, consisting of holes PT08-001, PT08-002A, PT08-003 and PT08-004A, intersected significant intervals of Athabasca Sandstone, and the basement depth is between 294 and 382 metres. This represents an approximate elevation change of 200 metres within 4 kilometres. Uranium mineralization within the Athabasca Basin is often associated with reactivated basement structural features, often with significant displacement of the unconformity. As such drill holes that target the location of this off-set between these eastern and western drilling areas in order to locate a possible faulted area to explain this basement elevation change. A ground gravity or 2007 and 2008 Exploration on the Patterson Lake Property resistivity surveys which are both useful to help delineate structural and alteration features should be conducted in this area in order to define the locations of the inferred fault area.

17.2 Patterson Lake South Property

The boundary zone between the Clearwater and Lloyd (Western Granulite) Domains is situated within the PLS property, likely to the north-northwest of the Patterson Lake conductor corridor. It is probable that late-Hudsonian reactivation and tectonization of the basement rocks has occurred along this boundary zone. The Clearwater Domain is interpreted to have undergone a geological history analogous to that of the favourably-mineralized Wollaston Domain (Atamanik & Downes & van Tongeren, 1983). It is thought that the Clearwater Domain partially underlies the Shea Creek uranium deposits and mined out Cluff Lake uranium deposits.

Comprehensive historical exploration results have established a favourable setting for the deposition of unconformity-style uranium deposits within the property. Fission Energy Corp. and ESO Uranium Corp. carried out state of the art airborne radiometric and magnetic surveys in October 2009, which with detailed ground follow up in June 2011, led to the discovery of a boulder field with an unusually high percentage of high grade uranium boulders. This uranium boulder field discovery has made the existence of a shallow unconformity-style uranium deposit(s) on the property very realistic. Analysis of till fabric measurements, in addition to the additional high grade boulders discovered during the October 2011 trenching program, has provided further evidence that the ice direction was to the southwest, suggesting the Patterson Lake Conductor Corridor as a possible bedrock source area for the boulders.

The source of the high grade uranium boulders is modeled upon a basement hosted system located in an area where the Cretaceous, Devonian, and Athabasca sedimentary rocks have been excavated away by ice action. This constraint of a restricted erosional window reduces the size of the search area, which also is expected to lie within the path along which the ice sheet pushed out the boulders found in the glacial till. This basement uranium source is also expected to include or be in close proximity to disrupted EM conductors within a magnetic low zone, and is likely associated with a strong resistivity low anomaly.

The substantial size of many of the well mineralized boulders, which could be quickly crushed to sand and gravel sized material by the action of the ice transportation, suggests that the travel distance from the bedrock source also may be constrained. Assessment reports from Amok Ltee (Areva) describe the exploration work, which lead to the discovery of the Cluff Lake Mines by drilling up-ice, generally northeast from uranium boulder clusters, to locate sources in several discrete deposits. A fairly regular separation of 2 to 3 km is indicated between boulder fields and the bedrock uranium sources (mines) that were located.

Figure 32 shows all of the uraniferous boulders found in June and October 2011, and the proposed bedrock source area for these boulders, which is about 3 to 5 kms northeast and up-ice from the boulder field. A greater “skip distance” from bedrock source to the uranium boulder field compared to Cluff Lake is surmised due to the thicker sequence of glacially derived sediments on PLS. The proposed source area is based upon a southwest ice direction from an area of unexposed Precambrian basement with EM conductors that are offset by cross cutting structures. Structures that act as boundaries between low magnetic and moderately magnetic zones are targeted; and are significant because boulders of mineralized meta-sediments (low magnetic response) and mineralized intrusives (moderate to high magnetic signature) were found during the boulder survey. Resistivity lows along or at the ends of conductors are to be preferentially targeted as this could be indicative of hydrothermal alteration associated with high grade uranium mineralization.

The conductor intersected by CanOxy drill hole CLU-12-79 is targeted as it intersected: favourable alteration (red and green alteration); abundant graphite and sulphides with anomalous uranium, copper and nickel over 6.1 m; two anomalous spikes in radioactivity from down hole probing within the fresh basement. Radon anomalies with low radiometric values located above the EM conductors, are also used in consideration of drill hole target selection.
Exploration from February to April 2012 comprised helicopter-borne VTEM and magnetic geophysical surveys, ground DC resistivity and SMLTEM geophysical surveys, and diamond drilling.

The airborne VTEM and magnetic geophysical surveys showed:

- Numerous kinked and off-set EM conductors over the entire PLS property;
- Several broad areas with low to moderate magnetic susceptibility associated with EM conductors;
- Magnetic high domes with sharp boundaries associated with kinked and off-set EM conductors.

The ground DC resistivity and SMLTEM geophysical surveys showed:

- High priority drill targets were established where resistivity low “blow outs” along the conductor axis’s were established;
- The ground SMLTEM survey located the conductor axis’s more accurately than the airborne VTEM survey as proven by drill testing;
- Ground SMLTEM occasionally located conductor axis’s that airborne VTEM did not.

