TECHNICAL REPORT

ON THE

Patterson Lake North Property

Northern Saskatchewan

NTS 74-F-11, 13 and 14 Latitude 57°50' N, Longitude 109°24' W

for

Fission 3.0 Corp. Suite 700 - 1620 Dickson Avenue Kelowna, British Columbia, Canada V1Y 9Y2

and

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

BY:

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1 SUMMARY

This report summarizes exploration work performed on the Patterson Lake North Property (the "Property" or the "PLN property") in northern Saskatchewan. Allan Armitage Ph.D., P.Geol., ("Armitage" or the "Author") of GeoVector Management Inc. ("GeoVector"), was contracted by Fission Uranium Corp. ("Fission Uranium") to prepare an independent National Instrument 43-101 ("NI 43-101") Technical Report to be filed with an application by Fission 3.0 Corp. (Fission 3.0) for a listing on the Toronto Stock Exchange (TSX) Venture Exchange. The effective date of this report is October 15th, 2013.

The PLN property was acquired by staking in 2004 and became part of the Fission Uranium portfolio as part of the Fission Energy Corp./Denison Mines Corp. agreement in April 2013. The Property comprises 10 contiguous claims totalling 27,408 ha. Fission Uranium currently holds a 100% interest in the Property.

Azincourt Uranium Inc. ("Azincourt") has a staged four year option agreement with Fission Uranium dated April 29, 2013 whereby Azincourt can earn up to a 50% interest in the PLN property through a combination of option payments and exploration work funding. Fission Uranium is the operator for the PLN property and work will be completed using its existing technical and operational teams as well as contractors and infrastructure.

The Property is located in the southwestern part 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/11, 13 and 14.

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 provide additional access to the northeast and southwest corners of the Property and principal 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 the 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 deposits 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 involved 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 $0.30\% U_3O_8$ results in 1,872,600 tonnes at an average grade of $1.540\% U_3O_8$, yielding 63,572,000 lbs U_3O_8 in the Indicated Mineral Resource category and

1,068,900 tonnes at an average grade of 1.041% $U_3O_8,$ yielding 24,525,000 lbs U_3O_8 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.

The PLN property is underlain by rocks of the Athabasca Basin which overlie basement rocks of the Clearwater Domain of the Rae Province, Northern Saskatchewan. The Clearwater Domain is bordered by the Lloyd Domain to the west (formerly termed the Firebag and Western Granulite domains), and to the east. The lithological units recognized in the Clearwater Domain are equigranular granite, porphyritic granite and felsic gneisses, and are overlain by a younger metasedimentary unit. The Clearwater Domain is characterized by a prominent regional linear magnetic feature that is associated with a gravity low.

On the western side of the PLN property, diamond drilling did not intersect any Athabasca Sandstone, and the basement depth ranges from approximately 97 to 128 metres. In the eastern parts of the PLN property, drilling intersected significant intervals of Athabasca Sandstone and the basement depth ranges from approximately 294 to 382 metres. This represents an approximate elevation change in basement rocks of 200 metres within four kilometres. Pleistocene overburden covers the entire PLN property with thicknesses ranging from 50 to 100 metres. Drumlins and glacial striations in the area show a general southwest ice direction.

The target of exploration on the PLN property is unconformity-associated uranium deposits.

During 2007 and 2008 Fission conducted exploration on the PLN 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 drilling of nine NQ-diameter diamond drill holes totalling 2,795.22 metres.

In November 2007, a MEGATEM® electromagnetic and magnetic survey of the northern portion of the PLN 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 faults interpreted from the 2007 MEGATEM® survey. Radon and radiometric values were generally low. Four negative SP anomalies were discovered with two of them associated with an airborne magnetic high spike. A 2008 drilling program on the PLN property was highlighted by drill hole PT08-004A demonstrating anomalous trace-element geochemistry and clay content.

The 2012 exploration program, conducted by Fission Energy, included airborne and ground geophysical surveys and a prospecting and sampling program. A high resolution airborne magnetic survey was carried out over the southern and central parts of the Property. Ground electromagnetic and resistivity surveys were performed in the central part of the Property to better delineate conductors interpreted from earlier airborne surveys, and to search for resistivity signatures that are associated with alteration in the subsurface. A summer prospecting / sampling program concentrated on ground and airborne electromagnetic conductors.

From the analysis on the potential field data (magnetic, gravitational and electric fields) from the airborne survey, it was apparent that the geological setting of the project area is complicated, and that numerous lineaments are apparent and are related to structures and contacts between basement units. The numerous structures suggest that the property has been subjected to faulting and thus has good potential for hydrothermal reactivation events. The interpreted structures have predominant NNE and NW directions along with a number of EW features. The ground EM surveys were effective at delineating a number of basement conductors. The geochemical data from the summer prospecting / sampling program indicate the presence of alteration in the sandstone coincident with conductor trends defined by

the ground EM survey. The alteration is characteristic of hydrothermal alteration in the Athabasca sandstone in unconformity U deposits.

Significant uranium mineralization has been discovered by Fission Uranium and Alpha Minerals Inc. ("Alpha") in 2012 on the adjacent Patterson Lake South ("PLS") property. The PLS property is registered to Fission Uranium (50%) and Alpha Minerals Inc. (formerly ESO Uranium Corp.) (50%) in a joint venture agreement.

From 2007 to 2013 exploration on the PLS property comprised of geological mapping and glacial direction studies, airborne radiometric, electromagnetic and magnetic geophysical surveys, trenching, boulder prospecting, ground radon and radiometric surveys, pole-dipole array DC resistivity and small moving loop surface transient electromagnetic (SMLTEM) geophysical surveys, dual rotary and diamond drilling.

Mineralization on the PLS property was discovered during the 2012 fall-winter exploration program. Wide intersections of high-grade uranium mineralization were encountered in the final four holes of the program (Discovery holes PLS12-022 through 025) including step-out hole PLS12-024 (2.49% U_3O_8 over 12.5 metres).

The discovery area is open in all directions and additional drilling is required to continue to delineate the mineralized area.

Discovery Highlights:

Multiple zones: Four mineralized zones, all open-ended, along a strike length of 1.02km

Shallow depth: Mineralization commences at a depth of 60 metres below the surface

Rapid progression: Discovery made in November 2012, with 38 mineralized drill holes subsequently completed by the conclusion of the Winter 2013 program. Assay results include:

- PLS13-051: 53.0m @ 6.57% U₃O₈, including 10.5m @ 29.26% U₃O₈
- PLS13-053: 49.5m @ 6.26% U₃O₈, including 6m @ 35.0% U₃O₈ and 16.5m @ 2.63% U₃O₈
- PLS13-038: 34.0m @ 4.92% U₃O₈, including 12.5m @ 12.38% U₃O₈

Drilling in progress: Summer-Fall 2013 program has discovered a new mineralized zone (R945E) and has returned results such as:

- PLS13-072; 34.5m @ 8.15% U₃O₈ (61.0m 95.5m) including 7.50m @ 19.28% U₃O₈ (65.5m 73.0m) and 21.53% U₃O₈ over 4m (91.0m 95.0m)
 - highest assay of $47.0\% U_3O_8$ (68.5m 69.0m)
- PLS13-075: 54.5m @ 9.08% U₃O₈ (61.0m 115.5m) including 21.5m @ 21.76% U₃O₈ (68.5m 90.0m)
 - Highest assay in the interval: $52.2\% U_3O_8$ over 0.5m (74.0m 74.5m)

All depth measurements reported, including sample and interval widths are down-hole; core interval measurements and true thickness are yet to be determined.

The information concerning the PLS property is not necessarily indicative of the nature of the mineralization on the PLN property. The relevance of the PLS information is simply to demonstrate that there is significant potential for uranium mineralization in the Southwest part of the Athabasca Basin.

Based on exploration results to the end of 2012, Fission Uranium and its joint venture partner Azincourt recommended future exploration to include an airborne and a ground geophysical program, a radon survey, mapping and soil sampling and a drill program.

A summer-fall 2013 exploration program at the PLN property budgeted at \$0.53M commenced in early August, and is in progress as of the effective date of this report. The planned program consists of airborne versatile time-domain electromagnetic ("VTEM") max and ground Time Domain Electromagnetic (TDEM) and Magnetotellurics (MT) geophysical surveys. The surveys will assist in identifying and prioritizing drill targets for an anticipated 2014 winter program. Mapping and soil sampling will be completed throughout the property. Radon sampling of water and lake bottom sediments are also being considered for lakes located proximal to basement conductors in the southern PLN property area.

