2022 Technical Report on the Shea Creek Project, Saskatchewan

UEX Corporation

Effective Date: January 1, 2022

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June 1, 2022

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1 SUMMARY

1.1 Introduction

This technical report was prepared to disclose exploration activity from 2013 to 2016 and to update the resource estimate on the Shea Creek property ("Shea Creek") utilizing form 43-101F1 format guidelines (2016) and has been completed in conformance with the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (November 29, 2019) referred to in Companion Policy 43-101CP to National Instrument (NI) 43-101. Shea Creek is in northern Saskatchewan, Canada and is 49.098% owned by UEX Corporation ("UEX") with its partner Orano Canada Inc. ("ORANO") owning the remaining 50.902% interest. Shea Creek, which contains the Kianna, Anne, Colette and 58B uranium deposits, is located in the western Athabasca Basin of northwestern Saskatchewan, one of the most prolific uranium producing regions in the world. The property is 700 km north-northwest of the city of Saskatoon and approximately 20 km east of the border with the province of Alberta. It comprises eleven mineral dispositions totaling 19,581 hectares (196 km^2), which are registered to ORANO. ORANO acts as project operator.

UEX acquired its interest in Shea Creek through an option agreement ("the Agreement") which was signed in March 2004. Under the Agreement, UEX was granted an option to acquire a 49% interest in eight uranium projects located in the Western Athabasca Basin that included Shea Creek from COGEMA Resources Inc. ("COGEMA"), the predecessor to AREVA Resources Canada Inc. ("AREVA") which subsequently became ORANO, by funding C$30 million in exploration expenditures over an eleven-year period. UEX fulfilled the option terms of the Agreement well ahead of the maximum eleven-year period by December 31, 2007. Under the terms of the Agreement, UEX granted AREVA (now ORANO) a royalty in an amount equal to US$0.212 per pound of future uranium in concentrate produced from the Anne and Colette deposits to a maximum total royalty of US$10.0 million.

In April, 2013, AREVA granted UEX an option to increase UEX's interest in the nine Western Athabasca Projects, which include Shea Creek, to 49.9% through the expenditure by UEX of an aggregate of C$18.0 million (the "Additional Expenditures") on exploration drilling intended to advance the four known Shea Creek deposits. This agreement expired on December 31, 2018 with exploration expenditures of C$1,949,275 attributed to the option which earned UEX the additional equity above the initial option agreement to attain 49.098% equity in the Shea Creek Project.

The Shea Creek Property lies 5 km south of the formerly producing Cluff Lake mine. It can be accessed by the all-weather, maintained gravel Provincial highway #955, which passes through the property. An unmaintained gravel airstrip located near the former Cluff Lake mine provides access to passenger aircraft and several large lakes in the area also allow float/ski plane access. Field operations at Shea Creek have been conducted from the former Cluff Lake mine camp.

1.2 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. After airborne radiometric surveys in the late 1960's, ground prospecting followed by drilling led to the discovery the Cluff Lake deposits. Production from the Cluff Lake deposits commenced in 1980 and operations continued until 2002. 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, from several deposits.

Despite its proximity to Cluff Lake, systematic exploration on the Shea Creek property did not commence until 1990 when Amok Limited ("Amok") conducted an airborne GEOTEM electromagnetic (EM) survey which identified conductive north-northwest trending zones underlying the Athabasca sandstone sequence. Subsequent follow-up with ground electromagnetic surveys further refined position of the conductors, prompting Amok to reducing their mineral permit area claim to claims which now comprise the Shea Creek property. Amok drilled several of the EM conductors in 1992, intersecting narrow intervals of uranium mineralization in northern parts of the property near the sub-Athabasca unconformity. In 1993 ownership of the property was transferred to COGEMA (now ORANO), who continued exploration by drilling to the north the same conductive basement unit – now known as the Saskatoon Lake Conductor - and between 1994 and 2000, drilled more than 95,000 m in 156 drill holes. These resulted in discovery of the Anne and Colette deposits. Between 2000 and 2003, no drilling was completed, but additional airborne and ground EM surveys were undertaken to further enhance targeting.

In March 2004, COGEMA (subsequently AREVA and now ORANO) and UEX signed the option agreement. Drilling recommenced funded by UEX, and between 2004 and December 2012, approximately 141,317.0 m of drilling in 307 diamond drill holes was completed under management by AREVA (now ORANO). The drilling programs during this 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, 58B Deposit, and Kianna South). Exploration during this period also included a MEGATEM® survey of 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 and a Tensor Magnetotelluric (MT) survey in 2008. In total, 278,889 m of drilling in 563 drill holes have been completed on the Shea Creek property since systematic exploration began in 1992, up to December 31, 2021.

1.3 Geological Setting

Local geology at Shea Creek comprises 400 to 800 m of Athabasca Group sandstone which unconformably overlie Lloyd Domain amphibolite-grade granitic and pelitic gneisses. The latter includes the Saskatoon Lake Conductor ("SLC"), a 40 to 80 m thick north-northwest trending and west-southwest dipping graphitic pelitic gneiss unit that is spatially associated with mineralization. The gneiss sequence is affected by penetrative syn-metamorphic deformation that occurred in at least two foliation forming phases during the 1950-1900 Ma Taltson orogeny. These peak metamorphic fabrics are overprinted by northeast-trending, right-lateral/oblique, retrograde mylonitic shear zones (D3; probable Hudsonian age) including the regional Beatty River Shear zone, and northeast-trending second and third order narrow mylonitic shear zones which offset the SLC. Post-Athabasca faulting remobilizes these mylonites and is also associated with up to 50 m of reverse displacement of the unconformity along the R3 fault at the base of the SLC. Textural and geometrical relationships suggest that uranium mineralization was coeval with the late faulting, and that the architecture of the older D3 shear zones may have had a fundamental control on the position of mineralization.

1.4 Uranium Mineralization

To date, four uranium deposits have been discovered over a 3 km strike length along the SLC in northern parts of the Shea Creek property: Kianna, Anne, Colette and 58B. Uranium mineralization in these deposits occurs in three stacked styles that encompass the full range of types of unconformity uranium deposits. Most extensive is flat lying, massive pitchblende-hematite and chlorite matrix breccia hosted mineralization which straddles the unconformity along, and immediately east of, the trace of the SLC. Breccia mineralization occurs both as pitchblende-coffinite fragments and as matrix replacement, suggesting it may have occurred in pulses that temporally spanned brecciation. Continuous unconformity mineralization occurs along the SLC for much of the 2.5 km known strike extent of the Shea Creek deposits and is thickest and highest grade where basement mineralization lies beneath it. Basement mineralization forms a significant portion of the Shea Creek uranium inventory and is most extensive at the Kianna Deposit. It comprises a) concordant reverse fault hosted mineralization which often extends from the unconformity downward into granitic gneiss in the immediate footwall of the SLC, and b) discordant fault, vein and replacement pitchblende mineralization which occurs in steep, east-west to west-northwest trending, zones that may extend for several hundred metres below the unconformity, and which occurs along or beside remobilized mylonitic shear zones. Basement mineralization thickens where concordant and discordant faults intersect, forming west-plunging oreshoots. Lensoidal zones of perched mineralization are locally present up to several tens of metres above the unconformity often where reduced, pyritic chlorite alteration extends into the Athabasca sandstone above areas of basement and thicker unconformity mineralization.

1.5 Drilling Methods, Sampling and Results

Due to the greater than 600 m target depths, drilling is generally conducted by penetrating overburden with HW diameter casing followed by HQ coring to 400 m depth. The holes are typically completed by reducing to NQ-sized core (47.6 mm core diameter) which is the typical core size testing mineralization at target depths. 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.

Drill core sampling is conducted to industry standards, utilizing geological controls and scintillometer reading to determine position of mineralized intervals and sampling lengths. Mineralized samples, typically at 0.5 m intervals, are split, with half remaining in the core box, and the other half placed in a sample bag and numbered for geochemical analysis. Samples are analyzed geochemically at the Saskatchewan Research Council Geoanalytical Laboratories ("SRC") in Saskatoon, an ISO/IEC 17025:2005 accredited facility that is certified by the Canadian Association for Laboratory Accreditation Inc. Samples are analyzed for uranium by ICP-MS (Inductively Coupled Plasma Mass Spectroscopy) for samples with grades lower than 1,000 ppm U, and U_3O_8 uranium assay by ICPOES (Inductively Coupled Plasma Optical Emission Spectroscopy) for samples determined by ICPMS to contain uranium concentrations higher than 1,000 ppm U.

In addition to the geochemical analyses, downhole radiometric probe data are available for most drill holes. As is standard practice in uranium exploration in the Athabasca Basin, the probe data can be used to estimate uranium grade when sufficient geochemical data are available to calibrate the probe results to specific mineral deposits or mineralized areas. The converted probe data, which are denoted as "eU_3O_8", then provide a basis of comparison for the geochemical data and allow estimation of uranium grade of mineralized intervals in areas of poor core recovery where representative sampling is not possible. Composited drilling results in areas of less than 80% core recovery, or where sampling is incomplete, are reported here as equivalent probe data.

Drilling on the northern Shea Creek has resulted in the intersection of numerous significant areas of uranium mineralization associated with the 3 km corridor hosting the Anne, Kianna and Colette deposits. Drill holes generally have steep dips of 75° or steeper which generally cross the flat-lying lenses of unconformity-hosted and perched mineralization styles at a high angle that is close to, or at true thickness. Mineralized intercepts of discordant basement mineralization have more complex morphology and can contain combinations of steeply dipping vein-like mineralization which occurs at shallow core axis angles to many drill holes, in combination with foliation parallel, shallower dipping components which may form oreshoots.

1.6 Mineral Resource Estimates

2010 resource estimates

In May 2010, UEX released an initial mineral resource estimate for the Kianna, Anne and Colette deposits on the Shea Creek property, which is documented in a Technical Report with an effective date of May 26, 2010. The 2010 Shea Creek resource estimate was prepared by K. Palmer, P.Geo., of Golder Associates Ltd., an independent Qualified Person as defined by NI 43-101. The resource estimate utilized 361 diamond drill holes drilled from 1992 to 2009 and was based on mineralized wireframe models from the deposits that were constructed using a minimum cut-off grade of 0.05% U_3O_8. The resource estimate was by ordinary kriging using DATAMINE Studio 3 software. The resource database utilized primarily uranium geochemical analyses from the Saskatchewan Research Council (SRC) Geoanalytical Laboratories in Saskatoon, Saskatchewan. In cases where geochemical analyses were not available due to incomplete sampling or core recovery issues, downhole gamma probe data were used to calculate equivalent uranium grades based on correlation of assays with previous probe results. A total of 678 dry bulk density samples, representing all rock types and mineralization styles from the three Shea Creek deposits, form a comprehensive basis for the density component of the resource estimate.

The 2010 Mineral Resource Estimate for the three Shea Creek deposits, Kianna, Anne and Colette, at a cut-off grade of 0.30% U_3O_8, totaled:

- **63.57 million pounds of U_3O_8** in the Indicated mineral resource category comprising 1,872,600 tonnes grading 1.54% U_3O_8

- **24.53 million pounds of U_3O_8** in the Inferred mineral resource category comprising 1,068,900 tonnes grading 1.04% U_3O_8

2022 resource estimate

An updated mineral resource estimate for the Shea Creek deposits, Kianna, Anne, Colette and 58B, was completed. The estimate is based on drill information up to December 31, 2012 and utilized results of 477 diamond drill holes (totaling 402,800 m) which were drilled since 1992. Drill spacing across the deposits is variable, ranging between 5 m to greater than 50 m. On average, indicated blocks are within 8 m of a drill hole and inferred blocks within 16 m. As with the 2010 resource estimate, the mineralized wireframes of the Colette, 58B, Kianna, and Anne zones, bounding perched, unconformity and basement mineralization prepared at a 0.05% U_3O_8 cut-off and were used to constrain the mineral resource estimate at each deposit area. Estimation was by ordinary kriging using Gemcom Software. The impact of anomalously high-grade samples was controlled though a process of grade capping as well as interpolation distance restrictions placed on the high-grade samples for some zones.

The mineral resource estimate primarily utilized uranium geochemical analyses from the Saskatchewan Research Council (SRC) Geoanalytical Laboratories in Saskatoon, Saskatchewan, obtained through ICP-MS (Inductively Coupled Plasma Mass Spectroscopy) for samples with grades lower than 1,000 ppm U, and U_3O_8 uranium assay by ICP-OES (Inductively Coupled Plasma Optical Emission Spectroscopy) for samples determined by ICP-MS to contain uranium concentrations higher than 1,000 ppm U. In addition to AREVA's internal quality controls, duplicate and independent check analyses were performed by UEX on sample suites representing approximately 5% of the mineralized assay database since mineralization was discovered in 1992.

In cases where geochemical analyses were not available due to incomplete sampling or core recovery issues, downhole gamma probe data were used to calculate equivalent uranium grades obtained using a DHT27-STD gamma probe which collects continuous readings along the length of the drill hole. Probe results are calibrated using an algorithm calculated from the comparison of probe results against geochemical analyses in previous drill holes in the Shea Creek area. A total of 674 dry bulk density samples, representing all rock types and mineralization styles from the Shea Creek deposits, form a comprehensive basis for the density component of the mineral resource estimate.

The 2022 Mineral Resource Estimate for the four Shea Creek deposits, Kianna, Anne, Colette and 58B, at a cut-off grade of 0.30% U_3O_8, total:

- **67.57 million pounds of U_3O_8** in the Indicated mineral resource category comprising 2,056,000 tonnes grading 1.49% U_3O_8

- **28.06 million pounds of U_3O_8** in the Inferred mineral resource category comprising 1,254,000 tonnes grading 1.02% U_3O_8

The changes in the mineral resource since the 2010 estimate reflect substantial increases in the basement mineral resources of the Kianna Deposit and new mineral resources from the 58B Deposit. However, these are also partly offset by mineral resource losses at Colette due to the restriction of mineralization in central and southern parts of that deposit based on subsequent infill drilling there.

The Mineral resource estimate is summarized in Table 1-1. This mineral resource estimate includes drilling information up to December 31, 2012, using CIM standards of estimation of mineral resources and reserves.

Table 1-1: Shea Creek Mineral Resource Estimate at 0.3% U_3O_8 cut-off grade

Deposit Area	Indicated			Inferred		
	Tonnes	U_3O_8 (%)	U_3O_8 (lbs)	Tonnes	U_3O_8 (%)	U_3O_8 (lbs)
Colette	327,000	0.787	5,674,000	492,000	0.717	7,768,000
58B	142,000	0.773	2,419,000	81,000	0.510	906,000
Kianna	1,027,000	1.535	34,743,000	547,000	1.390	16,772,000
Anne	560,000	2.002	24,735,000	134,000	0.883	2,612,000
Total	**2,056,000**	**1.491**	**67,570,000**	**1,254,000**	**1.015**	**28,057,000**

Much of the estimated mineral resource is in the Kianna and Anne deposits, over an approximately one km strike length in southern parts of the Shea Creek deposit trend where a significant portion of the resource lies in basement rocks beneath the Athabasca unconformity. In this area, a combined indicated mineral resource at the Kianna and Anne deposits at a cut-off grade of 0.3% U_3O_8 totals 59.5 million pounds of U_3O_8 grading 1.70% U_3O_8 in the Indicated category, and an additional 19.4 million pounds of U_3O_8 grading 1.29% U_3O_8 in the inferred category.

1.7 Recommended Program to advance Shea Creek

The Authors recommend a drill program within the footprint of the known mineralization at Shea Creek spanning the four deposits and the area around historical drill hole SHE-02, which intersected uranium mineralization to the south of the deposits. The recommended program is C$10 million over 18 month of field work to evaluate basement targets analogous to the Kianna deposit and the costs are broken down in Table 1-2 below.

Table 1-2: Shea Creek Resource Expansion Drill Program

Description	Total (C$ 000's)
Direct Costs	
Personnel	750
Field Equipment Costs	100
Analysis	450
Travel and Transport	80
Miscellaneous	61
Subtotal	1,441
Contractor Costs	
Diamond Drilling	6,500
Camp Costs	1,000
Other Contractor	150
Subtotal	7,650
Total Costs	9,091
Admin Fee	909
TOTAL	10,000

2 INTRODUCTION

2.1 Issuer – UEX Corporation

This report was prepared for UEX Corporation ("UEX") to provide supporting documentation of an updated mineral resource estimate on the Shea Creek property ("Shea Creek") in the western Athabasca Basin of Northern Saskatchewan. The report also provides an updated technical review of the geology and recent exploration results received from exploration of the property. Shea Creek is owned 49.098% by UEX Corporation (“UEX”) and 50.902% by Orano Canada Inc. (“ORANO”).

2.2 Terms of Reference

This report was prepared to allow filing of a current Form 43-101F1 technical report on the Shea Creek Property in accordance with National Instrument 43-101 (“N.I. 43-101”) requirements concerning disclosure of technical information regarding material properties. The reporting here utilizes the National Instrument 43-101 (Effective June 30, 2011), Form 43-101F1 (implemented on May 9th, 2016), and the Companion Policy NI 43-101CP that sets out the views of the Canadian securities’ regulatory authorities as to how the instrument is interpreted and applied. Additionally, this report reflects the CIM Estimation of Mineral Resource & Mineral Reserves Best Proactive Guidelines that were adopted November 29, 2019.

2.3 Sources of Information

The Shea Creek property has been subject to exploration programs since 1990 through to the most recent drilling program in 2016. Details of exploration activities on the property are outlined in numerous exploration reports by technical staff of Orano Canada Inc. (“ORANO”) the operator of the project, which was formerly named AREVA Resources Canada (“AREVA”), and prior to that was named COGEMA Resources Inc. (“COGEMA”). In approximate chronological sequence, the principal reports documenting exploration activities, results and interpretations include Koch (1990), Dalidowicz (1991, 1993), Alonso et al. (1992), Alexander et al. (1994, 1995), Baudemont (1996, 2000), Pacquet and Reyx (1995, and petrographic reports in later assessment reports), Munholland et al. (1996), Moriceau (1997), Robbins et al. (1997-2000; 2006-2007), Robbins (2005), Bingham and Koning (2003), Koch (2003), Nimeck (2005), Robbins et al. (2006-2007), Reddy et al. (2007), Modeland et al. (2008), Koning et al. (2007), Rhys et al. (2009), Revering (2010), Palmer (2010), Rhys et al. (2010), Quirt et al. (2012), Gerger et al. (2012), Ericks et al. (2013), Carroll et al. (2013) Gudmundson et al. (2017), Gudmundson and Zalutskiy (2017), and Allen and Masset (2019).

While the previous reports provide a historical context, the information in the sections below concerning project geology and uranium mineralization have been largely obtained by the authors by direct observation through extensive on-site re-logging of drill core, direct review and validation of the drill core database during the re-logging process, and interpretation of the project geology and mineralization controls on the project.

Regional geological setting and context of the Shea Creek property and adjacent Carswell structure are outlined in syntheses by Tona et al. (1985), Bell et al. (1985), Laine (1985), Pagel et al. (1985), Lewry and Sibbald (1980), Baudemont and Fedorowich (1997), Hanmer (1997), Card et al. (2003, 2007a, 2007b), Ramaekers et al. (2007), and many other reports and papers. Metallogenic setting of the Athabasca Basin region is reviewed by Jefferson et al. (2007).

2.4 Property Visits and Scope of Involvement of the Authors

Chris Hamel visited the Shea Creek Site for 7 days in August of 2019 to review Shea Creek drill core and verify drill core data and the location data of some of the drill holes. D. Rhys (P.Geo.), has visited the Shea Creek project on numerous occasions between 2006 and 2012 and guided UEX's core relogging and review efforts, participating directly in the process during which the majority of drill core completed to date on the project was reviewed. The project was visited by J. Gray, P. Geo. on July 21 and 22, 2012. The site visits by the authors have allowed for the inspection of drill core, sampling procedures, and drilling sites. Site visits have involved the review and re-logging of numerous drill hole intercepts to; 1) to provide to UEX an in-house review of the geology and exploration potential of the Shea Creek deposits, and 2) to provide the basis for an N.I. 43-101 compliant review of the project and estimation of the resource. At the time of these site visits by D. Rhys and J. Gray, drilling was active on the project, and core handling, core sampling and logging methodologies were observed and discussed with the Operator's personnel. The authors have conducted extensive office-based review and interpretation of exploration data from the property.

Responsibility for the writing of individual sections of this report is as follows: D. Rhys prepared and takes responsibility for Items 1, 7, 8, and 13. C. Hamel prepared and takes responsibility for Items 2 to 6 inclusive, 9 to 11 inclusive, and Items 23 to 27 inclusive. J. Gray prepared and is responsible for mineral resource estimates and Items 12 and 14 with supporting content in Item 1 and Item 25, for which D. Rhys and C. Hamel respectively have taken responsibility. Wireframe models of mineralization outlines at 0.05% cut-off grade that were utilized in the resource estimate were prepared by UEX personnel with peer review by D. Rhys and J. Gray.

3 RELIANCE ON OTHER EXPERTS

The qualified persons are partially relying upon the Opinion of Title dated September 7, 2021, by Robertson Stromberg LLP, titled “UEX Corporation - Review of Certain Mineral Dispositions” wherein section IV Item 1 it is stated that they are of the opinion that UEX is holder of 49.098% interest in the Shea Creek Property and ORANO is holder of 50.902% interest. The authors are in part relying upon this report as assurance of the claim title equity, the equity stated in the report by Robertson Stromberg is consistent with the records indicated by UEX. This reliance applies to Section 4 Property Description and Location.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Property Location

The Shea Creek property is located in the western Athabasca Basin of northwestern Saskatchewan approximately 700 km north-northwest of the city of Saskatoon (Figure 4-1) and approximately 20 km east of the border with the province of Alberta. The property is approximately 230 km north of the town of La Loche and 5 km south of the former producing Cluff Lake mine site. The Shea Creek property is 32,962 ha (330 km^2) in 18 mineral dispositions that are listed in Table 4-1 (Figure 4-1). It lies between latitudes 58°00’N to 58°19’N and longitudes 109°19’W to 109°43’W (Figure 4-1), and straddles parts of topographic map sheets 074K03, 074K04, 074K05, 074K06 and 074F14 of the Canadian National Topographic System.

4.2 Concession Descriptions

The project is jointly owned by ORANO (50.902% interest) and UEX (49.098% interest), with ORANO acting as project operator. All mineral dispositions are registered to ORANO and UEX with equity that reflects the distribution indicated above.

The disposition status of the Shea Creek Project is shown in and includes the dates in which the mineral claims were recorded and when they will expire without the filing of additional assessment expenditures. All dispositions are contiguous, and groupings can be made on an annual basis if the dispositions are in good standing. There are no surface rights to any portions of the property.

Prior to December 2012, mineral dispositions were located in the field by corner and boundary claim posts which lie along blazed and cut boundary lines. In December 2012, Saskatchewan launched the Mineral Administration Registry Saskatchewan (“MARS”) to enable the mining industry to acquire and manage mineral tenure online. The system replaces traditional ground-staking with a GIS-based registry system tied to tenure information maintained by the Ministry of Energy and Resources. The claim boundaries for existing or legacy claims were imported into MARS and subject to a boundary confirmation process with the claim owners to establish the electronic coordinates of the boundary.

The Qualified Persons were able to conduct a review of the mineral title of the Shea Creek mineral dispositions online using the publicly accessible MARS information. The information in MARS is consistent with the title of opinion obtained on September 7th, 2021, from Robertson Stromberg, a Saskatoon, Saskatchewan-based law firm. Robertson Stromberg concluded that the claims are in good standing and are owned by Orano and UEX, and that as of September 7, 2021, there were no encumbrances, charges, security interests, or instruments recorded against the claims.

4.3 Title and Option Agreement

In March 2004, AREVA (now ORANO) and UEX announced the West Athabasca Option Agreement ("Agreement") whereby UEX was granted an option to acquire a 49% interest in eight uranium projects located in the Western Athabasca Basin of northern Saskatchewan, by funding C$30 million in exploration expenditures (see UEX's news release dated March 18, 2004). Two new projects were staked in late 2004, bringing the total number of projects in the Agreement to ten (see UEX's news release dated January 31, 2005). The ten original Western Athabasca Projects ("Projects") included Shea Creek (containing the Anne and Colette uranium deposits), Douglas River, Erica, Alexandra, Laurie, Mirror River, Nikita, Uchrich, James Creek and Brander Lake, several of which are shown on Figure 4-2. The James Creek Project was written off from an accounting perspective by UEX in 2012, as AREVA (now ORANO) and UEX had no plans to continue with exploration on these claims which have now lapsed. The Douglas River project was contiguous with Shea Creek and in 2013 the claims S-99376, S-107255, and S-104808 were incorporated into the northern part of the Shea Creek property.

Table 4-1: Shea Creek Mineral Dispositions

CLAIM	RECORD DATE	AREA (ha)	Annual Assessment Requirement	Next Assessment Due
MC00004006	30-Jul-15	523	$7,840	2039
MC00004007	30-Jul-15	824	$12,365	2039
MC00010298	11-Dec-17	1,866	$27,986	2035
MC00010299	11-Dec-17	2,407	$36,100	2035
S-99376	2-Feb-80	4,950	$123,750	2041
S-104617	29-Jan-90	1,478	$36,950	2041
S-104619	29-Jan-90	1,445	$36,125	2041
S-104620	29-Jan-90	1,431	$35,775	2041
S-104621	29-Jan-90	2,000	$50,000	2041
S-104622	29-Jan-90	2,208	$55,200	2041
S-104623	29-Jan-90	2,276	$56,900	2041
S-104625	29-Jan-90	2,444	$61,100	2041
S-104626	29-Jan-90	2,077	$51,925	2041
S-104638	12-Jun-92	2,438	$60,950	2041
S-104639	12-Jun-92	1,164	$29,100	2041
S-104760	15-Jun-95	620	$15,500	2041
S-104808	2-Feb-80	450	$11,250	2041
S-107255	2-Feb-80	2,362	$59,050	2041
	TOTALS	**32,962**	**$767,866**	

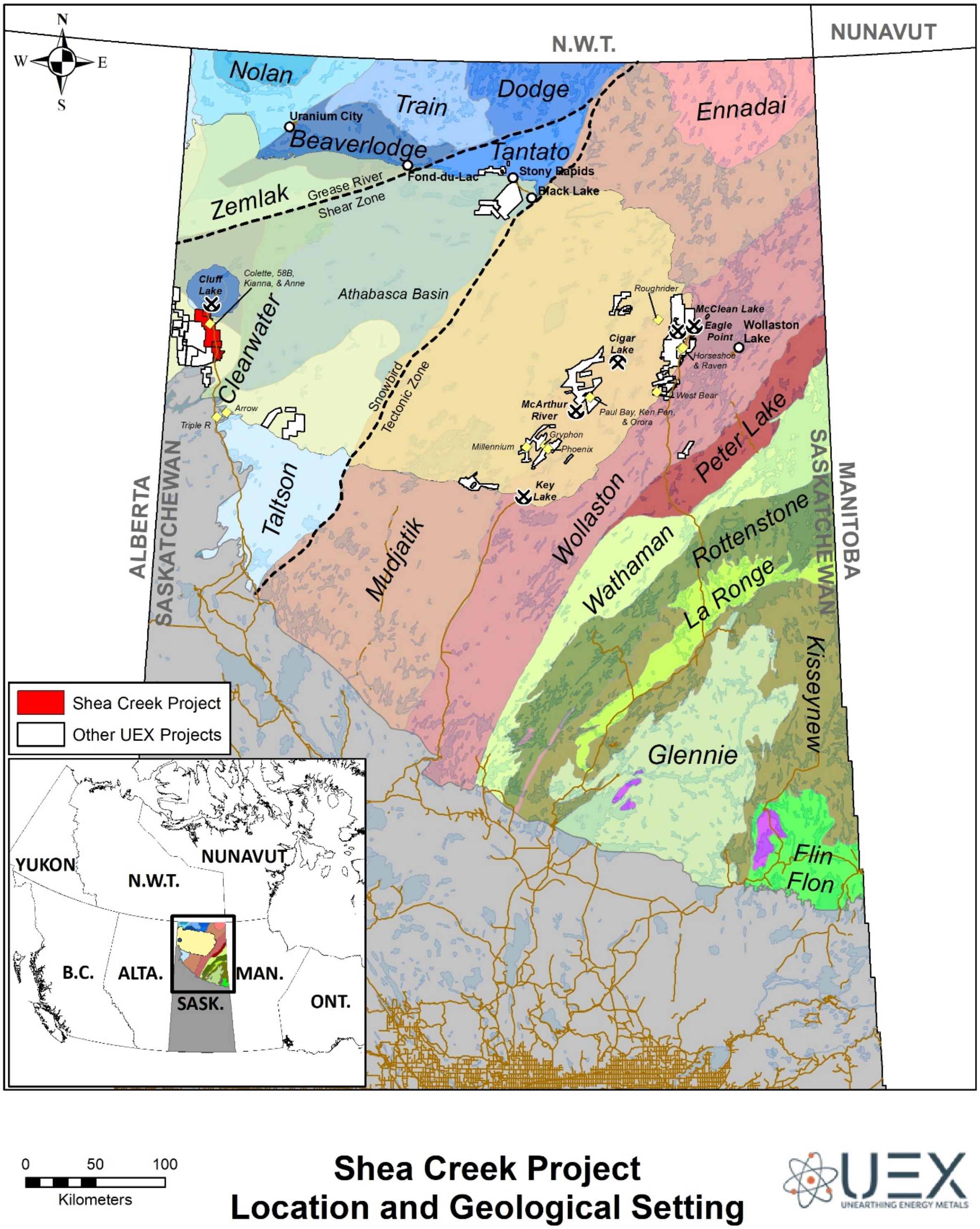

Figure 4-1: Shea Creek Project Location Map

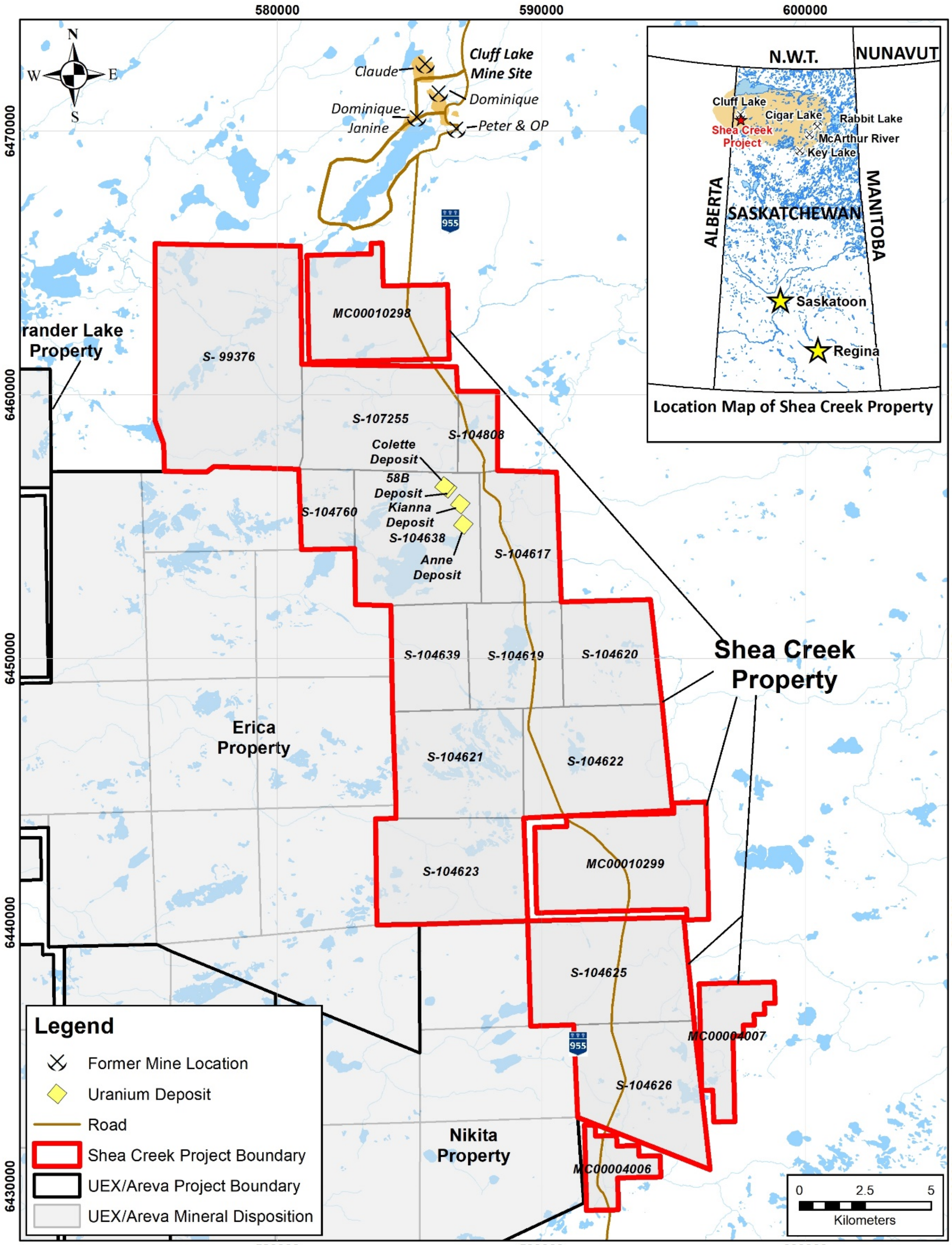

Figure 4-2: Shea Creek Mineral Disposition Map

Under the terms of the Option Agreement, UEX earned a 12.25% interest in the Projects for every C$7,500,000 spent to the maximum total interest in the Projects of 49%. Minimum annual expenditures to fulfill the Agreement over a maximum 11-year period were stipulated as follows:

a) Year 1 & 2: minimum C$2,000,000 per year,

b) Year 3, 4, 5, 6: minimum C$2,500,000 per year,

c) Year 7, 8, 9: minimum C$3,000,000 per year, and

Under the terms of the Agreement, UEX also granted ORANO (formerly AREVA) a royalty for the Anne and Colette deposits, in an amount equal to US$0.212 per pound of uranium in concentrate produced from the Anne and Colette deposits and delivered to the parties for sale, to a maximum total royalty of US$10.0 million payable by UEX.

UEX received confirmation from AREVA that as of December 31, 2007, the total amount of UEX expenditures on AREVA's Western Athabasca Projects exceeded C$30.0 million (see January 11, 2008, news release), and fulfilled the terms of the Agreement well ahead of the maximum 11-year period. The completion of the earn in option means the Shea Creek property vested as 51% owned by AREVA (now ORANO) and 49% owned by UEX.

Exploration activities on the Shea Creek Project continue to be managed by ORANO as operator of the Joint Venture pursuant to the terms of the Agreement, as amended.

4.4 Other Property Interests

In April 2013 (see UEX’s news release dated April 13, 2013, News Release), AREVA (now ORANO) granted UEX an option to increase UEX's interest in the nine Western Athabasca Projects, which include the Shea Creek project, to 49.9% through the expenditure by UEX of an aggregate of C$18.0 million (the "Additional Expenditures") on exploration drilling intended to advance the four known Shea Creek deposits. This agreement expired on December 31, 2018, with exploration expenditures of C$1,949,275 attributed to the option which earned UEX the additional equity above the initial option agreement to attain 49.098% equity in the Shea Creek Project.

4.5 Environmental Liabilities

The authors are not aware of any known environmental liabilities on the Shea Creek Property. No mining or waste disposal has occurred on the Shea Creek property and consequently the property is not subject to any related liabilities.

4.6 Annual Expenditures

Annual expenditures of C$15.00 per hectare are required by the provincial government pursuant to the terms of the mineral disposition for the first 10 years after staking of a claim to retain each disposition. This rate increases to C$25.00 per hectare annually after 10 years, a rate which currently applies to all the mineral dispositions comprising the Shea

Creek property. Required assessment work for each mineral disposition is listed in will maintain the individual properties in good standing to at least the dates listed in Permits for Exploration Permits for timber removal, work authorization, work camp permits, shoreland alteration and road construction are required for most exploration programs from the Saskatchewan Ministry of Environment and Saskatchewan Watershed Authority. Necessary permits include a Surface Exploration Permit, a Forest Product Permit and an Aquatic Habitat Protection Permit. All drilling programs require a Term Water Rights license from the Saskatchewan Watershed Authority. If any exploration work crosses or includes work on water bodies, streams, and rivers, the Department of Fisheries and Oceans and the Coast Guard must be notified. Ice/snow bridges and clear-span bridges do not require approval from the Coast Guard. Permits may take up to three months to obtain from the regulators. Apart from camp permits, fees for these generally total less than C$300 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 C$750 per hectare for more than 500-man days to C$175 per hectare for less than 100-man days. All of these permits were obtained for the work described in this report.

4.7 Risk Factors with respect to access, title, and ability to perform work

As UEX is the minority owner of Shea Creek (49.098% interest), it does not control when the Operator proposes and performs work.

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

5.1 Topography, Elevation, and Vegetation

Physiography of the Shea Creek area is typical of Canadian shield terrain, comprising low rolling hills separated by abundant lakes and areas of muskeg. Relief varies from 340 m above sea level in depressions and lakes, to 385 m above sea level along esker ridges. Hills are typically covered in a mixed boreal jack pine, spruce and aspen forest, separated by low lying, swampy areas and muskeg fringed by stunted spruce stands. The geomorphology is dominated by glacial and periglacial sediments that were produced during several ice advances, and outcrop of the underlying Athabasca sandstone is rare. Regional drainage and water flows are to the north and the north-northwest towards Lake Athabasca. The Douglas River and Beatty River are the principal drainage systems.

5.2 Access to Property

Provincial highway #955, an all-weather maintained gravel road which begins in La Loche and terminates at the Cluff Lake mine site, passes through the Shea Creek property, and provides year-round ground local access (Figure 5-1). An unmaintained gravel airstrip located to the northeast at the former Cluff Lake mine site provides summer access to passenger aircraft. Several large lakes allow fixed-wing aircraft access to the property in winter on skis, or on floats in the summer. Access to the principal areas of drilling in the area of the Colette, 58B, Kianna, and Anne deposits in the north central portions of the property is via a series of skidder trails which extend 1 to 2.5 km southwestward from Highway 955. Much of the area of exploration focus on the northern Shea Creek property occurs in areas of dry ground, allowing year round ground exploration activities and drilling.

5.3 Proximity to Population Centres and Transport

The Shea Creek property is located approximately 230 km north of the town of La Loche, and 15 km south of the former producing Cluff Lake mine site (Figure 5-1). Field operations were formerly conducted from the Cluff Lake mine camp prior to its decommissioning. A temporary work camp utilized during most recent exploration has been demobilized from the project.