Diamond drilling on the northern and central EM conductors within the main Patterson Lake conductor corridor showed:

- Strong hematite, chlorite, and bleaching alteration in favourable basement rocks was intersected in drill holes PLS12-001 to -003, -005, and -009;
- Thick intervals of conductive graphite and pyrite related to important structural zones was observed in drill holes PLS12-001 to -003, -005, and -009;
- Weak radioactivity was intersected in PLS12-001 to -003, and -005;
- Weakly anomalous U concentrations and associated “pathfinder elements” were encountered in PLS12-001 to -003, -005, and -009;

Diamond drilling on the southern EM conductor within the main Patterson Lake conductor corridor showed:

- Intervals of strong to extreme hematite, chlorite, clay, and bleaching alteration in favourable basement geology was intersected in drill holes PLS12-004, and -013 to -016;
- Thick intervals of graphite and pyrite was only intersected in PLS12-016, but important structure was observed in PLS12-013 to -016;

- Weak to strong radioactivity was intersected in PLS12-013 to -016;

- Weakly to strongly anomalous U concentrations and associated “pathfinder elements” were intersected in PLS12-004, and -013 to -016;

- The highest uranium concentration in drill core was 0.1% U_3O_8 over 0.5 m from 154.11 to 154.61 m in PLS12-016, and corresponds to a strongly clay (sudoite) altered graphitic pelite;

Exploration from September to November 2012 comprised airborne radiometric and magnetic geophysical surveys, boulder prospecting, ground DC resistivity and SMLTEM geophysical surveys, dual rotary and diamond drilling.

The airborne radiometric and magnetic geophysical surveys showed:

- Numerous very strong uraniferous radiometric anomalies over and extending the existing area of the high grade uranium boulder field at PLS;

- Numerous weak to moderate uraniferous radiometric anomalies across the entire PLS property;

- Several broad areas with low to moderate magnetic susceptibility associated with EM conductors;

- Magnetic high domes with sharp boundaries associated with kinked and off-set EM conductors.

The boulder prospecting survey showed:

- The existing high grade uranium boulder field was expanded to an area of 1.0 by 7.35 km with the recovery of 40 additional mineralized boulders;

- The mineralized boulders returned assays from 9 ppm U to 40.0% U3O8;

- Boulder samples recovered from follow up on airborne radiometric anomalies southwest and down-ice from Forest Lake are not associated with uranium mineralized boulders, but are rather granitic boulders.

The ground DC resistivity and SMLTEM geophysical surveys showed:

- High priority drill targets were established where resistivity low offsets and “blow outs” along the conductor axis’s were established;

- The ground SMLTEM survey located the conductor axis’s more accurately than the airborne VTEM survey as proven by drill testing.

- Dual rotary drilling within and up ice from the PLS high grade uranium boulder field showed:

- No obvious radioactive till sheet was observed from the high grade uranium boulder field in the up-ice (northeast) direction;

- Favourable graphitic meta-sediments were intersected west of Highway 955 along the southernmost conductor of the Patterson Lake corridor.

Diamond drilling on the middle southern conductor within the Patterson Lake conductor corridor showed:

- Discovery drill hole PLS12-022 intersected 1.07% U3O8 from 70.5 to 79.0 m;
- Drill hole PLS12-024 with the best high grade intersection to date at 1.78% U3O8 from 65.0 to 83.0 m;
- Drilling along the middle southernmost conductor (from PLS12-017 to -019) of the Patterson Lake corridor continued to intersect favourable geology, alteration, structure, and anomalous radioactivity to imply there is potential to discover high grade uranium mineralization west of PLS12-022 to -025.

18 RECOMMENDATIONS

Work recommended for the PL property includes more select ground geophysics including resistivity and EM), and possibly a gravity survey to fine tune drill targets. Within the next year, a drill program of up to 2,500 meters will be conducted to test the best geophysical anomalies. It is anticipated that radon and helium surveys designed to assist in the detection of subsurface uranium occurrences will be conducted in certain areas to assist in developing high priority drill targets. The estimated cost for the proposed exploration program on the PL property is ~$1,500,000 including $325,000 for ground geophysical surveys (Table 9).

Table 9 Budget Summary for the Proposed PL 2013 Program.

Activity	Amount	Budget
Drilling	2500m (10 holes @ ~250m each)	$ 750,000
Airborne Mag / EM Survey	1300 line-km @ $150 line-km	$ 200,000
Ground Geophysics	30 line-km Resistivity	$ 250,000
Radon Survey	150 Stations	$ 75,000
Admin	15% of Budget	$ 225,000
Total		**$ 1,500,000**

For the CW Property a program comprising an airborne magnetic and EM survey and airborne radiometrics, followed by ground truthing, mapping and prospecting is recommended. The estimated cost for the proposed exploration program on the CW property is ~$500,000 (Table 10).

Table 10 Budget Summary for the Proposed CW 2013 Program.

Activity	Amount	Budget
Airborne Mag / EM Survey	1200 line-km @ $175 line-km	$ 210,000
Airborne Radiometrics	4000 line-km @$55 / line-km	$ 220,000
Admin	15% of Budget	$ 70,000
Total		**$ 500,000**

The following exploration work was recommended by Fission as follow up to the September to November 2012 exploration program at the Patterson Lake South property:

- Ground geophysics coverage further to the southwest of HWY 955, which should comprise 28.0 line-km of line-cutting, 24.6 line-km of DC resistivity, and 12.0 line-km of SMLTEM;
- A diamond drill program (50 holes – 10,000 m) should test the Patterson Lake Conductor corridor as shown in Figure 33. Step out drilling should be conducted from uranium mineralization intersected in drill holes PLS12-022 to -025. Exploration drilling on the east southernmost conductor in the Patterson Lake corridor;
- Appropriate reclamation of all drill pads and access based on future exploration requirements;

The estimated cost for this proposed Winter 2013 exploration program is $4.01 million.