A drill program consisting of approximately 2,500-3,000m (8-10 drill holes) is planned for winter 2014. The total budget for the target generation and winter drilling planned at PLN property has been set at \$1.5 million, with approximately \$1 million to be spent on the winter drill program.

As of the effective date of this report, few results of the summer exploration program were available. Fission Uranium and Azincourt recently announced completion of the VTEM max airborne geophysical survey. The survey was completed over five days, and was flown along NW-SE flight-lines at a nominal EM transmitter/receiver height of 35 m above ground. A newly interpreted north-south trending package of conductive basement rocks has been identified in the northern portion of the Property.

Drill core re-logging and Athabasca Basin stratigraphic outcrop sampling and prospecting field work have recently been completed. A total of 56 soil and 16 outcrop samples were collected from the Property and available historical diamond drill core was re-logged. Results of this work are pending.

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.

2 INTRODUCTION

This report summarizes exploration work performed on the Patterson Lake North ("PLN") Property (the "Property" or the "PLN property") in northern Saskatchewan (formerly the Patterson Lake Property). Allan Armitage Ph.D., P.Geol., ("Armitage" or the "Author") of GeoVector Management Inc. ("GeoVector"), was contracted by Fission Uranium Corp. ("Fission Uranium" or the Issuer) to prepare an independent National Instrument 43-101 ("NI 43-101") Technical Report to be filed with an application by Fission 3.0 Corp. (Fission 3.0) for a listing on the Toronto Stock Exchange (TSX) Venture Exchange. The effective date of this report is October 15th, 2013.

The PLN property was acquired by staking in 2004 and became part of the Fission Uranium portfolio as part of the Fission Energy Corp./Denison Mines Corp. agreement in April 2013. The Property comprises 10 contiguous claims totalling 27,408 ha. Fission Uranium currently holds a 100% interest in the Property.

Azincourt Uranium Inc. ("Azincourt") has a staged, four year option agreement with Fission Uranium dated April 29, 2013 whereby Azincourt can earn up to a 50% interest in the PLN property through a combination of option payments and exploration work funding. Fission Uranium is the operator for the PLN property and work will be completed using its existing technical and operational teams as well as contractors and infrastructure.

The Author 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, 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 recent exploration work by Fission.

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

The Author visited the Property on January 31st – February 1st, 2013, April 2nd – April 4th, 2013 and September 24th – 25th, 2013. During the property visits the Author stayed at the Big Bear Lodge, which is located on the PLN property. Core from previous drilling on the PLN property was visually inspected by the Author. Part of the core is stored at the Big Bear Lodge with the remainder of the core stored elsewhere on the Property. The Author was also able to inspect previous drill hole locations and areas of future geophysical surveys and areas of potential future drilling.

3 RELIANCE ON OTHER EXPERTS

Information concerning claim status, ownership, and assessment requirements which is presented in Section 4 below have been provided to the author by Janet Stritychuk of JM Stritychuk & Associates Inc., by way of e-mail on October 14th, 2013, and has 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 southwestern part 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 74-F-11, 13 and 14.

4.2 Property Description

The Property comprises 10 contiguous claims totalling 27,408 ha. (Figure 2; Table 1) and Fission Uranium currently holds a 100% interest in the Property. Strathmore Minerals Corp. (Strathmore) originally acquired a 100% interest in nine mineral claims totalling 25,316 ha in 2004. During 2007, Strathmore spun out all of their Canadian assets, including the aforementioned nine mineral claims into Fission Energy Corp. ("Fission Energy"). Fission Energy subsequently staked an additional claim (S-112223) totalling 2,092 ha in January, 2012. All of the claims are now held 100% by Fission Uranium and a description of the corporate changes is included later in this section. It is Fission Uranium's intent to maintain the Property's mineral claims in good standing.

Mineral claims registered in Saskatchewan grant the holder the exclusive right to explore for minerals subject to the Mineral Tenure Registry Regulations.

The Property status is shown in Table 1 below and includes the dates on which the claims were recorded and their current anniversary dates. The anniversary date is not an expiry date. A company has 90 days from a claim's anniversary date to file work or for the government to perform an auto renewal for an additional year should the claim have sufficient excess work credits. All claims are contiguous and groupings can be made at the time of any work filings providing the claims are in good standing to a maximum claim group size totalling 18,000 hectares. There are no surface rights to any portions of the Property. In Table 1, where sufficient available credits are applicable to any claim, a portion of the available credits equivalent to the term renewal cost will be automatically applied by the government to renew those claims for an additional year. At the time of any claim autorenewal, that claim's available credits will be reduced by the claim's term renewal cost. Per the current available credits for each of the Property's mineral claims, the Property will remain in good standing for several years even if additional exploration work is not filed with the government.

As of December 1, 2012, mineral dispositions are defined as electronic mineral claims disposition parcels within the Mineral Administration 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 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
- Convert dispositions from claims to leases
- Convert dispositions from leases to claims
- Access an electronic re-opening board showing Crown mineral lands coming available for new acquisition

Prior to December 1, 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 for a claim was not required under the provisions of the Saskatchewan Mineral Disposition Regulations of 1986 nor under the Mineral Tenure Registry Regulations for claims. The Property location is defined on the government claim map.

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 (Section 4.6). 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 Tenure Registry Regulations, 2012, and administered by the Lands and Mineral Tenure Branch, Minerals, Lands and Resource Policy Division of the Saskatchewan Ministry of the Economy. There are two key land tenure milestones that must be met in order for commercial production to occur in Saskatchewan: (1) conversion of a claim to lease, and (2) granting of a Surface Lease to cover the specific surface area within a lease where mining is to occur.

A claim does not grant the holder the right to mine minerals except for exploration purposes. Subject to completing necessary expenditure requirements, claims can be renewed *ad infinitum*. Beginning in the second year of a claim's term, and continuing to the tenth work renewal period, the annual expenditure required to maintain claim ownership is fifteen dollars per hectare. Prior to The Mineral Tenure Registry Regulations taking effect, the annual expenditure required was twelve dollars per hectare and claims could only be renewed for a maximum of twenty-one years. Now, pursuant to The Mineral Tenure Registry Regulations taking effect 1 December 2012, any claims requiring renewal prior to 1 December 2013 are still renewed at the rate of twelve dollars per hectare. Any claims to be renewed from 1 December 2013 and onwards will be renewed at the new rate of fifteen dollars per hectare. After the tenth work term, claims will be renewed at a new rate of twenty-five dollars per hectare.









Claim Number	NTS Sheet	Recording Date	Anniversary Date	Available Credit \$	Size (ha)	Term Renewal Cost
S-107376	74-F-14	21-Jul-04	20-Jul-14	\$255,474.91	3514	\$52,710.00
S-107426	74-F-14	21-Jul-04	20-Jul-14	\$332,320.95	4571	\$68,565.00
S-107432	74-F-14	29-Sep-04	28-Sep-13	\$144,770.90	1599	\$19,188.00
S-107433	74-F-11/14	21-Jul-04	20-Jul-14	\$288,196.09	2253	\$33,795.00
S-107434	74-F-14	29-Sep-04	28-Sep-13	\$384,038.97	4534	\$54,408.00
S-107435	74-F-13/14	29-Sep-04	28-Sep-13	\$330,087.37	3758	\$45,096.00
S-107851	74-F-14	26-Nov-04	25-Nov-13	\$31,932.66	377	\$4,524.00
S-107852	74-F-13/14	26-Nov-04	25-Nov-13	\$178,043.65	2102	\$25,224.00
S-107853	74-F-11/14	26-Nov-04	25-Nov-13	\$352,108.58	2608	\$31,296.00
S-112223	74-F-11/14	18-Jan-12	17-Jan-14	\$131,172.63	2092	\$25,104.00
			Total:	\$2,428,146.71	27,408	\$359,910.00

Table 1Patterson Lake North Property Information.