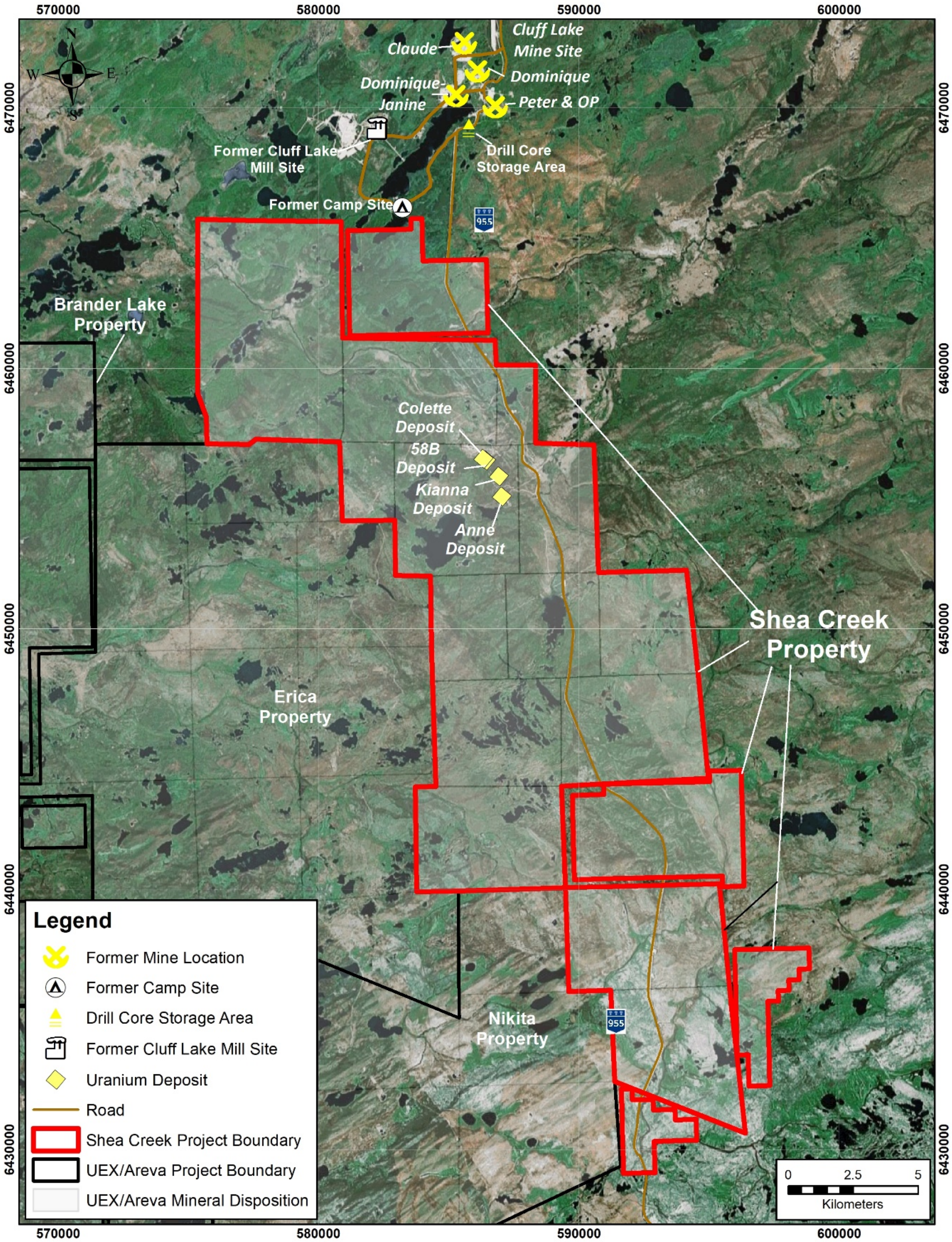

Figure 5-1: Infrastructure and deposits on and adjacent to the Shea Creek property. Note locations of former mining facilities and mines of the Cluff Lake mine complex in upper portions of the map. Grid is NAD83 UTM zone 12

5.4 Climate and Length of Operating Season

Climatic conditions for the area were monitored for several decades at Cluff Lake until 2005. The summers are short and cool with an average frost-free period of less than 90 days and a mean daily summer temperature ranging from 14.7°C to 17.0°C. The cold winters are characterized by influxes of Arctic air alternating with incursions of milder Pacific air. Average daily winter temperatures range from -17.5°C to -20.3°C. Extreme temperature ranges from 36°C in the summer to as low as -49°C in the winter. The prevailing wind direction for the area is from the southeast. The average annual precipitation for the area is 450 mm, with more than half of the annual precipitation occurring from June through to September. Snowfall usually occurs from October to May, with most winter precipitation occurring between January and April.

The topography of the Shea Creek area in combination with the climate of the area allows operation of the project during any part of the year. In the past exploration drilling activities have been successfully completed in every month of the year.

5.5 Local Resources and Infrastructure

ORANO (the project operator) does not currently have any surface rights for a mining operation at Shea Creek. Such rights would need to be obtained from the Provincial government in advance of mine construction. The property is undeveloped and has ample room and suitable topography for potential future mining operations to allow for construction of a mill, tailings facilities, and waste rock piles. Water is available from the numerous lakes and rivers in the area.

There is currently no grid power supply to the Shea Creek project. The electrical grid power source is approximately 300 km away at the Key Lake switching station. No buildings or ancillary facilities are currently present at the site of the Shea Creek property. These would need to be constructed as part of any future mine development.

The nearest source of labour for any future mining operation would likely be from the communities of La Loche and Buffalo Narrows, which are 230 km and 331 km from the project respectively. Other northern communities such as Fond du Lac, Stony Rapids & Black Lake, Patuanak, Pinehouse, and Wollaston have supplied labour to other uranium mines in the region, as well as larger population centers to the south in Saskatchewan on a fly-in fly-out basis.

6 HISTORY

The western portion of the Athabasca basin was initially explored in the 1960's as exploration activities expanded outward from the established Beaverlodge uranium district utilizing airborne radiometric (scintillometer) surveys. In 1967, Mokta Ltd. (Amok Ltd.), owned by French companies Compagnie Francaise de Mokta (CFM), Pechiney-Ugine Kuhlman, and French state-owned Commissariat a L'Energie Atomic (COGEMA), conducted airborne radiometric surveys in the local region which identified anomalies in the Carswell and Cluff Lake areas (Tona, 1985). In 1968, follow-up ground surveys and prospecting discovered glacially transported uranium-bearing sandstone boulders at Cluff Lake, 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. By the end of 1995, seven additional basement-hosted unconformity related deposits had been delineated at the Cluff Lake mine site: OP and N discovered in 1970, Claude in 1971, Dominique-Peter in 1981, Dominique-Janine in 1984, Dominique-Janine extension in 1988, and West Dominique Janine in 1995 (Koning and Robbins, 2006; Figure 4-1).

Production from the Cluff Lake deposits commenced in 1980 and operations continued until 2002. Total production from the Cluff Lake mine site amounted to 64.2 million lbs U_3O_8 at an average grade of 0.92% U_3O_8, with the largest producer being the Dominique-Peter underground operation, which produced 24.2 million lbs U_3O_8 (Koning and Robbins, 2006). Claims covering the formerly producing Cluff Lake deposits are currently held and maintained by ORANO.

6.1 Ownership history of the Shea Creek Property

The Shea Creek Property also includes land initially part of the Shea Creek, Douglas River projects which were combined as the Shea Creek Project in 2013. Further details concerning the history of ownership of the Shea Creek and Douglas River projects are detailed in Table 6-1 and Table 6-2.

Table 6-1: Shea Creek Claims Ownership History since 1990

Year	Property	Activity	Ownership interest
1990	Shea Creek	Exploration Permit MPP1154 is 48,500 ha	Amok 100%
1991	Shea Creek	Exploration Permit MPP1164 adds 13,000 ha to project	Amok 100%
1992	Shea Creek	MPP 1164 converted to exploration claims with reduction in project size to 19,161 ha	Amok 100%
		Two claims staked (S-104638 & S-104639) adding 3,602 ha	Amok 100%
1993	Shea Creek / Douglas River	Amok changes name to Cogema Resources Inc. (COGEMA)	Cogema 100%
1994	Shea Creek	MPP 1165 is reduced to mineral claim S-10277 (2,000 ha)	Cogema 100%
1995	Shea Creek	Claim S-104618 is lapsed	Cogema 100%
		Claim S-104760 staked	Cogema 100%
2003 & 2004	Shea Creek	Claims S-104624 & S-102770 are lapsed	
2004	Shea Creek / Douglas River	UEX Corporation signs letter of intent to acquire 49% equity of Western Athabasca Projects including Shea Creek and Douglas River	Cogema 100%
2004	Western Athabasca Projects including Shea Creek and Douglas River	Option agreement signed allowing UEX to earn up to 49% in western Athabasca Projects	Cogema 100%
2005	Western Athabasca Projects including Shea Creek and Douglas River	UEX earns initial 12.25% equity in Western Athabasca Projects	Cogema 87.75% UEX 12.25%
2006	Western Athabasca Projects including Shea Creek and Douglas River	Cogema Resources Inc. changes name to AREVA Resources Canada Inc. (AREVA)	AREVA 87.75% UEX 12.25%
2006	Western Athabasca Projects including Shea Creek and Douglas River	UEX earns subsequent 12.25% equity in Western Athabasca Projects	AREVA 75.5% UEX 24.5%
2007	Western Athabasca Projects including Shea Creek and Douglas River	UEX earns subsequent 12.25% equity in Western Athabasca Projects	AREVA 63.25% UEX 36.75%
		UEX earns subsequent 12.25% equity in Western Athabasca Projects to vest 49% equity in Western Athabasca Projects including Shea Creek and Douglas River	AREVA 51% UEX 49%
2013	Shea Creek / Douglas River	Remaining Douglas River Claims are incorporated into Shea Creek Project	AREVA 51% UEX 49%
2013	Shea Creek Project	Western Athabasca Option agreement signed to allow UEX to earn up to additional 0.9% interest in the Western Athabasca Projects	
2014	Shea Creek Project	UEX earns additional 0.097% interest by funding exploration	AREVA 50.903% UEX 49.097%
2014	Shea Creek Project	UEX earns additional 0.0005% interest by finding expenditures.	AREVA 50.9025% UEX 49.0975%

Year	Property	Activity	Ownership interest
2017	Shea Creek Project	Claims MC00004006 & MC00004007 (1,347 ha) acquired from Eagle Plains Resources Ltd.	AREVA 50.9025% UEX 49.0975%
		Claims MC00010298 & 00010299 are staked and added to the project (4,272 ha)	AREVA 50.9025% UEX 49.0975%
2018	Western Athabasca Projects	AREVA Resources Canada Inc. changes is name to ORANO Canada Inc. (ORANO)	ORANO 50.9025% UEX 49.0975%

Table 6-2: Douglas River Claims Ownership History

Year	Property	Activity	Ownership interest
1968	Douglas River	Initial staking of Douglas River Project by Mokta Canada Ltd as ML5249 and ML5271	100% Mokta
1980	Douglas River	JV Agreement with Saskatchewan Mining Development Corporation (SMDC) for ML 5249	Amok 50% SMDC 50%
1986	Douglas River	Mineral Leases are reduced in size and restaked as claims	Amok 50% SMDC 50%
1988	Douglas River	SMDC ownership share assigned to Cameco Corporation	Amok 50% Cameco 50%
1993	Shea Creek / Douglas River	Amok changes name to Cogema Resources Inc. (COGEMA)	Cogema 100%
1993	Douglas River	Novation agreement transfers Cameco equity to Corona Grande, a subsidiary of Cogema Resources Inc.	Cogema 50% Corona Grande 50%
1997	Douglas River	Project fully owned by Cogema Resources Inc.	Cogema 100%
2004	Shea Creek / Douglas River	UEX Corporation signs letter of intent to acquire 49% equity of Western Athabasca Projects including Shea Creek and Douglas River	Cogema 100%
2007	Shea Creek / Douglas River	UEX Vests 49% equity in Western Athabasca Projects including Shea Creek and Douglas River	AREVA 51% UEX 49%
2013	Shea Creek / Douglas River	Remaining Douglas River Claims are incorporated into Shea Creek Project	AREVA 51% UEX 49%

6.2 Early Exploration History of the Shea Creek Area

With the nearby discoveries at Cluff Lake, exploration activities by various companies were undertaken on adjacent properties, including parts of the current Shea Creek property. The property was partially or totally held by various companies between 1969 and 1985, with most field activities during this period occurring between 1978 and 1981 (Alexander et al., 1994). Regional studies completed include geophysical surveys (airborne radiometry, magnetometer, ground magnetic, refraction seismic, and VLF EM), prospecting and mapping, and reconnaissance geochemistry.

Earliest exploration work on the property area is documented in 1969. That year, Kamalta Exploration Ltd., Houston Oils and Pentagon Petroleum Inc., and Magellan Petroleum Corporation conducted interpretation of geophysical data, air photo interpretation, and reconnaissance geochemical programs which extended over different parts of the current Shea Creek property. The work included a seismic refraction geophysical survey by Kamalta, and an airborne radiometric survey by Houston Oils and Pentagon Petroleum Inc., the latter which identified two radiometric anomalies in the area. Follow-up ground surveys to the airborne radiometric anomalies did not, however, identify any significant uraniferous occurrences (Alexander et al., 1994).

In 1978, Marline Oil Corporation conducted a program of lake water and lake sediment sampling, surficial prospecting, reconnaissance geological mapping, and a small program of ground magnetic surveying on parts of the current property area, with follow-up ground work in 1979.

6.3 Exploration on the Shea Creek Property, 1990 to 2004

Systematic exploration of the Shea Creek Property began in 1990 after granting of mineral permit MPP-1164 (48,500 hectares) to Amok Limited which covered much of the current property area. Amok initially conducted a 1,515 line-km combined airborne GEOTEM electromagnetic and magnetic survey over the property area which identified the presence of conductive north-northwest and northeast trending zones within basement rocks underlying the Athabasca sandstone sequence (Koch, 1991). The airborne survey results led to the acquisition of exploration mineral permit MPP-1165, adding covering 13,000 hectares to the property area (Alexander et al., 1994). The airborne surveys were followed-up in 1991 with ground EM moving loop, gravity, magnetic, VLF-EM and UTEM surveys on several northeast-oriented lines which verified the position and better outlined the previously identified conductors (Dalidowicz, 1991). During March and June 1992, Amok restaked the area, reducing the original MPP-1164 claim to 12 individual claims (Alonso et al., 1992); these claims incorporate all of the current claim outlines in the Shea Creek Property. Additional ground EM and other geophysical surveys were also conducted in 1992 to further refine conductive anomalies identified on the property.

Amok drilled several of the EM conductors in 1992 with three vertical diamond drill holes, and two incomplete holes totaling 2,738 m (SHE-001 to SHE-003, SHE-001A, and SHE-001B: Alonso et al., 1992). Two of these drill holes, SHE-001A and SHE-002, intersected favorable alteration, faulting and anomalous geochemistry in the lower sandstone column, including reverse faulting, argilization, silicification, (drusy and vein quartz), tilted sandstone blocks, Ni-As sulphides, and bleaching (Alonso et al., 1992). Drill hole SHE-002, drilled in north-central parts of the property, also intersected in basement granitic gneiss approximately 11 m below the unconformity at a downhole depth of 706.8 m a shallow dipping radioactive fault zone (Alonso et al., 1992). This returned an intercept of 0.34% U_3O_8 over 0.40 m, which is considered to be the discovery drill hole of mineralization on the Shea Creek Property.

In 1993 ownership of the Shea Creek Project was transferred to COGEMA Resources Inc. COGEMA continued ground geophysical surveys in 1993 which with the previous surveys identified a prominent, and traceable north-northwest trending conductor termed by Dalidowicz (1993) the “Saskatoon Lake Conductor”. This was defined over several km in northern parts of the property and is spatially associated with the favorable drilling intercept obtained in drill hole SHE-002. Subsequent EM surveys have traced the conductor now over a strike length of more than 25 km over much of the property (Nimeck and Koch, 2008; Figure 6.1). Further geophysical surveys continued in 1994, refining and expanding the EM targets (Alexander et al., 1994).

COGEMA began systematically drill testing well defined portions of the Saskatoon Lake Conductor in northern parts of the Shea Creek property northwest of the SHE-002 mineralized drill hole in 1994. That year, 13 vertical diamond drill holes, SHE-004 to SHE-015, SHE-010A, and SHE-015A, totaling 9,299.5 m were completed, several of which intersected the conductor and confirmed it to be a graphitic gneiss unit (Alexander et al., 1994). More importantly, uranium mineralization was encountered in four of these drill holes (SHE-004, SHE-013, SHE-012, and SHE-015A). The best result in drill hole SHE-015A, which intersected two intervals of mineralization, including 0.126% eU_3O_8 over 9.3 m in perched mineralization hosted by Athabasca Sandstone above its basal unconformity, and at a depth of 719 to 724.5 m at the unconformity, intersected 6.0 m grading 0.305% eU_3O_8. This intercept is now known to lie in the Kianna South area, between the Anne and Kianna deposits. The other mineralized drill holes, SHE-004 and SHE-012, intersected lower grade mineralization at the unconformity at downhole depths of 710 and 768 m, respectively, both now known to lie on the margins of the central Anne Deposit, and thus can be considered to represent the discovery holes for this deposit.

After the successful 1994 exploration program, drilling became the principal means of exploration on the Shea Creek Property. Drilling has been concentrated along a 3 km strike length of the Saskatoon Lake Conductor in northern parts of the property, outlining several areas of uranium mineralization that contain the Anne, Collette, 58B and Kianna deposits. Subsequent exploration programs on the property are as follows, up to the signing of the option agreement with UEX Corporation in 2004:

- **1995:** 17,390 m of drilling in 22 drill holes (SHE-016 to SHE-033, and SHE-032B and DGS-002 to DGS-004) followed up the 1994 results (Alexander et al., 1995). The first hole of this program, SHE-016, which was drilled between the previous SHE-004 and SHE-012 intersections, encountered 4.323% U_3O_8 over 9.10 m at the unconformity in the Anne Deposit.

- **1996:** 14,033 m of drilling in 22 diamond drill holes (SHE-034 to SHE-050, including SHE-34A, SHE-038A, and SHE-040A, SHE-047A, and DGS-005). Most holes were completed in the principal mineralized corridor in the northern Shea Creek property, and two holes (1,041 m) were completed on the SC-2 grid located on the southern Shea Creek claims (Munholland et al., 1996). Eleven holes intersected varying amounts of mineralization, mainly in the Anne Deposit. The best intersection was obtained from drill hole SHE-038A which intersected 2.60 m grading 8.664% U_3O_8 located in the sandstone immediately above the unconformity between the Anne and Kianna deposits. No significant intercepts were obtained in the more regional holes to the north or south, although a graphitic fault zone was intersected in one hole (Munholland et al., 1996).

- **1997:** 18,995.4 m of drilling in 28 drill holes (SHE-051 to SHE-066) were completed on the northern Shea Creek property (Robbins et al., 1997). Drill hole SHE-052, which intersected 16.8 m grading 2.342% U_3O_8 at the unconformity, is considered the discovery hole in the Colette Deposit (Robbins, 2006). Also drilled during this program was drill hole SHE-063B, now considered to be the Kianna Deposit discovery hole (Koning et al., 2007) which encountered 4.70 m grading 1.639% U_3O_8 at the unconformity. However, the full significance of this drill hole and the recognition of the Kianna Deposit were not apparent until subsequent drilling in 2004 and 2005. In the Douglas River part s of the property to the north, drill holes (DGS-006 to DGS-

011, and DGS-008A) targeted the Saskatoon Lake Conductor. The best result was DGS-010 that graded 3.49% eU_3O_8 over 5.3 m from 690.5 metres (Robbins et al. 1997).

- **1998:** 25,212.4 m of drilling in 33 holes (SHE-067 to SHE-093, DGS-012 to DGS-015, SHE-067A, and SHE-068A) were completed, with most of the drill activity concentrated in the Collette Deposit area. Six diamond drill holes were completed in the Anne Deposit, which further defined mineralization in both areas (Robbins et al., 1998). Intersections included up to 11.607% U_3O_8 over 6.00 m in hole SHE-087 at the unconformity in the Anne Deposit. In addition to the drilling, moving loop electromagnetic (31.9 line-km) and gravity surveys (28.2 line-km) provided additional data required to better define major conductors, and 510 line-km of airborne helicopter VLF-EM surveying was completed over various parts of the property (Robbins et al., 1998).

- **1999:** 10,093.3 m of drilling with 33 unconformity intersections were completed (8 vertical pilot drill holes and 25 directional cuts – 33 holes total). This was the first year wedging off pilot holes was used extensively at Shea Creek (Robbins et al., 1999), a technique which was implemented in most subsequent drilling programs. The 1999 drilling campaign focused on expanding the boundaries of mineralization in the Anne Deposit. The drilling identified the potential for significant basement mineralization below the unconformity, as exemplified by the broad intersection of 5.419% U_3O_8 over 19.00 m straddling the unconformity in drill hole SHE-096-3, followed by two significant intercepts in underlying basement rocks of 18.0 m grading 0.76% U_3O_8 and by 20.80 m grading 0.92% U_3O_8.

- **2000:** 8,547.3 m of drilling with 33 unconformity intersections (4 vertical pilot holes and 29 directional cuts) followed up previous drilling results in the northern Shea Creek property between, and within, the Anne and Collette deposits (Robbins et al., 2000). Multiple mineralized intercepts were obtained.

- **2001:** No exploration was conducted on the property in 2001.

- **2002-2003:** No drilling was conducted on the property in 2002 or 2003. Exploration comprised 158 line-km of MEGATEM electromagnetic and magnetic airborne surveys which outlined alternating domains of linear magnetic highs and lows, with the latter corresponding to area of known conductors (Koning et al., 2007). In 2003, 20.0 line-km of UTEM Moving Loop survey, 24.0 line-km of gravity surveys, and 44.8 line-km of additional GPS surveys were carried out over the southern portion of the Shea Creek property (Claims S-104625 and S-104626) to refine and identify exploration targets in that area (Bingham and Koning, 2003).

- **2004: January to March (winter program):** 1,578.6 m of drilling in three diamond drill holes (SHE-106 to 108) were completed to target geophysical anomalies in the southern Shea Creek property and follow up earlier drill holes (SHE-001B, SHE-039, and SHE-041; Robbins and Williamson, 2004). Although no significant results were received these holes provided valuable geological information and intersected local desilicification suggesting hydrothermal activity in this sparsely tested area (Robbins and Williamson, 2004).

In March 2004, UEX and COGEMA (now ORANO) signed the Agreement, whereby UEX funded all exploration on the Shea Creek property until it earned its 49% interest in December, 2007 (see UEX's news release dated January 11, 2008). A summary of exploration activities conducted on the property since UEX initially acquired its option in 2004 and maps showing drilling locations are presented in Section 9 of this report.

6.4 Historical Resources

There are no historical resource estimates for deposits on the Shea Creek property prior to UEX involvement. Two previous mineral resource estimates for the Shea Creek property were completed in compliance with CIM standards in 2010. It is summarized in Item 1.6 of this report and supported by a Technical Report by Palmer (2010).

6.5 Production

No uranium mining, or any other forms of metallic mineral production have occurred on the Shea Creek property.

7 GEOLOGICAL SETTING AND MINERALIZATION

The geological setting, potential structural controls on mineralization, and style of mineralization on the Shea Creek property are described in detail in Rhys et al. (2009), which is filed on SEDAR and available for additional reference. The information presented here summarizes and updates that information, which is based on the author's direct review of drill core and exploration data.

7.1 Regional, Local and Property Geology

The Shea Creek property is in the western Athabasca Basin of Northern Saskatchewan. It is underlain by two dominant lithologic elements: (i) polydeformed metamorphic basement rocks of Archean and Proterozoic age, which are overlain by (ii) 400 to 800 m of flat lying to gently dipping, post-metamorphic quartz sandstone of the late Proterozoic Athabasca Group, the latter which forms an elongate, east-west 450 km long Proterozoic sedimentary basin that underlies much of northern Saskatchewan and extends into eastern Alberta. Basement rocks in the western Athabasca area that underlie the Shea Creek region comprise Proterozoic orthogneiss and paragneiss of the Lloyd Domain, which forms part of the Rae Structural Province.

On the Shea Creek property, basement lithologies trend north-northwest and dip moderately to shallowly west-southwest. They comprise an alternating sequence of granitic gneiss, diorite gneiss, and pelitic gneiss (Kareen Lake Assemblage) which are affected by amphibolite grade metamorphic assemblages. The latter includes the Saskatoon Lake Conductor, a graphite bearing pelitic gneiss unit which is spatially associated with uranium mineralization. This pelitic gneiss unit in the northern Shea Creek property, where most mineralization discovered to date is developed, is 40-80 m thick and comprises a graphite-rich pelitic gneiss base, with alternating garnet-rich gneiss and aluminous, locally graphitic pelitic gneiss above. It is surrounded in its hanging wall and footwall by garnetiferous granitic gneiss (Figure 7-1).

The gneiss sequence at Shea Creek was affected by at least two dominant periods of deformation prior to the deposition of the Athabasca sandstone:

a) Penetrative syn-metamorphic deformation which occurred in at least two phases (D1 and D2), comprising early layer parallel gneissosity (S1) which dips west-southwest, and a second phase, possibly progressively developed S2 foliation. S2 is axial planar to minor, dominantly southwesterly verging folds of S1, and frequently transposes S1 foliation resulting in a composite S1-S2 fabric.

b) Development of northeast-trending, right-lateral/oblique lower amphibolite to greenschist grade mylonitic shear zones (D3), which include the major Beatty River Shear zone at the southern end of the Shea Creek property (Figure 7-1), and numerous, parallel northeast trending second and third order narrow dextral mylonitic shear zones developed to the north which offset the Saskatoon Lake Conductor.

Regional relationships and geochronology suggest that D1 and D2 occurred during the 1950-1900 Ma Tahlston orogeny, while formation of D3 dextral regional shear zones occurred in several phases during regional transpressive deformation potentially related to the Hudsonian orogeny between 1900 and 1740 Ma. Offsets associated with the D3 shear zones may have a fundamental, pre-mineralization control on the later position of development of uranium mineralization.

The folded basement sequence was eroded and then unconformably overlain by flat-lying, quartz arenite dominated Athabasca Group sandstone between 1769 and 1500 Ma. Below the unconformity at base of the sandstone, regional clay alteration affects the uppermost tens of metres of the basement gneiss sequence defining a probable paleoweathering profile.

Post-Athabasca faulting is localized along the pelitic gneiss unit that is host to the Saskatoon Lake Conductor as a series of southwest dipping, carbonaceous reverse faults that are most concentrated along graphitic gneiss (R3 fault) at the base of the unit. These result in a 20 to 50 m southwest side up zone of distributed displacement of the unconformity, which in the sandstone column is manifested by a broad, open monoclinal fault-related fold. Individual fault surfaces are often localized along foliation parallel, probably D3 age, reverse shear zones in the pelitic gneiss, and are developed as a combination of semi-brittle stylolitic shear zones and clay gouge-field faults. The semi-brittle, stylolitic fault surfaces extend into the basal Athabasca sandstone where they locally overprint mineralized chlorite-matrix breccias, indicating that this fault activity may have coincided with, and locally outlasted alteration related to uranium mineralization.

Post-Athabasca faulting also includes local remobilization of the steeply dipping, northeast trending mylonites which offset the pelitic gneiss unit by further right-lateral displacement, and a series of east-west to east-northeast trending low displacement faults with apparent left-lateral shear sense. These northeast, and east-west trending steeply dipping fault sets coincide with areas of highest-grade uranium mineralization at the unconformity, and are host to, or control underlying uranium mineralization in basement rocks. Their activity and probable interaction with active, foliation parallel R3 reverse faults may have generated structural permeability and extensional settings for the focus of uranium mineralization. In addition, the stylolitic fabrics and reduced assemblages along the R3 faults suggest a phase of syn-tectonic fluid flow which if coeval with uranium mineralization may have been the reduced fluid source that reacted with oxidized fluids from the Athabasca basing to form the stationary redox fronts in which uranium mineralization is localized.

The Athabasca sandstone is affected to the north of the Shea Creek property by the Paleozoic age Carswell structure, a circular, probable meteorite impact structure which results in uplift of basement rocks and significant disruption of basement rocks (Figure 7-1). It is here that the past producing Cluff Lake uranium deposits have been exposed at surface near the disrupted Athabasca unconformity surface. No effects of the Carswell event are present in the Shea Creek area.

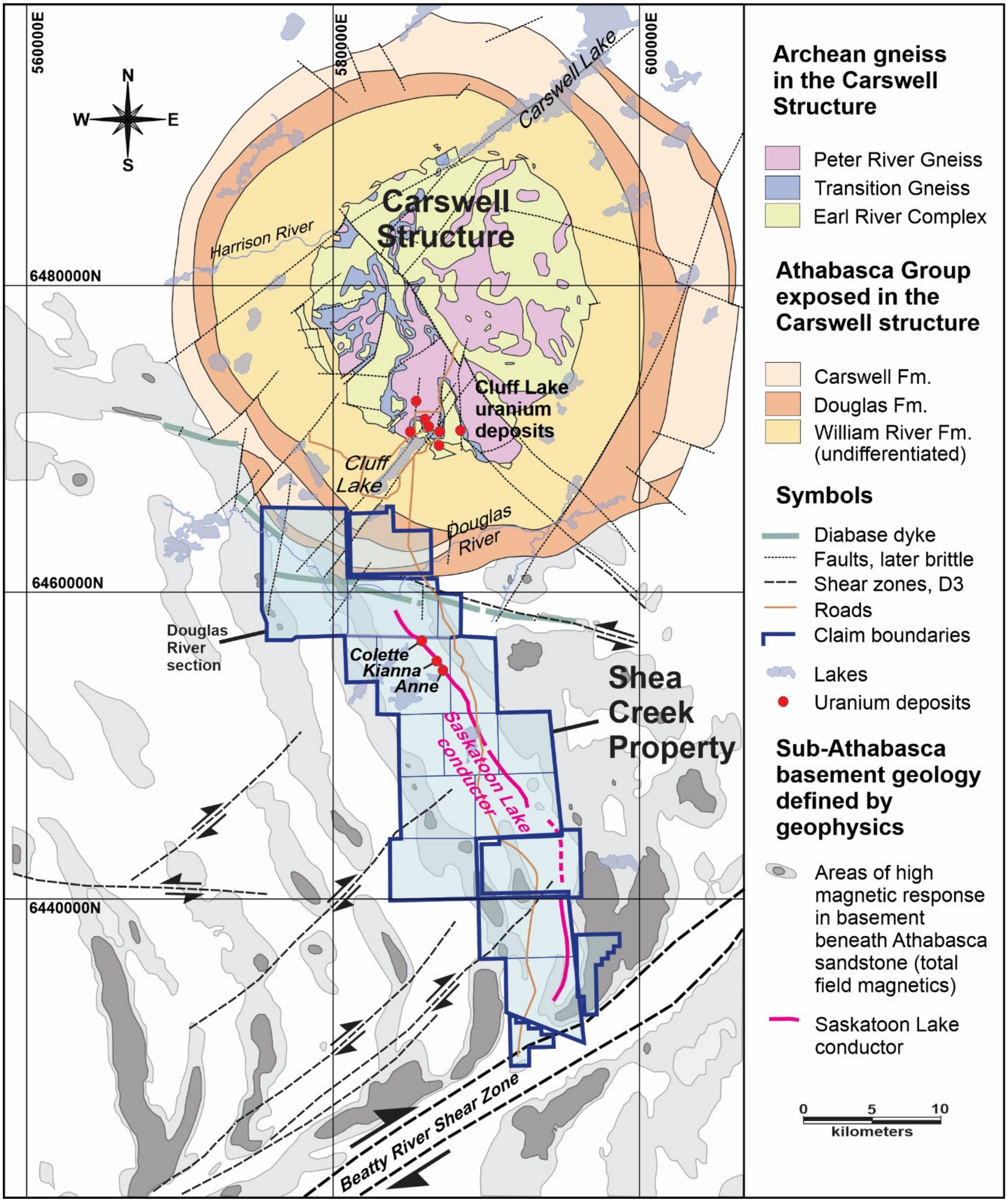

Figure 7-1: Geological setting of the Shea Creek property. Compiled from geophysical maps, with geology of the Carswell structure from Tona et al. (1985) and Koning and Robbins 2006

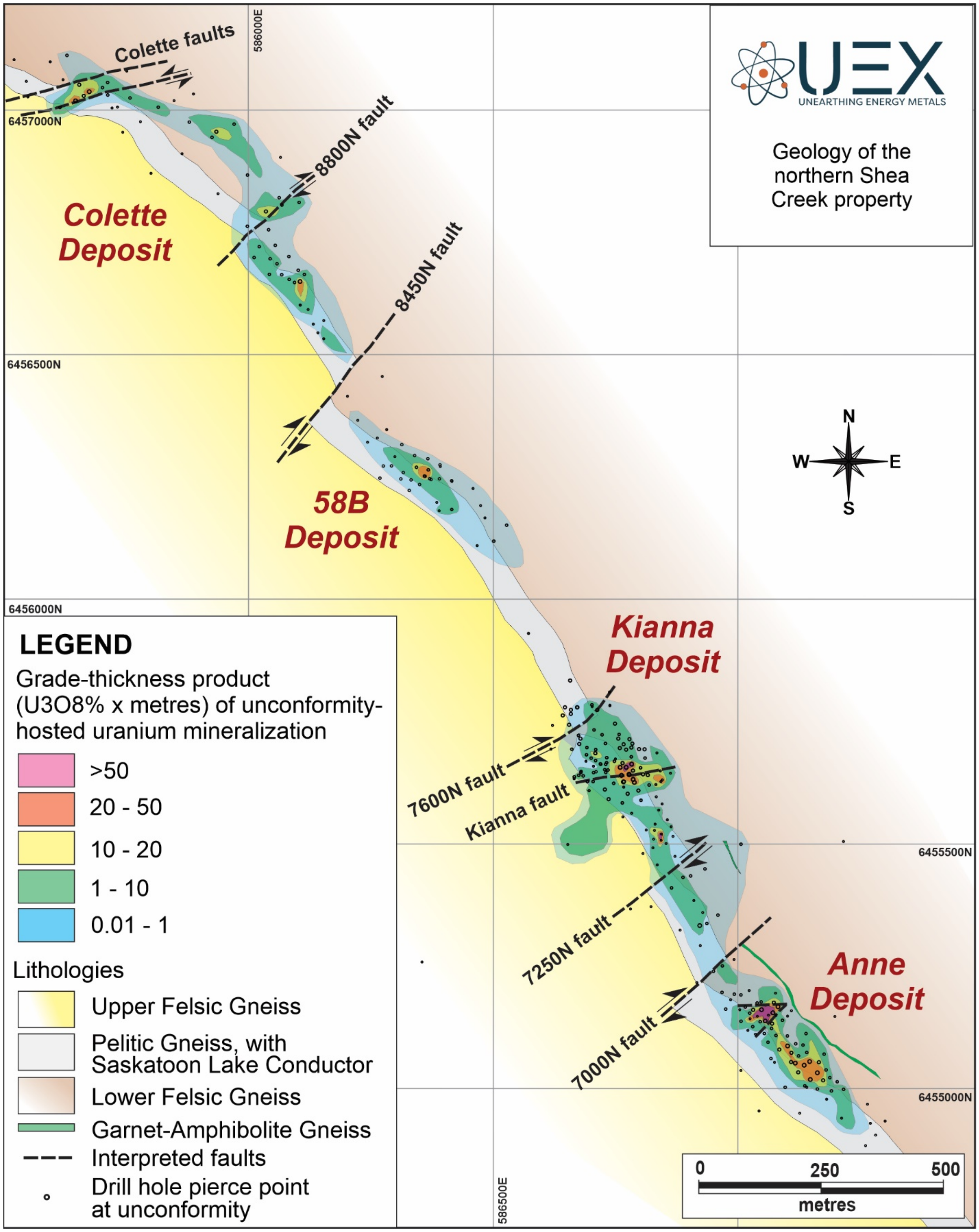

Figure 7-2: Shea Creek Project Basement Geology at the Unconformity

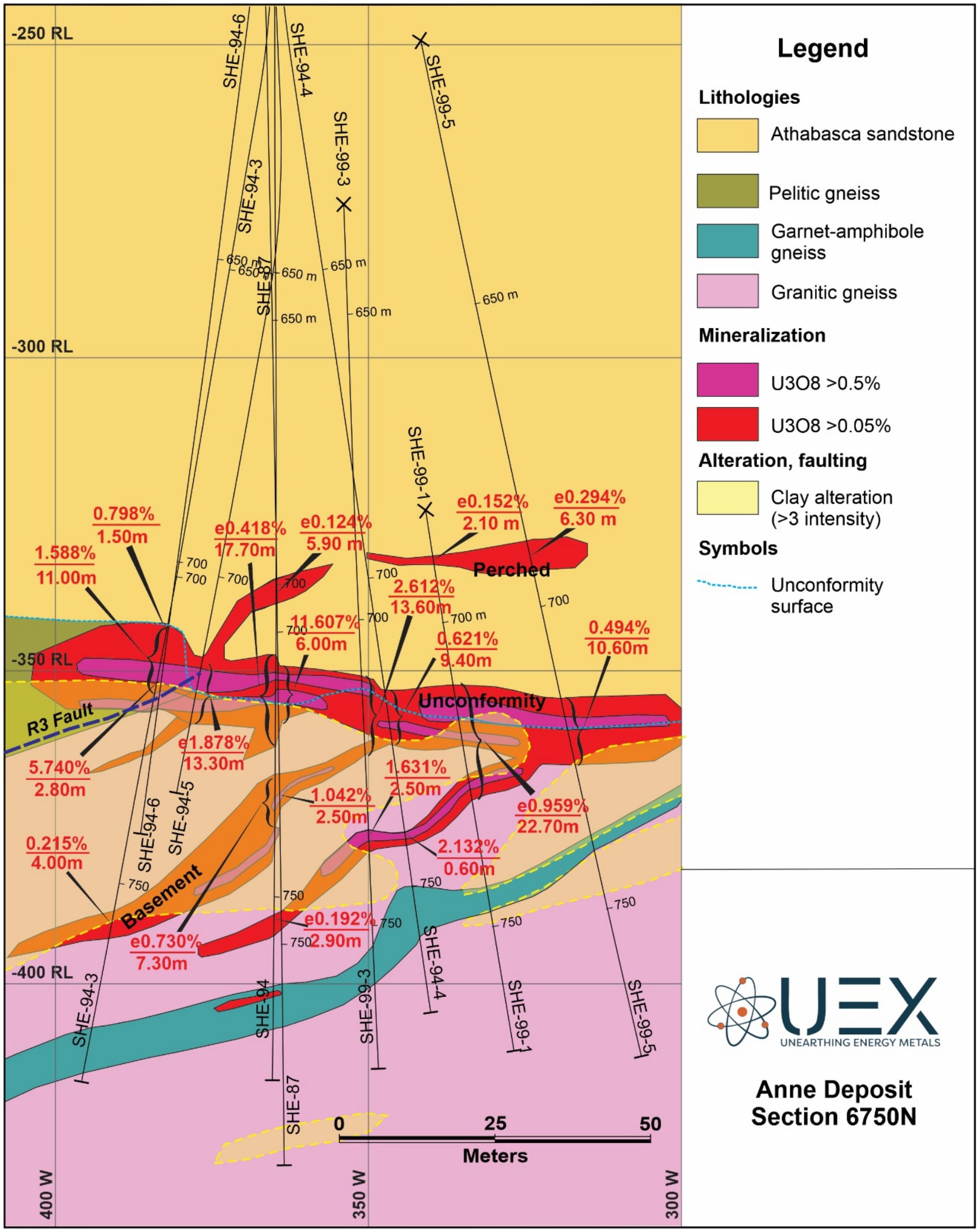

Figure 7-3: Cross section through the Anne Deposit looking northwest. Note the three settings of uranium mineralization: concordant basement below dipping shallow southwest parallel to the gneissosity, shallow dipping unconformity mineralization at center, and a small pod of perched mineralization in the Athabasca sandstone at upper right. See Figure 10.1 for section location

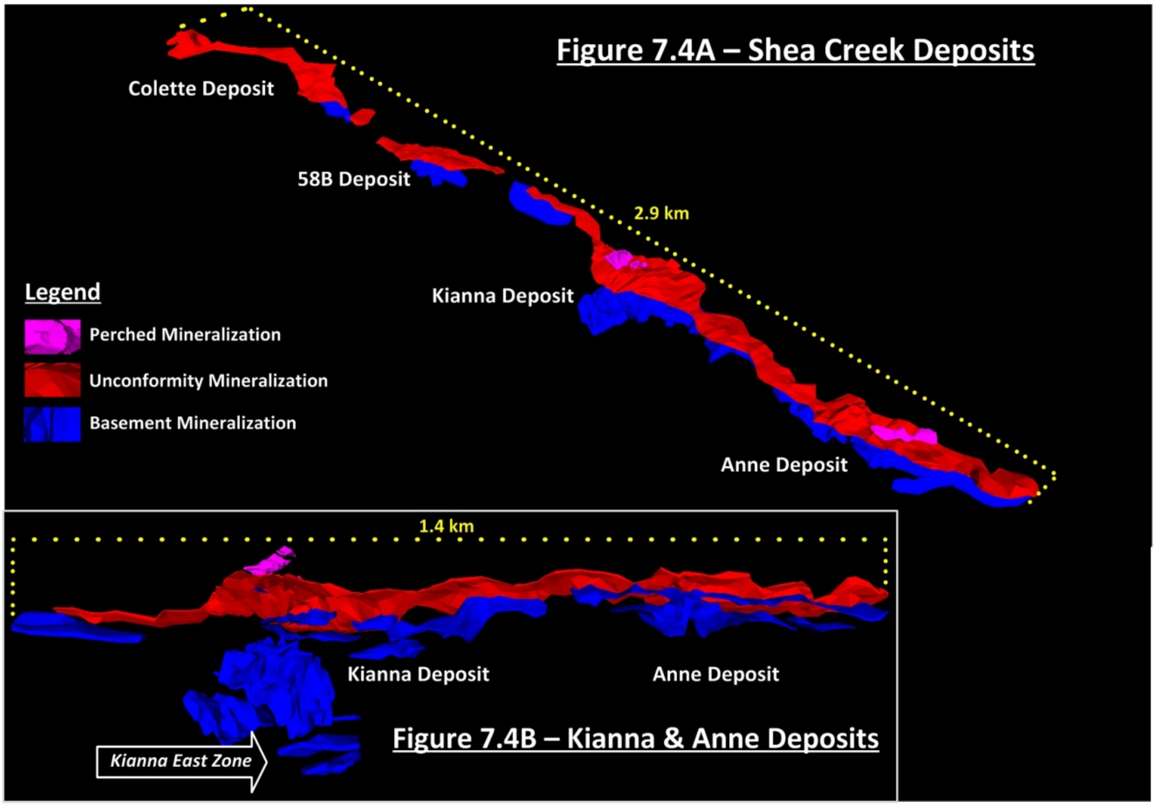

Figure 7-4: Views of the modeled mineralized zones in the Shea Creek deposits. A (top): Oblique View of wireframe model of the Shea Creek deposits looking north. Distance from northwest end of Colette Deposit to southeast end of Anne Deposit is 2.9 km. **B: (inset, bottom)**: Longitudinal section view of wireframe model of the Kianna and Anne Deposits looking northeast. Distance of longitudinal section is 1.4 km

7.2 Uranium Mineralization

Uranium mineralization identified to date on the Shea Creek property lies in northern portions of the property, comprising the Kianna, Anne, Colette, and 58B deposits and intervening mineralization in between them. These deposits occur along an approximately 3 km strike length of the north-northwest trending pelitic gneiss unit (Figure 7-2, Figure 7-4) that is host to the Saskatoon Lake Conductor at depths of 650-800 m below current surface beneath the overlying Athabasca Group sandstone. Within this corridor, drilling has been focused in three areas in which semi-continuous mineralization has been traced at the unconformity (Figure 7-2): a) the Colette and Colette South areas, over a 0.9 km strike length, b) the 58B Deposit area, which occurs over a 0.4 km strike length, and c) the Kianna to Anne deposit areas, over a 1.4 km strike length (Figure 7-4) which forms the most economically significant part of the mineralizing trend known to date. Areas in between these deposits locally have limited drilling and have high potential for discovery of additional mineralization. Elsewhere on the property, drilling is widely spaced, but mineralization has locally been intersected 2 km southeast of the Anne Deposit, and 300 m north of the Colette Deposit, the latter which includes an intersection in drill hole DGS-10 that grades 0.53% eU_3O_8 over 3.7 m at the sub-Athabasca unconformity.