The Author has reviewed the proposed programs for further work on the Property and, in light of the observations made in this report, supports the concepts as outlined by Fission. Given the prospective nature of the property, it is the Author's opinion that the Property merits further exploration and that Fissions proposed plans for further work are properly conceived and justified.

The Author recommends that Fission conducts the further exploration as proposed, subject to funding and any other matters which may cause the proposed exploration program to be altered in the normal course of its business activities or alterations which may affect the program as a result of exploration activities themselves.

18.1 2013 Winter – Spring Program (Patterson Lake South Property)

In December 2012, Fission presented a Work Plan (Figures 32 to 37) and Budget (Table 11) for Winter-Spring – 2013.

Fission, as Operator, proposed a $4.01M winter exploration program, which will consist of:

1. Ground geophysics program
    a. Grid establishment
    b. 16.4 line-km Moving Loop Time Domain Electromagnetic survey (MLTDEM)

2. Core Drilling (46-hole, 8,050m)

The program was subsequently expanded to 10,000 metres and is expected to be completed by the end of March.

18.1.1 Ground Geophysics Program

<u>MLTDEM</u>

In most cases, known occurrences of significant uranium mineralization in the Athabasca Basin, occur in metapelitic rock corridors (on the edge of and between basement granitic domes), generally associated with formational and structurally present graphite and clay alteration. These metapelitic rocks are expressed as "magnetic lows" and the graphite and clay alteration are expressed as elevated conductivity. Simply put, exploration drilling should primarily be focused in corridors of magnetic low and high conductivity. It is within these areas further ground geophysics surveys to best target follow-up core drilling is recommended. Moving Loop Time Domain EM surveys (MLTDEM) are designed to characterize the areas of high conductivity. The moving loop format is designed to provide good resolution of EM conductors in complex conductive areas. The survey should provide resolution and locate the strongest part of a graphitic conductor axis. Graphite is almost always present in structurally controlled Athabasca Basin style unconformity mineralization.

The strategy is to conduct a MLTDEM survey on the PL Grid within a prospective resistivity low, in order to locate the most favorable part of a graphitic conductor within an alteration system.

<u>PL Grid (Figure 2 and 3)</u>

The PL Grid is a high priority area, located to the east along strike of the "high-grade" boulder field. The PL Grid, is coincident with the area of in-situ high grade mineralization encountered in holes PLS12-(022 to 025). The PL Grid survey continues to the east along strike of the mineralized holes covering prospective areas of high conductivity (bright spots in the TAU, Figure 3).

The ground-based geophysics related program will consist of:

- Re-establishing of the grid in areas of the survey
- MLTDEM: 16.4 line-km

18.1.2 Drill Program

Core Drilling

A 46-hole, 8050m program of core drilling is proposed for the 2013 winter program. In an attempt to better drill the thick overburden (~50-60m thick) overlying the bedrock, it is proposed that a specialized RC drill start each hole drilling the overburden and setting the casing, with the bedrock component of the hole being completed by a standard core-drill. This approach should allow a more efficient penetration of the overburden, using no bentonite clay and allowing for angled holes. The core rig would require significant bentonite clay to keep the hole open, and this would be seen as a significant environmental challenge, particularly for holes collared on lake ice. The cost of the combination RC-Core rigs, is estimated to be about 10% higher than using just a core drill alone, but the more environmentally favorable conditions, should adequately off-set this. If this combination drilling proves to be significantly more expensive or operationally very difficult, we would resort back to using the core-drill to complete the entire hole.

Two core drills and one RC rig will be utilized for this program. The main objectives to be met are:

1) To focus primarily on delineation of the mineralized area discovered in holes PLS12-(022 – 025). The goal is to begin to outline a mineralized body for which a meaningful resource estimate can be conducted.

    a) A series of 40 close-spaced drill-holes are proposed. A mine grid is established with an ENE baseline parallel to the PL-3B EM conductor and with perpendicular grid lines at 15m line spacing (Figure 6). L000W is the line where holes PLS12-016, PLS12-022 and PLS12-023 are located.

    b) Initially the holes will be vertical and collared on 15m spaced drill lines, with 10m to 15m spacing of collars on line. If mineralized continuity can be established, the collar spacing should be able to be increased. Locations of sequential holes will be dependent and justified on on-going drilling results.

    c) Drill holes will test at least 50 to 75m past mineralization and secondary alteration

2) A series of 6-holes are designed to test the prospectivity further along strike to the ENE of the main mineralized area. The MLTDEM survey discussed previously, will help target these holes.

Core Logging Facility

The budget includes provisions for the building of five core-logging and sampling shacks and core racks as required. These buildings will be constructed at the Big Bear Camp (owner Ted Clark of La Loche). In the spring-summer of 2013 it is envisaged that a chain-link gated security fence will be constructed around the logging shacks and core storage area, so that access is restricted. The security fence is not part of this current budget.

18.1.3 Budget

Table 11 Budget Summary for the Proposed PLS 2013 Program.