On January 16th, 2013 (see Fission Energy News Release, January 16, 2013), Fission Energy 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 Energy's 60% interest in the Waterbury Lake uranium project, as well as Fission Energy's exploration interests in all other properties in the eastern part of the Athabasca Basin, its interests in two joint ventures in Namibia plus its assets in Quebec and Nunavut (together, the "Assets"). Under the terms of the Binding LOI, Denison has agreed to offer shareholders of Fission Energy 0.355 shares of Denison for each share of Fission held, conditional upon, among other things, certain assets of Fission Energy being spun out to a new company ("Fission Uranium Corp.") to be held pro rata by current Fission Energy shareholders (collectively, the "Transaction"). Fission Uranium's assets were to include, among others, a 50% interest in the Patterson Lake South ("PLS") Property and a 100% interest in the PLN property and the Clearwater West (CW) properties 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 Uranium will own approximately 11% of Denison.

On March 7th, 2013 (see Fission Energy News Release, March 07, 2013), Fission Energy 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 Energy with Fission Energy spinning out certain assets into a newly-formed publicly traded company, Fission Uranium by way of a court-approved plan of Arrangement (the "Arrangement").

On April 26th, 2013 (see Fission Energy News Release, April 26, 2013) Fission Energy announced that its plan of arrangement with Denison closed. On April 23, 2013, Fission Energy shareholders and option holders overwhelmingly voted in favour of the special resolution approving the Arrangement. The Arrangement received final approval of the British Columbia Supreme Court and TSX Venture Exchange (the "TSX-V") on April 25, 2013.

In addition, Fission Energy provided approximately C\$17 million in funding to Fission Uranium. With the completion of the Arrangement, Fission Energy shares ceased trading on the TSX-V upon close of business on Monday, April 29, 2013 and were de-listed shortly after that. Fission Energy shares trading

during this time represent only an entitlement to receive the consideration under the Arrangement. All unexercised Fission Energy options and warrants were exercisable for common shares of Denison and Fission Uranium on similar terms, adjusted in respect of exercise price and number, using the same exchange ratio as for the Fission Uranium Shares.

Fission Uranium started trading on the TSX Venture Exchange (the "Exchange") on April 30th, 2013.

Azincourt and Fission Uranium announced that they entered into a property option agreement dated April 29, 2013 (the "Option Agreement") whereby Azincourt can earn up to a 50% interest in PLN. The PLN property is considered by Fission Uranium to be an important core holding.

Under the terms of the Option Agreement, Azincourt has agreed, subject to the satisfaction of certain conditions precedent including the receipt of Exchange acceptance, to acquire up to a 50% interest in PLN property by incurring \$12,000,000 of staged exploration expenditures (Table 2) and paying \$4,750,000 in cash or Azincourt shares (at Azincourt's election) on or before April 29, 2017.

Table 2Details of Staged Exploration Expenditures Regarding the OptionAgreement with Fission Uranium.

Torm	Interest	Cash	Work
Term	Earned	Consideration	Obligation
12 months	10%	\$500,000	\$1,500,000
24 Months	10%	\$750,000	\$3,000,000
36 months	15%	\$1,000,000	\$3,000,000
48 months	15%	\$2,500,000	\$4,500,000
TOTAL	50%	\$4,750,000	\$12,000,000

In addition Azincourt will grant to Fission Uranium a 2% Net Smelter Royalty on exercise of the option.

The parties' obligations to close the Option Agreement are subject to the satisfaction of certain conditions precedent including:

- a) the receipt of all necessary approvals of the Exchange and all other regulatory authorities and third parties to the option; and
- b) the completion by Azincourt of a private placement for gross proceeds of not less than C\$1,500,000 to provide the funds necessary to complete the first year exploration work on the PLN property.

Azincourt has agreed, subject to Exchange acceptance, to the payment of a finder's fee to an arm's length third party for introducing Azincourt to Fission Uranium.

On September 17th, 2013 (see Fission Uranium News Release, September 17, 2013) Fission Uranium and Alpha announced the signing of a definitive arrangement agreement (the "Arrangement Agreement") to effect the previously announced transaction (the "Transaction") pursuant to which Fission Uranium will acquire Alpha and its primary asset, its 50% interest in the PLS, the other 50% of which is held by Fission Uranium. Under the terms of the Arrangement Agreement, Fission Uranium has agreed to offer shareholders of Alpha 5.725 shares of Fission Uranium and a cash payment of \$0.0001 for each Alpha share held by them. The offer represents a 14.5% premium to the unaffected share prices of Alpha and Fission Uranium on August 23, 2013, before the initial offer was made, and an 11% premium based on the closing prices on August 30, 2013.

Additionally, Alpha shareholders will receive all of the common shares of a new company ("Alpha Spinco") which will be spun out from Alpha and hold all of Alpha's non-cash assets and obligations other than Alpha's interest in the PLS Joint Venture. Similarly, the current shareholders of Fission Uranium will receive all of the common shares of a new company ("Fission 3.0") which will be spun out from Fission Uranium and hold all of Fission Uranium's non-cash assets and obligations, including PLN property, other than Fission Uranium's interest in the PLS Joint Venture and certain related assets. Under the terms of the Arrangement Agreement, each of Alpha Spinco and Fission 3.0 will receive \$3 million in cash to fund future programs at their other assets.

4.1 Other property interests

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

4.2 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.

4.3 Annual Expenditures

Annual expenditures of \$15.00 per hectare are required for the 2nd through 10th work renewal term after acquisition of a claim to retain each disposition- a rate which currently applies to seven dispositions of the Property. Three dispositions of the Property still have one work term renewal that will be performed at the old rate of \$12 per hectare. This rate increases to \$25.00 per hectare annually after the 10th year. Required assessment work for each mineral disposition is listed in Table 1. Total annual assessment expenditure requirements for the entire Property are \$389,583. Dispositions on the Property have exploration credits that will maintain the individual properties in good standing to at least the dates listed in Table 1.

4.4 Permits for exploration

Permits for timber removal, work authorization, temporary work camp permits, shore land alteration, and road construction are required for most exploration programs from the Saskatchewan Ministry of Environment and Saskatchewan Water Security Agency. 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 Licence To Use Surface Water from the Saskatchewan Water Security Agency. If any exploration work crosses or includes work on water bodies, streams, and rivers, the Department of Fisheries and Oceans and the Coast Guard-Transport Canada 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 \$825 per hectare for more than 500 man days (to a minimum of \$330) to \$195 per hectare for less than 100 man days (to a minimum of \$85.00).

Fission Uranium currently holds all necessary permits from the Saskatchewan Ministry of Environment 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 principal 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 the sport hunting and fishing industry, located within claim S-107435 (Figure 2).

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 typically recorded in late July.

Early stage mineral exploration such as prospecting and geological mapping can be performed on the Property 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 or nearby.

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 approximately 65 km north of the Property (Figure 2). 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.

Production from the Cluff Lake deposits commenced in 1980 and had both open pit and underground mines (Palmer, 2010). Cluff Lake 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 . 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 ground EM conductors in 1992. They intersected narrow intervals of uranium mineralization in northern parts of the Shea Creek property located immediately beneath the sub-Athabasca unconformity, as well as promising alteration. In 1993, ownership of the Shea Creek 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 on the Shea Creek property, 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 Corporation ("UEX") signed an option agreement. Drilling recommenced funded by UEX and, between the fall of 2004 and the end of 2009, 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 $0.30\% U_3O_8$ results in 1,872,600 tonnes at an average grade of 1.540% U_3O_8 , yielding 63,572,000 lbs U_3O_8 in the Indicated Mineral Resource category and 1,068,900 tonnes at an average grade of 1.041% U_3O_8 , yields 24,525,000 lbs U_3O_8 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 North Property

The exploration history of the PLN property has been mainly at a reconnaissance scale. A summary of the uranium exploration that has been conducted on or around the PLN property is outlined in Table 3. The compilation is based on surveys that have intersected the 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 was 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 third 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 PLN property.

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

During 2006 and 2007 Strathmore Minerals Corporation conducted ground radon exploration over four grids. Drilling was also conducted consisting of five 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).

Between February 6th and April 15th 2008 Fission Energy completed a drill program over the PLN property. In total, nine NQ diameter diamond drill holes were attempted, totalling 2795.22 metres. Difficult drilling conditions, such as a thick unconsolidated overburden resulted in several holes being re-started in

the same location, and three holes were abandoned without reaching their target depths. The intent of the drilling was to test several conductive targets deemed prospective for hosting uranium mineralization. Drilling completed on the PLN property by Fission Energy is described in the drilling section (Section 10) below.