Mineralization of three styles is developed within these mineralized domains at Shea Creek, based on its position with respect to the Athabasca unconformity, and overall morphology. The mineralization styles (Figure 7-3) are often developed together and may join, as is illustrated in Figure 7-3, or can occur separately. These styles comprise:

1) **Unconformity-hosted uranium mineralization (**Figure 7-5**):** This is the most widespread style of mineralization identified to date. It forms gently dipping to flat-lying zones that are developed in lowermost Athabasca sandstone immediately above the sub-Athabasca unconformity or straddling the unconformity and extending downward for several metres into the underlying basement gneisses. The mineralization typically is elongate in plan view, occurring at the unconformity over a 40 to 150 m lateral width along the trace of the northeastern margins of the pelitic gneiss unit where it intersects the unconformity, and extending over parts of the footwall granitic gneiss. Mineralization in high grade areas may comprise massive, nodular or blebby pitchblende +/- coffinite +/- yellow U-silicates in a hematite-clay matrix (Figure 7-3). In lower grade areas, unconformity hosted mineralization may be disseminated in chlorite-clay-dravite alteration. The mineralization of all grades is often associated with, and occurs within, chlorite-dravite dissolution breccias in the basal sandstone.

2) **Basement-hosted mineralization (**Figure 7-6**):** This is the second most extensive style of mineralization, occurring in several portions of the Anne Deposit, in a large zone at Kianna, in the Colette South area, and in parts of the 58B Deposit. Basement hosted mineralization is developed mainly in granitic gneiss for up to 200 m below the sub-Athabasca unconformity, immediately beneath, and for up to 180 m below, the pelitic gneiss unit and associated R3 faults. It is variable in style and morphology and is associated with areas of intense white to pale green clay-chlorite alteration. Basement mineralization can be either concordant or discordant in style, with the two styles often occurring together, or branching off one another. Interaction between concordant and discordant mineralization styles forms oreshoots within basement mineralization that plunge moderately to gently to the west-southwest. These two basement mineralization styles occur as follows:

    a) *Concordant basement mineralization*, which occurs in the southern Anne and South Colette deposit areas and parts of Kianna, forms dominantly gently to moderate west-southwest lenticular zones that are parallel or sub-parallel to gneissosity in the granitic gneiss. This mineralization style may form stacked zones that are separated from, or splay off unconformity-hosted mineralization, and which often follow southwest dipping fault surfaces or lithologic units. Where present, a garnet-amphibolite gneiss ("metabasite") subunit may be preferentially mineralized, the most notable example of which forms a significant pod of mineralization in the main Kianna basement zone (GAMP Zone). The Kianna East Zone represents a concordant basement mineralization style which lies along the upper contact of a deep graphitic unit that is parallel to the Saskatoon Lake Conductor.

    b) *Discordant basement mineralization*, which is best developed in the main Kianna basement zone and in the northern Anne Deposit, is defined steeply dipping, easterly trending mineralized zones of disseminated and nodular and locally massive replacement style pitchblende +/- coffinite +/- hematite +/- U-silicates, and by sets of pitchblende +/- quartz +/- clay veinlets. Core re-orientation utilizing known foliation orientation and oriented core drilling suggest that the veinlets trend east-northeast with moderate to steep northerly dips, parallel to the discordant zones.

3) ***Perched mineralization:*** This is the least voluminous of the three mineralization styles. It comprises flat lying, to gently southwest dipping lenses of disseminated to massive pitchblende-coffinite-hematite-clay mineralization that are developed in Athabasca sandstone up to 60 m above the sub-Athabasca unconformity. Perched lenses may occur stacked above unconformity mineralization with no associated faulting, or may occur along, or at the termination of, southwest dipping faults where they project upward into the Athabasca sandstone form pelitic gneiss below.

   Where best developed and highest grade, all three mineralization styles may be vertically stacked on top of one another. These stacked, better developed areas of mineralization may be localized where steeply dipping, discordant east-west to northeast trending faults interact with and intersect the foliation-parallel faults at the unconformity creating zones of high dilatancy and structural permeability. Pre-Athabasca basement structural architecture may play an important role in localizing these higher-grade areas, since where the Saskatoon Lake Conductor is offset by northeast-trending dextral mylonitic shear zones, faults localized along the conductor may step and splay as they link across the area of offset. In addition, the older shear zones themselves may be remobilized and host, or control adjacent mineralization. Basement mineralized zones may be mantled by sheeted sets of quartz and quartz-dravite veins, although pre-mineralization veins associated with mylonites are also evident.

All types of uranium mineralization are associated with extensive clay alteration which affects the lower sandstone and extends downward into basement rocks. Principal clay minerals are illite, chlorite, kaolinite, and dravite. Often an early phase of illitization is evident, while kaolinite is generally paragenetically late. Extensive areas of chlorite-clay-dravite matrix breccias occur along the unconformity in the basal sandstone column and are spatially associated with unconformity-hosted mineralization. Presence of both pitchblende fragments in breccia, and the overprinting of the breccia matrix by pitchblende-coffinite assemblages indicate a syn-mineralization timing, which was probably also coeval with reverse faulting along the R3 structures. In basement rocks, clay alteration envelops mineralized zones and outlines their general morphology, so modeling of these forms a targeting tool. An extensive northeast-trending and steeply dipping clay alteration zone at Kianna is open to the east and west, and contains to the north and east unbounded mineralization, providing significant room for expansion of Kianna basement mineralization, and the potential for additional, parallel basement zones.

7.3 Gold Mineralization

Gold was a significant by-product for some of the nearby, historically mined Cluff Lake mineralization (Cluff Lake D zone: Koning and Robbins, 2006), and at Shea Creek locally high gold grades are also present. The high gold grades frequently, but not always, occur in areas of higher-grade uranium mineralization, and can be present both in unconformity and basement mineralization in the deposits in the northern Shea Creek property. Native gold grains both encapsulated in pitchblende, sometimes in association with Bi-tellurides, and free in the surrounding clay alteration has been identified in samples from basement and sandstone mineralization (Pacquet and Reyx, 1995 and Reyx in Robbins et al., 1998). Significant gold-bearing intercepts include 20.79 ppm Au over 2.40 m in drill hole SHE-087, 14.02 ppm Au over 3.30 m in hole SHE-115-03, 13.75 ppm Au over 2.50 m in hole SHE-079, 9.70 ppm Au over 3.50 m in hole SHE-102 and 5.95 ppm Au over 5.70 m in hole SHE-115-04. Higher grade uranium mineralization is not consistently gold-enriched, however. Future work to establish patterns of gold distribution are recommended, especially to identify if any consistent local gold-enriched domains can be identified which might enhance the potential value of parts of the deposit.

A: SHE-050, 722-724 m: Kianna South area

B: SHE-115-3, core from 744-746 m: Kianna deposit

C: SHE-122-1, 717 m: Anne deposit

D: SHE-95-3, 721 m: Anne deposit

Figure 7-5: Unconformity hosted mineralization textures. A: Centre row shows the top of a moderate grade intercept of unconformity mineralization (1.3% U_3O_8 over 2.7 m) with fine-grained disseminated and nodular pitchblende at the margin of the red hematite zone which is host to most of the mineralization (right). Sandstone at the left is reduced in oxidation state and is pyritic. **B & C:** Black primary pitchblende occurs as disseminated nodules and clots, irregularly shaped massive aggregates, and semi-pervasive replacements in a red-orange hematite-clay matrix which completely replaces the basal Athabasca sandstone. **D:** Very high-grade interval of massive pitchblende from interval grading 58.1% U3O8 over 3.0 m. Note late carbonate-hematite veinlets cutting mineralization.

A: SHE-115-5, 794.5-795 m, Kianna Deposit

B: SHE-115-11, 862.2-865.3 m, Kianna Deposit

C: SHE-096-03, 733.6-737 m, Anne Deposit

D: 744.5 m, SHE-122-01, Anne Deposit

E: SHE-115-06, 875.8-877.6 m, Kianna deposit

F: SHE-088, 759.6 m, Anne deposit

Figure 7-6: Basement mineralization styles in the Kianna and Anne Deposits. A: Irregular bands of semi-concordant high-grade pitchblende -?coffinite in the top row occur in an interval grading 30.42% U_3O_8 over 0.5 metres. Note clay-hematite altered granitic gneiss below **B:** Central parts of a high-grade basement intercept (5.38% U_3O_8 over 16.5 m), showing semi-concordant, but diffuse bands of pitchblende-hematite. This forms part of a gently southwest dipping high-grade, concordant lens (west-southwest plunging oreshoot) within the overall steeply dipping, northeast-trending Kianna basement zone. **C:** Band of concordant, hematite-rich mineralization in lower row, which has lenses, and bands of pitchblende-? coffinite-hematite parallel to foliation planes **D:** Irregular (“vermiform”) textured fine-grained nodular-pitchblende-hematite replacement mineralization which occurs at a redox front. **E:** In the lower core, a steeply dipping banded pitchblende (dark bands)-hematite-clay discordant replacement vein at a low core axis angle cuts across the gneissosity at a high angle. The gneissosity is parallel to the fractures in the lower core row. **F:** Discrete, steeply dipping pitchblende veinlet

8 DEPOSIT TYPES

The Shea Creek property lies within the Athabasca Uranium District, one of the most prolific uranium producing regions in the world, and which includes some of the largest known uranium deposits globally. Deposits in the Athabasca Basin collectively comprise different varieties of the unconformity-associated uranium deposit type described by Jefferson et al. (2007), Ruzicka (1996) and previous workers. All are spatially related to the sub-Athabasca unconformity (Figure 8-1), and are generally interpreted to result from interaction of oxidized diagenetic-hydrothermal fluids with either reduced basement rocks, and/or with reduced hydrothermal fluids along faults extending upward toward the unconformity in underlying basement rocks beneath the unconformity (e.g. Hoeve and Quirt, 1985). The common occurrence of mineralization in, and associated alteration overprinting Athabasca sandstone, indicates a post-Athabasca (<1,700 Ma) timing for uranium mineralization in the region. U-Pb age dates obtained from uraninite mineralization and dating of associated clay mineral assemblages support a widespread, primary phase of uranium mineralization in deposits throughout the Athabasca Basin at approximately 1590 Ma, with later periods of partial uranium remobilization and reworking (1400 Ma and younger episodes) during later fluid circulation induced by far-field events (Alexandre et al., 2009; Fayek et al., 2002; Cumming and Krstic, 1992).

Uranium deposits in the Athabasca Basin area form three different, although commonly spatially related, styles of unconformity type uranium deposits (e.g. Figure 8-1), the first two of which correspond with mineralization styles observed at Shea Creek:

c) Deposits developed at, or just above, the Athabasca unconformity in Athabasca sandstone where basement hosted, often graphitic faults and shear zones intersect the sub-Athabasca unconformity. These deposits occur in basal Athabasca sandstone in the footwall wedge to graphite-bearing shear zones and faults that are graphitic gneiss overthrust on Athabasca sandstone (e.g. Collins Bay A, B and D-zones; Key Lake), or in gradational drops/humps in the unconformity above graphite-rich lithologies and faults (e.g. Cigar Lake, Cluff Lake A zone; Midwest Lake; Sue A/B, West Bear, McClean Lake). Mineralization occurs in pods and disseminations in Mg-chlorite-clay-hematite alteration, locally overprinting spatially associated breccias and zones of intense clay alteration that sit directly above mineralization in sandstone (Figure 8-1). Common structural sites include bends and steps in fault systems, or humps in the unconformity that may reflect the interaction of graphitic shear zones with faults of different orientations. Deposits of this style are often characterized by assemblages of Ni and Ni-Co arsenide and sulpharsenide minerals that accompany uranium mineralization.

d) Basement-hosted deposits within or surrounding fault zones in predominantly non-calcareous gneiss. These deposits are exemplified by Eagle Point, Millennium, Dominique-Peter and Sue C. Many of these are composed of veins, disseminations and pods that link, or overprint shear zones and faults, often in or near graphitic-bearing gneiss, similar to the Shea Creek discordant basement mineralization styles. Concordant mineralization styles which are parallel to metamorphic stratigraphy are also present, often in gneiss adjacent to graphitic units, as is exemplified by the Millennium Deposit. Unlike deposits of type A above, the basement-hosted deposits generally lack arsenide and sulpharsenide minerals in mineralized zones, although basement hosted mineralization at Shea Creek may be an exception to this pattern since locally Ni and As values are elevated.

e) Basement-hosted deposits associated with hydrothermal breccias in calcareous gneiss and calcsilicate adjacent to northeast-trending faults. The only example of an orebody of this type in the region is the Rabbit Lake deposit in the eastern Athabasca Basin, although parts of the Dawn Lake deposit and other prospects are of similar style, and the largest basement-hosted unconformity deposits in the Alligator River district of northern Australia are closely comparable. This deposit style is not developed on the Shea Creek property.

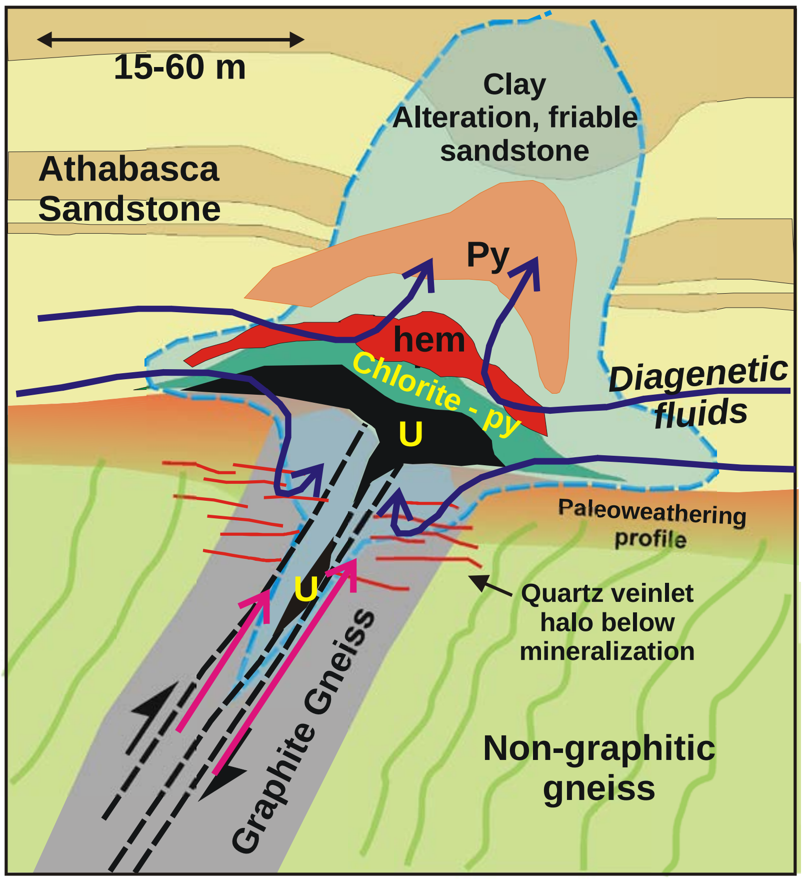

Figure 8-1: Schematic cross section through a hypothetical unconformity-hosted deposit illustrating the diagenetic-hydrothermal model for deposit formation (from Rhys et al., 2009). Uranium mineralization (U) is developed at a stationary redox front where rising reduced fluids coming up graphite-gneiss hosted, low displacement reverse basement faults (pink arrows) react with circulating diagenetic-hydrothermal fluids in the overlying sandstone column (blue arrows). Chlorite-pyrite alteration envelops the mineralization in the basal sandstone column and is overlain by a hematite cap (hem), and then a broad zone of friable, locally clay altered sandstone which rises as a plume above the deposit. Secondary pyrite (py) may occur high in the alteration zone. Note the sheeted quartz veins peripheral to the clay alteration in the basement rocks.

Uranium deposits in the Athabasca region frequently occur in deposit clusters that comprise one or more deposit types. For example, four major uranium deposits, the Collins Bay zones (type A deposits) and the Eagle Point mine (type B), occur along a 5.5 km strike length of the Collins Bay Fault system on the Rabbit Lake property in the eastern Athabasca Basin (Figure 4-1). Other deposit clusters include the Sue, McClean Lake, and Dawn Lake deposits (Figure 4-1), where deposits occur in at least two parallel trends, along which deposits may be strung out along parallel faulted graphite-bearing or calc-silicate units and spaced 100-700 m apart. More locally, the Cluff Lake deposits which lie only 13 to 16 km to the north of the Shea Creek deposits also show similar patterns, although primary relationships between deposits are disrupted by the effects of the Carswell Structure. Here, classic unconformity hosted (A type) mineralization at the Cluff Lake D zone is spatially associated with nearby basement-hosted deposits such as Dominique-Peter (Koning and Robbins, 2007; Baudemont and Fedorowich, 1996). The spatial coincidence of unconformity and basement-hosted deposits emphasizes the importance of testing both the unconformity and basement rocks where mineralization has only been historically discovered at the unconformity. Often where unconformity-hosted and basement mineralization are spatially associated, the basement mineralization forms the larger deposit in the group (e.g. Sue, Dawn Lake, Eagle Point/Collins Bay zones, Cluff Lake). In other deposits, exemplified by Key Lake, dominant unconformity hosted mineralization may extend downward along faults in the basement, forming “roots” to the unconformity-hosted mineralization (Figure 8-1).

Deposits of all of the styles described above are associated with, and generally enveloped by, intense zones of argillic alteration (Figure 8-1) that are composed predominantly of illite, chlorite and kaolinite. The influence of alteration extends over a far greater area than the dimensions of the deposits themselves, and consequently the tracking of alteration distribution, mineral zonation and associated lithogeochemical changes is an important tool in vectoring exploration (Sopuck et al., 1983; Quirt, 2002). In the Athabasca sandstone, alteration plumes may extend hundreds of metres above the unconformity-hosted uranium deposits, while in basement rocks alteration is generally more restricted to the vicinity of associated faults and veins. Mineralization frequently occurs at redox fronts marked by zones of hematization, and a change from sulphide to oxide accessory mineral assemblages (Figure 7-2).

Uranium deposits in the area are generally associated with reverse fault zones that are localized within, or cross graphitic gneiss and carbonate/calc-silicate units, often overprinting pre-Athabasca, retrograde metamorphic shear zones. Post-Athabasca faulting associated with mineralization is generally low displacement, accommodating metres to a few tens of metres of reverse displacement of the sub-Athabasca unconformity. Mineralization occurs in areas of enhanced structural permeability and/or low stress (dilatancy) along faults including fault junctions (e.g. Rabbit Lake), beneath brecciated sandstone under overthrust wedges (e.g. Collins Bay zones; McArthur River), at bends and en echelon steps in the faults (e.g. B-zone), and at dilational jogs (e.g. Eagle Point). These structural sites are in turn influenced at a broader scale by the occurrence of pre-Athabasca folds and basement shear zones, which control the distribution, continuity and morphology of the later faults. Mineralization is generally structurally late in the faulting history, and while basement-hosted mineralization is frequently localized along or adjacent to faults, both mineralization and its associated alteration may overprint fault rocks.

9 EXPLORATION

Since March 2004, when UEX and COGEMA (now ORANO) signed the Shea Creek option agreement, both drilling and geophysical programs have continued to be utilized as principal exploration methods to explore the Shea Creek Property. UEX subsequently funded all exploration on the Shea Creek Property until it earned its 49% interest in December 2007. The work programs from 2008 through 2012 had the expenditures are shared by UEX and AREVA (now ORANO) on a pro rata basis. The 2013 work program was funded by UEX under a supplemental option agreement that is detailed in Item 4 (4.3 & 4.4), wherein UEX earned additional equity in the project. The exploration programs in 2015 and 2016 were funded on a pro rata basis by UEX and AREVA (now ORANO). ORANO is the exploration manager, and all exploration activities are supervised and implemented by ORANO personnel and contractors. Exploration activities conducted on the property prior to UEX acquiring its option on the property in 2004 are summarized in Item 6 of this report.

Exploration programs which have been completed since UEX acquired its option on the Shea Creek property are summarized below. Highlights of mineralized drilling intercepts obtained during these, and prior drilling programs before UEX's involvement, are summarized in Item 10 of this report. Exploration programs that have been completed since March 2004 are as follows:

- **2004 April to December:** 6,472.5 m of drilling with twelve unconformity intersections (6 pilot holes and 6 directional cuts). Drilling was concentrated mainly in northwestern parts of the Anne Deposit (SHE-109 and SHE-112 series holes), and the southeastern Colette Deposit (SHE-110 and 111 series holes), further outlining mineralization in those areas (Robbins, 2005).

- **2004-2005 geophysical programs:** Several airborne and ground geophysical surveys were conducted over the Shea Creek area in 2004 and 2005. Fugro Airborne Surveys conducted MEGATEM airborne electromagnetic and magnetic surveys over the West Athabasca Projects including the Shea Creek property, over which 940.7 line-km were flown (Koning et al., 2007). A Falcon Airborne gravity gradiometer was also flown over the Shea Creek and surrounding AREVA-UEX Western Athabasca Projects between late December 2004 and July 2005 (Nimeck, 2008). The airborne surveys were undertaken to improve understanding of basement geology for property scale drill targeting, and to aid in the identification of alteration zones associated with uranium mineralization. In addition to these airborne surveys, in 2004 and 2005, Patterson Geophysics Inc. carried out a 116.7 line-km pole-pole DC-Resistivity survey on the northern Shea Creek and Douglas River projects. Several low resistivity zones which potentially represent hydrothermal alteration within the Athabasca sandstone were identified, including a north-northwest trending zone that is coincident with the Anne to Colette deposits, parallel areas of low resistivity near the Klark Lake conductor, as well as several other areas west of the Saskatoon Lake Conductor (Figure 9-1; Nimeck, 2005).

- **2005:** 8,443.6 m of drilling with twenty-four unconformity intersections (1 pilot hole and 23 directional cuts) were completed in 2005. Drilling was concentrated in the south Colette area (12 directional drill holes SHE-111-4 to -13) where significant basement mineralization was intersected, and in the area of previous drill hole SHE-63B. In this latter area 11 directional drill holes (SHE-114-1 to –11) and 1 vertical drill hole (SHE-115) intersected significant high-grade mineralization in the basement, leading to the recognition of this area as a discrete deposit, now named Kianna (Robbins and Koning, 2006).

- **2006:** 11,672.1.0 m of drilling with twenty-two unconformity intersections (3 pilot holes and 19 directional cuts) were completed. Most of this program was devoted to continued outlining of the Kianna Deposit in the SHE-114, SHE-115 and SHE-118 series drill holes (Robbins et al., 2007; Reddy et al., 2007). Titan Uranium flew three EM and magnetic surveys covering the Castle North and South Property as well as a part of the Shea Creek and Douglas River Projects, now part of the Shea Creek property. The survey was able to identify the Saskatoon Lake Conductor, but the resolution of an airborne survey was not sufficient for targeting of drill holes and the majority of the subsequent drilling in 2006 and 2007 did not successfully evaluate the drill target. The survey was 5,277 line-km and covered three blocks and was 195 lines and 19 tie lines. The Castle Block is the block relevant to the Shea Creek Project. Line spacing was 400 m between transverse lines and ~4,500 m between tie lines. Survey altitude was 120 metres at 125 knots.

- **2006 & 2007 Titan Uranium Drilling:** Titan Uranium completed 12 drill holes for 7414.6 m on land that has subsequently been added to the project by staking. The exploration program spanned March 2006 to March 2007. Three of the holes were lost in the sandstone and only 9 successfully impacted the sub-Athabasca unconformity. Only one (TUE-06-01) of the nine holes successfully intersected the Saskatoon Lake Conductor and none intersected any anomalous uranium (Dixon and Swain, 2007).

- **2007:** 18,312.2 m of drilling with thirty-six unconformity intersections (12 pilot holes and 24 directional cuts) further explored the Kianna Deposit and parts of the southeastern Colette area (Koning et al., 2007). In addition, two drill holes were completed in southern parts of the Shea Creek property (SHE-119 and SHE-120; Modeland et al., 2008).

- **2008:** 19,543.8 m of drilling with forty-four unconformity intersections (7 pilot holes and 37 directional cuts) were completed in 2008. Most drilling continued to define the Kianna and Anne deposits, including a series of holes drilled to assess the continuity of mineralization between these two deposits. Six drill holes (one pilot hole and five directional cuts) extended mineralization southward in the south parts of the Colette deposit. In addition to the drilling, a 50 km ground magnetotelluric (MT) survey and a Low Temperature Superconducting Quantum Interference Device (SQUID) TEM (Time-domain Electromagnetic) survey were completed over the northern Shea Creek property, with both methods yielding promising results which could aid in drill hole targeting.

- **2009:** 21,791.1 m of drilling with fifty-four unconformity intersections (3 pilot holes and 51 directional cuts) were completed in 2009. Drilling during the 2009 program concentrated on four principal areas at Shea Creek: (i) infill and step-out drill holes at the Kianna Deposit, (ii) infill drilling at the Anne Deposit, (iii) exploration drill holes between Anne and Kianna, and (iv) exploration drill holes in the 58B Deposit area between the Kianna and Colette deposits. Drill hole SHE-114-20 substantially upgraded the eastern portion of the basement mineralization in Kianna. The SHE-109-series of drill holes further outlined mineralization in the northern Anne Deposit. The SHE-131 series drill holes filled large gaps in previous drilling at the southeastern end of Anne. Drilling between the Anne and Kianna deposits in the SHE-37, 50 and 121 series drill holes better-defined the unconformity mineralization. Drilling of one new pilot hole and two directional cuts (133 series) in the 58B deposit area intersected structurally controlled mineralization in the basement.

- **2010:** 18,955.6 m of drilling with thirty-nine unconformity intersections (3 pilot holes and 36 directional cuts) were completed in 2010. Drilling in 2010 focused on the Kianna Deposit to test open areas of basement mineralization and test for hanging wall mineralization in new zones which lie to the north of Kianna as well as the further expansion and delineation of the 58B Deposit. Highlights of the program included the confirmation that the 58B target area represents a new uranium deposit along the Shea Creek trend, discovery of a new basement mineralized zone immediately to the northwest of the Kianna Deposit intersected by SHE-136 series drill holes, and expansion of the footprint of higher-grade areas of the Kianna unconformity mineralization.

- **2011:** 22,392.8 m of drilling with forty-seven unconformity intersections (6 pilot holes and 44 directional cuts) were completed in 2011 The drilling program focused on a) expanding basement mineralization at the Kianna Deposit, including a new south- to southeast-dipping zone of mineralization (GAMP Zone) which exploits a mafic unit within the hosting gneiss sequence, b) testing open areas of mineralization at the Colette Deposit which was expanded to the north, and c) drilling of untested areas between the Kianna and 58B deposits. In addition to the drilling, a 51.2 line-km ground Moving Loop SQUID TEM survey was carried out to better define the southern extent and morphology of the Saskatoon Lake graphitic conductor.

- **2012:** 11,406.5 m of drilling with twenty-nine unconformity intersections (29 directional cuts) were completed in 2012. The drilling program focused on a) testing the continuity of mineralization in the northern portion of the Colette Deposit, b) further delineation of the 58B Deposit, and c) testing margins of the northern and southwestern parts of Kianna as well as east of the main Kianna Deposit, including and the discovery of a new zone of basement mineralization (Kianna East Zone) to the east of the main Kianna Deposit.

- **2013:** 12,375.6 m of drilling with twenty-three unconformity intersections (5 pilot holes and 18 directional cuts) were completed in 2013. Off-cuts SHE-135-16 & SHE-135-17 in addition to SHE-142 and SHE-142-1 through SHE-142-4 (Including SHE-142-4A, -142-4B, and -142-4C) tested the unconformity and basement mineralization in the Kianna deposit The program also tested the Saskatoon Lake Conductor to the south of the Anne Deposit, and additionally 2 pilot holes and 3 off-cuts targeted the Saskatoon Lake East Conductor in the Kianna deposit area to test whether mineralization was continuous to that feature. A 50.4 line-km Tensor Magnetotelluric (MT) survey along 14 profiles as an extension of the 2008 survey was completed in the areas to the north of the Collette Deposit and south of the Anne Deposit to further define the resistivity-low trend associated with the Shea Creek Deposits and characterize basement conductors.

- **2015:** 7,941.7 m of drilling in seven pilot holes and five directional cuts were completed in 2015 to test the Saskatoon Lake Conductor to the south of the Shea Creek Deposits. The geophysical component of the program was a 31.0 line-km EM ground survey on 7 profiles in the southernmost claims of the Shea Creek Property covering the southern part of the Saskatoon Lake Conductor. This survey to better characterize the conductor and refine its location (Gudmundson et al. 2017).

- **2016:** 4,099 m of drilling were completed in seven drill holes in the southern part of the property to test the results of the 2015 geophysical survey. The best result from the program was minor uranium anomalism on a fractur surface that was 4,490 ppm $U_{(partial)}$ (Gudmundson and Zalutskiy, 2017). In total to December 31, 2021, 563 drill holes totaling 278,889 m of drilling have been completed on the Shea Creek property since systematic exploration began in 1992 (Table 9-1). Since UEX initially acquired its option to earn 49% of the property in 2004, 371 drill holes totaling 171,001.1 m have been completed, in addition to the airborne and ground geophysical surveys mentioned above. Drill hole locations are shown in Figure 9-1 and Figure 9-3, and significant intercepts are discussed in Section 10 below.

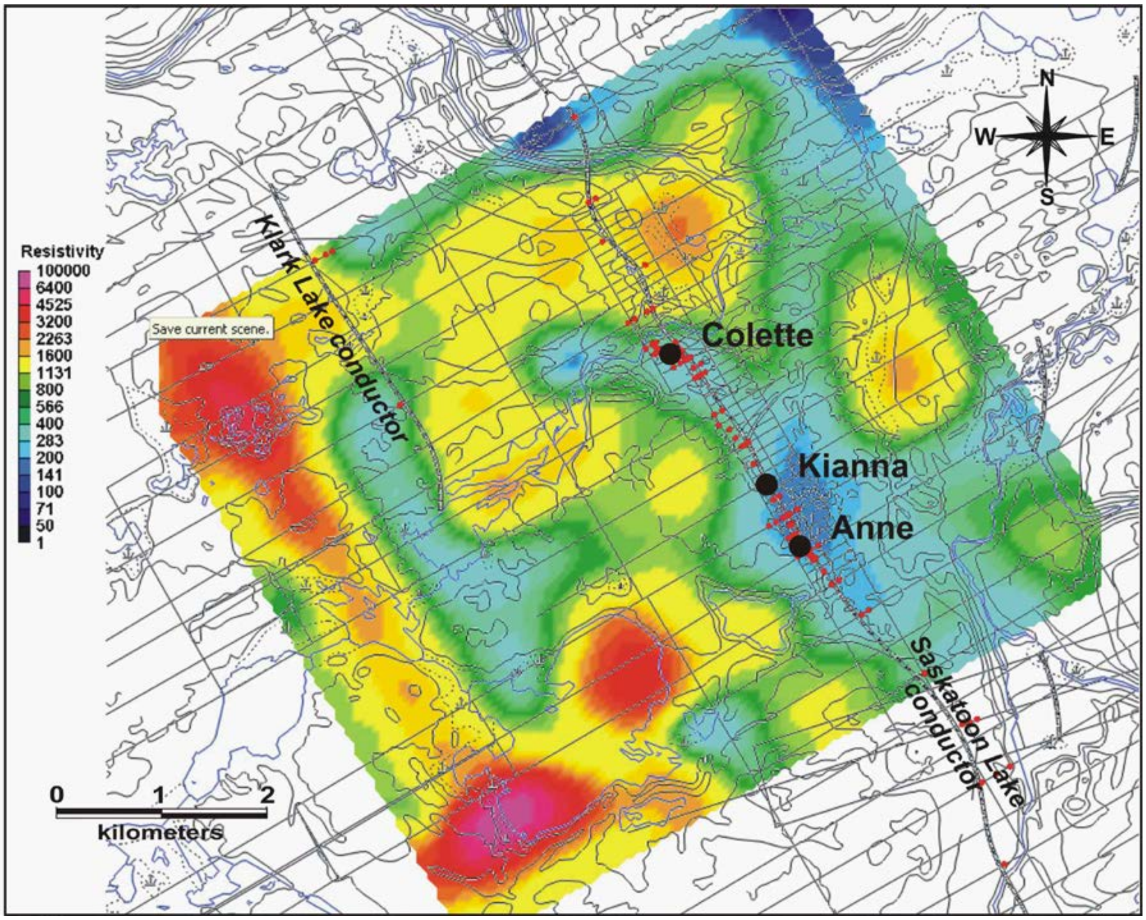

Figure 9-1: Contoured DC-resistivity inverted horizontal depth slice at –350 m below sea level for the northern Shea Creek and southernmost Douglas River properties, from Nimeck (2005). The modeled elevation is approximately equivalent to the elevation of the sub-Athabasca unconformity. Note the pronounced resistivity low in the Anne and Kianna areas, and which extends from those deposits along the Saskatoon Lake Conductor northwest to Colette, potentially reflecting alteration associated with mineralization in combination with the response of the basement pelitic gneiss in contrast to the surrounding granitic gneiss. Apart from one drill hole in the north, the resistivity low associated with the Klark Lake conductor to the west is untested. Two areas of low resistivity also occur between the Saskatoon Lake and Klark Lake conductors (e.g. immediately west of Colette) which could represent alteration along west-northwest or east-west trending faults

Table 9-1: Diamond Drilling on the Shea Creek property 1992 to 2016. Apart from 13 drill holes (DGS-002, DGS-005, DGS-013, SHE-003, SHE-007, SHE-009, SHE-041, and SHE-077, SHE-144, SHE-144-1, and SHE-145. SHE-145-1, and SHE-145-2), all other drill holes have been drilled along 26 km of strike length of the Saskatoon Lake Conductor (see Figure 9-2).