BUDGET SUMMARY: PLS - 2013 Program		Winter Estimate
Cost Center Patterson Lake South	Activity	Estimated Projected Budget ($Cdn)
Acquisition	Land Purchase	$ -
	Staking	$ -
Surface Geology	Planning	$ -
	Field	$ -
	Data Evaluation	$ -
Airborne Geophysics	Planning	$ -
	Field	$ -
	Data Evaluation	$ -
Ground Geophysics	Planning	$ 21,800
	Field	$ 136,700
	Data Evaluation	$ 30,600
Drilling	Planning	$ 73,500
	Field	$ 3,178,000
	Data Evaluation	$ 88,000
Property	Land Retention	$ 12,100
	Land Use / Permitting	$ 15,400
Reporting	Reporting	$ 53,300
Environmental	Environmental	$ 13,200
Safety	Safety	$ 11,000
Community Relations	Community Relations	$ 4,600
General	Admin and General	$ 11,300
	Sub-Total	**$ 3,649,500**
Management	Management Fee (10%)	$ 365,000
Total		**$ 4,014,500**

Figure 32 PLS 2013 Proposed Winter Exploration Program Summary Map.

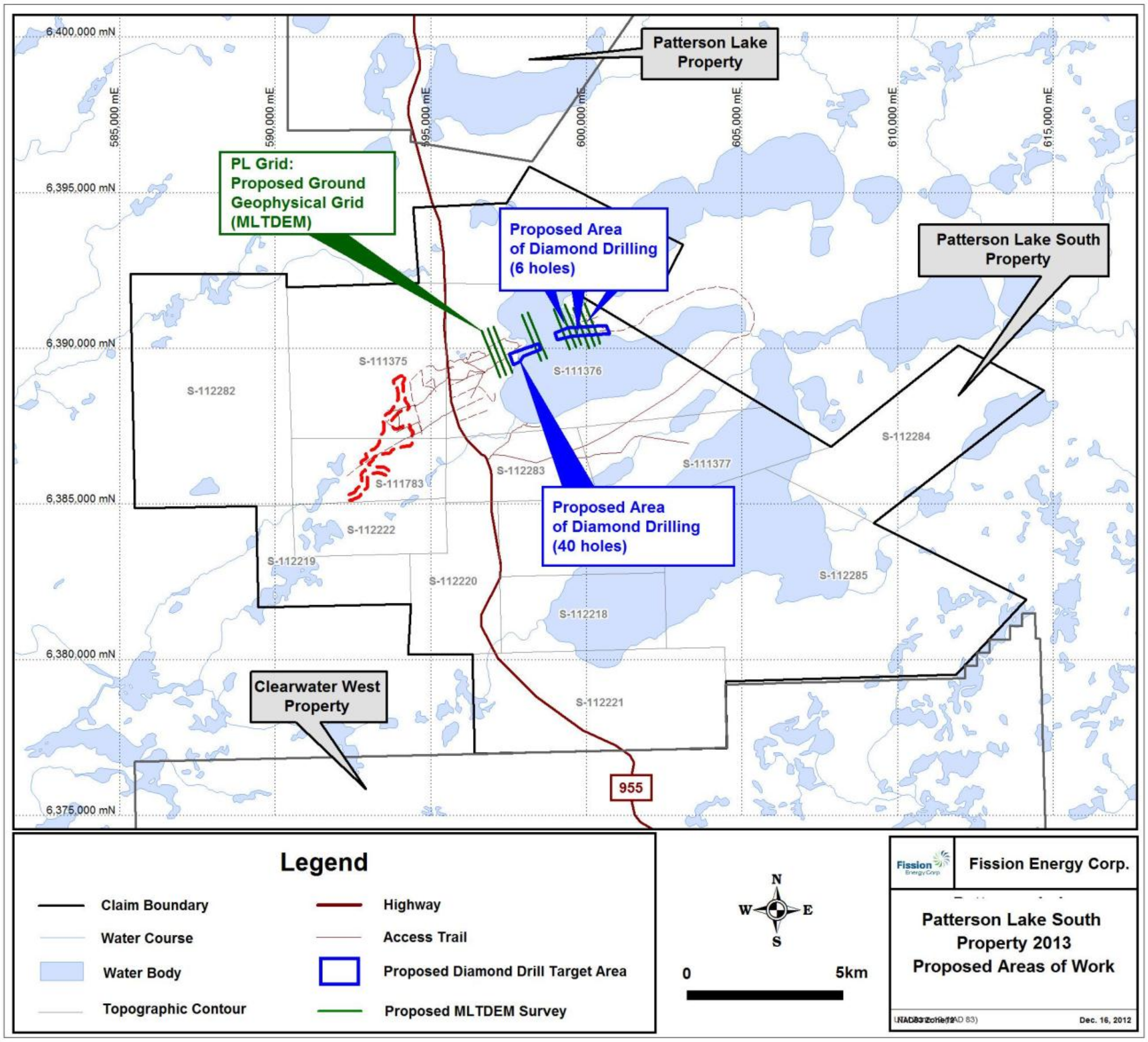


Figure 33 PLS 2013 Proposed Winter Exploration Ground Geophysics Survey.