During 2012 ground electromagnetic and resistivity surveys were performed to better delineate conductors interpreted from earlier airborne surveys, and to search for resistivity signatures that are associated with alteration in the subsurface. A summer prospecting / sampling program concentrated on ground and airborne electromagnetic conductors. A detailed airborne radiometric / magnetic survey covered areas of interest in the southern part of the property.

Results.					
DISPOSITION	ASSESSMENT REPORT	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 L	.td.				
S-107433	74F11-0002	1969	Airborne radiometric and magnetic surveys		
Uranez Exploration and Minir	ng 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 Petrole	um 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 Develo	opment Corporation / H	ludson Bay Explo	ration and Development		
S-107435	74F14-0004	1977	Ground VLF-EM, lake sediment and till sampling,		

Table 3Patterson Lake North Property Previous Exploration and Significant
Results.

DISPOSITION	ASSESSMENT REPORT	DATE WORK	SUMMARY
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
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, 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 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.

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Bedrock Geology

The Property is located in the southwestern Athabasca Basin of northern Saskatchewan. It is underlain by polydeformed metamorphic basement rocks of Archean and Proterozoic age, which are overlain by flatlying to shallow-dipping, post-metamorphic quartz sandstone of the late Proterozoic Athabasca Group, and Phanerozoic sedimentary rocks of the Mannville Group. The Athabasca Group forms an elongate, east-west 450 km long Proterozoic sedimentary basin that underlies much of northern Saskatchewan and extends into eastern Alberta. The Property lies within the northeastern limits of the Cretaceous Mannville Group which covers a large portion of Western Saskatchewan and much of Alberta.

7.1.1 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 consists dominantly of rocks of the Rae and Hearne provinces. In the eastern part of the basin, 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 of the Athabasca Basin. This 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 (southern extension of the Snowbird Techtonic 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 of the Athabasca Basin 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.

7.1.2 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.

7.1.3 Phanerozoic Mannville Group

The southern extent of the Property lies within the northeastern limits of the Cretaceous Mannville Group which covers a large portion of Western Saskatchewan (Figure 5). The Mannville Group consists of interbedded nonmarine sands and shales overlain by a thin, nonmarine calcareous member which is overlain by marine shales, glauconitic sands and nonmarine salt-and-pepper sands in southern and central Alberta (Glass, 1990). In east-central and northeastern Alberta the marine sequence is overlain by a paralic and nonmarine sequence having a diachronous contact with the marine sequence. The Mannville Group resides above the post-Paleozoic unconformity. The Mannville Group underlies the Colorado Group, with a widespread disconformity separating the two units.

The regionally discontinuous Devonian La Loche Formation exists beneath the Cretaceous sediments. The La Loche Formation is described 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 (Glass, 1990). The La Loche Formation is thought to be a reworked regolith lying on the Precambrian surface.

7.2 Property Geology

The PLN property is underlain by rocks of the Athabasca basin (Figures 5 and 6) which overlie orthogneiss and paragneiss of the Clearwater Domain which forms part of the Rae Structural Province, Northern Saskatchewan. The Clearwater Domain is bordered by the Lloyd Domain to the west (formerly termed the Firebag and Western Granulite domains), and 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. The Clearwater 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 Mannville Group lies adjacent and to the southwest of the Athabasca Group. The Smart Quartzarenite member of the Athabasca Group is in contact with the Lower Mannville member. The Athabasca Group in the Property area is partially covered by the basal Devonian La Loche clastics and the middle Cretaceous Colorado Group shales. The limits of the Phanerozoic units are interpreted from sparse drillhole data, debris in the tills, and topography. Whether or not the La Loche extends over the area is undetermined (Ramaekers, 2013).

7.2.1 Quaternary Geology

The thickness of Quaternary sediments throughout the Athabasca Basin is highly variable, ranging from 0m to over 100m (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.

7.3 Mineralization

Uranium mineralization has not yet been discovered on the PLN property. The target of exploration for the PLN property is described in Sections 8 and 15. Significant uranium mineralization has been discovered on the PLS property adjacent to the PLN property by Fission Uranium and Alpha in 2012. The style of mineralization discovered on the PLS property is the target of exploration on the PLN property.







Figure 4 Sub-Athabasca Basement Structure (Ramaekers, 2004).



Figure 5 Property Regional Geology Map.



Figure 6 Property Geology Map.

8 DEPOSIT TYPES

The target of exploration on the PLN property is 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 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 $1.97 \text{ wt}\% \text{ U}_3\text{O}_8$, 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 typically 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 unweathered rock which can be hydrothermally altered. Later diagenetic bleaching is generally 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; monometallic 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 Mines Corp. /Areva) and Cigar Lake (Cameco Corp.).

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% U₃O₈) in poly-metallic deposits is mantled by a medium to low grade zone (< 1.00 wt% U₃O₈). 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 surface work completed on the PLN property in 2005 to 2008, 2012 and 2013. The 2013 exploration program is currently in progress and no exploration results were available at the effective date (October 15th, 2013) of this report. Drilling completed on the Property is described below (see Section 10).

9.1 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 and 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. The AeroTEM Magnetic survey revealed several circular shaped magnetic highs within the PLN property. These anomalies were initially interpreted to be possible kimberlites. In total, eleven circular magnetic anomalies were identified; four within claim S-107435, four within claim S-107434 and three within claim S-107433. Between March 13 and 21, 2006 a short follow-up 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. Target PK001 models very well as a large pipe-like body at a depth of approximately 100 metres. The other two targets, PK002 and PK003, closer resemble a vertical prism rather than a pipe. PK004 had been previously drilled with no potential for diamonds noted.

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, four 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.

During the spring of 2006 a ground Max-Min II and Resistivity survey was completed on three 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 a high/low magnetic contact in S-107434. Grid PLK04 was surveyed in order to partially delineate the conductive response in the northwest corner of S-107435 and grid PLK01 was surveyed in order to test the southeasterly extent of the conductor axis. Results from the Max-Min ground geophysical survey were indeterminate due to noise saturation from the thick and/or conductive overburden. The ground 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 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 corresponds to a north-south trending boundary of a magnetic high.

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 follow up of these potential diamond bearing targets is highly recommended.

9.2 2006 – 2007 Exploration

From June 16th to July 1st and July 26th to August 5th 2007, Dahrouge Geological Consulting Ltd. completed a radon cup survey over northern and central portions of the property (Smith and Dahrouge,

2007). Four grids were surveyed, comprising 1893 cups stationed at 100 metre grid intervals. Grid locations were chosen to follow-up target areas as defined by the ground and airborne geophysics completed over the property in 2005 and 2006. The survey identified a number of anomalous areas recommended for follow-up.

9.3 2008 EIC Radon Survey

From October 24th to October 31st, 2008, RadonEx Ltd, of St. Lazare, QC conducted an Electret Ion Chamber (EIC) radon detection survey in the southeast portion of the Property. In total, 275 sample stations were recorded on claim S-107434 (Figure 9). The survey was conducted in order to follow up and confirm an anomalous area (Grid S-107434) defined by the 2007 radon-cup survey (Smith and Dahrouge, 2007). The grid consisted of 22 lines trending 059°; lines and stations were both spaced at 50 metre intervals.

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.

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 displayed in Figure 10. Sample point A213, with a Gross Flux value of 8.9 pCi/m2/sec is a clear 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 was kept in the dataset for possible subsequent verification. 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, however further orientation work is recommended.

9.4 2007 Airborne Electromagnetic/Magnetic Survey (Fugro)

Between November 28th and December 4th, 2007, Fugro Airborne Surveys conducted an airborne MEGATEM[®] electromagnetic and magnetic survey of the Patterson Lake North property on behalf of Fission Energy (McCallum, 2008). Using Stony Rapids, Saskatchewan as the base of operations, a total of 749 line-kilometres of data was collected using a modified de Havilland Canada DHC-7 (Dash 7) aircraft. The survey consisted of 42 flight lines ranging in length from 7 kilometres to 12 kilometres, flown along a heading of 085° and a spacing of 300 metres; the mean terrain clearance for the survey was 120 metres. The purpose of the MEGATEM[®] survey was to map broad areas of conductivity related to the nature of the underlying basement lithologies, and to map structural features of the basement rocks through analysis of the magnetic data. Survey data was processed, compiled and interpreted by Fugro Airborne Surveys.