Year	Drill Hole Series	# Pilot holes	# Wedge cuts off pilot holes	Total # drill holes	Metres Drilled
1992	SHE-001, SHE-001A, SHE-001B, SHE-002 SHE-003	5	0	5	2,738
1994	SHE-004 to SHE-015A	13	0	13	9,299.5
1995	SHE-016 to SHE-033	19	0	19	14,563
1995	DGS-002 to DGS-004	3	0	3	2,827
1996	SHE-034 to SHE-050	21	0	21	13,183
1996	DGS-005	1	0	1	850
1997	SHE-051 to SHE-066	21	0	21	13,369.4
1997	DGS-006 to DGS-008, DGS-008A, DGS-009 to DGS-011	7	0	7	5,626
1998	SHE-067 to SHE-093	29	0	29	21,820.4
1998	DGS-012 to DGS-015	4	0	4	3,392
1999	SHE-094 to 094-06; SHE-095 to 95-04; SHE-096 to 096-04; SHE-097; SHE-098 to 098-04; SHE-099 to 099-05; SHE-100 to 100-01; SHE-101 to 101-01	8	25	33	10,093.3
2000	SHE-100-02 to 100-03; SHE-101-02 to 101-04; SHE-102 to 102-11; SHE-103 to 103-05; SHE 104 to 104-04; SHE-105 to 105-04	4	29	33	8,547.3
2004 winter	SHE-106, SHE-107, SHE-108	3	0	3	1,578.6
2004 fall	SHE-109, 109-01 to 109-02; SHE-110; SHE-110A; SHE-111, SHE-111-01 to 111-02; SHE-112, SHE-112-01 to 112-02; SHE-113; SHE-114	7	6	13	6,472.5
2005	SHE-111-03 to 111-13; SHE-113-01; SHE-114-01 to 114-10; SHE-114-10A; SHE-114-11; SHE-115	1	24	25	8,443.6
2006	SHE-114-12 to 114-17; SHE-115-01 to 115-10; SHE-116; SHE-117; SHE-118; SHE-118-01 to 118-03; TUE-06-01 to 06-07	10	20	30	16,944.5
2007	SHE-115-11 to 115-15, SHE-115-15A; SHE-115-16; SHE-118-04 to 118-05; SHE-118-05A, SHE-118-06; SHE-118-06A; SHE-118-07 to 118-10; SHE-119*; SHE-120*; SHE-121; SHE-121-01 to 121-03; SHE-122; SHE-122-01 to 122-03; SHE-123; SHE-123-01 to 123-02; SHE-124; SHE-125; ***HYD-07-01 to 07-05; TUE-07-08 to 07-09; TUE-07-10; TUE-07-10A	16	25	41	20,454.4

Year	Drill Hole Series	# Pilot holes	# Wedge cuts off pilot holes	Total # drill holes	Metres Drilled
2008	SHE-115-17, SHE-115-17A, SHE-115-18; SHE-118-11 to 118-13, SHE-118-13A; SHE-118-14 to 118-16; SHE-122-04 to 122-07, SHE-123-03 to 123-13; SHE-126 to 126-01, SHE-126-01A, SHE-126-02 to 126-05; SHE-127 to -130, SHE-130-01; SHE-103-01A; SHE- 130-02;***P08-01, P08-02	7	37	44	19,543.8
2009	SHE-037-01 to 037-3, SHE-037-3A; SHE-037-04 to 037-07; SHE-050-1 to 050-11; SHE-109-03 to 109-07; SHE-112-03 to 112-04; SHE-114-18, SHE-114-18A, SHE-114-19, SHE-114-19A, SHE-114-20; SHE-115-19 to 115-22; SHE-118-17 to 118-18; SHE-121-04 to 121-05; SHE-131; SHE-131-01 to 131-05; SHE-132; SHE-132-01 to 132-05; SHE-133; SHE-133-01 to 133-02	3	51	54	21,791.1
2010	SHE-104-5 to 104-8, SHE-118-19 to 118-21, SHE-130-3, SHE-133-3 to 133-12, SHE-134, SHE-134-1, SHE-134-1A, SHE-134-2, SHE-135, SHE-135-1 to 135-9, SHE-136, SHE-136-1 to SHE-136-6	3	36	39	18,955.5
2011	SHE-66-1 to 66-3, SHE-110-1 to 110-4, SHE-111-14 to 111-16, SHE-126-6 to 126-7, SHE-130-4 to 130-5, SHE-130-5A, SHE-130-6 to 130-13, SHE-136-7 to 136-9, SHE-137, SHE-137-1 to 137-3, SHE-138, SHE-138-1, SHE-139, SHE-139-1 to 139-6, SHE-140, SHE-140-1 to 140-5, SHE-141, SHE-141-1	5	42	47	20,617.4
2011	DGS-016, DGS-016-1, DGS-016-2	1	2	3	1,775.4
2012	SHE-66-4 to 66-13, SHE-104-9 to 104-11, SHE-114-21, SHE-118-22 to 118-25, SHE-133-13 to 133-14, SHE-135-10 to 135-15, SHE-141-2 to 141-4	0	29	29	11,406.5
2013	SHE-24-1, SHE-24-2, SHE-135-16, SHE-135-17, SHE-142, SHE-142-1 to 142-4, SHE-142-4A to SHE-142-4C, SHE-143, SHE-143-1 to 143-3, SHE-144, SHE-144-1, SHE-145, SHE-145-1, SHE-145-2, SHE-146, SHE-146-1,	5	18	23	12,375.6
2015	SHE-127-1 to 127-5, SHE-147 to SHE-153	7	5	12	7,941.1
2016	SHE-154 to SHE-160	7	0	7	4,099.0
Unknown	DGS-467, DGS-469, DGS-471, DGS-473	4	0	4	180.7
	Grand Totals	**214**	**349**	**563**	**278,889**
	Totals: 1992-March 2004 (pre-UEX)	***138***	***54***	***192***	***107,887.5***
	Totals: March 2004-2012 (UEX option)	***76***	***295***	***371***	***171,001.1***

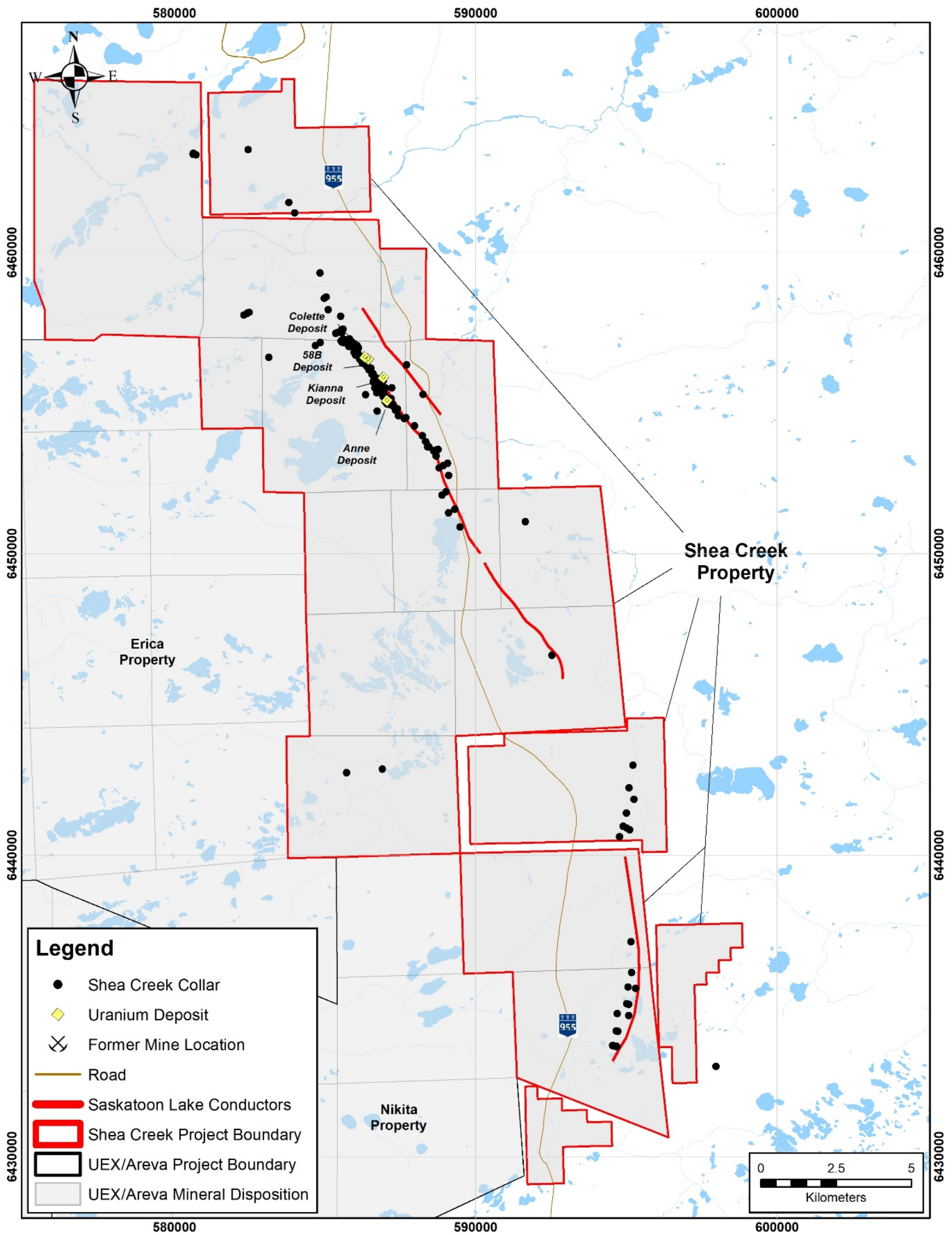

Figure 9-2: Shea Creek Property Drill Hole Location Map

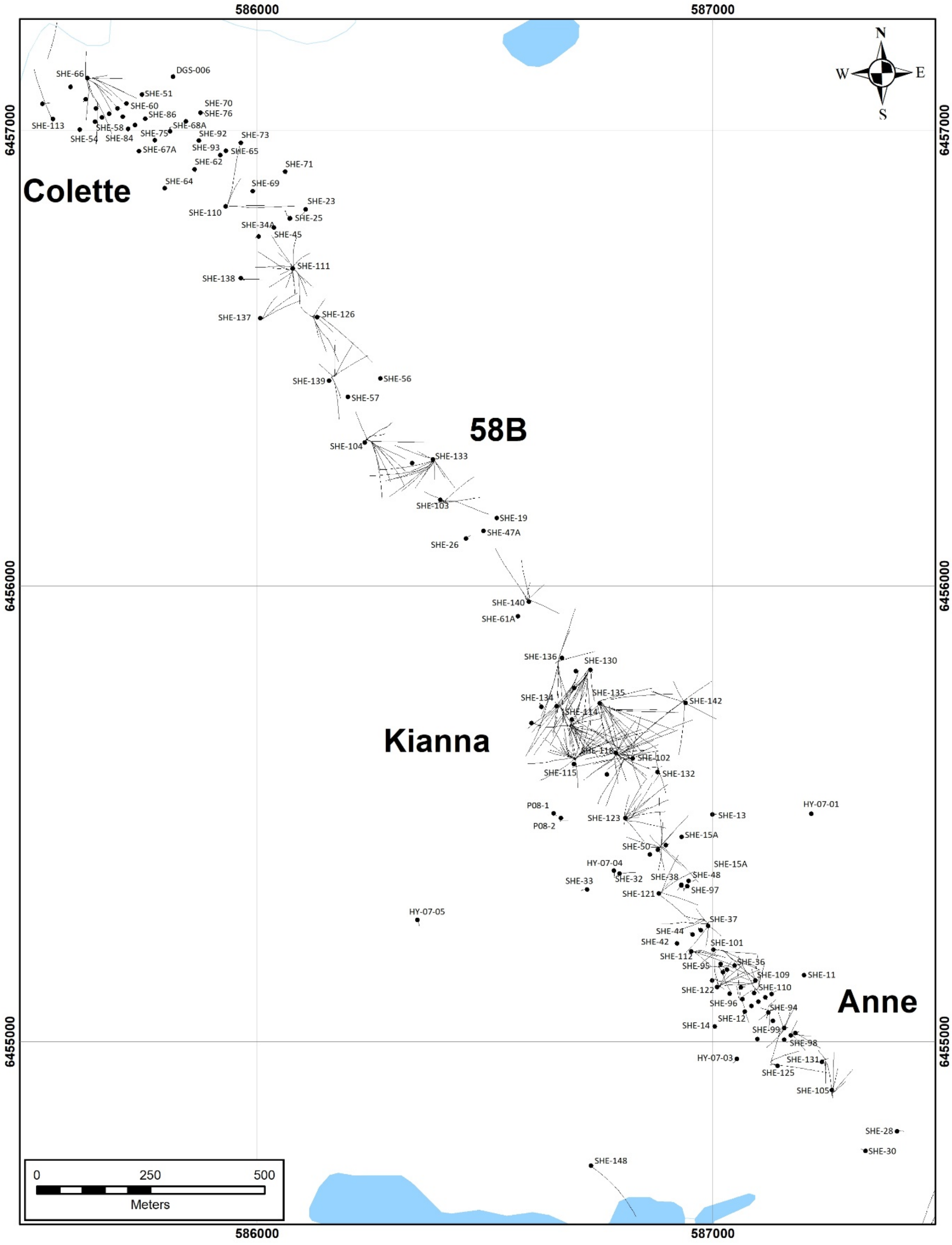

Figure 9-3: Collar locations and traces of Shea Creek Drill Holes at the Kianna, Anne, Colette, and 58B Deposits

10 DRILLING

Diamond drilling is the principal method of exploration and mineralization delineation after initial geophysical surveys on the Shea Creek property. Diamond drilling during the active participation by UEX since 2004 to the most recent drill program in 2016 was conducted using drilling services supplied by Longyear Canada Ltd., Boart Longyear Ltd. and Team Drilling LP under contracts with COGEMA, then AREVA, and now ORANO. Drilling can generally be conducted year-round in northern parts of the Shea Creek property where the Anne, Colette and Kianna deposits occur due to dry ground above these areas. Drill holes on the Shea Creek Project are numbered with a prefix of the project (SHE) followed by the pilot hole number in the format of SHE-XXX, and then if present, the cut number if wedging off the pilot hole has been completed in the format of, SHE-XXX-XX.

10.1 Drilling Methodologies

Due to the >600 m target depths, drilling is generally conducted by penetrating overburden with HW diameter casing followed by HQ coring to about 400 m depth. The holes are typically completed to target depth by reducing to NQ-sized core (47.6 mm core diameter) which is the typical core size testing mineralization. Drilling mud and polymer emulsions are added to the water to aid in freeing the drill cuttings and to help maintain stability of the walls of the drill hole so that the drill rods do not become stuck.

Prior to 1999, all drill holes were drilled vertically from surface to the target at depth. From 1999 onward, directional drilling utilizing wedge cuts off the master (pilot) drill hole have been completed in areas where closely spaced drill holes are required to define mineralization or other geological features, reducing the overall required quantity of coring required, and allowing controlled drilling of deep targets which are not easily reached from surface. New cuts are generally drilled off the pilot hole commencing at 400 to 600 m below surface, depending on the position of the target with respect to the pilot hole.

The directional drilling tool used up to 2004 consisted of a Sperry Sun steerable mud motor that is powered by hydraulic force that is created by a mixture of water and drilling mud pumped inside the drill string. A Bradley plug and wedge are set to initiate a directional cut. This usually achieves a 1.5° deflection off the original hole. The mud motor has a rotor–stator system that spins a non-coring cutting bit. A bent housing behind the bit allows the proposed drill hole to be deflected from a previous orientation. Additional pumps and mud tanks are required when the motor is in use, although it does not operate constantly during a 24-hour period. The motor uses an average of 220-250 L (50-55 gallons/min) of water when drilling (approximately 300,000 L or 66,000 gallons/day). Some problems noted with the use of the mud motor are that it must be fixed to a BQ rod string; this hinders drill production due to the constant tripping in and out of drill steel. Another problem is that control of the motor is 6 to 12 m behind the bit and there is always a risk of pulling the motor too early or too late.

During the 2005 to 2015 drill campaigns, Devico's (DeviDrill™) directional core drilling system was utilized. This system consists of a steerable core barrel that allows continuous survey measurements ahead of the bit while drilling and provides core samples during the steering process. No additional equipment is required since the motor operates under normal water pressures used for diamond drilling. Thus, there is no need for large supply pumps and mud tanks. Also, a separate drill string (BQ) is not required since the motor is fixed to an NQ drill string. This in turn reduces the need for tripping an additional set of rods.

10.2 Downhole Directional Surveys

Downhole survey methodologies have varied during exploration of the Shea Creek property. Prior to 2000, drill hole deviation was measured every 30 to 50 m with a Sperry Sun singleshot camera during normal drilling operations. During Sperry Sun directional operations, survey shots were taken preferably every 3 m because control of the motor is 6 to 12 m behind the drill bit. Since 2004 with the Devico system, drill hole deviation is measured every 50 m with a Reflex single-shot probe during normal drilling operations. During directional operations survey shots are taken every 3 to 9 metres.

10.3 Radiometric Probing of Drill Holes

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. The radiometric probe data, when calibrated by tool and local geology, can be utilized as a method of estimating mineralization grade which can either augment, or substitute for geochemical assays when these is statistically sufficient confidence in the calibration and conversion to uranium concentrations. The probe methodologies at Shea Creek are as follows:

Downhole radiometric probes are used to detect radioactivity in the diamond drill holes. All probe runs are completed up-hole. The probes used in radiometric logging conducted by AREVA include the following tools: HLP-2375 manufactured by Mount Sopris, and ST22-2T, DHT27-STD, and DHT27-HF (high flux) tools manufactured by AREVA. Radioactivity measurements obtained from the ST22-2T, DHT27-STD, and DHT27-HF are used to estimate equivalent uranium grades for mineralized intervals. The Saskatchewan Research Council (SRC) provides downhole probe calibration facilities in Saskatoon, SK, for calibration of the downhole gamma probes. The test pits consist of four variably mineralized holes, each approximately seven metres in length. The gamma probes are tested a minimum of once per year, usually in the fall, prior to the beginning of the winter field season. Also drill holes SHE-101-4 and 105-4, located at the Shea Creek project, are cased and remain accessible for use as calibration holes on the property to confirm the reliability of the probes.

A Mount Sopris Model 2500 winch and MGX II logger (interface board) with a Mount Sopris HLP 2375 natural gamma probe were utilized to radiometrically log each drill hole. The downhole data is acquired by a computer recovery program installed on a laptop computer. If the HLP-2375 natural gamma probe encounters and registers one reading of 1000 cps or more, the operator will be required to make an additional run using either an ST22-2T or DHT27 tool. This ST22-2Tor DHT27-STD run is from 10 metres below to 10 metres above the first and last 1000 cps reading(s) recorded by the HLP-2375 natural gamma tool. In the case where very high-grade mineralization is encountered, another additional run is made using a DHT27-HF tool (high flux). The ST22-2Tand DHT27-STD use two ZP-1200 Gieger Müller tubes, whereas the DHT27-HF uses two ZP-1320 Gieger Müller tubes which count at a rate of approximately one half that of the ZP-1200 tubes. The ZP-1320 tubes are therefore able to evaluate higher uranium grades which would saturate the ZP-1200 tubes.

Prior to probing, the drill hole is flushed with water. The probes utilized for in-hole probing are tested with a low-grade radioactive source prior to the logging run and after the completion of the logging run to ensure that the equipment was functioning properly before and after the in-hole probing occurred. Total gamma flux measurements are collected at 10 cm intervals during probing. The probe data is then transferred from the field computer into the drill hole database.

The data acquired by the downhole probes is then processed by in-house developed software to estimate the in-situ equivalent uranium grade and thickness of the mineralized interval(s). Several parameters are evaluated when converting the data including diameter of the drill hole, thickness of steel casing, probe dead time in microseconds, diameter of the probe, casing coefficient, fluid coefficient, and a reference coefficient for the type of probe. A radioactivity-to-grade correlation is then applied to calculate the equivalent uranium grades.

10.4 Drill Hole Collar Field Locations and Surveys

Drill hole locations are measured in grid co-ordinates and later updated by UTM NAD83 (Zone 12 North) coordinates surveyed by ORANO (formerly AREVA) personnel. Drill hole collars prior to 1998 were located by conventional survey. Since that time drill hole locations have been surveyed using differential, base station GPS. After drilling, hole locations are marked with a tagged picket.

10.5 Summary of Drilling Results: Northern Shea Creek property

10.5.1 Relationship of Drilling Length to True Thickness of Mineralized Intercepts

Drill holes on the northern Shea Creek property generally have steep dips of 75° or steeper. As a result, drilling generally crosses the flat-lying lenses of unconformity-hosted mineralization at a high angle that is close to, or at true thickness (e.g. Figure 7-3 and Figure 10-2 to Figure 10-4). Similarly lenses of perched mineralization, and of concordant basement mineralization are generally gently dipping and crossed by drill holes at orientations which intercept mineralization at close to true thickness (e.g. Figure 7-3 and Figure 10-3). Mineralized intercepts of discordant basement mineralization can have more complex morphology, and in such cases true thickness of intercepts are as yet undetermined (e.g. Figure 10-3). These discordant basement zones can contain combinations of steeply dipping vein-like mineralization which occurs at shallow core axis angles to many drill holes, in combination with foliation parallel, shallower dipping components which may form ore-shoots.

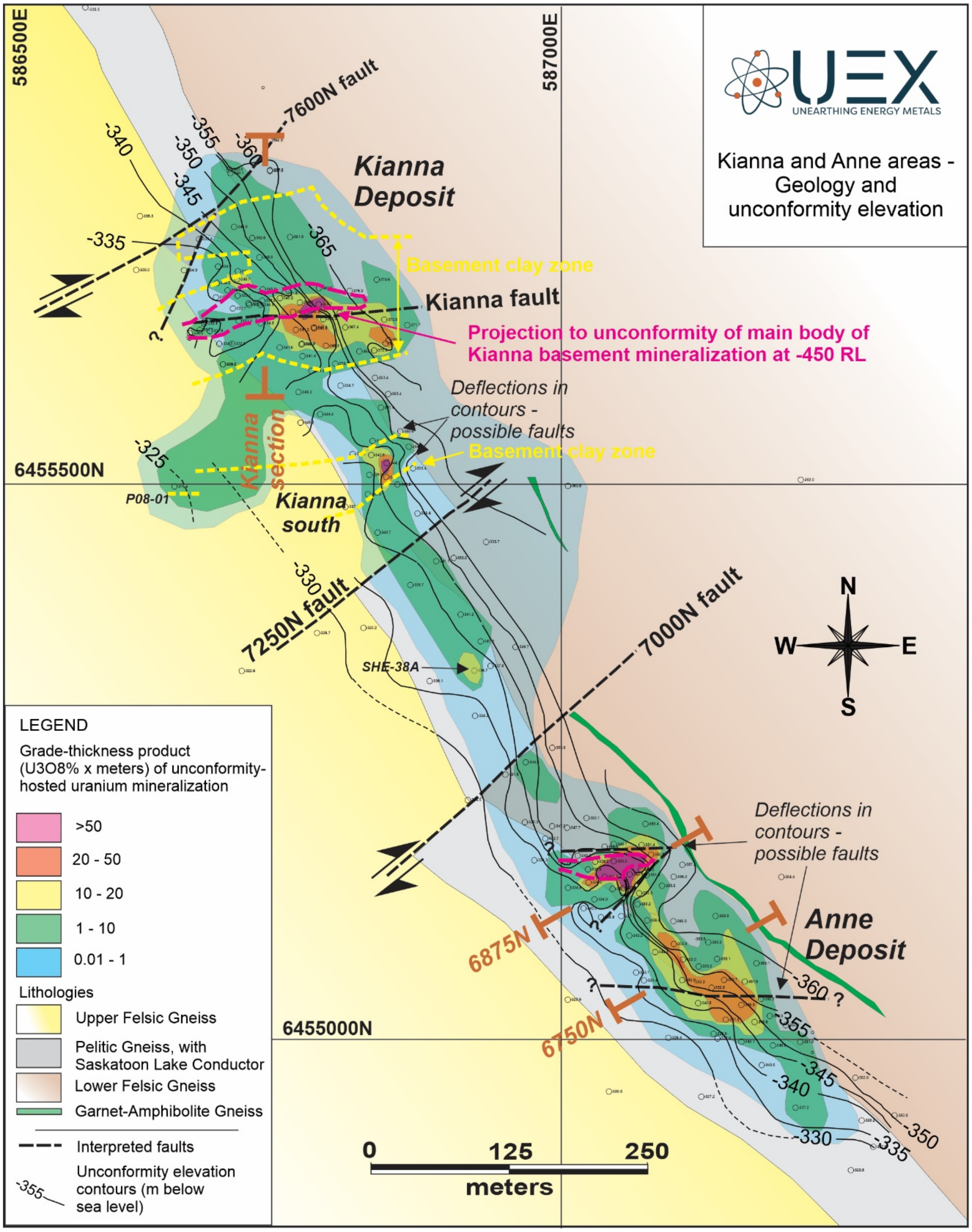

Figure 10-1: Geology between the Anne and Kianna Areas showing mineralization distribution at the unconformity.

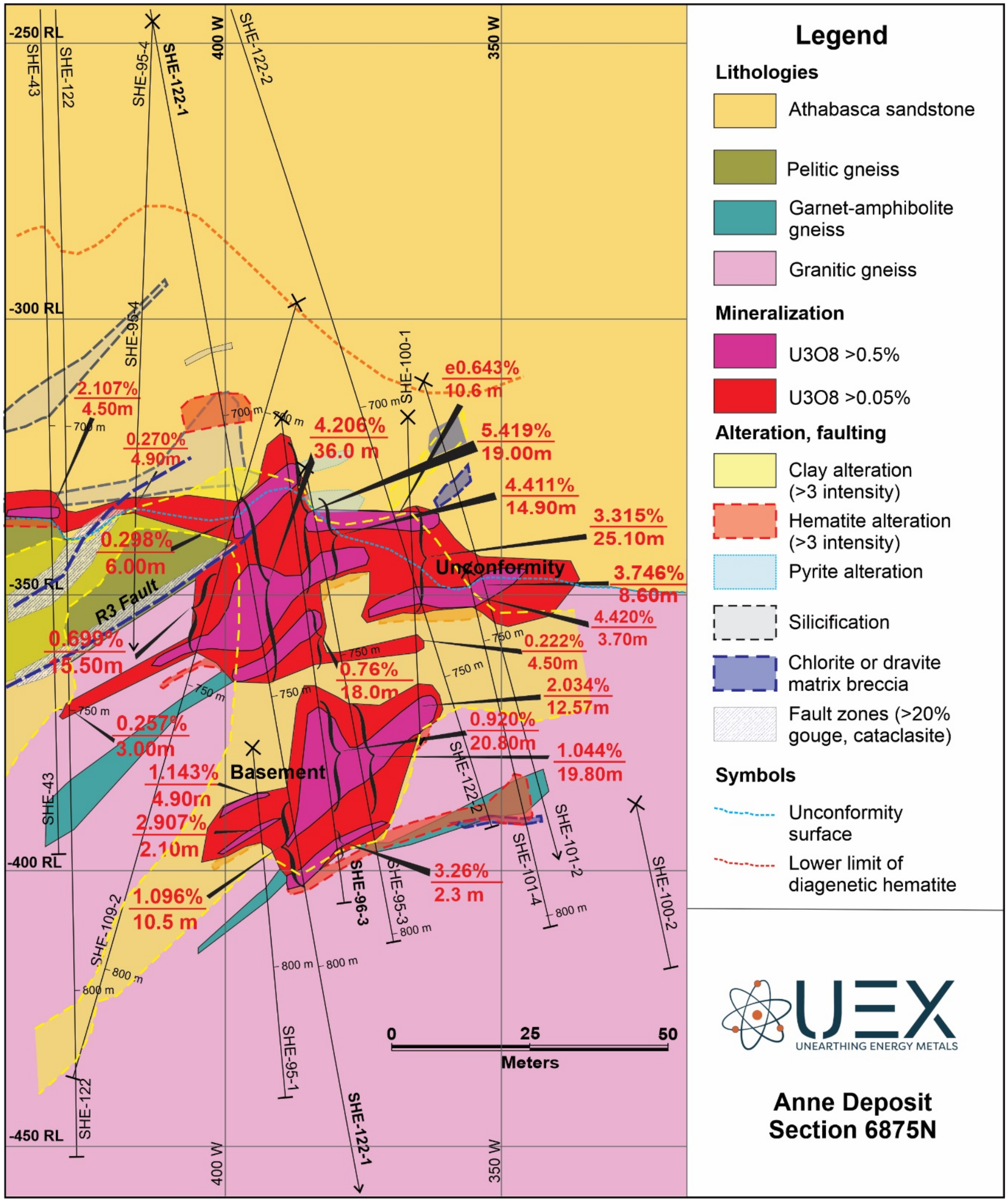

Figure 10-2: Cross section 6875N through the central Anne Deposit, looking northwest. The section illustrates the mineralization distribution with respect to geology, and the position and thickness of principal intercepts. Section location is shown in Figure 10.1

10.5.2 Drilling in the Anne Deposit Area

Mineralization in the Anne Deposit has been traced continuously over approximately 500 m from SHE-105 series drill holes on gridline 65+50N to the vicinity of the 7000N fault (Figure 7-2). To date, 104 drill holes have been completed in this area, comprising both pilot drill holes and directional cuts (Figure 9-2).

Unconformity-hosted mineralization is the most extensive style identified to date at Anne. Thickest, highest-grade intercepts define two pods (Figure 7-2), one in the south-central (around section 6750N) and the second in the northern parts of the Anne Deposit (around section 6875N; Figure 10-2). Highlights of the intercepts (with a grade-thickness product of greater than 5.0) in this area include the following, which are at, or close to true thickness:

- 4.324% U_3O_8 over 9.1 m, including 24.115% U_3O_8 over 1.4 m in hole SHE-016
- 5.446% U_3O_8 over 3.0 m, including 9.577% U_3O_8 over 1.5 m in hole SHE-079
- 11.607% U_3O_8 over 6.0 m, including 23.964% U_3O_8 over 2.9 m and 34.694% U_3O_8 over 1.9 m in hole SHE-087
- 1.283% U_3O_8 over 9.4 m in hole SHE-094-01
- 1.588% U_3O_8 over 11.0 m, including 4.608% U_3O_8 over 2.6 m in hole SHE-094-03
- 1.878% eU_3O_8 over 13.3 m, including 3.841% eU_3O_8 over 5.9 m in hole SHE-094-05
- 1.796% U_3O_8 over 8.9 m, including 6.367% U_3O_8 over 2.0 m in hole SHE-095-01
- 4.411% U_3O_8 over 14.9 m, including 20.898% U_3O_8 over 2.9 m in hole SHE-095-03
- 5.419% U_3O_8 over 19.0 m, including 29.200% U_3O_8 over 3.4 m in hole SHE-096-03
- 2.235% U_3O_8 over 7.5 m, including 7.477% U_3O_8 over 1.4 m in hole SHE-098
- 10.027% U_3O_8 over 8.4 m, including 34.149% U_3O_8 over 2.3 m and 60.601% U3O8 over 1.2 m, in hole SHE-099
- 0.959% eU_3O_8 over 22.7 m, including 4.368% eU_3O_8 over 3.4 m in hole SHE-099-01
- 5.649% U_3O_8 over 17.9 m, including 14.547% U_3O_8 over 6.5 m in hole SHE-099-02
- 2.612% U_3O_8 over 13.6 m, including 16.661% U_3O_8 over 1.9 m in hole SHE-099-03
- 3.315% U_3O_8 over 25.1 m, including 16.866% U_3O_8 over 4.0 m in hole SHE-100-01
- 3.746% U_3O_8 over 8.60 m, including 6.413% U_3O_8 over 4.9 m and 15.630% U_3O_8 over 1.5 m in hole SHE-101-02
- 4.420% U_3O_8 over 3.7 m in hole SHE-101-04
- 0.682% U_3O_8 over 22.2 m, including 5.789% U_3O_8 over 2.0 m in hole SHE-109-01
- 0.993% U_3O_8 over 5.5 m in hole SHE-109-03
- 8.282% U_3O_8 over 7.4 m, including 17.075% U_3O_8 over 2.0 m in hole SHE-109-05
- 3.951% U_3O_8 over 9.0 m in hole SHE-109-06
- 4.206% U_3O_8 over 36.0 m, including 13.703% U_3O_8 over 6.5 m in hole SHE-122-01
- 2.631% U_3O_8 over 8.0 m, including 13.000% U_3O_8 over 1.5 m in hole SHE-122-04
- 3.642% U_3O_8 over 20.5 m, including 11.407% U_3O_8 over 6.0 m and 15.635% U3O8 over 4.0 m in hole SHE-122-05
- 1.518% U_3O_8 over 7.6 m, including 2.947% U_3O_8 over 1.9 m in hole SHE-131-03

Note that the broad, high-grade intercepts in drill holes SHE-95-03, SHE-096-3, and SHE-122-1 straddle the unconformity and extend into underlying basement rocks (Figure 10-2).

Basement mineralization at Anne is mainly concordant in style and occurs under the highest-grade pods of unconformity mineralization described above (Figure 10-2). In the northern parts of the Anne Deposit, a combination of the concordant and discordant basement styles is also present. Principal intercepts (with a grade-thickness product of greater than 5.0) include the following:

- 3.244% U_3O_8 over 9.0 m, including 10.159% U_3O_8 over 2.0 m in hole SHE-088
- 4.553% U_3O_8 over 3.9 m, including 7.925% U_3O_8 over 2.2 m in hole SHE-094-01
- 5.740% U_3O_8 over 2.8 m, including 14.089% U_3O_8 over 0.9 m in hole SHE-094-06
- 1.033% U_3O_8 over 10.7 m, and 1.854% U_3O_8 over 4.4 m in hole SHE-095-01
- 1.044% U_3O_8 over 19.8 m, including 5.511% U_3O_8 over 1.7 m in hole SHE-095-03
- 0.760% U_3O_8 over 18.0m, and 0.92% U_3O_8 over 20.8 m, in hole SHE-096-03
- 3.826% U_3O_8 over 2.5 m, including 13.132% U_3O_8 over 0.7 m in hole SHE-096-04
- 3.639% U_3O_8 over 7.5 m, including 16.954% U_3O_8 over 0.6 m in hole SHE-100-01
- 1.541% eU_3O_8 over 5.3 m in hole SHE-105-04
- 0.699% U_3O_8 over 15.5 m in hole SHE-109-02
- 1.854% U_3O_8 over 11.1 m in hole SHE-109-05
- 23.171% U_3O_8 over 3.5 m, and 3.512% U_3O_8 over 8.5 m in hole SHE-122-01 (upper basement zone)
- 1.096% U_3O_8 over 10.5 m, including 4.025% U_3O_8 over 3.5 m in hole SHE-122-01 (lower basement zone)
- 2.071% eU_3O_8 over 4.2 m in hole SHE-122-03
- 3.569% U_3O_8 over 4.0 m, including 6.661% U_3O_8 over 1.5 m in hole SHE-122-04

Perched mineralization in the Anne Deposit area is generally low grade, with a best intercept of 0.911% U_3O_8 over 3.6 m in hole SHE-046 in northwestern parts of the Anne area. Mineralization contiguous with unconformity mineralization in the high grade north central portions of the Anne Deposit may extend upward significantly into the overlying sandstone but is not separated from the unconformity style as with perched mineralization and is included in the composited unconformity-hosted intersections reported here.

Basement mineralization at Anne is potentially open for expansion in several areas, locally where earlier holes may have not penetrated to sufficient depth, and higher-grade areas at the unconformity could be better defined by several infill drill holes. At the southeastern end of the Anne area, the SHE-105-series holes have intersected a combination of fault-hosted perched, basement and unconformity mineralization which is not yet bounded to the southeast.

10.5.3 Area between the Anne and Kianna Deposits (Kianna South)

The 300 m distance between the Anne and Kianna deposits is tested by 44 drill holes which are variably, but generally widely, spaced. Drilling suggests that low grade mineralization at the unconformity here is contiguous between Anne and Kianna (Figure 7-2), and there is room between existing drill holes to expand some areas of higher-grade mineralization. Drilling in this area has intersected significant unconformity-hosted mineralization mainly for up to 150 m south of the Kianna Deposit in the SHE-50 and SHE-123 series drill holes, which include results (with a grade-thickness product of greater than 5.0) of:

- 8.664% U_3O_8 over 2.6 m in hole SHE-38A
- 3.546% U_3O_8 over 3.1 m, including 10.205% U_3O_8 over 1.0 m in hole SHE-50-05
- 2.339% U_3O_8 over 4.1 m in hole SHE-50-08
- 1.818% U_3O_8 over 4.3 m, including 3.460% U_3O_8 over 1.5 m in hole SHE-50-11
- 11.114% U_3O_8 over 3.6 m, including 32.262% U_3O_8 over 1.1 m in hole SHE-123-06
- 5.198% U_3O_8 over 3.3 m, including 11.491% U_3O_8 over 1.3 m in hole SHE-123-07

These intercepts define a higher-grade pod of unconformity-hosted mineralization which is underlain by a zone of east-northeast trending clay alteration that contains several significant basement intercepts, including:

- 4.841% U_3O_8 over 3.5 m, including 7.850% U_3O_8 over 2.0 m in hole SHE-123-02
- 1.668% U_3O_8 over 7.5 m, including 18.392% U_3O_8 over 0.5 m in hole SHE-123-09
- 4.231% U_3O_8 over 2.0 m in hole SHE-123-12

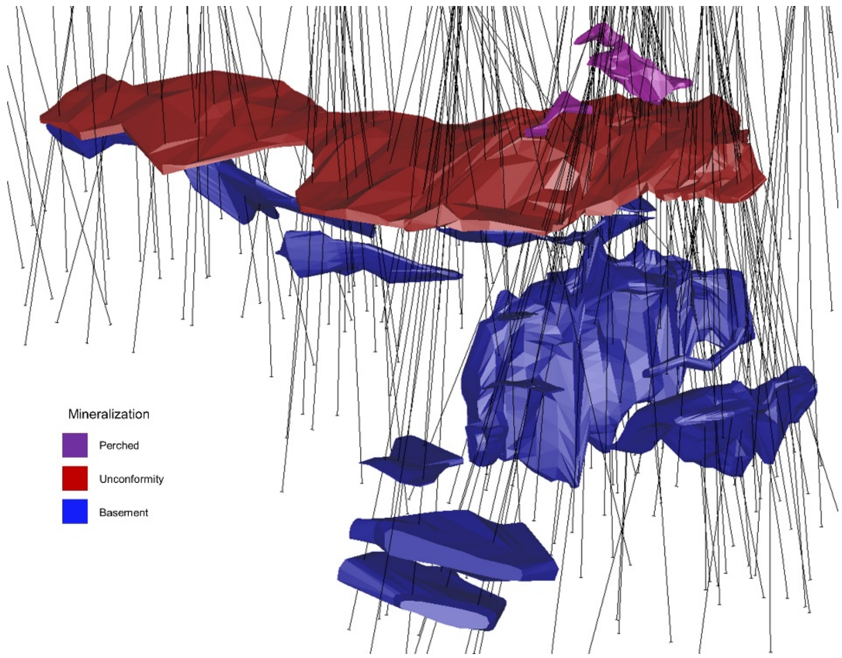

Figure 10-3: Kianna Wireframe View looking to the SW

10.5.4 Kianna Area

Kianna is probably the most structurally focused of uranium mineralization in the northern Shea Creek property (Figure 7-4, Figure 10-1 & Figure 10-3). A total of 218 holes drilled in this area (this number includes geotechnical holes outside mineralization) have defined a broad east-northeast trending zone of clay alteration that is host to an overall steep northerly dipping and east-northeast trending zone of basement-hosted mineralization which extends to at least 200 m below the unconformity (Figure 10-2), which has large, associated zones of concordant mineralization which either branch off it (e.g. GAMP Zone), or occur spatially associated with it (Kianna East Zone). The main Kianna basement zone has a strike length as defined to date of 180 m. Numerous significant intercepts have been obtained in this basement zone. True thickness to many of these is highly variable; some are drilled at low angles to mineralization, but many high-grade sub-intervals within the broader intercepts also form gently dipping lenses with intercepts close to true thickness within the overall steeply dipping zone, such as in the Kianna East Zone. These include results (with a grade-thickness product of greater than 5.0) of:

- 3.578% U_3O_8 over 11.8 m, including 21.143% U_3O_8 over 1.5 m in hole SHE-114-08 (upper zone)
- 5.776% U_3O_8 over 6.5 m, including 16.793% U_3O_8 over 1.5 m in hole SHE-114-08 (lower zone)
- 1.100% U_3O_8 over 8.5 m, including 16.270% U_3O_8 over 0.5 m in hole SHE-114-09
- 4.093% U_3O_8 over 45.0 m, including 10.300% U_3O_8 over 3.5 m and 18.073% U_3O_8 over 6.0 m in hole SHE-114-11
- 7.719% U_3O_8 over 1.5 m in hole SHE-114-13
- 4.382% U_3O_8 over 7.8 m, including 20.023% U_3O_8 over 1.5 m in hole SHE-114-17
- 2.600% U_3O_8 over 4.2 m, including 10.551% U_3O_8 over 1.0 m in hole SHE-114-18A
- 4.297% U_3O_8 over 1.3 m in hole SHE-114-18A
- 3.727% eU_3O_8 over 10.8 m, including 3.373% eU_3O_8 over 2.6 m and 5.035% eU_3O_8 over 5.4 m in hole SHE-114-19A
- 1.020% eU_3O_8 over 141.4 m, including 2.720% eU_3O_8 over 6.6 m, 5.553% eU_3O_8 over 15.8 m and 2.391% eU_3O_8 over 5.3 m in hole SHE-114-20
- 6.268% U_3O_8 over 3.5 m, including 40.086% U_3O_8 over 0.5 m in hole SHE-115-01
- 1.892% U_3O_8 over 4.5 m in hole SHE-115-02
- 3.643% U_3O_8 over 4.5 m, including 30.418% U_3O_8 over 0.5 m in hole SHE-115-05
- 0.811% U_3O_8 over 16.0 m, including 5.600% U_3O_8 over 2.0 m in hole SHE-115-06
- 3.694% U_3O_8 over 2.3 m, including 16.034% U_3O_8 over 0.5 m in hole SHE-115-07
- 1.059% U_3O_8 over 15.0 m, and 2.206% U_3O_8 over 7.5 m including 7.911% U_3O_8 over 2.0 m in hole SHE-115-08
- 1.840% U_3O_8 over 22.0 m, including 15.193% U_3O_8 over 1.5 m in hole SHE-115-09
- 8.581% U_3O_8 over 15.0 m, including 12.768% U_3O_8 over 10.0 m, which includes 25.938% U_3O_8 over 1.0 m, and 24.346% U_3O_8 over 2.5 m in hole SHE-115-10
- 4.818% U_3O_8 over 2.0 m in hole SHE-115-14
- 3.731% U_3O_8 over 10.0 m, including 22.322% U_3O_8 over 1.5 m in hole SHE-115-15A
- 0.837% U_3O_8 over 11.0 m in hole SHE-115-18
- 0.354% eU_3O_8 over 26.5 m in hole SHE-118-01
- 2.188% U_3O_8 over 9.5 m, including 7.951% U_3O_8 over 2.5 m in hole SHE-118-08
- 1.802% U_3O_8 over 5.0 m in hole SHE-118-09