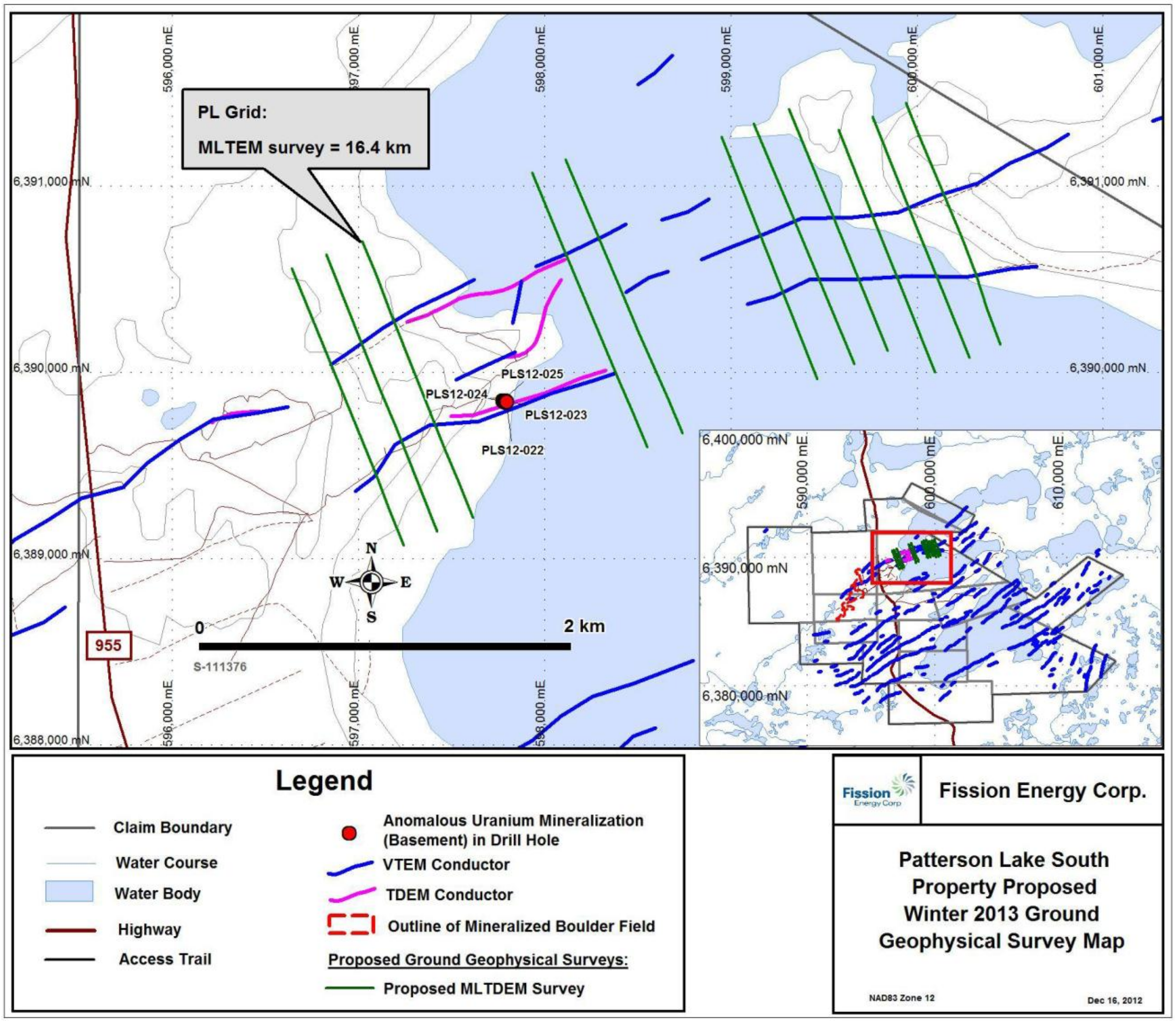


Figure 34 PLS 2013 Winter Proposed Exploration Ground Geophysics Survey on TAU Underlay.