A more detailed interpretation of the MEGATEM[®] results was subsequently completed by B. Sharp, M.Sc of Fugro Airborne Surveys (Figure 13), in which a number of conductive zones, points and axes (1-16, Figure 13) within the survey areas have been outlined. Differentiating between the strongly conductive, moderately conductive and weakly conductive zones is based mainly upon the strength of the late-time B-field Z data. The 'strongly conductive' zones are typically those that display a strong response up to channel 20 of the B-field Z well above the noise level; the 'moderately conductive' zones normally show good-moderate signal throughout the off-time, and the late-time response is slightly raised above the noise level, while most of the 'weakly conductive zones' are generally weak and of low amplitude and the late-time response is generally close to the noise level. Mapped faults and potential basement lineaments are also shown on the interpretation overview map in the vicinity of the conductors described below.

Area 3 (Figure 13) appears to be the best conductive target on the Property, due to its moderate response and definitive conductive axis (McCallum, 2008). 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 they may represent a hydrothermally altered event within a faulted corridor.







Figure 10 Patterson Lake North Property 2008 RadonEx Sample Results (McCallum, 2008).







Figure 12Patterson Lake North Property 2008 RadonEx Sample Results Compared
with 2007 Radon Cup Sample Results (Smith and Dahrouge, 2007).



Figure 13Patterson Lake North Property - Interpretation of the Results of the
Airborne Electromagnetic/Magnetic Survey (McCallum, 2008).

9.5 2012 Exploration

The 2012 exploration program included airborne and ground geophysical surveys and a prospecting and sampling program. A high-resolution airborne magnetic survey was carried out over the southern and central parts of the property. Ground electromagnetic and resistivity surveys were performed to better delineate conductors interpreted from earlier airborne surveys, and to search for resistivity signatures that might be associated with alteration in the subsurface. A summer prospecting/sampling program concentrated on ground and airborne electromagnetic conductors.

9.5.1 2012 Airborne Geophysics Survey

During August, 2012, a high-resolution airborne magnetic survey was carried out over the Property by Special Projects Inc. (SPI) of Calgary, Alberta. A total of 6474.8 line-kilometres were surveyed; 4893.0 km of these were within the Property boundary (Figure 14). Living Sky Geophysics Inc. completed processing and interpretation of the survey (Bingham, 2013a).

The Survey specifications were as follows:

•	Line / tie-line direction:	090/0.0 deg
•	Survey plan:	As per figure 14
•	Line spacing:	50m
•	Tie-line spacing:	500m typ.
•	Flying speed:	80 – 120 knots
•	Flying height above terrain:	Best effort or as dictated by safety and CAR's

• Flying technique: Tight drape

The tightly spaced, corrected and leveled data is of good quality. Minor de-corrugation was applied. A regional magnetic grid from NRC Canada was used for removal of trends resulting from glacial overburden features.

A flowchart of the data processing steps used is as follows:

- Gridding (20m cell size)
- Reduction to Pole
- De-corrugation
- Grid-knitting
- Calculation of derivatives: Dx, Dy, Dz, Horizontal gradient (Dxy), TILT and TDX Derivatives
- Source Edge Detection
- Euler De-convolution (50m grid)
- Use calculated solutions as an aid to picking contacts & structure

Visual analysis of the vertical derivative of the magnetic field was used to determine directions of near surface glacial features. Special processes were used for glacial de-trending including a Directional Cosine Filter and a Gaussian Regional Filter with a wavelength of 300m. Three high frequency glacial magnetic trends were removed from the data: a NS trend, a N45E trend and a N45W trend.

9.5.2 2012 Airborne Geophysics Survey Conclusions and Recommendations

Source Edge Detection (SED) and Euler De-convolution techniques were used to perform a magnetic field analysis to locate structural trends and magnetic contacts (Bingham, 2013a). The processing effectively outlines contacts between the magnetic high units interpreted to represent Archean granites and the magnetic lows are interpreted as Aphebian units (Athabasca Group).

From the analysis on the potential field data, it is apparent that the geological setting of the project area is complicated, and that numerous lineaments are apparent that are related to contacts and structures between basement units (Figure 15). The numerous structures suggest that the property has been subjected to faulting and thus has good potential for hydrothermal reactivation events.

In the Athabasca Basin, the horizontal tilt angle (TDX) derivative shows a striking contrast between the contacts of magnetic highs (Archean granites) and magnetic lows (Aphebian meta-sediments) (Figure 15). The project hosts a number of extensive magnetic low basins. The interpreted structures have predominant NNE and NW directions along with a number of EW features.

Recommended follow-up work includes ground geophysical surveying of the conductive trends within magnetic low basin areas in the south portion of the project area. A deep-penetrating airborne electromagnetic (EM) survey is suggested for the north portion of the project,



Figure 14 Flight Lines – 2012 High resolution Magnetic Survey (from Bingham, 2013a).



Figure 15Magnetic TDX Derivative and Structural Interpretation of the 2012 Airborne
Geophysics Data (from Bingham, 2013a).

9.5.3 2012 Ground Geophysics

Ground geophysics carried out on the Patterson Lake JV Project during 2012-2013 consisted of DC resistivity and small moving loop EM (SMLTEM) surveys (Bingham, 2013b).

During the period of September 19th to October 3rd, 2012, Discovery Int'l Geophysics Inc. carried out a DC resistivity survey over Grid B (Figure 16). A total of 30 km of DC resistivity data (12.5 km of poledipole and 17.5 km of pole-pole resistivity data) were collected over seven survey lines.

DC Resistivity surveys are performed by injecting a current (I) into the ground. The current is measured at the transmitter and usually consists of a modified square wave. 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•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 indirect pole-pole array was used for this survey with survey parameters a = 50 m, and n = 0.5 to 10. The survey implemented a GDD GRx8-32 time-domain IP receiver and two GDD TXII 3.6 kW transmitters, in series, to achieve a total output power of 7.2 kW and a maximum voltage of 4800 V.

During the period October 25 to December 15, 2012, Patterson Geophysics Inc.of La Ronge, Saskatchewan conducted a ground EM survey. A total of 69.0 line-km of moving loop SQUID-EM survey coverage were completed by PGI (Figure 17).

One receiver was employed for this survey using an Electromagnetic Imaging Technology (EMIT) SMARTem24 digital EM receiver, together with an Outer Rim Exploration (ORE) LANDTEM SQUID (Superconducting QUantum Interference Detector) high-temperature 3D magnetometer. For each of the profiles the digital EM receiver and SQUID sensor were deployed 500 metres grid east of the transmit loop centres to acquire moving loop data. Due to the weak response on lines 1600S and 2000S (Grid G4), at the request of Fission, ML-SQUID EM survey coverage on Line D was cancelled.



Figure 16 2012 DC Resistivity Survey Coverage Over Grid B (from Bingham, 2013b).

Figure 17 2012 Moving-Loop SQUID EM Survey Coverage on the G4, B and C Areas (from Bingham, 2013b).



9.5.4 2012 Ground Geophysics Conclusions and Recommendations

The ground EM surveys were effective at delineating basement conductors (Figure 18). The previously interpreted airborne conductor trends were refined and more accurately located. The conductors in the G4 Grid area show a sub-vertical to west dip. The EM conductors on the B grid show a closed shallow dipping "bowl-shaped" feature. The resistivity in the B Grid area (Figure 19) shows a conductive basement package and several resistivity structural features. The lower sandstone resistivity bench or resistivity depth inversion surface (RDI) demonstrates a resistivity low along the west conductor (Resistivity Plan Elevation = 250 metres above mean sea level), directly above the unconformity. The intersection of the NW-trending and the NE-trending structure shows a typical alteration 'chimney' or plume in the resistivity section on Line 09N.

The targets defined by the 2012 geophysics program are (Figure 18):

- The enhanced conductive areas of the A1 conductive trend on the G4 grid area, with emphasis on lines 1600N, 1200N and 800N (high priority).
- An offset in the A1 conductor in the vicinity of line 00N (high priority).
- The west conductor on the B Grid on Line 06N (high to medium priority).
- The south portion of the A3 trend on lines 800N through 400S (medium priority).
- The west conductor on the B Grid on Line 12N and the east conductor on Line 06N (medium priority).
- The C conductor on line 3200S (low priority).