- 19.244% U_3O_8 over 1.0 m in hole SHE-118-15
- 5.693% U_3O_8 over 1.0 m in hole SHE-130-03
- 1.293% U_3O_8 over 22.0 m, including 2.164% U_3O_8 over 11.0 m in hole SHE-130-04
- 1.991% U_3O_8 over 2.6 m in hole SHE-130-05A
- 1.798% U_3O_8 over 4.1 m, including 4.670% U_3O_8 over 1.5 m in hole SHE-130-07
- 0.602% U_3O_8 over 23.8 m, including 1.137% U_3O_8 over 11.5 m in hole SHE-130-11
- 0.612% U_3O_8 over 31.5 m, including 3.981% U_3O_8 over 1.5 m and 1.598% U_3O_8 over 5.0 m in hole SHE-130-12
- 1.070% U_3O_8 over 5.9 m, including 9.840% U_3O_8 over 0.6 m in hole SHE-134-02
- 1.553% U_3O_8 over 34.3 m, including 1.543% U_3O_8 over 8.8 m and 2.359% U_3O_8 over 16.2 m in hole SHE-135-04
- 0.957% U_3O_8 over 7.0 m, including 2.073% U_3O_8 over 3.0 m in hole SHE-135-05
- 1.265% U_3O_8 over 6.5 m in hole SHE-135-07
- 2.250% U_3O_8 over 5.0 m, including 4.755% U_3O_8 over 2.0 m in hole SHE-135-07
- 1.190% U_3O_8 over 9.5 m, including 4.895% U_3O_8 over 2.0 m in hole SHE-135-08
- 1.697% U_3O_8 over 17.0 m, including 8.300% U_3O_8 over 2.5 m in hole SHE-136-01
- 3.757% U_3O_8 over 3.5 m, including 8.574% U_3O_8 over 1.5 m in hole SHE-136-01
- 1.726% U_3O_8 over 14.5 m, including 4.098% U_3O_8 over 6.0 m, which includes 11.665% U_3O_8 over 2.0 m and 1.125% U_3O_8 over 9.5 m, including 6.815% U_3O_8 over 1.0 m in hole SHE-135-17

Uranium mineralization was intersected in the Kianna East Zone during the 2012 and 2013 drill programs. The Kianna East Zone is a southwest-dipping zone of concordant mineralization which lies approximately 80 to 110 m below and east of the main Kianna basement resource and about 200 m below the unconformity (Figure 10-3). This high-grade zone occurs parallel to and along the top of a southwest-dipping graphitic unit which forms an electromagnetic (EM) anomaly to the east of, and parallel to, the Saskatoon Lake Conductor. Given the orientation of the drill holes, the Kianna East intercepts may lie at or close to true thickness. The new zone is open to the northwest, southeast and up dip to the northeast. Future drilling will test for the potential of the new basement zone to extend upward along the graphitic unit to the unconformity and for new mineralized zones along this parallel conductive graphitic unit. Notable intercepts obtained in the Kianna East Zone during these programs include the following results (with a grade-thickness product of greater than 5.0):

- 0.217% U_3O_8 over 32.6 m in hole SHE-118-22
- 1.949% U_3O_8 over 20.0 m, including 5.662% U_3O_8 over 3.0 m and 7.447% U_3O_8 over 2.9 m in hole SHE-118-24
- 3.876% U_3O_8 over 15.0 m, including 8.710% U_3O_8 over 6.1 m and 1.247% U_3O_8 over 4.0 m in hole SHE-135-11
- 2.361% U_3O_8 over 7.0 m, including 4.058% U_3O_8 over 3.5 m in hole SHE-135-12
- 3.299% U_3O_8 over 19.1 m, including 6.033% U_3O_8 over 1.6 m and 13.403% U_3O_8 over 3.7 m in hole SHE-135-13
- 1.695% U_3O_8 over 7.0 m, including 5.458% U_3O_8 over 2.0 m in hole SHE-135-14
- 1.067% U_3O_8 over 8.5 m, including 1.998% U_3O_8 over 4.0 m in hole SHE-142
- 0.701% U_3O_8 over 10.5 m, including 2.442 % U_3O_8 over 2.5 m in hole SHE-142-04

Unconformity hosted mineralization at Kianna forms a high-grade lens that lies above the basement mineralization (Figure 10-3). Significant intercepts, which are close to true thickness, occur over a 70 m (north-south) by 150 m (east-west) area, include results (with a grade-thickness product of greater than 5.0) of:

- 0.901% U_3O_8 over 11.9 m in hole SHE-102-01
- 3.662% U_3O_8 over 5.3 m, including 11.065% U_3O_8 over 1.7 m in hole SHE-102-02
- 3.024% U_3O_8 over 3.7 m in hole SHE-102-07
- 1.418% U_3O_8 over 11.0 m, including 7.309% U_3O_8 over 1.3 m in hole SHE-102-10
- 1.018% U_3O_8 over 12.1 m in hole SHE-114-09
- 9.335% U_3O_8 over 12.2 m, including 20.285% U_3O_8 over 0.9 m, and 21.154% U_3O_8 over 4.3 m in hole SHE-115-03
- 2.547% U_3O_8 over 19.0 m, including 5.847% U_3O_8 over 7.0 m, which includes 11.080% U_3O_8 over 2.0 m in hole SHE-115-04
- 7.827% U_3O_8 over 7.2 m, including 20.360% U_3O_8 over 2.7 m in hole SHE-115-05
- 2.227% U_3O_8 over 10.6 m, including 7.263% U_3O_8 over 1.5 m in hole SHE-115-06
- 6.297% U_3O_8 over 7.9 m, including 9.394% U_3O_8 over 4.9 m, which includes 18.098% U_3O_8 over 1.0 m in hole SHE-118
- 1.271% U_3O_8 over 16.9 m, including 4.763% U_3O_8 over 4.0 m in hole SHE-118-01
- 0.981% eU_3O_8 over 17.3 m in hole SHE-118-04
- 1.577% U_3O_8 over 13.2 m, including 5.510% U_3O_8 over 3.5 m, which includes 10.149% U_3O_8 over 1.5 m in hole SHE-118-05
- 1.475% U_3O_8 over 15.0 m, including 5.791% U_3O_8 over 3.5 m, which includes 12.556% U_3O_8 over 1.0 m in hole SHE-118-05A
- 2.609% U_3O_8 over 6.0 m, including 8.180% U_3O_8 over 1.8 m in hole SHE-118-06A
- 4.028% U_3O_8 over 6.0 m, including 11.831% U_3O_8 over 2.0 m in hole SHE-118-06B
- 2.030% U_3O_8 over 10.0 m, including 8.468% U_3O_8 over 2.3 m in hole SHE-118-08
- 2.275% U_3O_8 over 11.5 m, including 5.011% U_3O_8 over 4.3 m, which includes 8.037% U_3O_8 over 1.5 m in hole SHE-118-09
- 5.863% U_3O_8 over 3.2 m, including 24.300% U_3O_8 over 0.6 m in hole SHE-118-11
- 1.542% U_3O_8 over 6.8 m in hole SHE-118-13
- 1.254% U_3O_8 over 13.0 m in hole SHE-118-14
- 1.114% U_3O_8 over 17.5 m, including 5.124% U_3O_8 over 2.5 m in hole SHE-118-15
- 2.582% U_3O_8 over 6.4 m in hole SHE-118-18
- 11.767% U_3O_8 over 3.8 m, including 21.883% U_3O_8 over 2.0 m in hole SHE-118-19
- 1.485% U_3O_8 over 4.5 m in hole SHE-130-6
- 1.586% U_3O_8 over 8.5 m, including 10.060% U_3O_8 over 1.0 m in hole SHE-135-01
- 1.625% U_3O_8 over 9.5 m, including 2.393% U_3O_8 over 4.0 m and 1.484% U_3O_8 over 3.9 m in hole SHE-135-05

Kianna also has significant perched mineralization which forms at least two lenses above the higher-grade areas of unconformity-hosted mineralization, at distances of 20 to 70 m above the unconformity (Figure 10-3). A moderate southwest dip to some of this mineralization is apparent, which may link to southwest dipping faults in the basement rocks down dip to the southwest. The most significant pod has plan view dimensions of approximately 60 by 30 m, and contains intercepts that are at close to true thickness, including results (with a grade-thickness product of greater than 5.0) of:

- 20.721% eU_3O_8 over 10.2 m, including 27.729% eU_3O_8 over 7.6 m in hole SHE-114-05
- 7.367% U_3O_8over 9.5 m, including 10.700% U3O8 over 6.5 m, which includes 21.163% U_3O_8 over 2.0 m in hole SHE-114-07
- 4.637% eU3O8 over 22.2 m, including 8.001% eU_3O_8 over 3.2 m, and 7.851% eU_3O_8 over 8.8 m in hole SHE-114-09
- 4.580% eU_3O_8 over 15.3 m, including 9.967% eU_3O_8 over 6.4 m in hole SHE-114-11
- 3.859% eU_3O_8 over 14.2 m, including 20.629% eU_3O_8 over 1.4 m in hole SHE-114-18A
- 5.939% eU_3O_8 over 12.0 m, including 23.145% eU_3O_8 over 2.7 m in hole SHE-114-19
- 2.709% eU_3O_8 over 14.2 m, including 12.406% eU_3O_8 over 1.0 m in hole SHE-114-19A
- 1.815% U_3O_8 over 10.0 m, including 3.490% U_3O_8 over 4.0 m in hole SHE-115-06
- 6.165% U_3O_8 over 6.70 m, including 20.134% U_3O_8 over 2.0 m in hole SHE-115-08
- 1.213% eU_3O_8 over 26.41 m in hole SHE-115-08 (lower zone)
- 8.420% eU_3O_8 over 12.6 m in hole SHE-115-18

10.5.5 58B Deposit Area

A total of 39 drill holes which have been completed in the 1 km strike between the Kianna and southern Colette deposits resulted in the discovery and definition of the 58B Deposit (Figure 7-2, & Figure 7-4), which was named after the initial hole which intercepted mineralization in this area. Mineralization at 58B has been traced over a strike length of 400 m and occurs over a width of up to 110 m in plan view. The mineralization displays the same stacking of basement, unconformity and perched mineralization as is seen at the Kianna Deposit.

Notable unconformity intercepts at 58B (with a grade-thickness product of greater than 5.0), which are close to true thickness, include the following:

- 2.261% U_3O_8 over 7.5 m, including 3.668% U_3O_8 over 4.2 m in SHE-133-03
- 5.043% U_3O_8 over 2.4 m in SHE-133-04
- 3.135% U_3O_8 over 3.0 m, including 4.010% U_3O_8 over 2.0 m in SHE-133-05
- 1.898% U_3O_8 over 10.4 m in SHE-133-07
- 0.840% U_3O_8 over 6.1 m in SHE-133-11

The basement intercepts occur in both concordant, and high-grade discordant east-northeast-trending vein style, resulting in variable, and often low core axis angles. Significant basement intercepts (with a grade-thickness product of greater than 5.0) include:

- 2.213% U_3O_8 over 2.6 m in SHE-058B
- 1.917% U_3O_8 over 3.5 m, including 10.300% U_3O_8 over 0.5 m in SHE-133-02
- 9.514% U_3O_8 over 0.8 m, including 19.000% U_3O_8 over 0.4 m in SHE-133-03
- 8.097% U_3O_8 over 1.5 m in SHE-133-06

Overall style of mineralization and the open nature of the mineralization particularly in the basement at 58B suggest the potential for additional mineralization here and in the intervening areas between Kianna and Colette.

10.5.6 Colette Area

Drilling in the Colette area includes 95 drill holes distributed between the main portions of Colette to the north and the area of Colette South. The two areas have different styles. Main portions of Colette, northwest of the 8800N fault (Figure 7-2) are of dominantly unconformity-hosted mineralization, with best intercepts occurring along the projected traces of the northeast trending 8800N and Colette faults, particularly in a thick pod in the northwestern portion of the deposit (Figure 7-2). Best unconformity intercepts (with a grade-thickness product of greater than 5.0), which are at or close to true thickness, include:

- 1.432% U_3O_8 over 12.2 m, including 2.916% U_3O_8 over 5.6 m in hole SHE-45
- 2.342% U_3O_8 over 16.8 m, including 4.294% U_3O_8 over 7.8 m and 7.547% U_3O_8 over 2.7 m in hole SHE-52
- 4.099% U_3O_8 over 6.6 m, including 6.493% U_3O_8 over 3.9 m in hole SHE-59
- 1.732% U_3O_8 over 11.9 m, including 3.476% U_3O_8 over 4.6 m in hole SHE-65
- 1.058% U_3O_8 over 18.7 m, including 1.020% U_3O_8 over 8.3 m and 1.518% U_3O_8 over 7.4 m in hole SHE-66-02
- 1.218% eU_3O_8 over 27.9 m, including 1.409% eU_3O_8 over 10.3 m in hole SHE-66-03
- 0.625% U_3O_8 over 19.0 m, including 1.136% U_3O_8 over 2.5 m in hole SHE-66-04
- 0.429% U_3O_8 over 11.8 m in hole SHE-66-09 (Perched?)
- 1.720% U_3O_8 over 10.5 m in hole SHE-66-10 (Perched?)
- 1.122% U_3O_8 over 11.0 m in hole SHE-78
- 1.517% U_3O_8 over 8.9 m in hole SHE-91

The Colette South area's most significant drilling intercepts are from basement mineralization, occurring in association with unconformity mineralization above (Figure 10-4). Here, drilling in the SHE-111, SHE-126 and SHE-139 series drill holes defines a series of stacked concordant style zones of basement mineralization (Figure 10-4) over a strike length of at least 250 m. These intercepts (with a grade-thickness product of greater than 5.0) include:

- 0.907% eU_3O_8 over 10.8 m, including 3.91% eU_3O_8 over 1.2 m in hole SHE-111-02
- 0.343% eU_3O_8 over 6.6 m in hole SHE-111-03
- 0.582% eU_3O_8 over 16.2 m, and 2.458% U_3O_8 over 1.0 m in hole SHE-111-05 (two stacked basement zones)
- 3.227% U_3O_8 over 8.0 m, including 12.380% U_3O_8 over 0.5 m and 23.934% U_3O_8 over 0.5 m in hole SHE-111-06
- 1.429% U_3O_8 over 6.0 m, and 0.633% U_3O_8 over 4.5 m in hole SHE-111-11 (two stacked basement zones)
- 0.879% U_3O_8 over 11.5 m, including 4.810% U_3O_8 over 1.0 m in hole SHE-111-12
- 0.402% U_3O_8 over 13.8 m in hole SHE-126
- 0.700% U_3O_8 over 10.2 m, including 4.521% U_3O_8 over 1.0 m in hole SHE-126-01A

- 0.855% U_3O_8 over 7.5 m, including 4.047% U_3O_8 over 1.5 m in hole SHE-139-01

Mineralization is open down dip to the southwest on several sections. Presence of the adjacent 8800N fault to the northwest (Figure 7-2), and deflections in the pelitic gneiss, that may represent prospective east-west fault development, make this area a high priority target for additional, and potentially higher-grade Kianna style uranium mineralization in basement rocks.

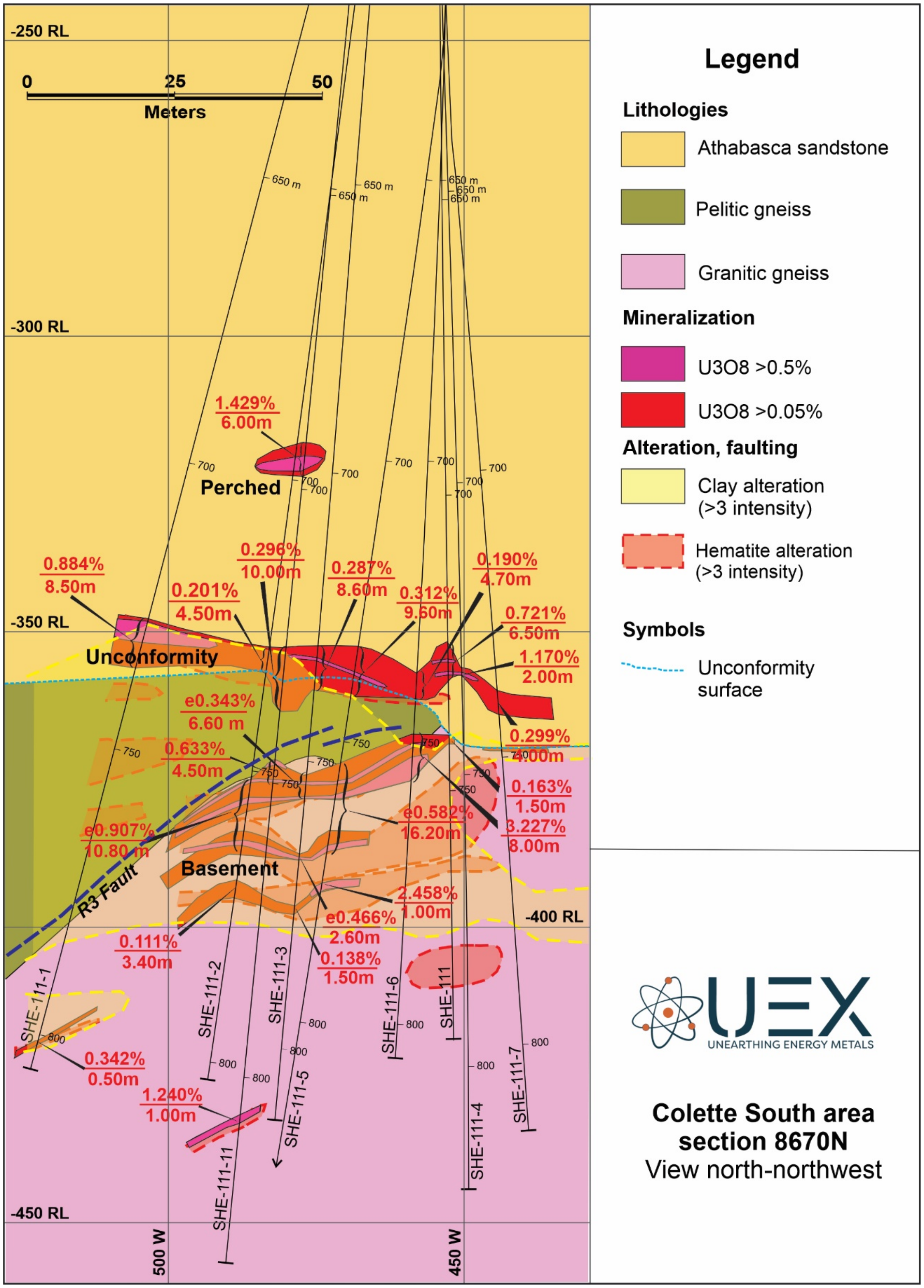

Figure 10-4: Colette south cross section, looking north-northwest, showing geology and mineralization morphology

10.6 Drilling in other Areas on the Shea Creek Property

Outside of the approximately 3 km of the Shea Creek property where exploration has been focused on the Anne, Kianna, Colette and 58B deposits, there are 96 drill holes which test other parts of the Shea Creek property, SHE-041 was drilled on land that has lapsed and is no longer part of the Shea Creek Property. This number includes holes drilled by other operators on other properties that have been subsequently incorporated into the Shea Creek Property. These holes are broadly grouped into four main areas (Figure 9-2 & Figure 9-3):

(i) Along the Saskatoon Lake Conductor for approximately 4.7 km southeast of the Anne Deposit, 34 drill holes or off cuts have been drilled in this area (Figure 10-5),

(ii) In southernmost portions of the Shea Creek Property along extensions of the Saskatoon Lake Conductor, where 28 drill holes have been completed (Figure 10-6 & Figure 10-7),

(iii) To the north northwest of the Shea Creek deposits along the northern extension of the Saskatoon Lake Conductor, where 18 drill holes or off-cuts have been drilled (Figure 10-8),

(iv) Drill holes which have tested parallel EM and resistivity anomalies either to the west or east of the Saskatoon Lake Conductor and the four main deposit areas. 16 drill holes or off-cuts have targeted to test this concept in various areas (Figure 9-2).

Drilling in these four areas is briefly reviewed below. Given the sparseness of drilling on most of the property outside of the area of the known deposits, including significant portions of the strike length of the Saskatoon Lake Conductor, and the high frequency of mineralization in the region, the authors consider the exploration potential to remain high in other areas of the property. Future expansion of existing DC resistivity survey coverage (Figure 9-1), and/or other new technologies such as SQUID EM receivers, is recommended to identify drill targets in other parts of the property.

Southeast of the Anne Area

For up to 4.7 km southeast of the Anne Deposit, thirty-four holes have been drilled on widely spaced cross sections have tested the Saskatoon Lake Conductor and its margins (Figure 9-2 & Figure 10-5). The earliest drill holes in this area include several from the initial 1992 drill program that were completed prior to the discovery of the Anne and Colette deposits. The most significant result in the area to date is SHE-002 drilled in 1992 which intersected a shallow dipping brecciated fault zone grading 0.34% U_3O_8 over 0.4 m from 706.8 to 707.2 m. The mineralization occurs in a zone of significant hydrothermal alteration and structural disruption of the basal Athabasca sandstone below the unconformity (Alonso et al., 1992) which is associated with green/black graphite-rich breccia. Minor mineralization was also intersected in drill hole SHE-127, which was drilled 200 m northwest of SHE-002, and anomalous radioactivity and alteration are also present in several further drill holes. All of these features continue to suggest that this area is highly prospective for uranium mineralization.

Shea South

Drilling in the Shea South target area has targeted the southernmost extensions of the Saskatoon Lake Conductor on the Shea Creek property, where it trends north to north-northeast near the Beatty River shear zone (Figure 9-2, Figure 10-6, & Figure 10-7). Twenty-eight drill holes have tested approximately 13 km of strike length of the conductor on fourteen widely spaced sections in this area, where the depth to the sub-Athabasca unconformity ranges from 400 m near the southern property boundary to 700 m in SHE-007 at the northern limit of this area approximately 13 km from the southern property boundary. Drilling has intersected up to 25 m of locally faulted garnet bearing pelitic and graphitic gneiss beneath locally altered sandstone, particularly in SHE-001B where it is strongly faulted and block tilted with intense argillization, silicification (drusy and vein quartz) and bleaching (Alonso et al., 1992). Although no mineralization has been intersected here, the alteration, anomalous geochemistry and basement faulting are favorable, and additional drill testing of this area will be required.

North Northwest of the Shea Creek Deposit Areas

The 18 drill holes in this area are along approximately 7 km of strike and are holes drilled by either ORANO or predecessor companies on the Douglas River Project or Titan Uranium as part of the Castle North Property and were added to the property in 2018 after it was staked in 2017 (Figure 9-2 & Figure 10-8).

Outlying Areas

Six drill holes have been drilled in the Klark Lake conductor target area that is up to 2.4 km west of the mineralization intersected in the Colette area (Figure 9-2). Anomalous results were obtained in one of the three holes, SHE-117, where above the unconformity, the sandstone column is bleached and silicified, with intervals of brecciation and dravite, silica and fragmental rich matrices from 650 m to 670 m. Brecciated areas are associated with elevated radiometrics where a peak of 200 cps in the SPP2 is associated with a quartz - coffinite filled fracture (Robbins et al., 2007). Brecciated graphitic rocks have been encountered in holes drilled targeting the Klark Lake Conductor, but with no significant alteration or mineralization identified to date, this target has not been a priority for further exploration.

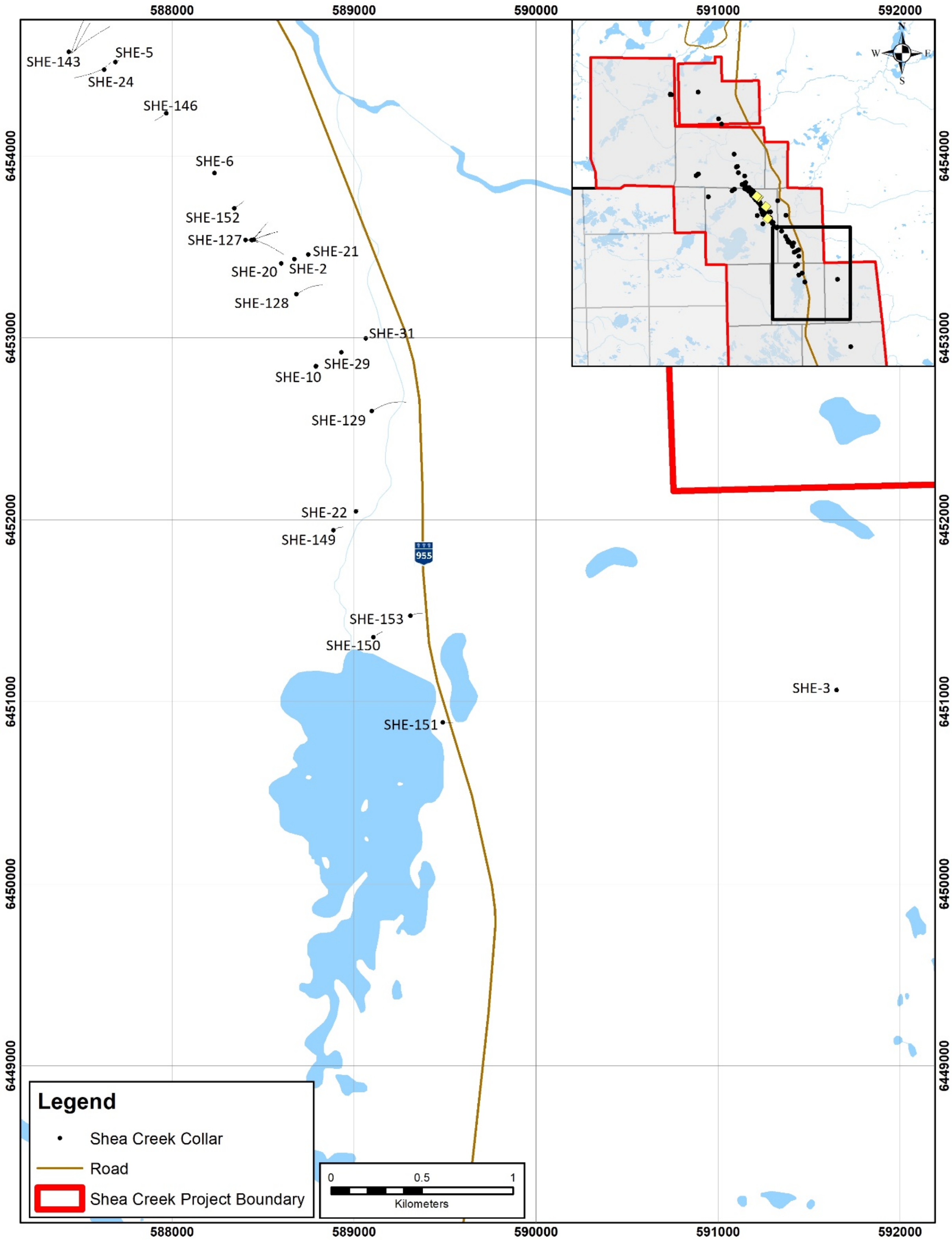

Figure 10-5: Shea Creek Drilling 4.7 km along trend south from Anne Deposit

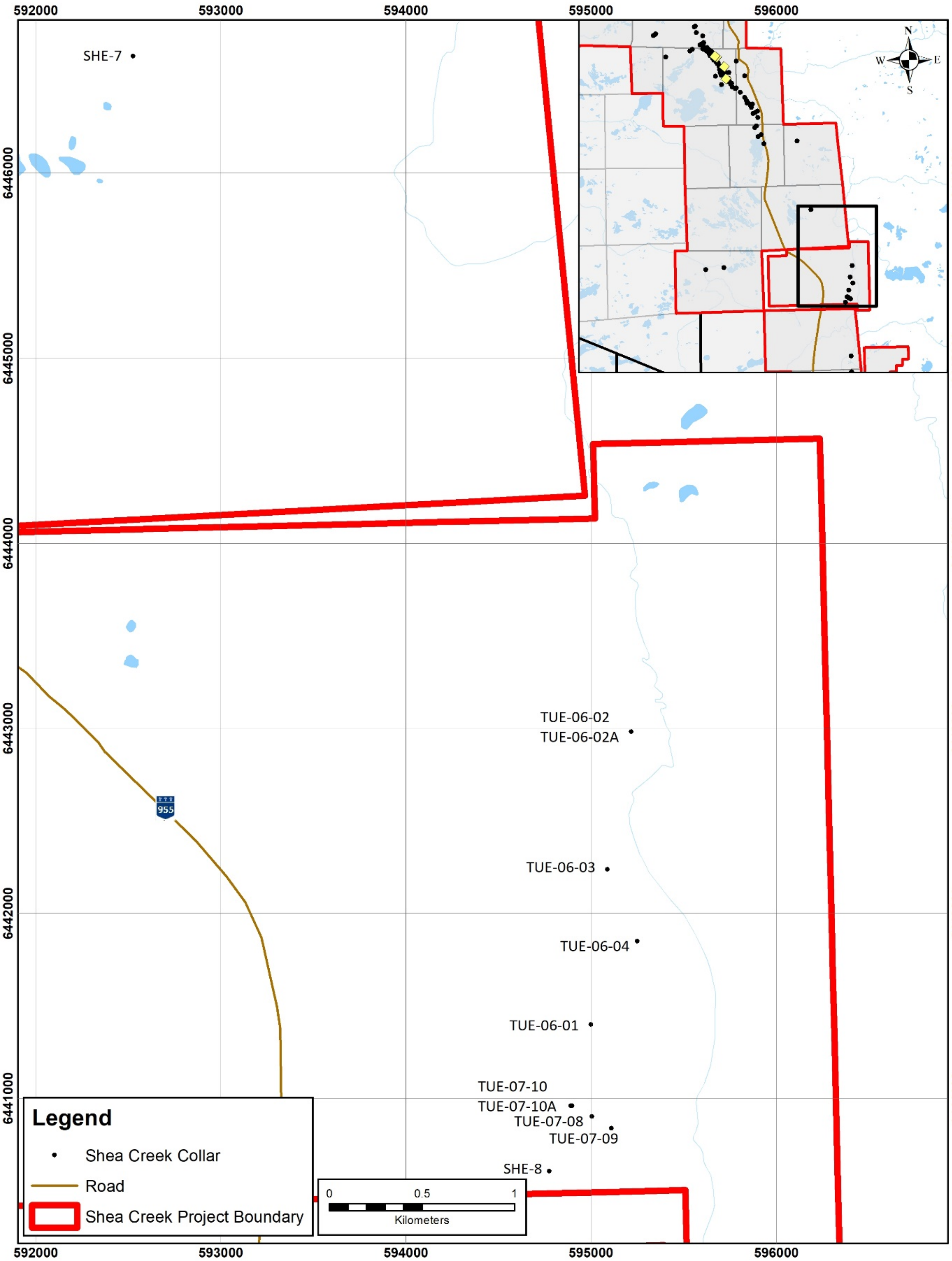

Figure 10-6: Shea Creek Drilling in the Southern Part of the Property (1 of 2)

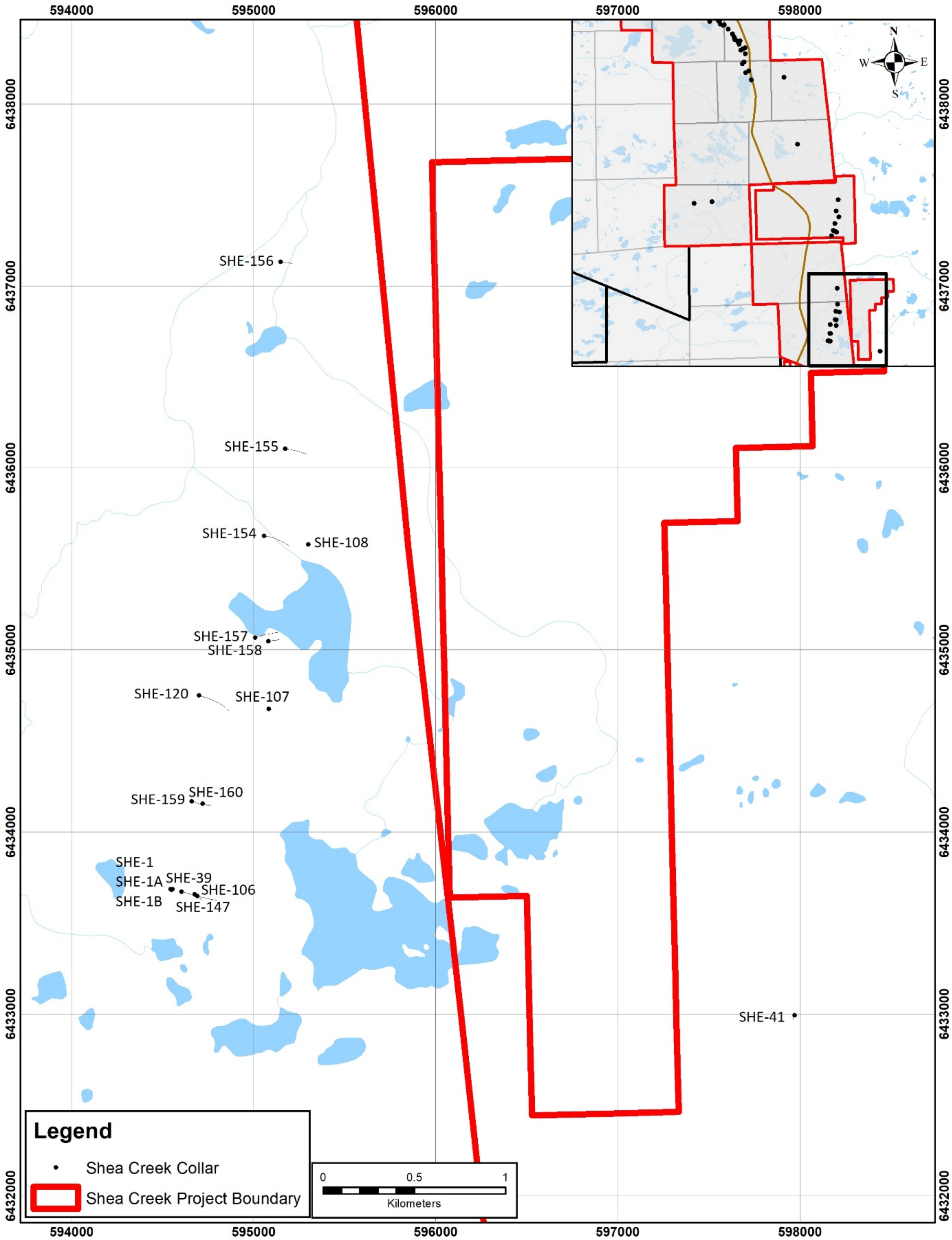

Figure 10-7: Shea Creek Drilling in the Southern Part of the Property (2 of 2)

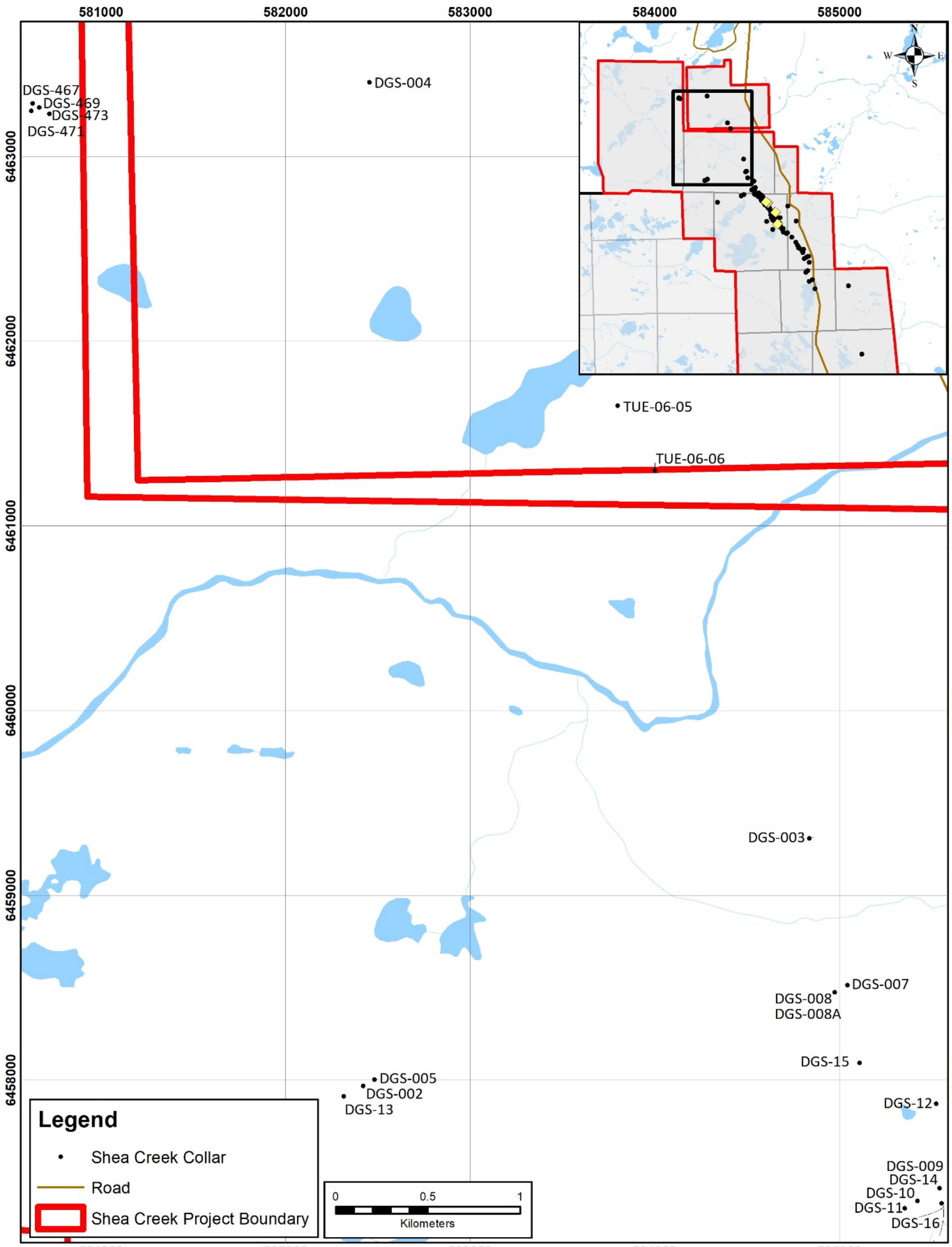

Figure 10-8: Shea Creek Drill Holes along Strike to the North Northwest from the Deposits

10.7 Relationship between Sample Length and True Thickness

Since the orientations of drill holes in the deposits vary, and the morphology of mineralized zones has variable orientation, the relationship of geochemical sample length and probe composited lengths in drill holes to the true thickness of mineralization is also variable. For mineralization developed at the unconformity in the Anne, Kianna and Colette deposits, the steep orientation of most drill holes crosses the flat-lying mineralization in intercepts which are at or close to true thickness. For basement hosted mineralization, in many areas thickness has not yet been determined since the morphology and orientation of mineralization is still interpretive so thickness is apparent, although in some areas in the southern Anne Deposit where basement mineralization is parallel to the metamorphic stratigraphy and a higher confidence level of its morphology has been determined, intercepts are close to true thickness. Perched mineralization at Kianna has been intersected by multiple closely spaced drill holes which indicate it has a lens-shaped shallow southwesterly dip, resulting in drill hole intercepts which are also generally close to true thickness.

10.8 Core Recovery Factors

In general, core recovery, which as described above is noted per metre in core logging, is very good and typically greater than 95%. However, there are areas within the lower sandstone column and near the unconformity where core recovery is poor in areas of desilicified sandstone and clay alteration that sometimes will overlap with mineralized intervals. Locally in such areas, low, or no core recovery, may occur over intervals of up to several metres. Such issues are rarer in the underlying basement gneiss sequence. It is ORANO's policy not to sample a mineralized interval if there is less than 75% recovery of the core over a 50 cm sample width. In such cases, downhole radiometric probe data is substituted in place of assay grades, since as described in Item 12.3, probe data correlates positively with uranium grade, and probe data are calibrated in areas of good recovery to geochemical values.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 Drill Core Handling and Logging Procedures

During active exploration at the Shea Creek property, the authors of this report were able to observe and review the core handling and sampling procedures directly while on site on multiple occasions. Procedures during these programs, and which will be followed in future programs as is outlined in ORANO operating procedures, are outlined below.