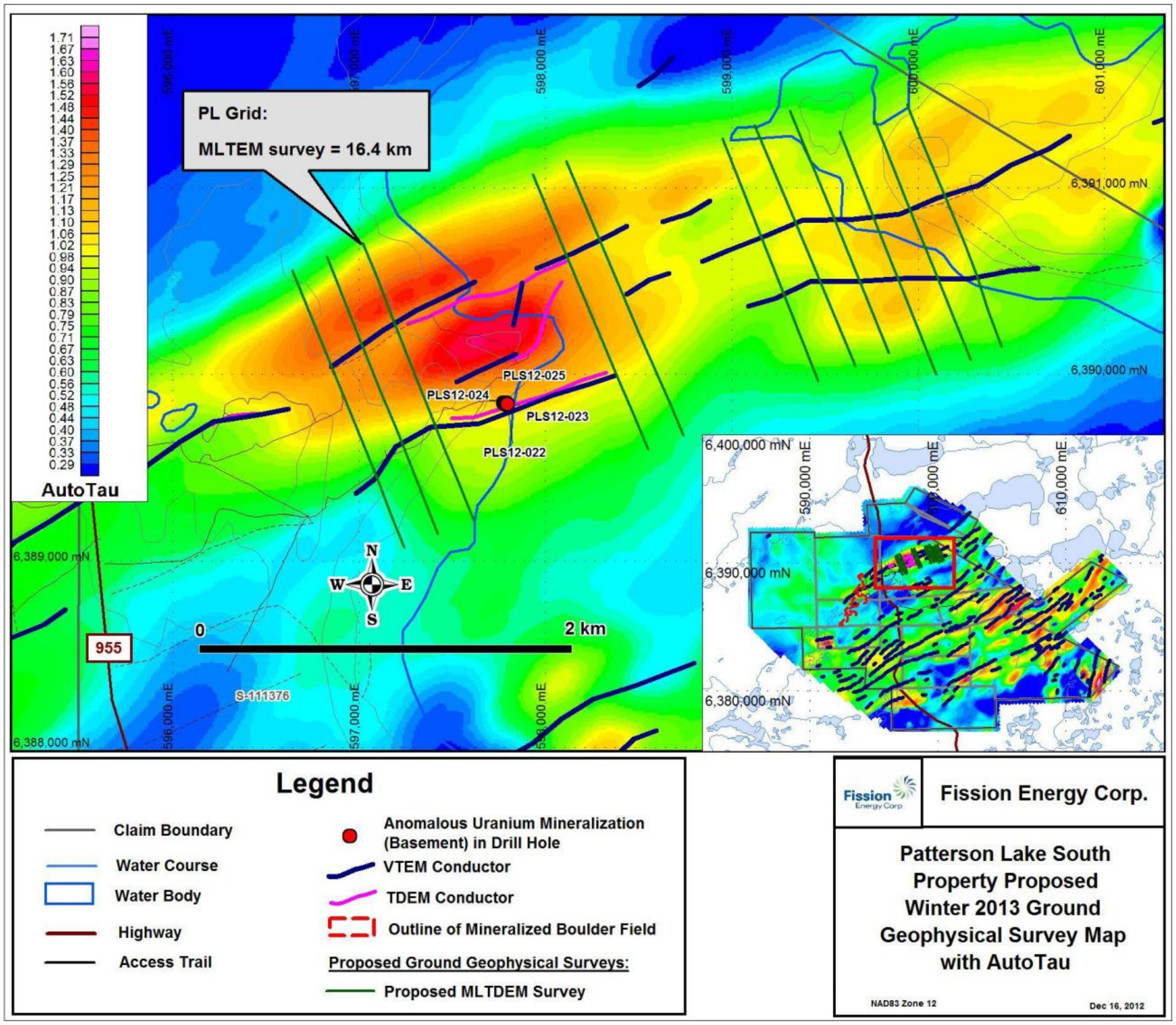


Figure 35 2013 Winter Proposed Exploration Drill Area Map (Overview).

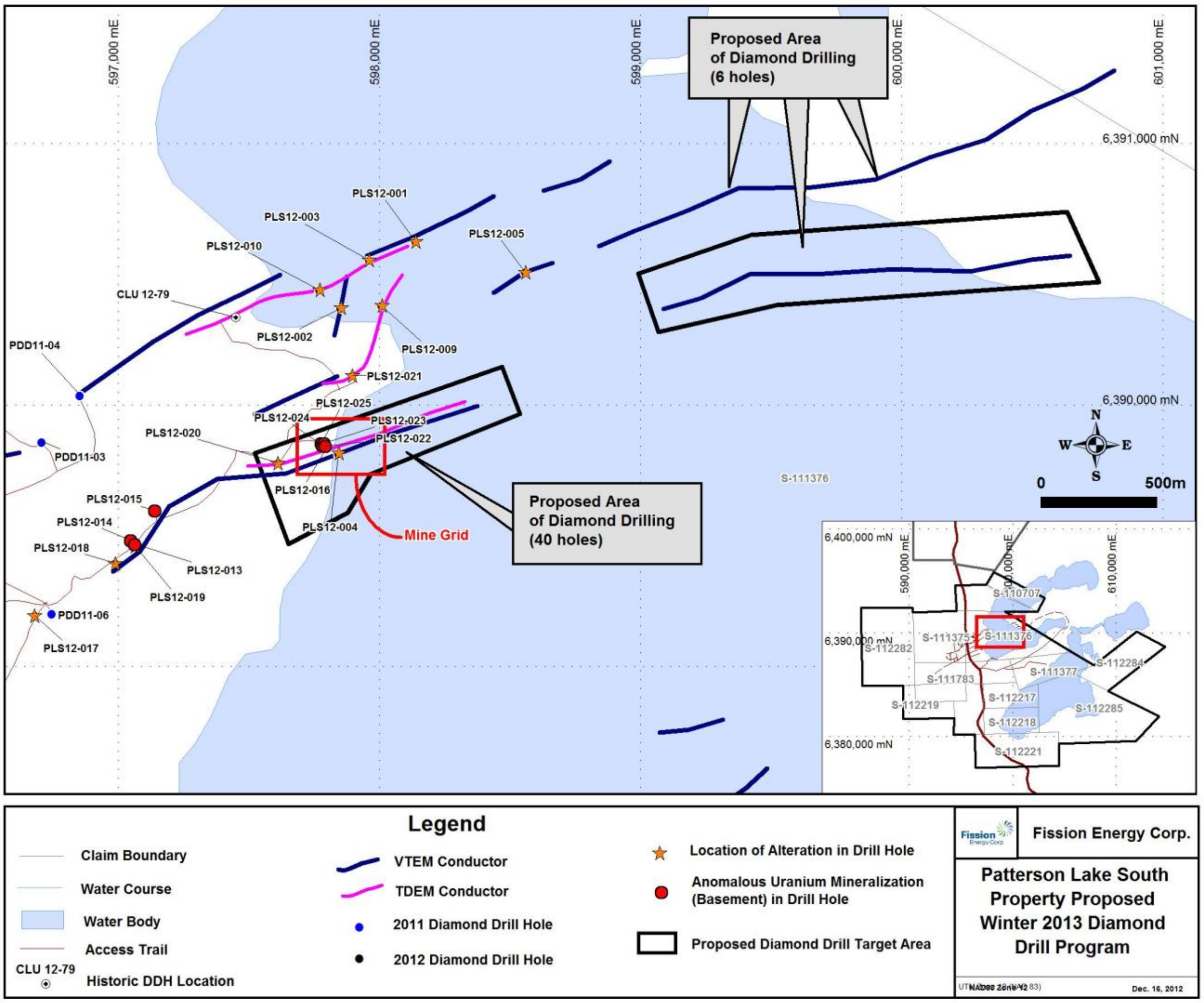


Figure 36 2013 Winter Proposed Exploration Drill Area Map With Magnetic Image Underlay.