Further work recommended for this project includes conductor delineation in the north portion of the project area by means of a deep pentetrating ZTEM airborne electromagnetic survey, followed by ground resistivity and EM surveys in order to establish drill targets (Bingham, 2013b). Focused ground SQUID-EM moving loop surveys in the south portion of the property may assist in defining basement conductors that have been masked to airborne electromagnetic surveys by conductive Cretaceous overburden.



Figure 18 2012 Moving-Loop SQUID EM Interpretation (from Bingham, 2013b).



Figure 19 Grid B - Lower Sandstone Resistivity Bench (Resistivity Plan Elevation = 250 m asl) (from Bingham, 2013b).

9.5.5 2012 Prospecting / Sampling Program

Field work on the PLN property was carried out between August 9 and 22, 2012 by a crew of six supervised by Paul Ramaekers (Ramaekers, 2013). Its purpose was to collect B horizon soil samples over conductors identified by earlier work. In addition a set of samples was taken along the Cluff Lake road. Incidental notes on bedrock and Quaternary geology were made.

A total of 310 samples were collected; the locations are shown in Figure 20. They form grids over the more prominent conductors in the area where the basement is only shallowly covered by the Athabasca Group sediments. Samples were also taken along the Cluff Lake road at approximately 1 km intervals to investigate the extent of regional variation through the property. All but samples (A-horizon) were collected from the soil B-horizon.

9.5.6 2012 Prospecting / Sampling Program Conclusions and Recommendations

Factor analysis of the geochemical data indicates the presence of three alteration events in the sandstone (Ramaekers, 2013):

1) a REE, Sr, B, Th, P, U, Al factor suggesting igneous and or metamorphic sourced alteration possibly involving monazite and aluminophosphates. This is not a detrital heavy mineral factor, as it does not include Zr.

- a Ta, Se, Sb, Ho, W factor, seen only in a dozen samples, but prominent in two samples west of Broach Lake (Figure 20). Sb, W, Ho, are rare in the sandstone and tills, but are elevated in the ore from unconformity deposits.
- 3) a Ni, Cr, Mo, Sn, Mn, U, S, As factor; similar to sulphide rich facies of unconformity U deposits.

For data analysis where both partial and complete digestion results were available the values for the partial digestion (pd) was used, as well as the difference between the total digestion and the partial digestion (i.e. the resistate fraction).

The distribution of samples anomalous in these three factors indicates a target zone along a known conductor in Hodge Lake (Figure 21) (Conductor B, Figure 18), and the presence of another mineralized esker system along the bottom of Broach Lake. Both sets of anomalies occur down-ice of outcrops with strong HREE anomalies, characteristic of hydrothermal alteration in the Athabasca sandstone and in unconformity U ore (Ramaekers, 2013).

In view of the useful results of soil and lithogeochemical work, expanding this approach should be considered (Ramaekers. 2013). B-horizon soil sampling on a half-km grid across the entire property may be useful. B-horizon soil sampling on a denser grid, e.g ¼ km might be productive where the Pleistocene cover is thin, that is, in the deep valleys crossing the property. Lithogeochemical sampling of core and outcrop is needed for data on stratigraphy and on alteration.

Locating faults on the PLN property area should be a high priority, especially faults with Paleozoic movement on them (Ramaekers, 2013). Of help will be as much stratigraphic data as possible and detailed logging of the available core on the Property, and that available at the Subsurface Lab in Regina will be useful. The Athabasca Group sandstone in this area is rather uniform, and thus, lithogeochemical sampling may help in delineating stratigraphy and hydrothermal alteration, whether or not radioactive.

There is outcrop in the Hodge Lake area that has not as yet been visited or sampled. The presence of outcrop in an area otherwise devoid of it by itself suggests the nearby presence of structure and alteration (silicification).

Figure 20 Patterson Lake North bedrock geology, Drumlins, Eskers, Morainal Ridges, 2012 Sample Sites (small red circles), U (partial digestion (pd)) Anomalies (large red and pink circles). Athabasca Group Subcrop is Shown; it is overlain in part by Phanerozoic sediments (from Ramaekers, 2013).



Red circles: Soil U pd fluorimetry anomalies

Figure 21 Patterson Lake North Bedrock Geology, Conductors (see figure 18), 2012 PCA Pie Diagrams of Anomalous Alteration Factors, U Anomalies (pink circles). (from Ramaekers, 2013). (See Figure 20 for lake names).



9.6 2013 Exploration

Fission Uranium and its joint venture partner Azincourt planned a summer-fall exploration program on the PLN property. The summer program budgeted at \$0.53M commenced early August and is in progress. The program includes airborne versatile time-domain electromagnetic ("VTEM") max and ground Time Domain Electromagnetic (TDEM) and Magnetotellurics (MT) geophysical surveys. The surveys will assist in identifying and prioritizing drill targets for an anticipated 2014 winter program. In addition to the geophysical surveys, mapping and soil sampling will be completed throughout the property. Radon sampling of water and lake bottom sediments is also being considered for lakes located proximal to basement conductors in the southern PLN property area.

As of the effective date of this report, few results of the summer exploration program were available.

9.6.1 2013 Geophysics Program

Fission Uranium and Azincourt recently announced (see news release dated August 20, 2012) completion of the VTEM max airborne geophysical survey. The survey was completed over five days in early August. Aeroquest Airborne of Aurora Ontario conducted the 400m line-spaced VTEM max survey for a total of 303 line-km, covering the northern half of the property (Figure 23) and was flown along NW-SE flight-lines at a nominal EM transmitter/receiver height of 35 m above ground. The VTEM max survey was designed to provide high resolution data on anomalous conductive areas of interest identified from a previous airborne magnetic-electromagnetic survey (Section 9.4 above).

The VTEM max survey should ideally locate basement conductors and/or enhanced sandstone alteration at the expected unconformity depths in the range of 250-600 m below surface. Aeroquest recently completed data acquisition and is presently completing post-processing. The processed data will be interpreted by Fission Uranium's technical personnel and Living Sky Geophysics Inc. of Saskatoon.

Fission Uranium and Azincourt recently announced (see Fission Uranium news release dated October 8, 2013) initial results of the recently acquired VTEM max airborne geophysical survey. A newly interpreted north-south trending package of conductive basement rocks has been identified in the northern portion of the property (Figure 24).

A single line 6.3 line-km ground based Internal Field Gradient Magnetotellurics (MT) survey is planned as a follow-up to the Aeroquest airborne survey (Figure 24). The follow up MT survey is designed to better locate the basement conductor axis. This is important as structurally controlled high grade uranium deposits in the Athabasca Basin are generally associated within or proximal to such trends (Fission Uranium news release, October 8, 2013). For example, the UEX-Areva Shea Creek high-grade uranium deposit, located approximately 27 km to the north, is associated with the dominantly north-south trending Saskatoon Lake EM conductor. Similarly the PLS uranium occurrences are proximal to the east-northeast PL-3B EM conductor. The MT survey is being conducted by EMpulse Geophysics Ltd. of Dalmeny, Saskatchewan. The MT survey is currently in progress.

Small moving loop Time Domain Electromagnetic (SMLTDEM) surveys are planned for the southern and central parts of the property (Figure 23). The SMLTDEM survey in the central PLN property area will target interpreted structural offsets in the unconformity coincident with a NW-trending basement conductor, also identified from the VTEM Max survey, and with low magnetic metasedimentary basement rocks. Surveys will also target the interpreted extension of a conductive, low magnetic trend (Carter Corridor) sub-parallel to the PLS discovery trend in the southern PLN property area.



Figure 22 Patterson Lake North Property and Location of the VTEM Max Survey Area.



Figure 23Patterson Lake North Property and Location of Proposed Magnetotellurics
Large Loop and Small Loop (TDEM) Survey Areas.



Figure 24 Initial Results of the Recently Acquired VTEM max Airborne Geophysical Survey.

9.6.2 2012 Prospecting / Sampling Program

Field work on the PLN property is currently in progress and is being carried out by Dr. Paul Ramaekers. The field program includes mapping and soil sampling and is an expansion to the program completed in 2012 by Dr Ramaekers (see Sections 9.4.5 and 9.4.6).

Dr. Ramaekers has recently completed drill core re-logging and Athabasca stratigraphic outcrop sampling and prospecting field work at PLN property (see Fission Uranium news release dated October 8, 2013). A total of 56 soil and 16 outcrop samples were collected from the project and available historical diamond drill core from the project was re-logged. Results of this work are pending.