At the drill rig, core is removed from the core barrel by the drillers and placed directly into three row NQ wooden core boxes with standard 1.5 m length and a nominal 4.5 m capacity. Individual drill runs are identified with small wooden blocks, onto which the depth in metres is recorded. Diamond drill core is transported at the end of each drill shift to an enclosed core-handling facility at the Cluff Lake camp.

Drill holes are logged at the Shea Creek Exploration core logging facilities located on the Cluff Lake mine site. At the core logging facilities, the core is then measured to determine core recovery on a per metre basis and then scanned for radioactivity using a shielded SRAT SPP2 scintillometer to identify anomalously radioactive intervals (Koning et al., 2007). Along with other geological parameters, these reading form the basis for the selection of geochemical sampling intervals.

Once the core is radiometrically scanned, geologists log the drill core by recording their observations on field logs, including descriptions of: lithologies, mineralized intervals, friability, grain size in the sandstone, fracture density, alteration, color, structure, and a descriptive log of the core. In addition to the geological log, all core is routinely wet down and digitally photographed prior to geochemical sampling with a digital camera as a permanent record. Once each core box is logged and sampled, it is clearly identified with a metallic embossing tape and stored in the core storage compound. Beginning with the last 100 m above the unconformity to the bottom of the hole, the core boxes are placed in core racks within a fenced compound. The upper part of the drill hole core is stacked in perpendicular rows outside the fenced compound. All drill core is stored at the northeast end of Cluff Lake, on the Cluff Mining surface lease.

In addition to core logging by ORANO, UEX personnel have independently extensively relogged drill core from the project to better refine the interpretation of lithologies, alteration and mineralization controls for modeling purposes.

11.2 Drill Core Sampling

11.2.1 Geochemical Sampling

Several types of samples have been collected routinely from drill core at Shea Creek by ORANO personnel. These include, as per ORANO terminology: 1) “systematic” composite geochemical samples of both Athabasca sandstone and sub-Athabasca metamorphic basement rocks to characterize clay alteration and geochemical zoning associated with mineralization, 2) “selective” samples and split-core intervals for geochemical quantification of uranium-bearing mineralized and geologically-interesting material, 3) samples collected for determination of specific gravity – dry bulk density, and 4) non-geochemical samples for determination of mineralogy to assess of alteration patterns, lithotypes and mineralization characteristics. The "selective” samples form a quantitative assessment of mineralization grade and associated elemental abundances and are collected as continuous drill hole profiles though mineralized zones for utilization in ore resource modeling. The “systematic” and mineralogical samples are collected mainly to determine alteration patterns applicable to exploration that may extend beyond mineralized areas and allow more distal detection of mineralized areas. All of these sampling types and approaches are typical for uranium exploration and definition drilling programs in the Athabasca Basin.

“Selective” sampling for geochemistry and mineralogy includes split-core sampling of all of the mineralized intervals and unsplit grab sampling. Sample lengths of the mineralized split-core samples are from 20 cm to 50 cm but are generally 50 cm. Selective samples less than 50 cm in length are taken to represent the presence of narrow mineralized zones, such as veinlets. Selective samples over 50 cm in length are rarely taken, and only in zones of low radioactivity or zones having a homogenous radioactivity. The barren wall rock on either side of the mineralized intervals is also sampled. The minimum field radiometric value above which samples are regarded as ‘mineralized’ is 200 cps using a SPP2 or SPPγ scintillometer, aiding in the guiding of sample selection. After sampling, half core is retained in core boxes for potential future inspection or check sampling.

On site, after sampling from drill core, plastic bags containing the individual geochemical samples (systematic and selective) are grouped according to lithology (sandstone or basement) and radioactivity. Non-radioactive samples are placed in white plastic pails while the radioactive samples are placed in black painted metal “IP3” containers (Koning et al., 2007). The radioactive samples are shipped within Canada to the analytical laboratory in compliance with pertinent federal and regulations regarding their transport and handling.

11.2.2 Dry Bulk Density Sampling

In order to obtain accurate bulk density estimates for the Shea Creek deposits, UEX carried out a program of dry bulk density sampling from diamond drill core in January 2010 at the Cluff Lake core storage facility. The samples were systematically selected from the main mineralized zones to represent local major lithologic units, mineralization styles and alteration types, including different intensities of clay alteration. All samples were re-logged by UEX personnel according to UEX standard codes for rock type and intensity of alteration. The majority of the dry bulk density samples had been previously assayed for uranium. This paired data allowed for the establishment of a density-grade model. Some unsplit samples with no prior uranium analysis (80 total) were taken from fresh or less altered core outside the mineralized zones. Dry bulk density samples were collected from half split core which has been previously retained in the core box after geochemical sampling. An approximately 10 cm to 18 cm piece of half split core was submitted for each analysis. Samples were tagged and placed in sample bags on site, then shipped to the SRC in Saskatoon, Saskatchewan.

Dry bulk density sampling was conducted to represent the full range of mineralization styles and positions throughout the deposits. Their representative distribution enabled construction of a density-grade model demonstrating correlation between dry bulk density, clay alteration intensity, and uranium grade (U_3O_8 %); see Figure 13-4 in Palmer (2010) for further discussion. A total of 678 samples from 80 holes were collected during this program and were subject to dry bulk density testing. These included 306 samples from 37 Kianna drill holes, 268 samples from 29 Anne drill holes and 104 samples from 14 Colette drill holes. Based on the entire sample suite, mean dry bulk density for Shea Creek lithologies is 2.48 g/cm^3.

11.3 Sample Security

The Shea Creek core facility is on the former Cluff Lake mine site to which only ORANO (formerly AREVA) or other authorized personnel have access. As such, all on site sampling has been conducted in a secure setting. The mineralized bagged samples are placed into sealed IP-3 pails, while the barren bagged samples are placed in plastic pails which are temporarily stored outside of the sample preparation room until shipped by truck to the SRC Geoanalytical Laboratory in Saskatoon. Samples are shipped directly in sealed containers by truck to Saskatoon, and once in the SRC laboratory are processed within laboratory facilities which are restricted to SRC personnel. The potential for tampering is limited and could be detected by comparison to probe and scintillometer readings which are obtained independently from the geochemical results.

11.4 Laboratory Analytical Procedures

The sample pails/containers are shipped to the Saskatchewan Research Council (SRC) Geoanalytical Laboratories in Saskatoon for analysis, which is located at 125-15 Innovation Blvd, Saskatoon, Saskatchewan. The laboratory has an ISO/IEC 17025:2005 accredited quality management system (Scope of Accreditation # 537), from the Standards Council of Canada (SRC, 2007), and is accredited by the Canadian Association for Laboratory Accreditation Inc. After the analyses which are described below, analytical data are securely sent by SRC to ORANO (AREVA) through use of electronic transmission of the results and secured through the use of encryption and password protection.

SRC is an independent laboratory, and no associate, employee, officer or director of UEX is, or ever has been, involved in any aspect of sample preparation or analysis on samples from Shea Creek, or any other properties. The analytical procedures outlined below are standard procedures followed by SRC on the receipt of uranium-bearing samples for analysis.

11.4.1 Geochemical Sample Preparation

On arrival at the SRC lab, all samples are received and sorted into their matrix types (sandstone verses basement) and received radioactivity levels. Sample preparation (drying, crushing, and grinding) is done in separate facilities for sandstone and basement samples to reduce the probability of sample cross-contamination. Crushing and grinding of radioactive samples is done in another separate, Canadian Nuclear Safety Commission ("CNSC") licensed radioactive sample preparation facility. Radioactive material is kept in a CNSC-licensed concrete bunker until it can be transported by certified employees to the radioactive sample preparation facility. Sample drying is carried out, with the samples in their original bags, overnight in large low temperature (80° C) ovens. Following drying, the samples are crushed to 60% <2 mm using a steel jaw crusher. A 100-200 g split is taken of the crushed material using a riffle splitter.

This split is then ground to 90% <106 microns (<150 mesh) using a Cr-steel puck-and-ring grinding mill (for mineralized samples) or a motorized agate mortar & pestle grinding mill (for all non-mineralized samples). The resulting pulp is transferred to a clear plastic snap-top vial with the sample number labeled on the top. All grinding mills are cleaned between sample runs using steel wool and compressed air, with a between-sample grind of silica sand if the previous samples were clay-rich. Prior to the primary geochemical analysis, the sample material is digested into solution. A total tri-acid digestion, on a 250 mg aliquot of the sample pulp, uses a mixture of concentrated $HF/HNO_3/HclO_4$ acids to dissolve the pulp in a Teflon beaker over a hotplate and the residue, following drying, is dissolved in 15 ml of dilute ultrapure HNO_3.

For fluorimetric analysis of U, an aliquot of either total digestion solution or partial digestion solution is pipetted into a Pt-Rh dish and evaporated. A NaF/LiK pellet is placed on the dish and the sample is fused for 3 minutes using a propane rotary burner, then cooled to room temperature before fluorimetric analysis. Another digestion used is a Na_2O_2 fusion in which an aliquot of pulp is fused with a mixture of Na_2O_2 and $NaCO_3$ in a muffle oven. The fused mixture is subsequently dissolved in deionized water. Boron is analyzed by ICP-OES on this solution.

11.4.2 Analytical Procedures, Quality Control Measures and Security

The current primary geochemical analytical methods used for uranium analysis on the Shea Creek samples are ICP-MS (Inductively Coupled Plasma Mass Spectroscopy) for samples lower grade than 1,000 ppm U, and U_3O_8 uranium assay by ICP-OES (Inductively Coupled Plasma Optical Emission Spectroscopy) for samples determined by ICPMS to contain uranium concentrations higher than 1,000 ppm U; techniques and procedures are summarized below.

Initially, samples are digested using an aliquot of sample pulp. The aliquot is digested to dryness on a hotplate n a Teflon beaker using a mixture of concentrated $HF:HNO_3:HclO_4$. The residue is dissolved in dilute HNO_3 (SRC, 2007). Fluorimetry is used on low uranium samples (<100 ppm) as a comparison for Inductively Coupled Plasma – optical emission spectrometry ("ICPOES') uranium results.

In the case of uranium assay by ICPOES where uranium concentrations are determined to exceed 1,000 ppm U, a pulp is already generated from the first phase of preparation and assaying. A 1,000 mg of sample is digested for 1 hour in an HCl: HNO_3 acid solution.

The totally digested sample solution is then made up to 100 mls and a 10-fold dilution is taken for the analysis by ICPOES. Instruments are calibrated using certified commercial solutions. The instruments used are a Perkin Elmer Optima 300DV, Optima 4300DV or Optima 5300DV. The detection limit for U_3O_8 by this method is 0.001%.

For dry bulk density samples, SRC performed the density measurements on a dry basis (drying 24 hours at 110°C to 130°C) utilizing the wax-immersion method. Initially, all individual pieces were weighed for a dry weight, and then each individual piece was carefully wax coated to remove trapped air from the wax and reweighed. Wax coated samples were completely immersed in room temperature water and reweighed to determine the volume of the sample. After the immersion volume was determined, wet and dry bulk density was calculated and reported to ±0.01 g/cm3.

SRC management has developed quality assurance procedures to ensure that all raw data generated in-house is properly documented, reported and stored to meet confidentiality requirements. All raw data is recorded on internally controlled data forms. Electronically generated data is calculated and stored on computers. All computer-generated data is backed up on a daily basis. Access to samples and raw data is restricted to authorized SRC Geoanalytical personnel at all times. All data is verified by key personnel prior to reporting results. Laboratory reports are generated using SRC's LIMS.

11.5 Qualified Person's Opinion on Sampling, Preparation, Security, and Procedures

The core handling and logging procedures have been actively observed and reviewed on multiple occasions by the authors at the Cluff Lake core logging facility. Selective sampling of drill core is collected to industry standards by splitting half core, with retention of half in the core box. No inherent sampling biases were observed in the longitudinal splitting of the core and sample processes while sampling was observed, or in dril core which was re-logged by UEX personnel after sampling. The correlation of downhole radiometric probing, detailed radiometric SPP2 or RS120/125 readings, as well as assay comparison and the quality assurance/quality control ("QA/QC") program (Item 12) provide further levels of confidence.

In the authors' opinion, the core sizes, procedures for logging, recording of core recoveries, and sampling are standard industry practices. In conjunction with calibrated probe data in areas of poor recovery, they will provide an acceptable basis for the geological and geotechnical evaluation of the deposits. In addition, the procedures employed at Shea Creek during sampling, shipping, sample security, analytical procedures, inter-lab assay validation, validation by different laboratory techniques (uranium ICP-MS partial, ICP-MS total and ICP-OES; uranium by DNC analysis), QA/QC protocol (see below), and use of probe data conversion comply with industry standard practices. UEX personnel, including the authors, have also directly reviewed laboratory procedures and practices on site at SRC through two laboratory audits in which no significant issues were identified.

11.6 *Conversion of Radiometric Probe Data to Equivalent Uranium Grade*

In addition to the geochemical procedures, mineralized sections of drill holes are radiometrically logged downhole using either an ST22-2T or DHT27-STD low flux probe, as well as with an DHT27-HF (high flux) probe when very high-grade mineralization is encountered. The probe intervals are collected at 0.1m interval lengths and stored in the drill hole database as raw counts per second.

As is standard practice in uranium exploration in the Athabasca Basin, downhole radiometric probe data can be used to estimate uranium grade when sufficient comparative geochemical and probe data are available to calibrate the probe data specifically to individual deposits or mineralized areas. The converted probe data then form a check for the geochemical data and allow estimation of uranium grade of mineralized intervals in areas of poor core recovery where representative sampling is not possible. When sufficient correlation between probe and geochemical data has been established, often in mining settings where additional reconciliation to mill recoveries are available, probe data are often used in place of geochemical data.

The conversion formula from probe data to equivalent uranium grades (denoted as "eU" or "eU_3O_8") on an exploration project is periodically modified for different deposits and zones as new geochemical data is received. This is the case at Shea Creek, where probe data reported in UEX disclosures prior to 2008 utilized a modified conversion coefficient which had been developed by COGEMA in its operations at the Dominique-Peter Deposit at the Cluff Lake Mine (E. Koning, pers. Comm., 2009). In early 2008, AREVA calculated specific probe conversion coefficients for the Kianna and Anne deposits based on geochemical data received up to that time, which replaced the earlier Cluff Lake coefficient.

Where sufficiently calibrated, the converted probe data when used in place of geochemistry forms an alternative sampling method to determine the grade and distribution of uranium mineralization on the Shea Creek property. No employee, officer director or associate of UEX has been involved in the calculation of probe equivalent coefficients, and the resulting equivalent uranium concentrations, for the Shea Creek property. All probe equivalent calculations and conversions reported here were provided to UEX by ORANO (AREVA) as eU converted data, and subsequently converted to eU_3O_8 (conversion factor of 1.17924).

Data obtained from downhole probe results are converted to equivalent uranium grades ultilizing a two-step process:

4) Conversion of probe counts into Appareillage Volant de Prospection counts per second ("AVP" described further below), taking into account the type of probe used (ST22-2T, DHT27-STD or DHT27-HF), the drill conditions (hole diameter, drilling fluid, steel thickness of rod) and the counts themselves (correction for dead time). In the Anne and Kianna deposits, the average ratio of cps AVP to raw CPS varies from 40 to about 71.

5) Calibration of cps AVP into equivalent uranium grade (%eU or eU_3O_8) based on the correspondence between grade-thickness product of corrected AVP radiometrics with geochemical data in selected, representative mineralized intercepts of the same deposit or mineralized zone for which probe data is to be converted.

Details of these two steps and the conversion coefficients are outlined below.

11.6.1 AVP Conversion

Radiometric data obtained from low flux (i.e. ST22-2T and DHT27-STD) and high flux (DHT27-HF) gamma probes are converted into equivalent uranium (eU) values by first converting the raw probe counts per second ("c/s") into AVP c/s, a uranium mining standard developed by the French Atomic Energy Commission defined as:

1 AVP c/s = 1 ppm Uranium (in equilibrium)

The conversion of raw c/s to AVP c/s adjusts the downhole radiometric profile for drill hole size, fluid type, casing parameters and probe correction factors. Deposit specific correlations for the Anne and Kianna deposits were generated to convert AVP c/s into eU. These takes into account possible disequilibrium between recorded gamma counts from downhole probe data and in-situ uranium content, which vary the AVP value from the ideal 1 ppm U conversion.

Disequilibrium, as defined by the CIM Definition Standards for Uranium, is; an imbalance between the uranium content and the radioactivity emitted by a given volume of mineralized rock. This imbalance is caused by either differential mobilization of the more soluble uranium from the deposition site, relative to its daughter isotopes, or by a lack of time for the accumulation of the daughter isotopes to reach a state of equilibrium after the uranium has been deposited. Generally, when the decay series is in equilibrium the gamma plus beta radiation is proportional to the amount of uranium present.

11.6.2 Radiometric-Grade Correlation

The radiometric–grade correlation was generated by comparing geochemical sample results from mineralized samples to their corresponding probe data. Geochemical sample intervals for these correlations required a minimum core recovery of 75% in each assay interval. AREVA's proprietary software Sermine USURA was used to calculate the mathematical formula for conversion of radiometric data into equivalent uranium values. The correlations are first calculated on a grade interval support size and then adjusted to a 10 cm support size to apply against the raw probe data intervals.

Anne Deposit Radiometric-Grade Correlation

The radiometric-grade correlation for the Anne Deposit (Figure 11-1) was based on 119 mineralized intervals from 47 drill holes located within the Anne area, the drill holes and mineralized intervals used for the correlation are provided below, and based on a review of this information, are in the opinion of the authors, representative of the mineralization in the Anne Deposit. The conversion formula used to transform radiometric data into eU values (10 cm support) was expressed, in permil, as:

eU ‰ = 0.7563 * (AVP/1000)1.0178

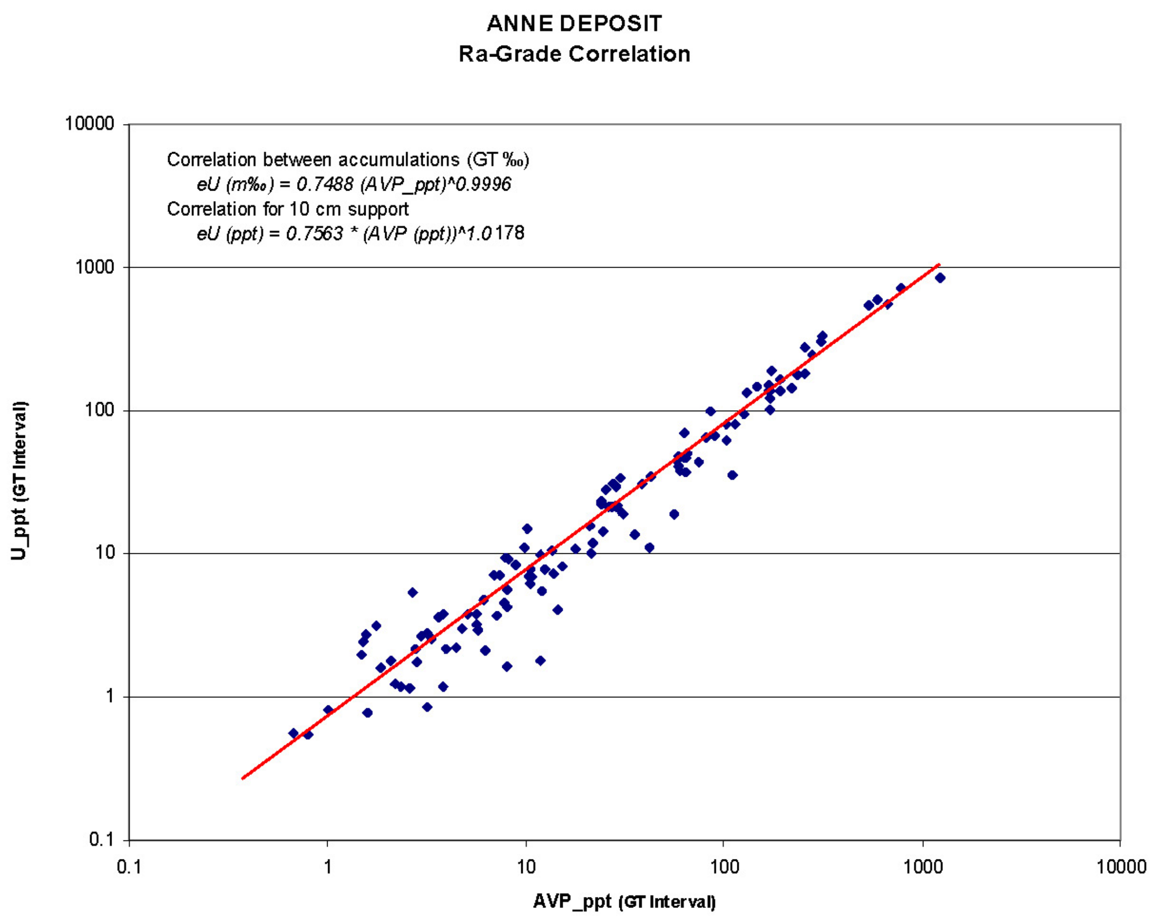

Figure 11-1: Anne Deposit – Sermine USURA correlation of Uranium Grade and AVP from representative composited intervals using the 2008 Anne grade-radiometric correlation.

Kianna Deposit Radiometric-Grade Correlation

The radiometric-grade correlation for the Kianna Deposit (Figure 11-2) was based on 107 mineralized intervals from 45 drill holes located within the Kianna area. The conversion formula used to transform radiometric data into eU values (10 cm support) is expressed, in permil, as:

eU ‰ = 0.8706 * (AVP/1000)1.0011

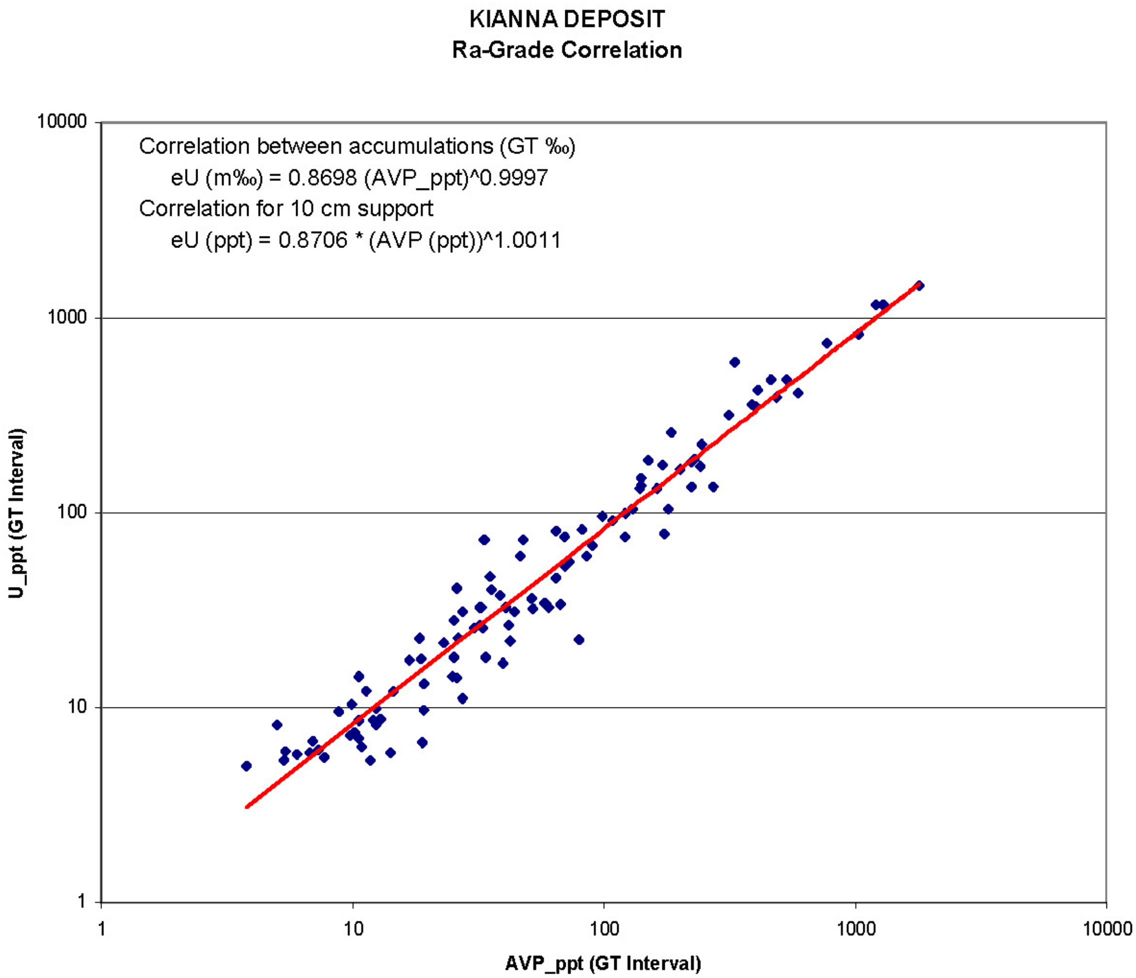

Figure 11-2: Kianna Deposit – Sermine USURA correlation of Uranium Grade and AVP from representative composited intervals using the 2008 Kianna grade-radiometric correlation. Graph is from Koning et al. (2007).

Colette Deposit and 58B Area Radiometric-Grade Correlation

The radiometric-grade correlation for a combined dataset from the Colette Deposit and 58B Area (Figure 11-3) was based on 48 mineralized intervals from 29 drill holes located within the Colette area and 14 mineralized intervals from 6 drill holes located within the 58B Area. The drill holes and mineralized intervals used for the correlation are provided in Revering (2010), and based on a review of this information, are in the opinion of the authors, representative of the mineralization in the Colette Deposit and 58B Area. The conversion formula used to transform radiometric data into eU values (10 cm support) is expressed, in permil, as:

$$eU\ ‰ = 0.8057 * (AVP/1000)1.0397$$

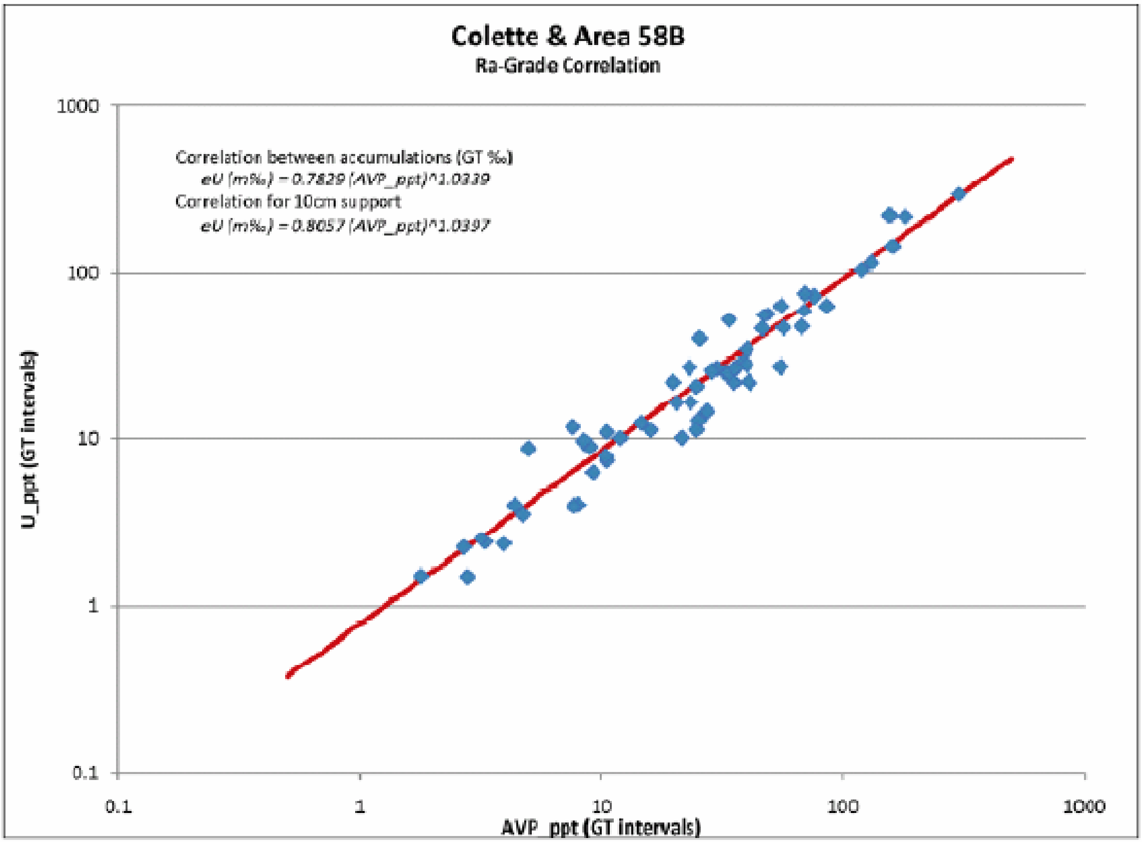

Figure 11-3: Colette Deposit and Area 58B – Sermine USURA correlation of uranium grade and AVP from representative composited intervals using the 2010 Colette and 58B grade-radiometric correlation

Berthet (2011) Radiometric-grade Correlation

More recently Berthet (2011) presented a radiometric-grade correlation computed for the entire Shea Creek mineralized trend: Anne, Kianna, 58B and Colette. It was verified that those four populations may be considered as one unique one. It resulted in a correlation based on 222 drill holes: 90 drill holes belonging to Anne, 80 drill holes belonging to Kianna and 52 drill holes belonging to 58B and Colette. The best 500 intervals (in terms of core recovery, sampling of background values surrounding the radiometric peak, consistency between radiometric and geochemical measurements) were used to perform the radiometric-grade correlation.

Considering the similarity of the Anne, Kianna, 58B and Colette GT populations, a global radiometric-grade correlation was computed. The conversion formula used to transform radiometric data into eU values (10 cm support) defined by Berthet (2011) is expressed, in permil, as:

$$eU \text{‰} = 0.7851 * (AVP/1000)1.0318$$

The report by Berthet (2011) recommends using this global correlation as it is consistent for the entire trend and is more robust than local ones as calculated on 500 mineralized intervals. Radiometric-grade calculations for drilling at Shea Creek in 2012 were based on this global radiometric-grade correlation. However as noted above, UEX's disclosure and the resource estimates presented in this report utilize geochemical data and only utilize probe data in isolated intervals where poor recovery compromises the ability to obtain representative geochemical analysis of intervals; the probe data do however provide a check for the geochemical sample intervals.

12 DATA VERIFICATION

Data verification by the QP related to drill hole data is outlined in section 12.1.

12.1 Data Verification Procedures Applied by Qualified Persons

The QP conducted data verification on data and information from the drilling programs, radiometric probing of the drill holes, geological logging information, core recovery and sampling, and the geochemical database from drill logs, downhole surveys and assay certificates,. This data verification by the QP consisted of verifying for drill holes that:

- Drill hole ID is unique,
- Sample ID is unique,
- Individual drill hole records must all be related to one unique Hole ID,
- Geological data intervals do not overlap in space,
- Sample data intervals do not overlap in space,
- Selective core intervals were checked and corroborated drill hole logging,
- Sample intervals do not extend past the end of hole depth,
- Downhole radiometric probing data correlate in space and pattern with assay and scintillometer data,
- Probing header information is correct (serial number, K factor, diameter, etc.),
- End of hole depth is consistent with drill log information,
- Core photos exist and corroborate the drill hole logging,
- Drilling date, hole size, and casing length are consistent with the drill logs,
- Spot check of drill hole collars with GPS for comparison against database provided by ORANO
- Spot checks of lithology and structure in drill core against data provided by ORANO

Jim Gray carried out the database audit and adjustments. Supporting audits on collar, collar survey, downhole survey, casing, core recovery, probing, density, geochemistry sample measurements, geology, alteration, and structure data were carried out by Dave Rhys, and Chris Hamel and were reviewed and approved by Jim Gray in 2022. Comparisons of all assays in the database against assay certificates were performed before the import of the data for resource estimation. The QP is confident that the data is adequate for the purpose of resource estimation. All inconsistencies and errors in the database were verified and corrected prior to resource estimation.

12.2 Limitations of Verification

Since all drill core which comprised the basis of the resource estimate was available to the authors for inspection and sampling, and the authors had unrestricted access to the exploration site and data sources, with the validations performed by the authors, there were no limitations on, nor any failure to conduct such verification during the validation process, which the authors believe was rigorous and provide consistent results.

12.3 Qualified Person's Opinion on the accuracy of the data for Resource Estimation

The Qualified Persons (Hamel, Rhys, and Gray) consider the Shea Creek project data to be reliable and appropriate for the preparation of a Mineral Resource estimate.

12.4 Comparison of Analytical Techniques

Several levels of data verification are utilized for the geochemistry data at Shea Creek, including:

(i) internal SRC laboratory quality assurance and quality control ("QA/QC"),

(ii) comparison of the results of the different geochemical analytical techniques for uranium which are routinely received (uranium partial and total by ICP-MS, U_3O_8 assay by ICP-OES)

(iii) comparison of assay data to probe results

(iv) external laboratory check analysis of selected samples

(v) Radiometric probes used in drill holes are regularly calibrated using the SRC gamma-probe calibration facility in Saskatoon, although repeat probe logging of the drill holes has not been done

UEX has conducted two lab audits on the primary lab, SRC laboratories, in Saskatoon, Saskatchewan. The lab audits cover all aspects of the sample preparation and analytical process, as apply to all of UEX's projects, and which are also applicable to samples submitted by ORANO as part of the Shea Creek Option Agreement. Minor recommendations were made regarding methodologies and equipment condition, but no deficiencies were noted.

A significant level of validation of geochemical results comes from the results of downhole radiometric probe data, from which calibrated conversion factors allow cross checking, and where necessary in areas of poor core recovery, substitution for geochemical data by radiometric probe data. The authors have reviewed the probe use and methodologies and find that a) these and the currently utilized coefficients that were calculated in 2008 conform to industry standards, and b) they form a reasonable estimation of uranium grade in the Shea Creek deposits.

Comparison of analytical pairs for analyses at Shea Creek by ICP-MS (total and partial U) and ICP-OES (U_3O_8 uranium assay) is presented in scatter plots in Figure 12-1 for 2006 and 2007 samples and Figure 12-2 for 2009 to 2012 samples. The plots show a high degree of correlation of the individual techniques, and the lack of outliers suggest minimal evidence for any significant transcription or accidental sample substitutions. Several data points which previously lay outside tolerance were checked, and any data transcription errors which were identified, have been corrected in the database.

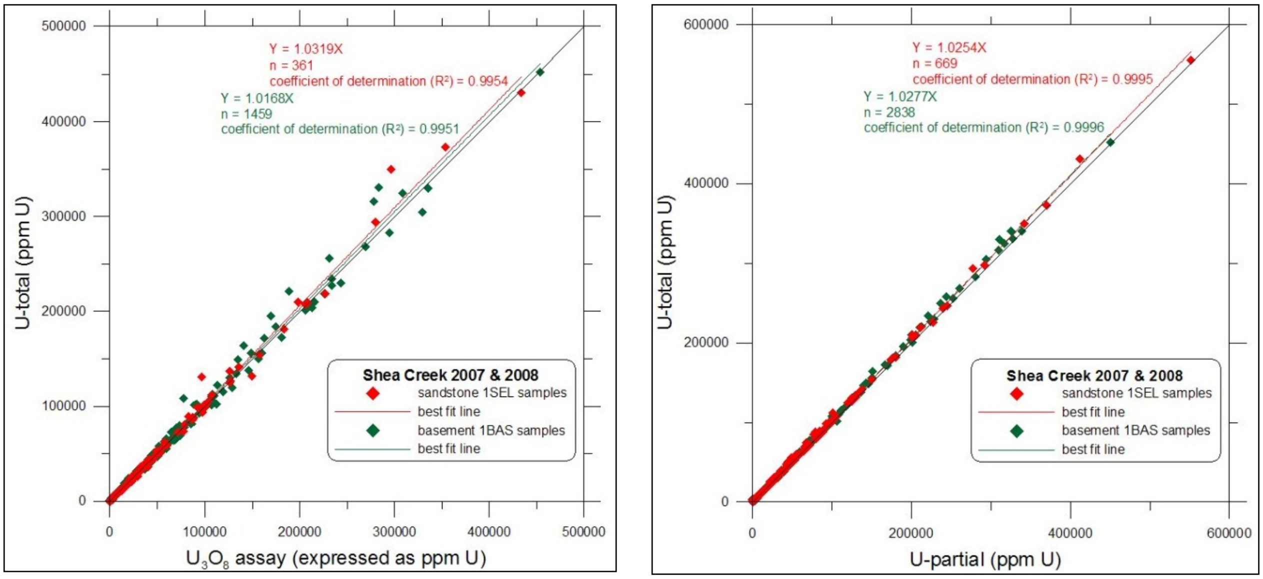

Figure 12-1: Scatter plots illustrating correlation between different uranium analytical techniques for 2007 and 2008 geochemical data from sandstone- (red) and basement- (green) hosted samples. All data are in ppm U. At left, U total by ICP-OES versus uranium assay U3O8 (wt%). At right, U total ICP-OES versus U partial ICP-OES. In both cases, sandstone and basement samples show strong positive correlations (R2 = 0.9951 to 0.9996).

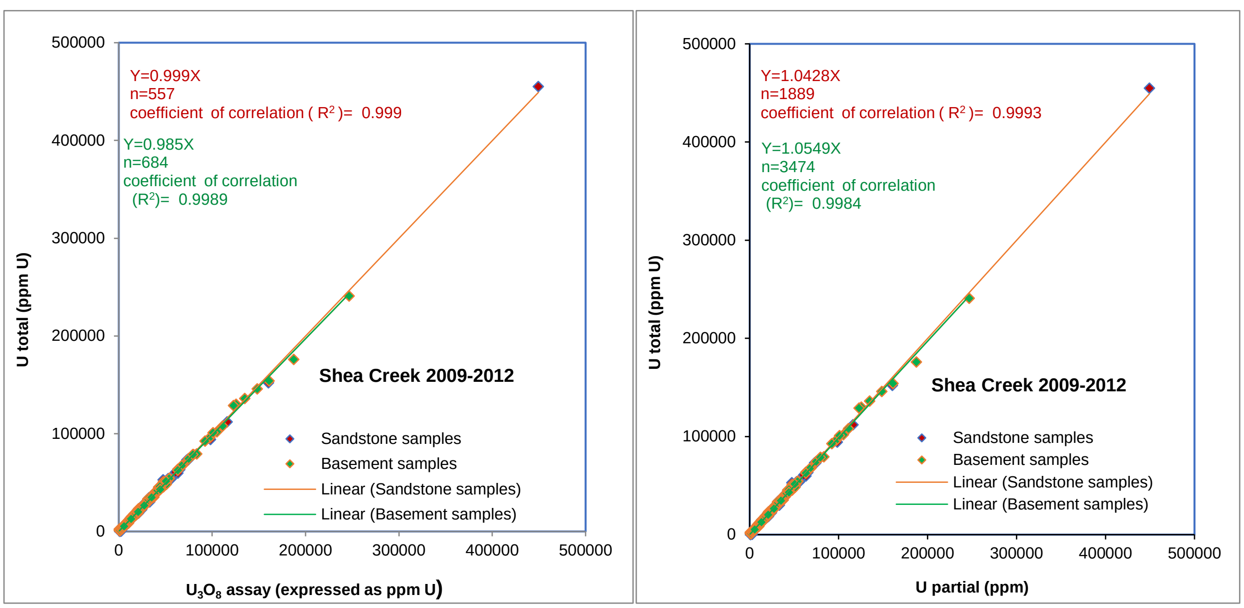

Figure 12-2: Scatter plots illustrating correlation between different uranium analytical techniques for 2009 to 2012 geochemical data from sandstone- (red) and basement- (green) hosted samples. All data are in ppm U. At left, U total by ICP-OES versus uranium assay U3O8 (wt%). At right, U total ICP-OES versus U partial ICP-OES. In both cases, sandstone and basement samples show strong positive correlations (R2 = 0.9989 to 0.9993).