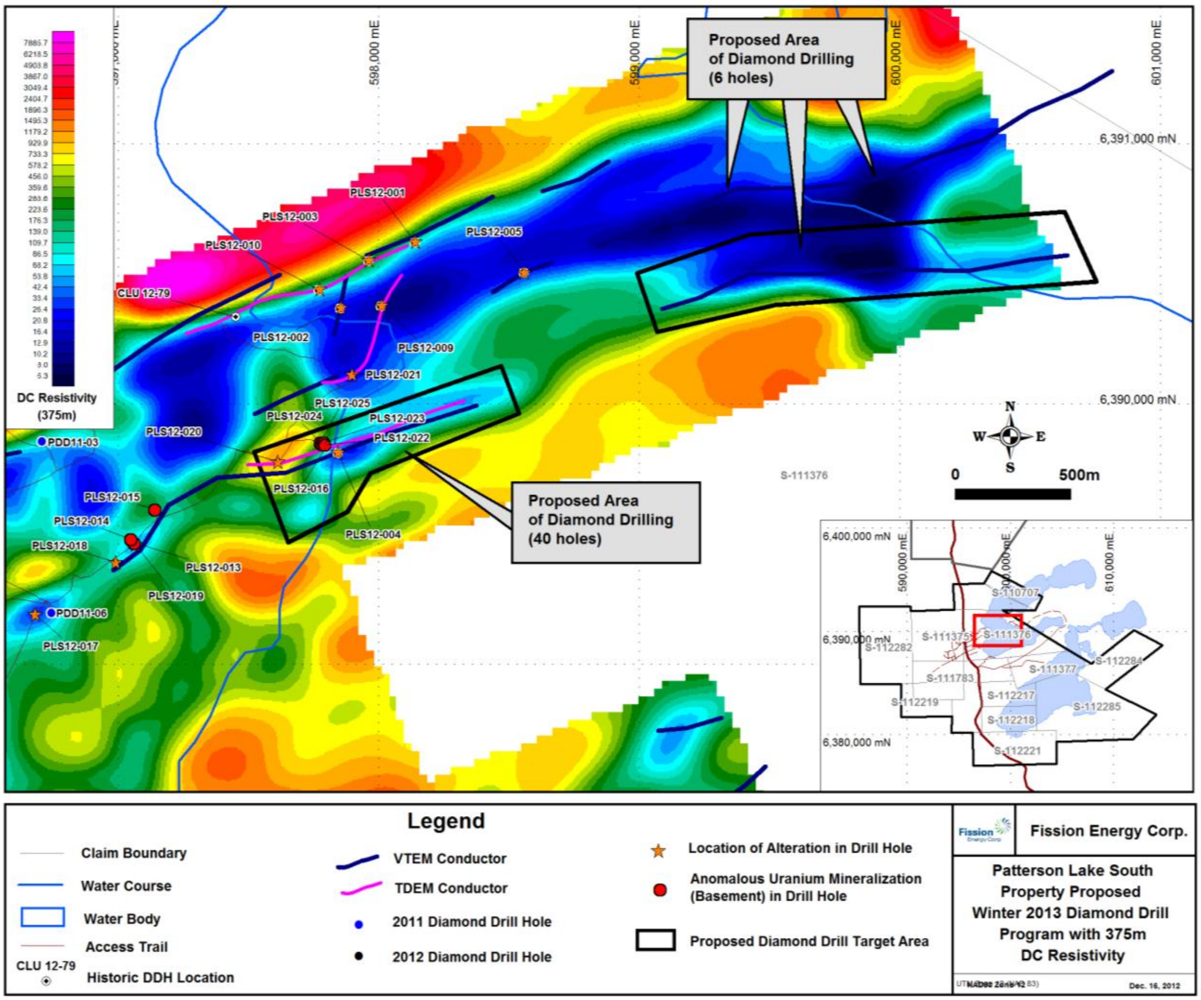
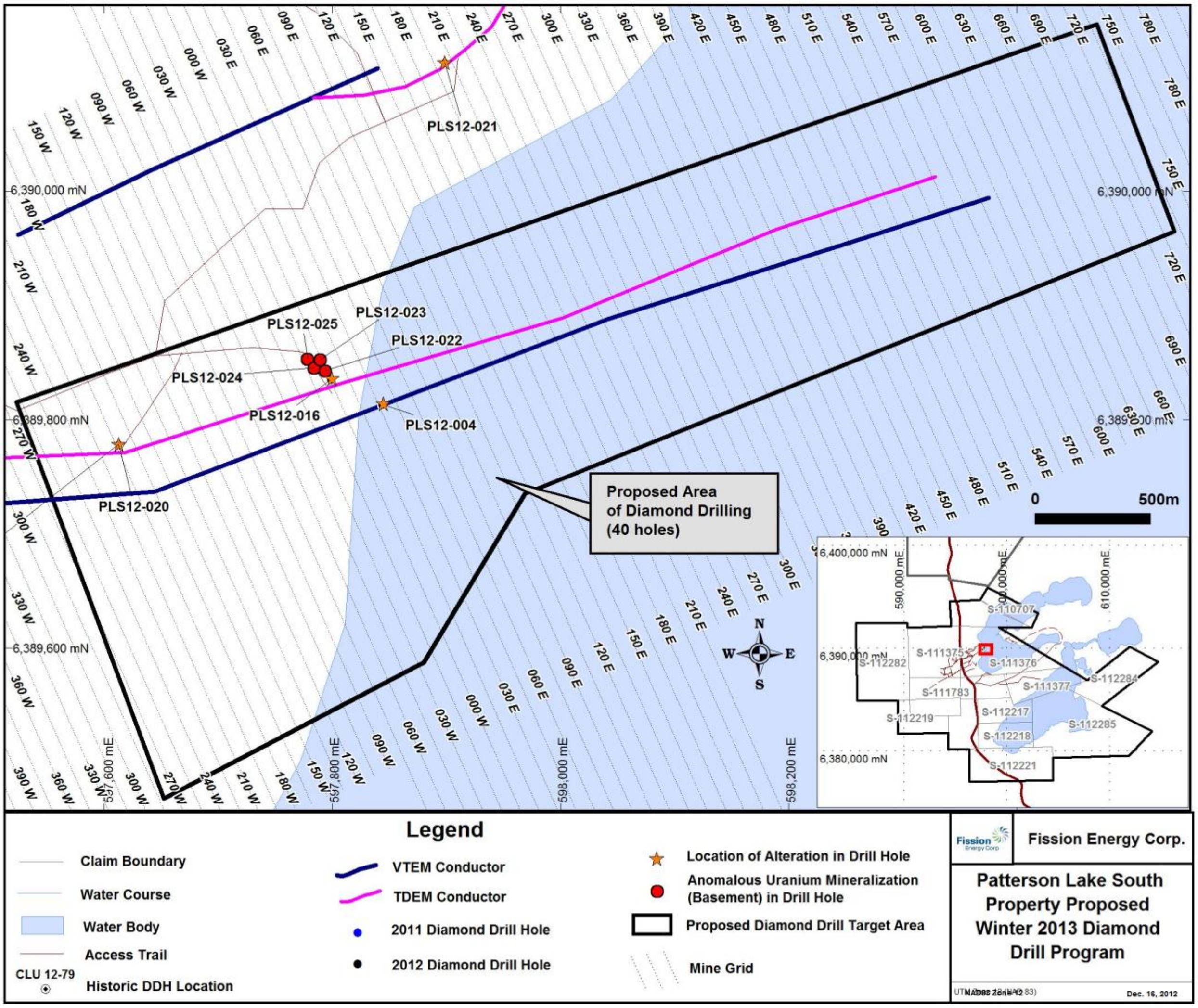