10 DRILLING

The following is a description of drilling completed on the Property to date. This includes drilling completed by Fission Energy on the PLN property in 2008 (McCallum, 2008). To the Author's knowledge, there are no drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the results.

During the 2013 exploration program, the 2008 drill hole locations were re-surveyed. The updated drill hole locations are presented on Figure 25 and in Table 4 below.

A drill program consisting of approximately 2,500-3,000m (8-10 drill holes) is planned for winter 2014. Work up until that point will continue to focus on identifying and prioritizing additional targets.

10.1 Patterson Lake North Property

Between February 6th and April 15th, 2008 Fission contracted Peak Drilling Ltd. of Courtenay, BC to conduct drilling operations over the PLN property. In total, nine drill holes were attempted, totalling 2,795.22 metres (Figure 25; Table 4) (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. A downhole gamma survey was completed on three holes. Technical problems with the tool prevented the survey of the remaining three successfully drilled holes.

Drillholes 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 (Figure 13) 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.



Figure 25 Patterson Lake North Property Drill Summary Map to 2008.

Hole ID	Easting	Northing	Elevation	Overburden Depth	Depth to Basement	End of Hole
	(NAD83	3, Zn12)	(m)	(m)	(m)	(m)
PT08-001	592945	6408443	541	43.04	294.3	320
PT08-002	592611	6408737	549	42	Abandoned	42
PT08-002A	592611	6408737	549	73	305.14	391
PT08-003	593741	6406966	533	32	307	455
PT08-004	593025	6410675	545	30	Abandoned	45
PT08-004A	593025	6410675	545	29.6	382	521
PT08-005	589675	6411301	541	81	Abandoned	81
PT08-006	588343	6410314	530	100	Abandoned	100
PT08-007	588644	6409565	546	97.5	Abandoned	97.5
PT08-007A	588644	6409565	546	27	Abandoned	27
PT08-007B	588644	6409565	546	97	97	240.8
PT08-008	589261	6408506	543	100	Abandoned	100
PT08-008A	589261	6408506	543	125.9	Abandoned	125.9
PT08-009	588065	6408414	542	57	Abandoned	57
PT08-009A	588065	6408414	542	128	128	192
						2,795.20

Table 4Patterson Lake North Property 2008 Drill Hole Summary.

10.2 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 triconed, 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.

10.2.1 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.

10.2.2 Systematic Sampling

Ten metre composite samples, made up of core chips taken every 1.5 metres, were taken throughout the sandstone column to 20m above the unconformity. From 20 metres to 5 metres above the unconformity, the sample interval changes from 10 metres to 5 metres. From 5 metres to 3 metres above the unconformity, the sample interval changes to 1 metre and core are chips taken every 0.15 metres within each 1 metre interval. From 3 metres to the sub-Athabasca unconformity to 3 metres below it, 50 cm long split core samples are taken.

In hole PT08-009A, a systematic sampling of the entire basement was developed by taking 10 cm long split-core samples every metre.

10.2.3 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.

10.2.4 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 (McCallum, 2008)

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 subspecies) are derived using a combination of commercial and non-commercial software and algorithms.

10.3 Drill Collar Location Survey

During the summer of 2013, all 2008 as well as the 2006 and 2007 (Table 5) drill collars were located and re-surveyed. The collar locations were surveyed with a Trimble R10 RTK GPS system.

Hole ID	Easting (NAD83, Zn12)	Northing (NAD83, Zn12)	Elevation (m)
PL-06-01	593796.664	6407152.804	532.762
PL-07-01	588343.924	6410064.461	534.53
PL-07-02	588646.858	6409792.494	546.178
PL-07-03	588850.5	6409494.996	545.209
PL-07_04	593795.166	6407110.412	532.931
PT08-001	592945.242	6408443.317	540.625
PT08-002	592610.976	6408736.774	549.327
PT08-002A	592610.976	6408736.774	549.327
PT08-003	593740.655	6406965.731	532.884
PT08-004	593025.006	6410675.394	545.107
PT08-004A	593025.006	6410675.394	545.107
PT08-005	589674.735	6411300.782	540.708

Table 5Surveyed Drill Hole Collar Locations.

Hole ID	Easting (NAD83, Zn12)	Northing (NAD83, Zn12)	Elevation (m)	
PT08-006	588342.736	6410314.106	529.932	
PT08-007	588643.845	6409565.013	545.956	
PT08-007A	588643.845	6409565.013	545.956	
PT08-007B	588643.845	6409565.013	545.956	
PT08-008	589261.308	6408505.633	543.44	
PT08-008A	589261.308	6408505.633	543.44	
PT08-009	588065.151	6408413.686	541.897	
PT08-009A	588065.151	6408413.686	541.897	

10.4 Results and Discussion of the 2008 Drill Program

All 2008 holes display background radioactivity of approximately 10-60 counts per second (CPS) within the Athabasca Group sediments. 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 radioactivity. The background readings of the basement within holes PT08-003 and 004A are approximately 100 to 200 CPS, whereas the background in the basement within PT08-002A is approximately 300 CPS.

Drill hole PT08-002A displays an anomalous peak of 1,060 CPS at 301 metres depth. Nothing is mentioned in the geologic logs with respect to favourable alteration or structures at this depth; however the intensity of the radiometric anomaly would suggest the possibility for nearby uranium accumulation. 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 analyzed 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 (Table 4). 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. Sopuck 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 have been described by Sopuck 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.

Drill hole PT08-001 displays low levels of K2O/Al2O3, suggesting the dominance of kaolinite. PT08-002A shows 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.

PIMA data show that most holes have 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 abundance compared to the other holes. The higher dravite content is consistent with the anomalous boron content found in that hole.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

The following is a description of sample preparation, analysis and security for the Property. It is the opinion of the Author that adequate sample preparation, analysis and security for the Property are being implemented. In the opinion of the Author the QA/QC protocol implemented for this program complies with industry standard practices. A more rigorous QA/QC program has been implemented on other Fission Uranium properties as of 2010 (see Section 11.8) and will be implemented on the PLN property in the next drill program.

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 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. SRC is licensed by the Canadian Nuclear Safety Commission (CNSC) to safely receive process and archive radioactive samples, and is independent of Fission Uranium and Fission 3.0.

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 spreadsheet and stored on the Fission Uranium data server. Sample summary files were checked for accuracy against the original sample booklets after the completion of each drill program. The digital sample files also contain alteration and lithology information.

All geochemical, 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 geochemical samples were submitted to SRC. Samples are first dried and then sorted according to matrix (sandstone / basement) and then radioactivity level (if mineralized). 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.

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 11.8). Results obtained for the QA/QC samples are compared with the original sample results to monitor data quality.

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). 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 HNO3:HCI 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:HNO3:HCLO4. The residue is then dissolved in 15 ml of dilute HNO3 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 PIMA Analysis

Core chip samples for clay analysis were sent to Northwind, a private facility in Saskatoon, for analysis on a PIMA instrument. 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.

11.4 Soil Sample Analysis

Samples from the 2012 soil sampling program were submitted to SRC for analysis using the ICPMS1 package but with the partial digestion analysis replaced by aqua regia analysis. The ICPMS1 package is generally used to analyse unmineralized sandstones and has lower detection limits than the ICP-OES method. Total digestions are performed on an aliquot of sample pulp which is digested to dryness in a Teflon tube within a hot block digestion system using a mixture of concentrated HF:HNO3·HCIO4. The residue is then dissolved in dilute HNO3. For aqua regia, partial digestions are performed on an aliquot of sample for the requested elements by ICP-OES. An aliquot of pulp is digested in a test tube in a mixture of 3:1 HNO3:HCI, in a hot water bath and then diluted to 15 ml using de-ionized water.

11.5 QA/QC of Geochemistry and Assay Samples

The only QA/QC procedures implemented on drill core samples from the Property were those performed internally by SRC. In-house SRC QA/QC procedures involve inserting one or two quality control samples of known value and completing a minimum of one repeat analysis with each new batch of 40 geochemical samples. All of the reference materials used by SRC on the Property are certified and provided by CANMET Mining and Mineral Services.

The Author has reviewed the results of the SRC internal QA/QC results and no accuracy issues are noted and the data generally indicate an acceptable level of repeatability.

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. In the Authors opinion the samples taken by Fission Energy 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.

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 is no historical and no current 43-101 compliant mineral resource or reserve estimates completed on the Property.