Since 2006, ORANO and predecessor companies have used two special Quality Control samples that are inserted in the geochemical analysis stream: (1) an instrumental blank, and (2) an ORANO standard sample representing “background” sandstone. This latter control sample comprises a composite of 150 low-U (background) Athabasca sandstone samples taken from several different projects from across the Athabasca Basin (Koning et al., 2007). These Quality Control samples are inserted approximately every 25-30 regular samples (i.e. for each sample batch). A Field Duplicate sample is also taken approximately every 25-30 samples for both non-mineralized and mineralized materials. The data for the Quality Control samples and from the duplicate sampling program are examined for deviations from acceptable levels, which are from ± 5-10%, depending on the parameter in question. Data verification includes reviewing the geochemical data as found in the AREVA database with the original results reported by the geochemical laboratory. The QP observed the implementation of the Quality Control program at the project and reviewed the methodology adopted by ORANO and is satisfied that the program is effective and conforms to industry standards.

12.5 Laboratory Internal Quality Assurance and Quality Control

The SRC Geoanalytical laboratory uses a Laboratory Management System (LMS) for Quality Assurance. The LMS operates in accordance with ISO/IEC 17025:2005 (CAN-P-4E) “General Requirements for the Competence of Mineral Testing and Calibration laboratories” and is also compliant to CAN-P-1579 “Guidelines for Mineral Analysis Testing Laboratories”. The laboratory continues to participate in proficiency testing programs organized by CANMET (CCRMP/PTP-MAL).

The Quality Control measures carried out by the laboratory (SRC, 2007) include a minimum of one of the following measures that can be applied to each batch of samples to assure the quality of the results generated: (i) sample preparation QC checks, (ii) analysis of Certified Reference Standards, (iii) analysis of in-house reference materials and standards, (iv) traceable calibration standards for instrumentation, (v) analysis of duplicate samples, (vi) analysis of blind QC samples, (vii) spiking of samples to monitor process recoveries, (viii) proficiency testing and inter-laboratory comparisons, and (ix) QC monitoring.

The Quality Control measures applied to all methods within the laboratory have been established to ensure that they are compliant with the requirements of ISO/IEC 17025:2005. The Quality Control measures which are applied may vary from method to method and are selected on their suitability. All Quality Control measures applied at the laboratory are checked by supervisory and Quality Assurance personnel prior to reporting results. If results are found to be outside Quality Control limits, actions are taken to ensure that the samples are reprocessed, and the required quality limits are met. Analytical blanks, replicates, and certified rock standards are systematically inserted in each group of samples and their results are reported to the client (SRC, 2007). An analytical replicate (“repeat”) is inserted after every 25 samples (i.e. one per batch). This repeat sample is a repetition of the analytical measurement from the same solution. It is not a true replicate sample with analysis of a different solution made from a different aliquot of the same sample pulp.

Certified standard materials are analyzed routinely with results for a standard appearing approximately every 15 samples. The standards used for the ICP-OES package include in-house standards CG515 and LS4, both of which are in pulp form, and which are prepared in the same manner as the other samples. There is no trace of results for internal blank samples in the assay reports that we have compiled.

The authors have directly reviewed with SRC representatives these laboratory procedures and confirm that they meet industry standards.

12.6 External Laboratory Check Analyses

As an external check of the SRC uranium assay and ICP results, UEX selected pulps from geochemical samples collected from drill core at Shea Creek ranging from trace to >10% U3O8 for additional check analyses at other laboratories. Check analyses were performed at two independent labs, as is documented below, on a representative selection of original pulps. The pulps, which are stored at the SRC lab, were pulled and sent to the independent labs by SRC, at the request of AREVA.

12.6.1 Assay by Delayed Neutron Counting

A total of 258 samples were analyzed at SRC's Delayed Neutron Counting ("DNC") laboratory, a separate lab facility located at SRC Analytical Laboratories, 422 Downey Road, Saskatoon, Saskatchewan. Of these, 52 samples from this selected set had previously returned analyses from SRC grading >1,000 ppm uranium by Total Digestion, so the reanalyzed set comprises 20.2% of the total 258 samples grading >0.1% U_3O_8.

SRC (2008) documents the method summary for the DNC technique as follows. Samples have been previously prepared as pulps for ICP Total Digestion and the pulps are used for the DNC analysis. The pulps are irradiated in a Slowpoke 2 nuclear reactor for a given period of time. After irradiation, the samples are pneumatically transferred to a counting system equipped with 6 helium-3 detectors. After a suitable delay period, neutrons emanating from the sample are counted. The proportion of delayed neutrons emitted is related to the uranium concentration. For low concentrations of uranium, a minimum of 1 gram of sample is preferred, and larger sample sizes (2 to 5 g) will improve precision. Several blanks and certified uranium ore standards are analyzed to establish the instrument calibration. In addition, control samples are analyzed with each batch of samples to monitor the stability of the calibration. At least one in every 10 samples is analyzed in duplicate. The results of the instrument calibration, blanks, control samples and duplicates must be within specified limits otherwise corrective action is required.

There are 258 assay pairs that used both ICP-MS Total Digestion and the DNC assay techniques. Similar to the ICP-MS Total Digestion versus ICP-OES uranium assay comparison (Figure 14-1 left), the DNC results show a strong positive correlation (R^2 = 0.9974) with the ICP-MS Total Digestion results, (Figure 14-2). The DNC technique is not used in any estimation but as a check between assay techniques and labs.

A Thompson-Howarth plot reveals that 234 assay pairs between ICP-MS Total Digestion and DNC are within 10% precision (Figure 12-3, left). A total of three samples have a precision greater than 50% (Figure 12-4). In addition, the DNC results show a strong positive correlation (R^2 = 0.999) with the ICP-OES uranium assay results (Figure 12-3, right).

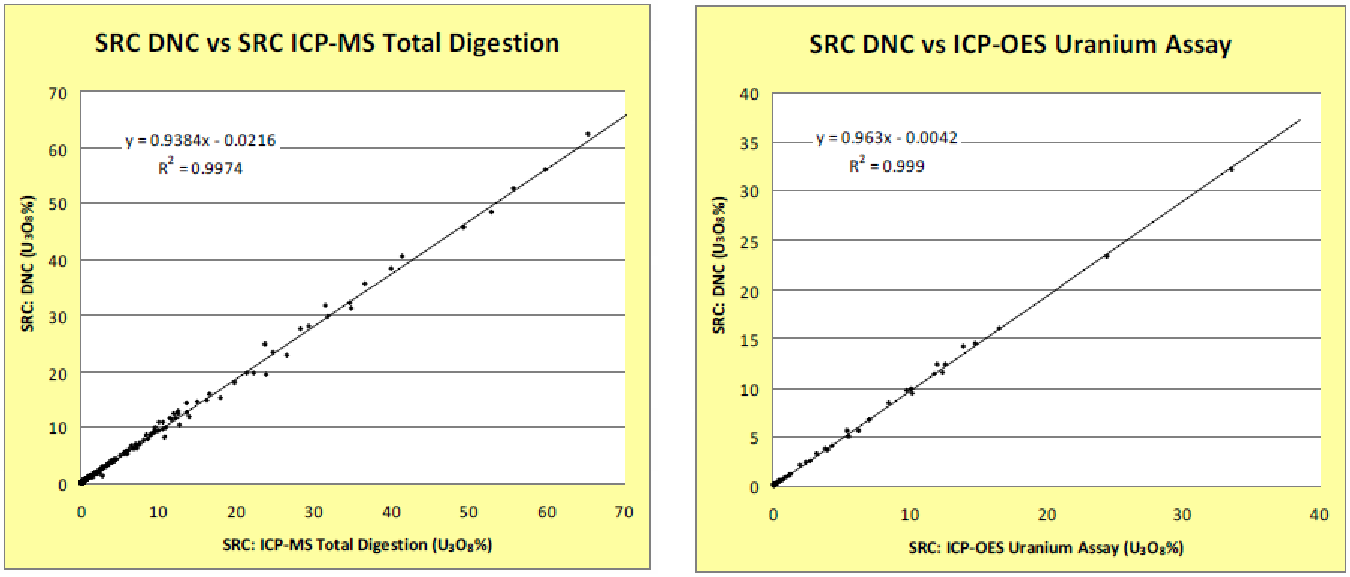

Figure 12-3: Thompson-Howarth plots of SRC verses DNC analyses from SRC. Left: Scatter plot of SRC DNC assay technique versus SRC ICP-MS total digestion in corresponding geochemical samples. **Right:** Scatter plot of SRC DNC assay technique versus SRC ICP-OES uranium assay in corresponding geochemical samples.

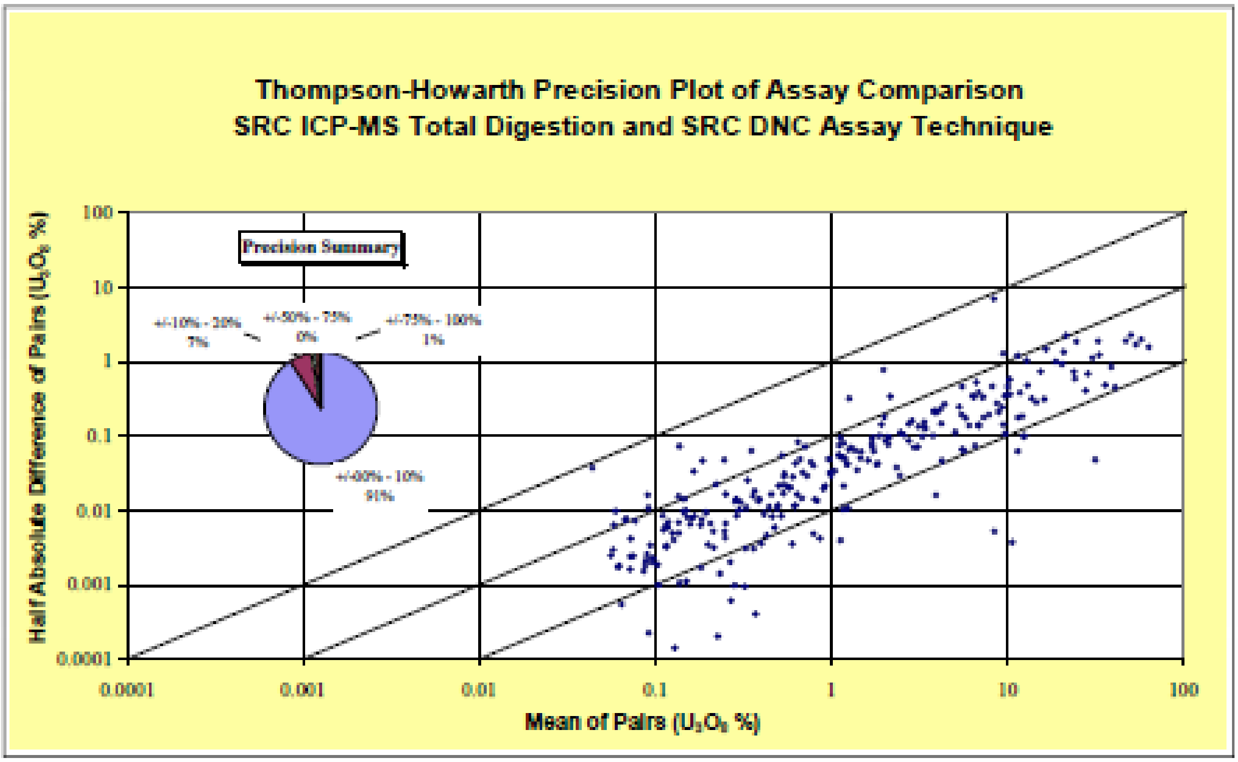

Figure 12-4: Thompson-Howarth precision plot of assay comparison between SRC ICP-MS total digestion and SRC DNC assay technique. The three diagonal lines represent 100%, 10% and 1% precision (left to right).

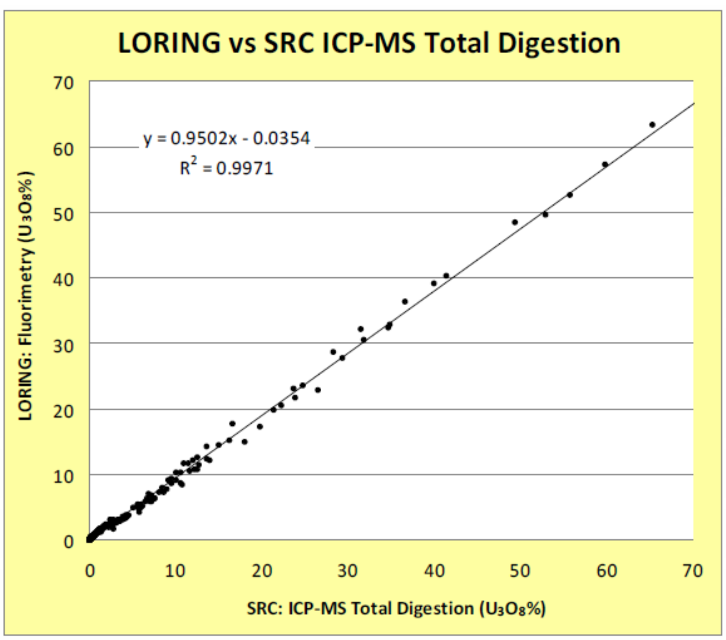

Figure 12-5: Scatter plot of Loring fluorimetry versus SRC ICP-MS total digestion in corresponding geochemical samples.

12.6.2 Loring Laboratories Ltd. Check Analyses

A total of 258 sample pulps previously analyzed by SRC were submitted to Loring Laboratories Ltd., of Calgary, Alberta ("Loring") for uranium analysis by fluorimetry. The population of samples analyzed by Loring represents a wide range of grades from 0.001% to >10% U_3O_8. Figure 12-5 reveals a strong positive correlation (R2 = 0.9971) with negligible scatter of sample pairs.

12.7 Conclusion: Qualified Person's Opinion on Data Verification and Validity

The review of the data verification by the QP indicates that the logging, sampling, shipping, sample security assessment, analytical procedures, inter-laboratory assay validation and validation by different techniques conform to industry standard practices.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

No representative mineral processing or metallurgical testing studies have yet been completed on the Shea Creek deposits. Cazakoff and Tennant (2008) report results of a limited scoping leach trial on uranium recovery from a small sample suite of quartered drill core from the Kianna basement, Kianna unconformity, Anne basement and Anne unconformity mineralization which was performed at AREVA's (now ORANO) McClean Lake mining facility. Although high recoveries were obtained, this study cannot be considered representative as the selection of samples for this suite was severely skewed to intervals with highly anomalous Ni-As-Mo concentrations that are atypical of the mineralization, particularly for the Kianna composites. Future studies should be selected from suites with representative typical uranium and other elemental concentrations. Mineralogical studies (e.g. Reyx, 1995) and a review of the geochemical database suggest that Shea Creek uranium mineralization is dominantly in pitchblende with associated secondary uranium minerals and low Ni-arsenide abundance, which are similar mineralogical and paragenetic characteristics to mineralization in other deposits in the region, including those at Cluff Lake which were previously mined.

14 MINERAL RESOURCES ESTIMATE

14.1 Previous Resource Estimates

In May 2010, UEX released an initial mineral resource estimate for the Kianna, Anne and Colette deposits on the Shea Creek property, which is documented in a Technical Report with an effective date of May 26, 2010 (Palmer, 2010). The 2010 Shea Creek resource estimate was prepared by K. Palmer, P.Geo., of Golder Associates Ltd. ("Golder"), an independent Qualified Person as defined by NI 43-101. The resource estimate utilized 361 diamond drill holes (totaling 292,100 m) which were drilled from 1992 to 2009 and was based on mineralized wireframe models from the deposits that were constructed using a minimum cut-off grade of 0.05% U_3O_8. The resource estimate was by ordinary kriging using the DATAMINE Studio 3 software package. The resource database utilized primarily uranium geochemical analyses from the Saskatchewan Research Council (SRC) Geoanalytical Laboratories in Saskatoon, Saskatchewan. In cases where geochemical analyses were not available due to incomplete sampling or core recovery issues, downhole gamma probe data were used to calculate equivalent uranium grades based on correlation of assays with previous probe results. A total of 678 dry bulk density samples, representing all rock types and mineralization styles from the three Shea Creek deposits, form a comprehensive basis for the density component of the resource estimate.

The 2010 uranium mineral resource estimate for the three Shea Creek deposits, Kianna, Anne and Colette, at a cut-off grade of 0.30% U_3O_8 totals:

- **63.57 million pounds of U_3O_8** in the Indicated mineral resource category comprising 1,872,600 tonnes grading 1.54% U_3O_8

- **24.53 million pounds of U_3O_8** in the Inferred mineral resource category comprising 1,068,900 tonnes grading 1.04% U_3O_8.

14.2 Current Resource

14.2.1 Introduction

This report documents an updated mineral resource for the Shea Creek deposits. This current mineral resource estimate was completed by James N. Gray, P.Geo., of Advantage Geoservices Limited, who is responsible for Item 14 of the report. This estimate is based on the results of 477 diamond drill holes and directional cuts received to December 31, 2012, and pertains to four deposit areas at Shea Creek: Colette, 58B, Kianna and Anne.

14.2.2 Available Data

This resource update includes results from 477 diamond drill holes to December 31, 2012. Figure 14-1 shows drill hole locations as well as the limits of the resource model and the relative locations of the four Shea Creek deposit areas. The block model geometry is listed in Table 14-1.

Results from 42 holes drilled on The Property, four of which were drilled close to estimation wireframes, were returned after the last grade estimate and have not been included in the estimate described here. These results are summarized in 14.3 and do not materially impact the total resource.

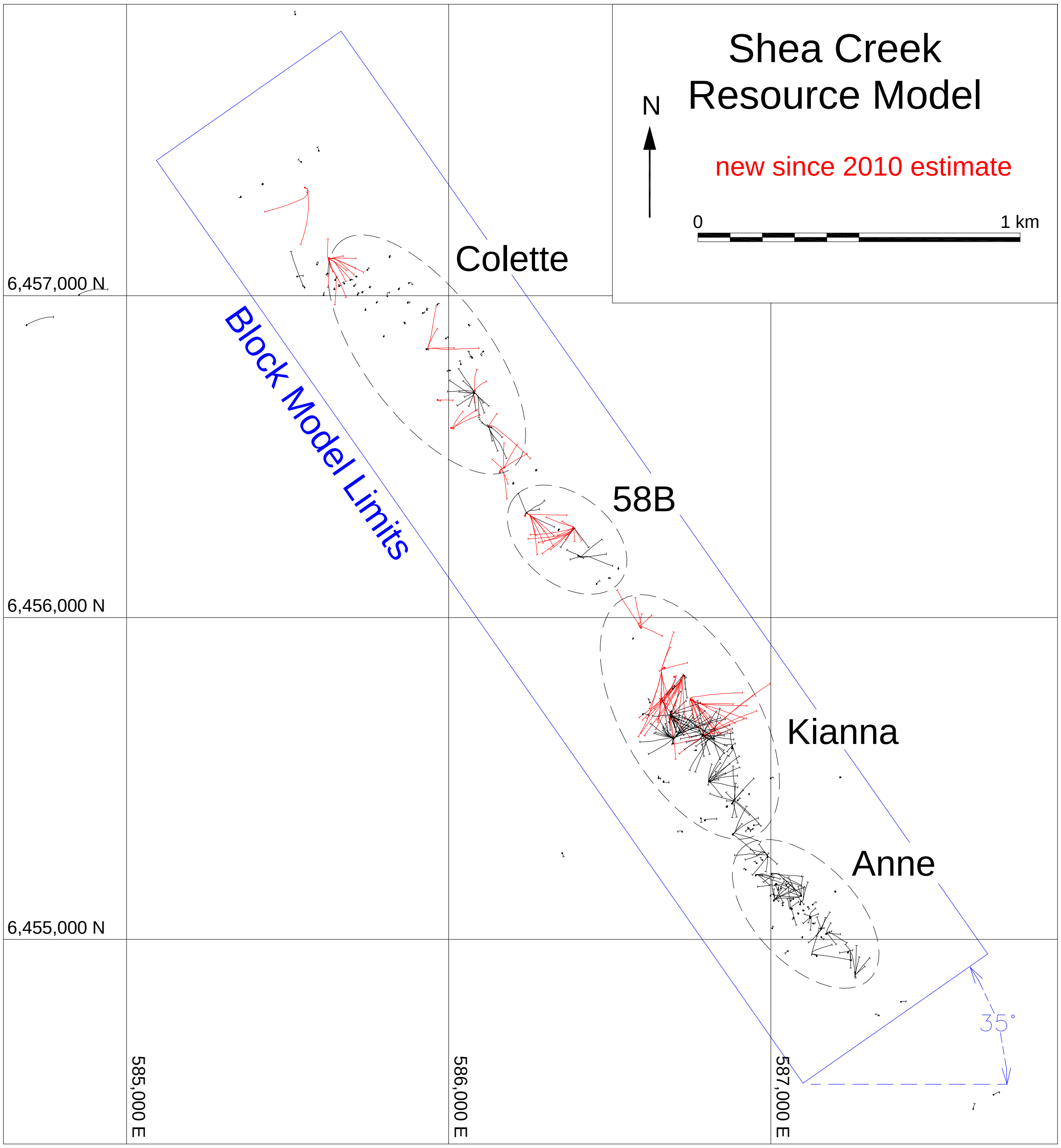

Figure 14-1: Resource Estimate Drilling, 2022 Block Model Limits and Deposit Areas

Table 14-1: Resource Block Model Setup

Block:	X	Y	Z
origin[1]	587,100	6,454,550	-250
size	5	5	5
*n*blk	140	700	80

Rotation: 35° counter-clockwise about origin

7,840,000 blocks

[1] SW model top, block edge

The mineral resource estimate primarily utilized uranium geochemical analyses from the Saskatchewan Research Council (SRC) Geoanalytical Laboratories in Saskatoon, Saskatchewan. The principal geochemical analytical methods used for uranium analysis on the Shea Creek samples are ICP-MS (Inductively Coupled Plasma Mass Spectroscopy) for samples with grades lower than 1,000 ppm U, and U3O8 uranium assay by ICP-OES (Inductively Coupled Plasma Optical Emission Spectroscopy) for samples determined by ICP-MS to contain uranium concentrations higher than 1,000 ppm U. In cases where geochemical analyses were not available due to incomplete sampling or core recovery issues, downhole gamma probe data were used to calculate equivalent uranium grades obtained using a DHT27-STD gamma probe which collects continuous readings along the length of the drill hole. Probe results are calibrated using an algorithm calculated from the comparison of probe results against geochemical analyses in previous drill holes in the Shea Creek area. Table 14-2 summarizes analyses used and mean grades, by data source.

Table 14-2: Analysis Type Summary

Source	Outside Wireframes		Inside Wireframes		Total
	Length (m)	% U_3O_8	Length (m)	% U_3O_8	Length (m)
ICP-OES	230	0.360	1,770	1.575	2,000
ICP-MS	2,160	0.026	4,320	0.667	6,480
Probe	21,550	0.011	1,960	0.297	23,520
Total	**23,940**	**0.016**	**8,050**	**0.776**	**32,000**

14.2.3 Geological Model

Controls for grade interpolation were based on solids prepared by UEX personnel. These wireframes were generated to bound zones, above a 0.05% U_3O_8 threshold for geological modelling within the geologic context of perched, unconformity and basement style mineralization. This technique is consistent with industry practice for this deposit type. A total of 41 wireframes were used for this resource estimate; zones were referenced based on the coding system outlined in Table 14-3.

Nine of the wireframe volumes were excluded from resource tabulation due to their weak drill support. These zones were intersected by three or four holes over generally short intersection lengths and would be logical targets for future exploration drilling.

Table 14-3: Geological Model and Drill Support

Area	Min. Type	Block Code	Volume (1,000s m^3)	Holes	No. of Composites
Colette	Perched	110	18.5	3	31
	Unconformity	121	453.9	60	608
		122	18.7	2	36
	Basement	131	107.3	17	263
		132	12.8	3	30
58B	Unconformity	221	140.6	32	223
		222	43.9	8	50
	Basement	231	79.0	6	48
		232	69.2	13	117
		233	12.1	10	29
		234	5.8	3	16
		235	0.8	4	4
		236	3.4	5	16
		237	4.6	4	9
Kianna	Perched	311	23.3	21	267
		312	2.4	6	37
		313	3.7	5	43
	Unconformity	320	418.8	152	1,330
	Basement	331	494.4	56	2,406
		332	91.9	17	182
		333	27.9	23	181
		334	40.2	8	78
		335	19.0	21	77
		336	12.1	5	18
		337	1.1	8	22
		338	5.3	5	38
		339	1.9	4	5
		340	1.2	3	8
		341	112.2	8	129
		342	133.0	6	105
		343	165.9	26	573
Anne	Perched	410	8.7	7	27
	Unconformity	420	308.3	89	822
	Basement	431	50.1	13	368
		432	84.1	33	213
		434	4.6	4	8
		435	8.7	6	53
		436	33.7	12	99
		437	16.4	5	28
		438	49.0	21	110
		439	8.4	9	39
Zone not included in resource due to lack of drill support.					8,746

14.2.4 Bulk Density

A total of 678 dry bulk density samples, representing all rock types and mineralization styles from the Shea Creek deposits, form the basis for the density component of the mineral resource estimate.

The strong correlation between density and U_3O_8 grade dictated that a density weighted interpolation was appropriate (Figure 4-1).

Correlation developed for the 2010 estimate recognized the grade-density relationship as a function of degree of clay alteration logged in the drill core; the Qualified Person notes that this remains valid and this approach has been utilized for the updated resource. Density values were calculated for all sample intervals based on the 2010 parameters as listed in Table 14-4.

Table 14-4: Density Calculation per Sample Interval

Clay Ateration Index		Density (t/m^3)
Low-Med	≤ 2.5	$0.0305 * \%U_3O_8 + 2.4472$
High	> 2.5	$0.0111 * \%U_3O_8 + 2.1997$

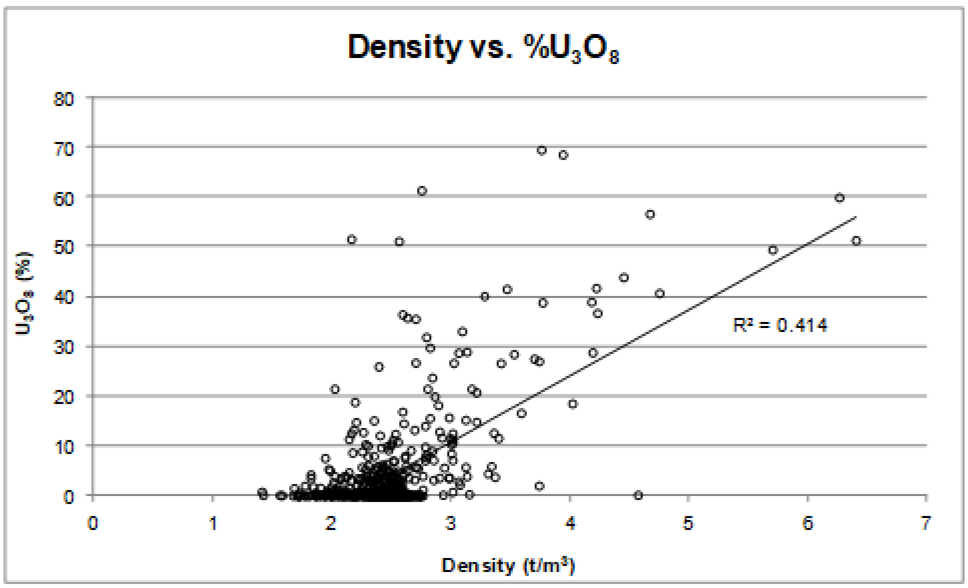

Figure 14-2: Density - Grade Correlation

14.2.5 Interval Compositing

Sample data was composited to a downhole length of 1.0 m within intervals of intersection with the 0.05% U_3O_8 grade wireframes. Essentially all assay intervals were less than 1.0 m in length; 82% were 0.5 m. The choice of a 1.0 m composite interval removed some of the variability of shorter samples while being better suited to estimation of some of the thin zones of unconformity mineralization, than would a longer interval. A total of 135 composites shorter than 0.25 m were removed from the estimation dataset once it was determined that this did not fundamentally affect grade statistics by wireframe zone.

Table 14-5 lists statistics by zone for the DU and U_3O_8 variables; both show a high degree of variability as indicated by the high coefficients of variation (CV) and the large difference between mean and median values. This variability illustrates the need for restriction on interpolation at the high end of the DU population.

Table 14-5: Uncapped Composite Statistics

Area	Min. Type	Block Code	Count	DU (Density x %U_3O_8)						U_3O_8 (%)					
				Mean	Q_1	Q_2 (median)	Q_3	Max	CV	Mean	Q_1	Q_2 (median)	Q_3	Max	CV
Colette	Perched	110	31	1.046	0.040	0.077	0.676	8.041	2.0	0.416	0.016	0.031	0.274	3.152	2.0
	Unconformity	121	608	1.321	0.089	0.347	1.295	28.710	2.1	0.523	0.037	0.144	0.527	10.333	2.0
		122	36	0.530	0.030	0.088	0.300	4.469	1.9	0.212	0.012	0.036	0.123	1.781	1.9
	Basement	131	263	0.786	0.023	0.077	0.451	23.128	2.9	0.315	0.009	0.033	0.193	7.468	2.7
		132	30	0.835	0.020	0.065	0.283	13.258	3.0	0.321	0.009	0.029	0.116	4.894	2.9
58B	Unconformity	221	223	1.170	0.046	0.207	0.686	30.171	2.6	0.453	0.019	0.085	0.281	10.095	2.4
		222	50	0.404	0.090	0.162	0.328	4.456	1.9	0.163	0.037	0.068	0.134	1.741	1.9
	Basement	231	48	0.269	0.000	0.057	0.206	2.791	2.3	0.109	0.000	0.023	0.091	1.108	2.2
		232	117	1.049	0.015	0.122	0.840	28.474	3.1	0.424	0.007	0.053	0.338	9.962	2.9
		233	29	1.807	0.039	0.178	0.760	23.059	2.5	0.665	0.016	0.079	0.309	7.613	2.4
		234	16	0.212	0.040	0.055	0.269	1.477	1.7	0.096	0.018	0.025	0.122	0.669	1.7
		235	4	0.541	0.211	0.305	0.636	1.432	1.1	0.220	0.086	0.124	0.258	0.580	1.1
		236	16	0.267	0.084	0.219	0.303	1.354	1.2	0.110	0.034	0.089	0.124	0.548	1.2
		237	9	0.825	0.123	0.281	0.897	4.248	1.6	0.328	0.050	0.115	0.365	1.613	1.5
Kianna	Perched	311	267	10.459	0.089	0.539	6.838	301.764	2.9	3.400	0.036	0.220	2.862	67.077	2.4
		312	37	4.293	0.124	0.226	0.867	95.982	3.9	1.244	0.051	0.092	0.352	24.546	3.6
		313	43	1.781	0.030	0.144	0.981	16.862	2.0	0.680	0.012	0.059	0.397	5.910	2.0
	Unconformity	320	1,330	2.412	0.074	0.273	1.018	171.685	4.0	0.854	0.032	0.113	0.417	41.048	3.3
	Basement	331	2,406	1.282	0.011	0.045	0.239	183.566	5.2	0.513	0.005	0.020	0.106	59.255	4.7
		332	182	0.453	0.007	0.048	0.391	6.957	2.2	0.186	0.003	0.022	0.169	2.635	2.1
		333	181	0.283	0.022	0.072	0.188	7.989	2.7	0.122	0.009	0.031	0.085	3.551	2.7
		334	78	1.378	0.010	0.055	0.272	23.772	3.3	0.537	0.004	0.023	0.120	9.161	3.3
		335	77	1.657	0.032	0.238	0.910	38.790	3.1	0.666	0.015	0.108	0.369	15.281	3.0
		336	18	0.236	0.000	0.158	0.340	0.940	1.2	0.104	0.000	0.069	0.152	0.426	1.2
		337	22	0.094	0.031	0.086	0.112	0.446	1.0	0.040	0.014	0.038	0.049	0.182	1.0
		338	38	0.555	0.008	0.131	0.442	5.799	2.1	0.225	0.003	0.057	0.184	2.290	2.0
		339	5	0.587	0.278	0.664	0.726	1.060	0.6	0.239	0.114	0.270	0.296	0.431	0.6
		340	8	0.392	0.057	0.177	0.265	2.166	1.8	0.158	0.023	0.072	0.108	0.867	1.8
		341	129	4.026	0.043	0.197	1.214	126.764	3.5	1.255	0.017	0.080	0.492	32.087	3.1
		342	105	1.434	0.017	0.101	0.378	56.723	4.3	0.478	0.007	0.041	0.154	15.796	3.8
		343	573	0.859	0.001	0.051	0.340	71.004	4.7	0.359	0.000	0.023	0.154	27.354	4.4
Anne	Perched	410	27	0.432	0.132	0.244	0.700	1.438	1.0	0.175	0.054	0.100	0.283	0.583	1.0
	Unconformity	420	822	4.987	0.141	0.442	1.590	233.365	4.0	1.579	0.060	0.189	0.676	50.859	3.2
	Basement	431	368	1.677	0.010	0.058	1.191	43.406	2.5	0.708	0.004	0.026	0.493	17.356	2.4
		432	213	0.779	0.015	0.135	0.522	28.025	3.7	0.323	0.006	0.059	0.223	11.687	3.5
		434	8	0.398	0.089	0.255	0.302	1.853	1.5	0.179	0.041	0.113	0.134	0.839	1.5
		435	53	0.303	0.017	0.080	0.401	3.576	2.0	0.135	0.008	0.035	0.182	1.606	2.0
		436	99	0.605	0.007	0.018	0.222	15.307	3.0	0.263	0.003	0.008	0.101	6.432	2.9
		437	28	0.258	0.057	0.148	0.256	1.685	1.5	0.110	0.026	0.067	0.113	0.680	1.4
		438	110	1.481	0.021	0.225	1.589	30.567	2.5	0.590	0.009	0.097	0.679	10.972	2.3
		439	39	0.637	0.013	0.058	0.407	9.323	2.7	0.273	0.005	0.026	0.175	4.139	2.7

Zone not included in resource due to lack of drill support.

14.2.6 *Spatial Analysis*

Variography was completed on the DU variable by mineralized zone. The number of composites was insufficient in many zones to calculate meaningful experimental semi-variograms. In those cases, data was grouped and the resultant variogram model was rotated to best fit and applied to each zone in the group. Variogram models are listed in Table 14-6.

Table 14-6: Variogram Models

Wireframe Zone		Direction (dip/azimuth)	Nugget Effect	Spherical Component 1		Spherical Component 2	
				Sill	Range(m)	Sill	Range(m)
110		00/068 68/338 -84/338	0.10	0.56	3 3 4	0.34	5 10 16
121		00/148 -6/058 84/058	0.14	0.46	33 17 3	0.40	40 28 7
122		00/163 -11/073 79/073	0.14	0.46	33 17 3	0.40	40 28 7
221		00/129 -18/039 72/039	0.14	0.46	33 17 3	0.40	40 28 7
222		00/155 -10/065 80/065	0.14	0.46	33 17 3	0.40	40 28 7
311		00/000 -33/270 57/270	0.10	0.56	3 3 4	0.34	5 10 16
312		00/112 26/022 -64/022	0.10	0.56	3 3 4	0.34	5 10 16
313		00/161 -19/071 71/071	0.10	0.56	3 3 4	0.34	5 10 16
320		00/135 -15/045 75/045	0.14	0.46	33 17 3	0.40	40 28 7
331		08/079 54/338 35/175	0.38	0.29	5 5 3	0.33	15 11 7
343		-72/124 -10/003 15/090	0.28	0.5	2 22 8	0.22	11 33 18
410		00/115 06/025 -84/025	0.10	0.56	3 3 4	0.34	5 10 16
420		00/136 -16/046 74/046	0.14	0.46	33 17 3	0.40	40 28 7
431		-10/043 -76/270 10/315	0.47	0.17	11 11 7	0.36	19 12 11
Basement1 Colette & 58B	131, 132, 232, 233, 234, 235, 236, 237	05/150 85/330 00/240	0.45	0.24	46 5 28	0.31	65 12 55
Basement2 Kianna	231, 332 to 342	35/140 55/320 00/230	0.30	0.36	18 3 15	0.34	37 5 30
Basement3 Anne	431 to 439	20/135 70/315 00/225	0.38	0.32	19 3 12	0.30	41 11 23

14.2.7 Grade Capping

Grade capping is used to control the impact of extreme, outlier high-grade samples on the overall resource estimate. Due to variability in sample lengths, especially the very short (10 cm) probe sample intervals, the decision was made to cap composite data as opposed to assays.

Capping was applied to the composited DU variable by wireframe zone. Cap levels were determined through analysis of histograms and log-probability plots. Table 14-7 summarizes the capping process listing cap levels (‘Max’ column on right hand side), the number of composites capped in each zone as well as the impact in terms of reducing CVs.

Table 14-7: Capped Composite Statistics

Area	Min. Type	Block Code	Count	DU (Density x %U_3O_8) Mean	Max	CV	*n*Cap	Capped: DU Mean	Max	CV
Colette	Perched	110	31	1.046	8.041	2.0	2	0.974	6.000	1.9
	Unconformity	121	608	1.321	28.710	2.1	3	1.303	20.000	2.0
		122	36	0.530	4.469	1.9	0	0.530	4.469	1.9
	Basement	131	263	0.786	23.128	2.9	7	0.582	5.000	1.9
		132	30	0.835	13.258	3.0	4	0.203	0.800	1.3
58B	Unconformity	221	223	1.170	30.171	2.6	5	1.035	10.000	2.1
	Basement	232	117	1.049	28.474	3.1	4	0.668	5.000	1.8
		233	29	1.807	23.059	2.5	1	1.357	10.000	2.0
		234	16	0.212	1.477	1.7	0	0.212	1.477	1.7
		235	4	0.541	1.432	1.1	0	0.541	1.432	1.1
		236	16	0.267	1.354	1.2	0	0.267	1.354	1.2
		237	9	0.825	4.248	1.6	0	0.825	4.248	1.6
Kianna	Perched	311	267	10.459	301.764	2.9	4	8.696	90.000	2.1
		312	37	4.293	95.982	3.9	3	0.642	3.000	1.4
		313	43	1.781	16.862	2.0	2	1.487	8.000	1.8
	Unconformity	222	50	0.404	4.456	1.9	2	0.329	2.000	1.4
		320	1,330	2.412	171.685	4.0	4	2.324	100.000	3.6
	Basement	231	48	0.269	2.791	2.3	2	0.237	2.000	2.0
		331	2,406	1.282	183.566	5.2	2	1.241	100.000	4.7
		332	182	0.453	6.957	2.2	3	0.422	4.000	1.9
		333	181	0.283	7.989	2.7	2	0.251	3.000	2.1
		334	78	1.378	23.772	3.3	4	0.689	7.000	2.5
		335	77	1.657	38.790	3.1	2	1.331	15.000	2.4
		336	18	0.236	0.940	1.2	0	0.236	0.940	1.2
		337	22	0.094	0.446	1.0	0	0.094	0.446	1.0
		338	38	0.555	5.799	2.1	1	0.508	4.000	1.9
		339	5	0.587	1.060	0.6	0	0.587	1.060	0.6
		340	8	0.392	2.166	1.8	0	0.392	2.166	1.8
		341	129	4.026	126.764	3.5	3	3.286	50.000	2.8
		342	105	1.434	58.723	4.3	1	1.370	50.000	4.1
		343	573	0.859	71.004	4.7	0	0.859	71.004	4.7
Anne	Perched	410	27	0.432	1.438	1.0	0	0.432	1.438	1.0
	Unconformity	420	822	4.987	233.365	4.0	5	4.673	130.000	3.6
	Basement	431	368	1.677	43.406	2.5	0	1.677	43.406	2.5
		432	213	0.779	28.025	3.7	6	0.448	3.000	1.6
		434	8	0.398	1.853	1.5	0	0.398	1.853	1.5
		435	53	0.303	3.576	2.0	0	0.303	3.576	2.0
		436	99	0.605	15.307	3.0	6	0.428	3.000	2.0
		437	28	0.258	1.685	1.5	0	0.258	1.685	1.5
		438	110	1.481	30.567	2.5	3	1.124	7.000	1.6
		439	39	0.637	9.323	2.7	5	0.209	0.700	1.2
Zone not included in resource due to lack of drill support. Distance resriction applied to high-grade interpolation.			8,746	2.015	301.764	5.0	86	1.831	130.000	4.4

In some of the volumetrically significant zones, capping alone did not reduce CVs to a low enough level to be comfortably used for grade estimation. In these cases, a further step of restricted distance interpolation was imposed to reduce the impact of anomalously high values. The DU value at which a restricted interpolation distance was imposed was also based on the log-probability plots. In most cases there is a break at the upper end of the distribution where continuity on the curve is apparent but there is a break from the lower-grade portion. The range over which these high grades were interpolated was determined by examining histograms of the number of sample pairs versus sample separation for composites above each high-grade transition value. Parameters are listed in Table 14-8.