Figure 37 2013 Winter Proposed Exploration Drill Area Map with Mine Grid.



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20 CERTIFICATES OF AUTHORS - DATED AND SIGNATURES

This report titled “Technical Report on the Patterson Lake, Patterson Lake South and Clearwater West Properties, Athabasca Basin, Northern Saskatchewan”, dated March 16th, 2013 (the “Technical Report”) was prepared and signed by the following authors:

Dated effective March 16, 2013

Signed by:

Allan Armitage, Ph. D., P. Geol., GeoVector Management Inc.

QP CERTIFICATE – ALLAN ARMITAGE

To Accompany the Report titled "Technical Report on the Patterson Lake, Patterson Lake South and Clear Water West Properties, Northern Saskatchewan", dated March 16", 2013 (the "Technical Report").

I, Allan E. Armitage, Ph. D., P. Geol. of #35, 1425 Lamey's Mill Road, Vancouver, British Columbia, hereby certify that:

1. I am a consulting geologist with GeoVector Management Inc., 10 Green Street Suite 312 Ottawa, Ontario, Canada K2J 3Z6

2. I am a graduate of Acadia University having obtained the degree of Bachelor of Science – Honours in Geology in 1989, a graduate of Laurentian University having obtained the degree of Masters of Science in Geology in 1992 and a graduate of the University of Western Ontario having obtained a Doctor of Philosophy in Geology in 1998.

3. I have been employed as a geologist for every field season (May – October) from 1987 to 1996. I have been continuously employed as a geologist since March of 1997.

4. I have been involved in mineral exploration and resource modeling for gold, silver, copper, lead, zinc, nickel, uranium and diamonds in Canada, Mexico, Honduras, Bolivia, Chili, and the Philippines at the grass roots to advanced exploration stage, including resource estimation since 1991.

5. I am a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta and use the title of Professional Geologist (P.Geol.) (License No.64456; 1999).

6. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia and use the designation (P.Geo.) (Licence No. 38144; 2012).

7. 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 of my professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.

8. I am responsible for all sections of the Technical Report, which is written for Fission Uranium Corp.

9. I have had no prior involvement with the property that is the subject of the Technical Report.

10. I am independent of Fission Uranium Corp., Fission Energy Corp., and Alpha Minerals Inc. as defined by Section 1.5 of NI 43-101.

11. I personally inspected the Property, including drill core, on January 31st – February 1st, 2013.

12. As of the date of this certificate, 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.

13. I have read NI 43-101 and Form 43-101F1 (the "Form"), and the Technical Report has been prepared in compliance with NI 43-101 and the Form.

14. Signed and dated this 16th day of March, 2013 at Vancouver, British Columbia.

Allan Armitage, PhD, P.Geol.

PROFESSIONAL GEOLOGIST ALBERTA
ALLAN ARMITAGE