15 ADJACENT PROPERTIES

The PLS property is adjacent to the PLN property to the south (Figure 22). The PLS property comprises 17 contiguous claims totalling 31,039 ha and is a 50%/50% Joint Venture held by Fission Uranium and Alpha. Fission is the Operator.

The information concerning the PLS property is not necessarily indicative of the nature of the mineralization on the PLN property. The relevance of the PLS information is simply to demonstrate that there is significant potential for uranium mineralization in the southwest part of the Athabasca Basin.

From 2007 to 2013 exploration on the PLS property comprised of geological mapping and glacial direction studies, airborne radiometric, electromagnetic and magnetic geophysical surveys, trenching, boulder prospecting, ground radon and radiometric surveys, pole-dipole array DC resistivity and small moving loop surface transient electromagnetic (SMLTEM) geophysical surveys, dual rotary and diamond drilling (Armitage, 2013). A 2009 airborne 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 (Figure 22) that contains 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 1-2 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. Boulders mineralized with massive uranium oxide assayed as high as $39.6\% U_3O_8$.

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 50 uraniferous boulders were recovered. Glacial direction was confirmed to be southwest at 245°, and boulders assayed up to $31.4\% U_3O_8$.

From November to December 2011, Alpha-Fission 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.

Alpha-Fission 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% U₃O₈ and narrow intercepts of 0.50m, 0.50m and 0.40m grading 0.06%, 0.102% and 0.058% U₃O₈, 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 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% U₃O₈ 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 PLS 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 axes 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.

During the fall 2012 drill program:

• wide intersections of high-grade uranium mineralization were encountered in the final four holes

- Discovery drill hole PLS12-022 intersected 1.07% U₃O₈ from 70.5 to 79.0 m;
- Drill hole PLS12-024 had the best high grade intersection to date at 1.78% U₃O₈ from 65.0 to 83.0 m; including 2.49% U₃O₈ over 12.5 m.

A 2013 winter-spring exploration program was completed by Alpha and Fission Uranium as follow up to the 2012 exploration program. A 46 hole program partially delineated three separate uranium zones spanning an overall strike length of approximately 850m within a 3 km long anomalous resistivity low corridor coincident with an EM Conductor. Mineralization commences at a depth of 60 metres below the surface. Fission Uranium and Alpha began a summer 2013 drill program in early July. The program is planned to include approximately 11,000m of drilling in 44 holes. In addition ground geophysics surveys will be conducted on two unexplored highly prospective areas on the property.

Discovery Highlights:

Multiple zones: Four mineralized zones, all open-ended, along a strike length of 1.02 km

Shallow depth: Mineralization commences at a depth of 60 metres below the surface

Rapid progression: Discovery made in November 2012, with 38 mineralized drill holes subsequently completed by the conclusion of the Winter 2013 program. Highlights of drilling to date include:

- PLS13-051: 53.0m @ 6.57% U3O8, including 10.5m @ 29.26% U3O8
- PLS13-053: 49.5m @ 6.26% U3O8, including 6m @ 35.0% U3O8 and 16.5m @ 2.63% U3O8
- PLS13-038: 34.0m @ 4.92% U3O8, including 12.5m @ 12.38% U3O8
- PLS13-072; 34.5m @ 8.15% U3O8 (61.0m 95.5m) including 7.50m @ 19.28% U3O8 (65.5m 73.0m) and 21.53% U3O8 over 4m (91.0m 95.0m)
 - Highest assay of 47.0% U3O8 (68.5m 69.0m)
- PLS13-075: 54.5m @ 9.08% U3O8 (61.0m 115.5m) including 21.5m @ 21.76% U3O8 (68.5m 90.0m)
 - Highest assay in the interval: 52.2% U3O8 over 0.5m (74.0m 74.5m)

All depth measurements reported, including sample and interval widths are down-hole, core interval measurements and true thickness are yet to be determined.

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 Author's 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 project's economic viability or continued viability.

17.1 Patterson Lake North Property

Over a two year period from 2007 and 2008, Fission completed exploration on the PLN 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 2,795.22 metres.

The 2008 drilling program on the PLN property was successful in defining an anomalous drill hole, 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 97 and 128 metres respectively. The eastern drilling area, consisting of holes 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 PLN 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, the SP survey was located over faults interpreted from the 2007 MEGATEM® survey. Radon and radiometric values were generally low. Four negative SP anomalies were discovered with two of them associated with an airborne magnetic high spike.

The 2012 exploration program conducted by Fission Energy included airborne and ground geophysics surveys and a prospecting and sampling program. A high resolution airborne magnetic survey was carried out over the southern and central parts of the Property. Ground electromagnetic and resistivity surveys were performed in the central part of the Property to better delineate conductors interpreted from earlier airborne surveys, and to search for resistivity signatures that are associated with alteration in the subsurface. A summer prospecting/sampling program concentrated on ground and airborne electromagnetic conductors.

From the analysis on the potential field data (magnetic, gravitational and electric fields) from the airborne survey, it was apparent that the geological setting of the project area is complicated, and that numerous lineaments are present and are related to structures and contacts between basement units. The numerous structures suggest that the property has been subjected to faulting and thus has good potential for hydrothermal reactivation events. The interpreted structures have predominant NNE and NW directions along with a number of EW features. The ground EM surveys were effective at delineating a number of basement conductors. The geochemical data from the summer prospecting/sampling program indicate the presence of alteration in the sandstone coincident with conductor trends defined by the ground EM survey. The alteration is characteristic of hydrothermal alteration in the Athabasca sandstone in unconformity U deposits. In addition to the structural complexity, and the presence of conductors and hydrothermal alteration, the Property is considered prospective because of the mineralization discovered on the adjacent PLS property. The corridor controlling this mineralization may extend onto the PLN property.

18 RECOMMENDATIONS

Work recommended for the PLN property by Fission Uranium and its joint venture partner Azincourt included airbone and ground geophysical programs, a radon survey, mapping and soil sampling and a drill program.

A summer-fall 2013 exploration program at the PLN property budgeted at \$0.53M commenced early August and is in progress. The planned program consists of airborne versatile time-domain electromagnetic ("VTEM") max and ground Time Domain Electromagnetic (TDEM) and Magnetotellurics (MT) geophysical surveys. The surveys will assist in identifying and prioritizing drill targets for an anticipated 2014 winter program. In addition to the geophysical surveys, mapping and soil sampling will be completed throughout the property. Radon sampling of water and lake bottom sediments are also being considered for lakes located proximal to basement conductors in the southern PLN property area. A drill program consisting of approximately 2,500-3,000m (8-10 drill holes) is planned for winter 2014.

The total budget for the target generation and winter drill programs planned at PLN property has been set at \$1.530 million, with approximately \$1 million to be spent on the winter drill program (Table 6). The \$1.530 million budget is inclusive of the \$0.53M being spent at the time of this report.

As of the effective date of this report, few results of the summer exploration program were available. Fission Uranium and Azincourt recently announced completion of the VTEM max airborne geophysical survey. The survey was completed over five days, and was flown along NW-SE flight-lines at a nominal flight height of 35 m above ground. A newly interpreted north-south trending package of conductive basement rocks has been identified in the northern portion of the Property.

Drill core re-logging and Athabasca stratigraphic outcrop sampling and prospecting field work has recently been completed. A total of 56 soil and 16 outcrop samples were collected from the Property and available historical diamond drill core was re-logged. Results of this work are pending.

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.

Table 6Budget Summary for the Proposed PLN Property 2013 Program.

Activity	Amount		Budget	
Winter 2014 drill program				
Drilling	2500m to 3000m (8 - 10 holes)	\$	1,000,000	
Summer-fall 2013 exploration program (commenced early August 2013)				
Airborne Mag / EM Survey	1300 line-km @ \$150 line-km	\$	200,000	
Ground Geophysics	30 line-km Resistivity	\$	250,000	
Radon Survey	150 Stations	\$	50,000	
Mapping and soil sampling		\$	30,000	
Total		\$	1,500,000	
Admin	15% of Budget	\$	225,000	

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20 CERTIFICATE OF AUTHOR - DATED AND SIGNATURE

This report titled "Technical Report on the Patterson Lake North Property, Northern Saskatchewan", dated October 15th, 2013 (the "Technical Report") was prepared and signed by the following author:

Dated effective October 15th, 2013

Signed by:

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