Table 14-8 : High-grade Interpolation Restriction

Block Code	DU_Cap	High-Grade Transition	
		DU	Range (m)
311	90	60	30
320	100	40	40
331	100	50	55
335	15	4	35
341	50	16	35
342	50	16	20
343	–	16	25
420	130	100	40
431	–	20	10

The impact of capping and high-grade restriction was quantified by comparing results against an uncapped model. In total, 11% U_3O_8 was removed when high DU values were capped/restricted as outlined in and Table 14-7 and Table 14-8. While this level may seem high in comparison to other commodities, it is reasonable given the skewed nature of the grade distribution at Shea Creek.

14.2.8 Grade Interpolation

The correlation between density and %U_3O_8 necessitated the estimation of two block model variables: density x %U_3O_8 product (DU) and density (D). Capping and high-grade distance restriction was applied to the DU variable. To ensure consistency, blocks impacted by the removal of high-grade samples (past limits of high-grade interpolation range) also had corresponding samples removed for the interpolation of density. Also, density was interpolated using the same variogram model as was used in kriging DU.

DU and D were estimated by ordinary kriging (OK). Sample search in the perched and basement zones was spherical with a 75 m radius. Search in the unconformity units was anisotropic and oriented to best fit each zone. Search details are provided in Table 14-9. Search parameters were established iteratively through examining plans and sections through interpolated blocks as well as through comparison to nearest neighbor models.

All zone contacts were treated as hard boundaries. Grades were not interpolated across gaps between the various wireframes. U_3O_8 block grades were calculated by dividing the two interpolated variables: U=DU/D.

Table 14-9: Interpolation Parameters

Min. Type	Samples Used			Search Radii (m)		
	Min	Max	mph[(1)]	X	Y	Z
Perched	3	15	5	75	75	75
Unconformity	3	15	5	*anisotropic see below*		
Basement	3	15	9	75	75	75

Unconformity Zone	Direction (dip/azimuth) X	Y	Z	Search Radii (m) X	Y	Z
121	00/148	-06/058	84/058	100	35	20
122	00/163	-11/073	79/073	50	100	25
221	00/130	-18/040	72/040	125	40	20
222	00/155	-10/065	80/065	100	70	15
320	00/145	-15/055	75/055	100	25	15
420	00/136	-16/046	74/046	100	35	15

[(1)]mph=maximum number of samples per hole

14.2.9 Model Validation

Two additional models were estimated for the purpose of validation of the OK results. A nearest neighbor (NN) and an inverse distance squared (ID2) model were interpolated using the same zone matching, capping, and high-grade restriction as the OK estimate. The NN model used a 1 m block height reflecting the composite length. The NN model was re-blocked to the resource model grid (5:1) and used to check various aspects of the estimation process.

Estimated grades were validated to ensure consistency with supporting composite data. Visual checks, comparing sample points and block grades on plans and sections, showed good correlation.

More quantitative validation was made by generating swath plots along block model rows, columns, and levels to spatially compare the resource model against NN results. Plots were generated globally, by mineralization type, by deposit and by resource class. Plots of all Indicated blocks, presented in Figure 14-3, show good spatial correlation between estimated blocks and the underlying composite data.

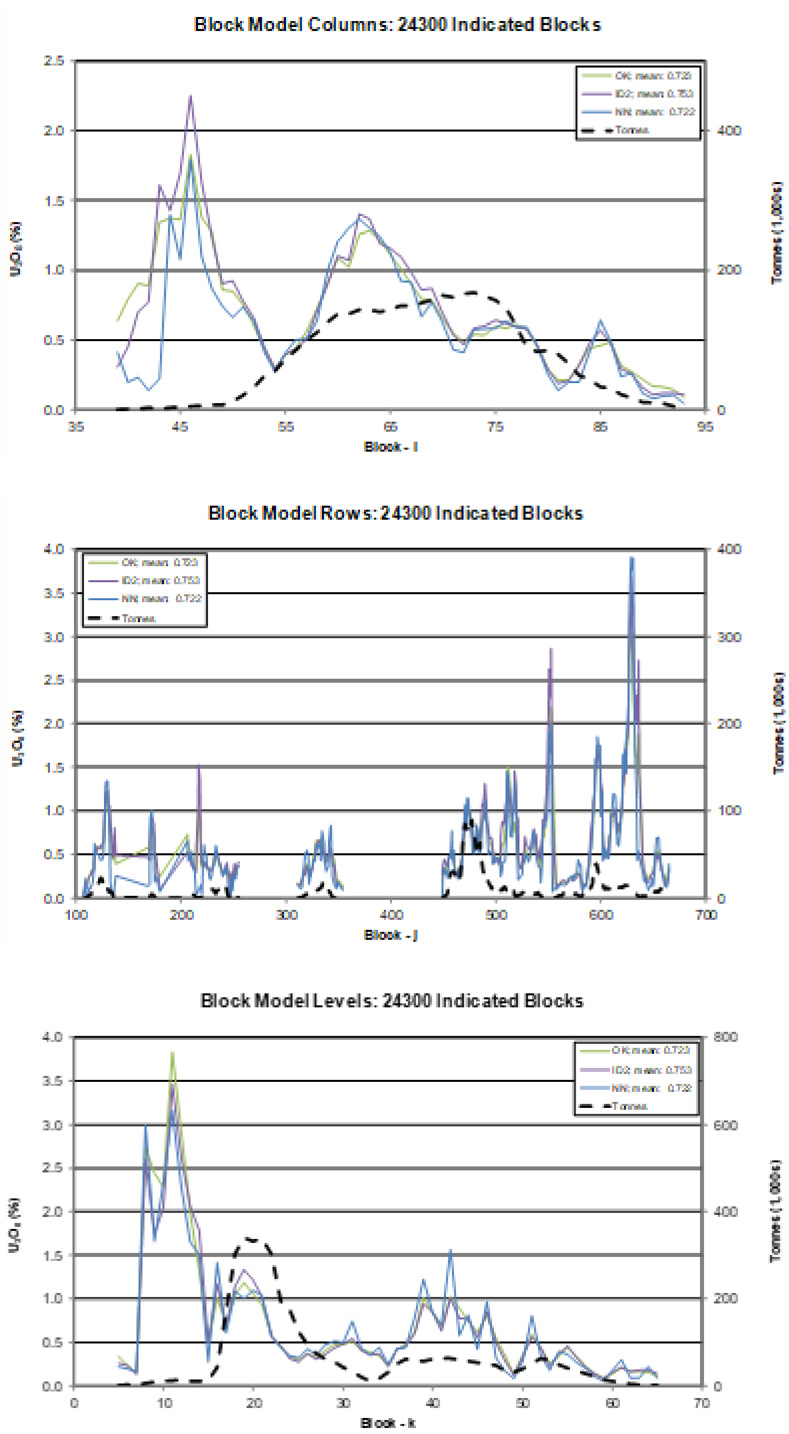

Figure 14-3: Swath Plots Comparing Indicated OK, ID2 and NN Estimates

14.2.10 Resource Classification and Tabulation

This estimate was classified based on spatial parameters related to available composite data. These parameters include the minimum number of holes used to estimate grade; the maximum average distance to samples used to estimate grade; and the distance to the first, second and third closest points used to estimate grade. Blocks were classified as Indicated or Inferred Mineral Resource.

Classification criteria were established iteratively by visually assessing the impact of parameter adjustment on resultant maps of classified blocks. The goal was to have reasonably cohesive volumes rather than a scattered patchwork of indicated and inferred blocks, while assigning the indicated category in a justified pattern among and beyond sample locations.

The application of classification parameters is listed in Table 14-10. Blocks were initially coded as indicated if they were: estimated by at least two holes, the first within 10 m of the block and the second within 20 m; estimated by at least three holes, the closest within 10 m and the third closest within 30 m or within an average of 30 m of at least four holes.

Blocks were then potentially reclassified based on proportion of resource class in each zone. If less than 10% of a wireframe zone was of one class (indicated of inferred), the entire zone was assigned the other class. This step had very minor impact; 49 blocks in five zones were reclassified as indicated and 273 blocks in six zones as inferred.

Table 14-10: Resource Classification Criteria

Category	No. Holes	Max. Distance to (metres)			Avg. Distance
	min.	closest	2^{nd} closest	3^{rd} closest	max. (metres)
Indicated	2	10	20		
	3	10		30	
	4				30
Inferred	remainder estimated				

The cut-off grade used to determine resources was calculated to be 0.3% U_3O_8.

The cut-off grade was determined by considering an underground longhole mining method. As there has been no active uranium mining in the Western Athabasca Basin area for over twenty years, the Qualified Person reviewed historical and projected mining, processing, and general and administrative costs in the Athabasca Basin to help determine the anticipated costs for an underground operation using the long hole stoping method. After review, the Qualified Person determined that mining costs of CAD$157.00/t were reasonable for Shea Creek. The QP assigned processing costs of CAD$164.00/t. Similarly, General and Administrative costs of CAD$67.00/t were used to determine cut-off grade.

The uranium price of US$50/lb was used and is considered reasonable given the range of spot uranium prices reported by industry price expert, TradeTech, between September 15, 2021 and this report's effective date of January 1, 2022. An exchange rate of C$1.00 to US$0.78 was used.

The marginal cut-off grade ("COG") was determined using the formula:

$$COG = \frac{Processing\ Costs + Mining\ Costs + General\ \&Administration\ Costs\ per\ tonne}{Uranium\ Price\ (in\ CAD\$\ per\ t)\ x\ total\ recovery}$$

The calculation of the cut-off grade is outlined in the table below:

Table 14-11: Cut-Off Grade Determination

Assumptions

Uranium Price	$	50.00	US/lb U_3O_8
	$	110,230.00	US/t U_3O_8
	$	141,321.00	CAD/t U_3O_8
Mining Recovery		95.0%	
Processing Recovery		95.0%	
Total Recovery		90.3%	
USD Exchange		C$1.00 =	$ 0.78 US

Mining, Processing and General Administrative Costs

Mining Costs	$	157.00
Processing Costs	$	164.00
General and Administrative	$	67.00
Total	$	388.00

Marginal Cut-Off Grade

$$\textbf{Cut-Off Grade} = \frac{\text{Processing Costs + Mining Costs + Gen \& Admin Costs (CAD\$ per tonne)}}{\text{Uranium Price (CAD\$/t) x Total Recovery}}$$

Cut-Off Grade = 0.30% U_3O_8

In order to establish a meaningful resource tabulation for potential underground extraction methods, a minimum volume needed to be considered; the 5x5x5 m block size is not a realistic selective mining unit (SMU). For resource reporting blocks were grouped by cut-off grade into face connected volumes. Reporting here is based on a minimum of 10 contiguous blocks – a minimum volume of 1,250 m^3, a reasonable minimum stope size. This application of minimum contiguous volume constraint had little impact on resource tabulation. At the quoted 0.3% U_3O_8 cut-off, the mineral resource is made up of 38 separate shapes with an average volume of 95,000 m^3.

Figure 14-4 is a plot of the minimum number of contiguous blocks – effectively SMU size, versus the number of resultant separate volumes at a range of cut-off grades. It is concluded that by generating the resource using a minimum of 10 contiguous blocks, the number of disparate volumes (translating to underground work areas) is reasonable.

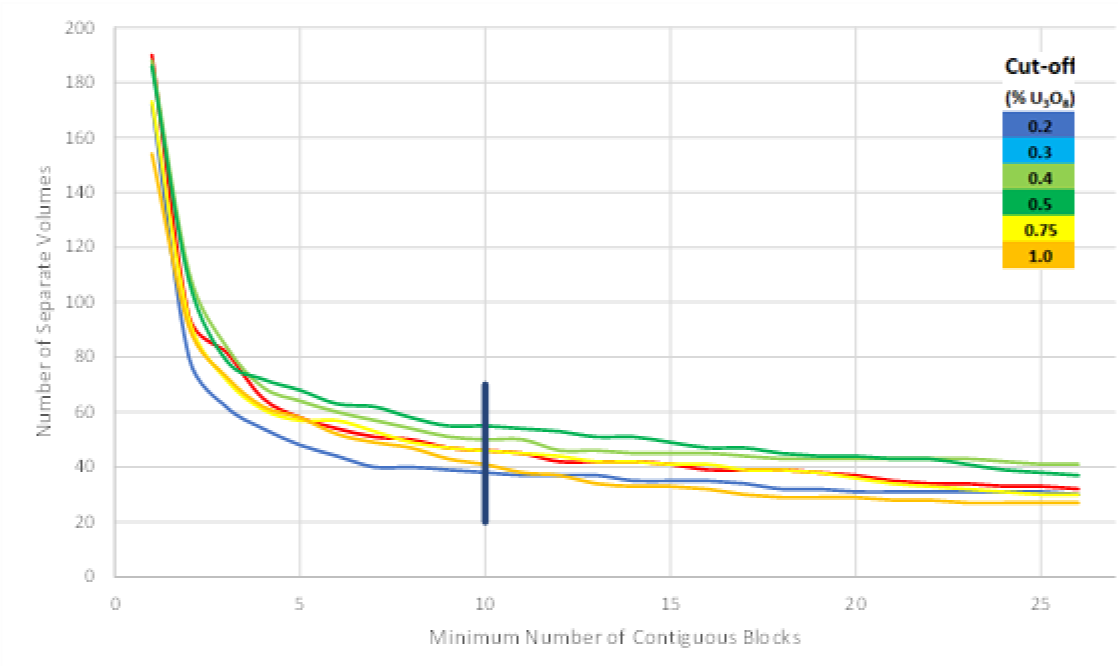

Figure 14-4: Volume Selectivity by Cut-off Grade

The Shea Creek Mineral Resource Estimate is presented in Table 14-11. To illustrate sensitivity to uranium cut-off grade, the quantities and grade estimates for various U_3O_8 cut-off grades are presented in Table 14-12. The reader is cautioned that the figures presented in this table are to show the sensitivity of the estimated block grades to the selection of U_3O_8 cut-off and should not be misconstrued with the Mineral Resource Estimate. The resource is tabled by deposit area in Table 14-13.

Table 14-12: Shea Creek Mineral Resource Estimate

Indicated			Inferred		
Tonnes	U_3O_8 (%)	U_3O_8 (lbs)	Tonnes	U_3O_8 (%)	U_3O_8 (lbs)
2,056,000	**1.491**	**67,570,000**	**1,254,000**	**1.015**	**28,057,000**

*Mineral resources are not mineral reserves and have not demonstrated economic viability. There is no certainty that all or any part of the mineral resource will be converted into mineral reserve. Figures are rounded to reflect the relative accuracy of the estimates. Resources were estimated using a cut-off grade of 0.30% U_3O_8.

Table 14-13: Shea Creek U_3O_8 Grade Sensitivity Analysis

Cut-off (% U_3O_8)	Indicated			Inferred		
	Tonnes	U_3O_8 (%)	U_3O_8 (lbs)	Tonnes	U_3O_8 (%)	U_3O_8 (lbs)
0.2	2,536,000	1.256	70,200,000	1,794,000	0.784	31,010,000
0.3	**2,056,000**	**1.491**	**67,570,000**	**1,254,000**	**1.015**	**28,057,000**
0.4	1,700,000	1.729	64,815,000	986,000	1.195	25,995,000
0.5	1,457,000	1.942	62,389,000	770,000	1.403	23,817,000
0.8	1,021,000	2.504	56,344,000	463,000	1.927	19,665,000
1.0	766,000	3.037	51,304,000	333,000	2.337	17,140,000

Table 14-14: Shea Creek Mineral Resource Estimate - by Deposit Area at 0.3% U_3O_8 Cut-off Grade

Deposit Area	Indicated			Inferred		
	Tonnes	U_3O_8 (%)	U_3O_8 (lbs)	Tonnes	U_3O_8 (%)	U_3O_8 (lbs)
Colette	327,000	0.787	5,674,000	492,000	0.717	7,768,000
58B	142,000	0.773	2,419,000	81,000	0.510	906,000
Kianna	1,027,000	1.535	34,743,000	547,000	1.390	16,772,000
Anne	560,000	2.002	24,735,000	134,000	0.883	2,612,000
Total	**2,056,000**	**1.491**	**67,570,000**	**1,254,000**	**1.015**	**28,057,000**

14.3 2013 through 2016 Drilling

Forty-two holes have been drilled on the Shea Creek Property post 2013. Results of this drilling are deemed immaterial in terms of significant impact on the resource.

These holes included 19 new master (pilot) holes, 14 wedge cuts from those, and nine wedge cuts from three exiting pilot holes – SHE-24, drilled in 1995, SHE-135 drilled in 2010, and SHE-127 drilled in 2008. Only four of the recent holes either intersected or were drilled close to wireframe volumes used as geologic control for the estimate. Three wedge cuts were outside existing solids and confirmed limits of adjacent zones. Three holes were abandoned below the wedge location and above the target depth (SHE-142-4A, 4B and 4C). The other 32 holes were drilled at significant distance from estimated mineralized zones.

These holes were reviewed in detail relative to wireframes used for grade estimation. Results of that review are summarized in Table 14-14. In the table, BM_Code refers to the mineralization wireframe code. Holes are reported as piercing those wireframes or just being close. The delta metal column refers to the interval length (m) x U_3O_8% difference with respect to the closest single existing intercept – that is, positive values show better results.

Table 14-15: Drilling Returned Since 2013 Grade Estimation

Hole-ID	Year	Length (m)	Type	BM_Code	New Intercept				Pierced	Closest Existing Intercept	
					From	To	Interval	U_3O_8	Solid	Dist. (m)	D Metal
SHE-24-1	2013	804	wedge	*None Close*							
SHE-24-2	2013	906	wedge	*None Close*							
SHE-135-16	2013	1,038	wedge	339	838.0	839.5	1.5	0.335	N	24	+133.3%
				342	942.0	946.0	4.0	0.888	N	39	+13.5%
SHE-135-17	2013	1,059	wedge	320	722.0	734.0	12.0	0.255	Y	17	-31.4%
				331	795.0	800.5	5.5	0.011	Y	6	-60.4%
				343	867.0	879.5	12.5	1.988	Y	26	+904.9%
SHE-142	2013	1,056	pilot	341	931.0	934.0	3.0	1.429	Y	15	+96.6%
SHE-142-1	2013	1,083	wedge	*Confirm Limits*					N		
SHE-142-2	2013	1,044	wedge	*Confirm Limits*					N		
SHE-142-3	2013	1,065	wedge	*Confirm Limits*					N		
SHE-142-4	2013	939	wedge	342	926.0	937.5	11.5	0.643	Y	14	+137.0%
SHE-142-4A	2013	912	abandoned	*N/A*							
SHE-142-4B	2013	867	abandoned	*N/A*							
SHE-142-4C	2013	801	abandoned	*N/A*							
SHE-143	2013	840	pilot	*None Close*							
SHE-143-1	2013	1,086	wedge	*None Close*							
SHE-143-2	2013	879	wedge	*None Close*							
SHE-143-3	2013	861	wedge	*None Close*							
SHE-144	2013	843	pilot	*None Close*							
SHE-144-1	2013	852	wedge	*None Close*							
SHE-145	2013	858	pilot	*None Close*							
SHE-145-1	2013	837	wedge	*None Close*							
SHE-145-2	2013	892	wedge	*None Close*							
SHE-146	2013	852	pilot	*None Close*							
SHE-146-1	2013	840	wedge	*None Close*							
SHE-147	2015	631	pilot	*None Close*							
SHE-148	2015	972	pilot	*None Close*							
SHE-149	2015	906	pilot	*None Close*							
SHE-150	2015	981	pilot	*None Close*							
SHE-151	2015	819	pilot	*None Close*							
SHE-152	2015	828	pilot	*None Close*							
SHE-153	2015	831	pilot	*None Close*							
SHE-127-1	2015	433	wedge	*None Close*							
SHE-127-2	2015	415	wedge	*None Close*							
SHE-127-3	2015	340	wedge	*None Close*							
SHE-127-4	2015	398	wedge	*None Close*							
SHE-127-5	2015	397.5	wedge	*None Close*							
SHE-154	2016	638	pilot	*None Close*							
SHE-155	2016	626	pilot	*None Close*							
SHE-156	2016	668	pilot	*None Close*							
SHE-157	2016	643	pilot	*None Close*							
SHE-158	2016	638	pilot	*None Close*							
SHE-159	2016	263	pilot	*None Close*							
SHE-160	2016	623	pilot	*None Close*							

15 MINERAL RESERVE ESTIMATE

Not applicable at this stage of the project.

16 MINING METHODS

Not applicable at this stage of the project.

17 RECOVERY METHODS

Not applicable at this stage of the project.

18 PROJECT INFRASTRUCTURE

There is no permanent infrastructure located on the site. The temporary work camp used for the most recent drill programs has been demobilized from the Project area.

19 MARKET STUDIES AND CONTRACTS

Not applicable at this stage of the project.

20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

Not applicable at this stage of the project.

21 CAPITAL AND OPERATING COSTS

Not applicable at this stage of the project.

22 ECONOMIC ANALYSIS

Not applicable at this stage of the project.

23 ADJACENT PROPERTIES

Shea Creek Claim MC00010298 at the northern end of the Saskatoon Lake Conductor Trend is adjacent to the claims that cover the past producing Cluff Lake mine and are within ~5 km of the nearest mine workings. While in production between 1980 and 2002 the Cluff Lake mine produced 64.2 million lb U_3O_8 (Koning and Robbins, 2006). The authors have been unable to verify the information and this production is not necessarily indicative of the mineralization on the Shea Creek property. While much of the mining infrastructure has now been reclaimed, excellent all weather road access, and an unmaintained air strip remains on the site. The authors are not aware of any remaining resources at the site of the now decommissioned Cluff Lake Mine.

24 OTHER RELEVANT DATA AND INFORMATION

No other significant information concerning the Shea Creek deposits and their local area is considered relevant to the report at this time.

25 INTERPRETATION AND CONCLUSIONS

Exploration at the Shea Creek property both prior to and since UEX's involvement has successfully accomplished the objective of discovery of new uranium mineralization and has demonstrated the high exploration potential of other areas. Since the beginning of UEX's involvement in 2004, the Kianna Deposit has been discovered and outlined, areas between Kianna and Anne found to contain significant mineralization, additional high-grade mineralization has been intersected at the Anne Deposit, basement mineralization has been intersected in the South Colette area, and the 58B Deposit has been discovered and partially delineated between Kianna and Colette. To date, drilling has identified a 3 km strike length of the Saskatoon Lake Conductor in the northern Shea Creek property in which at least four uranium deposits are developed.

The updated uranium mineral resource estimate for the four Shea Creek deposits, Kianna, Anne, Colette and 58B, at a cut-off grade of 0.30% U_3O_8 total:

- 67.57 million pounds of U_3O_8 in the Indicated mineral resource category comprising 2,056,000 tonnes grading 1.491% U_3O_8

- 28.06 million pounds of U_3O_8 in the Inferred mineral resource category comprising 1,254,000 tonnes grading 1.015% U_3O_8

Mineral resources at Shea Creek are open in many areas and have excellent potential to expand significantly as drilling continues. The majority of the resources are from the Kianna and Anne deposits, where a significant portion of the resources lie in basement rocks beneath the Athabasca unconformity. Breakdowns of the resources by deposit at cut-off grades of 0.3% U_3O_8 is presented in Table 25-1. Table 25-2 is a more detailed sensitivity analysis of the relative contribution of each deposit at a grade of 1.0% U_3O_8.

Table 25-1: Breakdown of the Contribution of Each Deposit at Shea Creek to the Total Resources at a 0.3% U_3O_8 Cut-off grade.

Deposit		**Tonnes**	**Grade U_3O_8 (%)**	**U_3O_8 (lbs)**		**Tonnes**	**Grade U_3O_8 (%)**	**U_3O_8 (lbs)**
Kianna	Indicated	1,027,000	1.535	34,743,000	Inferred	547,000	1.390	16,772,000
Anne		560,000	2.002	24,735,000		134,000	0.883	2,612,000
Colette		327,000	0.787	5,674,000		492,000	0.717	7,768,000
58B		142,000	0.773	2,419,000		81,000	0.510	906,000
TOTALS		2,056,000	1.491	67,570,000		1,254,000	1.015	28,057,000

Table 25-2: Contribution of Each Shea Creek Deposit at Elevated (≥1.0%) U_3O_8 Grade.

Deposit		Tonnes	Grade U_3O_8 (%)	U_3O_8 (lbs)		Tonnes	Grade U_3O_8 (%)	U_3O_8 (lbs)
Kianna	Indicated	425,000	2.880	26,993,000	Inferred	232,000	2.543	12,982,000
Anne		239,000	3.936	20,698,000		18,000	3.503	1,356,000
Colette		67,000	1.713	2,545,000		82,000	1.524	2,766,000
58B		35,000	1.376	1,068,000		1,000	1.301	36,000
TOTALS		766,000	3.037	51,304,000		333,000	2.337	17,140,000

Note that the sensitivity of the deposits to 1% U_3O_8 grade, most of the contained uranium mineralization that is reported at the 0.3% U_3O_8 cut-off grade is retained and is in particular focused in the Kianna and Anne deposits.

The changes in the mineral resource since the 2010 estimate reflect substantial increases in the basement mineral resources of the Kianna Deposit and mineral resources from the 58B Deposit. However, these are also partly offset by mineral resource losses at Colette due to the restriction of mineralization in central and southern parts of that deposit based on new infill drilling there. The project to date has been successful in that the drilling carried out to date has defined a significant mineral resource which merits ongoing exploration. The resources estimate reflects the following changes at each deposit since the 2010 resource estimate:

Kianna Deposit: Discovery of new zones, including the Kianna East Zone, and drilling expansion of other zones has resulted in a very substantial increase in the Indicated basement-hosted resources at Kianna. Most of the current resource at Kianna is now in basement rocks. Areas of basement mineralization, particularly on the north side of Kianna and in the Kianna East Zone are still open and should be targeted by drilling.

Anne Deposit: No drilling was conducted at Anne since the 2010 resource estimate. The small drop in the Anne resource base reflects a more restricted approach to the interpolation of high-grade mineralization due to a high coefficient of variation of uranium grade distribution in parts of the deposit. Further geological interpretation and potential infill drilling, particularly in the Anne basement mineralization where the widely spaced drilling restricts the ability to interpret the continuity of higher grades, may be undertaken to address this issue. Review of the basement mineralization here has also identified additional areas for potential expansion of resources at Anne.

Colette Deposit: Basement mineralization in the southern parts of Colette still has potential for expansion, and continuations of the Shea Creek trend to the north of Colette on the Douglas River property are still open. Work done recently by UEX also suggests that there is the potential for basement mineralization associated with the northern part of Colette, particularly below the perched mineralization at the northern limit of the deposit.

58B Deposit: Basement mineralization at 58B has only been tested by widely spaced drill holes, and the mineralization remains open in several areas. The occurrence of the stacked stratigraphy concordant pods suggests the potential for a vertical connecting structure that feeds and connects the lower pods to the upper mineralized zones. Further drilling in this area is warranted and may identify additional uranium mineralization.

Other Considerations

Through most of the Shea Creek deposits, where flat lying unconformity mineralization or shallow dipping concordant basement mineralization are developed, interpretation and drill hole placement provide representative cuts of the mineralization. However, in steeper dipping areas of mineralization in the Kianna basement zone, there is some difficulty in tracing the continuity of higher-grade mineralization internal to the zone. This may require additional future drilling, but given the steep dips required for holes to these depths, such issues may only be addressed through future underground drilling where shallower drill hole angles and accurate closely spaced drilling can be achieved.

26 RECOMMENDATIONS

The Shea Creek property is highly prospective for discovery of additional uranium mineralization. Several levels of exploration potential are apparent. Outside of the 3 km strike length hosting the known deposits, limited widely spaced drilling has been completed along the Saskatoon Lake Conductor, despite previous intersections of mineralization and anomalous alteration in several areas to the southeast of the Anne Deposit and to the northwest of the Colette Deposit.

The Qualified Persons recommendations are as follows:

26.1 Shea Creek Resource Expansion Drilling

In the known deposits on the Shea Creek Property, potential exists to expand the dimensions of high-grade pods between, or outward from previous drill holes. The high-grade Kianna East zone of basement mineralization which was discovered in 2012 is open in many directions and will form a principal target for future follow-up drilling. Exploration potential exists for step-out drilling into open areas of mineralization, for example to expand the Kianna basement zone and to test open mineralization down dip in the Colette area. Gaps in drilling still lie along the main prospective corridor between Anne and Kianna, and between Kianna and Colette also have high potential for new discoveries for both mineralization at the unconformity and in basement rocks.

The Authors believe that the investment in exploration required to advance the property is approximately C$10 million in drilling, this program would be approximately 20,000 m drilling and would occur over 18 months. The proposed program would evaluate 10 target concepts in the basement across all four of the Shea Creek deposits and in the area of the SHE-02 discovery hole

26.2 Continued Exploration along Saskatoon Lake and Klark Lake Conductors

Outside of the area of the defined resources on the Shea Creek Property, drilling is sparse and widely spaced, and exploration is at early stages. Targets in these areas are mainly based on geophysical features (EM conductors and resistivity). Prospective areas of low resistivity with similar signature to the area around the Anne, Kianna and Colette deposits occur along the Klark Lake conductor in northwestern parts of the property. Low resistive zones lying between the Saskatoon Lake and Klark Lake conductors also form prospective targets that could represent alteration along discordant fault zones. Expansion of resistivity surveys to other parts of the property is recommended to further identify other low resistivity targets.

26.3 Recommended Program to advance Shea Creek

The Authors recommend a drill program within the footprint of the known mineralization at Shea Creek spanning the four deposits and the area around historical drill hole SHE-02, which intersected uranium mineralization to the south of the deposits. The recommended program is C$10 million over 18 months of field work to evaluate basement targets analogous to the Kianna deposit and the costs are broken down in Table 26-1 below.

Table 26-1: Shea Creek Resource Expansion Drill Program

Description	Total (C$ 000's)
Direct Costs	
Personnel	750
Field Equipment Costs	100
Analysis	450
Travel and Transport	80
Miscellaneous	61
Subtotal	**1,441**
Contractor Costs	
Diamond Drilling	6,500
Camp Costs	1,000
Other Contractor	150
Subtotal	**7,650**
Total Costs	**9,091**
Admin Fee	**909**
TOTAL	**10,000**

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28 DATE AND SIGNATURE PAGES

This report titled "2022 Technical Report on the Shea Creek Project, Saskatchewan" with an effective date of January 1, 2022, and dated June 1, 2022, was prepared, and signed by the following authors:

Dated at Saskatoon,SK
1 June 2022

Chris J. Hamel, P.Geo.
Vice President, Exploration

Dated at Vancouver,BC
1 June 2022

David Rhys, P.Geo.
President, Panterra Geoservices Inc.

Dated at Osoyoos, BC
1 June 2022

James Gray, P.Geo.
Advantage Geoservices Limited

29 CERTIFICATES OF QUALIFIED PERSONS

CERTIFICATE OF QUALIFIED PERSON

To accompany the report entitled: **2022 Technical Report on the Shea Creek project, Saskatchewan** with an effective date of January 1, 2022, and a signature date of June 1, 2022.

I, Christopher Hamel, do hereby certify that:

1) I am Vice President, Exploration with the firm of UEX Corporation with an office at Unit 200, 3530 Millar Avenue, Saskatoon, Saskatchewan, Canada.

2) I am a graduate of the University of Saskatchewan in 2001, I obtained a B.Sc. Geology. I have practiced my profession continuously since June 2001. I have been registered as a Professional Geoscientist since 2010. My experience that is relevant to the scope of this Technical Report is:

- Exploration Manager for UEX Corporation from January to September 2021, and Vice President, Exploration from October, 2021 to present, where I guide field teams in the planning and execution of field programs and perform generative and evaluative work for the company. In these roles I am the senior technical person of responsibility in the company.

- Chief Geologist for UEX Corporation July 2017 to January 2021 where I supported field activities and performed generative and evaluative work for the company. In this role I was a senior person of technical responsibility in the company.

- Contract Geologist for UEX Corporation from January 2017 to June 2017 where I participated in the execution of the Christie Lake field program and performed property evaluation and regional compilation work. In this role was depended upon for significant participation and decision making.

- Contract Geologist for Forum Uranium November 2016 where I participated in an exploration program to explore for uranium in Saskatchewan.

- District Geologist, Cameco Corporation from April 2012 to October 2016 where I was regional management in support of multiple exploration project teams. Helped to design, implement, and allocate exploration budgets between projects to advance uranium exploration field programs in Saskatchewan that included uranium discoveries on the Read Lake, Mann Lake, and Hughes Lake projects. Helped plan and oversee the drill program to evaluate the uranium resource at Cigar Lake Phase II. In this role I was in a senior technical position of responsibility.

- Project Geologist, Cameco Corporation from April 2008 to March 2012 where I was responsible for the project-level management of uranium exploration programs in northern Saskatchewan at the Rabbit Lake and McArthur River mine sites. Work at Rabbit Lake included the discovery and delineation of a new zone of mineralization at Eagle Point. Work at McArthur River was focused on the on-going evaluation of the P2 trend north and south from the mine workings. During this time, I was in a position of responsibility and depended upon for significant participation and decision-making.

- Geologist III for Cameco Corporation from Nov 2006 to Jan 2008 where I was responsible for uranium exploration projects in northern Saskatchewan, including what is now the LaRocque East property, the Dawn Lake property including evaluation drilling at the Tamarack Deposit, and drilling at the Wolf Lake Zone on the Studer Option Property. This role is transitionary, moving a person from a role involving independent judgement to a role of participation and decision-making.

- Geologist II, Cameco Corporation from April 2004 to March 2008 where I participated in the successful execution and management of uranium field exploration programs, including evaluation drilling at the Tamarack Deposit, and exploration drilling at the Dawn Lake “11” and “14” zones on the Dawn Lake property, and participated in exploration in Cameco’s Australian projects. This role requires the exhibition of independent judgement and occasionally decision-making with respect to the execution of exploration programs.

- Exploration Geologist for DeBeers Canada Exploration June 2001 to March 2004 where I participated in and managed exploration programs to explore for, delineate, and evaluate diamond deposits in Northwest Territory, Nunavut, and Saskatchewan.

3) I am a Professional Geoscientist registered with the Association of Professional Engineers & Geoscientists of Saskatchewan (APEGS#12985) since June 2010.

4) I have personally inspected the subject project and was on site on between June 9 to 17, 2021.

5) I have read the definition of Qualified Person set out in National Instrument 43-101 and certify that by virtue of my education, affiliation to a professional association, and past relevant work experience, I fulfill the requirements to be a Qualified Person for the purposes of National Instrument 43-101 and this technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1.

6) I am employed by the issuer, UEX Corporation, and therefore am not independent of the issuer as defined in Section 1.5 of National Instrument 43-101.

7) I am the co-author of this report and responsible for Items 1.1, 1.2, 1.5, 1.7, 2 to 6 inclusive, 9 to 11 inclusive, and 15 to 27 inclusive and accept professional responsibility for those sections of this technical report.

8) I have had no involvement with the subject property prior to my employment at UEX Corporation.

9) I have read National Instrument 43-101 and confirm that this technical report has been prepared in compliance therewith.

10) As of the date of this certificate, to the best of my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated at Saskatoon, Saskatchewan, this 1st day of June, 2022.

Saskatoon, Saskatchewan

June 1, 2022

Christopher Hamel, P.Geo. (APEGS#12985)
Vice President, Exploration
UEX Corporation

CERTIFICATE OF QUALIFIED PERSON

To accompany the report entitled: **2022 Technical Report on the Shea Creek project, Saskatchewan** with an effective date of January 1, 2022, and a signature date of June 1, 2022.

I, David A. Rhys, do hereby certify that:

1. I am a consulting geologist employed by Panterra Geoservices Inc. at 14180 Greencrest Drive, Surrey, British Columbia, Canada and am president of Panterra Geoservices Inc., a geological consulting firm incorporated in the Province of British Columbia.

2. I am a graduate of the University of British Columbia with a B.Sc. (1989) and a M.Sc. (1993) in geology. I have practiced my profession continuously since 1993. I have been registered as a Professional Geoscientist in British Columbia since 1997 and Ontario since 2004. My experience that is relevant to the scope of this Technical Report is:

   - Through continuous employment in Panterra Geoservices since 1996, I have been involved in the evaluation, technical review, on site geological data collection, reporting and advising on exploration and exploration properties, mine sites and advanced projects globally, including in Canada, Australia, Mexico, Russia, China, U.S.A., New Zealand, Tanzania, Ecuador, Greece, Turkey, Senegal, Ghana, Romania, Serbia, Mali, Namibia, and Peru.

   - A significant component of my experience has been involved with the review and planning of exploration activities at uranium deposits in Saskatchewan and other jurisdictions globally for various clients, including UEX Corporation and Cameco Corporation.

   - Between 1993 and 1996 I was employed by various mining corporations conducting and managing geological activities in Canada, Mexico and the U.S.A., through exploration and mining.

3. I am a Professional Geoscientist registered in good standing with the Engineers and Geoscientists of British Columbia (#23022) since 1997 and the Association of Professional Geoscientists of Ontario (#1168) since 2004.

4. I visited the property on numerous occasions between 2006 and 2012 when I conducted on site investigation of diamond drill core, and review of exploration results and interpretation of the project geology to enable further exploration and resource expansion. I last visited the project area between July 21 and 22, 2012

5. I have read the definition of Qualified Person set out in National Instrument 43-101 and certify that by virtue of my education, affiliation to a professional association, and past relevant work experience, I fulfill the requirements to be a Qualified Person for the purposes of National Instrument 43-101 and this technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1

6. I am not independent of the issuer applying the test set out in section 1.5 of N.I. 43-101.

7. I am the co-author of this report and contributed Items 1.3 & 1.4, 7, 8, 12.3 – 12.7, and 13 and accept professional responsibility for those sections of this technical report.

9) I have read National Instrument 43-101 and confirm that this technical report has been prepared in compliance therewith.

10) As of the date of this certificate, to the best of my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated at Vancouver, British Columbia, this 1st day of June, 2022.

Vancouver, B.C.

June 1, 2022

David Rhys, P.Geo. (EGBC #23022)
President
Panterra Geoservices Inc.

CERTIFICATE OF QUALIFIED PERSON

To accompany the report entitled: **2022 Technical Report on the Shea Creek project, Saskatchewan** with an effective date of January 1, 2022, and a signature date of June 1, 2022.

I, James N. Gray, P.Geo., do hereby certify that:

1. I am a consulting geologist employed by Advantage Geoservices Limited and residing at 1051 Bullmoose Trail, Osoyoos, BC.
2. I am a Professional Geoscientist registered in good standing with Engineers and Geoscientists of British Columbia (#27022).
3. I am a graduate of the University of Waterloo, with a B.Sc. in Geology in 1985.
4. I have practiced my profession continuously since 1985. My experience includes resource estimation work at operating mines as well as base and precious metal projects in North and South America, Europe, Asia and Africa.
5. As a result of my experience and qualification, I am a qualified person as defined in N.I. 43-101.
6. I am independent of the Issuer applying all the tests in Section 1.5 of NI 43-101.
7. I visited the subject property on July 21 and 22, 2012.
8. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
9. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
10. I am responsible for Item 1.6, Item 12.1 & 12.2, and Item 14.

Dated at Osoyoos, British Columbia, this 1st day of June, 2022.

Osoyoos, B.C.

June 1, 2022

James N. Gray P.Geo. (EGBC #27022)
Advantage Geoservices Limited

PROVINCE OF J.N. GRAY 27022 BRITISH COLUMBIA